



**CITY OF CAMPBELL**  
**Community Development Department**

July 2, 2020

**NOTICE OF PUBLIC HEARING**  
**THIS MEETING WILL BE CONDUCTED ON-LINE USING ZOOM**

Notice is hereby given that the Planning Commission of the City of Campbell has set the time of 7:30 p.m., or shortly thereafter, on Tuesday, **July 14, 2020**, for a Public Hearing to consider the application of Sean Rinde for a Site and Architectural Review Permit (PLN 2019-213) to allow the construction of a new approximately 2,665 square-foot two-story single-family residence on property located at **1511 Van Dusen Lane**. Staff is recommending that this item be deemed Categorical Exempt under CEQA. This Planning Commission meeting will be conducted via telecommunication and is compliant with provisions of the Brown Act and Executive Order N-29-20 issued by the Governor.

While members of the public will not be able to attend the meeting of the Campbell City Planning Commission physically, the meeting will be live-streamed on YouTube at (<https://www.youtube.com/user/CityofCampbell>).

Interested persons may register to electronically participate in this Zoom PC meeting at [https://us02web.zoom.us/webinar/register/WN\\_uavFQC2sT1m\\_cJvrGV1oA](https://us02web.zoom.us/webinar/register/WN_uavFQC2sT1m_cJvrGV1oA). After registering, you will receive a confirmation email containing information about joining the webinar. The complete agenda packet will be posted by Friday, July 10th, on the website at <https://www.ci.campbell.ca.us/AgendaCenter/Planning-Commission-6>, and will include all materials for this meeting. Please be advised that if you challenge the nature of the above project in court, you may be limited to raising only those issues you or someone else raised at the Public Hearing described in this Notice, or in written correspondence delivered to the City of Campbell Planning Commission at, or prior to, the Public Hearing by email to [planning@campbellca.gov](mailto:planning@campbellca.gov). Questions may be addressed to the Community Development Department at (408) 866-2140. *Plans and architectural drawings may be viewed by Thursday, July 2<sup>nd</sup>, on the City's 'Public Notices' web page (<http://www.cityofcampbell.com/501/Public-Notices>) under 'Planning Commission'.*

Decisions of the Planning Commission may be appealed to the City Council. Appeals must be submitted to the City Clerk in writing within 10 calendar days of an action by the Commission.

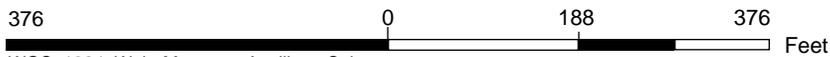
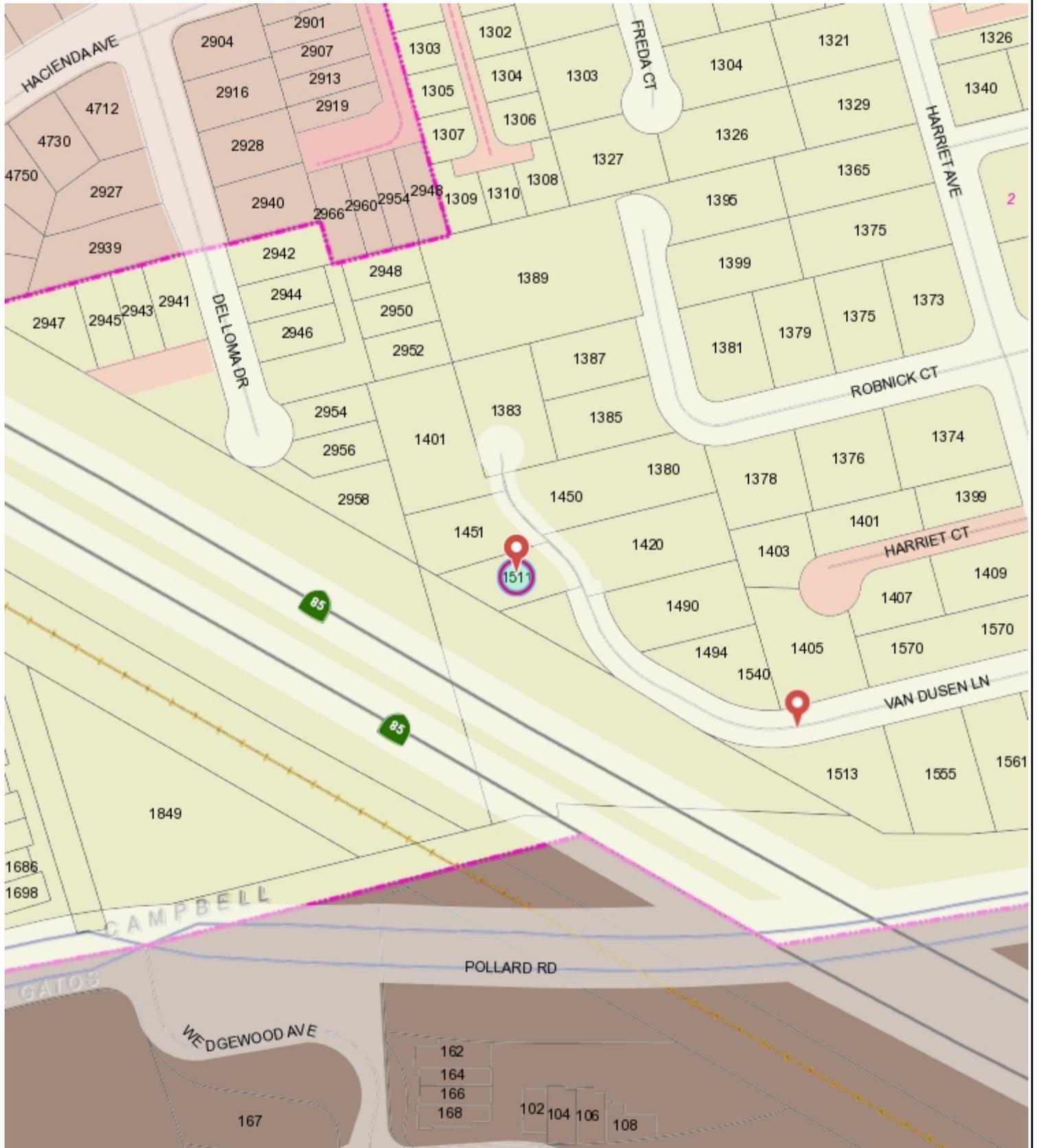
In compliance with the Americans with Disabilities Act, the City of Campbell will generally, upon request, provide appropriate aids and services leading to effective communication for qualified persons with disabilities so they can participate equally in the public hearings, including qualified sign language interpreters, listening assistive devices, and other ways of making information and communications accessible to people who have speech, hearing, or vision impairments. Anyone who requires auxiliary aid or service for effective communication should contact the City Clerk's Office at 70 N. First Street, Campbell, CA 95008, (408) 866-2117 or [ClerksOffice@campbellca.gov](mailto:ClerksOffice@campbellca.gov) at least one week prior to the meeting. Hearing impaired or TTY/TDD text telephones users may contact the City by dialing 711 for California Relay Service (CRS) or by telephoning any other service providers' CRS telephone number.

PLANNING COMMISSION  
CITY OF CAMPBELL  
PAUL KERMOYAN  
SECRETARY

PLEASE NOTE: When calling about this Notice, refer to **1511 Van Dusen Ln**



# Location Map - 1511 Van Dusen Ln



WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere  
Campbell IT, GIS Services

Scale 1:2,257

This map is based on GIS Information and reflects the most current information at the time of this printing. The map is intended for reference purposes only and the City and its staff is not responsible for errors.

# VETERE DAVIS RESIDENCE

## NEW SINGLE FAMILY RESIDENCE



1511 VAN DUSEN LANE, CAMPBELL



1000 S Winchester Blvd  
San Jose, CA 95128  
P: (408) 998-0983

VETERE-DAVIS RESIDENCE  
NEW SINGLE FAMILY RESIDENCE

1511 VAN DUSEN LANE, CAMPBELL

GABRIELLA VETERE AND DERRICK DAVIS



| REVISION | DATE       | DESCRIPTION                 |
|----------|------------|-----------------------------|
| 1        | 10.31.2019 | PLANNING PERMIT SUBMITTAL   |
| 2        | 02.18.2020 | PLANNING PERMIT RESUBMITTAL |
|          |            |                             |
|          |            |                             |
|          |            |                             |

FOR PERMIT REVIEW ONLY - NOT FOR CONSTRUCTION

### SCOPE OF WORK

NEW 4BR / 2.5BA SINGLE FAMILY RESIDENCE ON AN EXISTING 6,043.55 S.F. LOT. PROPOSED HOME TO HAVE 2,234.60 S.F. LIVING AREA AND 430.56 S.F. GARAGE TOTALING 2,665.16 S.F. -- SEE BELOW PROJECT SUMMARY FOR ADDITIONAL VALUES

### DEFERRED SUBMITTALS

- FIRE SPRINKLERS IN ACCORDANCE WITH NFPA 13D AND STATE AND LOCAL REQUIREMENTS--NOTE THAT PER CRC 313.3.7, A SIGN OR VALVE TAG SHALL BE INSTALLED AT THE MAIN SHUTOFF VALVE TO THE WATER DISTRIBUTION SYSTEM STATING THE FOLLOWING: "WARNING: THE WATER SYSTEM FOR THIS HOME SUPPLIES FIRE SPRINKLERS THAT REQUIRE CERTAIN FLOWS AND PRESSURES TO FIGHT A FIRE. DEVICES THAT RESTRICT THE FLOW OR DECREASE THE PRESSURE OR AUTOMATICALLY SHUT OFF THE WATER TO THE FIRE SPRINKLER SYSTEM, SUCH AS WATER SOFTENERS, FILTRATION SYSTEMS AND AUTOMATIC SHUTOFF VALVES, SHALL NOT BE ADDED TO THIS SYSTEM WITHOUT A REVIEW OF THE FIRE SPRINKLER SYSTEM BY A FIRE PROTECTION SPECIALIST. DO NOT REMOVE THIS SIGN"
- STAIR GUARDRAIL SHOP DRAWINGS SIGNED AND STAMPED BY ENGINEER TO BE SUBMITTED TO BUILDING DEPARTMENT FOR REVIEW AND APPROVAL--NOTE THAT SHOP DRAWINGS TO DEMONSTRATE GUARDRAIL DESIGN IS ADEQUATE TO SUPPORT A SINGLE CONCENTRATED 200 POUND LOAD APPLIED IN ANY DIRECTION AT ANY POINT ALONG THE TOP OF THE RAIL PER CRC TABLE 301.5 AND 301.5 FOOTNOTE D
- SOLAR PHOTOVOLTAIC SYSTEM TO BE UNDER A SEPARATE PERMIT

### SHEET INDEX

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  - L1.2 CONSTRUCTION PLAN
  - L2.1 CONSTRUCTION DETAILS
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  - L7.1 PLANTING PLAN
  - L8.1 PLANTING DETAILS
  - L9.1 PLANTING SPECIFICATIONS

### PROJECT TEAM

**OWNER**  
Gabriella Veterere and Derrick Davis  
1511 Van Dusen Lane  
Campbell, CA 95008  
ph: 408 410 6741  
email: DerrykDavis@gmail.com

**ARCHITECT/INTERIOR DESIGNER**  
Studio 5 Squared Architecture, Inc.  
1000 S Winchester Blvd  
San Jose, CA 95128  
attn: Sean Rinde  
ph: 408 998 0983 x3  
email: Sean@Studio5zarch.com

**STRUCTURAL ENGINEER**  
BCA Structural Engineering  
attn: Geoff Clifford  
ph: 650 508 2500 x 2301  
email: geoff@BCAeng.net

**GEOTECHNICAL ENGINEER**  
Romig Engineers, Inc.  
attn: Lucas Ottoboni  
ph: 650 591 5224  
email: Lucas@romigenengineers.com

**CIVIL ENGINEER**  
Lea & Braze Engineering, Inc.  
attn: Tou Thao  
ph: 510 887 4086 x147  
email: Thao@leabraze.com

**LANDSCAPE ARCHITECT**  
T.H. Norton Landscape Architecture  
attn: Tom Norton  
ph: 925 849 6085  
email: Tom@THNorton.com

**HVAC / TITLE-24 ENGINEER**  
MR Engineering Consultants, Inc.  
attn: Vishnu Vardhan Kumar Pajjuri  
ph: 510 509 2362 x119  
email: Vishnu@MREngCon.com

**ARBORIST**  
Ketty Arborist Services LLC  
attn: Kevin Kietly  
ph: 650 515 9783  
email: KKarbor0476@yahoo.com

### REQ'D CONTRACTOR SUBMITTALS TO ARCHITECT

- THE FOLLOWING ARE REQUIRED TO BE SUBMITTED TO THE ARCHITECT FOR APPROVAL/REVIEW:
- WINDOW/DOOR PACKAGE
  - CABINET SHOP DRAWINGS AND FINISH SAMPLES
  - MECHANICAL DUCTING PLAN
  - STAIR AND RAIL SHOP DRAWINGS
  - MISC. STEEL SHOP DRAWINGS
- NOTE: SEE STRUCTURAL PLANS FOR ADDITIONAL REQUIRED SUBMITTALS FOR SHOP DRAWINGS, ETC.

### REQ'D CONTRACTOR SUBMITTALS TO BUILDING DEPT. PRIOR TO PERMIT ISSUANCE

- LICENSE NUMBER
- INSURANCE AND WORKER'S COMP POLICIES
- CONSTRUCTION STAGING PLAN
- CONSTRUCTION WASTE MANAGEMENT PLAN IN ACCORDANCE WITH CALGREEN 4.408.2

### APPLICABLE CODES

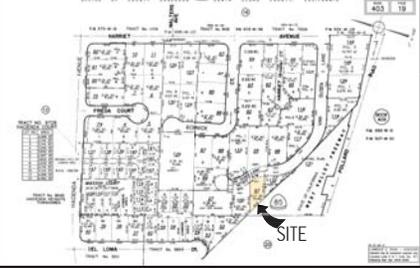
APPLICABLE CODES (with Campbell Amendments)

- 2019 CALIFORNIA ADMINISTRATIVE CODE, CAC
- 2019 CALIFORNIA BUILDING CODE, CBC
- 2019 CALIFORNIA RESIDENTIAL BUILDING CODE, CRC
- 2019 CALIFORNIA ELECTRICAL CODE, CEC
- 2019 CALIFORNIA MECHANICAL CODE, CMC
- 2019 CALIFORNIA PLUMBING CODE, CPC
- 2019 CALIFORNIA ENERGY CODE, CEC
- 2019 CALIFORNIA HISTORICAL CODE, CHC
- 2019 CALIFORNIA FIRE CODE, CFC
- 2019 CALIFORNIA EXISTING BUILDING CODE
- 2019 CALIFORNIA GREEN BUILDING STANDARDS
- 2019 CALIFORNIA REFERENCED STANDARDS
- SANTA CLARA COUNTY STANDARD DETAIL AND SPECIFICATION S1.7 FOR CONSTRUCTION SITE SAFETY

### LOCATION MAP



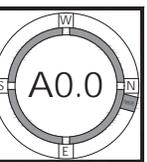
### ASSESSOR'S PARCEL MAP



### PROJECT SUMMARY

|   |  |
|---|--|
| Assessor's Parcel No.                   | 403-19-097                               |
| Zoning:                                 | R-1-9 (subject to R-1-6 setbacks)        |
| Jurisdiction:                           | Campbell                                 |
| Type of Construction:                   | TYPE V-8, SPRINKLERED                    |
| Building Occ. Groups:                   | R-3/U (SINGLE FAMILY RESIDENTIAL)        |
| Required Property Setbacks (1st / 2nd): |  |
| Front                                   | 20'                                      |
| Rear                                    | 10'                                      |
| Right Side                              | greater of 1/2 wall height or 5'-0" min. |
| Left Side                               | greater of 1/2 wall height or 5'-0" min. |
| Proposed Property Setbacks (1st / 2nd): |  |
| Front                                   | 20'-4"                                   |
| Rear                                    | 10'-1"                                   |
| Right Side                              | 5'-6" / 10'-11"                          |
| Left Side                               | 5'-6" / 10'-11"                          |
| Max. Allowed Building Height:           | 28'                                      |
| Proposed Building Height:               | 25'-10" (AMSL=126.43')                   |
| Lot Area:                               | 6,043.55                                 |
| Total New Garage:                       | 430.56                                   |
| New First Floor Living Area:            | 1,403.40                                 |
| New Living Second Floor Area:           | 631.20                                   |
| Total New Living Area:                  | 2,234.60                                 |
| Total New Residence:                    | 2,665.16                                 |
| FAK Percentage:                         | 43.95%                                   |
| Building Coverage:                      | 2,169.74                                 |
| Building Coverage Percentage:           | 35.78%                                   |
| Landscaping Coverage:                   | 2,373.5F (39.0%)                         |
| Paving Coverage:                        | 1,454.5F (27.5%)                         |
| Imperious / Pervious Coverage:          | 61% / 39%                                |
| Covered Parking Provided:               | 2 spaces 18' x 20'                       |

COVER SHEET



STUDIO 5 SQUARED ARCHITECTURE, INC.



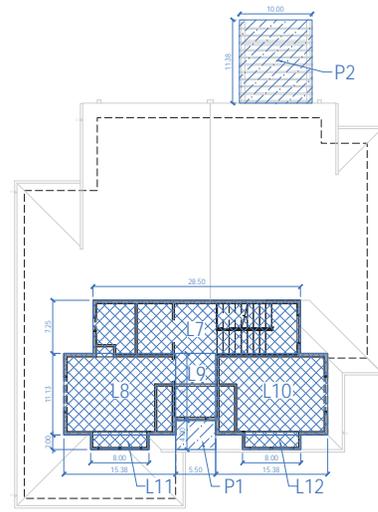
1000 S Winchester Blvd  
 San Jose, CA 95128  
 P: (408) 998 - 0983

VETERE-DAVIS RESIDENCE  
 NEW SINGLE FAMILY RESIDENCE  
 1511 VAN DUSEN LANE, CAMPBELL  
 GABRIELLA VETERE AND DERRYK DAVIS

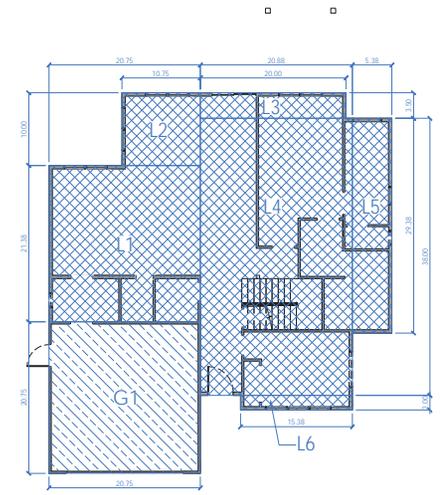


| PROJECT NO. | DATE       | DESCRIPTION                 | OWNER |
|-------------|------------|-----------------------------|-------|
| 19001       | 10.31.2019 | PLANNING PERMIT SUBMITTAL   | SJR   |
|             | 02.18.2020 | PLANNING PERMIT RESUBMITTAL | SJR   |

FOR PERMIT REVIEW ONLY - NOT FOR CONSTRUCTION



2ND FLOOR



1ST FLOOR

| New First Floor Living Area |       |       |          |
|-----------------------------|-------|-------|----------|
|                             | X     | Y     | Area     |
| L1                          | 20.75 | 21.38 | 443.44   |
| L2                          | 10.75 | 10.00 | 107.50   |
| L3                          | 20.00 | 3.50  | 70.00    |
| L4                          | 20.88 | 38.00 | 793.44   |
| L5                          | 5.38  | 29.38 | 158.04   |
| L6                          | 15.38 | 2.00  | 30.76    |
| Subtotal                    |       |       | 1,603.40 |

| New Living Second Floor Area |       |       |        |
|------------------------------|-------|-------|--------|
|                              | X     | Y     | Area   |
| L7                           | 28.50 | 7.25  | 204.43 |
| L8                           | 15.38 | 11.13 | 171.18 |
| L9                           | 5.50  | 9.13  | 50.22  |
| L10                          | 15.38 | 11.13 | 171.18 |
| L11                          | 8.00  | 2.00  | 16.00  |
| L12                          | 8.00  | 2.00  | 16.00  |
| Subtotal                     |       |       | 631.20 |

| New Garage Area |       |       |        |
|-----------------|-------|-------|--------|
|                 | X     | Y     | Area   |
| G1              | 20.75 | 20.75 | 430.56 |
| Subtotal        |       |       | 430.56 |

| Additional Building Coverage |       |       |        |
|------------------------------|-------|-------|--------|
|                              | X     | Y     | Area   |
| P1                           | 5.50  | 4.00  | 22.00  |
| P2                           | 10.00 | 11.38 | 113.80 |
| Subtotal                     |       |       | 135.80 |

|             |                              |          |           |
|-------------|------------------------------|----------|-----------|
| LA          | (of Area)                    | 6,063.55 |           |
| NG          | Total New Garage             | 430.6    |           |
| TNL+NFL+NSL | Total New Living Area        | 2,234.6  |           |
| TNR+NL+NG   | Total New Residence          | 2,665.2  |           |
| TNR/LA      | FAR Percentage               | 43.95%   | <45% (OK) |
| BC+NFL+NG+P | Building Coverage            | 2,169.8  |           |
| BC/LA       | Building Coverage Percentage | 35.78%   | <40% (OK) |

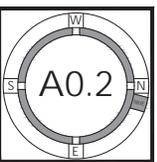
- L# = NEW LIVING AREA
- G# = NEW GARAGE AREA
- P# = ADDITIONAL AREAS THAT COUNT TOWARDS BUILDING COVERAGE SUCH AS PERGOLAS OR ROOF OVERHANGS IN EXCESS OF 24"



FLOOR AREA CALCS 1/8" 1

FLOOR AREA LEGEND

FLOOR AREA CALCULATION





1400 VAN DUSEN  
EXISTING 2 STORY HOME



1420 VAN DUSEN  
EXISTING 1 STORY HOME



1480 VAN DUSEN  
EXISTING 2 STORY HOME



VACANT LOT



1511 VAN DUSEN  
(SUBJECT PROPERTY)



1451 VAN DUSEN  
EXISTING 4 STORY RESIDENCE

GOOGLE MAP SCREENSHOTS - MAY 2019 - 1



VACANT LOT

1511 VAN DUSEN  
(SUBJECT PROPERTY)

1451 VAN DUSEN  
EXISTING 4 STORY RESIDENCE



VAN DUSEN LANE STREETScape ELEVATION 1/8" 2



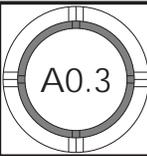
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VETERE-DAVIS RESIDENCE  
NEW SINGLE FAMILY RESIDENCE  
1511 VAN DUSEN LANE, CAMPBELL  
GABRIELLA VETERE AND DERRICK DAVIS



| DATE       | DESCRIPTION                 | STATUS |
|------------|-----------------------------|--------|
| 10.13.2019 | PLANNING PERMIT SUBMITTAL   |        |
| 02.18.2020 | PLANNING PERMIT RESUBMITTAL |        |
|            |                             |        |
|            |                             |        |
|            |                             |        |
|            |                             |        |
|            |                             |        |
|            |                             |        |
|            |                             |        |

STREETScape ELEVATION



FOR PERMIT REVIEW ONLY - NOT FOR CONSTRUCTION



ADJACENT VACANT LOT



EXISTING FRONT OF HOUSE



EXISTING REAR YARD



EXISTING REAR OF HOUSE



1000 S Winchester Blvd  
San Jose, CA 95128  
P: (408) 998-0983

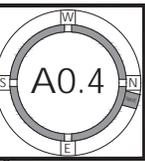
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GABRIELLA VETERE AND DERRICK DAVIS



| REVISION | DATE       | DESCRIPTION                 | BY  | DATE | DESCRIPTION |
|----------|------------|-----------------------------|-----|------|-------------|
| 10001    | 10.31.2019 | PLANNING PERMIT SUBMITTAL   | SJR |      |             |
|          | 02.18.2020 | PLANNING PERMIT RESUBMITTAL | SJR |      |             |
|          |            |                             |     |      |             |
|          |            |                             |     |      |             |
|          |            |                             |     |      |             |

EXISTING SITE PHOTOGRAPHS



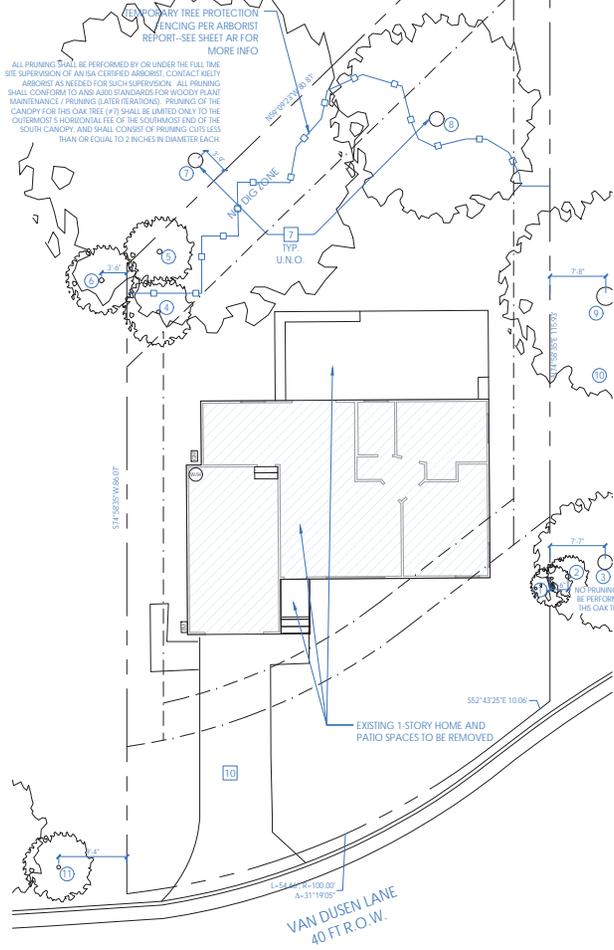
©STUDIO S SQUARED ARCHITECTURE, INC.

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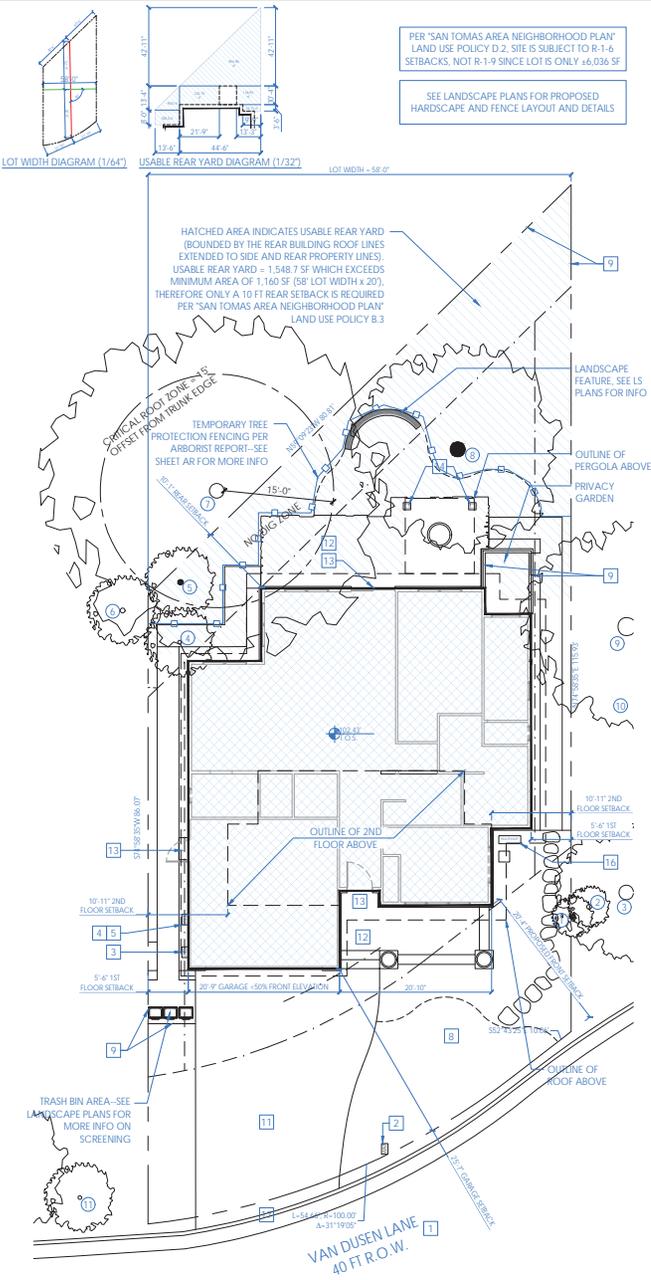
**STANDARDS FOR TREE PROTECTION DURING CONSTRUCTION**

- Construction of a building shall be suspended for preservation shall be protected during development of a property by compliance with the following:
1. Protective fencing shall be installed no closer to the tree than the diameter, and the minimum height shall be 4 feet. The fence shall be constructed of 1/2" x 4" wood posts and 1/2" x 4" wood rails. The fence shall be chain link, without slats or other visibility-reducing material. The fence shall be set back from the tree by a minimum of 10 feet. The fence shall be set back from the tree by a minimum of 10 feet.
  2. The existing grade level around a tree shall remain to be maintained out to the diameter of the tree. All other grades may be approved by the Community Development Department. The existing grade level shall be maintained out to the diameter of the tree.
  3. All trees shall be staked and supported in accordance with instructions provided by the arborist. The stakes shall be installed in accordance with instructions provided by the arborist. The stakes shall be installed in accordance with instructions provided by the arborist.
  4. Trees that have been damaged by construction shall be replaced in accordance with instructions provided by the arborist. The replacement shall be of the same or better species and shall be of the same or better size and condition as the tree that was damaged.
  5. Trees that are to be removed shall be removed in accordance with instructions provided by the arborist. The removal shall be in accordance with instructions provided by the arborist.
  6. No tree shall be removed unless it is dead or dying or unless it is a hazard to the public. The removal shall be in accordance with instructions provided by the arborist.
  7. Any other tree that is damaged by construction shall be replaced in accordance with instructions provided by the arborist. The replacement shall be of the same or better species and shall be of the same or better size and condition as the tree that was damaged.
  8. Any other tree that is damaged by construction shall be replaced in accordance with instructions provided by the arborist. The replacement shall be of the same or better species and shall be of the same or better size and condition as the tree that was damaged.
  9. Any other tree that is damaged by construction shall be replaced in accordance with instructions provided by the arborist. The replacement shall be of the same or better species and shall be of the same or better size and condition as the tree that was damaged.
  10. Any other tree that is damaged by construction shall be replaced in accordance with instructions provided by the arborist. The replacement shall be of the same or better species and shall be of the same or better size and condition as the tree that was damaged.

**TREE PROTECTION**



1 2 4 8 12 Feet DEMO SITE PLAN 1/8" = 1' 2



1 2 4 8 12 Feet SITE PLAN 1/8" = 1' 1

- # = NUMBER TO KEY NOTE BELOW
1. EXISTING PUBLIC RIGHT OF WAY-ANY CONSTRUCTION WITHIN THE CITY RIGHT-OF-WAY MUST HAVE AN APPROVED PERMIT FOR CONSTRUCTION IN THE PUBLIC STREET PRIOR TO THE COMMENCEMENT OF THIS WORK. THE PERFORMANCE OF THIS WORK IS NOT AUTHORIZED BY THE BUILDING PERMIT ISSUANCE BUT SHOWN ON THE BUILDING PERMIT FOR INFORMATION ONLY
  2. (N) WATER METER-CONTRACTOR TO COORDINATE (N) METER WITH LOCAL WATER COMPANY IF REQUIRED BY INCREASED FIXTURE LOAD
  3. (N) GAS METER LOCATION-INSTALL TWO 2" DIAMETER X 30" TALL STEEL PIPE BOLLARDS EMBEDDED IN 2 FT DEEP CONCRETE FOOTINGS IF GAS METER IS WITHIN 3 FEET OF DRIVEWAY
  4. (N) ELECTRICAL METER LOCATION-CONTRACTOR TO COORDINATE WITH LOCAL ELECTRICAL COMPANY FOR UPGRADE (400 AMPS) TO (E) ELECTRICAL SERVICE-INSTALL UFER GROUND CONNECTION PER CEC 250-52
  5. UFER GROUND CONNECTION PER CEC 250-52
  6. (N) 4" SEWER LATERAL-CONTRACTOR TO VERIFY LOCATION IN FIELD-PROVIDE CLEANOUT AT THE POINT OF CONNECTION BETWEEN THE BUILDING SEWER AND THE MUNICIPAL LATERAL. USE AN APPROVED FITTING TO BRING THE CLEANOUT RISER TO GRADE WHERE SEWER CLEANOUTS ARE TO BE CONNECTED TO EXISTING MUNICIPAL LATERALS, SUCH CONNECTIONS SHALL BE ACCOMPLISHED BY USE OF AN APPROVED FITTING
  7. (E) TREE(S) TO REMAIN- PROTECT AS REQUIRED DURING CONSTRUCTION - DO NOT LEAVE MATERIALS OR EQUIPMENT IN ROOT AREAS FOR EXTENDED PERIODS OF TIME. SEE ARBORIST REPORT FOR ADDITIONAL INFORMATION
  8. (N) SOFTSCAPE-PROVIDE DRIP IRRIGATION-SEE LANDSCAPE PLANS FOR MORE INFO
  9. (N) FENCE AND GATE-VERIFY FINAL DESIGN AND FINISH WITH LANDSCAPE ARCHITECT-NEW FENCES TO CONFORM TO JURISDICTION'S FENCE REGULATIONS
  10. (E) DRIVEWAY TO BE REMOVED
  11. (N) DRIVEWAY-SEE LANDSCAPE PLANS FOR LAYOUT AND DETAILS
  12. (N) HARDSCAPE-SLOPE AWAY FROM HOUSE @ 2% MIN.
  13. (N) 36" MIN. DEEP LEVEL LANDING PER CRC 311.3 W STEPS (MAX. 7.75" RISER)- PROVIDE EQUAL RISERS IF MORE THAN 1 STEP
  14. (N) PORCH OR TRELIS COLUMNS
  15. (N) TRELIS ABOVE-SEE DETAIL (SKETCHUP DETAIL ON A3.47)
  16. (N) HEATPUMP UNIT PAD(S)-PROVIDE ELECTRICAL TO THIS LOCATION AS REQUIRED, VERIFY SIZE AND QUANTITY WITH HVAC CONTRACTOR. HEATPUMP UNITS TO COMPLY WITH JURISDICTION'S NOISE ORDINANCE-SEE HVAC PLANS
  17. (N) CURB CUT PER LOCAL JURISDICTION'S STANDARD DETAIL-SEE CIVIL PLANS

**SITE PLAN KEYNOTES**

- PROPERTY LINE-SEE TOPO SURVEY FOR MORE INFO
- REQUIRED YARD SETBACK/EASEMENT
- - - TREE PROTECTION FENCING
- [Hatched Box] EXISTING BUILDING AREA TO BE DEMOLISHED
- [Cross-hatched Box] NEW BUILDING AREA
- [Dotted Box] USABLE REAR YARD AREA TO ALLOW FOR 10 FT REAR SETBACK
- ⊕ APPROXIMATE SPOT ELEVATION, SEE CIVIL DRAWINGS FOR MORE INFO
- ① TREE NUMBER-REFER TO ARBORIST REPORT FOR SPECIES AND OTHER INFO SUCH AS PROTECTION AND EXCAVATION REQUIREMENTS WITHIN ROOT ZONES-ALSO SEE CAMPBELL TREE PROTECTION REQUIREMENTS THIS SHEET

**NOTES:**

1. (E) WATER SUPPLY TO BE REPLACED FROM METER IN
2. (E) SEWER LATERAL TO BE REPLACED FROM PROPERTY LINE IN
3. SEE LANDSCAPE PLANS FOR ALL SITE CONCRETE AND HARDSCAPE LAYOUT AND DETAILS-COORDINATE WITH CIVIL & GEOTECH. REQUIREMENTS
4. SEE LANDSCAPE PLANS FOR ALL FENCE LAYOUT AND DETAILS

**SITE PLAN LEGEND**



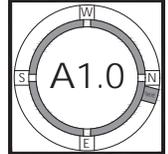
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VETTER-DAVIS RESIDENCE  
NEW SINGLE FAMILY RESIDENCE  
1511 VAN DUSEN LANE, CAMPBELL  
GABRIELLA VETTER AND DERRICK DAVIS

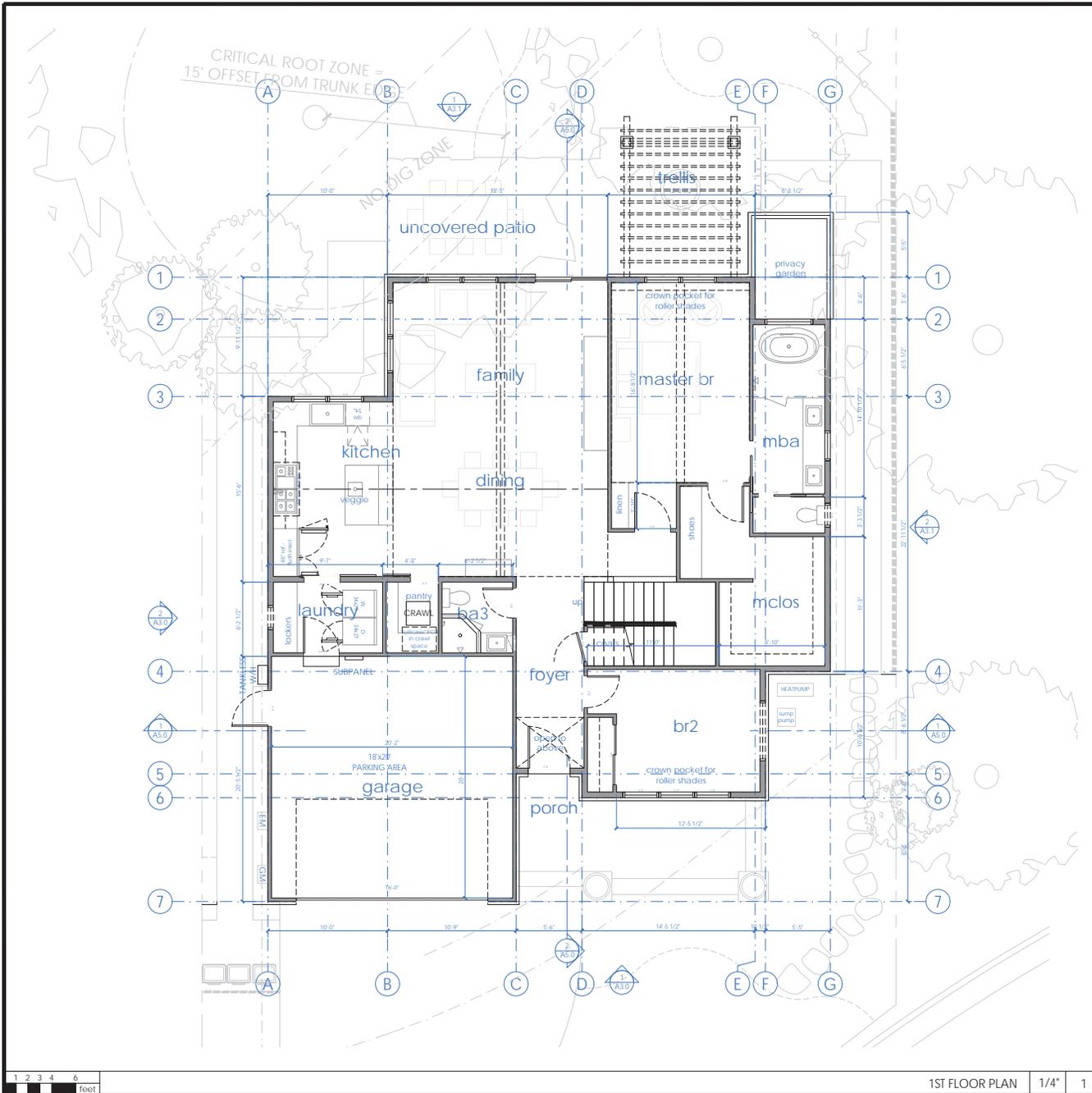


| PROJECT NO. | DESCRIPTION                 | DATE       |
|-------------|-----------------------------|------------|
| 19001       | PLANNING PERMIT SUBMITTAL   | 10.31.2019 |
|             | PLANNING PERMIT RESUBMITTAL | 02.18.2020 |
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SITE PLAN & DEMO SITE PLAN



FOR PERMIT REVIEW ONLY - NOT FOR CONSTRUCTION



- # = NUMBER TO KEY NOTE BELOW
- (N) CONCRETE STEP(S)-10" MIN. TREAD AND MAX. 7" RISER HEIGHT
  - (N) LANDING-MIN. 3" DEEP X WIDTH OF DOOR-MAX. 7-3/4" RISER HEIGHT TO TOP OF THE DOOR THRESHOLD OR DOOR TRACK TO THE EXTERIOR LANDING IN ORDER TO VERIFY COMPLIANCE WITH CRC R311.3.1 OR R311.3.2
  - LINE OF BEAM, SOFFIT AND/OR CROWN MOLDING ABOVE, TYP. SEE ALSO REFLECTED CEILING PLAN
  - STONE VENEER-SEE ELEVATIONS FOR MORE INFO
  - INDICATES PREFAB CLOSET SYSTEM (OWNER PROVIDE/CONTRACTOR INSTALL)
  - INDICATES ROD AND SHELF AT 4'-0" ABOVE T.O.S.-VERIFY HEIGHT WITH OWNER
  - (N) 18" X 24" MIN. CRAWLSPACE ACCESS
  - (N) 22" X 30" MIN. ATTIC ACCESS. ACCESS TO BE LARGE ENOUGH TO ALLOW FOR THE LARGEST PIECE OF EQUIPMENT TO FIT THROUGH
  - (N) WATER HEATER IN GARAGE ON 18" HIGH PLATFORM WITH 4" CONCRETE FILLED STEEL BOLLARD IN FRONT. WATER HEATER TO BE STRAPPED PER PLUMBING GENERAL NOTES ON A0.1a. PROVIDE FOR MAKEUP AIR PER CMC 701.4 INDOOR COMBUSTION AIR-SEE TITLE 24 REPORT FOR APPLIANCE REQUIREMENTS
  - (N) FURNACE IN GARAGE ON 18" HIGH PLATFORM WITH 4" CONCRETE FILLED STEEL BOLLARD IN FRONT. WATER HEATER TO BE STRAPPED PER PLUMBING GENERAL NOTES ON A0.1a. PROVIDE FOR MAKEUP AIR PER CMC 701.4 INDOOR COMBUSTION AIR-SEE TITLE 24 REPORT FOR APPLIANCE REQUIREMENTS AND HVAC PLANS
  - (N) FURNACE IN ATTIC. FIELD VERIFY UNOBSTRUCTED PASSAGEWAY TO FURNACE NOT LESS THAN 30" HIGH AND WIDE WITH SOLID FLOORING. ALSO PROVIDE 30" X 30" PLATFORM AND LIGHT ON SEPARATE SWITCH OVER SERVICE. FURNACE TO BE NO MORE THAN 20' TRAVEL DISTANCE FROM ATTIC ACCESS-SEE TITLE 24 REPORT AND HVAC PLANS FOR APPLIANCE REQUIREMENTS
  - (N) HEATPUMP SYSTEM-SEE MECHANICAL GENERAL NOTES FOR APPLIANCE REQUIREMENTS
  - CUSTOM CABINERY
  - FULL HEIGHT LINEN CABINET WITH KRAFFTMAID OR EQUAL
  - INSTALL MIN. 1/2" GYP.BD SOFFITS AT ENCLOSED ACCT UNDER-STAIR SURFACE, AND ANY SOFFITS AT ENCLOSED ACCT UNDER STAIRS PER CRC 302.7
  - ZURN 2880 OR EQ. 2-1/2" DIA DRAIN, DAYLIGHT AT EDGE OF PATIO (TO SIDEYARD)

- NOTE:
- SEE 2/A0.1 FOR MECHANICAL GENERAL NOTES
  - SEE 3/A0.1 FOR MECHANICAL GENERAL NOTES
  - SEE 4/A0.1 FOR MECHANICAL GENERAL NOTES
  - SEE 5/A0.1 FOR MECHANICAL GENERAL NOTES

| FLOOR PLAN KEYNOTES |  |
|---------------------|--|
|                     | (N) WALL: EXTERIOR: 2x6 STUDS @16" O.C.; INTERIOR 2x4 STUDS @16" O.C.-SEE ELEVATIONS AND STRUCTURAL DRAWINGS FOR EXTERIOR WALL MATERIAL ASSEMBLIES. INSTALL 2 LAYERS OF BUILDING PAPER (FOR STUCCO ONLY) OR 1 LAYER (MIN.) OF WEATHER RESISTIVE BARRIER (TYVEK HOUSE WRAP OR EQ.) OVER EXTERIOR WALLS SHEATHING PER CRC 703.2-INSTALL PER MANUF. INSTRUCTIONS. PROVIDE 5/8" TYPE 'X' GYPSUM BOARD EACH SIDE @ INTERIOR PARTITIONS. PROVIDE CEMENT BOARD OR TILE BACKER BOARD AT SHOWER/TUB LOCATIONS. ALL WALLS TO RECEIVE (N) PAINT FINISH. ALL CEILING AT TUB/SHOWERS TO BE M.R. BOARD |
|                     | (N) EXISTING WALL W/ 1 HOUR SEPARATION-5/8" TYPE 'X' GYP ON GARAGE SIDE FROM FOUNDATION TO ROOF SHEATHING  |
|                     | (N)/(E) STAGGERED STUD ACOUSTICAL WALL PER DETAIL [X/XXX]  |
|                     | DENOTES (N) HOSE BIBB. SEE PLANS FOR NEW LOCATION - INSTALL HOSE BIBBS PER CPC WITH APPROVED ANTI-SIPHON DEVICE. (E) HOSE BIBBS TO REMAIN.   |
|                     | (N) GAS COCK-REFER TO MANUF. SPECS FOR ELECTRICAL AND GAS REQUIREMENTS. PLUMBER TO VERIFY GAS PIPE DIAMETER NEEDED FOR APPLIANCE FROM GAS METER LOCATION   |
|                     | DOOR KEY--SEE A4.0 FOR MORE INFORMATION  |
|                     | WINDOW KEY--SEE A4.0 FOR MORE INFORMATION  |
|                     | FLOOR ELEVATION CHANGE--SEE CIVIL PLANS FOR MORE INFO  |



