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GENERAL NOTES

1. WORK AND MATERIALS SHALL CONFORM TO THE LINES, GRADES, CROSS SECTIONS, DIMENSIONS, AND MATERIAL REQUIREMENTS, INCLUDING TOLERANCES, SHOWN ON THE PLANS OR INDICATED IN THE SPECIFICATIONS. ALTHOUGH MEASUREMENT, SAMPLING AND TESTING MAY BE CONSIDERED EVIDENCE TO SUCH CONFORMITY, THE ENGINEER SHALL BE THE SOLE JUDGE AS TO WHETHER THE WORK OR MATERIALS DEVIATE FROM THE PLANS AND SPECIFICATIONS AND THE ENGINEER'S DECISION AS TO ANY ALLOWABLE DEVIATIONS THEREFROM SHALL BE FINAL.
2. THE CONTRACTOR AGREES THAT HE/SHE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF THE WORK, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE CITY, ITS OFFICERS, EMPLOYEES AND VOLUNTEERS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF THE WORK, EXCEPTING LIABILITY ARISING FROM THE NEGLIGENCE OF THE CITY, ITS OFFICERS, EMPLOYEES AND VOLUNTEERS.
3. PRIOR TO CONSTRUCTION, SUBMIT TO THE ENGINEER A DETAILED PROGRESS SCHEDULE SHOWING PRIMARY COMPONENTS OF WORK.
4. STATE LAW REQUIRES CONTRACTOR TO CONTACT UNDERGROUND SERVICE ALERT AT 800-227-2600 AT LEAST 48 HOURS PRIOR TO COMMENCING ANY EXCAVATIONS. FAILURE TO COMPLY MAY RESULT IN SUBSTANTIAL PENALTIES.
5. THE EXISTENCE AND LOCATIONS OF UNDERGROUND STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING FACILITIES EXCEPT AS SHOWN. CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES TO PROTECT ALL SUBSTRUCTURES, WHETHER SHOWN ON THE PLANS OR NOT, MAKE EXPLORATORY EXCAVATIONS, AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO THESE PLANS WHEN NECESSARY.
6. UTILITIES SHOWN ON THE PLANS ARE SCHEMATIC AND FOR INFORMATION ONLY. DEPTH OF UTILITIES MAY BE LOCATED WITHIN THE ASPHALT PAVEMENT SECTION OR PCC PAVEMENT SECTION. CONTRACTOR IS REQUIRED TO CALL USA, VERIFY DEPTHS OF POTENTIAL UTILITY CONFLICTS AND USE PRECAUTION WHEN EXCAVATING.
7. PREPARE, SUBMIT TO THE ENGINEER FOR APPROVAL, AND IMPLEMENT TRAFFIC CONTROL & DETOUR PLANS AS REQUIRED IN THE CONTRACT DOCUMENTS.
8. PROVIDE AND MAINTAIN ALL NECESSARY TEMPORARY TRAFFIC CONTROL DEVICES, TO ENSURE SAFE PEDESTRIAN AND VEHICULAR ACCESS THROUGH AND AROUND THE JOB SITE, AND AS DIRECTED BY THE ENGINEER. NOTIFY THE CITY OF CAMPBELL POLICE DEPARTMENT DAILY OF LANE CLOSURES OR DETOURS WITHIN ROADWAYS. PROVIDE A 24-HOUR EMERGENCY RESPONSE TELEPHONE LISTING TO THE ENGINEER.
9. PROVIDE TEMPORARY EROSION, DUST, AND DRAINAGE CONTROL MEASURES DURING CONSTRUCTION. FOLLOW BEST MANAGEMENT PRACTICES AS RECOMMENDED BY SANTA CLARA COUNTY NON-POINT SOURCE POLLUTION CONTROL PROGRAM.
10. TAKE PRECAUTIONARY MEASURES NECESSARY TO PROTECT FROM DAMAGE ALL EXISTING IMPROVEMENTS AND UTILITIES WHICH ARE TO REMAIN IN PLACE. EXPEDITIOUSLY REPAIR IN KIND IMPROVEMENTS AND UTILITIES REMOVED OR DAMAGED BY THE CONTRACTOR'S OPERATIONS.
11. NOTIFY THE ENGINEER IMMEDIATELY OF ANY INCONSISTENCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS. NO DEVIATION FROM THESE PLANS IS PERMITTED WITHOUT WRITTEN APPROVAL OF THE ENGINEER.
12. REMOVE AND DISPOSE OF EXCESS SOIL AND DEBRIS FROM THE SITE. OBTAIN PERMITS AND PAY FEES REQUIRED TO DISPOSE EXCESS MATERIALS.
13. PROTECT, OR RESTORE BY A LICENSED LAND SURVEYOR OR CIVIL ENGINEER, SURVEY MONUMENTS AND BENCHMARKS DAMAGED OR DESTROYED DURING CONSTRUCTION. FILE CORNER RECORD OR RECORD OF SURVEY AS REQUIRED.
14. SUBMIT UPDATED RECORD DRAWINGS AND PROGRESS SCHEDULES TO THE CITY ENGINEER AS A CONDITION OF APPROVAL OF MONTHLY PROGRESS PAYMENTS AND FINAL ACCEPTANCE.
15. GRADE UNIMPROVED AREAS ADJACENT TO NEW CURBS, GUTTERS, AND SIDEWALKS TO CONFORM TO NEW IMPROVEMENTS AND TO PROVIDE FOR SAFETY AND DRAINAGE.
16. THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF ALL PERMITS, LICENSES OR OTHER AUTHORIZATIONS APPLICABLE TO THE WORK WITH RESPECT TO THE ENVIRONMENTAL QUALITY ACT.
17. CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING A COPY OF CALTRANS, COUNTY OF SANTA CLARA AND CITY OF SAN JOSE ACQUIRED PERMITS FROM THE CITY, FOR SECURING PERMITS APPLIED FOR BY THE CITY THAT HAVE NOT BEEN ISSUED, AND SECURING ANY ADDITIONAL PERMITS REQUIRED FOR THE PROJECT PRIOR TO STARTING WORK AT THE LOCATIONS REQUIRING A PERMIT. CONTRACTOR SHALL COMPLY WITH ALL PERMITS AND PERMIT REQUIREMENTS. CONTRACTOR SHALL PAY ALL COSTS, FEES, OR CHARGES REQUIRED TO COMPLY WITH THE CONDITIONS OUTLINED IN THE PERMITS UNLESS OTHERWISE SPECIFICALLY IDENTIFIED OTHERWISE IN THESE SPECIAL PROVISIONS. CONTRACTOR SHALL COORDINATE WITH ALL AGENCIES AND PERFORM WORK IN COMPLIANCE WITH ALL PERMITS.

AGENCY INDEX

SANTA CLARA COUNTY FIRE DEPARTMENT	408-378-4010
CITY OF CAMPBELL - PUBLIC WORKS	408-866-2150
CITY OF CAMPBELL - POLICE	408-866-2170
AT&T	408-635-8835
PACIFIC GAS & ELECTRIC	1-800-743-5000
SAN JOSE WATER COMPANY	408-279-7900
SANTA CLARA VALLEY WATER DISTRICT	408-265-2600
COMCAST (BETWEEN 7:00AM AND 3:00PM)	408-918-3245
COMCAST (AFTER NORMAL WORKING HOURS)	1-800-945-2288
WEST VALLEY SANITATION DISTRICT	408-378-2407
UNITED STATES POSTAL SERVICE	408-378-0226
WEST VALLEY COLLECTION & RECYCLING	408-283-8500

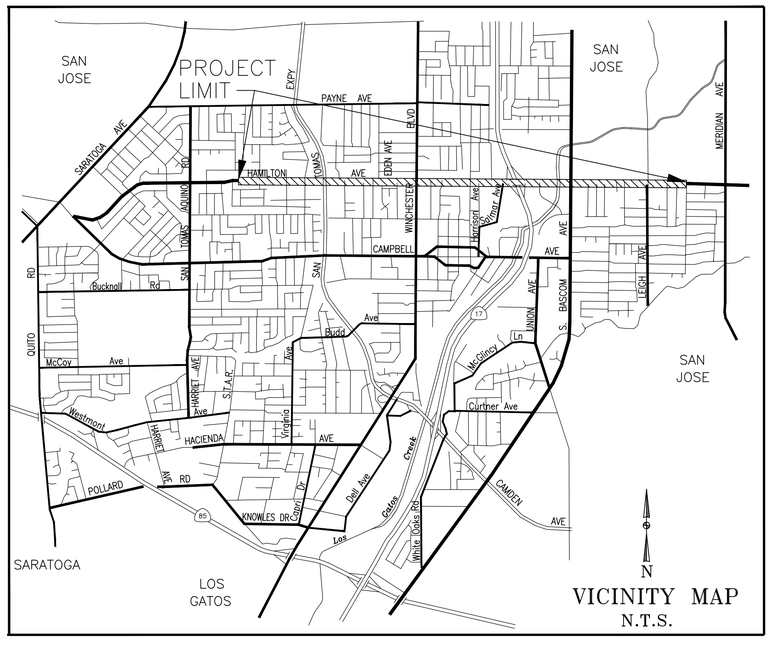
CONSTRUCTION PLANS FOR

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET PROJECT NUMBER 23-BB FEDERAL NUMBER CPFL-5306(034)

CITY OF CAMPBELL
THE ORCHARD CITY

CITY OF CAMPBELL

Department of Public Works



VICINITY MAP
N.T.S.

1-800-227-2600
CALL BEFORE YOU DIG
USA
UNDERGROUND SERVICE ALERT
1-800-227-2600

INDEX OF DRAWINGS

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ABBREVIATIONS

AB	AGGREGATE BASE	O.C.	ON CENTER
AC	ASPHALT CONCRETE	OG	ORIGINAL GRADE
ADA	AMERICANS W/ DISABILITIES ACT	P.A.	PLANTING AREA
AP	ANGLE POINT	PACB	PACIFIC BELL
BC	BEGIN CURVE	PB	PULL BOX
Beg	BEGIN	PPB	PEDESTRIAN PUSH BUTTON
BM	BENCH MARK	PC	POINT ON CURVE
BMPs	BEST MANAGEMENT PRACTICES	PCC	PORTLAND CONCRETE CEMENT
BW	BACK OF WALK	PL	PROPERTY LINE
BOW	BOTTOM OF WALL	POT	POINT ON TANGENT
CATV	CABLE TELEVISION	PG&E	PACIFIC GAS & ELECTRIC
C/G, C&G	CURB & GUTTER	PLN	PLAN
CL	CLASS/CENTER LINE	PNT	POINT
COC	CITY OF CAMPBELL	PS	PAINT STRIPE
Conc	CONCRETE	PLS	PLANTER STRIP
CIR	COLD-IN-PLACE RECYCLING	PVC	POINT ON VERTICAL CURVE
CR	CURVE RETURN	PVMT	PAVEMENT
DI	DROP INLET	R	RADIUS
DWY	DRIVEWAY	R.C.	RELATIVE COMPACTION
EC	END CURVE	RCP	REINFORCED CONCRETE PIPE
EP	EDGE OF PAVEMENT	REM	REMOVE
Exist, (E)	EXISTING	RIM	MANHOLE RIM
EXC	EXCAVATION	R/W	RIGHT OF WAY
FC	FACE OF CURB	SDI/SD INLET	STORM DRAIN INLET
FG	FINISH GRADE	SHLD	SHOULDER
FH	FIRE HYDRANT	STD	STANDARD
FL	FLOW LINE	SDMH	STORM DRAINAGE MANHOLE
GB	GRADE BREAK	SJC	CITY OF SAN JOSE
GND	GROUND	SLB	STREET LIGHT BOX
HMA	HOT MIX ASPHALT	SSCO	SANITARY SEWER CLEAN OUT
INV	INVERT	SSMH	SANITARY SEWER MANHOLE
IRR	IRRIGATION	STA	STATION
LOL	LAYOUT LINE	SVC	SERVICE PULL BOX
LP	LIGHT POST	S/W, SW	SIDEWALK
LG	LIP OF GUTTER	TC	TOP OF CURB
MAX	MAXIMUM	TEMP	TEMPORARY
MB	MAILBOX	TL	TELEPHONE LINE
MC	MIDLINE	Trans	TRANSITION
MH	MANHOLE	TSB	TRAFFIC SIGNAL BOX
MIN	MINIMUM	TW	TOP OF WALL
MISC	MISCELLANEOUS	TYP	TYPICAL
MKR	MARKER	UB	UNKNOWN BOX
(MOD)	MODIFIED	VG	VALLEY GUTTER
MON	MONUMENT	WALK	WALKWAY
(N)	NEW	WB	WATER BOX
OBJ	OBJECT	WM	WATER METER
		WV	WATER VALVE

GENERAL APPROVAL NOTE:

APPROVAL OF THESE PLANS DOES NOT RELIEVE THE ENGINEER OF WORK FOR CORRECTION OF MISTAKES, ERRORS, OR OMISSIONS CONTAINED THEREIN. IF, DURING THE COURSE OF CONSTRUCTION, PUBLIC INTEREST REQUIRES A MODIFICATION OF THESE PLANS, OR THE STANDARD SPECIFICATIONS AND DETAILS OF THE CITY OF CAMPBELL, THE CITY ENGINEER SHALL HAVE THE AUTHORITY TO REQUIRE SUCH MODIFICATION AND TO SPECIFY THE MANNER IN WHICH THE SAME IS TO BE CONSTRUCTED, AT NO COST TO THE CITY.

APPROVED FOR IMPROVEMENTS WITHIN THE PUBLIC RIGHT-OF-WAY AS DESIGN ONLY BASED UPON INFORMATION SUBMITTED HEREON.

Amy Olay , Users — Digitally signed by Amy Olay , Users
DN: cn=Amy Olay , Users, o=, ou=, email=aolay@campbellca.gov, c=US
Date: 2025.05.27 10:55:33 -07'00'

AMY OLAY, P.E. — 5/27/2025 Date
CITY ENGINEER / INTERIM PUBLIC WORKS DIRECTOR
CITY OF CAMPBELL

SEAL OF ENGINEER OF WORK:

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODES, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF CAMPBELL IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

5/23/25 Date
FREDRICK C. HO, P.E.
SENIOR CIVIL ENGINEER
CITY OF CAMPBELL

REGISTERED PROFESSIONAL ENGINEER — FREDRICK C. HO — No. C58995 — CIVIL — STATE OF CALIFORNIA

5/23/25 Date
MARCELO COSENTINO, P.E.
PROJECT MANAGER
BKF ENGINEERS

REGISTERED PROFESSIONAL ENGINEER — M. COSENTINO — C 69063 — CIVIL — STATE OF CALIFORNIA

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

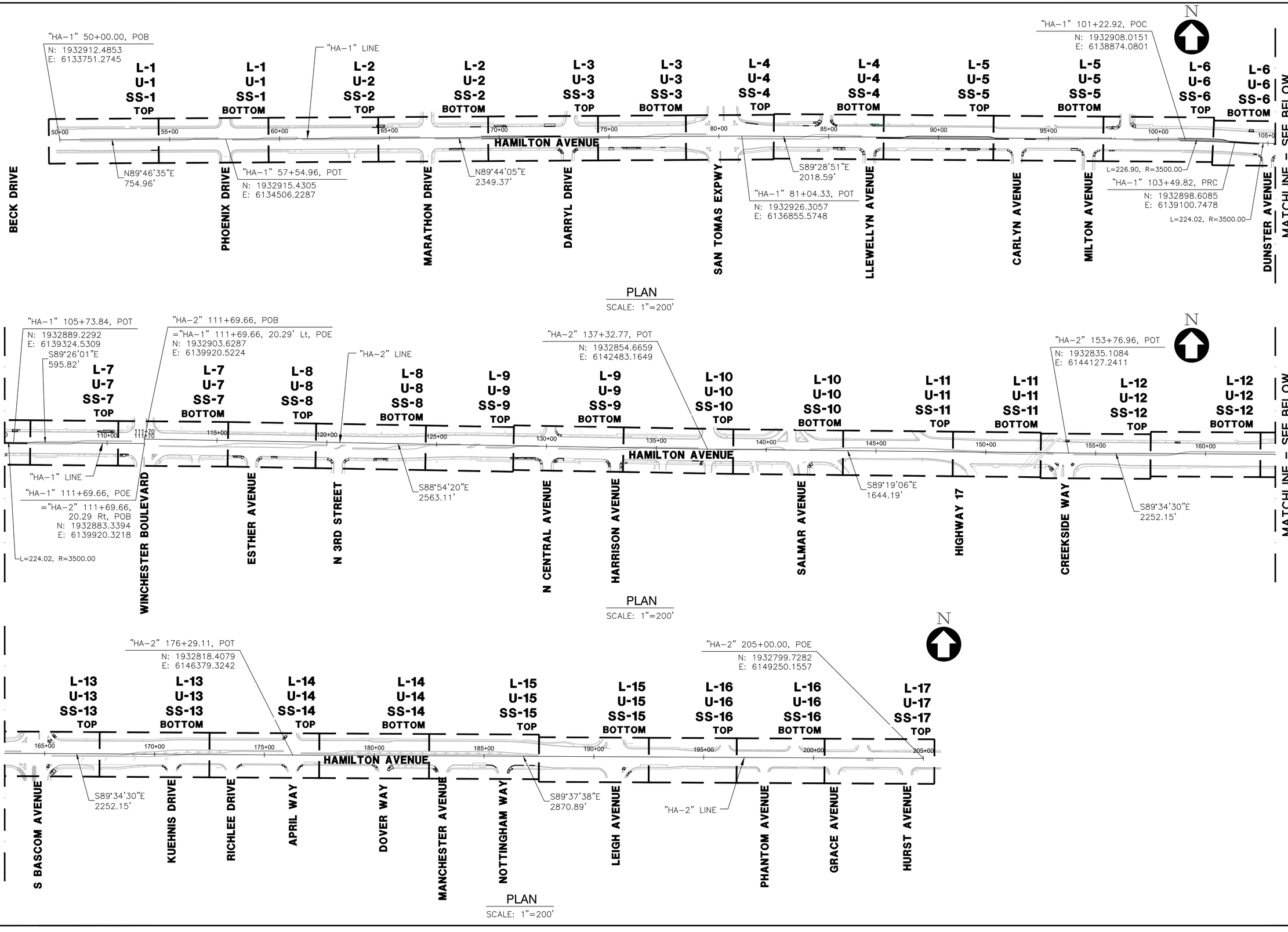
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
TITLE SHEET

CITY OF CAMPBELL — CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: T-1



PLAN
SCALE: 1"=200'

PLAN
SCALE: 1"=200'

PLAN
SCALE: 1"=200'

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
KEY MAP

CITY OF CAMPBELL · THE ORCHARD CITY · CAMPBELL, CALIFORNIA

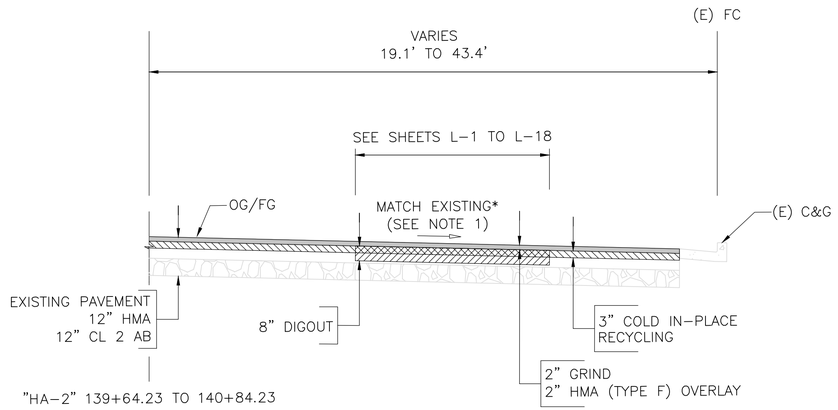
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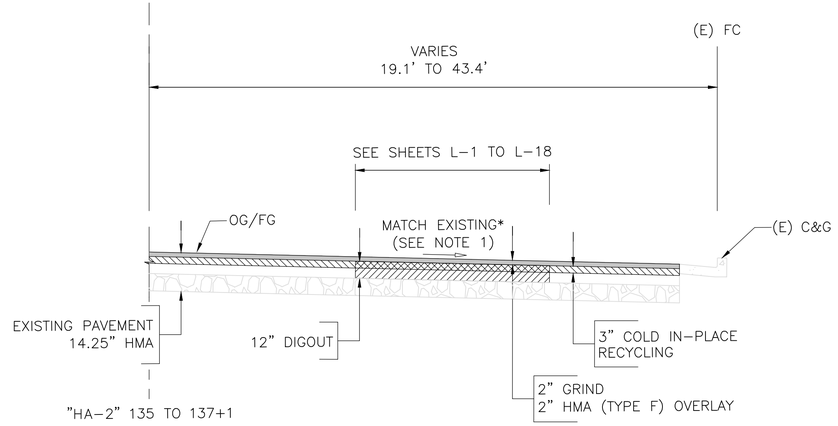
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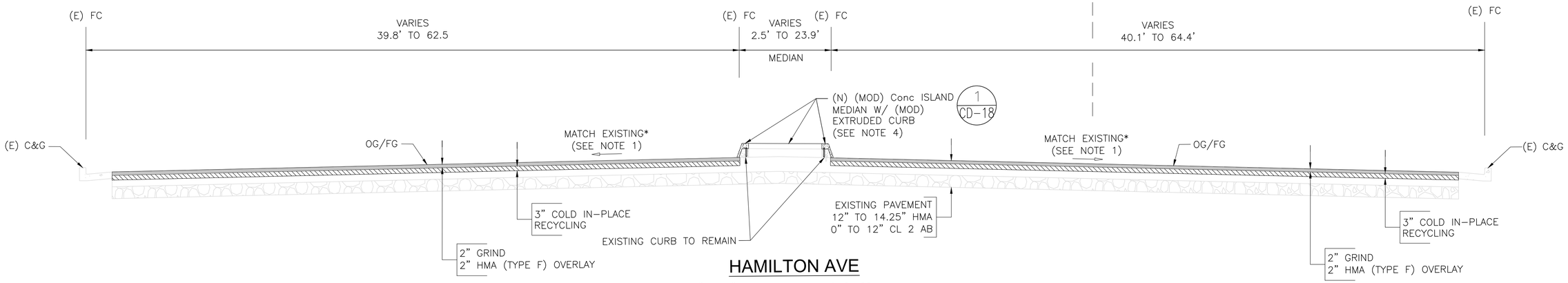
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HAMILTON AVE

"HA-2" 112+34.79 TO 140+84.22

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
TYPICAL SECTIONS

CAMPBELL, CALIFORNIA

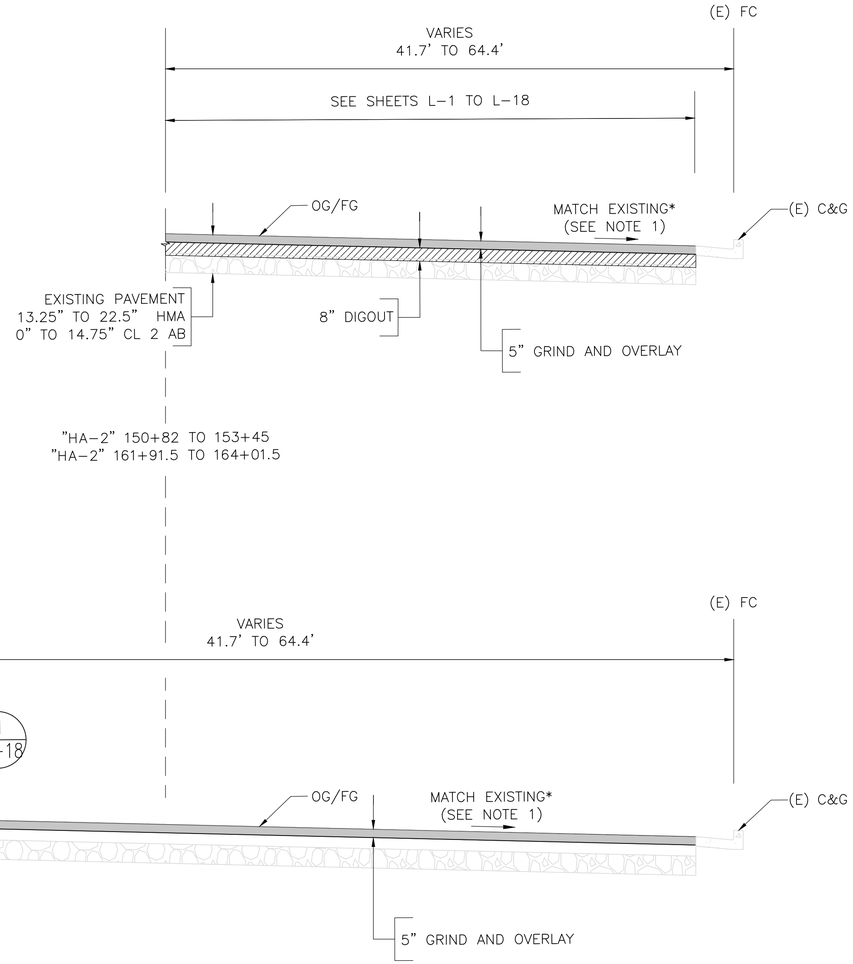
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HAMILTON AVE

"HA-2" 140+84.22 TO 165+32.2

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
TYPICAL SECTIONS

CAMPBELL, CALIFORNIA

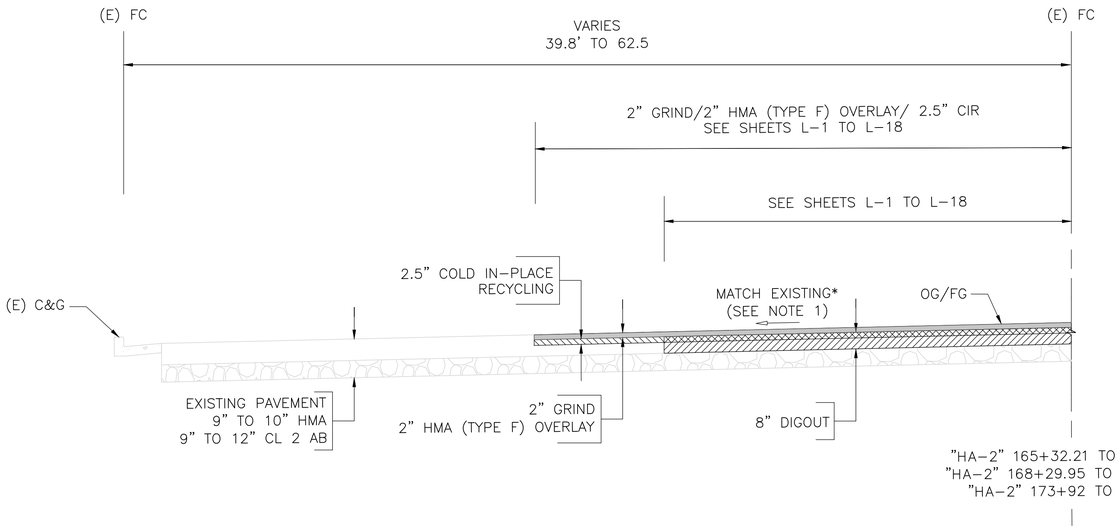
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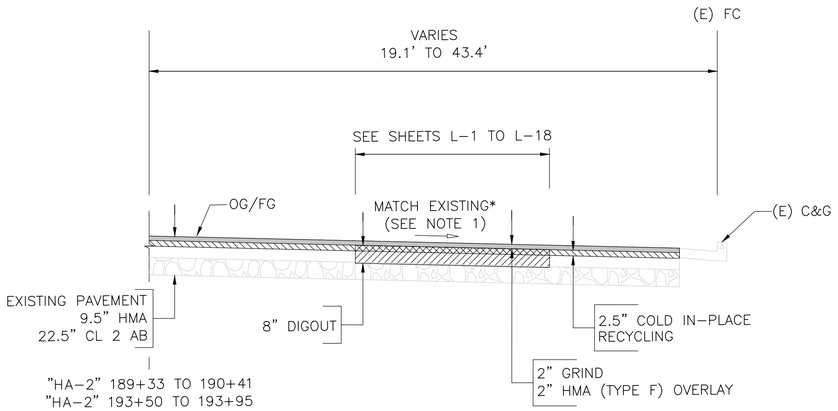
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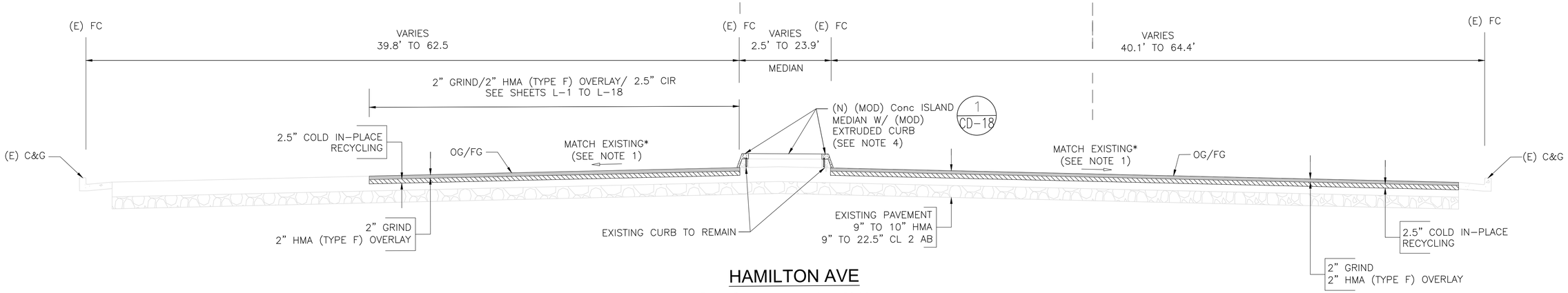
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HAMILTON AVE

"HA-2" 165+32.2 TO 204+26.14

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
TYPICAL SECTIONS

CITY OF CAMPBELL THE ORCHARD CITY
CAMPBELL, CALIFORNIA

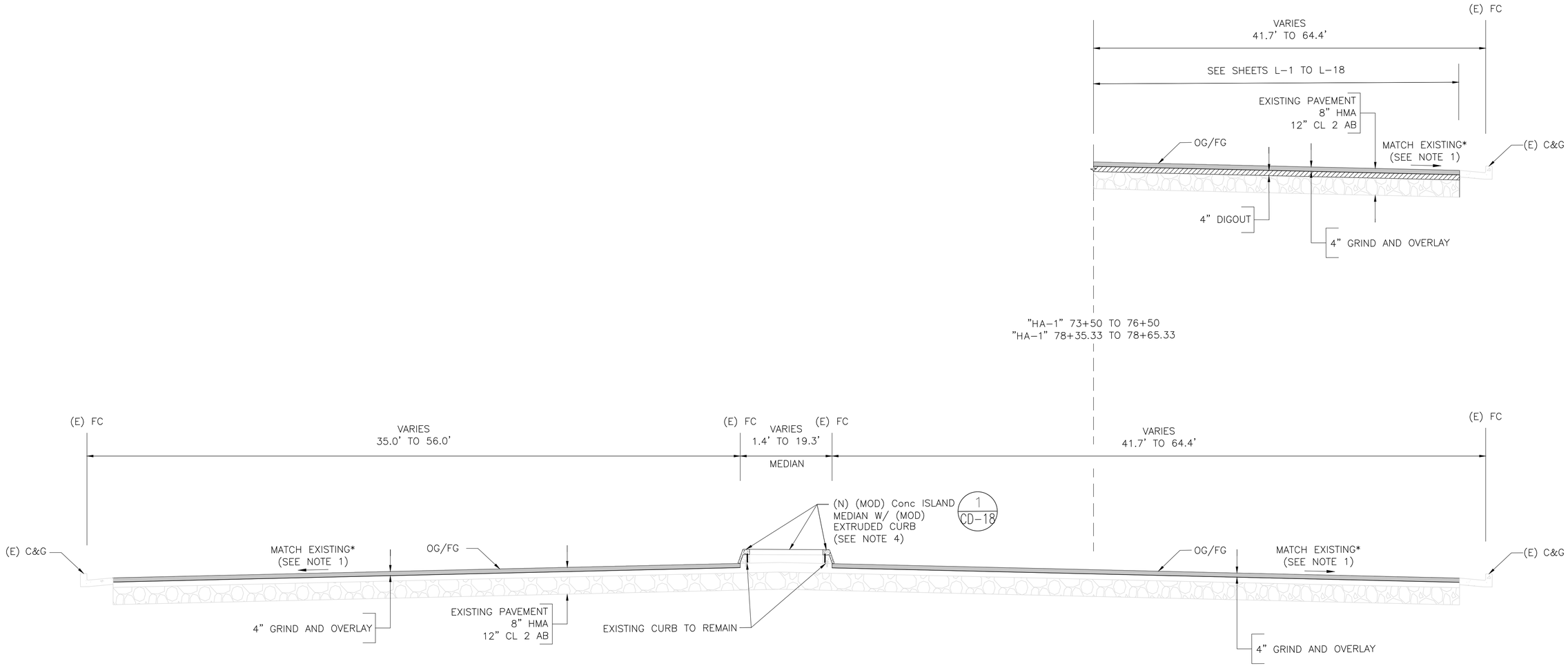
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HAMILTON AVE

"HA-1" 66+27.61 TO 79+47.38

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
TYPICAL SECTIONS

CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

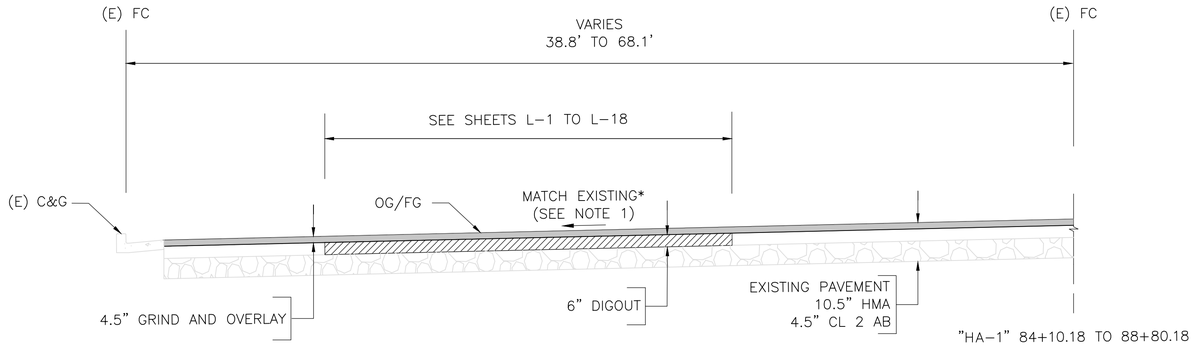
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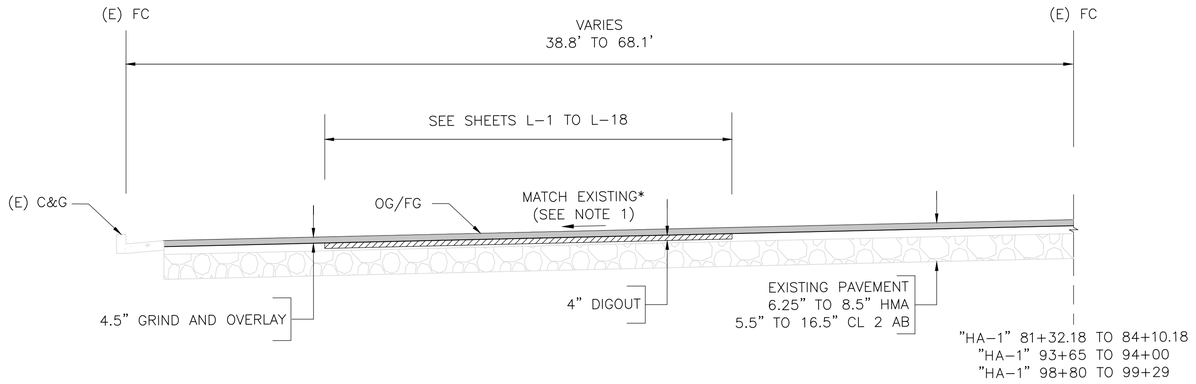
SHEET: X-1

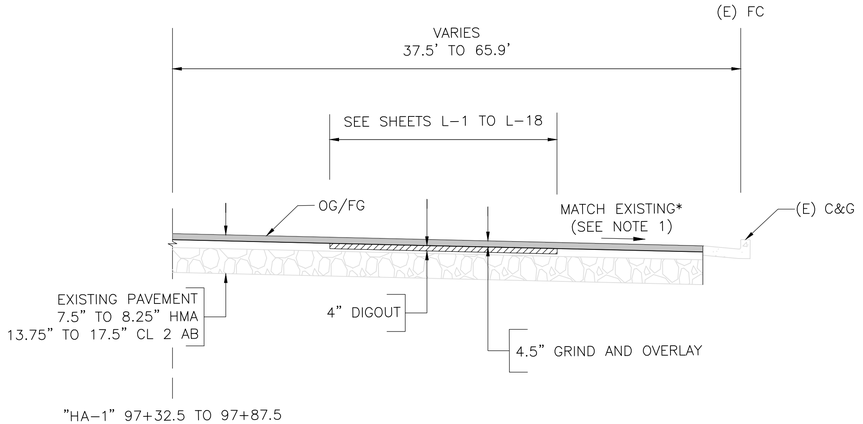
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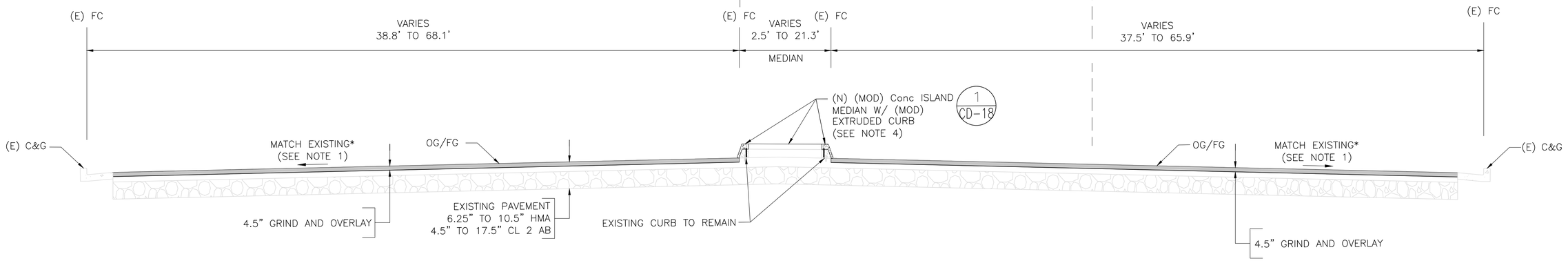
NOTES:

1. NEW PAVING (COLD IN-PLACE RECYCLING, GRIND AND OVERLAY) AND DIGOUTS SHALL CONFORM TO EXISTING GRADES AND SLOPES. EXISTING DRAINAGE PATTERNS SHALL BE MAINTAINED UNLESS OTHERWISE NOTED ON THE PLANS. REFER TO SHEETS C-19 TO C-38 FOR SPECIFIC GRADE ADJUSTMENTS.
2. FOR LIMITS OF DIGOUTS, REFER TO SHEETS L-1 TO L-18. FOR DEPTHS OF DIGOUTS, REFER TO SHEET L-18. LOCATIONS AND DEPTHS OF DIGOUTS SHALL BE CONFIRMED IN THE FIELD BY THE ENGINEER.
3. DIGOUTS SHALL INCLUDE REMOVAL OF HMA AND PORTION OF CL 2 AB.
4. FOR LIMITS AND HEIGHTS OF (N) (MOD) EXTRUDED CURB AND (N) PCC MEDIAN, REFER TO SHEETS L-1 TO L-18.
5. PCC SIDEWALK, DRIVEWAY, CURB AND GUTTER SHOWN ON L-SHEETS ARE DIAGRAMMATIC. EXACT LOCATIONS ARE AS NOTED IN THE FIELD WITH WHITE PAINT. THE CONTRACTOR SHALL CONFIRM LOCATIONS WITH THE ENGINEER PRIOR TO COMMENCING WORK.
6. A STRAIGHT GRADE SHALL BE USED FOR CURB AND GUTTER REMOVAL AND REPLACEMENT (INCLUDING DRIVEWAYS) UNLESS OTHERWISE NOTED IN THE CONSTRUCTION DETAILS SHOWN FOR THE CURB AND GUTTER IN FRONT OF ACCESSIBILITY RAMPS.
7. CONTRACTOR SHALL REFER TO THE APPLICABLE CITY STANDARD DETAILS FOUND ON PLAN SHEET CD-14 THRU CD-18 FOR SIDEWALK, DRIVEWAY, CURB AND GUTTER REMOVAL, AND REPLACEMENT.









HAMILTON AVE

"HA-1" 80+82.93 TO 111+11

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

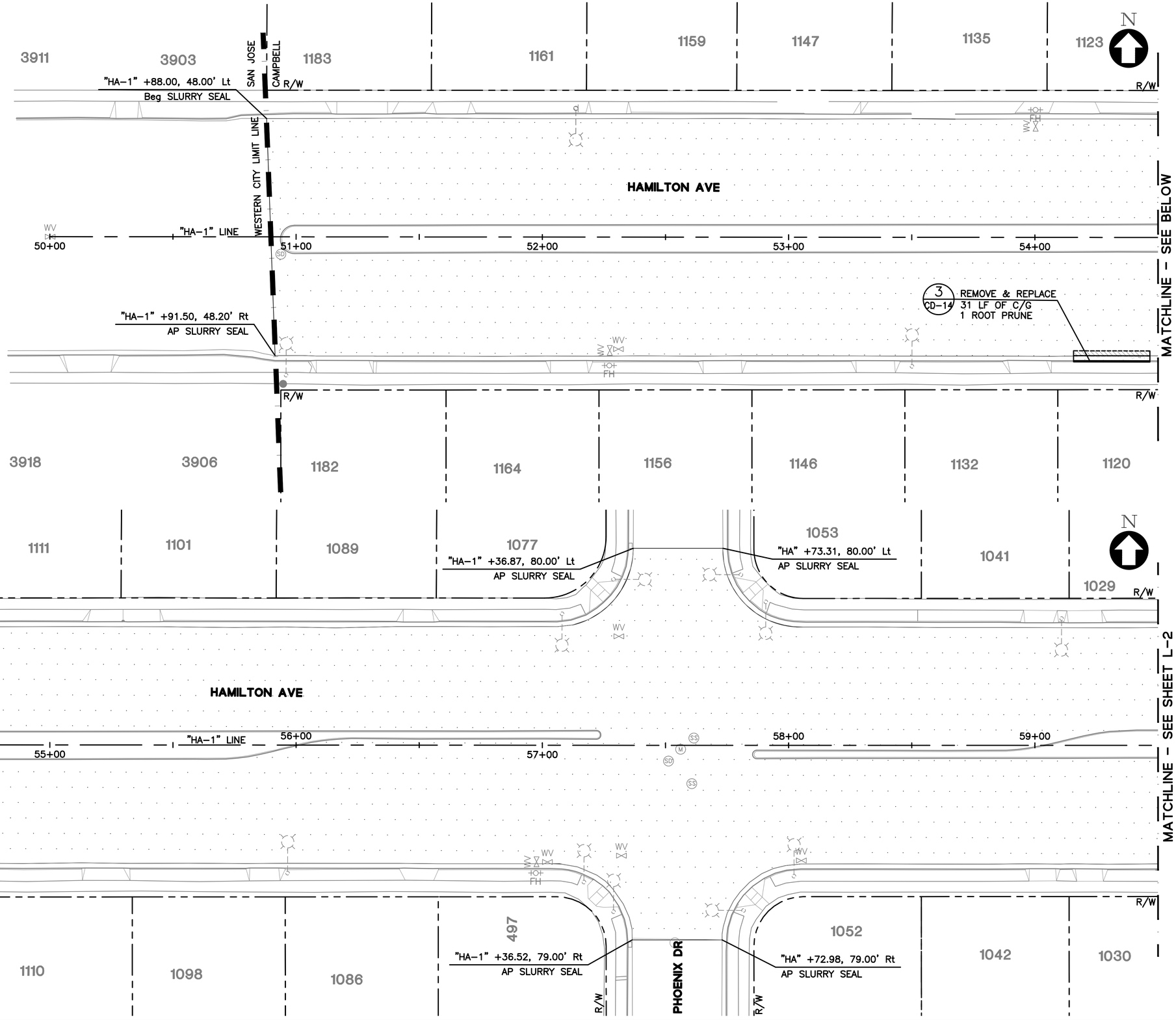
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
TYPICAL SECTIONS

CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: X-2

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LEGEND:

- SLURRY SEAL (TYPE 2)
- SAWCUT/AC RESTORATION SEE DETAIL 2, SHEET CD–14
- CONCRETE
- # FULL DEPTH DIGOUT LOCATION
- # CONFORM GRADING LOCATION
- # MODIFIED EXTRUDED MEDIAN
- # CURB RAMP REPLACEMENT
- X / CD–X DETAIL No./SHEET No.
- SS (E) SANITARY SEWER MANHOLE
- M (E) MONUMENT
- SD (E) STORM DRAIN MANHOLE
- WV (E) WATER VALVE
- FH (E) FIRE HYDRANT
- DH (E) ELECTRICAL MANHOLE
- MH (E) TELECOM MANHOLE
- TR (E) UNKNOWN UTILITY
- TSB (E) TRAFFIC SIGNAL BOX
- TSB (E) STREET LIGHT BOX
- TSB (E) TELEPHONE BOX
- TSB (E) SERVICE BOX
- (E) UTILITY BOX
- VB (E) UTILITY VAULT
- (E) UTILITY POLE
- (E) HANDHOLE
- (E) STREET LIGHT OR TRAFFIC SIGNAL POLE
- (E) SIGN

NOTE:

1. SEE SHEET L–18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

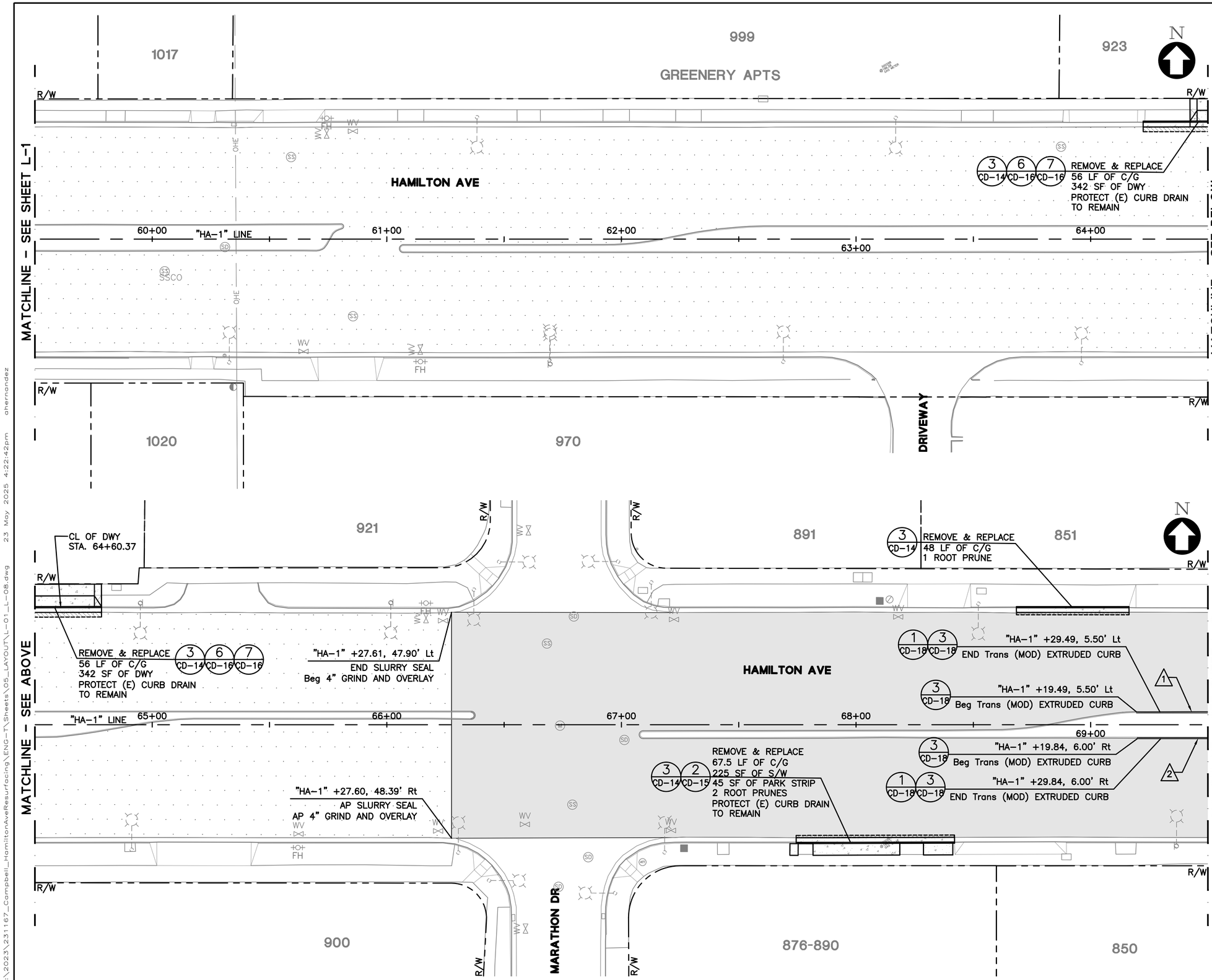
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
LAYOUT PLAN

CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: L-1

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LEGEND:

- SLURRY SEAL (TYPE 2)
- 4" GRIND AND OVERLAY
- SAWCUT/AC RESTORATION SEE DETAIL 2, SHEET CD–14
- SAWCUT/SLOT PAVING SEE DETAIL 7, SHEET CD–14
- CONCRETE
- # FULL DEPTH DIGOUT LOCATION
- # CONFORM GRADING LOCATION
- # MODIFIED EXTRUDED MEDIAN
- # CURB RAMP REPLACEMENT
- X / CD–X DETAIL No./SHEET No.
- (SS) (E) SANITARY SEWER MANHOLE
- (M) (E) MONUMENT
- (SD) (E) STORM DRAIN MANHOLE
- WV (E) WATER VALVE
- FH (E) FIRE HYDRANT
- (DH) (E) ELECTRICAL MANHOLE
- (MH) (E) TELECOM MANHOLE
- (TR) (E) UNKNOWN UTILITY
- (TSB) (E) TRAFFIC SIGNAL BOX
- (TSB) (E) STREET LIGHT BOX
- (TSB) (E) TELEPHONE BOX
- (TSB) (E) SERVICE BOX
- (E) UTILITY BOX
- (UB) (E) UTILITY VAULT
- (E) UTILITY POLE
- (E) HANDHOLE
- (E) STREET LIGHT OR TRAFFIC SIGNAL POLE
- (E) SIGN

NOTE:

1. SEE SHEET L–18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

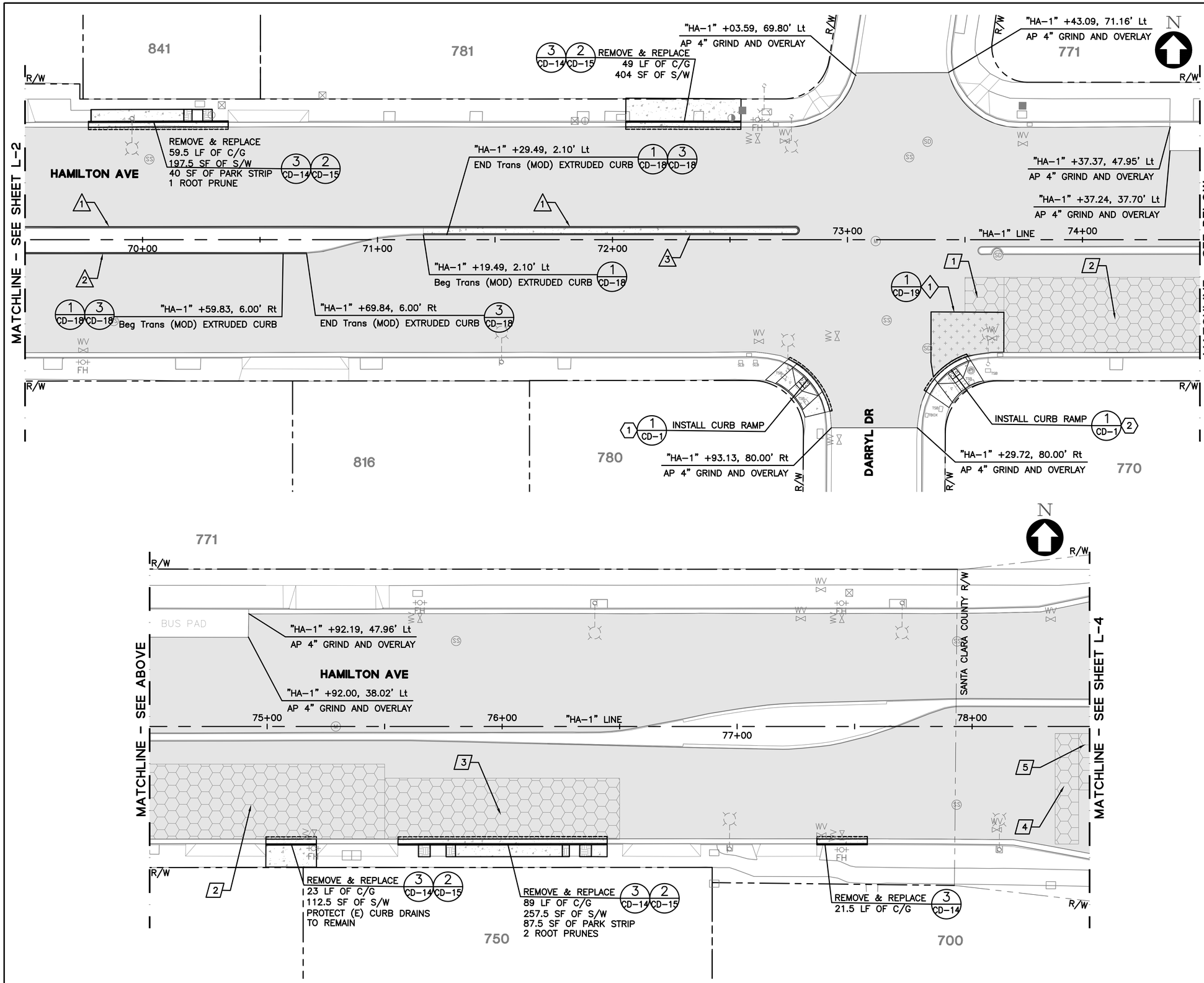
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
LAYOUT PLAN

CITY OF CAMPBELL THE GARDEN CITY CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: L-2

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LEGEND:

- 4" GRIND AND OVERLAY
- DIGOUT, SEE SHEET L–18 FOR DEPTHS
- SAWCUT/SLOT PAVING SEE DETAIL 7, SHEET CD–14
- SAWCUT/HMA CONFORM GRADING SEE DETAILS 6 & 7, SHEET CD–17
- CONCRETE
- PARK STRIP REMOVAL
- TRUNCATED DOMES
- FULL DEPTH DIGOUT LOCATION
- CONFORM GRADING LOCATION
- MODIFIED EXTRUDED MEDIAN
- CURB RAMP REPLACEMENT
- DETAIL No./SHEET No.
- (E) SANITARY SEWER MANHOLE
- (E) MONUMENT
- (E) STORM DRAIN MANHOLE
- (E) WATER VALVE
- (E) FIRE HYDRANT
- (E) ELECTRICAL MANHOLE
- (E) TELECOM MANHOLE
- (E) UNKNOWN UTILITY
- (E) TRAFFIC SIGNAL BOX
- (E) STREET LIGHT BOX
- (E) TELEPHONE BOX
- (E) SERVICE BOX
- (E) UTILITY BOX
- (E) UTILITY VAULT
- (E) UTILITY POLE
- (E) HANDHOLE
- (E) STREET LIGHT OR TRAFFIC SIGNAL POLE
- (E) SIGN

NOTE:

1. SEE SHEET L–18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
LAYOUT PLAN

CITY OF CAMPBELL · THE ORCHARD CITY · CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: L-3

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"HA–1" +28.08, 71.18' Lt
END 4" GRIND AND OVERLAY
"HA–1" +44.14, 58.15' Lt
AP 4" GRIND AND OVERLAY
"HA–1" +45.18, 50.15' Lt
AP 4" GRIND AND OVERLAY
"HA–1" +65.60, 56.31' Lt
4" GRIND AND OVERLAY
"HA–1" +05.45, 63.91' Lt
Beg 4.5" GRIND AND OVERLAY
"HA–1" +84.39, 54.23' Lt
AP 4.5" GRIND AND OVERLAY
"HA–1" +82.93, 50.14' Lt
AP 4.5" GRIND AND OVERLAY
REMOVE & REPLACE 3 CD–14
56.6 LF OF C/G
591
R/W
HAMILTON AVE
SANTA CLARA COUNTY R/W
MATCHLINE – SEE SHEET L–3
MATCHLINE – SEE BELOW
79+00
80+00
"HA–1" LINE
81+00
82+00
"HA–1" +84.14, 51.71' Rt
AP 4.5" GRIND AND OVERLAY
"HA–1" +86.73, 56.73' Rt
AP 4.5" GRIND AND OVERLAY
"HA–1" +65.08, 56.85' Rt
AP 4" GRIND AND OVERLAY
"HA–1" +45.89, 51.10' Rt
AP 4" GRIND AND OVERLAY
"HA–1" +47.38, 57.55' Rt
AP 4" GRIND AND OVERLAY
"HA–1" +28.63, 69.14' Rt
AP 4" GRIND AND OVERLAY
SAN TOMAS EXPWY
"HA–1" +96.95, 71.85' Rt
AP 4.5" GRIND AND OVERLAY
550
"HA–1" +70.79, 77.52' Lt
AP 4.5" GRIND AND OVERLAY
"HA–1" +06.96, 77.52' Lt
AP 4.5" GRIND AND OVERLAY
535
MILLICH DR
3 CD–14 REMOVE & REPLACE 27 LF OF C/G
3 CD–1 2 INSTALL CURB RAMP REMOVE & REPLACE 13 LF OF C/G
1 CD–20 2
INSTALL CURB RAMP 2 CD–1 4
1 CD–18 "HA–1" +50.00, 2.30' Rt
Beg 4" (MOD) EXTRUDED CURB
Beg 3.5" (MOD) EXTRUDED CURB
7 2 CD–2 INSTALL CURB RAMP
1 CD–21 3
MATCHLINE – SEE ABOVE
MATCHLINE – SEE SHEET L–5
83+00
84+00
"HA–1" LINE
85+00
86+00
87+00
HAMILTON AVE
3 CD–14 2 CD–15 REMOVE & REPLACE 54 LF OF C/G 415 SF OF S/W
6 1 CD–2 INSTALL CURB RAMP
ADJUST INLET TO GRADE
2 CD–15 REMOVE & REPLACE 73.5 SF OF S/W 1 ROOT PRUNE
550
510
5 1 CD–2 INSTALL CURB RAMP
"HA–1" +68.00, 85.06' Rt
AP 4.5" GRIND AND OVERLAY
LLEWELLYN AVE
"HA–1" +04.00, 85.00' Rt
AP 4.5" GRIND AND OVERLAY
1 CD–18
20' 0' 20' 40'
GRAPHIC SCALE

LEGEND:

- 4" OR 4.5" GRIND AND OVERLAY SEE THIS SHEET FOR DEPTH
- DIGOUT, SEE SHEET L–18 FOR DEPTHS
- SAWCUT/SLOT PAVING SEE DETAIL 7, SHEET CD–14
- SAWCUT/HMA CONFORM GRADING SEE DETAILS 6 & 7, SHEET CD–17
- CONCRETE
- TRUNCATED DOMES
- # FULL DEPTH DIGOUT LOCATION
- # CONFORM GRADING LOCATION
- # MODIFIED EXTRUDED MEDIAN
- # CURB RAMP REPLACEMENT
- X / CD–X DETAIL No./SHEET No.
- SS (E) SANITARY SEWER MANHOLE
- M (E) MONUMENT
- SD (E) STORM DRAIN MANHOLE
- WV (E) WATER VALVE
- FH (E) FIRE HYDRANT
- DH (E) ELECTRICAL MANHOLE
- MH (E) TELECOM MANHOLE
- TR (E) UNKNOWN UTILITY
- TSB (E) TRAFFIC SIGNAL BOX
- TSB (E) STREET LIGHT BOX
- TSB (E) TELEPHONE BOX
- TSB (E) SERVICE BOX
- (E) UTILITY BOX
- UB (E) UTILITY VAULT
- (E) UTILITY POLE
- (E) HANDHOLE
- (E) STREET LIGHT OR TRAFFIC SIGNAL POLE
- (E) SIGN

NOTE:

1. SEE SHEET L–18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

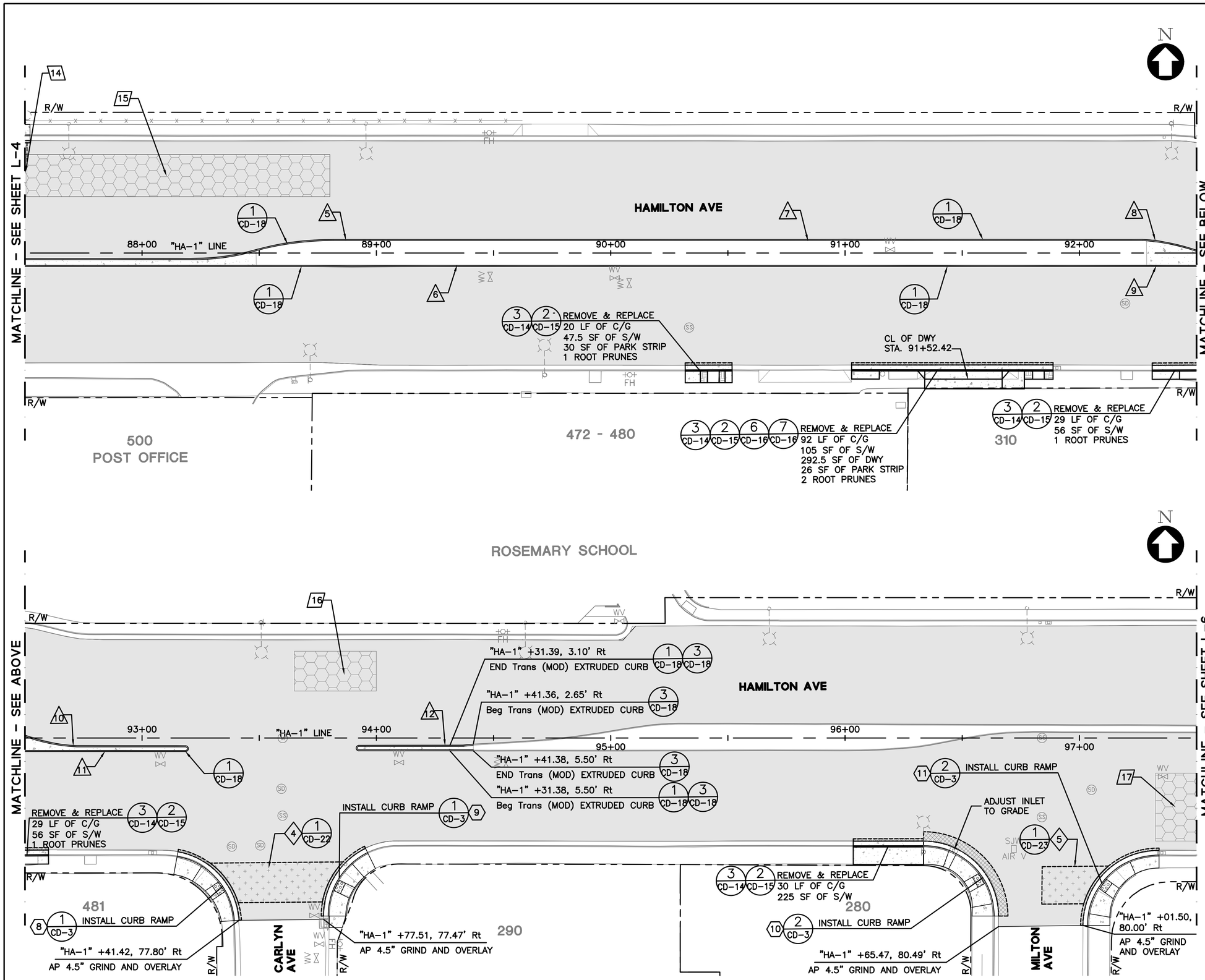
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
LAYOUT PLAN

CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: L–4

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LEGEND:

- 4.5" GRIND AND OVERLAY
- DIGOUT, SEE SHEET L–18 FOR DEPTHS
- SAWCUT/SLOT PAVING SEE DETAIL 7, SHEET CD–14
- SAWCUT/HMA CONFORM GRADING SEE DETAILS 6 & 7, SHEET CD–17
- CONCRETE
- PARK STRIP REMOVAL
- TRUNCATED DOMES
- FULL DEPTH DIGOUT LOCATION
- CONFORM GRADING LOCATION
- MODIFIED EXTRUDED MEDIAN
- CURB RAMP REPLACEMENT
- DETAIL No./SHEET No.
- (E) SANITARY SEWER MANHOLE
- (E) MONUMENT
- (E) STORM DRAIN MANHOLE
- (E) WATER VALVE
- (E) FIRE HYDRANT
- (E) ELECTRICAL MANHOLE
- (E) TELECOM MANHOLE
- (E) UNKNOWN UTILITY
- (E) TRAFFIC SIGNAL BOX
- (E) STREET LIGHT BOX
- (E) TELEPHONE BOX
- (E) SERVICE BOX
- (E) UTILITY BOX
- (E) UTILITY VAULT
- (E) UTILITY POLE
- (E) HANDHOLE
- (E) STREET LIGHT OR TRAFFIC SIGNAL POLE
- (E) SIGN

NOTE:

1. SEE SHEET L–18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

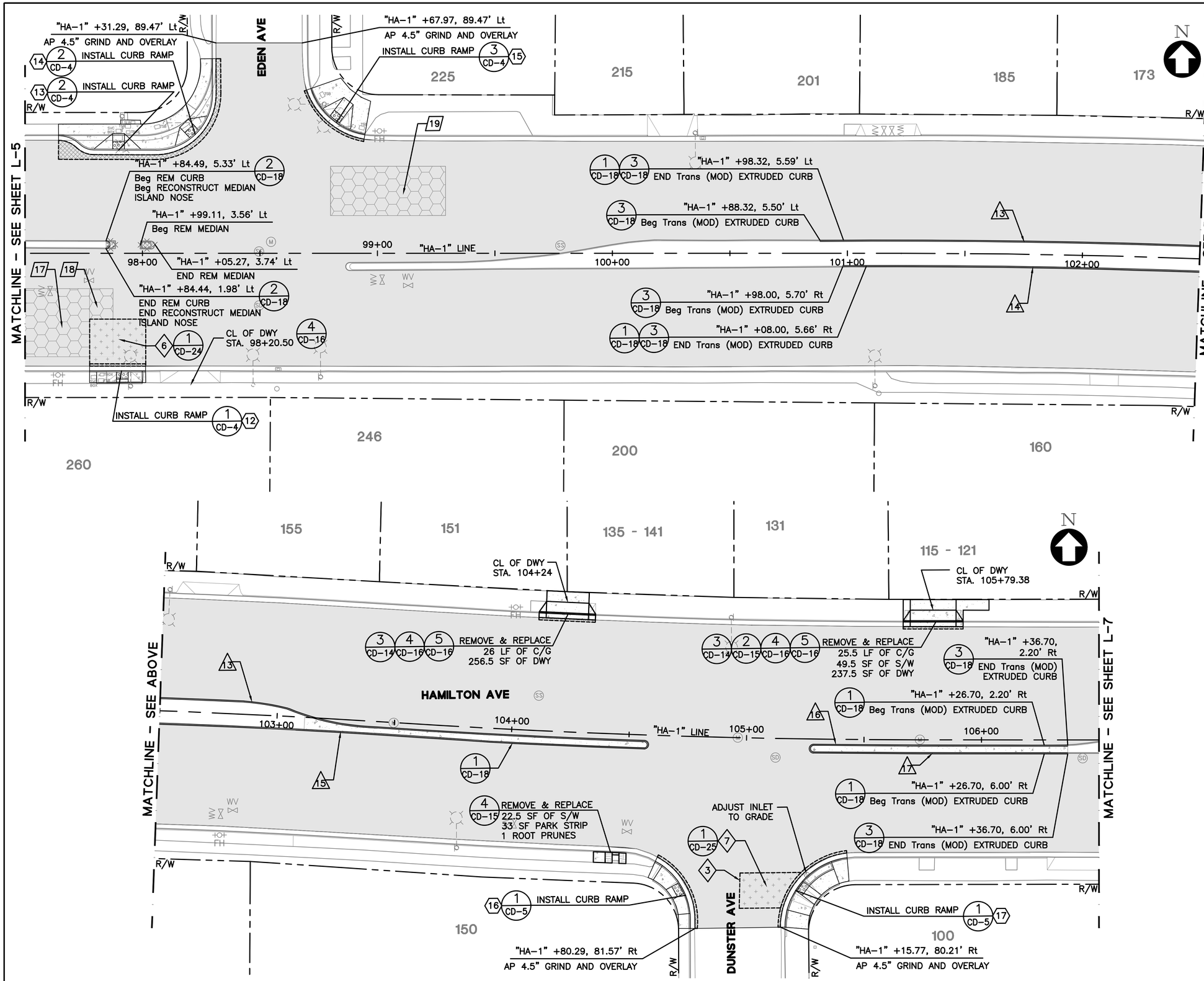
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
LAYOUT PLAN

CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: L–5

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NOTE:

1. SEE SHEET L–18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.

20' 0' 20' 40'
GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

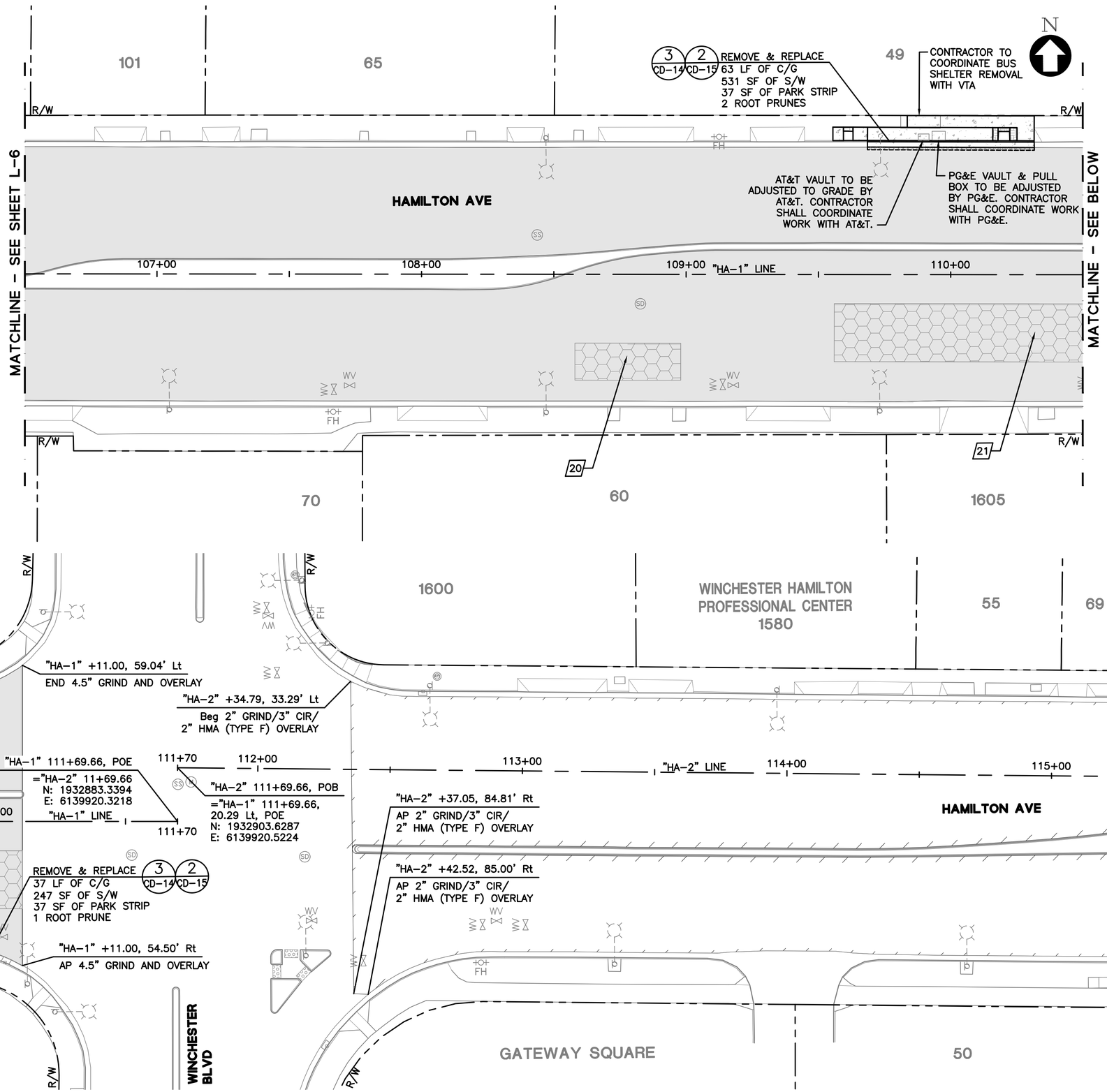
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
LAYOUT PLAN

CITY OF CAMPBELL THE ORCHARD CITY CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: L–6

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LEGEND:

- 2" GRIND, 3" CIR, 2" HMA (TYPE F) OVERLAY
- 4.5" GRIND AND OVERLAY
- DIGOUT, SEE SHEET L-18 FOR DEPTHS
- SAWCUT/SLOT PAVING SEE DETAIL 7, SHEET CD-14
- CONCRETE
- PARK STRIP REMOVAL
- # FULL DEPTH DIGOUT LOCATION
- # CONFORM GRADING LOCATION
- # MODIFIED EXTRUDED MEDIAN
- # CURB RAMP REPLACEMENT
- X / CD-X DETAIL No./SHEET No.
- (SS) (E) SANITARY SEWER MANHOLE
- (M) (E) MONUMENT
- (SD) (E) STORM DRAIN MANHOLE
- WV (E) WATER VALVE
- FH (E) FIRE HYDRANT
- (DH) (E) ELECTRICAL MANHOLE
- (MO) (E) TELECOM MANHOLE
- (TR) (E) UNKNOWN UTILITY
- TSB (E) TRAFFIC SIGNAL BOX
- TSB (E) STREET LIGHT BOX
- TSB (E) TELEPHONE BOX
- TSB (E) SERVICE BOX
- (E) UTILITY BOX
- UB (E) UTILITY VAULT
- (E) UTILITY POLE
- (E) HANDHOLE
- (E) STREET LIGHT OR TRAFFIC SIGNAL POLE
- (E) SIGN

NOTE:

1. SEE SHEET L-18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.

20' 0' 20' 40'
GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

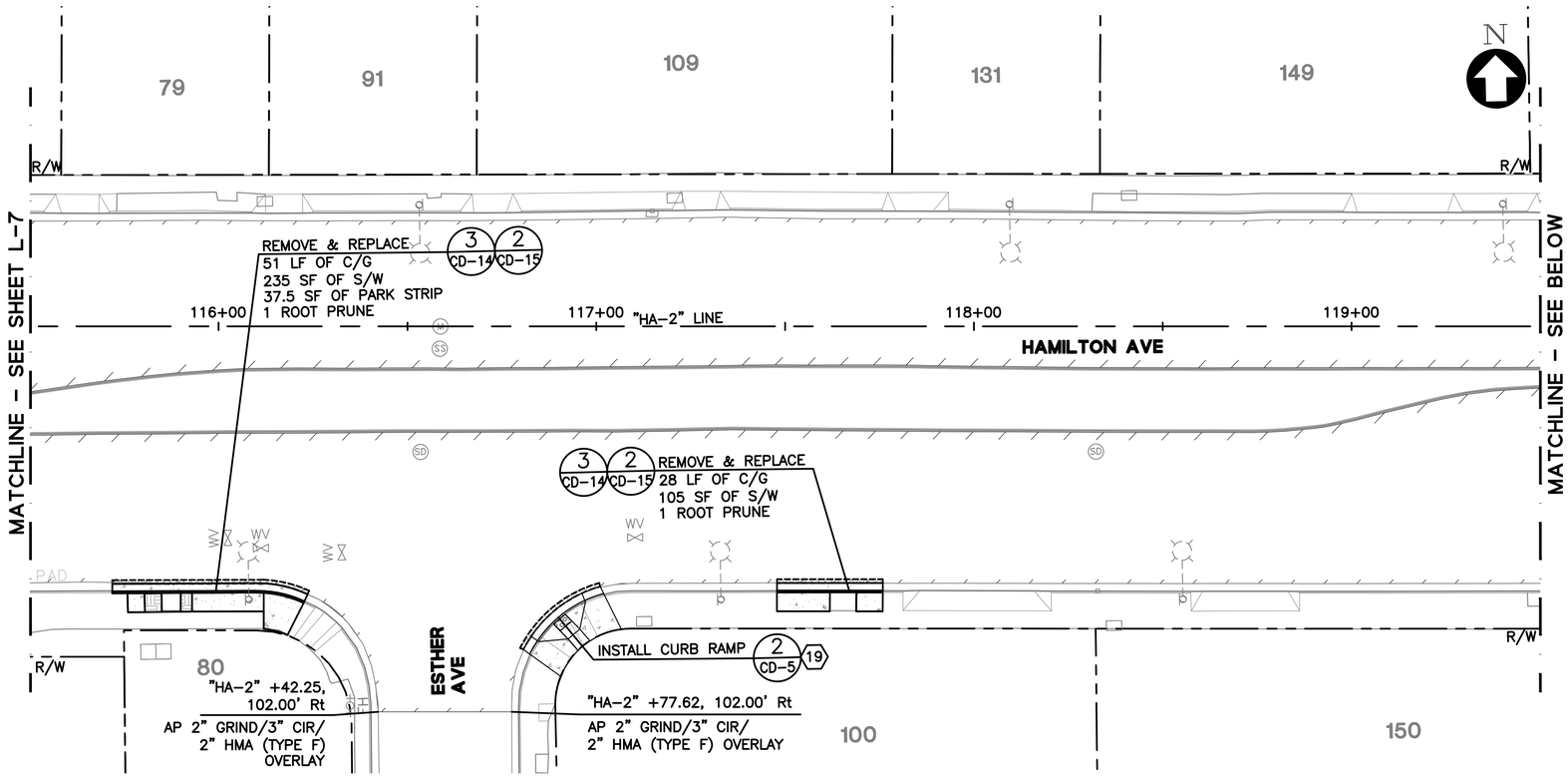
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
LAYOUT PLAN

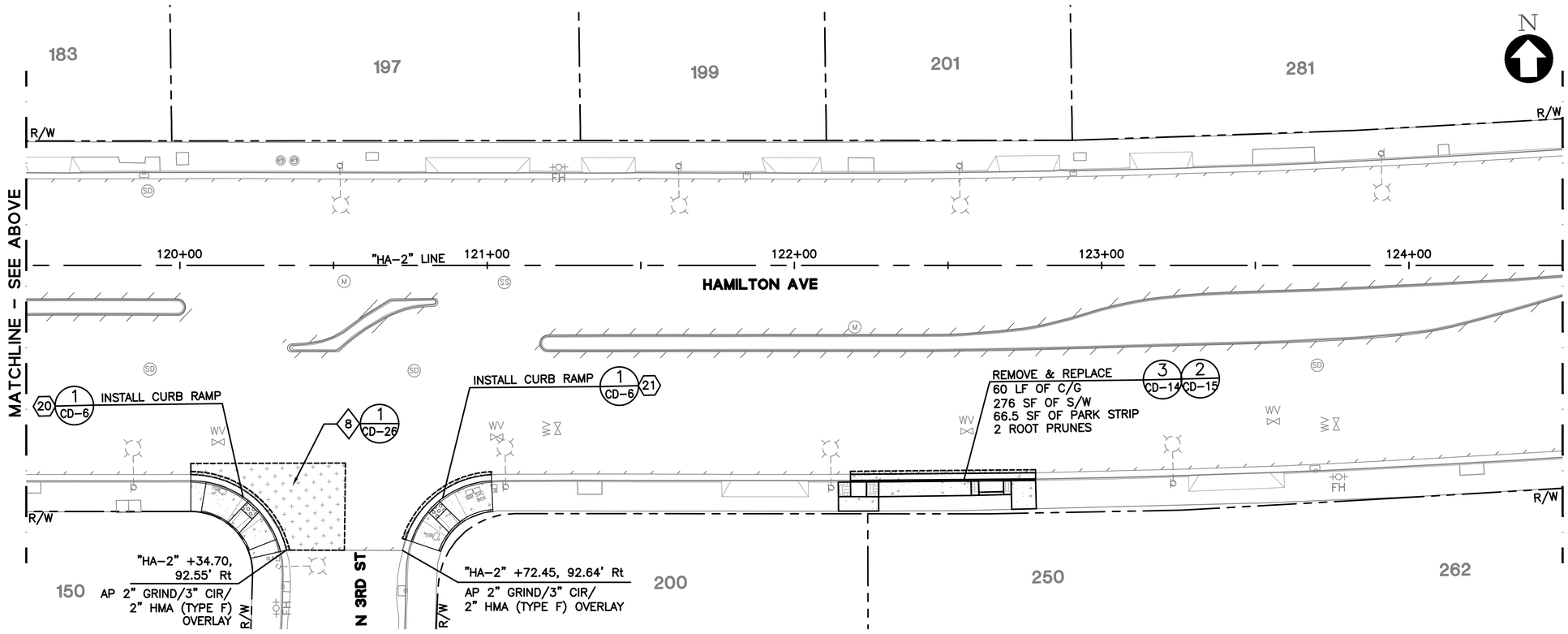
CITY OF CAMPBELL THE ORCHARD CITY CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: L-7

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LEGEND:

- 2" GRIND / 3" CIR / 2" HMA (TYPE F) OVERLAY
- SAWCUT/SLOT PAVING SEE DETAIL 7, SHEET CD-14
- SAWCUT/HMA CONFORM GRADING SEE DETAILS 6 & 7, SHEET CD-17
- CONCRETE
- PARK STRIP REMOVAL
- TRUNCATED DOMES
- FULL DEPTH DIGOUT LOCATION
- CONFORM GRADING LOCATION
- MODIFIED EXTRUDED MEDIAN
- CURB RAMP REPLACEMENT
- DETAIL No./SHEET No.
- (E) SANITARY SEWER MANHOLE
- (E) MONUMENT
- (E) STORM DRAIN MANHOLE
- (E) WATER VALVE
- (E) FIRE HYDRANT
- (E) ELECTRICAL MANHOLE
- (E) TELECOM MANHOLE
- (E) UNKNOWN UTILITY
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- (E) UTILITY BOX
- (E) UTILITY VAULT
- (E) UTILITY POLE
- (E) HANDHOLE
- (E) STREET LIGHT OR TRAFFIC SIGNAL POLE
- (E) SIGN

NOTE:

1. SEE SHEET L-18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.

20' 0' 20' 40'
GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

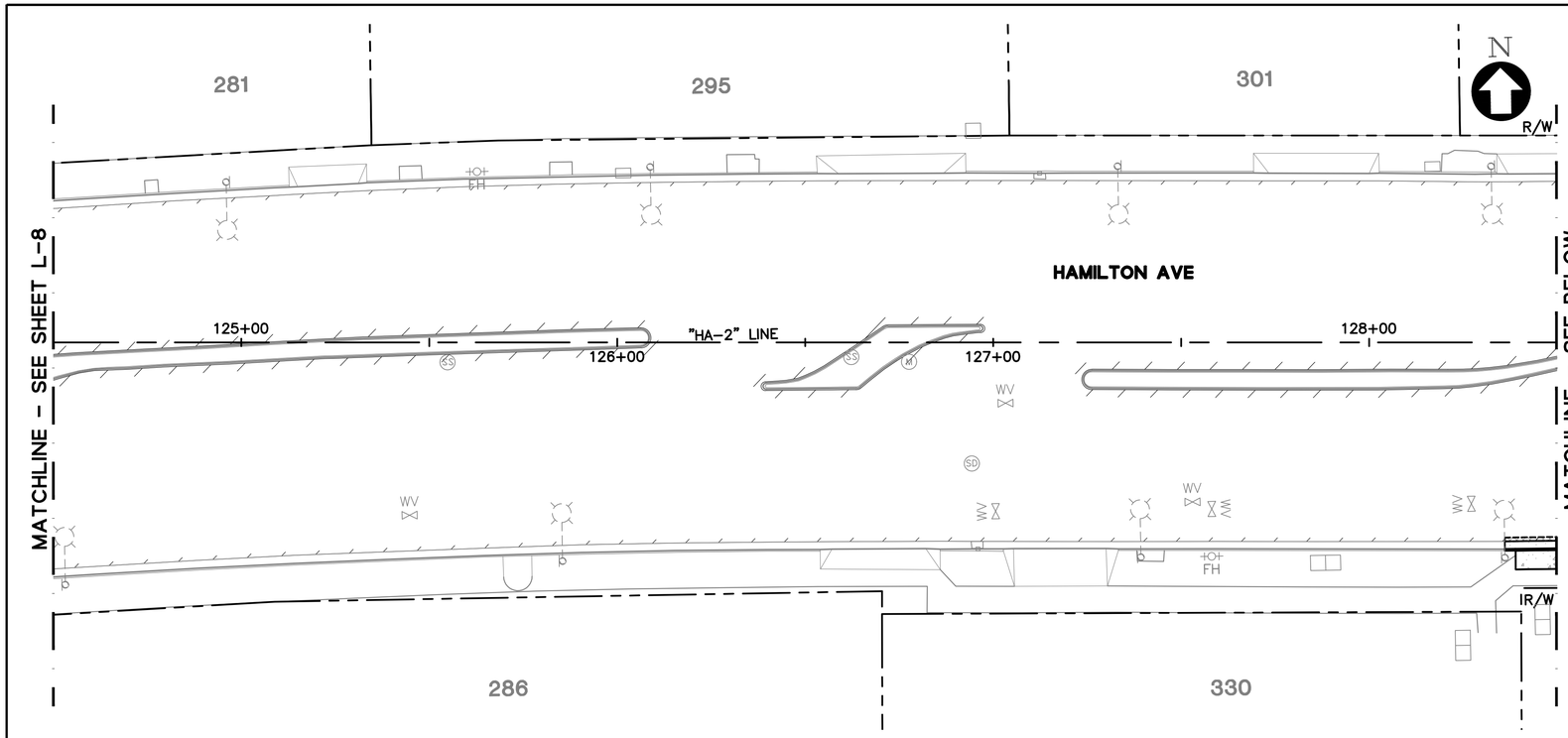
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
LAYOUT PLAN

CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: L-8

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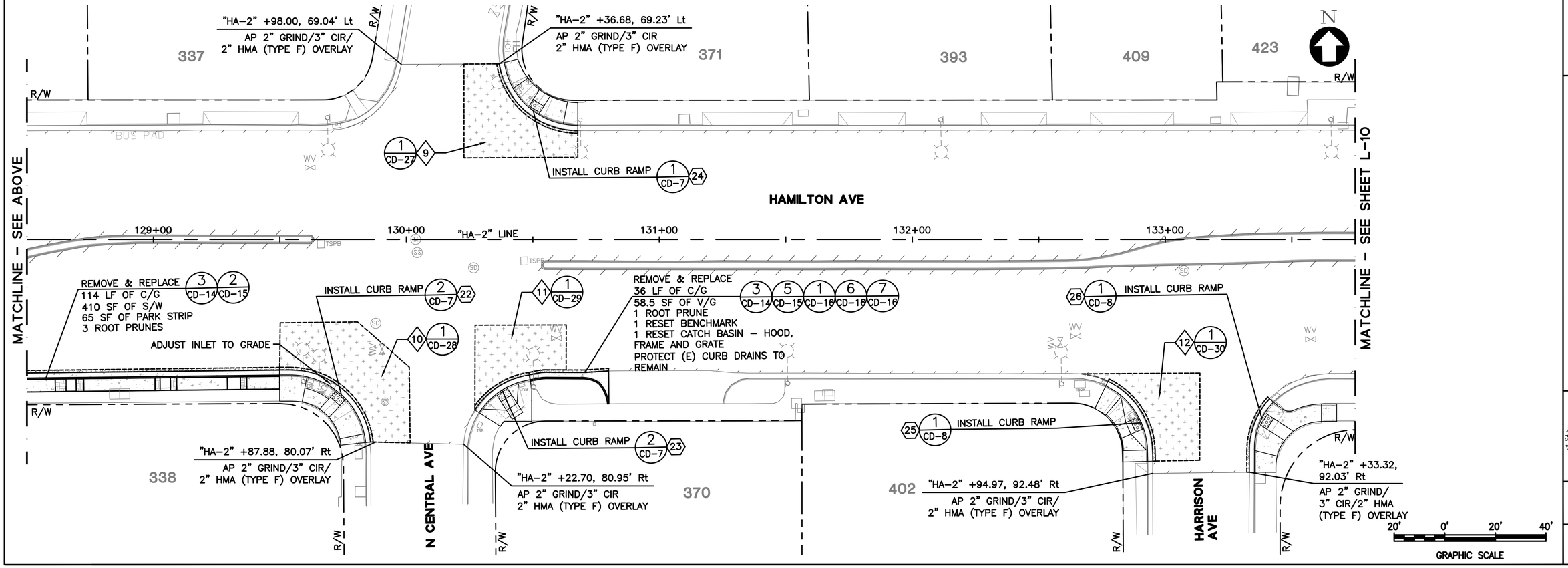


LEGEND:

- 2" GRIND / 3" CIR / 2" HMA (TYPE F) OVERLAY
- SAWCUT/SLOT PAVING SEE DETAIL 7, SHEET CD-14
- SAWCUT/HMA CONFORM GRADING SEE DETAILS 6 & 7, SHEET CD-17
- CONCRETE
- PARK STRIP REMOVAL
- TRUNCATED DOMES
- # FULL DEPTH DIGOUT LOCATION
- # CONFORM GRADING LOCATION
- # MODIFIED EXTRUDED MEDIAN
- # CURB RAMP REPLACEMENT
- X / CD-X DETAIL No./SHEET No.
- (E) SANITARY SEWER MANHOLE
- (E) MONUMENT
- (E) STORM DRAIN MANHOLE
- (E) WATER VALVE
- (E) FIRE HYDRANT
- (E) ELECTRICAL MANHOLE
- (E) TELECOM MANHOLE
- (E) UNKNOWN UTILITY
- (E) TRAFFIC SIGNAL BOX
- (E) STREET LIGHT BOX
- (E) TELEPHONE BOX
- (E) SERVICE BOX
- (E) UTILITY BOX
- (E) UTILITY VAULT
- (E) UTILITY POLE
- (E) HANDHOLE
- (E) STREET LIGHT OR TRAFFIC SIGNAL POLE
- (E) SIGN

NOTE:

1. SEE SHEET L-18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.



No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

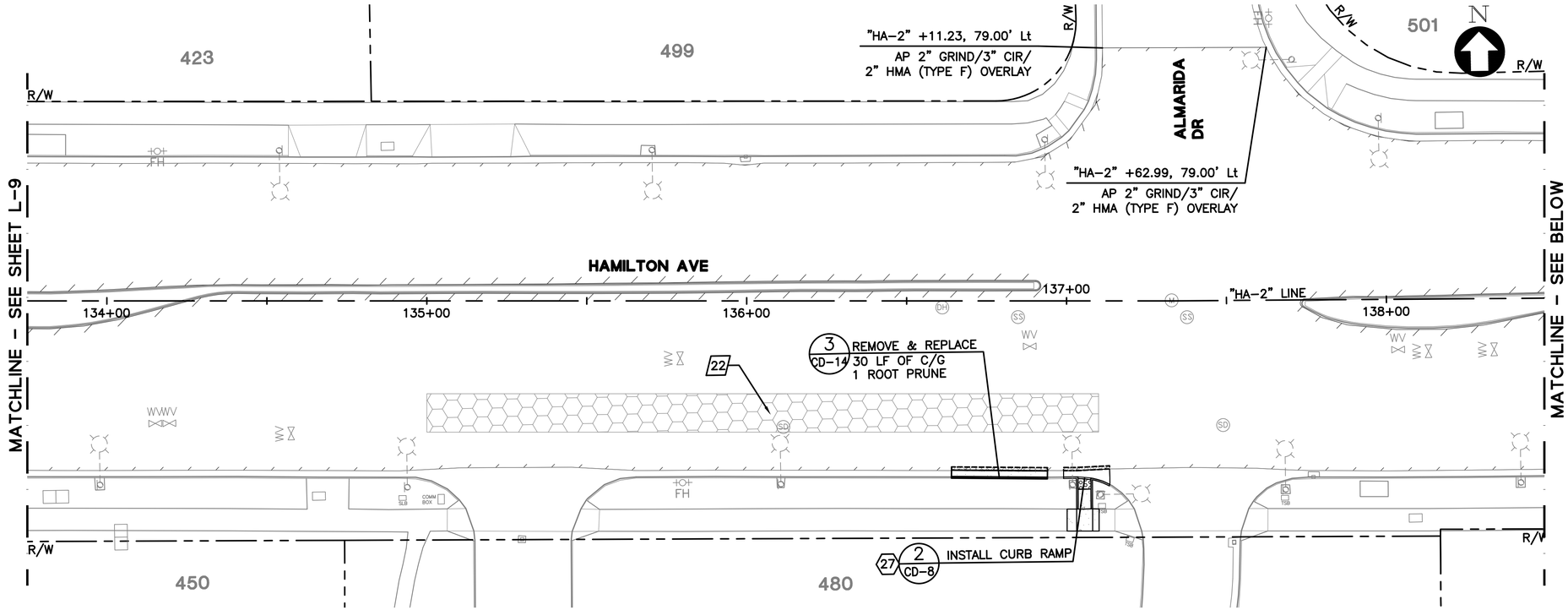
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
LAYOUT PLAN

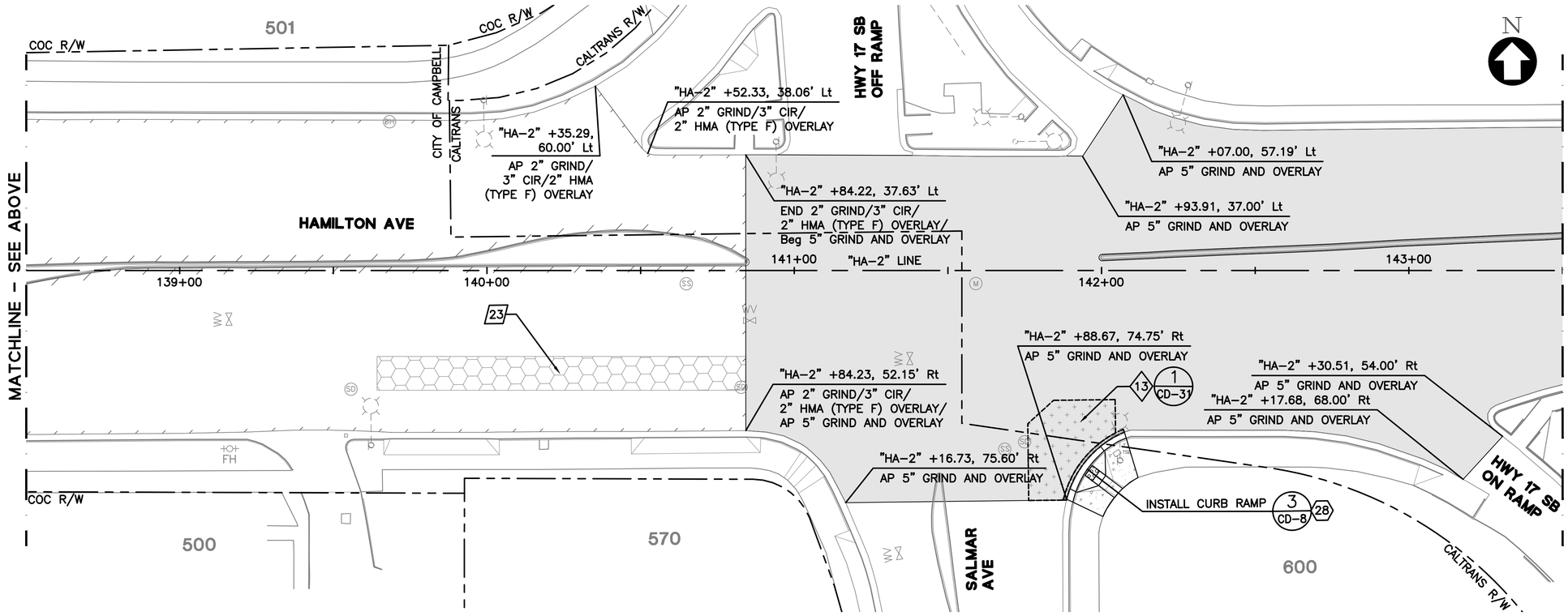
CITY OF CAMPBELL THE ORCHARD CITY CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: L-9

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LEGEND:

- 2" GRIND, 3" CIR, 2" HMA (TYPE F) OVERLAY
- 5" GRIND AND OVERLAY
- DIGOUT, SEE SHEET L–18 FOR DEPTHS
- SAWCUT/SLOT PAVING SEE DETAIL 7, SHEET CD–14
- SAWCUT/HMA CONFORM GRADING SEE DETAILS 6 & 7, SHEET CD–17
- CONCRETE
- TRUNCATED DOMES
- # FULL DEPTH DIGOUT LOCATION
- # CONFORM GRADING LOCATION
- # MODIFIED EXTRUDED MEDIAN
- # CURB RAMP REPLACEMENT
- X / CD–X DETAIL No./SHEET No.
- SS (E) SANITARY SEWER MANHOLE
- M (E) MONUMENT
- SD (E) STORM DRAIN MANHOLE
- WV (E) WATER VALVE
- FH (E) FIRE HYDRANT
- DH (E) ELECTRICAL MANHOLE
- MH (E) TELECOM MANHOLE
- TR (E) UNKNOWN UTILITY
- TSB (E) TRAFFIC SIGNAL BOX
- TSB (E) STREET LIGHT BOX
- TSB (E) TELEPHONE BOX
- TSB (E) SERVICE BOX
- (E) UTILITY BOX
- UB (E) UTILITY VAULT
- (E) UTILITY POLE
- (E) HANDHOLE
- (E) STREET LIGHT OR TRAFFIC SIGNAL POLE
- (E) SIGN

NOTE:

1. SEE SHEET L–18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

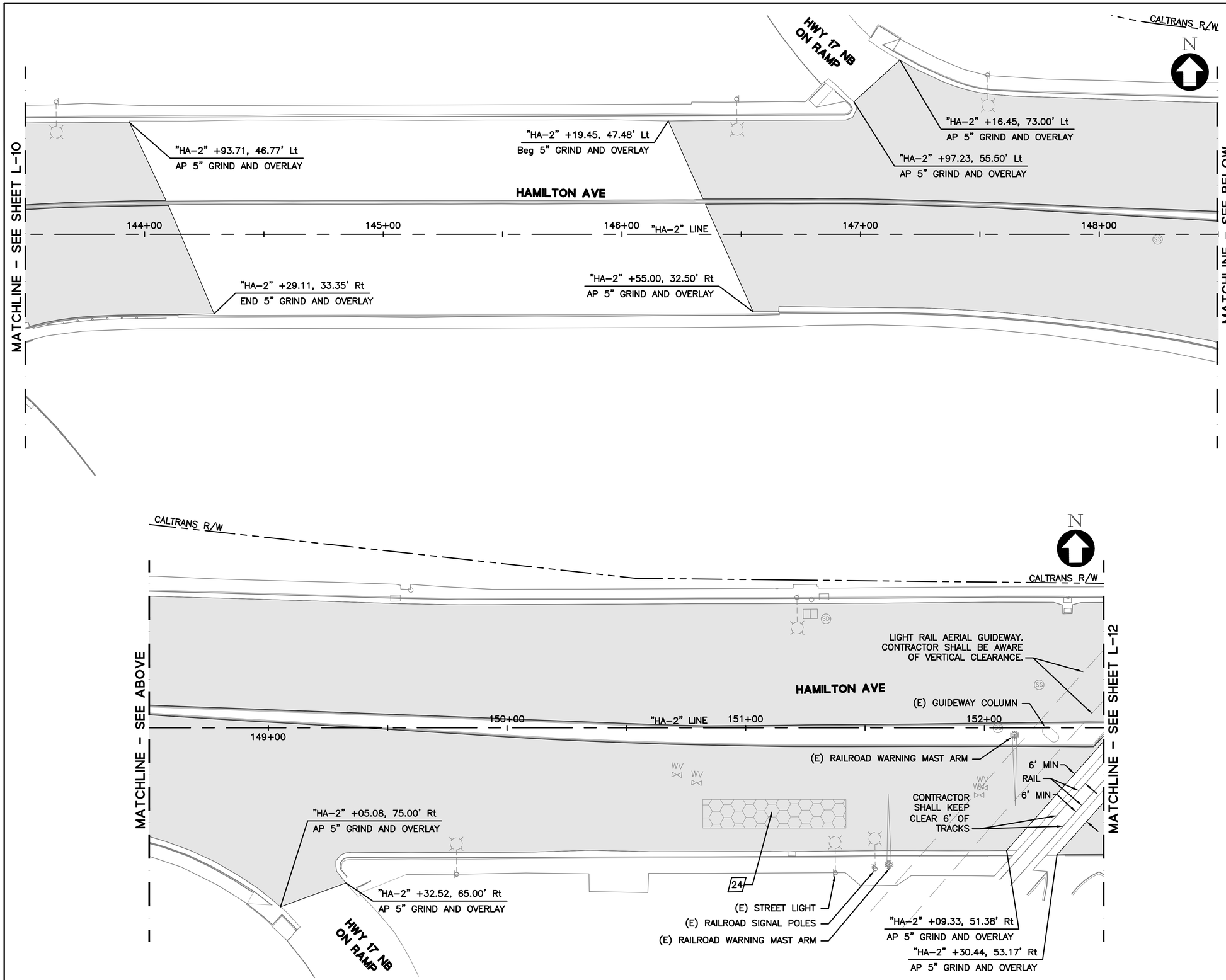
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
LAYOUT PLAN

CITY OF CAMPBELL
THE ORCHARD CITY
CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: L-10

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LEGEND:

- 5" GRIND AND OVERLAY
- DIGOUT, SEE SHEET L–18 FOR DEPTHS
- # FULL DEPTH DIGOUT LOCATION
- # CONFORM GRADING LOCATION
- # MODIFIED EXTRUDED MEDIAN
- # CURB RAMP REPLACEMENT
- X / CD–X DETAIL No./SHEET No.
- SS (E) SANITARY SEWER MANHOLE
- M (E) MONUMENT
- SD (E) STORM DRAIN MANHOLE
- WV (E) WATER VALVE
- FH (E) FIRE HYDRANT
- DH (E) ELECTRICAL MANHOLE
- MO (E) TELECOM MANHOLE
- TR (E) UNKNOWN UTILITY
- TSB (E) TRAFFIC SIGNAL BOX
- TSB (E) STREET LIGHT BOX
- TSB (E) TELEPHONE BOX
- TSB (E) SERVICE BOX
- (E) UTILITY BOX
- UB (E) UTILITY VAULT
- (E) UTILITY POLE
- (E) HANDHOLE
- (E) SIGN
- (E) STREET LIGHT OR TRAFFIC SIGNAL POLE
- (E) RAILROAD WARNING MAST ARM

NOTE:

1. SEE SHEET L–18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.

20' 0' 20' 40'
GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
LAYOUT PLAN

CITY OF CAMPBELL
THE ORCHARD CITY
CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: L–11

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LIGHT RAIL AERIAL GUIDEWAY. CONTRACTOR SHALL BE AWARE OF VERTICAL CLEARANCE. CALTRANS R/W

"HA–2" +02.05, 52.86' Lt
END 5" GRIND AND OVERLAY
"HA–2" +25.24, 53.45' Lt
Beg 5" GRIND AND OVERLAY

INSTALL CURB RAMP (1 / CD-9) 30

851

871

N

COC R/W

6' MIN

(E) RAILROAD SIGNAL POLE

6' MIN RAIL

(E) TRAFFIC SIGNAL POLE
(E) RAILROAD SIGNAL POLES
(E) RAILROAD WARNING MAST ARM

1 / CD-32 / 14

CONTRACTOR SHALL KEEP CLEAR 6' OF TRACKS

(E) RAILROAD WARNING MAST ARM

"HA–2" +20.29, 53.33' Rt
3 / CD-9 / 1 / CD-15
REMOVE AND RECONSTRUCT MEDIAN ISLAND (PORTIONS)

BUS PAD

HAMILTON AVE

CALTRANS
CITY OF CAMPBELL

MATCHLINE – SEE SHEET L–11

MATCHLINE – SEE BELOW

153+00 | 154+00 | 155+00 | "HA–2" LINE | 156+00 | 157+00

"HA–2" +25.02, 55.28' Rt

"HA–2" +18.73, 46.33' Rt
Beg/END REMOVE MEDIAN ISLAND (PORTIONS)

Beg/END REMOVE MEDIAN ISLAND (PORTIONS)
"HA–2" +52.12, 53.75' Rt
3 / CD-9 / 1 / CD-15 / 2 / CD-18
REMOVE AND RECONSTRUCT MEDIAN ISLAND (PORTIONS)

"HA–2" +95.95, 46.25' Rt
3 / CD-9 / 1 / CD-15
REMOVE AND RECONSTRUCT MEDIAN ISLAND (PORTIONS)

"HA–2" +98.80, 49.68' Rt
Beg/END REMOVE MEDIAN ISLAND (PORTIONS)

25

1 / CD-33 / 15

"HA–2" +54.30, 60.00' Rt
END REMOVE MEDIAN ISLAND (PORTIONS)

"HA–2" +93.52, 54.90' Rt
Beg/END REMOVE MEDIAN ISLAND (PORTIONS)

"HA–2" +04.49, 74.68' Rt
AP 5" GRIND AND OVERLAY

"HA–2" +54.89, 75.03' Rt
AP 5" GRIND AND OVERLAY

"HA–2" +48.49, 75.10' Rt
AP 5" GRIND AND OVERLAY

"HA–2" +49.77, 60.00' Rt
Beg REMOVE MEDIAN ISLAND (PORTIONS)

CREEKSIDE WY

29 / 2 / CD-9 INSTALL CURB RAMP

"HA–2" +14.89, 75.70' Rt
AP 5" GRIND AND OVERLAY

CALTRANS R/W

900

877 - 891

971

981

N

R/W

3 / CD-14 / 2 / CD-15
REMOVE & REPLACE
21 LF OF C/G
58.5 SF OF S/W
22.5 SF OF PARK STRIP
1 ROOT PRUNE

HAMILTON AVE

MATCHLINE – SEE ABOVE

MATCHLINE – SEE SHEET L–13

158+00 | "HA–2" LINE | 159+00 | 160+00 | 161+00 | 162+00

26

950

980

LEGEND:

- 5" GRIND AND OVERLAY
- DIGOUT, SEE SHEET L–18 FOR DEPTHS
- SAWCUT/SLOT PAVING SEE DETAIL 7, SHEET CD–14
- SAWCUT/HMA CONFORM GRADING SEE DETAILS 6 & 7, SHEET CD–17
- CONCRETE
- PARK STRIP REMOVAL
- PAVERS
- REMOVE CONCRETE MEDIAN (SEE NOTE 6, SHEET L–18)
- TRUNCATED DOMES
- # FULL DEPTH DIGOUT LOCATION
- # CONFORM GRADING LOCATION
- # MODIFIED EXTRUDED MEDIAN
- # CURB RAMP REPLACEMENT
- X / CD-X DETAIL No./SHEET No.
- SS (E) SANITARY SEWER MANHOLE
- M (E) MONUMENT
- SD (E) STORM DRAIN MANHOLE
- WV (E) WATER VALVE
- FH (E) FIRE HYDRANT
- EH (E) ELECTRICAL MANHOLE
- MH (E) TELECOM MANHOLE
- TR (E) UNKNOWN UTILITY
- TSB (E) TRAFFIC SIGNAL BOX
- SLB (E) STREET LIGHT BOX
- TB (E) TELEPHONE BOX
- SB (E) SERVICE BOX
- (E) UTILITY BOX
- UB (E) UTILITY VAULT
- (E) UTILITY POLE
- (E) HANDHOLE
- (E) SIGN
- (E) STREET LIGHT OR TRAFFIC SIGNAL POLE
- (E) RAILROAD WARNING MAST ARM

NOTE:

1. SEE SHEET L–18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.

20' 0' 20' 40'
GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

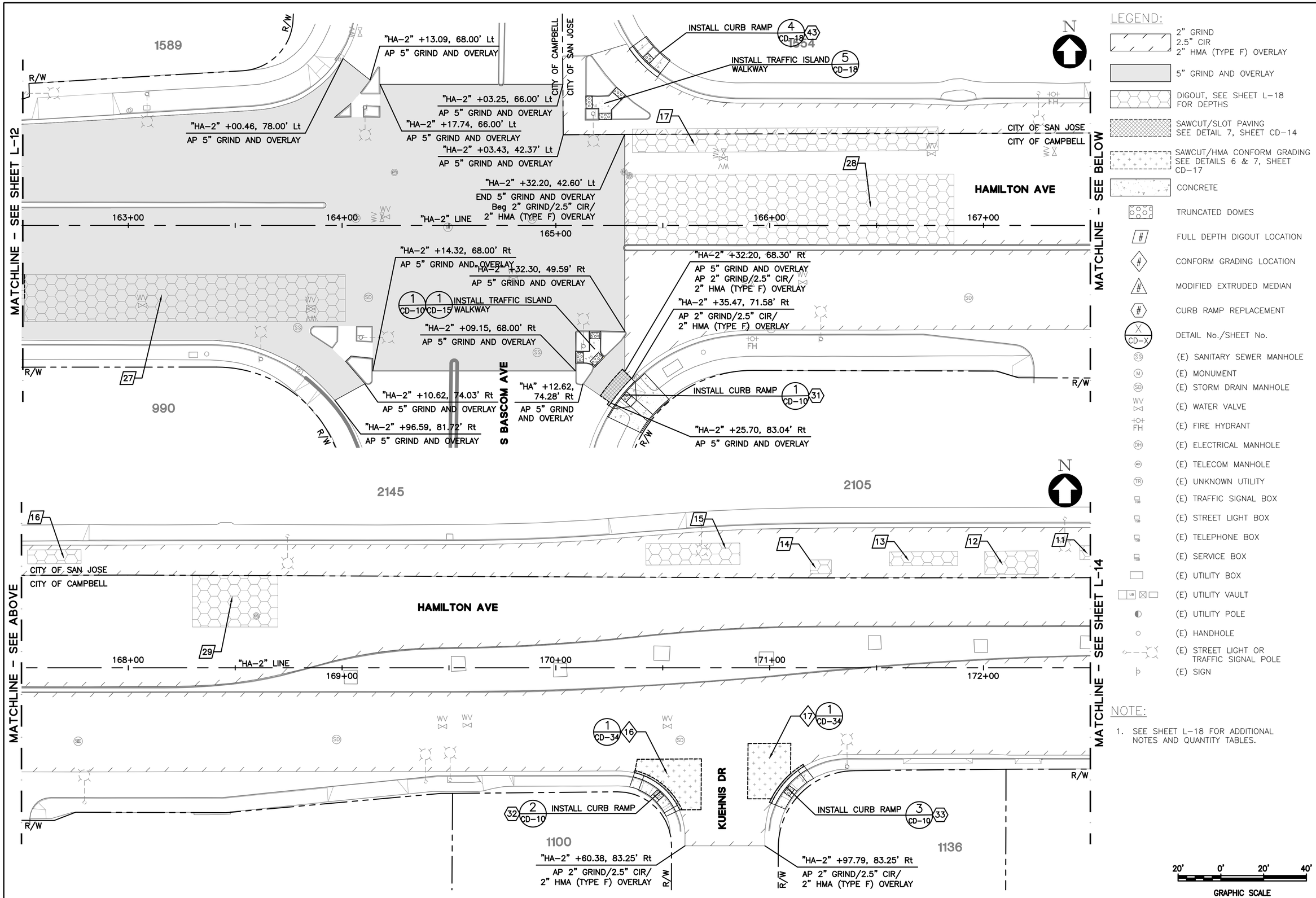
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
LAYOUT PLAN

CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: L–12

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LEGEND:

- 2" GRIND, 2.5" CIR, 2" HMA (TYPE F) OVERLAY
- 5" GRIND AND OVERLAY
- DIGOUT, SEE SHEET L–18 FOR DEPTHS
- SAWCUT/SLOT PAVING SEE DETAIL 7, SHEET CD–14
- SAWCUT/HMA CONFORM GRADING SEE DETAILS 6 & 7, SHEET CD–17
- CONCRETE
- TRUNCATED DOMES
- # FULL DEPTH DIGOUT LOCATION
- # CONFORM GRADING LOCATION
- # MODIFIED EXTRUDED MEDIAN
- # CURB RAMP REPLACEMENT
- X / CD–X DETAIL No./SHEET No.
- SS (E) SANITARY SEWER MANHOLE
- M (E) MONUMENT
- SD (E) STORM DRAIN MANHOLE
- WV (E) WATER VALVE
- FH (E) FIRE HYDRANT
- DH (E) ELECTRICAL MANHOLE
- MO (E) TELECOM MANHOLE
- TR (E) UNKNOWN UTILITY
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- TSB (E) STREET LIGHT BOX
- TSB (E) TELEPHONE BOX
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- UB (E) UTILITY VAULT
- (E) UTILITY POLE
- (E) HANDHOLE
- (E) STREET LIGHT OR TRAFFIC SIGNAL POLE
- (E) SIGN

NOTE:

1. SEE SHEET L–18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.

No.	Revision	Date	By	Chkd

Date: 20240112
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Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

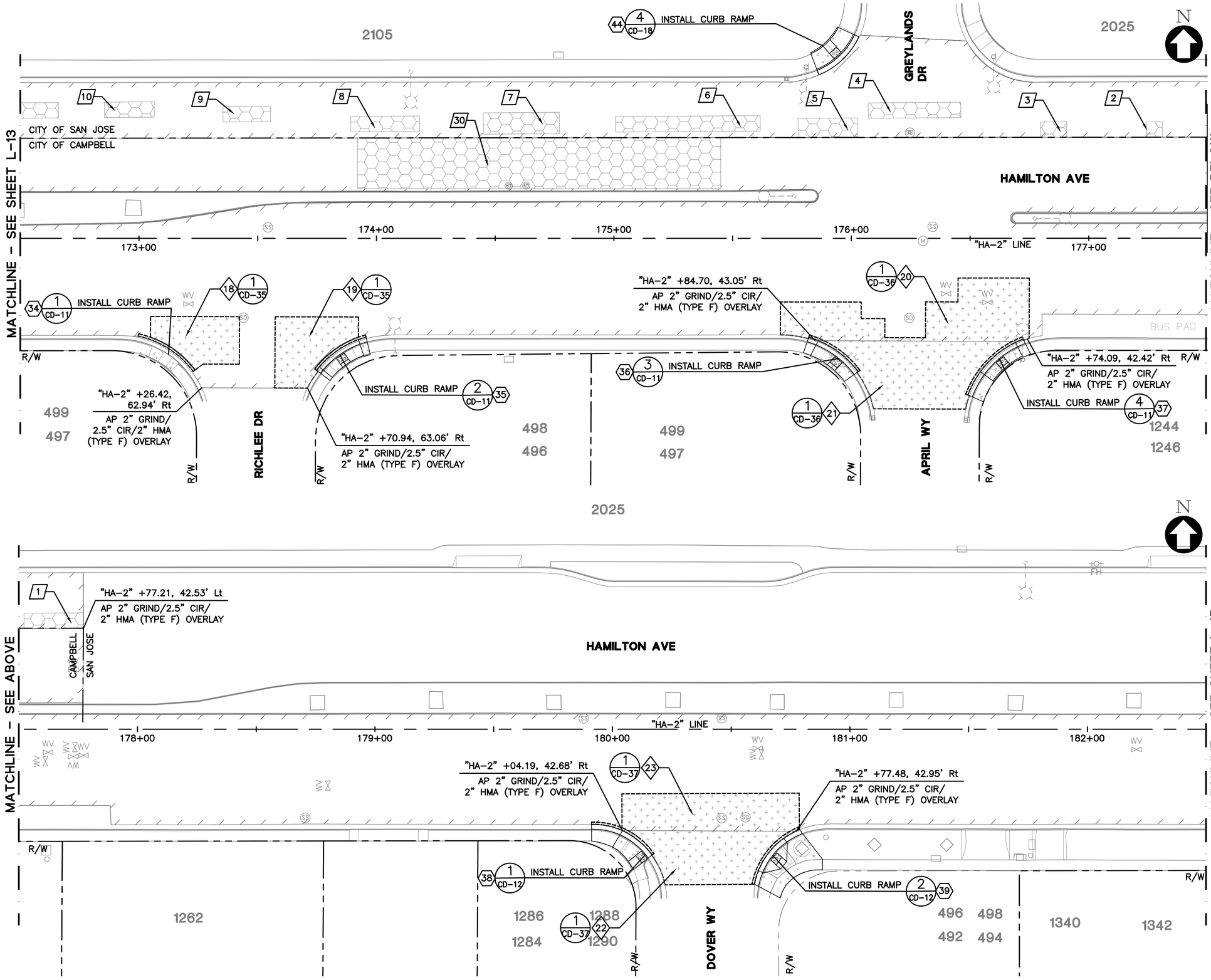
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
LAYOUT PLAN

CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: L–13

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LEGEND:

- 2" GRIND, 2.5" CIR, 2" HMA (TYPE F) OVERLAY
- DIGOUT, SEE SHEET L-18 FOR DEPTHS
- SAWCUT/SLOT PAVING SEE DETAIL 7, SHEET CD-14
- SAWCUT/HMA CONFORM GRADING SEE DETAILS 6 & 7, SHEET CD-17
- CONCRETE
- TRUNCATED DOMES
- FULL DEPTH DIGOUT LOCATION
- CONFORM GRADING LOCATION
- MODIFIED EXTRUDED MEDIAN
- CURB RAMP REPLACEMENT
- DETAIL No./SHEET No.
- (E) SANITARY SEWER MANHOLE
- (E) MONUMENT
- (E) STORM DRAIN MANHOLE
- (E) WATER VALVE
- (E) FIRE HYDRANT
- (E) ELECTRICAL MANHOLE
- (E) TELECOM MANHOLE
- (E) UNKNOWN UTILITY
- (E) TRAFFIC SIGNAL BOX
- (E) STREET LIGHT BOX
- (E) TELEPHONE BOX
- (E) SERVICE BOX
- (E) UTILITY BOX
- (E) UTILITY VAULT
- (E) UTILITY POLE
- (E) HANDHOLE
- (E) STREET LIGHT OR TRAFFIC SIGNAL POLE
- (E) SIGN

NOTE:

1. SEE SHEET L-18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.

20' 0' 20' 40'
GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
LAYOUT PLAN

CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: L-14

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2025

HAMILTON AVE

MATCHLINE – SEE SHEET L-14

CITY OF SAN JOSE
CITY OF CAMPBELL

183+00 | 184+00 | "HA-2" LINE | 185+00 | 186+00 | 187+00

MATCHLINE – SEE BELOW

INSTALL CURB RAMP 3 CD-12 40
1 CD-38 24
"HA-2" +91.92, 69.41' Rt
AP 2" GRIND/2.5" CIR/
2" HMA (TYPE F) OVERLAY

3 CD-14 REMOVE & REPLACE
47 LF OF C/G
1 ROOT PRUNE

41 4 CD-12 INSTALL CURB RAMP

3 CD-14 REMOVE & REPLACE
67 LF OF C/G

3 CD-14 REMOVE & REPLACE
24 LF OF C/G
PROTECT (E) CURB DRAIN TO REMAIN

R/W

MANCHESTER AVE

"HA-2" +30.73, 69.16' Rt
AP 2" GRIND/2.5" CIR/
2" HMA (TYPE F) OVERLAY

374

"HA-2" +56.03, 51.02' Rt
AP 2" GRIND/2.5" CIR/
2" HMA (TYPE F) OVERLAY

1392

NOTTINGHAM WY

"HA-2" +15.41, 52.20' Rt
AP 2" GRIND/2.5" CIR/
2" HMA (TYPE F) OVERLAY

1426

N

HAMILTON AVE

MATCHLINE – SEE ABOVE

CITY OF SAN JOSE
CITY OF CAMPBELL

188+00 | 189+00 | 190+00 | "HA-2" LINE | 191+00 | 192+00

MATCHLINE – SEE SHEET L-16

31

INSTALL TRAFFIC ISLAND WALKWAY 1 CD-13 1 CD-15

INSTALL CURB RAMP 1 CD-13 42

"HA" +45.22, 84.03' Rt
AP 2" GRIND/2.5" CIR/
2" HMA (TYPE F) OVERLAY

LEIGH AVE

1500

20' 0' 20' 40'
GRAPHIC SCALE

LEGEND:

- 2" GRIND / 2.5" CIR / 2" HMA (TYPE F) OVERLAY
- DIGOUT, SEE SHEET L-18 FOR DEPTHS
- SAWCUT/SLOT PAVING SEE DETAIL 7, SHEET CD-14
- SAWCUT/HMA CONFORM GRADING SEE DETAILS 6 & 7, SHEET CD-17
- CONCRETE
- TRUNCATED DOMES
- # FULL DEPTH DIGOUT LOCATION
- # CONFORM GRADING LOCATION
- # MODIFIED EXTRUDED MEDIAN
- # CURB RAMP REPLACEMENT
- X / CD-X DETAIL No./SHEET No.
- (E) SANITARY SEWER MANHOLE
- (E) MONUMENT
- (E) STORM DRAIN MANHOLE
- (E) WATER VALVE
- FH (E) FIRE HYDRANT
- (E) ELECTRICAL MANHOLE
- (E) TELECOM MANHOLE
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- (E) STREET LIGHT BOX
- (E) TELEPHONE BOX
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- (E) STREET LIGHT OR TRAFFIC SIGNAL POLE
- (E) SIGN

NOTE:

1. SEE SHEET L-18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.

No.	Revision	Date	By	Chkd

Date: 20240112
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CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

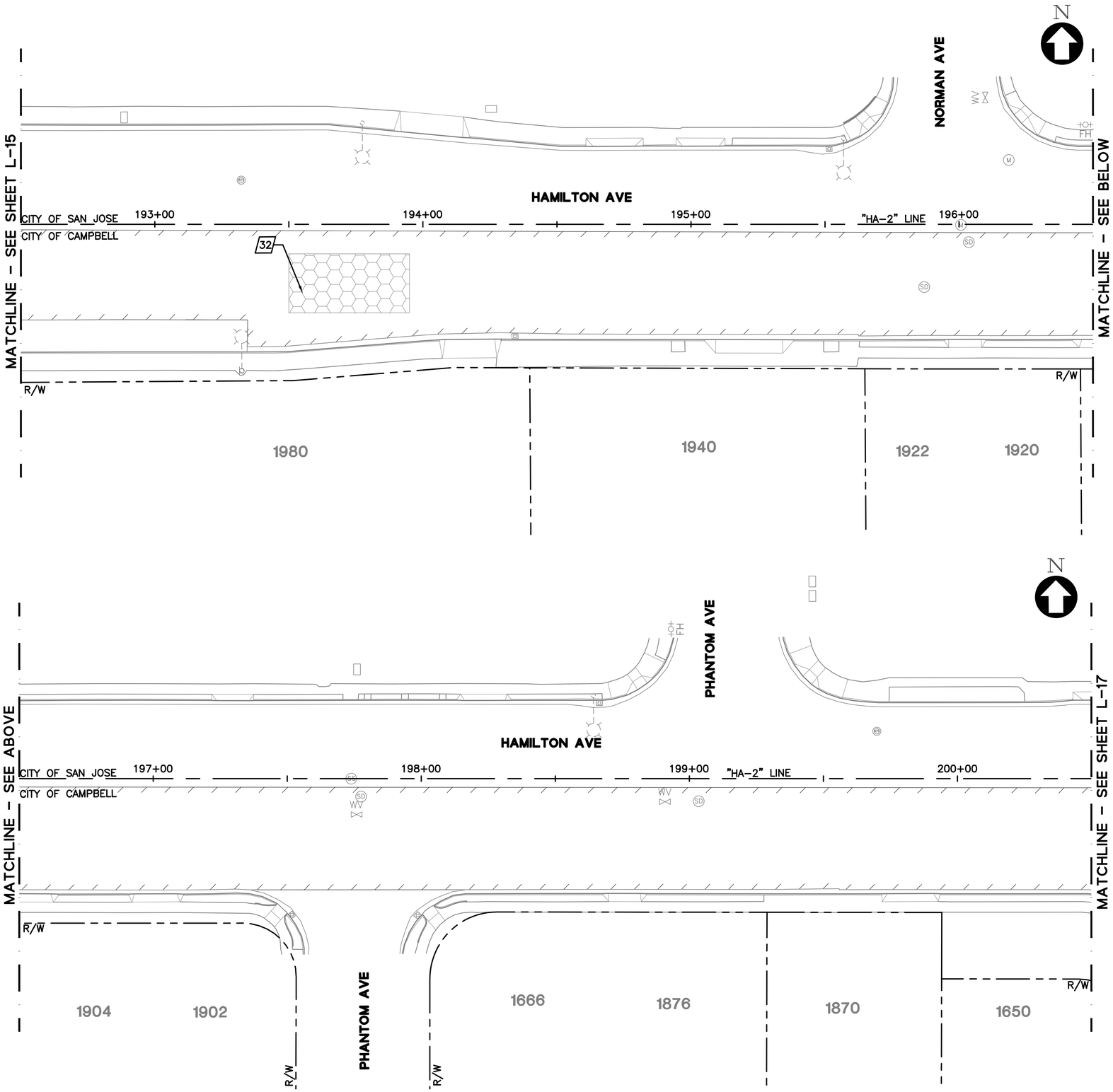
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
LAYOUT PLAN

CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: L-15

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LEGEND:

- 2" GRIND
  2.5" CIR
  2" HMA (TYPE F) OVERLAY
- DIGOUT, SEE SHEET L-18 FOR DEPTHS
- # FULL DEPTH DIGOUT LOCATION
- # CONFORM GRADING LOCATION
- # MODIFIED EXTRUDED MEDIAN
- # CURB RAMP REPLACEMENT
- X / CD-X DETAIL No./SHEET No.
- SS (E) SANITARY SEWER MANHOLE
- M (E) MONUMENT
- SD (E) STORM DRAIN MANHOLE
- WV (E) WATER VALVE
- FH (E) FIRE HYDRANT
- DH (E) ELECTRICAL MANHOLE
- MC (E) TELECOM MANHOLE
- TR (E) UNKNOWN UTILITY
- TSB (E) TRAFFIC SIGNAL BOX
- TSB (E) STREET LIGHT BOX
- TSB (E) TELEPHONE BOX
- TSB (E) SERVICE BOX
- (E) UTILITY BOX
- UB (E) UTILITY VAULT
- (E) UTILITY POLE
- (E) HANDHOLE
- (E) STREET LIGHT OR TRAFFIC SIGNAL POLE
- (E) SIGN

NOTE:

1. SEE SHEET L-18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.

20' 0' 20' 40'
GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

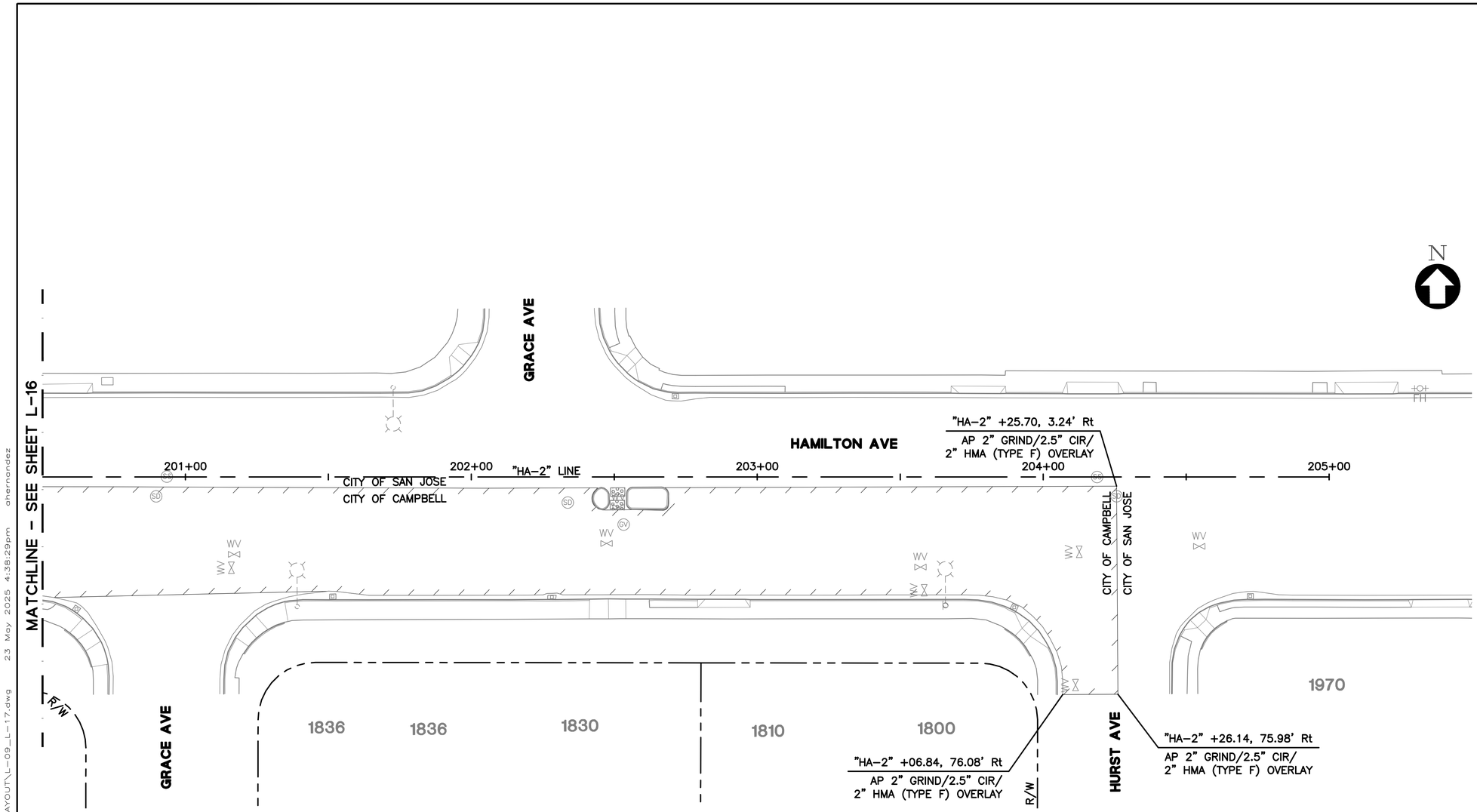
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
LAYOUT PLAN

CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: L-16

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LEGEND:

- 2" GRIND / 2.5" CIR / 2" HMA (TYPE F) OVERLAY
- # — FULL DEPTH DIGOUT LOCATION
- # — CONFORM GRADING LOCATION
- # — MODIFIED EXTRUDED MEDIAN
- # — CURB RAMP REPLACEMENT
- X / CD-X — DETAIL No./SHEET No.
- SS — (E) SANITARY SEWER MANHOLE
- M — (E) MONUMENT
- SD — (E) STORM DRAIN MANHOLE
- WV — (E) WATER VALVE
- FH — (E) FIRE HYDRANT
- DH — (E) ELECTRICAL MANHOLE
- MH — (E) TELECOM MANHOLE
- TR — (E) UNKNOWN UTILITY
- TSB — (E) TRAFFIC SIGNAL BOX
- TSB — (E) STREET LIGHT BOX
- TSB — (E) TELEPHONE BOX
- TSB — (E) SERVICE BOX
- (E) UTILITY BOX
- UB — (E) UTILITY VAULT
- (E) UTILITY POLE
- (E) HANDHOLE
- (E) STREET LIGHT OR TRAFFIC SIGNAL POLE
- (E) SIGN

NOTE:

1. SEE SHEET L–18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
LAYOUT PLAN

CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: L-17

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NOTES:

1. THIS PLAN IS ACCURATE FOR PAVEMENT RECONSTRUCTION WORK ONLY.
2. SAWCUT EXISTING PAVEMENT AND/OR PAVEMENT EDGE TO A NEAT LINE, PROTECT VERTICAL EDGE.
3. WHEREVER POSSIBLE, FINAL LIFT OF HMA IN FRONT OF CURB RAMP SHALL BE THE SAME LIFT AS STREET PAVING.
4. CURB RAMPS SHALL BE CONSTRUCTED PER THE CONSTRUCTION DETAILS PROVIDED IN THE PLAN SET. THE CITY'S STANDARD DETAILS AND CALTRANS STANDARD PLANS PROVIDED SHALL BE USED TO SUPPLEMENT. UNLESS OTHERWISE NOTED IN THE LAYOUT SHEETS, THE SIDEWALK, CURB AND GUTTER SHOWN IN THE CONSTRUCTION DETAILS FOR THE CURB RAMPS SHALL BE INCLUDED IN THE UNIT PRICE FOR THE RAMPS. DETECTABLE WARNING SURFACE SHALL BE WAUSAU TILE'S DETECTABLE WARNING ADA–2 PAVERS, SIZE 1'X1'X2", COLOR A–60. CONTRACTOR SHALL PROVIDE A SAMPLE PAVER A MINIMUM 14–DAYS PRIOR TO INSTALLATION.
5. REMOVE SIDEWALK AND GUTTER TO NEAREST SCOREMARK JOINT.
6. CONFIRM LIMITS OF PCC, BASE MATERIAL AND/OR SUBGRADE MATERIAL REMOVAL WITH CITY ENGINEER PRIOR TO BEGINNING WORK. PCC REMOVAL INCLUDES AC REMOVAL AND REPLACEMENT PER CITY STANDARD DETAILS.
7. CONTRACTOR SHALL PRUNE TREE ROOTS AT DIRECTION OF CITY ENGINEER AND CITY ARBORIST.
8. CONTRACTOR SHALL COMPLY WITH THE CITY STANDARD DETAILS FOR ALL PROJECT IMPROVEMENTS, UNLESS OTHERWISE NOTED.
9. CONTRACTOR SHALL COORDINATE WITH BUS.STOP@VTA.ORG ANY TIME A BUS STOP/ROUTE WILL BE IMPACTED.
10. THE LINES AND THICKNESS SHOWN FOR REMOVAL OR PAVEMENT, CURB AND GUTTER, SIDEWALK AND ALL OTHER CIVIL CONSTRUCTION WORK ARE FOR INFORMATION ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXTENT OF WORK BASED ON THE SPACE REQUIRED TO PERFORM THE CONSTRUCTION WORK AND/OR THE CONTRACTOR'S MEANS AND METHODS AND REQUIREMENTS FOR SHORING, EXCAVATION AND TEMPORARY SUPPORT.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND PERPETUATION OF ANY BENCHMARK OR MONUMENTATION, UNLESS SHOWN FOR REMOVAL BY THESE PLANS. IF A BENCHMARK OR MONUMENTATION NOT SHOWN FOR REMOVAL IS DISTURBED, THE CONTRACTOR SHALL HAVE A LICENSED LAND SURVEYOR RESTORE THE BENCHMARK OR MONUMENTATION AT THE CONTRACTOR'S EXPENSE.
12. CONTRACTOR SHALL PROVIDE AND MAINTAIN SAFE PEDESTRIAN ACCESS AND CIRCULATION THAT IS FULLY WHEELCHAIR ACCESSIBLE THROUGH OR AROUND THE PROJECT AREA. ALL WALKWAYS, PEDESTRIAN CROSSINGS, RAMPS, AND OTHER PEDESTRIAN FACILITIES REMOVED OR BLOCKED BY THE CONTRACTORS' OPERATIONS SHALL BE REPLACED WITH TEMPORARY FACILITIES INCLUDING PROPER SIGNAGE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
13. CONTRACTOR SHALL PROVIDE AND MAINTAIN DRIVEWAY ACCESS TO ALL PROPERTIES AT ALL TIMES, EXCEPT FOR THE NECESSARY CLOSURE OF DRIVEWAYS FOR INSTALLATION OR REPLACEMENT AND FOR NECESSARY INTERMITTENT CLOSURES OF DRIVEWAYS FOR GRINDING AND PAVING OPERATIONS.
14. CONTRACTOR SHALL CONFIRM CURB RAMP LAYOUT AND FIELD FIT WITH ENGINEER.
15. LOCATION OF R/W LINES ARE APPROXIMATE. CONTRACTOR SHALL OPERATE WITHIN THE PUBLIC R/W AS SHOWN ON THESE PLANS.
16. WHEN APPROVED BY THE CITY ENGINEER, FULL DEPTH DIGOUTS MUST INCLUDE THE REMOVAL OF EXISTING PAVEMENT STRUCTURAL SECTION, INCLUDING AC AND BASE MATERIAL AND REPLACEMENT WITH HMA (TYPE F) AND CLASS 2 AGGREGATE BASE.
17. DIGOUTS OTHER THAN FULL DEPTH DIGOUTS MUST INCLUDE REMOVAL OF EXISTING AC UP TO THE TOP OF THE BASE MATERIAL OR AS SHOWN BY THE DIGOUT TABLES ON THIS SHEET WHICHEVER IS DEEPER AND REPLACEMENT WITH HMA (TYPE F).
18. LIMITS OF EXTRUDED CURB INSTALLED SHALL BE CONFIRMED IN FIELD BY CITY ENGINEER.
19. FOR UTILITY PROTECTION, ADJUSTMENTS AND RELOCATIONS, SEE UTILITY PLAN.
20. FOR DRAINAGE MANHOLES ADJUSTMENTS, SEE UTILITY PLAN.
21. ALL TRAFFIC SIGNAL BOXES AND STREET LIGHT BOXES SHOWN ON TS SHEETS SHALL BE INCLUDED AND PAID UNDER THE TRAFFIC SIGNAL MODIFICATION PLANS.

HAMILTON AVE
4" DIGOUTS

LOCATION (#)	LENGTH (FT)	WIDTH (FT)	AREA (SF)	L–SHEET
1	17	15	255	L–3
2	183	32	5,856	L–3
3	100	26	2,600	L–3
4	10	47	470	L–3
5	20	24	480	L–3 TO L–4
6	98	11	1,078	L–4
7	180	20	3,600	L–4
16	35	17	595	L–5
17	45	29	1,305	L–5 TO L–6
18	10	13	130	L–6
19	49	21	1,029	L–6
20	40	14	560	L–7
21	155	22	3,410	L–7
		TOTAL	21,368	

SEE DETAILS 4 & 5 ON SHEET CD–17

HAMILTON AVE
8" DIGOUTS

LOCATION (#)	LENGTH (FT)	WIDTH (FT)	AREA (SF)	L–SHEET
23	120	11	1,320	L–10
24	60	12	720	L–11
25	60	12	720	L–12
26	60	11	660	L–12
27	150	22	3,300	L–13
28	154	33	5,082	L–13
29	40	24	960	L–13
30	153	21	3,213	L–14
31	108	13	1,404	L–15
32	45	22	990	L–16
		TOTAL	18,369	

SEE DETAILS 4 & 5 ON SHEET CD–17

HAMILTON AVE
6" DIGOUTS

LOCATION (#)	LENGTH (FT)	WIDTH (FT)	AREA (SF)	L–SHEET
8	94	27	2,538	L–4
9	20	16	320	L–4
10	123	27	3,321	L–4
11	35	6	210	L–4
12	44	33	1,452	L–4
12A	16	18	288	L–4
13	14	3	42	L–4
14	30	13	390	L–4 TO L–5
15	129	18	2,322	L–5
		TOTAL	10,903	

SEE DETAILS 4 & 5 ON SHEET CD–17

HAMILTON AVE
12" DIGOUTS

LOCATION (#)	LENGTH (FT)	WIDTH (FT)	AREA (SF)	L–SHEET
22	210	12	2,520	L–10
		TOTAL	2,520	

SEE DETAILS 4 & 5 ON SHEET CD–17

HAMILTON AVE – CSJ LIMITS
8" DIGOUTS

LOCATION (#)	LENGTH (FT)	WIDTH (FT)	AREA (SF)	L–SHEET
1	25	6.5	162.5	L–14
2	6.5	6.5	42.25	L–14
3	11	6.5	71.5	L–14
4	39	6.5	253.5	L–14
5	25	8	200	L–14
6	61	6.5	396.5	L–14
7	32	9	288	L–14
8	29	6.5	188.5	L–14
9	20	6.5	130	L–14
10	21	6.5	136.5	L–14
11	21	6.5	136.5	L–13–L–14
12	25	11	275	L–13
13	32	6.5	208	L–13
14	10	6.5	65	L–13
15	44	10	440	L–13
16	25	6.5	162.5	L–13
17	143	11	1,573	L–13
		TOTAL	4,729.25	

SEE DETAILS 4 & 5 ON SHEET CD–17

HAMILTON AVE
CURB RAMP REPLACEMENT

LOCATION (#)	CURB RAMP TYPE	L–SHEET	CD–SHEET	QUANTITY
1	CASE B	L–3	CD–1	1
2	CASE B	L–3	CD–1	1
3	CASE A	L–4	CD–1	1
4	CASE C	L–4	CD–1	1
5	CASE C	L–4	CD–2	1
6	CASE C	L–4	CD–2	1
7	CASE C	L–4	CD–2	1
8	CASE C	L–5	CD–3	1
9	CASE C	L–5	CD–3	1
10	CASE C	L–5	CD–3	1
11	CASE C	L–5	CD–3	1
12	CASE C	L–6	CD–4	1
13	CASE A	L–6	CD–4	1
14	CASE A	L–6	CD–4	1
15	CASE A	L–6	CD–4	1
16	CASE C	L–6	CD–5	1
17	CASE C	L–6	CD–5	1
18	–	–	–	–
19	CASE A	L–8	CD–5	1
20	CASE C	L–8	CD–6	1
21	CASE C	L–8	CD–6	1
22	CASE C	L–9	CD–7	1
23	CASE A	L–9	CD–7	1
24	CASE C	L–9	CD–7	1
25	CASE B	L–9	CD–8	1
26	CASE C	L–9	CD–8	1
27	CASE F	L–10	CD–8	1
28	CASE A	L–10	CD–9	1
29	CASE A	L–12	CD–9	1
30	CASE B	L–12	CD–9	1
31	CASE A	L–13	CD–10	1
32	CASE C	L–13	CD–10	1
33	CASE C	L–13	CD–10	1
34	CASE C	L–14	CD–11	1
35	CASE C	L–14	CD–11	1
36	CASE C	L–14	CD–11	1
37	CASE C	L–14	CD–11	1
38	CASE C	L–14	CD–12	1
39	CASE A	L–14	CD–12	1
40	CASE A	L–15	CD–12	1
41	CASE C	L–15	CD–12	1
42	CASE C	L–15	CD–13	1
			TOTAL	41

FOR ADDITIONAL DIRECTION ON CURB RAMP REPLACEMENT, SEE NOTE 4

HAMILTON AVE
MEDIAN EXTRUDED CURB

LOCATION (#)	LENGTH (LF)	(E) HEIGHT (IN)*	L–SHEET
1	360	4	L–2 TO L–3
2	150	4	L–2 TO L–3
3	160	3.5	L–3
4	70	4	L–4
5	252	3.5	L–5
6	470	4 TO 4.5	L–5
7	220	2	L–5
8	30	1	L–5
9	30	1	L–5
10	70	1.5	L–5
11	70	3	L–5
12	100	2	L–5
13	360	3	L–6
14	150	4	L–6
15	209	2	L–6
16	111	3	L–6
17	111	3.5	L–6
TOTAL	2,923	–	–

FOR ADDITIONAL DIRECTION ON EXTRUDED CURB, SEE NOTE 18

*HEIGHT SHOWN IN TABLE IS THE HEIGHT OF EXTRUSION TO ACHIEVE A TOTAL CURB HEIGHT OF 6 INCHES

HAMILTON AVE
CONFORM GRADING

DEPTH (IN)	LOCATION (#)	AREA (SF)*	L–SHEET
7	13	652	L–10
	14	646	L–12
	15	496	L–12
7.5	2	1350	L–4
	3	907	L–4
	4	746	L–5
	5	350	L–5
	6	453	L–6
	7	313	L–6
8	1	613	L–3
10	8	805	L–8
	9	1000	L–9
	10	1383	L–9
	11	754	L–9
	12	815	L–9
	16	465	L–13
	17	459	L–13
	18	644	L–14
	19	750	L–14
	20	1660	L–14
	23	1166	L–14
	24	775	L–15
12	21	1536	L–14
	22	1141	L–14
TOTAL		19879	–

HAMILTON AVE
SLURRY SEAL

FROM STA	TO STA	AREA (SF)	L–SHEET
"HA–1" 50+88	"HA–1" 66+27.61	138,675	L–1 TO L–2

HAMILTON AVE
GRIND AND OVERLAY

FROM STA	FROM STA	AREA (SF)	DEPTH (IN)	L–SHEET
"HA–1" 66+27.61	"HA–1" 79+47.38	124,407	4	L–2 TO L–4
"HA–1" 80+82.93	"HA–1" 111+11	279,063	4.5	L–4 TO L–7
"HA–2" 140+84.22	"HA–2" 144+29.11	32,059	5	L–10 TO L–11
"HA–2" 146+19.45	"HA–2" 153+02.05	58,593	5	L–11 TO L–12
"HA–2" 152+30.44	"HA–2" 165+32.2	128,682	5	L–12 TO L–13

HAMILTON AVE
COLD IN–PLACE RECYCLING W/
GRIND AND OVERLAY

FROM STA	FROM STA	AREA (SF)	CIR DEPTH (IN)	GRIND AND OVERLAY DEPTH (IN)	L–SHEET
"HA–2" 112+34.79	"HA–2" 140+84.22	266,548	3	2	L–7 TO L–10
"HA–2" 165+32.2	"HA–2" 204+26.14	246,725	2.5	2	L–13 TO L–17

HAMILTON AVE
CURB RAMP REPLACEMENT – CSJ

LOCATION (#)	CURB RAMP TYPE	L–SHEET	CD–SHEET	QUANTITY
43	CASE C	L–13	CD–18	1
44	CASE C	L–14	CD–18	1
			TOTAL	2

PER CITY OF SAN JOSE STANDARD DETAILS PROVIDED IN PLAN SET OR CALTRANS STANDARD PLANS SHALL BE USED TO SUPPLEMENT THE CONSTRUCTION DETAILS WHERE NECESSARY.

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
LAYOUT PLAN

CITY OF CAMPBELL
THE ORCHARD CITY
CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: L-18

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CONCRETE IMPROVEMENT SCHEDULE

No.	Location Description	Ramp** Case A (EA)	Ramp** Case B (EA)	Ramp** Case C (EA)	Ramp** Case F (EA)	Ramp Per CSJ Detail R10 (EA)	Pedestrian Passageway w/ Truncated Domes (SF)	Pedestrian Passageway w/ Truncated Domes Per CSJ Detail R12 (SF)	Curb & Gutter Repair * (LF)	Sidewalk Repair (SF)	Driveway Repair * (SF)	Slot Paving AREA for C/G & DWY* (SF)	Protect (E) Curb Drains to Remain	Park Strip Removal (SF)	Root Prune (EA)	Reset Benchmark (EA)	Adjust / Reset Catch Basin Hood, Frame & Grate (EA)	Adjust Traffic Signal / Street Light Pull Box to Grade *** (EA)	Type I Pedestrian Barricade (EA)	Comments
1	1120 W. Hamilton Avenue								31			62			1					
2	923 W. Hamilton Avenue (in front of New Jersey's Sports Bar & Family Restaurant)								56		342	112	1							
3	876-888 W. Hamilton Avenue (just E of Marathon Drive)								67.5	225		67.5	1	45	2					
4	851 W. Hamilton Avenue (in front of Hash House)								48			48			1					
5	841 W. Hamilton Avenue - (just E of the DWY to Hash House)								59.5	197.5		59.5		40	1					
6	SW Corner of W Hamilton Avenue at Darryl Drive		1															2		Pull Boxes are N30 & N36 with reinforced concrete bolt down lid
7	SE Corner of W Hamilton Avenue at Darryl Drive		1															1		AT&T MH and Valve Box adjustment in sidewalk area - Utility Coordination Required. Pull Box is N30 with reinforced concrete bolt down lid.
8	781 W. Hamilton Avenue (in front of Wells Fargo)								49	403.75		49								
9	750 W. Hamilton Avenue (in front of US Bank)								89	257.5		89		87.5	2					
10	Between 770 and 750 W. Hamilton Avenue Driveways								23	112.5		23	3							
11	700 W. Hamilton Avenue								21.5			21.5								
12	510 W. Hamilton Avenue (in front of Jack in the Box)								54	415		54								
13	550 W. Hamilton Avenue									73.5					1					
14	591 Hamilton Avenue (near NE Corner of STEX)								56.5			56.5								NOTE: approximately 11' of curb & gutter is in County ROW
15	535 W. Hamilton Avenue (in front of Jiffy Lube)								27			27								
16	NW Corner of W Hamilton Avenue at Millich Drive	1																2		Pull Boxes are N30 & N36 with reinforced concrete bolt down lid
17	NE Corner of W Hamilton Avenue at Millich Drive			1																AT&T Junction/Vault Box in sidewalk area - Utility Coordination Required.
18	NE Corner of W Hamilton Avenue at Llewellyn Avenue			1																Refer to Traffic Signal Modification Plans
19	SW Corner of W Hamilton Avenue at Llewellyn Avenue			1													1			Refer to Traffic Signal Modification Plans
20	SE Corner of W Hamilton Avenue at Llewellyn Avenue			1													1			Refer to Traffic Signal Modification Plans
21	310 W. Hamilton Avenue (closer to Carlyn Avenue)								29	56		29			1					
22	310 W. Hamilton Avenue - Near DWY								92	104.75	292.5	92		26.25	2					
23	472-480 W. Hamilton Avenue								20	47.5		20		30	1					
24	280 W. Hamilton Avenue (near SW Corner of Hamilton/Milton)								30	225		30								
25	SW Corner of W Hamilton Avenue at Carlyn Avenue			1																
26	SE Corner of W Hamilton Avenue at Carlyn Avenue			1																
27	SW Corner of W Hamilton Avenue at Milton Avenue			1													1	1		Protect (Ex) Retaining Wall at Back of Walk to Remain; Pull Box is N9 with reinforced concrete bolt down lid

No. | Revision | Date | By | Chkd

Date: 04-24-25
Drawn By: RA
Designed By: RA

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
LAYOUT PLAN

CITY OF CAMPBELL · THE ORCHARD CITY · CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: L-19

CONCRETE IMPROVEMENT SCHEDULE (CONTINUED)

No.	Location Description	Ramp** Case A (EA)	Ramp** Case B (EA)	Ramp** Case C (EA)	Ramp** Case F (EA)	Ramp Per CSJ Detail R10 (EA)	Pedestrian Passageway w/ Truncated Domes (SF)	Pedestrian Passageway w/ Truncated Domes Per CSJ Detail R12 (SF)	Curb & Gutter Repair * (LF)	Sidewalk Repair (SF)	Driveway Repair * (SF)	Slot Paving AREA for C/G & DWY* (SF)	Protect (E) Curb Drains to Remain	Park Strip Removal (SF)	Root Prune (EA)	Reset Benchmark (EA)	Adjust / Reset Catch Basin Hood, Frame & Grate (EA)	Adjust Traffic Signal / Street Light Pull Box to Grade *** (EA)	Type I Pedestrian Barricade (EA)	Comments
28	SE Corner of W Hamilton Avenue at Milton Avenue			1																
29	NW Corner of W Hamilton Avenue at Eden Avenue	2																		Refer to Traffic Signal Modification Plans
30	SW Corner of W Hamilton Avenue at Eden Avenue			1																Refer to Traffic Signal Modification Plans
31	NE Corner of W Hamilton Avenue at Eden Avenue	1																		Refer to Traffic Signal Modification Plans
32	SW Corner of W Hamilton Avenue at Dunster Avenue			1						22.5				33	1					
33	SE Corner of W Hamilton Avenue at Dunster Avenue			1													1			
34	115-121 W. Hamilton Avenue								25.5	49.5	237.5	25.5								
35	135-141 W. Hamilton Avenue								26		256.5	26								
36	1605 Winchester Boulevard (on the Hamilton Avenue side of the Property, near the SW Corner)								37	247		37		37.25	1					
37	49 W. Hamilton Avenue (Burger King)								63	531		63		36.75	2					AT&T and PG&E Vault Adjustment to be done by others; Utility coordination required.
38	80 E Hamilton Avenue (near SW Corner w/ Esther Avenue)								51	235		51		37.5	2					Root prune on both the street side and sidewalk side
39	SE Corner of E Hamilton Avenue at Esther Avenue	1																		
40	100 E Hamilton Avenue								28	105		28			1					
41	SW Corner of E Hamilton Avenue at Third Street			1														1		Pull Box is N30 w/ reinforced concrete bolt down lid
42	SE Corner of E Hamilton Avenue at Third Street			1														3	3	Pull Boxes are N30 & N36 with reinforced concrete bolt down lid Pedestrian barricades to be installed on retaining curb at back of walk
43	250 E Hamilton Avenue								60	276		60		66.5	2					
44	340-344 E Hamilton Avenue (near SW Corner / N. Central Avenue)								114	410		114		65	3			1		Pull Box is N30 w/ reinforced concrete bolt down lid
45	370 E Hamilton Avenue (in front of Rotten Robbies Gas Station)								36		58.5	36			1	1	1			
46	NE Corner of E Hamilton Avenue at N Central Avenue			1																Will need to reset PGE Valve Box in sidewalk area - Utility Coordination Required. Refer to Traffic Signal Modification Plans
47	SW Corner of E Hamilton Avenue at N Central Avenue			1													1			Refer to Traffic Signal Modification Plans
48	SE Corner of E Hamilton Avenue at N Central Avenue	1																		Refer to Traffic Signal Modification Plans
49	SW Corner of E Hamilton Avenue at Harrison Avenue			1																
50	SE Corner of E Hamilton Avenue at Harrison Avenue		1																	
51	SW Corner of E Hamilton Avenue at Almarida Drive				1															
52	480 E Hamilton Avenue (in front of Home Depot)								30			30			1					
53	SE Corner of E Hamilton Avenue at Salmar Avenue	1																1		Pull Box is N30 w/ reinforced concrete bolt down lid

No. | Revision | Date | By | Chkd

Date: 04-24-25
Drawn By: RA
Designed By: RA

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
LAYOUT PLAN

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: L-20

CONCRETE IMPROVEMENT SCHEDULE (CONTINUED)

No.	Location Description	Ramp** Case A (EA)	Ramp** Case B (EA)	Ramp** Case C (EA)	Ramp** Case F (EA)	Ramp Per CSJ Detail R10 (EA)	Pedestrian Passageway w/ Truncated Domes (SF)	Pedestrian Passageway w/ Truncated Domes Per CSJ Detail R12 (SF)	Curb & Gutter Repair * (LF)	Sidewalk Repair (SF)	Driveway Repair * (SF)	Slot Paving AREA for C/G & DWY* (SF)	Protect (E) Curb Drains to Remain	Park Strip Removal (SF)	Root Prune (EA)	Reset Benchmark (EA)	Adjust / Reset Catch Basin Hood, Frame & Grate (EA)	Adjust Traffic Signal / Street Light Pull Box to Grade *** (EA)	Type I Pedestrian Barricade (EA)	Comments
54	NE Corner of E Hamilton Avenue at Creekside Way		1																	Refer to Traffic Signal Modification Plans
55	SW Corner of E Hamilton Avenue at Creekside Way	1																		Refer to Traffic Signal Modification Plans Reset (E) pavers around (N) ramp
56	SW Corner of E Hamilton Avenue at Creekside Way - Pedestrian Passageway						61													Refer to Traffic Signal Modification Plans
57	SE Corner of E Hamilton Avenue at Creekside Way - Pedestrian Passageway						79													Refer to Traffic Signal Modification Plans
58	877-891 / 971 E Hamilton Avenue (West of Driveway Approach)								21	58.5		21		22.5	1					
59	SE Corner of Hamilton Avenue at Bascom Avenue	1																		
60	SE Corner of Hamilton Avenue at Bascom Avenue - Pedestrian Passageway						118													
61	NE Corner of Hamilton Avenue at Bascom Avenue					1														City of San Jose
62	NE Corner of Hamilton Avenue at Bascom Avenue - Pedestrian Passageway							135												City of San Jose
63	SW Corner of Hamilton Avenue at Kuehnis Drive			1														1		Pull Box is N30 w/ reinforced concrete bolt down lid; disconnect/abandon loops; relocate PB to outside ramp area.
64	SE Corner of Hamilton Avenue at Kuehnis Drive			1																
65	SW Corner of Hamilton Avenue at Richlee Drive			1														1		Pull Box is N30 w/ reinforced concrete bolt down lid
66	SE Corner of Hamilton Avenue at Richlee Drive			1														1		Pull Box is N30 w/ reinforced concrete bolt down lid
67	NW Corner of Hamilton Avenue at Greylands					1														City of San Jose
68	SW Corner of Hamilton Avenue at April Way			1																
69	SE Corner of Hamilton Avenue at April Way			1														1		Pull Box is N36 w/ reinforced concrete bolt down lid; relocate PB to outside ramp area.
70	SW Corner of Hamilton Avenue at Dover Way			1																
71	SE Corner of Hamilton Avenue at Dover Way	1																		
72	SW Corner of Hamilton Avenue at Manchester Avenue	1																		
73	1392 E Hamilton Avenue (West of Nottingham Avenue)								47			47			1					
74	SE Corner of Hamilton Avenue at Nottingham Avenue			1																
75	1426 E Hamilton Avenue (East of Nottingham Avenue)								67			67								
76	1426 E Hamilton Avenue (East of Driveway Approach)								24			24	1							
77	SE Corner of Hamilton Avenue at Leigh Avenue			1																
78	SE Corner of Hamilton Avenue at Leigh Avenue - Pedestrian Passageway						108													
	PROJECT TOTALS:	11	4	25	1	2	366	135	1382	4053	1187	1469.5	6	527	28	1	6	16	3	

* Unless otherwise noted on the Plan Sheets, the Quantity shown herein this table is for Slot Paving adjacent to curb/gutter and driveway replacement only. This quantity is incorporated in Bid Items 30 and 31.

** Contractor is to install all accessibility ramps within the existing sidewalk width/footprint or right-of-way shown on the plans. The sidewalk width is defined from the face of curb to the back of walk. AC Pavement Restoration width adjacent to new ramp installations may be greater than the standard 2 foot slot paving. Contractor is to pay particular attention to the dimensions shown on the plan set and is to coordinate trades accordingly.

*** Unless otherwise noted under "Comments", the pull box is to be replaced in kind, remain in place, and adjusted to grade.

No.	Revision	Date	By	Chkd

Date: 04-24-25
Drawn By: RA
Designed By: RA

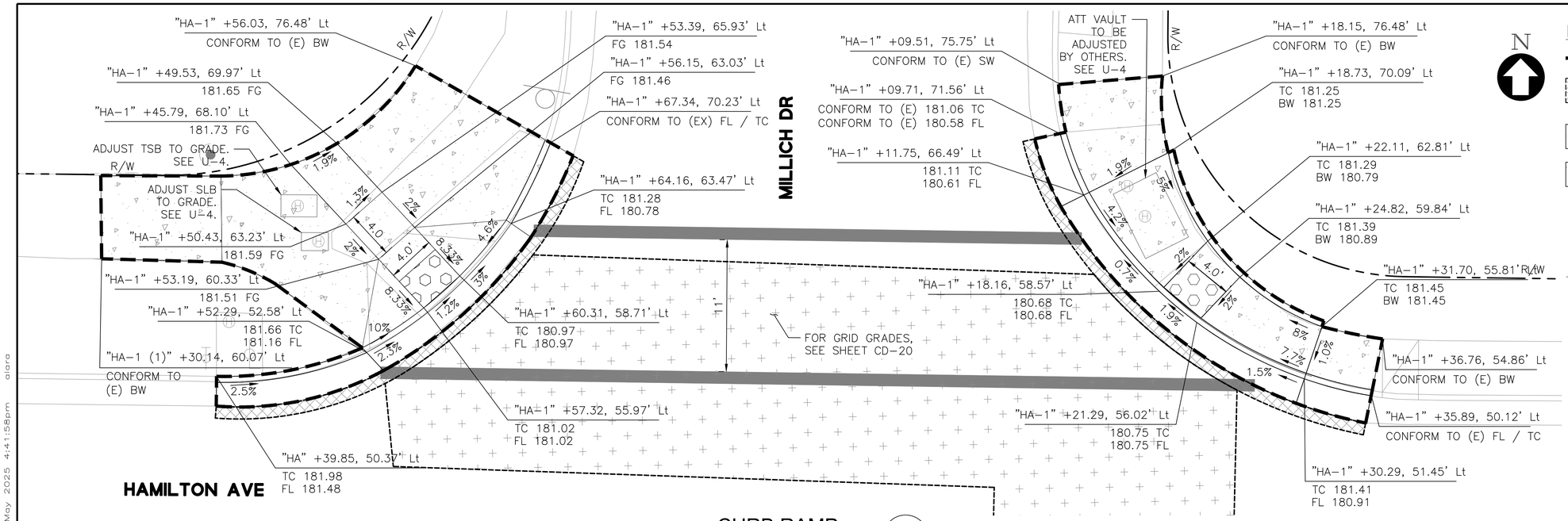
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
LAYOUT PLAN

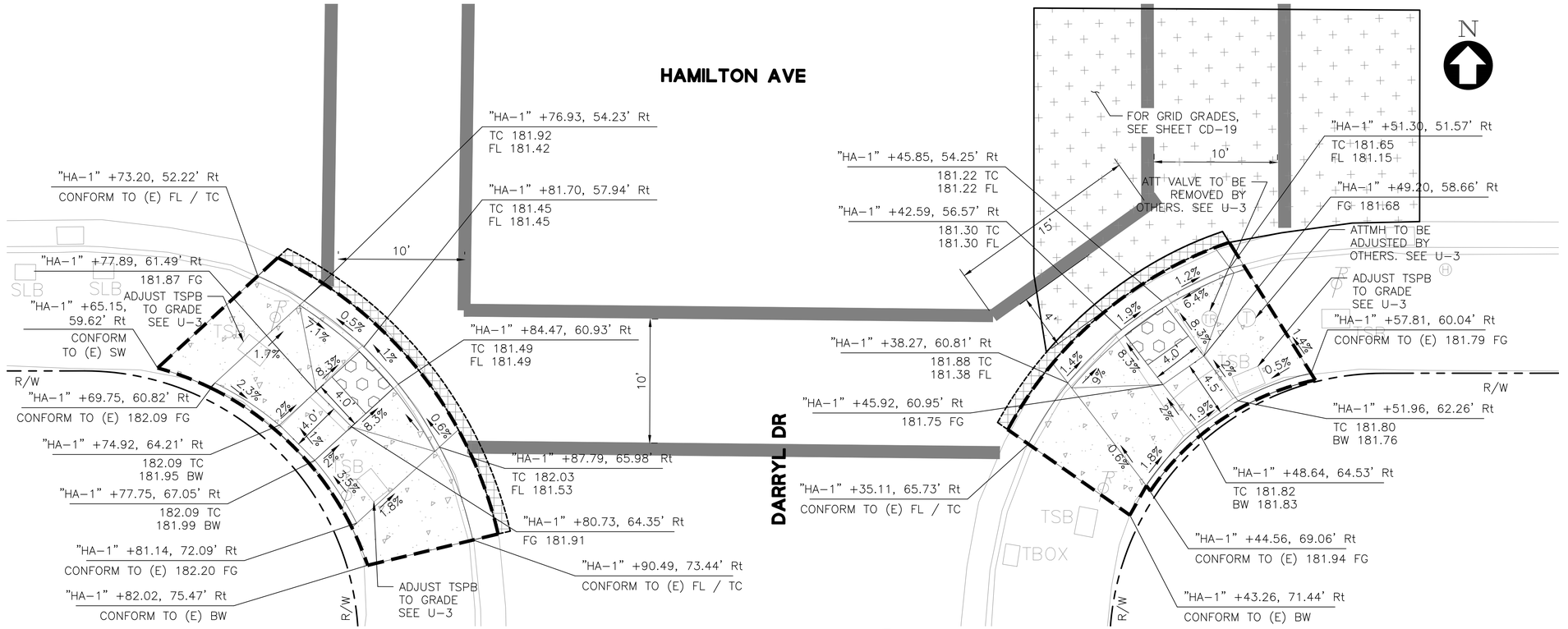
CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: L-21



CURB RAMP 2 / CD-1 L-4
"HA-1" 84+58.88
"HA-1" 85+22.05
SCALE: 1" = 5'



CURB RAMP 1 / CD-1 L-3
"HA-1" 72+83.08
"HA-1" 73+44.19
SCALE: 1" = 5'

5' 0' 5' 10'
GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

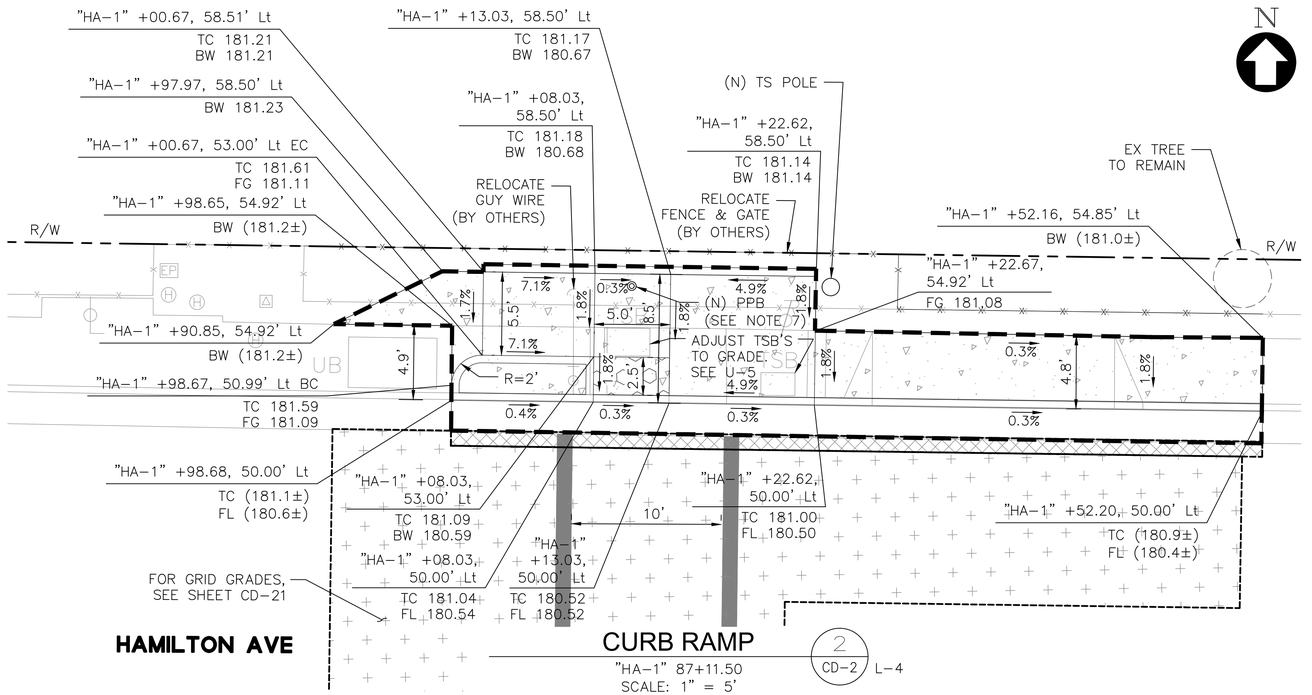
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
CONSTRUCTION DETAILS

CITY OF CAMPBELL THE ORCHARD CITY
CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-1

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23 May 2025 4:41:58pm alara



LEGEND:

- CURB RAMP PAY LIMITS
- SAWCUT/SLOT PAVING SEE DETAIL 7, SHEET CD-14
- SAWCUT/HMA CONFORM GRADING SEE DETAILS 6 & 7, SHEET CD-17
- CONCRETE SIDEWALK/CURB RAMP
- TRUNCATED DOMES

NOTES:

1. CONTRACTOR SHALL CONFIRM CURB RAMP LAYOUT AND FIELD FIT WITH ENGINEER.
2. REMOVE SIDEWALK AND GUTTER TO NEAREST SCOREMARK JOINT.
3. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY PLANS.
4. ALL TRAFFIC SIGNAL BOX AND STREET LIGHT BOX ADJUSTMENTS SHOWN ON THIS PAGE ONLY SHALL BE INCLUDED AND PAID FOR UNDER THE TRAFFIC SIGNAL MODIFICATION PLAN FOR THE INTERSECTION OF HAMILTON AVENUE AT LLEWELLYN AVENUE.
5. SEE SHEET L-18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.
6. SEE SHEET TS-2 AND TS-3 FOR TRAFFIC SIGNAL MODIFICATION PLANS FOR THE INTERSECTION OF HAMILTON AVENUE AT LLEWELLYN AVENUE.
7. INSTALL NEW PPB WITH A 4' CLEAR ACCESSIBLE PATH FROM ANY CURB IMPROVEMENTS, TRUNCATED DOMES OR OBSTRUCTIONS.

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

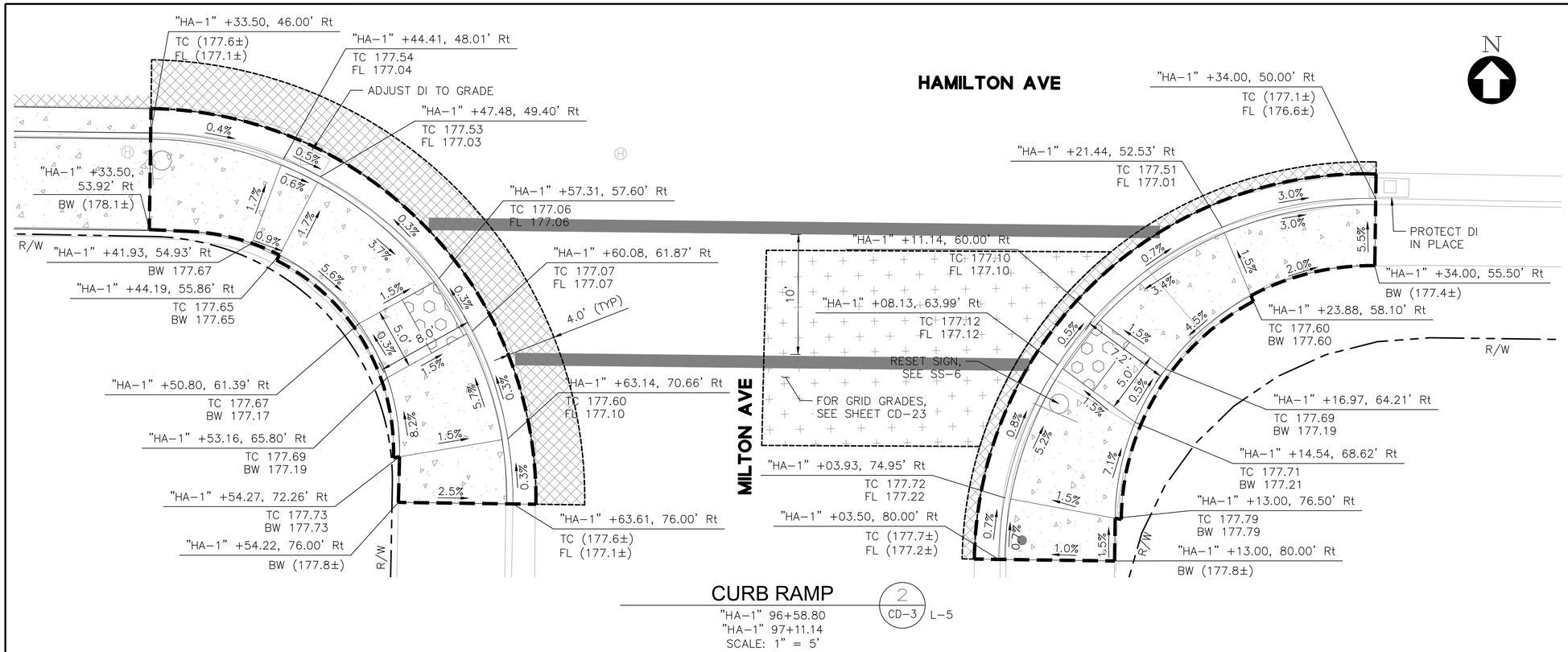
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
CONSTRUCTION DETAILS

CITY OF CAMPBELL
THE ORIGINAL CITY
CAMPBELL, CALIFORNIA

SCALE: 1"=5'

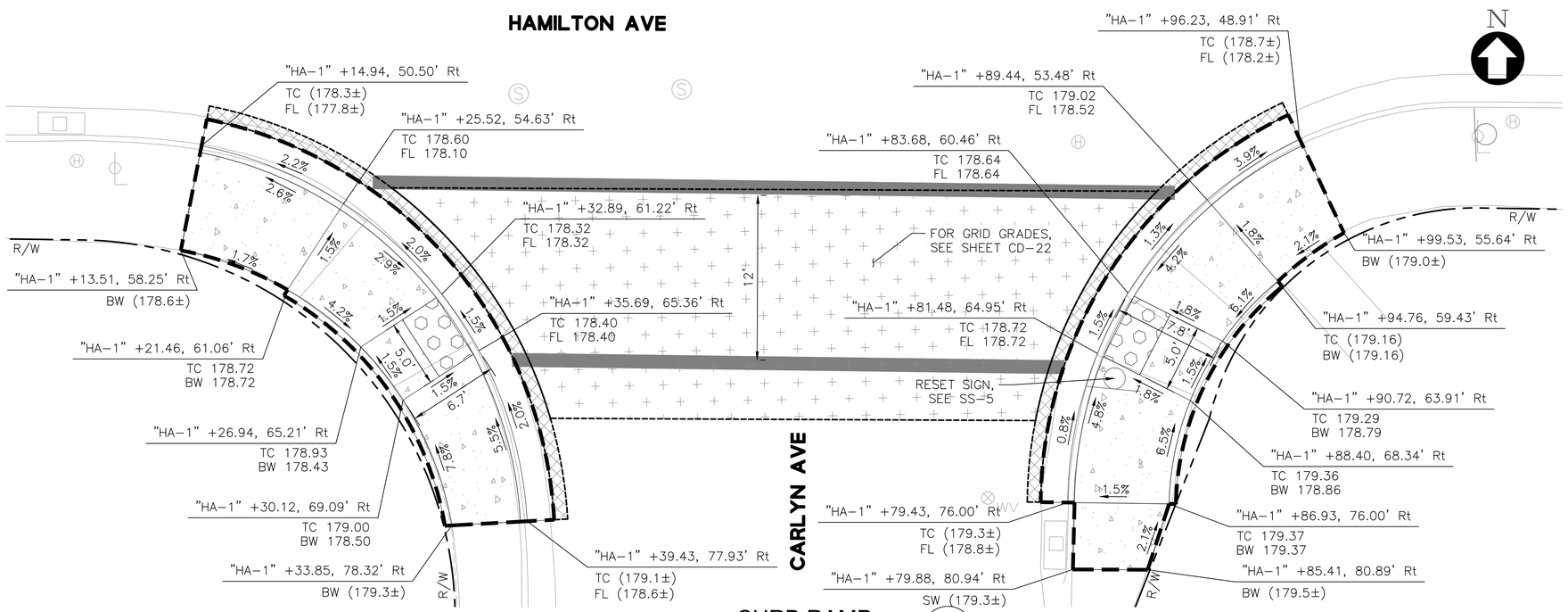
SHEET: CD-2

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CURB RAMP (2 / CD-3) L–5

"HA–1" 96+58.80
"HA–1" 97+11.14
SCALE: 1" = 5'



CURB RAMP (1 / CD-3) L–5

"HA–1" 93+30.42
"HA–1" 93+85.01
SCALE: 1" = 5'

5' 0' 5' 10'
GRAPHIC SCALE

LEGEND:

- CURB RAMP PAY LIMITS
- SAWCUT/SLOT PAVING SEE DETAIL 7, SHEET CD–14
- SAWCUT/HMA CONFORM GRADING SEE DETAILS 6 & 7, SHEET CD–17
- CONCRETE SIDEWALK/CURB RAMP
- TRUNCATED DOMES

NOTES:

1. CONTRACTOR SHALL CONFIRM CURB RAMP LAYOUT AND FIELD FIT WITH ENGINEER.
2. REMOVE SIDEWALK AND GUTTER TO NEAREST SCOREMARK JOINT.
3. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY PLANS.
4. SEE SHEET L–18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

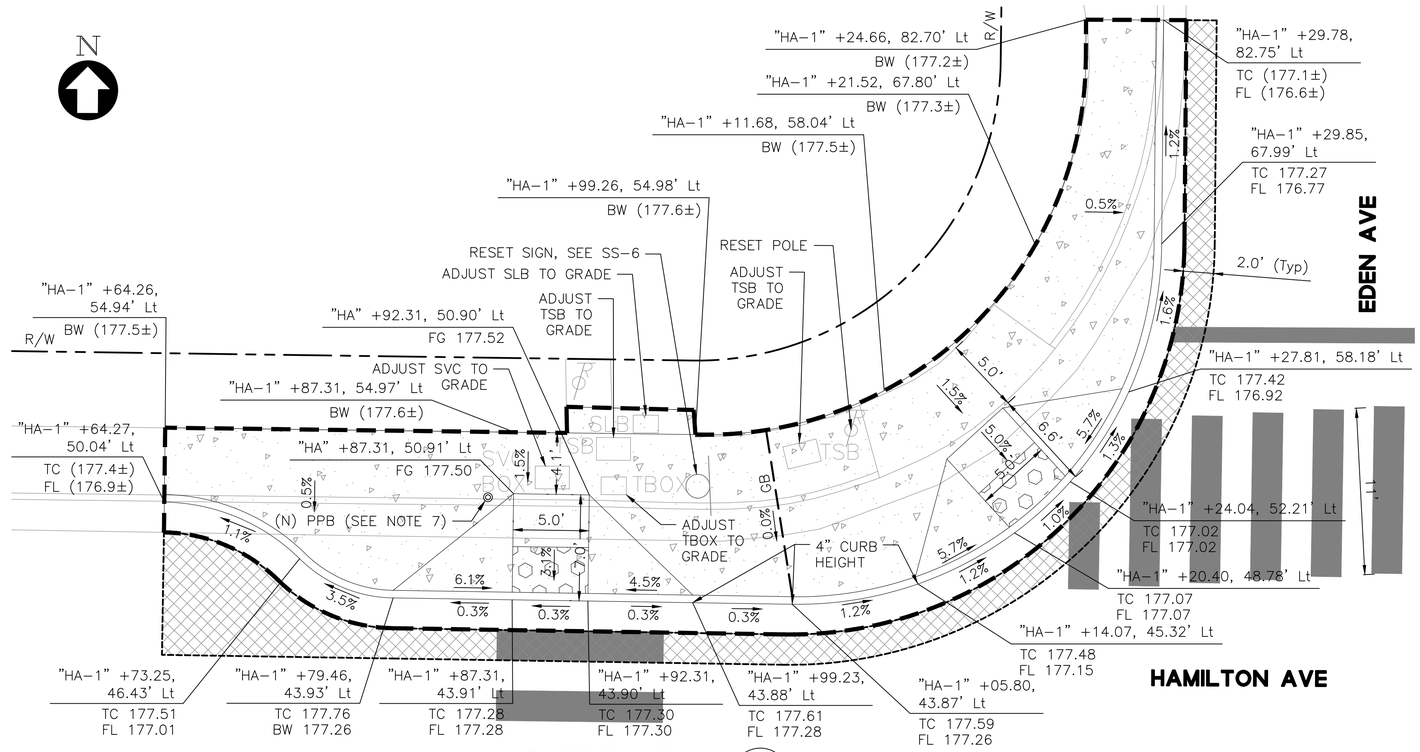
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
CONSTRUCTION DETAILS

CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-3

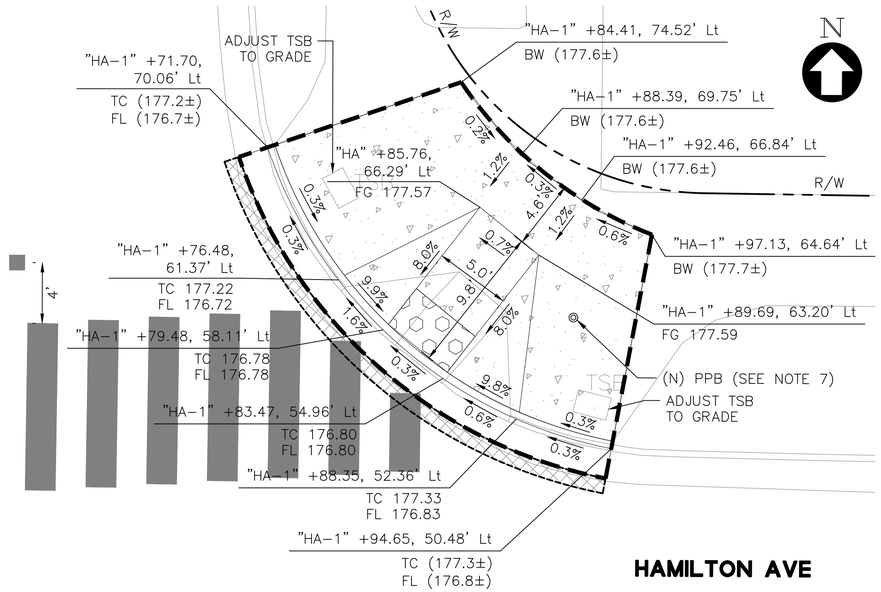
\\bkf-s\vol4\2023\231167_Campbell_HamiltonAveResurfacing\ENG-T\Sheets\06_CONSTRUCTION DETAILS\CD-01_05.dwg 23 May 2025 4:42:20pm alara



CURB RAMP

"HA-1" 97+91.00
"HA-1" 98+18.00
SCALE: 1" = 5'

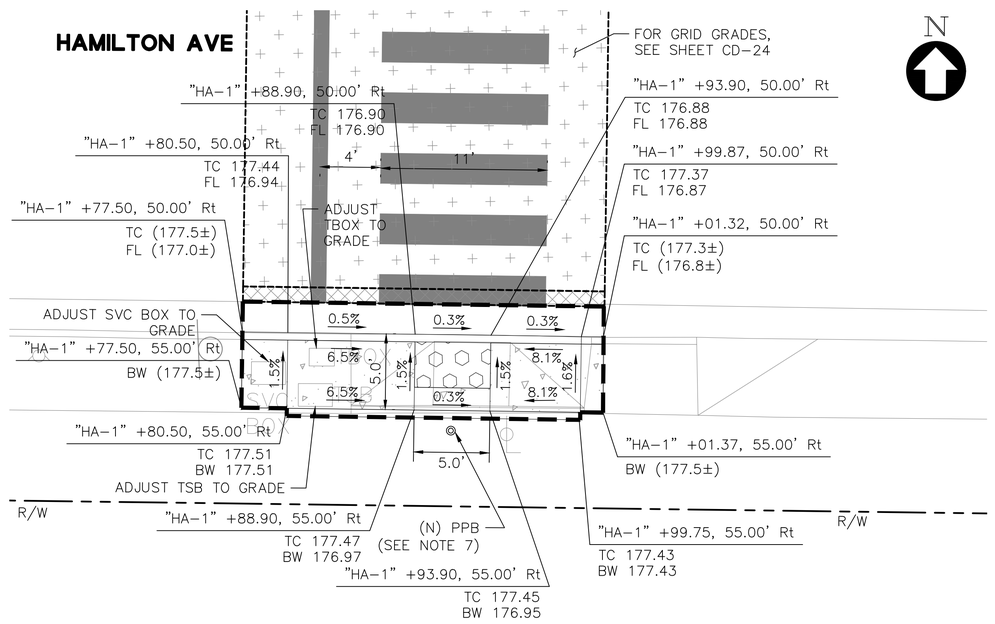
2 CD-4 L-6



CURB RAMP

"HA-1" 98+82.56
SCALE: 1" = 5'

3 CD-4 L-6



CURB RAMP

"HA-1" 97+91.40
SCALE: 1" = 5'

1 CD-4 L-6

LEGEND:

- CURB RAMP PAY LIMITS
- SAWCUT/SLOT PAVING SEE DETAIL 7, SHEET CD-14
- SAWCUT/HMA CONFORM GRADING SEE DETAILS 6 & 7, SHEET CD-17
- CONCRETE SIDEWALK/CURB RAMP
- TRUNCATED DOMES

NOTES:

1. CONTRACTOR SHALL CONFIRM CURB RAMP LAYOUT AND FIELD FIT WITH ENGINEER.
2. REMOVE SIDEWALK AND GUTTER TO NEAREST SCOREMARK JOINT.
3. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY PLANS.
4. ALL TRAFFIC SIGNAL BOX AND STREET LIGHT BOX ADJUSTMENTS SHOWN ON THIS PAGE ONLY SHALL BE INCLUDED AND PAID FOR UNDER THE TRAFFIC SIGNAL MODIFICATION PLAN FOR THE INTERSECTION OF HAMILTON AVENUE AT EDEN AVENUE.
5. SEE SHEET L-18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.
6. SEE SHEET TS-4 AND TS-5 FOR TRAFFIC SIGNAL MODIFICATION PLANS FOR THE INTERSECTION OF HAMILTON AVENUE AT EDEN AVENUE.
7. INSTALL NEW PPB WITH A 4' CLEAR ACCESSIBLE PATH FROM ANY CURB IMPROVEMENTS, TRUNCATED DOMES OR OBSTRUCTIONS.

5' 0' 5' 10'
GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

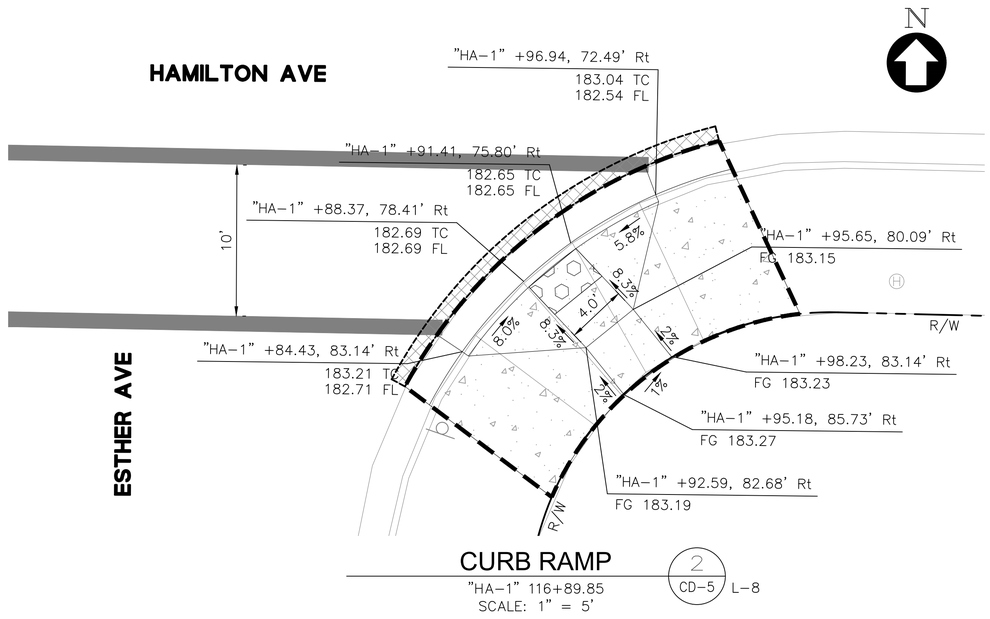
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
CONSTRUCTION DETAILS

CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

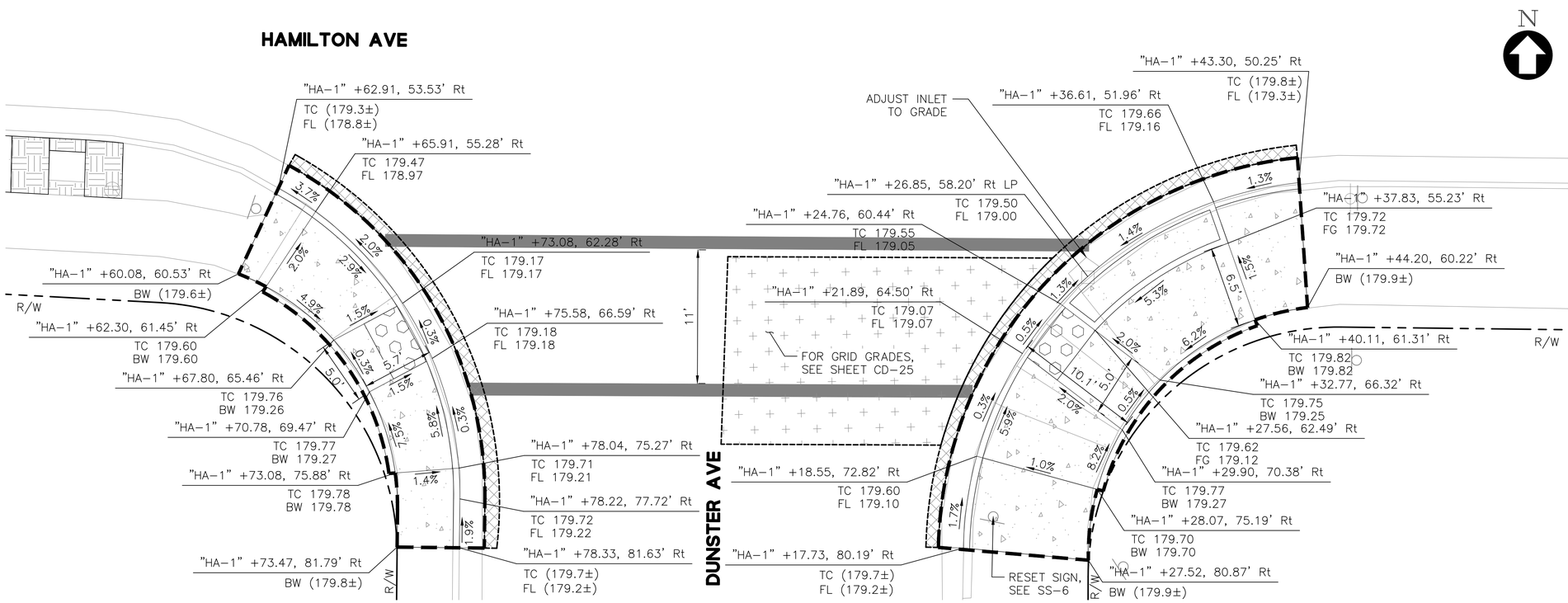
SCALE: 1"=5'

SHEET: CD-4

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CURB RAMP 2 / CD-5 L–8
"HA–1" 116+89.85
SCALE: 1" = 5'



CURB RAMP 1 / CD-5 L–6
"HA–1" 104+69.00
"HA–1" 105+21.91
SCALE: 1" = 5'

LEGEND:

- CURB RAMP PAY LIMITS
- SAWCUT/SLOT PAVING SEE DETAIL 7, SHEET CD–14
- SAWCUT/HMA CONFORM GRADING SEE DETAILS 6 & 7, SHEET CD–17
- CONCRETE SIDEWALK/CURB RAMP
- TRUNCATED DOMES

NOTES:

1. CONTRACTOR SHALL CONFIRM CURB RAMP LAYOUT AND FIELD FIT WITH ENGINEER.
2. REMOVE SIDEWALK AND GUTTER TO NEAREST SCOREMARK JOINT.
3. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY PLANS.
4. SEE SHEET L–18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
CONSTRUCTION DETAILS

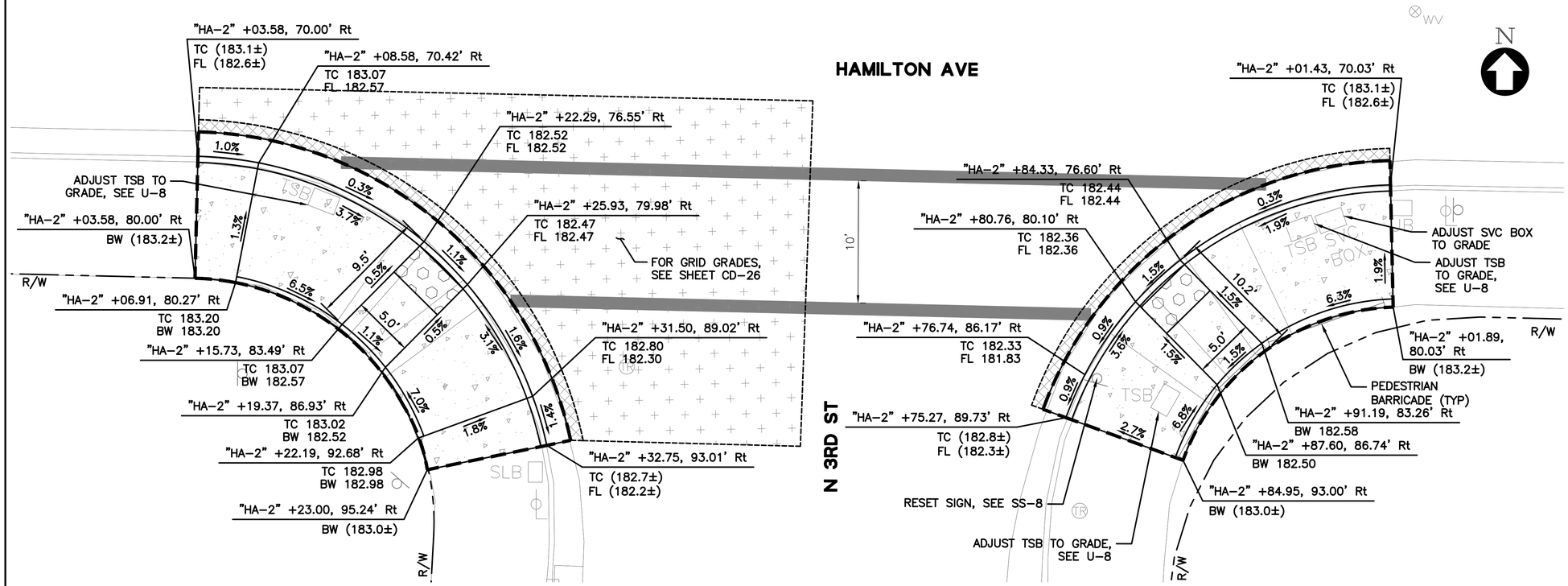
CITY OF CAMPBELL · THE ORCHARD CITY · CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-5

5' 0' 5' 10'
GRAPHIC SCALE

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CURB RAMP

1 / CD–6 / L–8

"HA–2" 120+20.68
"HA–2" 120+85.09
SCALE: 1" = 5'

LEGEND:

- CURB RAMP PAY LIMITS
- SAWCUT/SLOT PAVING SEE DETAIL 7, SHEET CD–14
- SAWCUT/HMA CONFORM GRADING SEE DETAILS 6 & 7. SHEET CD–17
- CONCRETE SIDEWALK/CURB RAMP
- TRUNCATED DOMES

NOTES:

1. CONTRACTOR SHALL CONFIRM CURB RAMP LAYOUT AND FIELD FIT WITH ENGINEER.
2. REMOVE SIDEWALK AND GUTTER TO NEAREST SCOREMARK JOINT.
3. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY PLANS.
4. SEE SHEET L–18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.

5' 0' 5' 10'
GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

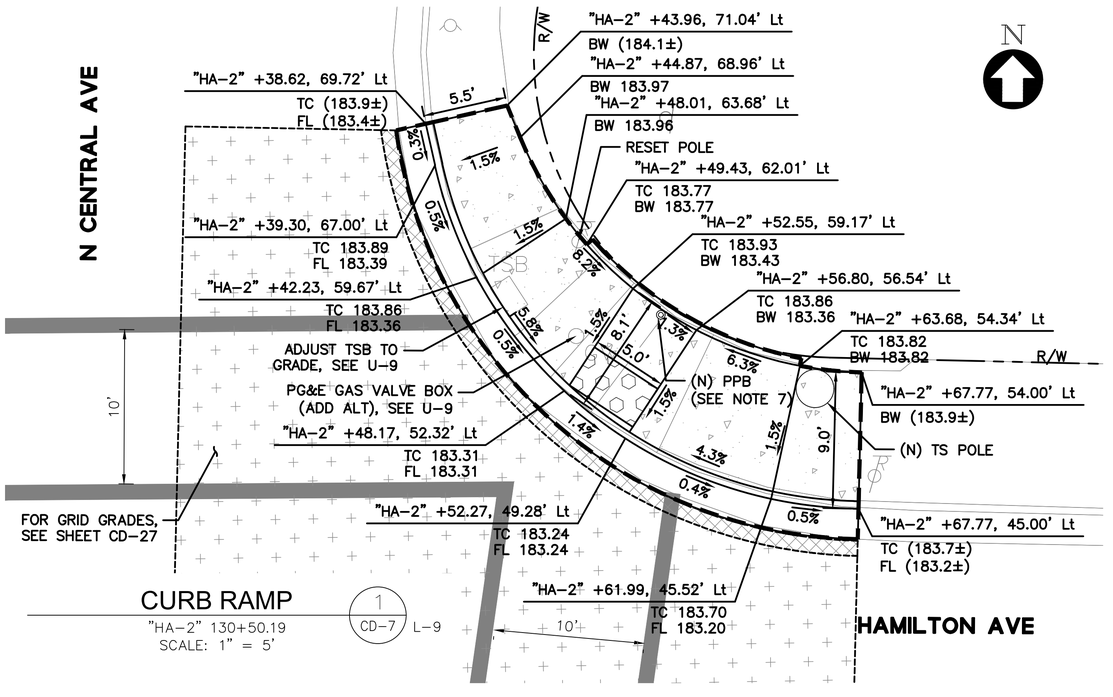
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PROJECT NO. 23–BB
CONSTRUCTION DETAILS

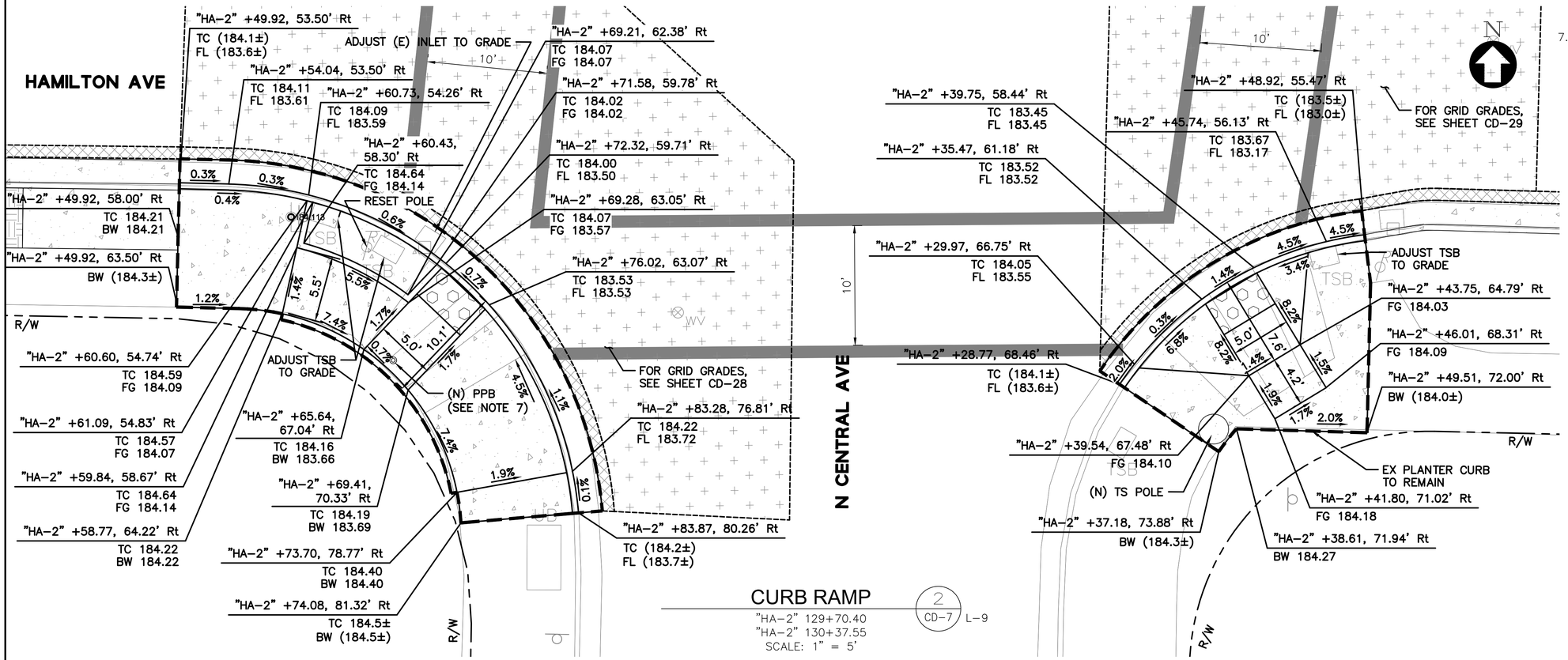
CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD–6

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LEGEND:

- CURB RAMP PAY LIMITS
- SAWCUT/SLOT PAVING SEE DETAIL 7, SHEET CD–14
- SAWCUT/HMA CONFORM GRADING SEE DETAILS 6 & 7, SHEET CD–17
- CONCRETE SIDEWALK/CURB RAMP
- TRUNCATED DOMES

NOTES:

1. CONTRACTOR SHALL CONFIRM CURB RAMP LAYOUT AND FIELD FIT WITH ENGINEER.
2. REMOVE SIDEWALK AND GUTTER TO NEAREST SCOREMARK JOINT.
3. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY PLANS.
4. ALL TRAFFIC SIGNAL BOX AND STREET LIGHT BOX ADJUSTMENTS SHOWN ON THIS PAGE ONLY SHALL BE INCLUDED AND PAID FOR UNDER THE TRAFFIC SIGNAL MODIFICATION PLAN FOR THE INTERSECTION OF HAMILTON AVENUE AT N. CENTRAL AVENUE.
5. SEE SHEET L–18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.
6. SEE SHEET TS–6 AND TS–7 FOR TRAFFIC SIGNAL MODIFICATION PLANS FOR THE INTERSECTION OF HAMILTON AVENUE AT N. CENTRAL AVENUE.
7. INSTALL NEW PPB WITH A 4' CLEAR ACCESSIBLE PATH FROM ANY CURB IMPROVEMENTS, TRUNCATED DOMES OR OBSTRUCTIONS.

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
CONSTRUCTION DETAILS

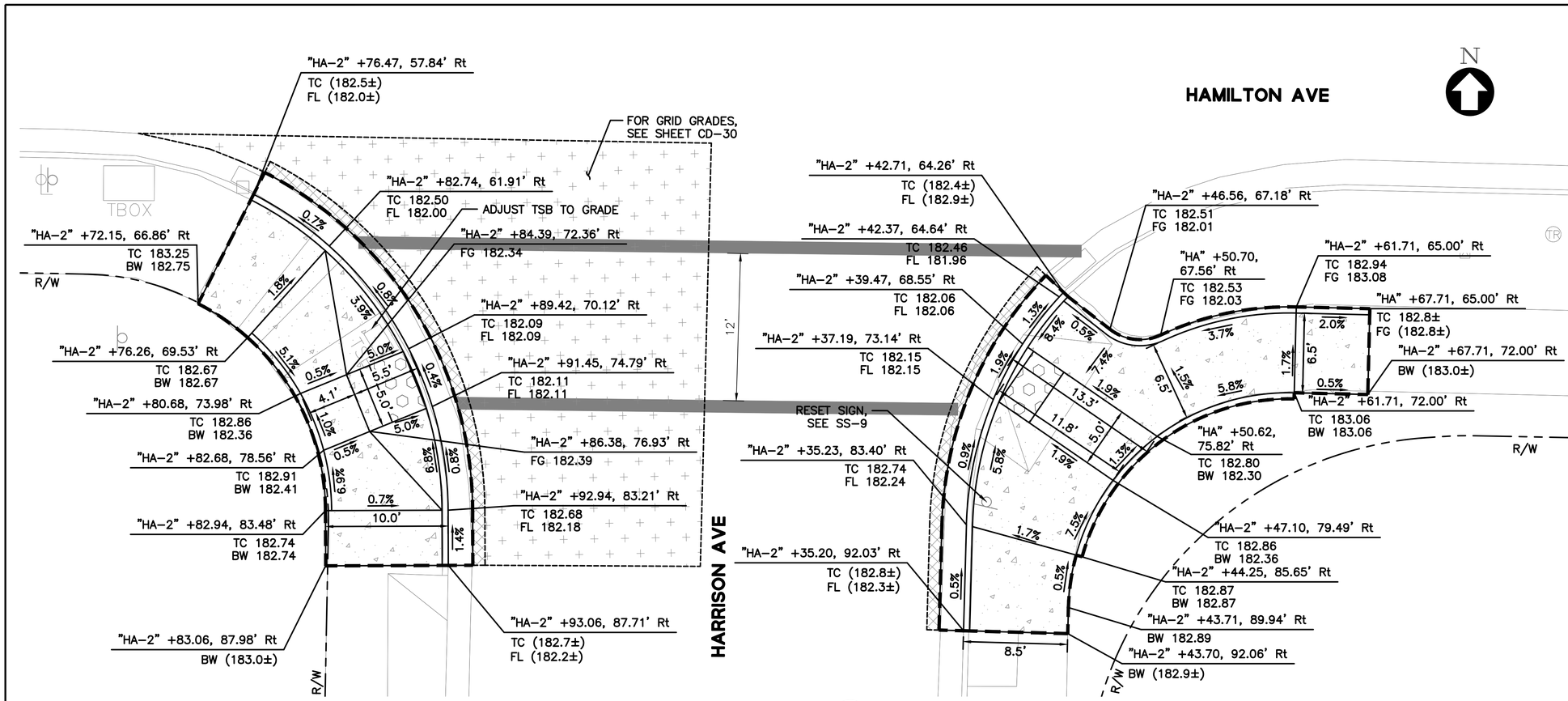
CITY OF CAMPBELL CALIFORNIA
CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD–7

5' 0' 5' 10'
GRAPHIC SCALE

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No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
CONSTRUCTION DETAILS

CITY OF CAMPBELL
THE ORCHARD CITY
CAMPBELL, CALIFORNIA

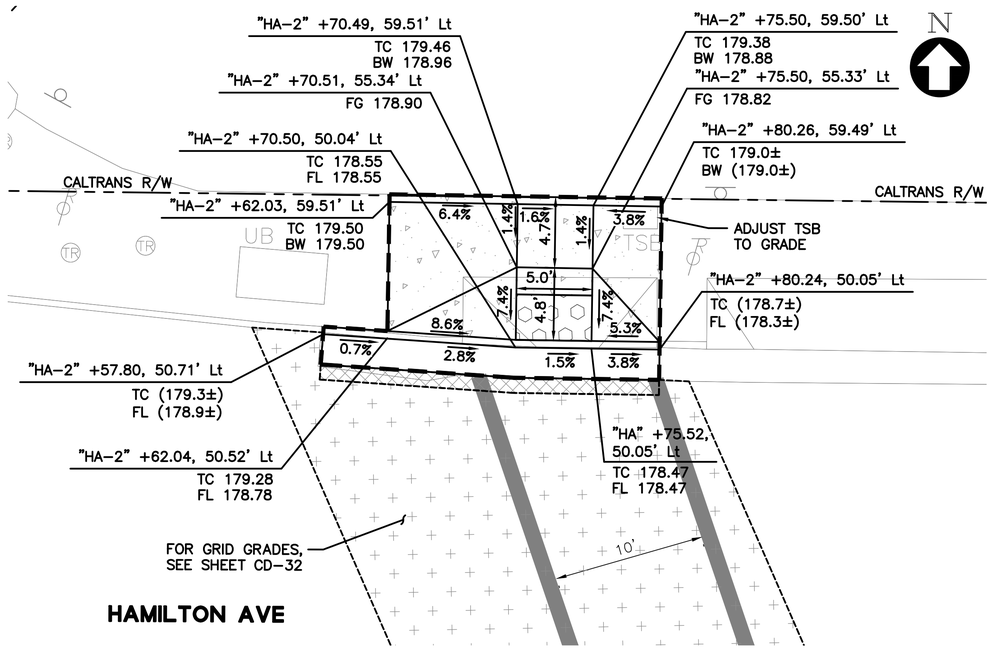
SCALE: 1"=5'

SHEET: CD-8

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NOTES:

1. CONTRACTOR SHALL CONFIRM CURB RAMP LAYOUT AND FIELD FIT WITH ENGINEER.
2. REMOVE SIDEWALK AND GUTTER TO NEAREST SCOREMARK JOINT.
3. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY PLANS.
4. ALL TRAFFIC SIGNAL BOX AND STREET LIGHT BOX ADJUSTMENTS SHOWN ON THIS PAGE ONLY SHALL BE INCLUDED AND PAID FOR UNDER THE TRAFFIC SIGNAL MODIFICATION PLAN FOR THE INTERSECTION OF HAMILTON AVENUE AT CREEKSIDE WAY.
5. SEE SHEET L–18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.
6. SEE SHEET TS–8 AND TS–9 FOR TRAFFIC SIGNAL MODIFICATION PLANS FOR THE INTERSECTION OF HAMILTON AVENUE AT CREEKSIDE WAY.



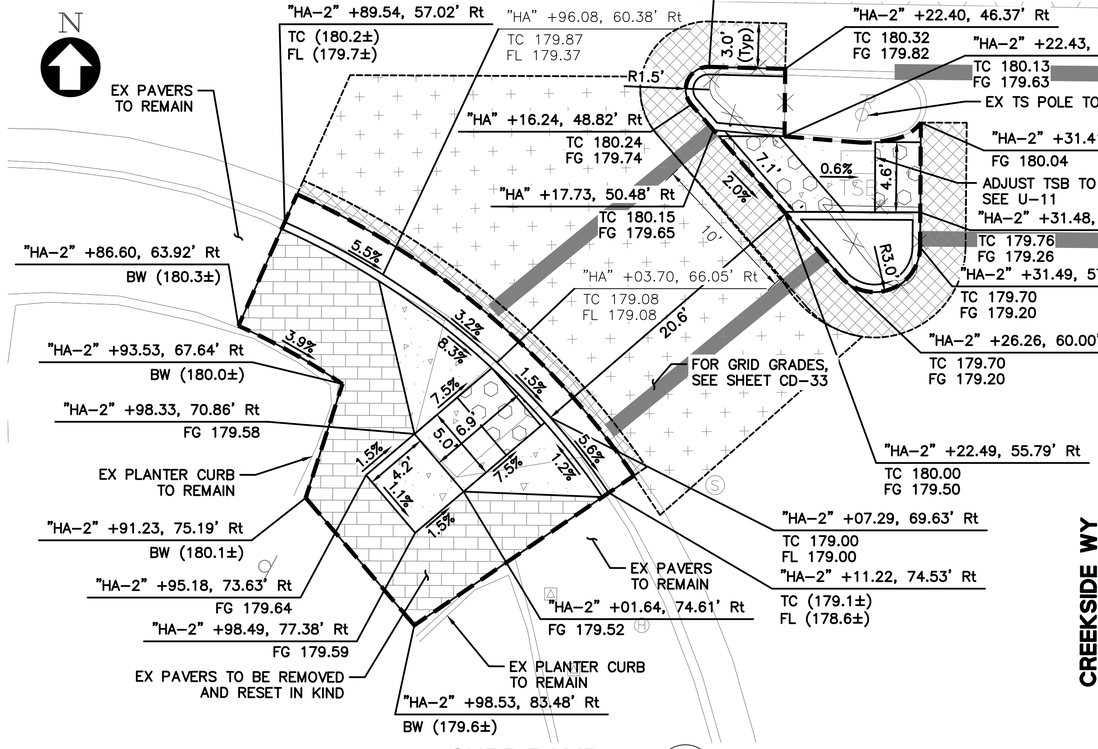
CURB RAMP

"HA–2" 153+73.02
SCALE: 1" = 5'

1 CD–9 L–12

LEGEND:

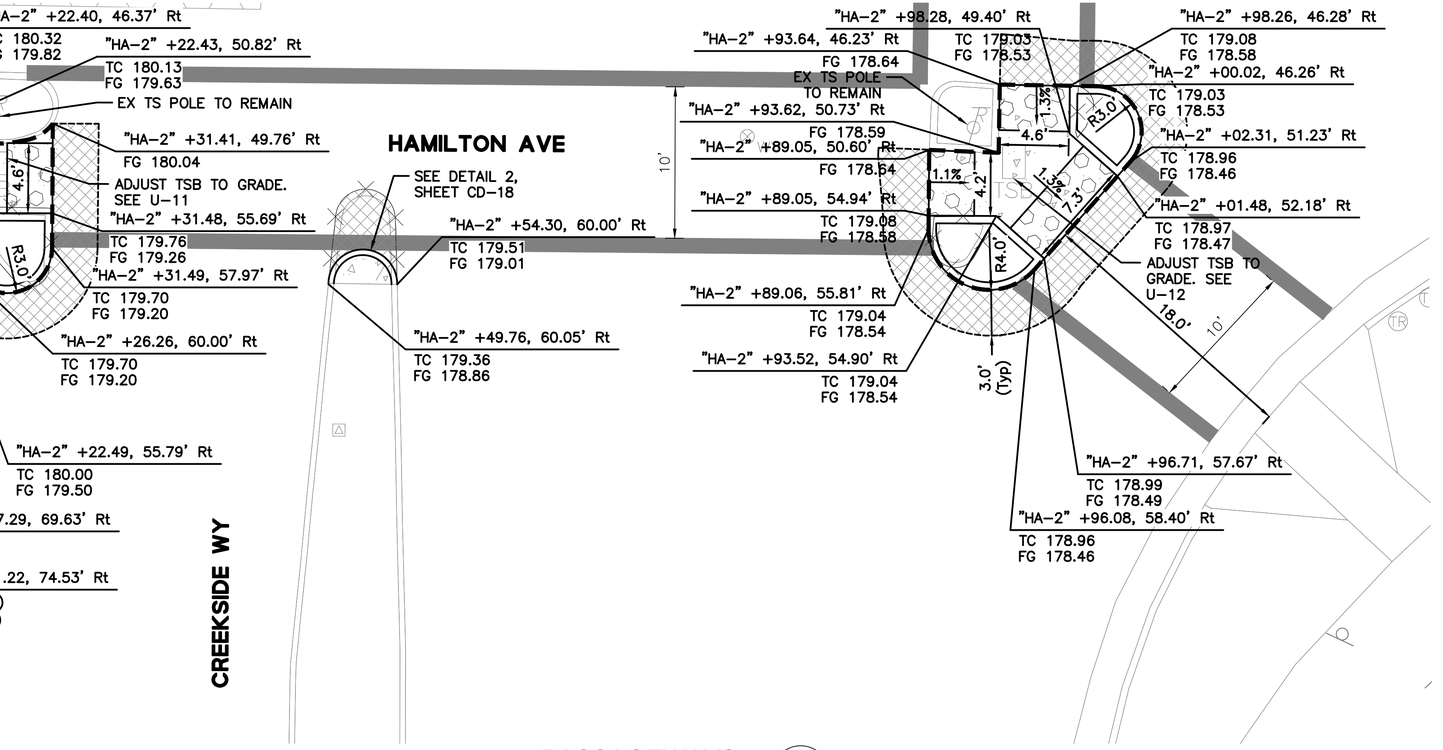
- CURB RAMP PAY LIMITS
- SAWCUT/SLOT PAVING SEE DETAIL 7, SHEET CD–14
- SAWCUT/HMA CONFORM GRADING SEE DETAILS 6 & 7. SHEET CD–17
- CONCRETE SIDEWALK/CURB RAMP
- EX PAVERS TO BE REMOVED & RESET IN KIND
- REMOVE CONCRETE MEDIAN (SEE NOTE 6, SHEET L–18)
- TRUNCATED DOMES



CURB RAMP

"HA–2" 153+05.54
SCALE: 1" = 5'

2 CD–9 L–12



PASSAGEWAYS

"HA–2" 153+50
SCALE: 1" = 5'

3 CD–9 L–12

5' 0' 5' 10'
GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

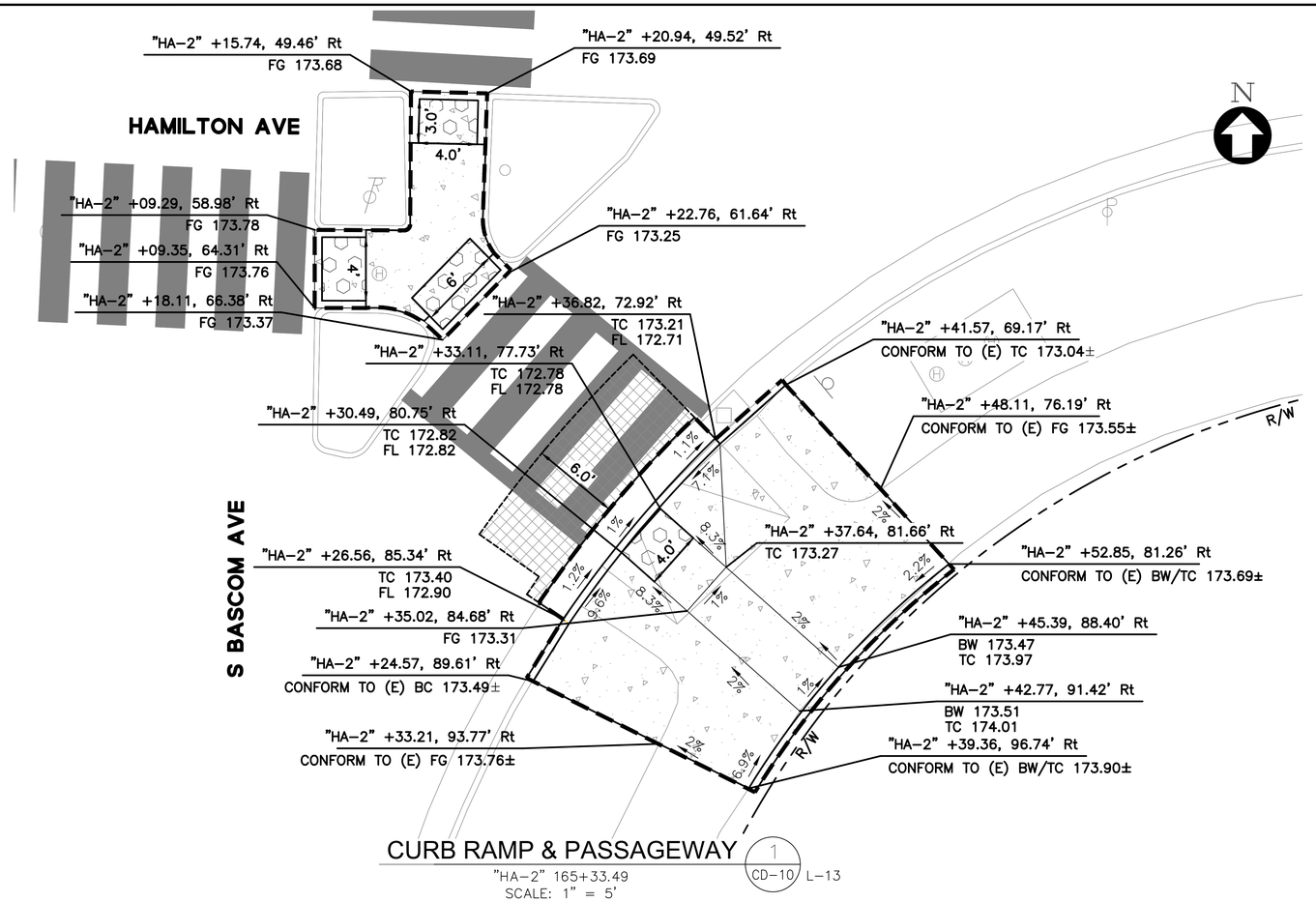
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
CONSTRUCTION DETAILS

CITY OF CAMPBELL THE ORCHARD CITY CAMPBELL, CALIFORNIA

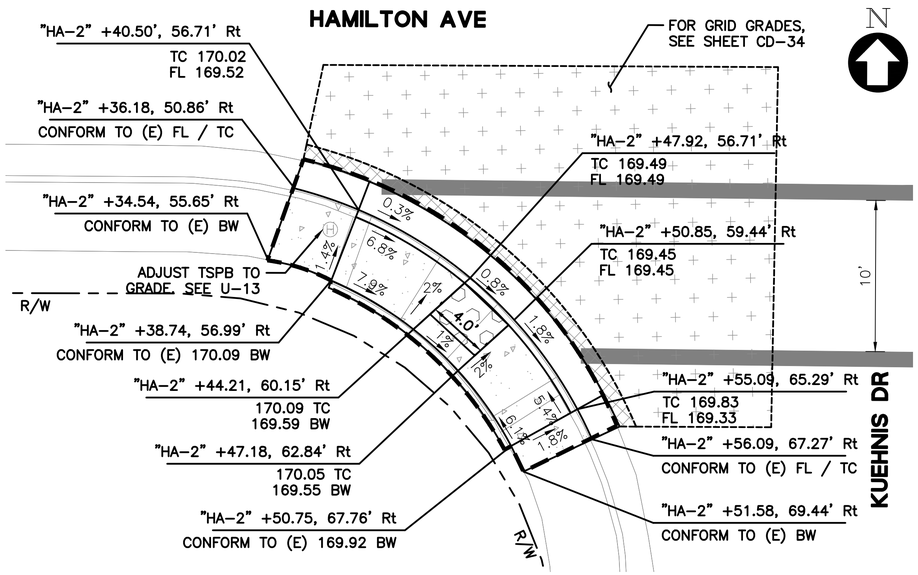
SCALE: 1"=5'

SHEET: CD-9

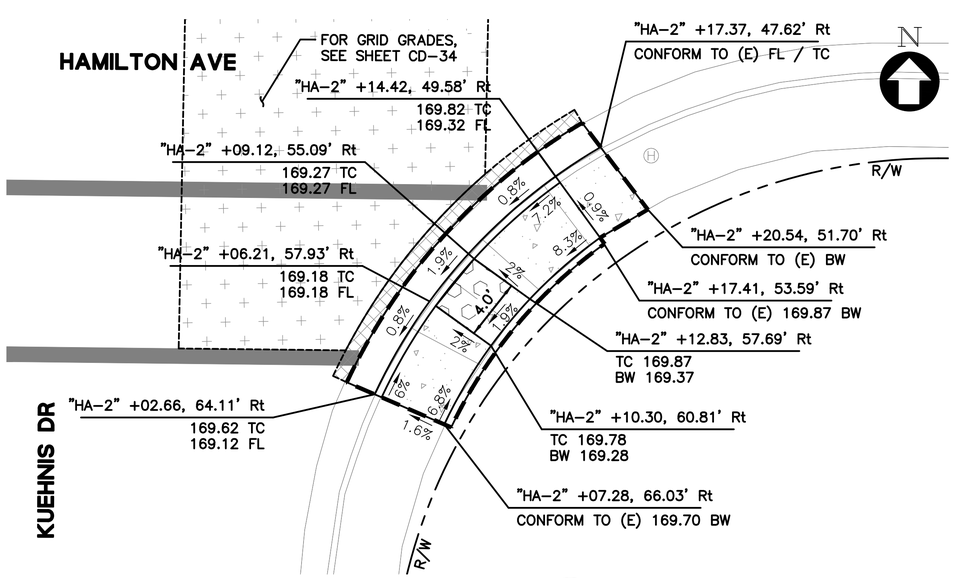
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CURB RAMP & PASSAGEWAY 1 CD–10 L–13
"HA–2" 165+33.49
SCALE: 1" = 5'



CURB RAMP 2 CD–10 L–13
"HA–2" 171+07.68
SCALE: 1" = 5'



CURB RAMP 3 CD–10 L–13
"HA–2" 171+07.68
SCALE: 1" = 5'

LEGEND:

- CURB RAMP PAY LIMITS
- SAWCUT/SLOT PAVING SEE DETAIL 7, SHEET CD–14
- SAWCUT/HMA CONFORM GRADING SEE DETAILS 6 & 7. SHEET CD–17
- CONCRETE SIDEWALK/CURB RAMP
- TRUNCATED DOMES

NOTES:

1. CONTRACTOR SHALL CONFIRM CURB RAMP LAYOUT AND FIELD FIT WITH ENGINEER.
2. REMOVE SIDEWALK AND GUTTER TO NEAREST SCOREMARK JOINT.
3. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY PLANS.
4. SEE SHEET L–18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
CONSTRUCTION DETAILS

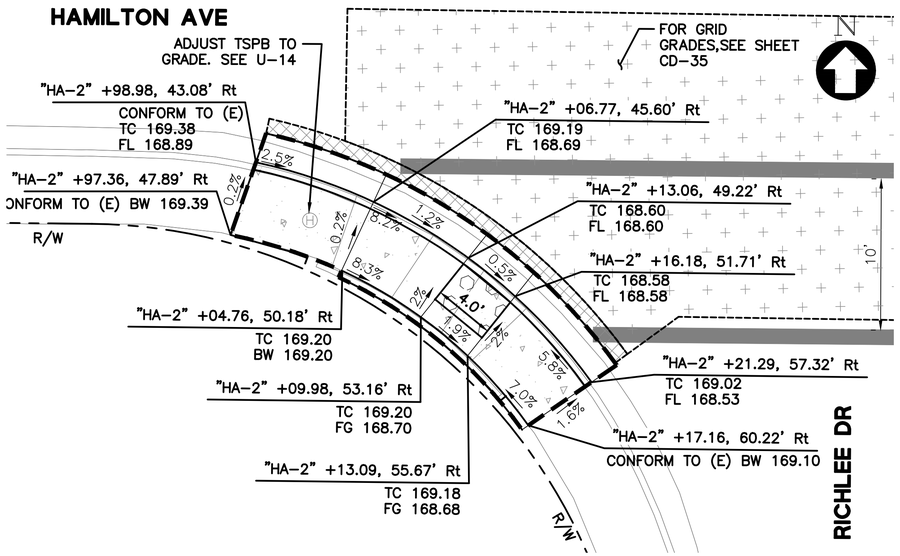
CITY OF CAMPBELL
THE ORCHARD CITY
CAMPBELL, CALIFORNIA

SCALE: 1"=5'

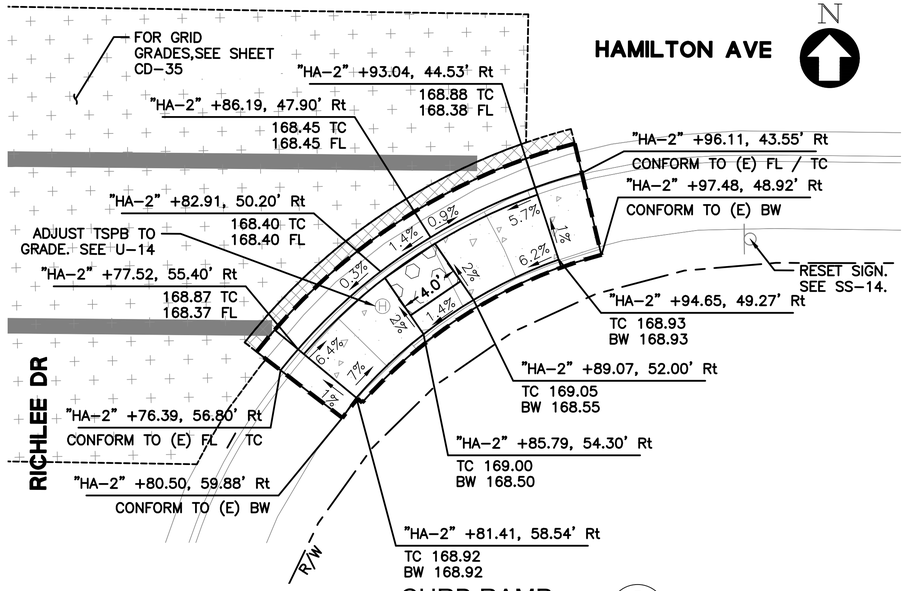
SHEET: CD-10

5' 0' 5' 10'
GRAPHIC SCALE

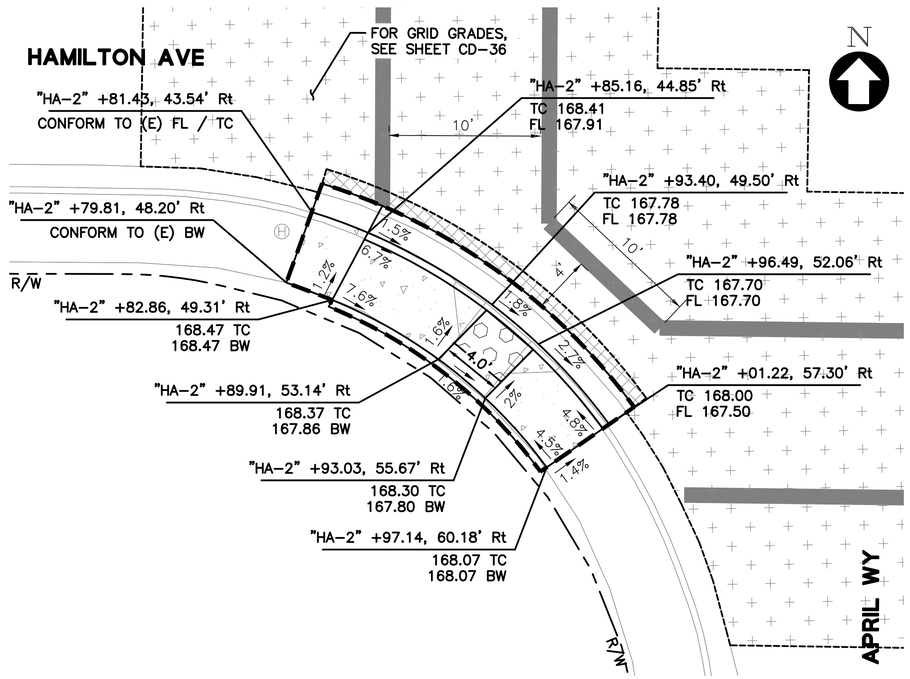
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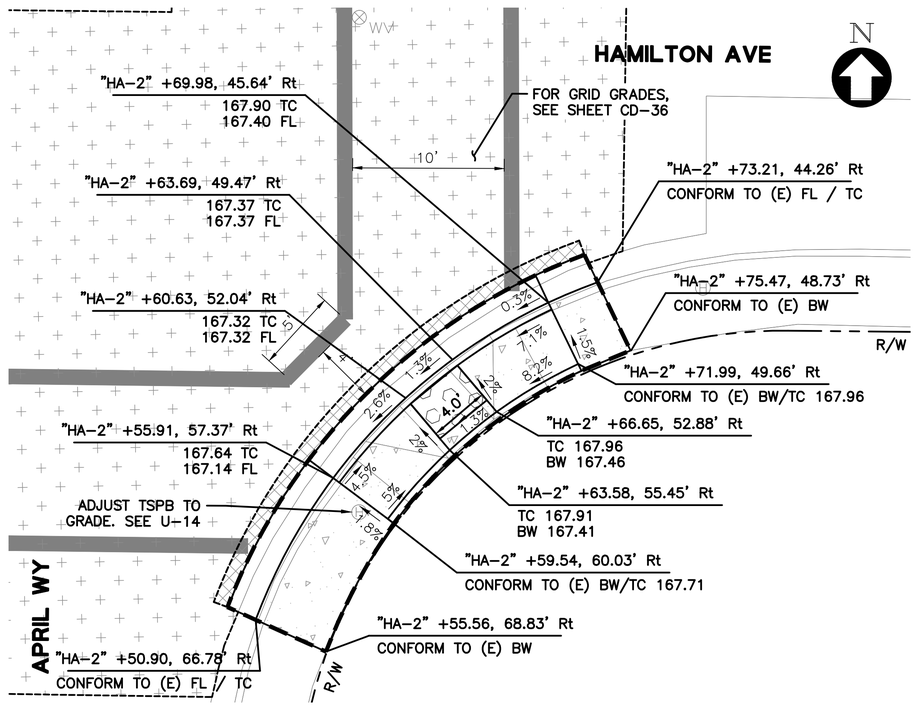
CURB RAMP
"HA-2" 173+12.46
SCALE: 1" = 5'
1 CD-11 L-14



CURB RAMP
"HA-2" 173+84.58
SCALE: 1" = 5'
2 CD-11 L-14



CURB RAMP
"HA-2" 175+94.67
SCALE: 1" = 5'
3 CD-11 L-14



CURB RAMP
"HA-2" 176+62.13
SCALE: 1" = 5'
4 CD-11 L-14

LEGEND:

- CURB RAMP PAY LIMITS
- SAWCUT/SLOT PAVING SEE DETAIL 7, SHEET CD-14
- SAWCUT/HMA CONFORM GRADING SEE DETAILS 6 & 7. SHEET CD-17
- CONCRETE SIDEWALK/CURB RAMP
- TRUNCATED DOMES

NOTES:

1. CONTRACTOR SHALL CONFIRM CURB RAMP LAYOUT AND FIELD FIT WITH ENGINEER.
2. REMOVE SIDEWALK AND GUTTER TO NEAREST SCOREMARK JOINT.
3. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY PLANS.
4. SEE SHEET L-18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.

5' 0' 5' 10'
GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

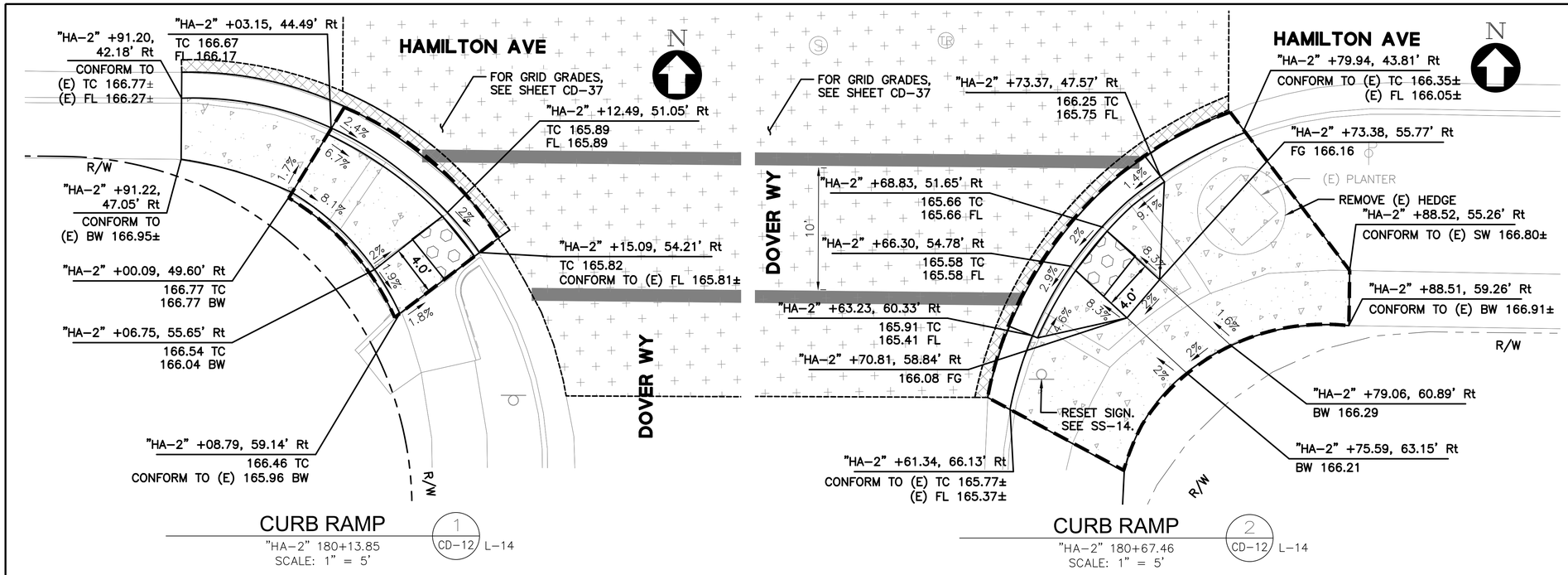
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
CONSTRUCTION DETAILS

CITY OF CAMPBELL — THE ORCHARD CITY — CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-11

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No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

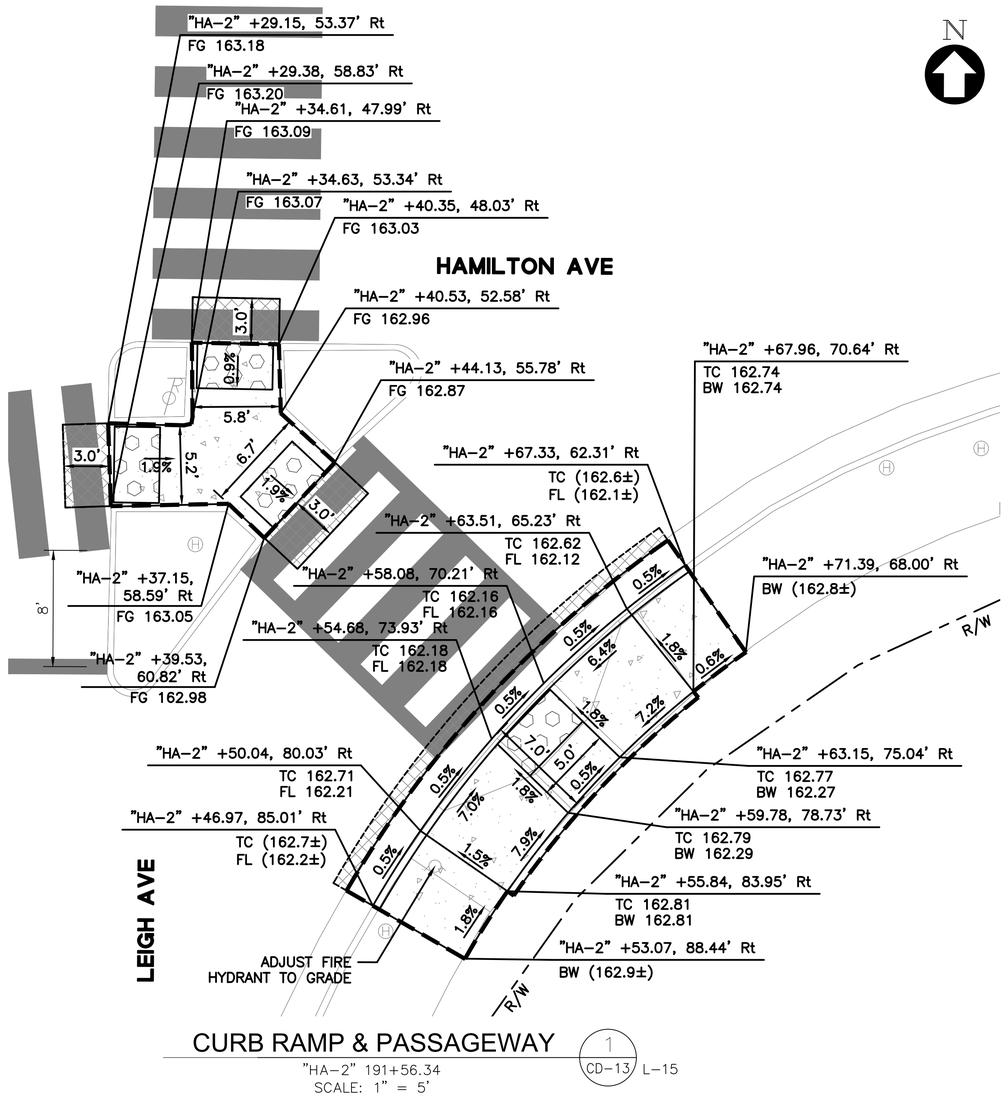
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
CONSTRUCTION DETAILS

CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-12

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CURB RAMP & PASSAGEWAY 1 CD–13 L–15

"HA–2" 191+56.34

SCALE: 1" = 5'

LEGEND:

- CURB RAMP PAY LIMITS
- SAWCUT/SLOT PAVING SEE DETAIL 7, SHEET CD–14
- CONCRETE SIDEWALK/CURB RAMP
- TRUNCATED DOMES

NOTES:

1. CONTRACTOR SHALL CONFIRM CURB RAMP LAYOUT AND FIELD FIT WITH ENGINEER.
2. REMOVE SIDEWALK AND GUTTER TO NEAREST SCOREMARK JOINT.
3. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY PLANS.
4. SEE SHEET L–18 FOR ADDITIONAL NOTES AND QUANTITY TABLES.

5' 0' 5' 10'

GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

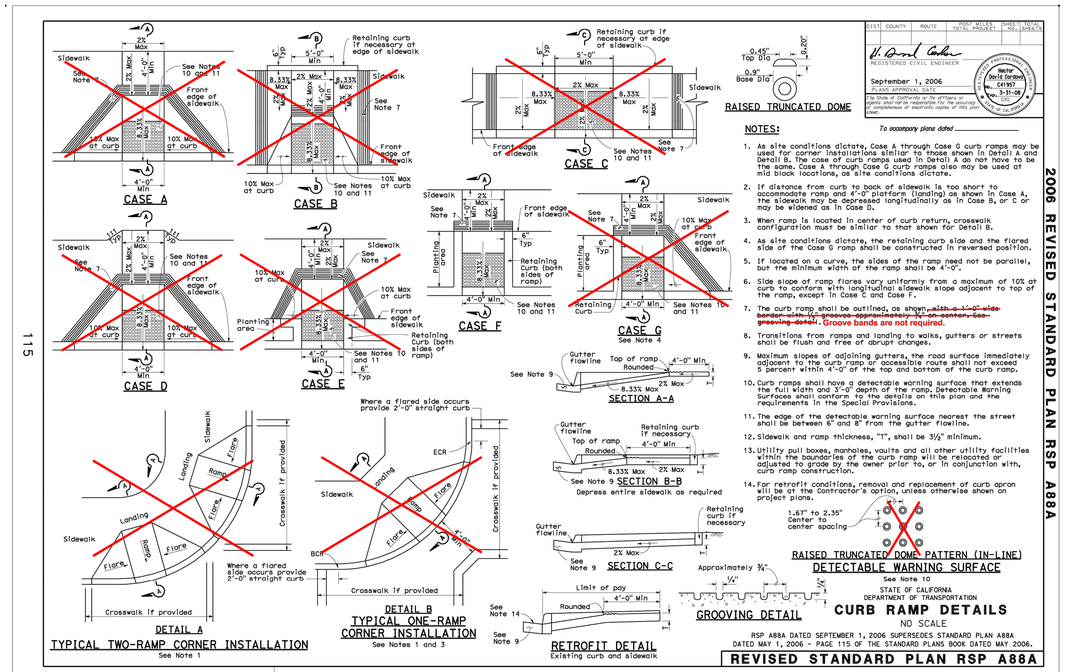
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
CONSTRUCTION DETAILS

CITY OF CAMPBELL CALIFORNIA

SCALE: 1"=5'

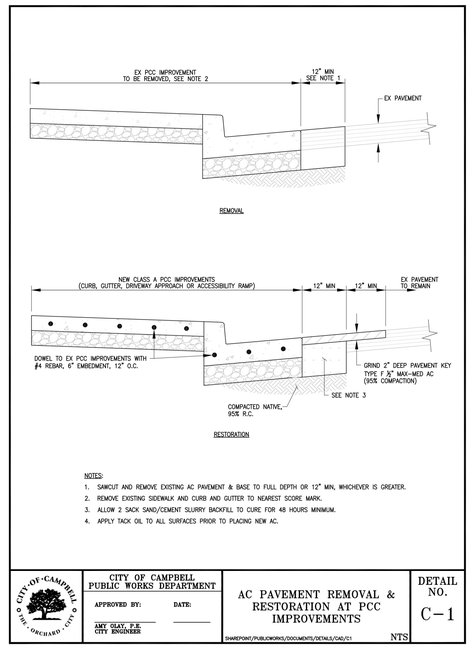
SHEET: CD-13

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CURB RAMP DETAILS

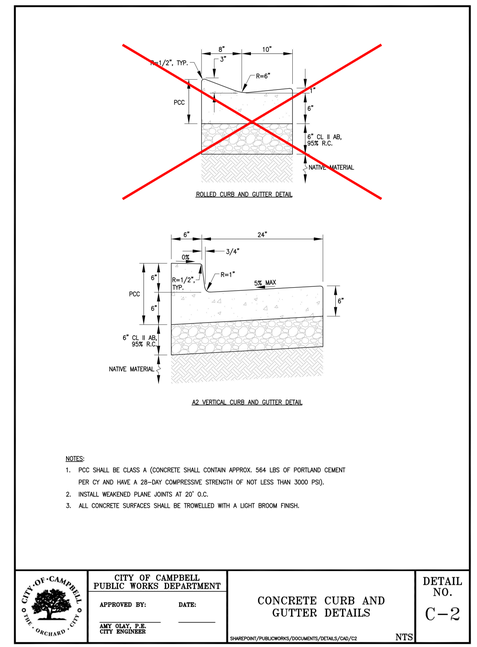
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CD-14



CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		DETAIL NO.
APPROVED BY: AMY OLAY, P.E. CITY ENGINEER — DATE:	AC PAVEMENT REMOVAL & RESTORATION AT PCC IMPROVEMENTS	C-1
SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C1	NTS	

AC PAVEMENT REMOVAL & RESTORATION AT PCC IMPROVEMENTS
WEST OF MARATHON DR

2
CD-14



CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		DETAIL NO.
APPROVED BY: AMY OLAY, P.E. CITY ENGINEER — DATE:	SLOT PAVING ADJACENT TO PCC IMPROVEMENTS	C-1.1
SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C2	NTS	

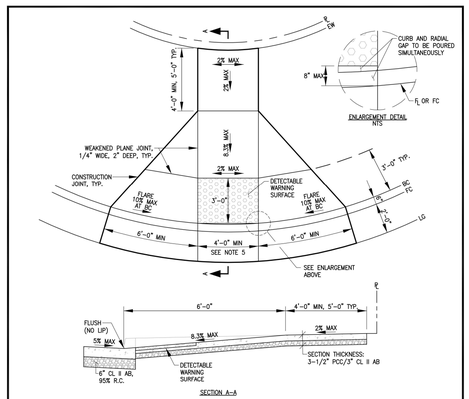
SLOT PAVING ADJACENT TO PCC IMPROVEMENTS
EAST OF MARATHON DR

7
CD-14

CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		DETAIL NO.
APPROVED BY: AMY OLAY, P.E. CITY ENGINEER — DATE:	CONCRETE CURB AND GUTTER DETAILS	C-2
SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C2	NTS	

CURB AND GUTTER DETAILS

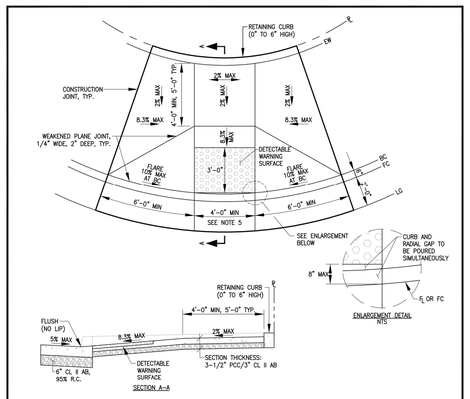
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CD-14



CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		DETAIL NO.
APPROVED BY: AMY OLAY, P.E. CITY ENGINEER — DATE:	CASE A CURB RAMP	C-5
SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C5	NTS	

CASE A
CURB RAMP

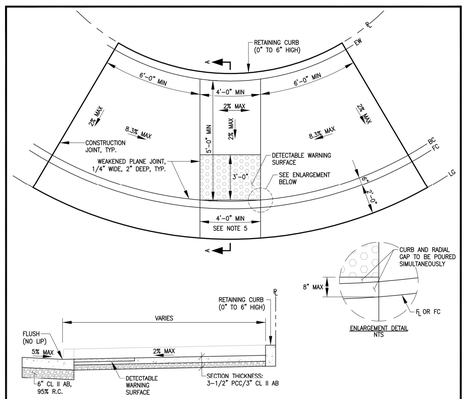
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CD-14



CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		DETAIL NO.
APPROVED BY: AMY OLAY, P.E. CITY ENGINEER — DATE:	CASE B CURB RAMP	C-6
SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C6	NTS	

CASE B
CURB RAMP

5
CD-14



CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		DETAIL NO.
APPROVED BY: AMY OLAY, P.E. CITY ENGINEER — DATE:	CASE C CURB RAMP	C-7
SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C7	NTS	

CASE C
CURB RAMP

6
CD-14

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

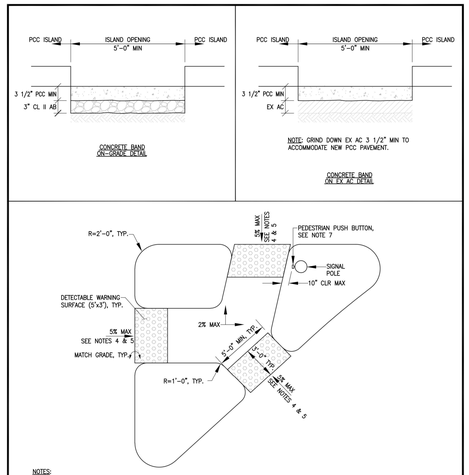
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
CONSTRUCTION DETAILS

CITY OF CAMPBELL
THE ORCHARD CITY
CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: CD-14

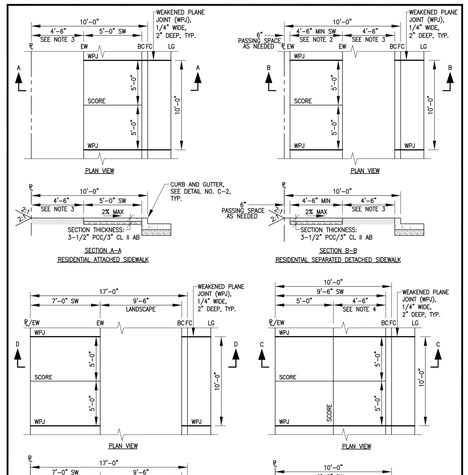
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NOTES:
1. DETECTABLE WARNING SURFACE SHALL BE DETECTABLE WARNING ADA-2 PAVERS MANUFACTURED BY WAUSAU TILE, COLOR A-60, AND SHALL BE PLACED IN A DRY SET PROCESS PER THE MANUFACTURER'S INSTRUCTIONS.
2. DETECTABLE WARNING SURFACE SHALL BE ALIGNED IN COMPLIANCE WITH PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG).
3. AT A SIGNALIZED INTERSECTION, CROSS SLOPE OF PEDESTRIAN CROSSING SHALL BE NO MORE THAN 5%.
4. CROSS SLOPE OF PEDESTRIAN CROSSING CONTROLLED BY A STOP OR A YIELD SIGN SHALL BE NO MORE THAN 2.1%.
5. ALL CONCRETE SURFACES SHALL BE TROWELED WITH A MEDIUM BROOM FINISH.
6. PEDESTRIAN PUSH BUTTON LOCATED ON TRAFFIC ISLAND SHALL BE INSTALLED 36" ABOVE THE ACCESSIBLE SURFACE.

CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		TRAFFIC ISLAND WALKWAY DETAILS	DETAIL NO.
APPROVED BY: AMY OLAY, P.E. CITY ENGINEER	DATE:	SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C8 NTS	C-8

TRAFFIC ISLAND WALKWAY DETAILS
1 CD-15



SEE NOTES IN DETAIL NO. C-9.2.

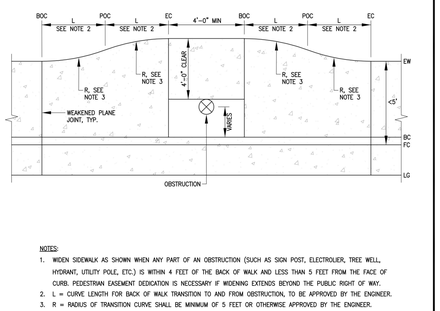
CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		SIDEWALK CONFIGURATIONS	DETAIL NO.
APPROVED BY: AMY OLAY, P.E. CITY ENGINEER	DATE:	SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C9.1 NTS	C-9.1

CURB, GUTTER, AND SIDEWALK CONFIGURATIONS
2 CD-15

NOTES:
1. MECHANICAL SEPARATORS REQUIRED AT ADJACENT STRUCTURES.
2. WHERE THE CLEAR WIDTH OF THE SIDEWALK IS LESS THAN 5', SIDEWALK SHALL HAVE A 5'x5' MIN PASSING SPACE AT INTERVALS OF NO GREATER THAN 200'.
3. LANDSCAPE STRIP AREA FOR UTILITIES AND STREET TREES.
4. INSTALL 4'-6"x5' TREE WELLS WITH STREET TREES AT 40' O.C. BACK OF CURB W/ IRRIGATION.
5. COMPACT SUBGRADE TO 90% RELATIVE COMPACTION FOR SIDEWALK.
6. ALL CONCRETE SURFACES SHALL BE TROWELLED WITH A LIGHT BROOM FINISH. GROOVES SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL.

CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		SIDEWALK CONFIGURATIONS - NOTES	DETAIL NO.
APPROVED BY: AMY OLAY, P.E. CITY ENGINEER	DATE:	SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C9.2 NTS	C-9.2

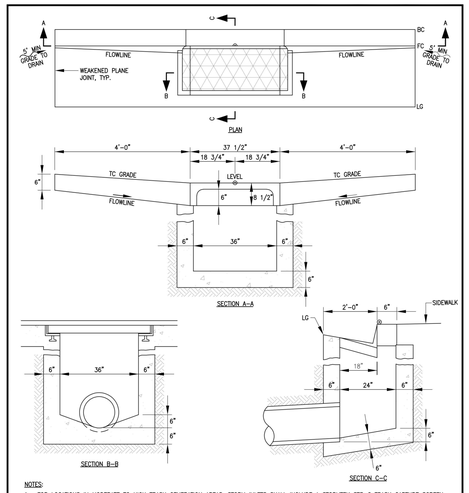
CURB, GUTTER, AND SIDEWALK CONFIGURATIONS - NOTES
3 CD-15



NOTES:
1. WIDEN SIDEWALK AS SHOWN WHEN ANY PART OF AN OBSTRUCTION (SUCH AS SIGN POST, ELECTROLIER, TREE WELL, HYDRANT, UTILITY POLE, ETC.) IS WITHIN 4 FEET OF THE BACK OF WALK AND LESS THAN 5 FEET FROM THE FACE OF CURB. PEDESTRIAN EASEMENT DEDICATION IS NECESSARY IF WIDENING EXTENDS BEYOND THE PUBLIC RIGHT OF WAY.
2. L = CURVE LENGTH FOR BACK OF WALK TRANSITION TO AND FROM OBSTRUCTION, TO BE APPROVED BY THE ENGINEER.
3. R = RADIUS OF TRANSITION CURVE SHALL BE MINIMUM OF 5 FEET OR OTHERWISE APPROVED BY THE ENGINEER.

CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		SIDEWALK WITH OBSTRUCTIONS	DETAIL NO.
APPROVED BY: AMY OLAY, P.E. CITY ENGINEER	DATE:	SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C10 NTS	C-10

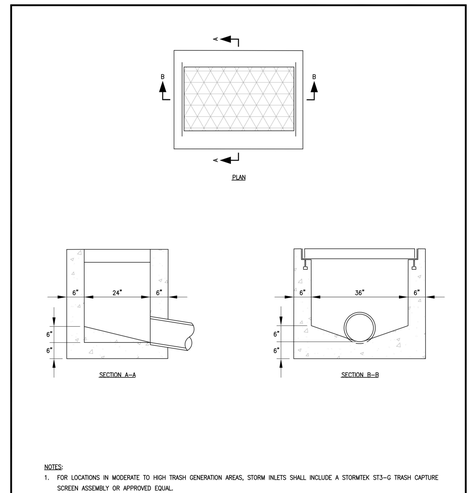
SIDEWALK WIDENING TO CLEAR OBSTRUCTIONS
4 CD-15



NOTES:
1. FOR LOCATIONS IN MODERATE TO HIGH TRASH GENERATION AREAS, STORM INLETS SHALL INCLUDE A STORMTEK ST3-G TRASH CAPTURE SCREEN ASSEMBLY OR APPROVED EQUAL.
2. FRAME, GRATE, AND HOOD DETAIL SHALL BE PER DETAIL NO. C-13.
3. PCC SHALL BE CLASS A (CONCRETE SHALL CONTAIN APPROX. 564 POUNDS OF PORTLAND CEMENT PER CUBIC YARD AND HAVE A 28-DAY COMPRESSIVE STRENGTH OF NOT LESS THAN 3000 PSI).
4. INSTALL STEPS IN INLETS OVER 3' FEET DEEP.
5. FORM BOTTOM OF INLET TO DRAIN.

CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		DRAINAGE INLET	DETAIL NO.
APPROVED BY: AMY OLAY, P.E. CITY ENGINEER	DATE:	SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C11 NTS	C-11

DRAINAGE INLET
5 CD-15



NOTES:
1. FOR LOCATIONS IN MODERATE TO HIGH TRASH GENERATION AREAS, STORM INLETS SHALL INCLUDE A STORMTEK ST3-G TRASH CAPTURE SCREEN ASSEMBLY OR APPROVED EQUAL.
2. FRAME, GRATE, AND HOOD DETAIL SHALL BE PER DETAIL NO. C-13.
3. PCC SHALL BE CLASS A (CONCRETE SHALL CONTAIN APPROX. 564 POUNDS OF PORTLAND CEMENT PER CUBIC YARDS AND HAVE A 28-DAY COMPRESSIVE STRENGTH OF NOT LESS THAN 3000 PSI).
4. FORM BOTTOM OF INLET TO DRAIN.

CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		FLAT GRATE INLET	DETAIL NO.
APPROVED BY: AMY OLAY, P.E. CITY ENGINEER	DATE:	SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C12 NTS	C-12

FLAT GRATE INLET
6 CD-15

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

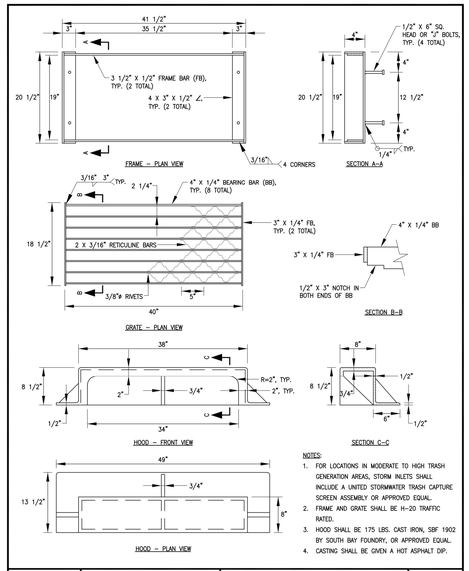
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
CONSTRUCTION DETAILS

CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: CD-15

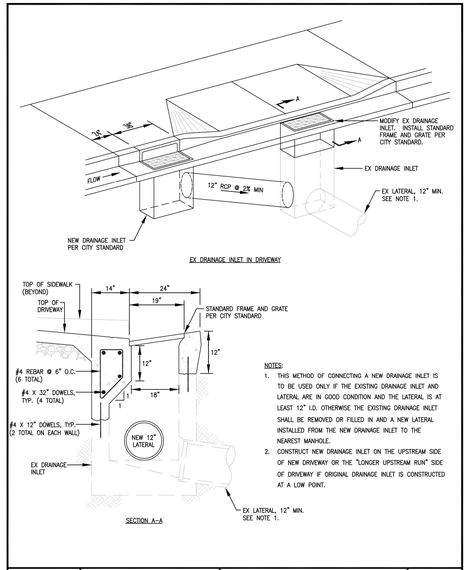
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NOTES:
1. FOR LOCATIONS IN MODERATE TO HIGH TRASH GENERATION AREAS, STORM INLETS SHALL INCLUDE A UNITED STORMWATER TRASH CAPTURE SCREEN ASSEMBLY OR APPROVED EQUAL.
2. FRAME AND GRATE SHALL BE H–20 TRAFFIC RATED.
3. HOOD SHALL BE 175 LBS. CAST IRON, SBF 1902 BY SOUTH BAY FOUNDRY, OR APPROVED EQUAL.
4. CASTING SHALL BE GIVEN A HOT ASPHALT DIP.

CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		DETAIL NO.
APPROVED BY: DATE: AMY OLAY, P.E. CITY ENGINEER	FRAME, GRATE, AND HOOD	C–13
SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C13	NTS	

FRAME, GRATE, AND HOOD
1 CD–16



SEE NOTES IN DETAIL NO. C–19.2.

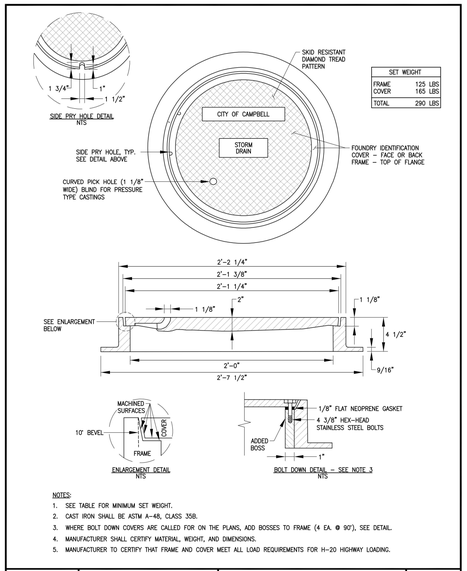
CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		DETAIL NO.
APPROVED BY: DATE: AMY OLAY, P.E. CITY ENGINEER	RESIDENTIAL DRIVEWAY (ATTACHED SIDEWALK)	C–19.1
SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C19.1	NTS	

RESIDENTIAL DRIVEWAY (ATTACHED SIDEWALK)
4 CD–16

NOTES:
1. THIS METHOD OF CONNECTING A NEW DRAINAGE INLET IS TO BE USED ONLY IF THE EXISTING DRAINAGE INLET AND LATERAL ARE IN GOOD CONDITION AND THE LATERAL IS AT LEAST 12" I.D. OTHERWISE THE EXISTING DRAINAGE INLET SHALL BE REMOVED OR FILLED IN AND A NEW LATERAL INSTALLED FROM THE NEW DRAINAGE INLET TO THE NEAREST MANHOLE.
2. CONSTRUCT NEW DRAINAGE INLET ON THE UPSTREAM SIDE OF NEW DRIVEWAY OR THE "LONGER UPSTREAM RUN" SIDE OF DRIVEWAY IF ORIGINAL DRAINAGE INLET IS CONSTRUCTED AT A LOW POINT.

CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		DETAIL NO.
APPROVED BY: DATE: AMY OLAY, P.E. CITY ENGINEER	ADAPTATION FOR EXISTING DRAINAGE INLET IN NEW DRIVEWAY	C–14
SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C14	NTS	

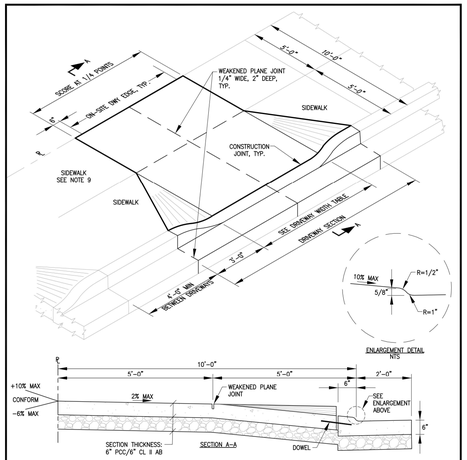
ADAPTATION FOR EXISTING DRAINAGE INLET IN NEW DRIVEWAY
2 CD–16



NOTES:
1. SEE TABLE FOR MINIMUM SET WEIGHT.
2. CAST IRON SHALL BE ASTM A–48, CLASS 35B.
3. WHERE BOLT DOWN COVERS ARE CALLED FOR ON THE PLANS, ADD BOSSES TO FRAME (4 EA. @ 90°), SEE DETAIL.
4. MANUFACTURER SHALL CERTIFY MATERIAL, WEIGHT, AND DIMENSIONS.
5. MANUFACTURER TO CERTIFY THAT FRAME AND COVER MEET ALL LOAD REQUIREMENTS FOR H–20 HIGHWAY LOADING.

CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		DETAIL NO.
APPROVED BY: DATE: AMY OLAY, P.E. CITY ENGINEER	MANHOLE FRAME & COVER	C–15
SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C15	NTS	

MANHOLE FRAME & COVER
3 CD–16



SEE NOTES IN DETAIL NO. C–19.2.

CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		DETAIL NO.
APPROVED BY: DATE: AMY OLAY, P.E. CITY ENGINEER	COMMERCIAL DRIVEWAY	C–21.1
SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C21.1	NTS	

COMMERCIAL DRIVEWAY
6 CD–16

NOTES:
1. PCC SHALL BE CLASS A (CONCRETE SHALL CONTAIN APPROX. 564 LBS OF PORTLAND CONCRETE PER CY AND HAVE A 28–DAY COMPRESSIVE STRENGTH OF NOT LESS THAN 3000 PSI).
2. WHEN DRIVEWAY IS NOT POURED AT THE SAME TIME AS THE CURB AND GUTTER, DOWEL #4 REBAR INTO IMPROVEMENTS WITH 6" EMBEDMENT AT 4' INTERVALS AS SHOWN (REBAR TO BE BENT DOWN AND COVERED UNTIL USED).
3. SCORE MARKS SHALL NOT EXCEED 4'–0" O.C.; USE MECHANICAL SEPARATOR AT EVERY OTHER SCORE MARK.
4. DRIVEWAY APPROACHES (EXCEPT SINGLE FAMILY) SHALL HAVE A 6"x6"x10/10 WELDED WIRE FABRIC 3" ABOVE BOTTOM OF CONCRETE.
5. DOWEL ALL NEW CONCRETE IMPROVEMENTS TO EXISTING CONCRETE IMPROVEMENTS WITH #4 REBAR AT 12" INTERVALS AND 6" EMBEDMENT.
6. AT LOCATIONS WHERE NEW SIDEWALK ENDS AND MEETS AN EXISTING SIDEWALK, THE NEW SIDEWALK SHALL TRANSITION TO MEET THE EXISTING SIDEWALK AS DETERMINED BY THE ENGINEER.
7. ALL CONCRETE SURFACES SHALL BE TROWELLED WITH A LIGHT BROOM FINISH. GROOVES SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL.
8. COMPACT SUBGRADE TO 95% RELATIVE COMPACTION.
9. INSTALL DETECTABLE WARNING SURFACES ON BOTH SIDES OF DRIVEWAYS THAT ARE CONTROLLED BY YIELD, STOP CONTROL DEVICES, OR TRAFFIC SIGNALS. DETECTABLE WARNING SURFACES SHALL EXTEND 24" MINIMUM IN THE DIRECTION OF PEDESTRIAN TRAVEL. THE WIDTH OF DETECTABLE WARNING SURFACES SHALL EXTEND THE FULL WIDTH OF THE SIDEWALK.

DRIVEWAY WIDTH TABLE		
	MIN	MAX
SINGLE–FAMILY RESIDENTIAL	12'	25'
MULTI–FAMILY RESIDENTIAL	25'	40'

CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		DETAIL NO.
APPROVED BY: DATE: AMY OLAY, P.E. CITY ENGINEER	RESIDENTIAL DRIVEWAY (ATTACHED SIDEWALK) – NOTES	C–19.2
SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C19.2	NTS	

RESIDENTIAL DRIVEWAY (ATTACHED SIDEWALK)-NOTES
5 CD–16

NOTES:
1. PCC SHALL BE CLASS A (CONCRETE SHALL CONTAIN APPROX. 564 LBS OF PORTLAND CONCRETE PER CY AND HAVE A 28–DAY COMPRESSIVE STRENGTH OF NOT LESS THAN 3000 PSI).
2. WHEN DRIVEWAY IS NOT POURED AT THE SAME TIME AS THE CURB AND GUTTER, DOWEL #4 REBAR INTO IMPROVEMENTS WITH 6" EMBEDMENT AT 4' INTERVALS AS SHOWN (REBAR TO BE BENT DOWN AND COVERED UNTIL USED).
3. SCORE MARKS SHALL NOT EXCEED 4'–0" O.C.; USE MECHANICAL SEPARATOR AT EVERY OTHER SCORE MARK.
4. DRIVEWAY APPROACHES (EXCEPT SINGLE FAMILY) SHALL HAVE A 6"x6"x10/10 WELDED WIRE FABRIC 3" ABOVE BOTTOM OF CONCRETE.
5. DOWEL ALL NEW CONCRETE IMPROVEMENTS TO EXISTING CONCRETE IMPROVEMENTS WITH #4 REBAR AT 12" INTERVALS AND 6" EMBEDMENT.
6. AT LOCATIONS WHERE NEW SIDEWALK ENDS AND MEETS AN EXISTING SIDEWALK, THE NEW SIDEWALK SHALL TRANSITION TO MEET THE EXISTING SIDEWALK AS DETERMINED BY THE ENGINEER.
7. ALL CONCRETE SURFACES SHALL BE TROWELLED WITH A LIGHT BROOM FINISH. GROOVES SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL.
8. COMPACT SUBGRADE TO 95% RELATIVE COMPACTION.
9. INSTALL DETECTABLE WARNING SURFACES ON BOTH SIDES OF DRIVEWAYS THAT ARE CONTROLLED BY YIELD, STOP CONTROL DEVICES, OR TRAFFIC SIGNALS. DETECTABLE WARNING SURFACES SHALL EXTEND 24" MINIMUM IN THE DIRECTION OF PEDESTRIAN TRAVEL. THE WIDTH OF DETECTABLE WARNING SURFACES SHALL EXTEND THE FULL WIDTH OF THE SIDEWALK.

DRIVEWAY WIDTH TABLE		
	MIN	MAX
ONE–WAY	14'	14'
TWO–WAY	25'	40'

CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		DETAIL NO.
APPROVED BY: DATE: AMY OLAY, P.E. CITY ENGINEER	COMMERCIAL DRIVEWAY – NOTES	C–21.2
SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C21.2	NTS	

COMMERCIAL DRIVEWAY - NOTES
7 CD–16

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
PUBLIC WORKS DEPARTMENT

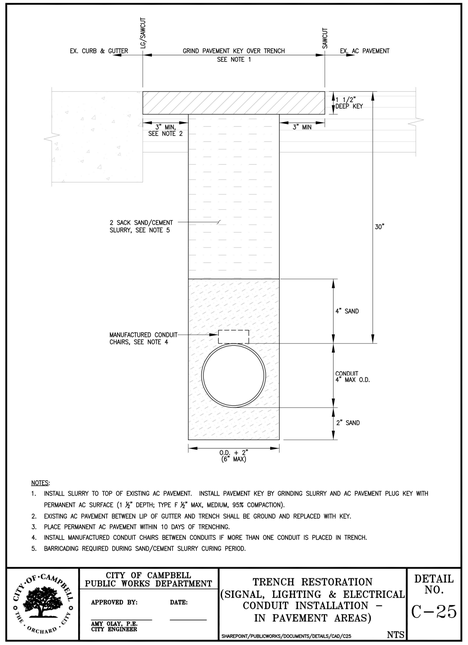
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
CONSTRUCTION DETAILS

CITY OF CAMPBELL · THE ORCHARD CITY · CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: CD-16

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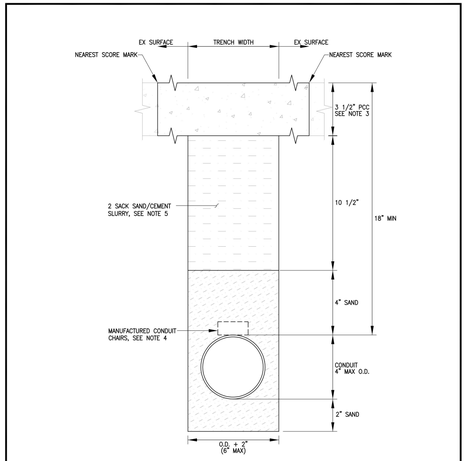
NOTES:

1. INSTALL SLURRY TO TOP OF EXISTING AC PAVEMENT. INSTALL PAVEMENT KEY BY GRINDING SLURRY AND AC PAVEMENT PLUG KEY WITH PERMANENT AC SURFACE (1 ½" DEPTH; TYPE F ½" MAX, MEDIUM, 95% COMPACTION).
2. EXISTING AC PAVEMENT BETWEEN LIP OF GUTTER AND TRENCH SHALL BE GROUND AND REPLACED WITH KEY.
3. PLACE PERMANENT AC PAVEMENT WITHIN 10 DAYS OF TRENCHING.
4. INSTALL MANUFACTURED CONDUIT CHAIRS BETWEEN CONDUITS IF MORE THAN ONE CONDUIT IS PLACED IN TRENCH.
5. BARRICADING REQUIRED DURING SAND/CEMENT SLURRY CURING PERIOD.

CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		TRENCH RESTORATION (SIGNAL, LIGHTING & ELECTRICAL CONDUIT INSTALLATION – IN PAVEMENT AREAS)	DETAIL NO.
APPROVED BY: AMY GLAY, P.E. CITY ENGINEER	DATE:	SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C25	C-25
		NTS	

TRENCH RESTORATION (SIGNAL, LIGHTING & ELECTRICAL CONDUIT INSTALLATION - IN PAVEMENT AREAS)

1 / CD-17



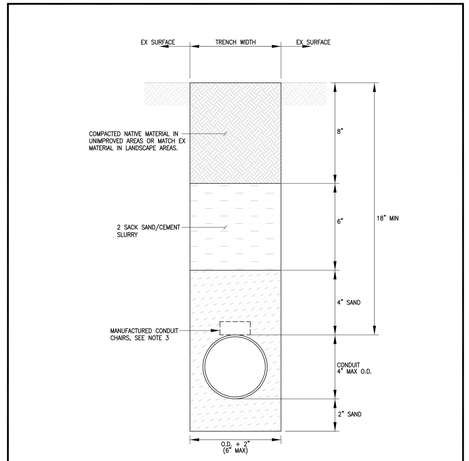
NOTES:

1. SAFE PEDESTRIAN ACCESS MUST BE PROVIDED AROUND WORK AREA AT ALL TIMES.
2. PERMANENT IMPROVEMENTS SHALL BE COMPLETED WITHIN 5 DAYS OF TRENCHING.
3. ENTIRE SIDEWALK PANEL MUST BE SAWCUT AND REMOVED AT SCORE MARKS.
4. INSTALL MANUFACTURED CONDUIT CHAIRS BETWEEN CONDUITS IF MORE THAN ONE CONDUIT IS PLACED IN TRENCH.
5. CL II AB, 95% RELATIVE COMPACTION MAY BE USED IN LIEU OF TOP 3 1/2" OF SAND/CEMENT SLURRY.

CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		TRENCH RESTORATION (SIGNAL, LIGHTING & ELECTRICAL CONDUIT INSTALLATION – IN WALKWAY AREAS)	DETAIL NO.
APPROVED BY: AMY GLAY, P.E. CITY ENGINEER	DATE:	SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C26	C-26
		NTS	

TRENCH RESTORATION (SIGNAL, LIGHTING & ELECTRICAL CONDUIT INSTALLATION - IN WALKWAY AREAS)

2 / CD-17



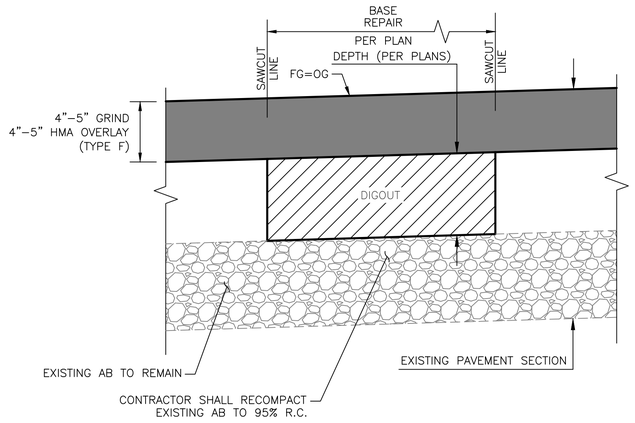
NOTES:

1. SAFE PEDESTRIAN ACCESS MUST BE PROVIDED AROUND WORK AREA AT ALL TIMES.
2. PERMANENT IMPROVEMENTS SHALL BE COMPLETED WITHIN 5 DAYS OF TRENCHING.
3. INSTALL MANUFACTURED CONDUIT CHAIRS BETWEEN CONDUITS IF MORE THAN ONE IN TRENCH.

CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		TRENCH RESTORATION (SIGNAL, LIGHTING & ELECTRICAL CONDUIT INSTALLATION – IN UNIMPROVED AREAS)	DETAIL NO.
APPROVED BY: AMY GLAY, P.E. CITY ENGINEER	DATE:	SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C27	C-27
		NTS	

TRENCH RESTORATION (SIGNAL, LIGHTING & ELECTRICAL CONDUIT INSTALLATION - IN UNIMPROVED AREAS)

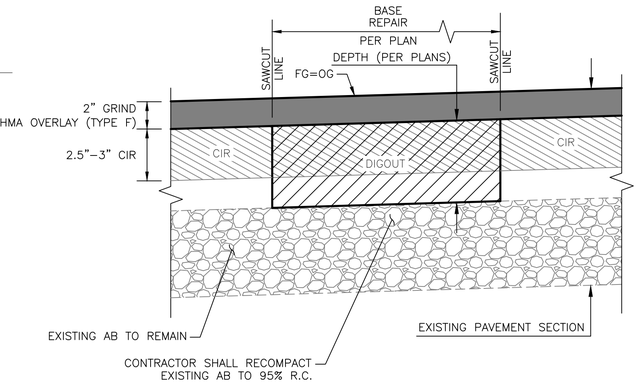
3 / CD-17



MILL AND OVERLAY

4 / CD-17

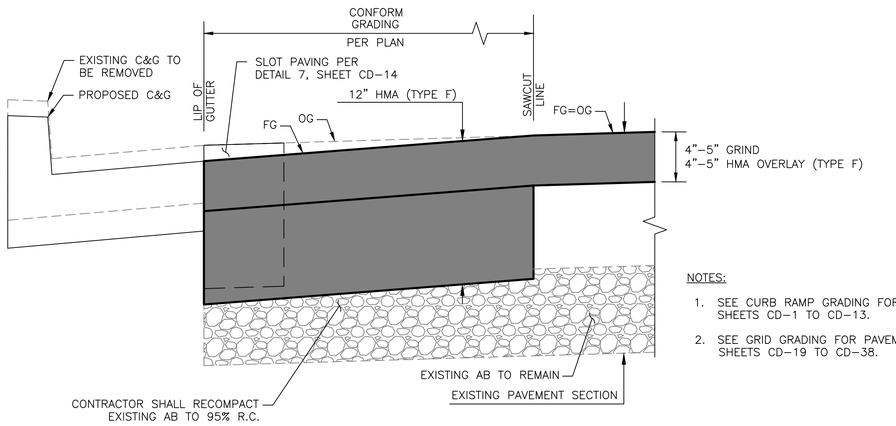
L–2 TO L–7
L–10 TO L–13



COLD IN-PLACE RECYCLING

5 / CD-17

L–7 TO L–10
L–13 TO L–17



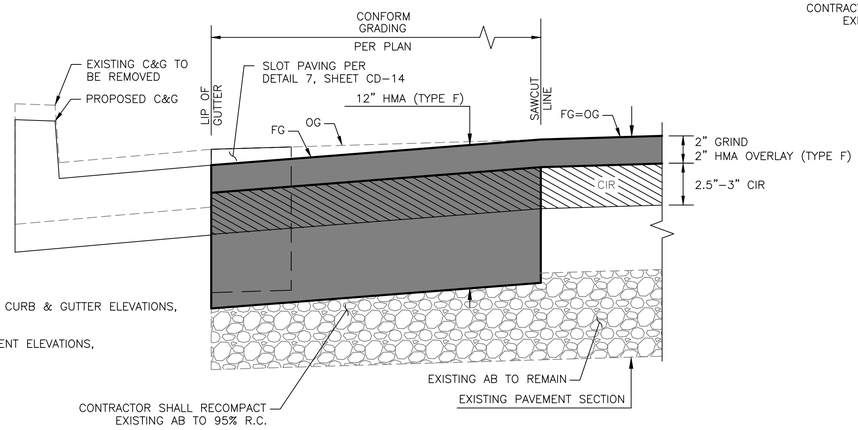
NOTES:

1. SEE CURB RAMP GRADING FOR CURB & GUTTER ELEVATIONS, SHEETS CD–1 TO CD–13.
2. SEE GRID GRADING FOR PAVEMENT ELEVATIONS, SHEETS CD–19 TO CD–38.

HMA CONFORM GRADING (MILL AND OVERLAY)

6 / CD-17

L–2 TO L–7
L–10 TO L–13



HMA CONFORM GRADING (COLD IN-PLACE RECYCLING)

7 / CD-17

L–7 TO L–10
L–13 TO L–17

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

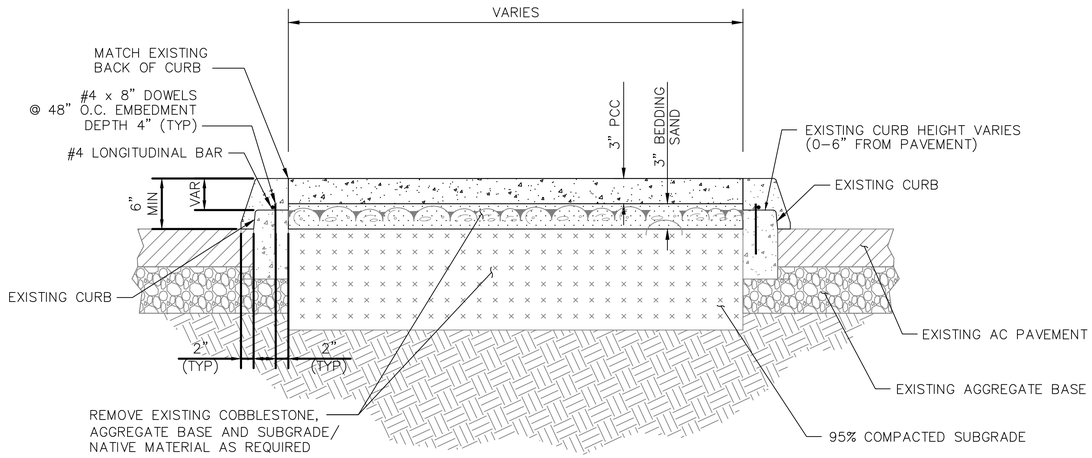
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
CONSTRUCTION DETAILS

CAMPBELL, CALIFORNIA

SCALE: NTS

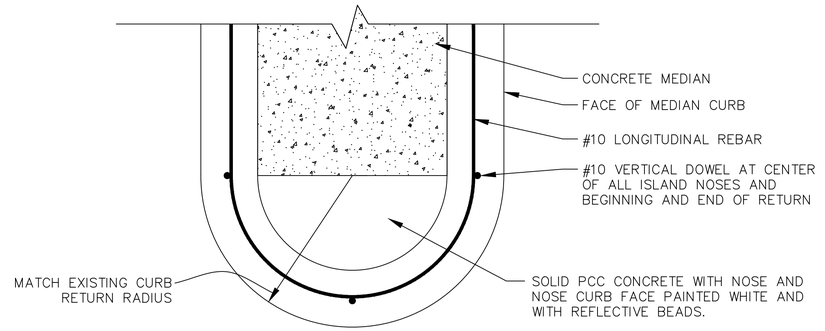
SHEET: CD-17

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MODIFIED CONCRETE ISLAND MEDIAN WITH MODIFIED EXTRUDED CURB

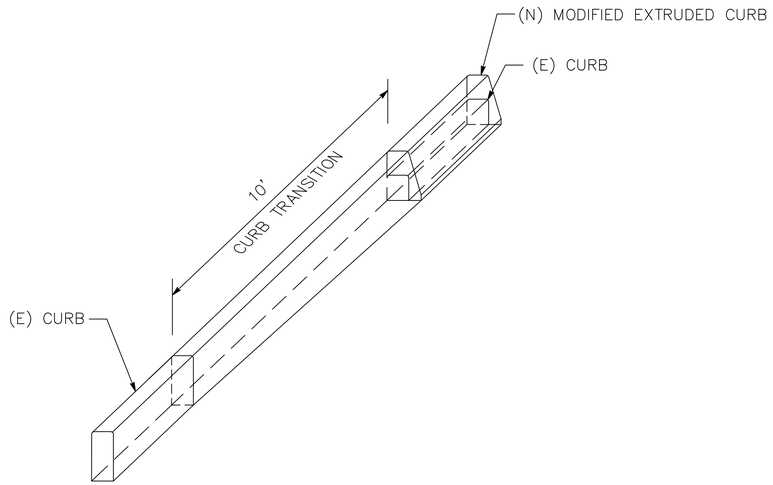
1 CD-18



MEDIAN NOSE

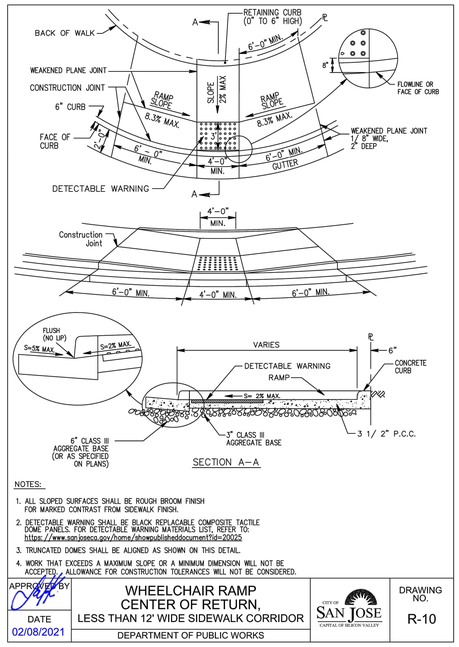
"HA-1" 97+88.49
"HA-2" 153+52.12

2 CD-18



TRANSITION FROM (E) CURB TO (N) MODIFIED EXTRUDED CURB

3 CD-18



NOTES:

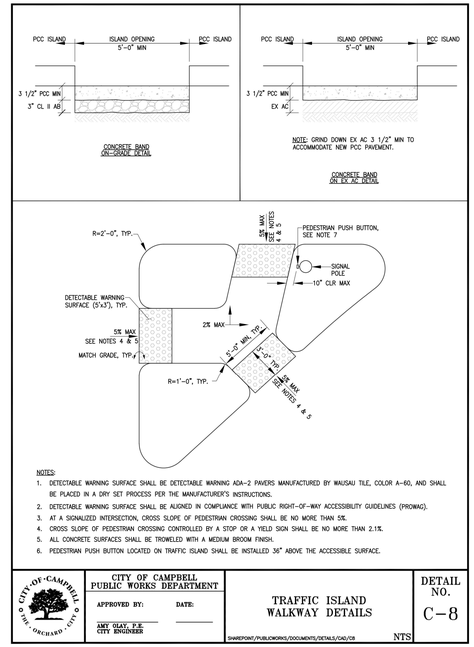
1. ALL SLOPED SURFACES SHALL BE ROUGH BROOM FINISH FOR MARKED CONTRAST FROM SIDEWALK FINISH.
2. DETECTABLE WARNING SHALL BE BLACK REPLACABLE COMPOSITE TACTILE DOME PANELS. FOR DETECTABLE WARNING MATERIALS LIST, REFER TO: https://www.sanjoseca.gov/home/showpublisheddocument?id=20025
3. TRUNCATED DOMES SHALL BE ALIGNED AS SHOWN ON THIS DETAIL.
4. WORK THAT EXCEEDS A MAXIMUM SLOPE OR A MINIMUM DIMENSION WILL NOT BE ACCEPTED. ALLOWANCE FOR CONSTRUCTION TOLERANCES WILL NOT BE CONSIDERED.

APPROVED BY	WHEELCHAIR RAMP CENTER OF RETURN, LESS THAN 12' WIDE SIDEWALK CORRIDOR	CITY OF SAN JOSE CAPITAL OF SILICON VALLEY	DRAWING NO.
DATE 02/08/2021	DEPARTMENT OF PUBLIC WORKS		R-10

WHEEL CHAIR RAMP CENTER OF RETURN,

LESS THAN 12' WIDE SIDEWALK CORRIDOR

4 CD-18



NOTES:

1. DETECTABLE WARNING SURFACE SHALL BE DETECTABLE WARNING ADA-2 PAVERS MANUFACTURED BY WAUSAU TILE, COLOR A-60, AND SHALL BE PLACED IN A DRY SET PROCESS PER THE MANUFACTURER'S INSTRUCTIONS.
2. DETECTABLE WARNING SURFACE SHALL BE ALIGNED IN COMPLIANCE WITH PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG).
3. AT A SIGNALIZED INTERSECTION, CROSS SLOPE OF PEDESTRIAN CROSSING SHALL BE NO MORE THAN 5%.
4. CROSS SLOPE OF PEDESTRIAN CROSSING CONTROLLED BY A STOP OR A YIELD SIGN SHALL BE NO MORE THAN 2.1%.
5. ALL CONCRETE SURFACES SHALL BE TROWELED WITH A MEDIUM BROOM FINISH.
6. PEDESTRIAN PUSH BUTTON LOCATED ON TRAFFIC ISLAND SHALL BE INSTALLED 36" ABOVE THE ACCESSIBLE SURFACE.

CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT			DETAIL NO.
APPROVED BY: DATE:	TRAFFIC ISLAND WALKWAY DETAILS	NTS	C-8
AMY OLAY, P.E. CITY ENGINEER	SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/C8		

TRAFFIC ISLAND WALKWAY DETAIL

5 CD-18

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

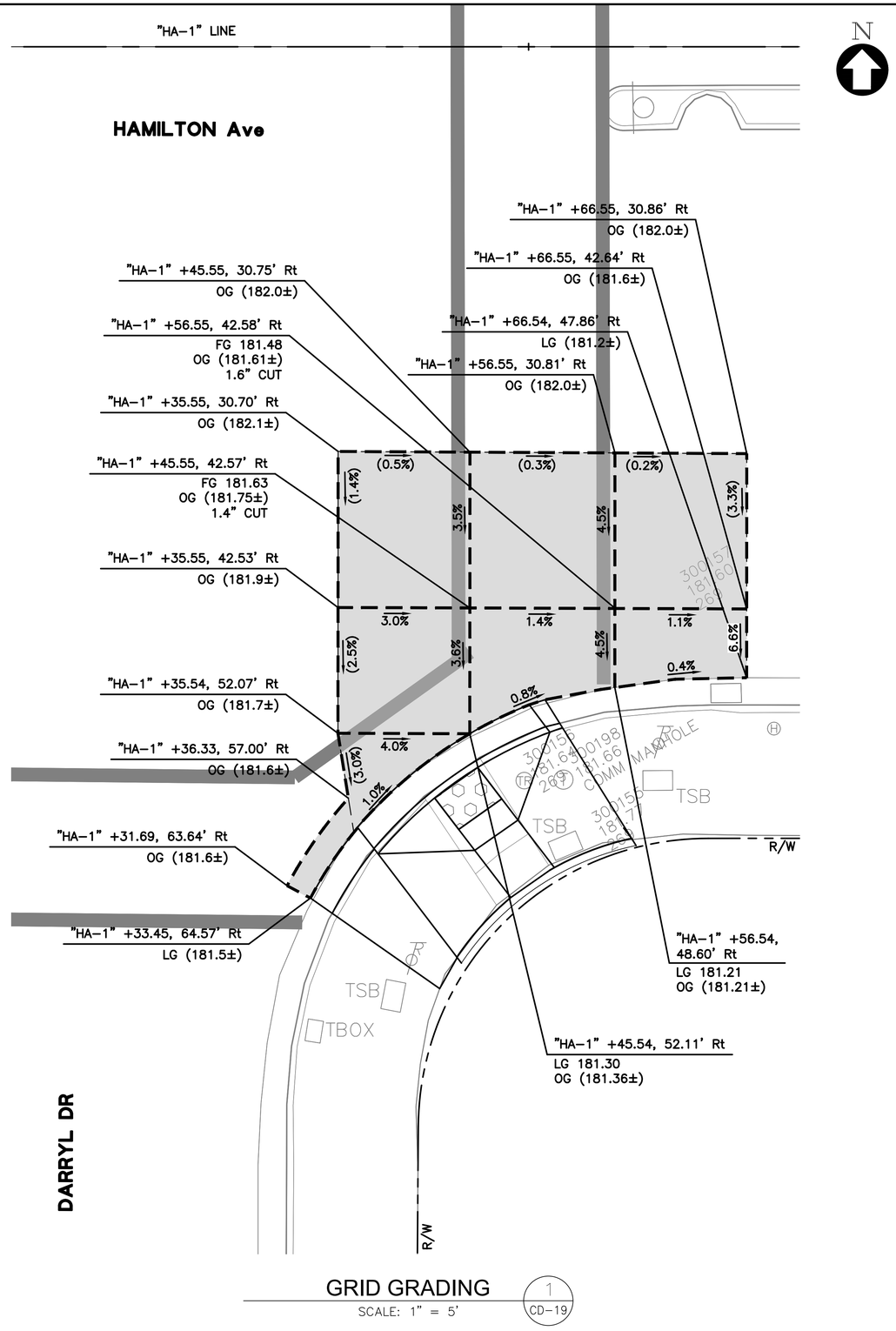
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
CONSTRUCTION DETAILS

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: CD-18

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GRID GRADING
SCALE: 1" = 5'
1
CD–19

LEGEND:

- LIMIT OF INTERSECTION GRADING
- SAWCUT/HMA CONFORM GRADING 12" DEPTH (TYPE F). SEE DETAILS 6 & 7, SHEET CD–17
- GRID GRADE
- OG (181.03±) EXISTING SPOT ELEVATION, CONFORM
- FG 180.96 PROPOSED SPOT ELEVATION
- (0.3%) EXISTING SLOPE
- 1.5% PROPOSED SLOPE

ABBREVIATIONS:

Ave	AVENUE
FG	FINISH GRADE
HP	HIGH POINT
LG	LIP OF GUTTER
LP	LOW POINT
OG	ORIGINAL GRADE

5' 0' 5' 10'
GRAPHIC SCALE

No. | Revision | Date | By | Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

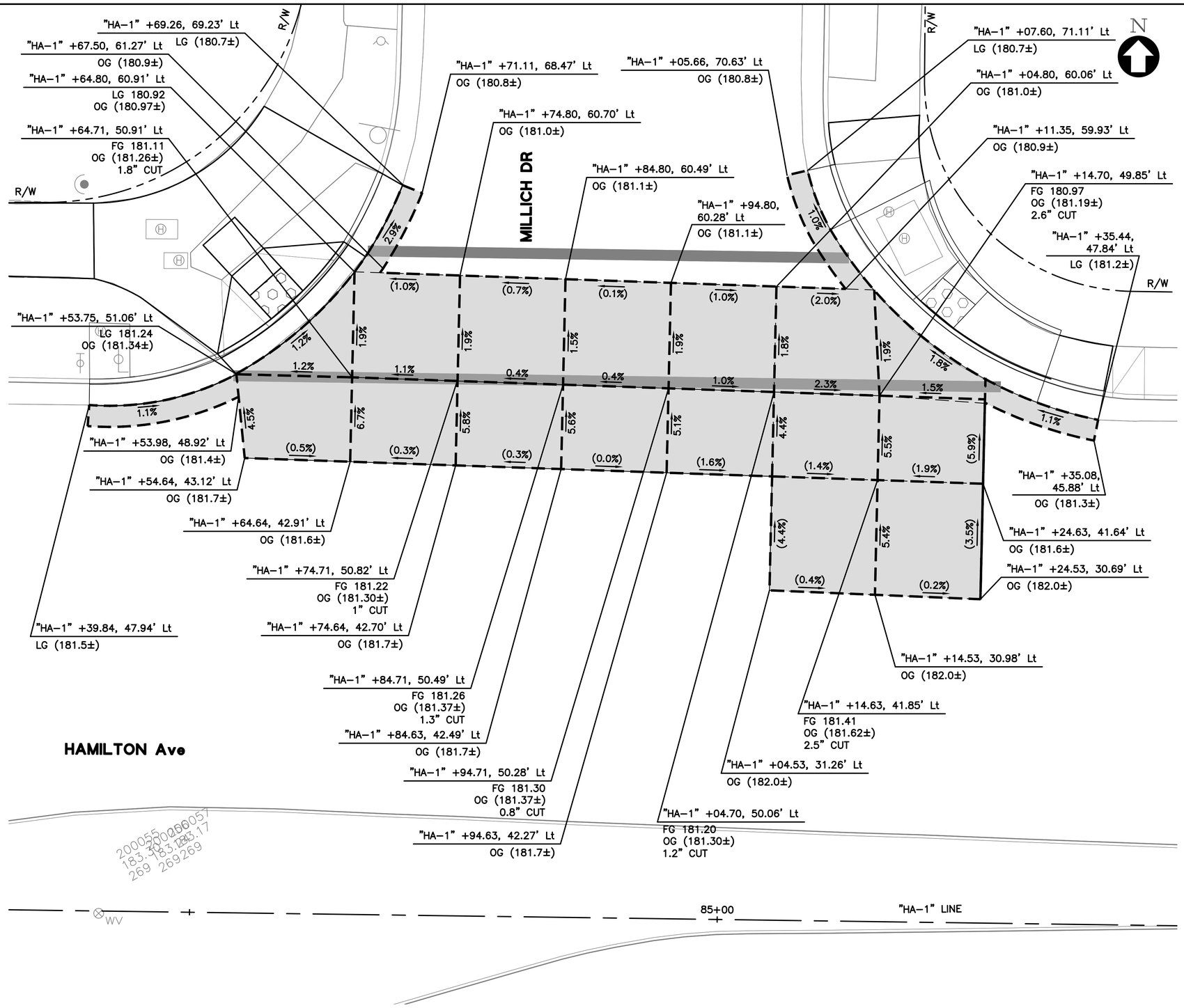
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
CONSTRUCTION DETAILS

CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-19

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LEGEND:

- LIMIT OF INTERSECTION GRADING
- SAWCUT/HMA CONFORM GRADING 12" DEPTH (TYPE F). SEE DETAILS 6 & 7, SHEET CD–17
- GRID GRADE
- OG (181.03±) EXISTING SPOT ELEVATION, CONFORM
- FG 180.96 PROPOSED SPOT ELEVATION
- (0.3%) EXISTING SLOPE
- 1.5% PROPOSED SLOPE

ABBREVIATIONS:

Ave	AVENUE
FG	FINISH GRADE
HP	HIGH POINT
LG	LIP OF GUTTER
LP	LOW POINT
OG	ORIGINAL GRADE

GRID GRADING

SCALE: 1" = 5'

1 / CD–20

5' 0' 5' 10'

GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

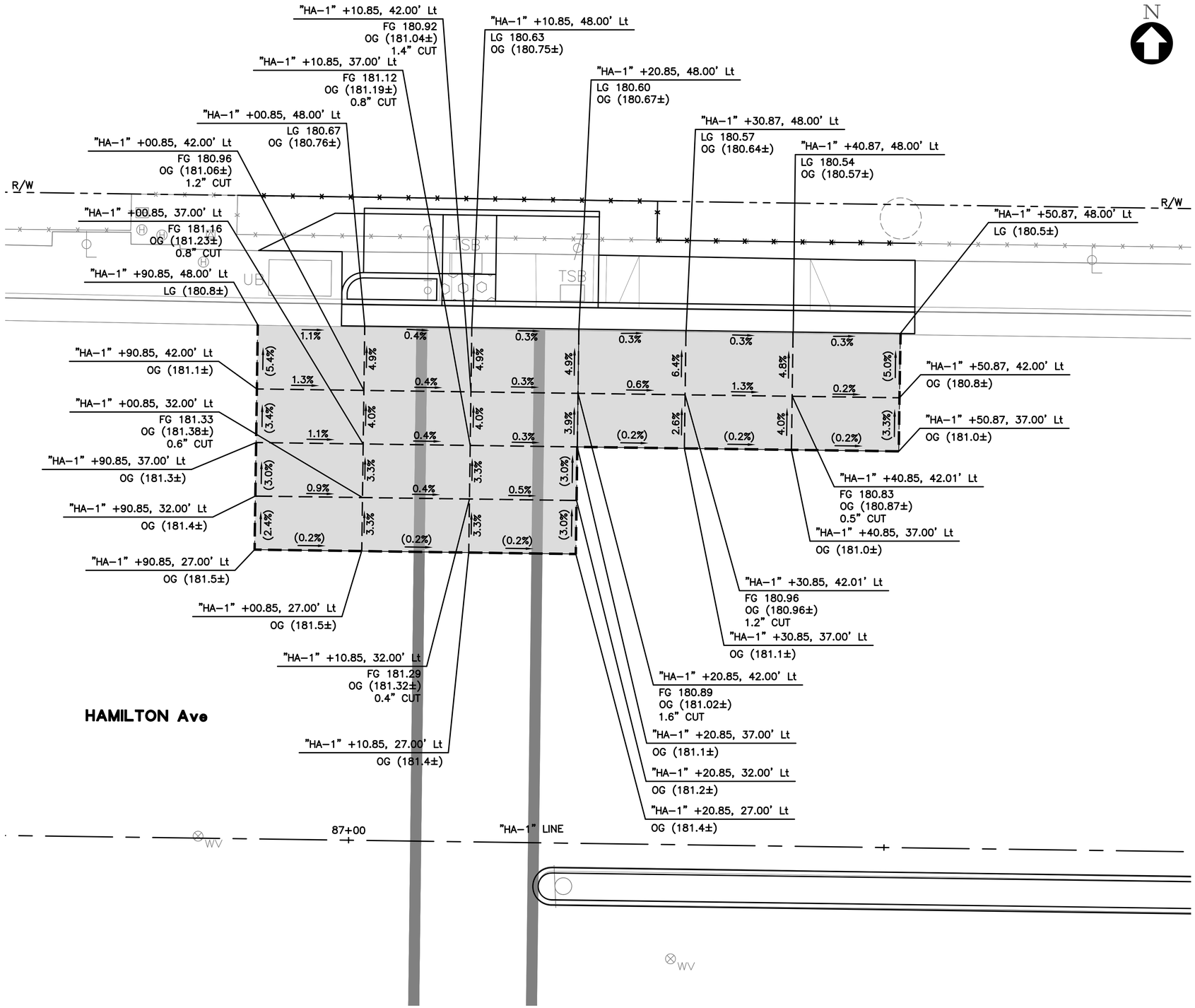
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
CONSTRUCTION DETAILS

CITY OF CAMPBELL · THE ORCHARD CITY · CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD–20

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GRID GRADING

SCALE: 1" = 5'

1 / CD-21

5' 0' 5' 10'

GRAPHIC SCALE

LEGEND:

- LIMIT OF INTERSECTION GRADING
- SAWCUT/HMA CONFORM GRADING 12" DEPTH (TYPE F). SEE DETAILS 6 & 7, SHEET CD–17
- GRID GRADE
- OG (181.03±) EXISTING SPOT ELEVATION, CONFORM
- FG 180.96 PROPOSED SPOT ELEVATION
- (0.3%) EXISTING SLOPE
- 1.5% PROPOSED SLOPE

ABBREVIATIONS:

Ave	AVENUE
FG	FINISH GRADE
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No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
CONSTRUCTION DETAILS

CITY OF CAMPBELL · CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-21

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93+00

"HA–1" LINE

94+00

N

WV

WV

LEGEND:

- LIMIT OF INTERSECTION GRADING
- SAWCUT/HMA CONFORM GRADING 12" DEPTH (TYPE F). SEE DETAILS 6 & 7, SHEET CD–17
- GRID GRADE
- OG (181.03±) EXISTING SPOT ELEVATION, CONFORM
- FG 180.96 PROPOSED SPOT ELEVATION
- (0.3%) EXISTING SLOPE
- 1.5% PROPOSED SLOPE

ABBREVIATIONS:

Ave	AVENUE
FG	FINISH GRADE
HP	HIGH POINT
LG	LIP OF GUTTER
LP	LOW POINT
OG	ORIGINAL GRADE

HAMILTON Ave

"HA–1" +59.76, 59.13' Rt
FG 179.20
OG (179.24±)
0.5" CUT

"HA–1" +59.70, 53.13' Rt
OG (179.1±)

"HA–1" +50.70, 53.21' Rt
OG (178.9±)

"HA–1" +68.70, 53.05' Rt
OG (178.9±)

"HA–1" +50.76, 59.21' Rt
FG 179.02
OG (179.08±)
0.7" CUT

"HA–1" +68.76, 59.05' Rt
FG 179.05
OG (179.12±)
0.8" CUT

"HA–1" +68.81, 65.05' Rt
FG 179.16
OG (179.24±)
1" CUT

"HA–1" +41.20, 53.30' Rt
OG (178.7±)

"HA–1" +77.22, 52.97' Rt
OG (178.7±)

"HA–1" +15.68, 46.53' Rt
OG (178.2±)

"HA–1" +41.26, 59.30' Rt
FG 178.65
OG (178.73±)
1" CUT

"HA–1" +77.27, 58.97' Rt
FG 178.78
OG (178.84±)
0.7" CUT

"HA–1" +94.48, 45.31' Rt
OG (178.4±)

"HA–1" +15.31, 48.53' Rt
LG (178.1±)

"HA–1" +95.35, 47.12' Rt
LG (178.4±)

R/W

"HA–1" +85.22, 54.90' Rt
LG 178.65
OG (178.55±)

"HA–1" +29.96, 55.40' Rt
LG 178.30
OG (178.29±)

"HA–1" +79.32, 64.95' Rt
LG 178.83
OG (178.78±)

"HA–1" +37.94, 65.33' Rt
LG 178.53
OG (178.54±)

"HA–1" +77.32, 64.97' Rt
FG 178.89
OG (178.89±)

"HA–1" +41.31, 65.30' Rt
FG 178.63
OG (178.71±)
1" CUT

"HA–1" +68.85, 70.05' Rt
OG (179.4±)

"HA–1" +75.94, 69.98' Rt
OG (179.1±)

"HA–1" +41.42, 77.80' Rt
LG (178.9±)

"HA–1" +50.81, 65.21' Rt
FG 179.09
OG (179.21±)
1.4" CUT

"HA–1" +77.43, 76.01' Rt
LG (179.0±)

"HA–1" +59.81, 65.13' Rt
FG 179.32
OG (179.39±)
0.8" CUT

"HA–1" +75.43, 76.01' Rt
OG (179.1±)

CARLYN Ave

"HA–1" +50.86, 70.21' Rt
OG (179.3±)

"HA–1" +59.86, 70.13' Rt
OG (179.4±)

R/W

R/W

(3.2%) (3.0%) (1.6%) (1.6%) (3.1%) (0.8%)
0.6% 0.3% 1.2% 1.9% 1.9% 1.8% 3.8%
3.4% 3.5% 1.8% 1.6% 3.1% 0.9%
1.5% 0.3% 1.2% 1.9% 1.9% 1.8% 2.1%
3.3% 4.8% 2.6% 1.7% 3.2%
2.8% 2.7% (5.6%) 4.2% (1.6%) 2.5% (1.0%) 3.8% (4.8%) 1.4%

GRID GRADING
SCALE: 1" = 5'
1 CD–22

5' 0' 5' 10'
GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
CONSTRUCTION DETAILS

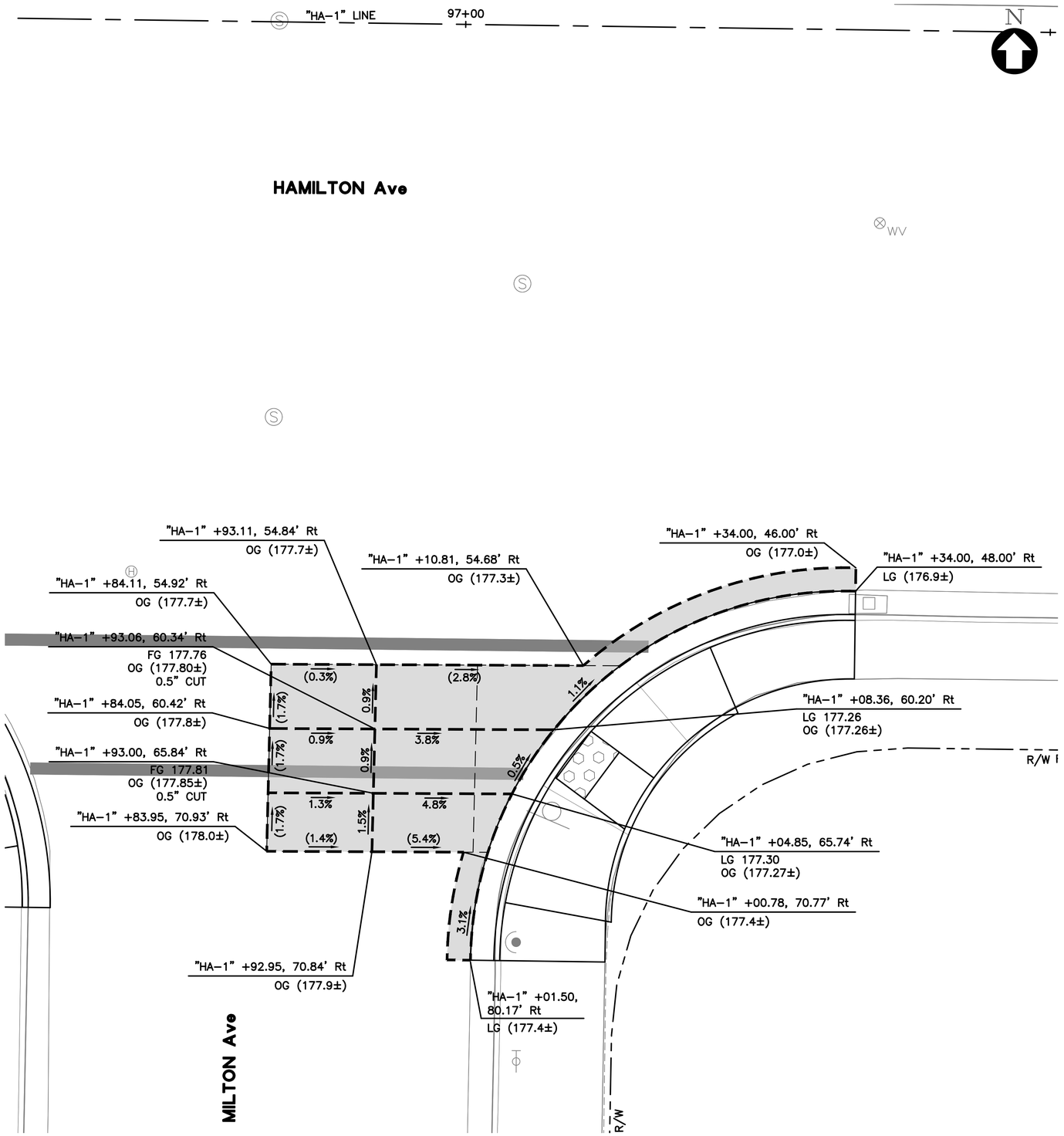
CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-22

16 May 2025 4:29:37pm alara

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GRID GRADING

SCALE: 1" = 5'

1 / CD-23

5' 0' 5' 10'

GRAPHIC SCALE

LEGEND:

- LIMIT OF INTERSECTION GRADING
- SAWCUT/HMA CONFORM GRADING 12" DEPTH (TYPE F). SEE DETAILS 6 & 7, SHEET CD-17
- GRID GRADE
- OG (181.03±) EXISTING SPOT ELEVATION, CONFORM
- FG 180.96 PROPOSED SPOT ELEVATION
- (0.3%) EXISTING SLOPE
- 1.5% PROPOSED SLOPE

ABBREVIATIONS:

Ave	AVENUE
FG	FINISH GRADE
HP	HIGH POINT
LG	LIP OF GUTTER
LP	LOW POINT
OG	ORIGINAL GRADE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
CONSTRUCTION DETAILS

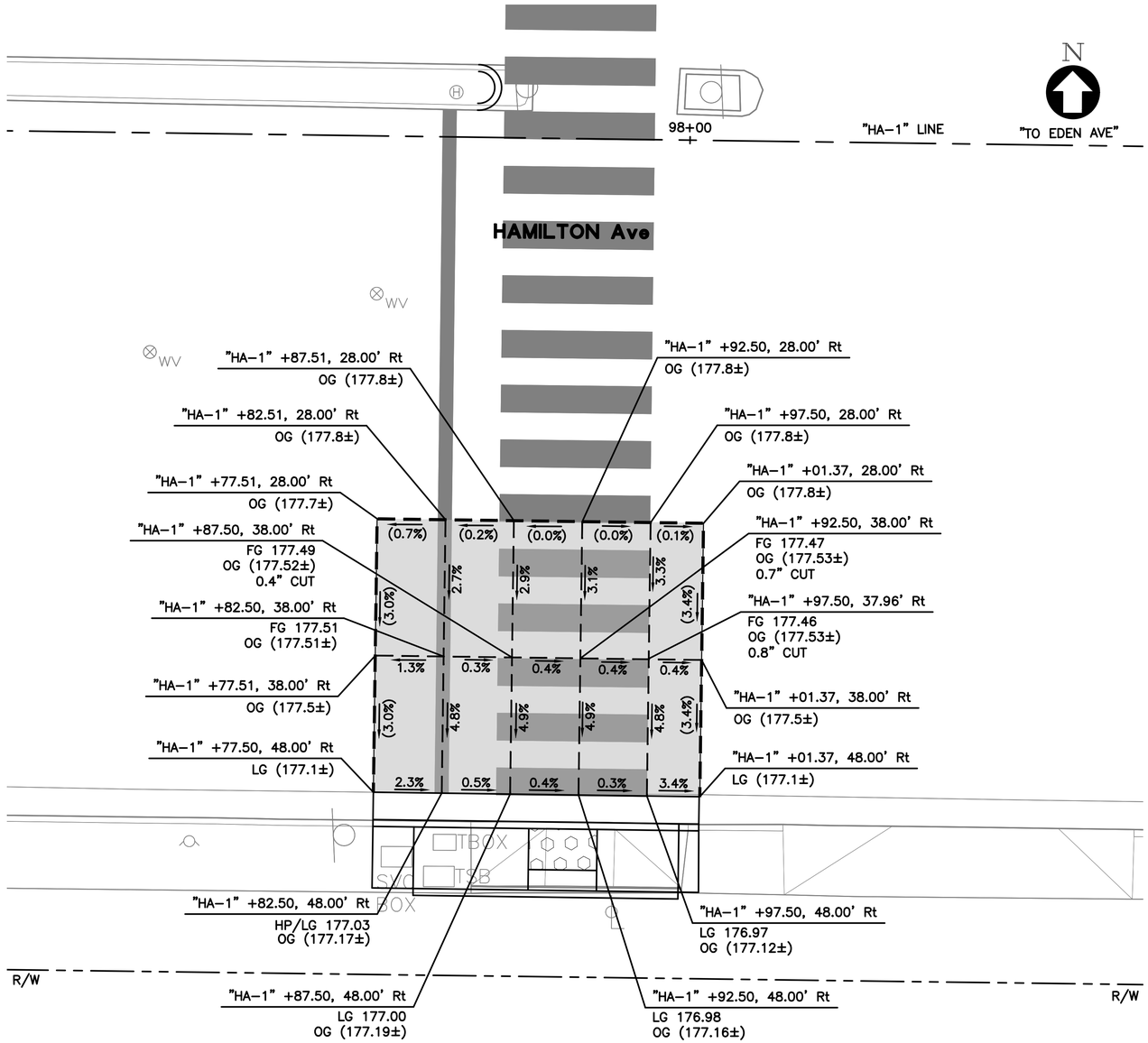
CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-23

16 May 2025 4:29:49pm alara

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GRID GRADING

SCALE: 1" = 5'

1 / CD-24

LEGEND:

- LIMIT OF INTERSECTION GRADING
- SAWCUT/HMA CONFORM GRADING 12" DEPTH (TYPE F). SEE DETAILS 6 & 7, SHEET CD-17
- GRID GRADE
- OG (181.03±) EXISTING SPOT ELEVATION, CONFORM
- FG 180.96 PROPOSED SPOT ELEVATION
- (0.3%) EXISTING SLOPE
- 1.5% PROPOSED SLOPE

ABBREVIATIONS:

Ave	AVENUE
FG	FINISH GRADE
HP	HIGH POINT
LG	LIP OF GUTTER
LP	LOW POINT
OG	ORIGINAL GRADE

5' 0' 5' 10'

GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

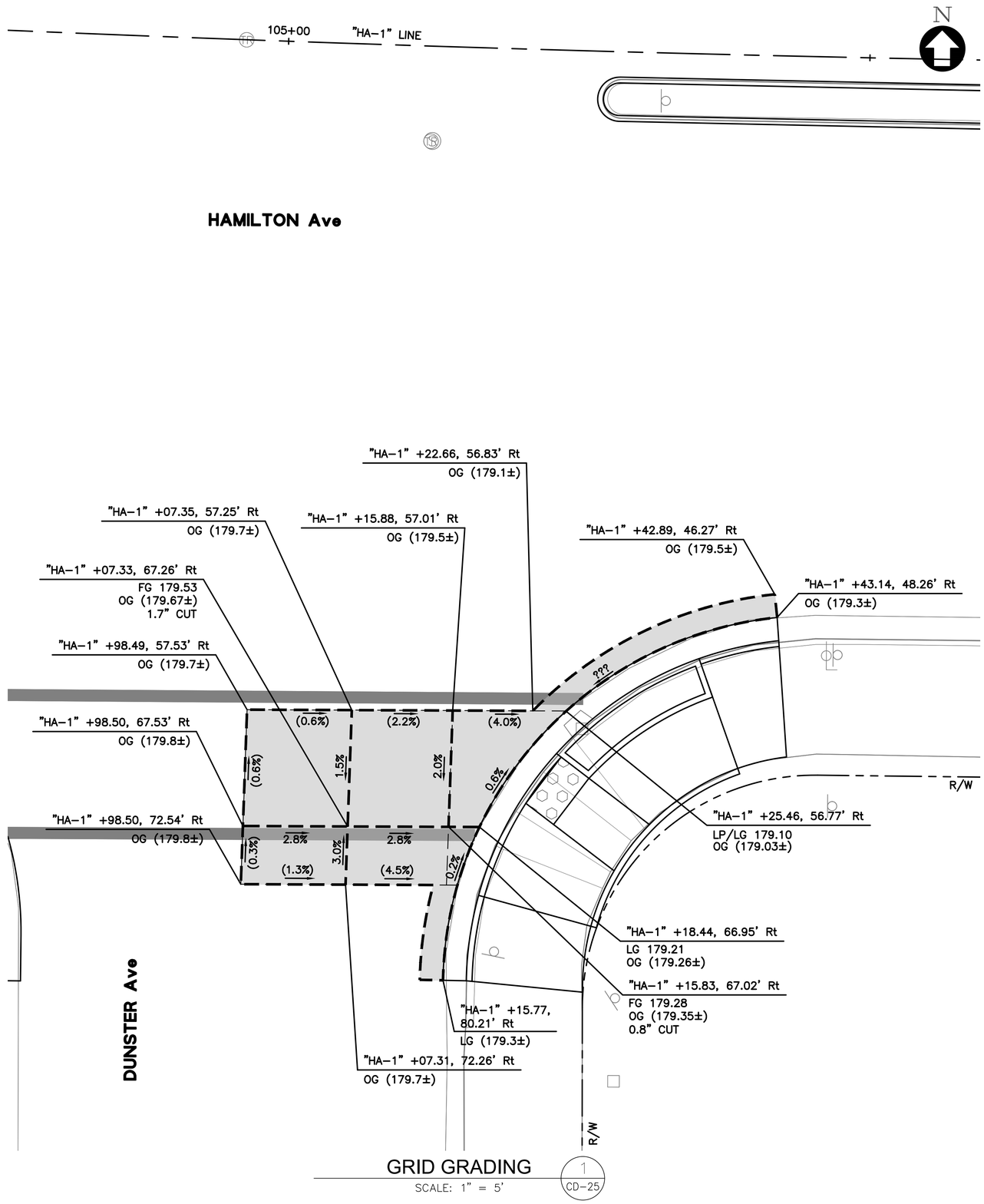
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
GRID GRADING

CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-24

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GRID GRADING
SCALE: 1" = 5'
1
CD-25

5' 0' 5' 10'
GRAPHIC SCALE

LEGEND:

- LIMIT OF INTERSECTION GRADING
- SAWCUT/HMA CONFORM GRADING 12" DEPTH (TYPE F). SEE DETAILS 6 & 7, SHEET CD-17
- GRID GRADE
- OG (181.03±) EXISTING SPOT ELEVATION, CONFORM
- FG 180.96 PROPOSED SPOT ELEVATION
- (0.3%) EXISTING SLOPE
- 1.5% PROPOSED SLOPE

ABBREVIATIONS:

Ave	AVENUE
FG	FINISH GRADE
HP	HIGH POINT
LG	LIP OF GUTTER
LP	LOW POINT
OG	ORIGINAL GRADE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

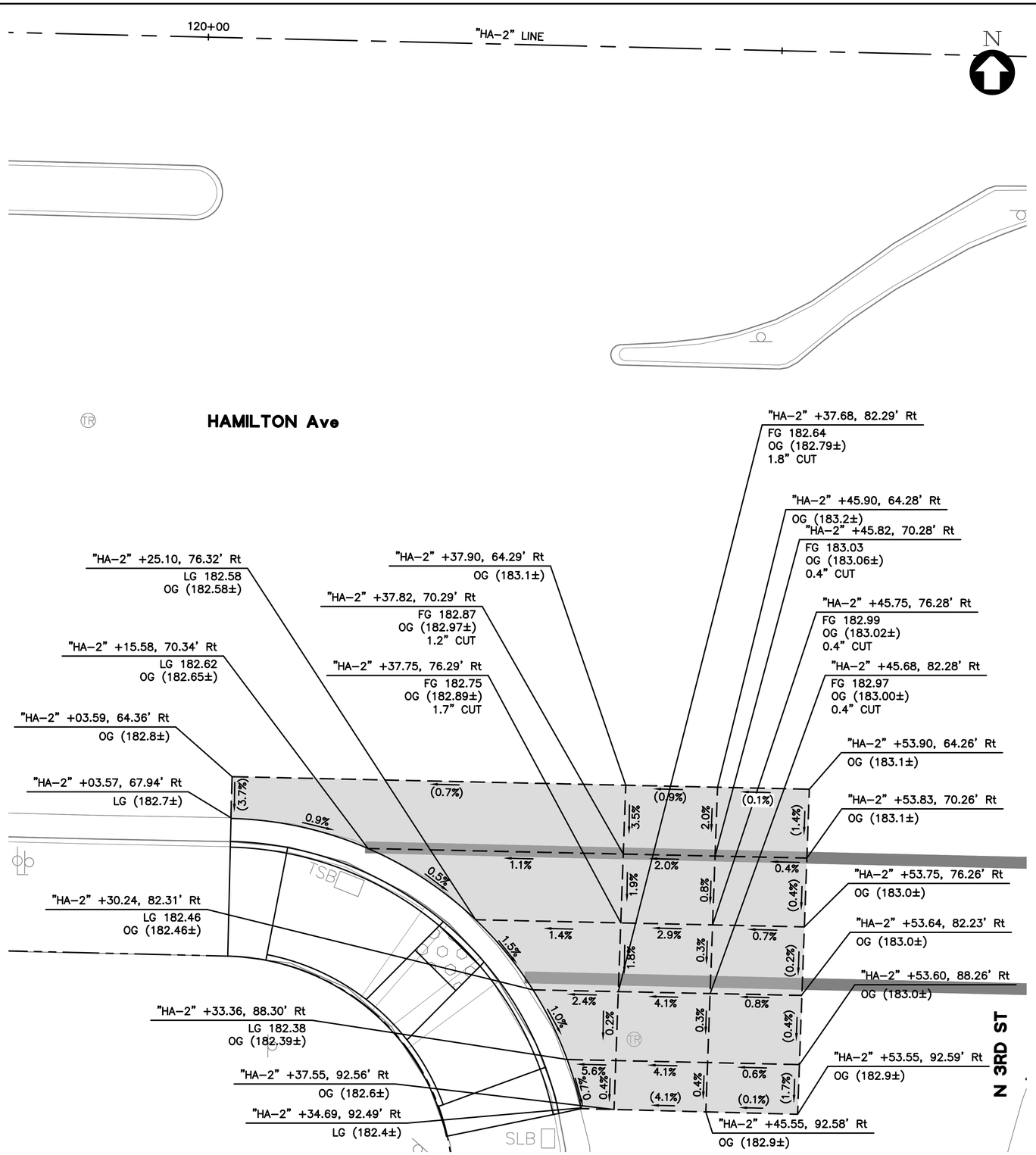
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
CONSTRUCTION DETAILS

CITY OF CAMPBELL
THE ORCHARD CITY
CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-25

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GRID GRADING

SCALE: 1" = 5'

1 CD-26

5' 0' 5' 10'

GRAPHIC SCALE

LEGEND:

- LIMIT OF INTERSECTION GRADING
- SAWCUT/HMA CONFORM GRADING 12" DEPTH (TYPE F). SEE DETAILS 6 & 7, SHEET CD-17
- GRID GRADE
- OG (181.03±) EXISTING SPOT ELEVATION, CONFORM
- FG 180.96 PROPOSED SPOT ELEVATION
- (0.3%) EXISTING SLOPE
- 1.5% PROPOSED SLOPE

ABBREVIATIONS:

Ave	AVENUE
FG	FINISH GRADE
HP	HIGH POINT
LG	LIP OF GUTTER
LP	LOW POINT
OG	ORIGINAL GRADE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
CONSTRUCTION DETAILS

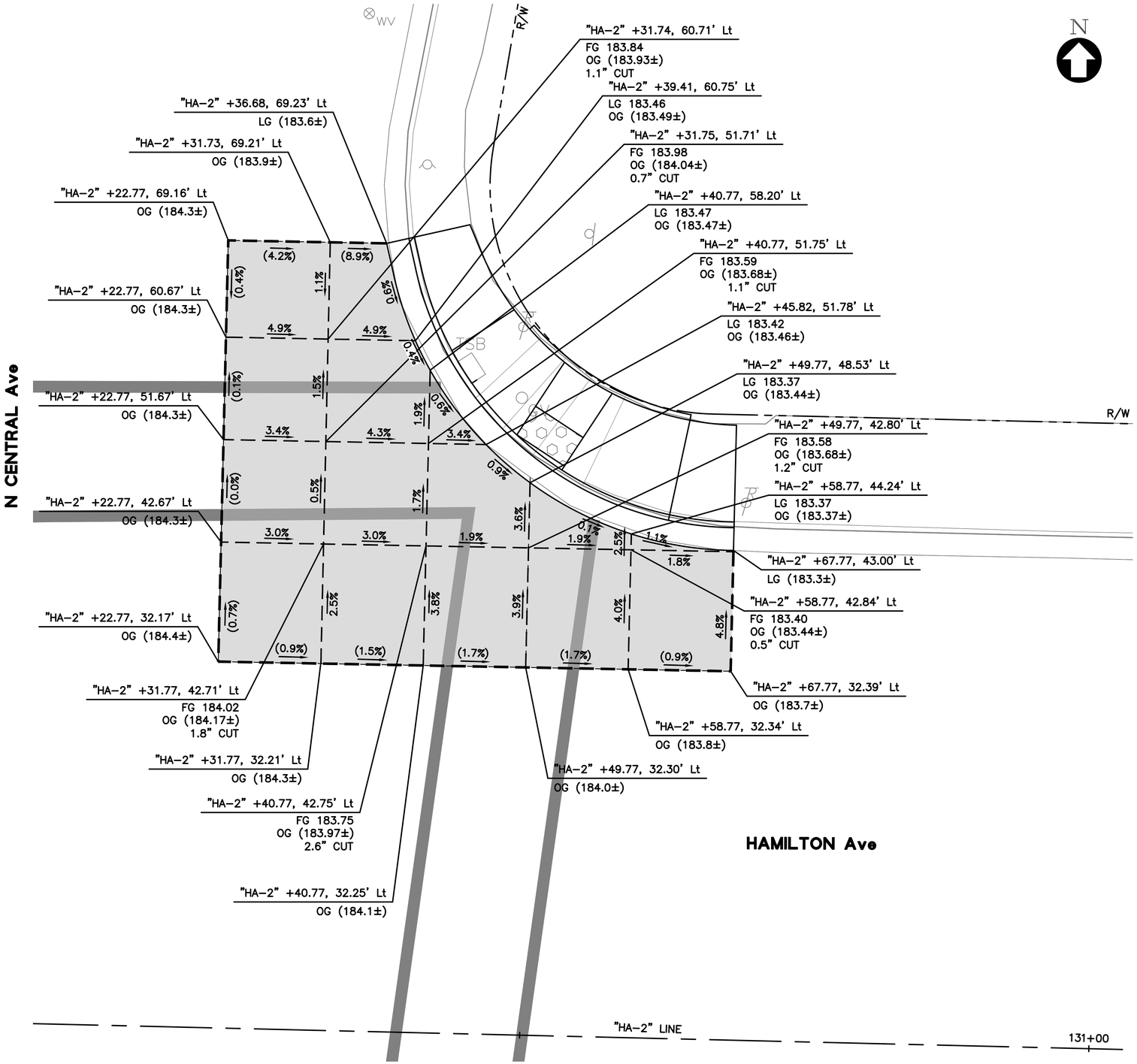
CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-26

16 May 2025 4:30:32pm alara

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LEGEND:

- LIMIT OF INTERSECTION GRADING
- SAWCUT/HMA CONFORM GRADING 12" DEPTH (TYPE F). SEE DETAILS 6 & 7, SHEET CD–17
- GRID GRADE
- OG (181.03±) EXISTING SPOT ELEVATION, CONFORM
- FG 180.96 PROPOSED SPOT ELEVATION
- (0.3%) EXISTING SLOPE
- 1.5% PROPOSED SLOPE

ABBREVIATIONS:

Ave	AVENUE
FG	FINISH GRADE
HP	HIGH POINT
LG	LIP OF GUTTER
LP	LOW POINT
OG	ORIGINAL GRADE

GRID GRADING
SCALE: 1" = 5'
1 CD–27

5' 0' 5' 10'
GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

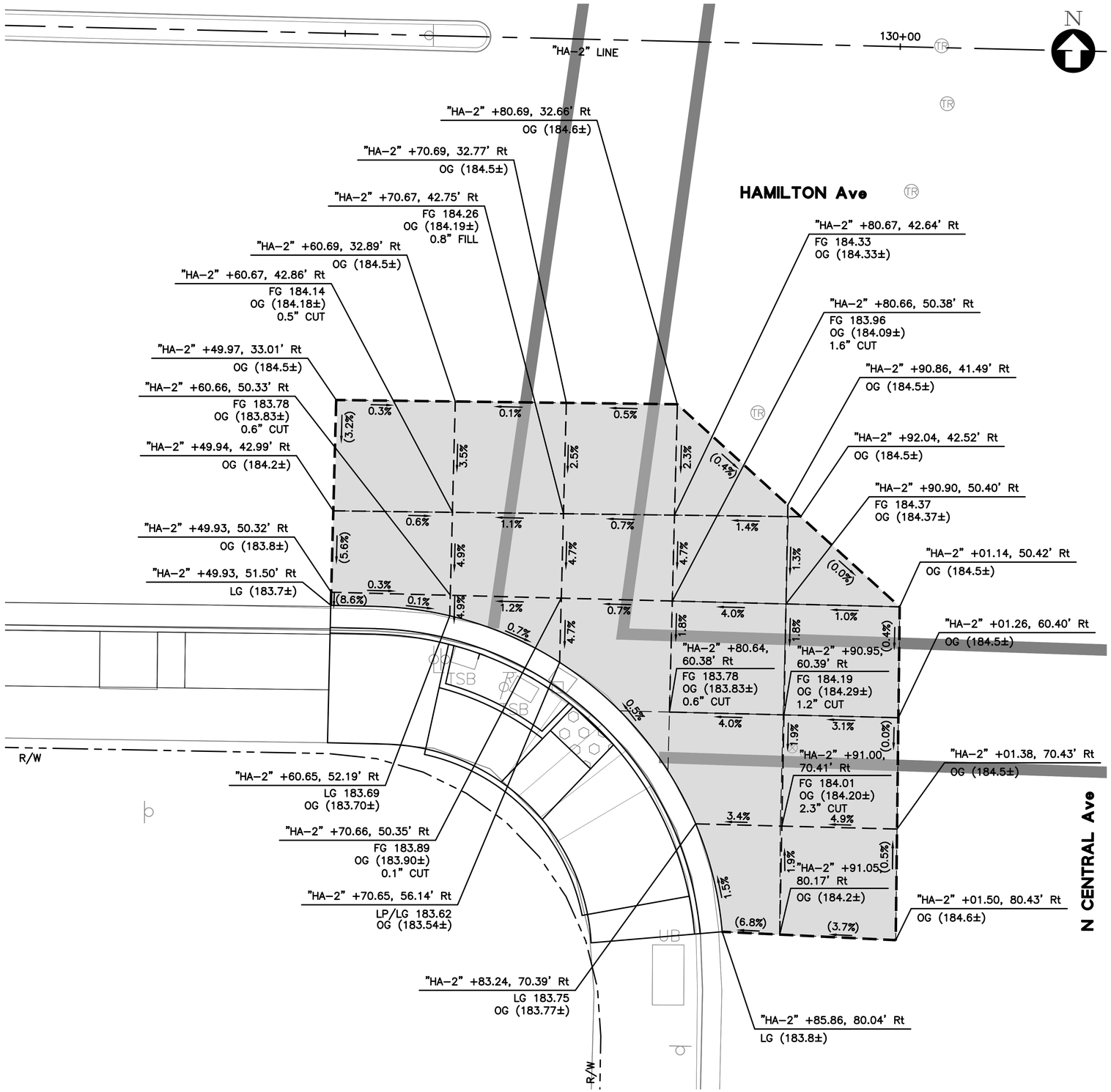
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
GRID GRADING

CITY OF CAMPBELL · THE ORCHARD CITY · CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-27

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GRID GRADING

SCALE: 1" = 5'

1 CD-28

LEGEND:

	LIMIT OF INTERSECTION GRADING
	SAWCUT/HMA CONFORM GRADING 12" DEPTH (TYPE F). SEE DETAILS 6 & 7, SHEET CD-17
	GRID GRADE
OG (181.03±)	EXISTING SPOT ELEVATION, CONFORM
FG 180.96	PROPOSED SPOT ELEVATION
(0.3%)	EXISTING SLOPE
1.5%	PROPOSED SLOPE

ABBREVIATIONS:

Ave	AVENUE
FG	FINISH GRADE
HP	HIGH POINT
LG	LIP OF GUTTER
LP	LOW POINT
OG	ORIGINAL GRADE

5' 0' 5' 10'

GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

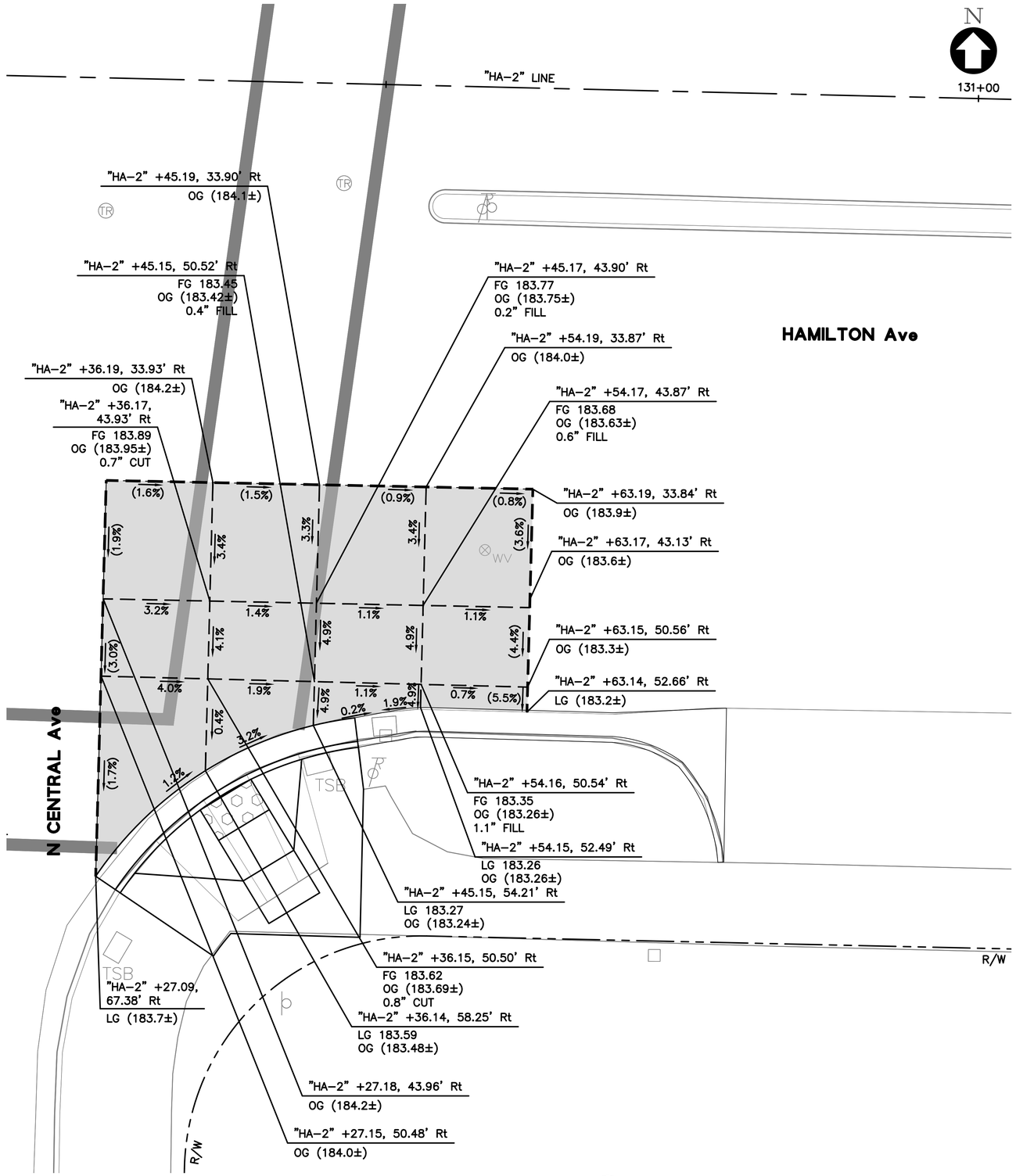
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
GRID GRADING

CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-28

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LEGEND:

	LIMIT OF INTERSECTION GRADING
	SAWCUT/HMA CONFORM GRADING 12" DEPTH (TYPE F). SEE DETAILS 6 & 7, SHEET CD–17
	GRID GRADE
OG (181.03±)	EXISTING SPOT ELEVATION, CONFORM
FG 180.96	PROPOSED SPOT ELEVATION
(0.3%)	EXISTING SLOPE
1.5%	PROPOSED SLOPE

ABBREVIATIONS:

Ave	AVENUE
FG	FINISH GRADE
HP	HIGH POINT
LG	LIP OF GUTTER
LP	LOW POINT
OG	ORIGINAL GRADE

GRID GRADING (1 / CD–29)
SCALE: 1" = 5'

5' 0' 5' 10'
GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

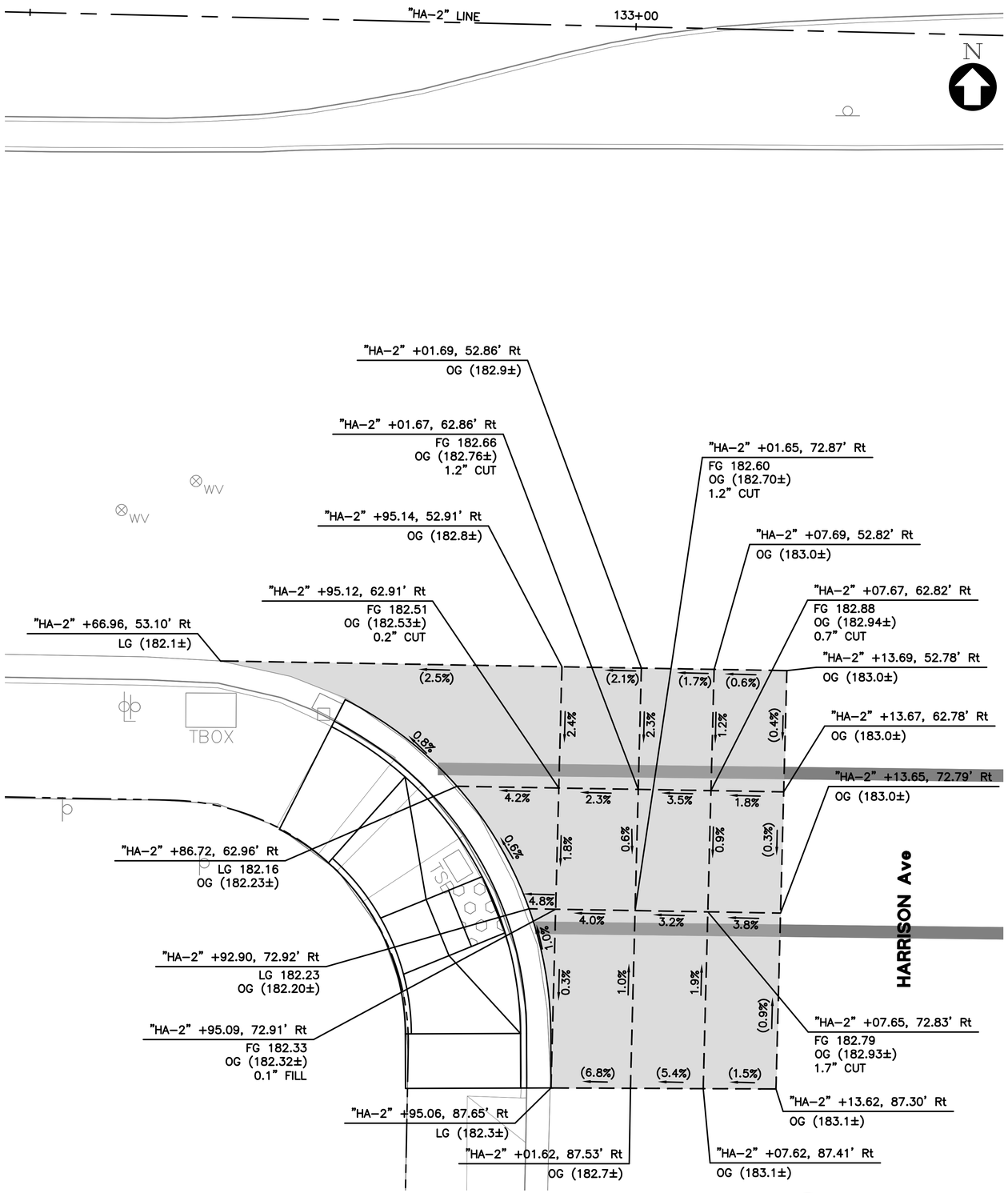
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
GRID GRADING

CITY OF CAMPBELL
THE ORCHARD CITY
CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-29

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GRID GRADING

SCALE: 1" = 5'

1 / CD-30

LEGEND:

- LIMIT OF INTERSECTION GRADING
- SAWCUT/HMA CONFORM GRADING 12" DEPTH (TYPE F). SEE DETAILS 6 & 7, SHEET CD-17
- GRID GRADE
- OG (181.03±) EXISTING SPOT ELEVATION, CONFORM
- FG 180.96 PROPOSED SPOT ELEVATION
- (0.3%) EXISTING SLOPE
- 1.5% PROPOSED SLOPE

ABBREVIATIONS:

Ave	AVENUE
FG	FINISH GRADE
HP	HIGH POINT
LG	LIP OF GUTTER
LP	LOW POINT
OG	ORIGINAL GRADE

5' 0' 5' 10'

GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

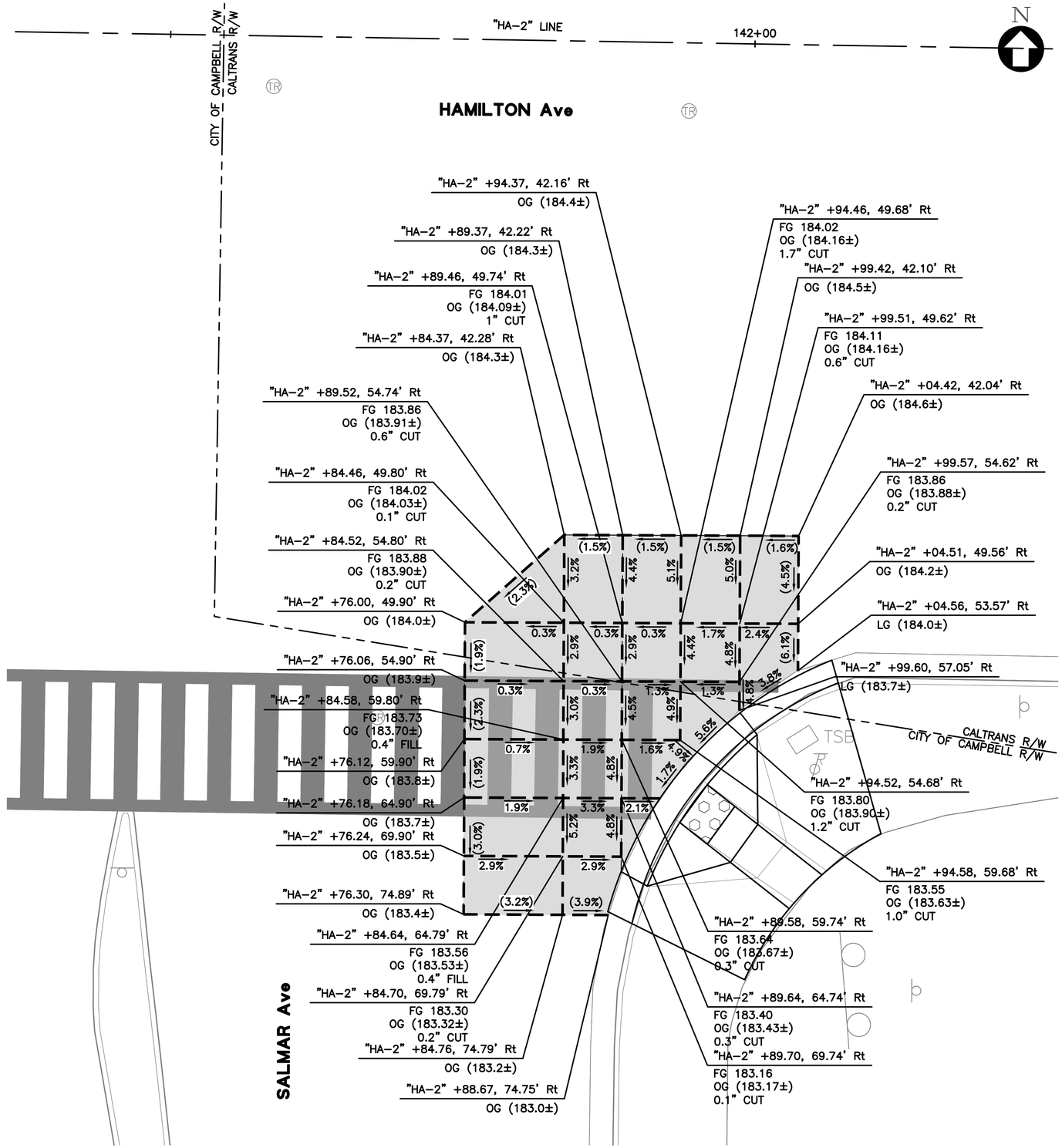
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
GRID GRADING

CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-30

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GRID GRADING

SCALE: 1" = 5'

1 / CD-31

5' 0' 5' 10'

GRAPHIC SCALE

LEGEND:

- LIMIT OF INTERSECTION GRADING
- SAWCUT/HMA CONFORM GRADING 12" DEPTH (TYPE F). SEE DETAILS 6 & 7, SHEET CD–17
- GRID GRADE
- OG (181.03±) EXISTING SPOT ELEVATION, CONFORM
- FG 180.96 PROPOSED SPOT ELEVATION
- (0.3%) EXISTING SLOPE
- 1.5% PROPOSED SLOPE

ABBREVIATIONS:

Ave	AVENUE
FG	FINISH GRADE
HP	HIGH POINT
LG	LIP OF GUTTER
LP	LOW POINT
OG	ORIGINAL GRADE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

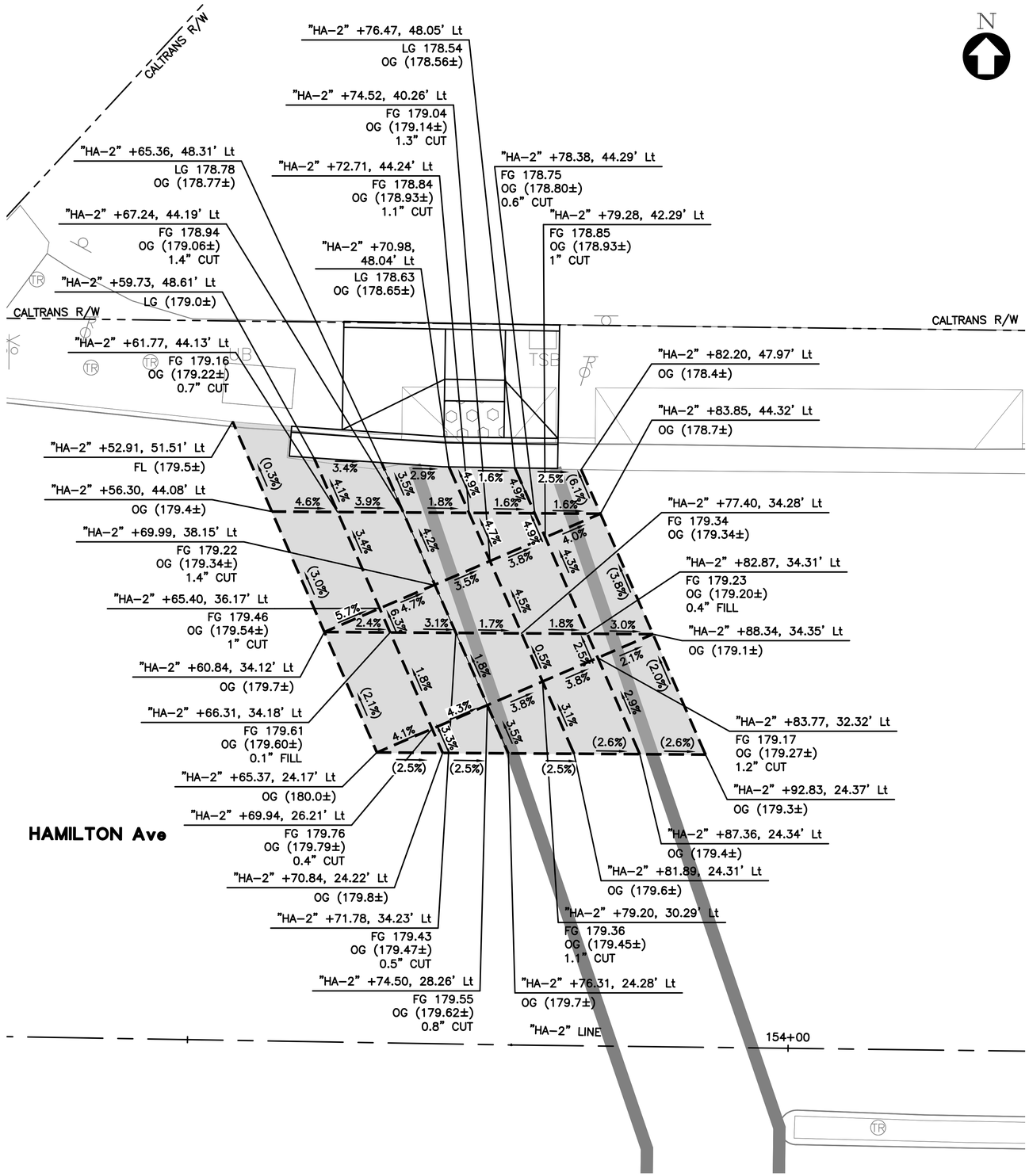
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
GRID GRADING

CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-31

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GRID GRADING

SCALE: 1" = 5'

1 / CD–32

5' 0' 5' 10'

GRAPHIC SCALE

N

LEGEND:

- LIMIT OF INTERSECTION GRADING
- SAWCUT/HMA CONFORM GRADING 12" DEPTH (TYPE F). SEE DETAILS 6 & 7, SHEET CD–17
- GRID GRADE
- OG (181.03±) EXISTING SPOT ELEVATION, CONFORM
- FG 180.96 PROPOSED SPOT ELEVATION
- (0.3%) EXISTING SLOPE
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ABBREVIATIONS:

Ave	AVENUE
FG	FINISH GRADE
HP	HIGH POINT
LG	LIP OF GUTTER
LP	LOW POINT
OG	ORIGINAL GRADE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

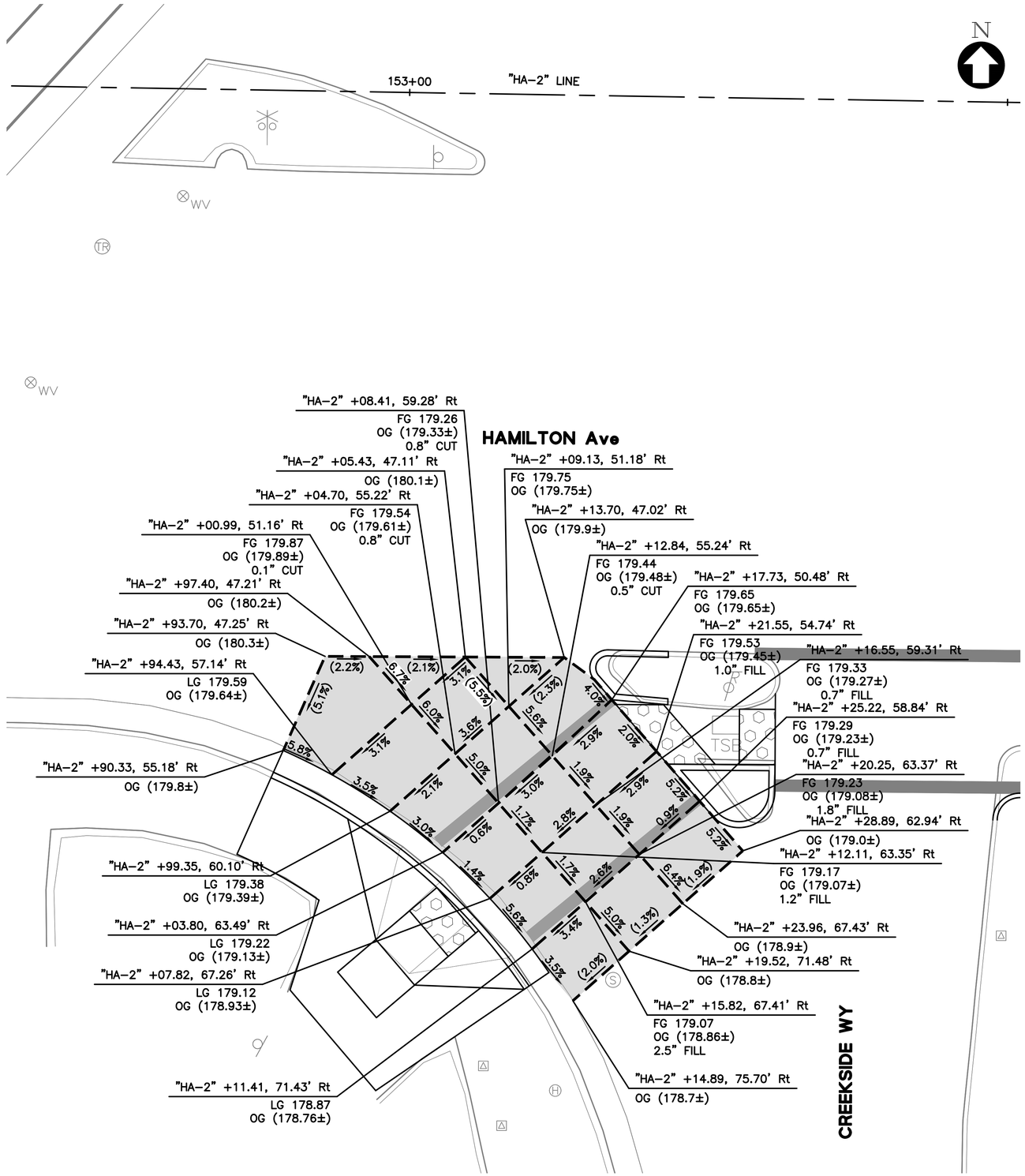
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
GRID GRADING

CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-32

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GRID GRADING

SCALE: 1" = 5'

1 CD-33

5' 0' 5' 10'

GRAPHIC SCALE

LEGEND:

- LIMIT OF INTERSECTION GRADING
- SAWCUT/HMA CONFORM GRADING 12" DEPTH (TYPE F). SEE DETAILS 6 & 7, SHEET CD-17
- GRID GRADE
- OG (181.03±) EXISTING SPOT ELEVATION, CONFORM
- FG 180.96 PROPOSED SPOT ELEVATION
- (0.3%) EXISTING SLOPE
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ABBREVIATIONS:

Ave	AVENUE
FG	FINISH GRADE
HP	HIGH POINT
LG	LIP OF GUTTER
LP	LOW POINT
OG	ORIGINAL GRADE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

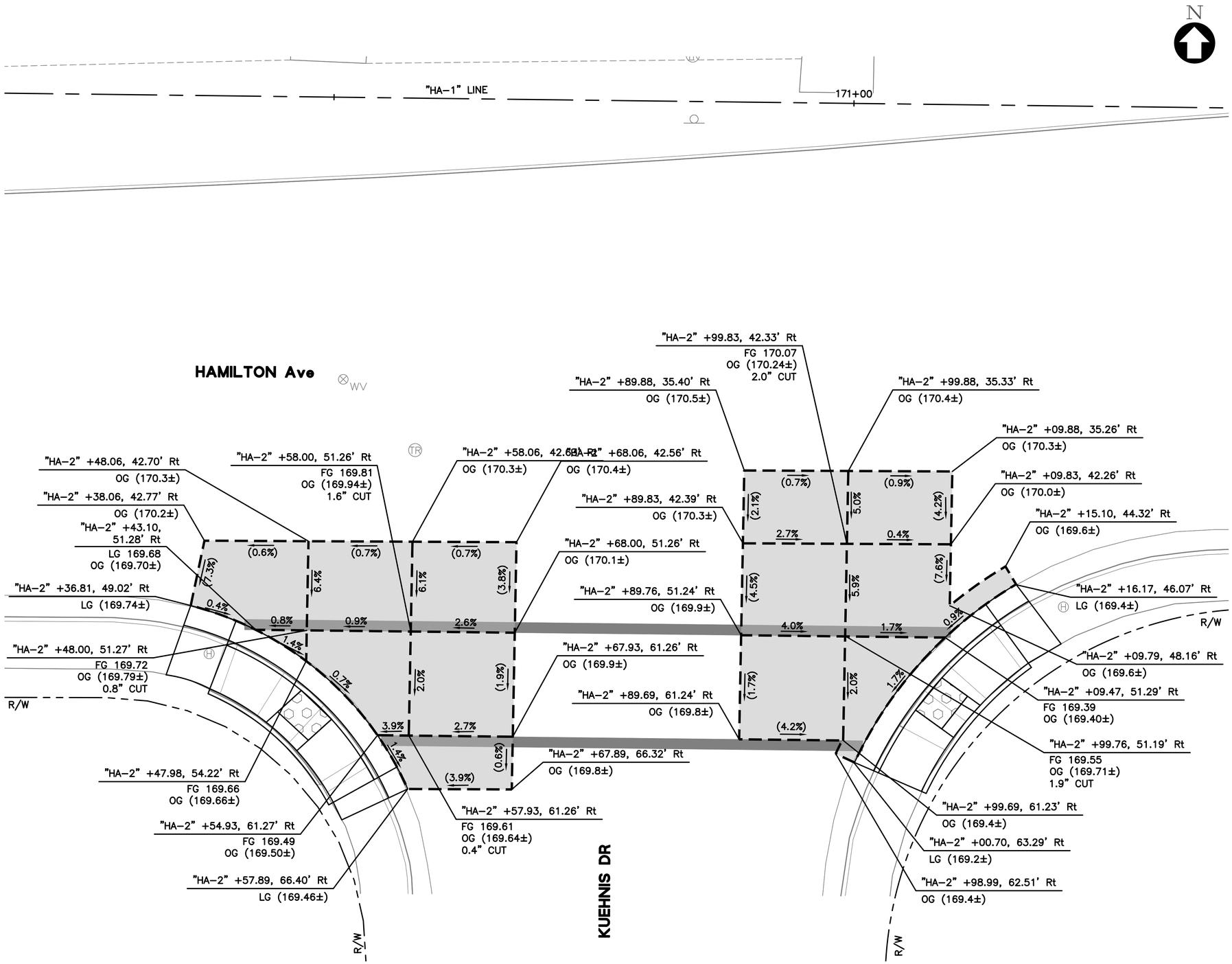
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
GRID GRADING

CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-33

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GRID GRADING

SCALE: 1" = 5'

1 / CD-34

5' 0' 5' 10'

GRAPHIC SCALE

LEGEND:

- LIMIT OF INTERSECTION GRADING
- SAWCUT/HMA CONFORM GRADING 12" DEPTH (TYPE F). SEE DETAILS 6 & 7, SHEET CD–17
- GRID GRADE
- OG (181.03±) EXISTING SPOT ELEVATION, CONFORM
- FG 180.96 PROPOSED SPOT ELEVATION
- (0.3%) EXISTING SLOPE
- 1.5% PROPOSED SLOPE

ABBREVIATIONS:

Ave	AVENUE
FG	FINISH GRADE
HP	HIGH POINT
LG	LIP OF GUTTER
LP	LOW POINT
OG	ORIGINAL GRADE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

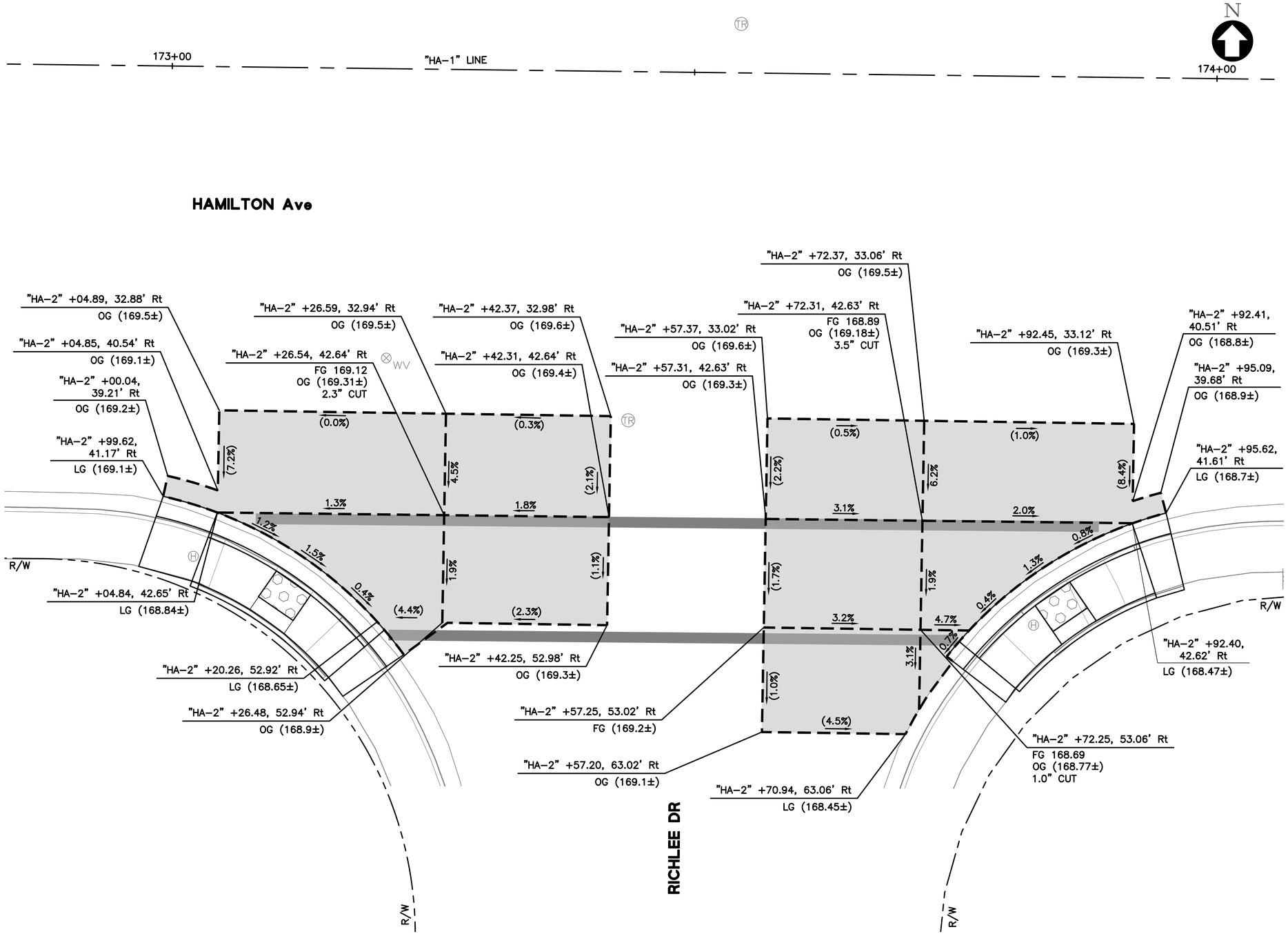
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
GRID GRADING

CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-34

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LEGEND:

- LIMIT OF INTERSECTION GRADING
- SAWCUT/HMA CONFORM GRADING 12" DEPTH (TYPE F). SEE DETAILS 6 & 7, SHEET CD-17
- GRID GRADE
- OG (181.03±) EXISTING SPOT ELEVATION, CONFORM
- FG 180.96 PROPOSED SPOT ELEVATION
- (0.3%) EXISTING SLOPE
- 1.5% PROPOSED SLOPE

ABBREVIATIONS:

Ave	AVENUE
FG	FINISH GRADE
HP	HIGH POINT
LG	LIP OF GUTTER
LP	LOW POINT
OG	ORIGINAL GRADE

GRID GRADING
SCALE: 1" = 5'
1 / CD-35

5' 0' 5' 10'
GRAPHIC SCALE

No. | Revision | Date | By | Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

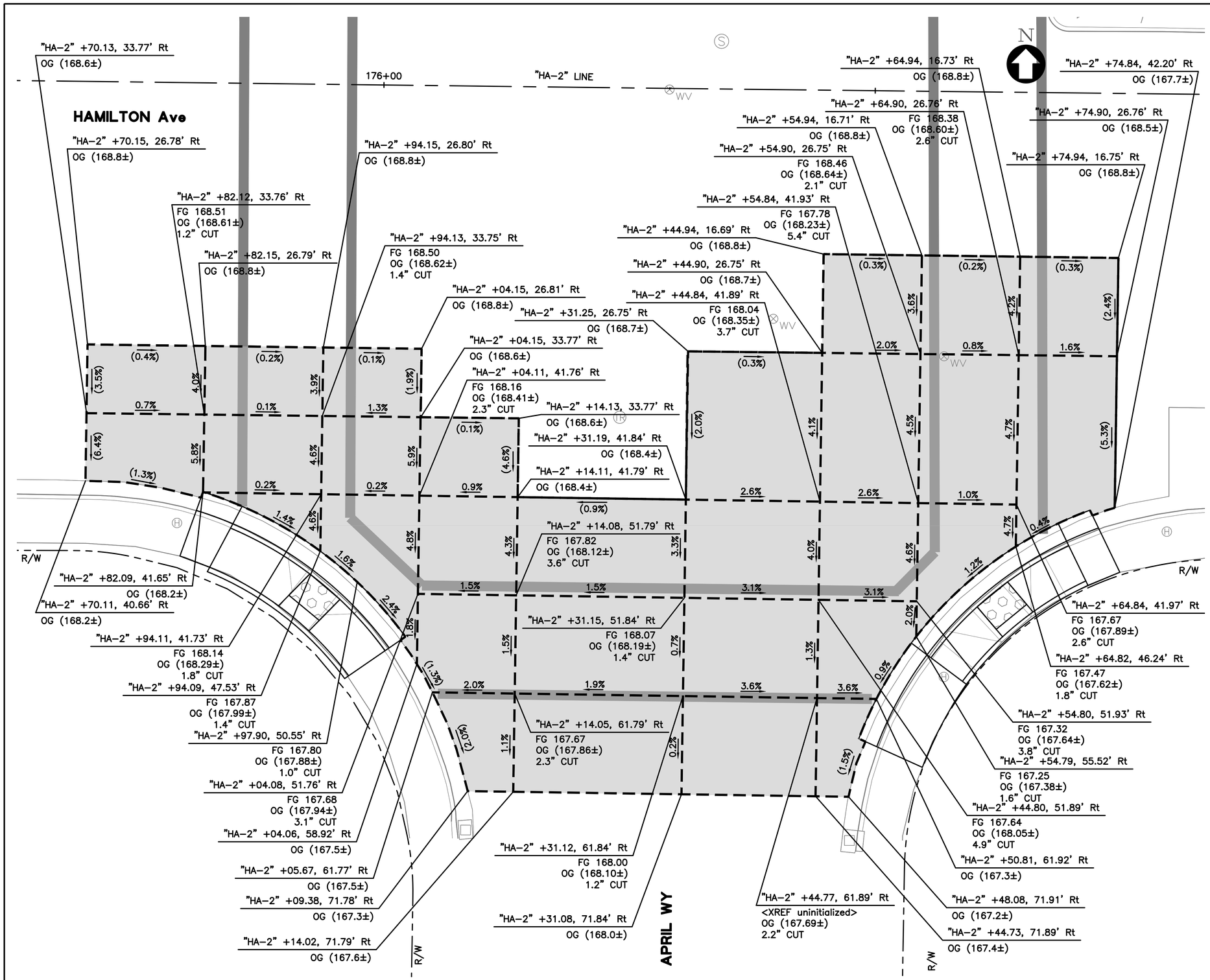
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
GRID GRADING

CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-35

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LEGEND:

- LIMIT OF INTERSECTION GRADING
- SAWCUT/HMA CONFORM GRADING 12" DEPTH (TYPE F). SEE DETAILS 6 & 7, SHEET CD–17
- GRID GRADE
- OG (181.03±) EXISTING SPOT ELEVATION, CONFORM
- FG 180.96 PROPOSED SPOT ELEVATION
- (0.3%) EXISTING SLOPE
- 1.5% PROPOSED SLOPE

ABBREVIATIONS:

Ave	AVENUE
FG	FINISH GRADE
HP	HIGH POINT
LG	LIP OF GUTTER
LP	LOW POINT
OG	ORIGINAL GRADE

GRID GRADING
SCALE: 1" = 5'
1 / CD–36

5' 0' 5' 10'
GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
GRID GRADING

CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-36

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LEGEND

- ATT — ADJUST ATT MANHOLE FRAME & COVER
- ATT — (E) ATT MANHOLE – REMAIN IN PLACE
- ATT — ADJUST ATT VAULT
- DH — ADJUST COC DETECTOR HANDHOLE
- MON — ADJUST COC MONUMENT BOX FRAME & COVER
- SD — ADJUST COC STORM DRAIN MANHOLE MANHOLE FRAME & COVER
- SD — (E) COC STORM DRAIN MANHOLE – REMAIN IN PLACE
- FH — (E) SJWC FIRE HYDRANT – REMAIN IN PLACE
- WV — ADJUST SJWC WATER VALVE BOX FRAME & COVER
- WV — (E) SJWC WATER VALVE BOX – REMAIN IN PLACE
- VZ — ADJUST VERIZON MANHOLE FRAME & COVER
- SS — ADJUST WVSD SANITARY SEWER MANHOLE FRAME & COVER
- SS — (E) SANITARY SEWER MANHOLE – REMAIN IN PLACE
- SSCO — (E) WVSD SANITARY SEWER CLEANOUT – REMAIN IN PLACE
- PGE — ADJUST PGE VALVE BOX FRAME & COVER
- PGE — ADJUST PGE VAULT
- PGE — RELOCATE PGE GUY WIRE
- DH — FURNISH & INSTALL SCCO DETECTOR HANDHOLE
- ADJUST (TR, TS, SD, SL, SVC) PB

- att — (E) COMMUNICATION LINE
- cc — (E) CABLE LINE
- fo — (E) FIBER OPTIC LINE
- g — (E) GAS LINE
- oh — (E) OVERHEAD ELECTRICAL LINE
- ss — (E) SANITARY SEWER LINE
- sd — (E) STORM DRAIN
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- w — (E) WATER LINE

PROJECT NOTES:

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4. REFER TO TS–12 SHEET FOR TRAFFIC SIGNAL, STREETLIGHT AND SERVICE PULL BOX DETAILS.
5. REFER TO CD–SHEETS FOR ALL OTHER UTILITY APPURTENANCE DETAILS.

No.	Revision	Date	By	Chkd

Date: 04–24–25
Drawn By: RA/DZ
Designed By: RA

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
UTILITY INFORMATION

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: U–1





LEGEND

- ATT — ADJUST ATT MANHOLE FRAME & COVER
- ATT — (E) ATT MANHOLE – REMAIN IN PLACE
- ATT — ADJUST ATT VAULT
- DH — ADJUST COC DETECTOR HANDHOLE
- MON — ADJUST COC MONUMENT BOX FRAME & COVER
- SD — ADJUST COC STORM DRAIN MANHOLE MANHOLE FRAME & COVER
- SD — (E) COC STORM DRAIN MANHOLE – REMAIN IN PLACE
- FH — (E) SJWC FIRE HYDRANT – REMAIN IN PLACE
- WV — ADJUST SJWC WATER VALVE BOX FRAME & COVER
- WV — (E) SJWC WATER VALVE BOX – REMAIN IN PLACE
- VZ — ADJUST VERIZON MANHOLE FRAME & COVER
- SS — ADJUST WVSD SANITARY SEWER MANHOLE FRAME & COVER
- SS — (E) SANITARY SEWER MANHOLE – REMAIN IN PLACE
- SSCO — (E) WVSD SANITARY SEWER CLEANOUT – REMAIN IN PLACE
- PGE — ADJUST PGE VALVE BOX FRAME & COVER
- PGE — ADJUST PGE VAULT
- PGE — RELOCATE PGE GUY WIRE
- DH — FURNISH & INSTALL SCCO DETECTOR HANDHOLE
- ADJUST (TR, TS, SD, SL, SVC) PB

att	(E) COMMUNICATION LINE
cc	(E) CABLE LINE
fo	(E) FIBER OPTIC LINE
g	(E) GAS LINE
oh	(E) OVERHEAD ELECTRICAL LINE
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sd	(E) STORM DRAIN
uc	(E) UNDERGROUND ELECTRICAL LINE
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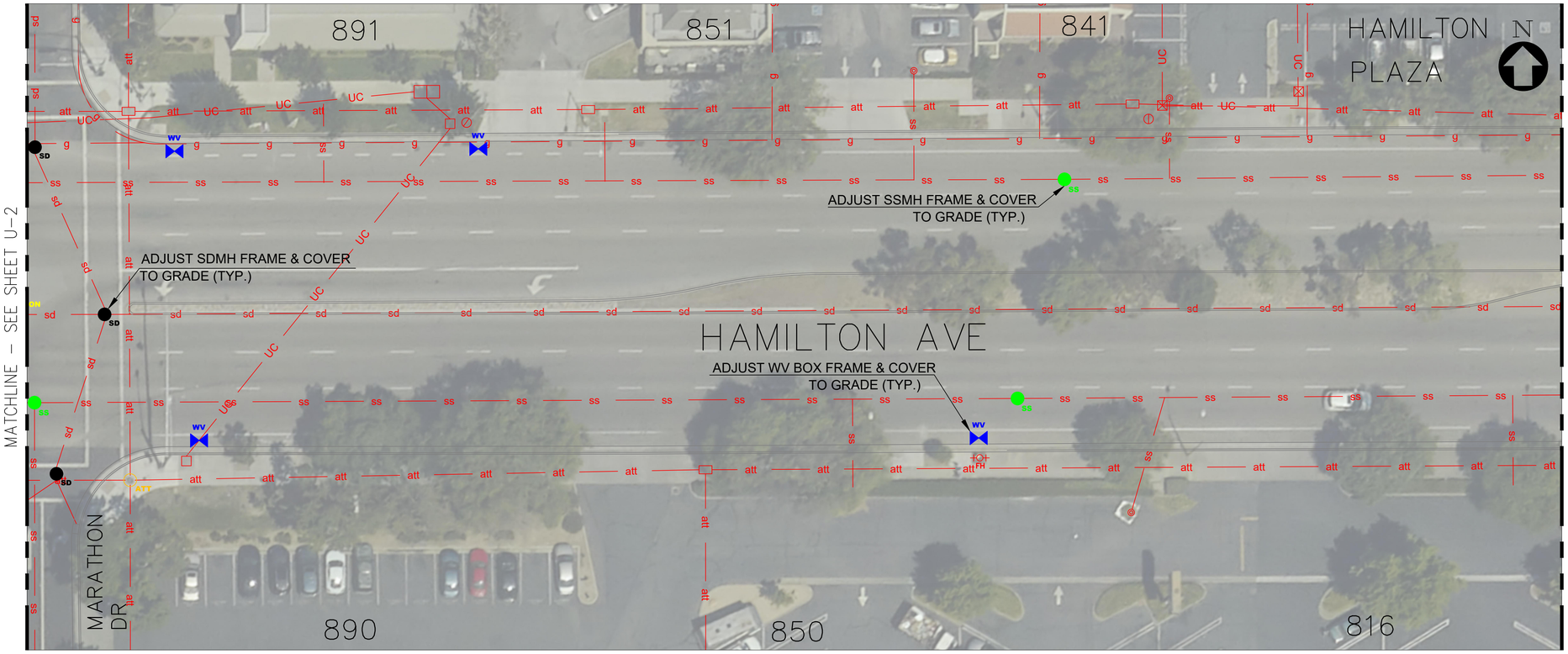
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

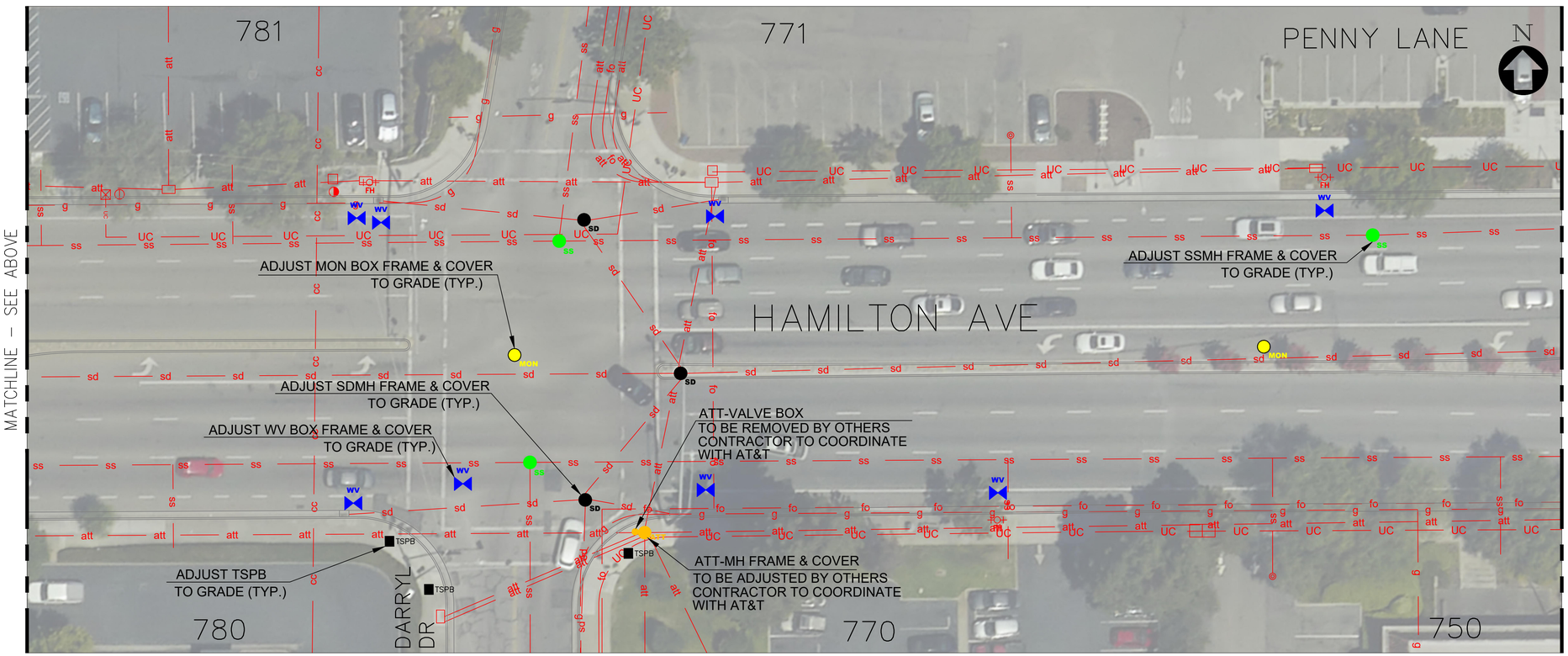
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
UTILITY INFORMATION

CITY OF CAMPBELL · THE ORCHARD CITY · CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: U-2





LEGEND

- ATT — ADJUST ATT MANHOLE FRAME & COVER
- ATT — (E) ATT MANHOLE – REMAIN IN PLACE
- ATT — ADJUST ATT VAULT
- DH — ADJUST COC DETECTOR HANDHOLE
- MON — ADJUST COC MONUMENT BOX FRAME & COVER
- SD — ADJUST COC STORM DRAIN MANHOLE MANHOLE FRAME & COVER
- SD — (E) COC STORM DRAIN MANHOLE – REMAIN IN PLACE
- FH — (E) SJWC FIRE HYDRANT – REMAIN IN PLACE
- WV — ADJUST SJWC WATER VALVE BOX FRAME & COVER
- WV — (E) SJWC WATER VALVE BOX – REMAIN IN PLACE
- VZ — ADJUST VERIZON MANHOLE FRAME & COVER
- SS — ADJUST WVSD SANITARY SEWER MANHOLE FRAME & COVER
- SS — (E) SANITARY SEWER MANHOLE – REMAIN IN PLACE
- SSCO — (E) WVSD SANITARY SEWER CLEANOUT – REMAIN IN PLACE
- PGE — ADJUST PGE VALVE BOX FRAME & COVER
- PGE — ADJUST PGE VAULT
- PGE — RELOCATE PGE GUY WIRE
- DH — FURNISH & INSTALL SCCO DETECTOR HANDHOLE
- ADJUST (TR, TS, SD, SL, SVC) PB
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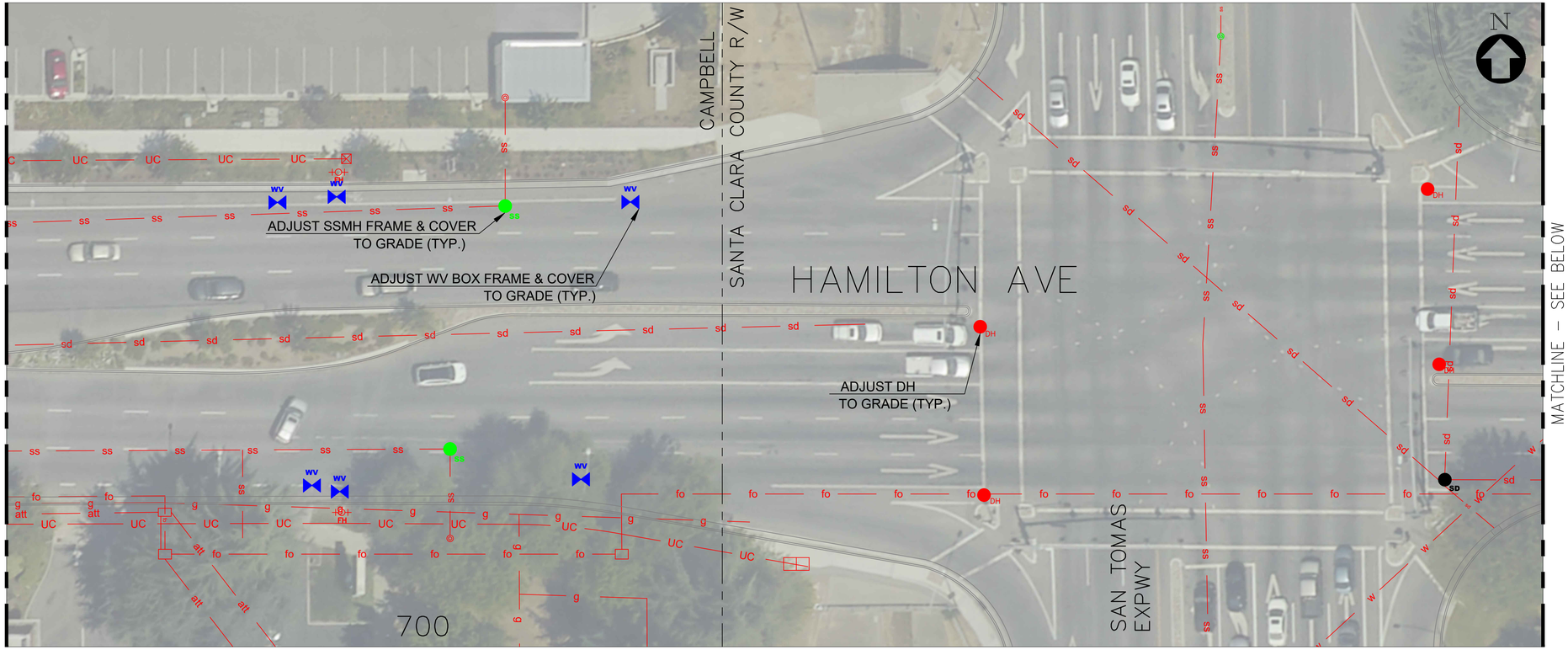
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

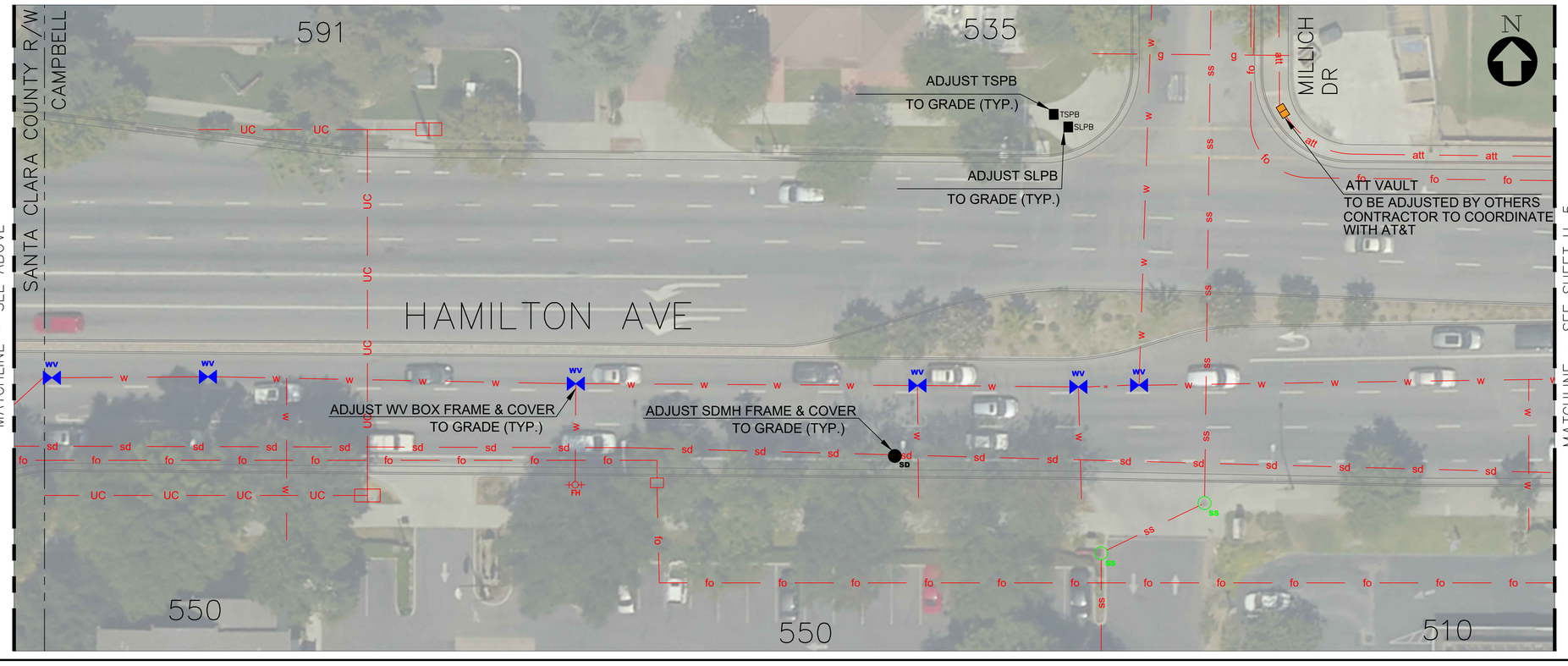
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
UTILITY INFORMATION

CITY OF CAMPBELL · THE ORCHARD CITY · CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: U-3





LEGEND

ATT	ADJUST ATT MANHOLE FRAME & COVER
ATT	(E) ATT MANHOLE – REMAIN IN PLACE
ATT	ADJUST ATT VAULT
DH	ADJUST COC DETECTOR HANDHOLE
MON	ADJUST COC MONUMENT BOX FRAME & COVER
SD	ADJUST COC STORM DRAIN MANHOLE FRAME & COVER
SD	(E) COC STORM DRAIN MANHOLE – REMAIN IN PLACE
FH	(E) SJWC FIRE HYDRANT – REMAIN IN PLACE
WV	ADJUST SJWC WATER VALVE BOX FRAME & COVER
WV	(E) SJWC WATER VALVE BOX – REMAIN IN PLACE
VZ	ADJUST VERIZON MANHOLE FRAME & COVER
SS	ADJUST WVSD SANITARY SEWER MANHOLE FRAME & COVER
SS	(E) SANITARY SEWER MANHOLE – REMAIN IN PLACE
SSCO	(E) WVSD SANITARY SEWER CLEANOUT – REMAIN IN PLACE
PGE	ADJUST PGE VALVE BOX FRAME & COVER
PGE	ADJUST PGE VAULT
PGE	RELOCATE PGE GUY WIRE
DH	FURNISH & INSTALL SCCO DETECTOR HANDHOLE
	ADJUST (TR, TS, SD, SL, SVC) PB

att	(E) COMMUNICATION LINE
cc	(E) CABLE LINE
fo	(E) FIBER OPTIC LINE
g	(E) GAS LINE
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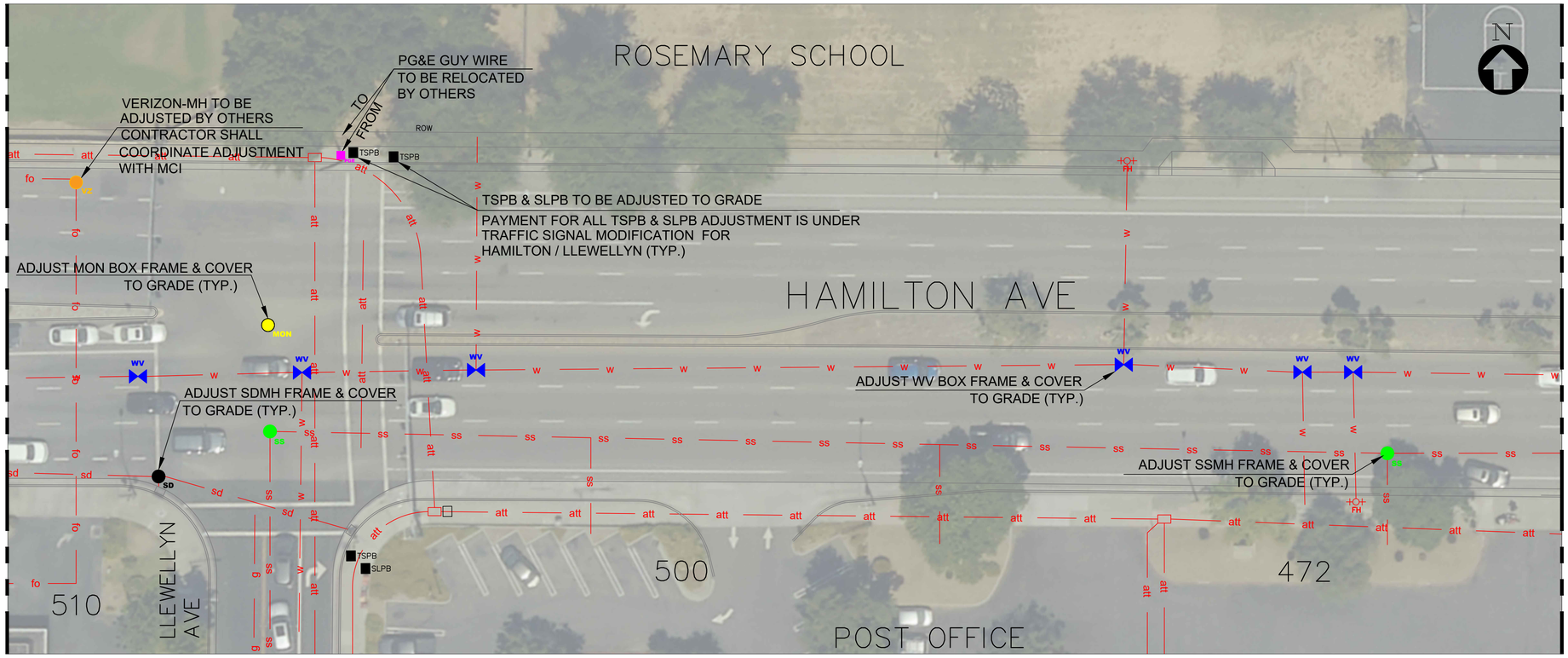
CITY OF CAMPBELL
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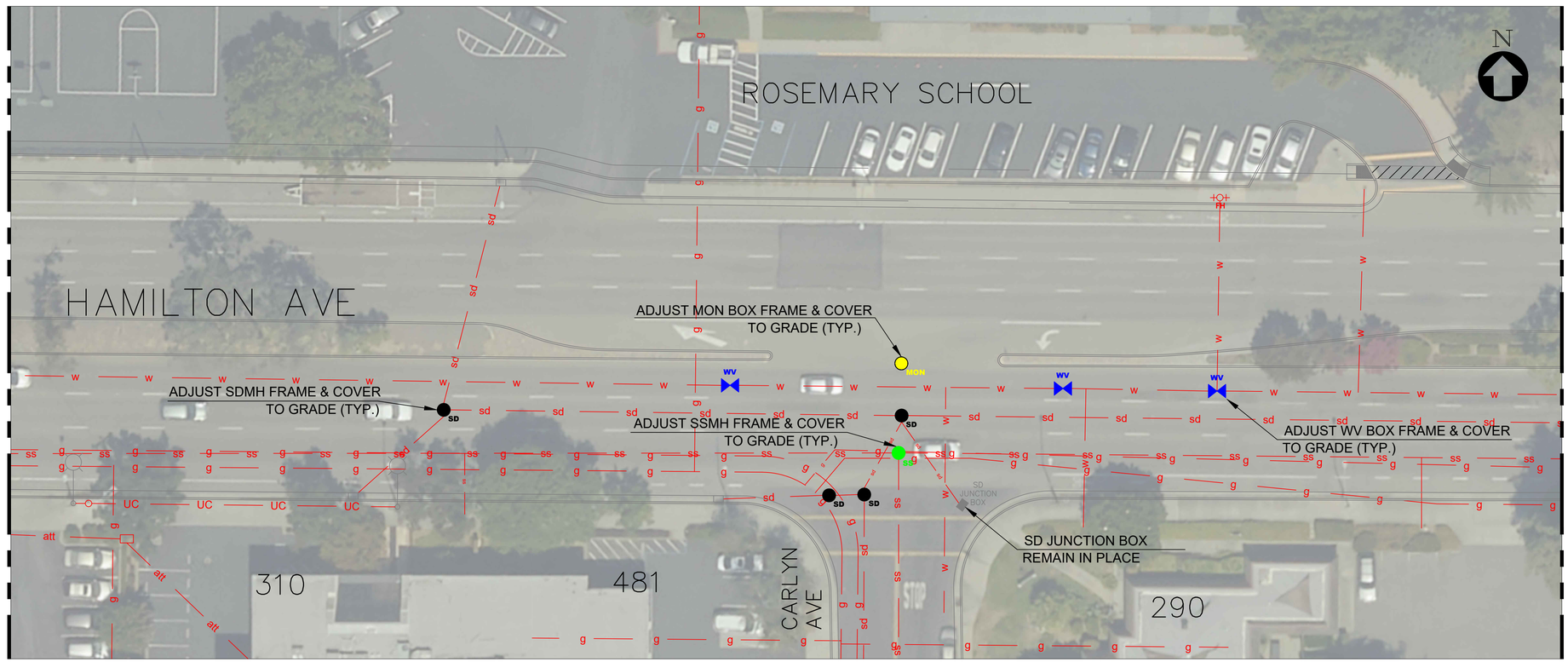
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
UTILITY INFORMATION

CITY OF CAMPBELL · INCORPORATED · CALIFORNIA
CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: U-4





LEGEND

- ATT — ADJUST ATT MANHOLE FRAME & COVER
- ATT — (E) ATT MANHOLE – REMAIN IN PLACE
- ATT — ADJUST ATT VAULT
- DH — ADJUST COC DETECTOR HANDHOLE
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- SD — (E) COC STORM DRAIN MANHOLE – REMAIN IN PLACE
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- WV — (E) SJWC WATER VALVE BOX – REMAIN IN PLACE
- VZ — ADJUST VERIZON MANHOLE FRAME & COVER
- SS — ADJUST WVSD SANITARY SEWER MANHOLE FRAME & COVER
- SS — (E) SANITARY SEWER MANHOLE – REMAIN IN PLACE
- SSCO — (E) WVSD SANITARY SEWER CLEANOUT – REMAIN IN PLACE
- PGE — ADJUST PGE VALVE BOX FRAME & COVER
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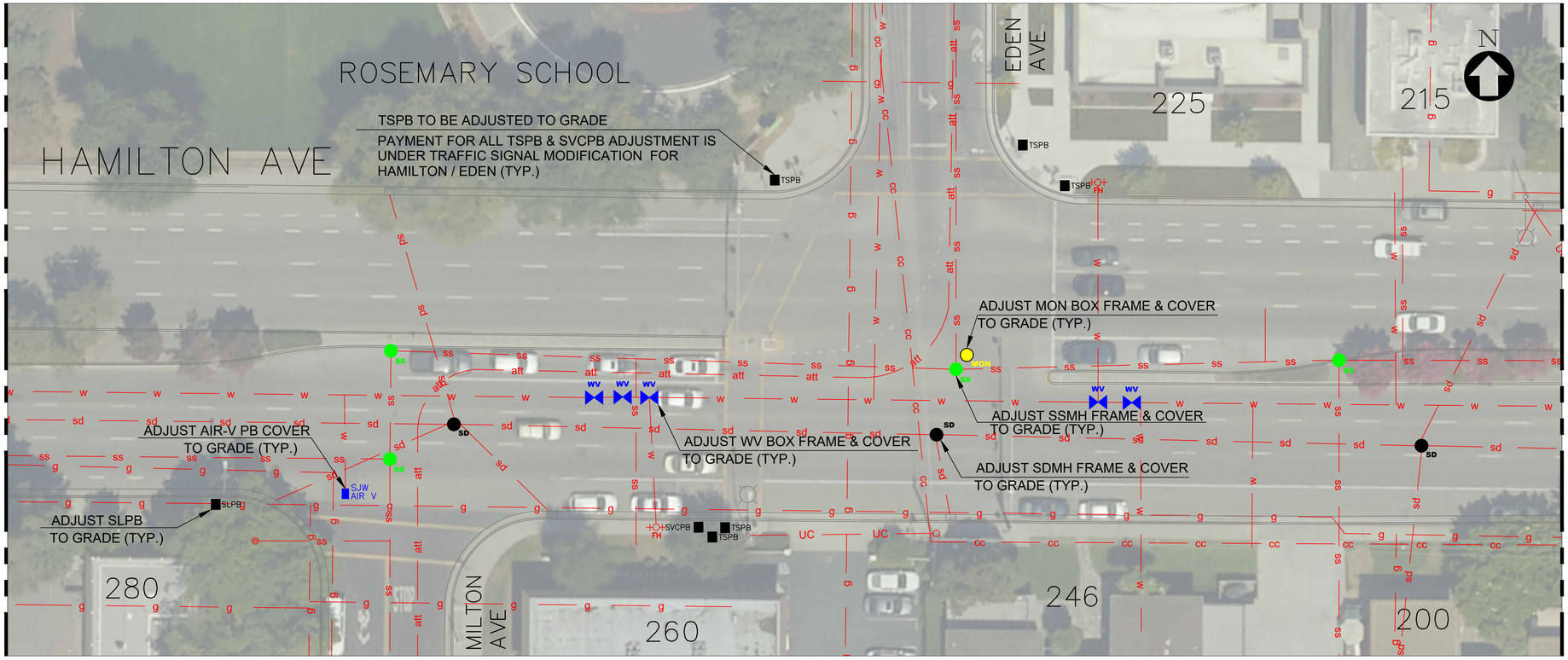
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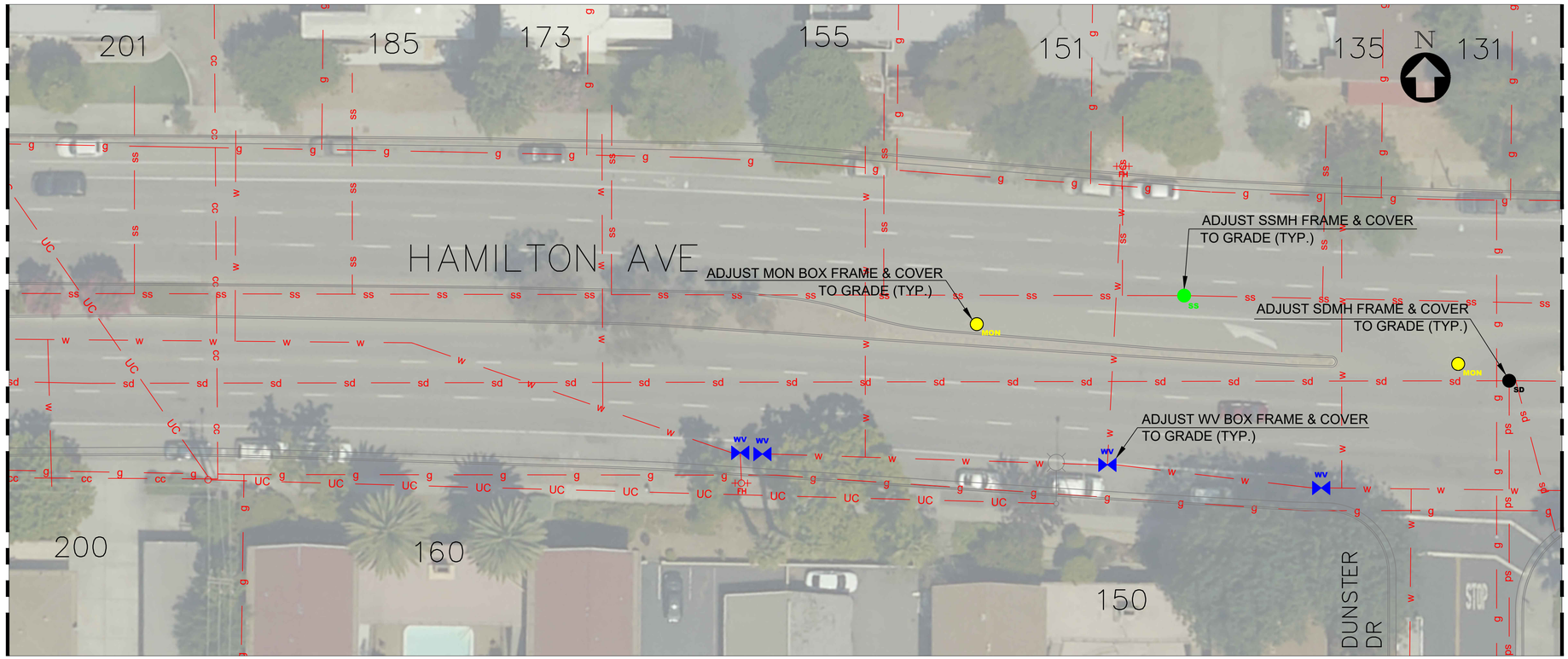
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
UTILITY INFORMATION

CITY OF CAMPBELL · THE ORCHARD CITY · CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: U–5





LEGEND

- ATT — ADJUST ATT MANHOLE FRAME & COVER
- ATT — (E) ATT MANHOLE – REMAIN IN PLACE
- ATT — ADJUST ATT VAULT
- DH — ADJUST COC DETECTOR HANDHOLE
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- SD — (E) COC STORM DRAIN MANHOLE – REMAIN IN PLACE
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- WV — ADJUST SJWC WATER VALVE BOX FRAME & COVER
- WV — (E) SJWC WATER VALVE BOX – REMAIN IN PLACE
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- SS — ADJUST WVSD SANITARY SEWER MANHOLE FRAME & COVER
- SS — (E) SANITARY SEWER MANHOLE – REMAIN IN PLACE
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- PGE — ADJUST PGE VALVE BOX FRAME & COVER
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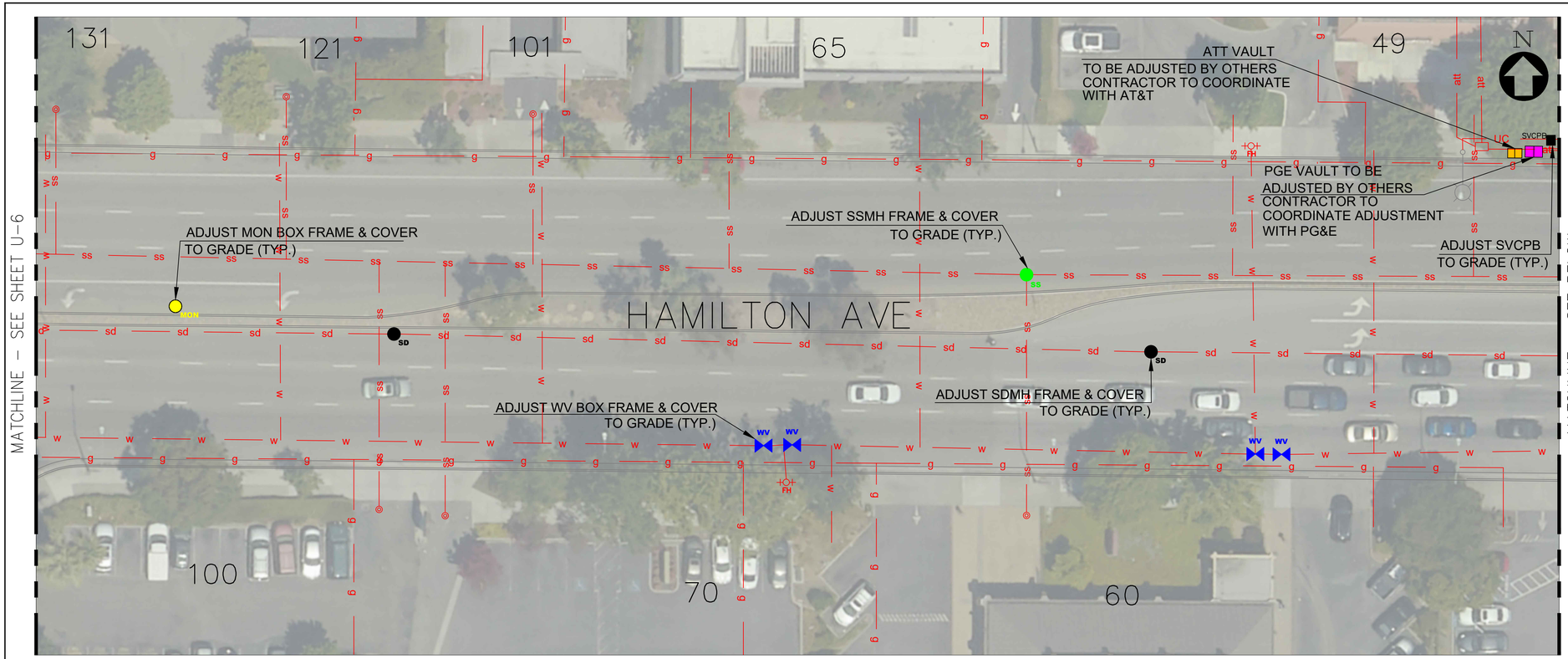
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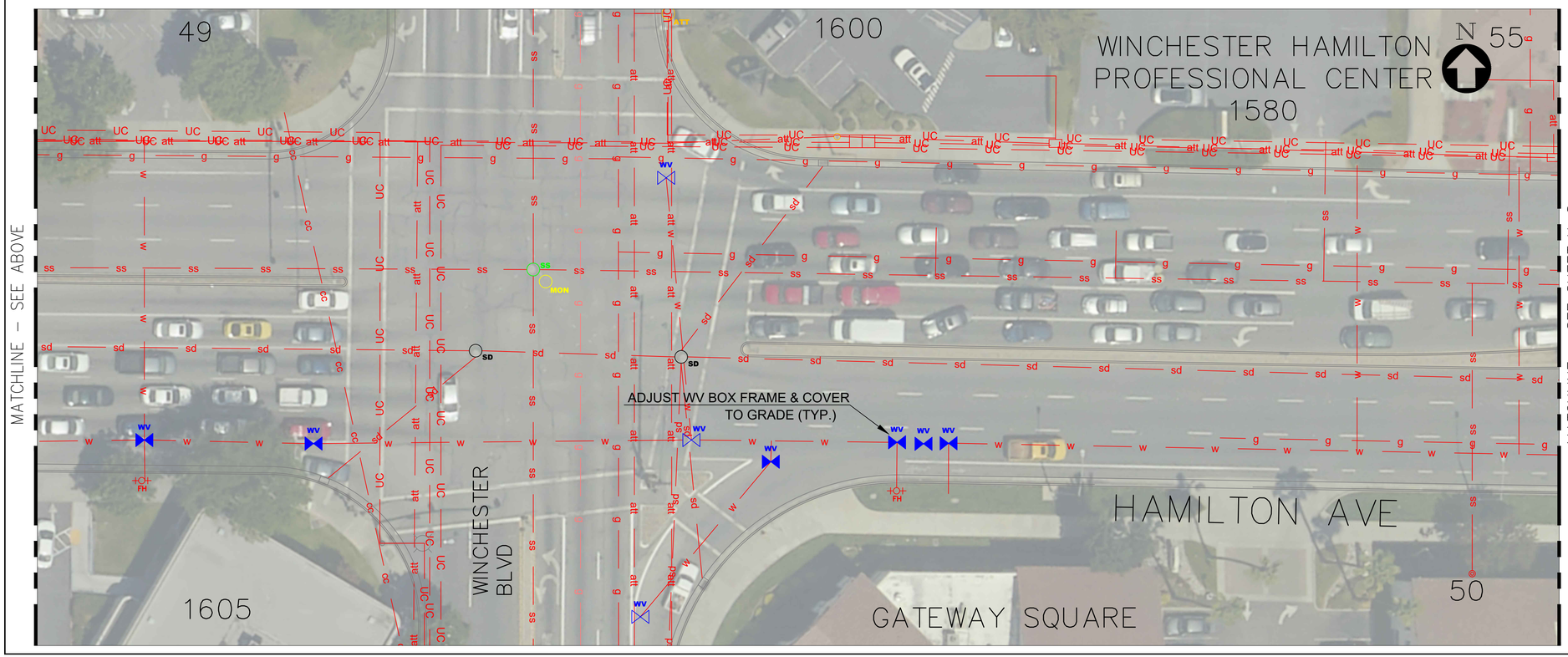
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
UTILITY INFORMATION

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: U-6





LEGEND

- ATT — ADJUST ATT MANHOLE FRAME & COVER
- ATT — (E) ATT MANHOLE – REMAIN IN PLACE
- ATT — ADJUST ATT VAULT
- DH — ADJUST COC DETECTOR HANDHOLE
- MON — ADJUST COC MONUMENT BOX FRAME & COVER
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- SD — (E) COC STORM DRAIN MANHOLE – REMAIN IN PLACE
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- WV — ADJUST SJWC WATER VALVE BOX FRAME & COVER
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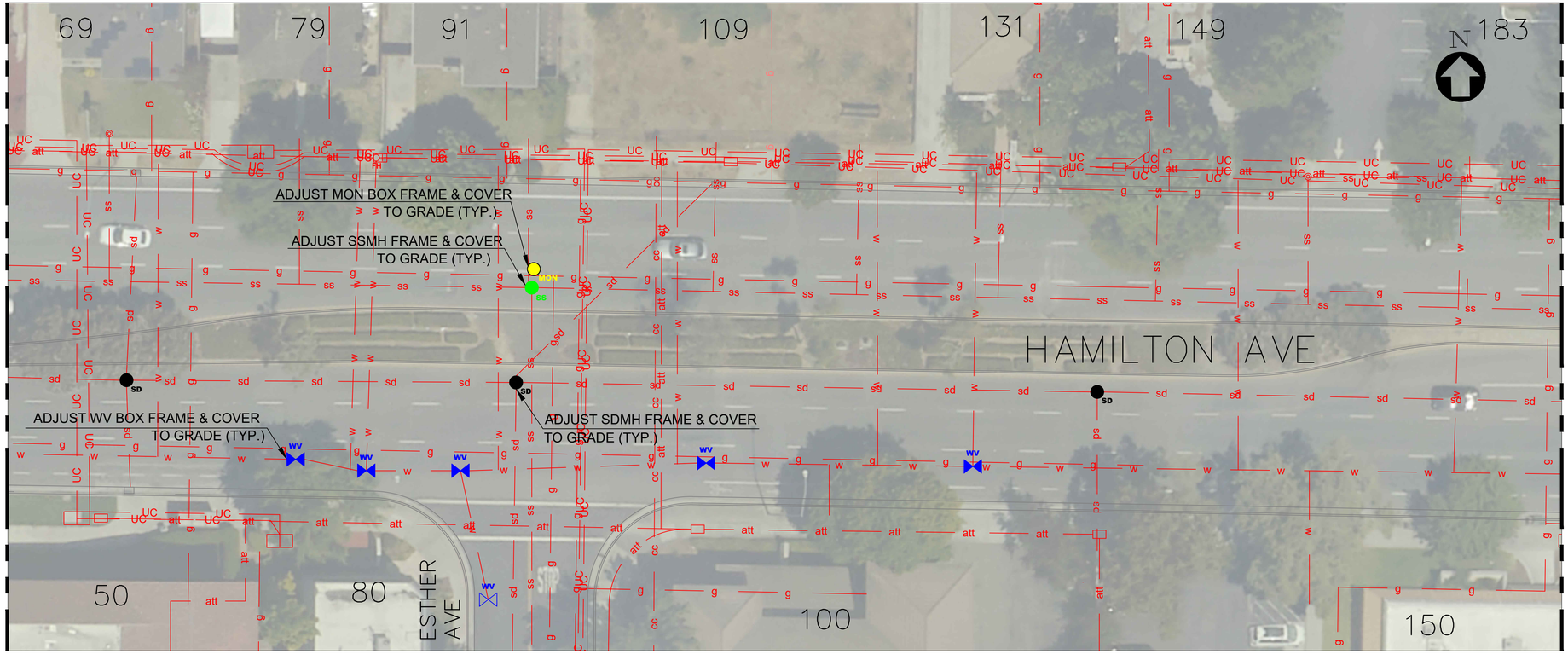
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

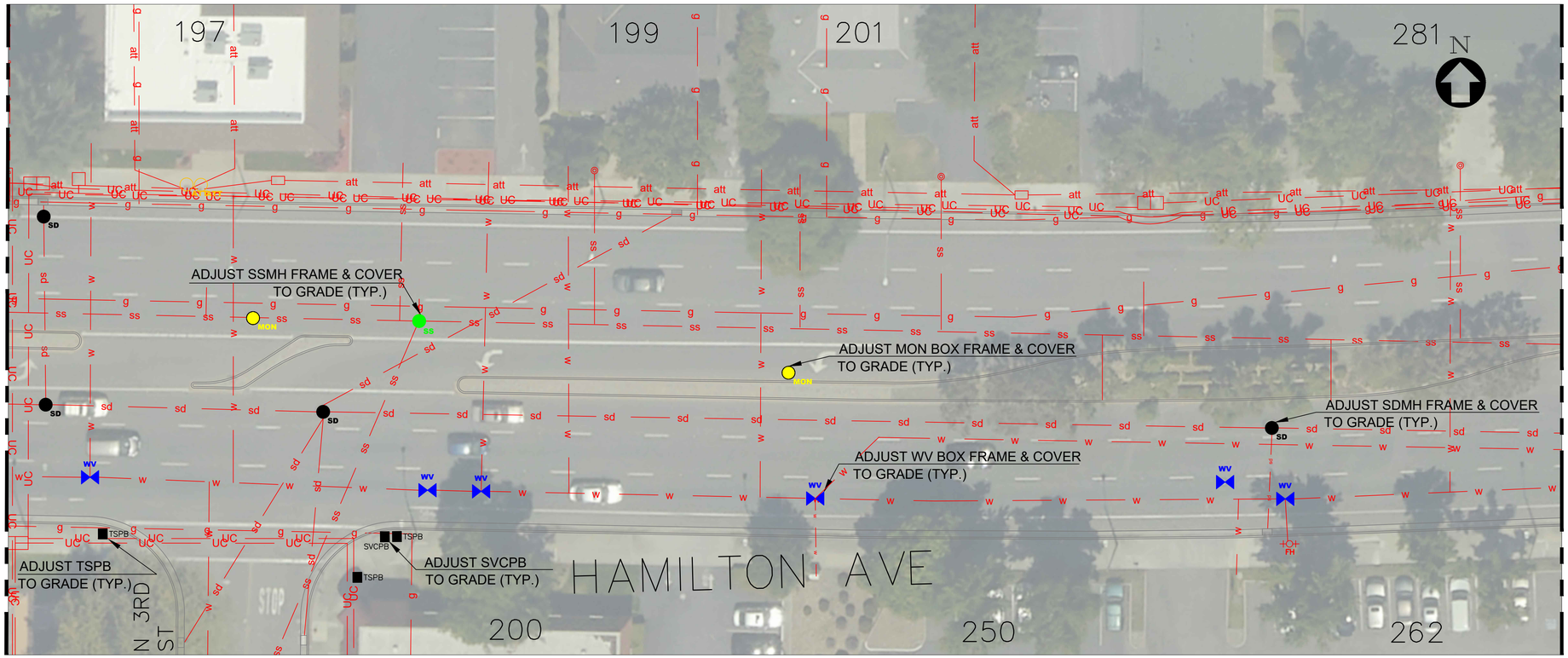
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
UTILITY INFORMATION

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: U–7





LEGEND

- ATT — ADJUST ATT MANHOLE FRAME & COVER
- ATT — (E) ATT MANHOLE – REMAIN IN PLACE
- ATT — ADJUST ATT VAULT
- DH — ADJUST COC DETECTOR HANDHOLE
- MON — ADJUST COC MONUMENT BOX FRAME & COVER
- SD — ADJUST COC STORM DRAIN MANHOLE MANHOLE FRAME & COVER
- SD — (E) COC STORM DRAIN MANHOLE – REMAIN IN PLACE
- FH — (E) SJWC FIRE HYDRANT – REMAIN IN PLACE
- WV — ADJUST SJWC WATER VALVE BOX FRAME & COVER
- WV — (E) SJWC WATER VALVE BOX – REMAIN IN PLACE
- VZ — ADJUST VERIZON MANHOLE FRAME & COVER
- SS — ADJUST WVSD SANITARY SEWER MANHOLE FRAME & COVER
- SS — (E) SANITARY SEWER MANHOLE – REMAIN IN PLACE
- SSCO — (E) WVSD SANITARY SEWER CLEANOUT – REMAIN IN PLACE
- PGE — ADJUST PGE VALVE BOX FRAME & COVER
- PGE — ADJUST PGE VAULT
- PGE — RELOCATE PGE GUY WIRE
- DH — FURNISH & INSTALL SCCO DETECTOR HANDHOLE
- ADJUST (TR, TS, SD, SL, SVC) PB
- att — (E) COMMUNICATION LINE
- cc — (E) CABLE LINE
- fo — (E) FIBER OPTIC LINE
- g — (E) GAS LINE
- oh — (E) OVERHEAD ELECTRICAL LINE
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PROJECT NOTES:

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5. REFER TO CD–SHEETS FOR ALL OTHER UTILITY APPURTENANCE DETAILS.

No.	Revision	Date	By	Chkd

Date: 04-24-25
Drawn By: RA/DZ
Designed By: RA

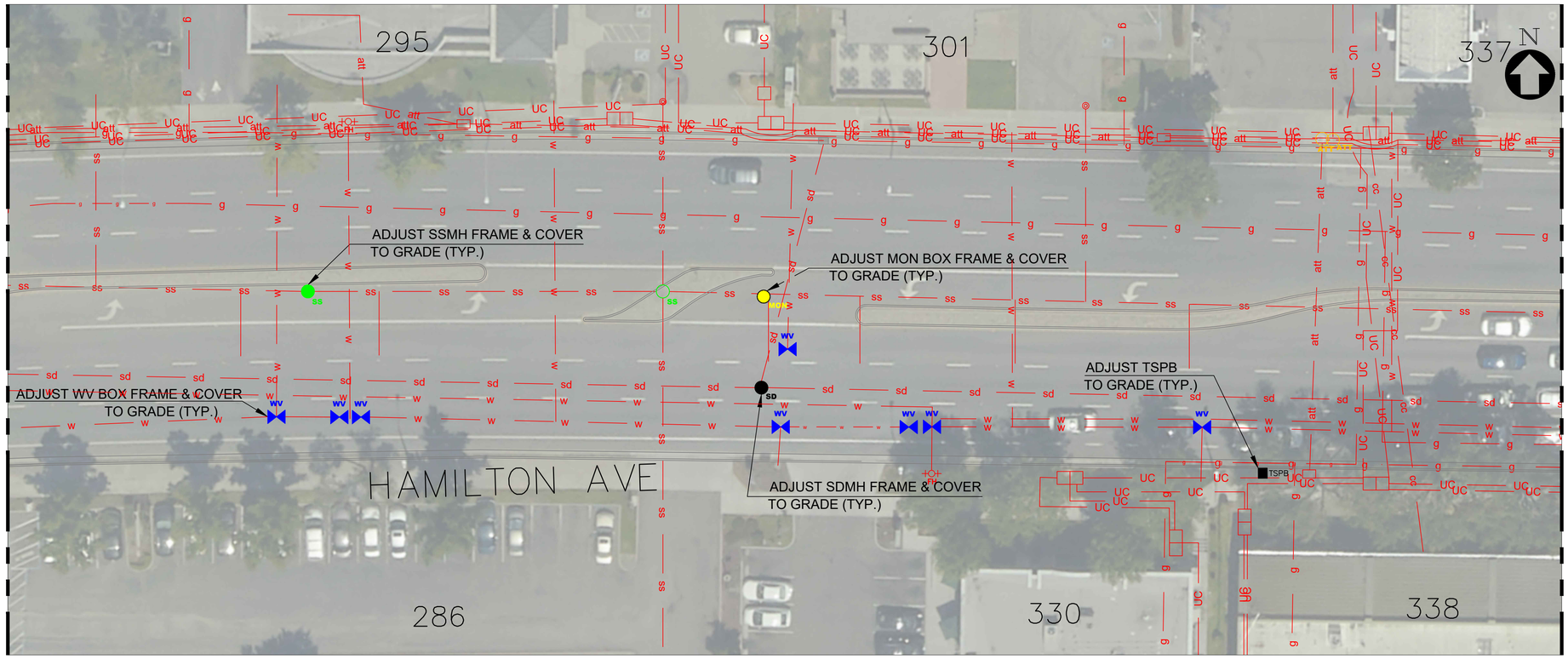
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

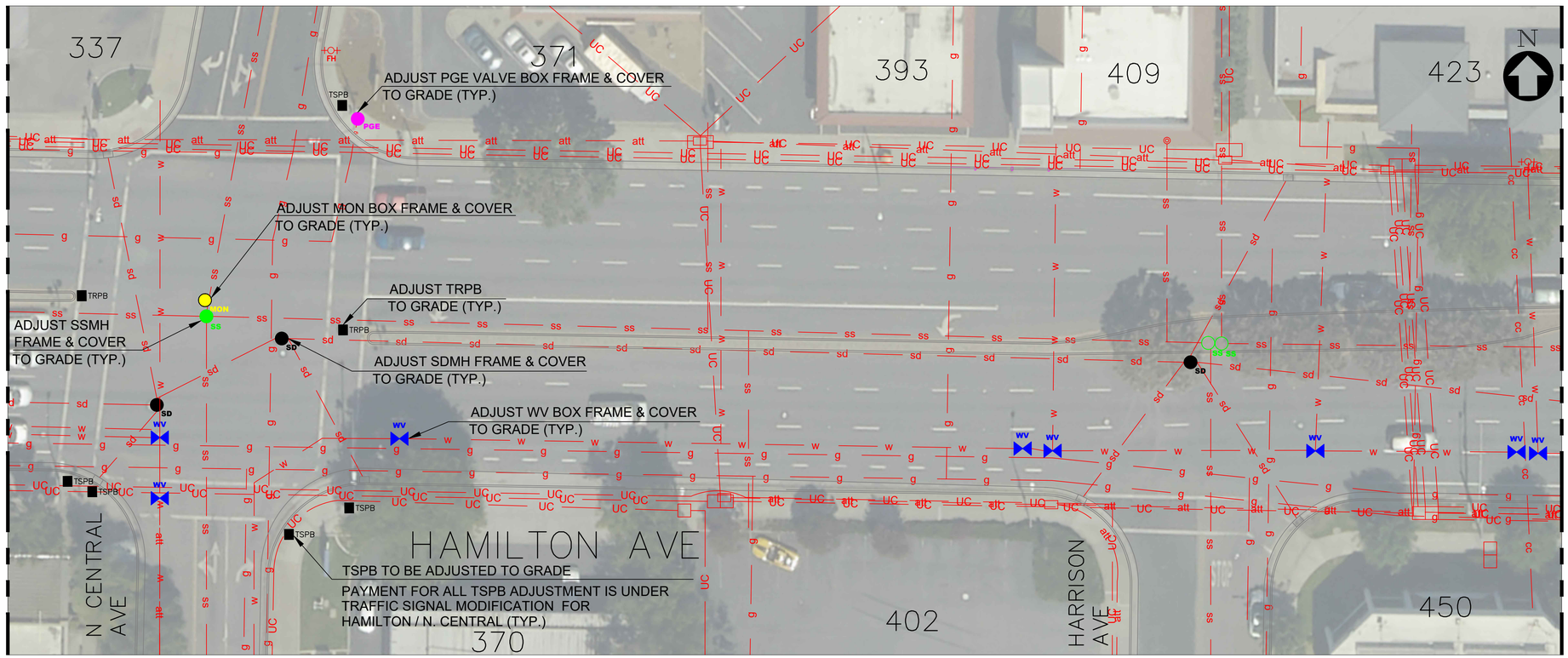
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
UTILITY INFORMATION

CITY OF CAMPBELL · THE ORCHARD CITY · CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: U-8





LEGEND

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- ATT — ADJUST ATT VAULT
- DH — ADJUST COC DETECTOR HANDHOLE
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- SD — (E) COC STORM DRAIN MANHOLE – REMAIN IN PLACE
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- WV — ADJUST SJWC WATER VALVE BOX FRAME & COVER
- WV — (E) SJWC WATER VALVE BOX – REMAIN IN PLACE
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- SS — ADJUST WVSD SANITARY SEWER MANHOLE FRAME & COVER
- SS — (E) SANITARY SEWER MANHOLE – REMAIN IN PLACE
- SSCO — (E) WVSD SANITARY SEWER CLEANOUT – REMAIN IN PLACE
- PGE — ADJUST PGE VALVE BOX FRAME & COVER
- PGE — ADJUST PGE VAULT
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- DH — FURNISH & INSTALL SCCO DETECTOR HANDHOLE
- ■ — ADJUST (TR, TS, SD, SL, SVC) PB

- att — (E) COMMUNICATION LINE
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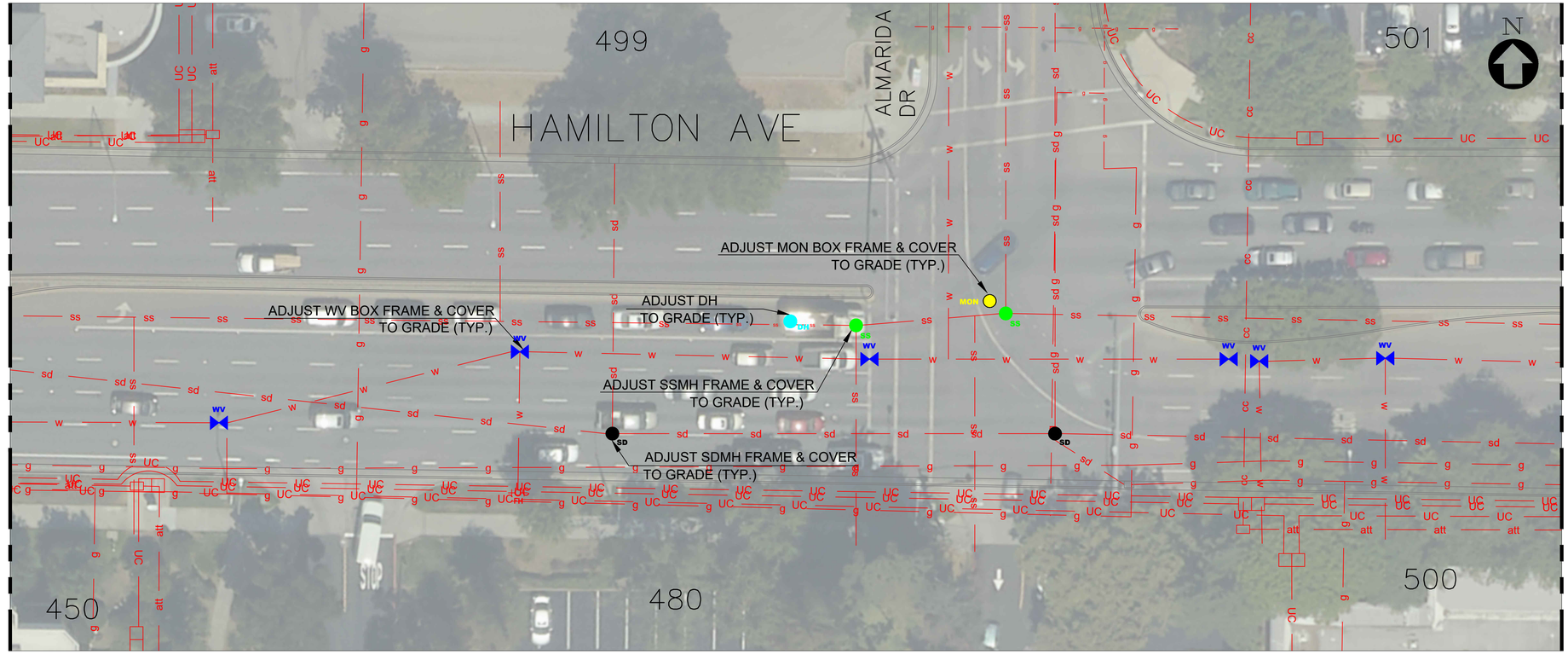
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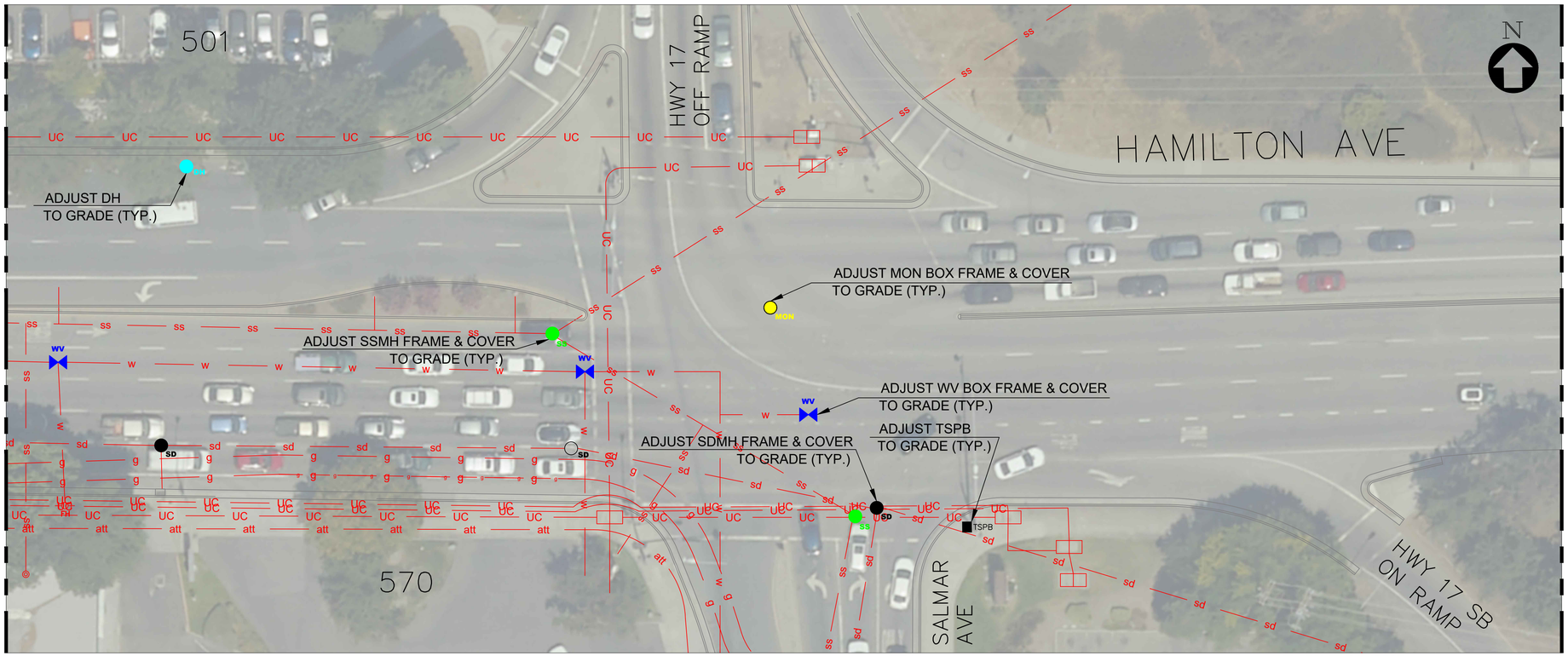
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
UTILITY INFORMATION

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: U-9





LEGEND

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- ATT — ADJUST ATT VAULT
- DH — ADJUST COC DETECTOR HANDHOLE
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- SD — (E) COC STORM DRAIN MANHOLE – REMAIN IN PLACE
- FH — (E) SJWC FIRE HYDRANT – REMAIN IN PLACE
- WV — ADJUST SJWC WATER VALVE BOX FRAME & COVER
- WV — (E) SJWC WATER VALVE BOX – REMAIN IN PLACE
- VZ — ADJUST VERIZON MANHOLE FRAME & COVER
- SS — ADJUST WVSD SANITARY SEWER MANHOLE FRAME & COVER
- SS — (E) SANITARY SEWER MANHOLE – REMAIN IN PLACE
- SSCO — (E) WVSD SANITARY SEWER CLEANOUT – REMAIN IN PLACE
- PGE — ADJUST PGE VALVE BOX FRAME & COVER
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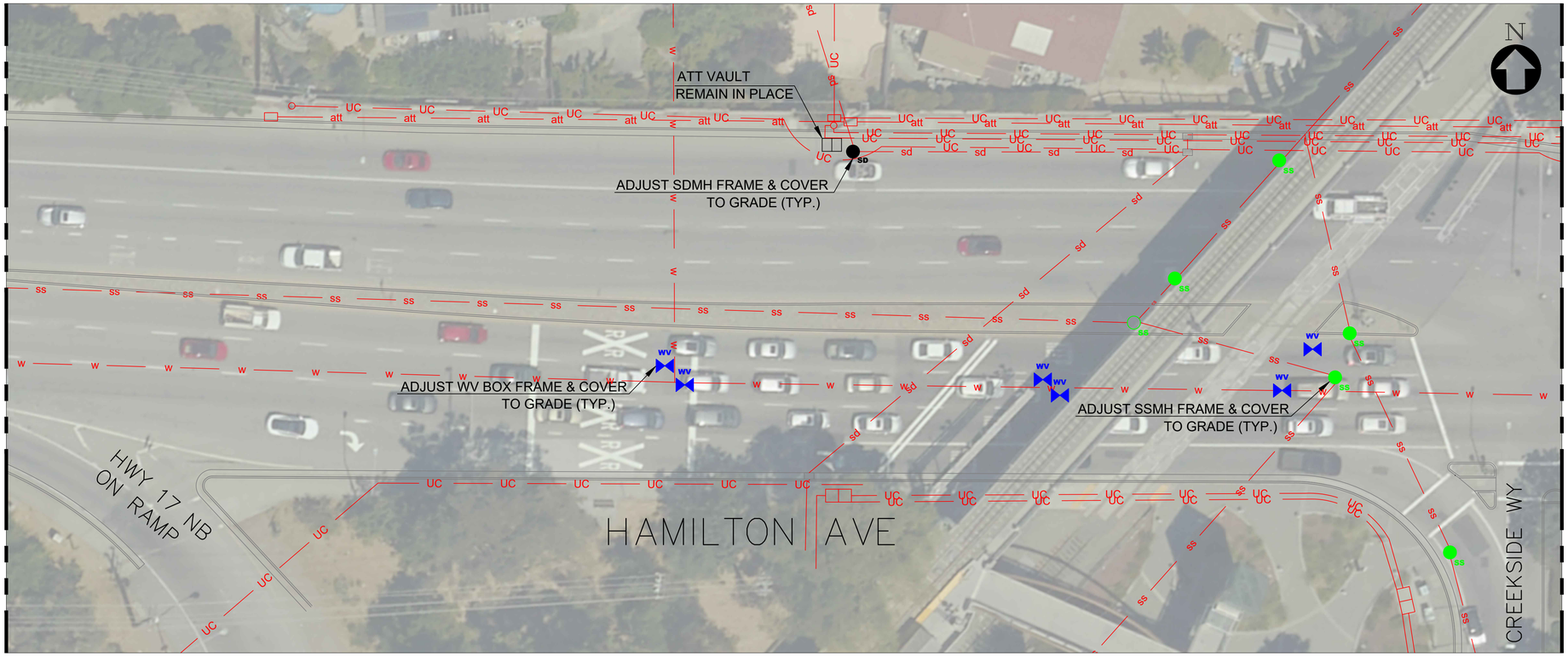
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
UTILITY INFORMATION

CITY OF CAMPBELL THE ORCHARD CITY
CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: U-10





LEGEND

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- ATT — (E) ATT MANHOLE – REMAIN IN PLACE
- ATT — ADJUST ATT VAULT
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- SS — (E) SANITARY SEWER MANHOLE – REMAIN IN PLACE
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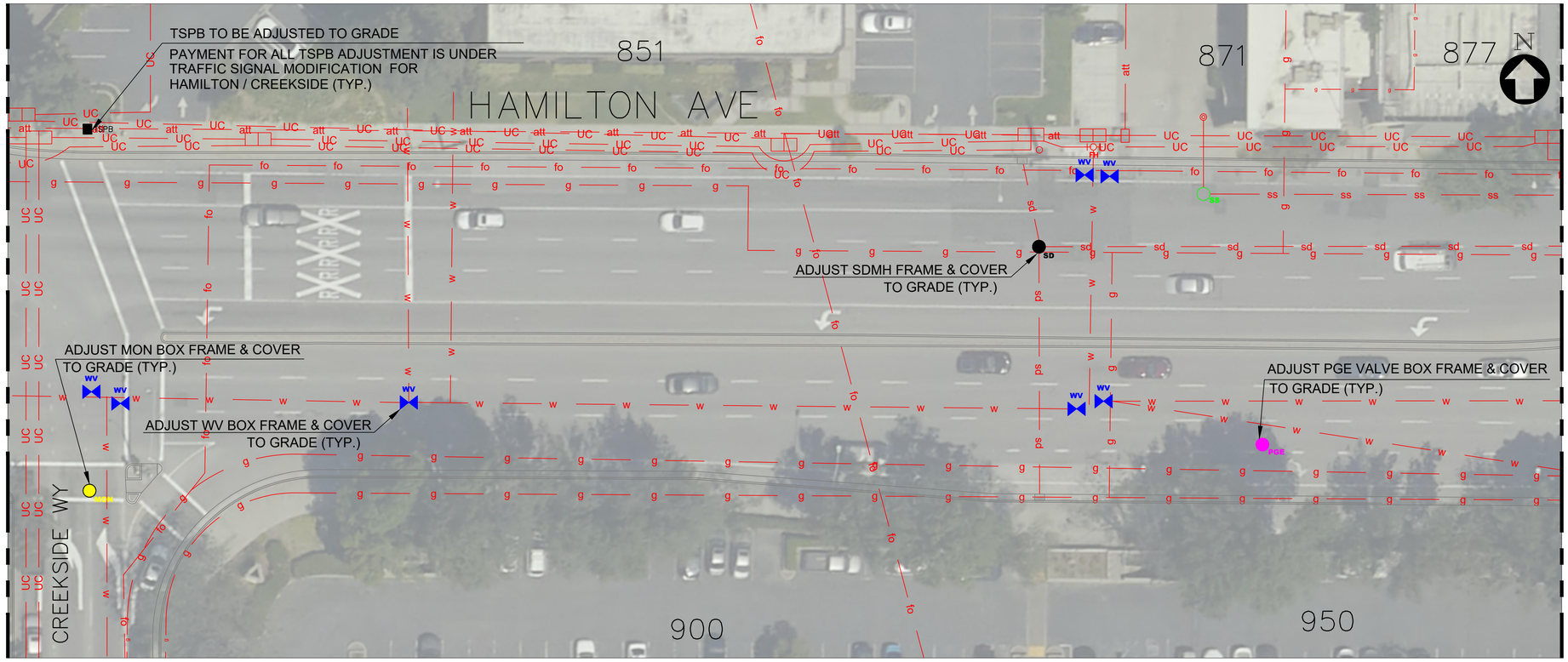
CITY OF CAMPBELL
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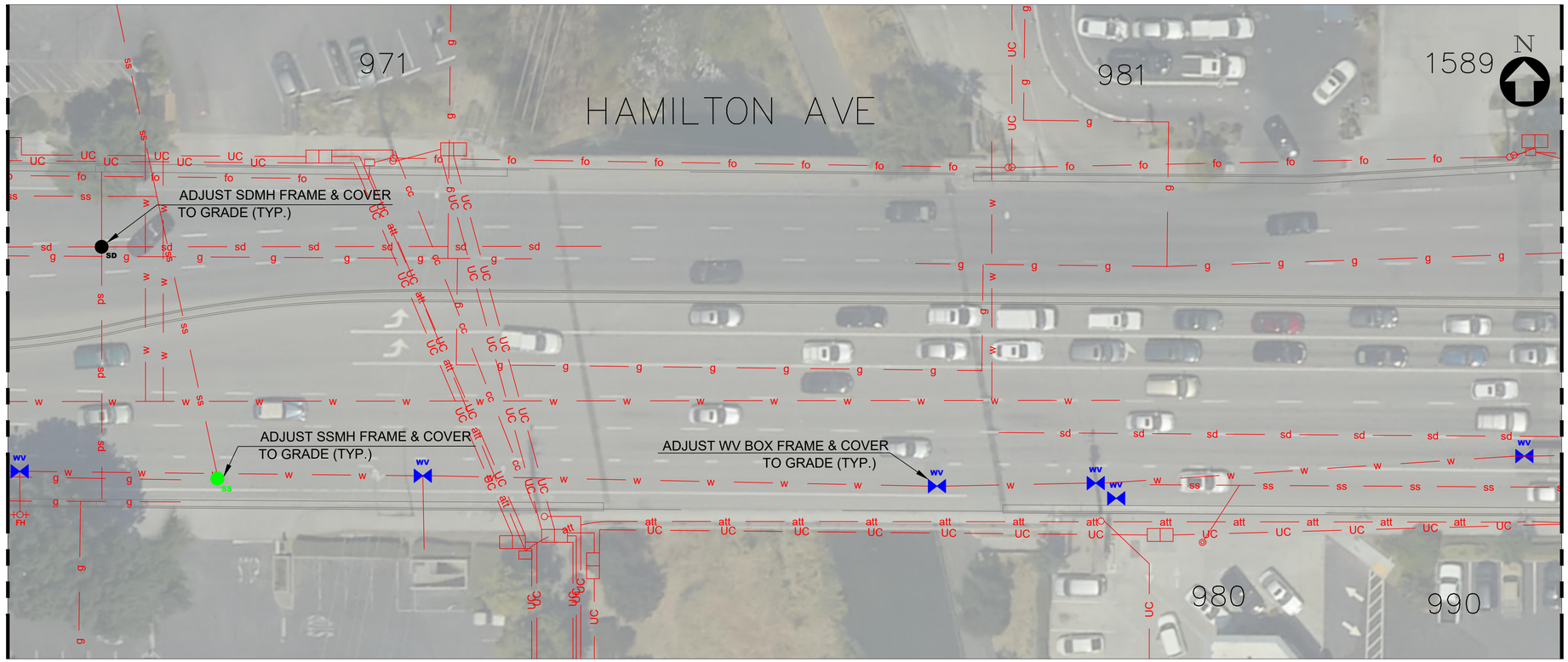
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
UTILITY INFORMATION

CITY OF CAMPBELL · THE ORCHARD CITY · CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: U-11





LEGEND

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- ATT — (E) ATT MANHOLE – REMAIN IN PLACE
- ATT — ADJUST ATT VAULT
- DH — ADJUST COC DETECTOR HANDHOLE
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- SS — (E) SANITARY SEWER MANHOLE – REMAIN IN PLACE
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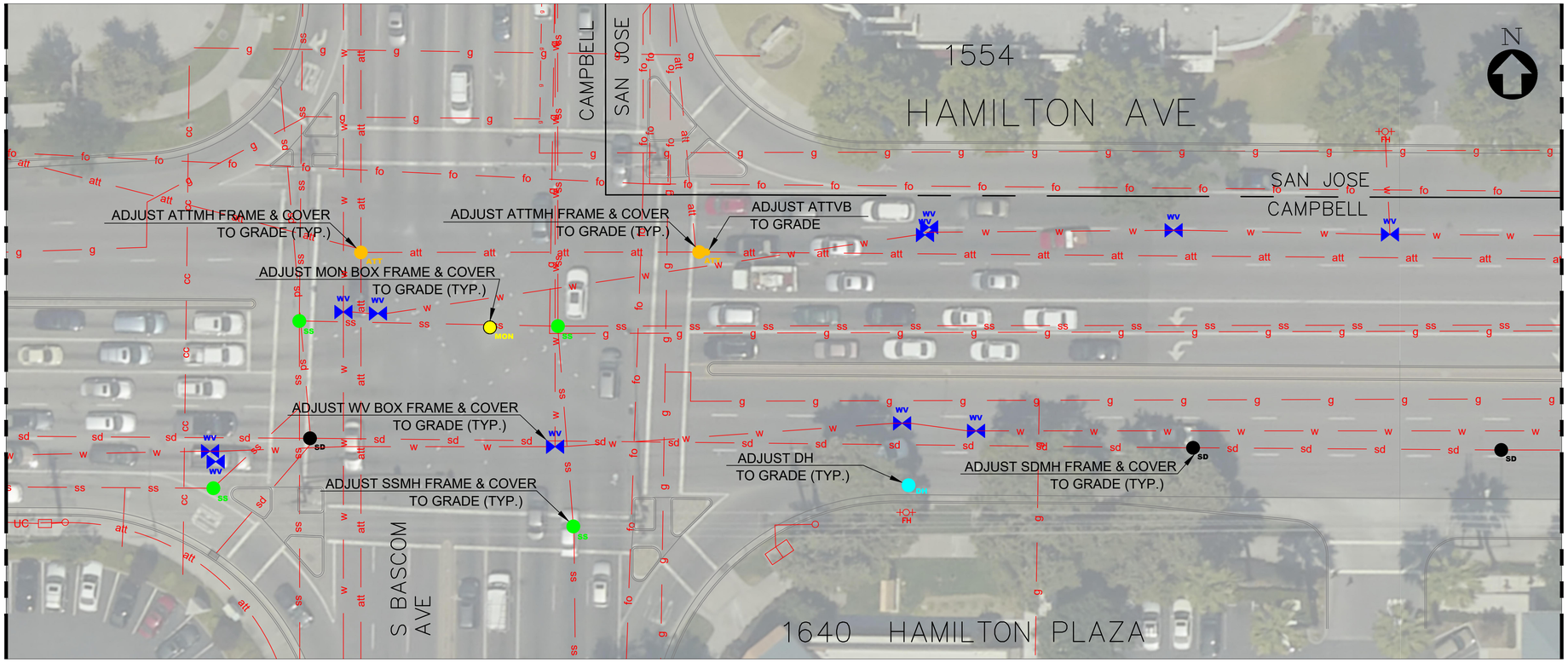
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DEPARTMENT OF PUBLIC WORKS

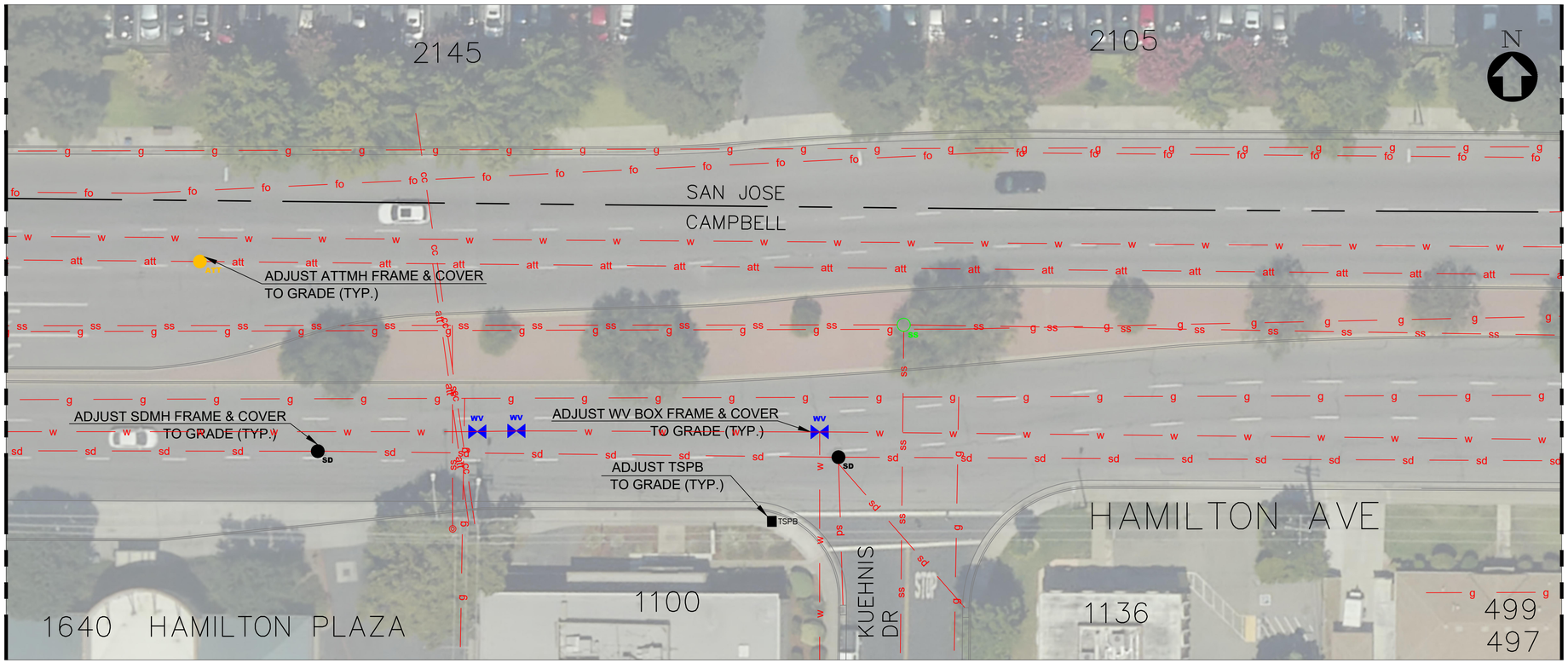
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
UTILITY INFORMATION

CITY OF CAMPBELL · THE ORCHARD CITY · CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: U-12





LEGEND

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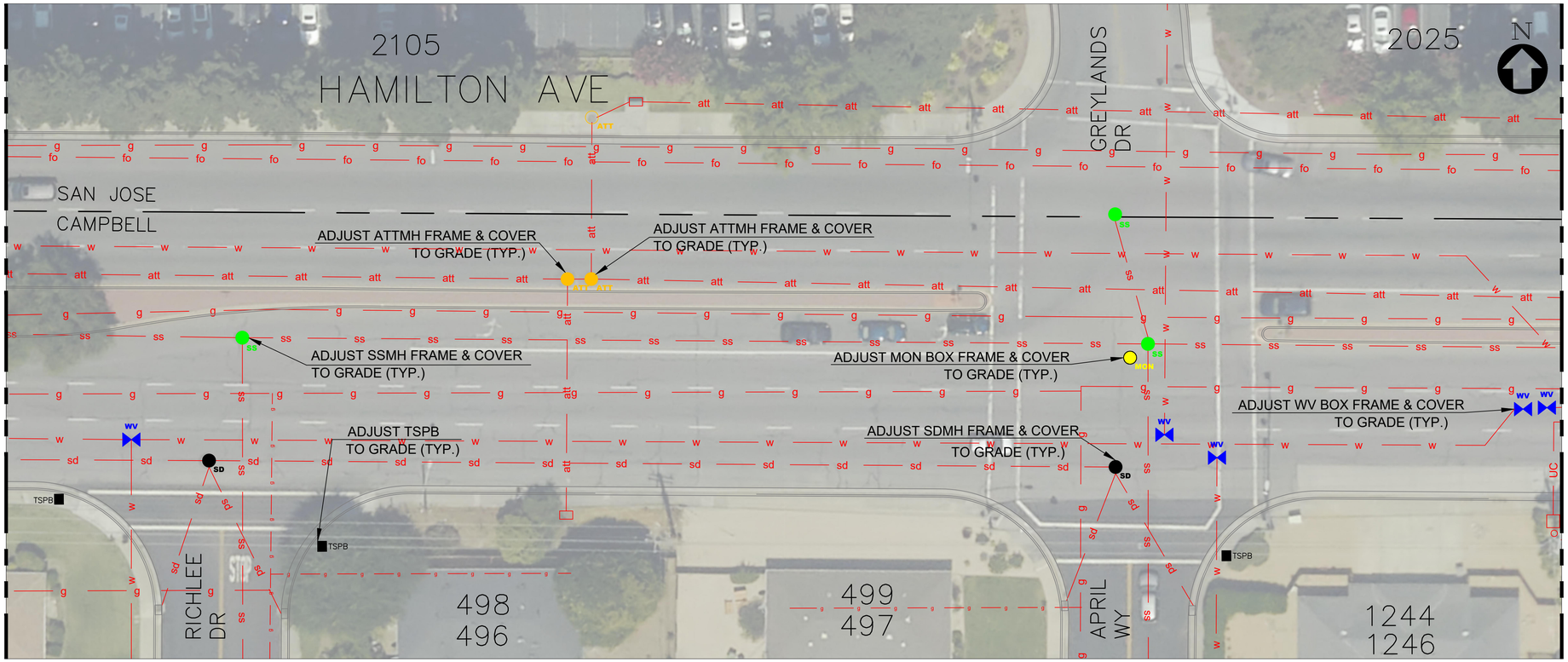
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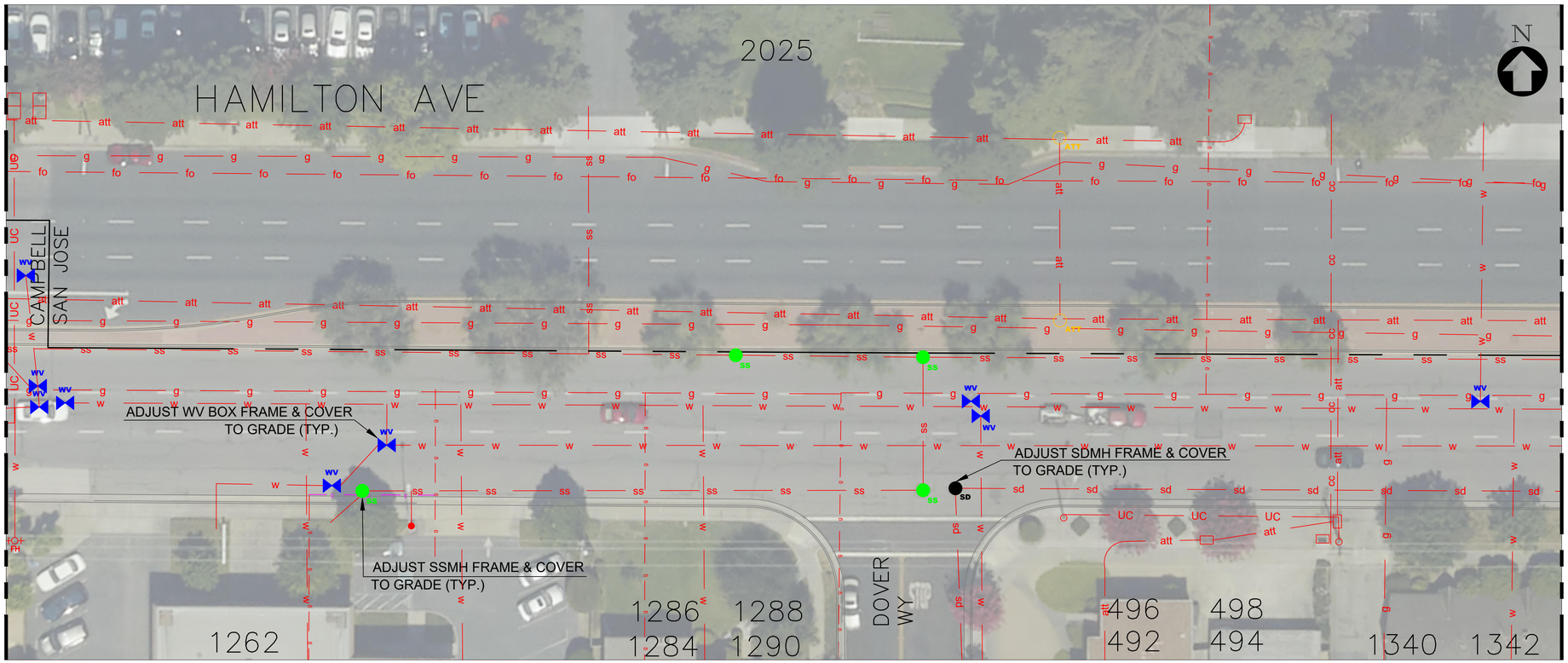
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PROJECT NO. 23-BB
UTILITY INFORMATION

CITY OF CAMPBELL THE ORCHARD CITY
CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: U-13





LEGEND

- ADJUST ATT MANHOLE FRAME & COVER
- (E) ATT MANHOLE – REMAIN IN PLACE
- ADJUST ATT VAULT
- ADJUST COC DETECTOR HANDHOLE
- ADJUST COC MONUMENT BOX FRAME & COVER
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- (E) COC STORM DRAIN MANHOLE – REMAIN IN PLACE
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- ADJUST SJWC WATER VALVE BOX FRAME & COVER
- (E) SJWC WATER VALVE BOX – REMAIN IN PLACE
- ADJUST VERIZON MANHOLE FRAME & COVER
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- (E) SANITARY SEWER MANHOLE – REMAIN IN PLACE
- (E) WVSD SANITARY SEWER CLEANOUT – REMAIN IN PLACE
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5. REFER TO CD–SHEETS FOR ALL OTHER UTILITY APPURTENANCE DETAILS.

No.	Revision	Date	By	Chkd

Date: 04-24-25
Drawn By: RA/DZ
Designed By: RA

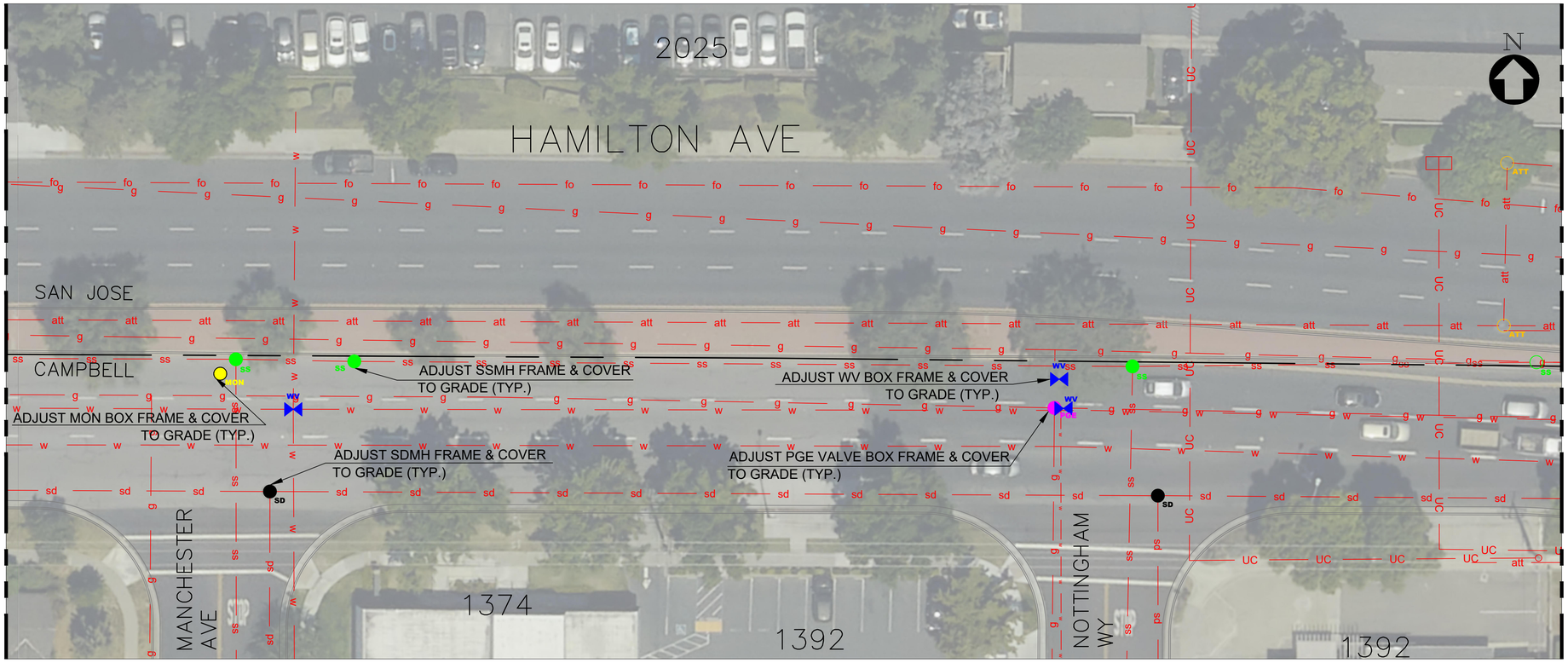
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

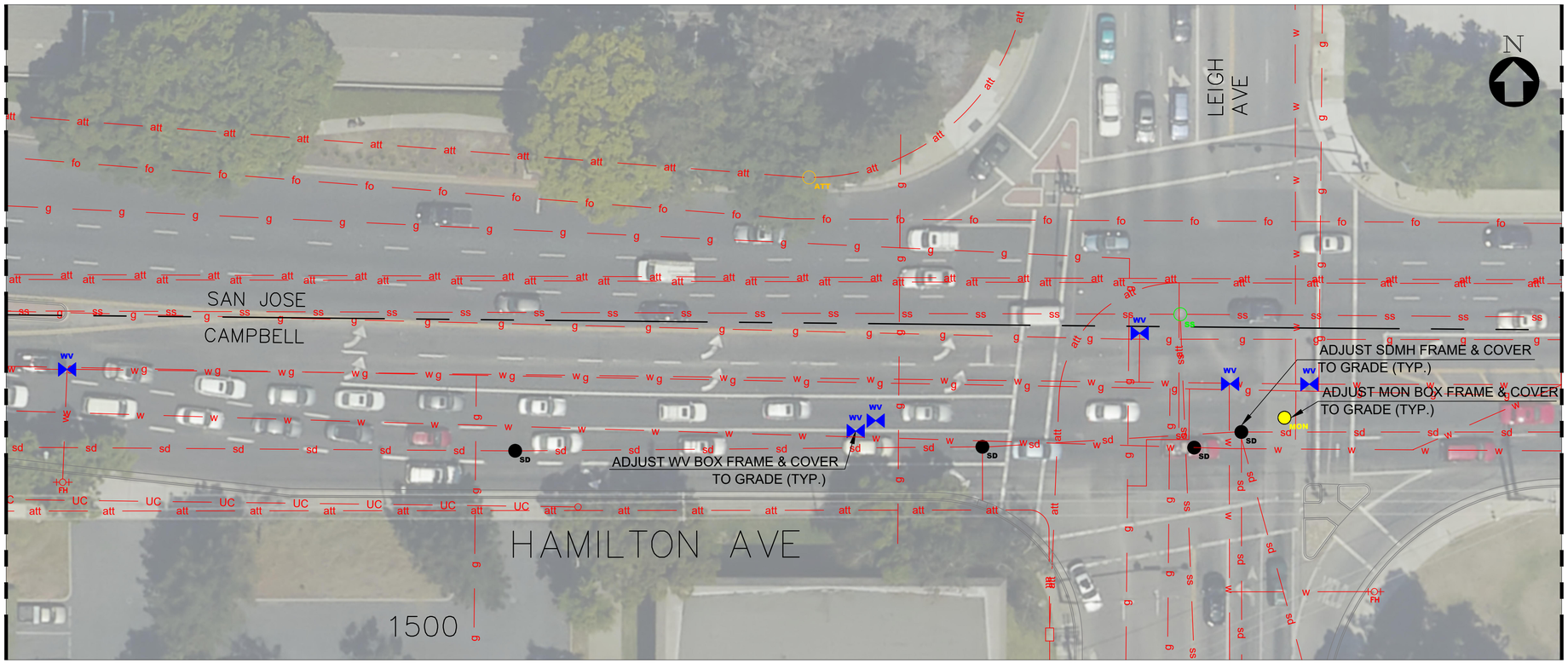
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
UTILITY INFORMATION

CITY OF CAMPBELL · THE ORCHARD CITY · CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: U-14





LEGEND

- ADJUST ATT MANHOLE FRAME & COVER
- (E) ATT MANHOLE – REMAIN IN PLACE
- ADJUST ATT VAULT
- ADJUST COC DETECTOR HANDHOLE
- ADJUST COC MONUMENT BOX FRAME & COVER
- ADJUST COC STORM DRAIN MANHOLE MANHOLE FRAME & COVER
- (E) COC STORM DRAIN MANHOLE – REMAIN IN PLACE
- (E) SJWC FIRE HYDRANT – REMAIN IN PLACE
- ADJUST SJWC WATER VALVE BOX FRAME & COVER
- (E) SJWC WATER VALVE BOX – REMAIN IN PLACE
- ADJUST VERIZON MANHOLE FRAME & COVER
- ADJUST WVSD SANITARY SEWER MANHOLE FRAME & COVER
- (E) SANITARY SEWER MANHOLE – REMAIN IN PLACE
- (E) WVSD SANITARY SEWER CLEANOUT – REMAIN IN PLACE
- ADJUST PGE VALVE BOX FRAME & COVER
- ADJUST PGE VAULT
- RELOCATE PGE GUY WIRE
- FURNISH & INSTALL SCCO DETECTOR HANDHOLE
- ADJUST (TR, TS, SD, SL, SVC) PB

- (E) COMMUNICATION LINE
- (E) CABLE LINE
- (E) FIBER OPTIC LINE
- (E) GAS LINE
- (E) OVERHEAD ELECTRICAL LINE
- (E) SANITARY SEWER LINE
- (E) STORM DRAIN
- (E) UNDERGROUND ELECTRICAL LINE
- (E) WATER LINE

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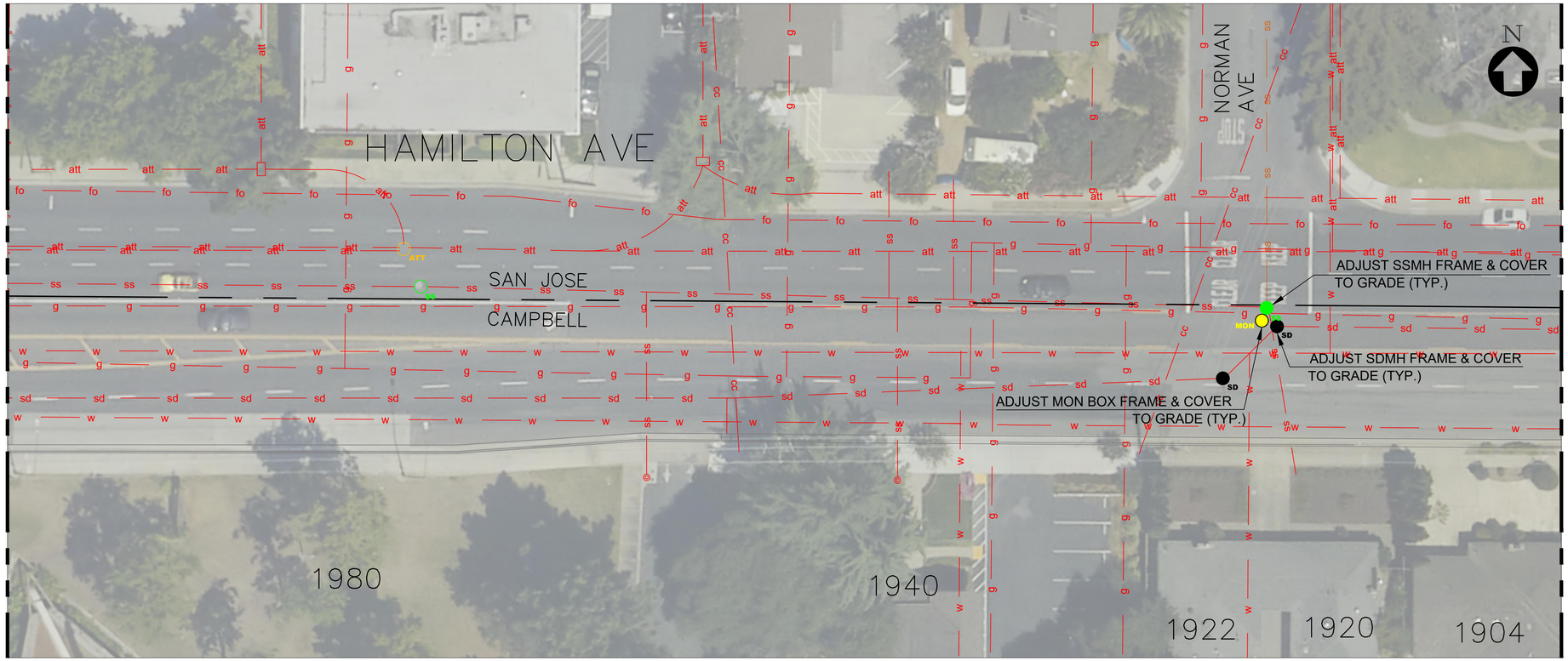
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
UTILITY INFORMATION

CITY OF CAMPBELL · THE ORCHARD CITY · CAMPBELL, CALIFORNIA

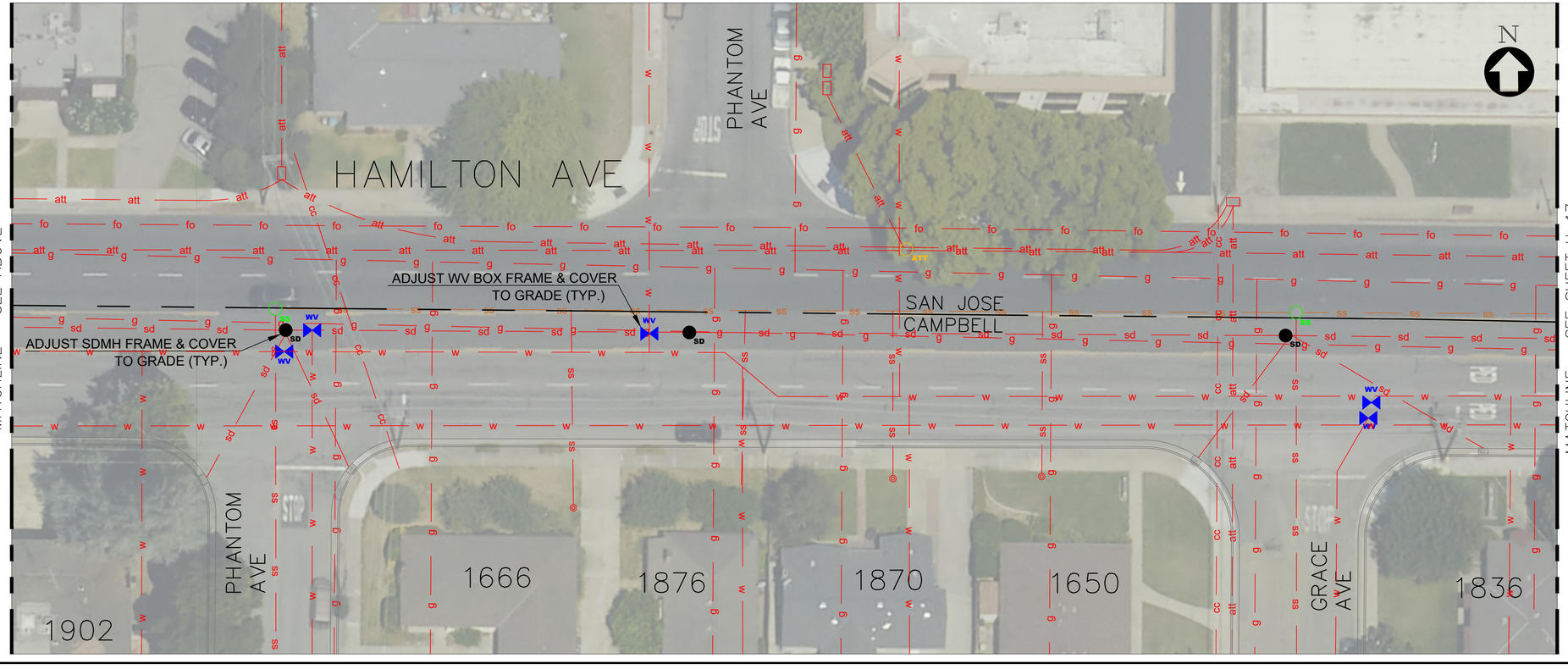
SCALE: NTS

SHEET: U–15



MATCHLINE – SEE SHEET U–15

MATCHLINE – SEE BELOW



MATCHLINE – SEE ABOVE

MATCHLINE – SEE SHEET U–17

LEGEND

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- ATT — (E) ATT MANHOLE – REMAIN IN PLACE
- ATT — ADJUST ATT VAULT
- DH — ADJUST COC DETECTOR HANDHOLE
- MON — ADJUST COC MONUMENT BOX FRAME & COVER
- SD — ADJUST COC STORM DRAIN MANHOLE FRAME & COVER
- SD — (E) COC STORM DRAIN MANHOLE – REMAIN IN PLACE
- FH — (E) SJWC FIRE HYDRANT – REMAIN IN PLACE
- WV — ADJUST SJWC WATER VALVE BOX FRAME & COVER
- WV — (E) SJWC WATER VALVE BOX – REMAIN IN PLACE
- VZ — ADJUST VERIZON MANHOLE FRAME & COVER
- SS — ADJUST WVSD SANITARY SEWER MANHOLE FRAME & COVER
- SS — (E) SANITARY SEWER MANHOLE – REMAIN IN PLACE
- SSCO — (E) WVSD SANITARY SEWER CLEANOUT – REMAIN IN PLACE
- PGE — ADJUST PGE VALVE BOX FRAME & COVER
- PGE — ADJUST PGE VAULT
- PGE — RELOCATE PGE GUY WIRE
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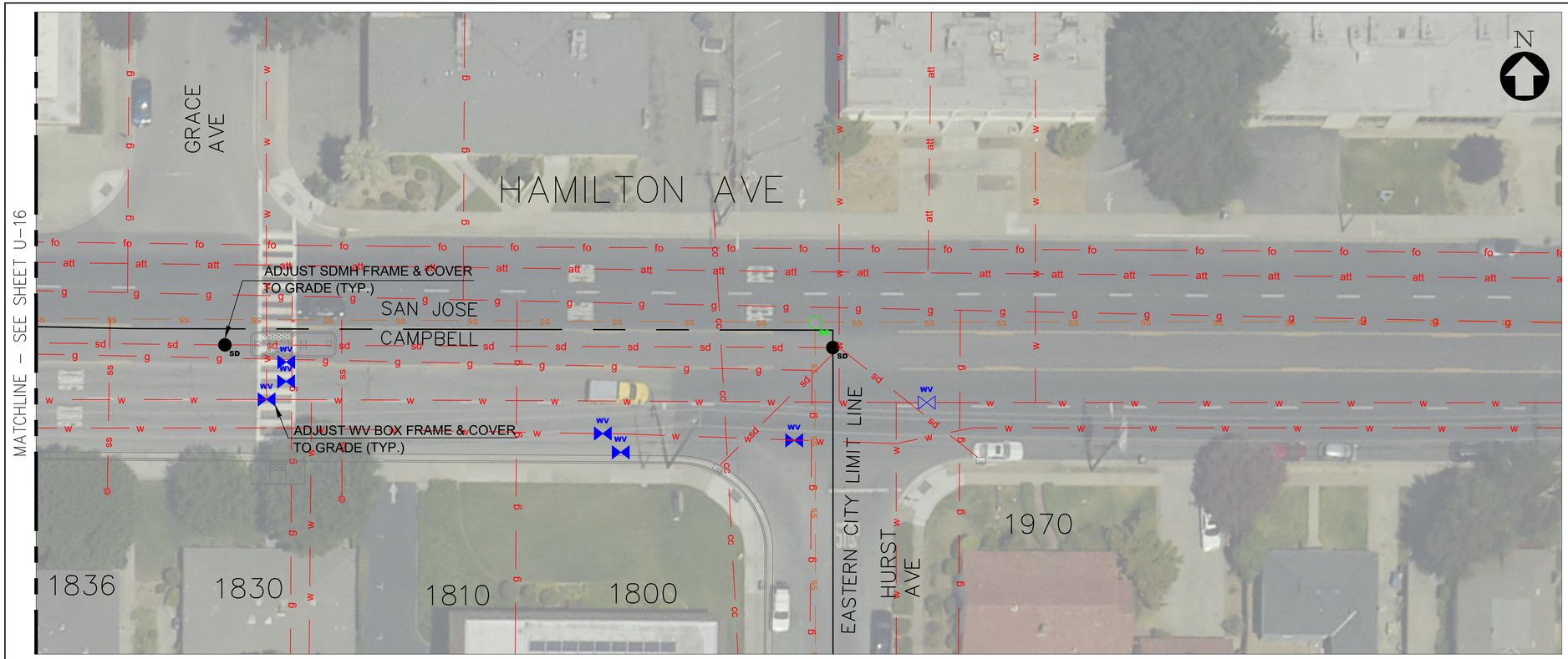
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
UTILITY INFORMATION

CITY OF CAMPBELL · INCORPORATED · CITY
CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: U-16



LEGEND

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- ATT — (E) ATT MANHOLE – REMAIN IN PLACE
- ATT — ADJUST ATT VAULT
- DH — ADJUST COC DETECTOR HANDHOLE
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- PGE — ADJUST PGE VALVE BOX FRAME & COVER
- PGE — ADJUST PGE VAULT
- PGE — RELOCATE PGE GUY WIRE
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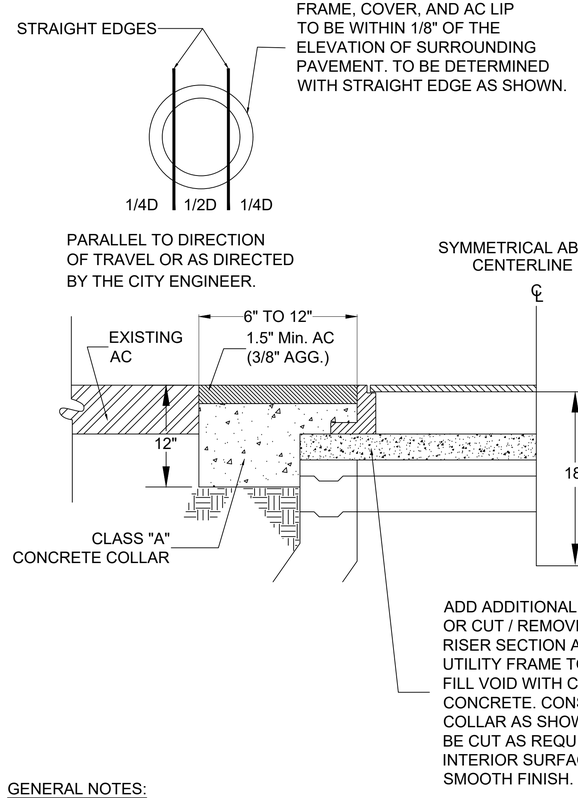
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
UTILITY INFORMATION

CITY OF CAMPBELL · THE ORCHARD CITY · CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: U-17



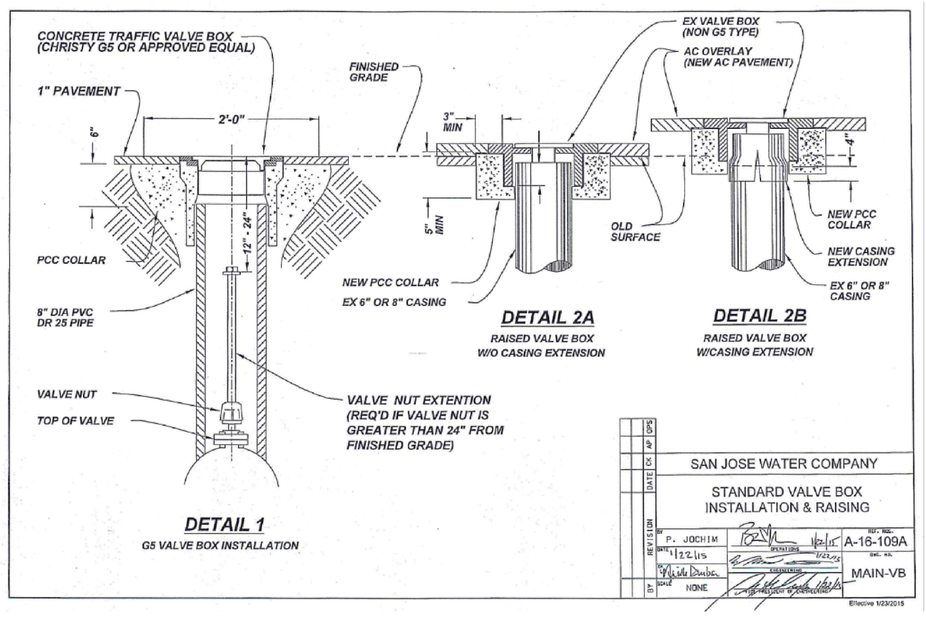
GENERAL NOTES:

1. ADJUST FRAME AND COVER TO FINISHED GRADE AFTER FINAL LIFT OF PAVING.

1 U-18 STORM DRAIN FRAME AND COVER ADJUSTMENT DETAIL
NTS

	U-1	U-2	U-3	U-4	U-5	U-6	U-7	U-8	U-9	U-10	U-11	U-12	U-13	U-14	U-15	U-16	U-17	TOTAL
SJWC - WV	(6)N/A - SLURRY	(11) N/A - SLURRY 1	12	12	9	9	10	11	16	9	6	13	14	14	9	5	6	156
SJWC - Traffic Rated PB						1												1
WVSD - SSMH		(5) N/A - SLURRY 1	6	2	3	5	1	2	2	4	6	1	4	7	3	1		48
ATT - MH													3	2				5
ATT - VALVE BOX													1					1
PGE - VALVE BOX									1			1			1			3
SCCo - DH				4														4
CoC - MON		(1) N/A -SLURRY 1	2		2	3	1	3	2	2		1	1	1	2	1		22
CoC - SDMH	(1) N/A - SLURRY	(1) N/A - SLURRY	6	2	5	4	2	7	4	4	1	2	5	3	6	5	2	58
CoC - DH										2			1					3
CoC - Traffic Rated PB									2									2
CoC - Traffic Signal PB			3	1				3		1			1	3				12
CoC - Streetlight PB				1		1												2
CoC - Service PB							1	1										2

X U-18 UTILITY SCHEDULE
NTS



2 U-18 SAN JOSE WATER COMPANY - VALVE BOX INSTALLATION & RAISING
NTS

No.	Revision	Date	By	Chkd

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Designed By: RA

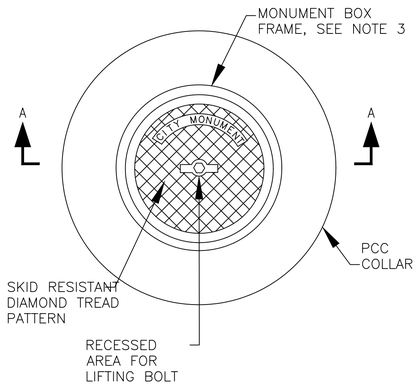
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
UTILITY - CONSTRUCTION DETAILS

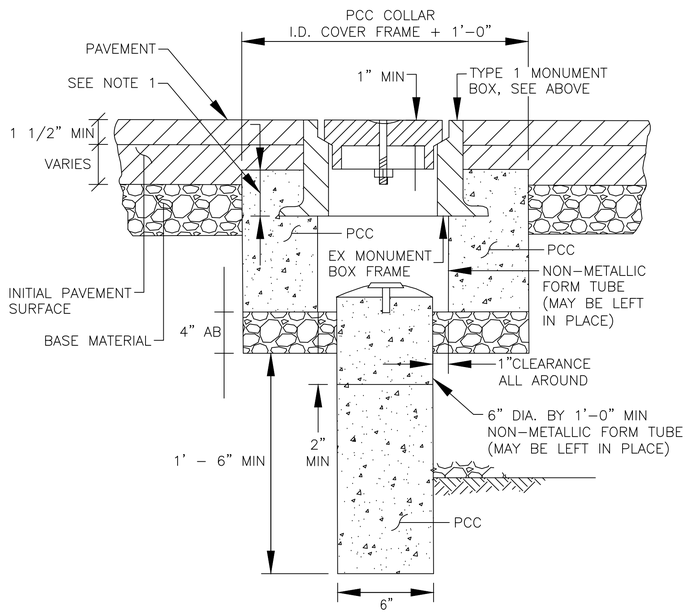
CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: U-18



COVER INSTALLATION

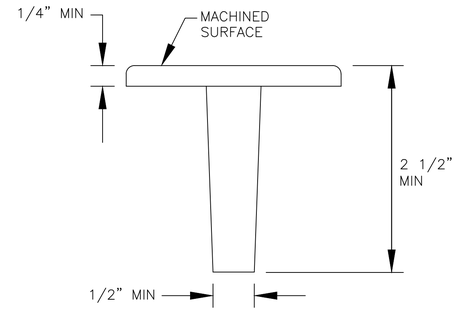


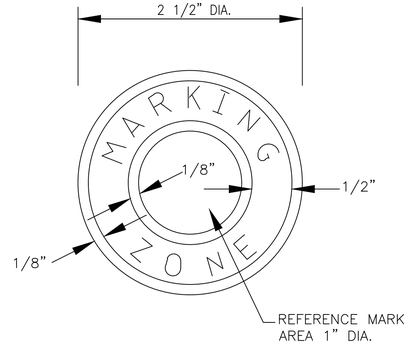
SECTION A-A

NOTES:

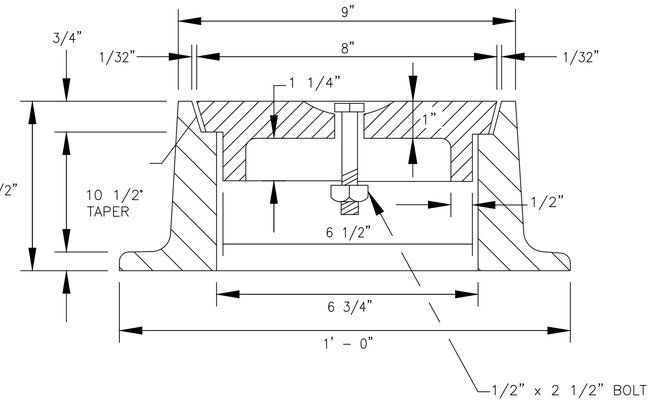
1. FRAME SHALL BE EMBEDDED IN PCC, A MINIMUM OF 3".
2. COVER AND RISER RING SHALL NOT ROCK AFTER INSTALLATION.

1 U-19 STREET MONUMENT DETAIL
NTS





BRASS MARKER DISC



SECTION FRAME AND COVER

NOTES:

1. MARKINGS IN ACCORDANCE WITH THE LAND SURVEYOR ACT SHALL BE A MINIMUM OF 3/16" SIZED LETTERS AND NUMBERS LEGIBLY STAMPED WITHIN THE DESIGNATED "MARKING ZONE".
2. REFERENCE MARK SHALL BE PLACED WITHIN A 1" DIAMETER OF THE CENTER OF THE DISC.
3. SHANK SHALL BE CONSTRUCTED IN A MANNER WHICH PREVENTS REMOVAL OR TURNING ONCE SET IN CONCRETE.

2 U-19 STREET MONUMENT FRAME & COVER AND MARKER DISC CASTING
NTS

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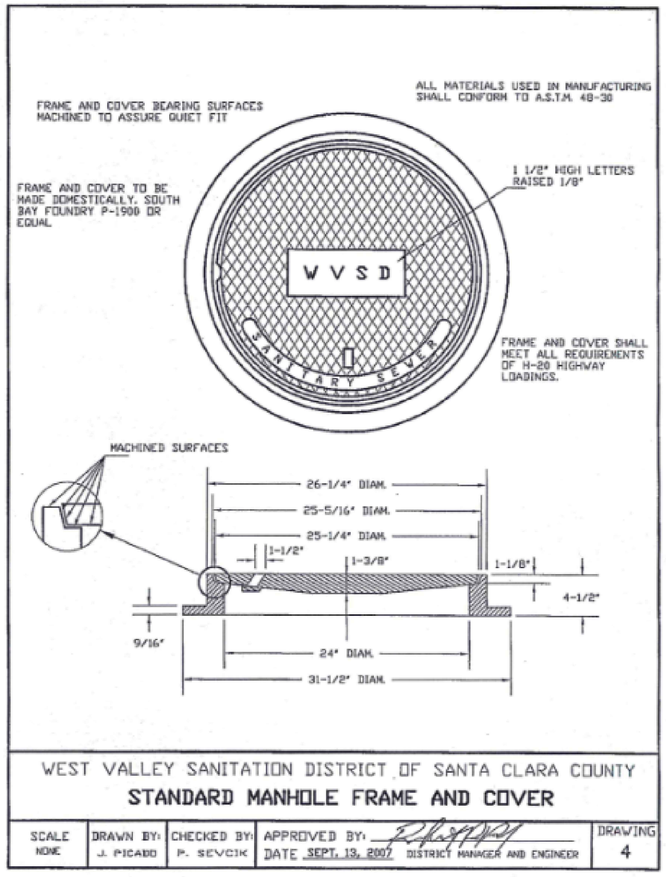
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DEPARTMENT OF PUBLIC WORKS

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UTILITY - CONSTRUCTION DETAILS

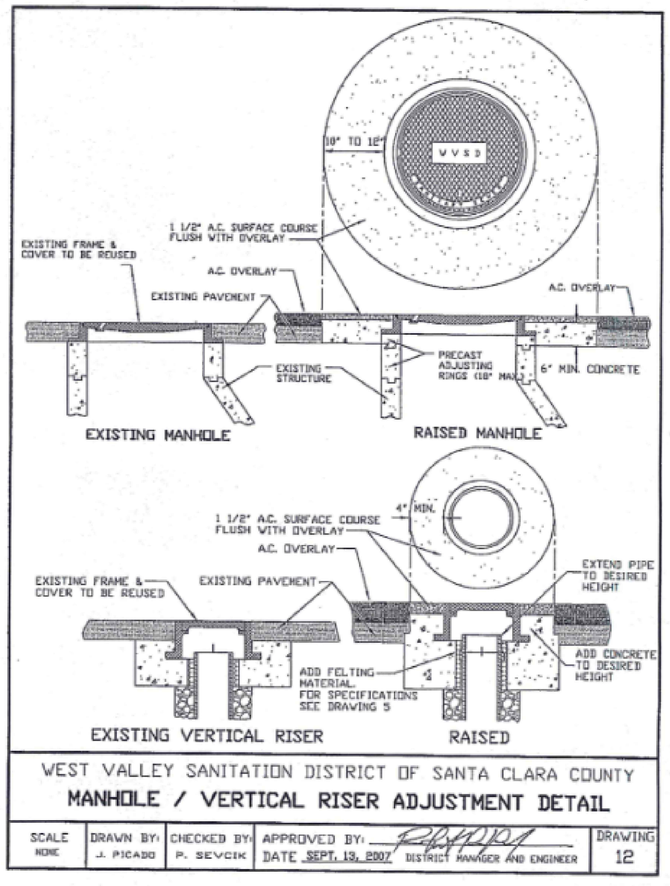
CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: U-19



1 U-20 WVSD - STANDARD MANHOLE FRAME COVER
NTS



2 U-20 WEST VALLEY SANITATION DISTRICT - MANHOLE/VERTICAL RISER ADJUSTMENT
NTS

SANITARY SEWER MANHOLE ADJUSTMENT NOTES

1. GENERAL

   A. EXCEPT AS INDICATED HEREON OR ON THE PROJECT PLANS, MANHOLES SHALL CONFORM TO WEST VALLEY SANITATION DISTRICT'S STANDARD DRAWING 2 "STANDARD PRECAST CONCRETE MANHOLE."

   B. DIMENSIONS IN "D" SHALL BE THE SAME AS THE SIZE OF MANHOLE FRAME AND COVER TO BE USED.

   C. THE CONTRACTOR MAY REUSE THE EXISTING MANHOLE FRAME AND COVER, UNLESS DAMAGED BY HIM DURING HIS CONSTRUCTION OPERATION OR WHEN OTHERWISE INDICATED ON THE PROJECT PLANS. ITEMS DAMAGED BY THE CONTRACTOR SHALL BE REPLACED WITH IDENTICAL NEW ITEMS AT NO EXPENSE TO THE CITY OR TO WEST VALLEY SANITATION DISTRICT.

   D. EXISTING STEPS LOCATED WITHIN REMOVAL LIMITS SHALL BE REPLACED. WHEN REMOVAL OF EXISTING STEPS BEYOND THE MANHOLE REMOVAL LIMITS IS INDICATED ON THE PROJECT PLANS THE STEPS SHALL BE REMOVED TO A DEPTH OF 2 INCHES BEYOND THE INDISE FACE OF THE MANHOLE AND THE HOLES SHALL BE FILLED WITH CLASS "A" MORTAR.

2. RAISING EXISTING BRICK MANHOLES

   A. BRICK MANHOLES TO BE RAISED LESS THAN 1 FT. MAY BE EXTENDED VERTICALLY, PROVIDED THAT AT A DEPTH OF 2.5 FT. BELOW THE TOP OF MANHOLE AT ITS NEW ELEVATION, THE INSIDE DIAMETER OF THE MANHOLE IS 30 INCHES OR GREATER.

   B. BRICK MANHOLES TO BE RAISED LESS THAN 3.5 INCHES MAY BE RAISED BY APPLYING CLASS "A" MORTAR TO THE TOP OF THE EXISTING BRICKWORK. IF THE BRICK MANHOLE IS TO BE RAISED 3.5 INCHES OR MORE, A NEW COURSE OR COURSES OF BRICK WORK SHALL BE PLACED ON TOP OF EXISTING BRICKWORK.

3. LOWER EXISTING BRICK MANHOLES

   A. WHERE A BRICK MANHOLE IS TO BE LOWERED LESS THAN 1 FT, THE FRAME MAY BE RESET ON THE EXISTING BRICKWORK AND THE 40 INCHES MINIMUM BRICKWORK RECONSTRUCTION OMITTED, PROVIDED THAT THE BASE OF THE FRAME DOES NOT OVERHANG THE BRICKWORK ON THE INSIDE SURFACE OF THE MANHOLE MORE THAN AN AVERAGE OF 1.5 INCHES IN ANY QUADRANT NOR MORE THAN 2 INCHES AT ANY POINT.

4. RAISING EXISTING PRECAST CONCRETE MANHOLES

   A. PRECAST CONCRETE MANHOLES TO BE RAISED LESS THAN 3 INCHES MAY BE RAISED BY APPLYING CLASS "A" MORTAR TO THE TOP OF THE EXISTING MANHOLE, PROVIDED THE TOTAL HEIGHT OF MORTAR, EXISTING AND NEWLY APPLIED DOES NOT EXCEED 3 INCHES.

   B. WHERE THE PRECAST CONCRETE MANHOLE IS TO BE RAISED 3 INCHES OR MORE, OR WHERE THE TOTAL HEIGHT OF MORTAR, EXISTING AND NEWLY APPLIED, WOULD EXCEED 3 INCHES; GRADE RINGS SHALL BE UTILIZED. CLASS "A" MORTAR MAY BE USED FOR FINAL ADJUSTMENT, BUT NOT MORE THAN 3 INCHES IN HEIGHT. WHERE RAISING THE MANHOLE WOULD RESULT IN THE UPPER SEGMENT OF THE SHAFT BEING MORE THAN 30 INCHES IN HEIGHT, REMOVE THE REDUCER AND UPPER SEGMENT OF THE SHAFT, INSTALL ADDITIONAL RINGS OR PIPE TO THE LOWER SEGMENT OF THE SHAFT, AND REINSTALL THE REDUCER AND GRADE RINGS AS REQUIRED.

5. LOWERING EXISTING PRECAST CONCRETE MANHOLES

   A. REMOVE SUFFICIENT GRADE RINGS TO LOWER THE MANHOLES AS REQUIRED. APPLY CLASS "A" MORTAR TO A HEIGHT NOT EXCEEDING 3 INCHES FOR ADJUSTMENT TO FINAL GRADE.

   B. WHERE REMOVAL OF GRADE RINGS WOULD RESULT IN THE UPPER SEGMENT OF THE SHAFT BEING LESS THAN 12 INCHES IN HEIGHT, REMOVE THE REDUCERS AND SUFFICIENT SECTIONS OF THE LOWER SEGMENT OF THE SHAFT AND REINSTALL ANY NECESSARY SEGMENT OF THE LOWER SHAFT, THE REDUCER, AND THE GRADE RINGS TO CONFORM TO THE REQUIREMENTS OF THIS PLAN.

   C. EXISTING GRADE RINGS NEED NOT BE REMOVED IF EXISTING MORTAR IS REMOVED, AND AT LEAST 1.5 INCHES OF MORTAR MAY BE PLACED ON TOP OF EXISTING GRADE RINGS TO RESEAT THE FRAME.

6. CEMENT MORTAR

   A. CLASS "A" MORTAR SHALL CONFORM TO SECTION 201-5, "CEMENT MORTAR" OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", LATEST EDITION.

