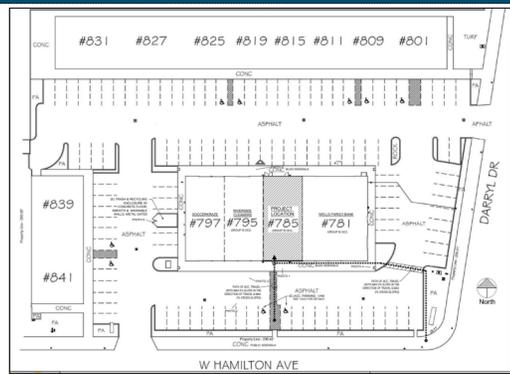






City of Campbell
 70 North First Street
 Campbell, CA 95008 -1423

Project Image



Courtesy Notice

Dear Campbell Resident,

March 21, 2023

We are notifying you that the Planning Division of the Community Development Department of the City of Campbell has received an application for the following project:

Project Address: 785 W Hamilton Avenue

Zoning | Area Plan: P-D | N/A

Neighborhood Assoc.: San Tomas West Neighborhood Assoc.

Council District: 3

File No.: PLN-2023-51

APN: 307-33-004

Applicant: Nick the Greek

Property Owner: Hamilton Square LLC

Application Type: Admin Planned Development Permit

Project Planner: Larissa Lomen, Assistant Planner

Email Contact: larissal@campbellca.gov

Phone Contact: (408) 866-2144

Project Description:

To allow a change of use from an existing grocery store use to a restaurant use (Nick the Greek) for a 1,950 square-foot tenant space within a commercial shopping center.

If you would like to find out more information regarding the proposed project, please view the project plans using the QR code below or contact the Project Planner. The City will send you another notice before the City makes a decision regarding approval of the project.

Before a decision is reached you will receive a formal notice providing another opportunity for public comment.



- City of Campbell -
Community Development Department
70 N. First Street, Campbell CA 95008
(408)866-2140 | planning@campbellca.gov

Note: Applications may change after initial application submittal. To view the project plans, please scan the QR code.

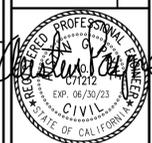
**Asistencia en Español disponible,
Simplemente marque (408) 866-2140 y pida traducción en Español



T.I. - NICK THE GREEK

CAMPBELL

REV.	DATE	NO.



GLENN CUNNINGHAM, DESIGNER
 BULL'S EYE CADD
 434 45TH AVENUE
 SAN FRANCISCO, CA 94121
 E-MAIL: glennccc@att.net
 C. (510) 301-3005
 C. (415) 666-3624

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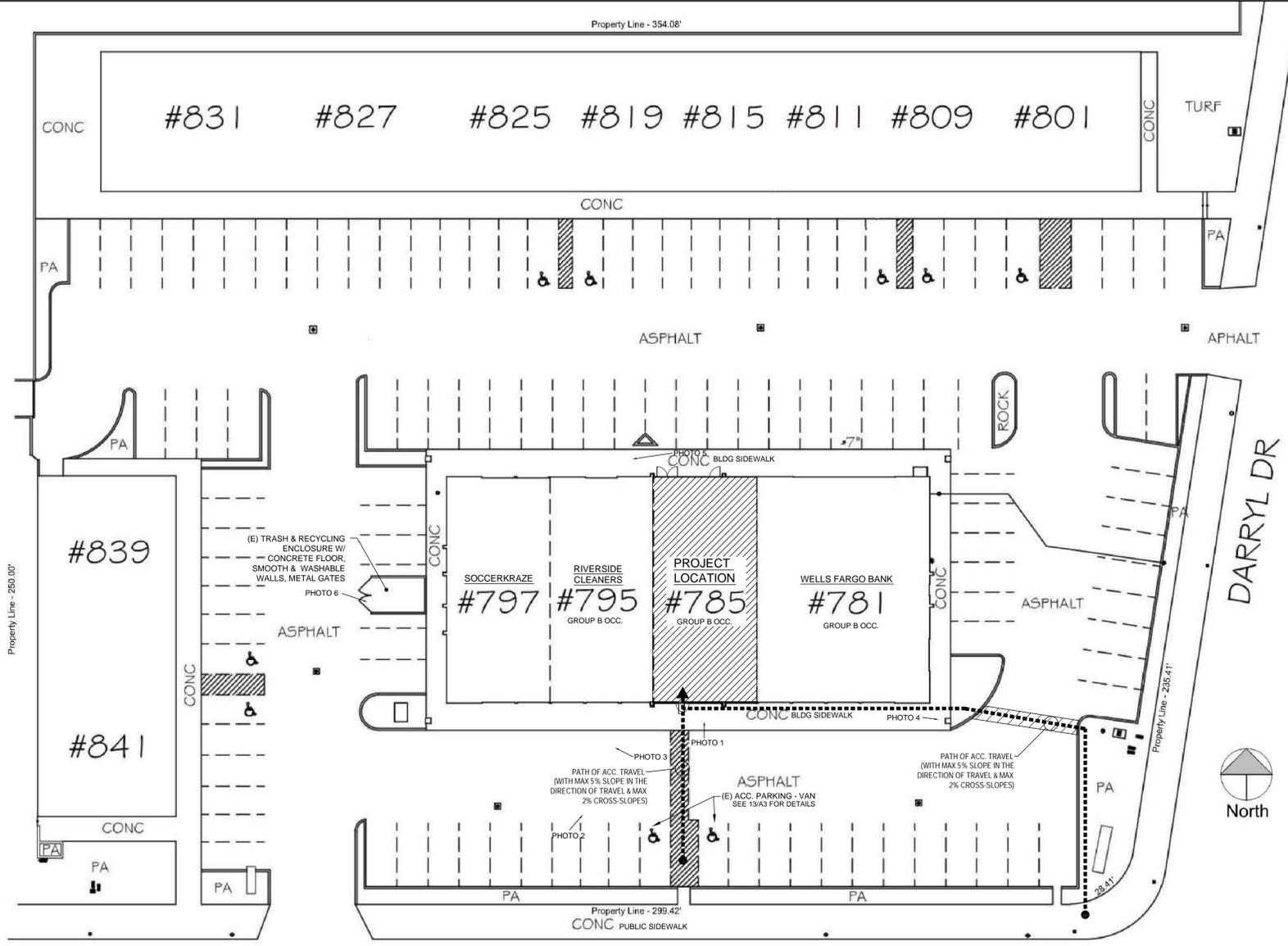
T.I. - NICK THE GREEK
 THE REDWOODS SHOPPING CENTER
 785 W HAMILTON AVE.
 CAMPBELL, CA 95008

Date: 12/20/22
 Drawn: GCC
 Sheet: A-1

GENERAL NOTES

- AIA DOCUMENTS A201, LATEST ADDITION ISSUED BY THE AMERICAN INSTITUTE OF ARCHITECTS, "GENERAL CONDITIONS FOR THE PERFORMANCE OF A CONTRACT" ARE HEREBY INCORPORATED INTO THESE DRAWINGS AND SHALL BE CONSIDERED AS PART OF THE REQUIREMENTS FOR THE COMPLETION OF WORK.
- ALL PERMITS REQUIRED BY THE CITY AND STATE AGENCIES SHALL BE APPLIED FOR AND OBTAINED BY THE CONTRACTOR AT HIS/HER SOLE EXPENSE.
- ALL CONSTRUCTION WORK SHALL BE PROVIDED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL CODES, WITH THE MOST STRINGENT ALWAYS APPLYING.
- THE CONTRACTOR SHALL IMMEDIATELY EXAMINE ALL PORTIONS OF THE SITE AFFECTING THIS PROJECT, AND BASE HIS/HER BID ON EXISTING CONDITIONS. ALL CONFLICTS OR OMISSIONS IN THE DRAWINGS SHALL BE REPORTED TO THE ARCHITECT AT THIS TIME. NO ALLOWANCE SHALL BE MADE FOR EXTRA EXPENSES TO THE CONTRACTOR DUE TO HIS/HER FAILURE TO COMPLY WITH THIS REQUIREMENT AND TO THOROUGHLY CONDUCT THIS EXAMINATION.
- THE CONTRACTOR SHALL CONFIRM IN WRITING IMMEDIATELY FOLLOWING AWARDED OF THE JOB THE DELIVERY DATES OF ALL CONSTRUCTION MATERIALS REQUIRED BY THESE DRAWINGS. ANY MATERIALS WHOSE UNAVAILABILITY WILL AFFECT A DELAY IN AGREED UPON OCCUPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER AT START OF WORK.
- ANY REQUEST FOR THE SUBSTITUTION OF SPECIFIED MATERIALS SHALL BE MADE TO THE DESIGNER IN WRITING WITH THE PROPER TIME FOR REVIEW OF EQUAL QUALITY AND PERFORMANCE, AND SHALL NOT BE PURCHASED WITHOUT WRITTEN APPROVAL.
- THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL SUBCONTRACTORS AND SHALL SCHEDULE ALL WORK TO MEET AGREED UPON COMPLETION DATES.
- CONTRACTORS SHALL PROTECT ALL EXISTING AREAS WITH FRAGILE EQUIPMENT FROM DAMAGE THROUGHOUT TIME OF CONSTRUCTION. AT OWNER'S REQUEST, CONTRACTOR SHALL ERECT A TEMPORARY ENCLOSURE OR PLASTIC SCREEN.
- CONTRACTOR SHALL KEEP JOB SITE CLEAN OF DIRT, DEBRIS, AND DUST WHICH COULD AFFECT FINISHED AREAS IN OR OUT OF JOB SITE, AND SHALL BE RESPONSIBLE FOR THE STORAGE AND REMOVAL OR RUBBISH ON A REGULAR BASIS.
- CONTRACTOR SHALL LEAVE PREMISES CLEAN AT THE COMPLETION OF WORK. CONTRACTOR SHALL PROVIDE PROFESSIONAL CLEANING SERVICES OF AREA INCLUDING WINDOWS, CARPETS, CABINETS, AND WALLS.
- ALL DIMENSIONS ARE GIVEN FROM FACE TO FINISH UNLESS OTHERWISE NOTED. NO DIMENSIONS SHALL BE SCALED FROM DRAWINGS. NO DIMENSIONS ARE TO BE ADJUSTED WITHOUT WRITTEN APPROVAL OF THE DESIGNER.
- ALL WORK, TO BE ACCEPTABLE, MUST BE IN COMPLIANCE WITH THESE DRAWINGS AND SPECIFICATIONS, AND MUST BE OF A QUALITY EQUAL TO OR BETTER THAN THE STANDARDS OF THE TRADE. FINISHED WORK SHALL BE FIRM, WELL-ANCHORED IN TRUE ALIGNMENT, PLUMB, LEVEL, WITH SMOOTH, CLEAN, & UNIFORM APPEARANCE.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO DESIGNER OF ALL FABRICATED ITEMS SUCH AS CABINETS, GLAZING, CUT SHEETS OF EQUIPMENT AND SAMPLES OF ACTUAL FINISH MATERIALS FOR APPROVAL PRIOR TO INSTALLATION.
- CONTRACTOR TO PROVIDE BLOCKING BEHIND ALL ELEMENTS REQUIRING SUPPORT. REVIEW REQUIREMENTS WITH DESIGNER.
- CONTRACTOR TO COORDINATE INSTALLATION OF N.I.C. ITEMS WITH OTHER TRADES.
- A COMPLETE SET OF STAMPED APPROVED PLANS MUST BE ON THE JOB SITE.
- ALL CONTRACTORS & SUBCONTRACTORS MUST HAVE VALID CURRENT BUSINESS LICENSES BEFORE INSPECTIONS CAN BE MADE.
- ALL WORK SHALL REMAIN EXPOSED FOR INSPECTION. THIS INCLUDES BUILDING CONSTRUCTION AND DEFERRED FIRE PERMITS. IF ADEQUATE EXPOSURE IS NOT PROVIDED FOR INSPECTION PURPOSES.
- LICENSE FOR SOFT SERVE MACHINE ITEM #22 FROM THE CDFA TO BE OBTAINED BEFORE FINAL CONSTRUCTION INSPECTION WITH A COPY PROVIDED TO ALAMEDA COUNTY DEPT. OF ENVIRONMENTAL HEALTH.

SITE PLAN SCALE: 1" = 20'



PROJECT DATA DESCRIPTION

Interior Area: 1,950 SQ. FT. INTERIOR
 Construction Type: TYPE V-B, 1 STORY
 Sprinkler System: FULLY SPRINKLERED
 Existing Use: VACANT (FORMER MARKET)
 Proposed Use: RESTAURANT "NICK THE GREEK"
 Disability Guidelines: THIS FACILITY IS AND WILL REMAIN FULLY COMPLIANT TO CBC ACCESSIBILITY REQUIREMENTS (SECTION 11B)
 Title 24: LIGHTING TO REMAIN THE SAME FOR MECH. VENTILATION, SEE SHEETS M3.1, 3.2, 3.3
 Occupancy Load: GROUP B OCCUPANCY (A-2 WITH LESS THAN 50); OCC. LOAD 49 LESS THAN 50 - ONE EXIT REQ., TWO PUBLIC EXITS AVAILABLE

OCCUPANCY LOAD FACTOR CHART				RESTROOM FIXTURES CALC.:
FUNCTION	OCCUPANT LOAD FACTOR (OLF)	NET SQUARE FOOTAGE (SQ. FT.)	OCCUPANT LOAD (OL) (SQ.FT.)/(OLF)	
DINING AREA (NON-FIXED SEATING)	15	480	480/15 = 32	AS THIS IS A CLASS B RESTAURANT, ONLY (1) ALL GENDER RESTROOM WITH (1) LAV & (1) W.C. IS REQUIRED PER CPC 422.1 EXCEPTION (3)
DINING AREA (FIXED SEATING)	1 PER 24" LIN 22" LIN	190	222" = 11	
SERVICESTATION/WASH/STORAGE AREAS	200	750	750/200 = 4	
RESTROOM/CORRIDORS/WALLS/CLOSET UNOCCUPIED ACCESSORY	-	550	0	
*NOT INCLUDED IN NET PER 2019 CBC SEC 202 "DEFINITIONS" AT "B" FLOOR AREA, NET				1950 S.F. TOTAL = 46

PROJECT DIRECTORY

ENGINEER/DRAFTING: GLENN CUNNINGHAM, 434 45th AVENUE, SAN FRANCISCO, CA 94121, 510-301-3005 CELL, glennccc@att.net

MECHANICAL ENGINEER: HECTOR PEDRAZA, 37625 SYCAMORE ST., NEWARK, CA 94560, PHONE: 510-861-1319, gmadrafting@sbcglobal.net, LIC. # M33167

CIVIL ENGINEER: AUSTIN PAYNE, UPRIGHT ENGINEERING, 3841 MT. DIABLO BLVD., #1841, LAFAYETTE, CA 94549, PHONE: 925-275-5304, info@uprcivil.com, LIC. # C71212

TENNANT: DIMITRIOS ZAFIRIS, 6628 BROADACRES DR., SAN JOSE, CA 95120, 408-728-5721, billscare@sbcglobal.net

SCOPE OF WORK - TENANT IMPROVEMENT

CONVERSION OF A FORMER RETAIL MARKET SPACE TO A NICK THE GREEK RESTAURANT. THIS WILL INVOLVE THE FOLLOWING WORK:

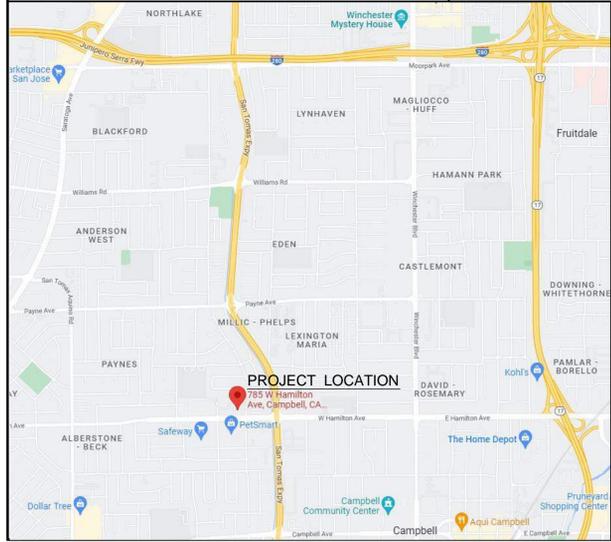
- DEMOLITION. REMOVE EXISTING NON STRUCTURAL WALLS AS SHOWN
- ADD NEW PARTITION WALLS. NONE TO BE INTRICATELY STRUCTURED TO BUILDING.
- ELECTRICAL WORK AS REQUIRED FOR NEW PLAN.
- PLUMBING WORK AS REQUIRED FOR NEW PLAN.
- INSTALL COUNTERS AND COVE AS REQUIRED.
- INSTALL AND PROVIDE FLOORING AND ALL OTHER REQUIRED FINISHES.
- PROVIDE AND INSTALL NEW EQUIPMENT.
- INSTALL REPLACEMENT HOOD SYSTEM AND RELATED EQUIPMENT
- UPGRADE EXSITING AC SYSTEM
- UPGRADE RESTROOM TO BE FULL ADA COMPLIANT

LIGHTING TO REMAIN AS EXISTING

HOOD SUPPRESSION SYSTEM (ANSUL) TO BE UNDER SEPERATE PERMIT.

DEFERRED SUBMITTALS:
 1. SIGNAGE 2. MODIFICATIONS TO FIRE SPRINKLER SYSTEM

VICINITY MAP



W HAMILTON AVE

APPLICABLE CODES

ALL WORK SHALL CONFORM TO ALL APPLICABLE CODES, ORDINANCES, AND REGULATIONS AS PRESCRIBED BY THE LOCAL CITY & COUNTY. CODES SHALL INCLUDE BUT ARE NOT NECESSARILY LIMITED TO:

2019 CALIFORNIA BUILDING CODE
 2019 CALIFORNIA ELECTRICAL CODE
 2019 CALIFORNIA PLUMBING CODE
 2019 CALIFORNIA MECHANICAL CODE
 2019 CALIFORNIA ENERGY CODE
 2019 CALIFORNIA FIRE CODE W/ CITY AMENDMENTS
 2019 CALIFORNIA GREEN BUILDING STANDARDS CODES

FEDERAL & STATE DISABILITY GUIDELINES AND REGULATIONS AND ANY OTHER STATE REGULATIONS, CODES, & ORDINANCES AS AMENDED BY THE STATE OF CALIFORNIA & LOCAL CITY & COUNTY THAT ARE APPLICABLE TO THIS PROJECT.

ARCHITECTURAL PLANS:

- A-1 COVER SHEET, PROJECT DATA, BUILDING SITE PLAN, VICINITY MAP
 - A-1.1 SITE PHOTOS, ACC. PARCEL MAP
 - A-2 EXISTING/DEMO & NEW/CONSTRUCTION FLOOR PLAN, EQUIPMENT SCHEDULE
 - A-3 ACCESSIBILITY REQUIREMENTS
 - A-4 PHOTO PAGE, ACC. PARCEL MAP
 - EH-1 ENVIRONMENTAL HEALTH DEPT. REQUIREMENTS, FINISH PLAN & DOOR SCH.
- ELECTRICAL PLANS:
 E-1 ELECTRICAL PLAN & SCHEDULE, ELECT. PANEL*, LOAD CALC'S*
- MECHANICAL PLANS:
 HVAC
 M-0.1 MECHANICAL LEGEND, SCHEDULES
 M-0.2 MECHANICAL NOTES
 M-2.0 MECHANICAL FLOOR AND ROOF PLANS
 M-3.1, 3.2, 3.3* TITLE 24 COMPLIANCE FORMS HOOD SYSTEM
 M-4.1 MECH HOOD PLAN (CAPTIVE AIRE) - PLAN & ELEVATIONS
 M-4.2 MECHANICAL (CAPTIVE AIRE) - FACTORY BUILT GREASE DUCT SPEC'S & DETAILS
 M-4.3 MECH HOOD PLAN (CAPTIVE AIRE)- EXHAUST FAN
 M-4.4 MECH HOOD PLAN - SUPPLY FAN
 M-6.1 MECHANICAL SUPPORT DETAILS
- PLUMBING PLANS:
 P-0.1 PLUMBING KEY, TABLES & SCHEDULES
 P-0.3 WATER HEATER COMPLIANCE
 P-2.0 PLUMBING PLANS -- WASTE & VENT, DETAILS' WATER & GAS SUPPLY, DETAILS
 P-4.1 PLUMBING DETAILS
- STRUCTURAL PLANS:
 S-1 NEW PARTITION WALL DETAILS, WALK-IN COOLER, & EQUIPMENT ATTACHMENT DETAILS.
- * FOR BUILDING DEPT. ONLY



PHOTO 1



PHOTO 2



PHOTO 3

SEE SITE PLAN FOR PHOTO LOCATIONS

ASSESSOR'S PARCEL MAP

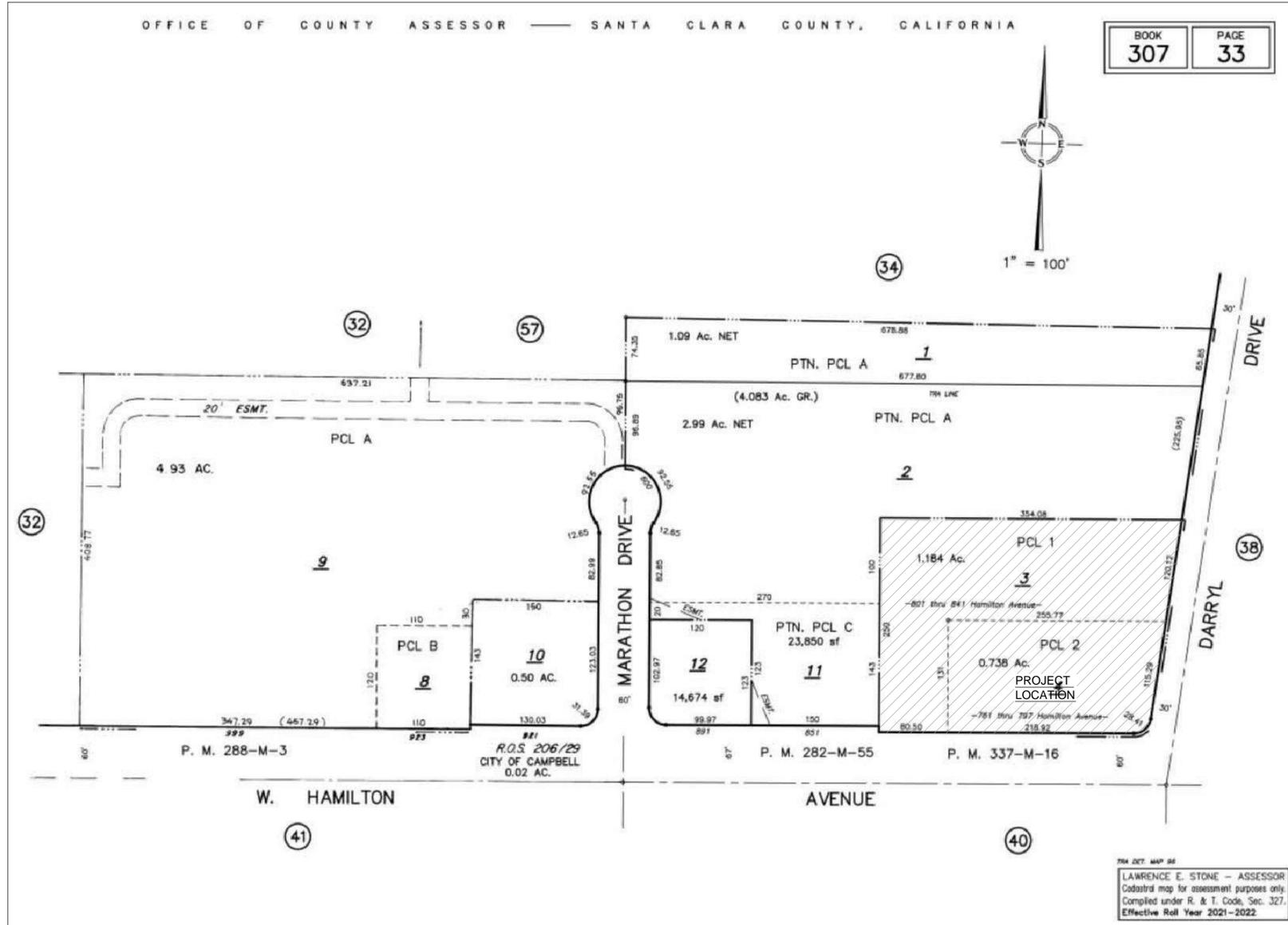


PHOTO 4



PHOTO 5

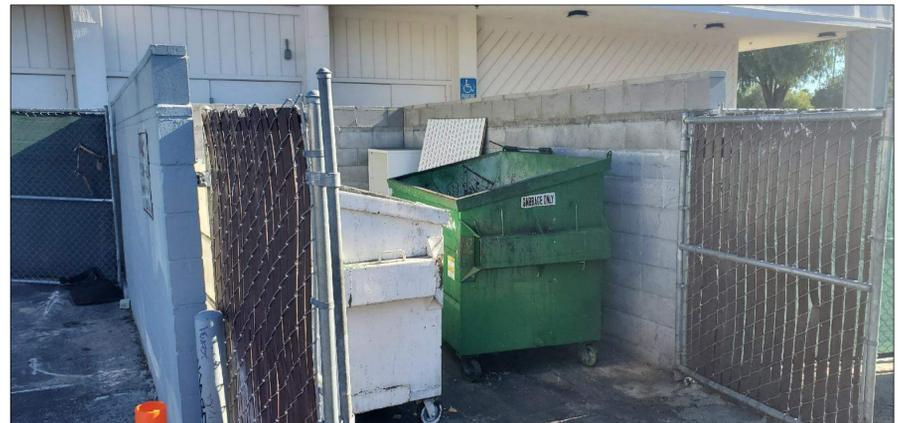


PHOTO 6

REV. DATE NO.

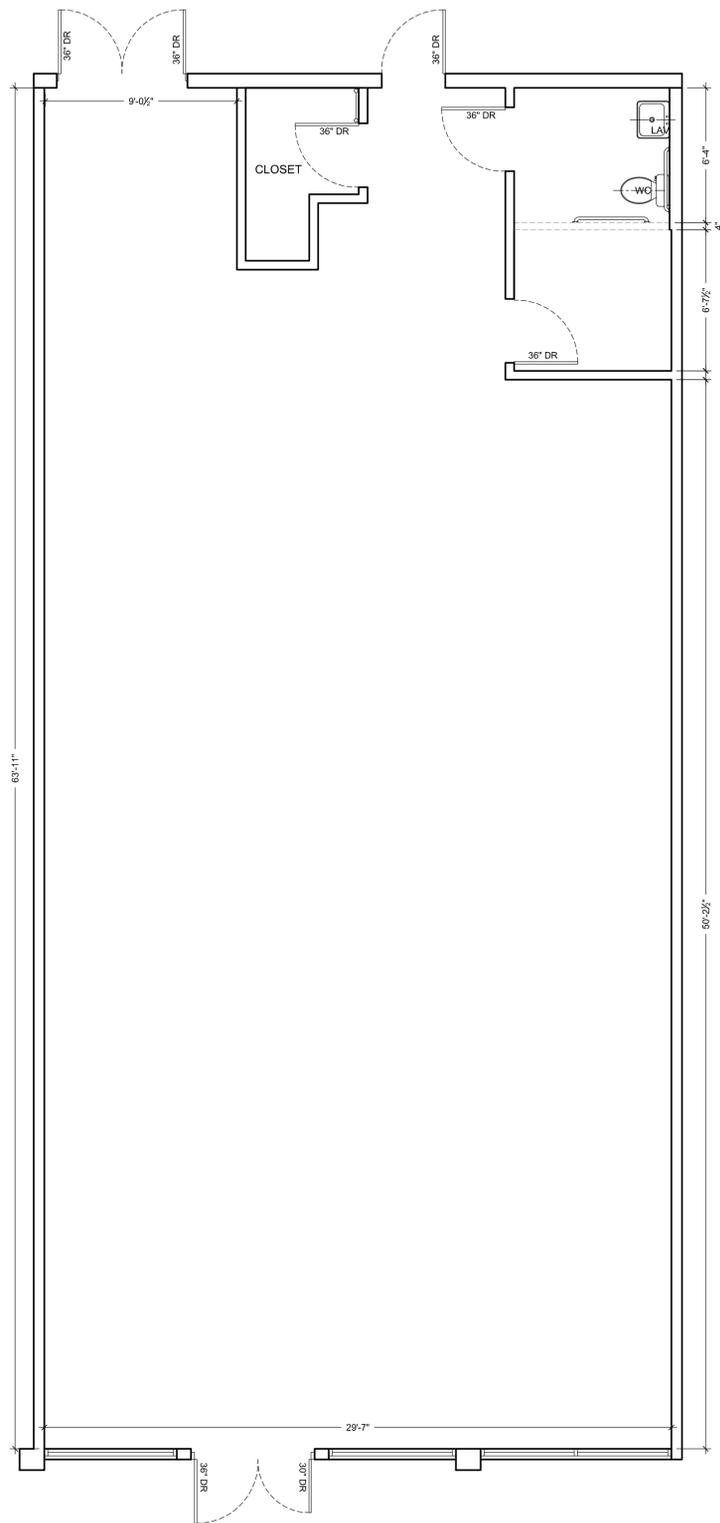


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T.I. - NICK THE GREEK
THE REDWOODS SHOPPING CENTER
785 W HAMILTON AVE.
CAMPBELL, CA 95008

Date: 12/20/22
Drawn: GCC
Sheet: A-1.1



EXISTING FLOOR PLAN

SCALE: 1/4" = 1'-0"

EQUIPMENT SCHEDULE						
Item No	Qty	Equipment Category	Manufacturer (or equal)	Model Number (or equal)	Equipment Remarks	*See Note #17 Weight (lb)
1	3	BROILER, VERTICAL	UNIWORLD	VBR-2E	SEE NOTE 9	69
1A	1	TABLE, WORK	TURBO AIR	TSW 3072SB	SEE NOTE 9.1	74
2		NOTE USED				
3	1	GRIDDLE, GAS	AMERICAN RANGE	ARMG-48	SEE NOTE 9	365
4	1	CHARBROILER, GAS	AMERICAN RANGE	AERB-24	SEE NOTE 9	193
5	1	FRYER, DEEP FAT, GAS	AMERICAN RANGE	AF35/50	SEE NOTE 9 & 16	36
6	1	REFRIGERATED WORK TOP	TURBO AIR	TWR-28SD-D2-N	SEE NOTE 16	163
6A	1	WARMER, FOOD, ELECTRIC	HATCO	GRFHS-21	ON #6	180
7	1	REFRIGERATOR, CHEF BASE	TRUE FOOD SERVICE	TRCB-72	SEE NOTE 9.1	*485
8	1	REFRIGERATOR, SANDWICH/SALAD PREP	TRUE FOOD SERVICE	TSSU-60-24M-B-ST-ADA	SEE NOTE 16	370
8.1	1	REFRIGERATOR, SANDWICH/SALAD PREP	TRUE FOOD SERVICE	TSSU-36-12M-B-ADA	SEE NOTE 16	350
9	1	WARMING DRAWER	VULCAN	VW2S	ON UNDERSHELF	255
10	1	DISPLAY CASE, REFRIGERATED	TURBO AIR	TOM-W-40SB	SEE NOTE 16	135
11	1	DISPENSER, ICE/BEVERAGE	MANITOWOC ICE	M-150 W/6 VALVES		335
11.1	1	ICE MAKER FOR BEVERAGE DISPENSER	MANITOWOC ICE	IB-0696YC		130
12		NOT USED				
13	3	SINK, HAND, WALL MOUNT	KROWNE	HS-30L	SEE NOTE 6.1	14
14	1	SINK, PREP	TURBO AIR	TSB-1-L2	SEE NOTE 6	70
15	1	SINK, 3 COMPARTMENT	TURBO AIR	TSA-3-12-D1	SEE NOTE 6	84
15.1	1	PRE-RINSE FAUCET	FISHER	13390	SEE NOTE 6	12
16	1	SINK, MOP	SELECT STAINLESS or EQUAL	MS-2020-12	SEE NOTE 3,6	57
17	2	WATER HEATER, TANKLESS	TAKAGI OR NAVIAN?	T-H3J-DV-N	SEE PLUMBING PLANS	
18	1	SHELF, WALL MOUNT	EAGLE GROUP or EQUAL	SNSW1272C	ABOVE SINK W/ PERMANENT BRACKETS	14
19	1	TABLE, WORK	GSW	WT-PB****		88/141
20	lot	SHELVING, WIRE*	EAGLE GROUP or EQUAL	5 TIER S/S	SEE NOTE 5	12
21	1	LOCKERS, EMPLOYEE	KELMAX.	EL5 (5 TIER)	EMPLOYEE LOCKERS MOUNTED 6" ABOVE FLOOR W/ NO LEGS	78
22	1	SOFT SERVE MACHINE	STOELTING	0111-3812F		224
23.1	1	REFRIGERATOR, WALK-IN UNIT	MASTER-BILT OR EQUAL	QUICK-SHIP	SEE NOTES 8,10,12	1180
23.2	1	FREEZER, WALK-IN UNIT	MASTER-BILT OR EQUAL	QUICK-SHIP	SEE NOTES 8,10,12	
24	1	TYPE I HOOD	CAPTIVE AIRE	15'L X 4.5'W TYPE I	SEE MECH. PLANS	*967
KEF1	1	HOOD EXHAUST FAN	CAPTIVE AIRE		SEE M4.2	
MAU1	1	HOOD MAKE-UP AIR FAN	CAPTIVE AIRE		SEE M4.2	

*EXHAUST AND MAKE-UP AIR WILL BE ELECTRICALLY INTERLOCKED.

EQUIPMENT NOTES:

- ALL NEW EQUIPMENT TO BE NSF OR EQUAL & PROPERLY LABELED.
- SERVICE COUNTERS TO BE MAX. 34" TALL FOR HANDICAP ACCESSIBILITY.
- ALL EXISTING EQUIPMENT TO BE NSF APPROVED OR EQUIVALENT AND REFURBISHED TO ITS ORIGINAL CONDITION.
- EQUIP WITH HEAVY DUTY CASTERS TO FACILITATE CLEANING OF FLOORS.
- ALL STORAGE SHELVING TO HAVE MIN. 6" LEGS TO FACILITATE CLEANING OF FLOOR; NO STORAGE SHELVING TO BE IN EXCESS OF 5'-0" HIGH OR GREATER THAN 400LB. TOTAL LINEAR FEET OF DRY STORAGE ON WIRE SHELVING IS GREATER THAN 98 FT. (OR 20" LINEAR FEET OF 5 TIER SHELVING).
- THE CONTROLS OF ALL SINKS SHALL: (1) BE OPENABLE WITH ONE HAND AND SHALL NOT REQUIRE GRASPING, PINCHING, OR TWISTING OF WRIST; (2) REQUIRE NO MORE THAN 5 LBS. FORCE TO ACTIVATE; & (3) BE LEVER-OPERATED, PUSH-TYPE, ELECTRONICALLY-CONTROLLED, OR SIMILAR.
- ALL HAND SINKS TO HAVE WING TYPE WRITE LEVERS OR EQUAL, HEAVY DUTY LIQUID SOAP & PAPER TOWEL DISPENSERS, W/ TWO SPLASH GUARDS (EQUAL TO KROWNE HS-26L OR HS30L)
- EXHAUST AND MAKE-UP AIR WILL BE ELECTRICALLY INTERLOCKED.
- WALK-IN REFRIGERATOR OR FREEZER MUST BE COMPLETELY FLASHED TO THE BUILDING'S WALLS AND CEILING. THE AREAS ABOVE UNIT MAY NOT BE USED FOR STORAGE. ANY OPENINGS FOR VENTILATION IN THE FLASHING ABOVE THE WALK-IN UNIT MUST BE SCREENED WITH AT LEAST 16 MESH SCREEN. PROVIDE 2" AIR GAP BETWEEN PANELS AND WALLS.

AT HANDSINKS:
SOAP & PAPER TOWEL DISPENSERS

- EQUIPPED W/ APPROVED HEAVY DUTY QUICK DISCONNECT FLEXIBLE GAS LINES.
- EQUIPPED W/ LOCKABLE APPROVED COMMERCIAL CASTERS AND POSI-SET WHEEL PLACEMENT SYSTEM (SEE 4/5-1)
- ALL ENCLOSED EQUIPMENT (E.G. REFRIGERATORS, FREEZERS, HOT FOOD HOLDING UNITS, OVENS, & SIMILAR EQUIPMENT) MUST HAVE ADEQUATE (20' FOOT CANDLES) INTERIOR LIGHTING.
- COLD OR HOT HOLDING EQUIPMENT USED FOR POTENTIALLY HAZARDOUS FOOD SHALL BE DESIGNED TO INCLUDE & SHALL BE EQUIPPED WITH AT LEAST ONE INTEGRAL OR PERMANENTLY AFFIXED TEMP. MEASURING DEVICE LOCATED TO ALLOW EASY VIEWING OF TEMP. DISPLAY. THIS DISPLAY MUST HAVE A SCALE, PRINTED RECORD, OR READOUT IN INCREMENTS NO GREATER THAN 2" OVER INTENDED RANGE OF USE.
- METAL SPLASHGUARD WITH HEIGHT OF AT LEAST 6" THAT EXTENDS FROM THE BACK OF THE DRAINBOARD TO THE FRONT EDGE OF THE DRAINBOARD OR FULL DEPTH OF SINK FOR HAND SINKS; CORNERS OF BARRIER ARE TO BE ROUNDED.
- 16" MIN. HIGH STAINLESS STEEL SPLASH GUARD BETWEEN FRYER AND OTHER EQUIPMENT. THE 16" HEIGHT MUST BE MEASURED FROM THE HIGHER OF THE TWO PIECES OF EQUIPMENT.
- PREP SINK TO HAVE MIN. BOWL SIZE OF 18" X 18" X 12"
- ALL EQUIPMENT STANDING ON FLOOR IS ON LEGS AT LEAST 6" HIGH OR IS EQUIPPED WITH CASTORS
- CHEF BASE AND ANY OTHER EQUIPMENT OVER 400LB TO BE ON LOCKABLE CASTORS AND ARE NOT SUBJECT TO UPLIFT; SEE 3/5-1 FOR WALK-IN SEISMIC ATTACHMENT TO FLOOR, & S-2 FOR HOOD SUPPORT.

FIRE DEPT. NOTES:

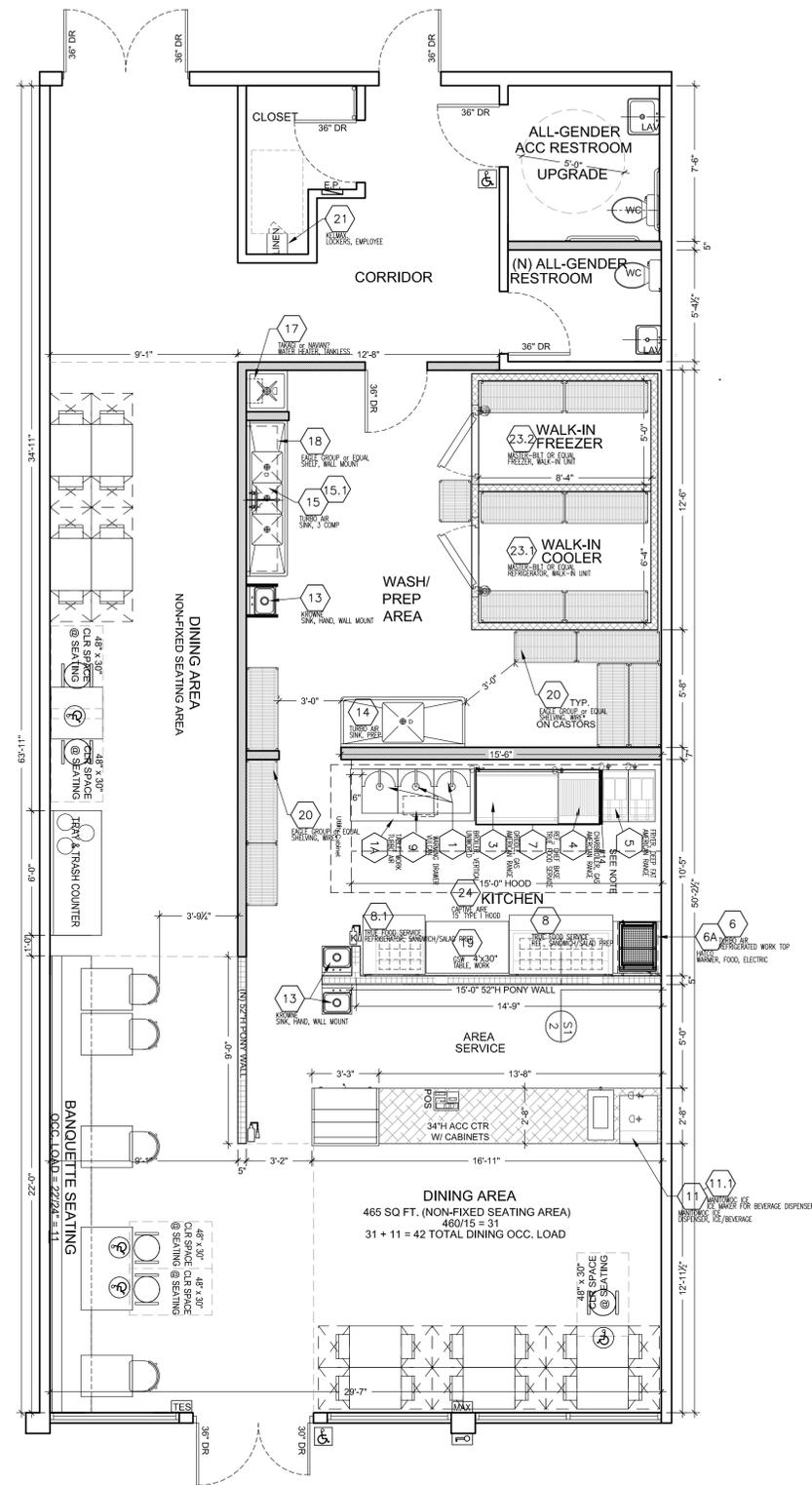
- SEE E-1 FOR EMERGENCY LIGHTING LOCATIONS
- ALL EGRESS DOORS SHALL BE OPENABLE FROM THE EGRESS, WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT. KEY LOCKING HARDWARE MAY BE USED ON THE MAIN EXIT WHEN THERE IS A READILY VISIBLE, DURABLE SIGN ON OR ADJACENT TO THE DOOR STATING "THIS DOOR MUST REMAIN UNLOCKED WHILE THIS SPACE IS OCCUPIED" 2019 CBC 1010.1.8.4 #2.2
 - PROVIDE SIGN STATING "MAXIMUM OCCUPANT LOAD #1" PERMANENTLY POSTED NEAR THE MAIN EXIT FROM THE ROOM AREA. THE SIGN SHALL BE LEGIBLE WITH LETTERS THAT ARE CONTRASTING TO THE BACKGROUND.
 - SUITE NUMBER SHALL BE PLACED AT ENTRANCE, TO TENANT SPACE FOR MULTITENANT BUILDINGS. NUMBERS SHALL BE A MIN. OF 9" HIGH, 1" STROKE & HIGHLY CONTRASTED WITH THEIR BACKGROUND (CBC). SUCH BUILDINGS WITH REAR DOORS SHALL ALSO PROVIDE SUITE/UNIT NUMBERS ON, ABOVE, OR ADJACENT TO EACH REAR DOOR.
 - KEY BOX TO BE PROVIDED PER MUNICIPAL CODE; CONTACT FIRE DEPT. EXISTING KEY BOXES SHALL BE UPGRADED TO THE NEW STANDARD.
 - FIRE EXTINGUISHER WITH A MIN. RATING OF 2A-10 BC SHALL BE LOCATED W/ A MAX TRAVEL DISTANCE OF 75' TO A EXTINGUISHER ON A FLOOR BY FLOOR BASES
 - MEANS OF EGRESS ILLUMINATION - AT ANY TIME THE BUILDING IS OCCUPIED, THE MEANS OF EGRESS SHALL BE ILLUMINATED AT AN INTENSITY OF NOT LESS THAN 1 FT-CANDLE AT FLOOR LEVEL.
 - EXIT SIGNS - THE PATH OF TRAVEL TO AND WITHIN THE EXITS IN A BUILDING SHALL BE IDENTIFIED BY EXIT SIGNS PER 2019 CBC 1013. EXIT SIGNS SHALL BE READILY VISIBLE FROM THE DIRECTION OF APPROACH & AS NECESSARY TO INDICATE THE DIRECTION OF EGRESS TRAVEL. NO POINT SHALL BE MORE THAN 100 FT FROM THE NEAREST VISIBLE SIGN. ELECTRICALLY POWERED, SELF-LUMINOUS AND PHOTO-LUMINESCENT EXIT SIGNS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 924 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND CHAPTER 27. EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES (2019 CBC 1013.5).
 - THE POWER SUPPLY FOR MEANS OF EGRESS ILLUMINATION SHALL NORMALLY BE PROVIDED BY PREMISES ELECTRICAL SUPPLY. IN THE EVENT OF ITS FAILURE, ILLUMINATION SHALL BE AUTOMATICALLY PROVIDED FROM AN EMERGENCY SYSTEM THAT WILL PROVIDE POWER FOR NOT LESS THAN 90 MINUTES.
 - COOKING OIL STORAGE TANKS ARE NO GREATER THAN 60LBS.
 - CARBON DIOXIDE BEVERAGE SYSTEMS ARE NO GREATER THAN 100 LBS.

