# ELOP RELOCATABLE CLASSROOM BUILDING AT WILSON ELEMENTARY SCHOOL STOCKTON UNIFIED SCHOOL DISTRICT



APP: 02-122823

**FILE NO.**: 39-69

**PROJECT ADDRESS** 

#### PROJECT DESCRIPTION

- THE PROJECT SHALL CONSIST OF THE FOLLOWING ITEMS HEREIN TO INCLUDE BUT NOT NECESSARILY LIMITED TO: (1) NEW 36'X40' STOCKPILE #04-123793 APPROVED RELOCATABLE CLASSROOM BUILDING 'X' PURCHASED UNDER A SEPARATE CONTRACT BETWEEN THE DISTRICT AND CLASS LEASING.
- ASSOCIATED SITE WORK. SEE SPECIFICATION SECTION "MULTIPLE CONTRACT SUMMARY" FOR ADDITIONAL INFORMATION

WELD PLATES WILL BE PROVIDED BY CLASS LEASING AND DELIVERED TO SITE CONTRACTOR PRIOR TO DELIVERY OF

- PREPARATION OF EXISTING SITE INCLUDING EXCAVATION AND REMOVAL OF SOIL IN PREPARATION FOR PIT-SET BUILDING WITH CONCRETE FOUNDATION AND ASSOCIATED SITE WORK INCLUDING
- CONCRETE FOOTINGS AND REINFORCEMENT AS INDICATED ON 1 OFF-LOADING OF CLASSROOM RELOCATABLE MODULES FROM
- DELIVERY VEHICLES, INSTALLING ON CONCRETE FOUNDATION AND SIGNAGE AND EXTERIOR AND INTERIOR FINISHES AS INDICATED IN
- THE CONSTRUCTION DOCUMENTS

#### CONSTRUCTION OF NEW CONCRETE BENCH, SEE 16 / A112

PRIOR TO SHIPPING OF MODULAR BUILDINGS AT THE SITE PER STOCKPILE APPLICATION 04-123793, THE TEAM MUST SUBMIT TO DSA THE IN-PLANT INSPECTOR INSPECTION CARD / VERIFIED REPORT FROM DSA 152-IPL FOR THE STOCKPILE APPLICATION UPLOADED TO DSABOX.

# PROJECT DESCRIPTION

#### **ENFORCING AGENCY**

DIVISION OF THE STATE ARCHITECT (DSA), SACRAMENTO OFFICE

APPLICABLE COMMUNITY ORDINANCE SECTION: NOT REQUIRED

#### FLOOD ZONE INFORMATION

FLOOD ZONE DESIGNATION: ZONE X AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE OF FLOOD. FLOOD INSURANCE RATE MAP (FIRM) PANEL DESIGNATION: 06077C0460F PANEL EFFECTIVE DATE OF (FIRM): OCTOBER 16, 2009 BASE FLOOD ELEVATION (BFE): NOT REQUIRED

# **AGENCY & FLOOD ZONE INFORMATION**

THE CALIFORNIA ENERGY CODE SECTION 10-103 REQUIRES ACCEPTANCE TESTING ON ALL NEWLY INSTALLED LIGHTING CONTROLS, MECHANICAL SYSTEMS, ENVELOPES, AND PROCESS EQUIPMENT AFTER INSTALLATION AND BEFORE PROJECT COMPLETION. AN ACCEPTANCE TEST IS A FUNCTIONAL PERFORMANCE TEST TO HELP ENSURE THAT NEWLY INSTALLED EQUIPMENT IS OPERATING AND IN COMPLIANCE WITH THE ENERGY CODE.

LIGHTING CONTROLS ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED LIGHTING CONTROLS ACCEPTANCE TEST TECHNICIAN (ATT).

MECHANICAL SYSTEM ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED MECHANICAL ATT FOR PROJECTS SUBMITTED ON OR AFTER OCTOBER 1, 2021.

ENVELOPE AND PROCESS EQUIPMENT ACCEPTANCE TESTS SHALL BE PERFORMED BY INSTALLING CONTRACTOR, ENGINEER/ARCHITECT OF RECORD OR THE OWNER'S AGENT.

A LISTING OF CERTIFIED ATT'S CAN BE FOUND AT HTTPS:WWW.ENERGY.CA.GOV./PROGRAMS-AND-TOPICS/PROGRAMS/ACCEPTANCE-TEST-TECHNICIAN-CERTIFICATION-PROVIDER-PROGRAM/ACCEPTANCE

THE ACCEPTANCE TESTING PROCEDURES MUST BE REPEATED, AND DEFICIENCIES MUST BE CORRECTED BY THE BUILDER OR INSTALLING CONTRACTOR UNTIL THE CONSTRUCTION/INSTALLATION OF THE SPECIFIED SYSTEMS CONFORM AND PASS THE REQUIRED

PROJECT INSPECTORS WILL COLLECT THE FORMS TO CONFIRM THAT THE REQUIRED ACCEPTANCE TESTS HAVE BEEN COMPLETED.

#### FIRST TIME RELOCATION DIRECTLY FROM THE STOCKPILE

- A. IN-PLANT VERIFIED REPORT B. LABORATORY VERIFIED REPORT
- C. WELDING VERIFIED REPORT
- THE SITE INSPECTOR SHALL VERIFY THE ABOVE DOCUMENTS AND SERIAL NUMBERS ARE APPLICABLE TO EACH UNIT PRIOR TO INSTALLATION OF THE UNIT(S).

IN-PLANT INSPECTOR AND MANUFACTURER SHALL FOLLOW THE REQUIREMENTS OF DSA IR16-1 AND INCLUDE THE FOLLOWING INFORMATION ON ID TAG OF SHOP FABRICATED RELOCATABLE STRUCTURE:

- 1. THE DSA APPLICATION NUMBER AND CBC EDITION UNDER WHICH THE BUILDING
- CONSTRUCTION WAS AUTHORIZED;
- 2. THE MANUFACTURER OR BUILDER'S NAME
- 3. THE SERIAL NUMBER; 4. THE DESIGN CLIMATE ZONES;
- 5. THE DESIGN LIVE LOADS FOR THE ROOF AND FLOOR;
- 6. THE DESIGN WIND SPEED AND EXPOSURE CATEGORY; 7. THE SEISMIC DESIGN PARAMETER Ss.

DOCUMENT, (CCD) OR A SEPARATE SET OF PLANS AND SPECIFICATIONS DETAILING AND SPECIFYING THE REQUIRED REPAIR WORK SHALL BE SUBMITTED TO AND APPROVED BY

DSA BEFORE PROCEEDING WITH THE REPAIR WORK. MODULAR MANUFACTURER BUILDING 2022 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 C.C.R. 2022 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R.

2022 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 C.C.R 2022 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R. 2022 CALIFORNIA ENERGY CODE, PART 6, TITLE 24 C.C.R. 2022 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 C.C.R. 2022 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 C.C.R. 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24 C.C.R. 2022 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24,

STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS (CA AMENDED) 2022 EDITION

TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

2022 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24, C.C.R.

STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE

SYSTEM (CA AMENDED 2019 EDITION STANDARD FOR DRY CHEMICAL EXTINGUISHING SYSTEMS

2021 EDITION NFPA 17A STANDARD FOR WET CHEMICAL EXTINGUISHING SYSTEMS

2021 EDITION STANDARD FOR THE INSTALLATION OF STATIONARY PUMPS FOR FIRE PROTECTION 2019 EDITION

STANDARD WATER TANKS FOR PRIVATE FIRE PROTECTION 2018 EDITION

STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES (CA AMENDED) 2022 EDITION NATIONAL FIRE ALARM AND SIGNALING CODE (CA AMENDED)

STANDARD FOR FIRE DOORS AND OTHER OPENING PROTECTIVES 2019 EDITION STANDARD ON CLEAN AGENT FIRE EXTINGUISHING SYSTEM (CA AMENDED) 2018 EDITION

STANDARD FOR FIRE TESTING OF FIRE EXTINGUISHING SYSTEM FOR PROTECTION OF COMMERCIAL COOKING EQUIPMENT 2005 (R2014)

AUDIBLE SIGNALING DEVICES FOR FIRE ALARM AND SIGNALING SYSTEMS, INCLUDING ACCESSORIES 2003 EDITION STANDARD FOR HEAT DETECTORS FOR FIRE PROTECTIVE

SIGNALING SYSTEMS 1999 EDITION (R2005) STANDARD FOR SIGNALING DEVICES FOR THE HEARING IMPAIRED 2002 (R2012) STANDARD FOR BLEACHERS, FOLDING AND TELESCOPIC SEATING, ICC 300 AND GRANDSTANDS 2017 EDITION

FOR A COMPLETE LIST OF APPLICABLE NFPA STANDARDS REFER TO 2022 CBC (SFM) CHAPTER 35 AND CALIFORNIA FIRE CODE (CFC) CHAPTER 80.

SEE CALIFORNIA BUILDING CODE, CHAPTER 35, FOR STATE OF CALIFORNIA AMENDMENTS TO THE NFPA STANDARDS.

# COPIES OF CCR T24, PARTS 1 THROUGH 5 AND 9, MUST BE KEPT ON SITE DURING

AS REQUIRED IN SECTION 4-338, PART I, CAC, AND SHALL BE SUBMITTED TO, AND APPROVED BY DSA PRIOR TO COMMENCEMENT OF THE WORK, CONSTRUCTION CHANGE DOCUMENTS SHALL BE PREPARED AND SUBMITTED TO DSA IN COMPLIANCE WITH DSA INTERPRETATION OF REGULATION IR A-6.

- ALL TESTS TO CONFORM TO THE REQUIREMENTS OF CCR T24, PART 1 CAC, SECTION 4-335, AND APPROVED T & I SHEET.
- TESTS OF MATERIALS AND TESTING LABORATORY SHALL BE IN ACCORDANCE WITH CCR T24, PART 1 CAC, SECTION 4-335, PART I, AND THE DISTRICT SHALL EMPLOY AND PAY THE LABORATORY. COSTS OF RETEST MAY BE BACK CHARGED
- DSA SHALL BE NOTIFIED AT THE START OF CONSTRUCTION AND PRIOR TO THE
- OWNER AND APPROVED BY ARCHITECT, STRUCTURAL ENGINEER, AND DSA INSPECTOR SHALL BE IN ACCORDANCE WITH SECTION 4-333(c). THE DUTY OF THE INSPECTOR SHALL BE IN ACCORDANCE WITH TITLE 24 SECTION 4-342, PART I.
- SUPERVISION OF CONSTRUCTION BY DSA SHALL BE IN ACCORDANCE WITH CCF T24, PART 1 CAC, SECTION 4-334.
- CONTRACTOR, INSPECTOR, ARCHITECT, AND ENGINEERS SHALL SUBMIT
- THE ARCHITECT AND THE STRUCTURAL ENGINEER SHALL PERFORM THEIR DUTIES IN ACCORDANCE WITH CCR T24, PART 1 CAC, SECTION 4-333 (a) AND 4-341
- 10. THE CONTRACTOR SHALL PERFORM HIS DUTIES IN ACCORDANCE WITH CCR T24 PART I CAC, SECTION 4-343.
- 11. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CCR. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CCR, A CONSTRUCTION CHANGE DOCUMENT (CCD), OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK, (CCR T24 PART 1 CAC, SECTION
- 12. SUBSTITUTIONS AND REQUESTS FOR INFORMATION AFFECTING STRUCTURAL SAFETY, FIRE AND LIFE SAFETY OR ACCESS COMPLIANCE SHALL BE APPROVED BY DSA PRIOR TO FABRICATION OR USE.
- 13. ADDENDA MUST BE SIGNED BY ARCHITECT AND APPROVED BY DSA
- 14. NO CHANGES OR REVISIONS SHALL BE MADE FOLLOWING WRITTEN APPROVAL WHICH AFFECTS ACCESS COMPLIANCE ITEMS UNLESS SUCH CHANGES OR REVISIONS ARE SUBMITTED TO THE DSA FOR APPROVAL.
- 15. CONSTRUCTION CHANGE DOCUMENTS MUST BE SIGNED BY THE FOLLOWING: ARCHITECT OR ENGINEER OF RECORD
  - STRUCTURAL ENGINEER (WHEN APPLICABLE) DELEGATED PROFESSIONAL ENGINEER
- 16. MATERIALS AND THEIR INSTALLATION SHALL COMPLY WITH APPLICABLE CODES,
- STANDARDS AND MANUFACTURER'S RECOMMENDATIONS. 17. THESE PLANS AND SPECIFICATIONS WILL COMPLY WITH CBC & CFC CHAPTER 33
- FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION. 18. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL
- 19. DSA IS NOT SUBJECT TO ARBITRATION.

**GOVERNING CODES** 

COMPLY WITH ALL LOCAL ORDINANCES.

20. NEW BUILDINGS SHALL BE PROVIDED WITH EMERGENCY RESPONDER RADIO COVERAGE IN ACCORDANCE WITH CALIFORNIA FIRE CODE SECTION 510. THE PROJECT ARCHITECT (AOR) SHALL CONTACT THE LOCAL FIRE AUTHORITY TO OBTAIN DESIGN, EQUIPMENT SPECIFICATIONS, TESTING AND ACCEPTANCE CRITERIA. PLANS AND REQUESTED DOCUMENTATION SHALL BE SUBMITTED TO THE LOCAL AUTHORITY HAVING JURISDICTION FOR REVIEW AND APPROVAL. UPON COMPLETION, COPIES OF THE APPROVED PLANS, EQUIPMENT DATA SHEETS, TESTING AND ACCEPTANCE DOCUMENTATION SHALL BE PROVIDED TO THE SCHOOL DISTRICT

## STATEMENT OF GENERAL CONFORMANCE

FOR ARCHITECTS/ENGINEERS WHO UTILIZE PLANS, INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, PREPARED BY OTHER LICENSED DESIGN PROFESSIONALS AND/OR

HAVE BEEN PREPARED BY OTHER DESIGN PROFESSIONALS OR

OF TITLE 24, CALIFORNIA CODE OF REGULATIONS AND THE PROJECT

SPECIFICATIONS PREPARED BY ME, AND 2. COORDINATION WITH MY PLANS AND SPECIFICATIONS AND IS ACCEPTABLE

ME OF MY RIGHTS, DUTIES, AND RESPONSIBILITIES UNDER SECTIONS 17302 AND 81138 OF THE EDUCATION CODE AND SECTIONS 4-336, 4-341, AND 4-344" OF TITLE 24, PART I.

I CERTIFY THAT: ALL DRAWING SHEETS INCLUDED IN THIS SET NOT BEARING MY STAMP AND

DRAWINGS SHEETS DENOTED IN THE SHEET INDEX AS FOLLOWS

DRAWING SHEETS INCLUDED UNDER THE FOLLOWING PC APPROVAL 04 - 123059

IS/ARE IN GENERAL CONFORMANCE AND HAVE BEEN COORDINATED

WITH THE PROJECT PLANS AND SPECIFICATIONS

JAMIE E. HICKMAN JR. ARCHITECT/ PARTNER TETER, INC.

> 07-31-25 C23801 LICENSE NUMBER **EXPIRATION DATE**

# ARCHITECT'S STATEMENT

#### WIND DESIGN DATA [2022 CBC 1603A.1.4]

- 1. ULTIMATE DESIGN WIND SPEED
- 2. RISK CATEGORY 3. WIND EXPOSURE CATEGORY
- EARTHQUAKE DESIGN DATA [2022 CBC 1603A.1.5] SITE COORDINATES: 38.0191842° N, -121.3103933° W
- 1. RISK CATEGORY
- 2. SEISMIC IMPORTANCE FACTOR 3. MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS
- Ss = 0.72g $S_1 = 0.282g$ 4. SITE CLASS D=(Default)
- 5. DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS  $S_{DS} = 0.587g$ S<sub>D1</sub>= <u>null</u>
- 6. SITE AMPLIFICATION
- SEISMIC DESIGN CATEGORY D

# WIND / SEISMIC DESIGN DATA

STOCKTON UNIFIED SCHOOL DISTRICT 56 SOUTH LINCOLN ST.

STOCKTON, CA 95203 (209) 933-7045 **CONTACT: VICKIE BRUM** 

EMAIL: vbrum@stocktonusd.net

GOVERNING CODES

PROJECT ARCHITECT TETER, INC. 7535 N. PALM AVE., SUITE 201 FRESNO, CA 93711

(559) 437-0887 E-MAIL: jamie.hickman@teterae.com

# CIVIL ENGINEER NORTHSTAR ENGINEERING

**620 12TH STREET MODESTO, CA 95354** (209) 524-3525 **CONTACT: CHRISTIAN GRAJEDA** 

EMAIL: cgrajeda@nseng.net

LANDSCAPE ARCHITECT SAM HARNED - LANDSCAPE P.O. BOX 2275 OAKDALE, CA 95361

(209)380-7376 EMAIL: sam@harnedla.com **ELECTRICAL ENGINEER** TETER, INC. 7535 N. PALM AVE., SUITE 201 **FRESNO, CA 93711** 

(559) 437-0887 **CONTACT: JASON MARCH** 

E-MAIL: jason.march@teterae.com

**BROOKSIDE RD** 

AREA MAP **VICINITY MAP** N.T.S.

**IDENTIFICATION STAM** DIV. OF THE STATE ARCHITE

APP: 02-122823 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹



**ACCEPTANCE TESTING** 

PROJECT DIRECTORY

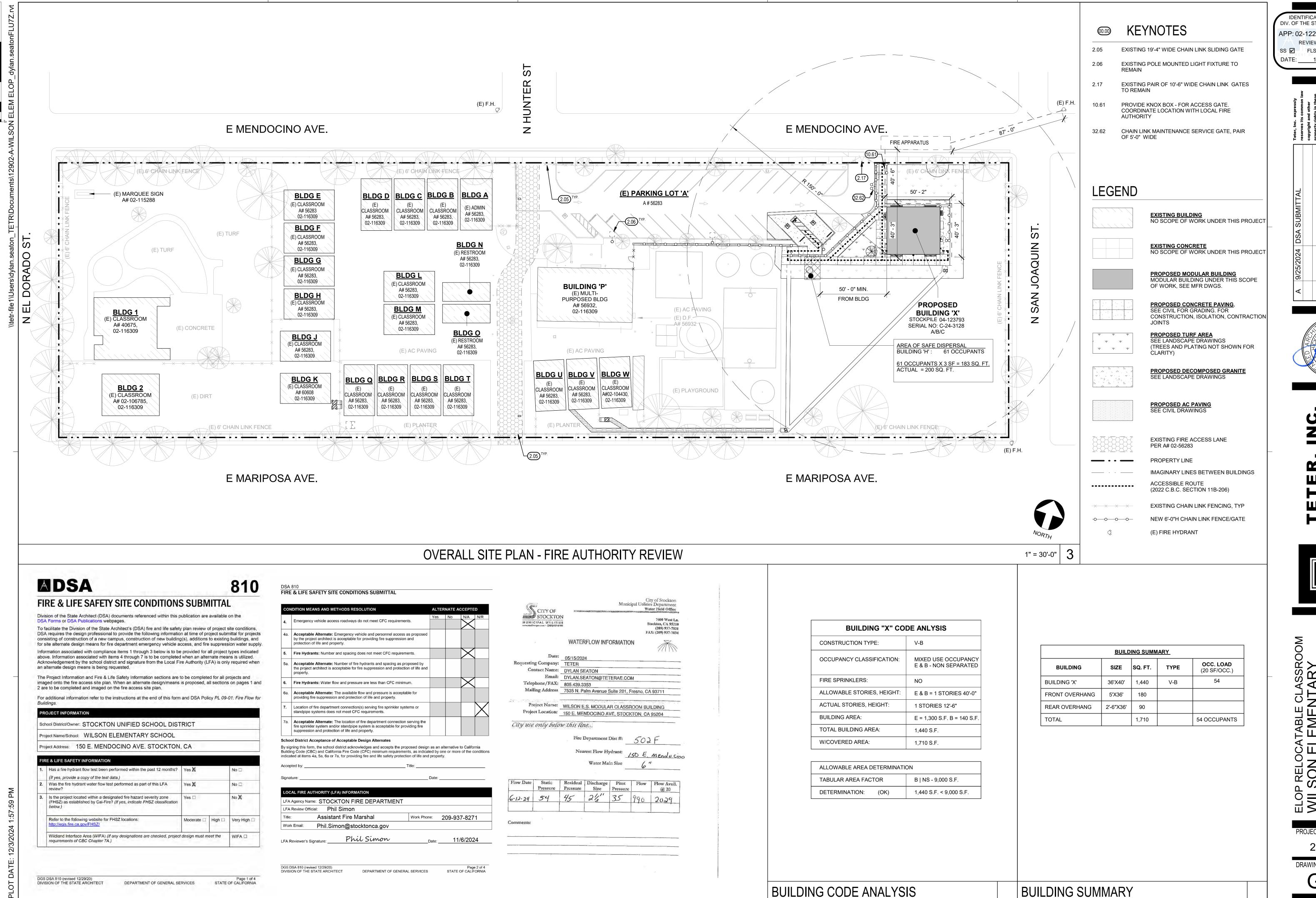
**DEFERRED SUBMITTALS** 

NONE

IDENTIFICATION STAMP

23-12902

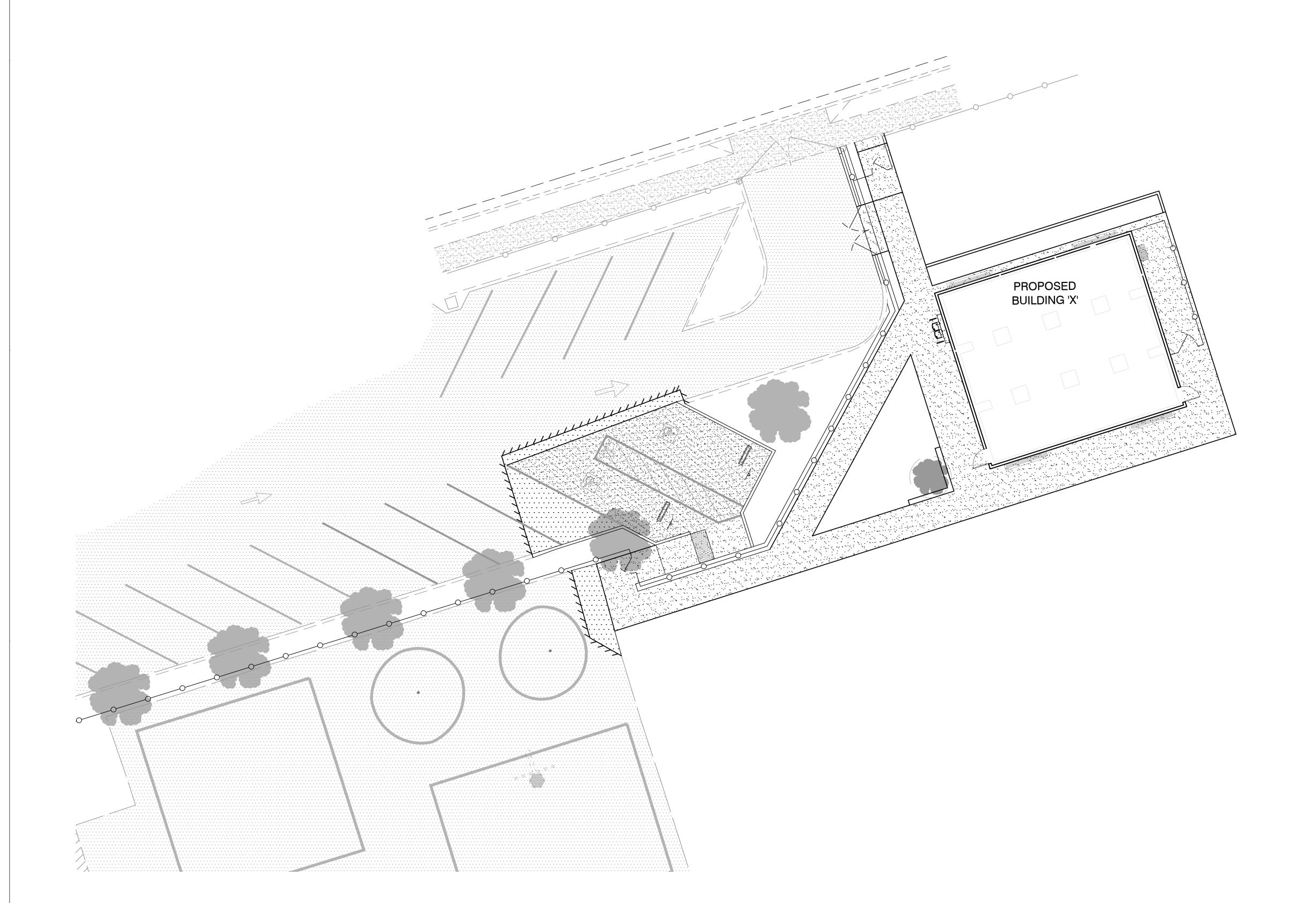
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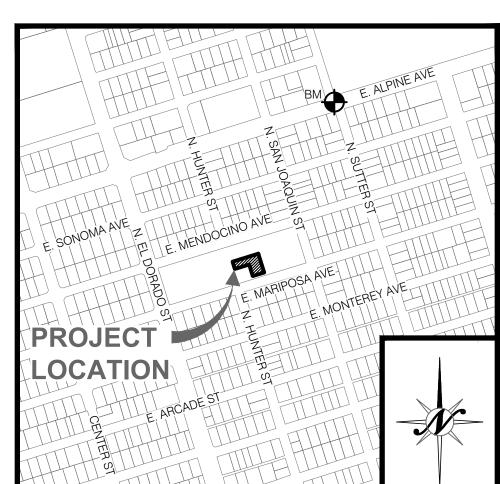
# CIVIL IMPROVEMENT PLANS FOR

# WILSON ELEMENTARY SCHOOL ELOP STOCKTON, CALIFORNIA



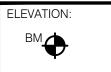




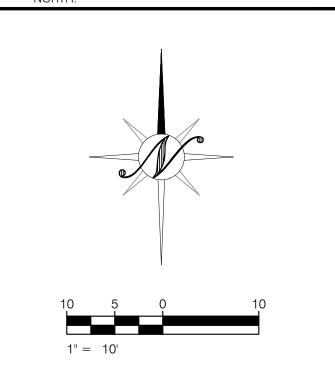


# VICINITY MAP

#### **BENCHMARK**



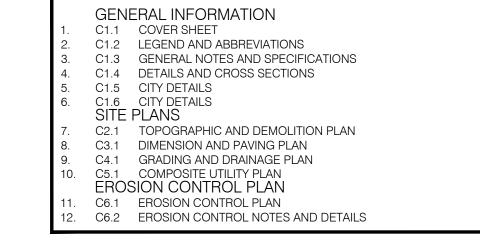
13.64
BRASS DISK MARKING COS MONUMENT STAMPED "1S-4" IN
MONUMENT WELL AT THE INTERSECTION OF THE
APPROXIMATE CENTERLINE OF ALPINE AVE AND SUTTER ST



# CONTACTS

A. REGULATORY AGENCY:	DIVISION OF THE STATE ARCHITECT-SACRAMENTO 1102 Q STREET, SUITE 5200 SACRAMENTO, CA 95811 T: (916) 445-8730
B. OWNER/DEVELOPER:	STOCKTON UNIFIED SCHOOL DISTRICT 56 S LINCOLN ST, STOCKTON, CA. 95203 T: (209) 933-7000
C. PROJECT LOCATION:	WILSON ELEMENTARY SCHOOL 150 E MENDOCINO AVE, STOCKTON, CA. 95212
D. ENGINEER:	NORTHSTAR ENGINEERING GROUP, INC 620 12TH STREET MODESTO, CA. 95354 T: (209) 524-3525 F: (209) 524-3526 CONTACT: JOHN ELLIS
E. ARCHITECT:	TETER, INC. 7535 N PALM AVENUE, SUITE 201 FRESNO, CA, 93711 T: (559) 437-0887 CONTACT: JAMIE HICKMAN

#### **SHEET INDEX**



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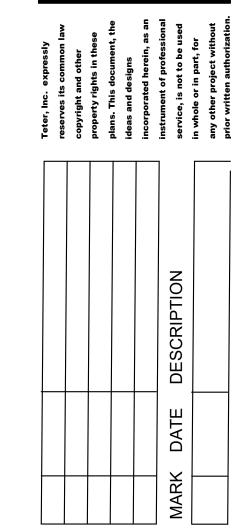
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APP: 02-122823 INC:

REVIEWED FOR

SS FLS ACS D

DATE: 1/30/2025





TETER, INC.

FRESNO HEADQUARTERS

ALIA I BAKERSFIELD I MODESTO I SAN LUIS OBISPO

CHITECTS ENGINEERS CONNECTED



OVEMENT PLANS FOR
ELEMENTARY
- ELOP
CALIFORNIA

STOCKTON,
DRAWING TITLE

PROJECT NO.

23-12902

C1.1

MONITORING WELL

<u>-</u>

**# ®** 

ABDN

ACM

ADA

AGG

APN

ASB

ASPH

ASR

**BDRY** 

BLDC

BLDG

CG/C&G

CG&S

CMH

COMP.

CONST

CONF

DCDA

DEMO

DOM, (DOM)

EL, ELEV

ELC/ELEC

ESMT OR EASE

**EX OR EXIST** 

FC, F/C

**FOUND** 

GRD

GUY

H2O

HORIZ

INST

FDC

EMH

CONC OR CC

COS OR C.O.S

ALGN

PLUS OR MINUS (NOT EXACT)

ACRE, ASPHALT CONCRETE

ASBESTOS CONTAINING MATERIAL

AMERICANS W/ DISABILITIES ACT

ASSESSORS PARCEL NUMBER

AUTOMATIC SPRINKLER RISER

BEST MANAGEMENT PRACTICES

ASBESTOS CEMENT PIPE

DIAMETER

ABANDONED

ATRIUM GRATE

AGGREGATE

ALIGNMENT

ALTERNATE

ASPHALT

**BEGIN CURVE** 

**BOUNDARY** 

BUII DING

BENCHMARK

**BLOW OFF** 

BOLLARD

AIR RELEASE VALVE

AGGREGATE SUBBASE

BACK FLOW PREVENTOR

BUILDING CORNER

BOTTOM OF DOCK

BACK OF SIDEWALK

BUILDING SETBACK LINE

BEGIN VERTICAL CURVE

CONTINUOUS DEFLECTION

CURB, GUTTER & SIDEWALK

CABLE MAINTENANCE HOLE

CORRUGATED METAL PIPE

CONFORM TO EXISTING

CITY OF STOCKTON

CONSTRUCTION OR CONSTRUCT

DOUBLE CHECK DETECTOR ASSEMBLY

DOMESTIC WATER/DRYWELL/DEWATERING

EAST/EASTING COORDINATE/ELECTRIC

DROP/DRAIN INLET/DUCTILE IRON

CAST IRON/CURB INLET

CURB AND GUTTER

CAST IRON PIPE

COMMUNICATION

CENTER LINE

CLEAN OUT

CONCRETE

COMPACTION

CURB/CROWN

COURT/CUBIC

CHECK VALVE

DELTA (CURVE)

CUBIC YARD

DEMOLISH

DIAMETER

DOMESTIC

DOWNSPOUT

DRIVEWAY

**END CURVE** 

**ELEVATION** 

**ELECTRIC BOX** 

**ELECTRIC VAULT** 

**END STRIPING** 

FUTURE

FIRE ALARM

FIRE ALARM BOX

FACE OF CURB

FINISH GRADE

FIRE HYDRANT

FOUNDATION

FOOT, FEET

FIRE WATER

GAS, GROUND

GRADE BREAK

**GAS METER** 

GROUND

**GROUND ELEVATION** 

GROUND SHOT ELEVATION

HIGH PRESSURE SODIUM/SYSTEM

GALVANIZED IRON

**GUY/GUIDE LINE** 

HOT MIX ASPHALT

HIGH WATER LINE

IRRIGATION CONTROL BOX

IRRIGATION HEADWALL

IRRIGATION STAND PIPE

IRRIGATION METER

INSIDE DIAMETER

INSTALL

IRRIGATION

IRRIGATION CONTROL VALVE

IRRIGATION MAINTENANCE HOLE

IRRIGATION BOX

HORIZONTAL

GAS VALVE

HOSE BIB

HFIGHT HIGH POINT

HIGHWAY

FLANGE

FLOW LINE/FLANGE

FOUND/FRENCH DRAIN

FLARED END SECTION

FINISH FLOOR ELEVATION

FEMALE IRON PIPE THREAD

FLOWMETER/FORCE MAIN

FIRE SPRINKLER RISER

FINISHED SURFACE, FIRE SERVICE

ELECTRIC METER

EDGE OF PAVEMENT

END OF VERTICAL CURVE

ELECTRIC MAINTENANCE HOLE

EMERGENCY VEHICLE ACCESS

FIRE DEPARTMENT CONNECTION

ELECTRICAL

**EXISTING GRADE** 

DEPARTMENT

**DUCTILE IRON PIPE** 

DOUBLE YELLOW LINE

FINISHED GRADE AT BOTTOM OF WALL

BACK OF WALK

**BEGIN STRIPING** 

CONCRETE

CATCH BASIN

AGGREGATE BASE

AIR CONDITIONING

IRRIGATION VALVE

JUNCTION BOX

JUNCTION POLE

JOINT TRENCH

LENGTH (CURVE)

LIP OF GUTTER

LINEAL/LINEAR FEET

JOINT POLE

I ATFRAI





IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-122823 INC: **REVIEWED FOR** SS 🗹 FLS 🗹 ACS 🗹 DATE: <u>1/30/2025</u> or talan don.

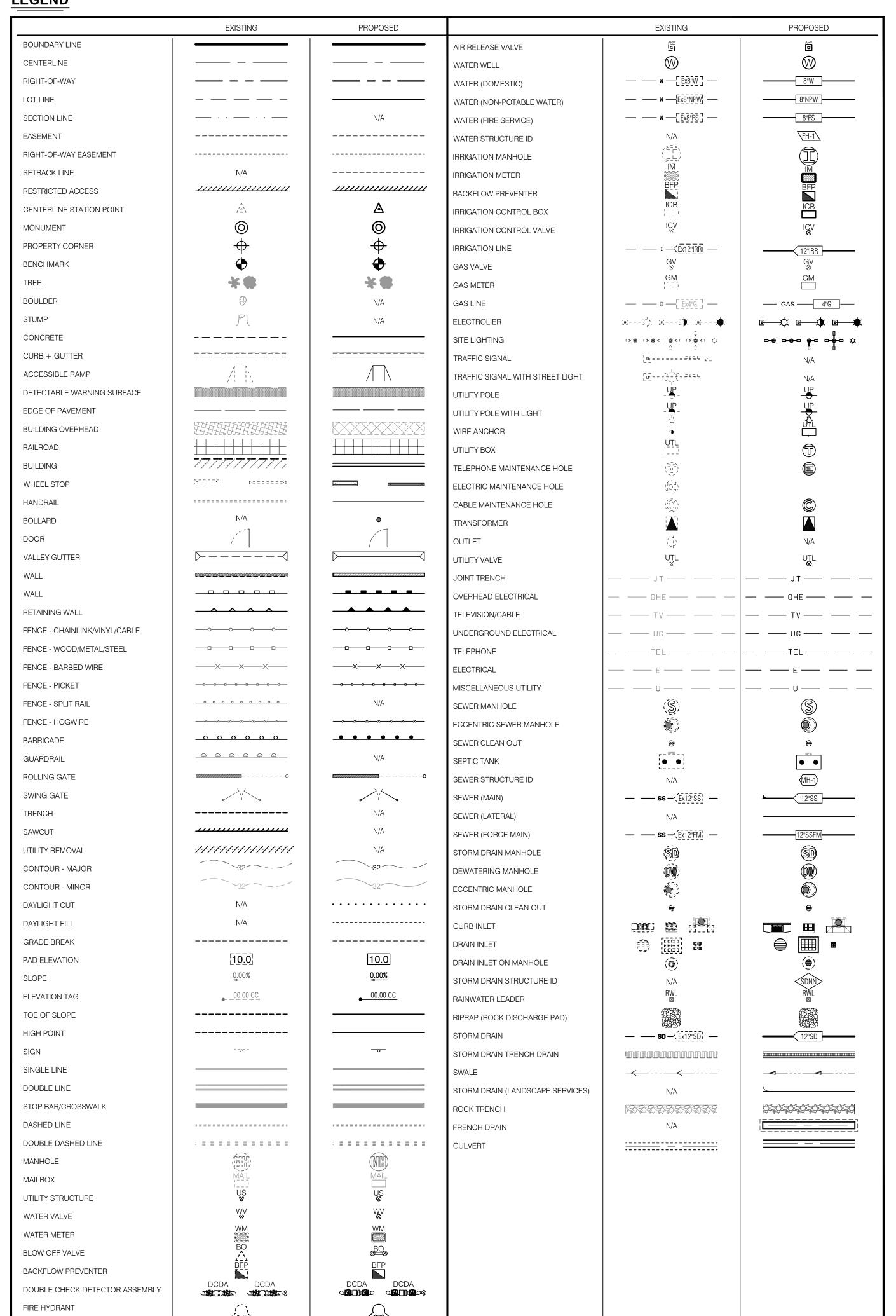
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	reserves its common law			



VEMENT PLANS I

PROJECT NO.

-N	LIP OF GUTTER LANE			
.P :H	LIGHT POLE, LOW POINT FIRE HYDRANT			_
S	LANDSCAPE	UOS	UNLESS OTHERWISE SPECIFIED	1
SA A	LANDSCAPE ARCHITECT MEDICAL AIR	USA-B USA-G	WATER (BLUE) SEWER/STORM DRAIN (GREEN)	
AX EP	MAXIMUM MECHANICAL/ELECTRICAL/PLUMBING	USA-M	TEMPORARY SURVEY MARKINGS (MAGENTA)	
1	MAN/MAINTENANCE HOLE	USA-O USA-P	COMMUNICATION CATV (ORANGE) RECLAIMED WATER IRR. SLURRY (PURPLE)	
V PT	MINIMUM  MALE IRON PIPE THREAD	USA-R USA-W	ELECTRICAL (RED)	
	MECHANICAL JOINT	USA-Y	PROPOSED EXCAVATION (WHITE) GAS, OIL, STEAM (YELLOW)	
PVC DN	MIDPOINT OF VERTICAL CURVE MONUMENT	VC VCP	VERTICAL CURVE VITRIFIED CLAY PIPE	
6	MOW STRIP	VERT	VERTICAL	
N	MONITORING WELL NORTH, NORTHING COORDINATE	W W/	WEST, WATER WITH	
)	NEW	WA	WALL	
OS C	NDS INC. (MANUFACTURER) NOT INCLUDED/IN CONTRACT	WB WM	WATER BOX WATER METER	
D SE	NUMBER NORTHSTAR ENGINEERING	WMB	WATER METER BOX	
-S	NOT TO SCALE	WOA WS	WASHOUT AREA WATER SERVICE	
C   G	ON CENTER ORIGINAL GROUND / GRADE	WV	WATER VALVE	
HE	OVERHEAD ELECTRICAL	WWF	WATER WELL WELDED WIRE FABRIC	
R.	OFFICIAL RECORDS PROPOSED	WY YD	WAY YARD	
PAV	PAVEMENT	10	TAND	
BCC	PULL BOX POINT OF COMPOUND/CONVERSE CURVATURE			
CC	PORTLAND CEMENT CONCRETE PLAIN END			
:D	PEDESTRIAN			
ERF	PERFORATED PAGE			
G&E	PACIFIC GAS AND ELECTRIC			
1 D	POTHOLE POINT ID			
<b>v</b>	POST/PRESSURE INDICATOR VALVE			1
_ M	PROPERTY LINE PARKING METER, PARCEL MAP			1
MH O	POWER MANHOLE PUSH-ON			1
oc	POINT ON CURVE/POINT OF CONNECTION			1
OI P	POINT OF INTERSECTION POWER POLE			1
RC	POINT OF REVERSE CURVATURE			1
ROF RV	PROFILE PRESSURE REDUCING VALVE			1
RUE	PRIVATE UTILITY EASEMENT			1
T T&T	POINT PACIFIC TELEPHONE & TELEGRAPH			1
JE	PUBLIC UTILITY EASEMENT			1
VC	POLYVINYL CHLORIDE PIPE RIGHT			1
= C	RADIUS RELATIVE COMPACTION			
CP	REINFORCED CONCRETE PIPE			
) J	ROAD, RELATIVE DENSITY RESTRAINED JOINT			
>	RADIUS POINT			
PPA SC	REDUCED PRESSURE PRINCIPLE ASSEMBLY RECEIVING AND SUPPORT CENTER			
√	RESISTANCE VALUE			
W W, R/W, ROW	RECYCLED WATER RIGHT-OF-WAY			
WL	RAINWATER LEADER SOUTH, SLOPE			
A.D.	SEE ARCHITECTURAL DRAWINGS			
BL C	SETBACK LINE, SOLID BLACK LINE SAN JOAQUIN COUNTY			
co	SEWER CLEANOUT			1
D DB	STORM DRAIN STORM DRAIN BASIN			
DCB	STORM DRAIN CATCH BASIN			
DCO DDW	STORM DRAIN CLEAN OUT STORM DRAIN DEWATERING			
DI	STORM DRAIN INLET			
DFM DMH	STORM DRAIN FORCE MAIN STORM DRAIN MAINTENANCE HOLE			1
.E.D. G	SEE ELECTRICAL DRAWINGS SUB-GRADE			
а =	SILT FENCE SG SUBGRADE			
⊣T M	SHEET			
-	SIMILAR STREET LIGHT			
L.D. _B	SEE LANDSCAPE DRAWINGS STREET LIGHT BOX			1
ИH	SIGNAL MANHOLE			1
M.D. VS	SEE MECHANICAL DRAWINGS STREET NAME SIGN			1
>	SERVICE POLE			1
P.D RL	SEE PLUMBING DRAWINGS SOLID RED LINE			1
5	SANITARY SEWER			1
SCO SFM	SANITARY SEWER CLEAN OUT SANITARY SEWER FORCE MAIN			1
SMH SPS	SANITARY SEWER MAN/MAINTENANCE HOLE SANITARY SEWER PUMP STATION			1
Γ	STREET, SEPTIC TANK			1
ΓA ΓD	STATION STANDARD			1
rL	STEEL			1
W, SW VL	SIDEWALK SOLID WHITE LINE, SWALE			1
	TELEPHONE			1
BC	TOP OF CURB TOP BACK OF CURB			1
CP )	TEMPORARY CONTROL POINT TRENCH DRAIN			1
EL	TELEPHONE			1
ELB ELV	TELEPHONE BOX TELEPHONE VAULT			1
MP	TEMPORARY			1
C	TOP FACE OF GRATE TOP OF GRATE			1
	THRESHOLD THICK			1
łK	TRAFFIC INDEX			1
MH DD	TELEPHONE MAINTENANCE HOLE TOP OF DOCK			1
ow	TOP OF WALL			1
E	TELEPHONE POLE, TEST PIT TREE PLANTING EASEMENT			1
3	TRAFFIC SIGNAL			1
SB SCE	TRAFFIC SIGNAL BOX TEMPORARY STABILIZED CONSTRUCTION ENTRANCE			1
SP	TRAFFIC SIGNAL POLE			1
' 'R	TELEVISION CABLE TV RISER			1
P	TYPICAL			1
UTIL/UTL	UTILITY UNDERGROUND			J
G, U/G				
	UNLESS OTHERWISE NOTED		COPYRIG	HT © 2024 NORTHSTAR ENGINEERING GRO



ALL IMPROVEMENTS SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE FOLLOWING: CITY OF STOCKTON ("CITY") STANDARD SPECIFICATIONS AND THE LATEST EDITION OF THE CALIFORNIA BUILDING CODE. WHERE THERE IS A CONFLICT BETWEEN THE PLANS AND THE CITY AND/OR CALIFORNIA BUILDING CODE STANDARDS, THE CITY AND/OR CALIFORNIA BUILDING CODE STANDARDS

SHALL PREVAIL. ALL WORK SHALL BE SUBJECT TO THE INSPECTION OF THE CITY OF STOCKTON.

- PRIOR TO ANY WORK BEING PERFORMED, THE CONTRACTOR SHALL CONTACT THE APPROPRIATE REGULATORY AGENCIES FOR A PRE-CONSTRUCTION CONFERENCE. CONTRACTOR SHALL ALSO NOTIFY THE PROJECT CONTACTS LISTED ON THIS SHEET FORTY-EIGHT (48) HOURS IN ADVANCE OF SAID
- IT IS INTENDED THAT THESE PLANS AND SPECIFICATIONS REQUIRE ALL LABOR AND MATERIALS NECESSARY AND PROPER FOR THE WORK CONTEMPLATED AND THAT THE WORK BE COMPLETED IN ACCORDANCE WITH THEIR TRUE INTENT AND PURPOSE. THE CONTRACTOR SHALL NOTIFY NORTHSTAR FNGINEFRING GROUP, INC. ("FNGINEFR") IMMEDIATELY REGARDING ANY DISCREPANCIES AND AMBIGUITIES WHICH MAY EXIST IN THE PLANS AND SPECIFICATIONS. IF THE PLANS OR SPECIFICATIONS DESCRIBE PORTIONS OF THE WORK IN GENERAL TERMS BUT NOT IN COMPLETE DETAIL, IT IS UNDERSTOOD THAT ONLY THE BEST GENERAL PRACTICE IS TO PREVAIL AND THAT ONLY MATERIALS AND WORKMANSHIP OF THE FIRST QUALITY ARE TO BE USED.
- IF NORTHSTAR ENGINEERING GROUP, INC. IS TO PERFORM ANY SURVEY STAKING, THEN CONSTRUCTION STAKING FOR GRADING. CURB. GUTTER. SIDEWALK. SANITARY SEWER. STORM DRAIN AND WATER SHALL BE DONE UNDER THE DIRECTION OF THE ENGINEER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER SEVENTY-TWO (72) HOURS IN ADVANCE OF THIS NEED FOR STAKING. ANY STAKING REQUESTED BY THE CONTRACTOR OR HIS SUBCONTRACTORS THAT IS ABOVE AND BEYOND NORMAL STANDARD STAKING NEEDS AS OUTLINED IN THE CONTRACT, WILL BE SUBJECT TO AN EXTR BACK CHARGE TO THE CONTRACTOR.
- THE CONTRACTOR SHALL EXERCISE DUE CAUTION AND SHALL CAREFULLY PRESERVE BENCH MARKS REFERENCE POINTS AND ALL SURVEY STAKES, AND SHALL BEAR ALL EXPENSE FOR REPLACEMENT AND/OR ERRORS CAUSED BY THEIR UNNECESSARY LOSS OR DISTURBANCE.
- CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SIT CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY A HOLD THE OWNER, ENGINEER AND THE CITY HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
- THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE CITY ENGINEER.
- THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN, OR OTHER DEVICES NECESSARY FOR PUBLIC SAFETY IN ACCORDANCE WITH THE CURRENT ISSUE OF "MANUAL OF TRAFFI CONTROLS. WARNING SIGNS. LIGHTS. AND DEVICES FOR USE IN PERFORMANCE OF WORK UPON HIGHWAY" PUBLISHED BY THE STATE OF CALIFORNIA BUSINESS AND TRANSPORTATION AGENCY. CONTRACTOR SHALL COORDINATE WITH THE GOVERNING LOCAL AGENCY TO DETERMINE IF ANY CHANGES TO THE CLASSIFICATION OR OPERATION OF A ROADWAY ARE REQUIRED DUE TO THE IMPROVEMENTS SHOWN ON THESE PLANS (SUCH AS SPEED LIMITS INTERSECTION TYPE, ETC.) ANI SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY INTERIM TRAFFIC MANAGEMENT MEASUR REQUIRED BY THE GOVERNING AGENCY, INCLUDING TRANSITIONAL SIGNAGE AND STRIPING IN PREPARATION OF AND TO BE INSTALLED PRIOR TO COMPLETION AND ACCEPTANCE OF ULTIMATE SIGNAGE AND STRIPING. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH IMPLEMENTING THESE MEASURES.
- THE OFFICE OF THE CITY OF STOCKTON PUBLIC WORKS SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE OF ANY WORK.
- CABLE TV, ELECTRICAL, GAS, AND TELEPHONE UNDERGROUND WORK SHALL BE COMPLETED PRIOR TO CONSTRUCTION OF THE CURB. GUTTER, SIDEWALK AND PAVING.
- THE CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT FROM THE CITY OF STOCKTON. DEPARTMENT OF PUBLIC WORKS OR ANY OTHER APPLICABLE AGENCY PRIOR TO COMMENCEMENT WORK WITHIN EXISTING CITY RIGHT-OF-WAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS AND LICENSES REQUIRED FOR THE CONSTRUCTION AND COMPLETION OF THE PROJECT.
- THE CITY OF STOCKTON OR ASSOCIATED UTILITY COMPANY AND RESIDENCES TO BE AFFECTED SHALL BE NOTIFIED IMMEDIATELY UPON ANY UTILITY SERVICE DISRUPTION OTHER THAN SPECIFIED ON THESE IMPROVEMENT PLANS AND A TWENTY-FOUR (24) HOUR NOTICE SHALL BE GIVEN FOR ANY PLANNED
- STREET SIGNS, TRAFFIC CONTROL SIGNS, AND PAVEMENT MARKINGS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR AT LOCATIONS ESTABLISHED BY THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING IMPROVEMENTS FROM DAMAGE. COST OF REPLACING DAMAGED EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS REQUIRING REMOVAL AND REPLACEMENT.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF THE REMOVAL OR RELOCATION OF ALL EXISTING UTILITIES WITH RESPECTIVE UTILITY COMPANIES.
- ASPHALT CONCRETE SHALL BE PLACED ONLY WHEN THE ATMOSPHERIC TEMPERATURE IS ABOVE 50°F
- DRAWING NUMBERS SHOWN ON THE PLANS REFER TO DRAWINGS CONTAINED IN THE CITY OF STOCKTON STANDARD SPECIFICATIONS (I.E. DWG. 30).
- ALL TRENCHES IN PAVED AREAS SHALL BE PAVED WITH TEMPORARY PAVING, OR COVERED WITH A STEEL PLATE OF APPROPRIATE SIZE AND STRENGTH, THE SAME DAY THE PAVEMENT CUT IS MADE.
- WHENEVER PAVEMENT IS BROKEN OR CUT IN THE INSTALLATION OF THE WORK COVERED BY THESE SPECIFICATIONS AND PLANS, THE PAVEMENT SHALL BE REPLACED, AFTER PROPER BACK FILLING, WITH PAVEMENT MATERIALS EQUAL TO OR BETTER THAN THE MATERIALS USED IN THE ORIGINAL PAVING. THE FINISHED PAVEMENT SHALL BE SUBJECT TO THE APPROVAL OF THE CITY ENGINEER.
- PRIOR TO COMMENCING ANY WORK, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE EACH UTILITY COMPANY LOCATED, IN THE FIELD, THEIR MAIN AND SERVICE LINES. THE CONTRACTOR SHALL NOTIFY MEMBERS OF THE UNDERGROUND SERVICE ALERT (U.S.A.) FORTY-EIGHT (48) HOURS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK BY CALLING THE TOLL-FREE NUMBER (800) 227-2600. THE CONTRACTOR SHALL RECORD THE U.S.A. ORDER NUMBER. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES SO THAT NO DAMAGE RESULTS TO THEM DURING THE PERFORMANCE OF THIS CONTRACT. ANY REPAIRS NECESSARY TO DAMAGED UTILITIES SHALL BE PAID FOR BY THE CONTRACTOR. THE CONTRACTOR SHALL BE REQUIRED TO COOPERATE WITH OTHER CONTRACTORS AND UTILITY COMPANIES INSTALLING NEW STRUCTURES, UTILITIES AND SERVICE TO THE DEVELOPMENT.
- PAYMENT FOR PAVEMENT WILL BE MADE ONLY FOR AREAS SHOWN ON THE PLANS. REPLACEMENT OF PAVEMENT WHICH IS BROKEN OR CUT DURING THE INSTALLATION OF THE WORK COVERED BY THESE SPECIFICATIONS AND PLANS, AND WHICH LIES OUTSIDE OF SAID AREAS, SHALL BE INDICATED IN THE CONTRACTOR'S UNIT PRICE FOR PAVEMENT, AND NO ADDITIONAL PAYMENT SHALL BE MADE FOR SUCH WORK.
- EXCAVATIONS OF 5 FEET OR MORE IN DEPTH WILL REQUIRE AN EXCAVATION PERMIT FROM THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL SAFETY. FOR TRENCHES 5 FEET OR MORE IN DEPTH, THE CONTRACTOR SHALL COMPLY WITH SECTION 5-1.02A OF THE CALTRANS STANDARDS, CHAPTER 9 OF THE STATE OF CALIFORNIA LABOR CODE, AND ANY LOCAL CODES OR ORDINANCES.
- WE CALL YOUR ATTENTION TO TITLE 8 CALIFORNIA ADMINISTRATION CODE SECTION 1540 (A) (1) OF THE CONSTRUCTION SAFETY ORDERS ISSUED BY THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD PURSUANT TO THE CALIFORNIA OCCUPATIONS SAFETY AND HEALTH ACT OF 1973 AS AMENDED WHICH STATES: (1) PRIOR TO OPENING AN EXCAVATION EFFORT SHALL BE MADE TO DETERMINE WHETHER UNDERGROUND INSTALLATIONS; I.E. SEWER, WATER, FUEL, ELECTRICAL LINES ETC., WILL BE ENCOUNTERED AND IF SO, WHERE SUCH UNDERGROUND INSTALLATIONS ARE LOCATED WHEN THE EXCAVATION APPROACHES THE APPROXIMATE LOCATION OF SUCH INSTALLATION, THE EXACT LOCATION SHALL BE DETERMINED BY CAREFUL PROBING OR HAND DIGGING; AND, WHEN IT IS UNCOVERED, ADEQUATE PROTECTION SHALL BE PROVIDED FOR THE EXISTING INSTALLATION. ALL KNOWN OWNERS OF UNDERGROUND FACILITIES IN THE AREA CONCERNED SHALL BE ADVISED OF PROPOSED WORK AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO THE START OF ACTUAL EXCAVATION
- THE CONTRACTOR SHALL MAINTAIN A NEATLY MARKED SET OF FULL-SIZE AS-BUILT RECORD DRAWINGS SHOWING THE FINAL LOCATION AND LAYOUT OF ALL MECHANICAL, ELECTRICAL AND INSTRUMENTATION EQUIPMENT, PIPING AND CONDUITS, STRUCTURES AND OTHER FACILITIES. AS-BUILT RECORD DRAWINGS SHALL REFLECT CHANGE ORDERS, ACCOMMODATIONS, AND ADJUSTMENTS TO ALL IMPROVEMENTS CONSTRUCTED. WHERE NECESSARY. SUPPLEMENTAL DRAWINGS SHALL BE PREPARED AND SUBMITTED BY THE CONTRACTOR TO THE DEVELOPER AND APPROVAL AGENCY
- SIGNING, STRIPING AND PAVEMENT MARKINGS SHALL BE IN STRICT CONFORMANCE WITH THE CITY OF STOCKTON STANDARDS AND SPECIFICATIONS.

#### **GENERAL NOTES (CONT)**

- PRIOR TO ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL DELIVER TO THE ENGINEER, ONE SET OF NEATLY MARKED AS-BUILT RECORD DRAWINGS SHOWING THE INFORMATION REQUIRED ABOVE. AS-BUILT RECORD DRAWINGS SHALL BE REVIEWED AND THE COMPLETE AS-BUILT RECORD DRAWING SET SHALL BE CURRENT WITH ALL CHANGES AND DEVIATIONS REDLINED AS A PRECONDITION TO THE FINAL PROGRESS PAYMENT APPROVAL AND/OR FINAL ACCEPTANCE.
- AFTER CONSTRUCTION OF ALL IMPROVEMENTS, THE CONTRACTOR SHALL SUBMIT ONE SET OF REPRODUCIBLE PLANS. FINAL INVERT ELEVATIONS FOR SEWER AND STORM DRAIN LINES THAT ARE TO BE EXTENDED FOR FUTURE CONSTRUCTION SHALL ALSO BE SHOWN ON THE "AS-BUILT" PLANS ALL AS PROVIDED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL NOTIFY NORTHSTAR ENGINEERING AT LEAST 48 HOURS PRIOR TO BACK FILLING OF ANY PIPE WHICH STUBS TO A FUTURE PHASE OF CONSTRUCTION FOR INVERT VERIFICATION. TOLERANCE SHALL BE IN ACCORDANCE WITH THE CITY OF STOCKTON STANDARD
- WHENEVER EXISTING FACILITIES ARE REMOVED, DAMAGED, BROKEN, OR CUT IN THE INSTALLATION OF THE WORK COVERED BY THESE PLANS OR SPECIFICATIONS, SAID FACILITIES SHALL BE REPLACED AT THE CONTRACTORS EXPENSE, AFTER PROPER BACKFILLING AND/OR CONSTRUCTION, WITH MATERIALS EQUAL TO OR BETTER THAN THE MATERIALS USED IN THE ORIGINAL EXISTING FACILITIES. THE FINISHED PRODUCT SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER, THE ENGINEER, AND THE RESPECTIVE REGULATORY AGENCY.
- DUST CONTROL SHALL BE PROVIDED AT ALL TIMES, AT THE CONTRACTOR'S EXPENSE TO MINIMIZE ANY DUST NUISANCE AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF STOCKTON. CONTRACTOR SHALL OBTAIN A PERMIT FROM CAL WATER FOR USE OF WATER FROM FIRE HYDRANTS FOR CONSTRUCTION PURPOSES. THE PERMIT SHALL BE APPROVED BY THE CITY OF STOCKTON FIRE DEPARTMENT.
- CONTRACTOR SHALL PROVIDE CITY WITH A CERTIFICATE SIGNED BY A REGISTERED CIVIL ENGINEER OF LAND SURVEYOR STATING THAT ALL BUILDING PAD ELEVATIONS ARE IN ACCORDANCE WITH THE APPROVED GRADING PLAN.
- UNLESS OTHERWISE STATED. ALL STATIONS INDICATED ON THE IMPROVEMENT PLANS ARE REFERENCED TO THE CENTERLINE OF THE STREET. ALL STATIONS OFF CENTER ARE PERPENDICULAR TO OR RADIALLY OPPOSITE CENTERLINE STATIONS, UNLESS OTHERWISE NOTED.
- DRIVEWAYS ON STREETS TO BE LOCATED IN THE FIELD BY THE ENGINEER AT THE TIME OF CONSTRUCTION. DRIVEWAYS SHALL NOT COINCIDE WITH WHEELCHAIR RAMPS.
- IF THE PROJECT IS SUBJECT TO THE INDIRECT SOURCE REVIEW (ISR) REQUIREMENT, THE CONTRACTOR IS REQUIRED TO KEEP DAILY RECORDS OF THE TOTAL HOURS OF OPERATION FOR EACH PIECE OF EQUIPMENT GREATER THAN 50-HORSEPOWER BEING USED ON THE PROJECT SITE DURING CONSTRUCTION. WITHIN 30 DAYS OF COMPLETING CONSTRUCTION OF EACH PROJECT PHASE, A REPORT SUMMARIZING TOTAL HOURS OF OPERATION BY EQUIPMENT TYPE, MODEL, YEAR, AND HORSEPOWER FOR EACH PIECE OF CONSTRUCTION EQUIPMENT GREATER THAN 50-HORSEPOWER MUST BE SUBMITTED TO THE AIR DISTRICT. TO ASSIST IN THIS RECORDKEEPING, THE "DETAILED FLEET TEMPLATE" IS AVAILABLE ON THE DISTRICT'S WEBSITE AT HTTP://WWW.VALLEYAIR.ORG/ISR/ISRFORMSANDAPPLICATIONS.HTM. FOR EACH PROJECT PHASE, TH DISTRICT WILL VERIFY THAT THE FLEET DETAILS ACHIEVED THE REQUIRED EMISSION REDUCTIONS. IF THE CONTRACTOR IS NOT GOING TO MEET THE STANDARDS AND/OR RECORD KEEPING REQUIRED BY THE AIR DISTRICT, THE CONTRACTOR SHALL NOTIFY THE AIR BOARD PRIOR TO CONSTRUCTION SO THE
- PRIOR TO FINALIZING IMPROVEMENTS AND OPENING ROADS THE CONTRACTOR SHALL COORDINATE WITH THE GOVERNING LOCAL AGENCY FOR POTENTIAL TRAFFIC SIGNAGE AND STRIPING MODIFICATIONS (FOR EXAMPLE, SPEED LIMIT CHANGES OR REDUCTIONS) BEYOND THE PROJECT LIMITS THAT ARE NECESSITATED BY THE CONSTRUCTION OF THE IMPROVEMENTS SHOWN ON THESE PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH SIGNAGE AND STRIPING MODIFICATIONS REQUIRED BY THE GOVERNING AGENCY.

CONSTRUCTION, THE CONTRACTOR SHALL BE REQUIRED TO PAY THE PENALTY TO THE AIR BOARD.

NECESSARY MITIGATION FEE SHALL BE PAID. IF THE AIR BOARD IS NOT NOTIFIED PRIOR TO

ANY ASSUMPTION MADE BY THE CONTRACTOR IS NOT THE RESPONSIBILITY OF THE ENGINEER OR DESIGN CONSULTANT. CONTRACTOR SHALL SUBMIT A PRE-BID REQUEST FOR INFORMATION (RFI) FOR ANY CLARIFICATION NEEDED AND SHALL BE RESPONSIBLE FOR COMPLETING THE PROJECT AT THE CONTRACTOR'S EXPENSE FOR ANY WRONG ASSUMPTIONS MADE.

**GRADING NOTES** 

#### **GRADING NOTES (CONT)**

- THE VALUES SHOWN ON THE GRADING PLAN ARE FOR REFERENCE AND FEE PURPOSES ONLY. SINCE THE ENGINEER CANNOT CONTROL THE EXACT METHOD OR MEANS USED BY THE CONTRACTOR DURIN GRADING OPERATIONS. NOR CAN THE ENGINEER GUARANTEE THE EXACT SOIL CONDITION OVER THE ENTIRE SITE. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR FINAL EARTHWORK QUANTITIES.
- THE VALUES SHOWN ON THE GRADING PLAN ARE TO AID THE CONTRACTOR IN DETERMINING THE QUANTITIES OF DIRT TO BE MOVED. THE CUT AND FILL QUANTITIES SHOWN INDICATE A THEORETICAL YARDAGE FIGURE AND ARE GIVEN ONLY AS A CONVENIENCE TO THE CONTRACTOR. THE QUANTITIES SHOWN SHALL NOT BE USED AS THE BASIS OF BID COSTS.
- EARTHWORK QUANTITY VALUES SHOWN ON PAVING PLAN REPRESENT THE DIFFERENCE BETWEEN TH ESTIMATED EXISTING GRADES FROM ASBUILT DOCUMENTS COMPARED WITH THE SUBGRADE STRUCTURAL SECTIONS OF THE PROPOSED GRADING DESIGN. SEE STRUCTURAL SECTIONS IN HATCH LEGEND ON PAVING PLAN.
- EARTHWORK QUANTITY CALCULATIONS DO NOT INCLUDE STRIPPING, SHRINKAGE, SWELL FACTORS OF MATERIAL FROM UTILITY TRENCH SPOILS.

#### NPDES NOTES

STORM DRAIN NPDES PERMIT TO COMPLY WITH THE STATE OF CALIFORNIA'S STATEWIDE GENERAL NPDES PERMIT, REGULATING DISCHARGES OF STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITY FROM SOIL DISTURBANCES OF ONE (1) ACRE OR MORE, A NOTICE OF INTENT (NOI) TO COMPLY WITH THE TERMS OF THE GENERAL PERMIT TO DISCHARGE STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITY MUST BE FILED AND THE APPROPRIATE FEE PAID PRIOR TO COMMENCEMENT OF CONSTRUCTION. IN ADDITION, AT THE CONCLUSION OF THE PROJECT A NOTICE OF TERMINATION (NOT) MUST ALSO BE FILED. SUBMIT THE FEE, NOI, AND NOT TO THE STATE WATER RESOURCES CONTROL BOARD UTILIZING THE STORM WATER MULTIPLE APPLICATION AND REPORT TRACKING SYSTEM (SMARTS) AT THE FOLLOWING ADDRESS:

WWW.SMARTS.WATERBOARDS.CA.GOV

FEES AND PAYMENTS CAN BE MADE TO THE FOLLOWING ADDRESS

STATE WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY ATTN: STORM WATER PERMIT UNIT

SACRAMENTO, CA 95812-1977

IF YOU HAVE ANY QUESTIONS CALL JOSEPH HENAO, WATER QUALITY CONTROL ENGINEER, CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, AT (916) 255-3028.

HE FOLLOWING MUST BE SUBMITTED TO THE CITY PRIOR TO BEGINNING WORK AND PRIOR TO THE SUANCE OF AN ENCROACHMENT PERMIT

- TRANSMITTAL MEMO THAT INCLUDES:  $^st$  the name and phone number of the Person responsible for swppp implementation, and \* IF APPLICABLE, A LISTING OF THE POST-CONSTRUCTION BEST MANAGEMENT PRACTICES THAT WIL BE INSTALLED TO SATISFY THE REQUIREMENTS OF THE CITY OF STOCKTON MUNICIPAL CODE CHAPTER TITLES 13 AND 15.
- \* COPY OF SWPPP MUST REMAIN ON SITE DURING CONSTRUCTION AT ALL TIMES.
- COPY OF A SIGNED NOTICE OF INTENT FORM OR A WASTE DISCHARGE IDENTIFICATION NUMBER. WDID#: CONTRACTOR TO PROVIDE PRIOR TO CONSTRUCTION; IF REQUIRED
- FOR SITES THAT HAVE SOIL DISTURBANCES OF 1 ACRE OR MORE AND ARE REQUIRED TO OBTAIN COVERAGE UNDER THE STATE'S CONSTRUCTION GENERAL PERMIT (CGP): THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND ENSURE THAT A QUALIFIED SWPPP PRACTITIONER (QSP) IS CONTRACTED TO PROVIDE QSP SERVICES THROUGHOUT THE COURSE OF CONSTRUCTION (FROM THE START OF CONSTRUCTION TO THE DATE AT WHICH THE NOTICE OF TERMINATION - NOT - IS FILED). THE QSP SHALL BE RESPONSIBLE FOR ALL APPLICABLE INSPECTION TRAINING, SAMPLING, TESTING, REPORTING, CHANGES OF INFORMATION (COI), SWPPP REVISIONS, NOTICE OF TERMINATION (NOT), AND OTHER QSP-RELATED RESPONSIBILITIES AS IDENTIFIED IN THE

THE CONTRACTOR SHALL FURNISH, INSTALL, OPERATE AND MAINTAIN ALL MACHINERY APPLIANCES,

AND EQUIPMENT TO MAINTAIN ALL EXCAVATIONS FREE FROM WATER DURING CONSTRUCTION. THE

CONTRACTOR SHALL DISPOSE OF THE WATER SO AS NOT TO CAUSE DAMAGE TO PUBLIC OR PRIVATE

PROPERTY, OR TO CAUSE A NUISANCE OR MENACE TO THE PUBLIC OR VIOLATE THE LAW, THE

DEWATERING SYSTEM SHALL BE INSTALLED AND OPERATED SO THAT THE GROUNDWATER LEVEL

OUTSIDE THE EXCAVATION IS NOT REDUCED TO THE EXTENT WHICH WOULD CAUSE DAMAGE OR

DRAWN DOWN A MINIMUM OF 1 FOOT BELOW THE BOTTOM OF EXCAVATIONS TO MAINTAIN THE

WORKING CONDITION FOR EMERGENCIES AND SHALL HAVE WORKMEN AVAILABLE FOR IT'S

THE CONTROL OF GROUNDWATER SHALL BE SUCH THAT SOFTENING OF THE BOTTOM OF

TO MAINTAIN THE UNDISTURBED STATE OF THE NATURAL FOUNDATIONS SOILS, PREVENT

SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO ANY DEWATERING ACTIVITIES.

COMPLETED TO 1 FOOT ABOVE THE NORMAL STATIC GROUNDWATER LEVEL.

THE GROUNDWATER LEVEL SHALL BE PROVIDED.

OR DURING WORK STOPPAGES.

EXCAVATION SHALL BE GRADED TO DRAIN TO THE SUMPS.

STORM DRAIN NOTES

NECESSARY FOR PUBLIC SAFETY.

MAINTENANCE HOLES.

THE CITY OF STOCKTON.

INCLUDED IN THE UNIT PRICE BID FOR ALL PIPE CONSTRUCTION. THE STATIC WATER LEVEL SHALL BE

UNDISTURBED STATE OF NATURAL SOILS AND ALLOW THE PLACEMENT OF ANY FILL TO THE SPECIFIE

OPERATION. DEWATERING SYSTEMS SHALL OPERATE CONTINUOUSLY UNTIL BACK FILL HAS BEEN

DENSITY. THE CONTRACTOR SHALL HAVE ON HAND, PUMPING EQUIPMENT AND MACHINERY IN GOOD

THE CONTRACTOR SHALL CONTROL SURFACE WATER TO PREVENT ENTRY INTO EXCAVATIONS. AT EACH

EXCAVATIONS, OR FORMATION OF "QUICK" CONDITIONS OR "BOILS", DOES NOT OCCUR. DEWATERING

SYSTEMS SHALL BE DESIGNED AND OPERATED SO AS TO PREVENT REMOVAL OF THE NATURAL SOILS.

DISTURBANCE OF COMPACTED BACK FILL, AND PREVENT FLOTATION OR MOVEMENT OF STRUCTURES

ONE HUNDRED PERCENT STANDBY PUMPING CAPACITY SHALL BE AVAILABLE ON SITE AT ALL TIMES

ADDITION, STANDBY AUXILIARY EQUIPMENT AND APPLIANCES FOR ALL ORDINARY EMERGENCIES, AND

COMPETENT WORKMEN FOR OPERATION AND MAINTENANCE OF ALL DEWATERING EQUIPMENT SHALL

BE ON SITE AT ALL TIMES. STANDBY EQUIPMENT SHALL INCLUDE EMERGENCY POWER GENERATION

DEWATERING SYSTEMS SHALL NOT BE SHUT DOWN BETWEEN SHIFTS, ON HOLIDAYS, ON WEEKENDS,

ALL STORM DRAIN CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH

THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN OR OTHER DEVICES

THE CONTRACTOR SHALL PROVIDE ALL SHORING, BRACING, SLOPING OR OTHER PROVISIONS

NECESSARY TO PROTECT WORKMEN FOR ALL AREAS TO BE EXCAVATED TO A DEPTH OF 5 FEET OR

MORE. SAID PROTECTION TO BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF

ALL MAINTENANCE HOLE RIMS TO BE ADJUSTED TO PROPOSED FINISH GRADE AFTER STREET PAVING

UNLESS OTHERWISE NOTED. COST FOR RAISING FACILITIES TO BE INCLUDED IN UNIT PRICES FOR

ALL STORM DRAIN LINES SHALL BE CLEANED OF ALL SAND AND DEBRIS PRIOR TO ACCEPTANCE BY

THE CONTRACTOR SHALL EXPOSE ALL EXISTING STORM DRAIN PIPES, WHERE A CONNECTION IS TO B

MADE, AND NOTIFY THE ENGINEER IF THERE IS A DISCREPANCY BETWEEN THE SIGNED PLANS AND TH

STORM DRAIN CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND

CONTRACTOR TO BE RESPONSIBLE FOR ALL TESTING OF STORM DRAIN FACILITIES IN ACCORDANCE

THE REQUIREMENTS OF THE LATEST EDITION OF THE CALIFORNIA PLUMBING CODE.

STOCKTON DEPARTMENT OF PUBLIC WORKS, AND STATE REGULATIONS.

EXISTING FIELD CONDITION PRIOR TO THE START OF CONSTRUCTION.

WITH THE CITY OF STOCKTON STANDARD SPECIFICATIONS AND PLANS.

STORM DRAINAGE SYSTEM WILL BE PRIVATELY OWNED AND MAINTAINED.

WILL BE RESPONSIBLE FOR PROTECTION OF THE SAME.

AND AUTOMATIC SWITCH OVER TO THE EMERGENCY GENERATOR WHEN NORMAL POWER FAILS.

SUMPS SHALL BE NO DEEPER THAN 5 FEET AND SHALL BE AT THE LOW POINT OF EXCAVATION.

AND SHALL BE CONNECTED TO THE DEWATERING SYSTEM PIPING TO PERMIT IMMEDIATE USE. IN

PIPELINES AND SEWERS. IF AN NPDES (NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM)

PERMIT IS REQUIRED FOR DISPOSAL OF WATER FROM CONSTRUCTION DEWATERING ACTIVITIES, IT

THE RELEASE OF GROUNDWATER AT ITS STATIC LEVEL SHALL BE PERFORMED IN SUCH A MANNER AS

EXCAVATION, A SUFFICIENT NUMBER OF TEMPORARY OBSERVATION WELLS TO CONTINUOUSLY CHECK

ENDANGERED ADJACENT STRUCTURES OR PROPERTY. ALL COST FOR DEWATERING SHALL BE

#### **DEWATERING NOTES**

- EARTHWORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF STOCKTON STANDARDS AND THE PROJECT SOILS REPORT. ALL FILL AREAS SHALL BE TESTED AS REQUIRED BY THE CITY OF STOCKTON AND SHALL BE PAID FOR BY THE CONTRACTOR.
- THE DEVELOPER SHALL BE RESPONSIBLE FOR COST OF INITIAL TEST FOR MOISTURE DENSITY CURVE. IF THE FIRST TEST FAILS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COST OF ALL SUBSEQUENT

THE CONTRACTOR SHALL REVIEW SITE PRIOR TO BIDDING. ALL VEGETATION AND DELETERIOUS

- MATERIALS SHALL BE REMOVED FROM THE SITE AT THE EXPENSE OF THE CONTRACTOR AND SHALL BE INCLUDED IN THE LUMP SUM CLEARING COST. THE CONTRACTOR SHALL PRESERVE ALL STAKES AND POINTS SET FOR LINES, GRADES OR
- MEASUREMENT OF THE WORK IN THEIR PROPER PLACES UNTIL AUTHORIZED TO REMOVE THEM BY THE ENGINEER. ALL EXPENSES INCURRED IN REPLACING STAKES THAT HAVE BEEN REMOVED WITHOUT PROPER AUTHORITY SHALL BE PAID FOR BY THE CONTRACTOR.
- CONTRACTOR'S PRICE SHALL INCLUDE COST TO ACHIEVE A BALANCED SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IMPORT AND EXPORT MATERIAL AS REQUIRED TO BALANCE SITE.
- CONTRACTOR SHALL GRADE ALL LANDSCAPE AREAS TO WITHIN 0.10 FEET OF FINAL GRADE ELEVATIONS WITH APPROPRIATE LANDSCAPE SECTIONS INCLUDED.
- ALL A.C. PAVING SHALL BE FOG SEALED PER SECTION 37 OF CALTRANS STANDARD SPECIFICATIONS, THE LATEST EDITION.
- GRADE TAGS LOCATED ON CURBS REFERENCE TOP OF CURB ELEVATION UNLESS OTHERWISE NOTED. ADDITIONAL DESCRIPTIONS ARE PROVIDED TO DENOTE HORIZONTAL AND VERTICAL CHANGES IN ACCORDANCE WITH ABBREVIATIONS DEFINED ON COVER SHEET.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING HIS OWN EARTHWORK QUANTITIES FOR BIDDING, CONTRACT AND CONSTRUCTION PURPOSE. IF IT APPEARS THERE WILL BE AN EXCESS OR SHORTAGE OF MATERIAL, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO DETERMINE IF POSSIBLE GRADE ADJUSTMENTS CAN BE MADE.
- SITE CONTRACTOR SHALL COORDINATE WITH BUILDING CONTRACTOR TO ACCOMMODATE THE PROPER CLEARANCE BETWEEN THE BOTTOM OF THE STUCCO AND THE TOP OF THE GRADE TREATMENT ALONG THE BUILDING AS APPLICABLE, IN ACCORDANCE WITH SECTION 2512.1.2. OF THE MOST CURRENT CALIFORNIA BUILDING CODE, IF THE SUBJECT BUILDING SIDING TREATMENT IS STUCCO. CONTRACTOR SHALL NOTIFY ENGINEER IF ANY GRADES ARE ADJUSTED. CONTRACTOR SHALL ALSO APPLY FLASHING WHERE APPLICABLE WITHIN AREAS OF GRADE TRANSITION.
- ALL LANDSCAPE AREAS THAT ABUT ANY PORTION OF THE BUILDING SHALL BE GRADED SUCH THAT THE FINISHED GRADE IN LANDSCAPE AREAS SHALL BE A MINIMUM OF EIGHT INCHES (8") BELOW FINISHED FLOOR OF THE ABUTTING BUILDING AND IN NO CASE SHALL THE LANDSCAPE AREA BE GRADED OR LANDSCAPED SUCH THAT WATER DRAINS TOWARD THE BUILDING.
- SINCE THE ENGINEER CANNOT CONTROL THE EXACT METHOD OR MEANS USED BY THE CONTRACTOR DURING GRADING OPERATIONS, NOR CAN THE ENGINEER GUARANTEE THE EXACT SOIL CONDITION OVER THE ENTIRE SITE, THE ENGINEER ASSUMES NO RESPONSIBILITY FOR FINAL EARTHWORK
- CONTRACTOR IS RESPONSIBLE FOR THE OFF HAUL AND DISPOSAL OF ANY AND ALL EXCESS DIRT FROM CONSTRUCTION SITE.
- CONTRACTOR SHALL COORDINATE WITH THE EXISTING ADJOINING PROPERTY OWNERS PRIOR TO ANY WORK BEING STARTED THAT MAY AFFECT THEIR PROPERTY.
- CONTRACTOR SHALL PROVIDE A SMOOTH TRANSITION FROM THE PROPOSED GRADING TO THE EXISTING FLOWLINE, CURB, CONCRETE, AND OR PAVEMENT ELEVATIONS.
- ALL EXISTING WELLS AND SEPTIC TANKS SHALL BE REMOVED AND/OR ABANDONED PER THE REQUIREMENTS OF THE COUNTY HEALTH DEPARTMENT AND THE CITY OF STOCKTON. THIS WORK SHALL BE INCLUDED IN THE LUMP SUM CLEARING COST.
- CONTRACTOR SHALL VERIFY BUILDING SUBGRADE SECTIONS WITH ARCHITECT PLANS BEFORE CONSTRUCTION. IF A DISCREPANCY EXISTS, CONTRACTOR TO NOTIFY THE ENGINEER IMMEDIATELY.
- PRIOR TO CONSTRUCTING ANY FLATWORK THE CONTRACTOR SHALL VERIFY THE FINISH FLOOR ELEVATIONS AT ALL DOORS. NOTE THAT FINISH FLOOR ELEVATIONS MAY HAVE BEEN CHANGED DUE TO FOUNDATION ADJUSTMENTS IN FIELD. CONTRACTOR SHALL HOLD ADJUSTED FINISH FLOOR GRADES. ACCOUNT FOR DOOR THRESHOLDS. AND ADJUST GRADES AS NECESSARY TO STAY IN COMPLIANCE WITH CURRENT ADA STANDARDS. CONTRACTOR SHALL NOTIFY NORTHSTAR ENGINEERING IMMEDIATELY IF ANY GRADE ADJUSTMENTS WILL CREATE ADA ACCESSIBILITY ISSUES.

ALL STORM DRAIN PIPE MATERIALS SHALL BE IN ACCORDANCE WITH TABLE 701.2 OF THE 2022 CALIFORNIA PLUMBING CODE. CONTRACTOR SHALL HAVE PIPE MANUFACTURER PERFORM CALCULATIONS TO DETERMINE PIPE CLASS PRIOR TO CONSTRUCTION DUE TO EXCESSIVE DEPTH

STORM DRAIN NOTES (CONT)

ALL STORM DRAIN MAINTENANCE HOLES AND BASES SHALL BE PRECAST AND CONSTRUCTED IN ACCORDANCE WITH CITY OF STOCKTON STANDARDS, CONTRACTOR SHALL SET MAINTENANCE HOLE CASTING AND COVERS TO FINISH GRADE AFTER STREET IMPROVEMENTS ARE COMPLETE, AND SHALL BE RESPONSIBLE FOR LOCATION OF MAINTENANCE HOLES BENEATH THE FINISH PAVEMENT.

#### **SANITARY SEWER NOTES**

- ALL SANITARY SEWER CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF STOCKTON OR APPROPRIATE AGENCY STANDARD SPECIFICATIONS AND PLANS.
- THE CONTRACTOR SHALL EXPOSE EXISTING SANITARY SEWER WHERE CONNECTION IS TO BE MADE, SO THAT THE ENGINEER CAN VERIFY EXISTING FLOW LINES AND LOCATIONS BEFORE START OF
- SEWER MAINS SHALL BE INSTALLED FROM THE EXISTING FACILITIES UPSTREAM TO THE END OF THE
- ALL SANITARY SEWER CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS THE CITY OF STOCKTON. MAIN LINES AND LATERAL SHALL BE AIR TESTED FOR LEAKAGE IN CONFORMANCE WITH THE CITY OF STOCKTON STANDARDS.
- ALL TESTING REQUIRED BY THE CITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, INCLUDING THE TELEVISING OF ALL SEWER LINES.
- THE CONTRACTOR SHALL PROVIDE ALL SHORING, BRACING, SLOPING OR OTHER PROVISIONS NECESSARY TO PROTECT WORKMEN FOR ALL AREAS TO BE EXCAVATED TO A DEPTH OF 5 FEET OR MORE. SAID PROTECTION TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF STOCKTON DEPARTMENT OF PUBLIC WORKS, AND STATE REGULATIONS.
- SEWER PIPE SHALL BE IN ACCORDANCE WITH TABLE 701.2 OF THE 2022 CALIFORNIA BUILDING CODE CONTRACTOR SHALL HAVE PIPE MANUFACTURER PERFORM CALCULATIONS TO DETERMINE PIPE CLASS PRIOR TO CONSTRUCTION DUE TO EXCESSIVE DEPTH.
- THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN, OR OTHER DEVICES NECESSARY FOR PUBLIC SAFETY.
- ALL SANITARY SEWER CONSTRUCTION SHALL COMPLY WITH THE REQUIREMENTS OF THE STATE HEALTH DEPARTMENT, WHERE SANITARY SEWER SERVICES AND LATERALS CROSS ABOVE WATER MAINS, A 20 FEET MINIMUM JOINT OF PVC C-900, CLASS 200, OR AN 18 FEET JOINT OF CLASS 50 D.I.P., SHALL BE CENTERED ON THE SEWER MAIN. CONTRACTOR SHALL CONSTRUCT ALL CROSSING IN ACCORDANCE WITH THE CALIFORNIA HEALTH DEPARTMENT REQUIREMENTS.
- SEWER CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UNDERGROUND UTILITIES, AND WIL BE RESPONSIBLE FOR THE PROTECTION OF SAME
- MAINTENANCE HOLE CASTINGS AND COVERS SHALL BE ADJUSTED TO FINISH GRADES BY THE PAVIN CONTRACTOR AFTER STREET IMPROVEMENTS ARE COMPLETED. COST FOR ADJUSTING FACILITIES TO BE INCLUDED IN THE UNIT PRICE FOR MAINTENANCE HOLES AND CLEANOUTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY MARKING INSTALLED LOCATION OF SERVICE LATERALS. THE CONTRACTOR SHALL STAMP AN "S" AT THE CURB FACE DIRECTLY OVER THE
- SANITARY SEWER SYSTEM WILL BE PRIVATELY OWNED AND MAINTAINED.

#### **DOMESTIC AND FIRE WATER NOTES**

- ALL WATER CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF STOCKTON, CALIFORNIA PLUMBING CODE, CALIFORNIA FIRE CODE, C APPROPRIATE AGENCY STANDARD SPECIFICATIONS PLANS.
- CONTRACTOR SHALL EXPOSE EXISTING WATER LINES WHERE CONNECTIONS ARE TO BE MADE TO VERIFY EXISTING ELEVATION AND LOCATION PRIOR TO START OF CONSTRUCTION.
- ALL CONNECTIONS TO EXISTING CITY OF STOCKTON FACILITIES SHALL BE MADE IN THE PRESENCE OF THE CITY OF STOCKTON ENGINEER, OR HIS APPOINTED REPRESENTATIVE.
- FOR EXCAVATIONS OF FIVE FEET OR MORE, TRENCHES SHALL BE MADE IN CONFORMANCE WITH APPROPRIATE SHORING SYSTEM STANDARDS.
- PAVING REPLACEMENT TO MATCH EXISTING PAVEMENT SECTION. OR IN ACCORDANCE WITH STREET DETAILS ON THESE PLANS. WATER LINE TESTING SHALL BE AS FOLLOWS:
- A) ALL WATER LINES SHALL BE TESTED AND DISINFECTED IN CONFORMANCE WITH THE REQUIREMENTS OF THE CITY OF STOCKTON AND THE AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS, SECTION C-651.
- B) WATER LINE TESTING SHALL INCLUDE: HYDROSTATIC PRESSURE TESTING PER CITY OF STOCKTOI STANDARDS & SPECIFICATIONS; BACTERIOLOGICAL TESTING PER OF CITY OF STOCKTON STANDARDS AND SPECIFICATIONS.
- C) AFTER THE FINAL FLUSHING AND BEFORE THE NEW WATER MAIN IS CONNECTED TO THE DISTRIBUTION SYSTEM, TWO CONSECUTIVE SETS OF ACCEPTABLE SAMPLES, TAKEN 24 HOURS APART, SHALL BE COLLECTED AT SITES SHOWN ON THE PLANS. (AT LEAST ONE SET OF SAMPLE SHALL BE COLLECTED EVERY 1200 FEET OF THE NEW WATER MAIN, PLUS ONE SET AT EACH END OF THE LINE AND AT LEAST ONE SET FROM EACH BRANCH). ALL SAMPLES SHALL BE TESTED FOR BACTERIOLOGICAL QUALITY, AND SHALL SHOW THE ABSENCE OF COLIFORM ORGANISMS. A STANDARD HETEROPHIC PLATE COUNT MAY BE REQUIRED AT THE OPTION OF THE ENGINEER.
- D) SAMPLES SHALL BE TAKEN FROM WATER THAT HAS STOOD IN THE NEW MAIN FOR AT LEAST 16 HOURS AFTER FINAL FLUSHING HAS BEEN COMPLETED.
- E) IF THE INITIAL DISINFECTION FAILS TO PRODUCE SATISFACTORY BACTERIOLOGICAL SAMPLES, THE MAIN SHALL BE REFLUSHED AND RESAMPLED DAILY FROM THE SAME POINT(S) UNTIL TWO CONSECUTIVE SAMPLES ARE NEGATIVE FOR COLIFORM ORGANISMS.
- F) THE DEVELOPER SHALL PAY FOR THE INITIAL BACTERIOLOGICAL TESTS. THE CONTRACTOR SHALL PAY FOR ALL TESTING NECESSITATED BY FAILURE OF THE INITIAL TEST(S).
- G) IF TRENCH WATER HAS ENTERED THE NEW MAIN DURING CONSTRUCTION, OR, IF IN THE OPINION OF THE CITY OF STOCKTON, EXCESSIVE QUANTITIES OF DIRT AND DEBRIS HAVE ENTERED THE NEW MAIN, BACTERIOLOGICAL SAMPLES SHALL BE TAKEN AT INTERVALS OF APPROXIMATELY 200 FEET AND SHALL BE IDENTIFIED BY LOCATION. THE CONTRACTOR SHALL INSTALL ADDITIONAL WATER SERVICE TAPS AND SAMPLING STATIONS AS REQUIRED. THE CONTRACTOR SHALL ALSO REMOVE SAMPLING STATIONS AND SERVICES UPON SATISFACTORY COMPLETION OF TESTING. THE CONTRACTOR SHALL PAY FOR TESTING OF THE CONTAMINATED AREAS.
- H) CONTRACT PRICE SHALL INCLUDE FULL COMPENSATION FOR FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND INCIDENTALS, AND FOR DOING ALL OF THE WORK INVOLVED IN TESTING AND DISINFECTION OF THE WATER MAINS.
- CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN, OR OTHER DEVICES NECESSARY FOR PUBLIC SAFETY.
- WATER PIPE MATERIALS SHALL BE IN ACCORDANCE WITH TABLE 604.1 OF THE 2022 CALIFORNIA PLUMBING CODE.
- EXISTING SUBGRADE, OR 24 INCHES FROM SUBGRADE IN NEW STREETS, WHICHEVER IS GREATER AS SPECIFIED BY THE CITY OF STOCKTON. ALL WATER IMPROVEMENTS MUST BE REVIEWED AND APPROVED BY THE CITY OF STOCKTON.

DEPTH OF PIPE SHALL BE 36 INCHES MINIMUM FROM FINISHED GRADE, 30 INCHES MINIMUM FROM

- WATER LINES SHALL BE A MINIMUM OF 10 FEET OUTSIDE OF PIPE TO OUTSIDE OF PIPE FROM SEWER AND STORM DRAIN MAINS. CROSSINGS SHALL MEET STATE HEALTH STANDARDS.
- ALL FIRE SERVICE LINES SHALL BE C900 CL200. WHERE WATER LINE CROSSES UNDER STORM DRAIN, A 20 FEET MIN JOINT OF PVC C-900 CLASS 200

OR AN 18 FEET JOINT OF CLASS 50 D.I.P. SHALL BE CENTERED ON STORM DRAIN OR IN ACCORDANCE

ALL VALVE BOXES TO BE ADJUSTED TO FINISH GRADE AFTER PAVING. COST FOR RAISING FACILITIES TO BE INCLUDED IN UNIT PRICES FOR VALVES.

WITH CITY OF STOCKTON STANDARDS AND SPECIFICATIONS.



DOMESTIC AND FIRE WATER NOTES (CONT) TOPOGRAPHY NOTES (CONT)

CONTRACTOR IS ADVISED THAT ANY FIELD CHANGES DUE TO EXISTING CONDITIONS MUST COMPLY

PROVIDE THRUST BLOCKS AT FIRE HYDRANTS, BLOW-OFFS, TEES, AND AT CHANGES IN SIZE AND

DIRECTION, AND AT CAPS, BENDS, AND ENDS, INSTALL THRUST BLOCKS, AS REQUIRED. IN

ALL VALVES TWELVE (12) INCHES AND LARGER SHALL BE BUTTERFLY VALVES AND OPERATORS

COMPLETION OF STERILIZATION AND TESTING OF NEW WATER MAINS. ALL EXISTING WATER VALVES TO

REDUCED PRESSURE BACKFLOW PREVENTION DEVICE MUST BE INSPECTED AND APPROVED BY AN

THE WATER METER AND METER BOX SHALL BE PROVIDED AND INSTALLED BY THE CITY OF STOCKTON,

FIRE HYDRANT MAINS SHALL BE HYDROSTATICALLY TESTED AT 50 PSI FOR ONE HOUR AND FIRE

PSI FOR TWO HOURS. CALL THE FIRE PREVENTION BUREAU 48 HOURS PRIOR TO DESIRED TEST.

SELF ADHESIVE BLUE REFLECTIVE FIRE HYDRANT MARKERS ARE TO BE PROVIDED TO THE FIRE

SPRINKLER MAINS, ON THE SYSTEM SIDE OF THE FDC, SHALL BE HYDROSTATICALLY TESTED AT 200

DEPARTMENT BY THE CONTRACTOR. THEY SHALL BE PROVIDED AT A RATIO OF ONE REFLECTOR PER

HYDRANT, UNLESS THE FIRE HYDRANT FACES TWO STREETS THEN TWO REFLECTORS SHALL BE

REQUIRED. CONTRACTOR SHALL REFER TO THE MUTCD, CALIFORNIA SUPPLEMENT, SECTION 3B.11

A LOCATING "TRACE WIRE" IS REQUIRED ON ALL MAINS AND SERVICE LINES. THE "TRACE WIRE" SHALI

BE FIRMLY ATTACHED TO THE TOP CENTER OF THE PIPE AT INTERVALS NOT EXCEEDING FIVE (5) FEET.

ALL MAIN LINE "TRACE WIRES" SHALL BE INTERCONNECTED TO FORM A GRID. ALL SPLICES SHALL BE

COMPOUND. INSTALLATION OF THE "TRACE WIRE" SYSTEM SHALL BE INSPECTED AND APPROVED BY

TESTING PERSONNEL AFTER THE TRENCHES HAVE BEEN BACKFILLED AND HYDROSTATIC TESTS HAVE

BEEN PERFORMED, BUT BEFORE ANY PAVEMENT HAS BEEN PLACED. THE CITY SHALL PAY THE COST

THE DISCHARGE OF CHLORINATED AND DE-CHLORINATED WATER INTO THE STORM DRAIN SYSTEM IS

PROHIBITED. THE DISCHARGE OF CHLORINATED AND DE-CHLORINATED WATER INTO THE SANITARY

PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE FIRE DEPARTMENT REQUIRES ALL ACCESS

ROADS AND WATER SUPPLIES TO BE SUFFICIENTLY PROVIDED FOR THE PROPOSED DEVELOPMENT

SITE. IF THERE IS ANY ALTERATION TO THIS REQUIREMENT, THE PROPOSED DEVELOPMENT WILL BE

SUBJECT TO A FINE AND CONSTRUCTION MAY BE SHUTDOWN FOR AN INDEFINITE PERIOD OF TIME, OF

PLAN SET DESIGN BASED OFF OF TOPOGRAPHIC SURVEY PERFORMED ON FEB 26, 2024. CONTRACTOR

ALL EXISTING UTILITIES WERE PLOTTED FROM RECORD INFORMATION AND FIELD TOPOGRAPHY.

ANY DAMAGE TO EXISTING UTILITIES WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN EXPOSING EXISTING UTILITY CROSSINGS AND

PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL CALL U.S.A. (800) 227-2600 TO HAVE

THE SITE MARKED. THE CONTRACTOR SHALL POTHOLE ALL EXISTING UTILITIES TO VERIFY THAT NO

CONTRACTOR/DEVELOPER SHALL OBTAIN AN ENCROACHMENT PERMIT FROM THE APPROPRIATE

IN CONJUNCTION WITH CONTACTING USA TO LOCATE UNDERGROUND UTILITIES WITHIN THE PUBLIC

RIGHT-OF-WAY IT IS HIGHLY RECOMMENDED THAT THE CONTRACTOR UTILIZE (GPR) GROUND

PENETRATING RADAR UNDERGROUND SERVICES TO IDENTIFY ONSITE UTILITIES THAT MAY NOT BE

CONTRACTOR SHALL REVIEW ALL OF THE CONSULTANT'S PLAN SETS FOR ADDITIONAL DEMOLITION,

REPLACEMENT AND IMPROVEMENTS PRIOR TO BEGINNING OF ANY WORK. IF A CONFLICT IS FOUND

A) MONUMENTS SET SHALL BE SUFFICIENT IN NUMBER AND DURABILITY AND EFFICIENTLY PLACED

SO AS NOT TO BE READILY DISTURBED, TO ASSURE, TOGETHER WITH MONUMENTS ALREADY

BOUNDARIES, ROADS, STREETS, OR HIGHWAYS, OR PROVIDE HORIZONTAL OR VERTICAL SURVEY

CONTROL, THE MONUMENTS SHALL BE LOCATED AND REFERENCED BY OR UNDER THE DIRECTION

OF A LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER PRIOR TO THE TIME WHEN ANY

STREETS, HIGHWAYS, OTHER RIGHTS-OF-WAY, OR EASEMENTS ARE IMPROVED, CONSTRUCTED,

RECORD OF SURVEY OF THE REFERENCES SHALL BE FILED WITH THE COUNTY SURVEYOR. THEY

SHALL BE RESET IN THE SURFACE OF THE NEW CONSTRUCTION, A SUITABLE MONUMENT BOX

PLACED THEREON, OR PERMANENT WITNESS MONUMENTS SET TO PERPETUATE THEIR LOCATION

IF ANY MONUMENT COULD BE DESTROYED, DAMAGED, COVERED, OR OTHERWISE OBLITERATED,

AND A CORNER RECORD OR RECORD OF SURVEY FILED WITH THE COUNTY SURVEYOR PRIOR TO

MONUMENTS SHALL BE RETAINED OR REPLACED IN THEIR ORIGINAL POSITIONS TO ENABLE

TRACT BOUNDARIES TO BE REESTABLISHED WITHOUT PREVIOUS SURVEYS NECESSARILY

SHALL BE THE RESPONSIBILITY OF THE GOVERNMENTAL AGENCY OR OTHERS PERFORMING

CONSTRUCTION WORK TO PROVIDE FOR THE MONUMENTATION REQUIRED BY THIS SECTION. IT

SHALL BE THE DUTY OF EVERY LAND SURVEYOR OR CIVIL ENGINEER TO COOPERATE WITH THE

RIGHT-OF-WAY OR EASEMENT LINES SHALL NOT BE DEEMED ADEQUATE FOR THIS PURPOSE

IMPROVEMENT WORKS WITH DIRECT TIES IN BEARING OR AZIMUTH AND DISTANCE BETWEEN

C) CONTRACTOR SHALL COORDINATE WITH THE LAND SURVEYOR OF RECORD, PRIOR TO STARTING

D) THE DECISION TO FILE EITHER THE REQUIRED CORNER RECORD OR A RECORD OF SURVEY

REGISTERED CIVIL ENGINEER SUBMITTING THE DOCUMENT, AT CONTRACTOR'S EXPENSE.

§732.5. §1492.5. §1810.5 OF THE CALIFORNIA STREETS AND HIGHWAYS CODES STATE:

CONSTRUCTION, TO IDENTIFY ALL SURVEY MONUMENTS THAT MAY BE SUBJECT TO DISTURBANCE

AND SHALL INCLUDE COSTS FOR MONUMENT PRESERVATION, REPLACEMENT, AND PREPARATION

PURSUANT TO SUBDIVISION (B) SHALL BE AT THE ELECTION OF THE LICENSED LAND SURVEYOR OR

SURVEY MONUMENTS SHALL BE PRESERVED, REFERENCED, OR REPLACED PURSUANT TO SECTION

UNLESS SPECIFICALLY NOTED ON THE CORNER RECORD OR RECORD OF SURVEY OF THE

MONUMENTS SET TO MARK THE LIMITING LINES OF HIGHWAYS, ROADS, STREETS OR

OF CORNER RECORDS OR RECORD OF SURVEY IN CONTRACTOR'S BID.

THESE AND OTHER MONUMENTS OF RECORD.

8771 OF THE BUSINESS AND PROFESSIONS CODE.

GOVERNMENTAL AGENCY IN MATTERS OF MAPS, FIELD NOTES, AND OTHER PERTINENT RECORDS.

THE RECORDING OF A CERTIFICATE OF COMPLETION FOR THE PROJECT. SUFFICIENT CONTROLLING

PROPERTY, RIGHT-OF-WAY AND EASEMENT LINES, PROPERTY CORNERS, AND SUBDIVISION AND

ORIGINATING ON MONUMENTS DIFFERING FROM THOSE THAT CURRENTLY CONTROL THE AREA. IT

RECONSTRUCTED, MAINTAINED, RESURFACED, OR RELOCATED, AND A CORNER RECORD OR

EXISTING, THE PERPETUATION OR FACILE REESTABLISHMENT OF ANY POINT OR LINE OF THE

B) WHEN MONUMENTS EXIST THAT CONTROL THE LOCATION OF SUBDIVISIONS, TRACTS,

THEN THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER IMMEDIATELY.

IN ACCORDANCE WITH SECTION 8771 OF THE PROFESSIONAL LAND SURVEYORS ACT

SHALL BE AWARE THAT SINCE THIS INITIAL SURVEY THE SITE MAY HAVE CHANGED.

CONFLICTS EXIST BETWEEN PROPOSED AND EXISTING IMPROVEMENTS.

AGENCY TO DO ANY WORK WITHIN RIGHT-OF-WAY PRIOR TO CONSTRUCTION.

ACTUAL LOCATIONS MAY VARY AND ADDITIONAL CROSSINGS MAY EXIST IN THE FIELD.

THE ENGINEER PRIOR TO BACKFILL. THE "TRACE WIRE" SYSTEM SHALL BE TESTED BY APPROVED

OF THE INITIAL TEST. ANY SUBSEQUENT TESTING COSTS SHALL BE THE RESPONSIBILITY OF THE

MECHANICALLY AND ELECTRONICALLY SOUND AND MADE WATERPROOF WITH AN APPROVED

ACTUAL CONNECTIONS TO EXISTING WATER LINES WILL NOT BE PERMITTED PRIOR TO THE

BE OPERATED UNDER THE DIRECTION OF THE WATER DIVISION OF THE REGULATORY AGENCY

ACCORDANCE WITH CITY OF STOCKTON STANDARDS AND SPECIFICATIONS.

APPROVED TESTING FIRM PRIOR TO THE FINAL APPROVAL OF THE BUILDING.

3. CONTRACTOR SHALL PAINT FIRE HYDRANTS WITH ENAMEL SAFETY YELLOW PAINT.

24. FIRE HYDRANT STEM BREAKAWAY MUST COINCIDE WITH BREAKAWAY SPOOL.

SEWER SYSTEM REQUIRES PRIOR APPROVAL FROM MUD.

UNTIL COMPLIANCE HAS BEEN MET.

VISIBLE FROM THE SURFACE.

TOPOGRAPHY NOTES

WATER SYSTEM WILL BE PRIVATELY OWNED AND MAINTAINED.

INTENDED FOR BURIED SERVICE IN A DOMESTIC WATER SYSTEM.

WITH STATE HEALTH DEPARTMENT CRITERIA.

PERSONNEL ONLY.

PAID BY THE DEVELOPER.

AND FIGURE 3B-102.

CONTRACTOR



Modesto, CA 95354 620 12th Street (209) 524-3525 Phone (209) 524-3526 Fax

CONTRACTOR TO BE CAUTIOUS OF UNDERGROUND STUBS AND LINES. CONTRACTOR SHALL USE EXTREME CAUTION AS TO OTHER LINES MAY EXIST ON THE SITE THAT ARE NOT CLEARLY MARKED. THE CONTRACTOR SHALL REPORT ANY EXISTING SITE ELEMENT NOT SHOWN ON THE WORKING SEE ARCHITECTURAL PLANS FOR ALL BUILDING DETAILS, STRUCTURAL DETAILS, FOOTING DETAILS, SEE PLUMBING PLANS FOR CONTINUATION OF UTILITIES WITHIN 5 FEET OF THE BUILDING.

GEOTECHNICAL ENGINEER SHALL BE PRESENT TO PROVIDE RECOMMENDATIONS AS TO THE EXTENT OF

- STRIPING SHALL BE APPLIED PER CITY STANDARDS AS SHOWN ON THIS PLAN SET. ADDITIONALLY STRIPING AND SIGNAGE INFORMATION SHALL FOLLOW MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) LATEST EDITION, MUTCD CALIFORNIA SUPPLEMENTS.
- FLATWORK SHALL BE INSTALLED WITH CRACK CONTROL JOINTS AT APPROPRIATE SPACING.
- CEMENT ASSOCIATION GUIDELINES AND CITY STANDARDS; USE WHICH EVER IS MORE STRINGENT.
- TO THE FULL DEPTH AND REPLACED WITH COMPACTED ENGINEERED FILL OR APPROVED IMPORT
- ANY CONCRETE OR ASPHALT. PRIOR TO CONSTRUCTION CONTRACTOR SHALL REVIEW EXISTING GRADES ALONG SAWCUT LINE AND
- CONTRACTOR SHALL ADJUST ANY AND ALL BOXES, STRUCTURES, ETC. TO FINISH GRADE WITH TRAFFIC RATED LID FOR VEHICULAR AREAS AND ACCESSIBLE LID FOR PEDESTRIAN AREAS BASED ON PROPOSED GRADING DESIGN SHOWN IN THIS PLAN SET. SEE ARCHITECTURAL PLANS, SEE LANDSCAPE
- ARCHITECT PLANS. 13. CONTRACTOR SHALL MAINTAIN EROSION RESISTANT VEGETATION ON FACE OF ALL SLOPES.

- AN ATTEMPT HAS BEEN MADE TO SHOW ALL EXISTING STRUCTURES, UTILITIES, DRIVES, PAVEMENTS CURBS, WALKS, ETC. IN THEIR APPROXIMATE LOCATION ON THE SURVEY AND/OR WORKING DRAWINGS. HOWEVER, OTHERS THAT ARE NOT SHOWN MAY EXIST AND MAY BE FOUND UPON VISITING THE SITE OR DURING THE CLEARING AND REMOVAL WORK. IT WILL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO ACCURATELY LOCATE ALL EXISTING FACILITIES AND TO DETERMINE THEIR EXTENT. I SUCH FACILITIES OBSTRUCT THE PROGRESS OF THE WORK AND ARE NOT INDICATED TO BE REMOVED OR RELOCATED, THEY SHALL BE REMOVED OR RELOCATED ONLY AS DIRECTED BY THE OWNER.
- DRAWINGS TO THE ARCHITECT OF RECORD SO THAT THE PROPER DISPENSATION OF THAT ELEMENT

#### **SITE LAYOUT NOTES**

- UTILITY POINTS OF CONNECTION, ROOF DRAIN LOCATIONS, ADA PATH OF TRAVEL, ADA SIGNAGE, ADA ACCESSIBILITY DETAILS. TRUNCATED DOME LOCATIONS. ENTRY MONUMENTS. GENERAL SIGNAGE. PARKING LOT STRIPING AND SITE PLAN CONSTRAINTS.
- SEE LANDSCAPE PLANS FOR ALL LANDSCAPE IMPROVEMENTS INCLUDING LANDSCAPE IRRIGATION, LANDSCAPE AREA GRADING, LANDSCAPE SLEEVE CROSSINGS AND LANDSCAPE SLOPE TREATMENT ANY AND ALL LANDSCAPE REMOVAL OR RELOCATION.
- SEE ELECTRICAL PLANS FOR DRY UTILITY LAYOUT, DRY UTILITY DETAILS AND SPECIFICATIONS. MODIFICATIONS TO EXISTING DRY UTILITIES, SITE LIGHTING LOCATIONS AND DETAILS, POINTS OF CONNECTION, AND SLEEVE CROSSINGS. ANY AND ALL ELECTRICAL REMOVAL OR RELOCATION.
- OVER-EXCAVATION AND SUBGRADE REQUIREMENTS PER THE GEOTECHNICAL RECOMMENDATIONS DOCUMENT FOUND IN THE APPENDIX OF THE PROJECT SPECIFICATIONS
- CONSTRUCT CONTROL AND CONSTRUCTION JOINTS IN ACCORDANCE WITH CURRENT PORTLAND
- ANY UNSUITABLE MATERIAL ENCOUNTERED AT OR BELOW GRADE SHALL BE COMPLETELY REMOVED
- GEOTECHNICAL ENGINEER SHALL VERIFY MOISTURE CONTENT AND CONDITIONING PRIOR TO POURING
- TRANSITIONS TO MATCH EXISTING IMPROVEMENTS TO ENSURE BOTH DRAINAGE FLOW IS CONTINUOUS AND UNINTERRUPTED AND ACCESSIBILITY REQUIREMENTS ARE BEING MET.

IDENTIFICATION STAME DIV. OF THE STATE ARCHITEC

REVIEWED FOR

SS 🗹 FLS 🗹 ACS 🗹

APP: 02-122823 INC:

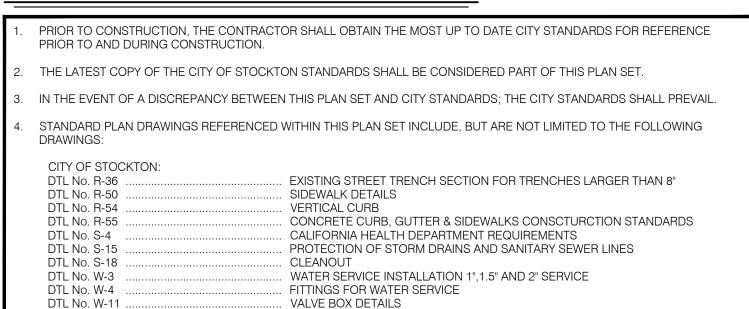
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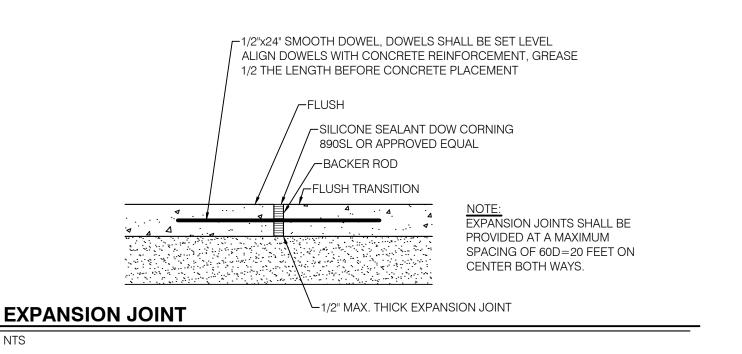
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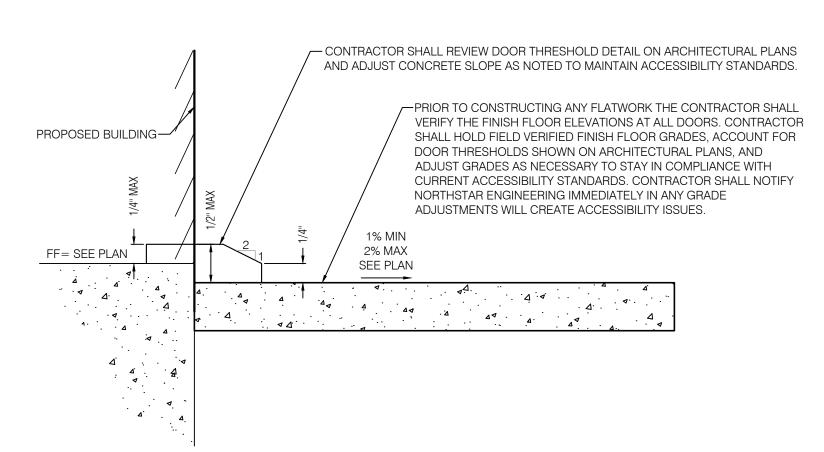
#### CITY OF STOCKTON STANDARD DETAILS

DTL No. W-12



THRUST BLOCK DETAILS

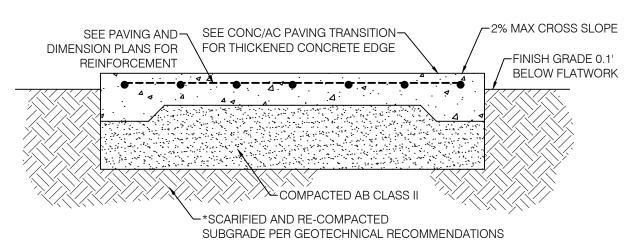




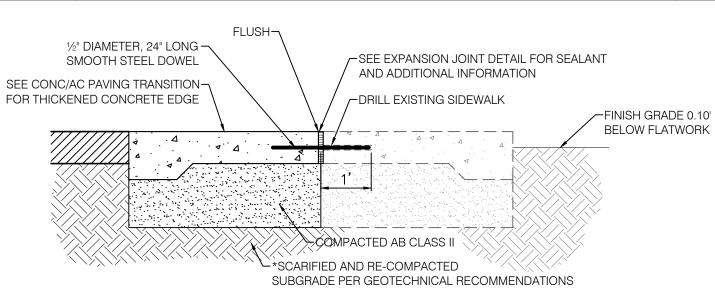
# 2 TYPICAL DOOR THRESHOLD AT CONCRETE LANDING

- \*NOTE:

  1. \*SUBGRADE PREPARATION REQUIREMENTS PER GEOTECHNICAL RECOMMENDATIONS, CITY OF STOCKTON STANDARDS AND SPECIFICATIONS, AND PROJECT SPECIFICATIONS.
- 2. AT EXPANSION JOINT USE 1/2"x24" SMOOTH DOWELS, 18" OC. GREASE 1/2 THE LENGTH BEFORE CONCRETE PLACEMENT. SEE EXPANSION JOINT DETAIL THIS SHEET.
- 3. CONSTRUCT CONTROL AND CONSTRUCTION JOINTS IN ACCORDANCE WITH CURRENT PORTLAND CEMENT ASSOCIATION GUIDELINES.
- 4. SEE STRUCTURAL SECTIONS ON DIMENSION AND PAVING PLAN SHEET C3.1



CONCRETE FLATWORK



\*NOTE:

1. \*SUBGRADE PREPARATION REQUIREMENTS PER GEOTECHNICAL RECOMMENDATIONS, CITY OF

- STOCKTON STANDARDS AND SPECIFICATIONS, AND PROJECT SPECIFICATIONS.

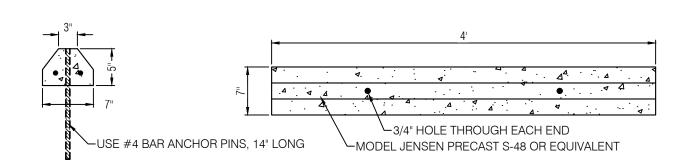
  2. AT EXPANSION JOINT USE ½"x24" SMOOTH STEEL DOWELS, 18" OC GREASE 1/2 THE LENGTH
- 3. EXPANSION JOINTS SHALL BE PROVIDED AT A MAXIMUM SPACING OF 60D=20 FEET ON CENTER
- BOTH WAYS. CONTROL JOINTS SHALL BE PLACED AT A MAXIMUM SPACING OF 5 FEET.

  4. CONSTRUCT CONTROL AND CONSTRUCTION JOINTS IN ACCORDANCE WITH CURRENT
- 5. SEE STRUCTURAL SECTIONS ON DIMENSIONS AND PAVING PLANS: SHEET C3.1

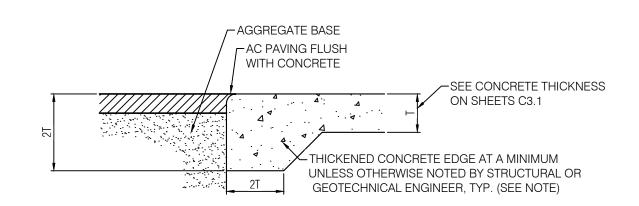
BEFORE CONCRETE PLACEMENT. SEE EXPANSION JOINT DETAIL THIS SHEET.

# CONCRETE FLATWORK AT EXISTING FLATWORK

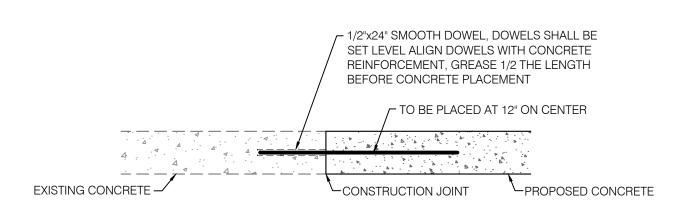
PORTLAND CEMENT ASSOCIATION GUIDELINES.



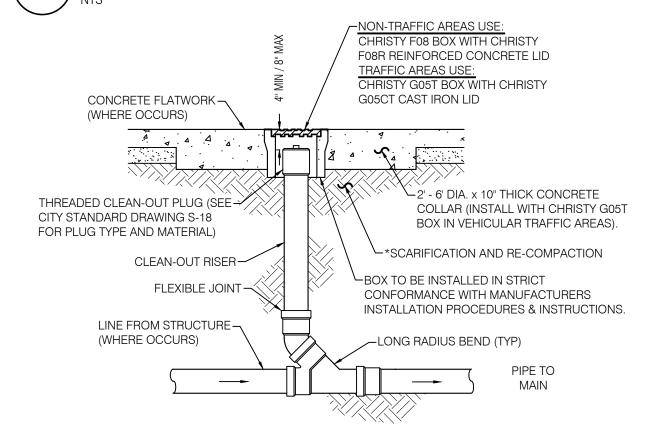
# 4' CONCRETE WHEEL STOP



# CONC / AC PAVING TRANSITION AND THICKENED EDGE



# 7 CONSTRUCTION JOINT



\*NOTE:

1. CLEAN-OUT RISER SHALL BE THE SAME SIZE AS THE LATERAL.

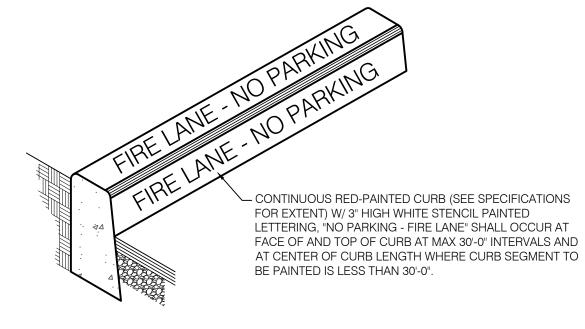
3. \*SUBGRADE PREPARATION REQUIREMENTS PER GEOTECHNICAL RECOMMENDATIONS, CITY OF

2. CLEAN-OUT RIM SHALL BE FLUSH WITH GRADE, ADA COMPLIANT AND "HEEL PROOF."

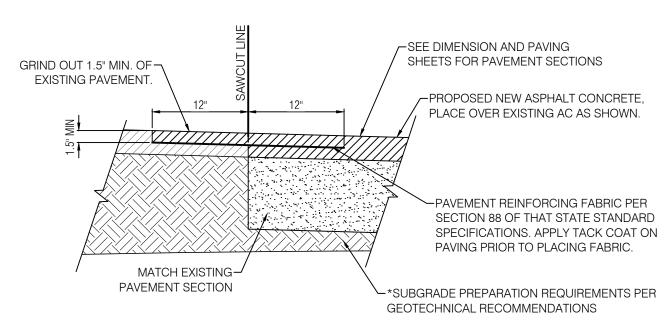
8 TYPICAL STORM DRAIN OR SANITARY SEWER CLEAN OUT RISER







9 FIRE LANE DETAIL

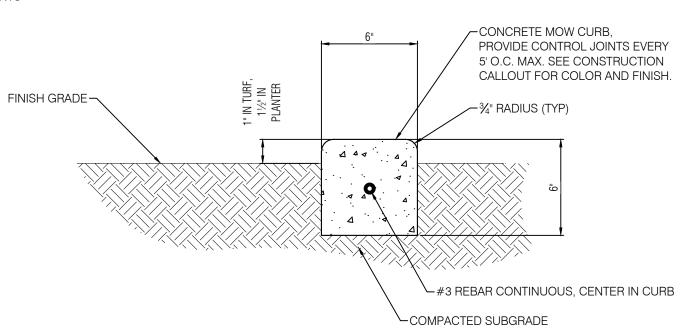


\*NOTE:

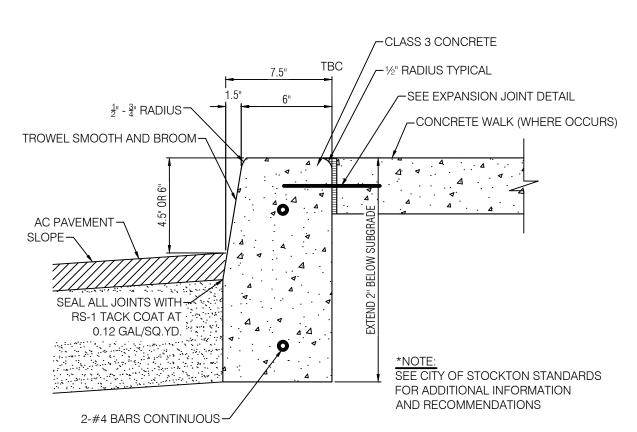
1. \*SUBGRADE PREPARATION REQUIREMENTS PER GEOTECHNICAL RECOMMENDATIONS, CITY OF STOCKTON STANDARDS AND SPECIFICATIONS, AND PROJECT SPECIFICATIONS.