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VETERE-DAVIS RESIDENCE  
NEW SINGLE FAMILY RESIDENCE  
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GABRIELLA VETERE AND DERRICK DAVIS

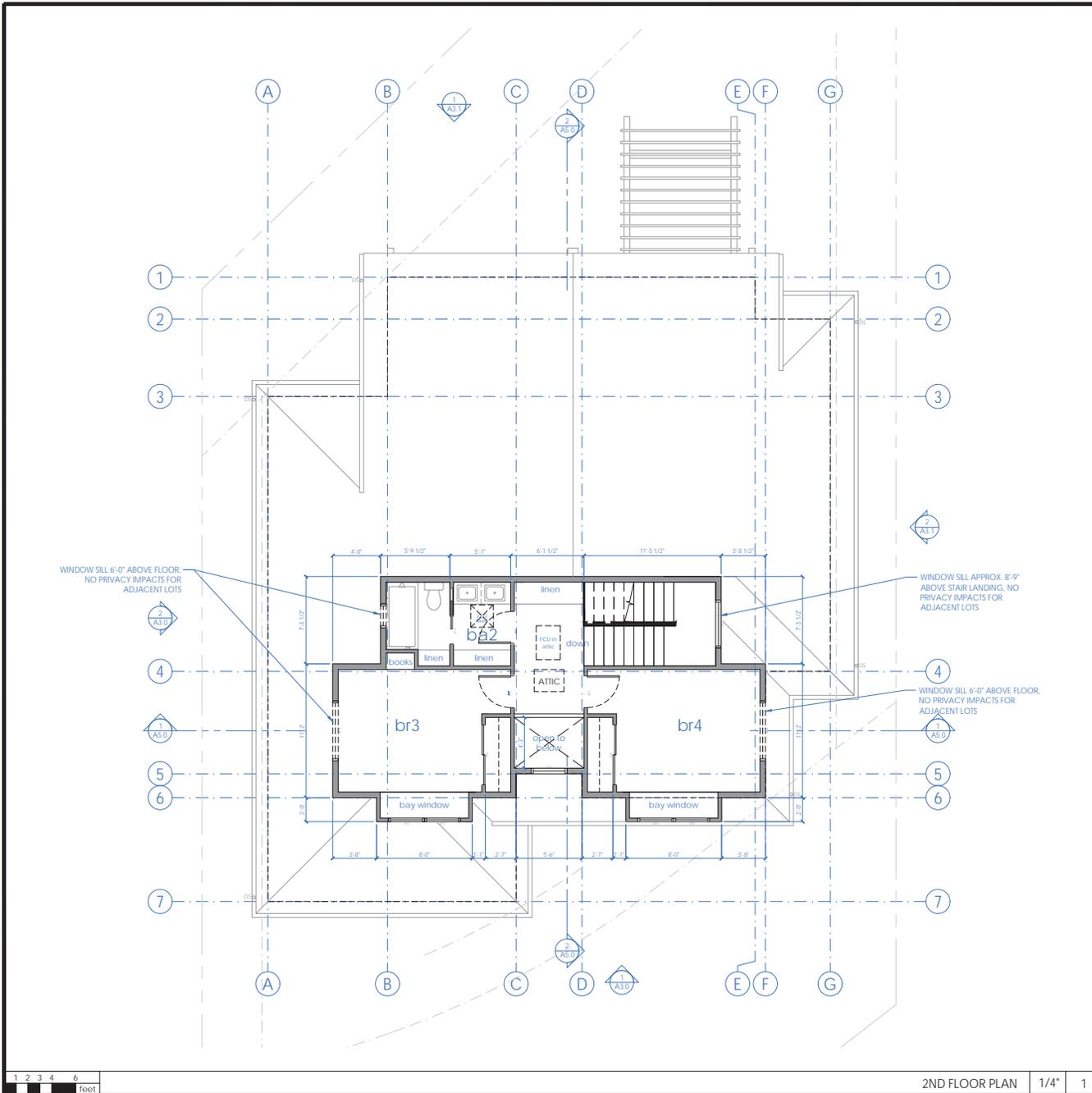


| PROJECT NO. | DESCRIPTION                 | DATE       |
|-------------|-----------------------------|------------|
| 19001       | PLANNING PERMIT SUBMITTAL   | 10.31.2019 |
|             | PLANNING PERMIT RESUBMITTAL | 02.18.2020 |

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1ST FLOOR PLAN

A2.1a



- # = NUMBER TO KEY NOTE BELOW
- (N) CONCRETE STEP(S)--10" MIN. TREAD AND MAX. 7" RISER HEIGHT
  - (N) LANDING--MIN. 3" DEEP x WIDTH OF DOOR--MAX. 7-3/4" RISER HEIGHT TO TOP OF THE DOOR THRESHOLD OR DOOR TRACK TO THE EXTERIOR LANDING IN ORDER TO VERIFY COMPLIANCE WITH CRC R311.3.1 OR R311.3.2
  - LINE OF BEAM, SOFFIT AND/OR CROWN MOLDING ABOVE, TYP. SEE ALSO REFLECTED CEILING PLAN
  - STONE VENEER--SEE ELEVATIONS FOR MORE INFO
  - INDICATES PREFAB CLOSET SYSTEM (OWNER PROVIDE/CONTRACTOR INSTALL)
  - INDICATES ROD AND SHELF AT ±6'-0" ABOVE T.O.S.--VERIFY HEIGHT WITH OWNER
  - (N) 18" X 24" MIN. CRAWLSPACE ACCESS
  - (N) 22" X 30" MIN. ATTIC ACCESS. ACCESS TO BE LARGE ENOUGH TO ALLOW FOR THE LARGEST PIECE OF EQUIPMENT TO FIT THROUGH
  - (N) WATER HEATER IN GARAGE ON 18" HIGH PLATFORM WITH 4" CONCRETE FILLED STEEL BOLLARD IN FRONT. WATER HEATER TO BE STRAPPED PER PLUMBING GENERAL NOTES ON A0.1a. PROVIDE FOR MAKEUP AIR PER CMC 701.4 INDOOR COMBUSTION AIR--SEE TITLE 24 REPORT FOR APPLIANCE REQUIREMENTS
  - (N) FURNACE IN GARAGE ON 18" HIGH PLATFORM WITH 4" CONCRETE FILLED STEEL BOLLARD IN FRONT. PROVIDE UNOBSTRUCTED PASSAGEWAY TO FURNACE NOT LESS THAN 30" HIGH AND WIDE WITH SOLID FLOORING. ALSO PROVIDE 30" X 30" OPENING IN PLATFORM AND LIGHT ON SEPARATE SWITCH OVER SERVICE. FURNACE TO BE NO MORE THAN 20' TRAVEL DISTANCE FROM ATTIC ACCESS--SEE TITLE 24 REPORT AND HVAC PLANS FOR APPLIANCE REQUIREMENTS
  - (N) HEATPUMP SYSTEM--SEE TITLE 24 REPORT AND HVAC PLANS FOR APPLIANCE REQUIREMENTS
  - CUSTOM CABINERY
  - FULL HEIGHT LINEN CABINET WITH KRAFTMAID OR EQUAL
  - INSTALL MIN. 1/2" GYP.BD SOFFITS AT ENCLOSED ACCESS UNDER STAIR SURFACE, AND ANY UNDER STAIRS PER CRC 302.7
  - ZURN Z880 OR EQ. 2-1/2" DIA DRAIN, DAYLIGHT AT EDGE OF PATIO (TO SIDEYARD)

- NOTE:
- SEE 2/A0.1 FOR MECHANICAL GENERAL NOTES
  - SEE 3/A0.1 FOR ELECTRICAL GENERAL NOTES
  - SEE 4/A0.1 FOR PLUMBING GENERAL NOTES
  - SEE 5/A0.1 FOR ARCHITECTURAL AND INTERIOR GENERAL NOTES

FLOOR PLAN KEYNOTES

- (N) WALL: EXTERIOR: 2x6 STUDS @16" O.C.; INTERIOR 2x4 STUDS @16" O.C.--SEE ELEVATIONS AND STRUCTURAL DRAWINGS FOR EXTERIOR WALL MATERIAL ASSEMBLIES. INSTALL 2 LAYERS OF BUILDING PAPER (FOR STUCCO ONLY) OR 1 LAYER (MIN.) OF WEATHER RESISTIVE BARRIER (TYVEK HOUSE WRAP OR EQ.) OVER EXTERIOR WALLS SHEATHING PER CRC 703.2--INSTALL PER MANUF. INSTRUCTIONS. PROVIDE 5/8" TYPE 'X' GYPSUM BOARD EACH SIDE @ INTERIOR PARTITIONS. PROVIDE CEMENT BOARD OR TILE BACKER BOARD AT SHOWER/TUB LOCATIONS. ALL WALLS TO RECEIVE (N) PAINT FINISH. ALL CEILINGS AT TUB/SHOWERS TO BE M.R. BOARD
- (N) EXISTING WALL W/ 1 HOUR SEPARATION--5/8" TYPE 'X' GYP ON GARAGE SIDE FROM FOUNDATION TO ROOF SHEATHING
- (N)/(E) STAGGERED STUD ACOUSTICAL WALL PER DETAIL [X/XXX]
- DENOTES (N) HOSE BIBB. SEE PLANS FOR NEW LOCATION - INSTALL HOSE BIBBS PER CPC WITH APPROVED ANTI-SIPHON DEVICE. (E) HOSE BIBBS TO REMAIN.
- (N) GAS COCK--REFER TO MANUF. SPECS FOR ELECTRICAL AND GAS REQUIREMENTS. PLUMBER TO VERIFY GAS PIPE DIAMETER NEEDED FOR APPLIANCE FROM GAS METER LOCATION
- DOOR KEY--SEE A4.0 FOR MORE INFORMATION
- WINDOW KEY--SEE A4.0 FOR MORE INFORMATION
- FLOOR ELEVATION CHANGE--SEE CIVIL PLANS FOR MORE INFO

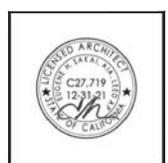
FLOOR PLAN LEGEND



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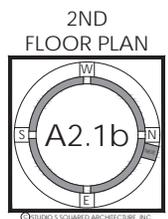
VETERE-DAVIS RESIDENCE  
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1511 VAN DUSEN LANE, CAMPBELL  
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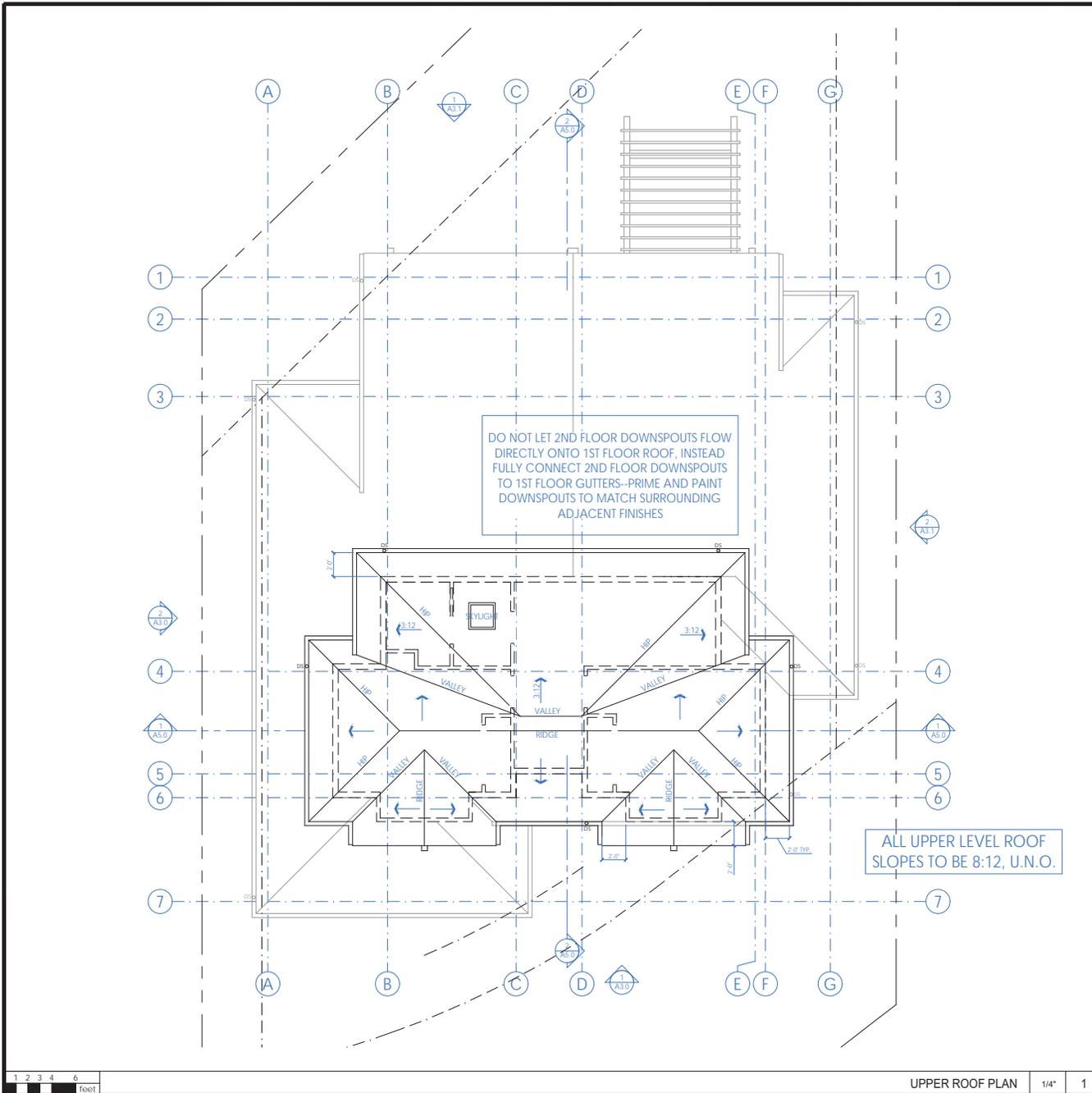


| PROJECT NUMBER | DESCRIPTION               | DATE       | REVISION |
|----------------|---------------------------|------------|----------|
| 190001         | PLANNING PERMIT SUBMITTAL | 10.31.2019 |          |
|                | PLANNING PERMIT SUBMITTAL | 02.18.2020 |          |

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1. INSTALL ALL NEW ROOFING MATERIALS--SEE LEGEND BELOW FOR MATERIALS--CONFIRM COLOR SELECTION W/ OWNER PRIOR TO PLACING ORDER
2. PAINT ALL ROOF PENETRATIONS TO MATCH ROOFING COLOR.
3. PLUMBING VENTS TO BE MIN. 10' AWAY FROM, OR AT LEAST 3' ABOVE ANY OPERABLE WINDOW OR SKYLIGHT PER CPC 906.2.
4. ROUTE PLUMBING VENTS WITHIN ATTIC SPACE SO THAT ROOF PENETRATIONS ARE BEHIND MAIN ROOF RIDGE AND ARE NOT VISIBLE FROM THE STREET
5. FUTURE SOLAR PANELS PER CEC 110.10 (MINIMUM 250 S.F. ON A SOUTH SIDE ORIENTATION). KEEP AREA CLEAR OF ROOFING EYEBROW, MECHANICAL AND PLUMBING VENTS.
6. SEE ROOF PLAN FOR SLOPES
7. PROVIDE (N) GSM ROOF JACKS, TYP. CAULK ALL EXPOSED NAIL HEADS WITH SILICONE SEALANT.
8. PROVIDE (N) GUTTERS AND DOWNSPOUTS AT LOCATIONS SHOWN--GUTTERS TO SLOPE 1:240 FRONT-TO-BACK, BUT TO BE LEVEL SIDE TO SIDE
9. INSTALL KICKOUT FLASHING PER 8/A8.0 WHEREVER GUTTERS TERMINATE AT A WALL
10. ALL PLATE HEIGHTS PER SECTIONS AND RCP. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
11. CONNECT ALL DOWNSPOUTS TO FLEXIBLE PLASTIC DRAINPIPE AND RUN TO A LOCATION SPECIFIED BY CIVIL PLANS

NOTE:

1. SEE 2/A0.1a FOR PLUMBING GENERAL NOTES
2. SEE 3/A0.1a FOR MECHANICAL GENERAL NOTES
3. SEE 4/A0.1a FOR ELECTRICAL GENERAL NOTES
4. SEE 5/A0.1a FOR PLAN AND INTERIOR GENERAL NOTES

ROOF GENERAL NOTES

| PROJECT NO. | DATE       | DESCRIPTION                | OWNER |
|-------------|------------|----------------------------|-------|
| 19001       | 10.31.2019 | PLANNING PERMIT SUBMITTAL  | SZR   |
|             | 02.18.2020 | PLANNING PERMIT RESUBMITAL | SZR   |
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ATTIC VENTILATION CALCULATIONS AND NOTES

ALL ROOFING TO BE ASPHALT COMPOSITION SHINGLES w/ 1 LAYER 15# ROOF FELT (EXCEPT FOR AT ROOF SLOPES BETWEEN 2-4:12. INSTALL 2 LAYERS) PER CRC 905.2.7--MIN. CLASS C--MANUF. CERTAINTED. STYLE: PRESIDENTIAL T. SOLARIS (COOL ROOF). COLOR: SHADOW GRAY. LIFE EXPECTANCY: 30 YEAR MINIMUM--VERIFY FINAL SELECTION WITH OWNER PRIOR TO PLACING ORDER. INSTALL PER MANUF. WARRANTY INSTRUCTIONS AND ICC-ES EVALUATION REPORT #ESR-1389

DS DENOTES GUTTER DRAIN (3" DIA.) AND DOWNSPOUT (2" X 3") 26 GA ALUMINUM - FIELD VERIFY COLOR W/ OWNER. INSTALL PER MFR. INSTRUCTIONS

← DENOTES DIRECTION OF SLOPE FROM HIGH TO LOW--ROOF SLOPE APPROX. REFER TO ELEVATIONS FOR MAX HT AND VERTICAL CONTROL

--- LINE OF BLDG. BELOW

ROOF PLAN LEGEND



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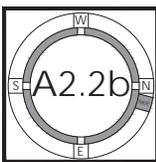
1511 VAN DUSEN LANE, CAMPBELL

GABRIELLA VETERE AND DERRYK DAVIS

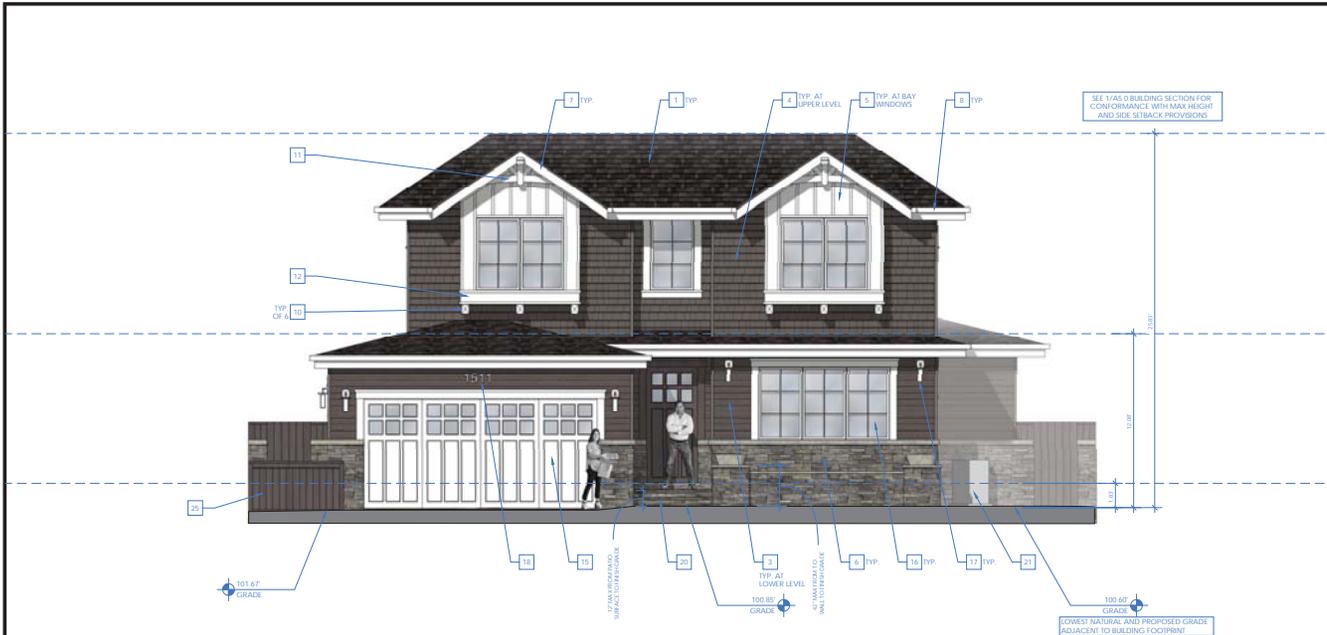


| PROJECT NO. | DATE       | DESCRIPTION                | OWNER |
|-------------|------------|----------------------------|-------|
| 19001       | 10.31.2019 | PLANNING PERMIT SUBMITTAL  | SZR   |
|             | 02.18.2020 | PLANNING PERMIT RESUBMITAL | SZR   |
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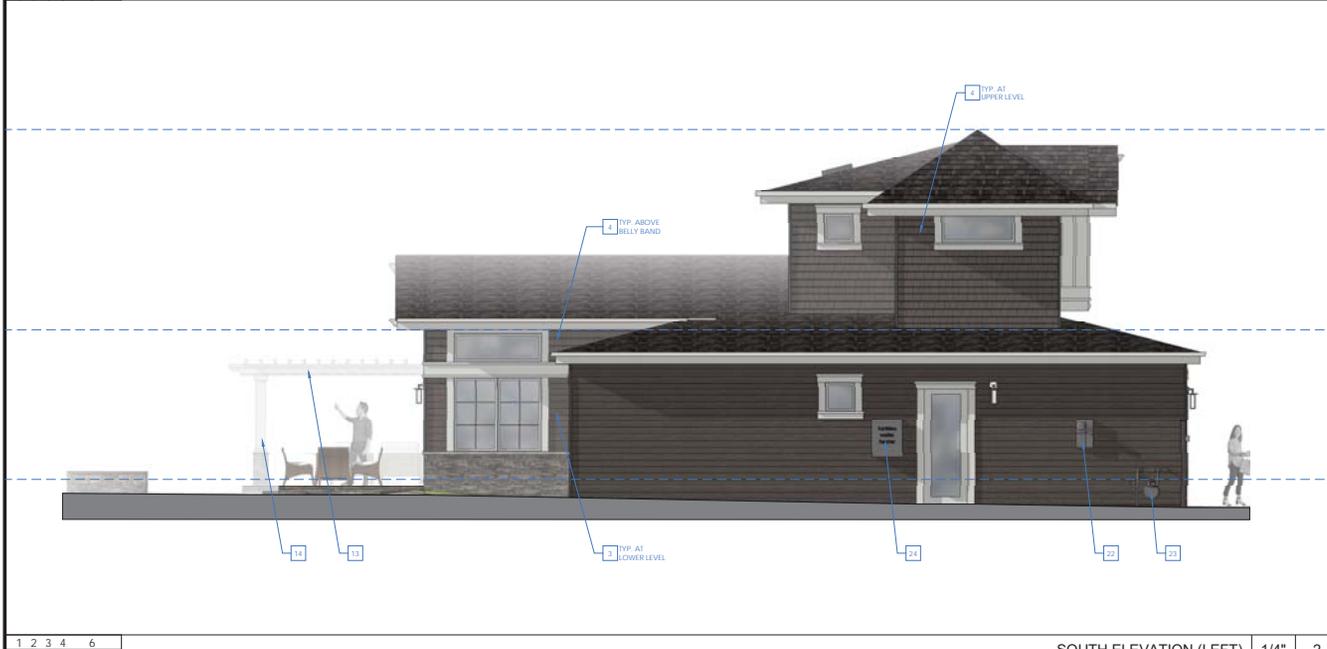
UPPER ROOF PLAN



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1 2 3 4 6 feet EAST ELEVATION (FRONT) 1/4" 1



1 2 3 4 6 feet SOUTH ELEVATION (LEFT) 1/4" 2

- 1 - NUMBER OF KEYNOTE BELOW
- 1 ASPHALT COMP SHINGLE ROOFING--SEE ROOF PLAN FOR MORE INFO
  - 2 SKYLIGHT--SEE WINDOW SCHEDULE FOR MORE INFO
  - 3 FIELD PAINTED FIBER CEMENT LAP SIDING w/ 1 LAYER TYVEK HOUSE WRAP--MANUF. JAMES HARDIE. STYLE: ARTISAN. EXPOSURE: 6 INCHES. STYLE: SMOOTH--www.artisanhwy.com--SEE DETAILS [XXXXX]--SIDING TO CONFORM TO CRC TABLE 703.4--INSTALL PER MANUF. WARRANTY INSTRUCTIONS
  - 4 FIELD PAINTED FIBER CEMENT SHINGLE SIDING w/ 1 LAYER TYVEK HOUSE WRAP--MANUF. JAMES HARDIE. STYLE: STRAIGHT EDGE PANEL. EXPOSURE: 7"--www.jameshardie.com--SEE DETAILS [XXXXX]--SIDING TO CONFORM TO CRC TABLE 703.4--INSTALL PER MANUF. WARRANTY INSTRUCTIONS
  - 5 FIELD PAINTED FIBER CEMENT VERTICAL SIDING w/ 1 LAYER TYVEK HOUSE WRAP--MANUF. JAMES HARDIE. STYLE: SMOOTH--www.jameshardie.com--SEE DETAILS [XXXXX]--SIDING TO CONFORM TO CRC TABLE 703.4--INSTALL PER MANUF. WARRANTY INSTRUCTIONS
  - 6 ADHERED LIGHTWEIGHT STONE VENEER (<15 LBS/SF)--MANUF. ELDORADO STONE. STYLE: CLIFFSTONE. COLOR: BANFF SPRINGS. INSTALLATION STYLE: DRYSTACK. WAJNSCOT SILL OVER STEEL "L" ANGLE. SPLIT EDGE. SILL COLOR: GREY SKY--www.eldoradostone.com--USE POLYMER MODIFIED SETTING MORTAR--INSTALL PER MANUF. INSTRUCTIONS. ICC-ES EVALUATION REPORT ESR-1215, AND M/MMA INSTALLATION GUIDE FOR COMPLIANCE WITH ASTM C1780. CONTACT TERESA VASQUEZ AT BORAL STONE GROUP (415-418-9730; Teresa.Vasquez@boral.com) FOR FIELD REVIEW OF LATH INSTALLATION PRIOR TO INSTALLING SCRATCH COAT. SEAL VENEER WITH SILANE OR SILOXANE BASED MASONRY TREATMENT SUCH AS CRAFTSHIELD PER MANUF. INSTRUCTIONS.
  - 7 PAINTED FIBER CEMENT TRM--2x8 BARGEBOARD AND 1x2 DRIP EDGE
  - 8 PAINTED FIBER CEMENT TRM--2x10 FASCIA WITH 4" SEAMLESS PAINTED SHEET METAL GUTTER--VERIFY GUTTER PROFILE WITH OWNER PRIOR TO FABRICATION--SEE ROOF PLAN FOR MORE INFO
  - 9 PAINTED REDWOOD OR A.Y.C. 6" x 6" SHAPED CORBEL/BRACKET--CUT BARGEBOARD TO FIT TIGHT TO TRIM ELEMENTS
  - 10 PAINTED REDWOOD OR A.Y.C. 6" x 8" SHAPED CORBEL
  - 11 PAINTED REDWOOD OR A.Y.C. CURVED 8" TRIM
  - 12 PAINTED FIBER CEMENT TRM--12" BELLYBAND
  - 13 PAINT GRADE FIBER CEMENT TRELLIS--SEE ROOF PLAN FOR MORE INFO
  - 14 ONE PCE STRAIGHT FIBER GLASS COLUMN, 8" SQUARE BASE, 5'-0" HEIGHT OVER STONE VENEER BASE
  - 15 PAINT GRADE WOOD GARAGE DOOR WITH TEMPERED GLAZING PICTURE WINDOWS--SEE DOOR SCHEDULE FOR MORE INFO
  - 16 WINDOW/DOOR OPENING WITH SIMULATED DIVIDED UNITS. GRIDS ON THE INTERIOR AND EXTERIOR OF THE GLASS AND A SPACER BAR BETWEEN THE PANES OF GLASS--SEE WINDOW AND DOOR SCHEDULES FOR MORE INFO--DOORS AND WINDOWS TO HAVE 6" PAINTED FIBER CEMENT TRM TYPICAL. U.N.O. EXTERIOR LIGHT. INSTALL PER MANUF. INSTRUCTIONS--dwell LED Nest 12" High Bronze LED Outdoor Wall Light, DARK SKY COMPLIANT FIXTURE
  - 18 PM MOUNTED LED ILLUMINATED ADDRESS SIGNAGE. CLEARLY VISIBLE FROM ADJACENT STREET. HEIGHT: 8" STYLE: LUXELLO LED. MODERN NEURHA HOUSE NUMBERS LED BACKLIT. FINISH: ANODIZED--www.surrounding.com/products/luxello--PROVIDE PHOTOSENSOR CONNECTED LED BACKLIGHTING @ EACH NUMBER
  - 19 A VENT--SEE CRAWLSPACE VENT CALCUS ON A2.1 FOR MORE INFO
  - 20 HARDSCAPE--SEE SITE PLAN AND FINISH FLOOR PLAN FOR MORE INFO
  - 21 HEATPUMP--SEE HVAC PLANS FOR MORE INFO--HVAC EQUIPMENT TO BE SCREENED FROM VIEW BY WELL MAINTAINED PLANTINGS; SEE LANDSCAPE PLANS FOR PLANTING DETAIL
  - 22 ELECTRICAL METER--SEE SITE PLAN AND CIVIL PLANS FOR MORE INFO
  - 23 GAS METER--SEE SITE PLAN AND CIVIL PLANS FOR MORE INFO
  - 24 TANKLESS WATER HEATER--SEE FLOOR PLAN A2.1a FOR MORE INFO
  - 25 WASTE/RECYCLING CONTAINERS SCREEN, HEIGHT TO BE AT LEAST AS TALL AS TALLEST CONTAINER--SEE LANDSCAPE PLANS FOR DETAILS

PAINT SCHEDULE:  
SHINGLE SIDING / LAP SIDING: BROWN - BENJAMIN MOORE 2134 20 'MIDSUMMER NIGHT'  
VERTICAL SIDING / TRIM: WHITE - BENJAMIN MOORE OC-68 'DISTANT GRAY'

KEYNOTES - - -

PROJECTIONS

| DATE       | DESCRIPTION                 | BY | CHKD |
|------------|-----------------------------|----|------|
| 10.13.2019 | PLANNING PERMIT SUBMITTAL   |    |      |
| 02.18.2020 | PLANNING PERMIT RESUBMITTAL |    |      |

MANUFACTURED TELEVISIONS

| MANUFACTURER | MODEL | SIZE | SIZE |
|--------------|-------|------|------|
|              |       |      |      |

NOTES:

1. SEE 2/A0.1a FOR PLUMBING GENERAL NOTES
2. SEE 3/A0.1a FOR MECHANICAL GENERAL NOTES
3. SEE 3/A0.1a FOR ELECTRICAL GENERAL NOTES
4. SEE 4/A0.1a FOR PLAN AND INTERIOR GENERAL NOTES
5. EXTERIOR HARDSCAPE AND EXTERIOR STAIRS NOT SHOWN FOR CLARITY--SEE A0.3a FOR 3D MODEL VIEWS

ELEVATION GRID LINE KEY

|   |                                      |
|---|--------------------------------------|
| A | 1ST FLOOR TOP OF STRUCTURE = 102.43' |
| B | 2ND FLOOR TOP OF STRUCTURE = 112.68' |
| C | T.O. HIGHEST ROOF RIDGE = 128.43'    |

ELEVATION GRID LINE KEY - - -



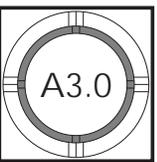
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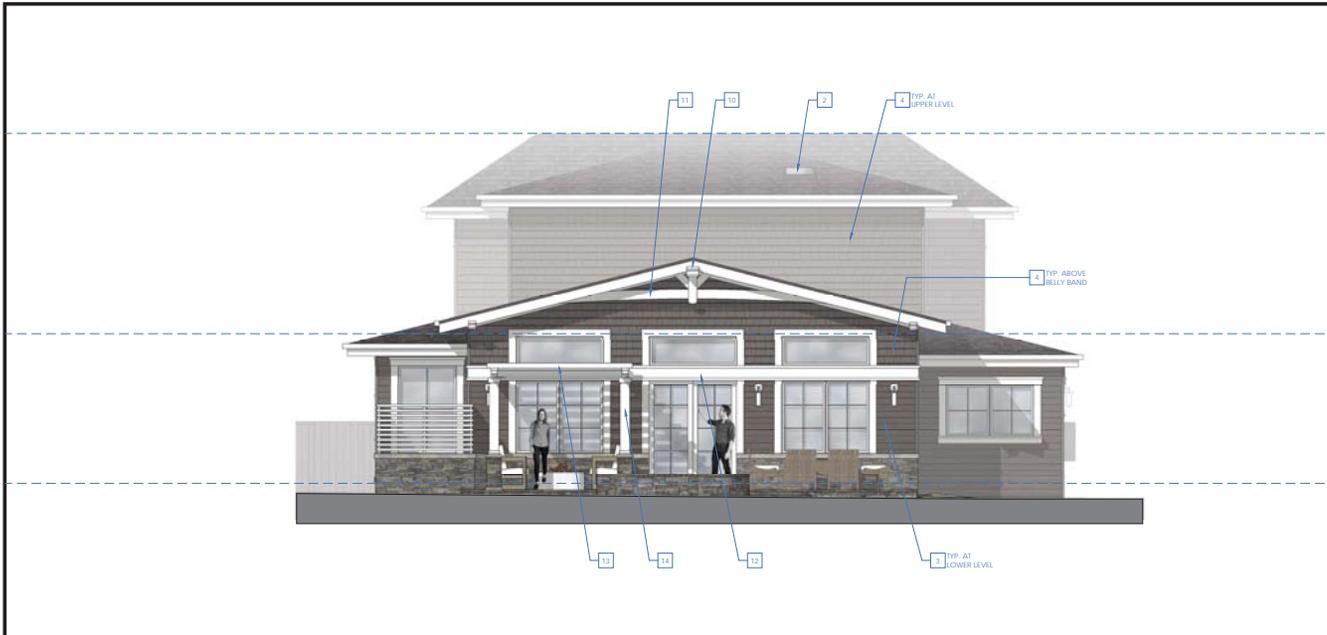


| DATE | DESCRIPTION | BY | CHKD |
|------|-------------|----|------|
|      |             |    |      |

EXTERIOR ELEVATIONS



FOR PERMIT REVIEW ONLY -- NOT FOR CONSTRUCTION



WEST ELEVATION (BACK) 1/4" 1



NORTH ELEVATION (RIGHT) 1/4" 2

- KEYNOTE BELOW
- 1 ASPHALT COMP SHINGLE ROOFING--SEE ROOF PLAN FOR MORE INFO
  - 2 SKYLIGHT--SEE WINDOW SCHEDULE FOR MORE INFO
  - 3 FIELD PAINTED FIBER CEMENT LAP SIDING w/ 1 LAYER TYVEK HOUSE WRAP--MANUF.: JAMES HARDIE; STYLE: ARTISAN; EXPOSURE: 6 INCHES; STYLE: SMOOTH--www.artisanluxury.com--SEE DETAILS [XXXXX]--SIDING TO CONFORM TO CRC TABLE 703.4--INSTALL PER MANUF. WARRANTY INSTRUCTIONS
  - 4 FIELD PAINTED FIBER CEMENT SHINGLE SIDING w/ 1 LAYER TYVEK HOUSE WRAP--MANUF.: JAMES HARDIE; STYLE: STRAIGHT EDGE PANEL; EXPOSURE: 7"--www.jameshardie.com--SEE DETAILS [XXXXX]--SIDING TO CONFORM TO CRC TABLE 703.4--INSTALL PER MANUF. WARRANTY INSTRUCTIONS
  - 5 FIELD PAINTED FIBER CEMENT VERTICAL SIDING w/ 1 LAYER TYVEK HOUSE WRAP--MANUF.: JAMES HARDIE; STYLE: SMOOTH--www.jameshardie.com--SEE DETAILS [XXXXX]--SIDING TO CONFORM TO CRC TABLE 703.4--INSTALL PER MANUF. WARRANTY INSTRUCTIONS
  - 6 ADHERED LIGHTWEIGHT STONE VENEER (<15 LBS/SF)--MANUF.: ELDORADO STONE; STYLE: CLIFFSTONE; COLOR: BANFF SPRINGS; INSTALLATION STYLE: DRYSTACK; WAINGSOT SILL OVER STEEL "L" ANGLE; SPLIT EDGE; SILL COLOR: GREY SKY--www.eldoradostone.com--USE POLYMER MODIFIED SETTING MORTAR--INSTALL PER MANUF. INSTRUCTIONS; ICC-ES EVALUATION REPORT ESR-1215; AND MVMA INSTALLATION GUIDE FOR COMPLIANCE WITH ASTM C1780; CONTACT TERESA VASQUEZ AT BORAL STONE GROUP (415-418-9730; Teresa.Vasquez@boral.com) FOR FIELD REVIEW OF LATH INSTALLATION PRIOR TO INSTALLING SCRATCH COAT; SEAL VENEER WITH SILANE OR SILOXANE BASED MASONRY TREATMENT SUCH AS CRAFTSHIELD PER MANUF. INSTRUCTIONS.
  - 7 PAINTED FIBER CEMENT TRIM--2x8 BARGEBOARD AND 1x2 DRIP EDGE
  - 8 PAINTED FIBER CEMENT TRIM--2x10 FASCIA WITH 4" SEAMLESS PAINTED SHEET METAL GUTTER--VERIFY GUTTER PROFILE WITH OWNER PRIOR TO FABRICATION--SEE ROOF PLAN FOR MORE INFO
  - 9 PAINTED REDWOOD OR A.Y.C. 6" x 6" SHAPED CORBEL/BRACKET--CUT BARGEBOARD TO FIT TIGHT TO TRIM ELEMENTS
  - 10 PAINTED REDWOOD OR A.Y.C. 6" x 8" SHAPED CORBEL
  - 11 PAINTED REDWOOD OR A.Y.C. CURVED 8" TRIM
  - 12 PAINTED FIBER CEMENT TRIM--1 1/2" BELLYBAND
  - 13 PAINT GRADE FIBER CEMENT TRELLIS--SEE ROOF PLAN FOR MORE INFO
  - 14 ONE PIECE STRAIGHT FIBER GLASS COLUMN, 8" SQUARE BASE, 5'-0" HEIGHT OVER STONE VENEER BASE
  - 15 PAINT GRADE WOOD GARAGE DOOR WITH TEMPERED GLAZING PICTURE WINDOWS--SEE DOOR SCHEDULE FOR MORE INFO
  - 16 WINDOW/DOOR OPENING WITH SIMULATED DIVIDED LITES; GRIDS ON THE INTERIOR AND EXTERIOR OF THE GLASS AND A SPACER BAR BETWEEN THE PANE OF GLASS--SEE WINDOW AND DOOR SCHEDULES FOR MORE INFO--DOORS AND WINDOWS TO HAVE 6" PAINTED FIBER CEMENT TRIM TYPICAL, U.N.O. EXTERIOR LIGHT; INSTALL PER MANUF. INSTRUCTIONS--dwellLED Nest 1 1/2" High Bronze LED Outdoor Wall Light, DARK SKY COMPLIANT FIXTURE
  - 17 PIN MOUNTED LED ILLUMINATED ADDRESS SIGNAGE, CLEARLY VISIBLE FROM ADJACENT STREET; HEIGHT: 8" STYLE: LUXELLO LED; MODERN NEUTRA HOUSE NUMBERS LED BACKLIT; FINISH: ANODIZED--www.surrounding.com/products/luxello--PROVIDE PHOTOSENSOR CONNECTED LED BACKLIGHTING @ EACH NUMBER
  - 18 CRAWLSPACE VENT--SEE CRAWLSPACE VENT CALCUS ON A2.1 FOR MORE INFO
  - 19 HARDSCAPE--SEE SITE PLAN AND FINISH FLOOR PLAN FOR MORE INFO
  - 20 HEATPUMP--SEE HVAC PLANS FOR MORE INFO
  - 22 ELECTRICAL METER--SEE SITE PLAN AND CIVIL PLANS FOR MORE INFO
  - 23 GAS METER--SEE SITE PLAN AND CIVIL PLANS FOR MORE INFO

**PAINT SCHEDULE:**  
SHINGLE SIDING / LAP SIDING: BROWN - BENJAMIN MOORE 2134-20 'MIDSUMMER NIGHT'  
VERTICAL SIDING / TRIM: WHITE - BENJAMIN MOORE OC-68 'DISTANT GRAY'

- NOTES:
1. SEE 2/A0.1a FOR PLUMBING GENERAL NOTES
  2. SEE 3/A0.1a FOR MECHANICAL GENERAL NOTES
  3. SEE 3/A0.1a FOR ELECTRICAL GENERAL NOTES
  4. SEE 4/A0.1a FOR PLAN AND INTERIOR GENERAL NOTES
  5. EXTERIOR HARDSCAPE AND EXTERIOR STAIRS NOT SHOWN FOR CLARITY--SEE A0.3a FOR 3D MODEL VIEWS

KEYNOTES - -

ELEVATION GRID LINE KEY  
A 1ST FLOOR TOP OF STRUCTURE = 102.43'  
B 2ND FLOOR TOP OF STRUCTURE = 112.68'  
C T.O. HIGHEST ROOF RIDGE = 128.43'

ELEVATION GRID LINE KEY - -



1000 S. Winchester Blvd  
San Jose, CA 95128  
P : (408) 998 - 0983

VETERE-DAVIS RESIDENCE  
NEW SINGLE FAMILY RESIDENCE

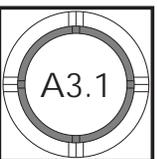
1511 VAN DUSEN LANE, CAMPBELL

GABRIELLA VETTER AND DERRICK DAVIS



| DATE       | DESCRIPTION                 | REVISION | DATE | DESCRIPTION |
|------------|-----------------------------|----------|------|-------------|
| 10.13.2019 | PLANNING PERMIT SUBMITTAL   |          |      |             |
| 02.18.2020 | PLANNING PERMIT RESUBMITTAL |          |      |             |

EXTERIOR ELEVATIONS



FOR PERMIT REVIEW ONLY -- NOT FOR CONSTRUCTION



EXTERIOR PERSPECTIVE BACK - 4



EXTERIOR PERSPECTIVE FRONT - 1



EXTERIOR PERSPECTIVE BACK LEFT - 5



EXTERIOR PERSPECTIVE FRONT LEFT - 2



EXTERIOR PERSPECTIVE BACK RIGHT - 6



EXTERIOR PERSPECTIVE FRONT RIGHT - 3

LANDSCAPING SHOWN THIS SHEET IS DIAGRAMMATIC ONLY. SEE LANDSCAPE PLANS FOR ACTUAL PLANTING AND LAYOUT



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San Jose, CA 95128  
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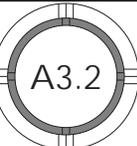
1511 VAN DUSEN LANE, CAMPBELL  
GABRIELLA VETERE AND DERRICK DAVIS

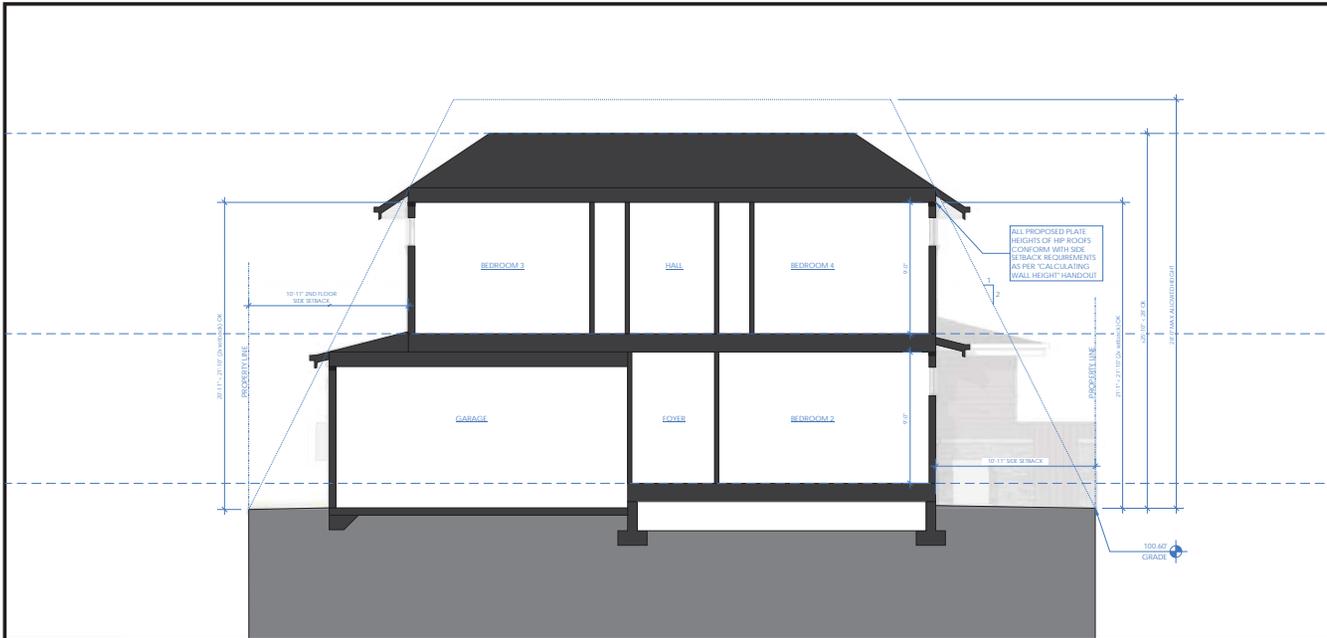


| REVISION | DATE       | DESCRIPTION                 | APPROVED |
|----------|------------|-----------------------------|----------|
|          | 10.13.2019 | PLANNING PERMIT SUBMITTAL   |          |
|          | 02.18.2020 | PLANNING PERMIT RESUBMITTAL |          |
|          |            |                             |          |
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|          |            |                             |          |

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EXTERIOR PERSPECTIVES





SECTION 1 1/4" 1



SECTION 2 1/4" 2

1 - NUMBER OF KEYNOTE BELOW

- 1 (N) OR (E) ROOF FRAMING OR TRUSS PACKAGE WITH PLYWOOD SHEATHING WITH RADIANT BARRIER-SEE STRUCTURAL PLANS FOR MORE INFO. INSTALL INSULATION PER BID INSTRUCTIONS AND T24 REPORT
- 2 (N) OR (E) PLYWOOD SHEATHING WITH RADIANT BARRIER-SEE STRUCTURAL PLANS FOR MORE INFO
- 3 SKYLIGHT-SEE ROOF PLAN AND WINDOW SCHEDULE FOR MORE INFO--CONTRACTOR TO USE SHARPED FRAMING MEMBERS TO ENSURE THE SKYLIGHT SHAFT HAS NO JOGS OR ANGLES THAT ARE NOT SHOWN IN PLANS
- 4 (N) OR (E) 2x4 OR 2x4 EXTERIOR WALL STUDS @16" O.C. U.N.O.-SEE FLOOR PLAN FOR MORE INFO. INSTALL INSULATION PER BID INSTRUCTIONS AND T24 REPORT
- 5 (N) OR (E) 2x4 INTERIOR WALL STUDS @16" O.C. U.N.O.
- 6 5/8" GYPSUM WALL BOARD ON WALLS AND CEILING, TYPICAL THROUGHOUT, U.N.O.
- 7 5/8" TYPE 'X' GYPSUM BOARD ON WALLS AND CEILING IN GARAGE, FIRE TAPED. APPLY 2 LAYERS OF GYPSUM BOARD WHERE FRAMING IS @24" O.C.
- 8 TRAY CEILING-SEE REFLECTED CEILING PLAN FOR MORE INFO
- 9 (N) OR (E) FLOOR/CEILING FRAMING WITH PLYWOOD SHEATHING-SEE STRUCTURAL PLANS FOR MORE INFO
- 10 (N) OR (E) FLOOR FRAMING WITH PLYWOOD SHEATHING-SEE STRUCTURAL PLANS FOR MORE INFO. INSTALL CRAWLSPACE INSULATION PER BID INSTRUCTIONS AND T24 REPORT
- 11 (N) OR (E) CONCRETE SLAB-SEE STRUCTURAL PLANS FOR MORE INFO
- 12 DIAGRAMMATIC REPRESENTATION OF (N) OR (E) CONCRETE FOUNDATION-SEE STRUCTURAL PLANS FOR MORE INFO
- 13 18" MIN. CLEAR CRAWLSPACE
- 14 CLASS 1 VAPOR BARRIER OVER GROUND SURFACE / UNDER 3" RAT SLAB WITH REINFORCING MESH IN CRAWLSPACE

NOTES:

1. SEE 2/A0.1a FOR PLUMBING GENERAL NOTES
2. SEE 3/A0.1a FOR MECHANICAL GENERAL NOTES
3. SEE 3/A0.1a FOR ELECTRICAL GENERAL NOTES
4. SEE 4/A0.1a FOR PLAN AND INTERIOR GENERAL NOTES
5. SEE BID INSTRUCTIONS FOR INSULATION VALUES. INSULATION TO BE NOT LESS THAN AS INDICATED IN T24 REPORT

KEYNOTES - -

ELEVATION GRID LINE KEY  
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 B 2ND FLOOR TOP OF STRUCTURE = 112.68'  
 C T.O. HIGHEST ROOF RIDGE = 128.43'

ELEVATION GRID LINE KEY - -



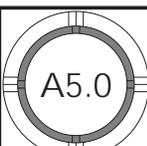
1000 S. Winchester Blvd  
 San Jose, CA 95128  
 P : (408) 998 - 0983

VETERE-DAVIS RESIDENCE  
 NEW SINGLE FAMILY RESIDENCE  
 1511 VAN DUSEN LANE, CAMPBELL  
 GABRIELLA VETERE AND DERRICK DAVIS



| DATE       | DESCRIPTION                 | BY | CHKD |
|------------|-----------------------------|----|------|
| 10.13.2019 | PLANNING PERMIT SUBMITTAL   |    |      |
| 02.18.2020 | PLANNING PERMIT RESUBMITTAL |    |      |

SECTIONS



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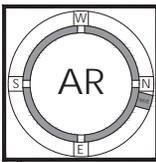
1000 S Winchester Blvd  
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VETERE-DAVIS RESIDENCE  
NEW SINGLE FAMILY RESIDENCE  
1511 VAN DUSEN LANE, CAMPBELL  
GABRIELLA VETERE AND DERRICK DAVIS



|             |                           |
|-------------|---------------------------|
| PROJECT NO. | 19001                     |
| DATE        | 02/18/2020                |
| DESCRIPTION | PLANNING PERMIT SUBMITTAL |
| DATE        | 10/31/2019                |
| DESCRIPTION | PLANNING PERMIT SUBMITTAL |
| DATE        | 02/18/2020                |
| DESCRIPTION | PLANNING PERMIT SUBMITTAL |

ARBORIST REPORT



STUDIO S SQUARED ARCHITECTURE, INC.