SYMBOL KEY:

- INTERNATIONAL SYMBOL OF ACCESSIBILITY PER 2019 CBC Figure 11B-703.7.2.1 LOCATED ON OR ADJACENT TO BLDG & ACCESSIBLE RESTROOM ENTRANCES.
- MAX. OCCUPANT LOAD SIGN LOCATION; SEE FIRE DEPT. NOTE 2.
- KEY BOX; SEE FIRE DEPT. NOTE 4.
- TACTILE EXIT SIGNAGE LOCATED ON WALL @ EACH GRADE LEVEL EXTERIOR EXIT DOOR, ON LATCH SIDE WHERE SINGLE DOORS & RIGHT SIDE WHERE DOUBLE DOORS. SEE DETAIL 6/4-3 & 2019 CBC SECTION 1013.4 & 11B-703.4.2 FOR MORE DETAIL, AND 1013.1, 1013.4 FOR WHEN SUCH SIGNS ARE REQUIRED
- LOCATION OF MIN. RATED 2A-10 BC FIRE EXTINGUISHER, SEE FIRE DEPT. NOTE 5.
- LOCATION OF CLASS K FIRE EXTINGUISHER (WITHIN 30 FT. OF ALL COMMERCIAL COOKING EQUIPMENT PER CBC 906.1)

ACCESSIBLE DINING:

- HC TABLE: 34" HI, W/ 27" X 30" W X 19" D KNEE SPACE UNDERNEATH (LEG SUPPORT @ 4 CORNERS ONLY)
- SEE SHEET EH-1 FOR ADDITIONAL CUSTOM COUNTER DETAILS & FINISHES.
- SEE SHEET A-3 FOR ACCESSIBILITY REQUIREMENTS.



NEW/CONSTRUCTION FLOOR PLAN

SCALE: 1/4" = 1'-0"

WALL KEY:

- (N) WALLS - SEE DETAIL 1/S-1
- (N) 52" H PONY WALLS. SEE DETAIL ON 2/S-1
- (N) 8'-HIGH INSULATED PANEL WALLS - SEE DETAIL 3/S-1
- FURRED OUT WALL (TO 8" H OR CLG)

REV. DATE NO.

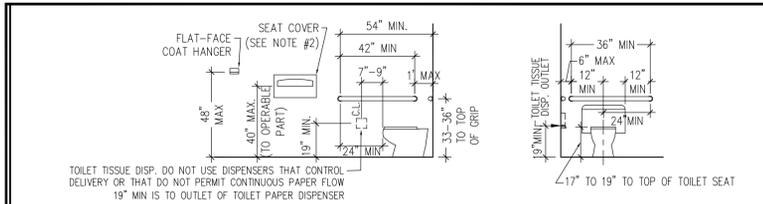


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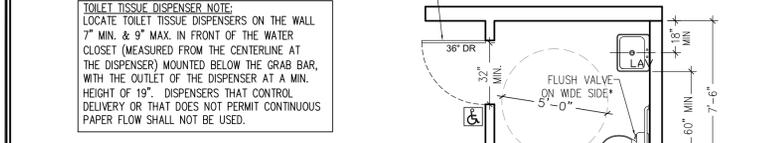
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Date: 12/20/22
 Drawn: GCC
 Sheet: A-2

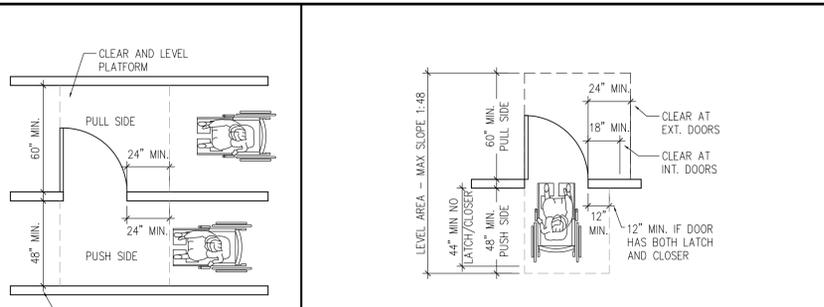


TOILET TISSUE DISP. DO NOT USE DISPENSERS THAT CONTROL DELIVERY OR THAT DO NOT PERMIT CONTINUOUS PAPER FLOW 19\"/>



TOILET TISSUE DISPENSER NOTE:
LOCATE TOILET TISSUE DISPENSERS ON THE WALL 7\"/>

NOTE: IT IS NOT POSSIBLE TO ILLUSTRATE & LIST ALL CBC ACCESSIBILITY REQUIREMENTS HERE. SEE 2019 CALIFORNIA BUILDING CODE SECTION 11B DIVISION 6 FOR MORE DETAILED ACCESSIBILITY REQUIREMENTS FOR PUBLIC TOILET FACILITIES. THESE REQUIREMENTS HAVE CHANGED FROM PREVIOUS CBC YEARS, & ALL OF THE CURRENT ERRATA/ADDENDA NEED TO ALSO BE FOLLOWED.



DOOR APPROACH FRONTAL
SCALE: 1/4"=1'-0"

MAX. DOOR CLOSER PRESSURES
 INTERIOR DOOR: 5.0 LBS
 EXTERIOR DOOR: 15.0 LBS
 FIRE DOOR: 15.0 LBS
 NECESSARY TO CLOSE & LATCH

11B-404.2.8.2 DOOR CLOSERS & GATE CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90°, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12° FROM THE LATCH IS 5 SEC. MIN.

11B-404.2.8.2 DOOR & GATE SPRING HINGES SHALL BE ADJUSTED SO THAT FROM THE OPEN POSITION OF 70°, THE DOOR OR GATE SHALL MOVE TO THE CLOSED POSITION IN 1.5 SEC. MIN.



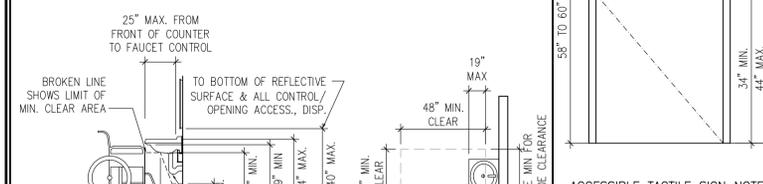
DOOR APPROACH LATCH
SCALE: 1/4"=1'-0"

THRESHOLD NOTES:
 1. CHANGE IN LEVEL 1/4" TO 1/2" PERMITTED WITH 1:2 BEVEL.
 GREATER CHANGE SHALL BE RAMPED 1:12.

1 SINGLE USER ALL-GENDER ACC BATHROOM
SCALE: 1/4"=1'-0"

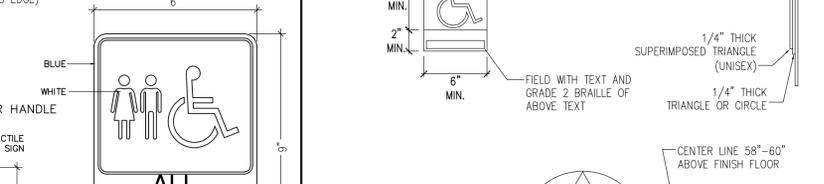
LAVATORY NOTES:
 1. NO SHARP OR ABRASIVE ELEMENTS ARE ALLOWED UNDER LAVATORIES.
 2. ALL CONTROLS MUST BE OPERABLE WITH ONE AND CANNOT REQUIRE GRASPING, PINCHING OR TWISTING OF WRIST.
 3. FORCE TO ACTIVATE CONTROLS IS NOT TO EXCEED 5 LB. LEVER OPERATED, PUSH TYPE AND ELECTRONICALLY CONTROLLED MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGN.
 4. SELF CLOSING VALVES ARE ALLOWED IF FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS.

2019 CBC SECTION 11B-606 ACCESSIBLE SINKS AND LAV
 (Sinks required to be accessible shall comply with this subsection.)
 A CLEAR FLOOR SPACE COMPLYING WITH SECTION 11B-305, POSITIONED FOR A FORWARD APPROACH, AND KNEE AND TOE CLEARANCE COMPLYING WITH SECTION 11B-306 SHALL BE PROVIDED. 11B-606.3 HEIGHT LAVATORIES AND SINKS SHALL BE INSTALLED WITH THE FRONT OF THE HIGHER OF THE RIM OR COUNTER SURFACE 34 INCHES (864 MM) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. SEE CBC 2019 SECTION 11B-306 FOR REQUIRED ACCESSIBLE KNEE AND TOE CLEARANCES.



5 LAVATORIES
SCALE: 1/4"=1'-0"

SEE CBC 11B-306 FOR ADDITIONAL KNEE & TOE CLEARANCE REQUIREMENTS



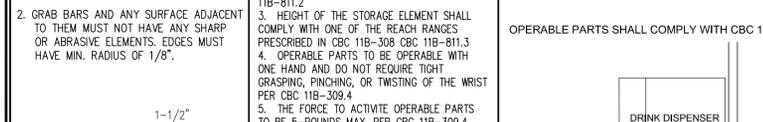
RESTROOM ID. SIGNAGE ENTRY, DIRECTIONAL & TACTILE EGRESS SIGNAGE
SCALE: 1/4"=1'-0"

ACCESSIBILITY TACTILE SIGN NOTES:
 1. SIGNS SHALL BE 1/4" THICK MINIMUM.
 2. TACTILE SIGNS SHALL BE MOUNTED A MINIMUM OF 48" AFF FROM THE BASELINE OF THE LOWEST LINE OF BRAILLE AND A MAXIMUM OF 60" AFF FROM THE BASELINE OF THE HIGHEST LINE OF RAISED LETTERING, ON THE LATCH SIDE OF THE DOOR.
 3. COLOR AND CONTRAST OF SIGNS SHALL BE DISTINCTLY DIFFERENT FROM THE COLOR AND CONTRAST OF THE DOOR.

6 RESTROOM ID. SIGNAGE ENTRY, DIRECTIONAL & TACTILE EGRESS SIGNAGE
SCALE: 1/4"=1'-0"



GRAB BAR NOTES:
 1. GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.
 2. GRAB BARS AND ANY SURFACE ADJACENT TO THEM MUST NOT HAVE ANY SHARP OR ABRASIVE ELEMENTS. EDGES MUST HAVE MIN. RADIUS OF 1/8".



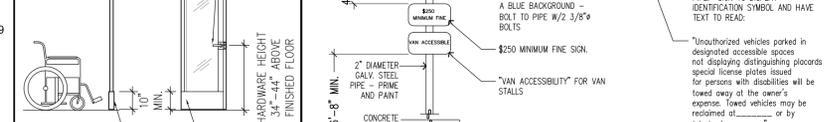
ACCESSIBLE LOCKER NOTES:
 1. 5% BUT NOT LESS THEN ONE OF THE LOCKERS TO BE ACCESSIBLE PER CBC 11B-222.1
 2. PROVIDE CLEAR FLOOR SPACE PER CBC 11B-811.2
 3. HEIGHT OF THE STORAGE ELEMENT SHALL COMPLY WITH ONE OF THE REACH RANGES PRESCRIBED IN CBC 11B-308 CBC 11B-811.3
 4. OPERABLE PARTS TO BE OPERABLE WITH ONE HAND AND DO NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST PER CBC 11B-309.4
 5. THE FORCE TO ACTIVATE OPERABLE PARTS TO BE 5-POUNDS MAX. PER CBC 11B-309.4



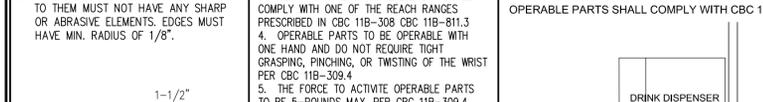
10 ACCESSIBLE LOCKER
SCALE: 1"=1'-0"



7 IDENTIFICATION SYMBOLS
SCALE: 1-1/2"=1'-0"



11 DOOR CONSTRUCTION
SCALE: 1/4"=1'-0"



10.1 DETAIL-ACC DRINK DISPENSER
SCALE: 1"=1'-0"



11.1 DOOR CONSTRUCTION
SCALE: 1/4"=1'-0"



9 GRAB BARS
SCALE: 1-1/2"=1'-0"

ACCESSIBILITY REQUIREMENTS

CLEAR FLOOR OR GROUND SPACE FOR WHEELCHAIRS
 1. THE MINIMUM CLEAR FLOOR OR GROUND SPACE REQUIRED TO ACCOMMODATE A SINGLE STATIONARY WHEELCHAIR AND OCCUPANT IS 30 INCHES X 48 INCHES. THE MINIMUM CLEAR FLOOR OR GROUND SPACE FOR WHEELCHAIRS MAKING FORWARD OR PARALLEL APPROACH TO AN OBJECT. CLEAR FLOOR OR GROUND SPACE FOR WHEELCHAIRS MAY BE PART OF THE KNEE SPACE REQUIRED UNDER SOME OBJECTS.
 2. PROVIDE AN ADDITIONAL 12 INCHES WIDTH ON ONE SIDE FOR ALCOVES GREATER THAN 15 INCHES DEEP AND DESIGNED FOR SIDE APPROACH.
 3. PROVIDE AN ADDITIONAL 6 INCHES WIDTH ON ONE SIDE FOR ALCOVES GREATER THAN 24 INCHES DEEP AND DESIGNED FOR FRONTAL APPROACH.

SANITARY FACILITIES (GENERAL)
 1. ALL DOORWAYS LEADING TO SANITARY FACILITIES SHALL HAVE A MIN. 32 INCH CLEAR UNOBSTRUCTED OPENING.
 2. TIGHTNESS, FAUCET CONTROLS, AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBS. LEVER-OPERATED, PUSH-TYPE, AND ELECTRONICALLY CONTROLLED MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGNS.
 3. WALLS & PARTITIONS WITHIN 2 FT. OF URINALS & WATER CLOSETS SHALL HAVE A SMOOTH, HARD, NONABSORBENT SURFACE TO A HEIGHT OF 4 FT. ABOVE THE FLOOR PER CBC 1210.2.
 4. WALLS WITHIN 2 FEET OF FRONT AND SIDE OF WATER CLOSETS AND URINALS SHALL HAVE A SMOOTH, HARD NON-ABSORBENT SURFACE TO A HEIGHT OF 4 FEET.

TOILET ROOM FIXTURES AND ACCESSORIES
 1. ALL ACCESSORIES SUCH AS GRAB BARS, TOWEL BARS, PAPER DISPENSER, SOAP DISH, ETC. PROVIDED ON OR WITHIN WALLS SHALL BE INSTALLED AND SEALED TO PROTECT STRUCTURAL ELEMENTS FROM MOISTURE.
 2. THE HEIGHT OF ACCESSIBLE WATER CLOSETS SHALL BE A MINIMUM OF 17 INCHES AND A MAXIMUM OF 19 INCHES MEASURED TO THE TOP OF THE TOILET SEAT.
 3. THE DIAMETER OR WIDTH OF THE FLUSH SURFACES OF A GRAB BAR SHALL BE 1-1/4 INCHES OR THE SHAPE SHALL PROVIDE AN ACCESSIBLE GRIPPING SURFACE. IF THE GRAB BARS ARE MOUNTED ADJACENT TO A WALL, THE SPACE BETWEEN THE WALL AND THE GRAB BARS SHALL BE 1-1/2 INCHES.
 4. A GRAB BAR AND ANY WALL OR OTHER SURFACE ADJACENT TO IT SHALL BE FREE OF ANY SHARP OR ABRASIVE ELEMENTS. GRAB BAR EDGES SHALL HAVE A MINIMUM OF A RADIUS OF 1/8 INCH.
 5. GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.
 6. GRAB BARS SHALL BE DESIGNED TO SUPPORT A 250-POUND FORCE AND TO COMPLY WITH THE PROVISIONS SET FORTH IN 2019 CBC & OTHER APPLICABLE CALIFORNIA CODES.
 7. GRAB BARS AT SHOWER STALLS SHALL COMPLY WITH PROVISIONS SET FORTH IN 2019 CBC & OTHER APPLICABLE CALIFORNIA CODES.

TELEPHONES
 1. PERMANENTLY INSTALLED TELEPHONES IN ALL ACCESSIBLE UNITS SHALL HAVE VOLUME CONTROL COMPLYING WITH PROVISIONS SET FORTH IN 2019 CBC & OTHER APPLICABLE CALIFORNIA CODES. AN ACCESSIBLE ELECTRICAL OUTLET WITHIN 4 FEET OF A TELEPHONE CONNECTION SHALL BE PROVIDED TO FACILITATE THE USE OF A TEXT TELEPHONE.

BUILDING SIGNAGE
 1. SIGNS WHICH DESIGNATE PERMANENT ROOMS AND SPACES SHALL COMPLY WITH 2019 CBC & OTHER APPLICABLE CALIFORNIA CODES.
 2. OTHER SIGNS WHICH PROVIDE DIRECTION TO OR INFORMATION ABOUT FUNCTIONAL SPACES OF THE BUILDING SHALL COMPLY WITH 2019 CBC & OTHER APPLICABLE CALIFORNIA CODES. EXCEPTION: BUILDING DIRECTOR'S MENUS, AND ALL OTHER SIGNS WHICH ARE TEMPORARY ARE NOT REQUIRED TO COMPLY.

HAZARDS AND PROTRUDING OBJECTS
 1. OBJECTS PROJECTING FROM WALLS WITH THEIR LEADING EDGES BETWEEN 27 INCHES AND 80 INCHES ABOVE THE FINISHED FLOOR SHALL PROTRUDE NO MORE THAN 4 INCHES INTO WALKS, HALLS, CORRIDORS, PASSAGEWAYS, OR AISLES.
 2. OBJECTS MOUNTED WITH THEIR LEADING EDGES AT BELOW 27 INCHES ABOVE THE FINISHED FLOOR MAY PROTRUDE ANY AMOUNT.
 3. FREE-STANDING OBJECTS MOUNTED ON POSTS OR PILONS MAY OVERHANG 12 INCHES MAXIMUM FROM 27 INCHES TO 80 INCHES ABOVE THE GROUND OR FINISHED FLOOR.
 4. PROTRUDING OBJECTS SHALL NOT REDUCE THE REQUIRED CLEAR WIDTH OF AN ACCESSIBLE ROUTE OR MANEUVERING SPACE.
 5. ANY OBSTRUCTION OVERHANGING A PEDESTRIAN WALK SHALL BE A MINIMUM OF 80 INCHES ABOVE THE WALKING SURFACE AS MEASURED TO THE BOTTOM OF THE OBSTRUCTION.

PARKING
 1. SURFACE SLOPES OF PARKING SPACE FOR THE PHYSICALLY DISABLED SHALL NOT EXCEED 1/4 INCH PER FOOT IN ANY DIRECTION.
 2. ACCESSIBLE PARKING SPACE SHALL BE DESIGNATED AS RESERVES BY SHOWING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY.
 3. ONE IN EVERY SIX REQUIRED ACCESSIBLE SPACES, BUT NOT LESS THAN ONE SHALL BE SERVED BY AN ACCESSIBLE ASLE OF 80\"/>

ACCESSIBLE HARDWARE NOTE
 1. ACCESSIBLE HARDWARE SHALL BE CENTERED BETWEEN 34\"/>

STAIRWAYS
 1. THE UPPER APPROACH AND THE LOWER TREAD OF EACH INTERIOR STAIR SHALL BE MARKED BY A STRIP OF CLEARLY CONTRASTING COLOR AT LEAST 2 INCHES WIDE AND PLACED PARALLEL TO, AND NOT MORE THAN 1 INCH FROM THE NOSE OF THE STEP OR LANDING TO ALERT THE VISUALLY IMPAIRED. THE STRIP SHALL BE OF A MATERIAL THAT IS AT LEAST AS SLIP-RESISTANT AS THE TREADS OF THE STAIR.
 2. WHERE STAIRWAYS OCCUR OUTSIDE A BUILDING, THE UPPER APPROACH AND ALL TREADS SHALL BE MARKED BY A STRIP OF CLEARLY CONTRASTING COLOR AT LEAST 2 INCHES WIDE AND PLACED PARALLEL TO, AND NOT MORE THAN 1 INCH FROM THE NOSE OF THE STEP OF LANDING TO ALERT THE VISUALLY IMPAIRED. THE STRIP SHALL BE OF A MATERIAL THAT IS AS SLIP-RESISTANT AS THE TREADS OF THE STAIR. A PAINTED STRIP SHALL BE ACCEPTABLE.

ADDITIONAL REQUIREMENTS & INFORMATION
 1. ALL REACH RANGES FOR ELECTRICAL SWITCHES AND RECEPTACLE OUTLETS SHALL COMPLY WITH 2019 CBC 11B-309.
 2. ELECTRICAL RECEPTACLE OUTLETS ON BRANCH CIRCUITS OF 30 AMPERES OR LESS & COMMUNICATION SYSTEM RECEPTABLES SHALL BE LOCATED NO MORE THAN 48\"/>

ACCESSIBLE ROUTE/SIDEWALK/HALLS/CORRIDOR/AND AISLES
 1. AT LEAST ONE ACCESSIBLE ROUTE COMPLYING WITH 2019 CBC & OTHER APPLICABLE CALIFORNIA CODES SHALL CONNECT ACCESSIBLE BUILDING OR FACILITY ENTRANCES WITH ALL ACCESSIBLE SPACES AND ELEMENTS WITHIN THE BUILDING.
 2. ACCESSIBLE ROUTE SHALL HAVE A CONTINUOUS SURFACE NOT INTERRUPTED BY STEPS OR ABRUPT CHANGES IN LEVEL EXCEEDING 1/2 INCH IN LEVEL UP TO A 1/4\"/>

ENTRANCES/DOORS
 1. ALL ACCESSIBLE ENTRANCES SHALL BE IDENTIFIED WITH AT LEAST ONE STANDARD SIGN AND WITH ADDITIONAL DIRECTIONAL SIGNS, AS REQUIRED, VISIBLE FROM APPROACHING PEDESTRIAN WAYS.
 2. EVERY REQUIRED ENTRANCE OR PASSAGE DOORWAY SHALL BE OF A SIZE AS TO PERMIT THE INSTALLATION OF A DOOR NOT LESS THAN 36 INCHES IN WIDTH, AND NOT LESS THAN 80 INCHES IN HEIGHT. DOORS SHALL BE CAPABLE OF OPENING AT LEAST 90 DEGREES AND SHALL BE SO MOUNTED THAT THE CLEAR WIDTH OF THE DOORWAY IS NOT LESS THAN 32 INCHES.
 3. LATCHING AND LOCKING DEVICES THAT ARE HAND ACTIVATED AND WHICH ARE A PATH OF TRAVEL SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE, PANIC BARS, PUSH-PULL ACTIVATING BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE.
 4. HARDWARE REQUIRED FOR ACCESSIBLE DOOR PASSAGE SHALL BE CENTERED BETWEEN 34\"/>

HANDRAILS
 1. TOP OF HANDRAIL GRIPPING SURFACES AT SHALL BE 34 INCHES TO 38 INCHES ABOVE THE NOSING OF THE STAIR TREADS, OR THE RAMP SURFACE.
 2. HANDRAILS AT STAIRWAYS SHALL EXTEND A MINIMUM OF 12 INCHES BEYOND THE TOP NOSING AND 12 INCHES PLUS THE TREAD WIDTH BEYOND THE BOTTOM NOSING.
 3. HANDRAILS AT RAMPS SHALL RUN ALONG BOTH SIDES OF A RAMP. BE CONTINUOUS THE FULL LENGTH, EXTEND AT LEAST 12 INCHES BEYOND THE TOP AND BOTTOM OF THE RAMP.
 4. WHERE THE EXTENSION OF THE HANDRAIL IN THE DIRECTION OF THE STAIR RUN WOULD CREATE A HAZARD, THE EXTENSION SHALL BE MADE AT RIGHT ANGLES TO THE FACE OF A RETURNING WALL, WHERE THE STAIRS ARE CONTINUOUS FROM LANDING TO LANDING. THE INNER RAIL SHALL BE CONTINUOUS AND NOT EXTEND OUT TO THE LANDING.
 5. HANDRAILS SHALL BE CONTINUOUS ALONG BOTH SIDES OF STAIRS, THE INSIDE HANDRAIL OR SWITCHBACK OR DOGLEG STAIRS SHALL ALWAYS BE CONTINUOUS.
 6. THE HANDRAIL GRIPPING SURFACES SHALL BE UNINTERRUPTED BY NEVEL POSTS OR OTHER CONSTRUCTION ELEMENTS, OR OBSTRUCTIONS.
 7. HANDRAIL ENDS SHALL BE ROUNDED OR RETURNED SMOOTHLY TO NEVEL POSTS, FLOOR, WALL, OR SAFETY TERMINALS AND SHALL NOT ROTATE WITHIN THEIR FITTINGS.
 8. HANDRAILS PROJECTED FROM A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1-1/2 INCHES BETWEEN THE WALL AND THE HANDRAIL.
 9. THE HANDRAIL PORTION OF HANDRAILS SHALL BE WITHIN 1-1/4 INCH NOR MORE THAN 1-1/2 INCH IN CROSS-SECTIONAL DIMENSION OR THE SHAPE SHALL PROVIDE AN EQUIVALENT SMOOTH GRIPPING SURFACE WITH NO SHARP CORNERS.

ALL PARKING FEATURES HAVE BEEN RECENTLY APPROVED AND ARE IN COMPLIANCE WITH CURRENT ACC STANDARDS



13 ACC PARKING STALLS
SCALE: 1/8"=1'-0"



14 ACC PAVEMENT SYMBOL



15 TRUNCATED DOMES DETAIL



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Date: 12/20/22
 Drawn: GCC
 Sheet: A-3

(E) PANEL 'RE' VOLTAGE: 120/208 WIRE: 4 MOUNTING: SURFACE NOTES:
 BUS RATING: 200A PHASE: 3 AIC RATING: 10K
 MAIN REQ.: TYPE: CONDITION: EXISTING

CKT #	LOAD	CB		LOAD DESCRIPTION	LOAD KVA	PHASE	LOAD KVA	LOAD DESCRIPTION	CB		LOAD	CKT #
		P	T						P	T		
1	G	1	20	REC. - ROOF	0.2	A	2.6	AC UNIT	1	20	M	2
3	C	1	20	LIGHTS - OVERHEAD DINING	0.4	B	2.6	AC UNIT	1	20	G	4
5	C	1	20	LIGHTS - OVERHEAD KITCHEN	0.2	C	0.2	REC. - POS	1	20	D	6
7	C	1	20	LIGHTS - BACK	0.4	A	1.1	REC. - FRONT	1	20	G	8
9			20	SPARE		B	1.1	REC. - KITCHEN	1	20	G	10
11	M	1	20	FAN COIL UNIT	0.7	C	1.1	REC. - PREP	1	20	G	12
13	M		20	FAN COIL UNIT	0.7	A	0.7	REC. - BACK	1	20	G	14
15	C	1	20	(E) LIGHTS - EMERGENCY	0.1	B	1.1	REC. - BACK	1	20	G	16
17	C	1	20	LIGHTS/FAN - RESTROOM	0.2	C	0.4	REC. - WINDOWS (SIGN)	1	20	D	18
19			20		0.7	A	1.2	ELECTRIC WATER HEATER	2	20	D	20
21	M	3	20	HOOD EXHAUST FAN*	0.7	B	1.2	ELECTRIC WATER HEATER			D	22
23			20		0.7	C	0.9	REFRIGERATOR, SANDWICH/SALAD PREP	20		K	24
25			20		0.6	A	0.5	REFRIGERATOR, SANDWICH/SALAD PREP	20		K	26
27	M	3	20	HOOD MAKE-UP AIR FAN*	0.6	B	1.3	DISPLAY CASE, REFRIGERATED	1	20	K	28
29			20		0.6	C	0.6	DISPENSER, ICE/BEVERAGE	1	20	K	30
31	K	2	20	REFRIGERATOR, WALK-IN UNIT	1.1	A	1.2	ICE MAKER FOR BEVERAGE DISPENSER	2	20	K	32
33	K		20	REFRIGERATOR, WALK-IN UNIT	1.1	B	1.2	ICE MAKER FOR BEVERAGE DISPENSER			K	34
35	K	2	20	FREEZER, WALK-IN UNIT	1.2	C	1.2	WARMER, FOOD, ELECTRIC	1	20	K	36
37	K		20	FREEZER, WALK-IN UNIT	1.2	A	1.2	SOFT SERVE MACHINE	2	20	K	38
39	M	2	20	CONDENSING UNIT	1.2	B	1.2	SOFT SERVE MACHINE			K	40
41	M		20	CONDENSING UNIT	1.2	C	1.1	REFRIGERATOR, CHEF BASE	1	20	K	42

CONNECTED LOAD:

PHASE	LOAD (KVA)	DEMAND	SUBTOTAL	NEC DEMAND FACTOR	KVA
PHASE A	13.40	CONTINUOUS LOAD (C)	1.3	125%	1.7
PHASE B	13.80	DEDICATED LOAD (D)	3.0	100%	3.0
PHASE C	10.30	GENERAL RECEPTACLE (G)	5.3	100% of 1st 10KVA & 50% of remaining	5.3
		KITCHEN EQUIPMENT (K)	15.0	65%	9.8
		MECHANICAL EQUIPMENT (M)	12.9	125% of largest motor & 100% of remaining	12.9
TOTAL DEMAND KVA					32.6
÷ .360					
= AMPS @ 120/208, 3 PHASE, 4 WIRE:					90.42

MAIN BREAKER 200A X .8 = 160.0

ELECTRICAL PANEL SCHEDULE & LOAD CALC'S

ELECTRICAL SYMBOLS

(ONLY SUGGESTED LOCATIONS FOR NEW EQUIPMENT OUTLETS & CONVENIENCE OUTLETS SHOWN - USE EQUIVALENT NEARBY EXISTING OUTLETS WHEN POSSIBLE)

- 120V DEDICATED SINGLE OUTLET (TO BE 18" ABOVE FLOOR UNLESS OTHERWISE NOTED)
- 120V DUPLEX OUTLET (TO BE 18" OVER FLOOR UNLESS OTHERWISE NOTED)
- 120V QUADPLEX OUTLET
- 120V CEILING MOUNTED DUPLEX OUTLET; MOUNT ABOVE SHOW WINDOW.
- OUTLET & PLATE COVER SHALL MATCH CEILING, MOUNT PARALLEL WITH STORE FRONT.
- JUNCTION BOX
- TELEPHONE OUTLET, FLUSH MOUNTED IN WALL +36" (VON)
- GROUND FAULT INTERRUPTED OUTLET (ALL KITCHEN OUTLETS)
- SPECIAL OUTLET (SEE NEMA)
- TIME CLOCK (ASTRONOMICAL) - FOR WINDOW SIGNAGE ONLY; ALL OTHER LIGHTING CONTROLLED BY OCCUPANCY SENSORS, SEE SHEET LTG-1

ELECTRICAL SCHEDULE

Item No	Qty	Equipment Category	Manufacturer (or equal)	Model Number (or equal)	Equipment Remarks	Amps	KW	HP	Volts	Phase	Direct	Plug	NEMA
1	3	BROILER, VERTICAL	UNIWORLD	VBR-2E		2			110	1	X		5-15P
6	1	REFRIGERATED WORK TOP	TURBO AIR	TWR-28SD-D2-N	ON DEDICATED CIRCUIT	3.9	0.5	0.16	115	1	X		5-15P
6A	1	WARMER, FOOD, ELECTRIC	HATCO	GRFHS-21	ON DEDICATED CIRCUIT	10.0	1.2		120	1	X		5-15P
7	1	REFRIGERATOR, CHEF BASE	TRUE FOOD SERVICE	TRCB-72	ON DEDICATED CIRCUIT	9.9	1.1	0.33	115	1	X		5-15P
8	1	REFRIGERATOR, SANDWICH/SALAD PREP	TRUE FOOD SERVICE	TSSU-60-24M-B-ST-ADA	ON DEDICATED CIRCUIT	7.8	0.9	0.33	115	1	X		5-15P
8.1	1	REFRIGERATOR, SANDWICH/SALAD PREP	TRUE FOOD SERVICE	TSSU-36-12M-B-ADA		4.5	0.5	0.25	115	1	X		5-15P
9	1	WARMING DRAWER	VULCAN	VW2S	ON DEDICATED CIRCUIT	8.0	1.0		115	1	X		5-15P
10	1	DISPLAY CASE, REFRIGERATED	TURBO AIR	TOM-W-40SB	ON DEDICATED CIRCUIT	11.0	1.3	0.5	115	1	X		5-15P
11	1	DISPENSER, ICE/BEVERAGE	MANITOWOC ICE	M-150 W/6 VALVES		2.5/2.4	0.6		(2)120	1	X		5-15P
11.1	1	ICE MAKER FOR BEVERAGE DISPENSER	MANITOWOC ICE	IB-0696YC	ON DEDICATED CIRCUIT	1.1/1.1	2.4	1.0	115/230	1	X		5-15P
17	1	WATER HEATER, TANKLESS	TAKAGI	T-H3S-DV-N	SEE PLUMBING PLANS	1.4	0.2		120				5-15P
22	1	SOFT SERVE MACHINE	STOELTING	O111-3812F	ON DEDICATED CIRCUIT	12	2.5	0.5	208	1	X		6-20P
23.1	1	REFRIGERATOR, WALK-IN UNIT	MASTER-BILT OR EQUAL	QUICK-SHIP (MHH20191B)	ON DEDICATED CIRCUIT	10	2.1	1.5	230	1	X		
23.2	1	FREEZER, WALK-IN UNIT	MASTER-BILT OR EQUAL	QUICK-SHIP (MHL2009113)	ON DEDICATED CIRCUIT	11	2.3	2.0	230	1	X		
24	1	TYPE I HOOD	CAPTIVE AIRE	15'L X 4.5'W TYPE I	SEE HOOD SHEETS FOR DETAILS								
EF-1	1	(N) HOOD EXHAUST FAN	CAPTIVE AIRE	SEE M4.2	ON DEDICATED CIRCUIT	9.5	2.0	3	208	3	X		
MUA-1	1	(N) HOOD MAKE-UP AIR FAN	CAPTIVE AIRE	SEE M4.2	ON DEDICATED CIRCUIT	9.4	2.0	2	208	3	X		

*EXHAUST AND MAKE-UP AIR WILL BE ELECTRICALLY INTERLOCKED.

CIRCUIT, CONDUIT, & GROUNDING NOTES:

- ALL CIRCUITS ARE NEW EXCEPT THAT WITH '(E)' FOR EXISTING AS NOTED IN PANEL SCHEDULE.
- FIELD VERIFY ALL EXISTING CONDITIONS
- AIC RATING OF NEW CIRCUIT BREAKERS SHALL MATCH THE AIC RATING OF THE ELECTRICAL PANEL
- PANELS TO BE MARKED PER CEC ARTICLE 110-22
- EQUIPMENT CONDUIT TYPES: ALL EMT (FLEX CABLE ONLY IF PERMITTED BY CITY BLDG DEPT).
- EQUIPMENT CONDUIT SIZES: ALL 120V USE #12 WIRE; ALL ABOVE 200V USE #10 WIRE

GROUNDING NOTE:
 THE CONNECTION OF A GROUNDING ELECTRODE CONDUCTOR TO A GROUNDING ELECTRODE SHALL BE ACCESSIBLE AND MADE IN A MANNER THAT WILL ASSURE A PERMANENT AND EFFECTIVE GROUND. WHERE NECESSARY TO ASSURE THIS FOR A METAL PIPING SYSTEM USED AS A GROUNDING ELECTRODE, EFFECTIVE BONDING SHALL BE PROVIDED AROUND INSULATED JOINTS AND SECTIONS AND AROUND ANY EQUIPMENT THAT IS LIKELY TO BE DISCONNECTED FOR REPAIRS OR REPLACEMENT. BONDING CONTRACTORS SHALL BE SUFFICIENT LENGTH TO PERMIT REMOVAL OF SUCH EQUIPMENT WHILE RETAINING THE INTEGRITY OF THE BOND.

ELECTRICAL NOTES:

- SWITCHES, CONTROLS, THERMOSTATS, ETC., ARE TO BE INSTALLED NO HIGHER THEN 48" TO THE TOP OF THE BOX ABOVE FINISHED FLOOR.
- RECEPTACLE OUTLETS TO BE INSTALLED TO BE NO LOWER THEN 15" TO THE BOTTOM OF BOX ABOVE FINISH FLOOR.
- ALL ELECTRICAL WORK SHALL COMPLY WITH THE CEC 2019 CODE.
- RACEWAYS WILL COMPLY WITH 2019 CEC.
- ALL KITCHEN APPLIANCES AND MOTORS (IN COMPLIANCE WITH CEC) TO HAVE DISCONNECT SWITCH.
- ALL FEEDERS AND ALL OTHER SYSTEMS (BRANC, FEEDERS, & EQUIPMENT WHIPS) TO COMPLY WITH NEC.
- ALL ELECTRICAL PANELS SHALL BE PROPERLY LABELED.
- A PERMANENT PLAQUE OR DIRECTORY SHALL BE INSTALLED AT EACH SERVICE DISCONNECTING LOCATION IN COMPLIANCE WITH 2019 CEC ART.
- ALL ELECTRICAL EQUIPMENT SHALL BE FIELD MARKED WARNING QUALIFIED PERSONAL OF THE POTENTIAL ARC FLASH HAZARDS AND THE APPROPRIATE PPE REQUIRED, PER 2019 CEC.
- ALL KITCHEN APPLIANCES OF MORE THAN 1/8 HP TO BE PROVIDED WITH A UNIT SWITCH THAT COMPLIES WITH 2019 CEC.

EGRESS LIGHTING REQUIREMENTS:

CBC 1008.2.1 ILLUMINATION LEVEL UNDER NORMAL POWER. THE MEANS OF EGRESS ILLUMINATION LEVEL SHALL BE NOT LESS THAN 1 FOOTCANDLE (11 LUX) AT THE WALKING SURFACE

1008.3 EMERGENCY POWER FOR ILLUMINATION. THE POWER SUPPLY FOR MEANS OF EGRESS ILLUMINATION SHALL NORMALLY BE PROVIDED BY THE PREMISES ELECTRICAL SUPPLY.

1008.3.1 GENERAL. IN THE EVENT OF POWER SUPPLY FAILURE IN ROOMS AND SPACES THAT REQUIRE TWO OR MORE MEANS OF EGRESS, AN EMERGENCY ELECTRICAL SYSTEM SHALL AUTOMATICALLY ILLUMINATE ALL OF THE FOLLOWING AREAS:
 1. AISLES.
 2. CORRIDORS.
 3. EXIT ACCESS STAIRWAYS AND RAMPS.

1008.3.4 DURATION. THE EMERGENCY POWER SYSTEM SHALL PROVIDE POWER FOR A DURATION OF NOT LESS THAN 90 MINUTES AND SHALL CONSIST OF STORAGE BATTERIES, UNIT EQUIPMENT OR AN ON-SITE GENERATOR. THE INSTALLATION OF THE EMERGENCY POWER SYSTEM SHALL BE IN ACCORDANCE WITH SECTION 2702.

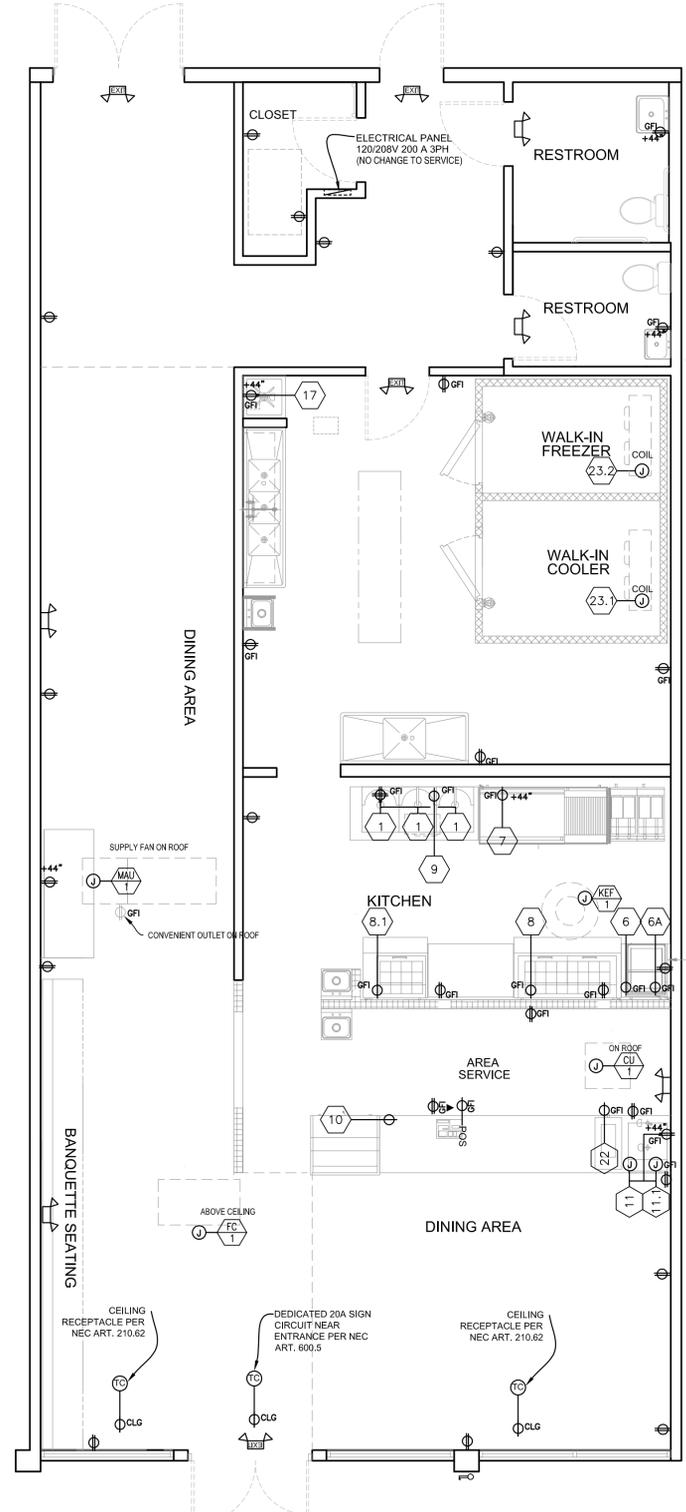
1008.3.5 ILLUMINATION LEVEL UNDER EMERGENCY POWER. EMERGENCY LIGHTING FACILITIES SHALL BE ARRANGED TO PROVIDE INITIAL ILLUMINATION THAT IS NOT LESS THAN AN AVERAGE OF 1 FOOTCANDLE (11 LUX) AND A MINIMUM AT ANY POINT OF 0.1 FOOTCANDLE (1 LUX) MEASURED ALONG THE PATH OF EGRESS AT FLOOR LEVEL. ILLUMINATION LEVELS SHALL BE PERMITTED TO DECLINE TO 0.6 FOOTCANDLE (6 LUX) AVERAGE AND A MINIMUM AT ANY POINT OF 0.06 FOOTCANDLE (0.6 LUX) AT THE END OF THE EMERGENCY LIGHTING TIME DURATION. A MAXIMUM-TO-MINIMUM ILLUMINATION UNIFORMITY RATIO OF 40 TO 1 SHALL NOT BE EXCEEDED.