2. LAP JOINT SHALL APPLY AT ALL SAWCUT LOCATIONS ALONG ALL PAVEMENT UNLESS OTHERWISE NOTED.

# 10 LAP JOINT DETAIL



6" LANDSCAPE CONCRETE MOW STRIP

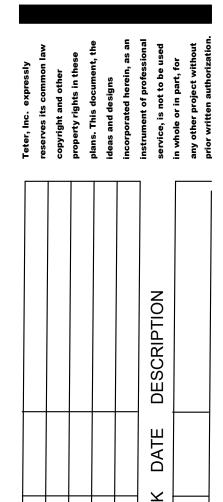


4.5" OR 6" VERTICAL CURB DETAIL

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IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 02-122823 INC:

REVIEWED FOR
SS FLS ACS DATE: 1/30/2025

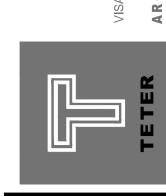




TETER, INC.

FRESNO HEADQUARTERS

//SALIA | BAKERSFIELD | MODESTO | SAN LUIS OBISPO



LEMENTARY
LOP

CALIFORNIA

SCHOOL ELOP STOCKTON,

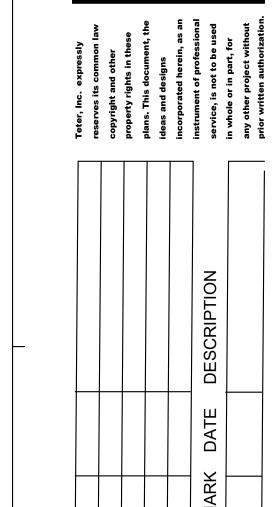
PROJECT NO. 23-12902

DRAWING

C1.4



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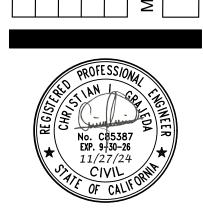
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC

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1/30/2025

APP: 02-122823 INC:





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PROJECT NO.

23-12902

DRAWING





GUTTER AND SIDEWALK AND ALL P.C.C. FLATWORK SHALL HAVE A FINE HAIR LIGHT BROOM FINISH; CURB AND GUTTER PARALLEL TO THE FLOW LINE. CONSTRUCT EXPANSION JOINTS 150'-0" ON CENTER MAXIMUM, AND AT RETURNS, LIGHT POLES, HYDRANTS, CATCH BASINS, BOTH SIDES OF DRIVEWAY. AND OTHER FIXED

NOTES:

CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE CURRENT CITY OF STOCKTON STANDARDS SPECIFICATIONS.

SEE DEFINITION SECTION OF STANDARD SPECIFICATIONS FOR DEFINITION OF SAND. WEAKENED PLANE JOINTS AND SCORE MARKS AS SHOWN. SEE DWG R-50 FOR WEAKENED PLANE JOINT WIDTH AND DEPTH

6. PLACE 5/8" X 24" LONG STEEL DOWELS THROUGH EVERY EXPANSION JOINT SPACED AT 1'-6" ON CENTER (MIN.) GREASED AND WRAPPED ON ONE SIDE, OFFSET 6" FROM CONCRETE EDGES, UNLESS OTHERWISE SHOWN OR SPECIFIED. MINIMUM THREE DOWELS IN 5' WIDE SIDEWALK. SIDEWALK CONSTRUCTION SHALL, CONFORM TO SECTION 73, STANDARD SPECIFICATIONS

CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS), EXCEPT AS MODIFIED HEREIN. SUBGRADE FOR SIDEWALK SHALL BE SCARIFIED AND COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 90% TO A DEPTH OF 6". PLACE 4" MINIMUM OF AGGREGATE SUBBASE CLASS II OR IV UNDER THE CONCRETE SECTIONS AND COMPACT TO A MINIMUM OF 90%. 9. SUBGRADE FOR CURB, GUTTER, AND DRIVEWAYS SHALL BE SCARIFIED AND COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 95% TO A DEPTH OF 6% BASE FOR CURB, GUTTER, AND DRIVEWAYS TO BE AB ONLY.

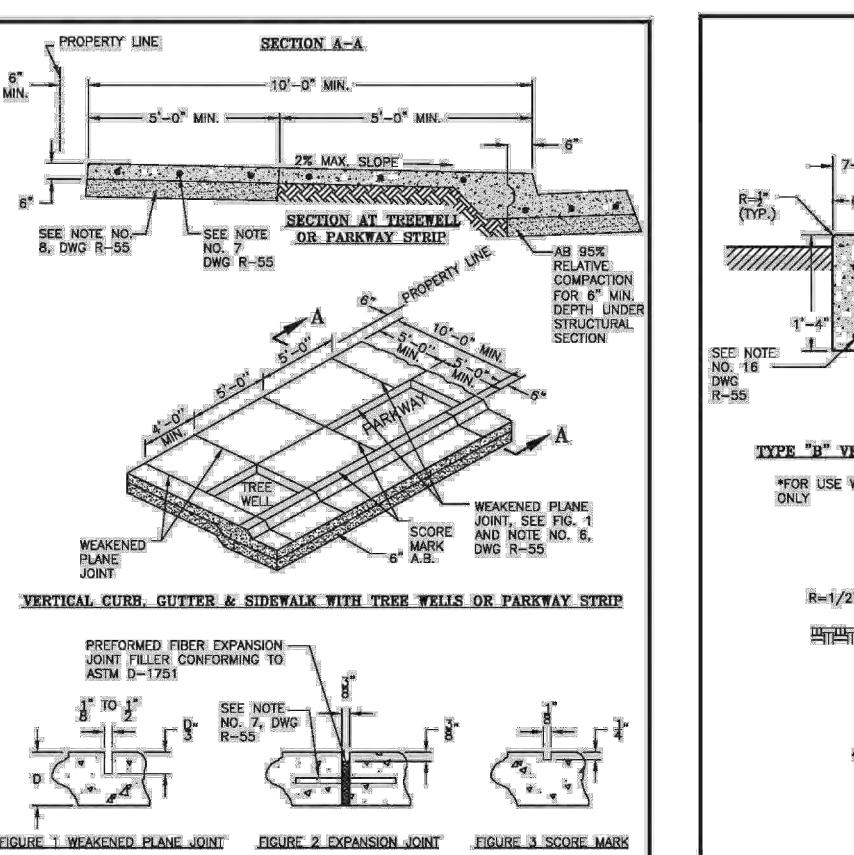
10. ALL RADII FOR ROUNDING EDGES SHALL BE 3/4" UNLESS NOTED.
11. CONCRETE SHALL BE PER SECTION 90. MINOR CONCRETE PER SPECIFICATION. 12. EXPANSION JOINTS AND WEAKENED PLANE JOINTS SHALL BE INSTALLED AS INDICATED ON THE PLANS OR STANDARD DETAILS.

13. DEPRESS A 2" HIGH LETTER 'W', 'S', OR 'I' FOR IRRIGATION SLEEVE LOCATION, 1/4" DEEP INTO THE TOP OF CURB TO INDENTIFY SERVICE LOCATIONS. 14. WATER SHALL BE USED TO ENSURE PROPER DRAINAGE OF GUTTERS AT BOTH THE FINAL WALKTHROUGH AND PRIOR TO THE EXPIRATION OF THE ONE-YEAR WARRANTY.

16. 2-5/8" X 24" LONG STEEL DOWELS MINIMUM THROUGH EVERY EXPANSION JOINT. 17. IN AN EXISTING STREET, WHENEVER THE CURB AND GUTTER ARE REMOVED, SAWCUT EXISTING STREET 1' OUT FROM LIP OF GUTTER MIN. & REPLACE WITH 8" OF ASPHALT CONCRETE, MIN., MATCHING EXISTING SECTION.

15. 3-5/8" X 24" LONG STEEL DOWELS MINIMUM THROUGH EVERY EXPANSION JOINT.

REVISION APPROVED BY CITY ENGINEE CONCRETE CURB, GUTTER & SIDEWALKS **CONSTRUCTION STANDARDS** DATE: 09/27/2016 SCALE SUPERSEDES DRAWING NO. C CITY OF STOCKTON R-55 DEPARTMENT OF PUBLIC WORKS 11/25/03 NONE

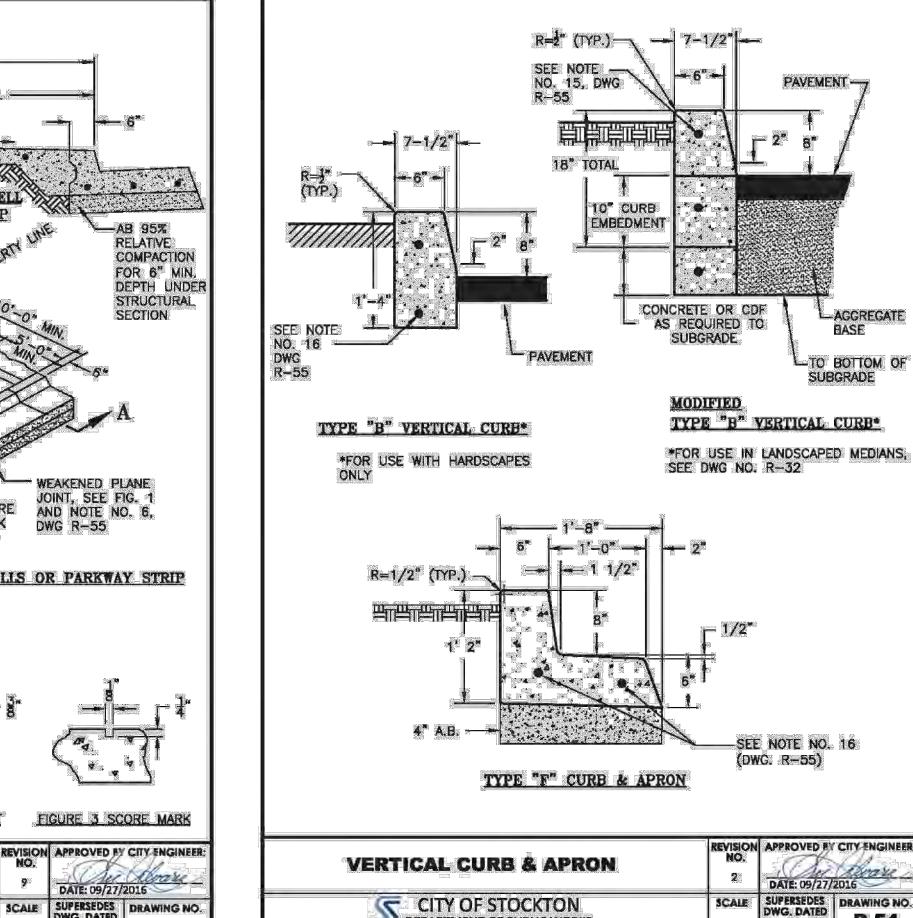


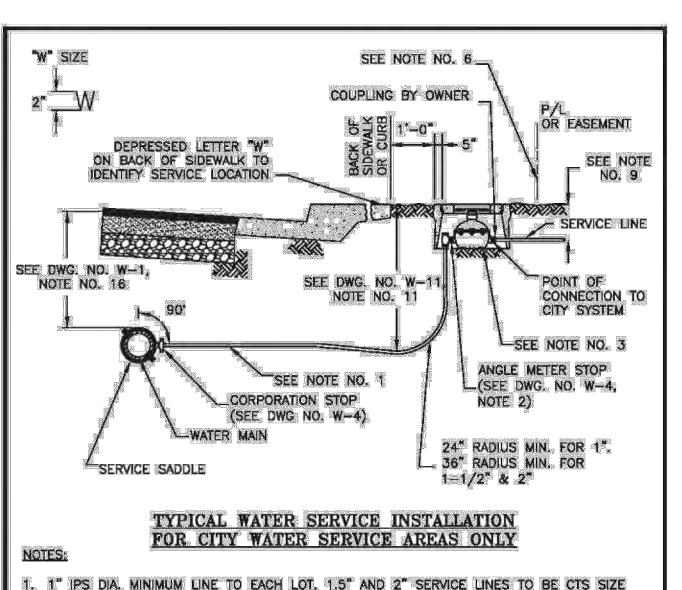
DWG, DATED

11/25/03

NONE

R-50





- NEW PAVEMENT TO BE 1/8" HIGHER THAN

OF CSS-1 OR SS-1 ASPHALT EMULSION.

TO BE REMOVED AFTER

COMPACTION & BEFORE PAVING

-PAVEMENT SECTION SHALL BE EQUIVALENT TO EXISTING PAVEMENT

BUT IN NO CASE LESS THAN 8"

STREET AND 13" FOR ARTERIALS

UNLESS OTHERWISE DIRECTED BY

COMPACT IN 6" MAX. LAYERS TO MIN. RELATIVE COMPACTION 85%.

MATERIAL TO BE IMPORTED SAND

PASSING 3/4", 5%-20% PASSING

EQUIVALENT = 20. COMPACTION BY

REVISION APPROVED BY CITY ENGINEER

SCALE SUPERSEDES DRAWING NO.

NONE 11/25/03

R-36

DEBRIS, ETC., HAVING THE

FOLLOWING GRADING: 100%

IO: 200 MINIMUM SAND

MECHANICAL MEANS.

OR AN APPROVED CLEAN GRANULAF

MATERIAL FREE OF ALL LUMPS AND

FOR LOCAL AND COLLECTOR

THE ENGINEER.

: D+16" MIN.

"D+24" MAX.

INVENIONAL TERMORE SIGNION IN DESIGNION IMPROVIDE STREETS

BOTTOM OF THE PIPE AND REPLACE WITH SAND OR AGGREGATE SUBBASE IN LIEU OF SHAPING BOTTOM OF TRENCH TO FIT PIPE BARREL JOINTS SHALL BE SHAPED IN

DEVIATION FROM ABOVE MAY BE ALLOWED WHEN APPROVED BY THE CITY ENGINEER. TRENCH — WHERE THE TRENCH SECTION PARALLELS THE EXISTING CURB AND GUTTER, THE EDGE OF THE TRENCH SHALL BE A MIN. OF 1 -0 FROM LIP OF THE EXISTING

ALL VERTICAL EDGES OF EXISTING ASPHALT CONCRETE SHALL BE TACK COATED. PAVING SHALL CONFORM TO SECTION 100-1.06 OF THE STANDARD SPECIFICATIONS. ALL JOINT PIPE REPAIRS SHALL BE BEDDED WITH A MINIMUM OF 6 INCHES OF 3\*

**EXISTING STREET TRENCH SECTION** 

FOR TRENCHES LARGER THAN 8"

CITY OF STOCKTON

DEPARTMENT OF PUBLIC WORKS

WHEN EXCAVATION IS IN EXISTING PAVED STREETS, REPLACE PAVEMENT 12" ON EACH SIDE

OF EXCAVATION, TRENCH, BELL HOLE OR POT HOLES, TO BE REMOVED AFTER COMPACTION

GUTTER. THE PAVEMENT SHALL BE REMOVED AND REPLACED TO THE LIP OF THE GUTTER. CONTROLLED DENSITY FILL (CDF) MAY BE USED IN LIEU OF SPECIFIED BACKFILL METHOD. MINIMUM TRENCH WIDTH MAY BE REDUCED TO 2-1/2" CLEAR OF EACH SIDE OF PIPE. FLEXIBLE PIPE SHALL HAVE A 6" BEDDING OF GRANULAR MATERIAL AS DESCRIBED IN

NOTES
1. FOR RIGID PIPE, CONTRACTOR MAY, AT THEIR EXPENSE, EXCAVATE 6" BELOW THE

DIAMOND SAW CUTTING, MILLING, OR OTHER APPROVED DEVICE SHALL BE

USED, REPAVE TO A CLEAN - N

COMPACT IN 12" MAX.

LAYERS TO A MIN. RELATIVE COMPACTION OF 95% UNDER THE PAVEMENT

COMPACT IN 12" MAX.

LAYERS TO A MIN. RELATIVE

COMPACTION OF 90% AT VARYING DEPTH. MATERIAL TO BE APPROVED

MPORT OR SUITABLE SITE

EXCAVATED MATERIAL

SHAPE BOTTOM OF TRENCH

PIPE JOINTS, PIPE SHALL BE

EITHER CASE.

CRUSHED ROCK.

TO FIT PIPE BARREL AND

CENTERED IN TRENCH.

SEE NOTE #1 AND #6.

STRAIGHT EDGE (TYP).

ADJACENT PAVEMENT, APPLY FOG SEAL COAT

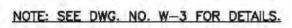
1" IPS DIA. MINIMUM LINE TO EACH LOT. 1.5" AND 2" SERVICE LINES TO BE CTS SIZE ACCORDINGLY. PLASTIC SERVICE PIPE TO BE CONTINUOUS WITH NO SPLICING ALLOWED. SEE DWG. NO. W-4 FOR FITTINGS AND BOX ASSEMBLY. METERS SHALL BE FURNISHED AND INSTALLED BY CITY OF STOCKTON SERVICE CONNECTION AT THE METER SHALL BE A DEPTH OF B" MIN. TO 12" MAX. THE LOCATION OF THE TAP SHALL BE A MIN. OF 24" FROM ANOTHER TAP, BELL, SPIGOT, OR OTHER FITTING.

METER BOX MAY BE PLACED ADJACENT TO PROPERTY OR EASEMENT LINE WITH PRIOR APPROVAL OF THE CITY ENGINEER. USE CHRISTY B-12 METER BOX WITH B12 TR/PL COVER OR EQUIVALENT. ALL BOXES LOCATED IN DRIVEWAY AREAS TO HAVE TRAFFIC COVERS MEET HS20 44 LOADING WITH TOUCH READ HOLE 1-3/4 dia. Hole for T/R meter in upper right or lower left CORNER OF LID.

INSTALLATION OF A BACKFLOW PREVENTION DEVICE SHALL BE REQUIRED FOR ALL CONNECTIONS TO THE CITY WATER SYSTEM, EXCEPT FOR SINGLE FAMILY RESIDENCES. SERVICE LINES FROM ALL METERS TO PROPERTY LINES SHALL HAVE A MINIMUM OF 8" OF COVER FROM TOP OF SIDEWALK OR GROUND LINE.

10. MULTIPLE METER MANIFOLDS SUBJECT TO APPROVAL BY MUNICIPAL UTILITIES DEPARTMENT.





SIDEWALK DETAILS

S CITY OF STOCKTON DEPARTMENT OF PUBLIC WORKS

## PLASTIC PIPE:

PLASTIC SERVICE PIPE SHALL BE ULTRA HIGH MOLECULAR WEIGHT (UHMW) P.E. 3406 CS 255-63, POLYETHYLENE (STANDARD SPECIFICATIONS 78-1.02J) AS MANUFACTURED BY ADS OR APPROVED EQUAL WITH MINIMUM PRESSURE RATING OF 160 P.S.I.

#### CONNECTION SHALL BE AS FOLLOWS:

1. CORPORATION STOPS

PROPERTY LINE

see note no.— 8, dwg R—55

A. 6 INCH DIAMETER LINES 1" X 1" CORPORATION STOPS AS MANUFACTURED BY FORD OR EQUIVALENT COMPLETE WITH STAINLESS STEEL INSERTS FOR 1" I.D. PLASTIC PIPE.

B. 8 AND 12 INCH DIAMETER LINES 1" DIAMETER CORPORATION STOPS AS MANUFACTURED BY FORD OR EQUIVALENT COMPLETE WITH STAINLESS STEEL INSERTS FOR 1" I.D. PLASTIC PIPE.

C. ALTERNATE PRODUCT SUPPLIER (1) 1" CORPORATION STOP. FORD NO. 1001 WITH SS INSERTS. (2) 1" X 1" CORPORATION STOP. FORD NO. 800 PLUS A C-16-44 COMPRESSION ADAPTER WITH SS INSERTS.

(3) 1-1/2" AND 2" CORPORATION STOPS. FORD NO. FB-1000.

#### 2. ANGLE METER STOPS

A. 1 INCH DIAMETER ANGLE METER STOPS 1" I.D. ANGLE METER STOP AS MANUFACTURED BY FORD OR EQUIVALENT COMPLETE WITH LOCK WING AND STAINLESS STEEL INSERT FOR 1" I.D. PLASTIC PIPE.

B. 1-1/2 AND 2 INCH DIAMETER ANGLE METER STOPS
ANGLE METER STOPS AS MANUFACTURED BY FORD OR EQUIVALENT SHALL BE USED WITH STAINLESS STEEL INSERTS.

#### C. ALTERNATE PRODUCT SUPPLIER

(1) 1" ANGLE METER STOP. FORD NO. KV63-444 WITH SS INSERT. (2) 1-1/2" ANGLE METER STOP. FORD FV 43-666 WITH SS INSERT.

(3) 2" ANGLE METER STOP. FORD FV 43-777 WITH SS INSERT.

D. ALL 1", AND 1.5", AND 2" ANGLE METER STOPS SHALL HAVE A COMPRESSION FITTING WITH STAINLESS STEEL RESTRAINING CLAMP WITH NUT

Page 1 of 2 REVISION APPROVED BY CITY ENGINEE FITTINGS FOR WATER SERVICE DATE: 09/27/2015 SCALE SUPERSEDES DRAWING NO CITY OF STOCKTON DEPARTMENT OF PUBLIC WORKS NONE 01/09/02

# 3. SERVICE SADDLES

ALL SERVICE SADDLES SHALL BE MANUFACTURED BY FORD WITH DOUBLE FLAT BRONZE STRAPS AND BRONZE NUTS. SERVICE SADDLE FOR ALL SIZE C-900 MAINS SHALL BE MANUFACTURED BY FORD.

#### 4. WATER METER BOXES

1" METER BOXES SHALL BE CHRISTY B-12 BOX. FOR LIDS, SEE NOTE NO. 5.

DEPARTMENT OF PUBLIC WORKS

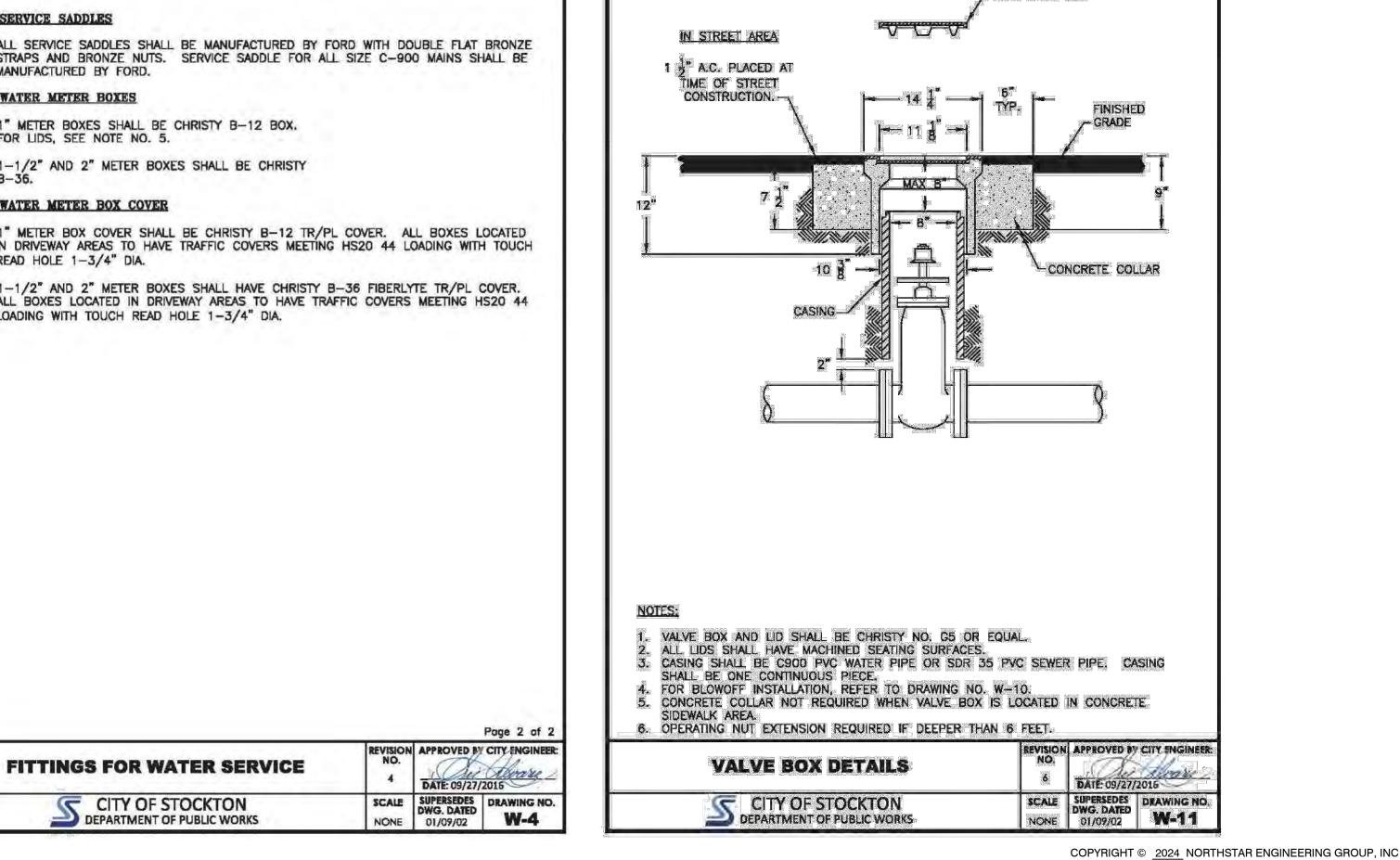
1-1/2" AND 2" METER BOXES SHALL BE CHRISTY

CITY OF STOCKTON

#### 5. WATER METER BOX COVER

1" METER BOX COVER SHALL BE CHRISTY B-12 TR/PL COVER. ALL BOXES LOCATED IN DRIVEWAY AREAS TO HAVE TRAFFIC COVERS MEETING HS20 44 LOADING WITH TOUCH READ HOLE 1-3/4" DIA.

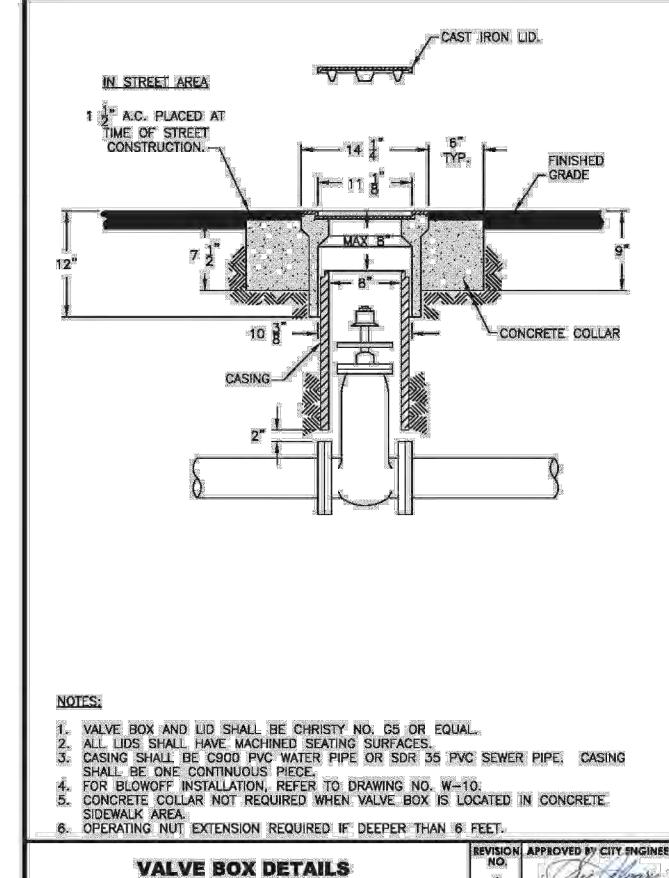
1-1/2" AND 2" METER BOXES SHALL HAVE CHRISTY B-36 FIBERLYTE TR/PL COVER. ALL BOXES LOCATED IN DRIVEWAY AREAS TO HAVE TRAFFIC COVERS MEETING HS20 44 LOADING WITH TOUCH READ HOLE 1-3/4" DIA.



R-54

NONE

11/25/03

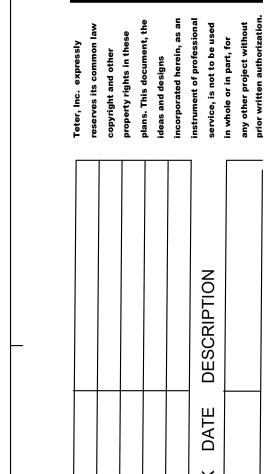






DIV. OF THE STATE ARCHITEC APP: 02-122823 INC: **REVIEWED FOR** SS 🗹 FLS 🗹 ACS 🗹 DATE: 1/30/2025

IDENTIFICATION STAMP



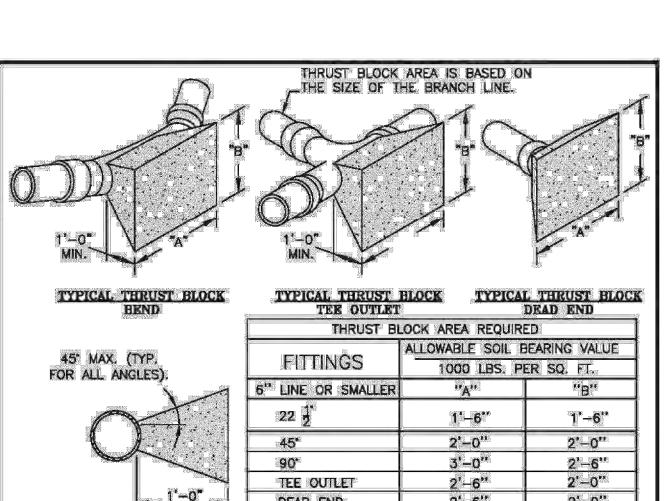


VEMENT PLANS |
ELEMENTARY
ELOP

PROJECT NO. 23-12902

DRAWING





TYPICAL SECTION THRU

1. ALL THRUST BLOCKS SHALL BE POURED

AGAINST <u>UNDISTURBED</u>

RESTRAINT SYSTEM FOR

VERTICAL PIPE BENDS

THE CITY ENGINEER.

SYSTEMS FOR PIPES

BE DESIGNED ON A

CASE BY CASE BASIS

APPROVED BY THE CITY

3. THRUST RESTRAINT

AND SHALL BE

ENGINEER.

SHALL BE APPROVED BY

LARGER THAN 12" SHALL

THRUST BLOCK

	MIN.		
ick	TYPICAL THRUST TEE OUTLET	BLOCK TYPICA	. THRUST BLOCK DEAD END
	THRUST BI	OCK AREA REQUIRE	B
	FITTINĞS	ALLOWABLE SOIL E	
-4	6" LINE OR SMALLER	"A"	"B"
	22 💃	11-6"	11"6"
*	45°	2'-0"	2'-0"
:	90*	3'-0"	2'-6"
74	TEE OUTLET	2'⊢6'"	2'-0"
	DEAD END	2'-6'"	2'-0"
	8" LINE	95 - 29	
	22 🖠	2'-0'"	2'-0"
	-45'	3'-0"	2'-6"
	90	4'-0"	3'-0"
	TEE OUTLET	3'-0"	3'-0"
	DEAD END	3'-0"	3'-0"
	10" LINE		
	22 1	5'-0"·	2'-0**
	45*	3'=6'	3'-0"
	90%	5'-0"	4'-0''
	TEE OUTLET	4'-0'	3'-6"
	DEAD END	4'-0"	3'-6"
	12" LINE		
	22 2	3'-0"	3'-0"
,	∞ <b>45</b> *	4"-0"	4'-0"
	90*	7/1-0"	4'-0"
	TEE OUTLET	5'-0'*	4'-0"
	DEAD END	5'⊢0''	4'-0"

THRUST BLOCK DETAILS	REVISION NO.	DATE: 09/27/	CITY ENGINEER
CITY OF STOCKTON  DEPARTMENT OF PUBLIC WORKS	SCALE NONE	SUPERSEDES DWG. DATED 01/09/02	DRAWING NO. W-12

SPECIAL CONSTRUCTION REQUIREMENTS

(TO BE USED ONLY WHERE REQUIRED SEPARATION CANNOT BE OBTAINDED)

CASE 1 - NEW SEWER BEING INSTALLED

#### STATE OF CALIFORNIA DEPARTMENT OF HEALTH CRITERIA FOR THE SEPARATION OF WATER MAINS WITH SANITARY SEWERS AND STORM SEWERS

#### A. BASIC STANDARDS

THE "CALIFORNIA WATERWORKS STANDARDS" SETS FORTH THE MINIMUM SEPARATION REQUIREMENT FOR WATER MAINS WITH SANITARY AND STORM SEWER LINES. THESE STANDARDS, CONTAINED IN SECTION 64630, TITLE 22, CALIFORNIA ADMINISTRATIVE CODE, SPECIFY: 1) PARALLEL CONSTRUCTION: THE HORIZONTAL DISTANCE BETWEEN PRESSURE WATER

- MAINS AND SEWER LINES SHALL BE AT LEAST 10 FEET. 2) PERPENDICULAR CONSTRUCTION (CROSSING): PRESSURE WATER MAINS SHALL BE AT LEAST ONE FOOT ABOVE SANITARY SEWER LINES WHERE THESE LINES MUST CROSS. 3) SEPARATION DISTANCES SPECIFIED ABOVE SHALL BE MEASURED FROM THE NEAREST EDGES OF THE FACILITIES.
- 4) WATER MAINS AND SEWER LINES MUST NOT BE INSTALLED IN THE SAME TRENCH. 5) WATER MAINS AND SEWERS OF 24 INCHES DIAMETER OR GREATER MAY CREATE SPECIAL HAZARDS BECAUSE OF THE LARGE VOLUMES OF FLOW. INSTALLATIONS OF WATER MAINS AND SEWER LINES 24 INCHES DIAMETER OR LARGER MUST BE REVIEWED AND APPROVED BY THE HEALTH AGENCY AND CITY ENGINEER PRIOR TO
- 6) WHEREVER THE WORD "SEWER" IS USED IN CONNECTION WITH ANY REQUIREMENTS AS SHOWN ON DRAWINGS S-4, PAGE 4 & 5 THE WORD SHALL APPLY EQUALLY TO SANITARY OR STORM SEWER INSTALLATIONS.

#### B. EXCEPTIONS TO BASIC SEPARATION STANDARDS

REFER TO STD DWG S-4, PAGE 4 & 5 FOR SEPARATION DETAILS.

LOCAL CONDITIONS, SUCH AS AVAILABLE SPACE, LIMITED SLOPE, EXISTING STRUCTURES, ETC., MAY CREATE A SITUATION WHERE THERE IS NO ALTERNATIVE BUT TO INSTALL WATER MAINS OR SEWER LINES AT A DISTANCE LESS THAN THAT REQUIRED BY THE BASIC SEPARATION STANDARDS. IN SUCH CASES, ALTERNATIVE CONSTRUCTION CRITERIA AS SPECIFIED IN SECTION C SHALL BE FOLLOWED, SUBJECT TO THE SPECIAL PROVISIONS IN SECTION D.

#### C. ALTERNATE CRITERIA FOR CONSTRUCTION

BOTH WATER MAIN AND SEWER LINE.

THE CONSTRUCTION CRITERIA FOR SEWER LINES OR WATER MAINS WHERE THE BASIC SEPARATION STANDARDS CANNOT BE ATTAINED ARE SHOWN ON DRAWINGS S-4, PAGE 4 & 5. THERE ARE TWO SITUATIONS ENCOUNTERED:

CASE 1 -- NEW SEWER LINE - NEW OR EXISTING WATER MAIN.

CASE 2 -- NEW WATER MAIN - EXISTING SEWER LINE.

FOR CASE 1, THE ALTERNATE CONSTRUCTION CRITERIA APPLY TO THE SEWER LINE. FOR CASE 2, THE ALTERNATE CONSTRUCTION CRITERIA MAY APPLY TO EITHER OR

THE CONSTRUCTION CRITERIA APPLY TO THE HOUSE LATERALS THAT CROSS ABOVE A PRESSURE WATER MAIN BUT NOT TO THOSE HOUSE LATERALS THAT CROSS BELOW A PRESSURE WATER MAIN.

			Page 1 of 5
CALIFORNIA HEALTH DEPARTMENT REQUIREMENTS	REVISION NO.	DATE: 09/27/	CITY ENGINEER:
CITY OF STOCKTON DEPARTMENT OF PUBLIC WORKS	SCALE NONE	SUPERSEDES DWG. DATED 01/09/02	DRAWING NO. <b>S-4</b>

#### CASE 1: NEW SEWER BEING INSTALLED (DRAWING NO. S-4, PAGE 4)

#### ZONE SPECIAL CONSTRUCTION REQUIRED FOR SEWER

- SEWER LINES PARALLEL TO WATER MAINS SHALL NOT BE PERMITTED IN THIS ZONE WITHOUT APPROVAL FROM THE RESPONSIBLE HEALTH AGENCY AND WATER SUPPLIER.
- A SEWER LINE PLACED PARALLEL TO A WATER LINE SHALL BE CONSTRUCTED OF:
  - 1. EXTRA STRENGTH VITRIFIED CLAY PIPE WITH COMPRESSION JOINTS. 2. PLASTIC SEWER PIPE WITH RUBBER RING JOINTS (PER ASTM
  - D3034) OR EQUIVALENT. 3. CAST OR DUCTILE IRON PIPE WITH COMPRESSION JOINTS.
- C A SEWER LINE CROSSING A WATER MAIN SHALL BE CONSTRUCTED OF:
  - 1. DUCTILE IRON PIPE WITH HOT DIP BITUMINOUS COATING AND MECHANICAL JOINTS.
  - 2. A CONTINUOUS SECTION OF CLASS 200 (DR 14 PER AWWA C900) PLASTIC PIPE OR EQUIVALENT, CENTERED OVER THE PIPE BEING
  - 3. ANY SEWER PIPE WITHIN A CONTINUOUS SLEEVE.

#### CASE 2: NEW WATER MAINS BEING INSTALLED (DRAWING NO. S-4, PAGE 5)

#### ZONE SPECIAL CONSTRUCTION REQUIRED FOR SEWER

- NO WATER MAINS PARALLEL TO SEWERS WITHIN 10 FEET SHALL BE CONSTRUCTED WITHOUT APPROVAL FROM THE HEALTH AGENCY.
- IF THE SEWER PARALLELING THE WATER MAIN DOES NOT MEET THE CASE 1.
- ZONE B, REQUIREMENTS, THE WATER MAIN SHALL BE CONSTRUCTED OF:
- 1. CEMENT LINED DUCTILE IRON PIPE WITH HOT DIP BITUMINOUS
- 2. DIPPED AND WRAPPED ONE-FOURTH-INCH-THICK WELDED STEEL
- 3. CLASS 200 PRESSURE RATED PLASTIC WATER PIPE (DR 14 PER AWWA C900) OR EQUIVALENT.
- 4. REINFORCED CONCRETE PRESSURE PIPE, STEEL CYLINDER TYPE, PER AWWA (C300-74 OR C301-79 OR C303-70).
- C IF THE SEWER CROSSING THE WATER MAIN DOES NOT MEET THE CASE 1, ZONE C, REQUIREMENTS, THE WATER MAIN SHALL HAVE NO JOINTS IN ZONE C AND BE CONSTRUCTED OF:

			Page 2 of 5
CALIFORNIA HEALTH DEPARTMENT REQUIREMENTS	REVISION NO.	DATE: 09/27/	CITY ENGINEER:
CITY OF STOCKTON  DEPARTMENT OF PUBLIC WORKS	SCALE NONE	SUPERSEDES DWG. DATED 01/09/02	DRAWING NO. <b>S-4</b>

# 1. CEMENT LINED DUCTILE IRON PIPE WITH HOT DIP BITUMINOUS

- 2. CLASS 200 PRESSURE RATED PLASTIC WATER PIPE (DR 14 PER AWWA C900) OR EQUIVALENT.
- 3. REINFORCED CONCRETE PRESSURE PIPE, STEEL CYLINDER TYPE, PER AWWA (C300-74 OR C301-79 OR C303-70). REQUIRES SPECIFIC DESIGN APPROVAL OF PIPE AND FITTING PRIOR TO POSSIBLE USE.
- IF THE SEWER CROSSING THE WATER MAIN DOES NOT MEET THE REQUIREMENTS FOR ZONE D, CASE 1, THE WATER MAIN SHALL HAVE NO JOINTS WITHIN FOUR FEET FROM EITHER SIDE OF THE SEWER AND SHALL BE CONSTRUCTED OF:

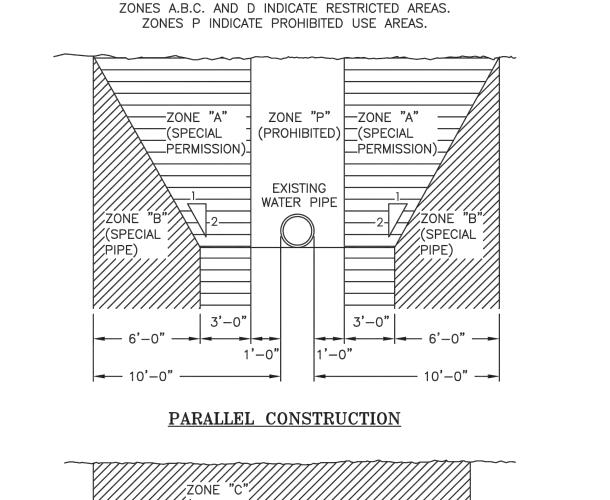
COATING.

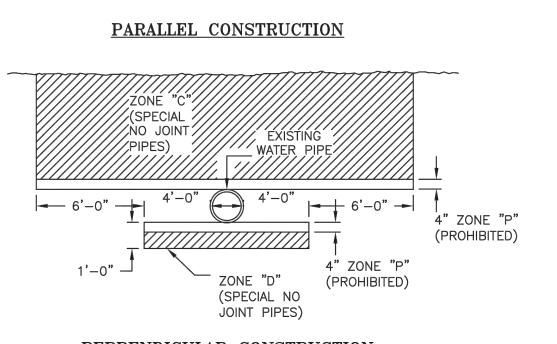
- 1. CEMENT LINED DUCTILE IRON PIPE WITH HOT DIP BITUMINOUS
- 2. CLASS 200 PRESSURE RATED PLASTIC WATER PIPE (DR 14 PER
- AWWA C900) OR EQUIVALENT. 3. REINFORCED CONCRETE PRESSURE PIPE. STEEL CYLINDER TYPE. PER AWWA (C300-74 OR C301-79 OR C303-70). REQUIRES SPECIFIC DESIGN APPROVAL OF PIPE AND FITTING PRIOR TO POSSIBLE USE.

#### **D SPECIAL PROVISIONS**

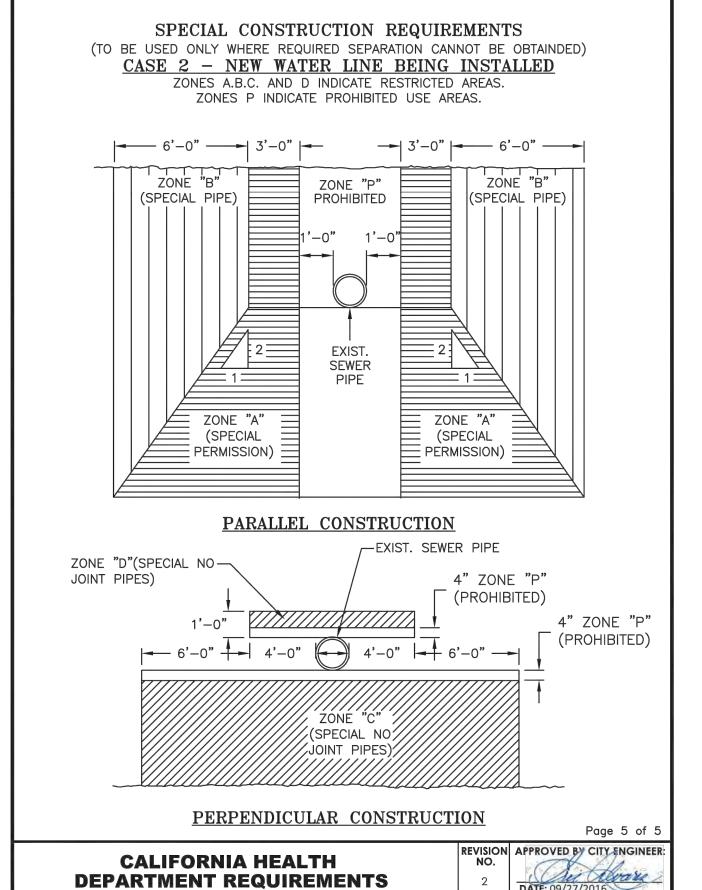
- 1. THE BASIC SEPARATION STANDARDS ARE APPLICABLE UNDER NORMAL CONDITIONS FOR SEWAGE COLLECTION LINES AND WATER DISTRIBUTION MAINS. MORE STRINGENT REQUIREMENTS MAY BE NECESSARY IF CONDITIONS, SUCH AS HIGH GROUND WATER EXIST.
- 2. SEWER LINES SHALL NOT BE INSTALLED WITHIN 25 FEET HORIZONTALLY
- OF A LOW HEAD (5 PSI OR LESS PRESSURED) WATER MAIN. 3. NEW WATER MAINS AND SEWER SHALL BE PRESSURE TESTED WHERE THE CONDUITS ARE LOCATED TEN FEET APART OR LESS.
- 4. IN THE INSTALLATION OF WATER MAINS OR SEWER LINES, MEASURES SHOULD BE TAKEN TO PREVENT OR MINIMIZE DISTURBANCES OF THE EXISTING LINE.
- 5. SPECIAL CONSIDERATION SHALL BE GIVEN TO THE SELECTION OF PIPE MATERIALS IF CORROSIVE CONDITIONS ARE LIKELY TO EXIST.
- 6. SEWER FORCE MAINS a. SEWER FORCE MAINS SHALL NOT BE INSTALLED WITHIN TEN
  - FEET (HORIZONTALLY) OF A WATER MAIN. b. WHEN A SEWER FORCE MAIN MUST CROSS A WATER LINE, THE
  - FORCE MAIN SHOULD BE AS CLOSE TO PERPENDICULAR AS PRACTICAL. THE SEWER FORCE MAIN SHOULD BE AT LEAST ONE FOOT BELOW THE WATER LINE. c. WHEN A NEW SEWER FORCE MAIN CROSSES UNDER AN
  - EXISTING WATER MAIN, ALL PORTIONS OF THE SEWER FORCE MAIN WITHIN TEN FEET (HORIZONTALLY) OF THE WATER MAIN SHALL BE ENCLOSED IN A CONTINUOUS SLEEVE.
  - d. WHEN A NEW WATER MAIN CROSSES OVER AN EXISTING SEWER FORCE MAIN, THE WATER MAIN SHALL BE CONSTRUCTED OF PIPE MATERIALS WITH A MINIMUM RATED WORKING PRESSURE OF 200 PSI OR EQUIVALENT PRESSURE RATING.

			Page 3 of 5
CALIFORNIA HEALTH DEPARTMENT REQUIREMENTS	REVISION NO.	DATE: 09/27/	CITY ENGINEER:
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PERPENDICULAR CONSTRUCTION	<u>N</u>		Page 4 of
CALIFORNIA HEALTH DEPARTMENT REQUIREMENTS	REVISION NO.	DATE: 09/27/	Char
CITY OF STOCKTON DEPARTMENT OF PUBLIC WORKS	SCALE NONE	SUPERSEDES DWG. DATED 01/09/02	DRAWING N



CITY OF STOCKTON

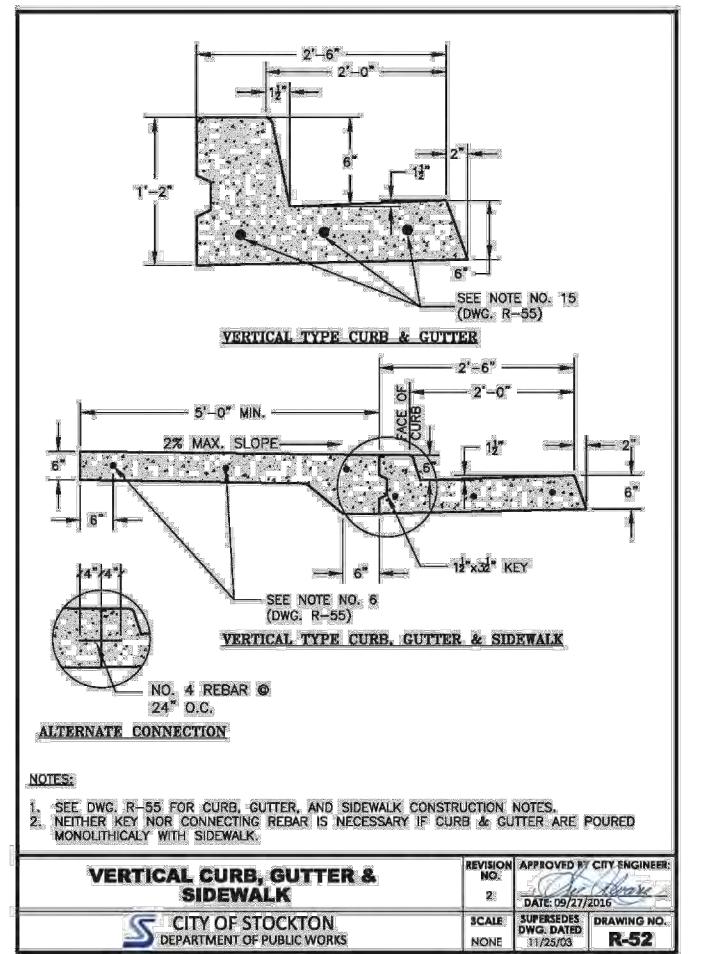
DEPARTMENT OF PUBLIC WORKS

SUPERSEDES | DRAWING NO

01/09/02

NONE

**S-4** 



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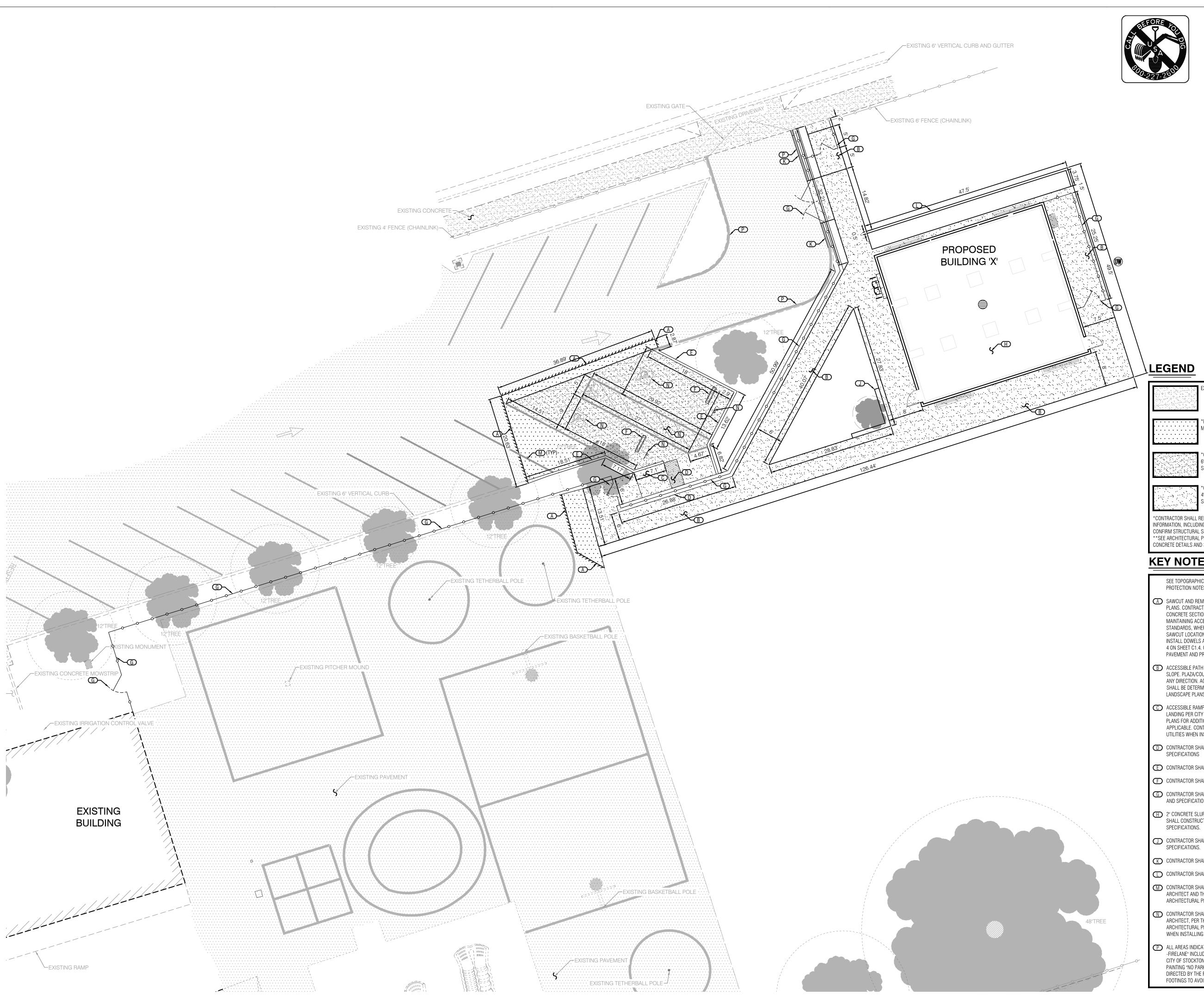


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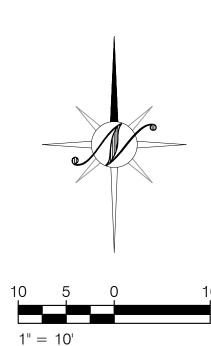
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#### LEGEND

XISTING CONCRETE XISTING PAVEMENT PAVEMENT SECTION MATCH EXISTING PAVEMENT SECTION

CONCRETE SECTION - HEAVY DUTY 6"PCC/6" CLASS II AB (95% RC) W/ #4 REBAR @ 18" O.C., BOTH WAYS SEE DETAIL 3 ON SHEET C1.4

\*CONCRETE SECTION - PEDESTRIAN 4"PCC/4" CLASS II AB (95% RC) W/ #4 REBAR @ 18" O.C., BOTH WAYS SEE DETAIL 3 ON SHEET C1.4

\*CONTRACTOR SHALL REFER TO GEOTECHNICAL RECOMMENDATIONS DOCUMENT FOR ADDITIONAL INFORMATION, INCLUDING SUBGRADE AND AGGREGATE BASE PREPARATION AND COMPACTION AND TO CONFIRM STRUCTURAL SECTIONS SHOWN ABOVE. \*\*SEE ARCHITECTURAL PLANS FOR SCORING, CONTROL JOINTS, PATTERN, COLOR AND ADDITIONAL CONCRETE DETAILS AND SPECIFICATIONS.

#### **KEY NOTES**

- SEE TOPOGRAPHIC AND DEMOLITION SHEET C2.1 FOR ADDITIONAL REMOVAL, REPLACEMENT AND PROTECTION NOTES.
- A SAWCUT AND REMOVE EXISTING PAVEMENT, CONCRETE, AND OR CURB AS REQUIRED PER THESE PLANS. CONTRACTOR MAY NEED TO FIELD ADJUST SAWCUT LINE TO REMOVE THE PAVEMENT OR CONCRETE SECTION AT A CLEAN EDGE OR NEAREST JOINT BASED ON FIELD CONDITIONS. WHILE MAINTAINING ACCESSIBLE TRANSITION TO PROVIDE COMPLIANCE WITH ACCESSIBILITY STANDARDS, WHERE APPLICABLE. LAP JOINT PER DETAIL 10 ON SHEET C1.4 SHALL APPLY TO ALL SAWCUT LOCATIONS ALONG AC PAVEMENT, UNLESS OTHERWISE NOTED. CONTRACTOR SHALL INSTALL DOWELS AT ALL CONNECTIONS BETWEEN EXISTING AND PROPOSED CONCRETE PER DETAIL 4 ON SHEET C1.4. CONTRACTOR SHALL INSTALL THICKENED EDGE AT ALL CONNECTIONS BETWEEN PAVEMENT AND PROPOSED CONCRETE PER DETAIL 6 ON SHEET C1.4.
- B ACCESSIBLE PATH OF TRAVEL NOT TO EXCEED 5.0% MAX RUNNING SLOPE AND 2.0% MAX CROSS SLOPE. PLAZA/COURTYARD AREAS AND INTERSECTING PATHS SHALL HAVE A 2% MAX SLOPE IN ANY DIRECTION. ACCESSIBLE PATH OF TRAVEL DETERMINATION, ACCESSIBILITY AND SIGNAGE SHALL BE DETERMINED BY ARCHITECTURAL AND LANDSCAPE PLANS. SEE ARCHITECTURAL AND LANDSCAPE PLANS FOR DIMENSIONS AND DETAILS, INCLUDING HANDRAILS, WHERE APPLICABLE.
- C ACCESSIBLE RAMP 8.33% MAX SLOPE AND 2.0% MAX CROSS SLOPE, WITH A 2.0% MAX LEVEL LANDING PER CITY OF STOCKTON STANDARD PLANS AND SPECIFICATIONS. SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION, INCLUDING HANDRAILS AND GUARDRAILS, WHERE APPLICABLE. CONTRACTOR SHALL \*USE EXTREME CAUTION\* TO AVOID ALL UNDERGROUND UTILITIES WHEN INSTALLING HANDRAIL AND GUARDRAIL FOOTINGS.
- ONTRACTOR SHALL INSTALL TRUNCATED DOMES PER ARCHITECTURAL PLANS AND SPECIFICATIONS
- E CONTRACTOR SHALL INSTALL 6" VERTICAL CURB PER DETAIL 12 ON SHEET C1.4.
- F CONTRACTOR SHALL INSTALL CONCRETE WHEEL STOPS PER DETAIL 5 ON SHEET C1.4.
- G CONTRACTOR SHALL INSTALL FENCE AND/OR GATE, AND MOW STRIP PER ARCHITECTURAL PLANS AND SPECIFICATIONS.
- E 2" CONCRETE SLURRY PER MODULAR BUILDING CONCRETE FOUNDATION PLAN. CONTRACTOR SHALL CONSTRUCT BUILDING PER ARCHITECTURAL AND MODULAR BUILDING PLANS AND SPECIFICATIONS.
- CONTRACTOR SHALL INSTALL 18" SEAT WALL WITH WEEP HOLES PER ARCHITECTURAL PLANS AND
- CONTRACTOR SHALL INSTALL 4.5" VERTICAL CURB PER DETAIL 12 ON SHEET C1.4.
- CONTRACTOR SHALL INSTALL 6" LANDSCAPE MOW STRIP PER DETAIL 11 ON SHEET C1.4.
- M CONTRACTOR SHALL INSTALL STRIPING INCLUDING CROSSWALKS AS INDICATED BY THE ARCHITECT AND THE LATEST EDITIONS OF THE CALIFORNIA BUILDING CODE STANDARDS. SEE ARCHITECTURAL PLANS FOR ADDITIONAL DETAILS AND SPECIFICATIONS.
- N CONTRACTOR SHALL INSTALL ACCESSIBLE SIGNAGE AND STRIPING AS INDICATED BY THE ARCHITECT, PER THE LATEST EDITION OF THE CALIFORNIA BUILDING CODE STANDARDS. SEE ARCHITECTURAL PLANS FOR ADDITIONAL DETAILS AND SPECIFICATIONS. USE EXTREME CAUTION WHEN INSTALLING SIGN FOOTINGS AS UNDERGROUND UTILITIES MAY EXIST.
- (P) ALL AREAS INDICATED SHALL BE MARKED WITH RED CURB AND WHITE STENCILS "NO PARKING -FIRELANE" INCLUDING THE PROPER SIGNAGE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF STOCKTON AND FIRE DEPARTMENT. SEE FIRE LANE DETAIL 9 ON SHEET C1.4. IN LIEU OF PAINTING "NO PARKING" RED CURB CONTRACTOR SHALL INSTALL "NO PARKING" SIGNAGE AS DIRECTED BY THE FIRE DEPARTMENT. \*USE EXTREME CAUTION\* WHEN INSTALLING POST AND FOOTINGS TO AVOID UNDERGROUND UTILITIES.

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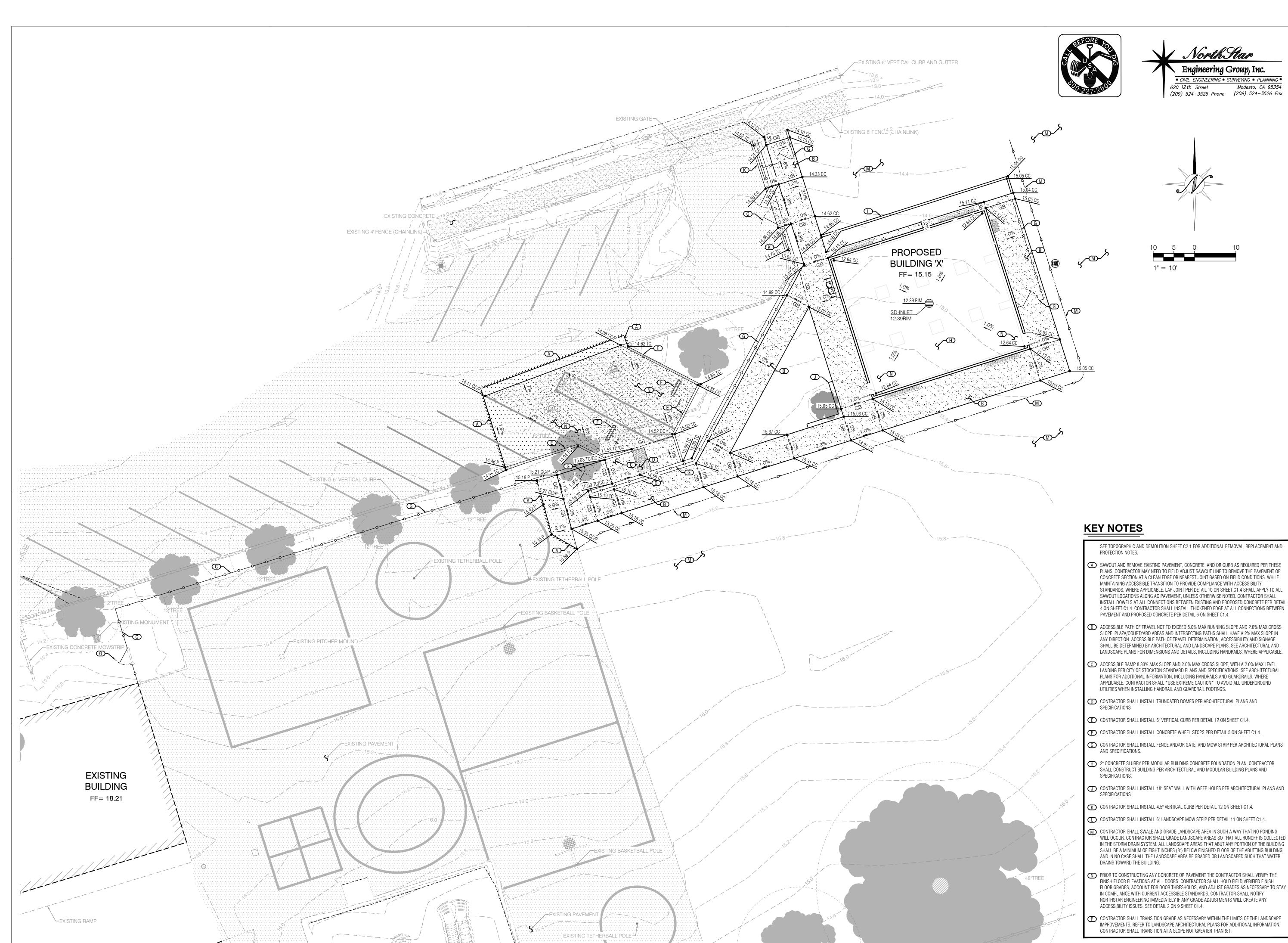


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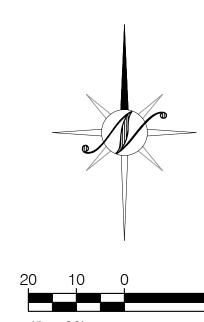
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# **KEY NOTES**

SEE TOPOGRAPHIC AND DEMOLITION SHEET C2.1 FOR ADDITIONAL REMOVAL, REPLACEMENT AND

CONTRACTOR SHALL \*USE EXTREME CAUTION\* THROUGHOUT THE COURSE OF CONSTRUCTION AS TO AVOID EXISTING UNDERGROUND LINES AND STRUCTURES THAT MAY CONFLICT WITH PROPOSED IMPROVEMENTS

CONTRACTOR SHALL EXTEND SANITARY SEWER LINE AND CONNECT TO THE EXISTING PUBLIC LIINE ON THE STREET. CONTRACTOR SHALL EXCAVATE EXISTING SEWER LINE TO VERIFY THE HORIZONTAL AND VERTICAL ALIGNMENT PRIOR TO THE INSTALLATION OF THE SEWER SYSTEM. CONTRACTOR SHALL INFORM THE ENGINEER IF THE ALIGNMENTS ARE DIFFERENT THAN SHOWN. CONTRACTOR SHALL CONNECT TO EXISTING SEWER SYSTEM PER CITY OF STOCKTON STANDARDS AND SPECIFICATIONS WITH APPROPRIATE FITTINGS. CONTRACTOR SHOULD BE AWARE THAT IN THE CASE OF A DISCREPANCY BETWEEN THE DESIGN SHOWN ON THESE PLANS AND THE LOCATION AND DEPTH OF THE EXISTING SYSTEM A LIFT STATION WITH ASSOCIATED STRUCTURES, PUMPING EQUIPMENT, AND ELECTRICAL WORK MAY BE REQUIRED.

\*USE EXTREME CAUTION\* TO AVOID UNDERGROUND UTILITIES WHEN INSTALLING FOOTINGS FOR WALLS, FENCES OR ARCHITECTURAL AMENITIES AT ALL UTILITY WALL/FENCE/AMENITY CROSSINGS.

CONTRACTOR SHALL INSTALL DRINKING FOUNTAIN PER ARCHITECTURAL PLANS AND SPECIFICATIONS

© CONTRACTOR SHALL INSTALL SEWER CLEANOUT PER DETAIL 8 ON SHEET C1.4.

PROPOSED DOMESTIC WATER WITH SHUT OFF VALVE TO BE STUBBED 5 FEET FROM THE FACE OF THE BUILDING. CONTRACTOR SHALL VERIFY THE LOCATIONS OF THE UTILITY CONNECTIONS WITH THE PLUMBING PLANS PRIOR TO CONSTRUCTION OF PROPOSED STUBS.

G CONTRACTOR SHALL INSTALL SEWER CLEANOUT PER DETAIL 8 ON SHEET C1.4 WITH APPROPRIATE FITTINGS AND REDUCER. CONTRACTOR SHALL VERIFY THE LOCATIONS OF THE UTILITY CONNECTIONS WITH THE PLUMBING PLANS PRIOR TO CONSTRUCTION OF PROPOSED STUBS AND STUB 5 FEET FROM THE FACE OF THE BUILDING.

H CONTRACTOR SHALL CONNECT TO EXISTING DOMESTIC WATER LINE PER CITY OF STOCKTON STANDARDS AND SPECIFICATIONS. CONTRACTOR SHALL EXCAVATE EXISTING WATER LINE TO VERIFY THE HORIZONTAL AND VERTICAL ALIGNMENT PRIOR TO THE INSTALLATION OF THE PROPOSED WATER PIPE. CONTRACTOR SHALL INFORM THE ENGINEER IF THE ALIGNMENTS ARE DIFFERENT THAN SHOWN. CONTRACTOR SHALL ENSURE THAT APPROPRIATE PRESSURE AND FLOW IS ACHIEVED IN THE PROPOSED BUILDING, IF NECESSARY, A BOOSTER PUMP SHALL BE FURNISHED IF APPROPRIATE PRESSURE AND FLOW IS NOT AVAILABLE.

CONTRACTOR SHALL INSTALL WATER PIPES WITH SUFFICIENT ENOUGH DEPTH TO MAINTAIN 1'
MINIMUM VERTICAL CLEARANCE FORM OUTSIDE DIAMETER OF PIPES AND COMPLY WITH THE MOST
CURRENT STATE HEALTH CODE AND THE CALIFORNIA BUILDING AND PLUMBING CODE STANDARDS.
CONTRACTOR SHALL DEEPEN WATER PIPES AS NECESSARY AND USE EXTREME CAUTION WHEN
PLACING THRUST BLOCKS AS TO AVOID CONFLICTS WITH OTHER UTILITY PIPES. CONTRACTOR
SHALL INSTALL REDUCERS AS REQUIRED. WATER VALVES SHALL BE INSTALLED ON 4" WATER PIPES
OR LARGER AND BALL VALVES/CORP STOPS SHOULD BE INSTALLED ON 3" WATER PIPES OR
SMALLER. THRUST BLOCKS SHALL BE INSTALLED AT FIRE HYDRANTS, BLOW-OFFS, TEES, CAPS,
BENDS, ENDS, AND CHANGES IN SIZE AND/OR DIRECTION. WATER SEPARATION SHALL BE
CONSTRUCTED IN ACCORDANCE WITH SECTION 720.0 AND TABLE 7-7 OF THE CALIFORNIA
PLUMBING CODE. SEE CITY OF STOCKTON STANDARD DETAIL S-4 FOR CALIFORNIA HEALTH
DEPARTMENT REQUIREMENTS, DETAIL W-12 FOR THRUST BLOCK DETAILS AND SPECIFICATIONS.

CONTRACTOR SHALL INSTALL STORM DRAIN INLET PER ARCHITECTURAL PLANS AND SPECIFICATIONS.

CONTRACTOR SHALL INSTALL STORM DRAIN DRYWELL PER ARCHITECTURAL PLANS AND SPECIFICATIONS.

ALL AREAS INDICATED SHALL BE MARKED WITH RED CURB AND WHITE STENCILS "NO PARKING -FIRELANE" INCLUDING THE PROPER SIGNAGE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF STOCKTON AND FIRE DEPARTMENT. SEE FIRE LANE DETAIL 9 ON SHEET C1.4. IN LIEU OF PAINTING "NO PARKING" RED CURB CONTRACTOR SHALL INSTALL "NO PARKING" SIGNAGE AS DIRECTED BY THE FIRE DEPARTMENT. \*USE EXTREME CAUTION\* WHEN INSTALLING POST AND FOOTINGS TO AVOID UNDERGROUND UTILITIES.

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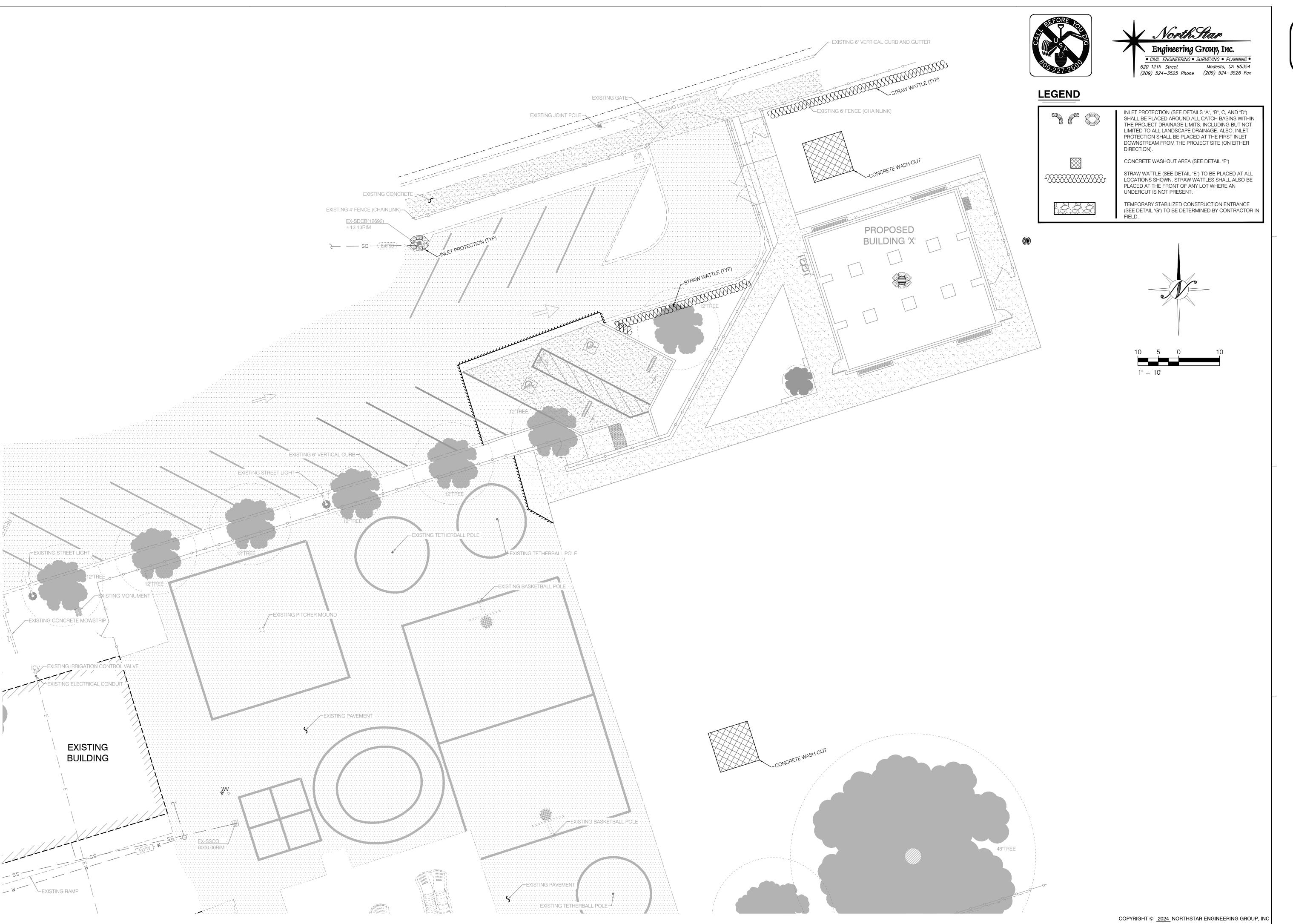
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PROJECT NO. 23-12902

#### **EROSION CONTROL NOTES**

THESE PLANS DEPICT APPROPRIATE MEASURES TO CONTROL EROSION ON THE SITE TO BE GRADED AS SHOWN ON THE PLANS THE NATIVE VEGETATION WILL BE REMOVED ONLY FROM THOSE AREAS TO BE GRADED. AREAS OUTSIDE OF AND DOWNSLOPE OF THE LIMITS OF GRADING WILL BE PROTECTED FROM SILT LADEN RUNOFF BY PERIMETER SILT FENCES AS DEPICTED ON THIS PLAN. SLOPED AREAS WHICH HAVE BEEN STRIPPED OF VEGETATION AND NEW SLOPES OVER FOUR FEET HIGH CREATED DURING THE GRADING OPERATION WILL BE TRACKWALKED & HYDROSEEDED.

- ALL EROSION SEDIMENT STRUCTURES SHALL BE INSPECTED AFTER EACH RAINSTORM AND SHALL BE CLEANED OUT AS
- A STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF GRADING. THE LOCATION IS SHOWN ON THESE PLANS. ALL CONSTRUCTION TRAFFIC ENTERING THE PAVED ROAD MUST CROSS THE ENTRANCE.

THE CONTRACTOR IS RESPONSIBLE FOR ALL ASPECTS OF EROSION CONTROL FOR THE LIFE OF THE PROJECT AND SHALL INSTALL AND MAINTAIN ANY DEVICES AND MEASURES NECESSARY TO THE SATISFACTION OF THE CITY ENGINEER, DURING CONSTRUCTION ACTIVITIES.

- TO MINIMIZE EROSION OF GRADED BANKS, ALL GRADED BANKS AND STOCKPILE AREAS SHALL BE HYDROSEEDED, LANDSCAPED
- STRAW BALES, PIECES OF WOOD, FABRIC OR OTHER SUITABLE MATERIALS SHALL BE USED TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING ANY COMPLETED STORM DRAIN INLETS. THESE PROTECTION MEASURES SHALL BE MAINTAINED UNTIL

WHEN TEMPORARY STRUCTURES HAVE SERVED THEIR INTENDED PURPOSE AND THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED. THE EMBANKMENT AND RESULTING SEDIMENT DEPOSITS ARE TO BE LEVELED OR OTHERWISE DISPOSED OF BY THE CONTRACTOR AS RECOMMENDED BY THE SOILS ENGINEER.

- GRADED AREAS MUST DRAIN AWAY FROM THE FACE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY. DRAINAGE SHALL BE DIRECTED TOWARDS DRAINAGE INLETS.
- TEMPORARY EROSION CONTROL DEVICES SHOWN ON THIS PLAN WHICH INTERFERE WITH THE WORK SHALL BE RELOCATED OR MODIFIED AS AND WHEN THE INSPECTOR SO DIRECTS AS THE WORK PROGRESSES.
- ALL LOOSE SOIL AND DEBRIS SHALL BE REMOVED FROM THE STREET AREAS UPON STARTING OPERATIONS AND PERIODICALLY THEREAFTER AS DIRECTED BY THE INSPECTOR.
- HYDROMULCHING OF SLOPES OVER 5' IN HEIGHT SHALL BE COMPLETED BETWEEN SEPTEMBER 1 AND OCTOBER 1 OF THE YEAR IN WHICH THEY ARE CONSTRUCTED OR IMMEDIATELY AFTER THEIR CONSTRUCTION IF THEY ARE COMPLETED AFTER OCTOBER 1ST. APPLICATION RATES SHALL BE AS FOLLOWS AS REQUIRED BY CITY OF STOCKTON:

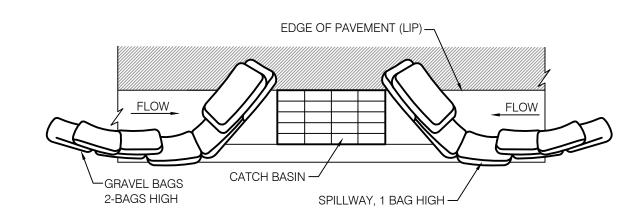
HYDROSEED MIX:				
BOTANICAL NAME	(COMMON NAME)	MIN. % PURITY	MIN. % GERMINATION	LB/ACRE
ARISTIDA TERNIPES VAR. HAMULOSA	(THREE-AWN)	90%	85%	2
BROMUS CARINATUS	(CALIFORNIA BROME)	90%	85%	2
ELYMUS GLAUCUS	(BLUE WILD RYE)	90%	85%	4
ELYMUS TRACHYCAULUS SSP. TRACHYCAULUS	(SLENDER WHEATGRASS)	90%	85%	3
MELICA CALIFORNICA	(CALIFORNIA ONION GRASS)	90%	85%	2
MUHLENBERGIA RIGENS	(DEER GRASS)	90%	85%	4
NASSELLA LEPIDA	(FOOTHILL NEEDLEGRASS)	90%	85%	6
TRIFOLIUM HIRTUM	('HYKON' ROSE CLOVER)	90%	85%	10
CELLULOSE FIBER MULCH				2000
ORGANIC BINDER WITH HYDROSEED SLUF	RRY			50
16-20-O-S FERTILIZER				300

- WHEN DIRECTED BY THE INSPECTOR, A 12-INCH BERM SHALL BE MAINTAINED ALONG THE TOP OF THE SLOPE OF THOSE FILLS ON WHICH GRADING IS NOT IN PROGRESS.
- 13. STAND-BY CREWS SHALL BE ALERTED BY THE PERMITTEE OR CONTRACTOR FOR EMERGENCY WORK DURING RAINSTORMS.
- SEWER OR STORM DRAIN TRENCHES THAT DRAIN THROUGH BASIN DIKES SHALL BE PLUGGED WITH SANDBAGS FROM TOP OF
- ALL UTILITY TRENCHES SHALL BE BLOCKED WHEN DIRECTED BY THE DESIGN ENGINEER AT THE PRESCRIBED INTERVALS FROM THE BOTTOM TO TOP WITH DOUBLE ROW OF SANDBAGS PRIOR TO BACKFILL. SANDBAGS ARE TO BE PLACED WITH ALTERNATE HEADER AND STRETCHER COURSES. THE INTERVALS PRESCRIBED BETWEEN SANDBAG BLOCKING SHALL DEPEND ON THE SLOPE OF THE GROUND SURFACE, BUT NOT TO EXCEED THE FOLLOWING:

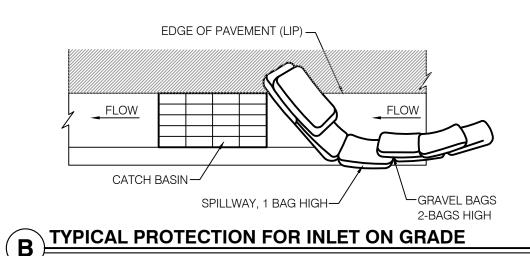
GRADE OF GROUND SURFACE OR STREET LESS THAN 2% 2% TO 4% 4% TO 10%	INTERVAL AS REQUIRE 100 FEET 50 FEET
OVER 10%	25 FEET

OF THE FIELD INLET AT THE LOCATIONS SHOWN ON THIS PLAN.

- PROVIDE VELOCITY CHECK DAMS IN ALL UNPAVED STREET AREAS AT THE INTERVALS INDICATED ABOVE. VELOCITY CHECK DAMS MAY BE CONSTRUCTED OF SANDBAGS, TIMBER, OR OTHER EROSION RESISTANT MATERIALS APPROVED BY THE INSPECTOR, AND SHALL EXTEND COMPLETELY ACROSS THE STREET OR CHANNEL AT RIGHT ANGLES TO THE CENTERLINE. EARTH DIKES MAY NOT
- AFTER SEWER AND UTILITY TRENCHES ARE BACKFILLED AND COMPACTED, THE SURFACES OVER SUCH TRENCHES SHALL BE MOUNDED SLIGHTLY TO PREVENT CHANNELING OF WATER IN THE TRENCH AREA. CARE SHOULD BE EXERCISED TO PROVIDE FOR CROSS-FLOW AT FREQUENT INTERVALS WHERE TRENCHES ARE NOT ON THE CENTERLINE OF A CROWNED STREET. REMOVE ALL CHECK DAMS PRIOR TO BACKFILL
- TO CONTROL SEDIMENT ENTERING FIELD INLETS, PLACE TWO STRAW BALES IN THE CONCRETE V-DITCH AT THE SIDE OPENING
- EXCEPT AS OTHERWISE DIRECTED BY THE INSPECTOR, ALL DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY OR WHEN DIRECTED BY THE INSPECTOR.
- 20. ALL BASINS AND CHECK DAMS SHALL HAVE BEEN PUMPED DRY, AND ALL DEBRIS AND SILT REMOVED WITHIN 24 HOURS AFTER
- SANDBAGS SHALL BE STOCKPILED ON-SITE, READY TO BE PLACED IN POSITION WHEN RAIN FORECAST IS 40% CHANCE OR
- 2. EXPOSED SLOPES SHALL BE PROTECTED BY VEGETATION COVER OR FABRIC COVER AS APPROVED BY THE CITY ENGINEER.
- $_{
  m IS}$  . WHEN PAD ELEVATION OF ADJACENT LOTS OR ELEVATION BETWEEN STREET AND LOT ARE SEPARATED BY MORE THAN 6 FEET, A
- MINIMUM 12" BERM SHALL BE MAINTAINED ALONG THE PROPERTY LINE SEPARATING THE LOTS, AND THE BERM SHALL DIRECT THE WATER TO THE OUTLET. VELOCITY CHECK DAMS SHALL BE INSTALLED BETWEEN THE OUTLET ON THE LOT AND THE STREET.
- 4. ALL EROSION CONTROL MEASURES SHALL BE IN COMPLIANCE WITH THE LATEST EDITION OF THE CASQA STORMWATER MANAGEMENT HANDBOOK.
- 25. ALL FINISHED PADS SHALL BE PROTECTED.
- 26. THE FOLLOWING PLANS ARE ACCURATE FOR EROSION CONTROL PURPOSES ONLY.
- THE INFORMATION ON THIS PLAN IS INTENDED TO BE USED AS A GUIDELINE FOR THE CONTRACTOR AND SUBCONTRACTORS TO COMPLY WITH THE REQUIREMENTS OF THE STATE WATER RESOURCES CONTROL BOARD. FIELD CONDITIONS MAY NECESSITATE MODIFICATIONS TO THIS PLAN.
- 28. NO ONSITE FUELING SHALL TAKE PLACE.
- 29. SEAL OR SKIRT BETWEEN TRAILER & GRADING TO PREVENT EXPOSURE TO DRAIN.
- STRAW WATTLES INSTALLED ON A SLOPE SHALL CONFORM TO THE GUIDELINES SPECIFIED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM BEST MANAGEMENT
- . EROSION RESISTANT VEGETATION SHOULD BE MAINTAINED ON THE FACE OF ALL SLOPES.
- CONTRACTOR SHALL REFER TO THE PROJECT STORM WATER POLLUTION PLAN (SWPPP) FOR ALL PRE AND POST CONSTRUCTION EROSION CONTROL MEASURES AND BEST MANAGEMENT PRACTICES (BMPs).
- 33. ALL BASINS SHALL BE HYDROSEEDED IN ACCORDANCE TO THE PROJECT SWPPP.
- 34. CONTRACTOR SHALL INSTALL DRAIN INLET PROTECTION FOR ALL CATCH BASINS LOCATED IN THE VICINITY OF WORK. THIS INCLUDES ANY CATCH BASINS LOCATED IN THE PUBLIC RIGHT-OF-WAY, AS WELL AS ANY ONSITE CATCH BASINS.
- i. CONTRACTOR SHALL ENSURE THAT CONSTRUCTION ACTIVITIES DO NOT DEPOSIT SEDIMENT ON TO THE PUBLIC ROADWAY, SIDEWALKS AND GUTTERS.
- i. CONTRACTOR SHALL USE STREET SWEEPING OR OTHER DRY SWEEPING METHODS, AS NECESSARY, TO REMOVE CONSTRUCTION RELATED SEDIMENT FROM PAVEMENT IN THE PROJECT AREA AND PROJECT ROADWAY.
- CONTRACTOR SHALL SCHEDULE WORK FOR DRY WEATHER DAYS WHEN NO RAIN IS IN THE IMMEDIATE FORECAST.



TYPICAL PROTECTION FOR INLET ON SUMP



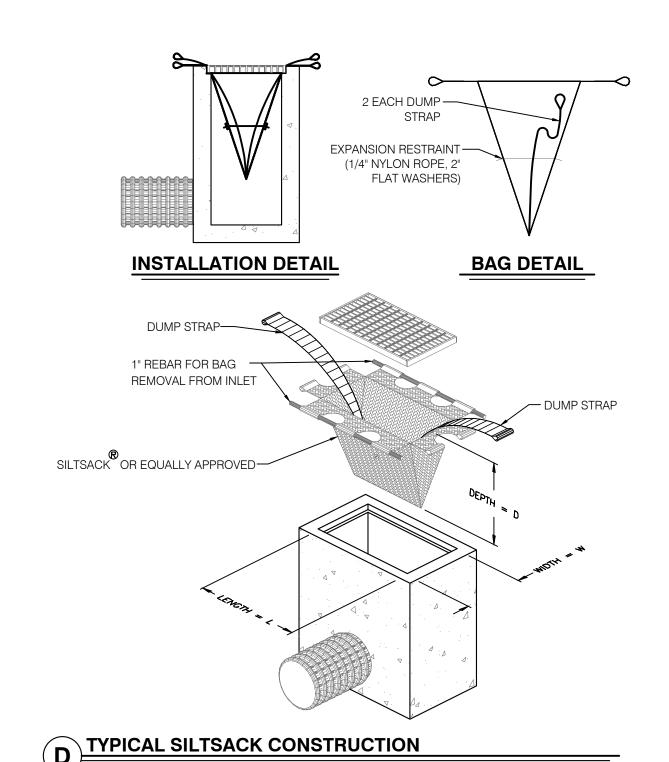
- 1. INTENDED FOR SHORT-TERM USE.
- 2. USE TO INHIBIT NON-STORM WATER FLOW.
- 3. ALLOW FOR PROPER MAINTENANCE AND CLEAN UP.
- 4. BAGS MUST BE REMOVED AFTER ADJACENT OPERATION IS COMPLETED. 5. NOT APPLICABLE IN AREAS WITH HIGH SILTS AND CLAYS WITHOUT FILTER FABRIC.

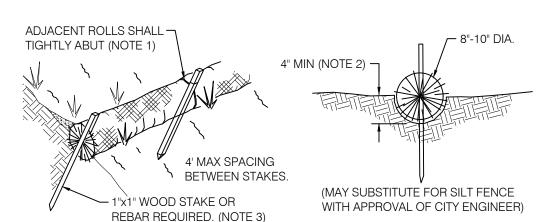
#### DI PROTECTION TYPE 3 - GRAVEL BAG

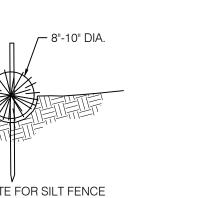
THE GRAVEL BAG BARRIER (TYPE 3) IS SHOWN IN THE FIGURES. FLOW FROM A SEVERE STORM SHOULD NOT OVERTOP THE CURB. IN AREAS OF HIGH CLAY AND SILTS, USE FILTER FABRIC AND GRAVEL AS ADDITIONAL FILTER MEDIA. GRAVEL BAGS SHOULD BE USED DUE TO THEIR HIGH PERMEABILITY.

- 1. USE SAND BAG MADE OF GEOTEXTILE FABRIC (NOT BURLAP) AND FILL WITH 0.75 IN.
- CONSTRUCT ON GENTLY SLOPING STREET. 3. LEAVE ROOM UPSTREAM OF BARRIER FOR WATER TO POND AND SEDIMENT TO
- 4. PLACE SEVERAL LAYERS OF SAND BAGS OVERLAPPING THE BAGS AND PACKING
- THEM TIGHTLY TOGETHER. 5. LEAVE GAP OF ONE BAG ON THE TOP ROW TO SERVE AS A SPILLWAY. FLOW FROM A SEVERE STORM (E.G., 10 YEAR STORM) SHOULD NOT OVERTOP THE CURB.
- 6. THIS DETAIL IS TO BE USED ON EXISTING STREETS WHERE SILTED FLOW IS TO BE INTERCEPTED (CAUGHT) PRIOR TO ENTERING THE STORM DRAIN SYSTEM. SANDBAGS CAN ALSO BE USED WHEN THE ROUGH GRADED STREETS HAVE POURED INPLACE CONCRETE SURROUNDING THE INLET TO CREATE A "FLOW LINE" WHERE A DAM CAN BE ACHIEVED TO PROTECT THE STORM SYSTEM FROM THE INFLOW OF SEDIMENT.

# C DI PROTECTION - TYPE 3





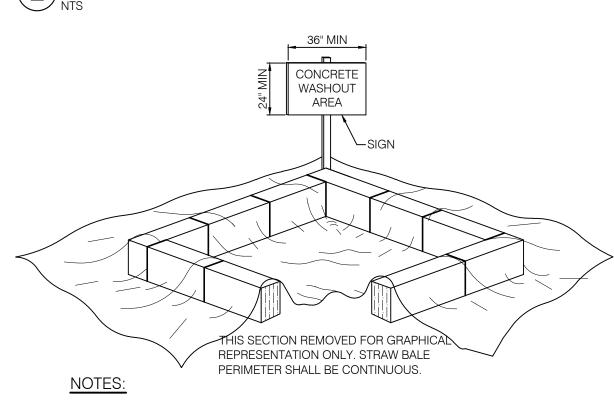




#### STRAW WATTLE DIKE CONSTRUCTION SPECIFICATIONS

- WATTLES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING EACH WATTLE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES.
- WATTLES SHALL BE SECURELY ANCHORED IN PLACE BY TWO STAKES OR REBARS DRIVEN THROUGH THE WATTLES. THE FIRST STAKE IN EACH WATTLE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID WATTLE TO FORCE THE WATTLES TOGETHER.
- THE DIKE SHALL BE INSPECTED AFTER EACH STORM, AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED. THE WATTLES SHALL BE REMOVED ONCE THEY HAVE SERVED THEIR PURPOSE SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.





BALE CONFIGURATION

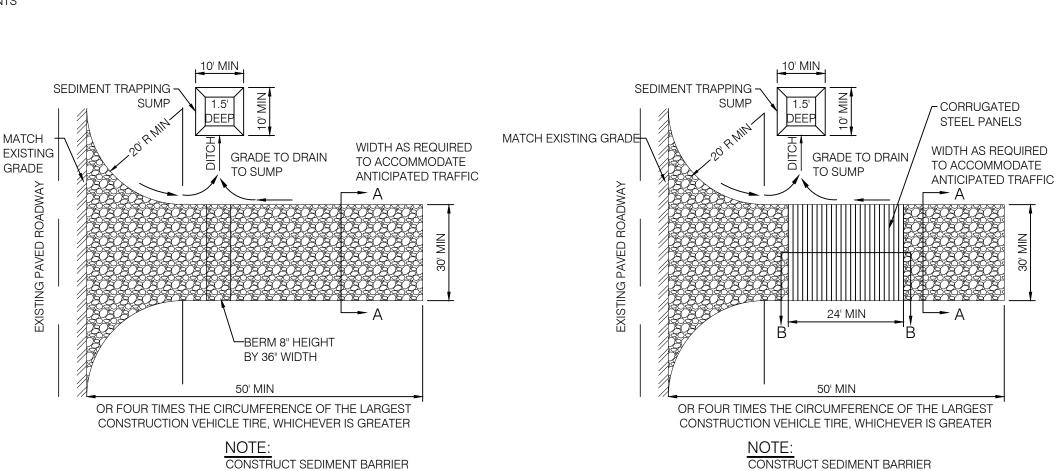
SECTION A-A

" X 2" STAKES OR #4

<sup>−</sup>J-BARS 2 PER BALE (TYP)

- 1. FACE SIGN TOWARD NEAREST STREET OR ACCESS POINT. 2. CONCRETE WASHOUT SHALL BE LOCATED BEHIND THE CURB AND
- 50 FEET MINIMUM FROM DRAINAGE INLETS OR WATERCOURSES. 3. CONTRACTOR SHALL CONDUCT ALL CONCRETE WASHOUT OFF-SITE

# **CONCRETE WASHOUT**



AND CHANNELIZE RUNOFF TO SEDIMENT TRAPPING DEVICE

- CRUSHED AGGREGATE GREATER THAN 3" BUT SMALLER TAPER EDGES-3% OR FLATTER AT 1:1 SLOPE 12" MIN, UNLESS OTHERWISE. - ORIGINAL GRADE SPECIFIED BY A SOILS ENGINEER

 CORRUGATED STEEL PANELS CRUSHED AGGREGATE-GREATER THAN 3" BUT SMALLER FABRIC FILTER 12" MIN, UNLESS OTHERWISE SPECIFIED BY A SOILS ENGINEER **SECTION B-B** 

AND CHANNELIZE RUNOFF TO

SEDIMENT TRAPPING DEVICE

SECTION A-A

#### TEMPORARY STABILIZED CONSTRUCTION ENTRANCE

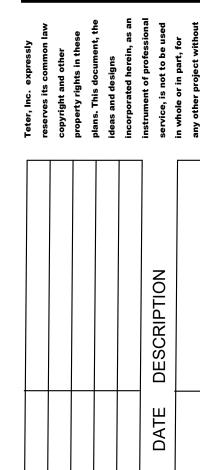
#### DESIGN AND CONSTRUCTION SPECIFICATIONS:

- 1. THE TEMPORARY STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE PLANS AND SPECIFICATIONS OF LATEST EDITION OF THE CALIFORNIA STORMWATER HANDBOOK, DETAIL TC-1. WHERE THERE IS A DISCREPANCY BETWEEN THIS DETAIL AND THE CALIFORNIA STORMWATER HANDBOOK, THE HANDBOOK SHALL GOVERN.
- 2. CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT EACH ENTRANCE TO THE PROJECT SITE AND SHALL BE CONSTRUCTED ON
- THE MATERIAL FOR CONSTRUCTION OF THE PAD SHALL BE 3 TO 6 INCH DIA. STONE. THE THICKNESS FOR THE PAD SHALL NOT BE LESS THAN 12 INCHES OR AS RECOMMENDED BY SOILS ENGINEER.
- THE WIDTH OF THE PAD SHALL NOT BE LESS THAN 30' OR THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS, WHICHEVER IS GREATER.
- THE LENGTH OF THE PAD SHALL BE AS REQUIRED, BUT NOT LESS THAN 50 FEET.
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEAN OUT ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY SHALL BE REMOVED IMMEDIATELY.
- 8. WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP, SEDIMENT BASIN, OR SEDIMENT SWALE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATERCOURSE THROUGH USE OF GRAVEL BAGS, GRAVEL, BOARDS, OR OTHER APPROVED METHODS
- 9. CONTRACTOR TO REMOVE AND DISPOSE OF STABILIZED CONSTRUCTION ENTRANCE UPON COMPLETION OF CONSTRUCTION. 10. CONSTRUCTION AND MAINTENANCE SHALL BE IN ACCORDANCE WITH THE 2003 CALIFORNIA STORMWATER BMP HANDBOOK.

#### TEMPORARY STABILIZED CONSTRUCTION ENTRANCE



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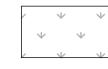
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PROJECT NO.

23-12902

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#### LANDSCAPE DEMOLITION LEGEND

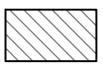


Existing turf and landscape areas to remain. Preserve and protect in place.

Do not not store materials, and do not park or drive vehicles in this area. Maintain existing irrigation in operable condition throughout duration of the Work of this project.

Restore or replace planting and turf areas that are damaged as part of the Work of this project; includes any area of the campus that may not be shown in these landscape plans. All areas of repair shall be repaired to the satisfaction

In areas needing repair, Contractor shall grade damaged areas as needed to return to existing conditions and to coordinate with any proposed grading associated with this project. Any fill required shall be of a suitable quality for the purpose. Planting shall be restored with existing species. Plant maintenance for repaired areas shall be included with the plant maintenance component of the proposed work. Irrigation that is damaged shall be replaced in kind for model and manufacturer.



Existing landscape to be removed.

Turf Areas: Provide min. (3) applications of approved herbicide to kill turf; applications to be minimum (1) week apart. Once turf is dead, remove turf down through root zone at a minimum. Coordinate with the work of other consultant's plans associated with this project for other Work that may be required in this area. Verify limit of demolition with District and Architect prior to start of work.

Landscape Areas: Remove all shrubs, ground cover and trees. Remove root balls and roots to a minimum 24" below grade. Fill holes or depressed areas with suitable fill and return to uniform graded level.

Contractor to remove and dispose of all debris associated with this demolition, unless otherwise approved by



Area of turf renovation. See Planting Plan for work in this area.

Area of new turf. See Planting Plan for work in this area.

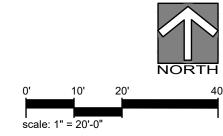
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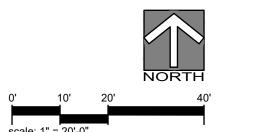




23-12901 (SHLA 24-23)

Sam Harned
Landscape
Architect
PO Box 2275
Oakdale, CA 95361
209-380-7376
www.harnedla.com





Existing irrigation areas to remain. Preserve and protect in place.

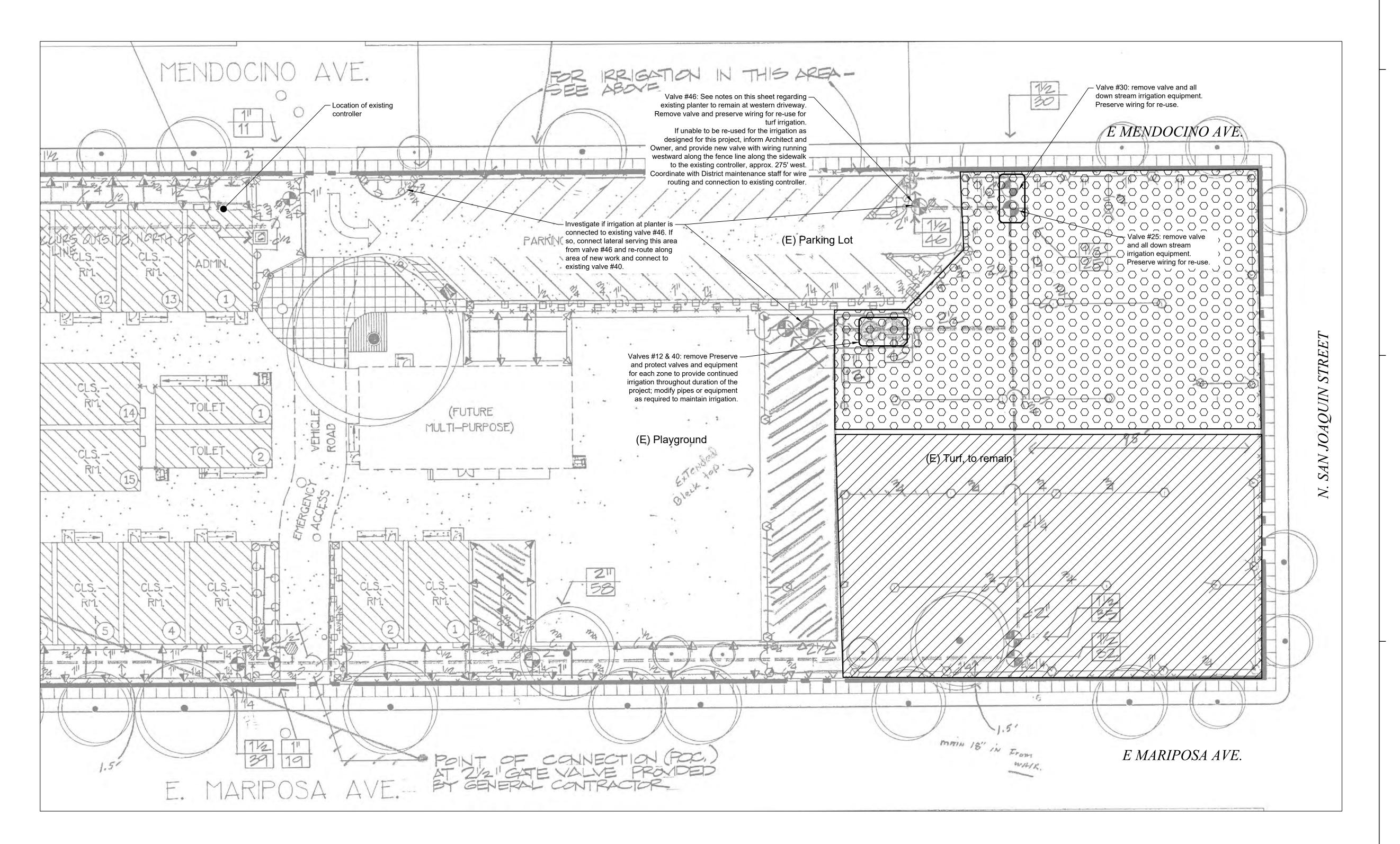
Do not not store materials, and do not park or drive vehicles in this area. Maintain existing irrigation in operable condition throughout duration of the Work of this project.

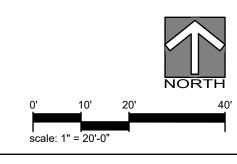
Adjust equipment as needed to meet new grades. Make repairs to any equipment in these areas to return to current condition and to a condition acceptable to the District.

See Landscape Demolition Plan for additional information in these areas.

Existing irrigation to be removed. Remove existing sprinklers, pipe and other equipment as needed to provide the Work of this project. Piping is to be removed where it interferes with construction activities associated with the Work of this project, or is below the proposed building; otherwise, piping may be abandoned below grade. For piping brought to the surface, contractor shall cut and remove piping to a min. 12" below finished grade. Fill holes or other depressions associated with this work to a compaction level and grade that conforms with the existing grades and drainage patterns.

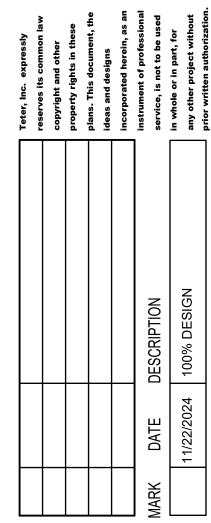
Protect existing wiring and valve boxes, unless otherwise directed. Relocate existing valve box locations that are identified to remain to a location that is coordinated with the proposed design.



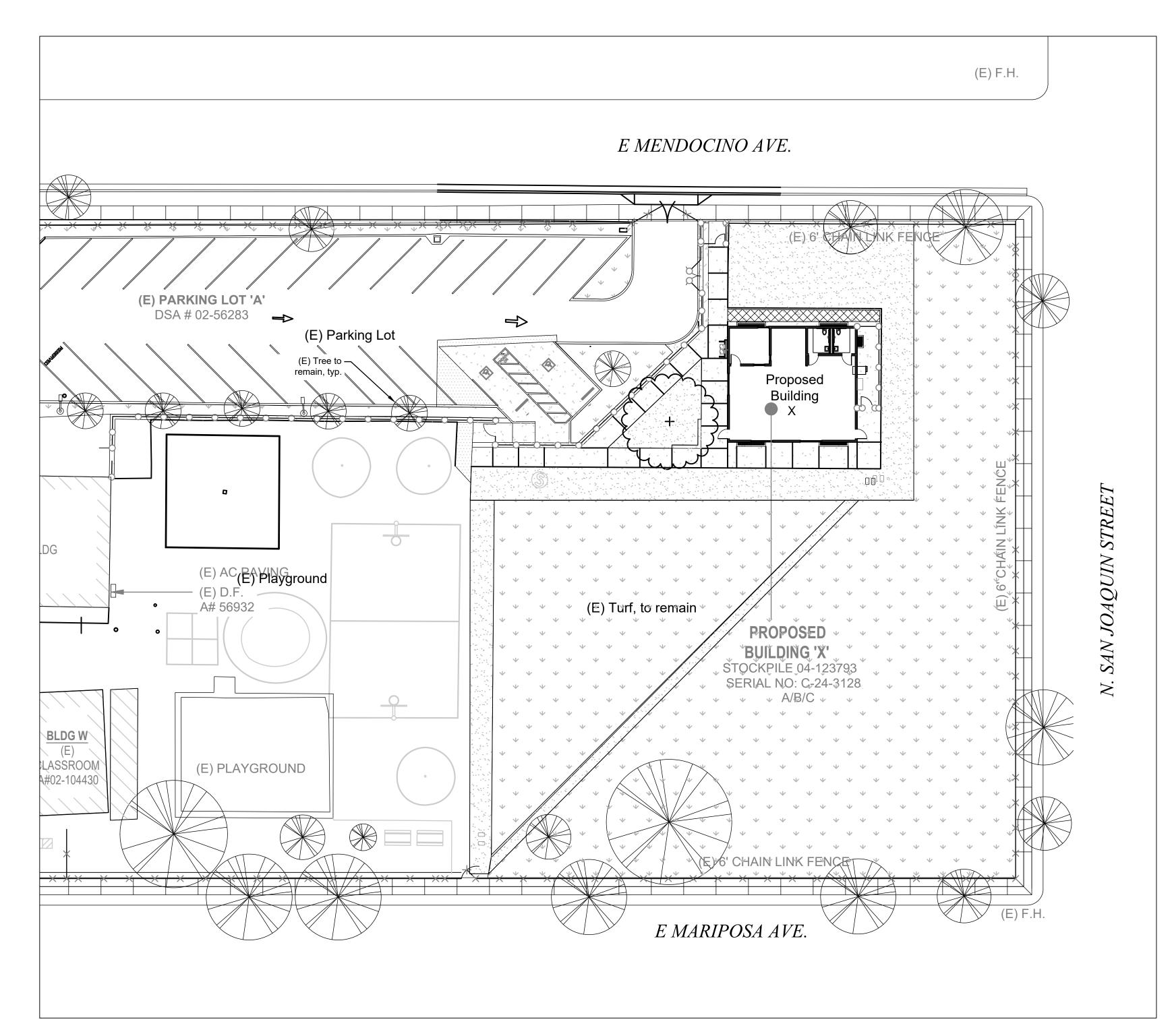












#### LANDSCAPE AREA CALCULATIONS

Rehabilitated Landscape Area: 3,755 sf Area of Irrigation Removed: Existing Shade Tree in Project Area: 1,215 sf. Building Roof Shade/Overhang: 268 sf.

#### PARKING AREA SHADE

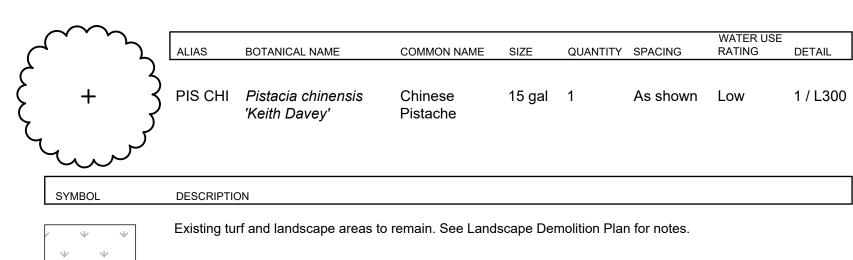
The project is not providing any new parking spaces; rather, existing parking stalls will be re-striped. No new parking spaces or parking areas landscape required or provided with this

#### PROJECT SHADE CALCULATIONS

Calculations provided to show compliance with CBC Section 5.106.12. Tree diameters per species is based on published local municipality documentation or the Sunset Western Garden Book.

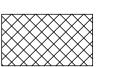
Tree Type	Area at 100%	100%		75%		50%		25%		Subtota	I
	(sf)	sf	qty.	sf	qty.	sf	qty.	sf	qty.		
Pistacia chinensis 'Keith Davey'	962	962	1	0	0	0	0	0	0	962	sf
						Total shade provided by trees:			962	sf	
						Shade provided by building overhang:				268	sf
							vided:	1,230	sf		
Total Project Area for Landscape and Hardscape								5,502	sf		
Shading Provided at Landscape and Hardscape Areas (min. 20% req'd)								22	%		

#### LANDSCAPE PLANTING LEGEND



Area of turf renovation or replacement. Fill low or depressed areas with suitable fill and grade area to drain min. 2% away from buildings and to flow with existing and proposed grading and drainage patterns. Grade to be 1-1/2" below finish surface at paved areas.

> Install new sod turf. Tahoma 31 Bermudagrass by West Coast Turf, or as otherwise approved by District. See Detail 3 /Sheet L4.



Install decomposed granite paving (3/8" max.), minimum 3" depth, compacted. Color: Gold. See Detail 3 / Sheet L300.

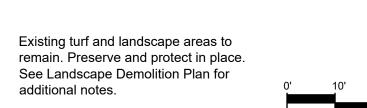
#### PLANTING NOTES

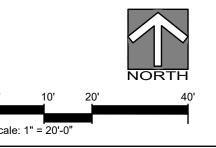
- 1. Examine site conditions and locate utilities prior to start of work. Report any conflicts to Owner or Landscape Architect prior to starting work. Start of work implies acceptance of site conditions.
- Confirm all plant quantities. The quantity of symbols on the plan shall have priority over the quantity provided in the legend.
- Contractor is responsible for maintaining current condition of existing landscape to remain. Any damage that occurs to landscape after start of work shall be repaired or replaced at no additional expense to the Owner.
- The contractor shall be responsible for the purchasing of all material to provide a complete installation per the intent of the contract documents.
- The contractor is responsible for the protection of all material until the project has been completely turned over to the owner.
- Landscape Architect reserves the right to review plant material prior to planting. Plant material may be rejected at any time due to condition, form, or damage, before or after planting. Installed and then rejected material shall be replaced by the contractor at contractor expense.
- All plant material to be nursery grown in a climate similar to that of the project site. All plant material shall:
- Be vigorous and of normal habit of growth.
- Be pest and disease free, including insects, insect eggs and
- Be free of girdling roots, sun scald, abrasions, disease
- Plants shall equal or exceed the standards as outlined by the American Standards for Nursery Stock and to applicable California Agriculture Code.
- The landscape contractor shall, prior to installation of any plant material, provide for a Soil Agronomy Report (per WELO) from an approved soils laboratory that shall include recommendations for amending and preparing soil. Provide report to landscape architect for review and further direction regarding soil amendments and preparation. Soil analysis shall include: soil texture, infiltration rate,
- soil pH, total soluble salts, sodium, and percent organic matter. Prepare the soil by removing all rock and debris larger than 1" from planting areas; legally dispose of materials removed from this
- Amend the soil per the recommendations of the Soil Agronomy Report, including any additional amendments specified by the landscape architect, prior to the installation of plant material. Provided below is a list of minimum amendments that shall be incorporated into all planting pits and broadcast into soil to depth of 12", by means of a roto-tiller or equal, per 1000 square feet. This list is provided for Bid purposes and shall be augmented as recommended by the Soils Agronomy Report.
  - 4 cyds organic amendment. Cow manure or nitrogen-treated sawdust or ground bark humus
  - 15 lbs. soil sulfur 15 lbs. 15-15-15 fertilizer

- 12. Notify landscape architect if site soil has been lime treated. Additional testing may be required to determine extent of lime treatment, compaction, or other condition that may be deleterious to healthy plant growth.
- 13. Provide weed control prior to planting. Thoroughly irrigate the site to promote germination of weed seeds that may be in the soil. Once germination has taken place spray the site with approved herbicide, (Round-Up or equal) at the rate specified by the manufacturer. Reapply as needed.
- Planting pits for trees shall be excavated per the details provided in these plans. Planting pit backfill mix for all trees and shrubs shall consist of the following:
  - 6 parts 'on-site' soil 4 parts organic amendment (same as described above) 1 lb./yd. of mix 12-12-12 commercial fertilizer
- 10 lbs./cu. yd. of mix Agricultural Gypsum 15. Fertilizer tablets (20-10-5) to be placed in all planting pits in the following quantities per plant container size:

2 lbs./cu. yd. of mix Iron Sulfate

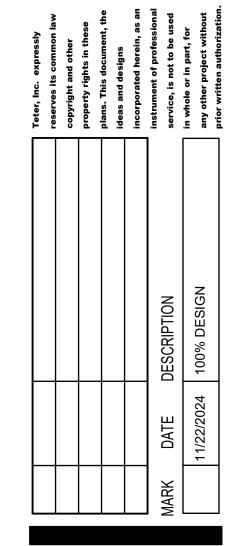
- 1 gallon 1 tablet 5 gallon 3 tablets 15 gallon 9 tablets 9 tablets 24" box
- 36" box 15 tablets 16. Plant establishment period of ninety (90) days shall commence upon notice of Substantial Completion. Maintain all plant material throughout duration of plant establishment period to a point accepted by the Landscape Architect or Owner's Representative.
- See Planting Specifications for additional information. 17. Trees to be planted a min. of 5'-0" from edge of paving or walls,
- 17.1. Tree planting shall conform to minimum distances away from lights or other utilities, as published in the local jurisdictions standards or guidelines.
- 18. Groundcover shall be installed continuous under all shrub masses,
- 19. Install vines with runners securely attached to the adjacent wall or trellis. Remove nursery stakes prior to completion of plant establishment period, unless otherwise directed by owner or
- landscape architect. 20. Prior to placing mulch, apply pre-emergent weed control, (Ronstar, or approved equal) in the amounts specified by the manufacturer.
- 21. Uniformly place a minimum 3" depth of recycled, organic mulch (3/4" - 1-1/2" chip size) over all shrub areas. Do not install mulch at turf areas. Color: Brown (un-dyed).
- 21.1. "Gorilla Hair" is not acceptable unless specifically noted.
- 21.2. Do not install bark mulch in areas of inundation (e.g. bio-swale or basin). Place min. 3" layer of crushed aggregate mulch  $(\frac{3}{4}")$  in these areas in place of the bark mulch. Transition back to bark mulch at top of slope, U.O.N. Submit sample for approval.







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SLE CLASSROOM
MENTARY
CINO WAY

(E) PLAYGROUND

E MARIPOSA AVE.

F	Reference Evapotranspiration			49.1 in/yr	ETAF <sub>(req)</sub>	Maximum A	0.45				
Hydro-zone Fa		Plant Factor (PF)	Irrigation Method  Irrigation Efficiency (IE)  ETAF (PF/IE)		Landscape Area (sq. ft.)	ETAF x Area	Estimated Total Water Use (ETWU)				
Regular Landscape Areas ("RLA") - See Hydrozone Descriptions for Referenced Numbers											
	None	0.50	Drip	0.81	0.62	0 sf	0.00	0 gals			
					Sub-totals	0.00	0.00	0 gal			
Special Landscape Areas ("SLA")											
	SLA1				1.00	3,363 sf	3,363.00	102,376 gal			
					Sub-totals	3,363 sf	3,363.00	102,376 gal			
		•	Total Lar	ndscape Area	a (RLA+SLA)	3,363 sf	3,363.00				
							ETWU Total	102,376 gal			
				Ma	aximum Allowe	d Water Allowa	nce (MAWA)	102,376 gal			
MAXIMUM ALLOWABLE WATER CALCULATION ("MAWA")											
	MAWA	=	( ETo )	(0.62)	[ ( ETAF	x LA ) +	<b>(</b> (1-ETAF)	x SLA ) ]			
	102,376 gal/yr 49.1 in/yr			0.62	0.45	3,363 sf	0.55	3,363 sf			

#### IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	ARC	PSI	GPM	RADIUS	DETAIL
0	Rain Bird R-VAN18 1806-S-P45-F RV-18 Turf Rotary, 13ft18ft. 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/1800 turf spray body on 6in. pop-up, with check valve and 45 psi in-stem pressure regulator. Flow Shield Tech. 1/2in. NPT Female Threaded Inlet.	Adj	45		15'	4/L300
	Toro 570Z-4-COM-SB-PC 2-180PC Pressure-Compensating Shrub Stream Bubbler on 570Z 4in. Pop-Up. With Check-O-Matic Check Valve.	CST	40	0.22	1.4'x4.1'	2/L300
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION		<u>PSI</u>	<u>GPM</u>	RADIUS	DETAIL
<u></u>	Rain Bird 5006-PL-PC-SAM-R-SS-MPR 30 Turf Rotor, 6in. Pop-Up, Stainless Steel Riser, with Flow Shut-Off Device. Matched Precipitation Rotor (MPR Nozzle), Arc and Radius as per Symbol. 25 ft=red, 30 ft=green, 35ft=beige. With Seal-A-Matic Check Valve, and In-Stem Pressure Regulator.		45		27'	6/L300
<b>(</b> 06 <b>)</b>	Rain Bird 6504-PC, FC-SS 06 Turf Rotor, 4in. Pop-Up, Stainless Steel Riser, Adjustable and Full Circle. With Removable Seal-A-Matic Check Valve, 1in. Female Threaded Inlet.		40	4.9	43'	6/L300
<u>SYMBOL</u>	MANUFACTURER/MODEL/DESCRIPTION					DETAIL
•	Rain Bird PESB-PRS-D Plastic Industrial Remote Control Valve. Low Flow Operating Capability, Globe Configuration. With Pressure Regulating Module, and Scrubber Technology, size per plan.					5/L300
POC 坩	Point of Connection Connect to existing mainline with stub serving new vavle bank.					
 	Irrigation Lateral Line: PVC Schedule 40					7/L300
 	Irrigation Mainline: PVC Class 315 SDR 13.5					7/L300
	Valve Callout  Valve Number					
# # #	Valve Flow					
#" •	Valve Size					

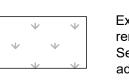
#### **EXISTING IRRIGATION NOTES**

- The new irrigation system for this project connects to an existing system. Contractor shall investigate the existing system and verify that it can support the design as shown; contact the landscape architect if found otherwise.
- Modifications are necessary to the existing system as part of the Work of this project. Contractor shall modify and reconnect all existing zones as required to provide continued water supply to the existing zones and to provide a coordinated and functional irrigation system for the overall site at completion of work.
- The design of these plans is based on the following parameters of the existing system. Confirm and report any discrepancies to landscape architect for further clarification or direction as may be required:
- Pressure: 70 psi Available Flow: 100 gpm
- Contractor shall investigate the existing controller to determine if it is functional and feasible for connection of valves used for the new irrigation in this design. Report findings to Owner's Representative and landscape architect for final determination and additional

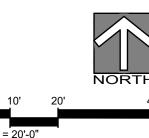
#### IRRIGATION NOTES

- 1. Contractor shall become familiar with the drawings, specifications, and site conditions prior to beginning work. Should conflicting information be found in these documents or between these documents and site conditions, notify the Landscape Architect before proceeding with the work in question.
- 2. All existing utilities, water lines, and fire hydrants shall remain connected and in full continuous operation unless specifically directed
- 2.1. Irrigation backflow prevention device and meter are existing on this project. Verify both are in proper operation, meet current code requirements, and are sufficient for the work of these
- 3. Irrigation plan is diagrammatic. Actual routing of pipe and location of equipment shall be determined based on field conditions and as directed by the Landscape Architect. Install pipe and equipment in landscape areas wherever possible unless specifically noted otherwise. Stake layout of mainline and primary laterals for field review and approval prior to trenching. Field adjust existing irrigation system as necessary.
- 4. Pipe Sizing:
- 4.1. Minimum pipe size shall be 3/4".
- 4.2. Unlabeled pipe segments shall be equal to the size of the segment immediately upstream.
- 4.3. In making adjustments to irrigation zone layouts Contractor shall be responsible to determine pipe sizes as required to deliver water pressure required for each outlet device considering flow rate, elevation changes, length of run, and other factors affecting pressure loss. Maximum flows in various pipe sizes shall not exceed the following guidelines. Flows may may need to be significantly less than the maximums stated below to off-set other factors affecting pressure loss:
- 4.3.1. 3/4": up to 8 gpm.
- 4.3.2. 1": 8-12 gpm.
- 4.3.3. 1-1/4": 12-22 gpm.
- 4.3.4. 1-1/2": 22-30 gpm. 4.3.5. 2": 30-50 gpm.