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Designed By: RA

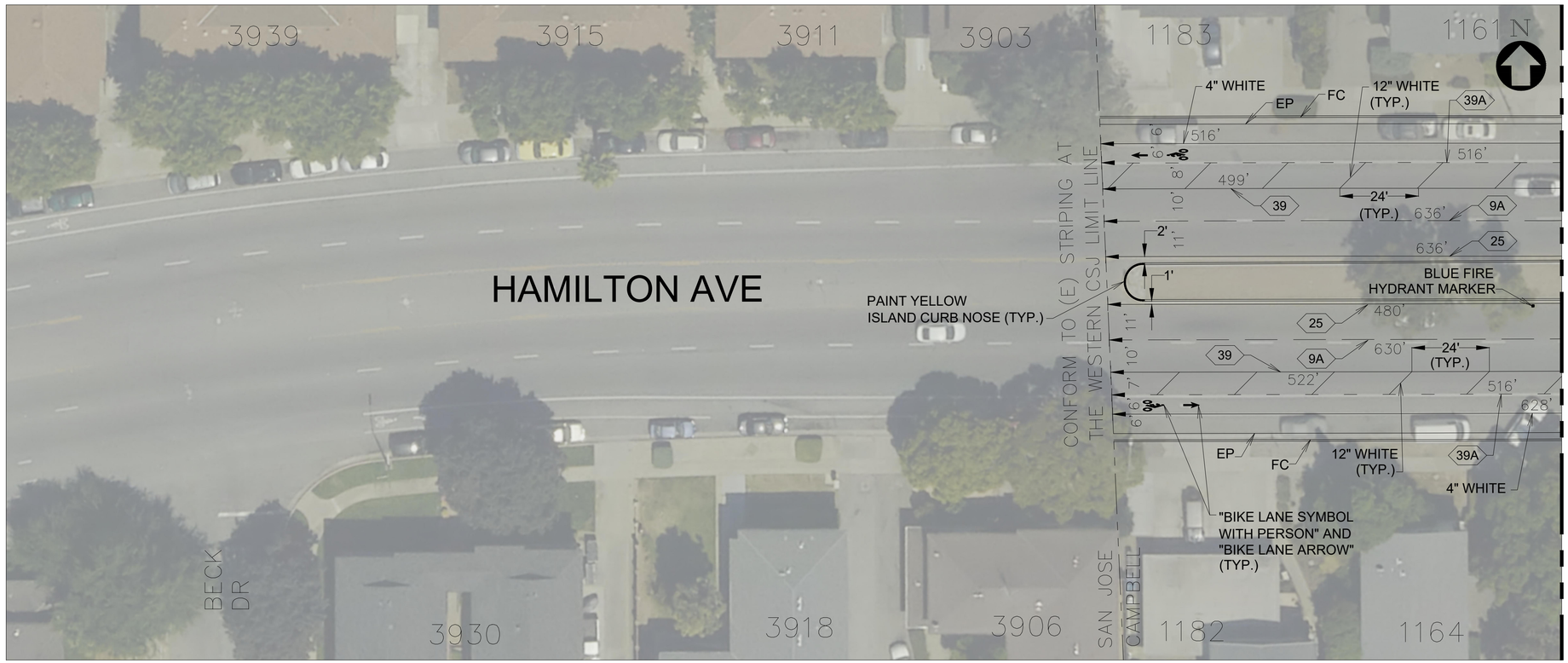
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
UTILITY - CONSTRUCTION DETAILS

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: U-20





LEGEND

- (E) SIGN & POLE
- (N) SIGN & POLE
- REMOVE EXISTING POLE
- (E) SIGN TO REMAIN
- INSTALL NEW SIGN
- RELOCATE SIGN
- REMOVE (E) SIGN
- DET# / SHT# — DETAIL CALLOUT
- CHANGE IN PAVEMENT DELINEATION DETAIL
- ## — PAVEMENT DELINEATION DETAIL NO.
- FACE OF CURB PROJECTION TO FACE OF CURB

PROJECT NOTES:

1. SEE SHEET SS-18 FOR GENERAL SIGNING AND STRIPING NOTES.

No.	Revision	Date	By	Chkd

Date: 05-21-25
Drawn By: RA
Designed By: RA

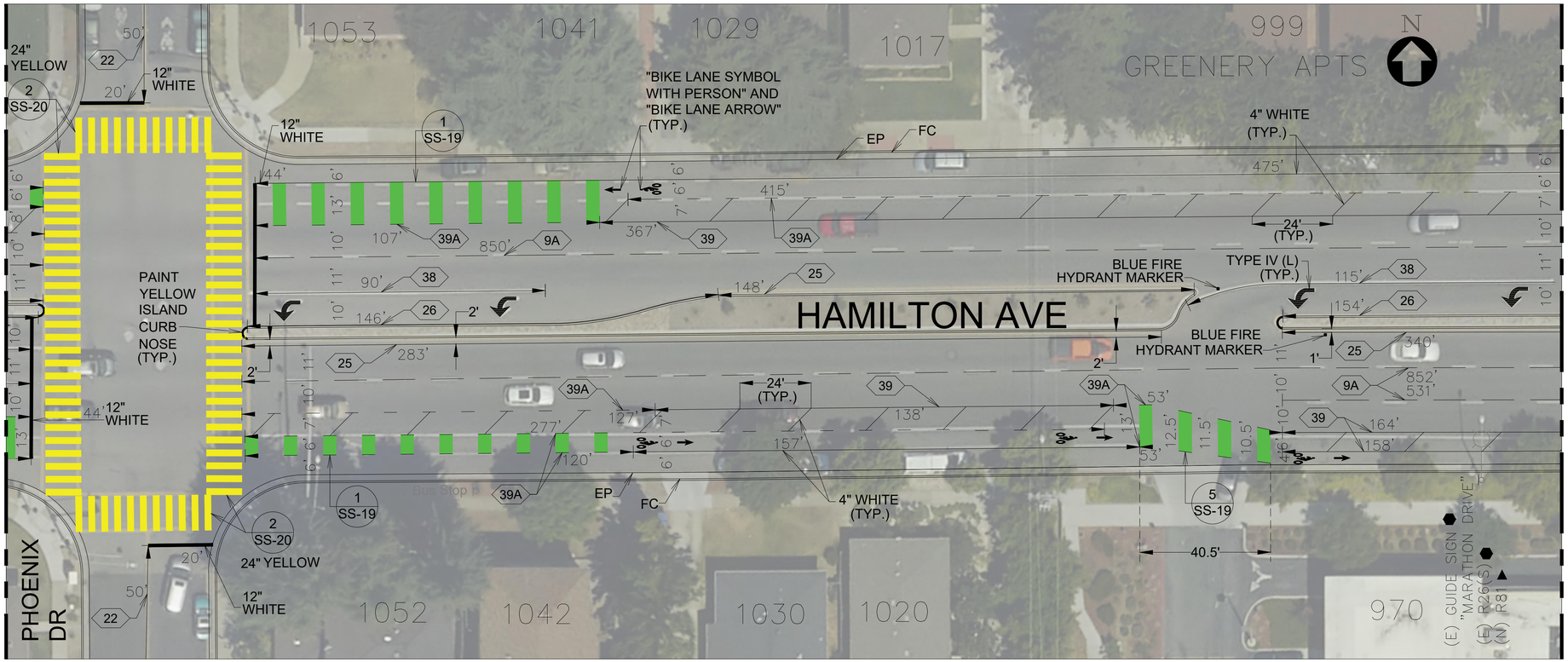
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DEPARTMENT OF PUBLIC WORKS

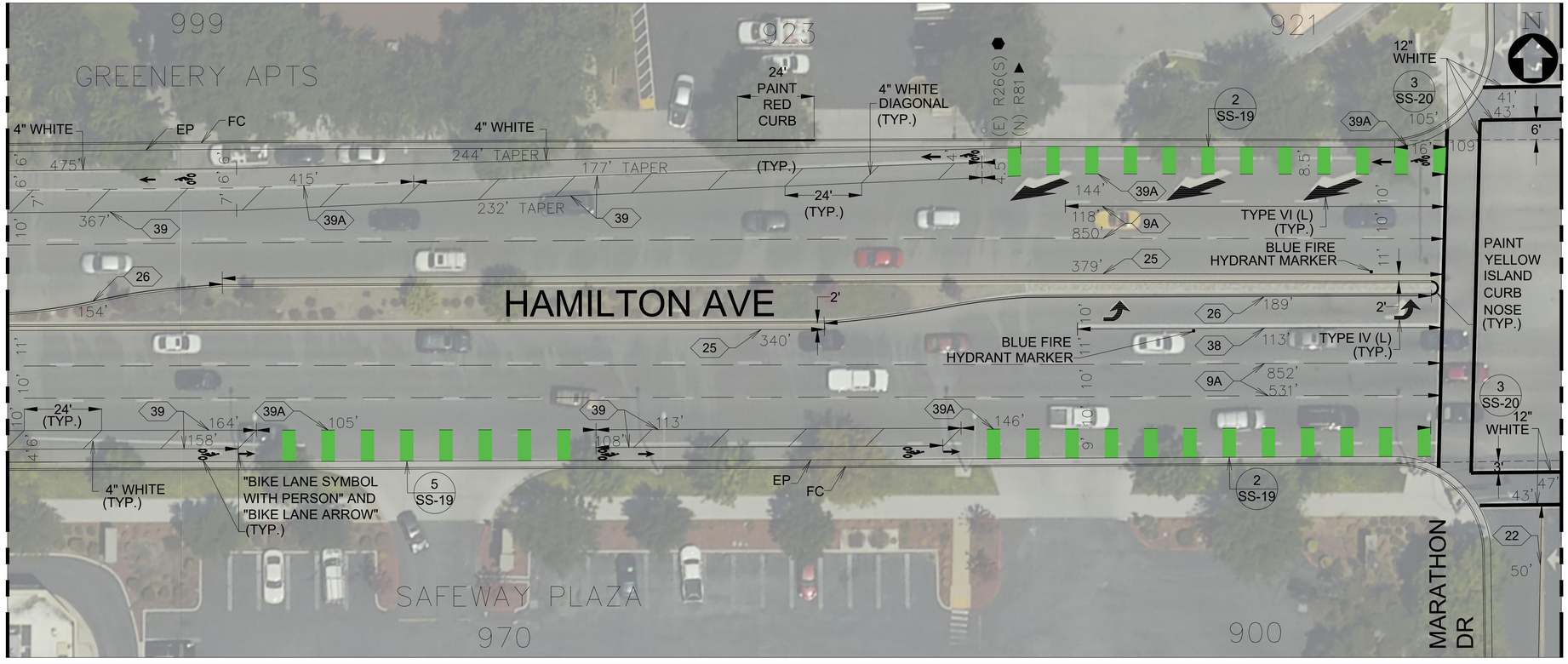
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
SIGNING & STRIPING PLAN

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-1





LEGEND

- (E) SIGN & POLE
- (N) SIGN & POLE
- REMOVE EXISTING POLE
- (E) SIGN TO REMAIN
- INSTALL NEW SIGN
- RELOCATE SIGN
- REMOVE (E) SIGN
- DET# / SHT# — DETAIL CALLOUT
- CHANGE IN PAVEMENT DELINEATION DETAIL
- ## — PAVEMENT DELINEATION DETAIL NO.
- FACE OF CURB PROJECTION TO FACE OF CURB

PROJECT NOTES:

1. SEE SHEET SS-18 FOR GENERAL SIGNING AND STRIPING NOTES.

No.	Revision	Date	By	Chkd

Date: 05-21-25
Drawn By: RA
Designed By: RA

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

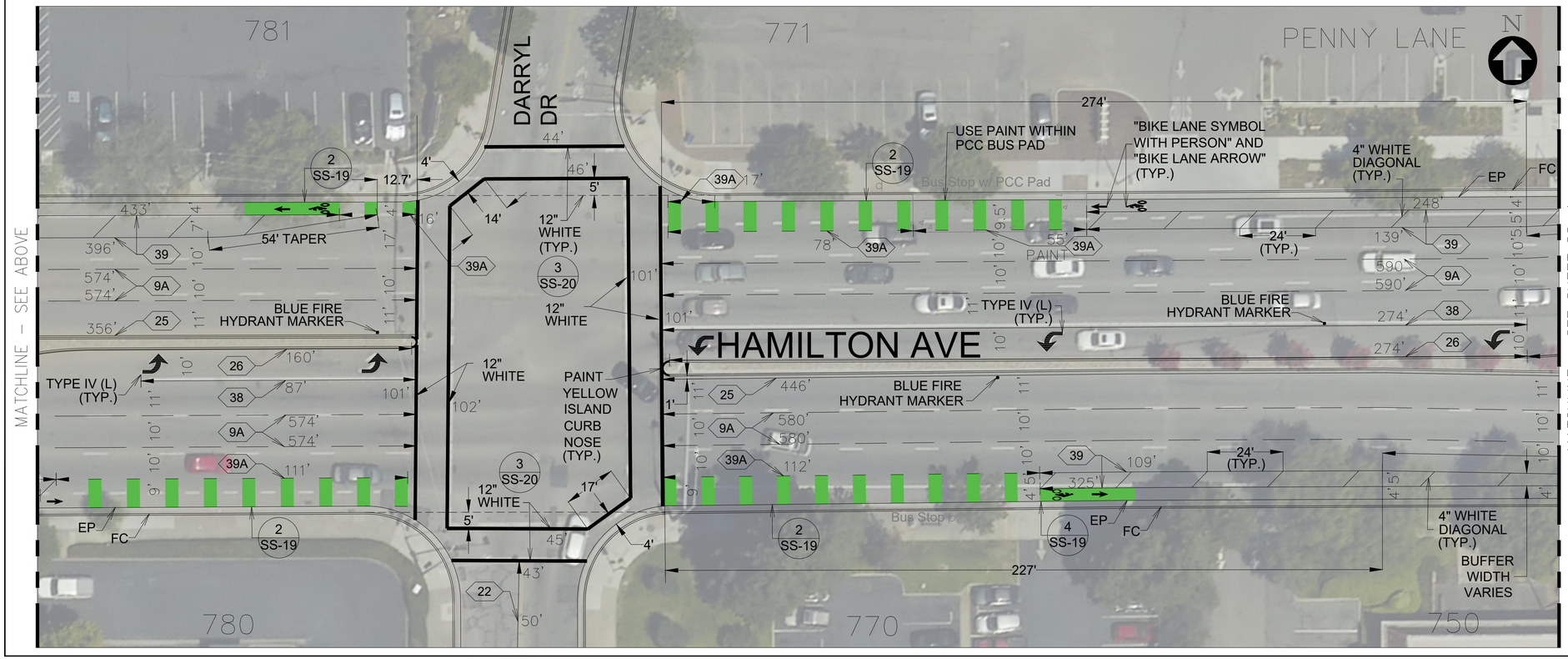
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
SIGNING & STRIPING PLAN

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-2





LEGEND

- (E) SIGN & POLE
- (N) SIGN & POLE
- REMOVE EXISTING POLE
- (E) SIGN TO REMAIN
- INSTALL NEW SIGN
- RELOCATE SIGN
- REMOVE (E) SIGN
- DET# / SHT# — DETAIL CALLOUT
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- ## — PAVEMENT DELINEATION DETAIL NO.
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PROJECT NOTES:

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No.	Revision	Date	By	Chkd

Date: 05-21-25
Drawn By: RA
Designed By: RA

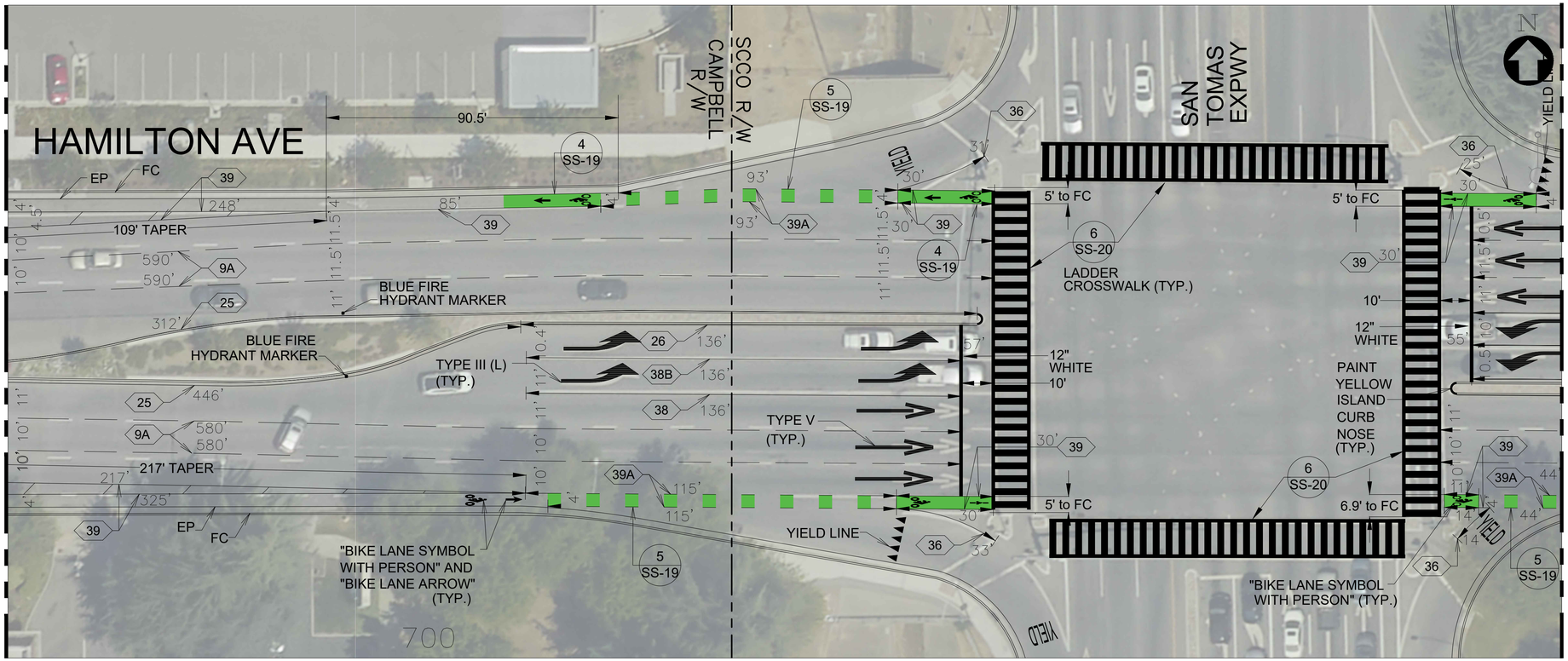
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DEPARTMENT OF PUBLIC WORKS

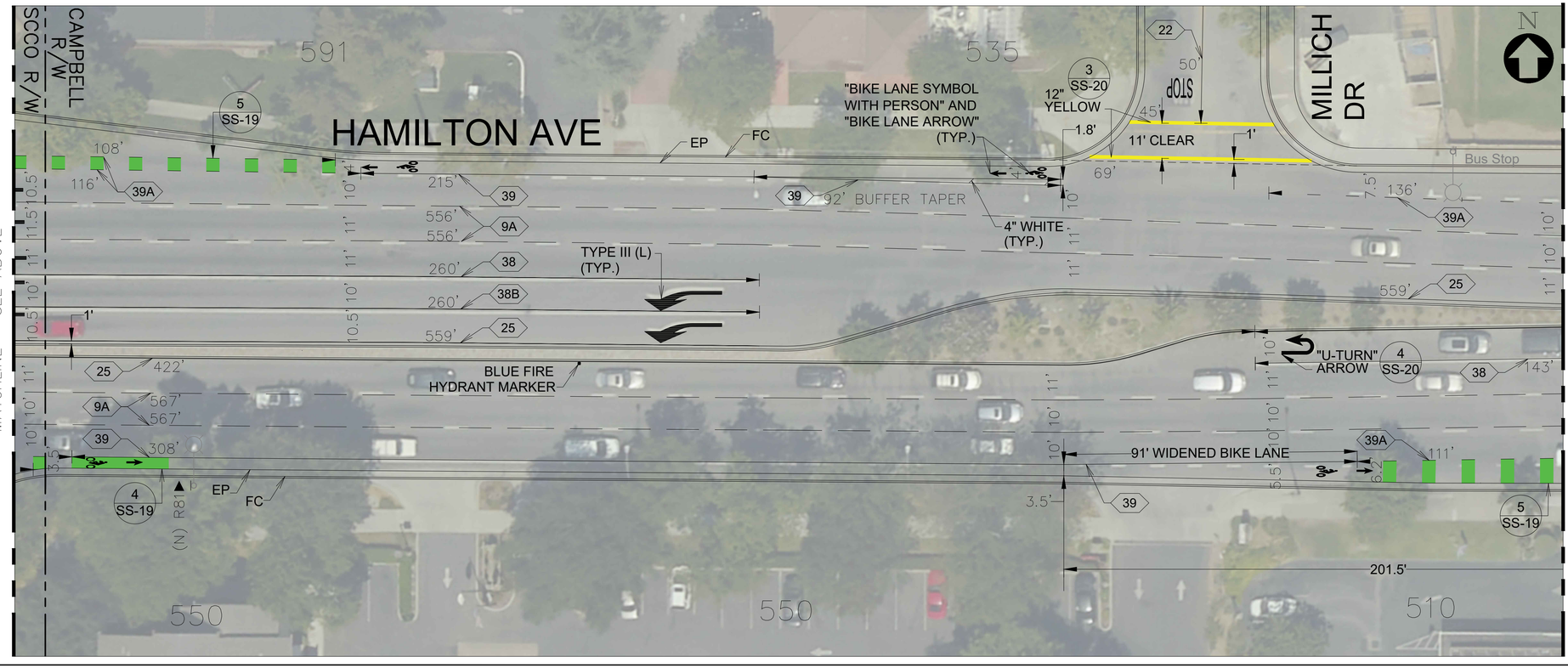
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
SIGNING & STRIPING PLAN

CITY OF CAMPBELL
THE ORCHARD CITY
CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-3





LEGEND

- (E) SIGN & POLE
- (N) SIGN & POLE
- REMOVE EXISTING POLE
- (E) SIGN TO REMAIN
- INSTALL NEW SIGN
- RELOCATE SIGN
- REMOVE (E) SIGN
- DET# / SHT# — DETAIL CALLOUT
- CHANGE IN PAVEMENT DELINEATION DETAIL
- ## — PAVEMENT DELINEATION DETAIL NO.
- FACE OF CURB PROJECTION TO FACE OF CURB

PROJECT NOTES:

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No.	Revision	Date	By	Chkd

Date: 05-21-25
Drawn By: RA
Designed By: RA

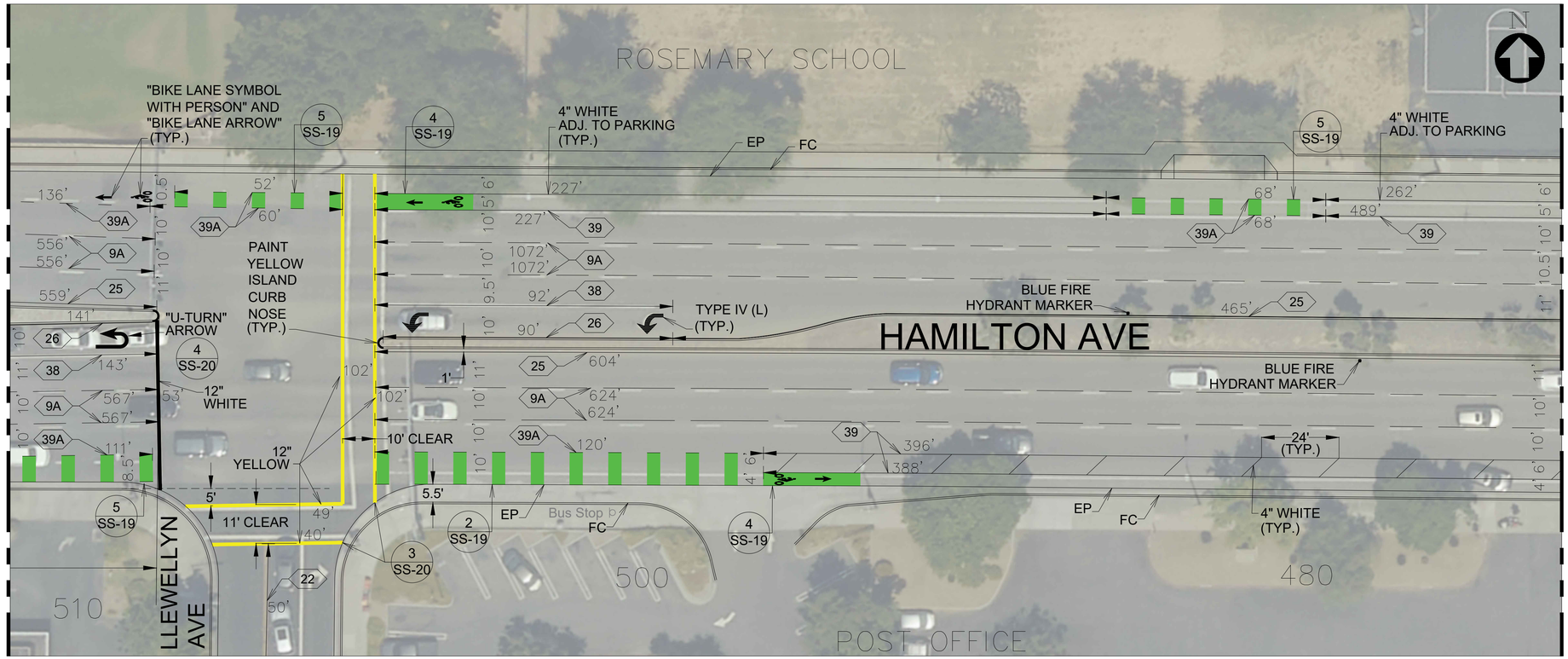
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DEPARTMENT OF PUBLIC WORKS

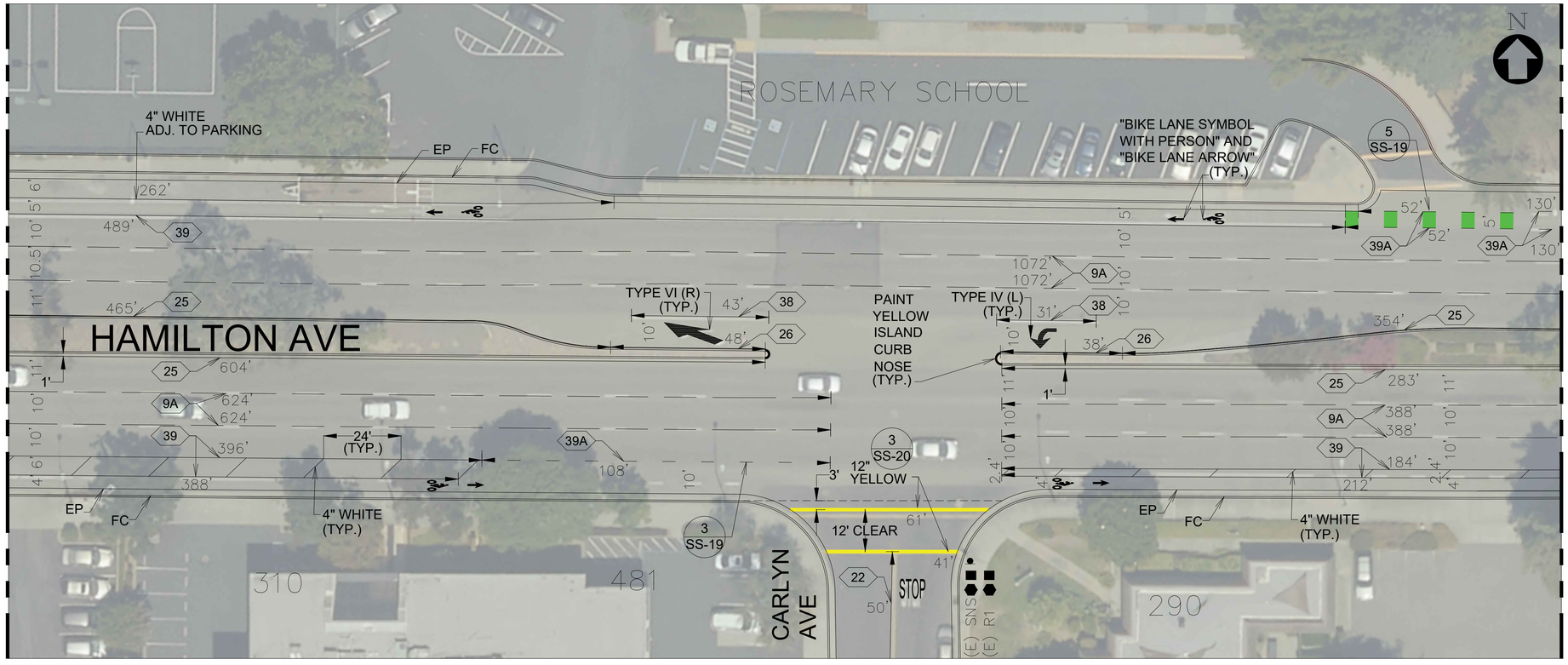
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
SIGNING & STRIPING PLAN

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-4





LEGEND

- (E) SIGN & POLE
- (N) SIGN & POLE
- REMOVE EXISTING POLE
- (E) SIGN TO REMAIN
- INSTALL NEW SIGN
- RELOCATE SIGN
- REMOVE (E) SIGN
- DET# / SHT# — DETAIL CALLOUT
- CHANGE IN PAVEMENT DELINEATION DETAIL
- ## — PAVEMENT DELINEATION DETAIL NO.
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PROJECT NOTES:

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Date: 05-21-25
Drawn By: RA
Designed By: RA

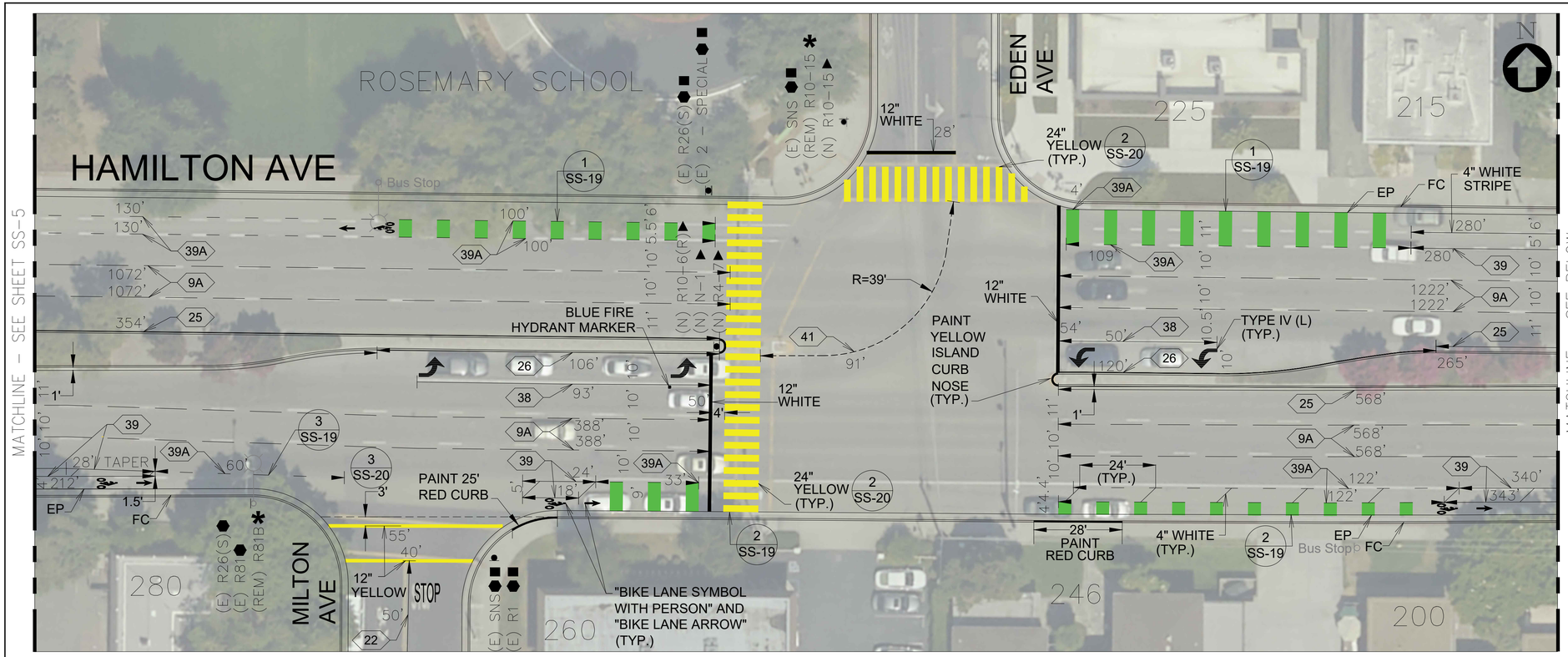
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
SIGNING & STRIPING PLAN

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-5





LEGEND

- (E) SIGN & POLE
- (N) SIGN & POLE
- REMOVE EXISTING POLE
- (E) SIGN TO REMAIN
- INSTALL NEW SIGN
- RELOCATE SIGN
- REMOVE (E) SIGN
- DET# / SHT# — DETAIL CALLOUT
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No.	Revision	Date	By	Chkd

Date: 05-21-25
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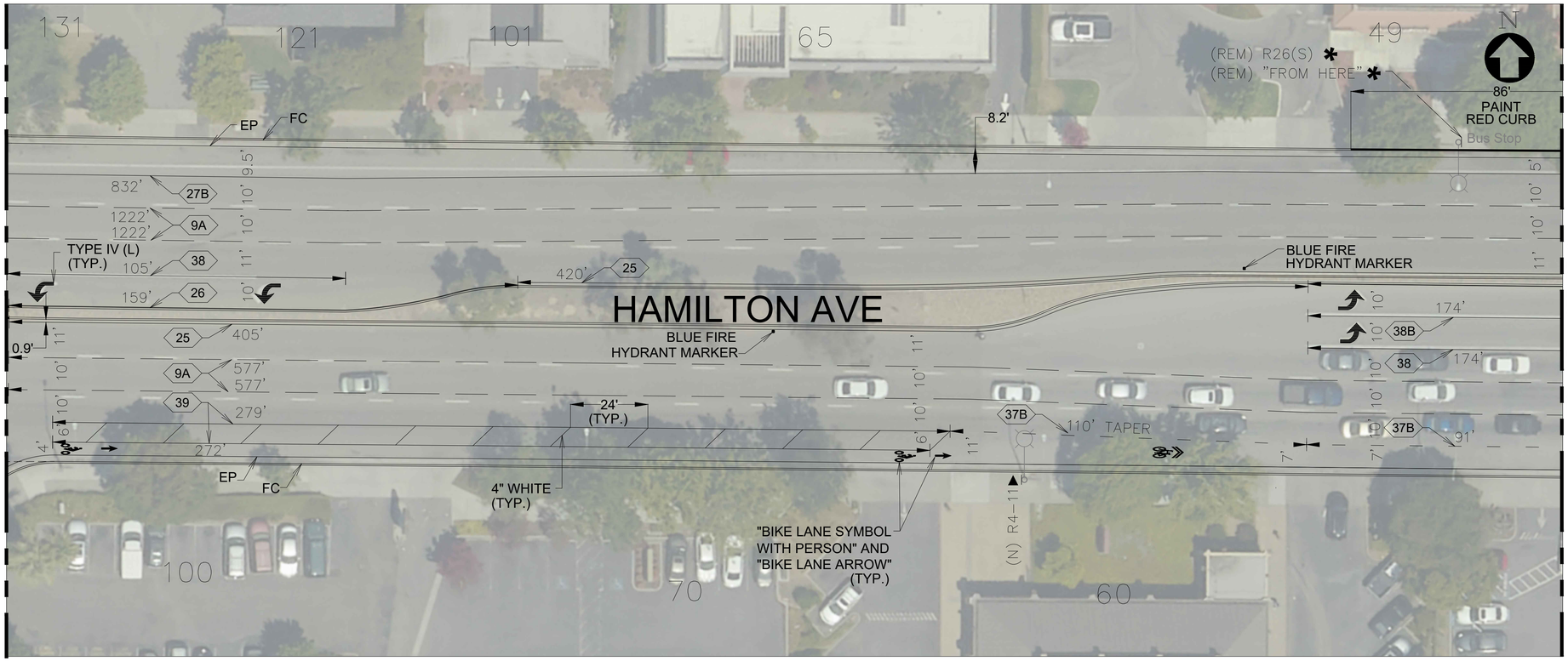
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

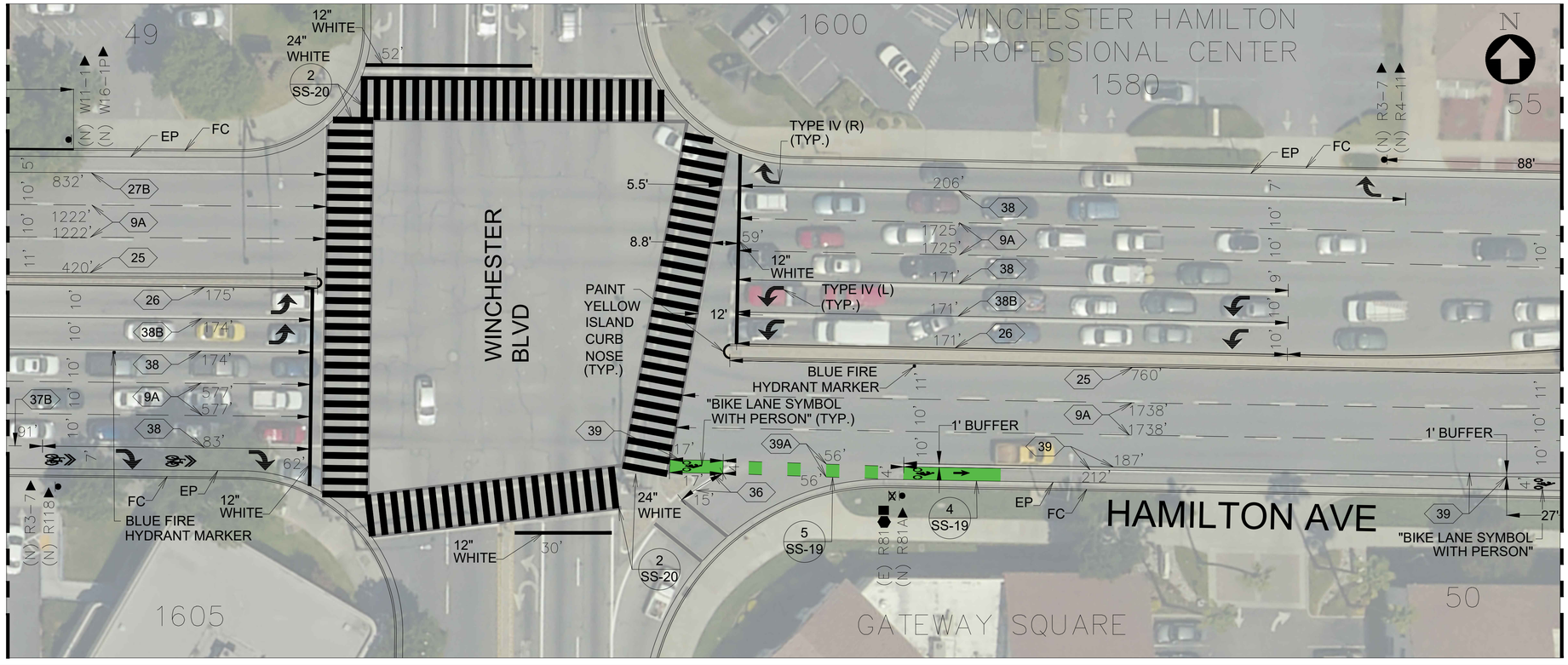
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
SIGNING & STRIPING PLAN

CITY OF CAMPBELL — THE ORCHARD CITY — CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-6





LEGEND

- (E) SIGN & POLE
- (N) SIGN & POLE
- REMOVE EXISTING POLE
- (E) SIGN TO REMAIN
- INSTALL NEW SIGN
- RELOCATE SIGN
- REMOVE (E) SIGN
- DET# / SHT# — DETAIL CALLOUT
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No.	Revision	Date	By	Chkd

Date: 05-21-25
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Designed By: RA

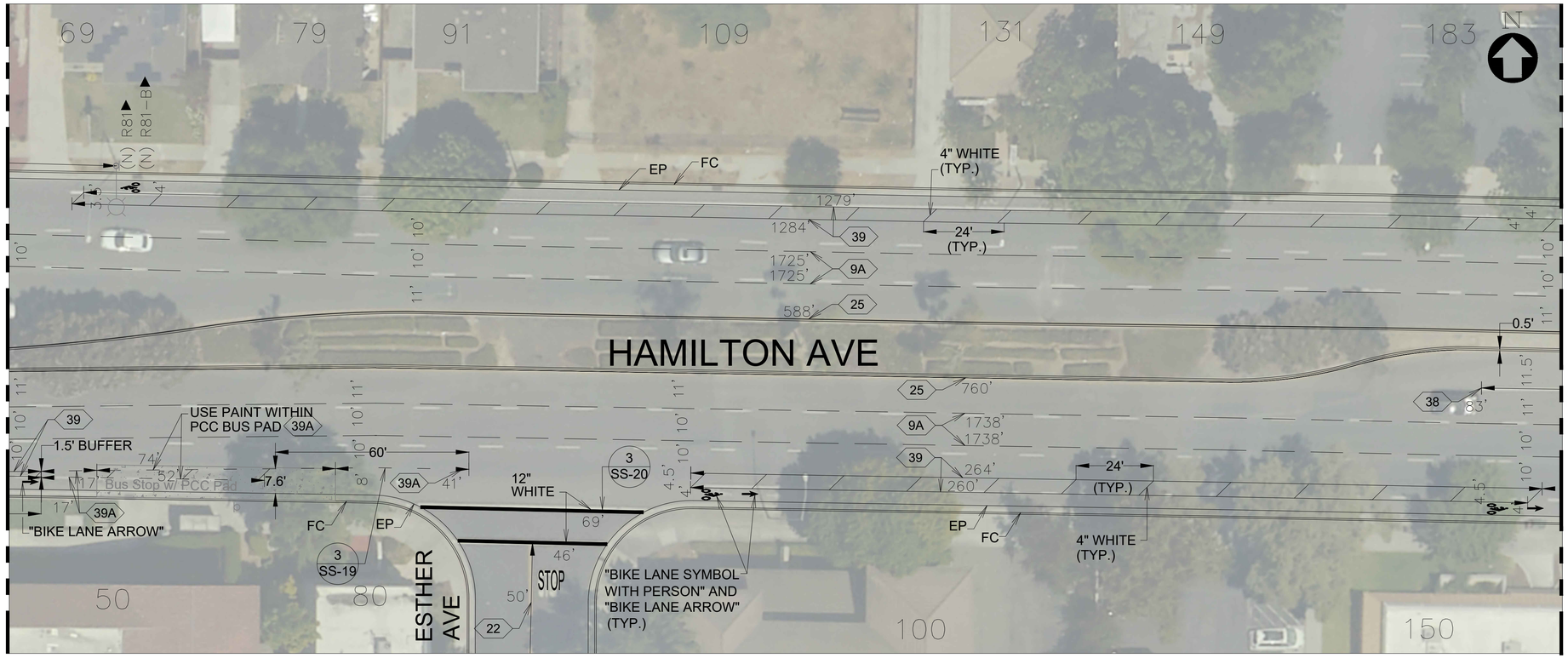
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

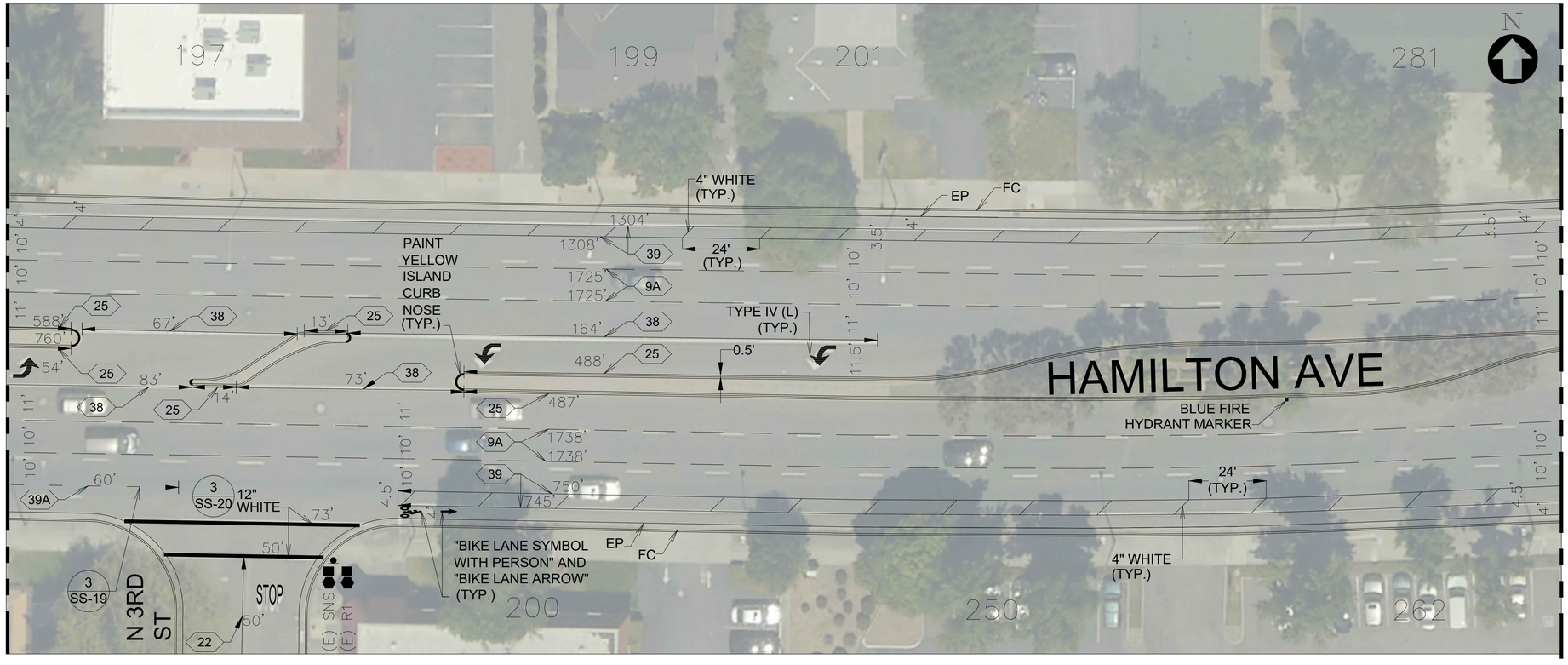
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
SIGNING & STRIPING PLAN

CITY OF CAMPBELL
THE ORCHARD CITY
CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-7





LEGEND

- (E) SIGN & POLE
- (N) SIGN & POLE
- REMOVE EXISTING POLE
- (E) SIGN TO REMAIN
- INSTALL NEW SIGN
- RELOCATE SIGN
- REMOVE (E) SIGN
- DET# / SHT# — DETAIL CALLOUT
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PROJECT NOTES:

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No.	Revision	Date	By	Chkd

Date: 05-21-25
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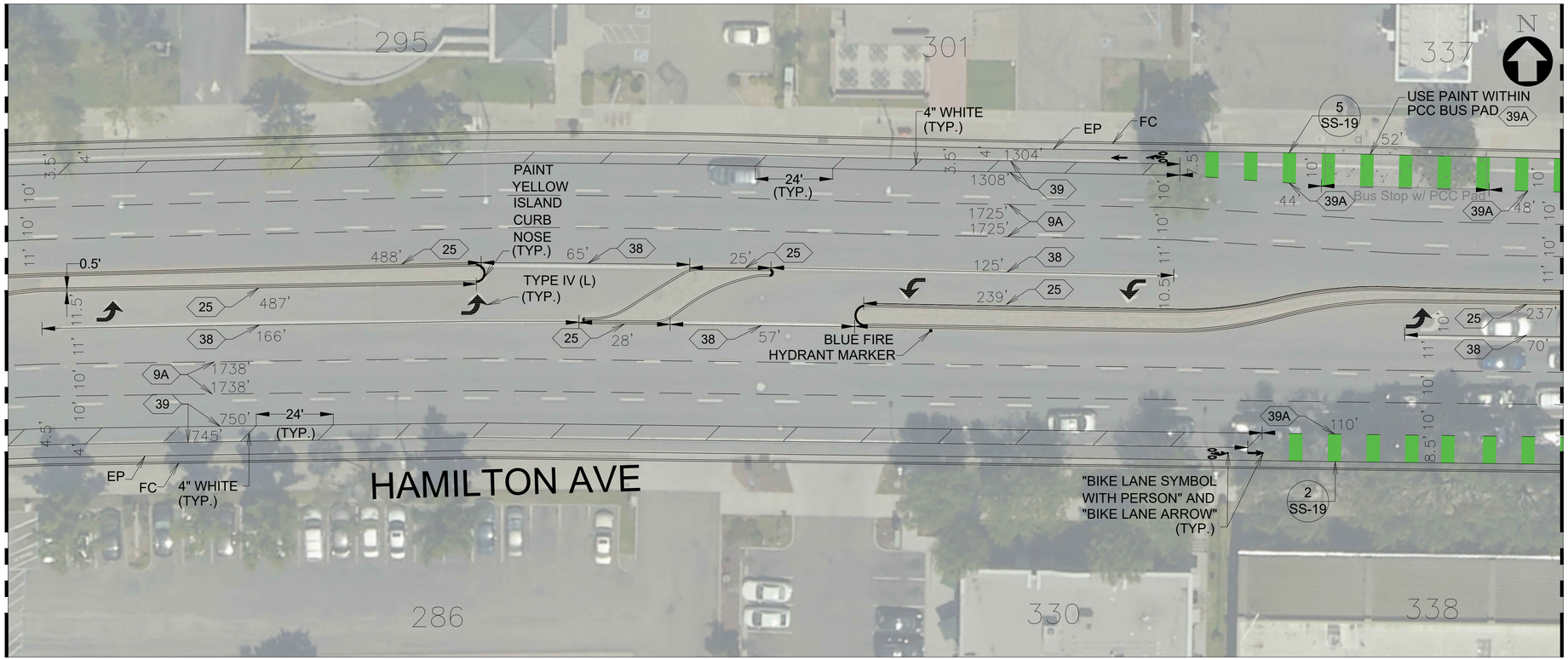
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

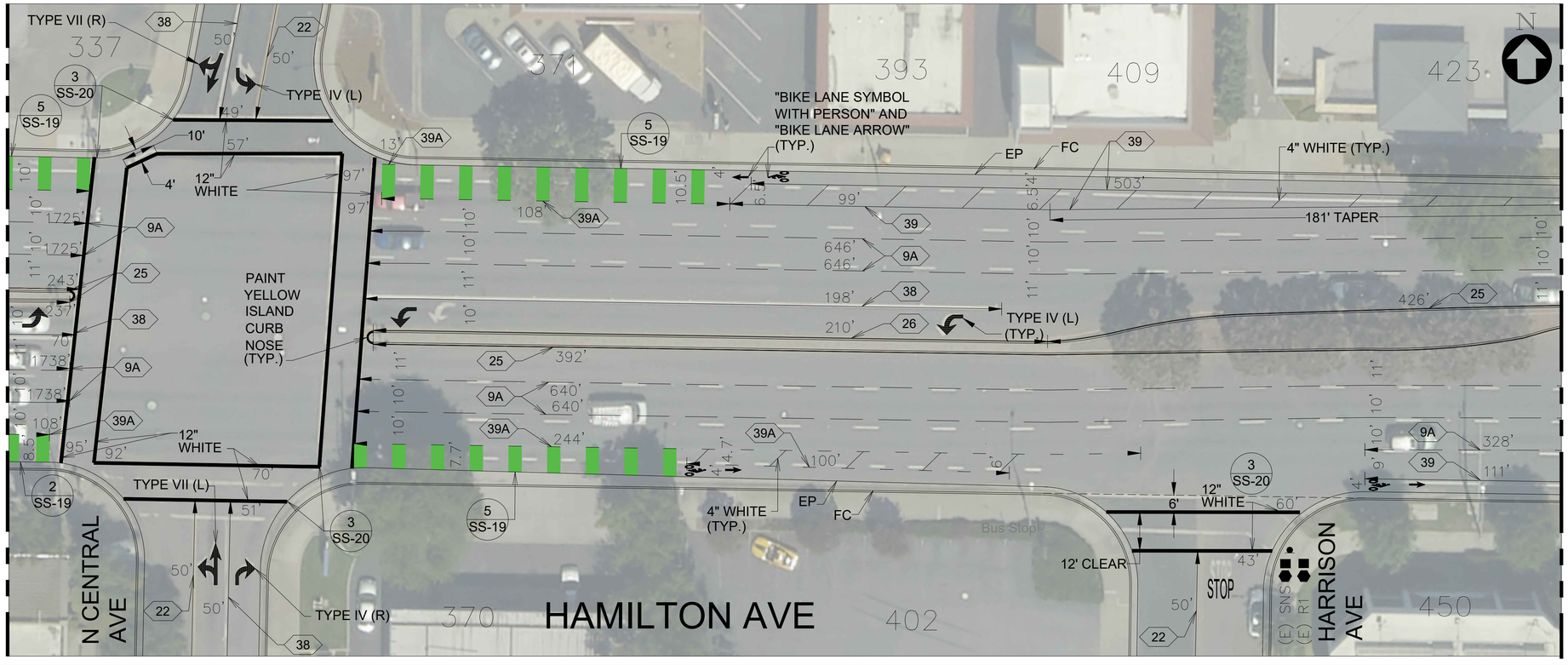
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
SIGNING & STRIPING PLAN

CITY OF CAMPBELL · THE ORCHARD CITY · CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-8





LEGEND

- (E) SIGN & POLE
- (N) SIGN & POLE
- REMOVE EXISTING POLE
- (E) SIGN TO REMAIN
- INSTALL NEW SIGN
- RELOCATE SIGN
- REMOVE (E) SIGN
- DET# / SHT# — DETAIL CALLOUT
- CHANGE IN PAVEMENT DELINEATION DETAIL
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- FACE OF CURB PROJECTION TO FACE OF CURB

PROJECT NOTES:

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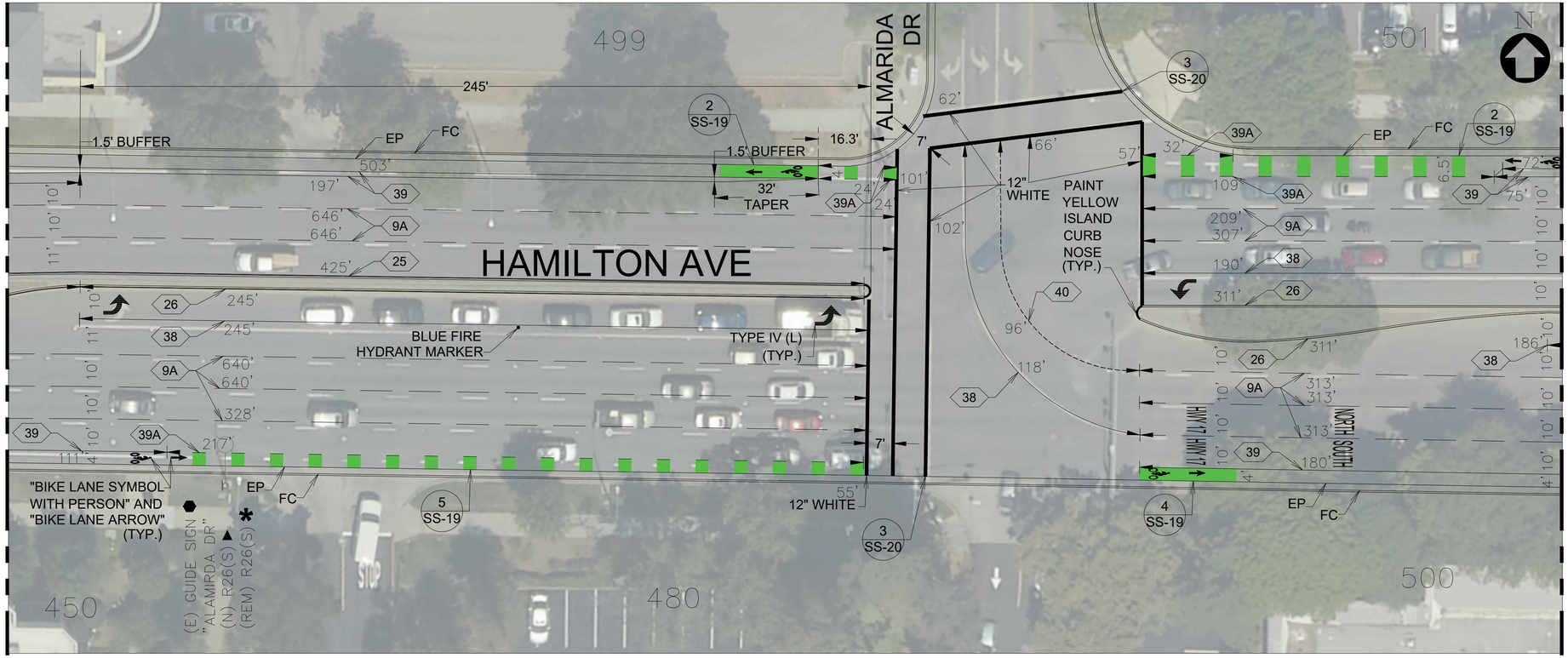
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

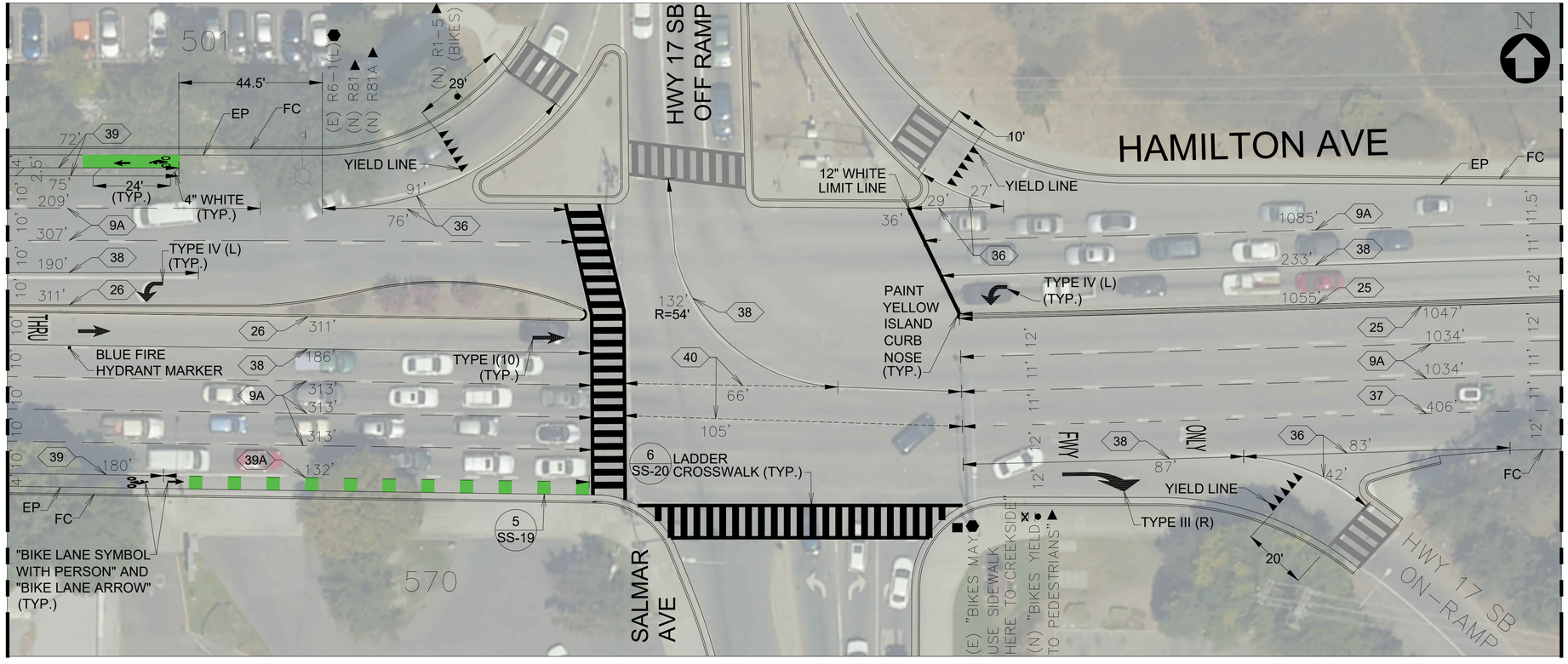
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
SIGNING & STRIPING PLAN

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-9





LEGEND

- (E) SIGN & POLE
- (N) SIGN & POLE
- REMOVE EXISTING POLE
- (E) SIGN TO REMAIN
- INSTALL NEW SIGN
- RELOCATE SIGN
- REMOVE (E) SIGN
- DET# / SHT# — DETAIL CALLOUT
- CHANGE IN PAVEMENT DELINEATION DETAIL
- ## — PAVEMENT DELINEATION DETAIL NO.
- FACE OF CURB PROJECTION TO FACE OF CURB

PROJECT NOTES:

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No.	Revision	Date	By	Chkd

Date: 05-21-25
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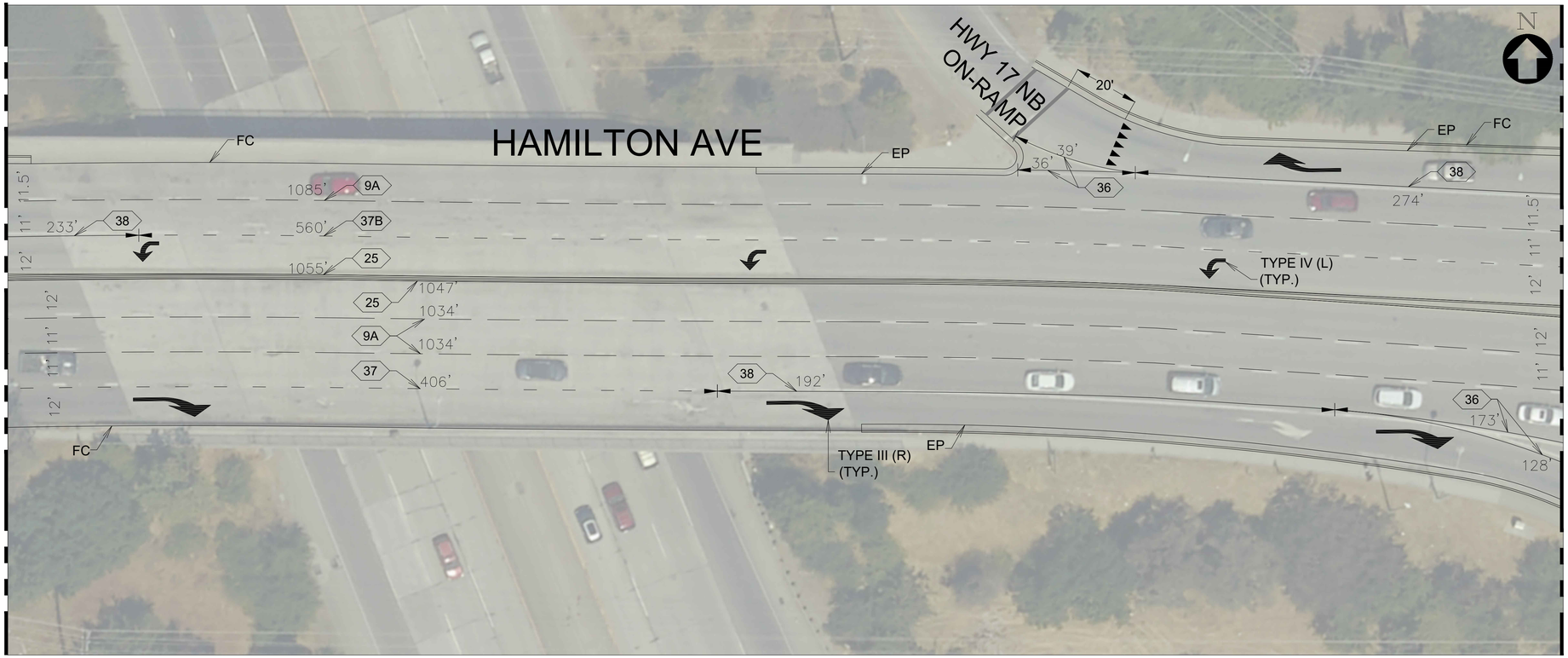
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

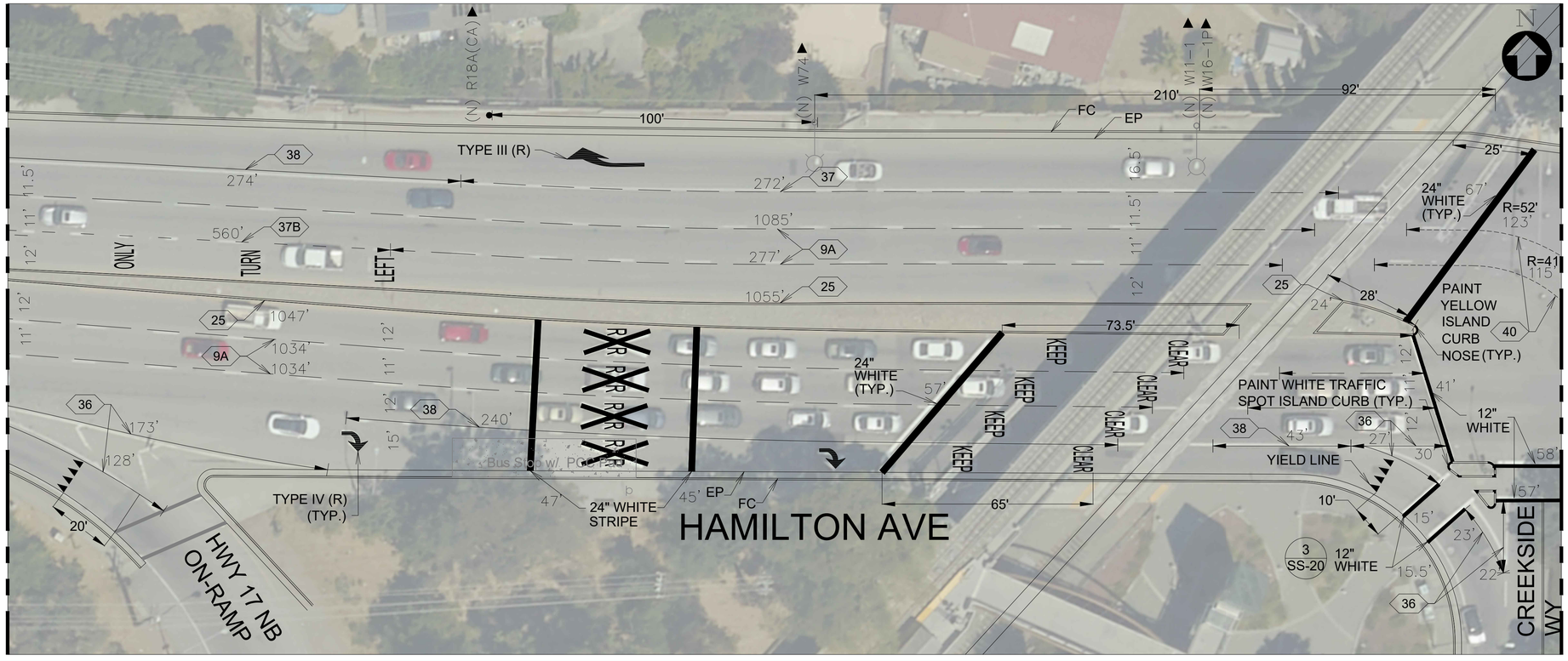
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
SIGNING & STRIPING PLAN

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-10





LEGEND

- (E) SIGN & POLE
- (N) SIGN & POLE
- REMOVE EXISTING POLE
- (E) SIGN TO REMAIN
- INSTALL NEW SIGN
- RELOCATE SIGN
- REMOVE (E) SIGN
- DET# / SHT# — DETAIL CALLOUT
- CHANGE IN PAVEMENT DELINEATION DETAIL
- ## — PAVEMENT DELINEATION DETAIL NO.
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No.	Revision	Date	By	Chkd

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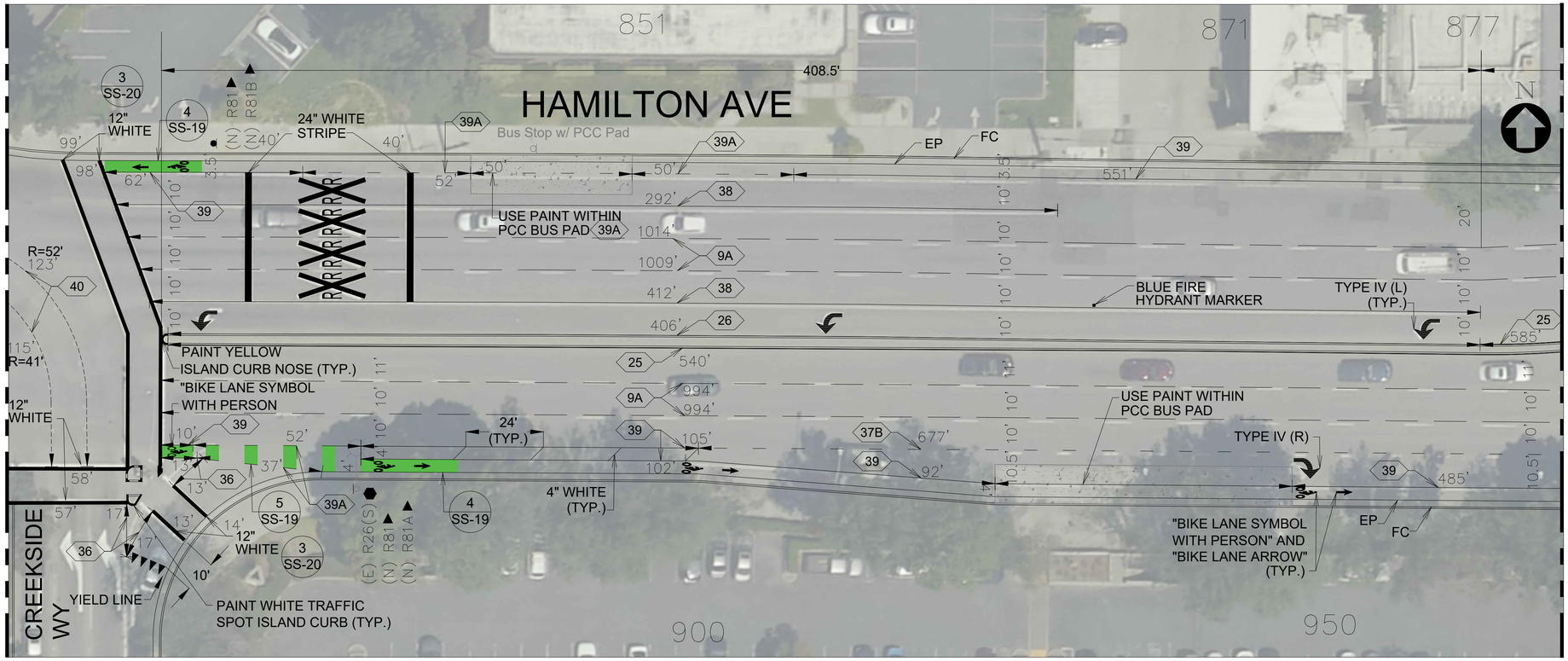
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

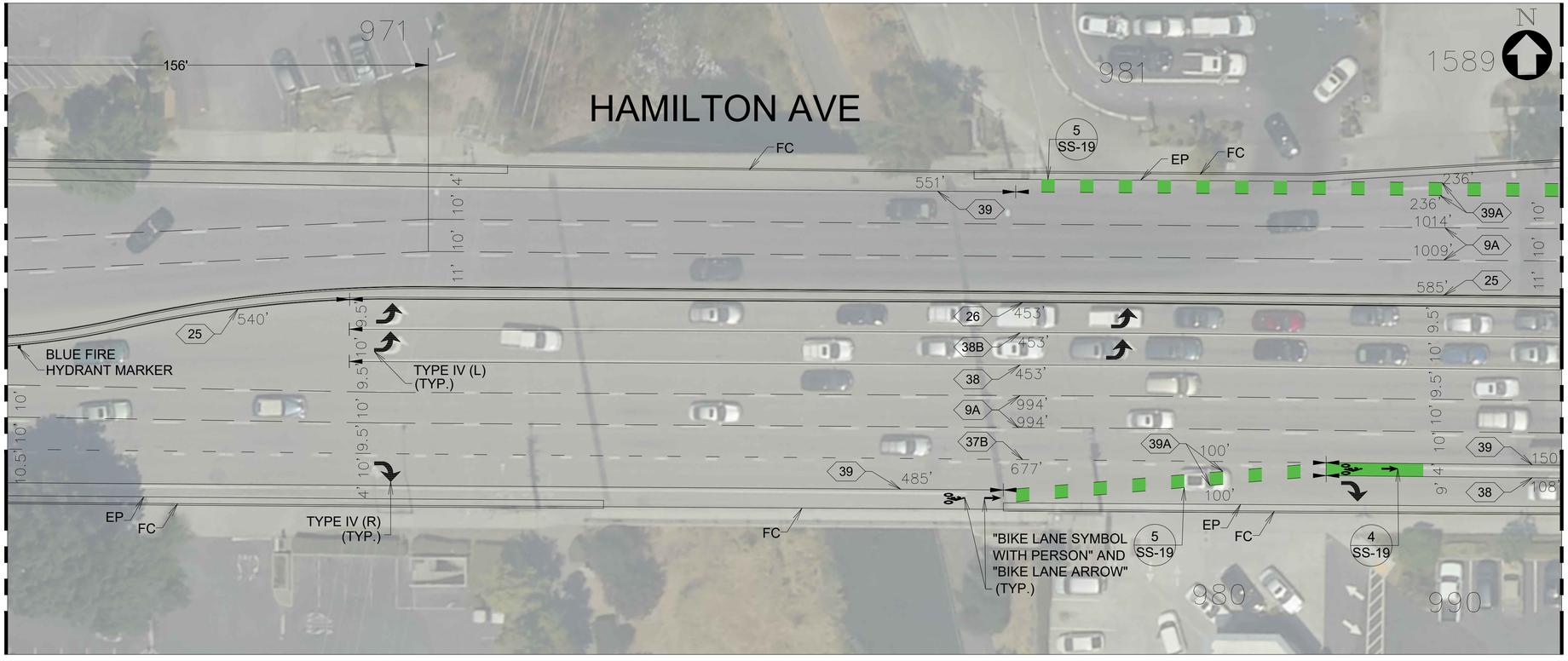
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
SIGNING & STRIPING PLAN

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-11





LEGEND

- (E) SIGN & POLE
- (N) SIGN & POLE
- REMOVE EXISTING POLE
- (E) SIGN TO REMAIN
- INSTALL NEW SIGN
- RELOCATE SIGN
- REMOVE (E) SIGN
- DET# / SHT# — DETAIL CALLOUT
- CHANGE IN PAVEMENT DELINEATION DETAIL
- ## — PAVEMENT DELINEATION DETAIL NO.
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No.	Revision	Date	By	Chkd

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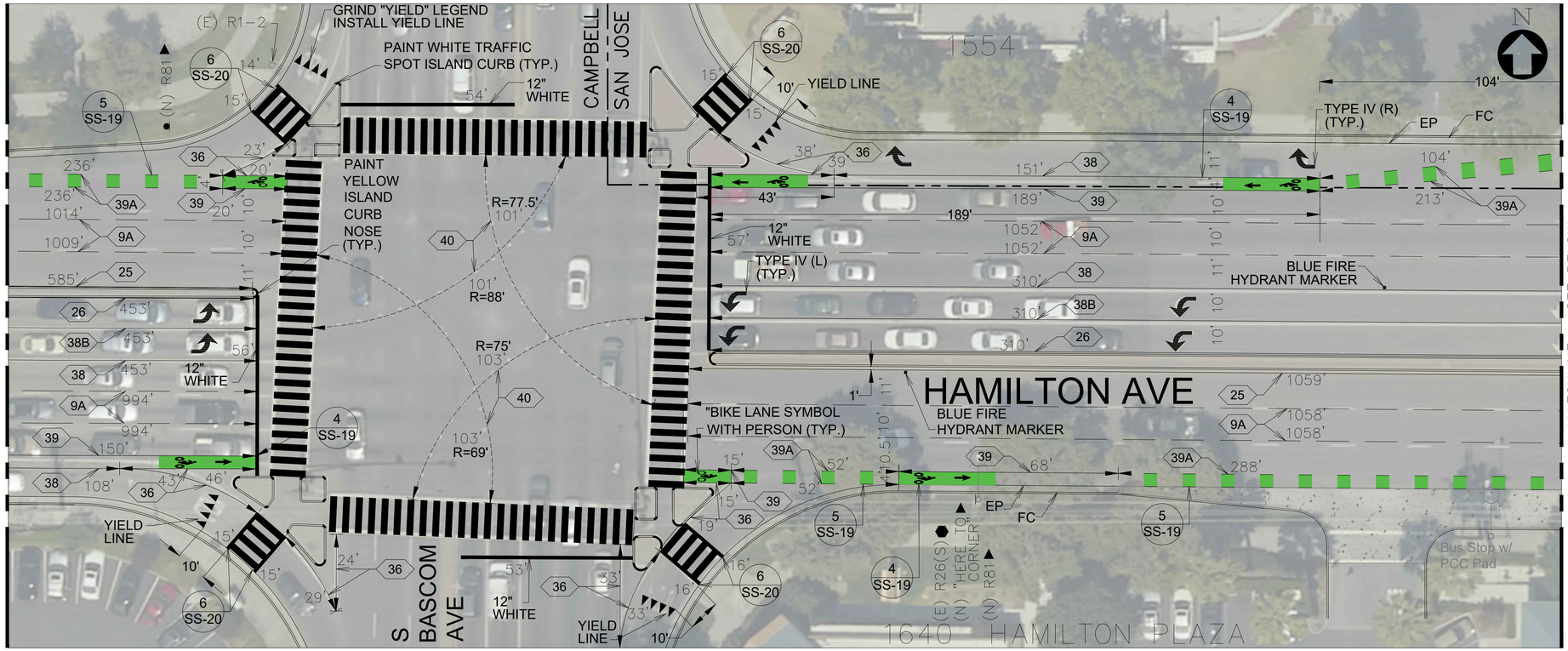
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

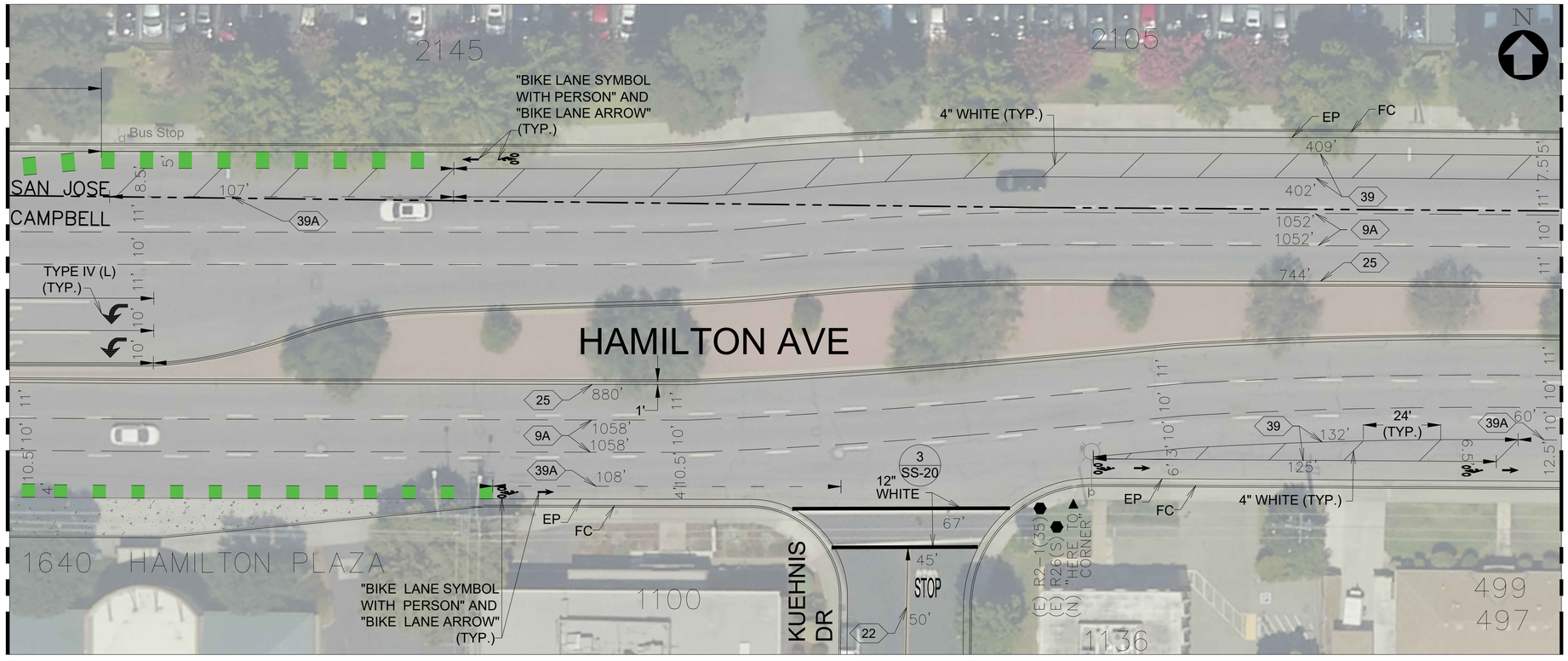
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
SIGNING & STRIPING PLAN

CITY OF CAMPBELL — THE ORCHARD CITY — CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-12





LEGEND

- (E) SIGN & POLE
- (N) SIGN & POLE
- REMOVE EXISTING POLE
- (E) SIGN TO REMAIN
- INSTALL NEW SIGN
- RELOCATE SIGN
- REMOVE (E) SIGN
- DET# / SHT# — DETAIL CALLOUT
- CHANGE IN PAVEMENT DELINEATION DETAIL
- ## — PAVEMENT DELINEATION DETAIL NO.
- FACE OF CURB PROJECTION TO FACE OF CURB

PROJECT NOTES:

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No.	Revision	Date	By	Chkd

Date: 05-21-25
Drawn By: RA
Designed By: RA

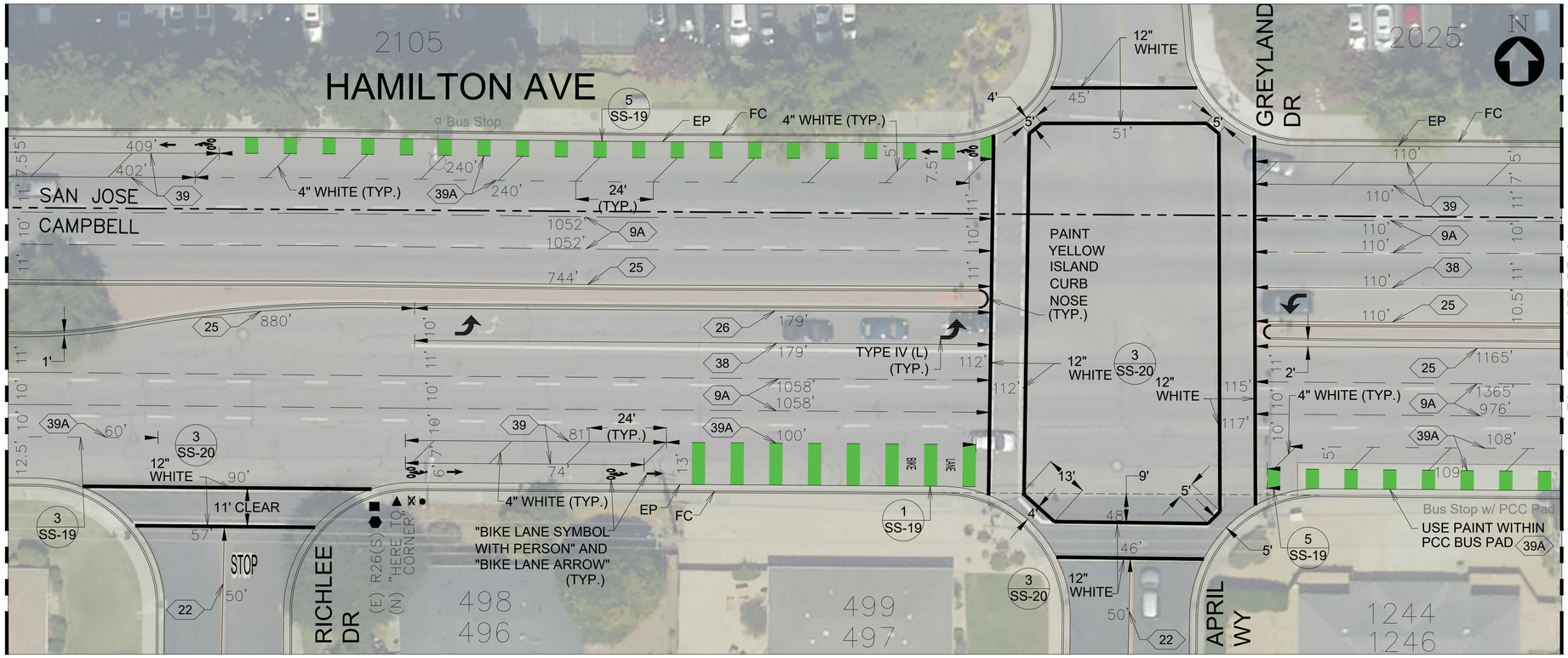
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

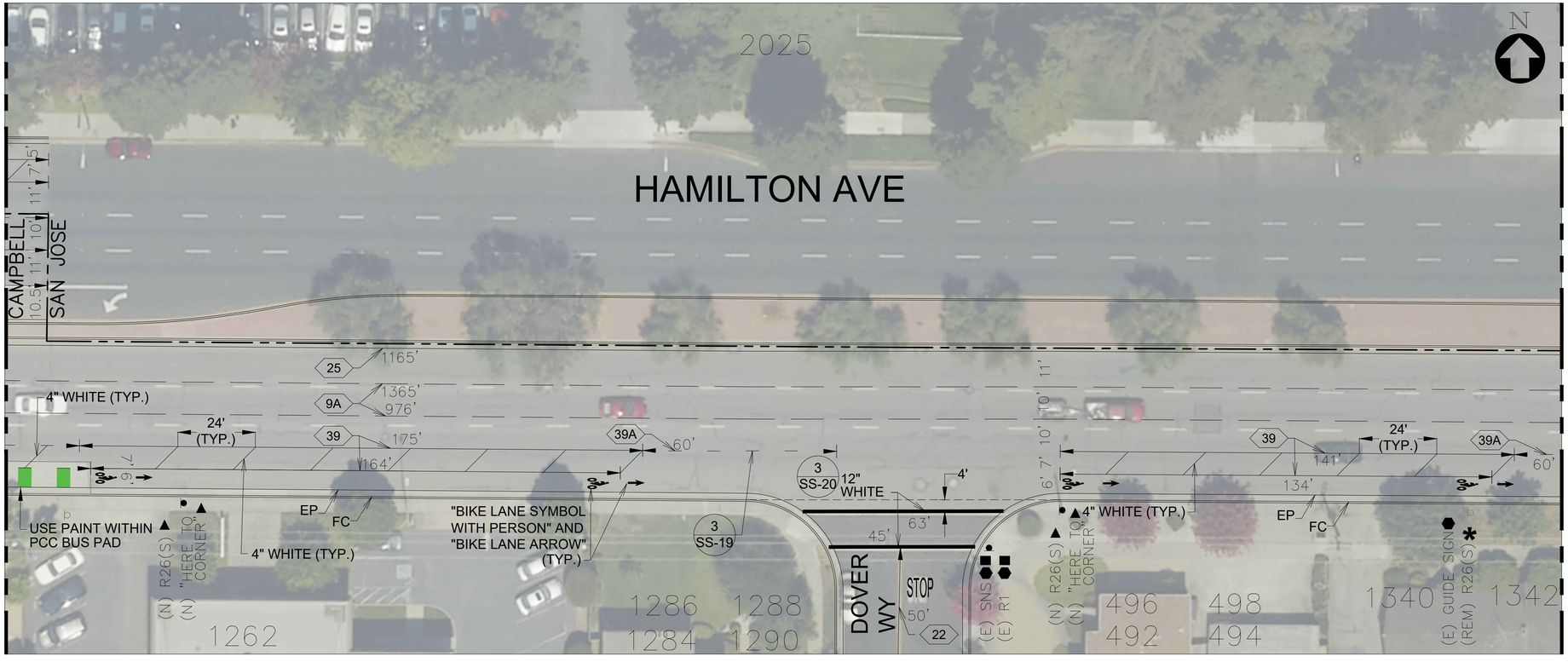
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
SIGNING & STRIPING PLAN

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-13





LEGEND

- (E) SIGN & POLE
- (N) SIGN & POLE
- REMOVE EXISTING POLE
- (E) SIGN TO REMAIN
- INSTALL NEW SIGN
- RELOCATE SIGN
- REMOVE (E) SIGN
- (DET# SHT#) DETAIL CALLOUT
- CHANGE IN PAVEMENT DELINEATION DETAIL
- (##) PAVEMENT DELINEATION DETAIL NO.
- FACE OF CURB PROJECTION TO FACE OF CURB

PROJECT NOTES:

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No.	Revision	Date	By	Chkd

Date: 05-21-25
Drawn By: RA
Designed By: RA

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

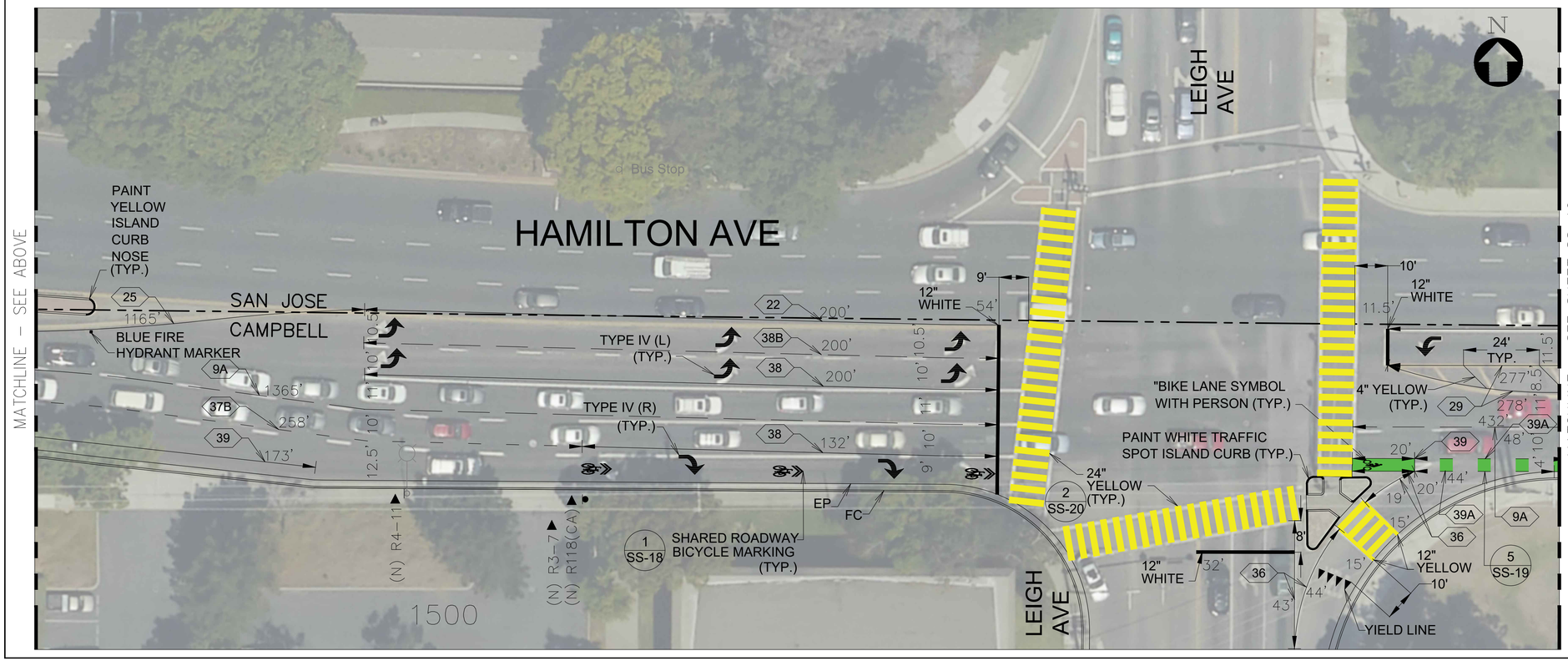
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
SIGNING & STRIPING PLAN

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-14





LEGEND

- (E) SIGN & POLE
- (N) SIGN & POLE
- REMOVE EXISTING POLE
- (E) SIGN TO REMAIN
- INSTALL NEW SIGN
- RELOCATE SIGN
- REMOVE (E) SIGN
- DET# / SHT# — DETAIL CALLOUT
- CHANGE IN PAVEMENT DELINEATION DETAIL
- ## — PAVEMENT DELINEATION DETAIL NO.
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PROJECT NOTES:

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Date: 05-21-25
Drawn By: RA
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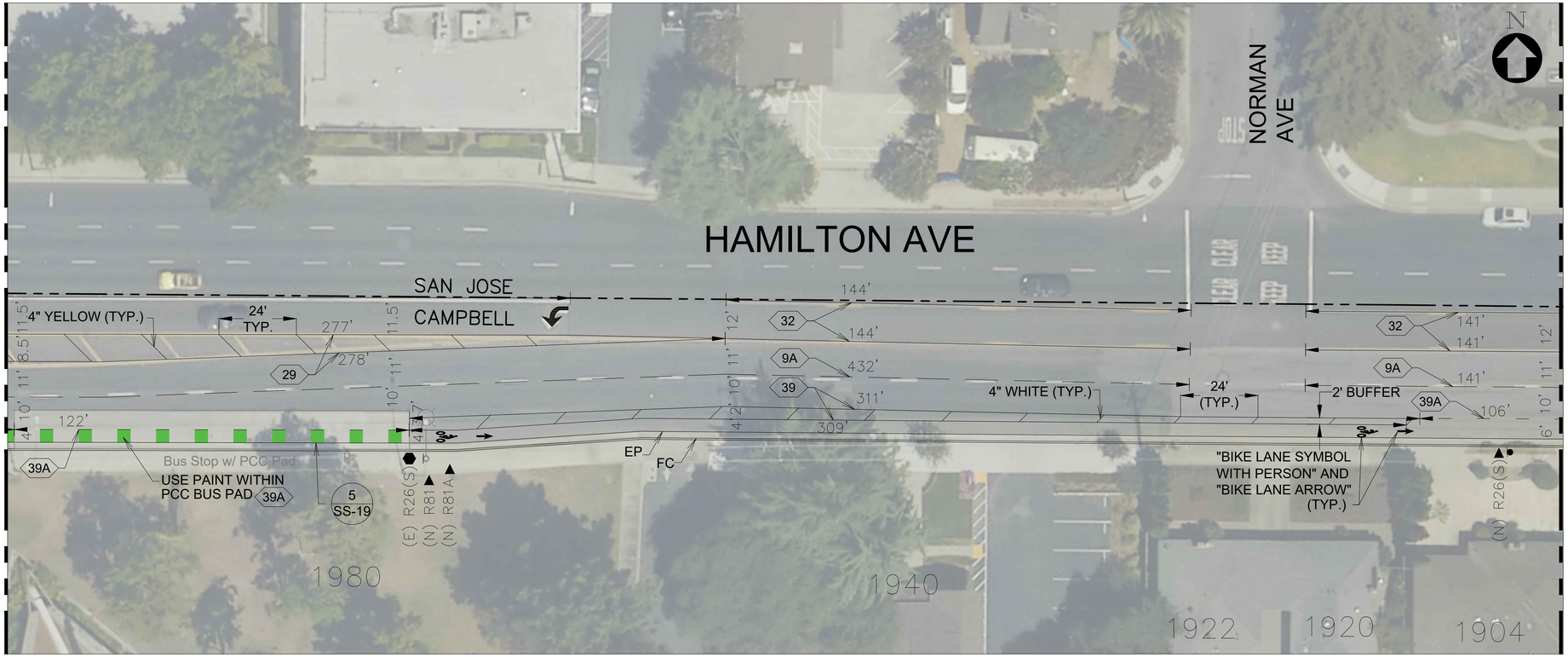
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

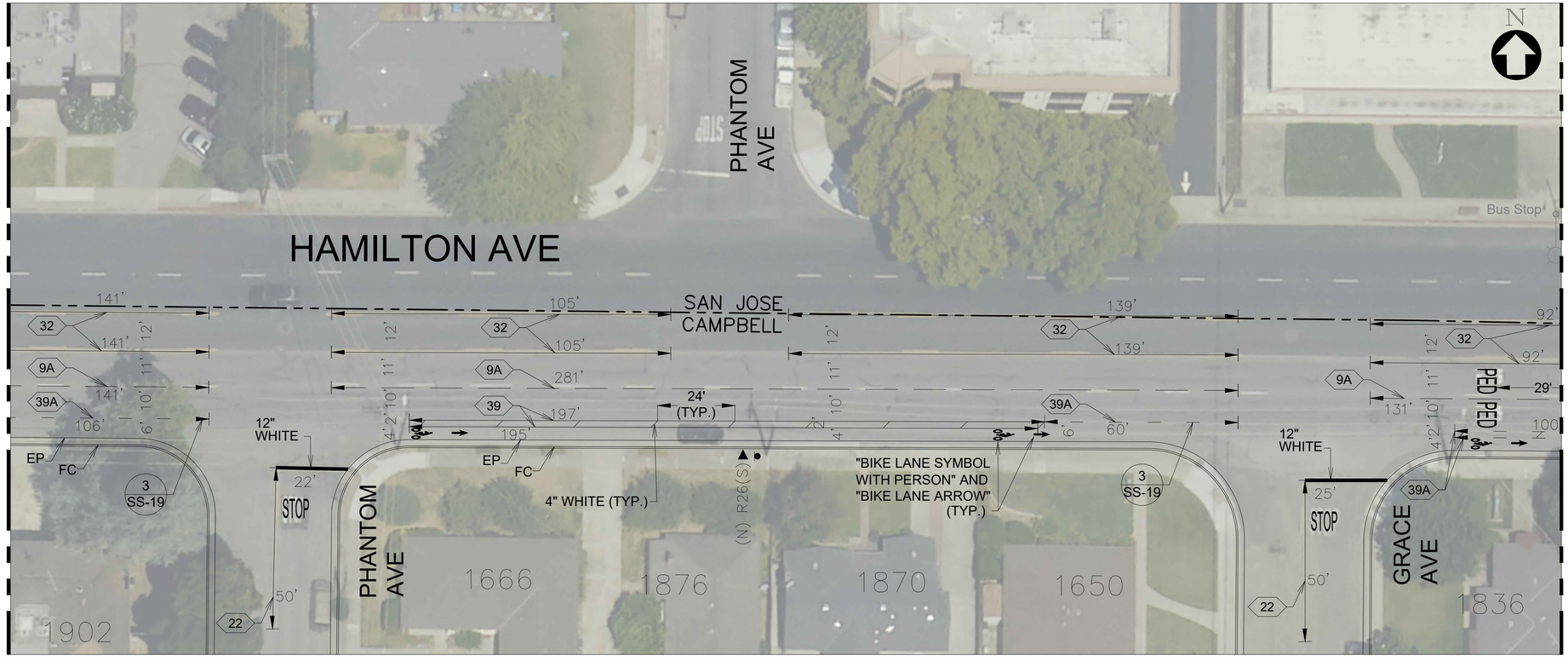
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
SIGNING & STRIPING PLAN

CITY OF CAMPBELL · THE ORCHARD CITY · CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-15





LEGEND

- (E) SIGN & POLE
- (N) SIGN & POLE
- REMOVE EXISTING POLE
- (E) SIGN TO REMAIN
- INSTALL NEW SIGN
- RELOCATE SIGN
- REMOVE (E) SIGN
- DET# / SHT# — DETAIL CALLOUT
- CHANGE IN PAVEMENT DELINEATION DETAIL
- ## — PAVEMENT DELINEATION DETAIL NO.
- FACE OF CURB PROJECTION TO FACE OF CURB

PROJECT NOTES:

1. SEE SHEET SS–18 FOR GENERAL SIGNING AND STRIPING NOTES.

No.	Revision	Date	By	Chkd

Date: 05–21–25
Drawn By: RA
Designed By: RA

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
SIGNING & STRIPING PLAN

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-16



LEGEND

- (E) SIGN & POLE
- (N) SIGN & POLE
- REMOVE EXISTING POLE
- (E) SIGN TO REMAIN
- INSTALL NEW SIGN
- RELOCATE SIGN
- REMOVE (E) SIGN
- DET# / SHT# — DETAIL CALLOUT
- CHANGE IN PAVEMENT DELINEATION DETAIL
- ## — PAVEMENT DELINEATION DETAIL NO.
- FACE OF CURB PROJECTION TO FACE OF CURB

PROJECT NOTES:

1. SEE SHEET SS-18 FOR GENERAL SIGNING AND STRIPING NOTES.

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PROJECT NO. 23-BB
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CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-17

GENERAL SIGNING AND STRIPING NOTES

1. THE AERIALS USED TO PREPARE THE SIGNING AND STRIPING ARE FOR REFERENCE ONLY. FOR LOCATIONS WHERE NEW ACCESSIBLE CURB RAMPS ARE INSTALLED, CONTRACTOR SHALL REFER TO CD-SHEETS (CD-1 THROUGH CD-13) FOR CROSSWALK LAYOUT; ALL OTHER CROSSWALK LAYOUTS ARE AS NOTED ON THE SS-SHEETS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY INCONSISTENCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS. NO DEVIATION FROM THE PLANS ARE PERMITTED WITHOUT WRITTEN APPROVAL OF THE ENGINEER.

2. ALL STRIPING, PAVEMENT MARKER AND MARKING LAYOUT (CAT-TRACKING) AND TEMPORARY STRIPING SHALL BE DONE BY THE CONTRACTOR PRIOR TO FINAL PLACEMENT. CAT-TRACKING SHALL BE COMPLETED WITHIN 7 DAYS OF THE FINAL SURFACING. THE CONTRACTOR IS TO ALLOW A MINIMUM OF TWO-WEEKS FOR THE CITY TO REVIEW THE CAT-TRACKING. THE CONTRACTOR SHALL GET THE ENGINEER'S WRITTEN APPROVAL PRIOR TO THE FINAL STRIPING, PAVEMENT MARKER, PAVEMENT MARKING, AND SIGN INSTALLATION.

3. CALTRANS DETAIL 36, 37, 37B 38, 38A, 38B, 39, 39A, 40, 41, 12" WHITE, 12" YELLOW, 24" WHITE, 24" YELLOW, PAVEMENT MARKINGS (ARROWS, SYMBOLS, NUMERALS, WORDS, LIMIT LINES, YIELD LINES, AND CROSSWALKS) AND GREEN BIKE LANES SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED ON THE SS-SHEETS. ALL OTHER CALTRANS DETAIL CALLOUTS SHALL BE WATERBORNE PAINT.

4. UNLESS OTHERWISE INDICATED ON THE PLANS, ALL STRIPING, PAVEMENT MARKERS AND MARKING AND SIGN TYPES SHALL BE PER THE CALIFORNIA MANUAL UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 2014 REVISION 9 AND CALTRANS STANDARD PLANS AND DETAILS DATED 2018.

5. UNLESS OTHERWISE INDICATED, LANE DIMENSIONS SHALL BE MEASURED FROM CENTER OF STRIPING TO CENTER OF STRIPING.

6. THE NUMBER ONE LANE DIMENSION SHALL BE MEASURED FROM MEDIAN FACE OF CURB TO THE CENTER OF STRIPING WHERE A MEDIAN IS PRESENT, UNLESS OTHERWISE NOTED ON THE PLANS.

7. WHERE BIKE LANE IS NEXT TO THE FACE OF CURB, BIKE LANE DIMENSIONS SHOWN SHALL BE MEASURED FROM THE LIP OF GUTTER/EDGE OF PAVEMENT TO THE CENTER OF STRIPING.

8. WHERE BIKE LANE IS NOT PRESENT NEXT TO FACE OF CURB, CURB LANE DIMENSION SHOWN SHALL BE MEASURED FROM THE LIP OF GUTTER/EDGE OF PAVEMENT TO THE CENTER OF STRIPING.

9. THE WIDTH OF THE CROSSWALK SHALL BE MEASURED FROM THE CLEAR DISTANCE BETWEEN THE LINES. REFER TO DETAIL 3 ON PLAN SHEET SS-20.

10. CONTRACTOR SHALL CONFIRM WITH THE ENGINEER THE HEIGHT AND LOCATION OF ALL NEW SIGN INSTALLATIONS AND RELOCATIONS IN THE FIELD PRIOR TO ITS INSTALLATION.

11. CONTRACTOR IS TO REPLACE OR INSTALL BLUE RETRO-REFLECTIVE RAISED PAVEMENT MARKERS NEXT TO ALL EXISTING FIRE HYDRANTS PER LATEST CA MUTCD.

12. ALL ARROWS CLOSEST TO THE LIMIT LINE OR CROSSWALK SHALL BE INSTALLED 10 FEET FROM THE LIMIT LINE OR CROSSWALK.

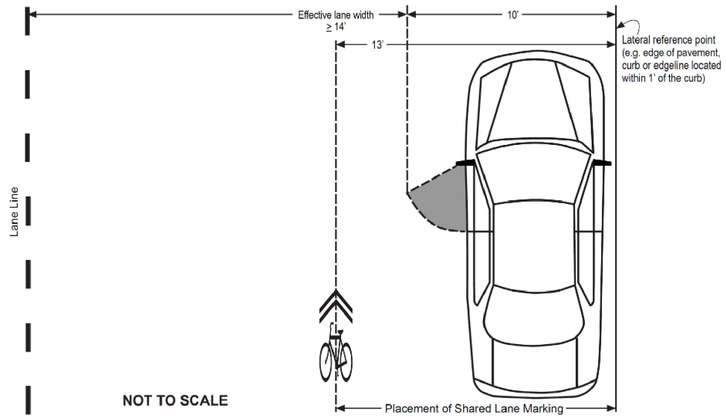
13. ALL MEDIAN ISLAND NOSES SHALL BE PAINTED WITH REFLECTIVE YELLOW PAINT.

14. ALL TRAFFIC SPOT ISLAND NOSES SHALL BE PAINTED WITH REFLECTIVE WHITE PAINT.

ADDITIONAL ABBREVIATIONS

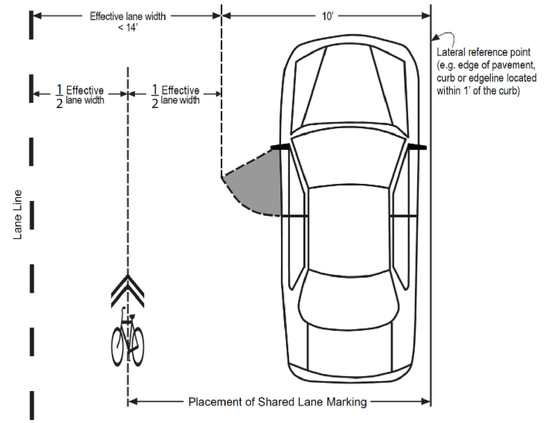
BL	BIKE LANE
CSJ	CITY OF SAN JOSE R/W
L	LEFT
R	RIGHT
NTS	NOT TO SCALE
SCCO	SANTA CLARA COUNTY R/W
SNS	STREET NAME SIGN

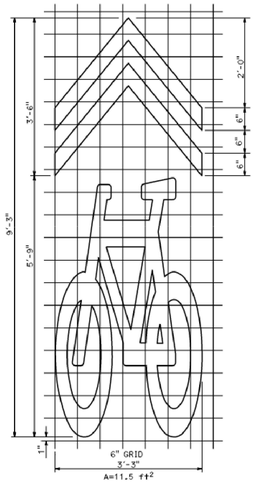
SHARED LANE MARKING WHEN EFFECTIVE LANE WIDTH ≥ 14'



NOT TO SCALE

SHARED LANE MARKING WHEN EFFECTIVE LANE WIDTH < 14'





SHARED ROADWAY BICYCLE MARKING

NOTES:

UNLESS OTHERWISE NOTED ON THE STRIPING PLAN SHEETS:

1. THE SHARED BIKE LANE MARKING (SHARROW) SHALL BE SPACED AT INTERVALS NOT GREATER THAN 250 FEET APART FROM EACH OTHER.
2. IN AREAS WHERE THERE IS NO ON-STREET PARKING, THE CENTERLINE OF THE SHARROW SHALL BE PLACED CENTERED IN THE TRAVELED LANE.
3. IN AREAS WHERE THERE IS NO ON-STREET PARKING AND THE OUTSIDE LANE WIDTH IS EQUAL OR GREATER THAN 14 FEET, PLACE THE SHARROW CENTERED AT LEAST 4 FEET FROM THE FACE OF CURB OR FROM THE EDGE OF PAVEMENT.
4. IN AREAS WHERE THERE IS ON-STREET PARKING, THE CENTERLINE OF THE SHARROW SHALL BE CENTERED IN THE EFFECTIVE LANE WIDTH. SEE FIGURES ABOVE.
5. IN AREAS WHERE SHARED RIGHT-TURN OR LEFT-TURN ONLY LANES ARE LESS THAN 14 FEET WIDE, PLACE THE SHARROW CENTERED IN THE TRAVEL LANE.
6. IF THE MEASURED POSITION OF THE SHARROW IS ON OR NEAR ANY OF THE FOLLOWING OBJECTS (I.E. CROSSWALKS, PAVEMENT MARKINGS/LEGENDS OR ARROWS, MANHOLES, GRATES OR UTILITY ACCESS POINTS), NOTIFY THE ENGINEER AND RELOCATE THE TOP OF THE SHARROW 10 FEET AWAY FROM THE OBJECT IN THE NEAREST DIRECTION FROM THE MEASURED POSITION.
7. THE SHARROW BIKE SYMBOL SHALL FACE LEFT ON THE PAVEMENT.

1 / SS-18 SHARED BIKE LANE MARKING / "SHARROW" DETAIL
NTS

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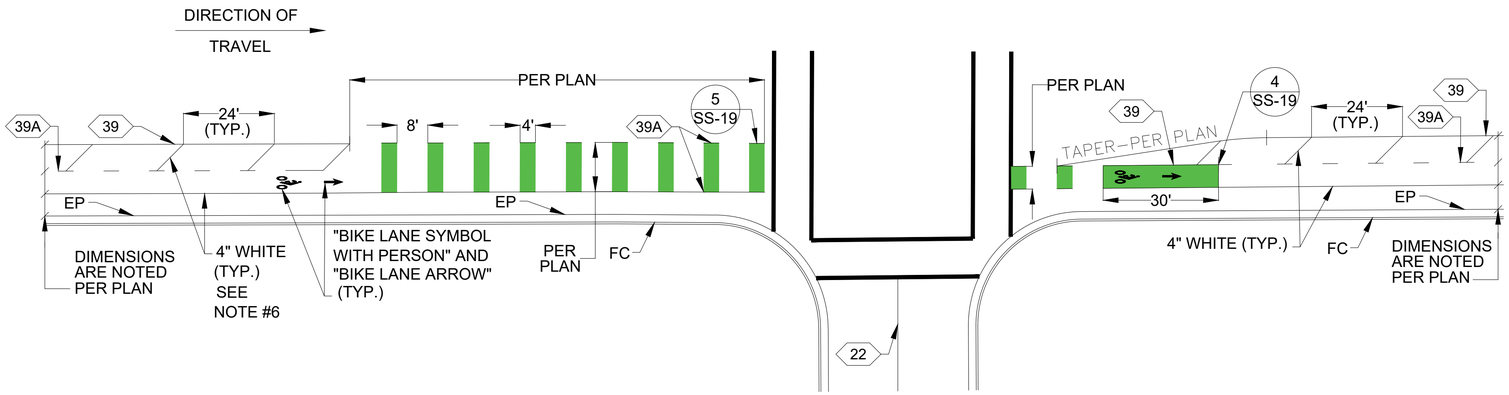
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
STRIPING NOTES, LEGENDS & DETAILS

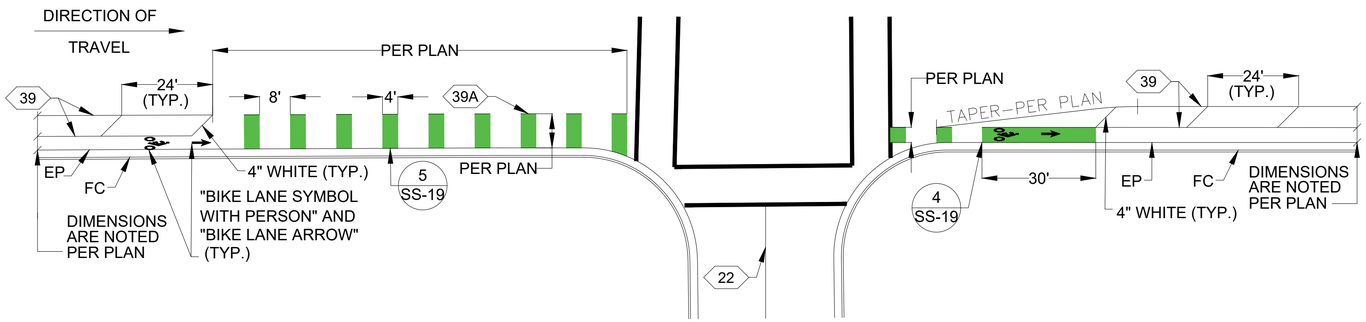
CAMPBELL, CALIFORNIA

SCALE: NTS

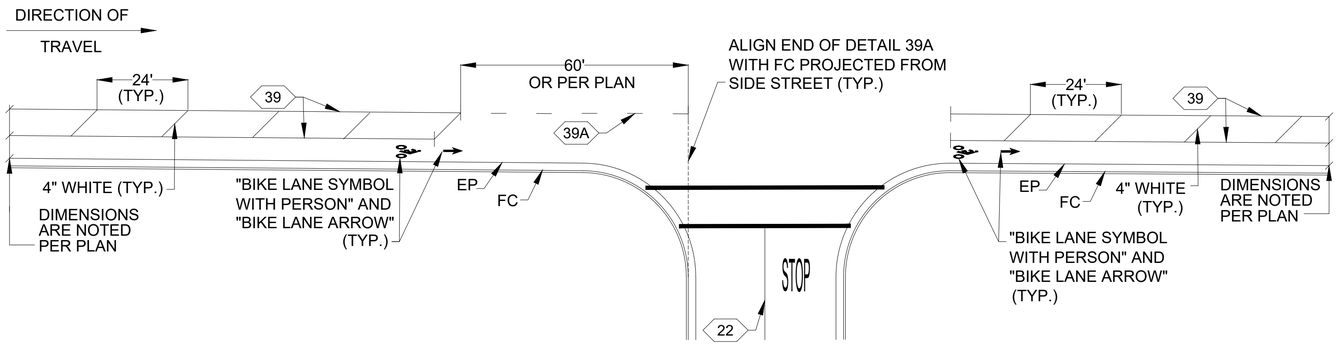
SHEET: SS-18



1 SS-19 BUFFERED BIKE LANE WITH PARKING AT SIGNALIZED INTERSECTIONS
NTS



2 SS-19 BUFFERED BIKE LANE WITHOUT PARKING AT SIGNALIZED INTERSECTIONS
NTS

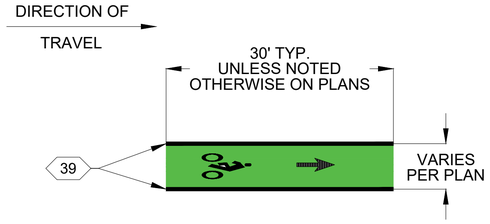


3 SS-19 BUFFERED BIKE LANE AT UNSIGNALIZED INTERSECTIONS
NTS

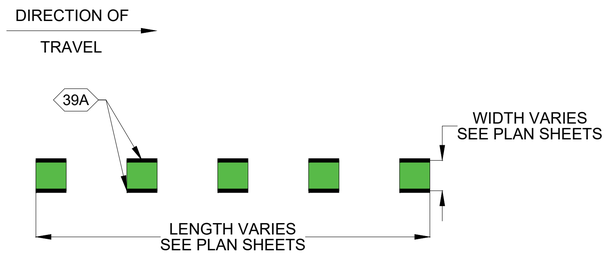
NOTES:

UNLESS OTHERWISE NOTED ON THE STRIPING PLAN SHEETS:

1. BUFFERED BIKE LANE AND GREEN BIKE LANE SHOWN IS DIAGRAMMATIC. FOR EXACT LENGTH AND WIDTH, REFER TO STRIPING PLAN SHEETS.
2. WHERE PAVEMENT SURFACE AREA FOR A BIKE LANE IS GREATER THAN OR EQUAL TO 5 FEET IN WIDTH, USE PREFORMED THERMOPLASTIC WITH BIKE LANE SYMBOL AND BIKE LANE ARROW INTEGRATED WITH THE GREEN BACKGROUND.
3. WHERE PAVEMENT SURFACE AREA FOR BIKE LANES IS LESS THAN 5 FEET IN WIDTH, USE PREFORMED THERMOPLASTIC GREEN BIKE LANE (BACKGROUND). BIKE LANE SYMBOL AND BIKE LANE ARROW SHALL BE EXTRUDED THERMOPLASTIC INSTALLED ON TOP OF AND ON THE CENTER OF THE PREFORMED THERMOPLASTIC GREEN BIKE LANE (BACKGROUND).
4. BIKE LANE STRIPING LOCATED WITHIN A CONCRETE BUS PAD SHALL BE PAINT.
5. CONTRACTOR SHALL INSTALL 12" DIAGONAL WHITE STRIPE (THERMO) FOR THE BUFFERED BIKE LANES ON HAMILTON AVENUE BETWEEN PHOENIX DRIVE AND THE WESTERN CITY LIMIT LINE LOCATED APPROXIMATELY 640' WEST OF PHOENIX DRIVE.



4 SS-19 GREEN BIKE LANE PAVEMENT MARKING WITH SYMBOL
NTS



5 SS-19 GREEN BIKE LANE PAVEMENT MARKING
NTS

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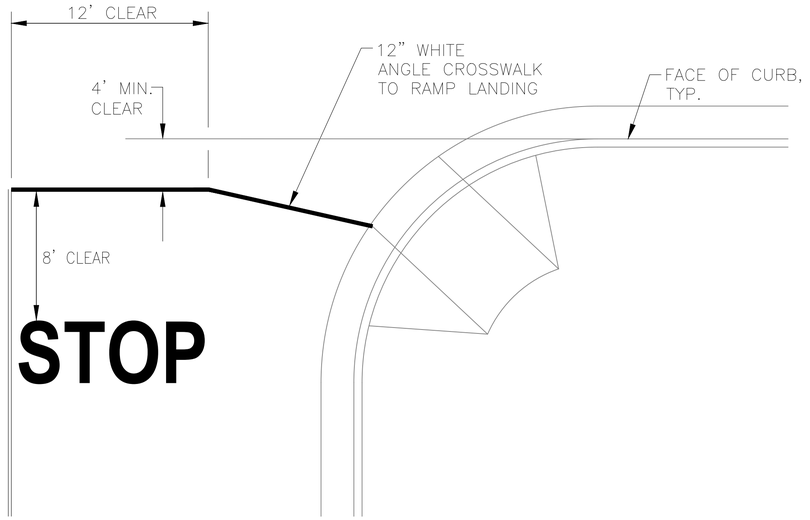
CITY OF CAMPBELL
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HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
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STRIPING NOTES, LEGENDS & DETAILS

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SCALE: NTS

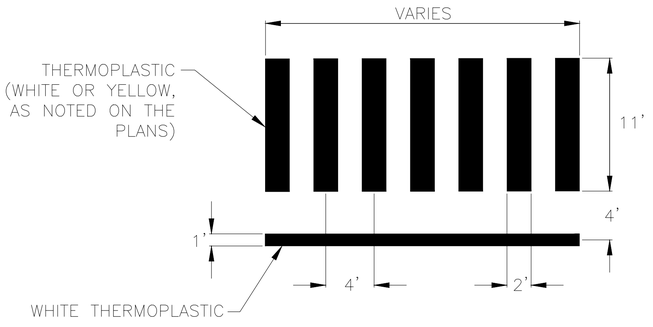
SHEET: SS-19



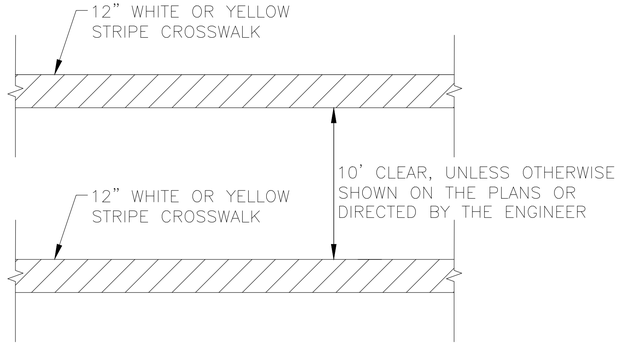
NOTE:

1. TRAFFIC STRIPING AND PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED.

1 SS-20 PAVEMENT MARKING "STOP" LEGEND
NTS



2 SS-20 HIGH VISIBILITY "CONTINENTAL" CROSSWALK DETAIL



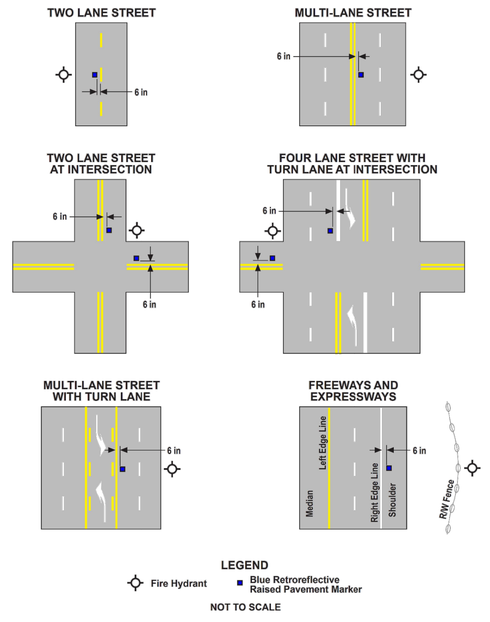
NOTE:

1. TRAFFIC STRIPING AND PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED.
2. COLOR OF STRIPE IS AS NOTED ON THE PLANS.

3 SS-20 PAVEMENT MARKING "CROSSWALK" DETAIL

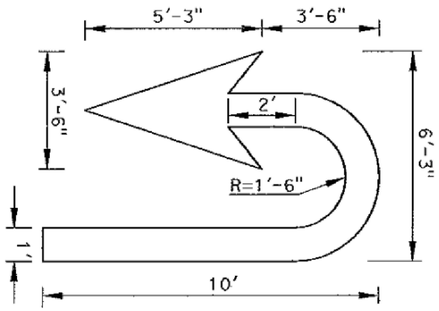
California MUTCD 2014 Edition
(FHWA's MUTCD 2009 Edition, including Revisions 1,2, &3, as amended for use in California)
Page 773

Figure 3B-102 (CA). Examples of Fire Hydrant Location Pavement Markers

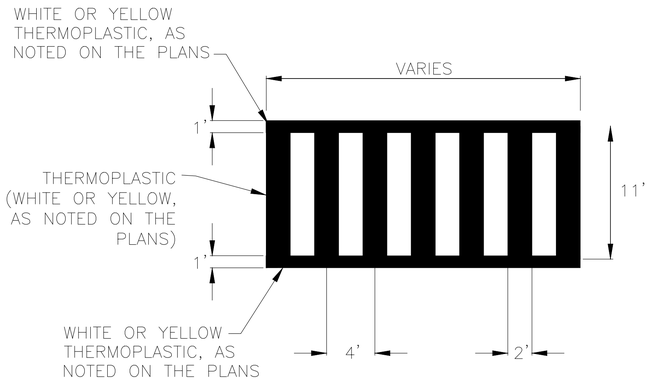


Chapter 3B – Pavement and Curb Markings
Part 3 – Markings
November 7, 2014

5 SS-20 FIRE HYDRANT MARKER DETAIL



4 SS-20 PAVEMENT MARKING "U-TURN ARROW" DETAIL



6 SS-20 HIGH VISIBILITY "LADDER" CROSSWALK DETAIL

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CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-20

STRIPING SCHEDULE - EASTBOUND HAMILTON AVENUE DIRECTION ONLY

EASTBOUND DIRECTION ONLY		Between City Limit & Phoenix	Between Phoenix & Marathon	Between Marathon & Darryl	Between Darryl & STEX	Between STEX & Llewellyn	Between Llewellyn & Carlyn	Between Carlyn & Milton	Between Milton & Eden	Between Eden & Dunster	Between Dunster & Winchester	Between Winchester & Esther	Between Esther & N. 3rd	Between N. 3rd & N. Central	Between N. Central & Harrison	Between Harrison & Almarida	Between Almarida & Salmar/ HWY 17	Between Salmar/ HWY 17 & Creekside	Between Creekside & Bascom	Between Bascom & Kuehnis	Between Kuehnis & Richlee	Between Richlee & April	Between April & Dover	Between Dover & Manchester	Between Manchester & Nottingham	Between Nottingham & Leigh	Between Leigh & Phantom	Between Phantom & Grace	Between Grace & Hurst	Total
ITEM DESCRIPTION	UNIT	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY
DETAIL 9A	LF	630	1383	1148	1160	1134	1248	776	0	1136	1154	3476	0	0	1280	328	939	2068	1988	2116	0	0	2341	0	0	0	573	281	280	25,439
DETAIL 22	LF	50	50	50	0	50	50	50	0	50	0	50	50	50	50	0	0	0	0	50	50	50	50	50	50	200	50	50	0	1,150
DETAIL 25	LF	480	624	413	446	422	604	283	0	568	405	760	14	752	392	0	0	1047	540	880	0	0	1165	0	0	0	0	0	0	9,795
DETAIL 26	LF	153	189	160	136	141	0	106	0	0	175	0	0	0	0	245	311	0	453	179	0	0	0	0	0	0	0	0	0	2,248
DETAIL 27B	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
DETAIL 29	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	555	0	0	555
DETAIL 32	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	570	488	482	1,540
DETAIL 36 (THERMO)	LF	0	0	0	33	14	0	0	0	0	0	32	0	0	0	0	0	562	234	0	0	0	0	0	0	126	0	0	0	1,001
DETAIL 37 (THERMO)	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	406	0	0	0	0	0	0	0	0	0	0	0	406
DETAIL 37B (THERMO)	LF	0	0	0	0	0	0	0	0	0	201	0	0	0	0	0	0	0	677	0	0	0	0	0	0	258	0	0	0	1,136
DETAIL 38 (THERMO)	LF	96	113	87	136	143	0	0	93	0	257	0	156	293	0	363	318	562	453	0	0	179	0	0	0	332	0	0	0	3,581
DETAIL 38B (THERMO)	LF	0	0	0	136	0	0	0	0	0	174	0	0	0	0	0	0	0	453	0	0	0	0	0	0	200	0	0	0	963
DETAIL 39 (THERMO)	LF	522	681	615	711	424	784	424	42	677	551	417	524	1495	0	111	180	0	934	83	257	155	339	275	268	173	640	392	176	11,850
DETAIL 39 (PAINT)	LF																		92											92
DETAIL 39A (PAINT)	LF	0	0	0	0	0	0	0	0	0	0	126	0	0	0	0	0	0	0	0	0	0	109	0	0	0	123	0	0	358
DETAIL 39A (THERMO)	LF	620	871	268	342	199	228	60	33	367	0	187	60	110	344	217	132	0	289	500	60	100	186	60	60	0	198	60	260	5,811
DETAIL 40 (THERMO)	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	96	171	238	407	0	0	0	0	0	0	0	0	0	0	912
DETAIL 41 (THERMO)	LF	0	0	0	0	0	0	0	91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	91
TYPE I (10) ARROW (THERMO)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
TYPE III (L) ARROW (THERMO)	EA	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
TYPE III (R) ARROW (THERMO)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4
TYPE IV (L) ARROW (THERMO)	EA	2	2	2	0	0	0	0	2	0	4	0	1	5	0	2	0	0	6	0	0	2	0	0	0	6	0	0	0	34
TYPE IV (R) ARROW (THERMO)	EA	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	2	3	0	0	0	0	0	0	2	0	0	0	10
TYPE V (STRAIGHT THRU ARROW) (THERMO)	EA	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
TYPE VI (L) MERGE ARROW (THERMO)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
TYPE VI (R) MERGE ARROW (THERMO)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
TYPE VII (L) ARROW (THERMO)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
TYPE VII (R) ARROW (THERMO)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
"U-TURN" ARROW (THERMO)	EA	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4" WHITE LINE (ADJ. TO ON-STREET PARKING)	LF	629	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	786
4" WHITE DIAGONAL STRIPE	LF	219	226	101	88	0	146	40	0	165	108	15	78	208	40	0	0	0	24	0	45	40	120	60	60	0	59	27	27	1,896
4" YELLOW DIAGONAL STRIPE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83	0	0	83
12" YELLOW STRIPE (THERMO)	LF	0	0	0	0	293	102	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	520
12" WHITE STRIPE (THERMO)	LF	64	603	615	948	53	0	0	132	90	203	115	123	618	103	443	401	411	341	112	147	669	108	100	99	97	22	25	84	6,726
24" WHITE STRIPE (THERMO)	LF	0	0	0	1166	0	0	0	0	0	1111	0	0	0	0	0	484	149	1254	0	0	0	0	0	0	0	0	0	99	4,263
24" YELLOW STRIPE (THERMO)	LF	836	0	0	0	0	0	0	428	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	792	0	0	0	2,056
YIELD LINE (ISOSCELES TRIANGLES) (THERMO)	EA	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	13	8	0	0	0	0	0	0	4	0	0	6	36
"YIELD" LEGEND (THERMO)	EA	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
"STOP" LEGEND (THERMO)	EA	0	0	0	0	0	1	1	0	1	0	1	1	0	1	0	0	0	0	1	1	0	1	1	1	0	1	1	0	13
"THRU" LEGEND (THERMO)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
"HWY 17" LEGEND (THERMO)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
"NORTH" LEGEND (THERMO)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
"SOUTH" LEGEND (THERMO)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
"FWY" LEGEND (THERMO)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
"ONLY" LEGEND (THERMO)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
"RR XING" LEGEND (THERMO)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4
"KEEP" LEGEND (THERMO)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4
"CLEAR" LEGEND (THERMO)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4
"PED" LEGEND (THERMO)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
"XING" LEGEND (THERMO)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
"LEFT" LEGEND (THERMO)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
"TURN" LEGEND (THERMO)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
BIKE LANE SYMBOL (THERMO)	EA	2	6	3	1	1	1	2	1	2	2	1	2	2	1	2	1	0	3	1	2	2	2	2	2	1	2	2	2	51
BIKE LANE ARROW (THERMO)	EA	2	6	3	1	1	1	2	1	2	2	1	2	2	1	2	1	0	3	1	2	2	2	2	2	1	2	2	2	51
"BIKE" LEGEND (THERMO)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
"LANE" LEGEND (THERMO)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
BICYCLE LOOP DETECTOR SYMBOL	EA	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
SHARED ROADWAY BICYCLE MARKING (THERMO)	EA	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	6
PREFORMED GREEN BIKE LANE W/INTEGRATED BIKE SYMBOL & ARROW (THERMO)	SF	0	0	120	240	105	120	0	0	0	0	120	0	0	0	0	120	0	360	120	0	0	0	0	0	0	0	0	0	1,305
PREFORMED GREEN BIKE LANE W/INTEGRATED BIKE SYMBOL (THERMO)	SF					43						186							400	180							80			889
PREFORMED GREEN BIKE LANE (THERMO)	SF	468	1174	724	504	328	400	0	160	160	0	64	0	306	288	288	176	0	230	448	0	416	0	0	0	0	64	0	0	6,198
GREEN BIKE LANE (PAINT IN BUS STOPS ONLY)	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	240	0	0	0	160	0	0	400
PAINT RED CURB	LF	0	0	0	0	0	0	0	25	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
BLUE FIRE HYDRANT MARKER	EA	2	2	1	1	1	1	0	0	1	2	1	0	2	0	1	1	0	1	1	0	0	0	0	0	1	0	0	0	19

No.	Revision	Date	By	Chkd

Date: 05-21-25
Drawn By: RA
Designed By: RA

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
STRIPING NOTES, LEGENDS & DETAILS

CITY OF CAMPBELL · THE ORCHARD CITY · CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-21

SIGNING SCHEDULE - EASTBOUND HAMILTON AVENUE DIRECTION ONLY

EASTBOUND DIRECTION ONLY		Between City Limit & Phoenix	Between Phoenix & Marathon	Between Marathon & Darryl	Between Darryl & STEX	Between STEX & Llewellyn	Between Llewellyn & Carlyn	Between Carlyn & Milton	Between Milton & Eden	Between Eden & Dunster	Between Dunster & Winchester	Between Winchester & Esther	Between Esther & N. 3rd	Between N. 3rd & N. Central	Between N. Central & Harrison	Between Harrison & Almarida	Between Almarida & Salmar/ HWY 17	Between Salmar/ HWY 17 & Creekside	Between Creekside & Bascom	Between Bascom & Kuehnis	Between Kuehnis & Richlee	Between Richlee & April	Between April & Dover	Between Dover & Manchester	Between Manchester & Nottingham	Between Nottingham & Leigh	Between Leigh & Phantom	Between Phantom & Grace	Between Grace & Hurst	Total
ITEM DESCRIPTION	**UNIT**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**	**EST. QTY**
RELOCATE EX. SIGNS ON NEW SIGN POST	EA	0	0	0	0	0	0	2	2	0	1	1	0	2	0	2	0	1	0	0	0	1	0	2	0	2	0	0	0	16
TYPE K-1 OBJECT MARKER	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
TYPE N-1 OBJECT MARKER																														
R81 "BIKE LANE" SIGN (24"X18")	EA	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	1	6
R81A "BEGIN" SIGN (12"X5")	EA	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	3
R81B "END" SIGN (8"X5")	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
R4-7 KEEP RIGHT SIGN																														
R4-11 "BIKES MAY USE FULL LANE" SIGN (30"X30")	EA	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
R3-7 "RIGHT LANE MUST TURN RIGHT" SIGN (36"X36")	EA	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
R118 "EXCEPT BIKES" SIGN (18"X15")	EA	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
R9-6 "BIKES YIELD TO PEDESTRIANS" SIGN (12"X18")	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
R26(S) "NO STOPPING ANYTIME" SIGN (12"X18")	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	1	1	1	7
R(SPECIAL) "HERE TO CORNER" SIGN (12"X12")	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	6
R1-5 "YIELD HERE TO BIKE" SIGN (36"X48")	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
W74 "THRU TRAFFIC MERGE LEFT" SIGN (36"X36")	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
R18A (CA) "RIGHT LANE MUST EXIT" SIGN (66"X48")	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
R10-6 (R) "STOP HERE ON RED" SIGN																														
R10-15 "TURNING VEHICLES YIELD TO PEDS" (30"X30")																														
W11-1 "BICYCLE SYMBOL" (30"X30")																														
W16-1P "SHARE THE ROAD" (18"X24")																														
NEW SIGN POST	EA	0	0	0	0	0	0	1	1	0	2	1	0	1	0	1	0	1	0	0	0	1	1	2	1	2	1	1	0	17
REMOVE EXISTING SIGN POST	EA	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	4
REMOVAL OF EXISTING SIGN	EA	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	1	6

No. | Revision | Date | By | Chkd

Date: 05-21-25
Drawn By: RA
Designed By: RA

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
STRIPING NOTES, LEGENDS & DETAILS

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-22

STRIPING SCHEDULE - WESTBOUND HAMILTON AVENUE DIRECTION ONLY

WESTBOUND DIRECTION ONLY		Between Greylands & Bascom	Between Bascom & Creekside	Between Creekside & Salmar/ HWY 17	Between Salmar/ HWY 17 & Almarida	Between Almarida & N. Central	Between N. Central & Winchester	Between Winchester & Eden	Between Eden & Llewellyn	Between Llewellyn & Millich	Between Millich & STEX	Between STEX & Darryl	Between Darryl & Marathon	Between Marathon & Phoenix	Between Phoenix & City Limit	Total
	UNIT	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY
DETAIL 9A	LF	2324	2023	1362	516	1292	3450	2444	2144	1112		1180	1148	968	636	20,599
DETAIL 22	LF					50				50				50		150
DETAIL 25	LF	854	585	1055		425	1357	685	819	559		312	356	527	636	8,170
DETAIL 26	LF	310	406		311	210	171	464	176			274	214	300		2,836
DETAIL 27B	LF							832								832
DETAIL 29	LF															-
DETAIL 32	LF															-
DETAIL 36 (THERMO)	LF	77	43	134	167						25	31				477
DETAIL 37 (THERMO)	LF			272												272
DETAIL 37B (THERMO)	LF			560												560
DETAIL 38 (THERMO)	LF	571	704	507	190	248	798	231	166		260	274	144	204		4,297
DETAIL 38B (THERMO)	LF	310					171				260					741
DETAIL 39 (THERMO)	LF	1220	633		147	1012	2612	280	716		367	641	883	776	499	9,786
DETAIL 39 (PAINT)																-
DETAIL 39A (PAINT)	LF		50				52					55				157
DETAIL 39A (THERMO)	LF	904	574		109	172.5	92	113	812	136	224	264	128	664	892	5,085
DETAIL 40 (THERMO)	LF															-
DETAIL 41 (THERMO)	LF															-
TYPE I (10) ARROW (THERMO)	EA															-
TYPE III (L) ARROW (THERMO)	EA										4					4
TYPE III (R) ARROW (THERMO)	EA			2												2
TYPE IV (L) ARROW (THERMO)	EA	7	3	4	2	3	8	4	3			3	2	4		43
TYPE IV (R) ARROW (THERMO)	EA	2					2									4
TYPE V (STRAIGHT THRU ARROW) (THERMO)	EA										3					3
TYPE VI (L) MERGE ARROW (THERMO)	EA													3		3
TYPE VI (R) MERGE ARROW (THERMO)	EA							1	1							2
TYPE VII (L) ARROW (THERMO)	EA															-
TYPE VII (R) ARROW (THERMO)	EA					1										1
"U-TURN" ARROW (THERMO)	EA															-
4" WHITE LINE (ADJ. TO ON-STREET PARKING)	LF							280	489					719	516	2,004
4" WHITE DIAGONAL STRIPE	LF	410			14.4	82.3	288				5	64	164	237		1,263.6
4" YELLOW DIAGONAL STRIPE	LF															-
12" YELLOW STRIPE (THERMO)	LF									114						114
12" WHITE STRIPE (THERMO)	LF													64	305.1	369
24" WHITE STRIPE (THERMO)	LF		80													80
24" YELLOW STRIPE (THERMO)	LF															-
YIELD LINE (ISOSCELES TRIANGLES) (THERMO)	EA	4	4	10	5						4					27
"YIELD" LEGEND (THERMO)	EA											1				1
"STOP" LEGEND (THERMO)	EA									1						1
"THRU" LEGEND (THERMO)	EA															-
"HWY 17" LEGEND (THERMO)																
"NORTH" LEGEND (THERMO)																
"SOUTH" LEGEND (THERMO)																
"FWY" LEGEND (THERMO)	EA															-
"ONLY" LEGEND (THERMO)	EA			1												1
"RR XING" LEGEND (THERMO)	EA		4													4
"KEEP" LEGEND (THERMO)	EA															-
"CLEAR" LEGEND (THERMO)	EA															-
"PED" LEGEND (THERMO)	EA															-
"XING" LEGEND (THERMO)	EA															-
"LEFT" LEGEND (THERMO)	EA			1												1
"TURN" LEGEND (THERMO)	EA			1												1
BIKE LANE SYMBOL (THERMO)	EA	3			1	1	2		3	1	2	1	1	4	2	21
BIKE LANE ARROW (THERMO)	EA	3			1	1	1		3	1	2	1	1	4	2	20
"BIKE" LEGEND (THERMO)	EA															-
"LANE" LEGEND (THERMO)	EA															-
BICYCLE LOOP DETECTOR SYMBOL (THERMO)	EA															-
SHARED ROADWAY BICYCLE MARKING (THERMO)	EA															-
PREFORMED GREEN BIKE LANE W/INTEGRATED BIKE SYMBOL & ARROW (THERMO)	SF	240	120		120	120		150	152		120	240	152			1,414
PREFORMED GREEN BIKE LANE W/INTEGRATED BIKE SYMBOL (THERMO)			74													
PREFORMED GREEN BIKE LANE (THERMO)	SF	792	310		189	412	269	400	496		145	381	356	882	242	4,874
GREEN BIKE LANE (PAINT IN BUS STOPS ONLY)	SF						205					151				356
PAINT RED CURB	LF							86						24		110
BLUE FIRE HYDRANT MARKER	EA	1	1					2	1			2	1	2	1	11

No. | Revision | Date | By | Chkd

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CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
STRIPING NOTES, LEGENDS & DETAILS

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-23

SIGNING SCHEDULE - WESTBOUND HAMILTON AVENUE DIRECTION ONLY

WESTBOUND DIRECTION ONLY		Between Greylands & Bascom	Between Bascom & Creekside	Between Creekside & Salmar/ HWY 17	Between Salmar/ HWY 17 & Almarida	Between Almarida & N. Central	Between N. Central & Winchester	Between Winchester & Eden	Between Eden & Llewellyn	Between Llewellyn & Millich	Between Millich & STEX	Between STEX & Darryl	Between Darryl & Marathon	Between Marathon & Phoenix	Between Phoenix & City Limit	Total
	UNIT	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY
RELOCATE EX. SIGNS ON NEW SIGN POST	EA								3							3
TYPE K-1 OBJECT MARKER	EA															-
TYPE N-1 OBJECT MARKER	EA								1							1
R81 "BIKE LANE" SIGN (24"x18")	EA		2		1		1							1		5
R81A "BEGIN" SIGN (12"x5")	EA				1											1
R81B "END" SIGN (8"x5")	EA		1				1									2
R4-7 KEEP RIGHT SIGN	EA								1							1
R4-11 "BIKES MAY USE FULL LANE" SIGN (30"X30")	EA						1									1
R3-7 "RIGHT LANE MUST TURN RIGHT" SIGN (36"X36")	EA						1									1
R118 "EXCEPT BIKES" SIGN (18"X15")	EA															-
R9-6 "BIKES YIELD TO PEDESTRIANS" SIGN (12"X18")	EA															-
R26(S) "NO STOPPING ANYTIME" SIGN (12"X18")	EA															-
R(SPECIAL) "HERE TO CORNER" SIGN (12"X12")	EA															-
R1-5 "YIELD HERE TO BIKE" SIGN (36"X48")	EA				1											1
W74 "THRU TRAFFIC MERGE LEFT" SIGN (36"X36")	EA			1												1
R18A (CA) "RIGHT LANE MUST EXIT" SIGN (66"X48")	EA			1												1
R10-6 (R) "STOP HERE ON RED" SIGN	EA								1							1
R10-15 "TURNING VEHICLES YIELD TO PEDS" (30"X30")	EA								1							1
W11-1 "BICYCLE SYMBOL" (30"X30")	EA			1				1								2
W16-1P "SHARE THE ROAD" (18"X24")	EA			1				1								2
NEW SIGN POST	EA		2	1	1		1	1	3							9
REMOVE EXISTING SIGN POSTS	EA															-
REMOVAL OF EXISTING SIGN	EA							2	1							3

No. | Revision | Date | By | Chkd

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CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
STRIPING NOTES, LEGENDS & DETAILS

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-24

GENERAL NOTES (FOR SHEETS TS-02 TO TS-11):

1. ALL EXISTING EQUIPMENT SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.

2. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE RESPECTIVE UTILITY COMPANIES AND AFFECTED AGENCIES FOR VERIFICATION OF LOCATION AND DEPTHS OF EXISTING UTILITIES. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA), AT 811, TWO (2) WORKING DAYS BUT NOT MORE THAN FOURTEEN (14) CALENDAR DAYS PRIOR TO COMMENCING ANY EXCAVATION.

3. TRAFFIC SIGNAL AND LIGHTING SHALL CONFORM TO THE LATEST CALTRANS STANDARD SPECIFICATION, CALTRANS STANDARD PLANS, CITY OF CAMPBELL STANDARD PROVISIONS AND PROJECT PLANS AND SPECIFICATIONS.

4. ALL NEW LUMINAIRES, VEHICLE AND PEDESTRIANS SIGNALS SHALL BE LED.

5. EXISTING TRAFFIC SIGNAL SHALL BE IN OPERATION UNTIL THE PROPOSED SIGNAL IS READY TO BE TURNED ON FOR ALL NEW SIGNAL POLE INSTALLATION.

6. FOR ALL TRAFFIC SIGNAL, CABINET AND CONDUIT INSTALLATION OPERATIONS, THE CONTRACTOR SHALL POTHOLE TO VERIFY THE LOCATION OF UNDERGROUND UTILITIES AT THE DIRECTION OF THE ENGINEER. THE CONTRACTOR SHALL NOTE THAT UTILITY INFORMATION IS SHOWN ON THE PLANS. THE CONTRACTOR SHALL POTHOLE ALL USA MARKINGS, WHICH MAY NOT NECESSARILY BE SHOWN ON THE PLANS.

7. LOCATIONS OF PULL BOXES, EQUIPMENT, AND POSITIONING OF DETECTORS ARE SCHEMATIC UNLESS OTHERWISE NOTED. BEFORE BEGINNING ANY CONSTRUCTION OPERATION, THE CONTRACTOR SHALL CHECK FOR CONFLICTS WITH UNDERGROUND UTILITIES, OVERHEAD UTILITIES, OR OTHER OBSTACLES. IF EQUIPMENT OR POLES MUST BE RELOCATED, THE NEW LOCATION IS SUBJECT TO WRITTEN APPROVAL BY THE CITY PRIOR TO INSTALLATION. CONDUIT ALIGNMENTS, PULL BOX LOCATIONS, AND FOUNDATION LOCATIONS STAKED BY THE CONTRACTOR ARE SUBJECT TO APPROVAL BY THE CITY BEFORE BEGINNING WORK ON THAT ITEM.

8. CONTRACTOR SHALL ABANDON ALL EXISTING IN-PAVEMENT VEHICLE DETECTION LOOPS.

9. THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR WORKING CONDITIONS ON THE JOB SITE WITHIN THE LIMITS OF WORK, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, DURING PERFORMANCE OF WORK. WORK SHALL NOT BEGIN UNTIL ADEQUATE TEMPORARY BARRICADES, BARRIERS, WARNING AND CONTROL DEVICES ARE IN PLACE AS REQUIRED BY THE CONTRACT. CONTRACTOR IS RESPONSIBLE TO CLEAN AND CLEAR AREA OF CONSTRUCTION EACH DAY AND REMOVE ANY HAZARD TO THE SAFETY OF THE RESIDENTS AND PUBLIC.

10. TRAFFIC CONTROL MUST BE PERFORMED IN ACCORDANCE WITH THE LATEST REVISION OF THE 2014 CALIFORNIA MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES AND THESE PLANS.

11. CONTRACTOR SHALL REPLACE IN KIND AND LOCATION, ALL STRIPING AND PAVEMENT MARKINGS DAMAGED.

12. CONTRACTOR SHALL REPAIR ANY INFRASTRUCTURE THAT IS DAMAGED DURING THE COURSE OF INSTALLATION.

13. CONTRACTOR SHALL NOT ENERGIZE ANY SIGNAL EQUIPMENT FOR SIGNAL TURN ON WITHOUT THE APPROVAL OF THE CITY. THE ACTUAL DATE AND TIME OF TURN ON SHALL BE APPROVED AND COORDINATED WITH THE INSPECTOR. ALL SIGNAL STARTUP AND TESTING OF THE TRAFFIC SIGNAL SHALL BE PERFORMED PRIOR TO THE COMPLETION OF THE PROJECT. STARTUP AND TESTING MUST BE PERFORMED WITH CITY REPRESENTATIVE PRESENT.

14. ALL NEW SIGNAL HEADS SHALL HAVE 12" INDICATIONS WITH BACKPLATES.

20' 0' 20' 40'

GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

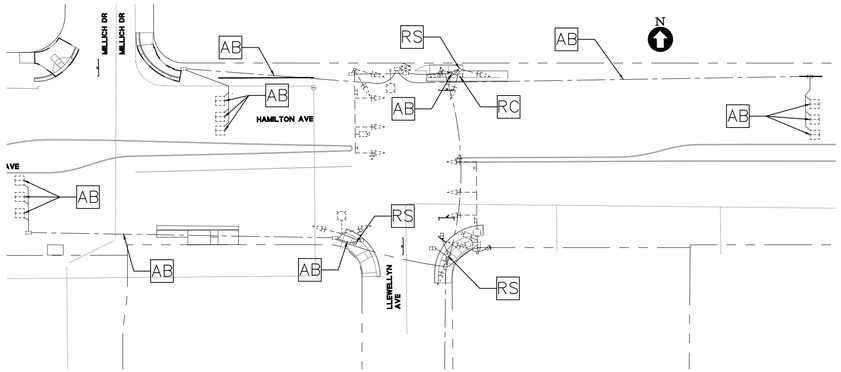
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
GENERAL NOTES

CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: TS-1

K:\2023\231167_Campbell_HamiltonAveResurfacing\ENG-T\Sheets\08_TRAFFIC SIGNAL\TS-01_.dwg 21 Mar 2025 1:57:20pm ozepeda



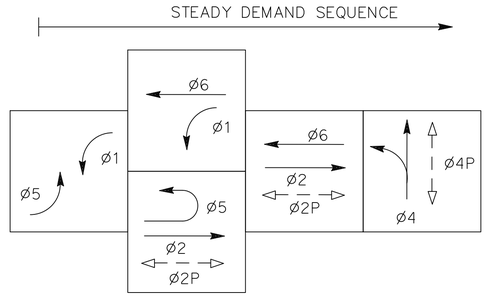
SCALE: 1"=50'

EXISTING EQUIPMENT TO BE REMOVED AND SALVAGED:

1. 4 EXISTING PEDESTRIAN PUSH BUTTONS
2. 1 TYPE 1-B POLE

EXISTING EQUIPMENT TO BE REMOVED AND BECOME PROPERTY OF CONTRACTOR:

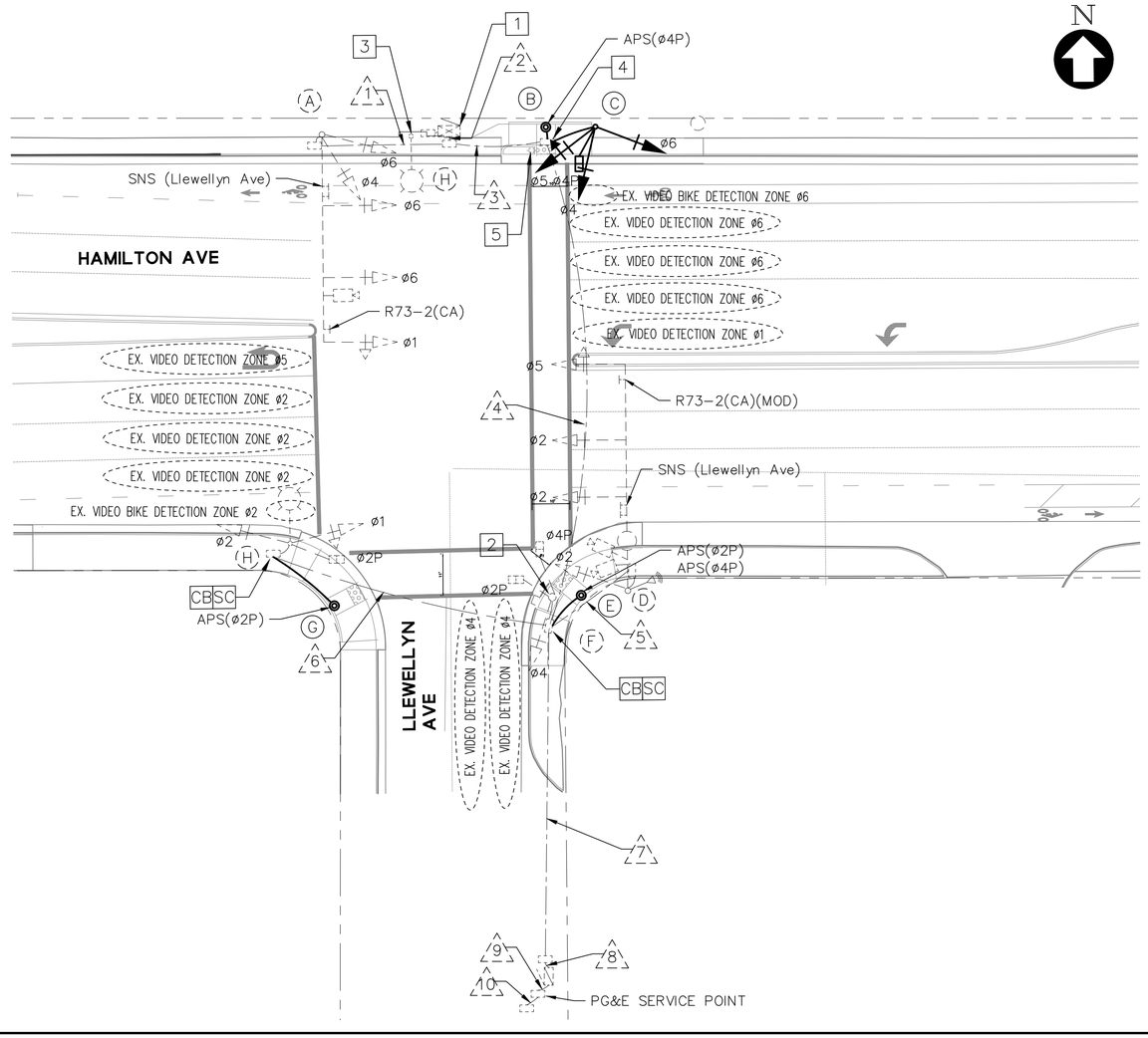
1. 1 EXISTING PULL BOX



EXISTING PHASE DIAGRAM TO REMAIN

PROJECT NOTES:

1. EXISTING CONTROLLER CABINET TO REMAIN.
2. REMOVE EXISTING PPBs AND PLUG THE HOLES.
3. EXISTING POLE IS NOT PART OF SIGNAL SYSTEM.
4. ADJUST EXISTING PULL BOX TO FINAL GRADE.
5. EX. PG&E SERVICE POLE.



No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
SIGNAL MODIFICATION PLAN - HAMILTON AVE AND LLEWELLYN AVE

CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: TS-2

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CONDUCTOR AND CONDUIT SCHEDULE

AWG OR CABLE	CONDUCTOR RUN	/1\	/2\	/3\	/4\	/5\	/6\	/7\	/8\	/9\	/10\
No. 14	No. 14 CONDUCTORS										
	ø1	3	6	3	3		3				
	ø2		3	3	3	3	3				
	ø4	3	6	3	3						
	ø5		3	3	3	3					
	ø6	3	6	3							
	ø2P		2	2	2		2				
	ø4P		2	2	2						
	APS(ø2P)	1R 2N	1R 2N	1R 2N			1R 1N				
	APS(ø4P)	1R 2N	1R 2N	1R 1N							
	APS COMMON	2R 4N	2R 4N	2R 3N			1R 1N				
	SPARES	3	6	3	3	3	3				
	TOTAL No. 14	12	42	30	25	9	13				
No. 8											
	No. 8 CONDUCTORS										
	SIGNAL COMMON	1	3	2	1	1	1				
	LUMINAIRES		2	2	2		2				
	TOTAL No. 8	1	5	4	3	1	3				
No. 6											
	NO. 6 SERVICE		3	3	3			3	3	3	3
	TOTAL No. 6		3	3	3			3	3	3	3
CABLE											
	VIDEO SIGNAL CABLE (SPARE)	1	3	2	2	2					
	VIDEO DETECTION CABLE (CAT5E)	1	1								
	VIDEO POWER CABLE (SPARE)	1	3	2	2	2					
	WIRELESS INTERCONNECT CABLE (CAT5E)		1	1	1	1					
	WIRELESS IC POWER (BELDEN 9494) (SPARE)		1	1	1	1					
	WIRELESS IC (SIC) (SPARE)		1	1	1	1					
	% FILL	16	21	23	21	42	9	14	14	14	14
	CONDUIT SIZE (INCHES)	2.5	2–3	3.5	3.5	2	2.5	1.5	1.5	1.5	1.5

/^\ EXISTING CONDUIT

N = INSTALL NEW CONDUCTORS/CABLES IN EXISTING CONDUIT

R = REMOVE EXISTING CONDUCTORS/CABLES IN EXISTING CONDUIT

POLE AND EQUIPMENT SCHEDULE

LOCATION	STANDARD	SIGNAL		VEH SIG MTG		PED SIGNAL MTG	APS*+		LED LUMINAIRE (WATTS)	SPECIAL REQUIREMENTS
		SMA	LMA	MAST ARM	POLE		ø	ARROW		
(A)	28–5–70	55'		MAS MAS MAS	SV–2–TD					EXISTING SNS (Llewellyn Ave) AND R73–2(CA) SIGN TO REMAIN.
(B)	APS POST						4	→		
(C)	1–B				TV–3–T	SP–1–T				
(D)	61–5–100	60'	15'	MAS MAS MAS	SV–1–T				120	EXISTING SNS (Llewellyn Ave) AND R73–2(CA)(MOD) SIGN TO REMAIN. EXISTING WIRELESS INTERCONNECT ANTENNA (AIMED AT POLE D ON THE NORTHWEST CORNER SIGNAL POLE AT HAMILTON/EDEN) TO REMAIN.
(E)	APS POST						4 2	← →		
(F)	1–B				TV–1–T	SP–2–T				
(G)	APS POST						2	←		
(H)	15		12'		SV–2–TA	SP–1–T			105	

◯ PROPOSED SIGNAL POLE

(◯) EXISTING SIGNAL POLE

* REMOVE EXISTING PPB. FURNISH AND INSTALL NEW APS.

\+ INSTALL NEW APS IN A POSITION IN WHICH THE ARROW IS PARALLEL TO THE CROSSWALK

20' 0' 20' 40'

GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112 Drawn By: A. Hernandez Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

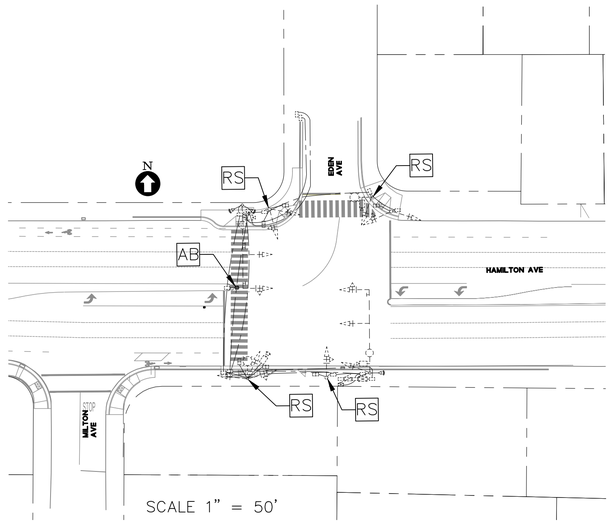
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
EQUIPMENT SCHEDULE - HAMILTON AVE AND LLEWELLYN AVE

CAMPBELL, CALIFORNIA

SCALE: 1"=20'

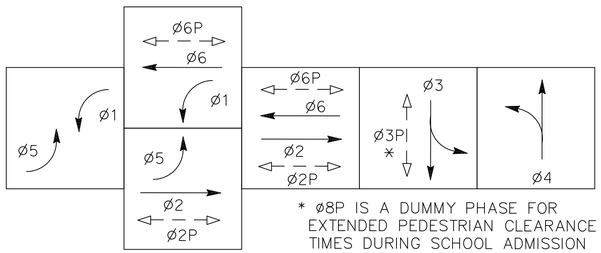
SHEET: TS-3

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EXISTING EQUIPMENT TO BE REMOVED AND SALVAGED:

1. 6 EXISTING PEDESTRIAN PUSH BUTTONS

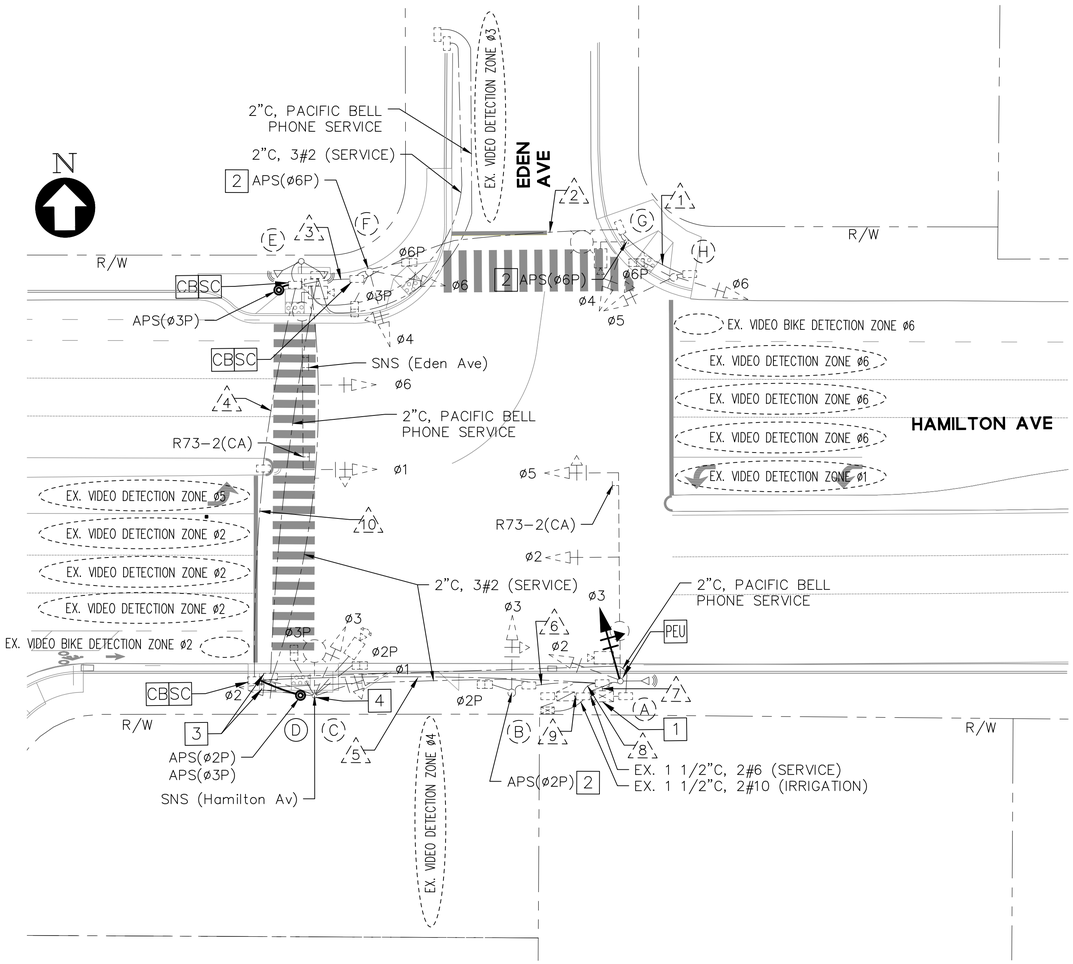


* ø8P IS A DUMMY PHASE FOR EXTENDED PEDESTRIAN CLEARANCE TIMES DURING SCHOOL ADMISSION AND DISMISSAL HOURS

EXISTING PHASE DIAGRAM TO REMAIN

PROJECT NOTES:

1. EXISTING CONTROLLER CABINET TO REMAIN.
2. REMOVE EXISTING PPB AND INSTALL NEW APS.
3. ADJUST EXISTING PULL BOX TO FINAL GRADE.
4. REMOVE EXISTING PPB AND PLUG THE HOLES.



20' 0' 20' 40'

GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
SIGNAL MODIFICATION PLAN - HAMILTON AVE AND EDEN AVE

CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: TS-4

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CONDUCTOR AND CONDUIT SCHEDULE

AWG OR CABLE	CONDUCTOR RUN	^1	^2	^3	^4	^5	^6	^7	^8	^9	^10
No. 14	No. 14 CONDUCTORS										
	ø1				3	3		3			3
	ø2					3		6			
	ø3					3	3	6			
	ø5	3	3	3	3	6		3			3
	ø6	3	3	3	3	3		3			3
	ø4		3	3	3	3		3			3
	ø2P					2	2	4			
	ø3P			2	2	2		2			2
	ø6P	2	2	2	2	2		2			2
	APS(ø2P)					1R 1N	1R 1N	2R 2N			
	APS(ø3P)			1R 1N	1R 1N	1R 2N		1R 2N			1R 1N
	APS(ø6P)		1R 1N	1R 2N	1R 2N	1R 2N		1R 2N			1R 2N
	APS COMMON		1R 1N	1R 2N	1R 3N	1R 5N	1R 1N	2R 6N			1R 3N
	PEU								3	3	
	SPARES	3	3	3	3	3	3	9	3	3	3
	TOTAL No. 14	11	16	20	25	40	10	53	6	6	25
No. 10	No. 10 CONDUCTORS										
	IRRIGATION CONTROLLER (120 V)									2	
	TOTAL No. 10									2	
No. 8	No. 8 CONDUCTORS										
	LIGHTING (240 V)		2	2	2	2	2		2	2	2
	IRRIGATION COMMON										
	SIGNAL NEUTRAL (120 V)	1	1	1	1	1	1	3			1
	TOTAL No. 8	1	3	3	3	3	3	3	2	2	3
No. 6	No. 6 CONDUCTORS										
	120 V SERVICE TO CONTROLLER							2	2	2	
	TOTAL No. 6							2	2	2	
CABLE											
	VIDEO DETECTION SIGNAL CABLE (SPARE)		1	1	2	3		4			
	VIDEO DETECTION POWER CABLE (SPARE)		1	1	2	3		4			
	VIDEO DETECTION CABLE (CAT5E)					1		1			
	WIRELESS IC (SIC) (SPARE)					1		1			
	WIRELESS INTERCONNECT (CAT5E)				2	2		2			
	BELDEN 9494 CABLE (SPARE)					1		1			
	% FILL	9	25	28	24	24	12	26	13	15	10
	CONDUIT SIZE (INCHES)	2	2	2	3	1–2.5", 1–3"	2	2–3"	2	2	3

△ EXISTING CONDUIT

N = INSTALL NEW CONDUCTORS/CABLES IN EXISTING CONDUIT

R = REMOVE EXISTING CONDUCTORS/CABLES IN EXISTING CONDUIT

POLE AND EQUIPMENT SCHEDULE

+ LOCATION	STANDARD	SIGNAL		VEH SIG MTG		PED SIGNAL MTG	APS*+		LED LUMINAIRE (WATTS)	SPECIAL REQUIREMENTS
		SMA	LMA	MAST ARM	POLE		ø	ARROW		
(A)	29–5–70	55'	12'	MAS MAS	SV–2–T**				120	EXISTING R73–2(CA) SIGN TO REMAIN.
(B)	1–B				TV–1–T	SP–1–T	2	→		
(C)	15		12'		SV–3–TA	SP–2–T			120	EXISTING SNS (Hamilton Av) TO REMAIN.
(D)	APS POST						2 3	← ←		
(E)	29–5–70	55'	12'	MAS MAS	SV–1–T				120	
(F)	1–B				TV–1–T	SP–2–T	3 6	← →		
(G)	15		12'		SV–1–T		6	←	120	
(H)	1–B				TV–2–T	SP–1–T				

◯ PROPOSED SIGNAL POLE

(◯) EXISTING SIGNAL POLE

* REMOVE EXISTING PPB. FURNISH AND INSTALL NEW APS.

** INSTALL NEW EQUIPMENT ON EXISTING POLE

\+ INSTALL NEW APS IN A POSITION IN WHICH THE ARROW IS PARALLEL TO THE CROSSWALK

20' 0' 20' 40'

GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

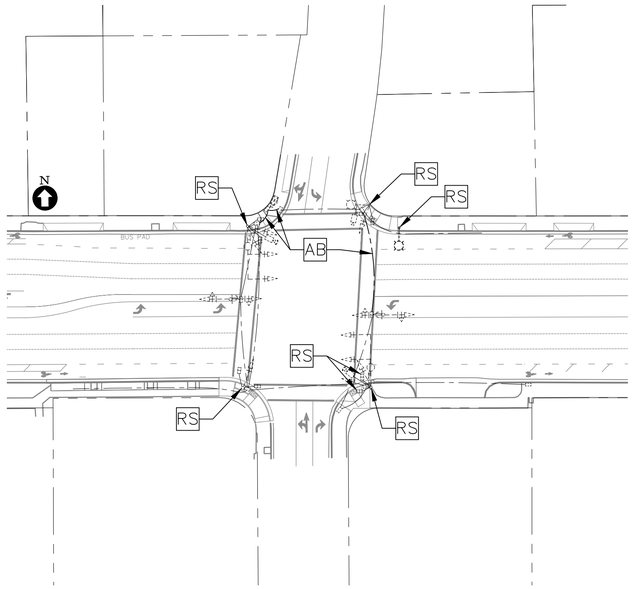
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23–BB
EQUIPMENT SCHEDULE – HAMILTON AVE AND EDEN AVE

CAMPBELL, CALIFORNIA

SCALE: 1"=20'

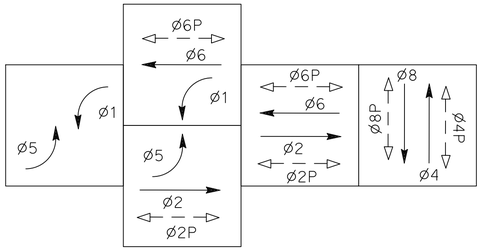
SHEET: TS-5

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EXISTING EQUIPMENT TO BE REMOVED AND SALVAGED:

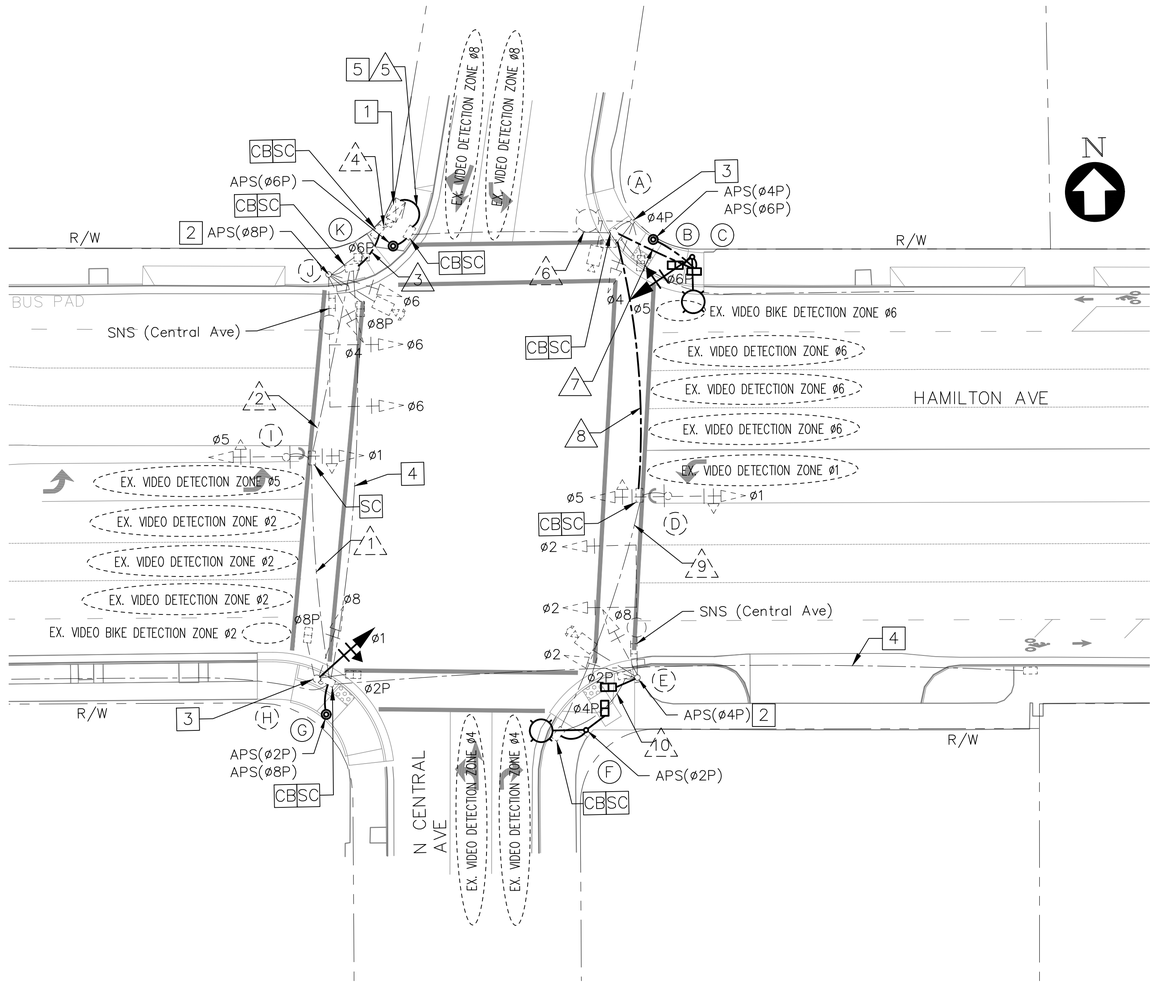
1. TYPE 15 POLE
2. 8 EXISTING PEDESTRIAN PUSH BUTTONS
3. 2 EXISTING PEDESTRIAN SIGNAL HEADS



EXISTING PHASE DIAGRAM TO REMAIN

PROJECT NOTES:

1. EXISTING CONTROLLER CABINET, SIDE-MOUNTED BBS CABINET, AND TYPE II SERVICE CABINET TO REMAIN.
2. REMOVE EXISTING PPB AND INSTALL NEW APS.
3. REMOVE EXISTING PPB AND PLUG THE HOLES.
4. EX. 3"C, MT
5. CONTRACTOR TO INSTALL AN EXPOSED WATERPROOF 3" GALVANIZED RIGID STEEL RISER, MEETING THE INDUSTRIAL STANDARD, THROUGH THE NORTH SIDE OF THE CONTROLLER CABINET TO THE END OF CONDUIT #5, ENTIRE CONNECTION SHALL BE WATERPROOF FROM END TO END TO ENSURE WATERTIGHT CONDITION INSIDE THE CONDUIT AND CABINET.



20' 0' 20' 40'
GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
SIGNAL MODIFICATION PLAN - HAMILTON AVE AND CENTRAL AVE

CITY OF CAMPBELL
THE ORCHARD CITY
CAMPBELL, CALIFORNIA

SCALE:
1"=20'

SHEET:
TS-6

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CONDUCTOR AND CONDUIT SCHEDULE*

AWG OR CABLE	CONDUCTOR RUN	/1\	/2\	3	/4\	5	/6\	7	/8\	/9\	/10\
No. 14	No. 14 CONDUCTORS										
	ø1	3	3	3	3	3	3		3		
	ø2					3	3		3	3	3
	ø4			3	3	3	3				
	ø5		3	3	3	3	3	3	3		
	ø6			3	3						
	ø8	3	3	3	3	3	3		3	3	3
	ø2P	2	2	2	2	2	2		2	2	2
	ø4P					2	2		2	2	
	ø6P			2	2	2	2	2			
	ø8P	2	2	2	2						
	APS(ø2P)	1	1	1	1	1	1		1	1	
	APS(ø4P)					2	2	1	1	1	1
	APS(ø6P)					2	1	1			
	APS(ø8P)	1	1	2	2						
	APS COMMON	2	2	3	3	5	4	2	2	2	1
	SPARES	3	3	3	3	3	3	3	3	3	3
	TOTAL No. 14	17	20	30	30	34	32	12	23	17	13
No. 8	No. 8 CONDUCTORS										
	SIGNAL NEUTRAL	1	1	1	1	1	1	1	1	1	1
	LUMINAIRE			2	2	2	2	2	2	2	2
	GROUND	1	1	1	1	1	1	1	1	1	1
	TOTAL No. 8	2	2	4	4	4	4	4	4	4	4
VIDEO DETECTION CABLE											
	VIDEO DETECTION POWER CABLE (SPARES)			1	3	2	2		1	1	1
	VIDEO DETECTION CABLE (CAT5E)			1	2	1	1		1	1	1
	VIDEO DETECTION SIGNAL CABLE (SPARES)			1	3	2	2		1	1	1
	% FILL	15	17	19	30	24	24	16	17	35	32
	CONDUIT SIZE (INCHES)	2	2	3	3	3	3	2	3	2	2

/1\ EXISTING CONDUIT

/1\ NEW/MODIFIED CONDUIT

* REMOVE ALL EXISTING CONDUCTORS AND CABLES. INSTALL ALL NEW CONDUCTORS AND CABLES PER CONDUCTOR SCHEDULE SHOWN ABOVE.

POLE AND EQUIPMENT SCHEDULE

LOCATION	STANDARD	SIGNAL		VEH SIG MTG		PED SIGNAL MTG	APS*+		LED LUMINAIRE (WATTS)	SPECIAL REQUIREMENTS
		SMA	LMA	MAST ARM	POLE		ø	ARROW		
(A)	15		12'		SV-1-T	SP-2-T			105	EXISTING VIDEO DETECTION CAMERA TO REMAIN. REMOVE EXISTING PEDESTRIAN PUSH BUTTONS AND PLUG THE HOLES.
(B)	APS POST						4 6	→ ←		
(C)	15TS		15'		SV-1-T	SP-1-T			105	
(D)	1-B				TV-2-T					
(E)	19-3-70	30'	12'	MAT MAT	SV-2-TA	SP-2-T	4	←	105	EXISTING SNS (Central Ave) TO REMAIN.
(F)	15TS		12'				2	→	105	
(G)	APS POST						2 8	← ←		
(H)	1-B				TV-2-T**	SP-2-T				REMOVE EXISTING PEDESTRIAN PUSH BUTTONS AND PLUG THE HOLES.
(I)	1-B				TV-2-T					
(J)	19-3-70	30'	12'	MAT MAT	SV-2-TA	SP-2-T	8 6	← →	105	EXISTING SNS (Central Ave) TO REMAIN.
(K)	APS POST						6	→		

◯ PROPOSED SIGNAL POLE

(◯) EXISTING SIGNAL POLE

* REMOVE EXISTING PPB. FURNISH AND INSTALL NEW APS.

** INSTALL NEW SIGNAL EQUIPMENT ON EXISTING SIGNAL POLE.

\+ INSTALL NEW APS IN A POSITION IN WHICH THE ARROW IS PARALLEL TO THE CROSSWALK

20' 0' 20' 40'

GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
EQUIPMENT SCHEDULE - HAMILTON AVE AND CENTRAL AVE

CITY OF CAMPBELL
CAMPBELL, CALIFORNIA

SCALE: 1"=20'

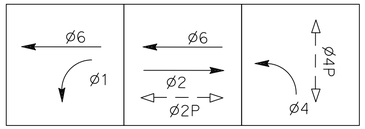
SHEET: TS-7

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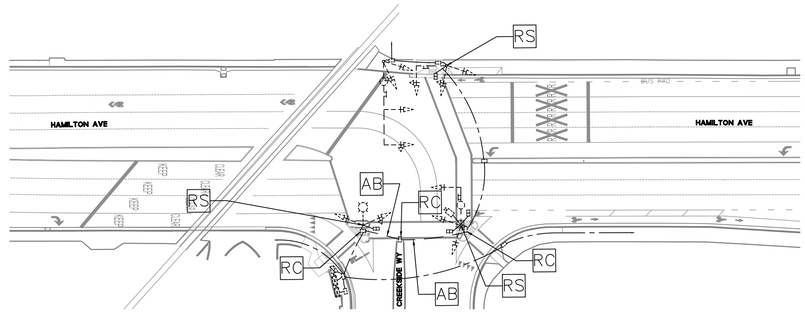
PROJECT NOTES:

1. EXISTING CONTROLLER CABINET TO REMAIN.
2. REMOVE EXISTING PPB AND INSTALL NEW APS.
3. REPLACE EXISTING PULL BOX WITH NEW NO. 5 PULL BOX.
4. ADJUST PULL BOX TO BE OUTSIDE OF TRUNCATED DOMES.

STEADY DEMAND SEQUENCE



EXISTING PHASE DIAGRAM (TO REMAIN)



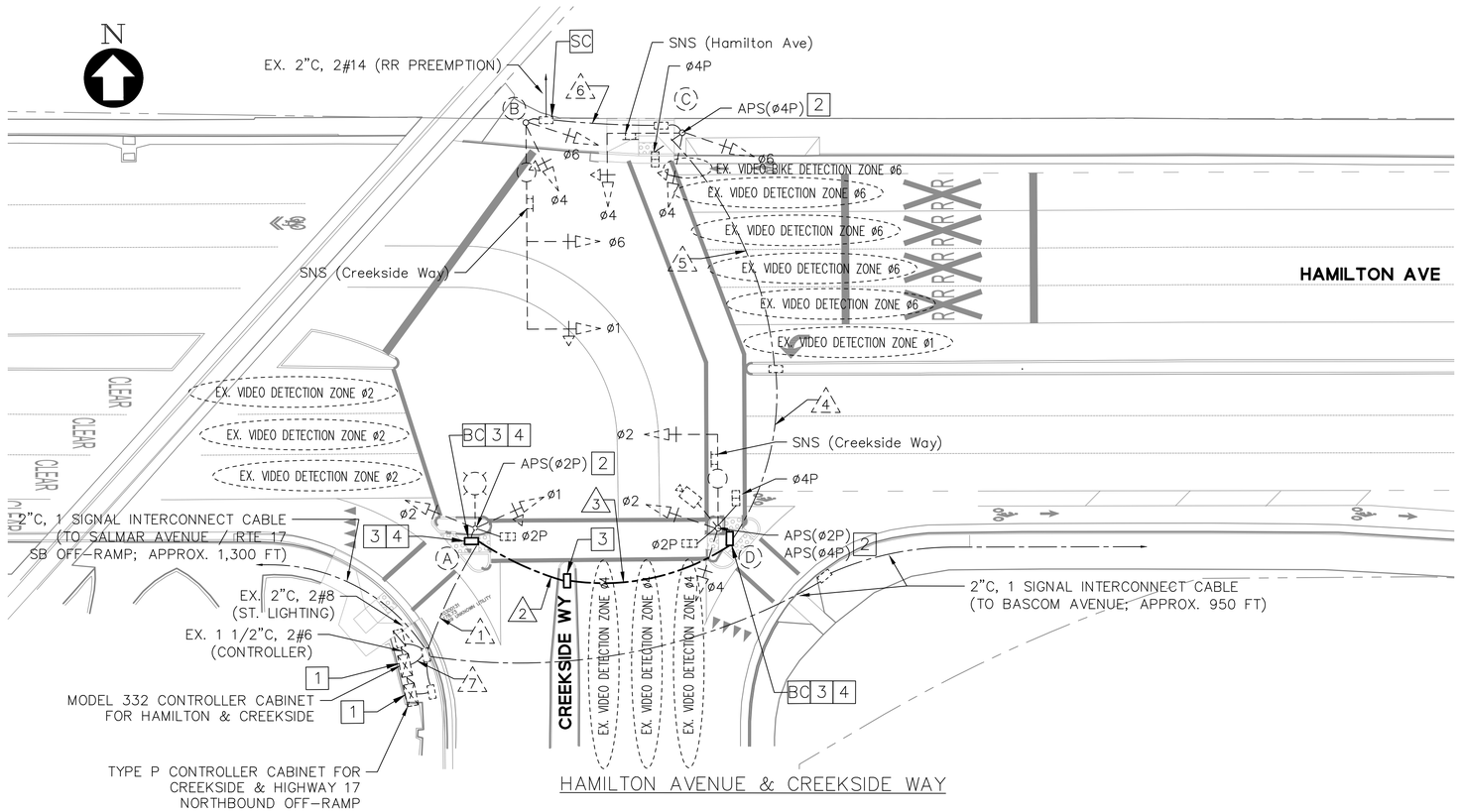
SCALE 1" = 50'

EXISTING EQUIPMENT TO BE REMOVED AND SALVAGED:

1. 4 EXISTING PEDESTRIAN PUSH BUTTONS

EXISTING EQUIPMENT TO BE REMOVED AND BECOME PROPERTY OF CONTRACTOR:

1. 3 EXISTING PULL BOXES



HAMILTON AVENUE & CREEKSIDE WAY

20' 0' 20' 40'
GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET PROJECT NO. 23-BB
SIGNAL MODIFICATION PLAN - HAMILTON AVE AND CREEKSIDE WY

CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: TS-8

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CONDUCTOR SCHEDULE*

AWG OR CABLE	CONDUCTOR RUN	△1	△2	△3	△4	△5	△6	△7
No. 14	No. 14 CONDUCTORS							
	ø1	3	3	3	3	3	3	3
	ø2	3	3	3				3
	ø4	3	3	3	3	3	3	3
	ø6	3	3	3	3	3	3	3
	ø2P	2	2	2				2
	ø4P	2	2	2	2	2		2
	APS(ø2P)	2	1	1				2
	APS(ø4P)	2	2	2	1	1		2
	APS COMMON	4	3	3	1	1		4
	RAILROAD PREMPTION	2	2	2	2	2	2	4
	SPARES	3	3	3	3	3	3	3
	SIGNAL NEUTRAL	3	3	3	3	3	3	3
	TOTAL No. 14	32	30	30	21	21	17	34
No. 8	No. 8 CONDUCTORS							
	LUMINAIRE NEUTRAL	1	1	1	1	1	1	
	LUMINAIRE	2	2	2	2	2	2	
	TOTAL No. 8	3	3	3	3	3	3	
VIDEO DETECTION CABLE								
	VIDEO DETECTION POWER CABLE (SPARES)	3	3	3	1	1	1	3
	VIDEO DETECTION CABLE (CAT5E)	1	1	1				1
	VIDEO DETECTION SIGNAL CABLE (SPARES)	3	3	3	1	1	1	3
	% FILL	14	13	13	18	29	26	6
	CONDUIT SIZE (INCHES)	2-3	2-3	2-3	2 1/2	2	2	3-3.5

△ EXISTING CONDUIT

△ NEW/MODIFIED CONDUIT

* = REMOVE ALL EXISTING CONDUCTORS/CABLES AND INSTALL ALL NEW CONDUCTORS/CABLES

POLE AND EQUIPMENT SCHEDULE

LOCATION	STANDARD	SIGNAL		VEH SIG MTG		PED SIGNAL MTG	APS*+		LED LUMINAIRE (WATTS)	SPECIAL REQUIREMENTS
		SMA	LMA	MAST ARM	POLE		ø	ARROW		
(A)	15		12'		SV-2-TA	SP-1-T	2	→	105	
(B)	29-5-70	55'	15'	MAS MAS	SV-2-TA				105	EXISTING SNS (Creekside Way) TO REMAIN.
(C)	16-2-70	20'		MAS	SV-2-TA	SP-1	4	→		EXISTING SNS (Hamilton Ave) TO REMAIN.
(D)	19-2-70	25'	15'	MAS	SV-2-TA	SP-1 SP-1	2 4	← →	105	EXISTING SNS (Creekside Way) TO REMAIN.

◯ PROPOSED SIGNAL POLE

◌ EXISTING SIGNAL POLE

* REMOVE EXISTING PPB. FURNISH AND INSTALL NEW APS.

\+ INSTALL NEW APS IN A POSITION IN WHICH THE ARROW IS PARALLEL TO THE CROSSWALK

20' 0' 20' 40'

GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

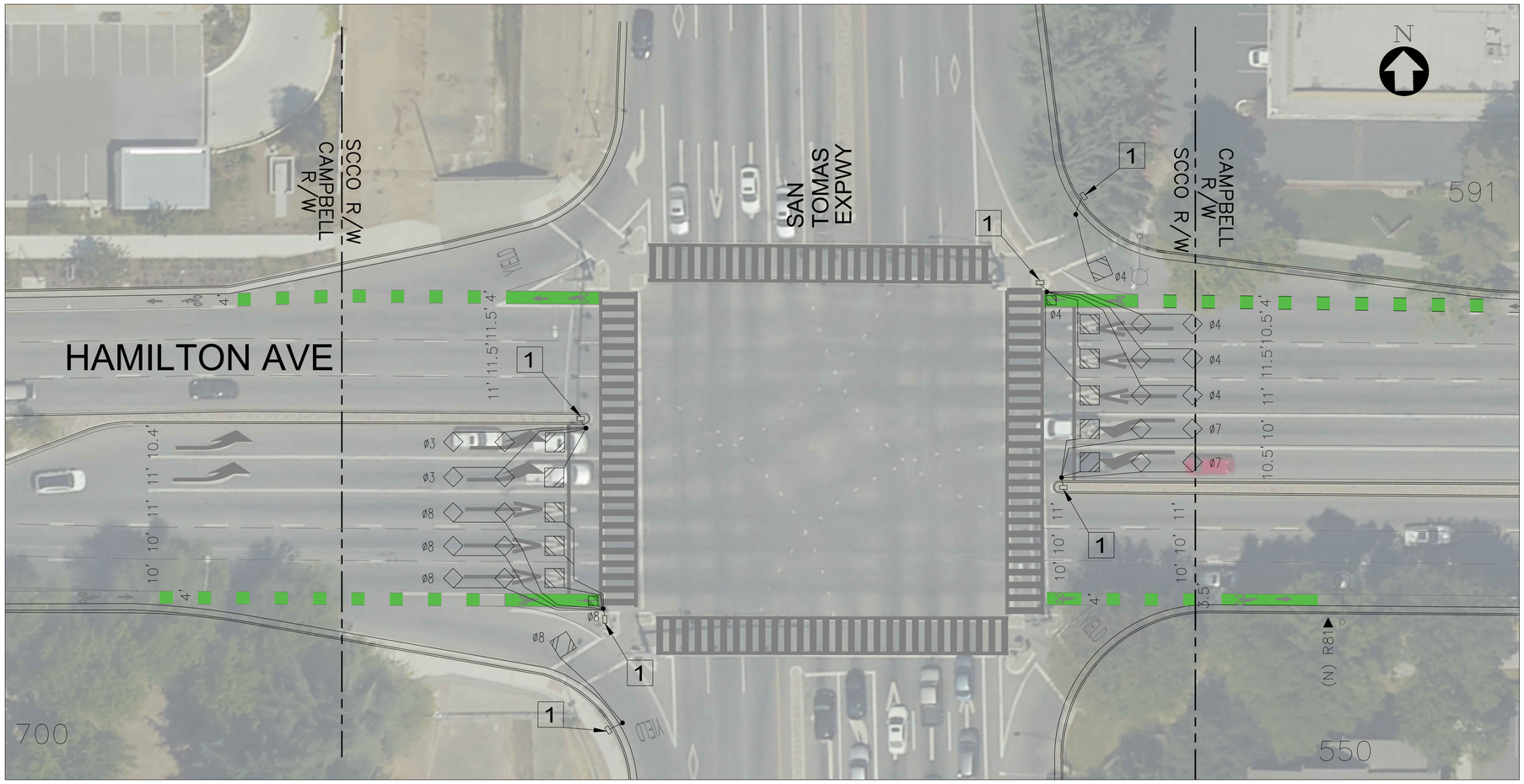
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
EQUIPMENT SCHEDULE - HAMILTON AVE AND CREEKSIDE WY

CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: TS-9

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LEGEND (THIS SHEET ONLY):

- (E) PULL BOX TO REMAIN
- (N) DETECTOR HANDHOLE
- (N) CALTRANS TYPE D LOOP
- (N) CALTRANS TYPE B LOOP
- (N) CALTRANS MODIFIED TYPE D LOOP (3' x 3')

CONSTRUCTION NOTES:

1. DISCONNECT EXISTING DETECTOR LEAD-IN CABLE FROM OLD LOOP INSIDE EXISTING PULL BOX. RECONNECT EXISTING DETECTOR LEAD-IN CABLE TO NEW LOOP. TEST ALL NEW LOOPS INSIDE CONTROLLER CABINET.

NOTES:

1. REPLACE EXISTING DETECTOR HANDHOLES SHOWN IN THIS PLAN WITH NEW DETECTOR HANDHOLES AT SAME LOCATION OF EXISTING DETECTOR HANDHOLES. CONNECT TO EXISTING CONDUITS ENTERING EXISTING PULL BOXES.
2. REFER TO TS-11 FOR APPLICABLE VEHICLE AND BICYCLE LOOP DETECTOR DETAILS.
3. LOOP LAYOUT SHALL BE REVIEWED AND APPROVED BY THE ENGINEER / COUNTY REPRESENTATIVE PRIOR TO FINAL INSTALLATION.

No.	Revision	Date	By	Chkd

Date: 05-09-25
Drawn By: JS/RA
Designed By: JS/RA

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

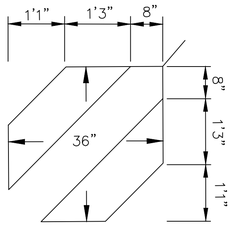
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET PROJECT NO. 23-BB

LOOP REPLACEMENT - HAMILTON AVE AT SAN TOMAS EXPWY

CAMPBELL, CALIFORNIA

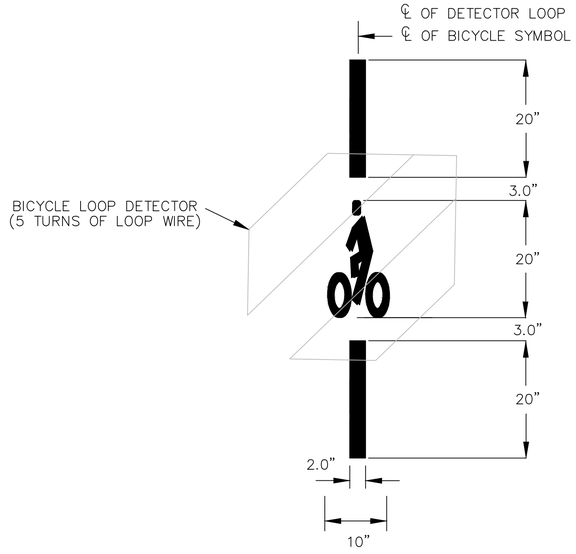
SCALE: 1"=20'

SHEET: TS--10



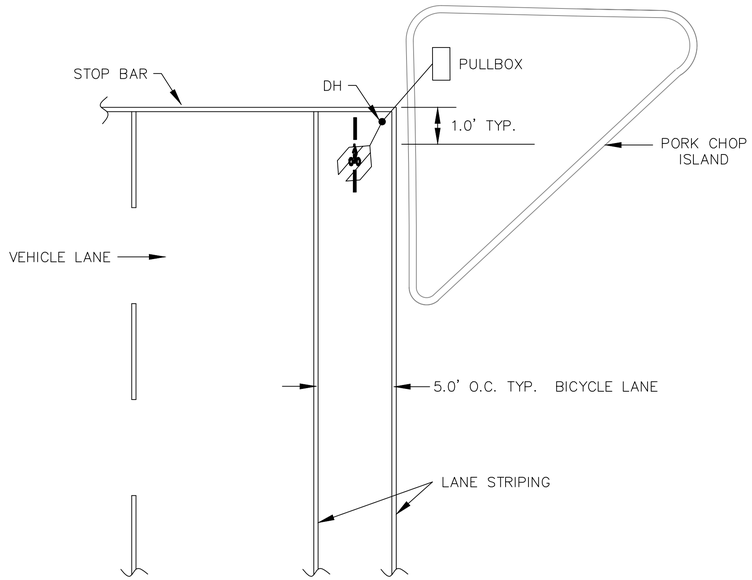
NOTES :
A1) LOOP DETECTOR TO BE INSTALLED WITH FIVE (5) TURNS OF LOOP WIRE.
A2) REFER TO COUNTY STANDARD DETAIL E/5A FOR OTHER APPLICABLE DETAILS.
A3) LOOP WINDING PATTERN SHALL CONFORM TO WINDING DETAIL SHOWN ON 2015 CALTRANS STANDARD PLAN ES-5B FOUND IN THE PROJECT SPECIFICATIONS.
A4) ROUND CORNERS OF ACUTE ANGLE SAW CUT TO PREVENT DAMAGE TO CONDUCTORS

A / TS-11 INDUCTIVE BICYCLE LOOP DETECTOR (MODIFIED TYPE "D")



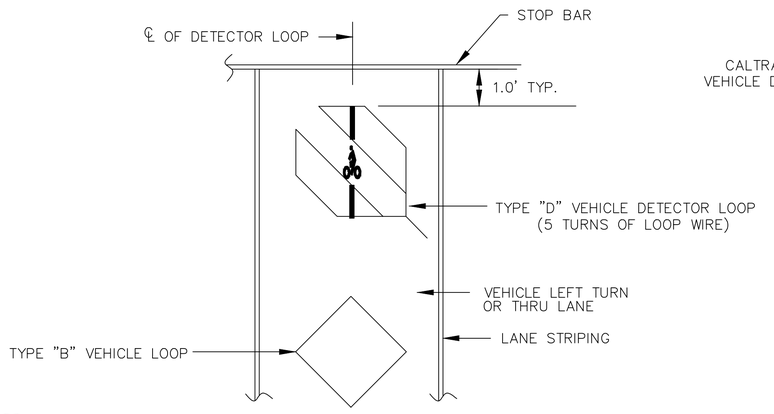
NOTES :
B1) REFER TO SHEET A24C OF THE STATE STANDARD PLANS FOR OTHER APPLICABLE REQUIREMENTS.
B2) BICYCLE LOOP DETECTOR SYMBOL SHALL BE THERMOPLASTIC AND CONFORM TO SECTION 84 "TRAFFIC STRIPES AND PAVEMENT MARKINGS" OF THE COUNTY STANDARD SPECIFICATIONS.

B / TS-11 BICYCLE LOOP DETECTOR SYMBOL (PAVEMENT MARKING) AND PLACEMENT

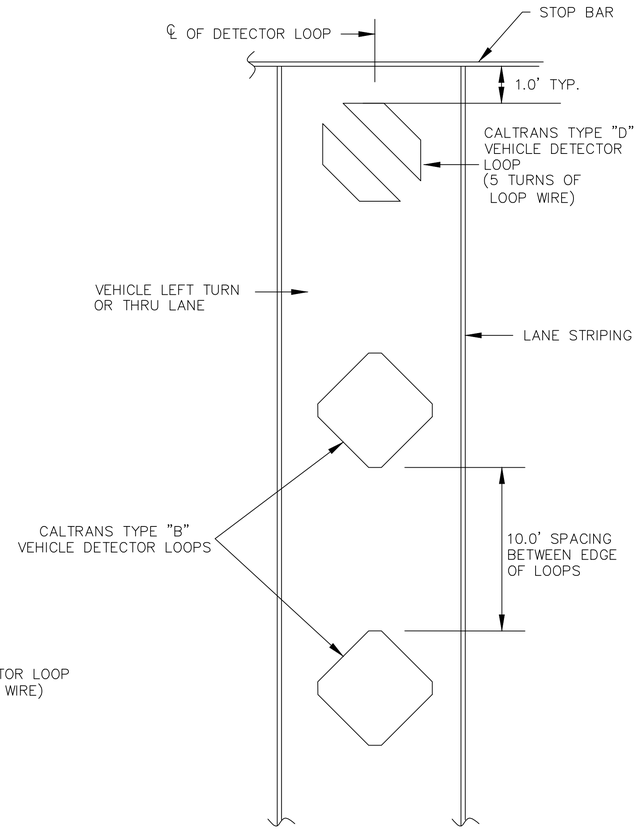


NOTE :
C1) BICYCLE LOOP DETECTOR SHALL BE CENTERED TO BICYCLE LANE.

C / TS-11 TYPICAL BICYCLE LOOP INSTALLATION



D / TS-11 BICYCLE LOOP DETECTOR SYMBOL PLACEMENT IN VEHICLE LANE



E / TS-11 VEHICLE DETECTOR LOOP LAYOUT

No.	Revision	Date	By	Chkd

Date: 05-09-25
Drawn By: JS
Designed By: JS

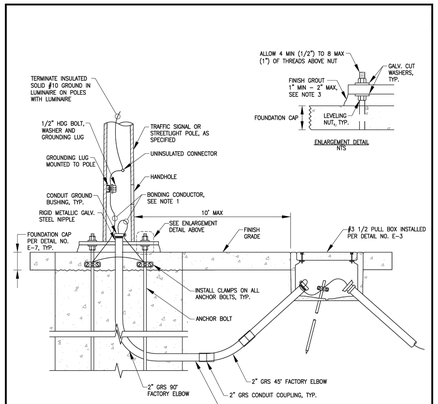
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
HAMILTON AVE AT SAN TOMAS EXPWY - LOOP DETAILS

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: TS-11

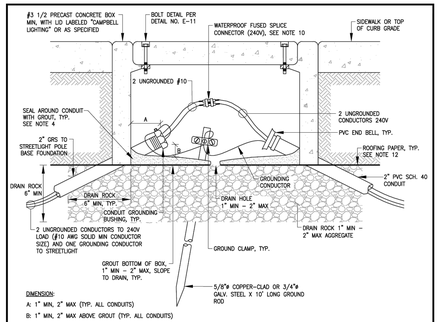


NOTES:
1. BONDING CONDUCTOR SHALL BE CONTINUOUS, OR A C-TAP CONNECTOR MAY BE USED, WITH 3" OF SLACK NEAR GROUNDING LUG. BONDING CONDUCTOR SHALL CONNECT TO CONDUIT GROUNDING BUSHING, ALL ANCHOR BOLT GROUNDING CLAMPS (4 EACH), THEN POLE TO GROUNDING LUG.
2. STEEL SPIRAL, VERTICAL BARS, INSPECTION TUBES, AND ANCHOR PLATE WITH HEAVY NUTS ARE NOT SHOWN.
3. GROUT SHALL BE PRECISION NON-SHRINK CONSTRUCTION TYPE.
4. ALL BONDING AND GROUNDING CONDUCTORS SHALL BE BARE STRANDED COPPER #8 AWG UNLESS NOTED OTHERWISE.
5. GROUND CLAMP MUST BE SILICON BRONZE WITH COPPER FASTENERS AND BE NRTL CERTIFIED FOR CONCRETE ENCASEMENT OR DIRECT BURIAL.

CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		POLE BONDING, GROUNDING, AND GROUTING	DETAIL NO.
APPROVED BY: _____ DATE: _____ AMY GLAY, P.E. CITY ENGINEER		SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/E2 NTS	E-2

POLE BONDING, GROUNDING AND GROUTING

1 TS-12



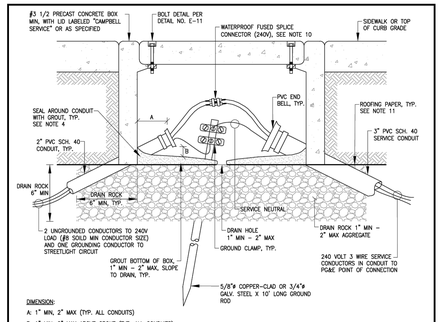
DIMENSION:
A: 1" MIN, 2" MAX (TYP. ALL CONDUITS)
B: 1" MIN, 2" MAX ABOVE GROUT (TYP. ALL CONDUITS)

NOTES:
1. PULL BOX PLACEMENT AND SPACING PER DETAIL NO. E-1, NO. E-2, AND NO. E-7.
2. PROVIDE 3' OF SLACK IN ALL CONDUCTORS (SLACK NOT SHOWN).
3. STREETLIGHT CONDUCTORS SHALL BE AS SHOWN (240V), OR AS SPECIFIED.
4. GROUT SHALL BE PRECISION NON-SHRINK CONSTRUCTION TYPE.
5. CONDUIT ENTERING BOX SHALL BE AT A 45° ANGLE.
6. PULL BOX DIMENSIONS AND BOLT DETAILS SHALL BE PER DETAIL NO. E-11.
7. WATERPROOF (HEAT-SHRINK) SPLICE SHALL BE PER CALTRANS ES-13A ELECTRICAL SYSTEMS (SPLICE INSTALLATION METHODS DETAILS). SPLICE NOT SHOWN.
8. ALL BONDING AND GROUNDING CONDUCTORS SHALL BE BARE STRANDED COPPER #8 AWG UNLESS NOTED OTHERWISE.
9. ALL NEUTRAL AND UNGROUNDED CONDUCTORS SHALL BE THW OR TW SOLID COPPER #8 AWG UNLESS NOTED OTHERWISE.
10. WATERPROOF FUSED SPLICE CONNECTOR SHALL BE EATON BUSSMANN TRON HEB-AA (120V) OR HEX-AA (240V), FERRAZ SHAWMUT FEB-11-11, FEX-11-11, OR APPROVED EQUAL. FUSE(S) SHALL BE BUSSMANN BAF6 (6 AMP), FERRAZ OTX6, OR APPROVED EQUAL. INSULATE TERMINALS PER NOTE 7.
11. CONTINUOUS GROUND WIRE WITHOUT A GROUND ROD MAY BE PROVIDED IN STREETLIGHT PULL BOXES WITHOUT A CONDUIT RUN IN FOUNDATIONS.
12. EDGES OF THE ROOFING PAPER SHALL EXTEND BEYOND THE EDGES OF THE PULL BOX.
13. GROUND CLAMP MUST BE SILICON BRONZE WITH COPPER FASTENERS AND BE NRTL CERTIFIED FOR CONCRETE ENCASEMENT OR DIRECT BURIAL.

CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		UNDERGROUND STREETLIGHT PULL BOX	DETAIL NO.
APPROVED BY: _____ DATE: _____ AMY GLAY, P.E. CITY ENGINEER		SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/E3 NTS	E-3

UNDERGROUND STREETLIGHT PULL BOX

2 TS-12



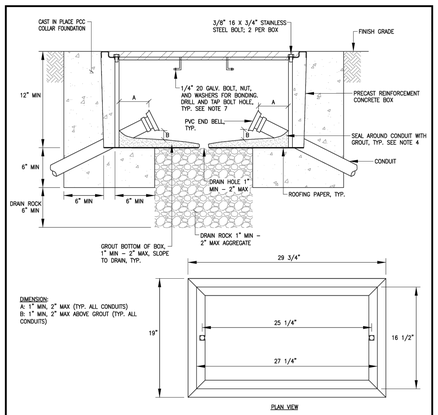
DIMENSION:
A: 1" MIN, 2" MAX (TYP. ALL CONDUITS)
B: 1" MIN, 2" MAX ABOVE GROUT (TYP. ALL CONDUITS)

NOTES:
1. PLACE SERVICE PULL BOX WITHIN 2 FEET OF PG&E SERVICE POINT PER DETAIL NO. E-1 AND NO. E-7.
2. PROVIDE 3' OF SLACK IN ALL CONDUCTORS (SLACK NOT SHOWN).
3. STREETLIGHT CONDUCTORS SHALL BE AS SHOWN (240V), OR AS SPECIFIED.
4. GROUT SHALL BE PRECISION NON-SHRINK CONSTRUCTION TYPE.
5. CONDUIT ENTERING BOX SHALL BE AT A 45° ANGLE.
6. PULL BOX, CONDUIT, DIMENSIONS, AND BOLT DETAILS SHALL BE PER DETAIL NO. E-3 AND NO. E-11.
7. WATERPROOF (HEAT-SHRINK) SPLICE SHALL BE PER CALTRANS ES-13A ELECTRICAL SYSTEMS (SPLICE INSTALLATION METHODS DETAILS). SPLICE NOT SHOWN.
8. ALL BONDING AND GROUNDING CONDUCTORS SHALL BE BARE STRANDED COPPER #8 AWG UNLESS NOTED OTHERWISE.
9. ALL NEUTRAL AND UNGROUNDED CONDUCTORS SHALL BE THW OR TW SOLID COPPER #8 AWG UNLESS NOTED OTHERWISE.
10. WATERPROOF FUSED SPLICE CONNECTOR SHALL BE EATON BUSSMANN TRON HEB-AA (120V) OR HEX-AA (240V), FERRAZ SHAWMUT FEB-11-11, FEX-11-11, OR APPROVED EQUAL. FUSE(S) SHALL BE BUSSMANN BAF6 (6 AMP), FERRAZ OTX6, OR APPROVED EQUAL. INSULATE TERMINALS PER NOTE 7.
11. EDGES OF THE ROOFING PAPER SHALL EXTEND BEYOND THE EDGES OF THE PULL BOX.
12. GROUND CLAMP MUST BE SILICON BRONZE WITH COPPER FASTENERS AND BE NRTL CERTIFIED FOR CONCRETE ENCASEMENT OR DIRECT BURIAL.

CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		UNDERGROUND STREETLIGHT SERVICE	DETAIL NO.
APPROVED BY: _____ DATE: _____ AMY GLAY, P.E. CITY ENGINEER		SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/E4 NTS	E-4

UNDERGROUND STREETLIGHT SERVICE

3 TS-12



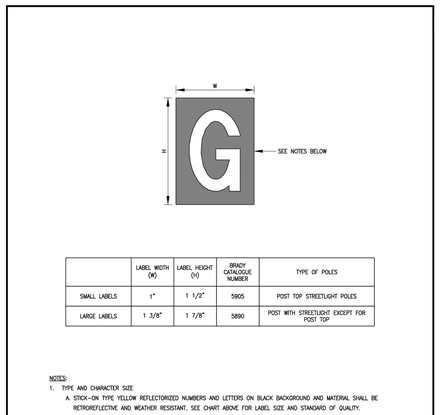
DIMENSION:
A: 1" MIN, 2" MAX (TYP. ALL CONDUITS)
B: 1" MIN, 2" MAX ABOVE GROUT (TYP. ALL CONDUITS)

NOTES:
1. APPLICATION: PLACED IN CONDUIT RUNS IN AREAS WHERE BOX IS SUBJECT TO VEHICULAR TRAFFIC LOAD.
2. PROVIDE 3' OF SLACK IN ALL CONDUCTORS (SLACK NOT SHOWN).
3. GROUT SHALL BE PRECISION NON-SHRINK CONSTRUCTION TYPE.
4. CONDUIT ENTERING BOX SHALL BE AT A 45° ANGLE.
5. PULL BOX, CONDUIT, DIMENSIONS, AND APPURTENANCES SHALL BE PER DETAIL NO. E-3 AND NO. E-11.
6. BOLT TYPE SHALL BE 1/2" HEX BOLT.
7. CONNECT 3/0" BRAIDED COPPER BONDING JUMPER WITH FERRULES RATED 90A (MINIMUM) BETWEEN STEEL LID AND GROUND ROD. JUMPER, GROUND ROD, AND GROUND CLAMP MUST BE INSTALLED (NOT SHOWN).

CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		UNDERGROUND STREETLIGHT PULL BOX – TRAFFIC	DETAIL NO.
APPROVED BY: _____ DATE: _____ AMY GLAY, P.E. CITY ENGINEER		SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/E6 NTS	E-6

UNDERGROUND STREETLIGHT PULL BOX - TRAFFIC

4 TS-12



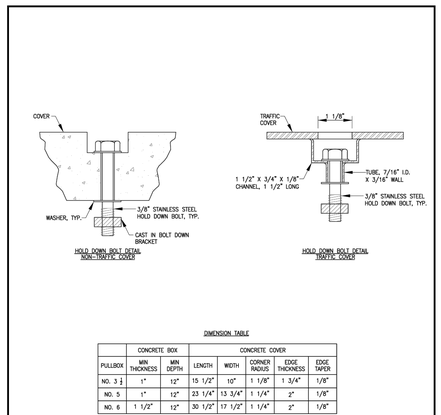
	LABEL WIDTH (W)	LABEL HEIGHT (H)	BRADY CATALOGUE NUMBER	TYPE OF POLES
SMALL LABELS	1"	1 1/2"	5905	POST TOP STREETLIGHT POLES
LARGE LABELS	1 3/8"	1 7/8"	5890	POST WITH STREETLIGHT EXCEPT FOR POST TOP

NOTES:
1. TYPE AND CHARACTER SIZE
   A. STICK-ON TYPE YELLOW REFLECTORIZED NUMBERS AND LETTERS ON BLACK BACKGROUND AND MATERIAL SHALL BE RETROREFLECTIVE AND WEATHER RESISTANT. SEE CHART ABOVE FOR LABEL SIZE AND STANDARD OF QUALITY.
2. INSTALLATION
   A. CLEAN THE POLE WITH ISOPROPYL ALCOHOL PRIOR TO INSTALLING LABELS.
   B. LABELS ARE TO BE PLACED FACING ONCOMING TRAFFIC, BOTTOM OF LABEL SHALL BE 10' ABOVE FINISH GRADE.
   C. LABELS ARE TO BE ALIGNED USING LEFT EDGE OF LABELS. LABELS SHALL OVERLAP WITH BOTTOM EDGE OF HIGHER LABEL OVER THE TOP EDGE OF LOWER LABEL.
3. MANUFACTURER
   A. BRADY LABEL COMPANY OR APPROVED EQUAL.

CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		POLE LABELS	DETAIL NO.
APPROVED BY: _____ DATE: _____ AMY GLAY, P.E. CITY ENGINEER		SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/E10 NTS	E-10

POLE LABELS

5 TS-12



DIMENSION TABLE

PULLBOX	CONCRETE BOX MIN THICKNESS	CONCRETE BOX MIN DEPTH	CONCRETE COVER LENGTH	CONCRETE COVER WIDTH	CONCRETE COVER CORNER RADIUS	CONCRETE COVER EDGE THICKNESS	CONCRETE COVER EDGE TAPER
NO. 3 1/2	1"	12"	15 1/2"	10"	1 1/8"	1 3/4"	1/8"
NO. 5	1"	12"	23 1/4"	13 3/4"	1 1/4"	2"	1/8"
NO. 6	1 1/2"	12"	30 1/2"	17 1/2"	1 1/4"	2"	1/8"

NOTE:
THE INSIDE DIMENSIONS OF THE TOP OF THE BOX MUST BE 1/8" GREATER THAN THE RESPECTIVE DIMENSIONS OF THE COVER.

CITY OF CAMPBELL PUBLIC WORKS DEPARTMENT		PULL BOX DIMENSIONS AND BOLT DETAILS	DETAIL NO.
APPROVED BY: _____ DATE: _____ AMY GLAY, P.E. CITY ENGINEER		SHAREPOINT/PUBLICWORKS/DOCUMENTS/DETAILS/CAD/E11 NTS	E-11

PULL BOX DIMENSIONS AND BOLT DETAILS

6 TS-12

No.	Revision	Date	By	Chkd

Date: 04-24-25
Drawn By: RA
Designed By: RA

CITY OF CAMPBELL
PUBLIC WORKS DEPARTMENT

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
TRAFFIC SIGNAL - ELECTRICAL DETAILS

CITY OF CAMPBELL · THE ORCHARD CITY · ESTD 1952
CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: TS-12

Santa Clara Valley
Urban Runoff
Pollution Prevention Program

Construction Best Management Practices (BMPs)

West Valley Clean Water Authority
Campbell • Los Gatos • Monte Sereno • Saratoga

Construction projects are required to implement year-round stormwater BMPs.

Materials, Waste, and Sediment Management



Construction Entrances and Perimeter

- ❑ Establish and maintain effective perimeter controls, and stabilize all construction entrances and exits to sufficiently control erosion, sediment discharges and tracking of sediment offsite.
- ❑ Sweep or vacuum immediately any tracking of sediment offsite and secure sediment source to prevent further tracking. Never hose down streets or sidewalks.

Non-Hazardous Materials and Dust Control

- ❑ Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or when they are not in use. Weigh down and secure tarps for wind protection.
- ❑ Keep materials off the ground (e.g., store bagged materials on wood pallets, store loose materials on tarps not pavement, etc.).
- ❑ Use captured water from other activities (e.g., testing fire lines) for dust control.
- ❑ Ensure dust control water doesn't leave site or discharge to storm drains. Only use enough to control dust. Contain and dispose of excess water properly.

Hazardous Materials

- ❑ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with City, County, State and Federal regulations.
- ❑ Store hazardous materials and wastes in watertight containers, store in appropriate secondary containment, and cover them at the end of every workday, during wet weather or when rain is forecast.
- ❑ Follow manufacturer's application instructions for hazardous materials and do not use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ❑ Arrange for appropriate disposal of all hazardous wastes. Have all pertinent Safety Data Sheets (i.e., SDS/MSDS/PSDS) onsite.

Waste Management

- ❑ Inform trash-hauling contractors that you will accept only watertight dumpsters for onsite use. Repair/replace any dumpster that is not watertight or leaking.
- ❑ Cover and maintain dumpsters. Check frequently for leaks. Place dumpsters under roofs or cover with tarps or plastic sheeting secured around the outside of the dumpster. If the dumpster leaks, place a plastic liner underneath the dumpster to collect leaks. Never clean out a dumpster by hosing it down on the construction site – clean with dry methods, clean offsite or replace dumpster.
- ❑ Place portable toilets and hand wash stations away from storm drains. Make sure they are equipped with containment pans (secondary containment) and are in good working order. Check frequently for leaks.
- ❑ Dispose of all wastes and demolition debris properly per SDS and applicable regulations. Recycle or compost materials and wastes as feasible and appropriate, including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation.
- ❑ Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste per SDS.
- ❑ Keep site free of litter (e.g., lunch items, water bottles, cigarette butts and plastic packaging).
- ❑ Prevent litter from uncovered loads by covering loads that are being transported to and from site.

Equipment Management & Spill Control



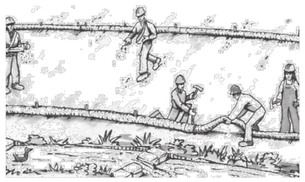
Vehicle and Equipment Maintenance

- ❑ Designate an area of the construction site equipped with appropriate BMPs, well away from creeks or storm drain inlets, for auto and equipment parking and storage.
- ❑ Perform major maintenance, repair jobs, and vehicle/equipment washing offsite.
- ❑ If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- ❑ If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or creeks.
- ❑ Do not clean vehicles or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment, and do not use diesel oil to lubricate equipment or parts onsite.

Spill Prevention and Control

- ❑ Always keep spill cleanup materials (e.g., rags, absorbents, and cat litter) available at the construction site.
- ❑ Maintain all vehicles and heavy equipment. Inspect frequently for leaks. Use drip pans to catch leaks until repairs are made.
- ❑ Clean up leaks, drips and other spills immediately using dry cleanup methods whenever possible (absorbent materials, cat litter and/or rags) and dispose of cleanup materials properly.
- ❑ Sweep up spilled dry materials immediately. Never attempt to "wash them away" with water or bury them.
- ❑ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- ❑ Report significant spills to the appropriate local spill response agencies immediately. If the spill poses a significant hazard to human health and safety, property or the environment, report it to the State Office of Emergency Services at (800) 852-7550 (24 hours).

Earthmoving



Grading and Earthwork

- ❑ Schedule grading and excavation work during dry weather.
- ❑ Prevent sediment from migrating offsite and protect storm drain inlets, drainage courses and creeks by installing and maintaining appropriate BMPs tailored to the site's specific characteristics and conditions. Examples of such BMPs may include silt fences, gravel bags, fiber rolls, temporary swales, compost socks, etc. Ensure that BMPs are installed in accordance with manufacturer's specifications and properly maintained throughout the duration of construction activities.
- ❑ Stabilize all denuded areas and install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- ❑ Remove existing vegetation only when necessary. Plant temporary vegetation to prevent erosion on slopes or in areas where construction is not immediately planned.
- ❑ Keep excavated soil and/or transfer it to dump trucks, onsite, not in the streets.

  Ensure all subcontractors working onsite are implementing appropriate BMPs.

Contaminated Soils

- ❑ If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board and the local agency: 1) Unusual soil conditions, discoloration, or odor. 2) Abandoned underground tanks. 3) Abandoned wells. 4) Buried barrels, debris, or trash.
- ❑ If the above conditions are observed, document any signs of potential contamination, clearly mark areas and fence/tape them off so they are not disturbed by construction activities.

Landscaping

- ❑ Protect stockpiled landscaping materials from wind and rain by storing them under tarps year-round.
- ❑ Stack bagged material on pallets and under cover.
- ❑ Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.
- ❑ Store materials onsite, not in the street.

Concrete Management & Dewatering



Concrete Management

- ❑ Store both dry and wet concrete-related materials under cover, protected from rainfall and runoff and away from storm drains or creeks. Store materials off the ground on pallets. Protect dry materials from wind.
- ❑ Avoid pouring concrete in wet weather or when rainfall is imminent to prevent concrete that has not cured from contacting stormwater runoff.
- ❑ Wash out concrete equipment/mixers/trucks offsite, or onsite only in designated washout containers/areas where the water will flow into a temporary lined waste pit and in a manner that will prevent leaching into the underlying soils. (See CASQA Construction Stormwater BMP Handbook for temporary concrete washout facility details).
- ❑ Do not wash sweepings from exposed aggregate concrete into the street or storm drain. Collect and return sweepings to aggregate base stockpile or dispose properly.
- ❑ Make sure that construction waste (e.g., concrete, stucco, cement wastewater, or residual materials) is collected, removed, and disposed of only at authorized disposal areas. Do not dispose of construction waste in storm drains, ditches, streets, creeks, dirt areas, or the sanitary sewer.

Dewatering

- ❑ Discharges of groundwater or captured runoff from dewatering operations must be properly managed and disposed. When possible, send dewatering discharge to landscaped area or sanitary sewer. If discharging to the sanitary sewer, obtain permission from the local wastewater treatment plant.
- ❑ Divert water originating from offsite away from all onsite disturbed areas.
- ❑ When dewatering, notify and obtain approval from the local municipality before discharging water to a street gutter or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- ❑ In areas of known or suspected contamination, call the local agency to determine whether the groundwater must be tested. Pumped groundwater may need to be collected and hauled offsite for treatment and proper disposal.
- ❑ For additional information, refer to the CASQA's Sheet NS-2 "Dewatering Operations."

Paving/Asphalt Work



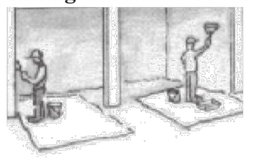
Paving

- ❑ Avoid paving and seal coating in wet weather or when rain is forecast to prevent materials that have not cured from contacting with stormwater runoff.
- ❑ Cover storm drain inlets and manholes when applying seal coat, slurry seal, fog seal, or similar materials.
- ❑ When construction is complete, remove all covers from storm drain inlets and manholes.
- ❑ Collect and recycle or properly dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters, storm drains, streets, dirt areas, or the sanitary sewer.

Sawcutting & Asphalt/Concrete Removal

- ❑ Protect storm drain inlets during saw cutting.
- ❑ When making saw cuts, use as little water as possible.
- ❑ Residue from saw cutting, coring and grinding operations shall be picked up by means of a vacuum device.
- ❑ Shovel, absorb, or vacuum saw cut slurry deposits and dispose of all waste properly and as soon as reasonably possible. Sawcutting residue should not be left on pavement surface.
- ❑ If saw cut slurry enters a storm drain inlet, clean it up immediately and notify the local municipality.

Painting & Paint Removal



Painting Cleanup and Removal

- ❑ Never clean brushes or rinse paintcontainers to landscaping, dirt areas or into a street, gutter, storm drain, or creek.
- ❑ For water-based paints, paint out brushes to the extent possible, and then rinse into a drain connected to the sanitary sewer. Never pour paint down a storm drain inlet.
- ❑ For oil-based paints, paint out brushes to the extent possible, and then clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- ❑ Sweep up or collect paint chips and dust generated from non-hazardous dry stripping and sand blasting into plastic drop cloths and dispose of as trash.
- ❑ Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead- based paint removal requires a state-certified contractor.



Copper Architectural Features

Discharges to storm drains generated by installing, cleaning, treating or washing copper architectural features, is a violation of the municipal stormwater ordinance and may be subject to a fine. These BMPs must be implemented to prevent prohibited discharges to storm drains:

During Installation

- ❑ If possible, purchase copper materials that have been pre-patinated at the factory.
- ❑ If patination done on site, implement one or more of the following BMPs:
  1. Discharge the rinse water to landscaping. Ensure that the rinse water does not flow to the street or storm drain. Block off storm drain inlet if needed.
  2. Collect rinse water in a tank and pump to the sanitary sewer. Contact your local sanitary sewer agency before discharging to the sanitary sewer.
  3. Collect the rinse water in a tank and haul off-site for proper disposal.
- ❑ Consider coating the copper materials with an impervious coating that prevents further corrosion and runoff. This will also maintain the desired color for a longer time, requiring less maintenance.

During Maintenance such as, power washing roof, re-patination, or re-application of impervious coating:

- ❑ Block storm drain inlets as needed to prevent runoff from entering storm drains.
- ❑ Discharge the wash water to landscaping or to the sanitary sewer (with permission from the local sanitary sewer agency). If this is not an option, haul the wash water off-site for proper disposal.

Storm drain polluters may be liable for fines of up to $10,000 per day!

February 2024, WVCWA 4/24

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
CONSTRUCTION BEST MANAGEMENT PRACTICES

CITY OF CAMPBELL
THE ORCHARD CITY
CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: BMP-1

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CITY OF CAMPBELL

CONTRACT DOCUMENTS
FOR THE CONSTRUCTION OF

HAMILTON AVENUE REHABILITATION
AND COMPLETE STREET

PROJECT NO. 23-BB
FEDERAL PROJECT NO. CPFL – 5306 (034)

The work embraced herein shall be done in accordance with the City of Campbell Standard Specifications and Details for Public Works Construction (CCSS) dated July 1994, the CCSS General Provisions Sections 1 – 9 dated March 2022 (General Provisions), the City of San Jose Standard Specifications (SJSS) and Standard Details (SJSD) dated July 1992,and in accordance with the Project Plans, Specifications, and these Special Provisions. Attention is also directed to the 2018 State of California, Department of Transportation, Standard Specifications (SS) and Standard Plans (SSP), portions of which are incorporated into the CCSS, General Provisions, and these Special Provisions by reference, and the Labor Surcharge and Equipment Rental Rates in effect on the date the work is accomplished.

BIDS DUE BY:

Time: 3:00 P.M.

Date: MONTH DATE, 2025

City Clerk's Office
Campbell City Hall
70 N. First Street
Campbell, CA 95008-1423

CITY OF CAMPBELL

CONTRACT DOCUMENTS
FOR THE CONSTRUCTION OF

HAMILTON AVENUE REHABILITATION
AND COMPLETE STREETS

PROJECT NO. 23-BB
FEDERAL PROJECT NO. CPFL – 5306 (034)

CONTRACT DOCUMENTS INCLUDE:
PLANS, NOTICE INVITING BIDS, BID PROPOSAL FORMS,
CONTRACT AND SPECIAL PROVISIONS

APPROVED BY: Amy Olay , Users

Digitally signed by Amy Olay , Users
DN: E=amyo@campbellca.gov, CN=Amy Olay, CN=Users, DC=cityhall, DC=ci, DC=campbell, DC=ca, DC=us, DC=local
Date: 2025.05.27 10:15:11-07'00'

AMY OLAY, P.E.

CITY ENGINEER /
INTERIM PUBLIC WORKS DIRECTOR

The Special Provisions contained herein have been prepared by or under the direction of the following Registered Person(s):

CIVIL ENGINEER





Fredrick Ho, PE No. C58995

Senior Civil Engineer / Project Manager – City of Campbell

CIVIL ENGINEER





Marcelo Cosentino, PE No. C69063

BKF Engineers

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San Jose, CA 95112

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NOTICE INVITING BIDS

CITY OF CAMPBELL

DEPARTMENT OF PUBLIC WORKS

NOTICE INVITING BIDS

FOR CONSTRUCTION OF

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET

PROJECT NO. 23-BB

FEDERAL PROJECT NO. CPFL – 5306 (034)

1. Date and Place of Opening Bids. Notice is hereby given that sealed bids will be received at the **Office of the City Clerk** of the City of Campbell (City), 70 N. First Street, Campbell, CA 95008-1423 by **3:00 PM, INSERT DATE**, for the foregoing project. The bids so submitted will be publicly opened and read aloud at 3:05 PM in the Council Chambers. (BIDS RECEIVED AFTER THE DATE AND TIME STATED ABOVE WILL BE REJECTED AS NONRESPONSIVE. IT IS HIGHLY RECOMMENDED THAT ALL BIDS BE HAND DELIVERED).

2. Location of Work. The work that is to be performed is located on: Hamilton Avenue from the western city limit line approximately 640' west of Phoenix Drive to the eastern city limit line at the intersection of Hurst Avenue within the City of Campbell.

3. Scope of Work. The work to be performed, in general, consists of furnishing all labor, tools, equipment, transportation, and materials required to complete the HAMILTON AVENUE REHABILITATION AND COMPLETE STREET – PROJECT NO 23-BB; FEDERAL PROJECT NO. CPFL – 5306 (034). The scope of work generally includes, but is not limited to the following:

   PCC sidewalk, driveway, curb and gutter, extruded curb removal and replacement; tree trimming; root pruning; ADA compliant accessibility ramps and passageway installation; traffic signal modifications; removal and replacement of traffic striping, markers, and pavement marking; lowering of existing utilities and other appurtenances; asphalt concrete milling; asphalt concrete digouts; slurry sealing; hot mix asphalt concrete street resurfacing; cold-in-place recycling (CIR), adjustment of inlet frame and grates, adjustment of utility and other appurtenances to finished grade; traffic control, public notification & outreach; utility coordination; Santa Clara Valley Transportation Authority (VTA) – Bus Route Coordination; and associated traffic control, which includes temporary signing and striping.

   Additive alternate bid items of work include the lowering/raising utility company appurtenances to grade.

   This project is federally funded and is therefore subjected to their guidelines as noted in the Special Provisions. The Contractor shall be responsible for complying with the federal requirements and for completing and submitting all necessary forms required under this contract.

Federal Labor Standards Provisions, including prevailing wage requirements of the Davis-Bacon and Related Acts will be enforced. In the event of a conflict between Federal and State Wage Rates, the higher of the two shall prevail.

A total of three (3) Federal Trainees are required in this contract for the following work categories:

- Electrical – 1 trainee required
- Portland Cement Concrete – 2 trainees required

Per Section 7 "Legal Relations and Responsibility" of the Special Provisions, the Contractor shall submit the following information and obtain approval by the City of Campbell prior to the start of construction:

i. Number of apprentices or trainees to be trained for each classification
ii. Training program to be used
iii. Training start date for each classification

Bids are required for the entire work described in the Project Plans, specifications, and contract documents, and must be submitted on the forms contained therein.

Time for completion of the work is **180 WORKING DAYS** for all work.

4. Specified "Or Equal" Items. As noted in the Contract Documents, and in conformance with General Provisions Section 6-4.07 Specified "Or Equal" Items, Bidders must submit "Or Equal" items for review within 30-calendar days of the Contract Award pursuant to Section 6-1.06 "Trade names and Alternatives" of the General Provisions.

5. Material Preference. The City will not be accepting Substitution Requests for the following items in order to match other products/equipment currently in use:
    a. Telespar Unistrut Signpost
    b. Detectable Warning Surface ADA-2 Pavers by Wausaw Tile
    c. Premark ViziGrip Skid/Slip Resistant Pre-Formed Thermoplastic.
    d. Green Cobra model GCM1-60J-MV-40K-3R-GY-125-PCR7-CR-WL-RWG by Leotek

6. Contract Documents. Interested parties may view the Contract Documents, which include the following: Notice Inviting Bids, Bid Proposal Forms, Contract, and Special Provisions on the QuestCDN website.

    Contract Documents are available for download on QuestCDN by inputting the Project # 9656278 on QuestCDN's Project Search webpage. Fees will be applied for download per QuestCDN. Registered plan holders will receive notification of addenda, and responses to questions posed during bid. Those downloading the Contract Documents assume the responsibility and risk for completeness of the Contract Documents when bidding.

    Please contact QuestCDN.com at (952) 233-1632 or info@questcdn.com for assistance in free membership, registration, and for downloading assistance.

7. Bid Security. Each bid shall be accompanied by one of the following forms of bidder's security: cash, certified or cashier's check drawn upon a responsible bank, or Bid Bond provided by an admitted surety insurer, authorized to issue surety bonds in the State of California, and made payable to the City of Campbell. The bidder's security shall be in an

amount equal to ten percent (10%) of the total bid price and shall be conditioned to be forfeited to the City of Campbell in the event that the bidder, if their bid is accepted, does not execute the Contract for this project and provide the required bonds (including, but not limited to, payment and performance bonds), certificates of insurance, and endorsements within ten (10) working days of the mailing to the bidder of the Notice of Award. A bid will not be considered unless one of the approved forms of bidder's security is enclosed with it.

8. Bonds. Pursuant to Civil Code Section 3247 and Campbell Municipal Code Section 3.20.050(9), the Contractor shall furnish and provide a Faithful Performance Bond (Performance Bond) and a Labor & Materials Bond (Payment Bond) in the full amount of the Contract Price upon execution of the Contract Agreement.

9. Award of Contract. Contractor shall refer to Section 3 “Determination of Low Bid” in the Special Provisions of the Contract Document.

   All terms and conditions contained in the contract documents shall become a part of the Contract for this project. **The Contractor agrees to honor the submitted Bid Proposal per General Provisions Section 3-1.01A “Timing of Award”.** It is anticipated that the Contract for this project will be awarded to the lowest responsible responsive bidder in the month of **August 2025**. A bid may be rejected if the City determines that any of the bid item prices are materially unbalanced to the potential detriment of the City. To the fullest extent permitted by law, the City reserves and maintains the right to reject any and all bids and to waive any bid informality or irregularity at its discretion.

10. Prevailing Rate of Wage. The work contemplated by the contract documents is a public work subject to prevailing wages under California Labor Code Section 1770 *et. seq.* Pursuant to Section 1773 of the Labor Code, the general prevailing wage rates in the county, or counties, in which the work is to be done have been determined by the Director of the California Department of Industrial Relations. In accordance with Sections 1770 through 1780 inclusive of the California Labor Code, the City has obtained from the Department of Industrial Relations the general prevailing rates of wages in the locality in which the work is to be performed. The Contractor to whom the Contract for this project is awarded and any subcontractors must pay not less than the specified prevailing rates of wages to all workers employed in the execution of the Contract. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations and/or the City of Campbell. Pursuant to Section 1773.2 of the Labor Code, general prevailing wage rates included in the Bid Proposal and Contract for the project shall be posted by the Contractor at a prominent place at the site of the work. Copies of the prevailing rates of wages for this project are found in the Contract of the Project Specifications.

    Attention is directed to the Federal minimum wage rate requirements in the bid book. If there is a difference between the minimum wage rates predetermined by the Secretary of Labor and the general prevailing wage rates determined by the Director of the California Department of Industrial Relations for similar classifications of labor, the Contractor and subcontractors shall pay not less than the higher wage rate. Copies of the federal minimum wage rates can be found in the Contract. The Department will not accept lower State wage rates not specifically included in the Federal minimum wage determinations. This includes “helper” (or other classifications based on hours of experience) or any other classification not appearing in the Federal wage determinations. Where federal wage

determinations do not contain the State wage rate determination otherwise available for use by the Contractor and subcontractors, the Contractor and subcontractors shall pay not less than the Federal minimum wage rate, which most closely approximates the duties of the employees in question.

Each Contractor and Subcontractor shall furnish the records specified in Section 1776 directly to the Labor Commissioner, and the City of Campbell, in the following manner: (a) Monthly, and (b) In a format prescribed by the Labor Commissioner.

11. Substitution of Securities. Pursuant to Section 22300 of the California Public Contract Code, the Contractor may substitute certain securities for moneys withheld by the City to ensure performance under the Contract, or, in the alternative, may request the City to make payment of retentions earned directly to an escrow agent at Contractor's expense.

12. Licenses. All bidders, contractors and subcontractors shall be licensed in accordance with the laws of the State of California. All contractors and subcontractors shall have and maintain a current and valid contractor license of the required classification from the State of California throughout the course of this project.

    Contractor shall refer to Section 3 "Contractor License & Registration" in the Special Provisions of the Contract Documents for the required Class license of the Prime Contractor. Failure to possess the specified license at the time the Contract is awarded shall render the bid non-responsive and shall act as a bar to award the Contract to any bidder not possessing said license at bid submission and result in a forfeiture of the bid security.

13. Pre-Bid Site Review. Prospective bidders are required to conduct a review of the project site prior to bid. The purpose of the site visit is to acquaint the bidders with the site conditions and other local conditions that may affect the performance and costs of the work prior to submitting a bid proposal. The submission of a bid shall be conclusive evidence that the bidder has investigated and is satisfied to the conditions to be encountered, as to the character, quality, and scope of work to be performed and the quantities of materials to be furnished, and as to the requirements of the Project Plans and Contract Documents.

14. State of California Department of Industrial Relations (DIR). This project is subject to compliance monitoring and enforcement by the DIR pursuant to California Labor Code Section 1771.4.

    No contractor or subcontractor may be listed on a bid proposal or awarded a contract for a public works project unless registered with the DIR pursuant to Labor Code Section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code Section 1771.1(a)]. Refer to DIR Registration Statement in the Bid Proposal Forms.

15. Disadvantage Business Enterprise (DBE). The City will provide technical assistance to DBEs and other small businesses as needed and upon request.

    Potential bidders are to:

a. Maintain a current DBE and small business directory. The most current DBE inventory list is available at Caltrans website: https://ucp.dot.ca.gov/licenseForm.htm, and

b. Inform DBEs and small businesses on the directory of the project parameters.

Bidder shall comply with the DBE Commitment and Information Forms in the Contract Documents.

16. Project Administration. All questions regarding this project shall be submitted in writing and received no later than 5PM on MONTH DATE, 2025. All questions shall be submitted via QuestCDN.

CITY OF CAMPBELL

_____

Andrea Sanders, City Clerk

Publish: LIST ADVERTISEMENT DATES HERE

BID PROPOSAL FORMS

FORMAL BID PROPOSAL

TO THE CITY OF CAMPBELL, CALIFORNIA

FOR CONSTRUCTION OF
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
FEDERAL PROJECT NO. CPFL – 5306 (034)

NAME OF BIDDER _____

BUSINESS ADDRESS _____

_____

TELEPHONE _____

TO THE CITY OF CAMPBELL:

The undersigned, as bidder, declares that the only persons or parties interested in this proposal as principals are those named herein; that this proposal is made without collusion with any other person, firm or corporation; that the bidder has carefully examined the site and has full knowledge of and understands all the provisions and contents of this proposal and the documents attached hereto or referenced herein, including, but not limited to, the City of Campbell Standard Specifications and Details for Public Works Construction (CCSS) dated July 1994, the CCSS General Provisions Sections 1 – 9 dated March 2022 (General Provisions), the City of San Jose Standard Specifications (SJSS) and Standard Details (SJSD) dated July 1992,and in accordance with the Project Plans, Specifications, and these Special Provisions. Attention is also directed to the latest State of California, Department of Transportation, Standard Specifications (SS) and Standard Plans (SSP), portions of which are incorporated into the CCSS, General Provisions, and these Special Provisions by reference, and the Labor Surcharge and Equipment Rental Rates in effect on the date the work is accomplished, and the Project Plans and Specifications entitled:

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
FEDERAL PROJECT NO. CPFL – 5306 (034)

Bidder accepts all the terms and conditions of the Contract Documents, including without limitation those in the Notice Inviting Bids, plans and specifications, drawings, special provisions, addenda, and Contract.

This bid will remain open for the period stated in the Notice Inviting Bids. If this Bid Proposal is accepted for award, Bidder will enter into a Contract (using the City of Campbell's standard form) at the unit and/or lump sum prices set forth in following Bid Schedule, and will furnish the insurance certificates and endorsements, Bond for Faithful Performance, Bond for Labor and Materials, Bond for Faithful Performance of Maintenance Period, and Permits required by the Contract Documents within ten (10) working days of the mailing to the bidder of the Notice of Award. Bidder understands that if this Bid Proposal is accepted and the undersigned bidder fails to enter into the Contract, and to furnish the required bonds, insurance certificates and endorsements, in the manner and time prescribed, the City may, at its option, determine that the bidder has abandoned its contract, and thereupon this Bid Proposal and the acceptance thereof shall be null and void, and the bid security accompanying this Bid Proposal shall be forfeited to and become the property of the City of Campbell.

Bidder has carefully examined the work site and copies of all the Contract Documents, including, but not limited to, all of the project Addenda. Bidder must include with its Bid Proposal signed and dated copies of all project Addenda. By signing the Addenda, the bidder acknowledges receipt of such Addenda and that all changes reflected in such Addenda are incorporated in the Bid Proposal and final submitted bid pricing.

Accompanying this Bid Proposal are the following documents, completely filled in by the bidder and incorporated herein by reference:

1. Formal Bid Proposal
2. Bid Schedule of Quantities / Unit Costs / Extended Prices (Including Additive Alternatives)
3. Statement of Subcontractors / Exhibit 12-B: Bidder's List of Subcontractor (DBE and Non-DBE) – Part 1 and Part 2
4. Equal Employment Opportunity Certification
5. Non-Collusion Affidavit
6. DIR Registration Statement
7. Certification Regarding Debarment
8. Public Contract Code Section 10285.1 Statement
9. Public Contract Code Section 10162 Questionnaire
10. Public Contract Code Section 10232 Statement
11. Debarment and Suspension Certification, Title 49, Code of Federal Regulations, Part 29
12. Non-lobbying Certification for Federal Aid Contracts
13. Disclosure of Lobbying Activities
14. Exhibit 15G Construction Contract DEB Commitment
15. Exhibit 15H DBE Information – Good Faith Efforts
16. Cash, a cashier's check made payable to the City, certified check made payable to the City, or Bid Bond executed by a corporate Surety insurer possessing a valid Certificate of Authority issued by the California Department of Insurance, in an amount equal to at least ten percent (10%) of the total bid.
17. Bidders shall submit a copy of their company's resolution/power of attorney which identifies those who have authority to sign and submit bids and contracts on behalf of the company.

The City may, at its option, request additional or supplemental information after bid opening. Bidder understands that the City reserves the right to reject any or all bids and to waive any informalities or irregularities in the bidding to the fullest extent permitted by law.

Bidder has familiarized itself with the nature and extent of the Contract Documents, the Work, the project site, the locality where the Work is to be performed, the legal requirements (federal, state, and local laws, ordinances, rules, and regulations), and the conditions affecting cost, progress and/or performance of the Work and has made such independent investigations as Bidder deems necessary.

In conformance with California Labor Code Section 1860, *et seq*., the undersigned bidder confirms and certifies the following:

> I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.

The bid shall include all work required to develop, administer and construct the project as described throughout the Contract Documents (including, but not limited to, the Plans and Specifications and drawings) in its entirety. The Bidder shall be responsible for reviewing the descriptions and providing a Bid Proposal that includes an understanding of the total project.

Bidder agrees to complete the Work required under the Contract Documents (including, but not limited to, all Bid Schedules, Statement of Subcontractors, Bidder's General Information, Non-Collusion Affidavit, and certifications, statements and questionnaires contained in these Bid Forms) within the Contract Time specified, and to accept as full payment the Contract Price based on the Lump Sum or Unit Bid Price(s) listed in the Bid Schedule(s).

If the bidder is an individual, the individual's full first and last name, together with the signature of the individual shall be set forth below. If bidder is an individual, doing business under a fictitious name, the name of the individual followed by the words "doing business under (insert the fictitious name)", together with the signature of the individual shall be set forth below. If the bidder is a corporation, the legal name of the corporation, together with the signature of the officer(s) of the corporation authorized to sign bids and contracts on behalf of the corporation and such officer's corporate title, with the corporate seal affixed shall be set forth below. If the bidder is an LLC, the legal name of the LLC shall be set forth below, together with the signature of the officer(s) or manager(s) of the LLC authorized to sign bids and contracts on behalf of the LLC and such officer's or manager's title shall be set forth below. If the bidder is a partnership, the legal name of the partnership, if one exists, together with the signature of the partner(s) authorized to sign bids and contracts on behalf of the partnership shall be set forth below. If any of the partners are corporations, execution for such partner(s) shall be accomplished in accordance with the requirements set forth above for corporations. If any of the partners are partnerships, execution for such partner(s) shall be accomplished in accordance with the requirements set forth above for partnerships. If the bidder is a joint-venture, the legal name of the joint-venture, if one exists, together with the names of all joint-venture members comprising the joint-venture, the signature(s) of the manager(s) authorized to sign bids and contracts on behalf of the joint-venture and such manager(s) title shall be set forth below. If any of the joint-venture members are corporations, execution for such joint-venture member shall be accomplished in accordance with the requirements set forth above for corporations. If any of the joint-venture members are partnerships, execution for such joint-venture members shall be accomplished in accordance with the requirements set forth above for partnerships.

Anyone signing the Bid Proposal or any other bid form as an agent of the bidder must submit with the bid package legal evidence of his or her authority to sign such Bid Proposal or other bid form.

If bidder is a corporation, LLC, partnership, joint venture or other legal entity, bidder must submit with the bid package a resolution stating who is authorized to sign bid documents and enter into contracts on the bidder's behalf. If the signature is by an agent other than an officer of a corporation, or member of a partnership, a Power of Attorney must be on file with the City Clerk prior to opening of bids or submitted with the bid; otherwise, the bid may be rejected as non-responsive.

By my signature on this Bid Proposal I certify, under penalty of perjury under the laws of the State of California, that the questionnaire and statements of California Public Contract Code Sections 10162, 10232 and 10285.1 are true and correct and that the bidder has complied with the requirements of Section 8103 of the Fair Employment and Housing Commission Regulations (Chapter 5, Title 2 of the California Administrative Code). By my signature on this Bid Proposal, I further certify, under penalty of perjury under the laws of the State of California and the United States of America, that the statements made in the Noncollusion Affidavit required by Title 23 United States Code, Section 112 and Public Contract Code Section 7106; and the Title 49 Code of Federal Regulations, Part 29 Debarment and Suspension Certification are true and correct.

The undersigned declares under penalty of perjury that the information contained in this Bid Proposal and all accompanying bid forms and documents is true and correct.

ADDENDUM ACKNOWLEDGEMENT

BY SIGNING THIS BID PROPOSAL, THE BIDDER ALSO ACKNOWLEDGES ADDENDA NOS. _____ AND THAT THE CHANGES CONTAINED THEREIN ARE INCORPORATED AND REFLECTED IN THIS BID PROPOSAL.

Executed on the _____ day of _____, 20___

_____
SIGNATURE OF BIDDER

By: _____

Title: _____

Name of
Contractor: _____

Address:_____

Telephone: _____

State Contractor License No.: _____

Classification: _____

Expiration Date: _____

DIR Registration #: _____

NOTE--Signature(s) of bidder(s) must be notarized.

NOTE: If any addenda to the contract documents are issued for this project, this Bid Proposal signature page and all associated bid forms must be signed and dated no earlier than the date the last addenda is issued and acknowledged.

BASE BID SCHEDULE

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
FEDERAL PROJECT NO. CPFL – 5306 (034)

BID ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	EXTENDED PRICE
1	Encroachment Permits (Caltrans, City of San Jose, and County of Santa Clara)	ALLOW	1	$35,000	$35,000
2	Federal Trainee Program	LS	1		
3	Water Pollution Control Program (Plan & Implementation)	LS	1		
4	NOT USED				
5	Tree Trimming & Obstruction Removal	ALLOW	1	$50,000	$50,000
6	Traffic Control and Public Safety	LS	1		
7	Adjust Storm Drain Manhole Cover to Grade	EA	58		
8	Reset Existing Inlet/Catch Basin Hood, Frame & Grate	EA	6		
9	Adjust City Detector Handhole to Grade	EA	3		
10	Adjust Traffic Rated Storm Drain Junction/Traffic Signal Boxes to Grade	EA	3		
11	Adjust Traffic Signal/Streetlight/Service Pull Box to Grade	EA	16		
12	Relocate Traffic Signal Pull Box/Streetlight Pull Box to Outside Curb Ramp Area	EA	2		

13	Adjust City Monument Cover to Grade	EA	22		
14	Reset City Benchmark / File Corner Record w/ County	EA	1		
15	Curb Ramp (Case A)	EA	11		
16	Curb Ramp (Case B)	EA	4		
17	Curb Ramp (Case C)	EA	25		
18	Curb Ramp (Case F)	EA	1		
19	Curb Ramp (Per CSJ Detail R10)	EA	2		
20	Pedestrian Passageway w/ Truncated Domes	SF	366		
21	Pedestrian Passageway w/ Truncated Domes (per CSJ Detail R12)	SF	135		
22	Traffic Spot Island Removal and Median Nose Reconstruction at Hamilton/Eden	LS	1		
23	Traffic Island Nose Modification at Hamilton/Creekside	LS	1		
24	Remove and Replace Curb and Gutter	LF	1,382		
25	Remove and Replace Sidewalk	SF	4,053		
26	Remove and Replace Driveway Approach	SF	1,187		
27	Extruded Median Curb w/PCC infill	LF	2,923		
28	Park Strip Removal	SF	527		
29	Root Pruning	EA	28		
30	Conform/Slot Paving Adjacent to New PCC Improvements – West of Marathon Drive	SF	174		

31	Conform/Slot Paving Adjacent to New PCC Improvements – East of Marathon Drive	SF	3,325		
32 (FPQ)	2” Depth Milling / Cold Planing	SY	57,141		
33 (FPQ)	4” Depth Milling / Cold Planing	SY	13,823		
34 (FPQ)	4.5” Depth Milling / Cold Planing	SY	31,007		
35 (FPQ)	5” Depth Milling / Cold Planing	SY	24,370		
36	Conform Grading – Hot Mix Asphalt (Type F) (Up to 8”)	SF	6,526		
37	Conform Grading – Hot Mix Asphalt (Type F) (10”)	SF	10,676		
38	Conform Grading – Hot Mix Asphalt (Type F) (12”)	SF	2,677		
39	4” Digout	SF	21,368		
40	6” Digout	SF	10,903		
41	8” Digout	SF	23,098		
42	12” Digout	SF	2,520		
43	2.5” Cold-In-Place Recycling	SF	247,725		
44	3” Cold-In-Place Recycling	SF	266,548		
45	Striping, Pavement Markings and Marker Removal	LS	1		
46	Slurry Seal (Type II)	SY	15,408		
47	Asphalt Concrete (Type F)	TON	24,249		
48	Detail 9A	LF	46,038		
49	Detail 22	LF	1,300		
50	Detail 25	LF	17,965		

51	Detail 26	LF	5,084		
52	Detail 27B	LF	832		
53	Detail 29	LF	555		
54	Detail 32	LF	1,540		
55	Detail 36 – THERMO	LF	1,478		
56	Detail 37 – THERMO	LF	678		
57	Detail 37B – THERMO	LF	1,696		
58	Detail 38 – THERMO	LF	7,878		
59	Detail 38B – THERMO	LF	1,704		
60	Detail 39 – THERMO	LF	21,636		
61	Detail 39 – PAINT	LF	92		
62	Detail 39A – PAINT	LF	515		
63	Detail 39A – THERMO	LF	10,896		
64	Detail 40 – THERMO	LF	912		
65	Detail 41 – THERMO	LF	91		
66	Type I (10) Arrow – THERMO	EA	2		
67	Type III (L) Arrow – THERMO	EA	8		
68	Type III (R) Arrow – THERMO	EA	6		
69	Type IV (L) Arrow – THERMO	EA	77		
70	Type IV (R) Arrow – THERMO	EA	14		
71	Type V Arrow – THERMO	EA	6		
72	Type VI (L) Arrow – THERMO	EA	3		
73	Type VI (R) Arrow – THERMO	EA	2		
74	Type VII (L) Arrow – THERMO	EA	1		
75	Type VII (R) Arrow – THERMO	EA	1		

76	“U-TURN” Arrow – THERMO	EA	2		
77	4” White Line (Adjacent to Parking)	LF	2,790		
78	4” White Diagonal Stripe – THERMO	LF	3,160		
79	4” Yellow Diagonal Stripe – THERMO	LF	83		
80	12” Yellow Stripe – THERMO	LF	634		
81	12” White Stripe – THERMO	LF	7,095		
82	24” White Stripe – THERMO	LF	4,343		
83	24” Yellow Stripe – THERMO	LF	2,056		
84	Yield Line, Isosceles Triangles – THERMO	EA	63		
85	“YIELD” Legend – THERMO	EA	4		
86	“STOP” Legend – THERMO	EA	14		
87	“THRU” Legend – THERMO	EA	1		
88	“HWY 17” Legend – THERMO	EA	2		
89	“NORTH” Legend – THERMO	EA	1		
90	“SOUTH” Legend – THERMO	EA	1		
91	“FWY” Legend – THERMO	EA	1		
92	“ONLY” Legend – THERMO	EA	2		
93	“RR XING” Legend – THERMO	EA	8		
94	“KEEP” Legend – THERMO	EA	4		
95	“CLEAR” Legend – THERMO	EA	4		
96	“PED” Legend – THERMO	EA	2		
97	“XING” Legend – THERMO	EA	2		
98	“LEFT” Legend – THERMO	EA	1		

99	“TURN” Legend – THERMO	EA	1		
100	BIKE LANE SYMBOL – THERMO	EA	72		
101	BIKE LANE ARROW – THERMO	EA	71		
102	“BIKE” Legend – THERMO	EA	1		
103	“LANE” Legend – THERMO	EA	1		
104	Bicycle Loop Detector Symbol – THERMO	EA	2		
105	Shared Roadway Bicycle Marking – THERMO	EA	6		
106	PREFORMED GREEN BIKE LANE W/ INTEGRATED BIKE SYMBOL & ARROW – THERMO	SF	2,719		
107	PREFORMED GREEN BIKE LANE W/ INTEGRATED BIKE SYMBOL – THERMO	SF	889		
108	PREFORMED GREEN BIKE LANE – THERMO	SF	11,072		
109	Green Bike Lane (In PCC Bus Pad) – PAINT	SF	756		
110	Red Curb Painting	LF	163		
111	Yellow Curb Painting – Reflective Paint	LF	268		
112	White Curb Painting – Reflective Paint	LF	265		
113	Blue Fire Hydrant Marker	EA	30		
114	Relocate Existing Signs on New Signpost	EA	20		
115	Furnish & Install TYPE K-1 Object Marker	EA	1		

116	Furnish & Install TYPE N-1 Object Marker	EA	1		
117	Furnish & Install R81 “BIKE LANE” SIGN (24”X18”)	EA	11		
118	Furnish & Install R81A “BEGIN” SIGN (12”X5”)	EA	4		
119	Furnish & Install R81B “END” SIGN (8”X5”)	EA	2		
120	Furnish & Install R4-7 Keep Right SIGN (24”X30”)	EA	1		
121	Furnish & Install R4-11 “BIKES MAY USE FULL LANE” SIGN (30”X30”)	EA	3		
122	Furnish & Install R3-7 “RIGHT LANE MUST TURN RIGHT” SIGN (36”X36”)	EA	3		
123	Furnish & Install R118 “EXCEPT BIKES” SIGN (18”X15”)	EA	2		
124	Furnish & Install R9-6 “BIKES YIELD TO PEDESTRIANS” SIGN (12”X18”)	EA	1		
125	Furnish & Install R26(S) “NO STOPPING ANYTIME” SIGN (12”X18”)	EA	7		
126	Furnish & Install R(SPECIAL) “HERE TO CORNER” SIGN (12”X12”)	EA	6		
127	Furnish & Install R1-5 “YIELD HERE TO BIKES” SIGN (36”X48”)	EA	1		
128	Furnish & Install W47 “THRU TRAFFIC MERGE LEFT” SIGN (36”X36”)	EA	1		
129	Furnish & Install R18A “RIGHT LANE MUST EXIT” SIGN (66”X48”)	EA	1		

130	Furnish & Install R10-6(R) “STOP HERE ON RED” SIGN (24”X36”)	EA	1		
131	Furnish & Install R10-15 “TURNING VEHICLES YIELD TO PEDS” SIGN (30”X30”)	EA	1		
132	Furnish & Install W11-1 “BIKE SYMBOL” SIGN (30”X30”)	EA	2		
133	Furnish & Install W16-1P “SHARE THE ROAD” SIGN (18”X24”)	EA	2		
134	Furnish & Install New Signposts	EA	26		
135	Remove Existing Signpost	EA	4		
136	Remove Existing Signs	EA	9		
137	Furnish & Install Type I Pedestrian Barricade	EA	3		
138	Furnish & Install R9-3 “NO PEDESTRIAN CROSSING SYMBOL” SIGN (18”X18”)	EA	2		
139	Traffic Signal Modifications - Hamilton Ave/Llewellyn Ave	LS	1		
140	Traffic Signal Modifications - Hamilton Ave/Eden Ave	LS	1		
141	Traffic Signal Modifications - Hamilton Ave/N Central Ave	LS	1		
142	Traffic Signal Modifications - Hamilton Ave/Creekside Way	LS	1		
143	Type B Loop Detector – Hamilton Ave / San Tomas Expwy	EA	20		
144	Type D Loop Detector – Hamilton Ave / San Tomas Expwy	EA	12		

145	Bicycle Loop Detector – Hamilton Ave / San Tomas Expwy	EA	2		
146	Furnish and Install New Detector Handholes - County	EA	4		

NOTE: (FPQ) indicates final pay quantity per General Provisions Section 9-1.04 “Final Pay Quantities”

(R) indicates revocable bid items per Section 4-1.03H of General Provisions

* = City furnished material/equipment

TOTAL BASE BID (#1 – 146): _____

Total BASE BID Written in Words:

_____

_____

_____

_____

See Section 3 of the Special Provisions for the determination of the low bid.

ADDITIVE ALTERNATE SCHEDULE "A"

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
FEDERAL PROJECT NO. CPFL – 5306 (034)

ADDITIVE ALTERNATE "A" – SAN JOSE WATER COMPANY (SJWC)

BID ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	EXTENDED PRICE
A1	Adjust SJWC WV Frame and Cover To Grade	EA	156		
A2	Adjust SJWC Traffic Rated Air-Valve Pull Box To Grade	EA	1		

TOTAL ADDITIVE ALTERNATE "A" BID (#A1-A2):_____

Total ADDITIVE ALTERNATE SCHEDULE "A" Written in Words:

_____

_____

_____

_____

ADDITIVE ALTERNATE SCHEDULE "B"

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
FEDERAL PROJECT NO. CPFL – 5306 (034)

ADDITIVE ALTERNATE "B" – WEST VALLEY SANITATION DISTRICT (WVSD)

BID ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	EXTENDED PRICE
B1	Adjust WVSD SSMH Frame and Cover to Grade	EA	48		

TOTAL ADDITIVE ALTERNATE "B" BID (#B1):_____

Total ADDITIVE ALTERNATE SCHEDULE "B" Written in Words:

_____

_____

_____

ADDITIVE ALTERNATE SCHEDULE "C"

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
FEDERAL PROJECT NO. CPFL – 5306 (034)

ADDITIVE ALTERNATE "C" – AT&T

BID ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	EXTENDED PRICE
C1	Adjust ATTMH Frame and Cover to Grade	EA	5		
C2	Adjust ATT Valve Box Frame and Cover to Grade	EA	1		

TOTAL ADDITIVE ALTERNATE "C" BID (#C1-C2):_____

Total ADDITIVE ALTERNATE SCHEDULE "C" Written in Words:

_____

_____

_____

ADDITIVE ALTERNATE SCHEDULE "D"

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
FEDERAL PROJECT NO. CPFL – 5306 (034)

ADDITIVE ALTERNATE "D" – PG&E

BID ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	EXTENDED PRICE
D1	Adjust PGE Gas Valve Frame and Cover Box to Grade	EA	3		

TOTAL ADDITIVE ALTERNATE "D" BID (#D1):_____

Total ADDITIVE ALTERNATE SCHEDULE "D" Written in Words:

_____

_____

_____

STATEMENT OF SUBCONTRACTORS

The Bidder shall list the name, address, the California contractor license number, and public works contractor registration number issued pursuant to California Labor Code Section 1725.5 of each subcontractor to whom the Bidder proposes to subcontract portions of the work, as required by California Public Contract Code Sections 4100 *et seq*. and the provisions in Section 8-1.01 "Subcontracting" of the General Provisions.

NAME OF SUBCONTRACTOR	ADDRESS OF SUBCONTRACTOR	LICENSE NUMBER, CLASSIFICATION & DIR REGISTRATION NUMBER	WORK TO BE PERFORMED BY SUBCONTRACTOR	DOLLAR VALUE OF SUBCONTRACT

In addition to this State of Subcontractor's form, the Contractor is also required to complete and submit with their Bid Proposal, Exhibit 12-B "Bidder's List of Subcontractor (DBE and Non-DBE), Part 1 and Part 2 found in Appendix I of these Special Provisions.

SIGNATURE OF BIDDER: _____

EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION

The bidder_____,
proposed subcontractor _____, hereby certifies that he has ___ , has not _____, participated in a previous contract or subcontract subject to the equal opportunity clauses, as required by Executive Orders 10925, 11114, or 11246, and that, where required, he has filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filling requirements.

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7(b) (1)) and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contracts or subcontracts of $10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b) (1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

NONCOLLUSION AFFIDAVIT

(Title 23 United States Code Section 112 and Public Contract Code Section 7106)

To the CITY of CAMPBELL, *DEPARTMENT OF PUBLIC WORKS*.

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the bidder declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Noncollusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Noncollusion Affidavit. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

_____

SIGNATURE OF BIDDER

_____

TITLE

_____

DATE

DIR REGISTRATION STATEMENT

To the CITY of CAMPBELL, *DEPARTMENT OF PUBLIC WORKS*.

By submitting its bid, the bidder certifies to have verified that it and all subcontractors used on this public work project are registered with the State of California Department of Industrial Relations (DIR) in compliance with California Labor Code Sections 1771.1 and 1725.5. The registration numbers of the Bidder and all subcontractors to be used on this project are as follows:

_____

_____

_____

_____

_____

_____

_____

_____.

Note: The above DIR Registration Statement is part of the Bid Proposal. Signing the Bid Proposal on the signature portion thereof shall also constitute signature of this DIR Registration Statement.

_____

SIGNATURE OF BIDDER

_____

TITLE

_____

DATE

CERTIFICATION REGARDING DEBARMENT

To the CITY of CAMPBELL, *DEPARTMENT OF PUBLIC WORKS*.

By submitting its bid, the bidder certifies in accordance with California Public Contract Code Section 6109 that neither the bidder nor any subcontractor included on the list of proposed subcontractors submitted with the bid is ineligible to perform work on public works projects pursuant to California Labor Code Sections 1777.1 or 1777.7. In accordance with California Public Contract Code Section 6109, contractors and subcontractors who are ineligible to perform work on public works projects pursuant to California Labor Code Sections 1777.1 or 1777.7 may neither bid on, be awarded or perform as a subcontractor on public works projects.

Note: The above Certification Regarding Debarment is part of the Bid Proposal. Signing the Bid Proposal on the signature portion thereof shall also constitute signature of this Certification Regarding Debarment.

_____

SIGNATURE OF BIDDER

_____

TITLE

_____

DATE

PUBLIC CONTRACT CODE SECTION 10285.1 STATEMENT

In accordance with California Public Contract Code Section 10285.1, the bidder hereby declares under penalty of perjury under the laws of the State of California that the bidder has _____, has not _____ been convicted within the preceding three years of any offenses referred to in that section, including any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of any state or federal antitrust law in connection with the bidding upon, award of, or performance of, any public works contract, as defined in Section 1101, with any public entity, as defined in Section 1100, including, for the purposes of this article, the Regents of the University of California or the Trustees of the California State University. The term "bidder" is understood to include any partner, member, officer, director, responsible managing officer, or responsible managing employee thereof, as referred to in California Public Contract Code Section 10285.1.

Note: The bidder must place a check mark after "has" or "has not" in one of the blank spaces provided. The above Public Contract Code Section 10285.1 Statement is part of the Bid Proposal. Signing the Bid Proposal on the signature portion thereof shall also constitute signature of this Statement. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

_____

SIGNATURE OF BIDDER

_____

TITLE

_____

DATE

PUBLIC CONTRACT CODE SECTION 10162 QUESTIONNAIRE

In accordance with California Public Contract Code Section 10162, the bidder shall complete, under penalty of perjury, the following questionnaire:

> Has the bidder, any officer of the bidder, or any employee of the bidder who has a proprietary interest in the proposer, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of a violation of law or a safety regulation?
>
> Yes _____ No _____

If the answer is yes, explain the circumstances in the following space.

Note: The above Questionnaire is part of the Bid Proposal. Signing this Bid Proposal on the signature portion thereof shall also constitute signature of this Questionnaire. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

PUBLIC CONTRACT CODE SECTION 10232 STATEMENT

In accordance with California Public Contract Code Section 10232, the bidder, hereby states under penalty of perjury, that no more than one final unappealable finding of contempt of court by a federal court has been issued against the bidder within the immediately preceding two-year period because of the bidder's failure to comply with an order of a federal court which orders the bidder to comply with an order of the National Labor Relations Board.

Note: The above Statement is part of the Bid Proposal. Signing this Bid Proposal on the signature portion thereof shall also constitute signature of this Statement. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

_____

SIGNATURE OF BIDDER

_____

TITLE

_____

DATE

DEBARMENT AND SUSPENSION CERTIFICATION

TITLE 2, CODE OF FEDERAL REGULATIONS, PART 29

The bidder, under penalty of perjury, certifies that, except as noted below, he/she or any other person associated therewith in the capacity of owner, partner, director, officer, manager:

- is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal agency;
- has not been suspended, debarred, voluntarily excluded or determined ineligible by any Federal agency within the past 3 years;
- does not have a proposed debarment pending; and
- has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

If there are any exceptions to this certification, insert the exceptions in the following space.

Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted above, indicate below to whom it applies, initiating agency, and dates of action.

Notes: Providing false information may result in criminal prosecution or administrative sanctions. The above certification is part of the Proposal. Signing this Proposal on the signature portion thereof also constitutes signature of this Certification.

In signing this certification, I declare under penalty of perjury that the foregoing certifications are assurances are true and correct.

_____

SIGNATURE OF BIDDER

_____

TITLE

_____

DATE

NONLOBBYING CERTIFICATION FOR FEDERAL-AID CONTRACTS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

(l) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in conformance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such subrecipients shall certify and disclose accordingly.

DISCLOSURE OF LOBBYING ACTIVITIES

DISCLOSURE OF LOBBYING ACTIVITIES
COMPLETE THIS FORM TO DISCLOSE LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

1. Type of Federal Action:
☐ a. contract
b. grant
c. cooperative agreement
d. loan
e. loan guarantee
f. loan insurance

2. Status of Federal Action:
☐ a. bid/offer/application
b. initial award
c. post-award

3. Report Type:
☐ a. initial
b. material change

For Material Change Only:
year_____ quarter _____
date of last report _____

4. Name and Address of Reporting Entity

☐ Prime ☐ Subawardee
Tier_____ , if known

Congressional District, if known

5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:

Congressional District, if known

6. Federal Department/Agency:

7. Federal Program Name/Description:

CFDA Number, if applicable _____

8. Federal Action Number, if known:

9. Award Amount, if known:

10. a. Name and Address of Lobby Entity
(If individual, last name, first name, MI)

b. Individuals Performing Services (including address if different from No. 10a)
(last name, first name, MI)

(attach Continuation Sheet(s) if necessary)

11. Amount of Payment (check all that apply)
$_____ ☐ actual ☐ planned

12. Form of Payment (check all that apply):
☐ a. cash
☐ b. in-kind; specify: nature _____
value _____

13. Type of Payment (check all that apply)
☐ a. retainer
☐ b. one-time fee
☐ c. commission
☐ d. contingent fee
☐ e deferred
☐ f. other, specify _____

14. Brief Description of Services Performed or to be performed and Date(s) of Service, including officer(s), employee(s), or member(s) contacted, for Payment Indicated in Item 11:

(attach Continuation Sheet(s) if necessary)

15. Continuation Sheet(s) attached: **Yes** ☐ **No** ☐

16. Information requested through this form is authorized by Title 31 U.S.C. Section 1352. This disclosure of lobbying reliance was placed by the tier above when his transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to Congress semiannually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Signature: _____
Print Name: _____
Title: _____
Telephone No.: _____ Date: _____

Authorized for Local Reproduction
Standard Form - LLL

Federal Use Only:

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of covered Federal action or a material change to previous filing pursuant to title 31 U.S.C. section 1352. The filing of a form is required for such payment or agreement to make payment to lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress an officer or employee of Congress or an employee of a Member of Congress in connection with a covered Federal action. Attach a continuation sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence, the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a follow-up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last, previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District if known. Check the appropriate classification of the reporting entity that designates if it is or expects to be a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the first tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in Item 4 checks "Subawardee" then enter the full name, address, city, state and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organization level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identification in item 1 (e.g., Request for Proposal (RFP) number, Invitation for Bid (IFB) number, grant announcement number, the contract grant. or loan award number, the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitments for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, state and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influenced the covered Federal action.
    (b) Enter the full names of the individual(s) performing services and include full address if different from 10 (a). Enter Last Name, First Name and Middle Initial (MI).
11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
12. Check the appropriate box. Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
13. Check the appropriate box. Check all boxes that apply. If other, specify nature.
14. Provide a specific and detailed description of the services that the lobbyist has performed or will be expected to perform and the date(s) of any services rendered. Include all preparatory and related activity not just time spent in actual contact with Federal officials. Identify the Federal officer(s) or employee(s) contacted or the officer(s) employee(s) or Member(s) of Congress that were contacted.
15. Check whether or not a continuation sheet(s) is attached.
16. The certifying official shall sign and date the form, print his/her name title and telephone number.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503. SF-LLL-Instructions Rev. 06-04-90«ENDIF»

DBE GOAL

The Disadvantaged Business Enterprise (DBE) utilization for this project is calculated based on Base Bid and goal is set at **13%**

It is the bidder's responsibility to verify that the firm is certified as of the date of bid opening. Listings of DBEs certified by the CUCP are available at https://californiaucp.dbesystem.com/.

EXHIBIT 15-G CONSTRUCTION CONTRACT DBE COMMITMENT

Exhibit 15-G: Construction Contract DBE Commitment

1. Local Agency: _____ 2. Contract DBE Goal: _____
3. Project Description: _____
4. Project Location: _____
5. Bidder's Name: _____ 6. Prime Certified DBE: ☐ 7. Bid Amount: _____
8. Total Dollar Amount for **ALL** Subcontractors: _____ 9. Total Number of **ALL** Subcontractors: _____

10. Bid Item Number	11. Description of Work, Service, or Materials Supplied	12. NAICS or Work Category Codes	13. DBE Certification Number	14. DBE Contact Information (Must be certified on the date bids are opened)	15. DBE Dollar Amount

Local Agency to Complete this Section upon Execution of Award		**16. TOTAL CLAIMED DBE PARTICIPATION**	$
22. Local Agency Contract Number:			
23. Federal-Aid Project Number:			%
24. Bid Opening Date:			
25. Contract Award Date:		IMPORTANT: Identify all DBE firms being claimed for credit, regardless of tier. Names of the First Tier DBE Subcontractors and their respective item(s) of work listed above must be consistent, where applicable with the names and items of the work in the "Subcontractor List" submitted with your bid. Written confirmation of each listed DBE is required.	
26. Award Amount:			
Local Agency certifies that all DBE certifications are valid and information on this form is complete and accurate.			

27. Local Agency Representative's Signature	28. Date	17. Preparer's Signature	18. Date
29. Local Agency Representative's Name	30. Phone	19. Preparer's Name	20. Phone
31. Local Agency Representative's Title		21. Preparer's Title	

DISTRIBUTION: 1. Original – Local Agency
2. Copy – Caltrans District Local Assistance Engineer (DLAE). Failure to submit to DLAE within 30 days of contract execution may result in de-obligation of federal funds on contract.
3. Include additional copy with award package.

INSTRUCTIONS – CONSTRUCTION CONTRACT DBE COMMITMENT

CONTRACTOR SECTION

1. Local Agency - Enter the name of the local agency that is administering the contract.
2. Contract DBE Goal - Enter the contract DBE goal percentage as it appears on the project advertisement.
3. Project Description - Enter the project description as it appears on the project advertisement (Bridge Rehab, Seismic Rehab, Overlay, Widening, etc).
4. Project Location - Enter the project location(s) as it appears on the project advertisement.
5. Bidder's Name - Enter the contractor's firm name.
6. Prime Certified DBE - Check box if prime contractor is a certified DBE.
7. Bid Amount - Enter the total contract bid dollar amount for the prime contractor.
8. Total Dollar Amount for ALL Subcontractors – Enter the total dollar amount for all subcontracted contractors. SUM = (DBEs + all Non-DBEs). Do not include the prime contractor information in this count.
9. Total number of ALL subcontractors – Enter the total number of all subcontracted contractors. SUM = (DBEs + all Non-DBEs). Do not include the prime contractor information in this count.
10. Bid Item Number - Enter bid item number for work, services, or materials supplied to be provided.
11. Description of Work, Services, or Materials Supplied - Enter description of work, services, or materials to be provided. Indicate all work to be performed by DBEs including work performed by the prime contractor's own forces, if the prime is a DBE. If 100% of the item is not to be performed or furnished by the DBE, describe the exact portion to be performed or furnished by the DBE. See LAPM Chapter 9 to determine how to count the participation of DBE firms.
12. NAICS or Work Category Codes - Enter NAICS or Work Category Codes from the California Unified Certification Program database.
13. DBE Certification Number - Enter the DBE's Certification Identification Number. All DBEs must be certified on the date bids are opened.
14. DBE Contact Information - Enter the name, address, and phone number of all DBE subcontracted contractors. Also, enter the prime contractor's name and phone number, if the prime is a DBE.
15. DBE Dollar Amount - Enter the subcontracted dollar amount of the work to be performed or service to be provided. Include the prime contractor if the prime is a DBE. See LAPM Chapter 9 for how to count full/partial participation.
16. Total Claimed DBE Participation - $: Enter the total dollar amounts entered in the "DBE Dollar Amount" column. %: Enter the total DBE participation claimed ("Total Claimed DBE Participation Dollars" divided by item "Bid Amount"). If the total % claimed is less than item "Contract DBE Goal," an adequately documented Good Faith Effort (GFE) is required (see Exhibit 15-H DBE Information - Good Faith Efforts of the LAPM).
17. Preparer's Signature - The person completing the DBE commitment form on behalf of the contractor's firm must sign their name.
18. Date - Enter the date the DBE commitment form is signed by the contractor's preparer.
19. Preparer's Name - Enter the name of the person preparing and signing the contractor's DBE commitment form.
20. Phone - Enter the area code and phone number of the person signing the contractor's DBE commitment form.
21. Preparer's Title - Enter the position/title of the person signing the contractor's DBE commitment form.

LOCAL AGENCY SECTION

22. Local Agency Contract Number - Enter the Local Agency contract number or identifier.
23. Federal-Aid Project Number - Enter the Federal-Aid Project Number(s).
24. Bid Opening Date - Enter the date contract bids were opened.
25. Contract Award Date - Enter the date the contract was executed.
26. Award Amount – Enter the contract award amount as stated in the executed contract.
27. Local Agency Representative's Signature - The person completing this section of the form for the Local Agency must sign their name to certify that the information in this and the Contractor Section of this form is complete and accurate.
28. Date - Enter the date the DBE commitment form is signed by the Local Agency Representative.
29. Local Agency Representative's Name - Enter the name of the Local Agency Representative certifying the contractor's DBE commitment form.
30. Phone - Enter the area code and phone number of the person signing the contractor's DBE commitment form.
31. Local Agency Representative Title - Enter the position/title of the Local Agency Representative certifying the contractor's DBE commitment form.

EXHIBIT 15-H PROPOSER/CONTRACTOR GOOD FAITH EFFORTS

EXHIBIT 15-H: PROPOSER/CONTRACTOR GOOD FAITH EFFORTS

Cost Proposal Due Date _____ PE/CE

Federal-aid Project No(s). _____ Bid Opening Date _____ CON

The _____ established a Disadvantaged Business Enterprise (DBE) goal of ___% for this contract. The information provided herein shows the required good faith efforts to meet or exceed the DBE contract goal.