EMERGENCY SYMBOLS

- INTEGRATED LED EXIT SIGN-EMERGENCY LIGHT COMBO W/ RED OR GREEN LETTERS ON WHITE BACKGROUND (247 LUMENS), HOMEDEPOT COMMERCIAL ELECTRIC MODEL # EECLDRG120277, 14W W/ NICAD 9.6 VOLT BATTERY, UL924 LISTED W/ 90 MIN. BACKUP
- EMERGENCY EXIT SIGN W/ RED OR GREEN LETTERS ON WHITE BACKGROUND (200 LUMENS), HOMEDEPOT COMMERCIAL ELECTRIC MODEL # EXLEDRG120277, 120V W/ NICAD 4.8 VOLT BATTERY, UL924 LISTED W/ 90 MIN. BACKUP
- EMERGENCY LIGHT (234 LUMENS), HOMEDEPOT COMMERCIAL ELECTRIC MODEL # EECLDRG120277, 11W W/ NICAD 6 VOLT BATTERY, UL924 LISTED W/ 90 MIN. BACKUP

ELECTRICAL SCOPE OF WORK:

- NEW OR RELOCATED EQUIPMENT OUTLETS & CIRCUITS
- LIGHTING TO REMAIN AS EXISTING



ELECTRICAL OUTLET PLAN

SCALE: 1/4" = 1'-0"

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Date:	12/20/22
Drawn:	GCC
Sheet:	E-1

ROOFTOP PACKAGED HEAT PUMP UNIT SCHEDULE (EXISTING)

EQUIP. TAG	MANUFACTURER & MODEL	AREA SERVED	LOCATION	SUPPLY FAN SECTION					COOLING*					HEATING					ELECTRICAL			STANDARD UNIT WEIGHT (LBS.)	REMARKS		
				SUPPLY AIR (cfm)	DESIGNED OUTSIDE AIR (cfm)	REQUIRED OUTSIDE AIR (cfm)	ESP (in wc)	HP	FAN RPM	SENSIBLE COOLING CAPACITY (MBH)	TOTAL COOLING CAPACITY (MBH)	ENTERING AIR TEMP. (degF)	LEAVING AIR TEMP. (degF)	AMBIENT TEMP. (degF)	SEER/ EER	HEATING CAPACITY (mbh)	ENTERING AIR TEMP. (degF)	LEAVING AIR TEMP. (degF)	AMBIENT TEMP. (degF)	EFF	ELECTRICAL SERVICE (v/ph/Hz)			MCA (A)	MAX. FUSE SIZE(A)
AC-5	BRYANT 601ANX0060000AAAG	DINING/ KITCHEN AREA	ROOF	2000	600	600	0.5	3/4	-	45	60.0	76	56	95	-/-	60	68	105	32	-	230/1/60	43.7	60	-	1-4

1. EXISTING ROOFTOP UNIT.
2. REPLACE FILTERS

3. PROVIDE NEW SMOKE DETECTOR
4. T-24 COMPLIANT, FULLY PROGRAMMABLE THERMOSTAT.
* COOLING CAPACITY AND EAT AT AHRI CONDITIONS.

DUCT MATERIAL SCHEDULE

SHAPE	MAXIMUM SIZE (IN)	MATERIAL	MINIMUM THICKNESS (GAGE)	FITTINGS (GAGE)	DUTY				REMARKS
					SUPPLY	RETURN	EXHAUST	FUE/VENT	
ROUND	THROUGH 12	GALVANIZED	0.019 INCH (26 GAGE)	0.022 INCH (26 GAGE)	X	X	-	-	1,2,3
ROUND	13-30	GALVANIZED	0.022 INCH (26 GAGE)	0.028 INCH (24 GAGE)	X	X	-	-	1,2,3
ROUND	THROUGH 16	ALUMINUM (ALUMAFLEX)	CORRUGATE D ALUMINUM	N/A	X	X	-	-	1,4,5
ROUND	THROUGH 16	NON-METALIC INSULATED	FACTORY FABRICATED	N/A	X	X	-	-	1,4,5
ROUND/OVAL	3-8/4-6	PREFABRICATED TYPE-B	ALUMINUM 0.012" INNER WALL GALVANIZED 0.018" OUTER WALL	SAME					

1. CONSTRUCT IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS.
2. SPIRAL SEAM CONSTRUCTION
3. EXHAUST DUCT, SEALED
4. ULC-S11- AND UL-181 CLASS 1
5. CONFORM TO STANDARD NFPA-90A & 90B

AIR BALANCE SCHEDULE

EQUIP. TAG	AREA SERVED	SUPPLY AIR (cfm)	RETURN AIR (cfm)	OUTSIDE AIR (cfm)	KITCHEN EXHAUST AIR (cfm)	MISC EXHAUST AIR (cfm)	AVAILABLE TRANSFER AIR (cfm)	MAKE-UP AIR TO KITCHEN (cfm)
RTU-1	DINING AREA	2000	1400	600	-	-	600	-
FC-1	DINING AREA	700	550	150	-	-	150	-
KEF-1	TYPE I KITCHEN HOOD	-	-	-	3525	-	-	-
EF-1	RESTROOMS	-	-	-	-	75	-	-
MAU-1	KITCHEN HOOD	-	-	-	-	-	-	2920
TOTALS		2700	1950	750	-3525	-75	750	2920

KITCHEN TOTAL EXHAUST -3525CFM AIR CONDITIONING OUTSIDE AIR (AVAILABLE TRANSFER AIR) 750CFM
MAKE UP AIR SUPPLIED TO THE KITCHEN 2920CFM AIR TRANSFERRED TO KITCHEN FROM AC-1 -605CFM
REQUIRED TRANSFER AIR FROM AC-1 -605 MISCELLANEOUS EXHAUST -75
AIR EXCESS INSIDE BUILDING 70CFM

VENTILATION REQUIREMENT

Room	Description	Area	People (sf/occ)	occ	cfm/occ	cfm	cfm/sf	cfm (area)	Min Ventilation CFM
	Dining Area	750	20	38	15	570	0.15	113	570
	BOH/Prep	1150	200	6	15	90	0.15	173	173
total								TOTAL	743

FAN COIL SCHEDULE (NEW)

EQUIP. TAG	MANUFACTURER & MODEL	AREA SERVED	LOCATION	COOLING CAPACITY				BLOWER (FAN)			HEATING CAPACITY		REFRIGERANT		ELECTRICAL			OPERATING WEIGHT (lbs)	REMARKS		
				SUPPLY AIR (cfm)	OUTSIDE AIR (cfm)	TOTAL MBH	SENSIBLE MBH	EER/ SEER	EXTERNAL SP (inwc)	BHP	HP	MBH	HSPF/ COP	TYPE	PIPE SIZE GAS LIQUID	V/ph/Hz	MCA			MOCP	
FC-1	BRYANT FB4CNP024000	SEATING AREA	ABOVE CEILING	700	150	21.7	16.6	11.5/14	0.4	0.35	1/2	24.0	8.2/-	R410A	7/8	3/8	208/1/60	3.5	15	125	1-12

1. STRUCTURE SUSPENDED FAN COIL UNIT.
2. WALL MOUNT PROGRAMMABLE THERMOSTAT T24 COMPLIANT
3. PROVIDE CONDENSATE DRAIN PAN
4. PROVIDE VIBRATION SPRING ISOLATORS.

5. FLEXIBLE DUCT CONNECTIONS.
6. PROVIDE LOW VOLTAGE CONTROL WIRING FROM CONDENSING UNIT TO FAN COIL IN CONDUIT IF REQUIRED BY LOCAL CODES.
7. DISCONNECT SWITCH, FURNISHED BY MC, INSTALLED BY EC.
8. PROVIDE FILTER BOX, FURNISH AND INSTALL FILTER, MERV 11

9. EQUIPMENT RESTRAINT CABLES
10. SMOKE DETECTOR IN THE SUPPLY AIR DUCT
11. PROVIDE GRAVITY DAMPER AT THE OUTSIDE AIR DUCT DAMPER TO SHUT WHEN UNITS FAN IS NOT IN OPERATION.
12. BRYAN OR APPROVED EQUAL.

CONDENSING UNIT SCHEDULE (NEW)

EQUIP. TAG	MANUFACTURER & MODEL	SERVICE	LOCATION	COOLING CAPACITY			HEATING CAPACITY		REFRIGERANT			ELECTRICAL			OPERATING WEIGHT (lbs)	REMARKS
				NOMINAL TONS	NOMINAL TOTAL (MBH)	EER/SEER	MBH	SHPF/COP	TYPE	PIPE SIZE GAS LIQUID	V/ph/Hz	MCA	MOCP			
HP-1	BRYANT 214DN024	FC-1	ROOF	2.0	24	11.5/14.0	22.2	8.2/3.84	R410A	7/8	3/8	208/1/60	14.2	25	175	1-6

1. DISCONNECT SWITCH, NEMA 3R.
2. SLEEPER MOUNTED, PRESSURE TREATED WOOD
3. PROVIDE HARD START KIT.

4. SUCTION LINE FILTER, SHUT-OFF VALVE, FROSTAT, FILTER DRYER, ACCESS PORT, MOISTURE AND LIQUID INDICATOR
5. TO BE INTERLOCKED WITH FAN COIL.
6. BRYAN OR APPROVED EQUAL.

LEGEND

SYMBOL & ABBREVIATION	DESCRIPTION
	SA/SUP SUPPLY AIR (RISE/DROP)
	RA/RET RETURN AIR DUCT (RISE/DROP)
	EA/EXH EXHAUST AIR DUCT (RISE/DROP)
	CD/SR CEILING DIFFUSER/SUPPLY REGISTER
	RR/RG RETURN REGISTER/GRILLE
	ER/EG EXHAUST REGISTER/GRILLE
	T-STAT PROGRAMMABLE THERMOSTAT
	CD CONDENSATE DRAIN
	DIA. DIAMETER
	UC DOOR UNDERCUT (3/4" MINIMUM)
	FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR.
	FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
	FURNISHED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
	SD-1 AIR DEVICE DESIGNATION NUMBER
	850 CFM AIR QUANTITY IN CFM
	MECHANICAL EQUIPMENT DESIGNATION DESIGNATED NUMBER
	AFF ABOVE FINISHED FLOOR
	A/C AC AIR CONDITIONING
	CLG. CEILING
	CFM CUBIC FEET PER MINUTE
	EF EXHAUST FAN
	GA. GAGE/GAUGE
	GC GENERAL CONTRACTOR
	HVAC HEATING, VENTILATING, AND AIR CONDITIONING
	MCA MINIMUM CIRCUIT AMPACITY
	MFR MANUFACTURER
	MOCP MAXIMUM OVERCURRENT PROTECTION
	N NEW
	OA/OSA OUTSIDE AIR
	OBD OPPOSED BLADE DAMPER
	PH PHASE
	SENS. SENSIBLE
	TEMP. TEMPERATURE
	TYP. TYPICAL
	UON UNLESS OTHERWISE NOTED
	V VOLTS
	SAD SUPPLY AIR DUCT
	RAD RETURN AIR DUCT

GENERAL NOTES

- THE INSTALLATION SHALL COMPLY WITH ANY AND ALL REQUIREMENTS OF THE LEGALLY CONSTITUTED AUTHORITIES HAVING JURISDICTION.
- CONSTRUCTION TO CONFORM:
 - 2019 CALIFORNIA BUILDING CODE, WITH LOCAL AMENDMENTS
 - 2019 CALIFORNIA MECHANICAL CODE, WITH LOCAL AMENDMENTS
 - 2019 CALIFORNIA PLUMBING CODE, WITH LOCAL AMENDMENTS
 - 2019 CALIFORNIA ELECTRICAL CODE, WITH LOCAL AMENDMENTS
 - 2019 CALIFORNIA FIRE CODE, WITH LOCAL AMENDMENTS
 - 2019 CALIFORNIA ENERGY CODE, WITH LOCAL AMENDMENTS
- PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AN OPERABLE MECHANICAL SYSTEMS AS INDICATED ON THE DRAWINGS.
- DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH CHAPTER 6 OF THE CMC, 2019 EDITION AND 2006 SMACNA EDITION.
- ALL BRACING OF DUCTS AND PIPING SHALL INSTALLED IN ACCORDANCE WITH "SMACNA" GUIDELINES AS FOR SEISMIC RESTRAINTS OF MECHANICAL AND PLUMBING SYSTEMS, WHERE BRACING DETAILS ARE NOT SHOWN ON DRAWINGS OR IN THE GUIDELINES, THE FIELD INSTALLATION SHALL BE TO THE APPROVAL OF THE ARCHITECT AND THE STRUCTURAL ENGINEER.
- ALL FRESH AIR INTAKES SHALL BE LOCATED A MINIMUM OF 10'-0" FROM ANY SANITARY VENT, EXHAUST FAN DISCHARGE AND FLUE OF OTHER FURNACES. WHEN NECESSARY EXTEND VENT OR PROVIDE ADDITIONAL FRESH AIR INTAKE DUCTWORK AS DIRECTED BY THE ENGINEER.
- WHERE ANCHORAGE DETAILS ARE NOT SHOWN ON THE DRAWINGS, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER.
- THE SIZES, WEIGHTS AND CAPACITIES OF ALL EQUIPMENT SCHEDULES ON THE DRAWING HAVE BEEN CAREFULLY COMPUTED. SHOULD EQUAL ITEMS BUT DIFFERENT MANUFACTURERS BE SUBMITTED FOR APPROVAL, ALL SUCH SUBMITTALS SHALL INCLUDE 1/4" SCALE SHOP DRAWINGS SHOWING METHOD OF INSTALLATION, PROVIDE LOAD RATINGS AND SEISMIC CALCULATIONS AS APPROVED BY A REGISTERED STRUCTURAL ENGINEER WITH EACH SUBMITTAL.
- THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL TRADES AT THE SITE, ANY COST TO INSTALL WORK TO ACCOMPLISH SAID COORDINATION WHICH DIFFERS FROM THE WORK AS SHOWN ON THE PLANS SHALL BE INCURRED BY THE CONTRACTOR. ANY DISCREPANCIES, AMBIGUITIES OR CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT DURING BID TIME FOR CLARIFICATION. ANY SUCH CONFLICTS NOT CLARIFIED PRIOR TO BID SHALL BE SUBJECT TO THE INTERPRETATION OF THE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.
- INSTALLATION INSTRUCTIONS FOR ALL LISTED EQUIPMENT SHALL BE MADE AVAILABLE TO THE BUILDING INSPECTOR AT THE TIME OF INSPECTION.
- FOR AIR SYSTEMS MOVING AIR IN EXCESS OF 2000 CFM, SMOKE DETECTORS ARE REQUIRED IN THE SUPPLY AIR DUCT.

DRAWING SCHEDULE

SHT. NO.	DESCRIPTION
M0.1	HVAC LEGEND, GENERAL NOTES, SCHEDULES
M0.2	HVAC SPECIFICATIONS
M0.3	HVAC PLANS
M3.1	TITLE 24 COMPLIANCE FORMS - KITCHEN
M3.2	TITLE 24 COMPLIANCE FORMS - MECHANICAL
M3.3	TITLE 24 COMPLIANCE FORMS - MECHANICAL KITCHEN HOOD SPECIFICATIONS
M4.1	KITCHEN VENTILATION EQUIPMENT SPECS
M4.2	KITCHEN VENTILATION MAKE-UP AIR UNIT
M4.3	KITCHEN VENTILATION DUCT DETAILS
M4.4	KITCHEN VENTILATION DUCT DETAILS
M4.5	KITCHEN VENTILATION CONTROLS
M6.1	HVAC DETAILS

REV. DATE

PLAN CHECK
12/09/22



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Date: 12/23/22

Drawn: HP

Sheet:

M0.1

SECTION 15500 - HEATING, VENTILATING AND AIR CONDITIONING

1.00 - GENERAL

1.01 DESCRIPTION OF WORK

Furnish and install complete and operative HVAC system as shown on the drawing and specified herein. Work shall include, but not be limited to the following:

- A. AC unit, see schedules.
A. Kitchen Ventilation system: Exhaust fan and Make-up air unit, see schedules.
B. Toilet exhaust fan.
C. Automatic temperature controls system including time clock, by-pass timer, thermostats, control low-voltage interlock wiring and other associated devices.
D. Ductwork and air distribution systems.
E. Hangers and supports for ductwork, piping and HVAC equipment
F. Flashing of duct and pipe penetrations through exterior openings.
G. Seismic restraints and bracing.
H. Duct Thermal and Acoustic Insulation.
I. License, Permits and associated fees.
J. Demolition and removal of existing HVAC equipment as required.

1.02 RELATED WORK INCLUDED UNDER OTHER SECTIONS

- A. Fire Protection, Section 15300.
B. Plumbing, Section 15400.
C. Testing and Balancing Section 15990.
D. Line Voltage and Power Wiring, Electrical Section 16000.

1.03 EXAMINATION OF SITE

Visit site before submitting bid and check location of all existing conditions which will affect this work, verify dimensions and locations shown on drawings and cover all costs. Contractor shall assume reasonable variations or minor omissions and shall complete proposed work without additional cost. Failure to visit site will not lessen responsibility or entitle additional compensation for work not included in proposal.

1.04 DRAWINGS

The accompanying drawings shall be considered part of these specifications. Work and materials shown on the drawings and not mentioned in the specifications and vice versa shall be executed as if specifically mentioned or shown in both. The drawings shall be considered as schematic in nature and minor modifications of the work to comply with the structure as found shall be made.

1.05 RULES AND REGULATIONS

- A. All work and material shall be in full accordance with the latest rules and regulations of the State Fire Marshal and other applicable State and local rules and regulations. Nothing in these drawings or specifications shall be construed to permit work not conforming to these codes.
B. Furnish without any extra charge any additional material and labor when required to comply with these laws, ordinances and codes regardless of whether shown or mentioned in these specifications of drawings.

1.06 SUBMITTALS

- A. Submit for review to the Owner a complete and all-inclusive list of equipment and materials proposed for use (6 copies), accompanied by manufacturer's data sheets. Data shall be forwarded in a single package within 15 days after award of contract. Submit six prints and electronic copies (PDF and/or AutoCAD) ductwork installation. Include sizes, locations and other required information to coordinate installation with other trades.
B. Within 5 days after award of contract, submit 6 copies of a letter stating any materials that contractor wishes to substitute, to the Owner for approval. Include such information as manufacturer's name, type of material, certified ratings, overall appearance, and necessary information to explain function and operation of material. All proposed substitutions shall be equal in quality, design, utility and appearance to material, equipment or method specified.

1.07 AS-BUILT DRAWINGS

A set of HVAC Prints will be furnished to the Contractor on which he shall indicate the installation "as-built" as the work progresses. Upon completion of the work, a set or reproducible drawings shall be obtained from the Owner at cost, and all changes as noted on the record set of prints shall be incorporated thereon. This set of reproducibles, along with electronic copies (PDF and/or AutoCAD), shall be delivered to the owner upon completion and before final acceptance of the project.

1.08 GUARANTEE

The Contractor shall leave the entire installation in complete working order free from any defective material, workmanship or finish. He shall guarantee to repair or replace, without charge, defects due to faulty workmanship or material for a period of one year from the date of filing of the Notice of Completion.

1.09 OPERATION MANUALS AND OWNER INSTRUCTIONS

- A. Provide complete operation and maintenance manuals covering all mechanical systems and equipment that have been installed. Electronic copies (PDF and or AutoCAD) of the manual shall be provided.
B. Provide instructions to store personnel as to operation of all HVAC equipment and thermostats. Instruction period to commence for minimum of two (2) hours and shall be scheduled at owner's convenience. Also, provide store manager with operation manual; one hard copie and electronic copies (PDF and or AutoCAD).

1.10 CUTTING AND PATCHING

- A. The contractor shall do all cutting, drilling and patching which may be required for the installation of the work under this Section of the Specifications.
B. Patching shall be of the same workmanship, material, and finish and shall match accurately all surrounding construction in a manner satisfactory to the Owner. No cutting of the structure shall be permitted without written approval of the Owner.

2.00 - PRODUCTS

2.01 DUCTWORK

Shall be as specified in the following schedules. Materials shall be clearly stamped or marked with grades and gauges.

- A. Sheet metal rectangular ductwork, plenums and casing construction shall be in strict accordance with the HVAC Duct Construction Standards - Metal and Flexible, and the Sheet Metal Construction For Ventilating/Air Conditioning Systems, latest edition as issued by SMACNA and ASHRAE respectively.
B. Sheet metal round: Shall be United Sheet Metal, or approved equal, spiral "Uniseal" with "Uniform" fittings, machine formed.
C. Materials for ductwork shall be galvanized steel, of gauges shown in the SMACNA HVAC Duct Construction Standards. All ductwork shall be constructed in accordance with the pressure-velocity classification standards no less than +/- 2" WG and duct sealing requirements of Class C (minimum).
D. Flexible ductwork shall be pre-insulated low pressure type (rated to 4" W.P.) with vapor barrier. Ducts shall meet Class 1 requirements of NFPA 90A and shall be labeled by U.L. Flexible ducts shall be Genflex, NIL(s) or approved equal. Flexible duct is allowed only at final connections to air distribution fixtures at lengths of five feet maximum.
E. Unless shown otherwise, all insulation shall be external to ductwork.

- F. All kitchen ventilation duct installation and design shall conform to 2019 CMC, NFPA 96 and other local code requirements. Grease ducts shall be constructed of stainless steel not less than 0.044 inch in thickness. Joints and seams shall be made with a continuous liquid-tight weld or braze made on the external external surface of the duct system. Duct bracing and supports shall be made of non-combustible materials. Bolts and other mechanical fasteners shall not penetrate the duct walls.
G. Grease duct systems shall slope not less than 1/4 inch per lineal foot toward the hood or toward an approved grease reservoir. Where horizontal ducts exceed 75 feet in length the slope shall be not less than 1 inch per lineal foot.
H. Any portion of a grease duct system inaccessible from the duct entry or discharge shall be provided with adequate cleanout openings. Cleanout openings shall be equipped with tight-fitting doors constructed of steel having a thickness not less than that required for the duct.

- I. 3M, 615+ Fire Resistive Duct Wrap(1 1/2" thickness) shall be used to enclose the grease ductwork. The enclosure shall be constructed of no less than 2 layers of duct wrap freestop systemmaterial for 1 or 2 hour enclosure per manufacturer's installation instruction. No enclosure is permitted to be in direct contact with combustibles.
ICC-ES EVALUATION REPORT, ESR-1255

2.02 DUCTWORK ACCESSORIES

- A. Damper Operators
1. Ducts with external insulation: Ventlock #637, DuraDyne, Young, or approved equal.
2. Ducts with internal insulation and/or no insulation: Ventlock #635, DuraDyne, Young, or approved equal.
B. Flexible Connections: Ventfabrics "Ventglas", DuraDyne, or approved equal, U.L. approved with metal attachment.
C. Air Extractor: Titus AG-225, Krueger EX-88C, or approved equal.
D. Turning Vanes shall comply with SMACNA HVAC Duct Construction Standards All rectangular duct with mitered elbows shall be fitted with turning vanes.
E. Spin-In-Fittings are not allowed. Use United McGill Bellmouth fitting for round duct taps.
F. Support ductwork according to the SMACNA Duct Construction Standards and the drawings.
G. Access Doors in Ductwork: Shall be Ventlock, Ductmate or approved equal, stamped or formed insulated access doors complete with all hardware and sealant.
H. Joint Sealing:
1. The following items are to be sealed with Hardcast DT tape and adhesive:
a. Longitudinal and transverse seams of rectangular ductwork.
b. All round fittings and joint connectors use FTA-20 for indoor use and RTA-20 for outdoor use.
2. Flexible duct at diffusers shall use integral stainless steel draw band and pressure sensitive tape, Hardcast P-301 or equal.
I. Bracings, hangers, nuts, etc. shall be galvanized.
J. Curved elbows shall have centerline radius equal to one and one-half times duct width in plane of turn.
K. Square elbows shall have turning vanes. Miter elbows (not square) shall have splitter vanes 3 inches o.c.
L. Volume dampers shall be constructed to SMACNA Standards and shall be Young Regulator model 4040 for round ducts and series 820 for rectangular ducts.

2.03 AIR DEVICES

Diffusers, Grilles and Registers: Titus, Krueger, Meta"Aire, or Thermafuser where shown. Furnished and installed by Mechanical Contractor. Provide volume dampers and paint interior flat black. Size, finish, frame types and accessories as shown on the drawings.

2.04 AIR CONDITIONING EQUIPMENT

- A. Furnish and install Carrier or equal air conditioning equipment as specified on the drawings and in these specifications.

2.05 INSULATION (Installed per Manufacturer's Recommendations)

- A. Heating and Cooling Ductwork located in interior locations
1. Insulate with Owens-Corning Fiberglass all service faced Duct Wrap Type 150 with factory applied flame retardant Foil Reinforced Kraft Facing (FRK-25 UL Labels), or approved equal. Installed thermal resistance shall be a minimum of R-8 for CA climate zones 11, 14-16 and R-6 for all other zones.

B. Acoustical Ductwork and Plenum and Casing Liner

- 1. Provide internally lined ductwork where indicated on drawings. Acoustical duct liner shall be tralite duct liner, or equal, matte face, suitable for velocities from 1500 to 4000 fpm, in compliance w/ UL723 and UL181. Secure liner to ductwork with adhesive and mechanical fasteners per SMACNA Duct Liner application standard.
2. Where internal insulation is applied, duct and plenum sizes as shown on the drawings shall be inside clear dimensions.
3. Fiberglass duct and plenum insulation are to be applied only with manufacturer's approved adhesives, mastics and mechanical fastening devices.
C. Heating and Cooling ductwork located on the roof:
1. Insulate with rigid board insulation with a minimum R value of R-6 or R-8, as required per coded. Coat exterior of insulation with perforated sheet metal liner, suitable for velocities from 1500 to 4000 fpm, in compliance w/ UL723 and UL 181.

- 2. Where internal insulation is applied, duct and plenum sizes as shown on the drawings shall be inside clear dimensions.
3. Fiberglass duct and plenum insulation are to be applied only with manufacturer's approved adhesives, mastics and mechanical fastening devices. Coat exterior with Arabol and Canvas to manufacturer's directions for exterior application.
D. Soft flexible duct.
1. Genflex NIL(s), 5-0" maximum length unless noted otherwise. Class 1 rating with a minimum of R-8 for CA climate zones 11, 14-16 and R-6 for all other zones.
E. Insulation.
1. Foil faced fiberglass, Owens Corning type 75 or equal, Flame spread rating of not more than 25 and a smoke development rating of not more than 50
F. Duct liner.
1. For exterior ducts: Fiberglass with fire rated black coating, Owens Corning Aeroflex type 150.
2. For other locations shown on drawings: Aeroflex type 150, as above, except 1 inch thick. Flame spread rating of not more than 25 and smoke developed rating of not more than 50.
3. An EPA-Approved biocide in the airstream coating enables Owens-Corning duct liners to resist fungal or bacterial growth when subjected to microbial attack described in ASTM C 665 and standard practices ASTM G 21 (fungus test) and G 22 (bacteria test).

2.06 TEMPERATURE CONTROL SYSTEM

- A. All unitary heating or cooling systems, not controlled by a central energy management control system (EMCS) shall have a setback thermostat.
1. Setback Capabilities. All thermostats shall have a clock mechanism that allows the building occupant to Program the temperature setpoints for at least four periods within 24 hours.
B. All unitary single zone, air conditioners, and furnaces, the thermostat must comply with the requirements California Energy Commission, T-24, part 6, Reference Joint Appendix JAS, also known as the Occupant Controlled Smart Thermostats, which are capable of receiving demand response signals in the event of grid congestion and shortages during high electrical demand periods.

2.07 DX PIPING (NOT USED)

2.08 SEISMIC RESTRAINTS AND BRACING

- A. All HVAC equipment, ductwork, piping and wiring conduits shall be installed to meet the lateral bracing requirements for the applicable seismic zone. Provide seismic restraints in accordance with Seismic Hazard Level (SHL) A of the "Seismic Restraint Manual: Guidelines for Mechanical Systems" dated 1991, as published by S.M.A.C.N.A. and also in accordance with applicable local building codes.
B. All rooftop equipment shall have proper anchoring and restraint systems, and shall be secured to a roof curb, equipment pad or other structural member to prevent lateral, vertical or overturning movement without sacrificing any resilient vibration isolation requirements.

3.00 INSTALLATION AND EXECUTION

3.01 INSTALLATION REQUIREMENTS

- A. Ductwork:
1. Duct branches shall be fitted with volume or splitter damper and where required, extraction damper. All accessible volume controls shall have locking quadrants. All inaccessible controls (dampers, etc.) shall be provided with permanent extensions to accessible spaces. Branch volume controls are in addition to volume controls at the registers and diffusers.
2. Air inlets, outlets shall be properly set in place. Registers and grilles shall be tightly sealed.
3. Transitions in size of ducts shall be made by uniformly tapering sections having 1 inch increase in width for each 7 inches of run unless construction limitations require a more abrupt transition.
4. Diffusers, Grilles and Registers: Each register and diffuser shall be equipped with a volume damper or air extractor. Paint interior surface of all units flat black. Face and trim of all units shall be finished. Size, finish, frames, accessories, capacity and pattern as shown on drawings.
5. Contractor shall provide manual volume dampers at all branch ductwork in supply air, return air and outside air systems (whether shown on plans or not) where required for air balancing of HVAC systems.

3.02 TESTING AND BALANCING (also see Section 15990)

Balancing of the air conditioning system will be performed by an independent test and balancing agency. The mechanical contractor shall cooperate with the selected test and balance agency in the following manner:

- A. Provide sufficient time before final completion date so that test and balancing can be accomplished.
B. Provide immediate labor and tools to make corrections when required without undue delay. Install balancing dampers as required by test and balance agency.
C. The contractor shall put all heating, ventilating and air conditioning systems and equipment into full operation and shall continue the operation of same during each working day of testing and balancing.
D. Testing and balancing agency shall be kept informed of any major changes made to system during construction and shall be provided with complete as-built drawings.
E. The mechanical contractor shall include the costs of dampers, pulley and belt changes in his contract.

END OF SECTION

SECTION 15990 - TESTING, ADJUSTING AND BALANCING

1.00 - GENERAL

1.01 DESCRIPTION

The testing and balancing work will be performed under a separate contract from the HVAC work. The work described in this section shall be performed by an independent test and balance agency, specializing in testing and balancing of HVAC systems and a member of the AABC or approved equal organization.

1.02 SCOPE OF WORK

- A. HVAC System Test and Balance in accordance with procedures established by AABC or NEBB.
B. Measurement of final operating conditions of HVAC equipment.
C. Test and Balance Reports.
D. Each piece of air conditioning and heating equipment and the air distributions systems shall be tested and adjusted to insure proper functioning of all control, proper distribution of air, maintenance of temperature, elimination of drafts, noise and vibration, and left in first class operating condition. The air system shall be readjusted if required for comfort of each room.
E. The mechanical contractor will make any changes in the pulleys, belts, dampers, vanes, baffles and the like required for correct balance of system as recommended by T&B agency and to the satisfaction of the Owner.

1.03 SUBMITTALS

- A. Provide six (6) copies of test and balance report to the Owner for review and approval in soft cover, letter size, 3-ring binder manual complete with index page and indexing tabs. The report shall include a set of reduced drawings with air outlets and equipment identified to correspond with data sheets and indicating hemostat locations. In addition, submit electronic copies (PDF and/or AutoCAD).
B. The test and balance report shall include, as a minimum, but not be limited to:
1. Each equipment shall be identified by equipment service number, manufacturer, model number, and serial number, motor horsepower, motor nameplate voltage, motor RPM, actual and design static pressure, actual outlet velocity, actual CFM, design CFM.
2. Each coil shall be identified by equipment service number, manufacturer, model number and size, number of rows, total CFM, air inlet and outlet dry bulb and wet bulb temperatures.
3. Each air outlet shall be identified with manufacture, model number, size, velocity, correction factor, actual CFM, design CFM.
4. Traverse reading of main supply, return and outside air ducts to establish air quantities.
5. Test and record temperatures from temperature controllers such as day thermostat, night thermostat.
6. Test and record temperatures from main supply air trunk, mixed air during the full heating and full cooling cycle and economizer cycle.
7. Test and balance economizer.
8. Exhaust system balance.

2.00 - PRODUCTS (Not Applicable)

3.00 - EXECUTION

3.01 DEFICIENCIES IN SYSTEM

Balancing Contractor shall report in writing to the Owner any discrepancies on items not installed in accordance with contract documents, all deficiencies in HVAC system, and other deficiencies. The Owner will reimburse the balancing contractor if additional work is required for his phase of work.

3.02 WARRANTY

The test and balance agency shall include an extended warranty of 90 days, after completion of work, during which time the Owner, at their discretion, may request a recheck or resetting of any outlet, supply air fan, or exhaust fan as listed in test report.

END OF SECTION

REV. DATE NO.



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Glenn Cunningham, Designer, Bull's Eye Cadd, 434 45TH AVENUE, SAN FRANCISCO, CA 94121, c: (510) 301-3005, o: (415) 666-3624, E-MAIL: glennccc@att.net

THE DRAWINGS ON THIS SHEET & SPECIFICATIONS REPRESENTED THEREBY ARE, & SHALL REMAIN THE PROPERTY OF GLENN CUNNINGHAM, ENGINEER. NO PART OF THESE DRAWINGS OR SPECIFICATIONS SHALL BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF GLENN CUNNINGHAM, ENGINEER. CONTRACTOR AND ARCHITECT, ENGINEER, AND/OR GENERAL CONTRACTOR AND DESIGNER SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND VERIFICATION & ANY DEVIATIONS OR DISCREPANCIES SHALL BE DIRECTED TO THE ATTENTION OF GLENN CUNNINGHAM.

T.I. - NICK THE GREEK, THE REDWOODS SHOPPING CENTER, 758 W HAMILTON AVE, CAMPBELL, CA 95008

Date: 12/23/22

Drawn: HP

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T.J. - NICK THE GREEK
 THE REDWOODS SHOPPING CENTER
 758 W HAMILTON AVE.
 CAMPBELL, CA 95008

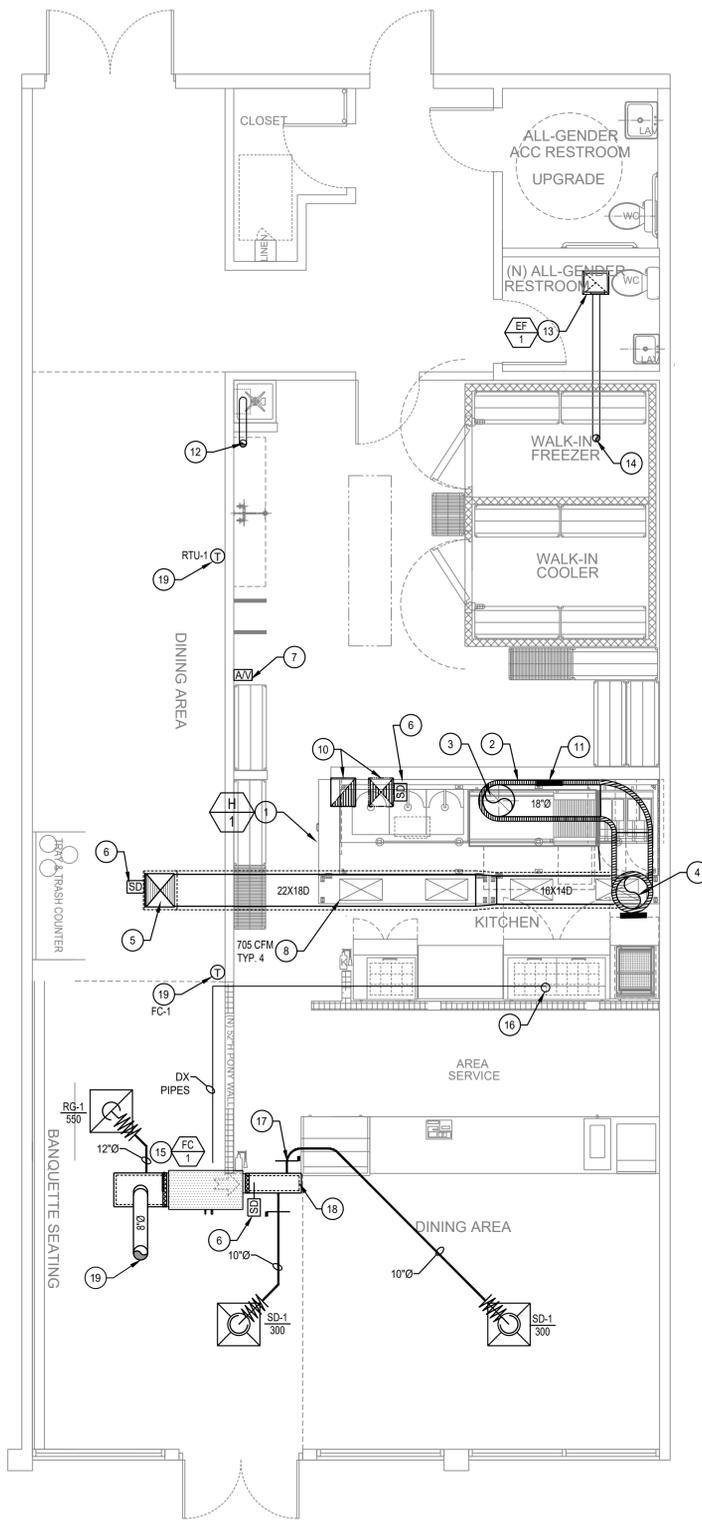
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GENERAL NOTES

- MECHANICAL CONTRACTOR IS RESPONSIBLE FOR SITE INVESTIGATION PRIOR COMMENCEMENT OF WORK TO FULLY REVEAL SCOPE OF WORK. ANY DISCREPANCY BETWEEN DRAWINGS AND EXISTING BUILDING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER OF RECORD.
- MECHANICAL & GENERAL CONTRACTORS ARE RESPONSIBLE TO VERIFY EXHAUST DUCT CONNECTION IN THE FIELD. COORDINATE ROOF PENETRATION WITH THE LANDLORD OR LANDLORD'S REPRESENTATIVE PRIOR LAYING EXHAUST DUCTS AND CUTTING ROOF.
- PROVIDE ALTERNATE ROUTE OF DUCTS AS PART OF THE BID IF ROUTING OF DUCTS AS SHOWN ON THESE PLANS IS NOT FEASIBLE OR IT IS MORE EXPENSIVE THAN ALTERNATE.
- MECHANICAL CONTRACTOR SHALL PROVIDE PROPER SEISMIC RESTRAINTS FOR ALL MECHANICAL EQUIPMENT AND ASSOCIATED DUCTWORK AND PIPING ACCORDING TO APPLICABLE STATE AND LOCAL CODES.
- MECHANICAL CONTRACTOR IS RESPONSIBLE TO COORDINATE DUCTWORK WITH LIGHTS, SPRINKLERS AND EXISTING BUILDING CONDITIONS.
- GREASE DUCT LAYOUT AND ROUTING SHALL BE VERIFIED IN THE FIELD AND ADJUSTED AS NEEDED. MINIMUM GREASE DUCT SLOPE IS 1/4" PER LINEAR FEET. WHERE THE LENGTH OF THE GREASE DUCT EXCEEDS 75', IT SHOULD BE SLOPED 1" PER LINEAR FOOT.
- A FIELD LEAKAGE TEST SHALL BE PERFORMED ON THE ENTIRE DUCT, INCLUDING DUCT JOINTS ASSEMBLED IN THE FIELD PRIOR TO OR CONCEALMENT OF ANY PORTION OF AN EXISTING OR/AND NEW AND GREASE DUCT SYSTEM.
- GREASE DUCTS SHALL BE CONSTRUCTED OF CARBON STEEL NOT LESS THAN 0.054" IN THICKNESS OR STAINLESS STEEL NOT LESS THAN 0.043" IN THICKNESS. SUPPORT OF DUCTS SHALL BE BY THE SAME TYPE OF MATERIAL.
- FIRE SUPPRESSION SYSTEM IN HOODS DESIGNED AND INSTALLED BY CAPTIVE AIRE.
- IN CASE OF FIRE, AND BY ACTIVATION OF THE FIRE SUPPRESSIONS SYSTEM, THE MAKE-UP AIR UNITS' FAN SHALL SHUT DOWN. KITCHEN HOOD EXHAUST FAN SHALL CONTINUE WORKING UNTIL INTERRUPTED BY FIRE DEPARTMENT.
- DESIGN IS BASED ON CAPTIVE AIRE PREFABRICATED DOUBLE WALL DUCT AS SPECIFIED ON KITCHEN HOOD DRAWINGS. FOR ALTERNATE DUCT CONSTRUCTION, GREASE DUCTS SHALL BE CONSTRUCTED OF CARBON STEEL NOT LESS THAN 0.054" IN THICKNESS OR STAINLESS STEEL NOT LESS THAN 0.043" IN THICKNESS. SUPPORT OF DUCTS SHALL BE BY THE SAME TYPE OF MATERIAL. ALL GREASE DUCT CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH LATEST EDITION OF CALIFORNIA MECHANICAL CODE (CMC) AND LOCAL JURISDICTION.