FOR PERMIT REVIEW ONLY - NOT FOR CONSTRUCTION

| <p><b>Kieley Arborist Services LLC</b><br/>Certified Arborist WE0476A<br/>P.O. Box 6187<br/>San Mateo, CA 94401<br/>650-515-9783</p> <p>July 9, 2019</p> <p>Derrick Davis<br/>derrykdv@gmail.com<br/>Site: 1511 Van Dusen Lane, Campbell, CA</p> <p>Dear Mr. Davis,</p> <p>As requested on Wednesday, April 3, 2019, I visited the above site for the purpose of inspecting and commenting on the trees. A new two-story home is being designed for this site and your concern as to the future health and safety of the trees has prompted this visit. A schematic design was reviewed with recommendations to be given. Once more plans are available, they should be sent to the Project Arborist for review.</p> <p><b>Method:</b><br/>All inspections were made from the ground; the trees were not climbed for this inspection. The trees in question were located on an existing topography map provided by you. The trees were then measured for diameter at 48 inches above ground level (DBH or diameter at breast height). The trees were given a condition rating for form and vitality. The tree condition rating is based on 50 percent vitality and 50 percent form, using the following scale:</p> <table border="1"> <tr><td>1 - 29</td><td>Very Poor</td></tr> <tr><td>30 - 49</td><td>Poor</td></tr> <tr><td>50 - 69</td><td>Fair</td></tr> <tr><td>70 - 89</td><td>Good</td></tr> <tr><td>90 - 100</td><td>Excellent</td></tr> </table> <p>The height of the trees were measured using a Nikon Forestry 550 Hypsometer. The spread was paced off. Comments and recommendations for future maintenance are provided.</p> | 1 - 29   | Very Poor  | 30 - 49   | Poor  | 50 - 69  | Fair | 70 - 89 | Good | 90 - 100 | Excellent | <p>1511 Van Dusen 7/9/19 (2)</p> <p>Survey:</p> <table border="1"> <thead> <tr> <th>Tree#</th> <th>Species</th> <th>DBH</th> <th>CON</th> <th>HT/SP</th> <th>Comments</th> </tr> </thead> <tbody> <tr> <td>1*</td> <td>Leyland cypress<br/>(<i>Scoparius nypsis a leylandii</i>)</td> <td>7.1</td> <td>50</td> <td>2010</td> <td>Fair vigor, fair to poor form, suppressed.</td> </tr> <tr> <td>2*</td> <td>Almond<br/>(<i>Prunus dulcis</i>)</td> <td>8eet</td> <td>40</td> <td>1510</td> <td>Poor vigor, poor form, suppressed.</td> </tr> <tr> <td>3*</td> <td>Coast live oak<br/>(<i>Quercus agrifolia</i>)</td> <td>20eet</td> <td>80</td> <td>4630</td> <td>Good vigor, good form.</td> </tr> <tr> <td>4</td> <td>Chinese pistache<br/>(<i>Pistacia chinensis</i>)</td> <td>4.4</td> <td>50</td> <td>2012</td> <td>Fair vigor, fair form, suppressed, codominant at grade.</td> </tr> <tr> <td>5</td> <td>Coast live oak<br/>(<i>Quercus agrifolia</i>)</td> <td>8.0</td> <td>50</td> <td>1510</td> <td>Fair vigor, fair form, suppressed.</td> </tr> <tr> <td>6*</td> <td>Coast live oak<br/>(<i>Quercus agrifolia</i>)</td> <td>8.0</td> <td>70</td> <td>2512</td> <td>Good vigor, fair form, suppressed.</td> </tr> <tr> <td>7*</td> <td>Valley oak<br/>(<i>Quercus lobata</i>)</td> <td>24eet</td> <td>80</td> <td>5045</td> <td>Good vigor, good form, aesthetically pleasing.</td> </tr> <tr> <td>8*</td> <td>Incense cedar<br/>(<i>Calocedrus decurrens</i>)</td> <td>19.5</td> <td>70</td> <td>5012</td> <td>Good vigor, good form, good screen.</td> </tr> <tr> <td>9**</td> <td>Incense cedar<br/>(<i>Calocedrus decurrens</i>)</td> <td>30eet</td> <td>65</td> <td>5015</td> <td>Fair vigor, fair form, minor canker caused die back.</td> </tr> <tr> <td>10**</td> <td>Incense cedar<br/>(<i>Calocedrus decurrens</i>)</td> <td>20eet</td> <td>40</td> <td>5012</td> <td>Fair vigor, fair form, in decline, large amounts of dead wood from canker.</td> </tr> <tr> <td>11*</td> <td>Crape myrtle<br/>(<i>Lagerströmia sp.</i>)</td> <td>4.0eet</td> <td>50</td> <td>83</td> <td>Fair vigor, poor form, topped.</td> </tr> </tbody> </table> <p>* indicates neighbors tree P-indicates protected tree by city ordinance (12 inches or larger)<br/>B-indicates tree proposed for removal for facilitate construction</p> | Tree# | Species | DBH | CON | HT/SP | Comments | 1* | Leyland cypress<br>( <i>Scoparius nypsis a leylandii</i> ) | 7.1 | 50 | 2010 | Fair vigor, fair to poor form, suppressed. | 2* | Almond<br>( <i>Prunus dulcis</i> ) | 8eet | 40 | 1510 | Poor vigor, poor form, suppressed. | 3* | Coast live oak<br>( <i>Quercus agrifolia</i> ) | 20eet | 80 | 4630 | Good vigor, good form. | 4 | Chinese pistache<br>( <i>Pistacia chinensis</i> ) | 4.4 | 50 | 2012 | Fair vigor, fair form, suppressed, codominant at grade. | 5 | Coast live oak<br>( <i>Quercus agrifolia</i> ) | 8.0 | 50 | 1510 | Fair vigor, fair form, suppressed. | 6* | Coast live oak<br>( <i>Quercus agrifolia</i> ) | 8.0 | 70 | 2512 | Good vigor, fair form, suppressed. | 7* | Valley oak<br>( <i>Quercus lobata</i> ) | 24eet | 80 | 5045 | Good vigor, good form, aesthetically pleasing. | 8* | Incense cedar<br>( <i>Calocedrus decurrens</i> ) | 19.5 | 70 | 5012 | Good vigor, good form, good screen. | 9** | Incense cedar<br>( <i>Calocedrus decurrens</i> ) | 30eet | 65 | 5015 | Fair vigor, fair form, minor canker caused die back. | 10** | Incense cedar<br>( <i>Calocedrus decurrens</i> ) | 20eet | 40 | 5012 | Fair vigor, fair form, in decline, large amounts of dead wood from canker. | 11* | Crape myrtle<br>( <i>Lagerströmia sp.</i> ) | 4.0eet | 50 | 83 | Fair vigor, poor form, topped. | <p>1511 Van Dusen 7/9/19 (3)</p> <p><b>Summary:</b><br/>A mix of imported and native trees were surveyed on this property. All trees with a condition rating under 50 are considered poor trees and should receive mitigations if possible to increase the tree condition ratings. Trees #1-3 are located on the neighbor's property to the north. Almond tree #2 is in decline due to growing within the suppressed conditions. The neighbor's oak tree #3 is a protected tree. No impacts are expected for these trees as they are a good distance away from the proposed construction. The proposed home and existing home near these trees are near the same location. Property line fencing during construction will act as tree protection for these trees.</p> <p>Trees #4-7 are located within the south western corner of the property. Trees #6 &amp; 7 are located outside of the property line. Valley oak tree #7 is the only protected tree in this area. Tree protection fencing will need to be placed 3 feet from the proposed foundation when underneath the drip-line of the tree in order to allow for access. The foundation is recommended to be excavated carefully by hand when within 24 feet from valley oak tree #7. All encountered roots must be clearly cut using loppers or a hand saw while under the Project Arborist supervision. The proposed foundation is a good distance away from the tree. Impacts are expected to be minor to non-existent. Depending on the number and size of roots disturbed, minor irrigation at the foundation may be needed. No turf or high irrigation plants shall be planted underneath the canopy of the native oak trees surveyed.</p>  <p>Showing valley oak tree #7</p> | <p>1511 Van Dusen 7/9/19 (4)</p> <p>Incense cedar tree #8 is located in the north western corner of the property and is in good condition. The client would like to know how close to the tree they could build. The trunk formula method for determining the tree protection zone radius, as seen in "Best Management Practices, Managing Trees During Construction", was used to determine a distance away from the tree where a foundation could be built. This method takes into consideration the species tolerance to construction damage and the tree's relative age. Incense cedar trees have a moderate tolerance to construction damage. The tree is relatively young for the species. After taking into consideration the age and construction tolerance of the tree, the tree was given a tree protection zone multiplication factor of 8. To then figure out the tree protection zone radius, the diameter of the tree is then multiplied by 8 and divided by 12 to get a tree protection zone radius of 13 feet from the tree. With the proposed foundation being a minimum of 13 feet from this tree, impacts are expected to be minor to non-existent. Tree protection fencing must be placed as close as possible to the proposed foundation while still allowing for construction to safely continue. It is recommended the hand dig the foundation when within 20 feet from the tree. All encountered roots are recommended to be clearly cut. Irrigation for this tree is recommended to take place twice a month during the dry season. The area within 20 feet of the tree is recommended to be irrigated until the top foot of soil is saturated. This will keep the tree in good health. It is recommended to have the Project Arborist on site during the foundation excavation near this tree.</p>  <p>Showing cedar tree #8</p> |
|---|--|--|---|-------|--|------|---------|------|----------|-----------|---|-------|---------|-----|-----|-------|----------|----|--|-----|----|------|--|----|------------------------------------|------|----|------|------------------------------------|----|--|-------|----|------|------------------------|---|---|-----|----|------|---|---|--|-----|----|------|------------------------------------|----|--|-----|----|------|------------------------------------|----|---|-------|----|------|--|----|--|------|----|------|-------------------------------------|-----|--|-------|----|------|--|------|--|-------|----|------|--|-----|---|--------|----|----|--------------------------------|--|---|
| 1 - 29  | Very Poor  |  |   |       |  |      |         |      |          |           |   |       |         |     |     |       |          |    |  |     |    |      |  |    |                                    |      |    |      |                                    |    |  |       |    |      |                        |   |   |     |    |      |   |   |  |     |    |      |                                    |    |  |     |    |      |                                    |    |   |       |    |      |  |    |  |      |    |      |                                     |     |  |       |    |      |  |      |  |       |    |      |  |     |   |        |    |    |                                |  |   |
| 30 - 49   | Poor   |  |   |       |  |      |         |      |          |           |   |       |         |     |     |       |          |    |  |     |    |      |  |    |                                    |      |    |      |                                    |    |  |       |    |      |                        |   |   |     |    |      |   |   |  |     |    |      |                                    |    |  |     |    |      |                                    |    |   |       |    |      |  |    |  |      |    |      |                                     |     |  |       |    |      |  |      |  |       |    |      |  |     |   |        |    |    |                                |  |   |
| 50 - 69   | Fair   |  |   |       |  |      |         |      |          |           |   |       |         |     |     |       |          |    |  |     |    |      |  |    |                                    |      |    |      |                                    |    |  |       |    |      |                        |   |   |     |    |      |   |   |  |     |    |      |                                    |    |  |     |    |      |                                    |    |   |       |    |      |  |    |  |      |    |      |                                     |     |  |       |    |      |  |      |  |       |    |      |  |     |   |        |    |    |                                |  |   |
| 70 - 89   | Good   |  |   |       |  |      |         |      |          |           |   |       |         |     |     |       |          |    |  |     |    |      |  |    |                                    |      |    |      |                                    |    |  |       |    |      |                        |   |   |     |    |      |   |   |  |     |    |      |                                    |    |  |     |    |      |                                    |    |   |       |    |      |  |    |  |      |    |      |                                     |     |  |       |    |      |  |      |  |       |    |      |  |     |   |        |    |    |                                |  |   |
| 90 - 100  | Excellent  |  |   |       |  |      |         |      |          |           |   |       |         |     |     |       |          |    |  |     |    |      |  |    |                                    |      |    |      |                                    |    |  |       |    |      |                        |   |   |     |    |      |   |   |  |     |    |      |                                    |    |  |     |    |      |                                    |    |   |       |    |      |  |    |  |      |    |      |                                     |     |  |       |    |      |  |      |  |       |    |      |  |     |   |        |    |    |                                |  |   |
| Tree#   | Species  | DBH  | CON   | HT/SP | Comments   |      |         |      |          |           |   |       |         |     |     |       |          |    |  |     |    |      |  |    |                                    |      |    |      |                                    |    |  |       |    |      |                        |   |   |     |    |      |   |   |  |     |    |      |                                    |    |  |     |    |      |                                    |    |   |       |    |      |  |    |  |      |    |      |                                     |     |  |       |    |      |  |      |  |       |    |      |  |     |   |        |    |    |                                |  |   |
| 1*  | Leyland cypress<br>( <i>Scoparius nypsis a leylandii</i> )   | 7.1  | 50  | 2010  | Fair vigor, fair to poor form, suppressed.                                 |      |         |      |          |           |   |       |         |     |     |       |          |    |  |     |    |      |  |    |                                    |      |    |      |                                    |    |  |       |    |      |                        |   |   |     |    |      |   |   |  |     |    |      |                                    |    |  |     |    |      |                                    |    |   |       |    |      |  |    |  |      |    |      |                                     |     |  |       |    |      |  |      |  |       |    |      |  |     |   |        |    |    |                                |  |   |
| 2*  | Almond<br>( <i>Prunus dulcis</i> )   | 8eet   | 40  | 1510  | Poor vigor, poor form, suppressed.   |      |         |      |          |           |   |       |         |     |     |       |          |    |  |     |    |      |  |    |                                    |      |    |      |                                    |    |  |       |    |      |                        |   |   |     |    |      |   |   |  |     |    |      |                                    |    |  |     |    |      |                                    |    |   |       |    |      |  |    |  |      |    |      |                                     |     |  |       |    |      |  |      |  |       |    |      |  |     |   |        |    |    |                                |  |   |
| 3*  | Coast live oak<br>( <i>Quercus agrifolia</i> )   | 20eet  | 80  | 4630  | Good vigor, good form.   |      |         |      |          |           |   |       |         |     |     |       |          |    |  |     |    |      |  |    |                                    |      |    |      |                                    |    |  |       |    |      |                        |   |   |     |    |      |   |   |  |     |    |      |                                    |    |  |     |    |      |                                    |    |   |       |    |      |  |    |  |      |    |      |                                     |     |  |       |    |      |  |      |  |       |    |      |  |     |   |        |    |    |                                |  |   |
| 4   | Chinese pistache<br>( <i>Pistacia chinensis</i> )  | 4.4  | 50  | 2012  | Fair vigor, fair form, suppressed, codominant at grade.                    |      |         |      |          |           |   |       |         |     |     |       |          |    |  |     |    |      |  |    |                                    |      |    |      |                                    |    |  |       |    |      |                        |   |   |     |    |      |   |   |  |     |    |      |                                    |    |  |     |    |      |                                    |    |   |       |    |      |  |    |  |      |    |      |                                     |     |  |       |    |      |  |      |  |       |    |      |  |     |   |        |    |    |                                |  |   |
| 5   | Coast live oak<br>( <i>Quercus agrifolia</i> )   | 8.0  | 50  | 1510  | Fair vigor, fair form, suppressed.   |      |         |      |          |           |   |       |         |     |     |       |          |    |  |     |    |      |  |    |                                    |      |    |      |                                    |    |  |       |    |      |                        |   |   |     |    |      |   |   |  |     |    |      |                                    |    |  |     |    |      |                                    |    |   |       |    |      |  |    |  |      |    |      |                                     |     |  |       |    |      |  |      |  |       |    |      |  |     |   |        |    |    |                                |  |   |
| 6*  | Coast live oak<br>( <i>Quercus agrifolia</i> )   | 8.0  | 70  | 2512  | Good vigor, fair form, suppressed.   |      |         |      |          |           |   |       |         |     |     |       |          |    |  |     |    |      |  |    |                                    |      |    |      |                                    |    |  |       |    |      |                        |   |   |     |    |      |   |   |  |     |    |      |                                    |    |  |     |    |      |                                    |    |   |       |    |      |  |    |  |      |    |      |                                     |     |  |       |    |      |  |      |  |       |    |      |  |     |   |        |    |    |                                |  |   |
| 7*  | Valley oak<br>( <i>Quercus lobata</i> )  | 24eet  | 80  | 5045  | Good vigor, good form, aesthetically pleasing.                             |      |         |      |          |           |   |       |         |     |     |       |          |    |  |     |    |      |  |    |                                    |      |    |      |                                    |    |  |       |    |      |                        |   |   |     |    |      |   |   |  |     |    |      |                                    |    |  |     |    |      |                                    |    |   |       |    |      |  |    |  |      |    |      |                                     |     |  |       |    |      |  |      |  |       |    |      |  |     |   |        |    |    |                                |  |   |
| 8*  | Incense cedar<br>( <i>Calocedrus decurrens</i> )   | 19.5   | 70  | 5012  | Good vigor, good form, good screen.  |      |         |      |          |           |   |       |         |     |     |       |          |    |  |     |    |      |  |    |                                    |      |    |      |                                    |    |  |       |    |      |                        |   |   |     |    |      |   |   |  |     |    |      |                                    |    |  |     |    |      |                                    |    |   |       |    |      |  |    |  |      |    |      |                                     |     |  |       |    |      |  |      |  |       |    |      |  |     |   |        |    |    |                                |  |   |
| 9**   | Incense cedar<br>( <i>Calocedrus decurrens</i> )   | 30eet  | 65  | 5015  | Fair vigor, fair form, minor canker caused die back.                       |      |         |      |          |           |   |       |         |     |     |       |          |    |  |     |    |      |  |    |                                    |      |    |      |                                    |    |  |       |    |      |                        |   |   |     |    |      |   |   |  |     |    |      |                                    |    |  |     |    |      |                                    |    |   |       |    |      |  |    |  |      |    |      |                                     |     |  |       |    |      |  |      |  |       |    |      |  |     |   |        |    |    |                                |  |   |
| 10**  | Incense cedar<br>( <i>Calocedrus decurrens</i> )   | 20eet  | 40  | 5012  | Fair vigor, fair form, in decline, large amounts of dead wood from canker. |      |         |      |          |           |   |       |         |     |     |       |          |    |  |     |    |      |  |    |                                    |      |    |      |                                    |    |  |       |    |      |                        |   |   |     |    |      |   |   |  |     |    |      |                                    |    |  |     |    |      |                                    |    |   |       |    |      |  |    |  |      |    |      |                                     |     |  |       |    |      |  |      |  |       |    |      |  |     |   |        |    |    |                                |  |   |
| 11*   | Crape myrtle<br>( <i>Lagerströmia sp.</i> )  | 4.0eet   | 50  | 83    | Fair vigor, poor form, topped.   |      |         |      |          |           |   |       |         |     |     |       |          |    |  |     |    |      |  |    |                                    |      |    |      |                                    |    |  |       |    |      |                        |   |   |     |    |      |   |   |  |     |    |      |                                    |    |  |     |    |      |                                    |    |   |       |    |      |  |    |  |      |    |      |                                     |     |  |       |    |      |  |      |  |       |    |      |  |     |   |        |    |    |                                |  |   |
| <p>1511 Van Dusen 7/9/19 (5)</p> <p>Neighbor's incense cedar trees #9 and #10 are located at an estimated 8 feet from the property line to the north. Cedar tree #9 is in fair condition and cedar tree #10 is in poor condition due to extensive die back caused by an incense cedar branch canker disease. The disease is likely to spread causing more dieback. The neighbor should have the diseased wood pruned out of the tree and disposed of off site. Both trees are recommended to be heavily irrigated on the property side every 2 weeks when possible. The Project Arborist is recommended to be called out to the site when the foundation excavation on the north side of the home is to take place. When within 25 feet of these trees it is recommended to hand dig the foundation. Encountered roots will need to be clearly cut and shown to the Project Arborist before being cut. The foundation is an estimated 13 feet from these trees. Impacts are expected to be minor. The recommended deep irrigation every 2 weeks will help to reduce impacts. Tree protection fencing for this tree is recommended to extend off of the property line fence out to the proposed foundation and to a width equal to the canopy spread.</p>  <p>Showing cedar trees #9 and #10</p> <p>Crape myrtle tree #11 is in fair condition. The tree has been topped in the past. The following tree protection plan will help to insure the future health of the retained trees on site.</p>   | <p>1511 Van Dusen 7/9/19 (6)</p> <p><b>Tree Protection Plan:</b><br/>Tree protection zones should be established and maintained throughout the entire length of the project. Fencing for the protection zones should be 6 foot tall metal chain link (minimum 12 gauge) supported by 2 inch galvanized iron post pounded into the ground by no less than 2 feet. The support poles should be spaced no more than 10 feet apart on center. This detail shall appear on grading, demolition, and building permit plans. The location of the protection fencing during demolition, and any proposed grading and drainage, as well as construction must be placed at a distance equal to 6 times the diameter. Any deviation in determining the tree protection zone will require approval by the Site Arborist. No excavation shall be allowed inside tree protection zones without the Site Arborist consent. Signs should be placed on fencing notifying "Tree Protection Zone - Keep Out". No materials or equipment should be stored or cleaned inside the tree protection zones. It is recommended to match the tree protection zones using 4x4 inches of wood chips. Tree protection fencing can only be removed at the end of the project by approval from the city. A site meeting with the general contractor, and Site Arborist before the project starts is recommended.</p> <p><b>Root cutting</b><br/>Any roots to be cut should be monitored and documented. Large roots measuring 2 inches in diameter or larger will not be impacted by the site arborist before cut. If possible, roots should be cut back to sound lateral roots under the supervision of the Site Arborist. The site arborist will likely recommend irrigation if root cutting is significant. Cut all roots clean with a saw or loppers. Roots to be left exposed for a period of time should be covered with layers of burlap and kept moist. The site arborist will be on site for excavation near all protected trees on site. If injury is to take place to tree roots proper mitigation measures will need to be applied.</p> <p><b>Trenching</b><br/>Trenching for irrigation, electrical, drainage or any other reason should be hand dug in combination with an air spade when beneath the drip-lines of protected trees. Hand digging and carefully laying pipes below or beside protected roots will dramatically reduce root loss of desired trees thus reducing trauma to the entire tree. Trenches should be backfilled as soon as possible with native material and compacted to near its original level. Trenches that must be left exposed for a period of time should also be covered with layers of burlap and kept moist. Plywood over the top of the trench will also help protect exposed roots below. All trenching within a tree protection zone will need to be observed by the Site Arborist so that proper mitigation measures can be applied.</p> <p><b>Grading</b><br/>The grading contractors are recommended to meet with the Project Arborist at the site prior to beginning grading to review tree protection measures. The Project Arborist shall perform an inspection during the course of rough grading adjacent to the tree protection zone to ensure trees will not be injured by compaction, cut or fill, drainage and trenching, and if required, inspect aeration systems, tree wells, drains and special paving. The Site Arborist shall be notified at least 48 hours before an inspection is needed. If compaction from grading has taken place within a tree protection zone proper mitigation measures will need to be applied.</p> | <p>1511 Van Dusen 7/9/19 (7)</p> <p><b>Irrigation</b><br/>The retained native oak trees on site shall not be irrigated unless their root zones are traumatized. All incense cedar trees, including the neighboring cedars, are recommended to be irrigated every 2 weeks during the dry season until the top foot of soil is saturated. Irrigation shall stay at least 2 feet away from the trunk of the trees.</p> <p>Kieley Arborist Services can be reached at (650) 515-9783 (Kevin), (650) 532-4418 (David), or by email at kiarbor@kiesquared.com. This information should be kept on site at all times. The information included in this report is believed to be true and based on sound arboricultural principles and practices.</p> <p>Sincerely,<br/>Kevin R. Kieley<br/>Certified Arborist WE0476A</p> <p>David P. Beckham<br/>Certified Arborist WE10724A</p> | <p>1511 Van Dusen 7/9/19 (8)</p> <p><b>Kieley Arborist Services</b><br/>P.O. Box 6187<br/>San Mateo, CA 94403<br/>650-515-9783</p> <p><b>ARBORIST DISCLOSURE STATEMENT</b></p> <p>Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or seek additional advice.</p> <p>Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fall in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like a medicine, cannot be guaranteed.</p> <p>Treatment, pruning, and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, landlord-tenant matters, etc. Arborists cannot take such issues into account unless complete and accurate information is given to the arborist. The person hiring the arborist accepts full responsibility for authorizing the recommended treatment or remedial measures.</p> <p>Trees can be managed, but they cannot be controlled. To live near a tree is to accept some degree of risk. The only way to eliminate all risks is to eliminate all trees.</p> <p>Arborist: Kevin R. Kieley<br/>Date: July 9, 2019</p> |       |  |      |         |      |          |           |   |       |         |     |     |       |          |    |  |     |    |      |  |    |                                    |      |    |      |                                    |    |  |       |    |      |                        |   |   |     |    |      |   |   |  |     |    |      |                                    |    |  |     |    |      |                                    |    |   |       |    |      |  |    |  |      |    |      |                                     |     |  |       |    |      |  |      |  |       |    |      |  |     |   |        |    |    |                                |  |   |

**GRADING AND DRAINAGE NOTES**

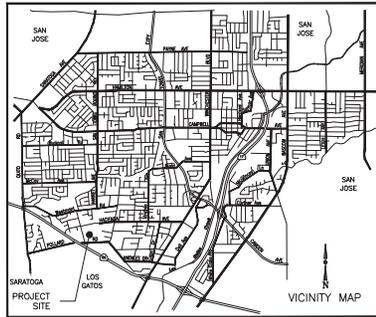
- CALIFORNIA BUILDING CODE**  
ALL WORK SHALL COMPLY WITH THE 2013 CALIFORNIA BUILDING CODE.
- O.S.H.A. REGULATIONS**  
ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE O.S.H.A. REGULATIONS.
- GEOTECHNICAL (SOILS) REPORT**  
THE ENGINEER OF WORK HAS DESIGNED THIS PROJECT TO COMPLY WITH THE GRADING RECOMMENDATIONS IN THE PROJECT GEOTECHNICAL (SOILS) REPORT PREPARED BY ROMEO ENGINEERS, DATED JUNE 28, 2019, PROJECT NO. 47861.
- SPECIFICATIONS AND OBSERVATIONS**  
ALL GRADING AND DRAINAGE WORK SHALL CONFORM TO APPROVED SPECIFICATIONS PRESENTED HEREON. ALL GRADING WORK SHALL BE OBSERVED AND APPROVED BY THE SOILS ENGINEER OR ENGINEER OF WORK. THE SOILS ENGINEER/ENGINEER OF WORK AND CITY (866-2150) SHALL BE NOTIFIED AT LEAST 48 HOURS BEFORE BEGINNING ANY GRADING. UNAPPROVED GRADING WORK SHALL BE REMOVED AND REPLACED UNDER OBSERVATION.
- NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM**  
PRIOR TO ISSUANCE OF ANY GRADING OR BUILDING PERMITS, THE APPLICANT SHALL COMPLY WITH THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITTING REQUIREMENTS AND THE CALIFORNIA STORM WATER BEST MANAGEMENT PRACTICES HANDBOOK PREPARED BY THE STORM WATER QUALITY TASK FORCE, SANTA CLARA VALLEY WATER DISTRICT AND THE CITY OF CAMPBELL MUNICIPAL CODE REGARDING STORM WATER POLLUTION PREVENTION.
- LOCAL NON-POINT SOURCE ORDINANCE**  
COMPLIANCE WITH THE LOCAL NON-POINT SOURCE ORDINANCE CONCERNING DISCHARGE OF MATERIALS TO THE STORM DRAINAGE SYSTEM SHALL BE THE RESPONSIBILITY OF THE GRADING CONTRACTOR.
- UNDERGROUND UTILITIES AND STRUCTURES**  
THE EXISTING AND APPROXIMATE LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES SHOWN ON THESE PLANS WERE DETERMINED BY THE ENGINEER OF WORK BY SEARCHING THE AVAILABLE PUBLIC RECORDS. THEY ARE SHOWN FOR GENERAL INFORMATION ONLY. THE CITY OF CAMPBELL MAKES NO CLAIM OF THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY UTILITY LOCATIONS WITH THE APPROPRIATE AGENCY. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES, STRUCTURES AND ANY OTHER IMPROVEMENTS FOUND AT THE WORK SITE.
- EROSION CONTROL**  
EROSION CONTROL, PLANTING AND OTHER SILT RETENTION OR EROSION CONTROL MEASURES MAY BE REQUIRED IN ALL GRADED AREAS. SEE LANDSCAPE PLAN, IF APPLICABLE, FOR DETAILS OF PLANTING.
- UTILITY ELEVATION VERIFICATION**  
THE CONTRACTOR SHALL VERIFY ALL EXISTING INVERT ELEVATIONS FOR DISCREPANCIES EXIST BETWEEN THE ACTUAL ELEVATIONS AND STORM DRAIN CONSTRUCTION PRIOR TO ANY SITE WORK. SHOULD LOCATIONS OF EXISTING STORM DRAIN CONNECTIONS AND THOSE AS SHOWN ON THESE PLANS, THE CONTRACTOR SHALL NOTIFY ENGINEER OF WORK BEFORE ADJUSTING THE DESIGN.
- UTILITY CROSSINGS**  
THE CONTRACTOR SHALL UNCOVER AND EXPOSE ALL EXISTING UTILITY, SEWER AND STORM DRAIN LINES WHERE THEY ARE TO BE CROSSED ABOVE OR BELOW BY THE NEW FACILITY BEING CONSTRUCTED IN ORDER TO VERIFY THE GRADE AND TO ASSURE THAT THERE IS SUFFICIENT CLEARANCE. HE OR SHE SHALL CALL THE ENGINEER OF WORK REGARDING POTENTIAL CONFLICTS BEFORE FIELD WORK BEGINS.
- GRADING REQUIREMENTS**  
DRAINAGE, INCLUDING ALL ROCK AND PATIO DRAINS, SHALL BE DIRECTED AWAY FROM THE STRUCTURE. IT SHALL BE THE OWNERS AND CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE DRAINAGE SYSTEM FACILITIES SHOWN HEREON ARE KEPT CLEAR OF OBSTRUCTIONS AND THE CONTRACTOR SHALL REGRADE AREAS THAT WILL NOT DRAIN AFTER FINAL GRADING. THE GROUND ADJACENT TO THE BUILDING SHALL SLOPE AWAY WITH A MINIMUM SLOPE OF 2% FOR AT LEAST 5 FEET. MINIMUM SLOPE IN ALL OTHER CASES SHALL BE NO LESS THAN 1%.
- GRADED SITE ELEVATIONS**  
ON GRADED SITES, THE TOP OF ANY EXTERIOR FOUNDATION SHALL EXTEND ABOVE THE ELEVATION OF THE STREET GUTTER AT POINT OF DISCHARGE OR THE INLET OF AN APPROVED DRAINAGE DEVICE A MINIMUM OF 2 INCHES (50 MM) PLUS 2 PERCENT. THE BUILDING OFFICIAL MAY APPROVE ALTERNATE ELEVATIONS, PROVIDED IT CAN BE DEMONSTRATED THAT REQUIRED DRAINAGE TO THE POINT OF DISCHARGE AND AWAY FROM THE STRUCTURE IS PROVIDED AT ALL LOCATIONS ON THE SITE.
- CLEAN, SAFE AND USABLE PUBLIC RIGHT-OF-WAY AND PRIVATE PROPERTY**  
THE PERMITTEE SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHTS-OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE PUBLICLY CONNECTED PROPERTY DURING CONSTRUCTION OF THE PROJECT. ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE CONDITION.
- TOPOGRAPHY SURVEY**  
THE TOPOGRAPHY SURVEY MADE BY \_\_\_\_\_ ON \_\_\_\_\_
- TREE REMOVAL AND PRESERVATION**  
THIS PLAN DOES NOT APPROVE REMOVAL OF TREES. APPROPRIATE TREE REMOVAL PERMITS AND METHOD OF TREE PRESERVATION SHOULD BE OBTAINED FROM THE PLANNING DIVISION.
- PROJECT PLANS**  
THIS PLAN IS A PART OF PROJECT PLANS. SEE ARCHITECT AND LANDSCAPE PLANS, IF APPLICABLE, FOR DETAILS AND DIMENSIONS. FENCES AND WALLS ARE NOT A PART OF THESE PLANS.
- FINAL LETTER OF INSPECTION**  
THE SOILS ENGINEER OR ENGINEER OF WORK SHALL PROVIDE FINAL LETTER OF INSPECTION AT COMPLETION OF THE GRADING.
- GRADE EVENLY**  
THE CONTRACTOR SHALL GRADE EVENLY BETWEEN SPOT ELEVATIONS SHOWN.
- APPROVAL OF PLANS**  
APPROVAL OF THIS PLAN APPLIES ONLY TO THE EXCAVATION, PLACEMENT, AND COMPACTION OF NATURAL EARTH MATERIALS. THIS APPROVAL DOES NOT CONFER ANY RIGHTS OF ENTRY TO EITHER PUBLIC PROPERTY OR THE PRIVATE PROPERTY OF OTHERS. APPROVAL OF THIS PLAN ALSO DOES NOT CONSTITUTE APPROVAL OF ANY IMPROVEMENTS TO EXISTING REGULATIONS AND PERMITS ARE SUBJECT TO REVIEW AND APPROVAL BY THE RESPONSIBLE AUTHORITIES AND ALL OTHER REQUIRED PERMITS SHALL BE OBTAINED.
- LOCAL NOTICES**  
ALL KNOWN WELL LOCATIONS ON THE SITE HAVE BEEN INCLUDED AND SUCH WELLS SHALL BE MAINTAINED OR ABANDONED ACCORDING TO CURRENT REGULATIONS ADMINISTERED BY THE SANTA CLARA VALLEY WATER DISTRICT. CALL 408-295-2600 EXTENSION 382 TO ARRANGE FOR DISTRICT OBSERVATIONS OF ALL WELL ABANDONMENTS.
- EARTHWORK QUANTITIES**  
THE EARTHWORK QUANTITIES SHOWN ON THESE PLANS ARE ONLY TO BE USED TO DETERMINE THE GRADING PLAN REVIEW AND ADJUST FEES.
- ELEVATION ADJUSTMENTS**  
ADJUSTMENTS OF PADS OR PARKING LOT ELEVATIONS TO ACHIEVE EARTHWORK BALANCE SHALL BE MADE ONLY WITH APPROVAL OF THE ENGINEER OF WORK AND THE CITY OF CAMPBELL BUILDING DIVISION.
- TRUCK ROUTE**  
THE TRUCK ROUTE SHALL BE \_\_\_\_\_
- CONTRACTOR RESPONSIBILITIES**  
THE SOILS ENGINEER/ENGINEER OF WORK WILL NOT DIRECTLY CONTROL THE PHYSICAL ACTIVITIES OF THE CONTRACTOR OR ANY SUBCONTRACTORS OF THE CONTRACTOR OR SUBCONTRACTORS WORKMANS ACCOMPLISHMENT OF WORK ON THE PROJECT. CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR WORKING CONDITIONS ON THE JOBSITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
- HEAT AND CLEAN PREMISES**  
DURING THE PROGRESS OF THE WORK, THE CONTRACTOR SHALL KEEP THE PREMISES OCCUPIED BY HIM IN A NEAT AND CLEAN CONDITION, DISPOSING OF REFUSE IN A SATISFACTORY MANNER AS OFTEN AS DIRECTED, OR AS MAY BE NECESSARY SO THAT THERE SHALL AT NO TIME BE ANY UNDESIRABLE ACCUMULATION OF RUBBISH

**ON-SITE GRADING & DRAINAGE PLANS**

PROJECT STREET ADDRESS: 1511 VAN DUSEN LANE  
 BUILDING PERMIT NO. 20 \_\_\_\_\_ - \_\_\_\_\_  
 ASSESSORS PARCEL NO.: 403-19-097  
 PARCEL MAP \_\_\_\_\_



**CITY OF CAMPBELL  
DEPARTMENT OF PUBLIC WORKS**



**AGENCY INDEX**

- |                                    |                |
|------------------------------------|----------------|
| SANTA CLARA COUNTY FIRE DEPARTMENT | (408) 378-4010 |
| CITY OF CAMPBELL - PUBLIC WORKS    | (408) 866-2150 |
| CITY OF CAMPBELL - POLICE          | (408) 866-2121 |
| SOC TELEPHONE                      | (408) 911-3000 |
| PACIFIC GAS & ELECTRIC             | (408) 973-8980 |
| SAN JOSE WATER COMPANY             | (408) 278-7900 |
| SANTA CLARA VALLEY WATER DISTRICT  | (408) 295-2600 |
| COMCAST CABLE TELEVISION           | (408) 452-9100 |
| WEST VALLEY SANITATION DISTRICT    | (408) 378-2407 |

- ANY ABANDONED UNDERGROUND PIPES**  
ANY ABANDONED UNDERGROUND PIPES EXPOSED DURING CONSTRUCTION SHALL BE REMOVED ADEQUATELY PLUGGED, OR A COMBINATION OF BOTH IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF CAMPBELL BUILDING DIVISION.
- HUMAN REMAINS**  
IF HUMAN REMAINS ARE DISCOVERED DURING THE CONSTRUCTION, UNLESS THE CORONER HAS NOTIFIED THE PERMITTEE IN WRITING THAT THE REMAINS DISCOVERED HAVE BEEN DETERMINED NOT TO BE NATIVE AMERICAN, THE PERMITTEE SHALL NOTIFY ALL PERSONS ON THE CITY'S NATIVE AMERICAN NOTIFICATION LIST OF SUCH DISCOVERY. SUCH NOTIFICATION SHALL BE SENT BY FIRST CLASS U.S. MAIL WITHIN SEVEN (7) DAYS OF THE DATE ON WHICH THE PERMITTEE NOTIFIED THE CORONER AND SHALL STATE THAT THE CORONER HAS BEEN NOTIFIED IN ACCORDANCE WITH CALIFORNIA STATE LAW.
- MAINTENANCE PROCEDURES**  
THE CONTRACTOR SHALL ADVISE THE OWNER OF APPROPRIATE MAINTENANCE PROCEDURES OF THE DRAINAGE SYSTEMS.
- DUST CONTROL**  
ALL EXPOSED OR DISTURBED SOIL SURFACES SHALL BE WATERED AS NECESSARY, BUT NOT LESS THAN TWICE DAILY TO CONTROL DUST. AREAS OF DIGGING AND GRADING SHALL BE CONSISTENTLY WATERED TO CONTROL DUST. GRADING OR OTHER DUST-PRODUCING ACTIVITIES SHALL BE SUSPENDED DURING PERIODS OF HIGH WIND WHEN DUST IS READILY VISIBLE IN THE AIR. STOCKPILES OF SOIL, DESIRE SAND, OR OTHER DUST-PRODUCING MATERIALS SHALL BE WATERED OR COVERED. THE CONSTRUCTION AREA AND THE SURROUNDING STREETS SHALL BE SWEEP (NO WATER) AS NECESSARY, BUT NOT LESS THAN TWICE DAILY.
- CONSTRUCTION MITIGATION MEASURE**  
HOURS OF CONSTRUCTION SHALL BE LIMITED TO 8:00 A.M. TO 5:00 P.M. MONDAY THROUGH FRIDAY, AND 9:00 A.M. TO 4:00 P.M. ON SATURDAY. CONSTRUCTION ACTIVITIES SHALL NOT TAKE PLACE ON SUNDAYS AND HOLIDAYS.
- CONSTRUCTION PERIMETER RETENTION WALLS**  
ALL PROPERTY LINE RETENTION WALLS SHALL BE MADE OF CONCRETE OR MASONRY.
- STORMWATER TREATMENT FACILITIES**  
ALL STORMWATER TREATMENT FACILITIES REQUIRE PUBLIC WORKS INSPECTIONS. CALL 408-866-2150 TO SCHEDULE INSPECTIONS 48-HOURS PRIOR.

