# RELOCATABLE CLASSROOM BLDG.



# AT ROOSEVELT ELEMENTARY SCHOOL STOCKTON UNIFIED SCHOOL DISTRICT

**FILE NO**.: 39-69

#### **PROJECT ADDRESS**

776 S BROADWAY AVE. STOCKTON, CA 95206

#### PROJECT DESCRIPTION

THE PROJECT SHALL CONSIST OF THE FOLLOWING ITEMS HEREIN TO INCLUDE BUT NOT NECESSARILY LIMITED TO:

- (1) NEW 36'x40' PC APPROVED RELOCATABLE CLASSROOM ELOP BUILDING FROM STOCKPILE #04-123059 PURCHASED UNDER A SEPARATE CONTRACT BETWEEN THE DISTRICT AND CLASS LEASING.
- ASSOCIATED SITE WORK. SEE SPECIFICATION SECTION "MULTIPLE CONTRACT SUMMARY" FOR ADDITIONAL

#### MODULAR MANUFACTURER SHALL BE RESPONSIBLE FOR:

 CONSTRUCTION OF RELOCATABLE BUILDING OFF SITE AND DELIVERY TO SITE WELD PLATES WILL BE PROVIDED BY CLASS LEASING AND DELIVERED TO SITE CONTRACTOR PRIOR TO DELIVERY OF BUILDING.

- PREPARATION OF EXISTING SITE INCLUDING EXCAVATION AND REMOVAL OF SOIL IN PREPARATION FOR PIT-SET BUILDING WITH CONCRETE FOUNDATION AND ASSOCIATED SITE WORK INCLUDING UTILITIES.
- CONCRETE FOOTINGS AND REQINFORCEMENT AS INDICATED ON THE RELOCATABLE DRAWINGS.
- OFF-LOADING OF CLASSROOM RELOCATABLE MODULES FROM DELIVERY VEHICLES, INSTALLING ON CONCRETE FOUNDATION AND ALL REQUIRED CONNECTIONS AS INDICATED ON THE RELOCATABLE DRAWINGS.
- SIGNAGE AND EXTERIOR AND INTERIOR FINISHES AS INDICATED IN THE CONSTRUCTION DOCUMENTS
- CONNECTION AND START UP OF UTILITIES INCLUDING FIRE ALARM.
- SITE IMPROVEMENTS INCLUDING, PARKING LOT ADDITION, CONCRETE FLATW REWORK OF THE EXISTING LANDSCAPE AND IRRIGATION, UNDERGROUND UTILITIES AND ANY OTHER WORK AS INDICATED IN THE CONTRACT DOCUMENTS.

PRIOR TO INSTALLATION OF MODULAR BUILDINGS AT THE SITE PER STOCKPILE APPLICATION 04-123059, 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 AMERICAN WITH DISABILITIES ACT AND THE CALIFORNIA TITLE 24 ACCESSIBILITY

#### FLOOD ZONE INFORMATION

FLOOD ZONE DESIGNATION: ZONE X AREAS WITH REDUCED FLOOD RISK DUE TO LEVEE. FLOOD INSURANCE RATE MAP (FIRM) PANEL DESIGNATION: 0460F PANEL EFFECTIVE DATE OF (FIRM): OCTOBER 16, 2009 BASE FLOOD ELEVATION (BFE): NOT REQUIRED

#### APPLICABLE COMMUNITY ORDINANCE SECTION: NOT REQUIRED

NOTE TO CONTRACTOR:
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.

**AGENCY & FLOOD ZONE INFORMATION** 

LIGHTING CONTROLS ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED LIGHTING

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 ACCEPTANCE CRITERIA.

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

ACCEPTANCE TESTING

#### FIRST TIME RELOCATION DIRECTLY FROM THE STOCKPILE

THE FOLLOWING DOCUMENTS SHALL BE ON THE JOBSITE PRIOR TO INSTALLATION OF THE

- 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

- THE DSA APPLICATION NUMBER AND CBC EDITION UNDER WHICH THE BUILDING
- CONSTRUCTION WAS AUTHORIZED;
- THE MANUFACTURER OR BUILDER'S NAME THE SERIAL NUMBER;
- 4. THE DESIGN CLIMATE ZONES; THE DESIGN LIVE LOADS FOR THE ROOF AND FLOOR;
- 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 DSA BEFORE PROCEEDING WITH THE REPAIR WORK

#### **GOVERNING CODES**

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 ELECTRICAL CODE (CEC), PART 3, 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 (CEnC), 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

2022 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24, TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEM (CA AMENDED 2022 EDITION STANDARD FOR DRY CHEMICAL EXTINGUISHING SYSTEMS 2021 EDITION

STANDARD FOR WET CHEMICAL EXTINGUISHING SYSTEMS 2021 EDITION NFPA 24-22 STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE

MAINS AND THEIR APPURTENANCES (CA AMENDED) 2022 EDITION NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE (CA AMENDED) NFPA 80 STANDARD FOR FIRE DOORS AND OTHER OPENING PROTECTIVES 2019

STANDARD ON CLEAN AGENT FIRE EXTINGUISHING SYSTEM (CA AMENDED) 2018 EDITION AUDIBLE SIGNALING DEVICES FOR FIRE ALARM AND SIGNALING SYSTEMS, INCLUDING ACCESSORIES 2003 EDITION UL 521

STANDARD FOR HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS 1999 EDITION (R2005) UL 1971 STANDARD FOR SIGNALING DEVICES FOR THE HEARING IMPAIRED 2024

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.

#### PTN: 68676-293

- COPIES OF CCR T24, PARTS 1 THROUGH 5 AND 9, MUST BE KEPT ON SITE DURING
  - OF THE APPROVED PLANS AND SPECIFICATIONS AFTER THE WORK HAS BEEN LET SHALL BE MADE BY A CONSTRUCTION CHANGE DOCUMENT (CCD) 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
  - ALL TESTS TO CONFORM TO THE REQUIREMENTS OF CCR T24, PART 1 CAC, SECTIO
  - 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 TO THE
  - DSA SHALL BE NOTIFIED AT THE START OF CONSTRUCTION AND PRIOR TO THE PLACEMENT OF THE CONCRETE PER CCR T24, PART 1 CAC, SECTION 4-331.
  - THE DISTRICT (OWNER) AND APPROVED BY THE ARCHITECT. STRUCTURAL ENGINEER AND DSA. THE PROJECT INSPECTOR SHALL PROVIDE CONTINUOUS SPECIAL INSPECTION OF THE WORK. INSPECTOR SHALL BE IN ACCORDANCE WITH CCR T24, PART 1 CAC, SECTION 4-333 (b). THE DUTY OF THE INSPECTOR SHALL BE IN ACCORDANCE WITH CCR T24, PART 1 CAC, SECTION 4-321.
  - SUPERVISION OF CONSTRUCTION BY DSA SHALL BE IN ACCORDANCE WITH CCR T24, PART 1 CAC, SECTION 4-334.
  - CONTRACTOR, INSPECTOR, ARCHITECT, AND ENGINEERS SHALL SUBMIT VERIFIED REPORTS (FORM SSS-6) IN ACCORDANCE WITH CCR T24, PART 1 CAC, SECTION 4-336.
  - 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 TO CONSTRUCT THE SCHOOL BUILDING IN ACCORDANCE WITH TITLE 24 C.C.R. SHOULD ANY CONDITIONS DEVELOP NOT COVERED BT THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH SAID TITLE 24, C.C.R., A CHANGE ORDER DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK.
  - 12. DSA IS NOT SUBJECT TO ARBITRATION
  - 13. 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.
  - 14. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDUM OR A CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY . CCR T24, PART 1, CAC
  - 15. 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.
  - 16. SUBSTITUTIONS AFFECTING DSA REGULATED ITEMS SHALL BE SUBMITTED AS A CONSTRUCTION CHANGE DOCUMENT OR ADDENDA, AND SHALL BE APPROVED BY DSA PRIOR TO FABRICATION AND INSTALLATION.
  - 17. CONSTRUCTION CHANGE DOCUMENTS MUST BE SIGNED BY THE FOLLOWING: ARCHITECT OR ENGINEER OF RECORD
    - STRUCTURAL ENGINEER (WHEN APPLICABLE)
    - DELEGATED PROFESSIONAL ENGINEER
  - 18. MATERIALS AND THEIR INSTALLATION SHALL COMPLY WITH APPLICABLE CODES, STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
  - 19. CONSTRUCTION OPERATIONS SHALL COMPLY WITH CFC CHAPTER 33-FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION.
  - 20. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.
  - 22. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE

## STATEMENT OF GENERAL CONFORMANCE

APPLICATION NO:. <u>02-122792</u>

THIS DRAWING OR PAGE

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

HAVE BEEN PREPARED BY OTHER DESIGN PROFESSIONALS OR CONSULTANTS WHO ARE LICENSED AND/OR AUTHORIZED TO PREPARE

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

FOR INCORPORATION INTO THE CONSTRUCTION OF THIS PROJECT.

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.

ALL DRAWINGS OR SHEETS LISTED ON THE COVER OR INDEX

IS/ARE IN GENERAL CONFORMANCE AND HAVE BEEN COORDINATED. WITH THE PROJECT PLANS AND SPECIFICATIONS

11/19/2024 ARCHITECT/ PARTNER TETER, INC.