- 4.4. Mainline pipe sizes shall not be changed without written approval of the Landscape Architect.
- 4.5. Lateral line pipe runs of lengths greater than the typical distance between outlet devices shall not be made without written approval of the Landscape Architect.
- 5. Do not install the irrigation system as shown on the drawings when it is obvious in the field that obstructions, grade differences or differences in the area dimensions exist that might not have been considered in the engineering. Notify the Landscape Architect of all such conditions immediately upon discovery. In the event this notification is not provided, the Contractor shall assume full responsibility for all revisions necessary in response to field conditions with no additional compensation.
- 6. Sleeves:
- 6.1. All pipe under existing and proposed paving shall be installed in
- 6.2. Sleeves are shown for contractor's convenience. Contractor shall be responsible to coordinate irrigation sleeve locations and installation with other trades.
- 6.3. Extend all sleeves 18 inches beyond paving, cap and clearly mark by approved means to facilitate recovery.
- 6.4. Install sleeves to accommodate future paving where indicated or as may be needed.
- 7. Spray Heads and Rotors:
- 7.1. Install perpendicular to grade unless otherwise noted in plans. 8. Contractor to flush entire system and adjust all delivery devices and assemblies for complete coverage and reduced over-spray, prior to project completion.

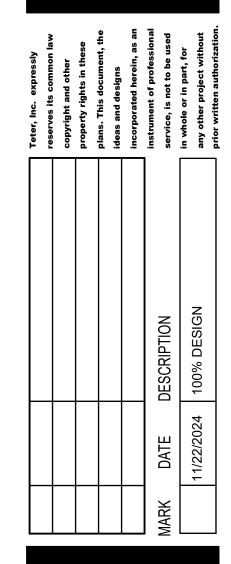


Existing turf and landscape areas to remain. Preserve and protect in place. See Landscape Demolition Plan for additional notes.



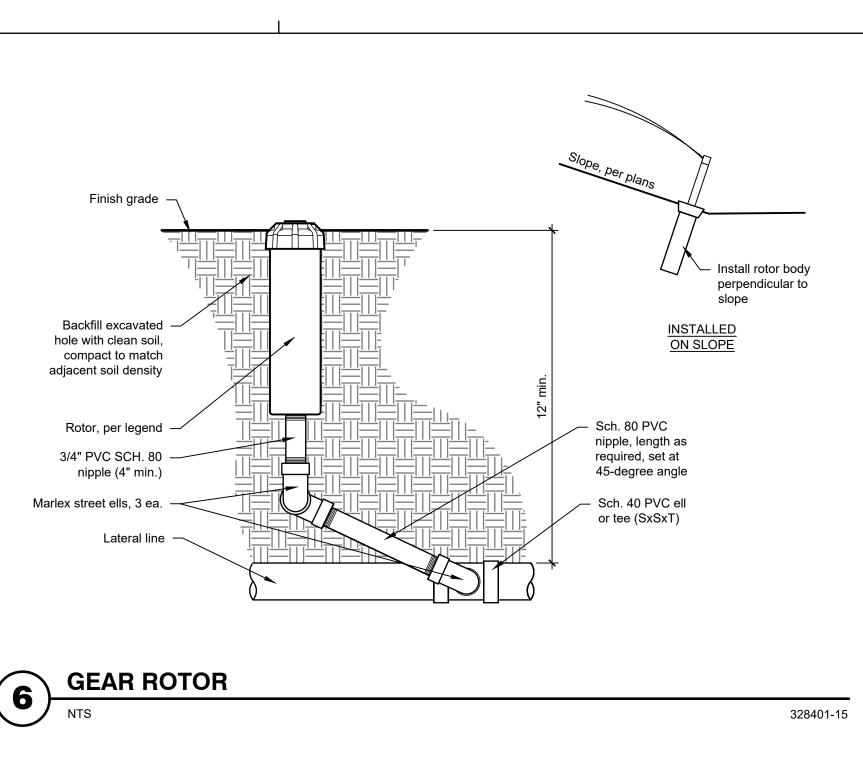


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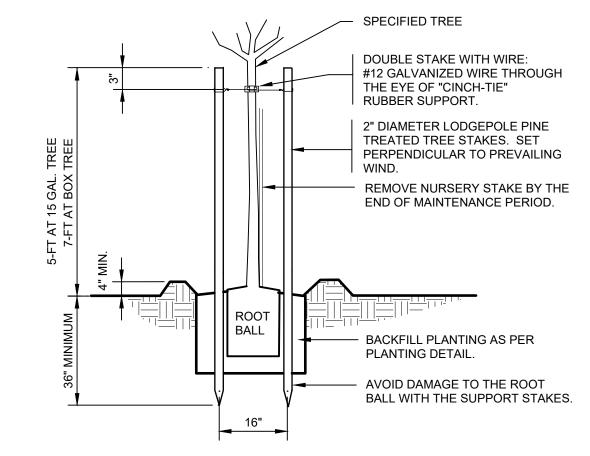






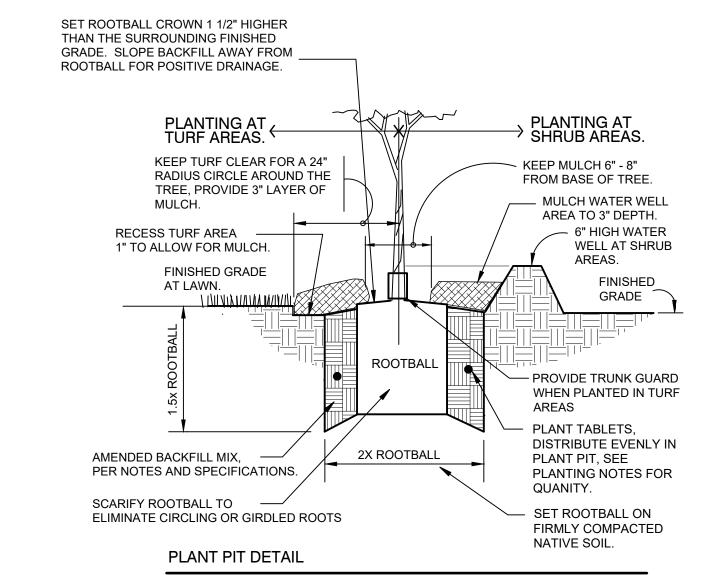
Width per plans Decomposed granite, Finish surface to compact to 90%, see be appx.  $\frac{1}{4}$ " below FS of header or adjacent paving Paving or other built element, where - Header,per occurs, per plans callout, see separate detail Per plans, 3" min. Subgrade, 90% compaction, U.O.N NOTES: 1. Decomposed granite to be  $\frac{3}{8}$ " -  $\frac{1}{4}$ ". Color: per plans. Submit sample for approval. 2. Compaction rates provided are per ASTM D1557.

Conform to compaction specified in soils report, if one is prepared for this project.



#### STAKING DETAIL

TREE PLANTING



**DECOMPOSED GRANITE (DG) PAVING** 

Finish grade

Backfill excavated

hole with clean soil,

compact to match

Pop-up, per legend

Marlex street ells,

Sch. 80 PVC nipple,

45-degree angle

length as required, set at

Sch. 40 PVC ell or tee

(SxSxT)

adjacent soil

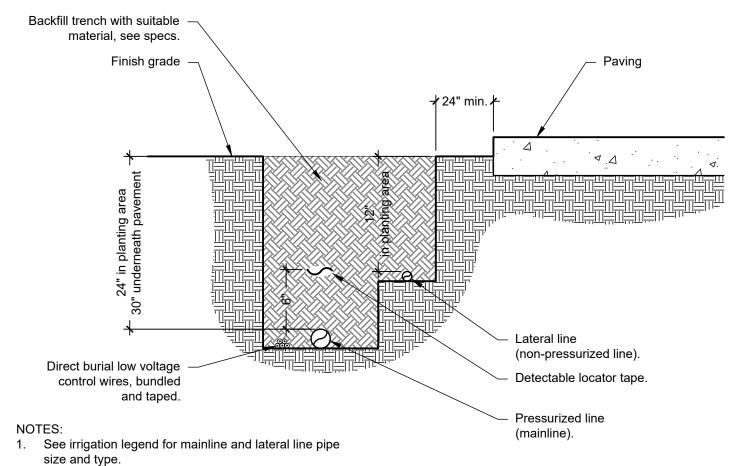
density

321516-04

Paving or other

occurs

hardscape, where



2. Direct burial control wires shall be installed in Sch. 40 PVC electrical conduit if required.

Temporary riser marker, -

Sch. 40 PVC, same size

Paving or other

Sch. 40 PVC sleeve -

Irrigation PVC main or

as installation of sleeve

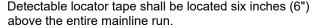
lateral, install at same time

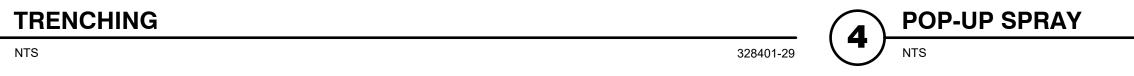
hardscape element

as sleeve. Cap mark

with colored paint.

- 3. 2-wire irrigation wire shall be installed in Sch. 40 PVC electrical conduit.
- 4. Detectable locator tape shall be located six inches (6")





2x4 or 4x4 marker. Mark

vertically above end of

with colored paint. Locate

Paving or other

Temporary PVC

90°elbow.

1. Wires shall be in separate Sch

same trench.

40 electrical conduit, min. 1" dia.

2. Install sleeves side by side in the

hardscape

element

328401-16

Waterproof wire

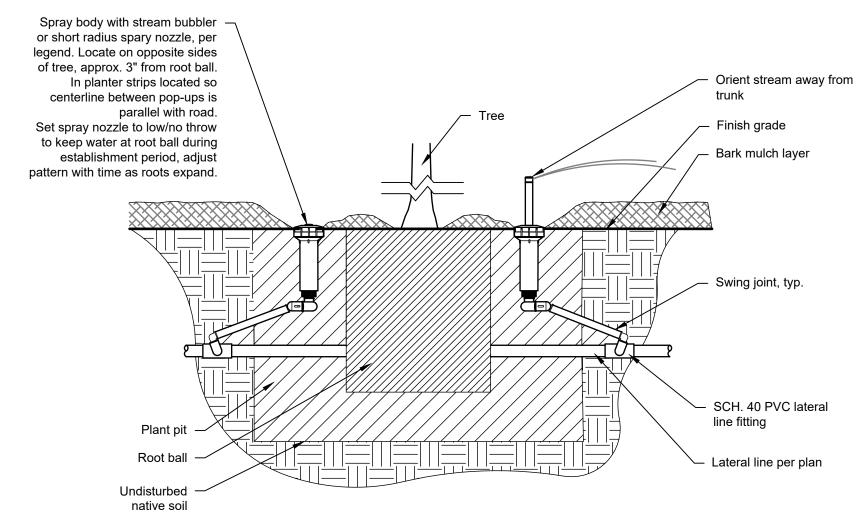
- Water-proof tag,

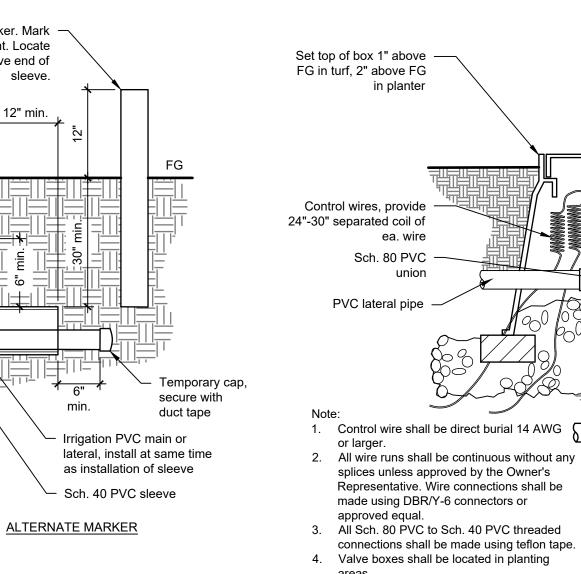
provide station

plans

number based on

connectors, per specs





REMOTE CONTROL VALVE

valve box, per specs. Remote control valve, see Irrigation Schedule for info PVC true union ball Sch. 80 PVC nipples at union valves, 3" min, typ. - Sch. 80 PVC 90 ell (TxT) Brick supports at 4 corners Sch. 80 PVC nipple (length as required) Sch. 40 or 80 PVC tee or ell (SxT) - PVC main line

Install spray body

perpendicular to

Rectangular plastic

INSTALLED ON SLOPE

- 3/4" dia. drain rock,

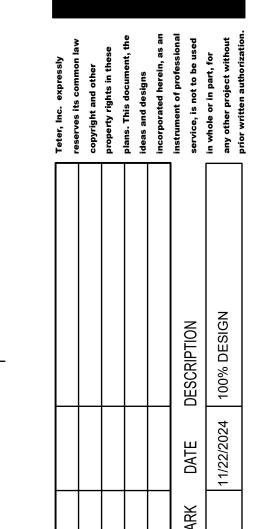
min. 6" depth

TREE BUBBLER - POP-UP WITH SPRAY OR STREAM NOZZLE



329301-13

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ABBREVIATIONS: WHEN USED IN THESE DOCUMENTS SHALL CONFORM TO THE FOLLOWING LIST UNLESS OTHERWISE NOTED. DRAWINGS OF OTHER DISCIPLINES (SUCH AS CIVIL, STRUCTURAL, PLUMBING, MECHANICAL, AND ELECTRICAL) MAY CONTAIN SPECIFIC ABBREVIATIONS, REFERENCES, AND LEGENDS WITH INTERPRETATION INTENDED ONLY FOR THOSE DISCIPLINES. FIRE ALARM OCC OCCUPANT LOAD ANGLE FLAT BAR ON CENTER FURNISHED BY OUTSIDE DIAMETER/ F.B.O. CENTERLINE OWNER/OTHERS DIMENSION DIAMETER OR ROUND FLOOR DRAIN OFFICE FIRE DEPARTMENT PERPENDICULAR F.D.C. OFCI OWNER FURNISHED POUND OR NUMBER CONNECTION CONTR. INSTALLED OWNER FURNISHED, FOUNDATION EXISTING NEW FIRE EXTINGUISHER OWNER INSTALLED F.E.C. FIRE EXTINGUISHER O.F.R.D. OVER FLOW ROOF FACTORY FINISH OPPOSITE HAND O.H.C.D. OVER HEAD COILING F.FLR. FINISH FLOOR ABOVE AIR CONDITIONING F.G. FINISH GRADE DOOR FIRE HYDRANT O.H.M.S. OVAL HEAD MACH. ASPHALT CONCRETE FHMS FLAT HEAD SCREW PAVING O.H.W.S. OVAL HEAD WOOD ACOUSTICAL MACHINE SCREW A.C.T. ACOUSTIC CEILING TILE FHWS FLAT HEAD WOOD SCREW OPENING ANCHOR BOLT OPPOSITE AMERICANS WITH FIXT. FIXTURE OVER DISABILITIES ACT FLR. FLOOR(ING) ORIGINAL ADA ACCESSIBLE OVER HEAD FLASHING GUIDELINES OPEN WEB JOIST FLUOR. FLUORESCENT OWJ ADDITIONAL F.O. FACE OF ADJUSTABLE F.O.C. FACE OF CONCRETE P.B.N. PLYWOOD BOUNDARY ADJC. ADJACENT F.O.F. FACE OF FINISH A.F.F. ABOVE FINISH FLOOR F.O.M. FACE OF MASONRY P.E.N. PLYWOOD EDGE A.F.G. ABOVE FINISH GRADE F.O.S. FACE OF STUD AGGREGATE FIBERGLASS REIN-PLYWOOD EDGE ALTERNATE FORCED PANELING ALUMINUM FIRE SPRINKLER(S) ALUM. POST INDICATOR F.S.H. FIRE SPRINKLER HEAD ANOD. ANODIZED A.P.C. ACOUSTIC PANEL CEILING PLASTIC LAMINATE FOOT/FEET PROPERTY LINE FURR. **FURRING** APPROX. APPROXIMATE PLATE ARCH. ARCHITECT(URAL) FUT. FUTURE PLASTER PLYWD. AUDIO VISUAL PLYWOOD GAUGE POUNDS PER BOARD GALV. GALVANIZED SQUARE FOOT BELOW GRAB BAR POUNDS PER BOUNDARY EDGE NAILING B.E.N GENERAL CONTR. SQUARE INCH BLDG. BUILDING GALVANIZED IRON PAPER TOWEL DISP. BLK. BLOCK GLASS P.T.D.F. PRESSURE TREATED BLKG. BLOCKING GROUND DOUGLAS FIR BEAM GRADE PARTITION BOT. BOTTOM GYPSUM POLYVINYL CHLORIDE BRG. BEARING BTWN. BETWEEN RADIUS B.U.R. BUILT-UP ROOF(ING) HOSE BIBB RESISTANCE HARDBOARD RETURN AIR CURB AND GUTTER H.C. HOLLOW CORE ROOF DRAIN HEAD REFLECTED C.B. CARRIAGE BOLT HEAVY DUTY H.D. REFR. REFRIGERATOR CEM. HDR. HEADER REINFORCED REINF. CER. CERAMIC HARDWARE REMOVE C.F. CUBIC FOOT HDWD. HARDWOOD REQUIRED CAST IRON HOLLOW METAL RESILIENT RESIL. CONSTRUCTION JOINT H.M.D. HOLLOW METAL DOOR R.H. RIGHT HAND CENTER LINE R.H.W.S. ROUND HEAD WOOD C.L.F. CHAIN LINK FENCE H.M.F. HOLLOW METAL FRAME SCREW CLG. CLO. ROOM CLOSET HORIZ. HORIZONTAL ROUGH OPENING CLR. CLEAR HOUR R.O.W. RIGHT-OF-WAY CL.RM. CLASS ROOM HEIGHT REDWOOD CONCRETE MASONRY UNIT CMU HVAC HEATING/VENTIL-RAIN WATER LEADER ATING/AIR COND-CTR. COUNTER ITIONING SOUTH COLUMN HIGH WAY SUPPLY AIR CONCRETE SOLID CORE CONN. CONNECTION SCHEDULE CONSTR. CONSTRUCTION INSIDE DIAMETER/ STORM DRAIN CONT. CONTINUOUS DIMENSION SECT. SECTION CONTR. CONTRACTOR INFORMATION SQUARE FEET/FOOT INSUL. INSULATION SHOWER CRC COLD ROLLED CHANNEL INTERIOR SHTG. SHEATHING SIMILAR CTSK COUNTERSUNK S.O.G. SLAB-ON-GRADE JOINT C.Y. CUBIC YARD SPEC(S). SPECIFICATION(S) SPEAKER KITCHEN SQUARE KNOCK OUT K.O. D.A. DISABLED ACCESS STAINLESS STEEL K.O.P. KNOCK OUT PANEL DOUBLE STATION DEMOLISH/ SOUND TRANS-DEMOLITION LABORATORY MISSION CLASS DRINKING FOUNTAIN STANDARD LAM. LAMINATE OR DOUGLAS FIR STL. STEEL LAV. LAVATORY STOR. STORAGE LB(S) POUND (POUNDS) STRUCT. STRUCTURAL L.B. LAG BOLT DIAMETER SUSP. SUSPENDED LINEAL FOOT DIMENSION S.W. SIDE WALK LEFT HAND L.H. DISP. DISPENSER SYM. SYMMETRICAL LIB. LIBRARY DOWN LIGHT DEEP LT.WT. LIGHT WEIGHT DOWN SPOUT TOP OF CONCRETE DWG.(S) DRAWING TEMPORARY DWR. DRAWER TMPD. TEMPERED MACHINE TONGUE AND MAINTENANCE MAINT. GROOVE MAXIMUM EAST THREADED MACHINE BOLT M.B. EACH THICK M.B.M. METAL BUILDING TENANT EXHAUST FAN MANUFACTURER **ENGINEER** IMPROVEMENT MECHANICAL TACK BOARD E.J. **EXPANSION JOINT** MED. MEDIUM T.O.S. ELEVATION TOP OF STEEL MEMB. MEMBRANE TOP OF PAVEMENT ELEC. ELECTRIC(AL) MET. METAL TUBE STEEL ELEV. **ELEVATOR** MFR. MANUFACTURER **EMBEDMENT** TELEPHONE MANHOLE TELEPHONE TERM-EMER. **EMERGENCY** MKR. MARKER E.N. EDGE NAILING INAL BACK BD. MINIMUM ENCL. ENCLOSURE TELEVISION MISCELLANEOUS EQ. **EQUAL** TYP. TYPICAL M.O. MASONRY OPENING MTD. MOUNTED EVAP. **EVAPORATIVE** MTG. MEETING UNDERGROUND E.W. EACH WAY MULL. MULLION UNLESS NOTED EXHAUST U.N.O. EXST. EXISTING OTHERWISE URINAL EXP. **EXPANSION** NORTH **EXTERIOR** NOT IN CONTRACT N.I.C. NUMBER VINYL COMPOSITION NO. NOM. NOMINAL VERT. N.R.C. NOISE REDUCTION VERTICAL VENT TO ROOF COEFFICIENT VTR N.T.S. NOT TO SCALE VWC VINYL WALL COVERING **CODES AND ORGANIZATIONS** WEST OR CBC CALIFORNIA BUILDING CODE WIDTH/WIDE CEC CALIFORNIA ELECTRICAL CODE WITH CFC CALIFORNIA FIRE CODE WATER CLOSET CMC CALIFORNIA MECHANICAL CODE W.CH. WHEEL CHAIR CPC CALIFORNIA PLUMBING CODE WD. WOOD DSA DIVISION OF THE STATE ARCHITECT WDW. WINDOW ICBO INTERNATIONAL CONFERENCE OF BUILDING WIDE FLANGE WATER HEATER OFFICIALS W.H. W/O WITHOUT NSF NATIONAL SANITATION FOUNDATION NFPA NATIONAL FIRE PROTECTION ASSOCIATION W.P. WATERPROOF W.S. WOOD SCREW NEC NATIONAL ELECTRICAL CODE WEIGHT WWF WELDED WIRE FABRIC XFMR TRANSFORMER **ABBREVIATIONS** 

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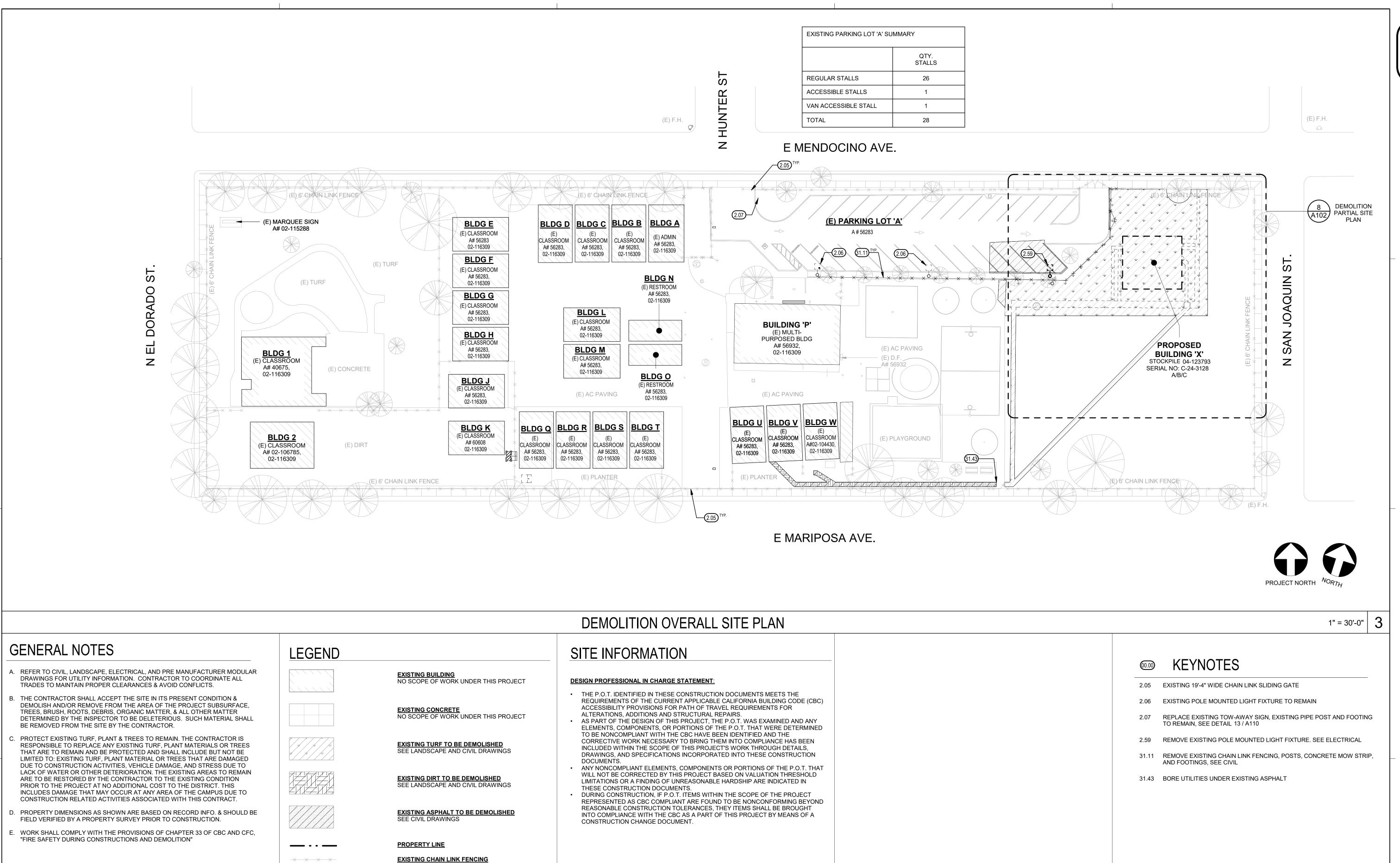
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ELOP RELOCATABLE CLASSROO WILSON ELEMENTARY
150 E MENDOCINO AVE STOCKTON, CA

23-12902

**ABBREVIATIONS** 

AND



 $\rightarrow$   $\sim$   $\times$   $\sim$   $\times$   $\sim$   $\times$   $\sim$ 

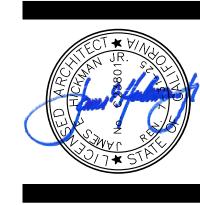
<sub>⊘</sub>(E) F.H.

**EXISTING CHAIN LINK FENCING TO BE DEMOLISHED** 

(E) FIRE HYDRANT

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 THE P.O.T. IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS MEETS THE REQUIREMENTS OF THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE (CBC) ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS.

\_\_\_\_\_

 $\times$   $\times$   $\times$ 

-0

್(Ε) F.H.

**EXISTING CHAIN LINK FENCING** 

(E) FIRE HYDRANT

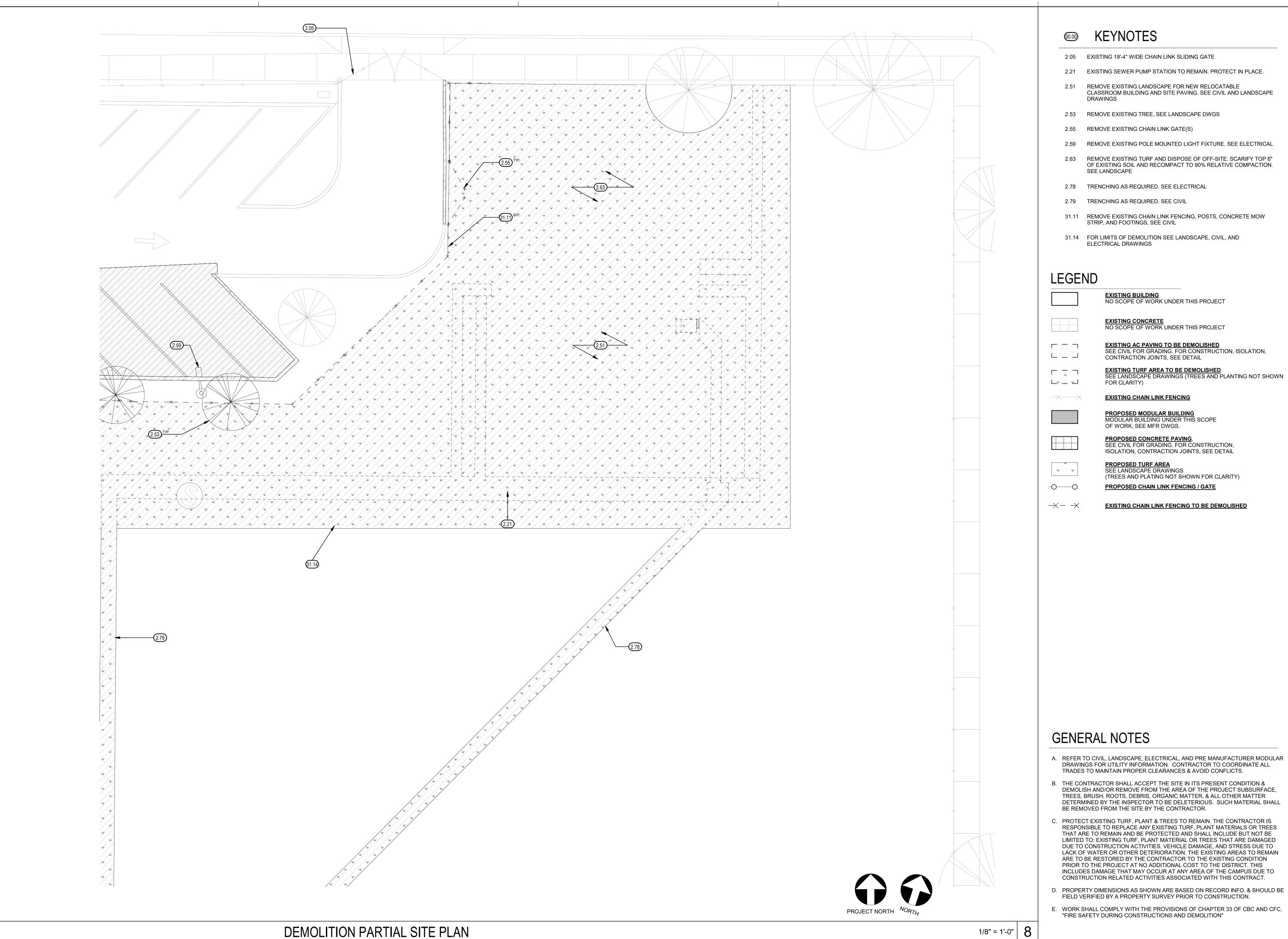
NEW 6'-0" H CHAIN LINK FENCING / GATE

- AS PART OF THE DESIGN OF THIS PROJECT, THE P.O.T. WAS EXAMINED AND ANY ELEMENTS, COMPONENTS, OR PORTIONS OF THE P.O.T. THAT WERE DETERMINED TO BE NONCOMPLIANT WITH THE CBC HAVE BEEN IDENTIFIED AND THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DETAILS, DRAWINGS, AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION
- DOCUMENTS. ANY NONCOMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE P.O.T. THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE INDICATED IN
- THESE CONSTRUCTION DOCUMENTS. DURING CONSTRUCTION, IF P.O.T. ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CBC COMPLIANT ARE FOUND TO BE NONCONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THEY ITEMS SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

#### **ABBREVIATION:**

- FF = FACTORY FINISH GCL GALVANIZED CHAINLINK
- GAL GALVANIZED ACC ACCESSIBLE

G-X)GATE, SEE GATE SCHEDULE



- CLASSROOM BUILDING AND SITE PAVING. SEE CIVIL AND LANDSCAPE
- 2.59 REMOVE EXISTING POLE MOUNTED LIGHT FIXTURE. SEE ELECTRICAL
- OF EXISTING SOIL AND RECOMPACT TO 90% RELATIVE COMPACTION.
- 31.11 REMOVE EXISTING CHAIN LINK FENCING, POSTS, CONCRETE MOW

SEE LANDSCAPE DRAWINGS (TREES AND PLANTING NOT SHOWN

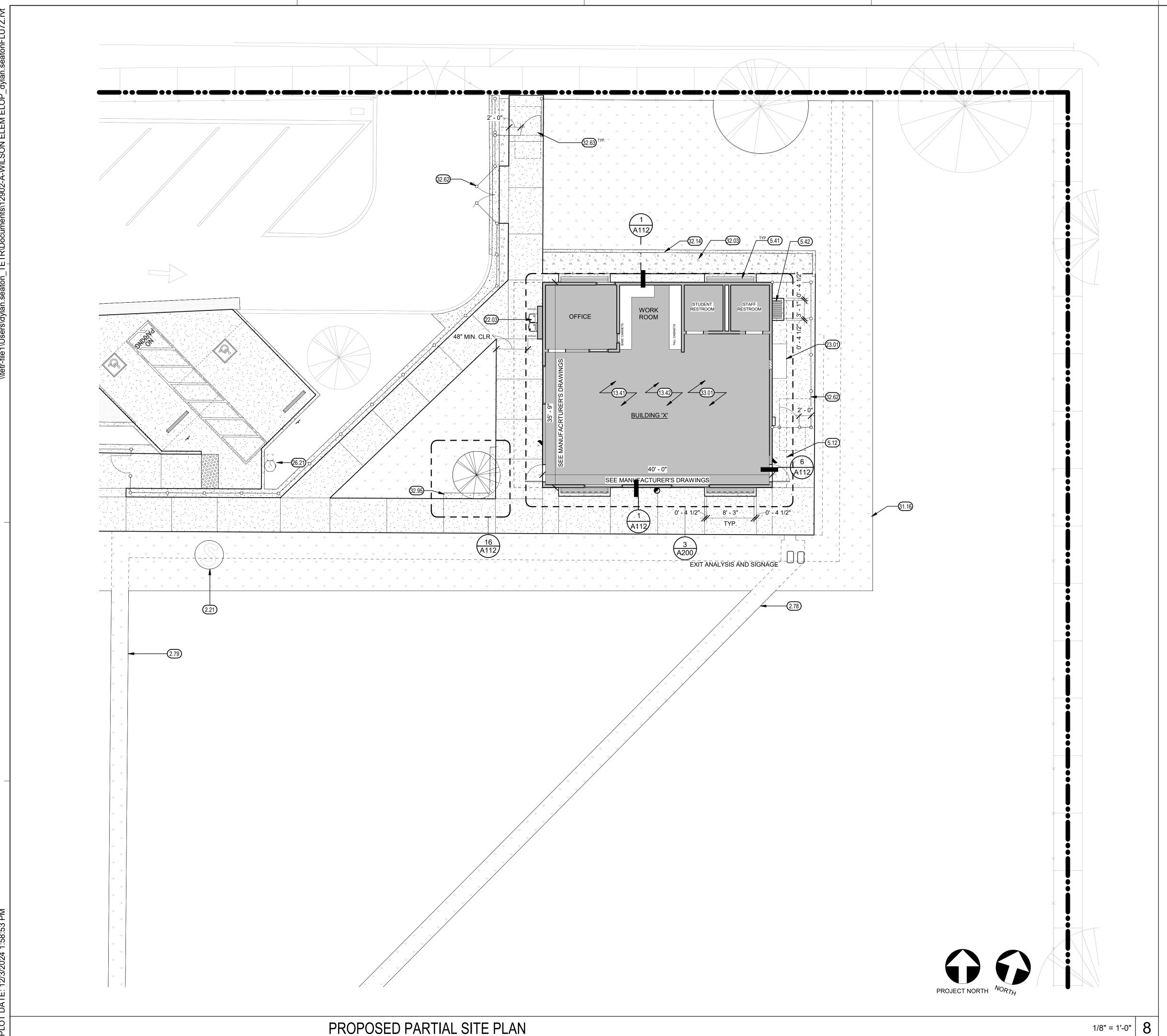
- A. REFER TO CIVIL, LANDSCAPE, ELECTRICAL, AND PRE MANUFACTURER MODULAR
- B. THE CONTRACTOR SHALL ACCEPT THE SITE IN ITS PRESENT CONDITION & DEMOLISH AND/OR REMOVE FROM THE AREA OF THE PROJECT SUBSURFACE, TREES, BRUSH, ROOTS, DEBRIS, ORGANIC MATTER, & ALL OTHER MATTER DETERMINED BY THE INSPECTOR TO BE DELETERIOUS. SUCH MATERIAL SHALL
- C. PROTECT EXISTING TURF, PLANT & TREES TO REMAIN. THE CONTRACTOR IS RESPONSIBLE TO REPLACE ANY EXISTING TURF, PLANT MATERIALS OR TREES THAT ARE TO REMAIN AND BE PROTECTED AND SHALL INCLUDE BUT NOT BE DUE TO CONSTRUCTION ACTIVITIES, VEHICLE DAMAGE, AND STRESS DUE TO LACK OF WATER OR OTHER DETERIORATION. THE EXISTING AREAS TO REMAIN PRIOR TO THE PROJECT AT NO ADDITIONAL COST TO THE DISTRICT. THIS INCLUDES DAMAGE THAT MAY OCCUR AT ANY AREA OF THE CAMPUS DUE TO

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PROJECT NO.



**EXECUTES** WE KEYNOTES

EXISTING SEWER PUMP STATION TO REMAIN. PROTECT IN

78 TRENCHING AS REQUIRED. SEE ELECTRICAL

79 TRENCHING AS REQUIRED. SEE CIVIL

5.12 LINE OF ROOF OVERHANG, SEE NEW RELOCATABLE CLASSROOM BUILDING DRAWINGS

STEEL GRATE FOR BELOW GRADE FOUNDATION VENT SEE DETAIL 5 / A112

2 STEEL GRATE FOR BELOW GRADE ACCESS, SEE DETAIL 5 / A112

11 CONNECT BUILDING TO EXISTING UTILITIES. SEE CIVIL, ELECTRICAL, AND SHEET A112

13.42 NEW MODULAR CONCRETE FOUNDATION. SET EACH CORNER OF BUILDING PAD AT 0'-0". SEE MANUFACTURER AND CIVIL DRAWINGS.

22.03 HIGH-LOW DRINKING FOUNTAIN WITH BOTTLE FILLER, SEE CIVIL, ELECTRICAL, AND DETAIL 8 / A802

O1 HVAC UNIT, SEE NEW RELOCATABLE CLASSROOM BUILDING DRAWINGS

26.21 POLE MOUNTED LIGHT FIXTURE, SEE ELECTRICAL

EXISTING TURF AND IRRIGATION AREA ADJACENT TO PROPOSED BUILDING TO BE REPAIRED OR PROVIDE NEW SOD AS REQUIRED, SEE CIVIL AND LANDSCAPE

32.03 DECOMPOSED GRANITE, SEE LANDSCAPE

32.14 CONCRETE CURB, SEE LANDSCAPE

CHAIN LINK MAINTENANCE SERVICE GATE, PAIR OF 5'-0" WIDE

32.63 CHAIN LINK PEDESTRIAN GATE, ACCESSIBLE, SEE 3 / A111

ADDITIVE ALTERNATE #1: CONCRETE BENCH, SEE 16 / A112

33.01 UTILITIES POINT OF CONNECTION, SEE CIVIL DRAWINGS AND DETAIL 2 / A112

# LEGEND

EXISTING NO SCOPE

NO SCOPE OF WORK UNDER THIS PROJECT

EXISTING CONCRETE
NO SCOPE OF WORK UNDER THIS PROJECT

PROPOSED MODULAR BUILDING
MODULAR BUILDING UNDER THIS SCOPE
OF WORK, SEE MFR DWGS.

PROPOSED CONCRETE PAVING,
SEE CIVIL FOR GRADING. FOR
CONSTRUCTION, ISOLATION, CONTRACTION
JOINTS, SEE DETAIL R-50/C1.5

Ψ Ψ Ψ

PROPOSED TURF AREA
SEE LANDSCAPE DRAWINGS
(TREES AND PLATING NOT SHOWN FOR CLARITY)

NEW CHAIN LINK FENCING, TYP, SEE DETAIL 5 / A111 AND 2 / A111

# GENERAL NOTES

- A. REFER TO CIVIL, LANDSCAPE, ELECTRICAL, AND PRE MANUFACTURER MODULAR DRAWINGS FOR UTILITY INFORMATION. CONTRACTOR TO COORDINATE ALL TRADES TO MAINTAIN PROPER CLEARANCES & AVOID CONFLICTS.
- B. THE CONTRACTOR SHALL ACCEPT THE SITE IN ITS PRESENT CONDITION & DEMOLISH AND/OR REMOVE FROM THE AREA OF THE PROJECT SUBSURFACE, TREES, BRUSH, ROOTS, DEBRIS, ORGANIC MATTER, & ALL OTHER MATTER DETERMINED BY THE INSPECTOR TO BE DELETERIOUS. SUCH MATERIAL SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.
- C. PROTECT EXISTING TURF, PLANT & TREES TO REMAIN. THE CONTRACTOR IS RESPONSIBLE TO REPLACE ANY EXISTING TURF, PLANT MATERIALS OR TREES THAT ARE TO REMAIN AND BE PROTECTED AND SHALL INCLUDE BUT NOT BE LIMITED TO: EXISTING TURF, PLANT MATERIAL OR TREES THAT ARE DAMAGED DUE TO CONSTRUCTION ACTIVITIES, VEHICLE DAMAGE, AND STRESS DUE TO LACK OF WATER OR OTHER DETERIORATION. THE EXISTING AREAS TO REMAIN ARE TO BE RESTORED BY THE CONTRACTOR TO THE EXISTING CONDITION PRIOR TO THE PROJECT AT NO ADDITIONAL COST TO THE DISTRICT. THIS INCLUDES DAMAGE THAT MAY OCCUR AT ANY AREA OF THE CAMPUS DUE TO CONSTRUCTION RELATED ACTIVITIES ASSOCIATED WITH THIS CONTRACT.
- D. PROPERTY DIMENSIONS AS SHOWN ARE BASED ON RECORD INFO. & SHOULD BE FIELD VERIFIED BY A PROPERTY SURVEY PRIOR TO CONSTRUCTION.
- E. WORK SHALL COMPLY WITH THE PROVISIONS OF CHAPTER 33 OF CBC AND CFC, "FIRE SAFETY DURING CONSTRUCTIONS AND DEMOLITION"

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FRESNO HEADQUARTERS

LIA | BAKERSFIELD | MODESTO | SAN LUIS OB

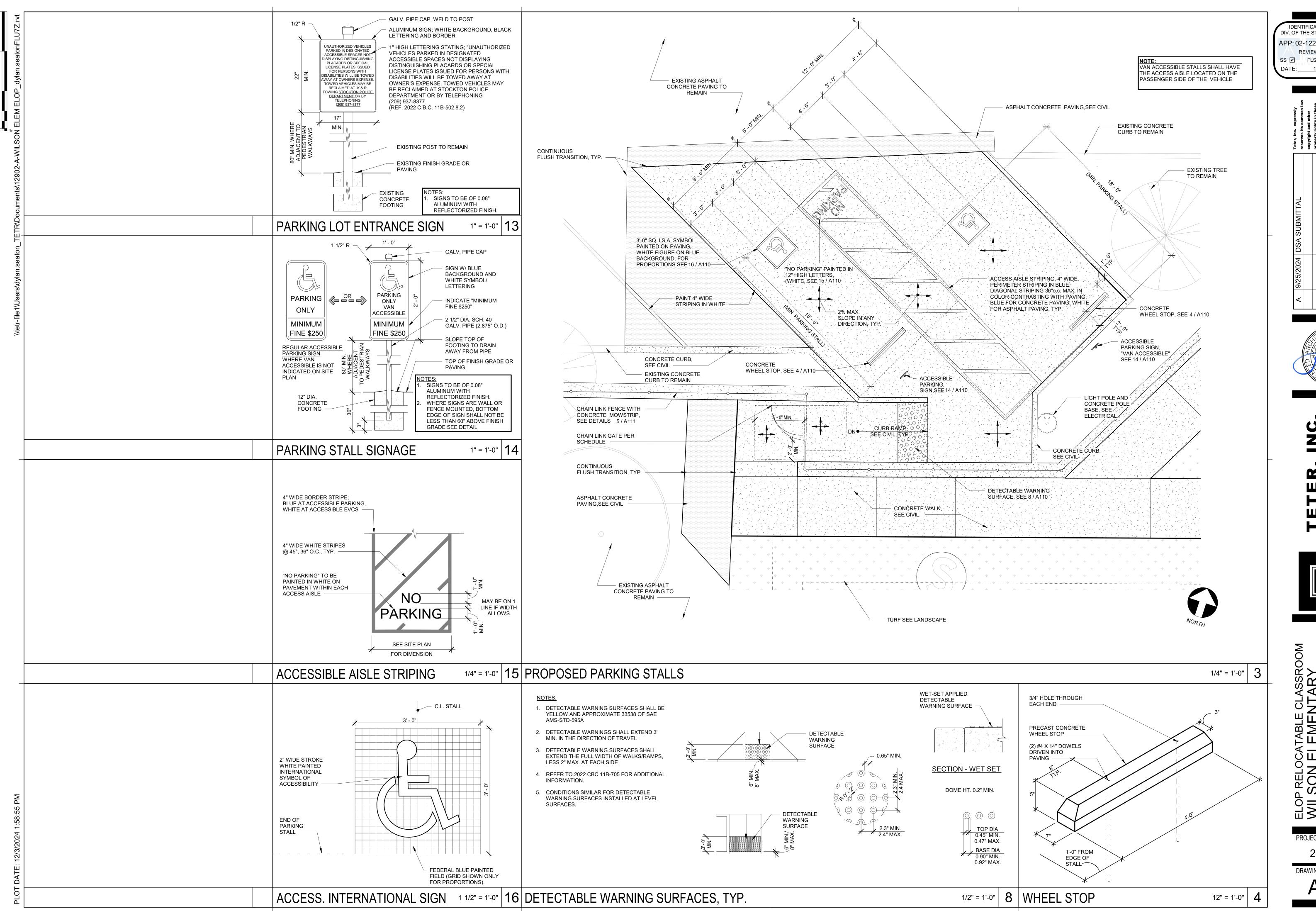


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E MENDOCINO AVE

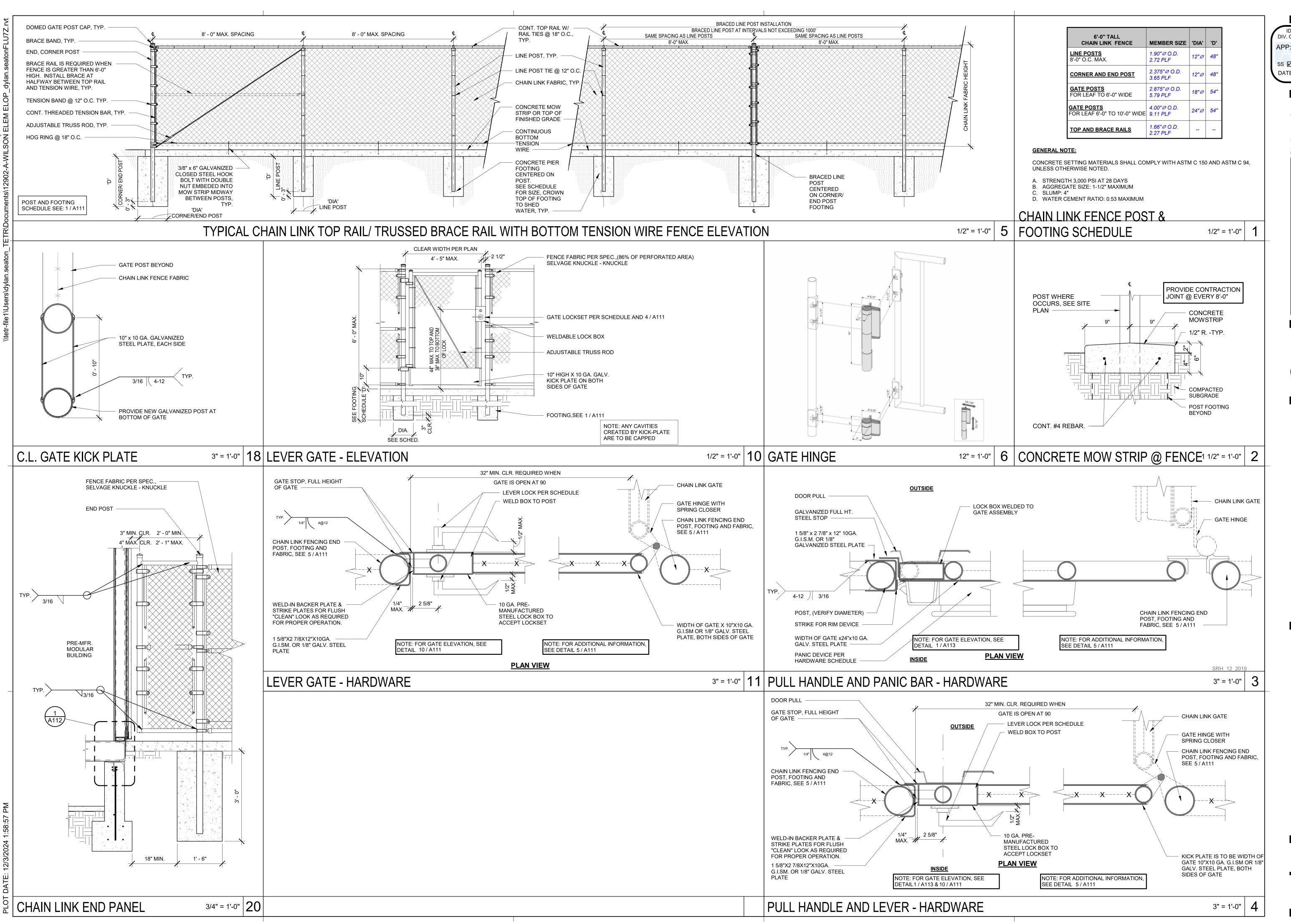
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PROJECT NO. **23-12902** 

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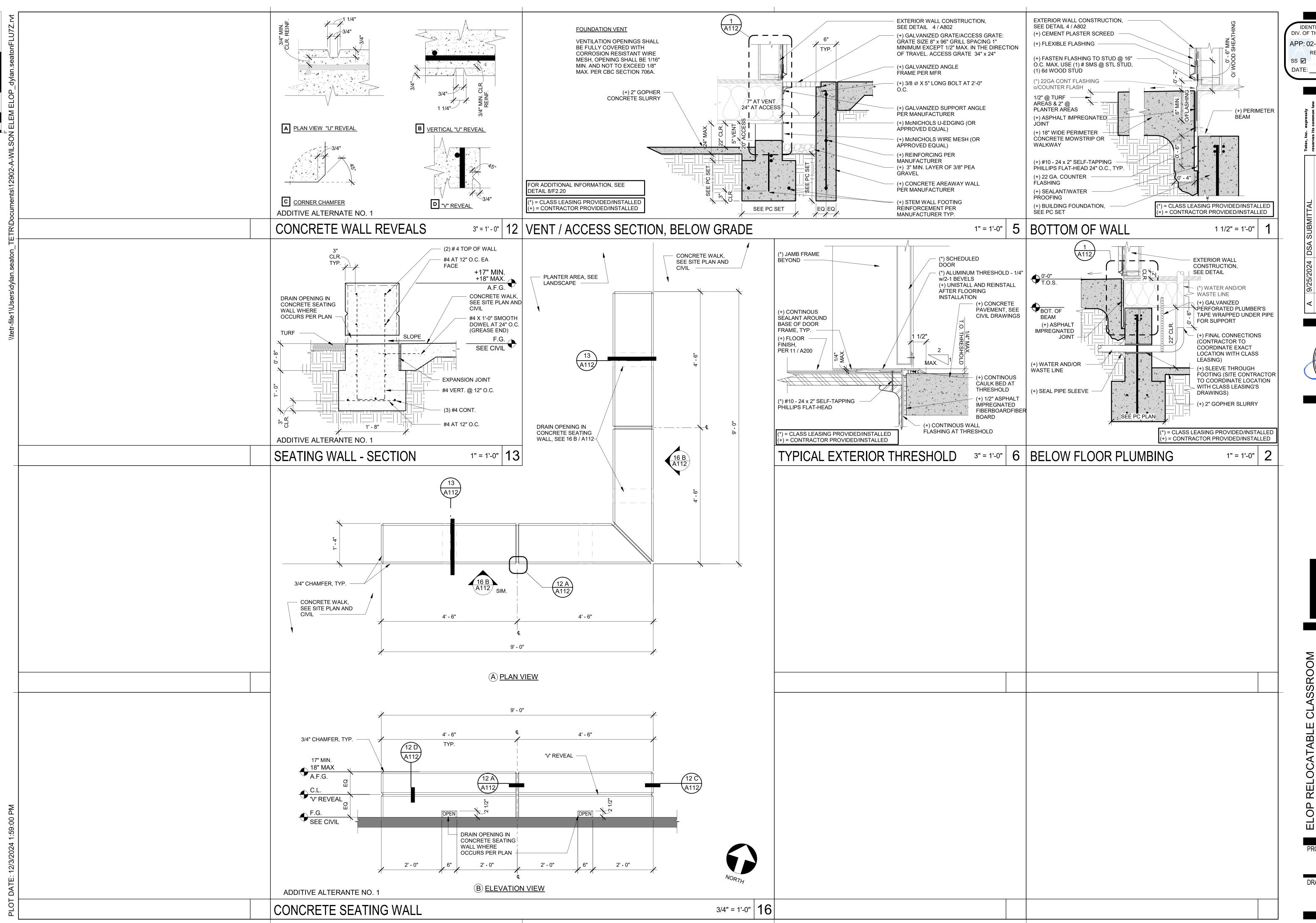
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DRAWING



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TETER, INC.

FRESNO HEADQUARTERS
ISALIA | BAKERSFIELD | MODESTO | SAN LUIS OBISPO

VISALIA

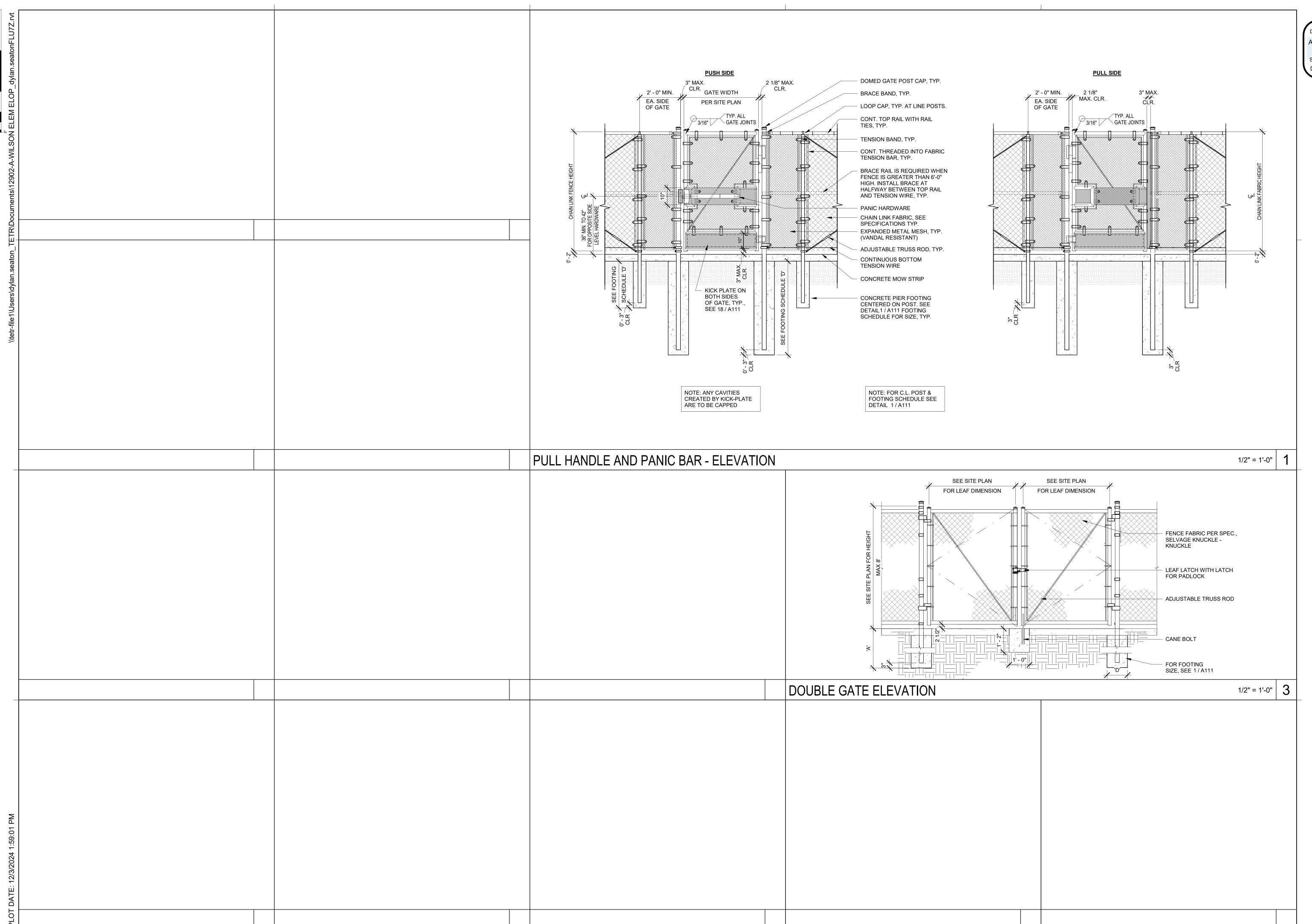
FABLE CLASSROOM
EMENTARY
OCINO AVE

WILSON ELEMENTAR 150 E MENDOCINO A STOCKTON, CA

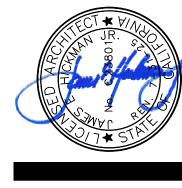
DJECT NO.

23-12902

AWING **A112** 



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**STAFF** 

/RESTROOM

STUDENT

RESTROOM

# FINISH FLOOR MATERIAL LEGEND

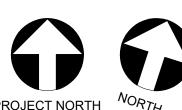
WORKROOM

CLASSROOM

×101 ×

RESILIENT VINYL FLOOR TILE (PROVIDED AND INSTALLED BY SITE CONTRACTOR) ROLLED SHEET VINYL W/ 6" COVE (PROVIDED AND INSTALLED BY

CLASS LEASING)





(101A)

# 1/4" = 1'-0" | 11 | EXIT ANALYSIS AND SIGNAGE PLAN1

DOORS: 0.2 X 27 = 5.4" < 34" | OK

(PER CBC 1005.3.2)

#### SIGNAGE LEGEND FOR TYPICAL IDENTIFICATION AND TACTILE SIGNAGE, SEE DETAIL 4 / A800

(RN - 1) PROVIDE ROOM IDENTIFICATION SIGN

(TE - 1) PROVIDE EXIT SIGNAGE AT INTERIOR SIDE OF DOOR (ALS - 1) PROVIDE ASSISTED LISTENING SIGNAGE AT INTERIOR SIDE

OF DOOR (TRW-U) PROVIDE WALL MOUNTED TOILET ROOM SIGNAGE AT

EXTERIOR SIDE OF DOOR, LABELED "STAFF RESTROOM"

(TRW-U) PROVIDE WALL MOUNTED TOILET ROOM SIGNAGE AT EXTERIOR SIDE OF DOOR, LABELED "STUDENT RESTROOM"

(TRD - S) PROVIDE DOOR MOUNTED TOILET ROOM SIGNAGE

(TRD - U) PROVIDE DOOR MOUNTED TOILET ROOM SIGNAGE

(RC - 1) ROOM CAPACITY SIGN

# EXIT ANALYSIS LEGEND

PATH OF EGRESS TRAVEL \_\_\_\_

XX NUMBER OF OCCUPANTS EXITING

**ROOM ROOM NAME & NUMBER ROOM AREA** 

 OCCUPANT LOAD FACTOR CALCULATED LOAD FACTOR

ILLUMINATED EXIT SIGNS, SEE ELECTRICAL FOR ADDITIONAL INFORMATION

# **GENERAL NOTES**

OWNER TO PROVIDE EMERGENCY EVACUATION SIGNAGE PER CFC 403.5, AS APPLICABLE, PRIOR TO OCCUPANCY OF THE BUILDINGS OR CAMPUS.

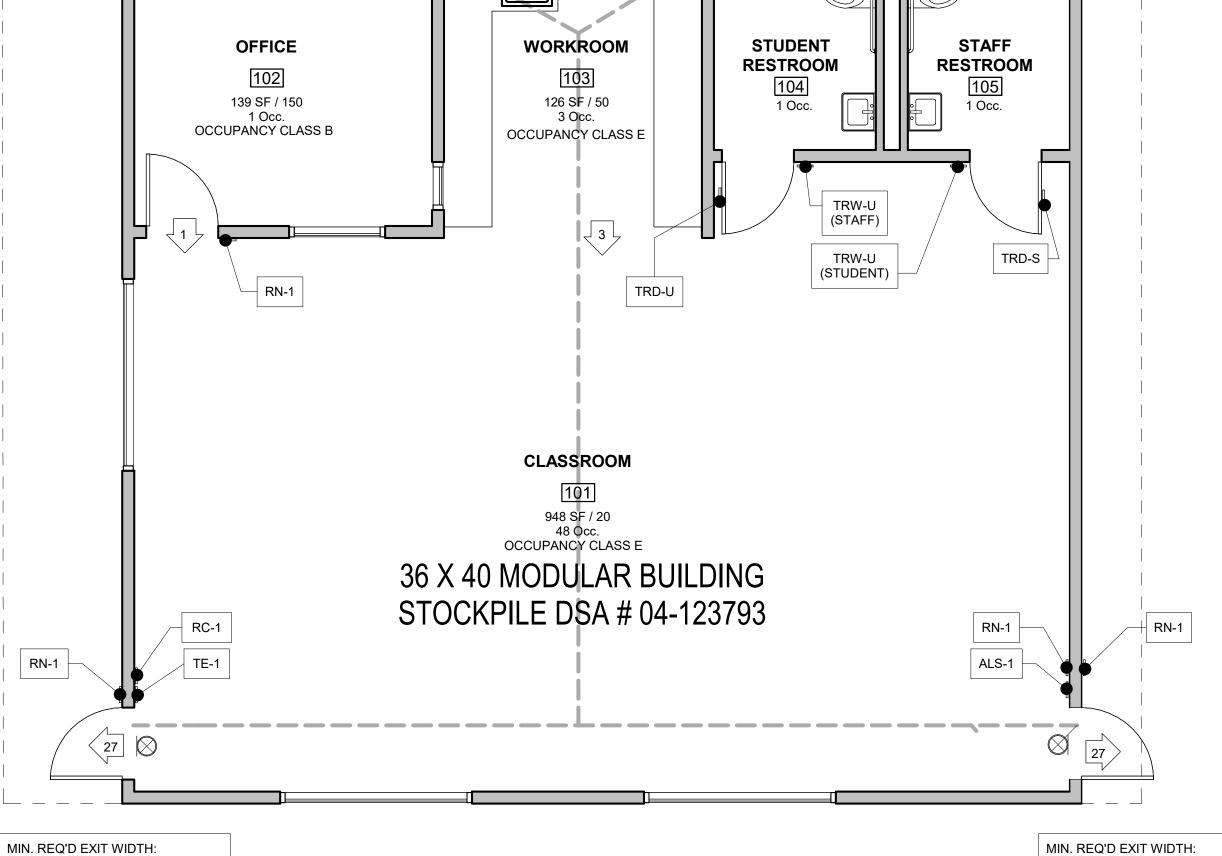
EGRESS WIDTH COMPONENT (CBC SECTION 1005.3.2): 0.2"/OCC.; A 36" WIDE DOOR HAS A CLEAR WIDTH OF 33" MIN. AND WILL ACCOMMODATE 165 OCCUPANTS.

## **ASSISTIVE LISTENING:** CLASSROOM 48 OCC

 $48 \times 4\% = 2 \text{ RECEIVERS MIN.}$ 

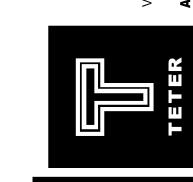
OWNER TO PROVIDE 2 RECEIVERS, 2 TO BE HEARING AID COMPATIBLE

**TOTAL OCCUPANTS:** 54





1/4" = 1'-0" 3



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23-12902



# **KEYNOTES**

(101B)

EXTERIOR THRESHOLD AT DOOR BY SITE CONTRACTOR, SEE 6 / A112

RUBBER TOP SET BASE ON ALL WALLS - BY SITE CONTRACTOR, SEE 15 / A800

**OFFICE** 

9.53) TY

CARPET WALK-OFF MAT

SITE CONTRACTOR)

SITE CONTRACTOR)

(PROVIDED AND INSTALLED BY

(PROVIDED AND INSTALLED BY

FLOORING TRANSITION STRIP BY SITE CONTRACTOR, SEE 13 / A800

FLUSH TRASITION BETWEEN CARPETS, SEE 14 / A800

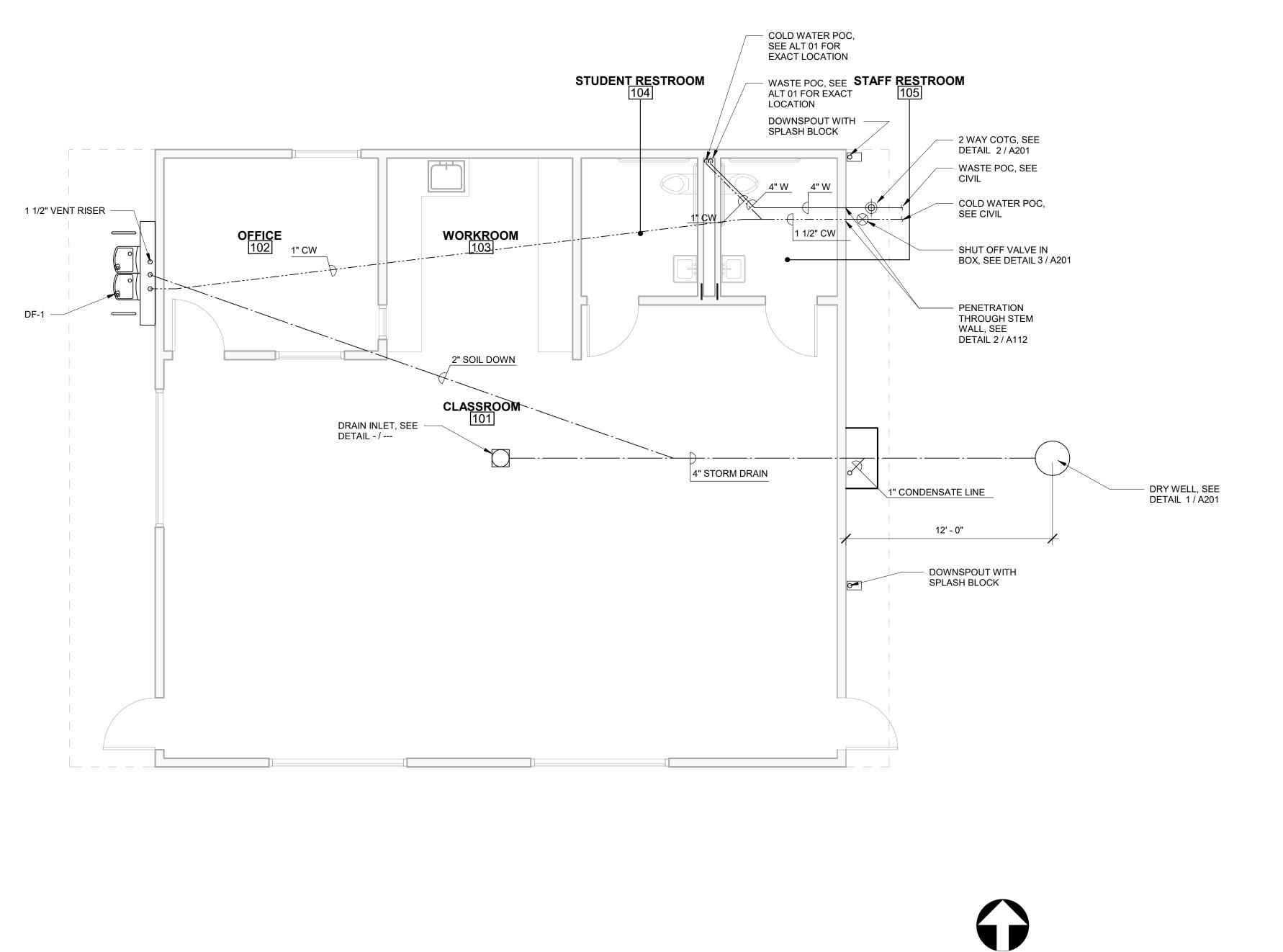
#### DOOR HARDWARE SCHEDULE ROOM HARDWARE **ROOM NAME** REMARKS DOOR# 101A CLASSROOM 01 A, B 101B CLASSROOM 01 A, B 102A OFFICE 02 A, B GENDER NEUTRAL RR 03 A, B 105A GENDER NEUTRAL RR 03 A, B

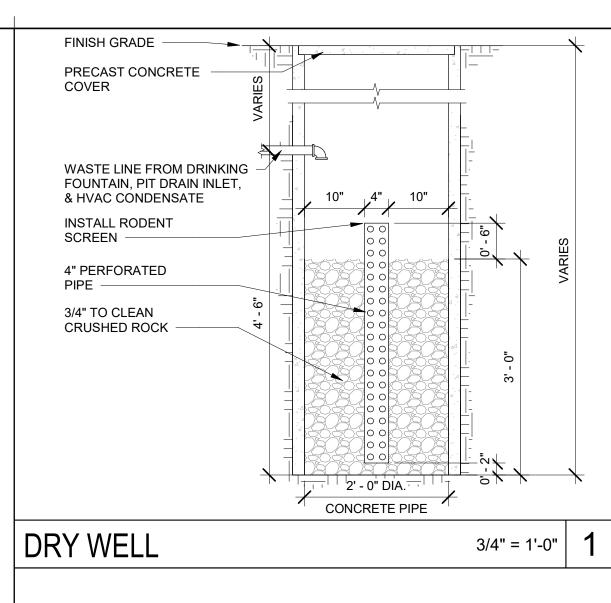
#### **REMARKS**:

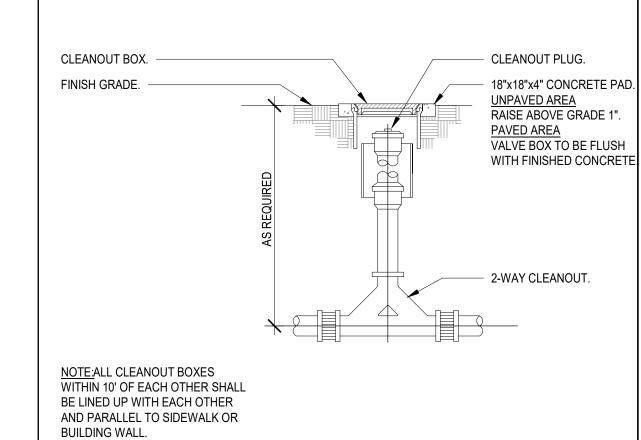
A. SITE CONTRACTOR SHALL SALVAGE AND REMOVE HARDWARE FROM DOORS AND RETURN TO DISTRICT.

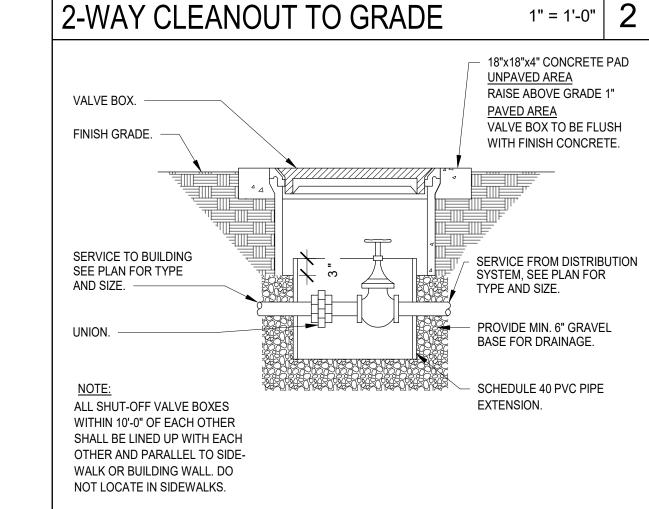
SITE CONTRACTOR SHALL PROVIDE NEW HARDWARE AS INDICATED IN

# DOOR HARDWARE SCHEDULE









# PROJECT NORTH

# 1/4" = 1'-0" | 7 | SOV IN BOX 1" = 1'-0" 3

SLOPE UNIFORMLY —

MARK	FIXTURE	S OR W	V	CW	DESCRIPTION
DF-1	DRINKING FOUNTAIN W/BOTTLE FILLER ADA	2"	1-1/2"	1"	MURDOCK DRINKING FOUNTAIN/BOTTLE FILLER, A172-UG-VR-D1-BF SERIES BASE MODEL A172400S-UG-VR-D1 BARRIER FREE, VANDAL RESISTANT, UNIVERSAL BI-LEVEL, WALL MOUNTED DRINKING FOUNTAIN WITH VANDAL RESISTANT, PUSHBUTTON OPERATED BOTTLE FILLER, STAINLESS STEEL BUBLER, BOTTLE FILLER WITH PUSHBUTTON OPERATION

PLUMBING FLOOR PLAN

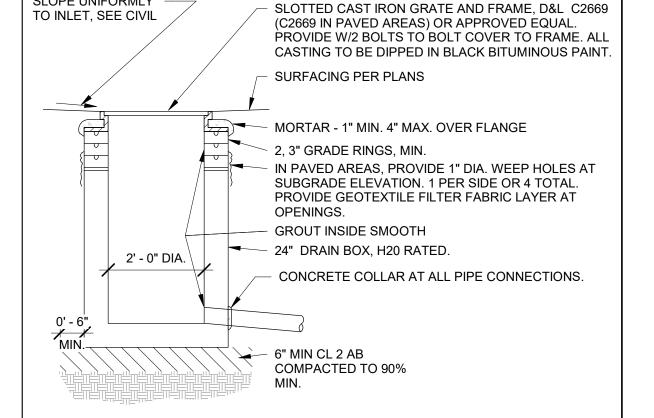
# PLUMBING GENERAL NOTES

- 1. COORDINATION OF WORK: LAYOUT OF MATERIALS, EQUIPMENT AND SYSTEMS IS GENERALLY DIAGRAMMATIC UNLESS SPECIFICALLY DIMENSIONED. SOME WORK MAY BE SHOWN OFFSET FOR CLARITY.
- 2. THE ACTUAL LOCATION OF ALL MATERIALS, PIPING, DUCTWORK, FIXTURES, EQUIPMENT, SUPPORTS, ETC. SHALL BE CAREFULLY PLANNED, PRIOR TO INSTALLATION OF ANY WORK TO AVOID ALL INTERFERENCES WITH EACH OTHER, OR WITH STRUCTURAL, ELECTRICAL, ARCHITECTURAL OR OTHER ELEMENTS.
- 3. VERIFY THE PROPER VOLTAGE AND PHASE OF ALL EQUIPMENT WITH THE ELECTRICAL PLANS. ALL CONFLICTS SHALL BE CALLED TO THE ATTEN TION OF THE ARCHITECT AND THE ENGINEER PRIOR TO THE INSTALLATION OF ANY WORK OR THE ORDERING OF ANY EQUIPMENT.
- 4. ALL DRAWINGS AND SPECIFICATIONS ARE TO BE CONSIDERED PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS PRIOR TO ANY CONSTRUCTION, INCLUDING ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENT SHALL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE AND AT NO EXPENSE TO THE OWNER OR THE OWNER REPRESENTATIVE.
- 5. MINIMUM SLOPE FOR SEWER IS 1/4"PER FT, UNLESS OTHERWISE NOTED.
- 6. ALL ROOF PENETRATIONS SHALL BE COMPATIBLE WITH ROOF SYSTEM WITH AS FEW PENETRATIONS AS POSSIBLE.
- 7. MINIMUM DOMESTIC WATER PIPE SIZE TO BE 3/4" UNLESS OTHERWISE NOTED. USE A REDUCING ELL AT FIXTURE, IF
- 8. ALL PLUMBING FIXTURES, VALVES, FAUCETS, FIXTURE STOPS, ETC. WHICH PROVIDE WATER FOR HUMAN CONSUMPTION MUST MEET THE "LEAD FREE" REQUIREMENT FOR THE STATE OF CALIFORNIA.
- 9. PIPING DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8; AND 2019 CBC, SECTIONS 1617A.1.24, 1617A.1.25 AND 1617A.1.26.

# PLUMBING LEGEND

———— DOMESTIC COLD WATER —— - SOIL OR WASTE PIPE TURN UP

e PIPE TURN DOWN

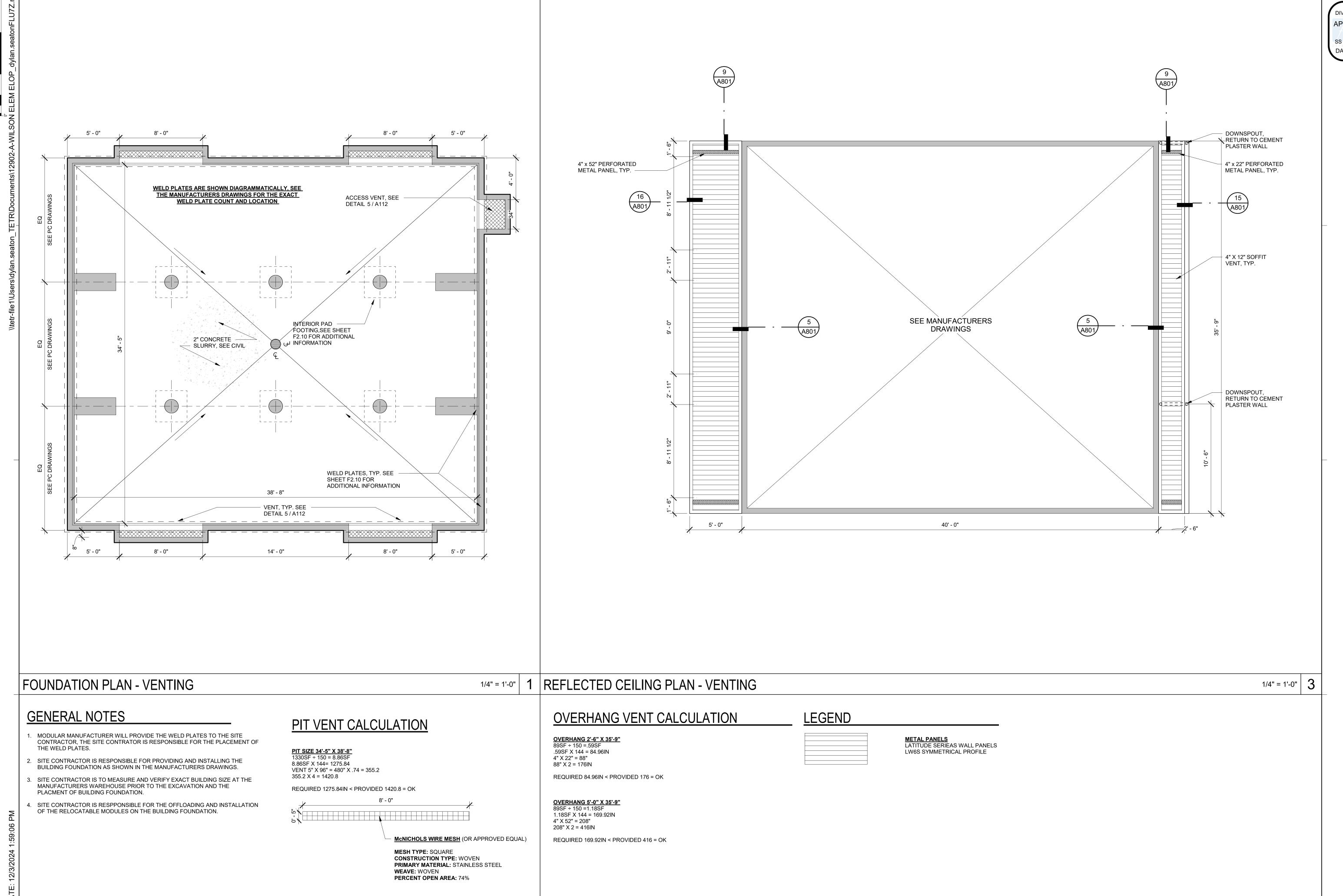


DROP INLET 1/2" = 1'-0" | 4

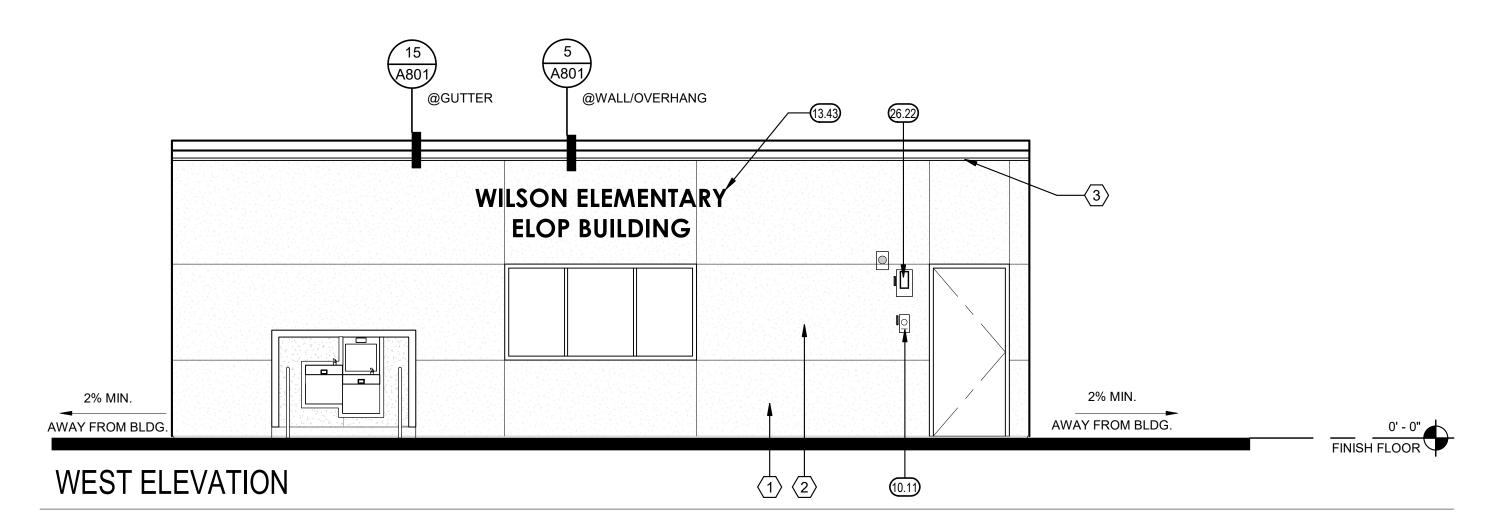
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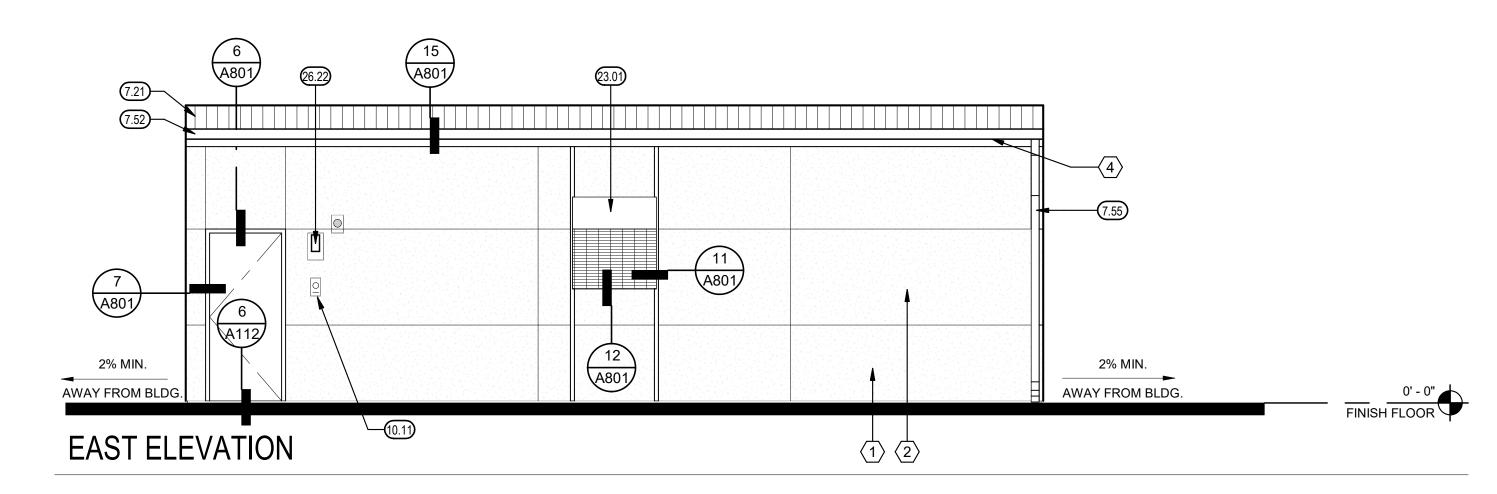


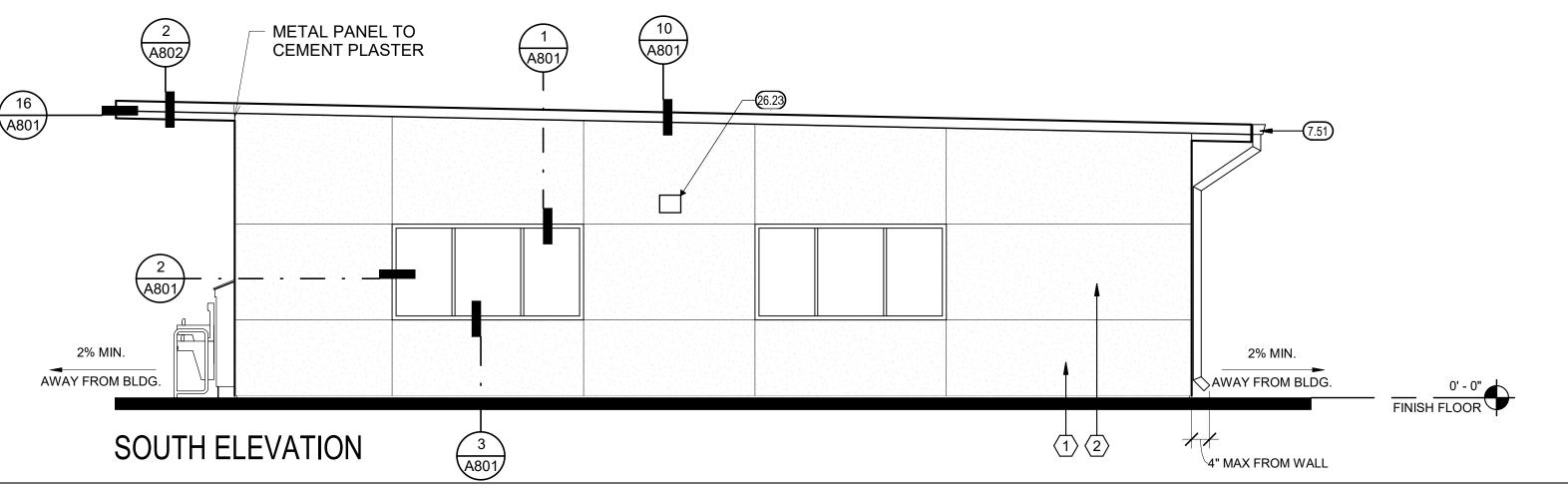




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**EXTERIOR ELEVATIONS** 

# **©** KEYNOTES

- 7.21 METAL ROOFING PANELS
- 1 SHEET METAL FLASHING/TRIM
- 7.52 SHEET METAL COPING
- .55 SHEET METAL DOWN SPOUT (SPILL AT GRADE) AND BRACKETS PROVIDED BY CLASS LEASING. SITE CONTRACTOR TO REMOVE AND SALVAGE FOR RE-INSTALLATION AFTER FINISHES HAVE BEEN INSTALLED.
- 10.11 SIGNAGE BY SITE CONTRACTOR, SEE SIGNAGE PLAN ON A200 FOR ADDITIONAL INFORMATION
- 13.43 BUILDING SIGNAGE TEXT AND FONT TO BE CHOSEN BY DISTRICT.
- 23.01 HVAC UNIT, SEE NEW RELOCATABLE CLASSROOM BUILDING DRAWINGS
- 26.22 EXTERIOR LIGHT PROVIDED BY CLASS LEASING. SITE CONTRACTOR TO REMOVE AND SALVAGE FOR RE-INSTALLATION AFTER FINISHES HAVE BEEN INSTALLED
- 26.23 SITE CONTRACTOR PROVIDED EXTERIOR LIGHT FIXTURE, SEE SHEET E200

# **GENERAL NOTES**

A. CEMENT PLASTER EXPANSION AND CONTROL JOINT PATTERN SHALL BE REVIEWED WITH THE ARCHITECT PRIOR TO INSTALLATION.

# EXTERIOR FINISH SCHEDULE

MARK	MATERIAL	DETAIL	
<u>\( \) \( \) \( \) \( \)</u>	ACRYLIC CEMENT PLASTER SYSTEM, COLOR 1		
	EXTERIOR PAINT: MATCH EXISTING CAMPUS COLORS	4 / A802	
$\langle 2 \rangle$	ACRYLIC CEMENT PLASTER SYSTEM, COLOR 2		
(2)	EXTERIOR PAINT: MATCH EXISTING CAMPUS COLORS	4 / A802	
3	METAL PANEL SYSTEM: LATITUDE SERIES (PAN RIB D 6" COVERAGE 1" REVEAL)	2 / A802	
3/	EXTERIOR COLOR: MATCH EXISTING CAMPUS COLORS		
	METAL SHEET METAL FLASHING AND/OR DOWNSPOUT	9 / A801 10 / A801	
4	EXTERIOR COLOR: MATCH EXISTING CAMPUS COLORS	15 / A801 16 / A801	

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT

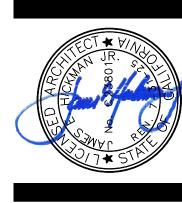
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DATE: 1/30/2025

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9/25/2024 DSA SUBMITTAL							DESCRIPTION		1/15/2025 DSA BACKCHECK SUBMITTAL any other project without
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4							JARK		മ



FETER, INC.

FRESNO HEADQUARTERS

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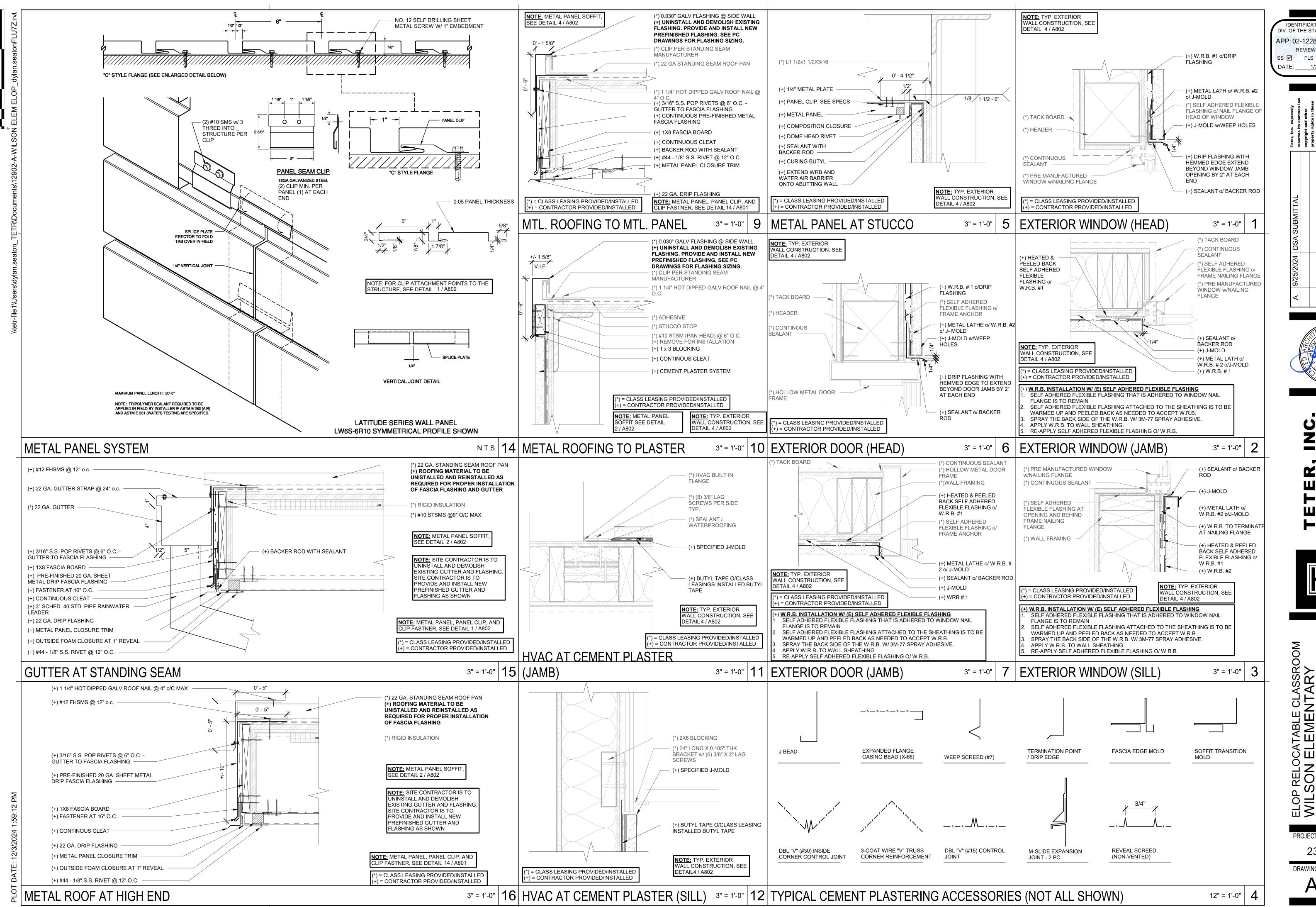
1/4" = 1' - 0"

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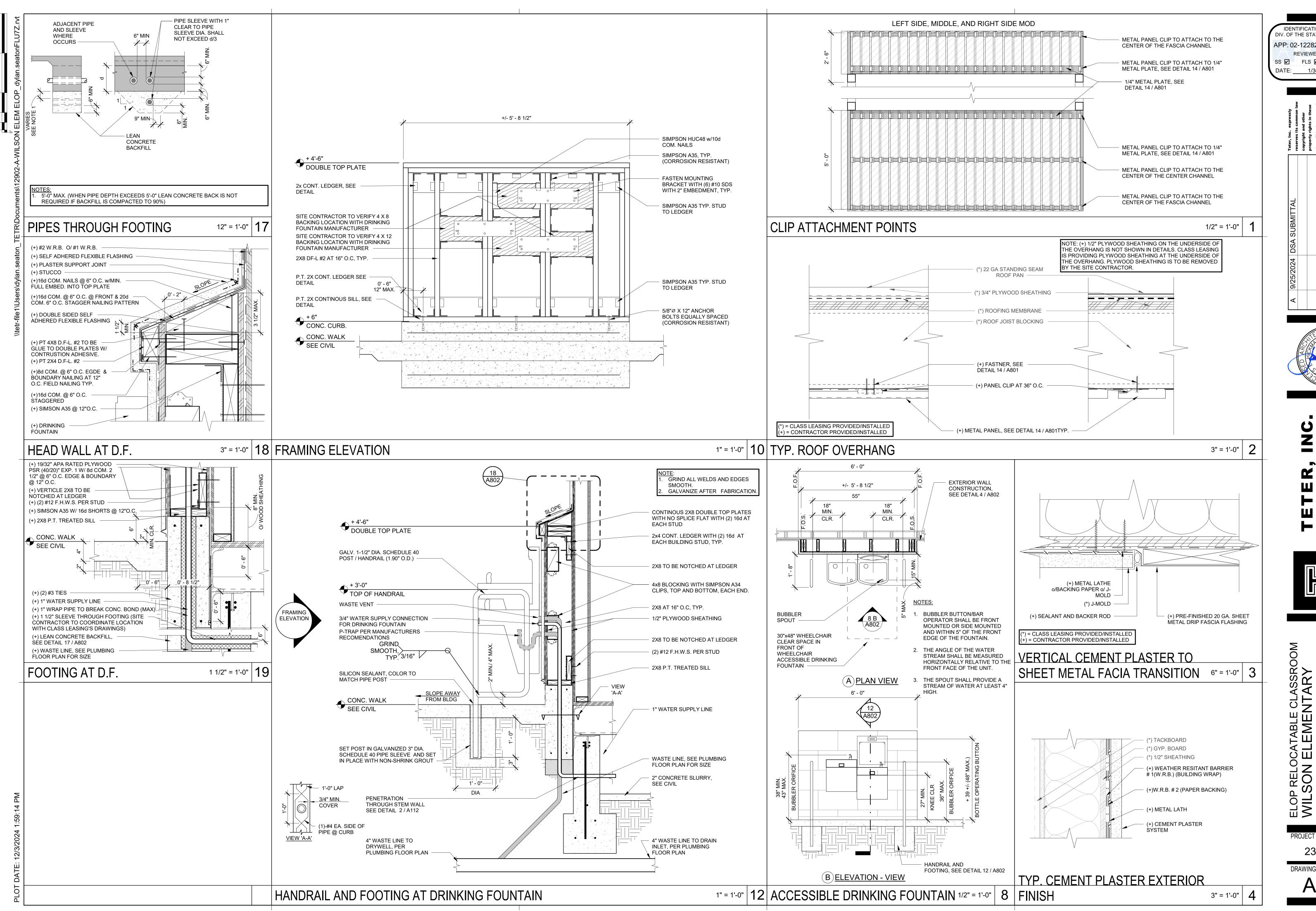


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1/30/2025

SATABLE CLASSROCELEMENTARY
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23-12902

A802

E MARIPOSA AVE.



1" = 30'-0" **1** 

#### ELECTRICAL SITE PLAN

- PROVIDE (N) 100A, 2-POLE CIRCUIT BREAKER AT (E) DISTRIBUTION PANEL 'DP-1' AND CONNECT (N) FEEDER TO (N) RELOCATABLE BUILDING PER SINGLE LINE DIAGRAM 2/E600.
- 2 INTERCEPT (E) CONDUITS STUBBED OUT OF (E) DISTRIBUTION PANEL 'DP-1', AND PROVIDE ONE (N) 2-1/2"C WITH 3 #1 CU THWN, AND 1 #6 CU GND, AND TWO (N) 2-1/2"C.O. (SPARE) TO NEW UNDERGROUND POWER
- 3 PROVIDE (N) UNDERGROUND POWER PULL BOX PER DETAIL 8/E600.
- PROVIDE ONE (N) 2"C WITH 3 #1 CU THWN, AND 1 #6 CU GND TO (N) RELOCATABLE BUILDING PER ENLARGED POWER & LIGHTING PLAN 1/E200.
- (5) INTERCEPT EXISTING FIRE ALARM SIGNALING LINE CIRCUIT AT (E) INITIATION DEVICE, AND RUN (N) 'FAS' CABLE TO (N) RELOCATABLE
- (6) REMOVE (E) 'END-OF-LINE' RESISTOR FOR SPEAKER CIRCUIT, AT LAST DEVICE ON SPEAKER CIRCUIT 'AA6', AND EXTEND SPEAKER CIRCUIT TO (N) RELOCATABLE BUILDING WITH ONE (N) 'FSS' CABLE.
- (E) DATA CAN HIGH ON EXTERIOR BUILDING WALL.

KEYNOTES

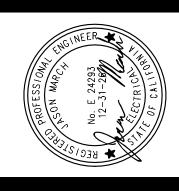
PROVIDE ONE (N) 2"C WITH ONE 'FAS' CABLE' AND ONE 'FSS' CABLE, ONE (N) 2"C WITH ONÉ 'SFO' CABLE FROM (E) IDF, AND ONE (N) 2"C.O.

- 9 PROVIDE (N) UNDERGROUND SIGNAL PULL BOX PER DETAIL 8/E600.
- PROVIDE ONE (N) 2"C WITH ONE 'FAS' CABLE' AND ONE 'FSS' CABLE, ONE (N) 2"C WITH ONE 'SFO' CABLE, AND ONE (N) 2"C.O., TO (N) RELOCATABLE BÚILDING PER ENLARGED SIGNAL PLAN 1/E400, AND ENLÁRGED FIRE
- (E) HOMERUN (PARKING LOT LIGHTING BRANCH CIRCUITING ) TO (E) MAIN SWITCHBOARD 'MSB' SHALL REMAIN.
- (E) POLE MOUNTED LIGHT FIXTURE SHALL REMAIN.
- (E) PARKING LOT LIGHTING BRANCH CIRCUITING (CONDUIT + CONDUCTORS) SHALL REMAIN.
- (14) (E) PARKING LOT LIGHTING BRANCH CIRCUITING (CONDUIT + CONDUCTORS). PULL OUT CONDUCTORS TO (E) DOWNSTREAM POLE MOUNTED LIGHT FIXTURE, AND PRESERVE CONDUIT FOR EXTENSION AND RECONNECTION PER ENLARGED POWER & LIGHTING PLAN 1/E200.

# GENERAL NOTES

- PROVIDE ELECTRICAL FEEDERS PER SINGLE LINE DIAGRAM.
- PENETRATIONS THROUGH WALLS, CEILINGS, FLOORS, AND/OR ROOFS SHALL BE SEALED.
- SITE CONDUITS OF TRADE SIZE 2" AND LARGER SHALL BE GROUPED AND INSTALLED PER DETAIL 7/E600. SITE CONDUITS SHALL BE INSTALLED A MINIMUM OF 36" BELOW FINAL GRADE TO TOP OF CONDUIT.
- SPECIAL PRECAUTION SHALL BE TAKEN WHEN TRENCHING TO LOCATE, PROTECT AND PRESERVE EXISTING UNDERGROUND UTILITIES. ANY DAMAGE CAUSED DURING THE COURSE OF CONSTRUCTION SHALL BE IMMEDIATELY REPAIRED.

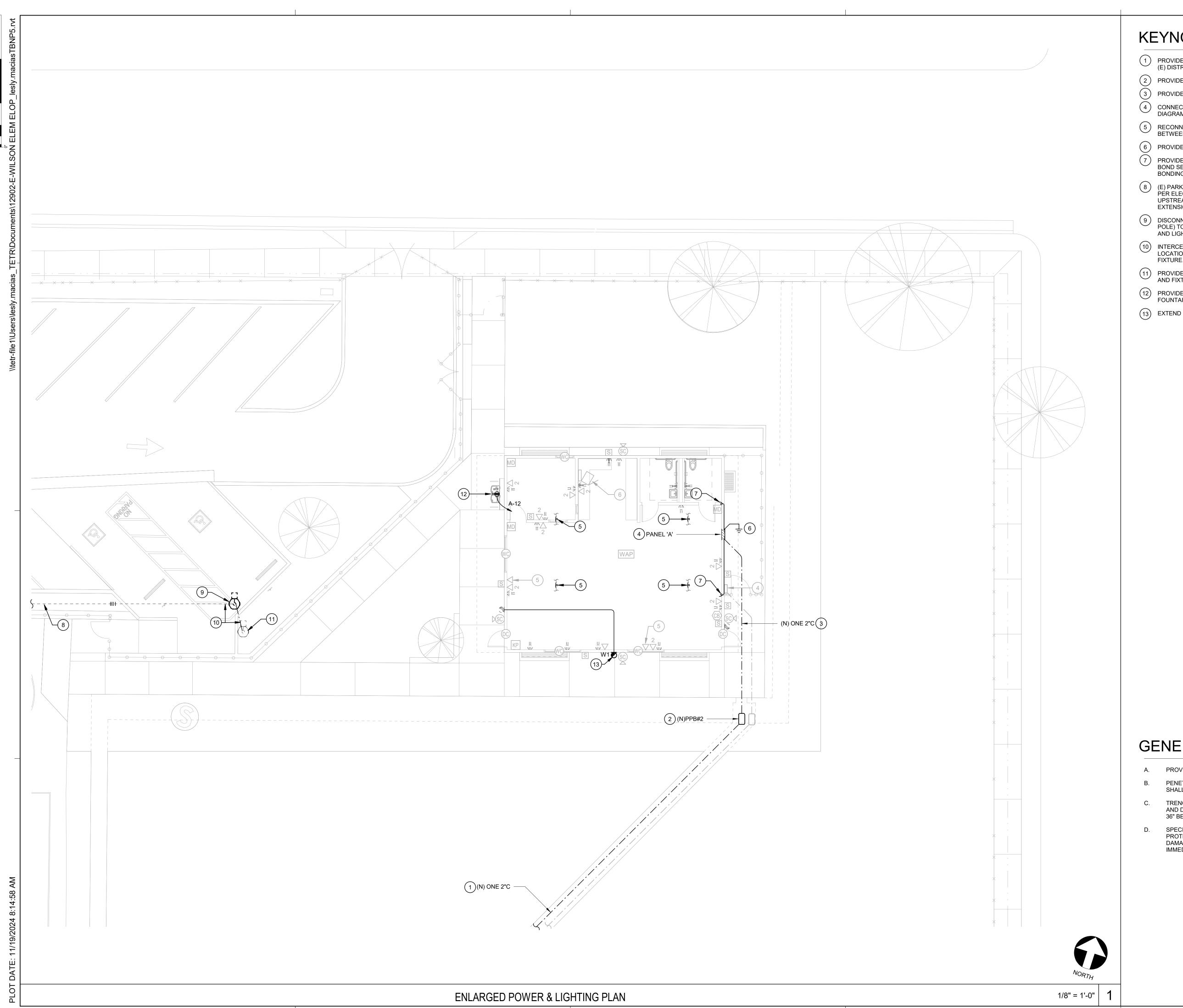
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ELOP RELOCATABLE CLASSROOM WILSON ELEMENTARY 150 E. MENDOCINO AVE.

23-12902



## KEYNOTES

- 1) PROVIDE ONE (N) 2"C WITH 3 #1 CU THWN, AND 1 #6 CU GND, FROM (E) DISTRIBUTION PANEL 'DP-1' PER ELECTRICAL SITE PLAN 1/E100.
- 2 PROVIDE (N) UNDERGROUND POWER PULL BOX PER DETAIL 8/E600.
- (3) PROVIDE ONE (N) 2"C WITH 3 #1 CU THWN, AND 1 #6 CU GND.
- 4 CONNECT PANEL AT NEW RELOCATABLE BUILDING PER SINGLE LINE DIAGRAM 2/E600.
- 5 RECONNECT (E) POWER AND LIGHTING BRANCH CIRCUIT CONNECTIONS BETWEEN BUILDING MODULES.
- (6) PROVIDE SYSTEM GROUND FACILITIES PER DETAILS 3/E600 AND 4/E600.
- 7 PROVIDE GROUNDING LUGS ON BOTH SIDES OF RIGID METAL BEAMS AND BOND SECTIONS OF RELOCATABLE BUILDING TOGETHER WITH 1 #6 CU BONDING JUMPER.
- (E) PARKING LOT LIGHTING BRANCH CIRCUITING (CONDUIT + CONDUCTORS) PER ELECTRICAL SITE PLAN 1/E100. PULL OUT CONDUCTORS TO (E)
  UPSTREAM POLE MOUNTED LIGHT FIXTURE, AND PRESERVE CONDUIT FOR EXTENSION AND RECONNECTION.
- 9 DISCONNECT AND REMOVE (E) POLE MOUNTED LIGHT FIXTURE (AND LIGHT POLE) TO ACCOMMODATE MODIFIED PARKING LOT, AND PRESERVE POLE AND LIGHT FIXTURE FOR REINSTALLATION AND RECONNECTION.
- INTERCEPT (E) CONDUIT, EXTEND TO (N) POLE MOUNTED LIGHT FIXTURE LOCATION, PULL IN NEW WIRE, AND RECONNECT POLE MOUNTED LIGHT
- PROVIDE (N) POLE BASE PER DETAIL 20/E600, REINSTALL (E) LIGHT POLE AND FIXTURE, AND RECONNECT BRANCH CIRCUITING.
- PROVIDE (N) WEATHERPROOF G.F.C.I. DUPLEX RECEPTACLE FOR DRINKING FOUNTAINS, AND CONNECT TO NEW BRANCH CIRCUIT.
- (13) EXTEND LIGHT FIXTURE CIRCUIT FROM EXISTING LIGHT FIXTURE.

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# GENERAL NOTES

- PROVIDE ELECTRICAL FEEDERS PER SINGLE LINE DIAGRAM.
- PENETRATIONS THROUGH WALLS, CEILINGS, FLOORS, AND/OR ROOFS SHALL BE SEALED.
- TRENCH AND BACKFILL PER ARCHITECTURAL PLANS, SPECIFICATIONS, AND DETAIL 7/E600. SITE CONDUITS SHALL BE INSTALLED A MINIMUM OF 36" BELOW FINAL GRADE TO TOP OF CONDUIT.
- SPECIAL PRECAUTION SHALL BE TAKEN WHEN TRENCHING TO LOCATE, PROTECT AND PRESERVE EXISTING UNDERGROUND UTILITIES. ANY DAMAGE CAUSED DURING THE COURSE OF CONSTRUCTION SHALL BE IMMEDIATELY REPAIRED.

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## KEYNOTES

- (1) PROVIDE ONE (N) 2"C WITH ONE 'SFO' CABLE, AND ONE (N) 2"C.O., TO (E) IDF PER ELECTRICAL SITE PLAN 1/E200.
- (2) PROVIDE (N) UNDERGROUND SIGNAL PULL BOX PER DETAIL 8/E600.
- 4 PROVIDE (N) 18" SQ. X 6" DEEP NEMA TYPE 3R SCREW COVER CAN HIGH ON EXTERIOR BUILDING WALL AT NEW RELOCATABLE BUILDING, WITH 2"C SLEEVE INTO ACCESSIBLE ATTIC SPACE. VERIFY EXACT LOCATION WITH OWNER AT SITE.
- 5 PROVIDE ONE (N) 'H' CABLE FROM EACH 'AV1' HDMI JACK TO 'AV2' HDMI
- 6 PROVIDE (N) IDF CABINET HIGH ON WALL, BELOW CEILING, PER DETAIL
- 7) PROVIDE ONE TYPE 'D' CABLE BACK TO IDF, FROM CALL BUTTON.
- 8 PROVIDE ONE TYPE 'D' CABLE BACK TO IDF. TYPICAL OF ALL SECURITY CAMERA LOCATIONS.
- 9 PROVIDE ONE TYPE 'D' CABLE BACK TO IDF. TYPICAL OF ALL INTERIOR AND EXTERIOR SPEAKER LOCATIONS.

## GENERAL NOTES

- PENETRATIONS THROUGH WALLS, CEILINGS, FLOORS, AND/OR ROOFS SHALL BE SEALED.
- TRENCH AND BACKFILL PER ARCHITECTURAL PLANS, SPECIFICATIONS, AND DETAIL 7/E600. SITE CONDUITS SHALL BE INSTALLED A MINIMUM OF 36" BELOW FINAL GRADE TO TOP OF CONDUIT.
- SPECIAL PRECAUTION SHALL BE TAKEN WHEN TRENCHING TO LOCATE, PROTECT AND PRESERVE EXISTING UNDERGROUND UTILITIES. ANY DAMAGE CAUSED DURING THE COURSE OF CONSTRUCTION SHALL BE IMMEDIATELY REPAIRED.

## SECURITY AND ACCESS ROUGH-IN NOTES

- A. SECURITY AND ACCESS SYSTEM ROUGH-IN REQUIREMENTS:
  - AT DOOR CONTACT LOCATIONS DRILL 1/2" HOLE IN STRIKE SIDE OF DOOR FRAME AND THROUGH HEADER, INSTALL A PULL WIRE BETWEEN OPENING IN DOOR FRAME AND ACCESSIBLE ATTIC.
  - AT MOTION DETECTOR LOCATIONS INSTALL A SINGLE-GANG OUTLET BOX WITH A SINGLE-GANG TRIM-RING IN WALL AT 84" A.F.F., INSTALL ONE 1/2"C INTO ACCESSIBLE ATTIC SPACE, INSTALL A PULL WIRE BETWEEN OUTLET BOX AND ACCESSIBLE
  - AT KEYPAD LOCATIONS INSTALL A SINGLE-GANG OUTLET BOX WITH A SINGLE-GANG TRIM-RING IN WALL AT 48" A.F.F. TO TOP OF BOX, INSTALL ONE 3/4"C INTO ACCESSIBLE ATTIC SPACE, INSTALL A PULL WIRE BETWEEN OUTLET BOX AND ACCESSIBLE
  - AT CARD READER LOCATIONS INSTALL A SINGLE-GANG OUTLET BOX WITH A SINGLE-GANG TRIM-RING IN WALL AT 48" A.F.F. TO TOP OF BOX, INSTALL ONE 3/4"C INTO ACCESSIBLE ATTIC SPACE, INSTALL A PULL WIRE BETWEEN OUTLET BOX AND ACCESSIBLE

## TELECOMMUNICATION CABLING NOTES

- CONDUIT AND JUNCTION BOXES PROVIDED BY BUILDING MANUFACTURER.
- PROVIDE THREADED SET SCREW CONNECTORS WITH POLYPROPYLENE BUSHINGS AT EACH END OF CONDUIT SYSTEMS USED FOR TELECOMMUNICATION CABLE INSTALLATION. BUSHINGS SHALL BE INSTALLED AND INSPECTED PRIOR TO CABLE INSTALLATION
- EACH TELECOMMUNICATION CABLE SHALL BE HOMERUN FROM THE TELECOMMUNICATION OUTLET TO A PATCH PANEL LOCATED IN THE (E) IDF AT BUILDING 'M' WEST.
- TELECOMMUNICATION CABLES SHALL BE NEATLY BUNDLED WITH VELCRO STRAPS AT 36"O.C.
- TELECOMMUNICATION CABLES SHALL BE INDEPENDENTLY SUPPORTED FROM J-HOOKS WITHIN THE ACCESSIBLE ATTIC SPACE WHERE THEY ARE NOT WITHIN CONDUIT.
- TELECOMMUNICATION CABLES SHALL BE TERMINATED WITH MODULAR JACKS ON PATCH PANELS IN THE TELECOMMUNICATION ENCLOSURE

AND ON MODULAR JACKS AT THE TELECOMMUNICATION OUTLETS.

TELECOMMUNICATION CABLE SERVING WIRELESS ACCESS POINTS SHALL BE TERMINATED WITH PLUG TYPE CONNECTORS AT THE LOCATION OF THE WIRELESS ACCESS POINT.

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LSON ELEMENTARY

DE. MENDOCINO AVE.

23-12902

### KEYNOTES

- PROVIDE ONE (N) 2"C WITH ONE 'FAS' CABLE (ADDRESSABLE SLC LOOP)
  AND ONE 'FSS' CABLE (SPEAKER CIRCUIT 'AA6'), FROM (E) FIRE ALARM
  DEVICES IN EXISTING CLASSROOM BUILDINGS PER ELECTRICAL SITE PLAN
  1/E100. RUN IN JOINT TRENCH WITH (N) SIGNAL CONDUITS PER ENLARGED
  SIGNAL PLAN 1/E400.
  - (N) UNDERGROUND SIGNAL PULL BOX PER ENLARGED SIGNAL PLAN 1/E400.
- PROVIDE ONE (N) 2"C WITH ONE 'FAS' CABLE, AND ONE 'FSS' CABLE. RUN IN JOINT TRENCH WITH (N) SIGNAL CONDUITS PER ENLARGED SIGNAL PLAN 1/E400.
- (N) NEMA TYPE 3R SCREW COVER CAN ON EXTERIOR BUILDING WALL AT RELOCATABLE BUILDING PER ENLARGED SIGNAL PLAN 1/E400.
- (5) PROVIDE ONE (N) 1"C WITH 'FAS' CABLE, AND ONE (N) 'FSS' CABLE.
- PROVIDE (N) FIRE ALARM AUXILIARY POWER SUPPLY AND CONNECT TO (E) ADDRESSABLE SLC LOOP FROM (E) FIRE ALARM SMOKE DETECTOR CONNECTED TO (E) FIRE ALARM CONTROL PANEL 'FACP' PER FIRE ALARM RISER DIAGRAM 2/E710. MOUNT PER DETAIL 9/E710.
- 7 CONNECT TO DEDICATED BRANCH CIRCUIT BREAKER AT ELECTRICAL PANEL WITH 1/2"C 2 #12 CU THWN, AND 1 #12 CU GND. REFER TO FIRE ALARM RISER DIAGRAM 2/E710 FOR BRANCH CIRCUIT REQUIREMENTS.
- 8 PROVIDE ONE (N) 3/4"C WITH ONE 'FA' CABLE IN ACCESSIBLE ATTIC SPACE. TYPICAL BETWEEN ADDRESSABLE INITIATION DEVICES.
- 9 PROVIDE ONE (N) 3/4"C WITH ONE 'FS' CABLE, AND ONE 'FV' CABLE IN ACCESSIBLE ATTIC SPACE. TYPICAL BETWEEN SPEAKER/STROBES (U.O.N.).
- PROVIDE ONE (N) 3/4"C WITH TWO 'FS' CABLES AND TWO 'FV' CABLES (SPEAKER AND STROBE CIRCUITS, DOWN/BACK) IN ACCESSIBLE ATTIC
- PROVIDE ONE (N) 3/4"C WITH TWO 'FS' CABLES (SPEAKER CIRCUIT ONLY, DOWN/BACK).
- PROVIDE 'END-OF-LINE' RESISTOR AT LAST VISUAL NOTIFICATION APPLIANCE ON NAC #N1.
- PROVIDE 'END-OF-LINE' RESISTOR AT LAST SPEAKER ON SPEAKER CIRCUIT 'AA6'

## **GENERAL NOTES**

- A. PENETRATIONS THROUGH WALLS, CEILINGS, FLOORS, AND/OR ROOFS
- TRENCH AND BACKFILL PER ARCHITECTURAL PLANS, SPECIFICATIONS, AND DETAIL 7/E600. SITE CONDUITS SHALL BE INSTALLED A MINIMUM OF 36" BELOW FINAL GRADE TO TOP OF CONDUIT.
- SPECIAL PRECAUTION SHALL BE TAKEN WHEN TRENCHING TO LOCATE, PROTECT AND PRESERVE EXISTING UNDERGROUND UTILITIES. ANY DAMAGE CAUSED DURING THE COURSE OF CONSTRUCTION SHALL BE IMMEDIATELY REPAIRED.