**ABBREVIATIONS**

|     |                   |      |                          |
|-----|-------------------|------|--------------------------|
| AB  | AGGREGATE BASE    | LOL  | LAYOUT LINE              |
| AC  | ASPHALT CONCRETE  | MAX  | MAXIMUM                  |
| BC  | BEGIN CURVE       | MH   | MANHOLE                  |
| BGR | BEGIN CURB RETURN | OG   | ORIGINAL GRADE           |
| CL  | CLASS             | PB   | PULL BOX                 |
| DA  | DIAMETER          | PCC  | PORTLAND CEMENT CONCRETE |
| DWY | DRIVEWAY          | PVC  | POLYVINYL CHLORIDE       |
| EC  | END CURVE         | R    | RADIUS                   |
| ECR | END CURB RETURN   | RCP  | REINFORCED CONCRETE PIPE |
| ED  | EDGE DRAIN        | RHW  | RIGHT-OF-WAY             |
| EX  | EXISTING          | STA  | STATION                  |
| FC  | FACE OF CURB      | SW   | SIDEWALK                 |
| FG  | FINISH GRADE      | TC   | TOP OF CURB              |
| FH  | FIRE HYDRANT      | TEMP | TEMPORARY                |
| INV | INVERT            | TYP  | TYPICAL                  |
| IRR | IRRIGATION        |      |                          |

**CITY OF CAMPBELL  
PLANNING DIVISION CLEARANCE**

PLAN CHECK # \_\_\_\_\_  
 APPROVED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_

**CITY OF CAMPBELL  
PUBLIC WORKS DEPARTMENT CLEARANCE**

THIS PLAN WITH ATTACHED DOCUMENTS HAS BEEN REVIEWED FOR COMPLIANCE WITH THE CITY OF CAMPBELL AND STATE OF CALIFORNIA CODES AND THE CURRENT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT. THIS PLAN SHALL NOT BE CHANGED OR MODIFIED WITHOUT AUTHORIZATION FROM THE BUILDING OFFICIAL. WORK PERFORMED RELATED TO THIS PLAN SHALL BE DONE IN ACCORDANCE WITH THE PERMIT AND UNDERSTOOD AS TO BE AN APPROVAL OF A VIOLATION OF ANY CITY OR STATE LAW.

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

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| BLUE PRINT FOR A CLEAN BAY | 7     |



**LEGEND**

| EXISTING                  | PROPOSED |
|---------------------------|----------|
| SIDEWALK CURB AND GUTTER  | [Symbol] |
| CENTER LINE               | [Symbol] |
| PROPERTY LINE             | [Symbol] |
| EDGE OF PAVEMENT          | [Symbol] |
| DRIVEWAY                  | [Symbol] |
| PCC OR AC REMOVAL         | [Symbol] |
| STANDARD CITY MONUMENT    | [Symbol] |
| BENCH MARK                | [Symbol] |
| MANHOLE                   | [Symbol] |
| STORM DRAIN INLET         | [Symbol] |
| WATER METER               | [Symbol] |
| VALVE                     | [Symbol] |
| FIRE HYDRANT              | [Symbol] |
| STREET LIGHT              | [Symbol] |
| POWER POLE                | [Symbol] |
| PULL BOX                  | [Symbol] |
| CABLE TELEVISION LINE     | [Symbol] |
| CRAWLSPACE DRAIN LINE     | [Symbol] |
| ELECTRICAL LINE           | [Symbol] |
| IRRIGATION LINE           | [Symbol] |
| NATURAL GAS LINE          | [Symbol] |
| OVERHEAD LINE             | [Symbol] |
| PRESSURE LINE             | [Symbol] |
| SANITARY SEWER LINE       | [Symbol] |
| STORM DRAIN LINE          | [Symbol] |
| TELEPHONE LINE            | [Symbol] |
| WATER LINE                | [Symbol] |
| TRAFFIC SIGNAL CONDUIT    | [Symbol] |
| LIGHTING CONDUIT          | [Symbol] |
| ROADSIDE SIGN & SIGN CODE | [Symbol] |
| FENCE                     | [Symbol] |
| TREE/SHRUB                | [Symbol] |

**BASIS OF BEARINGS**

BEARINGS SHOWN HEREON ARE BASED ON PARCEL MAP RECORDED IN BOOK 662 OF MAPS AT PAGE 16 & 17, SANTA CLARA COUNTY RECORDS.

**PROJECT BENCHMARK**

ELEVATIONS SHOWN HEREON ARE BASED ON AN ASSUMED DATUM. A MAG. NAIL WAS SET IN THE STREET IN FRONT OF THE SITE. ELEVATION 100.00'.

**SEAL OF ENGINEER OF WORK:**

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED REASONABLE CARE OVER THE DESIGN OF THIS PROJECT AS DEFINED IN SECTION 6700 OF THE BUSINESS AND PROFESSIONS CODES, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS. THE DESIGN SHOWN HEREON IS NECESSARY AND REASONABLE AND DOES NOT RESTRICT ANY HISTORIC DRAINAGE FLOWS FROM ADJACENT PROPERTIES NOR INCREASE DRAINAGE TO ADJACENT PROPERTIES.

THIS DESIGN INCLUDES PRINCIPLES AND TECHNIQUES TO REDUCE QUANTITY AND IMPROVE THE QUALITY OF STORM WATER RUNOFF, AS REQUIRED BY NPDES.

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.

SIGNATURE: \_\_\_\_\_ P.E.

PRINT  
 FIRM: LEA AND BRASE ENGINEERING INC.  
 ADDRESS: 2445 INDUSTRIAL PARKWAY WEST, HAYWARD, CA 94545  
 TELEPHONE: 510-887-4066

DATE: 11-01-19  
 DRAWN BY: WA  
 DESIGNED BY: TT

NO. \_\_\_\_\_  
 PLAN CHECK \_\_\_\_\_

REVISION: \_\_\_\_\_

DATE: 11-01-19  
 DRAWN BY: WA  
 DESIGNED BY: TT

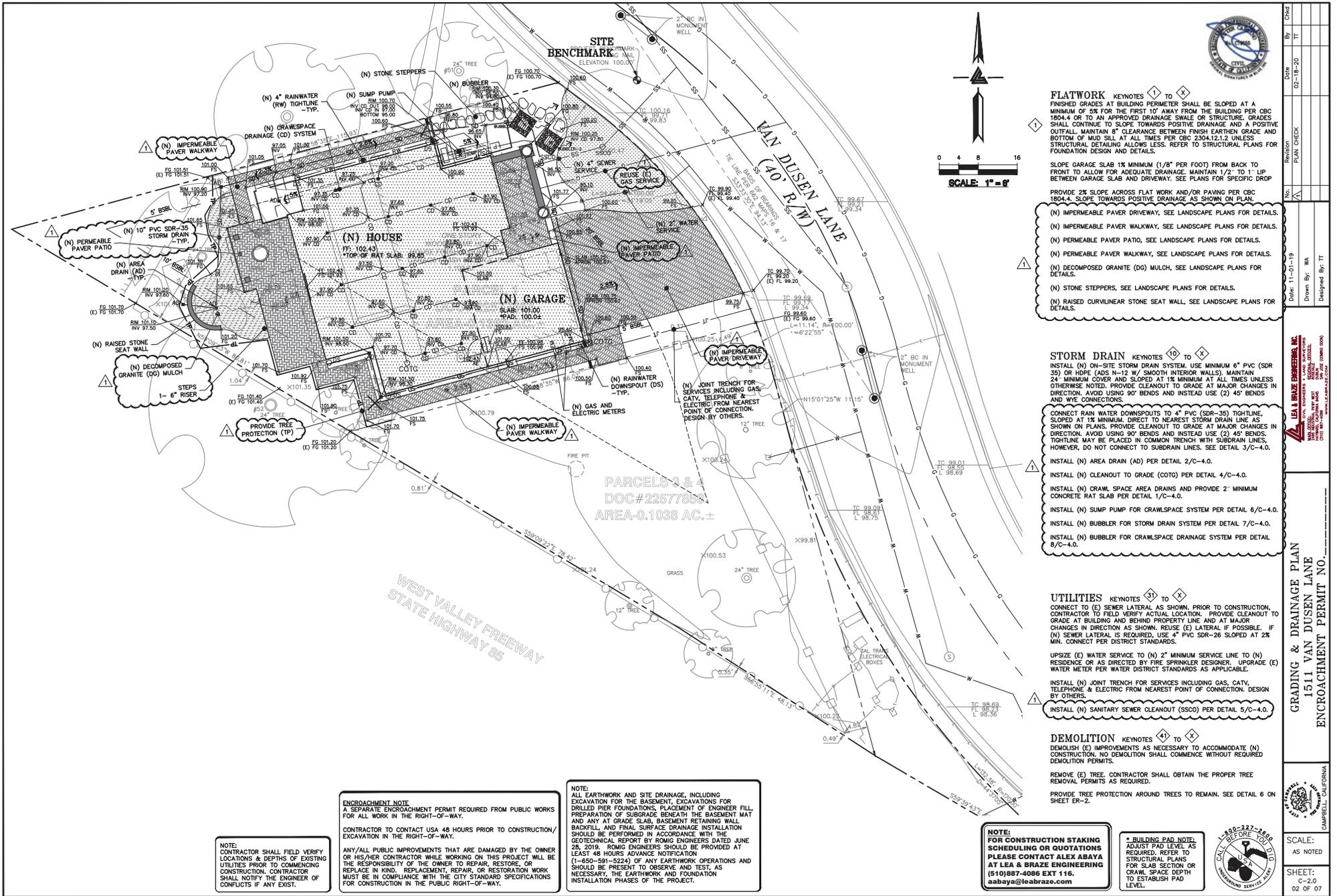
LEA & BRASE ENGINEERING, INC.  
 2445 INDUSTRIAL PARKWAY WEST, HAYWARD, CA 94545  
 (510) 887-4066  
 WWW.LEA-AND-BRASE.COM

TITLE SHEET  
 1511 VAN DUSEN LANE  
 ENCROACHMENT PERMIT NO. \_\_\_\_\_

CAMPBELL, CALIFORNIA

SCALE: N.T.S.

SHEET: C-1.0  
 01 OF 07

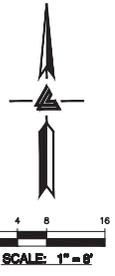


**SITE BENCHMARK**  
ELEVATION 100.00'

PARCELS 3 & 4  
DOC#22577855  
AREA=0.1038 AC. ±

WEST VALLEY FREEWAY  
STATE HIGHWAY 65

VAN DUSEN LANE  
(40' R/W)



**FLATWORK** KEYNOTES 1 to 8  
FINISHED GRADES AT BUILDING PERIMETER SHALL BE SLOPED AT A MINIMUM OF 5% FOR THE FIRST 10' AWAY FROM THE BUILDING PER CBC 1804.4 OR TO AN APPROVED DRAINAGE SWALE OR STRUCTURE. GRADES SHALL CONTINUE TO SLOPE TOWARDS POSITIVE DRAINAGE AND A POSITIVE OUTFALL. MAINTAIN 2" CLEARANCE BETWEEN FINISH EARTHEN GRADE AND BOTTOM OF MUD SILL AT ALL TIMES PER CBC 2304.12.12, UNLESS STRUCTURAL DETAILING ALLOWS LESS. REFER TO STRUCTURAL PLANS FOR FOUNDATION DESIGN AND DETAILS.

SLOPE GARAGE SLAB 1% MINIMUM (1/8" PER FOOT) FROM BACK TO FRONT TO ALLOW FOR ADEQUATE DRAINAGE. MAINTAIN 1/2" TO 1" LIP BETWEEN GARAGE SLAB AND DRIVEWAY. SEE PLANS FOR SPECIFIC DROP

PROVIDE 2% SLOPE ACROSS FLAT WORK AND/OR PAVING PER CBC 1804.4. SLOPE TOWARDS POSITIVE DRAINAGE AS SHOWN ON PLAN.

- (N) IMPERMEABLE PAVER DRIVEWAY, SEE LANDSCAPE PLANS FOR DETAILS.
- (N) IMPERMEABLE PAVER WALKWAY, SEE LANDSCAPE PLANS FOR DETAILS.
- (N) PERMEABLE PAVER PATIO, SEE LANDSCAPE PLANS FOR DETAILS.
- (N) PERMEABLE PAVER WALKWAY, SEE LANDSCAPE PLANS FOR DETAILS.
- (N) DECOMPOSED GRANITE (DG) MULCH, SEE LANDSCAPE PLANS FOR DETAILS.
- (N) STONE STEPPERS, SEE LANDSCAPE PLANS FOR DETAILS.
- (N) RAISED CURVILINEAR STONE SEAT WALL, SEE LANDSCAPE PLANS FOR DETAILS.

**STORM DRAIN** KEYNOTES 10 to 12  
INSTALL (N) ON-SITE STORM DRAIN SYSTEM. USE MINIMUM 6" PVC (SDR 35) OR HOPE (ADS N-12 W/ SMOOTH INTERIOR WALLS). MAINTAIN 24" MINIMUM COVER AND SLOPED AT 1% MINIMUM AT ALL TIMES UNLESS OTHERWISE NOTED. PROVIDE CLEANOUT TO GRADE AT MAJOR CHANGES IN DIRECTION. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS AND WYE CONNECTIONS.

CONNECT RAIN WATER DOWNSPOUTS TO 4" PVC (SDR-35) TIGHTLINE, SLOPED AT 1% MINIMUM, DIRECT TO NEAREST STORM DRAIN LINE AS SHOWN ON PLANS. PROVIDE CLEANOUT TO GRADE AT MAJOR CHANGES IN DIRECTION. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS. TIGHTLINE MAY BE PLACED IN COMMON TRENCH WITH SUBDRAIN LINES. HOWEVER, DO NOT CONNECT TO SUBDRAIN LINES. SEE DETAIL 3/C-4.0.

- INSTALL (N) AREA DRAIN (AD) PER DETAIL 2/C-4.0.
- INSTALL (N) CLEANOUT TO GRADE (COTO) PER DETAIL 4/C-4.0.
- INSTALL (N) CRAWL SPACE AREA DRAINS AND PROVIDE 2" MINIMUM CONCRETE RAT SLAB PER DETAIL 1/C-4.0.
- INSTALL (N) SUMP PUMP FOR CRAWLSPACE SYSTEM PER DETAIL 6/C-4.0.
- INSTALL (N) BUBBLER FOR STORM DRAIN SYSTEM PER DETAIL 7/C-4.0.
- INSTALL (N) BUBBLER FOR CRAWLSPACE DRAINAGE SYSTEM PER DETAIL 8/C-4.0.

**UTILITIES** KEYNOTES 13 to 15  
CONNECT TO (E) SEWER LATERAL AS SHOWN. PRIOR TO CONSTRUCTION, CONTRACTOR TO FIELD VERIFY ACTUAL LOCATION. PROVIDE CLEANOUT TO GRADE AT BUILDING AND BEHIND PROPERTY LINE AND AT MAJOR CHANGES IN DIRECTION AS SHOWN. REUSE (E) LATERAL IF POSSIBLE. IF (N) SEWER LATERAL IS REQUIRED, USE 4" PVC SDR-26 SLOPED AT 2% MIN. CONNECT PER DISTRICT STANDARDS.

UPSIZE (E) WATER SERVICE TO (N) 2" MINIMUM SERVICE LINE TO (N) RESIDENCE OR AS DIRECTED BY FIRE SPRINKLER DESIGNER. UPGRADE (E) WATER METER PER WATER DISTRICT STANDARDS AS APPLICABLE.

INSTALL (N) JOINT TRENCH FOR SERVICES INCLUDING GAS, CATV, TELEPHONE & ELECTRIC FROM NEAREST POINT OF CONNECTION, DESIGN BY OTHERS.

INSTALL (N) SANITARY SEWER CLEANOUT (SSCO) PER DETAIL 5/C-4.0.

**DEMOLITION** KEYNOTES 16 to 18  
DEMOLISH (E) IMPROVEMENTS AS NECESSARY TO ACCOMMODATE (N) CONSTRUCTION. NO DEMOLITION SHALL COMMENCE WITHOUT REQUIRED DEMOLITION PERMITS.

REMOVE (E) TREE. CONTRACTOR SHALL OBTAIN THE PROPER TREE REMOVAL PERMITS AS REQUIRED.

PROVIDE TREE PROTECTION AROUND TREES TO REMAIN. SEE DETAIL 6 ON SHEET ER-2.

**NOTE:**  
FOR CONSTRUCTION STAKING  
SCHEDULING OR QUOTATIONS  
PLEASE CONTACT ALEX ABAVA  
AT LEA & BRITZ ENGINEERING  
(510)887-4086 EXT 116.  
aabava@leabraze.com

**BUILDING PAD NOTE:**  
ADJUST PAD LEVEL AS REQUIRED. REFER TO STRUCTURAL PLANS FOR CLEAR SECTION OR CRAWL SPACE DEPTH TO ESTABLISH PAD LEVEL.



**ENCROACHMENT NOTE:**  
A SEPARATE ENCROACHMENT PERMIT REQUIRED FROM PUBLIC WORKS FOR ALL WORK IN THE RIGHT-OF-WAY.

CONTRACTOR TO CONTACT USA 48 HOURS PRIOR TO CONSTRUCTION/ EXCAVATION IN THE RIGHT-OF-WAY.

ANY/ALL PUBLIC IMPROVEMENTS THAT ARE DAMAGED BY THE OWNER OR HIS/HER CONTRACTOR WHILE WORKING ON THIS PROJECT WILL BE THE RESPONSIBILITY OF THE OWNER TO REPAIR, RESTORE, OR REPLACE IN KIND. REPLACEMENT, REPAIR, OR RESTORATION WORK MUST BE IN COMPLIANCE WITH THE CITY STANDARD SPECIFICATIONS FOR CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY.

**NOTE:**  
ALL EARTHWORK AND SITE DRAINAGE, INCLUDING EXCAVATION FOR THE BASEMENT, EXCAVATIONS FOR DRILLED PIER FOUNDATIONS, PLACEMENT OF ENGINEER FILL, PREPARATION OF SUBGRADE BENEATH THE BASEMENT MAT AND ANY AT GRADE SLAB, BASEMENT RETAINING WALL, BACKFILL, AND FINAL SURFACE DRAINAGE INSTALLATION SHOULD BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT BY ROMIG ENGINEERS DATED JUNE 28, 2019. ROMIG ENGINEERS SHOULD BE PROVIDED AT LEAST 48 HOURS ADVANCE NOTIFICATION (1-850-591-5224) OF ANY EARTHWORK OPERATIONS AND SHOULD BE PRESENT TO OBSERVE AND TEST, AS NECESSARY, THE EARTHWORK AND FOUNDATION INSTALLATION PHASES OF THE PROJECT.

**NOTE:**  
CONTRACTOR SHALL FIELD VERIFY LOCATIONS & DEPTHS OF EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER OF CONFLICTS IF ANY EXIST.

|            |          |          |             |
|------------|----------|----------|-------------|
| Chg        | By       | DTM      | Rev         |
| TT         | TT       | 02-18-20 | 1           |
| PLAN CHECK |          |          |             |
| No.        | Date     | Drawn By | Designed By |
|            | 11-01-19 | WA       | TT          |

LEA & BRITZ ENGINEERING, INC.  
1511 VAN DUSEN LANE  
EMERYVILLE, CA 94608  
TEL: (510) 887-4086  
WWW.LEABRAZE.COM

GRADING & DRAINAGE PLAN  
1511 VAN DUSEN LANE  
ENCROACHMENT PERMIT NO.

SCALE: AS NOTED  
SHEET: C-2.0  
02 OF 07



GENERAL NOTES

ALL GENERAL NOTES, SHEET NOTES, AND LEGEND NOTES FOUND IN THESE DOCUMENTS SHALL APPLY TYPICALLY THROUGHOUT... THESE DRAWINGS AND THEIR CONTENT ARE AND SHALL REMAIN THE PROPERTY OF LEA AND BRAZE ENGINEERING, INC.

ALL DIMENSIONS AND CONDITIONS SHALL BE CHECKED AND VERIFIED ON THE JOB BY EACH SUBCONTRACTOR BEFORE HE/SHE BEGINS HIS/HER WORK... COMMENCEMENT OF WORK BY THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL INDICATE KNOWLEDGE AND ACCEPTANCE OF ALL CONDITIONS DESCRIBED IN THESE CONSTRUCTION DOCUMENTS.

WORK SEQUENCE: IN THE EVENT ANY SPECIAL SEQUENCING OF THE WORK IS REQUIRED BY THE OWNER OR THE CONTRACTOR, THE CONTRACTOR SHALL ARRANGE A CONFERENCE BEFORE ANY SUCH WORK IS BEGUN.

SITE EXAMINATION: THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL THOROUGHLY EXAMINE THE SITE AND FAMILIARIZE HIM/HERSELF WITH THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED.

LEA AND BRAZE ENGINEERING, INC. EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION AND CONSENT OF LEA AND BRAZE ENGINEERING, INC.

CONSTRUCTION IS ALWAYS LESS THAN PERFECT SINCE PROJECTS REQUIRE THE COORDINATION AND INSTALLATION OF MANY INDIVIDUAL COMPONENTS BY VARIOUS CONSTRUCTION INDUSTRY TRADES. THESE DOCUMENTS CANNOT PORTRAY COMPONENTS OR ASSEMBLIES EXACTLY. IT IS THE INTENTION OF THESE ENGINEERING DOCUMENTS THAT THEY REPRESENT A REASONABLE STANDARD OF CARE IN THEIR CONTENT.

IF THE OWNER OR CONTRACTOR OBSERVES OR OTHERWISE BECOMES AWARE OF ANY FAULT OR DEFECT IN THE PROJECT OR NONPERFORMANCE WITH THE CONTRACT DOCUMENTS, PROMPT WRITTEN NOTICE THEREOF SHALL BE GIVEN BY THE OWNER AND/OR CONTRACTOR TO THE ENGINEER.

THE ENGINEER SHALL HAVE CONTROL OF OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK.

SITE PROTECTION

PROTECT ALL LANDSCAPING THAT IS TO REMAIN, ANY DAMAGE OR LOSS RESULTING FROM EXCAVATION, GRADING, OR CONSTRUCTION WORK SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

STORMWATER POLLUTION PREVENTION NOTES

- 1) STORE, HANDLE, AND DISPOSE OF CONSTRUCTION MATERIALS AND WASTES PROPERLY, SO AS TO PREVENT THEIR CONTACT WITH STORMWATER.
2) CONTROL AND PREVENT THE DISCHARGE OF ALL POTENTIAL POLLUTANTS, INCLUDING SOLID WASTES, PAINTS, CONCRETE, PETROLEUM PRODUCTS, OILS, WASH WATER OR SEDIMENT, AND NON-STORMWATER DISCHARGES TO STORM DRAINS AND WATER COURSES.
3) USE SEDIMENT CONTROL OR FILTRATION TO REMOVE SEDIMENT FROM DETAHERING EFFLUENT.
4) AVOID CLEANING, FUELING, OR MAINTAINING VEHICLES ON SITE, EXCEPT IN A DESIGNATED AREA IN WHICH RUNOFF IS CONTAINED AND TREATED.
5) DELINEATE CLEARING LIMITS, EASEMENTS, SETBACKS, SENSITIVE OR CRITICAL AREAS, BUFFER ZONES, TREES AND DISCHARGE COURSE WITH FIELD MARKERS.
6) PROTECT ADJACENT PROPERTIES AND UNDISTURBED AREAS FROM CONSTRUCTION IMPACTS USING VEGETATIVE BUFFER STRIPS, SEDIMENT BARRIERS OF FILTERS, Dikes, MULCHING, OR OTHER MEASURES AS APPROPRIATE.
7) PERFORM CLEARING AND EARTH MOVING ACTIVITIES DURING DRY WEATHER TO THE MAXIMUM EXTENT PRACTICAL.
8) LIMIT AND TIME APPLICATIONS OF PESTICIDES AND FERTILIZERS TO PREVENT POLLUTED RUNOFF.
9) LIMIT CONSTRUCTION ACCESS ROUTES AND STABILIZE DESIGNATED ACCESS POINTS.
10) AVOID TRACKING DIRT OR MATERIALS OFF-SITE. CLEAN OFF-SITE PAVED AREAS AND SIDEWALKS USING DRY SWEEPING METHODS TO THE MAXIMUM EXTENT PRACTICAL.

SUPPLEMENTAL MEASURES

- A. THE PHRASE "NO DUMPING - DRAINS TO BAY" OR EQUALLY EFFECTIVE PHRASE MUST BE LABELED ON STORM DRAIN INLETS (BY STENCILING, BRANDING, OR PLACES) TO ALERT THE PUBLIC TO THE DESTINATION OF STORM WATER AND TO PREVENT DIRECT DISCHARGE OF POLLUTANTS INTO THE STORM DRAIN.
B. USING FILTRATION MATERIALS ON STORM DRAIN COVERS TO REMOVE SEDIMENT FROM DETAHERING EFFLUENT.
C. STABILIZING ALL DENuded AREAS AND MAINTAINING EROSION CONTROL MEASURES CONTINUOUSLY FROM OCTOBER 15 AND APRIL 15.
D. REMOVING SPILLS PROMPTLY, AND AVOID STOCKPILING OF FILL MATERIALS, WHEN RAIN IS FORECAST, IF RAIN THREATENS, STOCKPILED SOILS AND OTHER MATERIALS SHALL BE COVERED WITH A TARP OR OTHER WATERPROOF MATERIAL.
E. STORING, HANDLING, AND DISPOSING OF CONSTRUCTION MATERIALS AND WASTES SO AS TO AVOID THEIR ENTRY TO THE STORM DRAIN SYSTEMS OR WATER BODY.
F. AVOIDING CLEANING, FUELING, OR MAINTAINING VEHICLES ON-SITE, EXCEPT IN AN AREA DESIGNATED TO CONTAIN AND TREAT RUNOFF.

GRADING & DRAINAGE NOTES:

1. SCOPE OF WORK

THESE SPECIFICATIONS AND APPLICABLE PLANS PERTAIN TO AND INCLUDE ALL SITE GRADING AND EARTHWORK ASSOCIATED WITH THE PROJECT INCLUDING, BUT NOT LIMITED TO THE FURNISHING OF ALL LABOR, TOOLS AND EQUIPMENT NECESSARY FOR SITE CLEANING AND GRUBBING, SITE PREPARATION, DISPOSAL OF EXCESS OR UNSUITABLE MATERIAL, STRIPPING, KEYING, EXCAVATION, OVER EXCAVATION, EXCAVATION OF EXCESS OR UNSUITABLE MATERIAL, STRIPPING, KEYING, EXCAVATION, OVER EXCAVATION, IMPORTATION OF ANY REQUIRED FILL MATERIAL, PROCESSING, PLACEMENT AND COMPACTION OF FILL AND SUBSIDIARY WORK NECESSARY TO COMPLETE THE GRADING TO CONFORM TO THE LINES, GRADING AND SLOPE SHOWN ON THE PROJECT GRADING PLANS.

2. GENERAL

A. ALL SITE GRADING AND EARTHWORK SHALL CONFORM TO THE RECOMMENDATIONS OF THESE SPECIFICATIONS, THE SOILS REPORT BY ROMG ENGINEERS, DATED JUNE 28, 2018, AND THE CITY OF CAMPBELL.

B. ALL FILL MATERIALS SHALL BE DENSED SO AS TO PRODUCE A DENSITY NOT LESS THAN 90% RELATIVE COMPACTION BASED UPON ASTM TEST DESIGNATION D1557. FIELD DENSITY TEST WILL BE PERFORMED IN ACCORDANCE WITH ASTM TEST DESIGNATION 2922 AND 2017. THE LOCATION AND FREQUENCY OF THE FIELD DENSITY TEST WILL BE AS DETERMINED BY THE SOILS ENGINEER. THE RESULTS OF THESE TESTS AND COMPLIANCE WITH THE SPECIFICATIONS WILL BE THE BASIS UPON WHICH SATISFACTORY COMPLETION OF THE WORK WILL BE JUDGED BY THE SOILS ENGINEER. ALL CUT AND FILL SLOPES SHALL BE CONSTRUCTED AS SHOWN ON PLANS, BUT NO STEEPER THAN TWO (2) HORIZONTAL TO ONE (1) VERTICAL.

C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SATISFACTORY COMPLETION OF ALL THE EARTHWORK IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. NO DEVIATION FROM THESE SPECIFICATIONS SHALL BE MADE EXCEPT UPON WRITTEN APPROVAL BY THE SOILS ENGINEER. BOTH CUT AND FILL AREAS SHALL BE SURFACE COMPLETED TO THE SATISFACTION OF THE SOILS ENGINEER AT THE CONCLUSION OF ALL GRADING OPERATIONS AND PRIOR TO FINAL ACCEPTANCE. THE CONTRACTOR SHALL NOTIFY THE SOILS ENGINEER AT LEAST TWO (2) WORKING DAYS PRIOR TO DOING ANY SITE GRADING AND EARTHWORK INCLUDING CLEARING.

3. CLEARING AND GRUBBING

A. THE CONTRACTOR SHALL ACCEPT THE SITE IN ITS PRESENT CONDITION, ALL EXISTING PUBLIC IMPROVEMENTS SHALL BE PROTECTED. ANY IMPROVEMENTS DAMAGED SHALL BE REPLACED BY THE CONTRACTOR AS DIRECTED BY THE LOCAL JURISDICTION WITH NO EXTRA COMPENSATION.

B. ALL ABANDONED BUILDINGS AND FOUNDATIONS, TREE (EXCEPT THOSE SPECIFIED TO REMAIN FOR LANDSCAPING PURPOSES), FENCES, VEGETATION AND ALL SURFACE DEBRIS SHALL BE REMOVED AND DEPOSITED OFF OF THE SITE BY THE CONTRACTOR.

C. ALL ABANDONED SEPTIC TANKS AND ANY OTHER SUBSURFACE STRUCTURES EXISTING IN PROPOSED DEVELOPMENT AREAS SHALL BE REMOVED PRIOR TO ANY GRADING OR FILL OPERATION. ALL APPROPRIATE DRAIN FIELDS AND OTHER CONNECTING LINES MUST ALSO BE TOTALLY REMOVED.

D. ALL ABANDONED UNDERGROUND IRIGATION OR UTILITY LINES SHALL BE REMOVED OR DEMOLISHED. THE APPROPRIATE FINAL DISPOSITION OF SUCH LINES DEPEND UPON THEIR DEPTH AND LOCATION AND THE METHOD OF REMOVAL OR DEMOLITION SHALL BE DETERMINED BY THE SOILS ENGINEER. ONE OF THE FOLLOWING METHODS WILL BE USED:

- (1) EXCAVATE AND TOTALLY REMOVE THE UTILITY LINE FROM THE TRENCH.
(2) EXCAVATE AND GRIND THE UTILITY LINE IN THE TRENCH.
(3) CAP THE ENDS OF THE UTILITY LINE WITH CONCRETE TO PREVENT THE ENTRANCE OF WATER. THE LOCATIONS AT WHICH THE UTILITY LINE WILL BE CAPPED WILL BE DETERMINED BY THE UTILITY DISTRICTS ENGINEER. THE LENGTH OF THE CAP SHALL NOT BE LESS THAN FIVE FEET, AND THE CONCRETE MIX EMPLOYED SHALL HAVE MINIMUM STRENGTH.

4. SITE PREPARATION AND STRIPPING

A. ALL SURFACE ORGANICS SHALL BE STRIPPED AND REMOVED FROM BUILDING PADS, AREAS TO RECEIVE COMPACTED FILL AND PAVEMENT AREAS.

B. UPON THE COMPLETION OF THE ORGANIC STRIPPING OPERATION, THE GROUND SURFACE (NATIVE SOIL SUBGRADE) OVER THE ENTIRE AREA OF ALL BUILDING PADS, STREET AND PAVEMENT AREAS AND ALL AREAS TO RECEIVE COMPACTED FILL SHALL BE FLOUED OR SCARIFIED UNTIL THE SURFACE IS FREE OF ROOTS, HUMMOIDS OR OTHER UNEVEN FEATURES WHICH MAY INHIBIT UNIFORM SOIL COMPACTION. THE GROUND SURFACE SHALL THEN BE DISSED OR BLADED TO A DEPTH OF AT LEAST 6 INCHES. UPON ENGINEER'S SATISFACTION, THE NEW SURFACE SHALL BE WATER CONDITIONED AND RECOMPACTED PER REQUIREMENTS FOR COMPACTING FILL MATERIAL.

5. EXCAVATION

A. UPON COMPLETION OF THE CLEARING AND GRUBBING, SITE PREPARATION AND STRIPPING, THE CONTRACTOR SHALL MAKE EXCAVATIONS TO LINES AND GRADES NOTED ON THE PLANS WHERE REQUIRED BY THE SOILS ENGINEER. UNACCEPTABLE NATIVE SOILS OR UNDERMINED FILL SHALL BE OVER EXCAVATED BELOW THE DESIGN GRADE. SEE PROJECT SOILS REPORT FOR DISCUSSION OF OVER EXCAVATION OF THE UNACCEPTABLE MATERIAL. RESULTING GROUND LINE SHALL BE SCARIFIED, MOISTURE-CONDITIONED AND RECOMPACTED AS SPECIFIED IN SECTION 4 OF THESE SPECIFICATIONS. COMPACTED FILL MATERIAL SHALL BE PLACED TO BRING GROUND LEVEL BACK TO DESIGN GRADE.

B. EXCAVATED MATERIALS SUITABLE FOR COMPACTED FILL MATERIAL SHALL BE UTILIZED IN MAKING THE REQUIRED COMPACTED FILLS. THOSE NATIVE MATERIALS CONSIDERED UNSUITABLE BY THE SOILS ENGINEER SHALL BE DISPOSAL OF OFF THE SITE BY THE CONTRACTOR.

6. PLAGING, SPREADING AND COMPACTING FILL MATERIAL

A. FILL MATERIALS: THE MATERIALS PROPOSED FOR USE AS COMPACTED FILL SHALL BE APPROVED BY THE SOILS ENGINEER BEFORE COMMENCEMENT OF GRADING OPERATIONS. THE NATIVE MATERIAL IS CONSIDERED SUITABLE FOR FILL; HOWEVER, ANY NATIVE MATERIAL DESIGNATED UNSUITABLE BY THE SOILS ENGINEER SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR. ANY IMPORTED MATERIAL SHALL BE APPROVED FOR USE BY THE SOILS ENGINEER. IN WRITING, BEFORE BEING WROUGHT TO THE SITE AND SHALL POSSESS SUFFICIENT FINES TO PROVIDE A COMPETENT SOIL MATRIX AND SHALL BE FREE OF VEGETATIVE AND ORGANIC MATTER AND OTHER GLETERIOUS MATERIALS. ALL FILL Voids SHALL BE FILLED AND PROPERLY COMPACTED. NO ROCKS LARGER THAN THREE INCHES IN DIAMETER SHALL BE FORTIFIED.

B. FILL CONSTRUCTION

THE SOILS ENGINEER SHALL APPROVE THE NATIVE SOIL SUBGRADE BEFORE PLACEMENT OF ANY COMPACTED FILL MATERIAL. UNACCEPTABLE NATIVE SOIL SHALL BE REMOVED AS DIRECTED BY THE SOILS ENGINEER. THE RESULTING GROUND LEVEL SHALL BE SCARIFIED MOISTURE CONDITIONED AND RECOMPACTED AS SPECIFIED IN SECTION 4 OF THESE SPECIFICATIONS. COMPACTED FILL MATERIAL SHALL BE PLACED TO BRING GROUND LINE BACK TO DESIGN GRADE. GROUND PREPARATION SHALL BE FOLLOWED CLOSELY BY FILL PLACEMENT TO PREVENT BRUING OUT OF THE SUBSOIL. BEFORE PLACEMENT OF THE FILL:

THE APPROVED FILL MATERIALS SHALL BE PLACED IN UNIFORM HORIZONTAL LAYERS NO THICKER THAN 8" IN LOOSE THICKNESS. LAYERS SHALL BE SPREAD EVENLY AND SHALL BE THOROUGHLY BLADE MIXED DURING THE SPREADING TO ENSURE UNIFORMITY OF MATERIAL IN EACH LAYER. THE SCARIFIED SUBGRADE AND FILL MATERIAL SHALL BE MOISTURE CONDITIONED TO AT LEAST OPTIMUM MOISTURE. WHEN THE MOISTURE CONTENT OF THE FILL IS BELOW THAT SPECIFIED, WATER SHALL BE ADDED UNTIL THE MOISTURE DURING THE COMPACTION PROCESS. WHEN THE MOISTURE CONTENT OF THE FILL IS ABOVE THAT SPECIFIED, THE FILL MATERIAL SHALL BE AERATED BY BLADING OR OTHER SATISFACTORY METHODS UNTIL THE MOISTURE CONTENT IS AS SPECIFIED.

AFTER EACH LAYER HAS BEEN PLACED, MIXED, SPREAD EVENLY AND MOISTURE CONDITIONED, IT SHALL BE COMPACTED TO AT LEAST THE SPECIFIED DENSITY.

THE FILL OPERATION SHALL BE CONTINUED IN COMPACTED LAYERS AS SPECIFIED ABOVE UNTIL THE SPECIFIED MINIMUM COMPACTION WITHIN THE SPECIFIED MOISTURE CONTENT RANGE. COMPACTION SHALL BE ALLOWED TO DRY OUT BEFORE SUBSEQUENT LAYERS ARE PLACED.

COMPACTION EQUIPMENT SHALL BE OF SUCH DESIGN THAT IT WILL BE ABLE TO COMPACT THE FILL TO THE SPECIFIED MINIMUM COMPACTION WITHIN THE SPECIFIED MOISTURE CONTENT RANGE. COMPACTION OF EACH LAYER SHALL BE CONTINUOUS OVER ITS ENTIRE AREA UNTIL THE REQUIRED MINIMUM DENSITY HAS BEEN OBTAINED.

7. CUT OR FILL SLOPES

ALL CONSTRUCTED SLOPES, BOTH CUT AND FILL, SHALL BE NO STEEPER THAN 2 TO 1 (HORIZONTAL TO VERTICAL). DURING THE GRADING OPERATION, COMPACTED FILL SLOPES SHALL BE OVERBUILT BY AT LEAST ONE FOOT HORIZONTALLY AT THE COMPLETION OF THE GRADING OPERATIONS. THE EXCESS FILL EXISTING ON THE SLOPES SHALL BE BLADED OFF TO CREATE THE FINISHED SLOPE. OVERBUILT, ALL CUT AND FILL SLOPES SHALL BE TRUCK WALLED AFTER BEING BROUGHT TO FINISH GRADE AND THEN BE PLANTED WITH EROSION CONTROL. SLOPE PLANTING, THE SOILS ENGINEER SHALL REVIEW ALL CUT SLOPES TO DETERMINE IF ANY ADVERSE GEOLOGIC CONDITIONS ARE PRESENT. IF SUCH CONDITIONS DO OCCUR, THE SOILS ENGINEER SHALL RECOMMEND THE APPROPRIATE MITIGATION MEASURES AT THE TIME OF THEIR DETECTION.

8. SEASONAL LIMITS AND DRAINAGE CONTROL

FILL MATERIALS SHALL NOT BE PLACED, SPREAD OR COMPACTED WHILE IT IS AT AN UNSUITABLY HIGH MOISTURE CONTENT OR DURING OTHERWISE UNFAVORABLE CONDITIONS. WHEN THE WORK IS INTERRUPTED FOR ANY REASON THE FILL OPERATIONS SHALL NOT BE RESUMED UNTIL FIELD TEST PERFORMED BY THE SOILS ENGINEER INDICATE THAT THE MOISTURE CONTENTS IN AREAS TO BE FILLED ARE AS PREVIOUSLY SPECIFIED. ALL EARTH MOVING AND WORKING OPERATIONS SHALL BE CONTROLLED TO PREVENT WATER FROM RUNNING INTO EXCAVATED AREAS. ALL EXCESS WATER SHALL BE PROMPTLY REMOVED AND THE SITE KEPT DRY.

9. DUST CONTROL

THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY FOR THE ALLEVIATION OR PREVENTION OF ANY DUST NUISANCE ON OR ABOUT THE SITE CAUSED BY THE CONTRACTOR'S OPERATION EITHER DURING THE PERFORMANCE OF THE GRADING OR RESULTING FROM THE CONDITION IN WHICH THE CONTRACTOR LEAVES THE SITE. THE CONTRACTOR SHALL ASSUME ALL LIABILITY INCLUDING COURT COST OF CO-DEFENDANTS FOR ALL CLAIMS RELATED TO DUST OR BIRD-INDUCED MATERIALS ATTRIBUTABLE TO HIS WORK. COST FOR THIS ITEM OF WORK IS TO BE INCLUDED IN THE EXCAVATION ITEM AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

10. INDEMNITY

THE CONTRACTOR WILL HOLD HARMLESS, INDEMNIFY AND DEFEND THE ENGINEER, THE OWNER AND HIS CONSULTANTS AND EACH OF THEIR OFFICERS AND EMPLOYEES AND AGENTS, FROM ANY AND ALL LIABILITY CLAIMS, LOSSES OR DAMAGE ARISING OR ALLEGED TO ARISE, BUT NOT INCLUDING THE SOLE NEGLIGENCE OF THE OWNER, THE ARCHITECT, THE ENGINEER AND HIS CONSULTANTS AND EACH OF THEIR OFFICERS AND EMPLOYEES AND AGENTS.

11. SAFETY

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

THE DUTY OF THE ENGINEERS TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN OR ON NEAR THE CONSTRUCTION SITE.

12. GUARANTEE

NEITHER THE FINAL PAYMENT NOR THE PROVISIONS IN THE CONTRACT, NOR PARTIAL, NOR ENTIRE USE OR OCCUPANCY OF THE PREMISES BY THE OWNER SHALL CONSTITUTE AN ACCEPTANCE OF THE WORK NOR SHALL IT BE CONSIDERED A WAIVER OF THE CONTRACTOR'S OBLIGATION OF LIABILITY IN RESPECT TO ANY EXPRESS WARRANTIES OR RESPONSIBILITY FOR FAULTY MATERIAL OR WORKMANSHIP. THE CONTRACTOR SHALL REMEDY ANY DEFECTS IN WORK AND PAY FOR ANY DAMAGE TO OTHER WORK RESULTING THEREFROM WHICH SHALL APPEAR WITHIN A PERIOD OF ONE (1) CALENDAR YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK.

13. TRENCH BACKFILL

OTHER THAN THE ON-SITE INDIANIC SOIL OR APPROVED IMPORTED SOIL MAY BE USED AS TRENCH BACKFILL. THE BACKFILL MATERIAL SHALL BE MOISTURE CONDITIONED PER THESE SPECIFICATIONS AND BE COMPACTED BY MECHANICAL MEANS TO A MINIMUM OF 90% RELATIVE COMPACTION. IMPORTED SAND MAY BE USED FOR TRENCH BACKFILL MATERIAL PROVIDED IT IS COMPACTED TO AT LEAST 90% RELATIVE COMPACTION. WATER JETTING ASSOCIATED WITH COMPACTION USING VIBRATORY EQUIPMENT WILL BE PERMITTED ONLY WITH IMPORTED SAND BACKFILL WITH THE APPROVAL OF THE SOILS ENGINEER. ALL PIPES SHALL BE BODDED WITH SAND EXENDING FROM THE TRENCH BOTTOM TO TWELVE INCHES ABOVE THE PIPE. SAND BEDDING IS TO BE COMPACTED AS SPECIFIED ABOVE FOR SAND BACKFILL.

14. EROSION CONTROL

A. ALL GRADING, EROSION AND SEDIMENT CONTROL AND RELATED WORK UNDERTAKEN ON THIS SITE IS SUBJECT TO ALL TERMS AND CONDITIONS OF THE COUNTY GRADING ORDINANCE AND MAKE A PART HEREOF BY REFERENCE.

B. THE CONTRACTOR WILL BE LIABLE FOR ANY AND ALL DAMAGES TO ANY PUBLICLY OWNED AND MAINTAINED ROAD CAUSED BY THE AFORESAID CONTRACTOR'S GRADING ACTIVITIES, AND SHALL BE RESPONSIBLE FOR THE CLEANUP OF ANY MATERIAL SPILLED ON ANY PUBLIC ROAD ON THE MAIL ROUTE.

C. THE EROSION CONTROL MEASURES ARE TO BE OPERABLE DURING THE RAINY SEASON, GENERALLY FROM OCTOBER FIRST TO APRIL FIFTEENTH. EROSION CONTROL PLANTING IS TO BE COMPLETED BY OCTOBER FIRST. NO GRUBBING OR UTILITY TRENCHING SHALL OCCUR BETWEEN OCTOBER FIRST AND APRIL FIFTEENTH UNLESS AUTHORIZED BY THE LOCAL JURISDICTION.

D. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED AND CHANGES TO THIS EROSION CONTROL PLAN SHALL BE MADE TO MEET FIELD CONDITIONS ONLY WITH THE APPROVAL OF OR AT THE DIRECTION OF THE SOILS ENGINEER.

E. DURING THE RAINY SEASON, ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT-LAIDEN RUNOFF TO ANY STORM DRAINAGE SYSTEM.

F. ALL EROSION CONTROL FACILITIES MUST BE INSPECTED AND REPAIRED AT THE END OF EACH WORKING DAY DURING THE RAINY SEASON.

G. WHEN NO LONGER NECESSARY AND PRIOR TO FINAL ACCEPTANCE OF DEVELOPMENT, SEDIMENT BASINS SHALL BE REMOVED OR OTHERWISE DEACTIVATED AS REQUIRED BY THE LOCAL JURISDICTION.

H. A CONSTRUCTION ENTRANCE SHALL BE PROVIDED AT ANY POINT OF EGRESS FROM THE SITE TO ROADWAY. A CONSTRUCTION ENTRANCE SHOULD BE COMPOSED OF CONCRETE DRUM ROCK (2" TO 3" MINIMUM DIAMETER) AT LEAST EIGHT INCHES THICK BY FIFTY (50) FEET LONG BY TWENTY (20) FEET WIDE UNLESS SHOWN OTHERWISE ON PLAN AND SHALL BE MAINTAINED UNTIL THE SITE IS PAVED.