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

#### ARCHITECT'S STATEMENT

- <u> WIND DESIGN DATA [2022 CBC 1603A.1.4]</u>
- 1. ULTIMATE DESIGN WIND SPEED: 93 mph
- 2. RISK CATEGORY II 3. EXPOSURE - C
- 4. INTERNAL PREASSURE COEFFICIENT: +/-0.18

#### EARTHQUAKE DESIGN DATA [2022 CBC 1603A.1.5]

- 2.SEISMIC IMPORTANCE FACTOR 3. MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS
- 4. SITE CLASS D (DEFAULT)
- 5. DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS
- 6. SITE AMPLIFICATION 7. SEISMIC DESIGN CATEGORY = D

#### WIND / SEISMIC DESIGN DATA

#### PROJECT ARCHITECT TETER, INC. STOCKTON UNIFIED SCHOOL DISTRICT

701 N. MADISON STOCKTON, CA, 95202 (209) 933-7000

CONTACT: VICKIE BRUM

EMAIL: vbrum@stocktonusd.net

7535 N. PALM AVE., SUITE 201 **FRESNO, CA 93711** 

(559) 437-0887

**CONTACT: JAMES E. HICKMAN JR.** E-MAIL: jamie.hickman@teterae.com

**GENERAL NOTES** 

# CIVIL ENGINEER NORTHSTAR ENGINEERING GROUP, INC.

620 12TH STREET MODESTO, CALIFORNIA, 95354 T:(209) 524-3525

**CONTACT: CHRIS VANDERVEEN** EMAIL: CVanderVeen@nseng.net

#### LANDSCAPE ARCHITECT

1589 W. SHAW AVE., SUITE 5 FRESNO, CALIFORNIA, 93711 (559) 276 - 9495

**CONTACT: DAVID BIGLER** EMAIL: davebigler@aol.com

PROJECT DIRECTORY

**ELECTRICAL ENGINEER** 

**7535 N. PALM AVE., SUITE 201 FRESNO, CA 93711** 

(559) 437-0887 **CONTACT: JASON MARCH** E-MAIL: jason.march@teterae.com

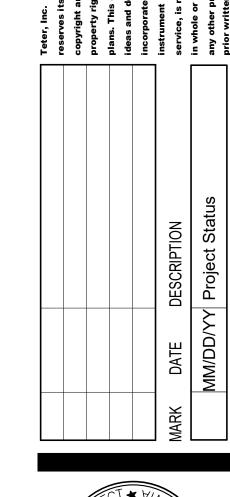
**CLASS LEASING** 1651 S JUANITA St.

**VICINITY MAP** 

**AREA MAP** 

SAN JACINTO, CALIFORNIA, 92581 (951) 943-1908 CONTACT: DREW SYLVIA E-MAIL: drew@classleasing.net

MODULAR BUILDING



**APP**: 02-122792

**IDENTIFICATION STAM** 

DIV. OF THE STATE ARCHITEC

**REVIEWED FOR** SS 🗹 FLS 🗹 ACS 🗹

APP: 02-122792 INC:





AD

ENERAL		RELOCATAE	BLE DRAWINGS: PC 04-123793
	COVER	A0.0	COVER SHEET
	SHEET INDEX	A0.0.1	PROJECT OPTIONS SCHEDULE
	OVERALL SITE PLAN - FIRE AUTHORITY	A0.1	TYPICAL KEY PLAN AND SCHEDULES, GEN NOTES
0100	OVERVIEW ONE PER PROPERTY OF THE PROPERTY OF T	A0.2	SIGNAGE AND SYMBOLS
		A0.2	DSA-103 T&I CONCRETE FLOORS
11.711			
IVIL	OOVER OUTET	A0.4	DSA-103 T&I PLYWOOD FLOORS
	COVER SHEET	A0.5	CALGREEN SPEC'S
	LEGEND AND ABBREVIATIONS	A0.6	CALGREEN CHECKLIST
	GENERAL NOTES AND SPECIFICATIONS	A0.7	CALGREEN CHECKLIST
	CONSTRUCTION DETAILS	A0.8	CALGREEN CHECKLIST
C1.5	CITY DETAILS	A1.1	36x40 FLOOR PLAN
C1.6	CITY DETAILS	A2.2	ARCHITECTURAL DETAILS (WOOD FRAMING PLASTER FINISH)
C2.1	TOPOGRAPHIC AND DEMOLITION PLAN	A2.9	ARCHITECTURAL DETAILS (FLOOR)
C2.2	TOPOGRAPHIC AND DEMOLITION PLAN	A3.1	SINGLE OCC. BATHROOM
C3.1	DIMENSION AND PAVING PLAN	A3.2	RCP
	DIMENSION AND PAVING PLAN	A3.2.1	CEILING NOTES
	GRADING AND DRAINAGE PLAN	A3.3	CEILING NOTES (T-GRID)
	GRADING AND DRAINAGE PLAN	A4.0.1	ROOF PLAN MONO SLOPE (STANDING SEAM)
	COMPOSITE UTILITY PLAN	A4.0.1	ROOF PLAN MONO SLOPE (STANDING SEAM)
	EROSION CONTROL PLAN	A4.1 A5.0	SIDEWALL ELEVATION
C6.2	EROSION CONTROL NOTES AND DETAILS	A5.1	ENDWALL ELEVATIONS
5		A5.2	INTERIOR ELEVATIONS
		A6.0	SECTION - STANDING SEAM (MONO)
ANDSCAPE		A6.2	SECTION
L100	LANDSCAPE DEMOLITION PLAN	A7.0	ADDITIONAL OPTION DETAILS
L101	IRRIGATION DEMOLITION PLAN	A7.1	ADDITIONAL OPTION DETAILS
L200	LANDSCAPE PLANTING PLAN	A7.2	ADDITIONAL OPTION DETAILS
L201	LANDSCAPE IRRIGATION PLAN	E0.1	ELECTRICAL GENERAL NOTES
L202	IRRIGATION LEGEND AND NOTES	E1.2	ELECTRICAL PLAN 36x40
L300	LANDSCAPE AND IRRIGATION NOTES	E1.3	ELECTRICAL SCHEDULE 36x40
L301	LANDSCAPE AND IRRIGATION DETAILS	M0.1	MISCELLANEOUS NOTES & DETAILS
L302	LANDSCAPE AND IRRIGATION DETAILS	M0.2	MISCELLANEOUS NOTES & DETAILS
	EMADOGATE AND INTROMPETATES	M2.9	24'x40' T24 CZ 14 (WALL AC)
		M2.10	24'x40' T24 CZ 14 (WALL AC)
RCHITECTU	DAI		,
		M2.11	24'x40' T24 CZ 14 (WALL AC)
	LEGENDS AND ABBREVIATIONS	M2.12	24'x40' T24 CZ 14 (WALL AC)
	SITE PLAN	M2.13	24'x40' T24 CZ 14 (WALL AC)
	DEMO ENLARGED SITE PLAN	M2.14	24'x40' T24 CZ 14 (WALL AC)
	PROPOSED ENLARGED SITE PLAN	M3.3	ENVELOPE AND NOTES
	SITE DETAILS	M6.1	MECHANICAL CEILING PLAN 36x40
A111	SITE DETAILS	P1.0	TYPICAL PLUMBING DETAILS
A112	SITE DETAILS	F2.10	CONCRETE FOUNDATION PLAN
A200	FLOOR PLAN	F2.20	CONCRETE FOUNDATION DETAILS
	PLUMBING FLOOR PLAN	F2.22	CONCRETE FOUNDATION DETAILS
	VENTING FLOOR PLANS	F2.23	CONCRETE FOUNDATION DETAILS
	EXTERIOR ELEVATIONS	S0.1	STRUCTURAL GEN NOTES
	SIGNAGE DETAILS	\$1.0.4	WD SHTH'G FLR FRAMING PLAN CROSS-STRAP OPT.
	EXTERIOR DETAILS	\$1.0.4 \$1.2	STRUCTURAL DETAILS (FLOOR)
	EXTERIOR DETAILS  EXTERIOR DETAILS	\$1.2 \$3.0.3	MONO SLOPE ROOF FRM'G PLAN CROSS-STRAP OPT.
	LATENION DETAILS		
1		S3.1	STRUCTURAL DETAILS (ROOF)
		S3.3	ROOF PERIMETER TRUSS
LECTRICAL		S4.1	WD WALL FRAMING ELEVATIONS
	ELECTRICAL SITE PLAN	S4.2	WALL DETAILS (WOOD FRAMING)
	ENLARGED POWER & LIGHTING PLAN	S4.4	TYP FRAMING
E400	ENLARGED SIGNAL PLAN	S4.5	FRAMING SCHEDULES
E500	ENLARGED FIRE ALARM PLAN	S5.0	LONG. SECTION - MONO
E600	ELECTRICAL DETAILS	ALT-01	FLOOR PLAN & REFLECTED CEILING PLAN
E700	SINGLE LINE DIAGRAM	ALT-02	ELECTRICAL PLAN & MECHANICAL PLAN
E710	FIRE ALARM RISER DIAGRAM & CALCULATIONS	ALT-03	ROOF PLAN & PLUMBING PLAN
	ELECTRICAL SCHEDULES, LEGENDS, AND NOTES	ALT-04	FIRE ALARM
	CALIFORNIA ENERGY COMPLIANCE FORMS	ALT-05	INTERIOR ELEVATIONS
L300	ONEH ORIGINA ENERGY GOINE LIMINGET ORINIO	ALT-05	EXTERIOR ELEVATIONS  EXTERIOR ELEVATIONS
		ALT-D1	SCHEDULES AND DETAILS
		63	