## FIRE ALARM SYSTEM INSTALLATION NOTES

- A. THE LOCATION OF AUTOMATIC DETECTORS, MANUAL PULL STATIONS AND OTHER FIRE ALARM EQUIPMENT AND DEVICES, AS SHOWN ON PLAN, ARE FOR REFERENCE ONLY, AND DO NOT CONSTITUTE SHOP DRAWINGS WHICH ARE REQUIRED FOR REVIEW AND APPROVAL.
- B. ALL DRAWINGS ARE DIAGRAMMATIC ONLY, AND SHALL NOT BE USED IN DETERMINING ACTUAL CONDUIT ROUTING. THE CONTRACTOR SHALL VERIFY ALL CONDUIT ROUTING CONDITIONS AT THE PROJECT SITE AS CONSTRUCTION PROGRESSES.
- ALL FIRE ALARM DATA, COMMUNICATIONS AND INITIATING CIRCUITS SHALL BE INSTALLED UTILIZING SOLID COPPER CONDUCTORS WITH OUTER COVERING COLORS PER THE SPECIFICATIONS AND AS SHOWN ON THE DRAWINGS. ALL SMOKE DAMPER AND REMOTE TROUBLE INDICATOR CIRCUITS SHALL BE YELLOW. ALL CIRCUITS SHALL BE INDIVIDUALLY LABELED, BOTH AT THE DEVICE END AND AT THE SIGNAL TERMINAL CABINET AND/OR FIRE ALARM MASTER PANEL TERMINATION
- D. ALL FIRE ALARM CIRCUITS SHALL BE CONTINUOUS FROM DEVICE TO DEVICE. SPLICES ARE NOT ALLOWED UNLESS IN COVERED JUNCTION BOXES ON APPROVED TERMINAL BLOCKS. 'T' TAPPING IS ALLOWED ONLY IN INITIATION LOOPS CONNECTING ADDRESSABLE DEVICES AND ONLY UNDER THESE CONDITIONS. UNDER NO CIRCUMSTANCES SHALL 'T' TAPPING BE PERMITTED BETWEEN CONVENTIONAL DEVICES.
- SMOKE DETECTORS SHALL BE INSTALLED AWAY FROM AIR SUPPLY GRILLES AT A MINIMUM DISTANCE OF 3' PER NFPA 72 29.8.3.4 OR GREATER AS RECOMMENDED BY THE MANUFACTURER.
- CONTRACTOR SHALL SYNCHRONIZE TWO OR MORE STROBES IN ONE ROOM AND TWO OR MORE SPEAKERS WITHIN HEARING OF EACH OTHER.
- THE FIRE ALARM SYSTEM SHALL CONFORM TO THE 2022 CALIFORNIA ELECTRICAL CODE (CEC) ARTICLE 760 AND THE 2022 CALIFORNIA FIRE CODE (CFC) § 105.7 & § 907, AND CALIFORNIA BUILDING CODE (CBC) 907. 2.3.

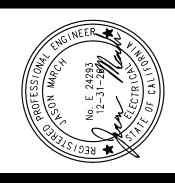
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APP: 02-122823 INC:
REVIEWED FOR
SS FLS ACS D

DATE: 1/30/2025

A 9/25/2024 DSA SUBMITTAL

reserves its common law copyright and other property rights in these plans. This document, the ideas and designs incorporated herein, as a incorporated herein, as a instrument of profession service, is not to be used any other project without and any other project without and any other project without any other project without



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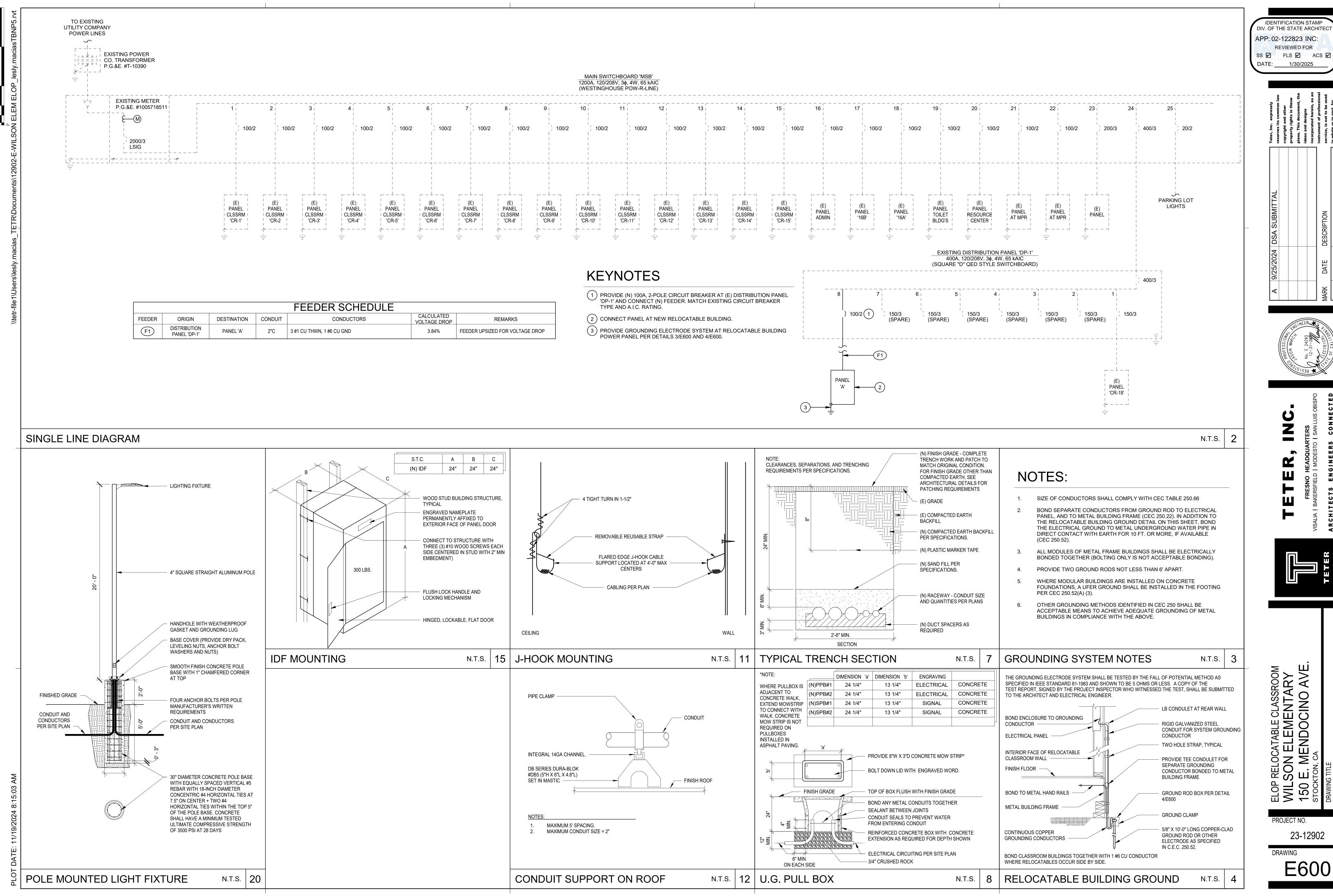
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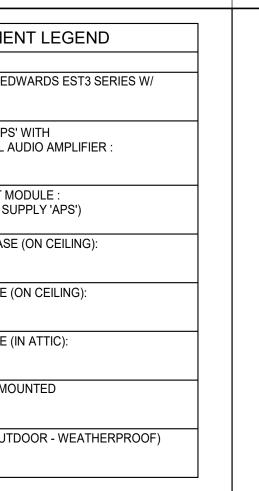
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AWING F500



FIR	RE ALARM	SYSTEM O	PERATION	IAL MATRIX	X
DEVICE	ACTIVATE EVACUATION SIGNALS/STROBES	SHUTDOWN FIRE/SMOKE DAMPER, OR ACTIVATE SMOKE VENT RELEASE	SHUTDOWN HVAC EQUIPMENT	ANNUNCIATE AT BUILDING FACP AND ALL REMOTE ANNUNCIATORS	SEND SIGNAL TO CENTRAL STATION
FIRE ALARM PANEL SYSTEM TROUBLE				X	X
SMOKE DETECTOR	X			$\times$	X
HEAT DETECTOR	X			X	$\overline{}$

N.T.S. | 19 | FIRE ALARM MONITORING NOTE



NOTE: FIRE ALARM PANEL

WEIGHT = 26 LBS.

**EXISTING WOOD** 

BUILDING STRUCTURE

1-5/8" x 7/8" 12 GA. UNISTRUT

P3300 CHANNEL. BOLT TO

WOOD SCREWS, ONE PER

CHANNEL, PER SIDE, 1 1/2"

PAINT CHANNEL TO MATCH

MINIMUM EMBEDMENT.

EXISTING CONDITIONS

NEW FIRE ALARM PANEL.

ATTACH ENCLOSURE TO

PER CHANNEL, PER SIDE.

CHANNEL STUD NUT,

UNISTRUT CHANNEL WITH

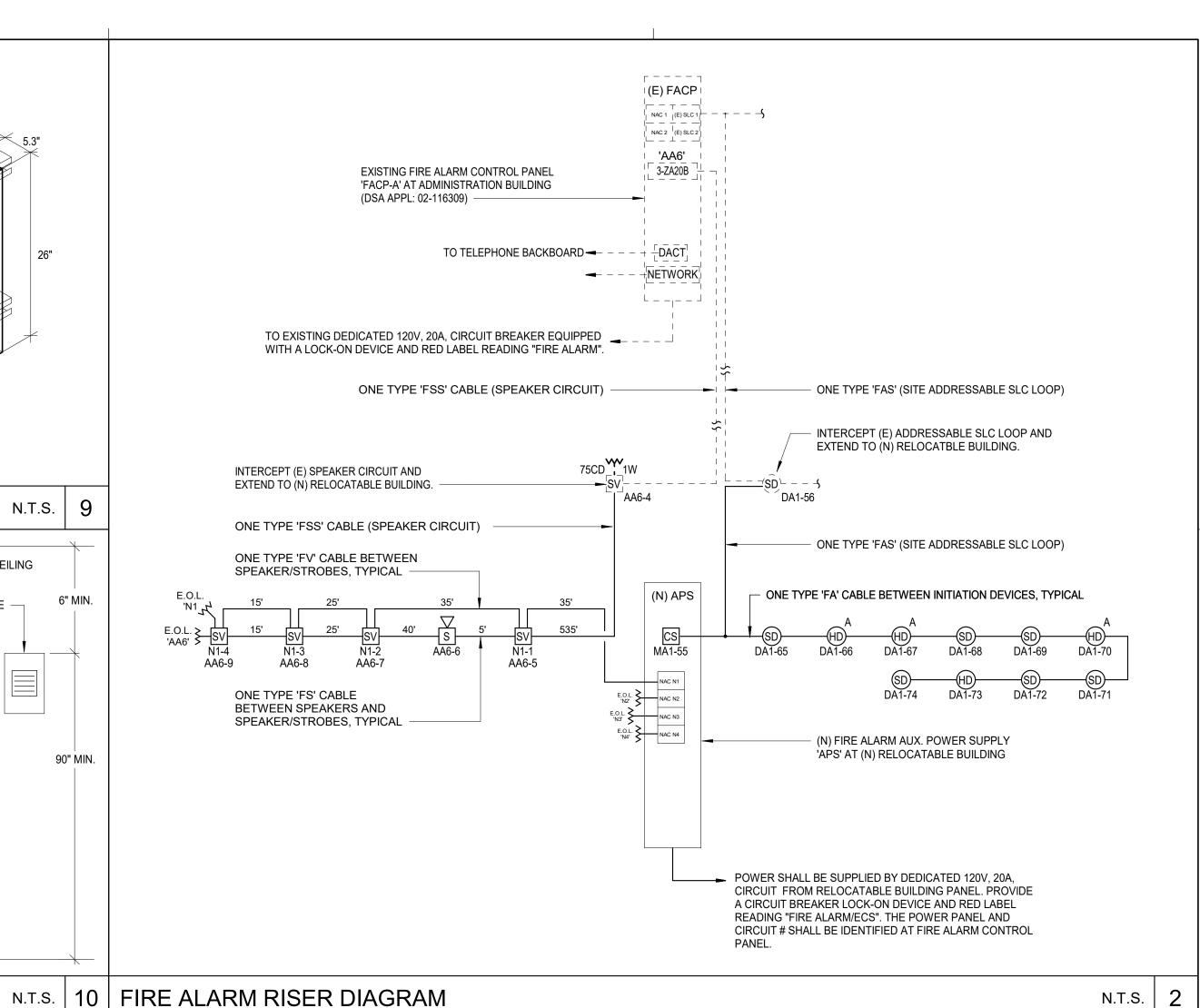
LOCKWASHER, AND NUT. ONE

WALL STRUCTURE WITH #12

FIRE ALARM PANEL MOUNTING SMOKE DETECTOR (\*) FINISH CEILING VISUAL DEVICE (\*) SMOKE DETECTORS 15' MAX. SHALL BE INSTALLED A AUDIBLE DEVICE -MINIMUM OF 36" FROM N.T.S. | 13 SUPPLY AND RETURN GRILLES AND SHALL 96" MAX TO TOP NOT BE LOCATED IN OF LENS DIRECT AIRFLOW SB575 - GREEN OAKS FAMILY ACADEMY ELEMENTARY SCHOOL FIRE PROTECTION ACT REQUIREMENTS FOR AUTOMATIC FIRE ALARM SYSTEMS THE FIRE DETECTION AND ALARM SYSTEM FOR THE AREAS AND/OR MANUAL PULL STATION 80" MIN. TO BOTTOM OF LENS THE TOP OF A WALL-MOUNTED  $\times$   $\mid$  A FULLY-AUTOMATIC SYSTEM HAS BEEN DESIGNED FOR ALL AREAS, AUDIBLE DEVICE SHALL BE AT LEAST 6" BELOW FINISH CEILING THE AREAS AND/OR BUILDINGS ARE SPRINKLERED ABOVE THE AND, WHERE CEILING HEIGHT IS AT ☐ CEILING, SO HEAT DETECTORS ARE EXEMPTED FROM ABOVE-CEILING LEAST 8'-0", AT LEAST 90" A.F.F. AREAS. THE SYSTEM IS OTHERWISE FULLY AUTOMATIC. THE BOTTOM OF A WALL-MOUNTED AN AUTOMATIC DIALER TO A UL-APPROVED CENTRAL STATION: AUDIO/VISUAL AND VISUAL DEVICES SHALL BE AT LEAST 80" A.F.F. TO TOP OF BOTTOM OF LENS AND NO MORE THAN 96" A.F.F. TO TOP OF LENS OR IS INCLUDED AS PART OF THIS PROJECT. 6" BELOW CEILING - WHICHEVER IS FINISH FLOOR THE TOTAL PROJECT CONSTRUCTION VALUE IS LESS THAN \$200,000 FIRE ALARM DEVICE ELEVATIONS

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EXISTING FIRE ALARM CONTROL PANEL 'FACP-A' BATTERY CALCULATIONS

N.T.S. | 9

QTY.	DEVICE			DESCR	IOITAI	N		STANDBY CURRENT	ALARM CURRENT/D EVICE	ALARM CURRENT
1	EST3	(E) FIRE ALARM	CONTROL PA	NEL						
1	3-PPS/M	Power Supply						0.0000	0.0000	0.0000
1	3-CPU3	Central Processo	or					0.1550	0.1650	0.165
1	3-RS232	Communication	is Card					0.0580	0.0580	0.058
1	3-LCD	Liquid Crystal Dis	splay Module					0.0400	0.0420	0.042
1	3-SSDC1	Dual SIGA Contr	oller (1)					0.1440	0.2040	0.204
1	3-12/S1GY	Annunciation M	odule					0.0020	0.0380	0.038
1	3-MODCOM	DACT Module	ACT Module							0.095
1	3-FIBMB2	Fiber Optic Com	nmunications	0.1050	0.1050	0.105				
1	SMXL02	Single Mode Tra	nsciever	0.0790	0.0790	0.079				
1	3-ASU	Audio Source Ur	nit					0.0800	0.0800	0.080
6	3-ZA20B	20W Zone Ampli	fier					0.3720	1.1200	6.720
1	3-BBC/M	Booster/Charge	r Supply Mon	itor				0.0700	0.0700	0.070
			OTALS					1.1650	2.0560	7.656
TOTAL	ALARM AMP-HOUR	S (15 MIN.) =	0.25	HR	Х	7.656	Α	=	1.9140	A-H
TOTAL	. Standby amp-hol	JRS (24 HRS) =	24	HR	Х	1.165	Α	=	27.9600	A-H
TOTAL	REQUIRED AMP-HO	URS =						=	29.8740	A-H
TOTAL	DESIGN AMP-HOUR	RS WITH 25% SAFETY F	ACTOR =					=	37.3425	A-H
NEW I	BATTERIES								44.000	A-H

**EXISTING FIRE ALARM CONTROL PANEL 'FACP-A' NOTES:** 

1) FIRE ALARM CONTROL PANEL STANDBY AND ALARM CURRENT IS A CUMLATIVE TOTAL OF ALL INTERNAL COMPONENTS LISTED THE POWER SUPPLY IS CONNECTED TO A DEDICATED 120V CIRCUIT. THERE IS NO STANDBY OR ALARM CURRENT DRAW ON THE

THE SIGA DEVICE CONTROLLER IS CALCUALTED WITH THE MAXIMUM SIGNATURE ADDRESSABLE DEVICE LOAD (TOTAL CAPACITY FOR ALL ADDRESSABLE DEVICES).

QTY.	DEVICE	DESCRIPTION		STANDBY CURRENT	ALARM CURRENT/D EVICE	ALARM CURRENT
1	APS	(N) Fire Alarm Auxiliary Power Supply, Edwards #APS10	)A	0.1050	0.2700	0.2700
		STROBE CURRENT (NAC N1)				
3	SV15	Multi-Candela Speaker Strobe (15cd) Edwards #G4S	/RF		0.0280	0.0840
1	SV110	Multi-Candela Speaker Strobe (110cd) EDWARDS #G	4SVRF		0.0280	0.0280
		TOTALS		0.1050	0.3260	0.3820
TOTAL	ALARM AN	P-HOURS (15 MIN.) = 0.25 HR x 0.382	Α	=	0.0955	A-H
TOTAL	. STANDBY A	MP-HOURS (24 HRS) = 24 HR x 0.105	Α	=	2.5200	A-H
TOTAL	. REQUIRED	AMP-HOURS =		=	2.6155	A-H
TOTAL	. DESIGN AN	1P-HOURS WITH 25% SAFETY FACTOR =		=	3.2694	A-H
BATTE	RIES				7.000	A-H

QTY.	DEVICE	DESCRIPTION	ALARM CURRENT/ DEVICE	TOTAL ALARM CURRENT
3	SV15	Multi-Candela Speaker Strobe (15cd) Edwards #G4SVRF	0.0280	0.0840
1	SV110	Multi-Candela Speaker Strobe (110cd) Edwards #G4SVRF	0.0280	0.0280
		TOTAL CURRENT ADDED TO CIRCUIT	0.000	0.112
LENG <sup>*</sup>	TH OF WIRE I	FROM FACP TO LAST DEVICE (IN FEET) =		110
ACTU,	al size of w	/IRE INSTALLED = 12 AWG 6530 CIRCULAR MILS		
CALC	ULATED VOI	TAGE DROP (IN VDC) =		0.041
CIRCI	JIT VOLTAGE	ECALCULATED AT LAST DEVICE (IN VDC) =		24 VDC
PERCI	ENT VOLTAG	SE DROP (%) =		0.17 %
VOLTA	AGE DROP F	ORMULA:		
VOLTA	AGE DROP :	= 2 X 10.8 x LENGTH OF CIRCUIT TO FARTHEST DEVICE x CURRENT		
		WIRE SIZE IN C.M.		
COM	PLITED WITH	TOTAL CURRENT ON CIRCUIT AT MAXIMUM LENGTH (CLASS A CIRCUIT).		

	dB LINE	LOSS CA	LCULATIO	N				
SPEAKER VOLTAGE =	70							
	DEVICE DOWER	SIGN	IAL CKT	SIGNAL CKT		CDEAKED	MIN. AMP	
SPEAKERS	DEVICE POWER (WATTS)		<b>AA</b> 6			SPEAKER OTY TOTAL.	SIZE	
	(WAIIS)	QTY.	WATTS	QTY.	WATTS		(WATTS)	
SPEAKER - 1/4 WATT TAP	0.25	3	0.75	0	0	3		
SPEAKER - 1/2 WATT TAP	0.5	0	0	0	0	0	10.5	
SPEAKER - 1 WATT TAP	1	4	4	0	0	4	10.5	
SPEAKER - 2 WATT TAP	2	2	4	0	0	2		
TOTAL POWER ON CKT (P) WATTS		3	3.75		0			
LOAD RESISTANCE (LR) OHMS		,	560		-			
TOTAL WIRE LENGTH (D) FT		1	000	0				
WIRE SIZE		14	AWG	14 AWG				
TOTAL WIRE RESISTANCE (WR) OHMS		(	5.52	-				
POWER LOSS (PL) dB		-	-0.06 -					
FORMULAS WIRE RESISTANCE (R		TOTAL WIRE RESISTANCE (WR) =					•	
18 AWG	=	8.08	LOAD	AD RESISTANCE (LR) = ( SPEAKER VOLTAGE ) $^2$			GE )^2	
16 AWG	=	5.08 P						
14 AWG	=	3.26						
12 AWG	=	2.05	POWER	LINE LOSS (F	PL) = 10 * LOC	3 ( 1- ( WR / (V	WR+LR)))	
*VALUES PER NFPA 70								

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N.T.S. 16 BATTERY AND VOLTAGE DROP CALCULATIONS FIRE ALARM OPERATIONAL MATRIX

N.T.S. | 4

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REVIEWED FOR

SS 🗹 FLS 🗹 ACS 🗹

APP: 02-122823 INC:

DATE:

CODES, RULES & REGULATIONS ALL WORK SHOWN HEREIN SHALL COMPLY WITH THE CURRENT REGULATIONS OF THE CALIFORNIA STATE FIRE MARSHAL, CALIFORNIA BUILDING CODE, TITLES 8 AND 19 THROUGH 24, SERVING UTILITY RULES AND ALL OTHER APPLICABLE STATE ORDINANCES. NOTHING IN THESE PLANS OR SPECIFICATIONS SHALL BE INTERPRETED AS TO PERMIT

WHERE WORK OF A GREATER DEGREE IS INDICATED IN THESE PLANS OR

SPECIFICATIONS, THAT REQUIREMENT SHALL GOVERN SUCH WORK.

ALL MECHANICAL, HVAC AND PLUMBING EQUIPMENT.

# C.E.C. TITLE 24 COMPLIANCE

ANY WORK NOT IN CONFORMANCE WITH THESE CODES, RULES AND REGULATIONS.

THE LIGHTING AND LIGHTING CONTROL SYSTEMS DESIGN DEPICTED HEREIN IS IN COMPLIANCE WITH REQUIREMENTS OF THE CURRENT CALIFORNIA ENERGY COMMISSION EFFICIENCY STANDARDS FOR NONRESIDENTIAL BUILDINGS.

#### **GENERAL NOTES (TYPICAL)**

- REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN FOR THE EXACT LOCATION OF ALL CEILING MOUNTED ELECTRICAL EQUIPMENT.
- REFER TO THE MECHANICAL AND PLUMBING PLANS FOR THE EXACT LOCATION OF
- VERIFY THE EXACT LOCATION OF ALL FLOOR BOXES AND ASSOCIATED TRENCH, BACKFILL AND SAWCUTTING REQUIREMENTS WITH THE ARCHITECT PRIOR TO COMMENCEMENT OF ANY ROUGH -IN WORK FOR THIS EQUIPMENT.
- COORDINATE ELECTRICAL PANEL AND TERMINAL CABINET LOCATIONS AND ROUTING OF UNDERGROUND CONDUITS WITH THE ARCHITECTURAL AND STRUCTURAL DRAWINGS PRIOR TO COMMENCEMENT OF ANY ROUGH-IN WORK FOR THIS EQUIPMENT.
- COORDINATE ALL ELECTRICAL WORK WITH OTHER TRADES WHOSE WORK WILL IMPACT PLACEMENT OR CONNECTION OF ELECTRICALLY POWERED EQUIPMENT REGARDLESS OF RESPONSIBILITY FOR SUPPLYING EQUIPMENT.

## MEP COMPONENT ANCHORAGE NOTE

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2022 CBC, SECTIONS 1617A.1.18

- TEMPORARY, MOVEABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES
- TEMPORARY, MOVABLE OR MOBILE EQUIPMENT EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT, FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS:

- COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT

THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH THE ABOVE

#### PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE:

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTION 13.6.5. 13.6.6. 13.6.7. 13.6.8: AND 2019 CBC. SECTIONS 1617A.1.24, 1617A.1.25, AND 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (E.G., OSHPD OPM FOR 2013 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

#### **ELECTRICAL DISTRIBUTION SYSTEMS:**

N.T.S. | 13

N.T.S. | **14** 

INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26 AND 30.

#### ALL PERMANENT EQUIPMENT AND COMPONENTS.

HAVING FLEXIBLE CABLE.

DIRECTLY SUPPORT THE COMPONENT.

COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

REQUIREMENTS.

SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM#) #OPM-0052-13, "SEISMIC BRACING AND SUPPORT SYSTEMS"

# LIGHT FIXTURE SCHEDULE

FIXTURE FIXTURE FIXTURE

120 V

DESIGNATION | VOLTAGE | WATTAGE |

N.T.S. | 15

# FLECTRICAL SYMBOLLEGEND

	ELECTRICAL SY  DIMENSIONS INDICATED ARE MEASURED TO CENTE  NOTE: SOME SYMBOLS SHOWN M	RLINE OF	ENCLOSURE, UNLESS OTHERWISE NOTED
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	DENOTES EXPLOSION PROOF CONSTRUCTION	\$ a	SINGLE POLE AC SNAP SWITCH @ +48" TO TOP   LOWER CASE SUBSCRIPT INDICATION   CONTROLLED SWITCHLEG OF CIR
D.T.	DENOTES DUST TIGHT CONSTRUCTION	\$ 2	TWO POLE AC SNAP SWITCH @ +48" TO TOP OF BOX, U.O.N.
O.C.	DENOTES SPACING DIMENSION ON CENTER LINE OF DEVICE	\$ 3	THREE WAY AC SNAP SWITCH @ +48" TO TOP OF BOX, U.O.N.
R.T.	DENOTES RAIN TIGHT CONSTRUCTION	\$ 4	FOUR WAY AC SNAP SWITCH @ +48" TO TOP OF BOX, U.O.N.
	DENOTES UNDERGROUND INSTALLATION	\$ M	HORSEPOWER RATED AC SNAP SWITCH @ +48" TO TOP OF BOX U.O.N.
	DENOTES VAPOR TIGHT CONSTRUCTION	\$ P	SINGLE POLE AC SNAP SWITCH WITH PILOT LAMP @ +48" TO TOP OF BOX U.O.N.
	DENOTES WEATHERPROOF CONSTRUCTION	\$ <sub>T</sub>	DIGITAL TIMER SWITCH, FLUSH MOUNTED @ +48" TO TOP OF BOX U.O.N.
	DENOTES WATER TIGHT CONSTRUCTION		SINGLE POLE AC SNAP SWITCH @ +48" TO TOP OF BOX, U.O.N.
		\$ A	
	DENOTES ABOVE FINISHED FLOOR	\$ <u>K</u> \$1	KEY OPERATED AC SNAP SWITCH @ +48" TO TOP OF BOX U.O.N.  WALL SWITCH WITH INTEGRAL OCCUPANCY SENSOR @ +48" TO TOP OF BOX, U.O.N.
	DENOTES ABOVE FINISHED GRADE		OCCUPANCY SENSOR - CEILING MOUNTED
	DENOTES FURNISHED BY OTHERS	M	
	DENOTES UNLESS OTHERWISE NOTED	$M_{\rm W}$	OCCUPANCY SENSOR - WALL MOUNTED @ +90" TO TOP OF BOX, U.O.N.
	DENOTES EXISTING TO REMAIN, NO WORK U.O.N.	P	LIGHTING CONTROL SYSTEM DIMMING/POWER PACK MOUNTED IN ATTIC
	DENOTES NEW	₽	LIGHTING CONTROL SYSTEM PLUG LOAD RELAY PACK MOUNTED IN ATTIC
$\vdash$	ELECTRICAL KEYNOTES: DENOTES KEYNOTE #1 OF NOTES ON SAME SHEET	<u>(1)</u>	LIGHTING CONTROL SYSTEM 2-BUTTON DIMMING WALL SWITCH  @ +48" TO TOP OF BOX, U.O.N.  LIGHTING CONTROL SYSTEM 4-BUTTON DIMMING WALL SWITCH
	CIRCUIT HOME RUN: DENOTES PANEL A, CKT. #3, - 3/4"C. MINIMUM, U.O.N.	<u>(4)</u>	@ +48" TO TOP OF BOX, U.O.N. LIGHTING CONTROL SYSTEM DIMMING WALL SWITCH WITH LOCKING COVER
	CIRCUIT FEEDER: DENOTES FEEDER 'F1' PER SYSTEM FEEDER SCHEDULE	(I)	@ +48" TO TOP OF BOX, U.O.N.
	CONDUIT IN ATTIC/WALL: DENOTES 3/4"C-2#12 AWG CU THWN, 1#12 CU GND, U.O.N.	(DS)	LIGHTING CONTROL SYSTEM DAYLIGHT SENSOR - CEILING MOUNTED
	CONDUIT IN FLOOR/U.G.: DENOTES 3/4"C-2#12 AWG CU THWN, 1#12 CU GND, U.O.N.	─®	LIGHTING CONTROL SYSTEM NETWORK BRIDGE
	DENOTES EXISTING CONDUIT RUN TO REMAIN	(nG)	LIGHTING CONTROL SYSTEM NETWORK GATEWAY
<del></del>	CONDUIT RUN - STUBBED, CAPPED AND LABELED.	(AD)	LIGHTING CONTROL SYSTEM AUTOMATED DEMAND RESPONSE MODULE
<del></del>	CONDUIT RUN: DENOTES 3/4"C - 3 #12 AWG CU THWN + 1 #12 CU GND, U.O.N.	₹TC>	LIGHTING CONTROL SYSTEM TIME CLOCK
	CONDUIT RUN: DENOTES 3/4"C - 4 #12 AWG CU THWN + 1 #12 CU GND, U.O.N.	PC	PHOTOCELL CONTROL MOUNTED ON ROOF
-11111-	CONDUIT RUN: DENOTES 3/4"C - 5 #12 AWG CU THWN + 1 #12 CU GND, U.O.N.	$\langle T \rangle$	LOW VOLTAGE CONTROL TRANSFORMER
<del>       </del>	CONDUIT RUN: DENOTES 1"C - 6 #12 AWG CU THWN + 1 #12 CU GND, U.O.N.		
	SEPARATE POWER AND DATA FLOOR BOXES (2)	TZZZI	ELECTRICAL PANELBOARD PER PLANS, FLUSH MOUNTED IN WALL
	FLUSH FLOOR BOX WITH DEVICE(S) INSTALLED PER PLANS, U.O.N. (2)	7772	ELECTRICAL PANELBOARD PER PLANS, SURFACE MOUNTED ON WALL
0-	TAMPER-RESISTANT SINGLE RECEPTACLE IN WALL @ +18", U.O.N.	M	TERMINAL CABINET PER PLANS, FLUSH MOUNTED IN WALL
<b>=</b>	TAMPER-RESISTANT DUPLEX RECEPTACLE IN WALL @ +18", U.O.N.	$\boxtimes$	TERMINAL CABINET PER PLANS, SURFACE MOUNTED ON WALL
₩	TAMPER-RESISTANT DUPLEX GFI RECEPTACLE, IN WALL @ 18", U.O.N.	шш	LIGHTING CONTROL PANEL PER PLANS, FLUSH MOUNTED IN WALL
	TAMPER-RESISTANT SWITCHED GFCI RECEPTACLE IN WALL @ +18" A.F.F. U.O.N. (OCC. SENSOR OR WALL SWITCH CONTOLLED) TAMPER-RESISTANT WEATHER RESISTANT (W/R) DUPLEX GFCI RECEPTACLE W/W.P. COVER		LIGHTING CONTROL PANEL PER PLANS, SURFACE MOUNTED ON WALL
<b>⊖</b> WP	TAMPER-RESISTANT WEATHER RESISTANT (W/R) DUPLEX GFCI RECEPTACLE W/ W.P. COVER	_	FIRE ALARM PANEL PER PLANS, FLUSH MOUNTED IN WALL
<b>⊕</b>	@+18", U.O.N. TAMPER-RESISTANT DUPLEX ISOLATED GROUND RECEPTACLE IN WALL @, +18", U.O.N. (7)		FIRE ALARM PANEL PER PLANS, SURFACE MOUNTED ON WALL
			IT IN ALAINIT ANELT ENTEANS, SONTAGE WOONTED ON WALL
	9		TINE ALAINIT ANELT ENT LANG, GON AGE MODIVILE ON WALL
<b>+</b>	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.	Swp	
<b>#</b>	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.	Swp	EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED
# # #	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING	(S)	EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED SPEAKER IN CEILING, U.O.N.
<b>+ + +</b>	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE	(S) (S)(D)	EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.
<b># # O</b>	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX	(S) (S) (D) (D)	EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.
# # @ %	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT	(S) (S) (D) (S) (D)	EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER  ELECTRIC MOTOR		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM GLASS BREAK DETECTOR
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER  ELECTRIC MOTOR  EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR	S	EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM GLASS BREAK DETECTOR  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER  ELECTRIC MOTOR  EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR  SURFACE MOUNTED RACEWAY, MOUNT @ +18" A.F.F. U.ON.		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM GLASS BREAK DETECTOR  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER  ELECTRIC MOTOR  EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM GLASS BREAK DETECTOR  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM CARD READER (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER  ELECTRIC MOTOR  EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR  SURFACE MOUNTED RACEWAY, MOUNT @ +18" A.F.F. U.ON.		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM GLASS BREAK DETECTOR  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER  ELECTRIC MOTOR  EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR  SURFACE MOUNTED RACEWAY, MOUNT @ +18" A.F.F. U.ON.  RECESSED LED LIGHTING FIXTURE		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM GLASS BREAK DETECTOR  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM CARD READER (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER  ELECTRIC MOTOR  EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR  SURFACE MOUNTED RACEWAY, MOUNT @ +18" A.F.F. U.ON.  RECESSED LED LIGHTING FIXTURE  RECESSED LED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM GLASS BREAK DETECTOR  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM CARD READER (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER  ELECTRIC MOTOR  EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR  SURFACE MOUNTED RACEWAY, MOUNT @ +18" A.F.F. U.ON.  RECESSED LED LIGHTING FIXTURE  RECESSED LED LIGHTING FIXTURE  RECESSED LED LIGHTING FIXTURE  SURFACE MOUNTED LED LIGHTING FIXTURE		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM GLASS BREAK DETECTOR  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM CARD READER (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  SECURITY CAMERA (WALL MOUNTED) ROUGH-IN LOCATION PER PLAN
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER  ELECTRIC MOTOR  EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR  SURFACE MOUNTED RACEWAY, MOUNT @ +18" A.F.F. U.ON.  RECESSED LED LIGHTING FIXTURE  RECESSED LED LIGHTING FIXTURE  SURFACE MOUNTED LED LIGHTING FIXTURE  SURFACE MOUNTED LED LIGHTING FIXTURE  SURFACE MOUNTED LED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM GLASS BREAK DETECTOR  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  SECURITY CAMERA (WALL MOUNTED) ROUGH-IN LOCATION PER PLAN  FIRE ALARM SMOKE DETECTOR ON CEILING, U.O.N.
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER  ELECTRIC MOTOR  EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR  SURFACE MOUNTED RACEWAY, MOUNT @ +18" A.F.F. U.ON.  RECESSED LED LIGHTING FIXTURE  RECESSED LED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED LED LIGHTING FIXTURE  SURFACE MOUNTED LED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED LED STRIP LIGHT		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM GLASS BREAK DETECTOR  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  SECURITY CAMERA (WALL MOUNTED) ROUGH-IN LOCATION PER PLAN  FIRE ALARM SMOKE DETECTOR ON CEILING, U.O.N.  FIRE ALARM HEAT DETECTOR ON CEILING, U.O.N.
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER  ELECTRIC MOTOR  EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR  SURFACE MOUNTED RACEWAY, MOUNT @ +18" A.F.F. U.ON.  RECESSED LED LIGHTING FIXTURE  RECESSED LED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED LED LIGHTING FIXTURE  SURFACE MOUNTED LED STRIP LIGHT  SURFACE MOUNTED LED STRIP LIGHT  SURFACE MOUNTED LED STRIP LIGHT WITH EMERGENCY BATTERY BACKUP		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM GLASS BREAK DETECTOR  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM CARD READER (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  SECURITY CAMERA (WALL MOUNTED) ROUGH-IN LOCATION PER PLAN  FIRE ALARM SMOKE DETECTOR ON CEILING, U.O.N.  FIRE ALARM HEAT DETECTOR IN ATTIC U.O.N.
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER  ELECTRIC MOTOR  EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR  SURFACE MOUNTED RACEWAY, MOUNT @ +18" A.F.F. U.ON.  RECESSED LED LIGHTING FIXTURE  RECESSED LED LIGHTING FIXTURE  SURFACE MOUNTED LED LIGHTING FIXTURE  SURFACE MOUNTED LED LIGHTING FIXTURE  SURFACE MOUNTED LED STRIP LIGHT  SURFACE MOUNTED LED STRIP LIGHT WITH EMERGENCY BATTERY BACKUP  POST TOP MOUNTED LIGHTING FIXTURE		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM GLASS BREAK DETECTOR  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM CARD READER (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  SECURITY CAMERA (WALL MOUNTED) ROUGH-IN LOCATION PER PLAN  FIRE ALARM SMOKE DETECTOR ON CEILING, U.O.N.  FIRE ALARM HEAT DETECTOR IN ATTIC U.O.N.  FIRE ALARM HEAT DETECTOR IN HVAC DUCT
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER  ELECTRIC MOTOR  EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR  SURFACE MOUNTED RACEWAY, MOUNT @ +18" A.F.F. U.ON.  RECESSED LED LIGHTING FIXTURE  RECESSED LED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED LED LIGHTING FIXTURE  SURFACE MOUNTED LED LIGHTING FIXTURE  SURFACE MOUNTED LED STRIP LIGHT  SURFACE MOUNTED LED STRIP LIGHT  SURFACE MOUNTED LED STRIP LIGHT WITH EMERGENCY BATTERY BACKUP  POST TOP MOUNTED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM GLASS BREAK DETECTOR  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM CARD READER (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  SECURITY CAMERA (WALL MOUNTED) ROUGH-IN LOCATION PER PLAN  FIRE ALARM SMOKE DETECTOR ON CEILING, U.O.N.  FIRE ALARM HEAT DETECTOR IN ATTIC U.O.N.  FIRE ALARM HEAT DETECTOR IN HVAC DUCT  FIRE ALARM DOOR RELEASE
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	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT NON-FUSIBLE DISCONNECT SWITCH FUSIBLE DISCONNECT SWITCH FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER ELECTRIC MOTOR  EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR SURFACE MOUNTED RACEWAY, MOUNT @ +18" A.F.F. U.ON. RECESSED LED LIGHTING FIXTURE  RECESSED LED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP SURFACE MOUNTED LED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP SURFACE MOUNTED LED STRIP LIGHT SURFACE MOUNTED LED STRIP LIGHT SURFACE MOUNTED LED STRIP LIGHT WITH EMERGENCY BATTERY BACKUP POST TOP MOUNTED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE  WELL MOUNTED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE  WELL MOUNTED LIGHTING FIXTURE		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM GLASS BREAK DETECTOR  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  SECURITY CAMERA (WALL MOUNTED) ROUGH-IN LOCATION PER PLAN  FIRE ALARM SMOKE DETECTOR ON CEILING, U.O.N.  FIRE ALARM HEAT DETECTOR IN ATTIC U.O.N.  FIRE ALARM DUCT DETECTOR IN HVAC DUCT  FIRE ALARM ADDRESSABLE INPUT/OUTPUT MODULE  FIRE ALARM ADDRESSABLE INPUT/OUTPUT MODULE  FIRE ALARM SYNC MODULE  FIRE ALARM MANUAL PULL STATION @ +48" TO TOP OF BOX, U.O.N.  FIRE ALARM WATERFLOW DETECTION SWITCH
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER  ELECTRIC MOTOR  EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR  SURFACE MOUNTED RACEWAY, MOUNT @ +18" A.F.F. U.ON.  RECESSED LED LIGHTING FIXTURE  RECESSED LED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED LED LIGHTING FIXTURE  SURFACE MOUNTED LED STRIP LIGHT  SURFACE MOUNTED LED STRIP LIGHT  SURFACE MOUNTED LED STRIP LIGHT WITH EMERGENCY BATTERY BACKUP  POST TOP MOUNTED LIGHTING FIXTURE  WALL MOUNTED LIGHTING		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM GLASS BREAK DETECTOR  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  SECURITY CAMERA (WALL MOUNTED) ROUGH-IN LOCATION PER PLAN  FIRE ALARM HEAT DETECTOR ON CEILING, U.O.N.  FIRE ALARM HEAT DETECTOR IN ATTIC U.O.N.  FIRE ALARM DOOR RELEASE  FIRE ALARM ADDRESSABLE CONTROL RELAY MODULE  FIRE ALARM ADDRESSABLE INPUT/OUTPUT MODULE  FIRE ALARM INDIVIDUAL ADDRESSABLE MODULE  FIRE ALARM SYNC MODULE  FIRE ALARM MANUAL PULL STATION @ +48" TO TOP OF BOX, U.O.N.  FIRE ALARM MATERFLOW DETECTION SWITCH  FIRE ALARM MATERFLOW DETECTION SWITCH  FIRE ALARM MADDRESSABLE WATERFLOW / TAMPER SWITCH MODULE
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER  ELECTRIC MOTOR  EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR  SURFACE MOUNTED RACEWAY, MOUNT @ +18" A.F.F. U.ON.  RECESSED LED LIGHTING FIXTURE  RECESSED LED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED LED LIGHTING FIXTURE  SURFACE MOUNTED LED STRIP LIGHT  SURFACE MOUNTED LED STRIP LIGHT  SURFACE MOUNTED LED STRIP LIGHT WITH EMERGENCY BATTERY BACKUP  POST TOP MOUNTED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED ROUND LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE  WALL MOUNTED ROUND LIGHTING FIXTURE  WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED ROUND LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER IN CEILING, U.O.N.  SPEAKER CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM GLASS BREAK DETECTOR  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOR READER (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOR READER (WALL MOUNTED)  SECURITY CAMERA (WALL MOUNTED) ROUGH-IN LOCATION PER PLAN  FIRE ALARM SMOKE DETECTOR ON CEILING, U.O.N.  FIRE ALARM HEAT DETECTOR IN ATTIC U.O.N.  FIRE ALARM DUCT DETECTOR IN HVAC DUCT  FIRE ALARM DOOR RELEASE  FIRE ALARM ADDRESSABLE CONTROL RELAY MODULE  FIRE ALARM ADDRESSABLE INPUT/OUTPUT MODULE  FIRE ALARM SYNC MODULE  FIRE ALARM MANUAL PULL STATION @ +48" TO TOP OF BOX, U.O.N.  FIRE ALARM WATERFLOW DETECTION SWITCH  FIRE ALARM ADDRESSABLE WATERFLOW / TAMPER SWITCH MODULE  FIRE ALARM ADDRESSABLE WATERFLOW / TAMPER SWITCH MODULE  FIRE ALARM ADDRESSABLE WATERFLOW / TAMPER SWITCH MODULE
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER  ELECTRIC MOTOR  EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR  SURFACE MOUNTED RACEWAY, MOUNT @ +18" A.F.F. U.O.N.  RECESSED LED LIGHTING FIXTURE  RECESSED LED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED LED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED LED STRIP LIGHT  SURFACE MOUNTED LED STRIP LIGHT WITH EMERGENCY BATTERY BACKUP  POST TOP MOUNTED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED ROUND LIGHTING FIXTURE  SURFACE MOUNTED		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER IN CEILING, U.O.N.  SPEAKER COLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM CARD READER (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  SECURITY CAMERA (WALL MOUNTED) ROUGH-IN LOCATION PER PLAN  FIRE ALARM SMOKE DETECTOR ON CEILING, U.O.N.  FIRE ALARM HEAT DETECTOR IN ATTIC U.O.N.  FIRE ALARM DOOR RELEASE  FIRE ALARM ADDRESSABLE CONTROL RELAY MODULE  FIRE ALARM ADDRESSABLE NPUT/OUTPUT MODULE  FIRE ALARM SYNC MODULE  FIRE ALARM MANUAL PULL STATION @ +48" TO TOP OF BOX, U.O.N.  FIRE ALARM WATERFLOW DETECTION SWITCH  FIRE ALARM ADDRESSABLE WATERFLOW / TAMPER SWITCH MODULE  FIRE ALARM ADDRESSABLE WATERFLOW / TAMPER SWITCH MODULE  FIRE ALARM ADDRESSABLE WATERFLOW / TAMPER SWITCH MODULE  FIRE ALARM MANUAL PULL STATION @ +48" TO TOP OF BOX, U.O.N.  FIRE ALARM WATERFLOW DETECTION SWITCH  FIRE ALARM WATERFLOW DETECTION SWITCH  FIRE ALARM ADDRESSABLE WATERFLOW / TAMPER SWITCH MODULE
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER  ELECTRIC MOTOR  EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR  SURFACE MOUNTED RACEWAY, MOUNT @ +18" A.F.F. U.O.N.  RECESSED LED LIGHTING FIXTURE  RECESSED LED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED LED LIGHTING FIXTURE  SURFACE MOUNTED LED STRIP LIGHT  SURFACE MOUNTED LED STRIP LIGHT WITH EMERGENCY BATTERY BACKUP  POST TOP MOUNTED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED LIGHTING FIXTURE  WALL MOUNTED ROUND LIGHTING FIXTURE  WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED ROUND LIGHTING FIXTURE  SURFACE MOUNTED DON CEILING  ILLUMINATED EXIT SIGN MOUNTED ON WALL  LOW LEVEL PHOTOLUMINESCENT EXIT SIGN MOUNTED ON WALL		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM GLASS BREAK DETECTOR  INTRUSION ALARM SYSTEM CARD READER (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  SECURITY CAMERA (WALL MOUNTED) ROUGH-IN LOCATION PER PLAN  FIRE ALARM HEAT DETECTOR ON CEILING, U.O.N.  FIRE ALARM HEAT DETECTOR IN ATTIC U.O.N.  FIRE ALARM DOOR RELEASE  FIRE ALARM ADDRESSABLE CONTROL RELAY MODULE  FIRE ALARM ADDRESSABLE INPUT/OUTPUT MODULE  FIRE ALARM SYNC MODULE  FIRE ALARM MANUAL PULL STATION @ +48" TO TOP OF BOX, U.O.N.  FIRE ALARM WATERFLOW DETECTION SWITCH  FIRE ALARM ADDRESSABLE WATERFLOW / TAMPER SWITCH MODULE  FIRE ALARM MANUAL PULL STATION @ +48" TO TOP OF BOX, U.O.N.  FIRE ALARM MANUAL PULL STATION @ +48" TO TOP OF BOX, U.O.N.  FIRE ALARM MADDRESSABLE WATERFLOW / TAMPER SWITCH MODULE  FIRE ALARM TAMPER SWITCH  FIRE ALARM TAMPER SWITCH  FIRE ALARM TAMPER SWITCH  FIRE ALARM VISUAL ALARM UNIT (WALL@ +80" MINIMUM, U.O.N.)  FIRE ALARM VISUAL ALARM UNIT (CEILING)
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER  ELECTRIC MOTOR  EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR  SURFACE MOUNTED RACEWAY, MOUNT @ +18" A.F.F. U.O.N.  RECESSED LED LIGHTING FIXTURE  RECESSED LED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED LED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED LED STRIP LIGHT  SURFACE MOUNTED LED STRIP LIGHT WITH EMERGENCY BATTERY BACKUP  POST TOP MOUNTED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED ROUND LIGHTING FIXTURE  SURFACE MOUNTED		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM MERPHAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  SECURITY CAMERA (WALL MOUNTED) ROUGH-IN LOCATION PER PLAN  FIRE ALARM SMOKE DETECTOR ON CEILING, U.O.N.  FIRE ALARM HEAT DETECTOR IN ATTIC U.O.N.  FIRE ALARM HEAT DETECTOR IN ATTIC U.O.N.  FIRE ALARM DOOR RELEASE  FIRE ALARM ADDRESSABLE CONTROL RELAY MODULE  FIRE ALARM ADDRESSABLE INPUT/OUTPUT MODULE  FIRE ALARM MOULL STATION @ +48" TO TOP OF BOX, U.O.N.  FIRE ALARM WATERFLOW DETECTION SWITCH  FIRE ALARM WATERFLOW DETECTION SWITCH  FIRE ALARM MADDRESSABLE WATERFLOW / TAMPER SWITCH MODULE  FIRE ALARM TAMPER SWITCH  FIRE ALARM TAMPER SWITCH  FIRE ALARM VISUAL ALARM UNIT (WALL @ +80" MINIMUM, U.O.N.)  FIRE ALARM VISUAL ALARM UNIT (CEILING)  FIRE ALARM MONISTROBE ALARM UNIT (WALL @ +80" MINIMUM, U.O.N.)
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER  ELECTRIC MOTOR  EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR  SURFACE MOUNTED RACEWAY, MOUNT @ +18" A.F.F. U.ON.  RECESSED LED LIGHTING FIXTURE  RECESSED LED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED LED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED LED STRIP LIGHT  SURFACE MOUNTED LED STRIP LIGHT WITH EMERGENCY BATTERY BACKUP  POST TOP MOUNTED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  CEILING MOUNTED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED LIGHTING FIXTURE  WERE SURFACE MOUNTED ROUND LIGHTING FIXTURE  BURFACE MOUNTED ROUND LIGHTING FIXTURE  WITH EMERGENCY BATTERY BACKUP  RECESSED LIGHTING FIXTURE  RECESSED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED LIGHTING FIXTURE  RECESSED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED LIGHTING FIXTURE  RECESSED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED LIGHTING FIXTURE  RECESSED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED LIGHTING FIXTURE  RECESSED LIGHTING FIXTURE  RECESSED LIG		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM GLASS BREAK DETECTOR  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  SECURITY CAMERA (WALL MOUNTED) ROUGH-IN LOCATION PER PLAN  FIRE ALARM SMOKE DETECTOR ON CEILING, U.O.N.  FIRE ALARM HEAT DETECTOR IN ATTIC U.O.N.  FIRE ALARM HEAT DETECTOR IN HVAC DUCT  FIRE ALARM ADDRESSABLE CONTROL RELAY MODULE  FIRE ALARM ADDRESSABLE INPUT/OUTPUT MODULE  FIRE ALARM SYNC MODULE  FIRE ALARM MANUAL PULL STATION @ +48" TO TOP OF BOX, U.O.N.  FIRE ALARM WATERFLOW DETECTION SWITCH  FIRE ALARM MADDRESSABLE WATERFLOW / TAMPER SWITCH MODULE  FIRE ALARM MODRESSABLE WATERFLOW / TAMPER SWITCH MODULE  FIRE ALARM MODRESSABLE WATERFLOW / TAMPER SWITCH MODULE  FIRE ALARM TAMPER SWITCH  FIRE ALARM TAMPER SWITCH  FIRE ALARM VISUAL ALARM UNIT (WALL@ +80" MINIMUM, U.O.N.)  FIRE ALARM VISUAL ALARM UNIT (CEILING)
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FLUSH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER  ELECTRIC MOTOR  EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR  SURFACE MOUNTED RACEWAY, MOUNT @ +18" A.F.F. U.ON.  RECESSED LED LIGHTING FIXTURE  RECESSED LED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED LED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED LED STRIP LIGHT  SURFACE MOUNTED LED STRIP LIGHT WITH EMERGENCY BATTERY BACKUP  POST TOP MOUNTED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  CEILING MOUNTED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED LIGHTING FIXTURE  WERE SURFACE MOUNTED ROUND LIGHTING FIXTURE  BURFACE MOUNTED ROUND LIGHTING FIXTURE  WITH EMERGENCY BATTERY BACKUP  RECESSED LIGHTING FIXTURE  RECESSED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED LIGHTING FIXTURE  RECESSED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED LIGHTING FIXTURE  RECESSED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED LIGHTING FIXTURE  RECESSED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED LIGHTING FIXTURE  RECESSED LIGHTING FIXTURE  RECESSED LIG		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM GLASS BREAK DETECTOR  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  SECURITY CAMERA (WALL MOUNTED) ROUGH-IN LOCATION PER PLAN  FIRE ALARM SMOKE DETECTOR ON CEILING, U.O.N.  FIRE ALARM HEAT DETECTOR IN ATTIC U.O.N.  FIRE ALARM DOOR RELEASE  FIRE ALARM ADDRESSABLE CONTROL RELAY MODULE  FIRE ALARM ADDRESSABLE INPUT/OUTPUT MODULE  FIRE ALARM MOULL ADDRESSABLE MODULE  FIRE ALARM MANUAL PULL STATION @ +48" TO TOP OF BOX, U.O.N.  FIRE ALARM WATERFLOW DETECTION SWITCH  FIRE ALARM MADDRESSABLE WATERFLOW / TAMPER SWITCH MODULE  FIRE ALARM MADDRESSABLE WATERFLOW / TAMPER SWITCH MODULE  FIRE ALARM MADDRESSABLE WATERFLOW / TAMPER SWITCH MODULE  FIRE ALARM TAMPER SWITCH  FIRE ALARM TAMPER SWITCH  FIRE ALARM TAMPER SWITCH  FIRE ALARM TAMPER SWITCH  FIRE ALARM VISUAL ALARM UNIT (CEILING)  INTERIOR FIRE ALARM HORN/STABLE ALARM UNINT (CEILING)  INTERIOR FIRE ALARM HORN/SUAL ALARM UNIT (CEILING)  INTERIOR FIRE ALARM HORN/SUAL ALARM UNIT (CEILING)  INTERIOR FIRE ALARM HORN (WALL @ +10-0", U.O.N.)
	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18", U.O.N.  SPECIAL PURPOSE ELECTRICAL OUTLET PER PLAN IN WALL @ 18" U.O.N.  DUPLEX RECEPTACLE FILISH IN CEILING  TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX  JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT  NON-FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH  FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER  ELECTRIC MOTOR  EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR  SURFACE MOUNTED RACEWAY, MOUNT @ +18" A.F.F. U.ON.  RECESSED LED LIGHTING FIXTURE  RECESSED LED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED LED LIGHTING FIXTURE  SURFACE MOUNTED LED STRIP LIGHT  SURFACE MOUNTED LED STRIP LIGHT WITH EMERGENCY BATTERY BACKUP  POST TOP MOUNTED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE  WITH EMERGENCY BATTERY BACKUP  RECESSED FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED FIXTURE WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED ROUND LIGHTING FIXTURE  SURFACE MOUNTED EXTERIOR LIGHTING FIXTURE  SURFACE MOUNTED EXTERIOR LIGHTING FIXTURE  SURFACE MOUNTED EXTERIOR LIGHTING FIXTURE		EXTERIOR SPEAKER (WALL MOUNTED), ELEVATION AS NOTED  SPEAKER IN CEILING, U.O.N.  SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.  WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.  SPEAKER ON WALL @ 12" BELOW CEILING, U.O.N.  INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED)  INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  SECURITY CAMERA (WALL MOUNTED) ROUGH-IN LOCATION PER PLAN  FIRE ALARM SMOKE DETECTOR ON CEILING, U.O.N.  FIRE ALARM HEAT DETECTOR IN ATTIC U.O.N.  FIRE ALARM HEAT DETECTOR IN HVAC DUCT  FIRE ALARM ADDRESSABLE CONTROL RELAY MODULE  FIRE ALARM ADDRESSABLE INPUT/OUTPUT MODULE  FIRE ALARM SYNC MODULE  FIRE ALARM MANUAL PULL STATION @ +48" TO TOP OF BOX, U.O.N.  FIRE ALARM WATERFLOW DETECTION SWITCH  FIRE ALARM MADDRESSABLE WATERFLOW / TAMPER SWITCH MODULE  FIRE ALARM TAMPER SWITCH  FIRE ALARM TAMPER SWITCH  FIRE ALARM VISUAL ALARM UNIT (WALL@ +80" MINIMUM, U.O.N.)  FIRE ALARM VISUAL ALARM UNIT (CEILING)  FIRE ALARM VISUAL ALARM UNIT (CEILING)

#### WIRELESS ACCESS POINT LOCATION, PROVIDE TWO TYPE 'D' CABLES TO IDF OR MDF **ELECTRICAL SYMBOLS NOTES:**

TV > | TELEVISION OUTLET IN WALL @ +18", U.O.N.

S SPEAKER OUTLET IN WALL @ +18", U.O.N.

MICROPHONE OUTLET IN WALL @ +18", U.O.N.

ABOVE NEAREST T-BAR CEILING, U.O.N.

IC > INTERCOMMUNICATIONS HANDSET ON WALL @ +48" TO TOP OF BOX U.O.N.

- (2) RUN 1"C TO NEAREST WALL, THEN RISE CONCEALED IN WALL AND STUB INTO ACCESSIBLE ATTIC SPACE ABOVE NEAREST T-BAR CEILING, U.O.N. FOR SINGLE SYSTEMS INDIVIDUAL FLOORBOXES. WHERE MULTIPLE SYSTEMS OCCUR WITHIN A COMMON FLOOR BOX, RUN TWO 1"C PER
- (3) SYSTEM IS ROUGH IN ONLY, PROVIDE BACKBOX, BLANK COVERPLATE AND CONDUIT STUB PER DETAIL PLANS.
- (4) IN ADDITION TO CONDUITS SHOWN ON PLANS, STUB ONE 1 1/4"C, ONE 1"C AND TWO 3/4"C (SPARE) INTO ACCESSIBLE ATTIC SPACE ABOVE NEAREST
- RUN 1"C CONCEALED IN WALL AND STUB INTO ACCESSIBLE ATTIC SPACE (5) IN ADDITION TO CONDUITS SHOWN ON PLANS, STUB ONE 1"C AND TWO 3/4"C (SPARE) INTO ACCESSIBLE ATTIC SPACE ABOVE NEAREST T-BAR CEILING U.O.N.. REQUIREMENT APPLIES TO EACH SIGNAL SYSTEM T.C. INDICATED FLUSH MOUNTED ON SIGNAL PLAN.

VOICE EVACUATION SPEAKER/STROBE ALARM UNIT (CEILING)

EXTERIOR VOICE EVACUATION SPEAKER (EXTERIOR WALL)

FIRE ALARM CIRCUIT END OF LINE RESISTOR

VOICE EVACUATION SPEAKER/STROBE ALARM UNIT (WALL @ +80" MINIMUM, U.O.N.)

- (6) 4S BACKBOX WITH SINGLE GANG TRIM AND COVERPLATE.
- (7) ORANGE DEVICE (ISOLATED GROUND DUPLEX RECEPT. ONLY) WITH ENGRAVED WORDING ON COVER PLATE ABOVE ISOLATED GROUND RECEPT.: "COMPUTER ONLY".

T-BAR CEILING, Ù.O.N. THIS REQUIREMENT APPLIES TO EACH POWER AND LIGHTING PANEL INDICATED FLUSH MOUNTED ON POWER PLAN.

SYMBOL LEGEND AND NOTES

N.T.S. | 12 | SYMBOL LEGEND AND NOTES

N.T.S. | 4

FIRE ALARM CABLE SCHEDULE

JACKET COLOR

**BLACK** 

BLACK

RED

RED

RED

TELECOMMUNICATION CABLE SCHEDULE

JACKET COLOR

**BLACK** 

**BLACK** 

BLACK

LIGHTING FIXTURE SCHEDULE

WALL MOUNTED LED LIGHT

LED - 4000K | WALL WOOTH ES \_\_\_\_ |
FIXTURE, +8'AFF (13.5 LBS)

DESCRIPTION

SYSTEM

FIRE ALARM

FIRE ALARM

FIRE ALARM

FIRE ALARM

FIRE ALARM

SYSTEM

DATA

DATA

VIDEO

MANUFACTURER

LITHONIA

USE

SITE ADDRESSABLE SLC LOOP CABLE -

AUDIBLE (SPEAKER) NOTIFICATION

AUDIBLE (SPEAKER) NOTIFICATION

USE

SITE OPTICAL FIBER DATA NETWORK

HORIZONTAL DATA CABLE - OUTDOOR

CATALOG#

LED-P3-40K-80CRI-TFTM-MVOLT-SRM

BUILDING HDM1 CABLE M/M

APPLIANCE CIRCUIT - INTERIOR

CIRCUIT - INTERIOR

APPLIANCE CIRCUIT - EXTERIOR/OUTDOOR

ADDRESSABLE SLC LOOP CABLE - INTERIOR

VISUAL (STROBE) NOTIFICATION APPLIANCE

EXTERIOR/OUTDOOR

MANUFACTURER &

CATALOG #

WEST PENN #AQC225

WEST PENN #AQC295

WEST PENN #D990

WEST PENN #60992B

WEST PENN #60995B

MANUFACTURER &

CATALOG#

CORNING

SMF-28e+ OR

**EQUIVALENT** 

COMMSCOPE

MEDIA 6 #6NF4+

CHROMIS

#AOC-18G-R-OBXP

DRIVER &

MOUNTING | COLOR

MOUNTED

OR EQUIVALENT

DESCRIPTION

1 PR, #16 AWG

AQUASEAL FPL 1 PR. #14 AWG

SOLID SHIELDED,

FPL 1 PR, #16 AWG

SOLID UNSHIELDED

FPL 1 PR, #14 AWG

SOLID SHIELDED,

1 PR, #12 SOLID

UNSHIELDED FPLP

DESCRIPTION

12-STRAND

SINGLE-MODE FIBER

OPTIC CABLE

4 UTP #24 AWG

**CATEGORY 6 FILLED** 

OUTDOOR

**ACTIVE FIBER OPTIC** 

HDMI CABLE

TELECOMMUNICATIONS CABLE SCHEDULE

FIRE ALARM CABLE SCHEDULE

TRANDED UNSHIELDED

DESIGNATION

'FAS'

'FSS'

'FA'

'FV'

DESIGNATION

'SFO'

'D'

Generated Date/Time:

Report Version: 2022.0.000

Schema Version: rev 20220101

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Documentation Software: EnergyPro

Compliance ID: EnergyPro-4886-1124-0738 Report Generated: 2024-11-19 08:03:10

STATE OF CALIFORNIA			STATE OF CALIFORNIA			STATE OF CALIFORNIA		
Outdoor Lighting CERTIFICATE OF COMPLIANCE		CALIFORNIA ENERGY COMMISSION NRCC-LTO-E	Outdoor Lighting		CALIFORNIA ENERGY COMMISSION	Outdoor Lighting		CALIFORNIA ENERGY COMMISSION
This document is used to demonstrate compliance with requirements in 11	10.9, 130.0, 130.2, 140.7, and 141.0(b)2L for outdoor lighting sc		Project Name: Wilson Elementary	Report Page:	NRCC-LTO-E (Page 2 of 7)	Project Name: Wilson Elementary	Report Page;	NRCC-LTO-E (Page 3 of 7)
nonresidential and hotel/motel occupancies. It is also used to document co the prescriptive path for multifamily and mixed-use occupancies. Multifam	ompliance with requirements in 160.5, 170.2(e)6, 180.1(a) and 1			Date Prepared:	11/19/2024		Date Prepared:	11/19/2024
Project Name: Wilson Elementary	Report Page:	(Page 1 of 7)						
Project Address: 15	0 E. Mendocino Ave Date Prepared:	11/19/2024	Secretary to the second			F. OUTDOOR LIGHTING FIXTURE SCHEDULE		
			C. COMPLIANCE RESULTS	The same of the sa			nce with 140.7 / 170.2(e)6 all new luminaires being installed and a	
A. GENERAL INFORMATION	7-7		Results in this table are automatically calculated from data input and calc to Table D. Exceptional Conditions for guidance or see applicable Table ref		ble says "COMPLIES with Exceptional Conditions" refer	the spaces covered by the permit application are included in installed and replacement luminaires being installed as par	n the Table below. For altered lighting systems using the Existing Pi t of the project scape are included (ie, existing luminaires remainin	ower method per 141.0(b)2L only new luminaires being or existing luminaires being moved are not included).
01 Project Location (city) Stockton	04 Total Illuminated Hardscape Area (ft²)	1546	Calculations of Total Allowed Lighting Power (Watts) 140.7 / 17		Compliance Results	Outdoor lighting attached to multifamily buildings and con-	trolled from the inside of a dwelling unit are included in Table H. ar	
02 Climate Zone 12 03 Outdoor Lighting Zone per Title 24 Part 1 10.114 or as designated by	Authority Having Jurisdiction (AHJ):		01. 02 03 04	05 06 0	7 08 09	lighting is included here.  Designed Wattage:		
☐ LZ-0: Very Low - Undeveloped Parkland ☐ LZ-2: Moderate - Urba		nergy Commission for Approval	General Per Sales Ornamental	Per Specific Existing Power		01 02	03 04 05 06	07 08 09 10
☐ LZ-1: Low - Rural Areas ☐ LZ-3: Moderately High	- Urban Areas		Allowance + Application + Frontage + 140.7(d)2/	+ Area OR Allowance = Total A	07 must be >= 08			Cutoff Req. > Field
05 Occupancy Types within Project			170.2(e)6 170.2(e)6 170.2(e)6 (See Table I)	170.2(e)6 141.0(b)2L7 (Wa	tts) (Watts)	Name or Item Complete Luminaire Description		Excluded per 6,200 initial Inspector 140.7(a) / Design Watts lumen output
All Other Occupancies			(See Table I) (See Table I)	(See Table M) (See Table N)		Tag		170.2(e)6A 130.2(b) / Pass Fail
				+ OR = 26 e (See Table G for Details)	9 ≥ 32 COMPLIES			160.5(c)1 <sup>A</sup> NA: < 6200
B. PROJECT SCOPE				e (See Table & for Details)	Not applicable	W1 W1 Linear	32 Mfr. Spec 1 New	□ 32 NA: < 6200   □ □
This table includes outdoor lighting systems that are within the scope of th 170.2(e)6 or 141.0(b)2L / 180.2(b)4Bv for olterations.	ne permit application and are demonstrating compliance using t	the prescriptive path outlined in 140.7/						Design Watts: 32
My Project Consists of:			D. EXCEPTIONAL CONDITIONS		1	* NOTES: Selections with a * require a note in the space below ex EX: Luminaire is lighting a statue; EXCEPTION 2 to 130.2(b)	plaining how compliance is achieved.	
01	02		This table is auto-filled with uneditable comments because of selections m	nade or data entered in tables throughout the form.			cut sheets to confirm wattage used for compliance per 130.0(c) / 160.5(b)	J
	y with Allowances from 140.7 / 170.2(e)6						d of Watts/luminaire. Total linear feet should be indicoted in column 05 in t, or for added luminaires in an alteration. Select "Altered" for replacemei	
Altered Lighting System Is your altered	ation increasing the connected lighting load (Watts)?	Yes No	E. ADDITIONAL REMARKS			for existing luminaires within the project scope that are not being	oftered and are remaining. Select "Existing Reinstalled" for existing lumino	
% of Existing Luminaires Being Altered <sup>1</sup> Sun	n Total of Luminaires Being Added or Altered	Calculation Method	This table includes remarks made by the permit applicant to the Authority	Having Jurisdiction.	9	the project scope,  4 Compliance with mandatory shielding requirements is required fi	or luminaires with initial lumen output >= 5,200 unless exempted by 130,2	2(b)/ 160,5(c)
□ <10% □ >= 10% and < 50% □ >= 50%			C					No. of State
Please proceed to Table F. Outdoor Lighting Fixture Schedule to define th	e project's luminaires.					G. SHIELDING REQUIREMENTS (BUG)		
<sup>1</sup> FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Lumi	naires Being Added or Altered / Existing Luminoires within the S	Scope of the Permit Application) x 100.				This section does not apply to this project.		- 1-0
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance STATE OF CALIFORNIA	Generated Date/Time:  Report Version: 2022.0.000  Schema Version; rev 20220101	Documentation Software: EnergyPro Compliance ID: EnergyPro-4886-1124-0738 Report Generated: 2024-11-19 08:03:10	CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance STATE OF CALIFORNIA	Generated Date/Time:  Report Version: 2022.0.000  Schema Version: rev 20220101	Documentation Software: EnergyPro Compliance ID: EnergyPro-4886-1124-0738 Report Generated: 2024-11-19 08:03:10	CA Building Energy Efficiency Standards - 2022 Nonresidential Co	Generated Date/Time:  pmpliance Report Version: 2022.0.000 Schema Version: rev 20220101	Documentation Software: EnergyPro Compliance ID: EnergyPro-4886-1124-0738 Report Generated: 2024-11-19 08:03:10
Outdoor Lighting		CALIFORNIA ENERGY COMMISSION	Outdoor Lighting		CALIFORNIA ENERGY COMMISSION	Outdoor Lighting		CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE Project Name: Wilson Elementary	Report Page:	NRCC-LTO-E (Page 4 of 7)	CERTIFICATE OF COMPLIANCE Project Name: Wilson Elementary	Report Page:	NRCC-LTO-E (Page 5 of 7)	CERTIFICATE OF COMPLIANCE Project Name: Wilson Elementary	Report Page:	NRCC-LTO-E (Page 6 of 7)
Project Hame. White Reference Y	Date Prepared:	11/19/2024	Project Name. Wilson Stementary	Date Prepared:	11/19/2024	Project Name: Whom Elementary	Date Prepared:	11/19/2024
H. OUTDOOR LIGHTING CONTROLS			I. LIGHTING POWER ALLOWANCE (per 140.7 / 170.2(e))		1	Name of the Control o		
This table demonstrates compliance with controls requirements for all new			This table includes areas using allowance calculations per 140.7 / 170.2(e,		01	M. LIGHTING ALLOWANCE: PER SPECIFIC AREA		
existing to remain (ie untouched) and luminaires which are removed and re the permit application.	einstalled (wiring only) do not need to be included in this table e	even if they are within the spaces covered by	Hardscape Allowance is per Table 140.7-A/Table 170.2-R while "Use it or I Allowances are per Table 140.7-B /Table 170.2-S. Indicate which allowance	es are beina	llowance (select all that apply) (select all that apply)	This section does not apply to this project.		
Outdoor lighting for nonresidential buildings, parking garages and commo	on service areas in multifamily buildings must be documented se	eparotely from outdoor lighting attached to	used to expand sections for user input. Luminaires that qualify for one of t	Hardscape   Der	□ Per Specific	N. EXISTING CONDITIONS POWER ALLOWANCE (alter	rations only)	1
multifamily buildings and controlled from the inside of a dwelling unit  Mandatory Controls for Nonresidential Occupancies, Parking Garages & e	Common Areas in Multifamily Buildings		lose it" allowances shall not qualify for another "Use it or lose it" allowand Outdoor lighting attached to multifamily buildings and controlled from the	e inside of a Allowance Application	Table K Table I Area	This section does not apply to this project.	ations direct	
01 02	03 04	05	dwelling unit are included in Table H. and are not included here. All other putdoor lighting is included here.	multifamily Table I (below) Table I	Table M			
Shut-Off	Auto-Schedule Motion Sensor	Field Inspector	Calculated General Hardscape Lighting Power Allowance per Table 140.7-	A for Nonresidential & Hotel/Motel		O. DECLARATION OF REQUIRED CERTIFICATES OF INS	TALLATION	
	30.2(c)2 / 160.5(c) 130.2(c)3 / 160.5(c)		02 03	04 05 06	07 08 09	그 그들은 나는 그 사람들이 가장 그 살아 있다면 가장 하는데 그 사람들이 되었다. 그 사람들이 가장 그 사람들이 가장 하는데 그 사람들이 되었다. 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그	in this document. If any selection has been changed by permit app	
<sup>1</sup> FOOTNOTE: Text has been abbreviated, please refer to Table 160.5-A to confirm co	ompliance with the specific light source technologies listed.	Pass Fail	A W		Vattage Allowance (LWA) Total General	Additional Remarks, These documents must be provided to	the building inspector during construction and can be found online	<i>t</i>
<sup>2</sup> Authority having jurisdiction may ask for cutsheets or other documentation to con	firm compliance of light source.		Area Description Illuminated Area (ft²)	Allowed Density   Area Allowance   Perimeter Length   (W/ft²)   (Watts)   (If)	Allowed Density Linear Allowance AWA + LWA (W/If) (Watts) (Watts)		Form/Title	
<sup>3</sup> Recessed luminoires marked for use in fire-rated installations, and recessed lumino	aires installed in non-insulated ceilings are excepted from il and ill.		Wilson Elementary 1546	0.019 29.4 267	0.2 40 69	NRCI-LTO-E - Must be submitted for all buildings		
					e Allowance for Entire Site (Watts): 200	Participation of the second of	5-56-30	
					tial Wattage Allowance (LZ 0 only) <sup>1</sup> heral Hardscape Allowance (Watts): 269	P. DECLARATION OF REQUIRED CERTIFICATES OF ACC	EPTANCE	
				lutal Gel	teral hardscape Allowance (Watts).	There are no NRCA forms required for this project.		
			J. LIGHTING ALLOWANCE: PER APPLICATION					
			This section does not apply to this project.					
					*			
			K. LIGHTING ALLOWANCE: SALES FRONTAGE					
			This section does not apply to this project.					
			L. LIGHTING ALLOWANCE: ORNAMENTAL					
			This section does not apply to this project.					
	Generated Date/Time:	Documentation Software: EnergyPro		Generated Date/Time:	Documentation Software: EnergyPro		Generated Date/Time:	Documentation Software: EnergyPro
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance	Report Version: 2022.0.000	Compliance ID: EnergyPro-4886-1124-0738	CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance	Report Version: 2022.0.000	Compliance ID: EnergyPro-4886-1124-0738	CA Building Energy Efficiency Standards - 2022 Nonresidential Co		Compliance ID: EnergyPro-4886-1124-0738
	Schema Version: rev 20220101	Report Generated: 2024-11-19 08:03:10		Schema Version; rev 20220101	Report Generated: 2024-11-19 08:03:10		Schema Version; rev 20220101	Report Generated: 2024-11-19 08:03:10
STATE OF CALIFORNIA								
Outdoor Lighting		CALIFORNIA ENERGY COMMISSION						
CERTIFICATE OF COMPLIANCE Project Name: Wilson Elementary	Report Page:	NRCC-LTO-E (Page 7 of 7)						

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT

REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹

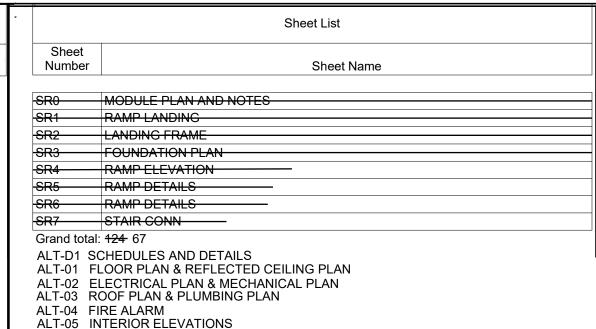
APP: 02-122823 INC:





P RELOCATABLE CLASSRO SON ELEMENTAF E. MENDOCINO A

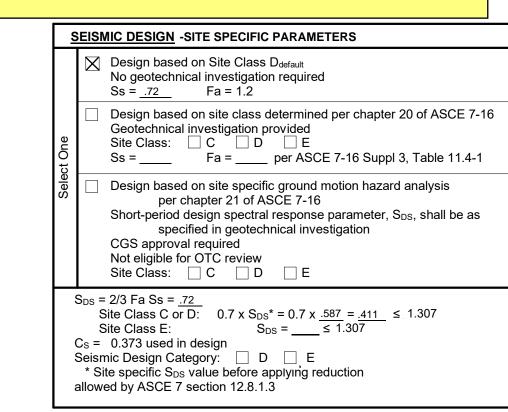




#### STOCKPILE 351 (24)36x40

ALT-06 EXTERIOR ELEVATIONS

C-24-3112 A/B/C C-24-3120 A/B/C C-24-3128 A/B/C 



Acceptance tests be completed on newly installed or replacement of lighting controls, mechanical systems, fenestration, and process equipment before project completion per the California Energy Code Section 10-103. Acceptance tests must be performed by a certified Acceptance Test Technician (ATT). The Acceptance Testing procedures must be repeated, and deficiencies corrected until the installation of the specified systems conform and pass the required acceptance criteria. Completed NRCA forms shall be submitted to the project inspector and the district.

A DSA CERTIFIED INSPECTOR EMPLOYED BY THE DISTRICT (OWNER), AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-333 AND 4-342, PART 1, TITLE 24, CCR. CLASS R.B.I.P. FOR IN-PLANT INSPECTIONS.

#### SITE SPECIFIC:

COMPLY WITH CFC CHAPTERS 5 & 7, CBC CHAPTERS 3,5,7,11B & 14

NOTE: "THIS PC IS NOT APPROVED FOR CHAPTER 7A WILDLAND URBAN AREAS". THIS REVIEW IS PART OF THE SITE SPECIFIC PROJECT. THE APPROVAL OF THE PC DOES NOT INCLUDE THE SITE.



HIGH SEISMIC **DESIGN CRITERIA** FILE #: PC-128

2022 CBC

PC # 04-123059 24' x 40' EXPANDABLE TO 120' x 40'

@ AB	AT ANCHOR BOLT	FIXT FJT	FIXTURE FLUSH JOINT	PAR PBD	PARALLEL PARTICLE BOARD	$\vdash$
ABC ABV	AGGREGATE BASE COURSE ABOVE	FLR FLUR	FLOOR FLUORESCENT	PCC PCF	PRECAST CONCRETE POUNDS PER CUBIC FOOT	ı
AD ADD	AREA DRAIN ADDENDUM	FLEX FND	FLEXIBLE FOUNDATION	PCS PERF	PIECES PERFORATE (D)	ı
ADH ADJ	ADHESIVE ADJACENT, ADJUSTABLE	FO* FP	FACE OF FIREPROOF (ED)	PERI PFB	PERIMETER PREFABRICATE (D)	B
ADOH	ALTERNATE DIRECTION OF HOOK	FP'G FR	FIREPROOFING FRAME (D)(ING)	PFS PL	POUNDS PER SQUARE FOOT PLATE	$I_{N}$
AFF AGG	ABOVE FINISHED FLOOR AGGREGATE	FRC FRGD	FIRE RESISTANT COATING FORGED	PLBG PLF	PLUMBING POUNDS PER LINEAR FOOT	C
LT	_ALTERNATE ALUMINUM	FRMG FT	FRAMING FOOT, FEET	P.L. PLWD	PARALLAM PLYWOOD	C
	NCHOR (AGE) ANODIZED	FTG FURR	FOOTING FURRED, FURRING	PMT PNL	PAVEMENT PANEL	F
RCH	APPROXIMATE ARCHITECT (URAL)	FV	FIELD VERIFY	POSTEN PRETEN	POST TENSION (D) PRETENSIONED	F
SPH	ASPHALT AUTOMATIC	GA GALV	GAUGE GALVANIZED	POLY PR	POLYETHYLENE PAIR	ı
0.0	воттом	GC GI	GENERAL CONTRACTOR GALVANIZED IRON	PRJ PSC	PROJECT PRESTRESSED CONCRETE	I
B C	BOND BEAM BOTTOM CHORD	GKT GL	GASKET GLASS, GLAZING	PSF PSI	POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH	R
BD BEG	BOARD BEGIN (ING)	GLM GP	GLULAM GALVANIZED PIPE	PT P.T.	POINT PRESSURE TREATED	IR
EL IT	BELOW BITUMINOUS	GPM GPPL	GALLONS PER MINUTE GYPSUM PLASTER	PTC PTD	POST-TENSIONED CONCRETE PAINTED	R
JT LDG	BED JOINT BUILDING	GRVL GRD	GRAVEL, GRANULAR GRADE, GRADING	PVC PVMT	POLYVINYL CHLORIDE PAVEMENT	z
LK	BLOCK ('G, ING) BELOW	GRN GSS	GRANITE GALVANIZED SHEET STEEL	QTY	QUANTITY	а
BM BMK	BEAM BENCH MARK	GT GVL	GROUT GRAVEL	R RAD	RADIUS, RISER RADIUS	<sub>E</sub>
BO* BPL	BOTTOM OF BEARING PLATE	GWB GYP	GYPSUM WALLBOARD GYPSUM	RD RECT	ROOF DRAIN RETANGULAR	1
RD RDG	BOARD BRIDGING	Н	HIGH	REF REINF	REFERENCE, REFER TO REFORCE (D) (ING)	B
RG RK	BEARING BRICK	HBD HC	HARDBOARD HOLLOW CORE	REM REQD	REMOVE REQUIRED	A
RZ S	BRONZE BOTH SIDES	HD HDNR	HEAVY DUTY HARDENER	REQS RETG	REQUIREMENTS RETAINING	Α
BTWN BVL	BETWEEN BEVELED	HDR HDWR	HEADER HARDWARE	REV RFG	REVISION, REVISED ROOFING	=
BW .	BOTH WAYS	HDWD HES	HARDWOOD HIGH EARLY STRENGTH CEMENT	RFH RFL	ROOF HATCH REFLECT (ED)(IVE)(OR)	
; ;AD	CHANNEL, COMPRESSION CADMIUM	HH HJT	HANDHOLE HEADJOINT	RM RO	ROOM ROUGH OPENING	1
CAM C/C	CAMBER CENTER TO CENTER	HK HM	HOOK HOLLOW METAL	RT RT	FIRE RETARDANT TREATED RUBBER TILE	
EM F	CEMENT CUBIC FOOT	HORIZ HPT	HORIZONTAL HIGH POINT	RTG RVS	RATING REVERSE SIDE	*(
CHAM CI	CHAMFER CAST IRON	HR HSA	HOUR HEADED STUD ANCHOR	RVT	RIVET	4
IP IR	CAST-IN-PLACE CIRCLE	HSB HT	HIGH STRENGHT BOLT HEIGHT	s sc	SOUTH SOLID CORE	٦
CIRC CJ	CIRCUMFERENCE CONSTRUCTION JOINT	HWD	HARDWOOD	SCHED SDL	SCHEDULE SUPERIMPOSED DEAD LOAD	A
JT LG	CONTROL JOINT CEILING	ID	INSIDE DIAMETER	SDS SE	SELF DRILL SCREW STRUCTURAL ENGINEER	F
CLK CLKG	CAULK, ('G, ING) CAULKING	IN INCL	INCHE (ES) INCLUDE (D), INCLUDING	SDST SECT	SELF-DRILL, SELF-TAP'G SCREW SECTION	
LR LS	CLEAR CLOSURE	INSUL INT	INSULATE, INSULATION INTERIOR	SF SHO	SQUARE FOOT, SQUARE FEET SHORE. SHORING	
MP	CENTIMETER CORRUDATED METAL PIPE	INTM INV	INTERMEDIATE INVERT	SHT SHTH	SHEET SHEATHING	Р
MU NTR	CONCRETE MASONRY UNIT CENTER	JST	JOIST	SI SIM	SQUARE INCH SIMILAR	lc
OL OG	COLUMN CENTER OF GRAVITY	JT	JOINT	SL SLNT	SLOPE SEALANT	
OMB CC	DMBINATION DMPRESS (ED)(ION)(IBLE)	K KO	KIP (S) KNOCKOUT	SMS SOG	SHEET METAL SCREW SLAB ON GRADE	
COMPOCC CONN	OMPOSITE (ION)	KSI	KIPS PER SQUARE INCH	SPA SPC	SPACE, (ING) SPACER	
CONC CONST	CONCRETE CONSTRUCT (ION) (ED)	L LAM	LONG, LENGTH LAMINATE (D)	SPEC SQ	SPECIFICATION (S) SQUARE	<u> </u>
ONT ONTR	CONTINUE, CONTINUOUS CONTRACTOR	LB LBL	POUND, LÀG BOLT LABEL	SSTL STG	STAINLESS STEEL STAGGERED	۱ <sub>'</sub> ا
OR P	CORRUGATED COMPLETE PENETRATION	LC LD	LIGHT CONTROL DEVELOPMENT LENGHT	STD STL	STANDARD STEEL	R
PG PR	COPING COPPER	LF LH	LINEAR FOOT LEFT HAND	STOR STRUCT	STORAGE STRUCTURE	/E
RS	COURSE (S)	LL LLH	LIVE LOAD LONG LEG HORIZONTAL	STR SYM	STRUCTURAL SYMETRICAL, SYMETRY	\ <u>E</u>
S TSK	COUNTERSINK COUNTERSUNK SCREW	LLV LPT	LONG LEG VERTICAL LOW POINT	SYS	SYSTEM	
<b>(</b>	CUBIC CONNECTION	LT LTL	LIGHT LINTEL	Т	TOP, TORSION, TREAD	R
<b>(</b>	CUBIC YARD	LVL LW	LEVEL (ING) LIGHT WEIGHT	T&B T&G	TOP AND BOTTOM TONGUE AND GROOVE	S
3L	DEEP, DEPTH DOUBLE	LWC LWF	LIGHT WEIGHT CONCRETE LIGHT WEIGHT FILL	TC TEN	TOP CHORD TESION, TENSILE	
EF EG	DEFLECTION DEGREE	М	METER (S) MOMENT	TEMP THD	TEMPORARY, TEMPERATURE THREAD (ED)	S
EM0 EP	DEMOLISH, DEMOLITION DEPRESSED	MATL MAS	MATERIAL MASONRY	THK TMPD	THICK (NESS) TEMPERED	S
EPT ET	DEPARTMENT DETAIL	MAX MB	MAXIMUM MACHINE BOLT	TO* TL	TOP OF TOTAL LOAD	N
iag Ia	DIAGONAL DIAMETER	MBR MCONN	MEMBER MOMENT CONNECTION	TR TS	TREAD TUBE STEEL	а <b>S</b>
IM IV	DIMENSION (ED) DIVISION	MECH MED	MECHANICAL MEDIUM	TYP	TYPICAL	0
L N	DEAD LOAD DOWN	MET MEMB	METAL MEMBER	UC UGD	UNDERCUT UNDERGROUND	
O P	DITTO DAMPROOFING	MEP	MECHANICAL, ELECTRICAL, & PLUMBING	UL UND	UNDEREWRITERS LABORATORY UNDER	S
WL WG	DOWEL (ED) DRAWING, (S)	MFD MFR	METAL FLOOR DECKING MANUFACTURE (R) (ED)	UNF UNO	UNFINISHED UNLESS NOTED OTHERWISE	
	EAST,	MID MIN	MID, MIDDLE MINIMUM, MINUTE	V	SHEAR FORCE, VELOCITY	
Α	MODULUS OF ELASTICITY EACH	MISC MM	MISCELLANEOUS MILLIMETER (S)	VB VER	VAPOR BARRIER VERIFY	
B F	EXPANSION BOLT EACH FACE	MMB MO	MEMBRANE MASONRY OPENING	VERT VG	VERTICAL VERTICAL GRAIN	
JT L	EXPANSION JOINT ELEVATION	MOD MODU	MODEL MODULAR	VIF VJ	VERIFY IN FIELD V-JOINTED	
LEC NCL	ELECTRIC (AL) ENCLOSURE, ENCLOSED	MOV MTL	MOVABLE MATERIAL	VNR V.T.R.	VENEER VENT THROUGH ROOF	
NG Q	ENGINEER EQUAL, EQUALIBRIUM	ML N	MODULE (MOD)LINE NORTH, NEW	W	WEST, WIDTH, WIDE,	1
QUIP STM	EQUIPMENT ESTIMATE (ED)	NAT NL	NATURAL NAILABLE	W/	WIDE FLANGE WITH	
V W	EXPANSION BOLT EACH WAY	NMT NO	NONMETALLIC NUMBER	W/O WD	WITHOUT WOOD	1
KCA	EXCAVATE (D) (ION) EXISTING	NOM NTS	NOMINAL NOT TO SCALE	WI WM	WROUGHT IRON WIRE MESH	;   B
XMP XP	EXPANDED METAL PLATE EXPOSED	OA	OVERALL	WP WPR	WATERPROFFING WATER REPELLENT	A
XPN XS	EXPANSION EXTRA STRONG	o.c. OD	ON CENTER OUTSIDE DIAMETER	WPT WS	WORKING POINT WATER STOP	В
XT AS	EXTERIOR, EXTERNAL FASTENER	OH OHMS OHWS	OVERHEAD OVALHEAD MACHINE SCREW OVALHEAD WOOD SCREW	WT WTW WWF	WEIGHT WALL TO WALL (W/W) WELDED WIRE FABRIC	

OPPOSITE HAND

OPNG OPENING
OPP OPPOSITE
OFOI OWNER FURNISHED OWNER INSTALLED

FIRE HOSE STATION

FLATHEAD MACHINE SCREW

FLATHEAD WOOD SCREW

FLOOR DRAIN

#### CONSTRUCTION OF CLASSROOM BUILDING (RELOCATABLE)

## SCOPE OF WORK

#### BUILDING DESIGN

NUMBER OF STORIES: "E" and "B" (Design with Floor Live Load 150 psf only must be used for occupancy B) CONSTRUCTION TYPE: FLOOR LIVE LOAD: 

★ 50+15 PSF PARTITION □ 100 PSF □ 150 PSF

FLOOR DEAD LOAD: XWOOD FLOOR - 11 PSF 🛚 CONC. FLOOR - 33 PSF

ROOF LIVE LOAD: 20 PSF ROOF SNOW LOAD: 20 PSF

ROOF DEAD LOAD: 18.5 PSF (INCLUDES SPRINKLERS & 3PSF SOLAR PANEL) RAMPLIVE LOAD: This PC has not been designed to accommodate flood loads. If located in zone other than X, a letter stamped and signed from a soils engineer is needed to validate the allowable soil values assumed in this PC are still applicable. (OWNER SUPPLIED)

#### FLOOD DESIGN DATA: PROJECT NOT LOCATED IN A FLOOD ZONE

BUILDING AREA **NO OVERHANG** WITH OVERHANG (5' @ EA. END) ALLOWABLE AREA □ 24x40 960 sf □ 24x40 1200 sf =9,500 sf □ 36x40 1440 sf ¥ 36x40 1800 sf ACTUAL AREA □ 48x40 1920 sf □ 48x40 2400 sf □ 60x40 2400 sf □ 60x40 3000 sf □ 72x40 2880 sf 72x40 3600 sf □ 84x40 3360 sf □ 84x40 4200 sf\* □ 96x40 3840 sf □ 96x40 4800 sf\*

□ 108x40 4320 sf\* □ 108x40 5400 sf\* □ 120x40 4800 sf\* □ 120x40 6000 sf\* \*Geo-hazard site specific report must be provided and approved by CGS for building area more than

□Ss = 2.33, □Ss =2.8\*\*

□Fa = 1.2, □Fa=1.0\*\*, Fv = 1.7

0.02 x H<sub>story</sub> x 12 = 2.82 PER TABLE 12.12-1

0.373 (using reduced Sds as allowed by ASCE

S1 = 1.99

D-DEFAULT\*

Sds = 1.86

Sd1 = 2.26

□ WOOD FTG -1000PSF □ CONCRETE FTG 1500PSF ALLOWABLE SOIL PRESSURE: FOUNDATION: □ CONCRETE ABOVE GRADE □ WOOD (conditional)

□ CONCRETE BELOW GRADE <2160sf (conditional) □ CONCRETE BELOW GRADE (AMM) SEE GENERAL NOTE 14 BELOW

PC IS DESIGNED BASED ON A PINNED CONNECTION TO THE FOUNDATION.

#### CEC CLIMATE ZONE: 1-16

#### SEE ALT-D1

WIND DESIGN **ULTIMATE DESIGN SPEED:** Vult = 110 mph, 3 sec GUST, Kzt = 1.0 **RISK CATEGORY:** 

#### EXPOSURE: EARTHQUAKE DESIGN

RISK CATEGORY: SEISMIC IMPORTANCE FACTOR: MAPPED SPECTRAL RESPONSE:

DRIFT LIMIT: SITE CLASS: SEISMIC DESIGN CATEGORY:

and/or meets other exemptions in DSA IR A-4 SHORT/LONG PERIOD SITE COEFFICIENT: **DEISIGN SPECTRAL RESPONSE:** 

Note: For SDC (E) site specific motion analysis is not required if not in a seismic hazard zone SEISMIC RESPONSE COEFFICIENT, Cs:

BASIC SEISMIC FORCE-RESISTING SYS: **EQUIVALENT LATERAL FORCE ANALYSIS PROCEDURE:** WOOD FLOOR, LL ≤ 100, BASE SHEAR= 26.44 kip BASE SHEAR PER 24X40 MODULE: WOOD FLOOR, LL = 150, BASE SHEAR= 39.87 kip CONC. FLOOR, LL ≤ 100, BASE SHEAR= 34.68 kip CONC. FLOOR, LL = 150, BASE SHEAR= 48.1 kip

NOTE: FOR SDC (E) SITE SPECIFIC MOTION ANALYSIS IS NOT REQUIRED IF NOT IN A SEISMIC HAZARD ZONE AND/OR MEETS OTHER EXEMPTION IN DSA IR A-4 Site Specific Ground Motion Analysis is not required because the value of SM1 is increased by 50% in accordance with excecption of item #1 of section 11.4.8 per supplement 3 of ASCE 7-16 \*\*Geo-Hazard report with verification of site Class D must be provided and approved by CGS for site specific ARES with Ss>2.33

PARTIAL LIST OF APPLICABLE CODES AS OF January 1, 2023

2022 California Administrative Code (CAC), Part 1, Title 24 CCR

2022 California Building Code (CBC), Part 2, Title 24 CCR

2022 California Electrical Code (CEC), Part 3, Title 24 CCR

2022 California Mechanical Code (CMC), Part 4, Title 24 CCR 2022 California Plumbing Code (CPC), Part 5, Title 24 CCR

2022 California Fire Code (CFC), Part 9, Title 24 CCR

2022 California Energy Code, Part 6, Title 24 CCR

2022 California Existing Building Code (CEBC), Part 10, Title 24 CCR

2022 California Green Building Standards Code (CALGreen), Part 11, Title 24 CCR

2022 California Referenced Standards Code, Part 12, Title 24 CCR

Title 19 CCR, Public Safety, State Fire Marshal Regulations

#### APPLICABLE STANDARDS

For a list of applicable standards, including California amendments to the NFPA Standards, refer to CBC Chapter 35 and CFC Chapter 80.

				D PV S	A(I)				
				В	UILDING SI	ZE			
CLIMATE	24'x40'	36'x40'	48'x40'	60'x40'	72'x40'	84'x40'	96'x40'	108'x40'	120'x40
ZONE	T		APP	ROXIMATE	CONDITION	ED FLOOR	AREA		
	960	1440	1920	2400	2880	3360	3840	4320	4800
-1	NONE	NONE	NONE	NONE	NONE	4.3	4.9	5,5	6.1
2	NONE	NONE	NONE	NONE	4.7	5.5	6.3	7.0	7.8
3	NONE	NONE	NONE	NONE	NONE	4.3	4.9	5.5	6.1
4	NONE	NONE	NONE	NONE	4.7	5.5	6.3	7.0	7.8
.5	NONE	NONE	NONE	NONE	NONE	4.3	4.9	5.5	6.1
6	NONE	NONE	NONE	NONE	4.7	5.5	6.3	7.0	7.8
7	NONE	NONE	NONE	NONE	4.7	5.5	6.3	7.0	7,8
8	NONE	NONE	NONE	NONE	4.7	5.5	6.3	7.0	7.8
9	NONE	NONE	NONE	NONE	4.7	5.5	6.3	7.0	7.8
10	NONE	NONE	NONE	NONE	4.7	5.5	6.3	7.0	7.8
11	NONE	NONE	NONE	NONE	4.7	5.5	6.3	7.0	7.8
12	NONE	NONE	NONE	NONE	4.7	5,5	6.3	7.0	7.8
13	NONE	NONE	NONE	NONE	4.7	5.5	6.3	7.0	7.8
14	NONE	NONE	NONE	NONE	4.7	5.5	6.3	7.0	7.8
15	NONE	NONE	4.7	5.9	7.1	8,3	9.4	10.6	11.8
16	NONE	NONE	NONE	NONE	NONE	4.3	4.9	5,5	6.1
ALL	NONE	NONE	4.7	5.9	7.1	8.3	9.4	10.6	11.8

FOR SITE-SPECIFIC PROJECT, INDICATE BUILDING SIZE AND PV SYSTEM SIZE. IF PV REQUIRES, SEE NOTE 15 UNDER GENERAL NOTES.

#### PV SIZING CHART

**ADOPTED YEAR** AUTOMATIC SPRINKLER SYSTEMS NFPA 13 2022 NFPA 72 NATIONAL FIRE ALARM CODE w/ 2022

NOTE: VISUAL DEVICES PER UL STANDARD 1971

#### **GENERAL NOTES**

ARCHITECT OF RECORD SHALL PROVIDE FIRE ALARM DRAWINGS WITH SITE ADAPTED PROJECTS. FIRE ALARM IS NOT PART OF THIS PC.

CALIFORNIA AMENDMENTS

THIS PC HAS BEEN STRUCTURALLY DESIGNED TO SUPPORT THE WEIGHT OF A FIRE SPRINKLER SYSTEM ALLOWABLE AREA IS BASED ON 10'-0" SETBACK FROM ASSUMED LINE

PC DESIGNED AS A SINGLE-STORY MODULAR BUILDING SEE STRUCTURAL FOR SOIL TYPES & BEARING STRENGTHS WORK SHALL CONFORM TO TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS

THIS PC IS NOT APPROVED FOR "A" OCCUPANCY USAGE EXTERIOR PROJECTIONS TO BE FIRE PROTECTED WHERE REQUIRED SEE A0.5 AND ENGERY CALC M-SHEETS FOR REQUIRED ENVELOPE

ASSEMBLIES & HVAC SYSTEMS ALL SPECIFICATIONS BASED ON PERFORMANCE AND ABLE TO BE SUBSTITUTED BY "EQUAL" PRODUCTS

BUILDINGS TO COMPLY WITH WILDLAND URBAN INTERFACE GUIDELINES WHERE APPLICABLE

BUILDING AND SITE FEATURES MUST COMPLY WITH CALGREEN CODE FOR ITS SPECIFIC LOCATION WHEN ADAPTED FOR SITE-USE SHOULD THIS P.C. CLASSROOM BE DESIGNED TO CONNECT TO ANOTHER P.C. CLASSROOM, INTERIOR SOUND TRANSMISSION IN THE WALL AND FLOOR-CEILING ASSEMBLY MUST MEET A MINIMUM STC OF

40 PER CALGREEN THE CONCRETE BELOW GRADE FOUNDATION (AMM) OPTION IN THIS PC USES A DSA-APPROVED ALTERNATE MEANS OF COMPLIANCE FOR FOUNDATION DURABILITY REQUIREMENTS OF CBC SECTIONS 1402.2 AND 1403.2 FOR PROVIDING A WEATHER-RESISTANT EXTERIOR WALL ENVELOPE AND CONTINUOUS WATER-RESISTIVE BARRIER ON WALLS DOWN TO THE FOUNDATION, AND CBC SECTION 2304.12.1.2 FOR

PC DOESN'T INCLUDE THE DESIGN OF PV RACK SYSTEM ON ROOF- A SEPARATE DESIGN AND DSA APPLICATION WILL BE REQUIRED. PV ON ROOF WILL NOT BE ALLOWED FOR OTC APPLICATION

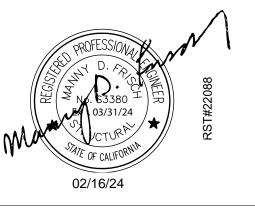
PROTECTION AGAINST DECAY AND TERMITES.

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-122823 INC: **REVIEWED FOR** SS 🗹 FLS 🗹 ACS 🗹 1/30/2025

OJECT SPECIFIC STATE AGENCY APPROVA



PROFESSIONAL STAMP



THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF **R&S TAVARES ASSOCIATES, INC. DEVISED** SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED. IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE **EXPRESS WRITTEN CONSENT OF R&S** TAVARES ASSOCIATES, INC. ©



ORIGINAL PC STATE AGENCY APPROVAL

APPROVED DIV. OF THE STATE ARCHITECT APP: 04-123059 PC REVIEWED FOR SS D FLS D ACS Q CG D

Revision Schedule Description

PRE-CHECK (PC) DOCUMENT Code: 2022 CBC

A separate project application for construction is required

PC 2022 CBC: 24' x 40'

**EXPANDABLE TO** 120' x 40'

**COVER SHEET** 

PROJECT NUMBER

22088

DRAWN BY rMc/SC

CHECKED BY RH/RT

DATE

SHEET OF

# ARCHITECTURAL

General Architectural 1/4" = 1'-0"  COVER SHEET  PROJECT OPTIONS SCHE  TYPICAL KEY PLAN AND  SIGNAGE AND SYMBOLS  DSA-103 T&I CONCRETE  DSA-103 T&I PLYWOOD F  CALGREEN SPEC'S  CALGREEN SHEET	EDU SCH FLO	LE EDI ORS	JLE					ILLIO						Sheet A0.0
PROJECT OPTIONS SCHOOT PROJECT OPTIONS SCHOOT PLAN AND SIGNAGE AND SYMBOLS DSA-103 T&I CONCRETE DSA-103 T&I PLYWOOD FOR CALGREEN SPEC'S CALGREEN SHEET	SCH FLO	EDI		Ξ, Ο	GEN NO									
TYPICAL KEY PLAN AND SIGNAGE AND SYMBOLS DSA-103 T&I CONCRETE DSA-103 T&I PLYWOOD F CALGREEN SPEC'S CALGREEN SHEET	SCH FLO	EDI		Ξ, Ο	SEN NO									A0.0 A0.0.1
SIGNAGE AND SYMBOLS DSA-103 T&I CONCRETE DSA-103 T&I PLYWOOD F CALGREEN SPEC'S CALGREEN SHEET	FLO	ORS		_, \		1+S								A0.1
DSA-103 T&I CONCRETE DSA-103 T&I PLYWOOD F CALGREEN SPEC'S CALGREEN SHEET	FLO		_			120								A0.1
DSA-103 T&I PLYWOOD F CALGREEN SPEC'S CALGREEN SHEET			S											A0.3
CALGREEN SPEC'S CALGREEN SHEET		RS												A0.4
														A0.5
														A0.6
CALGREEN SHEET														A0.7
CALGREEN SHEET														A0.8
Floor Plan Details 1/4" = 1'-0"			AR	RCH	HITECTU	JRAL FI	LOOR F	PLANS						Sheet
¥ Floor Plans			Flo	or F	Plan - 24	1'x40'								A1.0
•		X	Flo	or F	Plan - 36	6'x40'								A1.1
□ Floor Plan - 48'x40'  Arch Floor Framing Details													A1.2	
Arch Floor Framing D 1/4" = 1'-0"	Detai	ls A	RC	;HI	TECTU	RAL FLO	OOR FF	RAMING	DETAIL	.S				
														Sheet
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \												A2.9		
□ Concrete Floor								7	8	9	10	11	12	A2.9
Wall Schedule  1/4" = 1'-0"  ARCHITECTURAL WALL DETAILS														
Wood Studs							De	tail						Sheet
1	Door		ML	1	Window	Corner	HVAC	Top PL	T6" SEF	1-HR OPT 1	1-HR OPT 2	EXT HDR	INT HDR	
⊠ Sheating 8	8 9	2	3 4	5	11	1	16	17	5	х	х	10A	10B	A2.1(A)
Sheating	8 9	2	3 4	5	11	1	16	17	5	х	х	10A	10B	A2.1(B)
□ Plaster 8	8 9	3	4	5	11	1	16	17	5	х	х	10A	10B	A2.2
□ 1-HR Sheating <sup>8</sup>	8 9	2	3 4	5	11	1	16	17	5	-	-	10A	-	A2.5(A)
□ 1-HR Sheating <sup>8</sup>	8 9	2	3 4	5	11	1	16	17	5	-	-	10A	-	A2.5(B)
□ 1-HR Plaster <sup>8</sup>	8 9	2	3 4	5	11	1	16	17	4	-	-	10A	-	A2.6
□ Additional Fire Rating De	tails	and	No	tes	S									A3.0
⊠ Single OCC. Bathroom														A3.1
□ Single OCC. Bathroom														A3.1.1

4 Ceiling Plans 1/4" = 1'-0"	A	RCHITECTURAL CEILING I	PLANS				Sheet			
Reflected Ceiling	□ 24' x 40'	□ 8 (2'x4') Recessed Lig	ht Fixture				A3.2			
Plans:	□ 12 (1'x8') Pendant Light w/ 4									
	(1'x16') Recessed Light									
		★ 16 (1'x8') Pendant Light (1'x16') Recessed Light	1L W/ 4				A3.2			
	□ 48' x 40'	□ 16 (2'x4') Recessed Li	aht Fixture				A3.2			
		□ 18 (1'x8') Pendant Ligh	_							
		(1'x16') Recessed Light					A3.2			
Celing Notes	.,						A3.2.1			
3 Ceiling Detain 1/4" = 1'-0"	IIS	ARCHITECTURAL (	CEILING DE	TAILS						
Celing Framing	3			De	tail		Sheet			
			Wall	Joists	Access	BLK'G				
x⊤-GRID						SEE PLAN				
□ Wood			1	2	5	Тур	A3.4			
Roof Plans										
7 Roof Plans 1/4" = 1'-0"		ARCHITECTURAL	ROOF PLA	NS						
X Mono							Sheet			
			□ EPDM				A4.2.1			
			⊠ Standing	Seam			A4.0.1 A4.4.1			
 ⊐ Dual			□ Parapet				A4.4.1			
			□ EPDM				A4.2.2			
			□ Standing	Seam			A4.0.2			
22 Roof Details 1/4" = 1'-0"		ARCHITECTURAL	ROOF DET	AILS						
x( Mono							Sheet			
			□ EPDM				A4.3			
			✓ Standing	Seam			A4.1			
 ⊐ Dual			□ Parapet				A4.5			
			□ EPDM				A4.3			
			□ Standing	Seam			A4.1			
8 Arch Building	g Section	ARCHITECTURAL	BUIL DING S	ECTION						
<u>1/4" = 1'-0"</u> ≰ Mono		71110111120101012					Sheet			
			□ EPDM				A6.3			
			⊠ Standing	Seam			A6.0			
⊐ Dual										
			□ EPDM	0			A6.1			
			□ Standing	Seam			A6.0.1 A6.2			

# ARCHITECTURAL

1/4" = 1'-0"		De	etail	Sheet	Det	ail	Sheet
Exterior Elevations:	□ 24'x40'	Left	Right		Front	Rear	
	□ Mono Slope	1	2	A5.0	1	2	A5.1
	□ Parapet Roof - Mono Slope	3	4	A5.0	3	4	A5.1
	□ Dual Slope	5	6	A5.0	1	2	A5.1
	∡ 36'x40'		•				
	⋉ Mono Slope	1	2	A5.0	5	6	A5.1
	□ Parapet Roof - Mono Slope	3	4	A5.0	7	8	A5.1
	□ Dual Slope	5	6	A5.0	5	6	A5.1
	□ 48'x40'- 120'X40'						
	□ Mono Slope	1	1 2		A5.0 9		A5.′
	□ Parapet Roof - Mono Slope	3 4		A5.0 11		12	A5.1
	□ Dual Slope	5	6	A5.0	9	10	A5.1
14 Interior Elevatio	ns ARCHITECTURAL INTE	ERIOR EL	EVATIO	NS			
1/4 = 1-0				De	etail		Sheet
nterior Elevations:			Le	ft Right	Front	Rear	
	□ 24'x40'		1	2	3	4	A5.2
	x 36'x40'		1	2	5	6	A5.2
	□ 48'x40' - 120'X40'		1	2	8	7	A5.2
23 ADDITIONAL O 1/4" = 1'-0"	PTIONS DETAILS ADDITIONAL OPTION	IS DETAIL	_S				
.,							Shee
	NS DETAILS						A7.0
<b>ADDITIONAL OPTIO</b>							
ADDITIONAL OPTIO							A7.1

		MEP					
9 Plumbing 1/4" = 1'-0"	•	PLUMBING		Sheet			
( Plumbing Details				P1.0			
10 Mechanical		MECHANICAL	She	eet			
IISCELLANEOUS NOT			M0	.1			
			Ceiling Plan	Roof Plan			
Mechanical	□ 24' x 40'	□ Wall Mount	M5.1	M5.2			
Plans:		□ Roof Mount	M5.1	M5.2			
	⋉36' x 40'	⋉Wall Mount	M6.1	M6.2			
		□ Roof Mount	M6.1	M6.2			
	□ 48' x 40'	□ Wall Mount	M7.1	M7.2			
		□ Roof Mount	M7.1	M7.2			
	□ 60' x 40'	□ Wall Mount					
	701 401	□ Roof Mount					
	□ 72' x 40'	□ Wall Mount					
	0.41 4.01	□ Roof Mount					
	□ 84' x 40'	□ Wall Mount		\			
	□ 96' x 40'	□ Roof Mount □ Wall Mount	A0	J. 1			
	□ 96 X 40						
	□ 108' x 40'	□ Roof Mount					
	□ 106 X 40	□ Wall Mount □ Roof Mount					
	□120' x 40'	□ Wall Mount					
	120 X 40	□ Roof Mount					
Electrical		1 Real Medit					
1/4" = 1'-0"		ELECTRICAL	Sho	eet			
Reflected Ceiling Plans:	□ 24' x 40'	□ 8 (2'x4') Recessed Light Fixture					
rialis.		□ 12 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light	E1.0	E1.1			
	⋉ 36' x 40'	□ 12 (2'x4') Recessed Light Fixture					
		□ 18 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light	E1.2	E1.3			
	□ 48' x 40'	□ 16 (2'x4') Recessed Light Fixture					
		□ 24 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light	E1.4	E1.5			
	□ 60' x 40'	□ 20 (2'x4') Recessed Light Fixture					
		□ 30 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light					
	□ 72' x 40'	□ 24 (2'x4') Recessed Light Fixture					
		□ 36 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light					
	□ 84' x 40'	□ 28 (2'x4') Recessed Light Fixture					
		□ 42 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light					
	□ 96' x 40'	□ 32 (2'x4') Recessed Light Fixture					
		□ 48 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light					
	□ 108' x 40'	□ 36 (2'x4') Recessed Light Fixture					
		□ 54 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light					
	□ 120' x 40'	□ 40 (2'x4') Recessed Light Fixture					
		□ 60 (1'x8') Pendant Light w/ 4					

# STRUCTURAL

Foundations Plans 1/4" = 1'-0"	FO	UNDATION			
⊠ Wood			She		
Foundation	Wood Fo	oundation NOTES SCHED FOR BLDG W/ 50+15	F1.		
Plan:	□ 24'x40' (50+15 PSF)				
		' (100 PSF)	F1.:		
	□ 24'x40	' (150 PSF)	F1.		
	0.01.40	1 (52 (5 225)			
		' (50+15 PSF) ' (100 PSF)	F1. F1.		
		' (150 PSF)	F1.		
	= 33 X 13	(100 1 01 )			
	□ 48'x40	' (50+15 PSF)	F1.		
	□ 48'x40	' (100 PSF)	F1.:		
	□ 48'x40	' (150 PSF)	F1.		
	Wood Fo	oundation Details	F1.		
⊠ Concrete Foundation Plan			F2.		
			F2.		
	ils		F2.		
General Structural Sheets			F2.		
16 1/4" = 1'-0"	GENERAL STI	RUCTURAL SHEETS	She		
STRUCTURAL GEN NOTES			S0.		
Floor Framing Plans 1/4" = 1'-0"	STRUCTURAL FI	LOOR FRAMING PLANS			
× Wood			She		
Sheating Floor:		⋉(50+15 PSF)	S1.		
		□ (100 PSF)	S1.		
		□ (150 PSF)	S1.		
□ Concrete					
Framing Floor:		□ (50+15 PSF)	S1.		
		□ (100 PSF)	S1.		
E. E B		□(150 PSF)	S1.		
19 Floor Framing Details 1/4" = 1'-0"	STRUCTURAL FI	LOOR FRAMING DETAILS	She		
⋉ Wood Framing			S1.		
□ Concrete Framing			S1.		
Roof Framing Plans	STRUCTURAL R	OOF FRAMING PLANS	She		
1/4" = 1'-0"			S3.		
□ Dual Slope Roof Framing			S3.		
	STRUCTURAL D	ETAII S ROOF	She		
STRUCTURAL DETAILS	OTROCTORAL D	LIAILO NOOI	S3.		
ROOF DETAILS(SOFFIT/ PARRAPET)			S3.		
ROOF PERIMETER TRUSS			S3.		
Wall Framing Details	OTDI IOTUS AL LA	VALL EDAMINO DETAU O			
1/4" = 1'-0"	STRUCTURAL W	/ALL FRAMING DETAILS	0.		
⋈ Wood:			She S4.		
₩ Eromina Flavation			J 34.		
★ Framing Elevation			C 1		
শ্ Framing Elevation শ্ৰWall Details □ Typ Framing:			S4.		

Building Section 1/4" = 1'-0"	STRUCTURAL BUILDING SECTION	Sheet
⋉ Mono		S5.0
□ Dual		S5.1

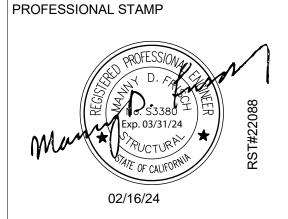
PROJECT SPECIFIC STATE AGENCY APPROVAL



DESIGN & CONSULTING & PROJECT MGT

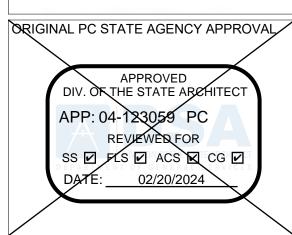
11590 W BERNARDO COURT, SUITE 100

SAN DIEGO, CA 92127



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1651Juanita Street, San Jacinto, CA 92583 Voice (951) 943-1908 Fax (951)943-5768



Revision Schedule Description

PRE-CHECK (PC) DOCUMENT

A separate project application for construction is required

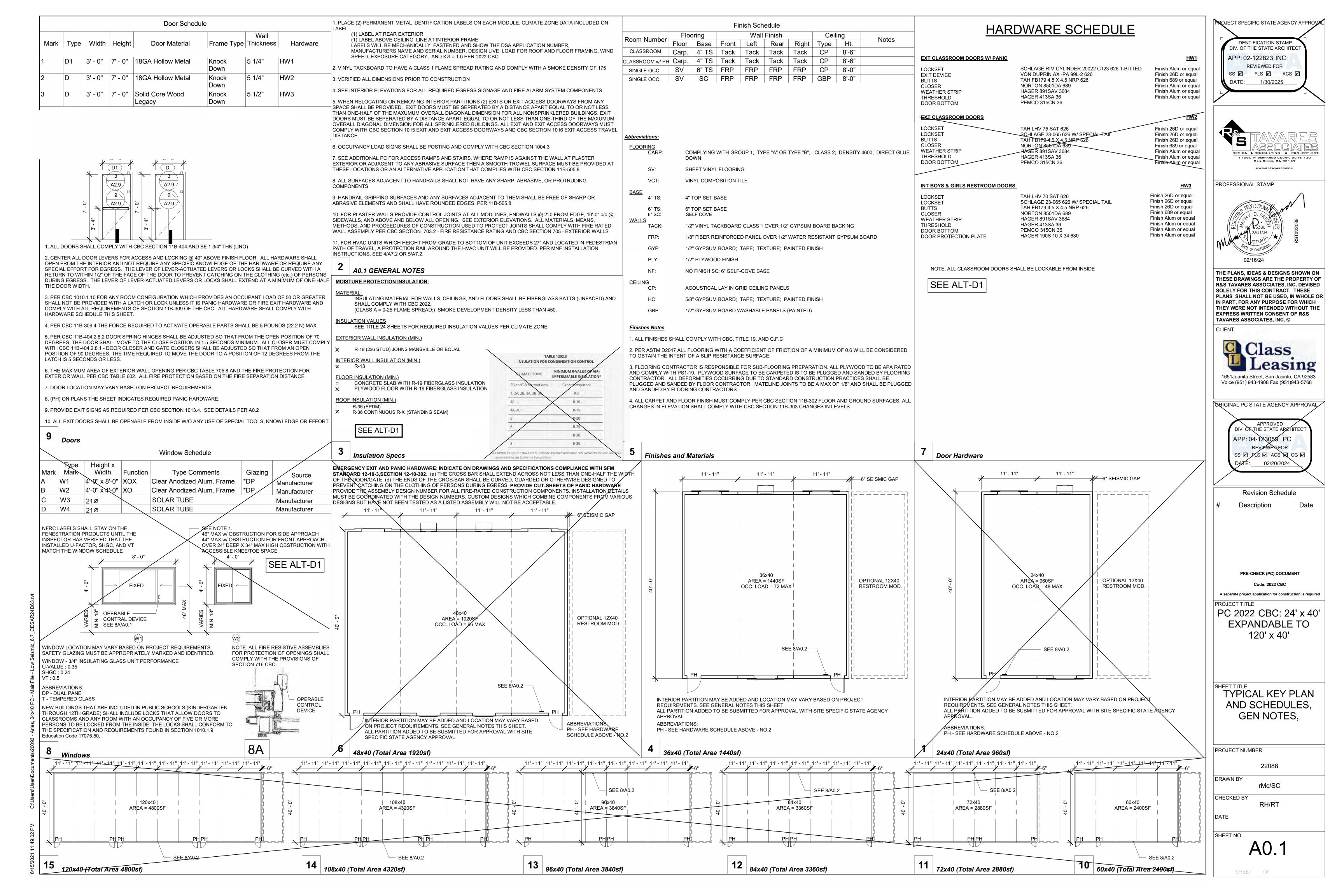
PC 2022 CBC: 24' x 40' **EXPANDABLE TO** 120' x 40'

PROJECT OPTIONS SCHEDULE

PROJECT NUMBER 22088 CHECKED BY

06/15/2021

A0.0.1



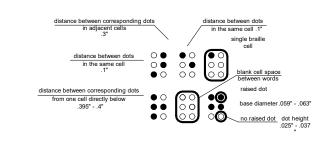
11B.703.2.6 Stroke Thickness for raised characters. Stroke thickness of the uppercase letter "I" shall be 15 percent maximum of the height of the character.

11B.703.2.7 Character Spacing. Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Where characters have rectangular cross sections, spacing between individual raised characters shall be 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum. Where characters have other cross sections, spacing between individual raised characters shall be 1/16 inch (1.6 mm) minimum and 4 times the raised character stroke width maximum at the base of the cross sections, and 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum at the top of the cross sections. Characters shall be separated from raised borders and decorative elements 3/8 inch (9.5 mm) minimum.

11B.703.2.8 Line Spacing. Spacing between the baselines of separate lines of raised characters within a message shall be 135 percent minimum and 170 percent maximum of the raised character height.