I. ALL AREAS SPECIFIED FOR HYDROSEEDING SHALL BE NOZZLE PLANTED WITH STABILIZATION MATERIAL CONSISTING OF FRESH SEED, FERTILIZER AND WATER, MIXED AND APPLIED IN THE FOLLOWING PROPORTIONS:

- FRESH, 2000 LBS/ACRE
SEED, 200 LBS/ACRE (SEE NOTE A BELOW)
FERTILIZER (11-8-4), 500 LBS/ACRE
WATER, AS REQUIRED FOR APPLICATION

J. SEED MIX SHALL BE PER CALTRANS STANDARDS.

K. WATER UTILIZED IN THE STABILIZATION MATERIAL SHALL BE OF SUCH QUALITY THAT IT WILL PROMOTE GROWTH AND STIMULATE GROWTH OF PLANTS. IT SHALL BE FREE OF POLLUTANT MATERIALS AND WEED SEED.

L. HYDROSEEDING SHALL CONFORM TO THE PROVISIONS OF SECTION 20, EROSION CONTROL, AND HIGHWAY PLANTING, OF THE STANDARD SPECIFICATIONS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, AS LATEST REVISED.

M. A DISPERSING AGENT MAY BE ADDED TO THE HYDROSEEDING MATERIAL, PROVIDED THAT THE CONTRACTOR FURNISHES SUFFICIENT EVIDENCE THAT THE ADDITIVE WILL NOT ADVERSELY AFFECT THE PERFORMANCE OF THE SEEDING MIXTURE.

N. STABILIZATION MATERIAL SHALL BE APPLIED AS SOON AS PRACTICABLE AFTER COMPLETION OF GRADING OPERATIONS AND PRIOR TO THE ONSET OF WINTER RAINS, OR AT SUCH OTHER TIME AS DIRECTED BY THE COUNTY ENGINEER. THE MATERIAL SHALL BE APPLIED BEFORE INSTALLATION OF OTHER LANDSCAPING MATERIALS SUCH AS TREES, SHRUBS AND GROUND COVERS.

O. THE STABILIZATION MATERIAL SHALL BE APPLIED WITHIN 4-HOURS AFTER MIXING. MIXED MATERIAL NOT USED WITHIN 4-HOURS SHALL BE REMOVED FROM THE SITE.

P. THE CONTRACTOR SHALL MAINTAIN THE SOIL STABILIZATION MATERIAL AFTER PLACEMENT. THE COUNTY ENGINEER MAY REQUIRE SPRAY APPLICATION OF WATER OR OTHER MAINTENANCE ACTIVITIES TO ASSURE THE EFFECTIVENESS OF THE STABILIZATION PROCESS. APPLICATION OF WATER SHALL BE ACCOMPLISHED USING NOZZLES THAT PRODUCE A SPRAY THAT DOES NOT CONCENTRATE OR WASH AWAY THE STABILIZATION MATERIAL.

15. CLEANUP

THE CONTRACTOR MUST MAINTAIN THE SITE CLEAN, SAFE AND IN USABLE CONDITION. ANY SPILLS OF SOIL, ROCK OR CONSTRUCTION MATERIAL MUST BE REMOVED FROM THE SITE BY THE CONTRACTOR DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. COST FOR THIS ITEM OF WORK SHALL BE INCLUDED IN THE EXCAVATION AND COMPACTION ITEM AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

NOTE: THESE NOTES ARE INTENDED TO BE USED AS A GENERAL GUIDELINE. THE REFERENCED SOILS REPORT FOR THE PROJECT AND GOVERNING AGENCY GRADING ORDINANCE SHALL SUPERSEDE THESE NOTES. THE SOILS ENGINEER MAY MAKE ON-SITE RECOMMENDATIONS DURING GRADING OPERATIONS.

Revision table with columns: No., Description, Date, and initials. Includes project title: GRADING SPECIFICATIONS 1511 VAN DUSEN LANE ENCROACHMENT PERMIT NO. 1511-19-20. Date: 10-01-19. Drawn By: WT. Designated By: TA. LEA AND BRAZE ENGINEERING, INC. 1511 VAN DUSEN LANE, SUITE 100, CAMPBELL, CA 95008. TEL: 408.853.8888 FAX: 408.853.8889 WWW.LEABRAZE.COM

SCALE: NO SCALE SHEET: C-3.0 03 OF 07



**PURPOSE:**

THE PURPOSE OF THIS PLAN IS TO STABILIZE THE SITE TO PREVENT EROSION OF GRADED AREAS AND TO PREVENT SEDIMENTATION FROM LEAVING THE CONSTRUCTION AREA AND AFFECTING NEIGHBORING SITES, NATURAL AREAS, PUBLIC FACILITIES OR ANY OTHER AREAS THAT MIGHT BE AFFECTED BY SEDIMENTATION. ALL MEASURES SHOWN ON THIS PLAN SHOULD BE CONSIDERED THE MINIMUM REQUIREMENTS NECESSARY. SHOULD FIELD CONDITIONS DICTATE ADDITIONAL MEASURES, SUCH MEASURES SHALL BE PER CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL AND THE CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION. LEA & BRAZE ENGINEERING SHOULD BE NOTIFIED IMMEDIATELY SHOULD CONDITIONS CHANGE.

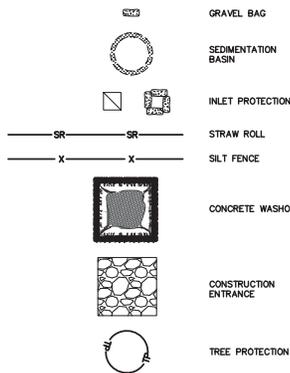
**EROSION CONTROL NOTES:**

- IT SHALL BE THE OWNER'S/CONTRACTOR'S RESPONSIBILITY TO MAINTAIN CONTROL OF THE ENTIRE CONSTRUCTION OPERATION AND TO KEEP THE ENTIRE SITE IN COMPLIANCE WITH THIS EROSION CONTROL PLAN.
- THE INTENTION OF THIS PLAN IS FOR INTERIM EROSION AND SEDIMENT CONTROL ONLY. ALL EROSION CONTROL MEASURES SHALL CONFORM TO CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL, THE CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION, AND THE LOCAL GOVERNING AGENCY FOR THIS PROJECT.
- OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO, DURING, AND AFTER STORM EVENTS. PERSON IN CHARGE OF MAINTAINING EROSION CONTROL MEASURES SHOULD WATCH LOCAL WEATHER REPORTS AND ACT APPROPRIATELY TO MAKE SURE ALL NECESSARY MEASURES ARE IN PLACE.
- SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- DURING THE RAINY SEASON, ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT-LADEN RUNOFF TO ANY STORM DRAINAGE SYSTEM, INCLUDING EXISTING DRAINAGE SWALES AND WATERCOURSES.
- CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION WILL BE MINIMIZED. COMPLIANCE WITH FEDERAL, STATE AND LOCAL LAWS CONCERNING POLLUTION SHALL BE MAINTAINED AT ALL TIMES.
- CONTRACTOR SHALL PROVIDE DUST CONTROL AS REQUIRED BY THE APPROPRIATE FEDERAL, STATE AND LOCAL AGENCY REQUIREMENTS.
- ALL MATERIALS NECESSARY FOR THE APPROVED EROSION CONTROL MEASURES SHALL BE IN PLACE BY OCTOBER 15TH.
- EROSION CONTROL SYSTEMS SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE RAINY SEASON, OR FROM OCTOBER 15TH THROUGH APRIL 15TH, WHICHEVER IS LONGER.
- IN THE EVENT OF RAIN, ALL GRADING WORK IS TO CEASE IMMEDIATELY AND THE SITE IS TO BE SEALED IN ACCORDANCE WITH THE APPROVED EROSION CONTROL MEASURES AND APPROVED EROSION CONTROL PLAN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND REPAIRING EROSION CONTROL SYSTEMS AFTER EACH STORM.
- ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY LOCAL JURISDICTION'S ENGINEERING DEPARTMENT OR BUILDING OFFICIALS.
- MEASURES SHALL BE TAKEN TO COLLECT OR CLEAN ANY ACCUMULATION OR DEPOSIT OF DIRT, MUD, SAND, ROCKS, GRAVEL OR DEBRIS ON THE SURFACE OF ANY STREET, ALLEY OR PUBLIC PLACE OR IN ANY PUBLIC STORM DRAIN SYSTEMS. THE REMOVAL OF AFORESAID SHALL BE DONE BY STREET SWEEPING OR HAND SWEEPING. WATER SHALL NOT BE USED TO WASH SEDIMENTS INTO PUBLIC OR PRIVATE DRAINAGE FACILITIES.
- EROSION CONTROL MEASURES SHALL BE ON-SITE FROM SEPTEMBER 15TH THRU APRIL 15TH.
- ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE RAINY SEASON OR FROM OCTOBER 15TH THROUGH APRIL 15TH, WHICHEVER IS GREATER.
- PLANS SHALL BE DESIGNED TO MEET C3 REQUIREMENTS OF THE MUNICIPAL STORMWATER REGIONAL PERMIT(MRP) NPDES PERMIT CAS 612008.
- THE CONTRACTOR TO NPDES (NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM) BEST MANAGEMENT PRACTICES (BMP) FOR SEDIMENTATION PREVENTION AND EROSION CONTROL TO PREVENT DELETERIOUS MATERIALS OR POLLUTANTS FROM ENTERING THE TOWN OR COUNTY STORM DRAIN SYSTEMS.
- THE CONTRACTOR MUST INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO THE INCEPTION OF ANY WORK ON-SITE AND MAINTAIN THE MEASURES UNTIL THE COMPLETION OF ALL LANDSCAPING.
- THE CONTRACTOR SHALL MAINTAIN ADJACENT STREETS IN A NEAT, CLEAN DUST FREE AND SANITARY CONDITION AT ALL TIMES AND TO THE SATISFACTION OF THE TOWN INSPECTOR. THE ADJACENT STREET SHALL AT ALL TIMES BE KEPT CLEAR OF DEBRIS, WITH DUST AND OTHER NUISANCE BEING CONTROLLED AT ALL TIMES. THE CONTRACTOR BE RESPONSIBLE FOR ANY CLEAN UP ON ADJACENT STREETS AFFECTED BY THE BY THEIR CONSTRUCTION. METHOD OF STREET CLEANING SHALL BE BY DRY SWEEPING OF ALL PAVED AREAS. NO STOCKPILING OF BUILDING MATERIALS WITHIN THE TOWN RIGHT-OF-WAY.
- SEDIMENTS AND OTHER MATERIALS SHALL NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONTRACTOR SHALL INSTALL A STABILIZED CONSTRUCTION ENTRANCE PRIOR TO THE INCEPTION OF ANY WORK ON-SITE AND MAINTAIN IT FOR THE DURATION OF THE CONSTRUCTION PROCESS SO AS TO NOT INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC RIGHT-OF-WAY UNTIL THE COMPLETION OF ALL LANDSCAPING.
- THE CONTRACTOR SHALL PROTECT DOWN SLOPE DRAINAGE COURSES, STREAMS AND STORM DRAINS WITH ROCK FILLED SAND BAGS, TEMPORARY SWALES, SILT FENCES, AND EARTH PERMS IN CONJUNCTION OF ALL LANDSCAPING.
- STOCKPILED MATERIALS SHALL BE COVERED WITH WISQUEEN OR A TARPULIN UNTIL THE MATERIAL IS REMOVED FROM THE SITE. ANY REMAINING BARE SOIL THAT EXISTS AFTER THE STOCKPILE HAS BEEN REMOVED SHALL BE COVERED UNTIL A NATURAL GROUND COVER IS ESTABLISHED OR IT IS SEEDED OR PLANTED TO PROVIDE GROUND COVER PRIOR TO THE FALL RAINY SEASON.
- EXCESS OR WASTE CONCRETE MUST NOT BE WASHED INTO THE PUBLIC RIGHT-OF-WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
- TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION AND DISPERSAL BY WIND FUELS, OILS, SOLVENTS AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MUST NOT BE WASHED INTO THE DRAINAGE SYSTEM.
- DUST CONTROL SHALL BE DONE BY WATERING AND AS OFTEN AS REQUIRED BY THE TOWN INSPECTOR.
- SILT FENCE(S) AND/OR FIBER ROLL(S) SHALL BE INSTALLED PRIOR TO SEPTEMBER 15TH AND SHALL REMAIN IN PLACE UNTIL THE LANDSCAPING GROUND COVER IS INSTALLED. CONTRACTOR SHALL CONTINUOUSLY MONITOR THESE MEASURES, FOLLOWING AND DURING ALL RAIN EVENTS, TO PUBLIC OWNED FACILITIES.

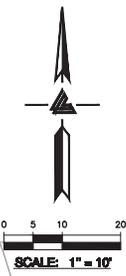
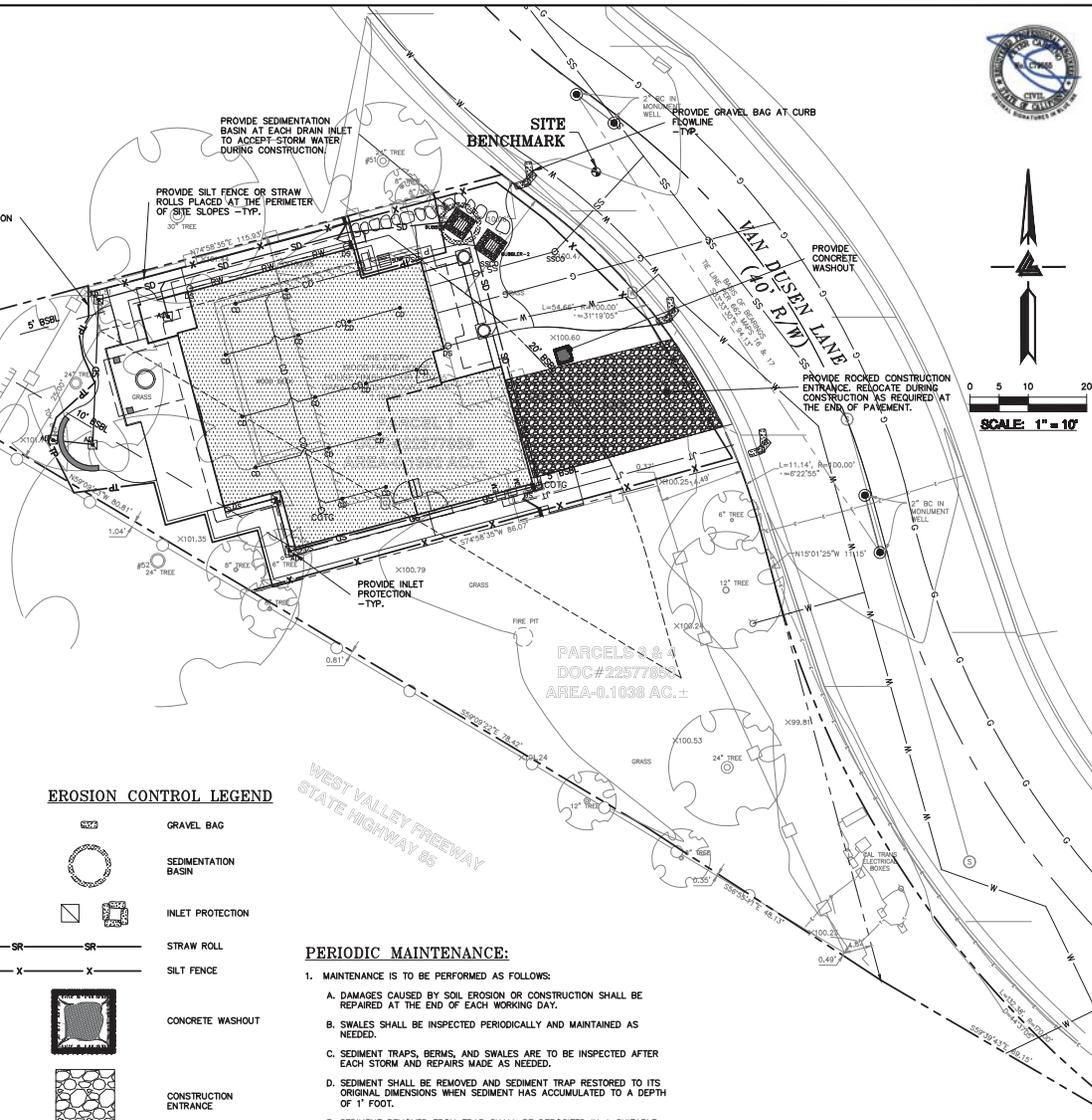
**EROSION CONTROL MEASURES:**

- THE FACILITIES SHOWN ON THIS PLAN ARE DESIGNED TO CONTROL EROSION AND SEDIMENT DURING THE RAINY SEASON, OCTOBER 15TH TO APRIL 15. EROSION CONTROL FACILITIES SHALL BE IN PLACE PRIOR TO OCTOBER 15TH OF ANY YEAR. GRADING OPERATIONS DURING THE RAINY SEASON WHICH LEAVE DENUDDED SLOPES SHALL BE PROTECTED WITH EROSION CONTROL MEASURES IMMEDIATELY FOLLOWING GRADING ON THE SLOPES.
- SITE CONDITIONS AT TIME OF PLACEMENT OF EROSION CONTROL MEASURES WILL VARY. APPROPRIATE ACTION INCLUDING TEMPORARY SWALES, INLETS, HYDROSEEDING, STRAW BALES, ROCK SACKS, ETC. SHALL BE TAKEN TO PREVENT EROSION AND SEDIMENTATION FROM LEAVING SITE. EROSION CONTROL MEASURES SHALL BE ADJUSTED AS THE CONDITIONS CHANGE AND THE NEED OF CONSTRUCTION SHIFT.
- CONSTRUCTION ENTRANCES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF GRADING. ALL CONSTRUCTION TRAFFIC ENTERING ONTO PAVED ROADS MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCES. CONTRACTOR SHALL MAINTAIN STABILIZED ENTRANCE AT EACH VEHICLE ACCESS POINT TO EXISTING PAVED STREETS. ANY MUD OR DEBRIS TRACKED ONTO PUBLIC STREETS SHALL BE REMOVED DAILY AND AS REQUIRED BY THE GOVERNING AGENCY.
- ALL EXPOSED SLOPES THAT ARE NOT VEGETATED SHALL BE HYDROSEEDDED. IF HYDROSEEDING IS NOT USED OR IS NOT EFFECTIVE BY OCTOBER 15, THEN OTHER IMMEDIATE METHODS SHALL BE IMPLEMENTED, SUCH AS EROSION CONTROL MATS, OR A THREE-STEP APPLICATION OF 1) SEED, MULCH, FERTILIZER 2) BLOWN STRAW 3) TACKIFIER AND MULCH. HYDROSEEDING SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF SECTION 207 EROSION CONTROL AND HIGHWAY PLANTING" OF THE STANDARD SPECIFICATIONS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, AS LATEST REVISION. REFER TO THE EROSION CONTROL SECTION OF THE GRADING SPECIFICATIONS THAT ARE A PART OF THIS PLAN SET FOR FURTHER INFORMATION.
- INLET PROTECTION SHALL BE INSTALLED AT OPEN INLETS TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM. INLETS NOT USED IN CONJUNCTION WITH EROSION CONTROL, ARE TO BE BLOCKED TO PREVENT ENTRY OF SEDIMENT. MINIMUM INLET PROTECTION SHALL CONSIST OF A ROCK SACKS OR AS SHOWN ON THIS PLAN.
- THIS EROSION AND SEDIMENT CONTROL PLAN MAY NOT COVER ALL THE SITUATIONS THAT MAY ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS AND ADDITIONS MAY BE MADE TO THIS PLAN IN THE FIELD. A REPRESENTATIVE OF LEA & BRAZE ENGINEERING SHALL PERFORM A FIELD REVIEW AND MAKE RECOMMENDATIONS AS NEEDED. CONTRACTOR IS RESPONSIBLE TO NOTIFY LEA & BRAZE ENGINEERING AND THE GOVERNING AGENCY OF ANY CHANGES.
- THE EROSION CONTROL MEASURES SHALL CONFORM TO THE LOCAL JURISDICTION'S STANDARDS AND THE APPROVAL OF THE LOCAL JURISDICTION'S ENGINEERING DEPARTMENT.
- STRAW ROLLS SHALL BE PLACED AT THE TOE OF SLOPES AND ALONG THE DOWN SLOPE PERIMETER OF THE PROJECT. THEY SHALL BE PLACED AT 25 FOOT INTERVALS ON GRADED SLOPES. PLACEMENT SHALL RUN WITH THE CONTOURS AND SHALL BE TIGHTLY END BUTTED. CONTRACTOR SHALL REFER TO MANUFACTURERS SPECIFICATIONS FOR PLACEMENT AND INSTALLATION INSTRUCTIONS.

**EROSION CONTROL LEGEND**



**NOTE:**  
SEAL ALL OTHER INLETS NOT INTENDED TO ACCEPT STORM WATER AND DIRECT FLOWS TEMPORARILY TO FUNCTIONAL SEDIMENTATION BASIN INLETS. -TYP



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**EROSION CONTROL PLAN**  
**1511 VAN DUSEN LANE**  
**ENCROACHMENT PERMIT NO. \_\_\_\_\_**

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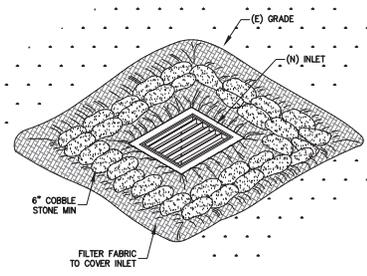
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| Date:        | 11-01-19   |    |
| Drawn By:    | WA         |    |
| Designed By: | TT         |    |

**LEA & BLAKE ENGINEERING INC.**  
 1511 VAN DUSEN LANE  
 ENCINO, CALIFORNIA 91436  
 (818) 709-1000  
 www.leaandblake.com

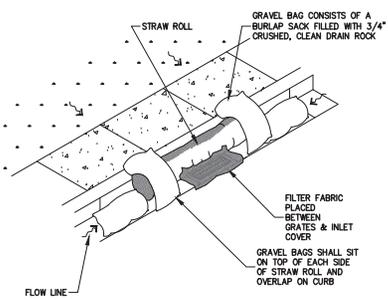
**EROSION CONTROL DETAILS**  
 1511 VAN DUSEN LANE  
 ENCINO, CALIFORNIA 91436  
 ENCROACHMENT PERMIT NO. \_\_\_\_\_



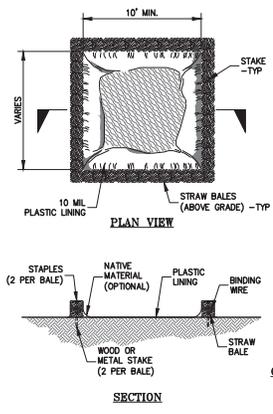
SCALE:  
N.T.S.  
SHEET:  
ER-2  
06 OF 07



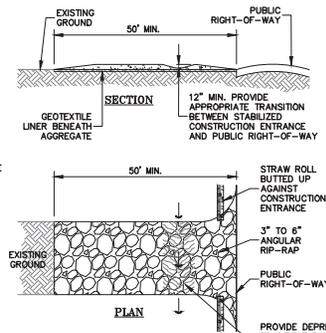
**1 INLET PROTECTION**  
ER-2 NTS



**2 STREET INLET PROTECTION**  
ER-2 NTS

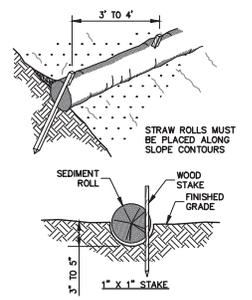


**3 CONCRETE WASHOUT**  
ER-2 NTS

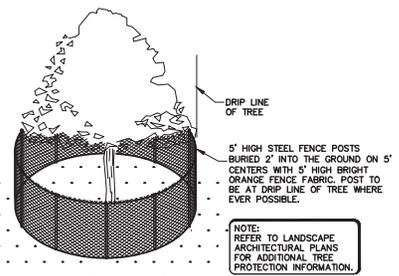


**4 CONSTRUCTION ENTRANCE**  
ER-2 NTS

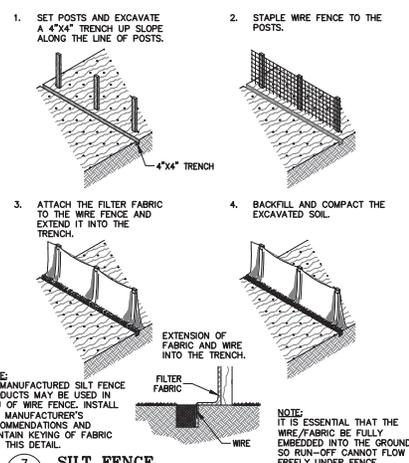
**NOTES:**  
 STABILIZED CONSTRUCTION SITE ACCESS SHALL BE CONSTRUCTED OF 3" TO 6" WASHED, FRACTURED STONE AGGREGATE.  
 MATERIAL SHALL BE PLACED TO A MINIMUM THICKNESS OF 12". LENGTH OF ENTRANCE SHALL BE A MINIMUM OF 50'.  
 WIDTH SHALL BE A MIN. OF 15' OR GREATER IF NECESSARY TO COVER ALL VEHICULAR INGRESS AND EGRESS. PROVIDE AMPLE TURNING RADI.  
 THE ENTRANCE SHALL BE KEPT IN GOOD CONDITION BY OCCASIONAL TOP DRESSING WITH MATERIAL AS SPECIFIED IN ABOVE NOTE.  
 ACCESS SHALL BE INSPECTED WEEKLY DURING PERIODS OF HEAVY USAGE, MONTHLY DURING NORMAL USAGE, AND AFTER EACH RAINFALL. WITH MAINTENANCE PROVIDED AS NECESSARY.  
 PERIODIC TOP DRESSING SHALL BE DONE AS NEEDED.



**5 STRAW ROLLS FLAT LOT**  
ER-2 NTS



**6 EXISTING TREE PROTECTION DETAIL**  
ER-2 NTS



**7 SILT FENCE**  
ER-2 NTS

**NOTE:**  
 1. STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3" TO 5" DEEP, DIG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL. CONTRACTOR IS RESPONSIBLE FOR REGULAR MAINTENANCE AND INSPECTION. THE SILT SHALL BE CLEANED OUT WHEN IT REACHES HALF THE HEIGHT OF THE ROLL.

**NOTE:**  
 REFER TO LANDSCAPE ARCHITECTURAL PLANS FOR ADDITIONAL TREE PROTECTION INFORMATION.

**NOTE:**  
 LOCAL JURISDICTION MIGHT HAVE MORE STRINGENT REQUIREMENTS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING W/ INSPECTOR TO ENSURE PROPER PROCEDURES ARE BEING FOLLOWED.

**NOTE:**  
 PREMANUFACTURED SILT FENCE PRODUCTS MAY BE USED IN LIEU OF WIRE FENCE. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND MAINTAIN KEYING OF FABRIC PER THIS DETAIL.

**NOTE:**  
 IT IS ESSENTIAL THAT THE WIRE FABRIC BE FULLY EMBEDDED INTO THE GROUND SO RUN-OFF CANNOT FLOW FREELY UNDER FENCE.



|                |          |
|----------------|----------|
| Date:          | 02-18-20 |
| Drawn By:      | TT       |
| Checked By:    | TT       |
| Revision:      |          |
| No.:           |          |
| PLAN CHECK:    |          |
| Designated By: | TT       |

### FRESH CONCRETE AND MORTAR APPLICATION

#### BEST MANAGEMENT PRACTICES FOR:

- Masons and bricklayers
- Sidewalk construction crews
- Paint construction workers
- Construction inspectors
- General contractors
- Home builders
- Developers

- When cleaning up after driveway or sidewalk construction, wash fines onto dirt areas, not down the driveway or into the street or storm drain.
- Place bay hoses or other erosion control devices to capture runoff carrying mortar or cement before it reaches the storm drain.

#### GENERAL BUSINESS PRACTICES

- Both at your yard and the construction site, always store both dry and wet materials under covers and protect from rainfall and runoff. Protect dry materials from wind.
- Secure bags of cement after they are open. Be sure to keep wind-blown cement powder away from gutters, storm drains, rainfalls, and runoff.
- Recycle large chunks of broken concrete as a landfill.
- Dispose of small amounts of excess dry concrete, grout, and mortar in the trash.
- Wash out concrete mixers only in designated wash-out areas in your yard, where the water will flow into containment ponds or onto dirt. Whenever possible, recycle washout by pumping back into mixers for reuse. Never dispose of washout into the street, storm drains, drainage ditches, or storm.

#### STORM DRAIN POLLUTION FROM MASONRY AND PAVING

Fresh concrete and cement-related materials that wash into lakes, streams, or oceans are toxic to fish and the aquatic environment. Disposing of these materials in the storm drains or creeks causes serious problems and is prohibited by law.

#### DURING CONSTRUCTION

- Don't mix up more fresh concrete or cement than you will use in a day.
- Set up and operate small mixers on tarps or heavy plastic drop cloths.

### LANDSCAPING, GARDENING, AND POOL MAINTENANCE

#### BEST MANAGEMENT PRACTICES FOR THE:

- Landscapers
- Gardeners
- Swimming pool/spa service and repair workers
- General contractors
- Home builders
- Developers

#### 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 for dry weather.
- Use temporary check dams or ditches to divert runoff away from storm drains.
- Protect storm drains with bay hoses or other erosion controls.
- Revegetation is an excellent form of erosion control for any site.

### LANDSCAPING/GARDEN MAINTENANCE

#### BEST MANAGEMENT PRACTICES FOR THE:

- Use up pesticides. Rinse containers, and use rinse water as product. Dispose of rinsed 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 yard waste recycling, leave clippings and pruning waste for pickup in approved bags or containers. Or, take to a landfill that accepts yard waste.
- Do not place yard waste in gutters.
- Do not blow or rake leaves, etc. into the street.

#### STORM DRAIN POLLUTION FROM LANDSCAPING AND SWIMMING POOL MAINTENANCE

Many landscaping activities disperse soils and increase the likelihood that fertilizers and garden chemicals will runoff into the storm drains during irrigation or when it rains. Swimming pool waste containing chlorine and copper-based algaecides should never be discharged to storm drains. These chemicals are toxic to aquatic life.

### HEAVY EQUIPMENT OPERATION

#### BEST MANAGEMENT PRACTICES FOR THE:

- Vehicle and equipment operators
- Site supervisors
- General contractors
- Home builders
- Developers

#### SITE PLANNING AND PREVENTIVE VEHICLE MAINTENANCE

- Designate one area of the construction site, well away from streets or storm drain inlets, for auto and equipment parking, refueling, and routine vehicle and engine maintenance.
- Maintain all vehicles and heavy equipment. Inspect frequently for leaks.
- Perform major maintenance, repair job, vehicle, and equipment washing off site.
- If you must drain and replace motor oil, radiator coolant, or other fluids on site, use drip trays or drop cloths to catch drips and spills. Collect all spent fluids, store in separate containers, and recycle whenever possible.
- Do not use diesel oil to lubricate equipment or parts.
- Clean up spills immediately when they happen.

#### STORM DRAIN POLLUTION FROM HEAVY EQUIPMENT ON THE CONSTRUCTION SITE

Poorly maintained vehicles and heavy equipment leaking fuel, oil, antifreeze or other fluids on the construction site are common sources of storm water pollution. Fuel, oil, and other fluids can be washed into storm drains and into the street by splashing and other maintenance problems. Remove construction equipment from the site as soon as possible.

### PAINTING AND APPLICATION OF SOLVENTS AND ADHESIVES

#### BEST MANAGEMENT PRACTICES FOR THE: PAINTING/CLEANUP

- Never pour down dirty pavement or impermeable surfaces where fluids have pooled. Use dry cleaning method (absorbent materials, cat litter, and/or rags) whenever possible. If you must use water, use just enough to keep the dust down.
- Sweep up spilled dry materials immediately. Never attempt to wash them away with water or bury them. Use a fish-water as possible for dust control.
- Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- Report significant spills to the appropriate spill response agencies immediately.

#### WHAT CAN YOU DO?

- Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- For water based paints, paint out brushes to the extent possible, and rinse to the sanitary sewer.
- For oil based paints, paint out brushes to the extent possible, filter and reuse thinners and solvents. Dispose of excess liquids and residue as hazardous waste.
- Recycle leftover paint cans whenever possible.
- Recycle excess water-based paint, or use up. Dispose of excess liquid, including dyes, as hazardous waste.
- Reuse leftover oil-based paint. Dispose of excess liquid, including dyes, as hazardous waste.

#### PAINT REMOVAL

- Chips and dust from marine paint or paint containing lead or tributyl tin are hazardous wastes. Dry sweep and dispose of appropriately.
- Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up and disposed as trash.
- When stripping or cleaning building exteriors with high-pressure water, block storm drains. Wash water onto a dirt area and spread into soil. Or, check with the local wastewater treatment authority to find out if you can collect (suck or vacuum) building cleaning water and dispose to the sanitary sewer.

#### STORM DRAIN POLLUTION FROM PAINTS, SOLVENTS, AND ADHESIVES

All paints, solvents, and adhesives contain chemicals that are harmful to the wildlife in our creeks and bays. Toxic chemicals may come from liquid or solid products used for cleaning residues or rags. It is especially important not to clean brushes in an area where paint residues can flow to a gutter, street, or storm drain.

# Blueprint for a Clean Bay

## BEST MANAGEMENT PRACTICES FOR THE CONSTRUCTION INDUSTRY.

### SANTA CLARA VALLEY NONPOINT SOURCE POLLUTION CONTROL PROGRAM

### EARTH MOVING ACTIVITIES

#### BEST MANAGEMENT PRACTICES FOR THE:

- Buildsters, backhoes, and grading machine operators
- Dump truck drivers
- Site supervisors
- General contractors
- Home builders
- Developers

#### DURING CONSTRUCTION

- Remove existing vegetation only when absolutely necessary.
- Consider planting temporary vegetation for erosion control on slopes or where construction is not immediately planned.
- Protect downslope drainage courses, streams, and storm drains with bay hoses or temporary drainage swales.
- Use check dams or ditches to divert runoff around excavations.
- Cover stockpiles and excavated soil with silt control tarps or plastic sheeting.

#### GENERAL BUSINESS PRACTICES

- Schedule excavation and grading work for 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 or parts.

### ROADWORK AND PAVING

#### BEST MANAGEMENT PRACTICES FOR THE:

- Road Crews
- Driveway/sidewalk/parking lot construction crews
- Soil coat contractors
- Operators of grading equipment
- Concrete mixers
- Construction inspectors
- General contractors
- Developers

#### WHAT CAN YOU DO?

- Develop and implement erosion/sediment control plans for construction.
- Schedule excavation and grading work for dry weather.
- Check for and repair leaking equipment.
- Perform major equipment repairs in designated areas or your yard, away from the construction site.

#### WATCH FOR ANY OF THESE CONDITIONS:

- Unusual soil conditions, discoloration, or odor
- Abandoned underground tanks
- Buried barrels, debris, or trash

#### STORM DRAIN POLLUTION FROM EARTH-MOVING ACTIVITIES

Soil excavation and grading operations loosen large amounts of soil that can flow or blow into storm drains if handled improperly. Soil erodes due to a combination of increased soil velocity, increased runoff, and increased flow velocity. Some of the most effective erosion control practices reduce the amount of runoff crossing a site and slow the flow with check dams or roughened ground surfaces.

#### DURING CONSTRUCTION

- Avoid paving and seal coating in wet weather, or when rain forecast before fresh pavement will have time to cure.
- Cover and seal catch basins and manholes when applying seal coat, slurry seal, fog seal, etc.
- Use check dams, ditches, or berms to divert runoff around excavations.

#### STORM DRAIN POLLUTION FROM ROADWORK

Road paving, surfacing, and pavement removal happens right in the street, where there are numerous opportunities for storm drain contamination by asphalt, saw-cut slurry, or excavated material. Extra planning is required to store and dispose of materials properly and guard against pollution of storm drains and creeks.

### GENERAL CONSTRUCTION AND SITE SUPERVISION

#### BEST MANAGEMENT PRACTICES FOR THE: MATERIALS/WASTE HANDLING

- Construction industry
- WHAT CAN YOU DO?
- Designate one area of the site for mud parking, vehicle refueling. The designated area should be well away from streams or storm drain inlets, and bordered if necessary. Make major repairs off site.
- Keep materials out of the rain-preserved runoff composition at the source. Cover exposed piles of soil of 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.
- 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 old pavement, be sure to remove all chunks and pieces.
- Never hose down "silty" pavement or surfaces where materials have spilled. Use dry cleanup methods whenever possible.
- Make sure brooms pavement does not come broken pavement dust into storm drains with rainfall or runoff.
- Shovel or vacuum saw-cut slurry and remove from the site. Cover or barricade storm drain during saw-cutting if necessary.
- Never hose down streets to clean up tracked dirt.
- Make sure portable toilets are in good working order. Check frequently for leaks.

#### 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 storm drains and the Bay. As a contractor, site supervisor, owner or operator of a site, you may be responsible for any environmental damage caused by your subcontractors or employees.

### BEST MANAGEMENT PRACTICES FOR STORM WATER POLLUTION PREVENTION

#### Spill Response Agencies

- Dial 911
- Santa Clara Valley Water District Environment Compliance Division (408) 927-0710.
- Governor's Office of Emergency Services Warning Center (800) 552-7550 (24 hours).

#### Local Pollution Control Agencies

- Santa Clara County Office of Toxics and Solid Waste Management (408) 441-1195
- Santa Clara Valley Water District (408) 927-0710
- San Jose/Santa Clara Water Pollution Control Plant (408) 945-3300
- Serving Campbell, Cupertino, Los Gatos, Milpitas, Monte Sereno, San Jose, Santa Clara and Saratoga
- Sunnyvale Water Pollution Control Plant (408) 730-7270
- Palo Alto Regional Water Quality Control Plant (415) 329-2595
- Serving East Palo Alto, Los Altos, Los Altos Hills, Mountain View, Palo Alto, and Stanford

Note: The property owner and the contractor share ultimate responsibility for the activities that occur on a construction site. Owner and contractor may be held responsible for any environmental damage caused by the subcontractors or employees.

### ORDINANCE OF THE CITY OF CAMPBELL ESTABLISHING REQUIREMENTS FOR STORM WATER POLLUTION CONTROL

#### A. Criminal Penalties. Any person who violates any provision of this article shall be guilty of a misdemeanor and upon conviction thereof shall be punishable by imprisonment for a term not to exceed six (6) months or a fine not to exceed \$1000 or both. Each day in which the violation occurs 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 of Campbell in a sum not to exceed \$1000 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 of Campbell for all costs, including attorneys fees, associated with the investigation and remediation of environmental conditions caused by the discharge of pollutants into the Municipal Storm Drain System or a 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 remedies available to the City of Campbell under State and Federal Law.

**BLUEPRINT FOR A CLEAN BAY**  
**1511 VAN DUSEN LANE**  
**ENCROACHMENT PERMIT NO. \_\_\_\_\_**

|        |        |
|--------|--------|
| SCALE: | N.T.S. |
| SHEET: | OF     |

31 Jan 2015 11:28:00 AM  
 71 Jan 2015 11:28:00 AM  
 This is a blueprint for a clean bay

|                |          |
|----------------|----------|
| Date:          | 02-18-20 |
| Drawn By:      | TT       |
| Checked By:    | TT       |
| Revision:      |          |
| No.:           |          |
| PLAN CHECK:    |          |
| Designated By: | TT       |

SCALE: NO SCALE  
 SHEET: SW-1 OF 07

# LANDSCAPE CONSTRUCTION DOCUMENTS

## VETERE-DAVIS RESIDENCE LANDSCAPE IMPROVEMENTS

### WATER USE CALCULATIONS

#### 1511 VAN DUSEN COURT, CAMPBELL, CA

| Eto          | 43   | ZONE             | WATER USE | PF  | METHOD | IE   | ETAF | HA         | ETAF*HA    | ETWU          |
|--------------|------|------------------|-----------|-----|--------|------|------|------------|------------|---------------|
| Total HA     | 828  | 1 - MEADOW       | MOD       | 0.4 | DRIP   | 0.81 | 0.5  | 331        | 163        | 4,358         |
| Special HA   | 0    | 2 - SHRUBS       | MOD       | 0.4 | DRIP   | 0.81 | 0.5  | 183        | 90         | 2,409         |
| ETAF Average | 0.49 | 3 - TREE         | MOD       | 0.4 | DRIP   | 0.81 | 0.5  | 40         | 20         | 527           |
| ETAF Total   | 0.49 | 4 - POIS         | MOD       | 0.4 | DRIP   | 0.81 | 0.5  | 40         | 20         | 527           |
|              |      | 5 - SHRUBS       | MOD       | 0.4 | DRIP   | 0.81 | 0.5  | 174        | 86         | 2,291         |
|              |      | 6 - VINES        | MOD       | 0.4 | DRIP   | 0.81 | 0.5  | 60         | 30         | 790           |
|              |      | <b>LS TOTALS</b> |           |     |        |      |      | <b>828</b> | <b>409</b> | <b>10,901</b> |

$$MAWA = (Eto) (0.62) [(0.7 \times LA) + 0.3 \times SLA]$$

MAWA

15,452 Gallons

2,066 HCF

$$ETWU = (Eto) (0.62) \times [(PF \times HA) / ED + SLA]$$

ETWU

10,901 Gallons

| SLA               | WATER USE | ETAF | HA    | ETAF*HA | ETWU |
|-------------------|-----------|------|-------|---------|------|
| WATER FEATURE     | HIGH      | 1.0  | 0     | 0       | 0    |
| <b>SLA TOTALS</b> |           |      |       |         |      |
| SHRUB             |           |      | 6,282 | 88%     |      |
| LAWN (25% MAX)    |           |      | 892   | 12%     |      |

### PAVING COVERAGE CALCULATIONS

| ELEMENT                    | AREA (SF) | COVERAGE % |
|----------------------------|-----------|------------|
| FRONT YARD SF WITH SETBACK | 1,318 SF  |            |
| FRONT YARD PAVING          | 521 SF    | 39%        |

\*MAX ALLOWABLE PAVING IN FRONT YARD SETBACK 659 SF

### LANDSCAPE COVERAGE CALCULATIONS

| ELEMENT                             | AREA (SF) | COVERAGE % |
|-------------------------------------|-----------|------------|
| TOTAL LOT S.F.                      | 6,063 SF  |            |
| IMPERVIOUS SURFACE AREA             |           |            |
| BUILDING                            | 2,034 SF  | 33.5%      |
| HARDSCAPE (WALKS, PATIOS, DRIVEWAY) | 1,656 SF  | 27.5%      |
| PERVIOUS AREAS                      |           |            |
| LANDSCAPE AREAS                     | 2,373 SF  | 39%        |
| 50% OF IMPERVIOUS AREA = 1,845      |           |            |

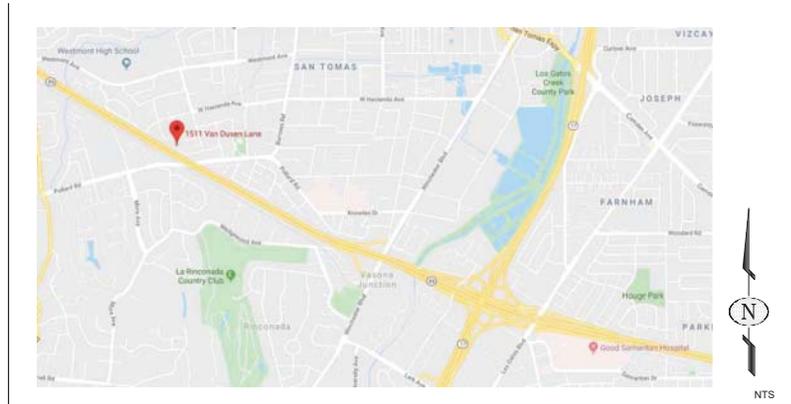
### PRECONSTRUCTION MEETING & SITE OBSERVATION:

- CONTRACTOR TO CONTACT LANDSCAPE ARCHITECT UPON BEING AWARDED THE CONTRACT TO SCHEDULE A PRE-CONSTRUCTION MEETING AND WALK THROUGH.
- THE LANDSCAPE ARCHITECT SHALL BE CONTACTED FOR SITE OBSERVATION AT LEAST 72 HOURS PRIOR TO EACH OF THE FOLLOWING:
  - PRE-CONSTRUCTION
  - CONCRETE FORMING AND HEADER LAYOUT
  - BACKFILLING OF UTILITIES, INCLUDING: IRRIGATION, MAINLINE, LATERALS, ELECTRICAL CONDUIT, GAS LINES, ETC.
  - IRRIGATION COVERAGE TEST - PRIOR TO PLANT INSTALLATION
  - PLANT DELIVERIES & SPECIMEN TREE INSTALLATION

### EQUIPMENT SPECIFICATIONS & SUBSTITUTIONS:

- CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT WITH ANY PROPOSED CHANGES/DEVIATIONS FROM THE PLANS, INCLUDING BUT NOT LIMITED TO: IRRIGATION EQUIPMENT, LIGHTING SPECIFICATIONS, PLANT SPECIES, SIZES, OR QUANTITIES, FINISH MATERIALS, LUMBER SELECTION, LANDSCAPE EDGING, ETC.
- CONTRACTOR TO SUBMIT CUT SHEETS FOR ANY AND ALL MATERIALS AND EQUIPMENT SUBSTITUTIONS
- CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ANY AND ALL UNAPPROVED MATERIALS AND EQUIPMENT AND FOR RE-INSTALLATION OF SPECIFIED EQUIPMENT AT NO ADDITIONAL COST TO THE CLIENT.