KEYED NOTES

- TYPE I HOOD HUNG FROM ROOF STRUCTURE. FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR. SEE CAPTIVE AIR & STRUCTURAL DRAWINGS FOR NOTES AND INSTALLATION REQUIREMENTS.
- CAPTIVE AIRE PREFABRICATED DOUBLE WALL GREASE DUCT SYSTEM. CAPTIVE AIRE DW-3R OR DW-3Z. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- GREASE DUCT DOWN TO COLLAR. PROVIDE COLLAR TRANSITION.
- GREASE DUCT EXHAUST UP THROUGH ROOF TO EXHAUST FAN ON ROOF. VERIFY EXACT ROOF PENETRATION IN THE FIELD.
- 18"X16" EXTERNALLY INSULATED MAKE-UP AIR DUCT THRU ROOF. COORDINATE EXACT ROOF OPENING IN THE FIELD. ADJUST ROUTING AS NEEDED.
- SMOKE DETECTOR IN THE SUPPLY AIR DUCT.
- PROVIDE AN AUDIO/VISUAL SMOKE DETECTOR REMOTE ANNUNCIATOR WITH REMOTE KEY OPERATED RESET. FOR MAU-1, WIRE TO EACH DUCT-MOUNTED SMOKE DETECTOR. MOUNT UNIT 60" AFF. TYPICAL.
- 24"X12" SUPPLY AIR DUCT DOWN TO HOOD SUPPLY COLLARS. PROVIDE TRANSITIONS AS NEEDED, TYP.
- EXTERNALLY INSULATED SUPPLY AIR DUCT.
- (E) SAD & RAD. SHOWN FOR REFERENCE ONLY.
- PROVIDE ACCESS DOOR AT EACH CHANGE OF DIRECTION.
- 3" WATER HEATER FLUE THRU ROOF.
- NEW CEILING EXHAUST FAN. CONNECT EXHAUST DUCT TO EXISTING ROOF TERMINATION.
- 4" EXHAUST DUCT UP THRU ROOF.
- STRUCTURE SUSPENDED FAN COIL UNIT. PROVIDE FLEXIBLE DUCT CONNECTIONS, SPRING ISOLATORS, FILTER RACK & SECONDARY DRAIN PAN. PROVIDE 30-INCH LONG, LINED, FULL SIZE RETURN AIR PLENUM. REFER TO PLUMBING PLANS FOR CONDENSATE DRAIN SIZE AND TERMINATION.
- DX PIPE UP THROUGH ROOF.
- MANUAL BALANCE DAMPER. TYPICAL FOR ALL DIFFUSERS AND GRILLES.
- FULL SIZE INTERNALLY INSULATED SA & RA PLENUM. MIN 30" LONG
- NEW THERMOSTAT. MOUNTED AT 48" AFF.

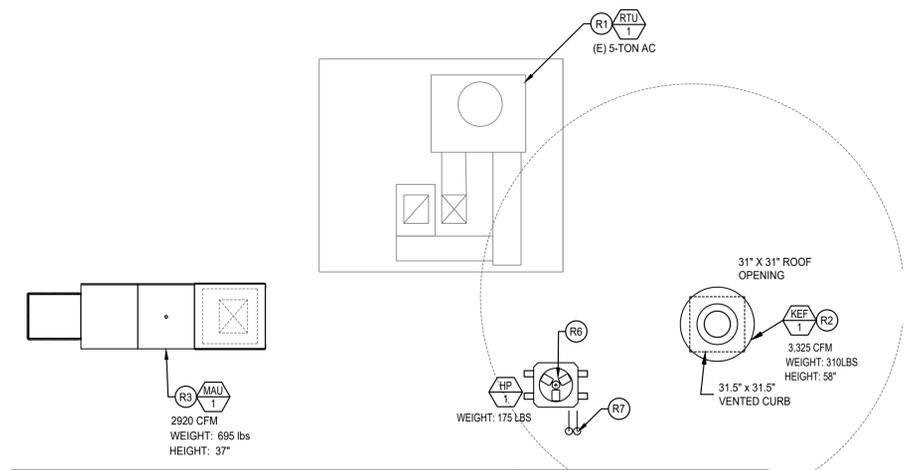
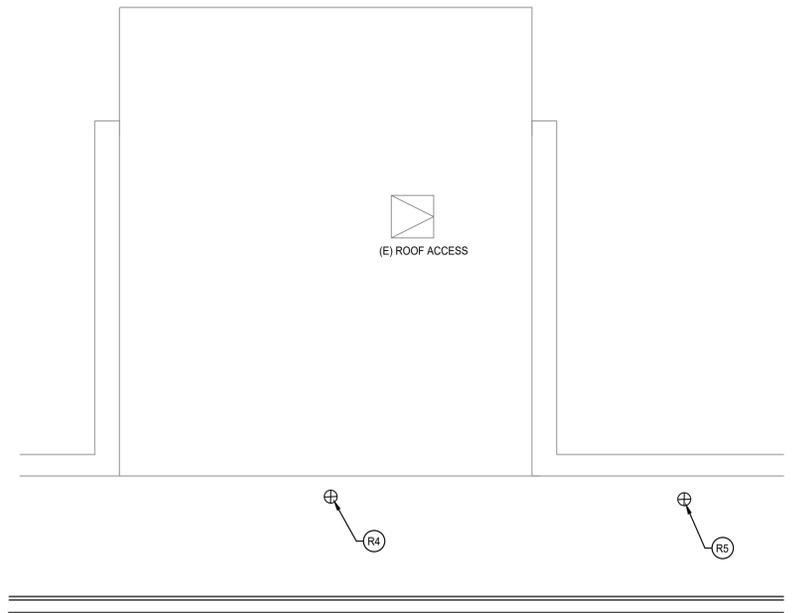


GENERAL NOTES:

- BUILDING ROOFING CONTRACTOR SHALL BE ENGAGED TO PROVIDE NECESSARY PROTECTION FOR ROOF SUPPORTS AND TO WATERPROOF ALL THE PENETRATIONS AND ADDITIONS TO ROOF.
- ALL EXPOSED METAL SHALL BE NON-FERROUS, HOT DIPPED GALVANIZED OR OTHERWISE TREATED FOR CORROSION RESISTANT.
- COORDINATE WITH LANDLORD'S REPRESENTATIVE BEFORE INSTALLING ANY ROOF EQUIPMENT.

ROOF PLAN KEYED NOTES

- EXISTING ROOFTOP UNIT. REFER TO SHEET M0.1 FOR ADDITIONAL NOTES.
- NEW CURB-MOUNT GREASE EXHAUST FAN. TOP OF DISCHARGE AT MIN. 40" ABOVE FINISHED ROOF LINE AND AWAY FROM ANY COMBUSTIBLE MATERIALS. LOCATE FAN AT MIN 10 FEET FROM ANY FRESH AIR INTAKE OPENING. PROVIDE VENTED CURB.
- NEW CURB MOUNTED, MAKE-UP AIR UNIT. LOCATE AT MIN. 10 FEET AWAY FROM ANY BUILDING EXHAUST. PROVIDE ADDITIONAL SUPPORTS AND FLEXIBLE DUCT CONNECTIONS. CONTRACTOR TO PROVIDE 1/2" MAKE-UP WATER LINE AND 1" DRAIN. REFER TO PLUMBING DRAWINGS.
- 3" WATER HEATER FLUE DOWN. COORDINATE ROUTING IN THE FIELD.
- 4" TOILET EXHAUST AIR DUCT DOWN. PROVIDE WEATHER CAP. COORDINATE ROUTING IN THE FIELD.
- SLEEPER MOUNTED CONDENSING UNIT ON ROOF. SECURE UNIT TO SLEEPER. COORDINATE LOCATION WITH PROPERTY MANAGEMENT.
- DX PIPES DOWN THRU ROOF PIPE PORTAL. SEAL PIPE PORTAL TO PREVENT WATER INFILTRATION.
- 8" AIR INTAKE DUCT DOWN. PROVIDE WEATHER CAP. COORDINATE ROUTING IN THE FIELD.



STATE OF CALIFORNIA
Process Systems
 NRCC-PRC-E (Created 11/19) CALIFORNIA ENERGY COMMISSION NRCC-PRC-E

CERTIFICATE OF COMPLIANCE
 Table Instructions: Include any process systems that are within the scope of the permit application and are demonstrating compliance with mandatory requirements in §120.6, or prescriptive requirements in §140.9. This compliance document is used for newly constructed, addition and alteration projects.
 Project Name: NICK THE GREEK, Campbell Report Page: Page 1 of 5
 Project Address: 758 W Hamilton Ave. Campbell, CA 95088 Date Prepared: 12/27/2022

A. GENERAL INFORMATION

01 Project Location (city)	CAMPBELL	04 Total Conditioned Floor Area	1,900
02 Climate Zone	4	05 Total Unconditioned Floor Area	0
03 Occupancy Types Within Project:		06 # of Stories (Habitable Above Grade)	0
<input type="checkbox"/> Office	<input type="checkbox"/> Retail	<input type="checkbox"/> Non-refrigerated Warehouse	
<input type="checkbox"/> Hotel/ Motel	<input type="checkbox"/> School	<input type="checkbox"/> Healthcare Facility	
<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Relocatable Class Bldg	<input checked="" type="checkbox"/> Other (Write In):	Restaurant

B. PROJECT SCOPE
 Table Instructions: Include any process systems listed below within the scope of the permit application that are demonstrating compliance with mandatory requirements in §120.6 or prescriptive requirements in §140.9.
 My project consists of (check all that apply):

01	02
<input type="checkbox"/> Refrigerated Spaces <3,000 ft ² Total (no Title 24, Pt 6 requirements)	<input type="checkbox"/> Elevator Lighting & Ventilation Controls (mandatory §120.6(f))
<input type="checkbox"/> Refrigerated Spaces ≥3,000 ft ² Total (mandatory §120.6(a))	<input type="checkbox"/> Escalator & Moving Walkway Speed Controls (mandatory §120.6(g))
<input type="checkbox"/> Food Stores > 8,000 ft ² cfa (mandatory §120.6(b))	<input type="checkbox"/> Computer Rooms > 20W/ft ² Power Density (prescriptive §140.9(a))
<input type="checkbox"/> Enclosed Parking Garage Exhaust ≥ 10,000 cfm (mandatory §120.6(c))	<input checked="" type="checkbox"/> Commercial Kitchen Ventilation/Exhaust (prescriptive §140.9(b))
<input type="checkbox"/> Newly Installed Process Boilers (mandatory §120.6(d))	<input type="checkbox"/> Laboratory Exhaust/Factory Exhaust & Fume Hood (prescriptive §140.9(c))
<input type="checkbox"/> Compressed Air Systems Combined HP > 25 (mandatory §120.6(e))	

C. COMPLIANCE RESULTS
 Table Instructions: If any cell in this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D, for guidance.

01	02	03	04	05	06	07	08	09	10	11
Refrigerated Warehouse/Space §120.6(a)	Commercial Refrigeration §120.6(b)	Parking Garage Exhaust §120.6(c)	Process Boilers §120.6(d)	Compressed Air Systems §120.6(e)	Elevators §120.6(f)	Escalators & Moving Walkways §120.6(g)	Computer Rooms §140.9(a)	Commercial Kitchens §140.9(b)	Laboratory Exhaust §140.9(c)	Compliance Results
(See Table F)	(See Table G)	(See Table H)	(See Table I)	(See Table J)	(See Table K)	(See Table L)	(See Table M)	(See Table N)	(See Table O)	COMPLIES

FOOTNOTES: These building features can comply using the performance method. If using the performance method for these features, compliance should be demonstrated on the NRCC-PRC-E compliance document.

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> November 2019

STATE OF CALIFORNIA
Process Systems
 NRCC-PRC-E (Created 11/19) CALIFORNIA ENERGY COMMISSION NRCC-PRC-E

CERTIFICATE OF COMPLIANCE
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 Project Name: NICK THE GREEK, Campbell Report Page: Page 4 of 5
 Project Address: 758 W Hamilton Ave. Campbell, CA 95088 Date Prepared: 12/27/2022

O. LABORATORY AND FACTORY EXHAUST AND FUME HOODS
 This Section Does Not Apply

P. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
 Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www2.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/.

YES	NO	Form/Title	Field Inspector
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-PRC-01-E Covered Process	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

Q. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
 Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www2.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/.

YES	NO	Form/Title	Field Inspector
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-PRC-01-F Compressed Air Systems	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-PRC-02-F Kitchen Exhaust	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-PRC-03-F Garage Exhaust	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-PRC-04-F Refrigerated Warehouses - Evaporator Fan Motor Controls	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-PRC-05-F Refrigerated Warehouses - Evaporative Condenser Controls	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-PRC-06-F Refrigerated Warehouses - Air Cooled Condenser Controls	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-PRC-16-F Refrigerated Warehouses - Adiabatic Condenser Controls	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-PRC-07-F Refrigerated Warehouses - Variable Speed Compressor	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-PRC-08-F Refrigerated Warehouses - Electric Resistance Underslab Heating System	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-PRC-12-F Elevator Lighting & Ventilation Controls	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-PRC-13-F Escalators & Moving Walkways Speed Controls	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-PRC-14-F Lab Exhaust Ventilation Systems	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-PRC-15-F Fume Hood Automatic Sash Closure Systems	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> November 2019

STATE OF CALIFORNIA
Process Systems
 NRCC-PRC-E (Created 11/19) CALIFORNIA ENERGY COMMISSION NRCC-PRC-E

CERTIFICATE OF COMPLIANCE
 Table Instructions: Include any process systems that are within the scope of the permit application and are demonstrating compliance with mandatory requirements in §120.6, or prescriptive requirements in §140.9. This compliance document is used for newly constructed, addition and alteration projects.
 Project Name: NICK THE GREEK, Campbell Report Page: Page 2 of 5
 Project Address: 758 W Hamilton Ave. Campbell, CA 95088 Date Prepared: 12/27/2022

D. EXCEPTIONAL CONDITIONS
 This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.
 No exceptional conditions apply to this project.

E. ADDITIONAL REMARKS
 This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. REFRIGERATED WAREHOUSE/SPACES
 This Section Does Not Apply

G. COMMERCIAL REFRIGERATION
 This Section Does Not Apply

H. ENCLOSED PARKING GARAGE EXHAUST
 This Section Does Not Apply

I. PROCESS BOILER
 This Section Does Not Apply

J. COMPRESSED AIR SYSTEMS
 This Section Does Not Apply

K. ELEVATOR LIGHTING AND VENTILATION
 This Section Does Not Apply

L. ESCALATORS AND MOVING WALKWAYS SPEED CONTROLS
 This Section Does Not Apply

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> November 2019

STATE OF CALIFORNIA
Process Systems
 NRCC-PRC-E (Created 11/19) CALIFORNIA ENERGY COMMISSION NRCC-PRC-E

CERTIFICATE OF COMPLIANCE
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 Project Name: NICK THE GREEK, Campbell Report Page: Page 5 of 5
 Project Address: 758 W Hamilton Ave. Campbell, CA 95088 Date Prepared: 12/27/2022

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
 I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Hector Pedraza
 Documentation Author Signature: *Hector Pedraza*
 Company: GAMA Drafting & Engineering
 Signature Date: 12/27/2022
 Address: 37625 Sycamore St.
 City/State/Zip: Newark, CA 94560
 Phone: 510-861-1319

RESPONSIBLE PERSON'S DECLARATION STATEMENT
 I certify the following under penalty of perjury, under the laws of the State of California:
 1. The information provided on this Certificate of Compliance is true and correct.
 2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
 3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
 4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Hector Pedraza
 Responsible Designer Signature: *Hector Pedraza*
 Company: GAMA Drafting & Engineering
 Date Signed: 12/27/2022
 Address: 37625 Sycamore St.
 License: M33187
 City/State/Zip: Newark, CA 94560
 Phone: 510-861-1319

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> November 2019

STATE OF CALIFORNIA
Process Systems
 NRCC-PRC-E (Created 11/19) CALIFORNIA ENERGY COMMISSION NRCC-PRC-E

CERTIFICATE OF COMPLIANCE
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 Project Name: NICK THE GREEK, Campbell Report Page: Page 3 of 5
 Project Address: 758 W Hamilton Ave. Campbell, CA 95088 Date Prepared: 12/27/2022

M. COMPUTER ROOM SYSTEM SUMMARY
 This Section Does Not Apply

N. COMMERCIAL KITCHEN EXHAUST AND VENTILATION
 Table Instructions: Complete the following table to demonstrate compliance with prescriptive requirements found in §140.9(b). Requirements only apply to new hoods or replacement hoods being installed as part of the permitted scope. Existing hoods not being replaced, or any hoods within a healthcare facility do not need to meet requirements.

Kitchen Ventilation §140.9(b)2

01	<input type="checkbox"/>	Existing kitchen hoods not being replaced as part of an addition or alteration (do not need to meet requirements)
Requirements		
Replacement Air to Hood Compliance Method §140.9(b)1A		
02	<input type="checkbox"/>	Not providing replacement air directly to the hood(s)
Mechanically cooled or heated makeup air delivered to any space with a kitchen hood is designed per 140.9(b)2A to not exceed the greater of:		
NA: Make up air is not mechanically cooled or heated		
03	<input type="checkbox"/>	The kitchen/dining facility has a total Type I and Type II kitchen hood exhaust airflow rate > 5000 cfm and is dign to have one of the following per 140.9(b)2B: A minimum of 75% of makeup air volume having a total of no more than 60°F and uncooled or cooled without the use of mechanical cooling

Kitchen Exhaust: Airflow Rate §140.9(b)2

01	02	03	04	05	06	07	08
Kitchen Name or Tag	KITCHEN 1	Compliance Method per §140.9(b)1B	Type I hood design exhaust rates do not exceed the maximum allowed per §140.9(b)1 as documented below.				
H-1	Type I	Wall-mounted Canopy	15	Heavy Duty	3,525	4,200	
						<input type="button" value="Add Hood"/>	<input type="button" value="Remove Last"/>
						<input type="button" value="Add Kitchen"/>	<input type="button" value="Remove Last"/>

FOOTNOTE: Type II hoods do not have a max hood exhaust air rate per Part 6 §140.9(b)1B.

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> November 2019

REV.	DATE	NO.



SIGNED: 12/13/22

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T.I. - NICK THE GREEK
 THE REDWOODS SHOPPING CENTER
 758 W HAMILTON AVE.
 CAMPBELL, CA 95088

Date:	12/23/22
Drawn:	HP
Sheet:	M3.1

STATE OF CALIFORNIA
Mechanical Systems
 NRCC-MCH-E (Created 09/2020) CALIFORNIA ENERGY COMMISSION NRCC-MCH-E

CERTIFICATE OF COMPLIANCE
 This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, or §141.0(b) for alterations.

Project Name: Nick the Greek - Campbell Report Page: Page 1 of 10
 Project Address: 758 W Hamilton Ave. Campbell, CA 95088 Date Prepared: 10/27/2022

A. GENERAL INFORMATION

01 Project Location (city)	Campbell	04 Total Conditioned Floor Area	1,900
02 Climate Zone	4	05 Total Unconditioned Floor Area	0
03 Occupancy Types Within Project:		06 # of Stories (Habitable Above Grade)	0

Office (B) Retail (M) Non-refrigerated Warehouse (S)
 Hotel/ Motel Guest Rooms (R-1) School (E) Healthcare Facility (I)
 High-Rise Residential (R-2/R-3) Relocatable Class Bldg (E) Other (Write In): Restaurant

¹ FOOTNOTES: Climate zone can be determined on the California Energy Commission's website at http://www.energy.ca.gov/maps/renewable/building_climate_zones.html

B. PROJECT SCOPE
 Table Instructions: Include any mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, or §141.0(b) for alterations.

My project consists of (check all that apply)

01 Air System(s)	02 Wet System Components	03 Dry System Components
<input checked="" type="checkbox"/> Heating Air System <input checked="" type="checkbox"/> Cooling Air System	<input type="checkbox"/> Water Economizer <input type="checkbox"/> Pumps <input type="checkbox"/> Hydronic System Piping <input type="checkbox"/> Cooling Towers <input type="checkbox"/> Chillers <input type="checkbox"/> Boilers	<input type="checkbox"/> Air Economizer <input type="checkbox"/> Electric Resistance Heat <input type="checkbox"/> Fan Systems <input checked="" type="checkbox"/> Ductwork (existing to remain, altered or new) <input type="checkbox"/> Ventilation <input type="checkbox"/> Zonal Systems/ Terminal Boxes

C. COMPLIANCE RESULTS
 Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D, for guidance.

01 System Summary §110.1, §110.2, §140.4 (See Table F)	02 Pumps §140.4(k)	03 Fans/Economizers §140.4(c), §140.4(e)	04 System Controls §110.2, §120.2, §140.4(f)	05 Ventilation §120.1	06 Terminal Box Controls §140.4(d)	07 Distribution §120.3, §140.4(i)	08 Cooling Towers §110.2(e)2	09 Compliance Results
Yes	AND	AND	AND	AND	AND	AND	AND	COMPLIES
Mandatory Measures Compliance (See Table Q for Details)								COMPLIES

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards/> September 2020

STATE OF CALIFORNIA
Mechanical Systems
 NRCC-MCH-E (Created 09/2020) CALIFORNIA ENERGY COMMISSION NRCC-MCH-E

CERTIFICATE OF COMPLIANCE
 Project Name: Nick the Greek - Campbell Report Page: Page 4 of 10
 Project Address: 758 W Hamilton Ave. Campbell, CA 95088 Date Prepared: 10/27/2022

Table Continued

J. VENTILATION AND INDOOR AIR QUALITY
 Table Instructions: Complete the following Table to demonstrate compliance with mandatory ventilation requirements in §120.1 and §120.2(e)3B for all nonresidential, high-rise residential and hotel/motel occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	<input checked="" type="checkbox"/>	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	<input type="checkbox"/>	Check this box if the project includes Nonresidential or Hotel/Motel spaces
03	<input type="checkbox"/>	Check this box if the project includes new or altered high-rise residential dwelling units
03	<input type="checkbox"/>	Check the box if the project is using natural ventilation in any spaces to meet required ventilation rates per §120.1(c)2.

¹ FOOTNOTES: System CFM should include both mechanical and natural ventilation for the zone/system.
² Air filtration requirements apply to the following three system types per §120.1(c)1A: space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.
³ Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.
⁴ See Standards Tables 120.1-A and 120.1-B.
⁵ For lecture halls with fixed seating, the expected number of occupants shall be determined in accordance with the California Building Code.
⁶ §120.2(e)3 requires systems serving rooms that are required by §130.1(d) to have lighting occupancy sensing controls to also have occupancy sensing zone controls for ventilation. Examples of spaces which require lighting occupancy sensors include offices 250ft² or smaller, multipurpose rooms less than 1,000ft², classrooms, conference rooms, restrooms, aisles and open areas in warehouses, library book stack aisles, corridors, stairwells, parking garages, and loading and unloading zones, unless excepted by §130.1(c).

K. TERMINAL BOX CONTROLS
 This Section Does Not Apply

L. DISTRIBUTION (DUCTWORK AND PIPING)
 Table Instructions: Complete the following tables to show compliance with mandatory pipe insulation requirements found in §120.3 and prescriptive requirements found in §140.4(f) for duct leakage testing.

Duct Leakage Sealing

The answers to the questions below apply to the following duct system(s):

11	No	The scope of the project includes only duct systems serving healthcare facilities.	No
----	----	--	----

Table Continued

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards/> September 2020

STATE OF CALIFORNIA
Mechanical Systems
 NRCC-MCH-E (Created 09/2020) CALIFORNIA ENERGY COMMISSION NRCC-MCH-E

CERTIFICATE OF COMPLIANCE
 Project Name: Nick the Greek - Campbell Report Page: Page 2 of 10
 Project Address: 758 W Hamilton Ave. Campbell, CA 95088 Date Prepared: 10/27/2022

D. EXCEPTIONAL CONDITIONS
 This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

Selections made in Table O have been changed by the permit applicant. See Table E. Additional Remarks for permit applicant's explanation.

E. ADDITIONAL REMARKS
 This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.
 Existing Rooftop Units provided by the Landord. HVAC Consists of ductwork and new thermostats.

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)
 Table Instructions: Complete the following equipment schedules to show compliance with mandatory requirements found in §110.1 and §110.2(a) and prescriptive requirements found in §140.4(a), §140.4(b) and §140.4(k) or §141.0(b) for alterations.

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters)

01	02	03	04	05	06	07	08	09	10	11
Name or Item Tag	Equipment Category per Tables 110.2	Equipment Type per Tables 110.2 & Title 20	Smallest Size Available ¹ §140.4(a)	Equipment Sizing per Mechanical Schedule (kBtu/h) §140.4 (a&b)		Cooling Output ^{2,3}		Load Calculations ⁴		
				Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
HP-1/FC-1	Unitary heat pumps (no elec. resistance)	Air cooled, split (1 phase)	Yes	22.2	24	0	18	24	26	25

¹ FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per §140.4(a). Healthcare facilities are exempted.
² It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.
³ If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.
⁴ Authority Having Jurisdiction may ask for load calculations used for compliance per §140.4(b).
 Table Continued

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards/> September 2020

STATE OF CALIFORNIA
Mechanical Systems
 NRCC-MCH-E (Created 09/2020) CALIFORNIA ENERGY COMMISSION NRCC-MCH-E

CERTIFICATE OF COMPLIANCE
 Project Name: Nick the Greek - Campbell Report Page: Page 5 of 10
 Project Address: 758 W Hamilton Ave. Campbell, CA 95088 Date Prepared: 10/27/2022

Table Continued

12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.
13	Yes	The space conditioning system serves less than 5,000 ft ² of conditioned floor area.
14	No	The combined surface area of the ducts in the following locations is more than 25% of the total surface area of the entire duct system: <input type="checkbox"/> Outdoors <input type="checkbox"/> In a space directly under a roof that has a U-factor greater than the U-factor of the ceiling, or if the roof does not meet the requirements of §140.3(a)1B or if the roof has fixed vents or openings to the outside/unconditioned spaces <input type="checkbox"/> In an unconditioned crawlspace <input type="checkbox"/> In other unconditioned spaces
15	No	The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.
16	No	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.
17		Duct system shall be sealed in accordance with the California Mechanical Code.

M. COOLING TOWERS
 This Section Does Not Apply

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
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YES	NO	Form/Title	Systems To Be Field Verified	Field Inspector	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCI-MCH-01-E - Must be submitted for all buildings.	HP-1/FC-1	Pass	Fail

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards/> September 2020

STATE OF CALIFORNIA
Mechanical Systems
 NRCC-MCH-E (Created 09/2020) CALIFORNIA ENERGY COMMISSION NRCC-MCH-E

CERTIFICATE OF COMPLIANCE
 Project Name: Nick the Greek - Campbell Report Page: Page 3 of 10
 Project Address: 758 W Hamilton Ave. Campbell, CA 95088 Date Prepared: 10/27/2022

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP))

Name or Item Tag	Size Category (Btu/h)	Heating Mode			Cooling Mode			
		Rating Condition (°F)	Efficiency Unit	Min Efficiency Required per Tables 110.2/ Title 20	Design Efficiency	Efficiency Unit	Min Efficiency Required per Tables 110.2/ Title 20	Design Efficiency
HP-1/FC-1	<65,000		HSPF	8.2	8.2	SEER	14	14

G. PUMPS
 This Section Does Not Apply

H. FAN SYSTEMS & AIR ECONOMIZERS
 This Section Does Not Apply

I. SYSTEM CONTROLS
 Table Instructions: Complete the following Table to demonstrate compliance with mandatory controls in §110.2 and §120.2 and prescriptive controls in §140.4(f) and (n) or requirements in §141.0(b)2E for altered space conditioning systems.

01	02	03	04	05	06	07	08	09
System Name	System Zoning	Conditioned Floor Area Being Served (ft ²)	Thermostats §110.2(b) & (c)1, §120.2(a) or §141.0(b)2E	Shut-Off Controls §120.2(e)	Isolation Zone Controls §120.2(g)	Demand Response §110.12 and §120.2(b)	Supply Air Temp. Reset §140.4(f)	Window Interlocks per §140.4(n)
HP-1/FC-1	single zone	≤ 25,000 ft ²	Setback Thermostat	NA: 7 day per §120.2(e)1	NA: Continuous Heat/Cool	DR Tstat per §110.12	NA: Single Zone	NA: No thermostatic control
RTU-1'	single zone	≤ 25,000 ft ²	Setback Thermostat	NA: 7 day per §120.2(e)1	NA: Continuous Heat/Cool	DR Tstat per §110.12	NA: Single Zone	NA: No thermostatic control

¹ FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.
² NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.
 EX: System 1: SA Temp Reset: Exempt because zones compliant with §140.4(d); EXCEPTION 1 to §140.4(f)
 Table Continued

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards/> September 2020

STATE OF CALIFORNIA
Mechanical Systems
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CERTIFICATE OF COMPLIANCE
 Project Name: Nick the Greek - Campbell Report Page: Page 6 of 10
 Project Address: 758 W Hamilton Ave. Campbell, CA 95088 Date Prepared: 10/27/2022

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
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YES	NO	Form/Title	Systems To Be Field Verified	Field Inspector	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-02-A Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.	HP-1/FC-1	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-03-A Constant Volume Single Zone HVAC NOTE: This form does not automatically move to "Yes". If Constant Volume Single Zone HVAC Systems are included in the scope, permit applicant should move this form to "Yes".		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-04-A Air Distribution Duct Leakage		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-05-A Air Economizer Controls		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-06-A Demand Control Ventilation Systems Acceptance must be submitted for all systems required to employ demand controlled ventilation (refer to §120.1(c)3) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints.		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-07-A Supply Fan Variable Flow Controls		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-08-A Valve Leakage Test		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-09-A Supply Water Temperature Reset Controls		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-10-A Hydronic System Variable Flow Controls		<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-11-A Automatic Demand Shed Controls		<input type="checkbox"/>	<input type="checkbox"/>

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards/> September 2020

REV.	DATE	NO.


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Date: 12/23/22
 Drawn: HP
 Sheet: M3.2

STATE OF CALIFORNIA
Mechanical Systems
 NRCC-MCH-E (Created 09/2020)
 CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
 Project Name: Nick the Greek - Campbell
 Project Address: 758 W Hamilton Ave. Campbell, CA 95088
 Report Page: Page 7 of 10
 Date Prepared: 10/27/2022

<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-12-A FDD for Packaged Direct Expansion Units	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-14-A Distributed Energy Storage DX AC Systems Acceptance NOTE: This form does not automatically move to "Yes". If Distributed Energy Storage DX AC Systems are included in the scope, permit applicant should move this form to "Yes".	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-15-A Thermal Energy Storage (TES) System Acceptance NOTE: This form does not automatically move to "Yes". If Chilled Water Storage, Ice-on-Coil Internal Melt, Ice-on-Coil External Melt, Ice Harvester, Brine, Ice-Slurry, Eutectic Salt, Clathrate Hydrate Slurry (CHS), Cryogenic or Encapsulated (Ice Ball) Systems are included in the scope, permit applicant should move this form to "Yes".	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-16-A Supply Air Temperature Reset Controls	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-17-A Condenser Water Temperature Reset Controls	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-18 Energy Management Control Systems	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-19 Occupancy Sensor Controls	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-20 Multi-Family Ventilation	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-MCH-21 Multi-Family Envelope Leakage	<input type="checkbox"/>	<input type="checkbox"/>	

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> September 2020

STATE OF CALIFORNIA
Mechanical Systems
 NRCC-MCH-E (Created 09/2020)
 CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
 Project Name: Nick the Greek - Campbell
 Project Address: 758 W Hamilton Ave. Campbell, CA 95088
 Report Page: Page 10 of 10
 Date Prepared: 10/27/2022

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Hector Pedraza
 Documentation Author Signature: *Hector Pedraza*
 Company: Gama Drafting and Engineering
 Signature Date: 12/27/2022
 Address: 37625 Sycamore St.
 City/State/Zip: Newark, CA 94560
 CEA/HERS Certification Identification (if applicable):
 Phone: 510.861.1319

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

- The information provided on this Certificate of Compliance is true and correct.
- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
- The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
- The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
- I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Hector Pedraza
 Responsible Designer Signature: *Hector Pedraza*
 Company: Gama Drafting and Engineering
 Date Signed: 12/27/2022
 Address: 37625 Sycamore St.
 License: M33187
 City/State/Zip: Newark, CA 94560
 Phone: 510.861.1319

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> September 2020

STATE OF CALIFORNIA
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 NRCC-MCH-E (Created 09/2020)
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CERTIFICATE OF COMPLIANCE
 Project Name: Nick the Greek - Campbell
 Project Address: 758 W Hamilton Ave. Campbell, CA 95088
 Report Page: Page 8 of 10
 Date Prepared: 10/27/2022

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be completed by a HERS Rater and provided to the building inspector during construction. The final documents must be created by a HERS Providers registry, but drafts can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCV/

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input type="radio"/>	<input checked="" type="radio"/>	NRCV-MCH-04-H Duct Leakage Test NOTE: Must be completed by a HERS Rater	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCV-MCH-24 Enclosure Air Leakage Worksheet NOTE: Must be completed by a HERS Rater	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCV-MCH-27 High-rise Residential NOTE: Must be completed by a HERS Rater	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCV-MCH-32 Local Mechanical Exhaust NOTE: Must be completed by a HERS Rater	<input type="checkbox"/>	<input type="checkbox"/>

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> September 2020

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 Report Page: Page 9 of 10
 Date Prepared: 10/27/2022

Q. MANDATORY MEASURES DOCUMENTATION LOCATION

Table Instructions: Indicate where mandatory measures are documented in the plan set or construction documentation. For any mandatory measures that do not apply, mark the plan sheet or construction document location as "N/A", any active cells that are left blank will result in non-compliance in Table C.

01		02	
		Plan sheet or construction document location	
Compliance with Mandatory Measures documented through	No		
MCH Mandatory Measures Note Block:			
03		04	
Mandatory Measure		Plan sheet or construction document location	
Heating Equipment Efficiency per §110.1	N/A		
Cooling Equipment Efficiency per §110.1	N/A		
Furnace Standby Loss Control per §110.2(d)	N/A		
Duct Insulation per §120.4	M0.2		
Heating Hot Water Equipment Efficiency per §110.1	N/A		
Cooling Chilled and Condenser Water Equipment Efficiency per §110.1	N/A		
Open and Closed Circuit Cooling Towers conductivity of flow-based controls per §110.2(e)1	N/A		
Open and Closed Circuit Cooling Towers Flow Meter with analog output per §110.2(e)3	N/A		
Open and Closed Circuit Cooling Towers Overflow Alarm per §110.2(e)4	N/A		
Open and Closed Circuit Cooling Towers Efficient Drift Eliminators per §110.2(e)5	N/A		
Pipe Insulation per §120.3(b)	M0.2		
Combustion air shutoff, combustion air fan controls and stack design and controls for boilers per §120.9	N/A		
Heat Pump with Supplementary Electric Resistance Heater Controls per §110.2(b)	N/A		
The air duct and plenum system is designed per §120.4(a)-f)	M0.2		
Kitchen range hoods shall be rated for sound in accordance with Section 7.2 of ASHRAE 62.2	M4.1		

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> September 2020

REV.	DATE	NO.

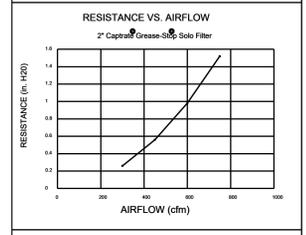
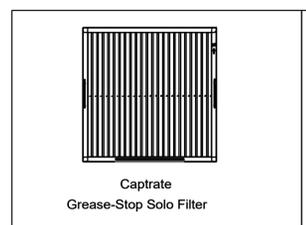


GAMA
 DRAFTING & ENGINEERING
 37625 SYCAMORE ST. NEWARK, CA 94560
 gamadrafting@gmail.com (510) 861-1319

GLENN CUNNINGHAM, DESIGNER
BULL'S EYE CADD
 434 45TH AVENUE c. (510) 301-3005
 SAN FRANCISCO, CA 94121 o. (415) 666-3624
 E-MAIL: glennccc@att.net

T.I. - NICK THE GREEK
 THE REDWOODS SHOPPING CENTER
 758 W HAMILTON AVE.
 CAMPBELL, CA 95008

Date:	12/23/22
Drawn:	HP
Sheet:	M3.3



Filter Detail
CAPTRATE

EXHAUST CFM=LENGTH OF HOOD X CFM/LIN. FT. (LOAD)
SUPPLY CFM=EXHAUST CFM X PERCENTAGE REQUIRED
TOTAL DUCT AREA=144 X $\frac{CFM}{FPM}$
DUCT LENGTH= $\frac{TOTAL DUCT AREA}{DUCT DEPTH}$

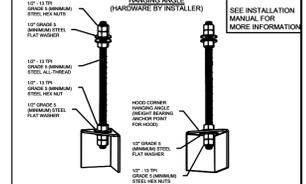
CALCULATIONS UTILIZED

- NFPA 96B
- B.O.C.A. #93-16
- I.C.C.D. 34416
- SBCCI PPT & ESI NO. 53137
- E.T.L. LISTED 3054804-001
- LOS ANGELES RR#8000
- ETL IS LISTED TO UL STANDARDS

BUILDING CODES



1/2 Pint Grease Cup Detail



ND-2 HANGING ANGLE DETAIL

HANGING ANGLES WILL BE LOCATED IN THE FOLLOWING LOCATIONS FOR WALL CANOPIES

HOOD STYLE	DIM FROM REAR	DIM FROM FRONT (24" High Hood)	DIM FROM FRONT (30" High Hood)
Wall Exhaust Only	4.166"	2.25"	2.25"
Wall With MUA		2.25"	2.25"
Back Shelf Exhaust Only	4.166"	2.25"	2.25"
Back Shelf With MUA		2.25"	2.25"
Condensate	2.25"	2.25"	

HANGING ANGLE LOCATIONS

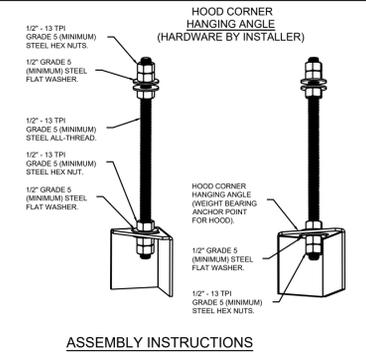
HOOD INFORMATION - JOB#5784901																				
HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)				TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG				
										WIDTH	LENG	HEIGHT	DIA			CFM	VEL	SP	END TO END	ROW
1		5424 ND-2-PSP-F	CAPTIVEAIRE	15' 0"	600 DEG	I	HEAVY	235	3525			4"	18"	3525	1995	-1.211"	2820	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD NO	TAG	FILTER(S)				LIGHT(S)				UTILITY CABINET(S)				FIRE SYSTEM PIPING	HOOD HANGING WEIGHT		
		TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM TYPE	SIZE			ELECTRICAL MODEL #	SWITCHES QUANTITY
1		CAPTRATE SOLO FILTER	11	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	NO	RIGHT	12"x54"x24"	TANK FS	4.0/4.0	DCV-1111	1 LIGHT 1 FAN	YES	1183 LBS

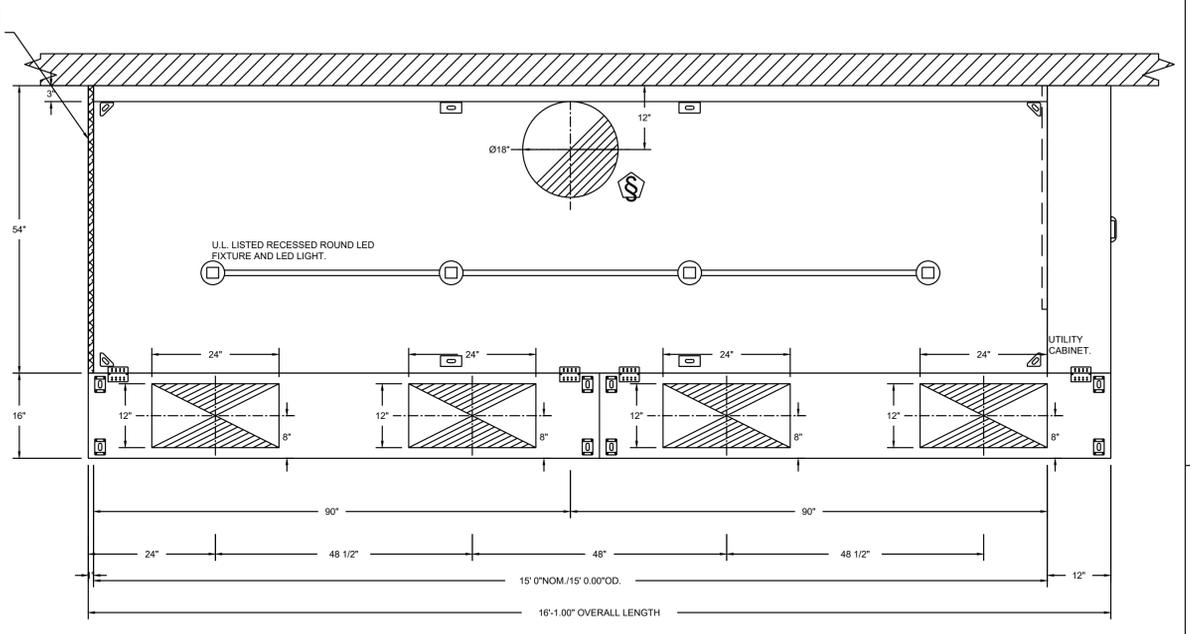
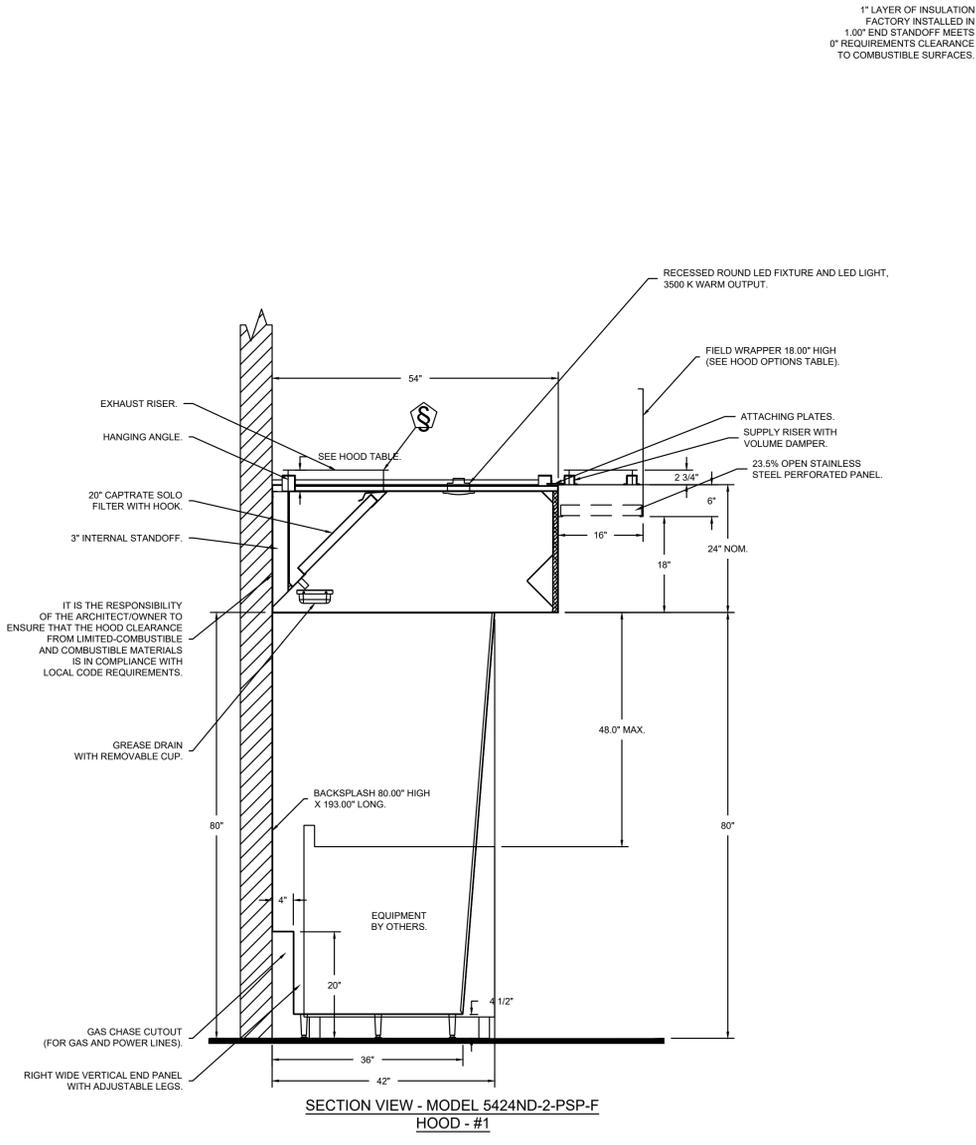
HOOD OPTIONS		OPTION	
HOOD NO	TAG	FIELD WRAPPER	18.00" HIGH FRONT, LEFT, RIGHT.
1		BACKSPLASH	80.00" HIGH X 193.00" LONG 430 SS VERTICAL.
		LEFT END STANDOFF (FINISHED)	1" WIDE 54" LONG INSULATED.
		RIGHT WIDE VERTICAL END PANEL	42" TOP WIDTH, 36" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.