11B.703.3 Braille. Braille shall be contracted (Grade 2) and shall comply with 703.3 and 703.4.

11B.703.3.1 Dimensions and Capitalization. Braille dots shall have a domed or rounded shape and shall comply with Table 703.3.1. The indication of an uppercase letter or letters shall only be used before the first word of sentences, proper nouns and names, individual letters of the alphabet, initials, and acronyms.



11B.703.3.2 Position. Braille shall be positioned below the corresponding text. If text is multi-lined, braille shall be placed below the entire text. Braille shall be separated 3/8 inch (9.5 mm) minimum from any other tactile characters and 3/8 inch (9.5 mm) minimum from raised borders and decorative elements.

Figure 703.3.1 Braille Measurement

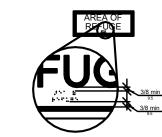


Figure 703.3.2 Position of Braille

11B.703.4 Installation Height and Location. Signs with tactile characters shall comply with 703.4. 11B.703.4.1 Height Above Finish Floor or Ground. Tactile characters on signs shall be located 48 inches (1220

mm) minimum above the finish floor or ground surface, measured from the baseline of the lowest braille character and 60 inches (1525 mm) maximum above the finish floor or ground surface, measured from the baseline of the highest tactile character.

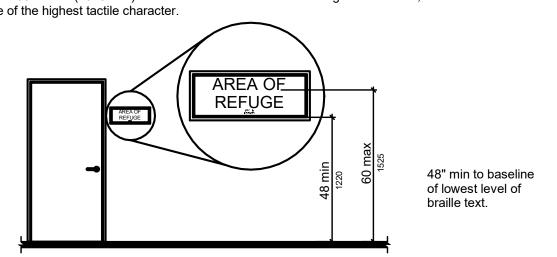


Figure 703.4.1 Height of Tactile Characters Above Finish Floor or Ground

11B.703.4.2 Location. Where a tactile sign is provided at a door, the sign shall be located alongside the door at the latch side. Where a tactile sign is provided at double doors with one active leaf, the sign shall be located on the inactive leaf. Where a tactile sign is provided at double doors with two active leafs, the sign shall be located to the right of the right hand door. Where there is no wall space at the latch side of a single door or at the right side of double doors, signs shall be located on the nearest adjacent wall. Signs containing tactile characters shall be located so that a clear floor space of 18 inches (455 mm) minimum by 18 inches (455 mm) minimum, centered on the tactile characters, is provided beyond the arc of any door swing between the closed position and 45 degree open position.

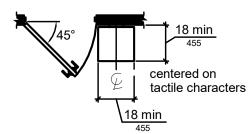


Figure 703.4.2 Location of Tactile Signs at Doors

11B.703.5 Visual Characters. Visual characters shall comply with 703.5.

11B.703.5.1 Finish and Contrast. Characters and their background shall have a non-glare finish. Characters shall contrast with their background with either light characters on a dark background or dark characters

11B.703.5.2 Case. Characters shall be uppercase or lowercase or a combination of both.

11B.703.5.3 Style. Characters shall be conventional in form. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

11B.703.5.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 60 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

11B.703.5.5 Character Height. Minimum character height shall comply with Table 703.5.5. Viewing distance shall be measured as the horizontal distance between the character and an obstruction preventing further approach towards the sign. Character height shall be based on the uppercase letter "I".

11B.703.5.6 Height From Finish Floor or Ground. Visual characters shall be 40 inches (1015 mm) minimum above the finish floor or ground.

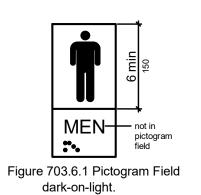
11B.703.5.7 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 10 percent minimum and 20 percent maximum of the height of the character.

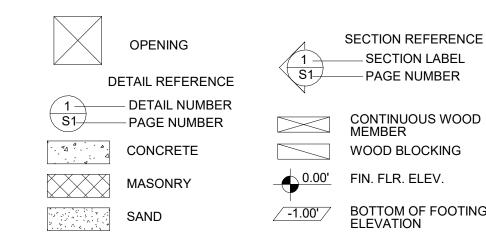
11B.703.5.8 Character Spacing. Character spacing shall be measured between the two closest points of adjacent characters, excluding word spaces. Spacing between individual characters shall be 10 percent minimum and 35 percent maximum of character height.

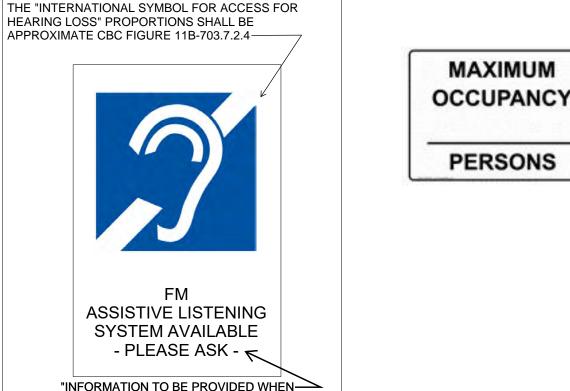
11B.703.5.9 Line Spacing. Spacing between the baselines of separate lines of characters within a message shall be 135 percent minimum and 170 percent maximum of the character height.

11B.703.6 Pictograms. Pictograms shall comply with 703.6.

11B.703.6.1 Pictogram Field. Pictograms shall have a field height of 6 inches (150 mm) minimum. Characters and braille shall not be located in the pictogram field.







**BUILDINGS ARE SITE LOCATED"** 

REQUIRED PER 11B-219 & 11B-706

(SEE FLOOR PLANS FOR MORE INFO)

NOTE: TEXT ON THIS SIGN IN VISUAL

OCCUPANT LOAD SIGN REQUIRED PER DSA BU11-08.

SECTION REFERENCE

SECTION LABEL

- PAGE NUMBER

WOOD BLOCKING

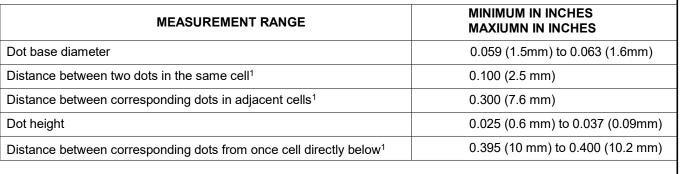
S———S STEPPED FOOTING

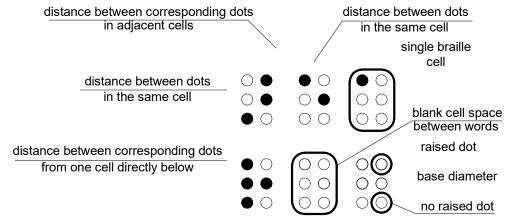
BOTTOM OF FOOTING

EVERY ROOM OR SPACE WHICH IS USED FOR ASSEMBLY, CLASSROOM. DINING OR SIMILAR PURPOSES HAVING AN OCCUPANT LOAD OF 50 OR MORE SHALL HAVE THE OCCUPANT LOAD OF THE ROOM OR SPACE POSTED IN A CONSPICUOUS PLACE, NEAR THE MAIN EXIT OR EXIT ACCESS DOORWAY

7 | 1" = 1'-0" Assistive Listening System Symbol **EQUIPMENT ANCHORAGE** 





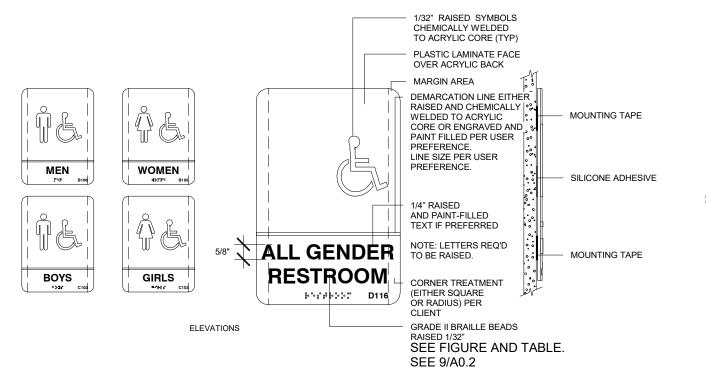




distance between corresponding in adjacent cells	dots	(	distance between dots in the same cell
			single braille cell
distance between dots in the same cell	$\bigcirc$ $\bullet$		
	• 0	00	blank cell space between words
distance between corresponding dots			raised dot



1/4" = 1'-0'



CHAPTER 11:COMMUNICATION ELEMENTS AND FEATURES

communication features shall comply with NFPA 72 (2022 edition)

11B.702.1 General. Fire alarm systems shall have permanently installed audible and visible alarms complying with

except that the maximum allowable sound level of audible notification appliances complying with section

11B.703.1 General. Signs shall comply with 703. Where both visual and tactile characters are required, either

11B.703.2 Raised Characters. Raised characters shall comply with 703.2 and shall be duplicated in braille

hearing distance from the audible appliance. In addition, alarms in guest rooms required to provide

one sign with both visual and tactile characters, or two separate signs, one with visual, and one with

11B.703.2.1 Depth. Raised characters shall be 1/32 inch (0.8 mm) minimum above their background.

11B.703.2.3 Style. Characters shall be sans serif. Characters shall not be italic, oblique, script, highly

letter "O" is 60 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

11B.703.2.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase

11B.703.2.5 Character Height. Character height measured vertically from the baseline of the character shall be

Figure 703.2.5 Height of Raised Characters

TABLE 11B-703.3.1

MINIMUM IN INCHE

0.059 (1.5 mm) to 0.063 (1.6 mm)

0.100 (2.5 mm)

0.300 (7.6 mm)

0.025 (0.6 mm) to 0.037 (0.9 mm)

0.395 (10 mm) to 0.400 (10.2 mm

BRAILLE DIMENSIONS

5/8 inch (15.9 mm) minimum and 2 inches (51 mm) maximum based on the height of the uppercase letter

11B.4-3.2.1 of NFPA 72 shall have a sound level no more than 110 dB at the minimum

complying with 703.3. Raised characters shall be installed in accordance with 703.4.

11B.702 Fire Alarm Systems

tactile characters, shall be provided.

decorative, or of other unusual forms.

11B.703.2.2 Case. Characters shall be uppercase.

MEASUREMENT RANGE

Dot base diameter

Distance between corresponding dots in adjacent cells1

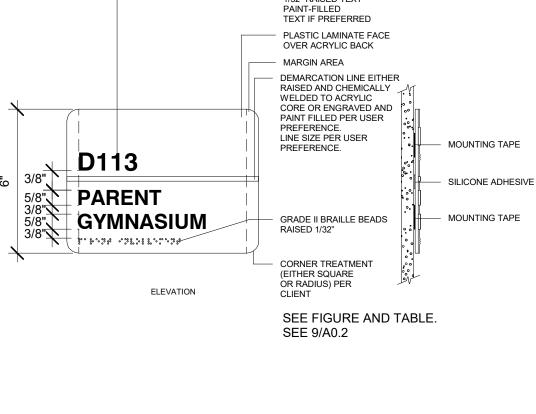
ace between corresponding dots from one cell directly below

Distance between two dots in the same cel

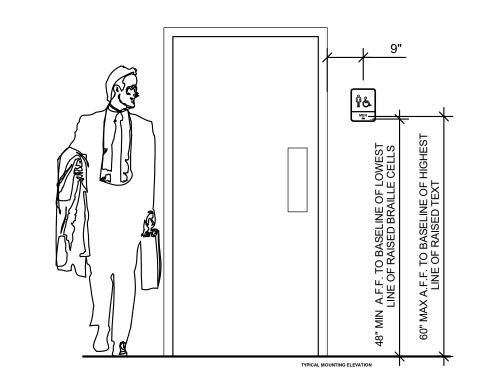
1. Measured center to center

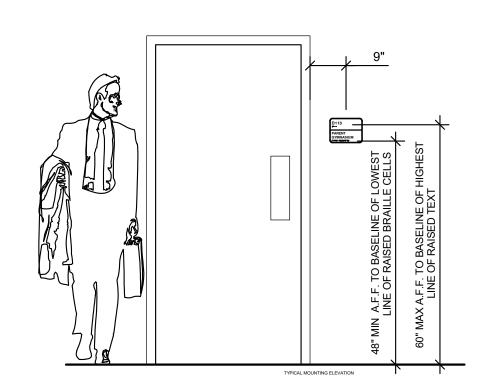
NFPA 72 (2022 edition)

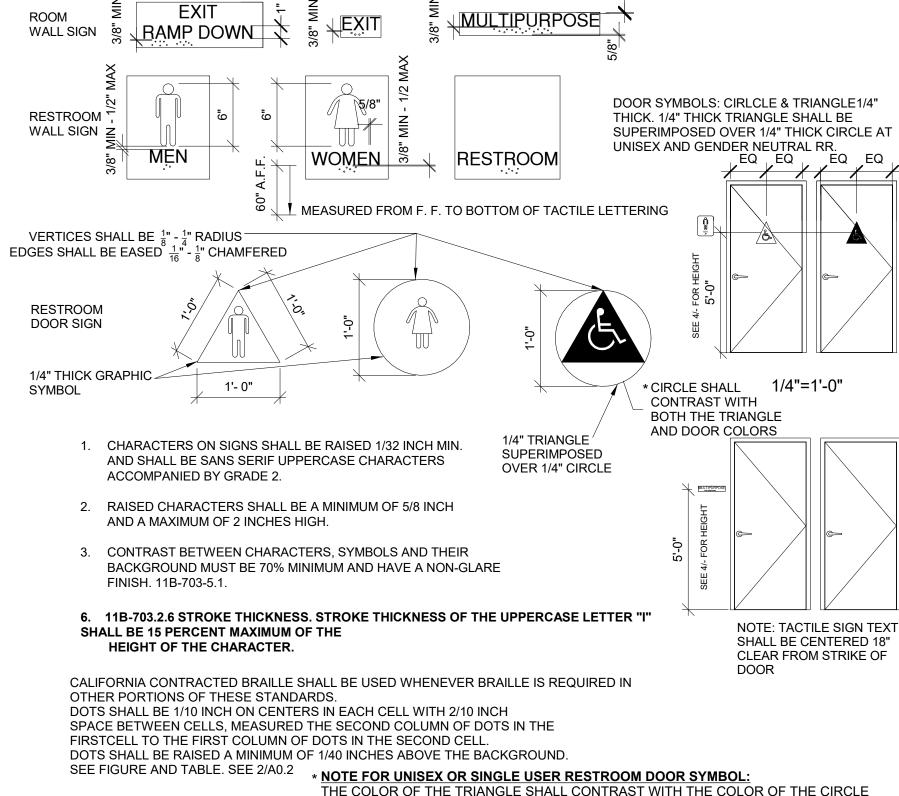
11B.703 Signs



1/32" RAISED TEXT







1/4" = 1'-0"

Signage and Notes

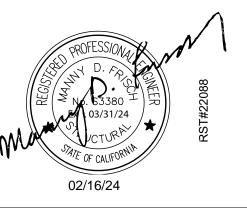
THE COLOR OF THE TRIANGLE SHALL CONTRAST WITH THE COLOR OF THE CIRCLE SYMBOL, EITHER LIGHT ON A DARK BACKGROUND OR DARK ON A LIGHT BACKGROUND. THE COLOR OF THE CIRCLE SYMBOL SHALL CONTRAST WITH THE COLOR OF THE DOOR OR SURFACE ON WHICH THE COMBINED CIRCLE AND TRIANGLE SYMBOL IS MOUNTED, EITHER LIGHT ON A DARK BACKGROUND OR DARK ON A LIGHT BACKGROUND.

BRAILLE DIMENSIONS

ROJECT SPECIFIC STATE AGENCY APPROVAL **IDENTIFICATION STAMP** DIV. OF THE STATE ARCHITEC APP: 02-122823 INC: **REVIEWED FOR** SS 🗹 FLS 🗹 ACS 🗹 1/30/2025



PROFESSIONAL STAMP



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CLIENT 1651Juanita Street, San Jacinto, CA 92583

Voice (951) 943-1908 Fax (951)943-5768

ORIGINAL PC STATE AGENCY APPROVAL APPROVED DIV. OF THE STATE ARCHITECT APP: 04-123059 PC REVIEWED FOR SS / FLS / ACS / CG /

Revision Schedule

PRE-CHECK (PC) DOCUMENT

Code: 2022 CBC A separate project application for construction is require

PROJECT TITLE PC 2022 CBC: 24' x 40' **EXPANDABLE TO** 120' x 40'

> SIGNAGE AND **SYMBOLS**

PROJECT NUMBER 22088 DRAWN BY rMc/SC CHECKED BY

RH/RT DATE

SHEET NO.

SHEET OF

1/2" = 1'-0" Signage (OFOI - UNO)

	□ DEFAULT CONCRETE MIX DESIGN FOR BELOW GRADE NORMAL WEIGHT CONCRETE									
CONCRETE ELEMENT MAXIMUM W/CM RAT		MINIMUM COMPRESSIVE	CEMENTITIOUS MATERIALS -	MAX AGGREGATE SIZE	TARGET AIR CONTENT (%)					
CONCRETE ELEWIENT	WAXIWOW W/CW RATIO	STRENGTH, f'c (PSI)	TYPES (ASTM C150)		CONCRETE NOT EXPOSED TO FREEZING AND THAWING CYCLES	CONCRETE EXPOSED TO FREEZING AI THAWING CYCLES				
FOUNDATION	0.45	4,500	TYPE V PLUS POZZOLAN OR SLAG CEMENT	1" +/- 1/4"	N/A	6				
FOUNDATION VENTS &	0.45	4.500	TYPE V PLUS POZZOLAN OR	3/8"	N/A	7.5				
ACCESS WELLS	0.45	0.45 4,500	SLAG CEMENT	1/2"	N/A	7				
				1" +/- 1/4"	N/A	6				

MULES:
(1) THE DEFAULT CONCRETE MIX DESIGN REQUIREMENTS MAY BE SELECTED AND USED FOR CONSTRUCTION PROVIDED THE THE PC DRAWINGS DO NOT REQUIRE A SITE-SPECIFIC GEOTECHNICAL REPORT THAT QUANTIFIES SULFATE CONTENT IN THE SOIL (IR PC-6, SECTION 5.5.1)
(2) DOCUMENTATION OF CONCRETE MIXTURES CHARACTERISTICS SHALL BE IN ACCORDANCE WITH ACI, SECTION 26.4.4
(3) CEMENT SHALL BE CERTIFIED PER TITLE 24, PART 2, SECTION 1910.1
(4) THE FOUNDATION DESIGN HAS BEEN PREPARED USING A MINIMUM 28-DAY COMPRESSIVE CONCRETE STRENGTH (Pc) OF 3500 PSI

DEFAULT CONCRETE MIX DESIGN

	EXPOSURE CATEGORY: FREEZING AND THAWING (F)								
			MAXIMUM	міміми	REQUIRED AIR	LIMITS ON			
EXPO	SURE CLASS	CONDITION	W/CM	M f'c	MAX AGGREGATE SIZE (IN)	TARGET AIR CONTENT (%)	CEMENTITIOUS MATERIALS		
	FO	CONCRETE NOT EXPOSED TO FREEZING-AND-THAWING CYCLES	0.55	3500	N/A	N/A	N/A		
					3/8"	6			
		CONCRETE EXPOSED TO FREEZING-AND-THAWING CYCLES WITH LIMITED EXPOSURE TO WATER			1/2"	5.5	N/A		
	F1		0.55	3500	3/4"	5			
					1"	4.5			
					1 1/2"	4.5			
					3/8"	7.5			
_		CONCRETE EXPOSED TO FREEZING-AND-THAWING CYCLES WITH FREQUENT EXPOSURE TO WATER		0.45 4500	1/2"	7	N/A		
	F2		0.45		3/4"	6			
		William Edge Will Earl Osone To Willen			1"	6			
					1 1/2"	5.5			
					3/8"	7.5			
		CONCRETE EXPOSED TO FREEZING-AND-THAWING CYCLES			1/2"	7	ACI 318,		
	F3	WITH FREQUENT EXPOSURE TO WATER AND EXPOSURE TO	0.4	5000	3/4"	6	SECTION 26.4.2.2(b)		
		DEICING CHEMICALS			1"	6	32011311 20.4.2.2(0)		
					1 1/2"	5.5			

☐ A.1 WITH OUT GEOTECH REPORT

Maximum water/cement ratio of 0.45; minimum compressive strength of 4,500 pounds per square inch (psi); Type V cement plus pozzolan or slag cement complying with Footnote 7 of ACI table 19.3.2.1; prohibition of admixtures containing calcium chloride; and 4" max slump.

A.2 Optional (Site-Specific) concrete Strength: WITH GEOTECH REPORT When the PC drawings require a site-specific geotechnical report that quantifies sulfate content in the soil, the PC drawings shall require a concrete mix shall comply with one of the following based on the exposure class for each category from ACI 318 Table 19.3.2.1 below \*(The minimum compressive strength shall not be less than 3500 psi with 4" max Slump)

				EXPOSURE CAT	EGORY: SULFAT	E (S)			
		CONDITI	ON			CEM	YPES	CALCIUM CHLORIDE	
EXPOSURE CLASS		WATER-SOLUBLE SULFATE (SO <sub>4</sub> 2-) IN SOIL, PERCENT BY MASS	DISSOLVED SULFATE (SO <sub>4</sub> <sup>2-</sup> ) IN WATER, PPM	MAXIMUM W/CM	MINIMUM f'c	ASTM C150	ASTM C595	ASTM C1157	ADMIXTURE
	S0	SO <sub>4</sub> <sup>2-</sup> < 0.10	SO <sub>4</sub> <sup>2-</sup> < 150	0.55	3500	NO TYPE RESTRICTION	NO TYPE RESTRICTION	NO TYPE RESTRICTION	NO RESTRICTION
	\$1	0.10 ≤ SO <sub>4</sub> <sup>2-</sup> < 0.20	150 ≤ SO <sub>4</sub> <sup>2-</sup> < 1500 OR SEAWATER	0.50	4000	11	TYPES WITH (MS) DESIGNATION	MS	NO RESTRICTION
	\$2	0.20 ≤ SO <sub>4</sub> <sup>2-</sup> ≤ 2.0	1500 ≤ SO <sub>4</sub> <sup>2-</sup> ≤ 10,000	0.45	4500	V	TYPES WITH (HS) DESIGNATION	HS	NOT PERMITTED
	S3 (OPTION 1)	SO <sub>4</sub> <sup>2-</sup> > 2.0	SO <sub>4</sub> <sup>2-</sup> > 10,000	0.45	4500	V PLUS POZZOLAN OR SLAG CEMENT	TYPES WITH (HS) DESIGNATION PLUS POZZOLAN OR SLAG CEMENT	HS PLUS POZZOLAN OR SLAG CEMENT	NOT PERMITTED
	S3 (OPTION 2)	SO <sub>4</sub> <sup>2-</sup> > 2.0	SO <sub>4</sub> <sup>2-</sup> > 10,000	0.50	5000	V	TYPES WITH (HS) DESIGNATION	нѕ	NOT PERMITTED

	EXPOSURE CATEGORY: IN CONTACT WITH WATER (W)									
EXPOSUI	RE CLASS	CONDITION	MAXIMUM W/CM	MINIMU M f'c	ADDITIONAL REQUIREMENTS					
	W0	CONCRETE DRY IN SERVICE OR CONCRETE IN CONTACT WITH WATER AND LOW PERMEABILITY IS NOT REQUIRED	0.55	3500	N/A					
	W1	CONCRETE IN CONTACT WITH WATER AND LOW PERMEABILITY IS REQUIRED	0.50	3500	AGGREGATES ARE NOT ALKALI-SILCA OR ALKALI-CARBONATE REACTIVE					
	W2	CONCRETE IN CONTACT WITH WATER AND LOW PERMEABILITY IS REQUIRED	0.50	4000	AGGREGATES ARE NOT ALKALI-SILCA OR ALKALI-CARBONATE REACTIVE					

			ı	EXPOSURE (	CATEGORY: CORROSION PROTECTION OF REINFORCEMENT	
EXPOSU	EXPOSURE CLASS CONDITION		MAXIMUM W/CM	MINIMU M f'c	MAXIMUM WATER-SOLUBLE CHLORIDE ION (CL) CONTENT IN CONCRETE, PERCENT BY WEIGHT OF CEMENT (NON-PRESTRESSED CONCRETE)	ADDITIONAL REQUIREMENTS
	со	CONCRETE NOT EXPOSED TO MOISTURE OR TO AN EXTERNAL SOURCE OF	0.55	3500	1.00	N/A
	C1	CONCRETE EXPOSED TO MOISTURE BUT NOT TO AN EXTERNAL SOURCE OF CHLORIDES	0.55	3500	0.30	N/A
	C2	CONCRETE EXPOSED TO MOISTURE AND AN EXTERNAL SOURCE OF CHLORIDES (DEICING	0.40	5000	0.15	CONCRETE COVER PER ACI 318, SECTION 20.5

IENTATION OF CONCRETE MIXTURES CHARACTERISTICS SHALL BE IN ACCORDANCE WITH ACI, SECTION 26.4.4

OR SITE-SPECIFIC LOCATIONS WITH MULTIPLE EXPOSURE CLASSES IDENTIFIED IN THE GEOTECHNICAL EXPLORATION REPORT, THE GREATER FC ASSOCIATED WITH THE APPLICABLE EXPOSURE CLASS SHALL BE USED FOR CONSTRUCTION

ALTERNATIVE CONCRETE MIX-DESIGN: SITE-SPECIFIC

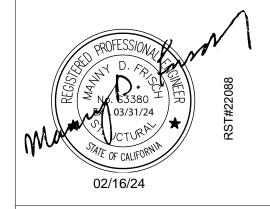
DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2022 CBC DSA File Number: **Date Created: Increment Number:** 2023-05-16 13:25:31 2022 CBC **\IMPORTANT:** This form is only a summary list of structural tests and some of the special inspections required for the proje $\phi$ t Generally, the structural tests and special inspections noted on this form are those that will be performed by the Geotechnical Éngineer of Record, Laboratory of Record, or Special Inspector. The actual complete test and inspection program must be performed as detailed on the DSA approved documents. The appendix at the bottom of this form identifies work NOT subject to DSA requirements for special inspection or structural testing. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, anchorage of non-structural components, etc., per Title 24, Part 2, Chapter 17A (2022 CBC). \*\*NOTE: Undefined section and table references found in this document are from the CBC, or California Building Code. **KEY TO COLUMNS** 1. TYPE 2. PERFORMED BY **GE (Geotechnical Engineer)** – Indicates that the special inspection shall be performed by a registered geotechnical engineer or his or her authorized Continuous – Indicates that a continuous special inspection is LOR (Laboratory of Record) – Indicates that the test or special inspection shall be performed by a testing laboratory accepted in the DSA Laboratory Evaluation and Acceptance (LEA) Program. See CAC Section 4-335. Periodic – Indicates that a periodic special inspection is required PI (Project Inspector) – Indicates that/the special inspection may be performed inspector when specifically approved by DSA. Test – Indicates that a test is required SI (Special Inspection) – Indicates that the special inspection shall be performed by an appropriately qualified/approved special inspector. C1. CAST-IN-PLACE CONCRETE Test or Special Inspection Performed By | Code References and Notes **a**. Verify use of required design mix. Periodic Table 1705A.3 Item 5, 1910A.1. b. Identifiy, sample, and test reinforcing steel. Test **1910A.2**; A¢I 318-19 Ch.20 and Section 26.6.1.2; DSA IR 17-10. (See Appendix (end of this form) for exemptions.) **Table 1705A.3 Item 6**; ACI 318-19 Sections 26.5 & 26.12. ☑ c. During concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the **1905A.1.17**; ACI 318-19 Section 26.12. ☑ d. Test concrete (f'c). ☑ e. Batch plant inspection: Continuous See Notes SI Default of 'Continuous' per 1705A.3.3. If approved by DSA, batch plant inspection may be reduced to 'Periodic' subject to requirements in Section **1705A.3.3.1**, or eliminated per **1705A.3.3.2**. See IR 17-13. (See Appendix (end of this form) for exemptions.) S/A1. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES **Test or Special Inspection** Performed By | Code References and Notes **a.** Verify identification of all materials and: Periodic\ **Table 1705A.2.1 Item 3a 3c.** 2202A.1; AISI S100-20 Section A3.1 & • Mill certificates indicate material properties that comply A3.2, AISI S240-20 Section A3 & A5, AISI S220-20 Sections A4 & A6. \* By with requirements. special inspector or qualified technician when performed off-site. • Material sizes, types and grades comply with ☑ b. Test unidentified materials Periodic / DSA IR 17-3. | C. Examine seam welds of HSS shapes ☑ d. Verify and document steel fabrication per DSA-Not applicable to cold-formed steel light-frame construction, except for trusses (1705A.2.4). approved construction documents. S/A3. WELDING: Performed By | Code References and Notes Test or Special Inspection **1705A.2.5, Table 1705A.2.1 Items 4 & 5**; AWS D1.1 and AWS D1.8 for ☑ a. Verify weld filler material identification markings per structural steel; AWS D1.2 for Aluminum; AWS D1.3 for cold-formed AWS designation listed on the DSA-approved documents steel; AWS D1.4 for reinforcing steel; DSA IR 17-3. ☑ **b.** Verify weld filler material manufacturer's certificate of ☑ c. Verify WPS, welder qualifications and equipment. SI DSA NR 17-3. S/A4. SHOP WELDING (IN ADDITION TO SECTION S/A3): Performed By | Code References and Notes Test or Special Inspection a. Inspect groove welds, multi-pass fillet welds, single pass | Continuous **Table 1705A.2.1 Items 5a.1 4**; AISC 360-16 (and AISC 341-16 as fillet welds > 5/16", plug and slot welds. applicable); DSA IR 17-3.  $\boxed{}$  **b**. Inspect single-pass fillet welds ≤ 5/16", floor and roof **1705A.2.2, Table 1705A.2.1 Items 5a.5 & 5a.6**; AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3. c. Inspect welding of stairs and railing systems. 1705A.2.1; AISC 360-16 (and AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3. Performed By | Code References and Notes Test or Special Inspection S/A6. NONDESTRUCTIVE TESTING | Performed By | Code References and Notes Test or Special Inspection **1705A.2.1, 1705A.2.5**; A\SC 341-16 J6.2, AISC 360-16 N5.5; AWS ☑ a. Ultrasonic D1.1, AWS D1.8; DSA IR 17-2. ☑ | b. Magnetic Particle Test **1705A.2.1, 1705A.2.5**; AISC 341-16 J6.2, AISC 360-16 N5.5; AWS D1.1, AWS D1.8; DSA IR 17-2. 1. Structural Testing and Inspection: Laboratory Verified Report Form DSA 291 2. Concrete Batch Plant Inspection: Laboratory Verified Report Form DSA 291 Shop Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form

ROJECT SPECIFIC STATE AGENCY APPROVAL DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2022 CBC DSA File Number: Increment Number: Date Created: 2023-05-16 13:35:53 2022 CBC IMPORTANT: This form is only a summary list of structural tests and some of the special inspections required for the project. Generally, the structural tests and special inspections noted on this form are those that will be performed by the Geotechnical Engineer of Record, Laboratory of Record, or Special Inspector. The actual complete test and inspection program must be performed as detailed on the DSA approved documents. The appendix at the bottom of this form identifies work NOT subject to DSA requirements for special inspection or structural testing. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, anchorage of non-structural components, etc., per Title 24, Part 2, Chapter 17A (2022 CBC). \*\*NOTE: Undefined section and table references found in this document are from the CBC, or California Building Cog **KEY TO COLUMNS** GE (Geotechnical Engineer) – Indicates that the special in pection shall be performed by a registered geotechnical engineer or his or her authorized **Continuous** – Indicates that a continuous special inspection is LOR (Laboratory of Record) – Indicates that the test of special inspection shall be performed by a testing laboratory accepted in the DSA Laboratory Evaluation and Acceptance (LEA) Program. See CAC Section 4-3/5 Periodic – Indicates that a periodic special inspection is required PI (Project Inspector) – Indicates that the special inspection may be performed inspector when specifically approved by DSA. Test – Indicates that a test is required SI (Special Inspection) - Indicates that the special inspection shall be performed by an appropriately qualified/approved special inspector Geotechnical Reports: Project does NOT have and does NOT require a geotechnical report S1. GENERAL Test or Special Inspection Type Performed By Code References and Notes a. Verify that: Refer to specific items identified in the Appendix listing exemptions • Site has been prepared properly prior to placement of for limitations. Placement of controlled fill exceeding 12" depth under foundations is not permitted without a geotechnical report. controlled fill and/or excavations for foundations. Foundation excavations are extended to proper depth and have reached proper material. Materials below footing are adequate to achieve the design bearing capacity. S2. SOIL COMPACTION AND FILL: Test or Special Inspection Type | Performed By | Code References and Notes a. Verify use of proper materials densities and inspect lift \* Under the surervision of a geotechnical engineer or LOR's engineering manager. Refer to specific items identified in the thicknesses, placement and compaction during Appendix list/ng exemptions for limitations. placement of fill. **b**. Compaction testing. \* Under the supervision of a geotechnical engineer or LOR's engineering manager. Refer to specific items identified in the Appendix listing exemptions for limitations. C1. CAST-IN-PLACE CONCRETE Test or Special Inspection Type Performed By Code References and Notes Table 1705A.3 Item 5, 1910A.1. a. Verify use of required design mix. 1910A.2; ACI 318-19 Ch.20 and Section 26.6.1.2; DSA IR 17-10. (See b. Identifiy, sample, and test reinforcing stee ppendix (end of this form) for exemptions. **Table 1705A.3 Item 6**; ACI 318-19 Sections 26.5 & 26.12. tests, and determine the temperature of the 1905A.1.17; ACI 318-19 Section 26.12. d. Test concrete (f'c). e. Batch plant inspection: Continuous Default of 'Continuous' per 1705A.3.3. If approved by DSA, batch plant inspection may be reduced to 'Periodic' subject to requirements in Section 1705A.3.3.1, or eliminated per 1705A.3.3.2. See IR 17-13. (See Appendix (end of this form) for exemptions.) C5. POST-INSTALLED ANCHORS: Performed By | Code References and Notes Test or Special Inspection 1617A.1.19, Table 1705A.3 Item 4a (Continuous) & 4b (Periodic) a. Inspect installation of post-installed anchors 1705A.3.8 (See Appendix (end of this form) for exemptions). ACI 318-14 Sections 17.8 & 26.13. \* May be performed by the project spector when specifically approved by DSA. b. Test post-installed anchors. 1910A.5. (See Appendix (end of this form) for exemptions.) S/A1. STRUCTURAL STEEL. COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES Test or Special Inspection a. Verify identification of all materials and: A3.2, AISI S240-20 Section A3 & A5, AISI S220-20 Sections A4 & A6. \* By Mill certificates indicate material properties that comply • Material sizes, types and grades comply with **b.** Test unidentified materials c. Examine seam welds of HSS shapes DSA IR 17-3. d. Verify and document steel fabrication per DSA Not applicable to cold-formed steel light-frame construction, except for trusses (1705A.2.4). approved construction documents. S/A3. WELDING: a. Verify weld filler material identification markings per AWS designation listed on the DSA-approved documents structural steel; AWS D1.2 for Aluminum; AWS D1.3 for cold-formed teel; AWS D1.4 for reinforcing steel; DSA IR 17-3. **b**. Verify weld filler material manufacturer's certificate of **c.** Verify WPS, welder qualifications and equipment. Periodic S/A4. SHOP WELDING (IN ADDITION TO SECTION S/A3): Type Performed By Code References and Notes Test or Special Inspection **Table 1705A.2.1 Items 5a.1 4**; AISC 360-16 (and AISC 341-16 as a. Inspect groove welds, multi-pass fillet welds, single pass | Continuous fillet welds > 5/16", plug and slot welds applicable) DSA IR 17-3. PROJECT TITLE 1705A.2.2, Table 1705A.2.1 Items 5a.5 & 5a.6; AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3. **1705A.2.1**; AIS (360-16 (and AISC 341-16 as applicable); AWS D1.1 & c. Inspect welding of stairs and railing systems. D1.3; DSA IR 17-3 1705A.3.1; AWS D 4.4; DSA IR 17-3. Verify carbon equivalent reported other than ASTM A706. on mill certificates Table 1705A.2.1 Item 5b, 1705A.3.1, Table 1705A.3 Item 2, e. Inspect welding of reinforcing steel. **1903A.8**; AWS D1.4; D\( A IR 17-3. Type Performed By Code References and Notes Test or Special Inspection S/A5. FIELD WELDING (IN ADDITION TO SECTION S/A3): Table 1705A.2.1 Item 5a.3; AISC 360-16 (AISC 341-16 as applicable); b. Inspect single-pass fillet welds ≤ 5/16" DSA IR 17-3. **d.** Inspect floor and roof deck welds. 1705A.2.2, Table 1705A.2.1 (tem 5a.6; AISC 360-16 (AISC 341-16 as applicable); AWS D1.3; DSA IR 17-3. Type Performed By Code References and Notes Test or Special Inspection S/A6. NONDESTRUCTIVE TESTING: Test or Special Inspection Type | Performed By | Code References and Notes a. Ultraspnic **1705A.2.1, 1705A.2.5**; AISC 341-1 5 J6.2, AISC 360-16 N5.5; AWS D1.1, AWS D1.8; DSA IR 17-2. LOR | 1705A.2.1, 1705A.2.5; AISC 341-16 J6\2, AISC 360-16 N5.5; AWS | **b.** Magnetic Particle D1.1, AWS D1.8; DSA IR 17-2.

**IDENTIFICATION STAMP** DIV. OF THE STATE ARCHITEC APP: 02-122823 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 DATE: 1/30/2025

> DESIGN ♦ CONSULTING ♦ PROJECT MG 11590 W BERNARDO COURT, SUITE 100 SAN DIEGO, CA 92127

PROFESSIONAL STAMP



THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE **EXPRESS WRITTEN CONSENT OF R&S** TAVARES ASSOCIATES, INC. ©

CLIENT 1651Juanita Street, San Jacinto, CA 92583 Voice (951) 943-1908 Fax (951)943-5768

ORIGINAL PC STATE AGENCY APPROVAL

APPROVED DIV. OF THE STATE ARCHITECT APP: 04-123059 PC SS D FLS D ACS Q CG D

Revision Schedule

Description

PRE-CHECK (PC) DOCUMENT

Code: 2022 CBC

A separate project application for construction is required

PC 2022 CBC: 24' x 40' **EXPANDABLE TO** 120' x 40'

DSA-103 T&I CONCRETE

PROJECT NUMBER 22088

DRAWN BY rMc/SC

CHECKED BY RH/RT

DATE

THE EXAMPLE OF FORM DSA-103s SHOWN ON THIS SHEET ARE FOR ILLUSTRATION PURPOSE ONLY. A FORM DSA-103 IS TO BE COMPLETED FOR EACH APPLICATION THAT THIS PC BEING INCORPORATED INTO AND EXAMPLE FORM DSA-103s ARE TO BE CROSSED OUT ON THIS DRAWING. IF THERE IS A GEOTECHNICAL REPORT, THE GEOTECH ENGINEER SHOULD DO THE INSPECTION INSTEAD OF PROJECT INSPECTOR (PI).

Post-installed Anchors: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA

Shop Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form

Field Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA

Structural Testing and Inspection: Laboratory Verified Report Form DSA 291

oncrete Batch Plant Inspection: Laboratory Verified Report Form DSA 291

DSA-103 CONCRETE FLOOR (CONCRETE FOUNDATION)

NOT IN USE

DSA-103 CONCRETE FLOOR (STOCKPILE)

THE EXAMPLE OF FORM DSA-103s SHOWN ON THIS SHEET ARE FOR ILLUSTRATION PURPOSE ONLY.

MCORPORATED INTO AND EXAMPLE FORM DSA-103s ARE TO BE CROSSED OUT ON THIS DRAWING.

A FORM DSA-103 IS TO BE COMPLETED FOR EACH APPLICATION THAT THIS PC BEING

. DSA 292

**Increment Number:** 

DSA File Number:

**KEY TO COLUMNS** 

2022 CBC

**IMPORTANT**: This form is only a summary list of structural tests and some of the special inspections required for the project. Generally, the structural tests and special inspections noted on this form are those that will be performed by the Geotechnical Engineer of Record, Laboratory of Record, or Special Inspector. The actual complete test and inspection program must be performed/as detailed on the DSA approved documents. The appendix at the bottom of this form identifies work NOT subject to DSA requirements for special inspection or structural testing. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, anchorage of non-structural components, etc., per Title 24, Part 2, Chapter 17A (2022 CBC). /

**Date Created:** 

2023-05-16 13:57:04

\*\*NOTE: Undefined section and table references found in this document are from the CBC, or California Building Code.

·-·				
	1. TYPE			PERFORMED BY
<b>Con</b> requ	tinuous – Indicates that a continuous special inspection is lired		performe represent LOR (Lab	oratory of Record) – Indicates that the test or special inspection shall
				med by a testing laboratory accepted in the DSA Laboratory Evaluatior ptance (LEA) Program. See CAC Section 4-335.
Peri	odic – Indicates that a periodic special inspection is required			
Test	: – Indicates that a test is required		by a proje	ct Inspector) – Indicates that the special inspection may be performed ect when specifically approved by DSA.
				al Inspection) – Indicates that the special inspection shall be performe propriately qualified/approved special inspector.
	S/A1. STRUCTURAL STEEL, COLD-FORMED STEEL AND A	LUMINUM USE		
	Test or Special Inspection	Туре	Performed By	Code References and Notes
<b>V</b>	<ul> <li>a. Verify identification of all materials and:</li> <li>Mill certificates indicate material properties that comply with requirements.</li> <li>Material sizes, types and grades comply with requirements.</li> </ul>	Periodic	*	<b>Table 1705A/2.1 Item 3a 3c.</b> 2202A.1; AISI S100-20 Section A3.1 & A3.2, AISI S240-20 Section A3 & A5, AISI S220-20 Sections A4 & A6. * B special inspector or qualified technician when performed off-site.
<b>V</b>	b. Test unidentified materials	Test	LOR	22021/.1.
<b>√</b>	c. Examine seam welds of HSS shapes	Periodic	SI	DSA/IR 17-3.
<b>7</b>	d. Verify and document steel fabrication per DSA-approved construction documents.	Periodic	SI	Not applicable to cold-formed steel light-frame construction, except for trusses (1705A.2.4).
	S/A3. WELDING:			/
	Test or Special Inspection	Туре	Performed By	Code References and Notes
<b>V</b>	a. Verify weld filler material identification markings per AWS designation listed on the DSA-approved documents and the WPS.	Periodic	SI	<b>1705A.2.5, Table 1705A.2.1 Items 4 &amp; 5</b> ; AWS D1.1 and AWS D1.8 for structural steel; AWS D1.2 for Aluminum; AWS D1.3 for cold-formed steel; AWS D1.4 for reinforcing steel; DSA IR 17-3.
<b>V</b>	<b>b.</b> Verify weld filler material manufacturer's certificate of compliance.	Periodic	\$1	DSA IR 17-3.
<b>/</b>	c. Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA IR 17-3.
	S/A4. SHOP WELDING (IN ADDITION TO SECTION S/A3):		X	
	Test or Special Inspection	Туре	Performed By	Code References and Notes
<b>7</b>	a. Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	Continuous	SI	<b>Table 1705A.2.1 Items 5a.1 4</b> ; AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
<b>7</b>	<ul> <li>b. Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds.</li> </ul>	Periodic	si	<b>1705A.2.2, Table 1705A.2.1 Items 5a.5 &amp; 5a.6</b> ; AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
<b>V</b>	c. Inspect welding of stairs and railing systems.	Periodic	SI	<b>1705A.2.1</b> ; AISC 360-16 (and AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3.
	Test or Special Inspection	Туре	Performed By	Code References and Notes
	S/A6. NONDESTRUCTIVE TESTING:			
	Test or Special Inspection	Туре	Performed By	Code References and Notes
<b>7</b>	a. Ultrasonic	Test	LOR	1705A.2.1, 1705A.2.5; AISC 341-16 J6.2, AISC 360-16 N5.5; AV

1. Structural Testing and Inspection: Laboratory Verified Report Form DSA 291

☑ b. Magnetic Particle

Shop Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting \$1, Special Inspection Verified Report Form

D1.1,\AWS D1.8; DSA IR 17-2.

D1.1, AW\s D1.8; DSA IR 17-2.

| **1705A.\(\chi.1, 1705A.2.5**; AISC 341-16 J6.2, AISC 360-16 N5.5; AWS |

THE EXAMPLE OF FORM DSA-1/03s SHOWN ON THIS SHEET ARE FOR ILLUSTRATION PURPOSE ONLY. A FORM DSA-103 IS TO BE COMPLETED FOR EACH APPLICATION THAT THIS PC BEING INCORPORATED INTO AND EXAMPLE FORM DSA-103s ARE TO BE CROSSED OUT ON THIS DRAWING, DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2022 CBC **Application Number: Increment Number:** Date Created: DSA File Number:

2022 CBC

**IMPORTANT:** This form is only a summary list of structural tests and some of the special inspections required for the project. Generally, the structural tests and special inspections noted on this form are those that will be performed by the Geotechnical Engineer of Record, Laboratory of Record, or Special Inspector. The actual complete test and inspection program must be performed as detailed on the DSA approved documents. The appendix at the bottom of this form identifies work NOT subject to DSA requirements for special inspection or structural testing. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, anchorage of non-structural components, etc., per Title 24, Part 2, Chapter 17A (2022 CBC).

2023-05-16 14:08:48

\*\*NOTE: Undefined section and table references found in this document are from the CBC, or California Building Code.

1. TYPE	2. PERFORMED BY
Continuous – Indicates that a continuous special inspection is required	<b>GE (Geotechnical Engineer)</b> – Indicates that the special inspection shall be performed by a registered geotechnical engineer or his or her authorized representative.
Tequired \	LOR (Laboratory of Record) – Indicates that the test or special inspection shall be performed by a testing laboratory accepted in the DSA Laboratory Evaluation and Acceptance (LEA) Program. See CAC Section 4-335.
Periodic – Indicates that a periodic special inspection is required	
	PI (Project Inspector) – Indicates that the special inspection may be performed by a project
	inspector when specifically approved by DSA.
Test – Indicates that a test is required	
\	SI (Special Inspection) – Indicates that the special inspection shall be performe by an appropriately qualified/approved special inspector.

	S1. GENERAL:			/
	Test or Special Inspection	Туре	Performed By	Code References and Notes
<b>√</b>	a. Verify that:  • Site has been prepared properly prior to placement of controlled fill and/or excavations for foundations.  • Foundation excavations are extended to proper depth and have reached proper material.  • Materials below footings are adequate to achieve the design bearing capacity.  S2. SOIL COMPACTION AND FILL:	See Notes	PI	Refer to specific items identified in the Appendix listing exemptions for limitations. Placement of controlled fill exceeding 12" depth und foundations is not permitted without a geotechnical report.
	Test or Special Inspection	Туре	Performed By	Code References and Notes
<b>\</b>	a. Verify use of proper materials, densities and inspect lift thicknesses, placement and compaction during placement of fill.	Continuous	LOR*	* Under the supervision of a geotechnical engineer or LOR's engineering manager. Refer to specific items identified in the Appendix listing exemptions for limitations.
$\checkmark$	b. Compaction testing.	Test	LOR*	* Under the supervision of a geotechnical engineer or LOR's engineering manager. Refer to specific tems identified in the Appendix listing exemptions for limitations.
	C1. CAST-IN-PLACE CONCRETE		1	
	Test or Special Inspection	Туре	Performed By	Code References and Notes
✓	a. Verify use of required design mix.	Periodic	SI	Table 1705A.3 Item 5, 1910A.1.
<b>√</b>	b. Identifiy, sample, and test reinforcing steel.	Test	LOR	1910A.2; ACI 318-19 Ch.20 and Section 26.6.1.2; DSA IR 17-10. (See
	<u> </u>	\		Appendix (end of this form) for exemptions.)
< -	c. During concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	Test	LOR	<b>Table 1705A.3 Item 6</b> ; ACI 318-19 Sections 26.5 & 26.12.
<b>√</b>	d. Test concrete (fc).	Test	LOR	<b>1905A.1.17</b> ; ACI 31/8-19 Section 26.12.
<b>▽</b>	e. Batch plant inspection: Continuous	See Notes	SI	Default of <b>'Continuous'</b> per <b>1705A.3.3</b> . If approved by DSA, batch plant inspection may be reduced to <b>'Periodic'</b> subject to requireme in Section <b>1705A.3.3.1</b> , or eliminated per <b>1705A.3.3.2</b> . See IR 17-13 (See Appendix (end of this form) for exemptions.)
	C5. POST-INSTALLED ANCHORS:		<u> </u>	
	Test or Special Inspection	Туре	Performed By	Code References and Notes
<b>√</b>	a. Inspect installation of post-installed anchors	See Notes	SI*	1617A.1.19, Table 1705A.3 Item 4a (Continuous) & 4b (Periodic)
]	a. Inspect installation of post installed archors	See Notes		1705A.3.8 (See Appendix (end of this form) for exemptions). ACI 316-14 Sections 17.8 & 26.13.* May be performed by the project inspector when specifically approved by DSA.
<b>√</b>	b. Test post-installed anchors.	Test	LOR	1910A.5. (See Appendix (end of this form) for exemptions.)
	S/A1. STRUCTURAL STEEL, COLD-FORMED STEEL AND A	LUMINUM USE	D FOR STRUETU	RAL PURPOSES
	Test or Special Inspection	Туре	Performed By	Code References and Notes
<	a. Verify identification of all materials and: • Mill certificates indicate material properties that comply with requirements. • Material sizes, types and grades comply with requirements.	Periodic		Table 1705A.2.1 Item 3a 3c. 2202A.1; AISI S100-20 Section A3.1 & A3.2, AISI S240-20 Section A3 & A5, AISI S220-20 Sections A4 & A6.* special inspector or qualified technician when performed off-site.
<b>√</b>	b. Test unidentified materials	Test	LOR	2202A.1\
\ \		Periodic /	SI	DSA IR 17-3
	c. Examine seam welds of HSS shapes	Periodic /	SI	
<b>√</b>	d. Verify and document steel fabrication per DSA- approved construction documents.  S/A3. WELDING:	T GRIOGIC/	31	Not applicable to cold-formed steel light-frame construction, exceptor trusses (1705A.2.4).
		Tubo	Performed By	Code References and Notes
<b>\</b>	Test or Special Inspection  a. Verify weld filler material identification markings per AWS designation listed on the DSA-approved documents and the WPS.	Type Periodic	SI SI	Code References and Notes  1705A.2.5, Table 1705A.2.1 Items 4 & 5; AWS D1.1 and AWS D1.8 structural steel; AWS D1.2 for Aluminum; AWS D1.3 for cold-formed steel; AWS D1.4 for reinforcing steel; DSA IR 17-3.
✓	b. Verify weld filler material manufacturer's certificate of compliance.	Periodic	SI	DSA IR 17-3.
<b>√</b>	c. Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA IR 17-3.
	S/A4. SHOP WELDING (IN ADDITION TO SECTION S/43):			
]	Test or Special Inspection	Туре	Performed By	Code References and Notes
✓	<ul> <li>a. Inspect groove welds, multi-pass fillet welds, single pass fillet welds &gt; 5/16", plug and slot welds.</li> <li>b. Inspect single-pass fillet welds ≤ 5/16", floor and roof</li> </ul>	Continuous  Periodic	SI SI	Table 1705A.2.1 Items 5a.1 4; AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.  1705A.2.2, Table 1705A.2.1 Items 5a\( \) & 5a.6; AISC 360-16 (and
7	deck welds.  c. Inspect welding of stairs and railing systems.	Periodic	SI	AISC 341-16 as applicable); DSA IR 17-3.
<				1705A.2.1; AISC 360-16 (and AISC 341-16 às applicable); AWS D1.1 D1.3; DSA IR 17-3.
	d. Verification of reinforcing steel weldability other than ASTM A706. e. Inspect welding of reinforcing steel.	Periodic Continuous	SI SI	1705A.3.1; AWS D1.4; DSA IR 17-3. Verify carbon equivalent reported on mill certificates.  Table 1705A.2.1 Item 5b, 1705A.3.1, Table 1705A.3 Item 2,
				<b>1903A.8</b> ; AWS D1.4; DSA IR 17-3.
	S/A5. FIELD WELDING (IN ADDITION TO SECTION S/A3):	T	Dorfor:	Code Deferences and Nation
✓	<ul><li>Test or Special Inspection</li><li>b. Inspect single-pass fillet welds ≤ 5/16".</li></ul>	Type Periodic	Performed By	Code References and Notes  Table 1705A.2.1 Item 5a.5; AISC 360-16 (AISC 341-16 as applicable DSA IR 17-3.
	Test or Special Inspection	Туре	Performed By	Code References and Notes
	S/A6. NONDESTRUCTIVE TESTING:	1	·	\
	Test or Special Inspection	Туре	Performed By	Code References and Notes
<b>√</b>	a. Ultrasonic	Test	LOR	<b>1705A.2.1, 1705A.2.5</b> ; AISC 341-16 J6.2, AISC 360-16 N5.5; AD1.1, AWS D1.8; DSA IR 17-2.

1. Structural/Testing and Inspection: Laboratory Verified Report Form DSA 291

2. Concrete Batch Plant Inspection: Laboratory Verified Report Form DSA 291

Post/installed Anchors: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA

hop Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form

Field Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA

DSA-103 PLYWOOD FLOOR (CONCRETE FOUNDATION)

NOTES:
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IF THERE IS A GEOTECHNICAL REPORT, THE GEOTECH ENGINEER SHOULD DO THE INSPECTION INSTEAD OF PROJECT INSPECTOR (PI).

DSA 103-22: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS, 2022 CBC School District: School Name:

DSA File Number: **Increment Number:** Date Created: 2023-05-16 14:19:31

#### 2022 CBC

**IMPORTANT**: This form is only a summary list of structural tests and some of the special inspections required for the project. Generally, the structural tests and special inspections noted on this form are those that will be performed by the Geotechnical Engineer of Record, Daboratory of Record, or Special Inspector. The actual complete test and inspection program must be performed as detailed on the DSA approved documents. The appendix at the bottom of this form identifies work NOT subject to DSA requirements for special inspection or structural testing. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel \framing, anchorage of non-structural components, etc., per Title 24, Part 2, Chapter 17A (2022 CB $\not Q$ ).

\*\*NOTE: Undefined section and table references found in this document are from the CBC, or California Building Code.

	1. TYPE		2.	PERFORMED BY
<b>Con</b> requ	tinuous – Indicates that a continuous special inspection is iired		performe represent	
Peri	<b>odic</b> – Indicates that a periodic special <b>I</b> nspection is required		be perfor	poratory of Record) – Indicates that the test or special inspection s med by a testing laboratory accepted in the DSA Laboratory Evalua ptance (LEA) Program. See CAC Section 4-335.
. 0	Salo mareates inata periodic special hispection is required		by a proje	ct Inspector) – Indicates that the special inspection may be performent ect when specifically approved by DSA.
Test	: – Indicates that a test is required	al Inspection) – Indicates that the special inspection shall be perfo propriately qualified/approved special inspector.		
	S/A1. STRUCTURAL STEEL, COLD-FORMED STEEL AND A	LUMINUM USE	D FOR STRUCTUR	RAL PURPOSES
	Test or Special Inspection	Туре	Performed By	Code References and Notes
<b>V</b>	<ul> <li>a. Verify identification of all materials and:</li> <li>Mill certificates indicate material properties that comply with requirements.</li> <li>Material sizes, types and grades comply with requirements.</li> </ul>	Periodic	*	<b>Table 1705A.2.1 Item 3a 3c.</b> 2202A.1; AISI S100-20 Section A3. A3.2, AISI S240-20 Section A3 & A5, AISI S220-20 Sections A4 & A6 special inspector or qualified technician when performed off-site
<b>√</b>	b. Test unidentified materials	Test	LOR	2202A.1.
<b>V</b>	c. Examine seam welds of HSS shapes	Periodic	SI	ØSA IR 17-3.
<b>7</b>	d. Verify and document steel fabrication per DSA-approved construction documents.	Periodic	SI	Not applicable to cold-formed steel light-frame construction, exc for trusses (1705A.2.4).
	S/A3. WELDING:			
	Test or Special Inspection	Туре	Performed By	Code References and Notes
<b>V</b>	a. Verify weld filler material identification markings per AWS designation listed on the DSA-approved documents and the WPS.	Periodic	S	<b>1705A.2.5, Table 1705A.2.1 Items 4 &amp; 5</b> ; AWS D1.1 and AWS D structural steel; AWS D1.2 for Aluminum; AWS D1.3 for cold-form steel; AWS D1.4 for reinforcing steel; DSA IR 17-3.
<b>V</b>	<b>b</b> . Verify weld filler material manufacturer's certificate of compliance.	Periodic	SI	DSA IR 17-3.
<b>✓</b>	c. Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA IR 17-3.
	S/A4. SHOP WELDING (IN ADDITION TO SECTION S/A3):	/	/ \	
	Test or Special Inspection	Type /	Performed By	Code References and Notes
<b>V</b>	<b>a.</b> Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	Continuous	si	<b>Table 1705A.2.1 Items 5a.1 4</b> ; AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
<b>V</b>	<b>b.</b> Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds.	Periodic	SI \	<b>1705A.2.2, Table 1705A.2.1 Items 5a.5 &amp; 5a.6</b> ; AISC 360-16 (ar AISC 341-16 as applicable); DSA IR 17-3.
<b>√</b>	c. Inspect welding of stairs and railing systems.	Periodic	SI \	<b>1705A.2.1</b> ; AISC 360-16 (and AISC 341-16 as applicable); AWS D1 D1.3; DSA IR 17-3.
	Test or Special Inspection	/ Туре	Performed By	Opde References and Notes
	S/A5. FIELD WELDING (IN ADDITION TO SECTION S/A3)/			
	Test or Special Inspection	Туре	Performed By	Code References and Notes
	<b>a.</b> Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	Continuous	SI	<b>Table 1705A.2.1 Items 5a.1 4</b> ; AISC 360-16 (AISC 341-16 as applicable); DSA IR 17-3.
<b>V</b>	b. Inspect single-pass fillet welds ≤ 5/16".	Periodic	SI	<b>Table 1705A.2.1 Item 5a.5</b> ; AISC 360-16 (AISC 341-16 as applica DSA IR 17-3.
	Test or Special Inspection	Туре	Performed By	Code References and Notes
	S/A6. NONDESTRUCTIVE TESTING:	•	•	
	Test or Special Inspection	Туре	Performed By	Code References and Notes
<b>V</b>	a. Ultrasonic	Test	LOR	<b>1705A.2.1, 1705A.2.5</b> ; AISC 341-16 J6.2, AISC 360-16 N5.5 D1.1, AWS D1.8; DSA IR 17-2.
<b>/</b>	b. Magnetic Particle	Test	LOR	<b>1705A.2.1, 1705A.2.5</b> ; AISC 341-16 J6.2, AISC 360-16 N5.5 D1.1, AWS D1.8; DSA IR 1₹-2.

Shop Welding Inspection;/Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form

Field Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA

THE EXAMPLE OF FORM DSA-103s SHOWN ON THIS SHEET ARE FOR ILLUSTRATION PURPOSE ONLY. A FORM DSA-103 IS TO BE COMPLETED FOR EACH APPLICATION THAT THIS PC BEING INCORPORATED INTO AND EXAMPLE FORM DSA-103s ARE TO BE CROSSED OUT ON THIS DRAWING.

DSA-103 PLYWOOD FLOOR (WOOD FOUNDATION)

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 02-122823 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹



SAN DIEGO, CA 92127

1/30/2025

ROJECT SPECIFIC STATE AGENCY APPROVAL

PROFESSIONAL STAMP



THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

1651Juanita Street, San Jacinto, CA 92583 Voice (951) 943-1908 Fax (951)943-5768

ORIGINAL PC STATE AGENCY APPROVAL



Revision Schedule

Description

PRE-CHECK (PC) DOCUMENT

A separate project application for construction is required

PC 2022 CBC: 24' x 40' **EXPANDABLE TO** 120' x 40'

DSA-103 T&I **PLYWOOD FLOORS** 

PROJECT NUMBER

CHECKED BY

DSA-103 PLYWOOD FLOOR (STOCKPILE)

• Gypsum Board - 5/8 in. thick board, applied vertically, attached to studs with 1 in. long, Type S -12 screws, spaced 8 in. OC Fire Test Fire Rating Thickness (in.) 1 hr. **UL U465** along the edges and 12 in. OC of the board - SHEETROCK Brand FIRECODE Core (Type X) • Steel Studs - 3-5/8 in. wide min. 25 gauge steel. Attached to floor and ceiling with fasteners, 24 in. OC - 362S125-18 Steel Stud (Non-loadbearing) • Gypsum Board - 5/8 in. thick gypsum board applied vertically or horizontally. - SHEETROCK Brand FIRECODE Core (Type X) Interior Partitions Sound Test: RAL-TL11-125 & Visit U465 1 UL U457 (OR EQ) TO BE USED FOR EXT. STC RATING. WOOD STUD MAY BE USED ILO OF MTL STUD Cement Board - 1/2 thick board, square edge - DUROCK Brand Cement Board Next Gen Fine Test Fire Rating 1 hr.

Visit U457 @ U457 @

Visit U419 Z

UL U419 OR UL U465 (OR EQ) TO BE USED FOR INT. STC RATING. WOOD STUD MAY BE USED ILO OF MTL STUD (WHEN NON-RATED WALLS ARE BEING APPLIED "X"

40

1 hr.

**UL U457** Steel Stud (Non-loadbearing) Interior Partitions Sound Test: USG-840222

Fire Test

98-M

Interior Partitions

UL U419 or MEA 81-

Steel Stud (Non-loadbearing)

Sound Test: RAL-TL11-125

Steel Studs - 3-5/8 in. wide min. 25 gauge steel studs @ max 24 in. OC - 362S125-18

- Steel Studs 3-5/8 in. wide by 1-1/4 in. deep, min. 20 gauge steel, max 16 in. OC 362S125-30 . Batts and Blankets - 3 in. mineral wool batt insulation
- Gypsum Board 5/8 in. thick gypsum board applied vertically SHEETROCK Brand FIRECODE Core (Type X)

• Gypsum Board - 5/8 in. thick gypsum board applied vertically or horizontally. - SHEETROCK Brand FIRECODE Core (Type X)

• Gypsum Board - 5/8 in. thick gypsum board applied vertically or horizontally. - SHEETROCK Brand FIRECODE Core (Type X)

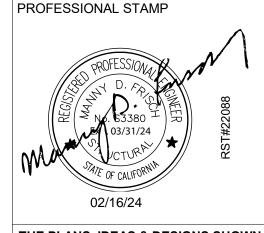
transmission must meet the minimum requirement of a STC rating of 40 (per 2022 CALGreen Code, Section 507.4.3).

BOARD IS NOT REQUIRED -STC RATINGS STILL APPLY)

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-122823 INC: **REVIEWED FOR** SS 🗹 FLS 🗹 ACS 🗹 1/30/2025

ROJECT SPECIFIC STATE AGENCY APPROVAL

DESIGN ♦ CONSULTING ♦ PROJECT MG 11590 W BERNARDO COURT, SUITE 100 SAN DIEGO, CA 92127



THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©



ORIGINAL PC STATE AGENCY APPROVAL APPROVED DIV. OF THE STATE ARCHITEC

> Revision Schedule Description

> > PRE-CHECK (PC) DOCUMENT

PC 2022 CBC: 24' x 40' **EXPANDABLE TO** 120' x 40'

SHEET TITLE CALGREEN SPEC'S

PROJECT NUMBER 22088

rMc/SC CHECKED B

DATE

SHEET NO. A0.5

**ACOUSTIC CONTROL- When** 

the Pre-check building is site

CALGreen Code, Section

5.507.4 for the specific site

building, the adjoining wall

section for interior sound

place adjacent to another PC

adapted, the building and site

features need to comply with the

location, and when PC building is

# California 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE NONRESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2023)

**CHAPTER 3** GREEN BUILDIN **SECTION 301 GENERA** 301.1 SCOPE. Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in the code. Voluntary green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7. **301.3 NONRESIDENTIAL ADDITIONS AND ALTERATIONS. [BSC-CG]** The provisions of individual sections of Chapter 5 apply to newly constructed buildings, building additions of 1,000 square feet or greater, and/or building alterations with a permit valuation of \$200,000 or above (for occupancies within the authority of California Building Standards Commission). Coor sections relevant to additions and alterations shall only apply to the portions of the building being added or altered within the scope of the A code section will be designated by a banner to indicate where the code section only applies to newly constructed buildings [N] or to additions and/or alterations [A]. When the code section applies to both, no 301.3.1 Nonresidential additions and alterations that cause updates to plumbing fixtures only: Note: On and after January 1, 2014, certain commercial real property, as defined in Civil C 1101.3, shall have its noncompliant plumbing fixtures replaced with appropriate water-conser plumbing fixtures under specific circumstances. See Civil Code Section 1101.1 et seg. for definit types of commercial real property affected, effective dates, circumstances necessitating replacement of noncompliant plumbing fixtures, and duties and responsibilities for 301.3.2 Waste Diversion. The requirements of Section 5.408 shall be required for additions and alterations whenever a permit is required for work. 301.4 PUBLIC SCHOOLS AND COMMUNITY COLLEGES. (see GBSC) 301.5 HEALTH FACILITIES. (see GBSC) **SECTION 302 MIXED OCCUPANCY BUILDINGS 302.1 MIXED OCCUPANCY BUILDINGS.** In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy. **SECTION 303 PHASED PROJECTS** 303.1 PHASED PROJECTS. For shell buildings and others constructed for future tenant improvements only those code measures relevant to the building components and systems considered to be new construction (or newly constructed) shall apply. **303.1.1 Initial Tenant improvements.** The provisions of this code shall apply only to the initial tenant improvements to a project. Subsequent tenant improvements shall comply with the scoping provisions in Section 301.3 non-residential additions and alterations. ABBREVIATION DEFINITIONS: Department of Housing and Community Development California Building Standards Commission Division of the State Architect, Structural Safety OSHPD Office of Statewide Health Planning and Development Low Rise High Rise Additions and Alterations CHAPTER 5 NONRESIDENTIAL MANDATORY MEASURES DIVISION 5.1 PLANNING AND DESIGN **SECTION 5.101 GENERAL** The provisions of this chapter outline planning, design and development methods that include environmentally responsible site selection, building design, building siting and development to protect, restore and enhance the environmental quality of the site and respect the integrity of adjacent properties. **SECTION 5.102 DEFINITIONS** 5.102.1 DEFINITIONS The following terms are defined in Chapter 2 (and are included here for reference) CUTOFF LUMINAIRES. Luminaires whose light distribution is such that the candela per 1000 lamp lumens does not numerically exceed 25 (2.5 percent) at an angle of 90 degrees above nadir, and 100 (10 percent) at a vertical angle of 80 degrees above nadir. This applies to all lateral angles around the luminaire. LOW-EMITTING AND FUEL EFFICIENT VEHICLES. Eligible vehicles are limited to the following: 1. Zero emission vehicle (ZEV), enhanced advanced technology PZEV (enhanced AT ZEV) or transitional zero emission vehicles (TZEV) regulated under CCR. Title 13. Section 1962. 2. High-efficiency vehicles, regulated by U.S. EPA, bearing a fuel economy and greenhouse gas rating od 9 oe 0 as regulated under 40 CFR Section 600 Subpart D. NEIGHBORHOOD ELECTRIC VEHICLE (NEV). A motor vehicle that meets the definition of "low-speed vehicle" either in Section 385.5 of the Vehicle Code or in 49CFR571.500 (as it existed on July 1, 2000), and is certified to zero-emission vehicle standards. TENANT-OCCUPANTS. Building occupants who inhabit a building during its normal hours of operation as permanen occupants, such as employees, as distinguished from customers and other transient visitors. VANPOOL VEHICLE. Eligible vehicles are limited to any motor vehicle, other than a motortruck or truck tractor, designed for carrying more than 10 but not more than 15 persons including the driver, which is maintained and used primarily for the nonprofit work-related transportation of adults for the purpose of ridesharing. Note: Source: Vehicle Code, Division 1, Section 668 **ZEV.** Any vehicle certified to zero-emission standards. SECTION 5.106 SITE DEVELOPMENT 5.106.1 STORM WATER POLLUTION PREVENTION FOR PROJECTS THAT DISTURB LESS THAN ONE ACRE OF LAND. Newly constructed projects and additions which disturb less than one acre of land, and are not part a larger common plan of development or sale, shall prevent the pollution of storm water runoff from the constru activities through one or more of the following measures: 5.106.1.1 Local ordinance. Comply with a lawfully enacted storm water management and **5.106.1.2 Best Management Practices (BMPs).** Prevent the loss of soil through wind or water erosion by implementing an effective combination of erosion and sediment control and go Soil loss BMPs that should be considered for implementation s appropriate for each project include, but are not limited to, the following: a. Scheduling construction activity during dry weath , when possible b. Preservation of natural features, vegetation il, and buffers around surface waters. c. Drainage swales or lined ditches to contra stormwater flow. d. Mulching or hydroseeding to stabilize aisturbed soils. Erosion control to protect slopes, Protection of storm drain inlets gravel bags or catch basin inserts). Perimeter sediment control perimeter silt fence, fiber rolls). t basin to retain sediment on site. Sediment trap or seding Stabilized constructi Wind erosion co Other soil los BMPs acceptable to the enforcing agency. Good housekeeing BMPs to manage construction equipment, materials, non-stormwater discharges it should be considered for implementation as appropriate for each project include, but ted to, the following: are not li Material handling and waste management. Building materials stockpile management. Management of washout areas (concrete, paints, stucco, etc.). Control of vehicle/equipment fueling to contractor's staging area. Vehicle and equipment cleaning performed off site. Spill prevention and control. Other housekeeping BMPs acceptable to the enforcing agency.

5.106.2 STORMWATER POLLUTION PREVENTION FOR PROJECTS THAT DISTURB ONE OR MORE ACRES OF LAND. Comply with all lawfully enacted stormwater discharge regulations for projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of a larger common plan of development sale. Note: Projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of the larger common plan of development or sale must comply with the post-construction requirements detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board or the Lahontan Regional Water Quality Control Board (for projects in the Lake Tahoe Hydrologic Unit). The NPDES permits require postconstruction runoff (post-project hydrology) to match the preconstruction runoff (pre-project hydrology) with the installation of postconstruction stormwater management measures. The NPDES permits emphasize runoff reduction through on-site stormwater use, interception, evapotranspiration, and infiltration through nonstructural controls, such as Low Impact Development (LID) practices, and conversation design measures. Stormwater volume that cannot be addressed using nonstructural practices is required to be captured in structural practices and be approved by the enforcing agency. Refer to the current applicable permits on the State Water Resources Control Board website at:

www.waterboards.ca.gov/constructionstormwater. Consideration to the stormwater runoff management measures should be given during the initial design process for appropriate integration into site development. **5.106.4 BICYCLE PARKING.** For buildings within the authority of California Building Standards Commission as

specified in Section 103, comply with Section 5.106.4.1. For buildings within the authority of the Division of the State Architect pursuant to Section 105, comply with Section 5.106.4.2 **5.106.4.1 Bicycle parking. [BSC-CG]** Comply with Sections 5.106.4.1.1 and 5.106.4.1.2; or meet the

applicable local ordinance, whichever is stricter.

ces with a minimum of one bicycle parking facility.

Note: Additional information on recommended

**5.106.4.1.1 Short-term bicycle parking.** If the new project or an addition or alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added with a minimum of one two-bike capacity rack.

**Exception:** Additions or alterations which add nine or less visitor vehicular parking spaces. **5.106.4.1.2 Long-term bicycle parking.** For new buildings with tenant spaces that have 10 or more enant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking

**5.106.4.** 3 For additions or alterations that add 10 or more tenant-occupant vehicular parking spaces, provide see we bicycle parking for 5 percent of the tenant vehicular parking spaces being added, with a h bicycle parking facility.

**5.106.4.1.4** For new shell buildings in phased projects provide secure bicycle parking for 5 percent of the anticipated tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility. **5.106.4.1.5** Acceptable bicycle parking facility for Sections 5.106.4.1.2, 5.106.4.1.3, and 5.106.4.1.4 shall be convenient from the street and s all meet one of the following:

of yole accommodations may be obtained from

 Covered, lockable enclosures with permanently anchored racks for bicycles; 2. Lockable bicycle rooms with permanently anchored racks; or 3. Lockable, permanently anchored bio

Sacramento Area Bicycle Advocates. 5.106.4.2 Bicycle parking. [DSA-SS] For public schools and community colleges, comply with Sections 5.106.4.2.1 and 5.106.4.2.2

**5.106.4.2.1 Student bicycle parking.** Provide permanently anchored bicycle racks conveniently accessed with a minimum of four two-bike capacity racks per new building. **5.106.4.2.2 Staff bicycle parking.** Provide permanent, secure bicycle parking conceniently accessed with a minimum of two staff bicycle parking spaces per new building. Acceptable bicycle parking facilities shall be convenient from the street or staff parking area and shall meet one of the follow

. Covered, lockable enclosures with permanently anchored racks for bicycles; 2. Lockable bicycle rooms with permanently anchored racks; or 3. Lockable, permanently anchored bicycle lockers.

5.106.5.3 Electric vehicle (EV) charging. [N] Construction to provide electric vehicle infrastructure and facilities electric vehicle charging shall comply with Section 5.106.5.3.1 and shall be provided in accordance with regulations in the California Building Code and the California Electrical Code.

> 1. On a case-by-case basis where the local enforcing agency has dete this section is not feasible based upon one of the following condi a. Where there is no local utility power supply b. Where the local utility is unable to supply adequate

c. Where there is evidence suitable to the local enforcement agency substantiating the local utility infrastructure design requirements directly related to the implementation of Section 5.106.5.3, may adversely impact the construction cost of the project. 2. Parking spaces accessible only by automated mechanical car parking systems are not required to comply with this code seg

5.106.5.3.1 EV capable spaces. d in accordance with Table 5.106.5.3.1 and the following [N] EV capable spaces shall be provide

 Raceways comply with the California Electrical Code and no less that 1-inch (25 mm) ovided and shall originate at a service panel or a subpanel(s) serving hall terminate in close proximity to the proposed location of the EV capable table listed cabinet, box,enclosure or equivalent. A common raceway may be serve multiple EV charging spaces.

rvice panel or subpanel (s) shall be provided with panel space and electrical load apacity for a dedicated 208/240 volt, 40-ampere minimum branch circuit for each EV capable space, with delivery of 30-ampere minimum to an installed EVSE at each EVCS. The electrical system and any on-site distribution transformers shall have sufficient capacity

to supply full rated amperage at each EV capable space. 4. The service panel or subpanel circuit directory shall identify the reserved overcurrent protective devices space(s) as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE."

Note: A parking space served by electric vehicle supply equipment or designed as a future EV charging space shall count as at least one standard automobile parking space only for the purpose of complying with any applicable minimum parking space requirements established by an enforcement

TABLE 5.106.5.3.1		
TOTAL NUMBER OF ACTUAL PARKING SPACES	NUMBER OF REQUIRED EV CAPABLE SPACES	NUMBER OF EVCS (EV CAPABLE SPACES PROVIDED WITH EVSE)^2
0-9	0	0
10-25	2	0
26-50	8	2
51-75	13	3
76-100	17	4
101-150	25	6
151-200	35	9
201 AND OVER	20% of total <sup>1</sup>	25% of EV capable spaces <sup>1</sup>

 Where there is insufficient electrical supply. The number of required EVCS (EV capable spaces provided with EVSE) in column 3 count towards

5.106.5.3.2 Electric vehicle charging stations (EVCS)

the total number of required EV capable spaces shown in column 2.

agency. See vehicle Code Section 22511.2 for further details.

EV capable spaces shall be provided with EVSE to create EVCS in the number indicated in Table 5.106.5.3.1. The EVCS required by Table 5.106.5.3.1 may be provided with EVSE in any combination of Level 2 and Direct Current Fast Charging (DCFC), except that at least one Level 2 EVSE shall be

One EV charger with multiple connectors capable of charging multiple EVs simultaneously shall be permitted if the electrical load capacity required by Section 5.106.5.3.1 for each EV capable space is accumulatively supplied to the EV charger.

The installation of each DCFC EVSE shall be permitted to reduce the minimum number of required EV capable spaces without EVSE by five and reduce proportionally the required electrical load capacity to the

5.106.5.3.3 Use of automatic load management systems (ALMS). ALMS shall be permitted for EVCS. When ALMS is installed, the required electrical load capacity

5.106.5.3.1 for each EVCS may be reduced when serviced by an EVSE controlled by an ALMS. Each EVSE controlled by an ALMS shall deliver a minimum 30 amperes to an EV when charging one vehicle and shall deliver a minimum 3.3 kW while simultaneously charging multiple EVs.

5.106.5.3.4 Accessible EVCS. When EVSE is installed, accessible EVSC shall be provided in accordance with the California Building

Code, Chapter 11B, Section 11B-228.3. Note: For EVCS signs, refer to Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s).

5.106.5.4 Electric Vehicle (EV) charging: medium-duty and heavy-duty. [N] Construction shall comply with section 5.106.5.4.1 to facilitate future installation of electric vehicle supply equipment (EVSE). Construction for warehouses, grocery stores and retail stores with planned off-street loading spaces shall also comply with Section 5.106.5.4.1 for future installation of medium- and heavy-duty EVSE.

1. On a case-by-case basis where the local enforcing agency has determined compliance with this section is not feasible based upon one of the following conditions:

a. Where there is no local utility power supply. b. Where the local utility is unable to supply adequate power.

c. Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementat of Section 5.106.5.3, may adversely impact the construction cost of the project. When EVSE(s) is/are installed, it shall be in accordance with the California Building Code, the California Electrical Code and as follows:

5.106.5.4.1 Electric vehicle charging readiness requirements for warehouse, grocery stores and retail store with planned off-street loading spaces. [N] In order to avoid future demolition when adding EV charging supply and distribution equipment, spare

raceways(s) or busway(s) and adequate capacity for transformers(s), service panels(s) or subpane installed at the time of construction in accordance with the California Electrical Code. Construct specifications shall include but are not limited to, the following: 1. The transformer, main service equipment and subpanel shall meet the minim

to the future location of the char

TABLE 5.106.5.4.1 RACEWAY CONDUIT AND PANEL POWER

requirement in Table 5.106.5.4.1 to accommodate the dedicated branch 2. The construction documents shall indicate on or more location(s) offstreet loading space(s) reserved for medium-and heavy-dub ZEV charging cabinets and charging dispensers, and a pathway reserved for routing acconduit from the termination of the raceway(s) or busway(s) to the charging cabinet(s) and anspenser(s) as shown in Table 5.106.5.4.1

3. Raceway(s) or busway(s) originating at a main solvice panel or a subpanel(s) serving the area where potential future medium-and heavy-du EVSE will be located and shall terminate in close proximity to the potential future location of charging equipments for medium- and heavy-duty sufficient size to carry the minimum additional system load 4. The raceway(s) or busway(s) shall

ng for medium- and heavy-duty ZEVs as shown in Table

REQUIREMENTS	OR MEDIUM- AND HEA	VY-DUTY EVSE [N	
BUILDING TYPE	BUILDING SIZE (SQ. FT.)	NUMBER OF OFF-STREET LOADING SPACES	ADDITIONAL CAPACITY REQUIRED (KVA) FOR RACEWAY & BUSWAY AND TRANSFORMER & PANEL
Grocery	10,000 to 90,000	1 or 2	200
	10,000 to 90,000	3 or Greater	400
	Greater than 90,000	1 or Greater	400
	10 000 to 125 000	1 or 2	200
Retail	10,000 to 135,000	3 or Greater	400
	Greater than 135,000	1 or Greater	400
		1 or 2	200
Walthouse	20,000 to 256,000	3 or Greater	400

5.106.8 LIGHT POLLUTION REDUCTION. [N]. I Outdoor lighting systems shall be designed and installed to comply

1. The minimum requirements in the Salifornia Energy Code for Lighting Zones 0-4 as defined in Chapter 10,

Section 10-114 of the California Administrative Code; and
2. Backlight (B) ratings as defined in IES TM-15-11 (shown in Table A-1 in Chapter 8);

3. Uplight and Glare ratings as defined in California Energy Code (shown in Tables 130.2-A and 130.2-B in

4. Allowable BUG ratings not exceeding those shown in Table 5.106.8, [N] or Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

 Luminaires that qualify as exceptions in Sections 130.2 (b) and 40.7 of the California Energy Code. 2. Emergency lighting. 3. Building facade meeting the requirements in Table 140.7-B of the Call

aitted by Section 101.8

1 or Greater

4. Custom lighting features as allowed by the local enforcing agency, as pen

Alternate materials, designs and methods of construction. 5. Luminaires with less than 6,200 initial luminaire lumens.

TABLE 5.106.8 [N] MAXIMUM ALLOWABLE BACKLIGHT,

Greater than 256,000

UPLIGHT AND GLARE (BUG) RATINGS 1,2					
ALLOWABLE RATING	LIGHTING ZONE LZ0	LIGHTING ZONE LZ1	LIGHTING ZONE LZ2	LIGHTING ZONE LZ3	LIGHTING ZONE LZ4
MAXIMUM ALLOWABLE BACKLIGHT RATING 3					
Luminaire greater than 2 mounting heights (MH) from property line	N/A	No Limit	No Limit	No Limit	No Limit
Luminaire back hemisphere is 1-2 MH from property line	N/A	B2	В3	B4	B4
Luminaire back hemisphere is 0.5-1 MH from property line	N/A	B1	B2	В3	В3
Luminaire back hemisphere is less than 0.5 MH from property line	N/A	В0	В0	B1	B2
MAXIMUM ALLOWABLE UPLIGHT RATING (U)					
For area lighting ₃	N/A	U0	U0	U0	U0
For all other outdoor lighting,including decorative luminaires	N/A	U1	U2	U3	UR

MAXIMUM ALLOWABLE GLARE RATING 5 (G) MAXIMUM ALLOWABLE G3 GLARE RATING 5 (G) **MAXIMUM ALLOWABLE** N/A G2 G1 G1 GLARE RATING 5 (G) MAXIMUM ALLOWABLE G0 G0 G1 GLARE RATING 5 (G) MAXIMUM ALLOWABLE GLARE RATING 5 (G)

. IESNA Lighting Zones and 5 are not applicable; refer to Lighting Zones as defined in the California Energy the Callifornia Administrative Code. Code and Chapter 10 2. For property lines that abut public walkways, bikeways, plazas and parking lots, the property line may be considered to be 5 feet beyond the actual property line for purpose of determining compliance with this section. For

es that abut public roadways and public transit corridors, the property line may be considered to be the ne of the public roadway or public transit corridor for the purpose of determining compliance with this

3. General lighting luminaires in areas such as outdoor parking, sales or storage lots shall meet these reduced ratings. Decorative luminaries located in these areas shall meet *U*-value limits for "all other outdoor lighting"

Luminaries within 2MH of a property line shall be oriented so that the nearest property line is behind the fixture, and shall comply with the backlight rating specified in Table 5.106.8 based on the lighting zone and distance to the nearest point of that property line.

Exception: Corners. If two property lines (or two segments of the same property line) have equidistant point to the luminaire, then the luminaire may be oriented so that the intersection of the two lines (the corner) is directly behind the luminaire. The luminaire shall still use the distance to the nearest points(s) on the property lines to determine the required backlight rating.

For luminaires covered by 5.106.8.1, if a property line also exists within or extends into the front hemisphere within 2MH of the luminaire then the luminaire shall comply with the more stringent glare rating specified in Table

5.106.8 based on the lighting zone and distance to the nearest point on the nearest property line within the front

1.See also California Building Code, Chapter 12, Section 1205.6 for college campus lighting requirements for parking facilities and walkways. 2.Refer to Chapter 8 (Compliance Forms, Worksheets and Reference Material) for IES TM-15-11 Table

A-1, California Energy Code Tables 130.2-A and 130.2-B. 3. Refer to the California Building Code for requirements for additions and alterations.

.106.10 GRADING AND PAVING. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

Water collection and disposal systems.

French drains.

4 Water retention gardens

5. Other water measures which keep surface water away from buildings and aid in groundwater recharge. **Exception:** Additions and alterations not altering the drainage path.

5.106.12 SHADE TREES [DSA-SS]. Shade Trees shall be planted to comply with Sections 5.106.12.1, 5.106.12.2, and 5.106.12.3. Percentages shown shall be measured at noon on the summer solstice. Landscape irrigation necessary to establish and maintain tree health shall comply with Section 5.304.6.

5.106.12.1 Surface parking areas. Shade tree plantings, minimum #10 container size or equal, shall be installed to provide shade over 50 percent of the parking area within 15 years.

**Exceptions:** Surface parking area covered by solar photovoltaic shade structures with roofing materials that comply with Table A5.106.11.2.2 in Appendix A5 shall be permitted in whole or in part in

**5.106.12.2 Landscape areas.** Shade tress plantings, minimum #10 container size or equal shall be installed to provide shade of 20% of the landscape area within 15 years.

**Exceptions:** Playfields for organized sport activity are not included in the total area calculation. 5.106.12.3. Hardscape areas. Shade tree plantings, minimum #10 container size or equal shall be installed to

provide shade over 20 percent of the hardscape area within 15 years.

1. Walks, hardscape areas covered by solar photovoltaic shade structures or shade structures with roofing materials that comply with Table A5.106.11.2.2 in Appendix A5 shall be permitted in whole or in part in lieu

2. Designated and marked play areas of organized sport activity are not included in the total area calculation.

**DIVISION 5.2 ENERGY EFFICIENCY** 

SECTION 5.201 GENERAL

**5.201.1 Scope [BSC-CG].** California Energy Code [DSA-SS]. For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory building standards.

DIVISION 5.3 WATER EFFICIENCY AND CONSERVATION

SECTION 5.301 GENERAL

5.301.1 Scope. The provisions of this chapter shall establish the means of conserving water use indoors, outdoors and in wastewater conveyance.

**SECTION 5.302 DEFINITIONS** 

**5.302.1 Definitions.** The following terms are defined in Chapter 2 (and are included here for reference)

EVAPOTRANSPIRATION ADJUSTMENT FACTOR (ETAF) [DSA-SS]. An adjustment factor when applied to reference evapotranspiration that adjusts for plant factors and irrigation efficiency, which ae two major influences on the amount of water that needs to be applied to the landscape.

FOOTPRINT AREA [DSA-SS]. The total area of the furthest exterior wall of the structure projected to natural grade, not including exterior areas such as stairs, covered walkways, patios and decks.

METERING FAUCET. A self-closing faucet that dispenses a specific volume of water for each actuation cycle. The volume or cycle duration can be fixed or adjustable.

GRAYWATER. Pursuant to Health and Safety Code Section 17922.12, "graywater" means untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy odily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or ating wastes. "Graywater" includes, but is not limited to wastewater from bathtubs, showers, bathroom

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO). The California ordinance regulating landscape design, installation and maintenance practices that will ensure commercial, multifamily and other developer installed landscapes greater that 2500 square feet meet an irrigation water budget developed based on landscaped area and

sins, clothes washing machines and laundry tubs, but does not include waste water from kitchen sinks or

climatological paramete MODEL WATER EFFICIENT LA 'DSCAPE ORDINANCE (MWELO). [HCD] The California model ordinance (California Code of Regulations, Title 23, Division 2, Chapter 2.7), regulating landscape design, installation and maintenance practices. Local agencies re required to adopt the updated MWELO, or adopt a local ordinance at least

as effective as the MWELO. **POTABLE WATER.** Water that is drinkable and in sets the U.S. Environmental Protection Agency (EPA) Drinking Water Standards. See definition in the California Plunking Code, Part 5.

POTABLE WATER. [HCD] Water that is satisfactory for drinking, culinary, and domestic purposes, and meets the U.S. Environmental Protection Agency (EPA) Drinking Water Standards and the requirements of the Health Authority Having Jurisdiction.

**RECYCLED WATER.** Water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur [Water Code Section 13050 (n)]. Simply put, recycled water is water treated to remove waste matter attaining a quality that is suitable to use the water

SUBMETER. [HCD 1] A secondary device beyond a meter that measures water consum tion of an individual rental unit within a multiunit residential structure or mixed-use residential and commercial structu 1954.202 (g) and Water code Section 517 for additional details.)

WATER BUDGET. Is the estimated total landscape irrigation water use which shall not exceed the manual content of the content o mum applied water allowance calculated in accordance with the Department of Water Resources Model Efficient Land

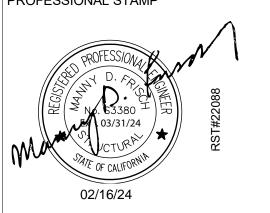
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-122823 INC: **REVIEWED FOR** SS 🗹 FLS 🗹 ACS 🗹 1/30/2025



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Revision Schedule

Description

PRE-CHECK (PC) DOCUMENT

Code: 2022 CBC

A separate project application for construction is required

PC 2022 CBC: 24' x 40' **EXPANDABLE TO** 

> CAL GREEN CHECKLIST

PROJECT NUMBER

22088

rMc/SC CHECKED BY

DATE

RH/RT

DISCLAIMER: THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDIVIDUAL NEEDS. THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.

CTION 5.401 GENERAL

**5.402.1 DEFINITIONS.** The following terms are defined in Chapter 2 (and are included here for reference) ADJUST. To regulate fluid flow rate and air patterns at the terminal equipment, such as to reduce fan speed or adjust BALANCE. To proportion flows within the distribution system, including sub-mains, branches and terminals, BUILDING COMMISSIONING. A systematic quality assurance process that spans the entire design and construction process, including verifying and documenting that building systems and components are planned, designed, installed, ORGANIC WASTE. Food waste, green waste, landscape and pruning wste, nonhazardous wood waste, and food SECTION 5.407 WATER RESISTANCE AND MOISTURE MANAGEMENT **5.407.1 WEATHER PROTECTION.** Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1402.2 (Weather Protection), manufacturer's installation instructions or local **5.407.2.1 Sprinklers.** Design and maintain landscape irrigation systems to prevent spray on structures. 5.407.2.2 Entries and openings. Design exterior entries and/or openings subject to foot traffic or wind-driven **407.2.2.1 Exterior door protection.** Primary exterior entries shall be covered to prevent water ision by using nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to loor is protected by a roof overhang at least 4 feet in depth. ds which provide equivalent protection. SECTION 5.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND **5.408.1 CONSTRUCTION WASTE MANAGEMENT.** Recycle and/or salvage for reuse a minimum of 65% of the non-hazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.408.1.2 or 5.408.1.3; or 5.408.1.1 Construction waste management plan. Where a local jurisdiction does not have a construction and demolition waste management ordinance, submit a construction waste management plan that: 1. Identifies the construction and demolition waste materials to be diverted from disposal by efficient usage, recycling, reuse on the project or salvage for future use or sale. Determines if construction and demolition waste materials will be sorted on-sit ource-separated) or Identifies diversion facilities where construction and demolition waste material colle will be taken Specifies that the amount of construction and demolition waste materials diverted shall calculated 5.408.1.2 Waste Management Company. Utilize a waste management company that can provide verifial documentation that the percentage of construction and demolition waste material diverted from the landfill Note: The owner or contractor shall make the determination if the construction and demolition waste materials. 2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle on of local recycling facilities **5.408.1.3 Waste stream reduction alternative.** The combined wight of new construction disposal that does not exceed two pounds per square foot of building area may be seemed to meet the 65% minimum requirement **5.408.1.4 Documentation.** Documentation shall be provided to the enforcing agency which demonstrates compliance with Sections 5.408.1.1, through 5.408.1.3. The waste management plan shall be updated as necessary and shall be accessible during construction for examination by the enforcing agency. A Guide to the California Green Building Standards Code (Nonresidential)" gov/BSC/Resources/Page-Content/Building-Standards-Commissionolder/CALGreen may be used to assist in documenting compliance with the waste struction and demolition debris processors can be located at the California Department of 5.408.2 UNIVERSAL WASTE. [A] Additions and alterations to a building or tenant space that meet the scoping Section 301.3 for nonresidential additions and alterations, shall require verification that Universal Waste as fluorescent lamps and ballast and mercury containing thermostats as well as other California prohibited al Waste materials are disposed of properly and are diverted from landfills. A list of prohibited Universal Waste **Note**: Refer to the Universal Waste Rule link at: http://www.dtsc.ca.gov/universalwaste/ 5.408.3 EXCAVATED SOIL AND LAND CLEARING DEBRIS. 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such **Exception:** Reuse, either on or off-site, of vegetation or soil contaminated by disease or pest infestation. 1. If contamination by disease or pest infestation is suspected, contact the County Agricultural Commissioner and follow its direction for recycling or disposal of the material. 2. For a map of know pest and/or disease quarantine zones, consult with the California Department of **5.410.1 RECYCLING BY OCCUPANTS.** Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling

5.410.2 COMMISSIONING. [N] New buildings 10,000 square feet and over. For new buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements. Commissioning shall be performed in accordance with this section by trained personnel with experience on projects of omparable size and complexity. For I-occupancies that are not regulated by OSHPD or for I-occupancies and L-occupancies that are not regulated y the California Energy Code Section 100.0 Scope, all requirements in Sections 5.410.2 through 5.410.2.6 shall apply. Note: For energy-related systems under the scope (Section 100) of the California Energy Code, including heating, ventilation, air conditioning (HVAC) systems and controls, indoor lighting systems and controls, as well as water heating systems and controls, refer to California Energy Code Section 120.8 for commissioning requirements Commissioning requirements shall include: 1. Owner's or Owner representative's project requirements. Basis of design. 3. Commissioning measures shown in the construction documents. 4. Commissioning plan. Functional performance testing. 6. Documentation and training. 7. Commissioning report. 1. Unconditioned warehouses of any size. 2. Areas less than 10,000 square feet used for offices or other conditioned accessory spaces within unconditioned warehouses 3. Tenant improvements less than 10,000 square feet as described in Section 303.1.1. 4. Open parking garages of any size, or open parking garage areas, of any size, within a structure. Note: For the purposes of this section, unconditioned shall mean a building, area, or room which d provide heating and or air conditioning. Informational Notes 1. IAS AC 476 is an accreditation criteria for organizations providing training and commissioning personnel. AC 476 is available to the Authority Having Juris tion as a reference for qualifications of commissioning personnel. AC 476 des not certify individ als to conduct functional performance tests or to adjust and balance systems. 2. Functional performance testing for heating, ventilation, air co tioning systems and lighting controls must be performed in compliance with the California Energy 5.410.2.1 Owner's or Owner Representative's Poject Requirements (OPR). [N] The expectations and requirements of the building appropriate to its place shall be documented before the design phase of the project begins. This documentation shall include the following: Environmental and sustainabil 2. Building sustainable goals Indoor environmental of ty requirements Project program, in ding facility functions and hours of operation, and need for after hours operation. systems expectations upant and operation and maintenance (O&M) personnel expectations. Building of Design (BOD). [N] A written explanation of how the design of the building systems meets all be completed at the design phase of the building project. The Basis of Design document shall Renewable energy systems. Landscape irrigation systems. Water reuse system. 5.410.2.3 Commissioning plan. [N] Prior to permit issuance a commissioning plan shall be completed to document how the project will be commissioned. The commissioning plan shall include the following: 1. General project information. Commissioning goals. 3. Systems to be commissioned. Plans to test systems and components shall include: a. An explanation of the original design intent. Equipment and systems to be tested, including the extent of tests c. Functions to be tested d. Conditions under which the test shall be performed. e. Measurable criteria for acceptable performance. Commissioning process activities, schedules and responsibilities. Plans for the completion of commissioning shall be included. **5.410.2.4 Functional performance testing. [N]** Functional performance tests shall demonstrate the correct installation and operation of each component, system and system-to-system interface in accordance with the approved plans and specifications. Functional performance testing reports shall contain information addressing each of the building components tested, the testing methods utilized, and include any readings and adjustments **5.410.2.5 Documentation and training. [N]** A Systems Manual and Systems Operations Training are required, including Occupational Safety and Health Act (OSHA) requirements in *California Code of Regulations* (CCR), Title 8, Section 5142, and other related regul **5.410.2.5.1 Systems manual. [N]** Document tion of the operational aspects of the building shall be completed within the systems manual and delivered to the building owner or representative. The systems manual shall include the following: 1. Site information, including facility description, listory and current requirements. 2. Site contact information. 3. Basic operations and maintenance, including general site operating procedures, basic troubleshooting, recommended maintenance requirements, site events log. Maior systems. 5. Site equipment inventory and maintenance notes. 6. A copy of verifications required by the enforcing agency or this code 7. Other resources and documentation, if applicable. 5.410.2.5.2 Systems operations training. [N] A program for training of the appropriate staff for each equipment type and/or system shall be developed and documented in the com report and shall include the following: 1. System/equipment overview (what it is, what it does and with what other systems and/o equipment it interfaces). 2. Review and demonstration of servicing/preventive maintenance. 3. Review of the information in the Systems Manual. 4. Review of the record drawings on the system/equipment. 5.410.2.6 Commissioning report. [N] A report of commissioning process activities undertaken through the design and construction phases of the building project shall be completed and provided to the owner or 5.410.4 TESTING AND ADJUSTING. New buildings less than 10,000 square feet. Testing and adjusting of systems shall be required for new buildings less than 10,000 square feet or new systems to serve an addition or alteration subject to Section 303.1. 5.410.4.2 (Reserved) Note: For energy-related systems under the scope (Section 100) of the California Energy Code, including heating, ventilation, air conditioning (HVAC) systems and controls, indoor lighting system and controls, as well as water heating systems and controls, refer to California Energy Code Section 120.8 for commissioning requirements and Sections 120.5, 120.6, 130.4, and 140.9(b)3 for additional testing requirements of specific **5.410.4.2 Systems.** Develop a written plan of procedures for testing and adjusting systems. Systems to be included for testing and adjusting shall include at a minimum, as applicable to the project:

TY (ie: ARCHITECT, ENGINEER, alancing, provide a final report of testing 5.410.4.4 Reporting. After completion of testing, adjusting and signed by the individual responsible for performing these se 5.410.4.5 Operation and maintenance (O & M) ma ial. Provide the building owner or representative with detailed operating and maintenance instructions and copies of guaranties/warranties for each system. O & M instructions shall be consistent with OSHA re-u firements in CCR, Title 8, Section 5142, and other related regulations. **5.410.4.5.1 Inspections** and reports. Include a copy of all inspection verifications and reports required by the enforcing agency DIVISION 5.5 ENVIRONMENTAL QUALITY The provisions of this chapter shall outline means of reducing the quantity of air contaminants that fitating, and/or harmful to the comfort and well-being of a building's installers, occupants and neighbors. SECTION 5.502 DEFINITIONS 2.1 **DEFINITIONS**. The following terms are defined in Chapter 2 (and are included here for reference) ARTERIAL HIGHWAY. A general term denoting a highway primarily for through traffic usually on a continuous route. **A-WEIGHTED SOUND LEVEL (dBA).** The sound pressure level in decibels as measured on a sound level meter using the internationally standardized A-weighting filter or as computed from sound spectral data to which A-weighting adjustments have been made. 1 BTU/HOUR. British thermal units per hour, also referred to as Btu. The amount of heat required to raise one pound of water one degree Fahrenheit per hour, a common measure of heat transfer rate. A ton of refrigeration is 12,000 Btu. the amount of heat required to melt a ton (2,000 pounds) of ice at 32<sup>0</sup> Fahrenheit. COMMUNITY NOISE EQUIVALENT LEVEL (CNEL). A metric similar to the day-night average sound level (Ldn), except that a 5 decibel adjustment is added to the equivalent continuous sound exposure level for evening hours (7pm to 10pm) in addition to the 10 dB nighttime adjustment used in the Ldn. COMPOSITE WOOD PRODUCTS. Composite wood products include hardwood plywood, particleboard and medium density fiberboard. "Composite wood products" does not include hardboard, structural plywood, structural panels, structural composite lumber, oriented strand board, glued laminated timber, timber, prefabricated wood I-joists or finger-jointed lumber, all as specified in California Code of Regulations (CCR), Title 17, Section 93120.1(a). Note: See CCR, Title 17, Section 93120.1. DAY-NIGHT AVERAGE SOUND LEVEL (Ldn). The A-weighted equivalent continuous sound exposure level for a 24-hour period with a 10 dB adjustment added to sound levels occurring during nighttime hours (10p.m. to 7 a.m.). DECIBEL (db). A measure on a logarithmic scale of the magnitude of a particular quantity (such as sound pressure, sound power, sound intensity) with respect to a reference quantity. **ELECTRIC VEHICLE (EV).** An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array, or other source of electric current. Plug-in hybrid electric vehicles (PHEV) are considered electric vehicles. For purposes of the California Electrical Code, off-road. self-propoelled electric vehicles, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats, and the like, are not included. ELECTRIC VEHICLE CHARGING STATION(S) (EVCSj). One or more spaces intended for charging electric vehicles ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). The conductors, including the ungrounded, grounded, and equipment grounding conductors and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle. ENERGY EQUIVALENT (NOISE) LEVEL (Leq). The level of a steady noise which would have the same energy as the fluctuating noise level integrated over the time of period of interest. EXPRESSWAY. An arterial highway for through traffic which may have partial control of access, but which may or may not be divided or have grade separations at intersections. FREEWAY. A divided arterial highway with full control of access and with grade separations at intersections. GLOBAL WARMING POTENTIAL (GWP). The radiative forcing impact of one mass-based unit of a given greenhouse gas relative to an equivalent unit of carbon dioxide over a given period of time. Carbon dioxide is the reference compound with a GWP of one. GLOBAL WARMING POTENTIAL VALUE (GWP VALUE). A 100-year GWP value published by the Intergovernmental Panel on Climate Change (IPCC) in either its Second Assessment Report (SAR) (IPCC, 1995); or its Fourth Assessment A-3 Report (AR4) (IPCC, 2007). The SAR GWP values are found in column "SAR (100-yr)" of Table 2.14.; the AR4 GWP values are found in column "100 yr" of Table 2.14. HIGH-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that is: (a) a chlorofluorocarbon, a hdrochlorofluorocarbon, a hydrofluorocarbon, a perfluorocarbon, or any compound or blend of compounds, with a GWP value equal to or greater than 150, or (B) any ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009). LONG RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, with a radius 1.5 times the pipe diameter. LOW-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that: (A) has a GWP value less than 150, and (B) is not an ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009). MERV. Filter minimum efficiency reporting value, based on ASHRAE 52.2–1999. MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the "Base REactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to hundreths of a gram (g O<sup>3</sup>/g ROC). PRODUCT-WEIGHTED MIR (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging). **PSIG.** Pounds per square inch, guage. REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to SCHRADER ACCESS VALVES. Access fittings with a valve core installed. SHORT RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, PERMARKET. For the purposes of Section 5.508.2, a supermarket is any retail food facility with 8,000 square feet the conditioned area, and that utilizes either refrigerated display cases, or walk-in coolers or freezers connected empressor units or condensing units. VOC. A volatile organic compound broadly defined as a chemical compound based on carbon chains or rings with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain hydrogen and may cottain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a) **Note:** Where specific regulations are cited from different agencies such as SCAQMD, ARB, etc., the VOC definition included in that specific regulation is the one that prevails for the specific measure in question. SECTION 5.503 FIREPLACES **5.503.1 FIREPLACES.** Install only a direct yent sealed-combustion gas or sealed wood-burning fireplace, or a sealed woodstove or pellet stove, and refer to residential requirements in the California Energy Code, Title 24, Part 6, Subchapter 7, Section 150. Woodstoves, pellet saves and fireplaces shall comply with applicable local ordinances. **5.503.1.1 Woodstoves.** Woodstoves and pellet stoves shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits. SECTION 5.504 POLLUTANT CONTROL

**5.504.1 TEMPORARY VENTILATION.** The permanent HVAC system shall only be used during construction if necessary to condition the building or areas of addition or alteration within the required temperature range for

material and equipment installation. If the HVAC system is used during construction use return air filters with a

Minimum Efficiency Reporting Value (MERV) of 8, based on ASHRAE 52.2-1999, or an average efficiency of

30% based on ASHRAE 52.1-1992 Replace all filters immediately prior to occupancy, or, if the building is

rough installation and during storage on the construction site until final startup of the heating, cooling an

5.504.3 Covering of duct openings and protection of mechanical equipment during construc

occupied during alteration, at the conclusion of construction.

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-122823 INC: **REVIEWED FOR** SS 🗹 FLS 🗹 ACS 🗹 1/30/2025

OJECT SPECIFIC STATE AGENCY APPROVA





THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED. IN WHOLE OF IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©



ÒRIGINAL PC STATE AGENCY APPROVAL APPROVED DIV. OF THE STATE ARCHITECT APP: 04-123059 PC REVIEWED FOR SS / FCS / ACS / CG /

> Revision Schedule Description

PRE-CHECK (PC) DOCUMENT

Code: 2022 CBC A separate project application for construction is required

PC 2022 CBC: 24' x 40' **EXPANDABLE TO** 120' x 40'

CAL GREEN

**CHECKLIST** 

22088

rMc/SC CHECKED BY RH/RT

DATE

. At the time of

PROJECT NUMBER

Note: A sample ordinance for use by local agencies may be found in Appendix A of the document at the **5.401.1 SCOPE.** The provisions of this chapter shall outline means of achieving material conservation and resource equipment, all duct and other related air distribution component openings shall be covered with tape, plas Standards; the National Environmental Balancing Bureau Procedural Standards; Associated Air Balance efficiency through protection of buildings from exterior moisture, construction waste diversion, employment of sheetmetal or other methods acceptable to the enforcing agency to reduce the amount of dust, water and de-Council National Standards or as approved by the enforcing agency. techniques to reduce pollution through recycling of materials, and building commissioning or testing and adjusting. may enter the system. ISCLAIMER: THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BY

Recycling Access Act of 1991 (Act).

1. Renewable energy systems.

Water reuse systems.

2. Landscape irrigation systems.

specifications and applicable standards on each system.

**5.410.4.3 Procedures.** Perform testing and adjusting procedures in accordance with manufacturer's

**5.410.4.3.1 HVAC balancing.** In addition to testing and adjusting, before a new space-conditioning

system serving a building or space is operated for normal use, the system shall be balanced in

accordance with the procedures defined by the Testing Adjusting and Balancing Bureau National

**POLLUTANT CONTROL.** Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.6 5.504.4.1 Adhesives, sea ents and caulks. Adhesives, sealants, and caulks used on the project shall meet

the requirements of the following standards: Adhesives, adhesive both g primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air collution control or air quality management district rules where applicable, or SCAQMD Rule 1168 VOC limits, as shown in Tables 5.504.4.1 and 5.504.4.2. Such products also shall comply with the Run 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and trichloroethylene), except for aerosol products as specified in subsection 2, selow.

2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than one pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC stantards and other requirements, including prohibitions on use of certain toxic compounds, of California Code of Regulations, Title 17, commencing

TABLE 5.504.4.1 - ADHESIVE VOC LIMIT <sub>1,2</sub>	
Less Water and Less Exempt Compounds in Grams per Liter	
ARCHITECTURAL APPLICATIONS	_
NDOOR CARPET ADHESIVES	_
CARPET PAD ADHESIVES	
OUTDOOR CARPET ADHESIVES	

ARCHITECTURAL APPLICATIONS	CURRENT VOC LIMIT
INDOOR CARPET ADHESIVES	50
CARPET PAD ADHESIVES	50
OUTDOOR CARPET ADHESIVES	150
WOOD FLOORING ADHESIVES	100
RUBBER FLOOR ADHESIVES	60
SUBFLOOR ADHESIVES	50
CERAMIC TILE ADHESIVES	65
VCT & ASPHALT TILE ADHESIVES	50
DRYWALL & PANEL ADHESIVES	50
COVE BASE ADHESIVES	50
MULTIPURPOSE CONSTRUCTION ADHESIVES	70
STRUCTURAL GLAZING ADHESIVES	100
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250
OTHER ADHESIVES NOT SPECIFICALLY LISTED	50
SPECIALTY APPLICATIONS	
PVC WELDING	510
CPVC WELDING	490
ABS WELDING	325
PLASTIC CEMENT WELDING	250
ADHESIVE PRIMER FOR PLASTIC	550
CONTACT ADHESIVE	80
SPECIAL PURPOSE CONTACT ADHESIVE	250
STRUCTURAL WOOD MEMBER ADHESIVE	140
TOP & TRIM ADHESIVE	250
SUBSTRATE SPECIFIC APPLICATIONS	
METAL TO METAL	30
PLASTIC FOAMS	50

FIBERGLASS 1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.

2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168, www.arb.ca.gov/DRDB/SC/CURHTML/R1168.PDF

POROUS MATERIAL (EXCEPT WOOD)

limits of Regulation 8

Less Water and Less Exempt Compounds in Grams	per Liter
SEALANTS	CURRENT VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
SEALANT PRIMERS	
ARCHITECTURAL	
NONPOROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

NOTE: FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THESE TABLES, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

**5.504.4.3 Paints and coatings.** Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Coatings Suggested Control Measure, as shown in Table 5.504.4.3, unless more stringent local limits apply. The VOC content limit for coatings that so not meet the definitions for the specialty coatings categories listed in Table 5.504.4.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in Subsections 4.21, 4.36 and 4.37 of the 2007 California Air Resources Board Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in Table 5.504.4.3 shalf

5.504.4.3.1 Aerosol Paints and coatings. Aerosol paints and coatings shall meet the PWMIR Limits for ROC in Section 94522(a)(3) and other requirements, including prohibitions on use of certain toxic substances, in Sections 94522(c)(2) and (d)(2) of California Code of compounds and ozone depleting cing with Section 94520; and in areas under the jurisdiction of the gement District additionally comply with the percent VOC by weight of product Bay Area Air Quality Map

TABLE 5.504.4.3 - CONT GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS **COATING CATEGORY CURRENT VOC LIMIT** SPECIALTY COATINGS ALUMINUM ROOF COATINGS 400 **BASEMENT SPECIALTY COATINGS** 400 BITUMINOUS ROOF COATINGS BITUMINOUS ROOF PRIMERS 350 BOND BREAKERS CONCRETE CURING COMPOUNDS CONCRETE/MASONRY SEALERS DRIVEWAY SEALERS DRY FOG COATINGS 150 FAUX FINISHING COATINGS FIRE RESISTIVE COATINGS FLOOR COATINGS 100 FORM-RELEASE COMPOUNDS 250 **GRAPHIC ARTS COATINGS (SIGN PAINTS)** 500 HIGH-TEMPERATURE COATINGS INDUSTRIAL MAINTENANCE COATINGS 250 W SOLIDS COATINGS 120 TE CEMENT COATINGS 450 MASTIC TEXTURE COATINGS METALLIC PIGMENTED COATINGS 500 MULTICOLOR COATIN 250 PRETREATMENT WASH PRI 420 PRIMERS, SEALERS, & UNDERC REACTIVE PENETRATING SEALERS 350 RECYCLED COATINGS 250 ROOF COATINGS RUST PREVENTATIVE COATINGS 250 SHELLACS: CLEAR 730 OPAQUE SPECIALTY PRIMERS, SEALERS & UNDERCOATERS STAINS 250 450 STONE CONSOLIDANTS **SWIMMING POOL COATINGS** 340 TRAFFIC MARKING COATINGS 100 **TUB & TILE REFINISH COATINGS** 420

ZINC-RICH PRIMERS 1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEMPT COMP

ATERPROOFING MEMBRANES

WOOD COATINGS

WOOD PRESERVATIVES

FROM THE AIR RESOURCES BOARD.

TED IN SUBSEQUENT COLUMNS IN 2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE 3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE,

5.504.4.3.2 Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation man include, but is not limited to, the following: Manufacturer's product sp 2. Field verification of on the product containers

5.504.4.4 Carpet Systems. g interior shall meet the requirements of the California Department of Public Health, "Standard Method of or the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor nental Chambers." Version 1.2, January 2017 (Emission testing method for California Sources Using Enviror Specifications 013

Department of Public Health's website for certification programs and testing labs. cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material

5.504.4.4.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the California Department of Public Health,"Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, "Version 1.2, January 2017 (Emission testing method for California Specifications

See California Department of Public Health's website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material

5.504.4.4.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 5.504.4.1.

**5.504.4.5 Composite wood products.** Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure (ATCM) for Composite Wood (17 CCR 93120 et seq.). Those materials not exempted under the ATCM must meet the specified emission limits, as shown in

**5.504.4.5.3 Documentation.** Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:

Product certifications and specifications.

Chain of custody certifications.

Product labeled and invoiced as meeting the Composite Wood Products regulation (see

CCR, Title 17, Section 93120, et seq.). 4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269 or European 636 3S

5. Other methods acceptable to the enforcing agency.

TABLE 5.504.4.5 - FORMALDEHYDE LIMITS MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION **CURRENT LIMIT** HARDWOOD PLYWOOD VENEER CORE 0.05 HARDWOOD PLYWOOD COMPOSITE CORE 0.05 0.09 PARTICLE BOARD MEDIUM DENSITY FIBERBOARD 0.11 THIN MEDIUM DENSITY FIBERBOARD2 I. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, AIR

OXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR

THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16 INCHES (8 MM).

ADDITIONAL INFORMATION, SEE CALIFORNIA CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.

**5.504.4.6 Resilient flooring systems.** Where resilient flooring is installed, at least 80 percent of floor area receiving resilient flooring shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers." Version 1.2. January 2017 (Emission testing method for California Specifications

See California Department of Public Health's website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material

5.504.4.6.1 Verification of compliance. Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits.

5.504.4.7 Thermal insulation

Comply with the requirements of the California Department of Public Health, "Standard Method of the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, "Version 1.2, January 1.2, January 2017 (Emission testing method for California Specification 01350). See California Department of Public Health's website for certification programs and testing labs. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx#material

5.504.4.7.1 Verification of compliance. Documentation shall be provided verifying that thermal insulation materials meet the pollutant emission

5.504.4.8 Acoustical ceiling and wall panels. Comply with the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers. Version 1.2, January 2017 (Emission testing method for California Specification 01350). See California Department of Public Health's website for certification programs and testing labs.

5.504.4.8.1 Verification of compliance. Documentation shall be provided verifying that acousting finish materials meet the pollutant emission limits.

5.504.5.3 Filters. In mechanically ventilated buildings, provide regularly occupied areas of the filtration media for outside and return air that provides at least a Minimum Efficiency Reporting 13. MERV 13 filters shall be installed prior to occupancy, and recommendations for main the same value shall be included in the operation and maintenance manual.

**Exceptions:** Existing mechanical equipment

nanufacturer indicating the MERV 5.504.5.3.1 Labeling. Installed filters shall be clearly labeled by the

5.504.7 ENVIRONMENTAL TOBACCO SMOKE (ETS) CONTROL Where outdoor areas are provided for smoking. prohibit smoking within 25 feet of building entries, outdoor air ip kes and operable windows and within the building as already prohibited by other laws or regulations; or as enforced by ordinances, regulations or policies of any city, county, city and county, California Community College, compus of the California State University, or campus of the University of California, whichever are more stringen When ordinances, regulations or policies are not in place, post signage to inform building occupants of the prohil

SECTION 5.505 INDOOR MOUSTURE CONTROL

5.505.1 INDOOR MOISTURE CONTROL. Buildings shall meet or exceed the provisions of California Building Code, (Ventilation) and Chapter 14 (Exterior Walls). For additional measures, see CCR. Title 24. Part 2. Sections 120 Section 5.407.2 of this code.

**SECTION 5.506 INDOOR AIR QUALITY** 

5.506.1 OUTSIDE AR DELIVERY. For mechanically or naturally ventilated spaces in buildings, meet the minimum ection 120.1 (Requirements For Ventilation) of the *California Energy Code*, or the applicable local er is more stringent, and Division 1. Chapter 4 of CCR. Title 8.

5.506 CARBON DIOXIDE (CO2) MONITORING. For buildings or additions equipped with demand control ation, CO<sub>2</sub> sensors and ventilation controls shall be specified and installed in accordance with the requirements the California Energy Code, Section 120(c)(4).

5.506.3 Carbon dioxide (CO2) monitoring in classrooms.

(DSA-SS) Each public K-12 school classroom, as listed in Table 120.1-A of the California Energy Code, shall be guipped with a carbon dioxide monitor or sensor that meets the following requirements The monitor or sensor shall be permanently affixed in a tamper-proof manner in each classroom between 3 and 6 feet (914 mm and 1829 mm) above the floor and at least 5 feet (1524 mm) away from door and operable

When the monitor or sensor is not integral to an Energy Management Control System (EMCS), the monitor or sensor shall display the carbon dioxide readings on the device. When the sensor is integral to an EMCS, the carbon dioxide readings shall be available to and regularly monitored by facility personnel. A monitor shall provide notification though a visual indicator on the monitor when the carbon dioxide levels in the

groom have exceeded 1,100ppm. A sensor integral to an EMCS shall provide notification to facility onnel through a visual and/or audible indicator when the carbon dioxide levels in the classroom have The monitor or sensor shall measure carbon dioxide levels at minimum 15- minute intervals and shall maintain a

record of previous carbon dioxide measurements of not less than 30 days duration. The monitor or sugar used to measure carbon dioxide levels shall have the capacity to measure carbon dioxide levels with a range \$400ppm to 2000ppm or greater.

The monitor or sensor shall be certified by the manufacturer to be accurate within 75ppm at 1,000ppm carbon dioxide concentration and shall be certified by the manufacturer to require calibration no more frequently than once every 5 years.

SECTION 5.507 ENVIRONMENTAL COMFORT

(STC) values determined in accordance with ASTM 90 and ASTM E 413, or Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E 2, using either the prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2.

**Exception:** Buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking

**Exception:** [DSA-SS] For public schools and community colleges, the requirements of this section and all subsections apply only to new construction.

5.507.4.1 Exterior noise transmission, prescriptive method. Wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall seet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows minimum STC of 40 or OITC of 30 in the following locations:

1. Within the 65 CNEL noise contour of an airport.

1. Ldn or CNEL for military airports shall be determined by the facility Air Installation Compatible

2. Lan or CNEL for other airports and heliports for which a land use plan has not been developed shall be determined by the local general plan noise element.

2. Within the 65 CNEL or Ldn noise contour of a freeway or expressway, railroad, industrial source or fixed-guideway source as determined by the Noise Element of the General Plan.

5.507.4.1.1. Noise exposure where noise contours are not readily available. Buildings exposed to a noise level of 65 dB L<sub>eg</sub> - 1-hr during any hour of operation shall have building, addition or alteration exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC rating of

5.507.4.2 Performance Method. For buildings located as defined in Section 5.507.4.1 or 5.507.4.1.1, wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level (Leq-1Hr) of 50 dBA in occupied areas during any hour of operation

**5.507.4.2.1 Site Features.** Exterior features such as sound walls or earth berms may be utilized as appropriate to the building, addition or alteration project to mitigate sound migration to the interior.

**5.507.4.2.2 Documentation of Compliance.** An acoustical analysis documenting complying interior sound levels shall be prepared by personnel approved by the architect or engineer of record.

5.507.4.3 Interior sound transmission. Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40.

Note: Examples of assemblies and their various STC ratings may be found at the California Office of Noise Control: www.toolbase.org/PDF/CaseStudies/stc\_icc\_ratings.pdf.

at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30).

**SECTION 5.508 OUTDOOR AIR QUALITY** 

5.508.1 Ozone depletion and greenhouse gas reductions. Installations of HVAC, refrigeration and fire suppression equipment shall comply with Sections 5.508.1.1 and 5.508.1.2. 5.508.1.1 Chlorofluorocarbons (CFCs). Install HVAC, refrigeration and fire suppression equipment that do not

5.508.1.2 Halons. Install HVAC, refrigeration and fire suppression equipment that do not contain Halons.

5.508.2 Supermarket refrigerant leak reduction. New commercial refrigerate on systems shall comply with the rovisions of this section when installed in retail food stores 8,000 square leet or more conditioned area, and that utilize either refrigerated display cases, or walk-in coolers or freezers innected to remote compressor units or condensing units. The leak reduction measures apply to refrigeration systems containing high-global-warming potential (high-GWP) refrigerants with a GWP of 150 or greater. New refrigeration systems include both new facilities and the eplacement of existing refrigeration systems in existing faci

Exception: Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP value less than 150 are not subject to this section. Low-GWP refrigerants are nonozone-depleting refrigerants that include ammonia, carbon dioxide (CO<sub>2</sub>),*a* potentially other refrigerants.