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT

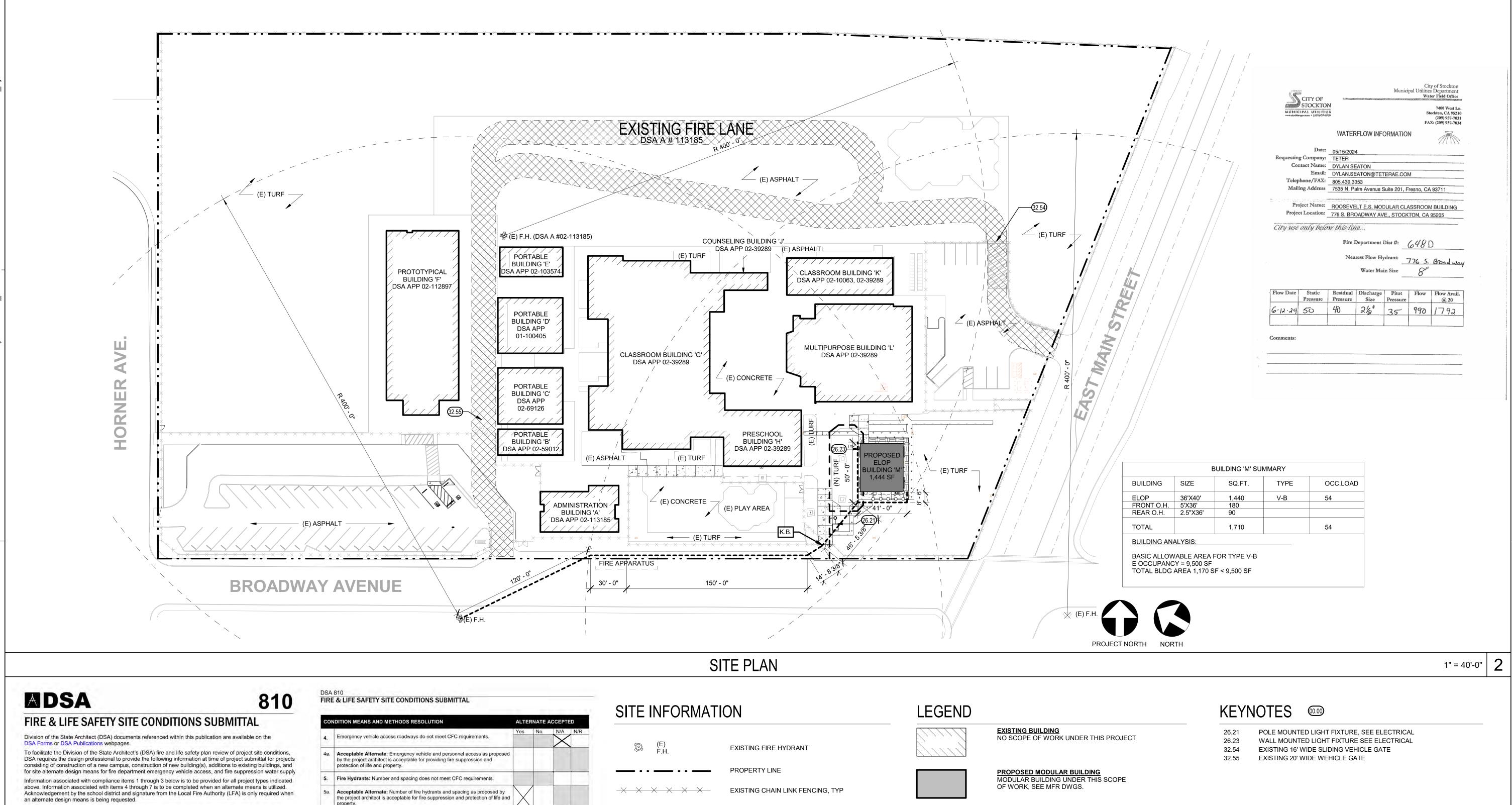
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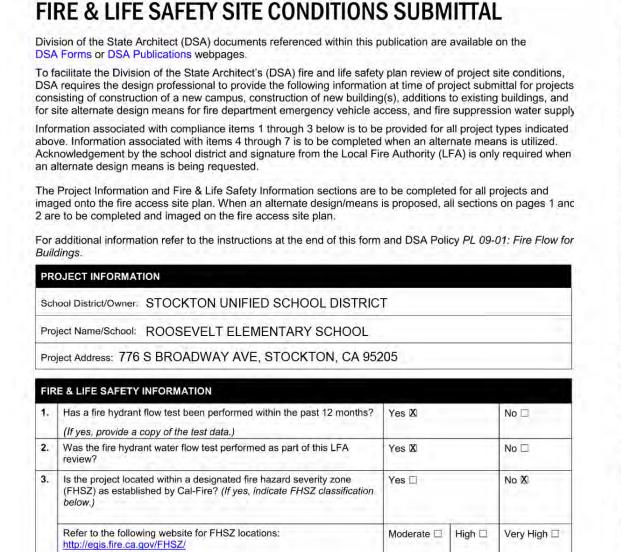