Proposers or bidders submit the following information to document their good faith efforts within five (5) calendar days from cost proposal due date or bid opening. Proposers and bidders are recommended to submit the following information even if the Exhibit 10-O1: Consultant Proposal DBE Commitments or Exhibit 15-G: Construction Contract DBE Commitment indicate that the proposer or bidder has met the DBE goal. This form protects the proposer's or bidder's eligibility for award of the contract if the administering agency determines that the bidder failed to meet the goal for various reasons, e.g., a DBE firm was not certified at bid opening, or the bidder made a mathematical error.

The following items are listed in the Section entitled "Submission of DBE Commitment" of the Special Provisions, **please attach additional sheets as needed**:

A. The names and dates of each publication in which a request for DBE participation for this project was placed by the bidder (please attach copies of advertisements or proofs of publication):

Publications	Dates of Advertisement

B. The names and dates of written notices sent to certified DBEs soliciting bids for this project and the dates and methods used for following up initial solicitations to determine with certainty whether the DBEs were interested (please attach copies of solicitations, telephone records, fax confirmations, etc.):

Names of DBEs Solicited	Date of Initial Solicitation	Follow Up Methods and Dates

C. The items of work made available to DBE firms including those unbundled contract work items into economically feasible units to facilitate DBE participation. It is the bidder's responsibility to demonstrate that sufficient work to facilitate DBE participation in order to meet or exceed the DBE contract goal.

Items of Work	Proposer or Bidder Normally Performs Item (Y/N)	Breakdown of Items	Amount ($)	Percentage Of Contract

D. The names, addresses and phone numbers of rejected DBE firms, the reasons for the bidder's rejection of the DBEs, the firms selected for that work (please attach copies of quotes from the firms involved), and the price difference for each DBE if the selected firm is not a DBE:

Names, addresses and phone numbers of rejected DBEs and the reasons for the bidder's rejection of the DBEs:

Names, addresses and phone numbers of firms selected for the work above:

E. Efforts (e.g. in advertisements and solicitations) made to assist interested DBEs in obtaining information related to the plans, specifications and requirements for the work which was provided to DBEs:

F. Efforts (e.g. in advertisements and solicitations) made to assist interested DBEs in obtaining bonding, lines of credit or insurance, necessary equipment, supplies, materials, or related assistance or services, excluding supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate:

G. The names of agencies, organizations or groups contacted to provide assistance in contacting, recruiting and using DBE firms (please attach copies of requests to agencies and any responses received, i.e., lists, Internet page download, etc.):

Name of Agency/Organization	Method/Date of Contact	Results

H. Any additional data to support a demonstration of good faith efforts:

BID BOND FORM

BID BOND
City of Campbell

KNOW ALL MEN BY THESE PRESENTS,

That we, _____, as PRINCIPAL, and _____, as SURETY, are held and firmly bound unto the CITY OF CAMPBELL in the penal sum of TEN PERCENT (10%) OF THE TOTAL AMOUNT OF THE BID of the Principal above named, submitted by said Principal to the CITY OF CAMPBELL, acting by and through the Department of Public Works, for the work described below, for the payment of which sum in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these present.

THE CONDITION OF THIS OBLIGATION IS SUCH,

That whereas the Principal has submitted the above-mentioned bid to the CITY OF CAMPBELL, as aforesaid, for certain construction specifically described as follows, for which bids are to be opened in the Office of the City Clerk, City Hall, Campbell, California_____, 20_, for:

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
FEDERAL PROJECT NO. CPFL – 5306 (034)

NOW, THEREFORE, If the aforesaid Principal is awarded the Contract and, within the time and manner required under the specifications, after the prescribed forms are presented to him for signature, enters into a written Contract, in the prescribed form, in accordance with the bid, and files two bonds, one to guarantee faithful performance and the other to guarantee payment for labor and materials, and files the required insurance policies with the City, all as required by the specifications and the Contract or by law, then this obligation shall be null and void; otherwise, it shall be and remain in full force and virtue.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorney's fee to be fixed by the court.

IN WITNESS WHEREOF, We have hereunto set our hands and seals on this _____ day of _____, 20__

_____ _____

(Principal) Surety)

By_____ By _____

By_____

(Attach Acknowledgment of both Principal's and Surety's signature)

CONTRACT

CONTRACT

BETWEEN CITY OF CAMPBELL AND

_____

FOR CONSTRUCTION OF

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
FEDERAL PROJECT NO. CPFL – 5306 (034)

THIS AGREEMENT, made and concluded in duplicate, this_____ day of _____, 20 __ by and between _____ hereinafter referred to as "CONTRACTOR", and the City of Campbell, a Municipal Corporation, hereinafter referred to as "CITY". City and Contractor are also referred to individually as a "Party" or collectively, as the "Parties".

WITNESSETH, that the parties hereto do mutually agree as follows:

ARTICLE I. That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by CITY, and under the conditions expressed in the two (2) bonds, bearing even date with these presents, and hereunto annexed, the CONTRACTOR agrees with the CITY, at its own proper cost and expense, to do all the Work and furnish all plant, labor, services, tools, equipment, supplies, transportation, utilities, and materials, except such as are mentioned in the Contract Documents to be furnished by the CITY, necessary to construct and complete to the satisfaction of the Engineer, in accordance with the Contract Documents for:

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB;
FEDERAL PROJECT NO. CPFL – 5306 (034)

hereinafter referred to as the "Project" or the "Work" in strict conformity and compliance with the Contract Documents, and to do everything required by said Contract Documents as hereinafter defined.

ARTICLE II. It is expressly agreed and understood by each and every party to this Agreement that the following documents are hereby incorporated and made a part of this Agreement (hereinafter the "Contract Documents"):

1. All applicable Laws and Regulations
2. Duly issued Agreement modifications, and allowance authorization(s) signed by the City, in chronological order by effective date of each
3. This Agreement, including all exhibits
4. Labor and Material Bond (Payment Bond)
5. Performance Bond
6. Maintenance Bond (if required)
7. Insurance Certificate
8. Invitation for Bids for Hamilton Avenue Rehabilitation And Complete Street Project No. 23-BB; Federal Project No. CPFL – 5306 (034) Hamilton Avenue Rehabilitation And

Complete Street Project No. 23-BB; Federal Project No. CPFL – 5306 (034), including the Project Specifications, drawings, and plans, all Exhibits, and all Addenda in the reverse order of issuance

9. Project Specifications, including all drawings
10. Standard Specifications, as hereinafter defined
11. FHWA 1273, dated October 23, 2023
12. Davis Bacon Federal Wage Rates
13. California State Prevailing Wage Rates

The parties to this Agreement do hereby expressly acknowledge that they have read, understand, and promise to comply with each and every provision of Contract Documents. There are no Contract Documents other than those indicated above. In the event inconsistencies, conflicts, or ambiguities between and among the Contract Documents are discovered, the parties shall attempt to resolve any ambiguity, conflict, or inconsistency informally, recognizing that the Contract Documents shall take precedence in the order in which they are listed above. Inclusion of an order of precedence herein does not in any way negate or reduce Contractor's obligation to report conflicts, discrepancies, apparent omissions, and similar matters to the City.

ARTICLE III. It is expressly agreed and understood by the Contractor that the "Standard Specifications" consists of the documents on file at the Public Works Department of the City of Campbell, entitled:

1. The City of Campbell General Provisions, dated March 2002;
2. The City of Campbell Standard Specifications and Details for Public Works Construction (CCSS), dated July 1994
3. The City of San Jose Standard Specifications (SJSS) and Standard Details (SJSD), dated July 1992
4. Standard Specifications of the State of California, Department of Transportation, dated 2018 (SS); and
5. State of California /Caltrans: California Manual on Uniform Traffic Control Devices (CA MUTCD) (2014 Revision 9).

Where conflicts arise between the Standard Specifications, the parties agree that the Standard Specifications shall take precedence in the order in which they are listed above. Inclusion of an order of precedence herein does not in any way negate or reduce Contractor's obligation to report conflicts, discrepancies, apparent omissions, and similar matters to the City.

ARTICLE IV. The CITY hereby promises and agrees with the CONTRACTOR to employ, and does hereby employ, the CONTRACTOR to provide the materials and to do the Work according to the terms and conditions herein contained and referred to, for the price aforesaid, and hereby contracts to pay the same at the time, and in the manner and upon the conditions herein set forth; and the CITY and the CONTRACTOR, for themselves, their heirs, executors, administrators, successors and assigns, do hereby agree to the full performance of the covenants herein contained.

ARTICLE V. The CONTRACTOR agrees to receive and accept the prices indicated in the Contractor's signed Bid as full compensation for furnishing all materials and for doing all the Work contemplated and embraced in this Contract; also for all loss or damage, arising out of the nature of the Work aforesaid, or from the action of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered in the prosecution of the Work until its acceptance by the CITY, and for all risks connected with the Work; also for all expenses incurred by or in consequence of the suspension or discontinuance of Work and for well and faithfully completing the Work, and the whole thereof, in the manner and according to the Contract Documents and the requirements of the Engineer, and also for furnishing the required bonds and insurance, and for doing all other things mentioned, contemplated or embraced in this Contract, and the Contract Documents.

ARTICLE VI. All activities of Contractor, its employees, agents, and/or subcontractors will be carried out in accordance with all applicable federal, state, and local laws and regulations.

ARTICLE VII. In accordance with the provisions of Section 3700 of the Labor Code, the Contractor will be required to secure the payment of worker's compensation to his employees.

By its signature hereunder, CONTRACTOR certifies that it is aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and will comply with such provisions before commencing the performance of the Work of this Contract.

ARTICLE VIII. The Project is a work of public improvement over which the CITY shall exercise general supervision. The CITY shall have the right to assume full and direct control over this Contract whenever the CITY, at its sole discretion, shall determine that its responsibility to the United States or the State of California so requires.

ARTICLE IX. The general prevailing wage rates as heretofore specified and any minimum wage rates indicated in the Special Provisions are hereby specifically referred to and by this reference are made a part of this Contract. It is further expressly agreed by and between the parties hereto that should there be any conflict between the terms of this instrument and the Bid of CONTRACTOR, then this instrument shall control and nothing herein shall be considered as an acceptance of said terms of said Bid conflicting herewith.

ARTICLE X. Contractor shall be responsible for complying with the provisions of California Labor Code Section 1771.1(a) which states:

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

ARTICLE XI. Contractor and any subcontractors under the Constructor shall comply with Section 1775 of the California Labor Code regarding prevailing wages.

ARTICLE XII. Contractor shall be responsible for complying with the provisions of Section 1776 of the California Labor Code concerning payroll records, as more specifically described in the City's Standard Specifications.

ARTICLE XIII. Contractor shall be responsible for complying with the provisions of California Labor Code Sections 1777.5 through 1777.7, inclusive, concerning apprentices, as more specifically described in the City's Standard Specifications.

ARTICLE XIV. Contractor shall be responsible for complying with the provisions of California Labor Code Sections 1810 through 1815, inclusive, concerning working hours, as more specifically described in the City's Standard Specifications.

ARTICLE XV. Contractor's attention is directed to the City's Standard Specifications regarding trench excavation.

ARTICLE XVI. In accordance with the City's Standard Specifications, the sum of Nine Thousand Five Hundred Dollars and Zero cents ($9,500.00) will be assessed as liquidated damages for each and every calendar day's delay in finishing the work in excess of the number of working days prescribed. Liquidated damages shall also be assessed for non-compliance with the requirements stated in "Hours of Work" under Section 10-1, "General Construction Requirements", of these Special Provisions, and Section 10-2, "Traffic Control Requirements."

The City further agrees that the Contractor shall not be assessed liquidated damages for delay in completion of the project, when such delay was caused by the failure of the City or the owner of the utility to move or relocate such utility facilities as set forth in California Government Code Section 4215.

ARTICLE XVII. Contractor shall be responsible for complying with the provisions of California Public Contracts Code Section 7104 regarding trenching and excavations that extend deeper than four (4) feet below the surface. No change order issued pursuant to California Public Contracts Code Section 7104 shall provide for any increase in compensation that would exceed the recovery allowed pursuant to the "Claims" section of the Special Provisions.

ARTICLE XVIII. The City of Campbell shall notify Contractor of the receipt of any third-party claim relating to this contract within 30 days of receipt. The City of Campbell may recover its reasonable costs incurred in providing such notification, pursuant to subdivision (c) of Public Contract Code Section 9201. Notwithstanding this notification provision, the City of Campbell reserves its full authority to compromise or otherwise settle any claim relating to this contract at any time.

ARTICLE XIX. The signatories to this Contract warrant and represent that each is authorized to execute this Contract and that their respective signatures serve to legally obligate their respective representatives, agents, successors, and assigns to comply with the provisions of this Contract.

IN WITNESS WHEREOF, the parties of these present have hereunto set their hands the year and date first above written and having fully read and understood the terms and conditions of this contract, acknowledge their agreement to be bound thereby.

CONTRACTOR

By: _____

Title: _____

(Attach Contractor's Acknowledgment)

CITY OF CAMPBELL

_____

Name: Brian Loventhal

Title: City Manager

ATTEST:

_____

Name: Andrea Sanders

Title: City Clerk

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

FHWA-1273 – Revised October 23, 2023

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Non-segregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
VII. Safety: Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
XI. Certification Regarding Use of Contract Funds for Lobbying
XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (*see* 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:
(1) Withholding monthly progress payments;
(2) Assessing sanctions;
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than $10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act (40 U.S.C. 3141(2)(B)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided,* That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH–1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in 29 CFR part 1, a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to DBAconformance@dol.gov. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to DBAconformance@dol.gov, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided,* That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements* (1) *Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements* (1) *Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (*e.g.*, the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH–347 or in any other format desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division website at *https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347.pdf* or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH–347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 3729.

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under 29 CFR part 6 any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, 18 U.S.C. 1001.

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or 29 CFR part 1 or 3; or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or 29 CFR part 1 or 3.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or

mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* $31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of $150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. **Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

* * * * *

3. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B) This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

BOND FOR FAITHFUL PERFORMANCE

We, the undersigned _____, (hereinafter "contractor") and _____ a corporation organized under the laws of the State of _____, and authorized to transact business in the State of California, as Surety, are obligated to the City of Campbell, (hereinafter "City") a municipal corporation under the laws of the State of California, in the sum of _____Dollars ($_____) for the payment of which sum we obligate ourselves and our successors and assigns, jointly and severally by the following provisions:

The condition of this obligation is:

Because the obligated Contractor has, on _____, 20____, entered into written Contract with the City for the Project entitled **"HAMILTON AVENUE REHABILITATION AND COMPLETE STREET – PROJECT NO. 23-BB; FEDERAL PROJECT NO. CPFL – 5306 (034)",** a copy of which is attached and made a part of this bond, for the construction of the Project.

Now, therefore, if the Contractor shall faithfully perform the work in accordance with the plans, specifications and contract documents during the original term, and any extensions of the contract which may be granted by the City, with or without notice to the surety, and if it shall satisfy all claims and demands incurred under the contract, and shall fully indemnify and save harmless the City from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the City all outlay and expense which the City may incur in making any default, then this obligation shall be void; otherwise to remain in full force and effect.

If any legal action be filed upon this bond, it shall be filed within one year after final payment has been made under the contract excluding the warranty period, if any, provided for in the contract, and venue shall lie in the County of Santa Clara, State of California, and that surety, for value received stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed under it or the specifications accompanying it shall in any way affect its obligation on this bond, and it does by this means waive notice of any change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications, and thereby waives the provisions of Section 2819 of the Civil Code of the State of California.

In witness, contractor and surety have executed this agreement as of _____, 20____.

(Contractor)

By _____

Title _____

(Surety)

By _____

Address of Surety:

Surety's Bond Number_____
(Accompany this bond with Attorney-in-fact's authority from Surety to execute the bond, certified to include the date of the bond.)

(Attach Acknowledgements)

(Both Principal's and Surety's Attorney in Fact)

BOND FOR LABOR AND MATERIAL

We, the undersigned _____, (hereinafter "Principal") and _____, a corporation organized under the laws of the State of _____, and authorized to transact business in the State of California, as Surety, are obligated to the City of Campbell (hereinafter "City"), a municipal corporation under the laws of the State of California, in the sum of _____ Dollars ($) for the payment of which sum we obligate ourselves and our successors and assigns, jointly and severally by the following provisions:

The condition of this obligation is that the Principal entered, or is about to enter, into a certain written Contract with the City dated _____, 20____, for the **"HAMILTON AVENUE REHABILITATION AND COMPLETE STREET – PROJECT NO. 23-BB; FEDERAL PROJECT NO. CPFL – 5306 (034)",** a true and correct copy of which is presently on file in the office of the City Clerk of the City of Campbell, which said Contract is hereby referred to and made a part hereof.

Because Principal is required to furnish a bond in connection with the contract, providing that if Principal, or any of its subcontractors, shall fail to pay for any materials, or other supplies, or for any work or labor on the contracted work of any kind, or for amounts due under the unemployment insurance act with respect to any work or labor on this project, the Surety on this bond will pay for the debt, in an amount not exceeding the sum specified in this bond, and also, in case suit is brought upon the bond, a reasonable attorney's fee to be fixed by the court.

Now, therefore, we, _____, as Principal, AND _____, as Surety, are obligated to the City of Campbell, in the sum of $_____, lawful money of the United States, for the payment of which sums will and truly to be made, we the said Principal and Surety bind ourselves, successors and assigns, jointly and severally, by these provisions.

The condition of this obligation is that if Principal, its successors or assigns, or its subcontractor, or subcontractors, shall fail to pay for any labor, materials, or other supplies, used in the performance of the work contracted to be done, or for amounts due under the unemployment insurance act with respect to this work or labor, then the Surety on this bond will pay for them, in an amount not exceeding the sum specified in this bond, and in case suit is brought upon this bond will also pay a reasonable attorney's fee, to be fixed by the court.

No prepayment or delay in payment and no changes, extensions, addition or alteration of any provision of said contract or in any plans and specifications referred to herein, and no forbearance on the part of the City shall operate to release the Surety from liability on this bond, and consent to make such alterations without further notice to or consent by the Surety is hereby given, and the Surety hereby waives the provisions of Section 2819 of the Civil Code of the State of California.

In witness, the parties have executed this agreement as of _____, 20____.

(Principal)_____

By_____

(Surety)_____

By_____

Address of Surety:_____

_____

Surety's Bond Number_____

(Accompany this bond with Attorney-in-fact's authority from Surety to execute the bond certified to include the date of the bond.)

(Attach Acknowledgements)
(Both Principal's and
Surety's Attorney in Fact)

BOND FOR FAITHFUL PERFORMANCE OF MAINTENANCE PERIOD

We, the undersigned _____, (hereinafter "Principal") and _____, a corporation organized under the laws of the State of _____, and authorized to transact business in the State of California, as Surety, are obligated to the City of Campbell (hereinafter "City"), a municipal corporation under the laws of the State of California, in the sum of_____ Dollars ($_____) for the payment of which sum we obligate ourselves and our successors and assigns, jointly and severally by the following provisions:

The condition of this obligation is that the Principal entered, or is about to enter, into a certain written Contract with the City dated _____, 20_____ **"HAMILTON AVENUE REHABILITATION AND COMPLETE STREET – PROJECT NO. 23-BB; FEDERAL PROJECT NO. CPFL – 5306 (034)",** for a one year maintenance period of the work described in said Contract, a true and correct copy of which is presently on file in the office of the City Clerk of the City of Campbell, which said agreement is hereby referred to and made a part hereof. And, the City requires a guarantee from the Principal against defective materials and workmanship in connection with that maintenance.

Now, therefore, the Principal agrees that it shall make all repairs or replacements necessary during the period of one-year from the date of acceptance of the contract work, by reason of defective materials or workmanship in connection with the Contract. If those defective materials or workmanship occur within that period, the City shall give the Principal and Surety written notice of that defect within 60 days after discovery. When each replacement is made to the satisfaction of the City, the obligation of the Principal and Surety shall be discharged as to that replacement, otherwise to remain in full force and effect, with surety obligated to secure full and faithful performance of all of Principals' obligations under the above-referenced contract.

Any repairs or replacements made under this bond shall in like manner be subject to the terms and conditions of it.

No prepayment or delay in payment and no changes, extensions, addition or alteration of any provision of said contract or in any plans and specifications referred to herein, and no forbearance on the part of the City shall operate to release the Surety from liability on this bond, and consent to make such alterations without further notice to or consent by the Surety is hereby given, and the Surety hereby waives the provisions of Section 2819 of the Civil Code of the State of California.

In witness, the parties have executed this agreement as of _____, 20____

(Principal)_____

By_____

Title_____

(Surety)_____

By_____

Address of Surety:_____

_____

(Attach Acknowledgements)

(Both Principal's and Surety's Attorney in Fact)

Surety's Bond Number_____
(Accompany this bond with Attorney-in-fact's authority from Surety to execute the bond, certified to include the date of the bond.)

CA STATE WAGE RATES

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

Craft: Cement Mason[#]

Determination:
NC-23-203-1-2024-1

Issue Date:
August 22, 2024

Expiration date of determination:
June 30, 2025** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Localities:
All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

Wages and Employer Payments:

Classification (Journeyperson)	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday[a]	Training	Other	Hours[b]	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X)[cd]	Saturday Overtime Hourly Rate (1 ½ X)[cd]	Sunday/ Holiday Overtime Hourly Rate (2 X)
Cement Mason	$47.00	$9.42	$12.36	$7.00	$0.91	$0.12	8.0	$76.81	$100.31	$100.31	$123.81
Mastic Magnesite Gypsum, Epoxy, Polyester, Resin, and all composition masons, swing or slip form scaffolds	$48.00	$9.42	$12.36	$7.00	$0.91	$0.12	8.0	$77.81	$101.81	$101.81	$125.81

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

Craft: Cement Mason (Special Single Shift)#

Determination:
NC-23-203-1A-2024-1

Issue Date:
August 22, 2024

Expiration date of determination:
June 30, 2025** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Localities:
All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

Wages and Employer Payments:

Classification (Journeyperson)	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday [a]	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X) [cd]	Saturday Overtime Hourly Rate (1 ½ X) [cd]	Sunday/ Holiday Overtime Hourly Rate (2 X)
Cement Mason	$50.00	$9.42	$12.36	$7.00	$0.91	$0.12	8.0	$79.81	$104.81	$104.81	$129.81
Mastic Magnesite Gypsum, Epoxy, Polyester, Resin, and all composition masons, swing or slip form scaffolds	$51.00	$9.42	$12.36	$7.00	$0.91	$0.12	8.0	$80.81	$106.31	$106.31	$131.81

Recognized holidays:
Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:
In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

[#] Indicates an apprenticeable craft. The current apprentice wage rates are available on the Prevailing Wage Apprentice Determinations Website (http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp).
[a] Includes an amount for supplemental dues.
[b] Where multiple shifts are worked, the day shift shall work eight (8) hours and for such work they shall be paid the regular straight time rate for eight (8) hours; the second (2nd) shift shall work seven and one-half (7 ½) hours, and for such work they shall be paid the regular straight time rate for eight (8) hours; if a third (3rd) shift is worked, they shall work seven (7) hours and for such work they shall be paid eight (8) hours regular straight time pay. No multiple shift shall be started for less than five (5) consecutive days.
[c] Rate applies to the first 4 daily overtime hours and the first 8 hours worked on Saturday. All other time is paid at the double time (2X) rate.
[d] Saturdays may be worked at straight time if job is shut down during normal work week due to inclement weather or major mechanical breakdown (limited to curb and gutter machine, concrete pump, and concrete plant).

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

Craft: Building/Construction Inspector and Field Soils and Material Tester[#]

Determination:
NC-63-3-9-2024-1

Issue Date:
August 22, 2024

Expiration date of determination:
June 30, 2025* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit (415) 703-4774 for the new rates after 10 days from the expiration date, if no subsequent determination is issued.

Localities:
All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo and Yuba counties.

Wages and Employer Payments:

Classification[a] (Journeyperson)	Basic Hourly Rate	Health and Welfare[b]	Pension	Vacation/ Holiday	Training	Other Payments	Hours	Total Hourly Rate	Daily Overtime Hourly Rate[c] (1 ½ X)	Saturday Overtime Hourly Rate[c] (1 ½ X)	Sunday/Holiday Overtime Hourly Rate (2X)
Group 1	$60.77	$13.38	$12.57	$6.15	$1.13	$0.24	8	$94.24	$124.625	$124.625	$155.010
Group 2	$58.77	$13.38	$12.57	$6.15	$1.13	$0.24	8	$92.24	$121.625	$121.625	$151.010
Group 3	$51.56	$13.38	$12.57	$6.15	$1.13	$0.24	8	$85.03	$110.810	$110.810	$136.590
Group 4	$45.59	$13.38	$12.57	$6.15	$1.13	$0.24	8	$79.06	$101.855	$101.855	$124.650

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

Craft: Building/Construction Inspector and Field Soils and Material Tester (Second Shift)[#]

Determination:
NC-63-3-9-2024-1

Issue Date:
August 22, 2024

Expiration date of determination:
June 30, 2025* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit (415) 703-4774 for the new rates after 10 days from the expiration date, if no subsequent determination is issued.

Localities:
All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo and Yuba counties.

Wages and Employer Payments:

Classification[a] (Journeyperson) Group	Basic Hourly Rate	Health and Welfare[b]	Pension	Vacation/ Holiday	Training	Other Payments	Hours	Total Hourly Rate	Daily Overtime Hourly Rate[c] (1 ½ X)	Saturday Overtime Hourly Rate[c] (1 ½ X)	Sunday/Holiday Overtime Hourly Rate (2X)
Group 1	$68.37	$13.38	$12.57	$6.15	$1.13	$0.24	8	$101.84	$136.025	$136.025	$170.210
Group 2	$66.12	$13.38	$12.57	$6.15	$1.13	$0.24	8	$99.59	$132.650	$132.650	$165.710
Group 3	$58.01	$13.38	$12.57	$6.15	$1.13	$0.24	8	$91.48	$120.485	$120.485	$149.490
Group 4	$51.29	$13.38	$12.57	$6.15	$1.13	$0.24	8	$84.76	$110.405	$110.405	$136.050

CLASSIFICATIONS:

GROUP 1
ASNT Level II-III
DSA Masonry
DSA Shotcrete
Lead Inspector
NICET Level IV
NDT Level Two

GROUP 2
AWS-CWI
ICC Certified Structural Inspector
NICET Level III
Shear Wall/Floor System Inspector
Building/Construction Inspector

GROUP 3
Geotechnical Driller
Soils/Asphalt
Earthwork Grading
Excavation and Backfill
NICET Level II

GROUP 4
ACI
Drillers Helper
ICC Fireproofing
NICET Level I
Proofload Testing
Torque Testing
NACE
NDT Level One

Recognized holidays:
Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:
In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

[#] Indicates an apprenticeable craft. The current apprentice wage rates are available on the Prevailing Wage Apprentice Determinations Website (http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp).
[a] For classifications within each group, see page 3.
[b] Amount shall be paid for all hours worked up to 173 hours per month.
[c] Rate applies to the first 4 daily overtime hours, Monday through Friday, and the first 8 hours on Saturday. All other overtime is paid at the Sunday/Holiday overtime rate.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1 FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

LOCALITY: SANTA CLARA COUNTY

DETERMINATION: STC-2025-1

CRAFT	CLASSIFICATION	CRAFT FOOTNOTE	ISSUE DATE	EXPIRATION DATE	BASIC HOURLY RATE	BASIC HOURLY RATE FOOTNOTE	HEALTH AND WELFARE	HEALTH AND WELFARE FOOTNOTE	PENSION	PENSION FOOTNOTE	VACATION/ HOLIDAY	VACATION/ HOLIDAY FOOTNOTE	TRAINING	TRAINING FOOTNOTE	OTHER PAYMENTS	OTHER PAYMENTS FOOTNOTE	HOURS	HOURS FOOTNOTE	STRAIGHT-TIME TOTAL HOURLY RATE	DAILY OVERTIME HOURLY RATE	O FO
#BRICKLAYER, BLOCKLAYER:	BRICKLAYER, BLOCKLAYER, STONEMASON		08/22/2024	04/30/2025**	$53.940	A	$12.400		$12.230		$3.000	B	$0.800		$2.230	C	8.0	D	$84.600	$113.070	E
#BRICKLAYER, BLOCKLAYER:	POINTER, CLEANER, CAULKER, WATERPROOFER		08/22/2024	06/30/2025**	$60.240	A	$12.400		$14.520		$0.000	F	$1.690		$0.430		8.0	D	$89.280	$119.400	G
#BRICK TENDER			08/22/2024	06/30/2025**	$40.380	I	$10.600		$14.170		$0.000	F	$0.450		$0.400		8.0		$66.000	$86.190	J
#CARPET, LINOLEUM,	SOFT FLOOR LAYER		02/22/2025	12/31/2025**	$60.950	A	$11.750		$21.380		$0.000	K	$1.100		$0.460		8.0		$95.640	$126.120	L
#ELECTRICIAN:	COMM & SYSTEM INSTALLER		02/22/2025	11/30/2025**	$56.680	M	$15.650		$10.000	N	$0.000		$1.000		$0.260	O	8.0		$85.570	$114.900	P
#ELECTRICIAN:	COMM & SYSTEM TECH.		02/22/2025	11/30/2025**	$65.180	M	$15.650		$10.000	N	$0.000		$1.000		$0.260	O	8.0		$94.380	$128.120	P
#ELECTRICIAN:	INSIDE WIREMAN, TECHNICIAN		02/22/2025	05/31/2025**	$87.170	Q	$18.310		$23.900	R	$0.000		$1.500		$0.680	S	8.0		$134.180	$179.070	T
#ELECTRICIAN:	CABLE SPLICER		02/22/2025	05/31/2025**	$100.250	Q	$18.310		$23.900	R	$0.000		$1.500		$0.740	S	8.0		$147.710	$199.340	T
ELECTRICIAN:	MATERIAL HANDLER	U	02/22/2025	07/31/2025**	$40.920		$14.300		$4.300	V	$0.000		$0.000		$0.310		8.0		$61.060	$82.130	
ELECTRICIAN:	MATERIAL HANDLER - FOURTH SIX MONTHS	U	02/22/2025	07/31/2025**	$34.780		$14.300		$4.300	N	$0.000		$0.000		$0.280		8.0		$54.700	$72.620	
ELECTRICIAN:	MATERIAL HANDLER - THIRD SIX MONTHS	U	02/22/2025	07/31/2025**	$30.690		$14.300		$4.300	N	$0.000		$0.000		$0.260		8.0		$50.470	$66.280	
ELECTRICIAN:	MATERIAL HANDLER - SECOND SIX MONTHS	U	02/22/2025	07/31/2025**	$26.600		$14.300		$4.300	N	$0.000		$0.000		$0.240		8.0		$46.240	$59.940	
ELECTRICIAN:	MATERIAL HANDLER - FIRST SIX MONTHS	U	02/22/2025	07/31/2025*	$24.550		$0.000		$0.000	N	$0.000		$0.000		$0.230		8.0		$25.520	$38.160	
#FIELD SURVEYOR:	CHIEF OF PARTY	W	02/22/2025	02/28/2026**	$62.050		$13.380		$14.510	X	$5.100	Y	$1.260		$0.280		8.0		$96.580	$127.610	Z
#FIELD SURVEYOR:	CHAINMAN/RODMAN	W	02/22/2025	02/28/2026**	$52.580		$13.380		$14.510	X	$5.100	Y	$1.260		$0.280		8.0		$87.110	$113.400	Z
#GLAZIER		AA	02/22/2025	12/31/2025**	$59.610	A	$11.750		$21.590	AB	$0.000		$1.100		$0.550	AC	8.0		$94.600	$124.410	AI
#MARBLE FINISHER		AE	08/22/2024	07/31/2025**	$42.060	AF	$12.400		$6.330		$0.000	K	$0.450		$0.950		8.0		$62.190	$83.220	AC
#MARBLE MASON		AE	08/22/2024	07/31/2025**	$61.720	AF	$12.400		$16.190		$0.000	K	$0.800		$1.300		8.0		$92.410	$123.270	AC
#PAINTER		AH	02/22/2025	12/31/2025**	$53.330	I	$11.750		$15.220	X	$0.000	K	$1.070		$0.550		8.0	D	$81.920	$108.590	AI
#PAINTER	INDUSTRIAL PAINTER	AJ	02/22/2025	12/31/2025**	$55.830	I	$11.750		$15.220	X	$0.000	K	$1.070		$0.550		8.0	D	$84.420	$112.340	AI
#PAINTER	BRIDGE PAINTER	AK	02/22/2025	12/31/2025**	$57.830	I	$11.750		$15.220	X	$0.000	K	$1.070		$0.550		8.0	D	$86.420	$115.340	AI
#PAINTER:	TAPER		02/22/2025	06/30/2025**	$63.710	AL	$11.750		$19.890		$0.000	K	$1.050		$0.750		8.0		$97.150	$129.010	AI
#PLASTERER			02/22/2025	06/30/2025**	$51.530	AO	$15.430		$19.490		$0.000	F	$1.300		$1.340		8.0		$89.090	$111.660	AI
#PLASTER TENDER			08/22/2024	06/30/2025**	$41.930		$10.600		$15.780		$5.060		$0.500		$0.500		8.0		$74.370	$95.340	L
#PLUMBER:	UNDERGROUND UTILITY PIPEFITTER		08/22/2024	06/30/2025*	$34.510		$12.400		$3.000	AR	$2.500		$0.400		$0.800		8.0		$53.610	$70.870	
#PLUMBER:	LANDSCAPE PIPEFITTER		08/22/2024	06/30/2025*	$34.510		$12.400		$3.000	AR	$2.500		$0.400		$0.800		8.0		$53.610	$70.870	
PLUMBER:	UNDERGROUND UTILITY ASSISTANT JOURNEYMAN	AS	08/22/2024	06/30/2025*	$20.660		$12.400		$3.000	AR	$2.500		$0.400		$0.800		8.0		$39.760	$50.090	

CRAFT	CLASSIFICATION	CRAFT FOOTNOTE	ISSUE DATE	EXPIRATION DATE	BASIC HOURLY RATE	BASIC HOURLY RATE FOOTNOTE	HEALTH AND WELFARE	HEALTH AND WELFARE FOOTNOTE	PENSION	PENSION FOOTNOTE	VACATION/ HOLIDAY	VACATION/ HOLIDAY FOOTNOTE	TRAINING	TRAINING FOOTNOTE	OTHER PAYMENTS	OTHER PAYMENTS FOOTNOTE	HOURS	HOURS FOOTNOTE	STRAIGHT-TIME TOTAL HOURLY RATE	DAILY OVERTIME HOURLY RATE	O FO
PLUMBER:	LANDSCAPE ASSISTANT JOURNEYMAN	AT	08/22/2024	06/30/2025*	$20.660		$12.400		$3.000	AR	$2.500		$0.400		$0.800		8.0		$39.760	$50.090	
PLUMBER:	UNDERGROUND UTILITY TRADESMAN	AU	08/22/2024	06/30/2025*	$17.320		$12.400		$3.000	AR	$2.500		$0.400		$0.800		8.0		$36.420	$45.080	
PLUMBER:	LANDSCAPE TRADESMAN I	AV	08/22/2024	06/30/2025*	$17.320		$12.400		$0.000	AR	$2.500		$0.400		$0.800		8.0		$33.420	$42.080	
PLUMBER:	LANDSCAPE TRADESMAN II	AV	08/22/2024	06/30/2025*	$17.320		$12.400		$3.000	AR	$2.500		$0.400		$0.800		8.0		$36.420	$45.080	
#PLUMBER:	PLUMBER, STEAMFITTER, REFRIGERATION FITTER (HVAC)		08/22/2024	06/30/2025**	$76.870	A	$18.050	AW	$30.220	AX	$0.000		$2.250		$0.950	AY	8.0		$128.340	$173.030	E
PLUMBER:	CONSTRUCTION TRADESMAN (YEAR 2)		08/22/2024	06/30/2025*	$27.730	A	$10.950	AR	$0.500	AR	$0.000		$0.000		$0.250	AZ	8.0		$39.430	$53.300	E
PLUMBER:	CONSTRUCTION TRADESMAN (YEAR 3)		08/22/2024	06/30/2025*	$33.330	A	$10.950	AR	$0.500	AR	$0.000		$0.000		$0.250	AZ	8.0		$45.030	$61.700	E
PLUMBER:	CONSTRUCTION TRADESMAN (YEAR 4)		08/22/2024	06/30/2025*	$34.710	A	$10.950	AR	$0.500	AR	$0.000		$0.000		$0.250	AZ	8.0		$46.410	$63.770	E
PLUMBER:	CONSTRUCTION TRADESMAN (YEAR 5)		08/22/2024	06/30/2025*	$37.600	A	$10.950	AR	$2.250	AR	$0.000		$0.000		$0.250	AZ	8.0		$51.050	$69.850	E
#PLUMBER:	SERVICE AND REPAIR		08/22/2024	06/30/2025**	$76.870	A	$18.050	AW	$30.220	AX	$0.000		$2.250		$0.950	AY	8.0		$128.340	$173.030	E
#PLUMBER:	SPRINKLER FITTER (FIRE PROTECTION AND FIRE CONTROL SYSTEMS)		08/22/2024	09/30/2024*	$79.130	A	$13.360		$23.300		$0.000	F	$1.850		$0.400		8.0		$118.040	$157.610	E
#ROOFER			08/22/2024	07/31/2025**	$50.000		$11.500		$10.090		$5.940	BB	$0.950		$0.440		8.0		$78.920	$103.920	B
#ROOFER	KETTLEMAN (2 KETTLES)		08/22/2024	07/31/2025**	$52.000		$11.500		$10.090		$5.940	BB	$0.950		$0.440		8.0		$80.920	$106.920	B
#ROOFER	BITUMASTIC, ENAMELER, COAL TAR, PITCH AND MASTIC WORKER		08/22/2024	07/31/2025**	$54.000		$11.500		$10.090		$5.940	BB	$0.950		$0.440		8.0		$82.920	$109.920	B
#SHEET METAL WORKER			02/22/2025	06/29/2025*	$75.840	I	$16.920	BE	$34.620	BF	$0.000	F	$1.650		$0.710		8.0		$129.740	$171.660	B
#SHEET METAL WORKER	TOTAL SHEET METAL CONTRACT OF $200,000 OR LESS		02/22/2025	06/29/2025*	$65.110	I	$16.920	BE	$32.870	BF	$0.000	F	$1.650		$0.710		8.0		$117.260	$153.320	B
#SHEET METAL WORKER	SERVICE MECHANIC (TOTAL SHEET METAL CONTRACT OF $200,000 OR LESS)		02/22/2025	06/29/2025*	$51.170	I	$15.920	BH	$17.840	BF	$0.000	F	$1.490		$0.710		8.0		$87.130	$113.970	BI
#SHEET METAL WORKER	SERVICE TECHNICIAN (TOTAL SHEET METAL CONTRACT OF $200,000 OR LESS)		02/22/2025	06/29/2025*	$46.750	I	$15.920	BH	$11.690	BF	$0.000	F	$1.490		$0.710		8.0		$76.560	$100.740	BI
#SHEET METAL WORKER	AIR CONDITIONING SPECIALIST (TOTAL SHEET METAL CONTRACT OF $200,000 OR LESS)		02/22/2025	06/29/2025*	$40.630	I	$15.920	BH	$5.730	BF	$0.000	F	$1.470		$0.710		8.0		$64.460	$85.410	B
#SHEET METAL WORKER	AIR CONDITIONING PRO (TOTAL SHEET METAL CONTRACT OF $200,000 OR LESS)		02/22/2025	06/29/2025*	$47.830	I	$15.920	BE	$12.130	BF	$0.000	F	$1.470		$0.710		8.0		$78.060	$102.730	B
#SHEET METAL WORKER	METAL DECK & SIDING		08/22/2024	06/30/2025**	$50.900	I	$16.500	AR	$23.780	BJ	$0.000	F	$0.320	BK	$0.000		8.0		$91.500	$118.080	B
#TERRAZZO FINISHER		BL	08/22/2024	06/30/2025**	$44.930	BM	$12.400		$7.120		$0.000	F	$0.800		$1.090		8.0		$66.340	$86.190	B
#TERRAZZO WORKER		BL	08/22/2024	06/30/2025**	$60.580	BM	$12.400		$15.680		$0.000	F	$0.800		$1.340		8.0		$90.800	$117.560	B

CRAFT	CLASSIFICATION	CRAFT FOOTNOTE	ISSUE DATE	EXPIRATION DATE	BASIC HOURLY RATE	BASIC HOURLY RATE FOOTNOTE	HEALTH AND WELFARE	HEALTH AND WELFARE FOOTNOTE	PENSION	PENSION FOOTNOTE	VACATION/ HOLIDAY	VACATION/ HOLIDAY FOOTNOTE	TRAINING	TRAINING FOOTNOTE	OTHER PAYMENTS	OTHER PAYMENTS FOOTNOTE	HOURS	HOURS FOOTNOTE	STRAIGHT-TIME TOTAL HOURLY RATE	DAILY OVERTIME HOURLY RATE	O
#TILE FINISHER			08/22/2024	03/31/2025*	$36.500	BN	$11.960		$6.210		$1.250		$0.530		$1.450		8.0	D	$57.900	$76.150	
#TILE FINISHER	RED CIRCLED FINISHER		08/22/2024	03/31/2025*	$41.770	BN	$11.960		$7.050		$1.750		$0.530		$1.520		8.0	D	$64.580	$85.470	
#TILE SETTER			08/22/2024	03/31/2025*	$56.920	BN	$11.960		$9.020		$3.000		$0.800		$2.110		8.0	D	$83.810	$112.270	
WATER WELL DRILLER:			08/22/2024	06/30/2025**	$31.160		$10.160		$3.540		$1.560	BP	$0.000		$0.000		8.0		$46.420	$62.000	B
WATER WELL DRILLER:	PUMP INSTALLER		08/22/2024	06/30/2025**	$31.160		$10.160		$3.540		$1.560	BP	$0.000		$0.000		8.0		$46.420	$62.000	B
WATER WELL DRILLER:	HELPER		08/22/2024	06/30/2025**	$26.680		$10.160		$3.540		$1.330	BR	$0.000		$0.000		8.0		$41.710	$55.050	B

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FOOTNOTES

* EFFECTIVE UNTIL SUPERSEDED BY A NEW DETERMINATION ISSUED BY THE DIRECTOR OF INDUSTRIAL RELATIONS. CONTACT THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774 FOR THE NEW RATES AFTER TEN DAYS AFTER THE EXPIRATION DATE IF NO SUBSEQUENT DETERMINATION IS ISSUED.

** THE RATE TO BE PAID FOR WORK PERFORMED AFTER THIS DATE HAS BEEN DETERMINED. IF WORK WILL EXTEND PAST THIS DATE, THE NEW RATE MUST BE PAID AND SHOULD BE INCORPORATED IN CONTRACTS ENTERED INTO NOW. CONTACT THE OFFICE OF THE DIRECTOR RESEARCH UNIT FOR SPECIFIC RATES AT (415) 703-4774.

\# INDICATES AN APPRENTICEABLE CRAFT. THE CURRENT APPRENTICE WAGE RATES ARE AVAILABLE ON THE INTERNET @ HTTP://WWW.DIR.CA.GOV/OPRL/PWAPPWAGE/PWAPPWAGESTART.ASP.

& THE BASIC HOURLY RATE AND EMPLOYER PAYMENTS ARE NOT TAKEN FROM A COLLECTIVE BARGAINING AGREEMENT FOR THIS CRAFT OR CLASSIFICATION.

A INCLUDES AMOUNT WITHHELD FOR DUES CHECK OFF.

B VACATION IS FACTORED AT THE APPLICABLE OVERTIME MULTIPLIER

C INCLUDES AMOUNT FOR INDUSTRY PROMOTION FUND, INTERNATIONAL MASONRY INSTITUTE, LABOR MANAGEMENT COOPERATION COMMITTEE, AND VACATION TRUST FUND. EFFECTIVE 5/1/2022, INDUSTRY PROMOTION FUND IS SPLIT INTO THE INDUSTRY FUND AND THE CALIFORNIA MASONRY COUNCIL.

D SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORKWEEK DUE TO INCLEMENT WEATHER.

E RATE APPLIES TO THE FIRST 2 DAILY OVERTIME HOURS AND THE FIRST 10 HOURS ON SATURDAY; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE.

F INCLUDED IN STRAIGHT-TIME HOURLY RATE.

G RATE APPLIES TO FIRST 2 OVERTIME HOURS MONDAY THROUGH FRIDAY; ALL OTHER OVERTIME IS PAID AT THE DOUBLE TIME RATE.

H RATE APPLIES TO THE FIRST 8 HOURS WORKED ON SATURDAY. ALL OTHER HOURS ARE PAID AT THE SUNDAY/HOLIDAY RATE.

I INCLUDES AMOUNT FOR VAC/HOL AND DUES CHECK OFF.

J RATE APPLIES TO FIRST 2 DAILY OVERTIME HOURS AND THE FIRST 10 HOURS WORKED ON SATURDAY. ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE. SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWNDURING THE NORMAL WORK WEEK DUE TO INCLEMENT WEATHER.

K INCLUDED IN BASIC HOURLY RATE.

L RATE APPLIES TO THE FIRST 4 DAILY OVERTIME HOURS AND THE FIRST 12 HOURS WORKED ON SATURDAY; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE.

M INCLUDES AN AMOUNT EQUAL TO 6% OF THE HOURLY RATE FOR VACATION/WORKING DUES WHICH IS FACTORED INTO OVERTIME RATES.

N IN ADDITION, AN AMOUNT EQUAL TO 3% OF THE BASIC HOURLY RATE IS ADDED TO THE TOTAL HOURLY RATE AND OVERTIME HOURLY RATES FOR THE NATIONAL EMPLOYEES BENEFIT BOARD.

O IN ADDITION, AN AMOUNT EQUAL TO 0.5% OF THE BASIC HOURLY RATE, WHICH IS FACTORED AT THE APPLICABLE OVERTIME MULTIPLIER, IS ADDED TO THE TOTAL HOURLY RATE AND OVERTIME HOURLY RATES.

P RATE APPLIES TO THE FIRST 2 DAILY OVERTIME HOURS AND THE FIRST 8 HOURS ON SATURDAY ONLY; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY NON-SHIFT OVERTIME HOURLY RATE.

Q INCLUDES AMOUNT WITHHELD FOR WORKING DUES.

R IN ADDITION, AN AMOUNT EQUAL TO 3% OF THE BASIC HOURLY RATE IS ADDED TO THE TOTAL HOURLY RATE AND OVERTIME HOURLY RATES FOR THE NATIONAL EMPLOYEES BENEFIT BOARD. PURSUANT TO LABOR CODE SECTIONS 1773.1 AND 1773.8, THE AMOUNT PAID FOR THIS EMPLOYER PAYMENT MAY VARY RESULTING IN A LOWER TAXABLE BASIC HOURLY WAGE RATE, BUT THE TOTAL HOURLY RATES FOR STRAIGHT TIME AND OVERTIME MAY NOT BE LESS THAN THE GENERAL PREVAILING RATE OF PER DIEM WAGES.

S INCLUDES AMOUNT EQUAL TO 0.5% OF THE HOURLY RATE FOR THE ADMINISTRATIVE MAINTENANCE FUND AND THE REMAINING AMOUNT IS FOR THE JOINT ELECTRICAL INDUSTRY FUND.

T RATE APPLIES TO THE FIRST 2 DAILY OVERTIME HOURS UP TO A MAXIMUM OF 10 HOURS IN ANY ONE WEEK. ALL OTHER TIME INCLUDING ALL WORK ON SATURDAYS, SUNDAYS, and HOLIDAYS IS PAID AT THE DOUBLE TIME RATE.

U THE MATERIAL HANDLER MAY BE UTILIZED IN CONJUNCTION WITH BOTH INSIDE AND LINE PROJECTS. THE RATIO OF MATERIAL HANDLER TO JOURNEYMEN SHALL BE ONE (1) MATERIAL HANDLER TO THREE (3) JOURNEYMEN.

V IN ADDITION, AN AMOUNT EQUAL TO 3% OF THE BASIC HOURLY RATE IS ADDED TO THE TOTAL AND OVERTIME HOURLY RATES FOR THE NATIONAL ELECTRICAL BENEFIT FUND. MATERIAL HANDLERS WHO HAVE WORKED MORE THAN TEN THOUSAND (10,000) MAN-HOURS SHALL QUALIFY FOR A $0.50 INCREASED PENSION CONTRIBUTION.

W ALL CREWS, WITHOUT CONSIDERATION TO THE NUMBER OF INDIVIDUALS IN THE CREW, SHALL INCLUDE A CHIEF OF PARTY. A CREW CONSISTS OF ONE (1) OR MORE EMPLOYEES PERFORMING FIELD AND CONSTRUCTION SURVEY WORK.

INCLUDES AN AMOUNT PER HOUR WORKED FOR ANNUITY TRUST FUND.

X Y INCLUDES AN AMOUNT PER HOUR WORKED FOR SUPPLEMENTAL DUES.

Z RATE APPLIES TO DAILY OVERTIME HOURS UP TO AND INCLUDING 12 HOURS WORKED IN A WORKDAY OR OTHER OVERTIME HOURS BEYOND 40 HOURS IN A WORKWEEK. ALL OTHER OVERTIME IS PAID AT THE SUNDAY/HOLIDAY RATE. IN THE EVENT THAT THERE ARE LESS THAN 40 HOURS WORKED MONDAY THROUGH FRIDAY, THEN THE BALANCE OF HOURS WORKED UP TO AND INCLUDING 40 HOURS FOR THE WORKWEEK, OR UP TO 8 HOURS FOR THE WORKDAY, MAY BE WORKED ON SATURDAY AT THE STRAIGHT-TIME RATE.

AA CERTIFIED MANIPULATOR WORK SHALL RECEIVE $2.00 PER HOUR ABOVE THE BASIC WAGE RATE

AB INCLUDES AN AMOUNT PER HOUR WORKED FOR IUPAT, IARP, AND RETIREE PENSION.

AC INCLUDES AMOUNTS FOR INDUSTRY FUND, WORK PRESERVATION FUND, AND LABOR MANAGEMENT COOPERATION INITIATIVE

AD RATE APPLIES TO THE FIRST 2 DAILY OVERTIME HOURS AND FIRST 8 HOURS WORKED ON DESIGNATED DAYS OFF; ALL OTHER TIME IS PAID AT THE SATURDAY, SUNDAY AND HOLIDAY OVERTIME RATE.

AE EMPLOYEES WORKING ON ANY SUSPENDED PLATFORM/SWING STAGE SHALL BE PAID AN ADDITIONAL $20.00 PER DAY ABOVE THE WAGE RATE.

AF INCLUDES AN AMOUNT FOR DUES CHECK-OFF AND VACATION/HOLIDAY WHICH ARE FACTORED INTO OVERTIME RATES.

AG RATE APPLIES TO FIRST 2 OVERTIME HOURS MONDAY THROUGH FRIDAY; ALL OTHER OVERTIME IS PAID AT THE DOUBLE TIME RATE.

AH EMPLOYEES SHALL RECEIVE PREMIUM PAY FOR THE FOLLOWING WORK: WALLCOVERING ($2.00 PER HOUR), EXOTIC MATERIALS ($1.25 PER HOUR) AND LEAD ABATEMENT/REMOVAL ($1.00 PER HOUR). EMPLOYEES SHALL ALSO BE ENTITLED TO HIGH TIME PREMIUM PAY WHENEVER THE WORK PERFORMED REQUIRES PERSONAL FALL RESTRAINTS TO BE WORN BY THE EMPLOYEE. THE AMOUNT OF THE PREMIUM SHALL BE AS FOLLOWS: AN ADDITIONAL $2.00 PER HOUR ABOVE BASIC HOURLY RATE WHEN WORKING OVER 50 FEET ABOVE GROUND OR WATER LEVEL, $4.00 PER HOUR WHEN WORKING FROM 100 TO 180 FEET AND $6.00 PER HOUR WHEN WORKING OVER 180 FEET. SEE SCOPE PROVISIONS FOR FURTHER DETAILS ON PREMIUMS.

AI RATE APPLIES TO THE FIRST 4 OVERTIME HOURS MONDAY THROUGH FRIDAY AND THE FIRST 12 HOURS WORKED ON SATURDAYS AND DESIGNATED DAYS OFF. ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME RATE.

AJ EMPLOYEES SHALL RECEIVE PREMIUM PAY FOR THE FOLLOWING WORK: METALIZING AND THERMAL SPRAY ($4.00 PER HOUR). EMPLOYEES SHALL ALSO BE ENTITLED TO HIGH TIME PREMIUM PAY WHENEVER THE WORK PERFORMED REQUIRES PERSONAL FALL RESTRAINTS TO BE WORN BY THE EMPLOYEE. THE AMOUNT OF THE PREMIUM SHALL BE AS FOLLOWS: AN ADDITIONAL $4.00 PER HOUR WHEN WORKING FROM 100 TO 180 FEET ABOVE GROUND OR WATER LEVEL AND $6.00 PER HOUR WHEN WORKING OVER 180 FEET. SEE SCOPE PROVISIONS FOR FURTHER DETAILS ON PREMIUMS.

AK EMPLOYEES SHALL RECEIVE PREMIUM PAY FOR THE FOLLOWING WORK: METALIZING AND THERMAL SPRAY ($4.00 PER HOUR). SEE SCOPE PROVISIONS FOR FURTHER DETAILS ON PREMIUMS.

AL INCLUDES AMOUNTS FOR VACATION AND DUES CHECK OFF

AM RATE APPLIES TO THE FIRST 4 DAILY OVERTIME HOURS AND THE FIRST 12 HOURS WORKED ON SATURDAY. ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME RATE. SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORKWEEK DUE TO INCLEMENT WEATHER.

AN DESIGNATED DAYS OFF SHALL BE PAID AT THE SATURDAY OVERTIME RATE; PLEASE REFER TO THE HOLIDAY PROVISIONS FOR A LIST OF DESIGNATED DAYS OFF.

AO INCLUDE AMOUNTS WITHHELD FOR DUES CHECK OFF AND VACATION WHICH IS NOT FACTORED INTO OVERTIME.EMPLOYEES OPERATING AND WORKING BEHIND PLASTER GUNS SHALL RECEIVE AN ADDITIONAL $5.00 PER DAY ABOVE THE WAGE RATE. EMPLOYEES WORKING ON AN EXTERIOR SUSPENDED SCAFFOLD SHALL BE PAID AN ADDITIONAL $15.00 PER DAY ABOVE THE WAGE RATE

AP RATE APPLIES TO THE FIRST 4 OVERTIME HOURS MONDAY THROUGH FRIDAY AND THE FIRST 8 HOURS WORKED ON SATURDAYS AND DESIGNATED DAYS OFF. ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME RATE.

AQ RATE APPLIES TO THE FIRST 4 OVERTIME HOURS MONDAY THROUGH FRIDAY AND THE FIRST 8 HOURS WORKED ON SATURDAYS AND DESIGNATED DAYS OFF. ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME RATE. SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORKWEEK DUE TO INCLEMENT WEATHER.

AR PURSUANT TO LABOR CODE SECTIONS 1773.1 AND 1773.8, THE AMOUNT PAID FOR THIS EMPLOYER PAYMENT MAY VARY RESULTING IN A LOWER TAXABLE BASIC HOURLY WAGE RATE, BUT THE TOTAL HOURLY RATES FOR STRAIGHT TIME AND OVERTIME MAY NOT BE LESS THAN THE GENERAL PREVAILING RATE OF PER DIEM WAGES.

AS THERE MUST BE AT LEAST ONE JOURNEYMAN PIPEFITTER PER CONTRACTOR ON EACH JOBSITE.

AT THERE MUST BE AT LEAST ONE JOURNEYMAN PIPEFITTER PER CONTRACTOR ON EACH JOBSITE. THIS AGREEMENT MAY BE USED TO COVER MAINTENANCE AND PLANT ESTABLISHMENT. PLANT ESTABLISHMENT SHALL BE WORK COVERED BY THIS AGREEMENT. THIS WORK MAY BE PERFORMED EXCLUSIVELY BY ALL CLASSIFICATIONS OUTLINED IN THIS AGREEMENT WITHOUT THE SUPERVISION OF A JOURNEYMAN, EXCEPT FOR APPRENTICES WHO REQUIRE THE SUPERVISION OF A JOURNEYMAN.

AU THERE SHALL BE NO MORE THAN THREE TRADESMEN TO EVERY TWO JOURNEYMAN PIPEFITTER/ASSISTANT JOURNEYMAN PIPEFITTER COMBINATION EMPLOYED PER CONTRACTOR ON EACH JOBSITE.

AV THERE SHALL BE NO MORE THAN FOUR TRADESMEN TO EVERY TWO JOURNEYMAN PIPEFITTER/ASSISTANT JOURNEYMAN PIPEFITTER COMBINATION EMPLOYED PER CONTRACTOR ON EACH JOBSITE. THIS AGREEMENT MAY BE USED TO COVER MAINTENANCE AND PLANT ESTABLISHMENT. PLANT ESTABLISHMENT SHALL BE WORK COVERED BY THIS AGREEMENT. THIS WORK MAY BE PERFORMED EXCLUSIVELY BY ALL CLASSIFICATIONS OUTLINED IN THIS AGREEMENT WITHOUT THE SUPERVISION OF A JOURNEYMAN, EXCEPT FOR APPRENTICES WHO REQUIRE THE SUPERVISION OF A JOURNEYMAN

AW INCLUDES AN AMOUNT FOR HEALTH AND WELFARE EXTENDED RESERVE WHICH IS FACTORED AT THE APPLICABLE OVERTIME MULTIPLIER. PURSUANT TO LABOR CODE SECTIONS 1773.1 AND 1773.8, THE AMOUNT PAID FOR THIS EMPLOYER PAYMENT MAY VARY RESULTING IN A LOWER TAXABLE BASIC HOURLY WAGE RATE, BUT THE TOTAL HOURLY RATES FOR STRAIGHT TIME AND OVERTIME MAY NOT BE LESS THAN THE GENERAL PREVAILING RATE OF PER DIEM WAGES.

AX INCLUDES AN AMOUNT FOR 401A-PART B PENSION WHICH IS FACTORED AT THE APPLICABLE OVERTIME MULTIPLIER. PURSUANT TO LABOR CODE SECTIONS 1773.1 AND 1773.8, THE AMOUNT PAID FOR THIS EMPLOYER PAYMENT MAY VARY RESULTING IN A LOWER TAXABLE BASIC HOURLY WAGE RATE, BUT THE TOTAL HOURLY RATES FOR STRAIGHT TIME AND OVERTIME MAY NOT BE LESS THAN THE GENERAL PREVAILING RATE OF PER DIEM WAGES.

AY INCLUDES AN AMOUNT FOR SUPPLEMENTAL UNEMPLOYMENT BENEFITS.

AZ AMOUNT IS FOR CONTRACT ADMINISTRATION

BA RATE APPLIES TO PLUMBING SERVICE AND REPAIR HOLIDAYS. FOR HOLIDAY RATE APPLICABLE TO HVAC REFRIGERATION SERVICE, PLEASE SEE HOLIDAY PROVISIONS.

BB INCLUDES AN AMOUNT WITHHELD FOR DUES CHECK OFF WHICH IS NOT FACTORED IN OVERTIME AND HOLIDAY WAGE RATES.

BC RATE APPLIES TO THE FIRST 2 OVERTIME HOURS ONLY; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE.

BD IN THE EVENT THAT CONDITIONS ON ONE OR MORE DAYS DURING THE REGULAR WORK WEEK PREVENT EMPLOYEES FROM WORKING ON SCHEDULED WORK DURING SUCH WEEK, WORK MAY BE PERFORMED ON SATURDAY AT STRAIGHT TIME RATES OF PAY.

BE INCLUDES SMOHIT AND SHC. EFFECTIVE 1/1/2013, PURSUANT TO LABOR CODE SECTIONS 1773.1 AND 1773.8, THE AMOUNT PAID FOR THIS EMPLOYER PAYMENT MAY VARY RESULTING IN A LOWER TAXABLE BASIC HOURLY WAGE RATE, BUT THE TOTAL HOURLY RATES FOR STRAIGHT TIME AND OVERTIME MAY NOT BE LESS THAN THE GENERAL PREVAILING RATE OF PER DIEM WAGES.

BF INCLUDES AN AMOUNT FOR PENSION WHICH IS FACTORED AT THE APPLICABLE OVERTIME MULTIPLIER. PURSUANT TO LABOR CODE SECTIONS 1773.1 AND 1773.8, THE AMOUNT PAID FOR THIS EMPLOYER PAYMENT MAY VARY RESULTING IN A LOWER TAXABLE BASIC HOURLY WAGE RATE, BUT THE TOTAL HOURLY RATES FOR STRAIGHT TIME AND OVERTIME MAY NOT BE LESS THAN THE GENERAL PREVAILING RATE OF PER DIEM WAGES.

BG RATE APPLIES TO THE FIRST 2 DAILY OVERTIME HOURS AND THE FIRST 8 HOURS ON SATURDAY ONLY; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE.

BH INCLUDES SHC. EFFECTIVE 1/1/2013, PURSUANT TO LABOR CODE SECTIONS 1773.1 AND 1773.8, THE AMOUNT PAID FOR THIS EMPLOYER PAYMENT MAY VARY RESULTING IN A LOWER TAXABLE BASIC HOURLY WAGE RATE, BUT THE TOTAL HOURLY RATES FOR STRAIGHT TIME AND OVERTIME MAY NOT BE LESS THAN THE GENERAL PREVAILING RATE OF PER DIEM WAGES.

BI RATE APPLIES TO FIRST 4 DAILY OVERTIME HOURS AND THE FIRST 8 HOURS WORKED ON SATURDAY DURING THE EMPLOYEES NORMAL WORKING HOURS. ALL OTHER OVERTIME HOURS SHALL BE PAID AT THE SUNDAY AND HOLIDAY DOUBLE TIME RATE.

BJ INCLUDES AN AMOUNT FOR PENSION FACTORED AT THE OVERTIME MULTIPLIER RATE.

BK INCLUDES $0.05 FOR SCHOLAR FUND.

BL THE RATIO OF TERRAZZO FINISHER HOURS TO TERRAZZO WORKER HOURS SHALL NOT EXCEED TWO (2) TO ONE (1).

BM INCLUDES AN AMOUNT FOR VACATION/DUES CHECK OFF WHICH IS NOT FACTORED IN THE OVERTIME RATES.

BN INCLUDES AMOUNT WITHHELD FOR DUES CHECK OFF, WHICH IS FACTORED IN THE OVERTIME RATES. ANY EMPLOYEE WORKING UNDERGROUND SHALL RECEIVE $1.00 PER HOUR IN ADDITION TO REGULAR WAGES.

BO RATE APPLIES TO THE FIRST 9 HOURS WORKED ON SATURDAY. ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME RATE.

BP RATE APPLIES TO FIRST YEAR OF EMPLOYMENT ONLY; $2.16 AFTER 2 YEARS OF EMPLOYMENT.

BQ RATE APPLIES TO ALL TIME WORKED IN EXCESS OF 8 HOURS PER DAY OR 40 HOURS PER WEEK AND FOR ALL HOURS ON SUNDAYS AND HOLIDAYS. RATE DOES NOT INCLUDE ANY ADDITIONAL AMOUNT THAT MAY BE REQUIRED FOR VACATION/HOLIDAY PAYMENT.

BR RATE APPLIES TO FIRST YEAR OF EMPLOYMENT ONLY; $1.85 AFTER 2 YEARS OF EMPLOYMENT.

RECOGNIZED HOLIDAYS: HOLIDAYS UPON WHICH THE GENERAL PREVAILING HOURLY WAGE RATE FOR HOLIDAY WORK SHALL BE PAID, SHALL BE ALL HOLIDAYS IN THE COLLECTIVE BARGAINING AGREEMENT, APPLICABLE TO THE PARTICULAR CRAFT, CLASSIFICATION, OR TYPE OF WORKER EMPLOYED ON THE PROJECT, WHICH IS ON FILE WITH THE DIRECTOR OF INDUSTRIAL RELATIONS. IF THE PREVAILING RATE IS NOT BASED ON A COLLECTIVELY BARGAINED RATE, THE HOLIDAYS UPON WHICH THE PREVAILING RATE SHALL BE PAID SHALL BE AS PROVIDED IN SECTION 6700 OF THE GOVERNMENT CODE. YOU MAY OBTAIN THE HOLIDAY PROVISIONS FOR THE CURRENT DETERMINATIONS ON THE INTERNET AT HTTP://WWW.DIR.CA.GOV/OPRL/DPreWageDetermination.htm. HOLIDAY PROVISIONS FOR THE CURRENT OR SUPERSEDED DETERMINATIONS MAY BE OBTAINED BY CONTACTING THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE: IN ACCORDANCE WITH LABOR CODE SECTIONS 1773.1 AND 1773.9, CONTRACTORS SHALL MAKE TRAVEL AND/OR SUBSISTENCE PAYMENTS TO EACH WORKER TO EXECUTE THE WORK. YOU MAY OBTAIN THE TRAVEL AND/OR SUBSISTENCE PROVISIONS FOR THE CURRENT DETERMINATIONS ON THE INTERNET AT HTTP://WWW.DIR.CA.GOV/OPRL/DPreWageDetermination.htm. TRAVEL AND/OR SUBSISTENCE REQUIREMENTS FOR CURRENT OR SUPERSEDED DETERMINATIONS MAY BE OBTAINED BY CONTACTING THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774.

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GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1 FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

LOCALITY: SANTA CLARA COUNTY

DETERMINATION: STC-2025-1

CRAFT	CLASSIFICATION	CRAFT FOOTNOTE	ISSUE DATE	EXPIRATION DATE	BASIC HOURLY RATE	BASIC HOURLY RATE FOOTNOTE	HEALTH AND WELFARE	HEALTH AND WELFARE FOOTNOTE	PENSION	PENSION FOOTNOTE	VACATION/ HOLIDAY	VACATION/ HOLIDAY FOOTNOTE	TRAINING	TRAINING FOOTNOTE	OTHER PAYMENTS	OTHER PAYMENTS FOOTNOTE	HOURS	HOURS FOOTNOTE	STRAIGHT-TIME TOTAL HOURLY RATE	DAILY OVERTIME HOURLY RATE	O FO
#BRICKLAYER, BLOCKLAYER,	POINTER, CLEANER, CAULKER, WATERPROOFER (2ND SHIFT)		08/22/2024	06/30/2025**	$69.280	A	$12.400		$14.520		$0.000	B	$1.690		$0.430		8.0	C	$98.320	$132.960	D
#BRICKLAYER, BLOCKLAYER,	POINTER, CLEANER, CAULKER, WATERPROOFER (3RD SHIFT)		08/22/2024	06/30/2025**	$72.290	A	$12.400		$14.520		$0.000	B	$1.690		$0.430		8.0	C	$101.330	$137.480	D
#BRICKLAYER, BLOCKLAYER:	BRICKLAYER, BLOCKLAYER, STONEMASON (2ND SHIFT)		08/22/2024	04/30/2025**	$59.630	A	$12.400		$12.230		$3.000	F	$0.800		$2.230	G	8.0	C	$90.290	$121.610	H
#BRICKLAYER, BLOCKLAYER:	BRICKLAYER, BLOCKLAYER, STONEMASON (3RD SHIFT)		08/22/2024	04/30/2025**	$62.480	A	$12.400		$12.230		$3.000	F	$0.800		$2.230	G	8.0	C	$93.140	$125.880	H
#BRICK TENDER	BRICK TENDER (SPECIAL SINGLE SHIFT)		08/22/2024	06/30/2025**	$43.380	I	$10.600		$14.170		$0.000	B	$0.450		$0.400		8.0		$69.000	$90.690	J
#CARPET, LINOLEUM,	SOFT FLOOR LAYER (SPECIAL SHIFT)		02/22/2025	12/31/2025**	$73.150	A	$11.750		$21.380		$0.000	K	$1.100		$0.460		8.0		$107.840	$180.990	
#ELECTRICIAN:	COMM & SYSTEM INSTALLER, SECOND SHIFT		02/22/2025	11/30/2025**	$66.490	L	$15.650		$10.000	M	$0.000		$1.000		$0.260	N	8.0		$95.720	$130.130	O
#ELECTRICIAN:	COMM & SYSTEM INSTALLER, THIRD SHIFT		02/22/2025	11/30/2025**	$74.480	L	$15.650		$10.000	M	$0.000		$1.000		$0.260	N	8.0		$103.990	$142.530	O
#ELECTRICIAN:	COMM & SYSTEM TECH., SECOND SHIFT		02/22/2025	11/30/2025**	$76.460	L	$15.650		$10.000	M	$0.000		$1.000		$0.260	N	8.0		$106.040	$145.610	O
#ELECTRICIAN:	COMM & SYSTEM TECH., THIRD SHIFT		02/22/2025	11/30/2025**	$85.650	L	$15.650		$10.000	M	$0.000		$1.000		$0.260	N	8.0		$115.560	$159.890	O
#ELECTRICIAN:	INSIDE WIREMAN, TECHNICIAN SECOND SHIFT	Q	02/22/2025	05/31/2025**	$102.250	R	$18.310		$23.900	S	$0.000		$1.500		$0.750	T	8.0		$149.780	$202.440	U
#ELECTRICIAN:	INSIDE WIREMAN, TECHNICIAN THIRD SHIFT	Q	02/22/2025	05/31/2025**	$114.540	R	$18.310		$23.900	S	$0.000		$1.500		$0.810	T	8.0		$162.500	$221.480	U
#ELECTRICIAN:	CABLE SPLICER, 2ND SHIFT	Q	02/22/2025	05/31/2025*	$117.590	R	$16.150		$21.900	S	$0.000		$1.500		$0.830	T	8.0		$161.500	$222.060	U
#ELECTRICIAN:	CABLE SPLICER, 3RD SHIFT	Q	02/22/2025	05/31/2025**	$131.730	R	$16.150		$21.900	S	$0.000		$1.500		$0.900	T	8.0		$176.130	$243.970	U
#FIELD SURVEYOR:	CHIEF OF PARTY (NIGHT SHIFT)	W	02/22/2025	02/28/2026**	$69.810		$13.380		$14.510	X	$5.100	Y	$1.260		$0.280		8.0		$104.340	$139.250	Z
#FIELD SURVEYOR:	CHAINMAN/RODMAN (NIGHT SHIFT)	W	02/22/2025	02/28/2026**	$59.150		$13.380		$14.510	X	$5.100	Y	$1.260		$0.280		8.0		$93.680	$123.260	Z
#GLAZIER	GLAZIER (SPECIAL SHIFT)	AA	02/22/2025	12/31/2025**	$65.580	A	$11.750		$21.590	AB	$0.000		$1.100		$0.550	AC	7.5	AD	$100.570	$166.150	
#MARBLE FINISHER	MARBLE FINISHER (2ND SHIFT)	AE	08/22/2024	07/31/2025**	$47.060	AF	$12.400		$6.330		$0.000	K	$0.450		$0.950		8.0		$67.190	$90.720	A
#MARBLE MASON	MARBLE MASON (2ND SHIFT)	AE	08/22/2024	07/31/2025**	$67.720	AF	$12.400		$16.190		$0.000	K	$0.800		$1.300		8.0		$98.410	$132.270	A
#PAINTER	PAINTER (SPECIAL SHIFT)	AH	02/22/2025	12/31/2025**	$64.010	I	$11.750		$15.220	X	$0.000	K	$1.070		$0.550		8.0	C	$92.600	$124.610	AI
#PAINTER	INDUSTRIAL PAINTER (SPECIAL SHIFT)	AJ	02/22/2025	12/31/2025**	$67.010	I	$11.750		$15.220	X	$0.000	K	$1.070		$0.550		8.0	C	$95.600	$129.110	AI
#PAINTER	BRIDGE PAINTER (SPECIAL SHIFT)	AK	02/22/2025	12/31/2025**	$69.410	I	$11.750		$15.220	X	$0.000	K	$1.070		$0.550		8.0	C	$98.000	$132.710	AI
#PAINTER:	TAPER (SPECIAL SHIFT)		02/22/2025	06/30/2025**	$76.460	AL	$11.750		$19.890		$0.000	K	$1.050		$0.750		8.0		$109.900	$148.130	AI

CRAFT	CLASSIFICATION	CRAFT FOOTNOTE	ISSUE DATE	EXPIRATION DATE	BASIC HOURLY RATE	BASIC HOURLY RATE FOOTNOTE	HEALTH AND WELFARE	HEALTH AND WELFARE FOOTNOTE	PENSION	PENSION FOOTNOTE	VACATION/ HOLIDAY	VACATION/ HOLIDAY FOOTNOTE	TRAINING	TRAINING FOOTNOTE	OTHER PAYMENTS	OTHER PAYMENTS FOOTNOTE	HOURS	HOURS FOOTNOTE	STRAIGHT-TIME TOTAL HOURLY RATE	DAILY OVERTIME HOURLY RATE	O
#PLASTERER	PLASTERER: 2ND SHIFT		02/22/2025	06/30/2025**	$52.530	AO	$15.430		$19.490		$0.000	B	$1.300		$1.340		7.0	AP	$90.090	$112.660	A
#PLASTERER	PLASTERER: 3RD SHIFT		02/22/2025	06/30/2025**	$53.530	AO	$15.430		$19.490		$0.000	B	$1.300		$1.340		7.0	AP	$91.090	$113.660	A
#PLUMBER:	PLUMBER, STEAMFITTER, REFRIGERATION FITTER (HVAC)(2ND SHIFT)		08/22/2024	06/30/2025**	$88.400	A	$18.280	AS	$31.870	AT	$0.000		$2.250		$0.950	AU	7.5	AV	$141.750	$193.150	H
#PLUMBER:	PLUMBER, STEAMFITTER, REFRIGERATION FITTER (HVAC)(3RD SHIFT)		08/22/2024	06/30/2025**	$88.400	A	$18.280	AS	$31.870	AT	$0.000		$2.250		$0.950	AU	7.0	AW	$141.750	$193.150	H
PLUMBER:	CONSTRUCTION TRADESMAN (YEAR 2)(2ND SHIFT)		08/22/2024	06/30/2025*	$31.890	A	$10.950	AX	$0.500	AX	$0.000		$0.000		$0.250	AY	7.5	AV	$43.590	$59.540	H
PLUMBER:	CONSTRUCTION TRADESMAN (YEAR 2)(3RD SHIFT)		08/22/2024	06/30/2025*	$31.890	A	$10.950	AX	$0.500	AX	$0.000		$0.000		$0.250	AY	7.0	AW	$43.590	$59.540	H
PLUMBER:	CONSTRUCTION TRADESMAN (YEAR 3)(2ND SHIFT)		08/22/2024	06/30/2025*	$38.330	A	$10.950	AX	$0.500	AX	$0.000		$0.000		$0.250	AY	7.5	AV	$50.030	$69.200	H
PLUMBER:	CONSTRUCTION TRADESMAN (YEAR 3)(3RD SHIFT)		08/22/2024	06/30/2025*	$38.330	A	$10.950	AX	$0.500	AX	$0.000		$0.000		$0.250	AY	7.0	AW	$50.030	$69.200	H
PLUMBER:	CONSTRUCTION TRADESMAN (YEAR 4)(2ND SHIFT)		08/22/2024	06/30/2025*	$39.920	A	$10.950	AX	$0.500	AX	$0.000		$0.000		$0.250	AY	7.5	AV	$51.620	$71.580	H
PLUMBER:	CONSTRUCTION TRADESMAN (YEAR 4)(3RD SHIFT)		08/22/2024	06/30/2025*	$39.920	A	$10.950	AX	$0.500	AX	$0.000		$0.000		$0.250	AY	7.0	AW	$51.620	$71.580	H
PLUMBER:	CONSTRUCTION TRADESMAN (YEAR 5)(2ND SHIFT)		08/22/2024	06/30/2025*	$43.240	A	$10.950	AX	$2.250	AX	$0.000		$0.000		$0.250	AY	7.5	AV	$56.690	$78.310	H
PLUMBER:	CONSTRUCTION TRADESMAN (YEAR 5)(3RD SHIFT)		08/22/2024	06/30/2025*	$43.240	A	$10.950	AX	$2.250	AX	$0.000		$0.000		$0.250	AY	7.0	AW	$56.690	$78.310	H
#PLUMBER:	SERVICE AND REPAIR (2ND SHIFT)		08/22/2024	06/30/2025**	$88.400	A	$18.280	AS	$31.870	AT	$0.000		$2.250		$0.950	AU	7.5	AV	$141.750	$193.150	H
#PLUMBER:	SERVICE AND REPAIR (3RD SHIFT)		08/22/2024	06/30/2025**	$88.400	A	$18.280	AS	$31.870	AT	$0.000		$2.250		$0.950	AU	7.0	AW	$141.750	$193.150	H
#PLUMBER:	SPRINKLER FITTER (FIRE PROTECTION AND FIRE CONTROL SYSTEMS), 2ND SHIFT		08/22/2024	09/30/2024*	$91.000	A	$13.360		$23.300		$0.000	B	$1.850		$0.400		8.0		$129.910	$175.410	H
#PLUMBER:	SPRINKLER FITTER (FIRE PROTECTION AND FIRE CONTROL SYSTEMS), 3RD SHIFT		08/22/2024	09/30/2024*	$91.000	A	$13.360		$23.300		$0.000	B	$1.850		$0.400		8.0		$129.910	$175.410	H
#SHEET METAL WORKER	SHEET METAL WORKER (SPECIAL SHIFT)		02/22/2025	06/29/2025*	$84.940	I	$16.920	BA	$34.620	BB	$0.000	B	$1.650		$0.710		8.0		$138.840	$185.310	B
#SHEET METAL WORKER	SHEET METAL WORKER (2ND SHIFT)		02/22/2025	06/29/2025*	$83.420	I	$16.920	BA	$34.620	BB	$0.000	B	$1.650		$0.710		7.5	AV	$137.320	$183.030	B
#SHEET METAL WORKER	SHEET METAL WORKER (3RD SHIFT)		02/22/2025	06/29/2025*	$87.220	I	$16.920	BA	$34.620	BB	$0.000	B	$1.650		$0.710		7.0	AW	$141.120	$188.730	B
#SHEET METAL WORKER	TOTAL SHEET METAL CONTRACT OF $200,000 OR LESS (SPECIAL SHIFT)		02/22/2025	06/29/2025*	$72.920	I	$16.920	BA	$32.870	BB	$0.000	B	$1.650		$0.710		8.0		$125.070	$165.040	B
#SHEET METAL WORKER	TOTAL SHEET METAL CONTRACT OF $200,000 OR LESS (2ND SHIFT)		02/22/2025	06/29/2025*	$71.620	I	$16.920	BA	$32.870	BB	$0.000	B	$1.650		$0.710		7.5	AV	$123.770	$163.090	B
#SHEET METAL WORKER	TOTAL SHEET METAL CONTRACT OF $200,000 OR LESS (3RD SHIFT)		02/22/2025	06/29/2025*	$74.880	I	$16.920	BA	$32.870	BB	$0.000	B	$1.650		$0.710		7.0	AW	$127.030	$167.980	B

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#SHEET METAL WORKER	SERVICE MECHANIC (TOTAL SHEET METAL CONTRACT OF $200,000 OR LESS) (SPECIAL SHIFT)		02/22/2025	06/29/2025*	$57.310	I	$15.920	BD	$17.840	BB	$0.000	B	$1.490		$0.710		8.0		$93.270	$123.180	BI
#SHEET METAL WORKER	SERVICE MECHANIC (TOTAL SHEET METAL CONTRACT OF $200,000 OR LESS) (2ND SHIFT)		02/22/2025	06/29/2025*	$56.290	I	$15.920	BD	$17.840	BB	$0.000	B	$1.490		$0.710		7.5	AV	$92.250	$121.650	BI
#SHEET METAL WORKER	SERVICE MECHANIC (TOTAL SHEET METAL CONTRACT OF $200,000 OR LESS) (3RD SHIFT)		02/22/2025	06/29/2025*	$58.850	I	$15.920	BD	$17.840	BB	$0.000	B	$1.490		$0.710		7.0	AW	$94.810	$125.490	BI
#SHEET METAL WORKER	SERVICE TECHNICIAN (TOTAL SHEET METAL CONTRACT OF $200,000 OR LESS) (SPECIAL SHIFT)		02/22/2025	06/29/2025*	$52.360	I	$15.920	BD	$11.690	BB	$0.000	B	$1.490		$0.710		8.0		$82.170	$109.160	BI
#SHEET METAL WORKER	SERVICE TECHNICIAN (TOTAL SHEET METAL CONTRACT OF $200,000 OR LESS) (2ND SHIFT)		02/22/2025	06/29/2025*	$51.430	I	$15.920	BD	$11.690	BB	$0.000	B	$1.490		$0.710		7.5	AV	$81.240	$107.760	BI
#SHEET METAL WORKER	SERVICE TECHNICIAN (TOTAL SHEET METAL CONTRACT OF $200,000 OR LESS) (3RD SHIFT)		02/22/2025	06/29/2025*	$53.760	I	$15.920	BD	$11.690	BB	$0.000	B	$1.490		$0.710		7.0	AW	$83.570	$111.260	BI
#SHEET METAL WORKER	AIR CONDITIONING SPECIALIST (TOTAL SHEET METAL CONTRACT OF $200,000 OR LESS) (SPECIAL SHIFT)		02/22/2025	06/29/2025*	$45.510	I	$15.920	BD	$5.730	BB	$0.000	B	$1.470		$0.710		8.0		$69.340	$92.730	BC
#SHEET METAL WORKER	AIR CONDITIONING SPECIALIST (TOTAL SHEET METAL CONTRACT OF $200,000 OR LESS) (2ND SHIFT)		02/22/2025	06/29/2025*	$44.690	I	$15.920	BD	$5.730	BB	$0.000	B	$1.470		$0.710		7.5	AV	$68.520	$91.500	BC
#SHEET METAL WORKER	AIR CONDITIONING SPECIALIST (TOTAL SHEET METAL CONTRACT OF $200,000 OR LESS) (3RD SHIFT)		02/22/2025	06/29/2025*	$46.720	I	$15.920	BD	$5.730	BB	$0.000	B	$1.470		$0.710		7.0	AW	$70.550	$94.550	BC
#SHEET METAL WORKER	AIR CONDITIONING PRO (TOTAL SHEET METAL CONTRACT OF $200,000 OR LESS) (SPECIAL SHIFT)		02/22/2025	06/29/2025*	$53.570	I	$15.920	BA	$12.130	BB	$0.000	B	$1.470		$0.710		8.0		$83.800	$111.340	BC
#SHEET METAL WORKER	AIR CONDITIONING PRO (TOTAL SHEET METAL CONTRACT OF $200,000 OR LESS) (2ND SHIFT)		02/22/2025	06/29/2025*	$52.610	I	$15.920	BA	$12.130	BB	$0.000	B	$1.470		$0.710		7.5	AV	$82.840	$109.900	BC
#SHEET METAL WORKER	AIR CONDITIONING PRO (TOTAL SHEET METAL CONTRACT OF $200,000 OR LESS) (3RD SHIFT)		02/22/2025	06/29/2025*	$55.000	I	$15.920	BA	$12.130	BB	$0.000	B	$1.470		$0.710		7.0	AW	$85.230	$113.490	BC
#TERRAZZO FINISHER	TERRAZZO FINISHER, 2ND SHIFT	BF	08/22/2024	06/30/2025**	$49.930	BG	$12.400		$7.120		$0.000	B	$0.800		$1.090		8.0		$71.340	$93.690	BC
#TERRAZZO FINISHER	TERRAZZO FINISHER, 3RD SHIFT	BF	08/22/2024	06/30/2025**	$49.930	BG	$12.400		$7.120		$0.000	B	$0.800		$1.090		8.0		$71.340	$93.690	BC

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#TERRAZZO WORKER	TERRAZZO WORKER, 2ND SHIFT	BF	08/22/2024	06/30/2025**	$68.580	BG	$12.400		$15.680		$0.000	B	$0.800		$1.340		8.0		$98.800	$129.560	B(
#TERRAZZO WORKER	TERRAZZO WORKER, 3RD SHIFT	BF	08/22/2024	06/30/2025**	$68.580	BG	$12.400		$15.680		$0.000	B	$0.800		$1.340		8.0		$98.800	$129.560	B(
#TILE FINISHER	TILE FINISHER, 2ND SHIFT		08/22/2024	03/31/2025*	$41.500	BH	$11.960		$6.210		$1.250		$0.530		$1.450		8.0	C	$62.900	$81.150	
#TILE FINISHER	TILE FINISHER - RED CIRCLED FINISHER, 2ND SHIFT		08/22/2024	03/31/2025*	$46.770	BH	$11.960		$7.050		$1.750		$0.530		$1.520		8.0	C	$69.580	$90.470	
#TILE SETTER	TILE SETTER, 2ND SHIFT		08/22/2024	03/31/2025*	$62.920	BH	$11.960		$9.020		$3.000		$0.800		$2.110		8.0	C	$89.810	$118.270	

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FOOTNOTES

* EFFECTIVE UNTIL SUPERSEDED BY A NEW DETERMINATION ISSUED BY THE DIRECTOR OF INDUSTRIAL RELATIONS. CONTACT THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774 FOR THE NEW RATES AFTER TEN DAYS AFTER THE EXPIRATION DATE IF NO SUBSEQUENT DETERMINATION IS ISSUED.

** THE RATE TO BE PAID FOR WORK PERFORMED AFTER THIS DATE HAS BEEN DETERMINED. IF WORK WILL EXTEND PAST THIS DATE, THE NEW RATE MUST BE PAID AND SHOULD BE INCORPORATED IN CONTRACTS ENTERED INTO NOW. CONTACT THE OFFICE OF THE DIRECTOR RESEARCH UNIT FOR SPECIFIC RATES AT (415) 703-4774.

\# INDICATES AN APPRENTICEABLE CRAFT. THE CURRENT APPRENTICE WAGE RATES ARE AVAILABLE ON THE INTERNET @ HTTP://WWW.DIR.CA.GOV/OPRL/PWAPPWAGE/PWAPPWAGESTART.ASP.

& THE BASIC HOURLY RATE AND EMPLOYER PAYMENTS ARE NOT TAKEN FROM A COLLECTIVE BARGAINING AGREEMENT FOR THIS CRAFT OR CLASSIFICATION.

A INCLUDES AMOUNT WITHHELD FOR DUES CHECK OFF.

B INCLUDED IN STRAIGHT-TIME HOURLY RATE.

C SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORKWEEK DUE TO INCLEMENT WEATHER.

D RATE APPLIES TO FIRST 2 OVERTIME HOURS MONDAY THROUGH FRIDAY; ALL OTHER OVERTIME IS PAID AT THE DOUBLE TIME RATE.

E RATE APPLIES TO THE FIRST 8 HOURS WORKED ON SATURDAY. ALL OTHER HOURS ARE PAID AT THE SUNDAY/HOLIDAY RATE.

F VACATION IS FACTORED AT THE APPLICABLE OVERTIME MULTIPLIER

G INCLUDES AMOUNT FOR INDUSTRY PROMOTION FUND, INTERNATIONAL MASONRY INSTITUTE, LABOR MANAGEMENT COOPERATION COMMITTEE, AND VACATION TRUST FUND. EFFECTIVE 5/1/2022, INDUSTRY PROMOTION FUND IS SPLIT INTO THE INDUSTRY FUND AND THE CALIFORNIA MASONRY COUNCIL.

H RATE APPLIES TO THE FIRST 2 DAILY OVERTIME HOURS AND THE FIRST 10 HOURS ON SATURDAY; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE.

I INCLUDES AMOUNT FOR VAC/HOL AND DUES CHECK OFF.

J RATE APPLIES TO FIRST 2 DAILY OVERTIME HOURS AND THE FIRST 10 HOURS WORKED ON SATURDAY. ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE. SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWNDURING THE NORMAL WORK WEEK DUE TO INCLEMENT WEATHER.

K INCLUDED IN BASIC HOURLY RATE.

L INCLUDES AN AMOUNT EQUAL TO 6% OF THE HOURLY RATE FOR VACATION/WORKING DUES WHICH IS FACTORED INTO OVERTIME RATES.

M IN ADDITION, AN AMOUNT EQUAL TO 3% OF THE BASIC HOURLY RATE IS ADDED TO THE TOTAL HOURLY RATE AND OVERTIME HOURLY RATES FOR THE NATIONAL EMPLOYEES BENEFIT BOARD.

N IN ADDITION, AN AMOUNT EQUAL TO 0.5% OF THE BASIC HOURLY RATE, WHICH IS FACTORED AT THE APPLICABLE OVERTIME MULTIPLIER, IS ADDED TO THE TOTAL HOURLY RATE AND OVERTIME HOURLY RATES.

O RATE APPLIES TO THE FIRST 2 DAILY OVERTIME HOURS AND THE FIRST 8 HOURS ON SATURDAY ONLY; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY NON-SHIFT OVERTIME HOURLY RATE.

P DISREGARD THIS RATE. USE THE SUNDAY AND HOLIDAY NON-SHIFT DIFFERENTIAL RATE FOR THIS CLASSIFICATION AS PUBLISHED IN THE DIRECTOR'S GENERAL PREVAILING WAGE DETERMINATIONS.

Q FOR SHIFT RATES ON OCCUPIED REMODEL AND RENOVATION WORK, PLEASE CONTACT THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415)703-4774.

R INCLUDES AMOUNT WITHHELD FOR WORKING DUES.

S IN ADDITION, AN AMOUNT EQUAL TO 3% OF THE BASIC HOURLY RATE IS ADDED TO THE TOTAL HOURLY RATE AND OVERTIME HOURLY RATES FOR THE NATIONAL EMPLOYEES BENEFIT BOARD. PURSUANT TO LABOR CODE SECTIONS 1773.1 AND 1773.8, THE AMOUNT PAID FOR THIS EMPLOYER PAYMENT MAY VARY RESULTING IN A LOWER TAXABLE BASIC HOURLY WAGE RATE, BUT THE TOTAL HOURLY RATES FOR STRAIGHT TIME AND OVERTIME MAY NOT BE LESS THAN THE GENERAL PREVAILING RATE OF PER DIEM WAGES.

T INCLUDES AMOUNT EQUAL TO 0.5% OF THE HOURLY RATE FOR THE ADMINISTRATIVE MAINTENANCE FUND AND THE REMAINING AMOUNT IS FOR THE JOINT ELECTRICAL INDUSTRY FUND.

U RATE APPLIES TO THE FIRST 2 DAILY OVERTIME HOURS UP TO A MAXIMUM OF 10 HOURS IN ANY ONE WEEK. ALL OTHER TIME INCLUDING ALL WORK ON SATURDAYS, SUNDAYS, and HOLIDAYS IS PAID AT THE DOUBLE TIME RATE.

V DISREGARD THIS RATE. FOR ALL WORK ON SATURDAYS, SUNDAYS, AND HOLIDAYS, USE THE SATURDAY, SUNDAY AND HOLIDAY NON-SHIFT DIFFERENTIAL RATE FOR THIS CLASSIFICATION AS PUBLISHED IN THE DIRECTOR'S GENERAL PREVAILING WAGE DETERMINATIONS.

W ALL CREWS, WITHOUT CONSIDERATION TO THE NUMBER OF INDIVIDUALS IN THE CREW, SHALL INCLUDE A CHIEF OF PARTY. A CREW CONSISTS OF ONE (1) OR MORE EMPLOYEES PERFORMING FIELD AND CONSTRUCTION SURVEY WORK.

X INCLUDES AN AMOUNT PER HOUR WORKED FOR ANNUITY TRUST FUND.

Y INCLUDES AN AMOUNT PER HOUR WORKED FOR SUPPLEMENTAL DUES.

Z RATE APPLIES TO DAILY OVERTIME HOURS UP TO AND INCLUDING 12 HOURS WORKED, SUNDAY NIGHT THROUGH THURSDAY NIGHT, OR OTHER OVERTIME HOURS BEYOND 40 HOURS IN A WORKWEEK. ALL OTHER OVERTIME IS PAID AT THE SUNDAY/HOLIDAY SHIFT DIFFERENTIAL RATE. IN THE EVENT THAT THERE ARE LESS THAN 40 HOURS WORKED SUNDAY THROUGH THURSDAY, THEN THE BALANCE OF HOURS WORKED UP TO AND INCLUDING 40 HOURS FOR THE WORKWEEK, OR UP TO 8 HOURS FOR THE WORKDAY, MAY BE WORKED ON SATURDAY AT THE STRAIGHT-TIME SHIFT DIFFERENTIAL RATE.

AA CERTIFIED MANIPULATOR WORK SHALL RECEIVE $2.00 PER HOUR ABOVE THE BASIC WAGE RATE

AB INCLUDES AN AMOUNT PER HOUR WORKED FOR IUPAT, IARP, AND RETIREE PENSION.

AC INCLUDES AMOUNTS FOR INDUSTRY FUND, WORK PRESERVATION FUND, AND LABOR MANAGEMENT COOPERATION INITIATIVE

AD 8 HOURS PAY FOR 7.5 HOURS WORKED AT THE STRAIGHT TIME BASIC HOURLY RATE

AE EMPLOYEES WORKING ON ANY SUSPENDED PLATFORM/SWING STAGE SHALL BE PAID AN ADDITIONAL $20.00 PER DAY ABOVE THE WAGE RATE.

AF INCLUDES AN AMOUNT FOR DUES CHECK-OFF AND VACATION/HOLIDAY WHICH ARE FACTORED INTO OVERTIME RATES.

AG RATE APPLIES TO FIRST 2 OVERTIME HOURS MONDAY THROUGH FRIDAY; ALL OTHER OVERTIME IS PAID AT THE DOUBLE TIME RATE.

AH EMPLOYEES SHALL RECEIVE PREMIUM PAY FOR THE FOLLOWING WORK: WALLCOVERING ($2.00 PER HOUR), EXOTIC MATERIALS ($1.25 PER HOUR) AND LEAD ABATEMENT/REMOVAL ($1.00 PER HOUR). EMPLOYEES SHALL ALSO BE ENTITLED TO HIGH TIME PREMIUM PAY WHENEVER THE WORK PERFORMED REQUIRES PERSONAL FALL RESTRAINTS TO BE WORN BY THE EMPLOYEE. THE AMOUNT OF THE PREMIUM SHALL BE AS FOLLOWS: AN ADDITIONAL $2.00 PER HOUR ABOVE BASIC HOURLY RATE WHEN WORKING OVER 50 FEET ABOVE GROUND OR WATER LEVEL, $4.00 PER HOUR WHEN WORKING FROM 100 TO 180 FEET AND $6.00 PER HOUR WHEN WORKING OVER 180 FEET. SEE SCOPE PROVISIONS FOR FURTHER DETAILS ON PREMIUMS.

AI RATE APPLIES TO THE FIRST 4 OVERTIME HOURS MONDAY THROUGH FRIDAY AND THE FIRST 12 HOURS WORKED ON SATURDAYS AND DESIGNATED DAYS OFF. ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME RATE.

AJ EMPLOYEES SHALL RECEIVE PREMIUM PAY FOR THE FOLLOWING WORK: METALIZING AND THERMAL SPRAY ($4.00 PER HOUR). EMPLOYEES SHALL ALSO BE ENTITLED TO HIGH TIME PREMIUM PAY WHENEVER THE WORK PERFORMED REQUIRES PERSONAL FALL RESTRAINTS TO BE WORN BY THE EMPLOYEE. THE AMOUNT OF THE PREMIUM SHALL BE AS FOLLOWS: AN ADDITIONAL $4.00 PER HOUR WHEN WORKING FROM 100 TO 180 FEET ABOVE GROUND OR WATER LEVEL AND $6.00 PER HOUR WHEN WORKING OVER 180 FEET. SEE SCOPE PROVISIONS FOR FURTHER DETAILS ON PREMIUMS.

AK EMPLOYEES SHALL RECEIVE PREMIUM PAY FOR THE FOLLOWING WORK: METALIZING AND THERMAL SPRAY ($4.00 PER HOUR). SEE SCOPE PROVISIONS FOR FURTHER DETAILS ON PREMIUMS.

AL INCLUDES AMOUNTS FOR VACATION AND DUES CHECK OFF

AM RATE APPLIES TO THE FIRST 4 DAILY OVERTIME HOURS AND THE FIRST 12 HOURS WORKED ON SATURDAY. ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME RATE. SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORKWEEK DUE TO INCLEMENT WEATHER.

AN DESIGNATED DAYS OFF SHALL BE PAID AT THE SATURDAY OVERTIME RATE; PLEASE REFER TO THE HOLIDAY PROVISIONS FOR A LIST OF DESIGNATED DAYS OFF.

AO INCLUDES AMOUNTS WITHHELD FOR DUES CHECK OFF, VACATION, AND SHIFT PREMIUM WHICH ARE NOT FACTORED INTO OVERTIME. EMPLOYEES OPERATING AND WORKING BEHIND PLASTER GUNS SHALL RECEIVE AN ADDITIONAL $5.00 PER DAY ABOVE THE WAGE RATE. EMPLOYEES WORKING ON AN EXTERIOR SUSPENDED SCAFFOLD SHALL BE PAID AN ADDITIONAL $15.00 PER DAY ABOVE THE WAGE RATE.

AP 8 HOURS PAY FOR 7 HOURS WORKED AT STRAIGHT-TIME BASIC HOURLY RATE.

AQ RATE APPLIES TO THE FIRST 4 OVERTIME HOURS MONDAY THROUGH FRIDAY AND THE FIRST 7 HOURS WORKED ON SATURDAYS AND DESIGNATED DAYS OFF. ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME RATE.

AR RATE APPLIES TO THE FIRST 4 OVERTIME HOURS MONDAY THROUGH FRIDAY AND THE FIRST 7 HOURS WORKED ON SATURDAYS AND DESIGNATED DAYS OFF. ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME RATE. SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORKWEEK DUE TO INCLEMENT WEATHER

AS INCLUDES AN AMOUNT FOR HEALTH AND WELFARE EXTENDED RESERVE WHICH IS FACTORED AT THE APPLICABLE OVERTIME MULTIPLIER. PURSUANT TO LABOR CODE SECTIONS 1773.1 AND 1773.8, THE AMOUNT PAID FOR THIS EMPLOYER PAYMENT MAY VARY RESULTING IN A LOWER TAXABLE BASIC HOURLY WAGE RATE, BUT THE TOTAL HOURLY RATES FOR STRAIGHT TIME AND OVERTIME MAY NOT BE LESS THAN THE GENERAL PREVAILING RATE OF PER DIEM WAGES.

AT INCLUDES AN AMOUNT FOR 401A-PART B PENSION WHICH IS FACTORED AT THE APPLICABLE OVERTIME MULTIPLIER. PURSUANT TO LABOR CODE SECTIONS 1773.1 AND 1773.8, THE AMOUNT PAID FOR THIS EMPLOYER PAYMENT MAY VARY RESULTING IN A LOWER TAXABLE BASIC HOURLY WAGE RATE, BUT THE TOTAL HOURLY RATES FOR STRAIGHT TIME AND OVERTIME MAY NOT BE LESS THAN THE GENERAL PREVAILING RATE OF PER DIEM WAGES.

AU INCLUDES AN AMOUNT FOR SUPPLEMENTAL UNEMPLOYMENT BENEFITS.

AV 8 HOURS PAY AT THE STRAIGHT TIME TOTAL HOURLY RATE FOR 7.5 HOURS WORKED

AW 8 HOURS PAY AT THE STRAIGHT TIME TOTAL HOURLY RATE FOR 7 HOURS WORKED

AX PURSUANT TO LABOR CODE SECTIONS 1773.1 AND 1773.8, THE AMOUNT PAID FOR THIS EMPLOYER PAYMENT MAY VARY RESULTING IN A LOWER TAXABLE BASIC HOURLY WAGE RATE, BUT THE TOTAL HOURLY RATES FOR STRAIGHT TIME AND OVERTIME MAY NOT BE LESS THAN THE GENERAL PREVAILING RATE OF PER DIEM WAGES.

AY AMOUNT IS FOR CONTRACT ADMINISTRATION

AZ RATE APPLIES TO PLUMBING SERVICE AND REPAIR HOLIDAYS. FOR HOLIDAY RATE APPLICABLE TO HVAC REFRIGERATION SERVICE, PLEASE SEE HOLIDAY PROVISIONS.

BA INCLUDES SMOHIT AND SHC. EFFECTIVE 1/1/2013, PURSUANT TO LABOR CODE SECTIONS 1773.1 AND 1773.8, THE AMOUNT PAID FOR THIS EMPLOYER PAYMENT MAY VARY RESULTING IN A LOWER TAXABLE BASIC HOURLY WAGE RATE, BUT THE TOTAL HOURLY RATES FOR STRAIGHT TIME AND OVERTIME MAY NOT BE LESS THAN THE GENERAL PREVAILING RATE OF PER DIEM WAGES.

BB INCLUDES AN AMOUNT FOR PENSION WHICH IS FACTORED AT THE APPLICABLE OVERTIME MULTIPLIER. PURSUANT TO LABOR CODE SECTIONS 1773.1 AND 1773.8, THE AMOUNT PAID FOR THIS EMPLOYER PAYMENT MAY VARY RESULTING IN A LOWER TAXABLE BASIC HOURLY WAGE RATE, BUT THE TOTAL HOURLY RATES FOR STRAIGHT TIME AND OVERTIME MAY NOT BE LESS THAN THE GENERAL PREVAILING RATE OF PER DIEM WAGES.

BC RATE APPLIES TO THE FIRST 2 DAILY OVERTIME HOURS AND THE FIRST 8 HOURS ON SATURDAY ONLY; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE.

BD INCLUDES SHC. EFFECTIVE 1/1/2013, PURSUANT TO LABOR CODE SECTIONS 1773.1 AND 1773.8, THE AMOUNT PAID FOR THIS EMPLOYER PAYMENT MAY VARY RESULTING IN A LOWER TAXABLE BASIC HOURLY WAGE RATE, BUT THE TOTAL HOURLY RATES FOR STRAIGHT TIME AND OVERTIME MAY NOT BE LESS THAN THE GENERAL PREVAILING RATE OF PER DIEM WAGES.

BE RATE APPLIES TO FIRST 4 DAILY OVERTIME HOURS AND THE FIRST 8 HOURS WORKED ON SATURDAY DURING THE EMPLOYEES NORMAL WORKING HOURS. ALL OTHER OVERTIME HOURS SHALL BE PAID AT THE SUNDAY AND HOLIDAY DOUBLE TIME RATE.

BF THE RATIO OF TERRAZZO FINISHER HOURS TO TERRAZZO WORKER HOURS SHALL NOT EXCEED TWO (2) TO ONE (1).

BG INCLUDES AN AMOUNT FOR VACATION/DUES CHECK OFF WHICH IS NOT FACTORED IN THE OVERTIME RATES.

BH INCLUDES AMOUNT WITHHELD FOR DUES CHECK OFF, WHICH IS FACTORED IN THE OVERTIME RATES. INCLUDES AN AMOUNT OF PREMIUM RATE PER HOUR ABOVE THE REGULAR STRAIGHT-TIME RATE, WHICH IS NOT FACTORED IN THE OVERTIME RATES. ANY EMPLOYEE WORKING UNDERGROUND SHALL RECEIVE $1.00 PER HOUR IN ADDITION TO REGULAR WAGES.

BI RATE APPLIES TO THE FIRST 9 HOURS WORKED ON SATURDAY. ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME RATE.

RECOGNIZED HOLIDAYS: HOLIDAYS UPON WHICH THE GENERAL PREVAILING HOURLY WAGE RATE FOR HOLIDAY WORK SHALL BE PAID, SHALL BE ALL HOLIDAYS IN THE COLLECTIVE BARGAINING AGREEMENT, APPLICABLE TO THE PARTICULAR CRAFT, CLASSIFICATION, OR TYPE OF WORKER EMPLOYED ON THE PROJECT, WHICH IS ON FILE WITH THE DIRECTOR OF INDUSTRIAL RELATIONS. IF THE PREVAILING RATE IS NOT BASED ON A COLLECTIVELY BARGAINED RATE, THE HOLIDAYS UPON WHICH THE PREVAILING RATE SHALL BE PAID SHALL BE AS PROVIDED IN SECTION 6700 OF THE GOVERNMENT CODE. YOU MAY OBTAIN THE HOLIDAY PROVISIONS FOR THE CURRENT DETERMINATIONS ON THE INTERNET AT HTTP://WWW.DIR.CA.GOV/OPRL/DPreWageDetermination.htm. HOLIDAY PROVISIONS FOR THE CURRENT OR SUPERSEDED DETERMINATIONS MAY BE OBTAINED BY CONTACTING THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE: IN ACCORDANCE WITH LABOR CODE SECTIONS 1773.1 AND 1773.9, CONTRACTORS SHALL MAKE TRAVEL AND/OR SUBSISTENCE PAYMENTS TO EACH WORKER TO EXECUTE THE WORK. YOU MAY OBTAIN THE TRAVEL AND/OR SUBSISTENCE PROVISIONS FOR THE CURRENT DETERMINATIONS ON THE INTERNET AT HTTP://WWW.DIR.CA.GOV/OPRL/DPreWageDetermination.htm. TRAVEL AND/OR SUBSISTENCE REQUIREMENTS FOR CURRENT OR SUPERSEDED DETERMINATIONS MAY BE OBTAINED BY CONTACTING THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774.

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GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

Craft: Horizontal Directional Drilling (Laborer)[#]

Determination:
SC-102-1184-1-2024-1

Issue Date:
August 22, 2024

Expiration date of determination:
June 30, 2025** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Localities:
All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara and Ventura Counties.

Wages and Employer Payments:

Classification (Journeyperson)	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday[a]	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X)	Saturday Overtime Hourly Rate (1 ½ X)[b]	Sunday/ Holiday Overtime Hourly Rate (2 X)
Group 1 (Drilling Crew Laborer)	$45.34	$9.25	$8.42	$3.55	$0.46	$1.08	8	$68.10	$90.77	$90.77	$113.44
Group 2 (Vehicle Operator/ Hauler)	$45.51	$9.25	$8.42	$3.55	$0.46	$1.08	8	$68.27	$91.025	$91.025	$113.78
Group 3 (Horizontal Directional Drill Operator)	$47.36	$9.25	$8.42	$3.55	$0.46	$1.08	8	$70.12	$93.80	$93.80	$117.48
Group 4 (Electronic Tracking Locator, Subsurface Imaging Laborer)	$49.36	$9.25	$8.42	$3.55	$0.46	$1.08	8	$72.12	$96.80	$96.80	$121.48

Recognized holidays:
Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the

Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:
In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

[#] Indicates an apprenticeable craft. The current apprentice wage rates are available on the Prevailing Wage Apprentice Determinations Website (http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp).
[a] Includes an amount for Supplemental Dues.
[b] In the event, due to inclement weather, major equipment breakdown, or similar Act of God, it is not reasonably possible to complete forty (40) hours of work Monday through Friday, then the balance of the forty (40) hours may be worked on Saturday at the straight-time rate.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE
DIRECTOR OF INDUSTRIAL RELATIONS PURSUANT TO CALIFORNIA LABOR CODE
PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

Craft: LABORER AND RELATED CLASSIFICATIONS[#]

Determination:
NC-23-102-1-2024-2

Issue Date:
August 22, 2024

Expiration date of determination:
June 29, 2025** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Localities:
All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Mariposa, Marin, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

AREA 1 - Alameda, Contra Costa, Marin, San Francisco, San Mateo, And Santa Clara Counties.

AREA 2 - Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Joaquin, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo And Yuba Counties.

WAGE RATES AND TOTAL HOURLY RATES (AREA 1):

Classification[a] (Journeyperson)	Basic Hourly Rate[b]	Hours[c]	Total Hourly Rate	Daily/ Saturday Overtime Hourly Rate[d]	Sunday/ Holiday Overtime Hourly Rate
Construction Specialist	$38.45	8	$68.36	$87.59	$106.81
Group 1; Group 1(B)[e]	$37.75	8	$67.66	$86.54	$105.41
Group 1 (A)	$37.97	8	$67.88	$86.87	$105.85
Group 1 (C)	$37.80	8	$67.71	$86.61	$105.51
Group 1 (E)	$38.30	8	$68.21	$87.36	$106.51
Group 1 (G)	$37.95	8	$67.86	$86.84	$105.81
Group 2	$37.60	8	$67.51	$86.31	$105.11
Group 3; Group 3 (A)	$37.50	8	$67.41	$86.16	$104.91
Group 4; Group 6 (B)	$31.19	8	$61.10	$76.70	$92.29
Group 6	$38.71	8	$68.62	$87.98	$107.33
Group 6 (A)	$38.21	8	$68.12	$87.23	$106.33
Group 6 (C)	$37.62	8	$67.53	$86.34	$105.15
Group 6 (D)	$38.33	8	$68.24	$87.41	$106.57
Group 6 (E)	$37.35	8	$67.26	$85.94	$104.61
Group 7 – Stage 1 (1st 6 months)	$26.25	8	$56.16	$69.29	$82.41
Group 7 – Stage 2 (2nd 6 months)	$30.00	8	$59.91	$74.91	$89.91
Group 7 – Stage 3 (3rd 6 months)	$33.75	8	$63.66	$80.54	$97.41

WAGE RATES AND TOTAL HOURLY RATES (AREA 2):

Classification[a] (Journeyperson)	Basic Hourly Rate[b]	Hours[c]	Total Hourly Rate	Daily/ Saturday Overtime Hourly Rate[d]	Sunday/ Holiday Overtime Hourly Rate
Construction Specialist	$37.45	8	$67.36	$86.09	$104.81
Group 1; Group 1(B)[e]	$36.75	8	$66.66	$85.04	$103.41
Group 1 (A)	$36.97	8	$66.88	$85.37	$103.85
Group 1 (C)	$36.80	8	$66.71	$85.11	$103.51
Group 1 (E)	$37.30	8	$67.21	$85.86	$104.51
Group 2	$36.60	8	$66.51	$84.81	$103.11
Group 3; Group 3 (A)	$36.50	8	$66.41	$84.66	$102.91
Group 4; Group 6 (B)	$30.19	8	$60.10	$75.20	$90.29
Group 6	$37.71	8	$67.62	$86.48	$105.33
Group 6 (A)	$37.21	8	$67.12	$85.73	$104.33
Group 6 (C)	$36.62	8	$66.53	$84.84	$103.15
Group 6 (D)	$37.33	8	$67.24	$85.91	$104.57
Group 6 (E)	$36.35	8	$66.26	$84.44	$102.61
Group 7 – Stage 1 (1st 6 months)	$25.55	8	$55.46	$68.24	$81.01
Group 7 – Stage 2 (2nd 6 months)	$29.20	8	$59.11	$73.71	$88.31
Group 7 – Stage 3 (3rd 6 months)	$32.85	8	$62.76	$79.19	$95.61

EMPLOYER PAYMENTS:

Type of Fund	Amount per Hour Worked
Health & Welfare	$10.60
Pension	$14.96
Vacation and Holiday	$3.51
Training	$0.52
Other	$0.32

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE
DIRECTOR OF INDUSTRIAL RELATIONS PURSUANT TO CALIFORNIA LABOR CODE
PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

Craft: LABORER AND RELATED CLASSIFICATIONS (Special Single and Second Shift)[#]

Determination:
NC-23-102-1-2024-2A

Issue Date:
August 22, 2024

Expiration date of determination:
June 29, 2025** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Localities:
All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Mariposa, Marin, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

AREA 1 - Alameda, Contra Costa, Marin, San Francisco, San Mateo, And Santa Clara Counties.

AREA 2 - Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Joaquin, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo And Yuba Counties.

WAGE RATES AND TOTAL HOURLY RATES (AREA 1):

Classification[a] (Journeyperson)	Basic Hourly Rate[b]	Hours	Total Hourly Rate	Daily/ Saturday Overtime Hourly Rate[d]	Sunday/ Holiday Overtime Hourly Rate
Construction Specialist	$41.45	8	$71.36	$92.09	$112.81
Group 1; Group 1(B)[e]	$40.75	8	$70.66	$91.04	$111.41
Group 1 (A)	$40.97	8	$70.88	$91.37	$111.85
Group 1 (C)	$40.80	8	$70.71	$91.11	$111.51
Group 1 (E)	$41.30	8	$71.21	$91.86	$112.51
Group 1 (G)	$40.95	8	$70.86	$91.34	$111.81
Group 2	$40.60	8	$70.51	$90.81	$111.11
Group 3; Group 3 (A)	$40.50	8	$70.41	$90.66	$110.91
Group 4; Group 6 (B)	$34.19	8	$64.10	$81.20	$98.29
Group 6	$41.71	8	$71.62	$92.48	$113.33
Group 6 (A)	$41.21	8	$71.12	$91.73	$112.33
Group 6 (C)	$40.62	8	$70.53	$90.84	$111.15
Group 6 (D)	$41.33	8	$71.24	$91.91	$112.57
Group 6 (E)	$40.35	8	$70.26	$90.44	$110.61
Group 7 – Stage 1 (1st 6 months)	$29.25	8	$59.16	$73.79	$88.41
Group 7 – Stage 2 (2nd 6 months)	$33.00	8	$62.91	$79.41	$95.91
Group 7 – Stage 3 (3rd 6 months)	$36.75	8	$66.66	$85.04	$103.41

WAGE RATES AND TOTAL HOURLY RATES (AREA 2):

Classification[a] (Journeyperson) Group	Basic Hourly Rate[b]	Hours	Total Hourly Rate	Daily/ Saturday Overtime Hourly Rate[d]	Sunday/ Holiday Overtime Hourly Rate
Construction Specialist	$40.45	8	$70.36	$90.59	$110.81
Group 1; Group 1(B)[e]	$39.75	8	$69.66	$89.54	$109.41
Group 1 (A)	$39.97	8	$69.88	$89.87	$109.85
Group 1 (C)	$39.80	8	$69.71	$89.61	$109.51
Group 1 (E)	$40.30	8	$70.21	$90.36	$110.51
Group 2	$39.60	8	$69.51	$89.31	$109.11
Group 3; Group 3 (A)	$39.50	8	$69.41	$89.16	$108.91
Group 4; Group 6 (B)	$33.19	8	$63.10	$79.70	$96.29
Group 6	$40.71	8	$70.62	$90.98	$111.33
Group 6 (A)	$40.21	8	$70.12	$90.23	$110.33
Group 6 (C)	$39.62	8	$69.53	$89.34	$109.15
Group 6 (D)	$40.33	8	$70.24	$90.41	$110.57
Group 6 (E)	$39.35	8	$69.26	$88.94	$108.61
Group 7 – Stage 1 (1st 6 months)	$28.55	8	$58.46	$72.74	$87.01
Group 7 – Stage 2 (2nd 6 months)	$32.20	8	$62.11	$78.21	$94.31
Group 7 – Stage 3 (3rd 6 months)	$35.85	8	$65.76	$83.69	$101.61

EMPLOYER PAYMENTS:

Type of Fund	Amount per Hour Worked
Health & Welfare	$10.60
Pension	$14.96
Vacation and Holiday	$3.51
Training	$0.52
Other	$0.32

CLASSIFICATIONS

Construction Specialist

ASPHALT IRONERS AND RAKERS
CHAINSAW
CONCRETE DIAMOND CHAINSAW
LASER BEAM IN CONNECTION WITH LABORER'S WORK
MASONRY AND PLASTER TENDER
MECHANICAL PIPE LAYER-ALL TYPES REGARDLESS OF TYPE OR METHOD OF POWER
CAST IN PLACE MANHOLE FORM SETTERS
PRESSURE PIPELAYERS
DAVIS TRENCHER – 300 OR SIMILAR TYPE (AND ALL SMALL TRENCHERS)
STATE LICENSED BLASTERS AS DESIGNATED
DIAMOND DRILLERS
DIAMOND CORE DRILLER
MULTIPLE UNIT DRILLS
HIGH SCALERS (INCLUDING DRILLING OF SAME)
HYDRAULIC DRILLS
CERTIFIED WELDER

GROUP 1 (FOR CONTRA COSTA COUNTY ONLY, USE GROUP 1 (G) FOR SOME OF THE FOLLOWING CLASSIFICATIONS)

ASPHALT SPREADER BOXES (ALL TYPES)
BARKO, WACKER AND SIMILAR TYPE TAMPERS
BIOHAZARD CLEANUP WORKER
BUGGYMOBILE
CAULKERS, BANDERS, PIPEWRAPPERS, CONDUIT LAYERS, PLASTIC PIPE LAYERS
CERTIFIED ASBESTOS AND MOLD REMOVAL WORKER
CERTIFIED HAZARDOUS WASTE WORKER (INCLUDING LEAD ABATEMENT)
COMPACTORS OF ALL TYPES
CONCRETE AND MAGNESITE MIXER AND ½ YARD
CONCRETE PAN WORK
CONCRETE SANDERS, CONCRETE SAW
CRIBBERS AND/OR SHORING
CUT GRANITE CURB SETTER
DRI PAK-IT MACHINE
FALLER, LOGLOADER AND BUCKER
FORM RAISERS, SLIP FORMS
GREEN CUTTERS
HEADERBOARD MEN, HUBSETTERS, ALIGNERS BY ANY METHOD
HIGH PRESSURE BLOW PIPE (1-1/2" OR OVER, 100 LBS. PRESSURE/OVER)
HYDRO SEEDER AND SIMILAR TYPE
JACKHAMMER OPERATORS
JACKING OF PIPE OVER 12 INCHES
JACKSON AND SIMILAR TYPE COMPACTORS
KETTLEMEN, POTMEN, AND MEN APPLYING ASPHALT, LAY KOLD, CREOSOTE, LIME, CAUSTIC AND SIMILAR TYPE MATERIALS (APPLYING MEANS APPLYING DIPPING, OR HANDLING OF SUCH MATERIALS)
LAGGING, SHEETING, WHALING, BRACING, TRENCH-JACKING, LAGGING HAMMER
MAGNESITE, EPOXY RESIN, FIBER GLASS AND MASTIC WORKERS (WET/DRY)
NO JOINT PIPE AND STRIPPING OF SAME, INCLUDING REPAIR OF VOIDS
PAVEMENT BREAKERS AND SPADERS, INCLUDING TOOL GRINDER
PERMA CURBS
PRECAST-MANHOLE SETTERS
PIPELAYERS (INCLUDING GRADE CHECKING IN CONNECTION WITH PIPELAYING)
PRESSURE PIPE TESTER
POST HOLE DIGGERS-AIR, GAS, AND ELECTRIC POWER BROOM SWEEPERS
POWER TAMPERS OF ALL TYPES, EXCEPT AS SHOWN IN GROUP 2
RAM SET GUN AND STUD GUN
RIPRAP-STONEPAVER AND ROCK-SLINGER, INCLUDING PLACING OF SACKED CONCRETE AND/OR SAND (WET OR DRY) AND GABIONS AND SIMILAR TYPE
ROTARY SCARIFIER OR MULTIPLE HEAD CONCRETE CHIPPING SCARIFIER
ROTO AND DITCH WITCH
ROTOTILLER
SAND BLASTERS, POTMEN, GUNMEN, AND NOZZLEMEN
SIGNALING AND RIGGING
SKILLED WRECKER (REMOVING AND SALVAGING OF SASH, WINDOWS, DOORS, PLUMBING AND ELECTRIC FIXTURES)
TANK CLEANERS
TREE CLIMBERS
TRENCHLESS TECHNOLOGY LABORER- PIPE INSTALLATION, BURSTING, RELINING, OR SIMILAR
TRENCHLESS LABORER'S WORK, CAMERA CONTROLLER, CCTV
TURBO BLASTER
VIBRA-SCREED-BULL FLOAT IN CONNECTION

WITH LABORER'S WORK
VIBRATORS

GROUP 1 (A)
ALL WORK OF LOADING, PLACING AND BLASTING OF ALL POWDER & EXPLOSIVES OF WHATEVER TYPE, REGARDLESS OF METHOD USED FOR LOADING AND PLACING
JOY DRILL MODEL TWM-2A
GARDENER-DENVER MODEL DH 143 AND SIMILAR TYPE DRILLS
TRACK DRILLERS
JACK LEG DRILLERS
WAGON DRILLERS
MECHANICAL DRILLERS-ALL TYPES REGARDLESS OF TYPE OR METHOD OF POWER
BLASTERS AND POWDERMAN
TREE TOPPER
BIT GRINDER

GROUP 1 (B) -- SEE GROUP 1 RATES
SEWER CLEANERS (ANY WORKMEN WHO HANDLE OR COME IN CONTACT WITH RAW SEWAGE IN SMALL DIAMETER SEWERS) SHALL RECEIVE $4.00 PER DAY ABOV GROUP 1 WAGE RATES. THOSE WHO WORK INSIDE RECENTLY ACTIVE, LARGE DIAMETER SEWERS, AND ALL RECENTLY ACTIVE SEWER MANHOLES SHALL RECEIVE $5.00 PER DAY ABOVE GROUP 1 WAGE RATES.

GROUP 1 (C)
BURNING AND WELDING IN CONNECTION WITH LABORER'S WORK
SYNTHETIC THERMOPLASTICS AND SIMILAR TYPE WELDING

GROUP 1 (D)
SEE FOOTNOTE A ON PAGE 8

GROUP 1 (E)
WORK ON AND/OR IN BELL HOLE FOOTINGS AND SHAFTS THEREOF, AND WORK ON AND IN DEEP FOOTINGS (DEEP FOOTINGS IS A HOLE 15 FEET OR MORE IN DEPTH)
SHAFT IS AN EXCAVATION OVER FIFTEEN (15) FEET DEEP OF ANY TYPE

GROUP 1 (G) APPLIES ONLY TO WORK IN CONTRA COSTA COUNTY
PIPELAYERS (INCLUDING GRADE CHECKING IN CONNECTION WITH PIPELAYING), CAULKERS, BANDERS, PIPEWRAPPERS, CONDUIT LAYERS, PLASTIC PIPE LAYER, PRESSURE PIPE TESTER, NO JOINT PIPE AND STRIPPING OF SAME, INCLUDING REPAIR OF VOIDS, PRECAST MANHOLE SETTERS, CAST IN PLACE MANHOLE FORM SETTERS IN CONTRA COSTA COUNTY ONLY

GROUP 1(H)
SEE FOOTNOTE A ON PAGE 8

GROUP 2
ASPHALT SHOVELERS
CEMENT DUMPERS AND HANDLING DRY CEMENT OR GYPSUM
CHOKE-SETTER AND RIGGER (CLEARING WORK)
CONCRETE BUCKET DUMPER AND CHUTEMAN
CONCRETE CHIPPING AND GRINDING
CONCRETE LABORERS (WET OR DRY)
DRILLERS HELPER, CHUCK TENDER, NIPPER (ONE CHUCKTENDER ON SINGLE MACHINE OPERATION WITH MINIMUM OF ONE CHUCKTENDER FOR EACH TWO MACHINES ON MULTIPLE MACHINE OPERATION. JACKHAMMERS IN NO WAY INVOLVED IN THIS ITEM.)
GUINEA CHASER (STAKEMAN), GROUT CREW
HIGH PRESSURE NOZZLEMAN, ADDUCTORS
HYDRAULIC MONITOR (OVER 100 LBS. PRESSURE)
LOADING AND UNLOADING, CARRYING AND HANDLING OF ALL RODS AND MATERIALS FOR USE IN REINFORCING CONCRETE CONSTRUCTION
PITTSBURGH CHIPPER, AND SIMILAR TYPE BRUSH SHREDDERS
SEMI-SKILLED WRECKER (SALVAGING OF OTHER BUILDING MATERIALS) – SEE ALSO SKILLED WRECKER (GROUP 1)
SLOPER
SINGLEFOOT, HAND HELD, PNEUMATIC TAMPER
ALL PNEUMATIC, AIR, GAS AND ELECTRIC TOOLS NOT LISTED IN GROUPS 1 THROUGH 1 (F)
JACKING OF PIPE-UNDER 12 INCHES

GROUP 3
CONSTRUCTION LABORERS INCLUDING BRIDGE LABORERS, GENERAL LABORERS AND CLEANUP LABORERS
DEMOLITION WORKER
DUMPMAN, LOAD SPOTTER
FLAGPERSON/PEDESTRIAN MONITOR
FIRE WATCHER
FENCE ERECTORS, INCLUDING TEMPORARY FENCING
GUARDRAIL ERECTORS
GARDENER, HORTICULTURAL AND LANDSCAPE LABORERS (SEE GROUP 4, FOR LANDSCAPE MAINTENANCE ON NEW CONSTRUCTION DURING PLANT ESTABLISHMENT PERIOD)
JETTING
LIMBERS, BRUSH LOADERS, AND PILERS
PAVEMENT MARKERS (BUTTON SETTERS)
PAVERS/INTERLOCKING PAVERS (ALL TYPES) AND INTERLOCKING PAVER MACHINES
MAINTENANCE, REPAIR TRACKMEN AND ROAD BEDS
STREETCAR AND RAILROAD CONSTRUCTION TRACK LABORERS
TEMPORARY AIR AND WATER LINES, VICTAULIC OR SIMILAR
TOOL ROOM ATTENDANT (JOBSITE ONLY)
TREE REMOVAL
WHEELBARROW, INCLUDING POWER DRIVEN

GROUP 3 (A) -- SEE GROUP 3 RATES
COMPOSITE CREW PERSON (OPERATION OF VEHICLES, WHEN IN CONJUNCTION WITH LABORER'S DUTIES)

GROUP 4
ALL FINAL CLEANUP OF DEBRIS, GROUNDS AND BUILDINGS NEAR THE COMPLETION OF THE PROJECT INCLUDING BUT NOT LIMITED TO STREET CLEANERS (NOT APPLICABLE TO ENGINEERING OR HEAVY HIGHWAY PROJECTS)
CLEANING AND WASHING WINDOWS (NEW CONSTRUCTION ONLY), SERVICE LANDSCAPE LABORERS (SUCH AS GARDENER, HORTICULTURE, MOWING, TRIMMING, REPLANTING, WATERING DURING PLANT ESTABLISHMENT PERIOD) ON NEW CONSTRUCTION
BRICK CLEANERS (JOB SITE ONLY)
MATERIAL CLEANERS (JOB SITE ONLY)

NOTE: AN ADDITIONAL DETERMINATION FOR LANDSCAPE MAINTENANCE WORK AFTER THE PLANT ESTABLISHMENT PERIOD OR WARRANTY PERIOD IS PUBLISHED IN THE NORTHERN CALIFORNIA LANDSCAPE MAINTENANCE LABORER DETERMINATION.

GROUP 6
STRUCTURAL NOZZLEMAN

GROUP 6 (A)
NOZZLEMAN (INCLUDING GUNMAN, POTMAN)
RODMAN
GROUNDMAN

GROUP 6 (B) -- SEE GROUP 4 RATES GUNITE TRAINEE (ONE GUNITE LABORER SHALL BE ALLOWED FOR EACH THREE (3) JOURNEYMAN (GROUP 6, 6A, 6C, OR GENERAL LABORER) ON A CREW. IN THE ABSENCE OF THE JOURNEYMAN, THE GUNITE TRAINEE RECEIVES THE JOURNEYMAN SCALE.).
NOTE: THIS RATIO APPLIES ONLY TO WORK ON THE SAME JOB SITE.

GROUP 6 (C)
REBOUNDMAN

GROUP 6 (D)
ALIGNER OF WIRE WINDING MACHINE IN CONNECTION WITH GUNITING OR SHOT CRETE

GROUP 6 (E)
ALIGNER HELPER OF WIRE WINDING MACHINE IN CONNECTION WITH GUNITING OR SHOT CRETE

GROUP 7
ENTRY LEVEL LANDSCAPE LABORER (RATIO FOR ENTRY LEVEL IS ONE IN THREE. AT LEAST ONE SECOND PERIOD ENTRY LEVEL AND AT LEAST ONE THIRD PERIOD ENTRY LEVEL MUST BE EMPLOYED BEFORE EMPLOYING ANOTHER FIRST PERIOD TRAINEE).
NOTE: THIS RATIO APPLIES ONLY TO WORK ON THE SAME JOB SITE

Recognized holidays:
Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:
In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

# Indicates an apprenticeable craft. The current apprentice wage rates are available on the Prevailing Wage Apprentice Determinations Website (http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp).

[a] GROUP 1(D) - MAINTENANCE OR REPAIR TRACKMEN AND ROAD BEDS AND ALL EMPLOYEES PERFORMING WORK COVERED BY THIS CLASSIFICATION SHALL RECEIVE $0.25 PER HOUR ABOVE THEIR REGULAR RATE FOR ALL WORK PERFORMED ON UNDERGROUND STRUCTURES NOT SPECIFICALLY COVERED HEREIN. THIS SHALL NOT APPLY TO WORK BELOW GROUND LEVEL IN OPEN CUT. THIS SHALL APPLY TO CUT AND COVER WORK OF SUBWAY CONSTRUCTION AFTER TEMPORARY COVER HAS BEEN PLACED.

GROUP 1(H) - ALL LABORERS WORKING OFF OR WITH OR FROM BOS'N CHAIRS, SWINGING SCAFFOLDS, BELTS RECEIVE $0.50 PER HOUR ABOVE THEIR APPLICABLE WAGE RATE. THIS SHALL NOT APPLY TO LABORERS ENTITLED TO RECEIVE THE WAGE RATE SET FORTH IN GROUP 1(A).

[b] ZONE PAY AT THREE DOLLARS ($3.00) PER HOUR, FACTORED AT THE APPLICABLE OVERTIME MULTIPLE, WILL BE ADDED TO THE BASE RATE FOR WORK PERFORMED OUTSIDE THE FREE ZONE DESCRIBED BY THE BOUNDARIES ALONG TOWNSHIP AND RANGE LINES. PLEASE SEE TRAVEL AND SUBSISTENCE PROVISION FOR MAP DESCRIPTION AND EXCEPTIONS.

[c] WHEN THREE SHIFTS ARE EMPLOYED FOR FIVE (5) OR MORE CONSECUTIVE DAYS, SEVEN AND ONE-HALF (7 ½) CONSECUTIVE HOURS (EXCLUSIVE OF MEAL PERIOD), SHALL CONSTITUTE A DAY OF WORK, FOR WHICH EIGHT (8) TIMES THE STRAIGHT TIME HOURLY RATE SHALL BE PAID AT THE NON-SHIFT WAGE RATE FOR THE SECOND SHIFT. THE THIRD SHIFT SHALL BE SEVEN (7) HOURS OF WORK FOR EIGHT (8) HOURS PAY AT THE NON-SHIFT WAGE RATE.

[d] RATE APPLIES TO THE FIRST 4 DAILY OVERTIME HOURS WORKED ON MONDAY THROUGH FRIDAY AND THE FIRST 12 HOURS WORKED ON SATURDAY; ALL OTHER TIME IS PAID AT THE SUNDAY AND HOLIDAY OVERTIME HOURLY RATE. SATURDAYS IN THE SAME WORK WEEK MAY BE WORKED AT STRAIGHT-TIME IF JOB IS SHUT DOWN DURING THE NORMAL WORK WEEK DUE TO INCLEMENT WEATHER, MAJOR MECHANICAL BREAKDOWN OR LACK OF MATERIALS BEYOND THE CONTROL OF THE EMPLOYER.

[e] GROUP 1(B) RECEIVES AN ADDITIONAL AMOUNT EACH DAY. SEE PAGE 6 FOR DETAILS

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773, AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

Craft: LANDSCAPE/IRRIGATION LABORER/TENDER[#]

Determination:
SC-102-X-14-2024-2

Issue Date:
August 22, 2024

Expiration date of determination:
July 31, 2025** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Localities:
All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura Counties.

Wages and Employer Payments:

Classification	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday[a]	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate[b] (1 ½ X)	Saturday Overtime Hourly Rate[b c] (1 ½ X)	Sunday/ Holiday Overtime Hourly Rate (2 X)
Landscape/Irrigation Laborer	$42.07	$9.25	$12.07	$5.02	$0.80	$0.50	8.0	$69.71	$90.745	$90.745	$111.78
Landscape Hydro Seeder	$43.17	$9.25	$12.07	$5.02	$0.80	$0.50	8.0	$70.81	$92.395	$92.395	$113.98

Determination:
SC-102-X-14-2025-1A

Issue Date:
February 22, 2025

Expiration date of determination:
July 31, 2025* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit at (415) 703-4774 for new rates after 10 days from the expiration date if no subsequent determination is issued.

Localities:
All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura Counties.

Wages and Employer Payments:

Classification	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday[a]	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate[b] (1 ½ X)	Saturday Overtime Hourly Rate[b c] (1 ½ X)	Sunday/ Holiday Overtime Hourly Rate (2 X)
Landscape/Irrigation Tender [d]	$21.45	$3.90	$2.19	$1.18	$0.00	$0.00	8.0	$28.72	$39.445	$39.445	$50.17

Recognized holidays:
Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:
In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

[#] Indicates an apprenticeable craft. The current apprentice wage rates are available on the Prevailing Wage Apprentice Determinations Website (http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp).
[a] Includes an amount per hour worked for Supplemental Dues.
[b] Rate applies to first 4 daily overtime hours and the first 12 hours on Saturday. All other time is paid at the Sunday and Holiday double-time rate.
[c] Saturdays in the same work week may be worked at straight-time if adverse weather or jobsite ground conditions require that the job be shut down for one or more workdays during the regular workweek.
[d] The first employee on the jobsite shall be a Landscape/Irrigation Laborer; the second employee on the jobsite must be an Apprentice or a Landscape/Irrigation Laborer; and the third and fourth employees may be Tenders. The fifth employee on the jobsite shall be a Landscape/Irrigation Laborer; the sixth employee must be an Apprentice or a Landscape/Irrigation Laborer; and the seventh and eight employees may be Tenders. Thereafter, Tenders may be employed with Landscape/Irrigation Laborers in a 50/50 ratio on each jobsite. However, plant establishment may be performed exclusively by Landscape/Irrigation Tenders without the supervision of a Journeyman.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE
DIRECTOR OF INDUSTRIAL RELATIONS PURSUANT TO CALIFORNIA LABOR CODE
PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

Craft: OPERATING ENGINEER (HEAVY AND HIGHWAY WORK) #

Determination:
NC-23-63-1-2024-2

Issue Date:
August 22, 2024

Expiration date of determination:
June 29, 2025** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Locality:
All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

AREA 1 - Alameda, Butte, Contra Costa, Kings, Marin, Merced, Napa, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Solano, Stanislaus, Sutter, Yolo and Yuba Counties; and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity Counties. (Portions of counties falling in each area detailed below)

Wages and total hourly rates (including employer payments) (Area 1):

Classification (Journeyperson) Classification Group [a]	Basic Hourly Rate	Hours[b]	Total Hourly Rate	Daily/Saturday Overtime Hourly Rate (1½ X) [c]	Sunday/Holiday Overtime Hourly Rate (2X)
Group 1	$64.15	8	$97.65	$129.73	$161.80
Group 2	$62.62	8	$96.12	$127.43	$158.74
Group 3	$61.14	8	$94.64	$125.21	$155.78
Group 4	$59.76	8	$93.26	$123.14	$153.02
Group 5	$58.49	8	$91.99	$121.24	$150.48
Group 6	$57.17	8	$90.67	$119.26	$147.84
Group 7	$56.03	8	$89.53	$117.55	$145.56
Group 8	$54.89	8	$88.39	$115.84	$143.28
Group 8-A	$52.68	8	$86.18	$112.52	$138.86
ALL CRANES & ATTACHMENTS: Group 1	$65.78	8	$99.28	$132.17	$165.06
Truck Crane Assistant to Engineer	$58.81	8	$92.31	$121.72	$151.12
Assistant to Engineer	$56.52	8	$90.02	$118.28	$146.54
Group 1-A	$65.03	8	$98.53	$131.05	$163.56
Truck Crane Assistant to Engineer	$58.06	8	$91.56	$120.59	$149.62
Assistant to Engineer	$55.77	8	$89.27	$117.16	$145.04
Group 2-A	$63.27	8	$96.77	$128.41	$160.04
Truck Crane Assistant to Engineer	$57.80	8	$91.30	$120.20	$149.10

Classification (Journeyperson) Classification Group [a]	Basic Hourly Rate	Hours[b]	Total Hourly Rate	Daily/Saturday Overtime Hourly Rate (1½ X) [c]	Sunday/Holiday Overtime Hourly Rate (2X)
Assistant to Engineer	$55.56	8	$89.06	$116.84	$144.62
Group 3-A	$61.53	8	$95.03	$125.80	$156.56
Truck Crane Assistant to Engineer	$57.56	8	$91.06	$119.84	$148.62
Hydraulic	$57.17	8	$90.67	$119.26	$147.84
Assistant to Engineer	$55.28	8	$88.78	$116.42	$144.06
Group 4-A	$58.49	8	$91.99	$121.24	$150.48

AREA 2 - Modoc, and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity Counties. (Portions of counties falling in each area detailed below)

Wages and total hourly rates (including employer payments) (Area 2):

Classification (Journeyperson) Classification Group [a]	Basic Hourly Rate	Hours[b]	Total Hourly Rate	Daily/Saturday Overtime Hourly Rate (1½ X) [c]	Sunday/Holiday Overtime Hourly Rate (2X)
Group 1	$66.15	8	$99.65	$132.73	$165.80
Group 2	$64.62	8	$98.12	$130.43	$162.74
Group 3	$63.14	8	$96.64	$128.21	$159.78
Group 4	$61.76	8	$95.26	$126.14	$157.02
Group 5	$60.49	8	$93.99	$124.24	$154.48
Group 6	$59.17	8	$92.67	$122.26	$151.84
Group 7	$58.03	8	$91.53	$120.55	$149.56
Group 8	$56.89	8	$90.39	$118.84	$147.28
Group 8-A	$54.68	8	$88.18	$115.52	$142.86
ALL CRANES & ATTACHMENTS: Group 1	$67.78	8	$101.28	$135.17	$169.06
Truck Crane Assistant to Engineer	$60.81	8	$94.31	$124.72	$155.12
Assistant to Engineer	$58.52	8	$92.02	$121.28	$150.54
Group 1-A	$67.03	8	$100.53	$134.05	$167.56
Truck Crane Assistant to Engineer	$60.06	8	$93.56	$123.59	$153.62
Assistant to Engineer	$57.77	8	$91.27	$120.16	$149.04
Group 2-A	$65.27	8	$98.77	$131.41	$164.04
Truck Crane Assistant to Engineer	$59.80	8	$93.30	$123.20	$153.10
Assistant to Engineer	$57.56	8	$91.06	$119.84	$148.62
Group 3-A	$63.53	8	$97.03	$128.80	$160.56
Truck Crane Assistant to Engineer	$59.56	8	$93.06	$122.84	$152.62
Hydraulic	$59.17	8	$92.67	$122.26	$151.84
Assistant to Engineer	$57.28	8	$90.78	$119.42	$148.06
Group 4-A	$60.49	8	$93.99	$124.24	$154.48

Employer Payments:

Type of Fund	**Amount per Hour**
Health and Welfare	$13.38
Pension	$11.28
Vacation and Holiday[d]	$6.03
Training	$1.21
Other	$1.60

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE
DIRECTOR OF INDUSTRIAL RELATIONS PURSUANT TO CALIFORNIA LABOR CODE
PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

Craft: OPERATING ENGINEER (HEAVY AND HIGHWAY WORK) #
(SPECIAL SINGLE AND SECOND SHIFT)

Determination:
NC-23-63-1-2024-2

Issue Date:
August 22, 2024

Expiration date of determination:
June 29, 2025** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Locality:
All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

AREA 1 - Alameda, Butte, Contra Costa, Kings, Marin, Merced, Napa, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Solano, Stanislaus, Sutter, Yolo and Yuba Counties; and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity Counties. (Portions of counties falling in each area detailed below)

Wages and total hourly rates (including employer payments) (Area 1):

Classification (Journeyperson) (Special Single and Second Shift) Classification Group [a]	Basic Hourly Rate	Hours	Total Hourly Rate	Daily/Saturday Overtime Hourly Rate (1 ½ X) [c]	Sunday/Holiday Overtime Hourly Rate (2X)
Group 1	$70.15	8	$103.65	$138.73	$173.80
Group 2	$68.62	8	$102.12	$136.43	$170.74
Group 3	$67.14	8	$100.64	$134.21	$167.78
Group 4	$65.76	8	$99.26	$132.14	$165.02
Group 5	$64.49	8	$97.99	$130.24	$162.48
Group 6	$63.17	8	$96.67	$128.26	$159.84
Group 7	$62.03	8	$95.53	$126.55	$157.56
Group 8	$60.89	8	$94.39	$124.84	$155.28
Group 8-A	$58.68	8	$92.18	$121.52	$150.86
ALL CRANES & ATTACHMENTS: Group 1	$71.78	8	$105.28	$141.17	$177.06
Truck Crane Assistant to Engineer	$64.81	8	$98.31	$130.72	$163.12
Assistant to Engineer	$62.52	8	$96.02	$127.28	$158.54
Group 1-A	$71.03	8	$104.53	$140.05	$175.56

Classification (Journeyperson) (Special Single and Second Shift) Classification Group [a]	Basic Hourly Rate	Hours	Total Hourly Rate	Daily/Saturday Overtime Hourly Rate (1 ½ X) [c]	Sunday/Holiday Overtime Hourly Rate (2X)
Truck Crane Assistant to Engineer	$64.06	8	$97.56	$129.59	$161.62
Assistant to Engineer	$61.77	8	$95.27	$126.16	$157.04
Group 2-A	$69.27	8	$102.77	$137.41	$172.04
Truck Crane Assistant to Engineer	$63.80	8	$97.30	$129.20	$161.10
Assistant to Engineer	$61.56	8	$95.06	$125.84	$156.62
Group 3-A	$67.53	8	$101.03	$134.80	$168.56
Truck Crane Assistant to Engineer	$63.56	8	$97.06	$128.84	$160.62
Hydraulic	$63.17	8	$96.67	$128.26	$159.84
Assistant to Engineer	$61.28	8	$94.78	$125.42	$156.06
Group 4-A	$64.49	8	$97.99	$130.24	$162.48

AREA 2 - Modoc, and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Tulare, Tuolumne and Trinity Counties. (Portions of counties falling in each area detailed below)

Wages and total hourly rates (including employer payments) (Area 2):

Classification (Journeyperson) (Special Single and Second Shift) Classification Group [a]	Basic Hourly Rate	Hours	Total Hourly Rate	Daily/Saturday Overtime Hourly Rate (1½ X) [c]	Sunday/Holiday Overtime Hourly Rate (2X)
Group 1	$72.15	8	$105.65	$141.73	$177.80
Group 2	$70.62	8	$104.12	$139.43	$174.74
Group 3	$69.14	8	$102.64	$137.21	$171.78
Group 4	$67.76	8	$101.26	$135.14	$169.02
Group 5	$66.49	8	$99.99	$133.24	$166.48
Group 6	$65.17	8	$98.67	$131.26	$163.84
Group 7	$64.03	8	$97.53	$129.55	$161.56
Group 8	$62.89	8	$96.39	$127.84	$159.28
Group 8-A	$60.68	8	$94.18	$124.52	$154.86
ALL CRANES & ATTACHMENTS: Group 1	$73.78	8	$107.28	$144.17	$181.06
Truck Crane Assistant to Engineer	$66.81	8	$100.31	$133.72	$167.12
Assistant to Engineer	$64.52	8	$98.02	$130.28	$162.54
Group 1-A	$73.03	8	$106.53	$143.05	$179.56
Truck Crane Assistant to Engineer	$66.06	8	$99.56	$132.59	$165.62
Assistant to Engineer	$63.77	8	$97.27	$129.16	$161.04
Group 2-A	$71.27	8	$104.77	$140.41	$176.04
Truck Crane Assistant to Engineer	$65.80	8	$99.30	$132.20	$165.10
Assistant to Engineer	$63.56	8	$97.06	$128.84	$160.62
Group 3-A	$69.53	8	$103.03	$137.80	$172.56
Truck Crane Assistant to Engineer	$65.56	8	$99.06	$131.84	$164.62
Hydraulic	$65.17	8	$98.67	$131.26	$163.84
Assistant to Engineer	$63.28	8	$96.78	$128.42	$160.06
Group 4-A	$66.49	8	$99.99	$133.24	$166.48

Employer Payments:

Type of Fund	Amount per Hour
Health and Welfare	$13.38
Pension	$11.28
Vacation and Holiday[d]	$6.03
Training	$1.21
Other	$1.60

CLASSIFICATIONS

GROUP 1

Drill Equipment, over 200,000 lbs
Operator of Helicopter (when used in erection work)
Hydraulic Excavator 7 cu yds and over
Power Shovels, over 7 cu yds

GROUP 2

Highline Cableway
Hydraulic Excavator 3 1/2 cu yds up to 7 cu yds
Licensed Construction Work Boat Operator, On Site
Microtunneling Machine
Power Blade Operator (finish)
Power Shovels, (over 1 cu yd and up to and including 7 cu yds m.r.c.)

GROUP 3

Asphalt Milling Machine
Cable Backhoe
Combination Backhoe and Loader over ¾ cu yds
Continuous Flight Tie Back Machine
Crane Mounted Continuous Flight Tie Back Machine, tonnage to apply
Crane Mounted Drill Attachments, Tonnage to apply
Dozer, Slope Board
Drill Equipment, over 100,000 lbs up to and including 200,000 lbs
Gradall
Hydraulic Excavator up to 3 1/2 cu yds
Loader 4 cu yds and over
Long Reach Excavator
Multiple Engine Scrapers (when used as push pull)
Power Shovels, up to and including 1 cu yd
Pre-Stress Wire Wrapping machine
Side Boom Cat, 572 or larger
Track Loader 4 cu yds and over
Tree removal, site clearing and grubbing equipment as follows: Self-Loading Skidder, Forwarder, Heel Boom, Albach (tree removal/site clearing and grubbing), Feller Buncher, Processor, Harvester, Timber Handler - Sennebogen or similar (tree removal/site clearing and grubbing), Log Yoder, Track-Mounted Grinders/Chippers, Stroke Delimber, Knuckle Boom (not inclusive of grapple hook trucks).
Wheel Excavator (up to and including 750 cu yds per hour)

GROUP 4

Asphalt Plant Engineer/Boxman
Chicago Boom
Combination Backhoe and Loader up to and including ¾ cu yds
Concrete Batch Plants (wet or dry)
Dozer and/or Push Cat
Drill Equipment, over 50,000 lbs up to and including 100,000 lbs
Pull-Type Elevating Loader
Gradesetter, Grade Checker (GPS, mechanical or otherwise)
Grooving and Grinding Machine
Heading Shield Operator
Heavy Duty Drilling Equipment, Hughes, LDH, Watson 3000 or similar
Heavy Duty Repairman and/or Welder
Lime Spreader
Loader under 4 cu yds
Lubrication and Service Engineer (mobile and grease rack)
Mechanical Finishers or Spreader Machine (asphalt, Barber-Greene and similar)
Miller Formless M-9000 Slope Paver or similar
Portable Crushing and Screening plants
Power Blade Support
Roller Operator, Asphalt
Rubber-Tired Scraper, Self-Loading (paddle-wheels, etc)
Rubber-Tired Earthmoving Equipment (Scrapers)
Slip Form Paver (concrete)
Small Tractor with Drag
Soil Stabilizer (P&H or equal)
Spider Plow and Spider Puller
Timber Skidder
Track Loader up to 4 yards
Tractor Drawn Scraper
Tractor, Compressor Drill Combination
Tubex Pile Rig

Unlicensed Construction Work Boat Operator, On Site
Welder
Woods-Mixer (and other similar Pugmill equipment)

GROUP 5

Cast-In Place Pipe Laying Machine
Combination Slusher and Motor Operator
Concrete Conveyor or Concrete Pump, Truck or Equipment Mounted
Concrete Conveyor, Building Site
Concrete Pump or Pumpcrete Guns
Drilling Equipment, Watson 2000, Texoma 700 or similar
Drilling and Boring Machinery, Horizontal (not to apply to waterliners, wagon drills or jackhammers)
Concrete Mixers/all
Man and/or Material Hoist
Mechanical Finishers (concrete) (Clary, Johnson, Bidwell Bridge Deck or similar types)
Mechanical Burm, Curb and/or Curb and Gutter Machine, Concrete or Asphalt
Mine or Shaft Hoist
Portable Crushers
Power Jumbo Operator (setting slip-forms, etc., in tunnels)
Screedman (automatic or manual)
Self Propelled Compactor with Dozer
Tractor with boom, D6 or smaller
Trenching Machine, maximum digging capacity over 5 ft. depth
Vermeer T-600B Rock Cutter or similar

GROUP 6

Armor-Coater (or similar)
Ballast Jack Tamper
Boom-Type Backfilling Machine
Asst. Plant Engineer
Bridge and/or Gantry Crane
Chemical Grouting Machine, truck mounted
Chip Spreading Machine Operator
Concrete Barrier Moving Machine
Concrete Saws (self-propelled unit on streets, highways, airports, and canals)
Deck Engineer
Drill Doctor
Drill Equipment, over 25,000 lbs up to and including 50,000 lbs
Drilling Equipment Texoma 600, Hughes 200 series or similar up to and including 30 ft. m.r.c.
Helicopter Radioman
Hydro-Hammer or similar
Line Master
Skidsteer Loader, Bobcat larger than 743 series or similar (with attachments)
Locomotive
Rotating Extendable Forklift, Lull Hi-Lift or similar
Assistant to Engineer, Truck Mounted Equipment
Pavement Breaker, Truck Mounted, with compressor combination
Paving Fabric Installation and/or Laying Machine
Pipe Bending Machine (pipelines only)
Pipe Wrapping Machine (Tractor propelled and supported)
Screedman, (except asphaltic concrete paving)
Self-Loading Chipper
Self Propelled Pipeline Wrapping Machine
Tractor

GROUP 7

Ballast Regulator
Cary Lift or similar
Combination Slurry Mixer and/or Cleaner
Coolant/Slurry Tanker Operator (hooked to Grooving/Grinding Machine)
Drilling Equipment, 20 ft and under m.r.c.
Drill Equipment, over 1,000 lbs up to and including 25,000 lbs
Fireman Hot Plant
Grouting Machine Operator
Highline Cableway Signalman
Stationary Belt Loader (Kolman or similar)
Lift Slab Machine (Vagtborg and similar types)
Maginnes Internal Full Slab Vibrator
Material Hoist (1 Drum)
Mechanical Trench Shield
Partsman (heavy duty repair shop parts room)
Pavement Breaker with or without Compressor Combination
Pipe Cleaning Machine (tractor propelled and supported)
Post Driver
Roller (except Asphalt), Chip Seal
Self Propelled Automatically Applied Concrete Curing Machine (on streets, highways, airports and canals)
Self Propelled Compactor (without dozer)
Signalman
Slip-Form Pumps (lifting device for concrete forms)
Super Sucker Vacuum Truck
Tie Spacer
Trenching Machine (maximum digging capacity up to and including 5 ft depth)
Truck Type Loader

GROUP 8

Bit Sharpener
Boiler Tender
Box Operator
Brakeman

Combination Mixer and Compressor (shotcrete/gunite)
Compressor Operator
Deckhand
Fireman
Generators
Gunite/Shotcrete Equipment Operator
Heavy Duty Repairman Helper
Hydraulic Monitor
Ken Seal Machine (or similar)
Mast Type Forklift
Mixermobile
Assistant to Engineer
Pump Operator
Refrigerator Plant
Reservoir-Debris Tug (Self-Propelled Floating)
Ross Carrier (Construction site)
Rotomist Operator
Self Propelled Tape Machine
Shuttlecar
Self Propelled Power Sweeper Operator (Includes Vacuum Sweeper)
Slusher Operator
Surface Heater
Switchman
Tar Pot Fireman
Tugger Hoist, Single Drum
Vacuum Cooling Plant
Welding Machine (powered other than by electricity)

GROUP 8-A
Articulated Dump Truck Operator
Elevator Operator
Mini Excavator under 25 H.P. (Backhoe-Trencher)
Skidsteer Loader, Bobcat 743 series or Smaller and similar (without attachments)

ALL CRANES AND ATTACHMENTS:
GROUP 1
Cranes over 250 tons
Derrick over 250 tons
Self Propelled Boom Type Lifting Device over 250 tons

GROUP 1-A
Clamshells and Draglines over 7 cu yds
Cranes over 100 tons
Derrick, over 100 tons
Derrick Barge Pedestal mounted over 100 tons
Self Propelled Boom Type Lifting Device Over 100 tons
Tower Cranes

GROUP 2-A
Clamshells and Draglines over 1 cu yds up to and including 7 cu yds
Cranes over 45 tons up to and including 100 tons
Derrick Barge 100 tons and under
Mobile Self-Erecting Tower Crane (Potain) over 3 stories
Self Propelled Boom Type Lifting Device over 45 tons

GROUP 3-A
Clamshells and Draglines up to and including 1 cu yd
Cranes 45 tons and under
Mobile Self-Erecting Tower Crane (Potain), 3 stories and under
Self Propelled Boom Type Lifting Device 45 tons and under

GROUP 4-A
Boom Truck or dual-purpose A-Frame Truck, Non-Rotating over 15 tons.
Truck Mounted Rotating Telescopic Boom Type Lifting Device, Manitex or similar (Boom Truck -over 15 tons)
Truck-Mounted Rotating Telescopic Boom Type Lifting Device, Manitex or Similar (Boom Truck), under 15 tons

DESCRIPTIONS FOR AREAS 1 AND 2:

Area 1 is all of Northern California within the following Township, State and/or county Boundaries:

Commencing in the Pacific Ocean on the extension of the Southerly line of Township 19S, of the Mount Diablo Base and Meridian,
Thence Easterly along the Southerly line of Township 19S, to the Northwest corner of Township 20S, Range 6E,
Thence Southerly to the Southwest corner of Township 20S, Range 6E,
Thence Easterly to the Northwest corner of Township 21S, Range 7E
Thence Southerly to the Southwest corner of Township 21S, Range 7E
Thence Easterly to the Northwest corner of Township 22S, Range 9E,
Thence Southerly to the Southwest corner of Township 22S, Range 9E,
Thence Easterly to the Northwest corner of Township 23S, Range 10E,

Thence Southerly to the Southwest corner of Township 24S, Range 10E,
Thence Easterly to the Southwest corner of Township 24S, Range 31E,
Thence Northerly to the Northeast corner of Township 20S, Range 31E,
Thence Westerly to the Southeast corner of Township 19S, Range 29E,
Thence Northerly to the Northeast corner of Township 17S, Range 29E,
Thence Westerly to the Southeast corner of Township 16S, Range 28E,
Thence Northerly to the Northeast corner of Township 13S, Range 28E,
Thence Westerly to the Southeast corner of Township 12S, Range 27E,
Thence Northerly to the Northeast corner of Township 12S, Range 27E,
Thence Westerly to the Southeast corner of Township 11S, Range 26E,
Thence Northerly to the Northeast corner of Township 11S, Range 26E,
Thence Westerly to the Southeast corner of Township 10S, Range 25E,
Thence Northerly to the Northeast corner of Township 9S, Range 25E,
Thence Westerly to the Southeast corner of Township 8S, Range 24E,
Thence Northerly to the Northeast corner of Township 8S, Range 24E,
Thence Westerly to the Southeast corner of Township 7S, Range 23E,
Thence Northerly to the Northeast corner of Township 6S, Range 23E,
Thence Westerly to the Southeast corner of Township 5S, Range 20E,
Thence Northerly to the Northeast corner of Township 5S, Range 20E,
Thence Westerly to the Southeast corner of Township 4S, Range 19E,
Thence Northerly to the Northeast corner of Township 1S, Range 19E,
Thence Westerly to the Southeast corner of Township 1N, Range 18E,
Thence Northerly to the Northeast corner of Township 3N, Range 18E,
Thence Westerly to the Southeast corner of Township 4N, Range 17E,
Thence Northerly to the Northeast corner of Township 4N, Range 17E,
Thence Westerly to the Southeast corner of Township 5N, Range 15E,
Thence Northerly to the Northeast corner of Township 5N, Range 15E,
Thence Westerly to the Southeast corner of Township 6N, Range 14E,
Thence Northerly to the Northeast corner of Township 10N, Range 14E,
Thence Easterly along the Southern line of Township 11N, to the California/Nevada State Border,
Thence Northerly along the California/Nevada State Border to the Northerly line of Township 17N,
Thence Westerly to the Southeast corner of Township 18N, Range 10E,
Thence Northerly to the Northeast corner of Township 20N, Range 10E,
Thence Westerly to the Southeast corner of Township 21N, Range 9E,
Thence Northerly to the Northeast corner of Township 21N, Range 9E,
Thence Westerly to the Southeast corner of Township 22N, Range 8E,
Thence Northerly to the Northeast corner of Township 22N, Range 8E,
Thence Westerly to the Northwest corner of Township 22N, Range 8E,
Thence Northerly to the Southwest corner of Township 27N, Range 8E,
Thence Easterly to the Southeast corner of Township 27N, Range 8E,
Thence Northerly to the Northeast corner of Township 28N, Range 8E,
Thence Westerly to the Southeast corner of Township 29N, Range 6E,
Thence Northerly to the Northeast corner of Township 32N, Range 6E,
Thence Westerly to the Northwest corner of Township 32N, Range 6E,
Thence Northerly to the Northeast corner of Township 35N, Range 5E,
Thence Westerly to the Southeast corner of Township 36N, Range 3E,
Thence Northerly to the Northeast corner of township 36N, Range 3E,
Thence Westerly to the Southeast corner of Township 37N, Range 1W,
Thence Northerly to the Northeast corner of Township 38N, Range 1W,
Thence Westerly to the Southeast corner of Township 39N, Range 2W,
Thence Northerly to the Northeast corner of Township 40N, Range 2W,
Thence Westerly to the Southeast corner of Township 41N, Range 4W,

Thence Northerly to the Northeast corner of Township 42N, Range 4W,
Thence Westerly to the Southeast corner of Township 43N, Range 5W,
Thence Northerly to the California/Oregon State Border,
Thence Westerly along the California/Oregon State Border to the Westerly Boundary of Township Range 8W,
Thence Southerly to the Southwest corner of Township 43N, Range 8W,
Thence Easterly to the Southeast corner of Township 43N, Range 8W,
Thence Southerly to the Southwest corner of Township 42N, Range 7W,
Thence Easterly to the Southeast corner of Township 42N, Range 7W,
Thence Southerly to the Southwest corner of Township 41N, Range 6W,
Thence Easterly to the Northwest corner of Township 40N, Range 5W,
Thence Southerly to the Southwest corner of Township 38N, Range 5W,
Thence Westerly to the Northwest corner of Township 37N, Range 6W,
Thence Southerly to the Southwest corner of Township 35N, Range 6W,
Thence Westerly to the Northwest corner of Township 34N, Range 10W,
Thence Southerly to the Southwest corner of Township 31N, Range 10W,
Thence Easterly to the Northwest corner of Township 30N, Range 9W,
Thence Southerly to the Southwest corner of Township 30N, Range 9W,
Thence Easterly to the Northwest corner of Township 29N, Range 8W,
Thence Southerly to the Southwest corner of Township 23N, Range 8W,
Thence Easterly to the Northwest corner of Township 22N, Range 6W,
Thence Southerly to the Southwest corner of Township 16N, Range 6W,
Thence Westerly to the Southeast corner of Township 16N, Range 9W,
Thence Northerly to the Northeast corner of Township 16N, Range 9W,
Thence Westerly to the Southeast corner of Township 17N, Range 12W,
Thence Northerly to the Northeast corner of Township 18N, Range 12W,
Thence Westerly to the Northwest corner of Township 18N, Range 15W,
Thence Southerly to the Southwest corner of Township 14N, Range 15W,
Thence Easterly to the Northwest corner of Township 13N, Range 14W,
Thence Southerly to the Southwest corner of Township 13N, Range 14W,
Thence Easterly to the Northwest corner of Township 12N, Range 13W,
Thence Southerly to the Southwest corner of Township 12N, Range 13W,
Thence Easterly to the Northwest corner of Township 11N, Range 12W,
Thence Southerly into the Pacific Ocean and Commencing in the Pacific Ocean on the extension of the Humboldt Base Line,
Thence Easterly to the Northwest corner of Township 1S, Range 2E,
Thence Southerly to the Southwest corner of Township 2S, Range 2E,
Thence Easterly to the Northwest corner of Township 3S, Range 3E,
Thence Southerly to the Southwest corner of Township 5S, Range 3E,
Thence Easterly to the Southeast corner of Township 5S, Range 4E,
Thence Northerly to the Northeast corner of Township 4S, Range 4E,
Thence Westerly to the Southeast corner of Township 3S, Range 3E,
Thence Northerly to the Northeast corner of Township 5N, Range 3E,
Thence Easterly to the Southeast corner of Township 6N, Range 5E,
Thence Northerly to the Northeast corner of Township 7N, Range 5E,
Thence Westerly to the Southeast corner of Township 8N, Range 3E,
Thence Northerly to the Northeast corner of Township 9N, Range 3E,
Thence Westerly to the Southeast corner of Township 10N, Range 1E,
Thence Northerly to the Northeast corner of Township 13N, Range 1E,
Thence Westerly into the Pacific Ocean, excluding that portion of Northern California contained within the following lines:
Commencing at the Southwest corner of Township 12N, Range 11E, of the Mount Diablo Base and Meridian,
Thence Easterly to the Southeast corner of Township 12N, Range 16E,

Thence Northerly to the Northeast corner of Township 12N, Range 16E,
Thence Westerly to the Southeast corner of Township 13N, Range 15E,
Thence Northerly to the Northeast corner of Township 13N, Range 15E,
Thence Westerly to the Southeast corner of Township 14N, Range 14E,
Thence Northerly to the Northeast corner of Township 16N, Range 14E,
Thence Westerly to the Northwest corner of Township 16N, Range 12E,
Thence Southerly to the Southwest corner of Township 16N, Range 12E,
Thence Westerly to the Northwest corner of Township 15N, Range 11E,
Thence Southerly to the point of beginning at the Southwest corner of Township 12N, Range 11E,
Area 2 shall be all areas not part of Area 1 described above.

Recognized holidays:
Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:
In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

[#] Indicates an apprenticeable craft. The current apprentice wage rates are available on the Prevailing Wage Apprentice Determinations Website (http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp).
[a] For classifications within each group, see Pages 5 – 7.
[b] When three shifts are employed for five (5) or more consecutive days, seven and one-half (7½) consecutive hours (exclusive of meal period), shall constitute a day of work, for which eight (8) times the straight time hourly rate shall be paid at the non-shift wage rate for the second shift. The third shift shall be seven (7) hours of work for eight (8) hours of pay at the non-shift wage rate.
[c] Saturday in the same work week may be worked at straight-time if a job is shut down during the normal work week due to inclement weather.
[d] Includes an amount for supplemental dues.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

FOR LANDSCAPE CONSTRUCTION PROJECTS

CRAFT: OPERATING ENGINEER[#]

Determination:
NC-63-3-75-2024-1

Issue Date:
August 22, 2024

Expiration date of determination:
June 29, 2025** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415)703-4774.

Localities:
All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties

AREA 1 - Alameda, Butte, Contra Costa, Kings, Marin, Merced, Napa, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Solano, Stanislaus, Sutter, Yolo and Yuba counties; and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Trinity, Tulare, and Tuolumne Counties (Portions of counties falling in each area detailed in the Operating Engineer (Heavy and Highway Work) determination).

Wages and Employer Payments (Area 1):

Classification[a] (Journeyperson)	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday[b]	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1½ X)	Saturday Overtime Hourly Rate (1½ X)[c]	Sunday/ Holiday Overtime Hourly Rate (2 X)
Group I	$52.40	$13.38	$10.85	$4.56	$1.25	$1.43	8	$83.87	$110.07	$110.07	$136.27
Group II	$48.80	$13.38	$10.85	$4.56	$1.25	$1.43	8	$80.27	$104.67	$104.67	$129.07
Group III	$44.19	$13.38	$10.85	$4.56	$1.25	$1.43	8	$75.66	$97.755	$97.755	$119.85
Group IV	$41.48	$13.38	$10.85	$4.56	$1.25	$1.43	8	$72.95	$93.69	$93.69	$114.43

AREA 2 - Modoc, and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Trinity, Tulare, and Tuolumne Counties (Portions of counties falling in each area detailed in the Operating Engineer (Heavy and Highway Work) determination).

Wages and Employer Payments (Area 2):

Classification[a] (Journeyperson)	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday[b]	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1½ X)	Saturday Overtime Hourly Rate (1½ X) [c]	Sunday/ Holiday Overtime Hourly Rate (2 X)
Group I	$54.40	$13.38	$10.85	$4.56	$1.25	$1.43	8	$85.87	$113.07	$113.07	$140.27
Group II	$50.80	$13.38	$10.85	$4.56	$1.25	$1.43	8	$82.27	$107.67	$107.67	$133.07
Group III	$46.19	$13.38	$10.85	$4.56	$1.25	$1.43	8	$77.66	$100.755	$100.755	$123.85
Group IV	$43.48	$13.38	$10.85	$4.56	$1.25	$1.43	8	$74.95	$96.69	$96.69	$118.43

Recognized holidays
Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:
In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

FOR LANDSCAPE CONSTRUCTION PROJECTS

CRAFT: OPERATING ENGINEER[#]
(SPECIAL SINGLE AND SECOND SHIFT)

Determination:
NC-63-3-75-2024-1

Issue Date:
August 22, 2024

Expiration date of determination:
June 29, 2025** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415)703-4774.

Localities:
All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

AREA 1 - Alameda, Butte, Contra Costa, Kings, Marin, Merced, Napa, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Solano, Stanislaus, Sutter, Yolo and Yuba counties; and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Trinity, Tulare, and Tuolumne Counties (Portions of counties falling in each area detailed in the Operating Engineer (Heavy and Highway Work) determination).

Wages and Employer Payments (Area 1):

Classification[a] (Journeyperson)	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday[b]	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1½ X)	Saturday Overtime Hourly Rate (1½ X)[c]	Sunday/ Holiday Overtime Hourly Rate (2 X)
Group I	$58.40	$13.38	$10.85	$4.56	$1.25	$1.43	8	$89.87	$119.07	$119.07	$148.27
Group II	$54.80	$13.38	$10.85	$4.56	$1.25	$1.43	8	$86.27	$113.67	$113.67	$141.07
Group III	$50.19	$13.38	$10.85	$4.56	$1.25	$1.43	8	$81.66	$106.755	$106.755	$131.85
Group IV	$47.48	$13.38	$10.85	$4.56	$1.25	$1.43	8	$78.95	$102.69	$102.69	$126.43

AREA 2 - Modoc, and portions of Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Lake, Lassen, Madera, Mariposa, Mendocino, Monterey, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sonoma, Tehama, Trinity, Tulare, and Tuolumne Counties (Portions of counties falling in each area detailed in the Operating Engineer (Heavy and Highway Work) determination).

Wages and Employer Payments (Area 2):

Classification[a] (Journeyperson)	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday[b]	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1½ X)	Saturday Overtime Hourly Rate (1½ X) [c]	Sunday/ Holiday Overtime Hourly Rate (2 X)
Group 1	$60.40	$13.38	$10.85	$4.56	$1.25	$1.43	8	$91.87	$122.07	$122.07	$152.27
Group 2	$56.80	$13.38	$10.85	$4.56	$1.25	$1.43	8	$88.27	$116.67	$116.67	$145.07
Group 3	$52.19	$13.38	$10.85	$4.56	$1.25	$1.43	8	$83.66	$109.755	$109.755	$135.85
Group 4	$49.48	$13.38	$10.85	$4.56	$1.25	$1.43	8	$80.95	$105.69	$105.69	$130.43

Recognized holidays
Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:
In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

CLASSIFICATIONS:

Group I
Landscape Finish Grade Operator. All finish grade work regardless of the equipment used, and all equipment with a horsepower rating of more than 65.

Group II
Landscape Operator up to 65 H.P. All equipment with a manufacturer's horsepower rating of 65 or less except equipment covered by Group I or Group III. The following equipment shall be included in Group II except when used for finish work so long as its manufacturer's horsepower rating is 65 or less.
A-Frame and Winch Truck
Backhoe
Forklift (Jobsite)
HDR Welder - Landscape - Operating Engineer's Equipment
Hydro Seeder Machine
Roller
Rubber-Tired and Track Earthmoving Equipment
Skiploader
Straw Blowers
Trencher - 35 Horsepower up to 65 Horsepower

Group III
Landscape Utility Operator
Small Rubber-Tired Tractor
Trencher - Under 35 Horsepower

Group IV
Assistant Landscape Utility Operator Oiler

[#] Indicates an apprenticeable craft. The current apprentice wage rates are available on the Prevailing Wage Apprentice Determinations Website (http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp).
[a] For classifications within each group, see Page 5.
[b] Includes an amount for Supplemental Dues.
[c] Saturday in the same workweek may be worked at straight-time if a job is shut down during the normal workweek due to inclement weather, major mechanical breakdown or shortage of materials beyond the control of the Individual Employer.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

Craft: Slurry Seal Worker (Laborer)

Determination:
NC-23-102-1B-2025-1

Issue Date:
February 22, 2025

Expiration date of determination:
June 29, 2025** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Localities:
All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

Wages and Employer Payments:

Classification (Journeyperson)	Basic Hourly Rate[a]	Health and Welfare	Pension	Vacation and Holiday	Training	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X)	Saturday Overtime Hourly Rate (1 ½ X)[b]	Sunday/Holiday Overtime Hourly Rate (2 X)
Mixer Operator	$43.32	$10.60	$12.65	$3.50	$0.10	8.0	$70.17	$91.83	$91.83	$113.49
Shuttle/Line Driver	$37.32	$10.60	$12.65	$3.50	$0.10	8.0	$64.17	$82.83	$82.83	$101.49
Squeegee/Sealer	$35.82	$10.60	$12.65	$3.50	$0.10	8.0	$62.67	$80.58	$80.58	$98.49
Utility-Maintenance Man	$34.82	$10.60	$12.65	$3.50	$0.10	8.0	$61.67	$79.08	$79.08	$96.49

Recognized holidays:
Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:
In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

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[a] Zone Pay at three dollars ($3.00) per hour, factored at the applicable overtime multiplier, will be added to the base rate for work performed outside the Free Zone described by the boundaries along township and range lines. Please see travel and subsistence provision for map description and exceptions.
[b] Saturdays in the same work week may be worked at straight-time if job is shut down during the normal work week due to inclement weather, major mechanical breakdown or lack of materials beyond the control of the employer.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

Craft: STEEL ERECTOR AND FABRICATOR (OPERATING ENGINEER-HEAVY AND HIGHWAY WORK)[#a]

Determination:
NC-23-63-1-2024-1D

Issue Date:
August 22, 2024

Expiration date of determination:
June 29, 2025** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Localities:
All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

Wages and Employer Payments:

Classification	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday[b]	Training	Other	Hours[c]	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X)[d]	Saturday Overtime Hourly Rate (1 ½ X)[ed]	Sunday/ Holiday Overtime Hourly Rate (2 X)
Group A-1	$66.75	$13.38	$11.28	$6.03	$1.21	$1.60	8	$100.25	$133.63	$133.63	$167.00
Truck Crane Assistant to Engineer	$59.43	$13.38	$11.28	$6.03	$1.21	$1.60	8	$92.93	$122.65	$122.65	$152.36
Assistant to Engineer	$57.20	$13.38	$11.28	$6.03	$1.21	$1.60	8	$90.70	$119.30	$119.30	$147.90
Group 1	$66.00	$13.38	$11.28	$6.03	$1.21	$1.60	8	$99.50	$132.50	$132.50	$165.50
Truck Crane Assistant to Engineer	$58.68	$13.38	$11.28	$6.03	$1.21	$1.60	8	$92.18	$121.52	$121.52	$150.86
Assistant to Engineer	$56.45	$13.38	$11.28	$6.03	$1.21	$1.60	8	$89.95	$118.18	$118.18	$146.40
Group 2	$64.23	$13.38	$11.28	$6.03	$1.21	$1.60	8	$97.73	$129.85	$129.85	$161.96
Truck Crane Assistant to Engineer	$58.46	$13.38	$11.28	$6.03	$1.21	$1.60	8	$91.96	$121.19	$121.19	$150.42
Assistant to Engineer	$56.18	$13.38	$11.28	$6.03	$1.21	$1.60	8	$89.68	$117.77	$117.77	$145.86

Classification	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday[b]	Training	Other	Hours[c]	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X)[d]	Saturday Overtime Hourly Rate (1 ½ X)[ed]	Sunday/ Holiday Overtime Hourly Rate (2 X)
Group 3	$62.75	$13.38	$11.28	$6.03	$1.21	$1.60	8	$96.25	$127.63	$127.63	$159.00
Truck Crane Assistant to Engineer	$58.19	$13.38	$11.28	$6.03	$1.21	$1.60	8	$91.69	$120.79	$120.79	$149.88
Hydraulic	$57.80	$13.38	$11.28	$6.03	$1.21	$1.60	8	$91.30	$120.20	$120.20	$149.10
Assistant to Engineer	$55.96	$13.38	$11.28	$6.03	$1.21	$1.60	8	$89.46	$117.44	$117.44	$145.42
Group 4	$60.73	$13.38	$11.28	$6.03	$1.21	$1.60	8	$94.23	$124.60	$124.60	$154.96
Group 5	$59.43	$13.38	$11.28	$6.03	$1.21	$1.60	8	$92.93	$122.65	$122.65	$152.36

CLASSIFICATIONS

GROUP A-1
Cranes over 250 Tons
Derrick over 250 Tons
Self Propelled Boom Type Lifting Devices over 250 Tons

GROUP 1
Cranes over 100 tons
Derrick over 100 tons
Self Propelled Boom Type Lifting Device Over 100 Tons
Tower Crane

GROUP 2
Cranes over 45 tons up to and including 100 tons
Derrick, 100 tons and under
Self Propelled Boom Type Lifting Device, Over 45 Tons

GROUP 3
Cranes, 45 tons and under
Self Propelled Boom Type Lifting Device 45 Tons And Under

GROUP 4
Chicago Boom
Forklift, 10 Tons And Over
Heavy Duty Repairman/Welder

GROUP 5
Boom Cat

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

Craft: STEEL ERECTOR AND FABRICATOR (OPERATING ENGINEER-HEAVY AND HIGHWAY WORK)[#a]
(SPECIAL SINGLE AND SECOND SHIFT)

Determination:
NC-23-63-1-2024-1D

Issue Date:
August 22, 2024

Expiration date of determination:
June 29, 2025** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Localities:
All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties.

Wages and Employer Payments:

Classification (Special Single and Second Shift)	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday[b]	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X)[d]	Saturday Overtime Hourly Rate (1 ½ X)[de]	Sunday/ Holiday Overtime Hourly Rate (2 X)
Group A-1	$72.75	$13.38	$11.28	$6.03	$1.21	$1.60	8	$106.25	$142.63	$142.63	$179.00
Truck Crane Assistant to Engineer	$65.43	$13.38	$11.28	$6.03	$1.21	$1.60	8	$98.93	$131.65	$131.65	$164.36
Assistant to Engineer	$63.20	$13.38	$11.28	$6.03	$1.21	$1.60	8	$96.70	$128.30	$128.30	$159.90
Group 1	$72.00	$13.38	$11.28	$6.03	$1.21	$1.60	8	$105.50	$141.50	$141.50	$177.50
Truck Crane Assistant to Engineer	$64.68	$13.38	$11.28	$6.03	$1.21	$1.60	8	$98.18	$130.52	$130.52	$162.86
Assistant to Engineer	$62.45	$13.38	$11.28	$6.03	$1.21	$1.60	8	$95.95	$127.18	$127.18	$158.40
Group 2	$70.23	$13.38	$11.28	$6.03	$1.21	$1.60	8	$103.73	$138.85	$138.85	$173.96
Truck Crane Assistant to Engineer	$64.46	$13.38	$11.28	$6.03	$1.21	$1.60	8	$97.96	$130.19	$130.19	$162.42

Classification (Special Single and Second Shift)	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday[b]	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X)[d]	Saturday Overtime Hourly Rate (1 ½ X)[de]	Sunday/ Holiday Overtime Hourly Rate (2 X)
Assistant to Engineer	$62.18	$13.38	$11.28	$6.03	$1.21	$1.60	8	$95.68	$126.77	$126.77	$157.86
Group 3	$68.75	$13.38	$11.28	$6.03	$1.21	$1.60	8	$102.25	$136.63	$136.63	$171.00
Truck Crane Assistant to Engineer	$64.19	$13.38	$11.28	$6.03	$1.21	$1.60	8	$97.69	$129.79	$129.79	$161.88
Hydraulic	$63.80	$13.38	$11.28	$6.03	$1.21	$1.60	8	$97.30	$129.20	$129.20	$161.10
Assistant to Engineer	$61.96	$13.38	$11.28	$6.03	$1.21	$1.60	8	$95.46	$126.44	$126.44	$157.42
Group 4	$66.73	$13.38	$11.28	$6.03	$1.21	$1.60	8	$100.23	$133.60	$133.60	$166.96
Group 5	$65.43	$13.38	$11.28	$6.03	$1.21	$1.60	8	$98.93	$131.65	$131.65	$164.36

Recognized holidays:
Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:
In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

[#] Indicates an apprenticeable craft. The current apprentice wage rates are available on the Prevailing Wage Apprentice Determinations Website (http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp).
[a] For Building Construction, see Steel Erector and Fabricator (Operating Engineer-Building Construction) determination.
[b] Includes an amount for supplemental dues.
[c] When three shifts are employed for five (5) or more consecutive days, seven and one-half (7 1/2) consecutive hours (exclusive of meal period), shall constitute a day of work, for which eight (8) times the straight time hourly rate shall be paid at the non-shift wage rate for the second shift. The third shift shall be seven (7) hours of work for eight (8) hours of pay at the non-shift wage rate.
[d] Rate applies to the first 2 daily overtime hours only. All other time is paid at the double time rate.
[e] Saturday in the same work week may be worked at straight-time rates if a job is shut down during the normal work week due to inclement weather.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

Craft: TEAMSTER (APPLIES ONLY TO WORK ON THE CONSTRUCTION SITE)

Determination:
NC-23-261-1-2024-1

Issue Date:
August 22, 2024

Expiration date of determination:
June 30, 2025** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

Localities:
All Localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

WAGE RATES AND TOTAL HOURLY RATES (including employer payments):

Classification[a] (Journeyperson)	Basic Hourly Rate	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X)	Saturday Overtime Hourly Rate (1 ½ X)[b]	Sunday/ Holiday Overtime Hourly Rate (2 X)
Group 1	$41.54	8	$75.57	$96.34	$96.34	$117.11
Group 2	$41.84	8	$75.87	$96.79	$96.79	$117.71
Group 3	$42.14	8	$76.17	$97.24	$97.24	$118.31
Group 4	$42.49	8	$76.52	$97.77	$97.77	$119.01
Group 5	$42.84	8	$76.87	$98.29	$98.29	$119.71
Group 6	USE DUMP TRUCK YARDAGE RATE					
Group 7	USE APPROPRIATE RATE FOR THE POWER UNIT OR THE EQUIPMENT UTILIZED					
Group 8 (Trainee)[c] [d] Step I – 1st 1000 Hours [e] Step II – 2nd 1000 Hours [f] Step III – 3rd 1000 Hours						

EMPLOYER PAYMENTS:

Type of Fund	Amount per Hour Worked
Health & Welfare	$20.49
Pension	$9.26
Vacation and Holiday	$2.30
Training	$1.20
Other[g]	$0.78

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

Craft: TEAMSTER (SPECIAL SINGLE SHIFT RATE)
(APPLIES ONLY TO WORK ON THE CONSTRUCTION SITE)

Determination:
NC-23-261-1-2024-1A

Issue Date:
August 22, 2024

Expiration date of determination:
June 30, 2025** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

Localities:
All Localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

WAGE RATES AND TOTAL HOURLY RATES (including employer payments):

Classification[a] (Journeyperson)	Basic Hourly Rate	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X)	Saturday Overtime Hourly Rate (1 ½ X)[b]	Sunday/ Holiday Overtime Hourly Rate (2 X)
Group 1	$43.54	8	$77.57	$99.34	$99.34	$121.11
Group 2	$43.84	8	$77.87	$99.79	$99.79	$121.71
Group 3	$44.14	8	$78.17	$100.24	$100.24	$122.31
Group 4	$44.49	8	$78.52	$100.77	$100.77	$123.01
Group 5	$44.84	8	$78.87	$101.29	$101.29	$123.71
Group 6	USE DUMP TRUCK YARDAGE RATE					
Group 7	USE APPROPRIATE RATE FOR THE POWER UNIT OR THE EQUIPMENT UTILIZED					

Classification[a] (Journeyperson)	Basic Hourly Rate	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X)	Saturday Overtime Hourly Rate (1 ½ X)[b]	Sunday/ Holiday Overtime Hourly Rate (2 X)
Group 8 (Trainee)[c] [d] Step I – 1st 1000 Hours [e] Step II – 2nd 1000 Hours [f] Step III – 3rd 1000 Hours						

EMPLOYER PAYMENTS:

Type of Fund	Amount per Hour Worked
Health & Welfare	$20.49
Pension	$9.26
Vacation and Holiday	$2.30
Training	$1.20
Other[g]	$0.78

CLASSIFICATIONS:

GROUP 1

Dump Trucks under 6 yards
Single Unit Flat Rack (2 axle unit)
Nipper Truck (When Flat Rack Truck is used appropriate Flat Rack shall apply)
Concrete pump truck (When Flat Rack Truck is used appropriate Flat Rack shall apply)
Concrete pump machine
Snow Buggy
Steam Cleaning
Bus or Manhaul Driver
Escort or Pilot Car Driver
Pickup Truck
Teamster Oiler/Greaser/and or Serviceman
Hook Tenders
Team Drivers
Warehouseman
Tool Room Attendant (Refineries)
Fork Lift and Lift Jitneys
Warehouse Clerk/Parts Man
Fuel and/or Grease Truck Driver or Fuelman
Truck Repair Helper
Fuel Island Attendant, or Combination Pit and/or Grease Rack and Fuel Island Attendant

GROUP 2

Dump Trucks 6 yards Under 8 yards
Transit Mixers through 10 yards
Water Trucks Under 7000 gals.
Jetting Trucks Under 7000 gals.
Single Unit flat rack (3 axle unit)
Highbed Heavy Duty Transport
Scissor Truck
Rubber Tired Muck Car (not self-loaded)
Rubber Tired Truck Jumbo
Winch Truck and “A” Frame Drivers
Combination Winch Truck With Hoist
Road Oil Truck or Bootman
Buggymobile
Ross, Hyster and similar Straddle Carrier
Small Rubber Tired Tractor
Truck Dispatcher

GROUP 3

Dump Trucks 8 yards and including 24 yards
Transit Mixers Over 10 yards
Water Trucks 7000 gals and over
Jetting Trucks 7000 gals and over
Vacuum Trucks under 7500 gals
Trucks Towing Tilt Bed or Flat Bed Pull Trailers
Heavy Duty Transport Tiller Man
Tire Repairman
Truck Mounted Self Propelled Street Sweeper with or without Self-Contained Refuse Bin and or Vacuum Unit
Boom Truck - Hydro-Lift or Swedish Type Extension or Retracting Crane
P.B. or Similar Type Self Loading Truck
Combination Bootman and Road Oiler
Dry Distribution Truck (A Bootman when employed on such equipment, shall receive the rate specified for the classification of Road Oil Trucks or Bootman)
Ammonia Nitrate Distributor, Driver and Mixer
Snow Go and/or Plow

GROUP 4

Dump Trucks over 25 yards and under 65 yards
Vacuum Trucks 7500 gals and over.
Truck Repairman
Water Pulls - DW 10s, 20s, 21s and other similar equipment when pulling Aqua/pak or Water Tank Trailers
Helicopter Pilots
Lowbed Heavy Duty Transport (up to and including 7 axles)
DW 10s, 20s, 21s and other similar Cat type, Terra Cobra, LeTourneau Pulls, Tournorocker, Euclid and similar type Equipment when pulling fuel and/or grease tank trailers or other miscellaneous trailers

GROUP 5
Dump Truck 65 yards and over
Holland Hauler
Lowbed Heavy Duty Transport (over 7 axles)

GROUP 6 (Use dump truck yardage rate)
Articulated Dump Truck
Bulk Cement Spreader (w/ or w/o Auger)
Dumpcrete Truck
Skid Truck (Debris Box)
Dry Pre-Batch Concrete Mix Trucks
Dumpster or Similar Type
Slurry Truck

GROUP 7 (Use appropriate Rate for the Power Unit or the Equipment Utilized)
Heater Planer
Asphalt Burner
Scarifier Burner
Fire Guard
Industrial Lift Truck (mechanical tailgate)
Utility and Clean-up Truck
Composite Crewman

GROUP 8
Trainee

Recognized holidays:
Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:
In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

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[a] For classifications within each group, see Pages 5 and 6.
[b] Saturday in the same work week may be worked at straight-time hourly rate if a job is shut down during the normal work week due to inclement weather or major mechanical breakdown, or lack of materials beyond the control of the Employer.
[c] An individual employer may employ one (1) trainee for every four (4) journey level Teamsters actively employed. Individual employers with less than four (4) journey level Teamsters may utilize one (1) trainee; thereafter, one (1) for every four (4) journey level Teamsters.
[d] Sixty-five percent (65%) of the Journey level wage for the type of equipment operated, plus full fringes without Vacation/Holiday.
[e] Seventy-five percent (75%) of the Journey level wage for the type of equipment operated, plus full fringes without Vacation/Holiday.
[f] Eighty-five percent (85%) of the Journey level wage for the type of equipment operated, plus full fringes without Vacation/Holiday.
[g] Supplemental Dues and Contract Administration.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

Craft: #TRAFFIC CONTROL/LANE CLOSURE (LABORER)
AND
#PARKING AND HIGHWAY IMPROVEMENT PAINTER (LABORER)

Determination:
NC-23-102-13-2025-1

Issue Date:
February 22, 2025

Expiration date of determination:
June 30, 2025** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Localities:
All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

AREA 1 - Alameda, Contra Costa, Marin, San Francisco, San Mateo and Santa Clara Counties.
AREA 2 - Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Joaquin, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo and Yuba Counties.

Wages and Employer Payments (Area 1):

Classification **TRAFFIC CONTROL AND RELATED CLASSIFICATIONS**	Basic Hourly Rate	Health and Welfare	Pension[a]	Vacation and Holiday[b]	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X)[c]	Saturday Overtime Hourly Rate (1 ½ X)[cd]	Sunday/ Holiday Overtime Hourly Rate (2 X)[e]
Traffic Control Person I	$38.81	$10.60	$14.96	$3.51	$0.52	$0.32	8	$68.72	$88.125	$88.125	$107.53
Traffic Control Person II	$36.31	$10.60	$14.96	$3.51	$0.52	$0.32	8	$66.22	$84.375	$84.375	$102.53
Construction Zone Traffic Control Pilot Car, Flag Person	$38.51	$10.60	$14.96	$3.51	$0.52	$0.32	8	$68.42	$87.675	$87.675	$106.93

Wages and Employer Payments (Area 2):

Classification **TRAFFIC CONTROL AND RELATED CLASSIFICATIONS**	Basic Hourly Rate	Health and Welfare	Pension[a]	Vacation and Holiday[b]	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X)[c]	Saturday Overtime Hourly Rate (1 ½ X)[cd]	Sunday/ Holiday Overtime Hourly Rate (2 X)[e]
Traffic Control Person I	$37.81	$10.60	$14.96	$3.51	$0.52	$0.32	8	$67.72	$86.625	$86.625	$105.53
Traffic Control Person II	$35.31	$10.60	$14.96	$3.51	$0.52	$0.32	8	$65.22	$82.875	$82.875	$100.53
Construction Zone Traffic Control Pilot Car, Flag Person	$37.51	$10.60	$14.96	$3.51	$0.52	$0.32	8	$67.42	$86.175	$86.175	$104.93

Determination:
NC-23-102-13-2025-1A

Issue Date:
February 22, 2025

Expiration date of determination:
June 30, 2025** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Localities:
All localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

AREA 1 - Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, and Yuba Counties.
AREA 2 – San Joaquin, Tuolumne, and Yolo Counties.

Wages and Employer Payments (Area 1):

Classification **STRIPER AND RELATED CLASSIFICATIONS**	Basic Hourly Rate	Health and Welfare	Pension[a]	Vacation and Holiday[b]	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X)[c]	Saturday Overtime Hourly Rate (1 ½ X)[cd]	Sunday/ Holiday Overtime Hourly Rate (2 X)[e]
Group 1	$41.70	$10.60	$14.35	$3.51	$0.52	$0.29	8	$70.97	$91.820	$91.820	$112.67
Group 2	$40.20	$10.60	$14.35	$3.51	$0.52	$0.29	8	$69.47	$89.570	$89.570	$109.67
Group 3	$38.45	$10.60	$14.35	$3.51	$0.52	$0.29	8	$67.72	$86.945	$86.945	$106.17
Group 4	$36.35	$10.60	$14.35	$3.51	$0.52	$0.29	8	$65.62	$83.795	$83.795	$101.97

Wages and Employer Payments (Area 2):

Classification **STRIPER AND RELATED CLASSIFICATIONS**	Basic Hourly Rate	Health and Welfare	Pension[a]	Vacation and Holiday[b]	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X)[c]	Saturday Overtime Hourly Rate (1 ½ X)[cd]	Sunday/ Holiday Overtime Hourly Rate (2 X)[e]
Group 1	$42.69	$7.10	$10.21	$3.30	$0.50	$0.27	8	$64.07	$85.415	$85.415	$106.76
Group 2	$38.95	$7.10	$10.21	$3.30	$0.50	$0.27	8	$60.33	$79.805	$79.805	$99.28
Group 3	$37.20	$7.10	$10.21	$3.30	$0.50	$0.27	8	$58.58	$77.180	$77.180	$95.78
Group 4	$36.62	$7.10	$10.21	$3.30	$0.50	$0.27	8	$58.00	$76.310	$76.310	$94.62

Group 1
Traffic Striping Applicator

Group 2
Traffic Delineating Device Applicator
Traffic Protective System Installer
Pavement Markings Applicator
Decorative Asphalt Surfacing Applicator

Group 3
Traffic Surface Abrasive Blaster
Pot Tender

Group 4
Parking Lots, Game Courts & Playground Striping Applicator
Decorative Asphalt Surfacing Laborer

Recognized holidays:
Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the

Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:
In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

[#] Indicates an apprenticeable craft. The current apprentice wage rates are available on the Prevailing Wage Apprentice Determinations Website (http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp).
[a] Includes an amount for the Annuity Trust Fund.
[b] Includes an amount for Supplemental Dues.
[c] One and one-half (1-1/2) the straight time hourly rate of pay shall be paid for all work performed in excess of forty hours (40) a week or eight hours (8) a day and the sixth (6th) consecutive day worked or Saturdays.
[d] Saturdays or scheduled sixth (6th) consecutive work day in the same work week may be worked at straight-time if the job is shut down during the normal work week due to inclement weather, major mechanical breakdown or lack of materials beyond the control of the employer.
[e] Two times (2x) the straight time hourly rate of pay shall be paid for all work performed on the seventh (7th) consecutive day worked, or Sundays and holidays.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

Craft: Tree Maintenance (Laborer) [1]
(Applies Only to Routine Tree Maintenance Work, Not Construction and/or Landscape Construction) [2]

Determination:
NC-102-X-21-2024-1

Issue Date:
August 22, 2024

Expiration date of determination:
June 30, 2025** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

Localities:
All Localities within Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

Wages and Employer Payments:

Classification(s)[a] (Journeyperson)	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday	Training	Other	Hours	Total Hourly Rate	Daily Overtime Hourly Rate (1 ½ X)[b]	Sunday/ Holiday Overtime Hourly Rate (2 X)
Senior Tree Trimmer (Area 1)[c]	$30.15	$6.00	$3.46	$2.21	$0.00	$0.05	8.0	$41.87	$56.945	$72.02
Tree Trimmer (Area 1)[c]	$27.15	$6.00	$3.46	$2.01	$0.00	$0.05	8.0	$38.67	$52.245	$65.82
Groundsperson (Area 1)[c]	$24.15	$6.00	$3.46	$1.86	$0.00	$0.05	8.0	$35.52	$47.595	$59.67
Senior Tree Trimmer (Area 2)[c]	$25.65	$6.00	$3.46	$2.21	$0.00	$0.05	8.0	$37.37	$50.195	$63.02
Tree Trimmer (Area 2)[c]	$24.15	$6.00	$3.46	$2.01	$0.00	$0.05	8.0	$35.67	$47.745	$59.82
Groundsperson (Area 2)[c]	$22.15	$6.00	$3.46	$1.86	$0.00	$0.05	8.0	$33.52	$44.595	$55.67

Recognized holidays:
Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid

shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Travel and/or subsistence payment:
In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Director's General Prevailing Wage Determinations Website (http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm). Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

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[1] This determination does not apply to the work of a landscape laborer employed on landscape construction (work incidental to construction or post-construction maintenance during the plant installation and establishment period) or to tree trimming work involving line clearance.
[2] This determination does not apply to tree trimming, removal, or planting work performed on construction or landscape construction contracts.

[a] There shall be at least one Senior Tree Trimmer on crews of three or more.
[b] Monday thru Saturday shall constitute a workweek. Rate applies to first 4 overtime hours Monday thru Saturday, and all time worked in excess of forty (40) hours per workweek. All other time is paid at the Sunday and Holiday double-time rate.

[c] **Area 1:** Marin, Monterey, Napa, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano, and Sonoma Counties.
Area 2: Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Lake, Lassen, Madera, Mariposa, Mendocino, Merced, Modoc, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Sierra, Siskiyou, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba Counties.

DAVIS BACON FEDERAL WAGE RATES

"General Decision Number: CA20250018 03/21/2025

Superseded General Decision Number: CA20240018

State: California

Construction Types: Building, Heavy (Heavy and Dredging) and Highway

Counties: Alameda, Calaveras, Contra Costa, Fresno, Kings, Madera, Mariposa, Merced, Monterey, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Stanislaus and Tuolumne Counties in California.

BUILDING CONSTRUCTION PROJECTS; DREDGING PROJECTS (does not include hopper dredge work); HEAVY CONSTRUCTION PROJECTS (does not include water well drilling); HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed

		on this wage determination,	
		if it is higher) for all hours spent performing on that contract in 2025.	

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2025
1	01/10/2025
2	02/07/2025
3	02/21/2025
4	02/28/2025
5	03/07/2025
6	03/21/2025

ASBE0016-004 05/01/2024

AREA 1: CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, MONTEREY, SAN BENITO, SAN JOAQUIN, SANTA CRUZ, STANISLAUS & TOULMNE COUNTIES

AREA 2: ALAMEDA, CONTRA COSTA, SAN FRANCISCO, SAN MATEO & SANTA CLARA COUNTIES

	Rates	Fringes
Asbestos Removal worker/hazardous material handler (Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging and disposing of all insulation materials from mechanical systems, whether they contain asbestos or not)		
Area 1.....	$ 34.56	11.40

Area 2.....$ 36.53 9.27

ASBE0016-008 01/01/2024

AREA 1: ALAMEDA, CONTRA COSTA, MONTEREY, SAN BENITO, SAN FRANCISCO, SAN MATEO, SANTA CLARA, & SANTA CRUZ

AREA 2: CALAVERAS, COLUSA, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS, & TUOLUMNE

	Rates	Fringes
Asbestos Workers/Insulator (Includes the application of all insulating materials, Protective Coverings, Coatings, and Finishes to all types of mechanical systems)		
Area 1	$ 84.76	25.07
Area 2	$ 64.56	25.07

BOIL0549-001 01/01/2021

AREA 1: ALAMEDA, CONTRA COSTA, SAN FRANCISCO, SAN MATEO & SANTA CLARA COUNTIES

AREA 2: REMAINING COUNTIES

	Rates	Fringes
BOILERMAKER		
Area 1	$ 49.62	41.27
Area 2	$ 45.60	38.99

BRCA0003-001 08/01/2024

	Rates	Fringes
MARBLE FINISHER	$ 42.06	19.80

BRCA0003-003 08/01/2024

	Rates	Fringes
MARBLE MASON	$ 61.72	30.31

BRCA0003-005 05/01/2024

	Rates	Fringes
BRICKLAYER		
(1) Fresno, Kings, Madera, Mariposa, Merced	$ 51.17	25.80
(7) San Francisco, San Mateo	$ 57.02	28.50
(8) Alameda, Contra Costa, San Benito, Santa Clara	$ 56.94	26.28
(9) Calaveras, San Joaquin, Stanislaus, Toulumne	$ 52.76	25.01
(16) Monterey, Santa Cruz	$ 54.18	27.82

BRCA0003-008 07/01/2024

	Rates	Fringes
TERRAZZO FINISHER	$ 44.93	20.98
TERRAZZO WORKER/SETTER	$ 60.58	29.79

BRCA0003-011 04/01/2024

AREA 1: Alameda, Contra Costa, Monterey, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz

AREA 2: Calaveras, San Joaquin, Stanislaus, Tuolumne

AREA 3: Fresno, Kings, Madera, Mariposa, Merced

	Rates	Fringes
TILE FINISHER		
Area 1	$ 37.75	19.28
Area 2	$ 34.76	19.22
Area 3	$ 32.68	18.32
Tile Layer		
Area 1	$ 59.92	22.62
Area 2	$ 55.17	22.52
Area 3	$ 50.28	22.05

CARP0022-001 07/01/2023

San Francisco County

	Rates	Fringes
Carpenters		

Bridge Builder/Highway Carpenter	$ 60.39	33.52
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer	$ 60.54	33.52
Journeyman Carpenter	$ 60.39	33.52
Millwright	$ 60.49	35.11

CARP0034-001 07/01/2021

	Rates	Fringes
Diver		
Assistant Tender, ROV Tender/Technician	$ 54.10	34.69
Diver standby	$ 60.51	34.69
Diver Tender	$ 59.51	34.69
Diver wet	$ 103.62	34.69
Manifold Operator (mixed gas)	$ 64.51	34.69
Manifold Operator (Standby)	$ 59.51	34.69

DEPTH PAY (Surface Diving):
050 to 100 ft $2.00 per foot
101 to 150 ft $3.00 per foot
151 to 220 ft $4.00 per foot
221 ft.-deeper $5.00 per foot

SATURATION DIVING:
The standby rate shall apply until saturation starts. The saturation diving rate applies when divers are under pressure continuously until work task and decompression are complete. The diver rate shall be paid for all saturation hours.

DIVING IN ENCLOSURES:
Where it is necessary for Divers to enter pipes or tunnels, or other enclosures where there is no vertical ascent, the following premium shall be paid: Distance traveled from entrance 26 feet to 300 feet: $1.00 per foot. When it is necessary for a diver to enter any pipe, tunnel or other enclosure less than 48"" in height, the premium will be $1.00 per foot.

WORK IN COMBINATION OF CLASSIFICATIONS:
Employees working in any combination of classifications within the diving crew (except dive supervisor) in a shift are paid in the classification with the highest rate for

that shift.

CARP0034-003 07/01/2021

	Rates	Fringes
Piledriver	$ 54.10	34.69

CARP0035-007 07/01/2020

AREA 1: Alameda, Contra Costa, San Francisco, San Mateo, Santa Clara counties

AREA 2: Monterey, San Benito, Santa Cruz Counties

AREA 3: Calaveras, Fresno, Kings, Madera, Mariposa, Merced, San Joaquin, Stanislaus, Tuolumne Counties

	Rates	Fringes
Modular Furniture Installer		
Area 1		
Installer	$ 28.76	22.53
Lead Installer	$ 32.21	23.03
Master Installer	$ 36.43	23.03
Area 2		
Installer	$ 26.11	22.53
Lead Installer	$ 29.08	23.03
Master Installer	$ 32.71	23.03
Area 3		
Installer	$ 25.16	22.53
Lead Installer	$ 27.96	23.03
Master Installer	$ 31.38	23.03

CARP0035-008 08/01/2020

AREA 1: Alameda, Contra Costa, San Francisco, San Mateo, Santa Clara counties

AREA 2: Monterey, San Benito, Santa Cruz Counties

AREA 3: San Joaquin

AREA 4: Calaveras, Fresno, Kings, Madera, Mariposa, Merced, Stanislaus, Tuolumne Counties

	Rates	Fringes

Drywall Installers/Lathers:		
Area 1	$ 52.65	31.26
Area 2	$ 46.77	31.26
Area 3	$ 47.27	31.26
Area 4	$ 45.92	31.26
Drywall Stocker/Scrapper		
Area 1	$ 26.33	18.22
Area 2	$ 23.39	18.22
Area 3	$ 23.64	18.22
Area 4	$ 22.97	18.22

CARP0152-001 07/01/2020

Contra Costa County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter	$ 52.65	30.82
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer	$ 52.80	30.82
Journeyman Carpenter	$ 52.65	30.82
Millwright	$ 52.75	32.41

CARP0152-002 07/01/2020

San Joaquin County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter	$ 52.65	30.82
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer	$ 46.92	30.82
Journeyman Carpenter	$ 46.77	30.82
Millwright	$ 49.27	32.41

CARP0152-004 07/01/2020

Calaveras, Mariposa, Merced, Stanislaus and Tuolumne Counties

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter	$ 52.65	30.82
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer	$ 45.57	30.82
Journeyman Carpenter	$ 45.42	30.82
Millwright	$ 47.92	32.41

CARP0217-001 07/01/2023

San Mateo County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter	$ 60.39	33.52
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer	$ 60.54	33.52
Journeyman Carpenter	$ 60.39	33.52
Millwright	$ 60.49	35.11

CARP0405-001 07/01/2021

Santa Clara County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter	$ 54.85	31.49
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer	$ 55.00	31.49
Journeyman Carpenter	$ 54.85	31.49
Millwright	$ 54.95	33.08

CARP0405-002 07/01/2021

San Benito County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter	$ 54.85	31.49
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer	$ 49.12	31.49
Journeyman Carpenter	$ 48.97	31.49
Millwright	$ 51.47	33.08

CARP0505-001 07/01/2021

Santa Cruz County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter	$ 54.85	31.49
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer	$ 49.12	31.49
Journeyman Carpenter	$ 48.97	31.49
Millwright	$ 51.47	33.08

CARP0605-001 07/01/2021

Monterey County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter	$ 54.85	31.49
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer	$ 49.12	31.49
Journeyman Carpenter	$ 48.97	31.49
Millwright	$ 51.47	33.08

CARP0701-001 07/01/2021

Fresno and Madera Counties

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter	$ 54.85	31.49
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer	$ 47.77	31.49
Journeyman Carpenter	$ 47.62	31.49
Millwright	$ 50.12	33.08

CARP0713-001 07/01/2021

Alameda County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter	$ 54.85	31.49
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer	$ 55.00	31.49
Journeyman Carpenter	$ 54.85	31.49
Millwright	$ 54.95	33.08

CARP1109-001 07/01/2021

Kings County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter	$ 54.85	31.49
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer	$ 47.77	31.49
Journeyman Carpenter	$ 47.62	31.49
Millwright	$ 50.12	33.08

ELEC0006-004 12/01/2024

SAN FRANCISCO COUNTY

	Rates	Fringes
Sound & Communications		
Installer	$ 57.18	3%+27.15
Technician	$ 65.76	3%+27.15

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC0006-007 06/01/2024

SAN FRANCISCO COUNTY

	Rates	Fringes
ELECTRICIAN	$ 91.25	3%+45.315

ELEC0100-002 03/01/2025

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
ELECTRICIAN	$ 49.00	29.62

ELEC0100-005 12/01/2024

FRESNO, KINGS, MADERA

	Rates	Fringes
Communications System		
Installer	$ 45.28	28.01
Technician	$ 52.07	28.21

SCOPE OF WORK

Includes the installation testing, service and maintenance, of the following systems which utilize the transmission and/or transference of voice, sound, vision and digital for commercial, education, security and entertainment purposes for the following: TV monitoring and surveillance, background-foreground music, intercom and telephone interconnect, inventory control systems, microwave transmission, multi-media, multiplex, nurse call system, radio page, school intercom and sound, burglar alarms, and low voltage master clock systems.

A. SOUND AND VOICE TRANSMISSION/TRANSFERENCE SYSTEMS Background foreground music, Intercom and telephone interconnect systems, Telephone systems Nurse call systems, Radio page systems, School intercom and sound systems, Burglar alarm systems, Low voltage, master clock systems, Multi-media/multiplex systems, Sound and musical entertainment systems, RF systems, Antennas and Wave Guide,

B. FIRE ALARM SYSTEMS Installation, wire pulling and testing

C. TELEVISION AND VIDEO SYSTEMS Television monitoring and surveillance systems Video security systems, Video entertainment systems, Video educational systems, Microwave transmission systems, CATV and CCTV

D. SECURITY SYSTEMS Perimeter security systems Vibration sensor systems Card access systems Access control systems, Sonar/infrared monitoring equipment

E. COMMUNICATIONS SYSTEMS THAT TRANSMIT OR RECEIVE INFORMATION AND/OR CONTROL SYSTEMS THAT ARE INTRINSIC TO THE ABOVE LISTED SYSTEMS SCADA (Supervisory Control and Data Acquisition) PCM (Pulse Code Modulation) Inventory Control Systems, Digital Data Systems Broadband and Baseband and Carriers Point of Sale Systems, VSAT Data Systems Data Communication Systems RF and Remote Control Systems, Fiber Optic Data Systems

WORK EXCLUDED Raceway systems are not covered (excluding Ladder-Rack for the purpose of the above listed systems).

Chases and/or nipples (not to exceed 10 feet) may be installed on open wiring systems. Energy management systems. SCADA (Supervisory Control and Data Acquisition) when not intrinsic to the above listed systems (in the scope). Fire alarm systems when installed in raceways (including wire and cable pulling) shall be performed at the electrician wage rate, when either of the following two (2) conditions apply:
1. The project involves new or major remodel building trades construction.
2. The conductors for the fire alarm system are installed in conduit.

ELEC0234-001 12/23/2024

MONTEREY, SAN BENITO AND SANTA CRUZ COUNTIES

	Rates	Fringes
ELECTRICIAN		
Zone A	$ 68.16	31.29
Zone B	$ 74.98	31.50

Zone A: All of Santa Cruz, Monterey, and San Benito Counties within 25 air miles of Highway 1 and Dolan Road in Moss Landing, and an area extending 5 miles east and west of Highway 101 South to the San Luis Obispo County Line

Zone B: Any area outside of Zone A

ELEC0234-003 12/01/2021

MONTEREY, SAN BENITO, AND SANTA CRUZ COUNTIES

	Rates	Fringes
Sound & Communications		
Installer	$ 47.93	24.09
Technician	$ 55.12	24.30

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or

jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC0302-001 03/01/2025

CONTRA COSTA COUNTY

	Rates	Fringes
CABLE SPLICER	$ 74.54	36.09
ELECTRICIAN	$ 66.26	35.84

ELEC0302-003 12/01/2023

CONTRA COSTA COUNTY

	Rates	Fringes
Sound & Communications		
Installer	$ 48.44	27.60
Technician	$ 55.71	27.82

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways

(including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC0332-001 06/01/2024

SANTA CLARA COUNTY

	Rates	Fringes
CABLE SPLICER	$ 100.25	46.72
ELECTRICIAN	$ 87.17	46.33

FOOTNOTES: Work under compressed air or where gas masks are required, orwork on ladders, scaffolds, stacks, ""Bosun's chairs,"" or other structures and where the workers are not protected by permanent guard rails at a distance of 40 to 60 ft. from the ground or supporting structures: to be paid one and one-half times the straight-time rate of pay. Work on structures of 60 ft. or over (as described above): to be paid twice the straight-time rate of pay.

ELEC0332-003 12/01/2024

SANTA CLARA COUNTY

	Rates	Fringes
Sound & Communications		
Installer	$ 56.68	28.35
Technician	$ 65.18	28.61

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC0595-001 06/01/2024

ALAMEDA COUNTY

	Rates	Fringes
CABLE SPLICER	$ 84.18	3%+44.68
ELECTRICIAN	$ 73.20	3%+44.68

ELEC0595-002 06/01/2024

CALAVERAS AND SAN JOAQUIN COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 59.34	3%+30.48
ELECTRICIAN		
(1) Tunnel work	$ 51.92	3%+30.48
(2) All other work	$ 49.45	3%+30.48

ELEC0595-006 12/01/2024

ALAMEDA COUNTY

	Rates	Fringes
Sound & Communications		
Installer	$ 56.68	3%+26.65
Technician	$ 65.18	3%+26.65

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety

systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC0595-008 12/01/2024

CALAVERAS AND SAN JOAQUIN COUNTIES

	Rates	Fringes
Communications System		
Installer	$ 45.28	3%+26.65
Technician	$ 52.07	3%+26.65

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC0617-001 06/01/2024

SAN MATEO COUNTY

	Rates	Fringes

ELECTRICIAN.....$ 82.00 48.05

ELEC0617-003 12/01/2023

SAN MATEO COUNTY

	Rates	Fringes
Sound & Communications		
Installer	$ 53.18	27.75
Technician	$ 61.16	27.98

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC0684-001 12/01/2024

MARIPOSA, MERCED, STANISLAUS AND TUOLUMNE COUNTIES

	Rates	Fringes
ELECTRICIAN	$ 48.50	30.09

CABLE SPLICER = 110% of Journeyman Electrician

ELEC0684-004 12/01/2024

MARIPOSA, MERCED, STANISLAUS AND TUOLUMNE COUNTIES

	Rates	Fringes
Communications System		
Installer	$ 45.28	28.01
Technician	$ 52.07	28.21

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC1245-001 01/01/2025

	Rates	Fringes
LINE CONSTRUCTION		
(1) Lineman; Cable splicer	$ 70.16	24.71
(2) Equipment specialist (operates crawler tractors, commercial motor vehicles, backhoes, trenchers, cranes (50 tons and below), overhead & underground distribution line equipment)	$ 53.30	22.26
(3) Groundman	$ 40.76	21.76
(4) Powderman	$ 51.87	18.79

HOLIDAYS: New Year's Day, M.L. King Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day and day after Thanksgiving, Christmas Day

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ELEV0008-001 01/01/2025

	Rates	Fringes
ELEVATOR MECHANIC	$ 84.05	38.435+a+b

FOOTNOTE:
a. PAID VACATION: Employer contributes 8% of regular hourly rate as vacation pay credit for employees with more than 5 years of service, and 6% for 6 months to 5 years of service.
b. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Friday after Thanksgiving, and Christmas Day.

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* ENGI0003-001 07/01/2024

""AREA 1"" WAGE RATES ARE LISTED BELOW

""AREA 2"" RECEIVES AN ADDITIONAL $2.00 PER HOUR ABOVE AREA 1 RATES.

SEE AREA DEFINITIONS BELOW

	Rates	Fringes
OPERATOR: Power Equipment (AREA 1:)		
GROUP 1	$ 64.15	30.89
GROUP 2	$ 62.62	30.89
GROUP 3	$ 61.14	30.89
GROUP 4	$ 59.76	30.89
GROUP 5	$ 58.49	30.89
GROUP 6	$ 57.17	30.89
GROUP 7	$ 56.03	30.89
GROUP 8	$ 54.89	30.89
GROUP 8-A	$ 52.68	30.89
OPERATOR: Power Equipment (Cranes and Attachments - AREA 1:)		
GROUP 1		
Cranes	$ 52.30	31.15
Oiler	$ 43.79	31.15
Truck crane oiler	$ 46.08	31.15
GROUP 2		
Cranes	$ 50.54	31.15
Oiler	$ 42.83	31.15
Truck crane oiler	$ 45.07	31.15

GROUP 3
Cranes.....$ 48.80 31.15
Hydraulic.....$ 44.44 31.15
Oiler.....$ 42.55 31.15
Truck crane oiler.....$ 44.83 31.15
GROUP 4
Cranes.....$ 45.76 31.15

OPERATOR: Power Equipment
(Piledriving - AREA 1:)
GROUP 1
Lifting devices.....$ 52.64 31.15
Oiler.....$ 43.38 31.15
Truck Crane Oiler.....$ 45.66 31.15
GROUP 2
Lifting devices.....$ 50.82 31.15
Oiler.....$ 43.11 31.15
Truck Crane Oiler.....$ 45.41 31.15
GROUP 3
Lifting devices.....$ 49.14 31.15
Oiler.....$ 42.89 31.15
Truck Crane Oiler.....$ 45.12 31.15
GROUP 4
Lifting devices.....$ 47.37 31.15
GROUP 5
Lifting devices.....$ 44.73 31.15
GROUP 6
Lifting devices.....$ 42.50 31.15

OPERATOR: Power Equipment
(Steel Erection - AREA 1:)
GROUP 1
Cranes.....$ 53.27 31.15
Oiler.....$ 43.72 31.15
Truck Crane Oiler.....$ 45.95 31.15
GROUP 2
Cranes.....$ 51.50 31.15
Oiler.....$ 43.45 31.15
Truck Crane Oiler.....$ 45.73 31.15
GROUP 3
Cranes.....$ 50.02 31.15
Hydraulic.....$ 45.07 31.15
Oiler.....$ 43.23 31.15
Truck Crane Oiler.....$ 45.46 31.15
GROUP 4
Cranes.....$ 48.00 31.15
GROUP 5
Cranes.....$ 46.70 31.15

OPERATOR: Power Equipment
(Tunnel and Underground Work
- AREA 1:)
SHAFTS, STOPES, RAISES:

GROUP 1	$ 60.25	30.89
GROUP 1-A	$ 62.72	30.89
GROUP 2	$ 58.99	30.89
GROUP 3	$ 57.66	30.89
GROUP 4	$ 56.52	30.89
GROUP 5	$ 55.38	30.89
UNDERGROUND:		
GROUP 1	$ 60.15	30.89
GROUP 1-A	$ 62.62	30.89
GROUP 2	$ 58.89	30.89
GROUP 3	$ 57.56	30.89
GROUP 4	$ 56.42	30.89
GROUP 5	$ 55.28	30.89

FOOTNOTE: Work suspended by ropes or cables, or work on a Yo-Yo Cat: $.60 per hour additional.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Operator of helicopter (when used in erection work); Hydraulic excavator, 7 cu. yds. and over; Power shovels, over 7 cu. yds.

GROUP 2: Highline cableway; Hydraulic excavator, 3-1/2 cu. yds. up to 7 cu. yds.; Licensed construction work boat operator, on site; Power blade operator (finish); Power shovels, over 1 cu. yd. up to and including 7 cu. yds. m.r.c.

GROUP 3: Asphalt milling machine; Cable backhoe; Combination backhoe and loader over 3/4 cu. yds.; Continuous flight tie back machine assistant to engineer or mechanic; Crane mounted continuous flight tie back machine, tonnage to apply; Crane mounted drill attachment, tonnage to apply; Dozer, slope brd; Gradall; Hydraulic excavator, up to 3 1/2 cu. yds.; Loader 4 cu. yds. and over; Long reach excavator; Multiple engine scraper (when used as push pull); Power shovels, up to and including 1 cu. yd.; Pre-stress wire wrapping machine; Side boom cat, 572 or larger; Track loader 4 cu. yds. and over; Wheel excavator (up to and including 750 cu. yds. per hour)

GROUP 4: Asphalt plant engineer/box person; Chicago boom; Combination backhoe and loader up to and including 3/4 cu. yd.; Concrete batch plant (wet or dry); Dozer and/or push cat; Pull- type elevating loader; Gradesetter, grade checker (GPS, mechanical or otherwise); Grooving and grinding machine; Heading shield operator; Heavy-duty drilling equipment, Hughes, LDH, Watson 3000 or similar;

Heavy-duty repairperson and/or welder; Lime spreader; Loader under 4 cu. yds.; Lubrication and service engineer (mobile and grease rack); Mechanical finishers or spreader machine (asphalt, Barber-Greene and similar); Miller Formless M-9000 slope paver or similar; Portable crushing and screening plants; Power blade support; Roller operator, asphalt; Rubber-tired scraper, self-loading (paddle-wheels, etc.); Rubber- tired earthmoving equipment (scrapers); Slip form paver (concrete); Small tractor with drag; Soil stabilizer (P & H or equal); Spider plow and spider puller; Tubex pile rig; Unlicensed constuction work boat operator, on site; Timber skidder; Track loader up to 4 yds.; Tractor-drawn scraper; Tractor, compressor drill combination; Welder; Woods-Mixer (and other similar Pugmill equipment)

GROUP 5: Cast-in-place pipe laying machine; Combination slusher and motor operator; Concrete conveyor or concrete pump, truck or equipment mounted; Concrete conveyor, building site; Concrete pump or pumpcrete gun; Drilling equipment, Watson 2000, Texoma 700 or similar; Drilling and boring machinery, horizontal (not to apply to waterliners, wagon drills or jackhammers); Concrete mixer/all; Person and/or material hoist; Mechanical finishers (concrete) (Clary, Johnson, Bidwell Bridge Deck or similar types); Mechanical burm, curb and/or curb and gutter machine, concrete or asphalt); Mine or shaft hoist; Portable crusher; Power jumbo operator (setting slip-forms, etc., in tunnels); Screed (automatic or manual); Self-propelled compactor with dozer; Tractor with boom D6 or smaller; Trenching machine, maximum digging capacity over 5 ft. depth; Vermeer T-600B rock cutter or similar

GROUP 6: Armor-Coater (or similar); Ballast jack tamper; Boom- type backfilling machine; Assistant plant engineer; Bridge and/or gantry crane; Chemical grouting machine, truck-mounted; Chip spreading machine operator; Concrete saw (self-propelled unit on streets, highways, airports and canals); Deck engineer; Drilling equipment Texoma 600, Hughes 200 Series or similar up to and including 30 ft. m.r.c.; Drill doctor; Helicopter radio operator; Hydro-hammer or similar; Line master; Skidsteer loader, Bobcat larger than 743 series or similar (with attachments); Locomotive; Lull hi-lift or similar; Oiler, truck mounted equipment; Pavement breaker, truck-mounted, with compressor combination; Paving fabric installation and/or laying machine; Pipe bending machine (pipelines only); Pipe wrapping machine (tractor propelled and supported); Screed (except asphaltic concrete paving); Self- propelled pipeline wrapping machine; Tractor;

Self-loading chipper; Concrete barrier moving machine

GROUP 7: Ballast regulator; Boom truck or dual-purpose A-frame truck, non-rotating - under 15 tons; Cary lift or similar; Combination slurry mixer and/or cleaner; Drilling equipment, 20 ft. and under m.r.c.; Firetender (hot plant); Grouting machine operator; Highline cableway signalperson; Stationary belt loader (Kolman or similar); Lift slab machine (Vagtborg and similar types); Maginnes internal full slab vibrator; Material hoist (1 drum); Mechanical trench shield; Pavement breaker with or without compressor combination); Pipe cleaning machine (tractor propelled and supported); Post driver; Roller (except asphalt); Chip Seal; Self-propelled automatically applied concrete curing mahcine (on streets, highways, airports and canals); Self-propelled compactor (without dozer); Signalperson; Slip-form pumps (lifting device for concrete forms); Tie spacer; Tower mobile; Trenching machine, maximum digging capacity up to and including 5 ft. depth; Truck- type loader

GROUP 8: Bit sharpener; Boiler tender; Box operator; Brakeperson; Combination mixer and compressor (shotcrete/gunite); Compressor operator; Deckhand; Fire tender; Forklift (under 20 ft.); Generator; Gunite/shotcrete equipment operator; Hydraulic monitor; Ken seal machine (or similar); Mixermobile; Oiler; Pump operator; Refrigeration plant; Reservoir-debris tug (self-propelled floating); Ross Carrier (construction site); Rotomist operator; Self-propelled tape machine; Shuttlecar; Self-propelled power sweeper operator (includes vacuum sweeper); Slusher operator; Surface heater; Switchperson; Tar pot firetender; Tugger hoist, single drum; Vacuum cooling plant; Welding machine (powered other than by electricity)

GROUP 8-A: Elevator operator; Skidsteer loader-Bobcat 743 series or smaller, and similar (without attachments); Mini excavator under 25 H.P. (backhoe-trencher); Tub grinder wood chipper

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ALL CRANES AND ATTACHMENTS

GROUP 1: Clamshell and dragline over 7 cu. yds.; Crane, over 100 tons; Derrick, over 100 tons; Derrick barge pedestal-mounted, over 100 tons; Self-propelled boom-type lifting device, over 100 tons

GROUP 2: Clamshell and dragline over 1 cu. yd. up to and

including 7 cu. yds.; Crane, over 45 tons up to and including 100 tons; Derrick barge, 100 tons and under; Self-propelled boom-type lifting device, over 45 tons; Tower crane

GROUP 3: Clamshell and dragline up to and including 1 cu. yd.; Cranes 45 tons and under; Self-propelled boom-type lifting device 45 tons and under;

GROUP 4: Boom Truck or dual purpose A-frame truck, non-rotating over 15 tons; Truck-mounted rotating telescopic boom type lifting device, Manitex or similar (boom truck) over 15 tons; Truck-mounted rotating telescopic boom type lifting device, Manitex or similar (boom truck) - under 15 tons;

PILEDRIVERS

GROUP 1: Derrick barge pedestal mounted over 100 tons; Clamshell over 7 cu. yds.; Self-propelled boom-type lifting device over 100 tons; Truck crane or crawler, land or barge mounted over 100 tons

GROUP 2: Derrick barge pedestal mounted 45 tons to and including 100 tons; Clamshell up to and including 7 cu. yds.; Self-propelled boom-type lifting device over 45 tons; Truck crane or crawler, land or barge mounted, over 45 tons up to and including 100 tons; Fundex F-12 hydraulic pile rig

GROUP 3: Derrick barge pedestal mounted under 45 tons; Self-propelled boom-type lifting device 45 tons and under; Skid/scow piledriver, any tonnage; Truck crane or crawler, land or barge mounted 45 tons and under

GROUP 4: Assistant operator in lieu of assistant to engineer; Forklift, 10 tons and over; Heavy-duty repairperson/welder

GROUP 5: Deck engineer

GROUP 6: Deckhand; Fire tender

STEEL ERECTORS

GROUP 1: Crane over 100 tons; Derrick over 100 tons; Self-propelled boom-type lifting device over 100 tons

GROUP 2: Crane over 45 tons to 100 tons; Derrick under 100 tons; Self-propelled boom-type lifting device over 45 tons to 100 tons; Tower crane

GROUP 3: Crane, 45 tons and under; Self-propelled boom-type lifting device, 45 tons and under

GROUP 4: Chicago boom; Forklift, 10 tons and over; Heavy-duty repair person/welder

GROUP 5: Boom cat

TUNNEL AND UNDERGROUND WORK

GROUP 1-A: Tunnel bore machine operator, 20' diameter or more

GROUP 1: Heading shield operator; Heavy-duty repairperson; Mucking machine (rubber tired, rail or track type); Raised bore operator (tunnels); Tunnel mole bore operator

GROUP 2: Combination slusher and motor operator; Concrete pump or pumpcrete gun; Power jumbo operator

GROUP 3: Drill doctor; Mine or shaft hoist

GROUP 4: Combination slurry mixer cleaner; Grouting Machine operator; Motorman

GROUP 5: Bit Sharpener; Brakeman; Combination mixer and compressor (gunite); Compressor operator; Oiler; Pump operator; Slusher operator

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AREA DESCRIPTIONS:

POWER EQUIPMENT OPERATORS, CRANES AND ATTACHMENTS,TUNNEL AND UNDERGROUND [These areas do not apply to Piledrivers and Steel Erectors]

AREA 1: ALAMEDA, CALAVERAS, CONTRA COSTA, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, MONTEREY, SAN BENITO, SAN FRANCISCO, SAN JOAQUIN, SAN MATEO, SANTA CLARA, SANTA CRUZ, STANISLAUS, TUOLUMNE

AREA 2 -NOTED BELOW

THE REMAINING COUNTIES ARE SPLIT BETWEEN AREA 1 AND AREA 2 AS

NOTED BELOW:

CALAVERAS COUNTY:
Area 1: Remainder
Area 2: Eastern Part

FRESNO COUNTY:
Area 1: Remainder
Area 2: Eastern Part

MADERA COUNTY:
Area 1: Remainder
Area 2: Eastern Part

MARIPOSA COUNTY:
Area 1: Remainder
Area 2: Eastern Part

MONTEREY COUNTY:
Area 1: Remainder
Area 2: Southwestern part

TUOLUMNE COUNTY:
Area 1: Remainder
Area 2: Eastern Part

ENGI0003-008 08/01/2024

	Rates	Fringes
Dredging: (DREDGING: CLAMSHELL & DIPPER DREDGING; HYDRAULIC SUCTION DREDGING:)		
AREA 1:		
(1) Leverman	$ 60.61	39.55
(2) Dredge Dozer; Heavy duty repairman	$ 55.65	39.55
(3) Booster Pump Operator; Deck Engineer; Deck mate; Dredge Tender; Winch Operator	$ 54.53	39.55
(4) Bargeman; Deckhand; Fireman; Leveehand; Oiler	$ 51.23	39.55
AREA 2:		
(1) Leverman	$ 62.61	39.55
(2) Dredge Dozer; Heavy duty repairman	$ 57.65	39.55
(3) Booster Pump		

Operator; Deck
Engineer; Deck mate;
Dredge Tender; Winch
Operator.....$ 56.53 39.55
(4) Bargeman; Deckhand;
Fireman; Leveehand; Oiler..$ 53.23 39.55

AREA DESCRIPTIONS

AREA 1: ALAMEDA,BUTTE, CONTRA COSTA, KINGS, MARIN, MERCED, NAPA, SACRAMENTO, SAN BENITO, SAN FRANCISCO, SAN JOAQUIN, SAN MATEO, SANTA CLARA, SANTA CRUZ, SOLANO, STANISLAUS, SUTTER, YOLO, AND YUBA COUNTIES

AREA 2: MODOC COUNTY

THE REMAINGING COUNTIES ARE SPLIT BETWEEN AREA 1 AND AREA 2 AS NOTED BELOW:

ALPINE COUNTY:
Area 1: Northernmost part
Area 2: Remainder

CALAVERAS COUNTY:
Area 1: Remainder
Area 2: Eastern part

COLUSA COUNTY:
Area 1: Eastern part
Area 2: Remainder

ELDORADO COUNTY:
Area 1: North Central part
Area 2: Remainder

FRESNO COUNTY:
Area 1: Remainder
Area 2: Eastern part

GLENN COUNTY:
Area 1: Eastern part
Area 2: Remainder

LASSEN COUNTY:
Area 1: Western part along the Southern portion of border with Shasta County
Area 2: Remainder

MADERA COUNTY:
Area 1: Except Eastern part

Area 2: Eastern part

MARIPOSA COUNTY
Area 1: Except Eastern part
Area 2: Eastern part

MONTERREY COUNTY
Area 1: Except Southwestern part
Area 2: Southwestern part

NEVADA COUNTY:
Area 1: All but the Northern portion along the border of Sierra County
Area 2: Remainder

PLACER COUNTY:
Area 1: Al but the Central portion
Area 2: Remainder

PLUMAS COUNTY:
Area 1: Western portion
Area 2: Remainder

SHASTA COUNTY:
Area 1: All but the Northeastern corner
Area 2: Remainder

SIERRA COUNTY:
Area 1: Western part
Area 2: Remainder

SISKIYOU COUNTY:
Area 1: Central part
Area 2: Remainder

SONOMA COUNTY:
Area 1: All but the Northwestern corner
Area 2: Remainder

TEHAMA COUNTY:
Area 1: All but the Western border with Mendocino & Trinity Counties
Area 2: Remainder

TRINITY COUNTY:
Area 1: East Central part and the Northeastern border with Shasta County
Area 2: Remainder

TUOLUMNE COUNTY:

Area 1: Except Eastern part
Area 2: Eastern part

ENGI0003-019 07/01/2024

SEE AREA DESCRIPTIONS BELOW

	Rates	Fringes
OPERATOR: Power Equipment (LANDSCAPE WORK ONLY)		
GROUP 1		
AREA 1	$ 52.40	28.52
AREA 2	$ 54.40	28.52
GROUP 2		
AREA 1	$ 48.80	28.52
AREA 2	$ 50.80	28.52
GROUP 3		
AREA 1	$ 44.19	28.52
AREA 2	$ 46.19	28.52

GROUP DESCRIPTIONS:

GROUP 1: Landscape Finish Grade Operator: All finish grade work regardless of equipment used, and all equipment with a rating more than 65 HP.

GROUP 2: Landscape Operator up to 65 HP: All equipment with a manufacturer's rating of 65 HP or less except equipment covered by Group 1 or Group 3. The following equipment shall be included except when used for finish work as long as manufacturer's rating is 65 HP or less: A-Frame and Winch Truck, Backhoe, Forklift, Hydragraphic Seeder Machine, Roller, Rubber-Tired and Track Earthmoving Equipment, Skiploader, Straw Blowers, and Trencher 31 HP up to 65 HP.

GROUP 3: Landscae Utility Operator: Small Rubber-Tired Tractor, Trencher Under 31 HP.

AREA DESCRIPTIONS:

AREA 1: ALAMEDA, BUTTE, CONTRA COSTA, KINGS, MARIN, MERCED, NAPA, SACRAMENTO, SAN BENITO, SAN FRANCISCO, SAN JOAQUIN, SAN MATEO, SANTA CLARA, SANTA CRUZ, SOLANO, STANISLAUS, SUTTER, YOLO, AND YUBA COUNTIES

AREA 2 - MODOC COUNTY

THE REMAINING COUNTIES ARE SPLIT BETWEEN AREA 1 AND AREA 2 AS NOTED BELOW:

ALPINE COUNTY:
Area 1: Northernmost part
Area 2: Remainder

CALAVERAS COUNTY:
Area 1: Except Eastern part
Area 2: Eastern part

COLUSA COUNTY:
Area 1: Eastern part
Area 2: Remainder

DEL NORTE COUNTY:
Area 1: Extreme Southwestern corner
Area 2: Remainder

ELDORADO COUNTY:
Area 1: North Central part
Area 2: Remainder

FRESNO COUNTY
Area 1: Except Eastern part
Area 2: Eastern part

GLENN COUNTY:
Area 1: Eastern part
Area 2: Remainder

HUMBOLDT COUNTY:
Area 1: Except Eastern and Southwestern parts
Area 2: Remainder

LAKE COUNTY:
Area 1: Southern part
Area 2: Remainder

LASSEN COUNTY:
Area 1: Western part along the Southern portion of border with Shasta County
Area 2: Remainder

MADERA COUNTY
Area 1: Remainder
Area 2: Eastern part

MARIPOSA COUNTY
Area 1: Remainder

Area 2: Eastern part

MENDOCINO COUNTY:
Area 1: Central and Southeastern parts
Area 2: Remainder

MONTEREY COUNTY
Area 1: Remainder
Area 2: Southwestern part

NEVADA COUNTY:
  Area 1: All but the Northern portion along the border of
  Sierra County
Area 2: Remainder

PLACER COUNTY:
Area 1: All but the Central portion
Area 2: Remainder

PLUMAS COUNTY:
Area 1: Western portion
Area 2: Remainder

SHASTA COUNTY:
Area 1: All but the Northeastern corner
Area 2: Remainder

SIERRA COUNTY:
Area 1: Western part
Area 2: Remainder

SISKIYOU COUNTY:
Area 1: Central part
Area 2: Remainder

SONOMA COUNTY:
Area 1: All but the Northwestern corner
Area 2: Reaminder

TEHAMA COUNTY:
  Area 1: All but the Western border with mendocino & Trinity
  Counties
Area 2: Remainder

TRINITY COUNTY:
  Area 1: East Central part and the Northeaster border with
  Shasta County
Area 2: Remainder

TULARE COUNTY;

Area 1: Remainder
Area 2: Eastern part

TUOLUMNE COUNTY:
Area 1: Remainder
Area 2: Eastern Part

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* IRON0377-001 01/01/2025

ALAMEDA, CONTRA COSTA, SAN MATEO, SANTA CLARA COUNTIES

	Rates	Fringes
Ironworkers:		
Fence Erector	$ 45.78	26.51
Ornamental, Reinforcing and Structural	$ 55.33	35.15

PREMIUM PAY:

$6.00 additional per hour at the following locations:

China Lake Naval Test Station, Chocolate Mountains Naval Reserve-Niland,
Edwards AFB, Fort Irwin Military Station, Fort Irwin Training Center-Goldstone, San Clemente Island, San Nicholas Island, Susanville Federal Prison, 29 Palms - Marine Corps, U.S. Marine Base - Barstow, U.S. Naval Air Facility - Sealey, Vandenberg AFB

$4.00 additional per hour at the following locations:

Army Defense Language Institute - Monterey, Fallon Air Base, Naval Post Graduate School - Monterey, Yermo Marine Corps Logistics Center

$2.00 additional per hour at the following locations:

Port Hueneme, Port Mugu, U.S. Coast Guard Station - Two Rock

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* IRON0377-003 01/01/2025

SAN FRANCISCO CITY and COUNTY

	Rates	Fringes
Ironworkers:		
Fence Erector	$ 45.78	26.51

Ornamental, Reinforcing and Structural	$ 55.83	35.15

PREMIUM PAY:

$6.00 additional per hour at the following locations:

China Lake Naval Test Station, Chocolate Mountains Naval Reserve-Niland,
Edwards AFB, Fort Irwin Military Station, Fort Irwin Training Center-Goldstone, San Clemente Island, San Nicholas Island, Susanville Federal Prison, 29 Palms - Marine Corps, U.S. Marine Base - Barstow, U.S. Naval Air Facility - Sealey, Vandenberg AFB

$4.00 additional per hour at the following locations:

Army Defense Language Institute - Monterey, Fallon Air Base, Naval Post Graduate School - Monterey, Yermo Marine Corps Logistics Center

$2.00 additional per hour at the following locations:

Port Hueneme, Port Mugu, U.S. Coast Guard Station - Two Rock

IRON0433-005 01/01/2025

REMAINING COUNTIES

	Rates	Fringes
IRONWORKER		
Fence Erector	$ 45.78	26.51
Ornamental, Reinforcing and Structural	$ 50.70	35.15

PREMIUM PAY:

$6.00 additional per hour at the following locations:

China Lake Naval Test Station, Chocolate Mountains Naval Reserve-Niland,
Edwards AFB, Fort Irwin Military Station, Fort Irwin Training Center-Goldstone, San Clemente Island, San Nicholas Island, Susanville Federal Prison, 29 Palms - Marine Corps, U.S. Marine Base - Barstow, U.S. Naval Air Facility - Sealey, Vandenberg AFB

$4.00 additional per hour at the following locations:

Army Defense Language Institute - Monterey, Fallon Air Base, Naval Post Graduate School - Monterey, Yermo Marine Corps Logistics Center

$2.00 additional per hour at the following locations:

Port Hueneme, Port Mugu, U.S. Coast Guard Station - Two Rock

LABO0067-006 07/01/2024

AREA ""1"" - ALAMEDA, CONTRA COSTA, SAN FRANCISCO, SAN MATEO AND SANTA CLARA COUNTIES

AREA ""2"" - CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, MONTEREY, SAN BENITO, SAN JOAQUIN, STANISLAUS, AND TUOLUMNE COUNTIES

	Rates	Fringes
LABORER (ASBESTOS/MOLD/LEAD LABORER)		
Area 1	$ 37.75	29.69
Area 2	$ 36.75	29.69

ASBESTOS REMOVAL-SCOPE OF WORK: Site mobilization; initial site clean-up; site preparation; removal of asbestos-containing materials from walls and ceilings; or from pipes, boilers and mechanical systems only if they are being scrapped; encapsulation, enclosure and disposal of asbestos-containing materials by hand or with equipment or machinery; scaffolding; fabrication of temporary wooden barriers; and assembly of decontamination stations.

LABO0073-002 07/01/2023

CALAVERAS AND SAN JOAQUIN COUNTIES

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person	$ 36.26	27.30
Traffic Control Person I	$ 36.56	27.30
Traffic Control Person II	$ 34.06	27.30

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash

cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

LABO0073-003 07/01/2023

SAN JOAQUIN COUNTY

	Rates	Fringes
LABORER		
Mason Tender-Brick	$ 36.29	25.55

LABO0073-005 06/26/2023

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1	$ 45.89	27.72
GROUP 2	$ 45.66	27.72
GROUP 3	$ 45.41	27.72
GROUP 4	$ 44.96	27.72
GROUP 5	$ 44.42	27.72
Shotcrete Specialist	$ 46.41	27.72

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Gunite and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Gunite & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and

spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

LABO0073-007 06/26/2023

CALAVERAS AND SAN JOAQUIN COUNTIES

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT LABORERS)		
Construction Specialist Group	$ 36.20	27.30
GROUP 1	$ 35.50	27.30
GROUP 1-a	$ 35.72	27.30
GROUP 1-c	$ 35.55	27.30
GROUP 1-e	$ 36.05	27.30
GROUP 1-f	$ 30.37	23.20
GROUP 2	$ 35.35	27.30
GROUP 3	$ 35.25	27.30
GROUP 4	$ 28.94	27.30
See groups 1-b and 1-d under laborer classifications.		
LABORER (GARDENERS, HORTICULTURAL & LANDSCAPE LABORERS)		
(1) New Construction	$ 35.25	27.30
(2) Establishment Warranty Period	$ 28.94	27.30
LABORER (GUNITE)		
GROUP 1	$ 36.46	27.30
GROUP 2	$ 35.96	27.30
GROUP 3	$ 35.37	27.30
GROUP 4	$ 35.25	27.30
LABORER (WRECKING)		
GROUP 1	$ 35.50	27.30
GROUP 2	$ 35.35	27.30

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive $0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and bucker; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2"" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for

such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive $4.00 per day above Group 1 wage rates. ""Sewer cleaner"" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shal receive $5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive $ .25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shot crete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general

laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification ""material cleaner"" is to be utilized under the following conditions:
A: at demolition site for the salvage of the material.
B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of ""form stripping, cleaning and oiling and moving to the next point of erection"".

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Gunite laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LABO0073-009 07/01/2023

CALAVERAS AND SAN JOAQUIN COUNTIES

	Rates	Fringes
LABORER (Plaster Tender).....	$ 39.77	28.54

Work on a swing stage scaffold: $1.00 per hour additional.

LABO0261-003 07/01/2023

SAN FRANCISCO AND SAN MATEO COUNTIES

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person..	$ 37.26	27.30
Traffic Control Person I....	$ 37.56	27.30
Traffic Control Person II...	$ 35.06	27.30

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

LABO0261-005 06/26/2023

SAN FRANCISCO AND SAN MATEO COUNTIES

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1.....	$ 45.89	27.72
GROUP 2.....	$ 45.66	27.72
GROUP 3.....	$ 45.41	27.72
GROUP 4.....	$ 44.96	27.72
GROUP 5.....	$ 44.42	27.72
Shotcrete Specialist.....	$ 46.41	27.72

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Gunite and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher

in tunnel; Concrete screedman; Grout pumpman and potman; Gunite & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

LABO0261-009 06/26/2023

SAN FRANCISCO, AND SAN MATEO COUNTIES

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT LABORERS - AREA A:)		
Construction Specialist Group	$ 37.20	27.30
GROUP 1	$ 36.50	27.30
GROUP 1-a	$ 36.72	27.30
GROUP 1-c	$ 36.55	27.30
GROUP 1-e	$ 37.05	27.30
GROUP 1-f	$ 31.37	23.20
GROUP 2	$ 36.35	27.30
GROUP 3	$ 36.25	27.30
GROUP 4	$ 29.94	27.30
See groups 1-b and 1-d under laborer classifications.		
LABORER (GARDENERS, HORTICULTURAL & LANDSCAPE LABORERS - AREA A:)		
(1) New Construction	$ 36.25	27.30
(2) Establishment Warranty Period	$ 29.94	27.30
LABORER (WRECKING - AREA A:)		
GROUP 1	$ 36.50	27.30
GROUP 2	$ 36.35	27.30
Laborers: (GUNITE - AREA A:)		
GROUP 1	$ 37.46	27.30
GROUP 2	$ 36.96	27.30
GROUP 3	$ 36.37	27.30
GROUP 4	$ 36.25	27.30

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive $0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and bucker; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2"" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and

rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive $4.00 per day above Group 1 wage rates. ""Sewer cleaner"" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shal receive $5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive $ .25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shot crete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and

grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification ""material cleaner"" is to be utilized under the following conditions:
A: at demolition site for the salvage of the material.
B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of ""form stripping, cleaning and oiling and moving to the next point of erection"".

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Gunite laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LABO0261-011 07/01/2023

SAN FRANCISCO AND SAN MATEO COUNTIES:

	Rates	Fringes
MASON TENDER, BRICK	$ 37.05	27.45

FOOTNOTES: Underground work such as sewers, manholes, catch basins, sewer pipes, telephone conduits, tunnels and cut trenches: $5.00 per day additional. Work in live sewage: $2.50 per day additional.

LABO0261-014 07/01/2023

SAN FRANCISCO AND SAN MATEO COUNTIES:

	Rates	Fringes
PLASTER TENDER	$ 41.93	30.32

Work on a swing stage scaffold: $1.00 per hour additional.

LABO0270-003 07/01/2023

AREA A: SANTA CLARA

AREA B: MONTEREY, SAN BENITO AND SANTA CRUZ COUNTIES

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person		
Area A	$ 37.26	27.30
Area B	$ 36.26	27.30
Traffic Control Person I		
Area A	$ 37.56	27.30
Area B	$ 36.56	27.30
Traffic Control Person II		

Area A	$ 35.06	27.30
Area B	$ 34.06	27.30

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

LABO0270-004 06/26/2023

MONTEREY, SAN BENITO, SANTA CLARA, AND SANTA CRUZ COUNTIES

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1	$ 45.89	27.72
GROUP 2	$ 45.66	27.72
GROUP 3	$ 45.41	27.72
GROUP 4	$ 44.96	27.72
GROUP 5	$ 44.42	27.72
Shotcrete Specialist	$ 46.41	27.72

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Gunite and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Gunite & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

LABO0270-005 07/01/2023

MONTEREY AND SAN BENITO COUNTIES

	Rates	Fringes
LABORER		
Mason Tender-Brick	$ 36.29	25.55

LABO0270-007 06/26/2023

MONTEREY, SAN BENITO AND SANTA CRUZ COUNTIES

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT LABORERS - AREA B)		
Construction Specialist Group	$ 36.20	27.30
GROUP 1	$ 35.50	27.30
GROUP 1-a	$ 35.72	27.30
GROUP 1-c	$ 35.55	27.30
GROUP 1-e	$ 36.05	27.30
GROUP 1-f	$ 36.08	27.30
GROUP 2	$ 35.35	27.30
GROUP 3	$ 35.25	27.30
GROUP 4	$ 28.94	27.30
See groups 1-b and 1-d under laborer classifications.		
LABORER (GARDENERS, HORTICULTURAL & LANDSCAPE LABORERS - AREA B)		
(1) New Construction	$ 35.25	27.30
(2) Establishment Warranty Period	$ 28.94	27.30
LABORER (GUNITE - AREA B)		
GROUP 1	$ 36.46	27.30
GROUP 2	$ 35.96	27.30
GROUP 3	$ 35.37	27.30
GROUP 4	$ 35.25	27.30
LABORER (WRECKING - AREA B)		
GROUP 1	$ 35.50	27.30
GROUP 2	$ 35.35	27.30

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive $0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a

below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and bucker; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2"" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143

and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive $4.00 per day above Group 1 wage rates. ""Sewer cleaner"" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shal receive $5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive $ .25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shot crete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush

shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification ""material cleaner"" is to be utilized under the following conditions:
A: at demolition site for the salvage of the material.
B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of ""form stripping, cleaning and oiling and moving to the next point of erection"".

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Gunite laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LABO0270-010 06/26/2023

SANTA CLARA COUNTY

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT LABORERS - AREA A:)		
Construction Specialist Group	$ 37.20	27.30
GROUP 1	$ 36.50	27.30
GROUP 1-a	$ 36.72	27.30
GROUP 1-c	$ 36.55	27.30
GROUP 1-e	$ 37.05	27.30
GROUP 1-f	$ 37.08	27.30
GROUP 2	$ 36.35	27.30
GROUP 3	$ 36.25	27.30
GROUP 4	$ 29.94	27.30
See groups 1-b and 1-d under laborer classifications.		
LABORER (GARDENERS, HORTICULTURAL & LANDSCAPE LABORERS - AREA A:)		
(1) New Construction	$ 36.25	27.30
(2) Establishment Warranty Period	$ 29.94	27.30
LABORER (GUNITE - AREA A:)		
GROUP 1	$ 37.46	27.30
GROUP 2	$ 36.96	27.30
GROUP 3	$ 36.37	27.30
GROUP 4	$ 36.25	27.30
LABORER (WRECKING - AREA A:)		
GROUP 1	$ 36.50	27.30
GROUP 2	$ 36.35	27.30

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive $0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work;

Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and bucker; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2"" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive $4.00 per day above Group 1 wage rates. ""Sewer cleaner"" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shal receive $5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive $ .25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shot crete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and

piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification ""material cleaner"" is to be utilized under the following conditions:
A: at demolition site for the salvage of the material.
B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of ""form stripping, cleaning and oiling and moving to the next point of erection"".

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Gunite laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LABO0270-011 07/01/2023

MONTEREY, SAN BENITO, SANTA CRUZ, SANTA CLARA COUNTIES

	Rates	Fringes
LABORER (Plaster Tender).....	$ 40.68	29.68

Work on a swing stage scaffold: $1.00 per hour additional.

LABO0294-001 07/01/2023

FRESNO, KINGS AND MADERA COUNTIES

	Rates	Fringes
LABORER (Brick)		
Mason Tender-Brick	$ 36.29	25.55

LABO0294-002 07/01/2023

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person	$ 36.26	27.30
Traffic Control Person I	$ 36.56	27.30
Traffic Control Person II	$ 34.06	27.30

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

LABO0294-005 06/26/2023

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1	$ 45.89	27.72
GROUP 2	$ 45.66	27.72
GROUP 3	$ 45.41	27.72
GROUP 4	$ 44.96	27.72
GROUP 5	$ 44.42	27.72
Shotcrete Specialist	$ 46.41	27.72

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Gunite and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Gunite & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

LABO0294-008 06/26/2023

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT LABORERS - AREA B:)		
Construction Specialist Group	$ 36.20	27.30
GROUP 1	$ 35.50	27.30
GROUP 1-a	$ 35.72	27.30
GROUP 1-c	$ 35.55	27.30
GROUP 1-e	$ 36.05	27.30
GROUP 1-f	$ 36.08	27.30
GROUP 2	$ 35.35	27.30
GROUP 3	$ 35.25	27.30
GROUP 4	$ 28.94	27.30
See groups 1-b and 1-d under laborer classifications.		
LABORER (GARDENERS, HORTICULTURAL & LANDSCAPE LABORERS - AREA B:)		
(1) New Construction	$ 35.25	27.30
(2) Establishment Warranty Period	$ 28.94	27.30
LABORER (GUNITE - AREA B:)		
GROUP 1	$ 36.46	27.30

GROUP 2	$ 35.96	27.30
GROUP 3	$ 35.37	27.30
GROUP 4	$ 35.25	27.30
LABORER (WRECKING - AREA B:)		
GROUP 1	$ 35.50	27.30
GROUP 2	$ 35.35	27.30

FOOTNOTES:
Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive $0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and bucker; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2"" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types

(except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive $4.00 per day above Group 1 wage rates. ""Sewer cleaner"" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shal receive $5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive $ .25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shot crete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification ""material cleaner"" is to be utilized under the following conditions:
A: at demolition site for the salvage of the material.
B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of ""form stripping, cleaning and oiling and moving to the next point of erection"".

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Gunite laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LABO0294-010 07/01/2023

CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS & TUOLUMNE

	Rates	Fringes
Plasterer tender	$ 39.77	28.54

Work on a swing stage scaffold: $1.00 per hour additional.

LABO0294-011 07/01/2023

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
LABORER (Plaster Tender)	$ 39.77	28.54

Work on a swing stage scaffold: $1.00 per hour additional.

LABO0304-002 07/01/2023

ALAMEDA COUNTY

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person	$ 37.26	27.30
Traffic Control Person I	$ 37.56	27.30
Traffic Control Person II	$ 35.06	27.30

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

LABO0304-003 06/26/2023

ALAMEDA COUNTY

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1	$ 45.89	27.72
GROUP 2	$ 45.66	27.72
GROUP 3	$ 45.41	27.72
GROUP 4	$ 44.96	27.72
GROUP 5	$ 44.42	27.72
Shotcrete Specialist	$ 46.41	27.72

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Gunite and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Gunite & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

LABO0304-004 06/26/2023

ALAMEDA COUNTY

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT LABORERS - AREA A:)		
Construction Specialist Group	$ 37.20	27.30
GROUP 1	$ 36.50	27.30
GROUP 1-a	$ 36.72	27.30
GROUP 1-c	$ 36.55	27.30
GROUP 1-e	$ 37.05	27.30
GROUP 1-f	$ 37.08	27.30
GROUP 2	$ 36.35	27.30
GROUP 3	$ 36.25	27.30
GROUP 4	$ 29.94	27.30
See groups 1-b and 1-d under laborer classifications.		
LABORER (GARDENERS, HORTICULTURAL & LANDSCAPE LABORERS - AREA A:)		
(1) New Construction	$ 36.25	27.30
(2) Establishment Warranty Period	$ 29.94	27.30
LABORER (GUNITE - AREA A:)		
GROUP 1	$ 37.46	27.30
GROUP 2	$ 36.96	27.30
GROUP 3	$ 36.37	27.30
GROUP 4	$ 36.25	27.30
LABORER (WRECKING - AREA A:)		
GROUP 1	$ 36.50	27.30
GROUP 2	$ 36.35	27.30

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive $0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and bucker; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2"" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive $4.00 per day above Group 1 wage rates. ""Sewer cleaner"" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer

manholes shal receive $5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive $ .25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shot crete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification ""material cleaner"" is to be utilized under the following conditions:
A: at demolition site for the salvage of the material.
B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of ""form stripping, cleaning and oiling and moving to the next point of erection"".

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Gunite laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LABO0304-005 07/01/2023

ALAMEDA COUNTY

	Rates	Fringes
Brick Tender	$ 37.05	27.45

FOOTNOTES: Work on jobs where heat-protective clothing is required: $2.00 per hour additional. Work at grinders: $.25 per hour additional. Manhole work: $2.00 per day additional.

LABO0304-008 07/01/2023

ALAMEDA AND CONTRA COSTA COUNTIES:

	Rates	Fringes
Plasterer tender	$ 41.93	30.32

Work on a swing stage scaffold: $1.00 per hour additional.

LABO0324-002 07/01/2023

CONTRA COSTA COUNTY

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person	$ 37.26	27.30
Traffic Control Person I	$ 37.56	27.30
Traffic Control Person II	$ 35.06	27.30

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

LABO0324-006 06/26/2023

CONTRA COSTA COUNTY

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1	$ 45.89	27.72
GROUP 2	$ 45.66	27.72
GROUP 3	$ 45.41	27.72
GROUP 4	$ 44.96	27.72
GROUP 5	$ 44.42	27.72
Shotcrete Specialist	$ 46.41	27.72

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Gunite and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Gunite & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

LABO0324-012 06/26/2023

CONTRA COSTA COUNTY

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT LABORERS - AREA A:)		
Construction Specialist Group	$ 37.20	27.30
GROUP 1	$ 36.50	27.30
GROUP 1-a	$ 36.72	27.30
GROUP 1-c	$ 36.55	27.30
GROUP 1-e	$ 37.05	27.30
GROUP 1-f	$ 37.08	27.30
GROUP 1-g	$ 36.70	27.30
GROUP 2	$ 36.35	27.30
GROUP 3	$ 36.25	27.30
GROUP 4	$ 29.94	27.30
See groups 1-b and 1-d under laborer classifications.		
LABORER (GARDENERS, HORTICULURAL & LANDSCAPE LABORERS - AREA A:)		
(1) New Construction	$ 36.25	27.30
(2) Establishment Warranty Period	$ 29.94	27.30
LABORER (GUNITE - AREA A:)		
GROUP 1	$ 37.46	27.30

GROUP 2	$ 36.96	27.30
GROUP 3	$ 36.37	27.30
GROUP 4	$ 36.25	27.30
LABORER (WRECKING - AREA A:)		
GROUP 1	$ 36.50	27.30
GROUP 2	$ 36.35	27.30

FOOTNOTES:
Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive $0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and bucker; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2"" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types

(except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive $4.00 per day above Group 1 wage rates. ""Sewer cleaner"" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shal receive $5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive $ .25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shot crete

GROUP 1-g, CONTRA COSTA COUNTY: Pipelayer (including grade checking in connection with pipelaying); Caulker; Bander; Pipewrapper; Conduit layer; Plastic pipe layer; Pressure pipe tester; No joint pipe and stripping of same, including repair of voids; Precast manhole setters, cast in place manhole form setters

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification ""material cleaner"" is to be utilized under the following conditions:
A: at demolition site for the salvage of the material.
B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of ""form stripping, cleaning and oiling and moving to the next point of erection"".

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Gunite laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

GROUP 1-g, CONTRA COSTA COUNTY: Pipelayer (including grade checking in connection with pipelaying); Caulker; Bander; Pipewrapper; Conduit layer; Plastic pipe layer; Pressure pipe tester; No joint pipe and stripping of same, including repair of voids; Precast manhole setters, cast in place manhole form setters

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LABO0324-014 07/01/2023

CONTRA COSTA COUNTY:

	Rates	Fringes
Brick Tender	$ 37.05	27.45

FOOTNOTES: Work on jobs where heat-protective clothing is required: $2.00 per hour additional. Work at grinders: $.25 per hour additional. Manhole work: $2.00 per day additional.

LABO0324-018 07/01/2023

ALAMEDA AND CONTRA COSTA COUNTIES:

	Rates	Fringes
Plasterer tender	$ 41.93	30.32

Work on a swing stage scaffold: $1.00 per hour additional.

LABO1130-002 07/01/2023

MARIPOSA, MERCED, STANISLAUS, AND TUOLUMNE COUNTIES

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person	$ 36.26	27.30
Traffic Control Person I	$ 36.56	27.30
Traffic Control Person II	$ 34.06	27.30

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

LABO1130-003 06/26/2023

MARIPOSA, MERCED, STANISLAUS, AND TUOLUMNE COUNTIES

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1	$ 45.89	27.72
GROUP 2	$ 45.66	27.72
GROUP 3	$ 45.41	27.72
GROUP 4	$ 44.96	27.72
GROUP 5	$ 44.42	27.72
Shotcrete Specialist	$ 46.41	27.72

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Gunite and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Gunite & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on

slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

LABO1130-005 07/01/2023

MARIPOSA, MERCED, STANISLAUS AND TUOLUMNE COUNTIES

	Rates	Fringes
LABORER		
Mason Tender-Brick	$ 36.29	25.55

LABO1130-007 06/26/2023

MARIPOSA, MERCED, STANISLAUS, AND TUOLUMNE , COUNTIES

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT LABORERS - AREA B:)		
Construction Specialist Group	$ 36.20	27.30
GROUP 1	$ 35.50	27.30
GROUP 1-a	$ 35.72	27.30
GROUP 1-c	$ 35.55	27.30
GROUP 1-e	$ 36.05	27.30
GROUP 1-f	$ 36.08	27.30
GROUP 2	$ 35.35	27.30
GROUP 3	$ 35.25	27.30
GROUP 4	$ 28.94	27.30
See groups 1-b and 1-d under laborer classifications.		
LABORER (GARDENERS, HORTICULTURAL & LANDSCAPE LABORERS - AREA B:)		
(1) New Construction	$ 35.25	27.30
(2) Establishment Warranty Period	$ 28.94	27.30
LABORER (GUNITE - AREA B:)		
GROUP 1	$ 36.46	27.30
GROUP 2	$ 35.96	27.30

GROUP 3	$ 35.37	27.30
GROUP 4	$ 35.25	27.30
LABORER (WRECKING - AREA B:)		
GROUP 1	$ 35.50	27.30
GROUP 2	$ 35.35	27.30

FOOTNOTES:
Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive $0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and bucker; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2"" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun;

Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive $4.00 per day above Group 1 wage rates. ""Sewer cleaner"" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shal receive $5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive $ .25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting

or shot crete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification ""material cleaner"" is to be utilized under the following conditions:
A: at demolition site for the salvage of the material.
B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of ""form stripping, cleaning and oiling and moving to the next point of erection"".

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Gunite laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LABO1130-008 07/01/2023

CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS & TUOLUMNE

	Rates	Fringes
Plasterer tender	$ 39.77	28.54

Work on a swing stage scaffold: $1.00 per hour additional.

LABO1130-009 07/01/2023

MARIPOSA, MERCED, STANISLAUS, AND TUOLUMNE COUNTIES

	Rates	Fringes
LABORER (Plaster Tender)	$ 39.77	28.54

Work on a swing stage scaffold: $1.00 per hour additional.

PAIN0016-001 01/01/2025

ALAMEDA, CONTRA COSTA, MONTEREY, SAN BENITO, SAN MATEO, SANTA CLARA, AND SANTA CRUZ COUNTIES

	Rates	Fringes
Painters:	$ 53.38	28.04

PREMIUMS:

EXOTIC MATERIALS - $1.25 additional per hour.
SPRAY WORK: - $0.50 additional per hour.
INDUSTRIAL PAINTING - $0.25 additional per hour

[Work on industrial buildings used for the manufacture and processing of goods for sale or service; steel construction (bridges), stacks, towers, tanks, and similar structures]

HIGH WORK:
over 50 feet - $2.00 per hour additional
100 to 180 feet - $4.00 per hour additional
Over 180 feet - $6.00 per houir additional

PAIN0016-003 01/01/2025

AREA 1: ALAMEDA, CONTRA COSTA, SAN FRANCISCO, SAN MATEO & SANTA CLARA COUNTIES

AREA 2: CALAVERAS, MARIPOA, MERCED, MONTEREY, SAN BENITO, SAN JOAQUIN, SANTA CRUZ, STANISLAUS & TUOLUMNE COUNTIES

	Rates	Fringes
Drywall Finisher/Taper		
AREA 1	$ 63.76	32.69
AREA 2	$ 59.63	31.29

PAIN0016-012 01/01/2024

ALAMEDA, CONTRA COSTA, MARIPOSA, MERCED, MONTEREY, SAN BENITO, SAN FRANCISCO, SAN MATEO, SANTA CLARA AND SANTA CRUZ COUNTIES

	Rates	Fringes
SOFT FLOOR LAYER	$ 59.00	33.03

PAIN0016-015 01/01/2025

CALAVERAS, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS & TUOLUMNE COUNTIES

	Rates	Fringes
PAINTER		
Brush	$ 43.45	22.80

FOOTNOTES:
SPRAY/SANDBLAST: $0.50 additional per hour.
EXOTIC MATERIALS: $1.25 additional per hour.
HIGH TIME: Over 50 ft above ground or water level $2.00

additional per hour. 100 to 180 ft above ground or water level $4.00 additional per hour. Over 180 ft above ground or water level $6.00 additional per hour.

PAIN0016-022 01/01/2025

SAN FRANCISCO COUNTY

	Rates	Fringes
PAINTER	$ 57.00	28.04

PAIN0169-001 01/01/2023

FRESNO, KINGS, MADERA, MARIPOSA AND MERCED COUNTIES:

	Rates	Fringes
GLAZIER	$ 44.33	28.88

PAIN0169-005 01/01/2024

ALAMEDA CONTRA COSTA, MONTEREY, SAN BENITO, SAN FRANCISCO, SAN MATEO, SANTA CLARA & SANTA CRUZ COUNTIES

	Rates	Fringes
GLAZIER	$ 56.22	34.00

PAIN0294-004 07/01/2023

FRESNO, KINGS AND MADERA COUNTIES

	Rates	Fringes
PAINTER		
Brush, Roller	$ 34.49	21.80
Drywall Finisher/Taper	$ 35.74	21.80

FOOTNOTE:
  Spray Painters & Paperhangers recive $1.00 additional per hour. Painters doing Drywall Patching receive $1.25 additional per hour. Lead Abaters & Sandblasters receive $1.50 additional per hour. High Time - over 30 feet (does not include work from a lift) $0.75 per hour additional.