## GENERAL NOTES



VICINITY MAP

### CLIENT

GABRIELLA VETERE & DERRYK DAVIS  
1511 VAN DUSEN LANE  
CAMPBELL, CA

### LANDSCAPE ARCHITECT

T.H. NORTON LANDSCAPE ARCHITECTURE, INC.  
1220 DIAMON WAY, SUITE 245  
CONCORD, CA 94520  
CONTACT: TOM NORTON  
PHONE: (925) 822-3085  
EMAIL: TOM@THNORTON.COM

## CONTACT

|                             |             |
|-----------------------------|-------------|
| TITLE SHEET                 | T.1.1       |
| CONSTRUCTION PLAN           | L.1.1       |
| CONSTRUCTION DETAILS        | L.2.1-2.2   |
| CONSTRUCTION SPECIFICATIONS | L.3.1       |
| IRRIGATION PLAN             | L.4.1       |
| IRRIGATION DETAILS          | L.5.1-L.5.3 |
| IRRIGATION SPECIFICATIONS   | L.6.1       |
| PLANTING PLAN               | L.7.1       |
| PLANTING DETAILS            | L.8.1       |
| PLANTING SPECIFICATIONS     | L.9.1       |

## SHEET INDEX

**T H NORTON**  
landscape architecture, inc.  
1220 DIAMOND WAY  
Suite 245  
CONCORD, CA 94520  
PHONE: 925.822.3085

VETERE-DAVIS RESIDENCE  
1511 VAN DUSEN LANE  
CAMPBELL, CA



Know what's below.  
Call before you dig.

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| REVISION | DATE |
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|         |             |
|---------|-------------|
| DATE    | 02/20/20    |
| YEAR    | 19008       |
| PROJECT | RESIDENTIAL |

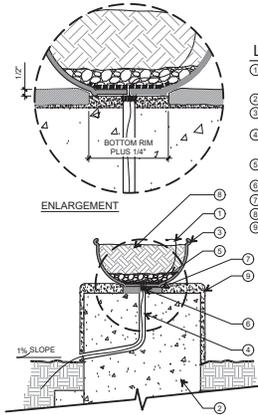


TITLE SHEET

T.1.1  
13

PLOT 000 - 001/19/19/2020

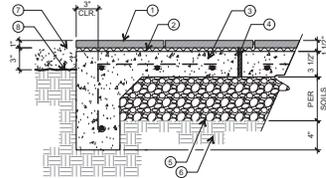




**LEGEND**

- ① 1/4" DRIP TUBE, CONNECT TO ADJACENT IRRIGATION WITH BUG CAP & 1/2" SPHERICAL Emitter
- ② POT BASE OR PILASTER
- ③ PLANTED POT - SEE POT SCHEDULE, SHEET D.1.1
- ④ 1 1/2" SCH 40, PVC DRAINLINE, DAYLIGHT TO PLANTING AREA OR CONNECT TO LANDSCAPE DRAIN
- ⑤ 2" DP, 3/4" DRAIN ROCK OVER FILTER FABRIC
- ⑥ 2" HDG PLAT DRAIN CAP
- ⑦ MORTAR BASE - SLOPE TO DRAIN
- ⑧ PLANTING MIX
- ⑨ CAP PER PLAN

**G POT WATER FILTRATION**

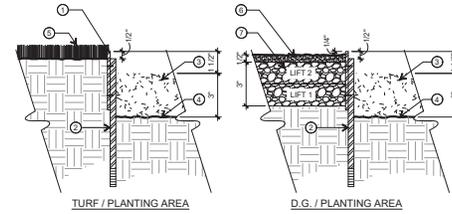


**LEGEND**

- ① FLAGSTONE VENEER, PER FINISH SCHEDULE
- ② MORTAR LEVELING BED
- ③ CONCRETE FOUNDATION WITH THICKENED EDGE - REINFORCEMENT PER STRUCTURAL ENGINEER
- ④ 1/4" POLY-FELT EXPANSION JOINT - LOCATE PER PLAN
- ⑤ BASE ROCK, PER SOILS REPORT
- ⑥ COMPACTED SUBGRADE, PER SOILS REPORT
- ⑦ 3" LAYER OF MULCH AT PLANTER AREAS
- ⑧ FINISH GRADE

NOTE: THIS DETAIL IS PROVIDED FOR DESIGN INTENT. REFER TO STRUCTURAL PLANS FOR FOOTINGS AND REINFORCEMENT. REFER TO SOILS REPORT FOR SUBGRADE.

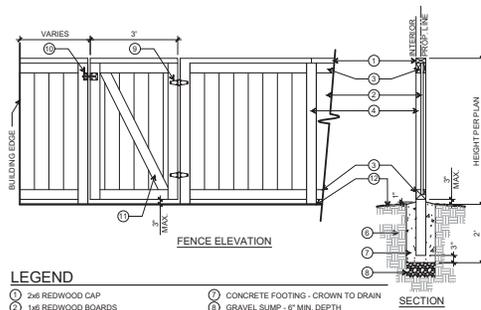
**D IMPERMEABLE PAVER WALK**



**LEGEND**

- ① 4" x 3/16" HEADER, PER FINISH SCHEDULE
- ② STEEL STAKE AT 4" MAX. SECURE PER MANUFACTURER SPECIFICATIONS
- ③ 3" LAYER OF MULCH
- ④ FINISH GRADE AT PLANTING AREA
- ⑤ FINISH GRADE AT TURF
- ⑥ 1/2" OF LOOSE GRAVEL / D.G. TOP DRESSING, PER FINISH SCHEDULE
- ⑦ DECOMPOSED GRANITE WALKWAY - STABILIZED AND COMPACTED TO 90%. INSTALL IN (G) LIFTS.

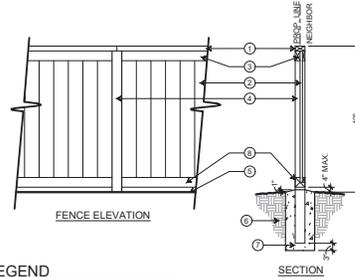
**A STEEL HEADER**



**LEGEND**

- ① 2x6 REDWOOD CAP
- ② 1x6 REDWOOD BOARDS
- ③ 2x4 RAILS ON OUTSIDE OF FENCE AND 1x4 RAILS ON INSIDE OF FENCE
- ④ 4x4 PT POST @ 8' O.C. MAX.
- ⑤ 4x4 BOTTOM RAIL - RABBIT TRIM WITH 1/2 FINISH TRIM INSIDE FENCE
- ⑥ 2x6 CONCRETE FOOTING - CROWN TO DRAIN
- ⑦ GRAVEL SLUMP - 6" MIN. DEPTH
- ⑧ HEAVY-DUTY, SELF-CLOSING GALVANIZED STRAP HINGES
- ⑨ LOCKABLE BOLT-ON LATCH
- ⑩ 2x4 CROSS BRACE ON INSIDE
- ⑪ FINISH GRADE

**H PERIMETER FENCE**



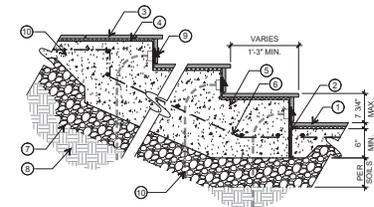
**LEGEND**

- ① 2x6 REDWOOD CAP
- ② 1x6 REDWOOD BOARDS (TYP.)
- ③ 2x4 RAILS ON OUTSIDE OF FENCE AND 1x4 RAILS ON INSIDE OF FENCE
- ④ 4x4 PT REDWOOD POST @ 8' O.C. MAX.
- ⑤ FINISH GRADE
- ⑥ COMPACTED SUB-GRADE PER SOILS REPORT
- ⑦ CONCRETE FOOTING - CROWN TO DRAIN
- ⑧ 4x4 BOTTOM RAIL - RABBIT TRIM WITH 1/2 FINISH TRIM OUTSIDE FENCE

**NOTES:**

- FENCE SHALL BE INSTALLED TO PROVIDE POSITIVE DRAINAGE AWAY FROM BOTH SIDES. VERIFY WITH CIVIL ENGINEERS GRADING PLAN.
- WATERPROOF STAIN ALL WOOD SURFACES STAIN TO BE BEHR 909. APPLY PER MANUFACTURER'S RECOMMENDATIONS. VERIFY WITH OWNER.

**E 42" LOW FENCE**

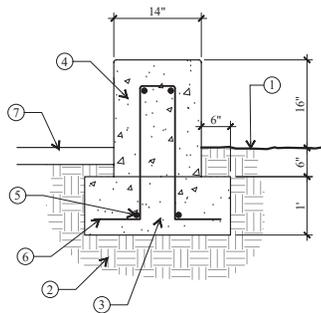


**LEGEND**

- ① ADJACENT PAVING, PER PLAN
- ② 1/2" POLY-FELT EXPANSION JOINT
- ③ STONE VENEER - REFER TO FINISH SCHEDULE. SLOPE MIN. 1/8" PER FOOT
- ④ 1/2" MORTAR LEVELLING BED
- ⑤ P.I.P. CONCRETE FOUNDATION
- ⑥ REINFORCEMENT, PER STRUCTURAL ENGINEER. 3" CLEAR, TYP.
- ⑦ MIN. 10" CLASS II AGGREGATE BASE, PER SOILS REPORT
- ⑧ COMPACTED SUBGRADE, PER SOILS REPORT
- ⑨ LOW-VOLTAGE LIGHT, TYP. - PER PLAN
- ⑩ ELECTRICAL CONDUIT, TYP. TERMINATE AT PULL BOX, VERIFY BOX LOCATION AND CONNECTION TO CONTROL IN FIELD

NOTE: THIS DETAIL IS PROVIDED FOR DESIGN INTENT. REFER TO STRUCTURAL PLANS FOR FOOTINGS AND REINFORCEMENT. REFER TO SOILS REPORT FOR SUB-BASE.

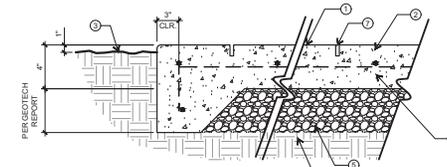
**B STONE STEPS**



**LEGEND**

- ① FINISHED GRADE
- ② COMPACTED SUBGRADE PER SOILS REPORT
- ③ P.I.P. CONCRETE FOOTING
- ④ P.I.P. CONCRETE SEAT WALL W/ NATURAL COLOR AND TOP CAST 25 FINISH
- ⑤ NO. 3 BAR CONTINUE @ TOP AND BOTTOM - MIN. 2" CLR.
- ⑥ NO. 4 BAR VERT. @ 24" O.C. ALT. BEND @ FOOTING - MIN. 2" CLR.
- ⑦ ADJACENT FINISH SURFACE

**F CONCRETE SEAT WALL**



**LEGEND**

- ① FINISH SURFACE - SEE FINISH SCHEDULE
- ② 1/2" RADIUS ALL EDGES
- ③ FINISH GRADE
- ④ REINFORCEMENT PER CIVIL PLANS
- ⑤ CLASS II BASE ROCK, SECTION PER GEOTECH REPORT
- ⑥ COMPACTED SUBGRADE PER GEOTECH REPORT
- ⑦ SMOOTH TROWEL JOINT - 1" DEEP MIN. SCORELINE PATTERN PER PLAN

**C IMPERMEABLE PAVER DRIVE**

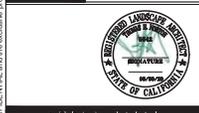
**T H NORTON**  
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 1220 DIAMOND WAY  
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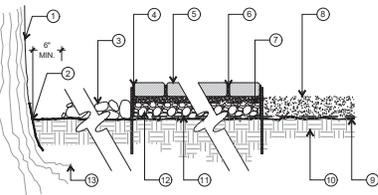
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| DESIGN  | TN          |
| PERMIT  | TN          |
| DATE    | 02/20/20    |
| PROJECT | 19008       |
| TYPE    | RESIDENTIAL |



**CONSTRUCTION DETAILS**

**L2.1**  
 13

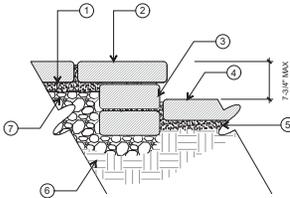
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**LEGEND**

- ① EXISTING HERITAGE TREE
- ② ROOT COLLAR
- ③ 4" DOUBLE LAYER WASHED RIVERSTONE MAINTAIN 6" CLEARANCE FROM ADJACENT TREE TRUNK
- ④ 5" x 14" STEEL HEADER, PER FINISH SCHEDULE STEEL STAKE AT 4" O" MAX. SECURE PER MANUFACTURER SPECIFICATIONS
- ⑤ PERMEABLE INTERLOCKING PAVERS, PER FINISH SCHEDULE
- ⑥ ASHTO NO. 8 (3/8") CRUSHED STONE INFILL PAVER JOINT
- ⑦ MIRAFI FILTER FABRIC
- ⑧ 3" MIN. MULCH LAYER AT PLANTING AREA
- ⑨ UNDISTURBED NATURAL GRADE
- ⑩ UNDISTURBED NATURAL SUBGR. Z1
- ⑪ TENSAR BX 1100 BI-AXIAL GEOTRID OVER EXISTING ROOT & SOIL SURFACE
- ⑫ 3" LAYER CLASS II PERMEABLE AGGREGATE BASE ROCK, HAND-TAMPED TO MAX. 75-80%
- ⑬ TREE ROOTS

**D PERMEABLE PAVER PATIO/WALK**



**LEGEND**

- ① 1" SAND LEVELING BED
- ② PAVER LANDING - TO MATCH ADJACENT PATIO/WALK
- ③ PAVER RISER - TO MATCH ADJACENT PATIO/WALK
- ④ ADJACENT PAVER WALK
- ⑤ REFER TO DETAIL D, SHEET L2.2 FOR SUBGRADE
- ⑥ SUBGRADE PER SOILS REPORT
- ⑦ AGGREGATE BASE - PER SOILS ENGINEER

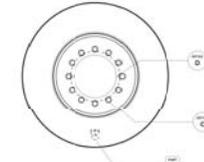
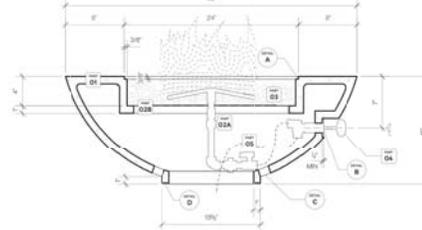
**E PAVER STEP**

**TINDER FIRE TABLE / HEMISPHERE 40 / MATCH LIGHT**

**SPECIFICATIONS**

**PROJECT INFO**

|                |  |
|----------------|--|
| PROJECT #      |  |
| NAME           |  |
| COLOR / FINISH |  |
| FUEL TYPE      |  |
| SHIPPING       |  |
| INFILL COVER   |  |
| ANCHORS        |  |
| GLASS SHIELD   |  |



**ADDITIONAL ACCESSORIES**

|   |
|---|
| SUNBELLA FABRIC COVER<br>FIRE TABLE UNIT COVER TO PROTECT UNIT WHILE NOT IN USE |
| INFILL COVER<br>22 1/2" DIA. TO 6" ALUMINUM INFILL COVER                        |

**PARTS**

| 01 TINDER  | 00A BURNER - UNIT   | 00B EXTENSION COLLAR  | 00C AGGREGATE                                   | 04 KEY & VALVE                         | 05 FLEXLINE  |
|--|---|---|---|--|--|
| HEMI 40<br>360 LBS<br>PRECAST GLASS FIBER REINFORCED CONCRETE HEMISPHERE FIRE TABLE. | PENTA BURNER 18" DIA.<br>65,000 BTU<br>CSA CERTIFIED FIRE-ASSEMBLED BURNER KIT (SEE PAGE 2 FOR CLEANANCE) | 22 3/4" OD, 16 1/2" ID<br>SS EXTENSION COLLAR<br>FLAT STAINLESS STEEL PAN & COLLAR. | 1.00 CUBIC FT (2 BAGS)<br>1-2" ROLLED LAVA ROCK | PEWTER ANGLED MANUAL BALL VALVE W/ KEY | 24" (3/4") WHISPER FLEX<br>CAPACITY FLEX LINE SET<br>PROOFED/FLOOR W/ 1/2" ID<br>3/8" FEMALE THREAD AT BOTH ENDS<br>2 (3/4") 1/2" ID MALE TO 1/2" ID MALE ADAPTER<br>2 (3/4") 1/2" ID MALE TO 1/2" ID FEMALE ADAPTER |

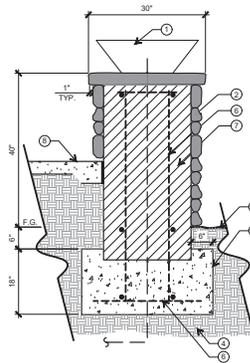
**DETAILS**

|  |  |   |   |
|--|--|---|---|
| <b>A RECESS</b><br>FORMED FOR OPTIONAL ALUMINUM TABLE INSERT SOLD SEPARATELY | <b>B KEYHOLE</b><br>FORWARD OPENING FOR GAS KEY & FLAME SHALL VALVE ON INTERIOR OF CONCRETE FIRE TABLE | <b>C VENTILATION</b><br>VENTILATION HOLES EQUALLY SPACED BUTTING TO ADJACENT TORNSKA INSULATION (OPT. 05) | <b>D WEEP HOLES</b><br>Ø 3/8" WEEP HOLE AT BASE (OPT. 05) |
|--|--|---|---|

**Concreteworks**

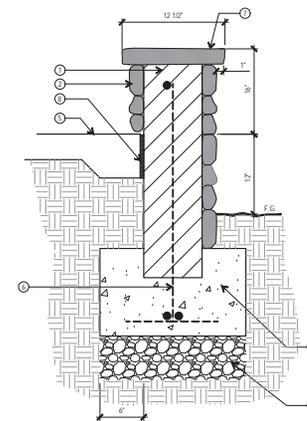
2013 Everett St. Alameda, CA 94501 concreteworks.com 510.534.7941

**A 40" TINDER HEMISPHERE GAS FIRE PIT**



**LEGEND**

- ① POT PER POT SCHEDULE, SHEET L7.1. REFER TO DETAIL FOR POT IRRIGATION AND DRAINAGE
- ② STONE VENEER - REFER TO FINISH SCHEDULE
- ③ CONCRETE FOOTING
- ④ 90% COMPACTED SUBGRADE
- ⑤ FINISHED GRADE
- ⑥ REINFORCEMENT PER STRUCTURAL ENGINEER
- ⑦ C.M.I. GROUT ALL CELLS SOLID
- ⑧ PATIO - PER ARCHITECT



**LEGEND**

- ① P.P. CONCRETE
- ② STONE VENEER, PER FINISH SCHEDULE
- ③ CONCRETE FOOTING
- ④ BASE ROCK, PER SOILS REPORT
- ⑤ PATIO, PER ARCHITECT
- ⑥ REINFORCEMENT PER STRUCTURAL ENGINEER
- ⑦ STONE CAP - FLUSH WITH FACE OF WALL
- ⑧ EXPANSION JOINT, SEE DETAIL

NOTE: DETAIL FOR DESIGN INTENT ONLY. FOOTINGS AND REINFORCEMENT PER STRUCTURAL ENGINEER.

**F POTTED PILASTER**

**C POTTED PILASTER**

**B STONE ACCENT WALL**

**T H NORTON**  
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| DATE    | 02/20/20    |
| PROJECT | RESIDENTIAL |

**CONSTRUCTION DETAILS**

**L2.2**

GENERAL NOTES

- 1.0 BIDS, CONTRACTS AND INSURANCE
A. EACH BIDDER MUST INSPECT THE SITE BEFORE SUBMITTING HIS BID.
B. THE OWNER RESERVES THE RIGHT TO REJECT ANY OR ALL BIDS.
C. SEPARATE CONTRACTS: THE OWNER RESERVES THE RIGHT TO LET OTHER CONTRACTS IN CONJUNCTION WITH THIS CONTRACT. THE CONTRACTOR SHALL AFFORD OTHER CONTRACTORS REASONABLE OPPORTUNITY FOR THE EXECUTION OF THEIR WORK AND SHALL PROPERLY COORDINATE HIS WORK WITH THEIRS.
D. LIABILITY AND COMPENSATION INSURANCE. THE CONTRACTOR SHALL CARRY AND PAY FOR ADEQUATE LIABILITY AND COMPENSATION INSURANCE AND SHALL, IF REQUIRED, FURNISH THE OWNER WITH EVIDENCE TO THIS EFFECT.
E. GUARANTEE BOND: THE CONTRACTOR SHALL HAVE THE RIGHT, PRIOR TO THE SIGNED OF THE CONTRACT TO REQUIRE THE CONTRACTOR TO FURNISH BOND GUARANTEEING THE FAITHFUL PERFORMANCE OF THE CONTRACT AND THE PAYMENT OF ALL OBLIGATIONS ARISING THEREUNDER, IN SUCH FORM AS THE OWNER MAY PREScribe AND WITH SUCH SURETIES AS HE MAY APPROVE. IF SUCH BOND IS REQUIRED, THE PREMIUM SHALL BE PAID BY THE OWNER.

- 2.0 PLANS AND PERMITS
A. ALL CONSTRUCTION SHALL BE ACCORDING TO CONSTRUCTION DOCUMENTS, UNLESS OTHERWISE APPROVED BY OWNER AND LANDSCAPE ARCHITECT.
B. CORRELATION OF DRAWINGS AND SPECIFICATIONS: ANY WORK NOT ACCORDING TO DRAWINGS AND SPECIFICATIONS OR ORDINANCES AND LAWS SHALL BE REMOVED.
C. DO NOT SCALE DRAWINGS. USE DIMENSIONS INDICATED.
D. ANY DISCREPANCY IN THE DRAWINGS OR SPECIFICATIONS SHALL BE CALLED TO THE IMMEDIATE ATTENTION OF THE LANDSCAPE ARCHITECT. FAILURE TO DO SO WILL PLACE RESPONSIBILITY ON THE CONTRACTOR.
E. PERMITS, FEES, ETC.: THE CONTRACTOR SHALL ARRANGE AND PAY FOR THE BUILDING PERMIT AND EACH SUBCONTRACTOR SHALL ARRANGE AND PAY FOR PERMITS FOR THEIR RESPECTIVE WORK.

- 3.0 EXECUTION
A. CONTRACTOR TO VERIFY ALL DIMENSIONS AND LOCATION OF ANY UNDERGROUND UTILITIES ON SITE.
B. DEMOLITION AND REMOVAL SHALL PROCEED UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT/OWNER.
C. CUT, CAP, OR PLUG AS REQUIRED; THOSE UTILITY LINES SERVING THE AREA WITHIN THE PROJECT LIMITS SHALL REMAIN UNINTERRUPTED DURING THE WORK PROGRESS.
D. CARE IS TO BE TAKEN NOT TO DEFACE, CRACK OR DAMAGE ANY EXISTING STRUCTURES, FENCES OR CONCRETE WORK. ALL DAMAGES TO BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
E. CUTTING AND PATCHING: THE CONTRACTOR SHALL DO ALL CUTTING, FITTING OR PATCHING OF HIS WORK THAT MAY BE REQUIRED TO MAKE IT COMPLETE AS SHOWN ON DRAWINGS AND SPECIFICATIONS. WHEN CONCRETE SLABS OCCUR NEAR TO WALLS, JOINTS SHALL BE MATCHED TO 90%.
4.0 CLEANING
A. SPECIAL CARE SHALL BE USED TO PREVENT STAINING OF EXPOSED MORTAR AND GROUT. ANY MORTAR OR GROUT WHICH COMES IN SUCH FACES SHALL BE PROMPTLY AND THOROUGHLY REMOVED BY EFFECTIVE AND APPROVED MEANS.
B. ENTIRE SITE TO BE CLEANED AND ALL DEBRIS REMOVED PRIOR TO FINAL INSPECTION.

TUBULAR STEEL

- 1.0 SCOPE OF WORK
WORK INCLUDED:
A. FURNISH AND INSTALL TUBULAR STEEL PER PLANS, DETAILS AND SPECIFICATIONS.
RELATIONS TO BE MAINTAINED IN THIS SECTION:
2.0 QUALITY ASSURANCE
A. QUALIFICATIONS
1. A1. PERFORM SHOP WELDING ON THE PREMISES OF A FABRICATOR LICENSED BY THE CITY BUILDING AND SAFETY DEPARTMENT.
A.2. WELDING SHALL BE TO SPECIFICATIONS APPROVED AND CERTIFIED IN ACCORDANCE WITH REQUIREMENTS OF AWS.
B.1. "AISC" STEEL CONSTRUCTION MANUAL.
B.2. "CODE FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION" AWS F1.0 OF THE AMERICAN WELDING SOCIETY.
B.3. "METAL FINISHES MANUAL," OF THE NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS (NANMM).
3.0 SUBMITTALS
A. SUBMIT COMPLETE SHOP DRAWINGS TO THE LANDSCAPE ARCHITECT AND OWNER REPRESENTATIVE FOR REVIEW IN ADVANCE OF FABRICATION.
A.1. SHOW DIMENSIONS, SIZES, THICKNESSES, GALVANES, FINISHES, JOINING, ATTACHMENTS AND RELATIONSHIP TO ADJACENT WORK.
A.2. WHERE WELDED CONNECTIONS, CONCRETE INSERTS, AND OTHER ITEMS ARE REQUIRED TO RECEIVE OTHER WORK, SHOW EXACT LOCATIONS REQUIRED.
A.3. FOR STANDARD MANUFACTURED ITEMS, SUBMIT WORK SHEETS SHOWING REQUIRED DIMENSIONS, FINISHES, GALVANIZING, SCALE, DETAILS AND DIMENSIONS.
4.0 MATERIALS
A. ROLLED STEEL SHAPES AND STEEL PLATES: ASTM A36.
B. STEEL TUBING: ASTM A500 GRADE A, OR ASTM 1501 SEAMLESS - G.A. PER DETAILS.
C. STEEL PIPE: ASTM A315, TYPE I OR S, GRADE A OR A120, GALVANIZED 6" DIAMETER.
D. STEEL BOLTS: ASTM A307, GRADE A.
E. WELDING RODS: CONFORM TO AWS REQUIREMENTS FOR INTENDED USE.
F. CONCRETE PATCHING MATERIAL: CONFORM TO ASTM C-1107.
G. SHOP PRIME-COAT PAINT: CONFORM TO EITHER FST-1P-86 TYPE I FOR RED LEAD/ALLOY TYPE PAINT OR TO FST-1P-45 FOR ZINC CHROMATE TYPE PAINT.
H. TOUCH-UP FOR GALVANIZED SURFACES: ALL STATE NO. 321 GALVANIZING POWDER, 100% ZINC, 0% LEAD, MANUFACTURED BY ALL MANUFACTURERS BY ALL STATE WELDING AGENCIES, OR SPEED GALVANIZED BY W.D. LO, CO. EQUAL.
I. NON-SHRINK GROUT: MINN VAC CONSTRUCTION PRODUCTS DIVISION POR-ROCK, OR APPROVED EQUAL.
J. METAL CHANNEL: FS TP-31C (2 COATS).
5.0 FABRICATION
A. CONFORM TO THE REQUIREMENTS OF THE REFERENCED STANDARDS.
A.1. FOR MANUAL WELDING, USE LOW HYDROGEN TYPE E7018 AND 7018 ELECTRODES.
A.2. WELD PREPARET SHALL BE DETERMINED FROM MILL REPORTS SHOWING THE CHEMICAL COMPOSITION OF THE REINFORCEMENT.
B. SHOP PRIME ALL FERROUS ITEMS TO 1 MILL DRY COAT THICKNESS AFTER FABRICATION, BURN-BURRING AND GRINDING SMOOTH WELDS AND ROUGH SPOTS. TOUCH-UP AFTER INSTALLATION. LEAVE IN PROPER CONDITION TO RECEIVE FINISH PAINTING.
C. B.1. DO NOT PAINT REBAR AND STEEL SURFACES TO BE EMBEDDED IN OR BONDED TO CONCRETE.
C.2. REBAR AND STEEL SHALL BE SMOOTHLY, ALL WELD SPATTER REMOVED AND SHALL COMPLY WITH THE SPECIFICATIONS OF THE "AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC."
D. SUBCONTRACTOR TO PERFORM ALL THE ABOVE WORK IN ACCORDANCE WITH THE GOVERNING PLANS AND SPECIFICATIONS.
6.0 COORDINATION WITH OTHER WORK
A. EXAMINE DRAWINGS AND SPECIFICATIONS, AND INCLUDE ALL MISCELLANEOUS METAL WORK WHICH IS NOT DISTINCTLY SPECIFIED IN OTHER SECTIONS.
B. PROVIDE ALL CONNECTIONS, ANCHORS, BOLTS, WELDING, CUTTING, PUNCHING, DRILLING, TAPPING OR OTHER CONNECTION REQUIRED TO FIT MISCELLANEOUS METAL WITH OTHER WORK.
C. PROVIDE ITEMS TO BE INSTALLED BY OTHER TRADES WELL IN ADVANCE TO PERMIT PROPER SEQUENCING AND SCHEDULING OF OTHER WORK.
7.0 INSTALLATION
A. MISCELLANEOUS METALWORK SHALL BE FREE FROM DEFECTS WHICH WOULD IMPAIR STRENGTH, DURABILITY AND APPEARANCE.
B. ERECT PLUMBS, STRAIGHT, TRUE AND ACCURATELY FIT IN PLACE BRACE, REINFORCE, AND ANCHOR IN PLACE. GRIND ALL FIELD WELDS.
C. PROVIDE NON-SHRINK GROUTING OF ALL FRAMES, PLATES, SILLS, BOLTS AND OTHER ITEMS NOT DESIGNATED TO BE DONE BY OTHERS.
D. CONCEAL ALL CONNECTIONS IN THE FINISHED WORK, WHERE POSSIBLE. EXPOSED SCREW CONNECTIONS SHALL BE ALLEN HEAD SCREWS MATCHING THE MATERIAL, THEY FASTEN.
E. SET BASE PLATE FOR SUPPORT POSTS, TRUE AND PLUMB IN CONCRETE TOUCHING FEET DETAILS.
F. PROTECT ALL DISSIMILAR METALS FROM GALVANIC CORROSION BY PRESURE TAPES, COATINGS OR ISOLATORS.
G. AFTER ERECTION, CLEAN OFF ALL RUST, SCALE AND OIL. CLEAN FIELD TO MATCH THE LAST WORKING DAY EACH WEEK. ALL TRASH SHALL BE REMOVED COMPLETELY FROM THE PROJECT SITE.
H. TOUCH-UP: CONTRACTOR SHALL CLEAN AND RETOUCH CONTRACTORS WORK AS NECESSARY, OR AS REQUIRED FOR FINAL APPROVAL BY THE LANDSCAPE ARCHITECT WITHIN 24 HOURS NOTICE.
I. SPECIALLY NOTED OR DETAIL NOTED SURFACES SHALL BE PAINTED, PAINTED, HARDWARE, OR PLANT MATERIALS FREE FROM ANY PAINT, STAIN, SPATTERING, SMEARS OR SMUDGES WHICH ARE THE RESULT OF FABRICATION OR INSTALLATION.
J. LOCATION: CONTRACTOR SHALL NOT CLEAN EQUIPMENT AND BRUSHES OR OTHER TOOLS OR THINGS, PAINT OR OTHERS CHEMICALS IN AREAS TO BE PLANTED OR IN THE VICINITY OF EXISTING PLANTS.

CONCRETE

- 1.0 SCOPE OF WORK
FURNISH AND INSTALL ALL CONCRETE WORK COMPLETE AS INDICATED ON THE DRAWINGS AND SPECIFICATIONS INCLUDING, BUT NOT LIMITED TO:
A. BURNISH AND SET ALL REINFORCING STEEL, BOLTS AND ANCHORS.
B. INSTALL ALL ITEMS REQUIRED BY OTHER TRADES WHICH ARE TO BE CAST IN PLACE WITH CONCRETE.
C. CONCRETE MOW CURBS, BANDING, OTHER FLATWORK, FOOTINGS, PADS AND SLABS FOR WALLS, FENCING, CONTROLLERS, ETC., WHERE APPLICABLE.
2.0 GENERAL
ALL REQUIREMENTS OF SUBSECTION 3.31, STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SHALL APPLY EXCEPT AS SPECIFIED HEREIN.
2.1 INSPECTION OF SITE
EXAMINE RELATED WORK AND SURFACES BEFORE STARTING WORK IN THIS SECTION. REPORT TO THE LANDSCAPE ARCHITECT IN WRITING, SITE CONDITIONS WHICH WILL PREVENT THE PROPER PERFORMANCE OF THIS WORK, BEGINNING THE WORK IN THIS SECTION WITHOUT REPORTING UNSUITABLE CONDITIONS TO THE LANDSCAPE ARCHITECT CONSTITUTES ACCEPTANCE OF SITE CONDITIONS BY THE CONTRACTOR. ANY REQUIRED REMOVAL, REPAIR, OR REPLACEMENT OF THIS WORK CAUSED BY UNSUITABLE CONDITIONS SHALL BE DONE AT NO ADDITIONAL COST TO OWNER.
2.2 PROTECTION OF EXISTING CONDITIONS
CONTRACTOR SHALL ACQUAINT HIMSELF WITH ALL SITE CONDITIONS, HE SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT EXISTING SITE CONDITIONS. EXISTING UTILITIES TO BE MAINTAINED OR TO BE PROTECTED SHALL BE MAINTAINED IN ITS ORIGINAL CONDITION OR FURNISH AND INSTALL EXACT REPLACEMENT AT HIS OWN EXPENSE, TO THE SATISFACTION OF THE OWNER.
2.3 COORDINATION
A. COOPERATION ON-SITE: COORDINATE AND COOPERATE WITH OTHER CONTRACTORS AND THE TRADE TO PROCEED AS RAPIDLY AND EFFICIENTLY AS POSSIBLE.
B. WORK WITH OTHER TRADES: COORDINATE WITH GENERAL CONTRACTOR ITEMS OF OTHER TRADES TO BE FURNISHED AND SET IN PLACE. SUCH PORTIONS OF THEIR WORK AS ALL OR IN PART EMBEDDED, BUILT-IN, OR OTHERWISE INSTALLED, OR SURFACES TO BE FINISHED, SHALL BE THEM IN AMPLE TIME THAT PROGRESS OF THE WORK IS NOT DELAYED, ANY CUTTING OR PATCHING MADE NECESSARY TO COMPLY WITH THIS INJUNCTION SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.
2.4 APPROVAL
WHEREVER THE TERMS "APPROVAL," "APPROVED," OR "APPROVED" ARE USED IN THE SPECIFICATIONS, THEY MEAN APPROVAL OF THE LANDSCAPE ARCHITECT IN THE OWNERS REPRESENTATIVE OR THEIR FIELD REPRESENTATIVES, IN WRITING.
2.5 SUBMITTALS
AFTER AWARD OF CONTRACT, CONTRACTOR SHALL SUBMIT FOR APPROVAL SAMPLES AND SPECIFICATIONS OF SPECIFIED ITEMS PRIOR TO BEGINNING WORK. APPROVED SAMPLES SHALL BE STANDARDS FOR COMPLETING WORK. SAMPLES SHALL CONSIST OF 3 SQUARE PANELS. CONTRACTOR SHALL PROVIDE ONE PANEL FOR EACH CONCRETE AND/OR FINISH ON THE JOB SITE. EACH SAMPLE SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT.
2.6 SUBSTITUTIONS
A. STANDARDS: SPECIFIC REFERENCE TO MANUFACTURERS NAMES AND PRODUCTS SPECIFIED IN THIS SECTION ARE USED AS STANDARDS; THIS IMPLIES THE RIGHT TO SUBSTITUTE OTHER MATERIAL OR METHODS WITHOUT WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT.
B. APPROVAL: INSTALLATION OF ANY APPROVED SUBSTITUTIONS IS THE CONTRACTOR'S RESPONSIBILITY. ANY CHANGES REQUIRED FROM THE INSTALLATION OF ANY APPROVED SUBSTITUTION MUST BE MADE TO THE SATISFACTION OF THE ARCHITECT AND APPROVED BY THE ARCHITECT IN WRITING TO OWNER. APPROVAL BY LANDSCAPE ARCHITECT OF SUBSTITUTED MATERIALS AND/OR DIMENSIONAL DRAWINGS DOES NOT WAIVE THESE REQUIREMENTS.
2.7 WARRANTY
IN ADDITION TO MANUFACTURERS' GUARANTEES OR WARRANTIES, ALL WORK SHALL BE WARRANTED FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP BY CONTRACTOR. WARRANTY SHALL ALSO COVER REPAIR OF DAMAGE TO ANY PART OF THE PREMISES.
2.8 MATERIALS
A. PORTLAND CEMENT SHALL CONFORM TO ASTM-C150, TYPE I OR TYPE II.
B. CONCRETE AGGREGATE SHALL CONFORM TO ASTM-C33.
C. CLEAN FREE FROM STRONG ACIDS, ALKALI, OIL OR ORGANIC MATTER.
C. ADMIXTURE FOR ALL FORMED CONCRETE SHALL BE Sika CHEMICAL CORP'S "PLASTIBOND," OR APPROVED EQUAL, APPLIED IN STRICT ACCORDANCE WITH MANUFACTURERS DIRECTIONS.
D. REINFORCEMENT: REINFORCING STEEL ASTM-A151 AND ASTM-A305.
E. FORMS:
E.1. LUMBER SHALL BE "CONSTRUCTION GRADE" DOUGLAS FIR.
E.2. PLYWOOD FOR FORMING OF CONCRETE WHICH IS EXPOSED SHALL BE 1/2" THICK AND EDGES SEALED.
F. EXPANSION JOINT FILLER SHALL CONFORM WITH ASTM-D778 (PREMIUM).
G. THE FORMS SHALL BE FOLLOWED IN ALL APPLICABLE PROCEDURES, THE PROPERTIES OF REINFORCING BARS AND WELDED WIRE FABRIC.
G.1. REINFORCING BARS: DEFORMED BILLET STEEL BARS CONFORMING TO ASTM A618, CLEAN AND FREE FROM RUST, SCALE, OR COATING THAT WILL REDUCE BOND.
G.2. WELDED WIRE FABRIC
G.2.1. CONFORM TO ASTM A185. TAGS DESIGNATING WIRE SIZE AND SPACING SHALL BE LEFT ON EACH ROLL UNTIL READY FOR USE.
G.2.2. BY THE LANDSCAPE ARCHITECT, WELDED WIRE MESH SHALL BE 6" X 6" No. 10 to 10 CONTINUOUS.
4.0 CONCRETE
A. QUALITY
A.1. CONTRACTOR ASSUMES RESPONSIBILITY FOR THE DESIGN MIX AND GUARANTEES THE SPECIFIED ULTIMATE STRENGTH AS INDICATED OR SPECIFIED HEREIN.
A.2. UNLESS OTHERWISE APPROVED, WELDED WIRE MESH SHALL BE 2500 PSI.
A.3. READY-MIXED CONCRETE SHALL CONFORM TO ASTM-C304.
B. PROPORTIONS AND CONSISTENCY
B.1. THE PROPORTIONS AND CONSISTENCY OF AGGREGATE TO CEMENT SHALL PROVIDE A DENSE MIXTURE WHICH WILL REACT WITH WATER TO ALL CORNERS OF THE FORMS. SHALL BE PLACED AND FINISHED WITHOUT ANY SEGREGATION OF THE MATERIALS, CAUSE EXCESS FINE WATER TO SEPARATE FROM THE SURFACE OR CAUSE EXCESSIVE BLEEDING OF THE FORMS.
B.2. THE RECOMMENDED PRACTICES OF THE AMERICAN CONCRETE INSTITUTE SHALL BE FOLLOWED IN ALL APPLICABLE PROCEDURES, THE MAXIMUM SLUMP SHALL NOT EXCEED 4" FOUR INCHES FOR FOOTINGS, SLABS, OR GRADE, AND MASS CONCRETE IS 5 INCHES FOR FOUNDATION WALLS.
C. CONTROL: THE CONCRETE QUALITY, PROPORTIONS, CONSISTENCY, ETC., IS SUBJECT TO THE APPROVAL OF THE OWNER, AND NO CHANGES SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL.

5.1 FORMWORK

- A. FORMS FOR CONCRETE WORK SHALL BE EITHER METAL OR WOOD. FORMS THAT ARE WARPED OR THAT DO NOT HAVE A SMOOTH STRAIGHT UPPER EDGE SHALL NOT BE USED. FORMS SHALL BE SET WITH THE UPPER EDGE OF THE BOARD TRUE TO LINE AND GRADE AND SHALL BE STAKED RIGIDLY. NO MORE THAN 24 HOURS SHALL ELAPSE FROM THE TIME THE FORMS ARE TO REMAIN IMMEDIATELY THROUGHOUT THE CONSTRUCTION. ALL FORMS SHALL BE APPROVED BY LANDSCAPE ARCHITECT WITHIN A TOLERANCE OF ONE PERCENT (1%). NOTIFY LANDSCAPE ARCHITECT 48 HOURS IN ADVANCE TO SCHEDULE INSPECTION. ALL MATERIALS SHALL BE ACCURATELY AND THOROUGHLY WEIGHTED, MEASURED AND CONTINUED UNTIL THE DISTRIBUTION OF MATERIAL IS UNIFORM AND THE MASS OF CONCRETE IS HOMOGENEOUS.
B. TWO AND ONE-HALF (2 1/2) GALLONS OF WATER PER CUBIC YARD, SHALL BE WITHDRAWN FROM THE MIX AT THE PLANT, AND ALL OR A PORTION MAY BE ADDED TO THE MIX AT THE JOB SITE AS DIRECTED BY THE SUPERVISOR. THE CONCRETE SHALL BE MIXED AT LEAST 5 MINUTES AFTER SUCH WATER IS ADDED AND NOT LESS THAN 30 MINUTES OF THIS MIX SHALL BE IMMEDIATELY PRIOR TO THE DISCHARGE OF THE BATCH. TOTAL MIXING TIME AFTER ADDING ORIGINAL WATER SHALL BE AT LEAST 15 MINUTES.
C. CONCRETE WHICH IS NOT PLACED WITHIN 90 MINUTES AFTER THE INTRODUCTION OF CEMENT AND WATER, AND CONCRETE WHICH HAS STOOD FOR 30 MINUTES AFTER LEAVING THE MIXER, SHALL NOT BE USED.
5.2 REBAR
A. REINFORCING BAR SHALL BE SPLICED WITH 30-BAR DIAMETERS MINIMUM OVERLAP.
B. ALL REINFORCING BAR SHALL BE PLACED WITH 7" MINIMUM CLEARANCE FROM CONCRETE EDGES.
6.0 CONVEYING AND PLACING
A. BEFORE POURING, ALL FORMS SHALL BE THOROUGHLY CLEANED AND MADE TRUE. THE BOTTOM OF TRENCHES SHALL BE WETTED DOWN WITH WATER. POURING FOOTINGS: EARTH SHALL NOT BE MUDDY AT THE TIME OF POURING. CONCRETE SHALL NOT BE PLACED UNTIL REINFORCEMENTS, ROUGH WORKING, AND FORMS ARE APPROVED BY OWNER OR LANDSCAPE ARCHITECT.
B. BEFORE DEPOSITING NEW CONCRETE AGAINST OLD CONCRETE, ALL LATANCE SHALL BE REMOVED, AND THE SURFACES ROUGHENED TO EXPOSE THE EMBEDDED AGGREGATE. THE SURFACES SHALL THEN BE COVERED WITH WETTED GROUT. CONCRETE SHALL BE PLACED IN LAYERS OF THE COURSE AGGREGATE OMITTED, 1 1/2 INCHES THICK.
C. CONCRETE SHALL BE PLACED IN LAYERS. CONCRETE SHALL BE DONE SO AS TO PREVENT SEPARATION OF INGREDIENTS, AND IN NO CASE SHALL THE FREE FALL EXCEED 6 FEET. TRIMMER SHALL BE USED AS REQUIRED. SURGES OF CONCRETE SHALL BE KEPT REASONABLY LEVEL, WITH A MINIMUM AMOUNT OF CONCRETE BEING ALLOWED TO FLOW AFTER BEING PLACED. PLACING SHALL BE PERFORMED AS A CONTINUOUS OPERATION UNTIL EACH SECTION IS COMPLETE.
D. CONCRETE SHALL BE SPADED AND VIBRATED WITH MECHANICAL VIBRATORS TO A MAXIMUM SUBSIDENCE, WITHOUT SEPARATION OF INGREDIENTS, THE MOVING OF CONCRETE BY VIBRATION WILL NOT BE PERMITTED.
6.1 COLORED CONCRETE
INTEGRAL COLOR SHALL BE PER PLAN WHERE APPLICABLE.
7.0 GROUTING
A. GROUT SHALL BE COMPOSED OF ONE PART PORTLAND CEMENT AND TWO PARTS OF FINE AGGREGATE BY VOLUME. MATERIALS SHALL BE MIXED DRY AND WATER ADDED JUST SUFFICIENT TO MAKE THE MIXTURE FLOW UNDER ITS OWN WEIGHT.
8.0 CURING AND PROTECTION
A. ALL EXPOSED SURFACES OF CONCRETE SHALL BE PROTECTED FROM DAMAGE DUE TO TEMPERATURE, ELEMENTS, AND CONSTRUCTION OPERATIONS.
B. ALL EXPOSED SURFACES OF CONCRETE SHALL BE PROTECTED FROM PREMATURE DRYING AND FRESHLY PLACED CONCRETE SHALL BE PROTECTED AGAINST WASH BY RAIN. ALL CONCRETE SHALL BE KEPT MOIST FOR A PERIOD OF 7 DAYS AFTER PLACING.
B.2. ALL LIQUID CURING COMPOUNDS SHALL BE USED IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS AND SHALL NOT BE USED ON SURFACES RECEIVING CONCRETE HARDENER.
9.0 DEFECTIVE CONCRETE
A. CONCRETE WHICH IS NOT IN ACCORDANCE WITH THESE SPECIFICATIONS, OUT OF LINE, LEVEL, OR PLUMB; SHOWING STRUCTURAL CRACKS, ROCK POCKETS, WOODS, SPALLS, HONEYCOMBING, EXPOSED REINFORCING OR OTHER DAMAGED SURFACES SHALL BE CONSIDERED AS DEFECTIVE.
B. ALL FINES AND IRREGULARITIES SHALL BE REMOVED FROM EXPOSED CONCRETE SURFACES WHILE THE CONCRETE IS STILL GREEN. WHERE PATCHING IS REQUIRED, ALL USE AND UNIFORM CONCRETE SHALL BE REMOVED PRIOR TO PATCHING.
10.0 CONCRETE FINISHES
FLAT SURFACES SHALL BE SCREED TO THE REQUIRED LEVELS AND SLOPES AND ANY EXCESS WATER OR LATANCE REMOVED. CONCRETE SHALL BE COMPACTED WITH A GRID TAMPER AND THEN FLOATED TO A TRUE AND LEVEL SURFACE WITHIN THE TOLERANCE OF 1/8 INCH ALONG A 10 FOOT STRAIGHT EDGE. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE ON ALL FLATWORK. SEE PLANS FOR CONCRETE FINISH.
11.0 EXPANSION JOINTS
CONTROL JOINTS AND OTHER JOINTS SHALL BE FORMED IN FRESH CONCRETE USING A CLEAN EDGING OR EDGING TOOL TO PROVIDE A SMOOTH UNIFORM FINISH.
12.0 CLEAN-UP
UPON COMPLETION OF ALL CONCRETE WORK AND BEFORE FINAL ACCEPTANCE, CONTRACTOR SHALL REMOVE ALL EXCESS MATERIALS, APPROVED DEBRIS, ETC., FROM THE SITE AND THE SITE SHALL BE LEFT IN A CLEAN, NEAT CONDITION ACCEPTABLE TO OWNER.