STOCKTON UNIFIED SCHOOL DISTRIC-ROSEVELT E.S. ELOP
776 S BROADWAY AVE
STOCKTON, CA
DRAWING TILE
SHEET INDEX

23-12907.00

G001



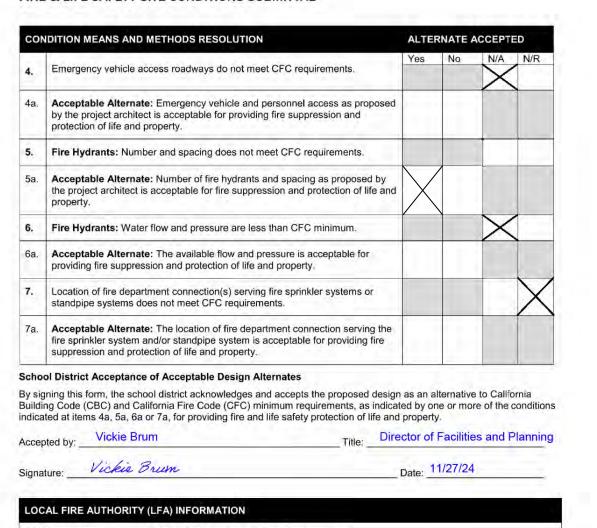


Wildland Interface Area (WIFA) (If any designations are checked, project design must meet the

DEPARTMENT OF GENERAL SERVICES

requirements of CBC Chapter 7A.)

DGS DSA 810 (revised 12/29/20) DIVISION OF THE STATE ARCHITECT



Phil.Simon@stocktonca.gov

Phil Simon

NOTE: Local Fire Authority and Stockton Unified School District acknowledges and accepts the "Acceptable Alternate". Fire hydrant exceeds 400' from proposed building, 800' is allowed by LFA.

Date: 11/4/2024

Page 2 of 4
DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA

Work Email:

STATE OF CALIFORNIA

DGS DSA 810 (revised 12/29/20) DIVISION OF THE STATE ARCHITECT

CHAIN LINK FENCING, TYP. ACCESSIBLE PATH OF TRAVEL -----(2022 C.B.C. SECTIONS 11B - 202.4 AND 11B - 401) EGRESS PATH OF TRAVEL (2022 C.B.C. SECTIONS 11B - 202.4 AND 11B - 401) FIRE DEPARTMENT PEDESTRIAN ACCESS FROM FIRE -----DEPARTMENT ROADWAY TO PROPOSED BUILDING EXISTING FIRE LANE DSA A #113185 K.B. KNOX BOX @ CENTER 5'-0" ABV. GRADE

PROPOSED CONCRETE PAVING, SEE CIVIL FOR GRADING, CONSTRUCTION, ISOLATION, CONTRACTION JOINTS

PROPOSED TURF AREA SEE LANDSCAPE DRAWINGS NEE LT I

IDENTIFICATION STAME DIV. OF THE STATE ARCHITE

REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹

APP: 02-122792 INC:

DATE: \_

23-12907.00

(TREES AND PLATING NOT SHOWN FOR CLARITY) LFA Agency Name: City Of Stockton, Fire Prevention LFA Review Official: Phil Simon Assistant Fire Marshal Work Phone: 209-937-8271

# CIVIL IMPROVEMENT PLANS FOR

# ROOSEVELT ELEMENTARY SCHOOL

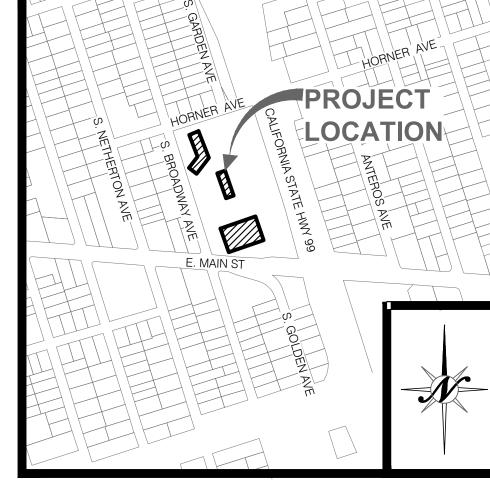
**CALIFORNIA** 

STOCKTON,

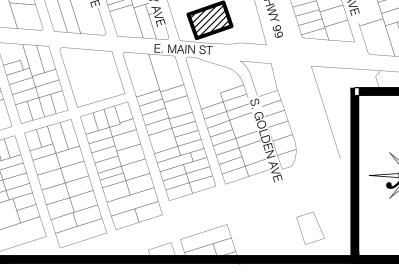


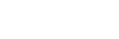


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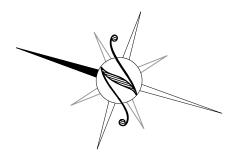