PAIN0294-005 01/01/2023

FRESNO, KINGS & MADERA

	Rates	Fringes
SOFT FLOOR LAYER	$ 38.53	23.19

PAIN0767-001 01/01/2024

CALAVERAS, SAN JOAQUIN, STANISLAUS AND TUOLUMNE COUNTIES:

	Rates	Fringes
GLAZIER	$ 43.25	35.62

PAID HOLIDAYS: New Year's Day, Martin Luther King, Jr. Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day.

Employee required to wear a body harness shall receive $1.50 per hour above the basic hourly rate at any elevation.

PAIN1176-001 07/01/2022

HIGHWAY IMPR0VEMENT

	Rates	Fringes
Parking Lot Striping/Highway Marking:		
GROUP 1	$ 40.83	17.62
GROUP 2	$ 34.71	17.62
GROUP 3	$ 35.11	17.62

CLASSIFICATIONS

GROUP 1: Striper: Layout and application of painted traffic stripes and marking; hot thermo plastic; tape, traffic stripes and markings

GROUP 2: Gamecourt & Playground Installer

GROUP 3: Protective Coating, Pavement Sealing

PAIN1237-003 01/01/2024

CALAVERAS; SAN JOAQUIN COUNTIES; STANISLAUS AND TUOLUMNE COUNTIES:

	Rates	Fringes
SOFT FLOOR LAYER	$ 48.54	26.59

PLAS0066-002 07/01/2019

ALAMEDA, CONTRA COSTA, SAN MATEO AND SAN FRANCISCO COUNTIES:

	Rates	Fringes
PLASTERER	$ 42.41	30.73

PLAS0300-001 07/01/2018

	Rates	Fringes
PLASTERER		
AREA 188: Fresno	$ 32.70	31.68
AREA 224: San Benito, Santa Clara, Santa Cruz	$ 32.88	31.68
AREA 295: Calaveras & San Joaquin Couonties	$ 32.70	31.68
AREA 337: Monterey County	$ 32.88	31.68
AREA 429: Mariposa, Merced, Stanislaus, Tuolumne Counties	$ 32.70	31.68

PLAS0300-005 07/01/2016

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 32.15	23.27

PLUM0038-001 07/01/2023

SAN FRANCISCO COUNTY

	Rates	Fringes
PLUMBER (Plumber, Steamfitter, Refrigeration Fitter)	$ 85.50	48.98

PLUM0038-005 07/01/2023

SAN FRANCISCO COUNTY

	Rates	Fringes

Landscape/Irrigation Fitter
(Underground/Utility Fitter).....$ 72.68 32.91

PLUM0062-001 01/01/2025

MONTEREY AND SANTA CRUZ COUNTIES

	Rates	Fringes
PLUMBER & STEAMFITTER.....$	55.00	42.35

PLUM0159-001 07/01/2024

CONTRA COSTA COUNTY

	Rates	Fringes
Plumber and steamfitter		
(1) Refrigeration.....$	65.28	48.04
(2) All other work.....$	66.17	48.04

PLUM0246-001 01/01/2025

FRESNO, KINGS & MADERA COUNTIES

	Rates	Fringes
PLUMBER & STEAMFITTER.....$	51.65	41.59

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* PLUM0246-004 01/01/2017

FRESNO, MERCED & SAN JOAQUIN COUNIES

	Rates	Fringes
PLUMBER (PIPE TRADESMAN).....$	13.00 **	10.74

PIPE TRADESMAN SCOPE OF WORK:
Installation of corrugated metal piping for drainage, as well as installation of corrugated metal piping for culverts in connection with storm sewers and drains; Grouting, dry packing and diapering of joints, holes or chases including paving over joints, in piping; Temporary piping for dirt work for building site preparation; Operating jack hammers, pavement breakers, chipping guns, concrete saws and spades to cut holes, chases and channels for piping systems; Digging, grading, backfilling and ground preparation for all types of pipe to all points of the jobsite; Ground preparation including ground leveling, layout and planting

of shrubbery, trees and ground cover, including watering, mowing, edging, pruning and fertilizing, the breaking of concrete, digging, backfilling and tamping for the preparation and completion of all work in connection with lawn sprinkler and landscaping; Loading, unloading and distributing materials at jobsite; Putting away materials in storage bins in jobsite secure storage area; Demolition of piping and fixtures for remodeling and additions; Setting up and tearing down work benches, ladders and job shacks; Clean-up and sweeping of jobsite; Pipe wrapping and waterproofing where tar or similar material is applied for protection of buried piping; Flagman

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PLUM0342-001 07/01/2023

ALAMEDA & CONTRA COSTA COUNTIES

	Rates	Fringes
PIPEFITTER		
CONTRA COSTA COUNTY	$ 74.00	47.45
PLUMBER, PIPEFITTER, STEAMFITTER		
ALAMEDA COUNTY	$ 74.00	47.45

PLUM0355-004 07/01/2024

ALAMEDA, CALAVERAS, CONTRA COSTA, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, MONTEREY, SAN BENITO, SAN JOAQUIN, SAN MATEO, SANTA CLARA, SANTA CRUZ, STANISLAUS, AND TUOLUMNE COUNTIES:

	Rates	Fringes
Underground Utility Worker /Landscape Fitter	$ 34.51	18.30

PLUM0393-001 07/01/2021

SAN BENITO AND SANTA CLARA COUNTIES

	Rates	Fringes
PLUMBER/PIPEFITTER	$ 68.76	46.63

PLUM0442-001 01/01/2025

CALAVERAS, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS & TUOLUMNE COUNTIES

	Rates	Fringes
PLUMBER & STEAMFITTER	$ 55.95	37.64

PLUM0467-001 07/01/2024

SAN MATEO COUNTY

	Rates	Fringes
Plumber/Pipefitter/Steamfitter	$ 83.75	40.65

ROOF0027-002 09/01/2024

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
ROOFER	$ 45.76	16.86

FOOTNOTE: Work with pitch, pitch base of pitch impregnated products or any material containing coal tar pitch, on any building old or new, where both asphalt and pitchers are used in the application of a built-up roof or tear off: $2.00 per hour additional.

ROOF0040-002 08/01/2024

SAN FRANCISCO & SAN MATEO COUNTIES:

	Rates	Fringes
ROOFER	$ 55.30	22.97

ROOF0081-001 08/01/2023

ALAMEDA AND CONTRA COSTA COUNTIES:

	Rates	Fringes
Roofer	$ 52.47	22.31

ROOF0081-004 08/01/2024

CALAVERAS, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS AND TUOLUMNE COUNTIES:

	Rates	Fringes
ROOFER	$ 49.65	22.19

ROOF0095-002 08/01/2023

MONTEREY, SAN BENITO, SANTA CLARA, AND SANTA CRUZ COUNTIES:

	Rates	Fringes
ROOFER		
Bitumastic, Enameler, Coal Tar, Pitch and Mastic worker	$ 57.17	21.51
Journeyman	$ 53.17	21.51
Kettle person (2 kettles)	$ 55.17	21.51

SFCA0483-001 01/01/2025

ALAMEDA, CONTRA COSTA, SAN FRANCISCO, SAN MATEO AND SANTA CLARA COUNTIES:

	Rates	Fringes
SPRINKLER FITTER (FIRE)	$ 78.94	39.10

SFCA0669-011 01/01/2025

CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, MONTEREY, SAN BENITO, SAN JOAQUIN, SANTA CRUZ, STANISLAUS AND TUOLUMNE COUNTIES:

	Rates	Fringes
SPRINKLER FITTER	$ 46.42	28.42

SHEE0104-001 07/01/2020

AREA 1: ALAMEDA, CONTRA COSTA, SAN FRANCISCO, SAN MATEO, SANTA CLARA

AREA 2: MONTEREY & SAN BENITO

AREA 3: SANTA CRUZ

	Rates	Fringes

SHEET METAL WORKER
AREA 1:
Mechanical Contracts
under $200,000.....$ 55.92 45.29
All Other Work.....$ 64.06 46.83
AREA 2.....$ 52.90 36.44
AREA 3.....$ 55.16 34.18

SHEE0104-003 07/01/2021

CALAVERAS AND SAN JOAQUIN COUNTIES:

	Rates	Fringes
SHEET METAL WORKER.....	$ 44.34	39.22

SHEE0104-005 07/01/2021

MARIPOSA, MERCED, STANISLAUS AND TUOLUMNE COUNTIES:

	Rates	Fringes
SHEET METAL WORKER (Excluding metal deck and siding).....	$ 41.28	45.41

SHEE0104-007 07/01/2021

FRESNO, KINGS, AND MADERA COUNTIES:

	Rates	Fringes
SHEET METAL WORKER.....	$ 44.07	40.79

SHEE0104-015 07/01/2020

ALAMEDA, CONTRA COSTA, MONTEREY, SAN BENITO, SAN FRANCISCO, SAN MATEO, SANTA CLARA AND SANTA CRUZ COUNTIES:

	Rates	Fringes
SHEET METAL WORKER (Metal Decking and Siding only).....	$ 44.45	35.55

SHEE0104-018 07/01/2020

CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS AND TUOLUMNE COUNTIES:

	Rates	Fringes
Sheet metal worker (Metal decking and siding only)	$ 44.45	35.55

TEAM0094-001 07/01/2024

	Rates	Fringes
Truck drivers:		
GROUP 1	$ 41.54	33.25
GROUP 2	$ 41.84	33.25
GROUP 3	$ 42.14	33.25
GROUP 4	$ 42.49	33.25
GROUP 5	$ 42.84	33.25

FOOTNOTES:

Articulated dump truck; Bulk cement spreader (with or without auger); Dumpcrete truck; Skid truck (debris box); Dry pre-batch concrete mix trucks; Dumpster or similar type; Slurry truck: Use dump truck yardage rate.

Heater planer; Asphalt burner; Scarifier burner; Industrial lift truck (mechanical tailgate); Utility and clean-up truck: Use appropriate rate for the power unit or the equipment utilized.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Dump trucks, under 6 yds.; Single unit flat rack (2-axle unit); Nipper truck (when flat rack truck is used appropriate flat rack shall apply); Concrete pump truck (when flat rack truck is used appropriate flat rack shall apply); Concrete pump machine; Fork lift and lift jitneys; Fuel and/or grease truck driver or fuel person; Snow buggy; Steam cleaning; Bus or personhaul driver; Escort or pilot car driver; Pickup truck; Teamster oiler/greaser and/or serviceperson; Hook tender (including loading and unloading); Team driver; Tool room attendant (refineries)

GROUP 2: Dump trucks, 6 yds. and under 8 yds.; Transit mixers, through 10 yds.; Water trucks, under 7,000 gals.; Jetting trucks, under 7,000 gals.; Single-unit flat rack (3-axle unit); Highbed heavy duty transport; Scissor truck; Rubber-tired muck car (not self-loaded); Rubber-tired truck jumbo; Winch truck and ""A"" frame drivers; Combination winch truck with hoist; Road oil truck or bootperson; Buggymobile; Ross, Hyster and similar straddle carriers; Small rubber-tired tractor

GROUP 3: Dump trucks, 8 yds. and including 24 yds.; Transit mixers, over 10 yds.; Water trucks, 7,000 gals. and over; Jetting trucks, 7,000 gals. and over; Vacuum trucks under 7500 gals. Trucks towing tilt bed or flat bed pull trailers; Lowbed heavy duty transport; Heavy duty transport tiller person; Self- propelled street sweeper with self-contained refuse bin; Boom truck - hydro-lift or Swedish type extension or retracting crane; P.B. or similar type self-loading truck; Tire repairperson; Combination bootperson and road oiler; Dry distribution truck (A bootperson when employed on such equipment, shall receive the rate specified for the classification of road oil trucks or bootperson); Ammonia nitrate distributor, driver and mixer; Snow Go and/or plow

GROUP 4: Dump trucks, over 25 yds. and under 65 yds.; Water pulls - DW 10's, 20's, 21's and other similar equipment when pulling Aqua/pak or water tank trailers; Helicopter pilots (when transporting men and materials); Lowbedk Heavy Duty Transport up to including 7 axles; DW10's, 20's, 21's and other similar Cat type, Terra Cobra, LeTourneau Pulls, Tournorocker, Euclid and similar type equipment when pulling fuel and/or grease tank trailers or other miscellaneous trailers; Vacuum Trucks 7500 gals and over and truck repairman

GROUP 5: Dump trucks, 65 yds. and over; Holland hauler; Low bed Heavy Duty Transport over 7 axles

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($17.75) or 13658 ($13.30). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this

contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the

classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination.

The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator

U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"

SPECIAL PROVISIONS

CITY OF CAMPBELL

DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET

PROJECT NO. 23-BB

FEDERAL PROJECT NO. CPFL – 5306 (034)

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
FEDERAL PROJECT NO. CPFL – 5306 (034)

SPECIAL PROVISIONS

General

The work embraced herein shall be done in accordance with the City of Campbell Standard Specifications and Details for Public Works Construction (CCSS) dated July 1994, the CCSS General Provisions Sections 1 – 9 dated March 2022 (General Provisions), the City of San Jose Standard Specifications (SJSS) and Standard Details (SJSD) dated July 1992, and in accordance with the Project Plans, Specifications, and these Special Provisions. Attention is also directed to the 2018 State of California, Department of Transportation, Standard Specifications (SS) and Standard Plans (SSP), portions of which are incorporated into the CCSS, General Provisions, and these Special Provisions by reference, and the Labor Surcharge and Equipment Rental Rates in effect on the date the work is accomplished.

The General Provisions document is available here: https://www.ci.campbell.ca.us/210/Details. These General Provisions shall apply to all elements of the project.

Full compensation for furnishing all labor, materials, tools, equipment and all incidentals for doing all the work involved in compliance with the Plans, Specifications, and General Provisions shall be deemed included in the price paid for the various contract bid items and no additional compensation shall be allowed thereof.

SUPPLEMENTAL CONDITIONS

SECTION 1. ABBREVIATIONS AND DEFINITIONS

Project Plans

Plans titled, "Hamilton Avenue Rehabilitation and Complete Street Project No. 23-BB, Federal Project No. CPFL – 5306 (034)", Construction Details, and Caltrans Standard Detail Plans found in Appendix A shall be considered as the Project Plans.

SECTION 2. PROPOSAL REQUIREMENTS AND CONDITIONS

Examination of Plans, Specifications and Site of Work

Contractor shall refer to Section 2-1.03 "Examination of Plans, Specifications, Contract and Site Work" of the General Provisions and these Special Provisions.

Prior to the opening of bids, all questions relative to this project shall be submitted in writing and received no later than **XXXXXX, 2025**. All questions shall be submitted via QuestCDN.

Disadvantaged Business Enterprises (DBE)

The contractor, subrecipient or subcontractor shall take necessary and reasonable steps to ensure that DBEs have opportunity to participate in the contract (49 CFR 26). To ensure equal participation of DBEs provided in 49 CFR 26.5, the City shows a contract goal for DBEs. The prime contractor shall make work available to DBEs and select work parts consistent with available DBE subcontractors and suppliers.

The prime contractor shall meet the DBE goal shown elsewhere in these special provisions or demonstrate that they made adequate Good Faith Efforts (GFE) to meet this goal. An adequate GFE means that the bidder must show that it took all necessary and reasonable steps to achieve a DBE goal that, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to meet the DBE goal.

If the DBE goal is not met, the contractor needs to complete and submit the DBE GFE documentation as described in Local Assistance Procedures Manual (LAPM) Chapter 9, Section 9.8 within 5 (five) days of bid opening.

It is the prime contractor's responsibility to verify that the DBE firm is certified as a DBE on the date of bid opening by using the California Unified Certification Program (CUCP) database and possesses the most specific available North American Industry Classification System (NAICS) codes and Work Code applicable to the type of work the firm will perform on the contract. Additionally, the prime contractor is responsible to document this verification by printing out the CUCP data for each DBE firm. A list of DBEs certified by the CUCP can be found at: https://dot.ca.gov/programs/civil-rights/dbe-search.

DBE participation will only count toward the California Department of Transportation's federally mandated statewide overall DBE goal if the DBE performs a commercially useful function under 49 CFR 26.55.

Credit for materials or supplies the prime contractor purchases from DBEs counts towards the goal in the following manner:

- 100 percent counts if the materials or supplies are obtained from a DBE manufacturer.
- 60 percent counts if the materials or supplies are obtained from a DBE regular dealer.

- Only fees, commissions, and charges for assistance in the procurement and delivery of materials or supplies count if obtained from a DBE that is neither a manufacturer nor regular dealer. 49 CFR 26.55 defines "manufacturer" and "regular dealer."

The prime contractor receives credit towards the goal if they employ a DBE trucking company that performs a commercially useful function as defined in 49 CFR 26.55(d) as follows:

- The DBE must be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract, and there cannot be a contrived arrangement for the purpose of meeting DBE goals.

- The DBE must itself own and operate at least one fully licensed, insured, and operational truck used on the contract.

- The DBE receives credit for the total value of the transportation services it provides on the Contract using trucks it owns, insures, and operates using drivers it employs.

- The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the Contract.

- The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE that leases trucks equipped with drivers from a non-DBE is entitled to credit for the total value of transportation services provided by non-DBE leased trucks equipped with drivers not to exceed the value of transportation services on the contract provided by DBE-owned trucks or leased trucks with DBE employee drivers. Additional participation by non-DBE owned trucks equipped with drivers receives credit only for the fee or commission it receives as a result of the lease arrangement.

- The DBE may lease trucks without drivers from a non-DBE truck leasing company. If the DBE leases trucks from a non-DBE truck leasing company and uses its own employees as drivers, it is entitled to credit for the total value of these hauling services.

- A lease must indicate that the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the DBE.

A. Nondiscrimination Statement

The contractor, subrecipient or subcontractor will never exclude any person from participation in, deny any person the benefits of, or otherwise discriminate against anyone in connection with the award and performance of any contract covered by 49 CFR 26 on the basis of race, color, sex, or national origin. In administering the City components of the DBE Program Plan, the contractor, subrecipient or subcontractor will not, directly, or through contractual or other arrangements, use criteria or methods of administration that have the effect of defeating or substantially impairing accomplishment of the objectives of the DBE Program Plan with respect to individuals of a particular race, color, sex, or national origin.

B. Contract Assurance

Under 49 CFR 26.13(b): The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR 26 in the award and administration of federal-aid contracts. Failure by the contractor to carry out these requirements is a material breach of this

contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

(1) Withholding monthly progress payments;

(2) Assessing sanctions;

(3) Liquidated damages; and/or

(4) Disqualifying the contractor from future bidding as non-responsible.

C. Prompt Progress Payment

The prime contractor or subcontractor shall pay to any subcontractor, not later than **seven days** after receipt of each progress payment, unless otherwise agreed to in writing, the respective amounts allowed the contractor on account of the work performed by the subcontractors, to the extent of each subcontractor's interest therein. In the event that there is a good faith dispute over all or any portion of the amount due on a progress payment from the prime contractor or subcontractor to a subcontractor, the prime contractor or subcontractor may withhold no more than 150 percent of the disputed amount. Any violation of this requirement shall constitute a cause for disciplinary action and shall subject the licensee to one or more of the following penalties, at the discretion of the Engineer:

- Issue a penalty, payable to the subcontractor, of 2 percent of the amount due per month for every month that payment is not made.
- Deduct the amount from the retainage owed to the prime and pay the subcontractors directly.
- Issue a stop-work order. Stop-work notice does not constitute a suspension in working days. Working days will continue to be charged to the contract until payments are released to subcontractors.
- Assess other penalties for failure to comply, up to and including contract termination.

In any action for the collection of funds wrongfully withheld, the prevailing party shall be entitled to his or her attorney's fees and costs. The sanctions authorized under this requirement shall be separate from, and in addition to, all other remedies, either civil, administrative, or criminal. This clause applies to both DBE and non-DBE subcontractors.

D. Prompt Payment of Withheld Funds to Subcontractors

The City may hold retainage from the prime contractor and shall make prompt and regular incremental acceptances of portions, as determined by the City, of the contract work, and pay retainage to the prime contractor based on these acceptances.

The City shall hold retainage from the prime contractor and shall make prompt and regular incremental acceptances of portions, as determined by the City and pay retainage to the prime contractor based on these acceptances. The prime contractor or subcontractor shall return all monies withheld in retention from all subcontractors within seven (7) days after receiving payment for work satisfactorily completed and accepted including incremental acceptances of portions of the contract work by the City. Any delay or postponement of payment may take place only for good cause and with the City's prior written approval. Any violation of these provisions shall subject the violating prime contractor or subcontractor to the penalties, sanctions, and other remedies specified in Section 7108.5 of the California Business and Professions Code and Section 10262 of the California Public Contract Code. This requirement shall not be construed to limit or impair any contractual, administrative or judicial remedies otherwise available to the contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the contractor; deficient subcontractor performance and/or noncompliance by a subcontractor. This clause applies to both DBE and non-DBE subcontractors.

Any violation of these provisions of Prompt Progress Payment and Prompt Payment of Withheld Funds to Subcontractors shall subject the violating prime contractor or subcontractor to the penalties, sanctions and other remedies specified therein. These requirements shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the prime contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the prime contractor, deficient subcontract performance, or noncompliance by a subcontractor.

E. Termination and Replacement of DBE Subcontractors

The prime contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains the City's written consent. The prime contractor shall not terminate or replace a listed DBE for convenience and perform the work with their own forces or obtain materials from other sources without prior written authorization from the City. Unless the City's prior written consent is provided, the contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE on the Exhibit 15-G Construction Contract DBE Commitment form, included in the Bid.

Termination of DBE Subcontractors

After a contract with a specified DBE goal has been executed, termination of a DBE may be allowed for the following, but not limited to, justifiable reasons with prior written authorization from the City:

1. Listed DBE fails or refuses to execute a written contract based on plans and specifications for the project.
2. The City stipulated that a bond is a condition of executing the subcontract and the listed DBE fails to meet the City's bond requirements.
3. Work requires a contractor's license and listed DBE does not have a valid license under Contractors License Law, or is not properly registered with the California Department of Industrial Relations as a public works contractor.
4. Listed DBE fails or refuses to perform the work or furnish the listed materials (failing or refusing to perform is not an allowable reason to remove a DBE if the failure or refusal is a result of bad faith or discrimination).
5. Listed DBE's work is unsatisfactory and not in compliance with the contract.
6. Listed DBE is ineligible to work on the project because of suspension or debarment.
7. Listed DBE becomes bankrupt or insolvent or exhibits credit unworthiness.
8. Listed DBE voluntarily withdraws with written notice from the Contract
9. Listed DBE is ineligible to receive credit for the type of work required.
10. Listed DBE owner dies or becomes disabled resulting in the inability to perform the work on the Contract.
11. The City determines other documented good cause.

To terminate a DBE or to terminate a portion of a DBE's work, the contractor must use the following procedures:

1. Send a written notice to the DBE of Contractor's intent to use other forces or material sources and include one or more justifiable reasons listed above. Simultaneously send a copy of this written notice to the City. The written notice to the DBE must request they provide any response within five (5) business days to both the Contractor and the City by either acknowledging their agreement or documenting their reasoning as to why the use of other forces or sources of materials should not occur.

2. If the DBE does not respond within 5 business days, Contractor may move forward with the request as if the DBE had agreed to Contractor's written notice.
3. Submit Contractor's DBE termination request by written letter to the City and include:
    - One or more above listed justifiable reasons along with supporting documentation.
    - Contractor's written notice to the DBE regarding the request, including proof of transmission and tracking documentation of Contractor's written notice
    - The DBE's response to Contractor's written notice, if received. If a written response was not provided, provide a statement to that effect.

The City shall respond in writing to Contractor's DBE termination request within 5 business days.

Replacement of DBE Subcontractors

After receiving the City's written authorization of DBE termination request, the Contractor must obtain the City's written agreement for DBE replacement. The Contractor must find or demonstrate GFEs to find qualified DBE replacement firms to perform the work to the extent needed to meet the DBE commitment.

The following procedures shall be followed to request authorization to replace a DBE firm:

1. Submit a request to replace a DBE with other forces or material sources in writing to the City which must include:
    a. Description of remaining uncommitted work items made available for replacement DBE solicitation and participation.
    b. The proposed DBE replacement firm's business information, the work they have agreed to perform, and the following:
        - Quote for bid item work and description of work to be performed
        - Proposed subcontract agreement and written confirmation of agreement to perform on the Contract
        - Revised Subcontracting Request form
        - Revised Exhibit 15-G: Construction Contract DBE Commitment
2. If Contractor has not identified a DBE replacement firm, submit documentation of the Contractor's GFEs to use DBE replacement firms within 7 days of City's authorization to terminate the DBE. The Contractor may request the City's approval to extend this submittal period to a total of 14 days. Submit documentation of actions taken to find a DBE replacement firm, such as:
    - Search results of certified DBEs available to perform the original DBE work identified and/or other work the Contractor had intended to self-perform, to the extent needed to meet the DBE commitment
    - Solicitations of DBEs for performance of work identified
    - Correspondence with interested DBEs that may have included contract details and requirements
    - Negotiation efforts with DBEs that reflect why an agreement was not reached

- If a DBE's quote was rejected, provide Contractor's reasoning for the rejection, such as why the DBE was unqualified for the work, or why the price quote was unreasonable or excessive
- Copies of each DBE's and non-DBE's price quotes for work identified, as the City may contact the firms to verify solicitation efforts and determine if the DBE quotes are substantially higher
- Additional documentation that supports the GFE

The City shall respond in writing to the Contractor's DBE replacement request within five (5) business days. The Contractor must submit a revised Subcontracting Request form if the replacement plan is authorized by the City.

F. Commitment and Utilization

The City's DBE program must include a monitoring and enforcement mechanism to ensure that DBE commitments reconcile to DBE utilization.

The bidder shall complete and sign Exhibit 15-G: Construction Contract DBE Commitment included in the contract documents regardless of whether DBE participation is reported. The bidder shall provide written confirmation from each DBE that the DBE is participating in the Contract. LAPM Exhibit 9-I: DBE Confirmation or equivalent form and DBE's quote must be submitted. The written confirmation must be submitted no later than 4pm on the 5th day after bid opening. If a DBE is participating as a joint venture partner, the bidder shall submit a copy of the joint venture agreement.

If the DBE Commitment form, Exhibit 15-G, is not submitted with the bid, it must be completed and submitted by all bidders to the City within five (5) days of bid opening. If the bidder does not submit the DBE Commitment form within the specified time, the City will find the bidder's bid nonresponsive.

The prime contractor shall use each DBE subcontractor as listed on Exhibit 15-G: Construction Contract DBE Commitment unless they receive written authorization for a termination or replacement from the City.

The City shall request the prime contractor to:

1. Notify the Resident Engineer or Inspector of any changes to its anticipated DBE participation
2. Provide this notification before starting the affected work
3. Maintain records including:
    - Name and business address of each 1st-tier subcontractor
    - Name and business address of each DBE subcontractor, DBE vendor, and DBE trucking company, regardless of tier
    - Date of payment and total amount paid to each DBE (see Exhibit 9-F: Monthly Disadvantaged Business Enterprise Payment)

If the prime contractor is a DBE contractor, they shall include the date of work performed by their own forces and the corresponding value of the work.

Before the 15th of each month, the prime contractor shall submit a Monthly DBE Trucking Verification (LAPM Exhibit 16-Z1) form. If a DBE is decertified before completing its work, the DBE must notify the prime contractor in writing of the decertification date. If a business becomes a certified DBE before completing its work, the business must notify the prime contractor in writing of the certification date. The

prime contractor shall submit the notifications. Upon work completion, the prime contractor shall complete a Disadvantaged Business Enterprises (DBE) Certification Status Change, Exhibit 17-O, form and submit the form within 30 days of contract acceptance.

Upon work completion, the prime contractor shall complete Exhibit 17-F: Final Report – Utilization of Disadvantaged Business Enterprises (DBE), First-Tier Subcontractors and submit it within 90 days of contract acceptance. The City will withhold $10,000 until the form is submitted. The City releases the withhold upon submission of the completed form.

G. Running Tally of Attainments

For projects that are awarded on or after September 1, 2023:

Exhibit 9-F is no longer required. Instead, by the 15th of the month following the month of any payment(s), the prime contractor must now submit Exhibit 9-P to the City administering the contract. If the Contractor does not make any payments to subcontractors, supplier(s) and/or manufacturers they must report “no payments were made to subs this month” and write this visibly and legibly on Exhibit 9-P.

H. Commercially Useful Function

DBEs must perform a commercially useful function (CUF) under 49 CFR 26.55 when performing work or supplying materials listed on the DBE Commitment form. The DBE value of work will only count toward the DBE commitment if the DBE performs a CUF. A DBE performs a CUF when it is responsible for execution of the work on the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. If a DBE does not perform or exercise responsibility for at least 30% of the total cost of its contract with its own work force, or the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, it will be presumed that the DBE is not performing a CUF. Additionally, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material and installing (where applicable), and paying for the material itself.

The Contractor must perform CUF evaluation for each DBE company working on a federal-aid contract, with or without a DBE goal. Perform a CUF evaluation at the beginning of the DBE’s work, and continue to monitor the performance of CUF for the duration of the project.

The Contractor must provide written notification to the City at least 15 days in advance of each DBE's initial performance of work or supplying materials for the Contract. The notification must include the DBE's name, work the DBE will perform on the contract, and the location, date, and time of where their work will take place.

Within 10 (ten) days of a DBE initially performing work or supplying materials on the contract, the Contractor shall submit to the City the initial evaluation and validation of DBE performance of a CUF using the LAPM 9-J: Disadvantaged Business Enterprise Commercially Useful Function Evaluation. Include the following information with the submittal:

- Subcontract agreement with the DBE
- Purchase orders
- Bills of lading
- Invoices
- Proof of payment

The Contractor must monitor all DBE's performance of CUF by conducting quarterly evaluations and validations throughout their duration of work on the contract using the LAPM 9-J: DBE Commercially Useful Function Evaluation. The Contractor must submit to the City these quarterly evaluations and validations by the 5th of the month for the previous three (3) months of work.

The Contractor must notify the City immediately if the Contractor believes the DBE may not be performing a CUF.

The City will verify DBEs performance of CUF by reviewing the initial and quarterly submissions of LAPM 9-J: DBE Commercially Useful Function Evaluation, submitted supporting information, field observations, and through any additional City evaluations. The City must evaluate DBEs and their CUF performance throughout the duration of a Contract. The City will provide written notice to Contractor and DBE at least two (2) business days prior to any evaluation. The Contractor and DBE must participate in the evaluation. Upon completing the evaluation, the City must share the evaluation results with the Contractor and DBE. An evaluation could include items that must be remedied upon receipt. If the City determines the DBE is not performing a CUF the Contractor must suspend performance of the noncompliant work.

The Contractor and DBEs must submit any additional CUF related records and documents within five (5) business days of City 's request such as:

- Proof of ownership or lease and rental agreements for equipment
- Tax records
- Employee rosters
- Certified payroll records
- Inventory rosters

Failure to submit required DBE Commercially Useful Function Evaluation forms or requested records and documents can result in withholding of payment for the value of work completed by the DBE.

If the Contractor and/or the City determine that a listed DBE is not performing a CUF in performance of their DBE committed work, immediately suspend performance of the noncompliant portion of the work. The City may deny payment for the noncompliant portion of the work. The City will ask the Contractor to submit a corrective action plan (CAP) to the City within five (5) days of the noncompliant CUF determination. The CAP must identify how the Contractor will correct the noncompliance findings for the remaining portion of the DBE's work. The City has five (5) days to review the CAP in conjunction with the prime contractor's review. The Contractor must implement the CAP within five (5) days of the City's approval. The City will then authorize the prior noncompliant portion of work for the DBE's committed work.

If corrective actions cannot be accomplished to ensure the DBE performs a CUF on the Contract, then the Contractor may have good cause to request termination of the DBE.

I. Use of Joint Checks

A joint check may be used between the Contractor or lower-tier subcontractor and a DBE subcontractor purchasing materials from a material supplier if the contractor obtains prior approval from the City for the proposed use of joint check upon submittal of the LAPM 9-K: DLA Disadvantaged Business Enterprises (DBE) Joint Check Agreement Request form.

To use a joint check, the following conditions must be met:

- All parties, including the Contractor, must agree to the use of a joint check

- Entity issuing the joint check acts solely to guarantee payment
- DBE must release the check to the material supplier
- City must authorize the request before implementation
- Any party to the agreement must provide requested documentation within 10 days of the City's request for the documentation
- Agreement to use a joint check must be short-term, not to exceed 1 year, allowing sufficient time needed to establish or increase a credit line with the material supplier

A request for a joint check agreement may be initiated by any party. If a joint check is used, the DBE remains responsible for all elements of 49 CFR 26.55(c)(1).

Failure to comply with the above requirements disqualifies DBE participation and results in no credit and no payment to the Contractor for DBE participation.

A joint check may not be used between the Contractor or subcontractor and a DBE regular dealer, bulk material supplier, manufacturer, wholesaler, broker, trucker, packager, manufacturer's representative, or other persons who arrange or expedite transactions.

Bid Opening

The City publicly opens and reads bids at the time and place shown on the Notice Inviting Bids (NIB).

Bid Rigging

The U.S. Department of Transportation (DOT) provides a toll-free hotline to report bid rigging activities. Use the hotline to report bid rigging, bidder collusion, and other fraudulent activities. The hotline number is (800) 424- 9071. The service is available 24 hours 7 days a week and is confidential and anonymous. The hotline is part of the DOT's effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General.

SECTION 3. AWARD AND EXECUTION OF CONTRACT

Determination Of Low Bid

The bidder's attention is directed to the provisions in Section 3, "Award and Execution of Contract" of the General Provisions and these Special Provisions for the requirements and conditions concerning award and execution of contract.

All bids will be compared on the basis of the Engineer's Estimate of Quantities of work to be done. The determination of the low bid will be based upon the TOTAL BASE BID.

In accordance with the Department of Industrial Relations (DIR) regulations, all Contractors and Subcontractors bidding and performing work on this Public Works Project must be registered with the California Department of Industrial Relations (DIR) pursuant to Labor Code Section 1725.5 (with limited exception from this requirement for bid purposes only under Labor Code Section 1771.1(a)). All registrations will be verified by the Engineer prior to contract award.

Bid Protests are to be delivered in accordance with Campbell Municipal Code Chapter 3.22 - Bid Protest Procedures to the following:

City of Campbell City Clerk
70 North First Street, Campbell, CA 95008-1423
CityClerksOffice@campbellca.gov
Tel: (408) 866-2117

Award of Contract

The award of the contract, if it be awarded, will be to the lowest responsible and responsive bidder whose bid complies with all the requirements prescribed and in accordance with Section 3.20.110 - Determination of Contractor Non-Responsibility of the Campbell Municipal Code and Section 3-1.01 "Award of Contract" of the General Provisions.

The contract shall be executed by the successful bidder in accordance with Section 3-1.02 "Execution of Contract" of the General Provisions. Failure to do so shall be just cause for forfeiture of the proposal guaranty. The executed contract documents shall be delivered to the following address: City of Campbell, Department of Public Works – 70 N. First Street, Campbell, CA 95008-1423.

Contractor License & Registration

For this project, the Prime Contractor shall possess a Class "A" General Engineering Contractor License; license and registration shall conform to Section 3-1.01D of the General Provisions and these Special Provisions. Failure to possess the specified license shall render the bid as non-responsive and shall act as a bar to award the Contract to any bidder not possessing said license at the time of bid and forfeiture of the bid will result.

The Contractor must be properly licensed as a Contractor from contract award through Contract acceptance (23 CFR 635.110).

Special attention is directed to Section 8-1.01 "Subcontracting" of the General Provisions.

SECTION 4 SCOPE OF WORK

Description of Work

The work to be performed, in general, consists of furnishing all labor, tools, equipment, transportation, and materials required to complete the Hamilton Avenue Rehabilitation and Complete Street Project No. 23-BB, Federal Project No. CPFL – 5306 (034). The scope of work generally includes, but is not limited to the following:

The scope of work generally includes, but is not limited to the following: PCC sidewalk, driveway, curb and gutter removal and replacement; tree trimming; root pruning; ADA compliant accessibility ramp and passageway installation; traffic signal modification; removal and replacement of traffic striping, markers, and pavement marking; lowering of existing utilities and other appurtenances; asphalt concrete milling; asphalt concrete digouts; slurry sealing; hot mix asphalt concrete street resurfacing; cold-in-place recycling (CIR), adjustment of inlet frame and grates, adjustment of utility and other appurtenances to finished grade; traffic control, public notification & outreach; utility coordination; Santa Clara Valley Transportation Authority (VTA) – Bus Route Coordination; and associated traffic control, which includes temporary signing and striping.

Additive alternate bid items of work include the lowering/raising utility company appurtenances to grade.

Locations of Work

The work that is to be performed on Hamilton Avenue from the western city limit line located approximately 640’ west of the centerline of the intersection with Phoenix Drive to the eastern city limit line located at the centerline of the intersection of Hurst Avenue within the City of Campbell.

A Location Map is found in Appendix A.

Changed Conditions

A. Differing Site Conditions

1. During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract, are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before the site is disturbed and before the affected work is performed.
2. Upon written notification, the engineer will investigate the conditions, and if it is determined that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the contract, an adjustment, excluding anticipated profits, will be made and the contract modified in writing accordingly. The engineer will notify the contractor of the determination whether or not an adjustment of the contract is warranted.
3. No contract adjustment which results in a benefit to the contractor will be allowed unless the contractor has provided the required written notice.
4. No contract adjustment will be allowed under this clause for any effects caused on unchanged work.

B. Suspensions of Work Ordered by the Engineer

1. If the performance of all or any portion of the work is suspended or delayed by the engineer in writing for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the contractor believes that additional compensation and/or contract time is due as a result of such suspension or delay, the contractor shall submit to the engineer in writing a request for adjustment within 7 calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.
2. Upon receipt, the engineer will evaluate the contractor's request. If the engineer agrees that the cost and/or time required for the performance of the contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the contractor, its suppliers, or subcontractors at any approved tier, and not caused by weather, the engineer will make an adjustment (excluding profit) and modify the contract in writing accordingly. The contractor will be notified of the engineer's determination whether or not an adjustment of the contract is warranted. No contract adjustment will be allowed unless the contractor has submitted the request for adjustment within the time prescribed.
3. No contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided or excluded under any other term or condition of this contract.

C. Significant Changes in the Character of Work

1. The engineer reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations shall not invalidate the contract nor release the surety,

and the contractor agrees to perform the work as altered.

2. If the alterations or changes in quantities significantly change the character of the work under the contract, whether such alterations or changes are in themselves significant changes to the character of the work or by affecting other work cause such other work to become significantly different in character, an adjustment, excluding anticipated profit, will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the contractor in such amount as the engineer may determine to be fair and equitable.
3. If the alterations or changes in quantities do not significantly change the character of the work to be performed under the contract, the altered work will be paid for as provided elsewhere in the contract.
4. The term "significant change" shall be construed to apply only to the following circumstances:
    - When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction; or
    - When a major item of work, as defined elsewhere in the contract, is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 125 percent of original contract item quantity, or in case of a decrease below 75 percent, to the actual amount of work performed.

SECTION 5 CONTROL OF WORK

Order of Work

Order of Work shall conform to the provisions in Section 5-1.06, "Order of Work" of the General Provisions and these Special Provisions.

Work in this contract shall be performed in accordance with the following order:

1. Traffic Signal Modifications
2. Concrete Improvements
3. Slurry Seal
4. Asphalt Concrete Work
5. Utility Adjustments to Final Grade
6. Traffic Signing & Striping

The Order of Work / Sequence of Work listed above is not a complete list of all operations. Contractor shall schedule and sequence other preparation, and incidental work necessary to carry out the Order of Work / Sequence of Work.

When bidding the project, the Contractor shall take into account the Order of Work / Sequence of Work as mentioned herein this section and shall incorporate this work into their unit costs for the project and their schedule. No additional compensation will be allowed for remobilization of labor and equipment needed to complete the work mentioned in this section.

The City understands that there are certain items of work (i.e. traffic signal modification work, concrete work, utility adjustments (lowering and to final grade) and final signing/striping installation) can be done concurrently as opposed to linear (as shown above). The Contractor should reflect those items of work within their proposed schedule.

At least fifteen (15) working days before any work is started, the Contractor shall furnish to the Engineer a written schedule for the work, listing the dates on which individual areas or blocks are to be subject to project related work and the extent of impact caused by the work. Additionally, Contractor shall submit any request for approval for special traffic consideration including but not limited to lane closures, street closures, applicable traffic detour plans for road closures, etc. Once approved, the Contractor shall henceforth adhere diligently to said written schedule in the execution of the work.

Project Appearance and Street Sweeping

Project Appearance and Street Sweeping shall conform to the provisions in Section 5-1.16 "Project Appearance" of the General Provisions and these Special Provisions.

Hamilton Avenue and side streets that abut or tie into Hamilton Avenue shall be swept daily and immediately following all cold planing/milling operations, grinding, sandblasting, rock-wheeling, grading, paving, street sealing, trucking operations and other construction activity that leaves dirt or debris in the roadway. The Contractor shall sweep the street with a power pick-up broom. The Contractor shall keep a power sweeper on the job at all times and it shall be used to keep the streets free of loose or tracked material from the Contractor's operations. Should the Contractor fail to perform these duties, the Engineer, at the Engineer's sole discretion, may elect to have the City or contract others to perform these duties, deducting the expenses incurred from any money due, or to become due to the Contractor. By exercising this option, the Contractor is in no way relieved of the responsibility to perform these duties.

Pre-Construction Conference

In accordance with Section 5-1.17 "Conferences" of the General Provisions, a pre-construction conference will be held shortly after the contract award. The Contractor's Project Manager and Superintendent shall attend the pre-construction conference. The Contractor is welcome to invite Project Foremen from their subcontracts to the conference. The City's Partners on this project (i.e. affected utility companies, Caltrans, County of Santa Clara, City of San Jose) and Labor Compliance Officer will be in attendance at the pre-construction meeting. The Contractor shall prepare in advance the Critical Path Method (CPM) schedule in accordance with Section 8-1.04 "Schedule" of the General Provisions for discussion at the pre-construction conference.

Material Submittal List

Per Section 5-1.20 "Submittals" of the General Provisions, the Contractor shall submit the following list of materials required of the Project. This list is in no way complete. The Contractor shall also provide all other required Submittals as noted in the Technical Provisions.

DESCRIPTION	REQUIRED SUBMITTAL			
	MIX DESIGN/ PRODUCT CUT-SHEETS	MANUFACTURER/ PRODUCER INSTALLATION INFORMATION	CERT. OF COMPLIANCE	PRODUCT SAMPLE
ASPHALT CONCRETE – TYPE F 3/4" MAX. MEDIUM	X		X	
SS-1H EMULSIFIED ASPHALT			X	
PAVING ASPHALT BINDER – PG 64-10			X	
TEMPORARY AC (CUTBACK, COLD-MIX, ETC.)	X		X	
TYPE II POLYMER MODIFIED SLURRY SEAL	X		X	X
AGGREGATE FOR SLURRY SEAL	X		X	X
PCC – CLASS A –SIX SACK MIX – 3000 PSI, 28-DAY	X		X	
PCC – HIGH EARLY MIX – 3500 PSI, 48-HOURS	X		X	
CLASS II AGGREGATE BASE	X		X	
CLASS III AGGREGATE BASE	X		X	
EPOXY	X		X	
REINFORCING STEEL	X		X	
2-SACK CEMENT SLURRY BACKFILL MATERIAL	X		X	
TRAFFIC PAINT AND GLASS BEADS		X	X	
WATERBORNE PAINT (RED & GREEN)		X	X	
REFLECTIVE PAINT (YELLOW & WHITE)		X	X	
THERMOPLASTIC MATERIAL		X	X	
PREMARK WITH VIZI-GRIP THERMOPLASTIC				
PAVEMENT MARKERS		X	X	
SURFACE MOUNTED CHANNELIZERS		X	X	
TYPE K-1 OBJECT MARKER		X	X	
WEED ABATEMENT HERBICIDE	X	X		
QUALIFIED APPLICATOR CERTIFICATION (QAC)			X	
TRUNCATED DOMES	X	X	X	
PULL BOXES		X	X	
AUDIBLE PEDESTRIAN SIGNAL (APS)		X	X	
APS POST STANDARD		X	X	
TYPE 1-B STANDARD		X	X	
TYPE 15TS STANDARD		X	X	
VEHICLE SIGNAL MOUNTING HARDWARE		X	X	
PEDESTRIAN SIGNAL MOUNTING HARDWARE		X	X	
LED LUMINAIRE		X	X	
DETECTOR HANDHOLE		X	X	

Contractor's attention is directed to Section 5-1.20B(1) "Additional Submittals" and the following required Submittals prior to the City's issuance of the Notice to Proceed:

7. List of Key Project Personnel (Resident Engineer, Project Manager, Foremen, Superintendent)
8. List of Emergency Contact Information for Key Personnel
9. Caltrans Encroachment Permit
10. Contractor's Quality Control Plan (including an authorized Laboratory), if applicable

Contractor shall refer to Section 5-1.20A "Material Submittal Format" of the General Provisions for instructions relative to submittals for the Project.

SECTION 6 CONTROL OF MATERIALS

Buy America

Buy America Requirements apply to steel and iron, manufactured products, and construction materials permanently incorporated into the project.

Steel and Iron Materials

All steel and iron materials must be melted and manufactured in the United States except:

1. Foreign pig iron and processed, pelletized, and reduced iron ore may be used in the domestic production of the steel and iron materials [60 Fed Reg 15478 (03/24/1995)];
2. If the total combined cost of the materials produced outside the United States does not exceed the greater of 0.1 percent of the total contract amount or $2,500, materials produced outside the United States may be used if authorized.

Furnish steel and iron materials to be incorporated into the work with certificates of compliance and certified mill test reports. Mill test reports must indicate where the steel and iron were melted and manufactured. All melting and manufacturing processes for these materials, including an application of a coating, must occur in the United States. Coating includes all processes that protect or enhance the value of the material to which the coating is applied.

Manufactured Products

Iron and steel used in precast concrete manufactured products must meet the requirements of the above section (Steel and Iron Materials) regardless of the amount used. Iron and steel used in other manufactured products must meet the requirements of the above section (Steel and Iron Materials) if the weight of steel and iron components constitute 90 percent or more of the total weight of the manufactured product.

Construction Materials

Buy America requirements apply to the following construction materials that are or consist primarily of:

1. Non-ferrous metals
2. Plastic and polymer-based products such as:
   2.1 Polyvinylchloride
   2.2 Composite Building Materials
3. Glass
4. Fiber optic cable (including drop cable)
5. Optical fiber
6. Lumber
7. Engineered wood
8. Drywall

All manufacturing processes for these materials as defined in 2 CFR 184.6 must occur in the United States.

Where one or more of these construction materials have been combined by a manufacturer with other materials through a manufacturing process, Buy America requirements do not apply unless otherwise specified.

Furnish construction materials to be incorporated into the work with certificates of compliance with each project delivery. Manufacturer's certificate of compliance must identify where the construction material was manufactured and attest specifically to Buy America compliance.

All manufacturing processes for these materials must occur in the United

States. Buy America requirements do not apply to the following:

1. Tools and construction equipment used in performing the work
2. Temporary work that is not incorporated into the finished project

Waivers

If Buy America waivers are granted, use the following language to include in the contract:

The following steel and iron products, manufactured products, or construction materials have received an approved Buy America waiver for this contract, and therefore, are not subject to Buy America requirements:

1. _____
2. _____

Quality Assurance Program

Campbell uses a Quality Assurance Program (QAP), a copy of which is found in Appendix M, to ensure a material is produced to comply with the Contract. Campbell may examine the records and reports of tests the prime contractor performs if they are available at the job site. Schedule work to allow time for QAP.

Materials Testing

Materials testing shall be done in accordance with the City of Campbell QAP, City of Campbell Standard Specifications (CCSS & General Provisions) dated July 1994 & March 2022, respectively, and in accordance with the Project Plans and Specifications. Attention is also directed to the latest State of California, Department of Transportation, Standard Specifications (SS), portions of which are incorporated into the CCSS and these Special Provisions by reference.

Attention is also directed to Section 6-3 "Testing" of the General Provisions, Section 37 "Bituminous Seals", Section 39 "Superpave Asphalt Concrete" found in Appendix N, Section 73 "Concrete Curbs and Sidewalk", and Section 90 "Portland Cement Concrete" of the CCSS, SJSS and SS. Contractor shall allow sufficient time for test to be conducted and results reviewed prior to continuing with the work, which may be affected by any test results.

Contractor Quality Control

The Contractor will be required to submit quality control (QC) test results to the City, upon request. QC shall be in compliance and shall conform to the requirements noted in the City of Campbell QAP in Appendix M and the latest SS unless otherwise noted herein these Special Provisions.

It will be required of the Contractor to submit a quality control plan upon request.

Contractor Quality Control for Asphalt Concrete Related Work (Sections 10-9 "Conform Grading", Section 10-10 "Asphalt Concrete Digouts with Fog Seal", 10-11 "Cold In Place Recycled Asphalt Concrete", and 10-15 "Asphalt Concrete Overlay")

The Contractor shall establish, maintain, and change quality control systems to ensure materials and work complies with these Special Provisions and as noted in Appendix N – City of San Jose's Standard Specification (SJSS) Section 39 Superpave Asphalt Concrete.

It will be required of the Contractor to submit a quality control plan for Section 10-9 "Conform Grading", Section 10-10 "Asphalt Concrete Digouts with Fog Seal", Section 10-10 "Cold in Place Recycled Asphalt Concrete", and Section 10-15 "Asphalt Concrete Overlay". The QC plans must comply with Section 39-2.01A(3)(c) Quality Control Plan as noted in Appendix N.

The Contractor and the Engineer must discuss the QC plan during the pre-paving conference.

The Contractor shall not produce HMA until the Engineer authorizes the QC plan.

The Contractor shall perform quality control testing as noted in Section 39-2.02A(4)(b)(ix) Hot Mix Asphalt Production and must comply with Section 39-2.01A(4)(h) Quality Control as noted in Appendix N.

Except for smoothness, if 2 consecutive quality control test results or any 3 QC test results for 1 day's production do not comply with the materials specifications:

1. Stop production
2. Notify the Engineer
3. Take corrective action
4. Demonstrate compliance with the specifications before resuming projection and placement.

Acceptance Criteria for HMA

The City accepts HMA based on Section 39-2.01A(4) Quality Assurance and the requirements noted in Section 39-2.01A(4)(i) Engineer Acceptance, found in Appendix N.

Except for smoothness, if 2 consecutive acceptance test results or any 3 acceptance test results for 1 day's production do not comply with the specifications:

1. Stop production.
2. Take corrective action.
3. Take samples and split each sample into 4 parts in the Engineer's presence. Test 1 part for compliance with the specifications and submit 3 parts to the Engineer. The City tests 1 part for compliance with the specifications and reserves and stores 2 parts.
4. Demonstrate compliance with the specifications before resuming production and placement.

The in-place density shall be between 92.0 percent and 97.0 percent of maximum theoretical unit weight using a nuclear gauge and/or as noted in Section 39-2.01A(4)(i)(ii) In-Place Density found in Appendix N.

Specific Brand Name Materials

To match other products/equipment currently in use and in accordance with Public Contracts Code Section 3400, no "equal" substitution will be considered by the City for the following materials, products, or services:

a. Telespar Unistrut Signpost
b. Detectable Warning Surface ADA-2 Pavers by Wausaw Tile
c. Green Cobra model GCM1-60J-MV-40K-3R-GY-125-PCR7-CR-WL-RWG by Leotek
d. Premark ViziGrip Skid/Slip Resistant Pre-Formed Thermoplastic.

The basis for this determination is that the specified materials, products, or services are necessary to match other products in use by the City on a particular public improvement.

Payment for compliance with Section 6 "CONTROL OF MATERIALS" shall be deemed included in the various

other items of work and no additional compensation shall be allowed, therefor.

SECTION 7 LEGAL RELATIONS AND RESPONSIBILITY

Insurance Requirements

As prescribed under Section 7-1.11B "Insurance Requirements" of the General Provisions, the Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees or subcontractors.

Unless otherwise specified herein these Special Provisions or authorized by the Public Works Director, the following shall be required.

Minimum Scope of Insurance

Coverage shall be at least as broad as:

1. Insurance Services Office Commercial General Liability coverage "occurrence" form CG 0001 (Ed. 11/85)

2. Insurance Services Office form number CA 001 (Ed. 1/87) covering Automobile Liability code 1 (any auto).

3. Workers' Compensation insurance as required by the Labor Code of the State of California and Employers Liability insurance.

Minimum Limits of Insurance

1. General Liability: $1,000,000.00 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.

2. Automobile Liability: $1,000,000.00 per accident for bodily injury and property damage.

3. Employer's Liability: $1,000,000.00 per accident for bodily injury or disease.

Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by the City. At the option of the City, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects to the City, its officers, officials, employees, and volunteers; or the Contractor shall provide a financial guarantee satisfactory to the City guaranteeing payment of losses and related investigations, claim administration and defense expenses.

Other Insurance Provisions

The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

1. Endorsements must name the Contractor, the City, City of San Jose, County of Santa Clara, VTA and Air District its respective directors, officers, officials, employees, volunteers, representatives,

successors-in-interest, agents, and Board of Supervisors individually and collectively as additional insureds.

2. The City, City of San Jose, County of Santa Clara, VTA, Air District its respective directors, officers, officials, employees, volunteers, representatives, successors-in-interest, agents, and Board of Supervisors are to be covered as insureds with respect to liability arising out of automobiles owned, leased, hired or borrowed by or on behalf of the Contractor; and with respect to the liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Contractor's insurance, or as a separate owner's policy.

3. For any claims related to this project, the Contractor's insurance coverage shall be primary insurance as respects the City, City of San Jose, County of Santa Clara, VTA, Air District its respective directors, officers, officials, employees, volunteers, representatives, successors-in-interest, agents, and Board of Supervisors. Any insurance or self-insurance maintained by the City of Campbell, its officers, officials, employees or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.

4. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be cancelled by either party, except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the City of Campbell.

5. The Contractor shall procure and maintain Course of Construction insurance for those projects with "Construction Risk" as defined by the City Engineer and as specifically required in these Special Provisions. Course of Construction policies, if required, shall name the City of Campbell as loss payee, and the insurer shall waive all rights of subrogation against the City.

Workers' Compensation and Employers Liability Coverage

The insurer shall agree to waive all rights of subrogation against the City, City of San Jose, County of Santa Clara, VTA, Air District its respective directors, officers, officials, employees, volunteers, representative, successors-in-interests, agents and Board of Supervisors for losses arising from work performed by the Contractor for the City of Campbell. As required by California law and employer's insurance policies, Worker's Compensation Insurance shall be with a limit not less than $1 million.

Acceptability of Insurers

Unless otherwise approved, insurance is to be issued by an issuer with a current A.M. Best Rating of A:VII and be authorized to transact business in the State of California.

Verification of Coverage

Contractor shall furnish the City with original certificates of insurance and amendatory endorsements effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the City before work commences. The City reserves the right to require complete certified copies of all required insurance policies, including endorsements effecting the coverage required by these specifications, at any time.

Permit number and address or project number and address shall be clearly stated on all insurance documents.

Subcontractors

Contractor shall include all subcontractors as insured under its policies or shall furnish separate certificates and endorsements for each subcontractor. Endorsements for each subcontractor must name the Contractor,

the City, City of San Jose, County of Santa Clara, VTA, Air District its respective directors, officers, officials, employees, volunteers, representative, successors-in-interest, agents and Board of Supervisors, individually and collectively as additional insured. All coverages for subcontractors shall be subject to all of the requirements stated herein.

Federal (Davis Bacon) Wage Rates and California State Prevailing Wage Rates

This project is federally funded. Therefore, the Contractor and subcontractors shall pay its workers in each classification the Federal (Davis Bacon) Wage Rates. However, if the California State Prevailing Wage Rate is higher than the Federal (Davis Bacon) Wage Rate for a particular classification, the Contractor and subcontractors shall pay the higher wage between the two rates.

Attention is directed to Section 7-1.01A (3) "Prevailing Wage" of the General Provisions. Specifically, Contractor shall comply with and ensure that all Subcontractors comply with Federal and State wage laws (including but not limited to the California Labor Code), regulations, and determinations published by the Department of Industrial Relations (DIR) for the State of California – as indicated on the following website: https://www.dir.ca.gov/OPRL/DPreWageDetermination.htm/. The Federal (Davis Bacon) Wage Rate are as indicated on the following website: Davis-Bacon Wage Determinations | U.S. Department of Labor .

If the published wage rate does not refer to a predetermined wage rate to be paid after the expiration date, said published rate of wage shall be in effect for the life of this contract. If the published wage rate refers to a predetermined wage rate to become effective upon expiration of the published wage rate and the predetermined wage rate is on file with the Department of Industrial Relations, such predetermined wage rate shall become effective on the date following the expiration date and shall apply to this contract in the same manner as if it had been published in said publication. If the predetermined wage rate refers to one or more additional expiration dates with additional predetermined wage rates, which expiration dates occur during the life of the contract, each successive predetermined wage rate shall apply to this contract on the date following the expiration date of the previous wage rate. If the last of such predetermined wage rate expires during the life of this contract, such wage rate shall apply to the balance of the contract.

Copies of the applicable California Prevailing Wage Rates and Federal (Davis Bacon) Wage Rates for this project can be found in the Contract.

Payroll Records

The following paragraph is hereby added to Section 7-1.01A(4) "Payroll Records," of the General Provisions.

Electronic certified payroll records shall be submitted weekly to the City's Compliance Officer or their designee for the life of the project.

Female and Minority Goals

To comply with Section II, "Nondiscrimination," of "Required Contract Provisions Federal-Aid Construction Contracts," the following are for female and minority utilization goals for Federal-aid construction contracts and subcontracts that exceed $10,000:

The nationwide goal for female utilization is 6.9 percent.

The goals for minority utilization (45 Fed Reg 65984 (10/3/1980)) are as follows:

MINORITY UTILIZATION GOALS

Economic Area		Goal (Percent)
174	Redding CA: Non-SMSA (Standard Metropolitan Statistical Area) Counties: CA Lassen; CA Modoc; CA Plumas; CA Shasta; CA Siskiyou; CA Tehama	6.8
175	Eureka, CA Non-SMSA Counties: CA Del Norte; CA Humboldt; CA Trinity	6.6
176	San Francisco-Oakland-San Jose, CA: SMSA Counties: 7120 Salinas-Seaside-Monterey, CA CA Monterey 7360 San Francisco-Oakland CA Alameda; CA Contra Costa; CA Marin; CA San Francisco; CA San Mateo 7400 San Jose, CA CA Santa Clara, CA 7485 Santa Cruz, CA CA Santa Cruz 7500 Santa Rosa CA Sonoma 8720 Vallejo-Fairfield-Napa, CA CA Napa; CA Solano Non-SMSA Counties: CA Lake; CA Mendocino; CA San Benito	 28.9 25.6 19.6 14.9 9.1 17.1 23.2
177	Sacramento, CA: SMSA Counties: 6920 Sacramento, CA CA Placer; CA Sacramento; CA Yolo Non-SMSA Counties CA Butte; CA Colusa; CA El Dorado; CA Glenn; CA Nevada; CA Sierra; CA Sutter; CA Yuba	 16.1 14.3
178	Stockton-Modesto, CA: SMSA Counties: 5170 Modesto, CA CA Stanislaus 8120 Stockton, CA CA San Joaquin Non-SMSA Counties CA Alpine; CA Amador; CA Calaveras; CA Mariposa; CA Merced; CA Tuolumne	 12.3 24.3 19.8
179	Fresno-Bakersfield, CA SMSA Counties: 0680 Bakersfield, CA CA Kern 2840 Fresno, CA CA Fresno Non-SMSA Counties: CA Kings; CA Madera; CA Tulare	 19.1 26.1 23.6

180	Los Angeles, CA: SMSA Counties: 0360 Anaheim-Santa Ana-Garden Grove, CA CA Orange 4480 Los Angeles-Long Beach, CA CA Los Angeles 6000 Oxnard-Simi Valley-Ventura, CA CA Ventura 6780 Riverside-San Bernardino-Ontario, CA CA Riverside; CA San Bernardino 7480 Santa Barbara-Santa Maria-Lompoc, CA CA Santa Barbara Non-SMSA Counties CA Inyo; CA Mono; CA San Luis Obispo	 11.9 28.3 21.5 19.0 19.7 24.6
181	San Diego, CA: SMSA Counties 7320 San Diego, CA CA San Diego Non-SMSA Counties CA Imperial	 16.9 18.2

For the last full week of July during which work is performed under the contract, the prime contractor and each non material-supplier subcontractor with a subcontract of $10,000 or more must complete Form FHWA PR-1391 (Appendix C to 23 CFR 230). Submit the forms by August 15.

Title VI Assurances

During the performance of this Agreement, the contractor, for itself, its assignees and successors in interest (hereinafter collectively referred to as CONTRACTOR) agrees as follows:

a. Compliance with Regulations: CONTRACTOR shall comply with the regulations relative to nondiscrimination in federally assisted programs of the Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the REGULATIONS), which are herein incorporated by reference and made a part of this agreement.

b. Nondiscrimination: CONTRACTOR, with regard to the work performed by it during the AGREEMENT, shall not discriminate on the grounds of race, color, sex, national origin, religion, age, or disability in the selection and retention of sub-applicants, including procurements of materials and leases of equipment. CONTRACTOR shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the agreement covers a program set forth in Appendix B of the Regulations.

c. Solicitations for Sub-agreements, Including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by CONTRACTOR for work to be performed under a Sub- agreement, including procurements of materials or leases of equipment, each potential sub-applicant or supplier shall be notified by CONTRACTOR of the CONTRACTOR'S obligations under this Agreement and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.

d. Information and Reports: CONTRACTOR shall provide all information and reports required by

the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the recipient or FHWA to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of CONTRACTOR is in the exclusive possession of another who fails or refuses to furnish this information, CONTRACTOR shall so certify to the recipient or FHWA as appropriate, and shall set forth what efforts CONTRACTOR has made to obtain the information.

e. Sanctions for Noncompliance: In the event of CONTRACTOR's noncompliance with the nondiscrimination provisions of this agreement, the recipient shall impose such agreement sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:

    i. withholding of payments to CONTRACTOR under the Agreement within a reasonable period of time, not to exceed 90 days; and/or

    ii. cancellation, termination or suspension of the Agreement, in whole or in part.

f. Incorporation of Provisions: CONTRACTOR shall include the provisions of paragraphs (1) through (6) in every sub-agreement, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto.

CONTRACTOR shall take such action with respect to any sub-agreement or procurement as the recipient or FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance, provided, however, that, in the event CONTRACTOR becomes involved in, or is threatened with, litigation with a sub-applicant or supplier as a result of such direction, CONTRACTOR may request the recipient enter into such litigation to protect the interests of the State, and, in addition, CONTRACTOR may request the United States to enter into such litigation to protect the interests of the United States.

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities, including, but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), prohibits discrimination on the basis of sex;
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CR

Part 27;

- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 U.S.C. § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination of the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low- Income Populations, which ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

Federal Trainee Program

For the Federal training program, the number of trainees or apprentices is 3; 1 Trainee for the work category "Electrical" and 2-Trainees for the work category "Portland Cement Concrete".

This section applies if a number of trainees or apprentices is shown on the Notice Inviting Bids.

As part of the prime contractor's equal opportunity affirmative action program, provide on-the-job training to develop full journeymen in the types of trades or job classifications involved.

The prime contractor has primary responsibility for meeting this training requirement.

If the prime contractor subcontracts a contract part, they shall determine how many trainees or apprentices are to be trained by the subcontractor. Include these training requirements in each subcontract.

Where feasible, 25 percent of apprentices or trainees in each occupation must be in their 1st year of apprenticeship or training.

Distribute the number of apprentices or trainees among the work classifications on the basis of the prime contractor's needs and the availability of journeymen in the various classifications within a reasonable recruitment area.

Before starting work, the prime contractor shall submit to the City of Campbell :

1. Number of apprentices or trainees to be trained for each classification
2. Training program to be used
3. Training starting date for each classification

The prime contractor shall obtain the City of Campbell's approval for this submitted information before the prime contractor starts work. The City of Campbell credits the prime contractor for each apprentice or trainee the prime contractor employs on the job who is currently enrolled or becomes enrolled in an approved program.

The primary objective of this section is to train and upgrade minorities and women toward journeyman status. The prime contractor shall make every effort to enroll minority and women apprentices or trainees, such as conducting systematic and direct recruitment through public and private sources likely to yield minority and women apprentices or trainees, to the extent they are available within a reasonable recruitment area and show that they have made the efforts. In making these efforts, the prime contractor shall not discriminate against any applicant for training.

The prime contractor shall not employ as an apprentice or trainee an employee:

1. In any classification in which the employee has successfully completed a training course leading to journeyman status or in which the employee has been employed as a journeyman
2. Who is not registered in a program approved by the US Department of Labor, Bureau of Apprenticeship and Training

The prime contractor shall ask the employee if the employee has successfully completed a training course leading to journeyman status or has been employed as a journeyman. The prime contractor's records must show the employee's answers to the questions.

In the training program, the prime contractor shall establish the minimum length and training type for each classification. The City of Campbell and FHWA approves a program if one of the following is met:

1. It is calculated to:
   - Meet the equal employment opportunity responsibilities
   - Qualify the average apprentice or trainee for journeyman status in the

classification involved by the end of the training period

2. It is registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, and it is administered in a way consistent with the equal employment responsibilities of Federal-aid highway construction contracts

The prime contractor shall obtain the State's approval for their training program before they start work involving the classification covered by the program.

The prime contractor shall provide training in the construction crafts, not in clerk-typist or secretarial-type positions. Training is allowed in lower-level management positions such as office engineers, estimators, and timekeepers if the training is oriented toward construction applications. Training is allowed in the laborer classification if significant and meaningful training is provided and approved by the division office. Off-site training is allowed if the training is an integral part of an approved training program and does not make up a significant part of the overall training.

The City of Campbell reimburses the prime contractor 80 cents per hour of training given an employee on this contract under an approved training program:

1. For on-site training
2. For off-site training if the apprentice or trainee is currently employed on a Federal-aid project and prime contractor does at least one of the following:
   a. Contribute to the cost of the training
   b. Provide the instruction to the apprentice or trainee
   c. Pay the apprentice's or trainee's wages during the off-site training period
3. If the prime contractor complies with this section.

Each apprentice or trainee must:

1. Begin training on the project as soon as feasible after the start of work involving the apprentice's or trainee's skill
2. Remain on the project as long as training opportunities exist in the apprentice's or trainee's work classification or until the apprentice or trainee has completed the training program

Furnish the apprentice or trainee a:

1. Copy of the training plan approved by the U.S, Department of Labor or a training plan for trainees approved by both Caltrans and FHWA
2. Certification showing the type and length of training satisfactorily completed

Maintain records and submit reports documenting contractor’s performance under this section.

Prohibition of Certain Telecommunications and Video Surveillance Equipment and Services

In response to significant national security concerns, the City shall check the prohibited vendor list before making any telecommunications and video surveillance purchase because recipients

and subrecipients of federal funds are prohibited from obligating or expending loan or grant funds to:

- Procure or obtain;
- Extend or renew a contract to procure or obtain; or
- Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system.

The prohibited vendors (and their subsidiaries or affiliates) are:

- Huawei Technologies Company;
- ZTE Corporation;
- Hytera Communications Corporation;
- Hangzhou Hikvision Digital Technology Company;
- Dahua Technology Company; and
- Subsidiaries or affiliates of the above-mentioned companies.

In implementing the prohibition, the City shall prioritize available funding and technical support to assist affected businesses, institutions and organizations as is reasonably necessary for those affected entities to transition from covered communications equipment and services, to procure replacement equipment and services, and to ensure that communications service to users and customers is sustained.

The contractors should furnish telecommunications and video surveillance equipment with a certificate of compliance. The certificate must state telecommunications and video surveillance equipment was not procured or obtained from manufacturers identified in the above list.

SECTION 8 PROSECUTION AND PROGRESS

Hours of Work

Hours of Work shall conform to the provisions in Section 8-1.06 “Time of Completion” of the General Provisions and these Special Provisions.

Unless otherwise approved in writing by the Engineer, the hours of work for this project are from 8:00 AM to 4:30 PM, Monday through Friday. Night work between the hours of 9:00 PM and 6:00 AM may be considered upon approval in writing by the Engineer for street resurfacing work ONLY.

The work hours will be strictly enforced. The Engineer has full authority to implement the working hours and completely shut down the construction operations outside the hours of work specified. Should the provisions of this section not be met, liquidated damages of Five Hundred Dollars ($500.00) for every 60-minute time period (or portion thereof) beyond the hours of work allowable shall be withheld from moneys due to the Contractor.

Beginning of Work

The Contractor shall begin work within 10 calendar days after the issuance of the Notice to Proceed per Section 8-1.03 “Commencement of Work” of the General Provisions.

Time of Completion

Attention is directed to Section 8-1.06 “Time of Completion” of the General Provisions and these Special Provisions.

The Contractor shall diligently prosecute the work to completion before the expiration of **180 WORKING DAYS** after the date of the first working day. The time of completion shall include all allowances for mobilization and total completion of all work including final punch list work and final clean up. Working days shall be as shown on the Construction Workday Calendar contained in Appendix C.

Liquidated Damages

Liquidated damages shall conform to the provisions in Section 8-1.07 “Liquidated Damages” of the General Provisions and these Special Provisions.

Time is of the essence for completion of this project. The Contractor shall pay to the City of Campbell the sum of Nine-Thousand Five Hundred Dollars and Zero cents ($9,500.00) per day for each and every calendar day delay until the Work is completed including punch list items. Liquidated damages shall also be assessed for non-compliance with the requirements stated in "Hours of Work" and Section 10-2, "Traffic Control and Public Safety” of these Special Provisions.

Contract Sum

The “Contract Sum” shall be the price indicated in Contractor’s signed proposal and as agreed upon by the Contractor and City in the Contract.

SECTION 9 MEASUREMENT, PAYMENT, AND CLAIMS

Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in compliance with the General Provisions and these Special Provisions Sections 1 – 9, shall be deemed included in the price paid for other contract items and no additional compensation shall be allowed therefor.

Prompt Payment

A. FROM THE CITY TO THE CONTRACTORS

The City shall make all project progress payment within 30 days after receipt of an undisputed and properly submitted payment request from the Contractor on a construction contract. If the City fails to pay promptly, the City shall pay interest to the Contractor, which accrues at the rate of 10 percent per annum on the principal amount of a money judgment remaining unsatisfied and pro-rated as necessary. Upon receipt of the payment request, the City shall act in accordance with both of the following:

1. The City shall review each payment request as soon as feasible after receiving

receipt to verify it is a proper payment request.

2. The City must return any payment request deemed improper by the City to the Contractor as soon as feasible, but not later than seven (7) days after receipt. A request returned pursuant to this paragraph shall include documentation setting forth in writing the reasons why it is an improper payment request.

B. SUBMITTAL OF EXHIBIT 9-P

For projects awarded on or after September 1, 2023:

The Contractor must submit Exhibit 9-P to the City by the 15th of the month following the month of any payment(s). If the Contractor does not make any payments to subcontractors, supplier(s) and/or manufacturers they must report “no payments were made to subs this month” and write this visibly and legibly on Exhibit 9-P.

The City must verify all Exhibit 9-P information, monitor compliance with prompt payment requirements for DBE and non-DBE firms, and address any shortfall to the DBE commitment and prompt payment issues until the end of the project. The City must email a copy of Exhibit 9-P to DBE.Forms@dot.ca.gov before the end of the month after receiving the Exhibit 9-P from the Contractor.

TECHNICAL PROVISIONS

SECTION 10-1 GENERAL CONSTRUCTION REQUIREMENTS

Mobilization

Mobilization shall not be separately paid for but shall be considered as included in the payments for other items of work. This shall include full compensation for furnishing all labor and materials, including tools, equipment and incidentals, and for performing all of the work involved in placing, removing, storing, maintaining, moving to new locations, replacing and disposing of equipment and materials as specified in the CCSS, General Provisions, SJSS, SJSD, SS, SSP, these Special Provisions, and as directed by the Engineer.

Progress Schedule/Record Drawings

Attention is directed to Section 8-1.04, "Schedules," and Section 5-1.05A, "Project Plan and Record Drawings," of the General Provisions.

Contractor shall submit updated progress schedules and record drawings to the Engineer as a condition of approval for the monthly progress payments and final progress payment, respectively.

Cooperation

Attention is directed to Section 5-1.21C "Nonhighway Facilities", Section 5-1.21C(1) "Nonhighway Facility Rearrangement", Section 7-1.13, "Cooperation," and 8-1.09, "Utilities and Other Facilities" of the General Provisions.

It is the Contractor's responsibility to coordinate the removal, relocation, raising to grade, installation of new facilities, or any other utility work as shown on the plans or indicated in the specifications with the appropriate utility company. The Contractor shall provide advance notification and shall allow sufficient time and workspace for the utility company to complete the work necessary. No additional compensation will be given for the coordination of work; additional days may be granted for the coordination of utility work upon written request of the Contractor.

Obstruction

Attention is directed to Section 8-1.09 "Utilities and Other Facilities" of the General Provisions and Section 15 "Existing Facilities" of the SJSS and SS and these Special Provisions. The City shall not be responsible for any impact to the Contractor from restrictions that may be caused by the work of other agencies, or the requirements thereof.

If during the construction of the project, the Contractor encounters a conflict with an existing utility facility shown or not shown on the plans, the Contractor may be granted additional working days to complete the project, however, no additional compensation shall be granted.

In the event that PG&E, AT&T, Comcast, Verizon, San Jose Water Company, West Valley Sanitation District or other utility facilities are encountered, the Contractor shall contact the respective utility company and coordinate to have these structures removed, relocated, and/or adjusted as necessary by the respective utility company unless specifically noted otherwise.

The Contractor is required to cooperate with forces engaged in utility work and shall schedule and conduct their own work in such a manner as to avoid any unnecessary delay or hinderances to the work of the utility companies.

24-Hour Contact Number

The Contractor shall assign a project superintendent who has the complete authority to make decisions on behalf of the Contractor. The project superintendent shall be on the job at all times during construction and shall be available and on call 24-hours a day for the duration of the project. The Contractor shall provide to the Engineer and to the Campbell Police Department a 24-hour contact number for the project superintendent. This number shall not direct calls to a recorder or other message taking service.

Advance Public Notification

Two weeks prior to beginning any work in an area, the Contractor shall deliver written notice to all adjoining residents and businesses, tenants and other applicable parties listed below and all other properties where their only ingress/egress is through the project's work area. Notices shall also be given to residents/property owners/tenants/business owners as indicated by the map found in Appendix A for Advance Notification Limits. This notice shall provide information regarding who they are, what they will be doing, where they will be doing their work, when they will be starting work, and why they are working on this project.

Additionally, the Contractor shall install for every day for two weeks prior to the beginning of work, programmable changeable message board signs (12 total) to alert the road users of the upcoming construction on Hamilton Avenue. Refer to Section 10-2 "Traffic Control and Public Safety", "Additional Construction Area Signs" for more details. Once construction starts, the signs may be relocated on the project as specified in the project specifications.

The Contractor shall also provide and deliver a follow-up Notice 72-hours (3-days) prior to any construction activity in an area as well as specific activities, which will in any way, inconvenience the resident/property owner/tenant or affect their operations or access to their properties. This includes notification to adjacent property owners prior to concrete improvement work, tree trimming, digout operation, cold-in-place recycling (CIR) operation, , paving operation, and slurry seal operation. The Notices shall include the expected date for start of construction, a general description of the construction activity that is to take place, expected duration of the construction activity, how this construction activity will affect them, and the name, address, and contact numbers of the Contractor's Superintendent and the City of Campbell Public Works Department. The Contractor shall provide accurate information regarding the construction schedule and activities to take place. The Contractor shall make every effort to coordinate work with individual residents and businesses whose access will be disrupted in order to minimize the disruption and impacts on the resident or business.

Copies of all notices shall be provided to the Engineer for approval a minimum of five working days prior to the desired distribution date. Samples of the various notices can be found in Appendix A.

Should the Contractor's schedule change and/or differ in any capacity from the schedule initially mentioned in the notices or from the dates listed on the City's Project Webpage, the Contractor shall re-notify all applicable parties five (5) working days prior to the beginning of any work.

The Contractor shall contact and coordinate their work with the following Agencies throughout the course of the project. The two-week & 72-Hr. notices shall be given to the following parties:

Santa Clara Valley Transportation Agency (VTA) – Michael Catangay – (408) 321-7072
West Valley Collection and Recycling, LLC. – Paul Nelson – (408) 283-8500
U.S. Postal Service, Aries Padilla – Postmaster – (408) 378-0226
City of Campbell Police Department – (408) 866-2121
Santa Clara County Fire Department – (408) 378-4010
AT&T – Laura Wendover – (408) 635-8835
Cable-Com (Comcast Construction Group) – Tanya Roth – (408) 309-9678
Comcast – Karl Lorenz – (415) 859-0539
PG&E – Alan Wong – (408) 725-2219
San Jose Water Company (SJWC) – Roger De Hoyos, Jr – (408) 918-8236
West Valley Sanitation District (WVSD) – Alan Kam – (408) 378-2407

The Contractor shall also give a written notice to the resident/business for any driveway closures or anticipated service disruptions. The Contractor shall coordinate all disruptions with the appropriate utility, property owner, resident, business and the City. Notice shall be given in advance and specify the duration of the disruption of any utility, and the temporary closure of access to any driveway. Such notice will comply with the requirements for closure of driveway access as specified under Special Provision Section 10-2 “Traffic Control and Public Safety.”

Lack of proper advance notification and coordination shall result in the work being shut down. All costs associated with the stoppage of work shall be borne by the Contractor.

VTA Bus Stop Obstructions

When bus stops are scheduled to be obstructed on Hamilton Avenue by the Contractor’s construction work, the Contractor shall inform and coordinate with VTA for bus stop removals and/or relocations prior to the actual obstruction taking place. The Contractor shall contact the following:

- Michael Catangay, Transit Service Development Supervisor at michael.catangay@vta.org and
- Bus.Stop@vta.org

The Contractor shall provide advance notification and shall allow sufficient time to complete the necessary temporary bus stop relocation work as required by VTA.

The Contractor is responsible for coordinating with VTA bus stop relocations and for adhering to the conditions set forth by their meeting with VTA.

Permits

In compliance with Section 7-1.04, Permits and Licenses of the General Provisions, the Contractor shall be responsible for securing a copy of City acquired permits from agencies, for securing permits applied for by the City that have not been issued, and for securing any additional permits required for the project prior to starting work at the locations requiring a permit. Contractor shall comply with all permits and permit requirements. Contractor shall pay all costs, fees, or charges required to comply with the conditions outlined in the permits unless otherwise

specifically identified otherwise in these Special Provisions. Contractor shall coordinate with all agencies and perform work in compliance with all permits.

Any permits for Contractor's work not explicitly identified in this section shall be obtained by and paid for by Contractor at its own expense.

The following permits are required to be issued by the respective agency prior to the start of construction at each location:

a) County of Santa Clara Roads and Airports Encroachment Permit for work occurring within the County's jurisdiction at the intersection of Hamilton Avenue and San Tomas Expressway.

b) City of San Jose Encroachment Permit for work occurring with San Jose's jurisdiction along westbound Hamilton Avenue between S. Bascom Avenue to Greylands Drive.

c) Caltrans Encroachment Permit for work occurring within Caltrans' jurisdiction along Hamilton Avenue between Highway 17 and Creekside Way. The Contractor shall refer to Appendix O for the Caltrans encroachment permit conditions and requirements. The Contractor shall adhere to the conditions and requirements of said permit. Before any field work starts, the Contractor must submit:

    1. TR-049 "Encroachment Permit Applicant: Contractor(s) Authorization Form".

    2. Project specific Traffic Control Plans (TCP), stamped and signed by a California Licensed Professional Engineer. After the TCP has been reviewed and approved by Caltrans, a rider will be issued with closure hours.

Contractor shall make allowance for time and resources necessary to meet all permit conditions. If compliance with the provisions specified herein cause a delay, the remedy shall be an extension of contract time, at the discretion of the Engineer, and no additional compensation shall be allowed. The Contractor shall not be entitled to any adjustment in the Contract Sum due to delays due to permits. In seeking an extension of time, the Contractor shall demonstrate delay to the critical path to the satisfaction of the Engineer.

Weekly Field Meetings

The Contractor shall also schedule and conduct weekly field meetings at locations to be determined by the City. The meetings shall be held at the same time and place each week and shall include all subcontractors working on the project or scheduled to work on the project during the week of the meeting. The Contractor shall notify the Engineer of the time, date, and location of these meetings 72-hours in advance of the first meeting. Detailed schedules for the following two weeks shall be submitted to the Engineer at each weekly meeting.

Waste Haulers and Recycling Operations

The Contractor shall not impair or impede waste hauler and recycling operations scheduled to be conducted within the project area. It is the Contractor's responsibility to determine which waste hauler and recycling operators are scheduled to operate within the project area, and to develop a project schedule that will not impair or impede the waste hauler or recycling operations.

Protection and Restoration of Existing Improvements

The Contractor shall be responsible for the protection of all property adjacent to the work and shall exercise due caution to avoid damage to such property.

The Contractor shall repair or replace all existing improvements within the park which are not designated for removal, but that are damaged or removed as a result of its operations. Repairs and replacements shall be at least equal to existing improvements and shall match them in finish and dimension.

Right of Way

The Contractor shall operate within public right-of-way only.

Tree Trimming

If existing trees or shrubs, including median island planting and private trees, encroach into the public right-of-way beyond the vertical extension of the face of curb or the nearest vertical surface which are deemed an obstacle to the Contractor's operation, the Contractor shall trim the trees or shrubs at least five (5) working days prior to the date of the scheduled resurfacing. Tree branches extending over the roadway within 15 feet of the finished grade shall be cut off close to the trunk by a reputable arborist or tree surgeon under the direction of an International Society of Arboriculture Certified Arborist.

All tree trimming must have prior approval of the Engineer and shall be performed by a Contractor possessing a C-27 or a D-49 license. Tree trimming shall be done in the presence of and under the direction of the City's Arborist who will ensure overall counterbalance, stability and aesthetic beauty of the tree is maintained. Tree trimming work will adhere to the American National Standards Institute (ANSI) A-300 and International Society of Arboriculture (ISA) Best Management Practices for Tree Pruning and Trimming.

Tree trimming shall be scheduled to avoid the nesting season to the extent feasible (February 1st to August 31st). If tree trimming must fall with the nesting season window, preconstruction nesting bird surveys shall be completed by a qualified biologist prior to tree trimming no more than 7 days prior to construction activity. Surveys must include the project site, staging area, and areas within 500 feet surrounding the project site. If nesting bird activity is observed, the biologist in consultation with the California Department of Fish and Wildlife (CDFW) will determine an adequate buffer zone and other minimization measures to ensure the nest will not be disturbed by trimming.

A special notice pertaining to the tree trimming shall be delivered to the adjacent home or business at least 72-hours before the tree is trimmed. The notice shall be reviewed and approved by the Engineer before being delivered.

Obstruction Removal

In the event that there are landscaping obstructions such as ivy, lawn, juniper branches, shrubs, grass, or other encroaching vegetation, hardscape, gravel, pavers, ornamental garden figurines and/or boulders, the Contractor shall trim, prune, remove or relocate such obstruction only to the extent necessary to conduct the installation of improvements in the public right-of-way. Contractor shall prune plants under ANSI A 300 part 1, Pruning published by the Tree Care Industry Association.

Landscaping or other improvements outside the limits of work shall be protected by the Contractor and shall be replaced in kind and in accordance to Section 5-1.21E "Landscape" of the General

Provisions if the Contractor's operations damage the existing improvements. If the Contractor fails to comply in providing the necessary replacement as defined, the Engineer may elect to have the City or contract forces perform all these duties deducting all the expenses incurred from any moneys that are due, or to become due, to the Contractor. By exercising this option, the Contractor is in no way relieved of the responsibilities to perform these duties.

Dust Control/Erosion/Drainage Control

Provide temporary dust, erosion and drainage control measures during construction. Follow best management practices as recommended by Santa Clara County Non-Point Source Pollution Control Board. The Contractor shall conform to the City's ordinance and Best Management Practices (BMP for the Construction Industry preventing contamination of the City's Storm Drain System. A copy of the Ordinance is included in Appendix E. A copy of the BMP's is included with the Project Plans.

Upon failure of the Contractor to remove the dust nuisance within two (2) hours after notification by the Engineer, the City may order that such work be done by others and all costs therefor shall be deducted from monies owed or to be owed to the Contractor. Contractor shall not be relieved of responsibility to perform the dust nuisance work.

Time and Noise Limitations

Noise generated by construction activity shall not exceed 86 dBA max. at 50 feet from the job site.

Contractor shall comply with Campbell Municipal Code Section 18.04.052 "Hours of Construction – Time and Noise Limitations".

Sanitation

The Contractor shall provide for sanitary facilities for the use of the workers on the job. All sanitation facilities shall be placed and maintained by the Contractor so as not to be aesthetically displeasing, annoying to the neighbors, nor offensive to the senses nor the community standards of decency. The Engineer shall be the sole judge of the adequacy of the facility, the placement, and the maintenance thereof. Upon notification by the Engineer of deficiencies in any of these areas, the Contractor shall make immediate corrections. Failure to take corrective action within 24 hours shall give the Engineer due cause to stop the work in the contract and to order the corrective work to be done on the sanitary facility and to charge all costs of such work against the monies due or to become due to the Contractor.

Water Pollution Control

Water pollution control work shall conform to the provisions in Section 7-1.01F, "Water Pollution," of the General Provisions, and these Special Provisions.

A Storm Water Information Handout has been prepared for this contract and is available as described in Appendix E of these Special Provisions.

Before starting work on the project, the Contractor shall prepare and submit for approval by the Engineer, a program to control water pollution effectively during the construction of the project. The Contractor's program to control water pollution shall conform to the requirements in the "Water Pollution Control Program (WPCP) Preparation Manual" and its addenda in effect on the

day the Notice to Contractors is dated. This manual is referred to as the "Preparation Manual." Copies of the Preparation Manual may be obtained from:

State of California
Department of Transportation
Publication Distribution Unit
1900 Royal Oaks Drive
Sacramento, California 95815
Telephone: (916) 445-3520

The Preparation Manual and other references for performing water pollution control work are available from the Department's Construction Storm Water and Water Pollution Control web site at: https://dot.ca.gov/programs/construction/storm-water-and-water-pollution-control

The approved water pollution control program shall be implemented and maintained by the Contractor for the duration of the project.

Digging Trenches or Other Excavations

In accordance with Section 7104 of the Public Contract Code, any public works contract of a local public entity which involves digging trenches or other excavations that extend deeper than four feet below the surface shall contain a clause which provides the following:

(a) That the contractor shall promptly, and before the following conditions are disturbed, notify the local public entity, in writing, of any:

(1) Material that the contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.

(2) Subsurface or latent physical conditions at the site differing from those indicated by information about the site made available to bidders prior to the deadline for submitting bids.

(3) Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the contract.

(b) That the local public entity shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the contractor's cost of, or the time required for, performance of any part of the work shall issue a change order under the procedures described in the contract.

(c) That, in the event that a dispute arises between the local public entity and the contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the contractor's cost of, or time required for, performance of any part of the work, the contractor shall not be excused from any scheduled completion date provided for by the contract, but shall proceed with all work to be performed under the contract. The contractor shall retain any and all rights provided either by contract or by law which pertain to the resolution of disputes and protests between the contracting parties.

Utility Investigation and Potholing

Contractor shall pothole all utilities required to do their work. The Contractor is to determine exact location and depth of all necessary existing utilities prior to the start of contract work. Contractor shall derive a pothole plan showing the proposed pothole locations for the review and acceptance by the City. The project drawings may not show all existing utilities within the limit of work area. The Contractor may be required by the City to perform additional potholing to verify existing utilities not shown on the Project Plans.

A complete log of all potholes shall be kept by the Contractor, showing specific locations and dimensions of trenches including the top and bottom of utility depths, width, and type of utility encountered. The log shall be verified by the Engineer prior to backfilling of the potholes. Potholes shall be restored in kind to existing condition or better and to the satisfaction of the Engineer.

The Contractor will bear full responsibility for all damages and costs of repairs to existing utilities. Should any such utility be damaged during construction all expenses for the restoration of the utility to its original service will be borne by the Contractor, and no additional compensation will be made.

Haul Routes

The Contractor and all subcontractors shall use Highway 280, Highway 17, Camden Avenue/San Tomas Expressway, Winchester Boulevard, Bascom Avenue or W. Campbell Avenue only. No access will be allowed through other streets, especially through downtown Campbell. A fine of $200 per vehicle shall be imposed on the Contractor for using restricted roads.

Federal Trainee Program

It has been determined for this project that a Federal Trainee Program is required and that 3 trainees/apprentices shall be employed by the Contractor to work on this project under the work category for Electrical (1) and Portland Cement Concrete (2). The Contractor shall refer to Section 7, “Legal Relations and Responsibility” of these Special Provisions for more information and requirements regarding the Federal Trainee Program.

Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in compliance with the Plans, Specifications and Special Provision Section 10-1 “General Construction Requirements”, with the exception of “Tree Trimming”, “Obstruction Removal”, “Permits”, “Water Pollution Control” and “Federal Trainee Program” shall be deemed included in the price paid for other contract items and no additional compensation shall be allowed therefore.

The exception to the above paragraph shall be in the compensating the Contractor for the following:

1. Permits (Caltrans, City of San Jose, County of Santa Clara) – Because the full extent of this work is undocumented, the furnishing of all labor, materials, tools, equipment and incidentals, and for doing all of the work involved with pulling the encroachment permits and adhering to the conditions and requirements of each permit as described in this Section shall be included and paid for under a $35,000 lump sum bid allowance for:

ENCROACHMENT PERMITS (CALTRANS, CITY OF SAN JOSE, COUNTY OF SANTA CLARA) (ALLOWANCE) BID ITEM #1

The dollar value of this bid item has been filled in on the bid schedule as $35,000 and all bidders shall use this amount in preparing their bids. The actual cost of this work will be tracked and the difference between the actual cost and the allowance will be either added or deducted by change order.

2. Federal Trainee Program – Full compensation for furnishing all labor, materials, tools, equipment and incidentals for the Contractor to provide and implement a program to employee trainees/apprentices in compliance with the Plans, Specifications and Special Provisions of Sections 10-1 “General Construction Requirements” and shall be deemed included in the lump sum price paid for:

FEDERAL TRAINEE PROGRAM (LS) BID ITEM #2

3. Water Pollution Control – Full compensation for preparing a water pollution control plan and for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in preparing, implanting and maintaining the approved water pollution control plan in compliance with the Plans Specifications and Special Provision Section 10-1 “General Construction Requirements”, subsection entitled “Water Pollution Control” and shall be deemed included in the lump sum price paid for:

WATER POLLUTION CONTROL (LS) BID ITEM #3

NOT USED BID ITEM #4

4. Tree Trimming / Obstruction Removal – Because the full extent of this work is undocumented, the furnishing of all labor, materials, tools, equipment and incidentals, and for doing all work involved in tree trimming and obstruction removal, including but not limited to traffic control and the off-haul and disposal as described in this Section shall be included and paid for under a $50,000 lump sum bid allowance for:

TREE TRIMMING AND OBSTRUCTION REMOVAL ALLOWANCE (ALLOW) BID ITEM #5

The dollar value of this bid item has been filled in on the bid schedule as $50,000 and all bidders shall use this amount in preparing their bids. The actual cost of this work will be tracked and the difference between the actual cost and the allowance will be either added or deducted by change order.

SECTION 10-2 TRAFFIC CONTROL AND PUBLIC SAFETY

General Requirements

Traffic control shall conform to the provisions of Section 12 "Construction Area Traffic Control Devices" of the CCSS, the most recent California Manual on Uniform Traffic Control Devices (CA MUTCD) and these Special Provisions. Nothing in these Special Provisions shall be construed as relieving the Contractor from the responsibilities specified in Section 7-1.08, “Public Safety” of the General Provisions.

The Contractor shall maintain a safe workplace throughout the job including, but not limited to, providing all flaggers, safety equipment, flashing arrow boards, changeable message signs, traffic control devices; maintenance of barricades, safe pedestrian passages along sidewalks, maintenance of handicap access throughout the project site where applicable and maintenance of pavement within the limits of the roadway and driveways with a suitable traffic bearing surface.

The Contractor shall provide and maintain all necessary traffic control devices to ensure safe pedestrian and vehicular access through and around the job site. Warning signs shall be installed at locations in accordance with the most recent CA MUTCD for Streets and Highways – Part 6: Temporary Traffic Control". Contractor shall fulfill the requirements of this section, 24 hours per day, seven days a week, including holidays, from the time the Notice to Proceed is issued until the project is formally accepted.

Should the Contractor fail to perform these duties, the Engineer, at the Engineer's sole discretion, may elect to have City, or contract forces, perform the duties, deducting the expenses incurred from any moneys that are due, or to become due, to the Contractor. By exercising this option, the Contractor is in no way relieved of the responsibility to perform these duties.

The Contractor shall provide a minimum of two competent and qualified flaggers dedicated solely to directing traffic if traffic lanes have been reduced to only one lane for two-way traffic, in and out of driveways and cross-streets and/or across the construction area as deemed to ensure safe traffic control during construction operations. Flaggers shall be equipped with all necessary tools to properly control the traffic.

Traffic Control / Management Plan

A traffic control plan specific for this project shall be prepared and submitted by the Contractor to the Engineer a minimum of fifteen (15) working days prior to any work commencing on the project. Do not commence work until the traffic control plan has been reviewed and accepted by the Engineer. All traffic control and pedestrian control plans shall be prepared in accordance with the most recent State of California Department of Transportation "California Manual on Uniform Traffic Control Devices (CA MUTCD) for Streets and Highways – Part 6: Temporary Traffic Control", Section 12 "Construction Area Traffic Control Devices" of the CCSS, SJSS, SS, and these Special Provisions. The traffic and pedestrian control plans shall address all the specific pedestrian and handicap access requirements of these Special Provisions.

Updated or additional traffic control plans may be required as the project progresses. Traffic control plans must be submitted fifteen (15) working days in advance of any proposed lane closure for review and approval by the Engineer. No lane closure may occur without the Engineer's written approval.

Contractor shall refer to Section 10-15 "Asphalt Concrete Overlay" of these Special Provisions for Pre-Paving Conference requirements.

A separate traffic control/management plan shall be required for any pavement drop-off between adjacent lanes. Asphalt overlay pavement that will be opened to traffic shall be separated from adjacent lanes by installing temporary traffic delineators with reflective sleeves or fluorescent traffic cones. Contractor shall continuously maintain these delineators. The temporary traffic delineators shall conform to Section 12 "Construction Area Traffic Control Devices" of the SJSS. The fluorescent traffic cones or portable delineators shall be placed on a 1-1/2 foot width of the lane open to traffic along the side adjacent to the overlaid pavement section. Warning shall be installed at locations in accordance with the most recent State of California Department of

Transportation “California Manual on Uniform Traffic Control Devices for Streets and Highways – Part 6: Temporary Traffic Control”. Should the Contractor fail to perform the requirements of the traffic control/management plan for pavement drop-off between adjacent lanes, the Engineer may elect to have the City or contract forces perform these requirements, deducting the expenses incurred from any moneys that are due, or to become due, to the Contractor. By exercising this option, the Contractor is in no way relieved of the responsibility to perform these requirements.

No Stopping Signs

It shall be the Contractor's responsibility to post "No Stopping" signs in areas where the Contractor's work will require restricted parking. The City will provide signs for the Contractor's use. To be enforceable, the Contractor shall comply with the provisions in Section 6-1.03A “No Stopping Signs” of the General Provisions.

Detours, Temporary Striping, and Barriers

Any approved detours or barriers, signing and striping necessary to complete the construction of the project shall be provided, installed, maintained, and removed by the Contractor at his expense. Temporary striping shall conform to Section 10-16 Temporary Pavement Delineation of these Special Provisions. No painted temporary striping or markings will be allowed unless the temporary markings will be entirely covered by the permanent markings.

Notify the City of Campbell Police Department daily at (408) 866-2121 of street or lane closures or detours within the roadway prior to setting up and upon removal of traffic control devices.

Additional Construction Area Signs and Controls

In addition to the requirements of the Manual of Traffic Controls for Maintenance and Construction Work Zones, the following traffic controls will be required:

- 14-Calendar Days (two-weeks) prior to the Contractor commencing work on the project, the Contractor shall install and maintain for the duration of the two-weeks 12 changeable message board signs at the limits of work on: Hamilton Avenue (2); San Tomas Expressway (2); Winchester Boulevard (2); Highway 17 (2); Bascom Avenue (2); and Leigh Avenue (2). The changeable message board sign shall read at a minimum the following: “HAMILTON CONSTRUCTION (DATE) TO (DATE) EXPECT DELAYS”. The Contractor shall consult with the Engineer on the exact language for the changeable message board signs and confirm the locations prior to posting. Once construction starts and depending on where the Contractor starts work, the changeable message board signs may be relocated on the project where appropriate and as specified in these Special Provisions.

- 14-Calendar Days (two-weeks) prior to and for the duration of street resurfacing work, the Contractor shall install and maintain changeable message board signs at the limits of work on Hamilton Avenue including but not limited to major cross street intersections, County Expressways and State Freeways as required by the traffic control plan and/or encroachment permits. The changeable message board sign shall read at a minimum the following: “HAMILTON PAVING (DATE) TO (DATE) EXPECT DELAYS”. The Contractor shall consult with the Engineer on the exact language for the changeable message board signs and confirm the locations prior to posting.

- “Road Construction Ahead” (type C-18) – Expect Delays” signs shall be posted in advance of the first major cross street before the start of the work zone to allow traffic to avoid the

work zone prior to entering the zone. The signs shall also be posted at the approaches to the project site.

- "End Construction" (type C-13) signs shall be placed at all public road exits from the project site.

- After the application of the slurry seal, "Fresh Oil" (W21-2) signs shall be placed at the limits of work.

- 12 (EA) - "HIGHWAY CONSTRUCTION YEAR OF COMPLETION: 2026" (C48A (CA)) signs to include the following City provided logos: City of Campbell Logo, 2016 Measure B logo, VTA Vehicle Registration Fees logo, and Bay Area Air District logo. Sign size shall be 48"x30".

- 12 (EA) – Project Information Signs that read as follows:

HAMILTON AVE REHABILITATION
AND COMPLETE STREET (23-BB)
Under Construction
_____ 202_ to _____ 202_
Expect Traffic Delays
For More Information Call:
City of Campbell (408) 866-2150

Engineer shall approve final sign before fabrication. Lettering shall be a minimum of four inches (4") tall and shall be black lettering on an orange background. Both lettering and background shall be made of engineering grade reflective sheeting. Metal sign panel shall be 0.080" thick. The signs shall be placed at locations directed by the Engineer. Dates shall be updated immediately should they change.

- The Contractor shall provide, install and maintain a minimum of four (4) lighted barricades for each individual construction site for concrete improvements (i.e. for curb/gutter, sidewalk, driveway removal & replacement and for accessibility ramp installation).

Signs and posts shall be maintained throughout the Construction of the project. The Contractor shall be responsible for locating existing poles on which to mount these signs, or shall provide temporary stands, barricades or poles on which to place the required signs. The Engineer shall approve the method of attachment to existing poles prior to sign installation. No sign shall be mounted on decorative street light poles unless the Contractor can clearly show that the mounting method will not damage the finish on the poles. All signs shall be prefabricated commercial grade. Contractor shall remove all signs and posts upon completion of the project, and the area is to be returned to its pre-construction condition. Signs and posts shall be removed and disposed of outside the public right of way in conformance with the provisions in Section 7-1.12 "Disposal of Material Outside the Project Limits" of the General Provisions.

Maintenance of Pedestrian Access and Circulation

Safe pedestrian access and circulation that is fully wheelchair accessible shall be maintained by the Contractor through or around the project area. All walkways, pedestrian crossings, ramps and other pedestrian facilities removed or blocked by the Contractor's operations shall be

replaced with temporary facilities including proper signage unless otherwise approved by the Engineer. Contractor shall refer to State Standard Plans T30, T31 and T32 found in Appendix A.

Pedestrian access at each individual project site may be diverted for a maximum of five (5) calendar days. Drop off from existing improvements to excavated areas shall be temporarily ramped. Ramps shall be maintained at 12:1 or flatter with accessible surfacing material until final improvements are installed.

Driveway Closures

Access to all properties must be maintained at all times, except for necessary closure of driveways for installation or replacement and for necessary intermittent closures of driveways for grinding and paving operations.

Driveway closures for the purpose of constructing concrete driveway aprons and conforms shall be limited to a single three calendar-day period for each driveway. During driveway closure, Contractor shall provide affected residents with on street parking immediately adjacent to their property.

Prior to the closure of any driveway, the Contractor shall notify the property owner, business, resident or tenant of such closures as follows: written closure notices shall be given to the property owner, business, resident or tenant two weeks in advance of scheduled work, written closure notice shall again be given to the property owner, business, resident or tenant two days prior to any scheduled work, and a third final verbal notice and confirmation of the driveway closure dates shall be given to the property owner, business, resident or tenant one working hour prior to the scheduled closure.

The Contractor shall work with the businesses in advance of the scheduled driveway closure work to accommodate any special needs of that adjacent business owner/tenant. The Contractor shall exercise all reasonable care and make every effort to ensure access to the property as specified herein.

Lane Closures

Requests for lane closures shall be made fifteen (15) working days prior to the proposed closure. Once the lane closure has been approved by the City, the Contractor shall post a minimum of 5-working days in advance of the proposed lane closure changeable message board signs at the limits of each closure. These changeable message board signs shall also be used on the day of the actual closure. The changeable message board signs shall indicate the days & hours of the proposed lane closure and the type of work being done during that lane closure.

Flashing arrow signs shall be used for all lane closures.

The Contractor shall leave the streets open to traffic until just prior to starting the work, and will provide all barricades, signs and traffic control measures necessary to protect the work.

No work that interferes with public traffic shall be performed prior to 8:00 AM or after 4:30 PM, except as otherwise approved by the Engineer. All streets and traffic lanes shall be open to traffic between the hours of 4:30 PM and 8:00 AM.

The Contractor shall pay the City liquidated damages in the amount of $500 per hour (or part of an hour) for traffic control that is set-up before the designated and approved hours of work.

Liquidated damages for failure to open streets by the required time shall be $500.00 per hour or part thereof.

A minimum of one paved, or surfaced traffic lanes and one paved bicycle lane, not less than fifteen (15) feet wide (10 foot wide for the traveled vehicle lane and 5 feet wide for the bicycle lane), shall be open for use by public traffic in each direction of travel. Traffic may not be routed over unpaved roadways unless authorized by the Engineer.

In addition, the full width of the traveled way on Hamilton Avenue shall be open for public use by the end of each workday. .

Deviations from the requirements of this section concerning hours of work, which do not change the cost of the work, may be permitted upon the written request of the Contractor, if in the opinion of the Engineer, the general public will be better served and the work expedited. Such deviations shall not be implemented until the Engineer has provided the Contractor with written approval to do so. All other modifications will be made by contract change order.

Traffic Control System for Lane Closure

Traffic control system for lane closures shall be in accordance with State Standard Plans T9, T10, T10A, T11, T11A, and T14 found in Appendix A, the provisions of Section 12, “Temporary Traffic Control Devices” of the SS, and these Special Provisions.

The provisions in this section will not relieve the Contractor from the responsibility to provide additional devices or take measures as may be necessary to comply with the provisions of Section 7-1.08, “Public Safety” of the General Provisions.

Each vehicle used to place, maintain and remove components of a traffic control system on multilane roads shall be equipped with a Type II flashing arrow sign which shall be in operation when the vehicle is being used for placing, maintaining, or removing the components. Vehicles equipped with a Type II flashing arrow sign not involved in placing, maintaining, or removing the components when operated within a stationary type lane closure shall only display the caution display mode. The sign shall be controllable by the operator of the vehicle while the vehicle is in motion.

If any component of the traffic control system is displaced, or ceases to operate or function as specified from any cause, during the progress of the work, the Contractor shall immediately repair the component to its original condition or replace the component, and shall restore the component to its original location.

When lane closures are made for work periods only, at the end of each work period, all components of the traffic control system, except portable delineators placed along open trenches or excavations adjacent to the traveled way, shall be removed from the traveled way and shoulder. If the Contractor so elects, the components may be stored at selected central locations, approved by the Engineer.

Temporary Pavement Delineation

Temporary pavement delineation shall comply with Section 10-16 “Temporary Pavement Delineations” of these Special Provisions, Section 84 “Traffic Stripes and Pavement Markings” of the CCSS, Section 12-3 Temporary Traffic Control Devices” of the SS, and the most recent California MUTCD.

Property Access Requirements

The Contractor shall maintain property access to all businesses and public facilities at all times unless otherwise approved by the Engineer. Upon approval by the Engineer, access to certain properties may be temporarily closed if all of the following conditions can be met:

a. No options exist to maintain property access and complete the project.

b. Contractor has discussed the closure with the business owner in person.

c. Business owners have been notified, in writing, at least eight (8) calendar days in advance of the time and length of closure.

d. Businesses owners have been reminded of the closure, in writing, at least two (2) working days prior to the actual closure.

e. Contractor has provided business with a contractor name and number to call with questions regarding the closure.

Measurement and Payment

Full compensation for preparing traffic control plans, temporary pavement delineation plans, providing and maintaining all required construction and detour signs, traffic control signs, barricades, delineators, flaggers, and for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all of the work involved in complying with adjacent agency's permitting requirements, the Plans, Specifications and Special Provisions Section 10-2 "Traffic Control and Public Safety" shall be included and paid for in the lump sum price for:

TRAFFIC CONTROL AND PUBLIC SAFETY (LS) BID ITEM #6

The basis for payment for Bid Item #1: Traffic Control and Public Safety will be based on the percentage of job completed in each progress payment.

SECTION 10-3 EXISTING FACILITIES

General

Existing Facilities shall conform to Section 15, "Existing Facilities" of the SJSS and CCSS, the plans and specifications, and these Special Provisions.

In the event that a shallow utility is discovered during construction, the Contractor shall coordinate their efforts and schedule with the utility company's work per Section 10-1 "General Construction Requirements" subsection entitled "Cooperation" and "Obstruction".

Protect Existing Facilities To Remain

The Contractor shall work around and protect all existing improvements to remain, including but not limited to existing utilities, monumentation, benchmarks, storm drainage facilities, utility vaults, traffic detector loops, home runs and handholes, concrete and asphalt concrete pavement, pavement markings, landscaping, irrigation facilities, and appurtenances that are within or adjacent to the construction areas.

The Contractor shall notify Underground Service Alert (USA) prior to beginning any work. Notification shall be in full compliance with USA. At the conclusion of the project, the Contractor

must remove all USA markings from all paved and concrete surfaces throughout the job site without damaging said surfaces. Method of removing the USA markings is at the Contractor's discretion.

The location of utilities shown on the plans are approximate only and were taken from plans provided by owners of the utilities. The Contractor, prior to beginning any work on or adjacent to the utility, shall verify the exact horizontal and vertical location and size of all utilities. The Contractor is warned that utilities may exist that are not show on the plans. The Contractor shall protect existing facilities to stay in place, including existing electroliers, when placing construction signs.

The Contractor shall install and secure plywood platform over existing and new manholes to keep dirt and debris out of the storm drain and sanitary sewer lines, as indicated on the CSJ Standard Detail "D-16", "Cover Plates for Manhole Channels," and Section 1207-20 "Pipeline Structures" of the SJSS.

The Contractor shall immediately repair or remove and replace any item damaged or injured by his operations at his sole expense and to the satisfaction of the Engineer. The Contractor shall immediately notify the appropriate owner of the improvement or facility and the Engineer of any damage as a result of his operations to existing improvements or facilities. If the improvement belongs to a private residence and the property owner or occupant is not at home, such notification shall be attached to the front door of the property. All underground facilities that are damaged by the Contractor during construction shall be restored by the Contractor within two (2) hours after the damage is done.

All existing improvements, including but not limited to, irrigation systems, brick work, stonework, fences, mailboxes, turf and landscaping, on public right-of-way which are obstacles to forming operations may be removed as necessary for this type of work. The Contractor shall notify the adjacent property owner and the Engineer prior to removal of any existing improvements. After removing the forms, all the existing improvements shall be restored to their original or better condition at no additional cost to the City. If the Contractor fails to comply in providing the necessary restoration work as defined, the Engineer may elect to have the City or other contract forces perform all these duties, deducting all the expenses incurred from any moneys that are due, or to become due, to the Contractor. By exercising this option, the Contractor is in no way relieved of the responsibilities to perform these duties.

Immediately preceding the slurry seal operation, the contractor shall cover all grates, slotted manholes and other appurtenances on and adjacent to the pavement that would allow entry of the sealing materials. Mask with roofing paper or other approved material, all closed manhole covers, water and gas valve box covers, monuments, monument boxes, meter boxes, etc. These locations shall be marked out to the satisfaction of the Engineer. As soon as the seal sets, drainage inlets shall be uncovered and cleaned. All other surface utilities shall be uncovered within five working days after completion of the seal at each location. All utility covers shall be cleaned of rubberized chip and slurry seal material when uncovered.

Reset Existing Inlet/Catch Basin Hood, Frame and Grate

Inlet/catch basin hood, frame and grate that are to be reset in the curb and gutter are as noted on the Project Plans.

The Contractor shall remove and protect the existing inlet/catch basin, hood, frame and grate during the demolition of the sidewalk, curb and gutter work for the installation of the accessibility

ramp or replacement of the curb and gutter. Contractor shall do any necessary tree root pruning/removal in order to set the hood back in the concrete for permanent installation. Installation of the hood shall be in accordance with the Construction Details found on the Project Plans. Contractor shall use and reset existing hood. If the existing hood is damaged and cannot be used, the Engineer shall be immediately notified.

Location of Existing Facilities

Even though the utility appurtenances are noted on the Project Plans, it shall be the Contractor's responsibility to tie out all existing utility appurtenance located within the area to be cold planed / milled / paved including but not limited to all manholes, utility vaults, pull boxes, traffic signal boxes, monument boxes, valve boxes, and all other miscellaneous boxes and facilities prior to commencement of the cold planing / milling / paving operations. Additionally, a copy of the ties shall be submitted to the Engineer on paper or PDF document for approval at least ten (10) working days prior to the planned commencement of said cold planing / milling / paving operations. All utility tie-outs shall be geographically mapped on an aerial photograph/map identifying the utility and location in the field for the Engineer to check. The Engineer shall then check the tie sheets for number of facilities and general locations. It is the Contractor's responsibility to establish and maintain accurate ties on all existing facilities in order to facilitate the re-location for adjusting these facilities to grade.

Upon completion of the paving operations, prior to the raising of the facilities, the Contractor shall paint out the location of all facilities as shown on the tie-sheets for review by the Engineer.

Adjust Facilities to Grade

The adjustment of utility appurtenances such as storm drain manholes, monuments, detector handholes, traffic signal boxes, sanitary sewer manholes, , water valve boxes, air valve boxes, AT&T manholes and valve boxes, and PG&E valve boxes include the lowering and protecting of said facilities and then adjusting them to finished grade. The location of these adjustments are as noted on the Project Plans.

If the corresponding Additive Alternate Bid Items for the Adjustment of West Valley Sanitation District sanitary sewer manhole frame and covers, San Jose Water Company water valve frame and covers, AT&T manhole and valves box frame and covers, and PG&E valve box frame and covers are awarded, then the Contractor shall adjust these facilities to grade.

If the corresponding Additive Alternate Bid Items to adjust West Valley Sanitation District, San Jose Water Company, AT&T and PG&E utility appurtenances to grade are not awarded, then the Contractor shall contact the appropriate utility company and request that the utility company lower their facilities prior to the commencement of the Contractor's cold planing / milling operation. The Contractor shall incorporate this utility work in their overall schedule. The Contractor will be granted additional days to coordinate their work with the utility company and no additional compensation will be granted, therefore.

In addition to these Special Provisions, the Contractor shall adhere to the Construction Details found on the Project Plans .

Frames and covers shall be inventoried, tagged, and referenced to their exact location in the field, then removed, protected, transported, and stored without damage. Any items damaged shall be replaced at the Contractor's expense. Pre-existing damage must be brought to the Engineer's

attention prior to commencement of work. It shall be the Contractor's responsibility to notify and coordinate with the appropriate utility company all matters involving their facilities.

All utility appurtenances, monuments, storm drain manholes, traffic signal boxes, detector handholes, etc. shall be lowered prior to the commencement of the cold plane / milling operation.

All facilities shall then be adjusted to grade within 14 working days after the final resurfacing has been placed on Hamilton Avenue. The covers shall be raised by excavating the frame and cover in a neat concentric circle with a diameter not greater than necessary to loosen and adjust the frame with the cover and the concrete collar.

Class A concrete mix (564 pounds cement per cubic yard concrete) shall be used to fill the void to an elevation 1" to 1.5" below finish grade, as detailed in the Construction Details found in the Project Plans. At the direction of the Engineer, the Contractor shall use quick set concrete for all collars. After three (3) days of concrete set, a tack coat of undiluted SS-1H asphalt emulsion shall be applied to all concrete and vertical surfaces. The asphalt concrete surface course to be applied shall be Type F ½" maximum-medium gradation, compacted to a minimum of 95 percent. Paving asphalt shall be PG 64-10. Any facilities that are adjusted to grade, but are not to the satisfaction of the Engineer, shall be removed and re-adjusted within four (4) working days of being notified to do so by the Engineer. All required asphalt, tack coat and concrete required for raising facilities to grade shall be paid for under this contract item.

The existing frames and covers for all other facilities shall be re-used whenever possible. Any required casing extensions, new frames, or new covers for all other facilities not mentioned above shall be obtained by the Contractor form the utility companies involved. Any frames or covers that cannot be reused shall first be offered to the appropriate utility company, and if refused shall become the property of the Contractor.

Contractor shall clean all AC debris and tack oil from covers caused by the Contractor's operation.

Pull Boxes

Pull boxes that are impacted by the installation of an accessibility ramp are as shown on the Project Plans and can be found in the Concrete Improvement Schedule found in Project Plans.

Pull boxes are to be relocated to outside the accessible ramp area whenever possible. The pull boxes that are designated to remain within the ramp wing or landing area shall be adjusted to match the finished grade. All pull boxes shall be replaced in kind with new pull boxes (matching the existing size).

Pull boxes shall conform to Section 86-2.06, "Pull Boxes", of the SJSS, Section 86-2.06B, "Cover Markings," of the CCSS, and E-03 and E-04 of the SJSD. Pull boxes shall have lids marked "CAMPBELL TRAFFIC SIGNAL", "CAMPBELL STREET LIGHTING", "CAMPBELL INTERCONNECT", "CAMPBELL TELEPHONE", "CAMPBELL SERVICE" or "CAMPBELL IRRIGATION" per the type of facilities located in the associated conduits.

Pull box adjustments that located within the Traffic Signal Modification Intersections as noted on the Project Plans and as specified herein Section 10-19 "Traffic Signal Modifications" of these Special Provisions shall be paid for under the lump sum price paid for Traffic Signal Modifications for those respective intersections. All other pull box adjustments or relocations shall be paid for under Bid Item 11 and 12 respectively.

Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all of the work including but not limited to the necessary traffic control involved in compliance with the Plans, Specifications and Special Provisions of Section 10-3, "Existing Facilities", shall be included in the appropriate per each (EA) price paid for:

ADJUST STORM DRAIN MANHOLES FRAME AND COVER TO GRADE (EA)	**BID ITEM #7**
RESET EXISTING INLET/CATCH BASIN HOOD, FRAME AND GRATE (EA)	**BID ITEM #8**
ADJUST CITY DETECTOR HANDHOLE TO GRADE (EA)	**BID ITEM #9**
ADJUST TRAFFIC RATED STORM DRAIN JUNCTION / TRAFFIC SIGNAL PULL BOX TO GRADE (EA)	**BID ITEM #10**
ADJUST TRAFFIC SIGNAL/STREET LIGHT/SERVICE PULL BOXES TO GRADE (EA)	**BID ITEM #11**
RELOCATE ELECTRICAL PULL BOXES TO OUTSIDE RAMP AREA (EA)	**BID ITEM #12**
ADJUST SJWC WATER – VALVE BOX FRAME AND COVER TO GRADE (EA)	**ADD ALTERNATE #A1**
ADJUST SJWC – TRAFFIC RATED AIR VALVE PULL BOX TO GRADE (EA)	**ADD ALTERNATE #A2**
ADJUST WVSD MANHOLE FRAME AND COVER TO GRADE (EA)	**ADD ALTERNATE #B1**
ADJUST ATT MANHOLE FRAME AND COVER TO GRADE (EA)	**ADD ALTERNATE #C1**
ADJUST ATT VALVE BOX FRAME AND COVER TO GRADE (EA)	**ADD ALTERNATE #C2**
ADJUST PGE GAS VALVE BOX FRAME AND COVER TO GRADE (EA)	**ADD ALTERNATE #D1**

SECTION 10-4 MONUMENTS AND BENCHMARKS

General

The work described herein this section shall be performed under the direction of a licensed land surveyor.

Survey monuments shall conform to the provisions of Section 81, "Monuments," and Section 1301-1.4, "Survey Monuments and Points," of the SJSS, the Construction Details found on the

Project Plans and these Special Provisions. Approved frame and cover shall be marked "Monument", shall be non-rocking, and shall be designed for H-20 traffic loading. Locations for adjusting monuments and resetting benchmarks are as noted on the Project Plans.

Survey Monument Preservation

It is the responsibility of the Contractor to save and protect any existing survey monuments which are not identified for adjustment on the Project Plans.

Refer to Section 10-3, "Existing Facilities," regarding the Contractor's responsibility to tie-out existing appurtenances location in the roadway prior to cold planing/milling/overlay operations.

In the event that disturbance or destruction of any survey monument is imminent, regardless of whether adjustment is indicated on the Project Plans, the Contractor shall make arrangements to have their survey team set reference points to the survey monument such that it can be reset in its original position and shall notify the Engineer. If the survey monument is disturbed or destroyed without reference points having been set or if the specified notice has not been given to the Engineer, the Contractor will be required to re-establish the original position of the survey monument and the associated land surveying costs will be borne at the Contractor's sole expense.

Monument Box – Lowering and Adjustment to Grade

Where milling operations are being performed but do not threaten the monument, the Contractor may lower or remove the monument box when possible, protect the monument during construction operations, and then raise the monument box to grade. Work shall be the same as utility work under Section 10-3 "Existing Facilities".

The Contractor shall not disturb any existing monuments that are to remain.

Existing monument boxes and covers shall be reused at the sole discretion of the Engineer.

Locations where monument boxes & covers contain an existing iron pipe that has been exposed by pitting the surface of the street or the existing box is damaged. The Contractor shall carefully expand the area of the street excavation to expose the existing iron pipe or monument to a depth and width sufficient to install a new monument box. Care shall be taken to preserve and to not disturb the iron pipe/monument from its original position. If disrupted, the Contractor will be required to hire a Land Surveyor at his own expense to re-establish the monument.

Payment for this item will be measured by each monument that is adjusted to grade, and that includes the lowering of the box & lid prior to the cold planing/milling operation, and then the adjusting it to grade upon completion of the final surfacing.

Benchmarks

This work includes the relocation and resetting of existing benchmarks. The benchmark shall be relocated under the direction of a Licensed Land Surveyor. Resetting the benchmark shall consist of setting a new benchmark medallion on the new finished grade of the new concrete curb. The licensed land surveyor shall file the necessary documents (corner record) with the County Surveyor prior to final progress payment. Copies of all documents (upon filing with the County and upon approval by the County) shall be submitted to the Engineer as a condition of payment. The Contractor shall abide by all requirements of the County and obtain and pay for all permits and filing fees.

The Contractor shall not disturb any benchmarks not indicated for resetting on the Concrete Improvement Schedule without first procuring written permission from the Engineer. The Contractor shall bear all expenses associated with trying out, resetting, and re-documenting any benchmarks which are shown on the Concrete Improvement Schedule for resetting and any during the course of construction that may be disturbed or damaged. The City will provide the benchmark for the Contractor's use. Contractor shall coordinate with the Engineer the pick-up of the benchmarks.

Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all of the work including but not limited to the necessary traffic control involved in compliance with the plans, specifications and Special Provision Section 10-4, "Monuments and Benchmarks" shall be included in the per each (EA) price paid for:

ADJUST CITY MONUMENT TO GRADE (EA)	**BID ITEM #13**
RESET BENCHMARKERS / FILE CORNER RECORD W/ COUNTY (EA)	**BID ITEM #14**

SECTION 10-5 CONCRETE IMPROVEMENTS

General

The work described herein this section shall comply with Section 15-3, "Removing Concrete" of the SJSS, Section 73, "Concrete Curbs and Sidewalks," of the CCSS, Section 90 "Portland Cement Concrete" of the SJSS, and these Special Provisions. New improvements shall be constructed in accordance to the Concrete Improvements found on the plans.

The work includes, but is not limited to the following: PCC and AC sawcutting; the removal and disposal of existing concrete and base material for sidewalk, curb and gutter, driveway approach, the removal of roots, dirt and other unsuitable material, and the removal of AC pavement and base material; the installation and furnishing of class 2 – ¾" max. aggregate base (per the respective Details found in the Project Plans); grading, which include the backfilling of any voids; compacting; the installation of dowels; installation and finishing of concrete sidewalk, curb and gutter, traffic spot islands, median islands, and driveway improvements (per the respective Details found in the Project Plans); and the installation of the various accessibility ramps, which include the installation of adjacent monolithic curb & gutter, necessary retaining curbs, and other replacement of PCC improvements including but not limited to the sidewalk, curb and gutter, rolled curb and gutter transitions, etc., abutting the new accessibility ramps leading to the next deep joint and/or score mark or as shown in the Construction Details. The pavement restoration adjacent to the new concrete improvements (such as traffic spot islands, curb & gutter, driveway approach and accessibility ramps), includes the installation of the sand/cement slurry backfill. This pavement restoration shall be done in accordance with Section 10-8 "Pavement Restoration Adjacent to Concrete Improvements" of these Special Provisions and with the Details found in the Project Plans and shall be paid for under the associated Bid Item .

Sidewalk, curb & gutter, driveway approach, and accessible ramp removal and replacement locations are as noted on the Project Plans. These locations shall only be sawcut at existing deep

joint and/or score marks unless otherwise noted on the Project Plans or specified and marked in the field by the Engineer.

Sidewalk, curb & gutter, and driveway approach removal and replacement shall be marked in the field by the Engineer and shall be confirmed by the Contractor prior to its removal and replacement.

Layout for the accessibility ramps shall be marked in the field by the Contractor and shall be reviewed by the Engineer 5 working days prior to its removal and replacement. Approval of the layouts by the Engineer does not relieve the Contractor from his/her responsibility to comply with all ADA regulations.

At all locations where existing concrete or asphalt concrete pavement will be removed and replaced, the concrete or asphalt concrete pavement shall be sawcut to the full depth of the existing improvement.

Sawcutting shall be done in such a manner that spalling and/or cracking of the existing concrete or asphalt concrete pavement, which is to remain in place, is avoided. All damaged existing concrete or asphalt concrete pavement, which is to remain in place, shall be removed and replaced at the sole expense of the Contractor. Over-cuts on asphalt concrete pavement shall not be allowed. All over-cuts on asphalt concrete pavement shall be repaired at the Contractor's sole expense, and as directed by the Engineer.

All items that are to be removed shall be disposed of outside of the right of way in accordance with the provisions of Section 7-1.12, "Disposal of Materials Outside of Project Limits," of the General Provisions.

The replacement of PCC sidewalk and curb and gutter that is removed to the nearest deep joint/score mark from the edges of the curb ramp or to the extent shown in the Construction Details found in the Project Plans for curb ramp installation shall be considered as part of the new curb ramp installation and therefore shall be paid for under the associated curb ramp bid items as specified in these Special Provisions.

Subgrade preparation shall be in accordance with Section 21, "Subgrade Preparation" of the CCSS and SJSS. Subgrade prep for concrete improvements shall be paid for under the appropriate bid items for concrete improvements.

Aggregate base for sidewalk, curb and gutter, driveway approach, and accessibility ramps shall be Class 2, ¾" maximum and shall conform to the provisions in Section 26, "Aggregate Bases," of the SJSS, the plans and these Special Provisions. Existing aggregate base shall be removed from the construction area and shall not be used as backfill material. Cost for aggregate base shall be included in the pay items for sidewalk, curb and gutter, driveway approach, and various accessibility ramps and no additional compensation will be allowed, therefor.

Both subgrade and aggregate base shall be compacted to a relative compaction of 95%.; for sidewalk areas, the relative compaction shall be at 90%.

New improvements shall not be placed until forms and compaction requirements are inspected and approved by the Engineer. Contractor shall sequence and schedule work to allow time for the City to sample and test for compaction.

Contractor shall supply the City a Certificate of Compliance that the PCC used for sidewalk and accessibility ramps on the project will meet the minimum strength of 3000 psi on the 28-day for 6-sack design mix.

Concrete for curb and gutter and driveway approach shall be a high/early mix design that will obtain a minimum strength of 3500 psi within 48 hours to allow the opening of such improvements within two calendar days. Contractor shall supply the City a Certificate of Compliance that the PCC used for curb and gutter and driveway on the project will meet the minimum strength of 3500 psi on the 2nd day for high/early mix design.

At locations where the sidewalk, curb and gutter, driveway approach, and accessibility ramps connect with existing improvements, steel dowels shall be installed. Dowels shall be 12" long, #4, grade 60, steel reinforcing bars or as indicated on the Project Plans. Dowels shall be firmly epoxied into existing improvement with a six-inch (6") embedment. Dowels shall be installed prior to placing new sidewalk, driveway, curb and gutter, and accessibility ramp.

Epoxy shall be Type II and conform to Section 95-2.03, "Epoxy Resin Adhesive for Bonding New Concrete to Old Concrete," of the SS. A certificate of compliance is required for the epoxy.

Curb and gutter and the curb and gutter which is a part of the accessibility ramp shall be constructed monolithically and paid for as part of ramps. Such improvements shall be installed with a straight grade between existing improvements to remain unless otherwise indicated by the Project Plans. The Engineer shall approve any proposed adjustments to curb and gutter and all sidewalk transitions. Contractor shall provide a smooth conform without a vertical difference around all curb returns and at sidewalk transitions.

Flow-lines for the curb and gutter and the curb and gutter attached to both the driveway approach and/or an accessibility ramp shall be verified and water flow tested by the Contractor in the presence of the Engineer and shall be free from ponding prior to acceptance of the improvements. Contractor shall replace new PCC improvements that failed the water flow test.

New accessibility ramps shall be constructed in conformance with these Special Provisions, and the Construction Details found in Project Plans, except the detectable warning surface shall be Manufacturer: Wausau Tile, Terra Pavers, ADA compliant Warning Paver, 1' x 1' x 2", Model: ADA 2 – 60, Truncated Dome. Wausau Tile Terra Pavers may have a long lead time for procurement. Contractor shall immediately order pavers upon receipt of the contract. The Contractor shall schedule the work for the accessibility ramp installations to accommodate long-lead time as necessary for the pavers. Contractor shall provide a sample paver a minimum of 14 days prior to installation.

Traffic Spot Island Removal and Median Nose Reconstruction

The Contractor shall refer to the plans for the removal of the traffic spot islands at the intersection of Hamilton Avenue/Eden Avenue and Hamilton Avenue/Creekside Way. The work involved shall include but may not be limited to the following: sawcut, demo, remove and dispose of traffic spot islands, asphalt concrete and base material; compact existing subgrade material to 95% relative compaction; and conform/slot paving adjacent to new PCC improvements; furnish and install concrete traffic spot islands and median nose as shown on the plans.

Extruded Median Curb with PCC Infill

The Contractor shall form extruded median curb with PCC infill at the locations and dimensions shown on the Project Plans. Conform to existing curb shall be to a neat line matching the top of curb elevations.

Contractor shall protect existing median landscaping or hardscape and restore damaged areas around improvements to provide smooth transitions to the existing landscaping or hardscape, as directed by and to the satisfaction of the Engineer. This restoration work may include replacement of landscaping damaged during construction, repairing irrigations systems, placing pavers, or grouted cobble. Contractor's attention is directed to Section 10-1 "General Construction Requirements" of these Special Provisions.

Measurement and Payment

Full compensation for furnishing all labor, materials, equipment and incidentals, and for doing all of the work involved including but not limited to traffic and pedestrian control, PCC & AC sawcutting, subgrade preparation, aggregate base, dowels, epoxy, compaction, and installation of PCC improvements, in compliance with the Plans, Specifications and Special Provisions Section 10-5 "Concrete Improvements," shall be included and paid for in the appropriate bid item listed below:

CURB RAMP (CASE A) (EA)	**BID ITEM #15**
CURB RAMP (CASE B) (EA)	**BID ITEM #16**
CURB RAMP (CASE C) (EA)	**BID ITEM #17**
CURB RAMP (CASE F) (EA)	**BID ITEM #18**
CURB RAMP (CSJ DETAIL R10) (EA)	**BID ITEM #19**
PEDESTRIAN PASSAGEWAY WITH TRUNCATED DOMES (SF)	**BID ITEM #20**
PEDESTRIAN PASSAGEWAY WITH TRUNCATED DOMES (PER CSJ DETAIL R12) (SF)	**BID ITEM #21**
TRAFFIC SPOT ISLAND REMOVAL AND MEDIAN NOSE RECONSTRUCTION AT HAMILTON/EDEN (LS)	**BID ITEM #22**
TRAFFIC ISLAND NOSE MODIFICATION AT HAMILTON/CREEKSIDE (LS)	**BID ITEM #23**
REMOVE AND REPLACE CURB AND GUTTER (LF)	**BID ITEM #24**
REMOVE AND REPLACE SIDEWALK (SF)	**BID ITEM #25**
REMOVE AND REPLACE DRIVEWAY APPROACH (SF)	**BID ITEM #26**
EXTRUDED MEDIAN CURB W/ PCC INFILL (LF)	**BID ITEM #27**

SECTION 10-6 PCC PARK STRIP REMOVAL & TOPSOIL PLACEMENT

General

The work includes the removal and disposal of existing hardscape at various locations as shown on the Project Plans and as designated in the field by the Engineer. Existing park strips shown to be removed shall be sawcut to a straight clean edge and removed and disposed of to the limits shown on the Project Plans and as confirmed in the field by the Engineer.

Park strip removal shall be done prior to root pruning and prior to the replacement of new adjacent PCC improvements.

The park strip area removed shall be backfilled with approved new topsoil flush to the sidewalk surface following the installation of the new sidewalk, curb/gutter, and/or accessibility ramp. Existing soil that is removed as part of the root pruning operations shall become the property of the Contractor and shall be disposed of off-site. New topsoil on grade shall be a light sandy loam, free of rocks larger than one and one-half (1-1/2”) inches and free of any deleterious materials, which may be harmful to plant growth.

New topsoil shall have a neutral soil reaction and shall have a pH of no less than 6.6 and no greater than 8.0. All imported topsoil shall have an agricultural suitability test, dated within thirty (30) days of delivery, by a qualified soils laboratory prior to delivery to the job site. Topsoil shall be lightly compacted by hand.

Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment, and all incidentals for doing all the work in compliance with the Plans, Specifications and Special Provision Section 10-6, “PCC Park Strip Removal and Topsoil Placement,” including but not limited to new topsoil, shall be included in the appropriate per each (SF) price for:

PARK STRIP REMOVAL (SF) **BID ITEM #28**

SECTION 10-7 TREE ROOT PRUNING

General

Root pruning locations are as noted on the Project Plans and shall be verified in the field with the Engineer prior to pruning.

Root pruning shall be done following the removal of all existing PCC improvements and prior to placing the new improvements. Root pruning shall be done by Vermeer saw or ax. All roots greater than one inch in diameter shall be cut under the direction of the Engineer or City Arborist. The cut shall be made parallel with and along the outside of the curb or driveway adjacent to the tree. Roots shall not be torn or ripped. The Contractor shall remove for the Engineer and City Arborist all existing improvements to expose all roots at a minimum depth of eight inches. The Engineer or City Arborist will only then identify root pruning limits. All severed roots shall be removed and disposed of accordingly.

When large tap roots are exposed, the Contractor shall provide at least two (2) working days for the Engineer and the City Arborist to decide on the length of the root pruning. Should the Engineer and City Arborist decide that root pruning will severely impact the tree and the tree should be removed, the Contractor shall provide ten (10) additional working days after the tree has been initially posted for removal for appropriate public notification. During the decision/public notification period, the Contractor shall not root prune the tree until notified by the Engineer. No additional compensation will be given to the Contractor during this period, only additional days.

The Contractor shall take every precaution necessary to protect and preserve the tree trunk during root pruning. Should the City Arborist find that the tree trunk was damaged by the Contractor to the extent that the life of the tree is jeopardized, the Contractor shall bear the cost of replacement of the tree.

In the event that there are obstructions in the way of the root pruning operation, such as cobbles, boulders, bricks or other similar obstructions, the Contractor shall remove the said obstructions from the work area and neatly pile and/or stack the material around the tree. The Contractor shall reset these to the location from which they were originally removed upon completion of the new improvements. Refer to Section 10-1, “General Construction Requirements”, subsection “Obstruction Removal”.

Tree stumps and large tree or plant roots shall be completely removed in the area of new improvements. Voids created by the removal of tree stumps, and large tree or plant roots shall be backfilled with cement slurry (2-sack mix) where asphalt concrete pavement is to be installed. Voids created by the removal of tree stumps, and large tree or plant roots not in the asphalt concrete or PCC pavement area shall be backfilled with topsoil and lightly compacted by hand or as specified by the Engineer.

Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment, and all incidentals for doing all the work in compliance with the Plans, Specifications and Special Provision Section 10-7, “Tree Root Pruning,” shall be included in the appropriate per each (EA) price for:

ROOT PRUNING (EA) **BID ITEM #29**

SECTION 10-8 PAVEMENT RESTORATION ADJACENT TO CONCRETE IMPROVEMENTS

General

The asphalt concrete pavement restoration adjacent to concrete improvements such as curb and gutter, driveway approach and the various accessibility ramp installations shall conform to the Construction Details found in the Project Plans and in accordance with these Special Provisions.

The final/top layer of asphalt concrete adjacent to the curb and gutter shall be Type F 3/4” Max. Medium AC and shall be compacted to 95% compaction. Paving asphalt binder shall be PG 64-10. A tack coat of undiluted SS-1H emulsified asphalt shall be placed on all exposed AC and concrete surfaces prior to the placement of the new asphalt section.

Asphalt concrete pavement shall be two inches compacted thickness and shall be placed in one lift over the existing material (2-sack sand/cement slurry backfill or AC digout).

The Contractor shall ensure that connections to existing or previously laid surfacing shall conform to the requirements of surface smoothness or the Contractor shall correct all these deficiencies to the satisfaction of the Engineer. The Engineer's decision whether the Contractor has met the requirements of surface smoothness shall be final.

Thickness at Lip of Gutter at the Throat of the Ramp

Asphalt concrete placed adjacent to any gutter designed to carry water shall be 0 inch to ¼" above the lip of gutter after final compaction, but in no case shall it be more than ¼". Any areas greater than ¼" shall be repaired by wedge grinding a minimum depth of 1" and repaving as directed by the Engineer. Asphalt concrete placed adjacent to any gutter designed to shed water and at the throat of curb ramps shall be flush with the gutter lip after final compaction.

Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment, and all incidentals for doing all the work in compliance with the Plans, Specifications and Special Provision Section 10-8, " Pavement Restoration Adjacent to Concrete Improvements," shall be included in the appropriate per each (SF) price for:

CONFORM/SLOT PAVING ADJACENT TO NEW PCC IMPROVEMENTS – WEST OF MARATHON DRIVE (SF)	**BID ITEM #30**
CONFORM/SLOT PAVING ADJACENT TO NEW PCC IMPROVEMENTS – EAST OF MARATHON DRIVE (SF)	**BID ITEM #31**

Conform/slot paving adjacent to PCC improvements shall include removal of pavement and base material as necessary to achieve the required elevation/grades shown on the Project Plans for the 12" HMA depth required from finished surface.

SECTION 10-9 COLD PLANING/ASPHALT CONCRETE MILLING

General

Cold Planing/Asphalt Concrete Milling shall conform to Section 39-3.04 Cold Planing Asphalt Concrete Pavement of the SJSS found in Appendix N and these Special Provisions. Contractor shall refer to Section 10-15 "Asphalt Concrete Overlay" of these Special Provisions for Pre-Paving Conference requirements.

Prior to the cold planing/milling operation, the Contractor shall provide an updated schedule for the cold planing/milling and paving operations for Hamilton Avenue.

Cold planing/milling shall consist of grinding the existing asphalt concrete pavement from lip of gutter to lip of gutter down 2.0 inches (2"), 4.0 inches (4"), 4.5 inches (4.5"), and 5 inches (5") in depth at the locations noted on the Project Plans. The final cut shall result in a uniform surface such that the grooved surface produced from the milling operation does not exceed .25" (1/4") in depth vs height. Pavement against curb faces shall be removed to the full depth for milling. If pavement against curb faces cannot be removed by the planing machine, the Contractor shall

use other means necessary to remove this material. Any damage to the curb face shall be repaired by the Contractor. All cost for removal and repair cost shall be at the Contractor's expense.

It should be assumed that the existing roadway sections will have paving fabric in the pavement section. Therefore, let it be known that all costs associated with grinding, removal, and disposal of existing AC section with road paving fabric, old chip and surface seals, and dirt herein this Section 10-9 "Cold Planing/Asphalt Concrete Milling," shall be borne by the Contractor, and no additional compensation will be paid for the disposal of this material. The material becomes the property of the Contractor.

All items that are to be removed shall be disposed of outside of the right of way in accordance with the provisions of Section 7-1.12, "Disposal of Materials Outside of Project Limits," of the General Provisions.

A test section of not less than 300 feet shall be performed to verify that the contractors' equipment and methods will achieve the desired surface. If the existing curb and gutter is damaged by the contractors milling or other construction operations, it shall be repaired or removed and replaced at the direction of the Engineer, and at the Contractor's sole expense.

Cold planing machines shall be equipped with a cutter head not less than 72 inches in width and shall be operated so as not to produce fumes or smoke. Planing of the asphalt concrete shall not be done by the heater planing method. The machine shall be capable of being operated at speeds of zero to forty feet per minute, it shall be self-propelled, and have the capability of spraying water at the cutting drum to minimize dust. The machine shall be adjustable for slope and depth and shall be equipped with sonic sensing devices for controlling depth.

Cold plane/milled area shall be allowed to exist a maximum of 3 calendar days prior to the placement of the overlay. The Contractor shall be responsible to schedule their work accordingly.

Temporary Transition/Tapers

Where transverse grinds are planed/milled in the pavement, and where longitudinal grinds cross side streets, no drop-off shall remain between the existing pavement and the planed/milled area when the pavement is opened to public traffic, unless otherwise approved by the Engineer. If asphalt concrete has not been placed to the level of existing pavement or to at least 2-inches below the existing pavement, before the pavement is to be opened to public traffic, a temporary asphalt concrete transition/taper shall be constructed. Temporary transitions are required for all pavement conforms and handicap ramps. Asphalt concrete for temporary tapers shall be placed to the level of the existing pavement and tapered on a slope of 12:1 (that is 12 feet out to every 1-inch in depth) or flatter to the level of the planed/milled area at all intersections, otherwise use a 10:1 slope (that is 10 feet out to every 1-inch in depth).

Asphalt concrete for temporary tapers shall be commercial quality (HMA cutback) and shall be spread and compacted to produce a smooth, riding surface. Temporary asphalt concrete tapers shall be completely removed, including the removal of all loose material from the underlying surface, before placing the permanent surfacing. Such removed material shall be disposed of outside the public right-of-way on the same day it is generated. A materials submittal and certificate of compliance is required for the temporary asphalt concrete for tapers.

Utilities/Monuments Located in Cold Planing/Milling Area

Prior to cold planing/milling operation, all utility covers and monuments shall be lowered such that the cutting teeth of the planing machine passes over the adjusted lid without causing damage to the lid or frame. Contractor will be responsible for maintaining any temporary asphalt fill material over these facilities until the final paving surface is installed. The Contractor shall clearly mark with white paint or reference lowered sanitary sewer and water valves in case emergency access is required by the agency responsible for operation of these facilities.

Refer to Section 10-3 "Existing Facilities" and Section 10-4 "Monuments and Benchmarks" of these Special Provisions. Measurement and payment for the lowering/protecting/and adjusting of all utility facilities and monuments shall be included in the unit price for each respective Bid Item.

Temporary Pavement Delineation

Temporary Pavement Delineation shall be in accordance with Section 10-16 of these Special Provisions.

Payment for traffic control and for providing, installing and maintaining the temporary lane lines and pavement markings shall be deemed included in the price paid for under Bid Item #1 "Traffic Control and Public Safety" and no additional compensation will be allowed thereof. Attention is directed to Special Provision Section 10-2, "Traffic Control and Public Safety."

Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all of the work involved in compliance with the Plans, Specifications and Special Provision Section 10-9, "Cold Planing/Asphalt Concrete Milling", shall be included in the appropriate per square yard (SY) price paid for:

2.0" DEPTH MILLING/COLD PLANING (SY)	**BID ITEM # 32 (FPQ)**
4.0" DEPTH MILLING/COLD PLANING (SY)	**BID ITEM # 33 (FPQ)**
4.5" DEPTH MILLING/COLD PLANING (SY)	**BID ITEM # 34 (FPQ)**
5.0" DEPTH MILLING/COLD PLANING (SY)	**BID ITEM # 35 (FPQ)**

The quantity shown on the bid schedule for this item of work is a FINAL PAY QUANTITY (FPQ) per Section 9-1.04 "Final Pay Quantities" of the General Provisions . This quantity will not be measured separately except in the case of additions or deletions, which will be executed via change order.

SECTION 10-10 CONFORM GRADING

General

Conform Grading shall conform to SJSS Section 39, "Asphalt Concrete," the plans and these Special Provisions. The Contractor shall grind or remove asphalt concrete pavement, aggregate base and native material as necessary to achieve the 12" deep asphalt concrete section to the grades indicated on the plans and as directed by the Engineer.

Conform grading shall be as found in the Project Plans. The existing pavement section shall be removed by sawcutting or grinding.

It should be assumed that the existing roadway sections have paving fabric in the pavement section. It should also be assumed that in the existing roadway sections in neighborhood side streets were paved or built on dirt and on layers of old chip seals and surface seals. Hence, all costs associated with grinding, removal, and disposal of existing AC section with road paving fabric, old chip and surface seals, and dirt herein this Section 10-10 “Conform Grading” shall be borne by the Contractor, and no additional compensation will be paid for the disposal of this material. The material becomes the property of the Contractor.

All items that are to be removed shall be disposed of outside of the right of way in accordance with the provisions of Section 7-1.12, “Disposal of Materials Outside of Project Limits,” of the General Provisions.

The Contractor shall notify the Engineer and call in an Underground Service Alert (USA) tag a minimum of five (5) working days prior to any conform grading work done within any signalized intersection, which would cause expected interference/interruption to the existing traffic signal system and/or traffic control.

Prior to beginning any work on the conform grading, the Contractor shall arrange for and conduct a field review of the job and mark out the locations of each conform grading area with the Engineer. The Engineer and Contractor shall record the agreed upon dimensions for each conform grading location. Size of the conform grading shall not vary from the plans unless specified in writing by the Engineer. Additional compensation shall not be allowed for conform grading in excess of the agreed upon dimensions. Upon approval from the Engineer, additional pro-rated compensation for extending the conform grading beyond the limits shown on the plans will be made in accordance with these Special Provisions.

Contractor shall locate all conform grading locations (corners) using GPS in order to provide accurate locations of conform grading after the milling operation is completed.

Contractor shall start conform grading operations after milling (2”, 4”, 4.5” or 5”) operation for each respective segment has been completed.

Section 4-1.03E “Increased or Decreased Quantities” of the General Provisions shall not apply to this item of work. The contract price per square foot shall remain the same despite any increase or decrease in contract quantities.

Execution

Asphalt concrete shall be Type F - 3/4" maximum-medium gradation using PG 64-10 unless otherwise approved by the Engineer. A tack coat of undiluted SS-1H emulsified asphalt shall be placed on all exposed AC and concrete surface edges prior to the placement of asphalt.

All excavations shall be backfilled with the final asphalt section or securely covered with traffic plates, with asphalt concrete cutback placed around the edges of the steel plate with a minimum 18” taper and plates tack welded together and pinned to the AC. By the end of each working day, and before traffic control is removed, all streets shall be fully available to all types of traffic and free from hazards.

The Contractor shall be responsible for protecting all utility facilities and City monuments located within the conform grading area. The Contractor shall be responsible for repairing any damage to the utility facilities caused by the Contactor's operations and shall be responsible for hiring a surveyor and filing the necessary paperwork for any City monument that needs to be reset due to the Contractor's work.

Measurement and Payment

For conform grading, of the various type shown in the bid schedule, full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all of the work involved in compliance with the plans, specifications and Special Provision Section 10-10, "Conform Grading" shall be included in the per square foot (SF) price paid for:

CONFORM GRADING - HOT MIX ASPHALT (TYPE F) (UP TO 8") (SF)	**BID ITEM # 36**
CONFORM GRADING - HOT MIX ASPHALT (TYPE F) (10") (SF)	**BID ITEM # 37**
CONFORM GRADING - HOT MIX ASPHALT (TYPE F) (12") (SF)	**BID ITEM # 38**

Removal of pavement markers and markings as part of the digout repair are considered incidental and included in this item of work, and no further compensation will be allowed, therefor. Restoration of striping will be included for compensation in the appropriate striping bid item.

Because a grinder may be required for this work, payment will be made based upon the actual area of excavation performed.

Conform Grading shall include removal of pavement and base material as necessary to achieve the required depth from finished surface.

SECTION 10-11 ASPHALT CONCRETE DIGOUTS WITH FOG SEAL

General

Asphalt concrete digouts shall conform to Section 30, "Deep Lift Asphalt Base' of the SJSS, Section 39-3.02 Replace Asphalt Concrete Surfacing (Digouts) of the SJSS found in Appendix N, the Project Plans and these Special Provisions. Contractor shall refer to Section 10-15 "Asphalt Concrete Overlay" of these Special Provisions for Pre-Paving Conference requirements.

Work shall consist of removing and replacing existing asphalt concrete and base material, to the depths specified on the Project Plans by cold planing. Sawcutting will not be allowed.

Digouts on Hamilton Avenue shall be performed after milling/cold planing operation (2", 4", 4.5" or 5") operation for each respective segment has been completed.

Contractor shall locate all digout locations (corners) using GPS in order to provide accurate locations of digouts after the milling operation is completed. A copy of the digout ties shall be provide to the Engineer.

It should be assumed that the existing roadway sections have paving fabric in the pavement section. It should also be assumed that in the existing roadway sections in neighborhood side streets were paved or built on dirt and on layers of old chip seals and surface seals. Hence, all costs associated with grinding, removal, and disposal of existing AC section with road paving fabric, old chip and surface seals, and dirt herein this Section 10-11 “Asphalt Concrete Digouts with Fog Seal” shall be borne by the Contractor, and no additional compensation will be paid for the disposal of this material. The material becomes the property of the Contractor.

All items that are to be removed shall be disposed of outside of the right of way in accordance with the provisions of Section 7-1.12, “Disposal of Materials Outside of Project Limits,” of the General Provisions.

The Contractor shall notify the Engineer and call in an Underground Service Alert (USA) tag a minimum of five (5) working days prior to any digout repair work done within any signalized intersection, which would cause expected interference/interruption to the existing traffic signal system and/or traffic control. The Contractor shall also call in a USA tag for all digouts prior to commencing the digout operation.

Prior to beginning any work on the digout and repairs, the Contractor shall arrange for and conduct a field review of the job and mark out the locations of each digout with the Engineer. The Engineer and Contractor shall record the agreed upon dimensions for each digout location. Size of the digouts shall not vary from this agreement unless specified in writing by the Engineer. Additional compensation shall not be allowed for digouts in excess of the agreed upon dimensions. Upon approval from the Engineer, additional pro-rated compensation for digouts to a depth greater than noted on the Project Plans will be made in accordance with these Special Provisions.

Section 4-1.03E “Increased or Decreased Quantities” of the General Provisions shall not apply to this item of work. The contract price per square foot shall remain the same despite any increase or decrease in contract quantities.

Materials

Contractor shall submit proposed Job Mix Formula (JMF on the Contractor’s Job Mix Formula Form and shall comply with Section 39.3.02B Material of the SJSS found in Appendix N.

Aggregate size and gradation must be within the TV limits for the specified sieve size shown in the following table:

For Digouts on Arterial Streets (Hamilton Avenue)
Aggregate Gradations for Type F HMA, PG 64-10
(Percentage Passing) for 3/4 Inch

Sieve size	Target value limit	Allowable tolerance
1"	100	--
3/4"	90-100	TV±5
1/2"	<90	TV±6
No.8	23-49	TV±5
No.200	2.0-8.0	TV±2.0

Asphalt concrete aggregate shall meet the SJSS requirements for Aggregate Quality.

A tack coat of undiluted SS-1H emulsified asphalt shall comply with Section 39-2.01C(3)(f) Tack Coat of the SJSS found in Appendix N.

The application rate of the tack coat must be the minimum residual rate specified for the underlying surface condition shown in the following table:

Tack Coat Application Rates for HMA

HMA over:	Minimum residual rates (gal/sq yd)		
	CSS1/CSS1h, SS1/SS1h and QS1h/CQS1h asphaltic emulsion	CRS1/CRS2, RS1/RS2 and QS1/CQS1 asphaltic emulsion	Asphalt binder and PMCRS-2 / PMCRS-2h asphaltic emulsion
New HMA (between layers)	0.02	0.03	0.02
Concrete pavement and existing asphalt concrete surfacing	0.03	0.04	0.03
Planed pavement	0.05	0.06	0.04

Execution

The pavement areas designated to be replaced shall be removed to a uniform depth as specified by cold planing. Any broken or damaged pavement edges shall be re-cut prior to paving. All removed material shall be cleared from the site.

The base rock or native soil shall be compacted to 95% relative compaction. All segregated or loose material shall be removed.

Prior to placing the deep lift asphalt concrete, each digout shall be proof-rolled. The compacted surface shall not visibly yield or deflect. Soft, yielding, unstable or unsuitable areas shall be removed and replaced with asphalt concrete. If the digout areas were caused or significantly worsened by the Contractor's operations, these areas shall be replaced at the Contractor's expense.

Contractor is to comply with SJSS Section 39-2.01C(2)(c) Method Compaction Equipment and Section 39-2.01C(15)(b) Method Compaction.

The surface course shall be 1-1/2 inches minimum thickness. No single base or intermediate course may exceed three inches. No layer shall be placed over a layer which exceeds 0.25 foot (3 inches) in compacted thickness until the temperature at mid-depth is not more than 160 degrees Fahrenheit (160°F).

All asphalt concrete shall be deposited directly into the excavation/digout area from the delivery vehicle and shall be leveled prior to any rolling. No asphalt concrete shall be permitted to be placed outside the excavation. Stock piling HMA on the roadway shall not be allowed. Transfer truck and trailer systems shall not be allowed for placing HMA.

Once the pavement is removed, the Contractor shall diligently prosecute the work so that the deep lift is in place within the same working day. All excavations shall be backfilled with the final asphalt section or securely covered with traffic plates with asphalt concrete cutback placed around the edges of the steel plate with a minimum 18" taper and plates tack welded together and pinned

to the AC. By the end of each working day, and before traffic control is removed, all streets shall be fully available to all types of traffic and free from hazards. Maximum allowable pavement drop is 2-inches at the end of each day.

The completed deep lift asphalt concrete shall have an average density of at least 95 percent of the laboratory density, based on the Job-Mix Formula for the asphalt mixture when tested in accordance with California Test 304 and ASTM D1188, California Test 308 or California Test 375. The minimum final relative compaction of the asphalt concrete shall be 95% of the compacted unit weight.

Final compaction of the paving will be tested by nuclear density gauges California Test 375 or by coring and testing cores in accordance with California Test 308 to establish compliance with these Special Provisions. In the event of non-compliance with these specifications, the Engineer may require that the nonconforming digout be replaced, or the City may assess the Contractor a penalty amount to be deducted from the contract amount for this pay item. Refer to Section 6 “Control of Materials” of these Special Provisions.

The repaired digout areas shall conform to the level of the surrounding pavement so that no elevation variation is evident. The surface shall have a maximum variation from high to low of 0.01 feet maximum when measured with a twelve-foot level. Variation at the edges shall not exceed 0.01 feet maximum. When matching existing pavement, the finished surface shall not inhibit drainage. The upslope edge of the digout shall be 0.00 feet high to 0.01 feet low. On the downslope edge of the digout, the finished surface shall be 0.01 feet high to 0.00 feet low. Any resulting variations shall be corrected to the satisfaction of the Engineer.

At properties or establishments with more than one driveways, the Contractor shall break up the deep lift sections so as to provide access to at least one driveway at all times; at developments which have only one driveway, the Contractor shall schedule deep lift work in such a manner that only half of the driveway is blocked at all times.

The Contractor shall be responsible for protecting all utility facilities and City monuments located within the digout area. The Contractor shall be responsible for repairing any damage to the utility facilities or monument caused by the Contactor’s operations and shall be responsible for hiring a surveyor and filing the necessary paperwork for any City monument that needs to be reset due to the Contractor’s work. Refer to Section 10-4 “Monuments and Benchmarks” of these Special Provisions.

The Contractor shall apply a fog seal coat to all digout areas. Fog seal coat shall conform to the provisions specified for seal coats in Section 37-4, “Fog Seals and Flush Coats” of the SS.

Blotter aggregate/sand as necessary…

Temporary Pavement Delineation

Temporary Pavement Delineation shall be in accordance with Section 10-16 of these Special Provisions.

Payment for traffic control, flagging, and for providing, installing and maintaining the temporary lane lines and pavement markings shall be deemed included in the price paid for under Bid Item #1 “Traffic Control and Public Safety” and no additional compensation will be allowed thereof. Attention is directed to Special Provision Section 10-2, “Traffic Control and Public Safety.”

Measurement and Payment

For digout repairs, full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all of the work involved in compliance with the plans, specifications and Special Provision Section 10-11, "Asphalt Concrete Digouts With Fog Seal" shall be included in the per square foot (SF) price paid for:

4" DIGOUT (SF)	**BID ITEM # 39**
6" DIGOUT (SF)	**BID ITEM # 40**
8" DIGOUT (SF)	**BID ITEM # 41**
12" DIGOUT (SF)	**BID ITEM # 42**

Removal of pavement markers and markings as part of the digout repair are considered incidental and included in this item of work, and no further compensation will be allowed, therefor. Restoration of striping will be included for compensation in the appropriate striping bid item.

Because a grinder is required for this work, payment will be made based upon the actual area of excavation performed.

Digouts shall include removal of pavement and base material to achieve the required depth from finished surface.

SECTION 10-12 COLD IN-PLACE RECYCLED ASPHALT CONCRETE

General

This item of work shall consist of recycling existing pavement into a new roadway base course suitable for overlaying. Included in this work are all mix design, QA/QC, milling, labor, equipment, processing, added materials, placing, compacting, curing, and any incidental items necessary to meet these specifications. The contractor must use a foam injection process.

Contractor shall refer to Section 10-15 "Asphalt Concrete Overlay" of these Special Provisions for Pre-Paving Conference requirements.

Mix Design

A minimum of 14 days prior starting the Cold in Place Recycling the Contractor will take samples of the existing pavement, prepare, and submit a mix design for the Engineers approval. The mix design shall be prepared in a lab certified to perform the tests specified.

The design submittal must indicate the following information:

- Cold in Place Recycling CIR equipment and method proposed
- Gradation (ASTM D422)
- Bitumen Grade
- Bitumen Content
- Bitumen Source
- Water Content
- Cement or Lime Content

- Cement or Lime Source
- Cement or Lime Grade
- Any other additives or emulsifiers
- Marshall Stability and Flow (ASTM D6927) (ASTM 1556)
- Bulk Specific Gravity and Density of Compacted Bituminous Mixtures (ASTM D1188)
- Theoretical Maximum Specific gravity of Bituminous Materials (Cal 309)
- Job mix specific gravity

Minimum criteria used for acceptance of the proposed mix design will be:

Soaked Indirect Tensile Strength >300 kPa

according to the ITS test method described in WIRTGEN Cold Recycling Manual

Quality Control and Assurance

Provide a quality control plan (QCP) that describes the organization, responsible parties, and procedures the Contractor will use to:

1. Control quality
2. Determine when corrective actions are needed (action limits)
3. Implement corrective actions

The QCP must contain copies of the forms that will be used to provide all required inspection records and sampling and testing results. On the form used to record and report the quality control measurements, also show the job mix formula information.

As part of the QCP the Contractor will provide a contingency plan that describes the corrective actions the Contractor will take in the event of equipment break down or material out of compliance.

Contingency Plan

The contingency plan must include any corrective actions including repairing and reopening the roadway to traffic using hot mix asphalt in compliance with Section 39, "Hot Mix Asphalt," of the Standard Specifications or temporary bituminous surfacing in compliance with these special provisions.

Hot mix asphalt must:

1. Be hot mix asphalt (Type F)
2. Use 1/2-inch aggregate grading
3. Use asphalt binder grade PG 64-10

Temporary bituminous surfacing must:

1. Be commercial quality bituminous material
2. Contain aggregate using 1/2–inch HMA grading in compliance with Section 39-1.02E, "Aggregate," of the Standard Specifications.
3. Use liquid asphalt SC-800 in compliance with Section 93, "Liquid Asphalts," of the Standard Specifications.

Meet with the Engineer at least 7 days before starting cold-in-place recycling work to review the QCP and contingency plan.

QC Laboratory

Provide a certified testing laboratory and personnel to perform quality control inspection, sampling and testing. Provide the Engineer with unrestricted access to the laboratory, sampling and testing sites, and all information resulting from job mix formula and quality control inspection and testing activities. Proficiency of testing laboratories and sampling and testing personnel must be reviewed, qualified, and accredited by Caltrans Independent Assurance Program before starting cold-in-place recycling work.

Perform inspection, sampling and testing at a rate sufficient to ensure that cold-in-place recycling mixture, placement, compaction and finishing complies with the specifications.

Production

Once daily the contractor shall sample RAP behind the recycling equipment or the processed RAP before the addition of the emulsified recycling agent. The contractor shall report the test results immediately to the Engineer. Reprocess the RAP or take other corrective action to attain compliance.

Divide the project into 3,000-square yard lots. For each lot:

1. Determine the actual recycle depth at each end of the milling drum at least once every 300 feet along the cut length
2. Determine the amount of recycling agent
3. On every third sample taken, perform a wet field gradation for material passing the 1-inch through No. 4 sieves. Compare the sieved sample to the gradation band determined from the job mix formula and adjust the emulsified recycling agent if necessary.
4. Determine in place density and relative compaction of 10 random locations. Use the submitted Job Mix density as the basis of comparison.

For each lot, measure or calculate and record the following information:

1. Length, width, depth of cut and calculated weight in tons of material processed
2. Weight of recycling agent added in tons
3. Percentage of added recycling agent in the lot's CIR mixture by weight
4. Weight of recycling additive used in tons (if used)
5. Percentage of recycling additive in the lot's CIR mixture by weight (if used)
6. Maximum particle size of the RAP
7. Maximum obtainable density used for relative compaction calculation.
8. Nuclear gauge in-place density and relative compaction at 10 random locations.
9. Ambient and compacted recycled pavement surface temperatures
10. Maximum theoretical density under California Test 309 and void ratio (Report Only)
11. Rate of fog seal coat application
12. Rate of sand cover application

On the form used to record and report the quality control measurements, also show the job mix formula information. Make adjustments during CIR operations for optimum quality. If adjustments are made, document the reason for the change and identify on the daily quality control inspection records and sampling and test results.

Daily, take and split a sample of the CIR mixture from a location approved by the Engineer. Split the samples into 2 parts and label the containers with location and station. Submit 1 split part to the Engineer and use 1 part for the testing. Determine maximum theoretical density under California Test 309. Use the maximum theoretical density and calculate void ratio for each nuclear gauge site and lot. Report on daily quality control inspection records and sampling and test results. The Engineer does not use your California Test 309 test results and void ratio to determine specification compliance.

The Contractor shall be responsible for the quality of construction and materials incorporated into the Project. The Contractor's QC measures shall ensure that operational techniques and activities provide integral and finished material of acceptable quality. Contractor sampling and testing shall be performed to control the processes and ensure material compliance with the requirements of the Contract.

The Contractor shall perform all Quality Control testing and sampling for the project. All QC sampling and testing shall be performed by technicians certified by the State of California for that particular material and all laboratory testing shall be performed by laboratories accredited by AASHTO Materials Reference Laboratory (AMRL) and Cement and Concrete Reference Laboratory (CCRL) for the test methods required. Contractor shall furnish copies of all test results to the Engineer or other authorized City representative within 24 hours of completing the test of the acquired sample or the next day of business.

Placement

CIR shall be to the depths (2.5" and 3") as shown on the Project Plans, within the lines and grades of the Project Plans and specifications or as directed by the Engineer. The CIR material shall be capable of holding traffic at the end of each day's production without deformation or damage occurring to the surface. No rutting or raveling shall be tolerated and corrective action per "Contingency Plan" of these Special Provisions shall be applied when either occurs.

By the end of each working day, and before traffic control is removed, all streets shall be fully restored and available to all types of traffic and free from hazards. Maximum allowable pavement drop is 2-inches at the end of each day.

Fog Seal and Sand Spreading

At the end of each day's production, the Contractor shall apply a fog seal to the surface at a rate of 0.12 ga/sy. Fog seal shall meet Section 37-4, "Fog Seal Coat", of the SJSS. Sand shall be spread at a rate of 1.0 to 2.0 pounds per square yard at the areas fog seal is placed or as determined by the Engineer. Remove excess sand from the CIR surface by sweeping. Sand cover shall be spread by means of a self-propelled spreader equipped with a mechanical device that will spread at a uniform rate over the CIR surface. The area treated shall be capable of holding traffic at the end of each day's production without any deformation or damage to the surface.

Acceptance

The project shall be divided into lots 2500 linear feet long and 12 feet wide extending along the lane lines of the roadway. If one day's production will be less than 2500 linear feet that day's production shall be a lot. If one day's production is one lot plus an additional amount, the additional work shall be a separate lot. The Engineer will sample and test each lot prior to acceptance. Frequency of testing will be at the Engineers discretion.

Acceptance will be based on the following criteria:

A. IDTS soaked results must be greater than 95% of the minimum design strength (300kPa).
B. The average Relative compaction of a lot shall be a minimum of 98% of the maximum wet density as measured by California Test 216. No single test shall be less than 94% relative compaction.

For lots outside of the acceptance criteria the Engineer determines a deduction for each test result outside the specifications using the reduced payment factors shown in the following tables:

A- Marshall Test Results

% of Minimum Design Strength 300 Kpa	Pay Factor
95	100.0%
94.9	99.50%
94.8	99.00%
94.7	98.50%
94.6	98.00%
94.5	97.50%
94.4	97.00%
94.3	96.50%
94.2	96.00%
94.1	95.50%
94	95.00%
93.9	94.50%
93.8	94.00%
93.7	93.50%
93.6	93.00%
93.5	92.50%
93.4	92.00%
93.3	91.50%
93.2	91.00%
93.1	90.50%
93	90.00%
92.9	89.50%
92.8	89.00%
92.7	88.50%
92.6	88.00%
92.5	87.50%
92.4	87.00%
92.3	86.50%
92.2	86.00%
92.1	85.50%

% of Minimum Design Strength 300 Kpa	Pay Factor
92	85.00%
91.9	84.50%
91.8	84.00%
91.7	83.50%
91.6	83.00%
91.5	82.50%
91.4	82.00%
91.3	81.50%
91.2	81.00%
91.1	80.50%
91	80.00%
90.9	79.50%
90.8	79.00%
90.7	78.50%
90.6	78.00%
90.5	77.50%
90.4	77.00%
90.3	76.50%
90.2	76.00%
90.1	75.50%
90	75.00%
89.9	Remove at Engineers sole discretion

B- Compaction

% of Relative Compaction as measured by Cal 216 Average density per lot	Pay Factor
98	100.0%
97.9	99.00%
97.8	98.00%
97.7	97.00%
97.6	96.00%
97.5	95.00%
97.4	94.00%
97.3	93.00%
97.2	92.00%
97.1	91.00%
97	90.00%
96.9	89.00%
96.8	88.00%
96.7	87.00%
96.6	86.00%
96.5	85.00%
96.4	84.00%
96.3	83.00%
96.2	82.00%
96.1	81.00%
96	80.00%
95.9	79.00%
95.8	78.00%
95.7	77.00%
95.6	76.00%
95.5	75.00%
95.4	74.00%
95.3	73.00%
95.2	72.00%
95.1	71.00%

% of Relative Compaction as measured by Cal 216 Average density per lot	Pay Factor
95	70.00%
94.9	69.00%
94.8	68.00%
94.7	67.00%
94.6	66.00%
94.5	65.00%
94.4	64.00%
94.3	63.00%
94.2	62.00%
94.1	61.00%
94	Remove at Engineers sole discretion

In the event a lot is subject to both pay factors, they will be cumulative. (I.E. An 80% pay factor for Marshall and a 70% pay factor for Compaction equals a 56% cumulative pay factor. .80 X .70 = .56)

Temporary Pavement Delineation

Temporary Pavement Delineation shall be in accordance with Section 10-16 of these Special Provisions.

Payment for traffic control, flagging and for providing, installing and maintaining the temporary lane lines and pavement markings shall be deemed included in the price paid for under Bid Item #1 "Traffic Control and Public Safety" and no additional compensation will be allowed thereof. Attention is directed to Special Provision Section 10-2, "Traffic Control and Public Safety."

Measurement and Payment

For Cold In-Place Recycling, full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all of the work involved in compliance with the plans, specifications and Special Provision Section 10-12, "Cold In-Place Recycled Asphalt Concrete" shall be included in the per square foot (SF) price paid for:

2.5" COLD IN-PLACE RECYCLING (CIR) (SF)	**BID ITEM # 43**
3" COLD IN-PLACE RECYCLING (CIR) (SF)	**BID ITEM # 44**

The area to be paid shall be in accordance with the area shown on the Project Plans. Additional excavation/recycling performed by the Contractor outside the lines provided in the Plans shall not be measured and compensated by the City without approval by the Engineer.

This amount shall be full compensation for all work necessary within the dimensions shown on the Project Plans or specified herein, including but not limited to fog seal and sand spreading, pulverizing existing pavements, additional materials, stabilizing agent(s), mineral filler, water, grading, compaction, sampling, testing and for all materials, labor, tools, equipment, hauling permits, mobilization and any incidentals necessary to complete the work and no additional payment shall be allowed therefor.

SECTION 10-13 PAVEMENT MARKER, THERMOPLASTIC MARKING AND STRIPING REMOVAL

General

Pavement marker, thermoplastic marking, and striping removal shall conform to Section 84-3.05B, "Removal of Existing Traffic Stripes and Pavement Markings," of the CCSS, Section 15-2.02B "Traffic Stripes and Pavement Markings" of the SS, Section 15-2.02C "Pavement Markers" of the SS, the plans and these Special Provisions.

Existing thermoplastic pavement markings and striping, and paint markings and striping shall be removed by sand blasting or grinding on Hamilton Avenue between the western city limit line and Marathon Avenue prior to placement of the slurry seal pavement treatment.

The grinder shall be specifically designed for the purpose of removing existing traffic stripes and markings and shall conform to the provisions of Section 15-2.02B of the SS. Immediately upon removal of the markings and striping, temporary marking and striping shall be placed per Section 84-3.05A “Temporary Striping” of the CCSS. Grinding or sand blasting operations shall be conducted to keep all removed pavement material from entering the storm drain system. The operation shall be controlled and contained so as not to impair the safe passage of traffic adjacent to the work site. All sandblasted or grinded areas shall be limited to 1-foot beyond top, bottom, and sides of markings. Existing pavement markers shall be removed prior to resurfacing.

The Contractor shall review all existing striping and pavement markings to be removed in the field prior to submitting a bid.

Signing and Striping Plans

The City prepared striping plans for the project. The Striping Plans and Striping Schedule are found in the plan set.

Existing Striping, Pavement Marker and Thermoplastic Markings to Remain

Existing pavement striping, markings, and markers which are outside the work area are not to be removed and shall be protected by the Contractor. Any striping, markings, or markers which are to remain, which are damaged or rendered useless by the Contractor's operations, shall be restored by the Contractor to the Engineer's satisfaction and at the Contractor's sole expense.

Temporary Pavement Delineation

Temporary Pavement Delineation shall be in accordance with Section 10-16 of these Special Provisions.

Payment for traffic control and for providing, installing and maintaining the temporary lane lines and pavement markings shall be deemed included in the price paid for under Bid Item #1 “Traffic Control and Public Safety” and no additional compensation will be allowed thereof. Attention is directed to Special Provision Section 10-2, “Traffic Control and Public Safety.”

Disposal of Hazardous Materials

The Contractor shall remove and dispose of any hazardous material associated with the removal of existing traffic stripes and pavement markings at no additional cost to the City. The material becomes the property of the Contractor.

Measurement and Payment

Full compensation for furnishing all labor, materials, tools, flaggers, equipment, and all incidentals, and for doing all of the work in compliance with the plans, specifications and Special Provisions Section 10-13 “Pavement Marker, Thermoplastic Marking and Striping Removal” shall be included and paid for in the lump sum price for:

REMOVAL OF EXISTING STRIPING, PAVEMENT MARKERS AND MARKINGS (LS) BID ITEM #45

SECTION 10-14 TYPE II POLYMER MODIFIED SLURRY SEAL

General

The slurry seal shall consist of a mixture of a polymer modified asphalt emulsion, mineral aggregate, mineral filler, water and specified additives. The materials shall be proportioned, mixed and uniformly spread over a properly prepared surface as directed by these Special Provisions and the Engineer. The slurry seal shall conform to the requirements of Section 37-3 "Slurry Seals and Microsurfacing" of the SS, Section 37, and "Bituminous Seals" of the SJSS, SS and these Special Provisions. The completed slurry seal shall leave a homogeneous mat and adhere firmly to the prepared surface. Contractor shall refer to Section 10-15 "Asphalt Concrete Overlay" of these Special Provisions for Pre-Paving Conference requirements.

The terminology "latex-modified" and "polymer-modified" asphaltic emulsion are used interchangeably in these Special Provisions to mean the same thing.

Asphaltic Emulsion

Asphaltic Emulsion used for slurry seal shall be designated as grade PMCQS-1h or equal.

The polymer used to modify the asphaltic emulsion, shall be, at the option of the Contractor, neoprene, or a co-polymer of butadiene and styrene. Solid polymers shall be adequately blended into the asphalt prior to emulsification. If a liquid latex such as neoprene or similar is used, the latex shall be "co-milled" into the emulsion through the water phase during manufacturing.

Each load of polymer modified asphaltic emulsion shall have a certificate from the asphalt emulsion manufacturer guaranteeing that either asphalt blending, or "co-milling" processes were used. The certificate shall also state the percentage of the solid rubber polymer added by weight of the asphalt as well as the composition of the polymer. The addition of latex to the emulsion after emulsion manufacturing is prohibited.

The polymer modified asphalt emulsion shall conform to the following specifications:

TESTS ON EMULSION:	TEST METHOD	REQUIREMENT	
		Minimum	Maximum
Viscosity SSF, @ 77° F, seconds	AASHTO T59	15	90
Sieve Test, %	AASHTO T 539	---	0.30
Storage Stability Test, 1 day %	AASHTO T 59	---	1.0
Residue by Evaporation, %	CTM 331	60	---
Particle Charge	AASHTO T 59	Positive	
TESTS ON RESIDUE :	**TYPICAL**	**REQUIREMENT**	
		Minimum	**Maximum**
Penetration, 77° F	AASHTO T 49	40	90
Ductility, 77° F, mm	AASHTO T 51	400	---
Polymer Content, % See Section 94of SS for Sampling Requirements	CTM 401	2.5%	---
OR			
Torsional Recovery, %	CTM 332	18	---

A Certificate of Compliance shall be furnished to the Engineer in accordance with Section 6-1.08, "Certificates of Compliance" of the General Provisions and of these Special Provisions. The Certificate of Compliance shall include all information stipulated in Section 94 "Asphaltic Emulsions" of the SS. Additional information relevant to the specifications shall be furnished if requested by the Engineer. Samples will be obtained in accordance with ASTM Method D140 or such other methods as are approved by the Engineer.

Aggregate

Aggregate for the slurry seal shall comply in all respects to requirements in Section 37-3.02 "Slurry Seals" of the SS for a Type II slurry seal except for the following:

Aggregate shall consist of sound, durable, crushed stone or crushed gravel. If approved by the Engineer, Mineral Filler will be allowed. Aggregates shall be 100% crushed with no rounded particles. The percentage composition by weight of the aggregate shall conform to the following grading:

PERCENTAGE PASSING	
SIEVE SIZES	**TYPE II**
3/8" (9.5 – mm)	100
No. 4 (4.75 – mm)	94 - 100
No. 8 (2.36 – mm)	65 - 90
No. 16 (1.18 – mm)	40 - 70
No. 30 (600 – um)	25 - 50
No. 200 (75 – um)	5 - 15
Theoretical asphalt content, % based on dry aggregate	7.5 - 13.5
Approximate application rate (Pounds/Square Yard)	14-18

The aggregate shall also conform to the following quality requirements:

TEST	METHOD OF TEST	REQUIREMENT
Sand Equivalent	California Method 217	55 MIN.
Durability Index	California Method 229	55 MIN.

When the results of both the aggregate grading and the sand equivalent tests do not conform to the requirements specified, the City may deduct these amounts from any monies due, or that may become due the Contractor. No single aggregate grading or Sand Equivalent test shall represent more than 300 tons or one-day's production whichever is smaller.

The Contractor, in accordance with Section 6-1.08 "Certificates of Compliance" of General Provisions will furnish a certificate of compliance for aggregates used in the slurry seal. The certificate of compliance shall include results of laboratory tests indicating the average gradation, minimum sand equivalent and maximum film stripping and durability index, all in accordance with Section 37-3.01 "General" and 37-3.02 "Slurry Seals" of the SS.

Mineral Filler

Mineral Filler shall be either Portland Cement, hydrated lime, limestone dust, fly ash or other approved filler meeting the requirements of ASTM D242 and shall be used if required by the mix design. The mineral filler shall be considered as part of the aggregate in calculations regarding slurry seal asphalt content.

Additives

Additives may be used to accelerate or retard the mixing and setting characteristics of the slurry seal or improve the resulting finished surface. The use of additives in the slurry mix (or individual materials) shall be made initially in quantities predetermined by the mix design with field adjustments if required. If the use of additives during application requires a greater than + or – 1.0% deviation from the recommendations of the mix design, a new mix design will be performed to verify system performance at higher or lower additive levels.

Mix Design

At least seven (7) working days before slurry seal placement commences, the Contractor shall submit to the Engineer for approval a laboratory report of tests and proposed mix design covering the specific materials to be used on the project. The percentage of asphalt emulsion proposed in the mix design shall be within the percentage range specified in Section 37-3.02C(2), "Proportioning" of the SS.

The tests and mix design shall be performed by a laboratory capable of performing the applicable International slurry Seal Association (ISSA) tests. The proposed slurry seal mixture shall conform to the requirements specified when tested in accordance with the following tests:

TEST	DESCRIPTION	SPEC
ISSA TB 106	Slurry Seal Consistency, mm	30 maximum
ISSA TB-139	Wet Cohesion (using project source aggregate, asphalt emulsion and set-control agents, if used) 60 minutes min	 200kg-mm minimum
ISSA TB-109	Excess Asphalt By LWT Sand Adhesion	50 g/ft^2 maximum (538 g/m^2 maximum)
ISSA TB-114	Wet Stripping	Pass
ISSA TB 115	Compatibility	Pass
ISSA TB-100	Wet Track Abrasion Loss, one-hour soak (minimum asphalt content)	(810 g/m^2 maximum)
ISSA TB-113	Mix Time (Mixing test and set time test shall be done at the highest temperature expected during construction	Controllable to 180 sec. minimum

The laboratory report shall be signed by the laboratory that performed the tests and mix design and shall show the results of the tests on individual materials, comparing the test results to those required by the specifications. The report shall clearly show the proportions of aggregate, filler (as determined from the tests, minimum and maximum), water (minimum and maximum), asphalt solids content based on the dry weight of aggregate and set-control agent usage. The laboratory shall also report the quantitative effects of moisture content on the unit weight of the aggregate (bulking effect). Previous laboratory reports covering the same materials may be accepted provided they are made during the same calendar year.

The Engineer shall approve the mix design and all slurry seal materials and methods prior to use. The job mix design shall conform to the specification limits and be suitable for the traffic climate conditions, curing conditions and final use. This will include recommended application rate of slurry to suit the job conditions. Any changes in the proportions will be made only when approved by the Engineer.

Proportioning

Proportioning shall conform to the provisions in Section 37-3.02C(2), "Proportioning" of the SS and these Special Provisions.

The completed mixture, after addition of water and any set-control agent used, shall be such that the slurry seal mixture has proper workability and (a) will permit uncontrolled traffic on the slurry seal within two (2) hours after placement without the occurrence of tracking, bleeding, raveling, separation or other distresses, and (b) prevent development of bleeding, raveling, separation or other distress within fifteen (15) days after placing the slurry seal.

Mixing and Spreading Equipment

Mixing and spreading equipment shall conform to the provisions in Section 37-3-2.02C(3), "Mixing and Spreading Equipment" of the SS and of these Special Provisions.

A minimum of two 7-cubic yard capacity or larger slurry machines shall be on the job and in good operating condition at all times. Machines must be able to negotiate all turns next to the curbs in cul-de-sacs, on initial pass in one continuous pass.

Surface Preparation

A minimum of one week prior to the slurry sealing operations, an approved herbicide shall be sprayed in all cracks on all street sections. In addition to spraying the cracks within the roadway, the Contractor shall spray the line between the lip of gutter and the pavement edge for the entire length of the street segment on both sides of the street. Application shall be in accordance with applicable State laws and the City's Policy on the Use of Pesticides on City Property (a copy of which is found in Appendix P). The application of the herbicide shall be applied by a person who holds a Qualified Applicator Certificate (QAC) or who has been trained and/or works under the direction of the QAC holder. The Contractor shall provide the Engineer with a copy of their QAC prior to the application of the herbicide on City Property. Herbicide shall be Roundup Pro Max or equal applied at a high rate or equal. A green or yellow colored dye shall be added to the herbicide mixture to indicate the locations where cracks have been treated.

Contractor shall remove all existing weeds and plant materials from all cracks in all street sections that will receive slurry seal surfacing. This includes vegetation removal from cracks along the edge of pavement or concrete gutter lip. The Contractor shall use self-propelled power brooms and other methods such as flushing to clean the existing pavement. Cracks shall be cleaned with a hot air lance prior to the placement of sealant.

The Contractor shall crack fill/seal all cracks located within the street. Sealant material shall be applied so that the sealant is within one-eighth inch (1/8") below the pavement surface. If surplus sealant material rises above the pavement surface, the over banding must be squeegeed flat and flush with the surrounding surface. Over banding that has not been squeegeed and produces a bump or fat spot in the roadway shall be removed and replaced at the Contractor's expense.

The crack sealant material shall be hot-applied mixture of paving asphalt and ground rubber or ground rubber and polymer which conforms to the following requirements:

Property [a]	ASTM Test Method [b]	Specification
Softening point (min)	D 36	90 °C
Cone penetration at 77 °F (max)	D 5329	50
Resilience at 77 °F, unaged, %	D 5329	30–70
Flexibility [c]	D 3111	0 °C
Tensile adhesion, %, (min)	D 5329	400
Specific gravity (max)	D 70	1.25
Asphalt compatibility	D 5329	Pass
Sieve test (percent passing)	See note d	100

Notes:

[a] Cold-applied crack treatment material residue collected under ASTM D 6943, Method B and sampled under ASTM D 140 must comply with the grade specifications.

[b] Except for viscosity, cure each specimen at a temperature of 23 ± 2 °C and a relative humidity of 50 ± 10 percent for 24 ± 2 hours before testing.

[c] For the flexibility test, the specimen size must be 6.4 ± 0.2 mm thick by 25 ± 0.2 mm wide by 150 ± 0.5 mm long. The test mandrel diameter must be 6.4 ± 0.2 mm. The bend arc must be 180 degrees. The bend rate must be 2 ± 1 second. At least 4 of 5 test specimens must pass at the specified test temperature without fracture, crazing, or cracking.

[d] For hot-applied crack treatment, dilute with toluene and sieve through a no. 8 sieve. For cold-applied crack treatment, sieve the product as-received through a no. 8 sieve. If the manufacturer provides a statement that added components passed the no. 16 sieve before blending, this requirement is void.

The following products, their current equivalents, or approved equal are considered acceptable:

Manufacturer	Product Name
Crafco, Inc	Deery 180
Crafco, Inc	Polyflex CA
Maxwell Products	Elastoflex CA
RW Materials, LLC	RW306CS3
SealMaster	CrackMaster PL

Sand applied to tacky crack treatment material must be clean, free of clay, and have the following gradation:

Sand Gradation

Sieve size	Percent passing
No. 4	100
No. 50	0–30
No. 200	0–5

The crack sealant material shall be capable of being melted and applied to cracks and joints at temperatures below 400°F. When heated, it shall readily penetrate cracks one-quarter inch (1/4") wide or larger.

Before the polymer modified slurry seal is applied, the pavement surface shall be swept free of all loose debris using power sweepers, digouts completed and striping removal completed.

All existing/temporary pavement markers paint and thermoplastic shall be removed and disposed of by the Contractor. Said removal shall not occur sooner than two days prior to the slurry sealing is performed and shall be paid under Section 10-13, "Pavement Marker, Thermoplastic Marking and Striping Removal."

Manholes, valves, survey monuments, or miscellaneous frames and covers shall not receive a seal coat. These shall be protected as noted in Section 10-3 "Existing Facilities". Any frame or cover seal coated shall be cleaned to the satisfaction of the Engineer and the cost for the cleaning shall be borne by the Contractor.

Placing

Placing shall conform to the provisions in Section 37-3.02C(4), "Placement" of the SS and of these Special Provisions.

No application of slurry mixture shall be permitted when the temperature of the pavement to be surfaced is below 50° F or when the air temperature is below 60°F in the shade or when, in the opinion of the Engineer, road conditions, road temperatures, imminence of rain, wetness or dampness are not conducive to successful results.

The slurry mixture shall be uniformly spread by means of a controlled spreader box conforming to the requirements of Section 37-1.03B "Equipment" of the SS.

If required by the Engineer, the slurry machine shall be inspected and calibrated on a 300-foot test section. The calibration shall establish the settings required to obtain the application rate for the slurry and correct proportions of ingredients in accordance with these Special Provisions.

The spreader box shall move forward at a rate not greater than 3 miles per hour (270 feet per minute) such that the fluid slurry mixture will penetrate and substantially fill all available voids. All surfaces to be slurry sealed shall be lightly dampened with a fog spray of water. The slurry box squeegees, rubber belting or similar material, shall be flexible enough to wipe the slurry uniformly over the surface of the roadway without gouging, scouring or abrading the existing surface or chips.

Type II slurry seal shall be spread at a rate between **13-15 pounds of dry aggregate per square yard** as required or dictated by surface conditions or as determined by the Engineer. The completed spread rate shall be within ten percent of the designated rate.

Areas which cannot be reached with the slurry seal machine shall be surfaced using hand squeegees to provide complete and uniform coverage. Care shall be taken to leave no unsightly appearance from the handwork. All handwork shall achieve the same type of finish as applied by the spreader box. All incidental handwork such as surfacing of driveway aprons and returns shall be done concurrently with the surfacing of the street proper.

The joint between the edge of pavement and the concrete gutter shall be sealed/filled with slurry seal and not overlap into the gutter pan. Any application spillage beyond this joint shall be removed or cleaned up by the Contractor to the satisfaction of the Engineer. Gutter spills and any tracking of slurry seal onto concrete improvements shall be cleaned immediately. The edges of the limits of the slurry seal application of both sides of the street shall be maintained in a neat and uniform line.

All lines of termination of slurry sealing shall be neat and straight. Contractor shall use building paper or an approved equal header material at all limits of work. Longitudinal joints shall be at the crown of the street or at the edge of the traveled lanes. No excessive buildup or unsightly appearance shall be permitted on longitudinal and transverse joints.

Care will be taken to avoid leaving ridges at the lap joints between adjoining passes. Wherever possible, joints will coincide with lane lines or in the center of the lane. In no case will ridges be allowed in the normal wheel track of vehicles. The forward speed of the slurry spreader shall be adjusted to eliminate corrugations or surface irregularities in the slurry coat, which are caused by excessive speed.

No lumping, balling, or unmixed aggregate shall be permitted. No segregation of the emulsion and fines from the coarse aggregate shall be permitted. If coarse aggregate settles to the bottom of the mix, the slurry mix shall be removed from the pavement. No excessive breaking of emulsion shall be allowed in the spreader box. No streaks caused by oversize aggregates will be left on the finished pavement, and ridges, washboarding in the finished product shall not be allowed.

Weight tags shall be furnished to the Engineer for all materials delivered to the site including aggregates, emulsified asphalt for slurry and retardant.

The Contractor shall immediately remove any excess slurry from the gutters. The Contractor shall not continue to the next street until all excess slurry is removed as determined by the Engineer. No extension of time will be granted due to delay caused by non-compliance with this provision.

The Contractor shall furnish and maintain in good operating condition all tools and equipment necessary to do the work with a minimum of inconvenience to the public and shall employ sufficient personnel to operate all equipment efficiently and skillfully.

The Contractor shall refrain from using fuel or solvents of any kind for cleaning tools and equipment in such a manner as to permit spillage of diesel fuel or solvent on the pavement, curbs, gutters, parkways or other adjoining areas.

Rolling

Slurry sealed areas shall be rolled by a self-propelled, 10-ton pneumatic roller. Roller shall have a tire pressure of 50 PSI and be equipped with a water spray system. All tires shall be smooth surfaced and inflated to the same pressure. The slurry sealed area to be rolled shall be subjected to at least three (3) full coverage passes such that the material is compacted to a uniform surface texture.

Rolling shall occur the same day as the slurry is placed, however it shall not commence until the slurry seal has cured enough so that it will not pick up on the tires of the roller. A minimum of four hours of curing time shall be observed unless otherwise directed by the Engineer.

Initial and Final Sweeping Following Slurry Seal

The Contractor shall provide all necessary equipment, skill, and manpower to sweep all completed slurry sealed streets to the satisfaction of the Engineer, and in accordance with these Special Provisions. Sweeping shall not begin until a sufficient bond has developed between the emulsion and the aggregate. Sweeping shall not dislodge aggregate or patches of applied surface.

The Contractor shall use a commercial sweeper to sweep the street. During the sweeping, the sweeper shall use only the rear broom. The front brooms shall not be used during this sweeping operation. Brooms shall be vertically adjustable so as to avoid excess pressure during sweeping.

The initial sweeping shall be performed no sooner than three (3) calendar days after the slurry seal has been applied to the street. The Contractor shall conduct additional sweepings at seven (7) calendar days and again at fourteen (14) calendars days after the slurry seal has been applied. A final sweeping shall be performed no sooner than twenty-eight (28) days and no later than forty-two (42) days following the slurry seal application. The Contractor shall submit a schedule of the dates for sweeping. The sweeping schedule shall be approved by the Engineer prior to occurring.

Side streets abutting Hamilton Avenue, and sidewalks and driveways adjacent to Hamilton Avenue shall also be swept and kept clean of aggregates or other materials resulting from the application operation.

Temporary Pavement Delineation

Temporary Pavement Delineation shall be in accordance with Section 10-16 of these Special Provisions.

Payment for traffic control, flagging and for providing, installing and maintaining the temporary lane lines and pavement markings shall be deemed included in the price paid for under Bid Item #1 “Traffic Control and Public Safety” and no additional compensation will be allowed thereof. Attention is directed to Special Provision Section 10-2, “Traffic Control and Public Safety.”

Scheduling of Striping after Slurry Seal has Cured

Permanent traffic stripes, pavement markings and pavement markers shall be installed in accordance with Section 10-17, “Traffic Stripes, Pavement Markings and Markers,” of these Special Provisions.

Any tire tracking from slurry seal surfaced streets to other streets that deface existing striping and markings shall be washed off the street.

Repair and Acceptance of the Work

In the event that the applied slurry seal surface violates the contract specifications or has the following conditions: tire or wheel tracks, longitudinal or transverse ridges, surface blemishes, wash boarding, footprints, excessively rough sand blotter locations, lack of uniformity in color, or other undesired markings; the Contractor shall, at the direction of the Engineer and at no additional cost to the City, repair and reseal those locations where the conditions exists. The method of treatment shall be approved by the City Engineer or his authorized representative.

Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all of the work involved with weed abatement, crack sealing and the polymer modified slurry seal and in compliance with the plans, specifications and Special Provision Section 10-14, “Type II Polymer Modified Slurry Seal” shall be included in the per square yard (SY) price paid for:

SLURRY SEAL (TYPE II) (SY) BID ITEM #46

As a condition of payment, the Contractor must provide certified weight tags from a public weighmaster for each delivery of emulsion and aggregate to the project. Weight tags for the emulsion and weight tags for the aggregate shall be delivered to the Engineer by the end of each slurry seal week. These tags shall correspond to the work performed during the week.

NOTE - Full compensation for removing completely and disposing of all existing thermoplastic and painted traffic stripes, pavement markings, and pavement markers, performed in advance of the slurry seal placement, shall be considered as included in the price paid for Section 10-13, “Pavement Marker, Thermoplastic Marking and Striping Removal”, and no additional compensation will be allowed therefor.

SECTION 10-15 ASPHALT CONCRETE OVERLAY

General

Asphalt concrete shall conform Section 39-2.01 “General” and Section 39-2.02 “Hot Mix Asphalt Concrete Type F and Type H” of the SJSS found in Appendix N, the plans, the specifications and these Special Provisions. Attention is directed to Section 10-6 “Control of Materials”, Section 10-8 “Prosecution and Progress, "Hours of Work", and 10-2 "Traffic Control and Public Safety" of these Special Provisions.

Two weeks in advance of the paving operations, the Contractor shall submit to the Engineer, a description of the proposed paving operation including the pass widths, the establishment of control to maintain a uniform grade, and the rolling equipment and procedures to be used.

The Contractor shall schedule the final lift of the asphalt concrete overlay work will be completed on the entire pavement width, (from lip of gutter to the lip of gutter or median island curb to lip of gutter), at the end of each working day. Contractor shall follow this schedule so that no longitudinal pavement drop-offs between adjacent lanes exist at the end of each working day.

Pre-Paving Conference

For the purpose of this section, the Pre-Paving Conference encompasses all work associated with street resurfacing including but not limited to the slurry seal operation, cold planing/milling operation, conform grading operation, digout operation, cold in place recycling (CIR) and final surface paving operation.

At least twenty (20) working days in advance of the paving operation, a pre-paving conference shall be held with the Contractor and the Engineer. The Contractor shall submit to the Engineer for discussion a description of work, order of work, and their operation for conducting the slurry seal operation, cold planing/milling operation, conform grading operation, digout operation, cold in place recycling (CIR) operation and final surface paving operation. More specifically, the Contractor shall submit for discussion, review and approval by the Engineer a traffic control plan for each individual operation. Each traffic control plan shall specifically address how the Contractor will handle and control traffic at the following major intersections:

- Hamilton Avenue / San Tomas Expressway
- Hamilton Avenue / /Winchester Boulevard
- Hamilton Avenue / Salmar Avenue/HWY 17 (on ramps and off ramps)
- Hamilton Avenue / Creekside Way
- Hamilton Avenue / Bascom Avenue
- Hamilton Avenue / Leigh Avenue

Moreover, during the pre-paving conference the Contractor shall discuss with the Engineer the following for the surface paving work: estimated daily tonnage (i.e. what's the intended daily street resurfacing block coverage like) , pass widths, the establishment and control to maintain a uniform grade, the rolling equipment and procedures to be used to work the material, and the Contractor's quality control (QC) plan for meeting the compaction requirements.

Submittals

At the Pre-Paving Conference or no less than ten (10) working days in advance of the paving operations, the Contractor shall submit to the Engineer:

- Job Mix Formula (JMF) on Form CEM-3511 and Form CEM-3512.

- Submit form CEM-3513 or CEM-3514 for mixes that have been verified within the last 24 months. Provide most recent CEM-3513 if mix has not been verified within the last 24 months. For unverified mixes or out of date mix tests, final acceptance will be based on production startup tests and Contractor will be paving at their own risk.

- Quality Control Plan that conforms to the current Caltrans Quality Control Plan Review Checklist for Hot Mix Asphalt. Allow 10 working days for review.

- A description of the leveling course work, milling operation, proposed paving operation including pass widths, the establishment and control to maintain a uniform grade, the rolling equipment and procedures to be used for performing the paving work.

- Traffic Control Plans for the paving operation.

Materials

The materials used for the hot mix asphalt concrete shall comply with Sections 39-2.01B and 39-2.02B "Materials" of the SJSS found in Appendix N. The mix design for the Type H HMA must comply with Section 39-2.02B(2) "Materials" of the SJSS.

Asphalt Binder

The grade of the asphalt binder mixed with aggregate for all HMA Type H shall be PG 64-10 and shall comply with Section 92 "Asphalt Binders" of the SS.

Aggregate

Aggregate gradation must be within the TV limits for the specified sieve size shown in the following tables:

For the Overlay/Surface course
Aggregate Gradations for Type F HMA
(Percentage Passing) for 3/4 Inch, PG 64-10

Sieve size	Target value limit	Allowable tolerance
1"	100	--
3/4"	90-100	TV±5
1/2"	<90	TV±6
No.8	23-49	TV±5
No.200	2.0–8.0	TV±2.0

Asphalt concrete aggregate shall meet the SJSS requirements for Aggregate Quality.

Mix voids to be targeted at 4.0% +/- 1.5%.

The mix shall include 0.5% of liquid anti-strip. No Warm Mix Additive shall be allowed.

Tack Coat

A tack coat of undiluted SS-1H emulsified asphalt shall comply with Section 39-2.01C(3)(f) Tack Coat of the SJSS found in Appendix N. The Contractor shall apply the tack coat:

1. To existing pavement included planed surfaces
2. Between HMA layers
3. To vertical surfaces of curbs, gutters and construction joints.

Equipment for the application of the tack cat must comply with Section 37-1.03B of the SS(2018).

Before placing the HMA, apply a tack coat in 1 application at the minimum residual rate shown in the following table for the condition of the underlying surface:

Tack Coat Application Rates for HMA
(Minimum Residual rates (gal. / sq. yd.)

HMA over:	Minimum residual rates (gal/sq yd)		
	CSS1/CSS1h, SS1/SS1h and QS1h/CQS1h asphaltic emulsion	CRS1/CRS2, RS1/RS2 and QS1/CQS1 asphaltic emulsion	Asphalt binder and PMCRS-2 / PMCRS-2h asphaltic emulsion
New HMA (between layers)	0.02	0.03	0.02
Concrete pavement and existing asphalt concrete surfacing	0.03	0.04	0.03
Planed pavement	0.05	0.06	0.04

Immediately in advance of placing the HMA, apply additional tack coat to damaged areas or where loose or extraneous material is removed.

Close areas receiving tack coat to traffic. Do not allow the tracking of tack coat onto pavement surfaces beyond the job site.

Surface Preparation

Seal all cracks prior to placing HMA. All cold joints, both longitudinal and transverse shall be heated with a torch immediately prior to paving. Cold joints include previous passes placed more than three hours prior.

Thickness at Lip of Gutter

Asphalt concrete placed adjacent to any gutter designed to carry water shall be 0 inch to ¼" above the lip of gutter after final compaction, but in no case shall it be more than ¼". Any areas greater than ¼" shall be repaired by wedge grinding a minimum depth of 1" and repaving as directed by the Engineer. Cost for such grinding, removal, and installation of replacement of material is the sole responsibility of the Contractor and no additional compensation shall be allowed thereof. Notwithstanding any requirements by these Special Provisions, quantity for Hot Mix Asphalt shall be the in-place quantity and shall exclude any material required to be removed. Asphalt concrete placed adjacent to any gutter designed to shed water shall be flush with the gutter lip after final compaction.

Proportioning, Spreading and Compacting

Asphalt paving equipment used to place asphalt concrete shall conform to the requirements of Caltrans Standard Specifications Section 39-2.01C(2) "Spreading and Compacting Equipment" of the SJSS found in Appendix N.

The paver shall be equipped with full automatic screed and grade sensing controls, which shall control the longitudinal grade and transverse slope of the screed. The controls shall be actuated by grade and slope references. Corrections on account of deviations from the references shall be automatic. Guide and references required to control the longitudinal grade and transverse slopes shall be furnished by the Contractor. The Contractor shall use a ski device sensing from sub-grade for longitudinal control; the minimum length of the device shall be 30 feet. The device shall be a rigid unit mounted on multiple supports. Each support shall act independently of the others and the finished grade shall not be affected by the action of a single support.

The number of rollers required for each paving operation shall be such that all rolling for density can be completed before the temperature of the hot mix asphalt mixture drops below 240 degrees Fahrenheit.

Breakdown rolling shall commence when the hot mix asphalt is placed. Rolling shall be accomplished with the drive wheel forward and with the advance and return passes in the same line.

The Contractor shall have hand-compaction equipment immediately available for compacting all areas inaccessible to rollers. Hand-compaction shall be performed concurrently with breakdown rolling. If for any reason hand-compaction falls behind breakdown rolling, further placement of hot mix asphalt shall be suspended until hand-compaction is caught up. Hand-compaction includes vibraplates and hand tampers. Hand torches shall be available for rework of areas which have cooled.

After compaction, the surface texture of all hand work areas shall match the surface texture of the machine placed mat. Any coarse or segregated areas shall be corrected immediately upon discovery. Failure to immediately address these areas shall cause suspension of hot mix asphalt placement until the areas are satisfactorily addressed, unless otherwise allowed by the Engineer.

The minimum final relative compaction of the asphalt concrete shall be 95% of the compacted unit weight.

Final compaction of the paving shall be tested by the City by nuclear gauge using California Test 375 or ASTM D2950. The test maximum density shall be derived from the laboratory compacted specimens made in accordance with CTM 304 and tested for Bulk Specific Gravity and Density in accordance with ASTM D1188. Cores may be taken in lieu of nuclear gage testing to determine compaction of asphalt concrete. Cores shall be tested under CTM 308 Method A or ASTM D1188. The test results from coring shall take precedence when determining if the paved areas meet the required relative compaction.

Before placing the layer adjacent to cold transverse construction joints, such joints shall be trimmed to a vertical face and to a straight line. Transverse joints shall be tested by the City with a 12-foot straightedge and shall be cut back to a minimum of six inches (6”) and as required to conform to the requirements for surface smoothness. The Contractor shall provide the 12-foot straightedge as part of their regular paving equipment and shall have it on the job site and readily available during all paving operations.

Longitudinal joints shall be at the edge of the traveled lanes and shall be trimmed to a vertical face and to a straight line, if, in the opinion of the Engineer, the edges of the previously laid surfacing are in a condition that the quality of the completed joint will be affected. The material being placed in the abutting lanes shall be tightly crowded against the face of the previously placed lane. The paving machine shall be positioned to overlap the existing mat only to the extent that the material placed against the joint is tightly crowded against the vertical face at the joint and that the conform leaves no ridges or depressions. Before compacting the joint, the coarse aggregate in the overlapped material that has dislodged through raking shall be removed from the pavement surface and discarded.

The Contractor shall ensure that connections to existing or previously laid surfacing shall conform to the requirements of surface smoothness or the Contractor shall correct all these deficiencies to the satisfaction of the Engineer. The Engineer's decision whether the Contractor has met the requirements of surface smoothness shall be final.

The completed surfacing shall be thoroughly compacted, smooth, and free from ruts, humps, depressions, or surface irregularities. Any ridges, indentations or other objectionable marks left in the surface by blading or other equipment shall be eliminated by rolling or other means. The use of any equipment that leaves ridges, indentations, or other objectionable marks in the surface shall be discontinued, and acceptable equipment shall be furnished by the Contractor.

When the 12-foot-long straightedge is laid on the finished surface and parallel to the center line, the surface shall not vary more than 0.01-foot from the lower edge of the straightedge. The transverse slope of the finished surface shall be uniform to a degree such that no depressions greater than 0.02-foot are present when tested with a 12-foot straightedge laid in a direction transverse to the center line and extending from edge to edge of the traffic lane. Should these tolerances and smooth surface requirements not be met, the Contractor shall grind all failed pavement sections using abrasive grinding equipment utilizing diamond cutting blades and have the sections slurry sealed. Attention is directed to Sections 10-14 “Type II Polymer Modified Slurry Seal” and Section 42 “Groove and Grind Concrete” of the SS. Should the Contractor fail to perform these requirements, the Engineer may elect to have the City or contract forces perform these requirements, deducting the expenses incurred from any moneys that are due, or to become due, to the Contractor. By exercising this option, the Contractor is in no way relieved of the responsibility to perform these requirements.

The Contractor shall water test the entire overlay area in the presence of the Engineer to check the direction of water flow and ponding. Contractor shall repair all areas of ponding and reverse flow.

The Contractor shall provide a minimum of two competent and qualified flaggers dedicated solely to directing traffic into and out of driveways and cross-streets across overlaid areas during the overlay operations (including the placement of the asphalt binder and pavement fabric). Flaggers shall be equipped with all equipment necessary to properly direct and control traffic.

Delivery: The HMAC shall be delivered and placed directly into the paving machines attached hopper.

Temporary Pavement Delineation

Temporary pavement delineation shall be in accordance with Section 10-16 of these Special Provisions

Payment for traffic control, flagging and for providing, installing and maintaining the temporary lane lines and pavement markings shall be deemed included in the price paid for under Bid Item #1 “Traffic Control and Public Safety” and no additional compensation will be allowed thereof. Attention is directed to Special Provision Section 10-2, “Traffic Control and Public Safety.”

Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment, and all incidentals, and for doing all of the work in compliance with the Plans, Specifications and Special Provision Section 10-15, “Asphalt Concrete Overlay,” shall be included in the per ton price paid for:

ASPHALT CONCRETE (TYPE F) (TON) **BID ITEM #47**

Contractor shall show proof for payment the AC (Tonnage) tags and Certificates of Compliances (COC) to the Engineer on the day of or within 3-calendar days of the HMAC being furnished for the job. Payment will be based on the AC tags and COC's furnished and installed by the Contractor for the project.

SECTION 10-16 TEMPORARY PAVEMENT DELINEATION

General

Temporary pavement delineation shall be furnished, placed, maintained and removed in accordance with the provisions in Section 84 "Traffic Stripes and Pavement Markings" of the CCSS, Section 12-3 "Temporary Traffic Control Devices" of the SS, the most recent CA MUTCD and these Special Provisions. Nothing in these Special Provisions shall be construed as to reduce the minimum standards specified in the CA MUTCD or as relieving the Contractor from his responsibility as provided in Section 7-1.08, "Public Safety" of the General Provisions and Section 7-1.04 "Public Safety of the SS and as indicated in these Special Provisions.

Lane line or centerline pavement delineation shall be provided at all times for travel lanes open to public traffic. Whenever the work covers or causes obliteration of pavement delineation, temporary pavement delineation or permanent traffic stripes shall be in place prior to opening the traveled way to public traffic.

Surfaces on which temporary pavement delineation is to be applied shall be cleaned of all dirt and loose material and shall be dry when the pavement delineation is applied.

The Contractor shall perform all work necessary to establish satisfactory alignment for temporary pavement delineation.

Temporary pavement delineation that is damaged from any cause during the progress of the work shall be immediately repaired or replaced by the Contractor at his own expense.

Temporary Striping

Whenever existing traffic striping or markings have been removed, paved over, or otherwise obliterated through cold planing/milling operation, temporary striping or markings shall be provided as follows: Slurry tabs/"Floppy" tabs of the appropriate color as approved by the Engineer shall be installed and placed on twenty-four (24) foot intervals to delineate all four (4) inch traffic stripes. All channelization lines (solid eight (8) inch or twelve (12) inch line markings) shall be temporarily restored with a double row of floppy tabs as approved by the Engineer. All crosswalks shall be restored with a double row of floppy tabs as approved by the Engineer. All pavement markers separating multiple turning lanes shall be replaced with floppy tabs on ten (10) foot spacing.

Contractor shall maintain temporary striping and markings until the permanent striping and markings are installed. All temporary markers, markings and striping shall be removed by the Contractor (on the same day) the permanent markings and stripings are scheduled to be installed. Contractor shall repair any pavement locations damaged during the installation and removal of temporary markers, markings and striping.

When no longer required for the direction of public traffic, as determined by the Engineer, the temporary slurry tabs/floppy tabs, traffic stripe and pavement marking tape and temporary pavement markers, applied to existing pavement, the top layer of new pavements or any other paved surface where the previously placed pavement delineation was obliterated or conflicted with the new traffic pattern, shall be removed and disposed of in accordance with the provisions of Section 7-1.12, "Disposal of Materials Outside the Project Limits" of the General Provisions and all lines and marks used to establish the alignment for the temporary traffic stripes, pavement markings and temporary pavement markers shall be removed from the pavement.

If the Contractor fails to comply in providing the temporary lane line markers and temporary pavement markings, the Engineer may elect to have the City or contract forces perform all of these duties and deduct all the expense incurred from any monies that are due or become due to the Contractor. By exercising this option, the Contractor is in no way relieved of the responsibilities to perform these duties.

Measurement and Payment

Full compensation for furnishing, placing, maintaining, replacing (regardless of the number of times it is required) and removing temporary traffic stripes and markings and temporary pavement markers shall be considered as included in the lump sum price paid for under Section 10-2, "Traffic Control and Public Safety" and no additional compensation will be allowed therefor.

SECTION 10-17 TRAFFIC STRIPES, PAVEMENT MARKINGS AND MARKERS

General

Painting traffic stripes (traffic lines) and pavement markings (legends) shall conform to the following: Section 84, "Traffic Stripes and Pavement Markings" of the CCSS; the provisions of Section 84-1 "General" and 84-2 "Traffic Stripes and Pavement Markings" of the SS; the most recent CA MUTCD; the Project Plans and these Special Provisions.

All traffic stripes and pavement markings shall be laid out in the field (cat-tracked) by the Contractor. The Engineer shall have a minimum of 15 working days to review the cat-tracking. Contractor shall make all field adjustments and get the Engineer's approval prior to any final installation. Any striping and/or marking installed by the Contractor that the Engineer has not pre-approved, and that the Engineer determines are installed improperly or in the wrong locations, shall be removed and replaced to the satisfaction of the Engineer at the Contractor's sole expense.

Contractor shall pay particular attention to the Construction Details for laying-out the cat-track marks for the crosswalks and limit lines at intersections as the installation of new ADA compliant curb ramps may have impacted the striping sheets. All new crosswalks and limit lines shall be installed in accordance to ADA guidelines and standards or in accordance with the Details found in the plan set.

Pavement markings shall be installed with stencils belonging to the Contractor that are determined to be identical to the City's stencils.

Signing & Striping Plans

The City prepared Signing & Striping plans for the project. The Signing & Striping Plans and Schedules are found in the plan set.

Paint

Paint for the traffic stripes and pavement markings shall be Rapid Dry Water Borne paint and shall be applied in two coats. The Contractor shall install the first coat of the paint within 7 calendar days of the final resurfacing. After fourteen (14) calendar days, the second coat of paint shall be applied after the final resurfacing.

Paint for traffic spot islands noses and median island noses shall be reflective white and reflective yellow paint, respectively, and shall be applied in two coats. The Contractor shall install the first coat of paint within 7 calendar days the concrete improvements have been completed. After (14) calendar days, the second coat of paint shall be applied.

Raised Pavement Markers

Pavement markers shall conform to Section 81-3, “Pavement Markers” of the SS, the most recent CA MUTCD and these Special Provisions. All non-reflective pavement markers shall be ceramic. Plastic pavement markers shall not be allowed.

Adhesive shall conform to Section 81-3.02D, “Hot Melt Bituminous Adhesive” of the SS and of these Special Provisions.
Markers shall not be placed on new asphalt concrete surfacing until the surfacing has been opened to public traffic for a period of not less than seven days when hot melt bituminous adhesive is used, and not less than 14 days when epoxy adhesive is used. Placement of pavement markers shall be completed within three weeks of application of the new resurfacing of the respective roadway.

All pavement markers in place (outside the limits of the work) shall be protected from damage and shall be clean and undamaged after completion of the project. Any damage to the newly placed or existing markers due to the failure of the Contractor to protect the work, and correction of errors, shall be repaired by the Contractor at no additional cost.

Blue reflective fire hydrant pavement markers shall be installed conforming to the provisions of the most recent CA MUTCD Section 3B.11, “Raised Pavement Markers” and Figure 3B-102 (CA). Example of fire hydrant location pavement markers can be found in the plan set.

A Certificate of Compliance shall be furnished as specified in Section 6-1.08, “Certificates of Compliance” of the General Provisions for reflective pavement markers. Said certificate shall also certify that the reflective pavement markers conform to the prequalified testing and approval of Caltrans, division of Traffic Operations, and were manufactured in accordance with the approved quality control program.

Thermoplastic Traffic Stripe and Pavement Marking

Thermoplastic traffic stripes (traffic lines) and pavement markings shall be applied in conformance with the provisions in Section 84, " Markings," of the SS and these Special Provisions.

Thermoplastic material shall be free of lead and chromium and shall conform to the requirements in State Specification PTH-02ALKYD.

Retroreflectivity of the thermoplastic traffic stripes and pavement markings shall conform to the requirements in ASTM Designation: D 6359-99. White thermoplastic traffic stripes and pavement markings shall have a minimum initial retroreflectivity of 250 mcd m^{-2} lx^{-1}. Yellow thermoplastic traffic stripes and pavement markings shall have a minimum initial retroreflectivity of 150 mcd m^{-2} lx^{-1}.

Where striping joins existing striping, as shown on the plans, the Contractor shall begin and end the transition from the existing striping pattern into or from the new striping pattern a sufficient distance to ensure continuity of the striping pattern.

Thermoplastic traffic stripes and pavement markings shall be free of runs, bubbles, craters, drag marks, stretch marks, and debris. Thermoplastic shall be extruded and placed in one coat and shall be placed five days after the final surfacing. Sprayable thermoplastic is not allowed.

After (14) calendar days of the final surfacing, thermoplastic shall be applied.

Pre-formed Green Thermoplastic Bike Lane Marking

The Contractor shall use pre-formed thermoplastic pavement markings by Premark with ViziGrip Skid/Slip Resistant (90 mil) – specifications for the material can be found in Appendix Q. The bike symbol and bike arrow shall be integrated with the green bike lane thermoplastic sheets. Installation of the green bike lane shall be performed as required by the manufacturer's specifications and as noted herein these Special Provisions.

The pre-formed thermoplastic green bike lane color shall be the "light" green color that meets FHWA's specifications for color. A sealer specified by the manufacturer shall be applied to the substrate asphalt concrete prior to the installation of the green bike lane to ensure proper adhesion.

The pre-formed green bike lane marking sheets shall be installed prior to the 6" white liquid thermoplastic solid (Detail 39) and dashed (Detail 39A) bicycle lane lines are installed. The bike lane symbol and arrow, shall be integrated with the green bike lane sheets for bike lanes 5 feet wide or greater and as shown on the Project Plans. For bike lanes less than 5 feet, the green bike lane shall be pre-formed green thermoplastic however the bike lane symbol and arrow shall be extruded thermoplastic placed on top of the pre-formed green bike lane sheets.

The pre-formed thermoplastic sheets shall be laid out in the field and applied so that the edges of the adjacent sheets fit snugly together. The pattern of the markings shall align properly from sheet to sheet so as to prevent overlapping of adjacent sheets. The Contractor shall get the Engineer's approval on the layout of the sheets prior to the final installation.

First time applicators shall contact the pre-formed thermoplastic pavement marking supplier for product support and on-site training prior to installation.

At the City's option, the City may request a chisel test be performed on the finished product. The Contractor shall conduct any necessary repairs to the thermoplastic after the chisel test.

Payment for traffic control under this Section 10-17, "Traffic Stripes, Pavement Markings, and Markers," shall be deemed included in the price paid for Bid Item #1 "Traffic Control and Public Safety". Contractor shall refer to Section 10-2 "Traffic Control and Public Safety."

Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all of the work including but not limited to traffic control in compliance with the plans, specifications and Special Provision Section 10-17, "Traffic Stripes, Pavement Markings and Markers," shall be measured and included in the appropriate bid item as listed on the Bid Schedule and as outlined below:

DETAIL 9A STRIPING (LF)	**BID ITEM #48**
DETAIL 22 STRIPING (LF)	**BID ITEM #49**
DETAIL 25 STRIPING (LF)	**BID ITEM #50**
DETAIL 26 STRIPING (LF)	**BID ITEM #51**
DETAIL 27B STRIPING (LF)	**BID ITEM #52**
DETAIL 29 STRIPING (LF)	**BID ITEM #53**
DETAIL 32 STRIPING (LF)	**BID ITEM #54**
DETAIL 36 STRIPING (LF) – THERMO	**BID ITEM #55**
DETAIL 37 STRIPING (LF) – THERMO	**BID ITEM #56**
DETAIL 37B STRIPING (LF) – THERMO	**BID ITEM #57**
DETAIL 38 STRIPING (LF) – THERMO	**BID ITEM #58**
DETAIL 38B STRIPING (LF) – THERMO	**BID ITEM #59**
DETAIL 39 STRIPING (LF) – THERMO	**BID ITEM #60**
DETAIL 39 STRIPING (LF) – PAINT	**BID ITEM #61**
DETAIL 39A STRIPING (LF) – PAINT	**BID ITEM #62**
DETAIL 39A STRIPING (LF) – THERMO	**BID ITEM #63**
DETAIL 40 STRIPING (LF) – THERMO	**BID ITEM #64**
DETAIL 41 STRIPING (LF) – THERMO	**BID ITEM #65**
TYPE I (10) ARROW (EA) – THERMO	**BID ITEM #66**
TYPE III (L) ARROW (EA) – THERMO	**BID ITEM #67**
TYPE III (R) ARROW (EA) – THERMO	**BID ITEM #68**
TYPE IV (L) ARROW (EA) – THERMO	**BID ITEM #69**

TYPE IV (R) ARROW (EA) – THERMO	**BID ITEM #70**
TYPE V ARROW (EA) – THERMO	**BID ITEM #71**
TYPE VI (L) ARROW (EA) – THERMO	**BID ITEM #72**
TYPE VI (R) ARROW (EA) – THERMO	**BID ITEM #73**
TYPE VII (L) ARROW (EA) – THERMO	**BID ITEM #74**
TYPE VII (R) ARROW (EA) – THERMO	**BID ITEM #75**
"U-TURN" ARROW (EA) – THERMO	**BID ITEM #76**
4" WHITE LINE (ADJACENT TO PARKING) (LF)	**BID ITEM #77**
4" WHITE DIAGONAL STRIPE (LF) – THERMO	**BID ITEM #78**
4" YELLOW DIAGONAL STRIPE (LF)	**BID ITEM #79**
12" YELLOW STRIPE (LF) – THERMO	**BID ITEM #80**
12" WHITE STRIPE (LF) – THERMO	**BID ITEM #81**
24" WHITE STRIPE (LF) – THERMO	**BID ITEM #82**
24" YELLOW STRIPE (LF) – THERMO	**BID ITEM #83**
YIELD LINE, ISOSCELES TRIANGLES (EA) – THERMO	**BID ITEM #84**
"YIELD" LEGEND (EA) – THERMO	**BID ITEM #85**
"STOP" LEGEND (EA) – THERMO	**BID ITEM #86**
"THRU" LEGEND (EA) – THERMO	**BID ITEM #87**
"HWY 17" LEGEND (EA) – THERMO	**BID ITEM #88**
"NORTH" LEGEND (EA) – THEREMO	**BID ITEM #89**
"SOUTH" LEGEND (EA) – THERMO	**BID ITEM #90**
"FWY" LEGEND (EA) – THERMO	**BID ITEM #91**
"ONLY" LEGEND (EA) – THERMO	**BID ITEM #92**
"RR XING" LEGEND (EA) – THERMO	**BID ITEM #93**
"KEEP" LEGEND (EA) – THERMO	**BID ITEM #94**
"CLEAR" LEGEND (EA) – THERMO	**BID ITEM #95**

"PED" LEGEND (EA) – THERMO	**BID ITEM #96**
"XING" LEGEND (EA) – THERMO	**BID ITEM #97**
"LEFT" LEGEND (EA) – THERMO	**BID ITEM #98**
"TURN" LEGEND (EA) – THERMO	**BID ITEM #99**
BIKE LANE SYMBOL (EA) – THERMO	**BID ITEM #100**
BIKE LANE ARROW (EA) – THERMO	**BID ITEM #101**
"BIKE" LEGEND (EA) – THERMO	**BID ITEM #102**
"LANE" LEGEND" (EA) – THERMO	**BID ITEM #103**
BICYCLE LOOP DETECTOR SYMBOL (EA) – THERMO	**BID ITEM #104**
SHARED ROADWAY BICYCLE MARKING (EA) – THERMO	**BID ITEM #105**
PREFORMED GREEN BIKE LANE W/ INTEGRAGED BIKE SYMBOL & ARROW (SF) – THERMO	**BID ITEM #106**
PREFORMED GREEN BIKE LANE W/ INTEGRAGED BIKE SYMBOL (SF) – THERMO	**BID ITEM #107**
PREFORMED GREEN BIKE LANE (SF) – THERMO	**BID ITEM #108**
GREEN BIKE LANE (IN PCC BUS STOP PADS ONLY) (SF) – PAINT	**BID ITEM #109**
RED CURB (LF)	**BID ITEM #110**
YELLOW CURB – REFLECTIVE PAINT (LF)	**BID ITEM #111**
WHITE CURB – REFLECTIVE PAINT (LF)	**BID ITEM #112**
BLUE FIRE HYRDANT MARKER (EA)	**BID ITEM #113**

SECTION 10-18 SIGNS AND POST

General

Signs shall conform to Section 56, "Signs," of CCSS, the Details found in the project plan set, these Special Provisions and the most recent issue of California Manual on Uniform Traffic Control Devices adopted by the State of California Department of Transportation and the Federal Highway Administration. Markers and delineators shall conform to Section 82 "Signs and Markers" of the SS.

Signing& Striping Plans

The Signing & Striping Plans and Schedules are found in the plan set.

Work shall include but not be limited to the following: the removal/relocation of existing signs and signposts; salvaging existing signs; disposal of existing signposts and foundations; furnishing and installing new signposts, footings, mounting hardware and Type I pedestrian barricade; and the re-installation of existing signs onto new post. All existing signs that are to be relocated shall be protected during construction as they will be reused/remounted in its new location.

New sign panels that are to be provided by the Contractor and shall comply with the latest California MUTCD for Prismatic Sheeting, Type IV or higher (3M Brand or approved equal) on 0.080-inch thick aluminum blanks and shall be solvent resistant. Signs shall be of the State standard size or as noted on the sign schedule found on the Project Plans. Contractor shall confirm the locations of all new sign panel installations with the Engineer prior to their installation.

The Contractor shall provide all fasteners required to install all signs.

Existing street name, warning, regulatory and guide signs and posts that interfere with the construction of accessibility ramps, driveways, and sidewalks shall be carefully removed and reset by the contractor, at standard height in temporary locations and, when construction is complete, reset in their final location as directed by the Engineer. Contractor shall call the Engineer's attention to all damaged signs prior to removal.

Relocated signs shall be placed with a new signpost in their final location as directed by the Engineer in the field.

Contractor shall call Underground Service Alert (USA) (1-800-227-2600) prior to digging for the sign pole installation. New signs will maintain a (7') vertical clearance between the finished grade and bottom of sign, unless otherwise directed by the Engineer.

Signposts shall be new Telespar Unistrut Signpost. The Contractor shall neatly core the existing sidewalk, PCC pavement, etc. and shall install the signposts per Details found on the Project Plans.

For locations where the Contractor is to remove and/or relocate existing signposts, the Contractor shall also remove the existing foundation/footing. Voids created by the removal shall be backfilled with cement slurry (2-sack mix) where concrete pavement is to be installed. Voids created by the removal of the signposts not in the concrete pavement area shall be backfilled with soil and compacted to at least 90% relative compaction or as specified by the Engineer.

The Contractor is to install the Type I Pedestrian Barricades with the R9-3 sign at the southeast corner of Hamilton Avenue at Third Street. The Contractor shall install said barricades as noted on the plans or as directed by the Engineer on the newly constructed accessibility ramp and in accordance with the Detail found in Appendix A.

Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all of the work in compliance with the Plans, Specifications and Special Provisions Section 10-18, "Signs and Posts," shall be paid for in the appropriate bid item as listed below:

RELOCATE EX. SIGN(S) ON NEW POST (EA)	**BID ITEM #114**
FURNISH & INSTALL TYPE K-1 OBJECT MARKER (EA)	**BID ITEM #115**
FURNISH & INSTALL TYPE N-1 OBJECT MARKER (EA)	**BID ITEM #116**
FURNISH & INSTALL R81 "BIKE LANE" SIGN (24"X18") (EA)	**BID ITEM #117**
FURNIGH & INSTALL R81A "BEGIN" SIGN (12"X5") (EA)	**BID ITEM #118**
FURNISH & INSTALL R81B "END" SIGN (8"X5") (EA)	**BID ITEM #119**
FURNISH & INSTALL R4-7 KEEP RIGHT SIGN (24"X30") (EA)	**BID ITEM #120**
FURNISH & INSTALL R4-11 SIGN "BIKES MAY USE FULL LANE" (30"X30") (EA)	**BID ITEM #121**
FURNISH & INSTALL R3-7 SIGN "RIGHT LANE MUST TURN RIGHT" (36"X36") (EA)	**BID ITEM #122**
FURNISH & INSTALL R118 SIGN "EXCEPT BIKES (18"X15") (EA)	**BID ITEM #123**
FURNISH & INSTALL R9-6 SIGN "BIKES YIELD TO PEDESTRIANS" (12"X18") (EA)	**BID ITEM #124**
FURNISH & INSTALL R26(S) SIGN "NO STOPPING ANYTIME" (12"X18") (EA)	**BID ITEM #125**
FURNISH & INSTALL R(SPECIAL) SIGN "HERE TO CORNER" (12"X12") (EA)	**BID ITEM #126**
FURNISH & INSTALL R1-5 SIGN "YIELD HERE TO BIKES" (36"X48") (EA)	**BID ITEM #127**
FURNISH & INSTALL W74 SIGN "THRU TRAFFIC MERGE LEFT" (36"X36") (EA)	**BID ITEM #128**
FURNISH & INSTALL R18A SIGN "RIGHT LANE MUST EXIT" (66"X48") (EA)	**BID ITEM #129**
FURNISH & INSTALL R10-6(R) SIGN "STOP HERE ON RED" (24"X36") (EA)	**BID ITEM #130**
FURNISH & INSTALL R10-15 SIGN "TURNING VEHICLES YIELD TO PEDS" (30"X30") (EA)	**BID ITEM #131**
FURNISH & INSTALL W11-1 SIGN "BIKE SYMBOL" (30"X30") (EA)	**BID ITEM #132**
FURNISH & INSTALL W16-1P SIGN	

"SHARE THE ROAD" (18"X24") (EA)	**BID ITEM #133**
FURNISH & INSTALL NEW SIGNPOST (EA)	**BID ITEM #134**
REMOVE EXISTING SIGNPOST (EA)	**BID ITEM #135**
REMOVE EXISTING SIGN (EA)	**BID ITEM #136**
FURNISH & INSTALL TYPE I PEDESTRIAN BARRICADE	**BID ITEM #137**
FURNISH & INSTALL R9-3 SIGN (18"X18") (EA)	**BID ITEM #138**

SECTION 10-19 TRAFFIC SIGNAL MODIFICATIONS

General

Traffic signals, street lighting, and electrical services shall conform to the provisions of Section 86 – "Signals, Lighting and Electrical System" of the CCSS, City of Campbell Electrical Specifications and Details, and these Special Provisions. Traffic signal poles shall conform to the 2018 Caltrans Standard Plans and Specifications. The remaining equipment shall be per 2018 Caltrans Standard Plans and Specifications

Preservation of Existing Traffic Signal and Street Lighting Systems

Attention is directed to CCSS Section 86-1.05 regarding the maintenance of existing electrical systems.

All existing traffic safety lighting shall be maintained throughout the project area until the new safety lighting is fully operable and approved by the Engineer.

Where existing conduits are to be intercepted and new pull boxes installed, a minimum conductor slack of three feet shall be maintained at all structures and pull boxes, new and existing. Contractor shall furnish and install new conductors if necessary.

Traffic Signal System

The Traffic Signal System shall consist of furnishing and installing the traffic signal system complete, functional, and in place as shown on the Project Plans, as required in the specifications and the Special Provisions. Also included is any and all related excavation, spoil removal, backfill, dewatering, testing, and surface (PCC, AC, landscape) restoration in kind or as designated on the plans.

The location of proposed signal standards, pull boxes, conduits and other equipment shown on the plans are approximate only and the exact location of such shall be established in the field by the Engineer.

Signal Conductors and Wiring

Conductors for vehicle and pedestrian signals shall not run to a terminal block on a standard unless they are to be connected to a signal head that is mounted thereon, and any additional signal heads on other standards that are to be connected to these conductors shall be connected

only in the pull box, not on the terminal block. Conductors for each signal mast arm shall run continuously from each signal head to the pull box and not enter the terminal block compartment.

Conductor insulation shall cover the entire length of the wire except near the ends of the termination points. All wires shall be clearly marked inside the controller cabinet designating the appropriate signal phase.

At least six feet of slack shall be provided in the pull box nearest each signal standard, for those conductors terminating in that standard; and 3 feet of slack shall be provided for each conductor in all other pull boxes. A minimum of six feet of slack shall be provided in the controller cabinet. The wire bundle entering the controller cabinet shall be coiled in the bottom of the cabinet.

Conductors No. 10 and smaller shall be solid copper traffic signal conductors Type USE, THW or TW with a minimum insulation thickness of 40 mil.

Bonding and Grounding

Grounding jumper shall be attached by a 3/16 inch or larger brass bolt in the signal standard, lighting standard, service pedestal or controller cabinet and shall be run to the conduit, ground rod or bonding wire in adjacent pull box.

All PVC conduit shall contain 1 bare stranded No. 8 AWG copper wire for bonding.

Disposal of Electrical Equipment

All ballasts and transformers and all fluorescent and mercury lamps shall be disposed of in accordance with California Department of Health Services Regulations set forth in Title 22, Division 4, Chapter 30, of the California Code of Regulations (CCR).

Ballasts and transformers which contain polychlorinated biphenyl (PCB) are designated extremely hazardous wastes, and fluorescent tubing and mercury lamps are designated hazardous wastes under Article 9, Section 66680 of Title 22, Chapter 30 (CCR).

Foundations

Foundations shall conform to the SSP ES-2 series, ES-4 series, ES-6 series, ES-7 series, and ES-11.

Standards

Standards shall conform to the SSP ES-6 series, ES-7 series, and the Project Plans. Signal and lighting standards shall be galvanized. Galvanized signal and lighting standards shall not be painted.

Vehicle Signal Heads

Vehicle signal heads shall conform to Section 86-4, “Traffic Signal Faces and Fittings,” of the CCSS and the ES-4 series of the SSP. All references to ANSI Standard D-10.1 are changed to Institute of Traffic Engineers Publication: ST-008B, “Vehicle Traffic Control Signal Heads.” Signal section housings, visors, and back-plates shall be the metal type. Signal lenses shall be LED and shall be 12 inches. Terminal compartments, pole plates and post top mounts shall be cast bronze.

Pedestrian Signal Heads

Pedestrian signals shall conform to Section 86-4.05, “Pedestrian Signal Faces,” of the SS and ES-4 series of the SSP. Pedestrian signal faces shall be Type A. Pedestrian signal housing and signal door shall be metal. Message plate shall be LED. Terminal compartment, pole plates and post top mounts shall be cast bronze.

Pedestrian signals shall be General Electric Lumination GT 1 LED Model PS7-CFF1-26A countdown pedestrian signals 16 x 18 inch - Overlay/Countdown, or approved equal.

Pedestrian Push Buttons

Pedestrian push buttons shall conform to Section 86-5.02, “Pedestrian Push Buttons”, of the CCSS and the SS, and ES-5C of the SSP. The distance from the face of the push button cap to the surface of the standard to which it is mounted shall not exceed 4 inches. Pedestrian push buttons shall be Type B with man-walk sign. The push button framework and instructional sign shall be metal. The push button cap and the instruction sign shall be fastened with stainless steel Phillips head screws. The push button shall be ADA-compliant and shall be mounted 36” as measured from the surface on which a person in a wheelchair would be located to the center of the button.

Accessible Pedestrian Signals

Accessible pedestrian signals (APS) shall conform to Section 86, “Electrical Work”, and Section 87, “Electrical Systems”, of the SS as they apply to accessible pedestrian signals. The APS shall have the following features:

1. Locate Tone, Walk, and Don’t Walk audible features shall have independent assignable minimum and maximum limits.
2. The system shall be able to sense ambient noise.
3. The Locate Tone volume shall adjust automatically in response to ambient noise with field selectable adjustment levels from -30dB below to +20dB above ambient in 2.5dB increments.
4. All other sound volumes shall adjust automatically in response to ambient noise with field selectable adjustment levels from -30dB below to +20dB above ambient in 5dB increments.
5. The System shall provide a user settable calendar function, allowing four separate configuration profiles to be configured to become active at different times of the day on a daily, weekly, or holiday basis.
6. System shall provide field programming via a client application.
7. Extended press option: the audible WALK message shall only be activated and audible during the WALK interval if the button is depressed for a field selectable minimum period of time.
8. The system shall be able to record and upload cumulative PED count and call data.
9. System shall be able to log events with a date-time stamp for each event.
10. Customer support for initial setup of APS post construction including training of City representatives for operation for the APS.

The APS shall also comply with Section R308 Accessible Pedestrian Signal Walk Indications of PROWAG, California MUTCD, and the Accessible Pedestrian Signal Specifications found in Appendix R.

The Contractor shall submit to the Engineer their proposed accessible pedestrian signal that complies with the specifications noted herein these Special Provisions for the City's approval..

Safety Lighting

Lighting shall conform to Section 86-6, "Lighting", of the SS. Contractor shall provide photometric data/isolux curve from the manufacturer of the lighting fixtures for approval by the Engineer prior to the purchase. The lighting fixtures shall be Green Cobra model GCM1-60J-MV-40K-3R-GY-125-PCR7-CR-WL-RWG by Leotek. The lighting contactor for the Type II photoelectric control in the service pedestal shall be an electronic solid state displacement type with 60-amp minimum rated contacts.

Pull Boxes

Pull boxes shall conform to Section 86-2.06, "Pull Boxes", of the SJSS, Section 86-2.06B, "Cover Markings," of the CCSS, and E-03 and E-04 of the SJSD. Pull boxes shall have lids marked "CAMPBELL TRAFFIC SIGNAL", "CAMPBELL STREET LIGHTING, CAMPBELL INTERCONNECT", "CAMPBELL TELEPHONE" or "CAMPBELL SERVICE" per the type of facilities located in the associated conduits.

Any pull box, including the cover that is shown on the plans to be relocated or raised to grade shall be new.

Where pull boxes are being replaced or removed, the Contractor shall remove and replace the entire flag of sidewalk to the nearest score mark, unless otherwise noted on the plans. New sidewalk shall be doweled into existing sidewalk. All flags shall be replaced within 24-hours of removal.

Painting

Painting of all signal heads and frameworks shall be done with a powder coating process and shall be dark olive green. In order to prevent damage to powder coating on frameworks, Contractor shall use strap wrench to tighten or modify frameworks.

Conduits

Conduits shall be rigid schedule 40 PVC unless otherwise noted in accordance with Section 86-2.05 "Conduit" of the CCSS. Conduit installation shall be installed as shown on the Project Plans and shall conform to Section 86 "Signals, Lighting, and Electrical Systems" of the CCSS and to these Special Provisions.

Contractor shall pothole all utilities to determine exact location and depth of all existing utilities prior to installation of conduit and pull boxes.

Directionally-bored conduits shall be installed at a minimum depth of eighteen inches (18") from existing pavement surface. Directionally-bored conduits within the public right-of-way shall be installed within one foot (1') of the lip of gutter or underneath the sidewalk.

Three (3) #14 AWG solid copper spare conductors pull wire with a black THW insulation jacket shall be placed in all conduit runs and tied off with three feet (3') of slack at all conduit ends.

Conduit terminations into pull boxes shall be swept at bends no greater than 30 degrees, or to a maximum of 45 degrees if the maximum of 30 degrees is not possible.

At no time shall a conduit run exceed a cumulative 180 degrees of bends.

Santa Clara County Loop Detection System (In Pavement)

General

Loop Detection System shall conform to Section 86.05, “Detectors,” of the County Standard Specifications, County Standard Details Manual, Section 87-1.03V, “Detectors,” of the State Standard Specifications, the Project Plans, and these Special Provisions.

Contractor shall remove and replace any detector loops and/or detector handholes shown on the plans to remain that are removed or damaged by pavement repair operations. For areas that are to be excavated, Contractor shall notify USA and County Traffic Electrical and Operations Department to field ID location of existing loop locations prior to any excavation.

Any detector handholes within resurfacing area shall be protected and remain exposed after all pavement repair operations are complete.

Contractor shall furnish and install new detector loops and sensor units as shown in the Contract Documents to supplement stop bar detection and for system loops.

Detector work shall be performed in accordance with the requirements of the applicable County Standard Specifications, County Standard Details, and the Contract Documents. Attention is directed to County Standard Specification 86.05.04 and County Standard Detail E/5A.

The Engineer shall approve new traffic detector loops layout and home runs prior installation.

The Contractor shall test all individual loops and all DLC prior to and after splicing in the presence of the project Inspector. The Contractor shall test loop sensitivity with either an approved lightweight motorcycle or an Engineer-approved wind wand.

New detector sensor units shall conform to the requirements of Section 86.05.01 of the County Standard Specifications except units shall be 4-channel units. At all locations, new one-slot detector units shall be installed in existing detector racks and shall be fully compatible with existing equipment. Where racks do not contain adequate slots for the new units, existing 2-channel units shall be replaced with new 4-channel units.

Inductive Vehicle Loops

All new detector loops shall be Type B per Caltrans Revised Standard Plan RSP ES-5B except for loops closest to the stop bar. All new stop bar loops shall be Caltrans Type D per the Caltrans Revised Standard Plan RSP ES-5B.

The installation of inductive loops shall conform to Section 86.05.04, “Detector Loop Installation,” of the County Standard Specifications and Standard Detail E/5A of the County Standard Details Manual.

Residue resulting from slot cutting operations shall not be permitted to flow across shoulders or lanes opened to public traffic. It shall be contained by an approved method during the slot cutting operation and removed immediately upon completion of the cutting operations. Discharge of the residue into the storm drainage system is not permitted.

Detector loop conductor shall be Type 2 loop wire. Lead-in cable shall be Type B. Detector handholes shall be Type A.

The Engineer shall approve new traffic and bike detector loops layout and home runs prior to installation.
Where pavement markings for stop bar/crosswalk and lane stripes are relocated or obliterated, County Survey will identify and mark the center points of the inductive loops and centerlines of the stop bar and lane/shoulder stripes. County Signal Inspector will verify and approve the marked locations of these facilities prior to loop cutting of pavement by Contractor.

The Contractor shall test all individual loops prior to and after splicing in the presence of the County Inspector. The Contractor shall test loop sensitivity with either an approved lightweight motorcycle or an Engineer-approved wind wand.

Any existing defective loop replacement as approved by the Engineer shall be done as extra work. Replacement of loop performed by the Contractor without meeting the requirements as specified in this section or due to damage by the Contractor's operation shall be at Contractor's expense.

Inductive Bicycle Loops
All inductive bicycle loops shall be modified Caltrans Type D (3' x 3') loops.

The Engineer shall approve new bicycle detector loop layouts and home runs prior to installation. The Contractor shall work with the County Signal Inspector to verify the locations of existing vehicle loops and homeruns. This will help to prevent damage to existing loops when saw cutting for new bicycle loops is taking place.

Residue resulting from slot cutting operations shall not be permitted to flow across shoulders or lanes opened to public traffic. It shall be contained by an approved method during the slot cutting operation and removed immediately upon completion of the cutting operations. Discharge of the residue into the storm drainage system is not permitted.

New detector cards shall conform to the requirements of Section 86.05.01 of the County Standard Specifications except they shall be 4-channel units.

Detector Handholes
Detector handholes shall conform to Standard Detail E/5A of the County Standard Details Manual and shall be located as indicated on the Project Plans**.**

Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all of the work in compliance with the Plans, Specifications and Special Provision Section 10-19 "Traffic Signal Modifications," including but not limited to potholing, installing signs, poles, foundations, and appurtenant items such as connection kits and mounting brackets, shall be included in the per each unit price for:

TRAFFIC SIGNAL MODIFICATIONS - HAMILTON AVE/LLEWELLYN AVE (LS)	**BID ITEM #139**
TRAFFIC SIGNAL MODIFICATIONS - HAMILTON AVE/EDEN AVE (LS)	**BID ITEM #140**
TRAFFIC SIGNAL MODIFICATIONS - HAMILTON AVE/N CENTRAL AVE (LS)	**BID ITEM #141**
TRAFFIC SIGNAL MODIFICATIONS - HAMILTON AVE/CREEKSIDE WAY (LS)	**BID ITEM #142**
TYPE B LOOP DETECTOR – HAMILTON AVE/ SAN TOMAS EXPRESSWAY (EA)	**BID ITEM #143**
TYPE D LOOP DETECTOR – HAMILTON AVE/ SAN TOMAS EXPRESSWAY (EA)	**BID ITEM #144**
BICYCLE LOOP DETECTOR – HAMILTON AVE SAN TOMAS EXPRESSWAY (EA)	**BID ITEM #145**
FURNISH AND INSTALL NEW SANTA CLARA COUNTY DETECTOR HANDHOLES (EA)	**BID ITEM #146**

SECTION 10-20 FEDERAL REQUIREMENTS CONSTRUCTION PROJECTS

General

This project will receive federal funds and is therefore subject to all federal requirements. In the case of conflict between federal construction requirements and CCSS or these Special Provisions, the federal construction requirements shall take precedent.

The Contractor shall include the following Appendices as part of the General Requirements for this project:

Appendix H – Exhibit 9-P Prompt Payment Certification
Appendix I – Exhibit 12-B: Bidder's List of Subcontractors (DBE and Non-DBE) Parts I and II
Appendix J – Exhibit 16-Z1 Monthly DBE Trucking Verification
Appendix K – Exhibit 17-F Final Report – Utilization of Disadvantaged Business Enterprises (DBE)
Appendix L – Exhibit 17-O Disadvantaged Business Enterprises (DBE) Certification Status Change

It shall be the Contractor's responsibility to complete and fill out all necessary forms and submit all completed forms/exhibits as required.

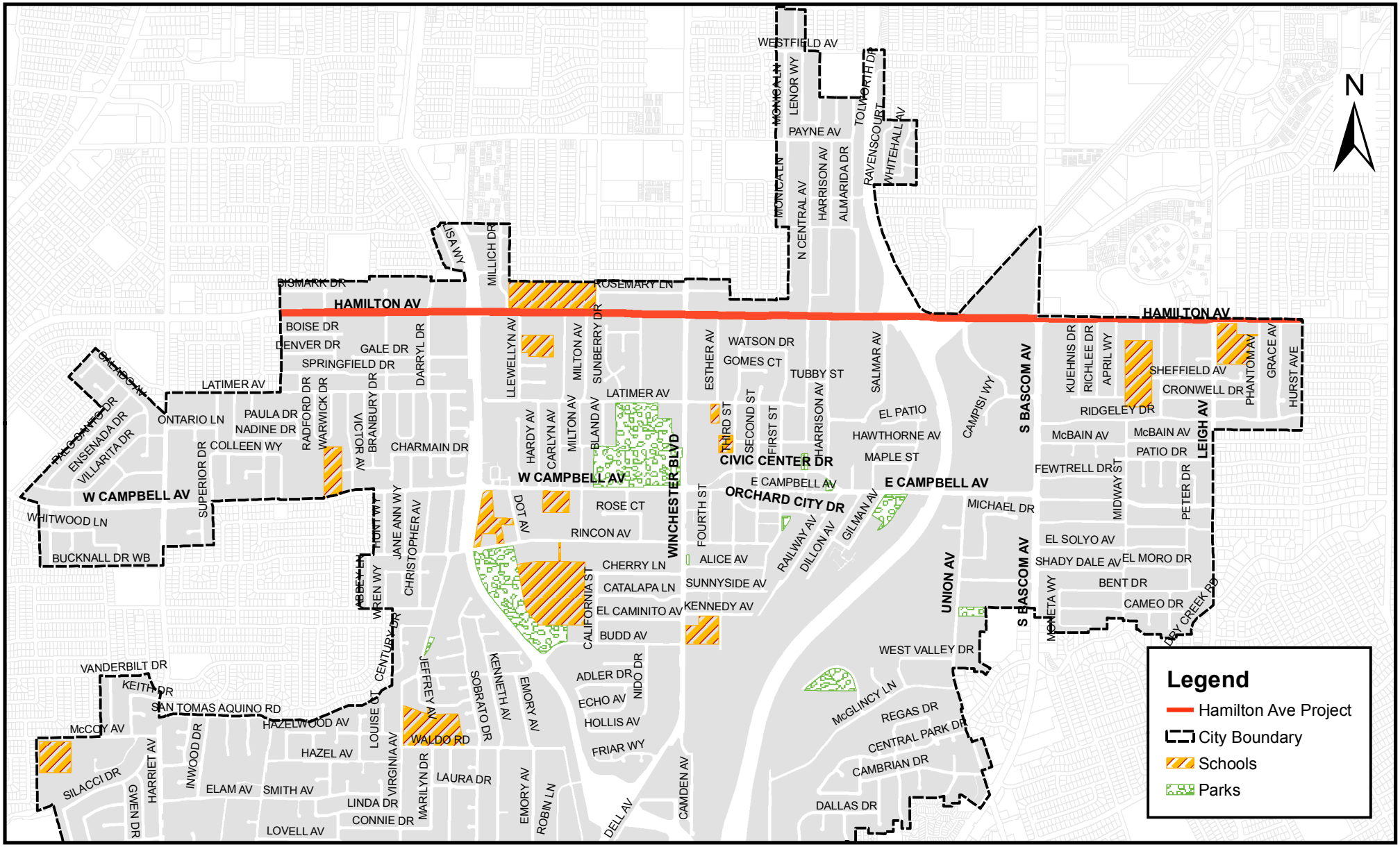
Measurement and Payment

Full compensation for furnishing all reports, labor, materials, tools and equipment and for doing all the work involved in compliance with Section 10-20 "Federal Requirements for Construction Projects" shall be deemed included in the various other contract items of work for the work on the Hamilton Avenue Rehabilitation and Complete Street Project No. 23-BB, Federal Project No. CPFL – 5306(034), and no additional compensation will be allowed thereof.

APPENDICES

Appendix A:
Location Map, Notices, Details, and Standard Plans

Project Location Map



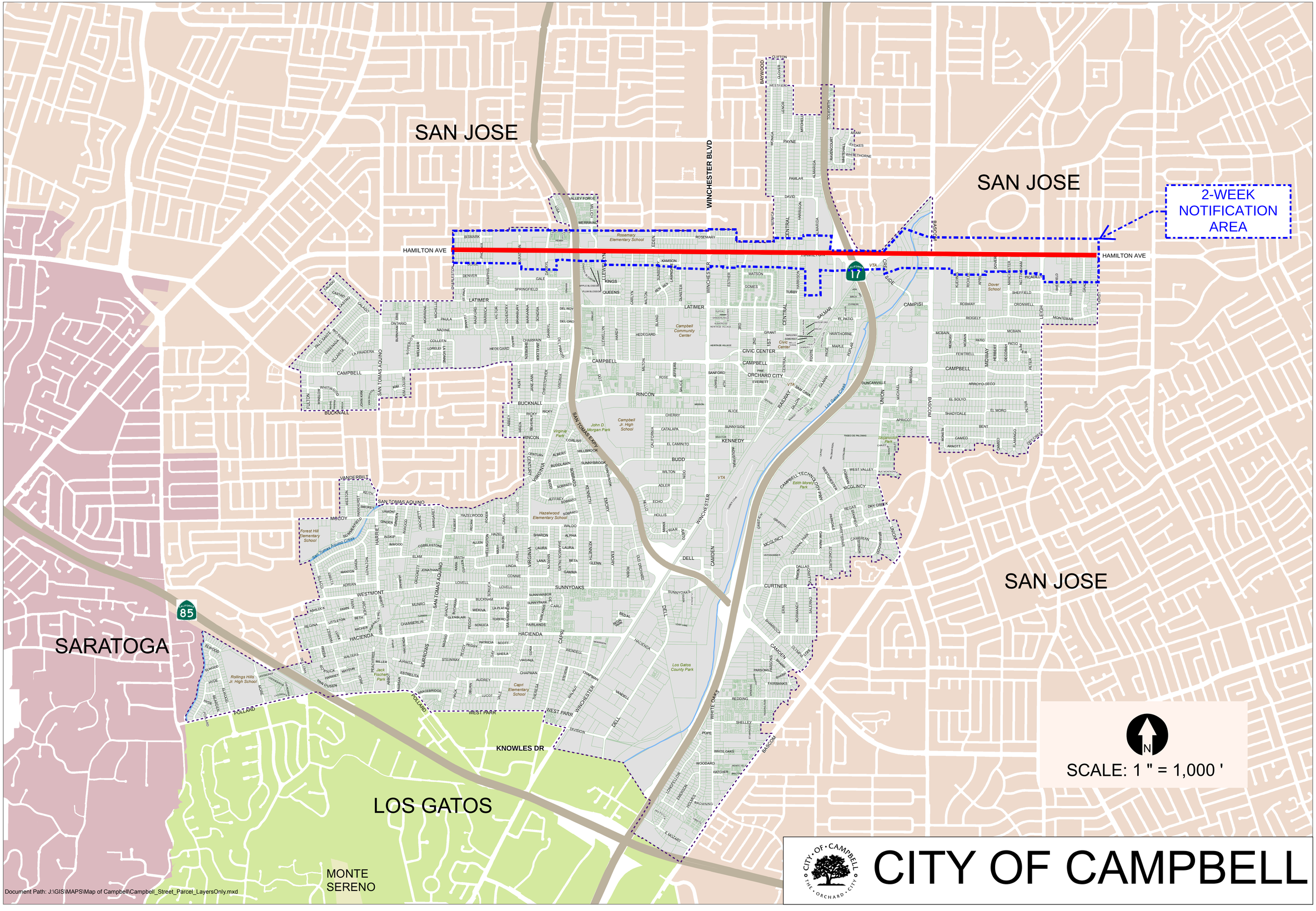
Hamilton Avenue Street Resurfacing Project No. 23-BB

STREET: Hamilton Avenue

LIMIT: From 640' W/O Phoenix Drive (at city limit)
to Hurst Avenue (at city limit)

CITY OF CAMPBELL · THE ORCHARD CITY

Public Works Department


SAN JOSE
SAN JOSE
SAN JOSE
SARATOGA
LOS GATOS
MONTE SERENO
WINCHESTER BLVD
HAMILTON AVE
HAMILTON AVE
2-WEEK NOTIFICATION AREA
SAN TOMAS AQUINO
SAN TOMAS EXPY
BASCOM
CAMPBELL
RINCON
BUCKNALL
LATIMER
CIVIC CENTER
ORCHARD CITY
KENNEDY
BUDD
DELL
CAMDEN
CURTNER
WESTMONT
HACIENDA
SUNNYOAKS
CAMPISI
MIDWAY
MEDOV
VANDERBILT
POLLARD
WEST PARR
KNOWLES DR
Rosemary Elementary School
Campbell Community Center
Civic Center
Campbell Jr. High School
John D Morgan Park
Virginia Park
Hazelwood Elementary School
Forest Hill Elementary School
Rolling Hills Jr. High School
Jack Fischer Park
Capri Elementary School
Los Gatos County Park
Dover School
Stonerview Park
Edith Morell Park
Los Gatos Creek
San Tomas Aquino Creek
SCALE: 1 " = 1,000 '
CITY OF CAMPBELL
Document Path: J:\GIS\MAPS\Map of Campbell\Campbell_Street_Parcel_LayersOnly.mxd

2-WEEK ADVANCE NOTIFICATION FOR UPCOMING STREET IMPROVEMENTS AND STREET RESURFACING PLEASE READ CAREFULLY

Annual Street Maintenance Project 21-BB: Collector & Residential Street Resurfacing Program

WHO: [Contractor Name] of [Contractor City], California

WHAT / WHY: [Contractor Name] was hired by the City of Campbell to construct the Annual Street Maintenance Project 21-BB: Collector & Residential Street Resurfacing Program. The project will resurface various street sections within the City of Campbell. Street resurfacing (via slurry seal, rubber cape seal or hot mix asphalt concrete (HMAC) overlay) are all economical and efficient ways that extend the service life of the City's streets to the levels of service expected by the residents of Campbell.

WHERE: [See Location Map on the backside] of this notice for affected streets, their limits and treatment type.

WHEN: Work on this project will start in May 2021 and will be substantially completed by Fall 2020. In general, working hours are from 8AM to 5PM, Monday through Friday.

WHAT TO EXPECT:

- Typical construction noise and minor traffic delays are to be expected during construction hours.
- On street parking will be restricted at times. On-street parking restrictions will be posted 72-hours prior to work commencing. Please note that the posted parking restrictions will be strictly enforced. Any vehicles parked within the construction zone will be towed away by the Campbell Police Department at the owner's expense.
- Properties directly affected by any construction work will be re-notified 72-hours prior to work commencing.
- In general, work will be completed in the following order:
  1. Concrete improvements (ie. accessibility ramp installation; minor curb & gutter, sidewalk & driveway repair).
  2. Trimming of street trees that could potentially impede the progress of the paving and street sealing work.
  3. Isolated pavement failure area repair (ie. digout operation).
  4. Wedge grinding along the lip of gutter for streets slated to receive a hot mix asphalt concrete (HMAC) overlay treatment
  5. Weed abatement
  6. Rubber chip seal application
  7. HMAC Overlay on selected streets
  8. Approximately one-week after the rubber chip, the slurry seal application on streets scheduled to receive the rubber cape seal treatment or slurry seal treatment.
  9. Striping replacement
  10. Utility Adjustments

EFFECT ON OTHER SERVICES (IE. GARBAGE, MAIL, AND BUS):
You should not expect any change in scheduled dates for delivery or pick-up services (i.e. mail and/or garbage & recycling collection). Bus service where applicable will remain operational.

ADVISORIES:

- **WATCH FOR SIGNS & WORKERS –** For your safety and for the safety of the construction workers, please obey all posted traffic control signs and instructions from construction workers.
- **PLAN AHEAD –** You will be reminded at various stages throughout the construction of the project where and when work will be occurring. For updates, visit the City's Project webpage at [INSERT PROJECT WEBPAGE LINK HERE].
- **BE PATIENT –** Noise, debris, and delays on this type of construction project is unavoidable. Please understand that the crews will be working diligently to minimize the construction impact to your daily lives.

CONTACT INFORMATION:
For questions regarding this project please contact [INSERT CONTRACTOR NAME & PHONE NUMBER HERE] or the Campbell Public Works Department at (408) 866-2150.

Thank you for your cooperation and understanding!

(INSERT CONTRACTOR LOGO)

IMPORTANT 72-HOUR NOTICE FOR

CONCRETE WORK

PLEASE READ CAREFULLY

Annual Street Maintenance Project 21-BB:
Collector & Residential Street Resurfacing Program

WHO: [Contractor Name] (under contract with the City of Campbell)

WHAT / WHERE: Contractor will be installing new Americans with Disabilities Act (ADA) curb ramps and/or conducting miscellaneous concrete improvements in front of your property.

WHEN: Work will start the week of [Insert Date]. It is estimated that this portion of the project will be completed by [Insert Date]. Working hours will be Monday thru Friday between the hours of [Insert hour range here]

WHAT TO EXPECT:

- Typical construction noise during construction hours.
- Access to the sidewalk will be impaired/closed for several days during construction. Please be mindful of the work and look in both ways of traffic before crossing the street.
- On street parking near the corners will be restricted. Posted restrictions will be enforced. Any vehicles parked within the construction zone will be towed away by the Campbell Police Department at the owner's expense.

CONTACT INFORMATION:
For additional information regarding this project, please visit the City's website at: (INSERT WEBLINK HERE).

For questions, please contact [Contractor Name] at [Contractor Phone Number] or the City of Campbell Public Works Department at (408) 866-2150.

(INSERT CONTRACTOR LOGO)

IMPORTANT 72-HOUR NOTICE FOR

DIGOUT / PAVEMENT REPAIR WORK

PLEASE READ CAREFULLY

Annual Street Maintenance Project 21-BB:
Collector & Residential Street Resurfacing Program

WHO: [Contractor Name] (under contract with the City of Campbell)

WHAT: Digout / pavement repair work in the travel lanes.

WHY: This work is necessary to repair, strengthen and provide a structural section to the travelled lanes on [Insert Street Name Here].

WHERE: Work will occur along:

- [Insert Street Name Here], and indicate limits of work

WHEN: Work will start the week of [Insert Date]. It is estimated that this portion of the project will be completed by [Insert Date]. Our working hours will be Monday thru Friday between the hours of [Insert Time Range Here].

WHAT TO EXPECT:

- Typical construction noise and minor traffic delays. Allot additional time and plan accordingly.
- Lane closure with posted traffic control signs. For your safety and for the safety of the workers in the field, please obey all posted traffic control signs and workers.
- On street parking will be restricted. Posted restrictions will be enforced. Any vehicles parked within the construction zone will be towed away by the Campbell Police Department at the owner's expense.

CONTACT INFORMATION:
For additional information regarding this project, please visit the City's website at: https://www.ci.campbell.ca.us/989/Annual-Street-Maintenance .

For questions, please contact [Contractor Name] at [Contractor Phone Number] or the City of Campbell Public Works Department at (408) 866-2150.

(INSERT CONTRACTOR LOGO)

IMPORTANT 72-HOUR NOTICE FOR

SLURRY SEALING WORK

PLEASE READ CAREFULLY

Annual Street Maintenance Project 21-BB:
Collector & Residential Street Resurfacing Program

WHO: [Contractor Name] (under contract with the City of Campbell)

WHAT: [street name] is scheduled to receive a slurry seal. This is the third step of a rubber cape seal treatment.

WHY: The slurry seal in the rubber cape sealing process is mainly used to fill minor undulations caused by the aggregate/chip, and to encapsulate the aggregate/chip material so that it doesn't dislodge. The slurry seal also provides a smoother wearing course on the surface of the street.

For more information about the slurry sealing process and impacts, please visit the City's website at: http://www.ci.campbell.ca.us/documentcenter/view/5155.

WHERE: Work will occur on:
1. _____ from _____ to _____.
2. _____ from _____ to _____.

WHEN: Work will start the week of [Insert Date]. It is estimated that this portion of the project will be completed by [Insert Date].
(Monday thru Friday between the hours of 8:30 AM and 5:00 PM)

WHAT TO EXPECT:

- Typical construction noise.
- Complete street closure. The street will be closed to all traffic while the slurry seal is being applied to the street and while it cures. This process can last anywhere from 4 to 5 hours (cure time is mainly weather dependent). Be mindful of the street closure and plan your time accordingly.
- Posted traffic control signs. For your safety and for the safety of the workers in the field, please obey all posted traffic control signs and construction workers.
- On street parking will be restricted during this construction operation. Posted restrictions will be enforced. Any vehicles parked within the construction zone will be towed away by the Campbell Police Department at the owner's expense.

ADVISORIES:

- Do put your garbage out on garbage day. [Contractor Name] has made arrangements with West Valley Collection and Recycling to do early morning pick-ups.
- Do not wash your cars or water your lawns the day before or the day work is scheduled.
- Do not drive, walk, bike, play, skate, or allow pets on the newly sealed street until it has had time to cure.
- Do not perform any ¾ - turns or make any sudden/hard stops with your vehicle for several days after the application of the material.
- Do drive slowly on the newly resurfaced street for several days.

CONTACT INFORMATION:
For additional information regarding this project, please visit the City's website at: [INSERT PROJECT WEBPAGE LINK HERE].