PERFORATED SUPPLY PLENUM(S)											
HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)				
							WIDTH	LENG	DIA	CFM	SP
1		Front	193"	16"	6"	MUA	12"	24"		705	0.219"
						MUA	12"	24"		705	0.219"
						MUA	12"	24"		705	0.219"
						MUA	12"	24"		705	0.219"

SYSTEM ANNUNCIATION:
UPON ACTIVATION OF THE AUTOMATIC FIRE-EXTINGUISHING SYSTEM, AN AUDIBLE OR VISUAL INDICATOR MUST BE PROVIDED TO SHOW THAT THE SYSTEM HAS BEEN ACTIVATED. CMC SECTION 513.6



ASSEMBLY INSTRUCTIONS
HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD, SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



NOTES:
1. CAPTIVEAIRE INCLUDED FOR REFERENCE
2. CONTACT CAPTIVEAIRE FOR PRICING & INSTALLATION REQUIREMENTS.

NOTE
ALL WALLS THAT COME WITHIN 18" OF THE TYPE I HOOD MUST BE METAL STUD AND SHEETROCK. IF WOOD STUDS FACTORY INSTALLED INSULATION REQUIRED, PLEASE ADVISE CAPTIVE AIRE PRIOR TO FABRICATION.

NOTE- Exhaust Collar Must be Factory Installed. If A Different Size Or Location is Required, Please Note Change On Submittal.
Rear Discharge Is Available. Contact CaptiveAire For Possible Locations.

Operation of All CaptiveAire Equipment to be Verified by Factory Service Technician. Equipment Must be Operational and Fire System shall be Hooked-up and Armed. Report to be Sent to Customer by Manufacturer When Complete.

FOR QUESTIONS CALL:
BRIAN NEESAN
LOS ANGELES SALES OFFICE
REFERENCE JOB NUMBER
PHONE: 310.876.8505 REG81@CAPTIVEAIRE.COM

REVISIONS

DESCRIPTION	DATE

CAPTIVEAIRE
Los Angeles Office
1810 14th St Suite 214, Santa Monica, CA 90404 PHONE: (310) 876-8505 FAX: (919) 747-5639 EMAIL: reg81@captiveaire.com

NICK THE GREEK
CAMPBELL, CA, 95008

DATE: 12/27/2022
DWG.#: 5784901
DRAWN BY: brian81
SCALE: 3/4" = 1'-0"
MASTER DRAWING
SHEET NO. 1

REV. DATE NO.

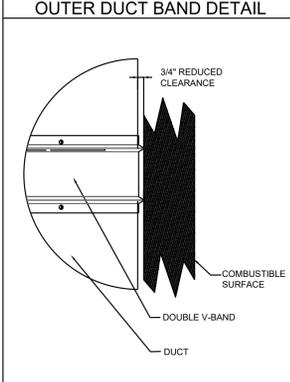
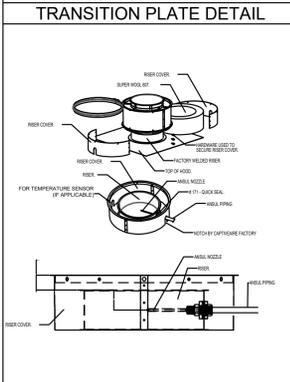
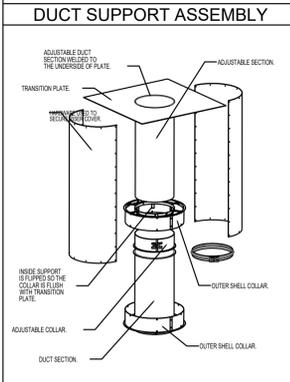
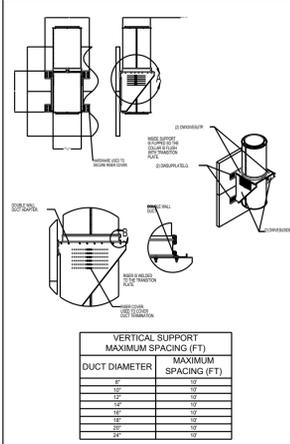
PROFESSIONAL ENGINEER
No. M33187
MECHANICAL
STATE OF CALIFORNIA
SIGNED: 12/13/22

GAMA
DRAFTING & ENGINEERING
37626 SYCAMORE ST NEWARK, CA 94660
gamadrfting@gmail.com (510) 861-1319

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Date: 12/23/22
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M4.1

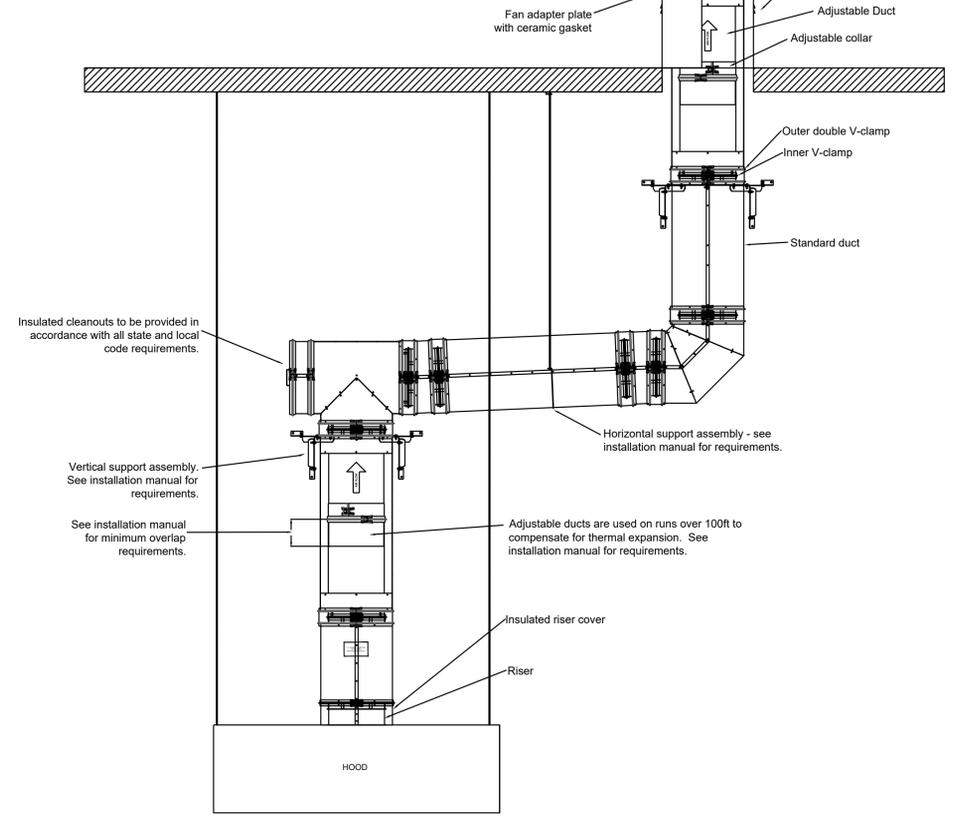


DUCTWORK NOTES

- DUCT RUN TO BE FIELD VERIFIED. PARTS SUBJECT TO CHANGE
- DUCT RUNS TO HAVE CLEANOUTS EVERY 10' AND EVERY CHANGE OF DIRECTION UNLESS SPECIFIED OTHERWISE.
- VERTICAL HANGING SUPPORTS TO BE EVERY 10' HORIZONTAL SUPPORTS TO BE EVERY 7' FOR INNER DUCT DIA 8\"/>
- ADJUSTABLE DUCT OVERLAP TO BE NO LESS THAN 1\"/>
- 3/4\"/>

Duct run shown is for example purposes only. See mechanical plans for additional information.

Additional information including installation manual available at www.captiveaire.com.



DOUBLE WALL FACTORY BUILT DUCTWORK

- ALL DUCTWORK IS REQUIRED TO BE INSTALLED WITH THE MAXIMUM SUPPORT SPACING LISTED BELOW.
- FOR A COMPLETE LIST OF APPROVED SUPPORT METHODS, SEE THE ENTIRE INSTALLATION AND OPERATION MANUAL.
- DUCTWORK SHALL SLOPE NOT LESS THAN 1/16\"/>
- WHERE HORIZONTAL DUCTS EXCEED 75 FEET IN LENGTH, THE SLOPE SHALL NOT BE LESS THAN 3/16\"/>

HORIZONTAL	
DUCT DIAMETER	SUPPORT SPACING (ft)
8"	7'
10"	7'
12"	7'
14"	7'
16"	7'
18"	5'
20"	5'
22"	5'
24"	5'

VERTICAL			
TYPE	WALL SUPPORT (ft)	CURB SUPPORT (ft)	FLOOR SUPPORT (ft)
2R & 2R HT	20'	24'	24'
3R	10'	24'	24'
3Z	10'	24'	24'

SINGLE WALL FACTORY BUILT DUCTWORK

- ALL DUCTWORK IS REQUIRED TO BE INSTALLED WITH THE MAXIMUM SUPPORT SPACING LISTED BELOW.
- FOR A COMPLETE LIST OF APPROVED SUPPORT METHODS, SEE THE INSTALLATION AND OPERATION MANUAL.
- DUCTWORK SHALL SLOPE NOT LESS THAN 1/16\"/>
- WHERE HORIZONTAL DUCTS EXCEED 75 FEET IN LENGTH, THE SLOPE SHALL NOT BE LESS THAN 3/16\"/>

DUCT DIAMETER	HORIZONTAL SUPPORT (ft)	VERTICAL WALL SUPPORT (ft)	VERTICAL CURB SUPPORT (ft)
8"	10'	10'	24'
10"	10'	10'	24'
12"	10'	10'	24'
14"	10'	10'	24'
16"	10'	10'	24'
18"	10'	10'	24'
20"	10'	10'	24'
22"	10'	10'	24'
24"	10'	10'	24'

GREASE DUCT SPECIFICATIONS:
 PROVIDE GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "DW" IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW" DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURES INSTALLATION GUIDE.
 PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL "DW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12".
 DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS.
 IF THE DUCT IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 LISTED DOUBLE WALL GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW- 2R, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

CAPTIVEAIRE SYSTEMS RECOMMENDS THE USE OF LISTED, PRE-FABRICATED ROUND GREASE EXHAUST DUCT TO REDUCE STATIC PRESSURE IN THE SYSTEM, MINIMIZE INSTALLATION AND INSPECTION TIMES, AND ENSURE DUCT IS LIQUID TIGHT

The Double Wall Ductwork Series has been certified by ITS. This certification mark indicates that the product has been tested to and has met the minimum requirements of a widely recognized (consensus) U.S. Product safety standard, that the manufacturing site has been audited, and that the applicant has agreed to a program of periodic factory follow-up inspections to verify continued performance.

Models DW-2R and DW-3R are ETL Listed under file number 1000082319SAT-006 EEV and comply with UL1978 and UL2221 Standards.
 Model DW-3Z is ETL Listed under file number 1000082319SAT-006 EEV and complies with UL1978, UL2221 and CAN/ULC-S144 Standards.

DOUBLE WALL GREASE DUCT WRITTEN SPECIFICATION

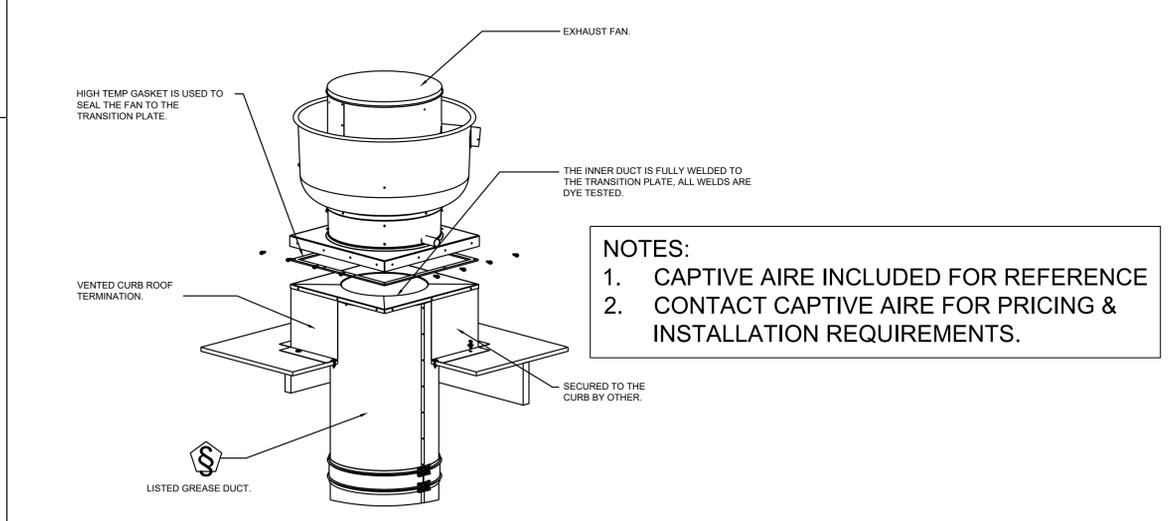
Furnish double wall, factory built grease duct for use with Type I kitchen hoods, which conforms to the requirements of NFPA-96. Products shall be ETL listed to UL-1978 and UL-2221 for venting air and grease vapors from commercial cooking operation. Models DW-2R, 3R and 3Z are used for grease duct applications when installed in accordance with these instructions and National Fire Protection Association "NFPA 96"; Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations. Double wall grease ducts are listed for a continuous internal temperature of 500 degrees F and intermittent temperatures of 2000 degrees F.

The duct sections shall be constructed of an inner duct wall and an outer wall with insulation in between. The inner duct wall shall be constructed of .036 inch thick, 430 type stainless steel and be available in diameters 8" through 24". The outer wall shall be constructed of stainless steel at a minimum of .024 inch thickness. The duct, based on model number, shall include layers of Super Wool 607 Plus insulation between the inner and outer wall. Grease duct joints shall be held together by means of formed V clamps and sealed with 3M Fire Barrier 2000+. The duct wall assembly shall be tested and listed at 3/4" or zero inch clearance, according to classifications.

Classifications and Clearances

UL 2221: Standard for Fire Resistant Grease Duct Enclosure Assemblies. Chapter 7 of this standard references a test labeled Internal Fire Test. Section 7.1.1 references two installation conditions, Condition A and Condition B. Condition A represents all installation condition except for installation within non-ventilated combustible enclosures. Condition B represents installation within a non-ventilated combustible enclosure.

Model DW-2R is classified under UL2221 (Test of Fire Resistant Grease Duct Enclosure Assemblies) as an alternate to 2-Hr. fire resistant shaft enclosures with a reduced clearance to combustibles (sizes 8" to 16" diameter). Model 2R is listed in accordance with the requirements for duct enclosure Condition B.



NOTES:

- CAPTIVE AIRE INCLUDED FOR REFERENCE
- CONTACT CAPTIVE AIRE FOR PRICING & INSTALLATION REQUIREMENTS.

REVISIONS

DESCRIPTION	DATE

CAPTIVEAIRE

Los Angeles Office

1810 14th St Suite 214, Santa Monica, CA, 90404 PHONE: (310) 876-8505 FAX: (916) 747-5639 EMAIL: reg@1@captiveaire.com

www.captiveaire.com

NICK THE GREEK

CAMPBELL, CA, 95008

DATE: 12/27/2022

DWG.#: 5784901

DRAWN BY: brian81

SCALE: 3/4" = 1'-0"

MASTER DRAWING

SHEET NO. 2

REV.	DATE	NO.

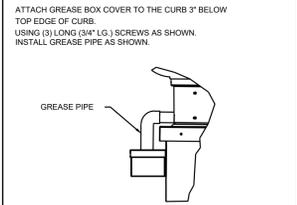
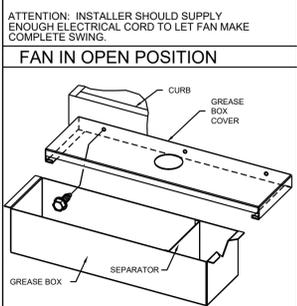
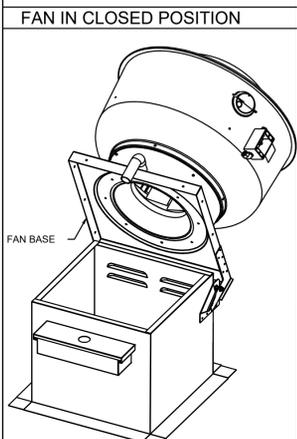
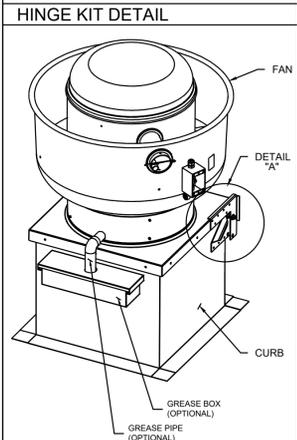
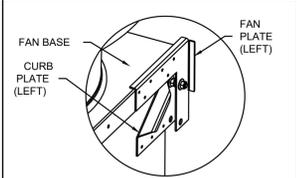
REGISTERED PROFESSIONAL ENGINEER
 No. M33187
 MECHANICAL
 STATE OF CALIFORNIA
 SIGNED: 12/13/22

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 CAMPBELL, CA 95008

Date: 12/23/22
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 Sheet:
M4.2



GREASE BOX INSTALLATION

- A PREWIRED ELECTRICAL CONTROL PACKAGE SHALL BE PROVIDED TO OPERATE THE HOOD LIGHTS AND FANS.
- PACKAGE SHALL CONSIST OF SWITCH PANEL WITH LIGHT SWITCHES AND RED LIGHTED FAN SWITCHES, STARTER OVERLOAD ASSEMBLY FOR EACH FAN (OPTIONAL), NUMBERED INLET/OUTLET TERMINAL STRIPS, AND A TERMINAL FOR DOUBLE-DUAL FIRE SYSTEM MICROSWITCH CONNECTION.
- ONE RELAY IS WIRED TO MICROSWITCH (IN FIRE SYSTEM) FOR SUPPLY FAN SHUTDOWN AND OTHER RELAY FOR ADDITIONAL FIRE SYSTEM ACTIVATED DRY CONTACTS.
- ELECTRICAL CONDUIT DROPS FROM THE FANS SHALL BE CONNECTED TO THE NUMBERED TERMINAL STRIP. CONDUIT BETWEEN THE PRE-WIRE PACKAGE AND FANS SHALL BE SUPPLIED BY THE ELECTRICAL CONTRACTOR.

ELECTRICAL PACKAGE NOTES

EXHAUST FAN INFORMATION - JOB#5784901

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	KEF-1	1	DU240HFA	CAPTIVEAIRE	3525	1.500	864	ODP,PREMIUM	3.000	1.7980	3	208	10.2	801 FPM	310	14.5

MUA FAN INFORMATION - JOB#5784901

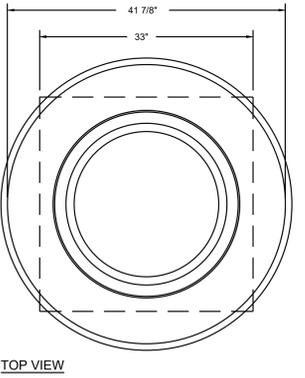
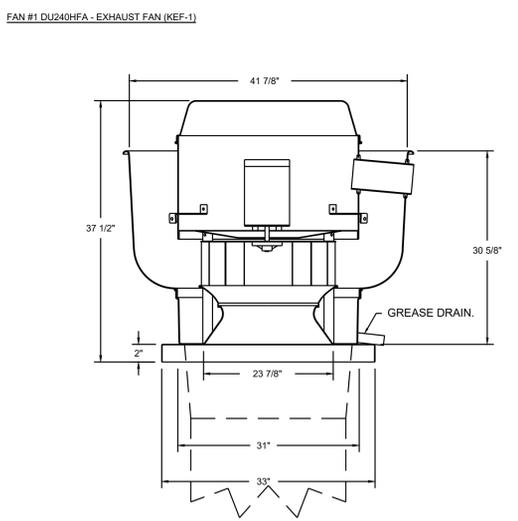
FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCP	EVAP FLOW RATE (Gal/Hr)	EVAP COOLER ENTERING DB TEMP	EVAP COOLER ENTERING WB TEMP	EVAP COOLER LEAVING DB TEMP	EVAP COOLER LEAVING WB TEMP	WEIGHT (LBS)	SONES
2	MAU-1	1	A2-20D	20MF-2-MOD	A2	1500	2920	0.500	1252	ODP,PREMIUM	1.500	1.0970	3	208	6.6	8.3A	15A	4.36	90.0°F	59.0°F	70.0°F	59.0°F	695	13.7

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	KEF-1	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL - SHIP LOOSE - FOR GREASE DUCTS
		1	2 YEAR PARTS WARRANTY
2	MAU-1	1	SIZE 2 UNTEMPERED COMMERCIAL DOWN DISCHARGE FOR DIRECT DRIVE AHUS
		1	EVAPORATIVE COOLER WIRING HARNESS
		1	SEPARATE 120V WIRING PACKAGE (REQUIRED AND USED ONLY FOR DCV OR PREWIRE WITH VFD) - THREE PHASE ONLY
3	KEF-1 (ALTERNATE)	1	2 YEAR PARTS WARRANTY
		1	BH18 - INLET SERVICE DUCT CONNECTION. USED TO CONNECT TO STANDARD 20" GREASE DUCT OR FIELD WELDED DUCT. INCLUDES (2) 7" RISERS BOLTED TO STANDARD INLET RISER
		1	UTILITY SET GREASE CUP
		1	BI18 - 24" DISCHARGE EXTENSION
		1	BI - DISCHARGE ORIENTATION VERTICAL UPPER LEFT - CW INLET SIDE
		1	BI18 - INLET CONNECTION STANDARD 20" FLANGED GREASE DUCT
1	2 YEAR PARTS WARRANTY		

CURB ASSEMBLIES

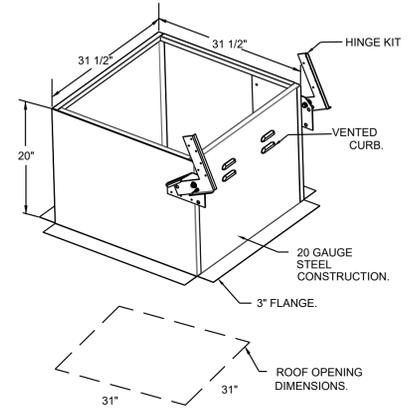
NO	ON FAN	WEIGHT	ITEM	SIZE
1	# 1	48 LBS	CURB	31.500"W X 31.500"L X 20.000"H ALONG LENGTH, RIGHT VENTED HINGED.
2	# 2	62 LBS	CURB	31.000"W X 31.000"L X 14.000"H ALONG LENGTH, RIGHT.
	# 2		RAIL	4.000"W X 4.000"L X 36.000"H ALONG LENGTH, RIGHT.
	# 2		RAIL	4.000"W X 4.000"L X 36.000"H ALONG LENGTH, RIGHT.



- FEATURES:**
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
 - ROOF MOUNTED FANS.
 - RESTAURANT MODEL.
 - UL705 AND UL782 AND ULC-S645
 - VARIABLE SPEED CONTROL.
 - INTERNAL WIRING.
 - THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
 - HIGH HEAT OPERATION 300°F (149°C).
 - GREASE CLASSIFICATION TESTING.
 - NEMA 3R SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETEIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

- OPTIONS**
- GREASE BOX.
 - FAN BASE CERAMIC SEAL - SHIP LOOSE
 - FOR GREASE DUCTS.
 - 2 YEAR PARTS WARRANTY.



NOTES:

1. CAPTIVEAIRE INCLUDED FOR REFERENCE
2. CONTACT CAPTIVEAIRE FOR PRICING & INSTALLATION REQUIREMENTS.

REVISIONS

DESCRIPTION	DATE

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NICK THE GREEK
CAMPBELL, CA, 95008

DATE: 12/27/2022
DWG.#: 5784901
DRAWN BY: brian81
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO.
3

REV. DATE NO.

REGISTERED PROFESSIONAL ENGINEER
No. M33187
EXPIRES 06/30/23
MECHANICAL
STATE OF CALIFORNIA
SIGNED: 12/13/19

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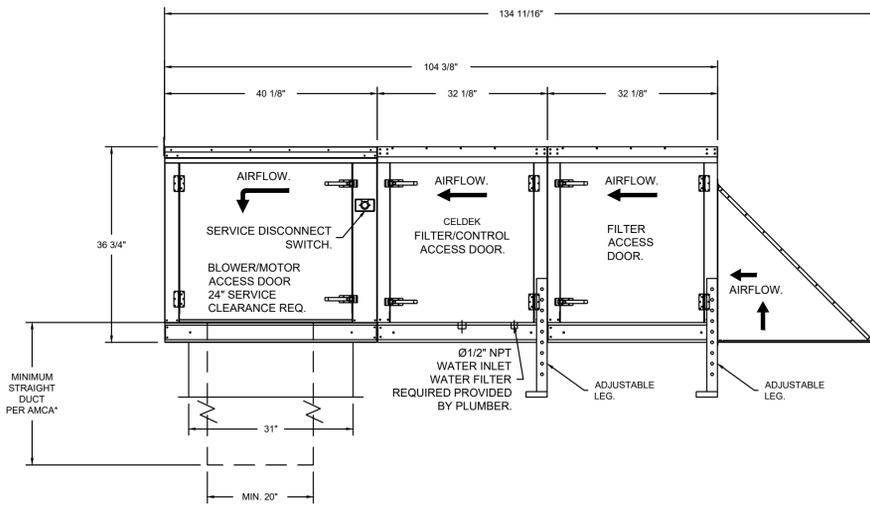
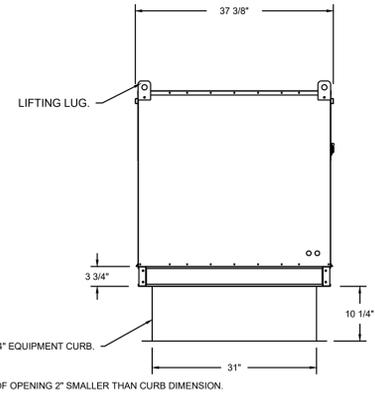
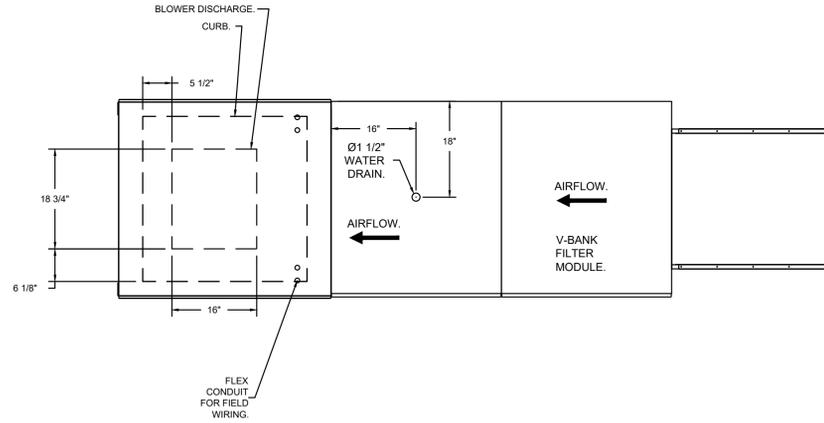
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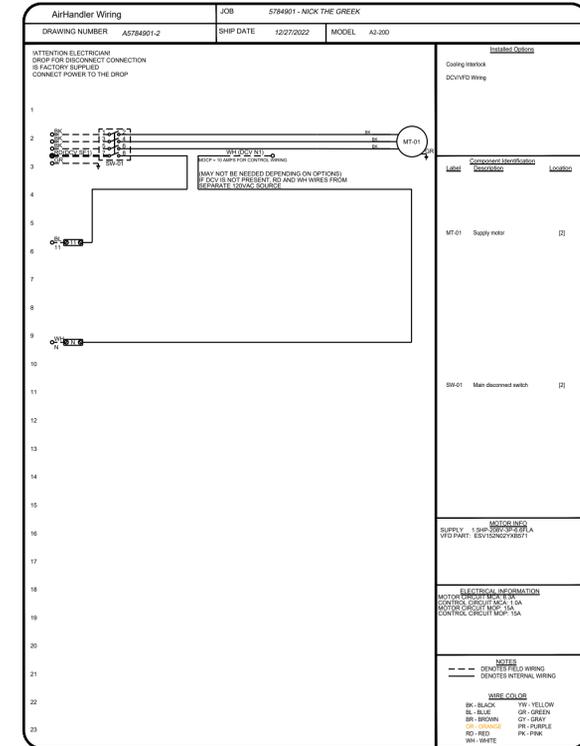
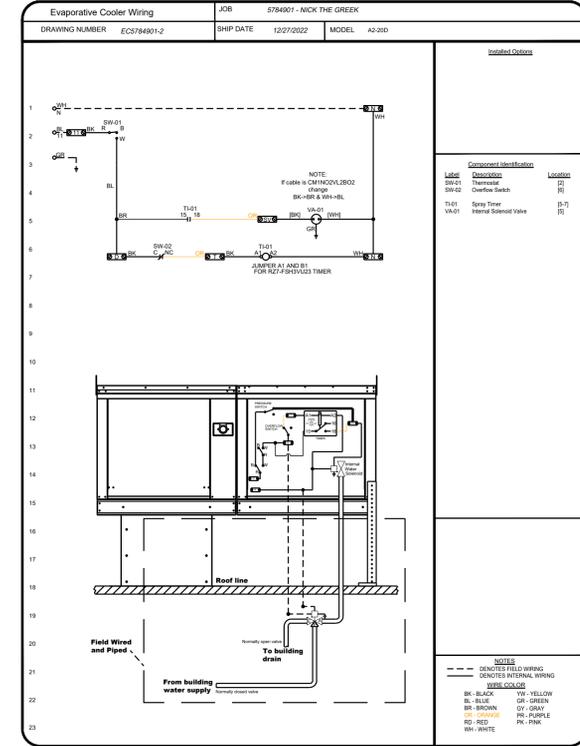
- FAN #2 A2-20D - SUPPLY FAN (MAU-1)
- UNTEMPERED SUPPLY UNIT WITH 20" MIXED FLOW DIRECT DRIVE FAN IN SIZE #2 HOUSING.
 - EVAP COOLER (CELDEK) & V-BANK WITH 2" TA-13 FILTERS - OUTDOOR.
 - DOWN DISCHARGE - AIR FLOW RIGHT → LEFT.
 - DOWN DISCHARGE CONSTRUCTION FOR SIZE 2 UNTEMPERED DIRECT DRIVE AHUS.
 - 120V WIRING CONNECTION TO ENERGIZE EVAPORATIVE COOLERS FROM UNTEMPERED SUPPLY FANS.
 - SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFD IN PREWIRE PANEL OR WITH DCV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN. THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM DCV TO MUA SWITCH.
 - HINGED DOUBLE WALL, INSULATED DOOR ASSEMBLY (BURNER/BLOWER/EVAP SECTION).
 - 2 YEAR PARTS WARRANTY.

*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 20" x 20".



NOTES:

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REVISIONS	
DESCRIPTION	DATE

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 CAMPBELL, CA, 95008

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DWG.#: 5784901
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SCALE: 3/4" = 1'-0"
MASTER DRAWING

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 SIGNED: 12/13/22

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FIRE SYSTEM INFORMATION - JOB#5784901

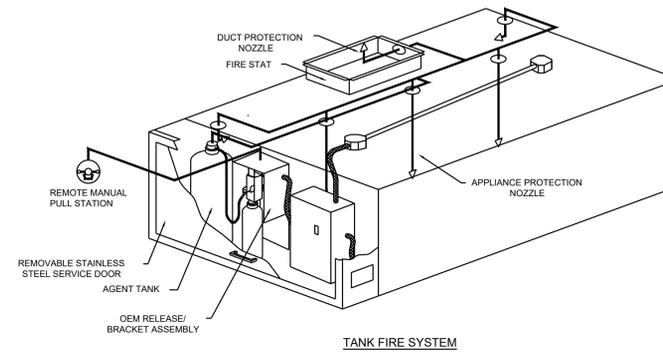
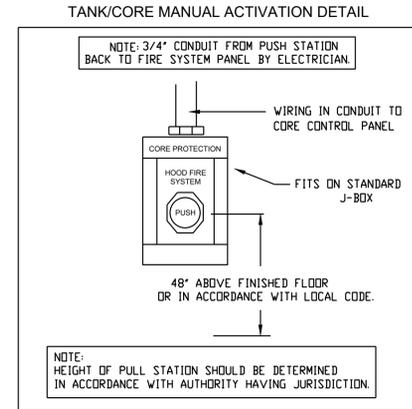
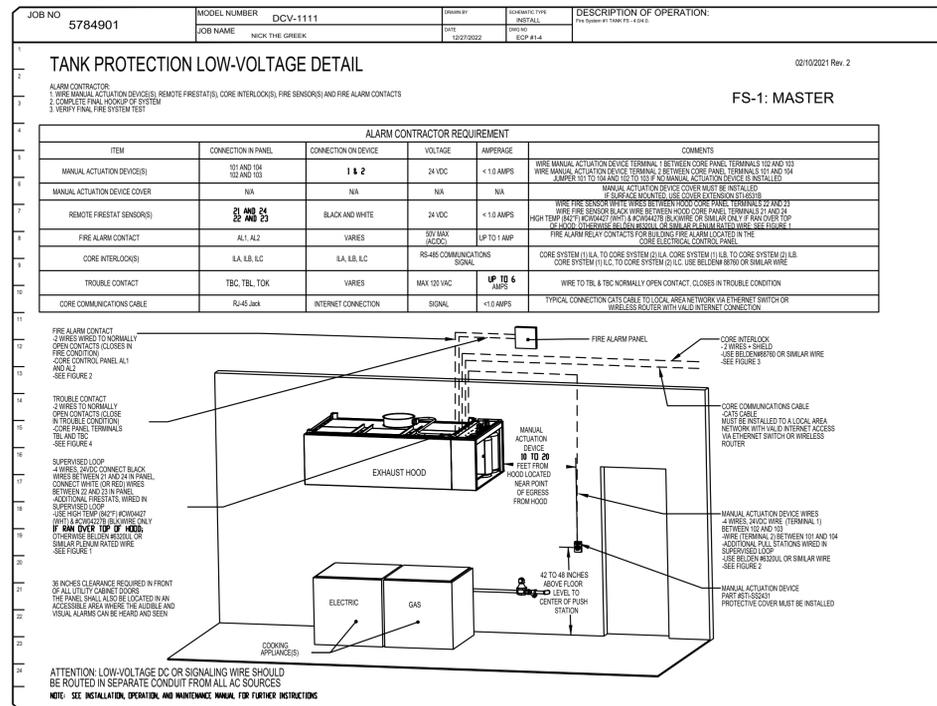
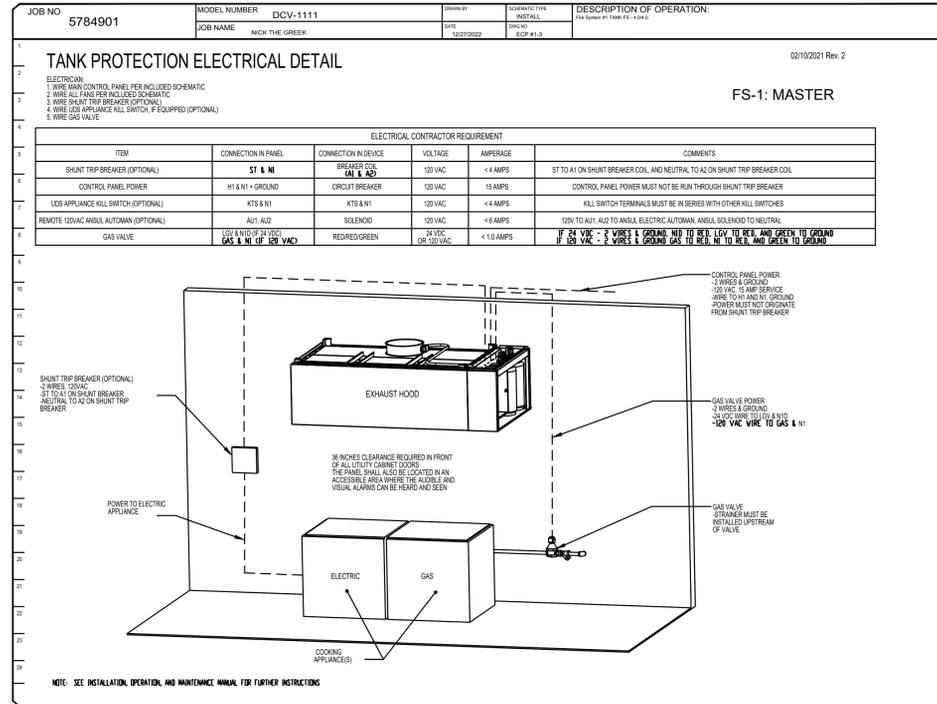
FIRE SYSTEM NO	TAG	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		TANK FS	4.0/4.0	36	FIRE CABINET RIGHT	RIGHT, HOOD 1

GAS VALVE(S)

FIRE SYSTEM NO	TAG	TYPE	SIZE	SUPPLIED BY
1		SC ELECTRICAL	2.000	CAPTIVEAIRE SYSTEMS

NOTES:
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SYSTEM ANNUNCIATION:
 UPON ACTIVATION OF THE AUTOMATIC FIRE-EXTINGUISHING SYSTEM, AN AUDIBLE OR VISUAL INDICATOR MUST BE PROVIDED TO SHOW THAT THE SYSTEM HAS BEEN ACTIVATED. CMC SECTION 513.6



REVISIONS

DESCRIPTION	DATE

CAPTIVEAIRE

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REGISTERED PROFESSIONAL ENGINEER
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 MECHANICAL
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 SIGNED: 12/13/22

NICK THE GREEK
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 DRAWN BY: brian81
 SCALE: 3/4" = 1'-0"
 MASTER DRAWING

SHEET NO. 7

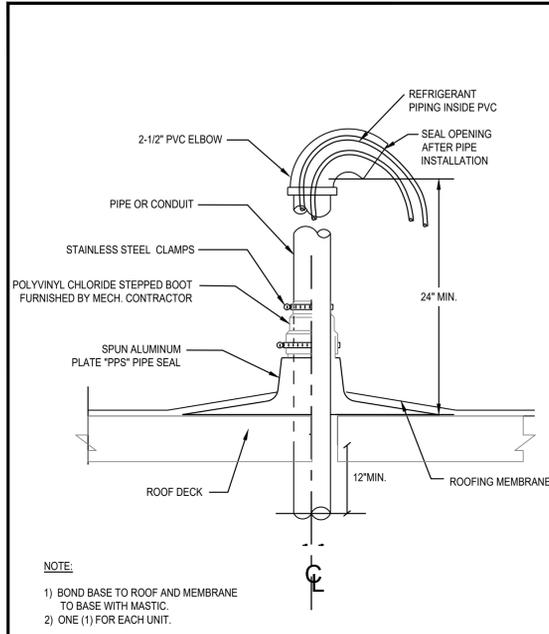
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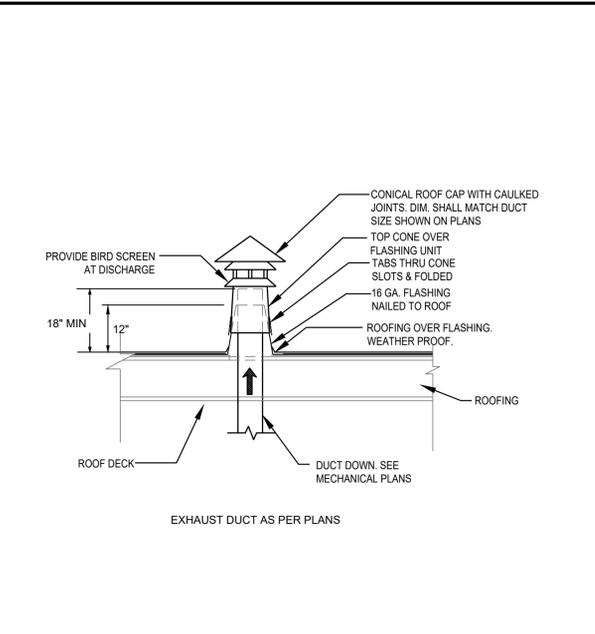
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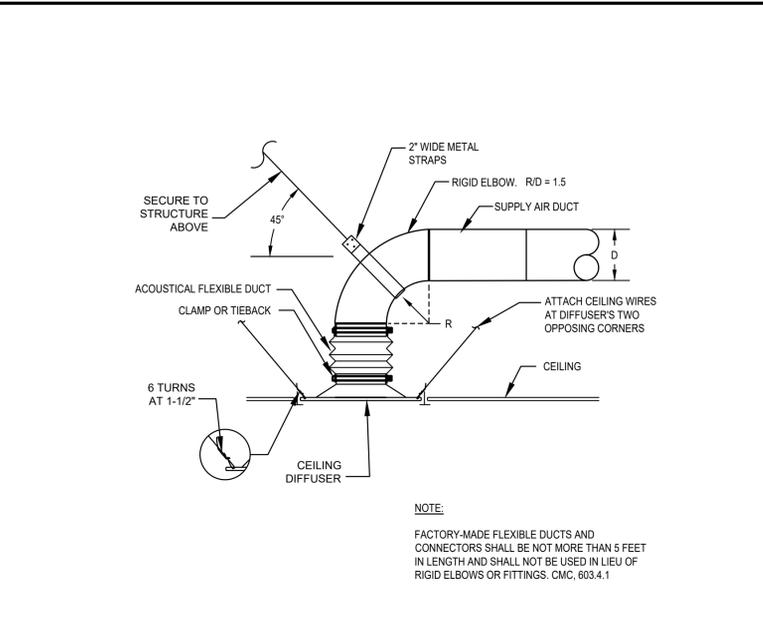
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DX PIPING THROUGH ROOF SCALE: NONE 12



DUCT THRU ROOF SCALE: NONE 9



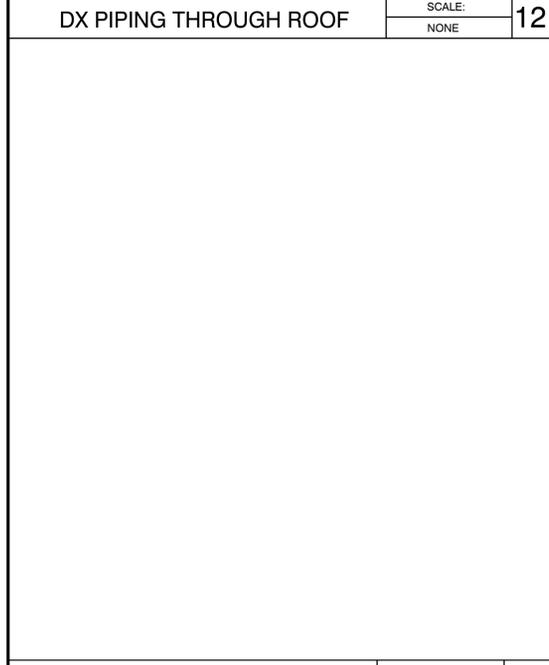
DIFFUSER DETAIL SCALE: NONE 6

DUCT CONSTRUCTION MINIMUM SHEET METAL THICKNESSES

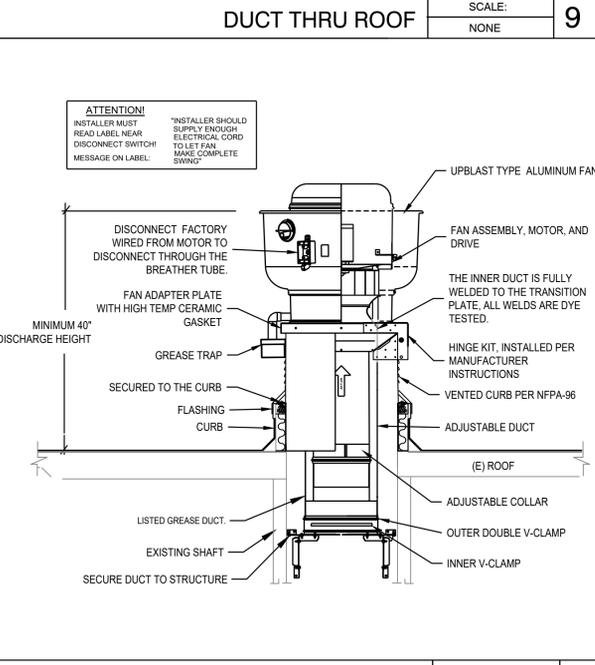
RECTANGULAR DUCTS		
MAXIMUM SIZE (INCHES)	STEEL (MINIMUM THICKNESS, NOMINAL)	ALUMINUM (MINIMUM THICKNESS, NOMINAL)
THROUGH 12	0.022 INCH (26 GAGE, GALV.)	0.020 INCH (NO. 24 B&S GAGE)
13 THROUGH 30	0.028 INCH (24 GAGE, GALV.)	0.025 INCH (NO. 22 B&S GAGE)
31 THROUGH 54	0.034 INCH (22 GAGE, GALV.)	0.032 INCH (NO. 20 B&S GAGE)
55 THROUGH 84	0.040 INCH (20 GAGE, GALV.)	0.040 INCH (NO. 18 B&S GAGE)
OVER 84	0.052 INCH (18 GAGE, GALV.)	0.051 INCH (NO. 16 B&S GAGE)

ROUND DUCTS			
MAXIMUM SIZE (INCHES)	SPIRAL SEAM DUCT	LONGITUDINAL SEAM DUCT	FITTINGS
	STEEL (MINIMUM THICKNESS, NOMINAL)	STEEL (MINIMUM THICKNESS, NOMINAL)	STEEL (MINIMUM THICKNESS, NOMINAL)
THROUGH 12	0.019 INCH (28 GAGE, GALV.)	0.022 INCH (26 GAGE, GALV.)	0.022 INCH (26 GAGE, GALV.)
13 THROUGH 18	0.022 INCH (26 GAGE, GALV.)	0.028 INCH (24 GAGE, GALV.)	0.028 INCH (24 GAGE, GALV.)
19 THROUGH 28	0.028 INCH (24 GAGE, GALV.)	0.034 INCH (22 GAGE, GALV.)	0.034 INCH (22 GAGE, GALV.)
29 THROUGH 36	0.034 INCH (22 GAGE, GALV.)	0.040 INCH (20 GAGE, GALV.)	0.040 INCH (20 GAGE, GALV.)
37 THROUGH 52	0.040 INCH (20 GAGE, GALV.)	0.052 INCH (18 GAGE, GALV.)	0.052 INCH (18 GAGE, GALV.)