WOODWORKING SPECIFICATIONS

- 1.0 SCOPE OF WORK
A. GENERAL: THIS WORK SHALL CONSIST OF FURNISHING ALL LABOR AND MATERIAL FOR CONSTRUCTION OF OVERHEAD WOOD TRUSSES, FENCES AND SCREENS, AS DETAILED ON THE PLANS. THE WORK DOES NOT INCLUDE POST FOOTINGS AND HARDWARE SET IN PAVED AREAS.
B. COORDINATION: WOODWORKING CONTRACTOR SHALL LOCATE AND STAKE POST LOCATIONS FOR CONCRETE AND/OR MASONRY CONTRACTOR BEFORE PAVING OR MASONRY IS BEGUN.
C. SITE CONDITIONS: VERIFY ALL DIMENSIONS AND SITE CONDITIONS ON THE DAY PRIOR TO BEGINNING WORK. ANY DISCREPANCY SHALL BE CALLED TO THE IMMEDIATE ATTENTION OF THE LANDSCAPE ARCHITECT.
D. PERMITS: CONTRACTOR SHALL OBTAIN ALL BUILDING PERMITS AND APPROVALS (REFER TO GENERAL NOTES).

2.0 MATERIALS

- A. GENERAL: ALL MATERIALS SHALL BE NEW AND PROPERLY GRADE-MARKED OR CERTIFIED. ONLY LUMBER CONSISTING OF SOUND WOOD, FREE OF DECAY, WARPING, SPLITS OR CHECKS WILL BE ACCEPTED.
B.1. ALL LUMBER SIZES AS SHOWN ON THE PLANS OR SPECIFIED REFER TO NOMINAL SIZES AND THE AMERICAN STANDARD ROUGH-DRESSED SIZES WILL BE ACCEPTED AS CONFORMING THEREIN.
B.2. DOUGLAS FIR SHALL BE OF THE SPECIES "PSEUDOTSUGA MENZIESII" AND SHALL BE GRADED IN ACCORDANCE WITH THE CURRENT STANDARD GRADING AND DRESSING RULES FOR DOUGLAS FIR.
B.3. CEDAR SHALL BE OF THE SPECIES "MAMMOPYCIS LAWSONIANA" AND SHALL BE GRADED IN ACCORDANCE WITH THE CURRENT GRADING AND DRESSING RULES.
B.4. ALL WOOD BEARING ON CONCRETE OR MASONRY LESS THAN 4" ABOVE GRADE SHALL BE PRESSURE TREATED. WOOD JOINTS OR THE BOTTOM OF WOOD FLOORS LESS THAN 18" ABOVE GRADE SHALL ALSO BE PRESSURE TREATED.
C.5. ALL STRUCTURAL MEMBER (IE. BEAMS, RAFTERS, POSTS, JOINTS) TO BE DOUGLAS FIR NO. 1 OR BETTER UNLESS OTHERWISE NOTED. LATH AND DECKING AS SPECIFIED.
C. HARDWARE
C.1. NAILS TO BE GENERAL FRAMING COMMON OF STANDARD SIZE AND KIND, HOT DIPPED GALVANIZED OR AS REQUIRED FOR FINAL APPROVAL BY THE ARCHITECT. BOX NAILS WILL BE ACCEPTED.
C.2. WASHERS TO BE REINFORCED MALLEABLE IRON, GALVANIZED.
C.3. ALL BRACKETS AND HANGERS TO BE SIMPSON OR APPROVED EQUAL.

3.0 EXECUTION

- A. WORKMANSHIP: ALL WOODWORK SHALL BE CUT, FITTED, JOINED TOGETHER, TIED, SET TO REQUIRED LEVELS AND LEVELS SHOWN IN PLACE ETC., IN A NEAT WORKMANLIKE MANNER TO THE ENTIRE SATISFACTION OF THE LANDSCAPE ARCHITECT. ALL SPLIT WOOD SHALL BE REPAIRED AND REPLACED.
B. BOLTING: HEADS AND NUTS OF MACHINE BOLTS AND NUTS OF CARBIDE BOLTS SHALL HAVE WASHERS, EXCEPT FOR STEEL PLATES, BOLTS, SPLICE AND HEAD ALL BEAMS AS SHOWN ON DRAWINGS. CUT ALL BOLTS FLUSH WITH NUTS. PLAN ALL BOLTS AND NUTS TO BE PLACED TO THE LENGTHS AND DRILLED HOLES, 1/2" ONE LARGER THAN NOMINAL BOLT. BOLTS SHALL BE BORED 1/2" TO 1 1/2" LARGER THAN NOMINAL BOLT. UNLESS SPECIFICALLY NOTED OR DETAIL NOTED, ALL BOLTS SHALL BE PLACED TO FINISH. CONTRACTOR TO STAIN, PAINT OR SEAL WOOD. REFER TO DRAWINGS. PAINT ALL METAL TO MATCH WOOD FINISH UNLESS NOTED OTHERWISE. (1) COAT ZINC-RICH PRIMER AND (2) COAT SEMI-GLOSS OIL BASE EXTERIOR PAINT.
C. OTHER: CONTRACTOR SHALL DAILY REMOVE ALL RUBBISH, SCRAPS, EXTRANEOUS CONCRETE AND HARDWARE FROM THE PREMISES AND KEEP THE JOB REASONABLY CLEAN AND ORDERLY. ALL EXCESS MATERIALS SHALL BE IMMEDIATELY CLEANED OFF OF FINISHED SURFACES AND THE LANDSCAPE ARCHITECT'S SATISFACTION. SPECIAL CARE SHALL BE EXERCISED TO PREVENT ACCUMULATIONS OF MATERIAL TO FORM A FIRE OR SAFETY HAZARD.

MASONRY SPECIFICATIONS

- 1.0 SCOPE OF WORK
A. GENERAL: THIS WORK SHALL CONSIST OF FURNISHING ALL LABOR AND MATERIAL FOR CONSTRUCTION OR INSTALLATION OF ALL LABOR AND STRUCTURES, AND BRICK OR TILE PATHS AND PATIOLAS.
B. WORK INCLUDES THE INSTALLATION OF ANCHORS AND INSERTS FURNISHED BY OTHER TRADES FOR OTHER TRADES, REINFORCEMENT STEEL, CONCRETE BASES OR FOOTINGS, AND STUCCO FINISHES.
2.0 MATERIALS
A. REFER TO PLANS FOR SPECIFIC MATERIAL, TYPES, COLORS FINISHES, ETC. CONCRETE MASONRY UNITS: CONFORM TO ASTM C30, GRADE N AND THE REQUIREMENTS OF THE QUALITY CONTROL STANDARDS OF THE CONCRETE MASONRY ASSOCIATION, AS MANUFACTURED BY OROCO BLOCK CO. OR EQUAL.
B. PORTLAND CEMENT: CONFORM TO ASTM C150, TYPE I OR TYPE II, LOW ALKALI. USE ONLY ONE BRAND THROUGHOUT WORK. PROVIDE WHITE CEMENT AS REQUIRED FOR USE IN COLORED MORTAR.
C. HYDRATED LIME: CONFORM TO ASTM C007, TYPE S, AND CONTAINING 95% BY WEIGHT OF CALCIUM OXIDE.
D. AGGREGATES: CONFORM TO ASTM C114.
E.1. SAND: CONSIST OF FINE GRANULAR MATERIALS, (NOT LESS THAN 5% PASSING NO. 8 SIEVE), COMPOSED OF HARD, STRONG DURABLE MINERAL PARTICLES, FREE FROM INJURIOUS AMOUNTS OF SALINE, ALKALINE, ORGANIC OR OTHER DELTERIOUS SUBSTANCES.
E.2. PEARL DOLITE: GRADED WITH NO MORE THAN 5% OVER THE NO. 8 SIEVE AND WITH 100% PASSING THE 30" SIEVE.
F. REINFORCING STEEL: CONFORM TO ASTM A618, TYPE I, DEFORMED BARS OF DOMESTIC MANUFACTURE CONFORMING TO ASTM 1515.
G. WATER: CLEAN, POTABLE. FROM DOMESTIC SUPPLY.
H. ADMIXTURE FOR MORTAR: "RED LABEL" USED IN ACCORDANCE WITH THE SPECIFICATIONS.
I. MORTAR: FRESHLY PREPARED AND UNIFORMLY MIXED IN THE RATIO BY VOLUMES OF 1 PART CEMENT, 1/2 PART LIME PUTTY, 4 1/2 PARTS SAND. GROUT SHALL BE OMITTED. MORTAR SHALL MATCH COLOR OF BLOCK, UNLESS OTHERWISE SPECIFIED.
J. PUTTY: FLUID CONSISTENCY AND MIXED IN THE RATIO BY PARTS SAND, 2 PARTS FEA GRAD.
K. LIME PUTTY: ASTM C5, HIGH CALCIUM LIME, COMPLETELY SLAKED BEFORE USING.
3.0 EXECUTION
A. EXECUTE WORK IN BEST WORKMANSHIP LIKE MANNER IN FULL COMPLIANCE WITH APPLICABLE BIDDING ORDINANCES.
B. CONCRETE BLOCK SHALL BE Laid AS REINFORCED FULL CELL UNIT MASONRY. BLOCK SHALL BE Laid ON 3" THICK FULL MORTAR BED ON ALL WEBS AND FACE SHELLS. VERTICAL FACED JOINTS SHALL BE WELL BUTTERED TO A DEPTH OF 1/2" FROM EXTERIOR FACES AND ALL JOINTS SHALL BE SHOVED INTO PLACE, SO THE MORTAR BONDS WELL WITH BOTH BLOCKS. FURROWING OF THE MORTAR IS NOT PERMITTED. INTERSECTING MASONRY SHALL BE GROUDED AT 4" MAXIMUM JOINTS. UNLESS OTHERWISE NOTED ON PLANS, ALL CELLS CONTAINING REINFORCING SHALL BE SOLID GROUDED. PUDDLE THE GROUT WITH A STICK IN EACH CELL, EACH TIME IT IS POURED, TO OBTAIN A COMPLETE FILLING OF THE JOISTS. RECONSTRUCT ALL GROUT. RUN ALL HORIZONTAL BARS IN BOND BEAM BLOCK AND LAP AROUND CORNER AND AT ALL SPLICE 2' MINIMUM. RUN ALL VERTICAL BARS IN OPEN END BLOCK.
C. DO NOT START MASONRY IF THE HORIZONTAL OR VERTICAL ALIGNMENT OF THE FOUNDATION IS A MAXIMUM OF 1" TOTAL IN ERROR.
D. ALL UNITS SHALL BE CLEANED WHERE LAD. CONCRETE UNITS SHALL BE DRY. BRICK SHALL BE WETTED BUT HAVE NO FREE MOVING WATER WHEN LAD.

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| LATERAL PIPE SIZING CHART |            |
|---------------------------|------------|
| SCH. 40 PVC               |            |
| SIZE                      | FLOW (GPM) |
| 3/4"                      | = 0- 8     |
| 1"                        | = 8.1- 12  |
| 1-1/4"                    | = 12.1- 22 |
| 1-1/2"                    | = 22.1- 30 |
| 2"                        | = 30.1- 50 |

| DRIP EMITTER SCHEDULE       |             |
|-----------------------------|-------------|
| PLANT SIZE                  | EMITTER No. |
| 1 GAL. MATERIAL             | 2 - 2 GPH   |
| 5 GAL. MATERIAL             | 3 - 2 GPH*  |
| 15 GAL. MATERIAL            | 4 - 2 GPH*  |
| 24" BOX                     | 6 - 2 GPH*  |
| 36" BOX                     | 8 - 2 GPH*  |
| * SPACE EQUALLY ABOUT TRUNK |             |

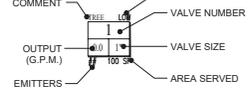
CONTRACTOR SHALL ADJUST EMITTER QUANTITIES AS REQUIRED FOR SOIL TYPES

**IRRIGATION LEGEND**

| SYM | MFG       | MODEL  | GPM (GPH)          | PSI | DETAIL           |
|-----|-----------|--|--------------------|-----|------------------|
| ●   | JAIN IRR. | OCTA-BUBBLER MODEL OCT168 - 1/4" DISTRIB. TUBING. SEE EMITTER SCHEDULE.                                      | 2.0 GPH / OUTLET   | 25  | E,FL5.1          |
| ○   | HUNTER    | RZWS-36-25 - (2) PER TREE  | 0.25               | 15  | IL/L5.1          |
| ■   | HUNTER    | FLOOD BUBBLER PROS-00-PCN-25   | 0.25               | 30  | HL/L5.1          |
| □   | HUNTER    | ECOMAT - INSTALL PER DETAILS AND MFR'S RECOMMENDATIONS.  | 0.6 GPH @ 12" O.C  | 15  | FL/L5.2          |
| □   | NETAFIM   | TECHLINE CV DRIPLINE - INSTALL PER DETAILS AND MFR'S RECOMMENDATIONS.  | 0.26 GPH @ 18" O.C | 15  | A-H/L5.3         |
| M   | EXISTING  | DOMESTIC WATER METER   |                    |     |                  |
| ⊕   | NETAFIM   | AUTOMATIC FLUSH VALVE W/ INSERT INLET (INSTALL IN BOX AT TERMINATION OF LINE)                                |                    |     | FL/L5.3          |
| ⊖   | NETAFIM   | AIR RELIEF VALVE (INSTALL AT HIGH POINT OF EACH SYSTEM)  |                    |     | G,HL/L5.3        |
| ○   | APPROVED  | 3/4" DEDICATED DOMESTIC SUB-METER  |                    |     |                  |
| ■   | FEBCO     | 3/4" BACKFLOW PREVENTER, MODEL LF825Y  |                    |     | CL/L5.1          |
| EZ  | EZ FLO    | EZ-FLO FERTILIZER INJECTION SYSTEM MODEL EZ-005-KX WITHIN BLACK CARSON JUMBO VALVE BOX (OR APPROVED EQUAL).  |                    |     | E/L5.2           |
| C   | HUNTER    | I-CORE AUTOMATIC IRRIGATION CONTROLLER - MODEL IC-600-PL. CONTRACTOR TO INCLUDE NECESSARY EXPANSION MODULES. |                    |     | A/L5.1<br>A/L5.2 |
| ⊕   | HUNTER    | WIRELESS WEATHER STATION - MODEL WSS-SEN. COORDINATE LOCATION W/ G.C.  |                    |     | B/L5.1           |
| ⊕   | NIBCO     | SCH 80 PVC ISOLATION VALVE (LINE SIZE)   |                    |     | GL/L5.1          |
| ⊕   | HUNTER    | ICV-101 REMOTE CONTROL VALVE (SIZE PER PLAN).  |                    |     | D/L5.1<br>D/L5.2 |
| ⊕   | HUNTER    | ICZ-101 REMOTE CONTROL VALVE WITH DRIP ZONE KIT (SIZE PER PLAN).   |                    |     | D/L5.1<br>D/L5.2 |
| --- | APPROVED  | PVC SCHED 40 LATERAL. SIZE PER PLAN.   |                    |     | B/L5.2           |
| --- | APPROVED  | PVC SCHED 40 MAINLINE. SIZE PER PLAN. 18" COVER MIN.   |                    |     | B/L5.2           |
| --- | APPROVED  | PVC SCHED 40 SLEEVE. 2x PIPE DIAMETER.   |                    |     | C/L5.2           |

**NOTES:**

1. COMBINE SCHEDULED IRRIGATION VALVES FOR A FLOW OF MIN. 6 GPM TO MAX. 15 GPM
2. INSTALL VALVES IN BLACK CARSON 1419 VALVE BOX, OR APPROVED EQUAL.
3. CONTRACTOR TO INSTALL NETAFIM SYSTEM PER MANUFACTURER'S RECOMMENDATIONS, DETAILS, AND SPECIFICATIONS. CONTACT LOCAL REPRESENTATIVE FOR INSTALLATION GUIDANCE PRIOR TO COMMENCEMENT OF WORK.
4. CONTRACTOR TO INSTALL TEMPORARY OVERHEAD SPRAY SYSTEM TO SUPPLEMENT ECO-MAT IRRIGATION DURING THE ESTABLISHMENT PERIOD OF THE SOD.
5. VALVE GPM/ BUBBLER QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A SUFFICIENT NUMBER BUBBLERS FOR PLANT MATERIAL SHOWN ON THESE PLANS. REFER TO DETAILS FOR EMITTER LAYOUT. CONTRACTOR SHALL ADJUST SYSTEM DESIGN AS REQUIRED TO MEET THE PLANT MATERIAL NEEDS.
6. CONTRACTOR TO CONTACT LANDSCAPE ARCHITECT FOR FIELD INSPECTIONS PER SPECIFICATIONS.

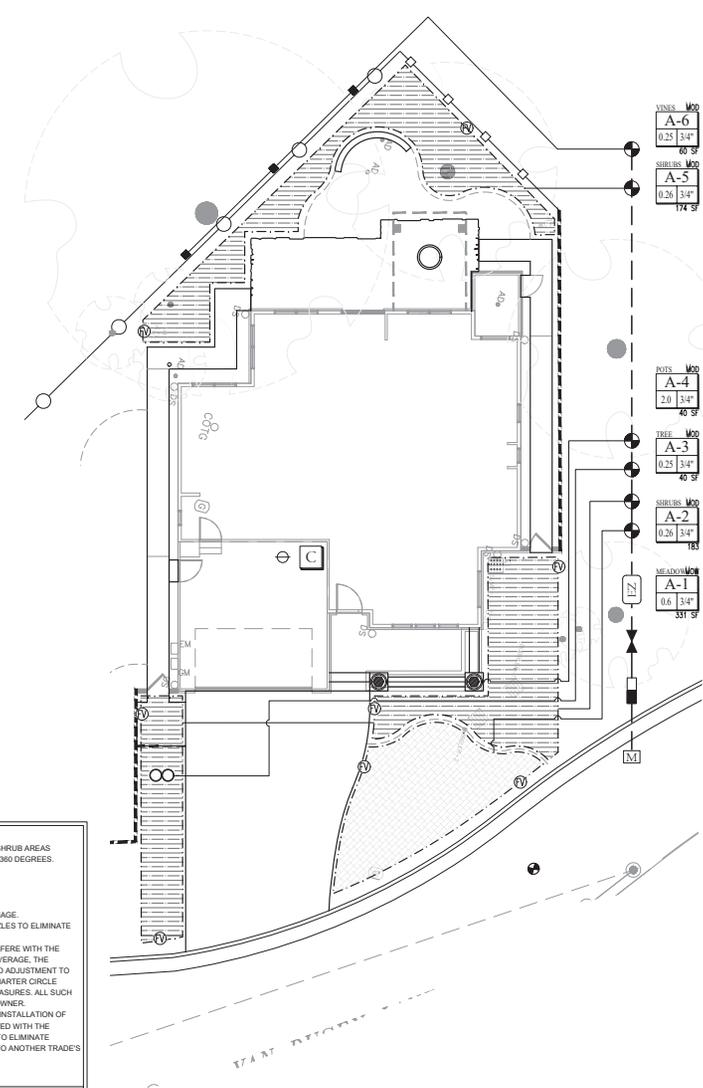


**IRRIGATION NOTES**

1. INSTALL ALL IRRIGATION COMPONENTS ACCORDING TO LOCAL CODES AND ORDINANCES.
2. THE CONTRACTOR SHALL OBTAIN, COORDINATE AND PAY FOR ANY AND ALL PERMITS AND ALL INSPECTIONS AS REQUIRED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE AND LIABLE FOR ANY ENCROACHMENT INTO ADJACENT PROPERTY, R.O.W'S, EASEMENTS, SETBACKS OR ANY OTHER LEGAL PROPERTY RESTRICTIONS EITHER MARKED OR UNMARKED.
4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL UNDERGROUND UTILITIES. CONTRACTOR SHALL REPAIR/REPLACE AT NO ADDITIONAL COST TO THE OWNER, ANY DAMAGE TO UNDERGROUND UTILITIES THAT MAY OCCUR.
5. THE CONTRACTOR SHALL BE RESPONSIBLE AND LIABLE FOR ANY AND ALL DAMAGES TO OPERATIONS OR WORK OF OTHER CONTRACTORS. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ACTIVITIES WITH ALL AGENCIES AND OTHER TRADES.
6. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS SHOWN ON PLANS AT THE SITE PRIOR TO COMMENCEMENT OF ANY WORK. ALL DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO LANDSCAPE ARCHITECT FOR DIRECTION. ANY CONTINUATION OF WORK IS AT THE CONTRACTOR'S RISK AND EXPENSE.
7. THE CONTRACTOR SHALL ONLY APPLY SUFFICIENT WATER TO PROMOTE HEALTHY GROWTH OF THE PLANT MATERIAL. AT NO TIME WILL THE CONTRACTOR APPLY WATER AT A RATE OF FREQUENCY WHICH CAUSES RUNOFF OR SOIL SATURATION.
8. REFER TO DETAILS AND SPECIFICATIONS FOR INSTALLATION OF ALL COMPONENTS.
9. THE WORK SHOWN ON THESE PLANS IS DIAGNOSTIC. ALL ITEMS, I.E. CONTROLLERS, VALVES, MAINLINES, SLEEVES, WIRES, IRRIGATION HEADS, ETC. ARE SHOWN IN THEIR APPROXIMATE LOCATIONS ONLY. DO NOT SCALE DRAWINGS. DETAIL DRAWINGS MAY CLARIFY LOCATION OF SOME ITEMS. THE CONTRACTOR SHALL NOT LOCATE ANY ITEMS WHERE IT IS OBVIOUS THAT THEY ARE IN CONFLICT WITH UNDERGROUND UTILITIES, STRUCTURES, OTHER IMPROVEMENTS, OR VEHICULAR OR PEDESTRIAN SAFETY CONSIDERATIONS.
10. ADJUST ALL HEADS FOR MINIMUM OVERSPRAY ON ANY NONPLANTED AREAS AND COMPLETE COVERAGE OF LANDSCAPE AREAS. THIS SHALL INCLUDE SELECTING THE BEST DEGREE OF ARC TO FIT THE EXISTING CONDITIONS (USE VARIABLE ARC NOZZLES AS NECESSARY).
11. LOCATE ALL SHRUB SPRAY HEADS 24" FROM EDGE OF PAVING.
12. DO NOT LOCATE ANY IRRIGATION HEADS CLOSER THAN 24" FROM HOUSE.
13. DO NOT USE FIXED RISERS IN TRAFFIC AREAS.
14. USE 6" POP-UP HEADS IN TURF AREAS, AND 12" POP-UP HEADS IN SHRUB AREAS.
15. USE VARIABLE ARC NOZZLES FOR AREAS OTHER THAN 90, 180, OR 360 DEGREES.
16. SLEEVE IRRIGATION WIRING UNDER ALL PAVING. SLEEVE LATERALS UNDER ALL PAVING 4 FEET AND WIDER. SLEEVE MAINLINE UNDER ALL PAVING 4 FEET AND WIDER. ALL SLEEVES TO BE 2x SIZE OF PIPE TO BE SLEEVED.
17. USE CHECK VALVES AS REQUIRED TO ELIMINATE LOW HEAD DRAINAGE. FOGGING.
18. PRESSURE COMPENSATING DEVICES SHALL BE USED ON ALL NOZZLES TO ELIMINATE FOGGING.
19. WHERE VERTICAL OBSTRUCTIONS IN THE LANDSCAPE AREA INTERFERE WITH THE SPRAY PATTERN OF ANY SPRINKLER RESULTING IN IMPROPER COVERAGE, THE IRRIGATION CONTRACTOR SHALL RECTIFY THE SITUATION BY FIELD ADJUSTMENT TO THE IRRIGATION SYSTEM. THIS MAY REQUIRE THE ADDITION OF QUARTER CIRCLE SPRINKLERS TO EACH SIDE OF THE OBSTRUCTIONS OR OTHER MEASURES. ALL SUCH ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
20. PIPING AND WIRE CONDUIT PENETRATIONS THROUGH WALLS AND INSTALLATION OF ANY IRRIGATION EQUIPMENT UNDER PAVING MUST BE COORDINATED WITH THE GENERAL CONTRACTOR AND CONTRACTORS OF OTHER TRADES TO ELIMINATE PROBLEMS THAT MAY ARISE FROM INACCESSIBILITY OR DAMAGE TO ANOTHER TRADE'S WORK.

**SCHEDULING NOTES**

- NOTE: CONTRACTOR SHALL ADJUST THE IRRIGATION SCHEDULE FOR THE ESTABLISHMENT PERIOD AS FOLLOWS:
- RUN ALL STATIONS TO KEEP THE SOIL OPTIMALLY MOIST AT ALL TIMES DURING THE FIRST 90 DAYS OF ESTABLISHMENT.
  - ADJUST EACH STATION AS NECESSARY FOR ACTUAL SITE CONDITIONS.
  - AT NO TIME SHALL RUNOFF BE PERMITTED. ADJUST START TIMES TO ACCOMMODATE LOCAL SOIL PROFILES.
- SMART CONTROLLER NOTE:
- DO NOT OVERRIDE SMART CONTROLLER FUNCTIONS.
  - CONTRACTOR SHALL FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INPUT OF ALL IRRIGATION SYSTEM REQUIREMENTS FOR SCHEDULING INCLUDING: PRECIPITATION RATES, PLANT TYPES, SOIL PROFILE, SLOPE, ETC.



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IRRIGATION PLAN

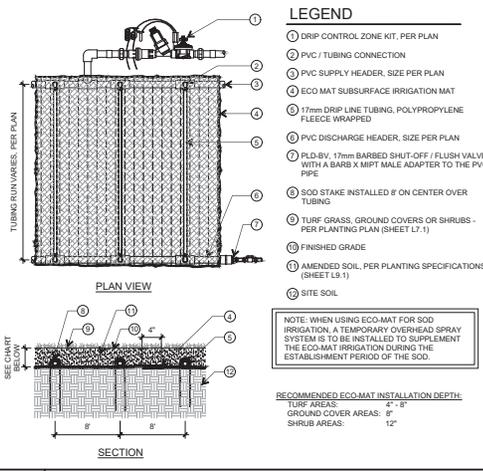
**L4.1**

13

REFER TO SHEET T1.1 FOR IRRIGATION CALCULATIONS  
 REFER TO SHEET L1.1 FOR CORRESPONDING CONSTRUCTION PLAN  
 REFER TO SHEET L7.1 FOR CORRESPONDING PLANTING PLAN

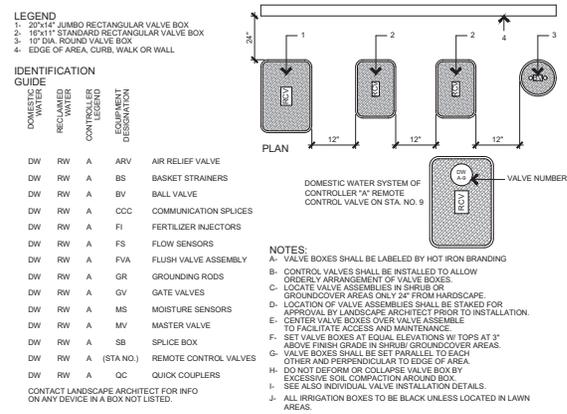
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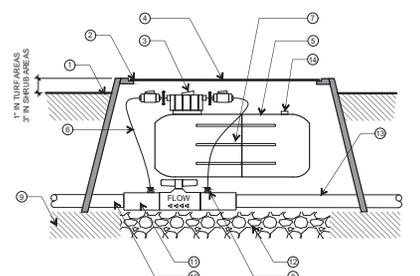
- LEGEND**
- 1 DRIP CONTROL ZONE KIT, PER PLAN
  - 2 PVC / TUBING CONNECTION
  - 3 PVC SUPPLY HEADER, SIZE PER PLAN
  - 4 ECO MAT SUBSURFACE IRRIGATION MAT
  - 5 17mm DRIP LINE TUBING, POLYPROPYLENE FLEECE WRAPPED
  - 6 PVC DISCHARGE HEADER, SIZE PER PLAN
  - 7 P.L.D-BY, 17mm BARBED SHUT-OFF / FLUSH VALVE WITH A BARB X MPT MALE ADAPTER TO THE PVC PIPE
  - 8 SOD STAKE INSTALLED IF ON CENTER OVER TUBING
  - 9 TURF GRASS, GROUND COVERS OR SHRUBS - PER PLANTING PLAN (SHEET L7.1)
  - 10 FINISHED GRADE
  - 11 AMENDED SOIL, PER PLANTING SPECIFICATIONS (SHEET L5.1)
  - 12 SITE SOIL
- NOTE: WHEN USING ECO-MAT FOR SOD IRRIGATION, A TEMPORARY OVERHEAD SPRAY SYSTEM IS TO BE INSTALLED TO SUPPLEMENT THE ECO-MAT IRRIGATION DURING THE ESTABLISHMENT PERIOD OF THE SOD.**
- RECOMMENDED ECO-MAT INSTALLATION DEPTH:**  
 TURF AREAS: 4" - 8"  
 GROUND COVER AREAS: 6"  
 SHRUB AREAS: 12"

F ECO-MAT



- LEGEND**
- 1 20"x14" JUMBO RECTANGULAR VALVE BOX
  - 2 18"x11" STANDARD RECTANGULAR VALVE BOX
  - 3 1" DIA. ROUND VALVE BOX
  - 4 EDGE OF AREA, CURB, WALK OR WALL
- IDENTIFICATION GUIDE**
- | DW   | RW   | A   | ARV       | AIR RELIEF VALVE      |
|--|--|---|-----------|-----------------------|
| DW <td>RW <td>A <td>BS</td> <td>BASKET STRAINERS</td> </td></td>             | RW <td>A <td>BS</td> <td>BASKET STRAINERS</td> </td>             | A <td>BS</td> <td>BASKET STRAINERS</td>             | BS        | BASKET STRAINERS      |
| DW <td>RW <td>A <td>BV</td> <td>BALL VALVE</td> </td></td>                   | RW <td>A <td>BV</td> <td>BALL VALVE</td> </td>                   | A <td>BV</td> <td>BALL VALVE</td>                   | BV        | BALL VALVE            |
| DW <td>RW <td>A <td>CCC</td> <td>COMMUNICATION SPLICES</td> </td></td>       | RW <td>A <td>CCC</td> <td>COMMUNICATION SPLICES</td> </td>       | A <td>CCC</td> <td>COMMUNICATION SPLICES</td>       | CCC       | COMMUNICATION SPLICES |
| DW <td>RW <td>A <td>FI</td> <td>FERTILIZER INJECTORS</td> </td></td>         | RW <td>A <td>FI</td> <td>FERTILIZER INJECTORS</td> </td>         | A <td>FI</td> <td>FERTILIZER INJECTORS</td>         | FI        | FERTILIZER INJECTORS  |
| DW <td>RW <td>A <td>FS</td> <td>FLOW SENSORS</td> </td></td>                 | RW <td>A <td>FS</td> <td>FLOW SENSORS</td> </td>                 | A <td>FS</td> <td>FLOW SENSORS</td>                 | FS        | FLOW SENSORS          |
| DW <td>RW <td>A <td>FVA</td> <td>FLUSH VALVE ASSEMBLY</td> </td></td>        | RW <td>A <td>FVA</td> <td>FLUSH VALVE ASSEMBLY</td> </td>        | A <td>FVA</td> <td>FLUSH VALVE ASSEMBLY</td>        | FVA       | FLUSH VALVE ASSEMBLY  |
| DW <td>RW <td>A <td>GR</td> <td>GROUNDING RODS</td> </td></td>               | RW <td>A <td>GR</td> <td>GROUNDING RODS</td> </td>               | A <td>GR</td> <td>GROUNDING RODS</td>               | GR        | GROUNDING RODS        |
| DW <td>RW <td>A <td>GV</td> <td>GATE VALVES</td> </td></td>                  | RW <td>A <td>GV</td> <td>GATE VALVES</td> </td>                  | A <td>GV</td> <td>GATE VALVES</td>                  | GV        | GATE VALVES           |
| DW <td>RW <td>A <td>MS</td> <td>MOISTURE SENSORS</td> </td></td>             | RW <td>A <td>MS</td> <td>MOISTURE SENSORS</td> </td>             | A <td>MS</td> <td>MOISTURE SENSORS</td>             | MS        | MOISTURE SENSORS      |
| DW <td>RW <td>A <td>MV</td> <td>MASTER VALVE</td> </td></td>                 | RW <td>A <td>MV</td> <td>MASTER VALVE</td> </td>                 | A <td>MV</td> <td>MASTER VALVE</td>                 | MV        | MASTER VALVE          |
| DW <td>RW <td>A <td>SB</td> <td>SPLICE BOX</td> </td></td>                   | RW <td>A <td>SB</td> <td>SPLICE BOX</td> </td>                   | A <td>SB</td> <td>SPLICE BOX</td>                   | SB        | SPLICE BOX            |
| DW <td>RW <td>A <td>(STA NO.)</td> <td>REMOTE CONTROL VALVES</td> </td></td> | RW <td>A <td>(STA NO.)</td> <td>REMOTE CONTROL VALVES</td> </td> | A <td>(STA NO.)</td> <td>REMOTE CONTROL VALVES</td> | (STA NO.) | REMOTE CONTROL VALVES |
| DW <td>RW <td>A <td>QC</td> <td>QUICK COUPLERS</td> </td></td>               | RW <td>A <td>QC</td> <td>QUICK COUPLERS</td> </td>               | A <td>QC</td> <td>QUICK COUPLERS</td>               | QC        | QUICK COUPLERS        |
- NOTES:**
- A. VALVE BOXES SHALL BE LABELED BY HOT IRON BRANDING
  - B. CONTROL VALVES SHALL BE INSTALLED TO ALLOW ORDERLY ARRANGEMENT OF VALVE BOXES.
  - C. LOCATE VALVE ASSEMBLIES IN SHRUB OR GROUND COVER AREAS ONLY 2" FROM HARDSCAPE.
  - D. LOCATION OF VALVE ASSEMBLIES SHALL BE STAKED FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION TO FACILITATE ACCESS AND MAINTENANCE.
  - E. SET VALVE BOXES AT EQUAL ELEVATIONS W/ TOPS AT 3" ABOVE FINISH GRADE IN SHRUB/ GROUND COVER AREAS.
  - F. CENTER VALVE BOXES OVER VALVE ASSEMBLY.
  - G. VALVE BOXES SHALL BE SET PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE OF AREA.
  - H. DO NOT DEFORM OR COLLAPSE VALVE BOX BY EXCESSIVE SOIL COMPACTION AROUND BOX.
  - I. SEE ALSO INDIVIDUAL VALVE INSTALLATION DETAILS.
  - J. ALL IRRIGATION BOXES TO BE BLACK UNLESS LOCATED IN LAWN AREAS.
- CONTACT LANDSCAPE ARCHITECT FOR INFO ON ANY DEVICE IN A BOX NOT LISTED.

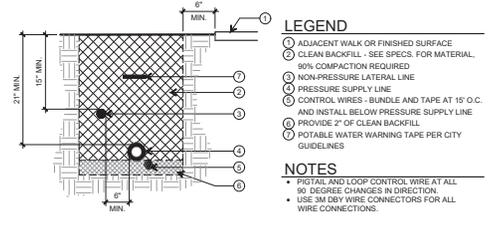
D BOX IDENTIFICATION



- LEGEND**
- 1 FINISHED GRADE
  - 2 1/4" TUBING CLAMP - BOTH THE GREEN AND BLUE COUPLING TUBING CONNECTIONS
  - 3 VALVE BOX & COVER - 30" L x 18"W x 17"H
  - 4 APPROVED BACKFILL
  - 5 PROPORTIONING CAP WITH FEED ADJUSTMENT KNOB
  - 6 PVC MAIN LINE TO VALVE MANIFOLD
  - 7 EZ-FLO SHUT OFF VALVES WITH DISCONNECT WASHERS
  - 8 EZ-FLO FERTILIZING SYSTEM - PER PLAN, CONNECT CLEAR TUBE TO GREEN CONNECTIONS ON PROPORTIONING CAP AND COUPLING
  - 9 CONNECT BLACK TUBE TO BLUE CONNECTIONS ON PROPORTIONING CAP AND COUPLING
  - 10 WATER IN
  - 11 1/2" BALL VALVE COUPLING CONNECTOR - INSTALL ACCORDING TO WATER FLOW DIRECTION ARROW (PURCHASED SEPARATELY)
  - 12 1 CU. FT. PEA GRAVEL
  - 13 PVC MANLINE FROM BACK-FLOW PREVENTER
  - 14 PRESSURE RELIEF VALVE

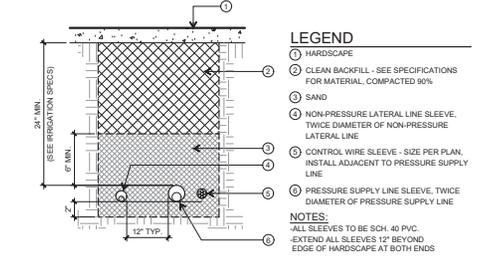
E EZ-FLO FERTIGATION

A WIRE CONNECTORS



- LEGEND**
- 1 ADJACENT WALK OR FINISHED SURFACE
  - 2 CLEAN BACKFILL - SEE SPECS. FOR MATERIAL, 90% COMPACTION REQUIRED
  - 3 NON-PRESSURE LATERAL LINE
  - 4 PRESSURE SUPPLY LINE
  - 5 CONTROL WIRES - BUNDLE AND TAPE AT 15" O.C. AND INSTALL BELOW PRESSURE SUPPLY LINE
  - 6 PROVIDE 2" OF CLEAN BACKFILL
  - 7 PORTABLE WATER WARNING TAPE PER CITY GUIDELINES
- NOTES**
- 1. DIGITAL AND LOOP CONTROL WIRE AT ALL 90 DEGREE CHANGES IN DIRECTION.
  - 2. USE 3M DBY WIRE CONNECTORS FOR ALL WIRE CONNECTIONS.

B TRENCHING



- LEGEND**
- 1 HARDSCAPE
  - 2 CLEAN BACKFILL - SEE SPECIFICATIONS FOR MATERIAL, COMPACTED 90%
  - 3 SAND
  - 4 NON-PRESSURE LATERAL LINE SLEEVE, TWICE DIAMETER OF NON-PRESSURE LATERAL LINE
  - 5 CONTROL WIRE SLEEVE - SIZE PER PLAN, INSTALL ADJACENT TO PRESSURE SUPPLY LINE
  - 6 PRESSURE SUPPLY LINE SLEEVE, TWICE DIAMETER OF PRESSURE SUPPLY LINE
- NOTES:**
- 1. ALL SLEEVES TO BE SCH. 40 PVC.
  - 2. EXTEND ALL SLEEVES 12" BEYOND EDGE OF HARDSCAPE AT BOTH ENDS

C SLEEVING

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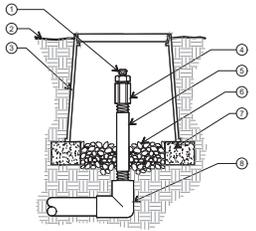
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**IRRIGATION DETAILS**

**L5.2**  
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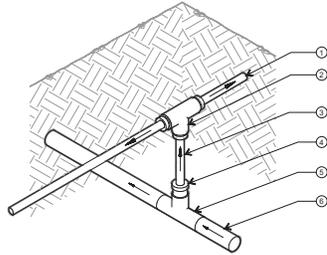


**LEGEND**

- ① NETAFIM TLAVRV AIR / VACUUM VALVE
- ② FINISHED GRADE
- ③ 6" ROUND VALVE BOX - BLACK
- ④ 1/2" PVC COUPLING (T x T)
- ⑤ 1/2" SCH. 80 NIPPLE (LENGTH AS REQUIRED)
- ⑥ PEA GRAVEL SUMP (6")
- ⑦ BRICK SUPPORTS
- ⑧ PVC PIPING AND FITTING

**NOTES**

- INSTALL AIR VAC. RELIEF VALVE AT HIGH POINT OF EACH DRIP SYSTEM
- USE FOR ZONES OF 7 GPM OR LESS ONLY (PLUMBED TO PVC)

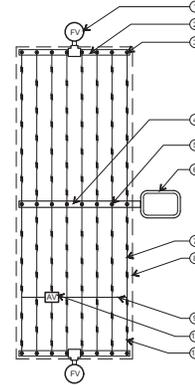


**LEGEND**

- ① NETAFIM TECHLINE DRIPPERLINE
- ② NETAFIM TL TEE ELBOW
- ③ NETAFIM TECHLINE BLANK TUBING
- ④ NETAFIM TL075MA ADAPTER
- ⑤ PVC TEE (SH x S)
- ⑥ PVC PIPE

**LEGEND**

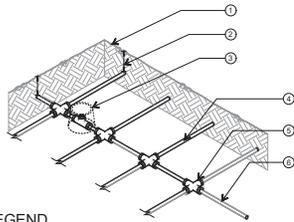
- ① NETAFIM TL FV - 1 LINE FLUSHING VALVE PLUMBED TO TUBING (TVP) - REFER TO "FLUSH VALVE" DETAIL
- ② PVC FLUSH MANIFOLD - REFER TO "MANIFOLD LAYOUT" DETAIL
- ③ NETAFIM TL TEE ELBOW TO MANIFOLD CONNECTION - REFER TO "MANIFOLD TO TEE" DETAIL
- ④ PVC SUPPLY MANIFOLD - REFER TO "CENTERFEED TO MANIFOLD" DETAIL
- ⑤ NETAFIM TL075TEE MANIFOLD TO TEE CONNECTION - REFER TO "MANIFOLD TO TEE" DETAIL
- ⑥ REMOTE CONTROL VALVE WITH FILTER AND PRESSURE REGULATOR - REFER TO "REMOTE CONTROL VALVE" DETAIL
- ⑦ NETAFIM TECHLINE DRIPPERLINE
- ⑧ AREA PERIMETER
- ⑨ AIR/VACUUM RELIEF LATERAL - CENTERED AT HIGH POINT OF SYSTEM. REFER TO "AIR RELIEF VALVE" DETAIL
- ⑩ NETAFIM TLAVRV AIR/VACUUM RELIEF VALVE TO NETAFIM TECHLINE BLANK TUBING AT EACH HIGH POINT - REFER TO "AIR RELIEF VALVE TO LATERAL" DETAIL
- ⑪ PERIMETER LATERALS 2'-4" FROM EDGE



**G NETAFIM AIR RELIEF VALVE**

**D NETAFIM MANIFOLD TO TEE CONNECTION**

**A NETAFIM CENTER FEED LAYOUT**

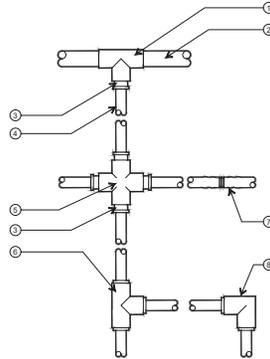


**LEGEND**

- ① FINISHED GRADE
- ② DEPTH PER SPECIFICATIONS
- ③ NETAFIM TLAVRV AIR/VACUUM VALVE IN BLACK VALVE BOX LOCATE AT HIGHEST POINTS IN SYSTEM
- ④ NETAFIM TECHLINE DRIPPERLINE
- ⑤ PVC CROSS TO NETAFIM TL075MA ADAPTERS. SEE DETAIL
- ⑥ NETAFIM TECHLINE BLANK TUBING

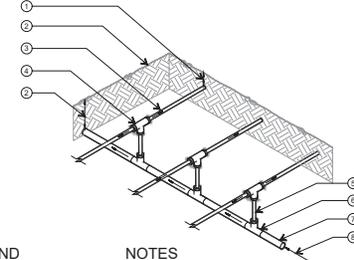
**NOTES**

- SEE PLANS & LEGEND FOR ALL DIMENSIONS AND NETAFIM TECHLINE LATERAL SPACING.
- RATIO OF NETAFIM TECHLINE LATERALS TO START MAY VARY PER HYDRAULIC DEMAND AT THE START CONNECTION (SEE PLANS & LEGEND)



**LEGEND**

- ① PVC TEE
- ② PVC PIPE
- ③ NETAFIM TL075MA ADAPTOR
- ④ NETAFIM TECHLINE DRIPPERLINE
- ⑤ PVC CROSS
- ⑥ NETAFIM TL COUP COUPLING
- ⑦ NETAFIM TL075TEE COMBINATION TEE
- ⑧ NETAFIM TL TEE ELBOW



**LEGEND**

- ① DEPTH PER CHART
- ② FINISHED GRADE
- ③ NETAFIM TECHLINE DRIPPERLINE
- ④ NETAFIM TL075TEE COMBINATION TEE
- ⑤ NETAFIM TECHLINE BLANK TUBING
- ⑥ PVC TEE TO TORO DL2000 COMPRESSION ADAPTER (CA\*10). TYPICAL. SEE DETAIL.
- ⑦ PVC SUPPLY MANIFOLD
- ⑧ FLOW FROM VALVE

**NOTES**

- SEE PLANS & LEGEND FOR ALL DIMENSIONS AND NETAFIM TECHLINE LATERAL SPACING.
- RATIO OF NETAFIM TECHLINE LATERALS TO START MAY VARY PER HYDRAULIC DEMAND AT THE START CONNECTION (SEE PLANS & LEGEND)

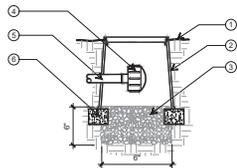
**BURIAL DEPTH**

|             |            |
|-------------|------------|
| TREE RINGS  | ON SURFACE |
| SHRUB AREAS | 2"         |
| TURF AREAS  | 6"         |

**H NETAFIM AIR RELIEF TO LATERAL**

**E NETAFIM 5/8\"/>**

**B NETAFIM CENTER FEED TO MANIFOLD**

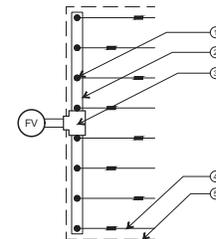


**LEGEND**

- ① FINISHED GRADE
- ② 6" ROUND VALVE BOX - BLACK
- ③ 6" PEA GRAVEL SUMP
- ④ NETAFIM TL FV - 1 LINE FLUSHING VALVE
- ⑤ NETAFIM TL060MFV-1 BARBED FLUSH VALVE
- ⑥ NETAFIM TECHLINE
- ⑦ BRICK SUPPORTS

**NOTES**

- INSTALL FLUSH VALVES AT TERMINUS OF EACH RUN OF DRIPPER LINE



**LEGEND**

- ① NETAFIM TL TEE ELBOW - MANIFOLD CONNECTION
- ② PVC FLUSH MANIFOLD
- ③ NETAFIM TL FV - 1 LINE FLUSHING VALVE
- ④ NETAFIM TECHLINE DRIPPERLINE
- ⑤ AREA PERIMETER

**F NETAFIM FLUSH VALVE**

**C NETAFIM MANIFOLD LAYOUT**

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**IRRIGATION DETAILS**

**Sheet L5.3**

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**PART A: IRRIGATION**

10 SCOPE

FURNISH ALL MATERIALS, EQUIPMENT, SERVICES, SUPERVISION, TRANSPORTATION AND LABOR NECESSARY TO PERFORM ALL IRRIGATION WORK COMPLETELY, INCLUDING BUT NOT LIMITED TO: SERVICE MANUALS, RECORD DRAWINGS, LOOSE EQUIPMENT, GUARANTEE MATERIALS, AND INSTALLATION.