For questions, please contact [Contractor Name] at [Contractor Phone Number] or the City of Campbell Public Works Department at (408) 866-2150.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

Atifa Ferouz
REGISTERED CIVIL ENGINEER

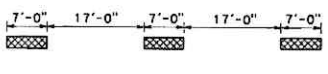
May 31, 2018
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

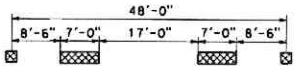
REGISTERED PROFESSIONAL ENGINEER
Atifa Ferouz
No. C80402
Exp. 3-31-19
CIVIL
STATE OF CALIFORNIA

CENTERLINES
(2 LANE HIGHWAYS)

DETAIL 1



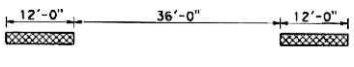
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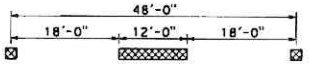
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DETAIL 5



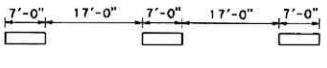
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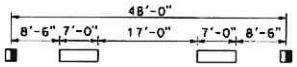
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LANELINES
(MULTILANE HIGHWAYS)

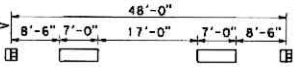
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DETAIL 9

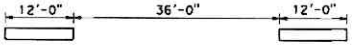


DETAIL 9A
SEE NOTE



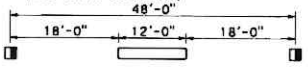
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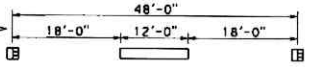


LANELINES (Cont)
(MULTILANE HIGHWAYS)

DETAIL 12



DETAIL 12A
SEE NOTE



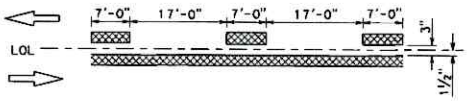
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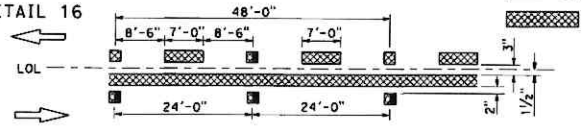
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NO PASSING ZONES-ONE DIRECTION

DETAIL 15

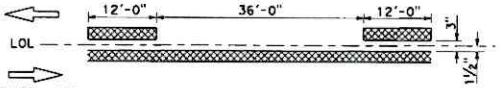


DETAIL 16

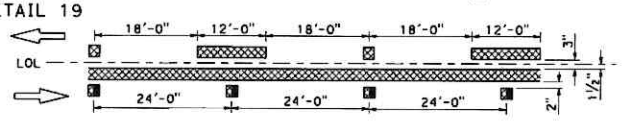


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DETAIL 18



DETAIL 19

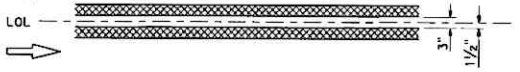


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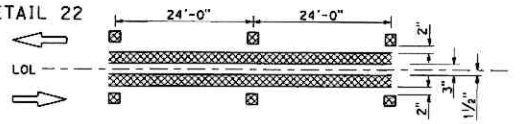
NOTE:
FOR FREEWAY APPLICATION ONLY

NO PASSING ZONES-TWO DIRECTION

DETAIL 21



DETAIL 22



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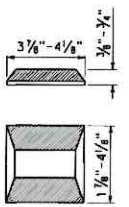
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MARKERS

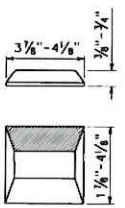
- TYPE C RED-CLEAR RETROREFLECTIVE
- TYPE D TWO-WAY YELLOW RETROREFLECTIVE
- TYPE G ONE-WAY CLEAR RETROREFLECTIVE
- TYPE H ONE-WAY YELLOW RETROREFLECTIVE

LINES

- 6" WHITE
- 6" YELLOW



TYPE C AND TYPE D



TYPE G AND TYPE H

RETROREFLECTIVE FACE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS

NO SCALE

A20A

2018 STANDARD PLAN A20A

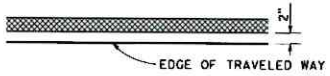
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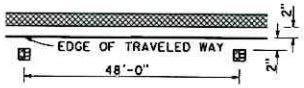
Return to Table of Contents

LEFT EDGELINES
(DIVIDED HIGHWAYS)

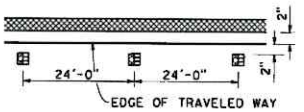
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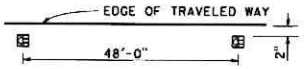
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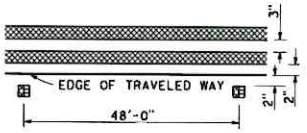
DETAIL 25A



DETAIL 26

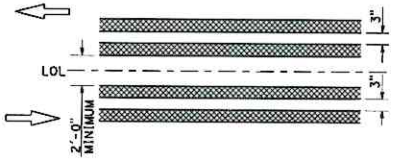


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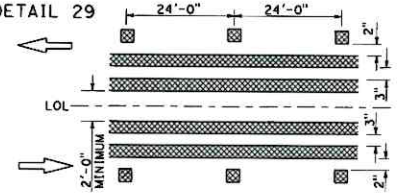


MEDIAN ISLANDS

DETAIL 28



DETAIL 29



~~DETAIL 30~~ DETAIL 30 DELETED

LEGEND

MARKERS

- TYPE D — TWO-WAY YELLOW RETROREFLECTIVE
- TYPE H — ONE-WAY YELLOW RETROREFLECTIVE
- TYPE RY — RED-YELLOW RETROREFLECTIVE

LINES

- 6" WHITE
- 6" YELLOW

Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS

Atifa Ferouz
REGISTERED CIVIL ENGINEER

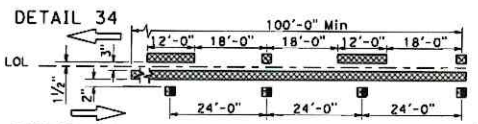
May 31, 2018
PLANS APPROVAL DATE

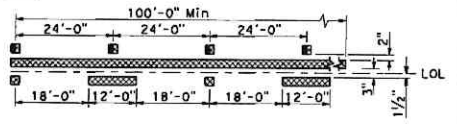
REGISTERED PROFESSIONAL ENGINEER — Atifa Ferouz — No. C80402 — Exp. 3-31-19 — CIVIL — STATE OF CALIFORNIA

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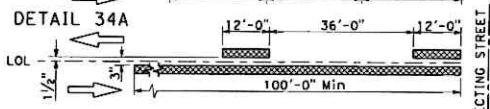
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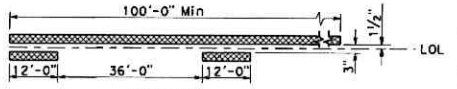
DETAIL 34



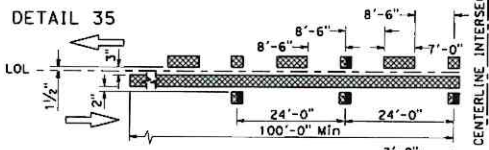


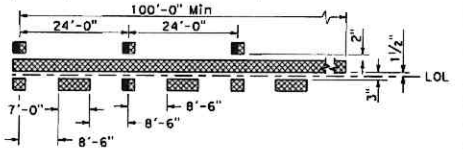
DETAIL 34A



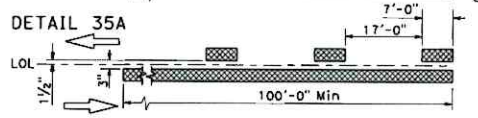


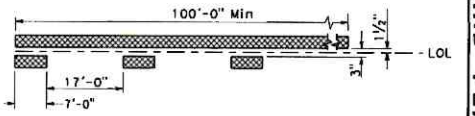
DETAIL 35





DETAIL 35A





CENTERLINE INTERSECTING STREET

RIGHT EDGELINES

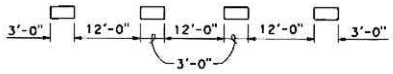
~~DETAIL 27A~~ DETAIL 27A DELETED

DETAIL 27B



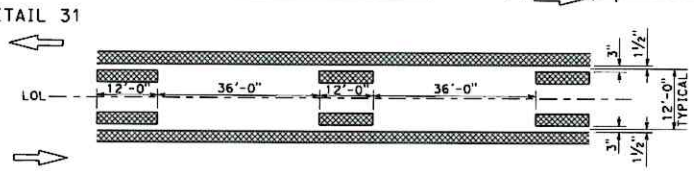
RIGHT EDGELINE EXTENSION THROUGH INTERSECTIONS

DETAIL 27C

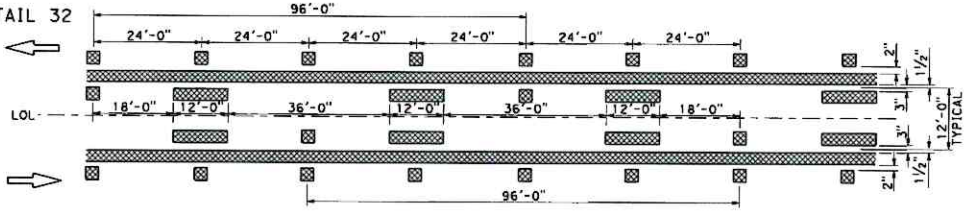


TWO-WAY LEFT TURN LANES

DETAIL 31

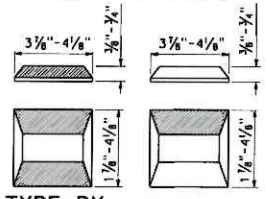


DETAIL 32



~~DETAIL 33~~ DETAIL 33 DELETED

MARKER DETAILS



TYPE RY AND TYPE D

TYPE H

RETROREFLECTIVE FACE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS

NO SCALE

A20B

1-26-18

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

Atifa Ferouz
REGISTERED CIVIL ENGINEER

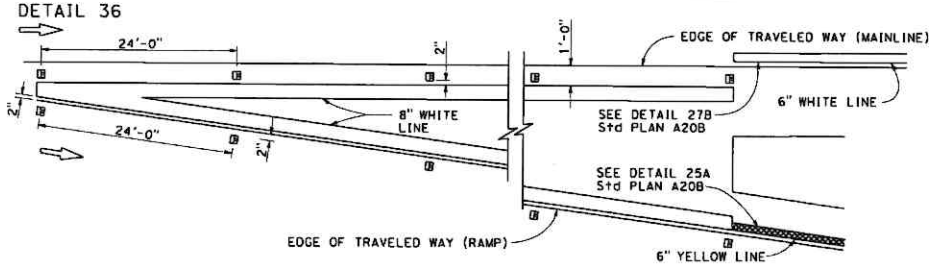
May 31, 2018
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REGISTERED PROFESSIONAL ENGINEER
Atifa Ferouz
No. C80402
Exp. 3-31-19
CIVIL
STATE OF CALIFORNIA

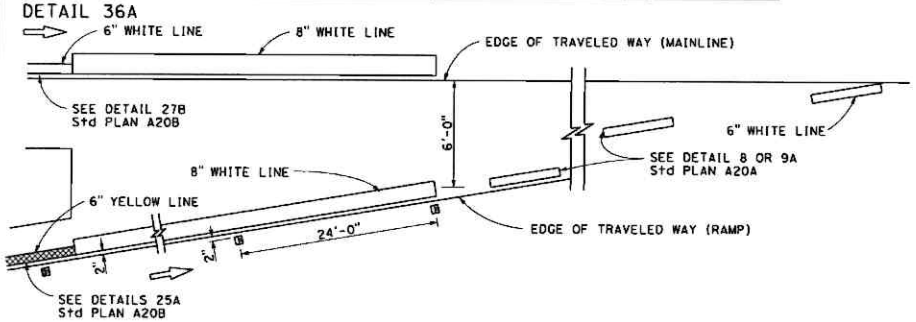
EXIT RAMP NEUTRAL AREA (GORE) TREATMENT

DETAIL 36



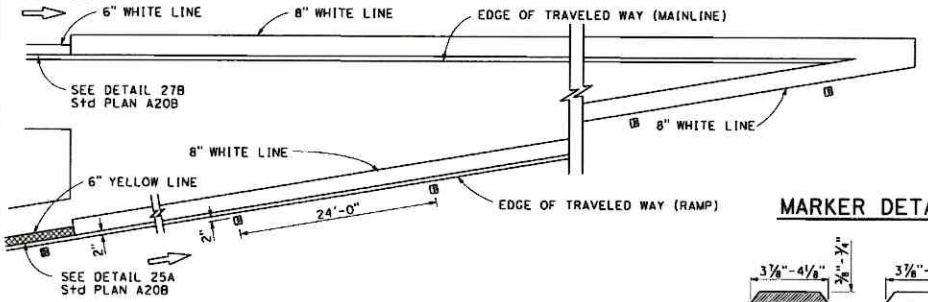
ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT

DETAIL 36A



ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT

DETAIL 36B

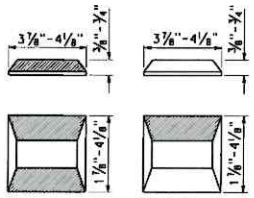


LEGEND:

MARKERS

- TYPE C RED-CLEAR RETROREFLECTIVE
- TYPE G ONE-WAY CLEAR RETROREFLECTIVE
- TYPE RY RED-YELLOW RETROREFLECTIVE

MARKER DETAILS

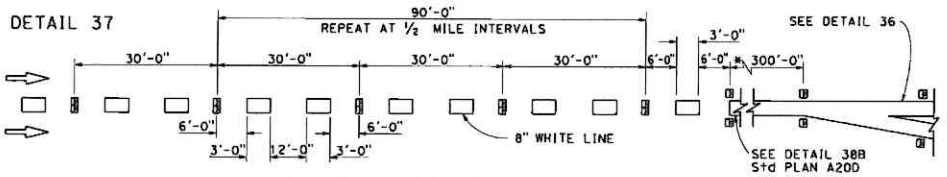


TYPE C AND TYPE RY | TYPE G

RETROREFLECTIVE FACE

LANE DROP AT EXIT RAMPS

DETAIL 37

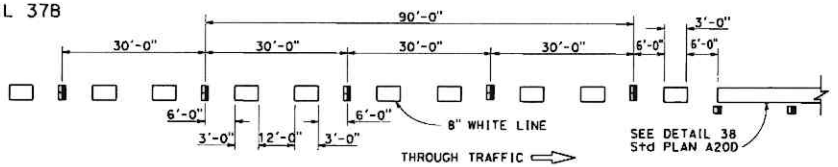


* The solid channelizing line shown may be omitted on short auxiliary lanes where weaving length is critical.

~~DETAIL 37A~~ DETAIL 37A DELETED

LANE DROP AT INTERSECTIONS

DETAIL 37B



~~DETAIL 37C~~ DETAIL 37C DELETED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS

NO SCALE

A20C

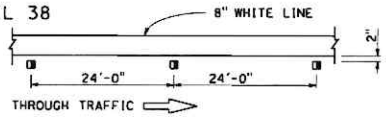
1-26-18

2018 STANDARD PLAN A20C

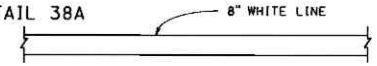
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CHANNELIZING LINE

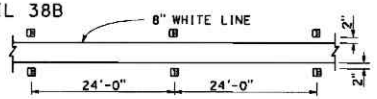
DETAIL 38



DETAIL 38A



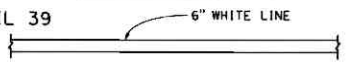
DETAIL 38B



~~DETAIL 38C~~ DETAIL 38C DELETED

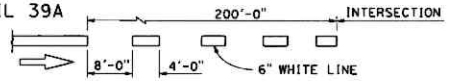
BIKE LANE LINE

DETAIL 39



INTERSECTION LINE
BIKE LANE

DETAIL 39A



LANE LINE EXTENSIONS THROUGH INTERSECTIONS

DETAIL 40



~~DETAIL 40A~~ DETAIL 40A DELETED

CENTER LINE EXTENSIONS THROUGH INTERSECTIONS

DETAIL 41



~~DETAIL 41A~~ DETAIL 41A DELETED

LEGEND

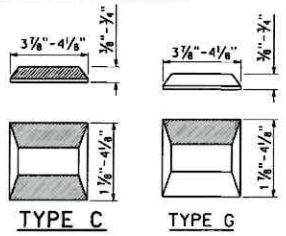
MARKERS

TYPE C RED-CLEAR RETROREFLECTIVE

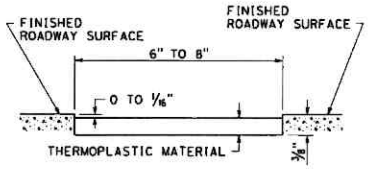
TYPE G ONE-WAY CLEAR RETROREFLECTIVE

6" YELLOW LINE

MARKER DETAILS



RETROREFLECTIVE FACE



DETAIL FOR RECESSED THERMOPLASTIC TRAFFIC STRIPE

See Notes A and B.

RECESSED THERMOPLASTIC NOTES

A. See typical traffic line details for pavement marking patterns.

B. The top of the thermoplastic installed in recessed pavement shall be 0 to 1/16" below the pavement surface.

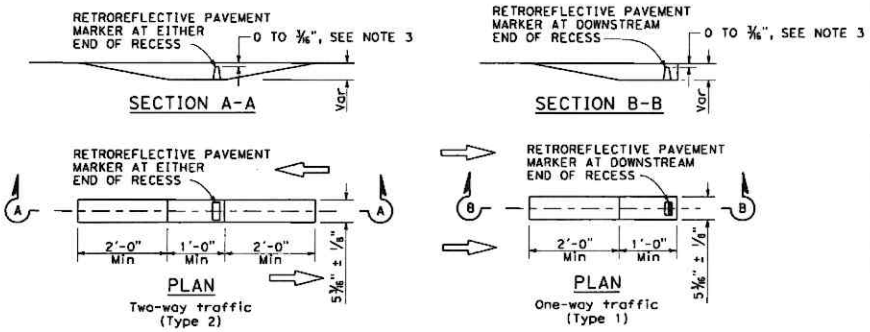
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

Atifa Feroz
REGISTERED CIVIL ENGINEER

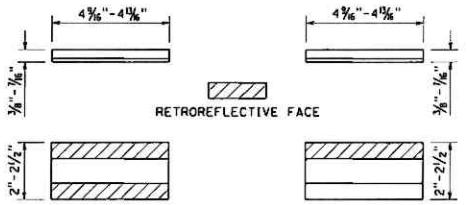
May 31, 2018
PLANS APPROVAL DATE

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RECESS DETAIL FOR RETROREFLECTIVE PAVEMENT MARKER



TYPE C AND TYPE D TYPE G AND TYPE H

See Notes 1 and 2.

RETROREFLECTIVE PAVEMENT MARKER FOR RECESSED INSTALLATION

RECESSED MARKER NOTES:

1. See typical traffic line details for marker patterns to be used with recessed pavement markers. Detail 14A requires a Type 2 recess.
2. The retroreflective pavement markers shown for recessed installations are not to be used for non-recessed installations.
3. The top of pavement markers installed in recesses shall be 0 to 3/16" below the pavement surface.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS

NO SCALE

A20D

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2018 STANDARD PLAN A20D

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

Atifa Ferouz
REGISTERED CIVIL ENGINEER

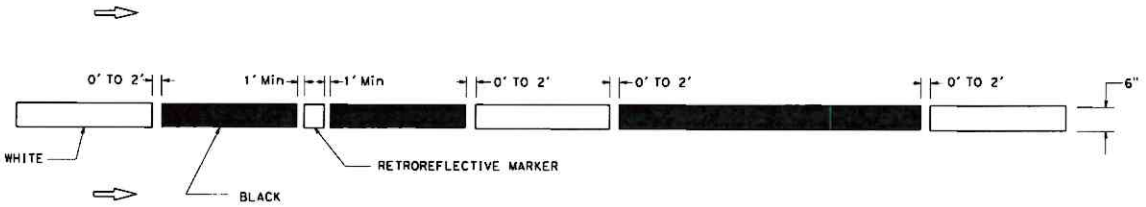
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Atifa Ferouz
No. C80402
Exp. 3-31-19
CIVIL
STATE OF CALIFORNIA

NOTES:

1. See Standard Plans A20A, A20B, A20C, and A20D for pavement markers and traffic lines typical details.
2. Detail 9 traffic stripe shown, see project plans for traffic stripe details.



OPTION 2
TYPICAL LANE LINE CONTRAST DETAIL
See Note 2



OPTION 1
TYPICAL LANE LINE OR RIGHT EDGE LINE CONTRAST DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS FOR CONTRAST STRIPING

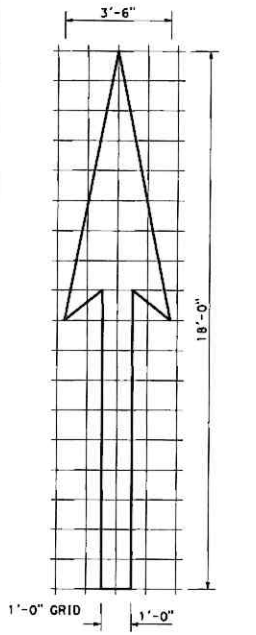
NO SCALE

A20E

1-26-18

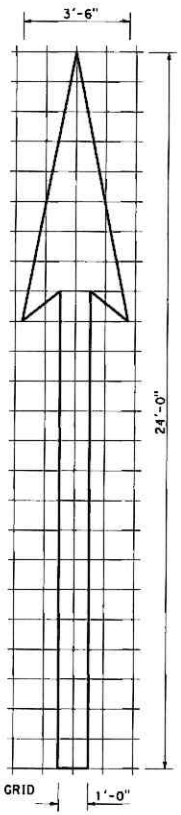
2018 STANDARD PLAN A20E

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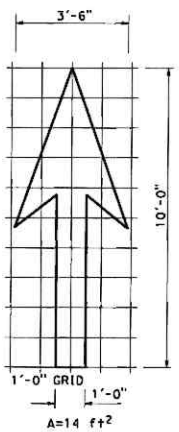
A=25 ft²

TYPE I 18'-0" ARROW



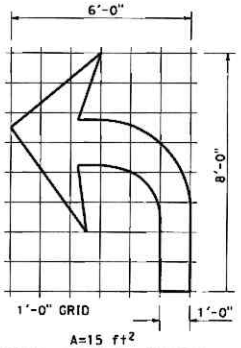
A=31 ft²

TYPE I 24'-0" ARROW



A=14 ft²

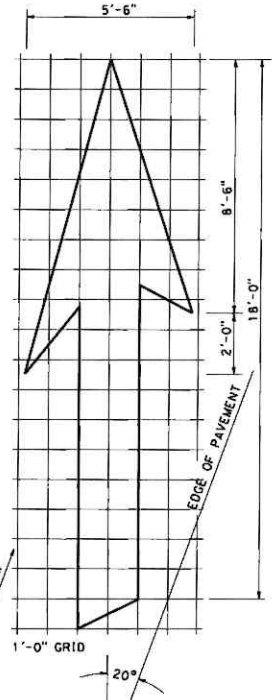
TYPE I 10'-0" ARROW



A=15 ft²

TYPE IV (L) ARROW

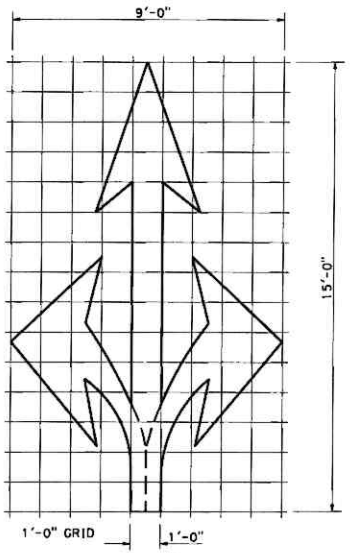
(For Type IX (R) arrow, use mirror image)



A=42 ft²

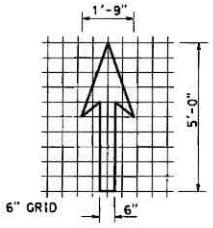
TYPE VI ARROW

Right lane drop arrow (For left lane, use mirror image)



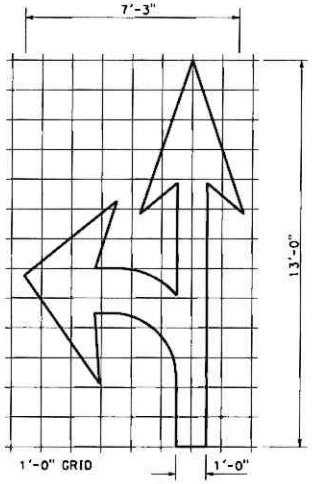
A=36 ft²

TYPE VIII ARROW



A=3.5 ft²

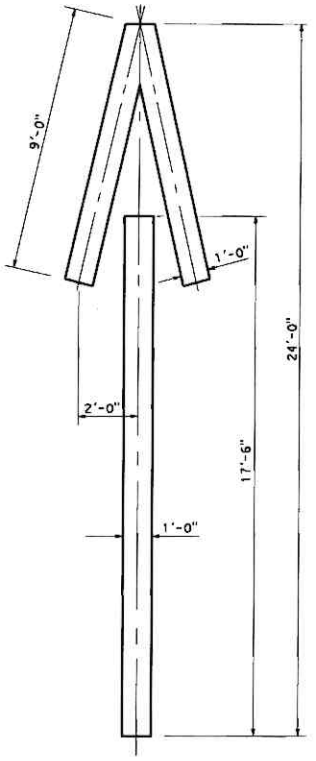
BIKE LANE ARROW



A=27 ft²

TYPE VII (L) ARROW

(For Type VII (R) arrow, use mirror image)



A=33 ft²

TYPE V ARROW

NOTE:

Minor variations in dimensions may be accepted by the Engineer.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

Atifa Feroux
REGISTERED CIVIL ENGINEER

May 31, 2018
PLANS APPROVAL DATE

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3-31-19
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STATE OF CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS
ARROWS

NO SCALE

A24A

2018 STANDARD PLAN A24A

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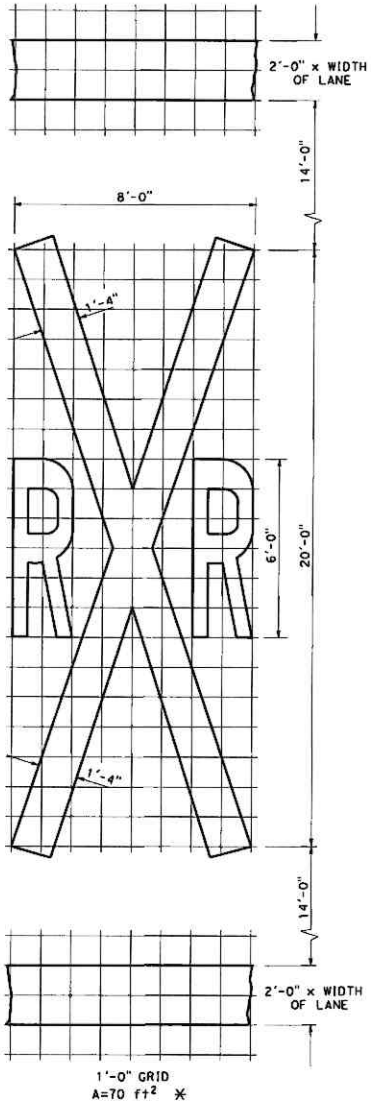
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

Atifa Ferouz
REGISTERED CIVIL ENGINEER

May 31, 2018
PLANS APPROVAL DATE

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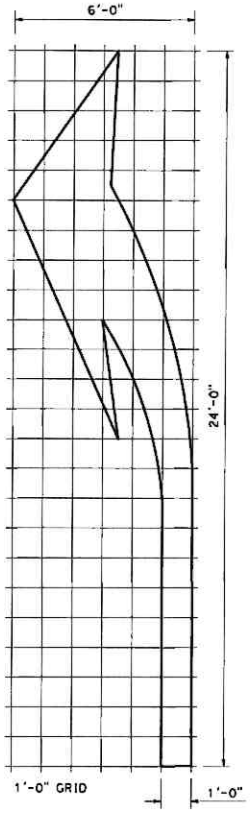
REGISTERED PROFESSIONAL ENGINEER — Atifa Ferouz — C80402 — Exp. 3-31-19 — CIVIL — STATE OF CALIFORNIA



A=70 ft² *

RAILROAD CROSSING SYMBOL

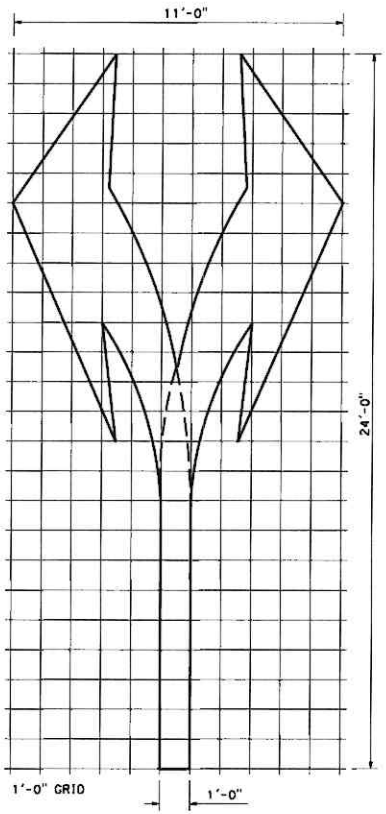
* 70 ft² does not include the 2'-0" x variable width transverse lines.



A=42 ft²

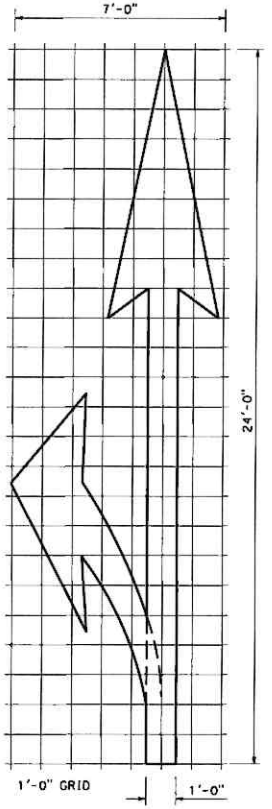
TYPE III (L) ARROW

(For Type III (R) use mirror image)



A=73 ft²

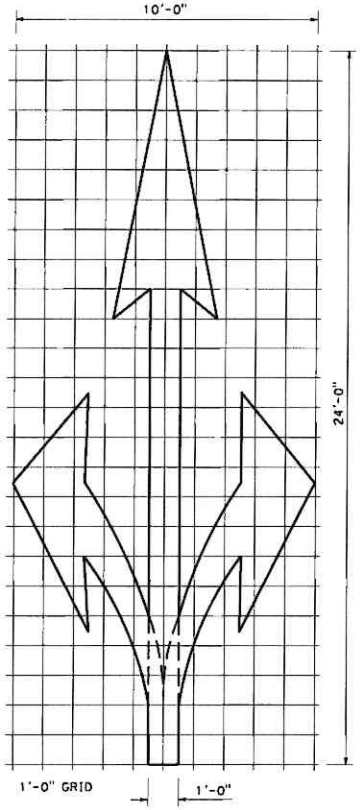
TYPE III (B) ARROW



A=45 ft²

TYPE II (L) ARROW

(For Type II (R) use mirror image)



A=59 ft²

TYPE II (B) ARROW

NOTE:

Minor variations in dimensions may be accepted by the Engineer.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS ARROWS AND SYMBOLS

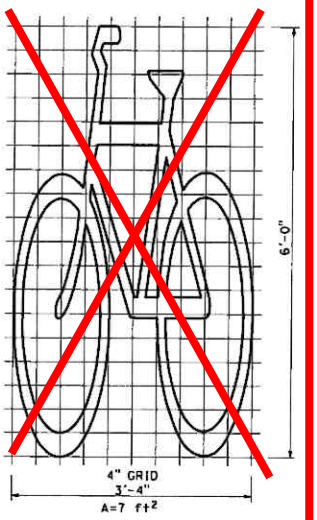
NO SCALE

A24B

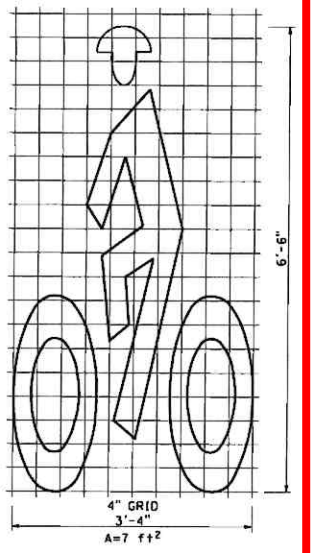
1-26-18

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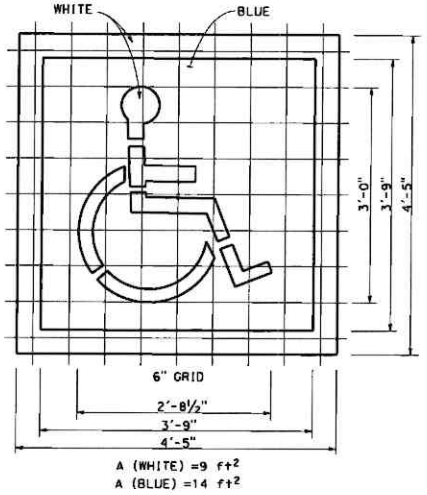
NOTE: Rider for bike lane symbol shall face left on pavement.



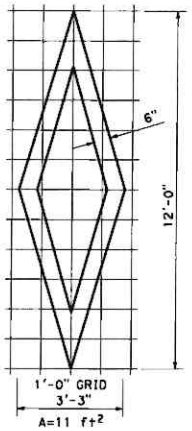
BIKE LANE SYMBOL WITHOUT PERSON



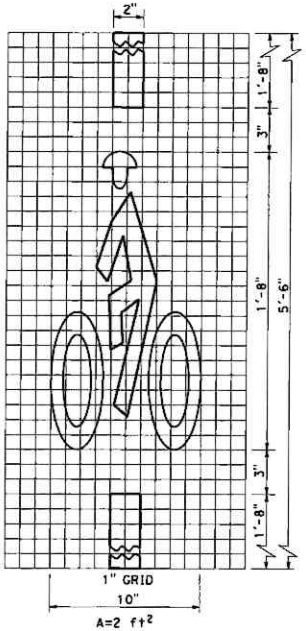
BIKE LANE SYMBOL WITH PERSON



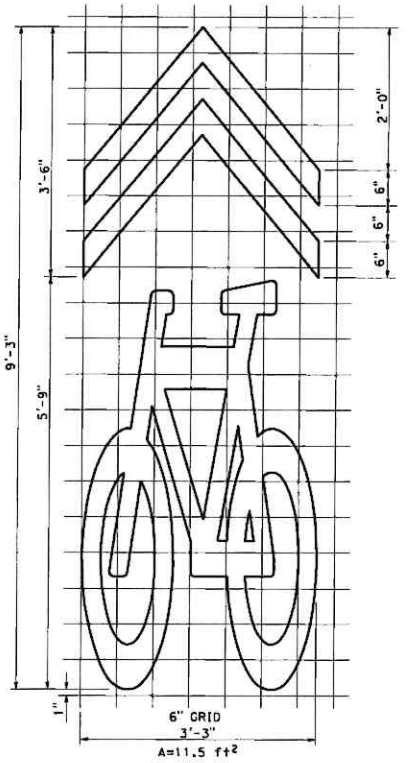
INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) MARKING



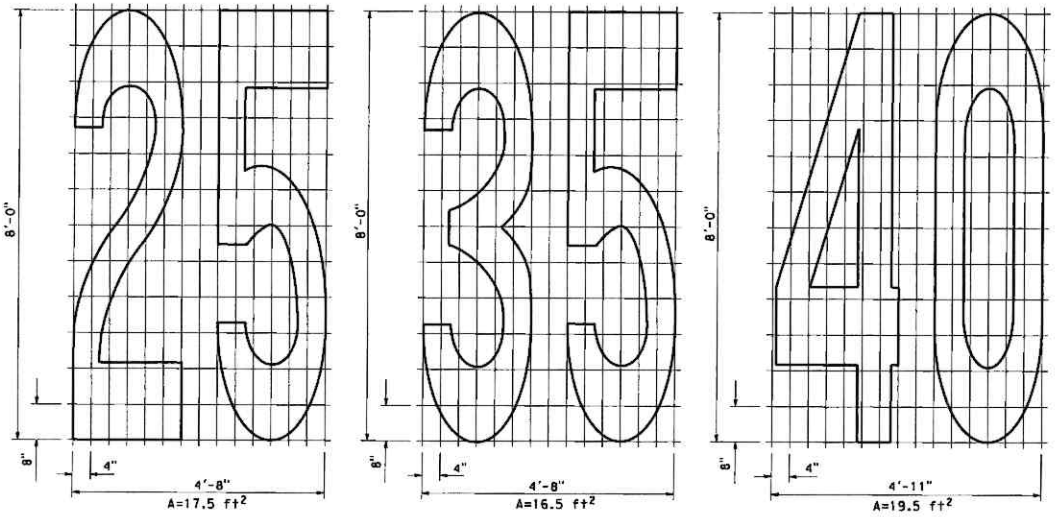
DIAMOND SYMBOL



BICYCLE LOOP DETECTOR SYMBOL



SHARED ROADWAY BICYCLE MARKING



NUMERALS

NOTE:
Minor variations in dimensions may be accepted by the Engineer.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

Atifa Ferouz
REGISTERED CIVIL ENGINEER
May 31, 2018
PLANS APPROVAL DATE
Atifa Ferouz C80402 Exp. 3-31-19 CIVIL
REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA
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STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS SYMBOLS AND NUMERALS

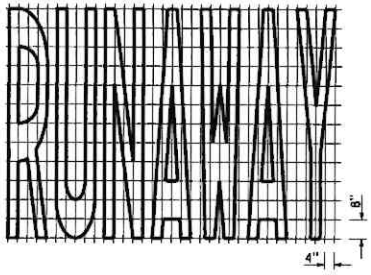
NO SCALE

A24C

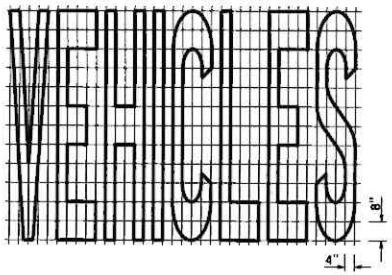
1-26-18

2018 STANDARD PLAN A24C

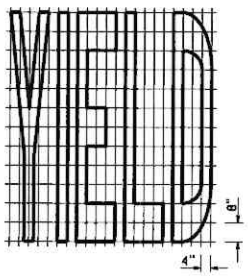
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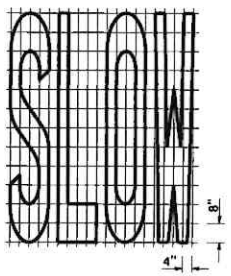
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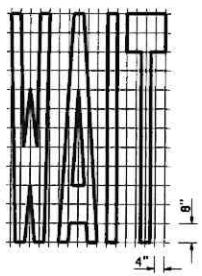
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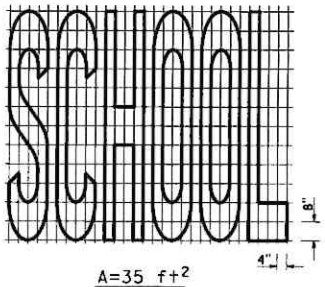
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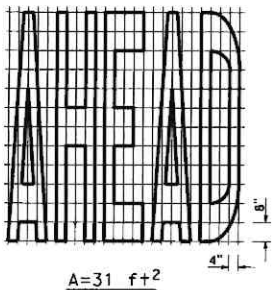
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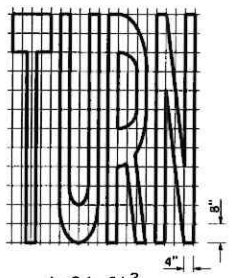
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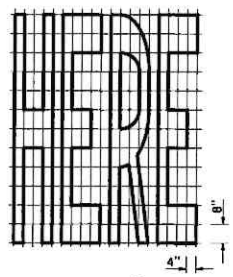
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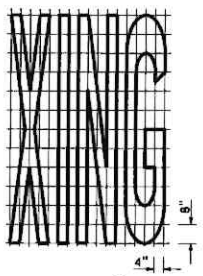
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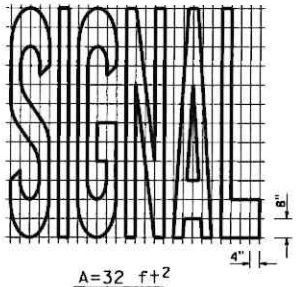
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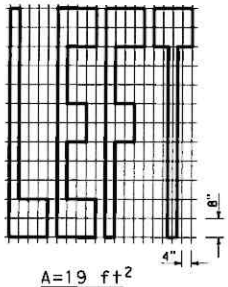
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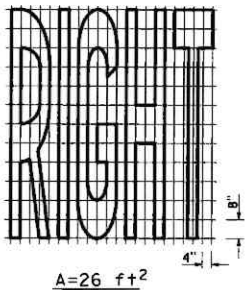
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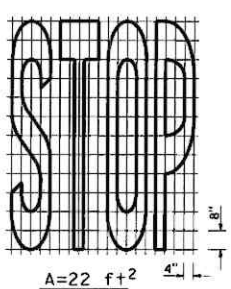
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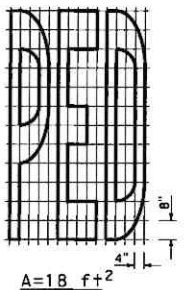
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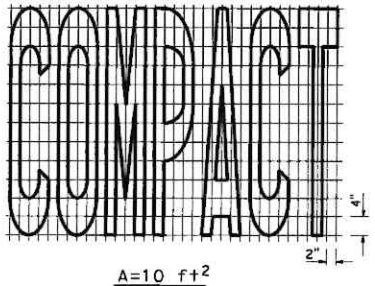
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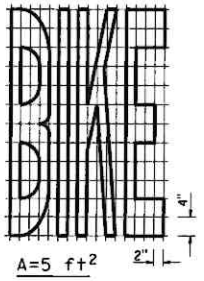
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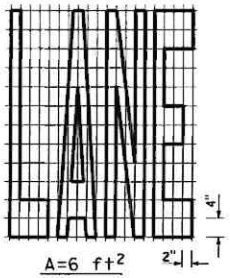
A=18 ft²



A=10 ft²



A=5 ft²



A=6 ft²

NOTES:

1. If a message consists of more than one word, it must read "UP", i.e., the first word must be nearest the driver.
2. The space between words must be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
3. Minor variations in dimensions may be accepted by the Engineer.
4. Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.

WORD MARKINGS							
ITEM	ft²	ITEM	ft²	ITEM	ft²	ITEM	ft²
XING	21	YIELD	24	BIKE	5	PED	18
AHEAD	31	SCHOOL	35	SLOW	23	COMPACT	10
WAIT	19	SIGNAL	32	STOP	22	RUNAWAY	43
LANE	6	TURN	24	LEFT	19	VEHICLES	42
RIGHT	26	HERE	26				

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

Atifa Ferouz
REGISTERED CIVIL ENGINEER

May 31, 2018
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
Atifa Ferouz
No. C80402
Exp. 3-31-19
CIVIL
STATE OF CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

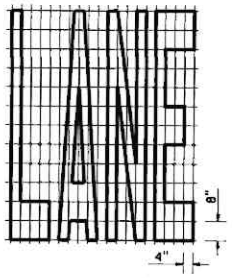
PAVEMENT MARKINGS WORDS

NO SCALE

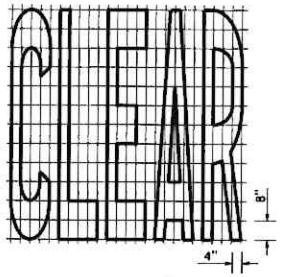
A24D

1-26-18

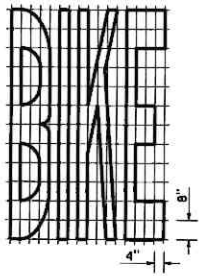
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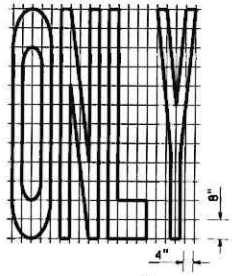
A=24 ft²



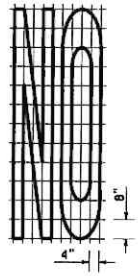
A=27 ft²



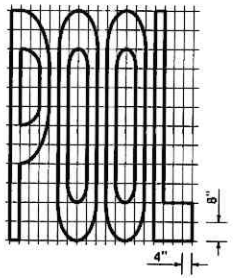
A=21 ft²



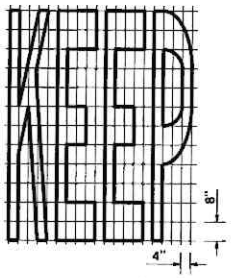
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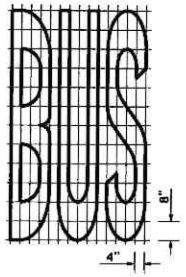
A=14 ft²



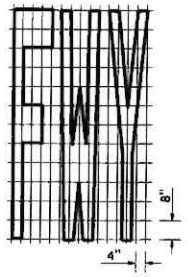
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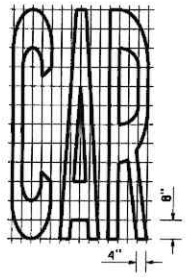
A=24 ft²



A=20 ft²



A=16 ft²



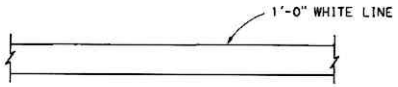
A=17 ft²

WORD MARKINGS			
ITEM	ft²	ITEM	ft²
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



A=2 ft²

See Notes 6 and 7



LIMIT LINE (STOP LINE)



YIELD LINE

NOTES:

1. If a message consists of more than one word, it must read "UP", i.e., the first word must be nearest the driver.
2. The space between words must be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
3. Minor variations in dimensions may be accepted by the Engineer.
4. Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.
5. The words "NO PARKING" pavement marking is to be used for parking facilities. For typical locations of markings, see Standard Plans A90A and A90B.
6. The words "NO PARKING", shall be painted in white letters no less than 1'-0" high on a contrasting background and located so that it is visible to traffic enforcement officials.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

Atifa Ferouz
REGISTERED CIVIL ENGINEER

May 31, 2018
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
Atifa Ferouz
No. C80402
Exp. 3-31-19
CIVIL
STATE OF CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS
WORDS, LIMIT AND YIELD LINES

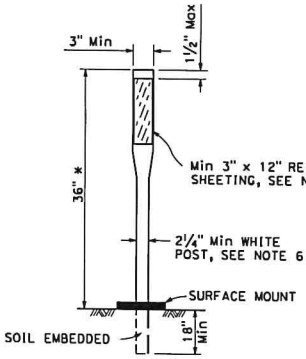
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A24E

1-26-18

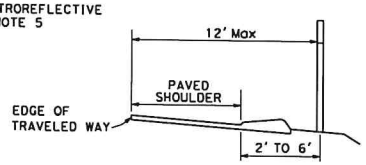
2018 STANDARD PLAN A24E

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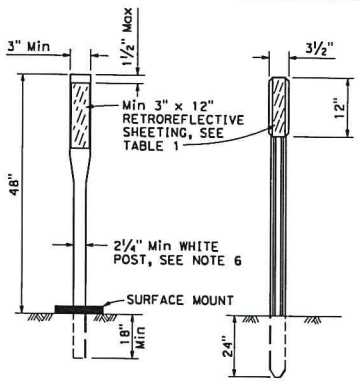


* 36" Min where speeds are 40 miles/h or less.

CHANNELIZERS



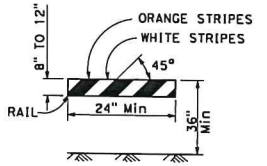
DELINEATOR POSITIONING



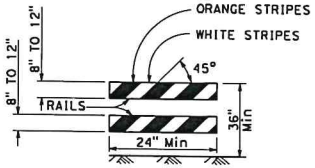
CLASS 1 FLEXIBLE POST

CLASS 2 METAL POST
See Note 4

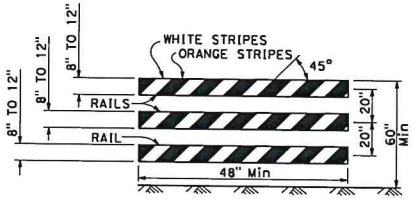
DELINEATORS



TYPE I BARRICADE
See Note A



TYPE II BARRICADE



TYPE III BARRICADE

BARRICADES (See Note 3)

Only face of rails shown. Barricade construction materials and supports as specified in the specifications.

TABLE 2 - BARRICADES			
BARRICADE	TYPE I	TYPE II	TYPE III
WIDTH OF RAIL	8" Min - 12" Max *	8" Min - 12" Max *	8" Min - 12" Max *
LENGTH OF RAIL	24" Min	24" Min	48" Min
WIDTH OF STRIPES * *	6"	6"	6"
HEIGHT	36" Min	36" Min	60" Min
NUMBER OF RETROREFLECTIVE RAIL FACES	2 (ONE EACH DIRECTION)	4 (TWO EACH DIRECTION)	3 IF FACING TRAFFIC IN ONE DIRECTION 6 IF FACING TRAFFIC IN TWO DIRECTION

* For the wooden option dimensions are nominal lumber dimensions.

* * For rails less than 36" long, 4" wide stripes shall be used.

NOTE A:

Barricades to have a minimum of 270 square inches of retroreflective area facing traffic when used on freeways, expressways, and other high speed highways.

TABLE 1- DELINEATORS		
TYPE	RETROREFLECTIVE SHEETING	
	FRONT	BACK
E	WHITE	WHITE (SEE NOTE 1)
F	WHITE	NONE
G	YELLOW	NONE
J	RED	NONE

NOTES:

1. The retroreflective sheeting used on the back of delineator shall be a minimum size of 3" x 3".
2. The type of delineator to be installed will be designated on the plans.
3. All barricade stripes shall be retroreflective and sloped downward in the direction of the opened traffic lane.
4. See Standard Plan A73B for Metal Post Details.
5. Unless shown otherwise on the plans, or as directed by the Engineer, the color of the retroreflective sheeting for permanent channelizers shall conform to the color of the pavement markings it supplements.
6. Except, Class 1 (Flexible Post) temporary delineators and temporary channelizers in work zones shall be orange post with white retroreflective sheeting.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

Atifa Feraoz
REGISTERED CIVIL ENGINEER

May 31, 2018
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Atifa Feraoz
C80402
REN. 3-31-19
CIVIL
STATE OF CALIFORNIA

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STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DELINEATORS, CHANNELIZERS AND BARRICADES

NO SCALE

A73C

1-29-18

2018 STANDARD PLAN A73C

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

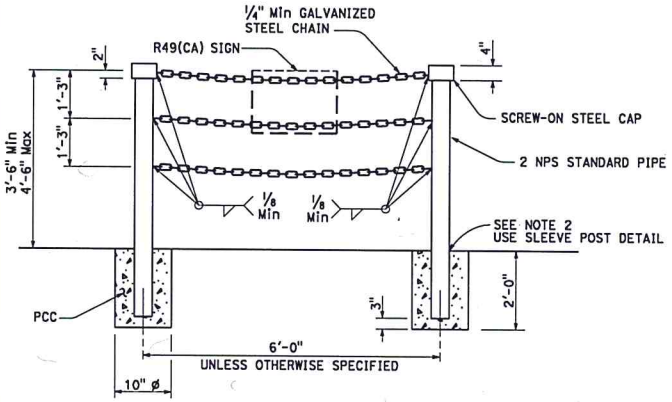
REGISTERED CIVIL ENGINEER

October 30, 2015
PLANS APPROVAL DATE

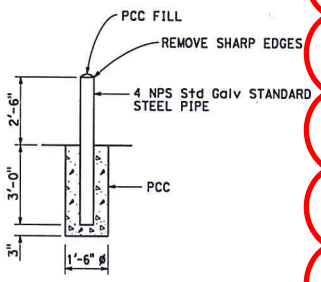
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Stanley P. Johnson
REGISTERED PROFESSIONAL ENGINEER
No. C57793
Exp. 3-31-16
CIVIL
STATE OF CALIFORNIA

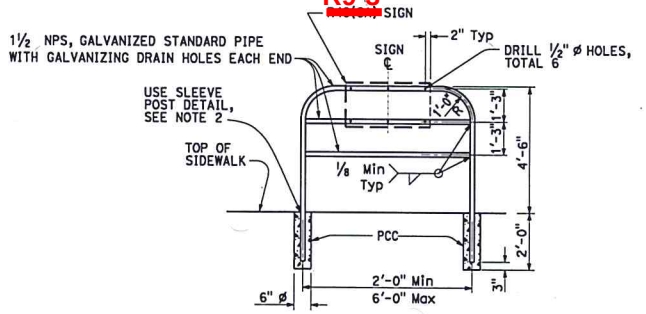
TO ACCOMPANY PLANS DATED _____



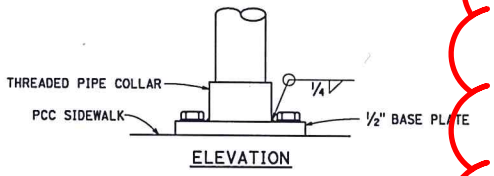
TYPE II
DETAIL A



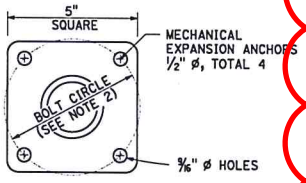
GUARD POST
DETAIL B



TYPE I
DETAIL C

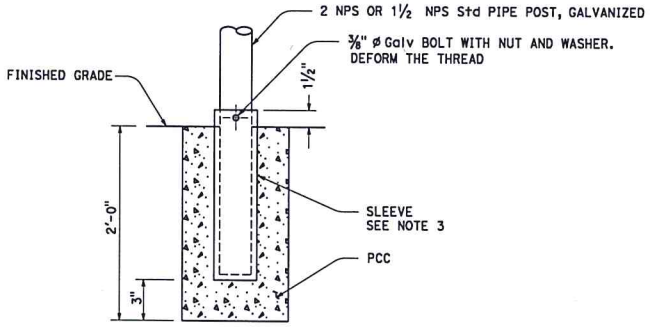


ELEVATION



PLAN

POST ANCHORAGE DETAIL
DETAIL D



SLEEVE POST DETAIL
Use unless otherwise specified or shown on plans
DETAIL E

NOTES:

1. Pipe post to be set 1'-6" back from face of curb unless otherwise specified.
2. Where barricade posts are installed in existing concrete sidewalk, the post may be anchored to the sidewalk as shown in the "Post Anchorage Detail". Bolt circle diameter shall be 4" minimum for Type I barricade and 5" minimum for Type II barricade.
3. Steel sleeve shall be constructed with an inside diameter ⅛" larger than the post's outside diameter. Wall thickness of sleeve shall be same as post or larger.
4. Alternative details may be submitted for approval by the Engineer.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (PEDESTRIAN BARRICADES)

NO SCALE

RSP ES-7Q DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-7Q DATED MAY 20, 2011 - PAGE 478 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-7Q

2010 REVISED STANDARD PLAN RSP ES-7Q

8-24-15

MODIFIED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

Atifa Ferouz
REGISTERED CIVIL ENGINEER

May 31, 2018
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Atifa Ferouz
No. C80402
Exp. 3-31-19
CIVIL
STATE OF CALIFORNIA

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TABLE 1

TAPER LENGTH CRITERIA AND CHANNELIZING DEVICE SPACING

SPEED (S)	MINIMUM TAPER LENGTH * FOR WIDTH OF OFFSET 12 FEET (W)				MAXIMUM CHANNELIZING DEVICE SPACING		
					X	Y	Z **
	TANGENT 2L	MERGING L	SHIFTING L/2	SHOULDER L/3	TAPER	TANGENT	CONFLICT
mph	ft	ft	ft	ft	ft	ft	ft
20	160	80	40	27	20	40	10
25	250	125	63	42	25	50	12
30	360	180	90	60	30	60	15
35	490	245	123	82	35	70	17
40	640	320	160	107	40	80	20
45	1080	540	270	180	45	90	22
50	1200	600	300	200	50	100	25
55	1320	660	330	220	50	100	25
60	1440	720	360	240	50	100	25
65	1560	780	390	260	50	100	25
70	1680	840	420	280	50	100	25
75	1800	900	450	300	50	100	25

* - For other offsets, use the following merging taper length formula for L:
For speed of 40 mph or less, $L = WS^2/60$
For speed of 45 mph or more, $L = WS$

Where: L = Taper length in feet
W = Width of offset in feet
S = Posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Use for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizers (CA).

TABLE 2

LONGITUDINAL BUFFER SPACE AND FLAGGER STATION SPACING

SPEED *	Min D **	DOWNGRADE Min D ***		
		-3%	-6%	-9%
mph	ft	ft	ft	ft
20	115	116	120	126
25	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	520	553	593
60	570	598	638	686
65	645	682	728	785
70	730	771	825	891
75	820	866	927	1003

* - Speed is posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Longitudinal buffer space or flagger station spacing

*** - Use on sustained downgrade steeper than -3 percent and longer than 1 mile.

TABLE 3

ADVANCE WARNING SIGN SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS *		
	A	B	C
	ft	ft	ft
URBAN - 25 mph OR LESS	100	100	100
URBAN - MORE THAN 25 mph TO 40 mph	250	250	250
URBAN - MORE THAN 40 mph	350	350	350
RURAL	500	500	500
EXPRESSWAY / FREEWAY	1000	1500	2640

* - The distances are approximate, are intended for guidance purposes only, and should be applied with engineering judgment. These distances should be adjusted by the Engineer for field conditions, if necessary, by increasing or decreasing the recommmended distances.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM TABLES FOR LANE AND RAMP CLOSURES

NO SCALE

T9

1-29-18

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

Atifa Ferouz
REGISTERED CIVIL ENGINEER

May 31, 2018
PLANS APPROVAL DATE

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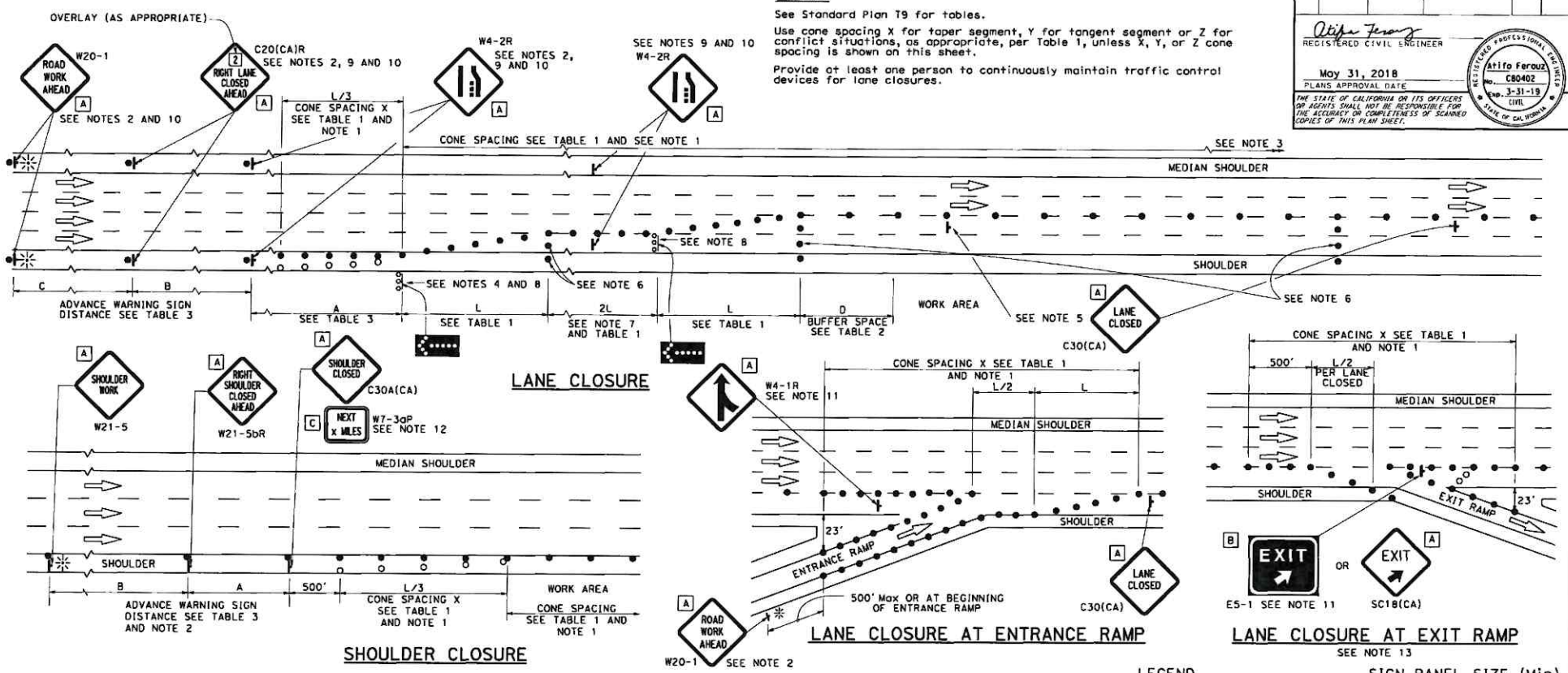
REGISTERED PROFESSIONAL ENGINEER — Atifa Ferouz — No. C80402 — Exp. 3-31-19 — CIVIL — STATE OF CALIFORNIA

NOTES:

See Standard Plan T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Provide at least one person to continuously maintain traffic control devices for lane closures.



NOTES:

1. Portable delineators placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
2. Each advance warning sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
3. A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within the larger project's limits.
4. A minimum 1500' sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest verticle curve or on a horizontal curve.
5. Place a C30(CA) sign every 1000 ' throughout length of lane closure.
6. A minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 1000' as shown on the "Lane Closure" detail. Two type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
7. The 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
8. Use one flashing arrow sign for each lane closed. The flashing arrow sign shall be Type I.
9. Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
10. Duplicate sign installations are not required:
    a) On opposite shoulder if at least one-half of the available lanes remain open to traffic.
    b) In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
11. The E5-1 or SC18(CA) and W4-1 signs shall be used as shown.
12. A W7-3aP "NEXT ____ MILES" plaque must be used if the shoulder closure extends beyond the distance that can be perceived by road users.
13. For the warning sign requirements at the Exit Ramp, when work is proposed on the local street, see CA MUTCD Figure 6H-22 to 6H-27.

LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- TEMPORARY TRAFFIC CONTROL SIGN
- FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER
- PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 72" x 60"
- C 36" x 30"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON FREEWAYS AND EXPRESSWAYS

NO SCALE

T10

1-29-18

Return to Table of Contents

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

Atifa Ferouz
REGISTERED CIVIL ENGINEER
May 31, 2018
PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
Atifa Ferouz
No. C80402
Exp. 3-31-19
CIVIL
STATE OF CALIFORNIA

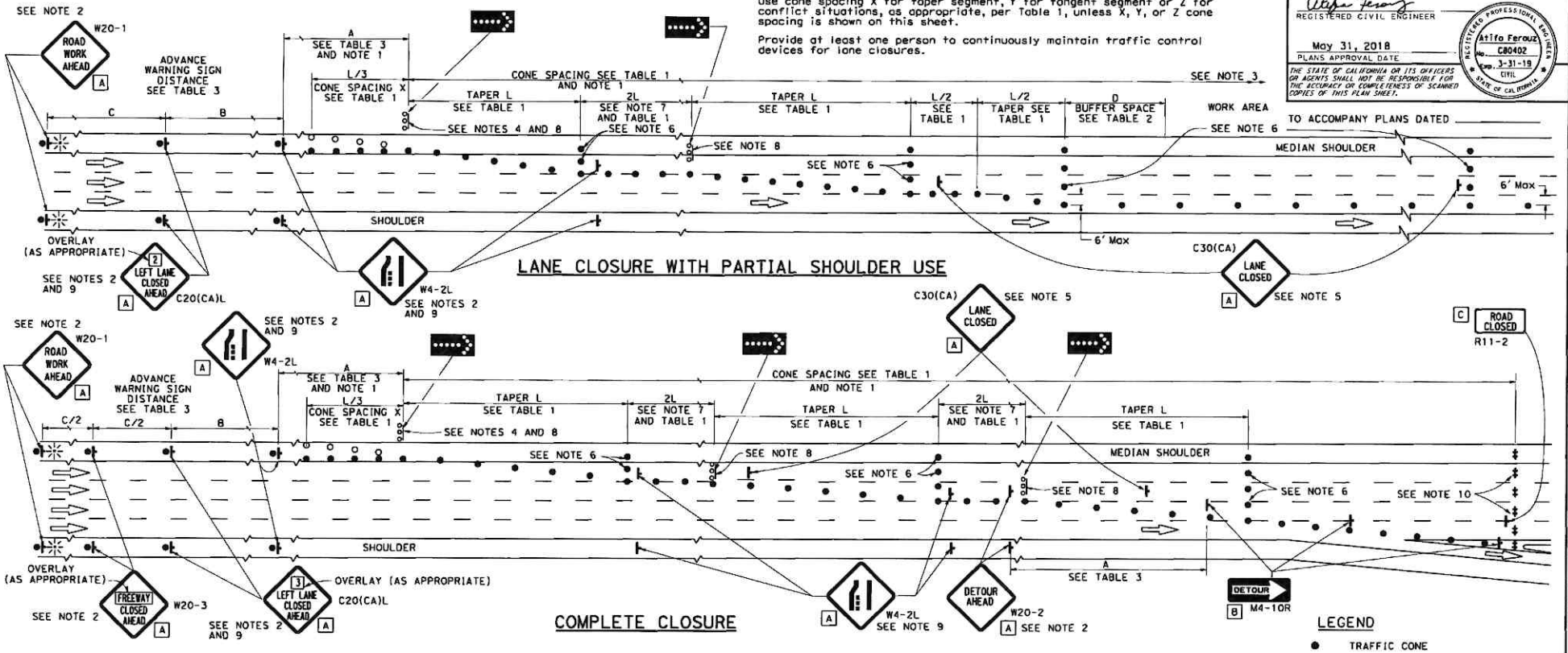
TO ACCOMPANY PLANS DATED _____

NOTES:

See Standard Plan T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Provide at least one person to continuously maintain traffic control devices for lane closures.



NOTES:

1. Portable delineators placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
2. Each advance warning sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
3. A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.
4. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
5. Place a C30(CA) sign every 1000 ' throughout length of lane closure.
6. A minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 1000' as shown on the "Lane Closure with Partial Shoulder USE" detail. Two type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
7. The 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
8. Use one flashing arrow sign for each lane closed. The flashing arrow sign shall be Type I.
9. Lane closures on the right side using partial median shoulder as a traffic lane shall conform to the details shown except that C20(CA)R and W4-2R signs shall be used.
10. A minimum of Two Type II or III barricades shall be placed across each closed lane and shoulder at the location shown and every 2000' within the complete closure area. Within the complete closure area, the transverse alignment of the barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 48" x 18"
- C 48" x 30"

LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- TEMPORARY TRAFFIC CONTROL SIGN
- FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER
- PORTABLE FLASHING BEACON

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON FREEWAYS AND EXPRESSWAYS

NO SCALE

T10A

1-29-18

Return to Table of Contents

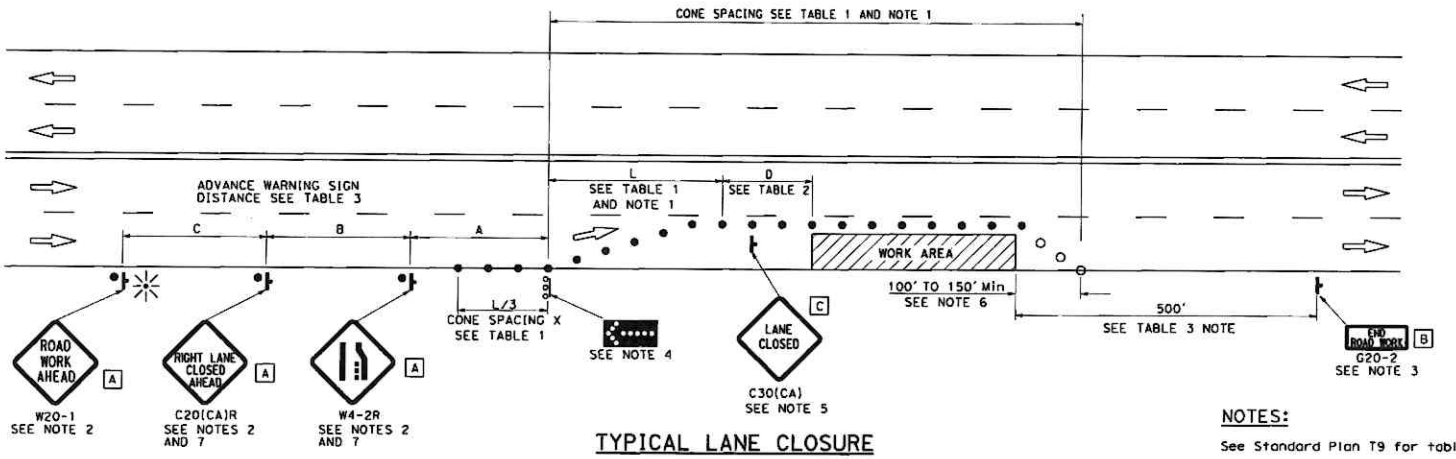
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

Atifa Ferouz
REGISTERED CIVIL ENGINEER

May 31, 2018
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Atifa Ferouz
C80402
Exp. 3-31-19
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STATE OF CALIFORNIA



TYPICAL LANE CLOSURE

NOTES:

See Standard Plan T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Provide at least one person to continuously maintain traffic control devices for lane closures.

LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- TEMPORARY TRAFFIC CONTROL SIGN
- FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER
- PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 36" x 18"
- C 30" x 30"

NOTES:

1. Portable delineators placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
2. Each advance warning sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
3. A G20-2 "END ROAD WORK" sign shall be placed at the end of the lane closure unless the end of work area is obvious or ends within the larger project's limits.
4. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
5. Place C30(CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work area.
6. Length may be reduced by the Engineer to address site conditions.
7. Median lane closures shall conform to the details shown except that C20(CA)L and W4-2L signs shall be used.
8. For approach speeds over 50 MPH, use the "Traffic Control System for Lane Closure on Freeways and Expressways" plan for lane closure details and requirements.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON MULTILANE CONVENTIONAL HIGHWAYS

NO SCALE

T11

1-29-18

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

Atifa Ferouz
REGISTERED CIVIL ENGINEER

May 31, 2018
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Atifa Ferouz
No. C80402
exp. 3-31-19
CIVIL
STATE OF CALIFORNIA

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LEGEND

- TRAFFIC CONE
- TEMPORARY TRAFFIC CONTROL SIGN
- FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER
- PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

- [A] 48" x 48"
- [B] 24" x 24"
- [C] 36" x 18"

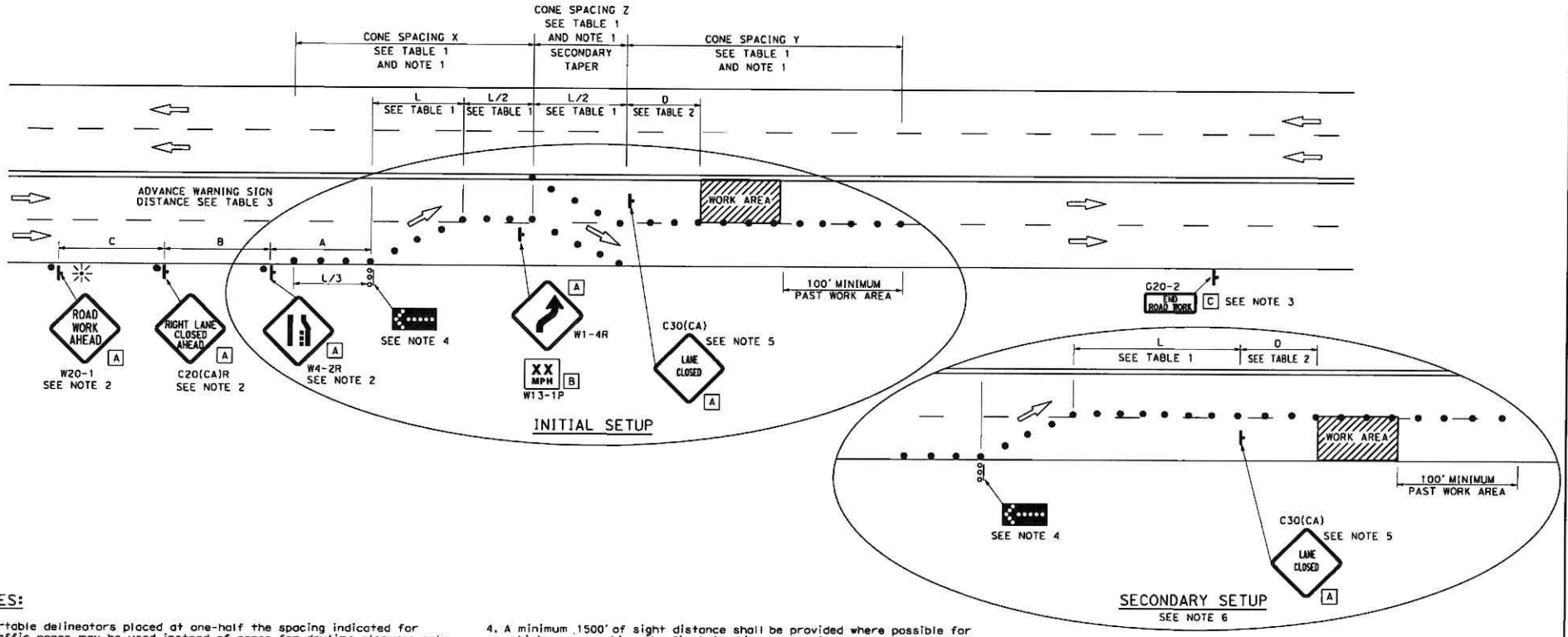
NOTES:

See Standard Plan T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Provide at least one person to continuously maintain traffic control devices for lane closures.

TYPICAL CHANGEABLE LANE CLOSURE



NOTES:

1. Portable delineators placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
2. Each advance warning sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacon shall be placed at the locations indicated for lane closure during hours of darkness.
3. A G20-2 "END ROAD WORK" sign shall be placed at the end of the lane closure unless the end of work area is obvious or ends within the larger project's limits.
4. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
5. Place C30(CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work area.
6. Relocate secondary taper to tangent location and relocate C30(CA) sign. Remove W1-4R/W13-1P sign package.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR CHANGEABLE LANE CLOSURE ON MULTILANE CONVENTIONAL HIGHWAYS AND EXPRESSWAYS

NO SCALE

T11A

1-29-18

Return to Table of Contents

TYPICAL RAMP CLOSURES

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 48" x 30"
- C 36" x 36"
- D 48" x 36"

LEGEND

- TRAFFIC CONE
- TEMPORARY TRAFFIC CONTROL SIGN
- BARRICADES
- PORTABLE FLASHING BEACON

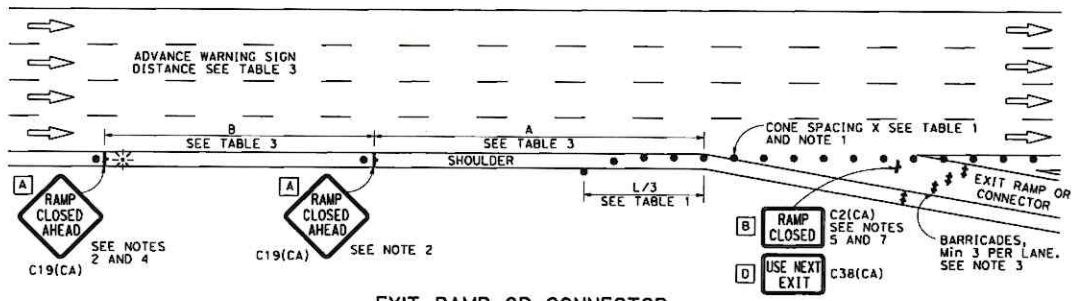
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

Atifa Feroz
REGISTERED CIVIL ENGINEER

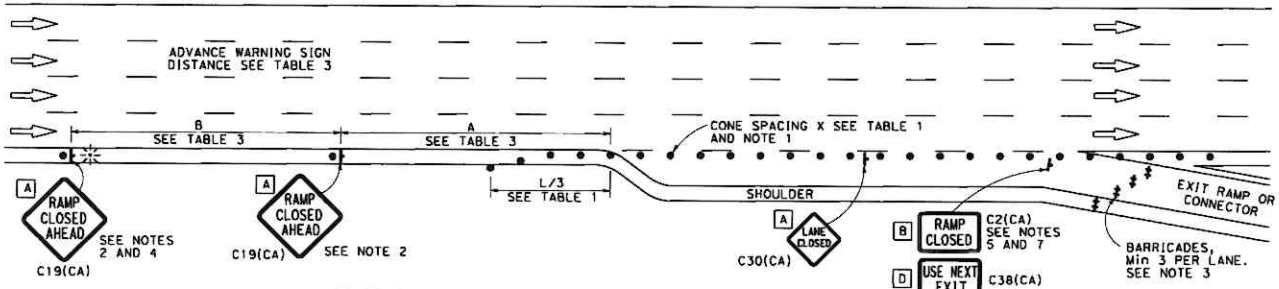
May 31, 2018
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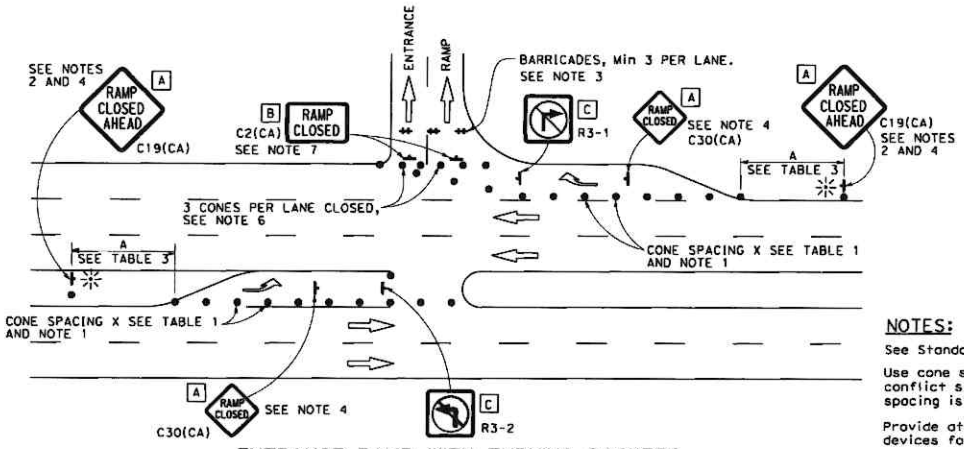
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No. C80402
Exp. 3-31-19
CIVIL
STATE OF CALIFORNIA



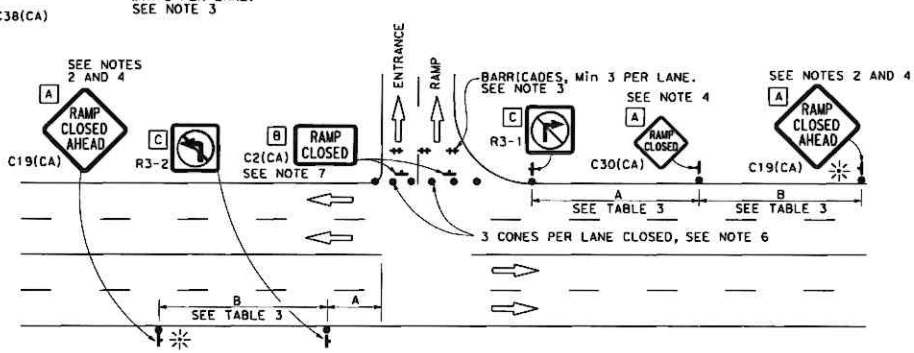
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

NOTES:

1. Portable delineators placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
2. Each advance warning C19(CA) "RAMP CLOSED AHEAD" sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. A flashing beacon shall be placed on top of the first C19(CA) sign during hours of darkness.
3. Barricades shall be Type I, II or III for closures lastind one week or less and Type III for closures lasting longer than one week.
4. In addition to placing the C19(CA) "RAMP CLOSED AHEAD" and C30(CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "closed" may be mounted. As directed by the Engineer on all guide signs that refer to the closed ramp. The letter size on the overlay shall be the some as the guide sign.
5. The existing "EXIT" signs shall be covered during ramp closures.
6. A minimum of 3 cones shall be placed transversely across each closed lane and shoulder.
7. C2(CA) sign shall be black and white.

NOTES:

See Standard Plan T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Provide at least one person to continuously maintain traffic control devices for lane closures.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURE

NO SCALE

T14

1-29-18

2018 STANDARD PLAN T14

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NOTES:

1. Only signs related to pedestrians are shown. For all other signs see appropriate T-sheets.
2. Barricades closing sidewalk shall cover the full width of the sidewalk. Use R9-11 sign when there are destination points between the detour and the work area. Locate the R9-11 sign to allow pedestrian access.
3. Advance warning sign is not required if the work area is within the limits of a larger work zone. Sign shall be equipped with at least two flags for daytime closure. Each flag shall be orange or fluorescent red-orange in color.

NOTES:

See Standard Plan T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1 unless X,Y, or Z cone spacing is shown on this sheet.

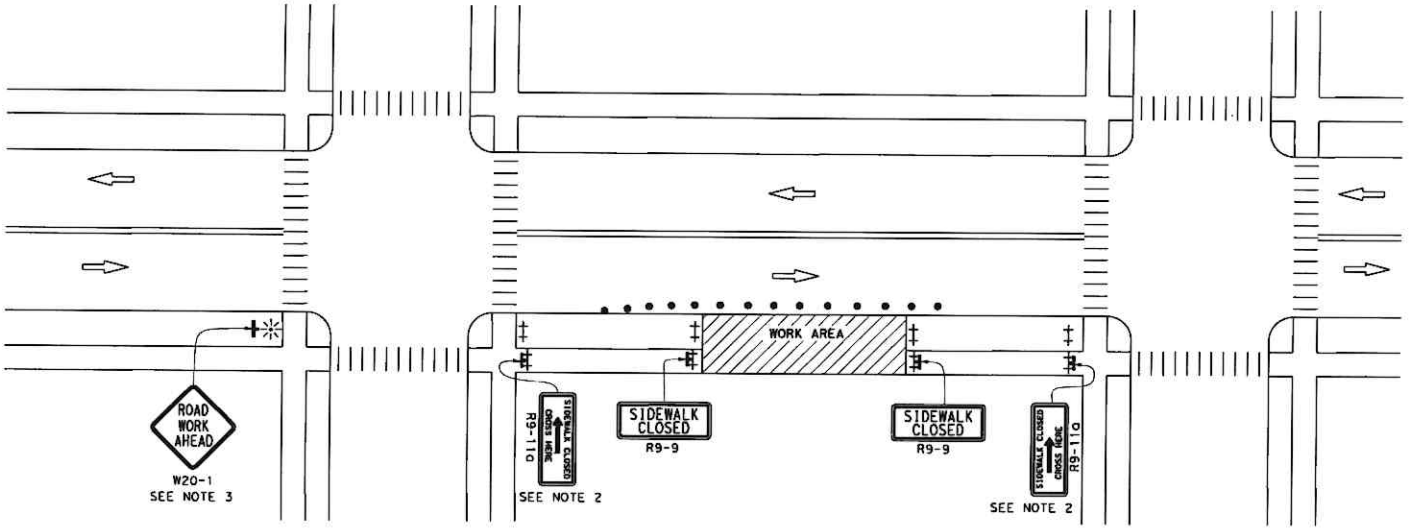
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

Atifa Ferouz
REGISTERED CIVIL ENGINEER

May 31, 2018
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Atifa Ferouz
No. C80402
EXP. 3-31-19
CIVIL
STATE OF CALIFORNIA

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LEGEND:

- BARRICADE
- TRAFFIC CONE
- PORTABLE FLASHING BEACON
- SIGN
- TEMPORARY TRAFFIC CONTROL SIGN ON BARRICADE

SIGN PANEL SIZE (Min)

SIGN DESIGNATION	SIGN OR PLAQUE	SIGN SIZE
R9-9	SIDEWALK CLOSED	24" x 12"
R9-11	SIDEWALK CLOSED AHEAD CROSS HERE	24" x 18"
R9-11a	SIDEWALK CLOSED CROSS HERE	24" x 12"
W20-1	ROAD WORK AHEAD	36" x 36"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY PEDESTRIAN ACCESS ROUTES TYPICAL SIDEWALK CLOSURE AND PEDESTRIAN DETOUR

NO SCALE

T30

1-29-18

Return to Table of Contents

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

Atifa Ferouz
REGISTERED CIVIL ENGINEER

May 31, 2018
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
Atifa Ferouz
No. C80402
Exp. 3-31-19
CIVIL
STATE OF CALIFORNIA

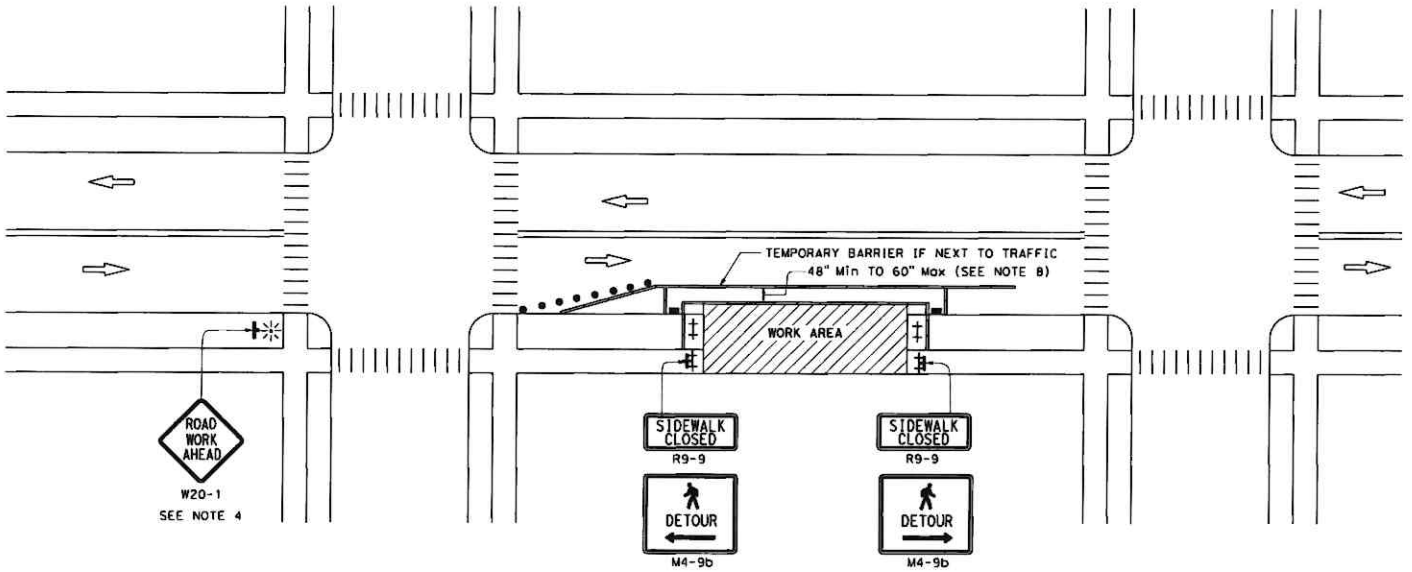
NOTES:

1. Only signs related to pedestrians are shown. For all other signs see appropriate T-sheets.
2. Separate pedestrian walkway from traffic and work zone activities, when temporary walkway is adjacent to traffic.
3. The temporary pedestrian access route must not lead into conflict with vehicles or work.
4. Advance warning sign is not required if the work area is within the limits of a larger work zone. Sign shall be equipped with at least two flags for daytime closure. Each flag shall be orange or fluorescent red-orange in color.
5. All devices used to channelize pedestrian flow must connect such that gaps do not allow pedestrians to stray from the channelized path.
6. Barricades closing sidewalk shall cover the full width of the sidewalk.
7. Separate the temporary pedestrian access route from traffic using a temporary barrier and a crash cushion if necessary.
8. When it is not possible to maintain a minumum of 60 inches throughout the length of the pedestrian route, maintain a minimum width of 48 inches and provide a 60 X 60-inch passing space at least every 200 feet.
9. See Standard Plan A88A for detectable warning surface for curb ramps to apply to temporary curb ramps.
10. See Standard Plan T34 for temporary curb ramp options.

NOTES:

See Standard Plan T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1 unless X,Y, or Z cone spacing is shown on this sheet.



LEGEND:

- BARRICADE
- TEMPORARY CURB RAMP
- CHANNELIZING DEVICE
- TRAFFIC CONE
- PORTABLE FLASHING BEACON
- TEMPORARY TRAFFIC CONTROL SIGN
- TEMPORARY TRAFFIC CONTROL SIGN ON BARRICADE

SIGN PANEL SIZE (Min)

SIGN DESIGNATION	SIGN OR PLAQUE	SIGN SIZE
M4-9b	PEDESTRIAN DETOUR	30" x 24"
R9-9	SIDEWALK CLOSED	24" x 12"
W20-1	ROAD WORK AHEAD	36" x 36"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY PEDESTRIAN ACCESS ROUTES
TYPICAL SIDEWALK DIVERSION WITHIN ROADBED

NO SCALE

T31

1-29-18

Return to Table of Contents

NOTES:

1. Only signs related to pedestrians are shown. For all other signs see appropriate T-sheets.
2. Barricades closing sidewalk shall cover the full width of the sidewalk. Use R9-11 sign when there are destination points between the detour and the work area. Locate the R9-11 sign to allow pedestrian access.
3. Advance warning sign is not required if the work area is within the limits of a larger work zone. Sign shall be equipped with at least two flags for daytime closure. Each flag shall be orange or fluorescent red-orange in color.

NOTES:

See Standard Plan T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1 unless X,Y, or Z cone spacing is shown on this sheet.

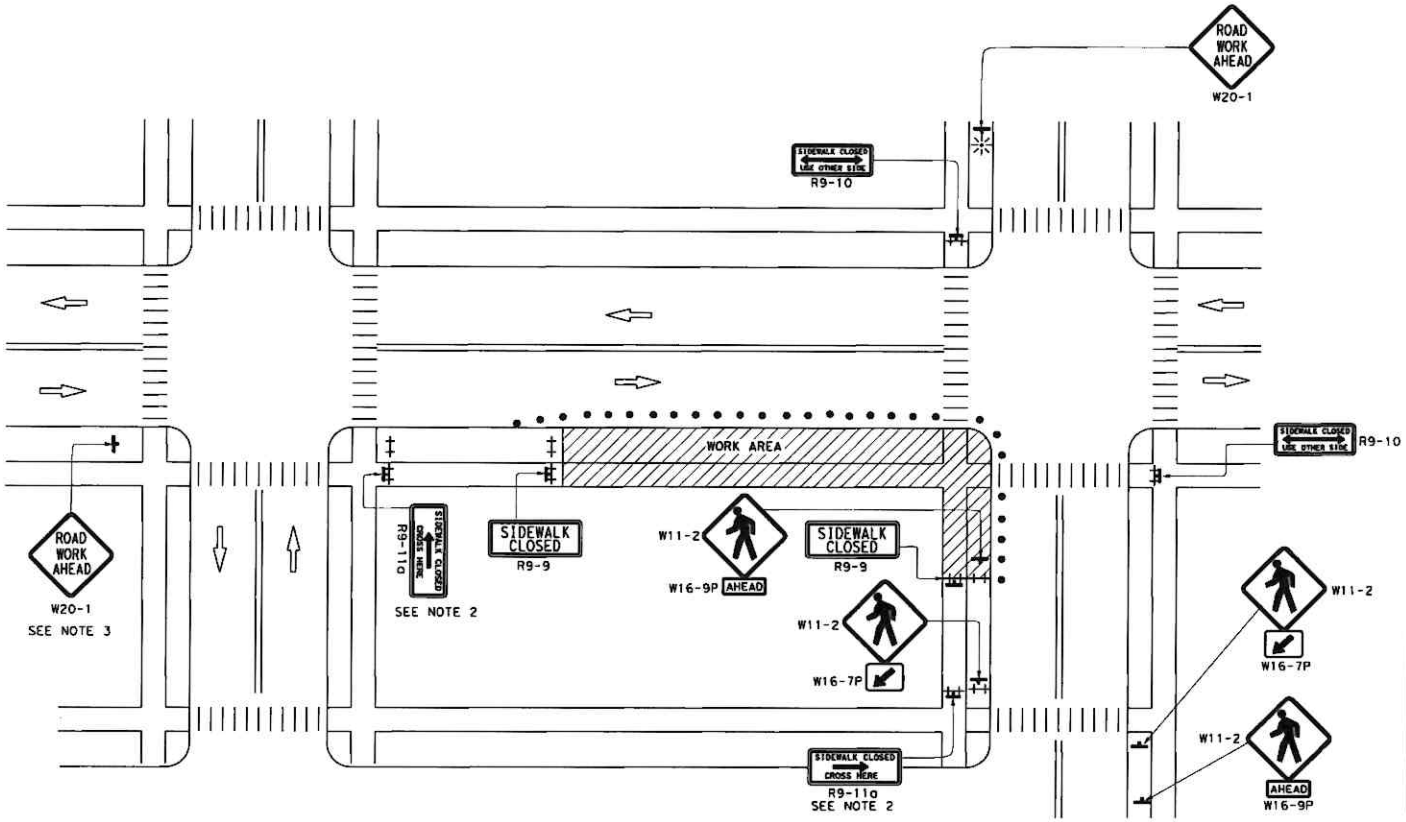
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

Atifa Feroz
REGISTERED CIVIL ENGINEER

May 31, 2018
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
Atifa Feroz
No. C60402
Exp. 3-31-19
CIVIL
STATE OF CALIFORNIA



LEGEND:

- ‡ BARRICADE
- • TRAFFIC CONE
- ✳ PORTABLE FLASHING BEACON
- ⊢ TEMPORARY TRAFFIC CONTROL SIGN
- ⊢‡ TEMPORARY TRAFFIC CONTROL SIGN ON BARRICADE

SIGN PANEL SIZE (Min)

SIGN DESIGNATION	SIGN OR PLAQUE	SIGN SIZE
R9-9	SIDEWALK CLOSED	24" x 12"
R9-10	SIDEWALK CLOSED USE OTHER SIDE	24" x 12"
R9-11	SIDEWALK CLOSED AHEAD CROSS HERE	24" x 18"
R9-11a	SIDEWALK CLOSED CROSS HERE	24" x 12"
W11-2	PEDESTRIAN	36" x 36"
W16-7P	DIAGONAL DOWNWARD POINTING ARROW (PLAQUE)	24" x 12"
W16-9P	AHEAD (PLAQUE)	24" x 12"
W20-1	ROAD WORK AHEAD	36" x 36"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY PEDESTRIAN ACCESS ROUTES TYPICAL SIDEWALK/CROSSWALK CLOSURE AND PEDESTRIAN DETOUR

NO SCALE

T32

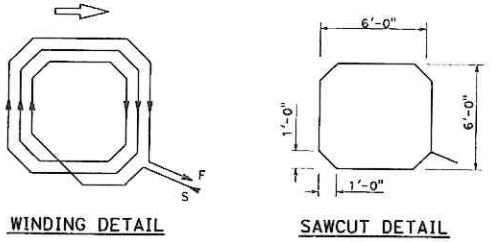
1-29-18

Return to Table of Contents

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

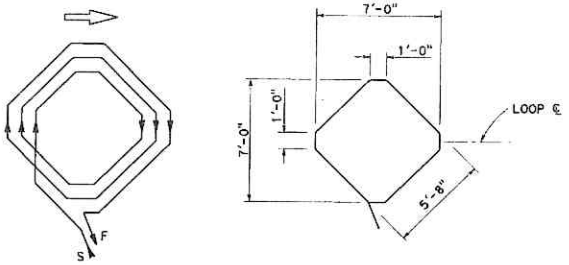
Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER
October 30, 2015
PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
Theresa Aziz Gabriel
No. E15129
Exp. 6-30-16
ELECTRICAL
STATE OF CALIFORNIA



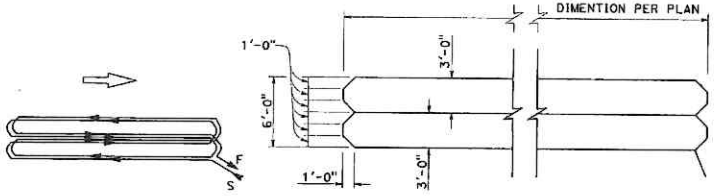
WINDING DETAIL SAWCUT DETAIL

TYPE A LOOP DETECTOR CONFIGURATION



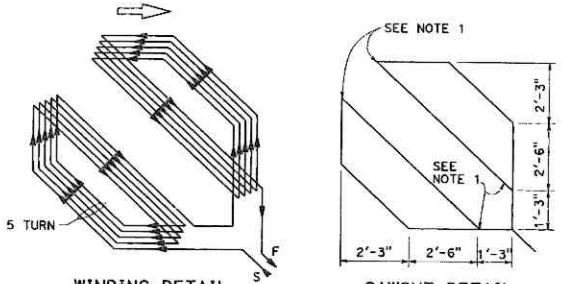
WINDING DETAIL SAWCUT DETAIL

TYPE B LOOP DETECTOR CONFIGURATION



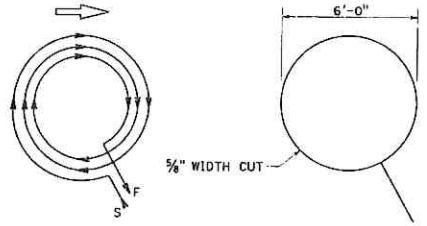
WINDING DETAIL SAWCUT DETAIL

TYPE C LOOP DETECTOR CONFIGURATION



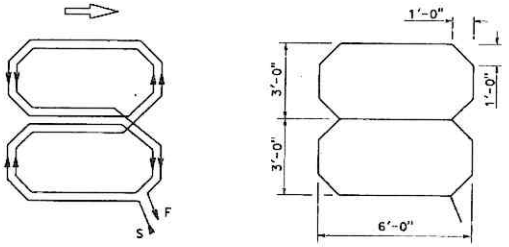
WINDING DETAIL SAWCUT DETAIL

TYPE D LOOP DETECTOR CONFIGURATION



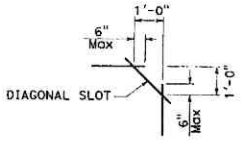
WINDING DETAIL SAWCUT DETAIL

TYPE E LOOP DETECTOR CONFIGURATION



WINDING DETAIL SAWCUT DETAIL

TYPE Q LOOP DETECTOR CONFIGURATION



PLAN VIEW OF DIAGONAL SLOT AT CORNERS

NOTES:

1. Round corners of acute angle sawcuts to prevent damage to conductors.
2. Typical distance separating loops from edge to edge is 10' for Type A, B, D and E installation in single lane.
3. Use Type D loops for limit line detector installations in left turn and bicycle lanes.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (DETECTORS)

NO SCALE

ES-5B

9-22-15

CONSTRUCTION NOTES FOR THE INSTALLATION OF NEW SHARROWS

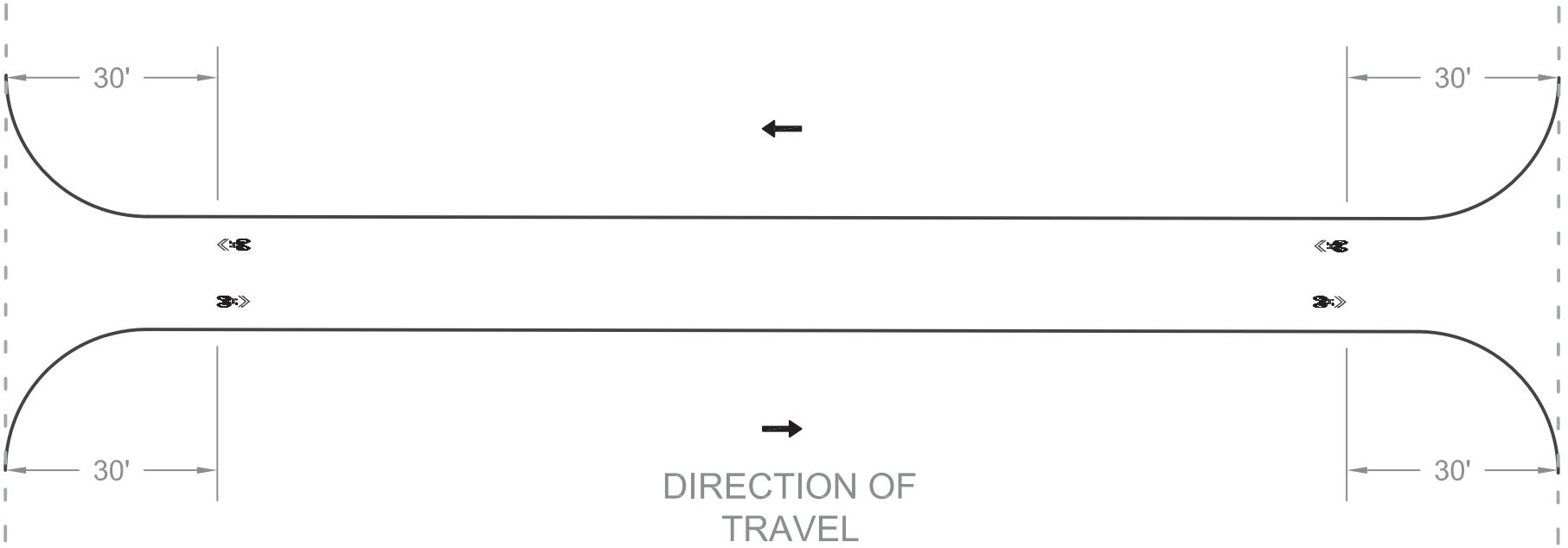
1. **Contractor shall follow Figure No. 1 thru 5 "Sharrow Placement Criteria" for installing the Sharrows.**
2. **Contractor shall cat-track placement of the Sharrows and get approval from the Engineer prior to final installation.**
3. **Lateral placement of the Sharrow is measured from the face of curb (FOC) to the center of the Sharrow marking. Sharrows shall be placed 13-feet from the FOC.**
4. **At intersection approaches, the Sharrow is placed 30-feet before the end of the return (EOR). If the placement of the Sharrow is within 10-feet of any existing pavement marking, relocate the Sharrow 10-feet back from the existing pavement marking (even if this places the Sharrow further than 30-feet from the EOR.**
5. **If the measured position of the Sharrow is on or near any of the following objects (crosswalks, pavement markings, stop bars/limit lines, manholes, grates, utility access, etc.), relocate the Sharrow 10-feet away from the object in the nearest direction from the measured position.**
6. **Contractor refer to the 2018 Caltrans Standard Plan Detail A24C for the Shared Roadway Bicycle Marking (Sharrow).**

LEGEND:

SHARROW MARKING 

F.O.C. - - - -

October 2016	**SHARROW PLACEMENT NOTES (FIGURE NO. 1 THRU 5)**	CITY OF CAMPBELL · THE ORCHARD CITY ·	FIGURE NO.



LEGEND:

SHARROW MARKING

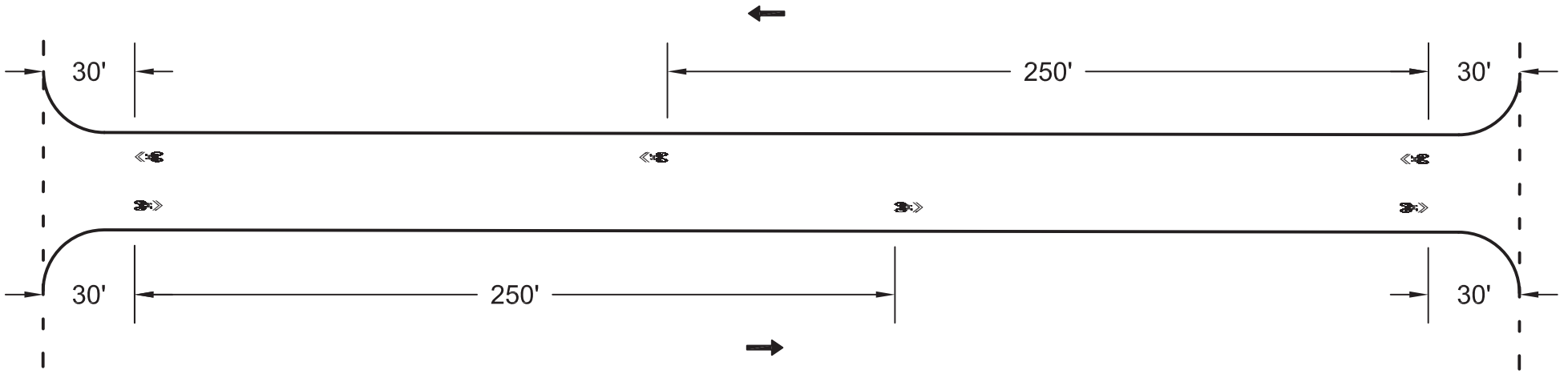
F.O.C.

October 2016

SHARROW PLACEMENT CRITERIA
2 SHARROWS PER DIRECTION

CITY OF CAMPBELL
THE ORCHARD CITY

FIGURE NO. 1



DIRECTION OF
TRAVEL

LEGEND:

SHARROW
MARKING

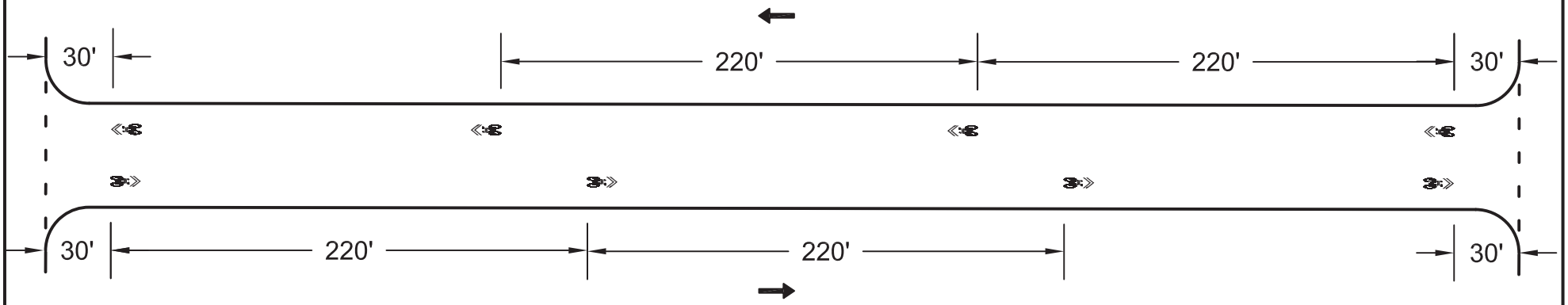
F.O.C. - - - -

October 2016

SHARROW PLACEMENT CRITERIA
3 SHARROWS PER DIRECTION

CITY OF CAMPBELL
THE ORCHARD CITY

FIGURE
NO.
2



DIRECTION OF
TRAVEL

LEGEND:

SHARROW
MARKING

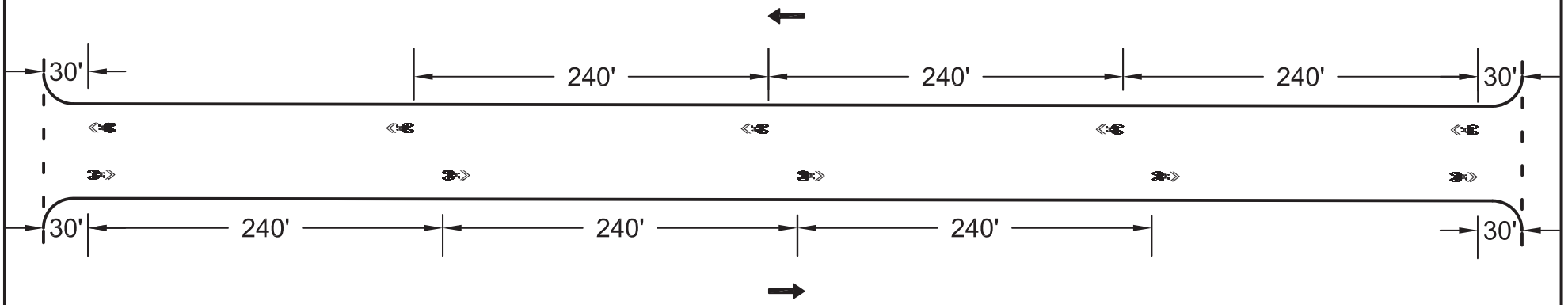
F.O.C.

October 2016

SHARROW PLACEMENT CRITERIA
4 SHARROWS PER DIRECTION

CITY OF CAMPBELL
THE ORCHARD CITY

FIGURE
NO.
3



DIRECTION OF
TRAVEL

LEGEND:

SHARROW
MARKING

F.O.C.

October 2016

SHARROW PLACEMENT CRITERIA
5 SHARROWS PER DIRECTION

CITY OF CAMPBELL
THE ORCHARD CITY

FIGURE
NO.
4

Appendix B:
Substitution Request Form

Name of Project _____

Project # _____

Substitution Request – No. _____

Date: _____

To: _____

DESCRIBE PROPOSED SUBSTITUTION:

_____

_____

_____

SPECIFIED ITEMS AFFECTED:

_____	_____	_____
Section #	Section Title	Paragraph
_____	_____	_____
Section #	Section Title	Paragraph

DRAWING ITEM AFFECTED:

_____	_____
Sheet Designation	Drawing Designation
_____	_____
Sheet Designation	Drawing Designation

If approved, Contract [Amount] [Sum] is decreased as follows:

_____	_____
[Amount][Sum]	Time (Calendar Days)

Attached data also includes product description, specifications, drawings, photographs, performance and test data for each component of the proposed substitution that fully defines the qualitative and quantitative elements of the proposed substitution. All applicable portions of the data are clearly identified.

Project _____

SUBSTITUTION REQUEST No. _____

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The undersigned certifies that the following paragraphs are correct: (CIRCLE either yes or no; if no, submit separate letter stating in detail deviations from the following paragraphs.

1. Yes No The proposed substitution does not affect dimensions shown on Drawings.

2. Yes No The undersigned will pay for changes to the building design, including engineering design, detailing, and construction costs caused by the requested substitution.

3. Yes No The proposed substitution will have no adverse affect on other portions of the Work, the construction schedule or specified warranty requirements.

The undersigned further states that the function, appearance, and quality of the proposed substitution are equivalent or superior to the specified item.

Submitted by General Contractor

Signature _____

Firm _____

Address _____

_____

Date _____

Telephone _____

For use by the Architect/Engineer

[ ] Approved [ ] Approved as noted

[ ] Not Approved [ ] Received too late

By _____

Date _____

Charges for Review & Evaluation: _____

Project # _____

SUBSTITUTION REQUEST – ADDITIONAL INFORMATION

Please include the following information attached to the request for substitution.

1. An explanation of the advantages to the City for accepting the substitution.

2. A comparison of significant qualities of the proposed substitution with those specified.

3. A list of changes or modifications needed to other parts of the work and to construction performed by the City and separate Contractors that will be necessary to accommodate the proposed substitution.

4. A statement indicating the substitution's effect on the Construction Schedule compared to the Construction Schedule without acceptance of the substitution. Indicate the effect of the proposed substitution on overall contract time.

5. Cost information, including a proposal of the net change, if any, in the Contract Sum.

6. Certification that the substitution is equal to or better in every respect to that required by Contract Documents, and that it will perform adequately in application indicated. Include Contractor's waiver of rights to additional payment or time extensions that may be necessary because of the substitution's failure to perform adequately.

Appendix C:
Construction Workday Calendar

CONSTRUCTION WORKDAY CALENDAR

2025 - 5 Day

JANUARY

SUN	MON	TUE	WED	THU	FRI	SAT
			1	932 2	933 3	4
5	934 6	935 7	936 8	937 9	938 10	11
12	939 13	940 14	941 15	942 16	943 17	18
19	20	944 21	945 22	946 23	947 24	25
26	948 27	949 28	950 29	951 30	952 31	

FEBRUARY

						1
2	953 3	954 4	955 5	956 6	957 7	8
9	958 10	959 11	12	960 13	961 14	15
16	17	962 18	963 19	964 20	965 21	22
23	966 24	967 25	968 26	969 27	970 28	

MARCH

						1
2	971 3	972 4	973 5	974 6	975 7	8
9	976 10	977 11	978 12	979 13	980 14	15
16	981 17	982 18	983 19	984 20	985 21	22
23	986 24	987 25	988 26	989 27	990 28	29
30	31					

APRIL

		991 1	992 2	993 3	994 4	5
6	995 7	996 8	997 9	998 10	999 11	12
13	1000 14	1 15	2 16	3 17	4 18	19
20	5 21	6 22	7 23	8 24	9 25	26
27	10 28	11 29	12 30			

MAY

				13 1	14 2	3
4	15 5	16 6	17 7	18 8	19 9	10
11	20 12	21 13	22 14	23 15	24 16	17
18	25 19	26 20	27 21	28 22	29 23	24
25	26	30 27	31 28	32 29	33 30	31

JUNE

1	34 2	35 3	36 4	37 5	38 6	7
8	39 9	40 10	41 11	42 12	43 13	14
15	44 16	45 17	46 18	47 19	48 20	21
22	49 23	50 24	51 25	52 26	53 27	28
29	54 30					

JULY

SUN	MON	TUE	WED	THU	FRI	SAT
		55 1	56 2	57 3	4	5
6	58 7	59 8	60 9	61 10	62 11	12
13	63 14	64 15	65 16	66 17	67 18	19
20	68 21	69 22	70 23	71 24	72 25	26
27	73 28	74 29	75 30	76 31		

AUGUST

					77 1	2
3	78 4	79 5	80 6	81 7	82 8	9
10	83 11	84 12	85 13	86 14	87 15	16
17	88 18	89 19	90 20	91 21	92 22	23
24	93 25	94 26	95 27	96 28	97 29	30
31						

SEPTEMBER

	1	98 2	99 3	100 4	101 5	6
7	102 8	103 9	104 10	105 11	106 12	13
14	107 15	108 16	109 17	110 18	111 19	20
21	112 22	113 23	114 24	115 25	116 26	27
28	117 29	118 30				

OCTOBER

			119 1	120 2	121 3	4
5	122 6	123 7	124 8	125 9	126 10	11
12	13	127 14	128 15	129 16	130 17	18
19	131 20	132 21	133 22	134 23	135 24	25
26	136 27	137 28	138 29	139 30	140 31	

NOVEMBER

						1
2	141 3	142 4	143 5	144 6	145 7	8
9	146 10	11	147 12	148 13	149 14	15
16	150 17	151 18	152 19	153 20	154 21	22
23	155 24	156 25	157 26	27	28	29
30						

DECEMBER

	158 1	159 2	160 3	161 4	162 5	6
7	163 8	164 9	165 10	166 11	167 12	13
14	168 15	169 16	170 17	171 18	172 19	20
21	173 22	174 23	175 24	25	176 26	27
28	177 29	178 30	179 31			

248 Working Days

Prepared 10-17

CONSTRUCTION 5-WORKDAY CALENDAR

Year 2026

JANUARY

S	M	T	W	Th	F	S
				1	180 2	3
4	181 5	182 6	183 7	184 8	185 9	10
11	186 12	187 13	188 14	189 15	190 16	17
18	19	191 20	192 21	193 22	194 23	24
25	195 26	196 27	197 28	198 29	199 30	31

FEBRUARY

S	M	T	W	Th	F	S
1	200 2	201 3	202 4	203 5	204 6	7
8	205 9	206 10	207 11	12	208 13	14
15	16	209 17	210 18	211 19	212 20	21
22	213 23	214 24	215 25	216 26	217 27	28

MARCH

S	M	T	W	Th	F	S
1	218 2	219 3	220 4	221 5	222 6	7
8	223 9	224 10	225 11	226 12	227 13	14
15	228 16	229 17	230 18	231 19	232 20	21
22	233 23	234 24	235 25	236 26	237 27	28
29	238 30	31				

APRIL

S	M	T	W	Th	F	S
			239 1	240 2	241 3	4
5	242 6	243 7	244 8	245 9	246 10	11
12	247 13	248 14	249 15	250 16	251 17	18
19	252 20	253 21	254 22	255 23	256 24	25
26	257 27	258 28	259 29	260 30		

MAY

S	M	T	W	Th	F	S
					261 1	2
3	262 4	263 5	264 6	265 7	266 8	9
10	267 11	268 12	269 13	270 14	271 15	16
17	272 18	273 19	274 20	275 21	276 22	23
24	25	277 26	278 27	279 28	280 29	30
31						

JUNE

S	M	T	W	Th	F	S
	281 1	282 2	283 3	284 4	285 5	6
7	286 8	287 9	288 10	289 11	290 12	13
14	291 15	292 16	293 17	294 18	295 19	20
21	296 22	297 23	298 24	299 25	300 26	27
28	301 29	302 30				

JULY

S	M	T	W	Th	F	S
			303 1	304 2	305 3	4
5	306 6	307 7	308 8	309 9	310 10	11
12	311 13	312 14	313 15	314 16	315 17	18
19	316 20	317 21	318 22	319 23	320 24	25
26	321 27	322 28	323 29	324 30	325 31	

AUGUST

S	M	T	W	Th	F	S
						1
2	326 3	327 4	328 5	329 6	330 7	8
9	331 10	332 11	333 12	334 13	335 14	15
16	336 17	337 18	338 19	339 20	340 21	22
23	341 24	342 25	343 26	344 27	345 28	29
30	346 31					

SEPTEMBER

S	M	T	W	Th	F	S
		347 1	348 2	349 3	350 4	5
6	7	351 8	352 9	353 10	354 11	12
13	355 14	356 15	357 16	358 17	359 18	19
20	360 21	361 22	362 23	363 24	364 25	26
27	365 28	366 29	367 30			

OCTOBER

S	M	T	W	Th	F	S
				368 1	369 2	3
4	370 5	371 6	372 7	373 8	374 9	10
11	12	375 13	376 14	377 15	378 16	17
18	379 19	380 20	381 21	382 22	383 23	24
25	384 26	385 27	386 28	387 29	388 30	31

NOVEMBER

S	M	T	W	Th	F	S
1	389 2	390 3	391 4	392 5	393 6	7
8	394 9	395 10	11	396 12	397 13	14
15	398 16	399 17	400 18	401 19	402 20	21
22	403 23	404 24	405 25	26	27	28
29	406 30					

DECEMBER

S	M	T	W	Th	F	S
		407 1	408 2	409 3	410 4	5
6	411 7	412 8	413 9	414 10	415 11	12
13	416 14	417 15	418 16	419 17	420 18	19
20	421 21	422 22	423 23	424 24	25	26
27	425 28	426 29	427 30	428 31		

249 Working Days

Prepared 7-23

Appendix D:
Best Management Practices for the Construction Industry

Small Business Hazardous Waste Disposal Program

Businesses that generate less than 27 gallons or 220 pounds of hazardous waste per month are eligible to use Santa Clara County's Small Business Hazardous Waste Disposal Program. Call (408) 299-7300 for a quote, more information or guidance on disposal.

Palo Alto operates a similar program, with monthly collection, for small businesses. Call the City of Palo Alto, (650) 496-6980, or Greenfield Services Corporation, 1-800-433-5060 for information or to schedule an appointment.

This brochure is one in a series of pamphlets describing storm drain pollution prevention measures for specific types of construction industry activities. Other pamphlets include:

Home Repair and Remodeling

General Construction and Site Supervision

Landscaping, Gardening, and Pool Maintenance

Painting and Application of Solvents and Adhesives

Roadwork and Paving

Earth Moving Activities and Dewatering Activities

Heavy Equipment Operation

For additional brochures contact:

(408) 354-5385
West Valley
Clean Water Program
www.clean creeks.org
Campbell • Los Gatos • Monte Sereno • Saratoga

Spill Response Agencies:

1. **DIAL 9-1-1** for most communities including San Jose (by cell phone – see below)
2. From Cell Phones call . . . **(408) 299-3144** County Communications (24 hours)
3. For non-hazardous spills in Campbell, Los Gatos, Monte Sereno or Saratoga call West Valley Inspector. . . (408) 828-4658
4. For non-hazardous spills in San Jose call . . . . . (408) 945-3000
5. State Office of Emergency Services Warning Ctr (24 hours). . **1-800-852-7550**

Local Pollution Control Agencies

County of Santa Clara Integrated Waste Management Program. . . . . (408) 441-1198

County of Santa Clara District Attorney Environmental Crimes Hotline. . (408) 299-TIPS

Santa Clara County Recycling Hotline. 1-800-533-8414

Santa Clara Valley Water District. . . . . (408) 265-2600

Santa Clara Valley Water District Pollution Hotline 1-888-510-5151

San Jose/Santa Clara Water Pollution Control Plant. . . . . (408) 945-3000
Serving Campbell, Cupertino, Los Gatos, Milpitas, Monte Sereno, San Jose, Santa Clara, Saratoga

Sunnyvale Water Pollution Control Plant
Serving Sunnyvale. . . . . . (408) 730-7270

Regional Water Quality Control Plant. . . . . (650) 329-2598
Serving East Palo Alto Sanitary District, Los Altos, Los Altos Hills, Mountain View, Palo Alto, Stanford

Regional Water Quality Control Board San Francisco Bay Region. . . . . (510) 622-2300

2006

General Construction and Site Supervision

Best Management Practices for Construction



Who should use this brochure?

- General contractors
- Site supervisors
- Inspectors
- Home builders
- Developers

Preventing Pollution: It's Up to Us

In the Santa Clara Valley, storm drains transport water directly to local creeks and San Francisco Bay without treatment. Stormwater pollution is a serious problem for wildlife dependent on our waterways and for the people who live near polluted streams or baylands. Some common sources of this pollution include spilled oil, fuel, and fluids from vehicles and heavy equipment; construction debris; sediment created by erosion; landscaping runoff containing pesticides or weed killers; and materials such as used motor oil, antifreeze, and paint products that people pour or spill into a street or storm drain.

Thirteen valley municipalities have joined together with Santa Clara County and the Santa Clara Valley Water District to educate local residents and businesses and fight stormwater pollution. Join us, by following the practices described in this pamphlet.

Doing the Job Right

General Principles

- ❑ Keep an orderly site and ensure good housekeeping practices are used.
- ❑ Maintain equipment properly.
- ❑ Cover materials when they are not in use.
- ❑ Keep materials away from streets, storm drains and drainage channels.
- ❑ Ensure dust control water doesn't leave site or discharge to storm drains.

Advance Planning To Prevent Pollution

- ❑ Schedule excavation and grading activities for dry weather periods. To reduce soil erosion, plant temporary vegetation or place other erosion controls before rain begins. Use the *Erosion and Sediment Control Manual*, available form the Regional Water Quality Control Board, as a reference.
- ❑ Control the amount of runoff crossing your site (especially during excavation!) by using berms or temporary or permanent drainage ditches to divert water flow around the site.
  Reduce stormwater runoff velocities by constructing temporary check dams or berms where appropriate.
- ❑ Train your employees and subcontractors. Make these brochures available to everyone who works on the construction site. Inform subcontractors about the stormwater requirements and their own responsibilities. Use *Blueprint for a Clean Bay*, a construction best management practices guide available from the Santa Clara Valley Urban Runoff Pollution Prevention Program, as a reference.

Good Housekeeping Practices

- ❑ Designate one area of the site for auto parking, vehicle refueling, and routine equipment maintenance. The designated area should be well away from streams or storm drain inlets, bermed if necessary. Make major repairs off site.
- ❑ Keep materials out of the rain – prevent runoff contamination at the source. Cover exposed piles of soil or construction materials with plastic sheeting or temporary roofs. Before it rains, sweep and remove materials from surfaces that drain to storm drains, creeks, or channels.
- ❑ Keep pollutants off exposed surfaces. Place trash cans and recycling receptacles around the site to minimize litter.
- ❑ Clean up leaks, drips and other spills immediately so they do not contaminate soil or groundwater or leave residue on paved surfaces. Use dry cleanup methods whenever possible. If you must use water, use just enough to keep the dust down.
- ❑ Cover and maintain dumpsters. Check frequently for leaks. Place dumpsters under roofs or cover with tarps or plastic sheeting secured around the outside of the dumpster. Never clean out a dumpster by hosing it down on the construction site.
- ❑ Place portable toilets away from storm drains. Make sure portable toilets are in good working order. Check frequently for leaks.

Materials/Waste Handling

- ❑ Practice Source Reduction -- minimize waste when you order materials. Order only the amount you need to finish the job.
- ❑ Use recyclable materials whenever possible. Arrange for pick-up of recyclable materials such as concrete, asphalt, scrap metal, solvents, degreasers, cleared vegetation, paper, rock, and vehicle maintenance materials such as used oil, antifreeze, batteries, and tires.
- ❑ Dispose of all wastes properly. Many construction materials and wastes, including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation can be recycled. (See the reference list of recyclers in *Blueprint for a Clean Bay*.) Materials that cannot be recycled must be taken to an appropriate landfill or disposed of as hazardous waste. Never bury waste materials or leave them in the street or near a creek or stream bed.

Permits

- ❑ In addition to local grading and building permits, you will need to obtain coverage under the State's General Construction Activity Stormwater Permit if your construction site's disturbed area totals 1 acre or more. Information on the General Permit can be obtained from the Regional Water Quality Control Board.

Storm Drain Pollution from Construction Activities

Construction sites are common sources of storm water pollution. Materials and wastes that blow or wash into a storm drain, gutter, or street have a direct impact on local creeks and the Bay.

As a contractor, or site supervisor, owner or operator of a site, you may be responsible for any environmental damage caused by your subcontractors or employees.

Small Business Hazardous Waste Disposal Program

Businesses that generate less than 27 gallons or 220 pounds of hazardous waste per month are eligible to use Santa Clara County's Small Business Hazardous Waste Disposal Program. Call (408) 299-7300 for a quote, more information or guidance on disposal.

Palo Alto operates a similar program, with monthly collection, for small businesses. Call the City of Palo Alto, (650) 496-6980, or Greenfield Services Corporation, 1-800-433-5060 for information or to schedule an appointment.

This brochure is one in a series of pamphlets describing storm drain pollution prevention measures for specific types of construction industry activities. Other pamphlets include:

Home Repair and Remodeling

General Construction and Site Supervision

Landscaping, Gardening, and Pool Maintenance

Fresh Concrete and Mortar Application

Painting and Application of Solvents and Adhesives

Roadwork and Paving

Earth-Moving Activities and Dewatering Activities

For additional brochures contact:

(408) 354-5385
West Valley
Clean Water Program
www.clean creeks.org
Campbell • Los Gatos • Monte Sereno • Saratoga

Spill Response Agencies:

1. **DIAL 9-1-1** for most communities including San Jose (by cell phone – see below)
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3. For non-hazardous spills in Campbell, Los Gatos, Monte Sereno or Saratoga call West Valley Inspector. . . (408) 828-4658
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5. State Office of Emergency Services Warning Ctr (24 hours). . **1-800-852-7550**

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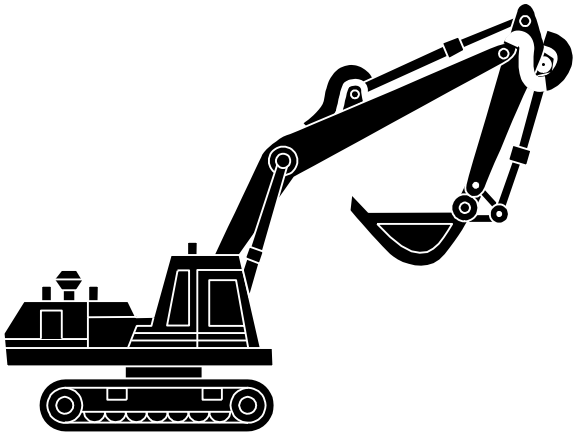
Regional Water Quality Control Plant. . . . . (650) 329-2598
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Regional Water Quality Control Board San Francisco Bay Region. . . . . (510) 622-230

2006

Heavy Equipment Operation

Best Management Practices for the Construction Industry



Who should use this brochure?

- Vehicle and equipment operators
- Site supervisors
- General contractors
- Home builders
- Developers

Preventing Pollution: It's Up to Us

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Thirteen valley municipalities have joined together with Santa Clara County and the Santa Clara Valley Water District to educate local residents and businesses and fight stormwater pollution. Join us, by following the practices described in this pamphlet.

Doing the Job Right

Site Planning and Preventive Vehicle Maintenance

- ❑ Designate one area of the construction site, well away from streams or storm drain inlets, for auto and equipment parking, refueling, and routine vehicle and equipment maintenance. Contain the area with berms, sand bags, or other barriers.

- ❑ Maintain all vehicles and heavy equipment. Inspect frequently for and repair leaks.

Stormwater Pollution from Heavy Equipment on Construction Sites

Poorly maintained vehicles and heavy equipment that leak fuel, oil, antifreeze or other fluids on the construction site are common sources of storm drain pollution. Prevent spills and leaks by isolating equipment from runoff channels, and by watching for leaks and other maintenance problems. Remove construction equipment from the site as soon as possible.

- ❑ Perform major maintenance, repair jobs, and vehicle and equipment washing off site where cleanup is easier.

- ❑ If you must drain and replace motor oil, radiator coolant, or other fluids on site, use drip pans or drop cloths to catch drips and spills. Collect all spent fluids, store in separate containers, and properly dispose as hazardous waste (recycle whenever possible).

- ❑ Do not use diesel oil to lubricate equipment parts, or clean equipment. Use only water for any onsite cleaning.

- ❑ Cover exposed fifth wheel hitches and other oily or greasy equipment during rain events.

Spill Cleanup

- ❑ Clean up spills immediately when they happen.



- ❑ Never hose down "dirty" pavement or impermeable surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags) whenever possible and properly dispose of absorbent materials.

- ❑ Sweep up spilled dry materials immediately. Never attempt to "wash them away" with water, or bury them.

- ❑ Use as little water as possible for dust control. Ensure water used doesn't leave silt or discharge to storm drains.

- ❑ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.

- ❑ Report significant spills to the appropriate local spill response agencies immediately. (See reverse side of brochure for telephone numbers.)

- ❑ If the spill poses a significant hazard to human health and safety, property or the environment, you must also report it to the State Office of Emergency Services (see reverse).

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Palo Alto operates a similar program, with monthly collection, for small businesses. Call the City of Palo Alto, (650) 496-6980, or Greenfield Services Corporation, 1-800-433-5060 for information or to schedule an appointment.

This brochure is one in a series of pamphlets describing storm drain pollution prevention measures for specific types of construction industry activities. Other pamphlets include:

Home Repair and Remodeling

General Construction and Site Supervision

Landscaping, Gardening, and Pool Maintenance

Painting and Application of Solvents and Adhesives

Roadwork and Paving

Earth Moving Activities and Dewatering Activities

Heavy Equipment Operation

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www.clean creeks.org
Campbell • Los Gatos • Monte Sereno • Saratoga

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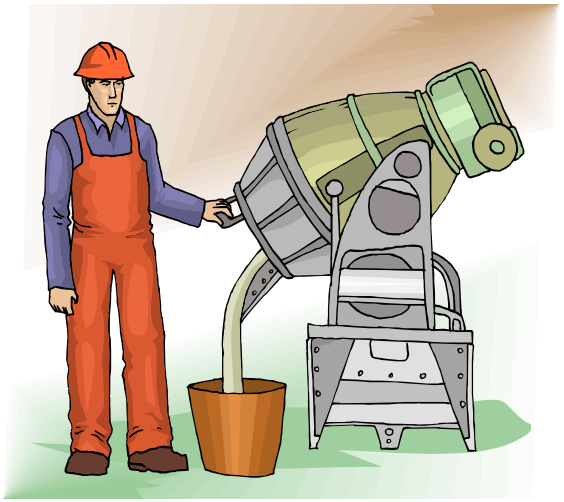
Palo Alto Regional Water Quality Control Plant. . . . . (650) 329-2598
Serving East Palo Alto Sanitary District, Los Altos, Los Altos Hills, Mountain View, Palo Alto, Stanford

Regional Water Quality Control Board San Francisco Bay Region. . . . . (510) 622-2300

2006

Fresh Concrete and Mortar Application

Best Management Practices for the Construction Industry



Who should use this brochure?

- Masons and bricklayers
- Sidewalk construction crews
- Patio construction workers
- Construction inspectors
- General contractors
- Home builders
- Developers
- Concrete delivery/pumping workers

Preventing Pollution: It's Up to Us

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Storm Drain Pollution from Fresh Concrete and Mortar Applications

Fresh concrete and cement-related mortars that wash into lakes, streams, or estuaries are toxic to fish and the aquatic environment. Disposing of these materials to the storm drains or creeks can block storm drains, causes serious problems, and is prohibited by law.

Doing the Job Right

General Business Practices

- ❑ Wash out concrete mixers only in designated wash-out areas in your yard, away from storm drains and waterways, where the water will flow into a temporary waste pit in a dirt area. Let water percolate through soil and dispose of settled, hardened concrete as garbage. Whenever possible, recycle washout by pumping back into mixers for reuse.
- ❑ Wash out chutes onto dirt areas at site that do not flow to streets or drains.
- ❑ Always store both dry and wet materials under cover, protected from rainfall and runoff and away from storm drains or waterways. Protect dry materials from wind.
- ❑ Secure bags of cement after they are open. Be sure to keep wind-blown cement powder away from streets, gutters, storm drains, rainfall, and runoff.
- ❑ Do not use diesel fuel as a lubricant on concrete forms, tools, or trailers.

During Construction

- ❑ Don't mix up more fresh concrete or cement than you will use in a two-hour period.
- ❑ Set up and operate small mixers on tarps or heavy plastic drop cloths.



- ❑ When cleaning up after driveway or sidewalk construction, wash fines onto dirt areas, not down the driveway or into the street or storm drain.
- ❑ Protect applications of fresh concrete and mortar from rainfall and runoff until the material has dried.
- ❑ Wash down exposed aggregate concrete only when the wash water can (1) flow onto a dirt area; (2) drain onto a bermed surface from which it can be pumped and disposed of properly; or (3) be vacuumed from a catchment created by blocking a storm drain inlet. If necessary, divert runoff with temporary berms. Make sure runoff does not reach gutters or storm drains.
- ❑ When breaking up pavement, be sure to pick up all the pieces and dispose of properly. Recycle large chunks of broken concrete at a landfill.
- ❑ Never bury waste material. Dispose of small amounts of excess dry concrete, grout, and mortar in the trash.
- ❑ Never dispose of washout into the street, storm drains, drainage ditches, or streams.

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Palo Alto operates a similar program, with monthly collection, for small businesses. Call the City of Palo Alto, (650) 496-6980, or Greenfield Services Corporation, 1-800-433-5060 for information or to schedule an appointment.

This brochure is one in a series of pamphlets describing storm drain pollution prevention measures for specific types of construction industry activities. Other pamphlets include:

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Earth-Moving Activities and Dewatering Activities

Heavy Equipment Operation

Home Repair and Remodeling

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www.clean creeks.org
Campbell • Los Gatos • Monte Sereno • Saratoga

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2006

Roadwork and Paving

Best Management Practices for the Construction Industry



Who should use this brochure?

- Road crews
- Driveway/ sidewalk/ parking lot construction crews
- Seal coat contractors
- Operators of grading equipment, paving machines, dump trucks, concrete mixers
- Construction inspectors
- General contractors
- Home builders
- Developers

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Doing the Job Right

General Business Practices

- ❑ Develop and implement erosion/sediment control plans for roadway embankments.
- ❑ Schedule excavation and grading work during dry weather.
- ❑ Check for and repair leaking equipment.
- ❑ Perform major equipment repairs at designated areas in your maintenance yard, where cleanup is easier. Avoid performing equipment repairs at construction sites.

Storm Drain Pollution from Roadwork

Road paving, surfacing, and pavement removal happen right in the street, where there are numerous opportunities for asphalt, saw-cut slurry, or excavated material to illegally enter storm drains.

Extra planning is required to store and dispose of materials properly and guard against pollution of storm drains, creeks, and the Bay.

- ❑ When refueling or when vehicle/equipment maintenance must be done on site, designate a location away from storm drains and creeks.
- ❑ Do not use diesel oil to lubricate equipment parts or clean equipment.
- ❑ Recycle used oil, concrete, broken asphalt, etc. whenever possible, or dispose of properly.

During Construction

- ❑ Avoid paving and seal coating in wet weather, or when rain is forecast, to prevent fresh materials from contacting stormwater runoff.
- ❑ Cover and seal catch basins and manholes when applying seal coat, slurry seal, fog seal, or similar materials.
- ❑ Protect drainage ways by using earth dikes, sand bags, or other controls to divert or trap and filter runoff.
- ❑ Never wash excess material from exposed-aggregate concrete or similar treatments into a street or storm drain. Collect and recycle, or dispose to dirt area.
- ❑ Cover stockpiles (asphalt, sand, etc.) and other construction materials with plastic tarps. Protect from rainfall and prevent runoff with temporary roofs or plastic sheets and berms.
- ❑ Park paving machines over drip pans or absorbent material (cloth, rags, etc.) to catch drips when not in use.
- ❑ Clean up all spills and leaks using "dry" methods (with absorbent materials and/or rags), or dig up, remove, and properly dispose of contaminated soil.
- ❑ Collect and recycle or appropriately dispose of excess abrasive gravel or sand.
- ❑ Avoid over-application by water trucks for dust control.



Asphalt/Concrete Removal

- ❑ Avoid creating excess dust when breaking asphalt or concrete.
- ❑ After breaking up old pavement, be sure to remove all chunks and pieces. Make sure broken pavement does not come in contact with rainfall or runoff.
- ❑ When making saw cuts, use as little water as possible. Shovel or vacuum saw-cut slurry and remove from the site. Cover or protect storm drain inlets during saw-cutting. Sweep up, and properly dispose of, all residues.
- ❑ Sweep, never hose down streets to clean up tracked dirt. Use a street sweeper or vacuum truck. Do not dump vacuumed liquor into storm drains.

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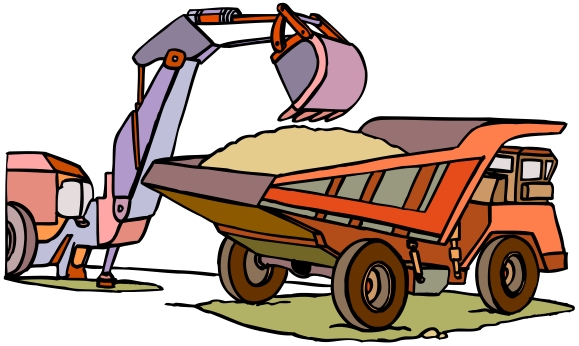
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2006

Earth-Moving and Dewatering Activities

Best Management Practices for the Construction Industry



Who should use this brochure?

- Bulldozer, back hoe, and grading machine operators
- Dump truck drivers
- Site supervisors
- General contractors
- Home builders
- Developers

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Doing the Job Right

General Business Practices

- ❑ Schedule excavation and grading work during dry weather.
- ❑ Perform major equipment repairs away from the job site.
- ❑ When refueling or vehicle/equipment maintenance must be done on site, designate a location away from storm drains.
- ❑ Do not use diesel oil to lubricate equipment parts, or clean equipment.

Storm Drain Pollution from Earth-Moving Activities and Dewatering

Soil excavation and grading operations loosen large amounts of soil that can flow or blow into storm drains when handled improperly. Sediments in runoff can clog storm drains, smother aquatic life, and destroy habitats in creeks and the Bay. Effective erosion control practices reduce the amount of runoff crossing a site *and* slow the flow with check dams or roughened ground surfaces.

Contaminated groundwater is a common problem in the Santa Clara Valley. Depending on soil types and site history, groundwater pumped from construction sites may be contaminated with toxics (such as oil or solvents) or laden with sediments. Any of these pollutants can harm wildlife in creeks or the Bay, or interfere with wastewater treatment plant operation.

Discharging sediment-laden water from a dewatering site into any water of the state without treatment is prohibited.

Practices During Construction

- ❑ Remove existing vegetation only when absolutely necessary. Plant *temporary* vegetation for erosion control on slopes or where construction is not immediately planned.
- ❑ Protect downslope drainage courses, streams, and storm drains with wattles, or temporary drainage swales. Use check dams or ditches to divert runoff around excavations. Refer to the Regional Water Quality Control Board's *Erosion and Sediment Control Field Manua*l for proper erosion and sediment control measures.
- ❑ Cover stockpiles and excavated soil with secured tarps or plastic sheeting.

Dewatering Operations

1. *Check for Toxic Pollutants*

- ❑ Check for odors, discoloration, or an oily sheen on groundwater.
- ❑ Call your local wastewater treatment agency and ask whether the groundwater must be tested.
- ❑ If contamination is suspected, have the water tested by a certified laboratory.
- ❑ Depending on the test results, you may be allowed to discharge pumped groundwater to the storm drain (if no sediments present) or sanitary sewer. OR, you may be required to collect and haul pumped groundwater offsite for treatment and disposal at an appropriate treatment facility.

2. Check for Sediment Levels

- ❑ If the water is clear, the pumping time is less than 24 hours, and the flow rate is less than 20 gallons per minute, you may pump water to the street or storm drain.
- ❑ If the pumping time is more than 24 hours and the flow rate greater than 20 gpm, call your local wastewater treatment plant for guidance.
- ❑ If the water is not clear, solids must be filtered or settled out by pumping to a settling tank prior to discharge. Options for filtering include:
  - Pumping through a perforated pipe sunk part way into a small pit filled with gravel;
  - Pumping from a bucket placed below water level using a submersible pump;
  - Pumping through a filtering device such as a swimming pool filter or filter fabric wrapped around end of suction pipe.
- ❑ When discharging to a storm drain, protect the inlet using a barrier of burlap bags filled with drain rock, or cover inlet with filter fabric anchored under the grate. OR pump water through a grassy swale prior to discharge.

Small Business Hazardous Waste Disposal Program

Businesses that generate less than 27 gallons or 220 pounds of hazardous waste per month are eligible to use Santa Clara County's Small Business Hazardous Waste Disposal Program. Call (408) 299-7300 for a quote, more information or guidance on disposal.

Palo Alto operates a similar program, with monthly collection, for small businesses. Call the City of Palo Alto, (650) 496-6980, or Greenfield Services Corporation, 1-800-433-5060 for information or to schedule an appointment.

This brochure is one in a series of pamphlets describing storm drain pollution prevention measures for specific types of construction industry activities. Other pamphlets include:

General Construction and Site Supervision

Painting and Application of Solvents and Adhesives

Fresh Concrete and Mortar Application

Roadwork and Paving

Earth-Moving Activities and Dewatering Activities

Heavy Equipment Operation

Home Repair and Remodeling

For additional brochures contact:

(408) 354-5385
West Valley
Clean Water Program
www.clean creeks.org
Campbell • Los Gatos • Monte Sereno • Saratoga

Spill Response Agencies:

1. **DIAL 9-1-1** for most communities including San Jose (by cell phone – see below)
2. From Cell Phones call . . . **(408) 299-3144** County Communications (24 hours)
3. For non-hazardous spills in Campbell, Los Gatos, Monte Sereno or Saratoga call West Valley Inspector. . . (408) 828-4658
4. For non-hazardous spills in San Jose call . . . . . (408) 945-3000
5. State Office of Emergency Services Warning Ctr (24 hours). . **1-800-852-7550**

Local Pollution Control Agencies

County of Santa Clara Integrated Waste Management Program. . . . . (408) 441-1198

County of Santa Clara District Attorney Environmental Crimes Hotline. . . . (408) 299-TIPS

Santa Clara County Recycling Hotline. 1-800-533-8414

Santa Clara Valley Water District. . . . . .(408) 265-2600

Santa Clara Valley Water District Pollution Hotline. 1-888-510-5151

San Jose/Santa Clara Water Pollution Control Plant. . . . . .(408) 945-3000
Serving Campbell, Cupertino, Los Gatos, Milpitas, Monte Sereno, San Jose, Santa Clara, Saratoga

Sunnyvale Water Pollution Control Plant
Serving Sunnyvale. . . . . . (408) 730-7270

Regional Water Quality Control Plant. . . . . (650) 329-2598
Serving East Palo Alto Sanitary District, Los Altos, Los Altos Hills, Mountain View, Palo Alto, Stanford

Regional Water Quality Control Board San Francisco Bay Region. . . . . .(510) 622-2300

2006

Landscaping, Gardening, and Pool Maintenance

Best Management Practices for the Construction Industry



Who should use this brochure?

- Landscapers
- Gardeners
- Swimming pool/ spa service and repair workers
- General contractors
- Home builders
- Developers
- Homeowners

Preventing Pollution: It's Up to Us

In the Santa Clara Valley, storm drains transport water directly to local creeks and San Francisco Bay without treatment. Stormwater pollution is a serious problem for wildlife dependent on our waterways and for the people who live near polluted streams or baylands. Some common sources of this pollution include spilled oil, fuel, and fluids from vehicles and heavy equipment; construction debris; sediment created by erosion; landscaping runoff containing pesticides or weed killers; and materials such as used motor oil, antifreeze, and paint products that people pour or spill into a street or storm drain.

Thirteen valley municipalities have joined together with Santa Clara County and the Santa Clara Valley Water District to educate local residents and businesses and fight stormwater pollution. Join us, by following the practices described in this pamphlet.

Doing the Job Right

General Business Practices

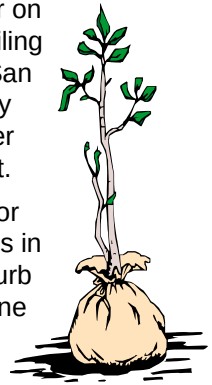
- ❑ Protect stockpiles and landscaping materials from wind and rain by storing them under tarps or secured plastic sheeting.
- ❑ Store pesticides, fertilizers, and other chemicals indoors or in a shed or storage cabinet.
- ❑ Schedule grading and excavation projects during dry weather.
- ❑ Use temporary check dams or ditches to divert runoff away from storm drains.
- ❑ Protect storm drains with sandbags or other sediment controls.
- ❑ Revegetation is an excellent form of erosion control for any site.

Storm Drain Pollution from Landscaping and Swimming Pool Maintenance

Many landscaping activities expose soils and increase the likelihood that earth and garden chemicals will run off into the storm drains during irrigation or when it rains. Swimming pool water containing chlorine and copper-based algaecides should never be discharged to storm drains. These chemicals are toxic to aquatic life.

Landscaping/Garden Maintenance

- ❑ Use pesticides sparingly, according to instructions on the label. Rinse empty containers, and use rinsewater as product. Dispose of rinsed, empty containers in the trash. Dispose of unused pesticides as hazardous waste.
- ❑ Collect lawn and garden clippings, pruning waste, and tree trimmings. Chip if necessary, and compost.
- ❑ In communities with curbside pick-up of yard waste, place clippings and pruning waste at the curb in approved bags or containers. Or, take to a landfill that composts yard waste. No curbside pickup of yard waste is available for commercial properties.
- ❑ Do not blow or rake leaves, etc. into the street, or place yard waste in gutters or on dirt shoulders, unless you are piling them for recycling (allowed by San Jose and unincorporated County only). Sweep up any leaves, litter or residue in gutters or on street.
- ❑ In San Jose, leave yard waste for curbside recycling pickup in piles in the street, 18 inches from the curb and completely out of the flow line to any storm drain.





Pool/Fountain/Spa Maintenance

Draining pools or spas

When it's time to drain a pool, spa, or fountain, please be sure to call your local wastewater treatment plant before you start for further guidance on flow rate restrictions, backflow prevention, and handling special cleaning waste (such as acid wash). Discharge flows should be kept to the low levels typically possible through a garden hose. Higher flow rates may be prohibited by local ordinance.

- ❑ Never discharge pool or spa water to a street or storm drain; discharge to a sanitary sewer cleanout.
- ❑ If possible, when emptying a pool or spa, let chlorine dissipate for a few days and then recycle/reuse water by draining it gradually onto a landscaped area.
- ❑ Do not use copper-based algaecides**.** Control algae with chlorine or other alternatives, such as sodium bromide.

Filter Cleaning

- ❑ Never clean a filter in the street or near a storm drain. Rinse cartridge and diatomaceous earth filters onto a dirt area, and spade filter residue into soil. Dispose of spent diatomaceous earth in the garbage.
- ❑ If there is no suitable dirt area, call your local wastewater treatment plant for instructions on discharging filter backwash or rinsewater to the sanitary sewer.

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Sunnyvale Water Pollution Control Plant

Serving Sunnyvale. . . . . . 408) 730-7270

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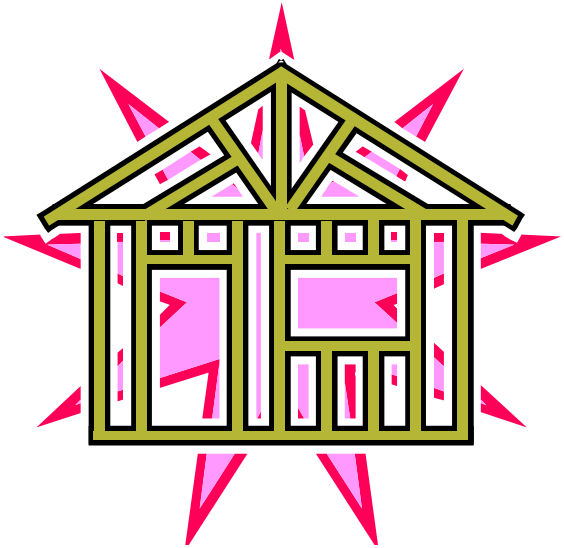
Regional Water Quality Control Board San Francisco Bay Region. . . . . (510) 622-2300

2006

Home Repair and Remodeling

Best Management Practices for Construction Activities

- Landscaping/Foundation Work
- Painting and Paint Cleanup
- Concrete, Masonry, and Tile Work
- General Construction



Who should use this brochure?

- Homeowners
- Do-it yourself remodelers
- General contractors

Preventing Pollution: It's Up to Us

In the Santa Clara Valley, storm drains transport water directly to local creeks and San Francisco Bay, without treatment. Stormwater pollution is a serious problem for wildlife dependent on our waterways and for people who live near polluted streams or baylands. Some common sources of this pollution include spilled oil, fuel, and fluids from vehicles and heavy equipment; construction debris; sediment created by erosion, landscaping runoff containing pesticides or weed killers; and materials such as used motor oil, antifreeze, and paint products that people pour or spill into streets or storm drains.

Thirteen valley municipalities have joined together with Santa Clara County and the Santa Clara Valley Water District to educate local residents and businesses and fight stormwater pollution. Join us, by following the practices described in this pamphlet.

Doing the Job Right

This brochure is for **homeowners**, and **do-it-yourself remodelers** who have access to residential household hazardous waste disposal programs.

Contractors and other professionals should refer to the Santa Clara Valley Urban Runoff Pollution Prevention Program's other publications in this series of brochures, and to *Blueprint for a Clean Bay,* a manual of best-management practices for construction-related industries.

Keep waterway protection in mind whenever you or people you hire work on your house or property.

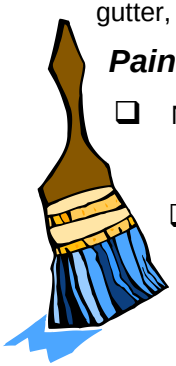
The property owner is ultimately responsible for correcting any pollution problems caused by construction activities.

Penalties may be more severe if storm drain pollution is not reported promptly.

Painting and Paint Cleanup

All paints, solvents, and adhesives contain chemicals that are harmful to aquatic animals and other wildlife in our creeks and Bay. Toxic chemicals may come from liquid or solid products or from cleaning residues on rags.

It is especially important not to clean brushes or painting equipment (buckets, pans, hoses, etc.) in an area where paint or paint cleanup water can flow to a gutter, street, or storm drain.



Paint Cleanup

- ❑ Never clean **brushes** or rinse **paint containers** into a street, gutter, storm drain, or stream.
- ❑ For **water-based paints**, paint out brushes on scrap material to the extent possible, and rinse into a drain that goes to the sanitary sewer (i.e. indoor plumbing).
- ❑ For **oil-based paints**, paint out brushes to the extent possible before soaking in paint thinner to clean. Filter and reuse thinner and solvents. Dispose of unwanted oil-based paint, used thinner, and paint residue at a hazardous waste collection event.
- ❑ When they are thoroughly dry, empty paint cans, spent brushes, rags, and drop cloths may be disposed of as trash. Leave the lids off paint cans so the refuse collector can see that they are empty.
- ❑ Dispose of empty aerosol paint cans as household hazardous waste.

Paint Removal

- ❑ Buildings constructed before 1978 may have lead paint. Test paint for lead by taking paint scrapings to a local laboratory.



Concrete, Masonry, and Tile Work

- ❑ Don't mix up more fresh concrete or cement than you need for each project.
- ❑ Cover and protect bags of cement and plaster after they are open. Be sure to keep wind-blown cement powder away from gutters, storm drains, rainfall, and runoff.
- ❑ Wash down exposed aggregate concrete only when wash water can flow onto a dirt area, or be collected, pumped, and disposed of properly. Make sure runoff does not reach gutters or storm drains.
- ❑ Never wash excess material from bricklaying or patio or driveway construction into a street or storm drain. Empty mixing container onto a dirt area, or allow material to dry and put in trash.
- ❑ Dispose of small amounts of excess dry concrete, grout, and mortar in the trash. Call your local refuse hauler for weight and size limits.
- ❑ Collect and reuse excess abrasive gravel and sand.
- ❑ Never hose down driveways, sidewalk, or streets.

General Construction

- ❑ Keep all construction debris away from the street, gutter, and storm drain.
- ❑ During cleanup, check the street and gutters for sediment, refuse, or debris. Look around the corner or downstream for material that may have already traveled away from your property.
- ❑ If you or your contractor keep a dumpster at your site, be sure it is securely covered with a lid or tarp when it is not in use.
- ❑ Place portable toilets away from storm drains. Make sure toilets are in working order. Check frequently for leaks.

Household Hazardous Waste Disposal

For information, contact your City's program or the Santa Clara County Household Hazardous Waste Program, (408) 299-7300.

For Palo Alto residents, household hazardous waste is collected monthly at the Regional Water Quality Control Plant, 2501 Embarcadero Way. Most events are on the first Saturday of the month, from 9 a.m. until noon. For information, call (650) 496-6980.

City of Santa Clara collection events are held twice a year. Call (408) 984-3080.

Construction Materials & Equipment Reuse and Exchange

CALMAX
Sacramento
(916) 255-2369
Bi-monthly listing of available and wanted materials:
www.ciwmb.ca.gov/CalMAX/

Urban Ore, Inc.
7th Street at Ashby, Berkeley
(510) 235-0172
Building materials exchange, household goods, office furniture

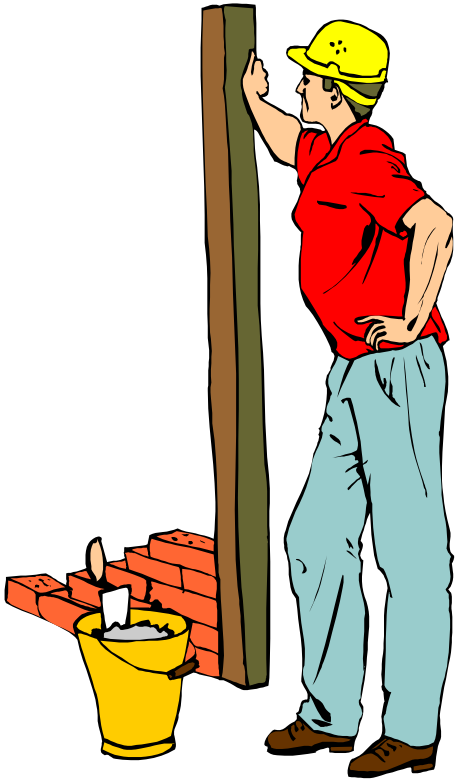


Recycling—Buy and sell building materials, concrete, asphalt, yard waste

ABC Recycling Industries
Santa Clara
(408) 732-9253
Pallets, cardboard

BFI – Waste Systems of North America, Inc.
San Jose
(408) 432-1234
Construction demolition materials, concrete with/without rebar, asphalt and untreated wood (separation of these materials at the source of generation required)

Butterick Enterprises
San Jose
(408)292-5687
Asphalt, concrete, mixed asphalt, rock, wood, construction demolition materials; on-site pickup available



C & M Diversified
330 N. Montgomery St., San Jose
(408) 294-5185
Doors, filing cabinets, kitchen cabinets, plumbing fixtures, windows

Granite Rock
San Jose
(408) 574-3000
Asphalt, concrete, concrete with rebar

Los Altos Garbage Company/Stevens Creek Disposal & Recycling
Santa Clara
(408) 970-5100
Wood, toilets, construction demolition materials

Raish Products Recycling Yard
143 Carl Road., Sunnyvale
(408) 734-4245
Asphalt, concrete

Recycle West
Santa Clara
(888) 366-7228
Concrete, untreated wood, construction debris; on-site pickup available

The Recyclery
San Jose
(408) 262-1401
Clean wood waste, clean concrete (<1'), asphalt

SRDC
199 Seaport Blvd., Redwood City
(650) 961-2742
Brick, concrete, rock

San Martin Transfer and Recycling
San Martin
(408) 842-3358
Asphalt, concrete, rocks, wood/demolition debris, untreated wood only; on-site pickup available

Valley Recycling
San Jose
(408) 297-5352
Construction demolition debris

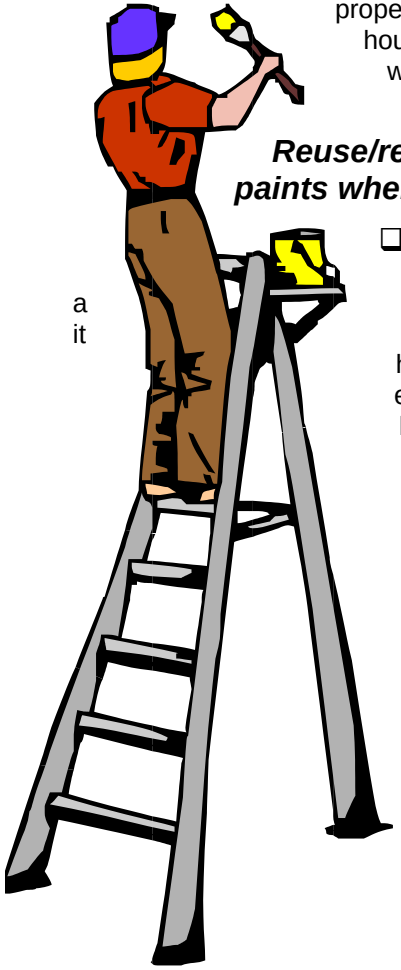
Zanker Resource Management
705 Los Esteros Road, San Jose
(408) 263-2383

Landscaping/Foundation Work

Intensive gardening, landscaping, and all excavation projects such as foundation repair or pool construction expose soils and increase the likelihood that garden chemicals and earth will wash into the storm drains. Be careful to control erosion and minimize runoff to all driveways, gutters, and storm drains.

- ❑ Schedule grading and excavation projects during dry weather.
- ❑ Cover excavated material and stockpiles of asphalt, sand, etc. with plastic tarps during the rainy season.
- ❑ Replant as soon as possible, with temporary vegetation such as annual grass seed if necessary. Revegetation provides excellent erosion control.
- ❑ Take care not to over apply pesticides, and use up leftover supply. Rinse empty containers, and use rinsewater as you would use the product. Dispose of empty rinsed containers in the trash.
- ❑ Dispose of unused pesticide as hazardous waste.
- ❑ Collect lawn and garden clippings, pruning waste, and tree trimmings. Many cities and landfills have yard waste collection and composting programs. Check with your municipality to see if yard waste pickup is available and what the collection requirements are.
- ❑ In areas with curbside pickup of yard waste place clippings and pruning waste in approved bags or containers.
- ❑ **Do not blow or rake leaves, etc. into the street, or place yard waste in gutters or on dirt shoulders**, unless you are piling them for recycling (San Jose and unincorporated County only).
- ❑ In San Jose, leave yard waste for curbside recycling in piles in the street, 18 inches from the curb and completely out of the flow line of any storm drain. Or, take to a landfill that composts yard waste.

- ❑ Chemical **paint stripping** residues, including saturated rags, are a hazardous waste and should be taken to a household hazardous waste event.
- ❑ Chips and dust from **marine paints or paints containing lead, mercury or tributyl-tin** are hazardous wastes. Sweep up paint chips and properly store for household hazardous waste event.



Reuse/recycle leftover paints whenever possible

- ❑ Use up excess paint or give it to neighbor, or take to a household hazardous waste event. Most household hazardous waste collection programs can recycle latex (water-based) paint.

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Recycle:

Plant material/tree branches, leaves, etc.

Wood, broken asphalt, and concrete (check with your local landfill)

Water-based paints (in some communities)

Used motor oil (curbside pickup in most communities)

Antifreeze (in some communities)

Take to a household hazardous waste drop-off event:

Unused garden and household chemicals

Leftover paint

Used solvents

Paint stripping residue and rags

Used antifreeze

Dispose as trash:

Construction debris from small projects

Dry, empty paint cans, spent brushes, rags, and drop cloths

Small amounts of dry mortar, grout, etc.



Clean up all spills when they happen. Do not flush spills into storm drains. If construction materials or other wastes get into a gutter, storm drain, or creek, call your local spill response agency immediately! (See list on back of brochure.)

Appendix E:
City's Storm Water Pollution Control Requirements

CAMPBELL MUNICIPAL CODE
Chapter 14.02
STORMWATER POLLUTION CONTROL

SECTIONS:

14.02.010 Purpose.
14.02.020 Definitions.
14.02.030 Requirements.
14.02.040 Enforcement--Violation--Penalties.
14.02.050 Inspection

14.02.010 Purpose.

The U.S. Environmental Protection Agency has identified urban stormwater runoff as the leading cause of water pollution in the United States. Furthermore, both federal and state agencies have identified stormwater runoff from the city as a major source of pollution adversely impacting the beneficial uses of the South San Francisco Bay. As a result, the California Regional Water Quality Control Board, San Francisco Bay Region, has issued a National Pollutant Discharge Elimination System ("NPDES") permit requiring the city to establish legal authorities sufficient to protect its municipal storm drain system from certain prohibited discharges. The city is also required to implement a stormwater management program to assure that stormwater runoff from the city does not cause or contribute to a violation of the water quality standards of South San Francisco Bay.

The purpose of this chapter is therefore to provide minimum requirements designed to control the discharge of pollutants into the city municipal storm drain system and to assure that discharges from the city municipal storm drain system comply with applicable provisions of the Federal Clean Water Act and the National Pollutant Discharge Elimination System Permit No. CA0029718 including amendments and California Regional Water Quality Control Board approvals. Enactment of this chapter falls within the scope of the city police power to protect the health, safety and welfare of its residents. Nothing in this chapter is intended to preclude more stringent federal or state regulation of any activity covered by this chapter.

14.02.020 Definitions.

The following words and phrases, when used in this chapter, shall be as defined herein. Words and phrases used in this chapter and not otherwise defined shall be as defined in the regulations promulgated by the U.S. Environmental Protection Agency to implement the requirements of the Federal Clean Water Act, or as defined by the State Water Resources Control Board to implement the California Water Code:

A. "Applicable materials" means all materials used in industrial or commercial establishments that are stored outdoors, that may be exposed to stormwater, and that have the reasonable potential to degrade the quality of runoff from the site. These include, but

are not limited to, all materials containing cadmium, chromium, copper, lead, mercury, nickel, selenium, silver and zinc, which are pollutants that have specifically been identified as known to contribute to impairment of applicable water quality standards.

B. "Deemed complete" means that a project applicant has submitted a development application package for discretionary approval that is determined to be a complete and acceptable application by the Community Development Director. Public projects are deemed complete if funding has been approved by the City Council and construction has been scheduled.

C. "Discharge" means the discharge, addition, placement, deposit, release or dumping of any pollutant or combination of pollutants to surface waters from any point source. This definition includes, but is not limited to, additions of pollutants into waters, from: surface runoff and discharges through pipes, sewers, channels or other conveyances owned by a state, municipality or other person which do not lead to a treatment works. "Discharge," within the meaning of this chapter, shall also mean any discharge on public on private property which results or will reasonably result in a discharge into any and all watercourses. Such discharges represent a process whereby pollutants, debris and chemicals are placed or otherwise deposited on streets, construction sites, parking lots and other exposed surfaces and are subsequently washed off and carried away by stormwater runoff into watercourses.

D. "Grease" means, and includes, fats, oils, waxes or other related constituents. Grease may be of mineral origin, including kerosene, lubricating oil and road oil. Grease may also be of vegetable or animal origin, including butter, lard, margarine, vegetable fats and oils, fats in meats, cereals, seeds, nuts and certain fruits. Grease is generally present as, but need not be, a floatable solid, a liquid, a colloid, an emulsion, or in a solution.

E. "Grease generating activity" means any commercial or industrial activity that uses or produces grease on an ongoing basis.

F. "Grease removal device" means an interceptor or other mechanical device designed, constructed and intended to remove, hold or otherwise prevent the passage of grease to the (sanitary sewer or) municipal storm drain system.

G. "Impervious surface" means a constructed or modified surface that does not allow rainfall to percolate through to the subsoil and thus creates stormwater runoff. Impervious surface includes, but is not limited to, building rooftops, pavement, sidewalks, patios, driveways or other hardscape where such surfaces are not constructed with pervious materials and/or are not designed so as to have zero stormwater discharge.

H. "Interceptor" means a receptacle or trap designed and constructed to intercept, separate and prevent the passage of prohibited substances into the (sanitary sewer or) municipal storm drain system.

I. "Major development or redevelopment project" means a project that creates, adds, or replaces an amount of impervious surface as defined in the current NPDES permit.

J. "Municipal storm drain system" means and includes, but shall not be limited to, those facilities within the municipality by which stormwater may be conveyed to waters of the United States, including any roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels or storm drains, which are not part of a publicly owned treatment works (POTW).

K. "NPDES permit" means a valid National Pollutant Discharge Elimination System permit issued by the California Regional Water Quality Control Board, San Francisco Bay Region, in accordance with regulations promulgated by the U.S. Environmental Protection Agency to implement the requirements of the Federal Clean Water Act.

L. "Pollutants" means and includes all sewage, sewage sludge, garbage, biological materials, radioactive materials, and chemical, industrial and agricultural waste discharge into water.

M. "Project with significant pollution potential" means any project determined by the city to be likely to have sources of pollutants on-site and/or to contribute pollutants to stormwater after project completion, based on a review of the proposed uses of or activities planned for the site.

N. "Stormwater" means all rainfall runoff, surface runoff and drainage.

O. "Watercourses" mean and include all natural waterways and definite channels and depressions in the earth that carry water, even though such waterways may only carry water during rains and storms and may not carry stormwater at and during all times and seasons. Watercourses include facilities owned and operated by the Santa Clara Valley Water District.

14.02.030 Requirements.

A. Non-stormwater discharges.

1. Discharge Prohibition. No person shall discharge or cause to be discharged into the municipal storm drain system or watercourses any materials other than stormwater. In addition, no person shall discharge or cause to be discharged into the municipal storm drain system or watercourses, any pollutants or waters containing any pollutants that cause or threaten to contribute to a violation of applicable water quality standards. It is also unlawful to discharge, or cause to be discharged into any storm drain or natural outlet or channel, any sewage, industrial waste or other polluted waters or materials without a valid NPDES permit or written authority from the U.S. Environmental Protection Agency or its designated enforcement agent.

2. Exceptions to Discharge Prohibition. The preceding discharge prohibition in subsection A.1. shall not apply to any discharge that is specifically authorized by an NPDES permit to flow to a storm drain or natural outlet or channel. In addition, the California Regional Water Quality Control Board, San Francisco Bay Region, has determined that the discharge prohibition shall not apply to the following "permissible" activities: water line flushing, landscape irrigation/lawn watering, uncontaminated foundation drains, uncontaminated nonindustrial roof drains, irrigation water, uncontaminated groundwater infiltration, residential car washings, flows from firefighting, flows from potable water sources, and dechlorinated swimming pool waters.

3. Protection Against Accident Discharge. The owner or operator of a commercial or industrial establishment shall provide reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal storm drain system or watercourses. Facilities to prevent accidental discharge of prohibited materials or other wastes shall be provided and maintained at the owner or operator's expense.

4. Report of Accidental Discharges. Where an accidental discharge of prohibited materials or other wastes has entered the municipal storm drain system or a watercourse, such incident shall be reported to city or designated agent as soon as possible, but in no event later than twenty-four hours after such a discharge. If the accidental discharge or prohibited materials or other wastes emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three years. A notice shall be permanently posted in a conspicuous place on the premises of each commercial or industrial establishment advising employees of the department or agency to call in case of such an accidental discharge.

5. Abatement of Prohibited Discharge by Responsible Party. The prohibited discharges are declared to constitute a public nuisance. Remediation and abatement of prohibited discharges shall be the responsibility of persons causing such discharge. The city shall be advised of the abatement and shall inspect the discharge site to insure that the nuisance has in fact been abated.

B. Watercourse protection.

1. Watercourse Protection Requirements. Every person owning property through which a watercourse passes, or such person's lessee, shall keep and maintain that part of the Watercourse within the property reasonably free of trash, debris, excessive vegetation, and other obstacles that would pollute, contaminate or significantly retard the flow of water through the watercourse. In addition, the owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function or physical integrity of the watercourse. The owner or lessee shall not remove healthy bank vegetation beyond that

actually necessary for maintenance, nor remove the vegetation in such a manner as to increase the vulnerability of the watercourse to erosion.

2. Acts Requiring Permit. No person shall commit or cause to be committed any of the following acts, unless a written permit has first been obtained from the city or designated agent:

(a) Discharge into or connect any pipe or channel to a watercourse;

(b) Modify the natural flow of water in a watercourse.

(c) Carry out development within a setback designed in whole or in part to protect a watercourse;

(d) Deposit in, plant in, or remove any material from a watercourse, including its banks, except as required for necessary maintenance;

(e) Construct, alter, enlarge, connect to, change or remove any structure in a watercourse; or

(f) Place any loose or unconsolidated material along the side of or within a watercourse or so close to a side as to cause a diversion of the flow, or to cause a probability of such material being carried away by stormwater passing through such watercourse.

C. Outdoor Storage of Materials.

1. Proper Outdoor Storage of Materials Required. All applicable materials stored outdoors at a commercial or industrial establishment shall be managed in a manner that minimizes the discharge of pollutants to stormwater and as is required to meet water quality standards. Establishments covered by the general NPDES permit for stormwater discharges associated with industrial activities that has been promulgated for Santa Clara County by the California Regional Water Quality Control Board, San Francisco Bay Region, shall address this requirement in applicable provisions of their stormwater pollution prevention plan.

2. Protection Against Accidental Discharge. The owner or operator of a commercial or industrial establishment shall provide reasonable protection from accidental discharge of applicable materials to the municipal storm drain system or watercourses. Specifically, secondary containment systems or equivalent measures approved by the fire department shall be provided for all applicable materials that are liquids. All facilities to prevent the accidental discharge of applicable materials to the municipal storm drain system and watercourses shall be provided and maintained at the owner or operator's expense.

3. Report of Accidental Discharge to the Storm Drain. Where applicable materials have entered the municipal storm drain system or a watercourse due to an accidental discharge at a commercial or industrial establishment, the owner or operator of such establishment shall report such incident to public works department as soon as possible, but in no event later than twenty-four hours after such a discharge. The owner or operator of such establishment shall also retain an on-site written record of all accidental discharges of applicable materials (whether or not such discharge actually entered the municipal storm drain system or a watercourse) and the actions taken to prevent their recurrence. Such records shall be retained for at least five years. A notice shall be permanently posted in a conspicuous place on the premises of each commercial or industrial establishment advising employees of the department or agency to call in case of such an accidental discharge.

D. Grease Disposal and Control.

1. Grease Disposal Prohibited. No person shall dispose of any grease, or cause any grease to be disposed, by discharge into any drainage piping, (any public or private sanitary sewer), any part of the municipal storm drain system, or any land, street, public way, river, stream or other watercourse.

2. Grease Removal Device Required. The owner or operator of every newly constructed, remodeled or converted commercial or industrial establishment with one or more grease generating activities shall install or cause to be installed for each grease generating activity, a grease removal device (of an approved design) for preventing the passage of grease to the municipal storm drain system and watercourses.

3. Maintenance of Grease Removal Devices Required. The contents of all grease removal devices shall be removed periodically as necessary to prevent a violation of this chapter. At a minimum, the contents shall be removed every ninety days. All grease removal devices shall be kept in good repair, and shall be maintained in continuous operation at the owner or operator's expense.

E. New Development/Redevelopment.

1. Stormwater Management Required for Major Projects. Every applicant for a building permit for a major development or redevelopment project shall identify the potential for stormwater to be discharged from the project site following completion of construction activity and shall demonstrate that the plans, drawings or specifications for such project include the installation of management techniques, practices, and control measures designed to mitigate the potential adverse impacts of stormwater that may be discharged from the project site on an ongoing basis including stormwater treatment measures. In addition, applicants for building and/or grading permits for projects with significant pollution potential may be required to demonstrate that sources of pollutants will be controlled onsite with appropriate measures. The stormwater management techniques, practices, and control measures shall be selected, designed, and maintained in

accordance with the city's current NPDES permit requirements and the city's Stormwater Management Manual.

2. Issuance of Permits. The city shall not issue a building permit and/or grading permit for a major development or redevelopment project or a project with significant pollution potential until it has reviewed the mitigation measures proposed by the applicant pursuant to the preceding paragraph, where appropriate, and determined that they are sufficient to address the potential adverse impacts of stormwater that may be discharged from the project site on an ongoing basis.

3. Occupancy. The building official shall not issue a certificate of occupancy or other equivalent permit for a major development or redevelopment project or a project with significant pollution potential until it has determined that the mitigation measures identified in the building permit and/or grading permit issued for such project have been adequately implemented and that appropriate arrangements have been made to ensure that these management techniques, practices and control measures will be maintained on an ongoing basis in accordance with the city's current NPDES permit requirements and the city's Stormwater Management Manual.

14.02.040 Enforcement--Violation--Penalties.

A. Criminal Penalties. Any person who violates any provision of this chapter shall be guilty of a misdemeanor and upon conviction thereof shall be punishable by imprisonment for a term not to exceed six months or by a fine not to exceed one thousand dollars or by both. Each and every violation of this chapter shall constitute a separate offense. Every day each such violation continues shall be an additional offense.

B. Civil Penalties. Any person who violates any provision of this chapter shall be civilly liable to the city in a sum not to exceed one thousand dollars per day for each day in which the violation occurs. Each and every violation of this chapter shall constitute a separate offense. Every day each such violation continues shall be an additional offense.

C. Civil Liability. Any person who violates any provision of this chapter shall be civilly liable to the city for all costs, including attorney's fees, associated with the investigation and remediation of environmental conditions caused by the discharge of pollutants into the municipal storm drain system or watercourse in violation of this chapter.

D. Remedies Cumulative. The remedies provided for in this chapter are cumulative and not exclusive and shall be in addition to any and all other remedies available to the city under state and federal law.

E. Public Nuisance. The discharge of pollutants and related applicable materials into any municipal storm drain system or other watercourses, in violation of any provision of this chapter, is declared to be a public nuisance and shall be subject to any and all remedies available, pursuant to city, state and federal law, including but not limited to injunctive

relief. The director of public works may record with the county recorder's office a declaration of nuisance for the particular parcel so noticed.

14.02.050 Inspection

A. During Regular Business Hours. Every business establishment that is open to the public shall permit agents of the city to inspect their premises for compliance with this chapter at any time the business is open to the public.

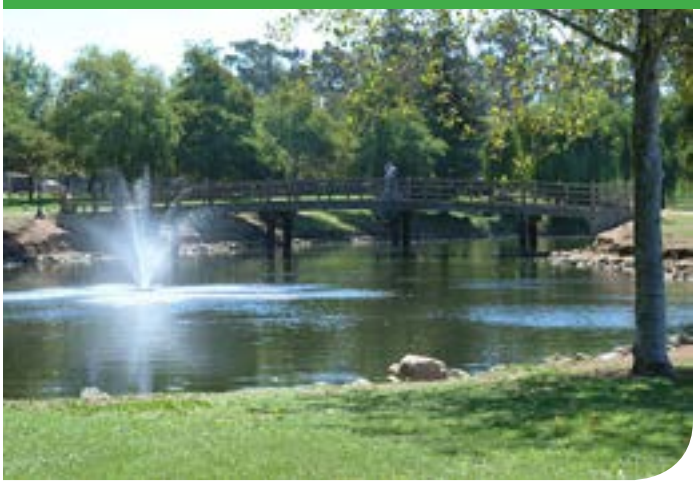
B. Other Times. Notwithstanding subsection (a) of this section, agents of the city may inspect any property for compliance with this chapter upon providing the owner and occupants of the property at least twenty-four hours' advance notice of the inspection in the following manner:

1. A notice shall be conspicuously posted on the property to be inspected, specifying the date, time and reason for the proposed inspection and setting forth a telephone number with directions for the residents or property owners to call for further information; and

2. If the identity and address of the owner is known, such owner shall be notified of the proposed inspection by first class mail, setting forth the same information required by subsection B.1. of this section.

C. Provisions Supplemental. The inspection provisions set forth in this section are intended to supplement, and not supersede, any existing authority for inspection by city officials. In the event that any provision of this section is found by a court of competent jurisdiction to be void or unenforceable, the remaining portions shall remain in full force and effect.

Appendix F:
South Bay Water Recycling Program



Recycled water is used in water features and the irrigatation system of the Evergreen Community College campus in south San José.

South Bay Water Recycling Program

700 Los Esteros Road, San José, CA 95134

In the South Bay, recycled water is a locally sustainable and established component of the non-potable water supply. With pipeline in the cities of San José, Santa Clara, and Milpitas, South Bay Water Recycling (SBWR) is the largest of four recycled water systems in Santa Clara County. The other systems are associated with the wastewater treatment facilities in Sunnyvale, Gilroy/Morgan Hill, and Palo Alto/Mountain View.

CUSTOMERS, RETAILERS & SERVICE AREA

- Number of customers: ~ 750
  Includes Levi's Stadium, Great America, McCarthy Ranch Shopping Center, Evergreen College, Guadalupe Gardens, Intel, and San José City Hall
- SBWR is a reycled water wholesaler to San Jose Water Company, San José Municipal Water, City of Santa Clara, and City of Milpitas; customers buy recycled water from the water retailer for their location

SYSTEM

SBWR comprises a north-south artery across San José and an east-west artery from mid-Milpitas down through the eastern side of Santa Clara. These main arteries feed extension pipelines to reach various customers. The system includes:

- 140 miles of pipeline and growing
- 5 pump stations
- 3 above-ground storage reservoirs that together have a storage capacity of 9.5 million gallons

PRIMARY USES OF SBWR RECYCLED WATER

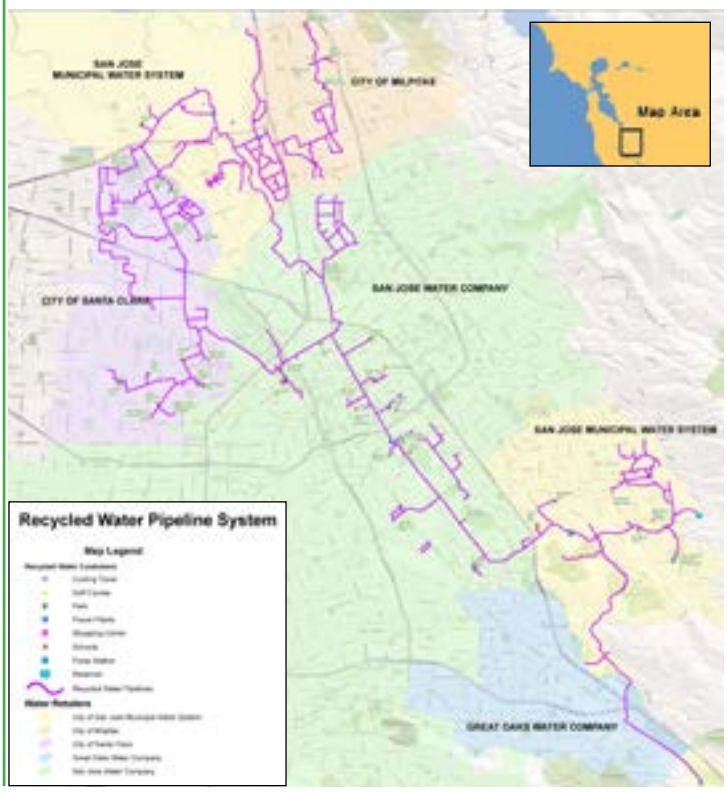
- Irrigation at public parks, theme parks, golf courses, street medians, business landscaping, and college campuses
- Industrial cooling towers and 4 power plants
- Toilet/urinal flushing in dual-plumbed commercial and municipal buildings

mgd = million gallons per day

RECYCLED WATER SOURCE

- SBWR main pump station is adjacent to the San José-Santa Clara Regional Wastewater Facility (RWF), which manages the SBWR program
- RWF produces an average 110 mgd of high quality, tertiary-treated water; roughly 13% flows to SBWR, remainder discharges into the Bay
- As of March 2014, SBWR blends RWF tertiary water with water from Silicon Valley Advanced Water Purification Center, operated by the Santa Clara Valley Water District

over



Environmental Services Delivering world class utility services and programs to improve our health, environment, and economy
www.sjenvironment.org Main: 408-535-8550

Media Contact
Jennie Loft, Public Information Manager
jennie.loft@sanjoseca.gov
408-535-8554

DELIVERY VOLUME & GREEN VISION

SBWR deliveries have grown:

- 2012: SBWR delivered an average 10.3 mgd to ~690 customers
- 2014: SBWR delivers average 14 mgd to ~750 customers
  With an average home of 4 people using 400 gallons per day, the rate of 14 mgd offsets enough drinking water to supply ~ 35,000 homes daily
- Production since inception in 1998: 43.9 billion gallons
  Equivalent to the water use of ~ 217,000 homes in one year
- San José's Green Vision, a plan for a sustainable San José, includes a goal to recycle or beneficially use 100% of our wastewater and targets 40 mgd of recycled water use by 2022

REGULATIONS & WATER QUALITY MONITORING

- Regional Water Quality Control Board regulates and monitors the safe use of recycled water under Title 22 of the California Code of Regulations; the Board also reviews building plans to ensure that reycled water and drinking water pipes and systems do not mix
- Title 22 outlines bacteriological water quality standards for the expected degree of public contact with recycled water; if public contact is anticipated, disinfected tertiary treatment is required, such as provided by SBWR
- RWF laboratory, a state-of-the-art water quality lab, tests SBWR recycled water regularly to ensure its safety; SBWR frequently surpasses requirements for recycled water quality

ROLE OF SILICON VALLEY ADVANCED WATER PURIFICATION CENTER (SVAWPC)

- Santa Clara Valley Water District opened SVAWPC in March 2014 as a demonstration project to advance recycled water as a drought-proof component of our water supply
- 8 mgd capacity
- Receives secondary-treated wastewater from RWF and uses microfiltration, reverse osmosis, and ultra-violet disinfection to fully purify the water
- At SBWR main pump station, SVAWPC purified water blends with RWF tertiary water, thus reducing its salt content
- SBWR provides water that ranks among the highest quality recycled water in California

SBWR main pump station





recycled water signage



Great America irrigates with recycled water

INVESTMENT & RATE SETTING

- SBWR reflects a ~$250 million investment to date; US Bureau of Reclamation is reimbursing SBWR for 25% of this investment
- Santa Clara Valley Water District has contributed several million dollars to SBWR
- San Jose Water Company is constructing new extensions to the system at their own cost, and paying a $2 million capacity fee to ensure system reliability
- SBWR sets the wholesale recycled water rate to water retailers, who in turn set rates for their respective customers

CONTACTS

SBWR

City of San José Environmental Services Dept.
Media contact: Jennie Loft (408) 535-8554

RECYCLED WATER RETAILERS

City of Milpitas Water & Sewer
Public Works Department
1265 North Milpitas Boulevard, Milpitas, CA 95035
Phone: (408) 586-2600 www.ci.milpitas.ca.gov

City of Santa Clara Water & Sewer Utility
1500 Warbutron Avenue, Santa Clara, CA 95050
Phone: (408) 615-2000 www.santaclaraca.gov

San Jose Municipal Water System - Recycled Water
Engineering & Operations
3035 Tuers Rd., San José, CA 95121
Phone: (408) 535-3500 www.sanjoseca.gov

San Jose Water Company
110 W. Taylor St., San José, CA 95110
Phone: (408) 279-7900 www.sjwater.com

South Bay Water Recycling
Recycled Water Access Point Program
Fact Sheet

Expanding Recycled Water Use with Recycled Water Access Points (RWAP)



To conserve our valuable drinking (potable) water supplies, South Bay Water Recycling (SBWR) has made recycled water available for commercial non-potable uses at several truck fill locations in San José and Milpitas. State Approved uses include construction activities such as grading, compaction, concrete wetting, and dust control as well as landscape irrigation, pressure washing, and sewer flushing.

Recycled Water Quality

Recycled water is highly treated to meet rigorous and protective standards set by the State Water Resources Control Board – Division of Drinking Water, and SBWR currently supplies clean and safe tertiary-treated recycled water to over 750 customers in San Jose, Milpitas and Santa Clara.

Participation Requirements

Users must complete a short Training and sign a User Agreement to confirm the correct use of the fill stations and the proper handling of recycled water. In addition, trucks must be inspected and labeled to certify that they are correctly equipped to transfer recycled water.

After truck and driver certification, users will be issued a portable recycled water meter, with a unique nozzle that can only fit the RWAP hydrants. This minimizes the possibility of cross-connections between the potable and recycled water distribution systems.

Construction exemptions for required use of recycled water may be granted on a case by case basis, depending on the availability of recycled water near the project site. Please contact the City Planning Department for more information on the required use of recycled water for proposed projects.

Getting Started

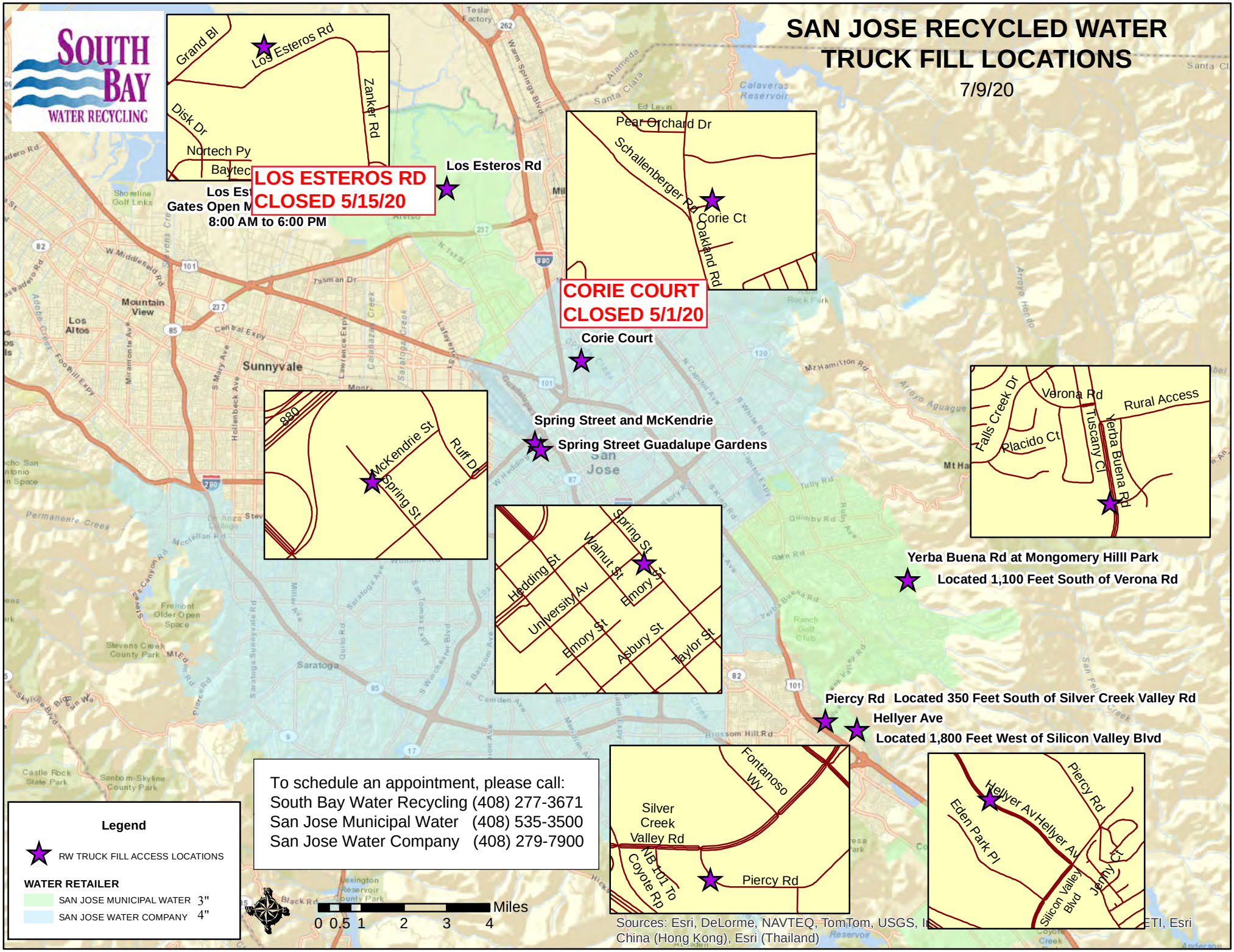
In order to complete the certification process, and receive meters, site keys, and the most updated site maps, please contact the recycled water retail agencies listed below:

Milpitas – call (408) 586-2600
San Jose –call (408) 277-3671

RWAP Supervisor Trainings are scheduled every Wednesday morning from 9am-11am at the San Jose/Santa Clara Regional Wastewater Facility (700 Los Esteros Road in San José) or by appointment. Contact the City of Milpitas for trainings and inspections in their area.

South Bay Water Recycling
Recycled Water Access Point
FAQs

1. **What is a Recycled Water Access Point?**
   A Recycled Water Access Point (or RWAP) is a stand-pipe that allows a certified RWAP Supervisor access to recycled water to fill their tanker truck.
2. **How can I get locations and information about using recycled water from an RWAP?**
   Please contact your local water retailer or South Bay Water Recycling for availability in your area.
   City of Milpitas – (408) 586-2600
   City of San José – South Bay Water Recycling (408) 277-3671
3. **What are the uses for recycled water?**
   Recycled water is approved for nonpotable (non drinking) uses such as irrigation, dust control, and street sweeping
4. **Can I use recycled water to irrigate my landscape at home?**
   No. Recycled Water is approved only for commercial (non-residential) uses.
5. **Can I drink recycled water?**
   No. At this time, recycled water is not approved for drinking.
6. **Do I have to use recycled water?**
   The use of recycled water is required by many city ordinances if recycled water is available. Visit your local city's planning department for availability in your area.
7. **Where does recycled water come from?**
   Recycled water is produced from treated wastewater from the San Jose/Santa Clara Regional Wastewater Facility.
8. **Why is recycled water regulated more than potable (drinking) water?**
   Recycled water is safe to use by trained personnel to assure it is used appropriately and that the public drinking water supply is separated and protected from contamination.
9. **Are there any rules I need to follow when using recycled water?**
   Recycled water has not been treated and disinfected for drinking. The use of recycled water is therefore regulated by the State of California Division of Drinking Water, State Water Resources Control Board to ensure that the public health and potable water supply are separated and protected from contamination. To assure that the use is appropriate, the State has required that users be trained, vehicles and sites are inspected and certified, and appropriate safeguards are in place to protect public health.
10. **Do I have to use a special container?**
    All containers must be properly labeled, per the SBWR RWAP User Agreement. Recycled water is only distributed to certified RWAP Supervisors with registered trucks that have been inspected.
11. **Can I store recycled water at my site or commercial business?**
    Yes. Recycled water can be stored on site, with appropriate signage and use management per the User Agreement.
12. **Do I have to get certified in multiple cities or will one certification work at all SBWR locations?**
    Recycled Water Access Point Supervisors can be trained and registered at any qualified SBWR water agency.
13. **Can I take the recycled water I picked up in one city and take it to another city?**
    Yes. Recycled water purchased from one city may be used in a different city.
14. **Can I use a potable meter to access recycled water or do I have to get a special meter?**
    The RWAP meter is different from a potable water meter, so you must use a recycled water RWAP meter when accessing recycled water.
15. **Do I need to clean my tank or container before filling it with potable water?**
    Recycled water trucks must be certified and registered to carry water for nonpotable uses only.
16. **What if I have multiple tanker trucks?**
    All trucks must be inspected and registered with SBWR.
17. **How much does recycled water cost?**
    Please contact your water retailer for prices and availability.
18. **How do I report my recycled water usage and pay?**
    It will vary depending on recycled water retailer. Please see your local recycled water retailer for specifics.

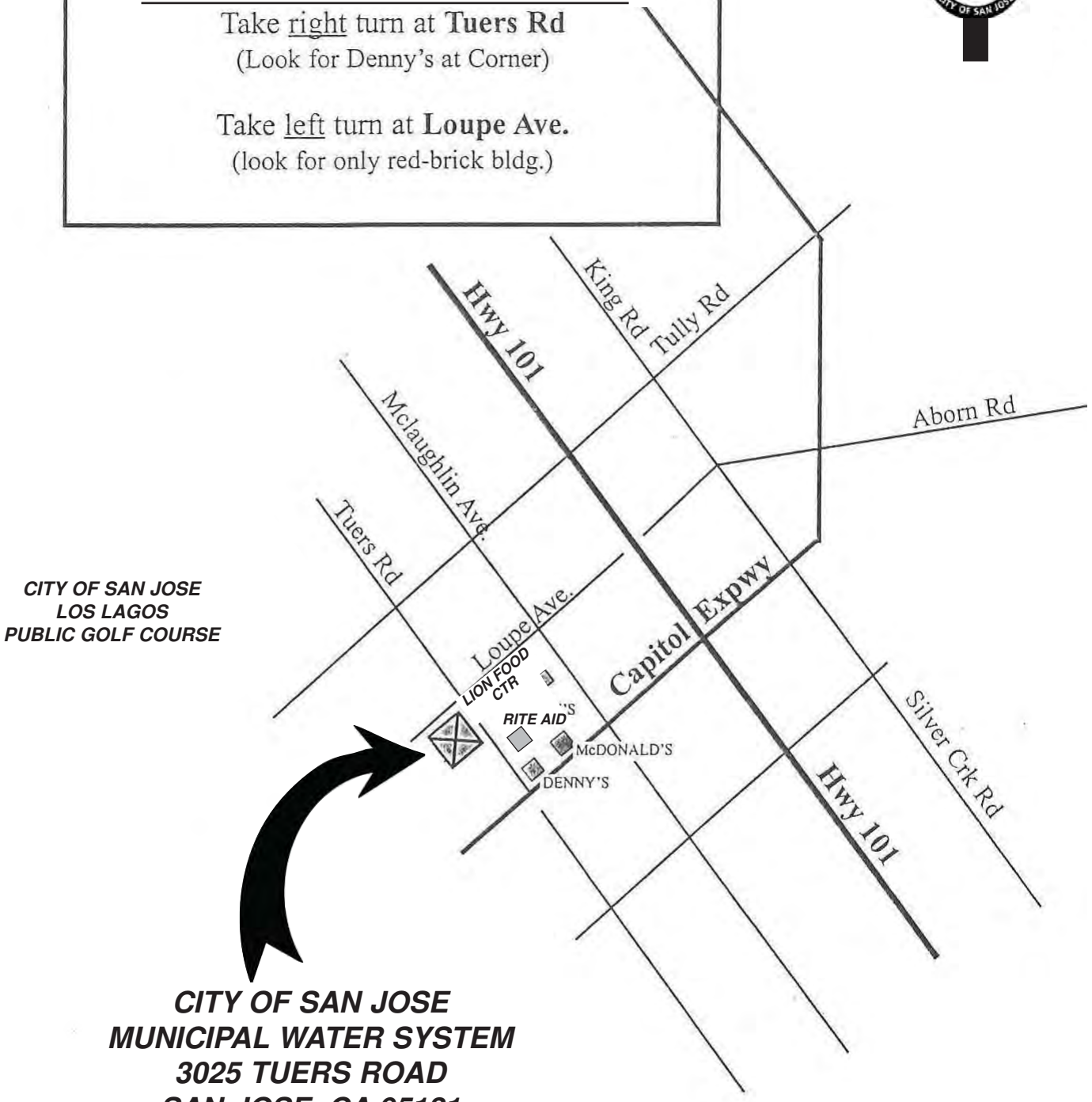

SOUTH BAY WATER RECYCLING
SAN JOSE RECYCLED WATER TRUCK FILL LOCATIONS
7/9/20
Grand Bl
Los Esteros Rd
Zanker Rd
Disk Dr
Nortech Py
Baytec
LOS ESTEROS RD CLOSED 5/15/20
Los Esteros Rd
Los Est
Gates Open M
8:00 AM to 6:00 PM
Pear Orchard Dr
Schallenberger Rd
Oakland Rd
Corie Ct
CORIE COURT CLOSED 5/1/20
Corie Court
Mountain View
Los Altos
Sunnyvale
San Jose
Saratoga
880
McKendrie St
Ruff Dr
Spring St
Spring Street and McKendrie
Spring Street Guadalupe Gardens
Hedding St
Walnut St
University Av
Emory St
Asbury St
Taylor St
Falls Creek Dr
Verona Rd
Rural Access
Placido Ct
Tuscany Ct
Yerba Buena Rd
Yerba Buena Rd at Mongomery Hilll Park
Located 1,100 Feet South of Verona Rd
Piercy Rd Located 350 Feet South of Silver Creek Valley Rd
Hellyer Ave
Located 1,800 Feet West of Silicon Valley Blvd
Fontanoso Wy
Silver Creek Valley Rd
NB 101 To Coyote Rp
Piercy Rd
Hellyer Av
Eden Park Pl
Silicon Valley Blvd
To schedule an appointment, please call:
South Bay Water Recycling (408) 277-3671
San Jose Municipal Water (408) 535-3500
San Jose Water Company (408) 279-7900
Legend
RW TRUCK FILL ACCESS LOCATIONS
WATER RETAILER
SAN JOSE MUNICIPAL WATER 3"
SAN JOSE WATER COMPANY 4"
0 0.5 1 2 3 4 Miles
Sources: Esri, DeLorme, NAVTEQ, TomTom, USGS, I ETI, Esri China (Hong Kong), Esri (Thailand)

San Jose Municipal Water System (3",Green)

Office Hrs:
8:00 am - 12:00 Noon
1:00 pm - 5:00 pm
(Noon - 1:00 pm, Ofc Closed for SJMWS Staff Lunch Hour)

Take right turn at **Tuers Rd**
(Look for Denny's at Corner)

Take left turn at **Loupe Ave.**
(look for only red-brick bldg.)



CITY OF SAN JOSE
LOS LAGOS
PUBLIC GOLF COURSE

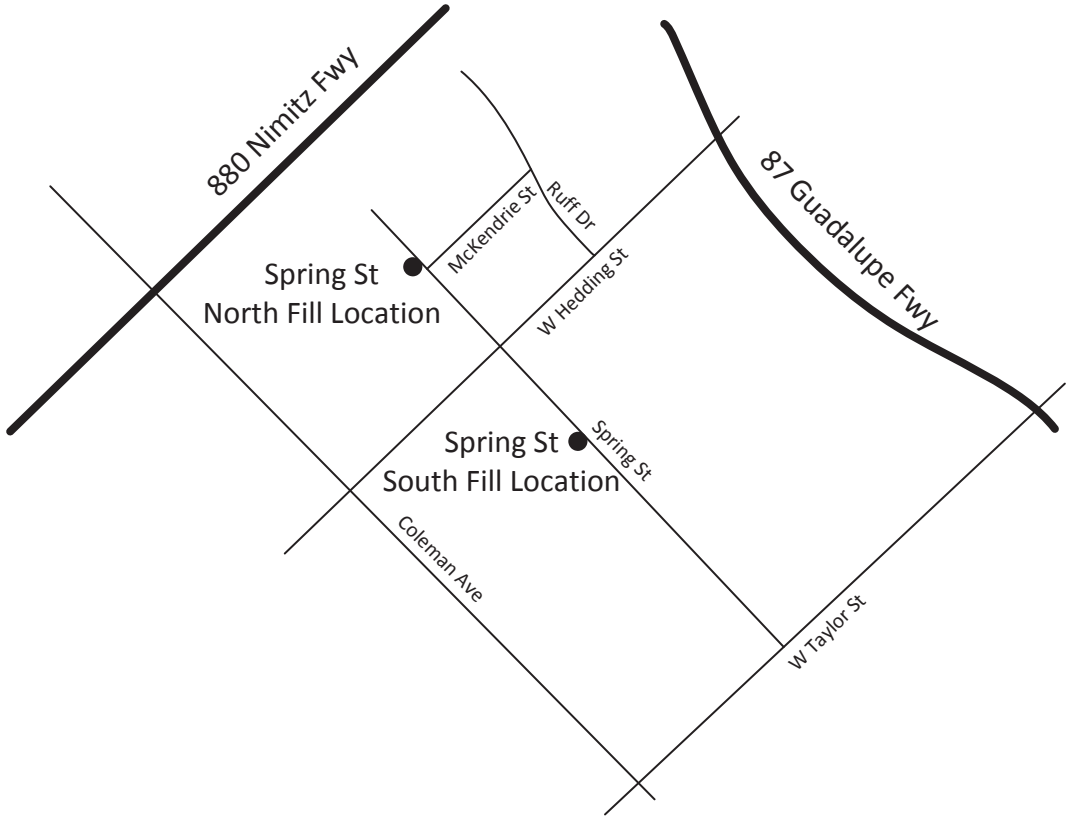
CITY OF SAN JOSE
MUNICIPAL WATER SYSTEM
3025 TUERS ROAD
SAN JOSE, CA 95121
(408) 277-3671
(408) 277- 4218

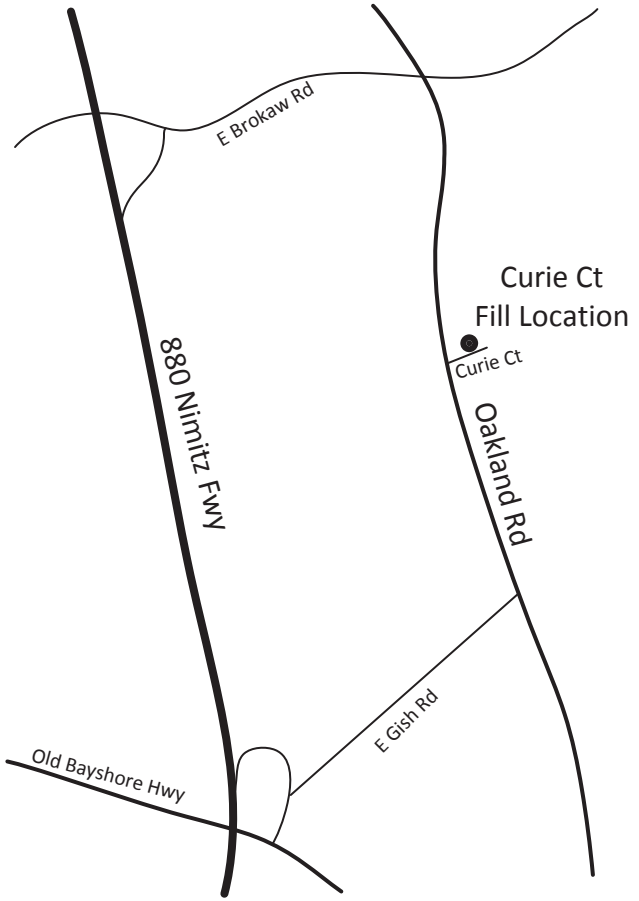
FOR TEMPORARY METERS - CALL & SCHEDULE A PICK-UP TIME WITH AN ENGINEERING STAFF MEMBER BEFORE COMING TO PICK UP A METER.
DEPOSIT OF $800 (CHECK OR CREDIT CARD) PER METER.

Recycled Water Meter Information:
San Jose Water Company
1251 S. Bascom Ave San Jose, CA
M - F 7:30 - 3:00

San Jose Water Company
Recycled Water Fill Locations

(Blue area, 4" & $1600 deposit)



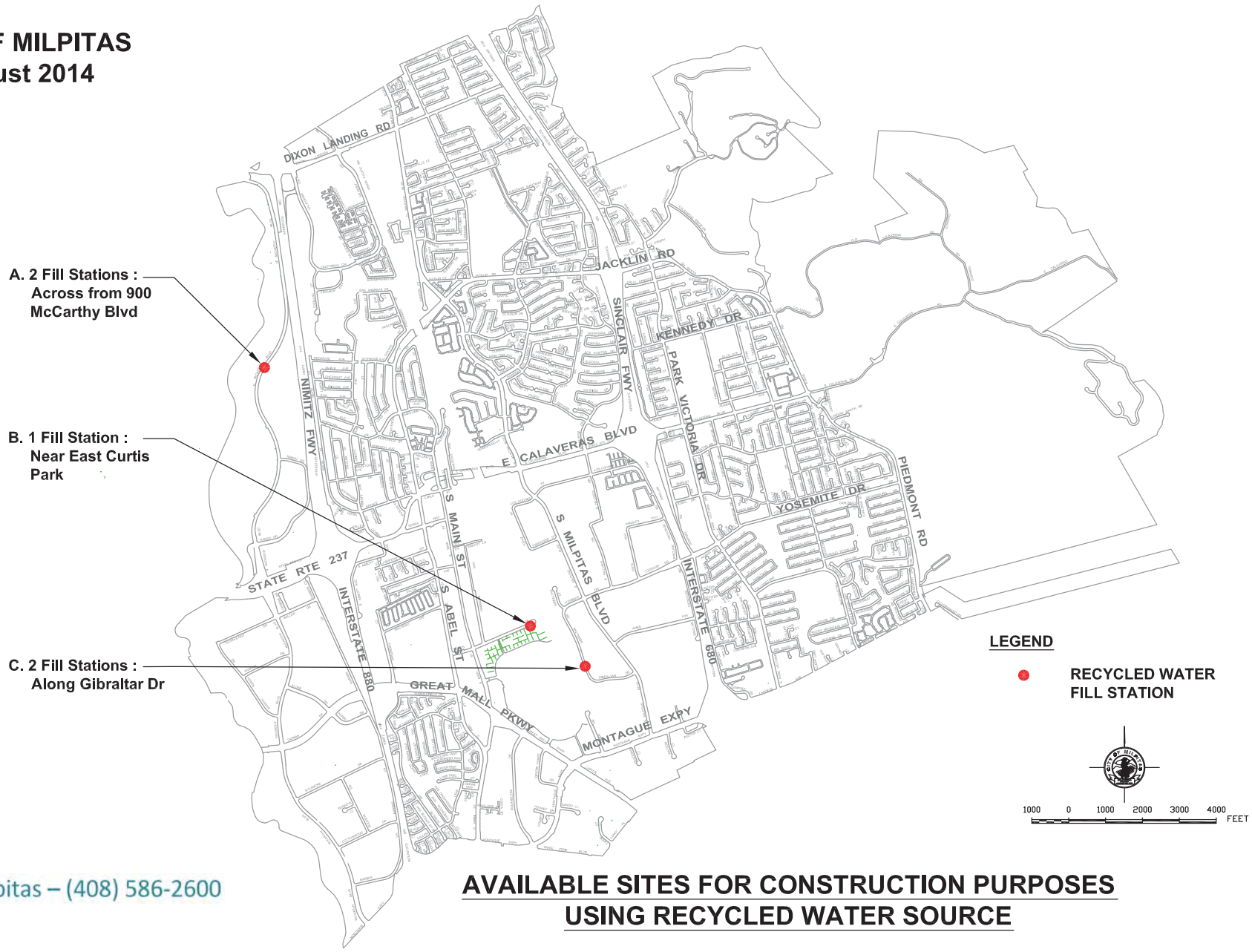




Requirements for filling at any of the 3 locations

- San Jose Water Co. issued portable non-potable water meter. Deposit required upon receipt of meter. Call 408-279-7835 for more information.
- Key to unlock cap.
- Certified non-potable water vehicle. Must be certified and permitted through South Bay Water Recycling.
- Non-potable hoses with camlock fittings and a wrench to actuate valve. Must be supplied by consumer.

CITY OF MILPITAS
August 2014



City of Milpitas – (408) 586-2600

AVAILABLE SITES FOR CONSTRUCTION PURPOSES USING RECYCLED WATER SOURCE

RECYCLED WATER ACCESS POINT PROGRAM USER AGREEMENT

PRODUCER: San Jose/Santa Clara Regional Wastewater Facility - 700 Los Esteros Road, San Jose CA 95134

REGULATORY AGENCY: South Bay Water Recycling - 3025 Tuers Road San Jose, CA 95121 - 408.277.3671

EFFECTIVE DATES OF PERMIT: _____ THROUGH DECEMBER 31ST 2022 License #: SJ-_____

USER INFO

TRAINEE NAME: _____ CSLB CONTRACTOR LICENSE #: _____

COMPANY NAME: _____ TRUCK/TRAILER LICENSE #: _____

COMPANY ADDRESS: _____ ATTACH YOUR ACORD INSURANCE FORM TO THIS AGREEMENT

COMPANY PHONE #: _____ PLEASE GIVE THIS AGREEMENT TO YOUR OFFICE MANAGER

A USER AGREEMENT MUST BE COMPLETED FOR EACH VEHICLE OPERATOR AND MUST BE RETAINED DURING ACQUISITION AND APPLICATION OF RECYCLED WATER. USERS AND USERS' COMPANIES SHALL ADHERE TO THE ATTACHED SBWR TERMS OF USE. USER AGREEMENT IS SUBJECT TO RWQCB ORDER 95-117.

RECYCLED WATER USE INFORMATION (CHECK ALL THAT APPLY)

METHOD OF WATER DISTRIBUTION: [ ] RECYCLED WATER ACCESS POINT [ ] TEMPORARY SITE METER OTHER: _____

APPLICATION METHOD: [ ] TANKER TRUCK SPRAY [ ] HOSE OTHER: _____

USE OF RECYCLED WATER*: [ ] CONSTRUCTION (COMPACTION/DUST CONTROL) [ ] STREET SWEEPING [ ] SEWER CLEAN OUT

OTHER*: _____

*** REFER TO THE FULL TEXT OF THE LATEST VERSION OF TITLE-22: CALIFORNIA WATER RECYCLING CRITERIA, ARTICLE 3. USES OF RECYCLED WATER, JUNE 18, 2014.**

SIGNS REQUIRED: [ ] TANKER TRUCK [ ] CONTAINER [ ] OVERHEAD TANK [ ] PROJECT SITE OTHER: _____

LOCATION WHERE RECYCLED WATER WILL BE APPLIED:

ADDRESS: _____ SITE SUPERINTENDENT: _____

CERTIFICATION

I HEREBY CERTIFY THAT THE INFORMATION PROVIDED IN THIS APPLICATION AND ALL ATTACHMENTS ARE TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE. I ALSO CERTIFY THAT I HAVE READ AND AGREE TO ABIDE BY THE SBWR TERMS OF USE AND ALL APPLICABLE RULES AND REGULATIONS OF THE RWQCB ORDER NO. 95-117 AND HAVE SUCCESSFULLY COMPLETED INSPECTION BY THE LOCAL RETAILER.

_____

TRUCK CONTRACTOR/DRIVER/EMPLOYEE SIGNATURE | PRINTED NAME | TITLE | DATE

_____

** SUPERINTENDENT OR FOREMAN SIGNATURE | PRINTED NAME | TITLE | DATE

LYLE FROHMAN

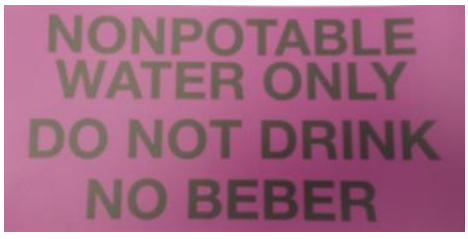
_____

SBWR SIGNATURE | PRINTED NAME | DATE

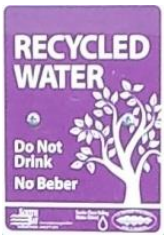
RECYCLED WATER ACCESS POINT PROGRAM

TERMS OF USE

CHECK	THIS USER AGREEMENT LIMITS THE USE OF RECYCLED WATER TO THE FOLLOWING CONDITIONS:
☐	1. **RECYCLED WATER IS FOR NONPOTABLE USES ONLY - NO DRINKING!** Recycled water may not be exposed to food, used within designated eating areas or used within 50 feet of any domestic well, drinking fountain or potable water supply.
☐	2. There shall be **no cross-connection** between recycled water and any potable water supply. Recycled water may **not be plumbed into potable** irrigation or onsite plumbing systems. Recycled water meters are prohibited from connecting to potable hydrants. **Match purple to purple only**
☐	3. Recycled water may not be discharged into storm drains or outside the designated use area that was approved by the water retailer and/or SBWR. Overspray, pooling and runoff of recycled water is not permitted. **Cover this in your Safety meetings.**
☐	4. **Tanker trucks must maintain an air gap** of at least twice the diameter of the fill pipe (i.e. water overflows the tank before reaching the fill pipe). Tanker trucks must have **water-tight connections**, piping and hoses to ensure no leakage will occur during fill-up or use. They must be fully drained before transport and prior to every connection.
☐	5. Recycled water tanker trucks may not transport potable water for potable uses.
☐	6. All tanker trucks accessing and hauling recycled water must satisfy local and state safety requirements. Active auto/truck/trailer and general liability insurance (i.e. an ACORD form) is required.
☐	7. Recycled water meters may be inspected by the retailer for appropriate use at any time. The volume of recycled water used must be reported as specified by the recycled water retailer. 
	SPECIAL APPROVAL, TRAINING AND SITE INSPECTION REQUIRED
☐	8. If recycled water is transferred to other storage containers/reservoirs, they must be labeled with signage equivalent to tanker truck signage and must follow the safety guidelines in this User Agreement.
☐	9. Recycled water may be used for pressure washing and washing equipment and vehicles if the recycled water is not heated and where the general public is excluded from the washing process.
☐	10. Recycled Water may not be used for directional drilling without prior approval from SBWR.
	ADVISORY SIGNS
☐	**Tanker Truck Sign:** Tanker trucks hauling recycled water must have an SBWR approved adhesive sign issued by retailer at least six inches by twelve inches on the tank, in a location clearly visible to users and workers, with the following wording in one inch, or larger, letters on a purple background.
☐	**Tanker Truck Inspection Decal:** Tanker trucks hauling recycled water must have an SBWR approved adhesive decal issued by retailer at least three inches by six inches signifying that the tanker truck has passed inspection and met all SBWR requirements.
☐	**Appurtenance Sign:** Appurtenances serving recycled water must have an SBWR approved adhesive or bolted sign issued by the retailer at least six inches by eight inches, in a location clearly visible to users and workers, with the following wording in one inch, or larger, letters on a purple background.







PLEASE WASH YOUR HANDS AFTER USING RECYCLED WATER

Appendix G:
State of California Public Contract Code 9204

STATE OF CALIFORNIA
LEGISLATIVE COUNSEL BUREAU
AUTHENTICATED
ELECTRONIC LEGAL MATERIAL

State of California

PUBLIC CONTRACT CODE

Section 9204

9204. (a) The Legislature finds and declares that it is in the best interests of the state and its citizens to ensure that all construction business performed on a public works project in the state that is complete and not in dispute is paid in full and in a timely manner.

(b) Notwithstanding any other law, including, but not limited to, Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2, Chapter 10 (commencing with Section 19100) of Part 2, and Article 1.5 (commencing with Section 20104) of Chapter 1 of Part 3, this section shall apply to any claim by a contractor in connection with a public works project.

(c) For purposes of this section:

(1) "Claim" means a separate demand by a contractor sent by registered mail or certified mail with return receipt requested, for one or more of the following:

(A) A time extension, including, without limitation, for relief from damages or penalties for delay assessed by a public entity under a contract for a public works project.

(B) Payment by the public entity of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public works project and payment for which is not otherwise expressly provided or to which the claimant is not otherwise entitled.

(C) Payment of an amount that is disputed by the public entity.

(2) "Contractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who has entered into a direct contract with a public entity for a public works project.

(3) (A) "Public entity" means, without limitation, except as provided in subparagraph (B), a state agency, department, office, division, bureau, board, or commission, the California State University, the University of California, a city, including a charter city, county, including a charter county, city and county, including a charter city and county, district, special district, public authority, political subdivision, public corporation, or nonprofit transit corporation wholly owned by a public agency and formed to carry out the purposes of the public agency.

(B) "Public entity" shall not include the following:

(i) The Department of Water Resources as to any project under the jurisdiction of that department.

(ii) The Department of Transportation as to any project under the jurisdiction of that department.

(iii) The Department of Parks and Recreation as to any project under the jurisdiction of that department.

(iv) The Department of Corrections and Rehabilitation with respect to any project under its jurisdiction pursuant to Chapter 11 (commencing with Section 7000) of Title 7 of Part 3 of the Penal Code.

(v) The Military Department as to any project under the jurisdiction of that department.

(vi) The Department of General Services as to all other projects.

(vii) The High-Speed Rail Authority.

(4) "Public works project" means the erection, construction, alteration, repair, or improvement of any public structure, building, road, or other public improvement of any kind.

(5) "Subcontractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who either is in direct contract with a contractor or is a lower tier subcontractor.

(d) (1) (A) Upon receipt of a claim pursuant to this section, the public entity to which the claim applies shall conduct a reasonable review of the claim and, within a period not to exceed 45 days, shall provide the claimant a written statement identifying what portion of the claim is disputed and what portion is undisputed. Upon receipt of a claim, a public entity and a contractor may, by mutual agreement, extend the time period provided in this subdivision.

(B) The claimant shall furnish reasonable documentation to support the claim.

(C) If the public entity needs approval from its governing body to provide the claimant a written statement identifying the disputed portion and the undisputed portion of the claim, and the governing body does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a claim sent by registered mail or certified mail, return receipt requested, the public entity shall have up to three days following the next duly publicly noticed meeting of the governing body after the 45-day period, or extension, expires to provide the claimant a written statement identifying the disputed portion and the undisputed portion.

(D) Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. If the public entity fails to issue a written statement, paragraph (3) shall apply.

(2) (A) If the claimant disputes the public entity's written response, or if the public entity fails to respond to a claim issued pursuant to this section within the time prescribed, the claimant may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the public entity shall schedule a meet and confer conference within 30 days for settlement of the dispute.

(B) Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the public entity shall provide the claimant a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on

an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. Any disputed portion of the claim, as identified by the contractor in writing, shall be submitted to nonbinding mediation, with the public entity and the claimant sharing the associated costs equally. The public entity and claimant shall mutually agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside this section.

(C) For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.

(D) Unless otherwise agreed to by the public entity and the contractor in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Section 20104.4 to mediate after litigation has been commenced.

(E) This section does not preclude a public entity from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program, if mediation under this section does not resolve the parties' dispute.

(3) Failure by the public entity to respond to a claim from a contractor within the time periods described in this subdivision or to otherwise meet the time requirements of this section shall result in the claim being deemed rejected in its entirety. A claim that is denied by reason of the public entity's failure to have responded to a claim, or its failure to otherwise meet the time requirements of this section, shall not constitute an adverse finding with regard to the merits of the claim or the responsibility or qualifications of the claimant.

(4) Amounts not paid in a timely manner as required by this section shall bear interest at 7 percent per annum.

(5) If a subcontractor or a lower tier subcontractor lacks legal standing to assert a claim against a public entity because privity of contract does not exist, the contractor may present to the public entity a claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier subcontractor, that the contractor present a claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the claim be presented to the public entity shall furnish reasonable documentation to support the claim. Within 45 days of receipt of this written request, the contractor shall notify the subcontractor in writing as to whether the contractor presented the claim to the public entity and, if the original contractor did not present the claim, provide the subcontractor with a statement of the reasons for not having done so.

(e) The text of this section or a summary of it shall be set forth in the plans or specifications for any public works project that may give rise to a claim under this section.

(f) A waiver of the rights granted by this section is void and contrary to public policy, provided, however, that (1) upon receipt of a claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable; and (2) a public entity may prescribe reasonable change order, claim, and dispute resolution procedures and requirements in addition to the provisions of this section, so long as the contractual provisions do not conflict with or otherwise impair the timeframes and procedures set forth in this section.

(g) This section applies to contracts entered into on or after January 1, 2017.

(h) Nothing in this section shall impose liability upon a public entity that makes loans or grants available through a competitive application process, for the failure of an awardee to meet its contractual obligations.

(i) This section shall remain in effect only until January 1, 2020, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2020, deletes or extends that date.

(Added by Stats. 2016, Ch. 810, Sec. 1. (AB 626) Effective January 1, 2017. Repealed as of January 1, 2020, by its own provisions.)

Appendix H:
Exhibit 9-P Prompt Payment Certification

EXHIBIT 9-P: PROMPT PAYMENT CERTIFICATION

Section 7108.5 of the California Business and Professions Code (CBPC) requires a prime contractor or subcontractor (i.e. builders) to pay any subcontractor not later than seven (7) days after receipt of each progress payment received or final retention payment. Section 3321 of the California Civil Code (CCC) requires prime design professionals (prime consultants directly in contract with a public agency) to pay any subconsultant not later than fifteen (15) days after receipt of each progress payment or final retention payment. The payment cannot be delayed because of disagreements on other contracts. Any delay or postponement of payment among the parties may take place only for good cause with the agency's prior written approval. This requirement applies to both DBE and non-DBE subcontractors.

1. CONTRACT INFORMATION

(1) Prime Contractor/Consultant	(2) Local Agency	(3) Federal Project Number	(4) Local Contract Number	(5) Total Contract Award Amt ($)	(6) Total DBE Commitment Amt ($)	(7) DBE Commitment (%)	(8) DBE Contract Goal (%)	(9) Reporting Period (MM/YYYY)

2. PAYMENT INFORMATION

(10) Subcontractor/Subconsultant Name	(11) DBE Cert. Number	(12) Subcontract Type	(13) Date Payment Received by Prime	(14) Date of Prime Payment to Sub	(15) Amount of Payment ($)	(16) Amount Paid To Sub to Date ($)	(17) Total Committed to This Subcontractor ($)	(18) Promptly Paid? (Y/N)	(19) Incremental Retainage Paid? (Y/N)	(20) Comments or Reason for Non-Payment/Non-Prompt Payment, including Payment of incremental Retainage *
				Totals	$0.00	$0.00	$0.00			

List all first-tier subcontractors/subconsultants, whether or not the firms were originally listed in Exhibit 10-O2 or 15-G as a DBE commitment. If the actual DBE utilization was different than that approved at the time of award, provide comments in box (20). All payments reported, including payments to contractor/consultant, are for the date listed.

* Only reasons based on dispute on subcontractor or supplier noncompliance may be accepted.

3. CERTIFICATION

The prime contractor or consultant hereby certifies that the foregoing Prompt Payment Certification Form is true and correct.

(21) Prime Contractor Manager's Signature

(22) Date

(25) Prime Contractor Manager's Name

(26) Phone

Local Agency certifies that all information in this form is complete and verified.

(23) Local Agency Representative's Signature

(24) Date

(27) Local Agency Representative 's Name

(28) Phone

Appendix I:
Exhibit 12-B Bidder's List of Subcontractor (DBE and Non-DBE)

Exhibit 12-B: Bidder's List of Subcontractor (DBE and Non-DBE) - Part 1

As of March 1, 2015 Contractors (and sub-contractors) wishing to bid on public works contracts must be registered with the State Division of Industrial Relations and certified to bid on Public Works contracts. Please register at https://www.dir.ca.gov/Public-Works/Contractor-Registration.html. The local agency will verify registration of all contractors and subcontractors on public works projects at bid and thereafter annually to assure that yearly registration is maintained throughout the life of the project.

In accordance with Title 49, Section 26.11 of the Code of Federal Regulations, and Section 4104 of the Public Contract Code of the State of California, as amended, the following information is required for each sub-contractor who will perform work amounting to more than one half of one percent (0.5%) of the Total Base Bid or $10,000 (whichever is greater).

FEDERAL PROJECT NUMBER:

Photocopy this form for additional firms.

Subcontractor Name & Location	Line Item & Description	Subcontract Amount	Percentage of Bid Item Subcontracted	Contractor License Number / DIR Reg Number	DBE (Y/N)	DBE Cert Number	Annual Gross Receipts
NAME City, State							☐ < $1 million ☐ < $5 million ☐ < $10 million ☐ < $15 million Age of Firm in years
NAME City, State							☐ < $1 million ☐ < $5 million ☐ < $10 million ☐ < $15 million Age of Firm in years
NAME City, State							☐ < $1 million ☐ < $5 million ☐ < $10 million ☐ < $15 million Age of Firm in years
NAME City, State							☐ < $1 million ☐ < $5 million ☐ < $10 million ☐ < $15 million Age of Firm in years
NAME City, State							☐ < $1 million ☐ < $5 million ☐ < $10 million ☐ < $15 million Age of Firm in years
NAME City, State							☐ < $1 million ☐ < $5 million ☐ < $10 million ☐ < $15 million Age of Firm in years
NAME City, State							☐ < $1 million ☐ < $5 million ☐ < $10 million ☐ < $15 million Age of Firm in years
NAME City, State							☐ < $1 million ☐ < $5 million ☐ < $10 million ☐ < $15 million Age of Firm in years
NAME City, State							☐ < $1 million ☐ < $5 million ☐ < $10 million ☐ < $15 million Age of Firm in years
NAME City, State							☐ < $1 million ☐ < $5 million ☐ < $10 million ☐ < $15 million Age of Firm in years

Distribution – Original: Local Agency File; Copy: DLAE w/Award Package

Exhibit 12-B: Bidder's List of Subcontractor (DBE and Non-DBE) - Part 2

In accordance with Title 49, Section 26 of the Code of Federal Regulations, the Bidder shall list all subcontractors who provided a quote or bid but **were not selected** to participate as a subcontractor on this project.

FEDERAL PROJECT NUMBER:

Photocopy this form for additional firms.

Subcontractor Name & Location	Line Item & Description	Subcontract Amount	Percentage of Bid Item Subcontracted	Contractor License Number / DIR Reg Number	DBE (Y/N)	DBE Cert Number	Annual Gross Receipts
NAME City, State							< $1 million < $5 million < $10 million < $15 million Age of Firm in years
NAME City, State							< $1 million < $5 million < $10 million < $15 million Age of Firm in years
NAME City, State							< $1 million < $5 million < $10 million < $15 million Age of Firm in years
NAME City, State							< $1 million < $5 million < $10 million < $15 million Age of Firm in years
NAME City, State							< $1 million < $5 million < $10 million < $15 million Age of Firm in years
NAME City, State							< $1 million < $5 million < $10 million < $15 million Age of Firm in years
NAME City, State							< $1 million < $5 million < $10 million < $15 million Age of Firm in years
NAME City, State							< $1 million < $5 million < $10 million < $15 million Age of Firm in years
NAME City, State							< $1 million < $5 million < $10 million < $15 million Age of Firm in years
NAME City, State							< $1 million < $5 million < $10 million < $15 million Age of Firm in years

Distribution – Original: Local Agency File; Copy: DLAE w/Award Package

Appendix J:
Exhibit 16-Z1 Monthly DBE Trucking Verification

State of California-Department of Transportation

Exhibit 16-Z1 Monthly DBE Trucking Verification

Contract No.			Month			Year	
Truck Owner	**DBE Cert No.**	**Company Name and Address**	**Truck No.**	**California Highway Patrol CA. No.**	**Commission of Amount Of Amount Paid***	**Date Paid**	**Lease Arrangement (if applicable)**
					$		**Lease Agreement** ☐ **with NON-DBE** ☐ **with DBE** ☐
					$		**Lease Agreement** ☐ **with NON-DBE** ☐ **with DBE** ☐
					$		**Lease Agreement** ☐ **with NON-DBE** ☐ **with DBE** ☐
					$		**Lease Agreement** ☐ **with NON-DBE** ☐ **with DBE** ☐
					$		**Lease Agreement** ☐ **with NON-DBE** ☐ **with DBE** ☐
					$		**Lease Agreement** ☐ **with NON-DBE** ☐ **with DBE** ☐
					$		**Lease Agreement** ☐ **with NON-DBE** ☐ **with DBE** ☐
					$		**Lease Agreement** ☐ **with NON-DBE** ☐ **with DBE** ☐
					$		**Lease Agreement** ☐ **with NON-DBE** ☐ **with DBE** ☐
				Total Amount Paid	$		

Prime Contractor	Business Address	Business Phone No.

*Upon Request all Lease Agreements Shall be made available, in accordance with the special Provisions

I CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND CORRECT

Contractor Representative Signature	Title	Date

MONTHLY DBE TRUCKING VERIFFICATION

The top of the form contains boxes to put in the Contract Number, the Month of the reporting period and the Year of the reporting period. The form has a column to enter the name of the Truck Owner, the DBE Cert. No. (if DBE certified) and the Name and Address of the trucking company. The form also requires the Truck No. and the California Highway Patrol CA No.

The form is to be submitted prior to the 15th of each month and must show the dollar amount paid to the DBE trucking company(s) for trucking work performed by DBE certified trucks and for any fees or commissions of non DBE trucks utilized each month on the project. The amount paid to each trucking company is to be entered in the column called "Commission or Amount Paid," in accordance with the Special Provisions Section 5-1.X.

Payment information is derived using the following:

1.) 100% for the trucking services provided by the DBE using trucks it owns, operates and insures.
2.) 100% for the trucking services provided by the trucks leased from other DBE firms.
3.) The fee or commission paid to non DBEs for the lease of trucks. The Prime does not receive 100% credit for these services because they are not provided by a DBE company.

The total dollar figure of this column is to be placed in the box labeled "Total Amount Paid." The column "Date Paid" requires a date that each trucking company is paid for services rendered. The next column contains information that must be completed if a lease arrangement is applicable. Located at the bottom of the form is a space to put the name of the "Prime Contractor," their "Business Address" and their "Business Phone No."

At the bottom of the form there is a space for the Contractor or designee "Contractor Representative's Signature, Title and Date" certifying that the information provided on the form is complete and correct.

Appendix K:
Exhibit 17-F Final Report – Utilization of Disadvantaged Business Enterprises

Exhibit 17-F: Final Report-Utilization of Disadvantaged Business Enterprises (DBE) and First-Tier Subcontractors

1. Local Agency Contract Number	2. Federal-Aid Project Number	3. Local Agency	4. Contract Acceptance Date
5. Contractor/Consultant	6. Business Address	7. Final Contract Amount	

8. Contract Item Number	9. Description of Work, Service, or Materials Supplied	10. Company Name and Business Address	11. DBE Certification Number	12. Contract Payments		13. Date Work Completed	14. Date of Final Payment
				Non-DBE	DBE		
15. ORIGINAL DBE COMMITMENT AMOUNT $			16. TOTAL				

List all first-tier subcontractors/subconsultants and DBEs regardless of tier whether or not the firms were originally listed for goal credit. If actual DBE utilization (or item of work) was different than that approved at the time of award, provide comments on an additional page. List actual amount paid to each entity. If no subcontractors/subconsultants were used on the contract, indicate on the form.

I CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND CORRECT			
17. Contractor/Consultant Representative's Signature	18. Contractor/Consultant Representative's Name	19. Phone	20. Date
I CERTIFY THAT THE CONTRACTING RECORDS AND ON-SITE PERFORMANCE OF THE DBE(S) HAVE BEEN MONITORED			
21. Local Agency Representative's Signature	22. Local Agency Representative's Name	23. Phone	24. Date

DISTRIBUTION: Original – Local Agency, Copy – Caltrans District Local Assistance Engineer. Include with Final Report of Expenditures

INSTRUCTIONS – FINAL REPORT-UTILIZATION OF DISADVANTAGED BUSINESS ENTERPRISES (DBE) AND FIRST-TIER SUBCONTRACTORS

1. Local Agency Contract Number - Enter the Local Agency contract number or identifier.
2. Federal-Aid Project Number - Enter the Federal-Aid Project Number.
3. Local Agency - Enter the name of the local or regional agency that is funding the contract.
4. Contract Acceptance Date - Enter the date the contract was accepted by the Local Agency.
5. Contractor/Consultant - Enter the contractor/consultant's firm name.
6. Business Address - Enter the contractor/consultant's business address.
7. Final Contract Amount - Enter the total final amount for the contract.
8. Contract Item Number - Enter contract item for work, services, or materials supplied provided. Not applicable for consultant contracts.
9. Description of Work, Services, or Materials Supplied - Enter description of work, services, or materials provided. Indicate all work to be performed by DBEs including work performed by the prime contractor/consultant's own forces, if the prime is a DBE. If 100% of the item is not to be performed or furnished by the DBE, describe the exact portion to be performed or furnished by the DBE. See LAPM Chapter 9 to determine how to count the participation of DBE firms.
10. Company Name and Business Address - Enter the name, address, and phone number of all subcontracted contractors/consultants. Also, enter the prime contractor/consultant's name and phone number, if the prime is a DBE.
11. DBE Certification Number - Enter the DBE's Certification Identification Number. Leave blank if subcontractor is not a DBE.
12. Contract Payments - Enter the subcontracted dollar amount of the work performed or service provided. Include the prime contractor/consultant if the prime is a DBE. If the materials or supplies are obtained from a DBE manufacturer, count 100% of the cost of the materials or supplies toward DBE goals. If the materials or supplies are purchased from a DBE regular dealer/supplier, count 60% of the cost of the materials or supplies toward DBE goals. The Non-DBE column is used to enter the dollar value of work performed by firms that are not certified DBE or for work after a DBE becomes decertified.
13. Date Work Completed - Enter the date the subcontractor/subconsultant's item work was completed.
14. Date of Final Payment - Enter the date when the prime contractor/consultant made the final payment to the subcontractor/subconsultant for the portion of work listed as being completed.
15. Original DBE Commitment Amount - Enter the "Total Claimed DBE Participation Dollars" from Exhibits 15-G or 10-O2 for the contract.
16. Total - Enter the sum of the "Contract Payments" Non-DBE and DBE columns.
17. Contractor/Consultant Representative's Signature - The person completing the form on behalf of the contractor/consultant's firm must sign their name.
18. Contractor/Consultant Representative's Name - Enter the name of the person preparing and signing the form.
19. Phone - Enter the area code and telephone number of the person signing the form.
20. Date - Enter the date the form is signed by the contractor's preparer.
21. Local Agency Representative's Signature - A Local Agency Representative must sign their name to certify that the contracting records and on-site performance of the DBE(s) has been monitored.
22. Local Agency Representative's Name - Enter the name of the Local Agency Representative signing the form.
23. Phone - Enter the area code and telephone number of the person signing the form.
24. Date - Enter the date the form is signed by the Local Agency Representative.

Appendix L:
Exhibit 17-O Disadvantaged Business Enterprises (DBE) Certification Status Change

EXHIBIT 17-O DISADVANTAGED BUSINESS ENTERPRISES (DBE) CERTIFICATION STATUS CHANGE

1. Local Agency Contract Number	2. Federal-Aid Project Number	3. Local Agency	4. Contract Completion Date
5. Contractor/Consultant	6. Business Address		7. Final Contract Amount

8. Contract Item Number	9. DBE Contact Information	10. DBE Certification Number	11. Amount Paid While Certified	12. Certification/ Decertification Date (Letter Attached)	13. Comments

If there were no changes in the DBE certification of subcontractors/subconsultants, indicate on the form.

I CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND CORRECT			
14. Contractor/Consultant Representative's Signature	15. Contractor/Consultant Representative's Name	16. Phone	17. Date
I CERTIFY THAT THE CONTRACTING RECORDS AND ON-SITE PERFORMANCE OF THE DBE(S) HAS BEEN MONITORED			
18. Local Agency Representative's Signature	19. Local Agency Representative's Name	20. Phone	21. Date

DISTRIBUTION: Original – Local Agency, Copy – Caltrans District Local Assistance Engineer. Include with Final Report of Expenditures

ADA NOTICE: For individuals with sensory disabilities, this document is available in alternate formats. For information, call (916) 445-1233, Local Assistance Procedures Manual TTY 711, or write to Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

INSTRUCTIONS –DISADVANTAGED BUSINESS ENTERPRISES (DBE) CERTIFICATION STATUS CHANGE

1. Local Agency Contract Number - Enter the Local Agency contract number or identifier.
2. Federal-Aid Project Number - Enter the Federal-Aid Project Number.
3. Local Agency - Enter the name of the local or regional agency that is funding the contract.
4. Contract Completion Date - Enter the date the contract was completed.
5. Contractor/Consultant - Enter the contractor/consultant's firm name.
6. Business Address - Enter the contractor/consultant's business address.
7. Final Contract Amount - Enter the total final amount for the contract.
8. Contract Item Number - Enter contract item for work, services, or materials supplied provided. Not applicable for consultant contracts.
9. DBE Contact Information - Enter the name, address, and phone number of all DBE subcontracted contractors/consultants.
10. DBE Certification Number - Enter the DBE's Certification Identification Number.
11. Amount Paid While Certified - Enter the actual dollar value of the work performed by those subcontractors/subconsultants during the time period they are certified as a DBE.
12. Certification/Decertification Date (Letter Attached) - Enter either the date of the Decertification Letter sent out by the Office of Business and Economic Opportunity (OBEO) or the date of the Certification Certificate mailed out by OBEO.
13. Comments - If needed, provide any additional information in this section regarding any of the above certification status changes.
14. Contractor/Consultant Representative's Signature - The person completing the form on behalf of the contractor/consultant's firm must sign their name.
15. Contractor/Consultant Representative's Name - Enter the name of the person preparing and signing the form.
16. Phone - Enter the area code and telephone number of the person signing the form.
17. Date - Enter the date the form is signed by the contractor's preparer.
18. Local Agency Representative's Signature - A Local Agency Representative must sign their name to certify
that the contracting records and on-site performance of the DBE(s) has been monitored.
19. Local Agency Representative's Name - Enter the name of the Local Agency Representative signing the form.
20. Phone - Enter the area code and telephone number of the person signing the form.
21. Date - Enter the date the form is signed by the Local Agency Representative.

Appendix M:
City of Campbell Quality Assurance Program (QAP)

City of Campbell
Department of Public Works

QUALITY ASSURANCE PROGRAM FOR FEDERAL-AID PROJECTS ADMINISTERED BY FHWA AND CALTRANS

July 2022

APPROVED BY: _____
AMY OLAY, P.E.
CITY ENGINEER

APPROVED ON: 7/14/2022

City of Campbell
70 North First Street, California 95008

The Quality Assurance Program contained herein has been prepared by or under the direction of the following Registered Person(s):

CIVIL

Fredrick C. Ho, PE No. C58995
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SECTION I - SCOPE

This document is the Quality Assurance Program (QAP) for the City of Campbell (City). It establishes material sampling and testing procedures assuring that the quality of the materials and workmanship employed by roadway construction projects are in conformance with the approved contract documents. The QAP is to be used during construction of Federal-aid highway construction projects both on and off the National Highway System (NHS) under United States Code Title 23. Procedures covered in this QAP may also be used for highway projects and contracts administered by the City using its own funds, without reimbursement from either Caltrans or Federal Highway Administration (FHWA). For City contracts on the NHS, this QAP shall be modified as required by FHWA and Caltrans.

Only qualified engineers and engineering technicians using properly calibrated equipment shall perform acceptance tests on materials incorporated into all the City's construction projects. When appropriate, such tests may be waived in lieu of certifications by the manufacturers of the prefabricated materials.

The QAP incorporates the following elements as designated by FHWA and Caltrans:

1. Acceptance Testing (AT)
2. Independent Assurance Program (IAP)
3. Reporting Acceptance Testing Results
4. Testing of Manufactured Materials
5. Project Certification

Definition of Terms

- Acceptance Testing (AT) – Sampling and testing, or inspection, to determine the degree of compliance with contract requirements.
- Independent Assurance Program (IAP) – Verification that AT is being performed correctly by qualified testers and laboratories.
- Quality Assurance Program (QAP) – A sampling and testing program that will provide assurance that the materials and workmanship incorporated into the construction project are in conformance with the contract specifications. The main elements of a QAP are the AT and IAP.
- Source Inspection – AT of manufactured and prefabricated materials at locations other than the job site, generally at the manufactured location.

SECTION II – QAP ELEMENTS

Acceptance Testing

AT will be performed by a materials laboratory certified to perform the required tests. The tests results will be used to ensure that all materials incorporated into the project are in compliance with the contract specifications.

Testing methods will be in accordance with the Caltrans Testing Methods (CTM) or a national recognized standard (i.e. AASHTO, ASTM, etc.) as specified.

Sample locations and frequencies may be in accordance with the contract specifications. If not so specified in the contract specifications, samples shall be taken at the locations and frequencies as shown in Attachment A, City Materials Testing & Inspection Guidelines, which provides the type of testing and the minimum frequency criteria for testing construction materials on City projects. Attachment A will be used as the general guideline for testing requirements on all City projects. Where conformance to the Caltrans QAP is required, Attachment B - Caltrans Construction Manual, Chapter 6 – Sampling and Testing dated December 2021 or the most recent edition may be used as a guide.

The actual type and frequency of testing for City projects will be based on consultation and agreements made between the City and other qualified agencies, private laboratories or consultants selected to perform the materials testing on a project-by-project basis.

Relatively minor quantities of construction materials may be accepted by the City's Resident Engineer (RE) based on visual examination without testing for materials from commercial sources of suppliers known to the City to have previously furnished material of consistent specification quality.

For NHS projects, the minimum number of tests to be performed will be as described in Caltrans' QAP Manual.

Independent Assurance Program (IAP)

IAP shall be provided by personnel from Caltrans' or a consultant's certified materials laboratory. IAP will be used to verify that sampling and testing procedures are being performed properly and that all testing equipment is in good condition and properly calibrated.

IAP personnel shall be certified in all required testing procedures, as part of IAP, and shall not be involved in any aspect of AT.

IAP shall be performed on every type of materials test required for the project. Proficiency tests shall be performed on Sieve Analysis, Sand Equivalent, and Cleanness Value tests. All other types of IAP shall be witness tests.

Poor correlation between acceptance tester's results and other test results may indicate probable deficiencies with the acceptance sampling and testing procedures. In case of unresolved discrepancies, a complete review of AT shall be performed by IAP personnel, or an independent materials laboratory chosen by the City. IAP samples and tests are not to be used for determining compliance with contract requirements. Compliance with contract requirements is determined only by AT.

For NHS projects, Caltrans shall perform the required IAP. The City's RE will schedule all testing with the Caltrans Materials Engineer on a timely basis. The frequency of tests to be performed shall comply with those listed in the Caltrans Quality Assurance Manual.

Reporting Acceptance Testing Results

Reporting material test results to the RE shall be in a timely manner and shall be coordinated by the RE with the Consultant and Contractor. This shall pertain, but is not limited to, reporting on material test results for the following:

- Aggregate sampled at material plants: Sieve Analysis, Sand Equivalent and Cleanness Value.
- Materials sampled at the job site: Compaction and Maximum Density.
- Soils and aggregates sampled at the job site: Sieve Analysis, Sand Equivalent, Cleanness Value, "R" Value and Asphalt Concrete Extraction.

When sampling products such as Portland Cement Concrete (PCC), cement-treated base (CTB), hot mix asphalt (HMA), and other such materials; the time of such sampling shall be varied with respect to the time of the day insofar as possible, in order to avoid a predictable sampling routine. The reporting of AT results shall be done on an expedited basis such as by telephone, or email.

Testing of Manufactured Materials

A list of materials that can be typically accepted on the basis of certificates of compliance during construction is found in Attachment C. Modifications to Attachment C that may be necessary will be on a project by project basis with the approval of the RE. All certificates of compliance shall conform to the requirements of the contract specifications, for examples see Attachment D.

From time to time, it may be necessary to perform source inspection of materials prior to arriving on the job site. Qualified consultants, Caltrans or City staff, in accordance with requirements of the project testing requirements will perform such inspection. Should the City request Caltrans to conduct the source inspection, and the request is accepted, all sampling, testing, and acceptance of manufactured and prefabricated materials will be performed by Caltrans' Office of Materials Engineering and Testing Services.

For Federal-aid projects on the NHS, Caltrans will assist in certifying the materials laboratory, and the acceptance samplers and testers. For Federal-aid projects off the

NHS, Caltrans may be able to assist in certifying the materials laboratory, and the acceptance samplers and testers. Where Caltrans assistance is not available, the City may accept certifications of the materials laboratory, and the acceptance samplers and testers by other industry recognized organizations.

Additionally, for Federally funded projects within the Caltrans right of way, the City will prepare and implement a Source Inspection Quality Management Plan (SIQMP) to identify materials to be source inspected, personnel qualified to perform the source inspections, and the associated reporting requirements. The City will be responsible for coordination in all cases when such source inspection services are anticipated.

In case of extreme emergency (declared disasters, etc.), sampling and testing may be performed by someone not certified. The City will assure the person's competency and every effort will be made to obtain a certified person as soon as possible. These occasions will be limited to unforeseen circumstances.

Project Certification

Upon completion of a Federal-aid project, a "Materials Certificate" shall be completed by the RE. The City shall include a "Materials Certificate" in the Report of Expenditures submitted to the Caltrans District Director, Attention: District Local Assistance Engineer. A copy of the "Materials Certificate" shall also be included in the City's construction records. The RE in charge of the construction function for the City's construction records shall sign the certificate. All materials incorporated into the work which did not conform to specifications must be explained and justified on the "Materials Certification", including changes by virtue of contract change orders. See Attachment E for an example.

SECTION III – SPECIFICATIONS

The City will use, in their entirety or portions thereof, the following specifications for highway construction projects and contracts:

- Special Provisions developed for specific projects by the City (project by project)
- Standard Specifications Update to the General Provisions for Public Works Construction (Latest Edition)
- City Standard Specifications and Details for Public Work Construction
- City of San Jose Standard Specifications
- Caltrans Standard Specifications, most recent edition or as specified
- Caltrans Standard Plans, most recent edition or as specified
- Other specifications as specified

The City will assure that the entity hired by the City to perform acceptance testing are familiar with designated specifications and special provisions.

SECTION IV – MATERIALS LABORATORY

The City will use a consultant materials laboratory to perform AT on Federal-aid and other designated projects. The materials laboratory shall be under the responsible management of a California registered Engineer with experience in sampling, inspection and testing of construction materials. The Engineer shall certify the results of all tests performed by laboratory personnel under the Engineer's supervision. It will be the City's responsibility, under this QAP, to receive, verify and file an acknowledgement that each tester is currently certified for the tests being conducted and results of each test and/or retest. The materials laboratory shall contain certified test equipment capable of performing the tests conforming to the provisions of this QAP. For City projects, an individual acceptance testing program for each project will be specified prior to the start of each project. The testing program required for each project will be determined in coordination and consultation with the selected qualified testing consultant or entity.

The materials laboratory used shall provide documentation that the laboratory complies with the following procedures:

1. Correlation Testing Program – The materials laboratory shall be a participant in one or more of the following testing programs:
    a. AASHTO Materials Reference Laboratory (AMRL)
    b. Cement and Concrete Reference Laboratory (CCRL)
    c. Caltrans' Reference Samples Program (RSP)
2. Certification of Personnel – The materials laboratory shall employ personnel who are certified by one or more of the following:
    a. Caltrans District Materials Engineer
    b. Nationally recognized non-Caltrans organizations such as the American Concrete Institute, Asphalt, National Institute of Certification of Engineering Technologies, etc.
    c. Other recognized organizations approved by the State of California and/or recognized by local governments or private associations.
3. Laboratory and Testing Equipment – The materials laboratory shall only use laboratory and testing equipment that is in good working order. All such equipment shall be calibrated at least once each year. All testing equipment must be calibrated by impartial means using devices of accuracy traceable to the National Institute of Standards and Technology. A decal shall be firmly affixed to each piece of equipment showing the date of the last calibration. All testing equipment calibration decals shall be checked as part of the IAP.

SECTION V – DOCUMENTATION AND RECORDS

All material records of samples and tests, material releases, certificates of compliance, and tester's Certificate of Proficiency for the construction project shall be incorporated into the RE's project file. Each Certificate of Proficiency will list the sampling and testing which the individual is authorized to perform and the period of time that the certificate is valid for.

For materials to be accepted on a Certification of Compliance, the City will assure that such certificate is valid for the material being furnished.

Minor quantities of construction materials accepted based on visual examination by the City's RE will be so documented in the project file.

The City's RE will maintain records of each AT performed and to the extent possible, maintain a summary log for all tests conducted. Failing tests may require a retest and records will be properly documented.

Records will be maintained in an orderly manner by individual project for easy review by funding agencies. During construction the project file will be under the direction of the City's RE. Upon completion, the City will have the file available for a minimum of three years after final payment by the funding agency.

If a Federal-aid project:

- The files shall be organized in similar manner described in of Chapter 16 of the Local Assistance Procedures Manual or in accordance with City filing systems.
- It is recommended that the complete project file be available at a single location for inspection by Caltrans and Federal Highway Administration (FHWA) personnel.
- The project files shall be available for at least three years following the date of final project voucher.
- The use of a "Log Summary," see Attachment F for an example, facilitates reviews of material sampling and testing by Caltrans and FHWA, and assists the RE in tracking the frequency of testing.
- Upon completion of the contract, a "Materials Certification" in accordance with Chapter 17 of Caltrans' LAPM will be completed, signed by the RE and included in the project file.

When two or more projects are being furnished identical materials simultaneously from the same plant, it is not necessary to take separate samples or perform separate tests for each project; however, copies of the test reports are to be provided for each of the projects to complete the records.

SECTION VI – REFERENCES

Where and when appropriate, the QAP may be modified to comply with the most current state and federal guidelines and regulations concerning Federal-aid project including the following:

1. FHWA: Title 23, United States Code of Federal regulations, 23 CFR 637.205.
2. Caltrans: Local Assistance Procedure Manual, Chapter 16 - Administer Construction Contracts.

ATTACHMENT A

CITY MATERIALS TESTING & INSPECTION GUIDELINES

CITY TESTING & INSPECTION GUIDELINES

Frequency and Sampling Testing Tables

		Acceptance Tests			
Item		**Test Description**	**Test Method**	**Sample Location**	**Min. Frequency**
Slurry Seal	Asphaltic Emulsion (Test on emulsion)	Viscosity SSF	AASHTO T59 (See Note 1)	Transport Tanker	Once per tank
		Storage Stability Test	AASHTO T59 (See Note 1)		
		Residue by Evaporation	CT 331 (See Note 1)		
		Sieve Test	AASHTO T59 (See Note 1)		
		Particle Charge	AASHTO T59 (See Note 1)		
	Asphaltic Emulsion (Test on residue)	Penetration	AASHTO T49 (See Note 1)	Transport Tanker	Once per tank
		Ductility	AASHTO T51 (See Note 1)		
		Polymer Content, % See section 94-1.03 of SS for Sampling Requirements	CT 401 (See Note 1)		
		Polymer Content or Torsional Recovery	CT 332 (See Note 1)		
	Aggregates	Sieve Analysis - Fine Aggregate	CT 202	Stockpile	Once per 50,000 SY (See Note 3)
		Sand Equivalent	CT 217		
		Durability Index	CT 229		
	Slurry Seal	Slurry Seal Consistency	ISSA TB 106	Plant or Jobsite	Once per tank
		Wet Cohesion	ISSA TB 139		
		Excess Asphalt	ISSA TB 109		
Asphalt Rubber Chip Seal	Crumb Rubber Modifier (CRM)	Acetone Content, Rubber Hydrocarbon, Natural Rubber Content, Carbon Black Content, Ash Content	ASTM D297	Jobsite	Once per project
		Specific Gravity	CT 208		
		Gradation	CT 385		
	Aggregates	LA Rattler (100/500 Rev)	CT 211	Plant	Once every 200 tons or once per project
		Film Stripping	CT 302		
		Cleanness Value	CT 227		
		Durability Index	CT 229		
		Sieve Analysis - Coarse Aggregate	CT 202		
	Asphalt Modifier	Viscosity	ASTM D445	Transport Tanker	Once random per project
		Flash Point	ASTM D92		
		Molecular Analysis, Asphaltenes/Aromatics, percent by mass	ASTM D2007		
	Rubber Binder	Cone Penetration	ASTM D217	Plant	If prior to placement once per day or if from plant once per lot
		Resilience	ASTM D5329		
		Field Softening Point	ASTM D36		
		Viscosity	ASTM D7741	Plant or Jobsite	Once per day

CITY TESTING & INSPECTION GUIDELINES

Frequency and Sampling Testing Tables

		Acceptance Tests			
Item		**Test Description**	**Test Method**	**Sample Location**	**Min. Frequency**
Hot Mix Asphalt	Aggregates	Gradation[a]	AASHTO T11 / T27	Plant	Once per 750 tons or once per project, whichever is greater.
		Sand Equivalent[b, c]	AASHTO T176		
		Moisture Content[d]	AASHTO T255		
		Crushed Particles	AASHTO T335		Production start up, 1 per 10,000 tons, or 1 per project, whichever is greater.
		LA Rattler	AASHTO T96		
		Flat & Elongated	ASTM D4791		
	Asphalt Binder	Asphalt Binder Content	AASHTO T308 Method A	Plant	Production start up, and once per 1,500 tons or once per project, whichever is greater.
	Asphalt Concrete	HMA Moisture Content	AASHTO T329		Once per paving day
		Air Void Content	AASHTO T269		Production start up, and once per 3,000 tons or once every 5 paving days, whichever is greater.
		Theoretical Maximum Specific Gravity	AASHTO T209 Method A		Production start up, and once per 750 tons or once per project, whichever is greater.
		Voids in Mineral Aggregate	MS-2 Asphalt Mixture Volumetrics		Production start up, and once per 9,000 tons or once per project, whichever is greater.
		Hamburg Wheel Truck	CT 389		
		Note: Refer to section 39-2.01A(4)(h)(v) for all production start-up sampling.			
		% Relative Compaction (Nuclear Gauge or Core)	CT 231, CT 375, or ASTM D2950	Jobsite	Once every 250 tons (See Note 4)
	Digout	Compaction	Method Per Specs	Jobsite	Method Per Specs

CITY TESTING & INSPECTION GUIDELINES

Frequency and Sampling Testing Tables

Item		Acceptance Tests			
		Test Description	**Test Method**	**Sample Location**	**Min. Frequency**
Rubberized Hot Mix Asphalt (RHMA)	Aggregates	Gradation[a]	AASHTO T11 / T27	Plant	Once per 750 tons or once per project, whichever is greater.
		Sand Equivalent[b, c]	AASHTO T176		
		Moisture Content[d]	AASHTO T255		
		Crushed Particles	AASHTO T335		Production start up, once per 10,000 tons or once per project, whichever is greater.
		LA Rattler	AASHTO T96		
		Flat & Elongated	ASTM D4791		
	Rubber Binder	Viscosity	ASTM D445	Plant	Once per shipment
		Flash Point	ASTM D92		
		Molecular Analysis, Asphaltenes/Aromatics, percent by mass	ASTM D2007		
	Crumb Rubber Modifier (CRM)	Scrap Tire Crumb Rubber Gradation	CT 385	Plant	Once per 10,000 lb
		High Natural Crumb Rubber Gradation	CT 385		Once per 3,400 lb
		Wire in CRM	CT 385		Once per 10,000 lb
		Fabric in CRM	CT 385		
		CRM Particle Length	-		
		CRM Specific Gravity	CT 208		
		Natural Rubber Content in High Natural Crumb Rubber	ASTM D297		Once per 3,400 lb
	Asphalt Modifier	Cone Penetration	ASTM D217	Plant	Once per lot*
		Resilience	ASTM D5329		
		Softening Point	ASTM D36 / D36M		
		Viscosity	ASTM D7741 / D7741M		15 minutes before use per lot*
		** The lot is defined in the Caltrans' MPQP.*			
	RHMA	Asphalt Binder Content	AASHTO T308 Method A	Plant	Production start up, and once per 1,500 tons or once per project, whichever is greater.
		HMA Moisture Content	AASHTO T329		Once per paving day
		Air Void Content	AASHTO T269		Production start up, and once per 3,000 tons or once every 5 paving days, whichever is greater.
		Theoretical Maximum Specific Gravity	AASHTO T209 Method A		Production start up, and once per 750 tons or once per project, whichever is greater.
		Voids in Mineral Aggregate	MS-2 Asphalt Mixture Volumetrics		Production start up, and once per 9,000 tons or once per project, whichever is greater.

CITY TESTING & INSPECTION GUIDELINES

Frequency and Sampling Testing Tables

		Acceptance Tests			
Item		**Test Description**	**Test Method**	**Sample Location**	**Min. Frequency**
Rubberized Hot Mix Asphalt (RHMA)	RHMA	Hamburg Wheel Truck	CT 389	Plant	Production start up, and once per 9,000 tons or once per project, whichever is greater.
		% Relative Compaction (Nuclear Gauge or Core)	CT 231, CT 375, or ASTM D2950	Jobsite	Once every 250 tons (See Note 4)
	Digout	Compaction	Method Per Specs	Jobsite	Method Per Specs
Aggregate Base	Aggregates	% Relative Compaction	CT 216 or ASTM D 1557	Jobsite	Once per day
		Sieve Analysis	CT 202	Stockpile	Once per material source
		Sand Equivalent	CT 217		
		R-Value	CT 301		
		Durability Index	CT 229		
Minor Concrete	Minor Concrete	Compressive Strength	ASTM C39	Jobsite	Once per project or every 50 CY
		Casting Cylinders	CT 539 or ASTM C31		
		Temperature	CT 557 or ASTM C1064		
		Air-Content	CT 504 or ASTM C231		
		Slump	CT 553 or ASTM C143		
Lean Concrete Base	Lean Concrete Base	Compressive Strength	CT 521 or ASTM C39	Jobsite	Once per project or every 50 CY
Bedding	Bedding	Sieve Analysis	CT 202	Stockpile	Once per material source
		Sand Equivalent	CT 217		
		Cleanness Value	CT 227		
Soil	Soil	Relative Compaction	CT 231/216 or ASTM D1557	Jobsite	Once every 1,000 SY or once per project

Notes:

1. Certificate of compliance required with each shipment (tank).
2. For safety, engineer may witness contractor perform test.
3. Visual inspection permitted when quantity is not to exceed 100 tons per day nor more than 500 tons per project.
4. Visual inspection permitted when quantity is not to exceed 50 tons per day; sample at Engineer's discretion if project total is less than 500 tons.

[a] Test for aggregate gradation under AASHTO T 27. Do not wash the coarse aggregate. Wash the fine aggregate in accordance with AASHTO T11. The Engineer determines combined aggregate gradations containing RAP under California Test 384. The Engineer uses the correlation factor from the Contractor Hot Mix Asphalt Design Data form (CEM 3512) and mathematically combines the virgin and corrected RAP aggregate gradations at the correct proportions to obtain the combined gradation.

[b] Reported value must be the average of 3 tests from a single sample.

[c] Use of a sand reading indicator is required as shown in AASHTO T 176, Figure 1. Sections 4.7, "Manual Shaker," 7.1.2, "Alternate Method No. 2," and 8.4.3, "Hand Method," do not apply. Prepare the stock solution as specified in section 4.8.1, "Stock solution with formaldehyde," except omit the addition of formaldehyde.

[d] Manufactured sand is fine aggregate produced by crushing rock or gravel.