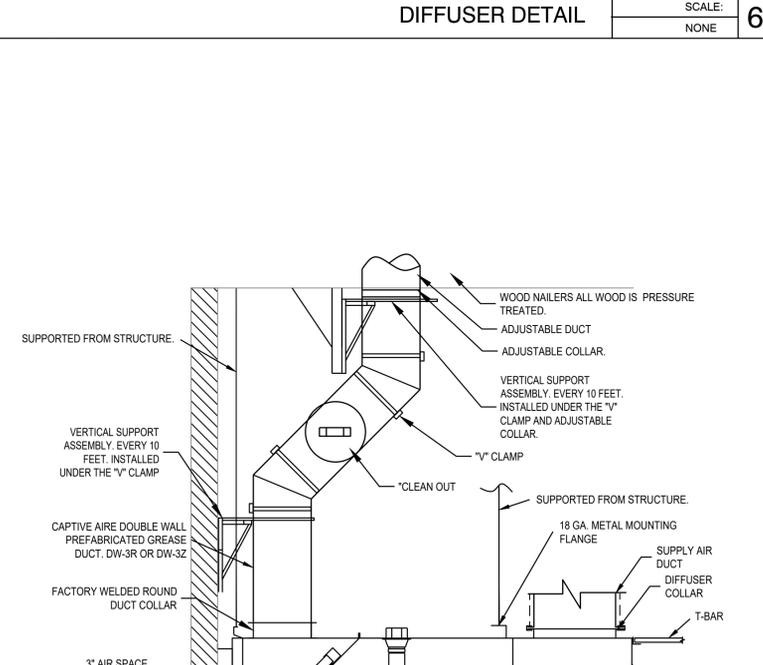
DUCT CONSTRUCTION MIN. SHEET METAL GA. SCALE: NONE 3



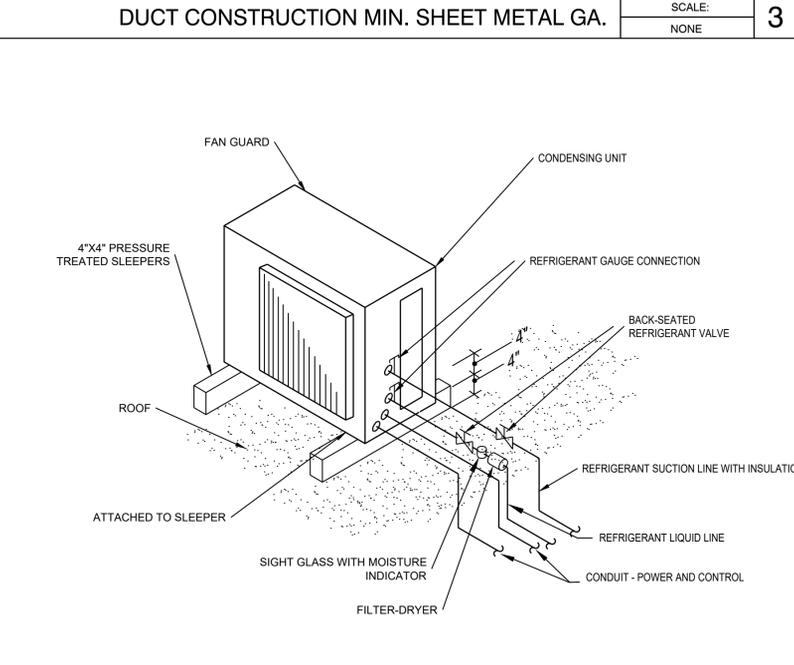
NOT USED SCALE: NONE 11



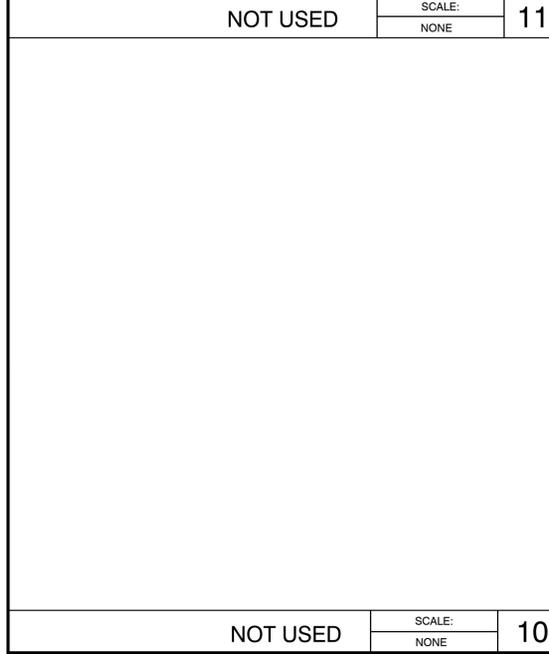
KITCHEN EXHAUST SCALE: NONE 8



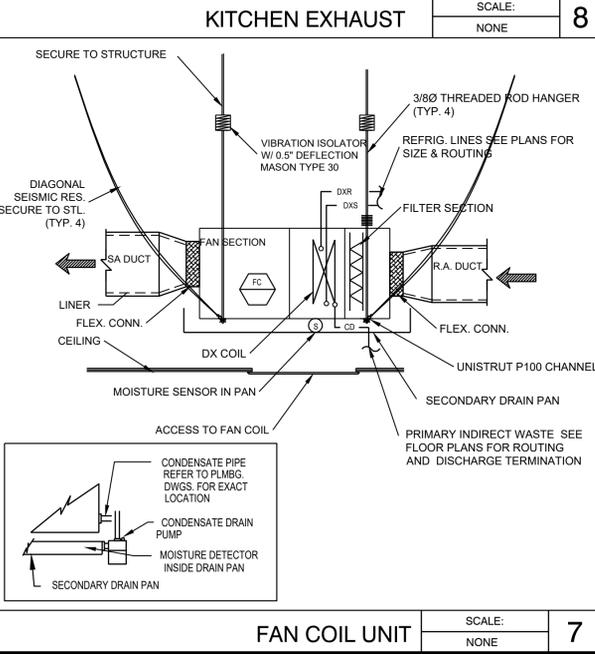
CEILING DIFFUSER DETAIL SCALE: NONE 4



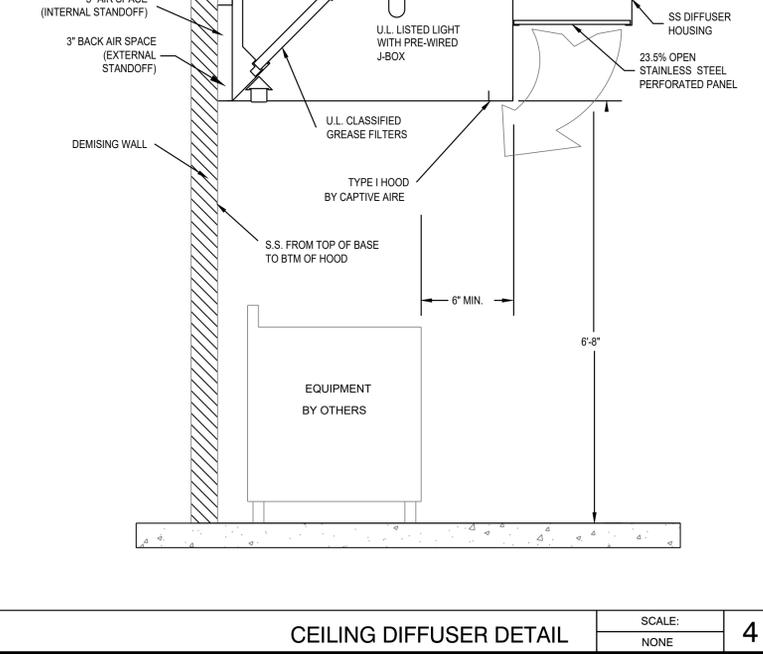
CONDENSING UNIT DETAIL SCALE: NONE 2



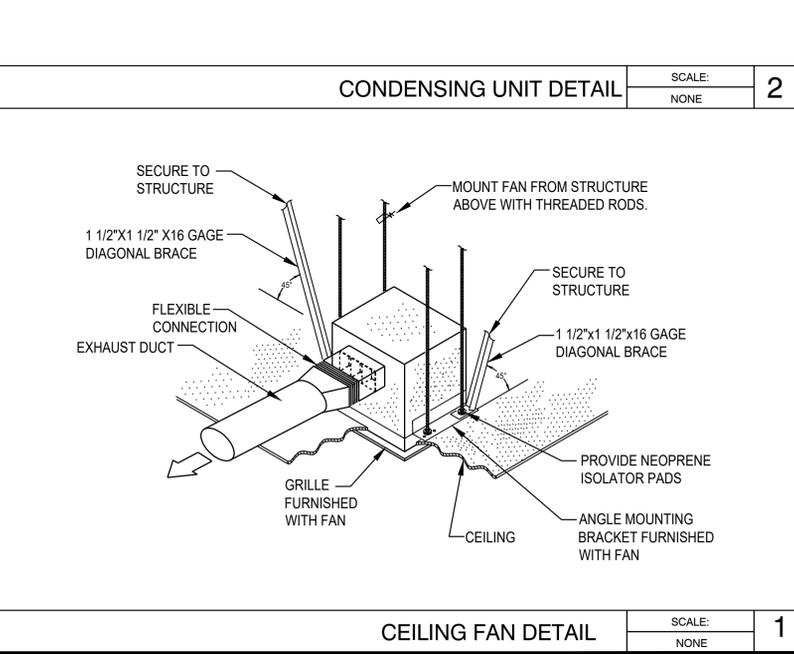
NOT USED SCALE: NONE 10



FAN COIL UNIT SCALE: NONE 7



CEILING DIFFUSER DETAIL SCALE: NONE 4



CEILING FAN DETAIL SCALE: NONE 1

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Date: 12/23/22
Drawn: HP
Sheet: M6.1

COLD WATER PIPING SIZING VELOCITY NOT TO EXCEED 8 FEET PER SECOND				
PIPE DIA	GPM	FT FIXT UNIT	FV FIXT UNIT	VELOCITY FPS
1/2"	5.1	6	--	7.0
3/4"	12.1	16	--	8.0
1"	20.6	30	--	8.0

HOT WATER PIPING SIZING VELOCITY NOT TO EXCEED 5 FEET PER SECOND				
PIPE DIA	GPM	FT FIXT UNIT	FV FIXT UNIT	VELOCITY FPS
1/2"	3.6	3	--	5.0
3/4"	7.5	8	--	5.0
1"	12.9	16	--	5.0

PIPING INSULATION SCHEDULE				
FLUID TEMPERATURE RANGE: 105-140(F)				
PIPE SIZE:	< 1"	1" TO <1.5"	1.5" TO <4"	
INSULATION THICKNESS	1.0"	1.5"	1.5"	
ALL INSULATION SHALL HAVE R VALUES OF 4.0 TO 4.6 PER INCH				

WATER HEATER SIZING				
BASED ON SANTA CLARA DEPARTMENT OF ENVIRONMENTAL HEALTH				
FIXT. ID	DESCRIPTION OF EQUIPMENT	QTY.	DEMAND (GPH)	TOTAL (GPH)
LV-1	LAVATORY	3	5	15
		TOTAL		15
HOT WATER DEMAND =		15	GPH	
DISHWASHER DEMAND =		0	GPH	
GLASS WASHER DEMAND =		0	GPH	
HOT WATER DEMAND (SUB-TOTAL) =		15	GPH	
USAGE FACTOR FOR FOOD SERVICE =		100	%	
TOTAL HOT WATER DEMAND =		15	GPH	
MINIMUM POWER FOR THE WATER HEATER				
FOR GAS WATER HEATER, MULTIPLY HOT WATER DEMAND BY 660 =		9900	BTU	
FOR ELECTRIC WATER HEATER, MULTIPLY HOT WATER DEMAND BY 0.15 =		2.3	KW	
HOT WATER HEATER RECOMMENDED =		2.5	KW	
6-GALLON STORAGE TANK				

WATER CALCULATIONS				
PIPE LENGTH FROM THE METER TO THE LAST FIXTURE =		125	FEET	
TOTAL DEVELOPED LENGTH =		125	X 1.3 LOSS FOR FITTING =	163 FEET
PRESSURE AT METER =		45	PSI	
TOTAL FIXTURE UNITS =		25	F.U.	= 17 GPM
LOSSES:				
RESIDUAL PRESSURE REQUIRE AT THE REMOTE FIXTURE =		8	PSI	
STATIC BUILDING LOSS (FIXTURE HEIGHT X 0.43) =		1.72	PSI	FIXT HEIGHT= 4 FEET
THROUGH WATER METER =		0	PSI	
THROUGH BACK FLOW PREVENTER =		0	PSI	
TOTAL PRESSURE LOSS =		9.72	PSI	
DIFFERENCE PRESSURE (STREET PRESSURE - TOTAL PRESSURE LOSS) =		35.28	PSI	
MAXIMUM PRESSURE ALLOWABLE PER 100 FEET OF PIPE				
(DIFFERENCE PRESSURE X 100) / TOTAL DEVELOPED LENGTH =		21.71	PSI	

WATER HEATER SIZING - IWH-1				
BASED ON SANTA CLARA DEPARTMENT OF ENVIRONMENTAL HEALTH GUIDELINES FOR SIZING TANKLESS WATER HEATERS				
FIXT. ID	DESCRIPTION OF EQUIPMENT	QTY.	DEMAND (GPM) @ 120°F	TOTAL (GPM)
SK-1	3-COMPARTMENT SINK	1	2	2
SK-2	PREP SINK	1	0.5	0.5
SK-3	HAND SINK	3	0.5	1.5
MS-1	MOP SINK	1	2	2
		TOTAL		6.0
TOTAL RECOMMENDED WATER HEATER: 6 GPM @ 60° F RISE				

GAS LOAD AND PIPE SIZING			
ID	DESCRIPTION	BTU/Hr	PIPE SIZE
1	BROILER, VERTICAL	50,000	3/4"
1	BROILER, VERTICAL	50,000	3/4"
1	BROILER, VERTICAL	50,000	3/4"
3	GRIDDLE, GAS	120,000	1"
4	CHARBROILER, GAS	60,000	3/4"
5	FRYER, DEEP FAT, GAS	120,000	1"
5	FRYER, DEEP FAT, GAS	120,000	1"
BRANCH TOTAL		570,000	2"
IWH-1		199,900	
BRANCH TOTAL		199,000	1-1/4"
(MAIN) TOTAL		769,000	2"
TOTAL LENGTH OF PIPE FROM THE GAS METER TO THE MOST REMOTE UNIT IS APPROX. (125 FEET) 1.3 X FOR ELBOWS = (163 FEET) (DEVELOPED LENGTH) (USE 175 COLUMN) NATURAL GAS WITH 0.60 SPECIFIC GRAVITY, PRESSURE DROP OF 0.5" WC, GAS PRESSURE INLET OF 0.25 PSI, 7" WC PRESSURE OUTLET			

GREASE TRAP SIZING FOR GI						
FLOW RATE = NUMBER OF COMP. X L x W x D / 231 x FILL FACTOR / DRAIN PERIOD						
	LENGTH (IN.)	WIDTH (IN.)	DEPTH (IN.)	BOWLS	LOAD (GAL)	TOTAL
MOP BASIN (SINK)	20	20	12	1	21	
PREP SINK	18	18	14	1	17	
TOTAL						38
ACTUAL DRAINAGE LOAD: GALLONS (75% OF ACTUAL FIXTURE CAPACITY)						46x0.75 = 28.50
3-COMPARTMENT SINK	18	18	11	3	47	
ACTUAL DRAINAGE LOAD: GALLONS (75% OF ACTUAL FIXTURE CAPACITY)						47x0.75 = 35.25
FLOW RATE FOR 2-MINUTE PERIOD						GPM MINIMUM FLOW RATE 35.25/2 = 17.75
FLOOR DRAIN(S) (2)						5X2 = 10
TOTAL						56.0
GPM MINIMUM FLOW RATE:						56.0
REQUIRES A "PDI" SIZE OF						GPM MINIMUM GREASE TRAP 75.0
SIZING METHOD WAS BASED ON THE PDI RECOMMENDED GREASE TRAP SIZING, CPC, TABLE 1014.2.1, CPC 2019						

PLUMBING FIXTURE SCHEDULE										
FIXTURE ID	DESCRIPTION	MANUFACTURER	MODEL	ROUGH-IN (inches)					REMARKS	
				w	v	CW	HW	G		
IWH-1	INSTANTANEOUS GAS WATER HEATER	TAKAGI	T-H3-DV-N	-	-	3/4	3/4	3/4		15,000-199,000 BTU/HR GAS INPUT 6.2 GPM AT 60°F RISE. ULTRA LOW NOX. CONDENSATE DRAIN, INDIRECT INTO MOP SINK. PROVIDE 3" FLUE & INTAKE PIPES. IT NEEDS 120VAC, 1.4 AMPS. COORDINATE WITH ELECTRICAL CONTRACTOR. PROVIDE ISOLATION VALVES.
EW-1	ELECTRIC WATER HEATER	A.O. SMITH	DEL-6	-	-	1/2	1/2	-		COMMERCIAL APPLICATION ELECTRIC TANK WATER HEATER, 208 V, SINGLE PHASE, 2.5 KW, 17 GPM@ 60 DEG. F TEMP., RISE.
WC-1	WATER CLOSET	AMERICAN STANDARD	CADET 3 FLOWISE 2835.	3	2	1/2	-	-		FLOOR MOUNT, ELONGATED, WHITE, 1.28 GPF, HET SUPPLY WITH STOP, RIGHT-HAND TRIP LEVER WITH OLSONITE 95C WHITE OPEN FRONT SEAT LESS COVER
LV-1	LAVATORY	AMERICAN STANDARD	LUCERNE 0355.012	1-1/2	1-1/2	1/2	1/2	-		WALL MOUNTED, WHITE VITREOUS CHINA, 4" ON CENTER FAUCET HOLES, CONCEALED ARMS SUPPORT, BATTERY POWERED FAUCET ZURN, MODEL NUMBER Z6915-XL, 0.5 GPM, VANDAL RESISTANT LAMINAR FLOW HARDWARE POWER CONVERTER, P6000-HW6 GRID DRAIN, WITH TRUEBRO LAVGUARD 102
WHA-1	WATER HAMMER ARRESTOR	MIFAB	MWH-A	-	-	1/2	-	-		1-11 FU, 1/2" MPT CONNECTION
FS-1	FLOOR SINK	ZURN	Z415D	SEE PLANS	2	-	-	-		12" X 12" RECEPTOR 6" SUMP DEPTH, WITH HALF GRATE
FS-2	FLOOR SINK	ZURN	Z415D	SEE PLANS	2	-	-	-		8" X 8" RECEPTOR 6" SUMP DEPTH, WITH HALF GRATE
ET-1	EXPANSION TANK	AMTROL	ST-5-C	-	-	3/4	-	-		2.0 GALLON CAPACITY, 0.45 ACCEPTANCE FACTOR 10 LBS TOTAL OPER. WT.
FCO-1	FLOOR CLEANOUT	ZURN	ZN-1400	SAME AS PIPE	-	-	-	-		SAME AS PIPE, BRONZE COVER
WCO-1	WALL CLEANOUT	ZURN	ZN-1468	SAME AS PIPE	-	-	-	-		SAME AS PIPE, POLISHED BRONZE
MV-1	MIXING VALVE	WILKINS	ZW3870XLT	-	-	1/2	-	-		SET OUTLET TEMPERATURE TO 110°F MAXIMUM, TO BE MOUNTED
RPZ-1	REDUCED PRESSURE ZONE ASSEMBLY	WATTS	SERIES 009	-	-	1/2	-	-		BRONZE BODY, DOUBLE CHECK VALVE AND DRAIN CONNECTION.
F-1	WATER FILTER	MANITOWOCK	ARCTIC PURE AR-40000	-	-	1/2	-	-		LONG FILTER HOUSINGS, 1/2" INLET/OUTLET WITH SEDIMENT AND CARBON CARTRIDGE FILTERS MOUNT 5FT ABOVE FINISHED FLOOR
MS-1	MOP SINK	SELECT STAINLESS	MS-2020 -12	3	2	1/2	1/2			FLOOR MOUNT, 24"x24"x12" DEEP WITH WALL MOUNT DELTA FAUCET # 28T9, 8" CENTERS, 2 HANDLES, INTEGRAL STOPS, VACUUM BREAKER, HOSE-END SPOUT, WALL BRACE
FD-1	FLOOR DRAIN	ZURN	ZS-890	SEE PLANS	-	-	-	-		TYPE-B STRAINER, NICKEL BRONZE, DURA-COATED CAST IRON, NO-HUB WITH 1/2" TRAP PRIMER CONNECTION.
TP-1	TRAP PRIMER	PRECISION PLUMBING PRODUCTS	P2 500	-	-	1/2	-	-		CORROSION RESISTANT, INSTALL AT LEAST 12" ABOVE THE TRAP TO INSURE PROPER FLOW, 1/2" MALE INLET, 1/2" FEMALE OUTLET PROVIDE AND INSTALL ACCESS PANEL
AMERICAN STANDARD, ZURN, KOHLER, GROUNDUFUS OR APPROVED EQUAL										

PLUMBING FIXTURE LOAD CALCULATION									
KITCHEN ITEM NUMBER	FIXTURE ID	DESCRIPTION	QUANTITY	SANITARY F.U.		WATER F.U. COLD		WATER F.U. HOT	
				EACH	TOTAL	EACH	TOTAL	EACH	TOTAL
15	SK-1	3-COMPARTMENT SINK	1	3	3	3	3	3	3
14	SK-2	PREP-SINK	1	2	2	2	2	2	2
13	SK-3	HAND SINK	3	3	9	1	3	1	3
16	MS	MOP SINK	1	3	3	3	3	3	3
11.1	ICE MAKER	ICE MAKER	1	1	1	0.5	0.5	0	0.0
	LV-1	LAVATORY	2	1	2	1	2	1	2
	WC-1	WATER CLOSET	2	4	8	2.5	5.0	0	0
	FS-1	FLOOR SINK	1	1	1	0	0.0	0	0
	FD-1	FLOOR DRAIN	2	1	2	-	-	-	-
TOTAL				31		18.5		13.0	

UTILITY LOAD			
COLD WATER FIXTURES UNITS =		18.5	
HOT WATER FIXTURES UNITS =		13	
SANITARY SEWER	3"	31 FU	
COLD WATER	1"	(13CW + 13HW) X 0.75 + 5 = 24.5 FU = 17.0 GPM	
PROVIDE NEW 1" CW. CONNECT TO EXISTING WATER LINE			
PROVIDE NEW 3" AND CONNECT TO EXISTING 4" SEWER LINE			

PLUMBING FIXTURE BY OTHERS (SHOWN FOR REFERENCE)								
KITCHEN ITEM	FIXTURE ID	DESCRIPTION	MANUFACTURER MODEL	ROUGH-IN				REMARKS
				W	V	CW	HW	
14	SK-2	PREP SINK W/DRAINBOARD	SEE A-2 DRAWING	2"	1-1/2"	1/2"	1/2"	COORDINATE WITH OWNER FOR FAUCET REQUIREMENTS FAUCET WITH 1.5 GPM AERATOR
15	SK-1	3-COMP SINK	SEE A-2 DRAWING	3"	2"	1/2"	1/2"	PREP SINK 3 TUB WITH DRAIN BOARDS FAUCETS 1.8 GPM FLOW RATE AERATOR
13	SK-3	HAND SINK	SEE A-2 DRAWING	2"	1-1/2"	1/2"	1/2"	WITH CHICAGO 4" CENTERS SWING GOOSENECK SPOUT AND 0.5 AERATOR.

PLUMBING LEGEND		
SYMBOL	ABBREVIATION	DESCRIPTION
---	CW	COLD WATER PIPING
----	HW	HOT WATER PIPING
-----	HWR	HOT WATER RETURN PIPING
-----TW-----	TW	TEMPERED WATER PIPING
-----S OR W-----	S OR W	SOIL OR WASTE PIPING
-----V-----	V	VENT PIPING
G	G	NATURAL GAS (LOW PRESSURE) PIPING
CD	CD	CONDENSATE DRAIN PIPING
D	D	INDIRECT DRAIN PIPING
WHA	WHA	WATER HAMMER ARRESTOR
P.O.C.	P.O.C.	POINT-OF-CONNECTION
CAPPED UNION		CAPPED UNION
UP	UP	PIPE UP
DN	DN	PIPE DOWN
DN	DN	PIPE TEE DOWN
BV	BV	BALL VALVE
CV	CV	CHECK VALVE
PUMP		PUMP
FCO	FCO	FLOOR CLEANOUT
WCO	WCO	WALL CLEANOUT
AG	AG	GAS COCK WITH UNION ABOVE GROUND
AFF	AFF	ABOVE FINISHED FLOOR
BG	BG	BELOW GROUND
(E)	(E)	EXISTING
IE	IE	INVERT ELEVATION
(N)	(N)	NEW
QTY.	QTY.	QUANTITY
V.T.R.	V.T.R.	VENT THRU ROOF

PIPE MATERIAL SPECIFICATIONS									
SERVICES	CAST IRON NO-HUB	GALV. STEEL SCH 40	BLACK STEEL SCH 40	TYPE M COPPER	TYPE L COPPER	TYPE K COPPER	ABS	PVC	REMARKS
COLD WATER									5
HOT WATER									4 5
WASTE									1 4 5
VENT									1 2 5
INDIRECT WASTE									1 2 5
CONDENSATE DRAIN									4 5
NATURAL GAS									5
1. FIELD VERIFY IF ABS DWV PLASTIC IS ALLOWED BY LOCAL AHJ PRIOR TO SUBSTITUTION. 2. PROTECT PIPING WITH APPROVED POLY WRAP OR PVC 10 MIL PIPE TAPE. 3. COATED WITH YELLOW ANTI-RUST PAINT. 4. INSULATED. 5. FOR PLENUM RETURN ONLY, ALL PIPING WITHIN PLENUM TO BE FIRE RATED APPROVED INSULATION.									

FIXTURE FLOW RATES (2019 CALIFORNIA GREEN BUILDING STANDARDS CODE)	
FIXTURE TYPE	FLOW RATE
SHOWERHEADS	1.8 GPM @60 PSI
LAVATORY FAUCETS - NONRESIDENTIAL	0.5 GPM @60 PSI
KITCHEN FAUCETS	1.8 GPM @60 PSI
WASH FOUNTAINS	1.8 GPM (RIM SPACE (IN) @60 PSI)
METERING FAUCETS	0.20 GALLONS PER CYCLE
METERING FAUCETS FOR WASH FOUNTAINS	20 G/CYCLE (RIM SPACE (IN) @60 PSI)
GRAVITY TANK TYPE WATER CLOSETS	1.28 GALLONS/FLUSH
FLUSHOMETER TANK WATER CLOSETS	1.28 GALLONS/FLUSH
FLUSHOMETER VALVE WATER CLOSETS	1.28 GALLONS/FLUSH
ELECTROMECHANICAL HYDRAULIC WATER CLOSETS	1.28 GALLONS/FLUSH
URINALS	0.125 GALLONS/FLUSH
1. THE EFFECTIVE FLUSH VOLUME OF ALL WATER CLOSETS SHALL NOT EXCEED 1.28 GALLONS PER FLUSH. TANK TYPE WATER CLOSETS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATER SENSE SPECIFICATION FOR TANK-TYPE TOILETS. NOTE: THE EFFECTIVE FLUSH VOLUME OF DUAL FLUSH TOILETS IS DEFINED AS THE COMPOSITE, AVERAGE FLUSH VOLUME OF TWO REDUCE FLUSHES AND ONE FULL FLUSH.	

SHEET INDEX	
SHEET NO.	DESCRIPTION
P0.1	FIXTURES, SCHEDULES AND CALCULATIONS
P0.2	GENERAL NOTES AND SPECIFICATIONS
P2.0	FLOOR PLANS - WASTE, VENT, WATER & GAS SUPPLY
P4.1	PLUMBING DETAILS

REV.	DATE	NO.



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Date:	12/23/22
Drawn:	HP
Sheet:	

P0.1

SEISMIC RESTRAINTS GUIDELINES FOR PIPING

1. ALL SEISMIC RESTRAINTS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S SEISMIC RESTRAINT GUIDELINES MANUAL AND ALL CERTIFIED SUBMITTAL DATA.
2. TRANSVERSE BRACE SPACING SHALL NOT EXCEED 50 FEET UP TO 0.25g, 40 FEET UP TO 1.0g, AND 20 FEET UP TO 2.0g FOR STEEL AND COPPER PIPE WITH WELDED OR BRAZED CONNECTIONS. LONGITUDINAL SPACING SHALL NOT EXCEED 80 FEET UP TO 1.0g, AND 40 FEET UP TO 2.0g FOR STEEL AND COPPER PIPE WITH WELDED OR BRAZED CONNECTIONS.
3. STEEL AND COPPER PIPE WITH SCREWED CONNECTIONS BRACE SPACING SHALL NOT EXCEED 1/2 THE SPACING LISTED IN NOTE 2 GUIDELINES. FOR PVC, PVDF, FRP, AND OTHER SPECIALTY PIPING, BRACE SPACINGS SHALL NOT EXCEED 1/2 THE SPACINGS LISTED IN NOTE 2. ALL PIPE MUST BE CONSIDERED FULL OF WATER WHEN DETERMINING SEISMIC BRACE REQUIREMENTS UNLESS SPECIFICALLY ENGINEERED OTHERWISE.
4. TRANSVERSE RESTRAINT FOR ONE PIPE SECTION MAY ALSO ACT AS A LONGITUDINAL RESTRAINT FOR A PIPE SECTION OF THE SAME SIZE CONNECTED PERPENDICULAR TO IT IF THE RESTRAINT IS INSTALLED WITHIN 24-INCHES OF THE ELBOW OR TEE OR COMBINED STRESSES ARE WITHIN ALLOWABLE LIMITS AT LONGER DISTANCES.
5. HOLD DOWN CLAMPS MUST BE USED TO ATTACH PIPE TO ALL TRAPEZE MEMBERS BEFORE APPLYING RESTRAINTS.
6. BRANCH LINES MAY NOT BE USED TO RESTRAINT MAIN LINES.
7. PROVIDE REINFORCED CLEVIS BOLTS WHEN REQUIRED.
8. PIPING CROSSING BUILDING SEISMIC OR EXPANSION JOINTS, PASSING FROM BUILDING TO BUILDING, OR SUPPORTED FROM DIFFERENT PORTIONS OF THE BUILDING SHALL BE INSTALLED TO ALLOW DIFFERENTIAL SUPPORT DISPLACEMENTS WITHOUT DAMAGING THE PIPE, EQUIPMENT CONNECTIONS, OR SUPPORT CONNECTIONS. PIPE OFFSETS, LOOPS, ANCHORS, AND GUIDES SHALL BE INSTALLED AS REQUIRED TO PROVIDE SPECIFIED MOTION CAPABILITY AND LIMIT MOTION OF ADJACENT PIPING.
9. PROVIDE APPROPRIATELY SIZED OPENINGS IN WALLS, FLOORS, AND CEILINGS FOR ANTICIPATED SEISMIC MOVEMENT. PROVIDE FIRE SEAL SYSTEMS IN FIRE-RATED WALLS.
10. GAS PIPING LESS THAN 1" I.D. NEED NOT BE BRACED.
11. WHERE RIGIDLY SUPPORTED PIPES ARE CONNECTED TO EQUIPMENT WITH VIBRATION ISOLATION, THOSE CONNECTIONS MUST BE CAPABLE OF ACCOMMODATING SEISMIC DISPLACEMENTS. CONVERSELY, WHEN SMALLER UNSUPPORTED PIPES ARE CONNECTED TO RIGIDLY SUPPORTED EQUIPMENT, (i.e., COILS, etc.), THOSE JOINTS MUST BE CAPABLE OF ACCOMMODATING MOVEMENT OF THE PIPES.
12. RIGID PIPING SYSTEMS MAY NOT BE BRACED TO DISSIMILAR PARTS OF THE BUILDING OR TO DISSIMILAR BUILDING SYSTEMS WHICH MAY RESPOND DIFFERENTLY DURING AN EARTHQUAKE. DO NOT BRACE A SYSTEM TO TWO INDEPENDENT STRUCTURES SUCH AS CEILING AND WALL.
13. SEISMICALLY RESTRAIN ALL FUEL OIL PIPING, GAS PIPING, MEDICAL GAS PIPING, AND COMPRESSED AIR PIPING FOR FUEL OIL AND ALL GAS PIPING THAT IS 1" I.D. OR LARGER. TRANSVERSE RESTRAINTS MUST BE AT 20' MAXIMUM AND LONGITUDINAL RESTRAINTS AT 40' MAXIMUM SPACING.
14. PIPING LOCATED IN BOILER ROOMS, MECHANICAL EQUIPMENT ROOMS, AND REFRIGERATION EQUIPMENT ROOMS THAT IS 1-1/4" I.D. AND LARGER MUST BE SEISMICALLY RESTRAINED.
15. ALL OTHER PIPING 2-1/2" DIAMETER AND LARGER MUST BE SEISMICALLY RESTRAINED.
16. SEISMIC RESTRAINTS MAY NOT BE USED FOR ALL PIPING SUSPENDED BY INDIVIDUAL HANGERS 12" OR LESS AS MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE SUPPORT WHERE THE HANGER IS ATTACHED. HOWEVER, IF THE 12" LIMIT IS EXCEEDED BY ANY HANGER IN THE RUN, SEISMIC BRACING IS REQUIRED FOR THE RUN.
17. THE 12" EXEMPTION APPLIES FOR TRAPEZE SUPPORTED SYSTEMS IF THE TOP OF EACH ITEM SUPPORTED BY THE TRAPEZE QUALIFIES.
18. WHERE THERMAL EXPANSION IS A CONSIDERATION, GUIDES AND ANCHORS MAY BE USED AS TRANSVERSE AND LONGITUDINAL RESTRAINTS PROVIDED THEY HAVE A CAPACITY EQUAL TO OR GREATER THAN THE RESTRAINT LOADS IN ADDITION TO THE LOADS INDUCED BY EXPANSION OR CONTRACTION.
19. STEEL STRUTS SHALL BE 1-5/8" WIDE IN VARYING HEIGHTS AND MIG-WELDED COMBINATIONS AS REQUIRED TO MEET LOAD CAPACITIES AND DESIGNS INDICATED. A MATERIAL HEAT CODE, PART NUMBER, AND MANUFACTURER'S NAME SHALL BE STAMPED ON ALL STRUT AND FITTINGS TO MAINTAIN TRACEABILITY TO MATERIAL TEST REPORTS.
20. SEISMIC RETRAINTS FOR PIPING SYSTEMS SHALL WITHSTAND A LATERAL FORCE EQUAL TO 50% OF THE WEIGHT OF THE PIPING SYSTEM AND ITS CONTENTS. SEISMIC BRACING SHALL CONFORM TO THE CURRENT ADOPTED EDITION OF THE CALIFORNIA BUILDING CODE AND THE ADMINISTRATIVE CODE, AND SHALL BE INSTALLED IN ACCORDANCE WITH SMACNA GUIDELINES FOR SEISMIC RESTRAINT, LATEST EDITION.
21. SPECIAL PIPE HANGER AND SUPPORT PROVISIONS REQUIRED FOR CONTROL OF PIPE EXPANSION, VIBRATION, AND SOUND TRANSMISSION IN CERTAIN PIPING SHALL BE DONE IN ACCORDANCE WITH GOOD SOUND ATTENUATION PRACTICE.
22. SUPPORT CHANNELS, FRAMES, BRACKETS, AND LEGS OF SPECIAL SUPPORTS SHALL BE OF UNISTRUT, SUPERSTRUT, OR ACCEPTED EQUAL, WITH CHANNELS, ATTACHING CLIPS, PIPE CLAMPS, AND OTHER REQUIRED ACCESSORIES.
23. PLASTIC PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH CODE REQUIREMENTS (REVIEW WITH JURISDICTION). SHIMS SHALL BE PROVIDED TO PREVENT PIPE SAG BETWEEN FITTINGS.
24. SPACING OF TRAPEZE HANGERS SHALL BE DETERMINED BY THE SMALLEST PIPE ON THE TRAPEZE. SIZES OF RODS FOR TRAPEZES SHALL BE GOVERNED BY THE LARGEST PIPE ON THE TRAPEZE.
25. TRAPEZE HANGERS SHALL NOT BE LIGHTER THAN 16 GAUGE AND, WHEN EXPOSED TO WEATHER, NOT LIGHTER THAN 12 GAUGE. PIPING THAT RUNS IN PARTITIONS AND IS NOT SUPPORTED FROM CEILING OR FLOOR SHALL BE SECURELY AND INDEPENDENTLY FASTENED TO THE PARTITION MEMBERS WITH CLAMPS OR BRACKETS.
26. LATERAL MOTION OF PIPING WILL NOT CAUSE DAMAGING IMPACT WITH SURROUNDING SYSTEMS (e.g. OTHER PIPE, DUCT, EQUIPMENT, SPRINKLER HEADS, etc.) OR CAUSE LOSS OF SYSTEM VERTICAL SUPPORT.
27. VERTICAL SUPPORT CONNECTIONS CANNOT DEVELOP MOMENTS (e.g. SWIVEL JOINTS, EYE BOLTS, VIBRATION ISOLATION HANGERS, etc.).
28. VERTICAL CAST IRON RISERS ATTACHED WITH SHIELD AND CLAMP ASSEMBLIES MUST BE STIFFENED AT THE CONNECTION POINTS OF ANY UNSUPPORTED SECTION OF PIPE.
29. VERTICAL RISERS IN AN OPEN SHAFT MUST BE ATTACHED TO THE SUPPORTS WITH CONNECTIONS SIZED TO ACCEPT THE HORIZONTAL SEISMIC LOADS.
30. WHERE EARTHQUAKE LOADS ARE APPLICABLE IN ACCORDANCE WITH THE BUILDING CODE, PLUMBING PIPING SUPPORTS SHALL BE DESIGNED AND INSTALLED FOR THE SEISMIC FORCES IN ACCORDANCE WITH THE BUILDING CODE.
31. HANGERS, ANCHORS AND SUPPORTS SHALL SUPPORT THE PIPING AND THE CONTENTS OF THE PIPING. HANGERS AND STRAPPING MATERIAL SHALL BE OF APPROVED MATERIAL THAT WILL NOT PROMOTE GALVANIC ACTION. HANGERS AND ANCHORS SHALL BE ATTACHED TO THE BUILDING CONSTRUCTION IN AN APPROVED MANNER.
32. RIGID SUPPORT SWAY BRACING SHALL BE PROVIDED AT CHANGES IN DIRECTION GREATER THAN 45 DEGREES FOR PIPE SIZES 4 INCHES AND LARGER.
33. ANCHORAGE SHALL BE PROVIDED TO RESTRAIN DRAINAGE PIPING FROM AXIAL MOVEMENT.
34. FOR PIPE SIZES GREATER THAN 4 INCHES, RESTRAINTS SHALL BE PROVIDED FOR DRAIN PIPES AT ALL CHANGES IN DIRECTION AND AT ALL CHANGES IN DIAMETER GREATER THAN 2 PIPE SIZES.