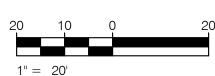




# **BENCHMARK**

BRASS DISK MARKING COS MONUMENT STAMPED "5S-8" IN MONUMENT WELL AT THE INTERSECTION APPROXIMATE CENTERLINES OF MAIN ST AND DAVID AVE..





## CONTACTS

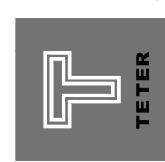
A. REGULATORY AGENCY:	DIVISION OF THE STATE ARCHITECT-SACRAMENTO 1102 Q STREET, SUIT 5200 SACRAMENTO, CA 95811 T: (916) 445-8730
B. OWNER/DEVELOPER:	STOCKTON UNIFIED SCHOOL DISTRICT 56 S LINCOLN ST, STOCKTON, CA. 95203 T: (209) 933-7000
C. PROJECT LOCATION:	ROOSEVELT ELEMENTARY SCHOOL 776 S. BROADWAY AVENUE, STOCKTON, CA 95205
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

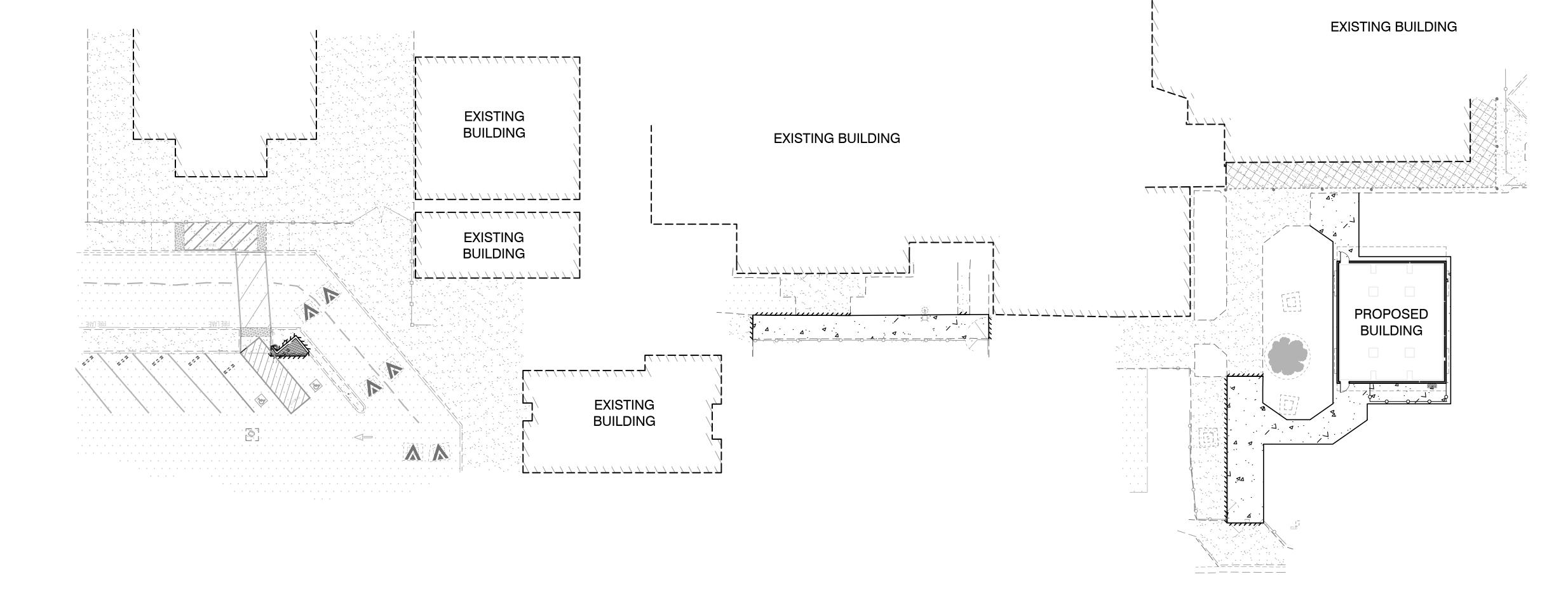
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CIVIL IMPROVEMENT PLANS FOR ROOSEVELT ELEMENTARY SCHOOL