**5.508.2.1 Refrigerant piping** Piping compliant with the California Mechanical Code shall be installed to be on and repairs. Piping runs using threaded pipe, copper tubing with an outside diameter (OD) less th 1/4 inch, flared tubing connections and short radius elbows shall not be used in except as noted below.

1.1 Threaded pipe. Threaded connections are permitted at the compressor rack. 508.2.1.2 Copper pipe. Copper tubing with an OD less than 1/4 inch may be used in systems with a refrigerant charge of 5 pounds or less.

**5.508.2.1.2.1 Anchorage.** One-fouth-inch OD tubing shall be securely clamped to a rigid base to

5.508.2.1.3 Flared tubing connections. Double-flared tubing connections may be used for pressure controls, valve pilot lines and oil.

**Exception:** Single-flared tubing connections may be used with a multiring seal coated with industrial sealant suitable for use with refrigerants and tightened in accordance with manufacturer's

**5.508.2.1.4 Elbows.** Short radius elbows are only permitted where space limitations prohibit use of long radius elbows.

5.508.2.2 Valves. Valves Valves and fittings shall comply with the California Mechanical Code and as

5.508.2.2.1 Pressure relief valves. For vessels containing high-GWP refrigerant, a rupture disc shall be installed between the outlet of the vessel and the inlet of the pressure relief valve.

5.508.2.2.1.1 Pressure detection. A pressure gauge, pressure transducer or other device shall be installed in the space between the rupture disc and the relief valve inlet to indicate a disc rupture or discharge of the relief valve.

**5.508.2.2.2 Access valves.** Only Schrader access valves with a brass or steel body are

5.508.2.2.2.1 Valve caps. For systems with a refrigerant charge of 5 pounds or more, valve caps shall be brass or steel and not plastic

**5.508.2.2.2.2 Seal caps.** If designed for it, the cap shall have a neoprene O-ring in place. 5.508.2.2.2.1 Chain tethers. Chain tethers to fit ovr the stem are required for valves designed to have seal caps.

**Exception:** Valves with seal caps that are not removed from the valve during stem

5.508.2.3 Refrigerated service cases. Refrigerated service cases holding food products containing vinegar and salt shall have evaporator coils of corrosion-resistant material, such as stainless steel; or be coated to prevent corrosion from these substances.

**5.508.2.3.1 Coil coating.** Consideration shall be given to the heat transfer efficiency of coil coating to maximize energy efficiency.

5.508.2.4 Refrigerant receivers. Refrigerant receivers with capacities greater than 200 pounds shall be fitted with a device tha indicates the level of refrigerant in the receiver.

5.508.2.5 Pressure testing. The system shall be pressure tested during installation prior to evacuation and

**5.508.2.5.1 Minimum pressure.** The system shall be charged with regulated dry nitrogen and appropriate tracer gas to bring system pressure up to 300 psig minimum.

**5.508.2.5.2 Leaks.** Check the system for leaks, repair any leaks, and retest for pressure using the same

5.508.2.5.3 Allowable pressure change. The system shall stand, unaltered, for 24 hours with no more than a +/- one pound pressure change from 300 psig, measured with the same gauge.

**5.508.2.6 Evacuation.** The system shall be evacuated after pressure testing and prior to charging.

5.508.2.6.1 First vacuum. Pull a system vacuum down to at least 1000 microns (+/- 50 microns), and

5.508.2.6.2 Second vacuum. Pull a second system vacuum to a minimum of 500 microns and hold for 30

5.508.2.6.3 Third vacuum. Pull a third vacuum down to a minimum of 300 microns, and hold for 24 hours with a maximum drift of 100 microns over a 24-hour period.

#### CHAPTER 7 **INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS**

**702 QUALIFICATIONS** 

702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper nstallation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program. Uncertified persons may perform HVAC installations when under the direct supervision and esponsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. Examples of acceptable HVAC training and certification programs include but are not limited to the following:

- State certified apprenticeship programs.
- . Public utility training programs. Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.
- 1. Programs sponsored by manufacturing organizations. 5. Other programs acceptable to the enforcing agency.

project they are inspecting for compliance with this code.

**702.2 SPECIAL INSPECTION [HCD].** When required by the enforcing agency, the owner or the esponsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to ther certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be dered by the enforcing agency when evaluating the qualifications of a special inspector:

rtification by a national or regional green building program or standard publisher. ication by a statewide energy consulting or verification organization, such as HERS raters, building ance contractors, and home energy auditors.

completion of a third party apprentice training program in the appropriate trade. 4. Other program acceptable to the enforcing agency.

1. Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.

2. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS).

[BSC-CG] When required by the enforcing agency, the swner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition, the special inspector shall have a pertification from a recognized state, national or international association, as determined by the local agency. The area of certification shall be closely related to the primary job function, as determined by the local agency.

Note: Special inspectors shall be independent entities with no financial interest in the materials or the

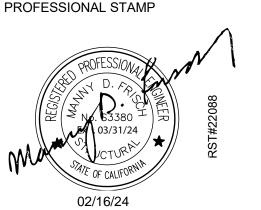
#### **703 VERIFICATIONS**

703.1 DOCUMENTATION. Documentation used to show compliance with this code shall include but is not limited to construction documents, plans, specifications, builder or installer certification, inspection reports, or ther methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific docum special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified applicable checklist.

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ORIGINAL PC STATE AGENCY APPROVAL

APPROVED DIV. OF THE STATE ARCHITECT APP: 04-123059 PC

Revision Schedule

Description

PRE-CHECK (PC) DOCUMENT Code: 2022 CBC

A separate project application for construction is required PC 2022 CBC: 24' x 40' **EXPANDABLE TO** 

CAL GREEN **CHECKLIST** 

22088

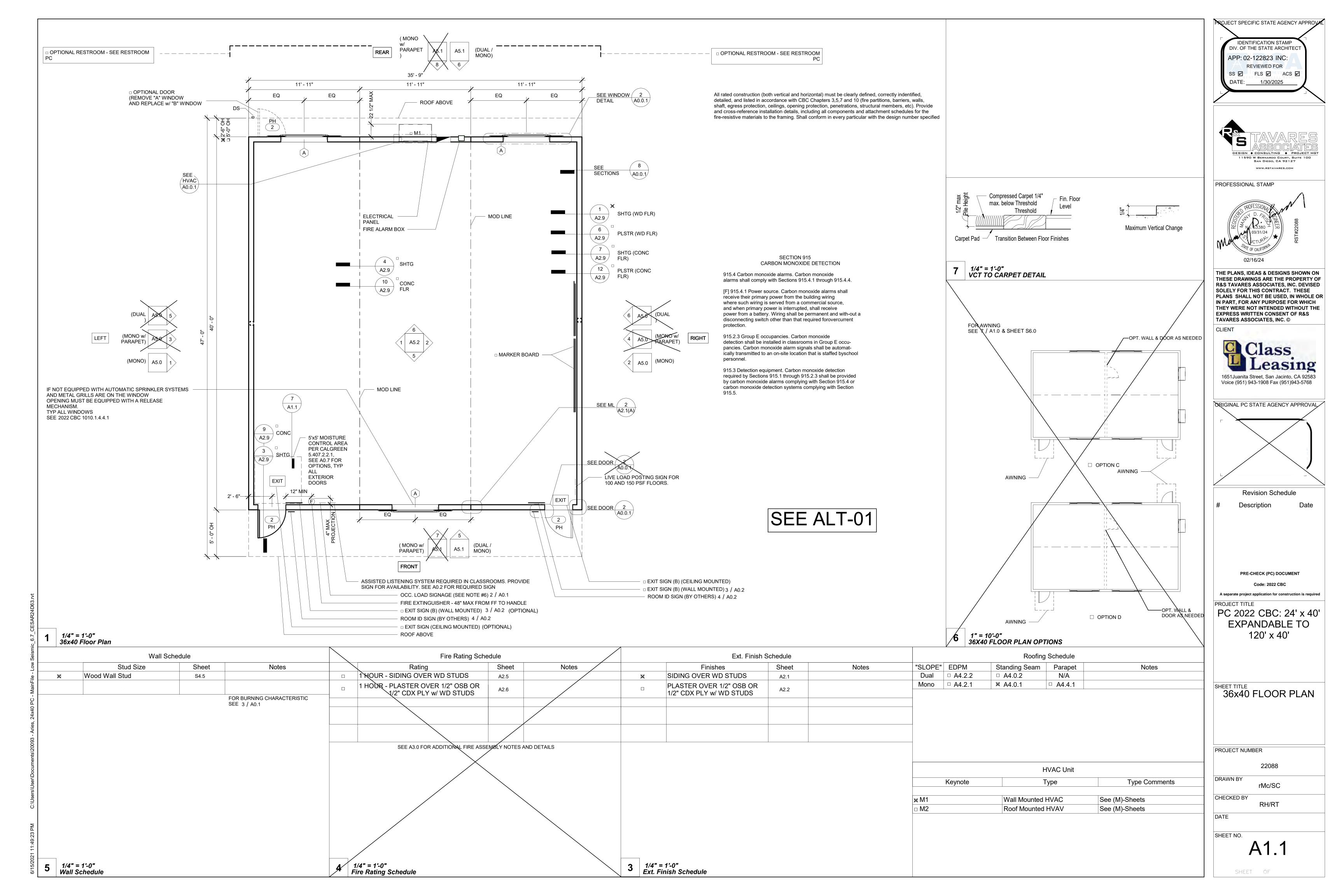
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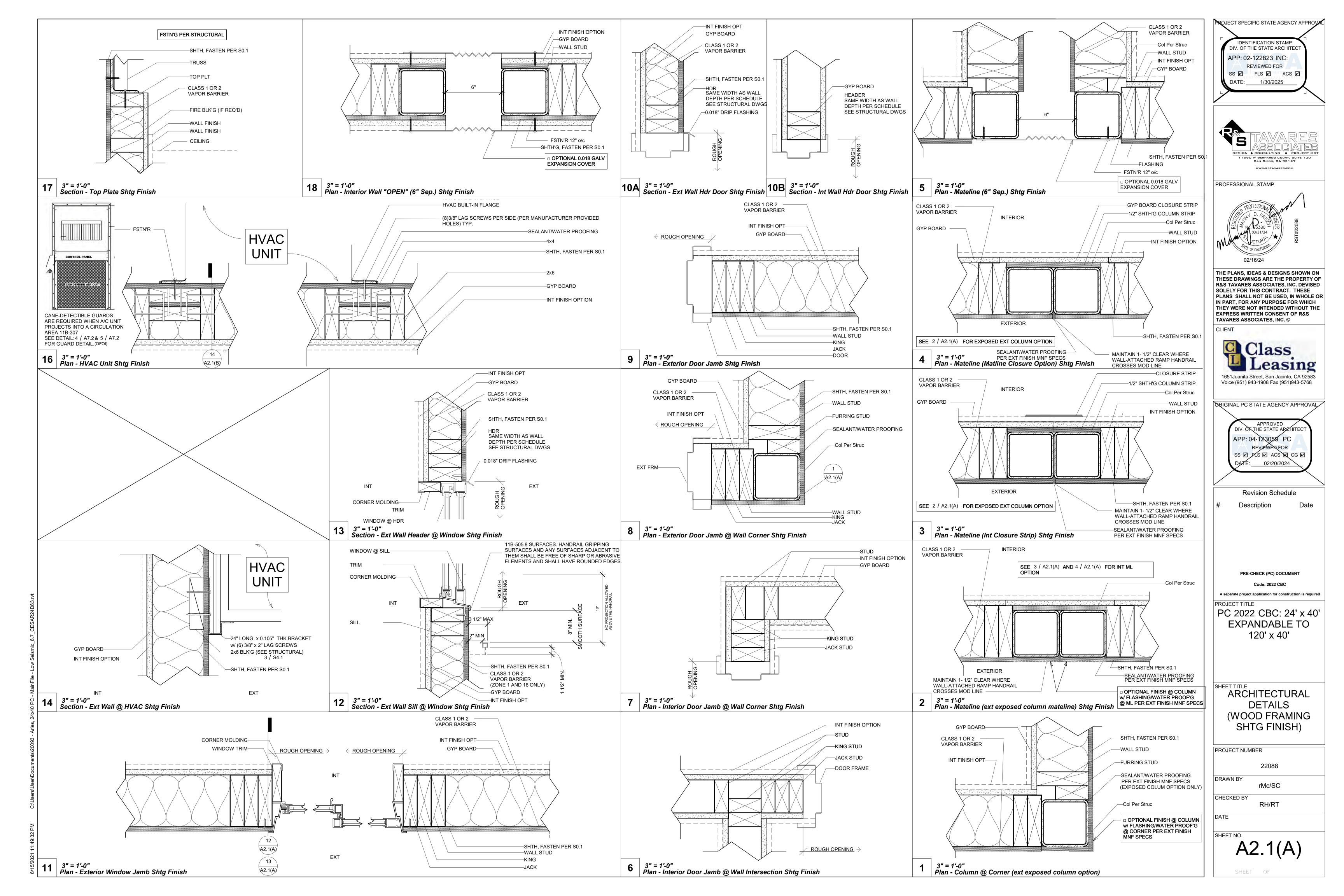
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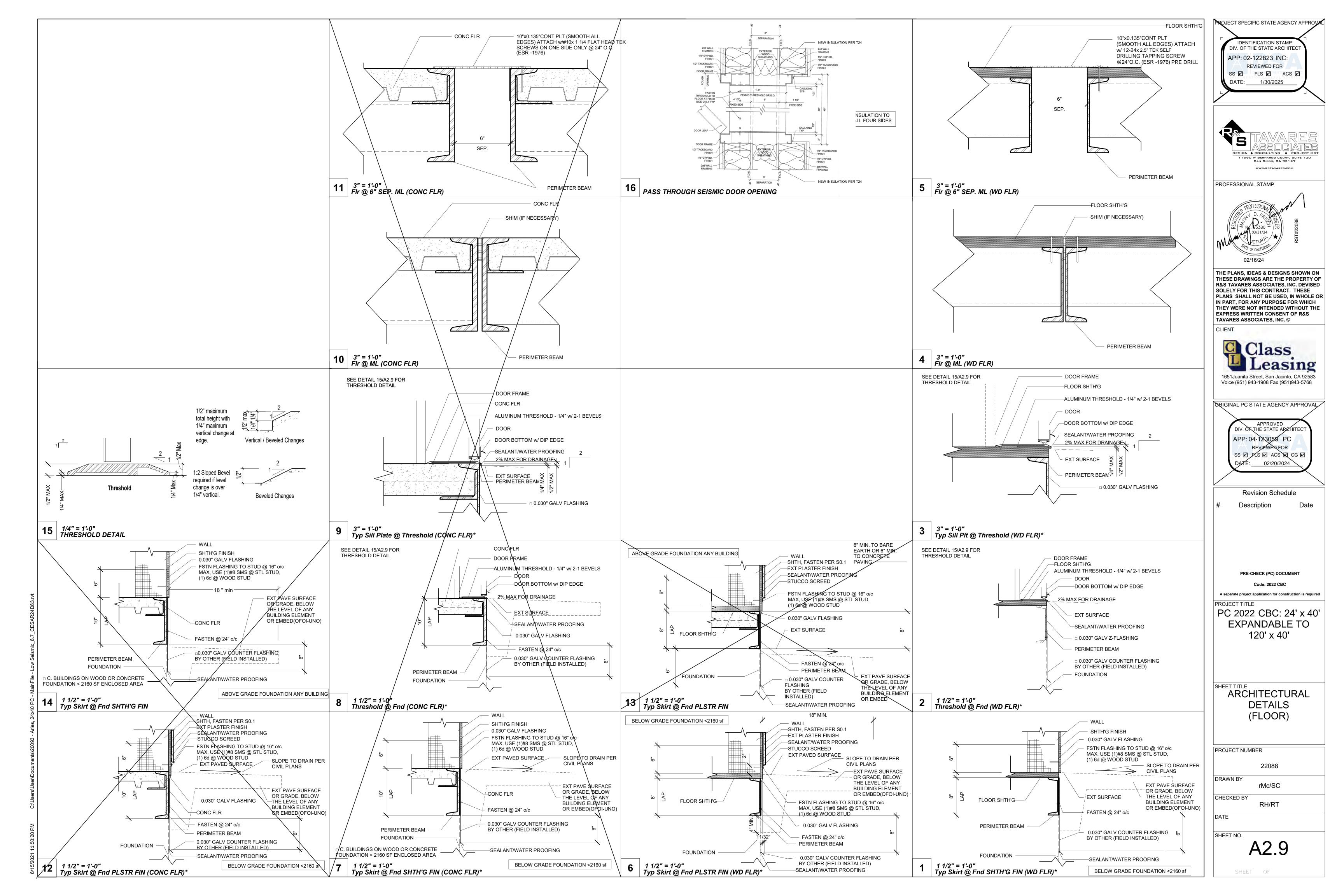
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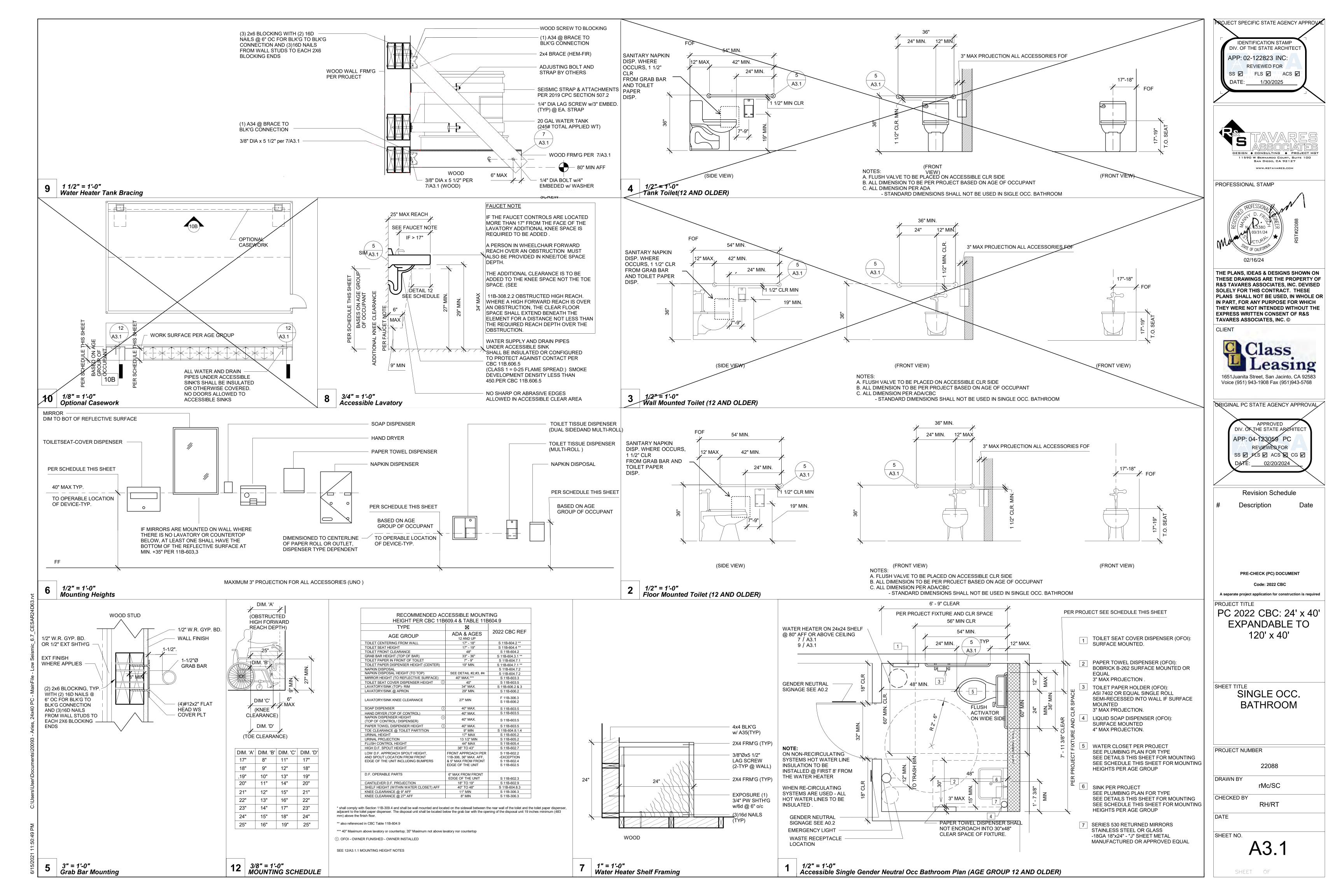
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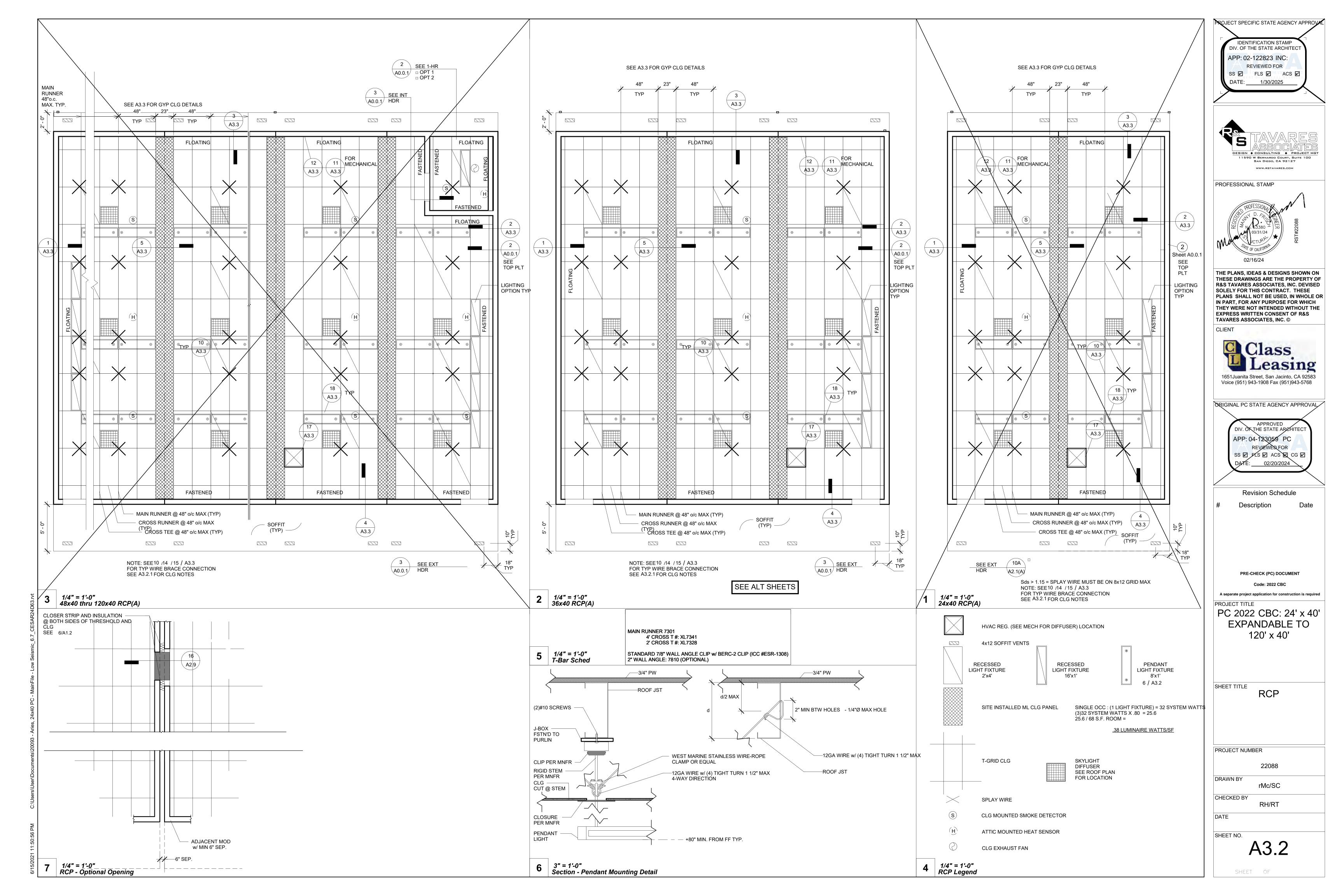
INSCLAIMER: THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE CALIFORNIA GREEN BUILDING DEPARTMENT JURISDICTIONS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.











1.02 The ceiling grid system must be rated heavy duty as defined by ASTM C635.

1.03 Ceiling systems. The following ceiling system(s) is/are part of the scope of this project: Manufacturer:

Product Name: PRELUDE XL AND PRELUDE XL HIGH RECYLED CONTENT(HRC) Evaluation Report Type and Number: ICC ESR#1308 Main Runner Part, Model, or Catalog Number 7301 Cross Runner Part, Model, Catalog Number: 4" CROSS T # XL7341 / 2" CROSS T # XL7328

Manufacturer's Model:

STANDARD 7/8" WALL ANGLE CLIP w/ BERC2 CLIP

1.05 Ceiling panels shall not support any luminaires, air terminals or devices.

1.06 For ceiling installations utilizing acoustical tile panels of mineral or glass fiber, it is not mandatory to provide 3/4" clearance between the acoustical tile panels and the wall on the sides of the ceiling which are free to slip. For all other ceiling panel types, provide 3/4" clearance between the ceiling panel and the wall on the sides of the ceiling free to slip. Clearance between ceiling grid runners/members and walls shall comply with the details on these drawings regardless of ceiling tile material.

2. MATERIALS

1.04 Seismic Wall Clip:

2.01 Ceiling wire shall be Class 1 zinc coated (galvanized) carbon steel conforming to ASTM A641. Wire shall be #12 gauge (0.106" diameter) with soft temper and minimum ultimate tensile strength = 70 ksi.

2.02 Galvanized sheet steel (including that used for metal stud and track compression struts/post) shall conform to ASTM A653, or other equivalent sheet steel listed in Section A3.1 of the North American Specification for the Design of Cold-Formed Steel Structural Members, (AISI S100). Material 43 mil (18 gauge) and lighter shall have minimum yield strength of 33 ksi. Material 54 mil (16 gauge) and heavier shall have a minimum yield strength of 50 ksi.

2.03 Electrical metallic tube (EMT) shall be ANSI C80.3/UL 797 carbon steel with G90 galvanizing. EMT shall have minimum yield strength (F<sub>Y</sub>) of 30 ksi and minimum ultimate strength (F<sub>U</sub>) of 48 ksi.

3. ATTACHMENT OF HANGER AND BRACING WIRES

3.01 Separate all ceiling hanger and bracing wires at least 6 inches from all unbraced ducts, pipes, conduit, etc.

3.02 Hanger and bracing wires shall not attach to or bend around obstructions including but not limited to piping, ductwork, conduit and equipment.

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BERG2 2" BEAM-END RETAINING CLIP -Allows you to create a code-compliant Seismic D, E, F ceiling installation while eliminating the need to use 2" wall molding or spreader bars.

Design Spectral Acceleration	Brace Assembly Spacing		
Parameter, (S <sub>DS</sub> )	z/h ≤ 0.5 <sup>a</sup>	z/h > 0.5 <sup>a,b</sup>	
S <sub>DS</sub> ≤ 1.15	12'-0" x 12'-0"	12'-0" x 12'-0"	
1.15 < S <sub>DS</sub> ≤ 1.73	12'-0" x 12'-0"	8'-0" x 12'-0"	
S <sub>DS</sub> > 1.73	8'-0" x 12'-0"	8'-0" x 8'-0"	

z = height in structure of point of attachment of ceiling with respect to the base.

h = average roof height of the structure with respect to the base. b. It shall be permitted to use the brace assembly spacing for "z/h > 0.5" for the full building height.

SEE ALT SHEET FOR FINAL CONFIGURATION OF CEILING AND S<sub>DS</sub> VALUE SITE

IR 25-2

3.03 Hanger wires that are more than one (horizontal) in six (vertical) out of plumb shall have counter-sloping wires.

3.04 Slack safety wires shall be considered hanger wires for installation and testing requirements.

3.05 Hanger and bracing wire anchorage to the structure shall be installed in such a manner that the direction of the anchorage aligns closely with the direction of the wire (e.g., bracing wire ceiling clips must be bent as shown in the details and rotated as required to align closely with the direction of the wire, screw eyes in wood must be installed so they align closely with the direction of the wire, etc.).

4. FASTENERS AND WELDING

4.01 Sheet metal screws shall comply with ASTM C1513 and ASME B18.6.3. Penetration of screws through joined material shall not be less than three exposed threads.

4.02 Expansion anchors shall be: NA

4.03 Power-Actuated Fasteners shall be:

4.04 If not otherwise specified in the evaluation report, power-actuated fasteners installed in steel shall be installed so the entire pointed end of the fastener is driven through the steel

4.05 Power-actuated fasteners in concrete or masonry are not permitted for bracing wires.

4.06 Concrete reinforcement and prestressing tendons shall be located by non-destructive means prior to installing post-installed anchors.

4.07 Welding shall be in accordance with AWS D1.3 using E60XX series electrodes.

5. TESTING

5.01 All field testing must be performed in the presence of the project inspector.

5.02 Post-installed anchors in concrete used to support hanger wires shall be tested at a frequency of 10 percent. Power-actuated fasteners in concrete shall be field tested for 200 pounds in tension. All other post-installed anchors in concrete shall be tested in accordance with CBC Section 1910A.5.

5.03 Post-installed anchors in concrete used to attach bracing wires shall be tested at a frequency of 50 percent in accordance with CBC Section 1910A5.

6. LUMINAIRES

6.01 All luminaires shall be positively attached to the ceiling suspension systems by mechanical means to resist a horizontal force equal to the weight of the luminaire. A minimum of two screws or approved fasteners are required at each luminaire, per ASTM E580 Section 5.3.1.

6.02 Surface-mounted luminaires shall be attached to the main runner with at least two positive clamping devices. The clamping device shall completely surround the supporting

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ceiling runner and be made of steel with a minimum thickness of #14 gauge. Rotational spring catches do not comply. A #12 gauge slack safety wire shall be connected from each clamping device to the structure above. Provide additional supports when a luminaire is 8 feet or longer or exceeds 56 pounds. Maximum spacing between supports shall not exceed 8 feet.

6.03 Luminaires weighing less than or equal to 10 pounds may be supported directly on the ceiling runners, shall have a minimum of one #12 gauge slack safety wire connected from the fixture housing to the structure above.

6.04 Luminaires weighing greater than 10 pounds but less than or equal to 56 pounds may be supported directly on the ceiling runners, but they shall have a minimum of two #12 gauge slack safety wires connected from the fixture housing at diagonal corners to the structure above.

**Exception:** All luminaires greater than two by four feet weighing less than 56 pounds shall have a #12 gauge slack safety wire at each corner.

6.05 All luminaires weighing greater than 56 pounds shall be independently supported by not less than four taut #12 gauge hanger wires (one at each corner) attached from the fixture housing to the structure above or other approved hangers. The four taut #12 gauge wires or other approved hangers, including their attachment to the structure above, shall be capable of supporting four times the weight of the fixture.

7. SERVICES WITHIN THE CEILING

7.01 All flexible sprinkler hose fitting mounting brackets, ceiling-mounted air terminals or other services shall be positively attached to the ceiling suspension systems by mechanical means. Screws or approved fasteners are required. A minimum of two attachments are required at each component.

7.02 Ceiling-mounted air terminals or other services weighing less than or equal to 20 pounds shall have one #12 gauge slack safety wire attached from the terminal or service to the structure above.

7.03 Flexible sprinkler hose fittings, ceiling-mounted air terminals or other services weighing more than 20 pounds but less than or equal to 56 pounds shall have two #12 gauge slack safety wires (at diagonal corners) connected from the terminal or service to the structure above.

7.04 Flexible sprinkler hose fittings, ceiling-mounted air terminals or other services weighing more than 56 pounds shall be supported directly from the structure above by not less than four taut #12 gauge hanger wires attached from the terminal or service to the structure above or other approved hangers.

8. OTHER DEVICES WITHIN THE CEILING

8.01 All lightweight miscellaneous devices, such as strobe lights, occupancy sensors, speakers, exit signs, etc., shall be attached to the ceiling grid. In addition, devices weighing more than 10 pounds shall have a #12 gauge slack safety wire anchored to the structure above. Devices weighing more than 20 pounds shall be supported independently from the structure above.

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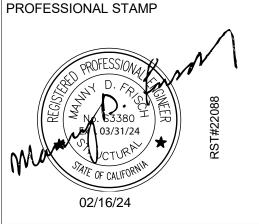
1.ITEMS SHOWN WITH A MFR CALLOUT MAY BE

WITH DSA APPROVAL

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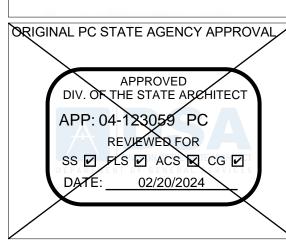
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Revision Schedule Description

PRE-CHECK (PC) DOCUMENT

Code: 2022 CBC

A separate project application for construction is required

PC 2022 CBC: 24' x 40' **EXPANDABLE TO** 120' x 40'

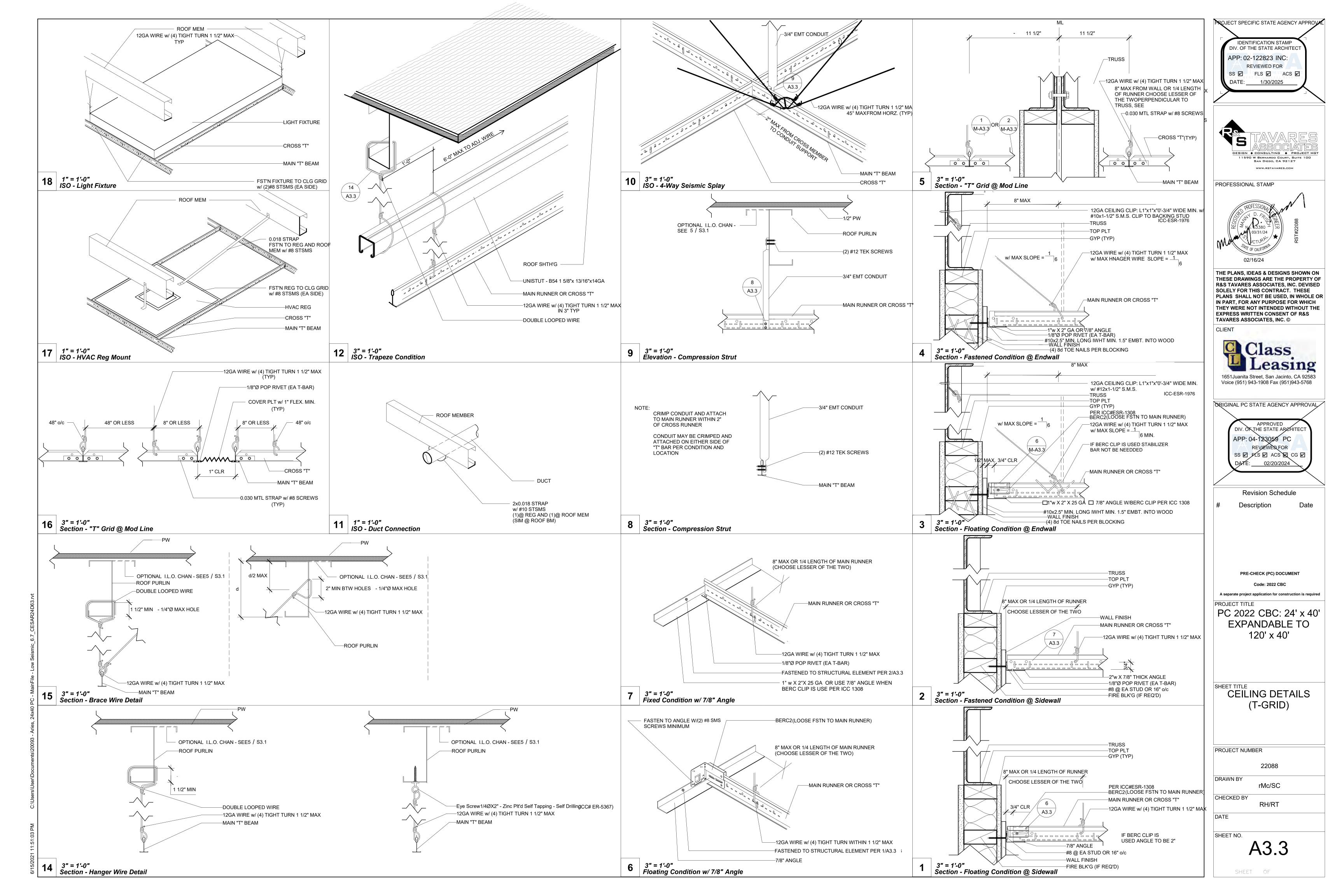
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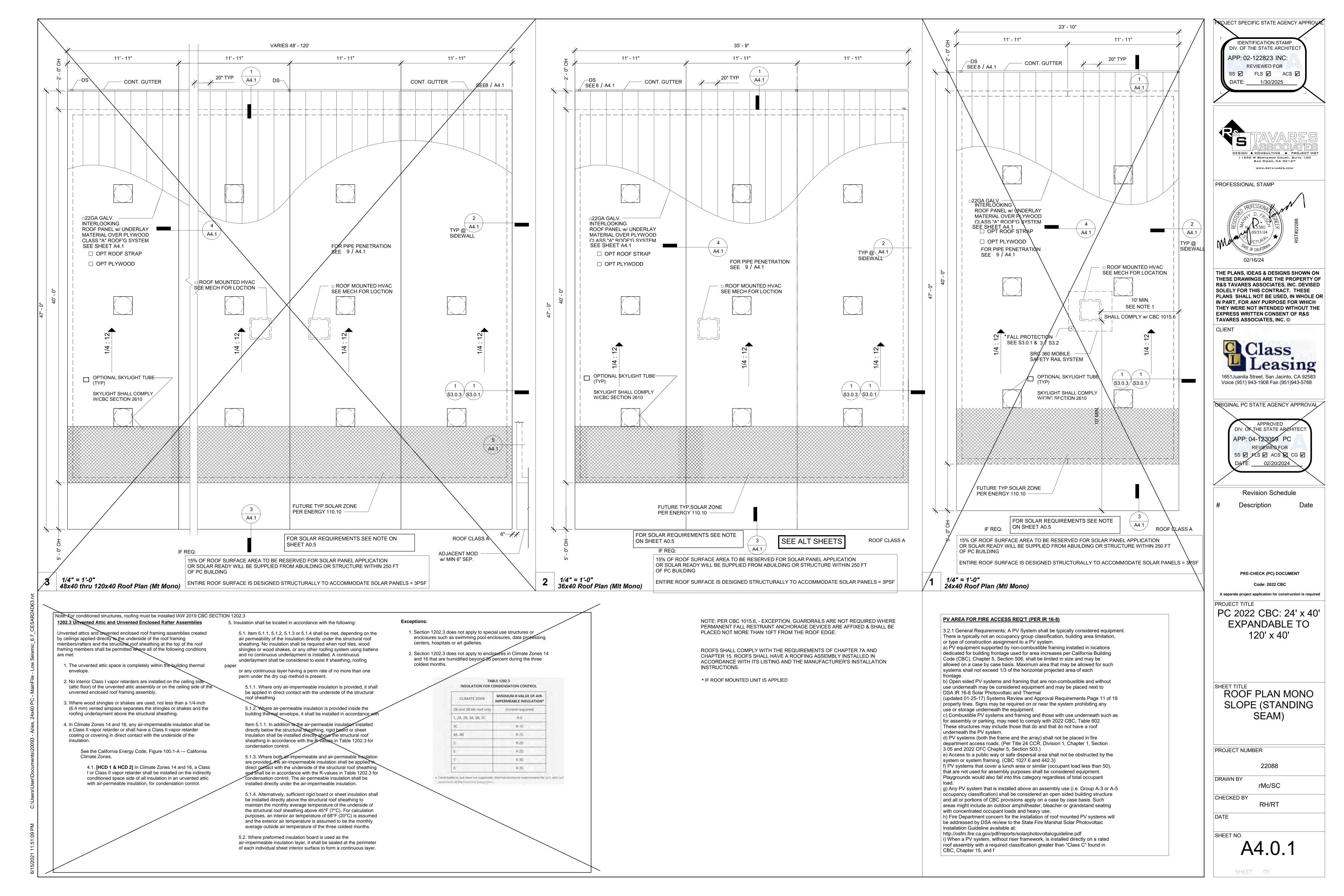
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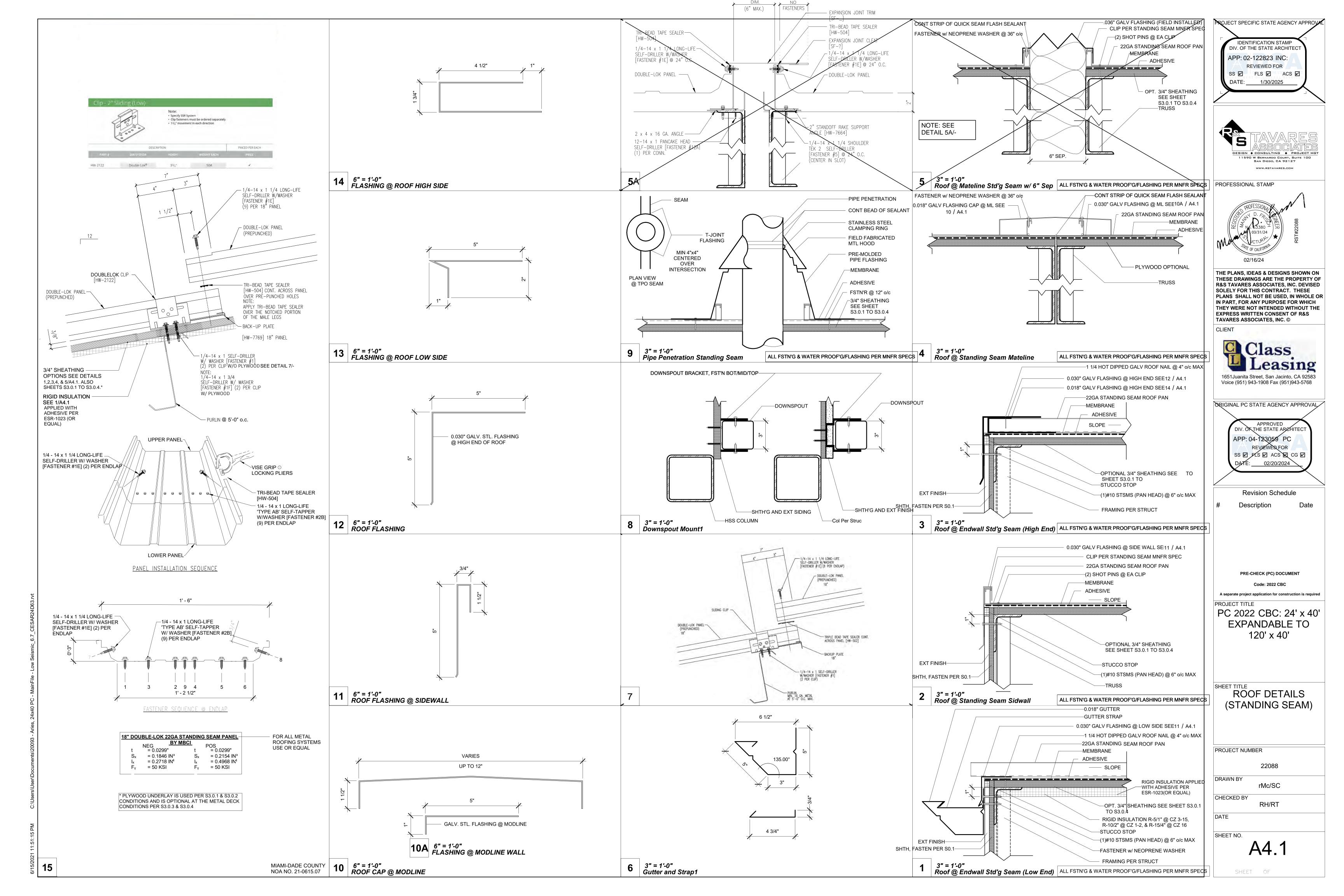
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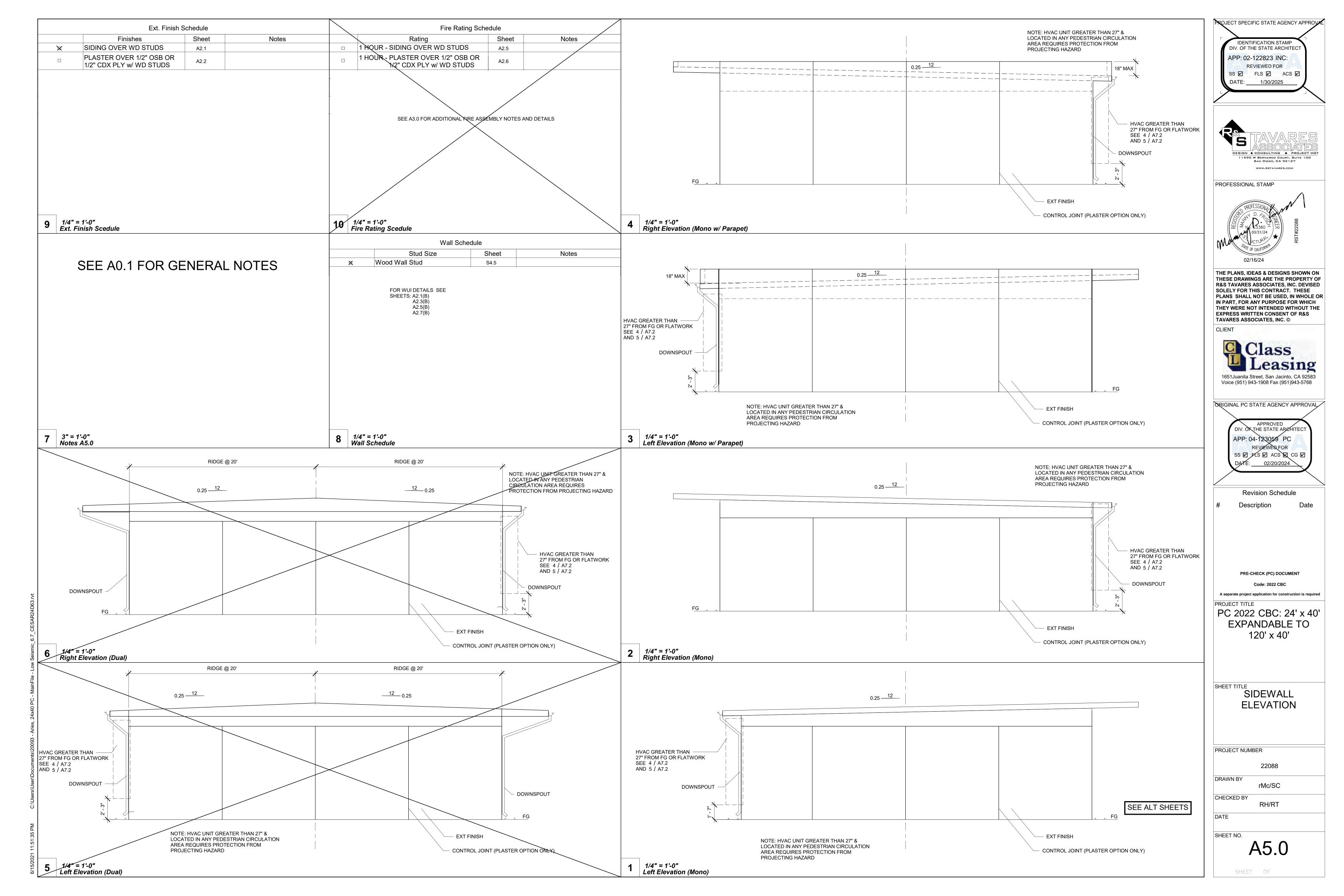
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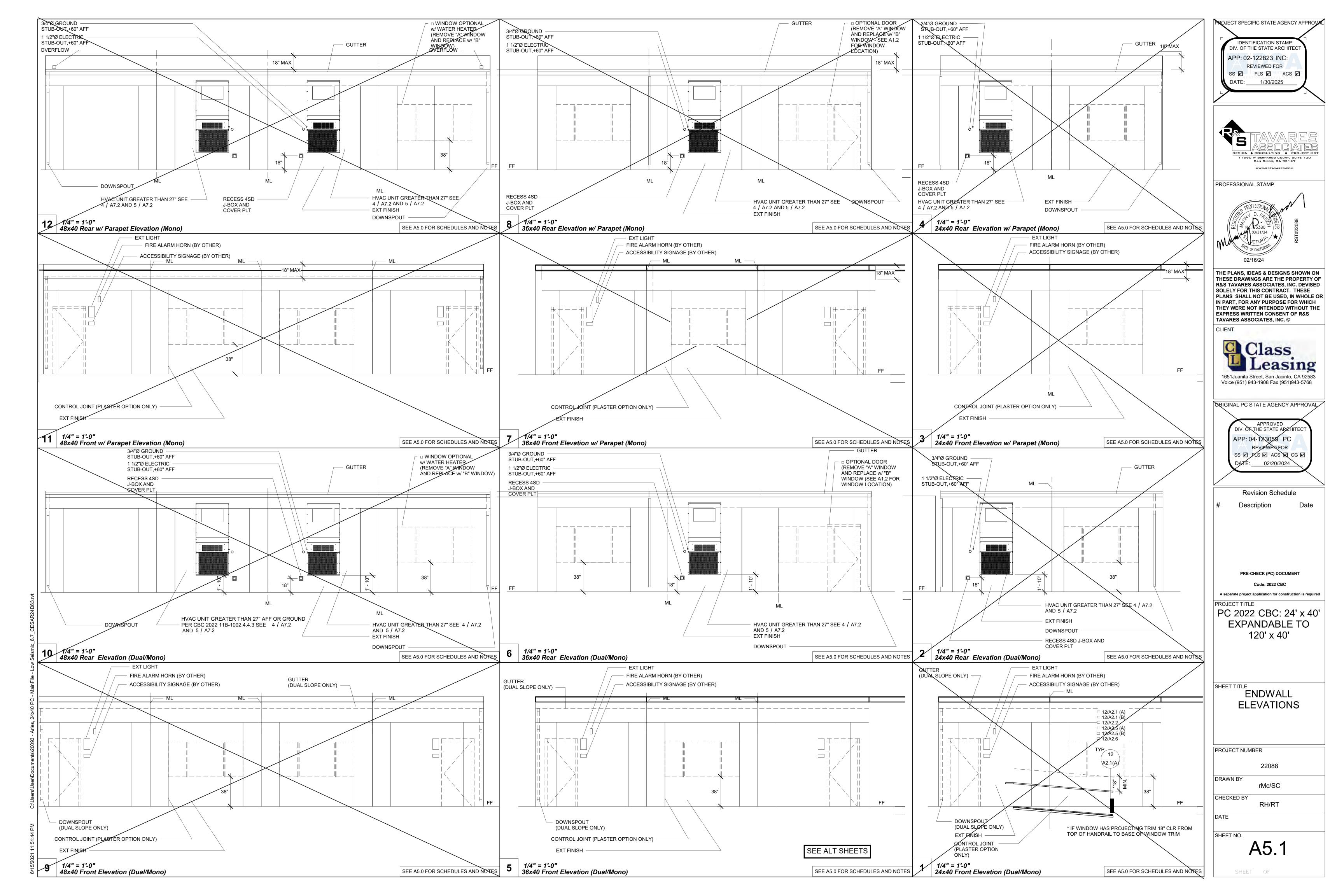
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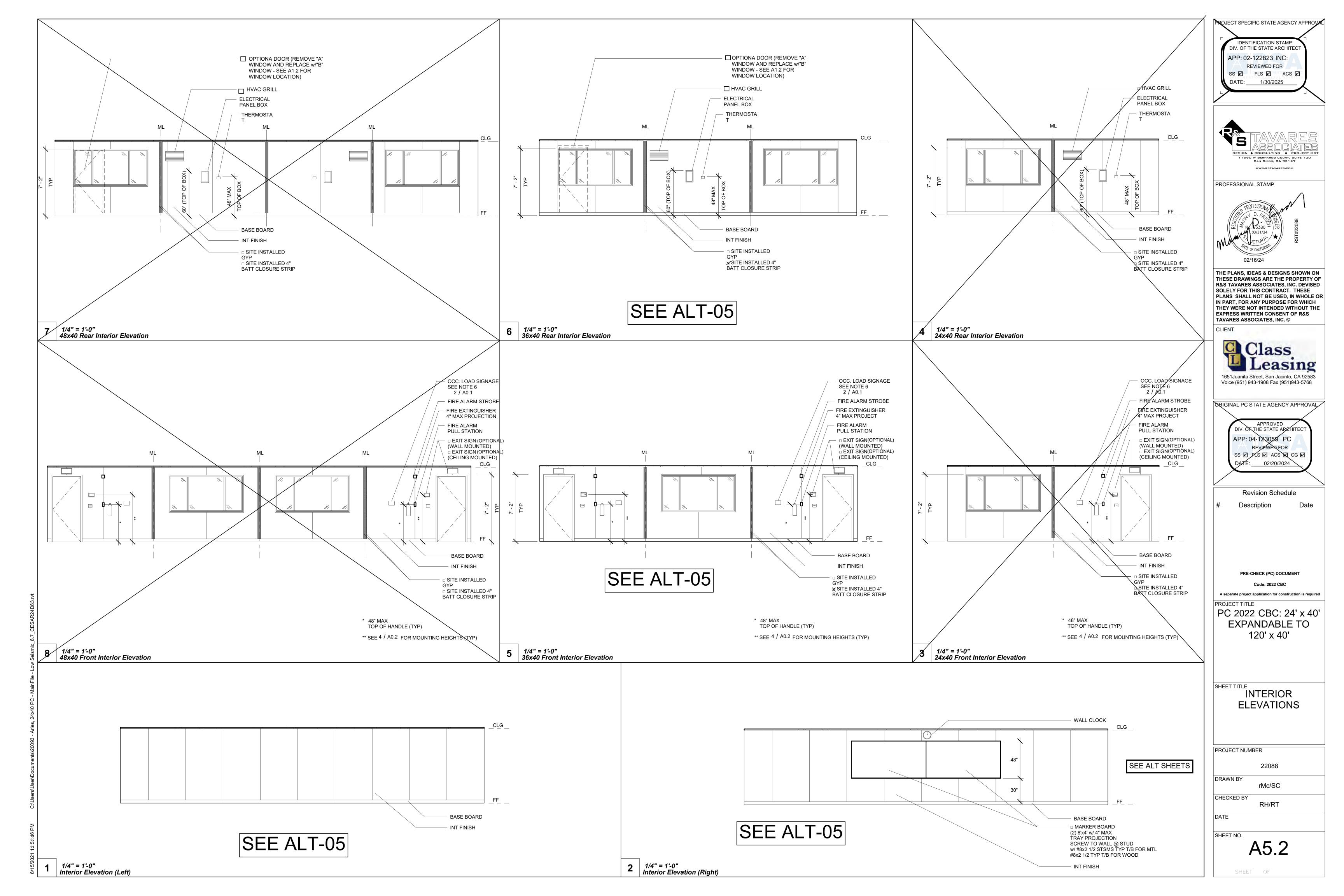


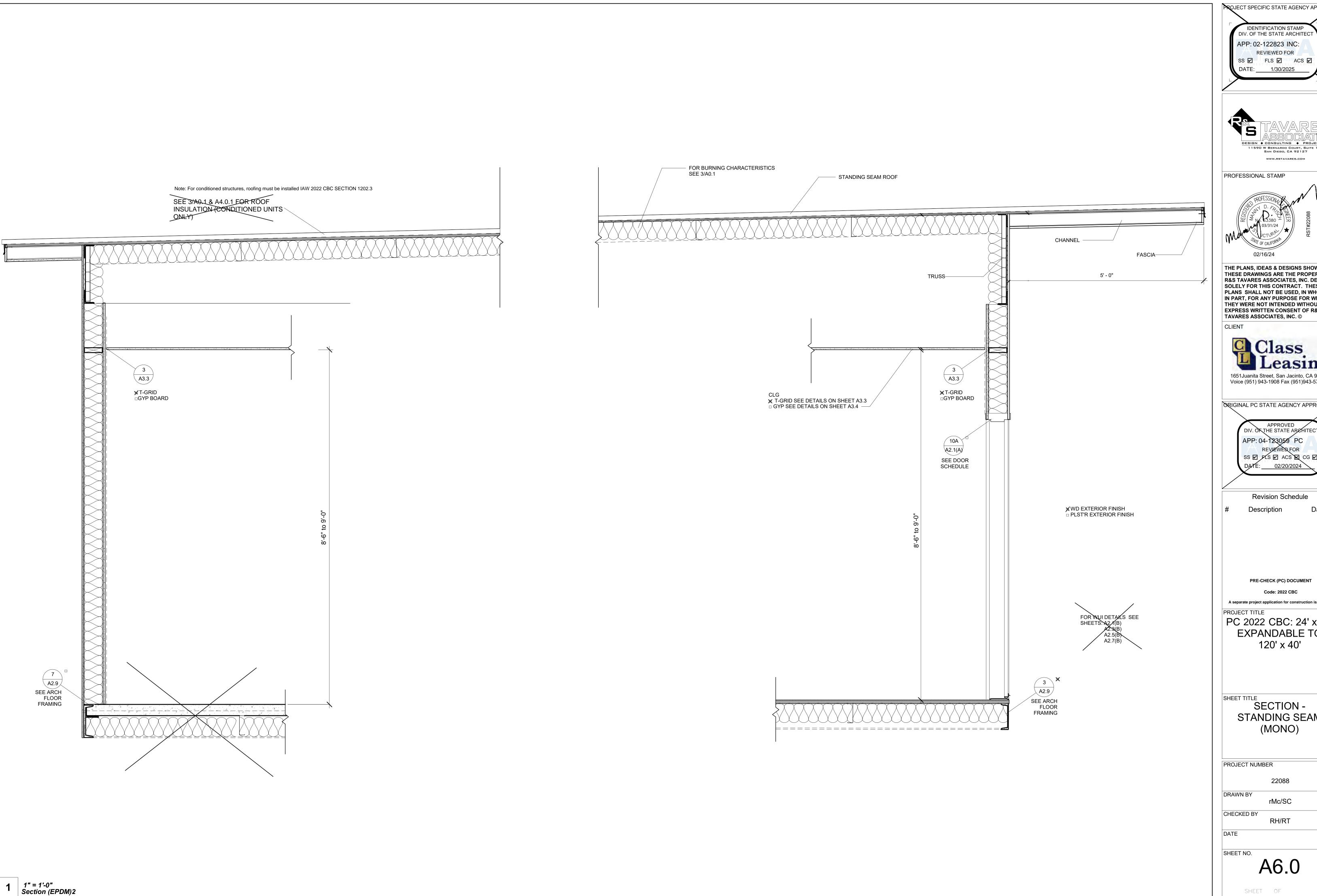












ROJECT SPECIFIC STATE AGENCY APPROVAL IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 02-122823 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 1/30/2025



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Revision Schedule Description

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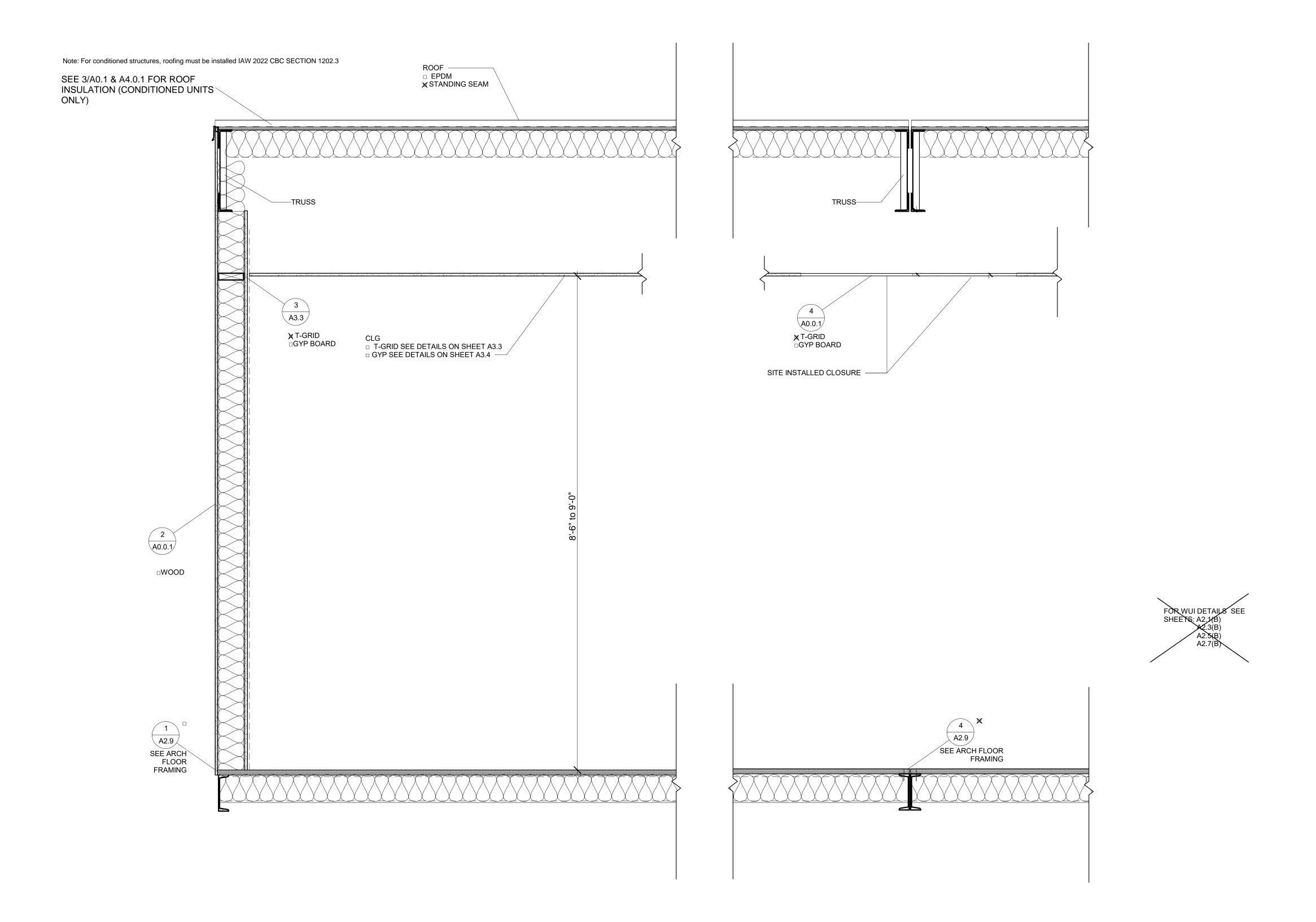
A separate project application for construction is required

PC 2022 CBC: 24' x 40' **EXPANDABLE TO** 120' x 40'

STANDING SEAM (MONO)

22088

A6.0

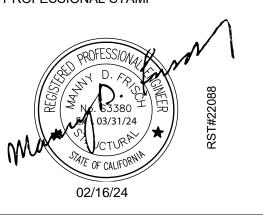


IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT

APP: 02-122823 INC:
REVIEWED FOR
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DIV. OF THE STATE ARCHITECT
APP: 04-123059 PC
REVIEWED FOR
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DATE: 02/20/2024

Revision Schedule

Description

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A separate project application for construction is rec

PC 2022 CBC: 24' x 40' EXPANDABLE TO 120' x 40'

HEET TITLE

SECTION

PROJECT NUMBER

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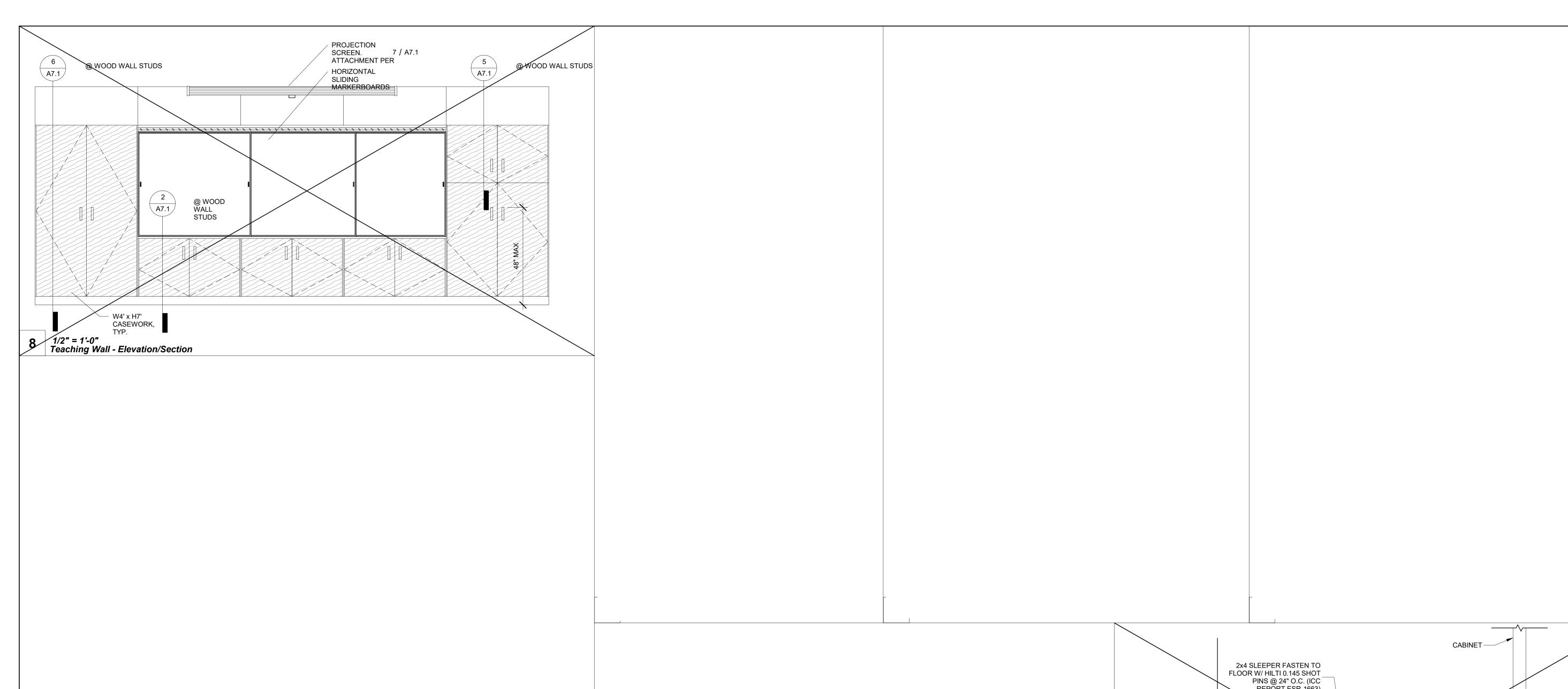
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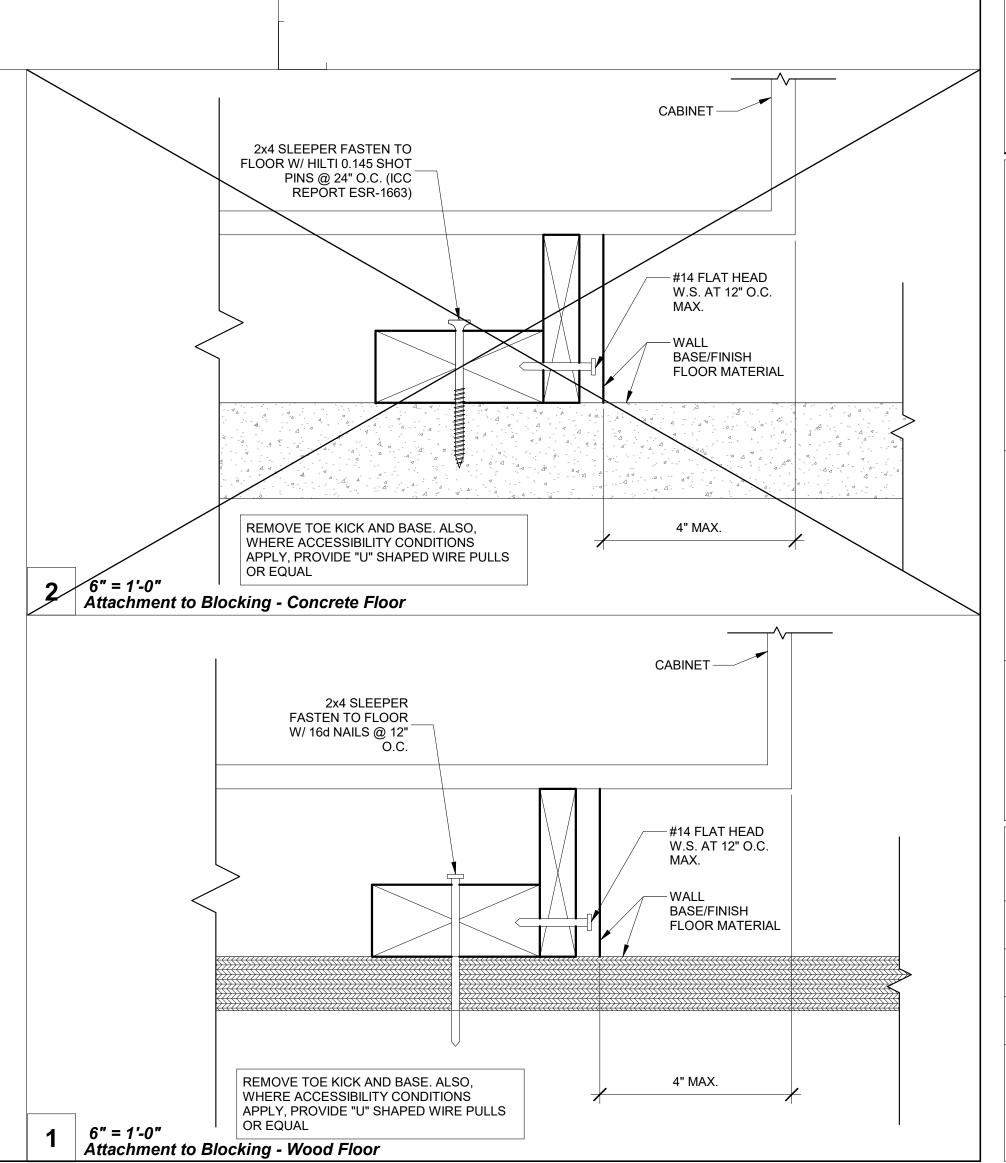
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Code: 2022 CBC

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PROJECT TITLE
PC 2022 CBC: 24' x 40'
EXPANDABLE TO
120' x 40'

FET TITLE

# ADDITIONAL OPTION DETAILS

PROJECT NUMBER

22088

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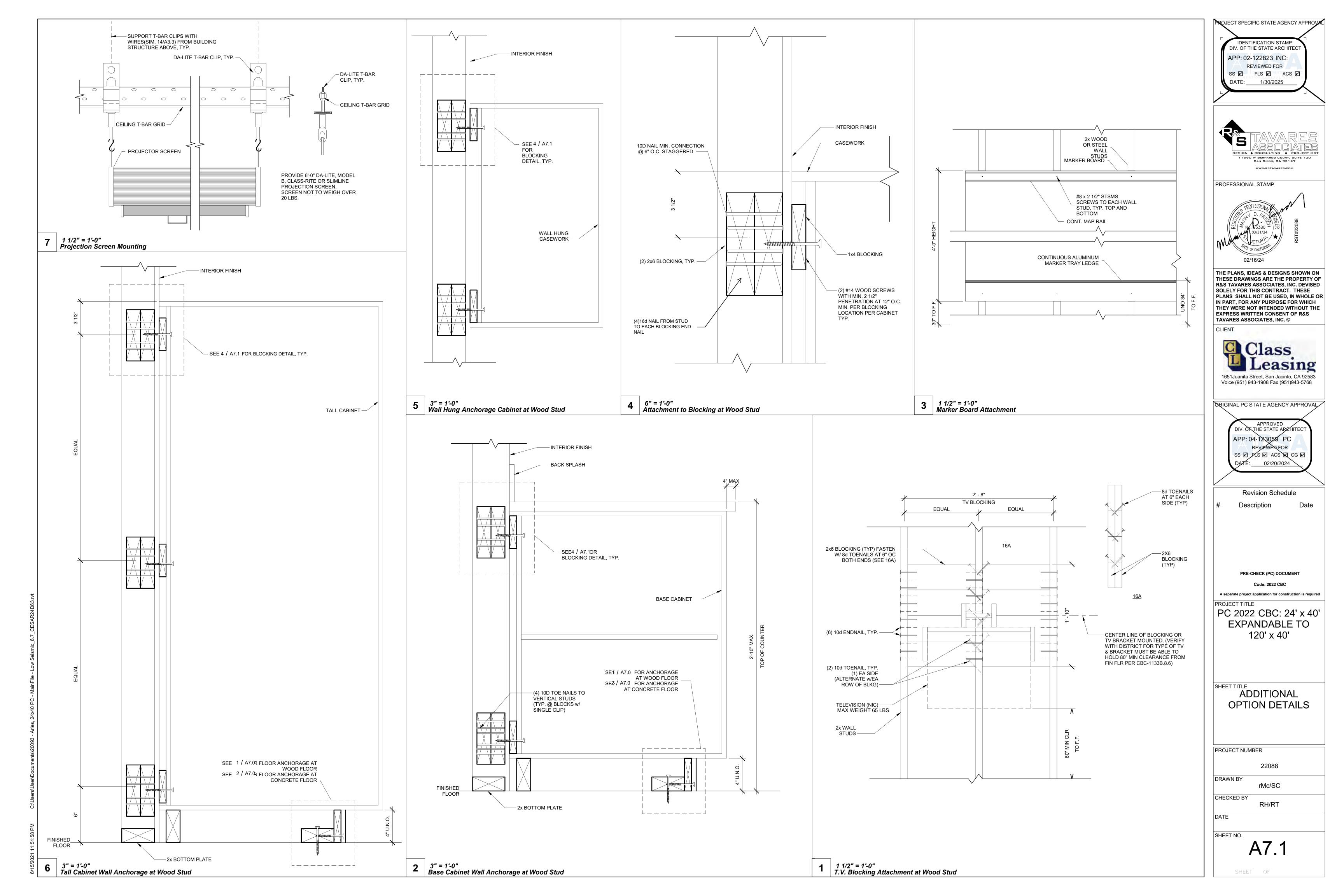
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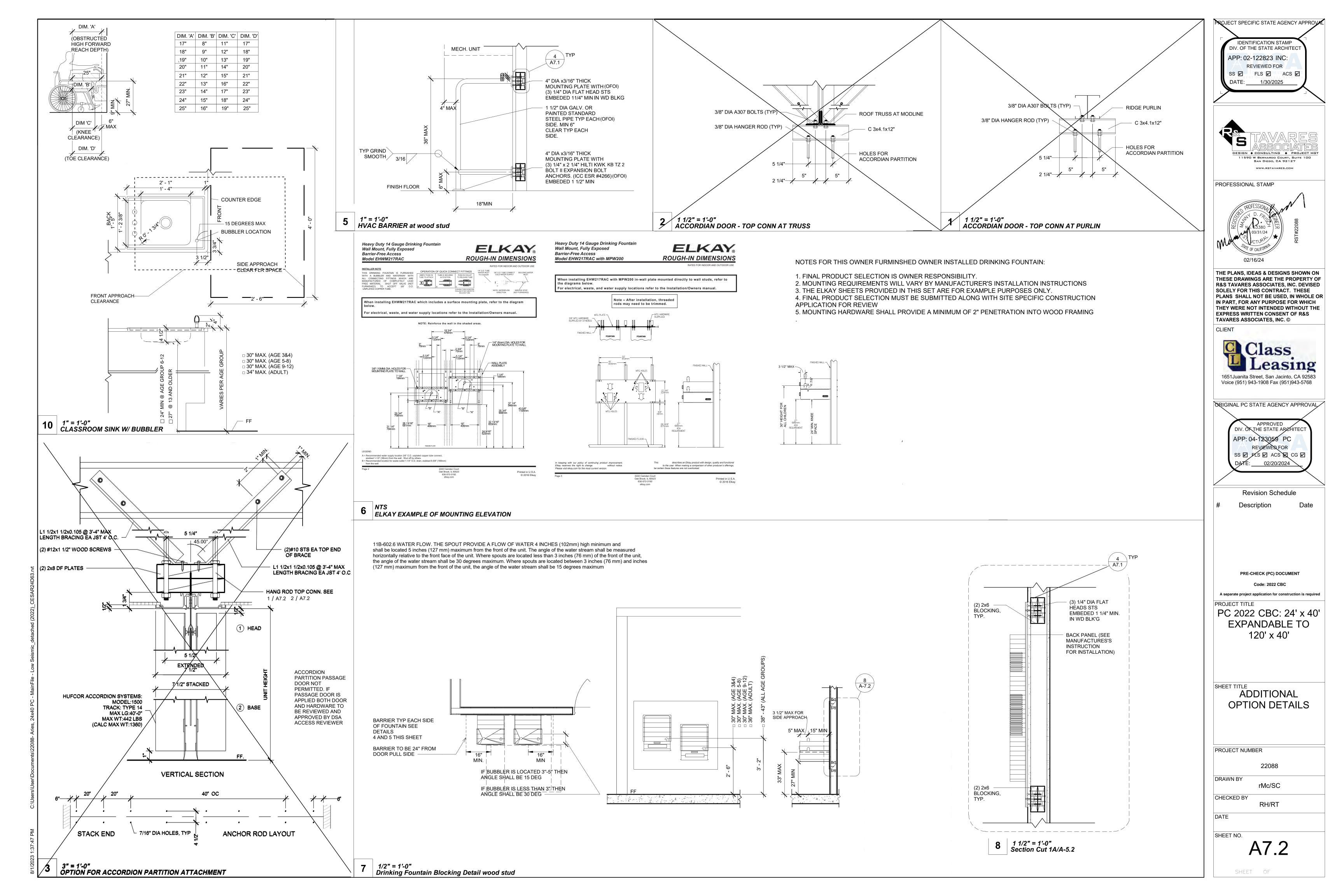
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(ALL CONDUCTORS SHALL BE TYPE THHN/THWN 75 DEG. C. COPPER)

## CONDUIT FILL AND CONDUCTOR CAPACITY TABLE

вох	SIZE	CU. IN.	MAX NO. OF CONDUCTORS			
			#12	#10	#8	#6
4SS	1 1/4"x4" SQ	18.0	8	7	6	0
4S	1 1/2"x4" SQ	21.0	9	8	7	0
4SD	2 1/8"x4" SQ	30.3	13	12	10	6
4SX	2 7/8"x4" SQ	43.5	23	21	17	10
5SD	2 1/8"x4-11/16" SQ	42.0	18	16	14	6
5SX	3 7/8"x4-11/16" SQ	86.0	38	34	28	17
664	4"x6" SQ	144.0	64	57	48	28

\* DEDUCT ONE CONDUCTOR FOR (1) OR MORE GROUNDING CONDUCTORS ENTERING THE BOX

## JUNCTION BOX SIZE TABLE

915.4 CARBON MONOXIDE ALARMS. CARBON MONOXIDE ALARMS SHALL COMPLY WITH SECTIONS 915.4.1 THROUGH 915.4.4.

[F] 915.4.1 POWER SOURCE. CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING WHERE SUCH WIRING IS SERVED FROM A COMMERCIAL SOURCE, AND WHEN PRIMARY POWER IS INTERRUPTED, SHALL RECEIVE POWER FROM BATTERY. WIRING SHALL BE PERMANENT AND WITH-OUT A DISCONNECTING SWITCH OTHER THAN REQUIRED FOR OVERCURRENT PROTECTION.

915.2.3 GROUP E OCCUPANCIES. CARBONS MONOXIDE DETECTION SHALL BE INSTALLED IN CLASSROOMS IN GROUP E OCCUPANCIES. CARBON MONOXIDE ALARM SIGNALS SHALL BE AUTOMATICALLY TRANSMITTED TO AN ON-SITE LOCATION THAT IS STAFFED BY SCHOOL PERSONNEL.

915.3 DETECTION EQUIPMENT. CARBON MONOXIDE DETECTION REQUIRED BY SECTIONS 915.1 THROUGH 915.2.3 SHALL BE PROVIDED BY CARBON MONOXIDE DETECTION SYSTEMS COMPLYING WITH SECTION 915.5.

#### **CARBON MONOXIDE DETECTION - SECTION 915**

\* 30"x48" MIN CLR FLOOR SPACE AT EACH

LOCATION FOR PERPENDICULAR APPROACH

# 25" MAX FOR SIDE APPROACH

MOUTING ELEV

1. PROVIDE MIN 30"x48" CLR FLOOR SPACE FOR PERPENDICULAR APPROACH AT EACH LOCATION.

OVER OBSTRUCTION

DEPTH AS THE ACCESSIBLE OUTLET/SWITCH LOCATED

THE KNEE/TOE SPACE MUST EXTEND TO THE SAME

ABOVE- 25" MAX 11.B308.2.2

\* SEE DETAIL 2/M0.2

CIRCUITS SHALL BE SO ARRANGED THAT ONLY AUTHORIZED PERSONNEL WILL HAVE CONTROL OF EMERGENCY LIGHTING. (CEC art. 700.20)

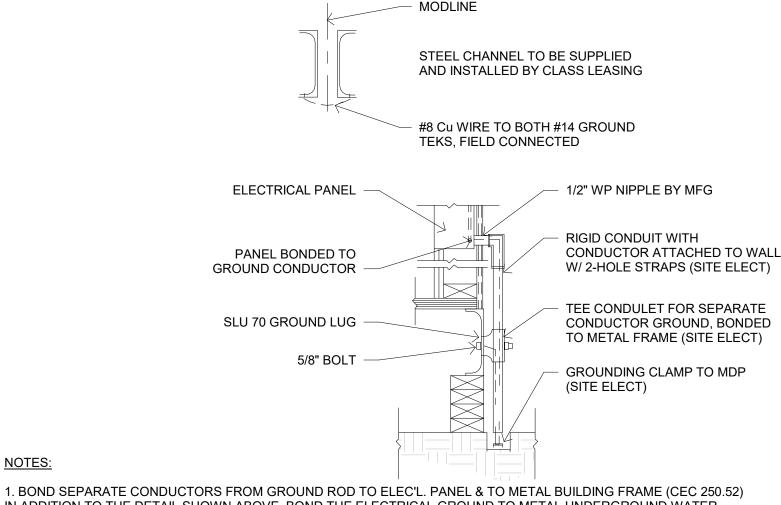
2. THE SWITCH OR SWITCHES INSTALLED IN EMERGENCY LIGHTING

3. PROVIDE SPACE ON ELECTRICAL PANEL FOR LOCK-ON BREAKER, IDENTIFIED WITH RED MARKING, FOR 120 VOLTS FIRE ALARM CIRCUIT, WITH BREAKER LABELED AS FIRE ALARM CIRCUIT, CEC 760.41 (B). BREAKER AND CIRCUIT PROVIDED AND INSTALLED ON SITE BY OTHERS.

4. SMOKE AND HEAT DETECTOR CONDUIT AND DEVICES TO BE PROVIDED AND INTERCONNECTED TO THE FIRE ALARM SYSTEMS ON SITE BY OTHERS.

5. APPROVAL OF THIS PLAN DOES NOT CONSTITUTE APPROVAL OF THIS FIRE ALARM SYSTEM FOR ALL SITES. THE FIRE ALARM SYSTEM AND COMPONENTS MAYBE REQUIRED TO BE CHANGED DUE TO EXISTING CONDITIONS OR INCOMPATIBLE COMPONENTS.

ACCEPTANCE TESTS BE COMPLETED ON NEWLY INSTALLED OR REPLACEMENT OF LIGHTING CONTROLS BEFORE PROJECT COMPLETION PER THE CALIFORNIA ENERGY CODE SECTION 10-103. ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED ACCEPTANCE TEST TECHNICIAN (ATT). THE ACCEPTANCE TESTING PROCEDURES MUST BE REPEATED, AND DEFICIENCES CORRECTED UNTIL THE INSTALLATION OF THE SPECIFIED SYSTEMS CONFORM AND PASS THE REQUIRED ACCEPTANCE CRITERIA. COMPLETED NRCA FORMS SHALL BE SUBMITTED TO THE PROJECT INSPECTOR AND THE DISTRICT



IN ADDITION TO THE DETAIL SHOWN ABOVE. BOND THE ELECTRICAL GROUND TO METAL UNDERGROUND WATER PIPE IN DIRECT CONTACT WITH THE EARTH FOR 10 FT. OR MORE, IF AVAILABLE (CEC 250.52)

2. TESTING FOR RESISTANCE TO GROUND, IF RESISTANCE EXCEEDS 25 OHMS INSTALL ADDITIONAL GROUND RODS SEPARATED AT LEAST 6 FEET, UNTIL RESISTANCE REDUCES TO 25 OHMS OR LESS. GROUND TEST MUST BE DONE IN THE PRESENCE OF THE PROJECT INSPECTOR AND ALL GROUNDING SHALL BE IN ACCORDANCE WITH CEC ARTICLE

3. ELEC. TRADE SHALL CHECK AREA FOR EXISTING CONDUITS, SEWER, GAS & WATER PIPING BEFORE DRIVING GROUND RODS.

4. ALL MODULES OF STEEL FRAME BLDGS. SHALL BE ELECTRICALLY BONDED TOGETHER (BOLTING ONLY IS NOT ACCEPTABLE BONDING). BONDING SHALL INCLUDE METAL RAMP & STAIRS.

5. SIZE OF CONDUCTORS SHALL COMPLY WITH CEC TABLE 250.66

6. EACH BUILDING SHALL BE GROUNDED SEPARARELY WITH A 3/4" ROUND X 8 FEET COPPERCLAD STEEL GROUND ROD. WHERE ROCK BOTOOM IS FOUND, DRIVE ROD AT 45 DEGREES MAXIMUM FROM THE VERTICAL OR HAVE IT BURIED IN A TRENCH 30" DEEP MINIMUM.

ACCEPTANCE TESTS BE COMPLETED ON NEWLY INSTALLED OR REPLACEMENT OF LIGHTING CONTROLS BEFORE PROJECT COMPLETION PER THE CALIFORNAI ENERGY CODE SECTION 10-103. ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED ACCEPTANCE TEST TECHNICIAN (ATT). THE ACCEPTANCE TESTING PROCEDURES MUST BE REPEATED, AND DEFICIENCIES CORRECTED UNTIL THE INSTALLATION OF THE SPECIFIED SYSTEMS CONFORM AND PASS THE REQUIRED ACCEPTANCE CRITERIA. COMPLETED NRCA FORMS SHALL BE SUBMITTED TO THE PROJECT INSPECTOR AND THE DISTRICT.

#### TYPICAL GROUNDING DETAILS

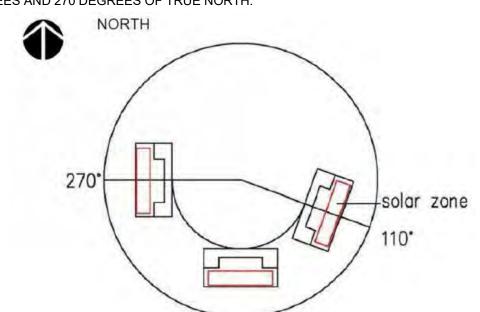
REFER TO DSA IR 16-8 & STATE FIRE MARSHAL SOLAR PHOTOVOLTAIC INSTALLATION GUIDELINE

REFER TO SECTION 110.10 - MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS SOLAR ZONE AREAS WILL VARY DEPENDING ON PC BUILDING LOCATION.

#### MINIMUM AREA:

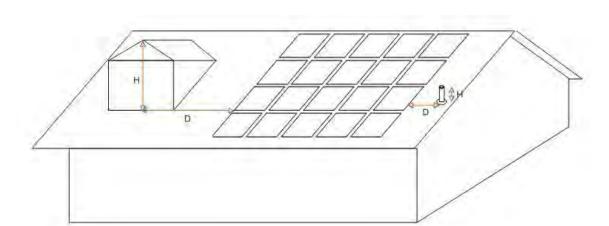
15% OF ROOF AREA (EXCLUDING ANY SKYLIGHT AREA) TO BE RESERVED FOR SOLAR PANEL APPLICATION OR SOLAR READY WILL BE SUPPLIED FROM A BUILDING OR STRUCTURE WITHIN 250 FT OF PC BUILDING.

ALL SECTIONS OF THE SOLAR ZONE LOCATED ON STEEP-SLOPED ROOFS GREATER THAN 2:12 SHALL BE ORIENTED BETWEEN 110 DEGREES AND 270 DEGREES OF TRUE NORTH.



 $D \ge 2 \times H$ 

ANY OBSTRUCTION, LOCATED ON THE ROOF OR ANY OTHER PART OF THE BUILDING THAT PROJECTS ABOVE THE SOLAR ZONE SHALL BE LOCATED AT A SUFFICIENT HORIZONTAL DISTANCE AWAY FROM THE SOLAR ZONE, IN ORDER TO REDUCE THE RESULTING SHADING OF THE SOLAR ZONE. FOR EACH OBSTRUCTION, THE HORIZONTAL DISTANCE ("D") FROM THE OBSTRUCTION TO THE SOLAR ZONE SHALL BE AT LEAST TWO TIMES THE HEIGHT DIFFERENCE ("H") BETWEEN THE HIGHEST POINT OF THE OBSTRUCTION AND THE HORIZONTAL PROJECTION OF THE NEAREST POINT OF THE SOLAR ZONE.



SOURCE: CALIFORNIA ENERGY COMMISSION

#### STRUCTURAL DESIGN LOADS:

ENTIRE ROOF SURFACE IS DESIGNED STRUCTURALLY TO ACCOMMODATE SOLAR PANELS = 3 PSF

#### **INTERCONNECTION PATHWAYS:**

THE LOCATION FOR INVERTERS AND METERING EQUIPMENT AND A PATHWAY FOR ROUTING OF CONDUIT FROM THE SOLAR ZONE TO THE POINT OF INTERCONNECTION WITH THE ELECTRICAL SERVICE WILL VARY DEPENDING ON PC BUILDING LOCATION.

SOLAR ZONE AREA

#### LEGEND

ELECTRICAL PANEL AT +60" AFF TO TOP OF ELECTRICAL PANEL WITH 1 1/2" DIA POWER STUB OUT

ROOF MOUNTED HVAC UNIT-SEE MECHANICAL DWGS

WALL MOUNTED HVAC UNIT, SEE MECHANICAL DWGS

100 CFM CEILING MOUNTED EXHAUST FAN.

INTERLOCKED WITH LIGHT SWITCH

4SD J-BOX FOR WATER HEATER LOCATE ABOVE CEILING W/ COVER PLATE, HARD WIRE TO UNIT 4SD J-BOX IN ATTIC FOR ATTIC MOUNTED HEAT DETECTOR (DEVICE BY OTHERS). MAXIMUM 35'-0" FROM ANY POINT IN ATTIC BUT NOT MORE THAN 25'-0" FROM TWO PERPENDICULAR WALL AND 50'-0" BETWEEN THEM. PROVIDE A 6'-0" CONDUIT FROM EACH J-BOX TO HEAT DETECTOR LOCATION. CONDUIT & CONNECTION TO CEILING DEVICE & DEVICE BY OTHERS (ALARM NOTE #1)

4SD J-BOX IN ATTIC FOR CEILING MOUNTED SMOKE DETECTOR (DEVICE BY OTHERS), MAXIMUM 21'-0" FROM ANY POINT IN ROOM BUT NOT MORE THAN 15'-0" TO A PERPENDICULAR WALL AND 30'-0" BETWEEN THEM. PROVIDE A 6'-O" CONDUIT FROM EACH J-BOX TO SMOKE DETECTOR LOCATION. CONDUIT & CONNECTION TO CEILING DEVICE & DEVICE BY OTHERS (ALARM NOTE #1)

RECESSED 4SD J-BOX W/ COVER PLATE FOR FUTURE FIRE ALARM SYSTEM BY OTHERS, MOUNT AT +18" AFF U.O.N. TO CENTERLINE OF BOX AND PROVIDE 1" CO STUB TO ATTIC SPACE WITH PULLSTRING

4SD J-BOX FOR EXTERIOR FIRE ALARM HORN (DEVICE BY OTHERS). MOUNT AT +90" AFF TO TOP OF DEVICE WITH 3/4" CONDUIT STUBBED TO ATTIC WITH PULLSTRING

4SD J-BOX/SINGLE GANG MUD RING FOR FIRE ALARM STROBE (DEVICE BY OTHERS). BOTTOM OF LENS 80" MIN TOP OF LENS 96" MAX AFF WITH 3/4"CONDUIT TO EXTERIOR FIRE ALARM HORN WITH PULLSTRING

4SD J-BOX/ SINGLE GANG MUD RING FOR FIRE ALARM PULL STATION (DEVICE BY OTHERS). MOUNT AT +48" AFF TO TOP OF CONTROL BOX WITH 3/4" CONDUIT TO FIRE ALARM STROBE WITH PULLSTRING

EXIT SIGN WITH BATTERY BACK UP. EXIT SIGN REQUIRED FOR CLASSROOMS WITH TWO OR MORE EXTERIOR DOORS. FLS 90' BACK UP. CLASSROOMS WITH ONE EXTERIOR DOOR-OPTIONAL

ТО ВОТТОМ

OF BOX

CLOCK OUTLET AT +90" AFF TO CENTERLINE OF DEVICE EXTERIOR LED LIGHT FIXTURE. 30w MAX WITH PHOTOCELL

MOUNT AT +93" AFF ROOF MOUNTED WEATHER PROOF GFI RECEPTACLE

WITHIN 6'-0" OF ALL SINKS EXTERIOR WEATHER PROOF GFI RECEPTACLE AT +24" AFF

GROUND FAULT CIRCUIT INTERRUPT RECEPTACLE

FOR A/C SERVICES (MAX 25'-0" FROM UNITS) DUPLEX (WALL MOUNTED) RECEPTACLE 15A-125V-3 WIRE. MOUNT AT +15" AFF U.O.N. TO BOTTOM OF OUTLET BOX

3-WAY LIGHT SWITCH. MOUNT AT+48" AFF TO TOP OF SWITCH BOX

LIGHT SWITCH. MOUNT AT+48" AFF TO TOP OF SWTICH BOX

SINGLE BUTTON DIMMER SWITCH, AT +48" AFF, TO TOP OF SWITCH BOX, WATTSTOPPER #LMDM-101 OR EQUAL

> <u>SINGLE SWITCH WALL OCCUPANCY SENSOR</u> WATTSTOPPER PW-100 OR EQUAL. SENSOR TO BE

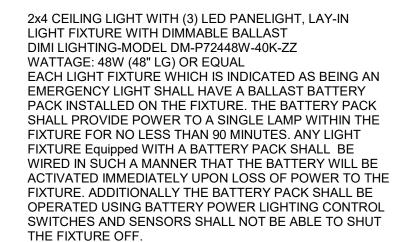
AT +44" AFF AND USE FOR OPEN ROOM (OR RESTROOM) LESS THAN 100 SQ FT W/ (1) CIRCUIT. AS NEEDED

**ULTRASONIC CEILING OCCUPANCY SENSOF** WATTSTOPPER W-500A OR EQUAL. SENSOR TO BE CONNECTED TO KEYED LIGHT SWITCHES FOR MANUAL OVERRIDE AND USE FOR RESTROOM W/ PARTITIONS.AS NEEDED

CEILING MOUNTED PHOTOCELL, WATTSTOPPER #LMLS-500 OR EQUAL AS NEEDED

CEILING MOUNTED OCCUPANCY SENSOR. WATTSTOPPER #LMPC-100 OR EQUAL. AS NEEDED

> 2x4 CEILING LIGHT WITH (3) LED PANELIGHT, LAY-IN LIGHT FIXTURE WITH DIMMABLE BALLAST DIMI LIGHTING-MODEL DM-P72448W-40K-ZZ WATTAGE: 48W (48" LG) OR EQUAL



NOTE: SEE 4/A3.2 FOR PHOTOMETRIC DATA 8 1" = 1'-0"
ELECTRICAL LEGEND

INSTALLATION SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) -2020 EDITION AND NATIONAL FIRE PROTECTION ASSOCIATION FIRE CODES (NFPA). AND 2022 CBC ELECTRICAL CODE.

ELECTRICAL EQUIPMENT LOCATIONS INDICATED ARE SHOWN DIAGRAMMATICALLY, EXACT LOCATION SHALL BE VERIFIED AND ADJUSTED FOR FIELD CONDITIONS.

RECEPTACLES AND TELEPHONE/DATA OUTLETS SHALL BE INSTALLED 18" AFF TO THE CENTER OF THE DEVICE, UNLESS NOTED OTHERWISE.

CONTRACTOR SHALL FIELD TEST AND PROVIDE TEST REPORT VERIFYING THAT RECEPTACLES ARE WIRED AND FUCTION PROPERLY.

CONTRACTOR SHALL LABEL EACH RECEPTACLE, LIGHT FIXTURE, TOGGLE SWITCH, SAFETY SWITCH AND OCCUPANCY SENSOR WITH PANEL NAME AND BRANCH CIRCUIT ID.

WEATHERPROOF RECEPTACLES SHALL BE TYPE TO PROTECT RECEPTACLE FROM WEATHER WHEN PLUG INSERTED.

THE MATERIAL REQUIRED FOR THE WORK SHALL BE CONTRACTOR FURNISHED AND CONTRACTOR INSTALLED, UNLESS SPECIFICALLY NOTED OTHERWISE. CONTRACTOR SHALL ASSUME NOTES LISTING MATERIAL AND/OR EQUIPMENT BEGIN WITH THE WORDS "SUPPLY AND INSTALL" U.O.N.".

CONTRACTOR SHALL VERIFY EXISTING CONDITIONS BEFORE SUBMITTING MATERIAL AND BECOME THOROUGHLY FAMILIAR WITH ACTUAL EXISTING CONDITIONS AT THE SITE. BY THE ACT OF SUBMITTING PROPOSED MATERIALS FOR THE WORK, THE CONTRACTOR SHALL BE DEEMED TO HAVE MADE SUCH STUDY AND EXAMINATION AND TO ACCEPT ALL CONDITIONS RESENT AT THE SITE. NO REQUEST FOR ADDITIONAL PAYMENT WILL BE CONSIDERED AS VALID, DUE TO FAILURE TO ALLOW FOR CONDITIONS, WHICH MAY EXIST

CONTRACTOR'S SCOPE SHALL INCLUDE ALL WORK SHOWN ON THE PLANS AND SPECIFICATIONS. SUBSTITUTION REQUESTS FOR EQUIPMENT SPECIFIED SHALL BE SUBMITTED FOR CONSIDERATION TO THE OWNER AND ENGINEER IN WRITING. ALL SUBSTITUTIONS MUST BE REVIEWED BY THE ENGINEER. SUCH REVIEW SHALL NOT RELIEVE THE CONTRACTOR COMPLYING WITH THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS, AND THE CONTRACTOR SHALL BE RESPONSIBLE AT HIS OWN EXPENSE FOR ANY CHARGES RESULTING FROM HIS PROPOSED SUBSTITUTIONS WHICH AFFECT OTHER PARTS OF HIS OWN WORK, THE OWNER, ENGINEER OF RECORD, OR THE WORK OF OTHER CONTRACTORS.

COORDINATE ALL WORK WITH OTHER TRADES. OBTAIN ALL DRAWINGS THAT WILL REQUIRE COORDINATION AND PROVIDE ALL ELECTRICAL CONNECTIONS REQUIRED WHETHER SHOWN ON ELECTRICAL DRAWINGS OR NOT.

UNINTERRUPTED EXISTING ELECTRICAL POWER SHALL BE MAINTAINED TO OTHER TRADES FOR TEMPORARY POWER AREAS OF THE SITE DURING CONSTRUCTION. PROVIDE ANY TEMPORARY SERVICES AS MAY BE REQUIRED. IDENTIFY AT BID TIME.

ALL PENETRATIONS IN RATED WALLS (INDICATED IN ARCHITECTURAL LIFE SAFETY PLANS), ARE TO BE INSTALLED USING THE APPROPRIATE UL RATED PENETRATION ASSEMBLIES.

EQUIPMENT SHALL BE LISTED, LABELED OR CERTIFIED FOR ITS USE BY A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL) AS RECOGNIZED BY THE U.S. DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AN HEALTH ADMINISTRATION.

14. ALL ELECTRICAL EQUIPMENT CONNECTORS SHALL BE 75° RATED.

ALL ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2022 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26 AND ASCE 7-10 CHAPTER 13, 26 AND 30.

A. ALL PERMANENT EQUIPMENT AND COMPONENTS. B. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER C. MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS ARE REQUIRED TO BE ANCHORED WITH TEMPORARY

THE ATTACHMENT OF THE FOLLOWING ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.

A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR

FLOOR OR HUNG FROM A WALL FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT I NSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE

WITH ABOVE REQUIREMENTS. ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION

13.6.8, 13.6.7, 13.6.5.6 AND 2022 CBC SECTIONS 1616A.1.23, 1616A.1.24, 1616A.1.25 AND

THE BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL BE DETAILED ON THE APPROVED DRAWINGS OR THEY SHALL COMPLY WITH ONE OF THE OSHPD PRE-APPROVALS (OPA #) AS MODIFIED TO SATISFY ANCHORAGE REQUIREMENTS OF ACI 318, APPENDIX D.

COPIES OF THE MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF HANGING AN BRACING OF THE PIPE, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE

STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

ELEC. TRADE SHALL CHECK AREA FOR EXISTING CONDUITS, SEWER, GAS & WATER PIPING BEFORE DRIVING GROUND RODS.

NON-CURRENT CARRYING METAL PARTS OF THE SYSTEM SHALL BE PROPERLY GROUNDED TO COMPLY WITH NEC REQUIREMENTS.

EACH BUILDING SHALL BE GROUNDED SEPARARELY WITH A ¾" ROUND X 8 FEET COPPERCLAD STEEL GROUND ROD. WHERE ROCK BOTOOM IS FOUND, DRIVE ROD AT 45 DEGREES MAXIMUM FROM THE VERTICAL OR HAVE IT BURIED IN A TRENCH 30" DEEP

TESTING FOR RESISTANCE TO GROUND, IF RESISTANCE EXCEEDS 25 OHMS INSTALL ADDITIONAL GROUND RODS SEPARATED AT LEAST 6 FEET, UNTIL RESISTANCE REDUCES TO 25 OHMS OR LESS. GROUND TEST MUST BE DONE IN THE PRESENCE OF THE PROJECT INSPECTOR AND ALL GROUNDING SHALL BE IN ACCORDANCE WITH CEC ARTICLE 250

PROVIDE A GREEN WIRE GROUND CONDUCTOR IN ALL CONDUITS WITH POWER OR LIGHTING CONDUCTORS.

BOND SEPARATE CONDUCTORS FROM GROUND ROD TO ELEC'L. PANEL & TO METAL BUILDING FRAME (CEC 250.52) IN ADDITION TO THE DETAIL SHOWN ABOVE. BOND THE ELECTRICAL GROUND TO METAL UNDERGROUND WATER PIPE IN DIRECT CONTACT WITH THE EARTH FOR 10 FT. OR MORE, IF AVAILABLE (CEC 250.52)

CHECK RESISTANT TO GROUND ROD. IF RESISTANCE EXCEEDS 25 OHMS. INSTALL ADDITIONAL GROUND RODS WITH CONDUCTORS AS SHOWN SEPARATED AT LEAST 6'-0" UNTIL RESISTANCE IS REDUCED TO 25 OHMS OR LESS (CEC 250.56).

ALL MODULES OF STEEL FRAME BLDGS. SHALL BE ELECTRICALLY BONDED TOGETHER (BOLTING ONLY IS NOT ACCEPTABLE BONDING). BONDING SHALL INCLUDE METAL RAMP &

SIZE OF CONDUCTORS SHALL COMPLY WITH CEC TABLE 250.66

PER CEC210.8(B) ALL RECEPTACLES AT THE FOLLOWING LOCATIONS SHALL HAVE GROUND-FAULT CIRCUIT INTERRUPTER (GFCI) - (1) BATHROOMS, (2) KITCHENS, (3) SINKS (WITHIN 6 FT), (4) INDOOR WET AREAS, (5) LOCKER ROOMS, (6) GARAGE, SERVICE BAYS OR SIMILAR, (7) ROOFTOPS, (8) OUTDOORS.

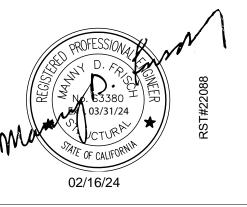
IF CLOSED BY GWB INSTALL ONE ATTIC HEAT DETECTOR PER MODULE: WHEN STANDARD OPEN WEB TRUSS SYSTEM IS USED ADDITIONAL ATTIC HEAT DETECTORS ARE NOT

**ELECTRICAL GENERAL NOTES** 

ROJECT SPECIFIC STATE AGENCY APPROVAL **IDENTIFICATION STAMP** DIV. OF THE STATE ARCHITEC APP: 02-122823 INC: **REVIEWED FOR** SS 🗹 FLS 🗹 ACS 🗹 1/30/2025



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Revision Schedule

Description

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A separate project application for construction is required

PROJECT TITLE PC 2022 CBC: 24' x 40' **EXPANDABLE TO** 120' x 40'

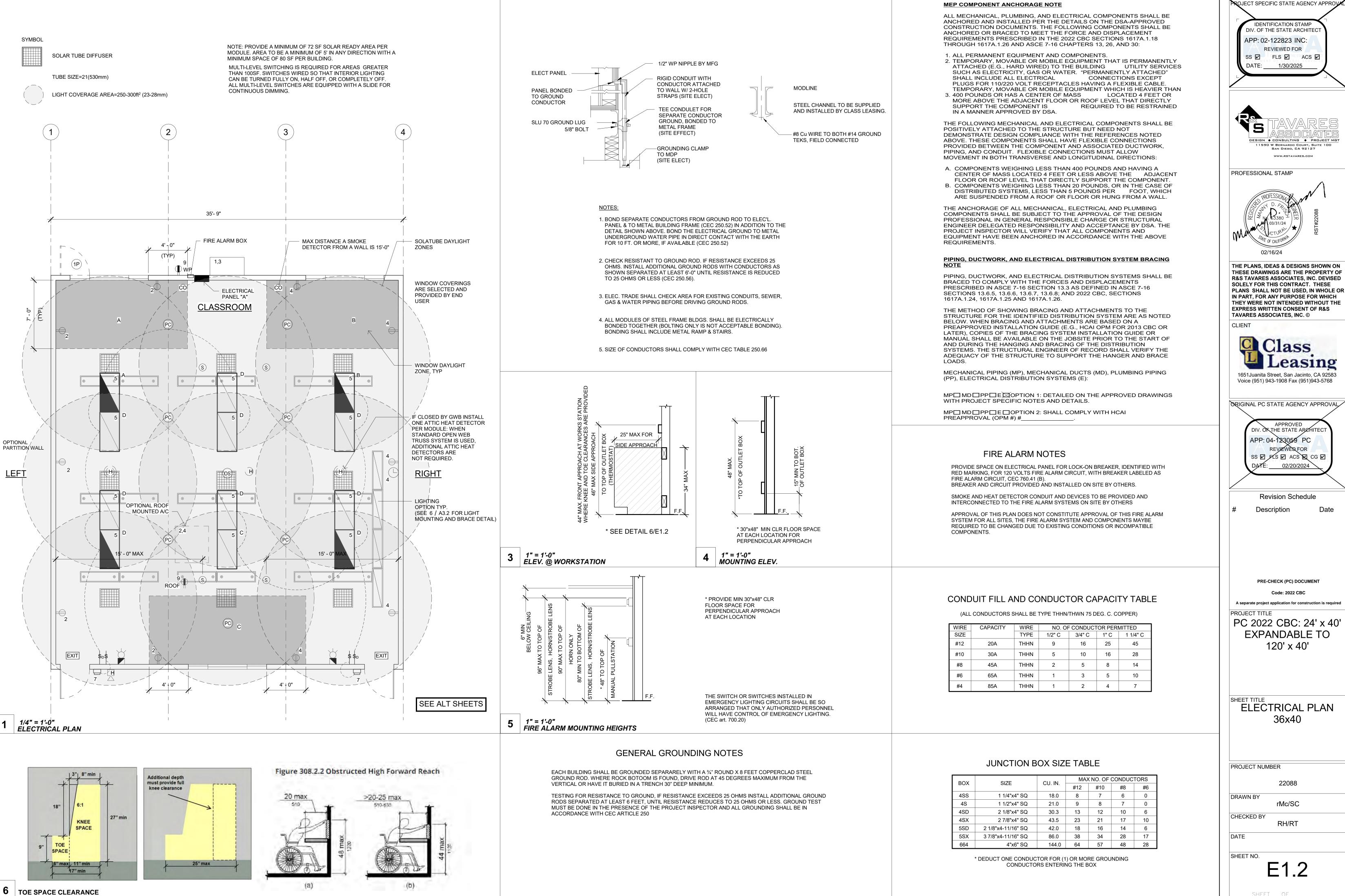
**ELECTRICAL GENERAL NOTES** 

PROJECT NUMBER 22088

DATE

CHECKED BY

FIRE ALARM MOUNTING HEIGHTS



**IDENTIFICATION STAMP** DIV. OF THE STATE ARCHITEC APP: 02-122823 INC: REVIEWED FOR

SS 🗹 FLS 🗹 ACS 🗹 1/30/2025



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**Revision Schedule** 

Description

PRE-CHECK (PC) DOCUMENT

Code: 2022 CBC

A separate project application for construction is required

PC 2022 CBC: 24' x 40' **EXPANDABLE TO** 120' x 40'

**ELECTRICAL PLAN** 36x40

DRAW	'N BY	rMc/S
		22088

CHECKED BY RH/RT

E1.2

PANEL A= 100A	120/208 VOLTS, 1 φ, 3 WIRE				MAIN LUGS ONLY					
FANLL A- 100A	LOADCENTER RECESSED							GRD & NEU	TRAL BAR	AMP BUS
	VOL	TAMPS		100	000	AIC		VC	LTAMPS	
DESCRIPTION	φА	φВ	C/B	СКТ	ф	СКТ	C/B	φА	φВ	DESCRIPTION
AC WALL MOUNTED- 5 TON	7705		30	1	Α	2	20	900		OUTLETS
		7705	30	3	В	4	20		1080	OUTLETS
GENERAL LIGHTING	1440		20	5	Α	6	20	180		EXTERIOR GFI/WP
EXTERIOR LIGHTING		80	20	7	В	8	20		180	ROOF GFI/WP
DED SOLAR READY										
DED SOLAR READY										
	φ A 9145	φB						φ A 1080	φ B 1260	
SUBTOTAL	3143	7785	-					1000	1200	SUBTOTAL
TOTAL	10225	9045						5/120 VOLT .21+ 1.7= 82		

SEE ALT SHEETS

ELECTRICAL PANEL WALL MOUNTED MAIN LUGS ONLY 120/208 VOLTS, 1 φ, 3 WIRE PANEL A= 100A GRD & NEUTRAL BARS AMP BUS LOADCENTER RECESSED 10000 AIC VOLTAMPS VOLTAMPS DESCRIPTION  $\phi$  B | C/B | CKT |  $\phi$  | CKT | C/B |  $\phi$ A DESCRIPTION 8280 30 | 1 | A | 2 | 20 | OUTLETS AC ROOF MOUNTED- 5 TON 8280 | 30 | 3 | B | 4 | 20 1080 OUTLETS GENERAL LIGHTING 20 | 5 | A | 6 | 20 | EXTERIOR GFI/WP 1440 EXTERIOR LIGHTING 20 7 B 8 20 180 ROOF GFI/WP DED SOLAR READY DED SOLAR READY 1080 1260 8360 SUBTOTAL SUBTOTAL 10800/120 VOLTS= 90 10800 9620 90 + 1.15= 9115 TOTAL

LEGEND

ELECTRICAL PANEL AT +60" AFF TO TOP OF ELECTRICAL PANEL WITH 1 1/2" DIA POWER STUB OUT

ROOF MOUNTED HVAC UNIT-SEE MECHANICAL DWGS

WALL MOUNTED HVAC UNIT, SEE MECHANICAL DWGS

100 CFM CEILING MOUNTED EXHAUST FAN. INTERLOCKED WITH LIGHT SWITCH

HM)

4SD J-BOX FOR WATER HEATER LOCATE ABOVE CEILING W/ COVER PLATE, HARD WIRE TO UNIT 4SD J-BOX IN ATTIC FOR ATTIC MOUNTED HEAT DETECTOR (DEVICE BY OTHERS). MAXIMUM 35'-0" FROM ANY POINT IN ATTIC BUT NOT MORE THAN 25'-0" FROM TWO PERPENDICULAR WALL AND 50'-0" BETWEEN THEM. PROVIDE A 6'-0" CONDUIT FROM EACH J-BOX TO HEAT DETECTOR LOCATION. CONDUIT & CONNECTION TO CEILING DEVICE & DEVICE BY OTHERS (ALARM NOTE #1)

4SD J-BOX IN ATTIC FOR CEILING MOUNTED SMOKE
DETECTOR (DEVICE BY OTHERS). MAXIMUM 21'-0" FROM ANY
POINT IN ROOM BUT NOT MORE THAN 15'-0" TO A PERPENDICULAR
WALL AND 30'-0" BETWEEN THEM. PROVIDE A 6'-O"
CONDUIT FROM EACH J-BOX TO SMOKE DETECTOR
LOCATION. CONDUIT & CONNECTION TO CEILING DEVICE &
DEVICE BY OTHERS (ALARM NOTE #1)

RECESSED 4SD J-BOX W/ COVER PLATE FOR FUTURE FIRE ALARM SYSTEM BY OTHERS. MOUNT AT +18" AFF U.O.N. TO CENTERLINE OF BOX AND PROVIDE 1" CO STUB TO ATTIC SPACE WITH PULLSTRING

4SD J-BOX FOR EXTERIOR FIRE ALARM HORN (DEVICE BY OTHERS). MOUNT AT +90" AFF TO TOP OF DEVICE WITH 3/4" CONDUIT STUBBED TO ATTIC WITH PULLSTRING

4SD J-BOX/SINGLE GANG MUD RING FOR FIRE ALARM STROBE (DEVICE BY OTHERS).
BOTTOM OF LENS 80" MIN TOP OF LENS 96" MAX AFF WITH 3/4"CONDUIT TO EXTERIOR FIRE ALARM HORN WITH PULLSTRING

4SD J-BOX/ SINGLE GANG MUD RING FOR FIRE ALARM PULL STATION (DEVICE BY OTHERS). MOUNT AT +48" AFF TO TOP OF CONTROL BOX WITH 3/4" CONDUIT TO FIRE ALARM STROBE WITH PULLSTRING

EXIT SIGN WITH BATTERY BACK UP. EXIT SIGN REQUIRED
FOR CLASSROOMS WITH TWO OR MORE EXTERIOR DOORS.
FLS 90' BACK UP. CLASSROOMS WITH ONE EXTERIOR DOOR-OPTIONAL.

CLOCK OUTLET AT +90" AFF TO CENTERLINE OF DEVICE

EXTERIOR LED LIGHT FIXTURE. 30w MAX WITH PHOTOCELL

MOUNT AT +93" AFF

OOF ROOF MOUNTED WEATHER PROOF GFI RECEPTACLE

GROUND FAULT CIRCUIT INTERRUPT RECEPTACLE WITHIN 6'-0" OF ALL SINKS

TO BOTTOM
OF BOX

FOR A/C SERVICES (MAX 25'-0" FROM UNITS)

DUPLEX (WALL MOUNTED) RECEPTACLE 15A-125V-3 WIRE.

MOUNT AT +15" AFF U.O.N. TO BOTTOM OF OUTLET BOX

EXTERIOR WEATHER PROOF GFI RECEPTACLE AT +24" AFF

3-WAY LIGHT SWITCH. MOUNT AT+48" AFF TO TOP OF SWITCH BOX

LIGHT SWITCH. MOUNT AT+48" AFF TO TOP OF SWTICH BOX

\$ SINGLE BUTTON DIMMER SWITCH, AT +48" AFF, TO TOP OF SWITCH BOX, WATTSTOPPER #LMDM-101 OR EQUAL

WS-1

SINGLE SWITCH WALL OCCUPANCY SENSOR.
WATTSTOPPER PW-100 OR EQUAL. SENSOR TO BE
MOUNTED
AT +44" AFF AND USE FOR OPEN ROOM (OR RESTROOM)
LESS THAN 100 SQ FT W/ (1) CIRCUIT.

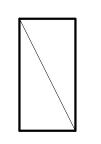
US

ULTRASONIC CEILING OCCUPANCY SENSOR.

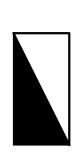
WATTSTOPPER W-500A OR EQUAL. SENSOR TO BE
CONNECTED TO KEYED LIGHT SWITCHES FOR MANUAL
OVERRIDE AND USE FOR RESTROOM W/ PARTITIONS.

PC CEILING MOUNTED PHOTOCELL, WATTSTOPPER #LMLS-500 OR EQUAL

OS CEILING MOUNTED OCCUPANCY SENSOR. WATTSTOPPER #LMPC-100 OR EQUAL.



2x4 CEILING LIGHT WITH (3) LED PANELIGHT, LAY-IN LIGHT FIXTURE WITH DIMMABLE BALLAST DIMI LIGHTING-MODEL DM-P72448W-40K-ZZ WATTAGE: 48W (48" LG) OR EQUAL



2x4 CEILING LIGHT WITH (3) LED PANELIGHT, LAY-IN LIGHT FIXTURE WITH DIMMABLE BALLAST DIMI LIGHTING-MODEL DM-P72448W-40K-ZZ WATTAGE: 48W (48" LG) OR EQUAL EACH LIGHT FIXTURE WHICH IS INDICATED AS BEING AN EMERGENCY LIGHT SHALL HAVE A BALLAST BATTERY PACK INSTALLED ON THE FIXTURE. THE BATTERY PACK SHALL PROVIDE POWER TO A SINGLE LAMP WITHIN THE FIXTURE FOR NO LESS THAN 90 MINUTES. ANY LIGHT FIXTURE Equipped WITH A BATTERY PACK SHALL BE WIRED IN SUCH A MANNER THAT THE BATTERY WILL BE ACTIVATED IMMEDIATELY UPON LOSS OF POWER TO THE FIXTURE. ADDITIONALLY THE BATTERY PACK SHALL BE OPERATED USING BATTERY POWER LIGHTING CONTROL SWITCHES AND SENSORS SHALL NOT BE ABLE TO SHUT THE FIXTURE OFF.