**2.0 DRAWINGS AND SPECIFICATIONS**

A. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO INDICATE AND SPECIFY A COMPLETE AND FUNCTIONING IRRIGATION SYSTEM.  
B. PLOT DIMENSIONS ARE APPROXIMATE. CONTRACTOR SHALL CAREFULLY CHECK AND VERIFY ALL DIMENSIONS AND SHALL REPORT ANY VARIATIONS TO LANDSCAPE ARCHITECT.  
C. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, ETC., WHICH MAY BE REQUIRED. CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL RISER WORK, AND PLAN HIS WORK ACCORDINGLY. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. THE WORK SHALL BE INSTALLED IN THE MOST DIRECT AND WORKMANLIKE MANNER, SO THAT CONFLICTS BETWEEN IRRIGATION COMPONENTS AND PLANTING AND ARCHITECTURAL FEATURES WILL BE AVOIDED.

**3.0 SERVICE MANUALS/MATERIALS LIST**

A. CONTRACTOR SHALL FURNISH ONE (1) MANUAL TO OWNER. THE MANUAL MAY BE LOOSE LEAFED AND SHALL CONTAIN COMPLETE EXPLODED DRAWINGS OF ALL EQUIPMENT INSTALLED SHOWING COMPONENTS AND CATALOG NUMBERS TO GO TOGETHER WITH THE MANUFACTURER'S NAME AND ADDRESS. ADDITIONAL SHEETS SHALL COVER OPERATION INSTRUCTIONS SIMPLE ENOUGH TO BE UNDERSTOOD WITHOUT SPECIALIZED KNOWLEDGE.  
B. CONTRACTOR SHALL FURNISH A MATERIALS LIST TO OWNER FOR APPROVAL PRIOR TO START OF WORK. MATERIALS LIST SHALL CONFORM TO PERFORMANCE STANDARDS AND DATA AS SHOWN ON DRAWINGS, LEGENDS, AND ON DETAILS.  
4.0 AS BUILT DRAWINGS:

A. RECORD ACCURATELY ON ONE SET OF BLACK AND WHITE PRINTS (IRRIGATION DRAWINGS), ALL CHANGES IN WORK, CONSTRUCTING DEPARTURES FROM THE ORIGINAL CONTRACT DRAWINGS, INCLUDING CHANGES IN BOTH PRESSURE AND NON-PRESSURE LINES.  
B. UPON COMPLETION OF EACH INCREMENT OF WORK, TRANSFER ALL SUCH INFORMATION AND DIMENSIONS TO THE PRINTS, RECORD CHANGES AND DIMENSIONS IN A LEGIBLE AND PROFESSIONAL MANNER. WHEN THE DRAWINGS ARE APPROVED, TRANSFER ALL INFORMATION TO A SET OF REPRODUCIBLE DRAWINGS.  
C. DIMENSION FROM TWO PERMANENT POINTS OF REFERENCE (MONUMENTS, SIDEWALKS, CURBS, AND PAVEMENT) POINT INFORMATION ON AS BUILT DRAWINGS DAY TO DAY. DIMENSIONS SHALL BE 1/4" INCH IN SIZE. SHOW DIMENSIONS AND DEPTHS OF THE FOLLOWING:  
I. POINT OF CONNECTION (P.O.C.)  
II. BACKFLOW PREVENTION ASSEMBLY, MASTER VALVE AND FLOW SENSOR.  
III. ROUTING OF IRRIGATION PRESSURE MAINLINES (DIMENSION MAXIMUM 100 FEET ALONG ROUTING AND ALL DIRECTIONAL CHANGES).  
IV. BALL AND BUTTERFLY VALVES.  
V. IRRIGATION CONTROL VALVES.  
VI. AUTOMATIC CONTROLLER, RAIN SENSORS AND ELECTRICAL CONDUITS.  
VII. SLEEVES AND PULL BOXES.  
VIII. OTHER RELATED EQUIPMENT AS DIRECTED BY THE ENGINEER.  
E. MAINTAIN AS-BUILT DRAWINGS ON SITE AT ALL TIMES. THESE DRAWINGS ARE SUBJECT TO INSPECTION AT ANY TIME.  
F. MAKE ALL CHANGES TO REPRODUCIBLE DRAWINGS IN INK (NO BALLPOINT PEN); MAKE CHANGES IN A MANNER EQUAL TO THE ORIGINAL DRAWINGS.  
G. CONTRACTOR MUST SUBMIT AS-BUILT DRAWINGS (SMIL MYRALS AND ONE SET OF BLUELINES) TO THE ARCHITECT INSPECTING THE SITE SEVEN DAYS PRIOR TO THE START OF THE MAINTENANCE PERIOD FOR APPROVAL.  
H. CONTROLLER CHARTS: THREE-CONTROLLER CHARTS PER CONTROLLER, ENCASED IN 20 MIL PLASTIC, SHOWING CLEARLY THE AREAS SERVICED BY EACH REMOTE CONTROL VALVE (EACH VALVE DEPTED BY A DIFFERENT COLOR) SHALL BE PROVIDED AT EACH CONTROLLER. CONTROLLER CHARTS SHALL BE MADE USING REDUCED APPROVED AS-BUILT PLANS.

**5.0 LOOSE EQUIPMENT**

LOOSE SPRINKLING EQUIPMENT, OPERATING KEYS AND SPARE PARTS WILL BE FURNISHED BY THE CONTRACTOR IN THE FOLLOWING QUANTITIES:

- 1. 4 OPERATOR KEYS
- 2. 4 OSCILLATOR BODIES
- 3. 3 HOSE BIB KEYS
- 4. 3 RF KEYS FOR MANUAL VALVES
- 5. 2 CONTROLLER KEYS
- 6. 2 ENCLOSURE KEYS
- 7. 4 COUPLER INSERTS AND HOSE SPLICERS
- 1. 1 3/8" SOIL PROBE
- 1. 1 VALVE BOX KEY

**6.0 GUARANTEE**

A. THE ENTIRE IRRIGATION SYSTEM SHALL BE UNCONDITIONALLY GUARANTEED BY CONTRACTOR AS TO MATERIAL AND WORKMANSHIP, INCLUDING SETTLING OF BACKFILLED AREAS BELOW GRADE FOR A PERIOD OF ONE (1) YEAR FOLLOWING THE DATE OF FINAL ACCEPTANCE OF THE WORK. OWNER MAY EXERCISE OPTION TO WITHHOLD PART OF FINAL PAYMENT UNTIL THE ONE YEAR PRODUCT/WORKMANSHIP GUARANTEE HAS ELAPSED FROM DATE OF FINAL ACCEPTANCE.  
B. IF WITHIN ONE YEAR FROM THE DATE OF COMPLETION, SETTLEMENT OCCURS, AND ADJUSTMENTS IN PIPES, VALVES AND SPRINKLER HEADS OR PAVING IS NECESSARY TO BRING THE SYSTEM OR PAVING TO THE PROPER LEVEL OF THE PERMANENT GRADES, CONTRACTOR, AS PART OF HIS OBLIGATION UNDER HIS CONTRACT, SHALL MAKE ALL ADJUSTMENTS WITHOUT EXTRA COST TO OWNER, INCLUDING THE RESTORATION OF ALL DAMAGED PLANTING, PAVING OR OTHER EQUIPMENT OF ANY KIND.  
C. SHOULD ANY DIFFICULTIES DEVELOP WITHIN THE SPECIFIED GUARANTEE PERIOD WHICH OWNERS FEELS MAY BE DUE TO INFIRMITY OF MATERIALS AND/OR WORKMANSHIP, THESE DIFFICULTIES SHALL BE IMMEDIATELY CORRECTED BY CONTRACTOR TO THE SATISFACTION OF OWNER AT NO ADDITIONAL COST TO OWNER, WITHIN 72 HOURS OF WRITTEN NOTICE, INCLUDING ANY AND ALL OTHER DAMAGE CAUSED BY SUCH DEFECTS. FAILURE OF CONTRACTOR TO RESPOND IN A TIMELY MANNER TO REPAIR DAMAGED CONDITIONS, SHALL PROMPT OWNER TO REPAIR SAME AND DEDUCT COSTS OF LABOR, MATERIAL AND EQUIPMENT USED FROM CONTRACTOR FINAL PAYMENT.

**7.0 MATERIALS**

- A. PIPE AND FITTINGS  
1. BRASS: BRASS PIPE SHALL BE IPS STANDARD WEIGHT 85% RED BRASS. FITTINGS SHALL BE WITH STANDARD 125 POUND CAST BRONZE THREADED FITTINGS.  
2. PVC CONDUIT - PIPE THAT IS USED FOR CONTROL WIRES SHALL BE PVC CONDUIT SCHEDULE 40; TYPE 1220. ALL WIRES UNDER PAVING SHALL BE INSTALLED IN PVC CONDUIT OR SLEEVES.  
3. PVC NORMAL IMPACT PIPE-TYPE 1220 (PVC SCHEDULE 40 & 80)  
4. 1/2" TYPE I GRADE 150# IMPACT PIPE FROM ALL VENDOR MATERIALS.  
A.3.2 OUTSIDE DIAMETER OF PIPE SHALL BE THE SAME SIZE AS IRON PIPE.  
A.3.3 PIPE SHALL BE MARKED AT INTERVALS NOT TO EXCEED 10 FEET WITH THE FOLLOWING INFORMATION: MANUFACTURER'S NAME, NOMINAL PIPE SIZE, PVC TYPE AND GRADE (I.E., 1220) SDR RATING CLASS, NSF APPROVAL AND COMMERCIAL STANDARD DESIGNATION C2526-60. PIPE SHALL BE MARKED AT INTERVALS WITH THE FOLLOWING INFORMATION: TYPE AND GRADE (I.E., PVC 1220) SDR RATING CLASS, NSF APPROVAL AND COMMERCIAL STANDARD DESIGNATION C2526-60. MARKING SHALL INCLUDE EXTRUSION DATE.  
A.3.5 PVC TYPE I SHALL NOT BE THREADED

- A.3.6 PVC FITTINGS SHALL BE PVC TYPE II, SCHEDULE 40 NSF APPROVED, SOLVENT SHALL BE NO. 175 GRAY NSF APPROVED AS MANUFACTURED BY INDUSTRIAL POLYCHEMICAL SERVICE, GARDENA, CALIFORNIA, OR EQUAL.  
A.3.8 CAUTION SHALL BE UTILIZED IN HANDLING TYPE I PIPE DUE TO THE POSSIBILITY OF CRACKING, OR OF SPLITTING WHEN DROPPED OR HANDLED CARELESSLY.  
A.3.9 ALL JOINTS IN PLASTIC TO METAL, MALE ADAPTORS SHALL BE USED. THE MALE ADAPTOR SHALL BE HAND THREADED, PLUS ONE TURN WITH A STRAP WRENCH; JOINT COMPOUND SHALL BE PERMATEX TYPE II.  
A.4. RING-TITE PVC PIPE  
A.4.1 ALL PIPE INSTALLED ON THE WORKING DRAWINGS, SHALL BE CLASS 160 PSI JOINT-MANVILLE PVC PIPE WITH RING-TITE JOINTS.  
A.4.2 ALL RING-TITE JOINTS SHALL BE SEALED WITH RUBBER RINGS AS PROVIDED BY THE MANUFACTURER. ALL PIPE JOINTS SHALL PROVIDE FOR EXPANSION AND CONTRACTION.  
A.4.3 THRUST BLOCKS SHALL BE PROVIDED AS REQUIRED FOR PROPER ANCHORAGE AND DURABILITY OF THE RING-TITE PIPE. (REFER TO DETAILS)

**B. SPRINKLER HEADS**

- SPRINKLER HEADS SHALL BE AS SHOWN ON PLAN. N/A  
C.1. REMOTE CONTROL VALVES - ELECTRIC REMOTE CONTROL VALVES SHALL BE AS SHOWN ON PLANS AND DETAILS. SIZE AND LOCATION SHALL BE AT 30' INTERVALS MINIMUM AND ELSEWHERE AS INDICATED ON PLAN.  
C.2. GATEBALL VALVES - APPROVED GATEBALL VALVES SHALL BE AS SHOWN ON PLANS AND DETAILS. SIZE AND LOCATION SHALL BE AT 30' INTERVALS MINIMUM AND ELSEWHERE AS INDICATED ON PLAN.  
C.3. ALL VALVES SHALL BE LOCATED 2' AWAY FROM CURBS OR SIDEWALKS, AND POSITIONED PERPENDICULAR TO THE EDGE OF PAVING.  
C.4. ALL VALVES SHALL BE MARKED AT A CURB LOCATION, FINAL LOCATION AND METHOD OF MARKING TO BE APPROVED BY THE CITY.  
C.5. VALVES SHALL BE CLUSTERED IN GROUPS PER PLAN.  
D. AUTOMATIC CONTROLLER SHALL BE AS SHOWN ON PLANS AND DETAILS.  
E. CONTROL WIRE SHALL BE 18 AWG. CONTROL WIRE SHALL BE ATTACHED TO THE UNDERSIDE OF THE MAINLINE WHERE POSSIBLE. THE CONTRACTOR SHALL RUN TWO (2) EXTRA WIRES IN EACH DIRECTION TO BE USED FOR CONNECTING TO THE ELECTRICAL SOLENOID ACTUATED BY REMOTE CONTROL VALVE SHALL BE TYPE UF-60V, 14 GAUGE COPPER, PVC INSULATED, SINGLE CONDUCTOR, UL APPROVED UNDERGROUND FEEDER CABLE. EACH PLOT OR 10' TIE WIRE SHALL BE COLOR CODED BY THE FOLLOWING: COMMON WIRE BEING WHITE AND STRIPPED DIFFERENTLY FOR EACH VALVE. "PVC-TAL" TAGS COMING WITH STATION NUMBERS ON EACH END "PVC-TAL" WRING EVERY 150' OR AT EACH BEND. RISE IN, ENCLOSE 3 FT. PVC-TAL IN CONTROL BOXES WITH COVER STAMPED "SB" (SPLICE BOX). VALVE WIRES SHALL BE IDENTIFIED BY COLOR AND ATTACHED TO THE UNDERSIDE OF THE MAINLINE WHERE POSSIBLE. THE CONTRACTOR SHALL RUN TWO (2) EXTRA WIRES IN EACH DIRECTION TO BE USED FOR CONNECTING TO THE MAINLINE IN EACH DIRECTION (COLORS TO BE ORANGE AND ORANGE WITH A WHITE STRIPE).  
F. VALVE BOXES AND PULL BOXES  
ALL VALVE BOXES SHALL BE PLASTIC WEATHER RESISTANT, UV RESISTANT AND SOLID RESISTANT. THE WORKING DRAWINGS SHALL SHOW A BLACK IN COLOR. VALVE BOXES IN LAWN AREAS SHALL BE GREEN IN COLOR, AND PULL BOXES SHALL BE GRAY IN COLOR. VALVE BOXES SHALL BE LOCKABLE WITH A STAINLESS STEEL BOLT. VALVE BOXES SHALL HAVE A LOAD BEARING CAPACITY OF 1500 PSI. VALVE BOX EXTENSIONS SHALL HAVE THE SAME STRENGTH AS THE MAINLINE. VALVE BOXES SHALL BE COVERED WITH AN APPROVED EQUAL. BOX LIDS SHALL BE STAMPED AS IDENTIFIED ON THE BOX IDENTIFICATION DETAIL. PULL BOXES SHALL BE UNIMMEDIATELY AVAILABLE. PULL BOXES SHALL BE INSTALLED EVERY 200' MIN. INSTALL PULL BOXES IN LANDSCAPE AREAS ONLY.  
G. BACKFLOW PREVENTION UNITS  
ALL BACKFLOW PREVENTION UNITS SHALL BE AS SHOWN ON PLANS AND DETAILS. THE BACKFLOW PREVENTION UNITS SHALL BE TYPE K, BRASS COPPER PIPE.

**8.0 INSTALLATION**

- A. TRENCHING  
A.1. EXCAVATION SHALL BE OPEN VERTICAL CONSTRUCTION SUFFICIENTLY WIDE TO PERMIT THE WORK TO BE DONE LEGALLY AT NO COST TO OWNER. INSTALLED AND TO PROVIDE AMPLE SPACE FOR BACKFILLING AND COMPACTING.  
A.2. TRENCHES FOR PIPE SHALL BE CUT TO REQUIRED GRADE LINES, AND TRENCH BOTTOM SHALL BE PLACED TO PROVIDE AN ACCURATE GRADE AND UNIFORM BEARING FOR THE FULL LENGTH OF THE LINE.  
A.3. WHEN TWO (2) PIPES ARE TO BE COMPLETED IN THE SAME TRENCH, A 6" SPACE SHALL BE MAINTAINED BETWEEN PIPES. (REFER TO PIPE INSTALLATION DETAIL).  
B. BACKFILLING  
B.1. BACKFILL MATERIAL SHALL BE APPROVED SOIL, UNSUITABLE MATERIAL INCLUDING CLDS AND ROCKS OVER 1" IN SIZE SHALL BE REMOVED FROM THE PROJECT AREA.  
B.2. ALL BACKFILLING SHALL BE DONE CAREFULLY AND SHALL BE PROPERLY COMPACTED TO THE SATISFACTION OF THE ARCHITECT.  
B.3. DEPTH OF TRENCHES SHALL BE SUFFICIENT TO PROVIDE A MINIMUM COVER ABOVE THE TOP OF THE PIPE. SEE IRRIGATION LEGEND.  
C. PVC PIPE  
C.1. PVC PIPE SHALL BE SNAKED IN A MANNER WHICH WILL PROVIDE FOR EXPANSION AND CONTRACTION AS RECOMMENDED BY THE PIPE MANUFACTURER.  
C.2. ALL PLASTIC TO METAL JOINTS SHALL BE MADE WITH PLASTIC MALE ADAPTORS, UNLESS OTHERWISE SHOWN IN DETAILS.  
C.3. THE JOINTS SHALL BE ALLOWED TO SET AT LEAST TWENTY-FOUR (24) HOURS BEFORE PRESSURE IS APPLIED TO THE PVC PIPE SYSTEM.  
C.4. MAIN LINES SHALL BE TESTED IN PLACE BEFORE BACKFILLING FOR A PERIOD OF NOT LESS THAN FOUR (4) HOURS AND SHALL SHOW NO LEAKAGE OR LOSS OF PRESSURE. DURING THE TEST PERIOD, MINIMUM TEST PRESSURE, AT THE HIGHEST POINT OF THE SECTION BEING TESTED, SHALL BE 150 POUNDS PER SQUARE INCH. CENTER FILLING OF PIPE LENGTHS IS ALLOWED.  
C.5. AFTER ALL NEW SPRINKLER PIPING AND RISERS ARE IN PLACE AND CONNECTED, ALL NECESSARY WORK HAS BEEN COMPLETED AND PRIOR TO THE INSTALLATION OF THE REMOTE CONTROL VALVES, THE SYSTEM SHALL BE OPENED AND A FULL HEAD OF WATER USED TO FLUSH OUT THE SYSTEM FOR A MINIMUM OF FIVE (5) MINUTES. AFTER THE SYSTEM IS THOROUGHLY FLUSHED, THE RISERS SHALL BE CAPED OFF AND THE SYSTEM PRESSURE TESTED.

**C.7. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DIRECT AND INDIRECT COSTS OF EXPOSING WORK FOR PROPER TESTING AND OBSERVATION BY LANDSCAPE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.**

**D. INTENTIONALLY LEFT BLANK**

**E. SPRINKLERS**

- E.1. ALL NOZZLES ON STATIONARY POP-UP SPRINKLERS SHALL BE TIGHTENED PRIOR TO INSTALLATION. ALL SPRINKLERS HAVING AN ADJUSTMENT STEM SHALL BE ADJUSTED ON A LATERAL LINE FOR PROPER RADII, DIAMETER AND/OR CALL OUTLINE PER APPROVAL OF THE LANDSCAPE ARCHITECT.  
E.2. SPRINKLER HEADS AND RISERS SHALL BE INSTALLED ACCORDING TO DETAILS FOR FINAL APPROVAL.  
F. VALVES  
F.1. REMOTE CONTROL VALVES SHALL BE ADJUSTED IN ORDER THAT A UNIFORM DISTRIBUTION OF WATER IS APPLIED BY EACH SPRINKLER HEADS TO THE PLANTING AREAS FOR EACH INDIVIDUAL VALVE SYSTEM.  
F.2. QUICK COUPLING POINTS SHALL BE SET PERMANENTLY FOR EACH FROM WALKS, CURBS, HEADERBOARDS, OR PAVED AREAS WHERE DESIGNED. REFER TO INSTALLATION DETAIL.  
F.3. NO CONTROL VALVES SHALL BE LOCATED IN TURF AREAS WITHOUT PRIOR WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT.

**G. VALVE BOXES**

- G.1. VALVE BOXES SHALL BE SET ONE INCH (1") ABOVE THE DESIGNATED FINISH GRADE. CLOSURE SHALL BE WITH THE INCH (2") ABOVE FINISH GRADE IN GROUND COVER AREAS.  
G.2. VALVE BOXES INSTALLED NEAR WALKS, CURBS, HEADERBOARDS, AND BROKEN SPRINKLER LINES, THE RISER HEIGHT OF SPRINKLERS SHOULD BE ADJUSTED AS REQUIRED, BUT NOT TO INTERFERE WITH PEDESTRIAN TRAFFIC. POP-UP TYPE SPRINKLERS SHOULD BE ADJUSTED TO MAINTAIN THE SPRINKLER HEAD FLUSH WITH THE SURROUNDING GRADE. POP-UP TYPE SPRINKLERS SHOULD ALWAYS BE USED ADJACENT TO TRAFFIC AREAS.  
G.3. PERIODICALLY, THE RISER HEIGHTS SHOULD BE CHECKED TO ACCOMMODATE FUTURE PLANT GROWTH. APPROPRIATE CORRECTIVE MEASURES SHOULD BE MADE IMMEDIATELY TO CORRECT ANY OF THESE PROBLEMS AND ENSURE APPROPRIATE COVERAGE IN ALL AREAS. PREVENT OVER WATERING AND MINIMIZE ANY OVERSPRAY. AFTER ANY IRRIGATION REPAIR, PIPING SHOULD BE FLUSHED AND RETESTED FOR PROPER FUNCTION AND ADEQUATE COVERAGE OF REGULAR INSPECTIONS SHOULD BE PERFORMED TO MONITOR THE AMOUNT OF WATER BEING APPLIED, AND CORRECTIVE MEASURES TAKEN, IF NECESSARY.

**H. AUTOMATIC CONTROLLER LOCATION AND INSTALLATION**

- H.1. THE AUTOMATIC CONTROLLER SHALL BE INSTALLED AT THE LOCATION SPECIFIED ON PLANS. VERIFY EXACT LOCATION OF CONTROLLER WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.  
H.2. THE LOCAL AND REMOTE CONTROL WIRES SHALL TAKE PRECEDENCE IN CONNECTING THE 120 VOL. ELECTRICAL SERVICE TO THE CONTROLLER. IRRIGATION CONTRACTOR SHALL PROVIDE POWER TO CONTROLLER AND SHALL COMPLETE HOOKUP TO CONTROLLER.  
H.3. THERE SHALL BE ADEQUATE COVERAGE OF SOIL (1" MINIMUM) OVER THE 2" CONTROL WIRE. INSTALL WIRE IN MAIN LINE TRENCH AND TYPED TO SIDES OF MAINLINE AT 15' INTERVALS. SEE DETAIL.  
I. CONTROL WIRE  
I.1. ALL ELECTRICAL EQUIPMENT AND WIRING SHALL COMPLY WITH LOCAL AND STATE CODES AND BE INSTALLED BY THOSE SKILLED AND LICENSED IN THE TRADE.  
I.2. CONNECTING AND SPLICING OF WIRE AT THE VALVES OR IN THE FIELD SHALL BE MADE USING 3M SEaled CONNECTORS OR EQUAL. WIRE CONNECTORS SHALL BE WATERPROOF AND NON-REUSABLE. ALL SPLICES SHALL BE MADE USING SEaled WATERPROOF CONNECTORS. CONNECTORS SHALL HAVE A TWO PIECE BODY, COPPER CRIMP SLEEVE, AND WATER PROOF SEALANT.  
I.3. THREE (3) FEET LONG PVC-TAL WIRE SPLICES SHALL BE ALLOWED ONLY AT 150' FT. INTERVALS. THE WIRE SPLICES SHALL BE ENCLOSED IN A TIGHT COVER WITH COVER IMPRINTED WITH THE LETTERS "SB".  
J. BACKFLOW PREVENTION UNITS  
J.1. THE BACKFLOW PREVENTION UNITS SHALL BE INSTALLED AS SHOWN ON PLANS AND DETAILS. BACKFLOW PREVENTION UNITS SHALL BE INSTALLED PER LOCAL CODES INCLUDING CERTIFICATION.

**9.0 OBSERVATION SEQUENCE**

OBSERVATIONS BY THE LANDSCAPE ARCHITECT WILL BE REQUIRED AT THE FOLLOWING TIMES:  
- PRIOR TO INSTALLATION OF MAINLINE (PRIOR TO BACKFILLING) FOR PRESSURE TEST  
- TEST  
- UPON INSTALLATION OF IRRIGATION SPRAY HEADS AND DRIPLINE SYSTEMS (PRIOR TO PLANTING BUT AFTER FINE GRADING) FOR COVERAGE TEST.  
- AT THE END OF MAINTENANCE PERIOD.

**PART B: IRRIGATION SYSTEM MAINTENANCE**

WHEN REPAIRS TO THE SYSTEM ARE REQUIRED, IDENTICAL MATERIALS SHOULD BE USED IN ALL REPAIRS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IRRIGATION CONTROLLER. THE IRRIGATION CONTROLLER IS DEFINED AS THE MASTER CONTROLS THAT REGULATE THE IRRIGATION PROGRAM. THE SYSTEM HAS BEEN INSTALLED USING THE LATEST EQUIPMENT AVAILABLE, BUT COMPONENTS WILL NEED TO BE REPAIRED OR REPLACED PERIODICALLY. IRRIGATION CONTROLLERS MONITOR THE TIME OF DAY AND THE FREQUENCY WITH WHICH THE IRRIGATION SYSTEM DISPENSES WATER ACCORDING TO A WATERING SCHEDULE WHICH IS PROGRAMMED INTO THE CLOCK. EACH CONTROLLER HAS A BATTERY BACK-UP. HOWEVER, THE SCHEDULE MAY BE LOST AS A RESULT OF A POWER OUTAGE. CHANGING SHORT-TERM WEATHER CONDITIONS AND SEASONAL CHANGES WILL REQUIRE FINE-TUNING THE PROGRAM OF THE SYSTEM TO ACCOMMODATE CHANGING WEATHER PATTERNS. MULTIPLE IRRIGATION CYCLES SHOULD BE USED AS NEEDED TO ALLOW EACH WATERING TO COMPLETELY SOAK-IN. THIS WILL REDUCE RUNOFF AND WASTED WATER. CONTROLLER SCHEDULES SHALL CONFORM TO LOCAL CODES AND ORDINANCES. CONTRACTOR SHALL MAINTAIN SCHEDULES FOR A MINIMUM OF 6 GPM TO A MAXIMUM OF 15 GPM FOR EACH RUN TIME.

**MAINTENANCE REQUIRED:**

- 1. REGULAR INSPECTIONS OF OUTDOOR CONTROLLERS TO MINIMIZE MOISTURE DAMAGE AND CORROSION. REGULAR CHECKING FOR DEAD BACK-UP BATTERY, LOOSENED CONNECTIONS, DETEROGATED WEATHERPROOFING OR CONTROLLER MOUNTING HARDWARE. LIGHTING STRIKES COULD ALSO AFFECT THE SYSTEM, AND IT SHOULD BE CHECKED AFTER ELECTRICAL STORMS FOR ANY ADVERSE EFFECTS.  
2. PERIODIC INSPECTION OF TIME CLOCKS TO DETERMINE THAT THE SCHEDULED PROGRAM IS WORKING PROPERLY AND ADJUSTING THE PROGRAM FOR PROPER FAILURES TO RESTORE SCHEDULED PROGRAMMING.  
3. RESETTING TIME CLOCKS FOR DAYLIGHT SAVINGS TIME AND AFTER POWER FAILURES TO RESTORE SCHEDULED PROGRAMMING.  
4. MONTHLY RESETTING AND ADJUSTMENT OF EACH IRRIGATION STATION'S RUN TIME IN RESPONSE TO CHANGING WEATHER CONDITIONS AND PLANT NEEDS. DURING EXTENDED RAINY PERIODS, THE CONTROLLERS SHOULD BE SHUT DOWN UNTIL ADDITIONAL WATER IS NEEDED IN THE LANDSCAPE AREAS. CONTROLLERS SHOULD BE ADJUSTED BASED ON THE ACTUAL NEEDS OF THE PLANTS WHICH REQUIRE WATER FOR ADJUSTMENTS DUE TO ON-SITE CONDITIONS.  
5. RAIN SHUT OFF DEVICES (IF SO EQUIPPED) SHOULD BE CLEANED AND KEPT FREE OF DELETERIOUS MATERIALS SUCH AS LEAVES, ON A MONTHLY BASIS. ENSURE PLANT MATERIAL HAS NOT GROWN OVER OR COVERED DEVICE.  
6. EVENTUALLY, REPLACEMENT OF ELECTRIC TIME CLOCKS, WHEN NEEDED.

**FREQUENCY:**

- 1. FAILURE TO INSPECT TIME CLOCKS AS NECESSARY MAY RESULT IN INADEQUATE OR OVER WATERING WHICH FOR EVEN A SHORT PERIOD OF TIME, COULD BE DISASTROUS TO SURROUNDING LANDSCAPING. OVER-WATERING CAN ALSO CAUSE WATER ACCUMULATION LEADING TO PLANT DEATH, PAVEMENT FAILURES AND WATERPROOFING PROBLEMS. IT IS VERY IMPORTANT THAT REGULAR INSPECTIONS BE PERFORMED TO IDENTIFY ANY OVERLY WET AREAS AND THAT CORRECTIVE MEASURES BE IMPLEMENTED IMMEDIATELY. TIME CLOCKS THAT ARE NOT PROPERLY SET MAY ALSO CAUSE WATERING DURING INAPPROPRIATE HOURS.

**II. BACKFLOW PREVENTERS**

BACKFLOW PREVENTERS ARE DEFINED AS A DEVICE WHOSE FUNCTION IS TO PERMANENTLY SEPARATE THE POTABLE WATER SUPPLY FROM THE IRRIGATION SYSTEM.

**MAINTENANCE REQUIRED:**

- 1. PERIODIC INSPECTION FOR LEAKS. NOTE THAT PERIODIC DISCHARGE OF WATER FROM THE AIR RELIEF VALVE IS NORMAL BECAUSE THE VALVE IS PERFORMING ITS INTENDED FUNCTION.

**FREQUENCY:**

- 1. BACKFLOW PREVENTERS ARE VERY CONSPICUOUS, AND CAN BE SPOT-CHECKED WEEKLY FOR VISIBLE LEAKS OR VANDALISM.

**EFFECTS OF DEFERRED MAINTENANCE:**

FAILURE TO INSPECT AND REPAIR BACKFLOW UNITS MAY AFFECT NEARBY TURF TREES, AND OTHER PLANT LIFE. INSPECTIVE BACKFLOW UNITS CAN ALSO CAUSE CONTAMINATION OF THE DOMESTIC WATER SUPPLY.

**III. SPRINKLER HEADS / EMTTERS**

WHILE THE SPRINKLER SYSTEM PATTERNS HAVE BEEN CHOSEN TO KEEP OVERWATERING TO A MINIMUM, OVERWATERING OF AREAS AND BUILDINGS, WINDY CONDITIONS, PLANT GROWTH, AND OTHER FACTORS WILL SOMETIMES RESULT IN ISOLATED AREAS OF OVERWATERING PROBLEMS.

NOTE: WATER SHOULD BE APPLIED ONLY IN AMOUNTS TO MEET PLANT NEEDS, AND SHOULD BE APPLIED IN SHORT, FREQUENT WATERINGS BY MONTH. WATER APPLICATION NEEDS TO BE RESET ON A MONTHLY AND SEASONAL BASIS TO REPLACE WATER LOST THROUGH EVAPOTRANSPIRATION WITH ALLOWANCE FOR PLANT GROWTH. THE IRRIGATION SCHEDULE ON THE INSTALLATION PLANS SHOULD BE USED AS AN INDICATOR OF PLANTING POINTS FOR SET SPRINKLER CONTROL. EACH IRRIGATION SYSTEMS RUN TIME AND CYCLE SHOULD BE EVALUATED AND ADJUSTED IN THE FIELD.

**MAINTENANCE REQUIRED:**

FREQUENT INSPECTION FOR BROKEN OR IMPROPERLY ADJUSTED SPRINKLER COVERAGE, CLOSURE OF LEAKS ON EMTTERS, WORKING NOZZLES AND AVOIDANCE OF GRIT IN SEALS OR MOVING PARTS, MOWER OR OTHER PHYSICAL DAMAGE, AND BROKEN SPRINKLER LINES. THE RISER HEIGHT OF SPRINKLERS SHOULD BE ADJUSTED AS REQUIRED, BUT NOT TO INTERFERE WITH PEDESTRIAN TRAFFIC. POP-UP TYPE SPRINKLERS SHOULD BE ADJUSTED TO MAINTAIN THE SPRINKLER HEAD FLUSH WITH THE SURROUNDING GRADE. POP-UP TYPE SPRINKLERS SHOULD ALWAYS BE USED ADJACENT TO TRAFFIC AREAS.  
PERIODICALLY, THE RISER HEIGHTS SHOULD BE CHECKED TO ACCOMMODATE FUTURE PLANT GROWTH. APPROPRIATE CORRECTIVE MEASURES SHOULD BE MADE IMMEDIATELY TO CORRECT ANY OF THESE PROBLEMS AND ENSURE APPROPRIATE COVERAGE IN ALL AREAS. PREVENT OVER WATERING AND MINIMIZE ANY OVERSPRAY. AFTER ANY IRRIGATION REPAIR, PIPING SHOULD BE FLUSHED AND RETESTED FOR PROPER FUNCTION AND ADEQUATE COVERAGE OF REGULAR INSPECTIONS SHOULD BE PERFORMED TO MONITOR THE AMOUNT OF WATER BEING APPLIED, AND CORRECTIVE MEASURES TAKEN, IF NECESSARY.

**FREQUENCY:**

- INSPECTION AND APPROPRIATE ADJUSTMENTS OF SPRINKLERS TO ASSURE ADEQUATE COVERAGE AND PREVENT OVERSPRAY SHOULD BE DONE A MINIMUM OF ONCE A WEEK, MORE FREQUENTLY DURING THE DRYER, WARMER SEASONS.  
EFFECTS OF DEFERRED MAINTENANCE:  
FAILURE TO INSPECT, REPLACE, AND ADJUST SPRINKLER SYSTEM COMPONENTS MAY RESULT IN INADEQUATE OR SURPLUS WATER SUPPLY TO AFFECTED AREAS, AFFECTING NEARBY TURF TREES, AND OTHER PLANT LIFE. OVER WATERING MAY EVENTUALLY LEAD TO SOIL EROSION, AND COULD EFFECT NEARBY STRUCTURES AND/OR HARDSCAPE SURFACES.

**IV. VALVES**

**MAINTENANCE REQUIRED:**

REGULAR INSPECTION OF VALVES TO VERIFY THAT THEY ARE OPERATING CORRECTLY. CHECKING FOR DAMPPRAG OR SEAT WEAR, STICKING SOLENOIDS OR DAMPPRAG, CORROSION OF WIRE CONNECTIONS, CLOGGED SCREENS AND/OR CORPICES, AND DEBRIS OR STONES LOOSED ON THE DIAPHRAGM. REPAIRS AND/OR REPLACEMENT AS NECESSARY.

REMOTE CONTROL VALVES MAY HAVE ASSOCIATED UNIONS AND ISOLATION VALVES. THESE SHOULD ALSO BE CHECKED PERIODICALLY FOR LEAKAGE OR DAMAGE.

**FREQUENCY:**

- VALVES SHOULD BE MANUALLY OPERATED AND VISUALLY INSPECTED AT LEAST ONCE PER MONTH. A MORE THOROUGH INSPECTION OF ALL VALVES SHOULD BE PERFORMED AT LEAST ONCE A YEAR WITH REPAIRS OR REPLACEMENT DONE AS SOON AS ANY MALFUNCTION IS DETECTED. THIS SAME FREQUENCY OF INSPECTION SHOULD BE APPLIED TO THE BALL OR GATE VALVES LOCATED THROUGHOUT THE SYSTEM.

**EFFECTS OF DEFERRED MAINTENANCE:**

AS THE REMOTE CONTROL VALVES CONTROL THE DISPERSION OF WATER, REPAIRS THAT ARE NOT ATTENDED TO IMMEDIATELY COULD RESULT IN LONG TERM DAMAGE TO LANDSCAPING IN THE AFFECTED AREAS.

**V. IRRIGATION PIPE**

**MAINTENANCE REQUIRED:**

THE IRRIGATION SUPPLY AND LATERAL PIPES ARE PLASTIC (PVC), IF NOT DISTURBED BY TRENCHING OR DIGGING. MINIMAL ONGOING MAINTENANCE SHOULD BE REQUIRED. ON OCCASION, SOME REPAIRS MAY NEED TO BE DONE TO MAINTAIN THE INTEGRITY OF THE SYSTEM AND AN OCCASIONAL INSPECTION OF PORTIONS OF THE SYSTEM IS RECOMMENDED. REPAIRS SHOULD BE MADE WITH IDENTICAL MATERIALS.

**FREQUENCY:**

- IF REPAIRS ARE REQUIRED, THEY SHOULD BE DONE IMMEDIATELY.

**EFFECTS OF DEFERRED MAINTENANCE:**

AS WITH OTHER COMPONENTS OF THE IRRIGATION SYSTEM, REPAIRS THAT ARE NOT ATTENDED TO IMMEDIATELY COULD RESULT IN LONG TERM DAMAGE TO LAWN AND PLANT LIFE IN THE AFFECTED AREAS.

**- END OF SECTION -**

**T H NORTON**  
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1220 DIAMOND WAY  
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CONCORD, CA 94520  
PHONE: 925.822.2805

**VETERE-DAVIS RESIDENCE**  
1511 VAN DUSEN LANE  
CAMPBELL, CA

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SUPERVISOR'S OFFICE

IRRIGATION SPECIFICATIONS

L6.1

13





**PART A PLANTING**

- 1.0 SCOPE
2.0 APPROVALS
A. ALL IRIGATION WORK SHALL BE INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT IN WRITING PRIOR TO THE START OF ANY PLANTING...

- INSPECTION AND STORED ON SITE UNTIL THE FURNISHING OF MATERIALS IS COMPLETED. DELIVERY MAY BEGUN UPON APPROVAL OF SAMPLES BY LANDSCAPE ARCHITECT.
1.0 STAKING MATERIALS
A. TREE STAKING SHALL BE AS PER DETAILS.

- SETTLED BY WATER APPLICATION. (REFER TO PLANTING DETAILS AND SPACING DETAILS)
2.0 STAKING MATERIALS
A. TREE STAKING SHALL BE AS PER DETAILS.

- BARK WOOD BARK IN ALL SHRUB PLANTING AREAS. CONTRACTOR SHALL SUPPLY A ONE GALLON BAG SAMPLE TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO DELIVERY.
27.0 PROTECTION
CONTRACTOR SHALL CAREFULLY AND CONTINUOUSLY PROTECT ALL AREAS INCLUDED IN THE CONTRACT, INCLUDING PLANT MATERIALS, FENCES, SUPPORTS, ETC.

- 7.0 REMOVAL OF TURF BY HAND, FROM WITHIN 12 INCHES OF TREE TRUNKS TO ELIMINATE DAMAGE POTENTIAL FROM MOWERS AND STRING TRIMMERS.
8. REGULAR CARE AND MAINTENANCE OF LEAVES AND TRASH.
FREQUENCY:
1. MOWING OF GRASS WILL NEED TO BE DONE ON A WEEKLY BASIS.

- 3.0 QUANTITIES AND TYPES
PLANT MATERIALS SHALL BE FURNISHED IN THE QUANTITIES AND/OR SPACING AS SHOWN OR NOTED FOR EACH LOCATION, AND SHALL BE OF THE SPECIES, KINDS, SIZES, ETC. AS SYMBOLIZED AND/OR DESCRIBED IN THE "PLANT MATERIAL LEGEND" ON THE DRAWINGS.

- 2.0 APPROVALS
A. ALL IRIGATION WORK SHALL BE INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT IN WRITING PRIOR TO THE START OF ANY PLANTING...

- 27.0 PROTECTION
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- 8. REGULAR CARE AND MAINTENANCE OF LEAVES AND TRASH.
FREQUENCY:
1. MOWING OF GRASS WILL NEED TO BE DONE ON A WEEKLY BASIS.

- 4.0 VERIFICATION OF DIMENSIONS AND QUANTITIES
DIMENSIONS ARE APPROXIMATE. BEFORE PROCEEDING WITH ANY WORK, CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND QUANTITIES AND SHALL IMMEDIATELY INFORM THE ARCHITECT OF ANY DISCREPANCIES.

- 2.0 APPROVALS
A. ALL IRIGATION WORK SHALL BE INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT IN WRITING PRIOR TO THE START OF ANY PLANTING...

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- 8. REGULAR CARE AND MAINTENANCE OF LEAVES AND TRASH.
FREQUENCY:
1. MOWING OF GRASS WILL NEED TO BE DONE ON A WEEKLY BASIS.

- 5.0 OBSERVATION / CERTIFICATION
A. ALL OBSERVATIONS SHALL BE MADE BY THE LANDSCAPE ARCHITECT AND OWNERS REPRESENTATIVE. CONTRACTOR SHALL REQUEST INSPECTION AT LEAST TWO (2) WORKING DAYS IN ADVANCE OF THE TIME INSPECTION IS REQUESTED.

- 2.0 APPROVALS
A. ALL IRIGATION WORK SHALL BE INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT IN WRITING PRIOR TO THE START OF ANY PLANTING...

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FREQUENCY:
1. MOWING OF GRASS WILL NEED TO BE DONE ON A WEEKLY BASIS.

- 6.0 MATERIALS
PLANT MATERIALS INDICATED ON THE DRAWINGS AND HEREIN SPECIFIED SHALL CONFORM TO THE FOLLOWING:
A. NOMENCLATURE - PLANT NAMES INDICATED ON THE DRAWINGS CONFORM TO "STANDARD PLANT NAMES" ESTABLISHED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURE.

- 2.0 APPROVALS
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- 8. REGULAR CARE AND MAINTENANCE OF LEAVES AND TRASH.
FREQUENCY:
1. MOWING OF GRASS WILL NEED TO BE DONE ON A WEEKLY BASIS.

- 7.0 FERTILIZERS AND SOIL CONDITIONS (FOR BID PURPOSES ONLY)
SAMPLES OF ALL SOIL AMENDMENTS, SOO AND PLANTS SHALL BE SUBMITTED FOR

- 2.0 APPROVALS
A. ALL IRIGATION WORK SHALL BE INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT IN WRITING PRIOR TO THE START OF ANY PLANTING...

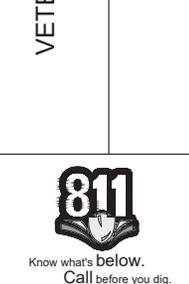
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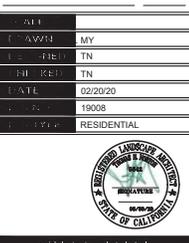
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PLANTING SPECIFICATIONS

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