ATTACHMENT B

CALTRANS CONSTRUCTION MANUAL
CHAPTER 6 – SAMPLING AND TESTING
(DATED DECEMBER 2021)

Chapter 6 Sampling and Testing

Section 1 Sample Types and Frequencies

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6-101A References

6-102 Types of Sampling and Testing

6-102A Preliminary Samples and Tests

6-102B Initial Samples and Tests

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6-102B (1a) Stone from Ledges and Quarries

6-102B (1b) Material Sites of Sand, Gravel, or Soil

6-102B (2) Processed Aggregates

6-102C Acceptance Samples and Tests

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Table 6-1.2. Time Required for Materials Acceptance Tests (2 of 4)

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6-102D Dispute Resolution Samples

6-102E Investigation Samples and Tests

6-102F Research Samples and Tests

6-103 Field Sampled Material Identification for Testing

Example 6-1.1. Sample Cylinder Label (Set of either five 6- by 12-inchor five 4- by 8-inch cylinders)

Example 6-1.2. Sample Cylinder Label (Set of two 6- by 12-inch cylinders)

6-104 Shipping of Field Samples

6-105 Acceptance Records

6-106 Project Materials Certification

6-107 Materials Acceptance Sampling and Testing

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Table 6-1.4. Materials Acceptance Sampling and Testing Requirements: Earthwork (*Standard Specifications* Section 19) (2 of 3)

Table 6-1.4. Materials Acceptance Sampling and Testing Requirements: Earthwork (*Standard Specifications* Section 19) (3 of 3)

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Table 6-1.5. Materials Acceptance Sampling and Testing Requirements: Stabilized Soils (*Standard Specifications* Section 24) (2 of 3)

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Table 6-1.12. Materials Acceptance Sampling and Testing Requirements: Bituminous Seals (*Standard Specifications* Section 37) (2 of 9)
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Table 6-1.13. Materials Acceptance Sampling and Testing Requirements: Asphalt Concrete (*Standard Specifications* Section 39) (11 of 14)
Table 6-1.13. Materials Acceptance Sampling and Testing Requirements: Asphalt Concrete (*Standard Specifications* Section 39) (12 of 14)
Table 6-1.13. Materials Acceptance Sampling and Testing Requirements: Asphalt Concrete (*Standard Specifications* Section 39) (13 of 14)
Table 6-1.13. Materials Acceptance Sampling and Testing Requirements: Asphalt Concrete (*Standard Specifications* Section 39) (14 of 14)
Table 6-1.14. Materials Acceptance Sampling and Testing Requirements: Concrete Pavement (*Standard Specifications* Section 40) (1 of 2) See Table 6-1.17 for concrete materials
Table 6-1.14. Materials Acceptance Sampling and Testing Requirements: Concrete Pavement (*Standard Specifications* Section 40) (2 of 2) See Table 6-1.17 for concrete materials
Table 6-1.15. Materials Acceptance Sampling and Testing Requirements: Existing Concrete Pavement (*Standard Specifications* Section 41)
Table 6-1.16. Materials Acceptance Sampling and Testing Requirements: Concrete Structures (*Standard Specifications* Section 51) See Table 6-1.17 for concrete materials

Table 6-1.17. Materials Acceptance Sampling and Testing Requirements: Concrete (*Standard Specifications* Section 90) (1 of 9) Concrete, Except Minor Concrete and Rapid Strength Concrete
Table 6-1.17. Materials Acceptance Sampling and Testing Requirements: Concrete (*Standard Specifications* Section 90) (2 of 9) Concrete, Except Minor Concrete and Rapid Strength Concrete
Table 6-1.17. Materials Acceptance Sampling and Testing Requirements: Concrete (*Standard Specifications* Section 90) (3 of 9) Concrete, Except Minor Concrete and Rapid Strength Concrete
Table 6-1.17. Materials Acceptance Sampling and Testing Requirements: Concrete (Standard Specifications Section 90) (4 of 9) Concrete, Except Minor Concrete and Rapid Strength Concrete
Table 6-1.17. Materials Acceptance Sampling and Testing Requirements: Concrete (*Standard Specifications* Section 90) (5 of 9) Concrete, Except Minor Concrete and Rapid Strength Concrete
Table 6-1.17. Materials Acceptance Sampling and Testing Requirements: Concrete (*Standard Specifications* Section 90) (6 of 9) Concrete, Except Minor Concrete and Rapid Strength Concrete
Table 6-1.17. Materials Acceptance Sampling and Testing Requirements: Concrete (*Standard Specifications* Section 90) (7 of 9) Concrete, Except Minor Concrete and Rapid Strength Concrete
Table 6-1.17. Materials Acceptance Sampling and Testing Requirements: Concrete (*Standard Specifications* Section 90) (8 of 9) Concrete, Except Minor Concrete and Rapid Strength Concrete
Table 6-1.17. Materials Acceptance Sampling and Testing Requirements: Concrete (*Standard Specifications* Section 90) (9 of 9) Minor Concrete
Table 6-1.18. Materials Acceptance Sampling and Testing Requirements: Miscellaneous Materials (1 of 5)
Table 6-1.18. Materials Acceptance Sampling and Testing Requirements: Miscellaneous Materials (2 of 5)
Table 6-1.18. Materials Acceptance Sampling and Testing Requirements: Miscellaneous Materials (3 of 5)
Table 6-1.18. Materials Acceptance Sampling and Testing Requirements: Miscellaneous Materials (4 of 5)
Table 6-1.18. Materials Acceptance Sampling and Testing Requirements: Miscellaneous Materials (5 of 5)

Chapter 6 Sampling and Testing

Section 1 Sample Types and Frequencies

6-101 General

Sampling and testing materials and products must be in accordance with contract specifications. Sampling and testing are of equal importance for assuring materials and products meet acceptance specifications.

Caltrans representatives must be familiar with materials handling and processing methods to assure representative samples are obtained. Caltrans representatives should be sufficiently knowledgeable about test methods to ensure compatibility between sample and test procedure.

Samples for acceptance must be taken in accordance with California Test 125, "Methods of Test for Sampling Highway Materials and Products Used in the Roadway Pavement Structure Sections," or sampling requirements in specifications. For California Tests, Caltrans representatives must be qualified testers in accordance with the *Independent Assurance Manual.*

It is the resident engineer's responsibility to assure the safety of the Caltrans representative. In accordance with *Material Plant Quality Program* or California Test 109*,* "Method for Testing of Material Production Plants," the district weights and measures coordinator inspects material plants for safety in areas that the Caltrans representative will enter.

In certain situations, to assure the Caltrans representative's safety, the contractor will take acceptance samples for Caltrans. The Caltrans representative must witness the contractor taking acceptance samples. The Caltrans representative must determine when the sample is taken and observe that the sample is taken in accordance with California Test 125, or sampling requirements in specifications. The Caltrans representative must take possession of the sample from the contractor and transport it to a Caltrans office or the testing laboratory. The Caltrans representative must properly fill out form TL-0101 "Sample Identification Card."

The resident engineer is responsible for the chain of custody for material acceptance samples. Material acceptance samples and dispute resolution samples must be in Caltrans' possession from the sampling point. Adequate sample storage facilities must be arranged for at construction field offices or other Caltrans facilities. The chain of custody for material samples is an important part of the Caltrans quality assurance program.

6-101A References

- Independent Assurance Program, Division of Engineering Services, Materials Engineering and Testing Services (METS), Caltrans:

  https://dot.ca.gov/programs/engineering-services/independent-assurance-program

- California Test Methods, METS, Caltrans, available at:

  https://dot.ca.gov/programs/engineering-services/california-test-methods

- American Association of State Highway and Transportation Officials (AASHTO), American Society for Testing and Materials International (ASTM), and other test methods are available at the IHS Markit website, which can be accessed from a link on the METS website:

  http://des.onramp.dot.ca.gov/materials-engineering-and-testing-services-mets

- *Material Plant Quality Program*, Division of Construction, Caltrans, available at:

  https://dot.ca.gov/programs/construction/material-plant-quality-program

6-102 Types of Sampling and Testing

The following are the types of sampling and testing used by Caltrans.

6-102A Preliminary Samples and Tests

Preliminary samples and tests are made before award of a contract. Construction personnel rarely perform preliminary sampling and testing. The district materials engineer is responsible for preliminary sampling and testing. Such tests are used for design purposes, and to provide data for the materials information package for prospective bidders.

6-102B Initial Samples and Tests

Initial samples and tests are performed on materials proposed for use in the project. These initial tests determine whether proposed materials sources, local materials, or products meet the specifications.

Construction personnel may sample potential sources. For soils and aggregate tests, send samples to the district materials laboratory. Caltrans laboratories performing acceptance testing must be qualified under the AASHTO re:source and Caltrans' Independent Assurance Program. Caltrans' field laboratories also meet the re:source requirements when Caltrans' district or regional materials laboratory meets the requirement.

Sampling and testing potential local materials is not mandatory unless specified. Charge the contractor for the cost of sampling and testing potential local materials sources in accordance with Section 6, "Control of Materials," of the *Standard Specifications*.

The typical time required for testing initial source samples of potential local materials sources is shown in Table 6-1.1.

Table 6-1.1. Time Required for Source Testing

Material	Time
Aggregates for hot mix asphalt	2 weeks
Aggregates for cement treatment	4 weeks

Material	Time
Aggregates for concrete mixture	4 weeks
Aggregates for concrete pavement	60 days
Screenings for bituminous seals	2 weeks
Soils (R-value)	3 weeks
Untreated base materials	3 weeks

6-102B (1) Unprocessed Soils and Aggregates

The discussion on unprocessed soils and aggregates is primarily applicable to preliminary and initial sampling, although the same precautions apply when sampling for specification compliance.

6-102B (1a) Stone from Ledges and Quarries

Inspect the ledge or quarry face to determine any variations in strata, or in portions of the ledge. Observe and record differences in color and structure. Obtain separate samples of unweathered stone from all strata that appear to vary in color and structure.

6-102B (1b) Material Sites of Sand, Gravel, or Soil

Select samples representing the different materials available in the deposit. If the deposit is worked as an open face or pit, take the samples by channeling the face so that they will represent material that visual inspection indicates may be used. It is necessary, especially in small deposits, to excavate test holes some distance in back of, and parallel to, the face to determine the extent of the supply. The number and depth of these test holes depend on the quantity of material to be used from the deposit. Obtain samples from open test pits by channeling a face of the test pit in the same manner as sampling a face of a materials site. Do not include material in the sample that will be stripped from the pit as overburden. Obtain separate samples from the face of the bank and from the test holes. If visual inspection indicates that there is considerable variation in the material, obtain separate samples at different depths.

Use test holes to sample deposits that have no open faces. When sampling material sites, select depth and spacing of test holes considering the probable method of operating the pit. In general, dozers will combine the material laterally. A shovel will remove the material vertically. Test results in a “spotty” pit may be misleading to the extent that operations may be too expensive to make the required grading.

If possible, use a dozer or shovel to open up the pit before sampling rather than depending on test holes.

6-102B (2) Processed Aggregates

Sample processed aggregates from locations such as stockpiles, transportation units, conveyors, or windrows in accordance with California Test 125, “Methods of Test for Sampling Highway Materials and Products Used in the Roadway Pavement Structure Sections.”

6-102C Acceptance Samples and Tests

Acceptance tests are generally performed on materials that will be incorporated into the work. Some acceptance tests are performed on materials already incorporated into the work. Acceptance sampling and testing should begin as soon as the material is delivered or in place.

Sample materials at the locations specified in the *Standard Specifications*, the special provisions, or as required by California Test 125. If the sampling location is not specified, sample at the location indicated in the materials acceptance sampling and testing requirements tables in Section 6-107, "Materials Acceptance Sampling and Testing" of this manual. Regardless of location, sample randomly and within the frequency specified to obtain representative samples of the material used in the work.

On Form TL-0101, "Sample Identification Card," use the "Priority" designation for the first few acceptance samples of each construction material. Use "Priority" for verification tests for acceptance. Use the "Priority" designation for all samples if the material being supplied is of questionable quality or if the construction means and methods or source of materials changes. For "Priority" tests, indicate if there is a preference for telephoned, faxed, or emailed test results on Form TL-0101, "Sample Identification Card," along with the telephone number of the person who is to receive them.

For "Priority" and "Normal" processing times for acceptance tests of materials, refer to Table 6-1.2, "Time Required for Materials Acceptance Tests," of this manual.

The minimum time required for acceptance tests of products is shown in Table 6-1.2, of this manual.

Make sure acceptance samples are shipped or transported to testing laboratories within the following timeframes:

1. Within 1 business day from sampling for projects within 50 miles of the testing laboratory
2. Within 2 business days from sampling for projects more than 50 miles from the testing laboratory

The specified timeframes are not applicable if specific sampling or test method requirements preclude doing so, for example, curing of specimens before transport.

Assure that proper chain of custody is maintained throughout the process, including delivery to and receipt from commercial shipping services.

Use Form CEM-3701, "Test Result Summary," to summarize acceptance test frequency and test results on each material. Use this form to record sampling and testing related dates and monitor timeliness of acceptance testing. Compare timeliness of material testing turnaround against Table 6-1.2, and verify that corrective actions are taken and documented if repeated deficiencies are detected.

Notify contractor of all acceptance test results within 2 business days of receipt from laboratory. Advise the contractor that all test results are available for their inspection, and provide copies of these test results upon their request. Maintain copies of the test results within the project files for ready accessibility.

Table 6-1.2. Time Required for Materials Acceptance Tests (1 of 4)

Material and Test	Sample to Lab (Note 1) (business days)	Lab Time Priority (Note 2) (business days)	Lab Time Normal (Note 2) (business days)	Reporting to Contractor (Note 3) (business days)	Total (business days)
SOILS					
Gradation (CT 202)	1 to 2	1	3	2	4 to 7
Sand Equivalent (CT 217)	1 to 2	1	3	2	4 to 7
Relative Compaction (CT 231/216)	1 to 2	1	2	2	4 to 6
Plasticity Index (Geosynthetic Reinforced Embankment)	1 to 2	3	7	2	6 to 11
pH (Geosynthetic Reinforced Embankment)	1 to 2	2	3	2	5 to 7
Percentage Crushed Particles (Shoulder Backing – CT 205)	1 to 2	2	5	2	5 to 9
Durability Index (Shoulder Backing – CT 229)	1 to 2	2	5	2	5 to 9
R-value (Imported Borrow – CT 301)	1 to 2	4	6	2	7 to 10
SUBBASES AND BASES					
Relative Compaction (CT 231/216)	1 to 2	1	2	2	4 to 6
Gradation (CT 202)	1 to 2	1	3	2	4 to 7
Sand Equivalent (CT 217)	1 to 2	1	3	2	4 to 7
R-value (CT 301)	1 to 2	4	6	2	7 to 10
Durability Index (CT 229)	1 to 2	2	5	2	5 to 9
Compressive Strength (Cement-treated base [CTB] aggregate – CT 312)	-	Age based	Age based	2	Age +2
Compressive Strength (Lean Concrete Base [LCB]–ASTM C39)	-	Age based	Age based	2	Age +2
Compressive Strength (LCB – rapid setting – CT 521)	-	Age based	Age based	2	Age +2
Modulus of Rupture (Concrete base – CT 523)	-	Age based	Age based	2	Age +2
Modulus of Rupture (Rapid strength concrete base – CT 524)	-	Age based	Age based	2	Age +2
Percentage of Crushed Particles (CT 205)	1 to 2	2	5	2	5 to 9
Los Angeles Rattler (CT 211)	1 to 2	2	4	2	5 to 8
Cleanness Value (CT 227)	1 to 2	2	3	2	5 to 7
Film Stripping (CT 302)	1 to 2	2	7	2	5 to 11
Asphalt Content (ATPB – CT 382)	1 to 2	1	5	2	4 to 9
Soundness (CTPB – CT 214)	1 to 2	8	10	2	11 to 14
BITUMINOUS SEALS					
Los Angeles Rattler (CT 211)	1 to 2	2	4	2	5 to 8
Percentage of Crushed Particles (CT 205)	1 to 2	2	5	2	5 to 9
Film Stripping (CT 302)	1 to 2	2	7	2	5 to 11
Gradation (CT 202)	1 to 2	1	3	2	4 to 7

Table 6-1.2. Time Required for Materials Acceptance Tests (2 of 4)

Material and Test	Sample to Lab (Note 1) (business days)	Lab Time Priority (Note 2) (business days)	Lab Time Normal (Note 2) (business days)	Reporting to Contractor (Note 3) (business days)	Total (business days)
BITUMINOUS SEALS (Cont.)					
Gradation (ASTM C136)	1 to 2	1	3	2	4 to 7
Cleanness Value (CT 227)	1 to 2	2	3	2	5 to 7
Durability Index (CT 229)	1 to 2	2	5	2	5 to 9
Sand Equivalent (CT 217)	1 to 2	1	3	2	4 to 7
Viscosity (AASHTO T 59)	1 to 2	3	15	2	6 to 19
Viscosity (ASTM D7741)	1 to 2	3	15	2	6 to 19
Viscosity (ASTM D445)	1 to 2	3	15	2	6 to 19
Flash Point (ASTM D92)	1 to 2	3	15	2	6 to 19
Aromatics (ASTM D2007)	1 to 2	7	15	2	10 to 19
Cone Penetration (ASTM D217)	1 to 2	3	15	2	6 to 19
Resilience (ASTM D5329)	1 to 2	3	15	2	6 to 19
Settlement (AASHTO T 59)	1 to 2	7	30	2	10 to 34
Sieve Test (AASHTO T 59)	1 to 2	3	15	2	6 to 19
Demulsibility (AASHTO T 59)	1 to 2	3	15	2	6 to 19
Torsional Recovery (CT 332)	1 to 2	3	15	2	6 to 19
Penetration (AASHTO T 49)	1 to 2	3	15	2	6 to 19
Ring and Ball Softening Point Temperature (AASHTO T 53)	1 to 2	3	15	2	6 to 19
Field Softening Point (ASTM D36)	1 to 2	3	15	2	6 to 19
Elastic Recovery (AASHTO T 301)	1 to 2	4	15	2	7 to 19
Ductility (AASHTO T 51)	1 to 2	4	15	2	7 to 19
Bending Beam Rheometer (BBR) (AASHTO T 313)	1 to 2	5	8	2	8 to 12
HMA					
Gradation (AASHTO T 27)	1 to 2	1	3	2	4 to 7
Sand Equivalent (AASHTO T 176)	1 to 2	1	3	2	4 to 7
Los Angeles Rattler (AASHTO T 96)	1 to 2	2	4	2	5 to 8
Percentage of Crushed Particles (Coarse) (AASHTO T 335)	1 to 2	2	5	2	5 to 9
Percentage of Crushed Particles (Fine) (AASHTO T 335)	1 to 2	2	5	2	5 to 9
Flat and Elongated Particles (ASTM D4791)	1 to 2	2	4	2	5 to 8
Fine Aggregate Angularity (AASHTO T 304, Method A)	1 to 2	2	4	2	5 to 8
Asphalt Binder					
Flash Point (AASHTO T 48)	1 to 2	3	15	2	6 to 19
Solubility (AASHTO T 44)	1 to 2	3	15	2	6 to 19
Viscosity (AASHTO T 316)	1 to 2	3	15	2	6 to 19

Table 6-1.2. Time Required for Materials Acceptance Tests (3 of 4)

Material and Test	Sample to Lab (Note 1) (business days)	Lab Time Priority (Note 2) (business days)	Lab Time Normal (Note 2) (business days)	Reporting to Contractor (Note 3) (business days)	Total (business days)
HMA (Cont.)					
Dynamic Shear – Original Phase (AASHTO T 315)	1 to 2	3	15	2	6 to 19
Dynamic Shear – Rolling Thin Film Oven (RTFO) Phase (AASHTO T 315)	1 to 2	4	15	2	7 to 19
Dynamic Shear – Pressure Aging Vessel (PAV) Phase (AASHTO T 315)	1 to 2	5	15	2	8 to 19
RTFO Test (AASHTO T 240)	1 to 2	3	15	2	6 to 19
Ductility (AASHTO T 51)	1 to 2	3	15	2	6 to 19
Elastic Recovery (AASHTO T 301)	1 to 2	3	15	2	6 to 19
PAV (AASHTO R 28)	1 to 2	4	15	2	7 to 19
Creep and Stiffness (AASHTO T 313)	1 to 2	5	15	2	8 to 19
Binder Recovery (AASHTO T164 / ASTM D1856)	1 to 2	2	15	2	5 to 19
Binder Recovery (AASHTO R 59)	1 to 2	4	15	2	7 to 19
Asphalt Rubber Binder					
Cone Penetration (ASTM D217)	1 to 2	4	15	2	7 to 19
Resilience (ASTM D5329)	1 to 2	4	15	2	7 to 19
Softening Point (ASTM D36)	1 to 2	3	15	2	6 to 19
Viscosity (ASTM D7741)	1 to 2	3	15	2	6 to 19
Asphalt Modifier Properties (ASTM D445, ASTM D92, ASTM D2007)	1 to 2	3	15	2	6 to 19
Crumb Rubber Modifier (CRM) properties (CT 208, CT 385, ASTM D297)	1 to 2	7	30	2	10 to 34
Hot Mix Asphalt Mix					
Moisture Content (AASHTO T 329)	1 to 2	2	5	2	5 to 9
Asphalt Binder Content (AASHTO T 308, Method A)	1 to 2	2	5	2	5 to 9
Hamburg Wheel Track (AASHTO T 324 [Modified])	1 to 2	7	30	2	10 to 34
Bulk Specific Gravity (AASHTO T 275)	1 to 2	2	7	2	5 to 11
Maximum Theoretical Density (AASHTO T 209)	1 to 2	2	7	2	5 to 11
Field Softening Point (ASTM D36)	1 to 2	3	15	2	6 to 19
Elastic Recovery (AASHTO T 301)	1 to 2	4	15	2	7 to 19
Ductility (AASHTO T 51)	1 to 2	4	15	2	7 to 19
BBR (AASHTO T 313)	1 to 2	5	8	2	8 to 12

Table 6-1.2. Time Required for Materials Acceptance Tests (4 of 4)

Material and Test	Sample to Lab (Note 1) (business days)	Lab Time Priority (Note 2) (business days)	Lab Time Normal (Note 2) (business days)	Reporting to Contractor (Note 3) (business days)	Total (business days)
CONCRETE PAVEMENT					
Los Angeles Rattler (CT 211)	1 to 2	2	4	2	5 to 8
Cleanness Value (CT 227)	1 to 2	2	3	2	5 to 7
Gradation (CT 202)	1 to 2	1	3	2	4 to 7
Sand Equivalent (CT 217)	1 to 2	1	3	2	4 to 7
Modulus of Rupture (CT 523)	-	Age based	Age based	2	Age +2
Thickness (CT 531)	2	2	7	2	6 to 11
Dowel bar alignment and concrete consolidation	2	2	5	2	6 to 9
Tie bar alignment and concrete consolidation	2	2	5	2	6 to 9
Coefficient of Friction (CT 342)	7*	2	5	2	11 to 14
Inertial Profiler (AASHTO R 56 & R 57)	7*	3	7	2	12 to 16
CONCRETE STRUCTURES					
Los Angeles Rattler (CT 211)	1 to 2	2	4	2	5 to 8
Cleanness Value (CT 227)	1 to 2	2	3	2	5 to 7
Gradation (CT 202)	1 to 2	1	3	2	4 to 7
Sand Equivalent (CT 217)	1 to 2	1	3	2	4 to 7
Compressive Strength (CT 521)	-	Age based	Age based	2	Age +2
CONCRETE					
Gradation (CT 202)	1 to 2	1	3	2	4 to 7
Cement (Various)	1 to 2	35	60	2	38 to 64
Supplementary Cementitious Materials (Various)	1 to 2	35	60	2	38 to 64
Shrinkage (AASHTO T 160)	1 to 2	42	60	2	45 to 64

Notes:

1. Time to testing laboratory begins from time of sampling and includes any required field curing time and time required for transport to the testing laboratory.
2. Time in laboratory begins from time laboratory receives the sample and includes any required laboratory curing time before testing and time required to prioritize samples. This time also includes the lab manager's review of test results and the time to notify the resident engineer.
3. Reporting time begins when the test is provided to the resident engineer and ends when the contractor is notified of the test results.

* Days to schedule lab for testing

Table 6-1.3. Time Required for Products Acceptance Tests

Product	Minimum Time (Business Days)
Coating tests	3
Expansion joint material	3
Fencing, all types	2
Guide posts	3
Geosynthetic fabrics	3
Geosynthetic fabrics (UV testing)	45
Metal guardrail	7
Pavement markers	4
Prestressing steel	10
Reinforcing steel and wire	2
Rubber (accompanied by manufacturer test report)	3
Rubber (without test report)	14
Structural steel	10
Type B joint seal	7

6-102D Dispute Resolution Samples

Code of Federal Regulations, Title 23, Section 637.207 (23 CFR 637.207), "Quality Assurance Program," paragraph (a)(1)(iii), states, "If the results from the quality control sampling and testing are used in the acceptance program, the STD (state transportation department) shall establish a dispute resolution system. The dispute resolution system shall address the resolution of discrepancies occurring between the verification sampling and testing and the quality control sampling and testing." When specified, the engineer must split acceptance test samples and store the split samples in case of a disputed test result. Caltrans requires split samples to be stored in a facility under state control in case they are needed for dispute resolution.

6-102E Investigation Samples and Tests

Specific materials or quality problems such as pavement failures, difficulty in achieving percent of maximum theoretical density, or inconsistent test results may require special samples and tests. When materials problems are encountered, contact the district materials engineer. The district materials engineer may request help from METS and the Division of Construction. METS will request all acceptance test results and contractor quality control test results along with material-specific additional samples and tests in order to conduct a forensic investigation.

6-102F Research Samples and Tests

Pilot projects usually have special requirements for sampling and testing of materials.

Projects developed around research needs usually require larger samples and more frequent testing than what is required by Caltrans' acceptance testing minimum

frequencies. The unit that requested the research project will provide oversight for all of the special sampling and testing requirements.

6-103 Field Sampled Material Identification for Testing

Samples must be properly identified so the testing laboratory can function efficiently and report results to the project in a timely manner. In addition, accuracy in identifying where the material was placed in the project can be very useful if the material must be rejected by the engineer and then removed by the contractor.

For requesting faster processing of samples, use the "priority" designation as discussed in Section 6-102C, "Acceptance Samples and Tests," of this manual.

For field material samples, except for concrete cylinder compressive strength, use Form TL-0101, "Sample Identification Card." For concrete cylinder compressive strength, use Form TL-0502, "Field Sample of Portland Cement Concrete Sample Card."

In general, prepare Form TL-0101 as follows:

- Fill in every blank space with complete information, including the quantity and lot of material sampled.
- The "Location of Source" must clearly indicate the place (that is, behind paver, stockpile, cold feed belt) where the sample was taken.
- Indicate "Normal" for laboratory processing of sample or "Priority" if test result is needed quickly.
- If the sample was taken at the request of the contractor from local deposits as a potential source in accordance with Section 6-1.03, "Local Materials," of the *Standard Specifications,* note this under "Remarks." Request that the district materials laboratory provides the cost of testing so that Caltrans can be reimbursed by the contractor.
- To protect the sample identification card against moisture or stains, place it in a plastic bag or shipping label protector and tape it to the sample container.
- Distribute copies as shown on the form on the same day the sample is shipped.
- Prepare Form TL-0101 in accordance with the following details based on the type of material:
    - Aggregate sources must be in compliance with or not subject to the State Mining and Reclamation Act (SMARA). Verify that sources of aggregates are indicated and include the SMARA listing number. For additional information, refer to Section 7-103H (2), "Surface Mining and Reclamation Act," of this manual.
    - For hot mix asphalt (HMA) sample be sure to:
        1. Identify the HMA plant producing the material.
        2. Identify the job mix formula (JMF) producer identification number.
        3. Include the type of mix and aggregate grading specified.
        4. Under "Remarks," include the grade and source of the asphalt binder.

5. Under “Remarks,” include the percentage of asphalt binder designated in the JMF.

- For asphalt binder sample be sure to:

  1. Identify the HMA plant using the material.
  2. Identify the source of asphalt binder.

  A list of approved asphalt suppliers is available at:

  https://mets.dot.ca.gov/aml/AsphaltBindersList.php

  For nonapproved suppliers, identify the refinery and shipment number for each truckload.

- For tack coat or asphalt emulsion samples, be sure to:

  1. Identify the source of the asphalt binder or asphaltic emulsion.
  2. Under “Remarks” include the dilution rate (50/50 or 60/40) for asphaltic emulsions or enter “Not Diluted.”

- If the specification has requirements based on the use of the material, include the intended use under “Remarks.” This is especially important for electrical conductors, as the applicable specifications depend on where and how the conductor is used.

- Prepare Form TL-0502, “Field Sample of Portland Cement Concrete Sample Card,” for each set of two cylinders, set of three cylinders, or set of five cylinders shipped as follows:
  - Fill in every blank space with complete information.
  - Indicate sources of aggregates and include the SMARA listing number. Aggregate sources must be in compliance with or not subject to SMARA. For additional information, refer to Section 7-103H (2), “Surface Mining and Reclamation Act,” of this manual. Indicate in the space for water the total weight of water used per cubic yard of cementitious material in the mix based on actual weight (not design weight).
  - Under “Remarks,” indicate the specified concrete strength.
  - Under “Remarks,” indicate if the unit weight of the hardened concrete cylinders is required. The testing laboratory will not furnish unit weight data unless it is specifically requested.
  - To protect the sample card against moisture or stains, place it in a plastic bag or shipping label protector, and tape it to the sample container.
  - Distribute copies as shown on the form on the same day the sample is shipped.

A uniform system for marking cylinders is used. This system consists of the contract number and the sample number. The sample number consists of a series of digits separated by dashes (-) to indicate: method of storage for curing; age at which cylinders are to be tested; the cylinder number of the set of two, set of three, or set of five, that is to be tested; and project coding. Use a flow pen or permanent marker to mark the cylinders.

Following are examples of the cylinder marking system.

Example 6-1.1. Sample Cylinder Label (Set of either five 6- by 12-inchor five 4- by 8-inch cylinders)

Contract No. 03-100844

Sample No. 1-28-1/5_ _ _ _ _

Date Cast _____

Structure ID: 59-5629L

For sample shown in Example 6-1.1, (Set of either five 6- by 12-inch or five 4- by 8-inch cylinders):

- The first digit indicates method 1 storage for curing.
- The second two digits indicate that the cylinder is to be tested at 28 days.
- The 1/5 set indicates that it is the No. 1 cylinder of 5 cylinders. The No. 2 cylinder would be marked 2/5, and so on, for the remaining cylinders of the group.
- The last four spaces are reserved for any project coding consisting of numbers, letters, or a combination.

Note if only one sample card was made for five cylinders, the third symbol on the card would be 1,2,3,4,5/5.

Example 6-1.2. Sample Cylinder Label (Set of two 6- by 12-inch cylinders)

Contract No. 03-100844

Sample No. 2-14-2/2_ _ _ _

Date Cast _____

Structure ID: 59-5629L

For sample shown in Example 6-1.2 (Set of two 6- by 12-inch cylinders):

- The first digit indicates method 2 storage for curing.
- The second two digits indicate that the cylinder is to be tested at 14 days.
- The 2/2 set indicates that it is the No. 2 cylinder of a group of 2 cylinders.
- The last four spaces are reserved for any project coding consisting of numbers, letters or a combination.

Note if one sample card is made for the two cylinders, the third symbol on the card would be 1,2/2.

Example 6-1.3. Sample Cylinder Label (Set of three 4- by 8-inch cylinders)

Contract No. 03-100844

Sample No. 2-07-3/3_ _ _ _

Date Cast _____

Structure ID: 59-5629L

For sample shown in Example 6-1.3 (Set of three 4- by 8-inch cylinders)

• The first digit indicates method 2 storage for curing.

• The second two digits indicate that the cylinder is to be tested at 7 days.

• The 3/3 set indicates that it is the No. 3 cylinder of a group of 3 cylinders.

• The last four spaces are reserved for any project coding consisting of numbers, letters or a combination.

Note if one sample card is made for the three cylinders, the third symbol on the card would be 1,2,3/3.

6-104 Shipping of Field Samples

Based on turnaround time needed to receive a test result, ship samples from the job site to the laboratory using the most economical mode of transportation available consistent with the time element involved. Do not accumulate samples at the project site to save transportation costs.

Concrete cylinders are shipped to the laboratory in accordance with California Test 540, “Method of Test for Making and Curing Concrete Test Specimens in the Field.” Cylinders are shipped without removing the mold and are packed in cardboard containers available at the district warehouse.

If the district laboratory is equipped to test concrete cylinders, they should be shipped there. Otherwise cylinders may be delivered either to the Southern Regional Lab at 13970 Victoria Street, Fontana, CA 92336, or METS at 5900 Folsom Boulevard, Sacramento, CA 95819, whichever is more convenient. Ship concrete cylinders within the time limits specified in California Test 540 or the test result cannot be used as an acceptance test.

Shipping costs to district materials laboratories, the Southern Regional Lab, or METS, are to be prepaid.

6-105 Acceptance Records

Keep records of all samples and tests in the project files as permanent job records. Monitor acceptance testing frequency, results, and timelines by using Form CEM-3701, “Test Result Summary.” Corrective action or retesting of failing tests must be noted in the “Remarks” column of the form.

Documentation of the reason materials represented by failing tests were incorporated into the project must be included in the project files. For more information on procedures to follow in the case of failing tests, refer to Section 3-6, “Control of Materials,” of this manual.

It is not necessary to secure separate samples for each project when two or more projects receive materials from the same source. File a copy of the test report with each project.

6-106 Project Materials Certification

When construction work on the project is complete, prepare Form CEM-6302, “Final Materials Certification.” Use the form to certify that, other than for the exceptions listed

on the form, the results of tests performed on acceptance samples show that the materials used in the work controlled by sampling and testing conform to the approved plans and specifications.

If exceptions exist, check the exceptions box and note all nonconforming materials on the form. The following are examples of nonconforming materials that must be noted as exceptions:

- Materials accepted by applying a specified pay factor or deficiency adjustment, such as for hot mix asphalt, concrete pavement, or rapid-strength concrete.
- Materials out of "operating range" but within "contract compliance" for which a specified payment deduction was made.
- Materials not in compliance with the as-bid contract plans or specifications for which a change order was approved to accept the material.
- Materials that require certificates of compliance but one or more have not been submitted.

Sign the form and put the original in the project files. Send a copy to district Construction and, if the project is subject to Federal Highway Administration (FHWA) construction oversight activities, send a copy to the FHWA California division administrator. The name and address of the FHWA California division administrator is available at:

https://www.fhwa.dot.gov/cadiv/directory.cfm

6-107 Materials Acceptance Sampling and Testing

Sampling and testing materials and products must be in accordance with contract specifications. Sampling and testing are of equal importance for assuring materials and products meet acceptance specifications.

The tables that make up Table 6-1.4, "Materials Acceptance Sampling and Testing Requirements," contain Caltrans' minimum sampling and testing requirements for materials acceptance. The frequency of sampling and testing indicated in the tables is to be used under normal conditions. Materials that are marginal in meeting the specifications should be sampled and tested on a more frequent basis. Request "Priority" testing for samples taken on potentially marginal materials.

When shown in the tables that testing frequencies may be adjusted, document any adjustment in a "Memo to File." Place the "Memo to File" in the appropriate part of Category 37, "Initial Tests and Acceptance Tests," of the project files.

Adherence to the sample size requirements shown in the tables will prevent unnecessary delays and expense of obtaining supplementary samples to complete tests.

Refer to Section 6-105 "Acceptance Records," of this manual for documenting acceptance tests results. For more information on procedures to follow in the case of failing tests, refer to Section 3-6, "Control of Materials," of this manual.

Table 6-1.4. Materials Acceptance Sampling and Testing Requirements: Earthwork (*Standard Specifications* Section 19) (1 of 3)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
STRUCTURE BACKFILL (Section 19-3.02C)					
Sieve Analysis	California Test 202	50 lb	Materials site or stockpile	1 every 3,000 tons or 2,000 cu yd	If uniform material is within specification limits, test frequency may be decreased to 1 per day
Sand Equivalent	California Test 217	50 lb	Materials site or stockpile	1 every 3,000 tons or 2,000 cu yd	If uniform material is within specification limits, test frequency may be decreased to 1 per day
Relative Compaction	California Test 231	Sample for California Test 216	Project site in accordance with California Test 231	1 every 2,000 sq yd and test compaction at every 8 in. of thickness	Relative compaction test is required at each location structure backfill is placed
Maximum Wet Density	California Test 216	35 lb	Relative compaction test site locations	1 every relative compaction test	Wet common-composite test maximum value may be used in accordance with California Test 231
PERVIOUS BACKFILL MATERIAL (Section 19-3.02D)					
Sieve Analysis	California Test 202	50 lb	Stockpile	1 every 3,000 tons or 2,000 cu yd	If uniform material within specification limits, test frequency may be decreased to 1 per day
COMPACTION (Section 19-5)					
R-Value	California Test 301	50 lb	Project site	Test to verify R-value if differing site conditions are encountered	If R-value testing in the materials report is incomplete because of preproject conditions, then test to verify design R-value
Relative Compaction	California Test 231	Sample for California Test 216	California Test 216	1 every 2,000 sq yd	
Maximum Wet Density	California Test 216	35 lb	Relative compaction test site locations	1 every relative compaction test	

Table 6-1.4. Materials Acceptance Sampling and Testing Requirements: Earthwork (*Standard Specifications* Section 19) (2 of 3)

Test	Test Method	Sample Size & Container Size	Sampling Location (See Note 1)	Acceptance Test Frequency	Remarks
EMBANKMENT CONSTRUCTION (Section 19-6)					
Relative Compaction	California Test 231	Sample for California Test 216	Project site in accordance with California Test 231	1 every 2,000 sq yd and test compaction at every 8 in. of thickness	
Maximum Wet Density	California Test 216	35 lb	Relative compaction test site locations	1 every relative compaction test	Wet common-composite test maximum value may be used in accordance with California Test 231
GEOSYNTHETIC REINFORCED EMBANKMENT (Section 19-6.02B)					
Plasticity Index	California Test 204	50 lb	Materials site or stockpile	1 per source before use	
pH	California Test 643	50 lb	Materials site or stockpile	1 per source before use	
Sieve Analysis	California Test 202	50 lb	Stockpile	Before use, 1 every 3,000 tons or 2,000 cu yd	If material is uniform and well within specification limits, the test frequency may be decreased to 1 per day
BORROW MATERIAL (Section 19-7)					
R-Value	California Test 301	50 lb	Import borrow source	1 per source	Test for R-value only when an R-value is specified for import borrow in the special provisions; if material at import borrow source is not uniform, increase testing frequency

Table 6-1.4. Materials Acceptance Sampling and Testing Requirements: Earthwork (*Standard Specifications* Section 19) (3 of 3)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
SHOULDER BACKING (Section 19-9)					
Crushed Particles	California Test 205	50 lb	Materials site or stockpile	1 per project before use	
Durability	California Test 229	50 lb	Materials site or stockpile	1 per project before use	
Unit Weight	California Test 212 Rodding Method	50 lb	Materials site or stockpile	1 per project before use	
Sieve Analysis	California Test 202	50 lb	Materials site or stockpile	1 every 3,000 tons or 2,000 cu yd	If uniform material is within specification limits, test frequency may be decreased to 1 per day
Sand Equivalent	California Test 217	50 lb	Materials site or stockpile	1 every 3,000 tons or 2,000 cu yd	If uniform material is within specification limits, test frequency may be decreased to 1 per day

Note:

1. Refer to California Test 125 for sampling procedures.

Table 6-1.5. Materials Acceptance Sampling and Testing Requirements: Stabilized Soils (*Standard Specifications* Section 24) (1 of 3)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
LIME (Section 24-2.02)					
Various properties	See *Standard Specifications* Section 24-2.02	One 10-lb sample for each type and source of lime; use a 2-qt airtight container	Initial sample provided by contractor; subsequent sampling from mid-point of delivery	Each 100 tons of lime, 2 per day maximum	Must be on an Authorized Material List and certificate of compliance must accompany each shipment; recommend 1 acceptance test per 5 samples of lime
LIME TREATMENT					
DETERMINATION OF LIME APPLICATION RATE (Section 24-2.01D)					
Unconfined Compressive Strength	California Test 373	100 lb	Native soils; test each type of material to be treated	Before soil stabilization work and if source of lime changes	To determine appropriate lime content
Optimum Moisture Content	California Test 373	100 lb	Native soils; test each type of material to be treated	Before soil stabilization work	
VERIFICATION OF LIME APPLICATION RATE AND STABILIZED SOIL MIXTURE (Section 24-2.01D)					
Lime Application (Dry Form)	Calibrated tray method or equal	Building paper or pan of known area	Surface receiving lime	Each 40,000 sq ft, 2 per day minimum	To determine if application rate is within ± 5% of ordered application rate
Lime Application (Slurry Form)	Volumetric measurement that is then reduced to lime weight	Deter-mined over known area	Slurry holding tank	Each 40,000 sq ft, 2 per day minimum	To determine if application rate is within ± 5% of ordered application rate
Uniformity of Mixed Stabilized Soil	Phenolphthalein alcohol indicator solution spray	N/A	Representative areas	Each day at five separate locations	Taken after completion of initial mixing

Table 6-1.5. Materials Acceptance Sampling and Testing Requirements: Stabilized Soils (*Standard Specifications* Section 24) (2 of 3)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
VERIFICATION OF LIME APPLICATION RATE AND STABILIZED SOIL MIXTURE (Section 24-2.01D)					
Moisture Content of Mixed Stabilized Soil	California Test 226	0.25 lb each sample	Representa-tive areas at mid depth	Each day at five separate locations to verify contractor's quality control tests	Taken during mellowing period
Gradation of Mixed Stabilized Soil	California Test 202	25 lb	Representa-tive areas	1 every 4,000 sq yd, 1 per day minimum	Taken before compaction
MIXED STABILIZED SOIL (Sections 24-2.01 and 24-2.03)					
Relative Compaction	California Test 231	Sample for California Test 216	Project site in accordance with California Test 231	1 every 2,000 sq yd and test compaction at every 6 in. of thickness	
Maximum Wet Density	California Test 216	35 lb	Relative compaction test site locations	1 every relative compaction test	Wet common-composite test maximum value may be used in accordance with California Test 231
Dimensions	Measurement	N/A	Random locations in place after compaction	As necessary for verification of stabilized soil thickness and surface grades	

Table 6-1.5. Materials Acceptance Sampling and Testing Requirements: Stabilized Soils (*Standard Specifications* Section 24) (3 of 3)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
CURING SEAL-ASPHALTIC EMULSION (Section 24-1.02C)					
Various properties based on asphaltic emulsion type used	Based on asphaltic emulsion type used; see *Standard Specifications* Section 94	1 liter (or 1 qt) wide-mouth plastic bottle with screw on lids that are sealed with tape	Sampling line leading to the spray bar	1 each shipment	Each shipment must be accompanied by a certificate of compliance; recommend 1 random test from samples taken

Note:

1. Refer to California Test 125 for sampling procedures.

Table 6-1.6. Materials Acceptance Sampling and Testing Requirements: Aggregate Subbases (*Standard Specifications* Section 25)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
AGGREGATE SUBBASE					
Gradation (Sieve Analysis)	California Test 202	50 lb	Windrow or roadway	Every 3,000 tons or 2,000 cu yd (See Note 2)	If uniform material is within specification limits, frequency may be decreased to 1 test per day
Sand Equivalent	California Test 217	50 lb	Windrow or roadway	Every 3,000 tons or 2,000 cu yd (See Note 2)	If uniform material within specification limits, frequency may be decreased to 1 test per day
R-Value	California Test 301	50 lb	Windrow or roadway	Every 3,000 tons or 2,000 cu yd	R-value testing may be reduced to 1 acceptance test per project when test records demonstrate that comparable material from the same source meets minimum R-value requirements
Relative Compaction	California Test 231	Sample for California Test 216	Roadway in accordance with California Test 231	Every 2,000 sq yd	
Maximum Wet Density	California Test 216	35 lb	Relative compaction test site locations	Every 2,000 sq yd	Wet common-composite test maximum value may be used in accordance with California Test 231
Dimensions	N/A	N/A	Random locations	As necessary for acceptance	Verify thickness of aggregate subbase

Notes:

1. Refer to California Test 125 for sampling procedures.
2. If material is outside the specification limits, sample and test representative material every 500 cu yd so that deductions may be taken for noncompliant material.

Table 6-1.7. Materials Acceptance Sampling and Testing Requirements: Aggregate Bases (*Standard Specifications* Section 26)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
AGGREGATE BASES					
Gradation (Sieve Analysis)	California Test 202	50 lb	Windrow or roadway	Every 3,000 tons or 2,000 cu yd (See Note 2)	If uniform material is within specification limits, frequency may be decreased to 1 test per day
Sand Equivalent	California Test 217	50 lb	Windrow or roadway	Every 3,000 tons or 2,000 cu yd (See Note 2)	If uniform material is within specification limits, frequency may be decreased to 1 test per day
Resistance Value (R-Value)	California Test 301	50 lb	Windrow or roadway	Every 3,000 tons or 2,000 cu yd	R-value testing may reduced to 1 acceptance test per project when test records demonstrate that comparable material from the same source meets minimum R-value requirements
Durability Index	California Test 229	50 lb	Windrow or roadway	1 per project	Durability test not required for Class 3 aggregate base
Moisture	California Test 226	25 lb	Materials site or stockpile	2 daily when aggregate base is paid for by weight	
Relative Compaction	California Test 231	Sample for California Test 216	Roadway in accordance with California Test 231	Every 2,000 sq yd	
Maximum Wet Density	California Test 216	35 lb	Relative compaction test site locations	Every 2,000 sq yd	Wet common-composite test maximum value may be used in accordance with California Test 231
Dimensions	N/A	N/A	Random locations	As necessary for acceptance	Verify thickness of aggregate base

Notes:

1. Refer to California Test 125 for sampling procedures.

2. If material is outside the specification limits, sample and test representative material every 500 cu yd so that deductions may be taken for noncompliant material.

Table 6-1.8. Materials Acceptance Sampling and Testing Requirements: Cement Treated Bases (*Standard Specifications* Section 27) (1 of 3)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
CEMENT TREATED BASE Class A or Class B					
AGGREGATE					
Gradation (Sieve Analysis)	California Test 202, California Test 105	40 lb	Plant, truck, windrow, or roadway	1 every 3,000 tons or 2,000 cu yd, minimum 1 per day of production	
Sand Equivalent	California Test 217	40 lb	Plant, truck, windrow, or roadway	1 every 3,000 tons or 2,000 cu yd, minimum 1 per day of production	
AGGREGATE Class B					
R-Value (with and without cement)	California Test 301	100 lb for aggregate qualifica-tion	Windrow or roadway	Before production	
CEMENT Type II Portland Cement					
Various properties must comply with *Standard Specifications* Section 90-1.02B(2)	See *Standard Specifications* Section 90-1.02B(2)	8 lb	Cement treated base plant or cement spreader	1 each 100 tons of cement, 2 per day maximum	Recommend 1 acceptance test per project for cement from approved suppliers and certificate of compliance with each shipment
WATER					
Chlorides	California Test 422	Clean 2-qt plastic jug with lined, sealed lid	1 per source; at point of use		Water supplies for domestic use do not need to be tested

Table 6-1.8. Materials Acceptance Sampling and Testing Requirements: Cement Treated Bases (*Standard Specifications* Section 27) (2 of 3)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
WATER (Cont.)					
Sulfates	California Test 417	Clean 2-qt plastic jug with lined, sealed lid	1 per source; at point of use		Water supplies for domestic use do not need to be tested
COMPLETED MIX Class A					
Compressive Strength	California Test 312	See California Test 312, Part II	Windrow or roadway before compaction	1 per day	If first 3 days of production test records demonstrate materials are in compliance, recommend test every 5 days of production
COMPLETED MIX Class B					
R-Value	California Test 301	50 lb	Windrow or roadway before compaction	1 every 3,000 tons or 2,000 cu yd	Recommend R-value testing be reduced to 1 every 10,000 cu yd when test records demonstrate that material from the same source, and having comparable grading and sand equivalent values, meets the minimum R-value requirements

Table 6-1.8. Materials Acceptance Sampling and Testing Requirements: Cement Treated Bases (*Standard Specifications* Section 27) (3 of 3)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
COMPLETED MIX Class A and Class B					
Cement Content	California Test 338	See California Test 338, Part I	Windrow or roadway before compaction	1 every 1,500 tons or 1,000 cu yd, minimum 1 per day of production	
Optimum Moisture	California Test 312	See California Test 312	Windrow or roadway	Before production	
Moisture Content	California Test 226	10 lb in sealed container	Roadway before compaction	2 daily	
Relative Compaction	California Test 312 or 231	Sample for California Test 216	Roadway in accordance with California Test 231	1 every 2,000 sq yd	
Maximum Wet Density	California Test 216, California Test 312	35 lb	Relative compaction test site locations	1 every 2,000 sq yd	Wet common-composite test maximum value may be used in accordance with California Test 231
Dimensions	N/A	N/A	Random locations	As necessary for acceptance	Verify thickness of cement treated base

Note:

1. Refer to California Test 125 for sampling procedures.

Table 6-1.9. Materials Acceptance Sampling and Testing Requirements:
Concrete Bases (*Standard Specifications* Section 28)
Lean Concrete Base

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
LEAN CONCRETE BASES					
Compressive strength (7-days)	ASTM C39	6 cylinders 6x12 in. - 3 tests	Concrete truck discharge chute	1,000 cu yd or 1 day's production if less than 1,000 cu yd	
Compressive strength (3-days)	ASTM C39	6 cylinders 6x12 in. - 3 tests	Concrete truck discharge chute	1,000 cu yd or 1 day's production if less than 1,000 cu yd	Optional test to qualify for a transverse contraction joint waiver
RAPID STRENGTH CONCRETE BASE					
Modulus of rupture (7-days)	California Test 524	3 beams - 6x6x20 inches	Concrete truck discharge chute	1 per 500 cu yd or 1 day's production if less than 500 cu yd	
LEAN CONCRETE BASE RAPID SETTING					
Compressive strength (7-days)	California Test 521	6 cylinders 6x12 in. - 3 tests	Concrete truck discharge chute	1 per 500 cu yd or 1 day's production if less than 500 cu yd	
CONCRETE BASE					
Modulus of rupture (7-days)	California Test 523	2 beams of 6x6x32 in. for centerpoint loading or 6x6x20 in. for third-point loading	Concrete truck discharge chute	1,000 cu yd or 1 day's production if less than 1,000 cu yd	
Dimensions	N/A	N/A	Random locations	As necessary for acceptance	Verify thickness of base

Note:

1. Refer to California Test 125 for sampling procedures.

Table 6-1.10. Materials Acceptance Sampling and Testing Requirements:
Treated Permeable Bases (*Standard Specifications* Section 29)
Asphalt Treated Permeable Base (ATPB) (1 of 4)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
AGGREGATE					
Percentage Crushed Particles	California Test 205	Combined two 40-lb canvas bags (See Note 2) or Batch 160 lb (proportioned per bin percentages)	Plant	Before production and minimum 1 random for every 50,000 tons or less of paving	
Los Angeles Rattler (at 500 revolutions)	California Test 211	Combined two 40-lb canvas bags (See Note 2) or Batch 160 lb (proportioned per bin percentages)	Plant	Before production and minimum 1 random for every 50,000 tons or less of paving	
Film Stripping	California Test 302	Combined two 40-lb canvas bags (See Note 2) or Batch 160 lb (proportioned per bin percentages)	Plant	Before production and minimum 1 random for every 50,000 tons or less of paving	
Gradation (Sieve Analysis)	California Test 202	Combined two 20-lb canvas bags (See Note 3) or Batch 40 lb (proportioned per bin percentages)	Plant	1 for every 4 hours of production	

Table 6-1.10. Materials Acceptance Sampling and Testing Requirements:
Treated Permeable Bases (*Standard Specifications* Section 29)
Asphalt Treated Permeable Base (ATPB) (2 of 4)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
AGGREGATE (Cont.)					
Cleanness Value	California Test 227	Combined two 20-lb canvas bags (See Note 3) or Batch 40 lb (proportioned per bin percentages)	Plant	1 for every 4 hours of production	Recommend 1 acceptance test per day if 3 consecutive results exceed 62
ASPHALT					
Various properties based on asphalt type used; see *Standard Specifications* Section 92	Based on asphalt type used; see *Standard Specifications* Section 92	1-qt double-seal friction-top metal cylindrical shaped can	Asphalt feed line connecting plant storage tanks	1 per day	Certificate of compliance required for each shipment; if asphalt binder source is not on approved list, sample and test asphalt before use
COMPLETED MIX					
Asphalt Content	California Test 382	40 lb in metal containers	Plant, truck, windrow, or roadbed	1 for every 4 hours of production	
AGGREGATE					
Los Angeles Rattler (loss at 500 revolutions)	California Test 211	50 lb	Plant	Before production and minimum 1 random for every 25,000 cu yd	
Soundness	California Test 214	50 lb	Plant		
Sieve Analysis (Gradation)	California Test 202	40 lb	Plant	1 for every 4 hours of production; (See Note 4)	

Table 6-1.10. Materials Acceptance Sampling and Testing Requirements:
Treated Permeable Bases (*Standard Specifications* Section 29)
Asphalt Treated Permeable Base (ATPB) (3 of 4)

Test	Test Method	Sample Size & Container Size	Sampling Location (See Note 1)	Acceptance Test Frequency	Remarks
AGGREGATE (Cont.)					
Cleanness Value	California Test 227				
CEMENT					
Cement, various properties; must comply with *Standard Specifications* Section 90-1.02B(2)	Must comply with *Standard Specifications* Section 90-1.02B(2)	8 lb	Concrete plant	1 for each 100 tons, 2 per day max	Recommend 1 acceptance test per project for cement from approved suppliers with certificate of compliance
WATER					
Chlorides	California Test 422	Clean 2-qt plastic jug with lined, sealed lid At point of use; see Remarks	1 per source		Water supplies for domestic use do not need to be tested
Sulfates	California Test 417	Clean 2-qt plastic jug with lined, sealed lid At point of use; see Remarks	1 per source		Water supplies for domestic use do not need to be tested
Setting Time	ASTM C 191 or ASTM C 266	Contact METS for required quantity of water sample	At point of use	1 per source	Water supplies for domestic use do not need to be tested
Mortar Compressive Strength	ASTM C109	Contact METS for required quantity of water sample	At point of use	1 per source	Water supplies for domestic use do not need to be tested
Coloring Agents	Must comply with *Standard Specifications* Section 90-1.02D	Contact METS for required quantity of water sample	At point of use	1 per source	Water supplies for domestic use do not need to be tested

Table 6-1.10. Materials Acceptance Sampling and Testing Requirements: Treated Permeable Bases (*Standard Specifications* Section 29) Asphalt Treated Permeable Base (ATPB) (4 of 4)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
WATER					
Alkalis	Must comply with *Standard Specifications* Section 90-1.02D	Contact METS for required quantity of water sample	At point of use	1 per source	Water supplies for domestic use do not need to be tested
Specific Gravity	Must comply with *Standard Specifications* Section 90-1.02D	Contact METS for required quantity of water sample	At point of use	1 per source	Water supplies for domestic use do not need to be tested

Notes:

1. Refer to California Test 125 for sampling procedures.
2. Store one 40-lb canvas bag for dispute resolution.
3. Store one 20-lb. canvas bag for dispute resolution.
4. If test records determine that aggregate gradation or cleanness value is close to specification limit or outside the specification limits, sample and test concrete every 300 cu yd so that deductions may be taken for noncompliant material.

Table 6-1.11. Materials Acceptance Sampling and Testing Requirements: Recycled Pavement (*Standard Specifications* Section 30)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
FULL-DEPTH RECYCLING WITH NO STABILIZER (Section 30-2)					
Thickness	Thickness-Field Measurement	Field Measurement	Random location	3 per lot	
Relative Compaction (% min)	California Test 231	Sample for California Test 216	In accordance with California Test 231	1 every 2,000 sq yd and test compaction at every 6 in. of thickness	
FULL DEPTH RECYCLING–FOAMED ASPHALT (Section 30-3)					
Relative Compaction (% min)	California Test 231	Sample for California Test 216	In accordance with California Test 231	1 every 2,000 sq yd and test compaction at every 6 in. of thickness	
Thickness	Thickness	California Test 531. 4- or 6-in.-diameter core, full thickness	3 random locations per lot	See Section 4-4004 of this manual	
FULL DEPTH RECYCLING—Cement (Section 30-4)					
Thickness	Thickness-Core thickness measurement	California Test 531, 4- or 6-in.-diameter core, full thickness	3 random locations per lot	See Section 4-4004 of this manual	
Cement application rate	Calibrated tray or equal	Building paper or pan of known area	Surface receiving cement	Each 40,000 sq ft, 2 per day minimum	To determine if application rate is within ± 5% of mix design rate
Relative Compaction (% min)	California Test 231	Sample for California Test 216	In accordance with California Test 231	1 every 2,000 sq yd and test compaction at every 6 in. of thickness	

Notes:

1. Refer to California Test 125 for sampling procedures.

Table 6-1.12. Materials Acceptance Sampling and Testing Requirements: Bituminous Seals (*Standard Specifications* Section 37) (1 of 9)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
ASPHALTIC EMULSION AND ASPHALTIC EMULSION FOR FLUSH COAT					
Various properties in accordance with Section 37 of *Standard Specifications*	See Section 37-2.02A(4)(b)(ii) of *Standard Specifications*	1 liter (or 1 qt) wide-mouth plastic bottle with screw on lids that are sealed with tape	Transport tanker	Each shipment	Certificate of compliance required with each shipment
Asphaltic emulsion spread rate	CT 339	Per test method	Full width of boot truck	Once per project	
POLYMER MODIFIED ASPHALTIC EMULSION					
Viscosity	AASHTO T 59	1 liter (or 1 qt) wide-mouth plastic bottle with screw on lids that are sealed with tape	Transport tanker	Each shipment	Certificate of compliance required with each shipment
Sieve Test	AASHTO T 59	1 liter (or 1 qt) wide-mouth plastic bottle with screw on lids that are sealed with tape	Transport tanker	Each shipment	Certificate of compliance required with each shipment
Demulsibility	AASHTO T 59	1 liter (or 1 qt) wide-mouth plastic bottle with screw on lids that are sealed with tape	Transport tanker	Each shipment	Certificate of compliance required with each shipment

Table 6-1.12. Materials Acceptance Sampling and Testing Requirements: Bituminous Seals (*Standard Specifications* Section 37) (2 of 9)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
POLYMER MODIFIED ASPHALTIC EMULSION (Cont.)					
Torsional Recovery	California Test 332	1 liter (or 1 qt) wide-mouth plastic bottle with screw on lids that are sealed with tape	Transport tanker	Each shipment	Certificate of compliance required with each shipment
Penetration	AASHTO T 49	1 liter (or 1 qt) wide-mouth plastic bottle with screw on lids that are sealed with tape	Transport tanker	Each shipment	Certificate of compliance required with each shipment
Ring and Ball	AASHTO T 53	1 liter (or 1 qt) wide-mouth plastic bottle with screw on lids that are sealed with tape	Transport tanker	Each shipment	Certificate of compliance required with each shipment

Table 6-1.12. Materials Acceptance Sampling and Testing Requirements: Bituminous Seals (*Standard Specifications* Section 37) (3 of 9)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
ASPHALT MODIFIER FOR ASPHALT RUBBER BINDER					
Viscosity	ASTM D445	1-qt round wide-mouth can with friction top lid or 1-qt rectangular can with screw-on lid	Sample port on tanker truck	1 random per project	
Flash Point	ASTM D92	1-qt round wide-mouth can with friction top lid or 1-qt rectangular can with screw-on lid	Sample port on tanker truck	1 random per project	
Molecular Analysis	ASTM D2007	1-qt round wide-mouth can with friction top lid or 1-qt rectangular can with screw-on lid	Sample port on tanker truck	1 random per project	
CRUMB RUBBER MODIFIER FOR ASPHALT RUBBER BINDER					
Wire in CRM (max %)	CT 385	CRM scrap tire: Two 2.5 lb in gallon zip-lock bags CRM high natural: Two 2.5 lb in gallon zip-lock bags	CRM bulk bag	Minimum 1 random per project	

Table 6-1.12. Materials Acceptance Sampling and Testing Requirements: Bituminous Seals (*Standard Specifications* Section 37) (4 of 9)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
CRUMB RUBBER MODIFIER FOR ASPHALT RUBBER BINDER (Cont.)					
Fabric in CRM (max %)	CT 385	CRM scrap tire: Two 2.5 lb in gallon zip-lock bags CRM high natural: Two 2.5 lb in gallon zip-lock bags	CRM bulk bag	Minimum 1 random per project	
CRM particle length		CRM scrap tire: Two 2.5 lb in gallon zip-lock bags CRM high natural: Two 2.5 lb in gallon zip-lock bags	CRM bulk bag	Minimum 1 random per project	
CRM specific gravity	CT 208				
Natural rubber content in high nature CRM (%)	ASTM D297				
ASPHALT RUBBER BINDER					
Cone Penetration		1-qt double-seal friction-top metal cylindrical shaped can	Asphalt feed line connecting to the HMA plant	Production start-up evaluation and 1 random per 5 samples	Certificate of compliance required with each shipment

Table 6-1.12. Materials Acceptance Sampling and Testing Requirements: Bituminous Seals (*Standard Specifications* Section 37) (5 of 9)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
ASPHALT RUBBER BINDER (Cont.)					
Resilience		1-qt double-seal friction-top metal cylindrical shaped can	Asphalt feed line connecting to the HMA plant	Production start-up evaluation and 1 random per 5 samples	Certificate of compliance required with each shipment
Softening point		1-qt double-seal friction-top metal cylindrical shaped can	Asphalt feed line connecting to the HMA plant	Production start-up evaluation and 1 random per 5 samples	Certificate of compliance required with each shipment
Asphalt Rubber Binder Viscosity	ASTM D7741	1 gal metal cylindrical shaped can with double-seal friction top	Asphalt storage tank	The greater of 1 every 5 lots or once a day	For safety, engineer may witness contractor perform test
Base Asphalt Binder Properties	See *Standard Specifications* Section 92	Five 1-qt double-seal friction-top metal cylindrical shaped can	Asphalt storage tank	The greater of 1 every 5 lots or once a day	Certificate of compliance required for each shipment; if asphalt binder source is not on approved list, test before use
SCREENINGS/AGGREGATE FOR CHIP SEALS					
LA Rattler	California Test 211	50 lb in canvas bags or 5-gal buckets	Stockpile	Once per project	
% Crushed Particles	AASHTO T 335	50 lb in canvas bags or 5-gal buckets	Stockpile	Once per project	

Table 6-1.12. Materials Acceptance Sampling and Testing Requirements: Bituminous Seals (*Standard Specifications* Section 37) (6 of 9)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
SCREENINGS/AGGREGATE FOR CHIP SEALS					
Film Stripping	California Test 302	50 lb in canvas bags or 5-gal buckets	Stockpile	Once per project	
Sieve Analysis	California Test 202	30 lb	Stockpile	Twice daily	
Cleanness Value	California Test 227	30 lb	Stockpile	Once daily	
SAND FOR FLUSH COAT					
Sieve Analysis	California Test 202	25 lb	Stockpile	Once per project	
CRACK TREATMENTS					
Crack Treatment Material					
Softening point	ASTM D36	2 each 3-lb minimum samples in silicone release boxes	From crack treatment material dispensing wand	Once per project	Indicate the specified type of crack treatment material on the TL-0101
Cone penetration	ASTM D5329	2 each 3-lb minimum samples in silicone release boxes	From crack treatment material dispensing wand	Once per project	Indicate the specified type of crack treatment material on the TL-0101
Resilience	ASTM D5329	2 each 3-lb minimum samples in silicone release boxes	From crack treatment material dispensing wand	Once per project	Indicate the specified type of crack treatment material on the TL-0101

Table 6-1.12. Materials Acceptance Sampling and Testing Requirements: Bituminous Seals (*Standard Specifications* Section 37) (7 of 9)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
CRACK TREATMENTS (Cont.)					
Crack Treatment Material					
Tensile adhesion	ASTM D5329	2 each 3-lb minimum samples in silicone release boxes	From crack treatment material dispensing wand	Once per project	Indicate the specified type of material on the TL-0101
Asphalt compatibility	ASTM D5329	2 each 3-lb minimum samples in silicone release boxes	From crack treatment material dispensing wand	Once per project	Indicate the specified type of material on the TL-0101
Flexibility	ASTM D3111	2 each 3-lb minimum samples in silicone release boxes	From crack treatment material dispensing wand	Once per project	Indicate the specified type of material on the TL-0101
Specific gravity	ASTM D70	2 each 3-lb minimum samples in silicone release boxes	From crack treatment material dispensing wand	Once per project	Indicate the specified type of material on the TL-0101
Sieve test	See note in Section 37-6.01D(3) "Department Acceptance" of the *Standard Specifications*	2 each 3-lb minimum samples in silicone release boxes	From crack treatment material dispensing wand	Once per project	Indicate the specified type of material on the TL-0101

Table 6-1.12. Materials Acceptance Sampling and Testing Requirements: Bituminous Seals (*Standard Specifications* Section 37) (8 of 9)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
SAND FOR CRACK TREATMENT					
Sieve Analysis	California Test 202	25 lb	Stockpile	Once per project	
SLURRY SEAL AGGREGATE					
Los Angeles Rattler (loss at 500 revolutions)	California Test 211	50 lb	Stockpile	Once per project	
Percentage of Crushed Particles	California Test 205	50 lb	Stockpile	Once per project	
Film Stripping	California Test 302	50 lb	Stockpile	Once per project	
Durability Index	California Test 229	50 lb	Stockpile	Once per project	
Sieve Analysis	California Test 202, California Test 105	30 lb	Stockpile	Once daily	
Sand Equivalent	California Test 217	30 lb	Stockpile	Once daily	
MICRO-SURFACING AGGREGATES					
Los Angeles Rattler (loss at 500 revolutions)	California Test 211	50 lb	Stockpile	Once per project	
Percentage of Crushed Particles	California Test 205	50 lb	Stockpile	Once per project	
Durability Index	California Test 302	50 lb	Stockpile	Once per project	

Table 6-1.12. Materials Acceptance Sampling and Testing Requirements: Bituminous Seals (*Standard Specifications* Section 37) (9 of 9)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
MICRO-SURFACING AGGREGATES (Cont.)					
Sieve Analysis	California Test 202	30 lb	Stockpile	Once daily	
Sand Equivalent	California Test 217	30 lb	Stockpile	Once daily	

Note:

1. Refer to California Test 125 for sampling procedures.

Table 6-1.13. Materials Acceptance Sampling and Testing Requirements: Asphalt Concrete (*Standard Specifications* Section 39) (1 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
AGGREGATE: All Types of HMA						
Gradation (Sieve Analysis) (See Note 2)	AASHTO T 27, California Test 105, California Test 384	Combined six 20-lb canvas bags (see See Note 3) or Batch 30 lb (proportioned per bin percentages)	HMA plant	For standard process, 1 for each 750 tons, 1 per day minimum For statistical pay factor (SPF) process, per stratified random sampling plan (See Notes 10 and 11)	Production start-up evaluation. For standard process, minimum 1 per day of paving For SPF process, test per stratified random sampling plan (See Note 14)	
Sand Equivalent	AASHTO T 176	Combined six 20-lb canvas bags (See Note 3) or Batch 30 lb (proportioned per bin percentages)	HMA plant or before lime treatment	For standard process, 1 for each 750 tons, 1 per day minimum, For SPF process, same frequency as gradations	Production start-up evaluation. For standard process, minimum 1 per day of paving For SPF process, test with gradation samples	Not required for OGFC (open graded friction course)

Table 6-1.13. Materials Acceptance Sampling and Testing Requirements: Asphalt Concrete (*Standard Specifications* Section 39) (2 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
AGGREGATE: All Types of HMA						
Percent Crushed Particles (Coarse)	AASHTO T 335	Combined six 20-lb canvas bags (See Note 3) or Batch 30 lb (proportioned per bin percentages)	HMA plant or before lime treatment	1 for each 750 tons, 1 per day minimum For the SPF process, see Note 17	Production start-up evaluation, and minimum 1 random for every 25,000 tons or less of paving For the SPF process, see Note 17	
Percent Crushed Particles (Fine)	AASHTO T 335	Combined six 20-lb canvas bags (See Note 3) or Batch 30 lb (proportioned per bin percentages)	HMA plant or before lime treatment	1 for each 750 tons, 1 per day minimum For the SPF process, see Note 17	Production start-up evaluation, and minimum 1 random for every 25,000 tons or less of paving For the SPF process, see Note 17	
LA Rattler (500 Revolutions)	AASHTO T 96	Combined six 20-lb canvas bags (See Note 3) or Batch 30 lb (proportioned per bin percentages)	HMA plant or before lime treatment	1 for each 750 tons, 1 per day minimum For the SPF process, see Note 17	Production start-up evaluation, and minimum 1 random for every 50,000 tons or less of paving For the SPF process, see Note 17	

Table 6-1.13. Materials Acceptance Sampling and Testing Requirements: Asphalt Concrete (*Standard Specifications* Section 39) (3 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
AGGREGATE: All Types of HMA (Cont.)						
LA Rattler (100 Revolutions)	AASHTO T 96	Combined six 20-lb canvas bags (See Note 3) or Batch 30 lb (proportioned per bin percentages)	HMA plant or before lime treatment	1 for each 750 tons, 1 per day minimum For the SPF process, see Note 17	Production start-up evaluation, and minimum 1 random for every 50,000 tons or less of paving For the SPF process, see Note 17	
Fine Aggregate Angularity	AASHTO T 304, Method A	Combined six 20-lb canvas bags (See Note 3) or Batch 30 lb (proportioned per bin percentages)	HMA plant or before lime treatment	1 for each 750 tons, 1 per day minimum For the SPF process, see Note 17	Production start-up evaluation, and minimum 1 random for every 50,000 tons or less of paving For the SPF process, see Note 17	Not required for OGFC or Minor HMA
Flat and Elongated Particles	ASTM D4791	Combined six 20-lb canvas bags (See Note 3) or Batch 30 lb (proportioned per bin percentages)	HMA plant or before lime treatment	1 for each 750 tons, 1 per day minimum For the SPF process, see Note 17	Production start-up evaluation, and minimum 1 random for every 50,000 tons or less of paving For the SPF process, see Note 17	Not required for Minor HMA

Table 6-1.13. Materials Acceptance Sampling and Testing Requirements: Asphalt Concrete (*Standard Specifications* Section 39) (4 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
ASPHALT BINDER						
Various properties based on asphalt type used (see *Standard Specifications* Section 92)	See *Standard Specifications* Section 92	1-qt double-seal friction-top metal cylindrical shaped can	Asphalt feed line connecting the plant storage tanks	1 per day of HMA production	1 random for every 5 samples	Certificate of compliance required for each shipment; if asphalt binder source is not on approved list, sample and test asphalt before use
ASPHALT RUBBER BINDER						
Asphalt Rubber Binder Properties	See *Standard Specifications* Section 39-2.03A(4)(e)(ii)	1-qt double-seal friction-top metal cylindrical shaped can	Asphalt rubber feed line from the HMA plant	1 every lot	Production start-up evaluation and 1 random per 5 samples	Certificate of compliance required for each lot
Asphalt Rubber Binder Viscosity	ASTM D7741	1 gal double-seal friction-top metal cylindrical shaped can	Asphalt rubber feed line connecting to the HMA plant	1 every lot	1 every lot	For safety, engineer may witness contractor perform test

Table 6-1.13. Materials Acceptance Sampling and Testing Requirements: Asphalt Concrete (*Standard Specifications* Section 39) (5 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
ASPHALT RUBBER BINDER (Cont.)						
Base Asphalt Binder Properties	See *Standard Specifications* Section 92	1-qt double-seal friction-top metal cylindrical shaped can	Asphalt storage tank	Each shipment	Production start-up evaluation and 1 random per 5 samples	Certificate of compliance required for each shipment; if asphalt binder source is not on approved list, sample and test asphalt before use
Asphalt Modifier Properties	ASTM D445 ASTM D92 ASTM D2007	1-qt double-seal friction-top metal cylindrical shaped can or 1-qt rectangular can with screw-on lid	Sample port on tanker truck	Each shipment	1 random per project	
Crumb Rubber Modifier (CRM) Properties	California Test 208, California Test 385, ASTM D297	CRM scrap tire: Two 2.5 lb in gallon zip-lock bags; CRM high natural: Two 2.5 lb in gallon zip-lock bags	CRM bulk bag	Each shipment	1 random per project	

Table 6-1.13. Materials Acceptance Sampling and Testing Requirements: Asphalt Concrete (*Standard Specifications* Section 39) (6 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
HOT MIX ASPHALT: Type A						
Moisture Content	AASHTO T 329	10 lb, sealed metal container	Loose mix from behind the paver (See Note 4)	Production start-up evaluation, and minimum 1 per project	Production start-up evaluation, and minimum 1 per project during paving	Test within 1 hour of sampling
Asphalt Binder Content	AASHTO T 308, Method A	60 lb (See Notes 5 and 18) (8x8x4=6 boxes, 8½x8½x4½=4 boxes) (See Notes 5 and 18)	Loose mix from behind the paver (See Note 4)	For standard process, 1 for each 750 tons, 1 per day minimum. For SPF process, per stratified random sampling plan (See Notes 10 and 11)	Production start-up evaluation; For standard process, minimum 1 per day of paving For SPF process, per stratified random sampling plan (See Note 14)	
Maximum Theoretical Density	AASHTO T 209	60 lb (See Notes 5 and 18) (8x8x4=6 boxes, 8½x8½x4½=4 boxes) (See Notes 5 and 18)	Loose mix from behind the paver (See Note 4)	For standard process, 1 for each 750 tons, 1 per day minimum For SPF process, two samples per shift with verification density cores (See Notes 10 and 13)	Production start-up evaluation. For standard process, 1 random test per day of paving For SPF process, per stratified random sampling plan	

Table 6-1.13. Materials Acceptance Sampling and Testing Requirements: Asphalt Concrete (*Standard Specifications* Section 39) (7 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (See Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
HOT MIX ASPHALT: Type A (Cont.)						
Air Void Content	AASHTO T 269	100 lb (See Note 5) (8x8x4=10 boxes, 8½x8½x4½=8 boxes)	Loose mix from behind the paver (See Note 4)	Production start-up evaluation, 1 every 25,000 tons of paving. For HMA placed using SPF, see Notes 10 and 11	Production start-up evaluation, and minimum 1 random for every 25,000 tons of paving, except for HMA placed using SPF, see Note 14	
Voids in Mineral Aggregate	SP-2 Asphalt Mixture Volumetrics	100 lb (See Note 5) (8x8x4=10 boxes, 8½x8½x4½=8 boxes)	Loose mix from behind the paver (See Note 4)	Production start-up evaluation, 1 every 25,000 tons of paving	Production start-up evaluation, and minimum 1 random for every 25,000 tons of paving	
Dust Proportion	SP-2 Asphalt Mixture Volumetrics	100 lb (See Note 5) (8x8x4=10 boxes, 8½x8½x4½=8 boxes)	Loose mix from behind the paver (See Note 4)	Production start-up evaluation, 1 every 25,000 tons of paving	Production start-up evaluation, and minimum 1 random for every 25,000 tons of paving	

Table 6-1.13. Materials Acceptance Sampling and Testing Requirements: Asphalt Concrete (*Standard Specifications* Section 39) (8 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
HOT MIX ASPHALT: Type A (Cont.)						
Hamburg Wheel Track	California Test 389	70 lb (See Notes 5 and 18) (8x8x4=7 boxes, 8½x8½x4½=6 boxes)	Loose mix at plant, truck, or windrow	Production start-up evaluation, 1 every 10,000 tons of paving For SPF process, see Note 16	Production start-up evaluation, and minimum 1 random for every 10,000 tons or less of paving For SPF process, see Note 16	Not required for Minor HMA
Moisture Susceptibility	AASHTO T 283	140 lb (See Notes 5, 6 and 18) (8x8x4=15 boxes, 8½x8½x4½=12 boxes)	Loose mix at plant, truck, or windrow	Production start-up evaluation, 1 every 50,000 tons of paving	Production start-up evaluation, and minimum 1 random test for every 50,000 tons of paving	Test for dry strength and wet strength; not required for Minor HMA
HOT MIX ASPHALT: With RAP/RAS						
Binder Recovery	AASHTO T 164 ASTM D1856	10 lb (8x8x4=1 box, 8½x8½x4½=1 box) (See Note 18)	Loose mix from behind the paver (See Note 4)	Production start-up evaluation, 1 every 25,000 tons of paving	1 random for every 25,000 tons or less of paving	

Table 6-1.13. Materials Acceptance Sampling and Testing Requirements: Asphalt Concrete (*Standard Specifications* Section 39) (9 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
RUBBERIZED HOT MIX ASPHALT: Gap Graded						
Moisture Content	AASHTO T 329	10 lb, sealed metal container	Loose mix from behind the paver (See Note 4)	Production start-up evaluation, and minimum 1 per project	Production start-up evaluation, and minimum 1 per project during paving	Test within 1 hour of sampling
Asphalt Binder Content	AASHTO T 308, Method A	60 lb (See Notes 5 and 18) (8x8x4=6 boxes, 8½x8½x4½=4 boxes)	Loose mix from behind the paver (See Note 4)	1 for each 750 tons, 1 per day minimum. For HMA placed using SPF, see Notes 10 and 11	Production start-up evaluation; 1 random test per day of paving. For HMA placed using SPF, see Note 10	
Maximum Theoretical Density	AASHTO T 209	60 lb (See Notes 5 and 18) (8x8x4=6 boxes, 8½x8½x4½=4 boxes)	Loose mix from behind the paver (See Note 4)	1 for each 750 tons, 1 per day minimum. For HMA placed using SPF, see Notes 11 and 13	Production start-up evaluation; minimum 1 per day of paving, except for HMA placed using SPF, see Notes 10 and 13	

Table 6-1.13. Materials Acceptance Sampling and Testing Requirements: Asphalt Concrete (*Standard Specifications* Section 39) (10 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
RUBBERIZED HOT MIX ASPHALT: Gap Graded (Cont.)						
Air Void Content	AASHTO T 269	100 lb (See Notes 5 and 18) (8x8x4= 10 boxes, 8½x8½x4½=8 boxes)	Loose mix from behind the paver (See Note 4)	Production start-up evaluation, 1 every 25,000 tons of paving. For HMA placed using SPF, see notes 10 and 11	Production start-up evaluation, and minimum 1 random test for every 25,000 tons of paving For SPF process, test per stratified random sampling plan. See note 14	
Voids in Mineral Aggregate	SP-2 Asphalt Mixture Volumetrics	100 lb (See Notes 5 and 18) (8x8x4= 10 boxes, 8½x8½x4½=8 boxes)	Loose mix from behind the paver (See Note 4)	Production start-up evaluation, 1 every 25,000 tons of paving	Production start-up evaluation, and minimum 1 random test for every 25,000 tons of paving	
Dust Proportion	SP-2 Asphalt Mixture Volumetrics	100 lb (See Notes 5 and 18) (boxes, 8x8x4=10 boxes, 8½x8½x4½=8 boxes)	Loose mix from behind the paver (See Note 4)	Production start-up evaluation, 1 every 25,000 tons of paving	Production start-up evaluation, and minimum 1 random test for every 25,000 tons of paving	

Table 6-1.13. Materials Acceptance Sampling and Testing Requirements: Asphalt Concrete (*Standard Specifications* Section 39) (11 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
RUBBERIZED HOT MIX ASPHALT: Gap Graded (Cont.)						
Hamburg Wheel Track	California Test 389	75 lb (See Notes 5 and 18) (8x8x4=7 boxes, 8½x8½x4½=6 boxes)	Loose mix at plant, truck, or windrow	Production start-up evaluation 1 every 10,000 tons of paving For SPF process, see Note 16	Production start-up evaluation, and minimum 1 random test for every 10,000 tons or less of paving For SPF process, see Note 16	
Moisture Susceptibility	AASHTO T 283	75 lb (See Notes 5, 6 and 18) (8x8x4= 15 boxes, 8½x8½x4½=12 boxes)	Loose mix at plant, truck, or windrow	Production start-up evaluation, 1 every 50,000 tons of paving	Production start-up evaluation, and minimum 1 random test for every 50,000 tons of paving	Test for dry strength and wet strength
OPEN GRADED FRICTION COURSE (OGFC)						
Asphalt Binder Content	AASHTO T 308, Method A	20 lb (See Note 5) 4, 1-gal metal containers with friction lids	Loose mix from behind the paver (See Note 4)	1 for each 750 tons, 1 per day minimum	Production start-up evaluation; minimum 1 per day of paving	

Table 6-1.13. Materials Acceptance Sampling and Testing Requirements: Asphalt Concrete (*Standard Specifications* Section 39) (12 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
OPEN GRADED FRICTION COURSE (OGFC) (Cont.)						
Moisture Content	AASHTO T 329	10 lb, sealed metal container	Loose mix from behind the paver (See Note 4)	Production start-up evaluation, and minimum 1 per project	Production start-up evaluation, and minimum 1 per project during paving	Test within 1 hour of sampling
BONDED WEARING COURSE: Gap Graded (BWC-G) (See Note 7)						
Asphalt Binder Content	AASHTO T 308, Method A	20 lb (See Note 5) 4, 1-gal metal containers with friction lids	Loose mix at plant	1 for each 750 tons, 1 per day minimum	Production start-up evaluation. Minimum 1 per day of paving	
Moisture Content	AASHTO T 329	10 lb sealed metal container	Loose mix at plant	Production start-up evaluation, and minimum 1 per project	Production start-up evaluation, and minimum 1 per project during paving	Samples should be tested within 1 hour of sampling
PAVEMENT DENSITY						
Density of cores (% of maximum theoretical density) (See Note 8)	California Test 375	4- or 6–in cores	Final layer, cored to the specified total paved thickness	For the standard process, 1 for each 250 tons For the SPF process, see Note 12	For the standard process, 1 for each 250 tons For SPF process, test per stratified random sampling plan. See Note 14	Density applies to HMA thickness of 0.15 ft or greater

Table 6-1.13. Materials Acceptance Sampling and Testing Requirements: Asphalt Concrete (*Standard Specifications* Section 39) (13 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (See Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
PAVEMENT SMOOTHNESS						
Straightedge	N/A	N/A	Pavement surface (See Note 9)	Entire final surface	Entire final surface	Areas exempt from Inertial Profiler
Inertial Profiler for Mean Roughness Index and Areas of Localized Roughness	California Test 387 AASHTO R 56 & AASHTO R 57	Each 0.1 mile	Pavement surface	Entire final surface	Entire final surface	Entire final surface excluding areas requiring straightedge; use contractor-furnished profiles for IRI values within 10% of Caltrans' IRI values
TACK COAT						
Asphalt Binder	Based on asphalt type used (see *Standard Specifi-cations* Section 92)	1-qt double-seal friction-top metal cylindrical shaped can	Spray bar on asphalt distributor truck	Each truckload	1 random per project	

Table 6-1.13. Materials Acceptance Sampling and Testing Requirements: Asphalt Concrete (*Standard Specifications* Section 39) (14 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (See Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
TACK COAT (Cont.)						
Spread Rate	California Test 339	N/A	Pavement	N/A	As necessary for verification of tack coat spread rate	Verify tack coat spray rate is sufficient to meet the minimum specified residual rate. (See example in Section 4-9403, "During the Course of Work," in this manual)
Asphaltic Emulsion	Based on emulsion type used (see *Standard Specifi-cations* Section 94)	1 liter (or 1 qt) wide-mouth plastic bottle with screw on lids that are sealed with tape	Spray bar on emulsion distributor truck	Each truckload	1 random per project	

Notes:

1. Refer to California Test 125 for sampling procedures.
2. When using RAP, RAS, or RAP/RAS, adjust gradation by the correction factor determined under California Test 384.
3. Store three 20-lb canvas bags for dispute resolution.
4. Sampling HMA behind the paver is the preferred location. You may also take samples from the windrow, production plant, or truck.
5. Sample sizes are based on split samples—one sample for acceptance testing, and one for dispute resolution. Store one-half of the boxes or cans for dispute resolution.

6. Contractor ships directly to district material laboratory.
7. For bonded wearing course using RHMA-G, RHMA-O, or HMA-O, sampling and testing must comply with requirements for RHMA-G, RHMA-O, or HMA-O.
8. Determine percent of maximum theoretical density under California Test 375, except use AASHTO T 275 to determine in-place density of each core and AASHTO T 209, Method A to determine maximum theoretical density instead of calculating maximum density.
9. May use Inertial Profiler data and ProVAL Rolling Straightedge module to assist in determining where to check with 12-foot straightedge.
10. For the statistical pay factor (SPF) process, and for each lot, prepare a stratified random sampling plan for the following pay factor quality characteristic: aggregate gradations, binder content, air voids, and percent of maximum theoretical density. Sample at milestones identified in the stratified random sampling plan. Do not share the verification sampling time or location with the contractor until immediately before sampling. Do not share the stratified random sampling plan with the contractor until completion of the lot. For guidance on developing the engineer's stratified random sampling plans, refer to section 4-3902K, "Stratified Random Sampling Plan" of this manual.
11. Obtain enough material to split each sample into four parts. Perform verification testing on one part, provide one part to the contractor, hold one part for dispute resolution testing, and reserve the fourth part for additional verification testing in the event the lot runs short and you do not have at least the 3 tests needed for verification.
12. To determine in-place density, obtain verification density cores from the contractor's sublot identified in the engineer's stratified random sampling plan. Break the identified sublot into three equal parts, and randomly determine the coring location of each part. At each location, core three samples aligned longitudinally within 1 to 2 feet of the center core. Retain the center core for verification testing, and randomly determine which of the two remaining cores will be provided to the contractor and which will be retained by the engineer.
13. To determine the paving shift's maximum theoretical density value used for verification of percent in-place density, obtain two samples of HMA from each paving shift the verification density cores are obtained from. Determine the shift's maximum theoretical density value used for the verification by averaging the test results of the two samples. The two samples must be obtained randomly from the first and last half of the paving shift, or from a split of a single sample pulled within the sublot the density cores are obtained from.
14. Do not share the test results of pay factor quality characteristics with the contractor until completion of the lot.
15. For HMA placed using SPF, during production, sample non-pay factor items at the frequency determined by the engineer. Notify the contractor of your intent to sample, and obtain enough material to split into four parts. Test one part, provide one part to the contractor, and retain one part for independent third party testing. When sampling for non-pay factors, except sand equivalent testing, pull two samples from two consecutive sublots. If the first sample fails, immediately test the second sample. Refer to Section 4-3904A(5), "Monitoring Non-Pay Factor Quality Characteristics using Statistical Pay Factor Specifications" of this manual for guidance related to non-pay factor testing.
16. For HMA placed using SPF, when sampling for Hamburg Wheel Track, pull one additional sample for testing from the contractor's next sublot. Test this second sample if the first sample fails.

17. For HMA placed using SPF, sample at same frequency as aggregate gradations, except pull two samples and test the second sample if the first sample fails.
18. Box quantities indicated represent recommended amounts for each individual test. Use CT 125 Appendix B Table 1 for more comprehensive quantities or suites of tests.

Table 6-1.14. Materials Acceptance Sampling and Testing Requirements: Concrete Pavement (*Standard Specifications* Section 40) (1 of 2)
See Table 6-1.17 for concrete materials

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
CONCRETE					
Modulus of Rupture (Open to Traffic)	California Test 523 (Field Curing)	3 beams of 6x6x20 in. for third-point loading	Concrete truck discharge chute	1 set for the last pavement section placed before opening to traffic	Not used for acceptance, only to verify that pavement can be opened to traffic
Modulus of Rupture (28-days)	California Test 523	3 beams of 6x6x20 in. for third-point loading	Concrete truck discharge chute	1 set per age for each 1,000 cu yd, 1 per day minimum (See Note 2)	Recommend frequency of every 2,000 cu yd if after 10 sets all tests are in compliance
Air Content	California Test 504	See test method	Concrete truck discharge chute	1 every day of production	Only test when air entrainment is specified
PAVEMENT					
Thickness	California Test 531	4-in. diameter core, full thickness of pavement	See Section 4-4004, "Level of Inspection," of this manual	1 every 1,200 sq yd	
Dowel Bar Alignment and Concrete Consolidation	Measurement and Inspection	4-in. diameter core size	Transverse pavement joints	1 test every 700 sq yd	Each test consists of 2 cores, one on each end of dowel bar
Tie Bar Alignment and Concrete Consolidation	Measurement and Inspection	4-in. diameter core size	Longitudinal pavement joints	1 test every 4,000 sq yd	Each test consists of 2 cores, one on each end of tie bar
Coefficient of Friction	California Test 342	N/A	Pavement surface	1 test for each day of paving	Each test consists of 5 measurements
Smoothness - Straightedge	Measurement with 12-ft straightedge	N/A	Pavement surface	Entire final surface requiring straightedge	

Table 6-1.14. Materials Acceptance Sampling and Testing Requirements: Concrete Pavement (*Standard Specifications* Section 40) (2 of 2)
See Table 6-1.17 for concrete materials

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
PAVEMENT (Cont.)					
Smoothness - Inertial Profiler for Mean Roughness Index and Areas of Localized Roughness	AASHTO R 56, AASHTO R 57, and California Test 387	0.1 mile	Pavement surface	Entire final surface	Entire final surface excluding specified areas

Notes:

1. Refer to California Test 125 for sampling procedures.
2. If concrete modulus of rupture is close to specification limit or outside the specification limits, sample and test concrete every 1,000 cu yd so that deductions may be taken for noncompliant material.

Table 6-1.15. Materials Acceptance Sampling and Testing Requirements: Existing Concrete Pavement (*Standard Specifications* Section 41)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
INDIVIDUAL SLAB REPLACEMENT WITH RAPID STRENGTH CONCRETE (Section 41-9)					
Coefficient of Friction	California Test 342	N/A	Pavement surface	1 every 1,200 sq yd	Each test consists of 5 measurements
Smoothness - Straightedge	Measurement with 12-ft straightedge	N/A	Pavement surface	Entire final surface	Areas exempt from Inertial Profiler
Modulus of rupture (3-days)	California Test 524	3 beams of 6x6x20 inches	Concrete truck discharge chute	1 per shift	

Notes:

1. Refer to California Test 125 for sampling procedures.

Table 6-1.16. Materials Acceptance Sampling and Testing Requirements: Concrete Structures (*Standard Specifications* Section 51)
See Table 6-1.17 for concrete materials

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
JOINT SEALS TYPE B (Section 51-2.02C)					
Various properties; must comply with *Standard Specifications* Section 51-2.02C(2)	See *Standard Specifications* Section 51-2.02C(2)	1 piece, 3 ft	Job site	Each lot	Certificate of compliance and certified test report required for each lot; test report must include the seal movement rating, manufacturer minimum uncompressed width and test results; submit samples at least 30 days before use
JOINT SEALS TYPE A AND TYPE AL (Section 51-2.02B)					
	Use Authorized Material List at: https://dot.ca.gov/programs/engineering-services/product-evaluation-program			Type A and AL joint seals must be on the Authorized Materials List for Type A and AL joint seals	Submit a certificate of compliance for each batch of sealant at least 15 days before use

Notes:

1. Refer to California Test 125 for sampling procedures.

Table 6-1.17. Materials Acceptance Sampling and Testing Requirements: Concrete (*Standard Specifications* Section 90) (1 of 9)
Concrete, Except Minor Concrete and Rapid Strength Concrete

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
AGGREGATE: Coarse Aggregate					
Los Angeles Rattler (loss at 500 revolu-tions)	Cali-fornia Test 211	See Note 2	Stockpile	Before production and minimum 1 random test for every 25,000 cu yd	1 for every 4,000 cu yd, if initial test shows abrasion loss greater than 40%
Clean-ness Value	Cali-fornia Test 227	25 lb	Stockpile	Before production and minimum 1 for every 600 cu yd, 1 per day minimum	Recommend 1 acceptance test per day if 3 consecutive results exceed 80; increase sampling to 1 for every 300 cu yd (deductive lot) with engineer's authorization
Sieve Analysis	Cali-fornia Test 202	50 lb	Belt Feed	Before production and minimum 1 for every 600 cu yd, 1 per day minimum	Recommend 1 acceptance test per day if 3 consecutive results are within operating range; increase sampling to 1 for every 300 cu yd (deductive lot) with engineer's authorization
AGGREGATE: Fine Aggregate					
Organic Impurities	Cali-fornia Test 213	See Note 2	Stockpile	Before production or when contamination is suspected	
Durability	Cali-fornia Test 229	See Note 2	Stockpile	Before production	
Sand Equivalent	Cali-fornia Test 217	25 lb	Stockpile	Before production and minimum 1 for every 600 cu yd, 1 per day minimum	Recommend 1 acceptance test per day if 3 consecutive results exceed 80; increase sampling to 1 for every 300 cu yd (deductive lot) with engineer's authorization

Table 6-1.17. Materials Acceptance Sampling and Testing Requirements:
Concrete (*Standard Specifications* Section 90) (2 of 9)
Concrete, Except Minor Concrete and Rapid Strength Concrete

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
AGGREGATE: Fine Aggregate					
Sieve Analysis	California Test 202	50 lb	Belt feed	Before production and minimum 1 for every 600 cu yd, 1 per day minimum	Recommend 1 acceptance test per day if 3 consecutive results are within operating range; increase sampling to 1 for every 300 cu yd (deductive lot) with engineer's authorization
AGGREGATE: **Coarse & Fine Aggregate**					
Specific Gravity and Absorption	California Test 206, California Test 207	See Note 2	Stockpile	Before production and when aggregate source changes	
Soundness	California Test 214	See Note 2	Stockpile	Before production	Soundness for fine aggregate waived if durability is ≥ 60
Sieve Analysis (combined gradation determined with fine and coarse aggregate sieve analyses)	California Test 202		N/A	Before production and minimum 1 for every 600 cu yd, 1 per day minimum	Recommend 1 acceptance test per day if 3 consecutive results are within operating range. Increase sampling to 1 for every 300 cu yd (deductive lot) with engineer's authorization

Table 6-1.17. Materials Acceptance Sampling and Testing Requirements: Concrete (*Standard Specifications* Section 90) (3 of 9)
Concrete, Except Minor Concrete and Rapid Strength Concrete

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
CEMENTITIOUS MATERIALS					
Cement, various properties; must comply with *Standard Specifications* Section 90-1.02B(2)	See *Standard Specifications* Section 90-1.02B(2)	8 lb	Concrete plant	Sample each 100 tons of cement, 2 per day maximum	Cement must be on Authorized Material List; cement accepted based on certificate of compliance with each shipment; recommend 1 verification test per 5 samples
Supplementary Cementitious Materials (SCM), various properties; must comply with *Standard Specifications* Section 90-1.02B(3)	See *Standard Specifications* Section 90-1.02B(3)	8 lb	Concrete plant	Sample each 100 tons of SCM, 2 per day maximum	SCM must be on Authorized Materials List; SCM accepted based on certificate of compliance with each shipment; recommend 1 verification test per 5 samples
WATER					
Chlorides	California Test 422	Clean 2-qt plastic jug with lined, sealed lid	At point of use	1 per source	Water supplies for domestic use do not need to be tested
Sulfates	California Test 417	Clean 2-qt plastic jug with lined, sealed lid	At point of use	1 per source	Water supplies for domestic use do not need to be tested
Setting Time	ASTM C 191 or ASTM C 266	Contact METS for required quantity of water sample	At point of use	1 per source	Water supplies for domestic use do not need to be tested

Table 6-1.17. Materials Acceptance Sampling and Testing Requirements:
Concrete (Standard Specifications Section 90) (4 of 9)
Concrete, Except Minor Concrete and Rapid Strength Concrete

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
WATER (Cont.)					
Mortar Compressive Strength	ASTM C109	Contact METS for required quantity of water sample	At point of use	1 per source	Water supplies for domestic use do not need to be tested
Coloring Agents	Must comply with *Standard Specifi-cations* Section 90-1.02D	Contact METS for required quantity of water sample	At point of use	1 per source	Water supplies for domestic use do not need to be tested
Alkalis	Must comply with *Standard Specifi-cations* Section 90-1.02D	Contact METS for required quantity of water sample	At point of use	1 per source	Water supplies for domestic use do not need to be tested
Specific Gravity	Must comply with *Standard Specifi-cations* Section 90-1.02D	Contact METS for required quantity of water sample	At point of use	1 per source	Water supplies for domestic use do not need to be tested
ADMIXTURES: Air Entraining Agent					
Air entraining properties Must comply with *Standard Specifications* Section 90-1.02E	See *Standard Specifi-cations* Section 90-1.02E	1-qt can or plastic bottle of liquid, 2 lb of powder	Concrete plant	Sample each shipment	Must be on Authorized Materials List and certificate of compliance must accompany each shipment; recommend 1 verification test per 5 samples

Table 6-1.17. Materials Acceptance Sampling and Testing Requirements: Concrete (*Standard Specifications* Section 90) (5 of 9)
Concrete, Except Minor Concrete and Rapid Strength Concrete

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
CHEMICAL ADMIXTURE: Water Reducers or Set Retarders					
Claimed properties, chloride identification	ASTM C494 Type A, B, D, F or Type G California Test 415	1-qt can of liquid, 2 lb of powder	Concrete plant	Sample each shipment	Must be on Authorized Materials List and certificate of compliance must accompany each shipment; recommend 1 verification test per 5 samples
CONCRETE for Pavement and Structures					
Shrinkage	AASHTO T 160 Modified See *Standard Specifications* Section 90-1.01D(3)	Set of three: 4x4x11¼ in.	During mix design process	Before production	Engineer may use contractor-provided test result for acceptance; test results must be within 3 years of contract authorization date
CONCRETE Designated Compressive Strength 3600 psi or Greater					
Yield	California Test 518	See test method	Concrete truck discharge chute; (See Note 3)	As necessary to assure accuracy of mix design; minimum 2 per each mix design	No deductions for cement content will be made based on the results of California Test 518
Concrete Uniformity	ASTM C143, California Test 533	See test method	Concrete truck discharge chute (See Note 3)	When compressive test specimen is fabricated and when consistency or uniformity is questionable, minimum 2 per day	

Table 6-1.17. Materials Acceptance Sampling and Testing Requirements: Concrete (*Standard Specifications* Section 90) (6 of 9)
Concrete, Except Minor Concrete and Rapid Strength Concrete

Test	Test Method	Sample Size & Container Size	Sampling Location See Note 1)	Acceptance Test Frequency	Remarks
CONCRETE Designated Compressive Strength 3600 psi or Greater (Cont.)					
Concrete Uniformity	California Test 529	100 lb	Concrete truck discharge chute (See Note 3)	When uniformity is questionable	
Compressive Strength	ASTM C172, California Test 540	1 set of 2 cylinders 6x12 in. or 1 set of 3 cylinders 4x8 in. for each test	Concrete truck discharge chute (See Note 3)	1 set per age for every 300 cu yd concrete or as required for acceptance, minimum 1 set per project	For trial batches, see *Standard Specifications* or job special provisions and Section 6-3, "Field Tests," of this manual
Air Content	California Test 504	See test method	Concrete truck discharge chute (See Note 3)	1 every 4 hours of production and when test specimens are fabricated	Where air is specified for freeze-thaw resistance, a minimum of 1 every 30 cu yd
CONCRETE WITH COMPRESSIVE STRENGTH LESS THAN 3,600 psi					
Concrete Uniformity	ASTM C143, California Test 533	See test method	Concrete truck discharge chute (See Note 3)	When compressive test specimen is fabricated and when uniformity is questionable	

Table 6-1.17. Materials Acceptance Sampling and Testing Requirements: Concrete (*Standard Specifications* Section 90) (7 of 9)
Concrete, Except Minor Concrete and Rapid Strength Concrete

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
CONCRETE WITH COMPRESSIVE STRENGTH LESS THAN 3,600 psi					
Concrete Uniformity	California Test 529	100 lb	Concrete truck discharge chute (See Note 3)	When uniformity is questionable	
Compressive Strength	California Test 540, California Test 521	1 set of 2 cylinders, 6x12 in. or 1 set of 3 cylinders 4x8 in. for each test	Concrete truck discharge chute (See Note 3)	1 set per age for every 300 cu yd, minimum 1 set per project	
Air Content	California Test 504	See test method	Concrete truck discharge chute (See Note 3)	When compressive test specimens are fabricated	Where air is specified for freeze-thaw resistance, a minimum of 1 every 100 cu yd
CURING COMPOUND					
Curing Compound; must comply with *Standard Specifications* Section 90-1.03B(3)	ASTM C309	1-qt can	At time of use (See Note 1)	1 every shipment	Each shipment must have certificate of compliance that includes: 1. Test results for tests specified in Section 90-1.01D(6) of *Standard Specifications* 2. Certification that material was tested within 12 months before use

Table 6-1.17. Materials Acceptance Sampling and Testing Requirements: Concrete (*Standard Specifications* Section 90) (8 of 9)
Concrete, Except Minor Concrete and Rapid Strength Concrete

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
CEMENTITIOUS MATERIALS					
Cement, various properties; must comply with *Standard Specifications* Section 90-1.02B(2)	See *Standard Specifications* Section 90-1.02B(2)	8 lb	Concrete plant	Sample and test if cement quality is questionable	Cement source must be shown on Authorized Materials List; certificate of compliance must accompany each cement shipment
Supplementary cementitious materials (SCM), various properties; must comply with *Standard Specifications* Section 90-1.02B(3)	See *Standard Specifications* Section 90-1.02B(3)	8 lb	Concrete plant	Sample and test if SCM quality is questionable	SCM source must be shown on Authorized Materials List; certificate of compliance must accompany each SCM shipment
ADMIXTURES: Air Entraining Agent					
Air entraining properties; must comply with *Standard Specifications* Section 90-1.02E	See *Standard Specifications* Section 90-1.02E	N/A	N/A		Must be on Authorized Materials List and certificate of compliance must accompany each shipment
CHEMICAL ADMIXTURES: Water Reducers or Set Retarders					
Claimed properties, chloride identification	ASTM C494 Type A, B, D, F or Type G California Test 415	N/A	N/A		Must be on Authorized Materials List and certificate of compliance must accompany each shipment

Table 6-1.17. Materials Acceptance Sampling and Testing Requirements: Concrete (*Standard Specifications* Section 90) (9 of 9)
Minor Concrete

Test	Test Method	Sample Size & Container Size	Sampling Location	Acceptance Test Frequency	Remarks
CONCRETE					
Yield	California Test 518	See test method	Concrete truck discharge chute (See Note 3)	As necessary to assure accuracy of mix design; minimum 1 per each mix design	No deductions for cement content will be made based on the results of California Test 518
Com-pressive Strength	California Test 540, California Test 521	1 set of 2 cylinders 6x12 in. or 1 set of 3 cylinders 4x8 in. for each test	Concrete truck discharge chute (See Note 3)	Sample and test if concrete quality is questionable; minimum 1 per mix design	Minor concrete must have the strength described or 2,500 psi, whichever is greater; see *Standard Specifications* Section 90-1.02A
Air Content	California Test 504	See test method	Concrete truck discharge chute (See Note 3)	Where air is specified for freeze-thaw resistance, a minimum of 1 every 100 cu yd	
CURING COMPOUND					
Curing Compound; must comply with *Standard Specifi-cations* Section 90-1.03B(3)	ASTM C309	1-qt can	At time of use; (See Note 1)	1 every shipment	Each shipment must have certificate of compliance that includes: 1. Results for tests specified in Section 90-1.01D(6) of *Standard Specifications* 2. Certification that material was tested within 12 months before use

Notes:

1. Refer to California Test 125 for sampling procedures.

2. For initial testing, provide 100 lb of 1-1/2 in. x 3/4 in., 75 lb of 3/4 in. x No. 4, 75 lb of pea gravel, and 50 lb of sand. Use this material for California Test 202, 206, 207, 211, 213, 214, 217, 227 and 229.
3. Refer to California Test 539 for method of sampling fresh concrete.

Table 6-1.18. Materials Acceptance Sampling and Testing Requirements: Miscellaneous Materials (1 of 5)

Test	Test Method	Sample Size & Container Size	Sampling Location	Acceptance Test Frequency	Remarks
BARBED WIRE AND WIRE MESH FENCES (Section 80-2)					
Barbed Wire, various properties; must comply with *Standard Specifications* Section 80-2.02D	ASTM A121	1 yd length	Job site	As necessary for verification if quality is questionable	
BOLTS AND HARDWARE (Section 75)					
		2 samples each diameter		Each lot	Sample and test if not previously inspected at the source
CHAIN LINK FENCES (Section 80-3)					
Wire Mesh, various properties; must comply with *Standard Specifications* Section 80	ASTM A116, Class 1	2 ft width	Job site	Each lot for verification if quality is questionable	Certificate of compliance required for vinyl clad fencing
CONCRETE PIPE (Section 65)					
Compliance with specifications		Contact METS for instructions		Contact METS for instructions	Sample and test if not previously inspected at source
CONDUIT (Section 86-1.02B)					
Conduit, various properties; must comply with *Standard Specifications* Section 86-1.02B	See *Standard Specifi-cations* Section 86-1.02B	2 ft. long from center of length, 2 samples each size	Job site	As necessary for verification if quality is questionable	

Table 6-1.18. Materials Acceptance Sampling and Testing Requirements: Miscellaneous Materials (2 of 5)

Test	Test Method	Sample Size & Container Size	Sampling Location	Acceptance Test Frequency	Remarks
ELECTRICAL CONDUCTORS AND CABLES (Section 86-1.02F)					
Electrical conductors and cables, various properties; must comply with *Standard Specifications* Section 86-1.02F	See *Standard Specifications* Section 86	2 ft. long, include markings, 2 samples per gauge	Job site	Each lot for verification if quality is questionable	
EXPANSION JOINT FILLER					
Compliance with specifications		6 in. long, full width of sheet		Each 1,000 sq ft not less than 2 per shipment	
GEOSYNTHETICS (Section 96)					
Various properties; must comply with *Standard Specifications* Section 96	See *Standard Specifications* Section 96	1 piece, 3 ft x full width of roll	Job site	Each lot for verification if quality is questionable. See Remarks	Certificate of compliance required for each lot; unroll at least 1 circumference before sampling
PAINT (Section 91)					
Paint, various properties; must comply with *Standard Specifications* Section 91	See *Standard Specifications* Section 91	For miscellaneous painting, 1 qt (see Section 6-2 of this manual)	Job site	Each batch	If less than 20 gallons, testing not required and resident engineer must field release. Zinc-rich primer must be on the Authorized Materials List
PAVEMENT MARKERS (Section 81-3)					
Pavement Markers, various properties; must comply with *Standard Specifications* Section 81-3	See *Standard Specifications* Section 81-3	20 markers	Job site	As necessary for verification if quality is questionable	Each shipment must have certificate of compliance

Table 6-1.18. Materials Acceptance Sampling and Testing Requirements: Miscellaneous Materials (3 of 5)

Test	Test Method	Sample Size & Container Size	Sampling Location	Acceptance Test Frequency	Remarks
PERMEABLE MATERIALS: (Section 68-2.02F)					
Durability Index	California Test 229	50 lb	Stockpile	Before use	
Sieve Analysis	California Test 202	50 lb	Stockpile	Before use,1 every day	
PERMEABLE MATERIALS: Class 3 (Section 68-2.02F)					
Crushed Faces	California Test 205	50 lb	Stockpile	Before use	
PRESTRESSED TENDON GROUT (Section 50)					
Efflux time	California Test 541	One 6x12 in. cylinder mold can	From batch immediately after mixing for prequalification, thereafter from outlet end of tendon, storage tank, or both	At the start of each day's work, and thereafter 1 test per each 5% of ducts; see Remarks	Repeat acceptance tests whenever source of material is changed
RAISED BARS (PRECAST)					
Compliance with specifications		1 unit or full size bar		Each lot	Sample and test if not previously inspected at the source
REINFORCING STEEL (Section 52)					
Reinforcing Steel, various properties	See *Standard Specifi-cations* Section 52	2 samples, 30 in., except 40 in. for No. 14 and No. 18	Job site	As necessary for verification if quality is questionable	Each shipment must be accompanied by a certificate of compliance
SLOPE PROTECTION (Section 72)					
Size	N/A		Quarry or stockpile	As required for acceptance	Adequate size of slope protection documented by measuring or weighing the material
Apparent Specific Gravity	California Test 206	75 lb	Quarry or stockpile	Before use	

Table 6-1.18. Materials Acceptance Sampling and Testing Requirements: Miscellaneous Materials (4 of 5)

Test	Test Method	Sample Size & Container Size	Sampling Location	Acceptance Test Frequency	Remarks
SLOPE PROTECTION (Section 72) (Cont.)					
Absorption	California Test 206	75 lb	Quarry or stockpile	Before use	
Durability Index	California Test 229	75 lb	Quarry or stockpile	Before use	
STEEL PRODUCTS					
		Contact METS for instructions		Contact METS for instructions	
STRUCTURAL STEEL AND MISCELLANEOUS METAL (Sections 55 & 75)					
		2 samples, 30-in., cut parallel to direction of rolling		Each heat or melt or 10 tons or fraction	Sample and test if not previously inspected at the source
STRUCTURAL STEEL COATINGS (Section 59)					
Paint, various properties; must comply with *Standard Specifications* Section 59	See *Standard Specifi-cations* Section 59	For bridge or major structure, send an unopened 5-gal can	Job site	Each batch; see Remarks	Unused portion of 5-gal sample will be returned to job; see Section 6-2, "Acceptance of Manufactured or Fabricated Materials and Products," of this manual
WATER-PROOFING MATERIALS (Section 54)					
Glass Fiber	ASTM D1668, Type 1	9 sq ft of asphalt saturated cotton fabric	Job site	1 sample from each lot	
Asphalt	ASTM D449	5 lb of asphalt	Job site	1 sample from each lot	
Primer	ASTM D41	1 qt of asphalt primer	Job site	1 sample from each lot	

Table 6-1.18. Materials Acceptance Sampling and Testing Requirements: Miscellaneous Materials (5 of 5)

Test	Test Method	Sample Size & Container Size	Sampling Location	Acceptance Test Frequency	Remarks
WELDED WIRE REINFORCEMENT (Section 52-1.02C)					
Welded Wire Reinforcing Steel, must comply with *Standard Specifi-cations* Section 52-1.02C	ASTM A 1064/A 1064M	9 sq ft	Job site	As necessary for verification if quality is questionable	Each shipment must be accompanied by a certificate of compliance

ATTACHMENT C

MATERIALS ACCEPTED BY CERTIFICATE OF COMPLIANCE

Exhibit 16-T1: Materials Requiring a Certificate of Compliance per Caltrans Standard Specifications

Caltrans 2018 Standard Specifications	Material	Additional Info and/or Attachments Required*
6-1.04 BUY AMERICA		
6-1.04B	Crumb rubber	COC
6-1.04C	Steel and iron materials	COC + cert. mill test reports
11-2 WELDING QUALITY CONTROL		
11-2.03D	Welding	COC
12-3 TEMP. TRAFFIC CONTROL DEVICES		
12-3.03A(3)	Plastic traffic drums	COC
12-3.20A(3)	Type K temporary railing	COC
12-3.23A(3)	Attenuator	COC
12-3.32A(3)	Portable CMS	COC
13-2 WATER POLLUTION CONTROL PROGRAM		
13-9 TEMP. CONCRETE WASHOUTS		
13-9.01C	Fabric bags for gravel-filled bags	COC
	Plastic liner	COC
13-10 TEMP. LINEAR SEDIMENT BARRIERS		
13-10.01C	Fiber rolls	COC
	Silt fence fabrics	COC
	Sediment filter bags	COC
	Foam barriers	COC
	Fabric for gravel-filled bags	COC
16-2.03 TEMP. HIGH-VISIBILITY FENCES		
16-2.03A(3)	High-visibility fabric	COC
18 DUST PALLIATIVES		
18-1.01C	Dust suppressant	COC
	Dust control binders	COC
	Fibers	COC
20 LANDSCAPE		
20-2 IRRIGATION		
20-2.08A(3)	Polyethylene pipe	COC
	Plastic pipe supply line	COC

* For those materials requiring additional information on or with the COC, see specification.

Caltrans 2018 Standard Specifications	Material	Additional Info and/or Attachments Required*
20-3 PLANTING		
20-2.08A(3)	Sod	COC
	Soil amendment	COC
20-5 LANDSCAPE ELEMENTS		
20-5.03A(1)(c)	Filter fabric	COC + product data
20-5.03D(1)(c)	Solidifying emulsion	COC + product data & samples
20-5.04A(3)	Wood mulch	COC + sample & authorization
21-2 EROSION CONTROL WORK		
21-2.01C(1)	Straw	COC
	Weed-free straw	COC + cert. of quarantine
	Fiber	COC
	RECP	COC
	Fasteners	COC
	Hydraulically applied erosion control materials	Submit records
21-2.01C(2)	Compost	Submit reports
21-2.01C(3)	Seed	Submit reports
21-2.01C(4)	Tackifier	COC
	Bonded fiber matrix	COC
24 STABILIZED SOILS		
24-1.01C(1)	Stabilizing agent	COC + sample
24-3 CEMENT STABILIZED SOIL		
24-3.01C	Cement	COC + sample
36-2 BASE BOND BREAKER		
36-2.01C	Base bond breaker	COC
37 BITUMINOUS SEALS		
37-1.01C	Asphalt binder	COC + test results
	Asphalt emulsion	COC + test results
37-3 SLURRY SEALS AND MICRO-SURFACINGS		
37-3.01A(3)	Asphaltic emulsion	COC + samples & test results
	Polymer modified asphaltic emulsion	COC + samples & test results
	Micro-surfacing emulsion	COC + sample & test results
37-2.04 ASPHALT RUBBER BINDER CHIP SEALS		
37-2.04A(3)	Asphalt rubber binder ingredients	COC + permits & submittals

* For those materials requiring additional information on or with the COC, see specification.

Caltrans 2018 Standard Specifications	Material	Additional Info and/or Attachments Required*
37-5 PARKING AREA SEALS		
37-5.01C	Parking area seal material	COC + sample & test results
37-6 CRACK TREATMENTS		
37-6.01C	Crack treatment materials	COC or sample & test results
39-2 HOT MIX ASPHALT		
39-2.01A(3)(f)	Liquid antistrip	COC + sample & production data
39-2.03A(3)(c)	Crumb rubber modifier	COC + test results
	Asphalt modifier	COC + test results
39-2.05A(1)(c)	Asphaltic emulsion	COC + test results
40 CONCRETE PAVEMENT		
40-1.01C(2)	Tie bars	COC
	Splice couplers for threaded bars	COC
	Dowel bars	COC
	Tie bar baskets	COC
	Joint filler	COC
	Epoxy-powder coating	COC
41 EXISTING CONCRETE PAVEMENT		
41-5 JOINT SEALS		
41-5.01C	Liquid joint sealant	COC + SDS & instructions
	Backer rods	COC + SDS & instructions
	Compression joint seal	COC + SDS & instructions
	Lubricant adhesives	COC + SDS & instructions
41-10 DRILL AND BOND BARS		
41-10.01C	Tie bars	COC
	Dowel bars	COC
	Dowel bar lubricant	COC
	Chemical adhesive	COC
	Epoxy powder coating	COC
48-2 FALSEWORK		
48-2.01C(1)	Structural composite lumber	COC + submittals
49-2 DRIVEN PILING		
49-2.02A(3)(d)	Steel pipe piles	COC + tests & mill reports
49-2.03A(3)	Structural shape steel piling	COC + test reports

* For those materials requiring additional information on or with the COC, see specification.

Caltrans 2018 Standard Specifications	Material	Additional Info and/or Attachments Required*
51 CONCRETE STRUCTURES		
51-1.01C(3)	Bonding materials	COC or sample & authorization
51-2 JOINTS		
51-2.01A(3)	Polyethylene material for snowplow deflectors	COC
51-2.02B(1)(c)	Sealant	COC + test reports & samples
51-2.02C(1)(c)	Elastomeric joint seal	COC + test reports
	Lubricant-adhesive	COC + test reports
51-2.02D(1)(c)	Joint seal materials	COC + authorization
51-2.02E(1)(c)(iii)	Joint seal assembly materials	COC
51-2.02F(1)(c)(iv)	Material used in the joint seals	COC + test reports
51-2.04A(3)	Waterstop material	COC + a statement
51-3 BEARINGS		
51-3.02A(3)(c)	Elastomer for bearing pads	COC + test reports
51-4 PRECAST CONCRETE MEMBERS		
51-4.01C(1)	Concrete box culvert	COC
52 REINFORCEMENT		
52-1.01C(3)	Reinforcement (rebar)	COC + mill test report
52-2 EPOXY-COATED REINFORCEMENT		
52-2.02A(3)(c)	Epoxy-coated reinforcement	COC + submittals
	Patching material	COC + a statement
52-5.01C(4)	Headed bar reinforcement	COC + test reports
52-6 SPLICING		
52-6.01C(5)	Service or butt splice material	COC + submittals
54 WATERPROOFING		
54-3 PREFORMED MEMBRANE WATERPROOFING		
54-3.01C	Preformed membrane sheet	COC + report
54-5 DECK SEAL		
54-5.01C	Preformed membrane sheet	COC + report
57-2 WOOD STRUCTURES		
57-2.01A(3)	Timber and lumber	COC + report
	Glued laminated timbers/decking	COC
57-3 PLASTIC LUMBER STRUCTURES		
57-3.01C(1)	Plastic lumber	COC + test report & sample

* For those materials requiring additional information on or with the COC, see specification.

Caltrans 2018 Standard Specifications	Material	Additional Info and/or Attachments Required*
58-2 MASONRY BLOCK		
58-2.01C(7)	CMUs	COC
	Aggregate for grout	COC
	Grout	COC
59 STRUCTURAL STEEL COATINGS		
59-1.01C	Blast cleaning material	COC + SDS
59-5 THERMAL SPRAY COAT STRUCTURAL STEEL		
59-5.01C(1)	Wire feedstock	COC
60-3.04B POLYESTER CONCRETE OVERLAYS		
60-3.04B(1)(c)	Methacrylate resins	COC + samples & test report
	Polyester resins	COC + samples & test report
	Aggregates	COC + samples & test report
61-2 CULVERT AND DRAINAGE PIPE JOINTS		
61-2.01C	Joint systems	COC + test results & reports
	Couplers	COC
64 PLASTIC PIPE		
64-1.01C	Plastic pipe	COC + report
65-2 REINFORCED CONCRETE PIPE		
65-2.01C	RCP, direct design method	COC + report
66 CORRUGATED METAL PIPE		
66-1.01C	Corrugated steel materials	COC
	Corrugated aluminum materials	COC
67-3 METAL LINE PLATE PIPE		
67-3.01C	Metal liner plate pipe	COC + mill test reports
68 SUBSURFACE DRAINS		
68-1.01C	Subsurface drain	COC
68-2 UNDERDRAINS		
68-2.01C	Pipe	COC
	Tubing	COC
	Fittings	COC
68-7 GEOCOMPOSITE DRAIN SYSTEMS		
68-7.01C	Geocomposite drain	COC + flow capability graph

* For those materials requiring additional information on or with the COC, see specification.

Caltrans 2018 Standard Specifications	Material	Additional Info and/or Attachments Required*
69 OVERSIDE DRAINS		
69-1.01C	Steel pipe piles	COC
	Aluminum	COC
	Plastic	COC
70-6 GRATED LINE DRAINS		
70-6.01C	Grated line drains	COC + docu. & inspec. report
71-3.09 MACHINE SPIRAL WOUND PVC PIPELINERS		
71-3.09A(1)(c)	Reel of PVC strip	COC + report
72-16 GABIONS		
72-16.01C	Gabion basket	COC
	PVC coating	COC + identify
75-3 MISCELLANEOUS BRIDGE METAL		
75-3.01C(1)	Anchorage devices	COC
75-3.01C(2) BRIDGE DECK DRAINAGE SYSTEM		
75-3.01C(2)	Fiberglass pipe and fittings	COC
80-3 CHAIN LINK FENCES		
80-3.01C	Protective coating system	COC
	Posts and braces	COC + test results
81 MISCELLANEOUS TRAFFIC CONTROL DEVICES		
81-2 DELINEATORS		
81-2.01C	Metal target plates	COC
	Enamel coating	COC
81-3 PAVEMENT MARKERS		
81-3.01C	Pavement markers	COC
82 SIGNS AND MARKERS		
82-2 SIGN PANELS		
82-2.01C	Aluminum sheeting	COC
	Retroreflective sheeting	COC
	Screened-process colors	COC
	Nonreflective, opaque, black film	COC
	Protective overlay film	COC

* For those materials requiring additional information on or with the COC, see specification.

Caltrans 2018 Standard Specifications	Material	Additional Info and/or Attachments Required*
82-5 MARKERS		
82-5.01C	Metal target plates	COC
	Enamel coating	COC
	Retroreflective sheeting	COC
83-3 CONCRETE BARRIERS		
83-3.01C	Type 60K portable concrete barrier	COC or test reports
84-2 TRAFFIC STRIPES AND PAVEMENT MARKINGS		
84-2.01C	Thermoplastic	COC + autho., SDS & data sheet
	Paint	COC + autho., SDS & data sheet
	Glass beads	COC + autho., SDS & data sheet
	Thermoplastic primer	COC + test results
DIVISION X ELECTRICAL WORK		
86-1.01C(6)	Signal heads	COC + test data
	Visors	COC + test data
87-2 LIGHTING SYSTEMS		
87-2.01C	High mast lighting luminaires	COC + test data
90 CONCRETE		
90-1.01C(3)	Cementitious materials	COC + app. signature
	Blended cement	COC + app. signature
90-1.01C(4)	Admixture	COC + authorization
90-1.01C(5)	Curing compound	COC + test samples
90-2 MINOR CONCRETE		
90-2.01C	Minor concrete	COC + weighmaster cert
90-3 RAPID STRENGTH CONCRETE		
90-3.01C(3)	Aggregate	COC + certified weight
	Cementitious materials	COC + certified weight
	Admixtures	COC + certified weight
90-4 PRECAST CONCRETE		
90-4.01C(2) and 90-4.01D(2)(a)	Cementitious materials	COC + app. signature
	Precast members (each)	COC + app. signature
	Curing compound	COC + test samples
94 ASPHALTIC EMULSIONS		
94-1.01C	Asphaltic emulsion	COC + reports

* For those materials requiring additional information on or with the COC, see specification.

Caltrans 2018 Standard Specifications	Material	Additional Info and/or Attachments Required*
95 EPOXY		
95-1.01C	Epoxy	COC
96 GEOSYNTHETICS		
95-1.01C(1)	Geosynthetic	COC + test samples

* For those materials requiring additional information on or with the COC, see specification.

ATTACHMENT D

EXAMPLE OF CERTIFICATE OF COMPLIANCE

Appendix J.1 - Example of a Vendor's Certificate of Compliance

No. 583408

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
VENDOR'S CERTIFICATE OF COMPLIANCE
MR-0543 (REV. 5/93) #CT-7541-6020-2

☐ PRECAST CONCRETE PRODUCTS OR ☒ SOUNDWALL

TO: BILL SYNDER
~~STATE HIGHWAY ENGINEER~~
RESIDENT ENGINEER – CITY OF FLATLAND

We certify that the portland cement, chemical and mineral admixtures contained in the material described below are brands stated and comply with specifications for:

CONTRACT NUMBER:

CEMENT BRAND / TYPE	MILL LOCATION
XYZ CEMENT CO. / II MODIFIED	MIDLAND, CALIFORNIA

CHEMICAL ADMIXTURE

1. BRAND / TYPE	MANUFACTURER
ABC ADMIXTURE / WATER REDUCER	XYZ SUPPLIER
2. BRAND / TYPE	MANUFACTURER

☐ CHECK BOX IF A CHEMICAL ADMIXTURE WAS NOT USED

MINERAL ADMIXTURE

MANUFACTURER	CLASS
POZZ. INC.	F

☐ CHECK BOX IF A MINERAL ADMIXTURE WAS NOT USED

DELIVERY DATE (Ready-Mix)	DATES OF FABRICATION (Precast)
7/7/01	

LIST PRODUCTS TO WHICH CERTIFICATE APPLIES. *(Show size and lin. ft. of pipe, etc., delivery slip numbers for ready-mix.)*

Portland Cement
Flyash
Water Reducer

MANUFACTURER OF CONCRETE PRODUCTS
A.&B. READY MIX

By: AUTHORIZED REPRESENTATIVE SIGNATURE
Joe Anderson

FM 93 1839 Original to Res. Engr. Retain Duplicate. OSP 01 55624

Appendix J.2 - Example of a Certificate of Compliance for Portland Cement (continued)

This is to certify that the

Portland Cement .

Supplied by ABC Cement Company complies with all requirements for Type II Portland Cement when tested in accordance with ASTM C - 494.

Local Agency Project No.
HP21L – 5055 – 111

Albert Howakowa
Quality Assurance Engineer
ABC Cement Company

Date: 07/07/07 .

ATTACHMENT E

EXAMPLE OF MATERIALS CERTIFICATES

Appendix K - Examples of Materials Certificates/Exceptions (Signed by the Resident Engineer at the Completion of the Project)

Federal-aid Project No.: Project HP21L – 5055 – 111

Subject: Materials Certification

This is to certify that the results of the tests on acceptance samples indicate that the materials incorporated in the construction work and the construction operations controlled by sampling

☒ and testing were in conformity with the approved plans and specifications.

☐ All materials exceptions to the plans and specifications on this project are noted below.

No exceptions were found to the plans and specifications on this project.

Bill Sanders	*Bill Sanders*	7/7/07
Resident Engineer (Print Name)	**Resident Engineer (Signature)**	**(Date)**

Note: The signed original of this certificate is placed in the Resident Engineer's project files and one copy is mailed to the DLAE and filed under "Report of Expenditures."

See the attachment (next page)

Appendix K (continued)

Attachments: Materials Exceptions (Acceptance Testing)

Type of Test	Description of Work	Total Tests Performed On the Project	Number of Failed Tests	Action Taken
Slump Test	**Concrete Sidewalk**	**8**	**1**	**When the measured slump exceeded the maximum limit, the entire concrete load was rejected.**
Sand Equivalent	**Aggregate for Structural Concrete**	**10**	**1**	**The tested S.E. was 70 and the contract compliance specification was 71 minimum. However, the concrete 28-day compressive strength was 4800 psi. The concrete was considered adequate and no materials deductions were taken.**
Compaction	**Sub grade Material**	**12**	**1**	**One failed test was noted. The failed area was watered and reworked. When this was completed, a retest was performed. The retest was acceptable.**
Compaction	**Hot Mix Asphalt**	**12**	**1**	**One failed area was noted. It was reworked and retested. The second test met specifications.**

Bill Sanders — *Bill Sanders* — July 4, 2007

Resident Engineer (Print Name) — Resident Engineer (Signature) — Date

ATTACHMENT F

EXAMPLE OF LOG SUMMARY

Appendix H - Example of a Log Summary Sheet

Subgrade Materials

Date	CT	Station	Elevation	Test Results	Minimum Spec.	Passed or Failed	Action Taken
5/15/07	**231**	**1+ 00 (30' L)**	**99.00**	**93**	**90 or greater**	**Passed**	**N/A**
5/16/07	**231**	**1+ 50 (20' R)**	**100.50**	**94**	**90 or greater**	**Passed**	**N/A**
5/17/07	**231**	**2+ 25 (25' R)**	**101.00**	**96**	**90 or greater**	**Passed**	**N/A**
5/18/07	**231**	**1+ 50 (30' L)**	**101.50**	**95**	**95 or greater**	**Passed**	**N/A**
5/19/07	**231**	**2+ 50 (20' L)**	**102.00**	**92 ***	**95 or greater**	**Failed**	**See Note 1**
5/19/07	**231**	**2+ 50 (20' L)**	**102.00**	**95**	**95 or greater**	**Passed**	**N/A**

CT 231 = Compaction (Nuclear Gage)

* Note 1: The Contractor used a water tank to dampen the soil surface at the failed subgrade location. Using a sheep's foot compactor, he reworked the subgrade (making at least 10 passes) from Station 2+ 00 to Station 3+ 00. After approximately 30 minutes, another compaction test was taken. This time the relative compaction was 95.

Aggregates and Base Materials

Date	CT	Station	Elevation	Test Results	Minimum Spec.	Passed or Failed	Action Taken
6/20/07	202	1+ 00 (10' R)	102.50	See data sheet	See data sheet	Passed	N/A
6/20/07	202	2+ 00 (20' L)	102.50	See data sheet	See data sheet	Passed	N/A
6/22/07	217	1+ 00 (10' R)	102.50	75	25 or greater	Passed	N/A
6/22/07	217	2+ 00 (20' L)	102.50	83	25 or greater	Passed	N/A
6/20/07	227	1+ 00 (20' R)	102.50	86	71 or greater	Passed	N/A
6/20/07	227	1+ 50 (20' L)	102.50	85	71 or greater	Passed	N/A
6/24/07	231	2+ 00 (20' R)	102.50	98	95 or greater	Passed	N/A
6/24/07	231	2+ 50 (20' L)	102.50	97	95 or greater	Passed	N/A

CT 202 = Sieve Analysis, CT 217 = Sand Equivalent, CT 227 = Cleanness Value,
CT 231 = Compaction (Nuclear Gage)

Appendix H (continued)

Hot Mix Asphalt

Date	CT	Station	Elevation	Test Results	Minimum Spec.	Passed or Failed	Action Taken
7/10/07	339	1+ 00 (10' R)	103.00	0.08 gal/ sq yd	0.05 -0.10 gal/sq yd	Passed	N/A
7/10/07	366	2+ 00 (20' L)	103.00	32	>23	Passed	N/A
7/10/07	366	1+ 00 (10' R)	103.00	41	>23	Passed	N/A
7/10/07	375	2+ 00 (20' L)	103.00	94	RC = 93 to 97	Passed	N/A
7/15/07	375	1+ 00 (20' R)	103.00	96	RC = 93 to 97	Passed	N/A
7/15/07	375	1+ 50 (20' L)	103.00	95	RC = 93 to 97	Passed	N/A

CT 339 = Distributor Spread Rate, CT 366 = Stabilometer Value
CT 375 = In-Place Density & Relative Compaction

Portland Cement Concrete

Date	CT	Station	Elevation	Test Results	Minimum Spec.	Passed or Failed	Action Taken
9/25/07	504	10 + 50 (50' R)	102.50	6.5%	>6.0%	Passed	N/A
9/25/07	533	12 + 50 (50' R)	102.50	1.5"	<2"	Passed	N/A
9/25/07	518	11 + 50 (50' R)	102.50	151 lb/cu ft	> 145 lb/cu ft	Passed	N/A
9/25/07	521	10 + 50 (50' R)	102.50	28 day = 4200 psi	>3800 psi	Passed	N/A
9/28/07	521	11 + 50 (50' R)	102.50	28 day = 4290 psi	>3800 psi	Passed	N/A
9/30/07	521	12 + 50 (50' R)	102.50	28 day = 4160 psi	>3800 psi	Passed	N/A

CT 504 = Air Content, CT 518 = Unit Weight, CT 521 = Compressive Strength,
CT 533 = Ball Penetration

Appendix N:
City of San Jose – Section 39 Superpave Asphalt Concrete Specifications

39 SUPERPAVE ASPHALT CONCRETE

Revision Date: **02/21/2025**

39-1 GENERAL

39-1.01 GENERAL

Section 39 includes specifications for performing asphalt concrete work.

39-1.02 MATERIALS

Not used

39-1.03 CONSTRUCTION

Not used

39-1.04 PAYMENT

Not used

39-2 HOT MIX ASPHALT

39-2.01 GENERAL

39-2.01A General

39-2.01A(1) Summary

Section 39-2.01 includes general specifications for producing and placing hot mix asphalt.

HMA includes one or more of the following Types:

1. HMA Type F
2. HMA Type H
3. RHMA-G
4. Minor HMA

If liquid antistrip (LAS) is required for HMA, WMA additive technology may be used as substitution for LAS at the discretion of the Engineer. WMA additive technologies must be on the Caltrans Authorized Material List for WMA authorized technologies.

Wherever reference is made to the following test methods, the latest year of publication for these test methods shall be used unless specified as shown in the following table:

TEST METHOD	DESCRIPTION
AASHTO M 17	Standard Specification for Mineral Filler for Bituminous Paving Mixtures
AASHTO M 323	Standard Specification for Superpave Volumetric Mix Design
AASHTO R 30	Standard Practice for Mixture Conditioning of HMA
AASHTO R 59	Recovery of Asphalt from Solution by Abson Method
AASHTO T 11	Standard Method of Test for Materials Finer than No. 200 Sieve in Mineral Aggregates by Washing
AASHTO T 27	Standard Method of Test for Sieve Analysis of Fine and Coarse Aggregates
AASHTO T 30	Standard Method of Test for Mechanical Analysis of Extracted Aggregate
AASHTO T 49	Standard Method of Test for Penetration of Bituminous Materials
AASHTO T 59	Standard Method of Test for Emulsified Asphalts
AASHTO T 96	Standard Method of Test for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
AASHTO T 164	Standard Method of Test for Quantitative Extraction of Asphalt Binder from Hot Mix Asphalt (HMA)
AASHTO T 176	Standard Method of Test for Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test
AASHTO T 209	Standard Method of Test for Theoretical Maximum Specific Gravity and Density of Hot Mix Asphalt (HMA)
AASHTO T 269	Standard Method of Test for Percent Air Voids in Compacted Dense and Open Asphalt Mixtures
AASHTO T 275	Standard Method of Test for Bulk Specific Gravity of Compacted Hot Mix Asphalt (HMA) Using Paraffin-Coated Specimens
AASHTO T 283	Standard Method of Test for Resistance of Compacted Asphalt Mixtures to Moisture-Induced Damage
AASHTO T 304	Standard Method of Test for Uncompacted Void Content of Fine Aggregate
AASHTO T 308	Standard Method of Test for Determining the Asphalt Binder Content of Hot Mix Asphalt (HMA) by the Ignition Method
AASHTO T 312	Standard Method of Test for Preparing and Determining the Density of Asphalt Mixture Specimens by Means of the Superpave Gyratory Compactor
AASHTO T 313	Standard Method of Test for Determining the Flexural Creep Stiffness of Asphalt Binder Using the Bending Beam Rheometer (BBR)
AASHTO T 315	Standard Method of Test for Determining the Rheological Properties of Asphalt Binder Using a Dynamic Shear Rheometer (DSR)
AASHTO T324	Hamburg Wheel-Track Testing of Compacted Asphalt Mixtures
AASHTO T 329	Standard Method of Test for Moisture Content of Asphalt Mixtures by Oven Method
AASHTO T 335	Standard Method of Test for Determining the Percentage of Fracture in Coarse Aggregate
ASTM D36/D36M	Standard Test Method for Softening Point of Bitumen (Ring-and-Ball Apparatus)
ASTM D92	Standard Test Method for Flash and Fire Points by Cleveland Open Cup Tester
ASTM D217	Standard Test Method for Cone Penetration of Lubricating Grease
ASTM D297	Standard Test Methods for Rubber Products – Chemical Analysis
ASTM D445	Standard Test Method for Kinematic Viscosity of Transparent and Opaque Liquids
ASTM D1856	Standard Test Method for Recovery of Asphalt from Solution by Abson Method
ASTM D2007	Standard Test Method for Characteristic Groups in Rubber Extender and Processing Oils and Other Petroleum-Derived Oils by the Clay-Gel Absorption Chromatographic Method

TEST METHOD	DESCRIPTION
ASTM D2074	Standard Test Methods for Total, Primary, Secondary, and Tertiary Amine Values of Fatty Amines by Alternative Indicator Method
ASTM D2995	Standard Practice for Estimating Application Rate and Residual Application Rate of Bituminous Distributors
ASTM D4791	Standard Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate
ASTM D5329	Standard Test Methods for Sealants and Fillers, Hot-Applied, for Joints and Cracks in Asphalt Pavements and Portland Cement Concrete Pavements
ASTM D7741/D7741M	Standard Test Method for Measurement of Apparent Viscosity of Asphalt-Rubber or Other Asphalt Binders by Using a Rotational Handheld Viscometer
CT 125	Method of Test for Sampling Highway Materials and Products Used in the Roadway Pavement Structure Sections
CT 306	Method of Test for Reducing Samples of Asphalt Mixtures to Testing Size
CT 389	Method of Test for Hamburg Wheel-Track Testing of Compacted Hot Mix Asphalt
Asphalt Institute MS-2 7th edition (2015)	Asphalt Mix Design Methods

39-2.01A(2) Definitions

binder replacement: Binder from RAP expressed as a percent of the total binder in the mix.

coarse aggregate: Aggregate retained on a no. 4 sieve.

Department: City of San José

fine aggregate: Aggregate passing a no. 4 sieve.

leveling course: Thin layer of HMA used to correct minor variations in the longitudinal and transverse profile of the pavement before placement of other pavement layers.

miscellaneous areas: Areas outside the traveled way and shoulders such as:

1. Median areas not including inside shoulders
2. Island areas
3. Sidewalks
4. Gutters
5. Ditches
6. Overside drains
7. Aprons at ends of drainage structures

Reclaimed Asphalt Pavement (RAP): removed and/or reprocessed pavement materials containing asphalt and aggregates

Warm Mix Asphalt (WMA): HMA produced using a warm mix asphalt technology produced at a temperature from 240 to 325 degrees F.

processed RAP: RAP that has been fractionated

supplemental fine aggregate: Mineral filler consisting of rock dust, slag dust, hydrated lime, hydraulic cement, or any combination of these and complying with AASHTO M 17.

39-2.01A(3) Submittals

39-2.01A(3)(a) General

Reserved

39-2.01A(3)(b) Job Mix Formula

39-2.01A(3)(b)(i) General

Except for the HMA to be used in miscellaneous areas and dikes, submit your proposed JMF for each type of HMA to be used. The JMF must be submitted on the Caltrans Contractor Job Mix Formula Proposal form (CEM 3511) along with:

1. Mix design documentation on Caltrans Contractor Hot Mix Asphalt Design Data form (CEM 3512).
2. An approved JMF verification on Caltrans Hot Mix Asphalt Verification form (CEM 3513) or a City of San José Hot Mix Asphalt Verification Form dated within 24 months of submittal.
3. The most recent viscosity vs. temperature curve along with mixing and compaction temperature ranges for the asphalt binder used for the JMF.
4. SDS for:
   4.1. Asphalt binder
   4.2. Supplemental fine aggregate except fines from dust collectors
   4.3. Antistrip additives

Caltrans forms can be found here:

https://dot.ca.gov/programs/construction/forms

The Caltrans Contractor Hot Mix Asphalt Design Data form (CEM 3512) must identify the AASHTO accredited lab responsible for the mix design and show documentation on aggregate quality.

Submit a new JMF if you change any of the following:

1. Target asphalt binder percentage greater than ±0.2 percent
2. Asphalt binder supplier
3. Combined aggregate gradation
4. Aggregate sources
5. Liquid antistrip producer or dosage
6. WMA additive producer or dosage
7. Any material in the JMF except lime supplier and source
8. Average binder content in a new processed RAP stockpile by more than ±2.00 percent from the average RAP binder content reported on the Caltrans Contractor Hot Mix Asphalt Design Data form (CEM 3512).
9. Average maximum specific gravity in a new processed RAP stockpile by more than ±0.060 from the average maximum specific gravity value reported on your Caltrans Contractor Hot Mix Asphalt Design Data form (CEM 3512).

Allow the Engineer 10 business days from a complete JMF submittal for document review of the aggregate qualities, mix design, and JMF. The Engineer notifies you if the proposed JMF submittal is accepted.

If your JMF fails verification testing, submit an adjusted JMF based on your testing. The adjusted JMF must include a new Caltrans Contractor Job Mix Formula Proposal form (CEM 3511), Caltrans Contractor Hot Mix Asphalt Design Data form (CEM 3512), and the results of the failed verification testing.

You may submit an adjusted aggregate gradation TV on a Caltrans Contractor Job Mix Formula Proposal form (CEM 3511) before production start-up testing. Aggregate gradation TV must be within the TV limits specified.

39-2.01A(3)(b)(ii) Job Mix Formula Renewal

You may request a JMF renewal by submitting:

1. Proposed JMF on a Caltrans Contractor Job Mix Formula Proposal form (CEM 3511)
2. Previously verified JMF documented on either a Caltrans Hot Mix Asphalt Verification (CEM 3513) form or a City of San José Hot Mix Asphalt Verification Form dated within 24 months
3. Mix design documentation on a Caltrans Contractor Hot Mix Asphalt Design Data form (CEM 3512) used for the previously verified JMF.

39-2.01A(3)(b)(iii) Job Mix Formula Modification

For an authorized JMF, submit a modified JMF if you change any of the following:

1. Asphalt binder supplier
2. Liquid antistrip producer or dosage
3. WMA additive producer or dosage

You may change any of the above items only once during the Contract.

Submit your modified JMF request at least 15 business days before production. Each modified JMF submittal must include:

1. Proposed modified JMF on Caltrans Contractor Job Mix Formula Proposal form (CEM 3511), marked *MODIFIED*
2. Mix design records on Caltrans Contractor Hot Mix Asphalt Design Data form (CEM 3512) for the authorized JMF to be modified
3. JMF verification on either a Caltrans Hot Mix Asphalt Verification form (CEM 3513) or a City of San José Hot Mix Asphalt Verification Form for the authorized JMF to be modified.
4. Test results for the modified JMF in compliance with the mix design specifications. Perform tests at the mix design OBC as shown on the Contractor Asphalt Mix Design Data form (CEM 3512).

With an accepted modified JMF submittal, the Engineer verifies each modified JMF within 10 days of receiving all verification samples.

39-2.01A(3)(c) Quality Control Plan

This section applies to projects with greater than or equal to 2,000 tons of HMA.

At least 10 business days prior to the pre-paving meeting, submit a QC plan for HMA.

The QC plan must describe the organization and procedures for:

1. Controlling HMA quality characteristics
2. Taking samples, including sampling locations
3. Establishing, implementing, and maintaining QC
4. Determining when corrective actions are needed
5. Implementing corrective actions
6. Using methods and materials for backfilling core locations

The QC plan must address the elements affecting HMA quality, including:

1. Aggregates
2. Asphalt binder
3. Additives
4. Production
5. Paving

Allow 10 business days for review of the QC plan.

If you change QC procedures, personnel, or sample testing locations, submit a QC plan supplement before implementing the proposed change. Allow 5 business days for review of the QC plan supplement.

39-2.01A(3)(d) Test Results

If requested by the Engineer, submit all QC test results, except California Test 389, within 3 business days of a request.

If requested by the Engineer, for tests performed under California Test 389, submit test data and 1 tested sample set within 5 business days of a request.

39-2.01A(3)(e) Reserved

39-2.01A(3)(f) Liquid Antistrip Treatment

If liquid antistrip treatment is used, submit the following with your proposed JMF submittal:

1. Certificate of compliance for each liquid antistrip shipment. On each certificate of compliance, include:
   1.1. Your signature and printed name
   1.2. Shipment number
   1.3. Material type
   1.4. Material specific gravity
   1.5. Manufacturer
   1.6. Consignee
   1.7. Destination
   1.8. Quantity
   1.9. Contact or purchase order number
   1.10. Shipment date
2. Proposed proportions for the liquid antistrip

At the end of each day's production shift, submit production data in electronic and printed media. Present data on electronic media in a tab delimited format. Use line feed carriage return with 1 separate record per line for each production data set. Allow enough fields for the specified data. Include data titles at least once per report. For each HMA mixing plant type, submit the following information in the order specified:

1. For batch plant mixing:
   1.1. Production date
   1.2. Time of batch completion
   1.3. Mix size and type
   1.4. Each ingredient's weight
   1.5. Asphalt binder content as a percentage of the total weight of mix
   1.6. Liquid antistrip content as a percentage of the asphalt binder weight
2. For continuous mixing plant:
   2.1. Production date
   2.2. Data capture time
   2.3. Mix size and type
   2.4. Flow rate of wet aggregate collected directly from the aggregate weigh belt
   2.5. Aggregate moisture content as a percentage of the dry aggregate weight
   2.6. Flow rate of asphalt binder collected from the asphalt binder meter
   2.7. Flow rate of liquid antistrip collected from the liquid antistrip meter
   2.8. Asphalt binder content as a percentage of the total weight of mix calculated from:
      2.8.1. Aggregate weigh belt output
      2.8.2. Aggregate moisture input
      2.8.3. Asphalt binder meter output
   2.9. Liquid antistrip content as a percentage of the asphalt binder weight calculated from:

2.9.1. Asphalt binder meter output
2.9.2. Liquid antistrip meter output

39-2.01A(3)(g) Reserved

39-2.01A(3)(h) Warm Mix Asphalt Technology

If a WMA technology is used, submit the following with your proposed JMF submittal:

1. SDS for the WMA technology
2. For water injection foam technology:
   2.1. Name of technology
   2.2. Proposed foaming water content
   2.3. Proposed HMA production temperature range
   2.4. Certification from binder supplier stating no antifoaming agent is used
3. For additive technology:
   3.1. Name of technology
   3.2. Percent admixture by weight of binder and percent admixture by total weight of HMA as recommended by the manufacturer
   3.3. Methodology for inclusion of admixture in laboratory-produced HMA
   3.4. Proposed HMA production temperature range

Collect and hold WMA Production data for the duration of the Contract. The snapshot of production data must include the following:

1. Production date
2. Production location
3. Time of day the data is captured
4. HMA mix Type being produced and target binder rate
5. HMA additive Type, brand, and target rate
6. Temperature of the binder and HMA mixture
7. For a continuous mixing plant, the rate of flow of the dry aggregate calculated from the wet aggregate flow rate as determined by the conveyor scale
8. For a continuous mixing plant, the rate of flow of the asphalt meter
9. For a continuous mixing plant, the rate of flow of HMA additive meter
10. For batch plant mixing, actual batch weights of all ingredients
11. Dry aggregate to binder ratio calculated from metered ingredient output
12. Dry aggregate to HMA additive ratio calculated from metered output

At the request of the Engineer, submit electronic and printed media from the HMA plant process controller. Present data on electronic media in comma-separated values or tab-separated values format. The captured data for the ingredients represented by the production snapshot must have allowances for sufficient fields to satisfy the amount of data required by these specifications and include data titles at least once per report.

39-2.01A(3)(i) – 39-2.01A(3)(o) Reserved

39-2.01A(4) Quality Assurance

39-2.01A(4)(a) General

Take samples under California Test 125.

Reduce samples of HMA to testing size under California Test 306.

The following modifications to California Test 389 apply:

1. The target air void content in accordance with AASHTO T 269 must equal 7.0 ± 0.5 percent for

HMA Type F and HMA Type H specimens (6.5 – 7.5 percent range).
2. Use *Table 1 – Type A HMA Testing Temperature* in California Test 389 for HMA Type F and HMA Type H specimens.

39-2.01A(4)(b) Job Mix Formula Verification

The Engineer verifies the JMF from samples taken from HMA produced by the plant to be used. The production set point at the plant must be within ±0.2 from the asphalt binder percentage TV shown in your Caltrans Contractor Job Mix Formula Proposal form (CEM 3511). Notify the Engineer at least 2 business days before sampling materials. Samples may be taken from a different project including a non-Department project if you make arrangements for the Engineer or the Engineer's authorized representative to be present during sampling.

In the Engineer's or Engineer's authorized representative's presence and from the same production run, take samples of:

1. Aggregates. Coarse, fine, and supplemental fine aggregates must be taken from the combined cold-feed belt or the hot bins. Samples must be at least 120 lb. for each coarse aggregate,80 lb. for each fine aggregate, and 10 lb. for each type of supplemental fine aggregate. For hot-bin samples, the Department combines these aggregate samples to verify the TV submitted on a Caltrans Contractor Job Mix Formula Proposal form (CEM 3511).
2. Asphalt binder. Take at least two 1qt samples. If the asphalt binder is modified or rubberized, the asphalt binder must be sampled with the components blended in the proportions to be used.
3. RAP. Samples must be at least 50 lb. from each fractionated stockpile used or 100 lb. from the belt.
4. Plant-produced HMA. The HMA samples must be at least 250 lb.

For aggregate, RAP, and HMA, split the samples into at least 4 parts and label their containers. Submit 3 parts to the Engineer and keep 1 part. The Engineer retains 1 part of the samples to be used in the event of dispute resolution.

After acceptance of the JMF submittal, the Engineer verifies each proposed JMF within 20 days of receiving all verification samples.

For JMF verification, the Engineer tests the following for compliance with the specifications:

1. Aggregate quality
2. Aggregate gradation
3. HMA quality characteristics for Department acceptance

To verify the HMA for air voids, voids in mineral aggregate (VMA), and dust proportion, the Engineer uses an average of 3 briquettes. The Engineer tests plant-produced material.

If the Engineer verifies the JMF, the Engineer furnishes you a City of San José Hot Mix Asphalt Verification Form.

If the Engineer's test results on plant-produced samples do not show compliance with the specifications, the Engineer notifies you. Adjust your JMF based on your testing unless the Engineer authorizes reverification without adjustments. Engineer authorized reverification without adjustments in not JMF adjusted after verification failure. JMF adjustments may include a change in:

1. Asphalt binder content TV up to ±0.20 percent from the OBC value submitted on the Caltrans Contractor Hot Mix Asphalt Design Data form (CEM 3512)
2. Aggregate gradation TV within the TV limits specified in the aggregate gradation table

You may adjust the JMF only once due to a failed verification test.

For each HMA type and aggregate size specified, the Engineer verifies up to two (2) proposed JMF submittals including a JMF adjusted after verification failure. Do not resubmit any of the 2 proposed submittals including a JMF adjusted after verification failure that failed verification on any other City projects. If you submit more than two (2) JMFs for each type of HMA and aggregate size, the Engineer deducts $5,700 from payments for each verification exceeding this limit. This deduction does not apply to verifications initiated by the Engineer or if a JMF expires while HMA production is stopped longer than 30 days.

A verified JMF is valid for 24 months.

39-2.01A(4)(c) Job Mix Formula Authorization

You may start HMA production if:

1. Engineer's review of the JMF shows compliance with the specifications
2. The Contractor provides a verified JMF
3. The Contractor QC plan has been reviewed and approved, if applicable.
4. The Engineer authorizes the verified JMF

39-2.01A(4)(d) Job Mix Formula Renewal

For a JMF renewal and upon request, in the Engineer's or Engineer's authorized representative's presence and from the same production run, take samples of:

1. Aggregates. Coarse, fine, and supplemental fine aggregates must be taken from the combined cold-feed belt or the hot bins. If lime treatment is required, samples must be taken from individual stockpiles before lime treatment. Samples must be at least 120 lb for each coarse aggregate, 80 lb for each fine aggregate, and 10 lb for each type of supplemental fines. For hot-bin samples, the Department combines these aggregate samples to verify the TV submitted on a Caltrans Contractor Job Mix Formula Proposal form (CEM 3511).
2. Asphalt binder. Take at least two 1 qt samples. Each sample must be in a cylindrical-shaped can with an open top and friction lid. If the asphalt binder is modified or rubberized, the asphalt binder must be sampled with the components blended in the proportions to be used.
3. RAP. RAP samples must be at least 50 lb from each fractionated stockpile.
4. Plant-produced HMA. The HMA samples must be at least 250 lb.

Notify the Engineer at least 2 business days before sampling materials. For aggregate, RAP, and HMA, split samples into at least 4 parts. Submit 3 parts to the Engineer and use 1 part for your testing. The Engineer retains 1 part of the sample to be used in the event of dispute resolution.

Allow the Engineer 5 business days from a complete JMF renewal submittal for document review of the aggregate qualities, mix design, and JMF.

The Engineer verifies the JMF for renewal under section 39-2.01A(4)(b) except:

1. Engineer keeps the samples until you provide test results for your part on a Contractor Job Mix Formula Renewal form (CEM 3514).
2. Engineer may use the most recent aggregate quality test results within the past one year, or the Engineer may perform aggregate quality tests.
3. Engineer may use RAP and binder test results from the project where the renewal samples are taken, or the Engineer may perform RAP and binder tests.
4. Department tests samples of materials obtained from the HMA production unit after you submit test results that comply with the mix design specifications.
5. After completion of the JMF verification renewal document review, the Engineer verifies each proposed JMF within 20 days of receiving the verification renewal samples and the complete

Contractor Job Mix Formula Renewal form (CEM 3514).
6. You may not adjust the JMF due to a failed verification.
7. For each HMA type and aggregate gradation specified, the Engineer verifies at no cost to you 1 proposed JMF renewal within a 24-month period.

If the Engineer verifies the JMF renewal, the Engineer furnishes you a City of San José Hot Mix Asphalt Verification form. The Hot Mix Asphalt Verification form is valid for 24 months.

39-2.01A(4)(e) Job Mix Formula Modification

The Engineer verifies the modified JMF after the modified JMF HMA is placed and verification samples are taken within the first 750 tons. The Engineer tests verification samples for compliance with:

1. Hamburg wheel track mix design specifications
2. Air void content
3. Voids in mineral aggregate on plant-produced HMA mix design specifications
4. Dust proportion mix design specifications

If the modified JMF is verified, the Engineer revises your Caltrans Hot Mix Asphalt Verification form (CEM 3513) or a City of San José Hot Mix Asphalt Verification Form to include the new asphalt binder source, or new additive (liquid antistrip and/or WMA) producer or dosage. Your revised form will have the same expiration date as the original form.

If a modified JMF is not verified, stop production and any HMA placed using the modified JMF is rejected.

The Engineer deducts $3,500 from payments for each JMF modification.

39-2.01A(4)(f) Certifications

39-2.01A(4)(f)(i) General

Laboratories testing aggregate and HMA qualities used to prepare the mix design and JMF must be accredited through the AASHTO Accreditation Program, and/or Caltrans' Independent Assurance Program, or be approved by the Engineer.

Additionally, personnel performing aggregate and HMA quality tests used to prepare the mix design shall be competent and possess the necessary certifications.

39-2.01A(4)(f)(ii) Hot Mix Asphalt Plants

Before production, the HMA plant must have a current qualification under Caltrans' Material Plant Quality Program, or be approved by the Engineer.

39-2.01A(4)(f)(iii)–39-2.01A(4)(f)(v) Reserved

39-2.01A(4)(g) Reserved

39-2.01A(4)(h) Quality Control

39-2.01A(4)(h)(i) General

QC test results must comply with the specifications for Department acceptance.

Prepare 3 briquettes for air voids content and voids in mineral aggregate determination. Report the average of 3 tests for air void content and voids in mineral aggregate.

Except for smoothness, if 2 consecutive QC test results or any 3 QC test results for 1 day's production do not comply with the materials specifications:

1. Stop HMA production
2. Notify the Engineer
3. Take corrective action
4. Demonstrate compliance with the specifications before resuming production and placement

For QC tests performed under AASHTO T 11 / T 27, results are considered 1 QC test regardless of number of sieves out of compliance.

Do not resume production and placement until the Engineer authorizes your corrective action proposal.

39-2.01A(4)(h)(ii) Reserved

39-2.01A(4)(h)(iii) Aggregates

39-2.01A(4)(h)(iii)(A) General

Reserved

39-2.01A(4)(h)(iii)(B) Reserved

39-2.01A(4)(h)(iv) Liquid Antistrip Treatment

For continuous mixing or batch-plant mixing, sample asphalt binder before adding liquid antistrip. For continuous mixing, sample the combined asphalt binder and liquid antistrip after the static mixer.

39-2.01A(4)(h)(v) Production Start-up Evaluation

For projects **greater than or equal to 2,000 tons**, you and the Engineer evaluate HMA production and placement at production start-up.

Within the first 750 tons produced on the 1st day of HMA production, in the Engineer's or Engineer's authorized representative's presence, and from the same production run, take samples of:

1. Aggregates
2. Asphalt binder
3. RAP
4. HMA
5. Additives

Personnel involved in sampling must be certified in Caltrans Test 125.

Sample aggregates from the combined cold-feed belt or hot bin. Take RAP samples from the RAP system.

For aggregates, RAP, and HMA, split the samples into at least 4 parts and label their containers. Submit 3 parts to the Engineer and keep 1 part. The Engineer retains 1 part of the samples to be used in the event of dispute resolution.

You and the Engineer must test the samples and report test results, except for California Test 389, if required, within 5 business days of sampling. For California Test 389, report test results within 15 business days of sampling.

California Test 389 is not required if production start-up evaluation is within 45 days of the date the Hot Mix Asphalt Verification form is signed.

If production stops for more than 60 days, perform a production start-up evaluation. If production stops for more than 30 days but less than 60 days, perform a reduced production start-up evaluation. Reduced production start-up evaluation is production start-up evaluation without California Test 389.

If you proceed before receipt of the test results, the Engineer may consider the HMA placed to be represented by these test results. If production start-up evaluation fails, do not begin production.

39-2.01A(4)(h)(vi) Hot Mix Asphalt Density

During HMA placement, determine HMA density using a density gauge. A non-nuclear gauge may be used in accordance with ASTM D7113.

For projects greater than or equal to 2,000 tons of HMA, on the 1st day of production, develop a correlation factor between cores and density gauges under California Test 375.

Replace California Test 375 Part 2B Paragraph 2 with “Follow the procedure described in Part 3 of this test method to establish a minimum of five random test site locations on the test strip”.

Cores may be 4-inch or 6-inch diameter and, if requested, must be taken in the presence of the Engineer or Engineer’s authorized representative. Test cores per AASHTO T 275, Method A. In-place core density shall represent final result.

Test for in-place density using a density gauge, which has been correlated as noted in the preceding paragraph. Test at random locations you select and include the test results in your QC production test reports. Lots for density testing must not exceed 250 tons with a minimum of 3 locations per lot.

At the request of the Engineer, provide your QC production test reports for in-place density using a density gauge within 24 hours of a request.

39-2.01A(4)(h)(vii) - 39-2.01A(4)(h)(viii) Reserved

39-2.01A(4)(h)(ix) Pavement Smoothness

For HMA pavement within 3 feet from and parallel to the construction joint formed between curbs, gutters, or existing pavement, test pavement smoothness using a 12-foot straightedge.

39-2.01A(4)(h)(x) Reserved

39-2.01A(4)(i) Engineer Acceptance

39-2.01A(4)(i)(i) General

The Engineer takes HMA samples for California Test 389 from any of the following locations:

1. Plant
2. Truck
3. Windrow (plant or jobsite)

The Engineer takes HMA samples for all other tests from any of the following locations:

1. Plant
2. Truck
3. Windrow (plant or jobsite)
4. Mat behind the paver

You must assist in collecting Engineer acceptance samples. Personnel involved in sampling must be certified in Caltrans Test 125. Sample shall be taken in the presence of the Engineer or Engineer’s authorized representative. Split the Engineer acceptance samples into at least 4 equal parts. Engineer retains 3 parts and you keep 1 part. The Engineer retains 1 part of the samples to be used in the event of dispute resolution.

To obtain workability of the HMA sample for splitting, the Engineer reheats each sample of HMA mixture not more than 2 cycles. Each reheat cycle is performed by placing the loose mixture in a mechanical forced-draft oven for 2 hours or less after the sample reaches 230 degrees F.

The Engineer conditions each at-the-plant sample of HMA mixture when composite aggregate absorption factor is greater than 2.0 percent as indicated by the JMF in compliance with sections 7.1.1, 7.1.2, 7.1.3, and 7.1.4 of AASHTO R 30.

No single test result may represent more than 750 tons or one day’s production, whichever is less, except California Test 389.

Except for smoothness, if 2 consecutive Department acceptance test results or any 3 Department acceptance test results for 1 day's production do not comply with the specifications:

1. Stop HMA production
2. Take corrective action
3. Demonstrate compliance with the specifications before resuming production and placement

For Department acceptance tests performed under AASHTO T 11 / 27, results are considered 1 Department acceptance test regardless of the number of sieves out of compliance.

The Engineer accepts HMA based on:

1. JMF compliance, applicable material tolerances,
2. In-Place Core Density (if required),
3. Pavement smoothness
4. Visual inspection

39-2.01A(4)(i)(ii) In-Place Density

Except for HMA pavement placed using method compaction, the Engineer tests the density core you take from each 250 tons of HMA for projects greater than or equal to 600 tons. For projects with less than 600 tons, each density core shall represent 150 tons of HMA. At the discretion of the Engineer, the core sample shall be taken in the presence of the Engineer or Engineer's authorized representative. The Engineer tests the density core you take from each 150 tons of HMA.

If acceptance by cores, you must take the cores in accordance with California Test 375, Part 3B and/or approved by the Engineer. The Engineer tests the cores you take in accordance with AASHTO T 275, Method A, and then determines the corresponding core density.

You must provide accurate documentation of the location of each core taken. The document shall be clear to allow the Engineer to easily locate the sample location in the field.

Cores taken for gauge calibration may be used as acceptance cores for density at the discretion of the Engineer.

If a density core is damaged, replace it with a density core taken within 1 foot longitudinally from the original density core. Relocate any density core located within 1 foot of a rumble strip to 1 foot transversely away from the rumble strip.

The Engineer determines the percent of theoretical maximum density for each density result by taking the density result and dividing by the theoretical maximum density. Test results shall not be rounded to the nearest 1.0%; instead, test results shall be reported to the nearest 0.1%. The theoretical maximum density shall be in accordance with AASHTO T 209 and shall be representative of the sublot in which the cores are taken.

Each lift of HMA is tested independently.

If the percent of theoretical maximum density does not comply with the specifications, the Engineer may accept the HMA and take a payment deduction or remove and replace as shown in Table 1 for HMA Type F & HMA Type H mixtures, and Table 2 for RHMA-G mixtures:

Table 1 - Reduced Payment Factors for HMA Type F & HMA Type H

HMA Percent of Theoretical Maximum Density	HMA Type F & HMA Type H Reduced Payment Factor	HMA Percent of Theoretical Maximum Density	HMA Type F & HMA Type H Reduced Payment Factor
92.0	0.0000	97.0	0.0000
91.9	0.0125	97.1	0.0125
91.8	0.0250	97.2	0.0250
91.7	0.0375	97.3	0.0375
91.6	0.0500	97.4	0.0500
91.5	0.0625	97.5	0.0625
91.4	0.0750	97.6	0.0750
91.3	0.0875	97.7	0.0875
91.2	0.1000	97.8	0.1000
91.1	0.1125	97.9	0.1125
91.0	0.1250	98.0	0.1250
90.9	0.1375	98.1	0.1375
90.8	0.1500	98.2	0.1500
90.7	0.1625	98.3	0.1625
90.6	0.1750	98.4	0.1750
90.5	0.1875	98.5	0.1875
90.4	0.2000	98.6	0.2000
90.3	0.2125	98.7	0.2125
90.2	0.2250	98.8	0.2250
90.1	0.2375	98.9	0.2375
90.0	0.2500	99.0	0.2500
<90.0	Remove & replace	>99.0	Remove & replace

Table 2 - Reduced Payment Factors for RHMA-G

RHMA Percent of Theoretical Maximum Density	RHMA-G Reduced Payment Factor	RHMA Percent of Theoretical Maximum Density	RHMA-G Reduced Payment Factor
91.0	0.0000	97.0	0.0000
90.9	0.0125	97.1	0.0125
90.8	0.0250	97.2	0.0250
90.7	0.0375	97.3	0.0375
90.6	0.0500	97.4	0.0500
90.5	0.0625	97.5	0.0625
90.4	0.0750	97.6	0.0750
90.3	0.0875	97.7	0.0875
90.2	0.1000	97.8	0.1000
90.1	0.1125	97.9	0.1125
90.0	0.1250	98.0	0.1250
89.9	0.1375	98.1	0.1375
89.8	0.1500	98.2	0.1500
89.7	0.1625	98.3	0.1625
89.6	0.1750	98.4	0.1750
89.5	0.1875	98.5	0.1875
89.4	0.2000	98.6	0.2000
89.3	0.2125	98.7	0.2125
89.2	0.2250	98.8	0.2250
89.1	0.2375	98.9	0.2375
89.0	0.2500	99.0	0.2500
<89.0	Remove & replace	>99.0	Remove & replace

39-2.01A(4)(i)(iii) Pavement Smoothness

39-2.01A(4)(i)(iii)(A) General

39-2.01A(4)(i)(iii)(B) Straightedge

The HMA pavement top layer must not vary from the lower edge of a 12-foot long straightedge:

1. More than 0.01 foot when the straight edge is laid parallel with the centerline
2. More than 0.02 foot when the straightedge is laid perpendicular to the centerline and extends from edge to edge of a traffic lane
3. More than 0.02 foot when the straightedge is laid within 24 feet of a pavement conform

39-2.01A(4)(i)(iii)(C) – 39-2.01A(4)(i)(iii)(D) Reserved

39-2.01A(4)(i)(iv) Dispute Resolution

You and the Engineer must work together to avoid potential conflicts and to resolve disputes regarding test result discrepancies. You and the Engineer may only dispute each other's test results if one party's test results pass and the other party's test results fail.

You must notify the Engineer if you plan to dispute test results. If you choose to dispute, submit a formal letter along with your complete test results within 3 business days of receiving the Engineer's test results. Your submitted test results should also include copies of paperwork including worksheets used to determine the disputed test results.

You and the Engineer shall mutually agree on an independent third party (ITP) to perform referee testing. Before the ITP participates in a dispute resolution, it must be accredited through the AASHTO Accreditation Program or the Caltrans Independent Assurance Program. The ITP personnel performing the tests shall be competent and possess the necessary certifications to provide referee testing. The ITP must have no prior direct involvement with this Contract.

If the Engineer's portion of the split acceptance samples are not available, the ITP uses any available material agreed by you and the Engineer as representing the disputed test results for evaluation.

For a dispute involving JMF verification, the ITP performs referee testing as specified in the 5th paragraph of section 39-2.01A(4)(b). The Engineer's test results for a JMF Verification can only be disputed at the discretion of the Engineer.

For a dispute involving core density, the ITP performs referee testing based on cores.

For a dispute involving Hamburg Wheel-Track testing, it is permissible to select an ITP that is accredited through the AASHTO Accreditation Program or the Caltrans Independent Assurance Program to perform AASHTO T324 instead of California Test 389. Dispute resolution testing still must be performed in accordance with California Test 389 along with modifications to the test specified in 39-2.01A(4)(a).

The entire dispute resolution process **shall not exceed 20 business days** from the day you submit a formal letter notifying the Engineer of your plan to dispute the test results (includes proposed ITPs for referee testing). Reduced payment or remove and replace will be enforced at the discretion of the Engineer for dispute resolutions exceeding 20 business days.

If the ITP determines the Engineer's test results are valid, the Engineer deducts ITP's testing costs from payments. If the ITP determines your test results are valid, the Engineer pays the ITP's testing costs.

The outcome of the ITP's test result determination shall be final, and the disputed test results shall be considered resolved. No further tests or investigations will be permitted by the Engineer**.**

39-2.01B Materials

39-2.01B(1) General

Reserved

39-2.01B(2) Mix Design

39-2.01B(2)(a) General

The HMA mix design must comply with the Superpave HMA mix design method as described in MS-2 *Asphalt Mix Design Methods* by the Asphalt Institute.

The Caltrans Contractor Hot Mix Asphalt Design Data form (CEM 3512) must show documentation on aggregate quality.

39-2.01B(2)(b) Hot Mix Asphalt Treatments

If the proposed JMF indicates that the HMA is being treated with liquid antistrip, then testing the untreated HMA under California Test 389 is not required.

39-2.01B(2)(c) Warm Mix Asphalt Technology

For HMA with WMA additive technology, produce HMA mix samples for your mix design using your methodology for inclusion of WMA admixture in laboratory-produced HMA. Cure the samples in a forced-air draft oven at 275 degrees F for 4 hours ± 10 minutes.

For WMA water injection foam technology, the use of foamed asphalt for mix design is not required.

39-2.01B(3) Asphalt Binder

Asphalt binder must comply with section 92.

For a leveling course, the grade of asphalt binder for the HMA must be PG 64-10 or PG 64-16.

39-2.01B(4) Aggregates

39-2.01B(4)(a) General

Aggregates must be clean and free from deleterious substances.

The aggregates for a leveling course must comply with the gradation specifications for HMA in section 39-2.02B.

39-2.01B(4)(b) Aggregate Gradations

Aggregate gradation must be determined before the addition of asphalt binder and must include supplemental fine aggregates. Test for aggregate gradation under AASHTO T 27. Do not wash the coarse aggregate. Wash the fine aggregate in accordance with AASHTO T11. Use a mechanical sieve shaker. Aggregate shaking time must not exceed 10 minutes for each coarse and fine aggregate portion.

Choose a TV within the TV limits shown in the tables titled "Aggregate Gradations."

Gradations are based on nominal maximum aggregate size.

39-2.01B(4)(c) Reserved

39-2.01B(5) Liquid Antistrip Treatment

Do not use liquid antistrip as a substitute for asphalt binder.

Total amine value for amine-based liquid antistrip must be a minimum of 325 when tested under ASTM D2074. Dosage from amine-based liquid antistrip must be from 0.25 to 1.00 percent by weight of asphalt binder. Only amine-based liquid antistrip shall be used at this time.

Use only 1 liquid antistrip type or brand at a time. Do not mix liquid antistrip types or brands.

Store and mix liquid antistrip under the manufacturer’s instructions.

WMA additive technology may be used as substitute for liquid antistrip treatment at the discretion of the Engineer. Foam injection technology is not an acceptable substitute for liquid antistrip treatment.

39-2.01B(6)–39-2.01B(7) Reserved

39-2.01B(8) Hot Mix Asphalt Production

39-2.01B(8)(a) General

Do not start HMA production before verification and authorization of JMF.

The HMA plant must have a current qualification under the Caltrans Material Plant Quality Program, or be approved by the Engineer.

Proportion aggregate by hot or cold-feed control.

Aggregate temperature must not be more than 375 degrees F when mixed with the asphalt binder.

Asphalt binder temperature must be from 275 to 375 degrees F when mixed with aggregate.

Mix HMA ingredients into a homogeneous mixture of coated aggregates.

HMA must be produced at the temperatures shown in the following table:

HMA Production Temperatures

HMA compaction	Temperature (°F)
HMA	
Density based	≤ 325
Method	305–325
HMA with WMA technology	
Density based	240–325
Method	260–325

If you stop production for more than 30 days but less than 60 days, a production start-up evaluation, without California Test 389, is required.

If you stop production for 60 days or more, a production start-up evaluation is required. The Engineer may require California Test 389.

39-2.01B(8)(b) Liquid Antistrip

If 3 consecutive sets of recorded production data show that the actual delivered liquid antistrip weight is more than ±1 percent of the authorized mix design liquid antistrip weight, stop production and take corrective action.

If a set of recorded production data shows that the actual delivered liquid antistrip weight is more than ±2 percent of the authorized mix design liquid antistrip weight, stop production. If the liquid antistrip weight exceeds 1.2 percent of the asphalt binder weight, do not use the HMA represented by that data.

The continuous mixing plant controller proportioning the HMA must produce a production data log. The log must consist of a series of data sets captured at 10-minute intervals throughout daily production. The data must be a production activity register and not a summation. The material represented by the data is the quantity produced 5 minutes before and 5 minutes after the capture time. For the duration of the Contract, the collected data must be stored by the plant controller or a computer memory at the plant.

The Engineer orders proportioning activities stopped for any of the following reasons:

1. You fail to submit data
2. You submit incomplete, untimely, or incorrectly formatted data
3. You fail to take corrective actions
4. You take late or unsuccessful corrective actions
5. You fail to stop production when proportioning tolerances are exceeded
6. You use malfunctioning or failed proportioning devices

If you stop production, notify the Engineer of any corrective actions taken before resuming.

39-2.01B(8)(c) Warm Mix Asphalt Technology

Proportion all ingredients by weight. The HMA plant process controller must be the sole source of ingredient proportioning control and be fully interfaced with all scales and meters used in the production process. The addition of the HMA additive must be controlled by the plant process controller.

Liquid ingredient additive, including a normally dry ingredient made liquid, must be proportioned with a mass flow meter at continuous mixing plants. Use a mass flow meter or a container scale to proportion liquid additives at batch mixing plants.

Continuous mixing plants using HMA additives must comply with the following:

1. Dry ingredient additives for continuous production must be proportioned with a conveyor scale or a loss-in-weight meter.
2. HMA plant process controller and ingredient measuring systems must be capable of varying all ingredient-feed rates proportionate with the dry aggregate delivery at all production rates and rate changes.
3. Liquid HMA additive must enter the production stream with the binder. Dry HMA additive must enter the production stream at or before the mixing area.
4. If dry HMA additives are used at continuous mixing HMA plants, bag-house dust systems must return all captured material to the mix. This requirement is waived for lime-treated aggregates.
5. HMA additive must be proportioned to within ±0.3 percent of the target additive rate.

Batch mixing plants using HMA additives must comply with the following:

1. Metered HMA additive must be placed in an intermediate holding vessel before being added to the stream of asphalt binder as it enters the pugmill.
2. If a container scale is used, weigh additive before combining with asphalt binder. Keep the container scale separate from other ingredient proportioning. The container scale capacity must be no more than twice the volume of the maximum additive batch size. The container scale's graduations must be smaller than the proportioning tolerance or 0.001 times the container scale capacity.
3. Dry HMA additive proportioning devices must be separate from metering devices for the aggregates and asphalt binder. Proportion dry HMA additive directly into the pugmill, or place in an intermediate holding vessel to be added to the pugmill at the appropriate time in the batch cycle. Dry ingredients for batch production must be proportioned with a hopper scale.
4. Zero tolerance for the HMA additive batch scale is ±0.5 percent of the target additive weight. The indicated HMA additive batch scale weight may vary from the preselected weight setting by up to ±1.0 percent of the target additive weight.

39-2.01B(9) Geosynthetic Pavement Interlayer

Geosynthetic pavement interlayer must comply with section of the specifications for pavement fabric, paving mat, paving grid, paving geocomposite grid, or geocomposite strip membrane as shown.

The asphalt binder for geosynthetic pavement interlayer must be PG 64-10, PG 64-16, or PG 70-10.

39-2.01B(10) Tack Coat

Tack coat must comply with the specifications for asphaltic emulsion or asphalt binder. Choose the Type and grade of emulsion or binder.

39-2.01B(11) Miscellaneous Areas and Dikes

For miscellaneous areas and dikes:

1. Choose the aggregate gradation from:
   1.1. 3/8-inch HMA aggregate gradation
   1.2. 1/2-inch HMA aggregate gradation
   1.3. Dike mix aggregate gradation
2. Choose asphalt binder Grade PG 64-10, PG 64-16 or PG 70-10.
3. Minimum asphalt binder content must be:
   3.1. 6.40 percent for 3/8-inch HMA aggregate gradation
   3.2. 5.70 percent for 1/2-inch HMA aggregate gradation
   3.3. 6.00 percent for dike mix aggregate gradation

If you request and the Engineer authorizes, you may reduce the minimum asphalt binder content.

Aggregate gradation for dike mix must be within the TV limits for the specified sieve size shown in the following table:

Dike Mix Aggregate Gradation
(Percentage Passing)

Sieve size	Target value limit	Allowable tolerance
1/2"	100	--
3/8"	---	95 - 100
No. 4	73–77	TV ± 10
No. 8	58–63	TV ± 10
No. 30	29–34	TV ± 10
No. 200	--	0 - 14

For HMA used in miscellaneous areas and dikes, sections 39-2.01A(3), 39-2.01A(4), 39-2.01B(2), 39-2.01B(4)(c), and 39-2.01B(5)–(10) do not apply.

39-2.01C Construction

39-2.01C(1) General

Do not place HMA on wet pavement or frozen surface.

You may deposit HMA in a windrow and load it in the paver if:

1. Paver is equipped with a hopper that automatically feeds the screed
2. Loading equipment can pick up the windrowed material and deposit it in the paver hopper without damaging base material
3. Activities for depositing, pickup, loading, and paving are continuous
4. For method compaction:
   - 4.1. The temperature of the HMA and the HMA produced with WMA water injection technology in the windrow does not fall below 260 degrees F
   - 4.2. The temperature of the HMA produced using WMA additive technology in the windrow does not fall below 250 degrees F

HMA placed in a windrow on the roadway surface must not extend more than 250 feet in front of the loading equipment or material transfer vehicle.

You may place HMA in 1 or more layers on areas less than 5 feet wide and outside the traveled way, including shoulders. You may use mechanical equipment other than a paver for these areas. The equipment must produce uniform smoothness and texture.

HMA handled, spread, or windrowed must not stain the finished surface of any improvement, including pavement.

Do not use petroleum products such as kerosene or diesel fuel to release HMA from trucks, spreaders, shovels, rakes, or compactors.

HMA must be free of:

1. Segregation
2. Coarse or fine aggregate pockets
3. Hardened lumps
4. Marks
5. Tearing or microcracks (e.g. from roller checking)
6. Irregular texture

Complete finish rolling activities before the pavement surface temperature is:

1. Below 150 degrees F for HMA with unmodified binder
2. Below 140 degrees F for HMA with modified binder

39-2.01C(2) Spreading and Compacting Equipment

39-2.01C(2)(a) General

Paving equipment for spreading must be:

1. Self-propelled
2. Mechanical
3. Equipped with a screed or strike-off assembly that can distribute HMA the full width of a traffic lane
4. Equipped with a full-width compacting device
5. Equipped with automatic screed controls and sensing devices that control the thickness, longitudinal grade, and transverse screed slope.

The screed must be heated and produce a uniform HMA surface texture without tearing, shoving, or gouging.

The paver must not leave marks such as ridges and indentations unless you can eliminate them by rolling.

Rollers must be equipped with a system that prevents HMA from sticking to the wheels. You may use a parting agent that does not damage the HMA or impede the bonding of layers.

In areas inaccessible to spreading and compacting equipment:

1. Spread the HMA by any means to obtain the specified lines, grades, and cross sections
2. Use a pneumatic tamper, plate compactor, or equivalent to achieve thorough compaction

39-2.01C(2)(b) Material Transfer Vehicle

If a material transfer vehicle is specified, the material transfer vehicle must have sufficient capacity to prevent stopping the paver and must be capable of:

1. Either receiving HMA directly from trucks or using a windrow pickup head to load it from a windrow deposited on the roadway surface
2. Remixing the HMA with augers before transferring into the paver's receiving hopper or feed system
3. Transferring HMA directly into the paver's receiving hopper or feed system

39-2.01C(2)(c) Method Compaction Equipment

For method compaction, each paver spreading HMA must be followed by at least one of each of the following 3 Types of rollers:

1. Breakdown roller must be a vibratory roller specifically designed to compact HMA. The roller must be capable of at least 2,500 vibrations per minute and must be equipped with amplitude and frequency controls. The roller's gross static weight must be at least 7.5 tons.
2. Intermediate roller must be an oscillating-Type pneumatic-tired roller at least 4 feet wide. Pneumatic tires must be of equal size, diameter, Type, and ply. The tires must be inflated to 60 psi minimum and maintained so that the air pressure does not vary more than 5 psi.
3. Finishing roller must be a steel-tired, 2-axle tandem roller. The roller's gross static weight must be

at least 7.5 tons.

Each roller must have a separate operator. Rollers must be self-propelled and reversible. Any deviation from the above requirements must be approved in writing by the Engineer.

Method compaction procedures are described in detail in Section 39-2.01C(15)(b).

39-2.01C(2)(d)–39-2.01C(2)(f) Reserved

39-2.01C(3) Surface Preparation

39-2.01C(3)(a) General

Before placing HMA, remove loose paving particles, dirt, and other extraneous material by any means including flushing and sweeping.

39-2.01C(3)(b) Subgrade

Prepare subgrade to receive HMA under the sections for the material involved. Subgrade must be free of loose and extraneous material.

39-2.01C(3)(c) - 39-2.01C(3)(e) Reserved

39-2.01C(3)(f) Tack Coat

Apply a tack coat:

1. To existing pavement including planed surfaces
2. Between HMA layers
3. To vertical surfaces of:
   3.1. Curbs
   3.2. Gutters
   3.3. Construction joints

Equipment for the application of tack coat must comply with section 37-1.03B.

Before placing HMA, apply a tack coat in 1 application at the minimum residual rate shown in the following table for the condition of the underlying surface:

Tack Coat Application Rates for HMA

HMA over:	Minimum residual rates (gal/sq yd)		
	CSS1/CSS1h, SS1/SS1h and QS1h/CQS1h asphaltic emulsion	CRS1/CRS2, RS1/RS2 and QS1/CQS1 asphaltic emulsion	Asphalt binder and PMCRS-2 / PMCRS-2h asphaltic emulsion
New HMA (between layers)	0.02	0.03	0.02
Concrete pavement and existing asphalt concrete surfacing	0.03	0.04	0.03
Planed pavement	0.05	0.06	0.04

If a stress absorbing membrane interlayer as specified in section 37-2.05 is applied, the tack coat application rates for new HMA apply.

Notify the Engineer if you dilute asphaltic emulsion with water. The weight ratio of added water to asphaltic emulsion must not exceed 1 to 1.

Measure added water either by weight or volume under section 9-1.02 or use water meters from water districts, cities, or counties. If you measure water by volume, apply a conversion factor to determine the correct weight.

With each dilution, submit:

1. Weight ratio of water to bituminous material in the original asphaltic emulsion
2. Weight of asphaltic emulsion before diluting
3. Weight of added water
4. Final dilution weight ratio of water to asphaltic emulsion

Apply a tack coat to vertical surfaces with a residual rate that will thoroughly coat the vertical face without running off.

If authorized, you may change the tack coat application rates.

Immediately in advance of placing HMA, apply additional tack coat to damaged areas or where loose or extraneous material is removed.

Close areas receiving tack coat to traffic. Do not allow the tracking of tack coat onto pavement surfaces beyond the job site.

If you use an asphalt binder for tack coat, the asphalt binder temperature must be from 285 to 350 degrees F when applied.

39-2.01C(3)(g) Geosynthetic Pavement Interlayer

Where shown, place geosynthetic pavement interlayer over a coat of asphalt binder and in compliance with the manufacturer's instructions. Do not place the interlayer on a wet or frozen surface. If the interlayer, in compliance with the manufacturer’s instructions, does not require asphalt binder, do not apply asphalt binder before placing the interlayer.

Before placing the interlayer or asphalt binder:

1. Repair cracks 1/4 inch and wider, spalls, and holes in the pavement. This repair is change order work and shall be approved by the Engineer.
2. Clean the pavement of loose and extraneous material.

If the interlayer requires asphalt binder, immediately before placing the interlayer, apply asphalt binder at a rate specified by the interlayer manufacturer; at 0.25±0.03 gal per square yard of interlayer; or at a rate that just saturates the interlayer; whichever is greater. Apply asphalt binder the width of the interlayer plus 3 inches on each side. At an interlayer overlap, apply asphalt binder on the lower interlayer the same overlap distance as the upper interlayer.

If asphalt binder tracked onto the interlayer or brought to the surface by construction equipment causes interlayer displacement, cover it with a small quantity of HMA.

If the interlayer placement does not require asphalt binder, apply tack coat prior to placing HMA at the application rates specified under section 39-2.01C(3)(f) based on the condition of the underlying surface on which the interlayer was placed.

Align and place the interlayer with no overlapping wrinkles, except a wrinkle that overlaps may remain if it is less than 1/2 inch thick. If the overlapping wrinkle is more than 1/2 inch thick, cut the wrinkle out and overlap the interlayer no more than 2 inches.

Overlap the interlayer borders between 2 to 4 inches. In the direction of paving, overlap the following roll with the preceding roll at any break.

You may use rolling equipment to correct distortions or wrinkles in the interlayer.

Before placing HMA on the interlayer, do not expose the interlayer to:

1. Traffic, except for crossings under traffic control and only after you place a small HMA quantity
2. Sharp turns from construction equipment
3. Damaging elements

Pave HMA on the interlayer during the same work shift. The minimum HMA thickness over the interlayer must be 0.12 foot including at conform tapers.

39-2.01C(4) Longitudinal Joints

39-2.01C(4)(a) General

Longitudinal joints in the top layer must match lane lines or be offset 0.5 foot, if ordered, to avoid permanent pavement delineation conflicts. Alternate the longitudinal joint offsets in the lower layers at least 0.5 foot from each side of the lane line. Other longitudinal joint placement patterns are allowed if authorized.

A vertical longitudinal joint of more than 0.15 foot is not allowed at any time between adjacent lanes open to traffic.

For an HMA thickness of 0.15 foot or less, the distance between the ends of the adjacent surfaced lanes at the end of each day's work must not be greater than can be completed in the following day of normal paving.

For an HMA thickness greater than 0.15 foot, you must place HMA on adjacent traveled way lanes or shoulder such that at the end of each work shift the distance between the ends of HMA layers on adjacent lanes is from 5 to 10 feet. Place additional HMA along the transverse edge at each lane's end and along the exposed longitudinal edges between adjacent lanes. Hand rake and compact the additional HMA to form temporary conforms. You may place kraft paper or other authorized release agent under the conform tapers to facilitate the taper removal when paving activities resume.

If placing HMA against the edge of existing pavement, saw cut or grind the pavement straight and vertical along the joint and remove extraneous material.

39-2.01C(4)(b) Tapered Notched Wedge

For divided highways with an HMA lift thickness greater than 0.15 foot, you may construct a 1-foot wide tapered notched wedge joint as a longitudinal joint between adjacent lanes open to traffic. A vertical notch of 0.75 inch maximum must be placed at the top and bottom of the tapered wedge.

The tapered notched wedge must keep its shape while exposed to traffic. Pave the adjacent lane within 1 day.

Construct the tapered portion of the tapered notched wedge with an authorized strike-off device. The strike-off device must provide a uniform slope and must not restrict the main screed of the paver.

You may use a device attached to the screed to construct longitudinal joints that will form a tapered notched wedge in a single pass. The tapered notched wedge must be compacted to a minimum of 91 percent compaction.

39-2.01C(5) Pavement Edge Treatments

Construct edge treatment on the HMA pavement as shown.

Where a tapered edge is required, use the same Type of HMA used for the adjacent lane or shoulder.

The edge of roadway where the tapered edge is to be placed must have a solid base, free of debris such as loose material, grass, weeds, or mud. Grade the areas to receive the tapered edge as required.

The tapered edge must be placed monolithic with the adjacent lane or shoulder and must be shaped and compacted with a device attached to the paver.

The device must be capable of shaping and compacting HMA to the required cross section as shown. Compaction must be accomplished by constraining the HMA to reduce the cross sectional area by 10 to 15 percent. The device must produce a uniform surface texture without tearing, shoving, or gouging and must not leave marks such as ridges and indentations. The device must be capable of transitioning to cross roads, driveways, and obstructions.

For the tapered edge, the angle of the slope must not deviate by more than ±5 degrees from the angle shown. Measure the angle from the plane of the adjacent finished pavement surface.

If paving is done in multiple lifts, the tapered edge must be placed with each lift.

Short sections of hand work are allowed to construct tapered edge transitions.

39-2.01C(6) Widening Existing Pavement

If widening existing pavement, construct new pavement structure to match the elevation of the existing pavement's edge before placing HMA over the existing pavement.

39-2.01C(7) Shoulders, Medians, and Other Road Connections

Until the adjoining through lane's top layer has been paved, do not pave the top layer of:

1. Shoulders
2. Tapers
3. Transitions
4. Road connections
5. Driveways
6. Curve widenings
7. Chain control lanes
8. Turnouts
9. Turn pockets

If the number of lanes changes, pave each through lane's top layer before paving a tapering lane's top layer. Simultaneous to paving a through lane's top layer, you may pave an adjoining area's top layer, including shoulders. Do not operate spreading equipment on any area's top layer until completing final compaction.

If shoulders or median borders are shown, pave shoulders and median borders adjacent to the lane before opening a lane to traffic.

If shoulder conform tapers are shown, place conform tapers concurrently with the adjacent lane's paving.

If a driveway or a road connection is shown, place additional HMA along the pavement's edge to conform to road connections and driveways. Hand rake, if necessary, and compact the additional HMA to form a smooth conform taper.

39-2.01C(8) Leveling

Section 39-2.01C(8) applies if a bid item for hot mix asphalt (leveling) is shown on the Bid Item List.

Fill and level irregularities and ruts with HMA before spreading HMA over the base, existing surfaces, or bridge decks. You may use mechanical equipment other than a paver for these areas. The equipment must produce uniform smoothness and texture. HMA used to change an existing surface's cross slope or profile is not paid for as hot mix asphalt (leveling). Compact using the method process unless otherwise specified in the special provisions.

39-2.01C(9) Miscellaneous Areas and Dikes

Prepare the area to receive HMA for miscellaneous areas and dikes, including excavation and backfill as needed.

Spread the HMA in miscellaneous areas in 1 layer and compact to the specified lines and grades.

In median areas adjacent to slotted median drains, each layer of HMA must not exceed 0.20 foot (2.4 inch) maximum compacted thickness.

The finished surface must be:

1. Textured uniformly
2. Compacted firmly
3. Without depressions, humps, and irregularities

39-2.01C(10)–39-2.01C(14) Reserved

39-2.01C(15) Compaction

39-2.01C(15)(a) General

Rolling must leave the completed surface compacted and smooth without tearing, checking, cracking, or shoving.

If a vibratory roller is used as a finish roller, turn the vibrator off.

Do not open new HMA pavement to traffic until its mid depth temperature is below 160 degrees F.

If the surface to be paved is both in sunlight and shade, pavement surface temperatures are taken in the shade.

39-2.01C(15)(b) Method Compaction

Use method compaction for any of the following conditions:

1. HMA pavement thickness shown is less than **0.15 foot (1.8 inches)**
2. Replace asphalt concrete surfacing (**digouts**)
3. Leveling courses
4. Areas the Engineer determines conventional compaction and compaction measurement methods are impeded

HMA compaction coverage is the number of passes needed to cover the paving width. A pass is 1 roller's movement parallel to the paving in either direction. Overlapping passes are part of the coverage being made and are not a subsequent coverage. Do not start a coverage until completing the prior coverage.

Method compaction must consist of performing:

1. Breakdown compaction of each layer with 3 coverages using a vibratory roller. The speed of the vibratory roller in miles per hour must not exceed the vibrations per minute divided by 1,000. If the HMA layer thickness is less than 0.08 foot, turn the vibrator off.
2. Intermediate compaction of each layer of HMA with 3 coverages using a pneumatic-tired roller at a speed not to exceed 5 mph.
3. Finish compaction of HMA with 1 coverage using a steel-tired roller.

Start rolling at the lower edge and progress toward the highest part.

The Engineer may order fewer coverages if the layer thickness of HMA is less than 0.15 foot (1.8 inches).

The compacted lift thickness must not exceed 0.25 foot (3 inches).

Any deviation from the above requirements must be approved in writing by the Engineer.

39-2.01C(15)(c)–39-2.01C(15)(e) Reserved

39-2.01C(16) Smoothness Corrections

If the pavement surface does not comply with section 39-2.01A(4)(i)(iii), grind the pavement to within specified tolerances, remove and replace the pavement, or place an overlay of HMA. Do not start corrective work until your method is authorized.

Do not use equipment with carbide cutting teeth to grind the pavement unless authorized. Smoothness corrections must leave at least 75 percent of the specified HMA thickness. If ordered, core the pavement at the locations selected by the Engineer. Remove and replace deficient pavement areas where the overlay thickness is less than 75 percent of the thickness specified.

Corrected HMA pavement areas must be uniform rectangles, half the lane width, with edges:

1. Parallel to and along the nearest HMA pavement edge or lane line
2. Perpendicular to the pavement centerline

Measure the corrected HMA pavement surface as specified in 39-2.01A(4)(i)(iii) Pavement Smoothness and correct the pavement to within specified tolerances.

If a must-grind area or straight edged pavement cannot be corrected to within specified tolerances, remove and replace the pavement. Retest the corrected area with the straightedge.

On ground areas not to be overlaid with OGFC, apply a fog seal under section 37-4.02.

39-2.01C(17) Reserved

39-2.01D Payment

The payment quantity for geosynthetic pavement interlayer is the area measured from the actual pavement covered.

Except for tack coat used in minor HMA, payment for tack coat is not included in the payment for hot mix asphalt.

The Department does not adjust the unit price for an increase or decrease in the tack coat quantity.

The payment quantity for HMA of the Type shown on the Bid Item List is measured based on the combined mixture weight. If recorded batch weights are printed automatically, the bid item for HMA is measured by using the printed batch weights, provided:

1. Total aggregate and supplemental fine aggregate weight per batch is printed. If supplemental fine aggregate is weighed cumulatively with the aggregate, the total aggregate batch weight must include the supplemental fine aggregate weight.
2. Total virgin asphalt binder weight per batch is printed.
3. Each truckload's zero tolerance weight is printed before weighing the first batch and after weighing the last batch.
4. Time, date, mix number, load number and truck identification is correlated with a load slip.
5. Copy of the recorded batch weights is certified by a licensed weigh master and submitted.

The payment quantity for place hot mix asphalt dike of the Type shown on the Bid Item List is the length measured from end to end. Payment for the HMA used to construct the dike is not included in the payment for place hot mix asphalt dike.

The payment quantity for place hot mix asphalt (miscellaneous areas) is the area measured for the in-place compacted area. Payment for the HMA used for miscellaneous areas is not included in the payment for place hot mix asphalt (miscellaneous areas).

The Engineer does not adjust the unit price for an increase or decrease in the prepaving grinding day quantity.

39-2.02 HOT MIX ASPHALT TYPE F & TYPE H

39-2.02A General

39-2.02A(1) Summary

Section 39-2.02 includes specifications for producing and placing HMA Type F & Type H.

If authorized by the Engineer, you may produce HMA Type F & Type H using authorized Caltrans approved WMA technology.

If liquid antistrip (LAS) is specified for HMA Type F or Type H, WMA additive technology may be used as substitute for LAS treatment at the discretion of the Engineer. Foam injection technology is not an acceptable substitute for LAS treatment.

39-2.02A(2) Definitions

Reserved

39-2.02A(3) Submittals

39-2.02A(3)(a) General

Reserved

39-2.02A(3)(b) Job Mix Formula

The JMF must be based on the Superpave HMA mix design method as described in MS-2 *Asphalt Mix Design Methods* by the Asphalt Institute as modified herein.

39-2.02A(3)(c) Reclaimed Asphalt Pavement

Submit QC test results for RAP gradation with the combined aggregate gradation within 2 business days of taking RAP samples during HMA production.

39-2.02A(3)(d)–39-2.02A(3)(f) Reserved

39-2.02A(4) Quality Assurance

39-2.02A(4)(a) General

Reserved

39-2.02A(4)(b) Quality Control

39-2.02A(4)(b)(i) General

Reserved

39-2.02A(4)(b)(ii) Aggregates

Test the quality characteristics of aggregates under the test methods and frequencies shown in the following table:

Minimum Contractor Quality Control Aggregate Testing

Quality characteristic	Test method	Minimum testing frequency
Gradation[a]	AASHTO T 11 / T 27	1 per 750 tons and any remaining part
Sand equivalent[b, c]	AASHTO T 176	
Moisture content[d]	AASHTO T 255	
Crushed particles	AASHTO T 335	1 per 10,000 tons or 2 per project whichever is greater
Los Angeles Rattler	AASHTO T 96	
Flat and elongated particles	ASTM D4791	

[a] Test for aggregate gradation under AASHTO T 27. Do not wash the coarse aggregate. Wash the fine aggregate in accordance with AASHTO T11. If RAP is used, test the combined aggregate gradation under California Test 384.
[b] Reported value must be the average of 3 tests from a single sample.
[c] Use of a sand reading indicator is required as shown in AASHTO T176, Figure 1. Section 4.7, "Manual Shaker," 7.1.2, "Alternate Method No. 2," and 8.4.3, "Hand Method," do not apply. Prepare the stock solution as specified in section 4.8.1, "Stock solution with formaldehyde," except omit the addition of formaldehyde.
[d] Test at continuous mixing plants only. If RAP is used, test the RAP moisture content at continuous mixing plant and batch mixing plant.

39-2.02A(4)(b)(iii) Reclaimed Asphalt Pavement

Sample and test mix design RAP stockpile under California Test 384.

Report the average AASHTO T 308 uncorrected binder content on page 4 of your Contractor Hot Mix Asphalt Design Data form.

When the mix design RAP stockpile is augmented, sample RAP used to augment the stockpile at a minimum frequency of 1 sample per 1,000 tons under California Test 384 before augmenting the stockpile. Test each sample to determine the uncorrected binder content under AASHTO T 308. Average the results of the 3 tests.

When tested under AASHTO T308, the uncorrected binder content of each augmented RAP sample must be within ±2.00 percent of the average uncorrected asphalt binder content reported on page 4 of your Contractor Hot Mix Asphalt Design Data form (CEM 3512).

The augmented RAP sample when tested under AASHTO T209 must be within ±0.06 of the average maximum specific gravity reported on page 4 of your Contractor Hot Mix Asphalt Design Data form (CEM 3512).

During HMA Type F and Type H production, sample RAP twice daily and perform QC testing for:

1. Aggregate gradation at least once a day under California Test 384
2. Moisture content at least once a day

39-2.02A(4)(b)(iv)–39-2.02A(4)(b)(viii) Reserved

39-2.02A(4)(b)(ix) Hot Mix Asphalt Production

Test the quality characteristics of HMA under the test methods and frequencies shown in the following table:

Minimum Contractor Quality Control HMA Testing

Quality characteristic	Test method	Minimum testing frequency (HMA Type F & Type H)
Asphalt binder content	AASHTO T 308 Method A	1 per 750 tons and any remaining part
HMA moisture content	AASHTO T 329	1 per 2,500 tons but not less than 1 per paving day
Air void content	AASHTO T 269	1 per 4,000 tons or 2 every 5 paving days, whichever is greater
Voids in mineral aggregate	MS-2 Asphalt Mixture Volumetrics	1 per 10,000 tons or 2 per project whichever is greater
Dust proportion	MS-2 Asphalt Mixture Volumetrics	
Density of core	California Test 375	2 per paving day
Nuclear gauge density	California Test 375	3 per 250 tons or 3 per paving day, whichever is greater
Hamburg Wheel Track	California Test 389	1 per 10,000 tons or 1 per project, whichever is greater

39-2.02A(4)(c)–39-2.02A(4)(d) Reserved

39-2.02A(4)(e) Engineer Acceptance

The Engineer accepts HMA based on compliance with:

1. Aggregate quality requirements shown in the following table:

Aggregate Quality Requirements

Quality characteristic	Test method	Requirement	
		Type F[a]	Type H
Aggregate gradation[b]	AASHTO T 11 / 27	JMF TV ± Tolerance	
Percent of crushed particles Coarse aggregate (min, %) One-fractured face Two-fractured faces Fine aggregate (min, %) (Passing No. 4 sieve and retained on No. 8 sieve.) One fractured face	AASHTO T 335	 95 90 70	 50 50 20
Los Angeles Rattler (max, %) Loss at 100 Rev. Loss at 500 Rev.	AASHTO T 96	 12 40	 12 45
Sand equivalent (min.)[c, d]	AASHTO T 176	47	47
Flat and elongated particles (max, % by weight at 5:1)	ASTM D4791	10	10
Non-manufactured sand, (max, %)[e]	-	10	10

[a] When HMA Type F is used as substitute for HMA Type H, the Engineer accepts HMA based on Type H requirements.
[b] Test for aggregate gradation under AASHTO T 27. Do not wash the coarse aggregate. Wash the fine aggregate in accordance with AASHTO T11. The Engineer determines combined aggregate gradations containing RAP under California Test 384. The Engineer uses the correlation factor from the Contractor Hot Mix Asphalt Design Data form (CEM 3512) and mathematically combines the virgin and corrected RAP aggregate gradations at the correct proportions to obtain the combined gradation.
[c] Reported value must be the average of 3 tests from a single sample.
[d] Use of a sand reading indicator is required as shown in AASHTO T 176, Figure 1. Sections 4.7, "Manual Shaker," 7.1.2, "Alternate Method No. 2," and 8.4.3, "Hand Method," do not apply. Prepare the stock solution as specified in section 4.8.1, "Stock solution with formaldehyde," except omit the addition of formaldehyde
[e] Manufactured sand is fine aggregate produced by crushing rock or gravel

2. If RAP is used, RAP quality requirements shown in the following table:

Reclaimed Asphalt Pavement Quality

Quality characteristic	Test method	Requirement
Uncorrected binder content (% within the average value reported[a])	AASHTO T 308	±2.00
Specific gravity (within the average value reported[b])	AASHTO T 209	±0.06

[a]Average uncorrected binder content of three ignition oven tests performed at JMF verification. Engineer must use the same ignition oven used to determine the average uncorrected binder content at JMF verification.
[b]Average maximum specific gravity reported on page 4 of Contractor Hot Mix Asphalt Design form (CEM 3512).

3. In-place HMA quality requirements shown in the following table:

HMA Acceptance In-Place

Quality characteristic	Test method	Type F[a]	Type H
Asphalt binder content (%)	AASHTOT 308 Method A	JMF ± 0.50	JMF ± 0.50
HMA moisture content (max, %)	AASHTOT 329	1.0	1.0
Air voids content at N_{design} (%)[b, c]	AASHTOT 269	4.0 ± 1.5	4.0 ± 1.5
Voids in mineral aggregate on plant-produced HMA (min, %)[b]	MS-2 Asphalt Mixture Volumetrics [d]		
Gradation:			
No. 4		15.5–18.5	15.0–18.0
3/8-inch		14.5–17.5	14.0–17.0
1/2-inch		13.5–16.5	13.0–16.0
3/4-inch		12.5–15.5	12.0–15.0
Dust proportion	MS-2 Asphalt Mixture Volumetrics	0.6-1.3	0.5-1.4
Density of core (% of max theoretical density)[e,f]	California Test 375	92.0–97.0	92.0-97.0
Hamburg wheel track[g] (min number of passes at 0.5-inch rut depth)	California Test 389		
Binder grade:			
PG 58		10,000	7,500
PG 64		15,000	12,500
PG 70		20,000	17,500
PG 76 or higher		25,000	20,000

[a] When HMA Type F is used as substitute for HMA Type H, the Engineer accepts HMA based on Type H requirements.
[b] Prepare 3 briquettes. Report the average of 3 tests.
[c] The Engineer determines the bulk specific gravity of each lab-compacted briquette under AASHTO T 275, Method A, and theoretical maximum specific gravity under AASHTO T 209, Method A.
[d] Determine bulk specific gravity under AASHTO T 275, Method A.
[e] The Engineer determines percent of theoretical maximum density under California Test 375 except the Engineer uses:
1. AASHTO T 275, Method A, to determine in-place density of each density core instead of using the nuclear gauge
2. AASHTO T 209, Method A to determine theoretical maximum density instead of calculating test maximum density

[f] The Engineer determines theoretical maximum density under AASHTO T 209, Method A.
[g] The Hamburg wheel track requirement for HMA Type H may be waived at the discretion of the Engineer.

39-2.02B Materials

39-2.02B(1) General

Reserved

39-2.02B(2) Hot Mix Asphalt Mix Design

The mix design for HMA must comply with the requirements shown in the following table:

HMA Mix Design Requirements

Quality characteristic	Test method	Type F	Type H
Air voids content (%)	AASHTO T 269[a, b]	$N_{initial}$ > 8.0 N_{design} = 4.0 N_{max} > 2.0	$N_{initial}$ > 8.0 N_{design} = 4.0 N_{max} > 2.0
Gyration compaction (no. of gyrations)	AASHTO T 312	$N_{initial}$ = 8 N_{design} = 85.0 N_{max} = 130	$N_{initial}$ = 7 N_{design} = 65.0 N_{max} = 115
Voids in mineral aggregate (min, %)[b] Gradation: No. 4 3/8-inch 1/2-inch 3/4-inch	MS-2 Asphalt Mixture Volumetrics	 16.5–19.5 15.5–18.5 14.5–17.5 13.5–16.5	 16.0–19.0 15.0–18.0 14.0–17.0 13.0–16.0
Dust proportion	MS-2 Asphalt Mixture Volumetrics	0.6–1.3	0.5–1.4
Hamburg wheel track (min number of passes at 0.5-inch rut depth) Binder grade: PG 58 PG 64 PG 70 PG 76 or higher	California Test 389[c]	 10,000 15,000 20,000 25,000	 7,500 12,500 17,500 20,000

[a] Calculate the air voids content of each specimen using AASHTO T 275, Method A, to determine bulk specific gravity. Use AASHTO T 209, Method A to determine theoretical maximum specific gravity. Use a pycnometer and digital manometer when performing AASHTO T 209.
[b] Measure bulk specific gravity using AASHTO T 275, Method A.
[c] Test plant-produced HMA sample

For HMA mixtures using RAP, the maximum allowed binder replacement is 15.0 percent in the upper 0.2 foot (2.4 inches) exclusive of OGFC and 25.0 percent below. The binder replacement is calculated as a percentage of the approved JMF target asphalt binder content.

For HMA with a binder replacement greater than 15.0 percent of your specified OBC and less than or equal to 25.0 percent of OBC, you must use a performance graded asphalt binder grade with upper and lower temperature classifications reduced by 6 degrees C from the specified PG binder grade. Hamburg wheel track requirements are based on the grade of the asphalt binder specified for Type F and Type H HMA.

39-2.02B(3) Asphalt Binder

39-2.02B(3)(a) General

The grade of the asphalt binder for HMA must be PG 64-10 or PG 64-16.

39-2.02B(4) Aggregates

39-2.02B(4)(a) General

Before the addition of asphalt binder, the aggregates must comply with the requirements shown in the following table:

Aggregate Quality Requirements

Quality characteristic	Test method	Requirement	
		Type F	Type H
Aggregate gradation[a]	AASHTO T 11 / 27	JMF TV ± Tolerance	
Percent of crushed particles Coarse aggregate (min, %) One-fractured face Two-fractured faces Fine aggregate (min, %) (Passing No. 4 sieve and retained on No. 8 sieve.) One fractured face	AASHTO T 335	 95 90 70	 50 50 20
Los Angeles Rattler (max, %) Loss at 100 Rev. Loss at 500 Rev.	AASHTO T 96	 12 40	 12 45
Sand equivalent (min.)[b, c]	AASHTO T 176	47	47
Flat and elongated particles (max, % by weight at 5:1)	ASTM D4791	10	10
Nonmanufactured sand, (max, %)[d]	-	10	10

[a] Test for aggregate gradation under AASHTO T 27. Do not wash the coarse aggregate. Wash the fine aggregate in accordance with AASHTO T11.The Engineer determines combined aggregate gradations containing RAP under California Test 384.

[b] Reported value must be the average of 3 tests from a single sample.

[c] Use of a sand reading indicator is required as shown in AASHTO T 176, Figure 1. Sections 4.7, "Manual Shaker," 7.1.2, "Alternate Method No. 2," and 8.4.3, "Hand Method," do not apply. Prepare the stock solution as specified in section 4.8.1, "Stock solution with formaldehyde," except omit the addition of formaldehyde.

[d] Manufactured sand is fine aggregate produced by crushing rock or gravel.

39-2.02B(4)(b) Aggregate Size and Gradations

Unless otherwise indicated in contract documents the ratio of HMA lift thickness to nominal maximum aggregate size must be a minimum of 3:1. If the aggregate gradations for HMA is not specified, aggregate gradations must comply with the requirements shown in the following table:

Aggregate Gradation Requirements

HMA pavement thickness shown	Gradation
0.10 foot	3/8 inch
Greater than 0.10 to less than 0.25 foot	1/2 inch or 3/4 inch
0.25 foot or greater	3/4 inch

Aggregate gradation must be within the TV limits for the specified sieve size shown in the following tables:

Aggregate Gradations for HMA
(Percentage Passing)

3/4 inch

Sieve size	Target value limit	Allowable tolerance
1"	100	--
3/4"	90-100	TV±5
1/2"	<90	TV±6
No.8	23-49	TV±5
No.200	2.0-8.0	TV±2.0

1/2 inch

Sieve size	Target value limit	Allowable tolerance
3/4"	100	--
1/2"	90-100	TV±5
3/8"	<90	TV±5
No.8	28-58	TV±5
No.200	2.0–10.0	TV±2.0

3/8 inch

Sieve size	Target value limit	Allowable tolerance
1/2"	100	--
3/8"	90-100	TV±5
No.4	<90	TV±5
No.8	32-67	TV±5
No.200	2.0–10.0	TV±2.0

No. 4

Sieve size	Target value limit	Allowable tolerance
3/8”	100	--
No. 4	95-98	TV±5
No.8	<90	TV±5
No.30	34-45	TV±5
No.200	2.0–12.0	TV±4.0

39-2.02B(5) Reclaimed Asphalt Pavement

Provide enough space at your plant for complying with all RAP handling requirements. Provide a clean, graded base, well drained area for stockpiles.

If RAP is from multiple sources, blend the RAP thoroughly and completely before fractionating.

For RAP substitution greater than 15 percent of the aggregate blend, fractionate RAP stockpiles into 2 sizes, a coarse fraction RAP retained on 3/8-inch sieve and a fine fraction RAP passing 3/8-inch sieve. For RAP substitution of 15 percent of the aggregate blend or less, fractionation is not required.

The RAP fractionation must comply with the requirements shown in the following table:

RAP Stockpile Fractionation Gradation Requirements

Size	Test method	Requirement
Coarse (% passing the 1-inch sieve)	California Test 202[a]	100
Fine (% passing the 3/8-inch sieve)	California Test 202[a]	98–100

[a] Maximum mechanical shaking time is 10 minutes.

You may use the coarse fractionated stockpile, the fine fractionated stockpile, or a combination of the coarse and fine fractionated stockpiles.

Isolate the processed RAP stockpiles from other materials. Store processed RAP in conical or longitudinal stockpiles. Processed RAP must not be agglomerated or be allowed to congeal in large stockpiles.

39-2.02B(6)–39-2.02B(10) Reserved

39-2.02B(11) Hot Mix Asphalt Production

If RAP is used, the asphalt plant must automatically adjust the virgin asphalt binder to account for RAP percentage and RAP binder.

During production, you may adjust hot-or cold-feed proportion controls for virgin aggregate and RAP. RAP must be within ±3 of RAP percentage described in your Caltrans Contractor Job Mix Formula Proposal form (CEM 3511) without exceeding 25 percent.

39-2.02C Construction

Where the pavement thickness shown is equal to or greater than 0.30 foot, you may place HMA in multiple lifts not less than 0.15 foot each. If placing HMA in multiple lifts:

1. Aggregate gradation must comply with the requirements shown in the following table:

Aggregate Gradation Requirements

HMA lift thickness	Gradation
0.15 to less than 0.25 foot	1/2 or 3/4 inch
0.25 foot or greater	3/4 inch

2. Apply a tack coat before placing a subsequent lift
3. The Engineer evaluates each HMA lift individually for compliance

If the ambient air temperature is below 60 degrees F, cover the loads in trucks with tarpaulins. If the time for HMA discharge to truck at the HMA plant until transfer to paver's hopper is 90 minutes or greater and if the ambient air temperature is below 70 degrees F, cover the loads in trucks with tarpaulins, unless the time from discharging to the truck until transfer to the paver's hopper or the pavement surface is less than 30 minutes. The tarpaulins must completely cover the exposed load until you transfer the mixture to the paver's hopper or the pavement surface.

Spread HMA at the ambient air and surface temperatures shown in the following table:

Minimum Ambient Air and Surface Temperatures

Lift thickness (feet)	Ambient air (°F)		Surface (°F)	
	Unmodified asphalt binder	Modified asphalt binder	Unmodified asphalt binder	Modified asphalt binder
HMA and HMA produced with WMA water injection technology				
<0.15	55	50	60	55
≥0.15	45	45	50	50
HMA produced with WMA additive technology				
<0.15	45	45	50	45
≥0.15	40	40	40	40

For method compaction, the maximum lift thickness must be 0.25 foot.

For HMA and HMA produced with water-injection technology placed under method compaction, if the asphalt binder is:

1. Unmodified, complete:
   1.1. 1st coverage of breakdown compaction before the surface temperature drops below 250 degrees F
   1.2. Breakdown and intermediate compaction before the surface temperature drops below 190 degrees F
   1.3. Finish compaction before the surface temperature drops below 150 degrees F

2. Modified, complete:
   2.1. 1st coverage of breakdown compaction before the surface temperature drops below 240 degrees F
   2.2. Breakdown and intermediate compaction before the surface temperature drops below 180 degrees F
   2.3. Finish compaction before the surface temperature drops below 140 degrees F.

For HMA produced with WMA additive technology placed under method compaction, if the asphalt binder is:

1. Unmodified, complete:
   1.1 1st coverage of breakdown compaction before the surface temperature drops below 240 degrees F
   1.2 Breakdown and intermediate compaction before the surface temperature drops below 190 degrees F
   1.3 Finish compaction before the surface temperature drops below 140 degrees F
   1.4 You may continue static rolling below 140 degrees F to remove roller marks.

2. Modified, complete:
   2.1 1st coverage of breakdown compaction before the surface temperature drops below 230 degrees F
   2.2 Breakdown and intermediate compaction before the surface temperature drops below 170 degrees F
   2.3 Finish compaction before the surface temperature drops below 130 degrees F
   2.4 You may continue static rolling below 130 degrees F to remove roller marks.

You may cool HMA with water when rolling activities are complete if authorized.

39-2.02D Payment

Not Used

39-2.03 RUBBERIZED HOT MIX ASPHALT–GAP GRADED

39-2.03A General

39-2.03A(1) Summary

Section 39-2.03 includes specifications for producing and placing rubberized hot mix asphalt–gap graded (RHMA-G).

If authorized by the Engineer, you may produce RHMA-G using a Caltrans approved WMA technology.

If liquid antistrip (LAS) is required for RHMA-G, WMA additive technology may be used as substitute for LAS treatment at the discretion of the Engineer. Foam injection technology is not an acceptable substitute for LAS treatment.

39-2.03A(2) Definitions

Reserved

39-2.03A(3) Submittals

39-2.03A(3)(a) General

At least 5 business days before use, submit the permit issued by the local air district for asphalt rubber binder blending equipment. If an air quality permit is not required by the local air district for producing asphalt rubber binder, submit verification from the local air district that an air quality permit is not required.

At least 10 days before RHMA-G production, submit the name of an authorized laboratory to perform QC testing for asphalt rubber binder. The authorized laboratory must comply with the Caltrans Independent Assurance Program.

39-2.03A(3)(b) Job Mix Formula

With your proposed JMF, include the SDS for:

1. Base asphalt binder
2. CRM and asphalt modifier
3. Blended asphalt rubber binder components

The JMF must be based on the Superpave HMA mix design method as described in MS-2 *Asphalt Mix Design Methods* by the Asphalt Institute.

39-2.03A(3)(c) Asphalt Rubber Binder

Submit a proposal for asphalt rubber binder design and profile. In the design, include the asphalt binder, asphalt modifier, and CRM and their proportions.

If you change asphalt rubber binder supplier or any component material used in asphalt rubber binder or its percentage, submit a new JMF.

For the asphalt rubber binder used, submit:

1. Log of production daily.
2. Certificate of compliance with test results for CRM and asphalt modifier with each truckload delivered to the HMA plant. The certificate of compliance for asphalt modifier must represent no more than 5,000 lb.
3. Certified weight slips for the CRM and asphalt modifier furnished.
4. QC test results on viscosity within 2 business days after sampling.
5. QC test results on cone penetration, resilience, and softening point within 3 business days after sampling.

Submit a certificate of compliance for the CRM and asphalt modifier. With the certificate of compliance, submit test results for CRM and asphalt modifier with each truckload delivered to the HMA plant.

39-2.03A(4) Quality Assurance

39-2.03A(4)(a) General

Reserved

39-2.03A(4)(b) Job Mix Formula Verification

If you request, the Engineer verifies RHMA-G quality requirements within 20 business days of receiving all verification samples and after the JMF document submittal has been accepted.

39-2.03A(4)(c) Quality Control

39-2.03A(4)(c)(i) General

Reserved

39-2.03A(4)(c)(ii) Asphalt Rubber Binder

39-2.03A(4)(c)(ii)(A) General

The asphalt rubber binder blending plant must be authorized under the Caltrans' Material Plant Quality Program.

Take asphalt rubber binder samples from the feed line connecting the asphalt rubber binder tank to the HMA plant.

39-2.03A(4)(c)(ii)(B) Asphalt Modifier

Test asphalt modifier under the test methods and frequencies shown in the following table:

Asphalt Modifier for Asphalt Rubber Binder

Quality characteristic	Test method	Frequency
Viscosity	ASTM D445	1 per shipment
Flash point	ASTM D92	
Molecular analysis: Asphaltenes Aromatics	ASTM D2007	1 per shipment

39-2.03A(4)(c)(ii)(C) Crumb Rubber Modifier

Sample and test scrap tire crumb rubber and high natural crumb rubber separately. Test CRM under the test methods and frequencies shown in the following table:

Crumb Rubber Modifier for Asphalt Rubber Binder

Quality characteristic	Test method	Frequency
Scrap tire crumb rubber gradation	California Test 385	1 per 10,000 lb
High natural crumb rubber gradation	California Test 385	1 per 3,400 lb
Wire in CRM	California Test 385	1 per 10,000 lb
Fabric in CRM	California Test 385	
CRM particle length	--	
CRM specific gravity	California Test 208	
Natural rubber content in high natural crumb rubber	ASTM D297	1 per 3,400 lb

39-2.03A(4)(c)(ii)(D) Asphalt Rubber Binder

Test asphalt rubber binder under the test methods and frequencies shown in the following table:

Quality characteristic	Test method	Frequency
Cone penetration	ASTM D217	1 per lot[a]
Resilience	ASTM D5329	
Softening point	ASTM D36/D36M	
Viscosity	ASTM D7741/D7741M	15 minutes before use per lot[a]

[a]The lot is defined in the Caltrans' *MPQP*.

Retain the sample from each lot. Test for cone penetration, resilience, and softening point for the first 3 lots and, if all 3 lots pass, the testing frequency may be reduced to once for every 3 lots.

If QC test results indicate that the asphalt rubber binder does not comply with the specifications, take corrective action and notify the Engineer.

39-2.03A(4)(c)(iii) Aggregates

Test the quality characteristics of aggregates under the test methods and frequencies shown in the following table:

Minimum Contractor Quality Control Aggregate Testing

Quality characteristic	Test method	Minimum testing frequency
Gradation[a]	AASHTO T 11 / T 27	1 per 750 tons and any remaining part
Sand equivalent[b, c]	AASHTO T 176	
Moisture content[d]	AASHTO T 255	
Crushed particles	AASHTO T 335	1 per 10,000 tons or 2 per project, whichever is greater
Los Angeles Rattler	AASHTO T 96	
Flat and elongated particles	ASTM D4791	

[a] Test for aggregate gradation under AASHTO T 27. Do not wash the coarse aggregate. Wash the fine aggregate in accordance with AASHTO T11.
[b] Reported value must be the average of 3 tests from a single sample.
[c] Use of a sand reading indicator is required as shown in AASHTO T176, Figure 1. Sections4.7, "Manual Shaker," 7.1.2, "Alternate Method No. 2," and 8.4.3, "Hand Method," do not apply. Prepare the stock solution as specified in section 4.8.1, "Stock solution with formaldehyde," except omit the addition of formaldehyde.
[d] Test at continuous mixing plants only.

For lime treated aggregate, test aggregate before treatment and test for gradation and moisture content during RHMA-G production.

39-2.03A(4)(c)(iv)–39-2.03A(4)(c)(viii) Reserved

39-2.03A(4)(c)(ix) Rubberized Hot Mix Asphalt–Gap Graded Production

Test the quality characteristics of RHMA-G under the test methods and frequencies shown in the following table:

Minimum Contractor Quality Control RHMA-G Production Testing

Quality characteristic	Test method	Minimum testing frequency RHMA-G
Asphalt binder content	AASHTO T 308 Method A	1 per 750 tons and any remaining part
HMA moisture content	AASHTO T 329	1 per 2,500 tons but not less than 1 per paving day
Air void content	AASHTO T 269	1 per 4,000 tons or 2 every 5 paving days, whichever is greater
Voids in mineral aggregate	MS-2 Asphalt Mixture Volumetrics	1 per 10,000 tons or 2 per project whichever is greater
Dust proportion	MS-2 Asphalt Mixture Volumetrics	
Density of core	California Test 375	2 per paving day
Nuclear gauge density	California Test 375	3 per 250 tons or 3 per paving day, whichever is greater
Hamburg Wheel Track	California Test 389	1 per 10,000 tons or 1 per project, whichever is greater

39-2.03A(4)(d) Reserved

39-2.03A(4)(e) Department Acceptance

39-2.03A(4)(e)(i) General

The Department accepts RHMA-G based on compliance with:

1. Aggregate quality requirements shown in the following table:

RHMA-G Aggregate Quality Requirements

Quality characteristic	Test method	Requirement
Aggregate gradation[a]	AASHTO T 11 / T 27	JMF TV ± Tolerance
Percent of crushed particles Coarse aggregate (min, %) One-fractured face Two-fractured faces Fine aggregate (min, %) (Passing No. 4 sieve and retained on No. 8 sieve.) One fractured face	AASHTO T 335	 -- 90 70
Los Angeles Rattler (max, %) Loss at 100 Rev. Loss at 500 Rev.	AASHTO T 96	 12 40
Sand equivalent (min.)[b, c]	AASHTO T 176	47
Flat and elongated particles (max, % by weight at 5:1)	ASTM D4791	Report only
Nonmanufactured sand, (max, %)[d]	-	10

[a] Test for aggregate gradation under AASHTO T 27. Do not wash the coarse aggregate. Wash the fine aggregate in accordance with AASHTO T11.
[b] Reported value must be the average of 3 tests from a single sample.
[c] Use of a sand reading indicator is required as shown in AASHTO T 176, Figure 1. Sections 4.7, "Manual Shaker," 7.1.2, "Alternate Method No. 2," and 8.4.3, "Hand Method," do not apply. Prepare the stock solution as specified in section 4.8.1, "Stock solution with formaldehyde," except omit the addition of formaldehyde
[d] Manufactured sand is fine aggregate produced by crushing rock or gravel.

2. In-place RHMA-G quality requirements shown in the following table:

RHMA-G Acceptance In Place

Quality characteristic	Test method	Requirement
Asphalt binder content (%)	AASHTO T 308 Method A	JMF -0.50, +0.50
HMA moisture content (max, %)	AASHTO T 329	1.00
Air voids content @ N_{design} (%)[a, b]	AASHTO T 269	4.0 ± 1.5
Voids in mineral aggregate on laboratory-produced HMA[d] (min, %) Gradation: 1/2-inch and 3/4-inch	MS-2 Asphalt Mixture Volumetrics[c]	 18.0–23.0
Voids in mineral aggregate on plant-produced HMA (min, %)[a] Gradation: 1/2-inch and 3/4-inch	MS-2 Asphalt Mixture Volumetrics[c]	 18.0–23.0
Dust proportion[a]	MS-2 Asphalt Mixture Volumetrics	Report only
Density of core (% of max theoretical density)[e, f]	California Test 375	91.0–97.0
Hamburg wheel track (min number of passes at 0.5-inch rut depth) Base binder grade: PG 64 or lower PG 70	California Test 389	 15,000 20,000
Hamburg wheel track (min number of passes at inflection point)	California Test 389	Report Only

[a] Prepare 3 briquettes. Report the average of 3 tests.
[b] The Engineer determines the bulk specific gravity of each lab-compacted briquette under AASHTO T 275, Method A, and theoretical maximum specific gravity under AASHTO T 209, Method A.
[c] Determine bulk specific gravity under AASHTO T 275, Method A.
[d] The Engineer determines the laboratory-prepared RHMA-G value for only mix design verification.
[e] The Engineer determines percent of theoretical maximum density under California Test 375 except the Engineer uses:
1. AASHTO T 275, Method A, to determine in-place density of each density core instead of using the nuclear gauge
2. AASHTO T 209, Method A to determine theoretical maximum density instead of calculating test maximum density

[f] The Engineer determines theoretical maximum density under AASHTO T 209, Method A

39-2.03A(4)(e)(ii) Asphalt Rubber Binder

39-2.03A(4)(e)(ii)(A) General

The Department does not use asphalt rubber binder design profile for production acceptance.

39-2.03A(4)(e)(ii)(B) Asphalt Modifier

The Department accepts asphalt modifier based on compliance with the requirements shown in the following table:

Asphalt Modifier for Asphalt Rubber Binder

Quality characteristic	Test method	Requirement
Viscosity at 100 °C ($m^2/s \times 10^{-6}$)	ASTM D445	X ± 3[a]
Flash point (min, °C)	ASTM D92	207
Molecular analysis: Asphaltenes (max, % by mass) Aromatics (min, % by mass)	ASTM D2007	 0.1 55

[a]The symbol *X* is the asphalt modifier viscosity.

39-2.03A(4)(e)(ii)(C) Crumb Rubber Modifier

CRM used must be on the Caltrans Authorized Materials List for Crumb Rubber Modifier.

CRM must be a ground or granulated combination of scrap tire crumb rubber and high natural scrap tire crumb rubber, CRM must be 75.0 ± 2.0 percent scrap tire crumb rubber and 25.0 ± 2.0 percent high natural scrap tire crumb rubber by total weight of CRM. Scrap tire crumb rubber and high natural scrap tire crumb rubber must be derived from waste tires described in Pub Res Code § 42703.

The Department accepts CRM, scrap tire crumb rubber, and high natural crumb rubber based on compliance with the requirements shown in the following table:

Crumb Rubber Modifier for Asphalt Rubber Binder

Quality characteristic	Test method	Requirement
Scrap tire crumb rubber gradation (% passing No. 8 sieve)	California Test 385	100
High natural crumb rubber gradation (% passing No. 10 sieve)	California Test 385	100
Wire in CRM (max, %)	California Test 385	0.01
Fabric in CRM (max, %)	California Test 385	0.05
CRM particle length (max, in)	--	3/16
CRM specific gravity	California Test 208	1.1–1.2
Natural rubber content in high natural crumb rubber (%)	ASTM D297	40.0–48.0

Scrap tire crumb rubber and high natural crumb rubber are sampled and tested separately.

39-2.03A(4)(e)(ii)(D) Asphalt Rubber Binder

For Department acceptance testing, take samples of asphalt rubber binder in the Engineer's or Engineer's authorized representative's presence every 5 lots or once a day, whichever is greater. Each sample must be placed into six 1-qt cans with open tops and friction lids.

The Department accepts asphalt rubber binder based on compliance with the requirements shown in the following table:

Quality characteristic	Test method	Requirement
Cone penetration at 25 °C (0.10 mm)	ASTM D217	25–70
Resilience at 25 °C (min, % rebound)	ASTM D5329	18
Softening point (°C)	ASTM D36/D36M	52–74
Viscosity at 190 °C (centipoises)[a]	ASTM D7741/D7741M	1,500–4,000

[a]Prepare sample for viscosity test under California Test 388.

39-2.03A(4)(e)(iii)–39-2.03A(4)(e)(v) Reserved

39-2.03B Materials

39-2.03B(1) General

Reserved

39-2.03B(2) Rubberized Hot Mix Asphalt–Gap Graded Mix Design

For RHMA-G, the mix design must comply with the requirements shown in the following table:

RHMA-G Mix Design Requirements

Quality characteristic	Test method	Requirement
Air voids content (%)	AASHTO T 269[a]	N_{design} = 4.0
Gyration compaction (no. of gyrations)	AASHTO T 312	N_{design} = 50–150[b]
Voids in mineral aggregate (min, %)	MS-2 Asphalt Mixture Volumetrics[c]	18.0–23.0
Dust proportion	MS-2 Asphalt Mixture Volumetrics	Report only
Hamburg wheel track (min, number of passes at 0.5-inch rut depth) Base binder grade: PG 64 or lower PG 70	California Test 389[d]	 15,000 20,000
Hamburg wheel track (min, number of passes at the inflection point)	California Test 389[d]	Report Only

[a] Calculate the air voids content of each specimen using AASHTO T 275, Method A, to determine bulk specific gravity and AASHTO T 209, Method A, to determine theoretical maximum specific gravity. Under AASHTO T 209, use a digital manometer and pycnometer when performing AASHTO T 209.
[b] Superpave gyratory compactor ram pressure may be increased to a maximum of 825 kPa, and specimens may be held at a constant height for a minimum of 30 minutes and maximum of 90 minutes.
[c] Measure bulk specific gravity using AASHTO T 275, Method A.
[d] Test plant produced RHMA.

Determine the quantity of asphalt rubber binder to be mixed with the aggregate for RHMA-G as follows:

1. Base the calculations on the average of 3 briquettes produced at each asphalt rubber binder content.
2. Plot asphalt rubber binder content versus average air voids content for each set of 3 specimens and connect adjacent points with a best-fit curve.
3. Calculate voids in mineral aggregate for each specimen, average each set, and plot the average versus asphalt rubber binder content.
4. Calculate the dust proportion and plot versus asphalt rubber binder content.
5. From the curve plotted, select the theoretical asphalt rubber binder content at 4 percent air voids.
6. At the selected asphalt rubber binder content, calculate dust proportion.
7. Record the asphalt rubber binder content in the Caltrans Contractor Hot Mix Asphalt Design Data form (CEM 3512) as the OBC.

The OBC must not fall below 7.5 percent by total weight of the mix.

Laboratory mixing and compaction must comply with Superpave HMA mix design method as described in MS-2 *Asphalt Mix Design Methods* by the Asphalt Institute, except the mixing temperature of the aggregate must be from 300 to 325 degrees F. The mixing temperature of the asphalt rubber binder must be from 375 to 425 degrees F. The compaction temperature of the combined mixture must be from 290 to 320 degrees F.

39-2.03B(3) Asphalt Rubber Binder

39-2.03B(3)(a) General

Asphalt rubber binder must be a combination of:

1. Asphalt binder
2. Asphalt modifier
3. CRM

The grade of the asphalt binder for RHMA-G must be PG 64-16. The combined asphalt binder and asphalt modifier must be 80.0 ± 2.0 percent by weight of the asphalt rubber binder.

39-2.03B(3)(b) Asphalt Modifier

Asphalt modifier must be a resinous, high-flash-point, aromatic hydrocarbon and must comply with the requirements shown in the following table:

Asphalt Modifier for Asphalt Rubber Binder

Quality characteristic	Test method	Requirement
Viscosity at 100 °C ($m^2/s \times 10^{-6}$)	ASTM D445	X ± 3[a]
Flash point (min, °C)	ASTM D92	207
Molecular analysis: Asphaltenes (max, % by mass) Aromatics (min, % by mass)	ASTM D2007	 0.1 55

[a]The symbol *X* is the proposed asphalt modifier viscosity. *X* must be between 19 and 36. A change in *X* requires a new asphalt rubber binder design.

Asphalt modifier must be from 2.0 to 6.0 percent by weight of the asphalt binder in the asphalt rubber binder.

39-2.03B(3)(c) Crumb Rubber Modifier

CRM must be a ground or granulated combination of scrap tire crumb rubber and high natural scrap tire crumb rubber. CRM must be 75.0 ± 2.0 percent scrap tire crumb rubber and 25.0 ± 2.0 percent high natural scrap tire crumb rubber by total weight of CRM. Scrap tire crumb rubber and high natural scrap tire crumb rubber must be derived from waste tires described in Pub Res Code § 42703.

The CRM must comply with the requirements shown in the following table:

Crumb Rubber Modifier for Asphalt Rubber Binder

Quality characteristic	Test method	Requirement
Scrap tire crumb rubber gradation (% passing No. 8 sieve)	California Test 385	100
High natural crumb rubber gradation (% passing No. 10 sieve)	California Test 385	100
Wire in CRM (max, %)	California Test 385	0.01
Fabric in CRM (max, %)	California Test 385	0.05
CRM particle length (max, in)[a]	--	3/16
CRM specific gravity	California Test 208	1.1–1.2
Natural rubber content in high natural crumb rubber (%)	ASTM D297	40.0–48.0

[a]Test at mix design and for certificate of compliance.

CRM must be ground or granulated at ambient temperature. If steel and fiber are cryogenically separated, separation must occur before grinding or granulating. Cryogenically produced CRM particles must be ground or granulated and not pass through the grinder or granulator.

CRM must be dry, free-flowing particles that do not stick together. CRM must not cause foaming when combined with the asphalt binder and asphalt modifier. You may add calcium carbonate or talc up to 3 percent by weight of CRM.

39-2.03B(3)(d) Design and Profile

Design the asphalt rubber binder from testing you perform for each quality characteristic and for the reaction temperatures expected during production. The profile must include the same component sources for the asphalt rubber binder used. The 24-hour (1,440-minute) interaction period determines the design profile. At a minimum, mix asphalt rubber binder components, take samples, and perform and record the tests shown in the following table:

Asphalt Rubber Binder Reaction Design Profile

Quality characteristic	Test method	Minutes of reaction [a]							Limit
		45	60	90	120	240	360	1440	
Cone penetration at 25 °C (0.10 mm)	ASTM D217	X [b]	--	--	--	X	--	X	25–70
Resilience at 25 °C (min, % rebound)	ASTM D5329	X	--	--	--	X	--	X	18
Field softening point (°C)	ASTM D36/D36M	X	--	--	--	X	--	X	52–74
Viscosity (centipoises)	ASTM D7741/D7741M	X	X	X	X	X	X	X	1,500–4,000

[a] Six hours (360 minutes) after CRM addition, reduce the oven temperature to 275 °F for 16 hours. After the 16-hour (960 minutes) cool down after CRM addition, reheat the binder to the reaction temperature expected during production for sampling and testing at 24 hours (1,440 minutes).
[b] *X* denotes required testing.

39-2.03B(3)(e) Asphalt Rubber Binder Production

39-2.03B(3)(e)(i) General

Deliver scrap tire crumb rubber and high natural crumb rubber in separate bags.

39-2.03B(3)(e)(ii) Mixing

Proportion and mix asphalt binder, asphalt modifier, and CRM simultaneously or premix the asphalt binder and asphalt modifier before adding CRM. If you premix asphalt binder and asphalt modifier, mix them for at least 20 minutes. When you add CRM, the temperature of the asphalt binder and asphalt modifier must be from 375 to 440 degrees F.

After interacting for at least 45 minutes, the asphalt rubber binder must comply with the requirements shown in the following table:

Quality characteristic	Test method	Requirement
Cone penetration at 25 °C (0.10 mm)	ASTM D217	25–70
Resilience at 25 °C (min, % rebound)	ASTM D5329	18
Softening point (°C)	ASTM D36/36M	52–74
Viscosity at 190 °C (centipoises)[a]	ASTM D7741/D7741M	1,500–4,000

[a] Prepare sample for viscosity test under California Test 388.

Do not use the asphalt rubber binder during the first 45 minutes of the reaction period. During this period, the asphalt rubber binder mixture must be between 375 degrees F and the lower of 425 or 25 degrees F below the asphalt binder's flash point shown in the SDS.

If any asphalt rubber binder is not used within 4 hours after the reaction period, discontinue heating. If the asphalt rubber binder drops below 375 degrees F, reheat before use. If you add more scrap tire crumb rubber to the reheated asphalt rubber binder, the binder must undergo a 45-minute reaction period. The added scrap tire crumb rubber must not exceed 10 percent of the total asphalt rubber binder weight. Reheated and reacted asphalt rubber binder must comply with the viscosity specifications. Do not reheat asphalt rubber binder more than twice.

39-2.03B(4) Aggregates

39-2.03B(4)(a) General

For RHMA-G, before the addition of asphalt binder and lime treatment, the aggregates must comply with the requirements shown in the following table:

Aggregate Quality

Quality characteristic	Test method	Requirement
Percent of crushed particles Coarse aggregate (min, %) One-fractured face Two-fractured faces Fine aggregate (min, %) (Passing No. 4 sieve and retained on No. 8 sieve.) One-fractured face	AASHTO T 335	 -- 90 70
Los Angeles Rattler (max, %) Loss at 100 Rev. Loss at 500 Rev.	AASHTO T 96	 12 40
Sand equivalent (min)[a]	AASHTO T 176	47
Flat and elongated particles (max, % by weight at 5:1)	ASTM D4791	Report only
Nonmanufactured sand,(max, %)	--	10

[a] Reported value must be the average of 3 tests from a single sample. The use of a sand reading indicator is required as shown in AASHTO T 176, Figure 1. Sections 4.7, "Manual Shaker," 7.1.2, "Alternate Method No. 2," and 8.4.3, "Hand Method," do not apply. Prepare the stock solution as specified in section 4.8.1, "Stock solution with formaldehyde," except omit the addition of formaldehyde.

39-2.03B(4)(b) Aggregate Gradations

The aggregate gradations for RHMA-G must comply with the requirements shown in the following table:

Aggregate Gradation Requirements

RHMA-G pavement thickness shown	Gradation
0.10 foot to less than 0.20 foot	1/2 inch
0.20 foot or greater	3/4 inch

For RHMA-G, the aggregate gradations must be within the TV limits for the specified sieve size shown in the following tables:

Aggregate Gradations for RHMA-G
(Percentage Passing)

3/4 inch

Sieve size	Target value limit	Allowable tolerance
1"	100	--
3/4"	95–98	TV ± 5
1/2"	83–87	TV ± 6
3/8"	65–70	TV ± 5
No. 4	28–42	TV ± 6
No. 8	14–22	TV ± 5
No. 200	0.0–6.0	TV ± 2.0

1/2 inch

Sieve size	Target value limit	Allowable tolerance
3/4"	100	--
1/2"	90–98	TV ± 6
3/8"	81–89	TV ± 5
No. 4	24–42	TV ± 6
No. 8	12–22	TV ± 5
No. 200	0.0–6.0	TV ± 2.0

39-2.03B(5) Rubberized Hot Mix Asphalt–Gap Graded Production

Asphalt rubber binder must be from 375 to 425 degrees F when mixed with aggregate.

39-2.03C Construction

Do not use a pneumatic tired roller to compact RHMA-G.

Spread and compact RHMA-G and RHMA-G produced with WMA water injection technology at an ambient air temperature of at least 55 degrees F and a surface temperature of at least 60 degrees F.

Spread and compact RHMA-G produced with WMA additive technology at an ambient air temperature of at least 50 degrees F and a surface temperature of at least 50 degrees F.

If the ambient air temperature is below 70 degrees F, cover loads in trucks with tarps. The tarps must completely cover the exposed load until you transfer the mixture to the paver's hopper or to the pavement surface. Tarps are not required if the time from discharge to truck until transfer to the paver's hopper or the pavement surface is less than 30 minutes.

For RHMA-G and RHMA-G produced with WMA water injection technology placed under method compaction:

1. Complete the 1st coverage of breakdown compaction before the surface temperature drops below 285 degrees F.
2. Complete breakdown and intermediate compaction before the surface temperature drops below 250 degrees F. Use a static steel-tired roller instead of the pneumatic-tired roller for intermediate compaction.
3. Complete finish compaction before the surface temperature drops below 200 degrees F.

For RHMA-G produced with WMA additive technology placed under method compaction:

1. Complete the 1st coverage of breakdown compaction before the surface temperature drops below 260 degrees F

2. Complete breakdown and intermediate compaction before the surface temperature drops below 230 degrees F
3. Complete finish compaction before the surface temperature drops below 180 degrees F
4. You may continue static rolling below 140 degrees F to remove roller marks

Spread sand at a rate between 1 and 2 lb/sq yd on new RHMA-G pavement when finish rolling is complete. Sand must be free of clay or organic matter. Sand must comply with section 90-1.02C(3).

Keep traffic off the pavement until spreading of the sand is complete.

39-2.03D Payment

Not Used

39-2.04 RESERVED

39-2.05 RESERVED

39-2.06 HOT MIX ASPHALT ON BRIDGE DECKS

39-2.06A General

Section 39-2.06 includes specifications for producing and placing hot mix asphalt on bridge decks.

HMA used for bridge decks must comply with the specifications for HMA Type F in section 39-2.02.

39-2.06B Materials

Do not use the 1-inch or 3/4-inch aggregate gradation for HMA on bridge decks.

The grade of asphalt binder for HMA must be PG 64-10 or PG 64-16.

39-2.06C Construction

Spread and compact HMA on bridge decks using method compaction.

If a concrete expansion dam is to be placed at a bridge deck expansion joint, tape oil-resistant construction paper to the deck over the area to be covered by the dam before placing the tack coat and HMA across the joint.

Apply a tack coat at the minimum residual rate specified in section 39-2.01C(3)(f). For HMA placed on a deck seal, use the minimum residual rate specified for concrete pavement.

For HMA placed on a deck seal:

1. Place the HMA within 7 days after installing the deck seal.
2. If a paper mask is placed on the deck under section 54-5.03, place the HMA continuously across the paper mask.
3. Place HMA in at least 2 approximately equal layers.
4. For placement of the 1st HMA layer:

4.1. Comply with the HMA application temperature recommended by the deck seal manufacturer.
4.2. Deliver and place HMA using equipment with pneumatic tires or rubber-faced wheels. Do not operate other vehicles or equipment on the bare deck seal.
4.3. Deposit HMA on the deck seal in such a way that the deck seal is not damaged. Do not use a windrow.
4.4. Place HMA in a downhill direction on bridge decks with grades over 2 percent.
4.5. Self-propelled spreading equipment is not required.

39-2.06D Payment

Not Used

39-2.07 MINOR HOT MIX ASPHALT

39-2.07A General

39-2.07A(1) Summary

Section 39-2.07 includes specifications for producing and placing minor hot mix asphalt.

Minor HMA must comply with the specifications for HMA Type F in 39-2.02 except as specified in this section.

39-2.07A(2) Definitions

Reserved

39-2.07A(3) Submittals

The QC plan and test results in sections 39-2.01A(3)(c) and 39-2.01A(3)(d) do not apply.

39-2.07A(4) Quality Assurance

39-2.07A(4)(a) General

The JMF renewal requirements in section 39-2.01A(4)(d) do not apply.

Test pavement smoothness with a 12 foot straightedge.

39-2.07A(4)(b) Quality Control

Testing for compliance with the following quality characteristics is not required:

1. Flat and elongated particles
2. Hamburg wheel track

39-2.07A(4)(c) Department Acceptance

The Department accepts minor HMA under section 39-2.02A(4)(e) except for compliance with requirements for the following quality characteristics:

1. Flat and elongated particles
2. Hamburg wheel track

39-2.07B Materials

39-2.07B(1) General

Reserved

39-2.07B(2) Minor Hot Mix Asphalt Mix Design

The Hamburg wheel track requirements do not apply to the mix design for minor HMA.

39-2.07B(3) Asphalt Binder

The grade of asphalt binder for minor HMA must be PG-64-10 or PG-64-16.

39-2.07B(4) Liquid Antistrip Treatment

Treat minor HMA with liquid antistrip unless you submit California Test 389 test results showing compliance with section 39-2.02B and dated within 24 months of the submittal.

39-2.07C Construction

Not Used

39-2.07D Payment

Not Used

39-2.08 RESERVED

39-2.09 RESERVED

39-3 EXISTING ASPHALT CONCRETE

39-3.01 GENERAL

39-3.01A General

Section 39-3.01 includes general specifications for performing work on existing asphalt concrete facilities.

Work performed on existing asphalt concrete facilities must comply with City of San Jose Standard Specifications, Section 15.

39-3.01B Materials

Not Used

39-3.01C Construction

Before removing a portion of an asphalt concrete facility, make a 2-inch deep saw cut to a true line along the limits of the removal area.

39-3.01D Payment

Not Used

39-3.02 REPLACE ASPHALT CONCRETE SURFACING (DIGOUTS)

39-3.02A General

Section 39-3.02 includes specifications for replacing asphalt concrete surfacing.

39-3.02B Materials

HMA to be used for replacing asphalt concrete surfacing must comply with HMA Type F as specified in section 39-2.02, unless otherwise specified by the Engineer

The grade of asphalt binder must be PG 64-10 or PG 64-16.

Tack coat must comply with section 39-2.01B(10).

39-3.02C Construction

Where replace asphalt concrete surfacing is shown, remove the existing asphalt concrete surfacing as specified in the contract and replace with HMA. The Engineer determines the exact limits of asphalt concrete surfacing to be replaced.

Replace asphalt concrete in a lane before the lane is specified to be opened to traffic.

Before removing asphalt concrete, outline the replacement area and cut neat lines with a saw or grind to full depth of the existing asphalt concrete. Do not damage asphalt concrete and base remaining in place.

If you excavate the base beyond the specified plane, replace it with HMA.

Do not use a material transfer vehicle for replacing asphalt concrete surfacing.

Before placing HMA, apply a tack coat as specified in section 39-2.01C(3)(f).

Place HMA using **method compaction** as specified in sections 39-2.01C(2)(c) and 39-2.01C(15)(b).

39-3.02D Payment

The payment quantity for replace asphalt concrete surfacing is the volume determined from the dimensions shown.

39-3.03 RESERVED

39-3.04 COLD PLANING ASPHALT CONCRETE PAVEMENT

39-3.04A General

Section 39-3.04 includes specifications for cold planning asphalt concrete pavement.

Cold planning asphalt concrete pavement includes the removal of pavement markers, traffic stripes, and pavement markings within the area of cold planning.

Schedule cold planing activities such that the pavement is cold planed, the HMA is placed, and the area is opened to traffic during the same work shift.

39-3.04B Materials

HMA for temporary tapers must be of the same quality that is used for the HMA overlay or comply with the specifications for minor HMA in section 39-2.07.

39-3.04C Construction

39-3.04C(1) General

Do not use a heating device to soften the pavement.

The cold planing machine must be:

1. Equipped with a cutter head width that matches the planing width unless a wider cutter head is authorized.
2. Equipped with automatic controls for the longitudinal grade and transverse slope of the cutter head and:
   2.1. If a ski device is used, it must be at least 30 feet long, rigid, and a 1-piece unit. The entire length must be used in activating the sensor.
   2.2. If referencing from existing pavement, the cold planing machine must be controlled by a self-contained grade reference system. The system must be used at or near the centerline of the roadway. On the adjacent pass with the cold planing machine, a joint-matching shoe may be used.
3. Equipped to effectively control dust generated by the planing operation
4. Operated such that no fumes or smoke is produced.

Replace broken, missing, or worn machine teeth.

If you do not complete placing the HMA surfacing before opening the area to traffic, you must:

1. Construct a temporary HMA taper to the level of the existing pavement.
2. Place HMA during the next work shift.
3. Submit a corrective action plan that shows you will complete cold planing and placement of HMA in the same work shift. Do not restart cold planing activities until the corrective action plan is authorized.

39-3.04C(2) Grade Control and Surface Smoothness

Install and maintain grade and transverse slope references. You may adjust the planed depth up to ± 0.03 foot from the depth shown to achieve uniform pavement profile, cross slope, and surface smoothness. The average cold planed depth must be equal to or greater than the depth shown.

The final cut must result in a neat and uniform surface.

The completed surface of the planed pavement must not vary more than 0.02 foot when measured with a 12-foot straightedge parallel with the centerline. With the straightedge at right angles to the centerline, the transverse slope of the planed surface must not vary more than 0.03 foot.

If you encounter delaminations during planing operations notify the Engineer immediately. If authorized, adjust the planed depth up to ± 0.05 foot to eliminate delaminations. Authorized work beyond the ± 0.05 foot range or other authorized mitigation work is change order work.

Where lanes are open to traffic, the drop-off of between adjacent lanes must not be more than 0.15 foot.

39-3.04C(3) Planed Material

Remove cold planed material concurrently with planing activities such that the removal does not lag more than 50 feet behind the planer.

39-3.04C(4) Temporary HMA Tapers

If a drop-off between the existing pavement and the planed area at transverse joints cannot be avoided before opening to traffic, construct a temporary HMA taper.

Completely remove temporary tapers before placing permanent surfacing.

39-3.04D Payment

Not Used

39-3.05 – 39-3.10 RESERVED

END OF SECTION

Appendix O:
Caltrans Encroachment Permit

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

ENCROACHMENT PERMIT

DOT TR-0120 (REV 05/2023)

FM 91 1436

Permit No.	
04-24-N-CS-2425	
In compliance with your application of January 6, 2025	Dist/Co/Rte/PM 04/SCL/17/PM 12.34
Reference Documents: ☐ Utility Notice No. _____ of _____ ☐ Agreement No. _____ of _____ ☐ R/W Contract No. _____ of _____ ☐ Project code (ID): _____ CFC #: _____ ☐ Applicant's Reference/ Utility Work Order No. _____	Permit Approval Date March 26, 2025
	Performance Bond Amount (1) $0 / Payment Bond Amount (2) $0
	Bond Company $ N/A
	Bond Number (1) $ N/A / Bond Number (2) $ N/A

TO: City of Campbell
70 North First Street
Campbell, CA 95008
Email: publicworks@campbellca.gov
Phone: (408)866-2150

, **PERMITTEE**

and subject to the following, PERMISSION IS HEREBY GRANTED to:

Perform mill & fill pavement, pedestrian access improvements, and traffic signal modifications, on State Highway 04-SCL-17 Post Mile 12.34, in the City of Campbell, County of Santa Clara.

A minimum of 7 days prior to the start of work under this encroachment permit, notice must be given to State Representative Casey Tarokh, 10130 Bubb Road, Cupertino, CA 95014, at casey.tarokh@dot.ca.gov or (510) 715-9528, weekdays between 7:00 a.m. and 3:30 p.m., excluding holidays.

Notwithstanding General Provision 35, lane closures and other activities that may cause traffic impacts that require the permittee to apply for and obtain a closure ID prior to the start of work. Requests must be submitted electronically through the Lane Closure System (LCS). Notifications to Traffic Management Center (TMC) must be submitted timely including 1097, 1098 and 1022 codes.

THIS PERMIT IS NOT A PROPERTY RIGHT AND DOES NOT TRANSFER WITH THE PROPERTY TO A NEW OWNER.

The following attachments are also included as part of this permit (check applicable):

- ☒ YES ☐ NO General Provisions
- ☐ YES ☒ NO Utility Maintenance Provisions
- ☒ YES ☐ NO Storm Water Special Provisions
- ☒ YES ☐ NO Special Provisions
- ☐ YES ☒ NO A Cal-OSHA Permit, if required: Permit No. _____
- ☐ YES ☒ NO As-Built Plans Submittal Route Slip for Locally Advertised Projects
- ☐ YES ☒ NO Storm Water Pollution Protection Plan

In addition to fee, the permittee will be billed actual costs for:

- ☐ YES ☒ NO Review
- ☐ YES ☒ NO Inspection
- ☒ YES Field Work *(if any Caltrans effort expended)*

As-built Plans are Required

☒ YES ☐ NO

☐ YES ☒ NO The information in the environmental documentation has been reviewed and considered prior to approval of this permit.

This permit is void unless the work is completed before April 30, 2026
This permit is to be strictly construed and no other work other than specifically mentioned is hereby authorized.
No project work shall be commenced until all other necessary permits and environmental clearances have been obtained.

CC:
#1: EARL R SHERMAN III
#2: GILBERT S WU
#3: CASEY K TAROKH
#4: LISHAN KEBEDE

APPROVED:

Dina El-Tawansy, District Director

BY

Mohammad Dastmalchian
Mohammad Dastmalchian (Mar 26, 2025 17:42 PDT)

Mohammad Dastmalchian, District Permit Engineer

ADA Notice This document is available in alternative accessible formats. For more information, please contact the Forms Management Unit at (279) 234-2284, TTY 711, in writing at Forms Management Unit, 1120 N Street, MS-89, Sacramento, CA 95814, or by email at Forms.Management.Unit@dot.ca.gov.

The following codes are to be used when reporting your intended closure status to TMC:

- Use "1097" code, at the start of a lane and shoulder or ramp closures (dropping off the first cone).
- Use "1098" code, after the lane and shoulder or ramp is open to traffic (picking up the last cone).
- Use "1022" code, if cancelling an approved closure.

If the request is rejected, you must resubmit your revised closure request, and you may consult with the State Representative as needed.

The permittee must submit cancellation closure requests using LCS, at least 48 hours, before the start time of the approved closure.

In the event of incompliance with the Department's requirements and provisions including LCS requirements, the permittee's future lane closures may not be granted and/or authorized.

In addition to the 2024 Standard Specifications and Standard Plans (available at https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications), the following attached provisions:

- Encroachment Permit General Provisions (TR-0045)
- Utility Underground Provisions (UG) (TR-0163),
- Hazardous Materials and Hazardous Waste Management Special Provisions (TR-0408),
- Typical Trench Details (TR-0153),
- Encroachment Permit Steel Plate Bridging Utility Provisions (TR-0157),
- Pedestrian Safety (MCP) Special Provisions
- Storm Water Special Provisions for Minimal or No Impact (SWSP) (TR-0400) available at https://dot.ca.gov/programs/traffic-operations/ep/ep-manual/

All work permitted herein must comply with the following provisions:

Certain details of work authorized herein are shown on the plans and specifications submitted by the permittee and attached to this encroachment permit.

A pre-job meeting with the State Representative is required at least 7 days prior to the start of any work under this encroachment permit. Failure to do so may result in permit revocation with no prejudice.

The permittee must provide the stage construction plans, traffic handling plans, work schedule, and a list of all sub-contractors to the State Representative at the time of the pre-job meeting.

Changes to the provisions herein require an Encroachment Permit Rider, except for minor changes authorized by the State Representative.

The Permittee must coordinate all construction, maintenance, and other operational activities which are in progress in the same general area, if any, with the permitted work.

Time extension requests must be submitted to the State Representative a minimum thirty (30) days prior to permit expiration, with justification(s) and new completion date, in an official letter format.

The State Representative or California Highway Patrol (CHP) may stop work not being performed in compliance with this encroachment permit.

Work may not start until the documents listed below have been submitted to, reviewed by, and approved by Caltrans. This permit is conditionally issued without the documents listed below, at the request of Permittee. The Permittee acknowledges and will ensure that the following documents will be submitted to Caltrans for review and approval prior to scheduling authorized work/activities:

• TR-0429 "Encroachment Permit Applicant: Contractor(s) Authorization Form"

Non-compliance with this provision may result in Caltrans taking actions including but not limited to canceling this permit without further notice, requiring bonds, and/or not providing such conditional approvals for the Permittee on future projects.

Work may not start until project specific Traffic Control Plans, stamped and signed by California Licensed Professional Engineer have been submitted and approved by Caltrans.

All mud, dirt, and gravel tracked onto the roadway must be immediately removed.

All the Permittee's personnel must wear appropriate and approved personal protective equipment, per Chapter 12 of Caltrans Safety Manual, including hard hats and bright-colored safety vests, shirts, or jackets with retro-reflective material, while on the State highway right-of-way.

Signs, lights, flags or other protective devices must not obscure the visibility of, nor conflict in intent, meaning, and function of either existing signs, lights and traffic control devices, or any construction area signs.

On freeways and expressways, permittee's vehicles and equipment not involved in the permitted activities must be legally located outside the State highway right-of-way.

On conventional highways, permittee's vehicles and equipment not involved in the permitted activities must be legally located off the traveled way and not interfere with free traffic and pedestrian flow.

No vehicle or equipment must be stored overnight within the State highway right-of-way. All vehicles and equipment must be removed immediately at the completion of the day's work. Refueling of vehicle or equipment within the State highway right-of-way is strictly prohibited.

Traffic control must comply with the 2024 Caltrans Standard Plans T9 through T22 (available at https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications), and the California Manual on Uniform Traffic Control Devices (MUTCD), Part 6, "Temporary Traffic Control" (available at https://dot.ca.gov/programs/safety-programs/camutcd) (Reference: "Encroachment Permit General Provisions" (TR-0045)).

All traffic control devices must be installed, maintained, and removed by a qualified traffic control contractor.

Construction activities must not inconvenience the public or abutting property owners. Maintain access to driveways, houses, and buildings.

The State Representative and California Highway Patrol (CHP) reserve the right to require reopening the highway at any time, as necessary. All cost must be borne by the Permittee.

The site of the work must be enclosed by suitable barricades, signs and lights, as approved by State representative, to warn and protect the public effectively.

Always maintain safe access for pedestrians and bicyclists.

The permittee must coordinate parking restrictions with the local jurisdiction.

The permittee must coordinate bus stop restrictions with the transit agency.

Do not reduce an open traffic lane width to less than 11 feet. If traffic cones or delineators are used for temporary edge delineation, the side of the base of the cones or delineators nearest traffic is considered the edge of traveled way.

Except for installing, maintaining and removing traffic control devices, any work encroaching within 3 feet of the edge of a travel lane for areas with a posted speed limit below 45mph, or 6 feet of the edge of a travel lane, for areas with a speed limit posted at 45mph or higher, requires closing of that travel lane. Any work encroaching within 6 feet of the edge of the shoulder, requires closing of that shoulder.

Traffic control using flagging must comply with the California Manual on Uniform Traffic Control Devices (MUTCD), Chapter 6E, "Flagger Control" (available at https://dot.ca.gov/programs/safety-programs/camutcd) and Cal/OSHA Title 8 Regulations Subchapter 4. Construction Safety Orders, Section 1599, "Flaggers" (available at https://www.dir.ca.gov/title8/1599.html).

Temporary pedestrian facilities must comply with the Caltrans Temporary Pedestrian Access Routes Handbook (available at https://dot.ca.gov/programs/construction/safety-traffic) and the California MUTCD Part 6, Chapter 6D – "Pedestrian and Worker Safety" (available at https://dot.ca.gov/programs/safety-programs/camutcd) (Reference: "Encroachment Permit General Provisions" (TR-0045)).

When the work area encroaches upon a sidewalk, walkway, or crosswalk area, special consideration must be given to pedestrian safety. Protective barricades, fencing, handrails and bridges, together with warning and guidance devices and signs must be utilized so

that the passageway for pedestrians, especially blind and other physically handicapped, is safe and well defined and shown on the approved plan.

Notwithstanding General Provisions #13, temporary pedestrian access routes must comply with the 2024 Caltrans Standard Plans T30 through T34 (available at https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications).

The Permittee must comply with all requirements of the California Public Resources Code, Sections 5024.5 and 5097.98, California Health and Safety Code, Section 7050.5 (both available at https://leginfo.legislature.ca.gov/faces/codes.xhtml), and Volume 2 of the Caltrans Standard Environmental Reference (available at https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser).

Should ground-disturbing activities take place as part of this project within the State highway right-of-way and there is an inadvertent archaeological or burial discovery, the Permittee must cease all construction within 50 feet of the find, notify the county coroner, if necessary, and immediately contact the Office of Cultural Resource Studies (OCRS), Caltrans District 4. Upon contact, an OCRS archaeologist will evaluate the find within one (1) business day.

Curbs and sidewalks must be saw cut to the nearest score mark and replaced equal in dimension to that removed with score marks matching existing adjacent curb and sidewalk.

Curbs and adjacent pavement must be saw cut to a neat line prior to excavating and forming. Pavement must be replaced in kind and must conform to lip of new gutter.

Curbs and gutters must conform to the 2024 Caltrans Standard Plan A87A, Type A2-6, (available at https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications), unless necessary to conform to existing adjacent curb and gutter installations.

Curbs and gutters must be placed over 6 inches of Class II Aggregate Base. Sidewalks must be a minimum 4 inches PCC placed over 3 inches of Class II Aggregate Base.

A monolithic pour of curb and sidewalk is not permitted.

Driveways must conform to the Caltrans Highway Design Manual Index 205 and Index 405.1 (available at https://dot.ca.gov/programs/design/manual-highway-design-manual-hdm), unless otherwise shown on the project plans.

Curb ramps and island passageways must conform to the 2024 Caltrans Standard Plans A87A, A88A, A88B, and D78A (available at https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications).

Utility pull boxes, manholes, vaults, and other utility facilities must be adjusted to grade.

Streets and highways in the San Francisco Bay Area contain a significant number of existing underground utilities. This includes traffic signal conduits that are installed 9 inches or less in depth. The permittee is responsible for necessary site investigations for identification of the location and depth of existing underground facilities prior to excavation (e.g., pothole or hand-dig) to avoid damage or disruption in services.

All pavements must be saw cut prior to removal or removed by grinding.

Obliterated pavement markings must be replaced in kind.

All signs and markings must comply with the California MUTCD.

Where Asphalt Concrete (AC) has been placed, temporary painted traffic striping and pavement markings must be installed within 24 hours. Where shown on the plans, after 30 days curing time, thermoplastic materials must be applied in accordance with the 2024 Caltrans Standard Specifications, Section 84, "Markings" (available at https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications).

Installation of traffic loop detectors must comply with the 2024 Caltrans Standard Specifications, Section 86 "General", Section 87, "Electrical Systems" and the 2024 Caltrans Standard Plans ES-5A through ES-5E (available at https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications).

Trench excavation must comply with the attached trench detail and the 2024 Caltrans Standard Specifications, Section 19-3, "Structure Excavation and Backfill" including Section 19.3.02E, "Slurry Cement Backfill", and 19-3.02G, "Controlled Low-Strength Material" (available at https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications).

Trench backfills must comply with the attached trench detail and the 2024 Caltrans Standard Specifications, Section 19.3.02E, "Slurry Cement Backfill", and 19-3.02G, "Controlled Low-Strength Material".

Asphalt Concrete (AC) to be removed must be saw cut to the full depth along both sides of the trench. Portland Cement Concrete (PCC) to be removed must be saw cut to a minimum depth of 4 inches along both sides of the trench.