NOTE: SEE 4/A3.2 FOR PHOTOMETRIC DATA

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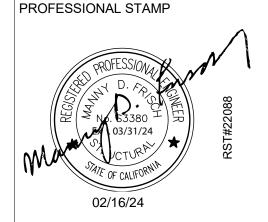
APP: 02-122823 INC:

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DATE: 1/30/2025

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APPROVED
DIV. OF THE STATE ARCHITECT

APP: 04-123059 PC

REVIEWED FOR
SS FLS ACS CG D

DATE: 02/20/2024

Revision Schedule

Description

PRE-CHECK (PC) DOCUMENT

Code: 2022 CBC

PROJECT TITLE
PC 2022 CBC: 24' x 40'

EXPANDABLE TO 120' x 40'

ELECTRICAL SCHEDULE 36x40

PROJECT NUMBER
22088

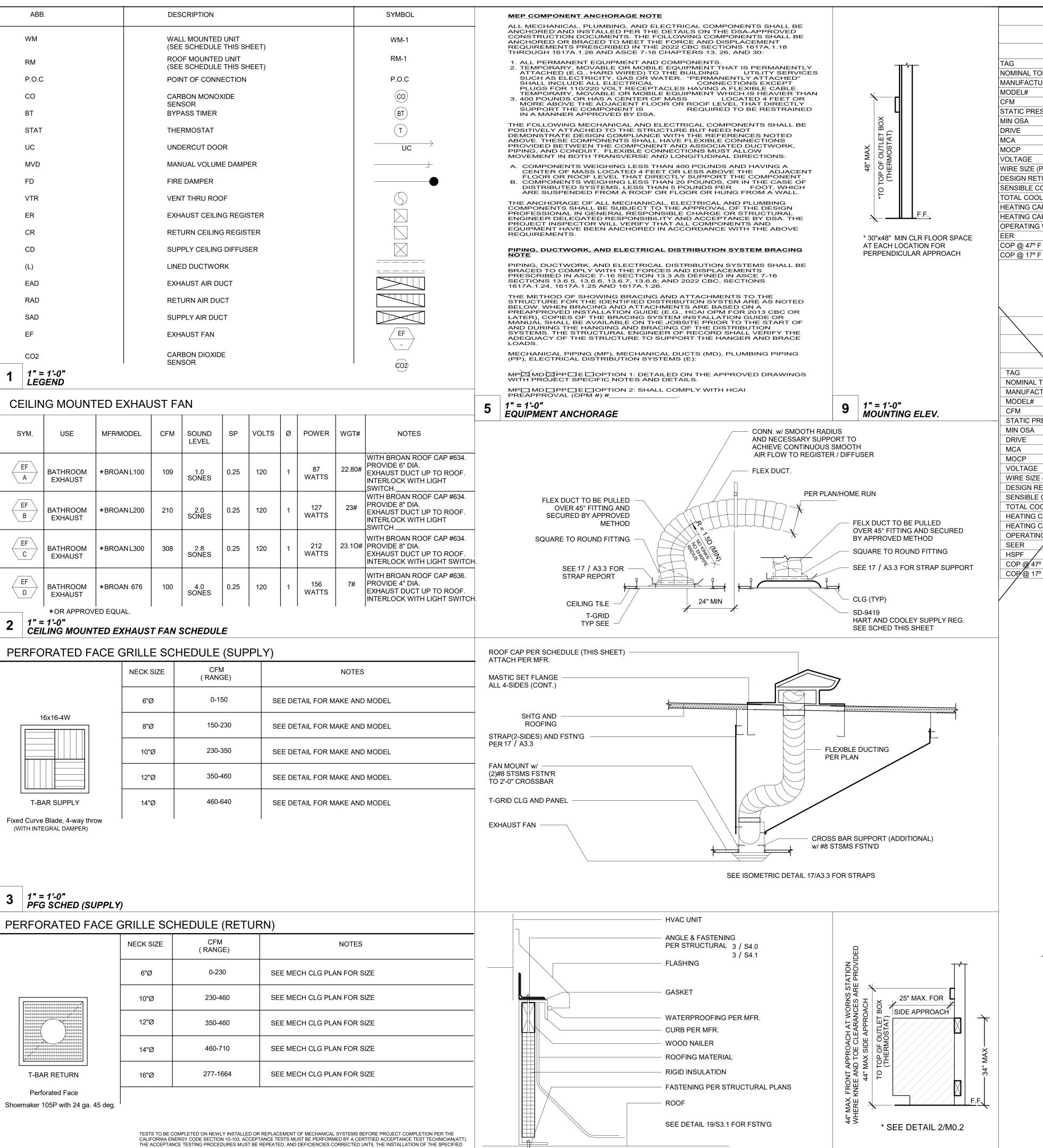
rMc/SC
CHECKED BY
RH/RT

DATE

E1.3

SHEET OF

1" = 1'-0" ELECTRICAL PANEL\_ROOF MOUNTED



SYSTEMS CONFORM AND PASS THE REQUIRED ACCEPTANCE CRITERIA. COMPLETED NRCA FORMS SHALL BE SUBMITTED TO THE PROJECT

PFG SCHED (RETURN)

### STANDARD OPTION #I WM-1 WM-1 NOMINAL TONNAGE 4.0 TONS MANUFACTURER \*\*BARD \*\*BARD MODEL# W36HB-A W48HC-A 1150 STATIC PRESSURE 0.15 MIN OSA 365 548 DIRECT DIRECT 20.4 MOCP VOLTAGE 208/230-1 208/230-1 WIRE SIZE (PWR/GRND) #6/#10 #6/#10 DESIGN RETURN AIR (DB/WB) 80/67 SENSIBLE COOLING @ 95° F (PART/FULL) 24.00/28.00 25.900/36.00 TOTAL COOLING @ 95° F (PART/FULL) 32.00/36.00 34.000/45.500 HEATING CAP. BTUH @ 47° F (PART/FULL) | 29.200/32.200 29.200/41.500 HEATING CAP. BTUH @ 17° F 20.000 26.000 OPERATING WEIGHT 380# 550# 11.10 11.00

14 SEER SINGLE PACKAGE ROOF TOP HEAT PUMP SOHEDULE STANDARD OP∕TION #I NOMINAL TONNA 3.0 TONS 4 TONS **MANUFACTURER** \*\*CARRIER \*\*CARRIER MODEL# 50VTC48 50VTC48 1200 1500 STATIC PRESSURE 0.4 MIN OSA 548 DRIVE BELT MOCP 74 **VOLTAGE** 208)230-1 208/230-1 WIRE SIZE (PWR/GRND) #4/#8 #6/#10 DESIGN RETURN AIR (DB/WB 80/67 SENSIBLE COOLING @ 195° F 30.500 35.260 TOTAL COOLING @ 9/5° 35.600 49.600 HEATING CAP. BTMH @ 47° F 35.500 45.5000 HEATING CAP. BYTUH @ 17° F 18.400 OPERATING WEIGHT 572# SEER 14.00 14.00 **HSPF** 3.4 COP/@ 17° F 2.3 2.4

10.6 EER and 11 EER

SINGLE PACKAGE VERTICAL HEAT PUMP SCHEDULE

3.30

2.00

Indicate NA for all non-applicable boxe sponsible Person) oonsible Person Make and Model - § 140.4(e) Make and Model - § 140.4(e) Economizer Make and Model - 9 120.2(i) Outside Air CFM from T24 - 5 120.1(c)3 izer is not used specif Make and Model.

Demand Control Ventilation Make and Model - \$120.1(d) Minimum DCV Outside Air in I conditioned floor area -4 120,1(d)4E Demand Shed Thermostat or

This attachment summarizes all the HVAC equipment and controls required for each size modular building.

ATTACHMENT 3: Mechanical Equipment List

if DDC to the zone § 120.2(h

HVAC SCHEDULE						
		# OF I				
BU	JILDING SIZE	3 1/2 TON HVAC	4 TON HVAC			
	24' x 40'	1				
×	36' x 40'		1			
	48' x 40'	2				
	60' x 40'		2			
	72' x 40'	3				
	84' x 40'		3			
	96' x 40'	4				
	108' x 40'		4			
	120' x 40'	5				

MERV 13 AND 2-INCH DEPTH PER ENERGY CODE 120.1(C)1. FILTERS REQ'D FOR ALL UNITS

SET BACK THERMOSTAT SHALL BE PROVIDED

SHOWN MAY NOT BE USED.

MINIMUM OUTSIDE AIR 15 CFM PER OCCUPANT AND THE UNIT SHALL UTILIZE DEMAND CONTROL VENTILATION MODEL NUMBERS FOR HEAT PUMP UNITS WITH OPTIONAL 5.0 AUXILIARY HEAT STRIPS, WHEN THE HEAT STRIP IS NOT USED. THE MCA AND MOCP MUST BE VERIFIED AND HEAT STRIPS LARGER THAN THE SIZES

THERMOSTAT SHALL BE PROGRAMED WITH EXPECTED OCCUPIED TIMES.AIR HANDLER FAN WILL BE PROGRAMED TO RUN DURING ALL OCCUPIED TIMES.PRE-OCCUPANCY PURGE SHALL BE PROGRAMED ONE HOUR PRIOR TO THE MODULAR BUILDING BEING NORMALLY OCCUPIED.

FOR ROOF MOUNTED HVAC UNITS A GASKET SHALL BE PLACED BETWEEN THE CURB AND THE HVAC UNIT.MASTIC SEALANT SHALL BE USED TO SEAL ALL SEAMS BETWEEN THE HVAC UNIT AND THE CURB.
THE SUPPLY AND RETURN DUCTS SHALL BE ATTACHED TO THE CURB
AND MASTIC SHALL BE USED TO SEAL THE DUCTS TO THE CURB.
THE SUPPLY AND RETURN DUCTS SHALL BE THE SAME SIZE AND ALIGN WITH THE HVAC UNIT.

FLEXIBLE AIR DUCTS AND CONNECTORS SHALL BE NOT MORE THAN 5 FEET IN LENGTH AND SHALL NOT BE USED IN LIEU OF RIGID ELBOWS OR FITTINGS. FLEXIBLE AIR DUCTS SHALL BE PERMITTED TO BE USED AS AN ELBOW AT A TERMINAL DEVICE PER ENERGY CODE 120.4.

DUCT INSTALLATION AND PLENUMS SHALL MEET THE REQUIREMENTS OF ENERGY CODE SECTION 120.4 AND THE MANUFACTURERS INSTALLATION INSTRUCTIONS. HORIZONTAL FLEX DUCT SHALL BE SUPPORTED AT A MAXIMUM 4 FT INTERVALS, WITH HANGING STRAPS A MINIMUM 1 1/2 IN, WIDE.

BEND/RADIUS EQUAL TO THE DUCT DIAMETER OR GREATER.

10 | 1" = 1'-0" | ELEV. @ WORKSTATION

DUCTS MUST BE PULLED TIGHT WITH A MAXIMUM SAG OF 1/2" PER FOOT OF HORIZONTAL RUN. DUCT SHALL NOT BE KINKED OR CRUSHED.

SECTION 915 CARBON MONOXIDE DETECTION

915.2.3 Group E occupancies. Carbon monoxide detection shall be installed in classrooms in Group E occupancies. Carbon monoxide alarm signals shall be automatically transmitted to an on-site location that is staffed byschool personnel.

915.3 Detection equipment. Carbon monoxide detection required by Sections 915.1 through 915.2.3 shall be provided by carbon monoxide alarms complying with Section 915.4 or carbon monoxide detection systems complying with Section

CFC 915.1 - Classrooms which contain a fuel-burning appliance or a fuel-burning fireplace or are supplied by a forced-air furnace shall be provided with a carbon monoxide detexction system. Provide a carbon monoxide detection system

ACCOMMODATE DIFFERENTIAL MOVEMENTS

UTLILITIES THAT SPAN BETWEEN UNITS OR ACROSS SEISMIC SEPARATION JOINTS MUST BE DESIGNED WITH A FLEXIBLE CONNECTION THAT CAN

ROJECT SPECIFIC STATE AGENCY APPROVAL IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC' APP: 02-122823 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 1/30/2025



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Revision Schedule

Description

PRE-CHECK (PC) DOCUMENT

Code: 2022 CBC

A separate project application for construction is required

PROJECT TITLE PC 2022 CBC: 24' x 40' **EXPANDABLE TO** 120' x 40'

MISCELLANEOUS **NOTES & DETAILS** 

PROJECT NUMBER 22088 DRAWN BY

CHECKED BY RH/RT

SHEET OF

DATE

SHEET NO.

M0.1

rMc/SC

—20" max.

THERMOSTAT SHALL BE PROGRAMED WITH EXPECTED OCCUPIED TIMES.AIR HANDLER FAN WILL BE PROGRAMED TO RUN DURING ALL OCCUPIED TIMES.PRE-OCCUPANCY PURGE SHALL BE PROGRAMED ONE HOUR PRIOR TO THE MODULAR BUILDING BEING NORMALLY OCCUPIED.

FOR ROOF MOUNTED HVAC UNITS A GASKET SHALL BE PLACED BETWEEN THE CURB AND THE HVAC UNIT.MASTIC SEALANT SHALL BE USED TO SEAL ALL SEAMS BETWEEN THE HVAC UNIT AND THE CURB. THE SUPPLY AND RETURN DUCTS SHALL BE ATTACHED TO THE CURB AND MASTIC SHALL BE USED TO SEAL THE DUCTS TO THE CURB. THE SUPPLY AND RETURN DUCTS SHALL BE THE SAME SIZE AND ALIGN WITH THE HVAC UNIT.

FLEXIBLE AIR DUCTS AND CONNECTORS SHALL BE NOT MORE THAN 5 FEET IN LENGTH AND SHALL NOT BE USED IN LIEU OF RIGID ELBOWS OR FITTINGS. FLEXIBLE AIR DUCTS SHALL BE PERMITTED TO BE USED AS AN ELBOW AT A TERMINAL DEVICE PER ENERGY

DUCT INSTALLATION AND PLENUMS SHALL MEET THE REQUIREMENTS OF ENERGY CODE SECTION 120.4 AND THE MANUFACTURERS INSTALLATION INSTRUCTIONS.

HORIZONTAL FLEX DUCT SHALL BE SUPPORTED AT A MAXIMUM 4 FT INTERVALS, WITH HANGING STRAPS A MINIMUM 1 1/2 IN. WIDE. DUCTS MUST BE PULLED TIGHT WITH A MAXIMUM SAG OF 1/2" PER FOOT OF HORIZONTAL RUN.

DUCT SHALL NOT BE KINKED OR CRUSHED. BEND/RADIUS EQUAL TO THE DUCT DIAMETER OR GREATER.

UPON SITE PLACEMENT OR SITE CONSTRUCTION, THE OPERATION AND MAINTENANCE DOCUMENTATION FOR ALL MECHANICAL AND LIGHTING SYSTEMS AND CONTROLS SHALL BE PROVIDED BY THE MODULAR BUILDING MANUFACTURER, OR

THE GENERAL CONTRACTOR FOR THE PERMANENT MODULAR RELOCATABLE BUILDING AND DELIVERED TO THE OWNER.

AT THE TIME OF ROUGH INSTALLATION, DURING IN THE FACTORY OR ON THE CONSTRUCTION SITE, DURING SHIPMENT (IF APPLICABLE) AND UNTIL FINAL STARTUP OF THE HEATING COOLING AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED DISTRIBUTION COMPONENT

OPENINGS SHALL BE PROCTED TO REDUCE THE AMOUNT OF DUST, WATER AND DEBRIS WHICH MAY ENTER THE SYSTEM

## 1/4" = 1'-0" **MECHANICAL NOTES**

TABLE 140.4-E AIR ECONOMIZER HIGH LIMIT SHUT OFF CONTROL REQUIREMENTS Required High Limit (Economizer Off When):

Device Type	Zones	Equation <sup>b</sup>	Description					
	1, 3, 5, 11-16	T <sub>OA</sub> > 75°F	Outdoor air temperature exceeds 75°F					
Fixed Dry Bulb	2, 4, 10	T <sub>OA</sub> > 73°F	Outdoor air temperature exceeds 73°F					
Fixed Dry Buib	6, 8, 9	T <sub>OA</sub> > 71°F	Outdoor air temperature exceeds 71°F					
	7	T <sub>OA</sub> > 69°F	Outdoor air temperature exceeds 69°F					
	1, 3, 5, 11-16	T <sub>OA</sub> > T <sub>RA</sub> °F	Outdoor air temperature exceeds return air temperature					
Differential Dry	2, 4, 10	T <sub>OA</sub> > T <sub>RA</sub> -2°F	Outdoor air temperature exceeds return air temperature minus 2°F					
Bulb	6, 8, 9	T <sub>OA</sub> > T <sub>RA</sub> -4°F	Outdoor air temperature exceeds return air temperature minus 4°F					
	7	T <sub>OA</sub> > T <sub>RA</sub> -6°F	Outdoor air temperature exceeds return air temperature minus 6°F					
Fixed Enthalpy <sup>C</sup> + Fixed Drybulb	All	h <sub>OA</sub> > 28 Btu/lb <sup>C</sup> or T <sub>OA</sub> > 75°F	Outdoor air enthalpy exceeds 28 Btu/lb of dry air <sup>C</sup> or Outdoor air temperature exceeds 75°F					
a Only the high limit co	Only the high limit control devices listed are allowed to be used and at the setnoints listed. Others such as Dew							

Only the high limit control devices listed are allowed to be used and at the setpoints listed. Others such as Dew Point, Fixed Enthalpy, Electronic Enthalpy, and Differential Enthalpy Controls, may not be used in any Climate Zone for compliance with Section 140.4(e)1 unless approval for use is provided by the Energy Commission

Devices with selectable (rather than adjustable) setpoints shall be capable of being set to within 2°F and 2 Btu/lb At altitudes substantially different than sea level, the Fixed Enthalpy limit value shall be set to the enthalpy value t 75°F and 50% relative humidity. As an example, at approximately 6,000 foot elevation, the fixed enthalpy limit is oproximately 30.7 Btu/lb.

ALL ECONOMIZERS MUST BE PROGRAMMED IN THE FIELD BY THE HVAC

		Title 24, Part 6 DSA Application Calculation Date/Time of End Model Name and Option: 24' Total Floor A HVAC System Type:	n #: 04-121369 ergy Report: 2023-07-26 XX x40' PC (Wood Frame Wall urea: 960 ft <sup>2</sup>			
Climate Zone 14	(Palmdale)					
Azimuth (Front Orientation)		Standard Design	Proposed Design	Margin	Margin %	Worst Ca
_	TDV-E	366.40	297.14	69.26	18.9028%	
30°	TDV-T SOURCE	366.40 36.24	297.14 30.65	69.26 5.59	18.9028% 15.4249%	
	TDV-E	358.72	295.30	63.42	17.6795%	**
75°	TDV-T	358.72	295.30	63.42	17.6795%	**
	SOURCE TDV-E	35.63 363.47	30.56 296.43	5.07 67.04	14.2296% 18.4444%	**
120°	TDV-T	363.47	296.43	67.04	18.4444%	
	SOURCE	36.01	30.64	5.37	14.9125%	
4.550	TDV-E	366.46	297.42	69.04	18.8397%	
165°	TDV-T SOURCE	366.46	297.42	69.04 5.58	18.8397% 15.4059%	
	TDV-E	36.22 366.40	30.64 297.14	69.26	18.9028%	
210°	TDV-T	366.40	297.14	69.26	18.9028%	
	SOURCE	36.24	30.65	5.59	15.4249%	
255°	TDV-E TDV-T	358.72	295.30 295.30	63.42 63.42	17.6795%	**
255	SOURCE	358.72 35.63	30.56	5.07	17.6795% 14.2296%	**
	TDV-E	363.47	296.44	67.03	18.4417%	
300°	TDV-T	363.47	296.44	67.03	18.4417%	
	SOURCE	36.01	30.64	5.37	14.9125%	
345°	TDV-E TDV-T	366.46 366.46	297.42 297.42	69.04 69.04	18.8397% 18.8397%	
343	SOURCE	36.22	30.64	5.58	15.4059%	
			T			
Climate Zone 15 (I	Palm Springs)					
(Front Orientation)	TDV-E	Standard Design 378.51	Proposed Design 303.65	Margin 74.86	Margin % 19.7775%	Worst Ca
30°	TDV-E	378.51	303.65	74.86	19.7775%	
	SOURCE	33.26	26.66	6.60	19.8437%	
	TDV-E	369.92	301.77	68.15	18.4229%	**
75°	TDV-T SOURCE	369.92 32.57	301.77	68.15 6.02	18.4229% 18.4833%	**
	TDV-E	370.43	26.55 302.74	67.69	18.2734%	
120°	TDV-T	370.43	302.74	67.69	18.2734%	
	SOURCE	32.71	26.64	6.07	18.5570%	
1650	TDV-E	378.42	303.43	74.99	19.8166%	
165°	TDV-T SOURCE	378.42 33.23	303.43 26.65	74.99 6.58	19.8166% 19.8014%	
	TDV-E	378.51	303.65	74.86	19.7775%	
210°	TDV-T	378.51	303.65	74.86	19.7775%	
	SOURCE	33.26	26.66	6.60	19.8437%	
255°	TDV-E	369.92	301.77	68.15	18.4229%	**
455-	TDV-T SOURCE	369.92 32.57	301.77 26.55	68.15 6.02	18.4229% 18.4833%	**
	TDV-E	370.43	302.74	67.69	18.2734%	
300°	TDV-T	370.43	302.74	67.69	18.2734%	
	SOURCE	32.71	26.64	6.07	18.5570%	
345°	TDV-E TDV-T	378.42 378.42	303.43 303.43	74.99 74.99	19.8166% 19.8166%	
343			26.65	6.58	19.8014%	
	SOURCE	33.23				
Climata Zana 16 /		33.23				ı
Climate Zone 16 (				Margin	Margin %	Worst Ca
	Blue Canyon)	Standard Design	Proposed Design	Margin		
Azimuth (Front Orientation)	Blue Canyon)  TDV-E	Standard Design	Proposed Design	28.72	9.3477%	
Azimuth	Blue Canyon)	Standard Design  307.24  307.24	Proposed Design	28.72 28.72	9.3477% 9.3477%	**
Azimuth (Front Orientation)	Blue Canyon)  TDV-E  TDV-T	Standard Design	Proposed Design  278.52 278.52	28.72	9.3477%	**
Azimuth (Front Orientation)	TDV-E TDV-T SOURCE TDV-E TDV-E	Standard Design  307.24 307.24 54.83	Proposed Design  278.52  278.52  41.05	28.72 28.72 13.78	9.3477% 9.3477% 25.1322%	**
Azimuth (Front Orientation)	TDV-E TDV-T SOURCE TDV-E TDV-T SOURCE	Standard Design  307.24 307.24 54.83 341.77 341.77 65.39	Proposed Design  278.52  278.52  41.05  272.69  272.69  40.97	28.72 28.72 13.78 69.08 69.08 24.42	9.3477% 9.3477% 25.1322% 20.2124% 20.2124% 37.3452%	**
Azimuth (Front Orientation)	TDV-E TDV-T SOURCE TDV-E TDV-E TDV-E TDV-T SOURCE TDV-T TDV-T SOURCE TDV-E	Standard Design  307.24 307.24 54.83 341.77 341.77 65.39 307.35	Proposed Design  278.52 278.52 41.05 272.69 40.97 273.40	28.72 28.72 13.78 69.08 69.08 24.42 33.95	9.3477% 9.3477% 25.1322% 20.2124% 20.2124% 37.3452% 11.0460%	**
Azimuth (Front Orientation)	TDV-E TDV-T SOURCE TDV-E TDV-T SOURCE TDV-E TDV-T SOURCE TDV-E TDV-E TDV-E	Standard Design  307.24 307.24 54.83 341.77 65.39 307.35	Proposed Design  278.52 278.52 41.05 272.69 272.69 40.97 273.40 273.40	28.72 28.72 13.78 69.08 69.08 24.42 33.95 33.95	9.3477% 9.3477% 25.1322% 20.2124% 20.2124% 37.3452% 11.0460%	**
Azimuth (Front Orientation)	TDV-E TDV-T SOURCE TDV-E TDV-T SOURCE TDV-T SOURCE TDV-E TDV-T SOURCE TDV-E TDV-T SOURCE	Standard Design  307.24 307.24 54.83 341.77 341.77 65.39 307.35 307.35 54.88	Proposed Design  278.52  278.52  41.05  272.69  272.69  40.97  273.40  273.40  41.01	28.72 28.72 13.78 69.08 69.08 24.42 33.95 33.95	9.3477% 9.3477% 25.1322% 20.2124% 20.2124% 37.3452% 11.0460% 11.0460% 25.2733%	**
Azimuth (Front Orientation)  30°  75°  120°	TDV-E TDV-T SOURCE TDV-T SOURCE TDV-T SOURCE TDV-T SOURCE TDV-E TDV-T SOURCE TDV-E TDV-T	Standard Design  307.24 307.24 54.83 341.77 65.39 307.35 307.35 54.88 309.02	Proposed Design  278.52 278.52 41.05 272.69 272.69 40.97 273.40 273.40 41.01 273.26	28.72 28.72 13.78 69.08 69.08 24.42 33.95 33.95 13.87 35.76	9.3477% 9.3477% 25.1322% 20.2124% 20.21249 37.3452% 11.0460% 25.2733% 11.5721%	**
Azimuth (Front Orientation)	TDV-E TDV-T SOURCE TDV-T SOURCE TDV-E TDV-T SOURCE TDV-E TDV-E TDV-T SOURCE TDV-T SOURCE TDV-T SOURCE TDV-T	Standard Design  307.24 307.24 54.83 341.77 341.77 65.39 307.35 307.35 54.88 309.02	Proposed Design  278.52 278.52 41.05 272.69 272.69 40.97 273.40 273.40 41.01 273.26 273.26 273.26	28.72 28.72 13.78 69.08 69.08 24.42 33.95 33.95 13.87 35.76	9.3477% 9.3477% 25.1322% 20.2124% 20.2124% 37.3452% 11.0460% 25.2733% 11.5721%	**
Azimuth (Front Orientation)  30°  75°  120°	TDV-E TDV-T SOURCE TDV-E TDV-T SOURCE TDV-E TDV-T SOURCE TDV-E TDV-T SOURCE TDV-T SOURCE TDV-E TDV-T SOURCE TDV-E TDV-T SOURCE TDV-E TDV-T SOURCE	Standard Design  307.24 307.24 54.83 341.77 65.39 307.35 307.35 54.88 309.02 309.02 54.91	Proposed Design  278.52 278.52 41.05 272.69 40.97 273.40 41.01 273.26 273.26 41.02	28.72 28.72 13.78 69.08 69.08 24.42 33.95 33.95 13.87 35.76	9.3477% 9.3477% 25.1322% 20.2124% 20.2124% 37.3452% 11.0460% 25.2733% 11.5721% 11.5721% 25.2959%	**
Azimuth (Front Orientation)  30°  75°  120°	TDV-E TDV-T SOURCE TDV-T SOURCE TDV-E TDV-T SOURCE TDV-E TDV-E TDV-T SOURCE TDV-T SOURCE TDV-T SOURCE TDV-T	Standard Design  307.24 307.24 54.83 341.77 341.77 65.39 307.35 307.35 54.88 309.02	Proposed Design  278.52 278.52 41.05 272.69 272.69 40.97 273.40 273.40 41.01 273.26 273.26 273.26	28.72 28.72 13.78 69.08 69.08 24.42 33.95 33.95 13.87 35.76	9.3477% 9.3477% 25.1322% 20.2124% 20.2124% 37.3452% 11.0460% 25.2733% 11.5721%	**

ATTACHMENT 3: Mechanical Equipment List

This attachment summarizes all the HVAC equipment and controls required for each size modular building.

LIST OF MECHANICAL EQUIPMENT

Indicate NA for all non-applicable boxes

Modular size and equipment type	4.0 TON WM HVAC	5.0 TON WM HVAC	3 TON WM HVAC	Responsible for programing/commissioning	
				(builder or HVAC contractor)	<b>_</b> \
HVAC Equipment Make and Model	BARD W46HC-A	BARD W60H1	BARD W36 HB	NA	
BTUH Heating Cooling	41,500 45,500	51,000 55,500	38,500 40,000	NA	
Indoor/Blower Fan BHP/HP CFM @ at ? inch WC	1/3-825-2 2.5 24"-2900	1/3-825-2 4.1 24"-3700	1/3-825-2 2.5 24"-2900	NA	
<b>Strip Heating</b> Maximum allowed or Not Allowed if not modeled	PER TITLE 24	PER TITLE	PER TITLE	NA	$] \setminus [$
Minimum allowed SEER, EER, HSPF and/or COP, and Phase	14, 11, 3.40, 3	14, 11, 3.30 ,3	14, 11, 3, 40, 3	NA	] \ /
Thermostat Make and Model Setback – § 110.2(c)	BARD #8403-061	BARD #8403-061	BARD #8403-061	(Responsible Person) Required Acceptance Test NRCA-MCH-03-A	
Heat Pumps – § 110.2(b)	C48H1	C60H <sub>1</sub>	C42H/I		$\perp$
Shut-off and Reset Make and Model Occupancy Sensor or 4 hr override – § 120.2(e)	STANDARD BUILT-IN	STANDARD BUILT-IN	STANDARD BUILT-IN	(Responsible Person) Required Acceptance Test NRCA-MCH-03-A	
Economizer Equipment Make and Model – § 140.4(e)	ECON-NC5	ECON-NC5	ECON-NC5	(Responsible Person) Required Acceptance Test NRCA-MCH-02-A and 05-A	
<b>Economizer</b> Controls Make and Model – § 140.4(e)	ECON-WD5	ECON-WD5	ECØN-WD5	(Responsible Person) Required Acceptance Test NRCA-MCH-02-A and 05-A	
Economizer Fault Detection Software Make and Model - § 120.2(i)	ECON-DB5	ECON-DB5	ECON-DB5	(Responsible Person) Required Acceptance Test NRCA-MCH-12-A or 13-A	
Outside Air In CFM - § 120.1(c)3	PER TITLE 24	PER TITLE	PER TITLE 24	(Responsible Person) Required Acceptance Test NRCA-MCH-02-A	
Ventilation Kit  If economizer is not installed  specify Make and Model.	N/A	N/A	N/A	(Responsible Person) Required Acceptance Test NRCA-MCH-02-A	
Demand Control Ventilation Co2 Sensor with ppm display Make and Model - §120.1(d)4	PER BARD SPECIFICAIONS	PER BARD SPECIFICAIONS	PER BARD SPECIFICAIONS	(Responsible Person) Required Acceptance Test NRCA-MCH-06-A	
Minimum Designed Outside Air in CFM - § 120.1(c)3	PER TITLE 24	PER TITLE 24	PER TITLE	(Responsible Person) Required Acceptance Test NRCA-MCH-02-A	
Demand Shed Thermostat Make Model If DDC to the zone § 120.2(h)				(Responsible Person) Required Acceptance Test NRCA-MCH-11-A	

NOTE: SEE M0.1 AND CUT SHEETS FOR ADDITIONAL EQUIPMENT OPTIONS

CONTRACTOR TO THE TEMPERATURE IN TABLE 140.4-E

Reference: Energy Code, Appendix NA4, Table NA4-3 ' In the event that there are identical percentages, select one. \*This table is not currently generated by the energy software

ast Compliance Margin Orientation

# HVAC @ WALL SECTION **SEQUENCE OF OPERATIONS**

# **BARD W48HC-A**

# **Sequence of Operation**

Circuit R-Y1 makes at thermostat pulling in compressor contactor, starting the compressor and outdoor motor. (See *NOTE* under **Condenser Fan Operation** concerning models equipped with low ambient control.) The G (indoor motor) circuit is automatically completed by the thermostat on any call for cooling operation or can be energized by manual fan switch on subbase for constant air circulation. On a call for 2nd stage heating, circuit R-W2 makes at the thermostat pulling in heat contactor for the strip heat and blower operation. On a call for third stage heat, R-W3 makes

Heating A 24V solenoid coil on reversing valve controls heating cycle operation. Two thermostat options, one allowing "Auto" changeover from cycle to cycle and the other constantly energizing solenoid coil during heating season—thus eliminating pressure equalization noise

except during defrost, are to be used.

bringing on second heat contactor, if so equipped.

On "Auto" option, a circuit is completed from R-B/W1 and R-Y1 on each heating "on" cycle, energizing reversing valve solenoid and pulling in compressor contactor, starting compressor and outdoor motor. R-G also make starting indoor blower motor. Heat pump heating cycle now in operation.

The second option has no "Auto" changeover position, but instead energizes the reversing valve solenoid constantly whenever the system switch on subbase is placed in "Heat" position, the "B" terminal being constantly energized from R. A thermostat demand for heat completes R-Y1 circuit, pulling in compressor contactor starting compressor and outdoor motor. R-G also make starting indoor blower motor.

On a call for 2nd stage heating, circuit R-W2 makes at the thermostat pulling in the heat contactor for the strip heat and blower operation. On a call for third stage heat, R-B/W1 breaks, dropping out heat pump, and R-W3 makes, bringing on second heat contactor, if so equipped.

# Balanced Climate<sup>™</sup> Mode

Balanced Climate™ is a great comfort feature that can easily be applied under any normal circumstances. If the Bard air conditioning system is being set up in a typical environment where 72°F is the lowest cooling setpoint, remove the Y1/Y2 jumper and install a 2-stage cooling thermostat. This will increase the humidity removal up to 35% and provide a much more comfortable environment. This mode will also increase the supply temperature when in heating mode. When Balanced Climate mode is activated, it is employed in both heating and cooling modes.

**NOTE:** Units with mechanical dehumidification require an additional connection to be made when enabling Balanced Climate. Refer to dehumidification supplemental instructions for this step.

If the application is likely to require air conditioning operation below 60°F outdoor conditions, a low ambient control (LAC) kit must be installed. The LAC kit is equipped with an outdoor temperature switch that disables Balanced Climate mode when the outdoor temperature drops below 50°F. This prevents potential evaporator coil freeze up issues. The LAC kit also comes with an evaporator freeze protection thermostat that cuts out the compressor if the evaporator begins to freeze up.

If the unit is being installed with any ventilation package, a Bard LAC kit must be installed. Failure to utilize an LAC with any air conditioner can cause coil freeze up.

Balanced Climate can readily be applied to duct-free (supply and return air grille) applications. It may also be applied to ducted applications with **limited static** of 0.20" ESP (total including both supply and return statics). Consult Bard Application Engineering for details prior to implementation.

CAUTION: Balanced Climate is not a replacement for a dehumidification (hot gas reheat) unit for extreme applications, but rather an enhancement feature for limited climates and applications.

# BARD C60HC1 & C42HC1

**Sequence of Operation** 

**Cooling Stage 1** – Circuit R-Y makes at thermostat pulling in compressor contactor, starting the compressor and outdoor motor. The G (indoor motor) circuit is automatically completed on any call for cooling operation or can be energized by manual fan switch on subbase for constant air circulation.

Cooling Stage 2 – Circuit R-Y1 makes at the thermostat, energizing the 2nd stage solenoid in the compressor. Default position is not energized. Compressor will run at low capacity until this solenoid is energized.

**Heating Stage 1** – A 24V solenoid coil on reversing valve controls heating cycle operation. Two thermostat options, one allowing "Auto" changeover from cycle to cycle and the other constantly energizing solenoid coil during heating season and thus eliminating pressure equalization noise except during defrost, are to be used. On "Auto" option, a circuit is completed from R-B and R-Y on each heating "on" cycle, energizing reversing valve solenoid and pulling in compressor contactor starting compressor and outdoor motor. R-G also make, starting indoor blower motor. Heat pump heating cycle now in operation. The second option has no "Auto" changeover position, but instead energizes the reversing valve solenoid constantly whenever the system switch on subbase is placed in "Heat" position, the "B" terminal being constantly energized from R. A thermostat demand for Stage 1 heat completes R-Y circuit, pulling in compressor contactor and starting compressor and outdoor motor. R-G also make, starting indoor blower motor.

**Heating Stage 2** – Circuit R-Y2 makes at the thermostat, energizing the 2nd stage solenoid in the compressor.

# **Pressure Service Ports**

High and low pressure service ports are installed on all units so that the system operating pressures can be observed. Pressure tables 6A and 6B cover all models. It is imperative to match the correct pressure table to the unit by model number.

This unit employs high-flow Coremax valves instead of the typical Shrader type valves.

WARNING! Do NOT use a Schrader valve core removal tool with these valves. Use of such a tool could result in eye injuries or refrigerant burns!

To change a Coremax valve without first removing the refrigerant, a special tool is required which can be obtained at www.fastestinc.com/en/SCCA07H. See the replacement parts manual for replacement core part numbers.

# **CARRIER 50VTC48L**

FIGURE 308.2.2. OBSTRUCTED HIGH

>20" - 25

FORWARD REACH

**OPERATION** 

**Sequence of Operation**—When free cooling is not available, the compressor will be controlled by the thermostat. When free cooling is available, the outdoor-air damper is modulated by the Economizer control to provide a 50° to 55°F (10° to 12.8°C) supply-air temperature into the zone. As the supply-air temperature fluctuates above 55° (12.8°C) or below 50°F (10°C), the dampers will be modulated (open or close) to bring the supply-air temperature back within the set points. For Economizer operation, there must be a thermostat call for the fan (G). This will move the damper to its minimum position during the occupied mode.

**NOTE**: The DCV Max potentiometer must be closed (CCW)

when not using CO<sub>2</sub> sensor. Above 50°F (10°C) supply-air temperature, the dampers will modulate from 100% open to the minimum open position. From 50°F to 45°F (10° to 7.2°C) supply-air temperature, the dampers will maintain at the minimum open position. Below 45°F (7.2°C), the dampers will be completely shut. As the supply-air temperature rises, the dampers will come back open to the minimum open position once the supply-air temperature rises to 48°F (8.9°C). If power exhaust is installed, as the outdoor-air damper opens and closes, the power exhaust fans will be energized and deenergized. If fieldinstalled accessory CO<sub>2</sub> sensors are connected to the Economizer control, a demand controlled ventilation strategy will begin to operate. As the CO<sub>2</sub> level in the zone increases above the CO<sub>2</sub> set point, the minimum position of the damper will be increased proportionally. As the CO<sub>2</sub> level decreases because of the increase in fresh air, the outdoor-air damper will be proportionally closed. Damper position will follow the higher demand condition from DCV mode or free cooling mode. Damper movement from full closed to full open (or vice versa) will take between 1 1/2 and 2 1/2 minutes. If free cooling can be used as determined from the appropriate changeover command (dry bulb, enthalpy curve, or differential enthalpy), a call for cooling (Y1 closes at the thermostat) will cause the control to modulate the dampers open to maintain the supply air temperature set point at  $50^{\circ}$  to  $55^{\circ}$ F ( $10^{\circ}$  to  $12.8^{\circ}$ C). As the supply air temperature drops below the set point range of  $50^{\circ}$  to  $55^{\circ}$ F ( $10^{\circ}$ to 12.8°C), the control will modulate the outdoor-air dampers closed to maintain the proper supply-air temperature.

1651Juanita Street, San Jacinto, CA 92583 Voice (951) 943-1908 Fax (951)943-5768 ORIGINAL PC STATE AGENCY APPROVAL APPROVED DIV. OF THE STATE ARCHITEC

> SS / FLS / ACS / CG / DATE:

> > Revision Schedule

Description

REVIEWED FOR

APP: 04-123059 PC

ROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC

REVIEWED FOR

SS 🗹 FLS 🗹 ACS 🗹

1/30/2025

DESIGN ♦ CONSULTING ♦ PROJECT MG

SAN DIEGO, CA 92127

WWW.RSTAVARES.COM

THE PLANS, IDEAS & DESIGNS SHOWN ON

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PLANS SHALL NOT BE USED, IN WHOLE OR

IN PART, FOR ANY PURPOSE FOR WHICH

THEY WERE NOT INTENDED WITHOUT THE

SOLELY FOR THIS CONTRACT. THESE

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PROFESSIONAL STAMP

11590 W. BERNARDO COURT, SUITE 100

APP: 02-122823 INC:

PRE-CHECK (PC) DOCUMENT Code: 2022 CBC

A separate project application for construction is required

PROJECT TITLE PC 2022 CBC: 24' x 40' **EXPANDABLE TO** 

120' x 40'

MISCELLANEOUS **NOTES & DETAILS** 

PROJECT NUMBER 22088 DRAWN BY Author

CHECKED BY Checker

DATE

SHEET NO.

SHEET OF

M0.2

PROJECT:

24X40 (PC 04-121369) - Wall AC Climate Zone 14 Palmdale, CA

Project Designer: R & S Tavares Associates 11590 W. Bernardo Court, Suite 100 San Diego, Ca. 92127

Report Prepared by:

LAL B. SAHGAL LSA CONSULTING ENGINEERS 83, WINDSWEPT WAY MISSION VIEJO, CA 92692 (949) 830-4746

Job Number:

Date: 7/26/2023

The EnergyPro computer program has been used to perform the calculations summarized in this compliance report. This program has approval and is authorized by the California Energy Commission for use with both the Residential and Nonresidential 2022 Building Energy Efficiency Standards. This program developed by EnergySoft, LLC – www.energysoft.com.

Nonresidential Performance	Compliance I	Viethod				(Page 2 of 17
B. PROJECT SUMMARY						
Table B shows which building permit application.	components a	re included in the	performance calculation.	If ind	icated as not incl	luded, the project must show compliance prescriptively if within th
E	Building Comp	onents Complyin	g via Performance			Building Components Complying Prescriptively
- ' ' ' - ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	Nonres	Performance	Solar Thermal Water		Performance	The following building components are ONLY eligible for prescriptive compliance

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

В	uilding Comp	onents Complyin	Building Components Complying Pre	scriptively							
Envelope (See Table G)	Nonres	Performance	Solar Thermal Water Heating (See Table I3)		Performance	The following building components are ONLY eligible for prescriptive compliant and should be documented on the NRCC form listed if within the scope of the					
Lilvelope (See Table G)	MultiFam	Not Included			Not Included	permit application (i.e. compliance will not be shown of					
Mechanical (See Table H)	Nonres	Performance	Covered Process: Commercial Kitchens (see Table J)		Commercial Kitchens (see				Performance	Indoor Lighting (Unconditioned) 140.6 & 170.2(e)	NRCC-LTI-E is required
iviechanical (See Table 11)	MultiFam	Not Included					Not Included	Outdoor Lighting 140.7 & 170.2(e)	NRCC-LTO-E is required		
Domestic Hot Water (See Table I)	Nonres	Not Included	Covered Process: Laboratory Exhaust (see Table J)		Performance	Sign Lighting 140.8 & 170.2(e)	NRCC-LTS-E is required				
Table 1)	MultiFam	Not Included			Not Included	Building Components Complying with Mandatory Measur					
			Photovoltaics (see Table			Electrical power systems, commissioning, solar	ready, elevator and				
Lighting (Indoor Conditioned, see Table K)	Nonres	Performance	Photovoltaics (see Table F)		Performance	escalator requirements are mandatory and sho on the NRCC form listed if applicable (i.e. com shown on the NRCC-PRF-E.)	uld be documented pliance will not be				
	Nonres MultiFam	Performance  Not Included	Photovoltaics (see Table F)		Performance  Not Included	escalator requirements are mandatory and sho on the NRCC form listed if applicable (i.e. com	uld be documented pliance will not be				
			F)			escalator requirements are mandatory and sho on the NRCC form listed if applicable (i.e. com shown on the NRCC-PRF-E.)	uld be documented pliance will not be  NRCC-ELC-E is				
			Photovoltaics (see Table F) Battery (see Table F)	×	Not Included	escalator requirements are mandatory and sho on the NRCC form listed if applicable (i.e. com shown on the NRCC-PRF-E.) Electrical Power Distribution 110.11	NRCC-ELC-E is required				

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance	Report Version: 2022.0.000	Report Generated: 2023-07-25 10:52:04
	Schema Version: rev 20220601	Compliance ID: EnergyPro-4958-0723-0144

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
CERTIFICATE OF COMPLIANCE - NORRESIDENTIAL FERI ORIGINANCE COMPLIANCE METHOD	WREE-FRI-E
Nonresidential Performance Compliance Method	(Page 6 of 17)
C4. SOURCE ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual SOURCE Energy Use, kBtu/ft <sup>2</sup> /yr)	
COMPLIES <sup>2</sup>	

	COMPLIES <sup>2</sup>							
Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE) <sup>2</sup>					
Space Heating	3.73	6.14	-2.41					
Space Cooling	3.47	3.65	-0.18					
Indoor Fans	14.94	8.15	6.79					
Heat Rejection	0	0	0					
Pumps & Misc.	0	0	0					
Domestic Hot Water	5.99	5.99	0					
Indoor Lighting	2.57	1.71	0.86					
Flexibility								
EFFICIENCY COMPLIANCE TOTAL	30.7	25.64	5.06 (16.5%)					
Photovoltaics								
Batteries								
TOTAL COMPLIANCE	30.7	25.64	5.06 (16.5%)					

## TABLE OF CONTENTS

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NRCC-PRF-E

NRCC-PRF-E

Cover Page Table of Contents Form NRCC/LMCC-PRF-E Certificate of Compliance HVAC System Heating and Cooling Loads Summary

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	(Page 3 of 17)

C1. COMPLIANCE SUMMARY			
	COMPLIES <sup>3</sup>		
	Time Dependent	t Valuaton (TDV)	Source Energy Use
	Efficiency <sup>1</sup> (kBtu/ft <sup>2</sup> - yr)	Total² (kBtu/ft² - yr)	Total² (kBtu/ft² - yr)
Standard Design	358.72	358.72	30.7
Proposed Design	295.31	295.31	25.64
Compliance Margins	63.41	63.41	5.06
	Pass	Pass	Pass
<ul> <li>Efficiency measures include improvements like a better building enve</li> <li>Compliance Totals include efficiency, photovoltaics and batteries</li> <li>Building complies when efficiency and total compliance margins are</li> </ul>		met load hour limits are not exceed	led

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Schema Version: rev 20220601	Compliance ID: EnergyPro-4958-0723-0144
	·

C3. TDV ENERGY RESULTS FOR NON-REGULATED COMPONENTS <sup>1</sup>					
Non-Regulated Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)		
Receptacle	67.93	67.93			
Process					
Other Ltg					
Process Motors					

TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	426.65	363.24	63.41 (14.9%)
Notes: This table is not used for Energy Code Compliance.			
CA Building Energy Efficiency Standards - 2022 Nonresidential Compli	iance Report Version: 2022.0.0 Schema Version: rev 202	•	ort Generated: 2023-07-25 10:52:04 once ID: EnergyPro-4958-0723-0144

C5. SOURCE ENERGY RESULTS FOR NON-REGULATED COMPONENTS <sup>1</sup>			
Non-Regulated Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE)
Receptacle	4.92	4.92	
Process			
Other Ltg			
Process Motors			
TOTAL ( TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	35.62	30.56	5.06 (14.2%)
Notes: This table is not used for Energy Code Compliance.			•

ing Energy Efficiency Standards - 2022 Nonresidential Compliance	Report Version: 2022.0.000 Schema Version: rev 20220601	Report Generated: 2023-07-25 10:52:0 Compliance ID: EnergyPro-4958-0723-014

☐ This project is pursuing CalGreen Tier 2

CER	RTIFICATE OF COMPLIANCE - NO	NRESIDENTIAL PERFORMANCE COMPLIANCE METH	IOD			NRCC-PRF-E		
Nor	nresidential Performance Compl	iance Method			(Page 1 of 17)			
Pro	ject Name:	24X40	(PC 04	4-121369) - Wall AC Date P	epared:	2023-07-25		
A. G	ieneral Information	eneral Information						
1	Project Name	Project Name 24X40 (PC 04-121369) - Wall AC						
2	Run Title	Title 24 Analysis	e 24 Analysis					
3	Project Location	limate Zone 14						
4	City	Palmdale	5	Standards Version	Compliance 2022			
6	Zip code	99999	7	Compliance Software (version	EnergyPro 9.1			
8	Climate Zone	14	9	Building Orientation (deg)	75			
10	Building Type(s)	Nonresidential	11	Weather File	PALMDALE_STYP20.epw			
12	Project Scope	New complete scope	13	Number of Dwelling Units	0			
14	Total Conditioned Floor Area in Scope (ft²)	960	15	Total # of hotel/motel rooms	0			

**17** Fuel Type

Total # of Stories (Habitable Above Grade)

Natural gas

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NRCC-PRF-E

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CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Total Unconditioned Floor

18 Nonresidential Conditioned Floor Area

Residential Conditioned Floor

Nonresidential Performance Compliance Method

Area (ft²)

COMPLIES <sup>2</sup>					
Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV) <sup>1</sup>		
Space Heating	25.61	42	-16.39		
Space Cooling	93.22	95.25	-2.03		
Indoor Fans	152.65	81.72	70.93		
Heat Rejection	0	0	0		
Pumps & Misc.	0	0	0		
Domestic Hot Water	54.63	54.6	0.03		
Indoor Lighting	32.61	21.74	10.87		
Flexibility					
EFFICIENCY COMPLIANCE TOTAL	358.72	295.31	63.41 (17.7%)		
Photovoltaics					
Batteries					
TOTAL COMPLIANCE	358.72	295.31	63.41 (17.7%)		

Report Version: 2022.0.000

Schema Version: rev 20220601

 $^{1}$  Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

_		
	CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Ī	Nonresidential Performance Compliance Method	(Page 8 of 17)

C7. ENERGY USE SUMMARY						
Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Space Heating	0.8	1.3	-0.5			
Space Cooling	2.3	2.3	0			
Indoor Fans	5.2	2.8	2.4			
Heat Rejection						
Pumps & Misc.						
Domestic Hot Water	2	2	0			
Indoor Lighting	1.2	0.8	0.4			
Flexibility						
EFFICIENCY TOTAL	11.5	9.2	2.3	0	0	0
Photovoltaics						
Batteries						
ENERGY USE SUBTOTAL	11.5	9.2	2.3	0	0	0
Receptacle	2.5	2.5	0			
Process						
Other Ltg						
Process Motors						
ENERGY USE TOTAL	14	11.7	2.3	0	0	0

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ROJECT SPECIFIC STATE AGENCY APPROVAL IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 02-122823 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 1/30/2025



PROFESSIONAL STAMP



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ORIGINAL PC STATE AGENCY APPROVAL APPROVED DIV. OF THE STATE ARCHITECT APP: 04-123059 PC

> Revision Schedule Description

PRE-CHECK (PC) DOCUMENT **CODE: 2019 CBC** 

A separate project application for construction is required

PC 2022 CBC: 24' x 40' **EXPANDABLE TO** 120' x 40'

24'x40' T24 CZ 14

PROJECT NUMBER 22088 CHECKED BY

06/15/2021

SHEET OF

NRCC-PRF-E

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

☐ This project is pursuing CalGreen Tier 1

C8. ENERGY USE INTENSITY (EUI)									
	Standard Design (kBtu/ft <sup>2</sup> / yr)	Proposed Design (kBtu/ft² / yr)	Margin (kBtu/ft² / yr)	Margin Percentage					
GROSS EUI <sup>1</sup>	49.76	41.58	8.18	16.44					
NET EUI <sup>1</sup>	49.76	41.58	8.18	16.44					
Notes: Gross EUI is Energy Use Total (not including PV)/Total Building Area. Net EUI is Energy Use Total (including PV)/Total Building Area.									

### D1. EXCEPTIONAL CONDITIONS

• The project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylit Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (form NRCC-LTI-02-E) for the requirements of section 140.6(d) Automatic Daylighting Controls

• The building does not include service water heating. Verify that service water heating is not required and is not included in the design. • Project is claiming Exception 2 to Section 140.10(a): No PV system is required where the required PV system size is less than 4 kWdc.

1. ENVELOPE GENERAL INFORMATION (conditioned spaces only)							
01	02	03	04				
Opaque Surfaces & Orientation	Total Gross Surface Area (ft <sup>2</sup> )	Total Fenestration Area (ft <sup>2</sup> )	Window to Wall Ratio (%)				
North-Facing <sup>1</sup>	240	32	13.33				
East-Facing <sup>2</sup>	400	0	0				
South-Facing <sup>3</sup>	240	32	13.33				
West-Facing <sup>4</sup>	400	0	0				
Total	1280	64	5				
Roof	960	14	1.46				

<sup>1</sup>North-Facing is oriented to within 45 degrees of true north, including 45 00'00" east of north (NE), but excluding 45 00'00" west of north (NW), <sup>2</sup>East-Facing is oriented to within 45 degrees of true east, including 45 00'00" south of east (SE), but excluding 45 00'00" north of east (NE), 3South-Facing is oriented to within 45 degrees of true south, including 45 00'00" west of south (SW), but excluding 45 00'00" east of south (SE),

<sup>4</sup>West-Facing is oriented to within 45 degrees of true west, including 45 00'00" north of west (NW), but excluding 45 00'00" south of west (SW),

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	Nonresidential Performance Compliance Method (Page 12 of 12									12 of 17)			
-	I												
	H3. NONRESIDENTIAL / C	соммо	ON USE AREA FA	AREA FAN SYSTEMS SUMMARY									
ĺ	01	02	03	04	05	06	07	08	09	10	11	12	13
	Name or Item Tag	Qty	Design OA		Supply Fan			Return / Relief Fan					Status <sup>1</sup>
	Name or item rag Qty		CFM	CFM	Power	Power Units	Control	Fan Type	CFM	Power	Power Units	Control	Status
	AC-1	1	364.8	1,100	0.5	ВНР	Constant Vol	N/A	N/A	N/A	N/A	N/A	N

## H8. SYSTEM SPECIAL FEATURES

<sup>1</sup> Status: N - New, A - Altered, E - Existing

01	02	03	04					
System Name	Equipment Type	Interlocks per 140.4(n) <sup>1</sup>	Other Special Features and Controls					
AC-1	Single Package VHP Air System  No  Zone(s) With CO2 Sensor Vent. Cor Fixed DB							
Notes: This table includes controls related to the performance path only. For projects using the prescriptive path, mandatory and prescriptive controls requirements are documented on the								

NRCC-MCH-E. 1 Yes = interlocks are provided, No = interlocks are not provided, NA means no operable openings.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

# H9. NONRESIDENTIAL / COMMON USE AREA & HOTEL/MOTEL VENTILATION

,		<u> </u>					
01	02 03		04 05		06	07	
Zone Name		Mechanical	Conditioned Area (sf)	DCV or Occupant Sensor			
Zone Hume	Ventilation Function	# of People	Supply OA CFM	Exhaust CFM	conditioned Area (si)	Controls, or Both	
1-First Floor	Education - Classrooms (ages 9-18)	24	364.8	0	960	DCV	

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NRCI-LTI-E - Indoor Lighting (for all buildings)

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NRCC-PRF-E

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	(Page 15 of 17)

L. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

E. DECLARATION OF REQUIRED CEI	L. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION							
Selections made by Documentation Author indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online								
Building Component	Form/Title							
Envelope	NRCI-ENV-01-E - Must be submitted for all buildings							
Envelope	NRCI-ENV-E - Envelope (for all buildings)							
Mechanical	NRCI-MCH-01-E - Must be submitted for all buildings							
Mechanical	NRCI-MCH-E - For all buildings with Mechanical Systems							
Indoor Lighting	NRCI-LTI-01-E - Must be submitted for all buildings							

# M. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

<b>Building Component</b>	Form/Title
Envelope	NRCA-ENV-02-F - NRFC label verification for fenestration
Indoor Lighting	NRCA-LTI-02-A - Occupancy Sensors and Automatic Time Switch Controls.
Mechanical	NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction wi MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap
Mechanical	NRCA-MCH-05-A - Air Economizer Controls
Mechanical	NRCA-MCH-06-A Demand Control Ventilation Systems must be submitted for all systems required to employ demand controlled ventilatio (refer to ) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints.

# N. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

Selections made by Documentation Author indicate which Certificates of Verification must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online There are no Certificates of Verification applicable to this project

Schema Version: rev 20220601

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E (Page 10 of 17) Nonresidential Performance Compliance Method

G4. NONRESIDEN	ITIAL AIR BARRIER									
		01							02	
		Building Stor	ry Name						Air Barrier	
		Com-Flo	or 1						No air barrier	
G5. OPAQUE SUR	RFACE ASSEMBLY S	UMMARY				,				
01	02	03	04	05	C	6	07	08	09	10
Surface Name	Construction	A === (f+2)	Framing	aming Cavity	Cavity Continuous R-V		Units	Value	Description of Assembly Layers	Status
Surface Name	Type	Area (ft²)	Туре	R-Value	Interior	Exterior		value	Description of Assembly Layers	Status
R-19 Wood Framed Wall7	Exterior Wall	1,280	Wood	19	N/A	N/A	U-factor	0.0605	Wood siding - 1/2 in. Vapor permeable felt - 1/8 in. Composite-1 Gypsum Board - 1/2 in. Softwood - 1.5 in.	N
R-19 Metal Floor Crawlspa14	Exterior Floor	960	Metal	19	N/A	N/A	U-factor	0.0588	Vented Crawl Space Composite-2 Plywood - 1/2 in. Carpet - 3/4 in.	N
Standing Seam R-38 Metal16	Roof	960	N/A	36	N/A	N/A	U-factor	0.06	Metal Standing Seam - 1/16 in. Composite-3	N

Report Version: 2022.0.000 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Nonresidential Performance	e Compliance Method									(Page 13	3 of 17)
H11. ZONAL SYSTEM AND TERM	MINAL UNIT SUMMARY										
01	02	03	04	05	06	07	08	09	10	11	12
			Rated Capacity (kBtuh)		Airflow (cfm)			Fan			
System ID	System Type	Qty	Heating	Cooling	Design	MIn.	Min. Ratio	Power	Power	Cycles	VSD

K1. INDOOR CONDITIONED LIG	HTING GENERAL INFO
01	00

01	02	03	04	05	06				
		Installed Lighting Power	Lighting Control Credits	Additional (Custom) Allowance					
Occupancy Type <sup>1</sup>	Conditioned Floor Area <sup>2</sup> (ft <sup>2</sup> )	(Watts)	(Watts)	Area Category Footnotes (Watts)	Area Category Footnotes (Watts)				
Classroom, Lecture, or Training Vocational	960	384	0	0	0				
Building Totals:	960	384	0	0	0				
<sup>1</sup> See Table 140.6-C <sup>2</sup> See NRCC-LTIE for uncondition									

<sup>3</sup>Lighting information for existing spaces modeled is not included in this table

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220601

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NRCC-PRF-E

Compliance ID: EnergyPro-4958-0723-0144

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METH	HOD NRCC-PRF-E
Nonresidential Performance Compliance Method	(Page 16 of 17)
Documentation Author's Declaration Statement	
1. I certify that this Certificate of Compliance documentation is accurate and complete	•
Documentation Author Name: LAL B. SAHGAL	Documentation Author Signature:
Company: LSA CONSULTING ENGINEERS	Signature Date:

t. I certify that this certificate of compliance documentation is accurate and complete.					
Documentation Author Name: LAL B. SAHGAL	Documentation Author Signature:				
Company: LSA CONSULTING ENGINEERS	Signature Date:				
Address: 83, WINDSWEPT WAY	CEA/HERS Certification Identification (if applicable): M26885				
City/State/Zip: MISSION VIEJO, CA 92692	Phone: (949) 830-4746				

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

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

- 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 understand that a registered 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, and I will take the necessary steps to accomplish this requirement.

occupancy, and I will take the necessary steps to accompl	·	ocumentation the bunder provides to the building owner at		
Responsible Designer Name:	Responsible Designer Sign	Responsible Designer Signature:		
Company: R & S Tavares Associates				
Address: 11590 W. Bernardo Court, Suite 100	Date Signed:			
City/State/Zip: San Diego, Ca. 92127	License #:			
Phone:	Title:	Scope:		
Responsible Designer Name:	Responsible Designer Sign	Responsible Designer Signature:		
Company: R & S Tavares Associates				
Address: 11590 W. Bernardo Court, Suite 100	Date Signed:			
City/State/Zip: San Diego, Ca. 92127	License #:			

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220601

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CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANC	COMPLIANCE METHOD NRCC-	PRF-E
Nonresidential Performance Compliance Method	(Page 17	of 17)
Responsible Designer Name: Lal Sahgal	Responsible Designer Signature:	
Company: LSA Consulting Engineers		
Address: 83, Windswept Way	Date Signed:	
City/State/Zip: Mission Viejo, Ca. 92692	License #: M26885	
Phone:	Title: Scope:	

Report Version: 2022.0.000

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Report Generated: 2023-07-25 10:52:04 Compliance ID: EnergyPro-4958-0723-0144 **CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD** NRCC-PRF-E Nonresidential Performance Compliance Method (Page 11 of 17)

01	02	03	04	05	06	07	08	09	
Fenestration Assembly Name	Fenestration Type/ Product Type / Frame Type	Certification Method <sup>1</sup>	Assembly Method	Area (ft²)	Overall U-factor	Overall SHGC	Overall VT	Statu	
Sierra Pacific Windows	Vertical fenestration Operable window N/A	NFRC	Manufactured	64	0.35	0.24	0.5	N	
Sola tube	Skylight Fixed window N/A	NFRC	Manufactured	14	0.39	0.37	0.65	N	

1 Notes: Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis.

<sup>2</sup> Status: N - New, A - Altered, E - Existing

01	02	03	04	05	06	07	08	09	10	11	12
Equipment Name	Equipment Type		Heating			Cooling					
		quipment Type Qty	Total Heating Output (kBtu/h)	Supp Heat Output (kBtu/h)	Efficiency Unit	Efficiency	Total Cooling Output (kBtu/h)	Efficiency Unit	Efficiency	Economizer Type (if present)	Status <sup>1</sup>
AC-1	Single Package VHP Air System	1	34.37	13.65	СОР	3.3	34.56	EER	11	Fixed DB	N

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Report Version: 2022.0.000 Schema Version: rev 20220601

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CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E (Page 14 of 17) Nonresidential Performance Compliance Method

# **K2. INDOOR CONDITIONED LIGHTING SCHEDULE**

01	02	03 04 05		06			
·	Complete Luminaire	Installed Watts (Conditioned)					
Name or Item Tag	Description (i.e. 3-lamp fluorescent troffer, F32T8, one dimmable electronic ballast)	Watts per luminaire	How is Wattage determined	Total Number of Luminaires	Installed Watts		
L-1	2x4 LED Panel	48	According to	8	384		

K3. INDOOR CONDITIONED LIGHTING CONTROL CREDITS

K3. INDOOR CONDITI	ONED LIGHTING CONTROL CREDIT	S						
Lighting Control Cred	its Schedule (includes all lighting c	ontrols installed in conditioned sp	ace for compliant	ce credit per 140.	6(a)2 and Table 1	40.6-A)		
01	02	03	04	05	06	07	08	09
Area Description	Primary Function Area (must meet requirements of Table 140.6-A and 170.2-L)	Type of Lighting Control	Power Adjustment Factor (PAF)	Luminaire Item Tag	Watts per Luminaire	# of Luminaires	Lighting Controlled (Watts)	Control Credit (Watts)
S-1-First Floor	Classroom, Lecture, or Training Vocational	N/A	N/A	L-1 48		8	384	0
					Lighting Control C	redits (Condition	ed) Total (Watts)	0

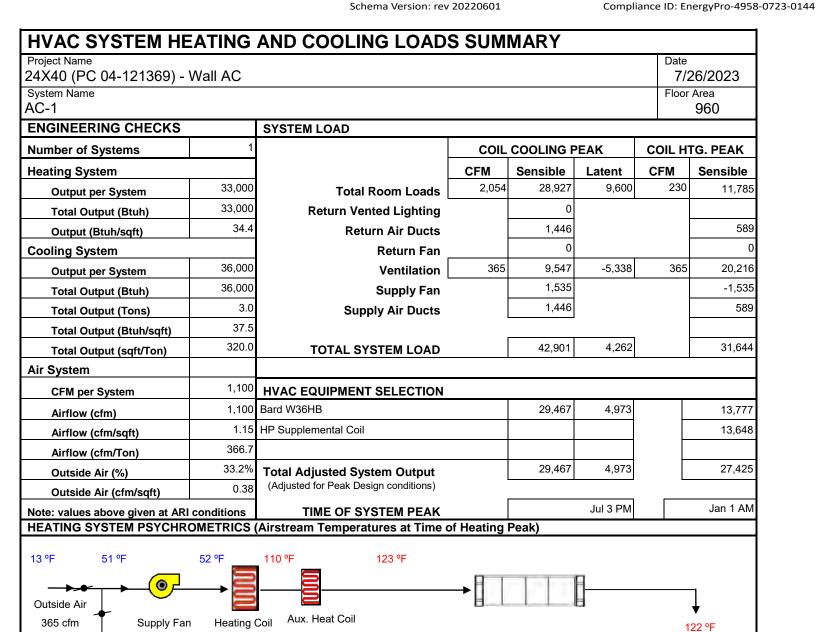
K4. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROL

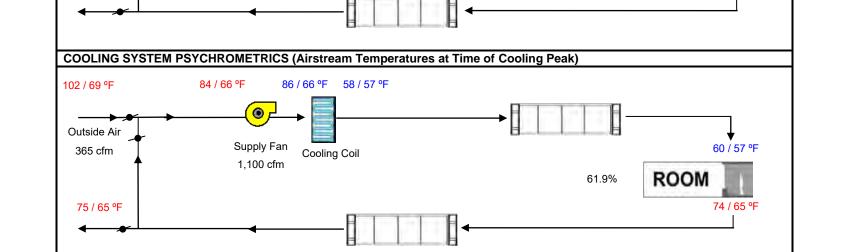
**Building Level Controls** Shut-Off Controls 130.1(c) & 160.5(b)40 See NRCC-LTI-E for mandatory controls

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000

Report Generated: 2023-07-25 10:52:04

ROOM





**IDENTIFICATION STAMP** DIV. OF THE STATE ARCHITECT APP: 02-122823 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 1/30/2025

ROJECT SPECIFIC STATE AGENCY APPROVAL

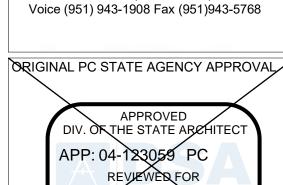


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Revision Schedule

Description

PRE-CHECK (PC) DOCUMENT

**CODE: 2019 CBC** A separate project application for construction is required

PC 2022 CBC: 24' x 40'

**EXPANDABLE TO** 120' x 40'

24'x40' T24 CZ 14 (WALL AC)

PROJECT NUMBER 22088 DRAWN BY rMc/SC CHECKED BY RH/RT

DATE 06/15/2021

PROJECT:

24X40 (PC 04-121369) - Wall AC Climate Zone 15 Palm Springs, CA

Project Designer:

R & S Tavares Associates 11590 W. Bernardo Court, Suite 100 San Diego, Ca. 92127

## Report Prepared by:

LAL B. SAHGAL LSA CONSULTING ENGINEERS 83, WINDSWEPT WAY MISSION VIEJO, CA 92692 (949) 830-4746

## Job Number:

## Date: 7/26/2023

The EnergyPro computer program has been used to perform the calculations summarized in this compliance report. This program has approval and is authorized by the California Energy Commission for use with both the Residential and Nonresidential 2022 Building Energy Efficiency Standards. This program developed by EnergySoft, LLC – www.energysoft.com.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD							NRCC-PRF-E	
Nonresidential Performance	Compliance I	Method					(Page 2 of 17)	
D. DDOUEGE SUMMANDY								
B. PROJECT SUMMARY								
Table B shows which building of permit application.	components a	re included in the	e performance calculation. Ij	f inc	dicated as not inc	luded, the project must show compliance prescri	ptively if within the	
В	uilding Comp	onents Complyin	g via Performance			Building Components Complying Pre	scriptively	
Envelope (See Table G)	Nonres	Performance	Solar Thermal Water		Performance	The following building components are ONLY eligible for pand should be documented on the NRCC form listed if w		
Livelope (see Table G)	MultiFam	Not Included	Heating (See Table I3)	$\boxtimes$	Not Included	permit application (i.e. compliance will not be shown on the NRCC-PR		
Mechanical (See Table H)	Nonres	Performance	Covered Process: Commercial Kitchens (see Table J)		Performance	Indoor Lighting (Unconditioned) 140.6 & 170.2(e)	NRCC-LTI-E is required	
	MultiFam	Not Included		×	Not Included	Outdoor Lighting 140.7 & 170.2(e)	NRCC-LTO-E is required	
Domestic Hot Water (See Table I)	Nonres	Not Included	Covered Process: Laboratory Exhaust (see		Performance	Sign Lighting 140.8 & 170.2(e)	NRCC-LTS-E is required	
Table I)	MultiFam	Not Included	Table J)	$\boxtimes$	Not Included	Building Components Complying with Mandatory Measur		
Lighting (Indoor Conditioned, see Table K)	Nonres	Performance	Photovoltaics (see Table F)		Performance	Electrical power systems, commissioning, solar ready, elevat escalator requirements are mandatory and should be docun on the NRCC form listed if applicable (i.e. compliance will n shown on the NRCC-PRF-E.)		
	MultiFam	Not Included		×	Not Included	Electrical Power Distribution 110.11	NRCC-ELC-E is required	
				П	Performance	Commissioning 120.8	NRCC-CXR-E is	

Not Included

Battery (see Table F)

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Solar and Battery 110.10

required

NRCC-SAB-E is

required

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	(Page 6 of 17)

COMPLIES <sup>2</sup>									
Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE						
Space Heating	0.73	1.33	-0.6						
Space Cooling	7.45	7.45	0						
Indoor Fans	12.67	6.9	5.77						
Heat Rejection	0	0	0						
Pumps & Misc.	0	0	0						
Domestic Hot Water	4.23	4.23	0						
Indoor Lighting	2.57	1.71	0.86						
Flexibility									
EFFICIENCY COMPLIANCE TOTAL	27.65	21.62	6.03 (21.8%)						
Photovoltaics									
Batteries									
TOTAL COMPLIANCE	27.65	21.62	6.03 (21.8%)						

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Cover Page Table of Contents Form NRCC/LMCC-PRF-E Certificate of Compliance HVAC System Heating and Cooling Loads Summary

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	(Page 3 of 17)

COMPLIES <sup>3</sup>							
	Time Dependent	Time Dependent Valuaton (TDV)					
	Efficiency¹ (kBtu/ft² - yr)	Total² (kBtu/ft² - yr)	Total <sup>2</sup> (kBtu/ft <sup>2</sup> - yr)				
Standard Design	369.92	369.92	27.65				
Proposed Design	301.78	301.78	21.62				
Compliance Margins	68.14	68.14	6.03				
	Pass	Pass	Pass				
Compliance Totals include efficiency, photovoltaics	etter building envelope and more efficient equipment		ļ.				

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Report Generated: 2023-07-25 10:57:22 Schema Version: rev 20220601 Compliance ID: EnergyPro-4958-0723-0145

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-
Nonresidential Performance Compliance Method	(Page 5 of 17

C3. TDV ENERGY RESULTS FOR NON-REGULATED COMPONENTS <sup>1</sup>					
Non-Regulated Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV) <sup>1</sup>		
Receptacle	66.69	66.69			
Process					
Other Ltg					
Process Motors					
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	436.61	368.47	68.14 (15.6%)		
<sup>1</sup> Notes: This table is not used for Energy Code Compliance.					

Report Generated: 2023-07-25 10:57:22 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220601 Compliance ID: EnergyPro-4958-0723-0145

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	(Page 7 of 17)

C5. SOURCE ENERGY RESULTS FOR NON-REGULATED COMPONENTS <sup>1</sup>						
Non-Regulated Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE) <sup>1</sup>			
Receptacle	4.92	4.92				
Process						
Other Ltg						
Process Motors						
TOTAL ( TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	32.57	26.54	6.03 (18.5%)			
<sup>1</sup> Notes: This table is not used for Energy Code Compliance.						
C6. 'ABOVE CODE' QUALIFICATIONS						

☐ This project is pursuing CalGreen Tier 2

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Report Generated: 2023-07-25 10:57:22 Compliance ID: EnergyPro-4958-0723-0145 Schema Version: rev 20220601

Nonresidential Performance Compliance Method			(Page 1 of
Project Name:	24X40 (PC 04-121369) - Wall AC	Date Prepared:	2023-07-

А. С	eneral Information				
1	Project Name	24X40 (PC 04-121369) - Wall AC			
2	Run Title	Title 24 Analysis			
3	Project Location	Climate Zone 15			
4	City	Palm Springs	5	Standards Version	Compliance 2022
6	Zip code	99999	7	Compliance Software (version)	EnergyPro 9.1
8	Climate Zone	15	9	Building Orientation (deg)	75
10	Building Type(s)	Nonresidential	11	Weather File	PALM-SPRINGS_STYP20.epw
12	Project Scope	New complete scope	13	Number of Dwelling Units	0
14	Total Conditioned Floor Area in Scope (ft²)	960	15	Total # of hotel/motel rooms	0
16	Total Unconditioned Floor Area (ft²)	0	17	Fuel Type	Natural gas
18	Nonresidential Conditioned Floor Area	960	19	Total # of Stories (Habitable Above Grade)	1
20	Residential Conditioned Floor Area	0			

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000

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Report Generated: 2023-07-25 10:57:22 Compliance ID: EnergyPro-4958-0723-0145

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E **Nonresidential Performance Compliance Method** (Page 4 of 17)

	COMPLIES <sup>2</sup>		
Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)
Space Heating	5.43	9.65	-4.22
Space Cooling	152.4	156.74	-4.34
Indoor Fans	140.88	74.91	65.97
Heat Rejection	0	0	0
Pumps & Misc.	0	0	0
Domestic Hot Water	38.99	39	-0.01
Indoor Lighting	32.22	21.48	10.74
Flexibility			
EFFICIENCY COMPLIANCE TOTAL	369.92	301.78	68.14 (18.4%)
Photovoltaics			
Batteries			
TOTAL COMPLIANCE	369.92	301.78	68.14 (18.4%)

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220601

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CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E onresidential Performance Compliance Method (Page 8 of 17)

C7. ENERGY USE SUMMARY						
Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Space Heating	0.1	0.3	-0.2			
Space Cooling	4.5	4.5	0			
Indoor Fans	4.8	2.5	2.3			
Heat Rejection						
Pumps & Misc.						
Domestic Hot Water	1.5	1.5	0			
Indoor Lighting	1.2	0.8	0.4			
Flexibility						
EFFICIENCY TOTAL	12.1	9.6	2.5	0	0	0
Photovoltaics						
Batteries						
ENERGY USE SUBTOTAL	12.1	9.6	2.5	0	0	0
Receptacle	2.5	2.5	0			
Process						
Other Ltg						
Process Motors						
ENERGY USE TOTAL	14.6	12.1	2.5	0	0	0

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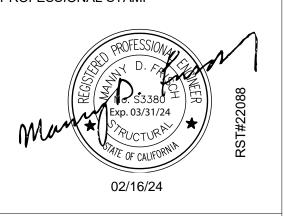
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 02-122823 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 1/30/2025

ROJECT SPECIFIC STATE AGENCY APPROVAL

DESIGN ♦ CONSULTING ♦ PROJECT MGT

11590 W. BERNARDO COURT, SUITE 100 SAN DIEGO, CA 92127 PHONE: (858) 444-3344 WWW.RSTAVARES.COM

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ORIGINAL PC STATE AGENCY APPROVAL APPROVED DIV. OF THE STATE ARCHITECT APP: 04-123059 PC

Revision Schedule

Description

PROJECT TITLE PC 2022 CBC: 24' x 40' **EXPANDABLE TO** 120' x 40'

24'x40' T24 CZ 15

PROJECT NUMBER 22088 CHECKED BY

RH/RT DATE 06/15/2021

SHEET NO.

SHEET OF

☐ This project is pursuing CalGreen Tier 1

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E **Nonresidential Performance Compliance Method** (Page 9 of 17) C8. ENERGY USE INTENSITY (EUI) Standard Design (kBtu/ft² / yr) | Proposed Design (kBtu/ft² / yr) Margin Percentage Margin (kBtu/ft<sup>2</sup> / vr) GROSS EUI<sup>1</sup> 17.11 NET EUI<sup>1</sup> 43.01 8.88 17.11 <sup>1</sup> Notes: Gross EUI is Energy Use Total (not including PV)/Total Building Area. Net EUI is Energy Use Total (including PV)/Total Building Area. D1. EXCEPTIONAL CONDITIONS • The project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylit Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (form NRCC-LTI-02-E) for the requirements of section 140.6(d) Automatic Daylighting Controls • The building does not include service water heating. Verify that service water heating is not required and is not included in the design. • Project is claiming Exception 2 to Section 140.10(a): No PV system is required where the required PV system size is less than 4 kWdc.

G1. ENVELOPE GENERAL INFORMATION (conditioned spaces only) 04 01 02 Window to Wall Ratio (%) **Opaque Surfaces & Orientation** Total Gross Surface Area (ft<sup>2</sup>) Total Fenestration Area (ft<sup>2</sup>) North-Facing<sup>1</sup> 240 13.33 East-Facing<sup>2</sup> 13.33 South-Facing<sup>3</sup> West-Facing

<sup>1</sup>North-Facing is oriented to within 45 degrees of true north, including 45 00'00" east of north (NE), but excluding 45 00'00" west of north (NW),  $^2$ East-Facing is oriented to within 45 degrees of true east, including 45 00'00" south of east (SE), but excluding 45 00'00" north of east (NE),  $^3$ South-Facing is oriented to within 45 degrees of true south, including 45 00'00" west of south (SW), but excluding 45 00'00" east of south (SE), <sup>4</sup>West-Facing is oriented to within 45 degrees of true west, including 45 00'00" north of west (NW), but excluding 45 00'00" south of west (SW),

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Nonresidential Performance Compliance Method (Page 12 of 17) H3. NONRESIDENTIAL / COMMON USE AREA FAN SYSTEMS SUMMAR Return / Relief Fan Supply Fan CFM CFM Power Power Units Control Fan Type CFM Power Power Units | Control

N/A N/A 1,100 0.5 BHP Constant Vol N/A N/A 364.8 <sup>l</sup> Status: N - New, A - Altered, E - Existing H8. SYSTEM SPECIAL FEATURES

System Name Equipment Type Interlocks per 140.4(n)<sup>1</sup> Other Special Features and Controls Zone(s) With CO2 Sensor Vent. Control AC-1 Single Package VHP Air System otes: This table includes controls related to the performance path only. For projects using the prescriptive path, mandatory and prescriptive controls requirements are documented on the

1 Yes = interlocks are provided, No = interlocks are not provided, NA means no operable openings.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

	H9. NONRESIDENTIAL / CO	OMMON USE AREA & HOTEL	/MOTEL VENTILATION					
	01	02	03	04	05	06	07	
Ī	Zone Name		Mechanical	Ventilation		Conditioned Area (sf)	DCV or Occupant Sensor	
	Zone Name	Ventilation Function	# of People	Supply OA CFM	Exhaust CFM	Conditioned Area (SI)	Controls, or Both	
	1-First Floor	Education - Classrooms (ages 9-18)	24	364.8	0	960	DCV	

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220601

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NRCC-PRF-E

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E Nonresidential Performance Compliance Method (Page 15 of 17) L. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections made by Documentation Author indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents must be retained nd provided to the building inspector during construction and can be found online Envelope NRCI-ENV-01-E - Must be submitted for all buildings NRCI-ENV-E - Envelope (for all buildings) Envelope NRCI-MCH-01-E - Must be submitted for all buildings Mechanical Mechanical NRCI-MCH-E - For all buildings with Mechanical Systems NRCI-LTI-01-E - Must be submitted for all buildings Indoor Lighting NRCI-LTI-E - Indoor Lighting (for all buildings) Indoor Lighting

M. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE Selections made by Documentation Author indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP) **Building Component** NRCA-ENV-02-F - NRFC label verification for fenestration Envelope NRCA-LTI-02-A - Occupancy Sensors and Automatic Time Switch Controls. Indoor Lighting NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with Mechanical MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap NRCA-MCH-05-A - Air Economizer Controls Mechanical NRCA-MCH-06-A Demand Control Ventilation Systems must be submitted for all systems required to employ demand controlled ventilatio (refer to ) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints.

N. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

ections made by Documentation Author indicate which Certificates of Verification must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online There are no Certificates of Verification applicable to this project

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Report Generated: 2023-07-25 10:57:22 Schema Version: rev 20220601 Compliance ID: EnergyPro-4958-0723-0145

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E (Page 10 of 17 Nonresidential Performance Compliance Method

G4. NONRESIDENTIAL AIR BARRIER **Building Story Name** Air Barrier Com-Floor 1 No air barrier G5. OPAQUE SURFACE ASSEMBLY SUMMARY Continuous R-Value Construction Framing Cavity Surface Nam Type R-Value ood siding - 1/2 in. apor permeable felt - 1/8 in. R-19 Wood xterior Wal 1,280 Wood N/A N/A U-factor 0.0605 Composite-1 Framed Wall Gypsum Board - 1/2 in Softwood - 1.5 in. R-19 Metal Metal N/A N/A U-facto Floor

N/A

N/A

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220601

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

N/A

Crawlspa14

Standing Seam

R-38 Metal16

See Table 140.6-C

<sup>2</sup>See NRCC-LTI--E for unconditioned spaces

<sup>3</sup>Lighting information for existing spaces modeled is not included in this table

Roof

<sup>1</sup> Status: N - New, A - Altered, E - Existing

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NRCC-PRF-E

arpet - 3/4 in.

Metal Standing Seam - 1/16 in.

**Nonresidential Performance Compliance Method** (Page 13 of 17) H11. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY Rated Capacity (kBtuh) Airflow (cfm) System ID Design 1-First Floor-Trm 1 N/A N/A 1,100 N/A 0 N/A N/A Uncontrolled

K1. INDOOR CONDITIONED LIGHTING GENERAL INFO Additional (Custom) Allowance Installed Lighting Powe **Lighting Control Credits** Occupancy Type<sup>1</sup> **Area Category Footnotes Area Category Footnote** (Watts) Classroom, Lecture, or Training Vocational **Building Totals:** 

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

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NRCC-PRF-E

**Nonresidential Performance Compliance Method** (Page 16 of 17) **Documentation Author's Declaration Statement** 1. I certify that this Certificate of Compliance documentation is accurate and complete Ocumentation Author Name: LAL B. SAHGAL ocumentation Author Signature: Company: LSA CONSULTING ENGINEERS Signature Date: ress: 83, WINDSWEPT WAY CEA/HERS Certification Identification (if applicable): M26885 City/State/Zip: MISSION VIEJO, CA 92692 Phone: (949) 830-4746 **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) 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 understand that a registered 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, and I will take the necessary steps to accomplish this requirement. 6. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy, and I will take the necessary steps to accomplish these requirements. Responsible Designer Signature: ompany: R & S Tavares Associates Address: 11590 W. Bernardo Court, Suite 100 Date Signed: City/State/Zip: San Diego, Ca. 92127 License #: esponsible Designer Name: Responsible Designer Signature: Company: R & S Tavares Associates Address: 11590 W. Bernardo Court, Suite 100 Date Signed: City/State/Zip: San Diego, Ca. 92127 License #:

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Nonresidential Performance Compliance Method			(Page 17 of 17)	
Responsible Designer Name: Lal Sahgal		Responsible Designer Signature:		
Company: LSA Consulting Engineers		1		
Address: 83, Windswept Way		Date Signed:		
City/State/Zip: Mission Viejo, Ca. 92692		License #: M26885		
Phone:		Title:	Scope:	

**CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD** NRCC-PRF-E (Page 11 of 17) Nonresidential Performance Compliance Method

G7A. FENESTRATION ASSEMBLY SUMMARY (NONRESIDENTIAL) Overall Fenestration Overall VT enestration Type/ Product Type / Frame Typ Overall SHG0 **Assembly Name** Vertical fenestration Sierra Pacific Operable window Manufactured 0.35 0.24 Windows N/A Skylight NFRC Manufactured 0.39 0.37 0.65 Sola tube Fixed window

Notes: Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis. Status: N - New, A - Altered, E - Existing

H1. DRY SYSTEM EQUIPMENT (FURNACES, AIR HANDLING UNITS, HEAT PUMPS, VRF, ECONOMIZERS ETC.)

Total Type (if Heating Cooling Output Output (kBtu/h) (kBtu/h Single Package 13.65 COP Fixed DB VHP Air System Status: N - New, A - Altered, E - Existing

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

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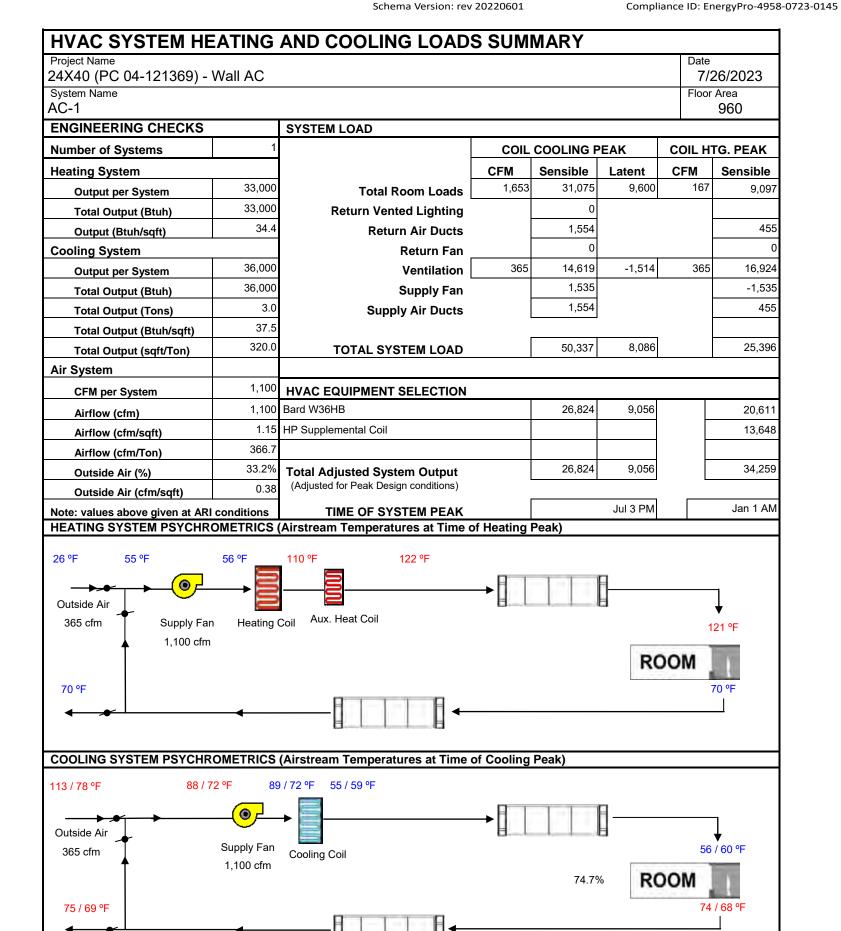
CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

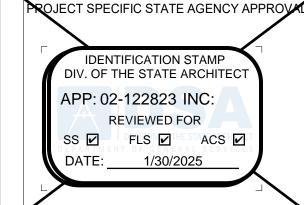
Nonresidential Performance Compliance Method (Page 14 of 17) K2. INDOOR CONDITIONED LIGHTING SCHEDULE uminaire Schedule (includes all permanent installed lighting in conditioned space, and portable lighting over 0.3 w/f ${
m t}^2$  in offices) 06 Complete Luminaire Installed Watts (Conditioned) Description (i.e. 3-lamp Name or Item Tag fluorescent troffer, F32T8, Installed Watts one dimmable electronic 2x4 LED Panel According to 384 If lighting power densities were used in the compliance model Building Departments will need to check prescriptive forms for Luminaire Schedule details. K3. INDOOR CONDITIONED LIGHTING CONTROL CREDITS

Lighting Control Credits Schedule (includes all lighting controls installed in conditioned space for compliance credit per 140.6(a)2 and Table 140.6-A) Lighting Controlled **Primary Function Area (must** Power # of **Control Credit Area Description** meet requirements of Table Type of Lighting Contro Adjustment Item Tag Luminaire (Watts) 140.6-A and 170.2-L) Factor (PAF) (Watts) S-1-First Floor N/A N/A Training Vocational Lighting Control Credits (Conditioned) Total (Watts) K4. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROL

**Building Level Controls** Shut-Off Controls 130.1(c) & 160.5(b)4 See NRCC-LTI-E for mandatory controls

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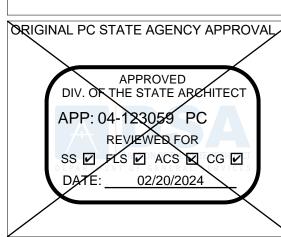


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Revision Schedule Description

PROJECT TITLE PC 2022 CBC: 24' x 40' **EXPANDABLE TO** 

120' x 40'

24'x40' T24 CZ 15

PROJECT NUMBER 22088 DRAWN BY rMc/CG CHECKED BY RH/RT

DATE

SHEET OF

06/15/2021

24X40 (PC 04-121369) - Wall AC Climate Zone 16 Blue Canyon, CA

Project Designer: R & S Tavares Associates 11590 W. Bernardo Court, Suite 100

San Diego, Ca. 92127

Report Prepared by:

LAL B. SAHGAL LSA CONSULTING ENGINEERS 83, WINDSWEPT WAY MISSION VIEJO, CA 92692 (949) 830-4746

Job Number:

Date: 7/26/2023

The EnergyPro computer program has been used to perform the calculations summarized in this compliance report. This program has approval and is authorized by the California Energy Commission for use with both the Residential and Nonresidential 2022 Building Energy Efficiency Standards. This program developed by EnergySoft, LLC – www.energysoft.com.

Nonresidential Performance	Compliance I	Method					(Page 2 of 17)
B. PROJECT SUMMARY							
Table B shows which building o	components a	re included in the	e performance calculation. I	f ind	icated as not inc	luded, the project must show compliance prescri	ptively if within the
В	uilding Comp	onents Complyir	ng via Performance			Building Components Complying Pre	scriptively
Envelope (See Table G)	Nonres	Performance	Solar Thermal Water		Performance	The following building components are ONLY eligible for pand should be documented on the NRCC form listed if w	
Livelope (see Table G)	MultiFam	Not Included	Heating (See Table I3)	$\boxtimes$	Not Included	permit application (i.e. compliance will not be shown	
Mechanical (See Table H)	Nonres	Performance	Covered Process: Commercial Kitchens (see		Performance	Indoor Lighting (Unconditioned) 140.6 & 170.2(e)	NRCC-LTI-E is required
iviechanical (see Table II)	MultiFam	Not Included	Table J)	$\boxtimes$	Not Included	Outdoor Lighting 140.7 & 170.2(e)	NRCC-LTO-E is required
Domestic Hot Water (See Table I)	Nonres	Not Included	Covered Process: Laboratory Exhaust (see		Performance	Sign Lighting 140.8 & 170.2(e)	NRCC-LTS-E is required
Table 1)	MultiFam	Not Included	Table J)	$\boxtimes$	Not Included	Building Components Complying with Man	datory Measures
Lighting (Indoor Conditioned, see Table K)	Nonres	Performance	Photovoltaics (see Table F)		Performance	Electrical power systems, commissioning, solar escalator requirements are mandatory and sho on the NRCC form listed if applicable (i.e. comshown on the NRCC-PRF-E.)	ould be documented upliance will not be

Not Included

Not Included

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

MultiFam

Not Included

see Table K)

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Battery (see Table F)

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E	
Nonresidential Performance Compliance Method	(Page 6 of 17)	

COMPLIES <sup>2</sup>						
Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE) <sup>1</sup>			
Space Heating	16.26	11.75	4.51			
Space Cooling	1.3	1.31	-0.01			
Indoor Fans	16.75	8.32	8.43			
Heat Rejection	0	0	0			
Pumps & Misc.	0	0	0			
Domestic Hot Water	13.04	13.04	0			
Indoor Lighting	2.57	1.71	0.86			
Flexibility						
EFFICIENCY COMPLIANCE TOTAL	49.92	36.13	13.79 (27.6%)			
Photovoltaics						
Batteries						
TOTAL COMPLIANCE	49.92	36.13	13.79 (27.6%)			

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NRCC-PRF-E

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Cover Page Table of Contents Form NRCC/LMCC-PRF-E Certificate of Compliance HVAC System Heating and Cooling Loads Summary

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	(Page 3 of 17)

	COMPLIES <sup>3</sup>		
	Time Dependent	: Valuaton (TDV)	Source Energy Use
	Efficiency <sup>1</sup> (kBtu/ft <sup>2</sup> - yr)	Total <sup>2</sup> (kBtu/ft <sup>2</sup> - yr)	Total² (kBtu/ft² - yr)
Standard Design	307.23	307.23	49.92
Proposed Design	273.51	273.51	36.13
Compliance Margins	33.72	33.72	13.79
	Pass	Pass	Pass
<sup>1</sup> Efficiency measures include improvements like a better building enve <sup>2</sup> Compliance Totals include efficiency, photovoltaics and batteries <sup>3</sup> Building complies when efficiency and total compliance margins are	, 22	met load hour limits are not exceed	led

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Report Generated: 2023-07-26 13:02:48 Compliance ID: EnergyPro-4958-0723-0170 Schema Version: rev 20220601

C3. TDV ENERGY RESULTS FOR NON-REGULATED COMPONENTS <sup>1</sup>						
Non-Regulated Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV) <sup>1</sup>			
Receptacle	63.66	63.66				
Process						
Other Ltg						
Process Motors						
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	370.89	337.17	33.72 (9.1%)			

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

<sup>1</sup> Notes: This table is not used for Energy Code Compliance.

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Report Generated: 2023-07-26 13:02:48 Schema Version: rev 20220601 Compliance ID: EnergyPro-4958-0723-0170

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	(Page 7 of 17)

Non-Regulated Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE) <sup>1</sup>
Receptacle	4.92	4.92	
Process			
Other Ltg			
Process Motors			
TOTAL ( TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	54.84	41.05	13.79 (25.1%)
Notes: This table is not used for Energy Code Compliance.	•		•
C6. 'ABOVE CODE' QUALIFICATIONS			
☐ This project is pursuing CalGreen Tier 1	☐ This project	is pursuing CalGreen Tier 2	

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220601

Nonresidential Performa	ce Compliance Method		(Page 1 of :
Project Name:	24X40 (PC 04-121369) - Wa	AC Date Prepared:	2023-07-

А. С	ieneral Information				
1	Project Name	24X40 (PC 04-121369) - Wall AC			
2	Run Title	Title 24 Analysis			
3	Project Location	Climate Zone 16			
4	City	Blue Canyon	5	Standards Version	Compliance 2022
6	Zip code	99999	7	Compliance Software (version)	EnergyPro 9.1
8	Climate Zone	16	9	Building Orientation (deg)	30
10	Building Type(s)	Nonresidential	11	Weather File	BLUE-CANYON_STYP20.epw
12	Project Scope	New complete scope	13	Number of Dwelling Units	0
14	Total Conditioned Floor Area in Scope (ft²)	960	15	Total # of hotel/motel rooms	0
16	Total Unconditioned Floor Area (ft²)	0	17	Fuel Type	Natural gas
18	Nonresidential Conditioned Floor Area	960	19	Total # of Stories (Habitable Above Grade)	1
20	Residential Conditioned Floor Area	0			

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000

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Compliance ID: EnergyPro-4958-0723-0170

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CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	(Page 4 of 17)

	COMPLIES <sup>2</sup>		
Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)
Space Heating	51.5	114.86	-63.36
Space Cooling	19.06	18.57	0.49
Indoor Fans	169.42	83.19	86.23
Heat Rejection	0	0	0
Pumps & Misc.	0	0	0
Domestic Hot Water	36.19	36.19	0
Indoor Lighting	31.06	20.7	10.36
Flexibility			
EFFICIENCY COMPLIANCE TOTAL	307.23	273.51	33.72 (11%)
Photovoltaics			
Batteries			
TOTAL COMPLIANCE	307.23	273.51	33.72 (11%)

Schema Version: rev 20220601

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000

Report Generated: 2023-07-26 13:02:48

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E Nonresidential Performance Compliance Method (Page 8 of 17)

Energy Component	Standard Design Site	Proposed Design Site	Margin	Standard Design Site	Proposed Design Site	Margin
	(MWh)	(MWh)	(MWh)	(MBtu)	(MBtu)	(MBtu)
Space Heating	0.1	3	-2.9	16.4		
Space Cooling	0.8	0.7	0.1			
Indoor Fans	5.6	2.8	2.8			
Heat Rejection						
Pumps & Misc.						
Domestic Hot Water				13.6	13.6	0
Indoor Lighting	1.2	0.8	0.4			
Flexibility						
EFFICIENCY TOTAL	7.7	7.3	0.4	30	13.6	16.4
Photovoltaics						
Batteries						
ENERGY USE SUBTOTAL	7.7	7.3	0.4	30	13.6	16.4
Receptacle	2.5	2.5	0			
Process						
Other Ltg						
Process Motors						
ENERGY USE TOTAL	10.2	9.8	0.4	30	13.6	16.4

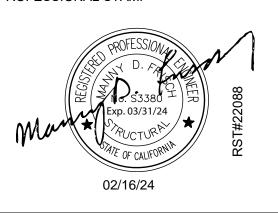
Report Version: 2022.0.000 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Schema Version: rev 20220601 Compliance ID: EnergyPro-4958-0723-0170

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 02-122823 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 1/30/2025

ROJECT SPECIFIC STATE AGENCY APPROVAL

DESIGN ♦ CONSULTING ♦ PROJECT MGT 11590 W BERNARDO COURT, SUITE 100 SAN DIEGO, CA 92127

PROFESSIONAL STAMP



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ORIGINAL PC STATE AGENCY APPROVAL APPROVED DIV. OF THE STATE ARCHITECT APP: 04-123059 PC

> Revision Schedule Description

PRE-CHECK (PC) DOCUMENT

**CODE: 2019 CBC** A separate project application for construction

is required PC 2022 CBC: 24' x 40'

**EXPANDABLE TO** 120' x 40'

24'x40' T24 CZ 16

PROJECT NUMBER 22088 Author CHECKED BY Checker

06/15/2021 SHEET NO.

SHEET OF

DATE

NRCC-PRF-E

NRCC-ELC-E is

required NRCC-CXR-E is

required

NRCC-SAB-E is

required

Electrical Power Distribution 110.11

Commissioning 120.8

Solar and Battery 110.10

Nonresidential Performance Compliance Method		(Pag
C8. ENERGY USE INTENSITY (EUI)		

# GROSS $EUI^1$ 67.5 49 18.5 27.41 NET $EUI^1$ 67.5 49 18.5 27.41 $^1$ Notes: Gross EUI is Energy Use Total (not including PV)/Total Building Area. Net EUI is Energy Use Total (including PV)/Total Building Area.

Standard Design (kBtu/ft² / yr) | Proposed Design (kBtu/ft² / yr)

## wotes. Gross Earlis Energy ose rotal (not melading 1 V), rot

D1. EXCEPTIONAL CONDITIONS

The project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary
Daylit Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (form NRCC-LTI-02-E) for the requirements of section 140.6(d) Automatic Daylighting Controls
in Secondary Daylit Zones is required.
 The building does not include service water heating. Verify that service water heating is not required and is not included in the design.

Project is claiming Exception 2 to Section 140.10(a): No PV system is required where the required PV system size is less than 4 kWdc.

G1. ENVELOPE GENERAL INFORMATION (condi	itioned spaces only)		
01	02	03	04
Opaque Surfaces & Orientation	Total Gross Surface Area (ft <sup>2</sup> )	Total Fenestration Area (ft <sup>2</sup> )	Window to Wall Ratio (%)
North-Facing <sup>1</sup>	400	0	0
East-Facing <sup>2</sup>	240	32	13.33
South-Facing <sup>3</sup>	400	0	0
West-Facing <sup>4</sup>	240	32	13.33
Total	1280	64	5
Roof	960	14	1.46

Notes

<sup>1</sup>North-Facing is oriented to within 45 degrees of true north, including 45 00'00" east of north (NE), but excluding 45 00'00" west of north (NW),

<sup>2</sup>East-Facing is oriented to within 45 degrees of true east, including 45 00'00" south of east (SE), but excluding 45 00'00" north of east (NE),

<sup>3</sup>South-Facing is oriented to within 45 degrees of true south, including 45 00'00" west of south (SW), but excluding 45 00'00" east of south (SE),

<sup>4</sup>West-Facing is oriented to within 45 degrees of true west, including 45 00'00" north of west (NW), but excluding 45 00'00" south of west (SW),

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	Schema Version: rev 20220601	Compliance ID: EnergyPro-4958-0723-01
CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLI	ANCE METHOD	NRCC-PRF
Nonresidential Performance Compliance Method		(Page 12 of 1

I3. NONRESIDENTIAL / COMMON USE AREA FAN SYSTEMS SUMMARY																
01	02	03	04	05	06	07	08	09	10	11	12	13				
Name or Item Tag C	Qty	Design OA		Suppl	ipply Fan R				Return / Relief Fan							
	Qiy	Qiy	Qiy	Qiy	QIY	Qiy	CFM	CFM	Power	Power Units	Control	Fan Type	CFM	Power	Power Units	Control
AC-1	1	364.8	1,100	0.5	ВНР	Constant Vol	N/A	N/A	N/A	N/A	N/A	N				

<sup>1</sup> Status: N - New, A - Altered, E - Existing

Envelope

Indoor Lighting

01	02	03	04
System Name	Equipment Type	Interlocks per 140.4(n) <sup>1</sup>	Other Special Features and Controls
AC-1	Single Package VHP Air System	No	Zone(s) With CO2 Sensor Vent. Control Fixed DB
Notes: This table includes controls related to the NRCC-MCH-E.	performance path only. For projects using the pre	scriptive path, mandatory and prescriptive contro	ls requirements are documented on the

<sup>1</sup> Yes = interlocks are provided, No = interlocks are not provided, NA means no operable openings.

H9. NONRESIDENTIAL / CO	OMMON USE AREA & HOTEL	/MOTEL VENTILATION				
01	02	03	04	05	06	07
Zone Name		Mechanical	Ventilation	Conditioned Area (sf)  DCV or Occupant Sens		
Zone Name	Ventilation Function	# of People	Supply OA CFM	Exhaust CFM	Controls, or	Controls, or Both
1-First Floor	Education - Classrooms (ages 9-18)	24	364.8	0	960	DCV

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Margin Percentage

Margin (kBtu/ft² / yr)

ERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Ionresidential Performance Compliance Method	(Page 15 of 17)
DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION	

<b>Building Component</b>	Form/Title
Envelope	NRCI-ENV-01-E - Must be submitted for all buildings
Envelope	NRCI-ENV-E - Envelope (for all buildings)
Mechanical	NRCI-MCH-01-E - Must be submitted for all buildings
Mechanical	NRCI-MCH-E - For all buildings with Mechanical Systems
Indoor Lighting	NRCI-LTI-01-E - Must be submitted for all buildings
Indoor Lighting	NRCI-LTI-E - Indoor Lighting (for all buildings)
1. DECLARATION OF REQUIRED	CERTIFICATES OF ACCEPTANCE

Mechanical	MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap
Mechanical	NRCA-MCH-05-A - Air Economizer Controls
Mechanical	NRCA-MCH-06-A Demand Control Ventilation Systems must be submitted for all systems required to employ demand controlled ventilation (refer to ) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints.

NRCA-ENV-02-F - NRFC label verification for fenestration

NRCA-LTI-02-A - Occupancy Sensors and Automatic Time Switch Controls.

N. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

Selections made by Documentation Author indicate which Certificates of Verification must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online

There are no Certificates of Verification applicable to this project

NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Report Generated: 2023-07-26 13:02:48
Schema Version: rev 20220601 Compliance ID: EnergyPro-4958-0723-0170

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Nonresidential Performance Compliance Method

(Page 10 of 17)

G4. NONRESIDEN	ITIAL AIR BARRIER											
		01							02			
		<b>Building Stor</b>	ry Name						Air Barrier			
		Com-Flo	or 1						No air barrier			
G5. OPAQUE SUF	RFACE ASSEMBLY S	UMMARY										
01	02	03	04	05	0	6	07	08	09	10		
Surface Name	Construction	A (5+2)	Framing	Cavity	Continuous R-Value		Units Value		Units Value		Description of Assembly Layers	Status
Surface Name	Туре	Area (ft²)	Туре	R-Value	Interior	Exterior	Joints	value	Description of Assembly Layers	Status		
R-19 Wood Framed Wall7	Exterior Wall	1,280	Wood	19	N/A	N/A	U-factor	0.0605	Wood siding - 1/2 in. Vapor permeable felt - 1/8 in. Composite-1 Gypsum Board - 1/2 in. Softwood - 1.5 in.	N		
R-19 Metal Floor	Exterior Floor	960	Metal	19	N/A	N/A	U-factor	0.0588	Vented Crawl Space Composite-2 Plywood - 1/2 in. Carpet - 3/4 in.	N		
Crawlspa14												

Schema Version: rev 20220601 Compliance ID: EnergyPro-4958-0723-0170

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E

Nonresidential Performance Compliance Method (Page 13 of 17)

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000

H11. ZONAL SYSTEM AND TERI	MINAL UNIT SUMMARY										
01	02	03	04	05	06	07	08	09	10	11	12
			Rated Capacity (kBtuh) Airflow (cfm)								
System ID	System Type	Qty	Heating	Cooling	Design	MIn.	Min. Ratio	Power	Power Units	Cycles	VSD
1-First Floor-Trm	Uncontrolled	1	N/A	N/A	1,100	N/A	0	N/A	N/A	N/A	

K1. INDOOR CONDITIONED LIG	HTING GENERAL INFO
01	02

Address: 11590 W. Bernardo Court, Suite 100

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

City/State/Zip: San Diego, Ca. 92127

01	02	03	04	05	06
		Installed Lighting Power	Lighting Control Credits	Additional (Cus	tom) Allowance
Occupancy Type <sup>1</sup>	Conditioned Floor Area <sup>2</sup> (ft <sup>2</sup> )	(Watts)	(Watts)	Area Category Footnotes (Watts)	Area Category Footnotes (Watts)
Classroom, Lecture, or Training Vocational	960	384	0	0	0
Building Totals:	960	384	0	0	0
<sup>1</sup> See Table 140.6-C <sup>2</sup> See NRCC-LTIE for uncondition	ned spaces				
1.	ng spaces modeled is not included	in this table			

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Report Version: 2022.0.000

Report Generated: 2023-07-26 13:02:48 Compliance ID: EnergyPro-4958-0723-0170

NRCC-PRF-E

Report Generated: 2023-07-26 13:02:48

Nonre	esidential Performance Compliance Method		(Page 16 of 17)					
Docum	entation Author's Declaration Statement							
1. I cer	rtify that this Certificate of Compliance documentation is accurate a	and complete.						
Docum	nentation Author Name: LAL B. SAHGAL	Documentation Author S	ignature:					
Compa	any: LSA CONSULTING ENGINEERS	Signature Date:	Signature Date:					
Addres	ss: 83, WINDSWEPT WAY	CEA/HERS Certification I	dentification (if applicable): M26885					
City/St	ate/Zip: MISSION VIEJO, CA 92692	Phone: (949) 830-4746						
Respor	nsible Person's Declaration statement							
I certif	y the following under penalty of perjury, under the laws of the Stat	te of California:						
2. 3. 4. 5.	I am eligible under Division 3 of the Business and Professions Cod Compliance (responsible designer) The energy features and performance specifications, materials, concertificate of Compliance conform to the requirements of Title 24. The building design features or system design features identified compliance documents, worksheets, calculations, plans and specifunderstand that a registered copy of this Certificate of Compliant the enforcement agency for all applicable inspections, and I will tall understand that a registered copy of this Certificate of Compliant occupancy, and I will take the necessary steps to accomplish these	omponents, and manufactured devices in Part 1 and Part 6 of the California Co on this Certificate of Compliance are confications submitted to the enforcement of the made available with the buake the necessary steps to accomplishing is required to be included with the erequirements.	for the building design or system design identified on this de of Regulations. In the information provided on other applicable to agency for approval with this building permit application. It is permit to its including permit application and made available to this requirement. It is the building owner at the building owner at					
Respor	nsible Designer Name:	Responsible Designer Sig	gnature:					
Compa	any: R & S Tavares Associates							
Addres	ss: 11590 W. Bernardo Court, Suite 100	Date Signed:						
City/St	ate/Zip: San Diego, Ca. 92127	License #:						
Phone:	:	Title:	Scope:					
Respor	nsible Designer Name:	Responsible Designer Si	nature:					
Compa	any: R & S Tavares Associates							
-								

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Report Generated: 2023-07-26 13:02:48 Schema Version: rev 20220601 Compliance ID: EnergyPro-4958-0723-0170

Date Signed:

License #:

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE	COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method		(Page 17 of 17)
Responsible Designer Name: Lal Sahgal	Responsible Designer Signature:	
Company: LSA Consulting Engineers		
Address: 83, Windswept Way	Date Signed:	
City/State/Zip: Mission Viejo, Ca. 92692	License #: M26885	
Phone:	Title:	Scope:

Report Version: 2022.0.000

Schema Version: rev 20220601

Report Generated: 2023-07-26 13:02:48 Compliance ID: EnergyPro-4958-0723-0170 CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

NRCC-PRF-E

Nonresidential Performance Compliance Method

(Page 11 of 17)

01	02	03	04	05	06	07	08	09
Fenestration Assembly Name	Fenestration Type/ Product Type / Frame Type	Certification Method <sup>1</sup>	Assembly Method	Area (ft <sup>2</sup> )	Overall U-factor	Overall SHGC	Overall VT	Status <sup>2</sup>
Sierra Pacific Windows	Vertical fenestration Operable window N/A	NFRC	Manufactured	64	0.35	0.24	0.5	N
Sola tube	Skylight Fixed window N/A	NFRC	Manufactured	14	0.39	0.37	0.65	N

<sup>1</sup> Notes: Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis.

<sup>2</sup> Status: N - New, A - Altered, E - Existing

01	02	03	04	05	06	07	08	09	10	11	12
				Hea	ting			Cooling			
Equipment Name	Equipment Type	Qty	Total Heating Output (kBtu/h)	Supp Heat Output (kBtu/h)	Efficiency Unit	Efficiency	Total Cooling Output (kBtu/h)	Efficiency Unit	Efficiency	Economizer Type (if present)	Status <sup>1</sup>
AC-1	Single Package VHP Air System	1	34.37	13.65	СОР	3.3	34.56	EER	11	Fixed DB	N

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Versi

Report Version: 2022.0.000 Schema Version: rev 20220601 Report Generated: 2023-07-26 13:02:48 Compliance ID: EnergyPro-4958-0723-0170

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

NRCC-PRF-E

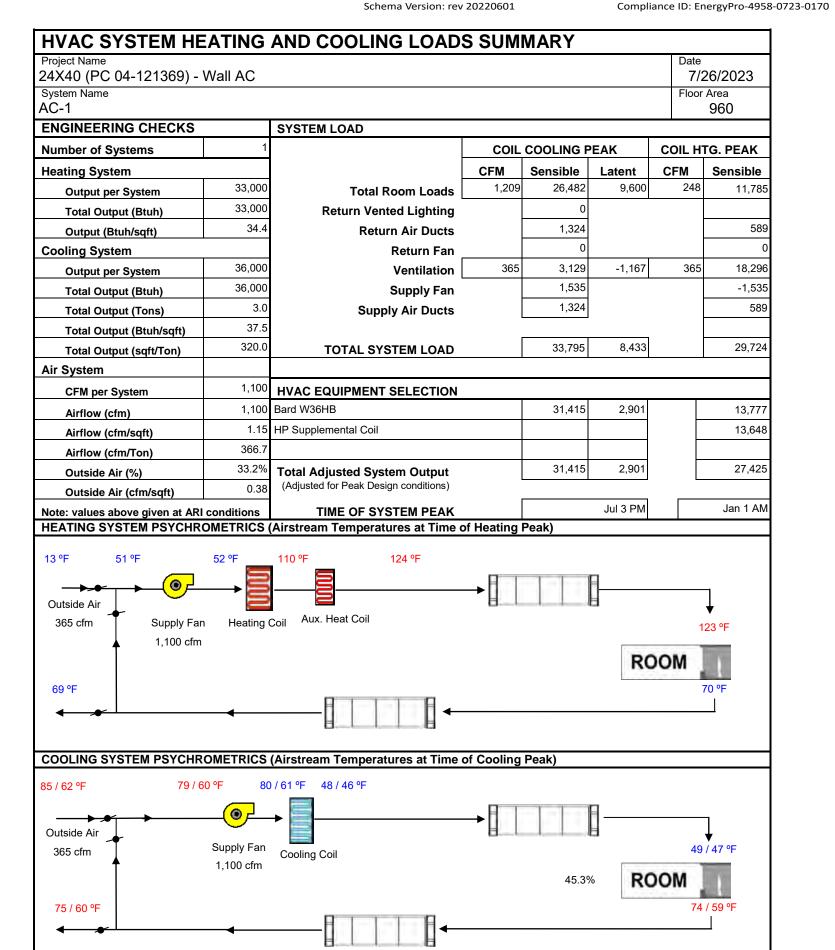
nresidential Performa	nce Compliance Method		_		(Page 14 of 17			
2. INDOOR CONDITIONED I	LIGHTING SCHEDULE							
minaire Schedule (include	s all permanent installed lighting in	conditioned space, and porta	ble lighting over 0.3 w/ft <sup>2</sup> in office	es)				
01	02	03	03 04 05					
	Complete Luminaire	Installed Watts (Conditioned)						
Name or Item Tag	Description (i.e. 3-lamp fluorescent troffer, F32T8, one dimmable electronic ballast)	Watts per luminaire	How is Wattage determined	Total Number of Luminaires	Installed Watts			
L-1	2x4 LED Panel	48	According to	8	384			

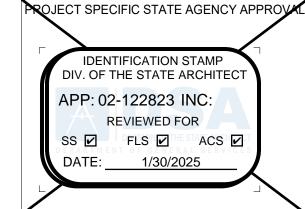
ghting Control Cred	its Schedule (includes all lighting co	ntrols installed in conditioned s	pace for complianc	e credit per 140.	6(a)2 and Table 1	40.6-A)		
01	02	03	04	05	06	07	08	09
Area Description	Primary Function Area (must meet requirements of Table 140.6-A and 170.2-L)	Type of Lighting Control	Power Adjustment Factor (PAF)	Luminaire Item Tag	Watts per Luminaire	# of Luminaires	Lighting Controlled (Watts)	Control Credit (Watts)
S-1-First Floor	Classroom, Lecture, or Training Vocational	N/A	N/A N/A L-1 48		48 8		384	0

K4. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROL						
Building Level Controls						
01	02					
Mandatory Demand Response 110.12(c)	Shut-Off Controls 130.1(c) & 160.5(b)4C					
Required	Required					
See NRCC-LTI-E for mandatory controls						

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000

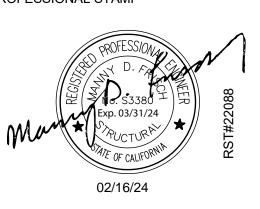
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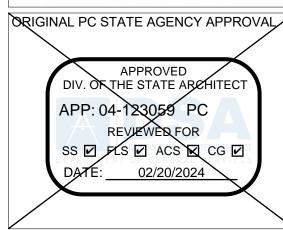


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Revision Schedule

Description

Description

PRE-CHECK (PC) DOCUMENT

CODE: 2019 CBC

A separate project application for construction is required

PROJECT TITLE
PC 2022 CBC: 24' x 40'
EXPANDABLE TO
120' x 40'

SHEET TITLE 24'x40' T24 CZ 16 (WALL AC)

PROJECT NUMBER

22088

DRAWN BY
Author

CHECKED BY
Checker

DATE
06/15/2021

NO. M2 14

ENVELOPE MANDATORY MEASURES: NONRESIDENTIAL

§110.8(a): Installed insulating material shall have been certified by the manufacturer to comply with the California Quality Standards for insulating material, Title 20 Chapter 4, Article 3.