PLUMBING SPECIFICATIONS

1. GENERAL PROVISIONS - THE GENERAL CONDITIONS, SUPPLEMENTS AND AMENDMENTS SHALL GOVERN THIS DIVISION OF THE SPECIFICATIONS.
2. PROJECT REQUIREMENTS - PROVIDE ALL ITEMS, MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THE WORK OR OPERATIONS MENTIONED HEREIN, OR INDICATED ON THE DRAWINGS AND REASONABLY INFERRED THEREIN, AS REQUIRED TO MAKE A COMPLETE AND WORKING SYSTEM.
3. INTENT - WORK SHALL BE DONE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS AND THEIR INTENT, COMPLETE WITH ALL NECESSARY COMPONENTS, INCLUDING THOSE NOT NORMALLY SHOWN OR CALLED FOR, AND SHALL BE READY FOR OPERATION BEFORE ACCEPTANCE.
4. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE CODES. NOTHING SHOWN IN THE PLANS OR STATED IN THE SPECIFICATIONS IS INTENDED TO INDICATE THAT THE INSTALLATION OR CONNECTIONS OF ANY ITEM OR DEVICE SHOULD BE DONE CONTRARY TO MANUFACTURERS INSTRUCTIONS AND ALL APPLICABLE CODES AND REGULATIONS. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE INSTALLATION AND CONNECTIONS OF ALL ITEMS AND DEVICES CONFORMS TO MANUFACTURERS INSTRUCTIONS AND TO ALL APPLICABLE CODES AND REGULATIONS.
5. ANY REFERENCE TO THE DESIGN AUTHORITY SHALL MEAN GAMA DRAFTING AND ENGINEERING.
6. THE WORK "PROVIDE" SHALL MEAN "SUPPLY AND INSTALL" UNLESS OTHERWISE INDICATED.
7. GOVERNING REGULATIONS - THE WORK UNDER PLUMBING SCOPE OF WORK, SHALL CONFORM, BUT NOT LIMITED TO THE REQUIREMENTS OF THE FOLLOWING CODES, REGULATIONS AND STANDARDS:
 - A. 2019 EDITIONS OF THE CALIFORNIA BUILDING CODE, INCLUDING BUT NOT LIMITED TO THE MECHANICAL, PLUMBING, FIRE AND ENERGY CODES.
 - B. OSHA REGULATIONS
8. PERMITS - OBTAIN ALL REQUIRED PERMITS AND PAY ALL FEES THEREFORE AND COMPLY WITH ALL LOCAL AND STATE REGULATIONS, CODES AND BY-LAWS APPLICABLE TO THE WORK.
9. RESPONSIBILITY - VISIT THE SITE BEFORE SUBMITTING A BID AND EXAMINE ALL LOCAL AND EXISTING CONDITIONS ON WHICH THE WORK IS DEPENDENT.
10. NO CONSIDERATION WILL BE GRANTED FOR ANY MISUNDERSTANDING OF WORK TO BE DONE RESULTING FROM FAILURE TO VISIT THE SITE.
11. WHEN THE CONTRACT DOCUMENTS DO NOT CONTAIN SUFFICIENT INFORMATION FOR THE PROPER SELECTION OF EQUIPMENT FOR BIDDING, NOTIFY THE DESIGN AUTHORITY DURING THE BIDDING PERIOD. IF CLARIFICATION CANNOT BE OBTAINED, ALLOW FOR THE MOST EXPENSIVE ARRANGEMENT. FAILURE TO DO THIS SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO SUPPLY THE INTENDED EQUIPMENT AND OR INSTALLATION.
12. CHECK DRAWINGS OF ALL TRADES AND SITE SURVEY TO VERIFY SPACE AVAILABILITY FOR THE INSTALLATION. COORDINATE WORK WITH ALL TRADES AND MAKE CHANGES TO FACILITATE SATISFACTORY INSTALLATION. MAKE NO DEVIATIONS TO THE DESIGN INTENT INVOLVING EXTRA COST TO THE OWNER WITHOUT DESIGN AUTHORITY WRITTEN APPROVAL.
13. WORKMANSHIP - WORKMANSHIP SHALL BE IN ACCORDANCE WITH WELL ESTABLISHED PRACTICE AND STANDARDS ACCEPTED AND RECOGNIZED BY DESIGN AUTHORITY AND THE TRADE.
14. EMPLOY ONLY TRADESMEN HOLDING VALID TRADE QUALIFICATION CERTIFICATES. TRADESMEN SHALL PERFORM ONLY WORK THAT THEIR CERTIFICATE PERMITS.
15. DRAWING AND MEASUREMENTS - DRAWINGS ARE GENERALLY DIAGRAMMATIC AND ARE INTENDED TO INDICATE THE SCOPE AND GENERAL ARRANGEMENT OF WORK. DO NOT SCALE DRAWINGS.
16. TAKE FIELD MEASUREMENTS WHERE EQUIPMENT AND MATERIAL DIMENSIONS ARE DEPENDENT UPON BUILDING DIMENSIONS.
17. SUBMITTALS - SUBMIT THREE SETS OF ALL EQUIPMENT AND RELATED MATERIAL FOR APPROVAL PRIOR TO ORDERING.
18. RECORD DRAWINGS - MAINTAIN ONE CONTRACT DRAWING, WHITE PRINT, ON SITE, SOLELY FOR THE PURPOSE OF RECORDING, IN RED, ANY CHANGES AND/OR DEVIATION FROM THE CONTRACT DRAWINGS AS IT OCCURS.
19. AT THE COMPLETION OF THE PROJECT, CERTIFY THE ABOVE-MENTIONED DRAWINGS AS BEING ACCURATE AND COMPLETE BY LABELING IN THE LOWER RIGHT HAND CORNER IN LETTERS OF AT LEAST 1/2" INCH HIGH AS FOLLOWS: "AS-BUILT DRAWINGS, DATED ---". DELIVER TO DESIGN AUTHORITY.
20. OPERATING AND MAINTENANCE MANUALS - PREPARE INSTRUCTION MANUALS WHICH INCLUDE EQUIPMENT MANUFACTURER'S OPERATING AND MAINTENANCE BULLETINS, AND A REPORT ON THE TESTING AND BALANCING. SUBMIT THREE (3) COPIES TO DESIGN AUTHORITY.
21. EXISTING SERVICES - PROTECT ALL EXISTING SERVICES AND MAKE GOOD ANY DAMAGE CAUSED BY THE WORK IN THIS CONTRACT.
22. CLEAN UP - MAKE GOOD AND CLEAN ALL AREAS DISRUPTED BY THIS WORK.
23. ARRANGEMENT AND ALIGNMENT OF PIPING:
 - A. PIPING SHALL BE GROUPED (WHEREVER PRACTICAL) INSTALLED IN STRAIGHT PARALLEL LINES ALIGNED IN A UNIFORM DIRECT MANNER. CHANGES IN DIRECTION OF PIPING SHALL BE MADE WITH FITTINGS.
 - B. PIPE LINES SHALL BE GUIDED, SUPPORTED AND ANCHORED IN SUCH MANNER THAT PIPE LINES SHALL NOT SAG OR BUCKLE.
24. JOINTS:
 - A. PIPING TO EQUIPMENT SHALL BE CONNECTED WITH UNION FOR DISMANTLING AND REMOVAL.
 - B. PIPING SHALL BE REAMED AFTER CUTTING. JOINTS WHEN COMPLETE SHALL BE THOROUGHLY CLEANED OF ALL EXCESS PIPE JOINT MATERIALS.
 - C. PROVIDE DIELECTRIC FITTINGS BETWEEN DISSIMILAR PIPING CONNECTIONS.
25. HANGERS AND SUPPORTS:
 - A. PIPING EQUIPMENT, ETC., SHALL BE PROPERLY SUPPORTED WITH THE USE OF APPROVED TYPE CLEVIS AND/OR TRAPEZE HANGERS SPACED 5'-0" ON CENTERS FOR CAST IRON PIPING AND 8'0" ON CENTERS FOR WATER PIPING.
 - B. PIPING AND EQUIPMENT SHALL BE SUPPORTED FROM WALLS, JOISTS OR STRUCTURAL STEEL GIRDERS ONLY.
26. PLUMBING FIXTURES:
 - A. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL FIXTURES INCLUDED IN THE CONTRACT FROM DAMAGE CAUSED BY ACIDS, BUILDING MATERIALS, TOOLS, EQUIPMENT, ETC. UPON COMPLETION OF THE CONTRACT, OR WHEN DIRECTED, PLUMBING CONTRACTOR SHALL CLEAN ALL FIXTURES TO THE SATISFACTION OF THE DESIGN AUTHORITY.
 - B. WHERE FIXTURES ARE DAMAGED, SAID FIXTURES SHALL BE REPLACED BY THE PLUMBING CONTRACTOR IMMEDIATELY UPON NOTIFICATION.
 - C. ALL EQUIPMENT FURNISHED BY OWNERS THAT REQUIRE PLUMBING CONNECTION SHALL BE INSTALLED BY THE PLUMBING CONTRACTOR. PROVIDE SHUT-OFF VALVE ON WATER SUPPLY WERE REQUIRED BY CODE.
 - D. EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTION.
 - E. FIXTURES SHALL BE SECURED WITH MOUNTING BOLTS FROM CARRIERS OR HANGERS.
 - F. FIXTURES SHALL BE INSTALLED LEVEL, PLUMB.
 - G. FITTINGS SHALL BE NEATLY INSTALLED, MOUNTED TO FIXTURES PRIOR TO INSTALLATION OF FIXTURES. PROVIDE NON-HARDENING PUTTY BETWEEN FITTINGS AND FIXTURE SURFACES.
 - H. FITTINGS SHALL BE SECURED WITHOUT MARRING OR DAMAGING CHROME PLATING.
27. INSULATION:
 - A. DOMESTIC HOT AND COLD WATER PIPING SHALL BE INSULATED WITH 1" THICK FLEXIBLE ELASTOMERIC PIPE INSULATION COMPLYING WITH ASTM C534.
 - B. INSULATION SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
 - C. INSTALLATION OF INSULATIONS SHALL BE DONE ONLY AFTER PIPING ARE TESTED AND DETERMINED TO BE FREE FROM LEAKS.

GENERAL NOTES

26. MAKE TIGHT CONNECTION BETWEEN WATER CLOSET FLANGES AND EARTHENWARE FIXTURE BY MEANS OF AN APPROVED MOLDED WAX RING OR SETTING COMPOUND AND BOLTING.
27. VENTS: PROVIDE FLASHING FOR STACKS PASSING THROUGH ROOF. MAKE WATER-TIGHT AT ROOF WITH 4 SHEET LEAD. EXTEND INTO ROOFING FELTS AT LEAST 24" FROM PIPES. EXTEND LEAD COLLAR UP AROUND OUTSIDE AND TURN DOWN INSIDE VENTS AT THE TOP. LOCATE VENT THROUGH ROOF 10FT MINIMUM AWAY FROM ANY FRESH AIR INTAKE.
28. ALL PLUMBING FIXTURES AND PIPING IS TO BE LISTED BY AN APPROVED LISTING AND TESTING AGENCY AND PROPERLY LABELED.
29. COORDINATE ALL LOCATIONS, SIZES, AND ELEVATIONS OF ALL SLEEVES THROUGH WALLS, BEAMS, SLABS AND FOOTING WITH STRUCTURAL AND ARCHITECTURAL DRAWINGS. ALL PIPES SLEEVING THROUGH FOOTINGS SHALL HAVE A SLEEVE DIAMETER OF TWO PIPE SIZES OVER THE PIPE PASSING THROUGH THE FOOTING. NO PIPE TO BE PLACED THROUGH FOOTING UNLESS APPROVED BY THE STRUCTURAL ENGINEER.
30. ALL PIPES SHALL BE PROTECTED AT THE POINT THEY CROSS BUILDING EXPANSION JOINT, EITHER WITH AN EXPANSION FITTINGS OR IN ANOTHER MANNER ACCEPTABLE TO THE ENGINEER.
31. PLUMBING CONTRACTOR SHALL CONNECT ALL GAS PIPING TO ALL GAS RELATED UNITS PER PLAN WITH LISTED AND APPROVED GAS SHUT-OFF VALVE, SEDIMENT TRAP, AND UNION.
32. FAUCET CONTROLS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 POUNDS.
33. PENETRATION OF FLOOR/CEILING ASSEMBLIES AND ASSMBLIES REQUIRED TO HAVE A FIRE-RESISTANCE RATING SHALL BE PROTECTED IN ACCORDANCE WITH THE BUILDING CODE.
34. WHERE WATER PRESSURE WITHIN A BUILDING EXCEEDS 80 PSI, AN APPROVED WATER-PRESSURE REDUCING VALVE CONFORMING TO ASSE 1003 WITH STRAINER SHALL BE INSTALLED TO REDUCE THE PRESSURE IN THE BUILDING WATER DISTRIBUTION PIPING TO 80 PSI STATIC OR LESS.
35. DISINFECTION OF POTABLE WATER SYSTEM SHALL COMPLY WITH THE LOCAL AND THE CALIFORNIA PLUMBING CODE.
36. PROPER ACCESS MUST BE PROVIDED FOR THE TESTING AND MAINTENANCE OF THE BACKFLOW PREVENTER. IF THE IF THE BACKFLOW PREVENTER IS INSTALLED MORE THAN 5'-0" ABOVE THE FLOOR, SPECIAL PROVISIONS MUST BE MADE.
37. PLASTIC PIPES ARE NOT PERMITTED TO BE INSTALLED WITHIN THE AIR PLENUM SPACE.
38. ALL PIPING SHALL MAINTAIN AT LEAST 5'-0" CLEARANCE IN FRONT OF THE HVAC SUPPLY AND RETURN OPENINGS.
39. CONTRACTOR IS REQUIRED TO SCOPE THE EXISTING SANITARY SEWER LINE PRIOR OF WORK. IF REQUIRED, CONTRACTOR SHALL PERFORM RODDING TO GUARANTEE FREE FLOWING OF THE EXISTING WASTE LINE AND NOTIFY THE ENGINEER IF THE EXISTING INVERT ELEVATION TIE-IN POINT IS NOT ADEQUATE TO MEET THE INVERT ELEVATION INDICATED ON THE PLANS.

GENERAL NOTES

1. PLUMBING CONTRACT DRAWINGS ARE IN PART DIAGRAMMATIC, COVERING THE SCOPE OF WORK AND GENERAL ARRANGEMENT OF THE EQUIPMENT, PIPING, ETC., AND THE APPROXIMATE SIZE OF EQUIPMENT AND MATERIALS. THE CONTRACTOR SHALL FOLLOW THESE DRAWINGS IN LAYING OUT THE PLUMBING WORK. PLUMBING CONTRACTOR SHALL CONSULT GENERAL, SPRINKLER, HEATING/VENTILATING/AIR CONDITIONING CONTRACT AND ELECTRICAL DRAWINGS TO FAMILIARIZE HIMSELF WITH THAT WORK AND TO VERIFY THE SPACES IN WHICH THE PLUMBING WORK WILL BE INSTALLED.
2. BECAUSE OF THE NATURE AND SCALE OF THE DRAWINGS, CERTAIN BASIC PLUMBING ITEMS SUCH AS UNIONS, FITTINGS, ELBOWS, ETC., MAY NOT BE SHOWN. WHERE SUCH ITEMS ARE REQUIRED BY OTHER SECTIONS OF THE SPECIFICATIONS, OR WHERE THEY ARE REQUIRED BY THE NATURE OF THE WORK OR BY CODES AND REGULATIONS, THEY SHALL BE FURNISHED AND INSTALLED AT NO ADDITIONAL COST TO THE. THE DRAWINGS INDICATE GENERAL LOCATIONS OF PIPING, EQUIPMENT, DUCTWORK AND SIMILAR. THE EXACT LOCATION TO BE DETERMINED BY THE CONTRACTOR TO BEST FIT THE LAYOUT OF THE JOB.
3. ALL EQUIPMENT SHALL BE TIGHTLY COVERED AND PROTECTED AGAINST DIRT, WATER, AND CHEMICAL OR MECHANICAL INJURY OR THEFT. PLUMBING FIXTURES SHALL BE COVERED WITH HEAVY PAPER COVERINGS AFTER INSTALLATION AND SHALL BE THOROUGHLY CLEANED AFTER COMPLETION OF THE PROJECT.
4. ALL MATERIALS SUCH AS VALVES, FITTINGS, PIPING, EQUIPMENT, PUMPS, COILS, ETC., SHALL BE PROPERLY PROTECTED, AND ALL PIPING OPENINGS SHALL BE TEMPORARILY CLOSED BY THE CONTRACTOR FOR THE WORK UNDER HIS CHARGE. ON A DAILY BASIS, AT THE END OF EACH WORKING DAY, SO AS TO PREVENT OBSTRUCTION AND DAMAGE. THE ABOVE REQUIREMENTS ARE MANDATORY.
5. THE CONTRACTOR SHALL SEE THAT ALL MATERIALS, INSTALLATION AND WORKMANSHIP IS PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF ALL APPLICABLE CODES, LAWS, OR ORDINANCES OF THE STATE OF CALIFORNIA, AND STANISLAUS COUNTY AND LOCAL CODES, CITY OF RIVERBANK LAWS OR ORDINANCES, INCLUDING ALL STATE OR LOCAL BOARD OF HEALTH, FEDERAL AND STATE ENVIRONMENTAL PROTECTION REGULATIONS, STATE ENERGY CODES AND UTILITY REGULATORY AGENCIES.
6. ALL WORK SHALL BE FURTHER PERFORMED IN ACCORDANCE WITH THE NATIONAL BOARD OF FIRE UNDERWRITERS, THE PLUMBING AND BUILDING CODES, NATIONAL ELECTRICAL CODE, THE OCCUPATIONAL SAFETY AND HEALTH ACT, THE AMERICAN GAS ASSOCIATION, AND ALL SUCH OTHER SPECIFIC CODES AS MAY BE REFERRED TO IN THE INDIVIDUAL SECTIONS OF THE SPECIFICATIONS.
7. PIPE SIZES SHOWN ON THE DRAWINGS ARE THE MINIMUM SIZES ALLOWED REGARDLESS OF THE CODE MINIMUM, EXCEPT WHEN THE CODE MINIMUM SIZE IS LARGER THAN THAT SHOWN.
8. THE CONTRACTOR SHALL MAINTAIN A CURRENT SET OF CONTRACT PRINTS ON THE CONSTRUCTION SITE AT ALL TIMES. ON WHICH HE SHALL ACCURATELY RECORD THE ACTUAL INSTALLATION OF ALL PLUMBING WORK. AS WORK PROGRESSES, MARK CHANGES MADE WHETHER RESULTING FROM JOB CONDITIONS, ADDENDA, FORMAL CHANGE ORDERS OR OTHER INSTRUCTIONS ISSUED BY THE ENGINEER.
9. THE PLUMBING CONTRACTOR SHALL INDICATE PROGRESS BY COLORING IN VARIOUS PIPES, FIXTURES, AND ASSOCIATED APPURTENANCES EXACTLY AS THEY ARE ERECTED AND INSTALLED.
10. MARK ALL PIPE SIZES AND LOCATIONS DURING CONSTRUCTION. ALSO, MARK LOCATIONS OF ALL VALVES AND VARIOUS EQUIPMENT, APPARATUS, AND ASSOCIATED APPURTENANCES AS ERECTED WEEKLY DURING CONSTRUCTION.
11. THE COMPLETION OF THE JOB THESE PRINTS, INCORPORATING CHANGES, ADDENDA AND ADDED DATA NOTED ON MARKED-UP PRINTS, INCLUDING DIMENSIONED LOCATIONS OF UNDERGROUND PIPING BEYOND LIMITS OF BUILDING, SHALL BE SUBMITTED TO THE ENGINEER FOR FINAL REVIEW AND COMMENT. THE PRINTS WILL BE RETURNED WITH APPROPRIATE COMMENTS AND RECOMMENDATIONS. THESE CORRECTED PRINTS TOGETHER WITH CORRELATED PRINTS INDICATING ALL THE REVISIONS, ADDITIONS AND DELETIONS OF WORK, SHALL FORM THE BASIS FOR PREPARING A SET OF RECORD DRAWINGS.
12. WHERE PIPING, AND OTHER PLUMBING APPURTENANCES PASS THROUGH FIRE PARTITIONS, FIRE WALLS, OR FLOORS, INSTALL A FIRE-STOP THAT PROVIDES AN EFFECTIVE BARRIER AGAINST THE SPREAD OF FIRE, SMOKE AND GASES. FIRE-STOP MATERIAL SHALL BE UL APPROVED, PACKED TIGHT AND COMPLETELY FILL CLEARANCES BETWEEN RACEWAYS AND OPENINGS. FLOOR, EXTERIOR WALL, AND ROOF SEALS SHALL ALSO BE MADE WATER-TIGHT AS APPROVED BY THE ADMINISTRATIVE AUTHORITY.
13. ARRANGE AND INSTALL PIPING APPROXIMATELY AS INDICATED, STRAIGHT, PLUMB AND AS DIRECT AS POSSIBLE. FORM RIGHT ANGLES OR PARALLEL LINES WITH BUILDING WALLS. KEEP PIPES CLOSE TO WALLS, PARTITIONS AND CEILINGS, OFFSETTING ONLY WHERE NECESSARY TO FOLLOW WALLS AND AVOID INTERFERENCE WITH OTHER MECHANICAL ITEMS. LOCATE GROUPS OF PIPES PARALLEL TO EACH OTHER; SPACE THEM AT A DISTANCE TO PERMIT ACCESS FOR SERVICING VALVES.
14. PIPING SHALL BE PITCHED TO POINTS OF DRAINAGE WITH CONSTANT UNIFORM SLOPE.
15. INSTALL HORIZONTAL PIPING AS HIGH AS POSSIBLE WITHOUT SAGS OR HUMPS.
16. GRADE DRAINAGE AT UNIFORM SLOPE OF NOT LESS THAN 1/4" PER FOOT TOWARD THE POINT OF DISPOSAL. WHEN APPROVED BY ADMINISTRATIVE AUTHORITY, PIPE SIZE 4" AND LARGER MAY HAVE A SLOPE OF NOT LESS THAN 1/8" PER FOOT.
17. WHERE CHANGES IN PIPE SIZES OCCUR, USE ONLY REDUCING FITTINGS.
18. FOR DRAINAGE PIPING CHANGES IN DIRECTION, USE LONG SWEEP WHERE POSSIBLE, OTHERWISE, SHORT SWEEP 1/4 BENDS, OR COMBINATION WYE AND 1/8 BENDS; USE SANITARY TEE BRANCHES ONLY FOR HORIZONTAL BRANCHES DISCHARGING TO STACKS.
19. INSTALL SECTIONALIZING VALVES AND ON EACH BRANCH LINE TO MULTI-FIXTURE GROUPS. LOCATE VALVES IN A READILY ACCESSIBLE LOCATION. DO NOT CONGAL. DO NOT LOCATE VALVE SYSTEMS BELOW HORIZONTAL, UNLESS INDICATED ON PLANS. LOCATE ANGLE STOP VALVES BELOW THE SINK OR WATER CLOSET.
20. WATER SUPPLY TO ALL FIXTURES AND CONTAINERS SHALL BE SO INSTALLED AS TO PREVENT POSSIBLE BACK SIPHONAGE OF POLLUTED WATER. ALL SUPPLIES SHALL BE EITHER ABOVE THE FLOOD RIM OF THE FIXTURE OR SEPARATED FROM THE DRAINAGE END BY MEANS OF AN APPROVED VACUUM BREAKERS.
21. PROVIDE PIPING AND FIXTURE TRAPS. CONNECT TO FIXTURES AND OTHER EQUIPMENT INDICATED OR SPECIFIED AS REQUIRING SOIL, WASTE, DRAIN AND VENT FACILITIES.
22. LAY ALL PIPING TRUE TO LINE AND GRADE. FIT ENDS TOGETHER, MATCH SO THAT SEWER OR DRAIN WILL HAVE SMOOTH AND UNIFORM INSERT. FOLLOW LOCATIONS AND ELEVATIONS AT SITE. AS THE PIPE LAYING PROGRESSES, CLEAR PIPE INTERIOR OF CEMENT, DIRT, AND OTHER FOREIGN MATERIALS. DURING WORK STOPPAGE PERIODS, PROVIDE EFFECTIVE PLUGS OR COVERS FOR OPEN ENDS OF PIPE AND DRAINS.
23. PROVIDE CLEANOUTS WHERE INDICATED AND AT INTERVALS OF 100' OR AS REQUIRED BY LOCAL PLUMBING CODE AND WHERE REQUIRED AT CHANGES OF DIRECTIONS OF SOIL AND WASTE STACKS. INSTALL CLEANOUTS SO AS TO BE ACCESSIBLE FOR EASY REMOVAL AND TO PROVIDE CLEARANCE FOR RODDING. CLEANOUTS SHALL BE THE SAME SIZE AS PIPE SERVED EXCEPT THAT NO CLEANOUT NEED BE LARGER THAN FOUR INCHES.
24. EXTEND VENT PIPES 12 INCHES ABOVE ROOF AND 10 FT. MINIMUM AWAY FROM ANY FRESH AIR INTAKES.
25. SANITARY VENT PIPING SHALL BE GRADED SO THAT THE AIRFLOW TO THE OUTSIDE WILL BE CONTINUOUSLY UPWARD AND SO THAT NO LOW POINTS WILL BE DRAINED.

REV. DATE	NO.



SIGNED: 12/23/22

GAMA
DRAFTING & ENGINEERING
37626 SYCAMORE ST. NEWARK, CA 94560
gamadrafting@gmail.com (510) 861-1319

GLENN CUNNINGHAM, DESIGNER
BULL'S EYE CADD
434 45TH AVENUE c. (510) 301-3005
SAN FRANCISCO, CA 94121 o. (415) 666-3624
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THE DRAWINGS ON THIS SHEET & SPECIFICATIONS REPRESENTED THEREBY ARE, & SHALL REMAIN THE PROPERTY OF GLENN CUNNINGHAM, DESIGNER. NO PART OF THESE DRAWINGS OR SPECIFICATIONS SHALL BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF GLENN CUNNINGHAM, DESIGNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF ALL INFORMATION FROM AVAILABLE ARCHITECTURAL AND ENGINEERING INFORMATION. VERIFICATION & ANY DEVIATIONS OR DISCREPANCIES SHALL BE DIRECTED TO THE ATTENTION OF GLENN CUNNINGHAM.

T.I. - NICK THE GREEK
THE REDWOODS SHOPPING CENTER
758 W HAMILTON AVE.
CAMPBELL, CA 95008

Date: 12/23/22

Drawn: HP

Sheet:

P0.2

STATE OF CALIFORNIA
Domestic Water Heating System
 NRCC-PLB-E (Created 11/19)
 CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
 Project Name: NICK THE GREEK, Campbell
 Report Page: Page 1 of 5
 Project Address: 758 W Hamilton Ave. Campbell, CA 95008
 Date Prepared: 12/27/22

A. GENERAL INFORMATION

01 Project Location (city) Campbell 02 Climate Zone 4

03 Occupancy Types Within Project (select all that apply):
 Nonresidential High-Rise Residential Hotel/ Motel
 State Building Healthcare Facility Other (Write in): RESTAURANT

B. PROJECT SCOPE

Table Instructions: Include any domestic water heating systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive paths outlined in §140.5, §150.1(c)(8), and §141.0(a), or §141.0(b)(2)N for additions or alterations. Solar water heating systems should be documented on the NRCC-SRA compliance document. Combined hydronic water heating systems should be documented on the NRCC-MCH compliance document.

01 My project consists of (check all that apply):
 New System (DHW system being installed for the first time in newly constructed building)
 System Alteration (equipment, distribution or controls)

02 System Type^{1,2} Individual System (serving nonresidential spaces)
 Equipment Distribution Controls

03 System Components
 Distribution Controls
 Add New System Remove Last
 Add Alteration Remove Last

C. COMPLIANCE RESULTS

Table Instructions: Table C will indicate if the project data input into the compliance document is compliant with water heating requirements. This table is not editable by the user. If this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D., or the table indicated as not compliant for guidance.

01	02	03	04
Domestic Hot Water Equipment	Distribution Systems	Controls	Compliance Results
(See Table F)	(See Table G)	(See Table H)	
Yes	Yes	Yes	COMPLIES

¹ FOOTNOTE: Point of use water heaters, or other non-central systems used to serve nonresidential spaces, are considered individual systems.
² Dwelling units refers to hotel/motel guest rooms and units in a high-rise residential occupancy.

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> November 2019

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Table Continued

06	Requirement	Yes	No	Not Applicable
<input type="checkbox"/>	For replacement single heat pump water heaters serving individual dwelling units in climate zones 1-15, design includes communication interface that meets demand responsive control requirements of §110.12(a) per §150.2(b)(1)Hiii.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

I. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRC/

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-PLB-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCC-PLB-02-E - Must be submitted for high-rise residential and hotel/ motel central hot water distribution systems to be recognized for compliance.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCC-PLB-03-E - Must be submitted for high-rise residential and hotel/ motel single dwelling unit hot water distribution systems to be recognized for compliance.	<input type="checkbox"/>	<input type="checkbox"/>

J. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no Certificates of Acceptance applicable to service water heating requirements.

K. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be completed by a HERS Rater and provided to the building inspector during construction. The final documents must be created by a HERS Providers registry, but drafts can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCV/

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCV-PLB-21-H High-rise Residential Central Hot Water Distribution HERS Verification	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCV-PLB-22-H High-rise Residential Individual Dwelling Unit Hot Water Distribution HERS Verification	<input type="checkbox"/>	<input type="checkbox"/>

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> November 2019

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D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.
 No exceptional conditions apply to this project.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. DOMESTIC HOT WATER EQUIPMENT

Table Instructions: Complete the following table to demonstrate compliance with mandatory equipment requirements in §110.1 and §110.3. For high-rise residential and hotel/motel occupancies, compliance with prescriptive requirements in §150.1(c)(8) must also be demonstrated and with §150.2 for addition and alteration scopes.

Equipment Schedule: Individual Systems

01	02	03	04	05	06
Name or Item Tag	Equipment Type	Volume (gal)	Max GPM/ First Hour Rating (FHR)	Rated Uniform Energy Factor (UEF)	Minimum Required Uniform Energy Factor (UEF)
IWH-1	Gas-Fired Instantaneous (50,000-200,000 BTUH)	≤2	GPM ≥ 4.0	0.94	0.81
EW-1	Electric Storage	30-39	0 ≤ FHR < 18	0.86	0.86
			Reset	Add Row	Remove Last

¹ FOOTNOTE: Compliant equipment may be found in the Modernized Appliance Efficiency Database System (MAEDBS) on the Energy Commission website: <https://caertappliances.energy.ca.gov/Pages/Search/AdvancedSearch.aspx>

Water Heating Equipment All Occupancies

Yes	No	Not Applicable	Requirement
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unified storage tank insulation shall have Internal + External ≥ R-16 OR External ≥ R-12. Label required per §110.3(c)(3)
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	New state buildings 60% of energy for service water heating from site solar energy or recovered energy per §110.3(c)(5)
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Isolation valves for instantaneous water heater with input rating > 6.8 kBtu/h or 2 kW has been specified per §110.3(c)(6)

G. DOMESTIC HOT WATER DISTRIBUTION SYSTEM

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> November 2019

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 Date Prepared: 12/27/22

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Hector Pedraza
 Signature: *Hector Pedraza*
 Signature Date: 12/27/2022

Company: Gama Drafting and Engineering
 Address: 37625 Sycamore St
 City/State/Zip: Newark, CA 94560
 Phone: 510.861.1319

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

- The information provided on this Certificate of Compliance is true and correct.
- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
- The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
- The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
- I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Hector Pedraza
 Signature: *Hector Pedraza*
 Date Signed: 12/27/2022

Company: Gama Drafting and Engineering
 Address: 37625 Sycamore St
 City/State/Zip: Newark, CA 94560
 License: M33187
 Phone: 510.861.1319

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> November 2019

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Table Instructions: Complete the following table to demonstrate compliance for nonresidential occupancies with distribution requirements in §120.3 and §140.5. For high-rise residential and hotel/motel occupancies, compliance is demonstrated with requirements in §110.3(c), §120.3, §150.0, §150.1.

Mandatory Pipe Insulation All Occupancies

For systems serving nonresidential spaces, pipe insulation for the following applications is specified to comply with Table 120.3-A (see below) per §120.3:
 - Reduculating system piping, including supply and return piping of the water heater
 - The first 8 ft of hot and cold outlet piping for a nonrecirculating storage system
 - Pipes that are externally heated

Insulation shall be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather shall be installed with a cover suitable for outdoor service per §120.3(b) and §150.0(j)(3).

TABLE 120.3-A PIPE INSULATION THICKNESS

Fluid Temperature Range (°F)	Conductivity Range (Btu-in per hour per ft² per °F)	Insulation Mean Rating Temp (°F)	Nominal Pipe Diameter (in)		
			<1	1 to < 1.5	1.5 to < 4
105-140	0.22-0.28	100	1.0 in or R-7.7	1.5 in or R-12.5	1.5 in or R-11

H. DOMESTIC HOT WATER SYSTEM CONTROLS

Table Instructions: Complete the following table to demonstrate compliance with controls requirements in §110.3 for all occupancies. For high-rise residential and hotel/motel occupancies, compliance is demonstrated with requirements in §150.1(c)(8).

	Yes	No	Not Applicable	Requirement
01	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Construction documents require manufacturer certification that service water-heating systems are equipped with automatic temperature controls capable of adjusting temperature settings per §110.3(a)
02	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Systems with capacity > 167,000 BTUH equipped with outlet temperature controls per §110.3(c)(1) unless covered by California Plumbing Code Section 613.0.
03	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Controls for circulating pumps or electrical heat trace systems are capable of automatically turning off the system per §110.3(c)(2) unless system serves healthcare facility.
04	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	For recirculation systems serving multiple dwelling units, design includes automatic pump controls per §150.1(c)(8)(ii), or §150.2 for additions or alterations
05	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	For recirculation systems serving individual dwelling units, design includes manual on/off controls as specified in Reference Appendix RA 4.4.9 per §150.1(c)(8).

Table Continued

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> November 2019

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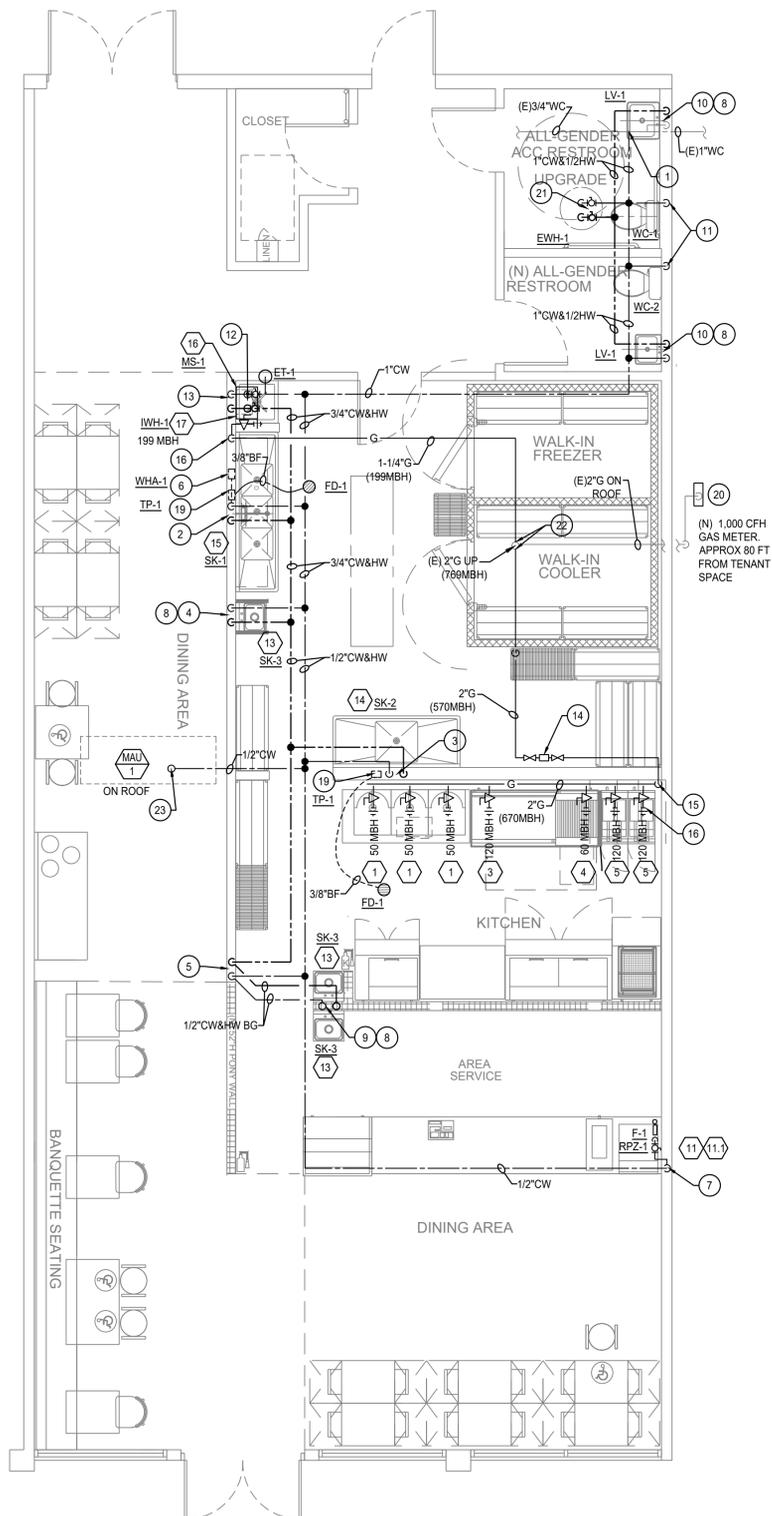
THE DRAWINGS ON THIS SHEET & SPECIFICATIONS REPRESENTED THEREBY ARE, & SHALL REMAIN THE PROPERTY OF GLEN CUNNINGHAM, DESIGNER. ANY REUSE OR REPRODUCTION OF THESE DRAWINGS OR SPECIFICATIONS IN CONNECTION WITH ANY WORK OR PROJECT OTHER THAN THE PROJECT FOR WHICH THEY HAVE BEEN PREPARED WITHOUT WRITTEN PERMISSION OF GLEN CUNNINGHAM, DESIGNER IS STRICTLY PROHIBITED. ARCHITECT, ENGINEER, AND/OR GENERAL CONTRACTOR AND ITS DONEE FROM AVAILABLE ARCHITECTURAL AND ENGINEERING INFORMATION. VERIFICATION & ANY DEVIATIONS OR DISCREPANCIES SHALL BE DIRECTED TO THE ATTENTION OF GLEN CUNNINGHAM.

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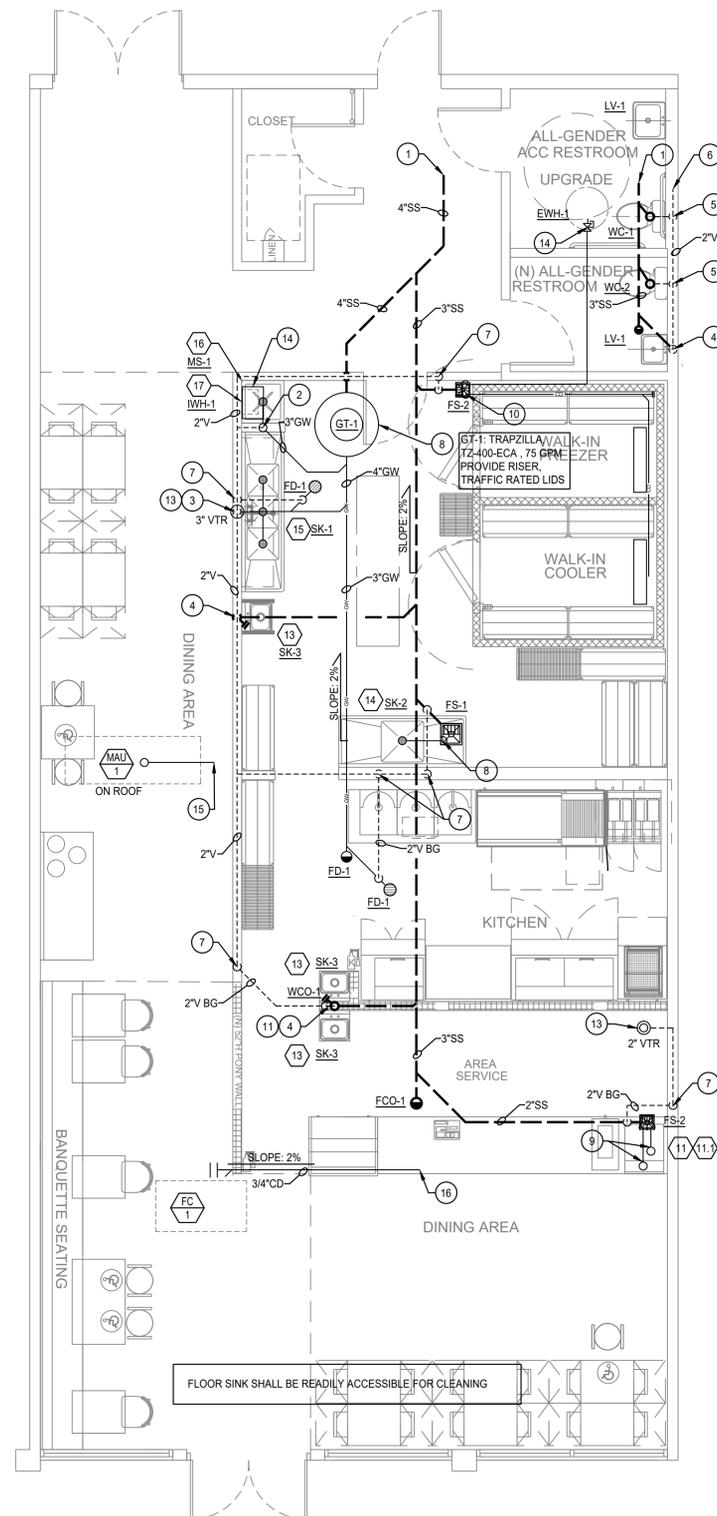
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 P0.3



- PLUMBING KEYED NOTES:**
- 1 CONNECT NEW 1" COLD WATER LINE TO (E) 1" WATER LINE. VERIFY EXACT LOCATION AT JOBSITE.
 - 2 1/2" CW & HW TO 3-COMP SINK.
 - 3 1/2" CW & HW DOWN INSIDE WALL AND OUT THRU WALL TO PREP SINK.
 - 4 1/2" CW & HW DOWN INSIDE WALL AND OUT THRU WALL TO HAND SINK.
 - 5 1/2" CW AND HW DOWN AND BELOW FLOOR.
 - 6 MOUNT WATER HAMMER ARRESTER TO ACCESSIBLE LOCATION PROVIDE ACCESS PANEL.
 - 7 1/2" CW DN TO ICE MAKER THRU BFP AND FILTER. MOUNT BFP AND FILTER AT ACCESSIBLE LOCATION AND DRAIN TO NEAREST FLOOR SINK.
 - 8 INSTALL MIXING VALVE AT HAND SINKS AND LAVATORIES WITH OUTLET TEMPERATURE OF 110 DEGREES FAHRENHEIT.
 - 9 1/2" CW & HW UP TO SINK.
 - 10 1/2" CW & HW DOWN INSIDE WALL AND OUT THRU WALL TO LAVATORY. PROVIDE STOPS.
 - 11 1/2" CW TO WATER CLOSET. PROVIDE STOPS.
 - 12 3/4" CW & HW DOWN TO WATER HEATER. PROVIDE ISOLATION VALVES.
 - 13 1/2" CW & HW DOWN TO MOP SINK. PROVIDE VACUUM BREAKER.
 - 14 FIRE SUPPRESSION ANSUL VALVE. ACCESSIBLE.
 - 15 2" GAS PIPE DOWN TO COOKLINE
 - 16 CONNECT TO GAS APPLIANCE WITH APPROVED FLEXIBLE CONNECTION AND QUICK DISCONNECT. TYP.
 - 17 1-1/4" G DN TO WATER HEATER. PROVIDE FLEX CONNECTION AT UNIT.
 - 18 3/4" CW & HW DOWN TO ELECTRIC WATER HEATER. PROVIDE ISOLATION VALVES.
 - 19 1/2" CW LINE IN WALL TO ACCESSIBLE TRAP PRIMER VALVE.
 - 20 NEW GAS METER.
 - 21 1/2" CW & HW DOWN TO WATER HEATER. PROVIDE ISOLATION VALVES.
 - 22 CONNECT TO EXISTING GAS LINE
 - 23 3/4" CW UP THROUGH ROOF TO MAU-1. PROVIDE BACKFLOW PREVENTER.