Where the edge of trench is within 2 feet of curb, gutter, or pavement edge, Asphalt Concrete (AC) pavement between the trench and curb, gutter, or pavement edge must be removed and replaced.

No excavation must be left open overnight. Temporary backfilling of excavations in finished surfaces must be capped with a minimum three (3) inches Asphalt Concrete (AC).

The permittee must reuse the soil within the work limits in the immediate area from which it was excavated. If any excess soil is generated, it becomes the property of the permittee. The permittee must transport all excess soil outside the State highway right-of-way and dispose of it in accordance with all applicable environmental laws and regulations.

Neither materials nor waste must be stockpiled within the State highway right-of-way.

The Permittee must reuse the soil within the work limits in the immediate area from which it was excavated. If any excess soil is generated, it becomes the property of the Permittee. The Permittee must transport all excess soil outside the State highway right-of-way and dispose of it in accordance with all applicable environmental laws and regulations (refer to "Hazardous Materials and Hazardous Waste Management" (TR-0408) special provisions).

If an accident or other incident (related or not related to the permitted activity) occurs within or close to the permitted activity, the permittee must immediately stop work and remove traffic controls from the highway unless public health, welfare and safety are compromised by unfinished work. Only traffic control to protect open excavations may remain in place. After free traffic flow is restored, work per the provisions of the permit may be returned.

Any damage to State facilities must be repaired to the same state as before the damage and the cost of repairs must be the responsibility of the permittee.

Upon completion of work authorized by this encroachment permit, the permittee must provide the State Representative with a post-construction "Certification of Compliance with Americans with Disabilities Act (ADA)" (TR-0405) (available at https://dot.ca.gov/-/media/dot-media/programs/traffic-operations/documents/encroachment-permits/tr0405.pdf), stamped and signed by a California Licensed Professional Engineer or Architect.

Upon completion of work authorized by this encroachment permit, the permittee must provide the State Representative with a set of As-Built plans, in accordance with General Provision 22.

Upon completion of work authorized by this encroachment permit, the Permittee must provide the State Representative with "Notice of Completion" (TR-0128) (available at https://dot.ca.gov/programs/traffic-operations/ep/applications).

Enclosures

GENERAL NOTES

1. WORK AND MATERIALS SHALL CONFORM TO THE LINES, GRADES, CROSS SECTIONS, DIMENSIONS, AND MATERIAL REQUIREMENTS, INCLUDING TOLERANCES, SHOWN ON THE PLANS OR INDICATED IN THE SPECIFICATIONS. ALTHOUGH MEASUREMENT, SAMPLING AND TESTING MAY BE CONSIDERED EVIDENCE TO SUCH CONFORMITY, THE ENGINEER SHALL BE THE SOLE JUDGE AS TO WHETHER THE WORK OR MATERIALS DEVIATE FROM THE PLANS AND SPECIFICATIONS AND THE ENGINEER'S DECISION AS TO ANY ALLOWABLE DEVIATIONS THEREFROM SHALL BE FINAL.
2. THE CONTRACTOR AGREES THAT HE/SHE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF THE WORK, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE CITY, ITS OFFICERS, EMPLOYEES AND VOLUNTEERS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF THE WORK, EXCEPTING LIABILITY ARISING FROM THE NEGLIGENCE OF THE CITY, ITS OFFICERS, EMPLOYEES AND VOLUNTEERS.
3. PRIOR TO CONSTRUCTION, SUBMIT TO THE CITY ENGINEER A DETAILED PROGRESS SCHEDULE SHOWING PRIMARY COMPONENTS OF WORK.
4. STATE LAW REQUIRES CONTRACTOR TO CONTACT UNDERGROUND SERVICE ALERT AT 800-227-2600 AT LEAST 48 HOURS PRIOR TO COMMENCING ANY EXCAVATIONS. FAILURE TO COMPLY MAY RESULT IN SUBSTANTIAL PENALTIES.
5. THE EXISTENCE AND LOCATIONS OF UNDERGROUND STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING FACILITIES EXCEPT AS SHOWN. CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES TO PROTECT ALL SUBSTRUCTURES, WHETHER SHOWN ON THE PLANS OR NOT, MAKE EXPLORATORY EXCAVATIONS, AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO THESE PLANS WHEN NECESSARY.
6. PREPARE, SUBMIT TO THE CITY ENGINEER FOR APPROVAL, AND IMPLEMENT TRAFFIC CONTROL & DETOUR PLANS AS REQUIRED IN THE CONTRACT DOCUMENTS.
7. PROVIDE AND MAINTAIN ALL NECESSARY TEMPORARY TRAFFIC CONTROL DEVICES, TO ENSURE SAFE PEDESTRIAN AND VEHICULAR ACCESS THROUGH AND AROUND THE JOB SITE, AND AS DIRECTED BY THE CITY ENGINEER. NOTIFY THE CITY OF CAMPBELL POLICE DEPARTMENT DAILY OF LANE CLOSURES OR DETOURS WITHIN ROADWAYS. PROVIDE A 24-HOUR EMERGENCY RESPONSE TELEPHONE LISTING TO THE CITY ENGINEER.
8. PROVIDE TEMPORARY EROSION, DUST, AND DRAINAGE CONTROL MEASURES DURING CONSTRUCTION. FOLLOW BEST MANAGEMENT PRACTICES AS RECOMMENDED BY SANTA CLARA COUNTY NON-POINT SOURCE POLLUTION CONTROL PROGRAM.
9. TAKE PRECAUTIONARY MEASURES NECESSARY TO PROTECT FROM DAMAGE ALL EXISTING IMPROVEMENTS AND UTILITIES WHICH ARE TO REMAIN IN PLACE. EXPEDITIOUSLY REPAIR IN KIND IMPROVEMENTS AND UTILITIES REMOVED OR DAMAGED BY THE CONTRACTOR'S OPERATIONS.
10. NOTIFY THE CITY ENGINEER IMMEDIATELY OF ANY INCONSISTENCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS. NO DEVIATION FROM THESE PLANS IS PERMITTED WITHOUT WRITTEN APPROVAL OF THE CITY ENGINEER.
11. REMOVE AND DISPOSE OF EXCESS SOIL AND DEBRIS FROM THE SITE. OBTAIN PERMITS AND PAY FEES REQUIRED TO DISPOSE EXCESS MATERIALS.
12. PROTECT, OR RESTORE BY A LICENSED LAND SURVEYOR OR CIVIL ENGINEER, SURVEY MONUMENTS AND BENCHMARKS DAMAGED OR DESTROYED DURING CONSTRUCTION. FILE CORNER RECORD OR RECORD OF SURVEY AS REQUIRED.
13. SUBMIT UPDATED RECORD DRAWINGS AND PROGRESS SCHEDULES TO THE CITY ENGINEER AS A CONDITION OF APPROVAL OF MONTHLY PROGRESS PAYMENTS AND FINAL ACCEPTANCE.
14. GRADE UNIMPROVED AREAS ADJACENT TO NEW CURBS, GUTTERS, AND SIDEWALKS TO CONFORM TO NEW IMPROVEMENTS AND TO PROVIDE FOR SAFETY AND DRAINAGE.
15. UTILITIES SHOWN ON THE PLANS ARE SCHEMATIC AND FOR INFORMATION ONLY. DEPTH OF UTILITIES MAY BE LOCATED WITHIN THE ASPHALT PAVEMENT SECTION OR PCC PAVEMENT SECTION. CONTRACTOR IS REQUIRED TO CALL USA, VERIFY DEPTHS OF POTENTIAL UTILITY CONFLICTS AND USE PRECAUTION WHEN EXCAVATING.

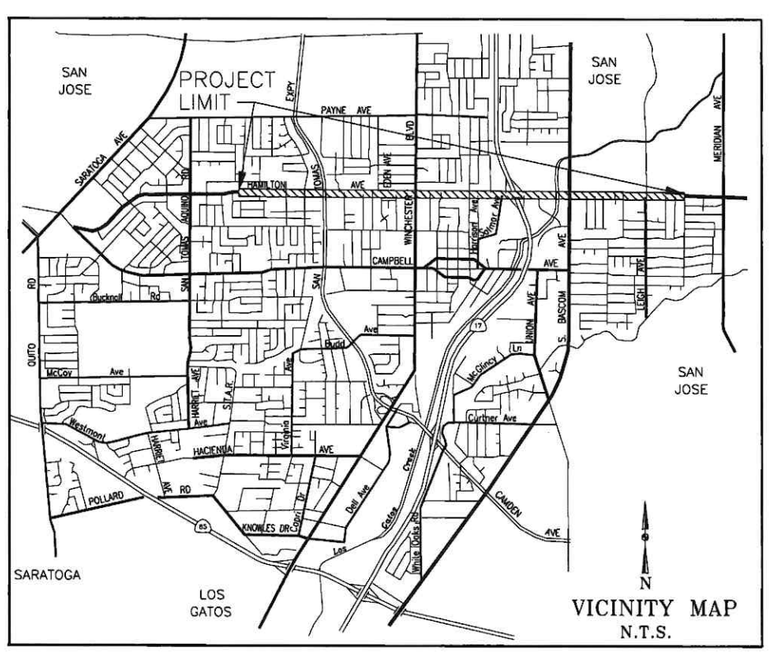
AGENCY INDEX

SANTA CLARA COUNTY FIRE DEPARTMENT	408-378-4010
CITY OF CAMPBELL - PUBLIC WORKS	408-866-2150
CITY OF CAMPBELL - POLICE	408-866-2170
AT&T	408-635-8835
PACIFIC GAS & ELECTRIC	1-800-743-5000
SAN JOSE WATER COMPANY	408-279-7900
SANTA CLARA VALLEY WATER DISTRICT	408-265-2600
COMCAST (BETWEEN 7:00AM AND 3:00PM)	408-918-3245
COMCAST (AFTER NORMAL WORKING HOURS)	1-800-945-2288
WEST VALLEY SANITATION DISTRICT	408-378-2407
UNITED STATES POSTAL SERVICE	408-378-0226
WEST VALLEY COLLECTION & RECYCLING	408-283-8500

CONSTRUCTION PLANS FOR

HAMILTON AVENUE RESURFACING IMPROVEMENTS
PROJECT NUMBER 23-BB
FEDERAL NUMBER CPFL-5306(034)

CITY OF CAMPBELL
Department of Public Works





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ABBREVIATIONS

AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
ADA	AMERICANS W/ DISABILITIES ACT
AP	ANGLE POINT
BC	BEGIN CURVE
Beg	BEGIN
BM	BENCH MARK
BMPs	BEST MANAGEMENT PRACTICES
BW	BACK OF WALK
BOW	BOTTOM OF WALL
CATV	CABLE TELEVISION
C/G	CURB & GUTTER
CL	CLASS/CENTER LINE
COC	CITY OF CAMPBELL
Conc	CONCRETE
CIR	COLD-IN-PLACE RECYCLING
CR	CURVE RETURN
DWY	DRIVEWAY
EC	END CURVE
EP	EDGE OF PAVEMENT
Exist, (E)	EXISTING
EXC	EXCAVATION
FC	FACE OF CURB
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
GB	GRADE BREAK
GND	GROUND
HMA	HOT MIX ASPHALT
INV	INVERT
IRR	IRRIGATION
LOL	LAYOUT LINE
LP	LIGHT POST
LG	LIP OF GUTTER
MAX	MAXIMUM
MB	MAILBOX
MC	MIDLINE
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MKR	MARKER
(MOD)	MODIFIED
MON	MONUMENT
(N)	NEW
OBJ	OBJECT
O.C.	ON CENTER
OG	ORIGINAL GRADE
P.A.	PLANTING AREA
PACB	PACIFIC BELL
PB	PULL BOX
PC	POINT ON CURVE
PCC	PORTLAND CONCRETE CEMENT
PL	PROPERTY LINE
POT	POINT ON TANGENT
PG&E	PACIFIC GAS & ELECTRIC
PLN	PLAN
PNT	POINT
PS	PAINT STRIPE
PLS	PLANTER STRIP
PVC	POINT ON VERTICAL CURVE
PVMT	PAVEMENT
R	RADIUS
R.C.	RELATIVE COMPACTION
RCP	REINFORCED CONCRETE PIPE
REM	REMOVE
RIM	MANHOLE RIM
R/W	RIGHT OF WAY
SAMI	STRESS ABSORBING MEMBRANE INTERLAYER
SDI/SD INLET	STORM DRAIN INLET
SHLD	SHOULDER
STD	STANDARD
SDMH	STORM DRAINAGE MANHOLE
SJC	CITY OF SAN JOSE
SLB	STREET LIGHT BOX
SSCO	SANITARY SEWER CLEAN OUT
SSMH	SANITARY SEWER MANHOLE
STA	STATION
S/W, SW	SIDEWALK
TC	TOP OF CURB
TEMP	TEMPORARY
TL	TELEPHONE LINE
TW	TOP OF WALL
TYP	TYPICAL
UB	UNKNOWN BOX
WALK	WALKWAY
WB	WATER BOX
WM	WATER METER
WV	WATER VALVE

SEAL OF ENGINEER OF WORK:

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODES, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF CAMPBELL IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

11/27/24
Date
FREDRICK C. HO, P.E.
SENIOR CIVIL ENGINEER
CITY OF CAMPBELL

11/27/24
Date
MARCELO COSENTINO, P.E.
PROJECT MANAGER
BKF ENGINEERS

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

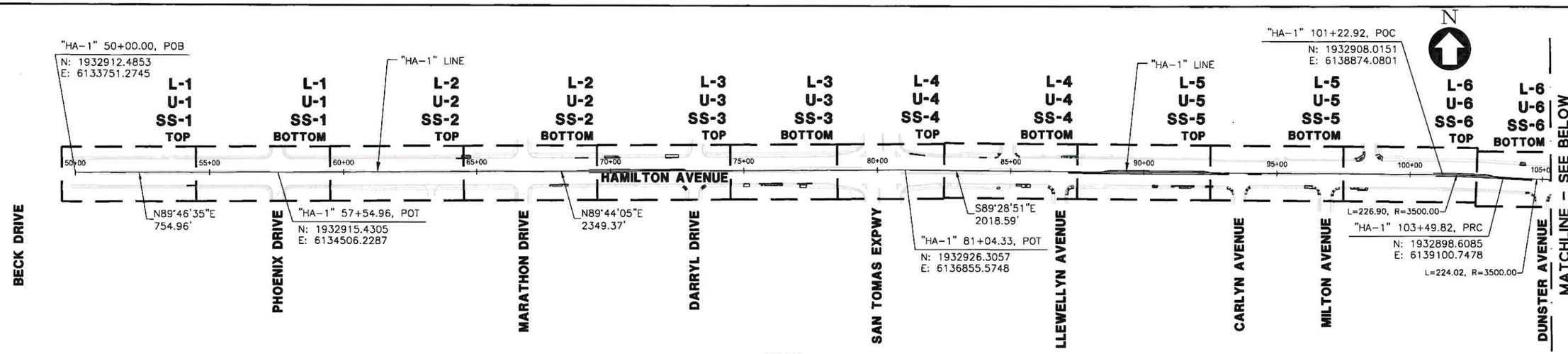
HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB
TITLE SHEET

CAMPBELL, CALIFORNIA

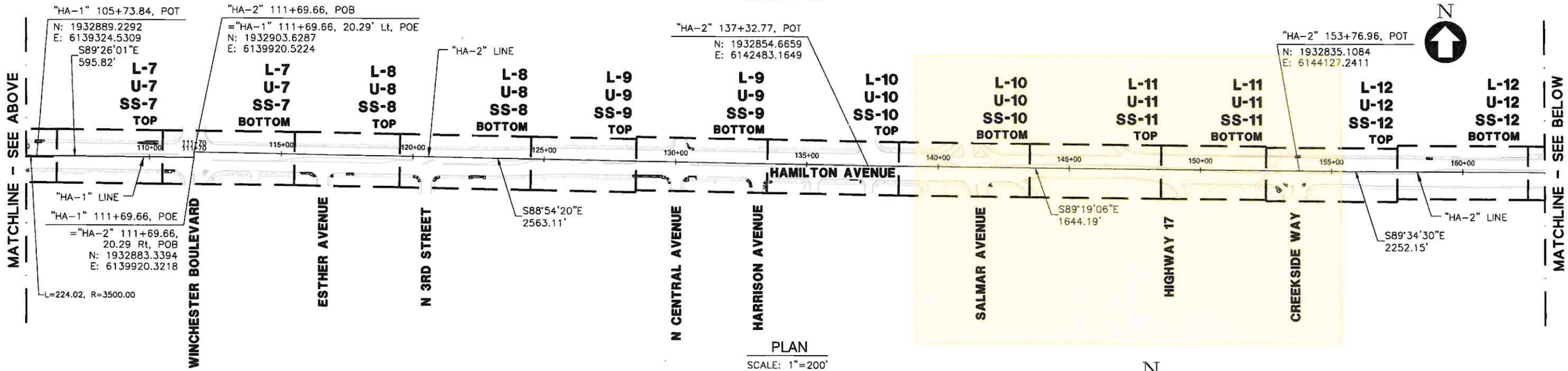
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SHEET: T-1

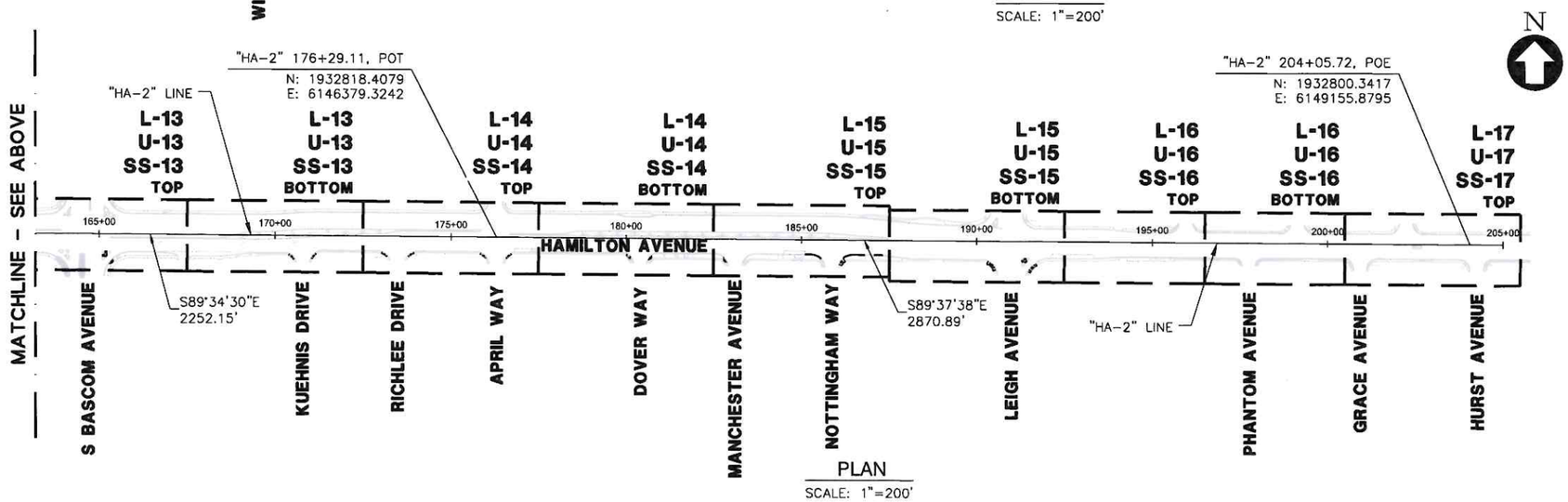
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PLAN
SCALE: 1"=200'



PLAN
SCALE: 1"=200'



PLAN
SCALE: 1"=200'

NOT FOR CONSTRUCTION

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB
KEY MAP

CAMPBELL, CALIFORNIA

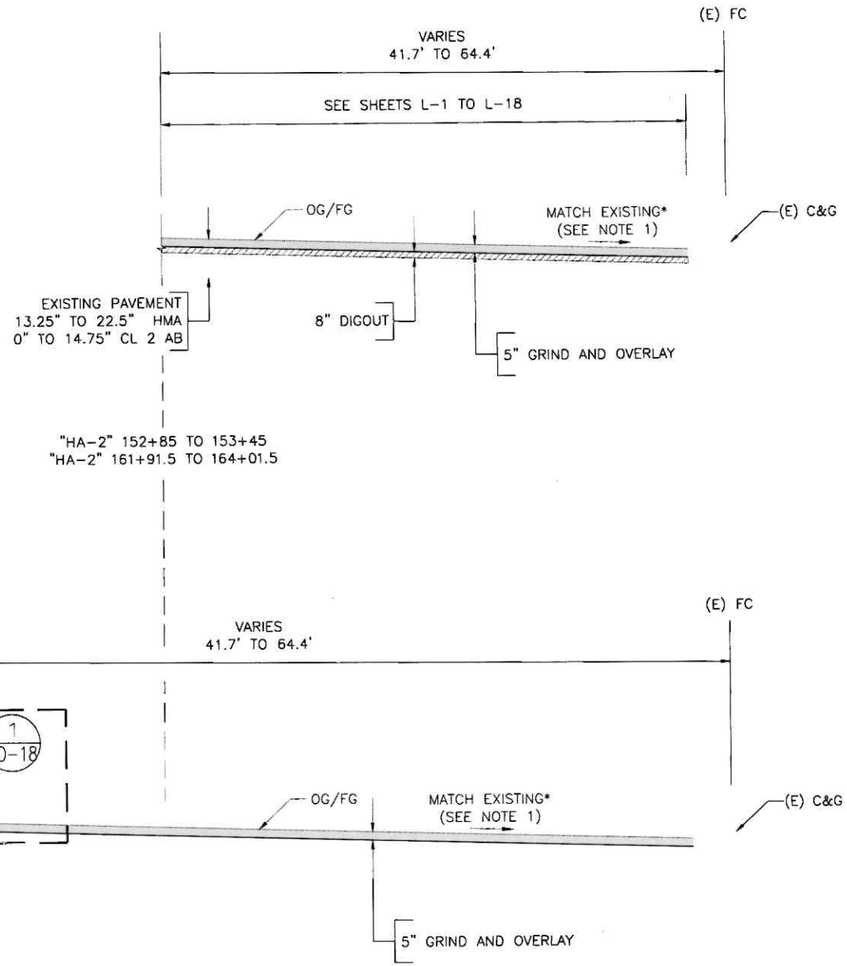
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SHEET: K-1

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NOTES:

1. NEW PAVING (COLD IN-PLACE RECYCLING, GRIND AND OVERLAY) AND DIGOUTS SHALL CONFORM TO EXISTING GRADES AND SLOPES. EXISTING DRAINAGE PATTERNS SHALL BE MAINTAINED UNLESS OTHERWISE NOTED ON THE PLANS. REFER TO SHEETS C-19 TO C-33 FOR SPECIFIC GRADE ADJUSTMENTS.
2. FOR LIMITS OF DIGOUTS, REFER TO SHEETS L-1 TO L-18. FOR DEPTHS OF DIGOUTS, REFER TO SHEET L-18. LOCATIONS AND DEPTHS OF DIGOUTS SHALL BE CONFIRMED IN THE FIELD BY THE CITY ENGINEER.
3. (N) (MOD) EXTRUDED CURB AND (N) PCC MEDIAN ARE ADDITIVE ALTERNATE BID ITEMS. FOR LIMITS AND HEIGHTS OF (N) (MOD) EXTRUDED CURB AND (N) PCC MEDIAN, REFER TO SHEETS L-1 TO L-18.
4. PCC SIDEWALK, DRIVEWAY, CURB AND GUTTER SHOWN ON L-SHEETS ARE DIAGRAMMATIC. EXACT LOCATIONS ARE AS NOTED IN THE FIELD WITH WHITE PAINT. THE CONTRACTOR SHALL CONFIRM LOCATIONS WITH THE CITY'S ENGINEER PRIOR TO COMMENCING WORK.
5. A STRAIGHT GRADE SHALL BE USED FOR CURB AND GUTTER REMOVAL AND REPLACEMENT (INCLUDING DRIVEWAYS) UNLESS OTHERWISE NOTED IN THE CONSTRUCTION DETAILS SHOW FOR THE CURB AND GUTTER IN FRONT OF ACCESSIBILITY RAMPS.
6. CONTRACTOR SHALL REFER TO THE APPLICABLE CITY STANDARD DETAILS FOUND ON PLAN SHEET CD-14 THRU CD-17 FOR SIDEWALK, DRIVEWAY, CURB AND GUTTER REMOVAL, AND REPLACEMENT.



HAMILTON AVE

"HA-2" 140+84.22 TO 165+32.2

NOT FOR CONSTRUCTION

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

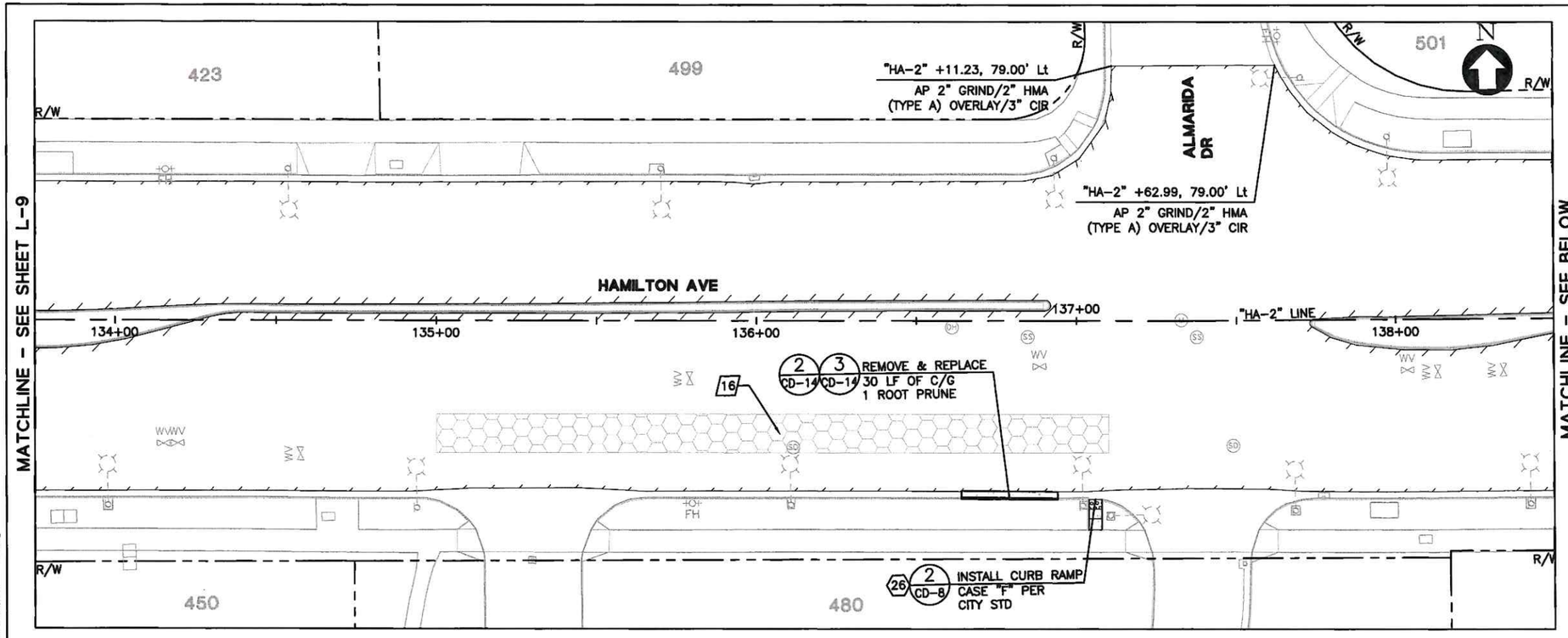
HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB

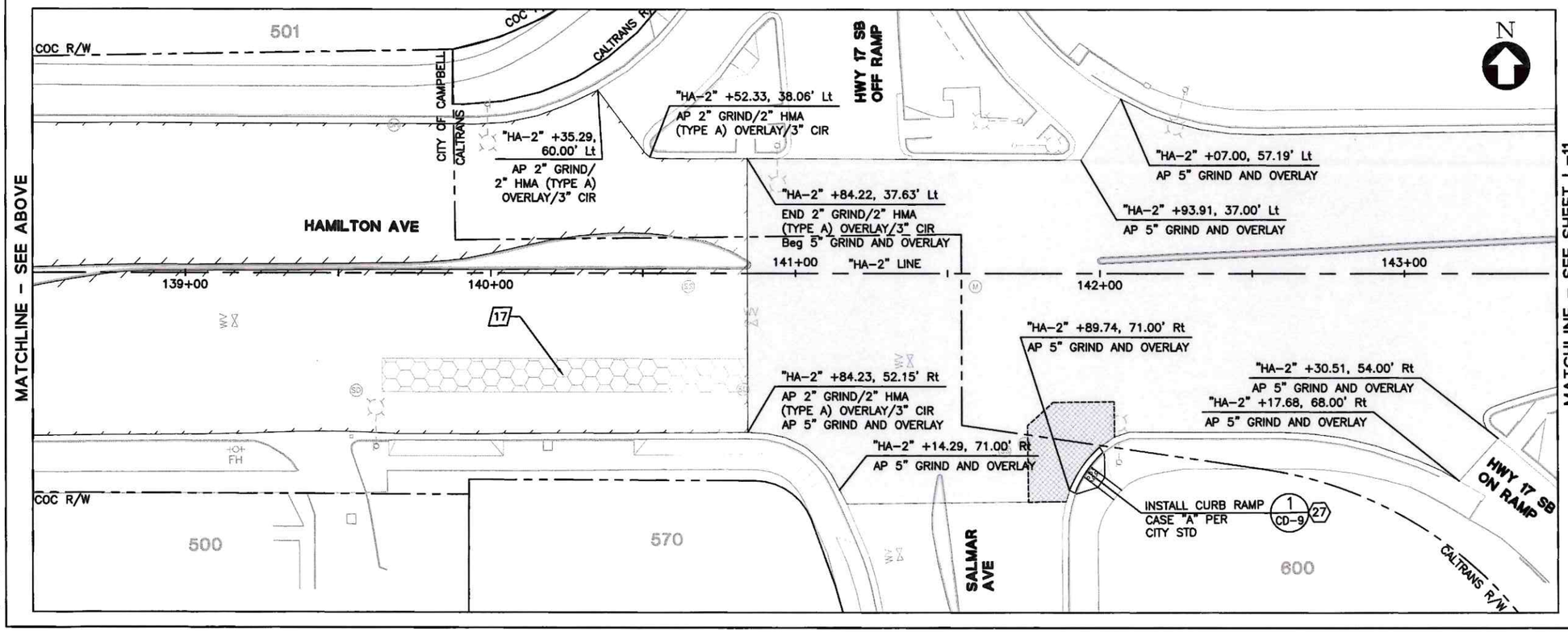
CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: X-4

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LEGEND:

- SLURRY SEAL
- 2" GRIND, 2" HMA (TYPE A) OVERLAY, 3" CIR
- 5" GRIND AND OVERLAY
- DIGOUT, SEE SHEET L-18 FOR DEPTHS
- SAWCUT/HMA PLUG
- CONCRETE
- PARK STRIP REMOVAL
- REMOVE MEDIAN
- TRUNCATED DOMES
- # FULL DEPTH DIGOUT LOCATION
- # MODIFIED EXTRUDED MEDIAN
- # CURB RAMP REPLACEMENT
- X / CD-X DETAIL No./SHEET No.
- (M) (E) MONUMENT
- (SS) (E) SANITARY SEWER MANHOLE
- (SD) (E) STORM DRAIN MANHOLE
- WV (E) WATER VALVE
- FH (E) FIRE HYDRANT
- (E) ELECTRICAL MANHOLE
- (E) TELECOM MANHOLE
- (E) TRAFFIC SIGNAL BOX
- (E) STREET LIGHT BOX
- (E) TELEPHONE BOX
- (E) SERVICE BOX
- (E) UTILITY BOX
- (E) UTILITY VAULT
- (E) UTILITY POLE
- (E) HANDHOLE
- (E) STREET LIGHT OR TRAFFIC SIGNAL POLE
- (E) SIGN

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB
LAYOUT PLAN

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER CHI
No. C87350
CIVIL
STATE OF CALIFORNIA

CITY OF CAMPBELL
THE ORCHARD
CAMPBELL, CALIFORNIA

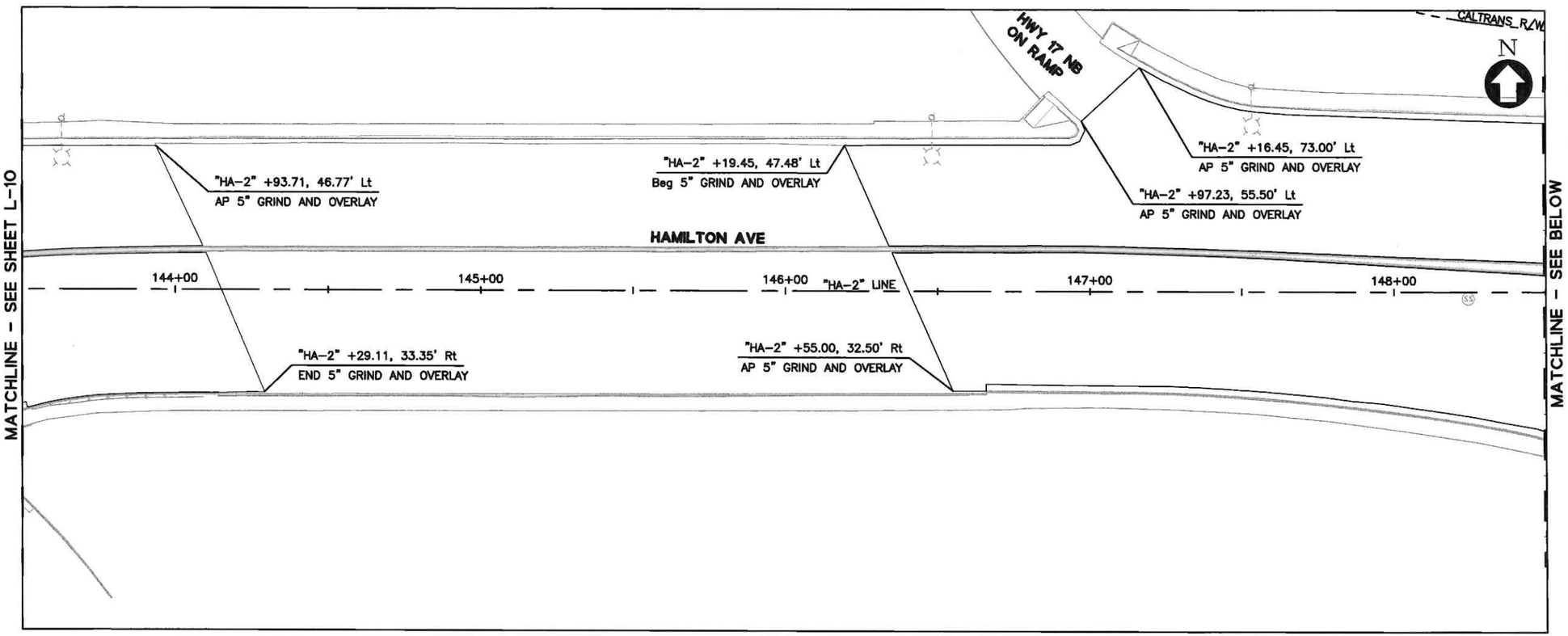
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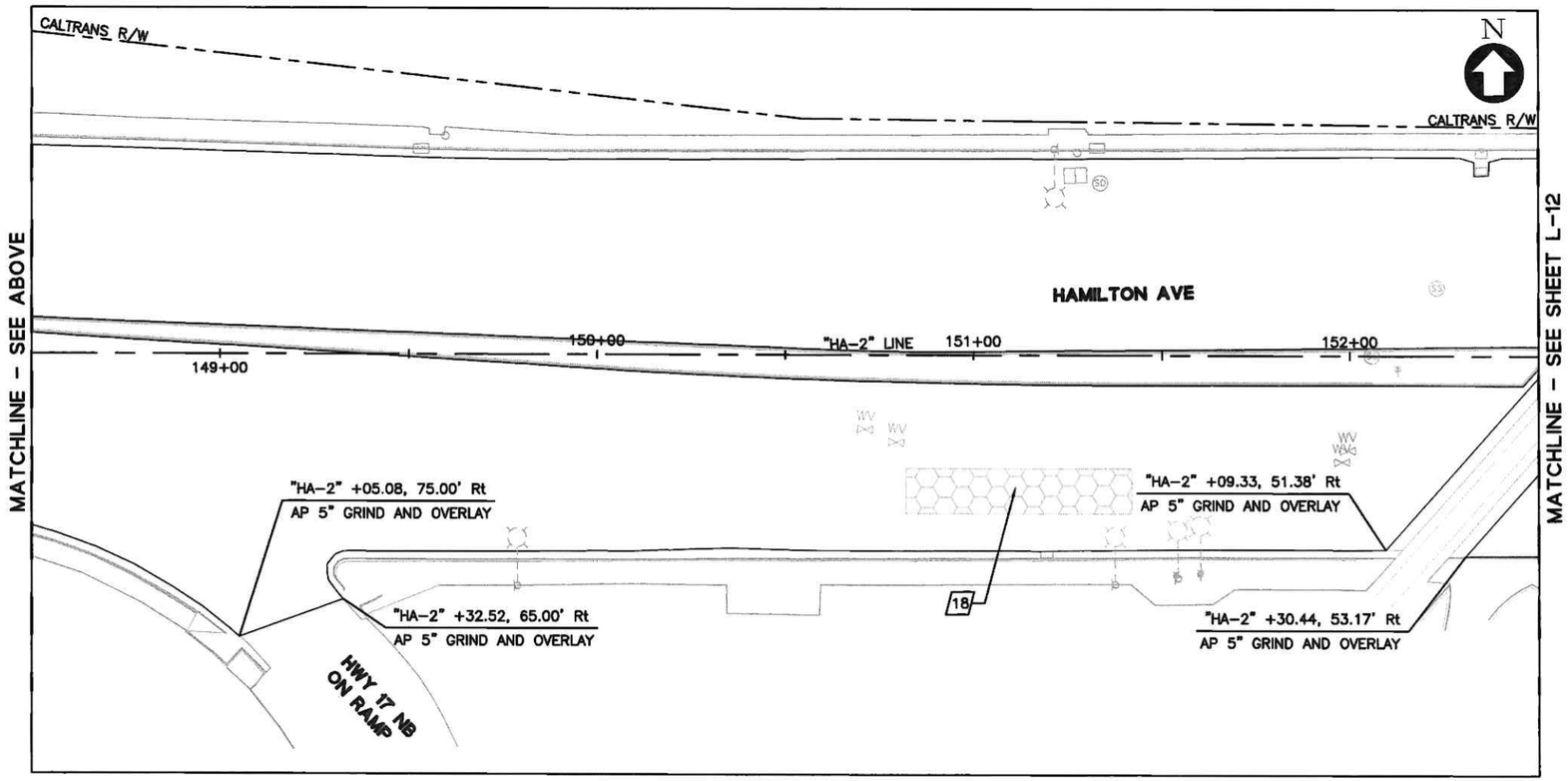
SCALE: 1"=20'

SHEET: L-10

20' 0' 20' 40'
GRAPHIC SCALE

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LEGEND:

- SLURRY SEAL
- 2" GRIND, 2" HMA (TYPE A) OVERLAY, 3" CIR
- 5" GRIND AND OVERLAY
- DIGOUT, SEE SHEET L-18 FOR DEPTHS
- SAWCUT/HMA PLUG
- CONCRETE
- PARK STRIP REMOVAL
- REMOVE MEDIAN
- TRUNCATED DOMES
- FULL DEPTH DIGOUT LOCATION
- MODIFIED EXTRUDED MEDIAN
- CURB RAMP REPLACEMENT
- DETAIL No./SHEET No. (X / CD-X)
- (E) MONUMENT
- (E) SANITARY SEWER MANHOLE
- (E) STORM DRAIN MANHOLE
- (E) WATER VALVE
- (E) FIRE HYDRANT
- (E) ELECTRICAL MANHOLE
- (E) TELECOM MANHOLE
- (E) TRAFFIC SIGNAL BOX
- (E) STREET LIGHT BOX
- (E) TELEPHONE BOX
- (E) SERVICE BOX
- (E) UTILITY BOX
- (E) UTILITY VAULT
- (E) UTILITY POLE
- (E) HANDHOLE
- (E) STREET LIGHT OR TRAFFIC SIGNAL POLE
- (E) SIGN

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB
LAYOUT PLAN

REGISTERED PROFESSIONAL ENGINEER
CORE MINO
No. 69693
Exp. 06/30/25
CIVIL
STATE OF CALIFORNIA

CITY OF CAMPBELL
THE ORCHARD
CAMPBELL, CALIFORNIA

NOT FOR CONSTRUCTION

SCALE: 1"=20'

SHEET: L-11

20' 0' 20' 40'
GRAPHIC SCALE

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"HA-2" +02.05, 52.86' Lt
END 5" GRIND AND OVERLAY

"HA-2" +25.24, 53.45' Lt
Beg 5" GRIND AND OVERLAY

CALTRANS R/W

6' MIN

6' MIN

INSTALL CURB RAMP (2 / CD-9) (29)
CASE "B" PER
CITY STD

"HA-2" +20.29, 53.33' Rt (4 / CD-9)
REMOVE AND RECONSTRUCT
MEDIAN ISLAND (PORTIONS)

153+00

154+00

155+00

"HA-2" LINE

156+00

157+00

"HA-2" +52.12, 53.75' Rt (4 / CD-9) (2 / CD-18)
REMOVE AND RECONSTRUCT
MEDIAN ISLAND (PORTIONS)

19

"HA-2" +95.95, 46.25' Rt (4 / CD-9)
REMOVE AND RECONSTRUCT
MEDIAN ISLAND (PORTIONS)

(28) (3 / CD-9) INSTALL CURB RAMP
CASE "A" PER
CITY STD

"HA-2" +14.74, 75.42' Rt
AP 5" GRIND AND OVERLAY

CREEKSIDE WY

"HA-2" +54.89, 75.03' Rt
AP 5" GRIND AND OVERLAY

"HA-2" +48.49, 75.10' Rt
AP 5" GRIND AND OVERLAY

"HA-2" +04.49,
74.68' Rt
AP 5" GRIND
AND OVERLAY

CALTRANS R/W

851

871

900

HAMILTON AVE

CALTRANS
CITY OF CAMPBELL

COC R/W

COC R/W

N

MATCHLINE - SEE SHEET L-11

MATCHLINE - SEE BELOW

(2 / CD-14) (3 / CD-14) (4 / CD-15) REMOVE & REPLACE
21 LF OF C/G
58.5 SF OF S/W
22.5 SF OF PARK STRIP
1 ROOT PRUNE

877 - 891

971

981

R/W

R/W

HAMILTON AVE

158+00

"HA-2" LINE

159+00

160+00

161+00

162+00

FH

20

R/W

R/W

950

980

N

MATCHLINE - SEE ABOVE

MATCHLINE - SEE SHEET L-13

LEGEND:

- SLURRY SEAL
- 2" GRIND
  2" HMA (TYPE A) OVERLAY
  3" CIR
- 5" GRIND AND OVERLAY
- DIGOUT, SEE SHEET L-18 FOR DEPTHS
- SAWCUT/HMA PLUG
- CONCRETE
- PARK STRIP REMOVAL
- REMOVE MEDIAN
- TRUNCATED DOMES
- FULL DEPTH DIGOUT LOCATION
- MODIFIED EXTRUDED MEDIAN
- CURB RAMP REPLACEMENT
- DETAIL No./SHEET No.
- (E) MONUMENT
- (E) SANITARY SEWER MANHOLE
- (E) STORM DRAIN MANHOLE
- (E) WATER VALVE
- (E) FIRE HYDRANT
- (E) ELECTRICAL MANHOLE
- (E) TELECOM MANHOLE
- (E) TRAFFIC SIGNAL BOX
- (E) STREET LIGHT BOX
- (E) TELEPHONE BOX
- (E) SERVICE BOX
- (E) UTILITY BOX
- (E) UTILITY VAULT
- (E) UTILITY POLE
- (E) HANDHOLE
- (E) STREET LIGHT OR TRAFFIC SIGNAL POLE
- (E) SIGN

NOT FOR CONSTRUCTION

20' 0' 20' 40'
GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB
LAYOUT PLAN

CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: L-12

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NOTES:

1. THIS PLAN IS ACCURATE FOR PAVEMENT RECONSTRUCTION WORK ONLY.
2. SAWCUT EXISTING PAVEMENT AND/OR PAVEMENT EDGE TO A NEAT LINE, PROTECT VERTICAL EDGE.
3. WHEREVER POSSIBLE, FINAL LIFT OF HMA IN FRONT OF CURB RAMP SHALL BE THE SAME LIFT AS STREET PAVING.
4. CURB RAMPS SHALL BE CONSTRUCTED PER THE CONSTRUCTION DETAILS PROVIDED IN THE PLAN SET. THE CITY'S STANDARD DETAILS AND CALTRANS STANDARD PLANS PROVIDED SHALL BE USED TO SUPPLEMENT. UNLESS OTHERWISE NOTED IN THE LAYOUT SHEETS, THE SIDEWALK, CURB AND GUTTER SHOWN IN THE CONSTRUCTION DETAILS FOR THE CURB RAMPS SHALL BE INCLUDED IN THE UNIT PRICE FOR THE RAMPS. DETECTABLE WARNING SURFACE SHALL BE WAUSAU TILE'S DETECTABLE WARNING ADA-2 PAVERS, SIZE 1'X1'X2", COLOR A-60. CONTRACTOR SHALL PROVIDE A SAMPLE PAVER A MINIMUM 14-DAYS PRIOR TO INSTALLATION.
5. REMOVE SIDEWALK AND GUTTER TO NEAREST SCOREMARK JOINT.
6. CONFIRM LIMITS OF PCC, BASE MATERIAL AND/OR SUBGRADE MATERIAL REMOVAL WITH CITY ENGINEER PRIOR TO BEGINNING WORK. PCC REMOVAL INCLUDES AC REMOVAL AND REPLACEMENT PER CITY STANDARD DETAILS.
7. CONTRACTOR SHALL PRUNE TREE ROOTS AT DIRECTION OF CITY ENGINEER AND CITY ARBORIST.
8. CONTRACTOR SHALL COMPLY WITH THE CITY STANDARD DETAILS FOR ALL PROJECT IMPROVEMENTS, UNLESS OTHERWISE NOTED.
9. CONTRACTOR SHALL COORDINATE WITH BUS.STOP@VTA.ORG ANY TIME A BUS STOP/ROUTE WILL BE OBSTRUCTED.
10. THE LINES AND THICKNESS SHOWN FOR REMOVAL OR PAVEMENT, CURB AND GUTTER, SIDEWALK AND ALL OTHER CIVIL CONSTRUCTION WORK ARE FOR INFORMATION ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXTENT OF WORK BASED ON THE SPACE REQUIRED TO PERFORM THE CONSTRUCTION WORK AND/OR THE CONTRACTOR'S MEANS AND METHODS AND REQUIREMENTS FOR SHORING, EXCAVATION AND TEMPORARY SUPPORT.
11. CONTRACTOR SHALL BE RESPONSIBILE FOR THE PROTECTION AND PERPETUATION OF ANY BENCHMARK OR MONUMENTATION, UNLESS SHOWN FOR REMOVAL BY THESE PLANS. IF A BENCHMARK OR MONUMENTATION NOT SHOWN FOR REMOVAL IS DISTURBED, THE CONTRACTOR SHALL HAVE A LICENSED LAND SURVEYOR RESTORE THE BENCHMARK OR MONUMENTATION AT THE CONTRACTOR'S EXPENSE.
12. CONTRACTOR SHALL CONFIRM CURB RAMP LAYOUT AND FIT WITH ENGINEER.
13. LOCATION OF R/W LINES ARE APPROXIMATE. CONTRACTOR SHALL OPERATE WITHIN THE PUBLIC R/W AS SHOWN ON THESE PLANS.
14. WHEN APPROVED BY THE CITY ENGINEER, FULL DEPTH DIGOUTS MUST INCLUDE THE REMOVAL OF EXISTING PAVEMENT STRUCTURAL SECTION, INCLUDING AC AND BASE MATERIAL AND REPLACEMENT WITH HMA (TYPE F) AND CLASS 2 AGGREGATE BASE.
15. SHALLOW DIGOUTS MUST INCLUDE REMOVAL OF EXISTING AC UP TO THE TOP OF THE BASE MATERIAL AND REPLACEMENT WITH HMA (TYPE F).
16. LIMITS OF EXTRUDED CURB INSTALLED SHALL BE CONFIRMED IN FIELD BY CITY ENGINEER.
17. FOR UTILITY PROTECTION, ADJUSTMENTS AND RELOCATIONS, SEE UTILITY PLAN.
18. FOR DRAINAGE MANHOLES ADJUSTMENTS, SEE UTILITY PLAN.

HAMILTON AVE
4" DIGOUTS

LOCATION (#)	LENGTH (FT)	WIDTH (FT)	AREA (SF)	L-SHEET
1	200	32	6,400	L-3
2	100	26	2,600	L-3
3	10	47	470	L-3
4	20	24	480	L-3 TO L-4
5	98	11	1,080	L-4
6	180	20	3,600	L-4 TO L-5
11	35	17	600	L-5
12	55	29	1,600	L-5 TO L-6
13	49	21	1,030	L-6
14	40	14	560	L-7
15	155	22	3,410	L-7
		TOTAL	21,830	

HAMILTON AVE
6" DIGOUTS

LOCATION (#)	LENGTH (FT)	WIDTH (FT)	AREA (SF)	L-SHEET
7	237	27	6,400	L-4
8	35	6	210	L-4
9	60	33	1,980	L-4
10	173	18	3,120	L-4 TO L-5
		TOTAL	11,710	

HAMILTON AVE
8" DIGOUTS

LOCATION (#)	LENGTH (FT)	WIDTH (FT)	AREA (SF)	L-SHEET
17	120	11	1,320	L-10
18	60	12	720	L-11
19	60	12	720	L-12
20	60	11	660	L-12
21	150	22	3,300	L-13
22	154	33	5,080	L-13
23	40	24	960	L-13
24	156	21	3,270	L-14
25	108	13	1,400	L-15
26	45	22	990	L-16
		TOTAL	18,420	

HAMILTON AVE
12" DIGOUTS

LOCATION (#)	LENGTH (FT)	WIDTH (FT)	AREA (SF)	L-SHEET
16	210	12	2,520	L-10
		TOTAL	2,520	

HAMILTON AVE
SLURRY SEAL

FROM STA	TO STA	AREA (SF)	L-SHEET
"HA-1" 50+88	"HA-1" 66+27.61	138,675	L-1 TO L-2

HAMILTON AVE
GRIND AND OVERLAY

FROM STA	FROM STA	AREA (SF)	DEPTH (IN)	L-SHEET
"HA-1" 66+27.61	"HA-1" 78+65.6	114,540	4	L-2 TO L-4
"HA-1" 81+31.95	"HA-1" 111+11	264,685	4.5	L-4 TO L-7
"HA-2" 140+84.22	"HA-2" 144+29.11	32,056	5	L-10 TO L-11
"HA-2" 146+19.45	"HA-2" 153+02.05	58,593	5	L-11 TO L-12
"HA-2" 153+25.24	"HA-2" 165+32.2	129,858	5	L-12 TO L-13

HAMILTON AVE
COLD IN-PLACE RECYCLING W/
GRIND AND OVERLAY

FROM STA	FROM STA	AREA (SF)	CIR DEPTH (IN)	GRIND AND OVERLAY DEPTH (IN)	L-SHEET
"HA-2" 112+34.79	"HA-2" 140+84.22	264,074	3	2	L-7 TO L-10
"HA-2" 165+32.2	"HA-2" 204+25.7	216,245	2.5	2	L-13 TO L-17

HAMILTON AVE
CURB RAMP REPLACEMENT

LOCATION (#)	CURB RAMP TYPE	L-SHEET	CD-SHEET	QUANTITY
1	CASE B	L-3	CD-1	1
2	CASE B	L-3	CD-1	1
3	CASE A	L-4	CD-1	1
4	CASE C	L-4	CD-1	1
5	CASE C	L-4	CD-2	1
6	CASE C	L-4	CD-2	1
7	CASE C	L-4	CD-2	1
8	CASE C	L-5	CD-3	1
9	CASE C	L-5	CD-3	1
10	CASE C	L-5	CD-3	1
11	CASE C	L-5	CD-3	1
12	CASE C	L-6	CD-4	1
13	CASE A	L-6	CD-4	1
14	CASE A	L-6	CD-4	1
15	CASE C	L-6	CD-5	1
16	CASE C	L-6	CD-5	1
17	CASE A	L-8	CD-5	1
18	CASE A	L-8	CD-5	1
19	CASE C	L-8	CD-6	1
20	CASE A	L-8	CD-6	1
21	CASE C	L-9	CD-7	1
22	CASE A	L-9	CD-7	1
23	CASE C	L-9	CD-7	1
24	CASE B	L-9	CD-8	1
25	CASE C	L-9	CD-8	1
26	CASE F	L-10	CD-8	1
27	CASE A	L-10	CD-9	1
28	CASE A	L-12	CD-9	1
29	CASE B	L-12	CD-9	1
30	CASE G	L-13	CD-10	1
31	CASE C	L-13	CD-10	1
32	CASE C	L-13	CD-10	1
33	CASE C	L-14	CD-11	1
34	CASE C	L-14	CD-11	1
35	CASE C	L-14	CD-11	1
36	CASE C	L-14	CD-11	1
37	CASE C	L-14	CD-12	1
38	CASE A	L-14	CD-12	1
39	CASE A	L-15	CD-12	1
40	CASE C	L-15	CD-12	1
41	CASE B	L-15	CD-13	1
42	CASE C	L-15	CD-13	1
			TOTAL	42

PER CONSTRUCTION DETAILS PROVIDED IN PLAN SET. CITY OF CAMPBELL STANDARD DETAILS OR CALTRANS STANDARD PLANS SHALL BE USED TO SUPPLEMENT THE CONSTRUCTION DETAILS WHERE NECESSARY.

ADDITIVE ALTERNATE BID ITEM

HAMILTON AVE
MEDIAN EXTRUDED CURB

LOCATION (#)	LENGTH (LF)	HEIGHT (IN)	L-SHEET
1	360	4	L-2 TO L-3
2	150	4	L-2 TO L-3
3	160	3.5	L-3
4	70	4	L-4
5	250	3.5	L-5
6	470	4 TO 4.5	L-5
7	220	2	L-5
8	30	1	L-5
9	30	1	L-5
10	70	1.5	L-5
11	70	3	L-5
12	100	2	L-5
13	370	3	L-6
14	150	4	L-6
15	210	2	L-6
16	110	3	L-6
17	110	3.5	L-6
TOTAL	2,930	-	-

FOR ADDITIONAL DIRECTION ON EXTRUDED CURB, SEE NOTE 16

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB
LAYOUT PLAN

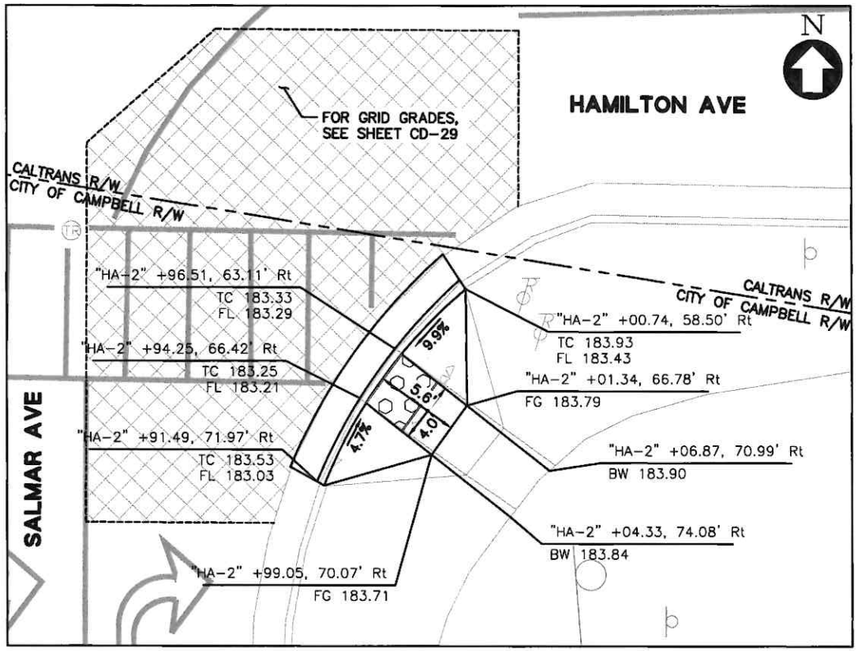
CAMPBELL, CALIFORNIA

SCALE: NTS

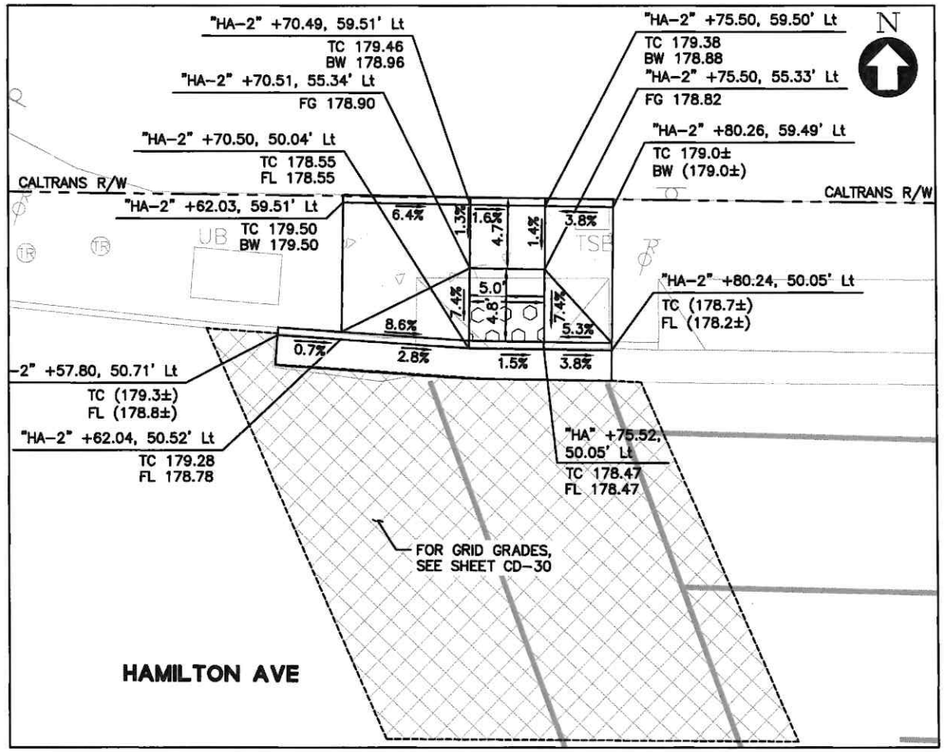
SHEET: L-18

NOT FOR CONSTRUCTION

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CURB RAMP (1 / CD-9)
"HA-2" 141+95.34
SCALE: 1" = 5'



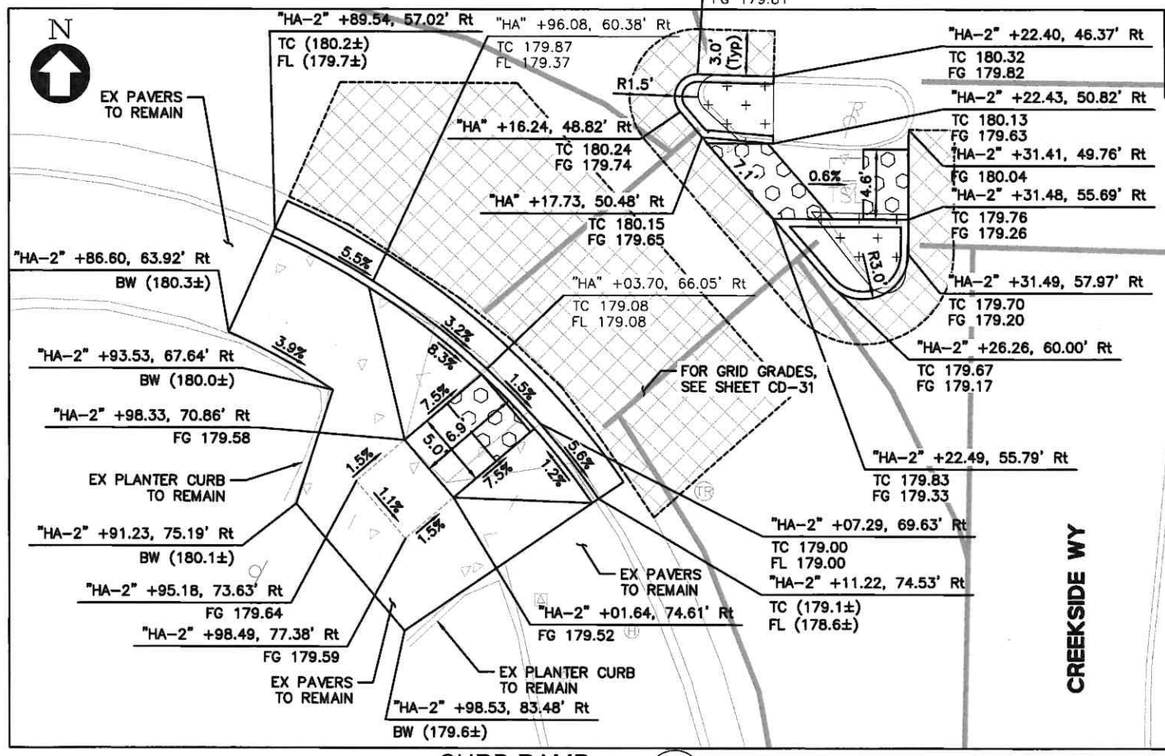
CURB RAMP (2 / CD-9)
"HA-2" 153+73.02
SCALE: 1" = 5'

LEGEND:

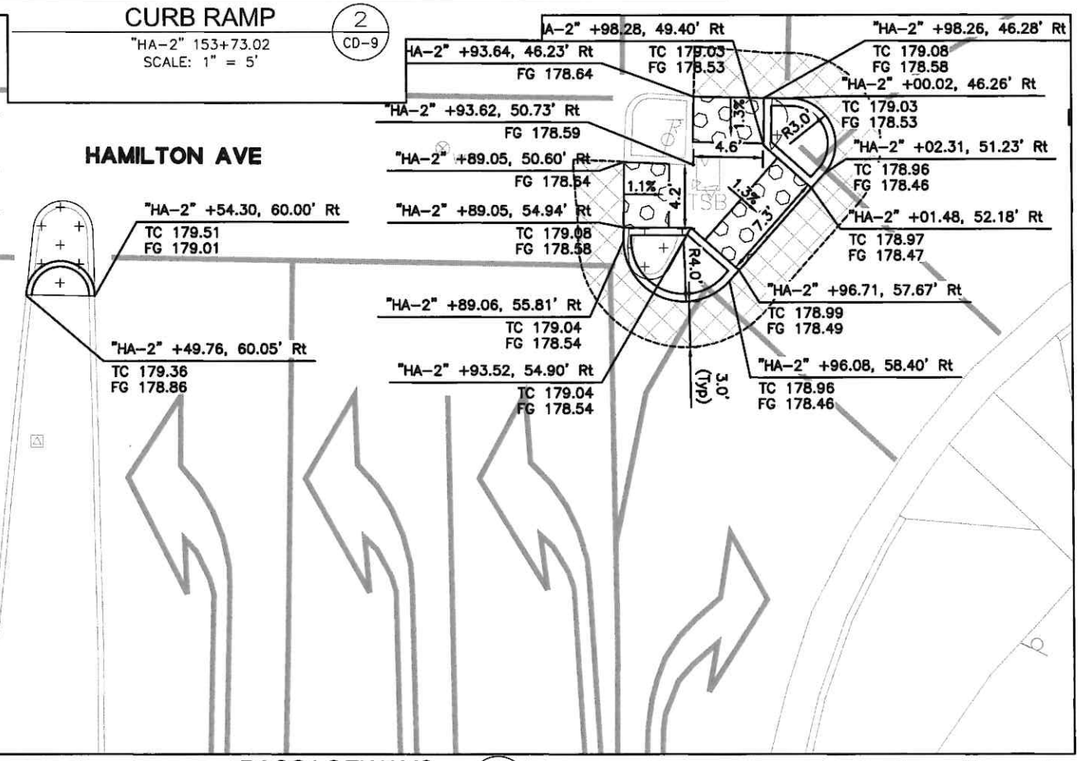
- SAWCUT/HMA PLUG
- CONCRETE SIDEWALK/CURB RAMP
- TRUNCATED DOMES

NOTES:

1. CONTRACTOR SHALL CONFIRM CURB RAMP LAYOUT AND FIT WITH ENGINEER.
2. REMOVE SIDEWALK AND GUTTER TO NEAREST SCOREMARK JOINT.
3. SEE SHEET L-18 FOR ADDITIONAL NOTES AND LEGEND.



CURB RAMP (3 / CD-9)
"HA-2" 153+05.54
SCALE: 1" = 5'



PASSAGEWAYS (4 / CD-9)
"HA-2" 153+50
SCALE: 1" = 5'

NOT FOR CONSTRUCTION

5' 0' 5' 10'
GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB
CONSTRUCTION DETAILS

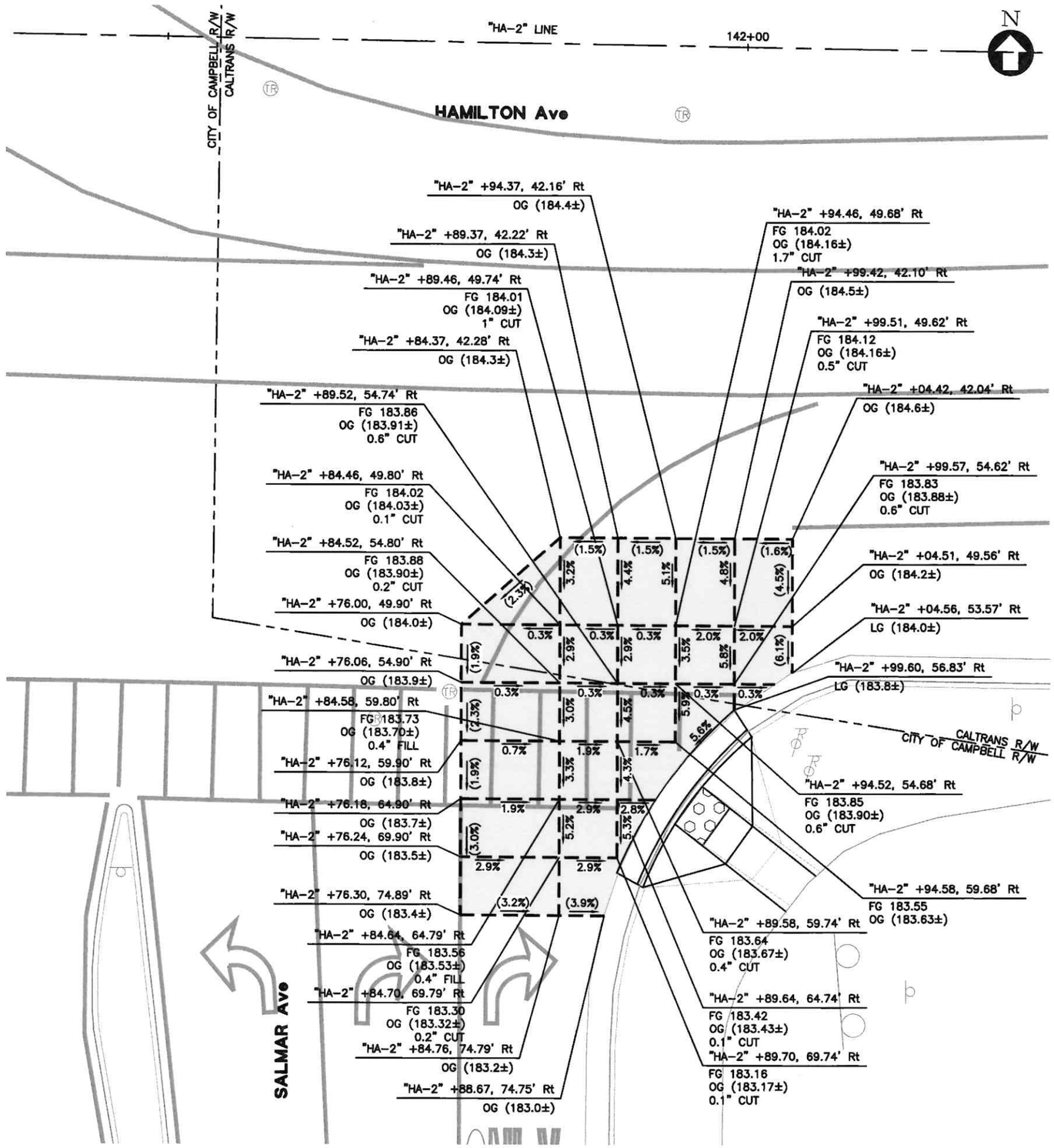
CAMPBELL, CALIFORNIA

SCALE: 1"=5'

SHEET: CD-9

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GRID GRADING
SCALE: 1" = 5'

1
CD-29

LEGEND:

- LIMIT OF INTERSECTION GRADING
- FULL DEPTH HMA REPLACEMENT
- GRID GRADE
- OG (181.03±) EXISTING SPOT ELEVATION, CONFORM
- FG 180.96 PROPOSED SPOT ELEVATION
- (0.3%) EXISTING SLOPE
- 1.5% PROPOSED SLOPE

ABBREVIATIONS:

Ave	AVENUE
FG	FINISH GRADE
HP	HIGH POINT
LG	LIP OF GUTTER
LP	LOW POINT
OG	ORIGINAL GRADE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB
GRID GRADING

CAMPBELL, CALIFORNIA

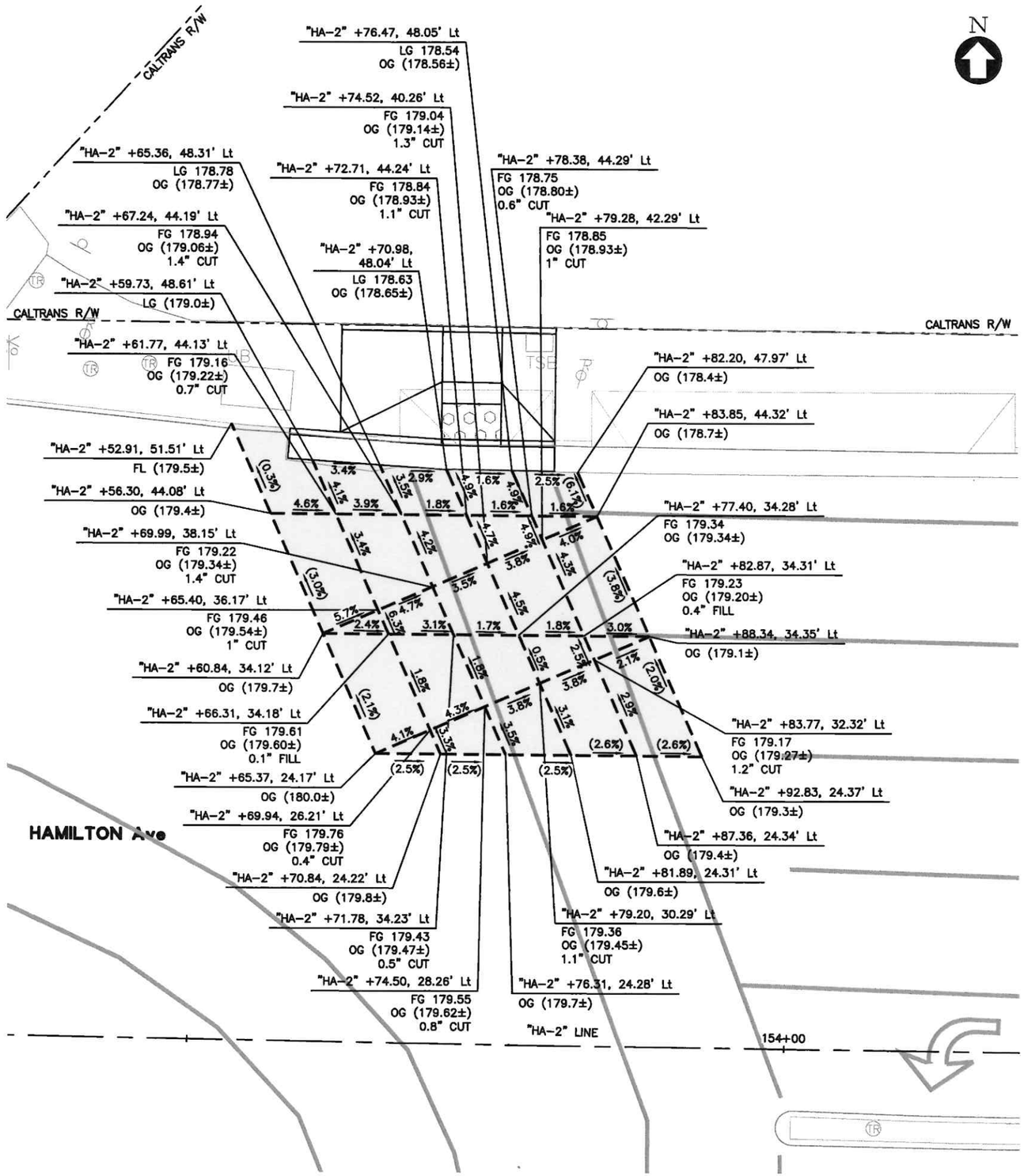
SCALE: 1"=5'

SHEET: CD-29

5' 0' 5' 10'
GRAPHIC SCALE

NOT FOR CONSTRUCTION

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GRID GRADING
SCALE: 1" = 5'
1 / CD-30

LEGEND:

- LIMIT OF INTERSECTION GRADING
- FULL DEPTH HMA REPLACEMENT
- GRID GRADE
- OG (181.03±) EXISTING SPOT ELEVATION, CONFORM
- FG 180.96 PROPOSED SPOT ELEVATION
- (0.3%) EXISTING SLOPE
- 1.5% PROPOSED SLOPE

ABBREVIATIONS:

Ave	AVENUE
FG	FINISH GRADE
HP	HIGH POINT
LG	LIP OF GUTTER
LP	LOW POINT
OG	ORIGINAL GRADE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB
GRID GRADING

CAMPBELL, CALIFORNIA

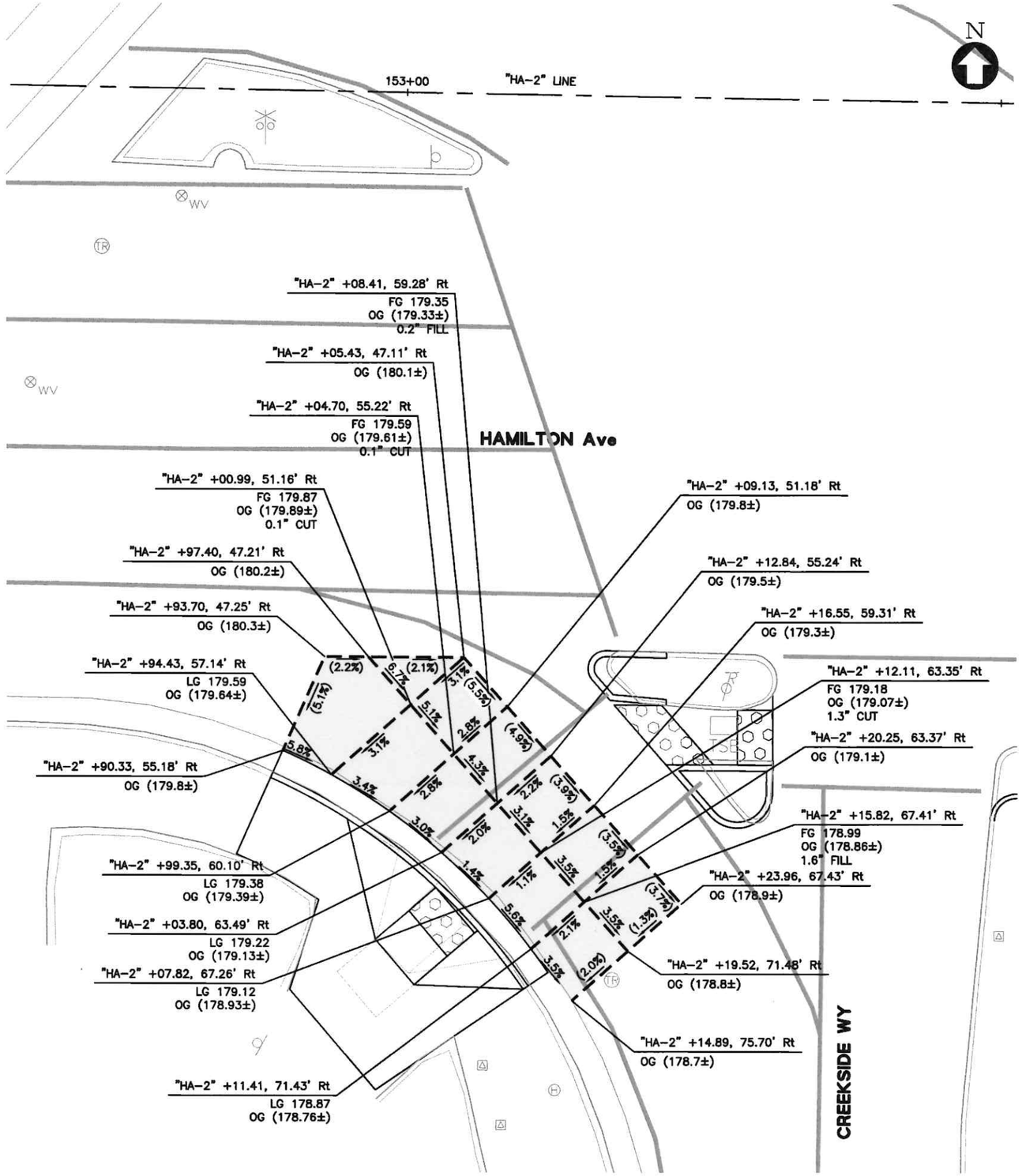
SCALE: 1"=5'

SHEET: CD-30

5' 0' 5' 10'
GRAPHIC SCALE

NOT FOR CONSTRUCTION

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GRID GRADING
SCALE: 1" = 5'
1 / CD-31

LEGEND:

- LIMIT OF INTERSECTION GRADING
- FULL DEPTH HMA REPLACEMENT
- GRID GRADE
- OG (181.03±) EXISTING SPOT ELEVATION, CONFORM
- FG 180.96 PROPOSED SPOT ELEVATION
- (0.3%) EXISTING SLOPE
- 1.5% PROPOSED SLOPE

ABBREVIATIONS:

Ave	AVENUE
FG	FINISH GRADE
HP	HIGH POINT
LG	LIP OF GUTTER
LP	LOW POINT
OG	ORIGINAL GRADE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB
GRID GRADING

CAMPBELL, CALIFORNIA

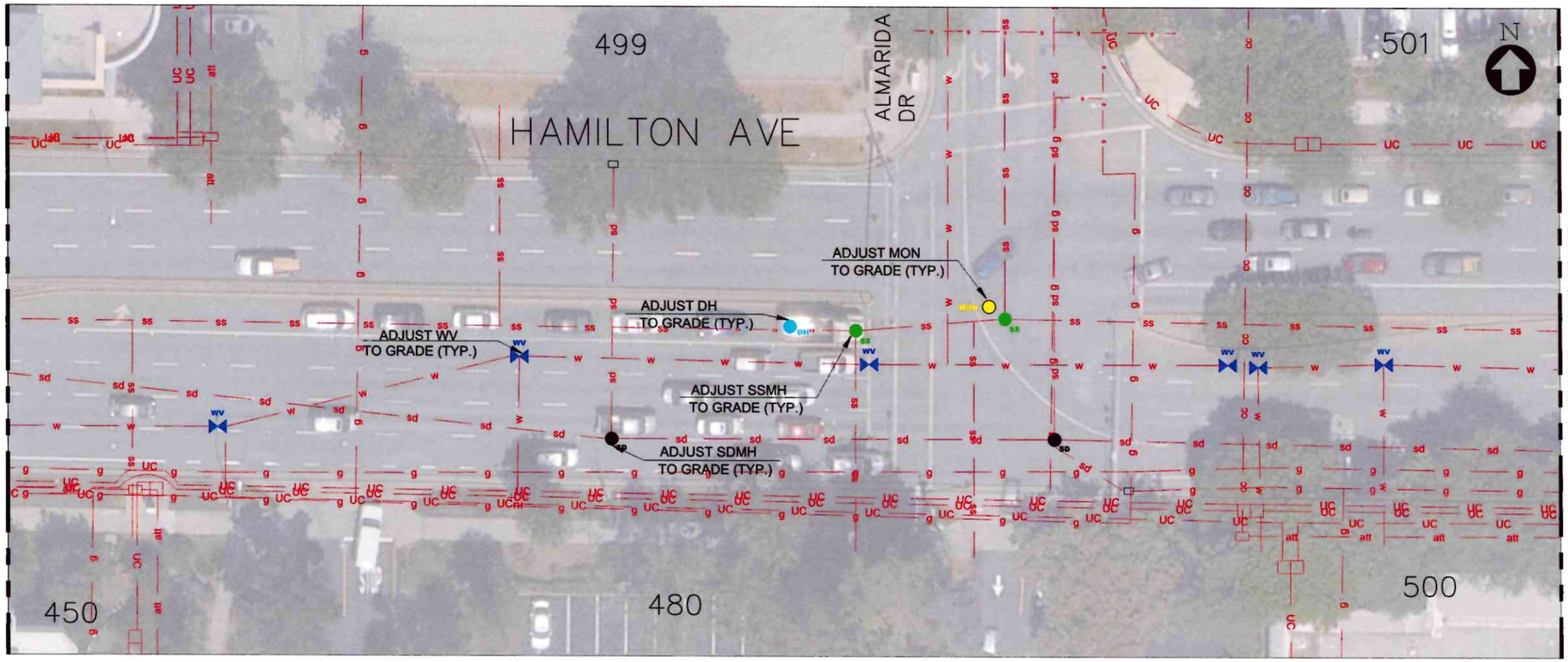
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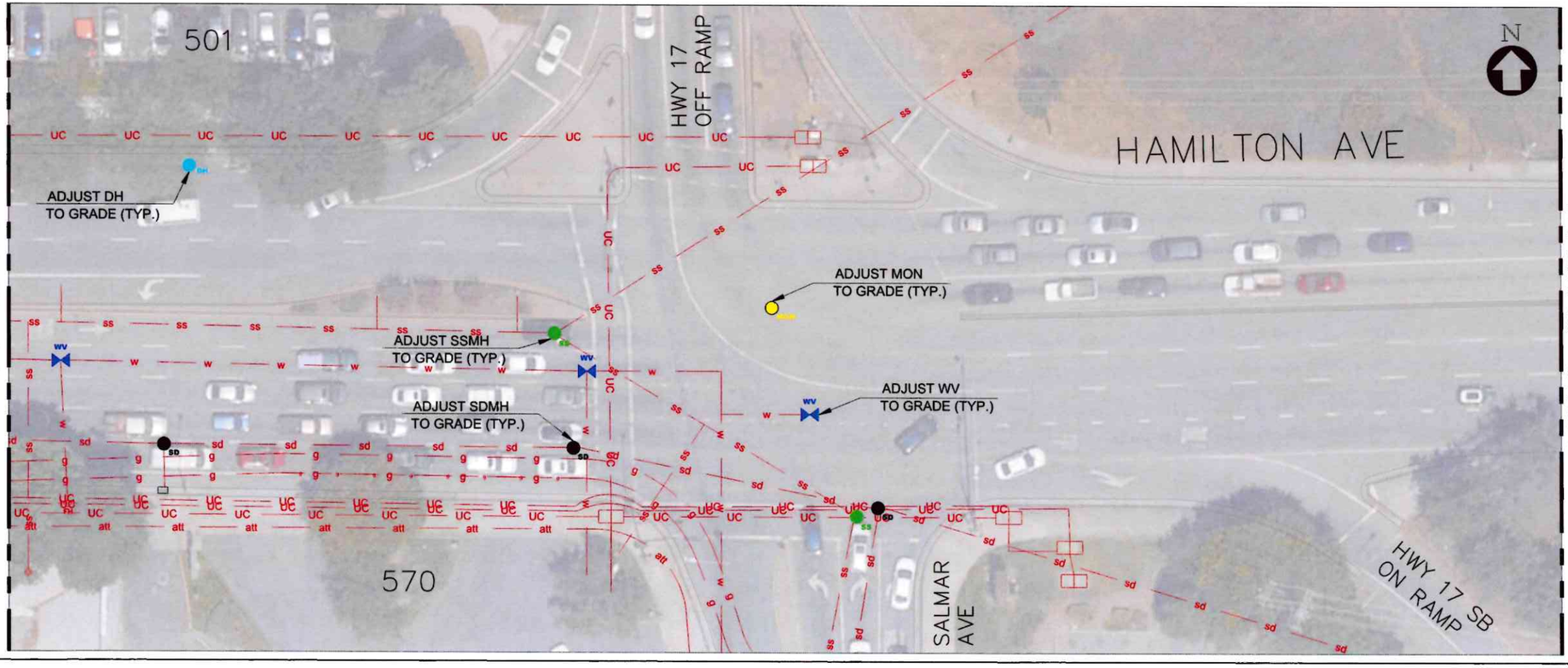
SHEET: CD-31

5' 0' 5' 10'
GRAPHIC SCALE

NOT FOR CONSTRUCTION

K:\2023\231167_Campbell_HamiltonAveResurfacing\ENG-T\Sheets\06_CONSTRUCTION DETAILS\CD-19_33.dwg 01 Nov 2024 12:23:34pm ntang





LEGEND

- ADJUST ATT MANHOLE
- (E) ATT MANHOLE
- ADJUST ATT VAULT
- ADJUST COC DETECTOR HANDHOLE
- ADJUST COC MONUMENT BOX
- ADJUST COC STORM DRAIN MANHOLE
- (E) COC STORM DRAIN MANHOLE
- (E) SJWC FIRE HYDRANT
- ADJUST SJWC WATER VALVE
- (E) SJWC WATER VALVE
- ADJUST MCI MANHOLE
- ADJUST WVSD SANITARY SEWER CLEANOUT
- ADJUST WVSD SANITARY SEWER MANHOLE
- (E) WVSD SANITARY SEWER MANHOLE

- att — (E) COMMUNICATION LINE
- cc — (E) CABLE LINE
- fo — (E) FIBER OPTIC LINE
- g — (E) GAS LINE
- oh — (E) OVERHEAD ELECTRICAL LINE
- ss — (E) SANITARY SEWER LINE
- sd — (E) STORM DRAIN
- uc — (E) UNDERGROUND ELECTRICAL LINE
- w — (E) WATER LINE

PROJECT NOTES:

1. UTILITIES SHOWN ON THE PLANS ARE SCHEMATIC AND FOR INFORMATION ONLY. THE CITY OF CAMPBELL MAKES NO REPRESENTATION OR WARRANTY REGARDING THE LOCATION OR DEPTH OF ANY SUBSURFACE FACILITIES SHOWN ON THE U-SHEETS. PER CA. GOV. CODE SECTION 4216.2, THE CONTRACTOR SHALL CALL USA PRIOR TO EXCAVATION. EXCAVATORS ARE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF SUBSURFACE FACILITIES PER CA. GOV. CODE SECTION 4216.4 (A-B). POTHOLING MAY BE REQUIRED.
2. CONTRACTORS SHALL TAKE PRECAUTIONARY MEASURES TO PROTECT ALL UTILITIES OR SUBSTRUCTURES, WHETHER SHOWN ON THE PLAN OR NOT.



NOT FOR CONSTRUCTION

No.	Revision	Date	By	Chkd

Date: 12-04-24
Drawn By: RA/DZ
Designed By: RA

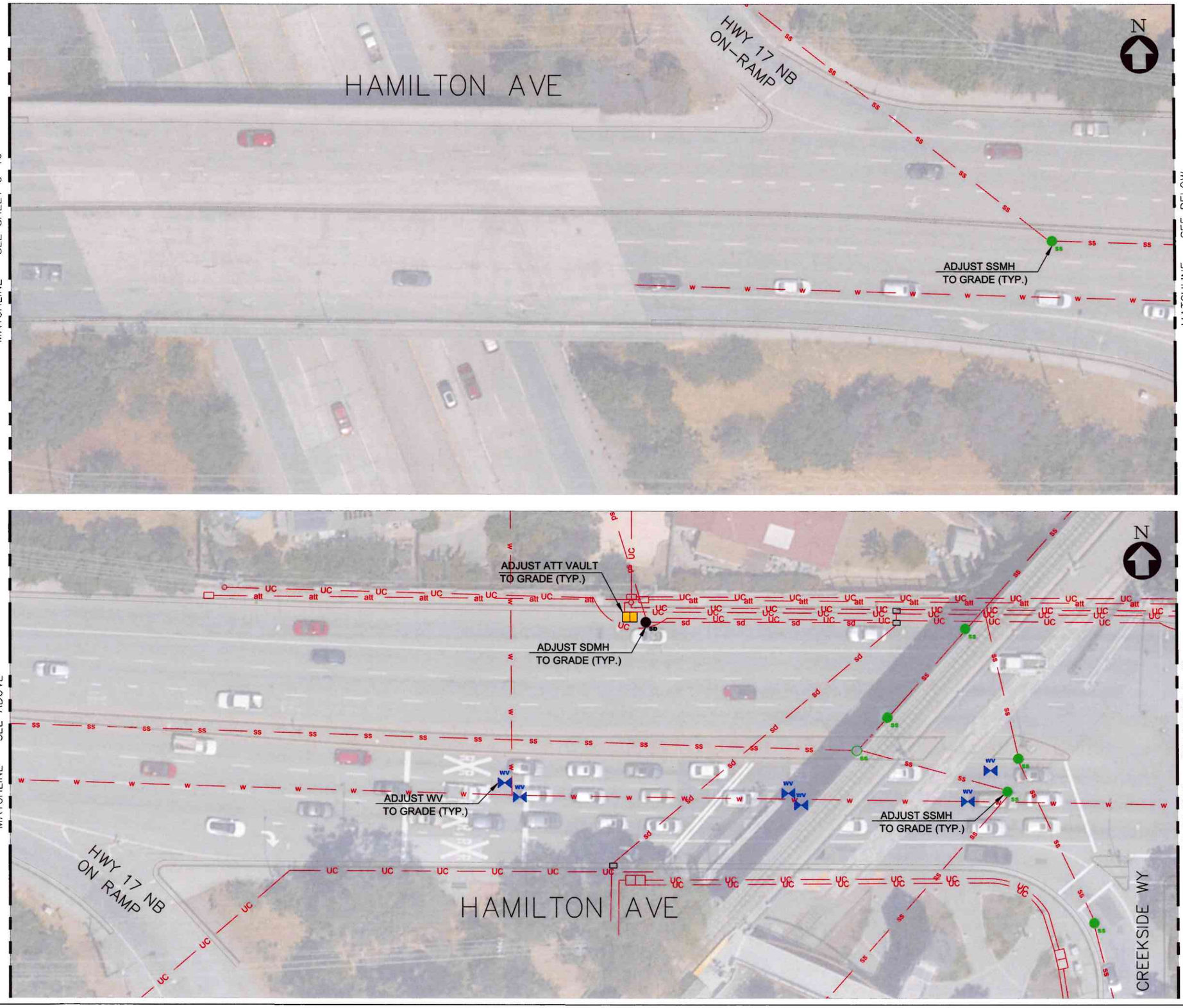
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB
UTILITY INFORMATION

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: U-10



LEGEND

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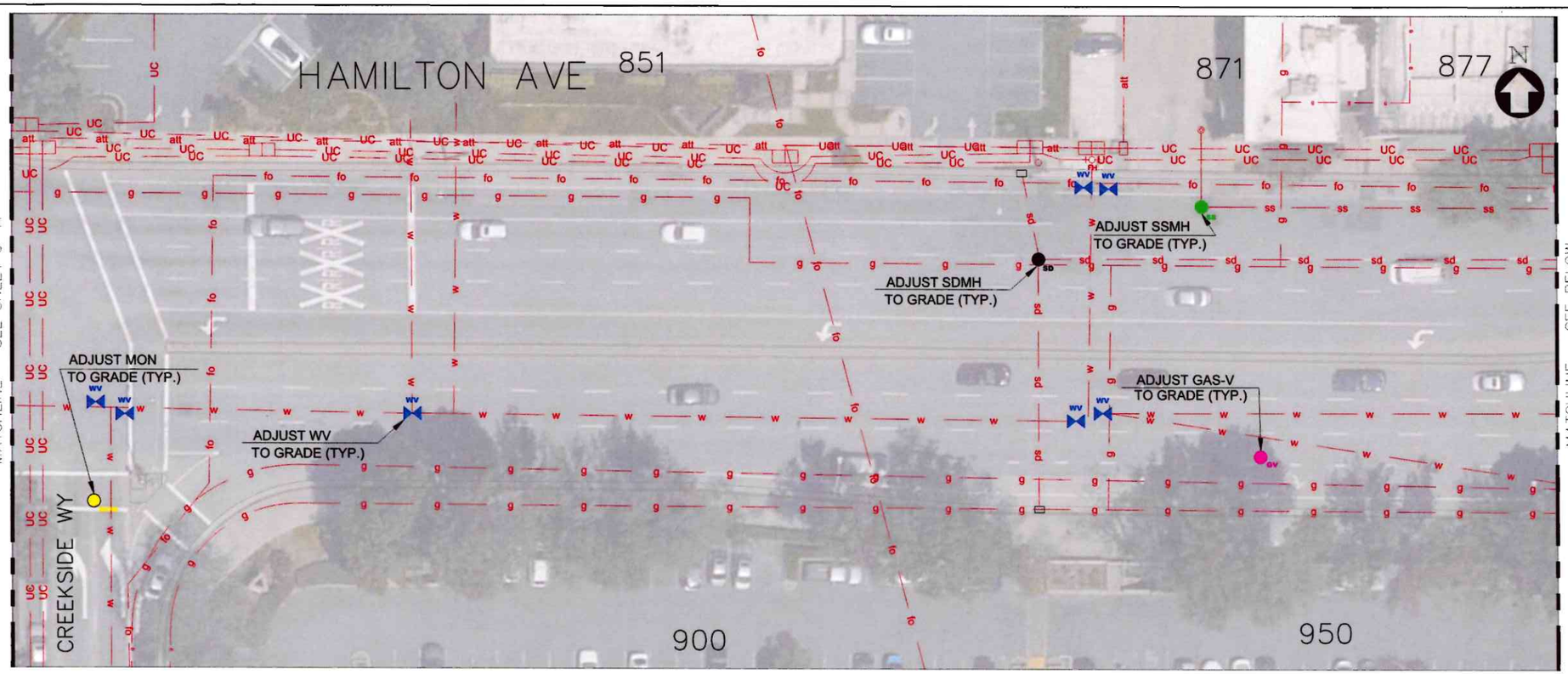
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

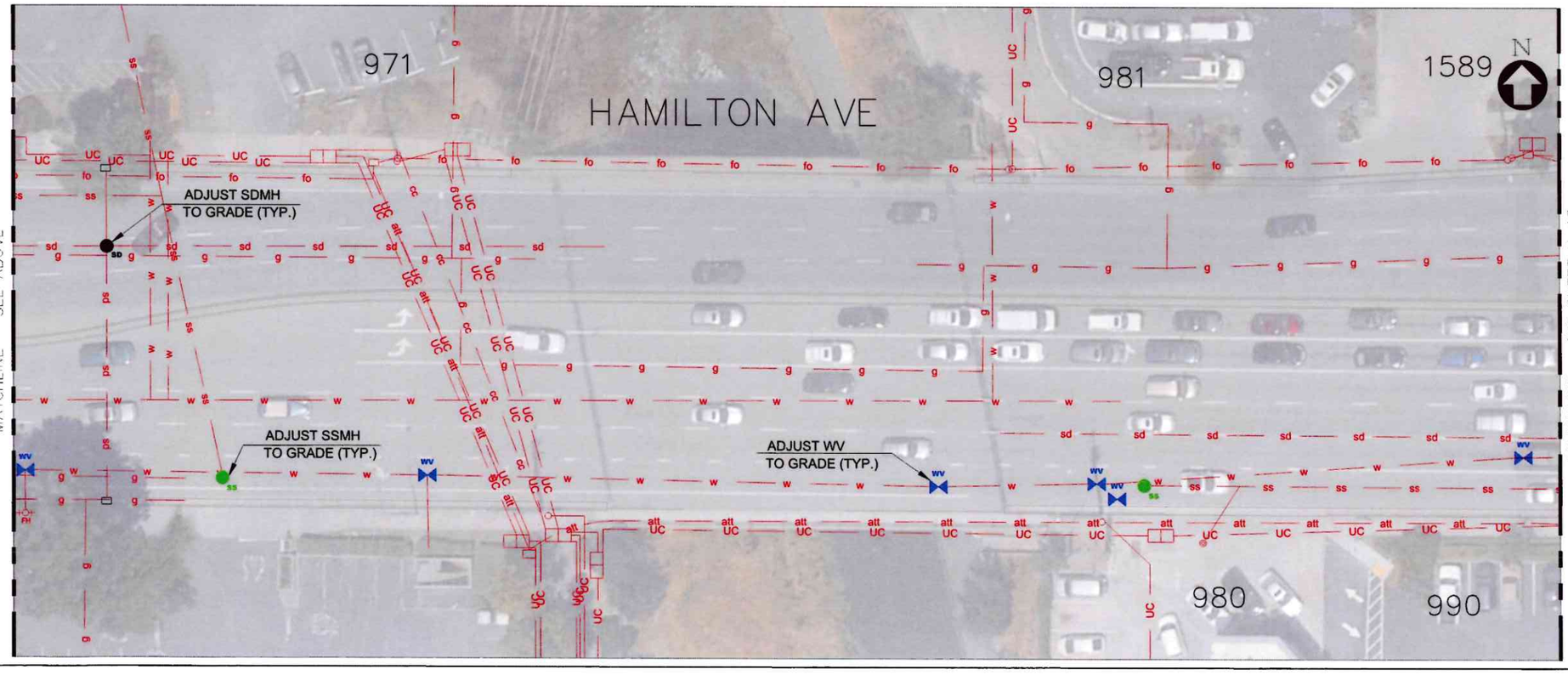
HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB
UTILITY INFORMATION

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: U-11





LEGEND

- ADJUST ATT MANHOLE
- (E) ATT MANHOLE
- ADJUST ATT VAULT
- ADJUST COC DETECTOR HANDHOLE
- ADJUST COC MONUMENT BOX
- ADJUST COC STORM DRAIN MANHOLE
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PROJECT NOTES:

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NOT FOR CONSTRUCTION

No.	Revision	Date	By	Chk'd

Date: 12-04-24
Drawn By: RA/DZ
Designed By: RA

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB
UTILITY INFORMATION

CAMPBELL, CALIFORNIA

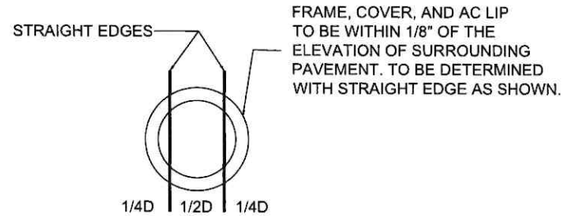
SCALE: NTS

SHEET: U-12

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SJWC - WV	(5) N/A - SLURRY	(11) N/A - SLURRY 1	12	12	9	9	12	11	15	9	6	13	14	14	9	5	6	157
SJWC - Traffic Rated PB						1												1
WVSD - SSMH		(5) N/A - SLURRY 1	6	2	3	5	2	2	2	4	6	3	4	7	3	1		51
WVSD - SSCO		(1) N/A - SLURRY																0
ATT - MH									1				3	2				6
ATT - VALVE BOX													1					1
ATT - VAULT BOX											1							1
MCI/VERIZON - MH					1													1
PGE - GV												1			1			2
SCCo - DH																		0
CoC - MON		(1) N/A - SLURRY 1	2		2	3	2	3	2	2		1	1	1	2	1		23
CoC - SDMH	(1) N/A - SLURRY	(1) N/A - SLURRY	6	3	5	4	4	7	4	5	1	2	5	3	6	6	2	63
CoC - SD Box Cover					1													1
CoC - DH										2			1					3
CoC - Traffic Rated PB									2									2

X
U-18

UTILITY SCHEDULE
NTS

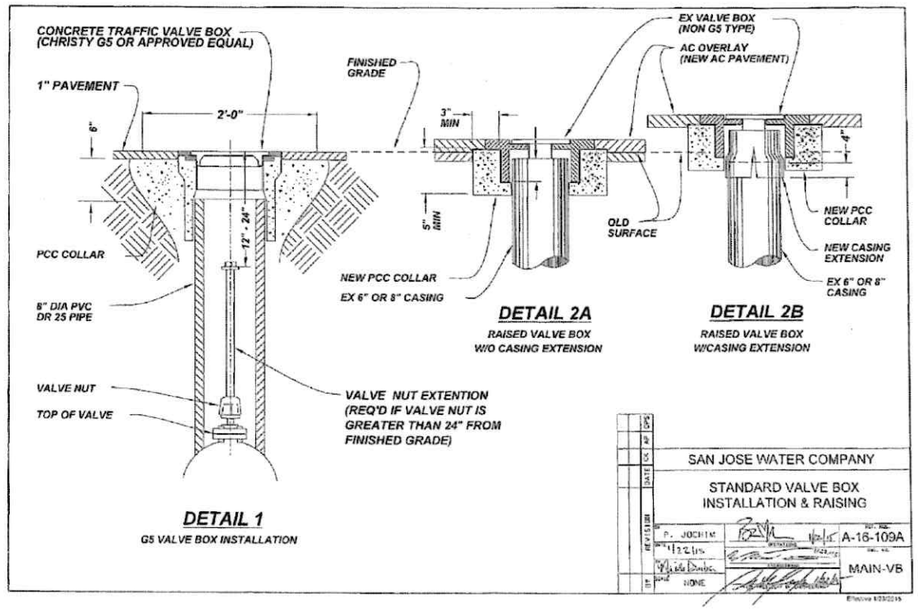


GENERAL NOTES:

1. ADJUST FRAME AND COVER TO FINISHED GRADE AFTER FINAL LIFT OF PAVING.

1
U-18

STORM DRAIN FRAME AND COVER ADJUSTMENT DETAIL
NTS



2
U-18

SAN JOSE WATER COMPANY - VALVE BOX INSTALLATION & RAISING
NTS

NOT FOR CONSTRUCTION

No.	Revision	Date	By	Chkd

Date: 12-04-24
Drawn By: RA/DZ
Designed By: RA

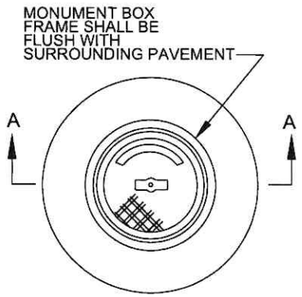
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB
UTILITY - CONSTRUCTION DETAILS

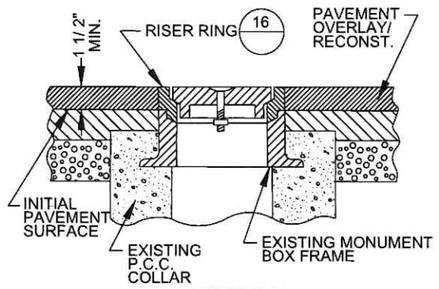
CAMPBELL, CALIFORNIA

SCALE: NTS

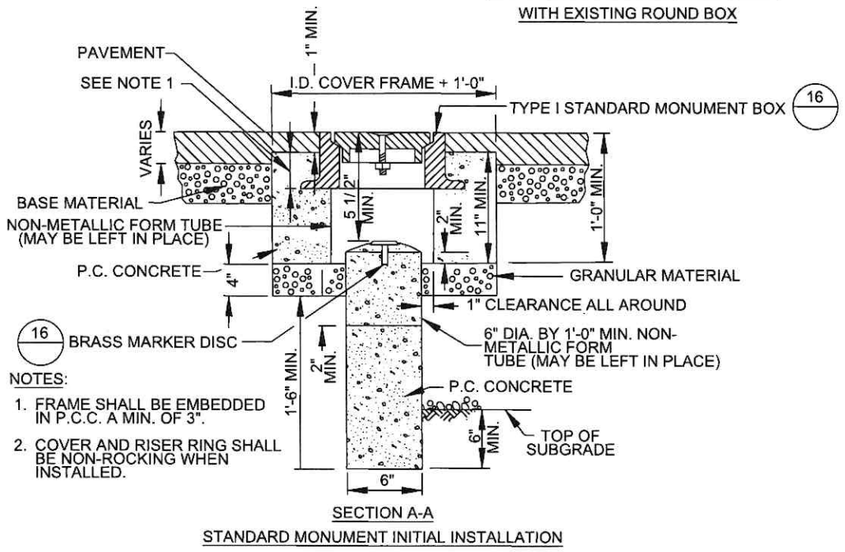
SHEET: U-18



COVER INSTALLATION
PLAN VIEW



SECTION A-A
STANDARD MONUMENT, RESURFACE
WITH EXISTING ROUND BOX

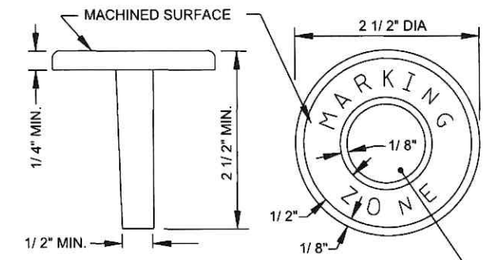


SECTION A-A
STANDARD MONUMENT INITIAL INSTALLATION

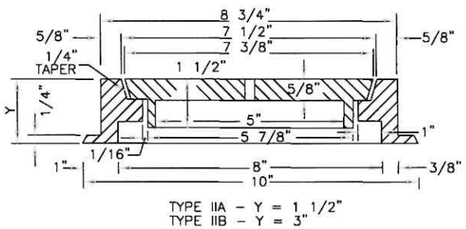
1 / U-19 STANDARD CITY MONUMENT DETAIL
NTS

NOTES:

1. MARKINGS IN ACCORDANCE WITH THE L.S. ACT SHALL BE A MINIMUM OF 3/ 16" SIZED LETTERS AND NUMBERS LEGIBLY STAMPED WITHIN THE DESIGNATED "MARKING ZONE".
2. REFERENCE MARK SHALL BE PLACED WITHIN A 1" DIAMETER OF THE CENTER OF DISC.
3. SHANK SHALL BE CONSTRUCTED IN A MANNER WHICH PREVENTS REMOVAL OR TURNING ONCE SET IN CONCRETE.

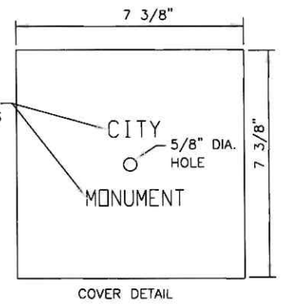


BRASS MARKER DISC
REF. MARK AREA 1" DIAM

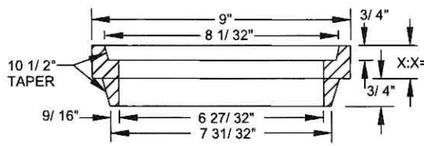


TYPE IIA – Y = 1 1/2"
TYPE IIB – Y = 3"
SECTION–FRAME AND COVER

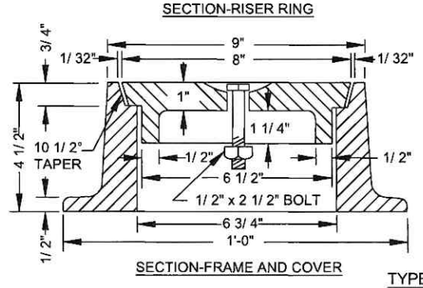
TYPE II MONUMENT BOX



COVER DETAIL

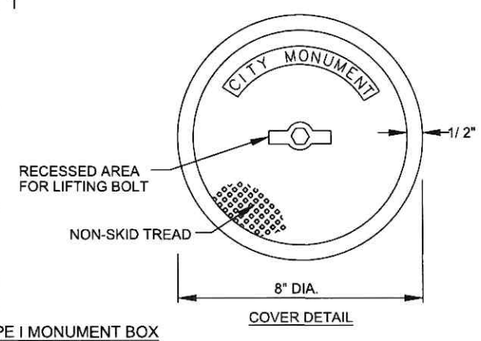


SECTION-RISER RING



SECTION-FRAME AND COVER

TYPE I MONUMENT BOX



COVER DETAIL

2 / U-19 STANDARD MONUMENT BOXES AND MARKER DISC CASTING
NTS

No.	Revision	Date	By	Chkd

Date: 12-04-24
Drawn By: RA/DZ
Designed By: RA

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

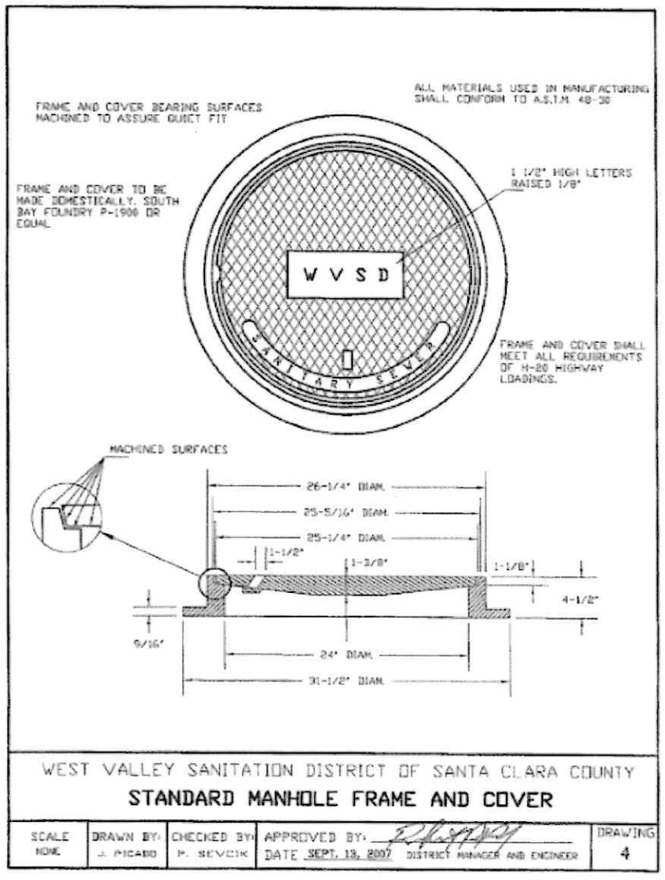
HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB
UTILITY - CONSTRUCTION DETAILS

CAMPBELL, CALIFORNIA

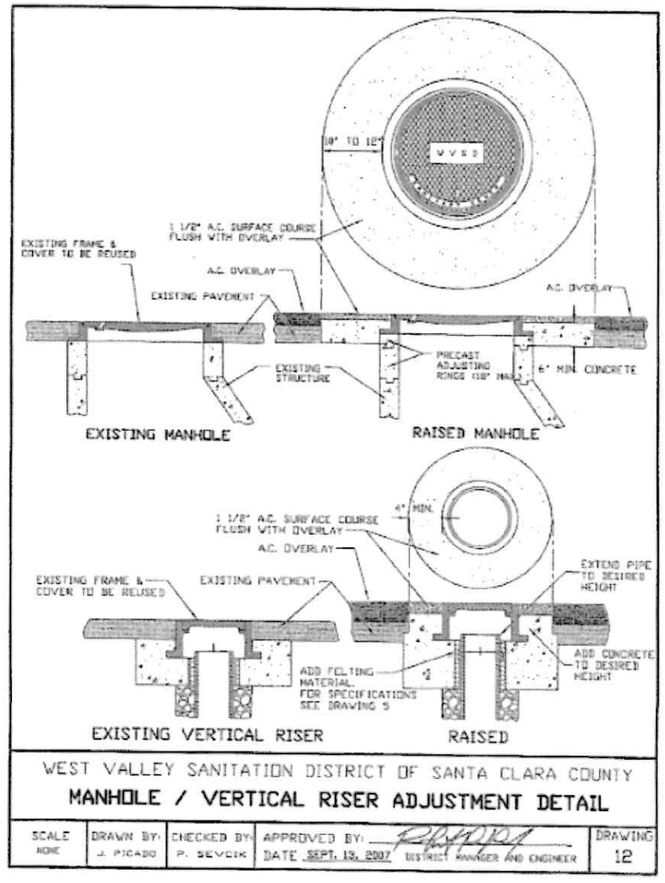
SCALE: NTS

SHEET: U-19

NOT FOR CONSTRUCTION



1 U-20 WVSD - STANDARD MANHOLE FRAME COVER
NTS



2 U-20 WEST VALLEY SANITATION DISTRICT - MANHOLE/VERTICAL RISER ADJUSTMENT
NTS

SANITARY SEWER MANHOLE ADJUSTMENT NOTES

1. GENERAL

   A. EXCEPT AS INDICATED HEREON OR ON THE PROJECT PLANS, MANHOLES SHALL CONFORM TO WEST VALLEY SANITATION DISTRICT'S STANDARD DRAWING 2 "STANDARD PRECAST CONCRETE MANHOLE."

   B. DIMENSIONS IN "D" SHALL BE THE SAME AS THE SIZE OF MANHOLE FRAME AND COVER TO BE USED.

   C. THE CONTRACTOR MAY REUSE THE EXISTING MANHOLE FRAME AND COVER, UNLESS DAMAGED BY HIM DURING HIS CONSTRUCTION OPERATION OR WHEN OTHERWISE INDICATED ON THE PROJECT PLANS. ITEMS DAMAGED BY THE CONTRACTOR SHALL BE REPLACED WITH IDENTICAL NEW ITEMS AT NO EXPENSE TO THE CITY OR TO WEST VALLEY SANITATION DISTRICT.

   D. EXISTING STEPS LOCATED WITHIN REMOVAL LIMITS SHALL BE REPLACED. WHEN REMOVAL OF EXISTING STEPS BEYOND THE MANHOLE REMOVAL LIMITS IS INDICATED ON THE PROJECT PLANS THE STEPS SHALL BE REMOVED TO A DEPTH OF 2 INCHES BEYOND THE INDISE FACE OF THE MANHOLE AND THE HOLES SHALL BE FILLED WITH CLASS "A" MORTAR.

2. RAISING EXISTING BRICK MANHOLES

   A. BRICK MANHOLES TO BE RAISED LESS THAN 1 FT. MAY BE EXTENDED VERTICALLY, PROVIDED THAT AT A DEPTH OF 2.5 FT. BELOW THE TOP OF MANHOLE AT ITS NEW ELEVATION, THE INSIDE DIAMETER OF THE MANHOLE IS 30 INCHES OR GREATER.

   B. BRICK MANHOLES TO BE RAISED LESS THAN 3.5 INCHES MAY BE RAISED BY APPLYING CLASS "A" MORTAR TO THE TOP OF THE EXISTING BRICKWORK. IF THE BRICK MANHOLE IS TO BE RAISED 3.5 INCHES OR MORE, A NEW COURSE OR COURSES OF BRICK WORK SHALL BE PLACED ON TOP OF EXISTING BRICKWORK.

3. LOWER EXISTING BRICK MANHOLES

   A. WHERE A BRICK MANHOLE IS TO BE LOWERED LESS THAN 1 FT, THE FRAME MAY BE RESET ON THE EXISTING BRICKWORK AND THE 40 INCHES MINIMUM BRICKWORK RECONSTRUCTION OMITTED, PROVIDED THAT THE BASE OF THE FRAME DOES NOT OVERHANG THE BRICKWORK ON THE INSIDE SURFACE OF THE MANHOLE MORE THAN AN AVERAGE OF 1.5 INCHES IN ANY QUADRANT NOR MORE THAN 2 INCHES AT ANY POINT.

4. RAISING EXISTING PRECAST CONCRETE MANHOLES

   A. PRECAST CONCRETE MANHOLES TO BE RAISED LESS THAN 3 INCHES MAY BE RAISED BY APPLYING CLASS "A" MORTAR TO THE TOP OF THE EXISTING MANHOLE, PROVIDED THE TOTAL HEIGHT OF MORTAR, EXISTING AND NEWLY APPLIED DOES NOT EXCEED 3 INCHES.

   B. WHERE THE PRECAST CONCRETE MANHOLE IS TO BE RAISED 3 INCHES OR MORE, OR WHERE THE TOTAL HEIGHT OF MORTAR, EXISTING AND NEWLY APPLIED, WOULD EXCEED 3 INCHES; GRADE RINGS SHALL BE UTILIZED. CLASS "A" MORTAR MAY BE USED FOR FINAL ADJUSTMENT, BUT NOT MORE THAN 3 INCHES IN HEIGHT. WHERE RAISING THE MANHOLE WOULD RESULT IN THE UPPER SEGMENT OF THE SHAFT BEING MORE THAN 30 INCHES IN HEIGHT, REMOVE THE REDUCER AND UPPER SEGMENT OF THE SHAFT, INSTALL ADDITIONAL RINGS OR PIPE TO THE LOWER SEGMENT OF THE SHAFT, AND REINSTALL THE REDUCER AND GRADE RINGS AS REQUIRED.

5. LOWERING EXISTING PRECAST CONCRETE MANHOLES

   A. REMOVE SUFFICIENT GRADE RINGS TO LOWER THE MANHOLES AS REQUIRED. APPLY CLASS "A" MORTAR TO A HEIGHT NOT EXCEEDING 3 INCHES FOR ADJUSTMENT TO FINAL GRADE.

   B. WHERE REMOVAL OF GRADE RINGS WOULD RESULT IN THE UPPER SEGMENT OF THE SHAFT BEING LESS THAN 12 INCHES IN HEIGHT, REMOVE THE REDUCERS AND SUFFICIENT SECTIONS OF THE LOWER SEGMENT OF THE SHAFT AND REINSTALL ANY NECESSARY SEGMENT OF THE LOWER SHAFT, THE REDUCER, AND THE GRADE RINGS TO CONFORM TO THE REQUIREMENTS OF THIS PLAN.

   C. EXISTING GRADE RINGS NEED NOT BE REMOVED IF EXISTING MORTAR IS REMOVED, AND AT LEAST 1.5 INCHES OF MORTAR MAY BE PLACED ON TOP OF EXISTING GRADE RINGS TO RESEAT THE FRAME.

6. CEMENT MORTAR

   A. CLASS "A" MORTAR SHALL CONFORM TO SECTION 201-5, "CEMENT MORTAR" OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", LATEST EDITION.



NOT FOR CONSTRUCTION

No.	Revision	Date	By	Chkd

Date: 12-04-24
Drawn By: RA/DZ
Designed By: RA

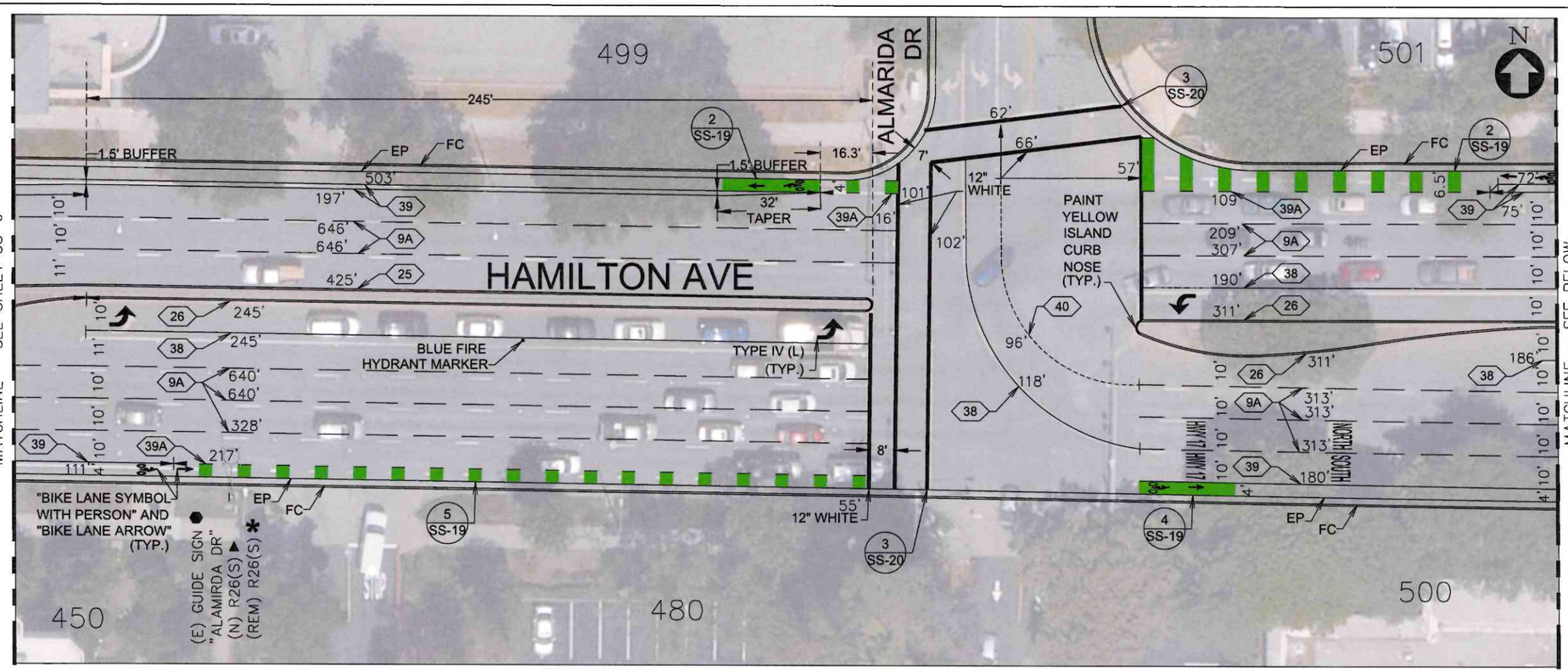
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

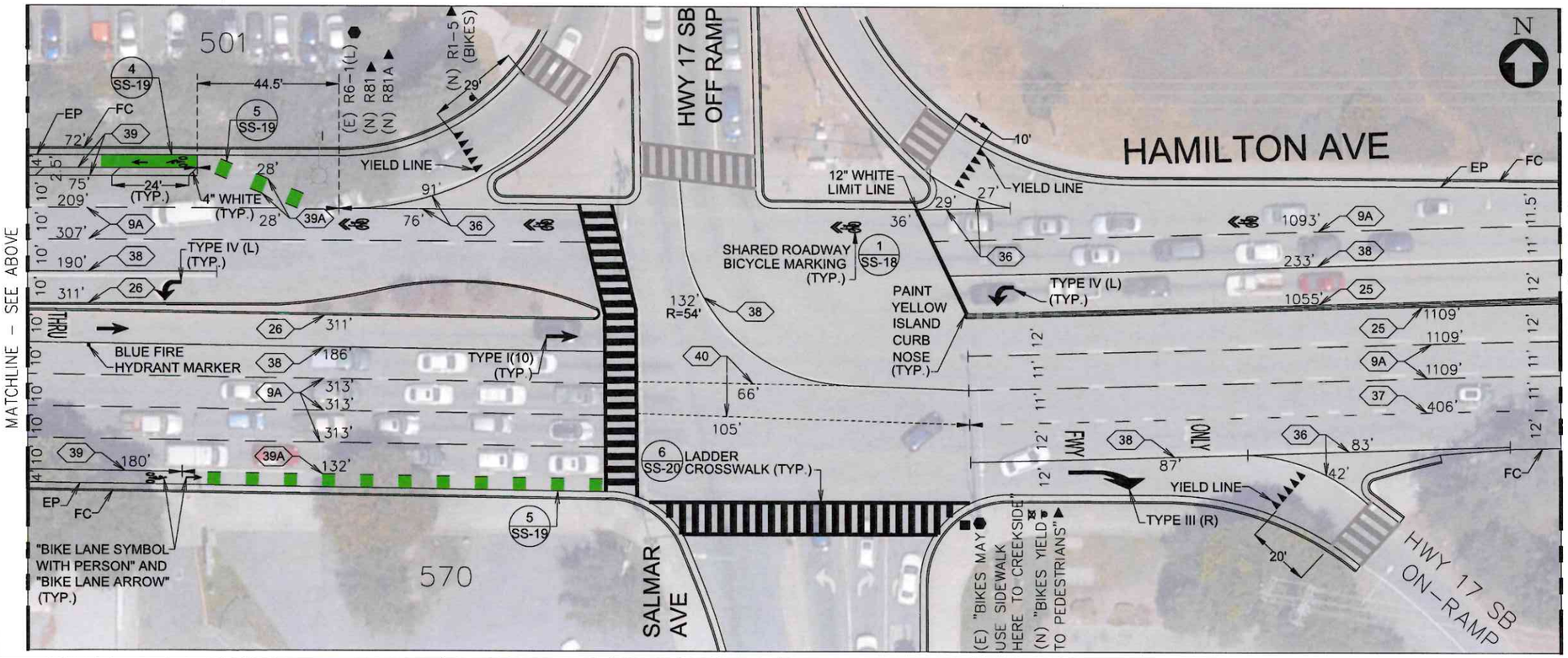
HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB
UTILITY - CONSTRUCTION DETAILS

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: U-20





LEGEND

- (E) SIGN & POLE
- (N) SIGN & POLE
- REMOVE EXISTING POLE
- (E) SIGN TO REMAIN
- INSTALL NEW SIGN
- RELOCATE SIGN
- REMOVE (E) SIGN
- DETAIL CALLOUT
- CHANGE IN PAVEMENT DELINEATION DETAIL
- PAVEMENT DELINEATION DETAIL NO.

PROJECT NOTES:

1. SEE SHEET SS-18 FOR GENERAL SIGNING AND STRIPING NOTES.

No.	Revision	Date	By	Chkd

Date: 03-17-25
Drawn By: RA
Designed By: RA

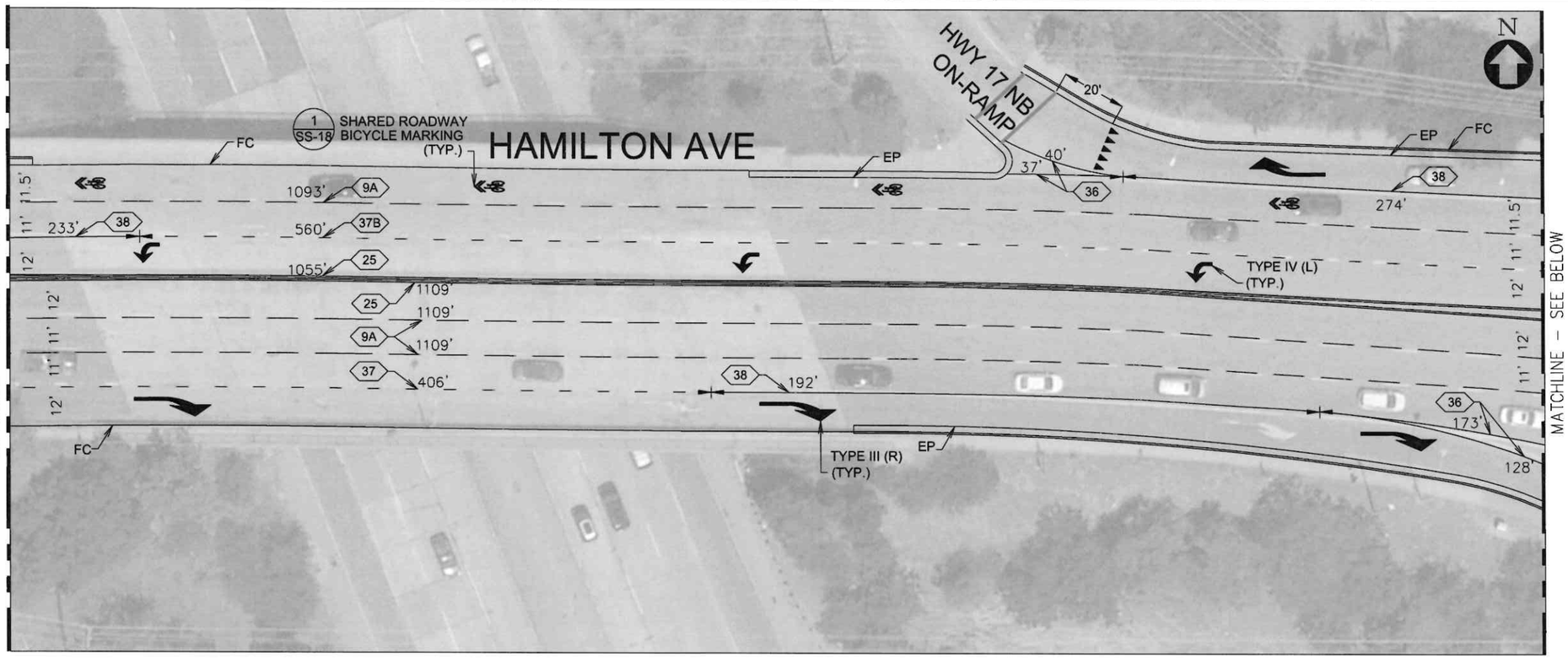
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

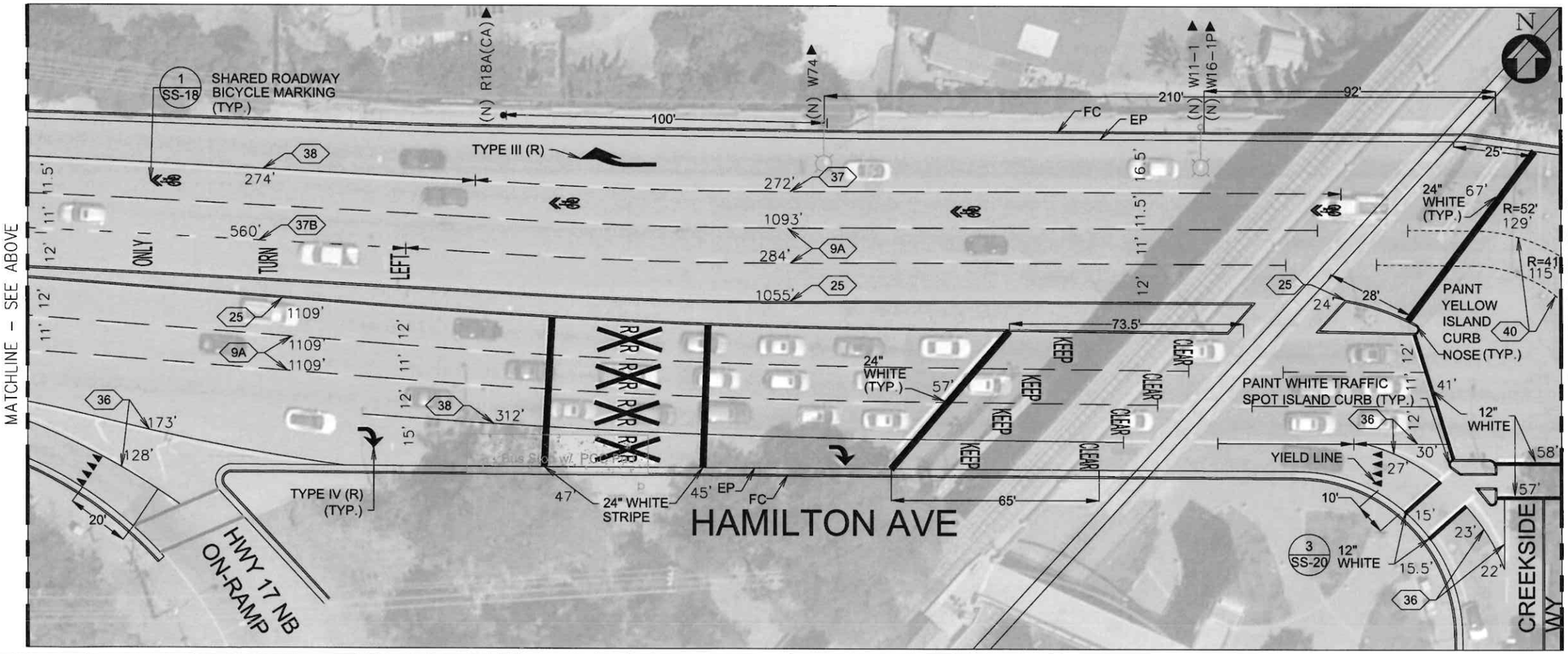
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
SIGNING & STRIPING PLAN

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-10





LEGEND

- (E) SIGN & POLE
- (N) SIGN & POLE
- REMOVE EXISTING POLE
- (E) SIGN TO REMAIN
- INSTALL NEW SIGN
- RELOCATE SIGN
- REMOVE (E) SIGN
- DET# SHT# — DETAIL CALLOUT
- CHANGE IN PAVEMENT DELINEATION DETAIL
- ## — PAVEMENT DELINEATION DETAIL NO.

PROJECT NOTES:

1. SEE SHEET SS-18 FOR GENERAL SIGNING AND STRIPING NOTES.

No.	Revision	Date	By	Chkd

Date: 03-17-25
Drawn By: RA
Designed By: RA

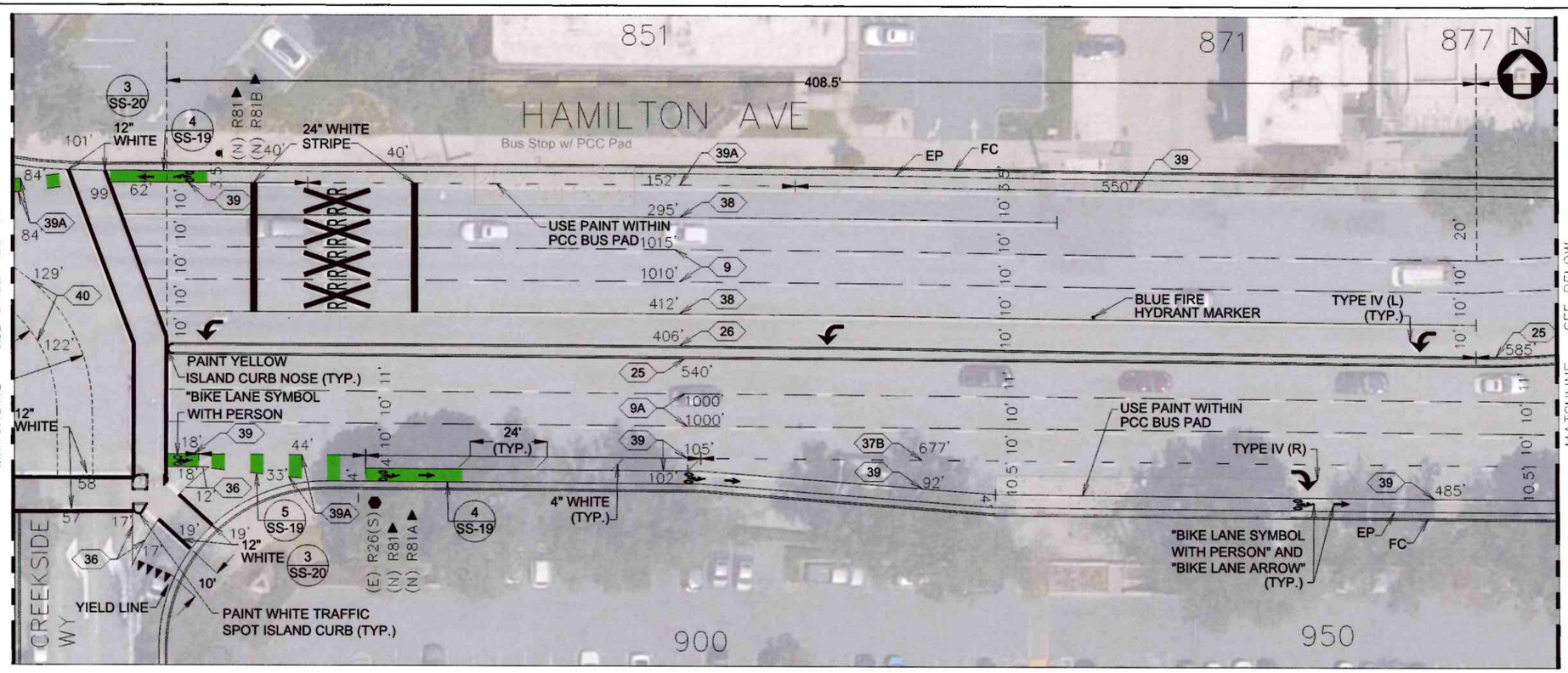
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

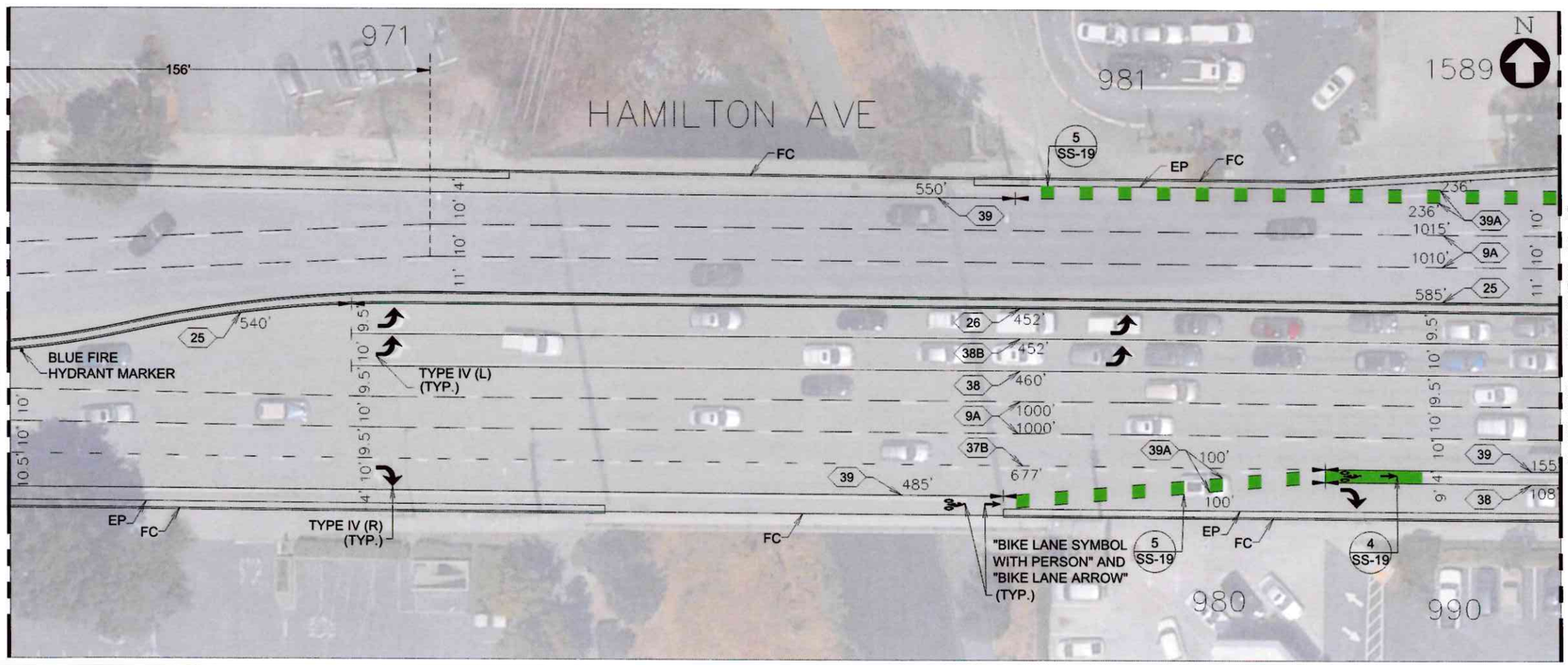
HAMILTON AVENUE REHABILITATION AND COMPLETE STREET
PROJECT NO. 23-BB
SIGNING & STRIPING PLAN

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-11





LEGEND

- (E) SIGN & POLE
- (N) SIGN & POLE
- REMOVE EXISTING POLE
- (E) SIGN TO REMAIN
- INSTALL NEW SIGN
- RELOCATE SIGN
- REMOVE (E) SIGN
- DETAIL CALLOUT
- CHANGE IN PAVEMENT DELINEATION DETAIL
- PAVEMENT DELINEATION DETAIL NO.

NOT FOR CONSTRUCTION

No.	Revision	Date	By	Chkd

Date: 12-04-24
Drawn By: RA
Designed By: RA

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB
SIGNING & STRIPING PLAN

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-12

STRIPING NOTES

1. THE AERIALS USED TO PREPARE THE SIGNING AND STRIPING ARE FOR REFERENCE ONLY. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY INCONSISTENCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS. NO DEVIATION FROM THE PLANS ARE PERMITTED WITHOUT WRITTEN APPROVAL OF THE ENGINEER.

2. ALL STRIPING, PAVEMENT MARKER AND MARKING LAYOUT (CAT–TRACKING) AND TEMPORARY STRIPING SHALL BE DONE BY THE CONTRACTOR PRIOR TO FINAL PLACEMENT. CAT–TRACKING SHALL BE COMPLETED WITHIN 7 DAYS OF THE FINAL SURFACING. THE CONTRACTOR IS TO ALLOW A MINIMUM OF TWO–WEEKS FOR THE CITY TO REVIEW THE CAT–TRACKING. THE CONTRACTOR SHALL GET THE ENGINEER'S WRITTEN APPROVAL PRIOR TO THE FINAL STRIPING, PAVEMENT MARKER, PAVEMENT MARKING, AND SIGN INSTALLATION.

3. CALTRANS DETAIL 36, 37, 37B 38, 38A, 38B, 39, 39A, 40, 41, 12" WHITE, 12" YELLOW, 24" WHITE, 24" YELLOW, PAVEMENT MARKINGS (ARROWS, SYMBOLS, NUMERALS, WORDS, LIMIT LINES, YIELD LINES, AND CROSSWALKS) AND GREEN BIKE LANES SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED ON THE SS–SHEETS. ALL OTHER CALTRANS DETAIL CALLOUTS SHALL BE WATERBORNE PAINT.

4. UNLESS OTHERWISE INDICATED ON THE PLANS, ALL STRIPING, PAVEMENT MARKERS AND MARKING AND SIGN TYPES SHALL BE PER THE CALIFORNIA MANUAL UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 2014 REVISION 8 AND CALTRANS STANDARD PLANS AND DETAILS DATED 2018.

5. UNLESS OTHERWISE INDICATED, LANE DIMENSIONS SHALL BE MEASURED FROM CENTER OF STRIPING TO CENTER OF STRIPING.

6. THE NUMBER ONE LANE DIMENSION SHALL BE MEASURED FROM MEDIAN FACE OF CURB TO THE CENTER OF STRIPING WHERE A MEDIAN IS PRESENT.

7. WHERE BIKE LANE IS NEXT TO THE FACE OF CURB, BIKE LANE DIMENSIONS SHOWN SHALL BE MEASURED FROM THE LIP OF GUTTER/EDGE OF PAVEMENT TO THE CENTER OF STRIPING.

8. WHERE BIKE LANE IS NOT PRESENT NEXT TO FACE OF CURB, CURB LANE DIMENSION SHOWN SHALL BE MEASURED FROM THE LIP OF GUTTER/EDGE OF PAVEMENT TO THE CENTER OF STRIPING.

9. THE WIDTH OF THE CROSSWALK SHALL BE MEASURED FROM THE CLEAR DISTANCE BETWEEN THE LINES. REFER TO DETAIL 3 ON PLAN SHEET SS–20.

10. CONTRACTOR SHALL CONFIRM WITH THE ENGINEER THE HEIGHT AND LOCATION OF ALL NEW SIGN INSTALLATIONS AND RELOCATIONS IN THE FIELD PRIOR TO ITS INSTALLATION.

11. CONTRACTOR IS TO REPLACE OR INSTALL BLUE RETRO–REFLECTIVE RAISED PAVEMENT MARKERS NEXT TO ALL EXISTING FIRE HYDRANTS PER LATEST CA MUTCD.

12. ALL ARROWS CLOSEST TO THE LIMIT LINE OR CROSSWALK SHALL BE INSTALLED 10 FEET FROM THE LIMIT LINE OR CROSSWALK.

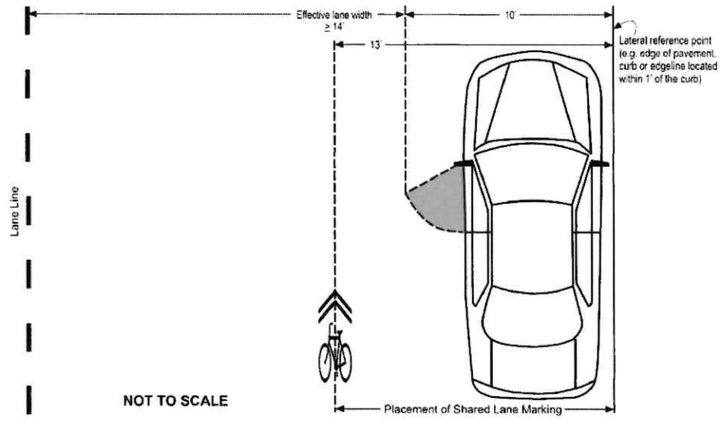
13. ALL MEDIAN ISLAND NOSES SHALL BE PAINTED WITH REFLECTIVE YELLOW PAINT.

14. ALL TRAFFIC SPOT ISLAND NOSES SHALL BE PAINTED WITH REFLECTIVE WHITE PAINT.

ADDITIONAL ABBREVIATIONS

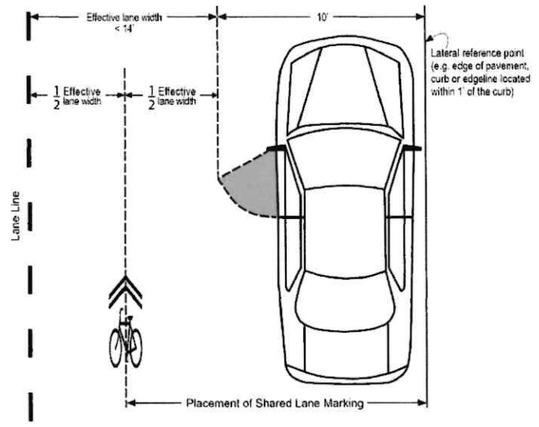
BL	BIKE LANE
CSJ	CITY OF SAN JOSE R/W
L	LEFT
R	RIGHT
NTS	NOT TO SCALE
SCCO	SANTA CLARA COUNTY R/W

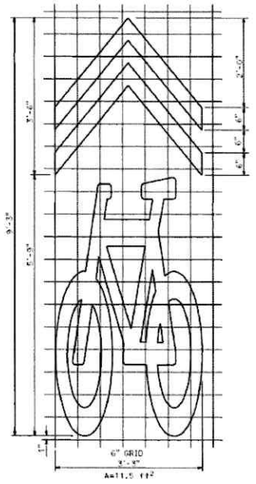
SHARED LANE MARKING WHEN EFFECTIVE LANE WIDTH ≥ 14'



NOT TO SCALE

SHARED LANE MARKING WHEN EFFECTIVE LANE WIDTH < 14'





SHARED ROADWAY BICYCLE MARKING

NOTES:

UNLESS OTHERWISE NOTED ON THE STRIPING PLAN SHEETS:

1. THE SHARED BIKE LANE MARKING (SHARROW) SHALL BE SPACED AT INTERVALS NOT GREATER THAN 250 FEET APART FROM EACH OTHER.
2. IN AREAS WHERE THERE IS NO ON–STREET PARKING, THE CENTERLINE OF THE SHARROW SHALL BE PLACED CENTERED IN THE TRAVELED LANE.
3. IN AREAS WHERE THERE IS NO ON–STREET PARKING AND THE OUTSIDE LANE WIDTH IS EQUAL OR GREATER THAN 14 FEET, PLACE THE SHARROW CENTERED AT LEAST 4 FEET FROM THE FACE OF CURB OR FROM THE EDGE OF PAVEMENT.
4. IN AREAS WHERE THERE IS ON–STREET PARKING, THE CENTERLINE OF THE SHARROW SHALL BE CENTERED IN THE EFFECTIVE LANE WIDTH. SEE FIGURES ABOVE.
5. IN AREAS WHERE SHARED RIGHT–TURN OR LEFT–TURN ONLY LANES ARE LESS THAN 14 FEET WIDE, PLACE THE SHARROW CENTERED IN THE TRAVEL LANE.
6. IF THE MEASURED POSITION OF THE SHARROW IS ON OR NEAR ANY OF THE FOLLOWING OBJECTS (I.E. CROSSWALKS, PAVEMENT MARKINGS/LEGENDS OR ARROWS, MANHOLES, GRATES OR UTILITY ACCESS POINTS), NOTIFY THE ENGINEER AND RELOCATE THE TOP OF THE SHARROW 10 FEET AWAY FROM THE OBJECT IN THE NEAREST DIRECTION FROM THE MEASURED POSITION.
7. THE SHARROW BIKE SYMBOL SHALL FACE LEFT ON THE PAVEMENT.

1 / SS-18 SHARED BIKE LANE MARKING / "SHARROW" DETAIL
NTS

No.	Revision	Date	By	Chkd

Date: 12–04–24
Drawn By: RA
Designed By: RA

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

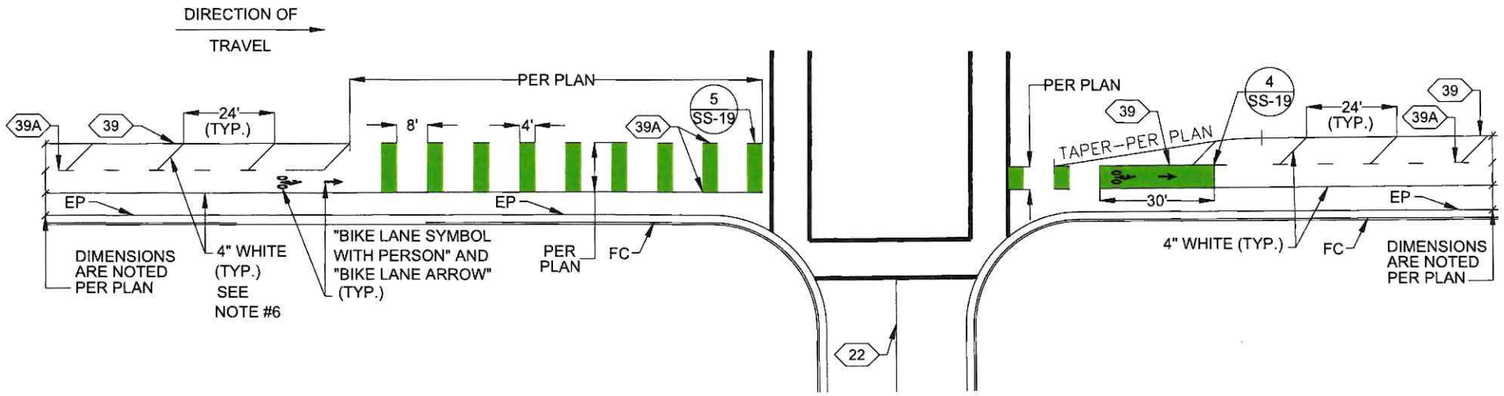
HAMILTON AVENUE RESURFACING
PROJECT NO. 23–BB
STRIPING NOTES, LEGENDS & DETAILS

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: SS-18

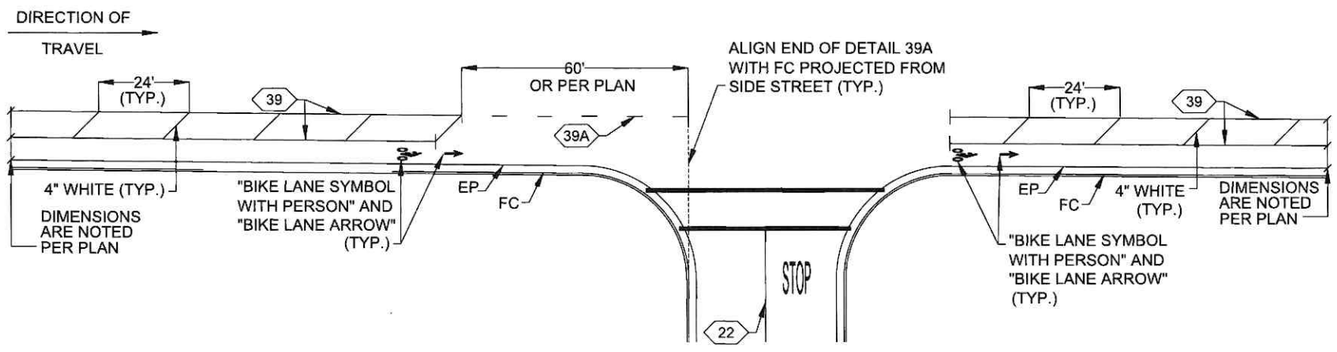
NOT FOR CONSTRUCTION



1 SS-19 BUFFERED BIKE LANE WITH PARKING AT SIGNALIZED INTERSECTIONS
NTS



2 SS-19 BUFFERED BIKE LANE WITHOUT PARKING AT SIGNALIZED INTERSECTIONS
NTS

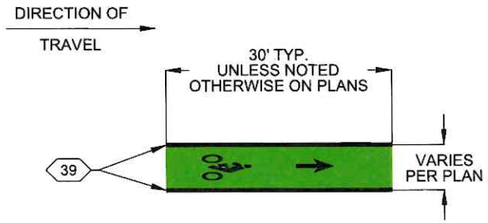


3 SS-19 BUFFERED BIKE LANE AT UNSIGNALIZED INTERSECTIONS
NTS

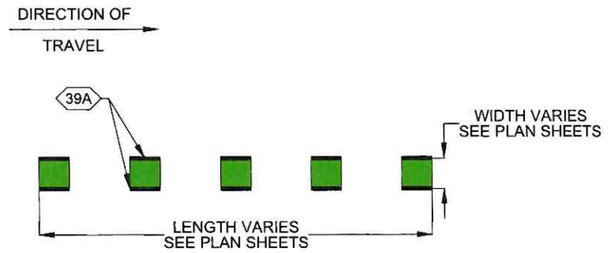
NOTES:

UNLESS OTHERWISE NOTED ON THE STRIPING PLAN SHEETS:

1. BUFFERED BIKE LANE AND GREEN BIKE LANE SHOWN IS DIAGRAMMATIC. FOR EXACT LENGTH AND WIDTH, REFER TO STRIPING PLAN SHEETS.
2. WHERE PAVEMENT SURFACE AREA FOR A BIKE LANE IS GREATER THAN OR EQUAL TO 5 FEET IN WIDTH, USE PREFORMED THERMOPLASTIC WITH BIKE LANE SYMBOL AND BIKE LANE ARROW INTEGRATED WITH THE GREEN BACKGROUND.
3. WHERE PAVEMENT SURFACE AREA FOR BIKE LANES IS LESS THAN 5 FEET IN WIDTH, USE PREFORMED THERMOPLASTIC GREEN BIKE LANE (BACKGROUND). BIKE LANE SYMBOL AND BIKE LANE ARROW SHALL BE EXTRUDED THERMOPLASTIC INSTALLED ON TOP OF AND ON THE CENTER OF THE PREFORMED THERMOPLASTIC GREEN BIKE LANE (BACKGROUND).
4. NO EDGE STRIPE (IE. DETAIL 39 OR 39A) FOR GREEN BIKE LANES THAT ARE INSTALLED ADJACENT TO THE EDGE OF PAVEMENT/LIP OF GUTTER AT THE EDGE OF PAVEMENT/LIP OF GUTTER.
5. BIKE LANE STRIPING LOCATED WITHIN A CONCRETE BUS PAD SHALL BE PAINT.
6. CONTRACTOR SHALL INSTALL 12" DIAGONAL WHITE STRIPE (THERMO) FOR THE BUFFERED BIKE LANES ON HAMILTON AVENUE BETWEEN PHOENIX DRIVE AND THE WESTERN CITY LIMIT LINE LOCATED APPROXIMATELY 640' WEST OF PHOENIX DRIVE.



4 SS-19 GREEN BIKE LANE PAVEMENT MARKING WITH SYMBOL
NTS



5 SS-19 GREEN BIKE LANE PAVEMENT MARKING
NTS

NOT FOR CONSTRUCTION

No.	Revision	Date	By

Date: 12-04-24
Drawn By: RA
Designed By: RA

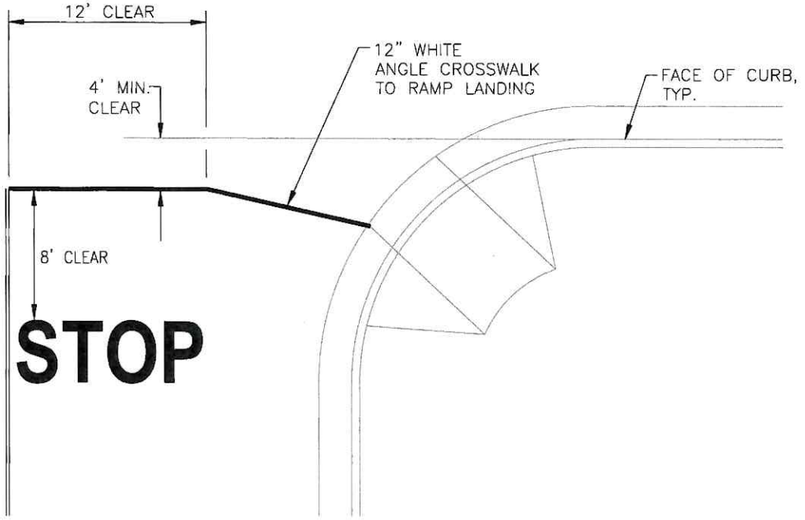
CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB
STRIPING NOTES, LEGENDS & DETAILS

CAMPBELL, CALIFORNIA

SCALE: NTS

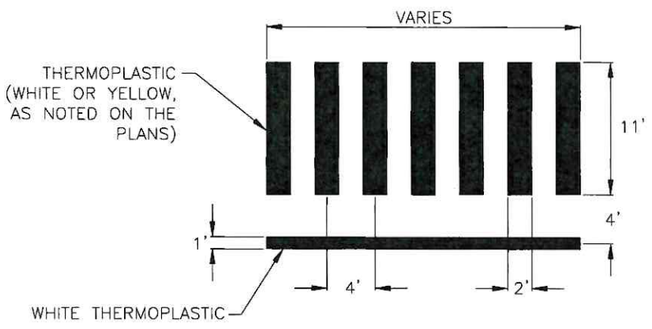
SHEET: SS-19



NOTE:

1. TRAFFIC STRIPING AND PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED.

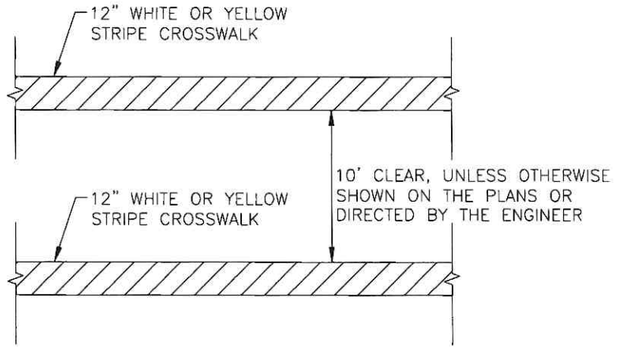
1 SS-20 PAVEMENT MARKING "STOP" LEGEND
NTS



NOTES:

1. SPACES BETWEEN MARKINGS MUST BE PLACED IN WHEEL TRACKS OF EACH LANE.
2. SPACINGS NOT TO EXCEED 2.5 TIMES WIDTH OF LONGITUDINAL LINE.

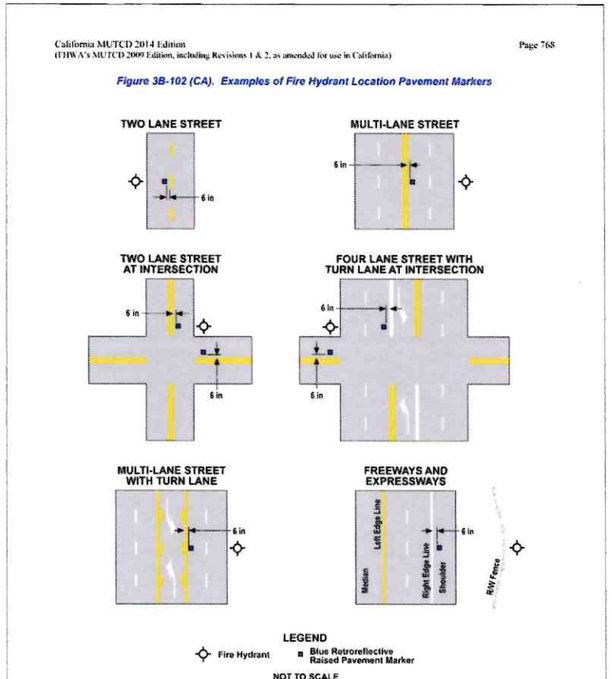
2 SS-20 HIGH VISIBILITY "CONTINENTAL" CROSSWALK DETAIL



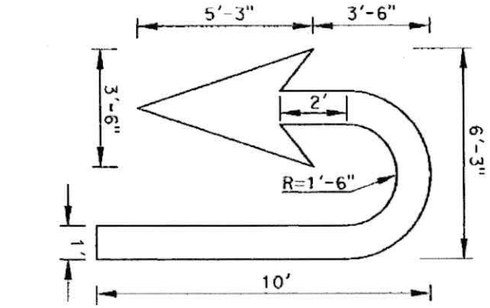
NOTE:

1. TRAFFIC STRIPING AND PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED.
2. COLOR OF STRIPE IS AS NOTED ON THE PLANS.

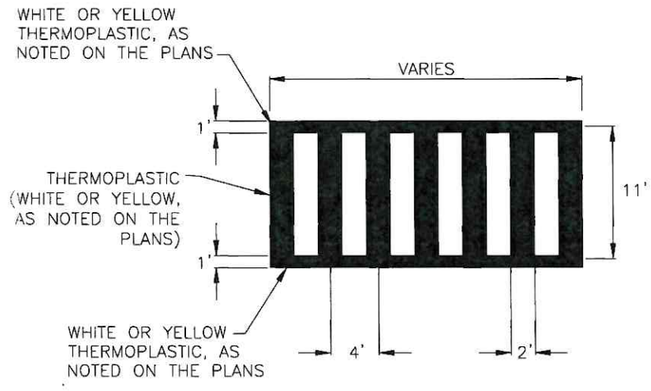
3 SS-20 PAVEMENT MARKING "CROSSWALK" DETAIL



5 SS-20 FIRE HYDRANT MARKER DETAIL



4 SS-20 PAVEMENT MARKING "CROSSWALK" DETAIL



NOTES:

1. SPACES BETWEEN MARKINGS MUST BE PLACED IN WHEEL TRACKS OF EACH LANE.
2. SPACINGS NOT TO EXCEED 2.5 TIMES WIDTH OF LONGITUDINAL LINE.

6 SS-20 HIGH VISIBILITY "LADDER" CROSSWALK DETAIL

PROFESSIONAL ENGINEER REGISTERED No. 58995 Exp. 06-30-25 STATE OF CALIFORNIA CIVIL

No.	Revision	Date	By

Date: 12-04-24
Drawn By: RA
Designed By: RA

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB
STRIPING NOTES, LEGENDS & DETAILS

CAMPBELL, CALIFORNIA

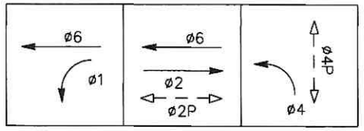
SCALE: NTS

SHEET: SS-20

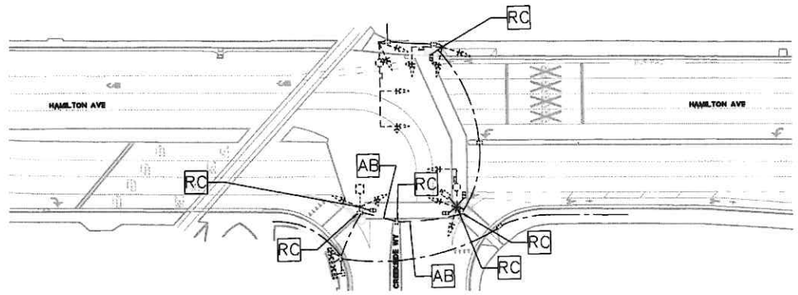
PROJECT NOTES:

1. EXISTING CONTROLLER CABINET TO REMAIN.
2. REMOVE EXISTING PPB AND INSTALL NEW APS.
3. REPLACE EXISTING PULL BOX WITH NEW NO. 5 PULL BOX.
4. ADJUST PULL BOX TO BE OUTSIDE OF TRUNCATED DOMES.

STEADY DEMAND SEQUENCE



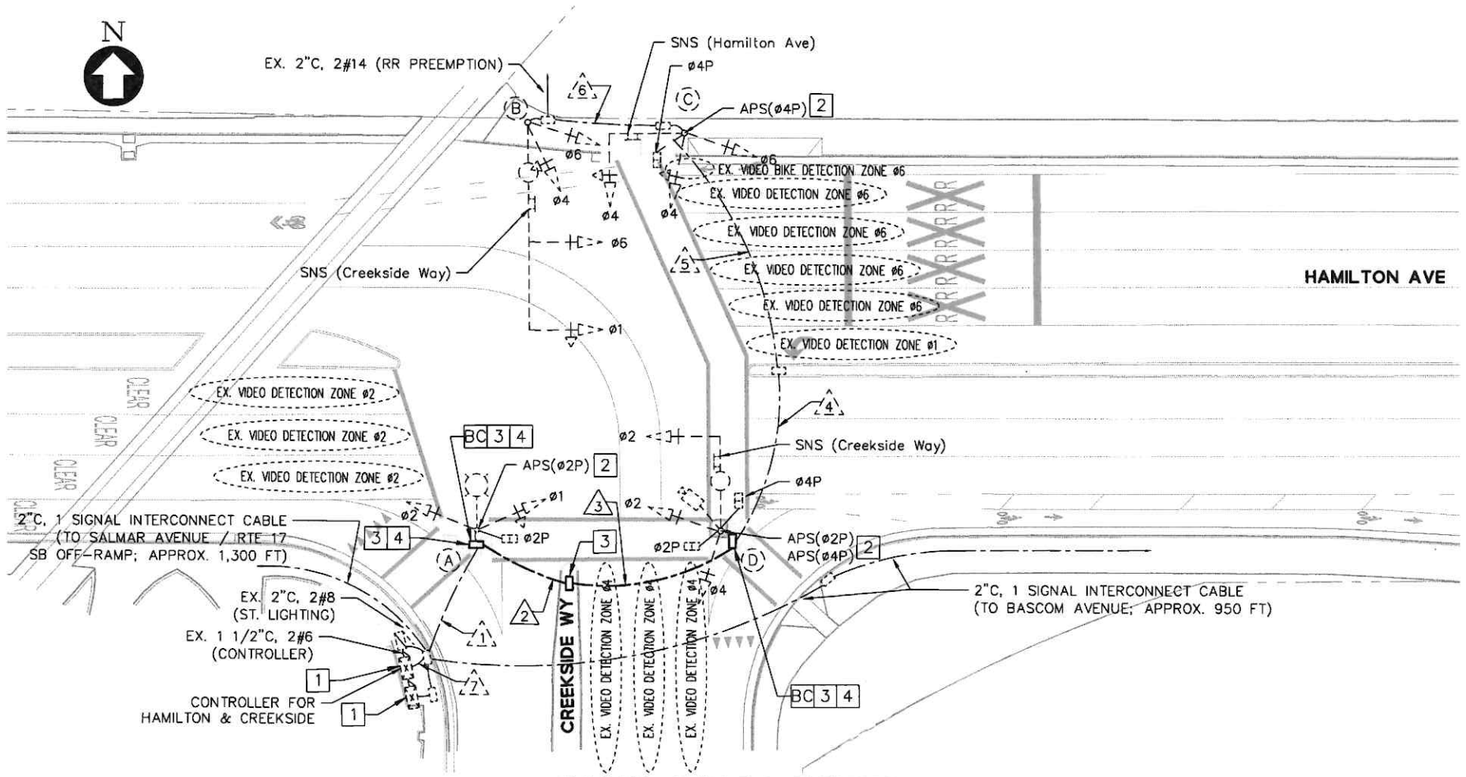
EXISTING PHASE DIAGRAM (TO REMAIN)



SCALE 1" = 50'

EXISTING EQUIPMENT TO BE REMOVED AND SALVAGED:

1. 3 PULL BOXES



HAMILTON AVENUE & CREEKSIDE WAY

NOT FOR CONSTRUCTION

20' 0' 20' 40'
GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB
SIGNAL MODIFICATION PLAN - HAMILTON AVE AND CREEKSIDE WY

CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: TS-□

\\BKF-SJ\vol4\2023\231167_Campbell_HamiltonAveResurfacing\ENG-T\Sheets\08_TRAFFIC SIGNAL\TS-08_.dwg 25 Oct 2024 11:23:36am puly

CONDUCTOR SCHEDULE

AWG OR CABLE	CONDUCTOR RUN	1	2	3	4	5	6	7
No. 14	No. 14 CONDUCTORS							
	ø1	3	3	3	3	3	3	3
	ø2	3	3	3				3
	ø4	3	3	3	3	3	3	3
	ø6	3	3	3	3	3	3	3
	ø2P	2	2	2				2
	ø4P	2	2	2	2	2		2
	APS(ø2P)	1R 2N	1R 1N	1R 1N				1R 2N
	APS(ø4P)	1R 2N	1R 2N	1R 2N	1R 1N	1R 1N		1R 2N
	APS COMMON	2R 4N	2R 3N	2R 3N	1R 1N	1R 1N		2R 4N
	RAILROAD PREMPTION	2	2	2	2	2	2	4
	SPARES	3	3	3	3	3	3	3
	SIGNAL NEUTRAL	3	3	3	3	3	3	3
	TOTAL No. 14	32	30	30	21	21	17	34
No. 8	No. 8 CONDUCTORS							
	LUMINAIRE NEUTRAL	1	1	1	1	1	1	
	LUMINARIE	2	2	2	2	2	2	
	TOTAL No. 8	3	3	3	3	3	3	
VIDEO DETECTION CABLE								
	OUTDOOR ETHERNET CABLE (CAT 5E)	1	1	1				1
	TOTAL VIDEO DETECTION CABLES	1	1	1				1
	% FILL	7%	7%	14%	12%	19%	17%	3%
	CONDUIT SIZE (INCHES)	2-3	2-3	3	2 1/2	2	2	3-3.5

△ EXISTING CONDUIT

N = INSTALL NEW CONDUCTORS/CABLES IN EXISTING CONDUIT

R = REMOVE EXISTING CONDUCTORS/CABLES IN EXISTING CONDUIT

POLE AND EQUIPMENT SCHEDULE

LOCATION	STANDARD	SIGNAL		VEH SIG MTG		PED SIGNAL MTG	APS*		LED LUMINAIRE (WATTS)	SPECIAL REQUIREMENTS
		SMA	LMA	MAST ARM	POLE		ø	ARROW		
(A)	15		12'		SV-2-TA	SP-1-T	2	→	105	
(B)	29-5-70	55'	15'	MAS MAS	SV-2-TA				105	EXISTING SNS (Creekside Way) TO REMAIN.
(C)	16-2-70	20'		MAS	SV-2-TA	SP-1	4	→		EXISTING SNS (Hamilton Ave) TO REMAIN.
(D)	19-2-70	20'	15'	MAS	SV-2-TA	SP-1 SP-1	2 4	← →	105	EXISTING SNS (Creekside Way) TO REMAIN.

◯ PROPOSED SIGNAL POLE

◌ EXISTING SIGNAL POLE

* REMOVE EXISTING PPB. FURNISH AND INSTALL NEW APS.

NOT FOR CONSTRUCTION

20' 0' 20' 40'

GRAPHIC SCALE

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB
EQUIPMENT SCHEDULE - HAMILTON AVE AND CREEKSIDE WY

CAMPBELL, CALIFORNIA

SCALE: 1"=20'

SHEET: TS-9

K:\2023\231167_Campbell_HamiltonAveResurfacing\ENG-T\Sheets\08_TRAFFIC SIGNAL\TS-09_.dwg 11 Oct 2024 2:23:47pm ZEPA

Santa Clara Valley
Urban Runoff
Pollution Prevention Program

Construction Best Management Practices (BMPs)

West Valley Clean Water Authority
Campbell • Los Gatos • Monte Sereno • Saratoga

Construction projects are required to implement year-round stormwater BMPs.

Materials, Waste, and Sediment Management



Construction Entrances and Perimeter

- ❑ Establish and maintain effective perimeter controls, and stabilize all construction entrances and exits to sufficiently control erosion, sediment discharges and tracking of sediment offsite.
- ❑ Sweep or vacuum immediately any tracking of sediment offsite and secure sediment source to prevent further tracking. Never hose down streets or sidewalks.

Non-Hazardous Materials and Dust Control

- ❑ Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or when they are not in use. Weigh down and secure tarps for wind protection.
- ❑ Keep materials off the ground (e.g., store bagged materials on wood pallets, store loose materials on tarps not pavement, etc.).
- ❑ Use captured water from other activities (e.g., testing fire lines) for dust control.
- ❑ Ensure dust control water doesn't leave site or discharge to storm drains. Only use enough to control dust. Contain and dispose of excess water properly.

Hazardous Materials

- ❑ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with City, County, State and Federal regulations.
- ❑ Store hazardous materials and wastes in watertight containers, store in appropriate secondary containment, and cover them at the end of every workday, during wet weather or when rain is forecast.
- ❑ Follow manufacturer's application instructions for hazardous materials and do not use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ❑ Arrange for appropriate disposal of all hazardous wastes. Have all pertinent Safety Data Sheets (i.e., SDS/MSDS/PSDS) onsite.

Waste Management

- ❑ Inform trash-hauling contractors that you will accept only watertight dumpsters for onsite use. Repair/replace any dumpster that is not watertight or leaking.
- ❑ Cover and maintain dumpsters. Check frequently for leaks. Place dumpsters under roofs or cover with tarps or plastic sheeting secured around the outside of the dumpster. If the dumpster leaks, place a plastic liner underneath the dumpster to collect leaks. Never clean out a dumpster by hosing it down on the construction site – clean with dry methods, clean offsite or replace dumpster.
- ❑ Place portable toilets and hand wash stations away from storm drains. Make sure they are equipped with containment pans (secondary containment) and are in good working order. Check frequently for leaks.
- ❑ Dispose of all wastes and demolition debris properly per SDS and applicable regulations. Recycle or compost materials and wastes as feasible and appropriate, including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation.
- ❑ Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste per SDS.
- ❑ Keep site free of litter (e.g., lunch items, water bottles, cigarette butts and plastic packaging).
- ❑ Prevent litter from uncovered loads by covering loads that are being transported to and from site.

Equipment Management & Spill Control



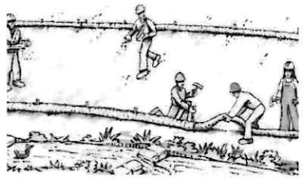
Vehicle and Equipment Maintenance

- ❑ Designate an area of the construction site equipped with appropriate BMPs, well away from creeks or storm drain inlets, for auto and equipment parking and storage.
- ❑ Perform major maintenance, repair jobs, and vehicle/equipment washing offsite.
- ❑ If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- ❑ If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or creeks.
- ❑ Do not clean vehicles or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment, and do not use diesel oil to lubricate equipment or parts onsite.

Spill Prevention and Control

- ❑ Always keep spill cleanup materials (e.g., rags, absorbents, and cat litter) available at the construction site.
- ❑ Maintain all vehicles and heavy equipment. Inspect frequently for leaks. Use drip pans to catch leaks until repairs are made.
- ❑ Clean up leaks, drips and other spills immediately using dry cleanup methods whenever possible (absorbent materials, cat litter and/or rags) and dispose of cleanup materials properly.
- ❑ Sweep up spilled dry materials immediately. Never attempt to "wash them away" with water or bury them.
- ❑ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- ❑ Report significant spills to the appropriate local spill response agencies immediately. If the spill poses a significant hazard to human health and safety, property or the environment, report it to the State Office of Emergency Services at (800) 852-7550 (24 hours).

Earthmoving



Grading and Earthwork

- ❑ Schedule grading and excavation work during dry weather.
- ❑ Prevent sediment from migrating offsite and protect storm drain inlets, drainage courses and creeks by installing and maintaining appropriate BMPs tailored to the site's specific characteristics and conditions. Examples of such BMPs may include silt fences, gravel bags, fiber rolls, temporary swales, compost socks, etc. Ensure that BMPs are installed in accordance with manufacturer's specifications and properly maintained throughout the duration of construction activities.
- ❑ Stabilize all denuded areas and install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- ❑ Remove existing vegetation only when necessary. Plant temporary vegetation to prevent erosion on slopes or in areas where construction is not immediately planned.
- ❑ Keep excavated soil and/or transfer it to dump trucks, onsite, not in the streets.

  Ensure all subcontractors working onsite are implementing appropriate BMPs.

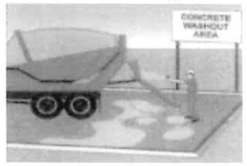
Contaminated Soils

- ❑ If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board and the local agency: 1) Unusual soil conditions, discoloration, or odor. 2) Abandoned underground tanks. 3) Abandoned wells. 4) Buried barrels, debris, or trash.
- ❑ If the above conditions are observed, document any signs of potential contamination, clearly mark areas and fence/tape them off so they are not disturbed by construction activities.

Landscaping

- ❑ Protect stockpiled landscaping materials from wind and rain by storing them under tarps year-round.
- ❑ Stack bagged material on pallets and under cover.
- ❑ Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.
- ❑ Store materials onsite, not in the street.

Concrete Management & Dewatering



Concrete Management

- ❑ Store both dry and wet concrete-related materials under cover, protected from rainfall and runoff and away from storm drains or creeks. Store materials off the ground on pallets. Protect dry materials from wind.
- ❑ Avoid pouring concrete in wet weather or when rainfall is imminent to prevent concrete that has not cured from contacting stormwater runoff.
- ❑ Wash out concrete equipment/mixers/trucks offsite, or onsite only in designated washout containers/areas where the water will flow into a temporary lined waste pit and in a manner that will prevent leaching into the underlying soils. (See CASQA Construction Stormwater BMP Handbook for temporary concrete washout facility details).
- ❑ Do not wash sweepings from exposed aggregate concrete into the street or storm drain. Collect and return sweepings to aggregate base stockpile or dispose properly.
- ❑ Make sure that construction waste (e.g., concrete, stucco, cement wastewater, or residual materials) is collected, removed, and disposed of only at authorized disposal areas. Do not dispose of construction waste in storm drains, ditches, streets, creeks, dirt areas, or the sanitary sewer.

Dewatering

- ❑ Discharges of groundwater or captured runoff from dewatering operations must be properly managed and disposed. When possible, send dewatering discharge to landscaped area or sanitary sewer. If discharging to the sanitary sewer, obtain permission from the local wastewater treatment plant.
- ❑ Divert water originating from offsite away from all onsite disturbed areas.
- ❑ When dewatering, notify and obtain approval from the local municipality before discharging water to a street gutter or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- ❑ In areas of known or suspected contamination, call the local agency to determine whether the groundwater must be tested. Pumped groundwater may need to be collected and hauled offsite for treatment and proper disposal.
- ❑ For additional information, refer to the CASQA's Sheet NS-2 "Dewatering Operations."

Paving/Asphalt Work



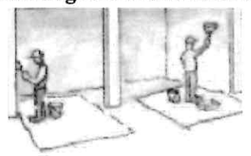
Paving

- ❑ Avoid paving and seal coating in wet weather or when rain is forecast to prevent materials that have not cured from contacting with stormwater runoff.
- ❑ Cover storm drain inlets and manholes when applying seal coat, slurry seal, fog seal, or similar materials.
- ❑ When construction is complete, remove all covers from storm drain inlets and manholes.
- ❑ Collect and recycle or properly dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters, storm drains, streets, dirt areas, or the sanitary sewer.

Sawcutting & Asphalt/Concrete Removal

- ❑ Protect storm drain inlets during saw cutting.
- ❑ When making saw cuts, use as little water as possible.
- ❑ Residue from saw cutting, coring and grinding operations shall be picked up by means of a vacuum device.
- ❑ Shovel, absorb, or vacuum saw cut slurry deposits and dispose of all waste properly and as soon as reasonably possible. Sawcutting residue should not be left on pavement surface.
- ❑ If saw cut slurry enters a storm drain inlet, clean it up immediately and notify the local municipality.

Painting & Paint Removal



Painting Cleanup and Removal

- ❑ Never clean brushes or rinse paintcontainers to landscaping, dirt areas or into a street, gutter, storm drain, or creek.
- ❑ For water-based paints, paint out brushes to the extent possible, and then rinse into a drain connected to the sanitary sewer. Never pour paint down a storm drain inlet.
- ❑ For oil-based paints, paint out brushes to the extent possible, and then clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- ❑ Sweep up or collect paint chips and dust generated from non-hazardous dry stripping and sand blasting into plastic drop cloths and dispose of as trash.
- ❑ Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead- based paint removal requires a state-certified contractor.



Copper Architectural Features

Discharges to storm drains generated by installing, cleaning, treating or washing copper architectural features, is a violation of the municipal stormwater ordinance and may be subject to a fine. These BMPs must be implemented to prevent prohibited discharges to storm drains:

During Installation

- ❑ If possible, purchase copper materials that have been pre-patinated at the factory.
- ❑ If patination done on site, implement one or more of the following BMPs:
  1. Discharge the rinse water to landscaping. Ensure that the rinse water does not flow to the street or storm drain. Block off storm drain inlet if needed.
  2. Collect rinse water in a tank and pump to the sanitary sewer. Contact your local sanitary sewer agency before discharging to the sanitary sewer.
  3. Collect the rinse water in a tank and haul off-site for proper disposal.
- ❑ Consider coating the copper materials with an impervious coating that prevents further corrosion and runoff. This will also maintain the desired color for a longer time, requiring less maintenance.

During Maintenance such as, power washing roof, re-patination, or re-application of impervious coating:

- ❑ Block storm drain inlets as needed to prevent runoff from entering storm drains.
- ❑ Discharge the wash water to landscaping or to the sanitary sewer (with permission from the local sanitary sewer agency). If this is not an option, haul the wash water off-site for proper disposal.

Storm drain polluters may be liable for fines of up to $10,000 per day!

February 2024, WVCWA 4/24

NOT FOR CONSTRUCTION

No.	Revision	Date	By	Chkd

Date: 20240112
Drawn By: A. Hernandez
Designed By: C. Chi

CITY OF CAMPBELL
DEPARTMENT OF PUBLIC WORKS

HAMILTON AVENUE RESURFACING
PROJECT NO. 23-BB
CONSTRUCTION BEST MANAGEMENT PRACTICES

CAMPBELL, CALIFORNIA

SCALE: NTS

SHEET: BMP-1

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STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

ENCROACHMENT PERMIT APPLICANT: CONTRACTOR(S) AUTHORIZATION FORM

DOT TR-0429 (NEW 12/2022)

The Permittee warrants and represents the Permittee has hired the following prime contractor(s) to perform the approved encroachment activities under Encroachment Permit # _____ on the Permittee's behalf as agents in accordance with Encroachment Permit General Provision #4 or Adopt-A-Highway Special Provision # 3, whichever is part of the Encroachment Permit. The Permittee warrants and represents the Permittee has provided a copy of the Encroachment Permit to the prime contractor(s) listed below, and further warrants and represents that the activities related to the Encroachment Permit, whether performed by the Permittee or by the prime contractor(s) below or by any person or entity acting for or on behalf of the Permittee, will be performed in compliance with all terms, conditions, specifications, standards, provisions, and other requirements of the subject Encroachment Permit. The person signing below warrants and represents such person has authority on behalf of the Permittee to make the warranties and representations contained herein, and to agree to and so bind the Permittee to this page.

List of authorized prime contractors for the encroachment permit:

Contractor Name	Scope of work (Traffic Control/civil work etc.)	Contact Person	Contact Person's Information (Phone # and E-mail)

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Name of Permittee	**Name and Title of Person Signing for Permittee (Print)**	**Signature**	**Date**

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

ENCROACHMENT PERMIT APPLICANT: CONTRACTOR(S) AUTHORIZATION FORM

DOT TR-0429 (NEW 12/2022)

By signing below, each prime contractor acknowledges that such prime contractor has received a copy of Encroachment Permit #_____ and agrees such prime contractor, and such prime contractor's employees, managers, officers, directors, agents, subcontractors, and suppliers, will comply with, and will perform all activities in accordance with, all terms, conditions, specifications, standards, provisions, and other requirements of the Encroachment Permit, including but not limited to notifying the permit inspector as required in the Encroachment Permit and reporting the lane closure notifications per the Encroachment Permit General Provisions (TR-0045). Each person signing on behalf of each prime contractor warrants and represents such person has the authority to make the acknowledgements, warranties, and representations contained herein on behalf of the named prime contractor, and has the authority to agree to and so bind the named prime contractor to this page.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Name of Prime Contractor	Name and Title of Person Signing for Contractor (Print)	Signature	Date

ENCROACHMENT PERMIT GENERAL PROVISIONS

TR-0045 (REV. 12/2022)

1. **AUTHORITY:** The California Department of Transportation ("Department") has authority to issue encroachment permits under Division 1, Chapter 3, Article 1, Sections 660 through 734 of the Streets and Highways Code.
2. **REVOCATION:** Encroachment permits are revocable on five (5) business days' notice unless otherwise stated on the permit or otherwise provided by law, and except as provided by law for public corporations, franchise holders, and utilities. Notwithstanding the foregoing, in an emergency situation as determined by the Department, an encroachment permit may be revoked immediately. These General Provisions and any applicable Special Provisions are subject to modification or abrogation by the Department at any time. Permittees' joint use agreements, franchise rights, reserved rights or any other agreements for operating purposes in State of California ("State") highway right-of-way may be exceptions to this revocation.
3. **DENIAL FOR NONPAYMENT OF FEES:** Failure to pay encroachment permit fees when due may result in rejection of future applications, denial of encroachment permits, and revocation of the encroachment permit if already issued.
4. **PERMITTEE AUTHORIZATION FOR OTHERS TO PERFORM WORK:** This encroachment permit allows only the Permittee and/or Permittee's authorized contractor or agent to work within or encroach upon the State highway right-of-way, and the Permittee may not assign or transfer this encroachment permit. Any attempt to assign or transfer this encroachment permit shall be null and void. Permittee shall provide to the Department a list of Permittee's authorized contractors/agents, in the form and at the time specified by the Department but if no time is specified then no later than the pre-construction meeting. Permittee shall keep the list current and shall provide updates to the Department immediately upon any change to the list of authorized contractors/agents, including but not limited the addition, removal, or substitution of an authorized contractor/agent, or a new address or contact information for an existing authorized contractor/agent. Permittee is responsible for the acts and/or omissions of any person or entity acting on behalf of the Permittee, even if such person or entity is not included on Permittee's list of authorized contractors and/or agents.
5. **ACCEPTANCE OF PROVISIONS:** Permittee, and the Permittee's authorized contractors and/or agents, understand and agree to accept and comply with these General Provisions, the Special Provisions, any and all terms and/or conditions contained in or incorporated into the encroachment permit, and all attachments to the encroachment permit (collectively "the Permit Conditions"), for any encroachment, work, and/or activity to be performed under this encroachment permit and/or under color of authority of this encroachment permit. Permittee understands and agrees the Permit Conditions are applicable to and enforceable against Permittee as long as the encroachment remains in, under, or over any part of the State highway right-of-way. The Permittee's authorized contractors and/or agents, are also bound by the Permit Conditions. Non-compliance with the Permit Conditions by the Permittee's authorized contractor and/or agent will be deemed non-compliance by the Permittee.
6. **BEGINNING OF WORK:** When traffic is not impacted (see General Provision Number 35), the Permittee must notify the Department's representative two (2) business days before starting permitted work. Permittee must notify the Department's representative if the work is to be interrupted for a period of five (5) business days or more, unless otherwise agreed upon. All work must be performed on weekdays during regular work hours, excluding holidays, unless otherwise specified in this encroachment permit.
7. **STANDARDS OF CONSTRUCTION:** All work performed within State highway right-of-way must conform to all applicable Departmental construction standards including but not limited to: Standard Specifications, Standard Plans, Project Development Procedures Manual, Highway Design Manual and Special Provisions.

   Other than as expressly provided by these General Provisions, the Special Provisions, the Standard Specifications, Standard Plans, and other applicable Departmental standards, nothing in these General Provisions is intended to give any third party any legal or equitable right, remedy, or claim with respect to the encroachment permit and/or to these General Provisions or any provision herein. These General Provisions are for the sole and exclusive benefit of the Permittee and the Department.

   Where reference is made in such standards to "Contractor" and "Engineer," these are amended to be read as "Permittee" and "Department's representative," respectively, for purposes of this encroachment permit.
8. **PLAN CHANGES:** Deviations from plans, specifications, and/or the Permit Conditions as defined in General Provision Number 5 are not allowed without prior approval from the Department's representative and the Federal Highway Administration ("FHWA") representative if applicable.
9. **RIGHT OF ENTRY, INSPECTION AND APPROVAL:** All work is subject to monitoring and inspection. The United States, the State, the Department, and the Directors, officers, employees, agents, and/or contractors of the State and/or of the Department, and other state, and federal agencies, and the FHWA, through their agents or representatives, must have full access to highway

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facilities/encroachment area, at any and all times for the purpose of inspection, maintenance, activities needed for construction/reconstruction, and operation of the State highway right-of-way.

Upon completion of work, Permittee must request a final inspection for acceptance and approval by the Department. The local public agency Permittee must not give final construction approval to its contractor until final acceptance and approval by the Department is obtained.

10. **PERMIT AT WORKSITE:** Permittee and Permittee's authorized contractors/agents must keep the permit package and current list of authorized contractors/agents, or copies thereof, at the work site at all times and must show such documents upon request to any Department representative or law enforcement officer. If the permit package or current list of authorized contractors/agents, or copies thereof, are not kept and made available at the work site at all times, then all work must be suspended.
11. **CONFLICTING ENCROACHMENTS:** Permittee must yield start of work to ongoing, prior authorized work adjacent to or within the limits of the Permittee's project site. When existing encroachments conflict with Permittee's work, the Permittee must bear all cost for rearrangements (e.g., relocation, alteration, removal, etc.).
12. **PERMITS, APPROVALS, AND CONCURRENCES FROM OTHER AGENCIES AND/OR ENTITIES:** This encroachment permit is invalidated if the Permittee has not obtained all permits, approvals, and concurrences necessary and required by law, including but not limited to those from the California Public Utilities Commission ("CPUC"), California Occupational Safety and Health Administration ("Cal-OSHA"), local and state and federal environmental agencies, the California Coastal Commission, and any other public agency and/or entity having jurisdiction. Permittee is responsible for providing notice of the encroachment to, and obtaining concurrence from, any person or entity (whether public or private) affected by the scope of work described in the encroachment permit, regardless of whether such notice or concurrence is required by law; the Department is not responsible to provide such notice or obtain such concurrence. Permittee warrants all such permits, approvals, and concurrences have been obtained before beginning work under this encroachment permit. The Department may, at the Department's discretion, require the Permittee to demonstrate that Permittee has obtained all such permits, approvals, and concurrences, and Permittee shall demonstrate this at the time and in the manner specified by the Department.
13. **PEDESTRIAN AND BICYCLIST SAFETY:** A safe continuous passageway must be maintained through the work area at existing pedestrian or bicycle facilities. At no time must pedestrians be diverted onto a portion of the street used for vehicular traffic. At locations where safe alternate passageways cannot be provided, appropriate signs and barricades must be installed at the limits of construction and in advance of the limits of construction at the nearest crosswalk or intersection to detour pedestrians to facilities across the street. Attention is directed to Section 7-1.04 "Public Safety," and to Section 12-4.04 "Temporary Pedestrian Access Routes," and to Section 16-2.02 "Temporary Pedestrian Facility," of the Department's Standard Specifications, and to California Vehicle Code section 21760, subdivision (c).
14. **PUBLIC TRAFFIC CONTROL:** The Permittee must provide traffic control protection, warning signs, lights, safety devices, etc., and take all other measures necessary for the traveling public's safety as required by law and/or the Department. While providing traffic control, the needs of all road users, including but not limited to motorists, bicyclists and pedestrians, including persons with disabilities in accordance with the Americans with Disabilities Act, must be an essential part of the work activity.

    Lane, Bike Lane, Sidewalk, Crosswalk, and/or shoulder closures must comply with the Department's Standard Specifications and Standard Plans for Temporary Traffic Control Systems & Temporary Pedestrian Access Routes, and with the applicable Special Provisions. Where issues are not addressed in the Standard Specifications, Standard Plans, and/or Special Provisions, the California Manual on Uniform Traffic Control Devices (Part 6, Temporary Traffic Control) must be followed.
15. **MINIMUM INTERFERENCE WITH TRAFFIC:** Permittee must plan and conduct work so as to create the least possible inconvenience to the traveling public (motorized vehicles, unmotorized vehicles such as bicycles, pedestrians, person(s) with disabilities, etc.), such that traffic is not unreasonably delayed.
16. **STORAGE OF EQUIPMENT AND MATERIALS:** The storage of equipment or materials is not allowed within State highway right-of-way, unless specified within the Special Provisions of this encroachment permit. If encroachment permit Special Provisions allow for the storage of equipment or materials within the State highway right-of-way, the equipment and material storage must also comply with Section 7-1.04, Public Safety, of the Department's Standard Specifications.
17. **CARE OF DRAINAGE:** Permittee must provide alternate drainage for any work interfering with an existing drainage facility in compliance with the Department's Standard Specifications, Standard Plans, and/or as directed by the Department's representative.
18. **RESTORATION AND REPAIRS IN STATE HIGHWAY RIGHT-OF-WAY:** Permittee is responsible for restoration and repair of State highway right-of-way resulting from permitted work (Streets and Highways Code, section 670 et seq.).
19. **STATE HIGHWAY RIGHT-OF-WAY CLEAN UP:** Upon completion of work, Permittee must remove and dispose of all scraps, refuse, brush, timber, materials, etc. off the State highway right-of-way. The aesthetics of the highway must be as it was before work started or better.
20. **COST OF WORK:** Unless stated otherwise in the encroachment permit or a separate written agreement with the Department, the Permittee must bear all costs

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incurred for work within the State highway right-of-way and waives all claims for indemnification or contribution from the United States, the State, the Department, and from the Directors, officers, and employees of the State and/or the Department. Removal of Permittee's personal property and improvements shall be at no cost to the United States, the State, and the Department.

21. **ACTUAL COST BILLING:** When specified in the permit, the Department will bill the Permittee actual costs at the currently set Standard Hourly Rate for encroachment permits.
22. **AS-BUILT PLANS:** When required, Permittee must submit one (1) set of folded as-built plans within thirty (30) calendar days after completion and acceptance of work in compliance with requirements listed as follows:
    a) Upon completion of the work provided herein, the Permittee must submit a paper set of As-Built plans to the Department's representative.
    b) All changes in the work will be shown on the plans, as issued with the permit, including changes approved by Encroachment Permit Rider.
    c) The plans are to be prominently stamped or otherwise noted "AS-BUILT" by the Permittee's representative who was responsible for overseeing the work. Any original plan that was approved with a Department stamp, or by signature of the Department's representative, must be used for producing the As-Built plans.
    d) If construction plans include signing or striping, the dates of signing or striping removal, relocation, or installation must be shown on the As-Built plans when required as a condition of the encroachment permit. When the construction plans show signing and striping for staged construction on separate sheets, the sheet for each stage must show the removal, relocation, and installation dates of the appropriate staged striping and signing.
    e) As-Built plans must contain the Encroachment Permit Number, County, Route, and Post Mile on each sheet.
    f) The As-Built Plans must not include a disclaimer statement of any kind that differs from the obligations and protections provided by sections 6735 through 6735.6 of the California Business and Professions Code. Such statements constitute non-compliance with Encroachment Permit requirements and may result in the Department retaining Performance Bonds or deposits until proper plans are submitted. Failure to comply may also result in denial of future encroachment permits or a provision requiring a public agency to supply additional bonding.
23. **PERMITS FOR RECORD PURPOSES ONLY:** When work in the State highway right-of-way is within an area under a Joint Use Agreement (JUA) or a Consent to Common Use Agreement (CCUA), a fee exempt encroachment permit is issued to the Permittee for the purpose of providing a notice and record of work. The Permittee's prior rights must be preserved without the intention of creating new or different rights or obligations. "Notice and Record Purposes Only" must be stamped across the face of the encroachment permit.
24. **BONDING:** The Permittee must file bond(s), in advance, in the amount(s) set by the Department and using forms acceptable to the Department. The bonds must name the Department as obligee. Failure to maintain bond(s) in full force and effect will result in the Department stopping all work under this encroachment permit and possibly revoking other encroachment permit(s). Bonds are not required of public corporations or privately-owned utilities unless Permittee failed to comply with the provisions and/or conditions of a prior encroachment permit. The surety company is responsible for any latent defects as provided in California Code of Civil Procedure section 337.15. A local public agency Permittee also must comply with the following requirements:
    a) In recognition that project construction work done on State property will not be directly funded and paid by State, for the purpose of protecting stop notice claimants and the interests of State relative to successful project completion, the local public agency Permittee agrees to require the construction contractor to furnish both a payment and performance bond in the local public agency's name with both bonds complying with the requirements set forth in Section 3-1.05 Contract Bonds of the Department's Standard Specifications before performing any project construction work.
    b) The local public agency Permittee must defend, indemnify, and hold harmless the United States, the State and the Department, and the Directors, officers, and employees of the State and/or Department, from all project construction related claims by contractors, subcontractors, and suppliers, and from all stop notice and/or mechanic's lien claimants. The local public agency also agrees to remedy, in a timely manner and to the Department's satisfaction, any latent defects occurring as a result of the project construction work.
25. **FUTURE MOVING OF INSTALLATIONS:** Permittee understands and agrees to relocate a permitted installation upon notice by the Department. Unless under prior property right or agreement, the Permittee must comply with said notice at the Permittee's sole expense.
26. **ENVIRONMENTAL:**
    a) ARCHAEOLOGICAL/HISTORICAL: If any archaeological or historical resources are identified or encountered in the work vicinity, the Permittee must immediately stop work, notify the Department's representative, retain a qualified archaeologist who must evaluate the site at Permittee's sole expense, and make recommendations to the Department's representative regarding the continuance of work.
    b) HAZARDOUS MATERIALS: If any hazardous waste or materials (such as underground storage tanks, asbestos pipes, contaminated soil, etc.) are identified or encountered in the work vicinity, the Permittee must immediately stop work, notify the Department's representative, retain a qualified hazardous

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waste/material specialist who must evaluate the site at the Permittee's sole expense, and make recommendations to the Department's representative regarding the continuance of work.
Attention is directed to potential aerially deposited lead (ADL) presence in unpaved areas along highways. It is the Permittee's responsibility to take all appropriate measures to protect workers in conformance with California Code of Regulations Title 8, Section 1532.1, "Lead," and with Cal-OSHA Construction Safety Orders, and to ensure roadway soil management is in compliance with Department of Toxic Substances Control (DTSC) requirements.

c) BIOLOGICAL: If any regional, state, or federally listed biological resource is identified or encountered in the work vicinity, the Permittee must immediately stop work, notify the Department's representative, retain a qualified biologist who must evaluate the site at Permittee's sole expense, and make recommendations to the Department's representative regarding the continuance of work.

27. **PREVAILING WAGES:** Work performed by or under an encroachment permit may require Permittee's contractors and subcontractors to pay appropriate prevailing wages as set by the California Department of Industrial Relations. Inquiries or requests for interpretations relative to enforcement of prevailing wage requirements must be directed to the California Department of Industrial Relations.
28. **LIABILITY, DEFENSE, AND INDEMNITY:** The Permittee agrees to indemnify and save harmless the United States, the State, the Department, and the Directors, officers, employees, agents and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors, from any and all claims, demands, damages, costs, liability, suits, or actions of every name, kind, and description, including but not limited to those brought for or on account of property damage, invasion of privacy, violation or deprivation of a right under a state or federal law, environmental damage or penalty, or injury to or death of any person including but not limited to members of the public, the Permittee, persons employed by the Permittee, and/or persons acting on behalf of the Permittee, arising out of or in connection with: (a) the issuance and/or use of this encroachment permit; and/or (b) the encroachment, work, and/or activity conducted pursuant to this encroachment permit, or under color of authority of this encroachment permit but not in full compliance with the Permit Conditions as defined in General Provision Number 5 ("Unauthorized Work or Activity"); and/or (c) the installation, placement, design, existence, operation, and/or maintenance of the encroachment, work, and/or activity; and/or (d) the failure by the Permittee, or by anyone acting for or on behalf of the Permittee, to perform the Permittee's obligations under any part of the Permit Conditions as defined in General Provision Number 5, in respect to maintenance or any other obligation; and/or (e) any change to the Department's property or adjacent property, including but not limited to the features or conditions of either of them, made by the Permittee or anyone acting on behalf of the Permittee; and/or (f) a defect or obstruction related to or caused by the encroachment, work, and/or activity whether conducted in compliance with the Permit Conditions as defined in General Provision Number 5 or constituting Unauthorized Work or Activity, or from any cause whatsoever. The duty of the Permittee to indemnify and save harmless includes the duties to defend as set forth in Section 2778 of the Civil Code.

It is the intent of the Department and the Permittee that except as prohibited by law, the Permittee will defend, indemnify, and hold harmless as set forth in this General Provision Number 28 regardless of the existence or degree of fault or negligence, whether active or passive, primary or secondary, on the part of: the United States, the State; the Department; the Directors, officers, employees, agents and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors; the Permittee; persons employed by the Permittee; and/or persons acting on behalf of the Permittee.

The Permittee waives any and all rights to any type of expressed or implied indemnity from or against the United States, the State, the Department, and the Directors, officers, employees, agents, and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors.

The Permittee understands and agrees to comply with the obligations of Titles II and III of the Americans with Disabilities Act in the conduct of the encroachment, work, and/or activity whether conducted pursuant to this encroachment permit or constituting Unauthorized Work or Activity, and further agrees to defend, indemnify, and save harmless the United States, the State, the Department, and the Directors, officers, employees, agents, and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors, from any and all claims, demands, damages, costs, penalties, liability, suits, or actions of every name, kind, and description arising out of or by virtue of the Americans with Disabilities Act.

The Permittee understands and agrees the Directors, officers, employees, agents, and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors, are not personally responsible for any liability arising from or by virtue of this encroachment permit.

For the purpose of this General Provision Number 28 and all paragraphs herein, "contractors of the State and/or of the Department" includes contractors, and their subcontractors, under contract to the State and/or the Department.

This General Provision Number 28 and all paragraphs herein take effect immediately upon issuance of this encroachment permit, and apply before, during, and after the encroachment, work, and/or activity

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contemplated under this encroachment permit, whether such work is in compliance with the Permit Conditions as defined in General Provision Number 5 or constitutes Unauthorized Work or Activity, except as otherwise provided by California law. The Permittee's obligations to defend, indemnify, and save harmless under this General Provision Number 28 take effect immediately upon issuance of this encroachment permit and have no expiration date, including but not limited to situations in which this encroachment permit expires or is revoked, the work or activity performed under this encroachment permit is accepted or not accepted by the Department, the encroachment, work, and/or activity is conducted in compliance with the Permit Conditions as defined in General Provision Number 5 or constitutes Unauthorized Work or Activity, and/or no work or activity is undertaken by the Permittee or by others on the Permittee's behalf.

If the United States or an agency, department, or board of the United States is the Permittee, the first two paragraphs of this General Provision Number 28 (beginning "The Permittee agrees to indemnify..." and "It is the intent of the parties...") are replaced by the following paragraph:

Claims for personal injury, death, or property damage allegedly caused by the negligent or wrongful act or omission of any employee of the United States acting within the scope of their official duties are subject to the Federal Tort Claims Act, as amended, 28 U.S.C. § 1346 and § 2671 et seq. (Chapter 171).

29. **NO PRECEDENT ESTABLISHED:** This encroachment permit is issued with the understanding that it does not establish a precedent.
30. **FEDERAL CIVIL RIGHTS REQUIREMENTS FOR PUBLIC ACCOMMODATION:**
    a) As part of the consideration for being issued this encroachment permit, the Permittee, on behalf of Permittee and on behalf of Permittee's personal representatives, successors in interest, and assigns, does hereby covenant and agree that:
        i) No person on the grounds of race, color, or national origin may be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.
        ii) That in connection with the construction of any improvements on said lands and the furnishings of services thereon, no discrimination must be practiced in the selection and retention of first-tier subcontractors in the selection of second-tier subcontractors.
        iii) That such discrimination must not be practiced against the public in their access to and use of the facilities and services provided for public accommodations (such as eating, sleeping, rest, recreation), and operation on, over, or under the space of the State highway right-of-way.
        iv) That the Permittee must use the premises in compliance with all other requirements imposed pursuant to Title 15, Code of Federal Regulations, Commerce and Foreign Trade, Subtitle A. Office of the Secretary of Commerce, Part 8 (15 C.F.R. Part 8) and as said Regulations may be amended.
    b) That in the event of breach of any of the above nondiscrimination covenants, the State and the Department have the right to terminate this encroachment permit and to re-enter and repossess said land and the facilities thereon and hold the same as if said permit had never been made or issued.
31. **MAINTENANCE:** The Permittee is responsible at Permittee's sole expense for the encroachment, and the inspection, maintenance, repair, and condition thereof, and is responsible to ensure the encroachment does not negatively impact State highway safety, maintenance, operations, construction, State facilities, activities related to construction/reconstruction, or other encroachments. The Permittee's obligations in the preceding sentence take effect immediately upon issuance of this encroachment permit and continue until the encroachment is entirely and permanently removed. Additional encroachment permits or approval documents may be required authorizing work related to inspection, repair, and/or maintenance activities. Contact the Department for information.
32. **SPECIAL EVENTS:** In accordance with subdivision (a) of Streets and Highways Code section 682.5 and 682.7, the Department is not responsible for the conduct or operation of the permitted activity, and the applicant agrees to defend, indemnify, and hold harmless the United States, the State, the Department, and the Directors, officers, employees, agents, and contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors, from any and all claims, demands, damages, costs, liability, suits, or actions of every name, kind and description arising out of any activity for which this encroachment permit is issued.

    The Permittee is required, as a condition of this encroachment permit, for any event that awards prize compensation to competitors in gendered categories, for any participant level that receives prize compensation, to ensure the prize compensation for each gendered category is identical at each participant level. (Streets and Highways Code, section 682.7.)

    The Permittee understands and agrees to comply with the obligations of Titles II and III of the Americans with Disabilities Act in the conduct of the event, and further agrees to defend, indemnify, and save harmless the United State, the State and the Department, and the Directors, officers, and employees of the State and/or Department, including but not limited to the Director of the Department and the Deputy Directors, from any and all claims, demands, damages, costs, liability, suits, or actions of every name, kind and description arising out of or by virtue of the Americans with Disabilities Act.
33. **PRIVATE USE OF STATE HIGHWAY RIGHT-OF-WAY:** State highway right-of-way must not be used for private purposes without compensation to the State. The gifting

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of public property uses and therefore public funds is prohibited under the California Constitution, Article XVI, Section 6.

34. **FIELD WORK REIMBURSEMENT:** Permittee must reimburse the Department for field work performed by or on behalf of the Department to correct or remedy issues created by the Permittee or by others acting on behalf of the Permittee, including but not limited to hazards or damaged facilities, or to clear refuse, debris, etc. not attended to by the Permittee or by others acting on behalf of the Permittee.
35. **LANE CLOSURE REQUEST SUBMITTALS AND NOTIFICATION OF CLOSURES TO THE DEPARTMENT:** Lane closure request submittals and notifications must be in accordance with Section 12-4.02, and Section 12.4-04, of the Department's Standard Specifications or as directed by the Department's representative. The Permittee must notify the Department's representative and the Traffic Management Center ("TMC") before initiating a lane closure or conducting an activity that may cause a traffic impact. In emergency situations when the corrective work or the emergency itself may affect traffic, the Department's representative and the TMC must be notified as soon as possible.
36. **SUSPENSION OF TRAFFIC CONTROL OPERATION:** The Permittee, upon notification by the Department's representative, must immediately suspend all traffic lane, bike lane, sidewalk, crosswalk, and/or shoulder closure operations and any operation that impedes the flow of traffic. All costs associated with this suspension must be borne by the Permittee.
37. **UNDERGROUND SERVICE ALERT (USA) NOTIFICATION:** Any excavation requires compliance with the provisions of Government Code section 4216 et seq., including but not limited to notice to a regional notification center, such as Underground Service Alert (USA). The Permittee must provide notification to the Department representative at least five (5) business days before, and the regional notification center at least forty-eight (48) hours before, performing any excavation work within the State highway right-of-way.
38. **COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA):** All work within the State highway right-of-way to construct and/or maintain any public facility must be designed, maintained, and constructed strictly in accordance with all applicable Federal Access laws and regulations (including but not limited to Section 504 of the Rehabilitation Act of 1973, codified at 29 U.S.C. § 794), California Access laws and regulations relating to ADA, along with its implementing regulations, Title 28 of the Code of Federal Regulations Parts 35 and 36 (28 C.F.R., Ch. I, Part 35, § 35.101 et seq., and Part 36, § 36.101 et seq.), Title 36 of the Code of Federal Regulations Part 1191 (36 C.F.R., Ch. XI, Part 1191, § 1119.1 et seq.), Title 49 of the Code of Federal Regulations Part 37 (49 C.F.R., Ch. A, Part 37, § 37.1 et seq.), the United States Department of Justice Title II and Title III for the ADA, and California Government Code section 4450 et seq., which require public facilities be made accessible to persons with disabilities.

    Notwithstanding the requirements of the previous paragraph, all construction, design, and maintenance of public facilities must also comply with the Department's Design Information Bulletin 82, "Pedestrian Accessibility Guidelines for Highway Projects" and Standard Plans & Specifications on "Temporary Pedestrian Access Routes."
39. **STORMWATER:** The Permittee is responsible for full compliance with the following:
    a) For all projects, the Department's Storm Water Program and the Department's National Pollutant Discharge Elimination System (NPDES) Permit requirements under Order No. 2012-0011-DWQ, NPDES No CAS000003; and
    b) In addition, for projects disturbing one acre or more of soil, with the California Construction General Permit Order No. 2009-0009-DWQ, NPDES No CAS000002; and
    c) In addition, for projects disturbing one acre or more of soil in the Lahontan Region with Order No. R6T-2016-0010, NPDES No CAG616002.
    d) For all projects, it is the Permittee's responsibility to install, inspect, repair, and maintain all facilities and devices used for water pollution control practices (Best Management Practices/BMPs) before performing daily work activities.

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HAZARDOUS MATERIALS AND HAZARDOUS WASTE MANAGEMENT SPECIAL PROVISIONS

By acceptance of this encroachment permit, Permittee hereby agrees that:

1. All construction debris/materials/water/excess soil must become the property of the Permittee, and must be transported and disposed of, outside of Caltrans' right-of-way, in accordance with all applicable environmental laws and regulations. The Permittee must be identified as the generator for all construction debris/materials/water/excess soil and must be responsible for proper identification (including sampling and analysis) and management of all construction and contaminated debris/materials/water/excess soil that are removed, and/or excavated, from the work site. If hazardous waste is generated, the Permittee must obtain an Environmental Protection Agency (EPA) Identification Number issued in their name. State Permit Inspector does not sign any manifests or shipping papers. The Permittee must be named as the generator on all Uniform Hazardous Waste Manifests and shipping papers. Caltrans must not be identified or written anywhere on the manifests or shipping papers. Prior to waste disposal, the Permittee should submit the waste generator form(s) to State Permit Inspector for verification. The Permittee must submit to the State Permit Inspector, a copy of all manifests and/or shipping papers generated for materials removed, transported and/or excavated from the state right-of-way.

2. If contaminated material is encountered, Permittee is to stop work and contact the State Permit Inspector immediately. The Permittee must submit a Sampling and Analysis Plan (SAP), and a Health and Safety Plan (HaSP) prepared by a Certified Industrial Hygienist (CIH) and in conformance with California Code of Regulations title 8, section 5192, "Hazardous Waste Operations and Emergency Response" for sampling activity through a separate permit application. Upon the permit review, additional environmental documents may be required prior to resumption of construction activity.

3. Permittee is responsible for any violation, penalty, enforcement action, corrective action, remedial action, and any other type of consequences resulting from cross contamination of groundwater (including perched groundwater), improper handling/managing of hazardous materials and/or placement of contaminated materials inside Caltrans right-of-way.

4. It is the Permittee's responsibility to comply with the Department of Toxic Substances Control (DTSC) ADL requirements for roadway soil management. Reuse of soils containing greater than 80 mg/kg total lead is not allowed without written approval of the DTSC and Caltrans. The Soil Management Agreement for Aerially Deposited Lead-Contaminated Soils between Caltrans and the DTSC does not constitute written approval for the Permittee to reuse soils containing greater than 80 mg/kg total lead.

5. The Permittee must implement the emergency notification requirements established in the California Office of Emergency Management Hazardous Materials, Spill / Release Notification Guidance (http://www.caloes.ca.gov/).

6. Any imported material used for backfill must be free of contamination, and a certificate of the material as "clean" with the source area of the material must be provided to Permit Inspector upon request. Importing soils containing greater than 80 mg/kg total lead for use in state right-of-way is not allowed.

7. Stockpiles of material containing aerially deposited lead shall not be placed where affected by surface run-on or run-off. Stockpiles shall be covered with plastic sheeting 13 mils minimum thickness or with one foot of nonhazardous material. Stockpiles shall not be placed in environmentally sensitive areas. Stockpiled material shall not enter storm drains, inlets, or waters of the State.

PEDESTRIAN SAFETY (MCP)

In addition to the attached Encroachment Permit General Provisions (TR-0045), the following special provisions are also applicable:

1. When the work area encroaches upon a sidewalk, walkway, or crosswalk area, special consideration must be given to pedestrian safety. Protective barricades, fencing, handrails and bridges, together with warning and guidance devices and signs must be utilized so that the passageway for pedestrians, especially blind and other physically handicapped, is safe and well defined and shown on the approved permit plan.
2. Pedestrian walkways and canopies within State Right of Way shall comply with the requirements of the applicable local agency or of the latest edition of the Uniform Building Code whichever contains the higher standards.

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STORMWATER SPECIAL PROVISIONS FOR MINIMAL OR NO IMPACT (SWSP)

TR-0400 (Rev. 09/2024)

1. **GENERAL:** The purpose of these Special Provisions is to provide the Permittee with specifications for water pollution control to minimize, prevent, or control the discharge of material into the air, surface waters, groundwater, and storm sewers owned by the State or local agencies. These provisions are not intended to take the place of the Caltrans Water Pollution Control Program (WPCP) for projects where soil disturbance from work activities ranging from more than a quarter of an acre to less than one acre, or work activities of one acre or more subject to the preparation of the Caltrans Storm Water Pollution Prevention Plan (SWPPP). These provisions must be included with the permit for projects that require an Erosion and Sediment Control Plan (ESCP). The Permittee must comply with the following Special Provisions and the direction of the State Representative. All Stormwater Best Management Practices (BMPs) must conform to Section 13 Water Pollution Control of the Caltrans' Standard Specifications.
2. **NPDES REQUIREMENTS:** The Permittee must be responsible for full compliance with the Caltrans Storm Water Program and the Caltrans National Pollutant Discharge Elimination System (NPDES) Permit requirements (Order 2022-0033-DWQ, NPDES No. CAS000003, and any amendments and/or subsequent orders). Projects in construction with active waste discharge identification number (WDID number) may continue their coverage with the California Construction General Permit CGP (Order 2009-0009-DWQ, NPDES No. CAS000002, and any amendments and/or subsequent orders) until 9/1/2025. Privately funded projects may not extend their 2009 CGP regulatory coverage and are responsible for compliance with the CGP (Order WQ 2022-0057-DWQ NPDES No. CAS000002) after 9/1/2023. It is the Permittee's responsibility to install, inspect, and repair or maintain facilities and devices used for water pollution control practices (BMPs) before performing daily work activities. Installation, inspection and maintenance responsibilities on the job site include: 1) soil stabilization materials in work areas that are inactive or prior to storm events, 2) water pollution control devices to control sediment and erosion, 3) implementation of spill and leak prevention procedures for chemical and hazardous substances stored on the job site, 4) material storage, 5) stockpile management, 6) waste management, 7) non-stormwater management, 8) water conservation, 9) tracking controls, and 10) illicit connection, illegal discharge detection and reporting. The Permittee must report to the State Representative when discharges enter receiving waters, adjacent property, and drainage systems. The Permittee must also address any illicit discharges or illegal dumping prior to start of daily work schedule by cleaning them up. Copies of written notices or orders from the Regional Water Quality Control Board or other regulatory agency must be provided to the State Representative within forty-eight (48) hours of reported activity. For additional information on stormwater compliance, visit the State Water Resources Control Board's Storm Water Program.
3. **RESPONSIBILITY FOR DEBRIS REMOVAL:** The Permittee must be responsible for preventing project related sediment, trash, debris, and other construction waste from entering the street, storm drains, drainage swales, stormwater conveyance infrastructure, local creeks, or any other bodies of water. All existing treatment BMP's (TBMPs) must be protected in place. If an existing TBMP is damaged by the Permittee, the Permittee is responsible for complete repair to a satisfactory condition determined by the State Representative.
4. **SPOILS AND RESIDUE:** The Permittee must vacuum any saw-cut concrete waste material, debris, residue, etc. No spoils, debris, residue, etc. must be washed into a drainage system. The Permittee must ensure that Portland cement concrete and asphalt concrete grindings are not stockpiled or used in a manner that may result in an unauthorized stormwater discharge to waters of the state.
5. **SWEEPING:** Sweep paved roads at construction entrance and exit locations and surrounding paved areas daily within the job site during: 1) clearing and grubbing, 2) earthwork, 3) trenching, 4) soil disturbance, 5) pavement grinding and/or cutting, and 6) after observing tracking of material onto or off the State property. Minimize the amount of dust particles during sweeping activities, ensuring that the levels do not exceed the standards set by local air quality control districts or the EPA's National Ambient Air Quality standards. Use wet-vacuum whenever dust generation is excessive, or sediment pickup is ineffective.
   Roadways or work areas must not be washed down with water. Street sweeping operations must conform to Section 13 Water Pollution Control of the Caltrans' Standard Specifications.
6. **VEHICLES AND EQUIPMENT:** The Permittee must prevent all vehicles, equipment, etc. from leakage or mud tracking onto roadways. If leaks cannot be repaired immediately, remove the vehicle or equipment from the job site. If vehicle or equipment cannot be immediately removed from job site, install secondary containment to contain spill and prevent illicit non-stormwater discharge.
7. **MAINTENANCE AND FUELING OF VEHICLES AND EQUIPMENT:** Maintenance and fueling of equipment must not result in any pollution at the job site. The Permittee must immediately clean up spills/leaks, and properly dispose of contaminated soil and materials. All maintenance and fueling should be conducted at an appropriate facility that is feasible. All maintenance and fueling which must occur onsite

shall be conducted as far away as practical from drain inlets, water bodies, and other stormwater conveyance systems.

8. **CLEANING VEHICLES AND EQUIPMENT:** Limit vehicle and equipment cleaning or washing at the job site except what is necessary to control vehicle tracking or hazardous waste. All equipment must be sanitized prior to mobilization to limit the spread of invasive plant species. The Permittee must clean all equipment within a bermed area or over a drip pan large enough to prevent run-off. Notify the Engineer before cleaning vehicles and equipment at the job site with soap, solvents, or steam. Any water from this operation must be collected and disposed of at an appropriate site. Containment berms or dikes must be used for fueling, washing, maintaining and washing vehicles or equipment in outside areas. Containment must be performed at least one hundred (100) feet from concentrated flows of storm water, drainage courses, and storm drain inlets if within a flood plain, otherwise at least fifty (50) feet if outside the floodplain. Keep adequate quantities of absorbent spill cleanup material and spill kits in the fueling or maintenance area and on fueling trucks.
9. **DIESEL FUELS:** The use of diesel fuel from petroleum or other fossil fuel as a form-oil or solvent is not allowed.
10. **WEATHER CONDITIONS AT WORKSITE:** Any activity that generates fine particles or dust (e.g., Saw cutting, earthwork, sanding, etc.), which could be carried off-site by stormwater, must be conducted during dry weather conditions to avoid immediate mobilization into the drainage system.
11. **WIND EROSION PROTECTION**: The use of Wind Erosion BMPs must be deployed year-round in instances where dust or fine particles could be transported off site. Potential wind erosion BMPs may include wind fence, water application, gravel, and/or hydro-mulch.
12. **HOT MIX ASPHALT:** Runoff from washing hot mix asphalt must not enter any drainage conveyances or receiving waters.
13. **PROTECTION OF DRAINAGE FACILITIES:** The Permittee must protect/cover gutters, ditches, drainage courses, and inlets with gravel bags, fiber rolls, State approved fabric filters, etc., to the satisfaction of the State Representative during grading, paving, sealing, saw-cutting, grooving and grinding, or any other activity which may result in an illicit discharge. All materials must conform to Section 13-6.02 Materials for Water Pollution Control of the Caltrans' Standard Specifications. No such protection measures must cause an obstruction to the traveling public. The Permittee must implement spill and leak prevention procedures for chemicals and hazardous substances stored on the job site (including secondary containment requirements) in accordance with Section 13-4.03B Spill Prevention and Control and for leaks and spills from vehicles and equipment each day of use in accordance with Section 13-1.03C Inspections for Water Pollution Control and Section 14-11 Hazardous Waste and Contamination for Environmental Stewardship of the Caltrans' Standard Specifications.
14. **PAINT:** Clean water-based and oil-based paint from brushes or equipment within a contained area to prevent contamination of soil, receiving waters, or storm drain systems. Handle and dispose of paints, thinners, solvents, residues, and sludges that cannot be recycled or reused as hazardous waste under section 14-11. When thoroughly dry, dispose of dry latex paint, paint cans, used brushes, rags, absorbent materials, and drop cloths as solid waste under section 14-10.
15. **CONSTRUCTION MATERIALS AND MATERIAL MANAGEMENT:** Materials necessary for erosion and sediment control must be stockpiled on site at convenient locations to facilitate prompt installation. Such materials must be implemented at all inactive disturbed areas, and prior to all qualifying rain events. A "Qualifying Precipitation Event" (QPE) is defined as a forecast with a 50% or greater probability of precipitation that results in 0.5 inches or more of rain within a 24-hour period. Do not allow soil, sediment, or other debris from stockpiles to enter storm drains, open drainages, or watercourses. Minimize stockpiles of all construction materials, including, but not limited to; pressure treated wood, asphalt concrete, cold mix asphalt concrete, concrete, grout, cement containing premixes, and mortar. All stockpiling of such materials must conform to Section 13-4.03C(2) Material Storage and Section 13-4.03C(3) Stockpile Management for Water Pollution Control of the Caltrans' Standard Specifications.
16. **CONCRETE EQUIPMENT:** Concrete equipment must be washed in a designated washing area in a way that does not contaminate soil, receiving waters, or storm drain systems. Any concrete washout activities which result in compromised containment must be cleaned and disposed of immediately. All Designated concrete facilities, including equipment, washout areas must be contained during Qualifying Precipitation Events (QPEs) marked by clearly visible signage throughout the project area.
17. **EXISTING VEGETATION**: Established existing vegetation is the best form of erosion control. Minimize disturbance to existing vegetation. Fenced barriers may serve as an adequate buffer to prevent traffic across existing vegetation. Damaged or removed vegetation must be replaced as directed by the State Representative.
18. **SOIL DISTURBANCE:** Soil disturbing activities must be avoided during the wet weather season. If construction activities during wet weather are allowed in the permit, all necessary erosion control and soil stabilization measures must be implemented in advance of soil disturbing activity. All temporary relocation of BMPs must be completed at the end of each working day and prior to each Qualifying Precipitation Event with a 50% or greater probability of precipitation that results in 0.5 inches or more of rain within a 24-hour period. Silt and debris shall be removed from linear barriers as part of the regular inspection schedule and as deemed necessary by the State Representative.

ENCROACHMENT PERMIT SPECIAL PROVISIONS

19. **SLOPE STABILIZATION AND TRACKING CONTROL:** Consider a certified expert in Erosion and Sediment Control in cases where slopes are disturbed or during implementation of temporary road construction for equipment and material access to the project. The Permittee is directed to comply with Section 13.5 Temporary Soil Stabilization, Section 13.6 Temporary Sediment Control, Section 13.7 Temporary Tracking Control and Section 21 Erosion Control of the Caltrans' Standard Specifications for construction during application of temporary soil stabilization and sediment/tracking control measures to minimize impacts to the soil surface. Temporary construction entrances/exits are required to be stabilized and may include gravel, rumble plates, and/or FODS. Erosion control blankets, temporary mulch, soil binders, tackifier, fiber, seed, straw, temporary covers, rigid plastic, gravel bag barriers, sediment filter bags, temporary check dams, drainage inlet protection, fiber rolls and/or silt fences may be required down slope and on temporary construction roads and entrances until permanent soil stabilization is established. Consult with manufacturer specifications regarding maintenance frequency of sediment controls. All controls must be maintained to ensure proper functionality. The Permittee must limit the use of plastic materials when more sustainable, environmentally friendly alternatives exist or when environmental regulations prohibit their use within the project.
20. **STOCKPILES:** All stockpiled materials must be stored at least one hundred (100) feet from concentrated flows of storm water, drainage courses, and storm drain inlets if within a flood plain, otherwise at least fifty (50) feet if outside the floodplain. All stockpiles must be covered and protected with a temporary perimeter sediment barrier if inactive or prior to each Qualifying Precipitation Event with a 50% or greater probability of precipitation that results in 0.5 inches or more of rain within a 24-hour period. A stockpile is considered inactive after fourteen (14) days without addition or subtraction. Additionally, cold mix stockpiles must be stored on an impermeable surface and covered with nine (9) mil plastic to prevent contact with water. Minimize stockpiling of materials on the job site. Manage stockpiles by implementing the water pollution control practices in Section 13--4.03C(3) Stockpile Management for Water Pollution Control of the Caltrans' Standard Specifications for construction. Demolished material must not be allowed to enter storm drain systems and receiving waters. Use authorized covers and platforms to collect debris. Use attachments on equipment to catch debris during all demolition activities. Empty debris-catching devices daily and handle debris in accordance with Section 13-4.03D Waste Management for Water Pollution Control of the Caltrans' Standard Specifications for construction.
21. **DISCOVERY OF CONTAMINATION:** The State Representative must be notified in case any unusual discoloration, odor, or texture of ground water, is found in excavated material. Additionally, the State Representative must be notified if abandoned, underground tanks, pipes, or buried debris are encountered.
22. **SANITARY AND SEPTIC WASTE:** Do not bury or discharge wastewater from a sanitary or septic system within the highway. A sanitary facility discharging into a sanitary sewer system must be properly connected and free from leaks. Place a portable sanitary facility at least 50 feet away from storm drains, receiving waters, and flow lines. The Permittee must comply with local health agency regulations if using an on-site disposal system.
23. **LIQUID WASTE:** Prevent job site liquid waste from entering storm drain systems and receiving waters. Drilling slurries, grease or oil-free wastewater or rinse water, dredging, and wash water or rinse water running off a surface or other non-storm water liquids not covered under separate wastewater permits must be held in structurally sound, leak-proof containers, such as portable bins or portable tanks. Store containers at least fifty (50) feet away from moving vehicles, equipment, concentrated flows of storm water, drainage courses, and storm drain inlets. Liquid waste may require testing to determine hazardous material content prior to disposal. All measures must conform to section 13--4.03D(5) Liquid Waste for Water Pollution Control of the Caltrans' Standard Specifications for construction.
24. **WATER CONTROL AND CONSERVATION:** Manage water use in a way that will prevent erosion and discharge of pollutants into storm drain systems and receiving waters. Direct all runoff into areas where it can infiltrate.
25. **PILE DRIVING:** Keep spill kits and cleanup materials at pile driving locations. Park pile driving equipment over drip pans, absorbent pads, or plastic sheeting with absorbent material, and away from stormwater run-on when not in use. In the event of oil/grease leaks and spills from pile driving activities, immediately contain and dispose of all contaminated materials.
26. **DEWATERING**: Dewatering consists of discharging accumulated storm water, groundwater, or surface water from excavations or temporary containment facilities. All dewatering operations must comply with the latest Caltrans guidelines including the Field Guide for Construction Site Dewatering. Contact the State Representative for approval of dewatering discharge by infiltration or evaporation, otherwise, any effluent discharged into a permitted storm water system requires approval from the Regional Water Quality Control Board. Prior to the start of dewatering, the Permittee must provide the State Representative with a dewatering and discharge work plan that complies with Section 13-4.03G Dewatering for Water Pollution Control of the Caltrans' Standard Specifications for construction. Work plan also references guidelines and BMPs in the CGP and the Field Manual for Construction Site Dewatering. A 24-hour email notification of dewatering discharge to the Regional Water Board, including the implemented SWPPP and BMPs, is required by Attachment J of the CGP.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

ENCROACHMENT PERMIT STEEL PLATE BRIDGING UTILITY PROVISIONS

TR -0157 (Rev. 04/2018)

To accommodate excavation work, steel plate bridging may be necessary. All conditions for use of steel plate bridging should be set forth in the special provisions.

Consideration of steel plate bridging should take into account the following factors:

1. Traffic speed.
2. Traffic Volume and Composition.
3. Duration and dimensions (width & daily estimated lengths) of the proposed excavation.
4. Weather conditions.

When backfilling operations of an excavation in the traveled way, whether transverse or longitudinal, cannot be properly completed within a work day, steel plate bridging with a non-skid surface and shoring (see Trenching & Shoring) may be required to preserve unobstructed traffic flow. In such cases, the following conditions shall apply:

1. Steel plate bridging on freeways is not allowed.
2. Steel plates used for bridging must extend a minimum of 12" beyond the edges of the trench.
3. Steel plate bridging shall be installed to operate with minimum noise.
4. The trench shall be adequately shored, (as mentioned in Section 603.6B-2 of the Encroachment Permits Manual) to support the bridging and traffic loads.
5. Temporary paving with cold asphalt concrete shall be used to feather the edges of the plates, if plate installation by Method (2) described below, is used.
6. Bridging shall be secured against displacement by using adjustable cleats, shims, or other devices.

As required by the district, steel plate bridging and shoring shall be installed using either Method (1) or (2):

Method 1 For speeds of 45 MPH or greater:

The pavement shall be cold planed to a depth equal to the thickness of the plate and to a width and length equal to the dimensions of the plate.

Approach plate(s) and ending plate (if longitudinal placement) shall be attached to the roadway by a minimum of 2 dowels pre-drilled into the corners of the plate and drilled 2" into the pavement. Subsequent plates are to be butted and tack welded to each other.

Method 2 For Speeds less than 45 mph:

Approach plate(s) and ending plate (if longitudinal placement) shall be attached to the roadway by a minimum of 2 dowels pre-drilled into the corners of the plate and drilled 2" into the pavement. Subsequent plates are to be butted and tack welded to each other. Fine graded asphalt concrete shall be compacted to form ramps, maximum slope 8.5 % with a minimum 12" taper to cover all edges of the steel plates. When steel plates are removed, the dowel holes in the pavement shall be backfilled with either graded fines of asphalt concrete mix, concrete slurry, epoxy or an equivalent that is satisfactory to the Caltrans' representative.

The permittee is responsible for maintenance of the steel plates, shoring, asphalt concrete ramps, and ensuring that they meet minimum specifications. Unless specifically noted or granted in the special provisions, or approved by the State representative, steel plate bridging shall not exceed 4 consecutive working days in any given week. Backfilling of excavations shall be covered with a minimum 3" temporary layer of cold asphalt concrete.

The following table shows the advisory minimal thickness of steel plate bridging required for a given trench width (A-36 grade steel, designed for HS20-44 truck loading per Caltrans Bridge Design Specifications Manual).

Trench Width	Minimum Plate Thickness
10"	½"
1'-11"	¾"
2'-7"	7/8"
3'-5"	1"
5'-3"	1 ¾"

NOTE: For spans greater than 5'-3", a structural design shall be prepared by a California registered civil engineer.

All steel plates within the right of way whether used in or out of the traveled way shall be without deformation. Inspectors can determine the trueness of steel plates by using a straight edge and should reject any plate that is permanently deformed.

Steel plates used in the traveled portion of the highway shall have a surface that was manufactured with a nominal Coefficient Of Friction (COF) of 0.35 as determined by California Test Method 342 (See Appendix H, Encroachment Permits Manual). If a different test method is used, the permittee may utilize standard test plates with known coefficients of friction available from each Caltrans District Materials Engineer to correlate skid resistance results to California Test Method 342. Based on the test data, the permittee shall determine what amount of surface wear is acceptable, and independently ascertain when to remove, test, or resurface an individual plate.

Caltrans Inspectors should not enforce plate removal unless it is permanently deformed or delivered without the required surfacing. However, an inspector should document in a diary all contacts with the contractor.

A "Rough Road" (W8-8) sign and a "Steel Plate Ahead" (W8-24) sign with black lettering on an orange background must be used in advance of steel plate bridging along with the required construction area signs. These signs must be used along with any other construction area signs.

Surfacing requirements are not necessary for steel plates used in parking strips, on shoulders not used for turning movements, or on connecting driveways, etc., not open to the public.

Appendix P:
Use of Pesticides on City Property

To: All City of Campbell Staff
From: Peri Newby, Public Works Department
Re: USE OF PESTICIDES ON CITY PROPERTY
Date: March 11, 2021

This notice is distributed to remind City of Campbell employees that ONLY staff specifically designated through the Public Works Department management may order, purchase and apply pesticides for use on City property.

THIS RESTRICTION INCLUDES OVER-THE-COUNTER PESTICIDES

Pesticide use by the City of Campbell is tracked by the Regional Water Quality Control Board as part of the City's Stormwater Permit requirements. This message is required annually by the City's Integrated Pest Management (IPM) Plan. It is important that all City staff be informed of, and comply with, the Plan and Permit, and their requirements concerning pesticide use.

To help meet this goal, staff members should:

1. Remember that ONLY staff designated through Public Works Department management may order, purchase and apply pesticides on City property, including over-the-counter pesticides.

2. To request removal of pests (mice, ants, wasps, etc.) from City property, please contact Building Maintenance at Ext. 2742, or Public Works Maintenance at Ext 2145, to initiate a work request.

3. Responsibly dispose of any existing pesticide containers found on City property through the City's Hazardous Waste Program. Contact Public Works Maintenance at Ext 2145 for assistance.

4. If any pesticides are currently stored at City facilities (ant sprays, wasp sprays, etc.) and you are NOT a designated Public Works Department Pesticide Applicator, discontinue any further pesticide application and dispose of the containers as outlined in #3 above.

Thank you for your assistance in our efforts to protect employee health and water quality.

USE OF PESTICIDES

The City of Campbell adopted an "Integrated Pest Management (IPM) Plan" and "IPM Pest Specific Plans" to address removing various pests from City property. The IPM Plans include strategies for removing pests (ants, wasps, etc.) using the least toxic control methods possible.

The Regional Water Quality Control Board's Stormwater Discharge Permit requires municipalities to reduce pesticide use. One goal of the policy is to ensure that pesticides which are applied are handled only by staff who have received training in pesticide use and 'less toxic' pest control. By adhering to these plans, the City will meet its Permit requirements, and help provide a healthier environment for staff and residents.

If there are any questions about this procedure or the Stormwater Discharge Permit, please call the West Valley Clean Water Program at 408-354-5385.

Appendix Q:
Premark with ViziGrip Skid/Slip Resistant Specification

SPECIFICATION
PREFORMED THERMOPLASTIC PAVEMENT MARKINGS

1. **USE:** A durable, retroreflective pavement marking material suitable for use as roadway, intersection, commercial or private pavement delineation and markings.

   1.1. The markings must be a resilient white or yellow thermoplastic product with uniformly distributed glass beads throughout the entire cross sectional area. The markings must be resistant to the detrimental effects of motor fuels, lubricants, hydraulic fluids, antifreeze, etc. Lines, legends and symbols are capable of being affixed to bituminous and/or portland cement concrete pavements by the use of the normal heat of a propane torch. Other colors shall be available as required.

   1.2. The markings must be capable of conforming to pavement contours, breaks and faults through the action of traffic at normal pavement temperatures. The markings shall have resealing characteristics, such that it is capable of fusing with itself and previously applied thermoplastic when heated with the torch.

   1.3. The markings shall not have minimum ambient and road temperature requirements for application, storage, or handling.

2. **MANUFACTURING CONTROL AND ISO CERTIFICATION**: The manufacturer must be ISO 9001:2008 certified and provide proof of current certification. The scope of the certification shall include manufacture of preformed thermoplastic marking materials.

3. **MATERIAL:** Must be composed of an ester modified rosin resistant to degradation by motor fuels, lubricants etc. in conjunction with aggregates, pigments, binders and glass beads which have been factory produced as a finished product, and meets the requirements of the current edition of the Manual on Uniform Traffic Control Devices for Streets and Highways. The thermoplastic material conforms to AASHTO designation M249, with the exception of the relevant differences due to the material being supplied in a preformed state.

   3.1. Graded Glass Beads:

      3.1.1. The material must contain a minimum of thirty percent (30%) intermixed graded glass beads by weight. The intermixed beads shall be conforming to AASHTO designation M247, with minimum 80% true spheres and minimum refractive index of 1.50.

      3.1.2. The material must have factory applied coated surface beads in addition to the intermixed beads at a rate of 1 lb. (± 10%) per 10 sq. ft. These factory applied coated surface beads shall have a minimum of 90% true spheres, minimum refractive index of 1.50, and meet the following gradation.

Size Gradation		Retained, %	Passing, %
US Mesh	µm		
12	1700	0 - 2%	98 - 100%
14	1400	0 - 3.5%	96.5 - 100%
16	1180	2 - 25%	75 - 98%
18	1000	28 - 63%	37 - 72%
20	850	63 - 72%	28 - 37%
30	600	67 - 77%	23 - 33%
50	300	89 - 95%	5 - 11%
80	200	97-100%	0 - 3%

3.2. Pigments:

3.2.1. White: The material shall be manufactured with sufficient titanium dioxide pigment to meet FHWA Docket No. FHWA-99-6190 Table 5 and Table 6 as revised and corrected.

3.2.2. Red, Blue, and Yellow: The material shall be manufactured with sufficient pigment to meet FHWA Docket No. FHWA-99-6190 Table 5 and Table 6 as revised and corrected. The yellow pigments must be organic and must be heavy-metal free.

3.2.3. Other Colors: The pigments must be heavy-metal free.

3.3. Heating indicators: The top surface of the material (same side as the factory applied surface beads) shall have regularly spaced indents. These indents shall act as a visual cue during application that the material has reached a molten state so satisfactory adhesion and proper bead embedment has been achieved and a post-application visual cue that the installation procedures have been followed.

3.4. Skid Resistance: The surface, with properly applied and embedded surface beads, must provide a minimum resistance value of 45 BPN when tested according to ASTM E 303.

3.5. Thickness: The material must be supplied at a minimum thickness of 90 mils (2.29 mm).

3.6. Versatility: As an option, turn arrows and combination arrows may come without surface applied glass beads, thus facilitating the use of those arrows as either left or right indicators, thereby reducing inventory requirements.

3.7. Environmental Resistance: The material must be resistant to deterioration due to exposure to sunlight, water, salt or adverse weather conditions and impervious to oil and gasoline.

3.8. Retroreflectivity: The material, when applied in accordance with manufacturer's guidelines, must demonstrate a uniform level of sufficient nighttime retroreflection when tested in accordance to ASTM E 1710. The applied material must have an initial minimum intensity reading of 500 $mcd \cdot m^{-2} \cdot lx^{-1}$ for white and 300 $mcd \cdot m^{-2} \cdot lx^{-1}$ for yellow as measured with an LTL-2000 or LTL-X Retroreflectometer.

Note: Initial retroreflection is affected by the amount of heat applied during installation. When ambient temperatures are such that greater amounts of heat are required for proper installation, initial retroreflection levels may be affected.

4. APPLICATION:

4.1. Asphalt: The materials shall be applied using the propane torch method recommended by the manufacturer. The material must be able to be applied without minimum requirements for ambient and road temperatures and without any preheating of the pavement to a specific temperature. The material must be able to be applied without the use of a thermometer. The pavement shall be clean, dry and free of debris. Supplier must enclose application instructions in English and Spanish with each box/package.

4.2. Portland Cement Concrete: The same application procedure shall be used as described under Section 4.1. However, a compatible primer sealer shall be applied before application to assure proper adhesion.

5. **PACKAGING:** The preformed thermoplastic markings shall be placed in protective plastic film with cardboard stiffeners where necessary to prevent damage in transit. Linear material must be cut to a maximum of 3' long pieces. Legends and symbols must also be supplied in flat pieces. The cartons in which packed shall be non-returnable and shall not exceed 40" in length and 25" in width, and be labeled for ease of identification. The weight of the individual carton must not exceed seventy (70) pounds. A protective film around the box must be applied in order to protect the material from rain or premature aging.

6. **TECHNICAL SERVICES:** The successful bidder shall provide technical services as required.

7. **PERFORMANCE:** The preformed thermoplastic markings shall meet state specifications and be approved for use by the appropriate state agency.

VG no SA

SPECIFICATION
PREFORMED THERMOPLASTIC PAVEMENT MARKINGS

1. **USE:** A durable, high skid resistant, retroreflective pavement marking material suitable for use as interstate shields, route shields, bike path, roadway, intersection, airport, commercial or private pavement delineation and markings.

   1.1. The markings must be a resilient white, yellow or other color thermoplastic product, the surface of which must contain glass beads and abrasives in an alternating pattern. The markings must be resistant to the detrimental effects of motor fuels, lubricants, hydraulic fluids etc. Lines, legends and symbols are capable of being affixed to bituminous and/or Portland cement concrete pavements by the use of the normal heat of a propane torch.

   1.2. The markings must be capable of conforming to pavement contours, breaks and faults through the action of traffic at normal pavement temperatures. The markings shall have resealing characteristics, such that it is capable of fusing with itself and previously applied thermoplastic when heated with the torch.

   1.3. The markings shall not have minimum ambient and road temperature requirements for application, storage, or handling.

2. **MANUFACTURING CONTROL AND ISO CERTIFICATION:** The manufacturer must be ISO 9001:2008 certified and provide proof of current certification. The scope of the certification shall include manufacture of reflective highway markings.

3. **MATERIAL:** Must be composed of an ester modified rosin resistant to degradation by motor fuels, lubricants etc. in conjunction with aggregates, pigments, binders, abrasives, and glass beads which have been factory produced as a finished product, and meets the requirements of the current edition of the Manual on Uniform Traffic Control Devices for Streets and Highways. The thermoplastic material conforms to AASHTO designation M249-79 (98), with the exception of the relevant differences due to the material being supplied in a preformed state.

   3.1. Graded Glass Beads:

      3.1.1. The material must contain a minimum of thirty percent (30%) intermixed graded glass beads by weight. The intermixed beads shall be clear and transparent. Not more than twenty percent (20%) consists of irregular fused spheroids, or silica. The index of refraction shall not be less than 1.50.

      3.1.2. The material must have factory applied coated surface beads and abrasives in addition to the intermixed beads at a rate of 1/2 lb. (± 20%) per 11 sq. ft. The surface beads and abrasives must be applied in an alternating arrangement across the surface of the material so that the surface is covered in what is best described as a "checkerboard" pattern of glass beads and abrasive materials. The abrasive material must have a minimum hardness of 8 (Mohs scale). These factory applied coated surface beads shall have the following specifications:

         1) Minimum 80% rounds
         2) Minimum refractive index of 1.5
         3) Minimum SiO_2 Content of 70%;
         4) Maximum iron content of 0.1%;

Size Gradation			
US Mesh	Um	Retained, %	Passing, %
12	1700	0 - 2%	98 - 100%
14	1400	0 - 6%	94 - 100%
16	1180	1 - 21%	79 – 99%
18	1000	28 - 62%	38 - 72%
20	850	62 - 71%	29 – 38%
30	600	67 - 77%	23 - 33%
50	300	86 - 95%	5 – 14%
80	200	97-100%	0 - 3%

3.2. Pigments:

3.2.1. White: The material shall be manufactured with sufficient titanium dioxide pigment to meet FHWA Docket No. FHWA-99-6190 Table 5 and Table 6 as revised and corrected.

3.2.2. Red, Blue, and Yellow: The material shall be manufactured with sufficient pigment to meet FHWA Docket No. FHWA-99-6190 Table 5 and Table 6 as revised and corrected. The yellow pigments must be organic and must be heavy-metal free.

3.2.3. Other Colors: The pigments must be heavy-metal free.

3.3. Heating indicators: The top surface of the material (same side as the factory applied surface beads) shall have regularly spaced indents. These indents shall act as a visual cue during application that the material has reached a molten state so satisfactory adhesion and proper bead embedment has been achieved and a post-application visual cue that the installation procedures have been followed.

3.4. Skid Resistance: The surface of the preformed retroreflective marking materials, wherein every other shaped portion contains glass beads, or abrasives with a minimum hardness of 8 (Mohs scale), shall upon application provide a minimum skid resistance value of 60 BPN when tested according to ASTM: E 303.

3.5. Thickness: The material must be supplied at a minimum thickness of 90 mils (2.29 mm) or 125 mils (3.15 mm).

3.6. Retroreflectivity: The preformed retroreflective marking materials upon application shall exhibit adequate and uniform nighttime retroreflectivity. The marking materials shall have the following retroreflectivity as measured using a Delta LTL 2000 or LTL-X Retroreflectometer:

White preformed reflective marking materials–minimum of 275 $mcd \cdot m^{-2} \cdot lx^{-1}$

Note: Initial retroreflection and skid resistance are affected by the amount of heat applied during installation. When ambient temperatures are such that greater amounts of heat are required for proper installation, initial retroreflection and skid resistance levels may be affected.

3.7. Environmental Resistance: The material must be resistant to deterioration due to exposure to sunlight, water, salt or adverse weather conditions and impervious to oil and gasoline.

3.8. Abrasives: The abrasives and surface beads must be applied in an alternating arrangement across the surface of the material so that the surface is covered in what is best described as a "checkerboard" pattern of glass beads and abrasive materials. The abrasive material must have a minimum hardness of 8 (Mohs scale).

4. **APPLICATION:**

4.1. Asphalt: The materials shall be applied using the propane torch method recommended by the manufacturer. The material must be able to be applied without minimum requirements for ambient and road temperatures and without any preheating of the pavement to a specific temperature. The material must be able to be applied without the use of a thermometer. The pavement shall be clean, dry and free of debris. Supplier must enclose application instructions with each box/package.

4.2. Portland Concrete: The same application procedure shall be used as described under Section 4.1. However, a compatible primer sealer may be applied before application to assure proper adhesion.

5. **PACKAGING:** The preformed thermoplastic markings shall be placed in protective plastic film with cardboard stiffeners where necessary to prevent damage in transit. Linear material must be cut to a maximum of 3' long pieces. Legends and symbols must also be supplied in flat pieces. The cartons in which packed shall be non-returnable and shall not exceed 40" in length and 25" in width, and be labeled for ease of identification. The weight of the individual carton must not exceed seventy (70) pounds. A protective film around the box must be applied in order to protect the material from rain or premature aging.

6. **TECHNICAL SERVICES:** The successful bidder shall provide technical services as required.

Appendix R:
Accessible Pedestrian Signal Specification

SPECIFICATIONS
2 WIRE ACCESSIBLE PEDESTRIAN SIGNAL (APS)

SYSTEM DESCRIPTION

The Audible-Tactile Pedestrian Signal (APS) System shall consist of all electronic control equipment, mounting hardware, push buttons and signs, which are designed to provide both a push button with a raised vibrating tactile arrow on the button, along with a variety of audible sounds for different pedestrian signal functions.

Contractor shall provide documentation from an outside Testing Services Laboratory that the ASP System meets ISO, NEMA, IEC, and FCC requirements.

General Description

The APS System shall consist of a Central Control Unit (CCU) and Pedestrian Push Button Stations (PBS), as described below, and an iOS device with the iOS client application, or Android device with Android client application, or Windows PC with Bluetooth® Low Energy dongle and Windows client application, for programming the system settings.

The System shall be manufactured by an ISO 9001:2015 (minimum) registered company and shall meet the requirements of Made in America and Buy America as noted in Section 6 “Control of Materials” of the Special Provisions.

Design Compliance

The System shall meet the functionality requirements of the Federal MUTCD 2023 – 4E and CA-MUTCD 2014 – 4E.

The System shall meet the following NEMA TS 2 Section 2.1 requirements:

1. Temperature & Humidity,
2. Transient Voltage Protection,
3. Mechanical Shock and Vibration, OR
4. Shall be TS4 equivalent in the above three mentioned requirements.

The System shall meet the following:

1. IEC 61000-4-4, IEC 61000-4-5 Transient Suppression requirements.
2. FCC Title 47, Part 15, Class A Electronic Noise requirements.

The Push Button Station (PBS) Enclosure shall meet NEMA 250 – Type 4X requirements.

The Central Control Unit (CCU) Enclosure shall meet NEMA 250 – Type 1 requirements.

Functional Requirements

The System shall:

1. Support at least 16 PBS’s per intersection (on at least 1 channel) controlled by a single base unit located in the traffic control cabinet.
2. Vibrate a tactile arrow button during the WALK interval following a button push and/or every time the walk comes up.
3. Have the field-selectable function known as “LOCATE TONE”. This means that during the FLASHING DON’T WALK and DON’T WALK intervals, the system shall provide a locating

tone that emanates from the PBS. The system shall provide at least 3 different sounds to choose from.

4. Have the field selectable function known as “Extended Push Activation”. This is defined as the audible WALK message shall only be activated and audible during the WALK interval if the button is depressed for a field selectable minimum period of time (from 0.5 to 6 seconds). Also, for the walk and clearance intervals that follow an extended push, the volumes shall have a separately settable minimum and maximum volume level.
5. Have the field selectable function known as “Informational Message”. This means that a custom message giving the location of the street to cross and the intersection (or other information) will be vocalized only when the button is depressed for a minimum field selectable time.
6. Provide a “Wait” message that plays once the button is activated, and until the Walk cycle goes into effect. This message must have the field selectable option of OFF, or repeating every 4, 6, 8 or 10 seconds.
7. Have standard “Travel Direction” options that can be selected at the time of installation.
8. Have at least 10 field selectable WALK sound options including a cuckoo, a chirp, an MUTCD rapid tick or custom voice message.
9. Provide at least 7 Ped-clearance sound choices including audible countdown (field selectable). The audible countdown shall represent the time remaining during the pedestrian Clearance interval. Timing is automatically adjusted to the CLEARANCE INTERVAL timing, provided by the Traffic Controller. Due to flasher relay timing variables, audible and PED Head numbers may vary by approximately one second.
10. Provide 2 language capabilities, selectable by user (as a field selectable feature).
11. Provide an Emergency Preemption Message in conjunction with a preemption system (selectable feature).
12. Have a non-visible, ambient sensing microphone located in the pedestrian station in an environmentally protected housing.
13. Have a real time clock capable of keeping time when there is no system power, for at least 2 years from the date of manufacture.
14. Have the ability to have four separate program configurations with all features available, and any single configuration can be selected through an external input.
15. Provide a user settable calendar function, allowing four separate configuration profiles to be configured to become active at different times of the day on a daily, weekly, or holiday basis.
16. Be configurable from any PBS over Bluetooth Low Energy.
17. Be configurable from the CCU over Wi-Fi or Ethernet.

The System LOCATE TONE, WALK, and DON’T WALK audible features shall have independent assignable minimum and maximum volume limits. CLEARANCE volume level shall be controlled by WALK volume setting.

The LOCATE TONE volume shall adjust automatically in response to ambient noise with field selectable adjustment levels from -30dB below to +20dB above ambient in 2.5dB increments.

All other sound volumes shall adjust automatically in response to ambient noise with field selectable adjustment levels from -30dB below to +20dB above ambient in 5dB increments.

The System shall utilize high quality digital audio technology, with a minimum 16-bit sample at a 48 kHz sample rate.

The System shall have the option to mute sounds on all crosswalks except activated crosswalk (selectable feature).

All field access to selectable options using Bluetooth Low Energy, Wi-Fi or Ethernet devices shall be protected using password security.

Central Control Unit (CCU)

The CCU is the control unit that provides data for the Push Button Stations. The CCU shall be either a shelf mount (CCU-S) or card rack mount (CCU-C) assembly.

The CCU shall:

1. Control at least 16 PBS's.
2. Be logically configurable to assign any PBS to one of 16 traffic/PED phases.
3. Through SDLC, be able to place PED calls on up to 8 phases.
4. Be able to self-test all PBS's and put a corresponding phase into recall should a PBS assigned to a phase fail the self-test.
5. Have internal storage to log several thousand events with a date-time stamp for each event.
6. Have an internal real-time clock capable of being set in the field and propagating the time to each connected PBS.
7. Monitor PED interval conflicts and set affected PBS's to an off/safe mode when a conflict occurs.
8. Have a backlit LCD screen and button interface to allow placing test calls and display status.

The CCU firmware shall be updatable via either Wi-Fi or Ethernet. There shall be no requirement for IC chips or module hardware to be removed or exchanged in order to complete the firmware update.

The CCU-S shall:

1. Be installed inside the Traffic Cabinet and powered by the AC supply mains (115 VAC).
2. Provide internal power to operate up to 16 PBS's.
3. Receive pedestrian phase Walk, Don't Walk and Clearance inputs from either the traffic cabinet load switches or an SDLC input.
4. Provide optically isolated general-purpose inputs.
5. Incorporate four separate cable assemblies to access all functions, so any combination of the four cable assemblies can be used to access any combination of functions.
6. Meet NEMA 250 – Type 1 enclosures requirements.

The CCU-C shall:

1. Be installed inside a 300 series Traffic Cabinet's Input File, replacing 2 PED isolator boards and receiving power from the rack (24VDC).
2. Receive pedestrian phase Walk, Don't Walk and Clearance inputs from a Transport Electrical Equipment Specification (TEES) C4S connector.
3. Have a 24-volt power brick to power up to 16 PBS's in this CCU-C configuration.

Pedestrian Push Button Station (PBS)

The PBS allows the pedestrian to place calls to the Traffic Controller and provides vibro-tactile feedback during the Walk cycle. This equipment is typically mounted on a pole, near the start of the crossing.

All sounds for all PBS's shall be synchronized.

The PBS shall:

1. Be mounted to a pole by banding or bolting.
2. Be a single fixture that contains a 2" activation area, in which resides an ADA compliant vibro-tactile push button with a raised directional tactile arrow, and a sign mounted above the button.
3. Have a rear facing speaker projecting sound from front and back, providing 360º omnidirectional sound performance.
4. Include internal Conflict Monitoring that monitors WALK, and DON'T WALK input signals for conflict conditions; disables system operation and logs errors if conflict occurs.
5. Meet or exceed NEMA 250 type 4X enclosure requirements.
6. Be a modular design with a separate speaker compartment that can be field-replaced.
7. Include a 3-position terminal block to support the capability of operating as a 3-Wire PBS (3-Wire Ped Head Based System) by adding a Control Unit in the pedestrian signal head that converts 115 VAC to 24VDC, and a 3 wire cable that carries power, data, and ground wires from Control Unit to the PBS.
8. Have Bluetooth Low Energy communication that allows a pedestrian to use an app to get PED status information, and place a PED call when in close proximity to a button, without having to touch/push the button.
9. Have wireless synchronization capabilities, from button to button, (including between a 2 wire PBS and a 3 wire PBS), matched to a phase partner. Sync distance may vary based on the environment. Pedestrian button presses are communicated between phase partners in order to keep the pilot LED in sync, as well as the audible messages during the Walk and Clearance PED intervals. This shall be implemented on corners that do not contain button wires. The wireless synchronization capability shall include sending Standard and Extended Push information to allow a call to be placed from a PBS without button wires (or degraded button wires) via a phase partner PBS that does have button wires to the traffic controller.
10. Be capable of interacting with a pedestrian app on iOS or Android smart phones, via Bluetooth Low Energy.
11. Be capable of interacting with the PedApp® smartphone App to allow pedestrians to remotely actuate ped call into PBS. PedApp can be configured to help provide visually impaired and all pedestrians location/directionality information as well as place calls, receive ped interval information via smartphone.

The PBS button shall be cast aluminum, nickel-plated and powder coated black around the arrow, to provide high contrast to arrow color. The PBS arrow shall allow for change in orientation to one of four directions.

The PBS button actuation shall use Hall Effect Sensor technology rated to greater than 20 million operations.

The PBS button push force shall have three adjustable pressure settings "Light, Medium, and Firm" over a range of approximately .5 LB to 3.5 LBS to activate a button push. The PBS button shall pulse and vibrate at approximately 20 Hz with displacement factor based on pounds of force used to actuate.

The PBS Construction shall be:

- FRAME and BUTTON COVER: Cast Aluminum, Powder Coated.
- HOUSING: Reinforced, UL-listed Thermoplastic.
- MESSAGE SIGN: Aluminum, Powder Coated, Ink Markings, or Reflective Vinyl Sheeting
- PUSH BUTTON: Aluminum, Nickel Plated, Powder Coated.

Electronic circuits (printed circuit board assemblies) shall be in a thermoplastic housing/enclosure having a UL94- V0 flammability rating. The housing/enclosure shall provide NEMA 250 4X protection to all covered components.

The PBS Speaker shall be 8 Ohms, 6 Watt, and weather-proof.

The PBS firmware and voice messages shall be updatable via Bluetooth Low Energy level 5 at a minimum. There shall be no requirement for IC chips or module hardware to be removed or exchanged in order to complete a firmware or audio updates.

The system shall operate with the vendor's client application to record and upload cumulative PED count & call data.

At time of order customer shall be able to specify sign size, and Message Sign Markings to be either the International Walking Person or the Informational Explanations for the three (3) distinct pedestrian displays (WALK, DON'T WALK, and PED CLEARANCE) that a pedestrian would see on an active pedestrian signal.

The touchless actuation option when ordered/included in PBS shall be inconspicuous and vandal resistant and shall be capable of detecting movement within 1-4 inches to actuate/place ped call via the PBS.

Field Programming via Client Application (Apple iOS v9.0 or higher devices, or Android 5.0 or a PC with Windows 8 or 10)

The System shall use Bluetooth Low Energy 5 or higher technology to program firmware and audio voice messages, and to communicate to other buttons or external devices.

The System shall be password protected through the programming/configuration interface.

The iOS, Android, and PC applications shall have the following features:

1. Upgradable.
2. Notify the user when a newer version of the application is available.
3. Notify the user when newer PBS and CCU firmware is available.
4. Provide the mechanism to download the latest PBS and CCU firmware.
5. Capable of setting all volumes and features of the APS system specific to the PBS's.
6. Capable of setting/updating configuration options for a single PBS or all PBS's on the intersection for most functions from a single PBS or CCU. (Global updating).
7. Capable of storing, modifying, loading, and emailing PBS configuration settings, audio files and health logs.