120X40 (PC 04-116504) - Wall AC

**Building Envelope Measures:** 

DESCRIPTION

OPE MANDATORY MEASURES: NONRESIDENTIAL	ENV-MM	STATE OF C		er Heating Syster	m				CAL	IFORNIA ENERGY	COMMISSION
e PC 04-116504) - Wall AC	Date 6/23/2018	This doc		ed to demonstrate comp	•		requirements in 110.1, 1		•		
PTION						.1 for additions and 180.2	se residential and hotel/m 2 for alterations.	юсеї оссирансіез сотр	onance is demonstra	tea with requiren	ients in
invelope Measures:		Project N	ame: 24X	(40 (PC 04-121369) - Wall	AC		Report Page:				(Page 1 of 6)
Installed insulating material shall have been certified by the manufacturer to comply with the Ca Standards for insulating material, Title 20 Chapter 4, Article 3.	lifornia Quality	Project A	ddress:	DAMATION!		Climate Z	one 14 Date Prepared:				9/7/2023
All Insulating Materials shall be installed in compliance with the flame spread rating and smoke Sections 2602 and 707 of Title 24, Part 2.	density requirements of	01 03	Proj	ject Location (city) cy Types Within Project	(select all that an	Palmdale	02	Climate Zone		14	
Heated slab floors shall be insulated according to the requirements in Table 110.8-A.		• Classro		-, ,,,,	(	r 11					
All Exterior Joints and openings in the building that are observable sources of air leakage shall be weatherstripped or otherwise sealed.	oe caulked, gasketed,		ECT SCOPE		sustants that are u	within the scene of the ne	armit application and are	domonstrating compli	ance using the proce	rinting naths outl	inad in 140 /
Manufactured fenestration products and exterior doors shall have air infiltration rates not exceed window area, 0.3 cfm/ft.² of door area for residential doors, 0.3 cfm/ft.² of door area for nonresidential guidential double doors (swinging).		170.2(d)	and 141.0(a	a)/ 180.1, or 141.0(b)2N	N / 180.2 for addit		ermit application and are water heating systems an nent. 02				
Fenestration U-factor shall be rated in accordance with NFRC 100, or the applicable default U-fa	actor.		Му	project consists of (che	eck all that apply)	:	System Typ	e <sup>1,2</sup>	Syst	em Components	
		⊠ New	v system (DH	HW system being installe	ed for the first tin	ne) Indi	ividual System (serving no	onresidential spaces)	□ Equipment □		□ Controls
Fenestration SHGC shall be rated in accordance with NFRC 200, or NFRC 100 for site-built fen applicable default SHGC.	estration, or the			on (equipment, distribut	•				☐ Equipment [	Distribution	☐ Controls
Site Constructed Doors, Windows and Skylights shall be caulked between the unit and the build weatherstripped (except for unframed glass doors and fire doors).	ing, and shall be	<sup>2</sup> Dwellin	ng units refer	rs to hotel/motel guest i	rooms and units i	al systems used to serve n in a multifamily residentio ed "Central Systems" for I		considered individual s	systems.		
The opaque portions of the roof/ceiling that separates conditioned spaces from unconditioned s	paces or ambient air	C COM	PLIANCE RE	FSIIITS							
shall meet the applicable U-Factor requirements as follows:  Metal Building- The weighted average U-factor of the roof assembly shall not exceed 0.098.			vill indicate i	if the project data input		nce document is compliand as not compliand as not compliant for gu	nt with water heating req idance.	guirements. If this table	says "DOES NOT CO	OMPLY" or "COMP	LIES with
Wood Framed and Others- The weighted average U-factor of the roof assembly shall not exceed 0.098.	eed 0.075.		0	01		02	03		04		
The opaque portions of walls that separate conditioned spaces from unconditioned spaces or an		Dor		Vater Equipment		ution Systems	Controls		Compliance	e Results	
applicable U-factor as follows:				ole F 'es		Table G Yes	Table H Yes		COMP	LIES	
Metal Building- The weighted average U-factor of the wall assembly shall not exceed 0.113.				L							
Metal Framed- The weighted average U-factor of the wall assembly shall not exceed 0.151.				ONDITIONS							
Light Mass Walls- A 6 inch or greater Hollow Core Concrete Masonry Unit shall have a U-fact Heavy Mass Walls- An 8 inch or greater Hollow Core Concrete Masonry Unit shall have a U-fact Hollow Core Concrete Maso		This tabl	e is auto-fille	ed with uneditable com	ments because of	f selections made or data	entered in tables through	hout the form.			
0.690. Wood Framed and Others- The weighted average U-factor of the wall assembly shall not exc Spandrel Panels and Opaque Curtain Wall- The weighted average U-factor of the spandrel		CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance  Report Version: 2022.0.000  Compliance ID: EnergyPro-4958-0923-02  Schools Version: 2022.0.000  Compliance ID: EnergyPro-4958-0923-02  Schools Version: 2022.0.000  Compliance ID: EnergyPro-4958-0923-02  Schools Version: 2022.0.000  Report Version: 2022.0.000  Compliance ID: EnergyPro-4958-0923-02  Compliance ID: EnergyPro-4958-02  Compliance ID: EnergyPro-4958-02  Compli						58-0923-0242			
curtain wall assembly shall not exceed 0,280.  Demising Walls The opaque portions of framed demising walls shall meet the requirements of	of Item A or B below:	Schema Version: rev 20220101 Report Generated: 2023-09-07 12:06.  STATE OF CALIFORNIA  Domestic Water Heating System  CALIFORNIA ENERGY COMMISSION									
A. Wood framed walls shall be insulated to meet a U-factor not greater than 0.099.		CERTIFICAT	TE OF COMPLI	IANCE							NRCC-PLB-E
B. Metal Framed walls shall be insulated to meet a U-factor not greater than 0.151. The opaque portions of floors and soffits that separate conditioned spaces from unconditioned:	engees or ambient air	Project Na	me: 24X40	0 (PC 04-121369) - Wall A	C		Report Page:				(Page 3 of 6)
shall meet the applicable U-Factor requirements as follows:	spaces of amotent air						Date Prepared:				9/7/2023
Raised Mass Floors- Shall have a minimum of 3 inches of lightweight concrete over a metal d	eck or the weighted	0.000	CTIC LIGHT	WATER RICTRIC	NI CVCTTA						
average U-factor of the floor assembly shall not exceed 0.269.				WATER DISTRIBUTION			h	20.2 and 140.5. Far and	14:6		
Other Floors-The weighted average U-factor of the floor assembly shall not exceed 0.071.	-			emonstrate compilance strated with requiremen	,	'	bution requirements in 12	20.3 ana 140.5. For mui	itiJamily and notel/n	notei occupancies	'
		Mandato	ry Pipe Insul	lation All Occupancies							
		13		Piping that propensive services meaning that propensive services are propensive services. Propensive services are propensive services are propensive services are propensive services.  Piping that propensive services are propensive services are propensive services. Propensive services are propensive services are propensive services are propensive services. Propensive services are propensive services are propensive services are propensive services. Propensive services services are propensive services are propensive services. Propensive services are propensive services are propensive services are propensive services. Propensive services are propensive services are propensive services are propensive services. Propensive services are propensive services are propensive services are propensive services are propensive services. Propensive services are propensive services are propensive services are propensive services. Propensive services are propensiv	enetrates framing netal framing shal all abut securely a ed in interior or e stallation (QII) as s	g members shall not be re I use grommets, plugs, w against all framing memb xterior walls shall not be specified in the Reference	required to have pipe ins e Residential Appendix RA	lation for the distance of the material to assure the culation if all of the request.	of the framing pene lat no contact is mad uirements are met f	tration. Piping that de with the metal or compliance wit	framing. th Quality
				have pipe ins	sulation.		sulation, 2 inches of crawl the following applications				·
		14		Recirculating	system piping, in of hot and cold or	cluding supply and returnutlet piping, including bet	n piping of the water heat tween storage tank and h	ter		. , ,	
		15		Insulation shall be p	protected from da cover suitable for	mage, including that due	to sunlight, moisture, eq 3(b) / 160.4(f). Pipe insula	•		•	
						TABLE 120.3-A / 160.4	-A PIPE INSULATION TI				
				Conductiv	vitv			Nominal Pipe	Diameter (in)		

		stalled with a cover crushable casing or	suitable for outdoor service per 1 sleeve.	20.3(b) / 160.4(f)	). Pipe insulation burie	d below grade must be ins	talled in a water proof and		
	Į.		TABLE 120.3-A / 16	0.4-A PIPE INSU	JLATION THICKNESS				
		Conductivity			N	ominal Pipe Diameter (in)			
Fluid Tem	perature Range (	per hour per ft <sup>2</sup>	Insulation Mean Rating Temp ( °F)	< 1	1 to < 1.5	1.5 to < 4	1.5 to < 4 Multifamily & Hotel/Motel		
		per °F)		Minimum Insulation Required					
	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	2.0 in or R-16		
		andards - 2022 Nonres	idential Compliance	Generated Date/7 Report Version: 2 Schema Version:	022.0.000		Documentation Software: EnergyPr pliance ID: EnergyPro-4958-0923-024 eport Generated: 2023-09-07 12:06:0		
CA Building	; Energy Efficiency S						eport Generated. 2025-09-07 12.00.0		
OF CALIFOR	NIA								
of Califor <b>nestic</b> '							ALIFORNIA ENERGY COMMISSION  NRCC-PLB-E		
of CALIFOR	<sub>NIA</sub> Water Heatii	g System		Report Pag	e:		ALIFORNIA ENERGY COMMISSION		

STATE OF CALIFORN	A		
Domestic V	Vater Heating System		CALIFORNIA ENERGY COMMISSIO
CERTIFICATE OF C	OMPLIANCE		NRCC-PLB-
Project Name:	24X40 (PC 04-121369) - Wall AC	Report Page:	(Page 5 of 6
		Date Prepared:	9/7/202
I. DECLARATIO	N OF REQUIRED CERTIFICATES OF INSTALLATION	ON	
Selections have	been made based on information provided in this do	ocument. If any selection have been changed by permit applicant, an exp	lanation should be included in Table E.
Additional Remo	arks. These documents must be provided to the build	ling inspector during construction and can be found online	
		Form/Title	
NRCI-PLB-E - Mu	ust be submitted for all buildings		
J. DECLARATIO	ON OF REQUIRED CERTIFICATES OF ACCEPTANCE	E	
There are no for	rms required for this project.		
K. DECLARATION	ON OF REQUIRED CERTIFICATES OF VERIFICATION	ON	
There are no for	ms required for this project.		
	·	<u>-</u>	

Generated Date/Time:

Report Version: 2022.0.000

Schema Version: rev 20220101

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

ERTIFICATE	OF COMPLIANCE									
Project Nam	ne: 24X40 (PC (	04-121369) - Wal	I AC			Report Page:				
						Date Prepared:				
		_								
	ONAL REMARK		ermit annlican	nt to the Authority	Havina Jurisdict	ion				
				it to the Authority	Traving surisurer					
	TIC HOT WATE								(170.0(1)	
				tion and alteration	•	110.1 ana 110.3.	Compliance with presc	riptive requirements in 140.5(c)	/ 170.2(a) i	
quipment	Schedule: Wate	r Heating Effic		ndby Loss						
Т	03		04		(	Gas Service		06		
System Name	A O Smith DEL	-10 1 .	on to 140.5(c)/ 70.2(d)3			Water Heating System >= 1MMBtu/h <sup>1</sup>	Capacity-weighted Average Efficiency %			
07	08	09		10	11	12	13	14	1	
Name or Item Tag	Equipment Ty	pe Volume (gal)	Rated Input Capacity (Btu/h)	Max GPM/ First Hour Rating (FHR)	Rated Efficiency	Minimum Efficiency Required	Efficiency Unit	Designed Standby Loss	Maximur Lo	
A O Smith DEL-10	Consumer Rat Electric Stora	1 10	5,120	FHR >=75	0.95	0.93	UEF			
			h multiple unit	ts, gas water heate	ers with input ca	pacity > 100,000	Btu/h may meet 90% E	Et requirements via an input cap	acity-weigh	
average.	ting Ferrings and	All Occupancy	•							
vater neat	ting Equipment		Not				D			
	Yes	No	Applicable				Requirement			
18 19								External >=R-3.5. Label require		
20				New state buildings 60% of energy for service water heating from site solar energy or recovered energy per 110.3(c)5 Isolation valves for instantaneous water heater with input rating >6.8 kBTUH or 2 kW has been specified per 110.3(c)6						
21				School buildings < 25,000 ft <sup>2</sup> and < 4 stories must install a heat pump water heating system per 140.5(a)1. Water heating						
				-	s < 25,000 ft <sup>2</sup> and an individual ba	d < 4 stories must throom space ma		ater heating system per 140.5(a electric water heater.	)1. Water he	
[	: Energy Efficiency			systems serving	< 25,000 ft <sup>2</sup> and an individual ba Gener Repor	d < 4 stories must	install a heat pump wa ay be an instantaneous	ater heating system per 140.5(a electric water heater.	)1. Water he	
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rol linkage or jack shaft is prohibited.

Report Version: 2022.0.000

Report Page:
Climate Zone 14 Date Prepared:

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 requiren 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

2023-09-07

Generated Date/Time:

Schema Version: rev 20220101

Schema Version: rev 20220101

(949) 830-4746

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

RESPONSIBLE PERSON'S DECLARATION STATEMENT

ertify the following under penalty of perjury, under the laws of the State of California

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

The information provided on this Certificate of Compliance is true and correct

inspections. I understand that a completed signed copy of this Certificate of Compliance is required to the complete of the complete copy of the certificate of Compliance is required to the complete copy of the certificate of Compliance is required to the complete copy of the certificate of Compliance is required to the copy of the certificate of Compliance is required to the complete copy of the certificate of Compliance is required to the copy of the certificate of Compliance is required to the copy of the certificate of Compliance is required to the copy of the certificate of Compliance is required to the copy of the certificate of Compliance is required to the copy of the certificate of Compliance is required to the copy of the copy of the certificate of Compliance is required to the copy of th

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

**Domestic Water Heating System** 

Project Name: 24X40 (PC 04-121369) - Wall AC

STATE OF CALIFORNIA

CERTIFICATE OF COMPLIANCE

nentation Author Name

LSA CONSULTING ENGINEERS

33, WINDSWEPT WAY

MISSION VIEJO CA 92692

LAL B. SAHGAL

Lal Sahgal

Documentation Software: EnergyPro

Compliance ID: EnergyPro-4958-0923-0242

Report Generated: 2023-09-07 12:06:05

LSA Consulting Engineers

3, Windswept Way

Mission Viejo Ca. 92692

Mandatory Measures: The following notes (items) represent the Mandatory Measures for Heat pumps with supplementary electric resistance heaters shall have controls:

That prevent supplementary heater operation when the heating load can be

- met by the heat pump alone; and 2) In which the cut-on temperature for compression heating is higher than the cut-on
- temperature for supplementary heating, and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating.

Sec. 110.2 (b)

Sec. 120.1 (c) 3

ROJECT SPECIFIC STATE AGENCY APPROVAL

**IDENTIFICATION STAMP** DIV. OF THE STATE ARCHITEC

REVIEWED FOR

SS 🗹 FLS 🗹 ACS 🗹

1/30/2025

DESIGN ♦ CONSULTING ♦ PROJECT MG

11590 W BERNARDO COURT, SUITE 100

SAN DIEGO, CA 92127

THE PLANS, IDEAS & DESIGNS SHOWN ON

THESE DRAWINGS ARE THE PROPERTY OF

R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE

PLANS SHALL NOT BE USED, IN WHOLE OR

IN PART, FOR ANY PURPOSE FOR WHICH

THEY WERE NOT INTENDED WITHOUT THE

1651Juanita Street, San Jacinto, CA 92583

Voice (951) 943-1908 Fax (951)943-5768

ORIGINAL PC STATE AGENCY APPROVAL

APPROVED

DIV. OF THE STATE ARCHITECT

REVIEWED FOR SS D FLS D ACS Q CG D

Revision Schedule

PRE-CHECK (PC) DOCUMENT

Code: 2022 CBC

A separate project application for construction is required

PC 2022 CBC: 24' x 40'

**EXPANDABLE TO** 

120' x 40'

**ENVELOPE AND** 

NOTES

22088

rMc/CG

PROJECT TITLE

Description

APP: 04-123059 PC

**EXPRESS WRITTEN CONSENT OF R&S** 

TAVARES ASSOCIATES, INC. ©

CLIENT

PROFESSIONAL STAMP

APP: 02-122823 INC:

The minimum rate of outdoor air required per Section 120.1 (b) 2 shall be supplied to each space at all time the space is usually occupied.

Compliance ID: EnergyPro-4958-0923-0242 Report Generated: 2023-09-07 12:06:05

CALIFORNIA ENERGY COMMISSION

Compliance ID: EnergyPro-4958-0923-0242

Report Generated: 2023-09-07 12:06:05

NRCC-PLB-E

(Page 6 of 6) 9/7/2023

 $Iy installed \ boilers \ with an input \ capacity \ \{d: gte/] \ 5MMBtu/h \ and \ a \ steady \ state \ full-load \ combustion \ efficiency < 90\% \ shall \ state \ full-load \ combustion \ efficiency < 90\% \ shall \ state \ full-load \ combustion \ efficiency < 90\% \ shall \ state \ full-load \ combustion \ efficiency < 90\% \ shall \ state \ full-load \ combustion \ efficiency < 90\% \ shall \ state \ full-load \ combustion \ efficiency < 90\% \ shall \ state \ full-load \ combustion \ efficiency < 90\% \ shall \ state \ full-load \ combustion \ efficiency < 90\% \ shall \ state \ full-load \ combustion \ efficiency < 90\% \ shall \ state \ full-load \ combustion \ efficiency < 90\% \ shall \ state \ full-load \ combustion \ efficiency < 90\% \ shall \ state \ st$ 

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aintain excess (stack-gas) oxygen concentrations <= 5% by volume on a dry basis over firing rates of 20-100%. Combustion air olume shall be controlled with respect to firing rate or flue gas oxygen concentration. Use of a common gas and combustion air The Lesser of the minimum rate of outdoor air required by Sec. 120.1 (b) 2, or three complete air changes shall be supplied to the entire building during the one-hour period immediately before the building is normally occupied.

Sec. 120.1 (c) 2

Hotel/Motel Guest Room Thermostats shall have numeric temperature set points in degrees F; and set point stops accessible only to authorized personnel, to restrict overheating and over-cooling.

Sec. 120.2 (c)

All air distribution system ducts and plenums, including, but not limited to, building cavities, mechanical closets, air-handler boxes and support platforms used as ducts or plenums, shall be installed, sealed and insulated to meet the requirements of chapter 6 of the 2001 CMC. Supply-air and return-air ducts conveying heated or cooled air shall be insulated to a minimum installed level of R-8, unless ducts are in conditioned space.

The thermostatic controls for HVAC systems shall meet the following requirements as applicable:

- Each space conditioning zone shall be controlled by an individual thermostatic control that responds to temperature within the zone and meets the applicable requirements of Subsection (b).
- Each Thermostatic control required by Subsection (a) shall be capable of being set locally or remotely by adjustment or selection of sensors to control:
  - Comfort heating down to 55°F or lower.
  - Comfort Cooling up to 85°F or higher.
  - 3) Both heating and cooling, the thermostatic controls shall be capable of providing a temperature range or dead band of at least 5°F within which the supply of heating and cooling energy to the zone is shut off or reduced to a minimum.

Sec. 120.2 (a) & (b)

Outdoor air supply and exhaust equipment shall be installed with dampers that automatically close upon fan shutdown.

Sec. 120.2 (f)

2) Demand Control Ventilation Devices (CO2 sensors) shall be installed in accordance with Sec. Sec. 120.1 (c) 4

3) Each space-conditioning system shall be installed with controls that comply with Items 1 and 2

- Are capable of automatically shutting off the system during periods of non-use
  - An automatic time switch control device complying with Sec. 119(c), with an accessible manual override that allows operation of the system for up to

An occupancy sensor; or

- A four-hour timer that can be manually operated.
- EXCEPTION: Mechanical systems serving retail stores and associated malls, restaurants, grocery stores, churches, and theaters equipped with 7day programmable timers.
- Automatically restart and temporarily operate the system as required to maintain: A setback heating thermostat set point, if the system provides mechanical
  - EXCEPTION: Area with the design winter outdoor temperature of greater
  - A setup cooling thermostat set point, if the system provides mechanical

EXCEPTION: Area with the design summer outdoor temperature of less EXCEPTION: Systems serving hotel/motel guest rooms, if they have a

Sec. 120.2 (e)

Sec. 120.3

accordance with TABLE 123-A.

Documentation Software: EnergyPro 4) The piping for all space conditioning and service water heating systems shall be insulated in

Sec. 110.3 (c) 2

Sec. 110.3 (c) 3

CHECKED BY RH/RT

PROJECT NUMBER

DRAWN BY

DATE

SHEET NO.

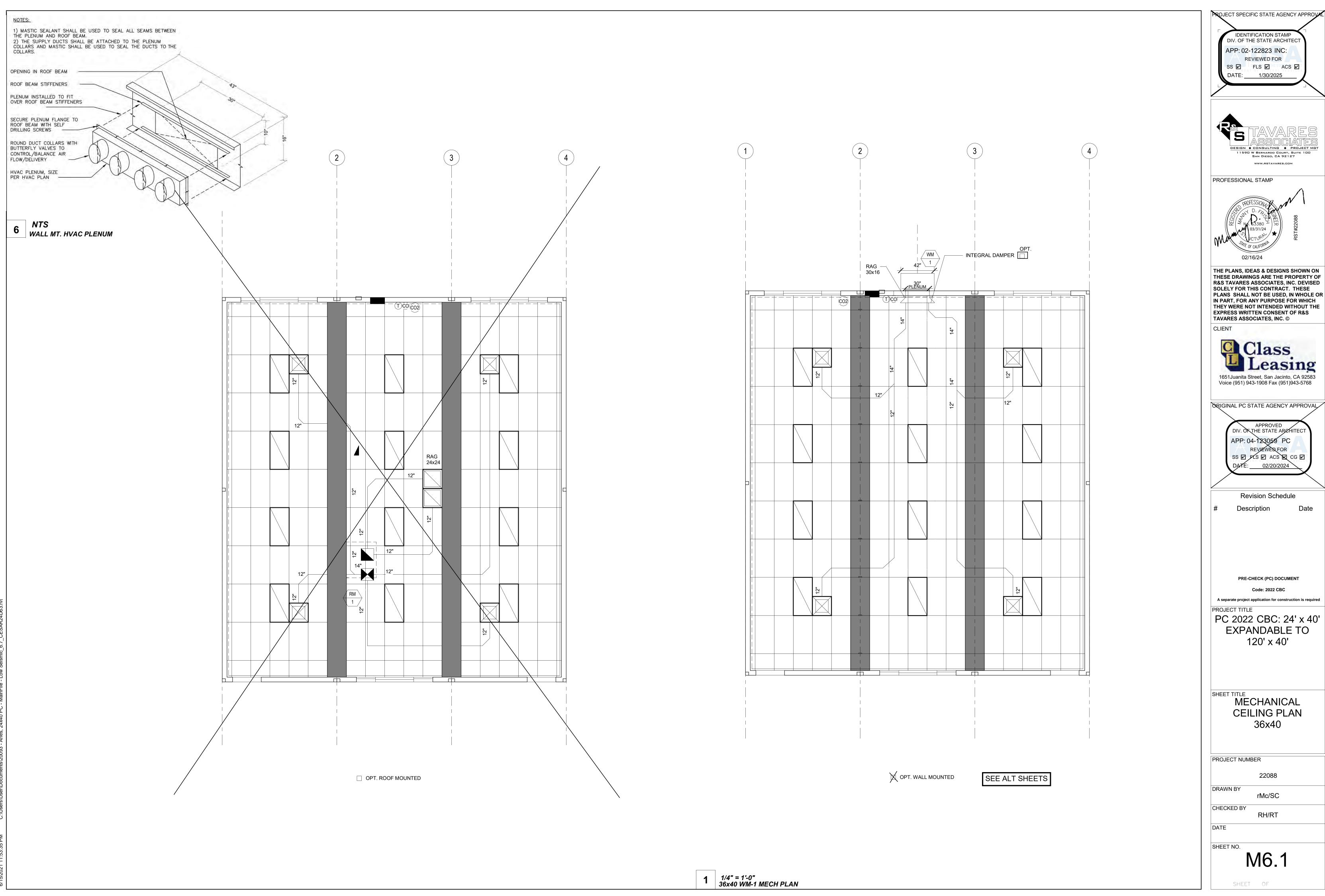
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5) Service water heating systems and equipment shall meet the applicable requirements of the Appliance Efficiency Regulations as required by Sec. 110.1. Sec. 110.3 (b)

readily accessible manual shut-off switch.

6) Service hot water systems with circulating pumps or with electrical heat trace systems shall be capable of automatically turning off the system.

7) Lavatories in public restrooms shall have controls that limit the water supply temperature to



IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 02-122823 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 DATE: 1/30/2025





THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE **EXPRESS WRITTEN CONSENT OF R&S** TAVARES ASSOCIATES, INC. ©



ORIGINAL PC STATE AGENCY APPROVAL APPROVED

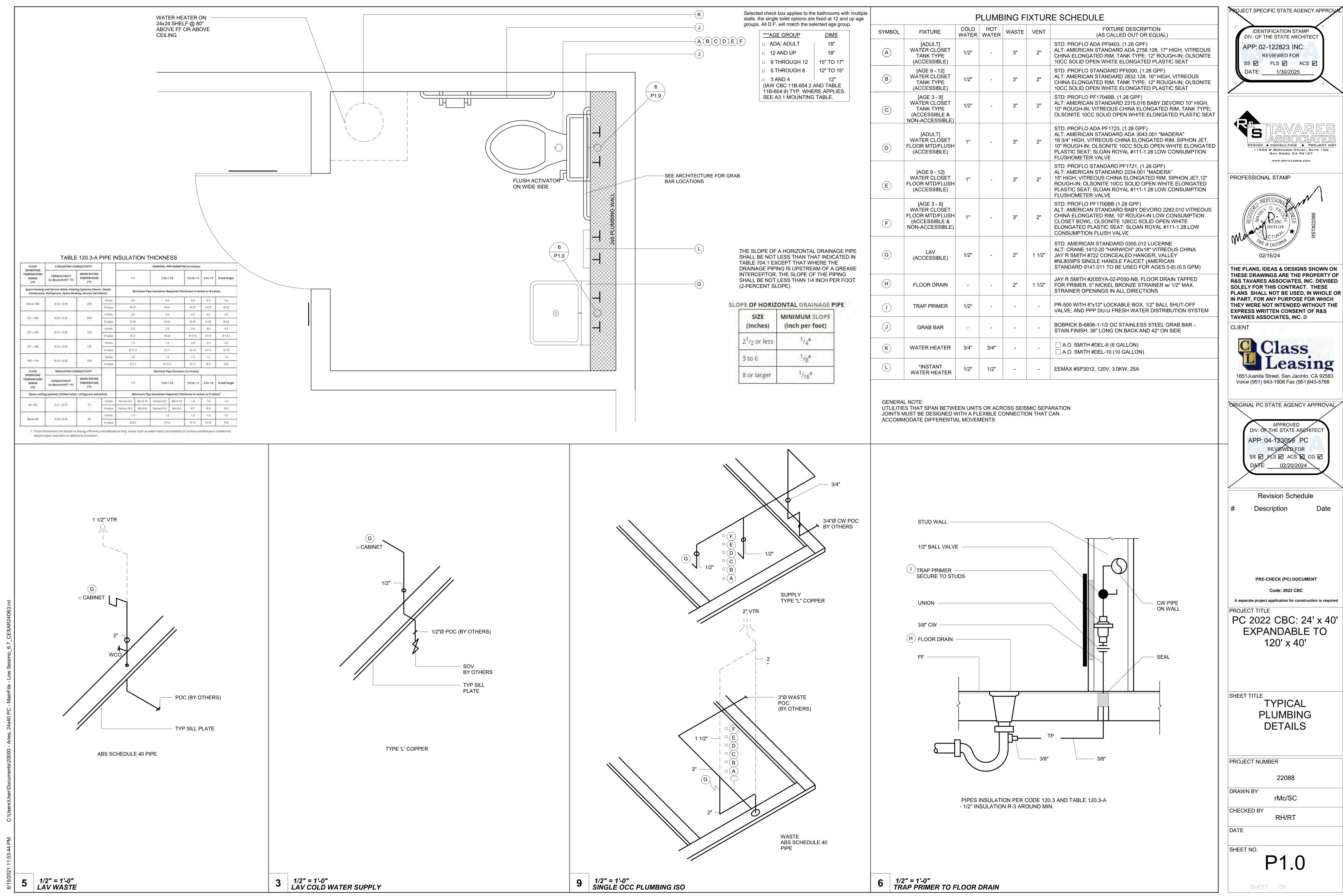
DIV. OF THE STATE ARCHITECT APP: 04-123059 PC REVIEWED FOR SS D FLS D ACS D CG D

Revision Schedule

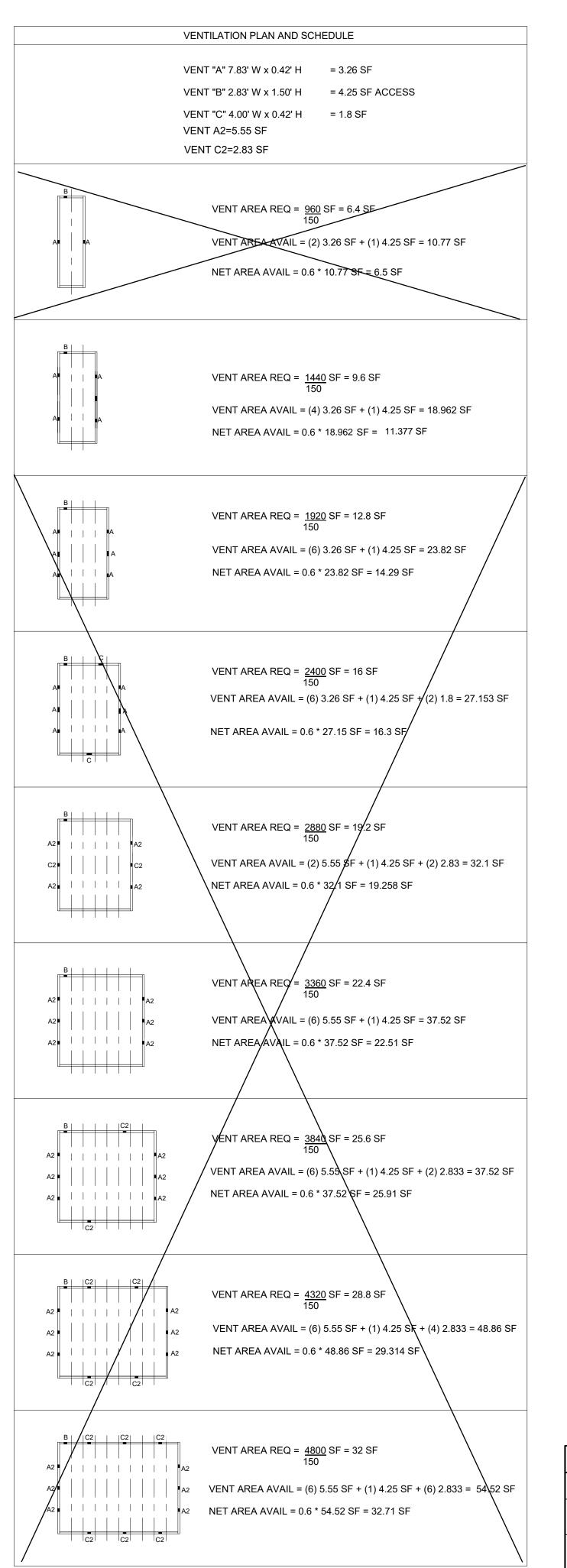
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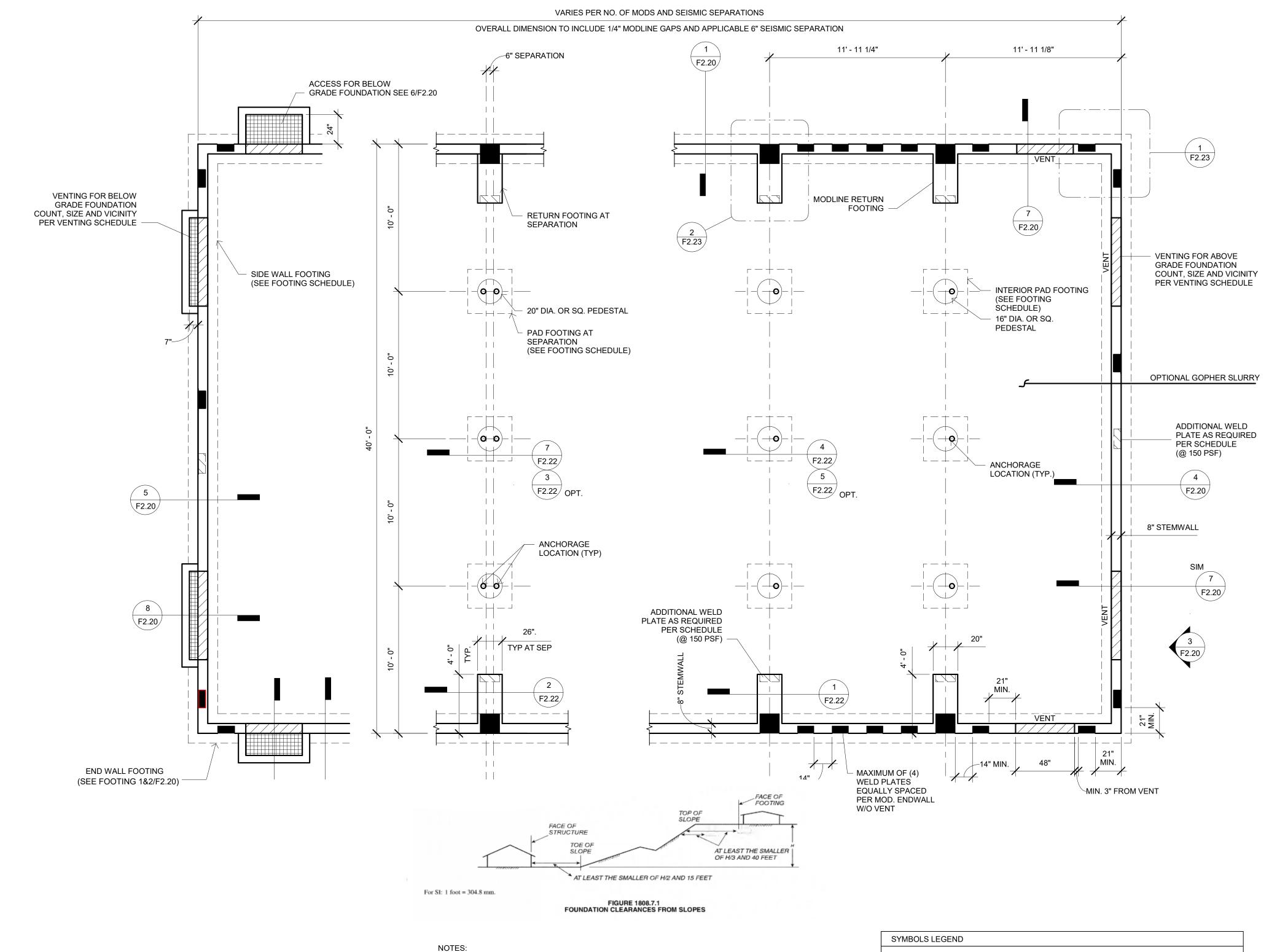
PC 2022 CBC: 24' x 40' **EXPANDABLE TO** 120' x 40'

**CEILING PLAN** 



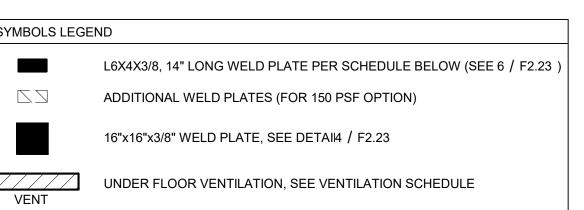






- THE FOUNDATION DESIGN CONSIDERS AN ALLOWABLE SOIL BEARING PRESSURE OF 1,500 PSF FOR LOCATIONS THAT DO NOT REQUIRE A
- SOILS INVESTIGATION REPORT. DISTRICT SHALL BE RESPONSIBLE IN ISSUING AND CONTRACTING A SOILS INVESTIGATION THROUGH A QUALIFIED GEOTECHNICAL
- ENGINEER FOR LOCATIONS DEEMED QUALIFIED BY CBC 1803A.2. WELD PLATES SAHLL BE PLACED PER PLAN AT 21" MINIMUM FROM BUILDING CORNERS AND 14" MINIMUM FROM ADJACENT WELD PLATE. WELD PLATES WITHIN 21" FROM VENT SHALL REQUIRE
- REINFORCEMENT HAIRPINNED AROUND THE ANCHOR BOLT CLOSEST TO THE VENT. SEE DETAIL 1/F2.23 FOUNDATION OVERALL CONSIDERS A 1/4" GAP AT EVERY MODLINE AND
- 6" SEISMIC SEPARATION GAP WHEN APPLICABLE. SIZE OF UNDER-FLOOR VENITIALATION CONSIDERS A RATIO OF 1:150 FOR THE TOTAL AREA OF OPENEINGS TO CRAWL SPACE AREA. CRAWL SPACE AREAS FITTED WITH A VAPOR BARIER IN ACCORDANCE WITH
- IBC, 1203.3.2 SHALL BE PERMITTED A RATIO ADJUSTMENT TO 1:1500. VENTILLATION OPENING SHALL BE COVERED WITH CORROSION RESITANT WIRE WITH THE LEAST DIMENSION NOT GREATER THAN 1/8".

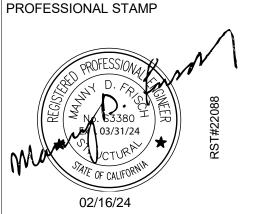
FOOTING SC	HEDULE (CON	CRETE FLOOF	R)	
DESIGN FLOOR LIVE LOAD	SIDEWALL FOOTING	ENDWALL FOOTING	INTERIOR PAD FOOTING	PAD FOOTING @ SEPARATION
☐ 50 + 15 PSF	12" WIDE (2) #5 CONT T&B	14" WIDE (3) #5 CONT T&B	3' - 2" SQ (3) #5 EW	4' - 0" SQ (4) #5 EW
☐ 100 PSF	12" WIDE (2)#5 CONT T&B	16" WIDE (3) #5 CONT T&B	3' - 6" SQ (3) #5 EW	4' - 6" SQ (4) #5 EW
☐ 150 PSE	14" WIDE (2) #5 CONT T&B	16" WIDE (3) #5 CONT T&B	4' - 2" SQ (4) #5 EW	4' - 10" SQ (5) #5 EW



		L6x4x3/8,	16x3/8 SQ PL	
		≤ 100 PSF	150 PSF	≤ 150 PSF
EACH SI	DEWALL	3	4	-
EACH M	ODLINE	-	2	2
EACH	24x40	5	7	
END-	36x40	6	7/10	
WALL	<del>48x40</del>	7	10/13	
	60x40	9	12	7
	72x40	10	14	
	84x40	12	17	
	96x40	13	19-	
	108×40	15	21	
	120x40	16	23	$\dashv$

ROJECT SPECIFIC STATE AGENCY APPROVAL IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-122823 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 1/30/2025





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> Revision Schedule Description

PRE-CHECK (PC) DOCUMENT

Code: 2022 CBC A separate project application for construction is required

PROJECT TITLE PC 2022 CBC:24' x 40' **EXPANDABLE TO** 120' x 40'

> CONCRETE **FOUNDATION** PLAN

PROJECT NUME	BER	
	22088	
DRAWN BY	rMc/SC	
CHECKED BY	JA/RT	

DATE

F2.10

SHEET OF

12" WIDE 16" WIDE 3' - 4" SQ 4' - 2" SQ ☐ 100 PSF (2) #5 (3) #5 CONT (3) #5 EW (4) #5 EW CONT T&B T&B 14" WIDE 16" WIDE 4' - 0" SQ 4' - 8" SQ ☐ 150 PSF (3) #5 CONT (2) #5(4) #5 EW (4) #5 EW CONT T&B \_

FOOTING SCHEDULE (WOOD FLOOR)

LIVE LOAD

X 50 + 15 PSF

SIDEWALL

**FOOTING** 

12" WIDE

(2) #5

CONT T&B

ENDWALL

FOOTING

14" WIDE

(3) #5 CONT

T&B

INTERIOR PAD

FOOTING

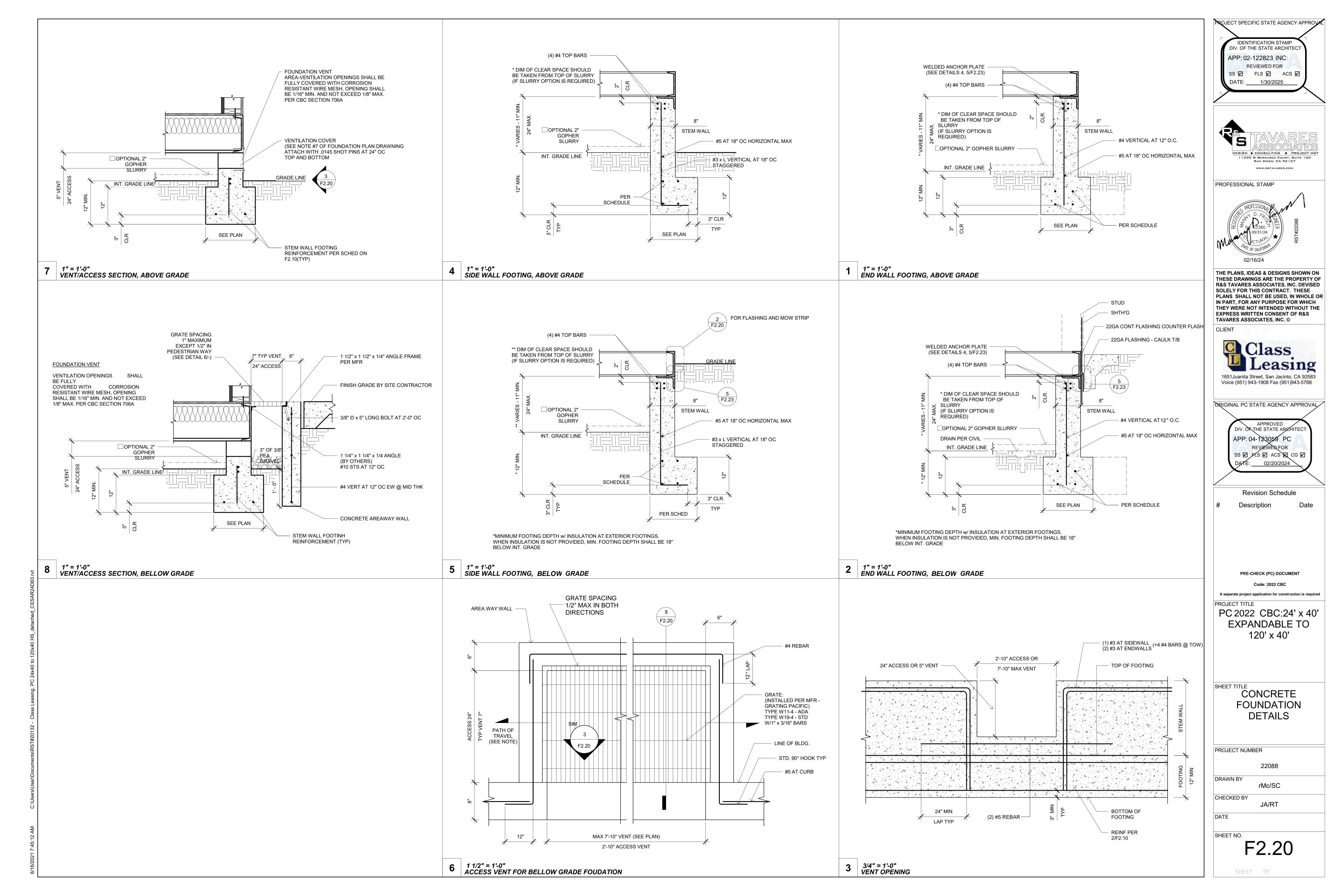
(3) #5 EW

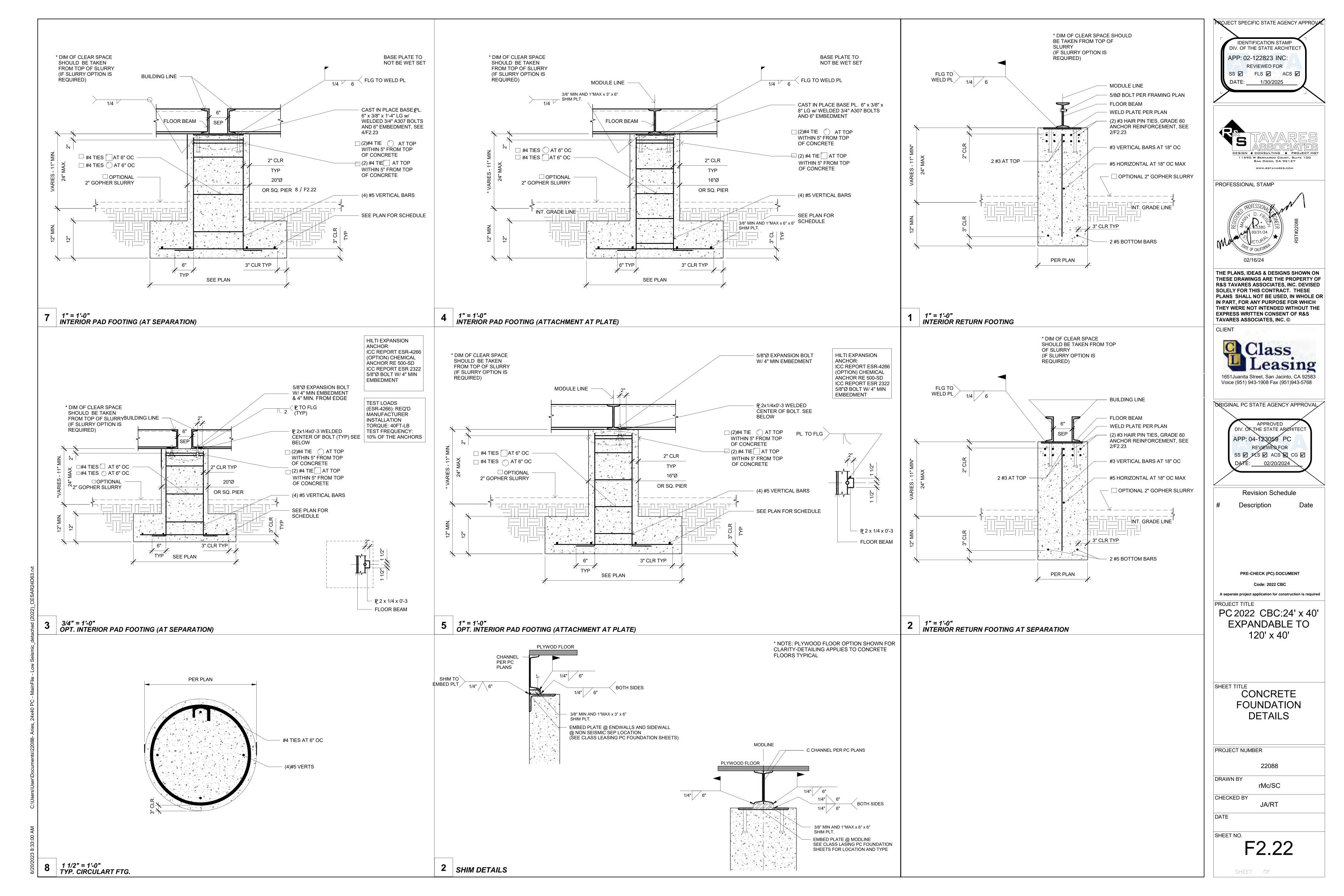
PAD FOOTING @

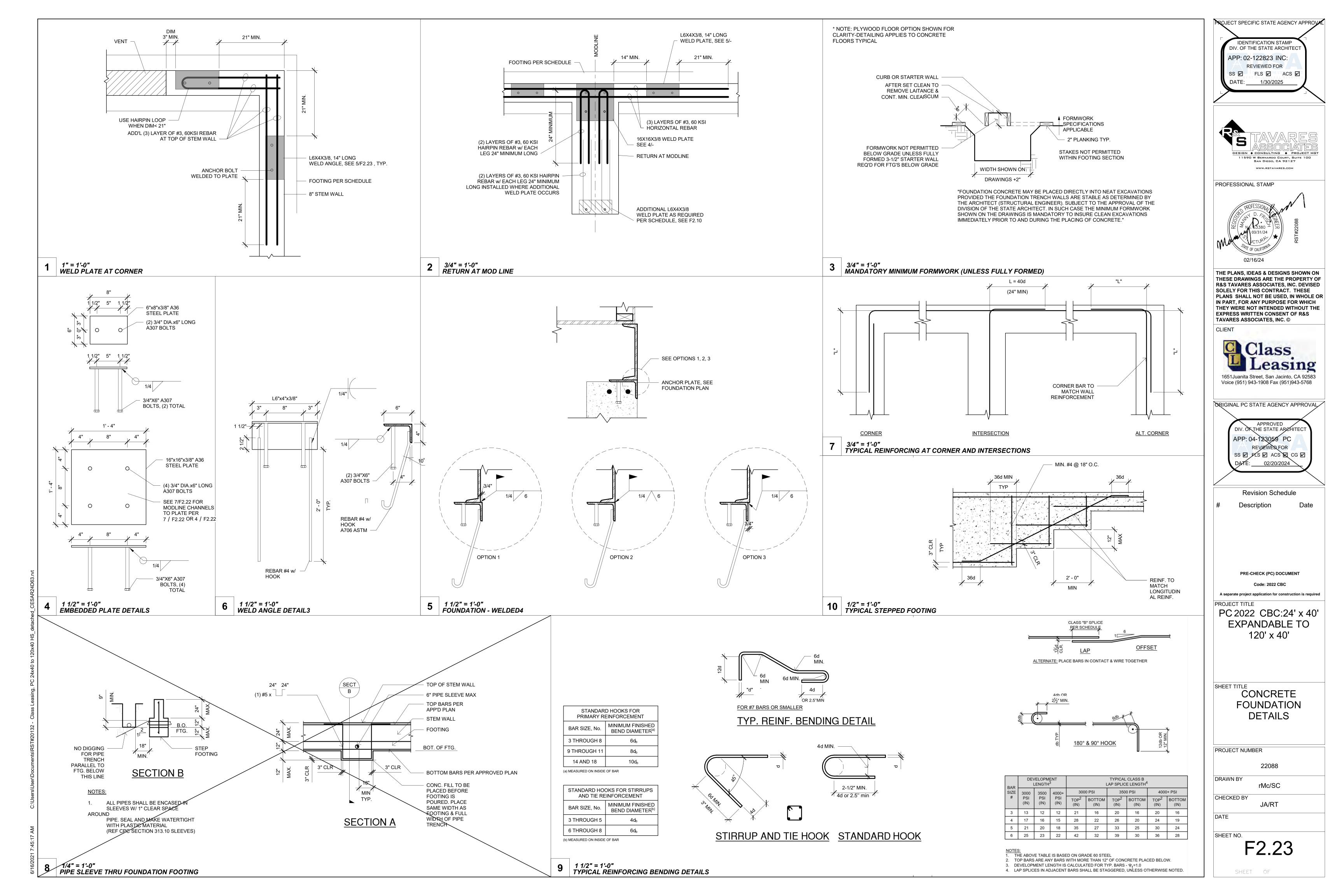
SEPARATION

3' - 8" SQ

(4) #5 EW







IN ACCORDANCE WITH CURRENT AISC SPECIFICATIONS AND STANDARDS. STEEL SHAPES SHALL COMFORM TO THE FOLLOWING STANDARD:

STRUCTURAL HSS COLUMNS: ASTM A500 GRADE B STRUCTURAL W-SHAPES: ASTM A992 GRADE 50

TUBE STEEL: ASTM A500 GRADE A ALL OTHER: ASTM A36

FABRICATION, ERECTION, AND SHOP PAINTING SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDING AND BRIDGES HOLES IN STRUCTURAL STEEL SHALL NOT BE PERMITTED, UNLESS SPECIFIED IN THE STRUCTURAL DRAWINGS

## **CONCRETE**

ALL CONCRETE WORK, UNLESS MODIFIED BY CONTRACT DOCUMENTS, SHALL BE PERFORMED IN ACCORDANCE WITH CHAPTER 19A, CBC 2022 AND ACI 318-19.

TESTS AND INSPECTION SHALL BE PERFORMED BY A TESTING LABORATRY CONTRACTED BY THE DISTRICT.

MIX DESIGN SHALL BE SUBMITTED FOR QUALIFICATION AND PROVIDE A 28-DAY COMPRESSIVE STRENGTH F'C OF 3500 PSI, COMPOSED OF NORMAL WEIGHT TYPE I PORTALAND CEMENT IN CONFORMANCE WITH ASTM C150.

FORMWORK SHALL RESULT IN FINAL STRUCTURE THAT CONFORMS TO SHAPES, LINES, AND DIMENSIONS AS REQUIRED BY THE CONTRACT DOCUMENTS.

LOCATIONS OF VENTS AND OPENINGS FOR MECHANICAL AND ELECTRICAL USE SHALL BE VERIFIED BY ARCHITECT.

EMBEDMENT OF MATERIALS NOT HARMFULL TO CONCRETE AND WITHIN LIMITATIONS OF SECTION 20.6, ACI-318-19 SHALL BE PERMITTED. REFER TO OTHER DISCIPLINES FOR LOCATION OF CONDUIT, PIPES, FITTINGS, SLEEVES, ETC.

CONTINUOUS BATCH PLANT INSPECTION WAIVED PER CBC 1705A3.3. WHEN CONTINUOUS BATCH PLANT INSPECTION WAIVED, THE FOLLOWING PERIODIC INSPECTION SHALL BE REQUIRED:(INSPECTIONS PROVIDED BY DISTRICT)

QUALIFIED TECHNICIAN OF THE TESTING LABORATORY SHALL CHECK THE FIRST BATCH AT THE START OF

LICENSED WEIGHMASTER TO POSITIVELY IDENTIFY MATERIALS AS TO QUANTIFY AND CERTIFY TO EACH LOAD BY A BATCH TICKET.

BATCH TICKETS, INCLUDING MATERIAL QUANTITIES AND WEIGHTS SHALL ACCOMPANY THE LOAD, SHALL BE TRANSMITTED TO THE INSPECTOR OF RECORD BY A TRUCK DRIVER WITH THE LOAD IDENTIFIED THEREON. THE LOAD SHALL NOT BE PLACED WITHOUT A BATCH TICKET IDENTIFYING THE MIX. THE INSPECTOR WILL KEEP A DAILY RECORD OF PLACEMENTS, IDENTIFYING EACH TRUCK, ITS LOAD, AND TIME OF RECEIPT, AND APPROXIMATE LOCATION OF DEPOSIT IN THE STRUCTURE AND WILL TRANSMIT A COPY OF THE DAILY RECORD TO THE ENFORCEMENT AGENCY.

ANCHOR BOLTS, AND REINFORCING STEEL SHALL BE SECURELY TIED BEFORE CONCRETE IS POURED.

## CONCRETE MIX

IN ADDITION TO THOSE REQUIREMENTS DICTATED BY THE PC DESIGN, THE CONCRETE MIX USED IN THE FOUNDATION ELEMENTS SHALL COMPLY WITH THE DURABILITY REQUIREMENTS OF AMERICAN CONCRETE INSTITUTE (ACI) 318 SECTION 19.3. THE PC DRAWINGS SHALL ACCOUNT FOR THE DEPENDENCY OF THESE DURABILITY REQUIREMEMNTS ON SITE-SPECIFIC CHARACTERISTICS.

A. WHEN THE PC DRAWINGS DO NOT REQUIRE A SITE-SPECIFIC GEOTECHNICAL REPORT THAT QUANTIFIES SULFATE CONTENT IN THE SOIL, THE PC DRAWINGS SHALL REQUIRE A CONCRETE MIX SHALL COMPLYING WITH ONE OF THE FOLLOWING PER ACI 318 TABLE 19.3.2.1. SEE THIS SHEET A.1 & A.2 FOR OPTIONS

B. MAXIMUM WATER/CEMENT RATION OF 0.45; MINIMUM COMPRESSIVE STRENGTH OF 4,500 POUNDS PER SQUARE INCH (PSI); TYPE V CEMENT PLUS POZZOLAN OR SLAG CEMENT COMPLYING WITH FOOTNOTE 7; AND PROHIBITION OF ADMIXTURES CONTAINING CALCIUM CHLORIDE

C. MAXIMUM WATER/CEMENT RATIO OF 0.40; MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI; TYPE V CEMENT COMPLYING WITH FOOTNOTE 8; AND PROHIBITION OF ADMIXTURES CONTAING CALCIUM CHLORIDE.

D. WHEN THE PC DRAWINGS REQUIRE A SITE-SPECIFIC GEOTECHNICAL REPORT THAT QUANTIFIES SULFATE CONTENT IN THE SOIL, THE PC DRAWINGS SHALL CLEARLY STATE THE EXPOSURE CLASS FOR EACH CATAGORY (I.E., F, S, W, AND C) OR COMBINATION THEREOF THE PC DESIGN IS APPROVED FOR. THE MAXIMUM WATER/CEMENT RATIO, MINIMUM COMPRESSIVE STRENGTH, CEMENTITOUS MATERIAL REQUIREMENTS, AND ADMIXTURE LIMITATIONS SHALL BE STATED ON THE PC DRAWINGS FOR EACH APPROVED CASE.

E. BOTH APPROACHES GIVEN SECTIONS 5.5.1 AND 5.5.2 ABOVE CAN BE INCLUDED ON THE PC DRAWINGS AS ALTERNATE OPTIONS IN ACCORDANCE WITH SECTION 1.4 ABOVE

F. CONCRETE EXPOSE TO THAW AND FREEZE CYCLES SHALL BE AIR ENTRAINED PER ACI 318 SECTION 19.3.3.1

# STEEL REINFORCEMENT

DEFORMED BARS SHALL CONFORM TO ASTM A615.

fy= 60,000 PSI, FOR ALL BARS EXEPT FOR #3 BARS, fy= 40,000 PSI.

PROVIDE A MINIMUM CONCRETE COVER FOR REINFORCEMENT EMBEDDED IN:

CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH = 3" CONCRETE EXPOSED TO EARTH OR WEATHER FOR #5 BARS OR SMALLER = 1.5"

SPLICE LENGTHS SHALL BE A MINIMUM OF 48" FOR #5 BARS, AND 30" FOR #4 BARS UNLESS OTHERWISE SPECIFIED DRAWINGS.

ALL BOLTS AND ANCHOR BOLTS SHALL COMFORM TO ASTM A-307

BOLTS EXPOSED TO THE ELEMENTS SHALL BE GALVANIZED BY THE HOT-DIP OR MECHANICAL

# **WELDING**

A. ALL WELDING SAHLL BE IN COMFORMANCE TO:

a. AWS D1.1, EXCEPT AS MODIFIED IN SECTION J2, AISC-360 FOR STEEL

AWS D1.3 FOR LIGHT GAUGE STEEL AWS D1.4 FOR REINFORCING STEEL

ELECTRODE CLASSIFICATION:

a. E70XX FOR STEEL AND CONCRETE STEEL REINFORCEMENT

E60XX FOR LIGHT GAUGE STEEL

WELDS SHALL BE CAPABLE OF PRODUCING THE FOLLOWING V-NOTCH TOUGHNESS AS DETERMINED BY APPROPRIATE AWS A5 CLASSIFICATION TEST METHOD OR MANUFACTURER

LATERAL FORCE RESISTING SYSTEM (LFRS) = 20 FT-LB AT 0 DEGREE F COMPLETE JOINT PENETRATION GROOVE WELD = 20 FT-LB AT 40 DEGREE F

SHOP AND FIELD WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS

PERIODIC INSPECTION OF FILLET WELDS LESS THAN OR EQUAL TO 5/16", FLOOR AND ROOF DECK WELDS.

b. CONTINUOUS INSPECTION FOR OTHER WELDS.

NONDESTRUCTIVE TESTING (NDT):

a. ULTRASONIC TESTING SHALL BE PERFORMED ON 100 PERCENT OF CJP GROOVE WELDS IN MATERIALS 5/16" OR THICK OR GREATER. ULTRASONIC TESTING NOT REQUIRED FOR MATERIALS LESS THAN 5/16" THICK. TESTING FREQUENCY MAY BE REDUCED TO 25%, PROVIDED PROVISIONS SET FORTH IN SECTION N5.5e, AISC-360 IS MET.

MAGNETIC PARTICLE TESTING SHALL BE PERFORMED ON 25 PERCENT OF ALL BEAM-TO-COLUMN CJP GROOVE WELDS. TESTING FREQUENCY MAY BE REDUCED TO 10%, PROVIDED PROVISIONS SET FORTH IN J6.2g, AISC-341 IS MET.

# **FOUNDATIONS**

GEOTECHNICAL INVESTIGATION SHALL BE CONDUCTED IN ACCORDANCE WITH SECTION 1803A.1 THROUGH 1803A.8 BY GEOTECHNICAL ENGINEER CONTRACTED BY THE DISTRICT. ALLOWABLE FOUNDATION AND LATERAL SOIL PRESSURE VALUES MAY BE DETERMINED FROM TALBLE 1806A.2, WHERE GEOTECHNINCAL REPORTS IS NOT REQUIRED PER SECT 1803A.2. A MAXIMUM ALLOWABLE SOIL PRESSURE OF 1000 PSF AND 1500 PSF SHALLBE PERMITTED FOR TEMPORARY W AND PERMANENT CONCRETE FOUNDATIONS RESPECTIVELY IN ACCORDANCE WITH SECTION 4.6, IR 16-1

A PREVIIOUS REPORT FOR A SPECIFIC SITE MAY BE RESUBMITTED. THE ALLOWABLE FOUNDATIONA AND LATERAL SOIL PRESSURE VALUES ARE ALLOWED A 33% INCREASE FOR SHORT TERM WIND AND SEIMIC LOADS.

THE DISTRCT SHALL BE RESPONSIBLE FOR EXCAVATION, BACKFILL, SETTING ELEVATIONS, CRANING AND RIGGING. PROVIDE SHIMS TO LEVEL BUILDING WITHIN 1/2" TOLERANCE.

### COLD-FORMED STEEL:

ALL WORK SHALL, UNLESS MODIFIED BY THE CONCTRACT DOCUMENTS, SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT AISI SPECIFICATIONS AND STANDARDS.

MATERIAL SPECIFICATION: ASTM A-1011/A, GRADE 33 FOR MATERIALS THICKNESS 0.120 OR LESS UNLESS OTHERWISE NOTI

ASTM A-1003, GRADE 33 TYPE H FOR LIGHT GUAGE STUDS AND TRACKS SHAPES SHALL BE DIMENSIONED TO SSMA SPECIFICATIONS.

C. SCREWS EXPOSED TO THE ELEMENTS SHALL BE GALVANIZED

### STEEL DECK

MINIMUM THICKNESS PERMITTED FOR FLOOR STEEL DECKS IS 20GA. PER DSA IR 16-1, 1.2.1, MINIMUM THICKNESS OF NON-STRUCTURAL STEEL ROOF DECKING IS 26GA. STANDING SEAM ROOF PANELS ARE GRADE 40 SHEET STEEL WITH ALUMINUM ZINC COATING CONFORMING TO ASTM A792 AND AZ55.

CHANGES AFFECTING STRUCTURAL PORTION OF THE APPROVED PC SHALL NEED DSA APPROVAL AND SHALL BE CLASSIFIED AS CCD CATEFORY A.

ALL FRAMING LUMBER SHALL BE GRADE MARKED BY AN APPROVED GRADING AGENCY

EACH SHEET SHALL BE GRADE MARKED BY THE AMERICAN PLYWOOD ASSOCIATION IN ACCORDANCE WITH THE PROCEDURES AND QUALIFICATIONS SET FORTH BY PS 1-19.

SUB FLOOR: 1 1/8" T&G UNBLOCKED PLYWOOD, SHALL PROVIDE A SMOOTH AND UNIFORM SURFACE

CAPABLE OF ACCEPTING CARPET FINISH PLYWOOD ROOF DECK OPTION: APA RATED 3/4" T&G OSB OR EQUIVALENT RATED SHEATHING

EXTERIOR WALL SIDING:

STANDARD: 5/8" DURATEMP OR 5/8" SMART PANEL OPTION: 5/8" MOD

OPTION: 1/2" OSB OR CDX PLYWOOD FOR PLASTER/STUCCO FINISH

OPTION: 1/2" OSB OR CDX PLYWOOD FOR HARDIE BOARD (LAP SIDING) FINISH

EXTERIOR WALL SIDING ATTACHMENT:

FASTENERS USED FOR THE ATTACHMENT OF EXTERIOR WALL COVERINGS SHALL BE HOT-DIPPED GALVANIZED, MECHANICALLY DEPOSITED ZINC-COATED, STAINLESS, SILICON BRONZE OR COPPER PER CBC SECTION 2304.10.1.1

FASTEN TO WOOD FRAMING WITH 8D BOX NAILS @ 6" E.N., 12" F.N. FASTEN TO LIGHT GAGE METAL FRAMING WITH #8 WAFER HEAD STSMS @ 6" E.N., 12" F.N. FASTEN TO STRUCTURAL STEEL WITH #12 STSMS OR 0.145 DIAM SHOT PINS @ 12" O.C.

## TREATED WOOD:

ALL WOOD LOCATED WITHIN 6" OF EXPOSED EARTH SHALL BE "PRESERVATIVE TREATED" OR SHALL BE "NATURALLY DURABLE" MATERIAL IN ACCORDANCE WITH CBC SECTION 2304.12.1.2.

ALL ROUGH LUMBER SHALL BE DF #2 OR BETTER.

ALL POWER DRIVEN FASTENERS SHALL BE HILTI FASTENERS ICC# ESR-1663, AND RAMSET POWER DRIVEN FASTENERS (ICC # ESR-1799), OR SIMPSON POWER DRIVEN FASTENERS ICC #ESR-2138. OR OTHER EQUIVALENT PRODUCTS WITH ICC REPORTS AND APPROVED BY DSA.

FASTENERS, INCLUDING NUTS AND WASHERS, IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER PER CBC 2304.10.1.1

# **ROOF DIAPHRAGM:**

3/4" T&G RATED SHEATHING UNBLOCKED DIAPHRAGM, EXPOSURE 1, 48/24 SPAN RATING FASTEN AT METAL SUPPORTS W/ #10 x 1 1/4" SELF-TAPPING PHILLIPS FLAT-HEAD ZINC

COATED TEKS SCREWS @ 6" BN/CON. EDGE, 6" EN, AND 12" O.C. FN. PROVIDE A MINIMUM OF 3/8" EDGE DISTANCE FOR FASTENERS TO PLYWOOD EDGE PER CBC SECTION 2306.2.

NOTE: ALL PANEL EDGES SHALL BE ATTACHED TO FRAMING MEMBERS OR BLOCKING. WHERE USED AS BLOCKING, FLAT STRAPPING SHALL BE A MINIMUM THICKNESS OF 33MILS WITH A MINIMUM WIDTH OF 1.5 INCHES AND SHALL BE EITHER INSTALLED BELOW SHEATHING. FOR OTHER THAN STEEL SHEATHING, THE SCREWS SHALL BE INSTALLED THROUGH THE SHEATHING TO THE BLOCKING.

# FLOOR DIAPHRAGM:

1 1/8" PLYWOOD UNBLOCKED DIAPHRAGM - STURD-I-FLOOR T&G RATED SHEATHING, EXTERIOR, 48" oc SPAN RATING FASTEN AT METAL SUPPORTS W/ #10 - 24 x 2" SELF-TAPPING PHILLIPS FLAT-HEAD ZINC COATED TEKS @ 6" O.C. BN/CON. EDGE, 6" O.C. EN, 12" FN. PROVIDE A MINIMUM OF 3/8" EDGE DISTANCE FOR FASTENERS TO PLYWOOD EDGE PER CBC SECTION 2306.2

NOTE: ALL PANEL EDGES SHALL BE ATTACHED TO FRAMING MEMBERS OR BLOCKING. WHERE USED AS BLOCKING, FLAT STRAPPING SHALL BE A MINIMUM THICKNESS OF 33MILS WITH A MINIMUM WIDTH OF 1.5 INCHS AND SHALL BE BELOW SHEATHING. FOR OTHER THAN STEEL SHEATHING, THE SCREWS SHALL BE FITHER INSTALLED INSTALLED THROUGH THE SHEATHING TO THE BLOCKING.

CONCRETE FLOOR DATA: LIGHTWEIGHT CONCRETE FLOOR

STRENGTH: 3500 PSI TYPE: I OR II DESINTY: 110 PCF - MAX

# **DIMENSION LUMBER ATTACHMENT TO STEEL FRAMING:**

2 x STUDS AT CORNER STEEL COLUMNS (NAILING STUD) USE: #10 - 24 x 2 1/2" LG. SELF-DRILLING SELF-TAPPING PHILLIPS FLAT-HEAD WITH WASHER ZINC COATED TEK SCREWS AT 24" OC.

# NAILING NOTES:

DIAMETER.

ALL NAILS SHALL BE COMMON UNLESS OTHERWISE NOTED

MACHINE APPLIED 16d FASTENERS SHALL HAVE AN EMBEDMENT OF NOT LESS THAN 1 1/2" INTO THE SECOND MEMBER, AND SHALL NOT BE LESS THAN 3" IN OVERALL LENGTH.

NAILS SHALL BE ACCEPTABLE FOR HAND NAILING, PROVIDED THE REQUIREMENT EMBEDMENT IS MAINTAINEI

## **CONNECTIONS AND FASTENERS:** ALL CONNECTIONS AND FASTENERS IN DRAWINGS CAN BE SUBSTITUTED BY AN EQUIVALENT PRODUCT PROVIDING

REPORTS ARE SUBMITTED TO AND APPROVED BY DSA. **CONNECTIONS LAG SCREWS:** 

LAG SCREWS SHALL BE INSTALLED WITH WASHER AND TURNED BY WRENCH, OVER-TORQUING SHALL BE AVOIDED.

# THE CLEARANCE HOLE FOR THE UNTHREADED PORTION OR THE SHANK SHALL HAVE SAME DEPTH AND

THE LEAD HOLE FOR THE THREADED PORTION OF THE SHANK SHALL HAVE SAME DEPTH AND 65% TO 85% OF SHANK DIAMETER FOR LUMBER WITH SPECIFC GRAVITY OF, G > 0.6 60% TO 75% OF SHANK DIAMETER FOR LUMBER WITH SPECIFC GRAVITY OF, 0.5 < G ≤ 0.6 40% TO 70% OF SHANK DIAMETER FOR LUMBER WITH SPECIFC GRAVITY OF, G ≤ 0.5

PRE-DRILLED CLEARANCE AND LEAD HOLE SHALL BE REQUIRED AS DESCRIBED BELOW:

LEAD OR CLEARANCE HOLES SHALL NOT BE REQUIRED FOR 3/8" DIAMETER OR SMALLER LAG SCREWS.

NAILING SCHEDULE: (ALL NAILS SHALL BE COMMON OR BOX NAILS, GALVANIZED WHERE EXPOSED) PER CBC TABLE 2304.10.2

CONNECTION	СОММО	N FASTENERS	ВО	X NA	IL FASTENERS	LOCATION
	QTY SIZE	SPACING O.C.	QTY	SIZE	SPACING O.C.	
1. JOIST TO SILL OR GIRDER	3- 8d		3-	10d		TOENAIL
2. BRIDGING TO JOIST	2- 8d		2-	10d		TOENAIL EA. END
1X6 OR LESS SUBFLOOR TO						
3. EA. JOIST	2- 8d		2-	10d		FACE NAIL
WIDER THAN 1X6 SUBFLOOR						
4. TO EA. JOIST	3- 8d		3-	10d		FACE NAIL
5. 2" SUBFLOOR TO JOIST	2- 16d		N/A	N/A	N/A	BLIND & FACE NAIL
SOLE PLT. TO JOIST OR BLK'G						
6. TO EA. JOIST	16d	@ 16"		16d	@ 12"	FACE NAIL
		O			O	
SOLE PLT. TO JOIST OR BLK'G						
@ BRACED WALL PANEL	3- 16d	@ 16"	3-	16d	@ 16"	TYP. FACE NAIL
7. TOP PLT. TO STUD	2- 16d			10d	<b>O</b> 12	END NAIL
8. STUD TO SOLE PLT.	2- 16d		_	10d		END NAIL
OR	4- 8d			10d		TOENAIL
9. DOUBLE STUDS	16d	@ 24"		10d	@ 16"	FACE NAIL
IO. DOUBLE TOP PLT.	16d	@ 16"		10d	@ 12"	TYP. FACE NAIL
DOUBLE TOP PLT.	8- 16d	MIN. U.N.O.	12-		<b>©</b> .2	24" MIN LAP SPLICE
BLKG. BTW. JOIST OR	0 100			100		
11. RAFTERS TO TOP PLT.	3- 8d		3-	10d		TOENAIL
12. RIM JOIST TO TOP PLT.	8d	@ 6"		10d	@ 6"	TOENAIL
TOP PLT., LAPS &	00	<b>@</b> 0		100	@ U	TO ET WILL
13. INTERSECTIONS	2- 16d		3_	10d		FACE NAIL
14. CONT. HDR. 2 PIECES	16d	@ 16"	3-	Tou		ALONG EDGE
15. CLG. JOIST TO PLT.	3- 8d	W 10	3_	10d		EA. JOIST, TOENAIL
16. CONT. HDR. TO STUD	4- 8d		_	10d		TOENAIL
CLG. JOIST LAP OVER	4- 0u		4-	Tou		TOENALE
17. PARTITIONS	3- 16d		1	10d		FACE NAIL
CLG. JOIST PARALLEL TO	3- 10u		4-	Tou		I AGE NAIL
18. RAFTERS	3- 16d		SEE T	TADI E	2308.7.3.1	FACE NAIL
					2300.7.3.1	
19. RAFTER TO PLT.	3- 8d		3-	16d		TOENAIL°
1" DIA. BRACE TO EZ. STUD &			_	40:		EAGE NAII
20. PLT.	2- 8d		_	10d		FACE NAIL
21. 1X8 SHT'G. TO EA. BRG.	3- 8d		3-	10d		FACE NAIL
WIDER THAN 1X8 SHT'G TO						54.05 NAU
22. BRG.	3- 8d	0.0411	3-	10d		FACE NAIL
23. BUILT-UP CORNER STUDS	16d	@ 24"				FACE NAIL
						FACE NAIL @ TOP & BTM. STAGR.
24. BUILT-UP GIRDERS & BEAMS	20d	@ 32"		10d	@ 24"	ON OPP. SIDES
	2- 20d			N/A	N/A	FACE NAIL @ ENDS & @ EA. SPLICE
25. 2" PLANKS	2- 16d			N/A	N/A	@ EA. BRG.
26. COLLAR TIE TO RAFTER	3- 10d		4-	10d		FACE NAIL
27. JACK RAFTER TO HIP	3- 10d		4-	16d		TOENAIL
28. ROOF RAFTER TO 2X RIDGE	2- 16d		3-	10d		END NAIL
29. JOIST TO BAND JOIST	3- 16d		4-	10d		END NAIL
30. 4X BLOCKING TO STUDS	1- A34		N/A	N/A	N/A	FACE NAIL
OR	4- 8d		4-	10d		TOENAIL

A.) NAILS SPACED AT 6 INCHES AT INTERMEDIATE SUPPORTS WHERE SPANS ARE 48 INCHES OR MORE. FOR NAILING OF WOOD STRUCTURAL PANEL AND ARTICLEBOARD DIAPGHRAMS AND SHEAR WALLS, REFER TO SECTION 2305 NAILS. FOR WALL SHEATHING ARE PERMITTED TO BE COMMON, BOX OR CASING. B.) SPACING SHALL BE 6 INCHES ON CENTER ON THE EDGES AND 12 INCHES ON CENTER AT INTERMEDIATE SUPPORTS FOR NONSTRUCTURAL APPLICATIONS. PANEL SUPPORTS AT 16 INCHES (20 INCHES IF STRENGTH AXIS IN THE LONG DIRECTION OF THE PANEL, UNLESS OTHERWISE MARKED) C.) WHERE A RAFTER IS FASTENED TO AN ADJACENT PARALLEL CEILING JOIST IN ACCORDANCE WITH THIS SCHEDULE AND THE CEILING JOIST IS FASTENED TO THE TOP PLATE IN ACCORDANCE WITH THIS SCHEDULE, THE NUMBER OF TOENAILS IN THE RAFTER SHALL BE PERMITTED TO BE REDUCED BY ONE NAIL

D.) RSRS-01 IS A ROOF SHEATHING RING SHANK NAIL MEETING THE SPECIFICATIONS IN ASTM F1667

FRACTION	DECIMAL
1/32	0.03125
1/16	0.0625
3/32	0.09375
1/8	0.125
5/32	0.15625
3/16	0.1875
7/32	0.21875
1/4	0.25
9/32	0.28125
5/16	0.3125
11/32	0.34375
3/8	0.375
13/32	0.40625
7/16	0.4375
15/32	0.46875
1/2	0.5
17/32	0.53125
9/16	0.5625
19/32	0.59375
5/8	0.625
21/32	0.65625
11/16	0.6875
23/32	0.71875
3/4	0.75
25/32	0.78125
13/16	0.8125
27/32	0.84375
7/8	0.875
29/32	0.90625
15/16	0.9375
31/32	0.96875
1	1

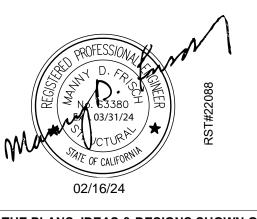
**DECIMAL AND GAUGE CHARTS** 

60d, 40d     4     0.2242       30d     5     0.2092       20d     6     0.1943       7     0.1793       16d     8     0.1644       12d, 10d     9     0.1495       8d     10     0.1345       6d     11     0.1196	PENNY	GAUGE	DEC.
20d     6     0.1943       7     0.1793       16d     8     0.1644       12d, 10d     9     0.1495       8d     10     0.1345	60d, 40d	4	0.2242
7 0.1793 16d 8 0.1644 12d, 10d 9 0.1495 8d 10 0.1345	30d	5	0.2092
16d     8     0.1644       12d, 10d     9     0.1495       8d     10     0.1345	20d	6	0.1943
12d, 10d 9 0.1495 8d 10 0.1345		7	0.1793
8d 10 0.1345	16d	8	0.1644
	12d, 10d	9	0.1495
6d 11 0.1196	8d	10	0.1345
	6d	11	0.1196

OJECT SPECIFIC STATE AGENCY APPROVA IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-122823 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 1/30/2025



PROFESSIONAL STAMP



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APPROVED DIV. OF THE STATE ARCHITEC APP: 04-123059 PC REVIEWED FOR SS 🗹 🗹 S 🗹 ACS 🖳 CG 🗹

Revision Schedule Description

PRE-CHECK (PC) DOCUMENT

Code: 2022 CBC A separate project application for construction is required

PROJECT TITLE PC 2022 CBC: 24' x 60' **EXPANDABLE TO** 

STRUCTURAL GEN NOTES

PROJECT NUMBER 22088 DRAWN BY

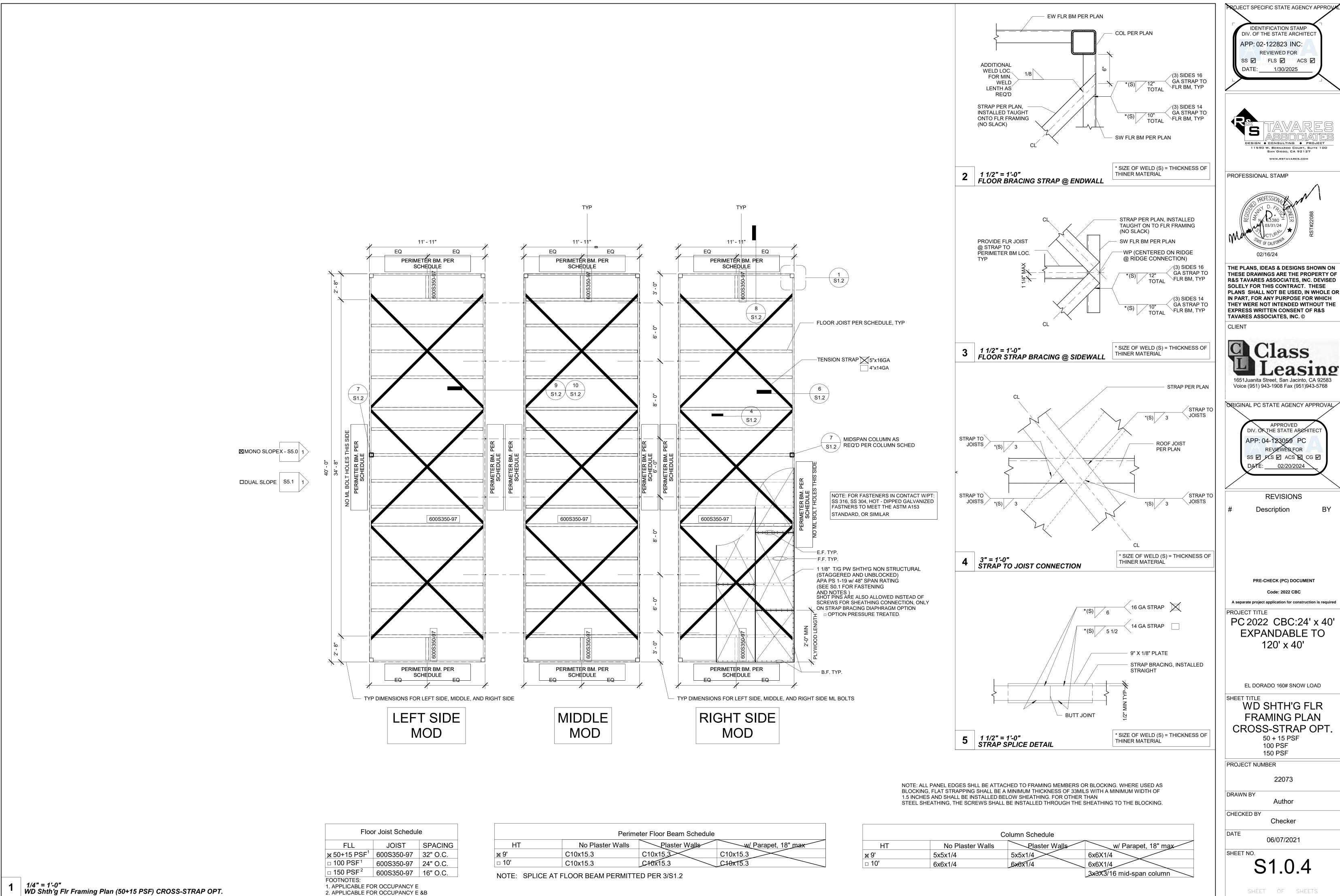
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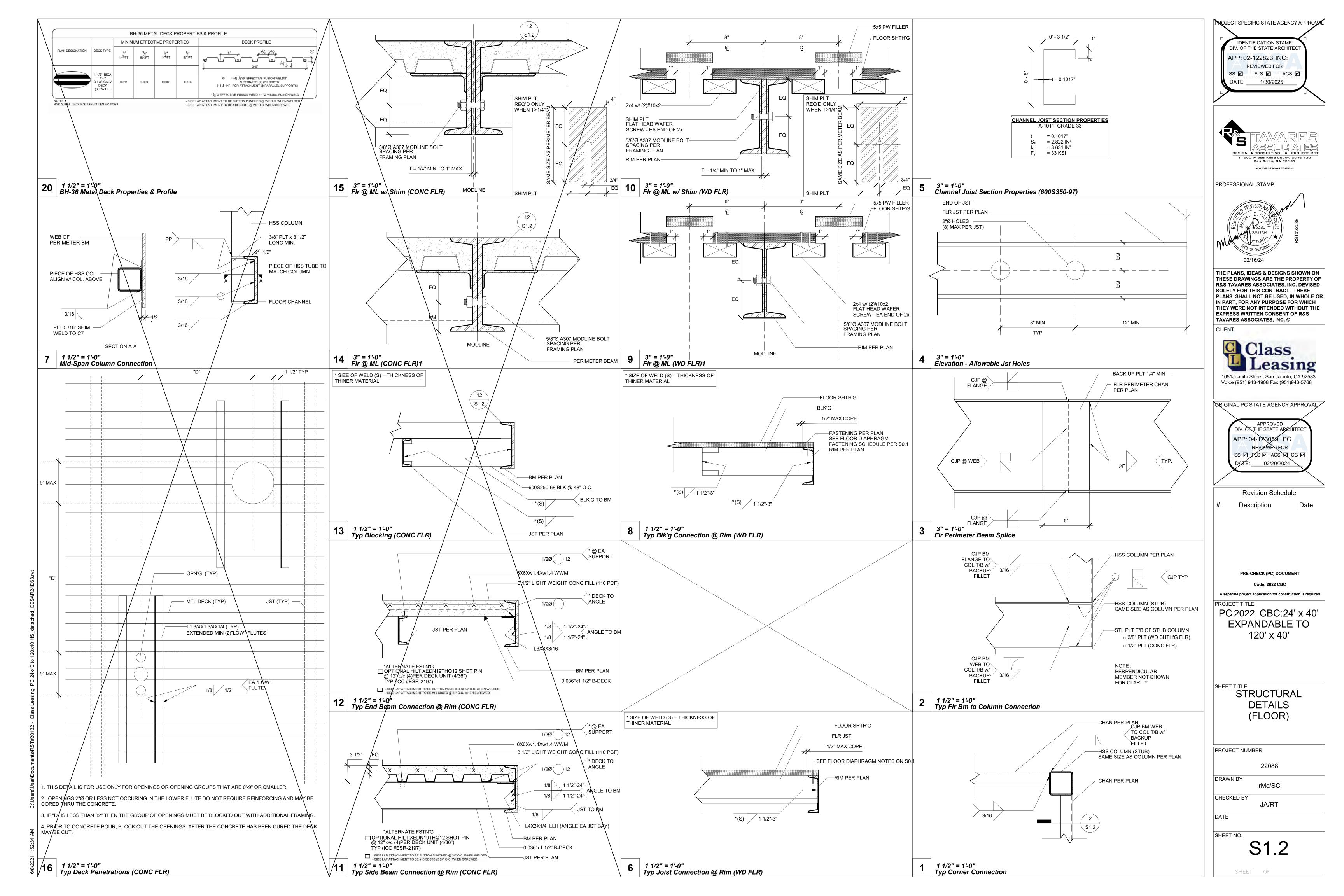
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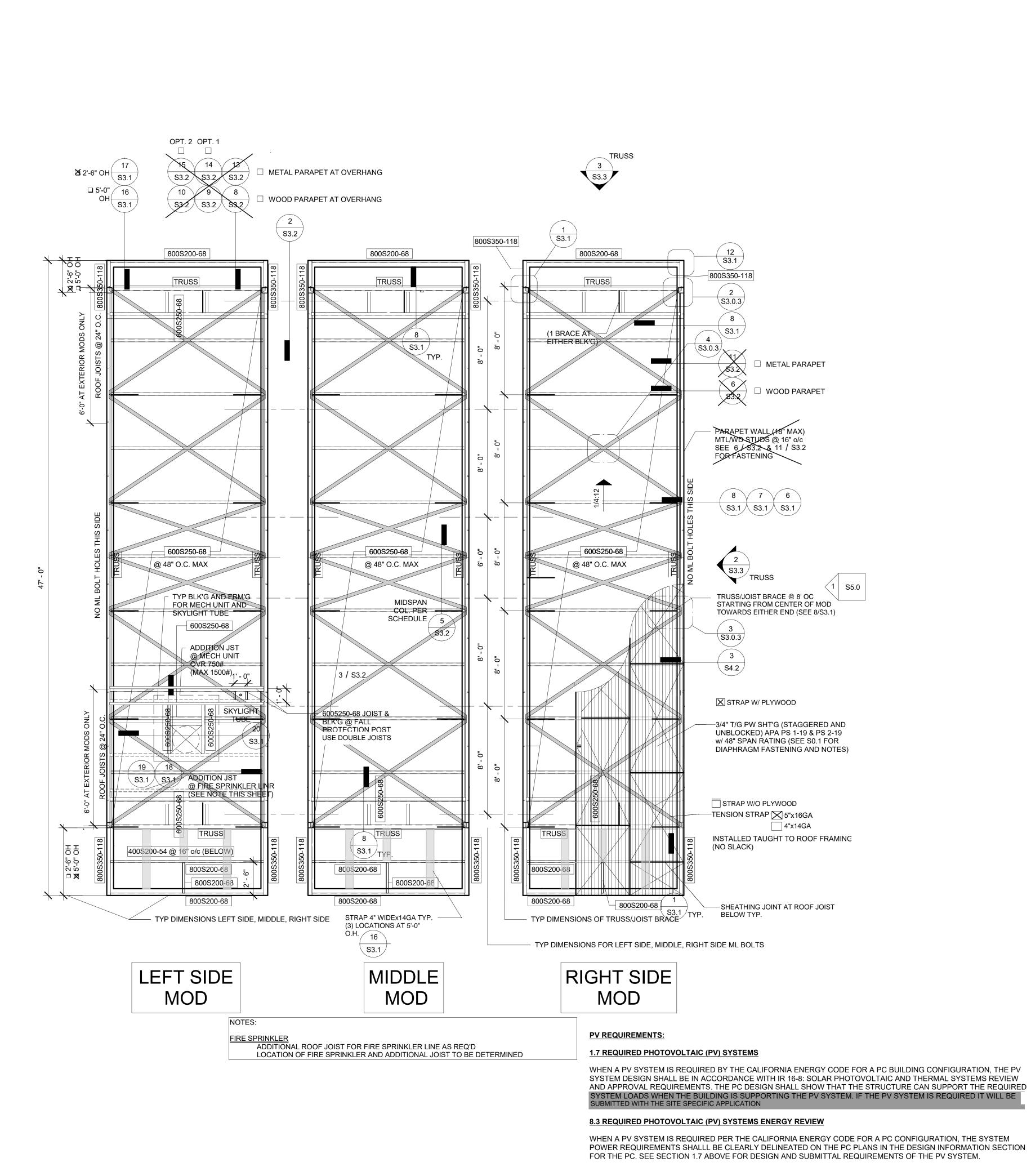
rMc/SM

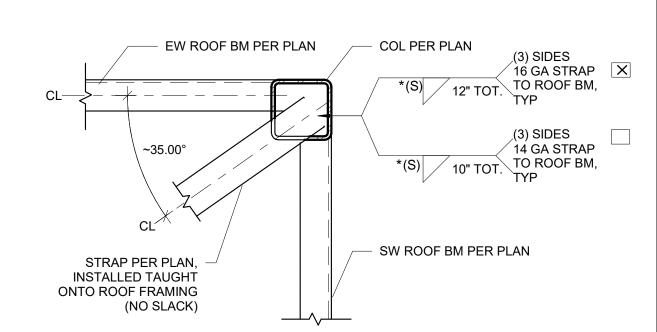
JA/RT

STRUCTURAL NOTES

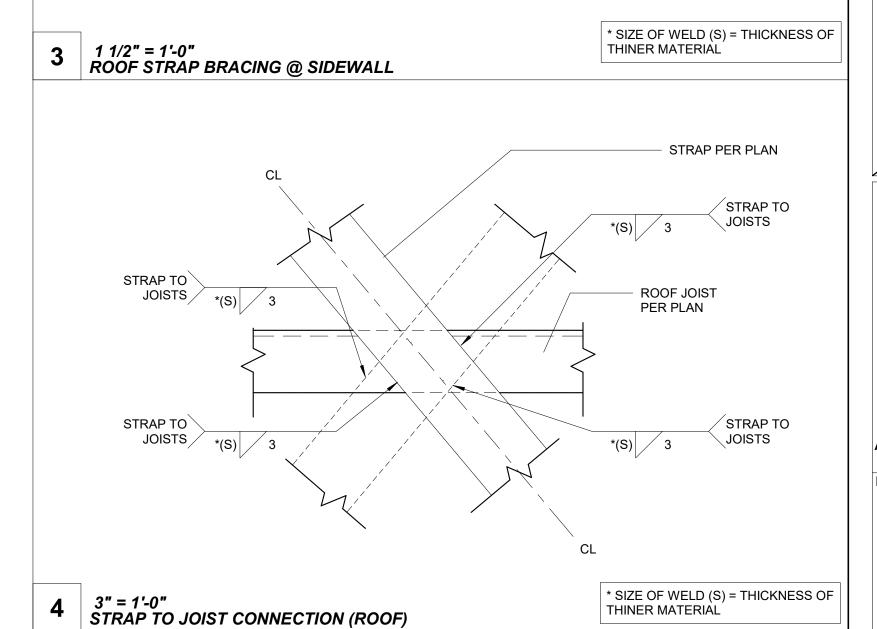


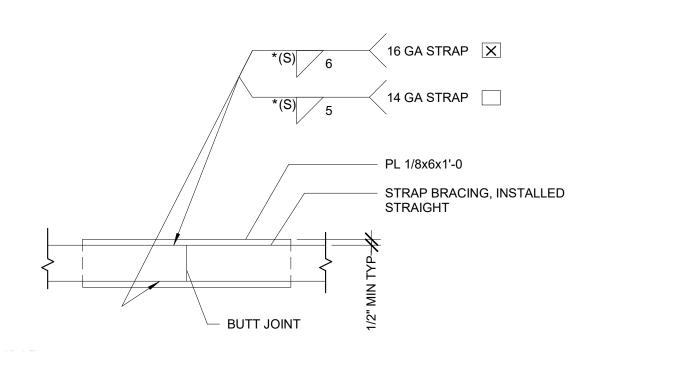






\* SIZE OF WELD (S) = THICKNESS OF 2 1 1/2" = 1'-0" ROOF BRACING STRAP @ ENDWALL THINER MATERIAL STRAP PER PLAN, INSTALLED TAUT ON TO TRUSS TOP CHORD (NO SLACK) SW TRUSS TOP CHORD JOIST REQ'D @ TRUSS BRACING LOCATIONS PER PLAN, TYP. (3) SIDES 16 GA STRAP \*(S) 12" TOT. TO ROOF BM, (3) SIDES 14 GA STRAP \*(S) 10" TOT. TO ROOF BM, TYP

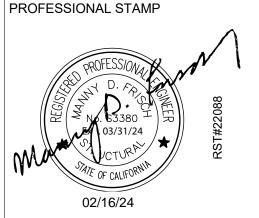




\* SIZE OF WELD (S) = THICKNESS OF 5 | 1 1/2" = 1'-0" STRAP SPLICE DETAIL (ROOF) THINER MATERIAL

ROJECT SPECIFIC STATE AGENCY APPROVAL IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-122823 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 1/30/2025

DESIGN ♦ CONSULTING ♦ PROJECT MG 11590 W BERNARDO COURT, SUITE 100 SAN DIEGO, CA 92127



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> Revision Schedule Description

PRE-CHECK (PC) ALTERNATE DOCUMENT **CODE: 2019 CBC** 

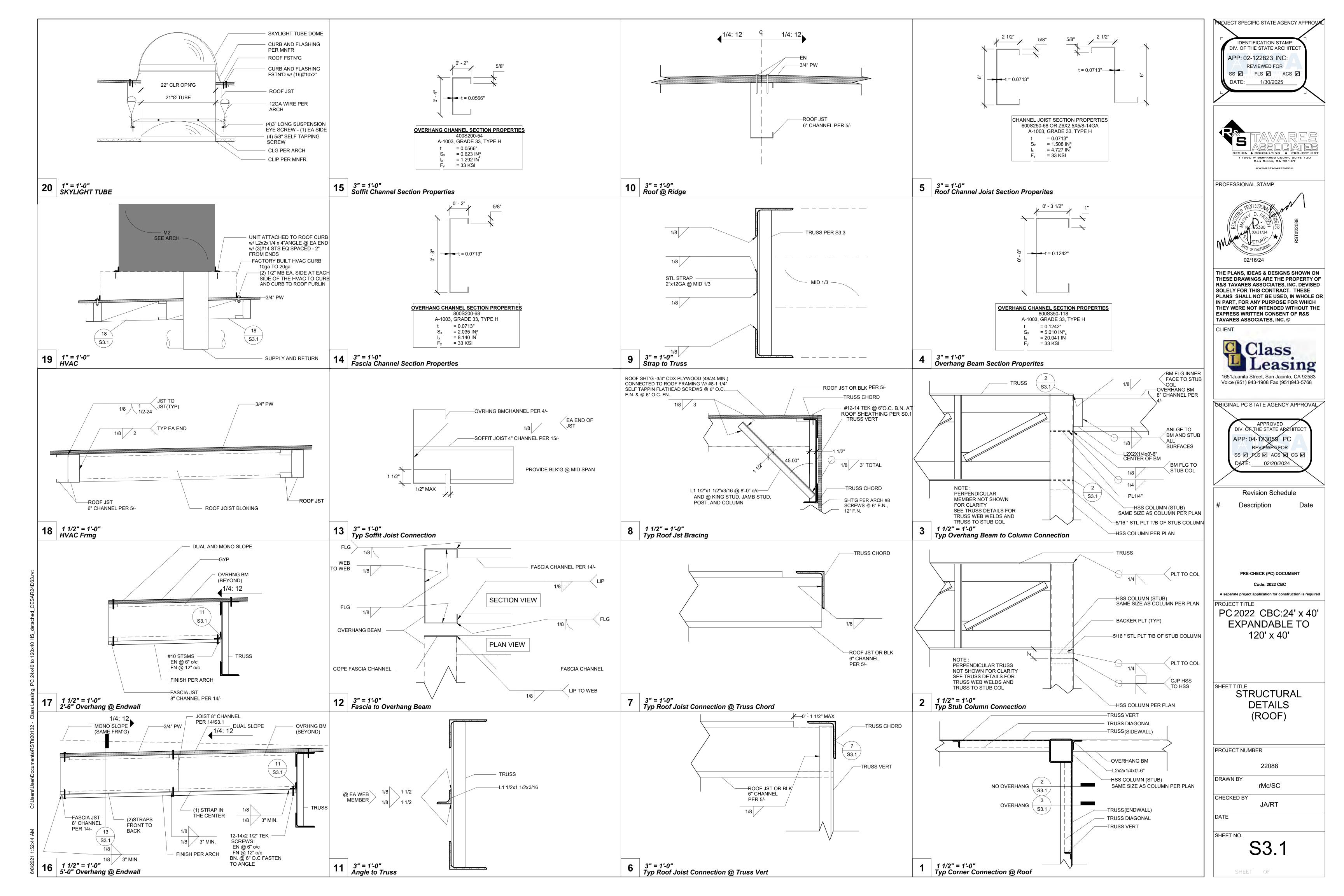
A separate project application for construction is required

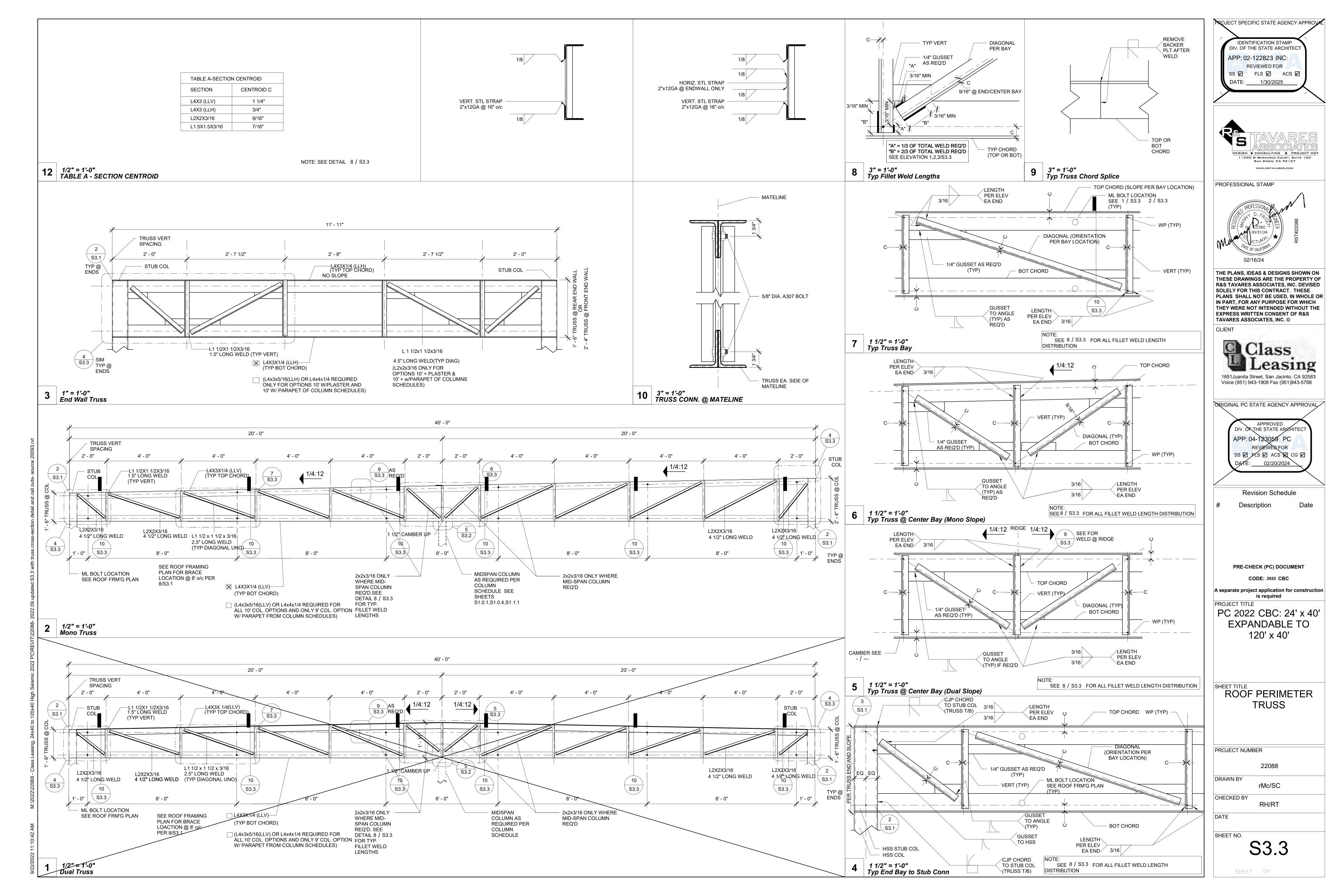
PC 2022 CBC:24' x 40' **EXPANDABLE TO** 120' x 40'

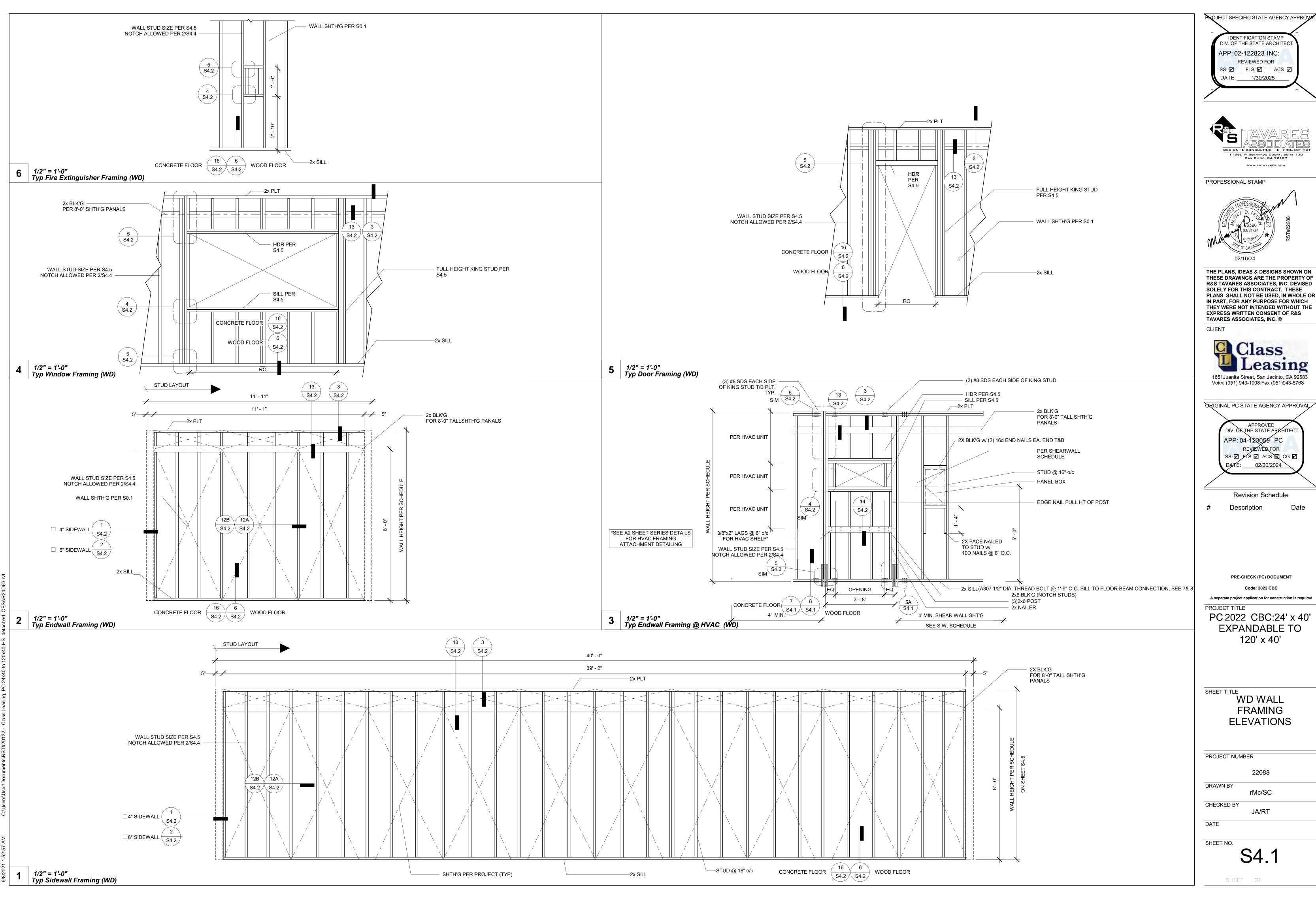
MONO SLOPE ROOF FRM'G PLAN CROSS-STRAP OPT.

PROJECT NUMBER 22088 DRAWN BY MJM CHECKED BY RH/rMc DATE 06/07/2021

SHEET NO. S3.0.3



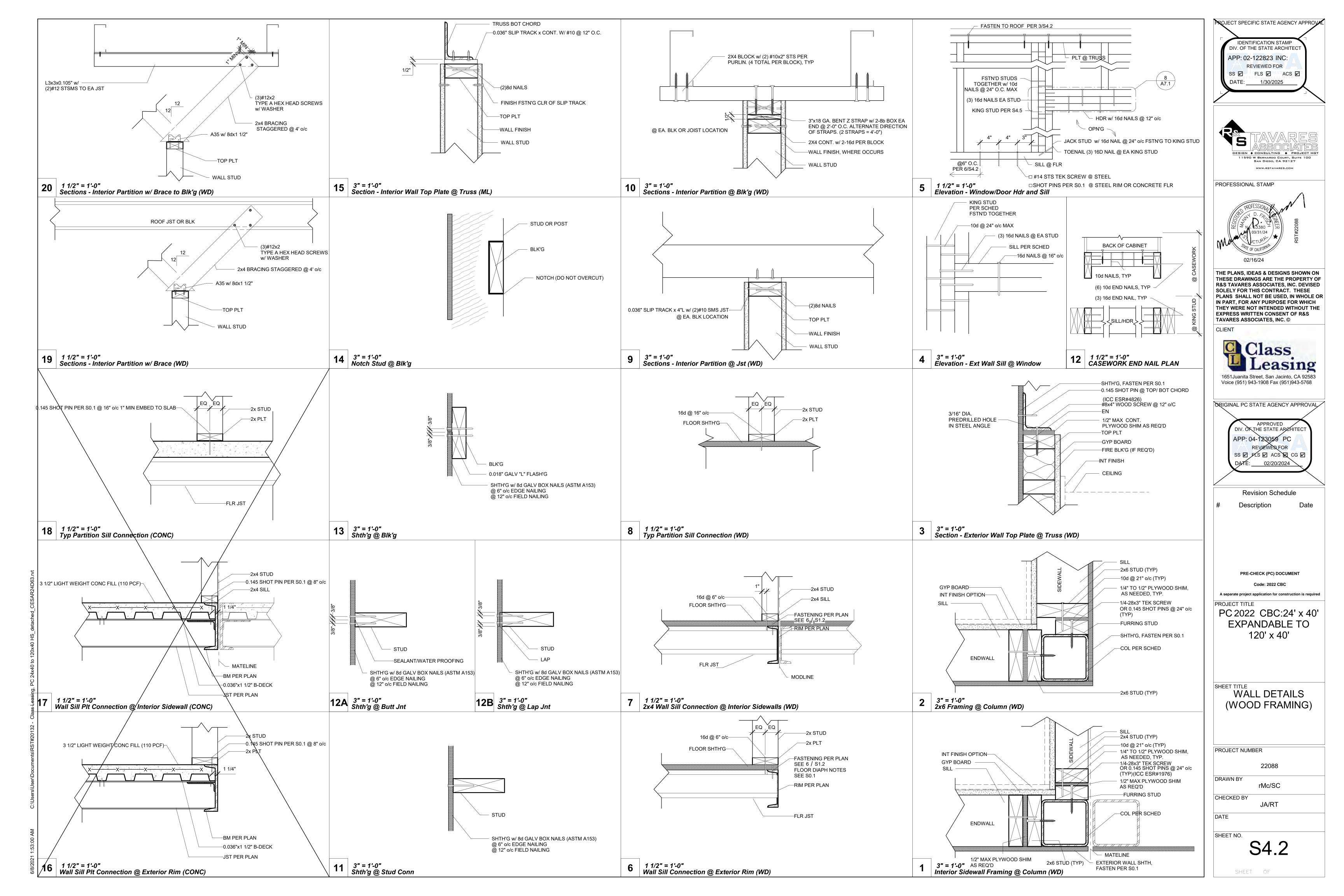


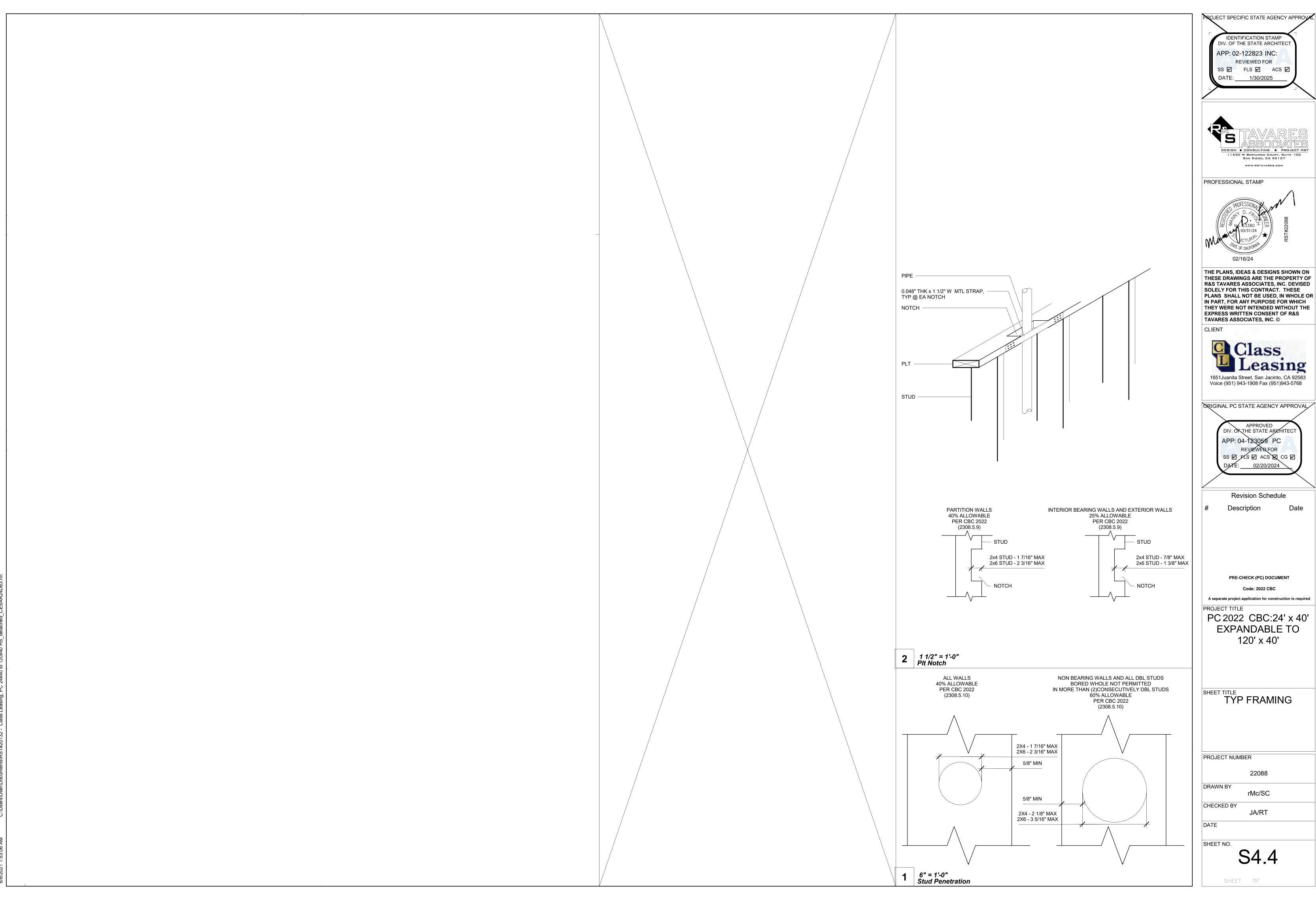




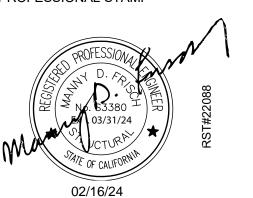
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ORIGINAL PC STATE AGENCY APPROVAL



				2x4 Interior	Wall Openi	ng Schedule				
COL HEIGHT	OPN'G SIZE	HDR				SILL		FULL H	HEIGHT KING	STUD
		Lumber	Number	Туре	Lumber	Number	Туре	Lumber	Number	Туре
9FT	3070	HF / SYP	1	#2	-	-	-	HF	2	#2
		DF / SYP	1	#2	-	-	-	DF	2	#2
	4070	HF / SYP	1	#2	-	-	-	HF	2	#2
		DF / SYP	1	#2	-	-	-	DF	2	#2
	6040	HF / SYP	2	#2	DF	2	#2	HF	2	#2
		DF / SYP	2	#2	DF	2	#2	DF	2	#2
	8040	HF/SYP	3	#2	HF	3	#2	HF	2	#2
		DF / SYP	3	#2	DF	3	#2	DF	2	#2
10FT	3070	HF/SYP	1	#2	-	-	-	HF	2	#2
		DF/SYP	1	#2	-	-	-	DF	2	#2
	4070	HF/SYP	1	#2	-	-		HF	2	#2
		DF / SYP	1	#2			-	DF	2	#2
	6040	HF/SYP	2	#2	HF	2	#2	HF	2	#2
		DF / SYP		#2	DF	2	#2	DF	2	#2
	8040	HF/SYP	3	#2	HF	3	#2	HF	2	#2
		DF/SYP	3	#2	DF	3	#2	DF	2	#2

		DF / SYP	3	#2	DF	3	#2	DF	2	#2			
										•			
	2x4 Interior Wall Framing Schedule												
-	COL HEIGHT		Typical Location 4ft From Building Corner						r				
			Lumber	Number	Туре	Spacing	Lumber	Number	Type	Spacing			
	9		HF	1	#2	16" O.C.	-	-	-	-			
			DF	1	#2	16" O.C.	-	-	-	-			
	10		HF	1	#2	16" O.C.	-		-	-			
			- DF	1	#2	16" O.C.	-	_	-	-			

COL HEIGHT	OPN'G SIZE	HDR				SILL		FULL HEIGHT KING STUD		
HEIGHT	SIZE	Lumber	Number	Туре	Lumber	Number	Туре	Lumber	Number	Туре
9FT	3070	HF / SYP	1	#2	HF	1	#2	HF	1	#2
		DF / SYP	1	#2	DF	1	#2	DF	1	#2
	4070	HF / SYP	1	#2	HF	1	#2	HF	1	#2
		DF / SYP	1	#2	DF	1	#2	DF	1	#2
	6040	HF / SYP	1	#2	HF	1	#2	HF	1	#2
		DF / SYP	1	#2	DF	1	#2	DF	1	#2
	8040	HF / SYP	1	#2	HF	1	#2	HF	2	#2
		DF / SYP	1	#2	DF	1	#2	DF	2	#2
10FT	3070	HF / SYP	1	#2	HF	1	#2	HF	1	#2
		DF / SYP	1	#2	DF	1	#2	DF	1	#2
	4070	HF/SYP	1	#2	HF	1	#2	HF	1	#2
		DF / SYP	1	#2	DF	1	#2	DF	1	#2
	6040	HF / SYP	1	#2	HF	11	#2	HF	2	#2
		DF / SYP	1	#2	DF	1	#2	DF	2	#2
	8040	HF/SYP	1	#2	HF	1	#2	HF	2	#2
			1	#2	DF	1	#2	DF	2	#2

	2x6 Exterior Wall Framing Schedule (SHTH'G FINISH)										
COL HEIGHT		Typical Location				4ft From Building Corner					
	Lumber	Number	Type	Spacing	Lumber	Number	Туре	Spacing			
9	HF	1	#2	16" O.C.	HF	1	#2	16" O.C.			
	DF	1	#2	16" O.C.	DF	1	#2	16" O.C.			
10	HF	1	#2	16" O.C.	HF	1	#2	16" O.C.			
	— DF	1	#2	16" O.C.	DF	1	#2	16" O.C.			

NOTE: SEE DETAIL 1 ON SHEETS A	2.1 - A2.6

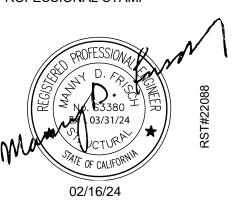
			2x6 Exter	rior wali Op	ening Sched	ule (PLASTEI	K FINISH)			
COL HEIGHT	OPN'G SIZE	HDR				SILL		FULL HEIGHT KING STUD		
		Lumber	Number	Туре	Lumber	Number	Type	Lumber	Number	Турє
9FT	3070	HF	1	#2	HF	1	#2	HF	1	#2
		DF	1	#2	DF	1	#2	DF	1	#2
	4070	HF	1	#2	HF	1	#2	HF	1	#2
		DF	1	#2	DF	1	#2	DF	1	#2
	6040	HF	1	#2	HF	1	#2	HF	2	#2
		DF	1	#2	DF /	1	#2	DF	1	#2
	8040	HF	2	#2	AF	1	#2	HF	2	#2
		DF	1	#2	DF	1	#2	DF	2	#2
10FT	3070	HF	1	#2	HF	1	#2	HF	2	#2
		DF	1	#2	DF	1	#2	DF	1	#2
	4070	HF	1	#2	HF	1	#2	HF	2	#2
		DF	1	#2	DF	1	#2	BE	1	#2
	6040	HF	1	#2	HF	1	#2	HF	2	#2
		DF	1	#2	DF	1	#2	DF	2	#2
	8040	HF	2	#2	HF	1	#2	HF	3	#2
		DF	1	#2	DF	1	#2	DF	2	#2

	2x6 Exte	rior Wall Fra	ming Sched	lule (PLASTEI	R FINISH)			
COL HEIGHT		Typical I	4ft From Building Corner					
	Lumber	Number	Туре	Spacing	Lumber	Number	Туре	Spacing
9	HF	1	#2	16" O.C.	HF	1	#2	16" O.C.
	DF	1	#2	16" O.C.	DF	1	#2	16" O.C.
10	HF	1	#2	16" O.C.	HE	1	#2	16" O.C.
	DF	1	#2	16" O.C.	DF	1	#2	16" O.C.

PROJECT SPECIFIC STATE AGENCY APPROVAL IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 02-122823 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 DATE: 1/30/2025

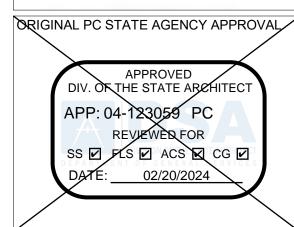


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Revision Schedule

Description

PRE-CHECK (PC) DOCUMENT

A separate project application for construction is required

PROJECT TITLE

PC 2022 CBC:24' x 40' **EXPANDABLE TO** 120' x 40'

SHEET TITLE

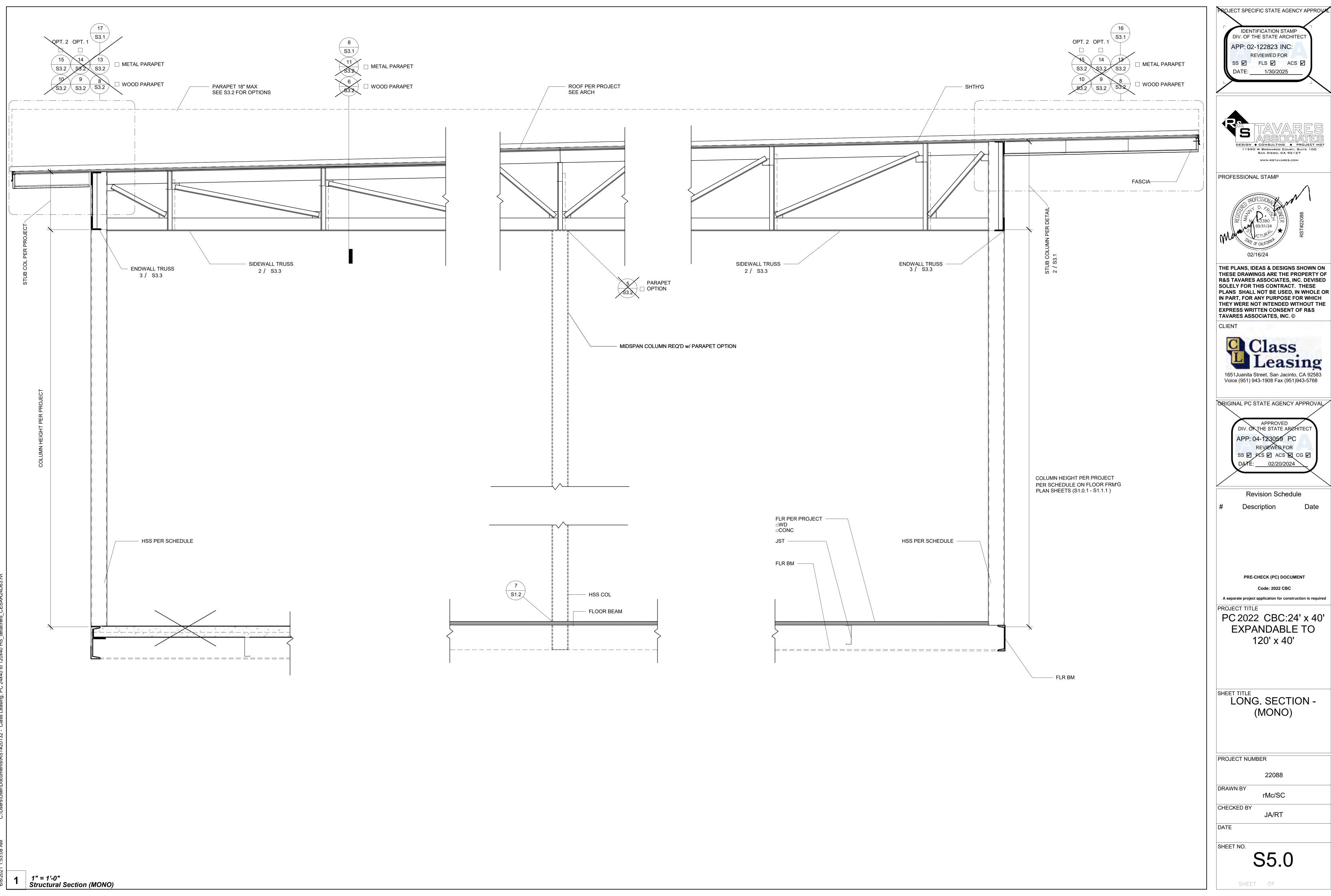
FRAMING SCHEDULES

PROJECT NUMBER 22088

CHECKED BY

SHEET OF

S4.5







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ORIGINAL PC STATE AGENCY APPROVAL