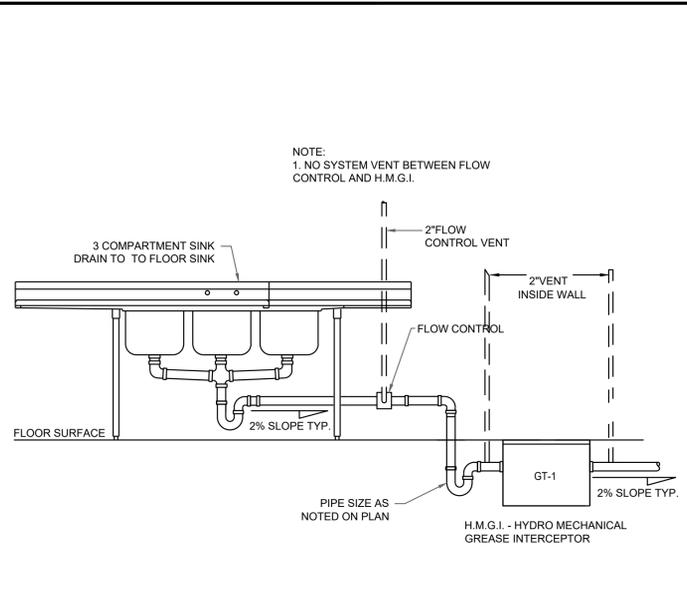
DOMESTIC WATER & GAS SUPPLY PLAN SCALE: 1/4" = 1'-0" 2



- PLUMBING GENERAL NOTES:**
1. GENERAL NOTES APPLY TO ALL PLUMBING SHEETS. PROPOSED CONNECTION TO EXISTING SEWER PIPES INSIDE THE TENANT SPACE IS BASED ON THE ASSUMPTION THE PIPES ARE IN GOOD CONDITIONS AND EXITING PIPES ARE EQUAL OR LARGER IN SIZE TO NEW.
 2. UNLESS OTHERWISE INDICATED ON THIS SET OR ARCHITECTURAL PLANS ALL FIXTURES ARE TO REMAIN AND SHALL BE USED.
 3. FOR REMOVED FIXTURES, CAP PIPES AND CONCEAL THEM BEHIND WALL/CILING.
 4. REUSE EXISTING CW&HW PIPES WHEN POSSIBLE. HOWEVER, NO PIPE SIZE SHALL BE SMALLER THAN SHOWN ON THIS SHEET.
 5. PLUMBING/MECHANICAL CONTRACTOR SHALL INCLUDE IN HIS/HER BID THE INVESTIGATION OF EXISTING SEWER PIPES ROUTING, FLOW DIRECTION, SIZE AND INVERT ELEVATION OF EXISTING SYSTEM BEFORE FIXTURES LAYOUT AND TRENCHING AND SHALL INFORM THE ARCHITECT/ENGINEER OF RECORD ANY DISCREPANCY BETWEEN DRAWINGS AND EXISTING BUILDING CONDITIONS.
 6. PLUMBING WORK SHALL BE DONE IN ACCORDANCE WITH PLUMBING CODE, LOCAL HEALTH DEPARTMENT STANDARDS, AND THE AUTHORITY HAVING JURISDICTION.
 7. EXISTING WASTE, GAS AND WATER, POINTS OF CONNECTION TO EXISTING ARE SHOWN ON THESE DRAWINGS BASED ON SHELL DRAWINGS FOR THIS TENANT SPACE AND DOES NOT NECESSARILY REPRESENT EXACT LOCATION OF SUCH PIPES. THE INFORMATION PRESENTED ON THESE PLANS IS PROVIDED AS A GENERAL LAY-OUT PLAN. TI ENGINEER ACCEPTS NO RESPONSIBILITY. MECHANICAL/PLUMBING CONTRACTOR IS RESPONSIBLE FOR SITE INVESTIGATION PRIOR COMMENCEMENT OF WORK TO FULLY REVEAL SCOPE OF WORK.
- PLUMBING KEYED NOTES:**
- 1 CONNECT TO EXISTING SEWER PIPE. VERIFY EXACT LOCATION, INVERT, FLOW DIRECTION AND ROUTING OF EXISTING PIPE IN THE FIELD.
 - 2 3" GW, 2" V UP.
 - 3 2" GW, 2" V UP.
 - 4 2" SS, 1-1/2" V UP.
 - 5 3" SS, 2" V UP.
 - 6 CONNECT TO EXISTING VENT.
 - 7 2" V UP FROM BELOW FLOOR.
 - 8 PROVIDE DRAIN CONNECTION TO PREP SINK. DISCHARGE THROUGH A 2" AIR GAP TO FLOOR SINK.
 - 9 PROVIDE DRAIN CONNECTION TO ICE MAKER & BEVERAGE DISPENSER. TERMINATE INTO FLOOR SINK WITH 2" AIR GAP.
 - 10 PROVIDE 3/4" DRAIN CONNECTION TO WALK-IN COOLER. 3/4" DRAIN CONNECTION TO WALK-IN FREEZER. INSULATE PIPE INSTALLED INSIDE FREEZER. REFER TO REFRIGERATION DRAWINGS FOR EXACT PIPE SIZE AND INSULATION THICKNESS. TERMINATE WITH 2" AIR GAP INTO FLOOR SINK.
 - 11 ISLAND VENT. REFER TO DETAIL 7/P2.0
 - 12 3/4" CONDENSATE DRAIN TO NEAREST FLOOR DRAIN. TERMINATE WITH 1-1/2" AIR GAP.
 - 13 VENT THRU ROOF.
 - 14 NEW INSTANTANEOUS WATER HEATER. TERMINATE T&P AND DRAIN INTO SINK WITH 2" AIR GAP.
 - 15 1-1/2" DRAIN UP THRU ROOF TO MAU-1 AND DOWN TO TERMINATE INTO NEAREST FLOOR DRAIN WITH 2" AIR GAP.
 - 16 CONDENSATE DRAIN. TERMINATE INTO NEAREST APPROVED RECEPTACLE WITH 2" AIR GAP.

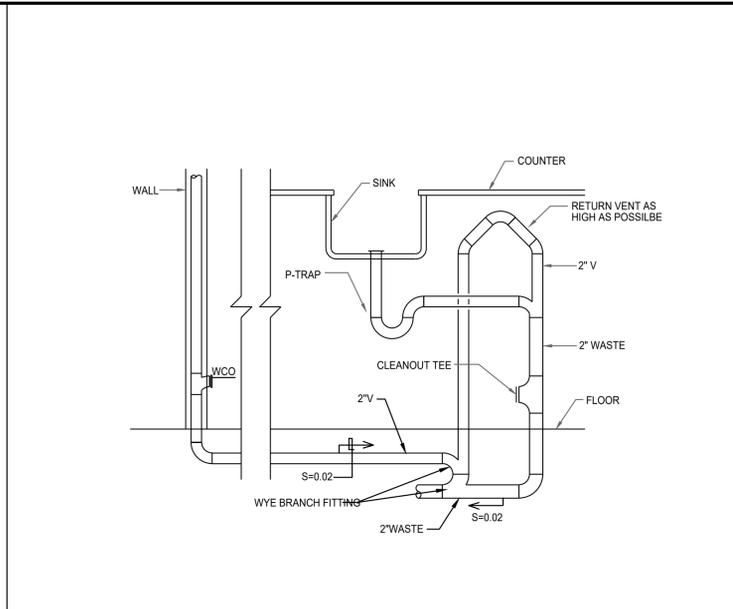
WASTE AND VENT PLAN SCALE: 1/4" = 1'-0" 1

REV. DATE	NO.
	
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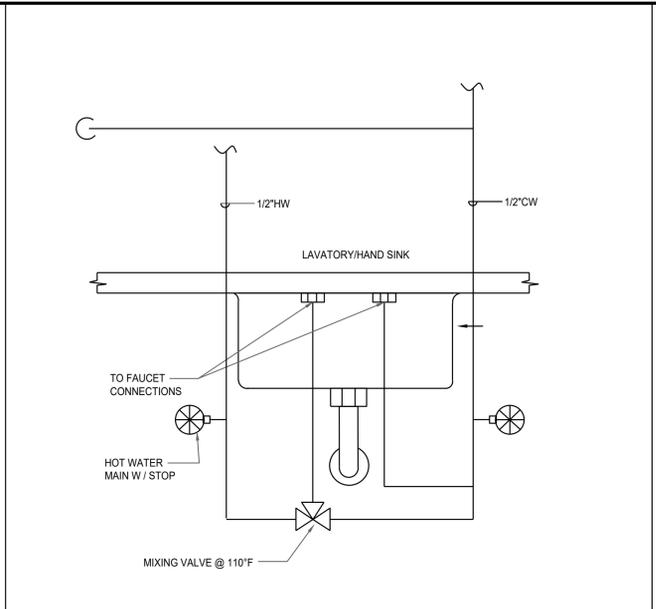
GREASE INTERCEPTOR DETAIL - TYP

SCALE: NONE 12



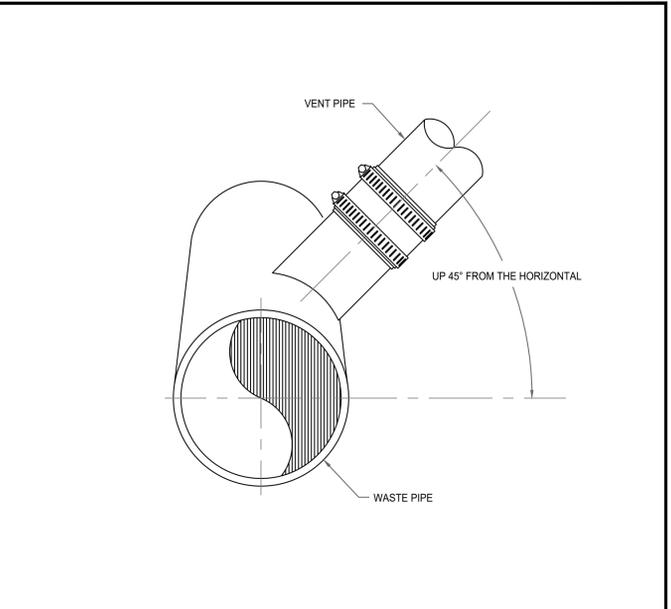
ISLAND VENT DETAIL

SCALE: NONE 9



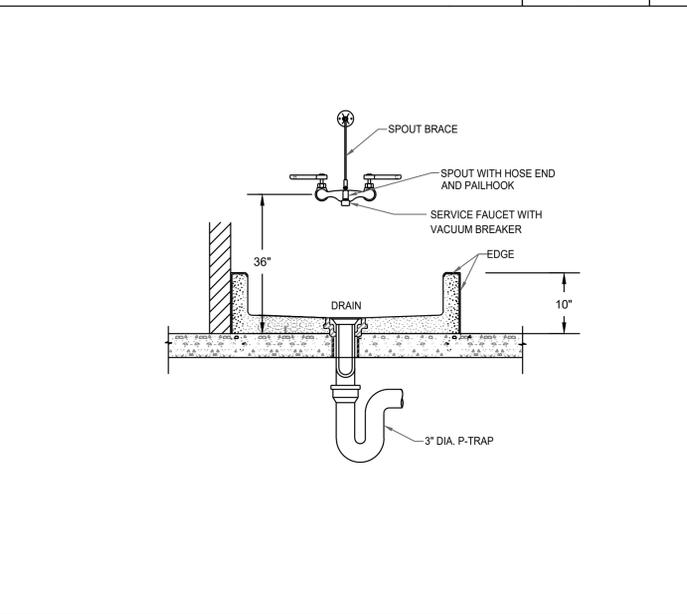
HAND SINK MIXING VALVE

SCALE: NONE 6



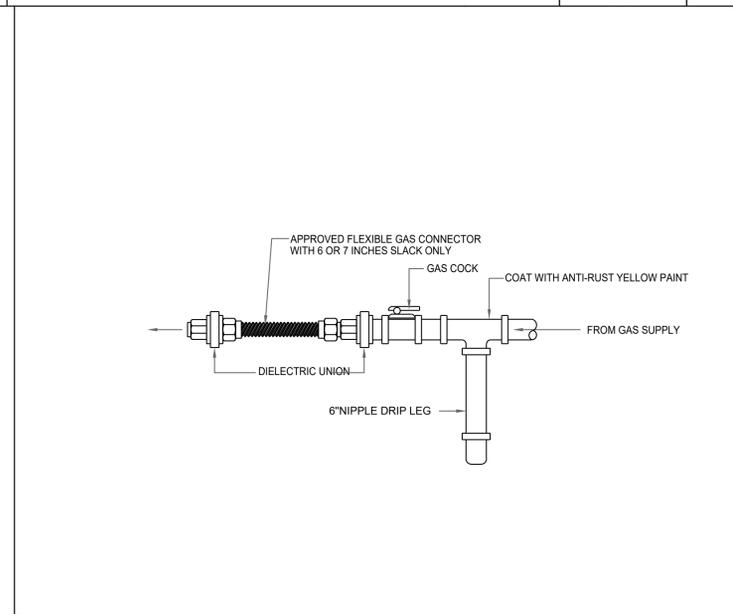
VENT TAKE OFF BELOW FLOOR

SCALE: NONE 3



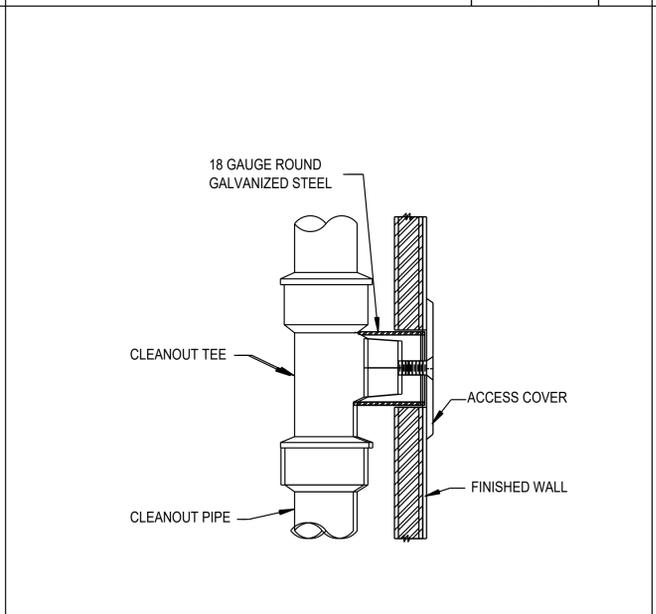
MOP SINK

SCALE: NONE 11



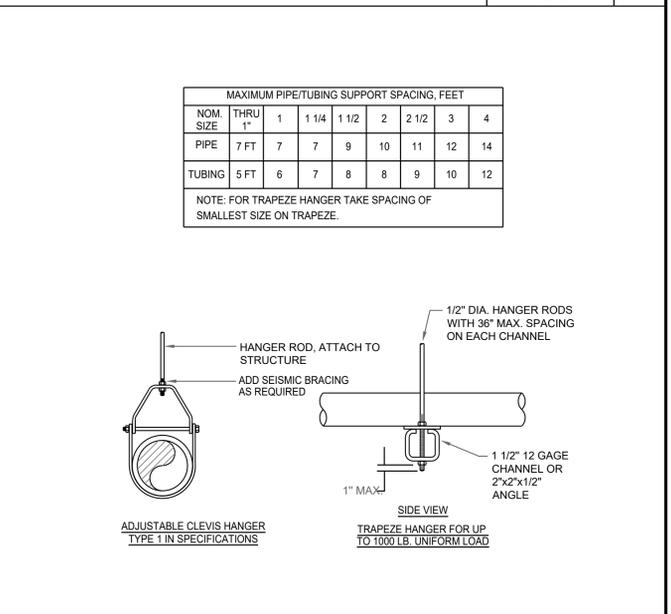
GAS CONNECTION DETAILS

SCALE: NONE 8



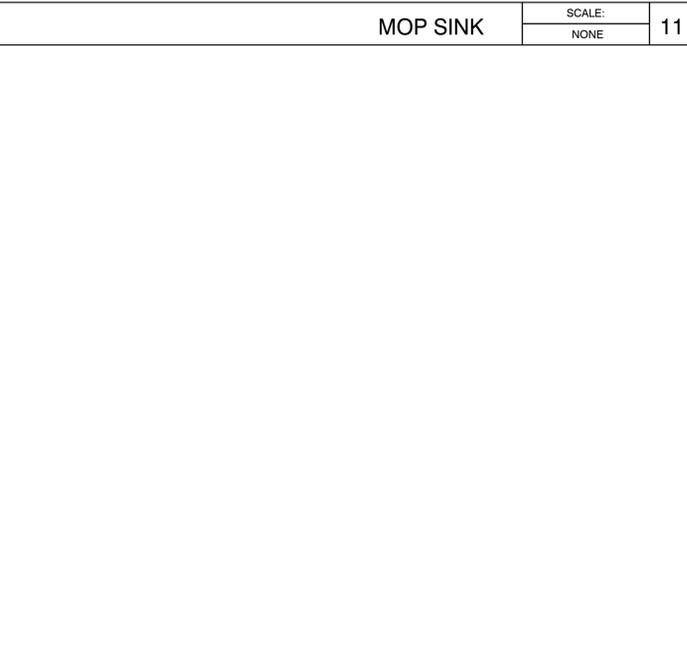
WALL CLEANOUT

SCALE: NONE 5



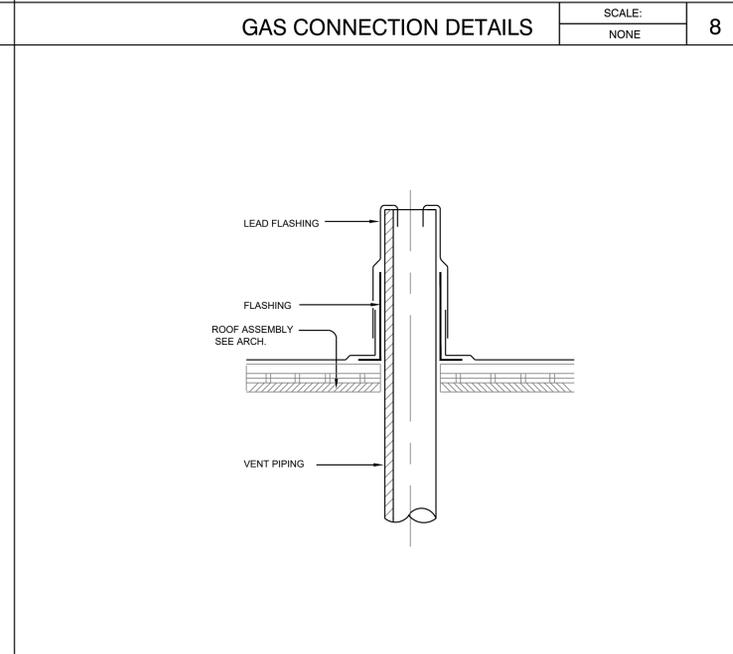
PIPE SUPPORT

SCALE: NONE 2



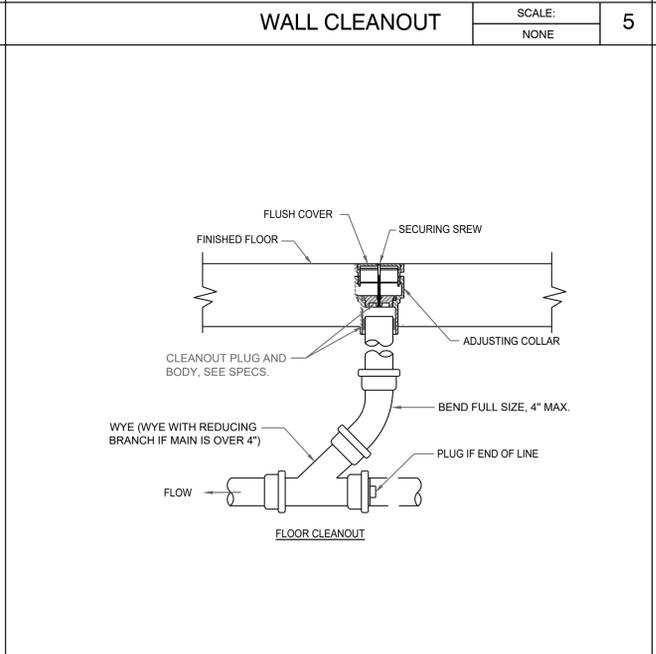
NOT USED

SCALE: NONE 10



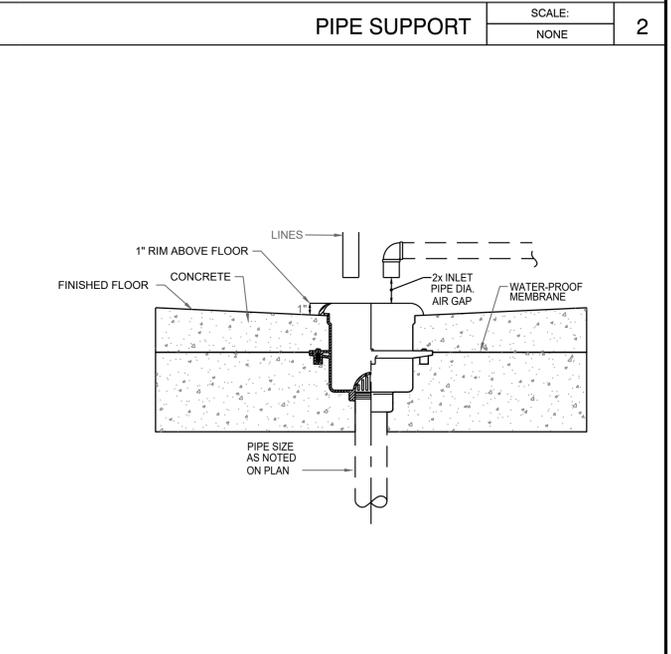
VENT THRU ROOF DETAIL

SCALE: NONE 7



FLOOR CLEAN OUT

SCALE: NONE 4



FLOOR SINK DETAIL

SCALE: NONE 1

REV. DATE NO.

REGISTERED PROFESSIONAL ENGINEER
No. M33187
MECHANICAL
STATE OF CALIFORNIA
SIGNED: 12/13/22

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Drawn: HP
Sheet:

P4.1

GENERAL NOTES

1. ALL ITEMS AND INSTALLATIONS BY EQUIPMENT CONTRACTOR, DÉCOR CONTRACTOR AND SIGN FABRICATOR ARE UNDER A SEPARATE CONTRACT AND NOT PART OF GENERAL CONSTRUCTION BID. GENERAL CONTRACTOR AND SUBS ARE RESPONSIBLE FOR RELATED WORK AS SHOWN IN THE DRAWINGS, E.G. PROVIDE POWER TO SPECIFIED LOCATION FOR SIGN, BUT SIGN CONTRACTOR SHALL FABRICATE ITEM AND INSTALL.

2. EXTERIOR ILLUMINATED OR NON ILLUMINATED SIGN, AWNING OR APPLICABLE, ETC SHALL BE UNDER SEPARATE CONTRACTS AND PERMITS. APPLICATION FOR PERMITS SHALL BE FILED WITH LOCAL AUTHORITY PRIOR TO FABRICATION OR INSTALLATION.

APPROVAL OF SUBSTITUTIONS

1. WHEN A SPECIFIC REFERENCE TO AN ARTICLE, MANUFACTURER, PROPERTY, NAME DEVICE, PRODUCT, MATERIAL OR FIXTURE IS MADE IN GENERAL CONSTRUCTION DOCUMENTS, IT IS TO ESTABLISH A STANDARD OF QUALITY AND SHALL NOT BE CONSTRUED AS LIMITING COMPETITION. IF THE CONTRACTOR, SUBCONTRACTOR, SUPPLIER, MANUFACTURERS REPRESENTATIVE, ETC., INVOLVED WITH THE PROJECT DESIRES TO BID MATERIAL OTHER THAN THE SPECIFIED ITEMS, A REQUEST FOR APPROVAL OF LIKE ITEMS SHALL BE MADE IN WRITING TO ARCHITECT/OWNER NO LATER THAN A CALENDAR DAYS PRIOR TO SPECIFIED TIME FOR GENERAL CONSTRUCTION BID OPENING. MATERIALS ACCEPTABLE FOR SUBSTITUTIONS WILL BE APPROVED BY A DULY AUTHORIZED ADDENDUM ISSUED BY ARCHITECT TO ALL CONTRACT DOCUMENT HOLDERS OF RECORD. MATERIAL NOT LISTED IN THE CONTRACT DOCUMENTS OR ADDENDUM WILL NOT BE ACCEPTABLE FOR THIS PROJECT.

2. SUBMITTAL FOR APPROVAL OF MATERIALS OR PRODUCTS SHALL CONTAIN SUFFICIENT INFO. DESCRIPTION BROCHURES, DRAWINGS, SAMPLE OR OTHER DATA AS NECESSARY OR REQUIRED TO DETERMINE WHETHER THE PROPOSED SUBSTITUTION IS EQUAL TO ITEM SPECIFIED. EACH SUBMITTAL SHALL BE WELL MARKED AND IDENTIFIED AS TO TYPE AND KIND OF ITEMS, MATERIALS, PRODUCTS WILL BE COMPLETE WITH SUBSTANTIATING DATA. REFERENCE TO CATALOGS THAT DESIGN CONSTRUCTION COORDINATOR MAY OR MAY NOT HAVE, WILL NOT BE ACCEPTABLE.

CHANGE IN THE WORK

THE CONTRACTOR SHALL NOT MAKE ANY ADDITION, DELETION OR REVISION TO THE CONTRACT DOCUMENTS, WHICH WOULD AFFECT THE CONTRACT SUM OR CONTRACT TIME WITHOUT WRITTEN CHANGE ORDER, AUTHORIZED AND SIGNED BY BOTH THE OWNER AND DESIGN RESTAURANT SYSTEMS.

DEMOLITION

1. GENERAL CONTRACTORS AND/OR HIS SUBCONTRACTORS TO COMPLETE ALL DEMOLITION WORK INDICATED OR NECESSARY FOR COMPLETION OF THE NEW WORK INCLUDING LABOR, SUPERVISION, TOOLS, MATERIALS, PERMITS, ETC. REQUIRED FOR REMOVAL OF FLOORS, WALLS CEILINGS, FIXTURES, DUCTWORK, STOREFRONTS, ETC.

2. ALL WORK MUST COMPLY WITH APPLICABLE LOCAL, STATE, FEDERAL CODES, STANDARDS, ETC.

3. WORKMANSHIP SHALL BE FIRST CLASS, FINISHED, SAFE, NEAT AND THROUGHOUT AND PERFORMED BY COMPETENT AND EXPERIENCED WORKMAN, CONSTANT SUPERVISION OF WORK BY CONTRACTOR SHALL BE MAINTAINED.

4. UPON TERMINATION OF WORK, PROMPTLY REMOVE ALL TOOLS, SCAFFOLDS, SURPLUS MATERIALS, DEBRIS, RUBBISH AND OTHER ITEMS RESULTING FROM DEMOLITION OF WORK.

5. THE OWNER, ARCHITECT AND DESIGNER ASSUME NO RESPONSIBILITY FOR ACTUAL CONDITION OF STRUCTURES EQUIPMENT, ETC. TO BE DEMOLISHED.

6. OWNER RESERVES THE RIGHT TO REMOVE AND SALVAGE ITEMS PRIOR TO THE START OF WORK SUCH AS DOORS, WINDOWS, HARDWARE, LIGHT FIXTURES, PLUMBING FIXTURES, LUMBER, ETC. UNLESS OTHERWISE NOTED OR SPECIFIED.

7. REMOVE ITEMS WITH CARE AND STACK NEATLY NO SPECIAL CLEANING AND STRIPPING OF SALVAGED ITEMS REQUIRED UNLESS THEY ARE TO BE REINSTALLED.

8. REMOVE ITEMS FROM PREMISES AS WORK PROGRESSES. STORAGE OR SALE OF ITEMS ON SITE IS NOT PERMITTED WITHOUT PERMISSION BY OWNER.

9. CONDUCT DEMOLITION AND REMOVAL OF DEBRIS TO INSURE MINIMUM INTERFERENCE WITH ROADS, STREETS WALKS AND OTHER ADJACENT OCCUPIED OR USED FACILITIES.

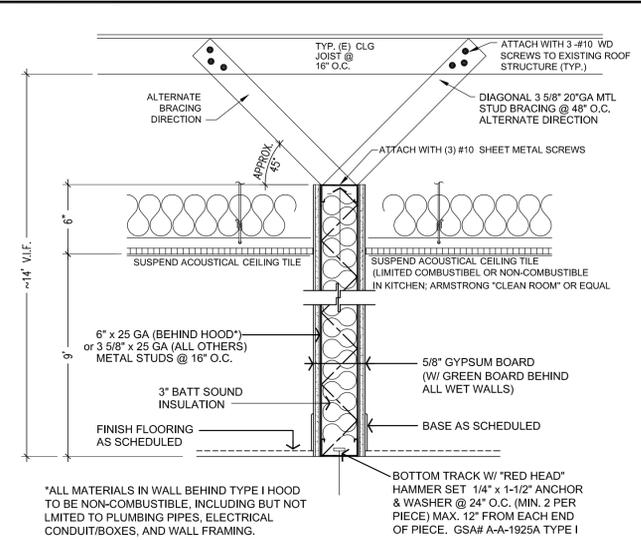
10. PROVIDE PROTECTIVE DEVICES TO INSURE THE SAFE PASSAGE OF PERSONS AROUND THE DEMOLITION AREA. CONDUCT OPERATIONS TO PREVENT DAMAGE BY FALLING DEBRIS TO ADJACENT BUILDING, TREES, STRUCTURES, PERSONS, ETC. PROVIDE INTERIOR AND EXTERIOR SHARING, BRACING, ETC. TO PREVENT MOVEMENT, SETTLEMENT OR COLLAPSE OF STRUCTURES TO BE DEMOLISHED AND FACILITIES TO REMAIN, IF REQUIRED, ERECT A 2X4 FRAME WITH MINIMUM 3/8" EXTERIOR PLYWOOD SHEATHING CONSTRUCTION BARRIER ON THE SIDEWALK AROUND PERIMETER OF BUILDING. THE BARRIER SHALL BE 6'0" HIGH AND HAVE LOCKED DOOR FOR ACCESS. THE TOP PLATE SHALL BE BRACED BACK TO THE BUILDING STRUCTURE. MINIMIZE AMOUNT OF POWER SHOOT INTO SIDEWALK, MAKE ANY REQUIRED REPAIRS TO SIDEWALK WHEN BARRIER IS REMOVED, LOCATE BARRIER NO MORE THAN 4'0" FROM BUILDING LINE (LESS IF REQUIRED BY BUILDING DEPARTMENT).

11. PROVIDE ADEQUATE FIRE PROTECTION DURING DEMOLITION WORK. PLACE FIRE EXTINGUISHERS AT JOB SITE (TYPE AND LOCATION AS DIRECTED BY FIRE INSPECTOR).

12. PROMPTLY REPAIR DAMAGES CAUSED TO ADJACENT FACILITIES BY DEMOLITION, OPERATIONS AT NO COST TO THE OWNER.

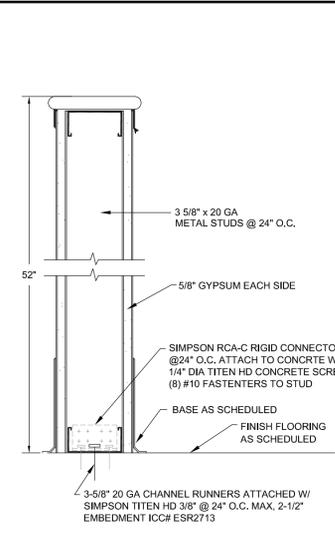
13. SHUT OFF AND/OR DISCONNECT UTILITIES SERVICING THE PROJECT AS REQUIRED BY WORK, IF POSSIBLE, REMOVE UTILITY LINES BACK TO MAIN SWITCHES, SHUT-OFF VALVES OR METERS. PROVIDE TEMPORARY POWER OUTLETS, LIGHTS (AS REQUIRED), HOSE BIB WITH WATER TO ALLOW FOR DEMOLITION WORK.

14. USE SUITABLE METHODS AS NECESSARY TO LIMIT THE AMOUNT OF DUST AND DIRT RISING AND SCATTERING IN THE AIR TO THE LOWEST LEVEL OF AIR POLLUTION PRACTICAL FOR THE CONDITION OF WORK AND COMPLY WITH GOVERNING REGULATIONS.



*ALL MATERIALS IN WALL BEHIND TYPE I HOOD TO BE NON-COMBUSTIBLE, INCLUDING BUT NOT LIMITED TO PLUMBING PIPES, ELECTRICAL CONDUIT/BOXES, AND WALL FRAMING.

1 MTL STUD PARTITION WALL DETAIL
SCALE: N.T.S.



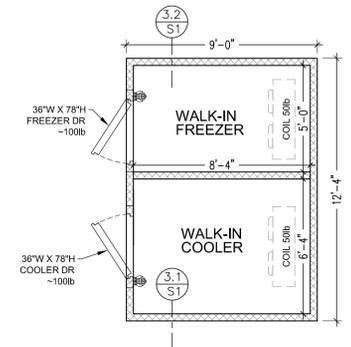
2 TYP (N) PONY WALL DETAIL
SCALE: N.T.S.

PANEL SPECIFICATIONS:

WALLS, FLOOR, & CEILING - MASTER-BILT 4" THK NSF CLASS 1 FOAM-IN-PLACE URETHANE CAM-LOCK COOLER PANEL OR EQUAL - (2.2 lb sq/ft).

R-VALUES:
COOLER WALLS/CEILING/DOOR - R-25 min
FREEZER WALLS/CEILING/DOOR - R-32 min
FREEZER FLOORS: R-28 min

FINISH:
ALL WALLS & CEILING - 26 GA GALVALUM NSF PANELS
FREEZER FLOOR - 16 GA ALUMINUM WITH 5" INTEGRAL ALUM. COVE.
COOLER FLOOR - QUARRY TILE. SEE SHEET EH-1



3 PLAN VIEW-WALK-IN COOLER/FREEZER
SCALE: N.T.S.

STUDS TABLE PER DIETRICH INDUSTRIES (PER ICC-ES AC86)

ALLOWABLE WALL HEIGHT L/ 120 DEFLECTION				L/240 DEFLECTION			
MEMBER		SPSF		MEMBER		SPSF	
SIZE (IN.)	CODE	12	16	12	16	24	
		(FT.-IN.)		(FT.-IN.)		(FT.-IN.)	
1-5/8"	STN	25	9-10	8-11	7-10		
	STH	22	11-5	10-4	9-0		
	STE	20	12-1	11-0	9-7		
2-1/2"	STN	25	13-7	12-4	10-8		
	STH	22	15-8	14-4	12-6		
	STE	20	16-10	15-4	13-4		
3-1/2"	STN	25	17-7	16-0	13-1		
	STH	22	20-5	18-6	16-2		
	STE	20	21-10	19-10	17-4		
3-5/8"	STN	25	18-1	16-4	13-4		
	STH	22	21-0	19-0	16-7		
	STE	20	22-5	20-4	17-10		
4"	STN	25	19-6	17-1	14-0		
	STH	22	22-7	20-7	18-0		
	STE	20	24-2	22-0	19-2		
5-1/2"	STN	25	29-2	26-6	22-4		
	STH	22	31-2	28-5	24-10		
	STE	20	31-4	28-5	23-2		
6"	STN	25	33-6	30-5	26-7		
	STH	22	33-6	30-5	26-7		
	STE	20	33-6	30-5	26-7		

- NOTE 1** STEEL STUDS AND RUNNERS (TRACK) COMPLY WITH ASTM STANDARD AND C 645-70, STEEL SCREWS RECOMMENDED SPECIFICATION FOR THE APPLICATION AND FINISHING OF GYPSUM BOARD (GA-216)
- NOTE 2** FOR HEAVY DOORS INSTALLED IN PARTITIONS, IT IS RECOMMENDED THAT DOOR CLOSURES BE USED. FOR DOOR FRAME INSTALLATION IN FIRE RATED STEEL STUD PARTITIONS SEE SECTION V.
- NOTE 3** DESCRIPTION.
- NOTE 4** CALCULATIONS ARE BASED ON ALLOWABLE DESIGN STRESS OF 20,000 PSI.

CONTRACTOR SHALL CONSULT WITH MANUFACTURER COMPLY WITH ASTM STANDARD C 1002 AND ARE SPACED IN ACCORDANCE WITH GYPSUM ASSOCIATION

MECHANICAL FASTENING OF STUDS TO TRACK IS NOT REQUIRED UNLESS SPECIFICALLY NOTED IN TEST STUD TABLE WHEN HEIGHTS EXCEED THOSE LISTED ABOVE.

SECTION VI LIMITING HEIGHTS (NONLOAD-BEARING)

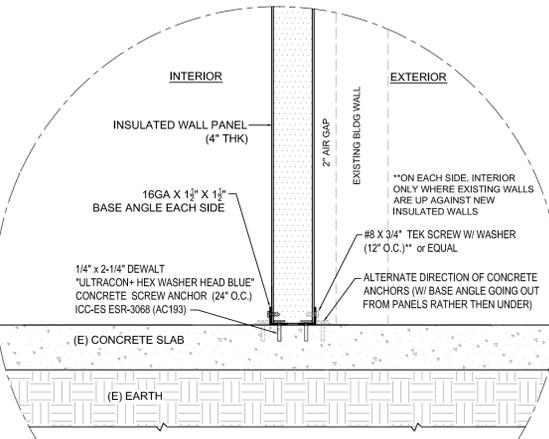
NOTE: THE LIMITING HEIGHT CALCULATIONS IN TABLE VI AREA SPECIFIC TO 0.0209 INCH BASE METAL THICKNESS AND MAY NOT BE REPRESENTATIVE OF ALL NOMINAL 25 GAGE METAL STUDS AVAILABLE INT. THE MARKETPLACE. WHERE BASE METAL THICKNESS ARE UNKNOWN OR KNOWN TO BE LESS THAN 0.0209 INCH, CONSULT THE METAL STUD MANUFACTURER FOR LIMITING HEIGHTS.

MAXIMUM HEIGHT LIMITATIONS ARE GIVEN FOR SOME NONLOAD-BEARING PARTITIONS, IN INSTANCES WHERE NO HEIGHT LIMIT IS GIVEN FOR SPECIAL PURPOSE PARTITIONS, SUCH AS MOVABLE OR SHAFT WALL SYSTEMS, THE MANUFACTURER SHALL BE CONSULTED.

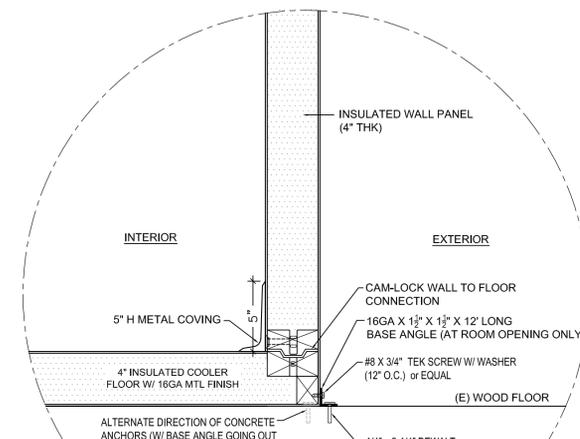
CRITERIA USED TO EVALUATE TRANSVERSE LOAD TESTS, CONDUCTED TO DETERMINE MAXIMUM HEIGHTS, ARE 5 POUNDS PER SQUARE FOOT FOR BOTH STRESS AND DEFLECTION REQUIREMENTS WITH A DEFLECTION LIMITATION OF HEIGHT DIVIDED BY 120 FOR GYPSUM BOARD AND HIGH STRENGTH GYPSUM VENEER FINISHES, AND HEIGHT DIVIDED BY 240 FOR GYPSUM OR METAL LATH AND PLASTER PARTITION HEIGHTS WITH GYPSUM BOARD. SCREW ATTACHED TO STEEL STUDS, ARE BASED UPON A COMPOSITE SECTION WITH STEEL STUDS COMPLYING WITH ASTM C 645-70 UNLESS OTHERWISE INDICATED.

A LIMITING HEIGHT IN EXCESS OF THAT SHOWN MAY BE OBTAINED BY USING A DEEPER STUD THAN THAT TESTED, BY SPACING THE STUDS CLOSER TOGETHER BY USING A HEAVIER GAGE STUD, OR BY ADDING AN ADDITIONAL PLY OF GYPSUM BOARD. TABLE VI MAY BE USED AS A GUIDE FOR GYPSUM BOARD AND HIGH STRENGTH GYPSUM VENEER FINISHES.

A HIGHER DEGREE OF DEFLECTION RESISTANCE FOR SOME APPLICATIONS MAY BE DESIRABLE SUCH AS FOR OFFICES AND INSTITUTIONAL BUILDINGS AS COMPARED TO INDUSTRIAL BUILDINGS. LOWER LIMITING HEIGHTS THAN THOSE BASED ON DEFLECTION AND STRESS CRITERIA MAY THEREFORE BE WARRANTED FOR IMPROVED PERFORMANCE AS RELATED TO HUMAN RESPONSE TO FLEXURE FROM IMPACT, OR TO



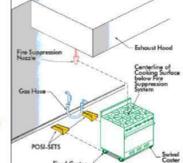
3.1 DETAIL- COOLER WALL PANEL TO CONCRETE
N.T.S.



3.2 INSULATED SUB FLOOR DETAIL
N.T.S.

POST-SET™ Wheel Placement System

- Wheel placement system for moveable cooking equipment
- Designed for the positive placement of moveable gas equipment
- Ensures proper relocation of equipment after moving, cleaning or repairs
- Made of flame retardant thermoplastic resin
- Virtually indestructible
- Includes mounting hardware for proper installation
- Designed to meet the requirements of NFPA 704 5.6.4 2009 Edition
- Patent No. US 7,581,623



Gas Hose with Installation Kit

- Add a 'K' suffix to hose model number (see p. F7) to include all necessary pieces to install a gas appliance.
- Each kit includes:
 - One 90° street elbow
 - One GA-vented foodservice gas ball valve
 - One SealLink restraining cable, adjustable from 3' to 5' lengths (#010245-45)
 - All necessary hardware

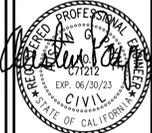


K Model Installation Kit

- Order with these model numbers when you only want the kit:
 - Kit with 3/2" Elbow AG-KC
 - Kit with 3/4" Elbow AG-KD
 - Kit with 1" Elbow AG-KE
 - Kit with 1 1/2" Elbow AG-KF
 - 3' cable w/ hardware AG-KG

4 GAS EQUIPMENT RESTRAINT SYSTEM

REV.	DATE	NO.



GLENN CUNNINGHAM, DESIGNER
BULL'S EYE CADD
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 SAN FRANCISCO, CA 94121
 c. (415) 301-3005
 o. (415) 666-3624
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Date:	12/20/22
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Sheet:	S-1