<u>-</u>

DOUBLE CHECK DETECTOR ASSEMBLY

FIRE HYDRANT

MONITORING WELL

_					
Α	BB	RE	VIA'	TIO	NS

± @	PLUS OR MINUS (NOT EXACT) AT	IV JB	IRRIGATION VALVE JUNCTION BOX
Ø AB	DIAMETER AGGREGATE BASE	JP JT	JUNCTION POLE JOINT TRENCH
ABDN AC	ABANDONED ACRE, ASPHALT CONCRETE	JP L, LT	JOINT POLE LEFT
VC ACP	AIR CONDITIONING ASBESTOS CEMENT PIPE	L= LF	LENGTH (CURVE) LINEAL/LINEAR FEET
ACM AD	ASBESTOS CONTAINING MATERIAL AREA DRAIN	LAT LIP	LATERAL LIP OF GUTTER
NDA NG	AMERICANS W/ DISABILITIES ACT	LN LP	LANE
\GG	ATRIUM GRATE AGGREGATE	FH	LIGHT POLE, LOW POINT FIRE HYDRANT
ALGN ALT	ALIGNMENT ALTERNATE	LS LSA	LANDSCAPE LANDSCAPE ARCHITECT
APN ARV	ASSESSORS PARCEL NUMBER AIR RELEASE VALVE	MA MAX	MEDICAL AIR MAXIMUM
ASB ASPH	AGGREGATE SUBBASE ASPHALT	MEP MH	MECHANICAL/ELECTRICAL/PLUMBING MAN/MAINTENANCE HOLE
ASR BC	AUTOMATIC SPRINKLER RISER BEGIN CURVE	MIN MIPT	MINIMUM MALE IRON PIPE THREAD
BDRY BFP	BOUNDARY  BACK FLOW PREVENTOR	MJ MPVC	MECHANICAL JOINT MIDPOINT OF VERTICAL CURVE
BK BLDC	BOOK BUILDING CORNER	MON MS	MONUMENT MOW STRIP
BLDG	BUILDING	MW	MONITORING WELL
BMP BM	BEST MANAGEMENT PRACTICES BENCHMARK	N (N)	NORTH, NORTHING COORDINATE NEW
30 30D	BLOW OFF BOTTOM OF DOCK	NDS NIC	NDS INC. (MANUFACTURER) NOT INCLUDED/IN CONTRACT
BOL BOW	BOLLARD BACK OF WALK	NO NSE	NUMBER NORTHSTAR ENGINEERING
BSW BS	BACK OF SIDEWALK BEGIN STRIPING	NTS OC	NOT TO SCALE ON CENTER
BSL BVC	BUILDING SETBACK LINE BEGIN VERTICAL CURVE	OG OHE	ORIGINAL GROUND / GRADE OVERHEAD ELECTRICAL
BW C	FINISHED GRADE AT BOTTOM OF WALL CIVIL	O.R. (P)	OFFICIAL RECORDS PROPOSED
CC	CONCRETE	P, PAV	PAVEMENT
CB CBL	CATCH BASIN CABLE	PB PCC	PULL BOX POINT OF COMPOUND/CONVERSE CURVATURE
CDS CG/C&G	CONTINUOUS DEFLECTION CURB AND GUTTER	PCC PE	PORTLAND CEMENT CONCRETE PLAIN END
CG&S Cl	CURB, GUTTER & SIDEWALK CAST IRON/CURB INLET	PED PERF	PEDESTRIAN PERFORATED
CIP OR CL	CAST IRON PIPE CENTER LINE	PG PG&E	PAGE PACIFIC GAS AND ELECTRIC
CLR CMH	CLEAR CABLE MAINTENANCE HOLE	PH PID	POTHOLE POINT ID
CMN	COMMUNICATION	PIV	POST/PRESSURE INDICATOR VALVE
CMP CO	CORRUGATED METAL PIPE CLEAN OUT	PL PM	PROPERTY LINE PARKING METER, PARCEL MAP
COMP. CONC OR CC	COMPACTION CONCRETE	PMH PO	POWER MANHOLE PUSH-ON
CONST	CONSTRUCTION OR CONSTRUCT CONFORM TO EXISTING	POC POI	POINT ON CURVE/POINT OF CONNECTION POINT OF INTERSECTION
COS OR C.O.S CR	CITY OF STOCKTON CURB/CROWN	PP PRC	POWER POLE POINT OF REVERSE CURVATURE
CT. CU	COURT/CUBIC CULVERT	PROF PRV	PROFILE PRESSURE REDUCING VALVE
CV	CHECK VALVE	PRUE	PRIVATE UTILITY EASEMENT
CY )=	CUBIC YARD DELTA (CURVE)	PT PT&T	POINT PACIFIC TELEPHONE & TELEGRAPH
OCDA DEMO	DOUBLE CHECK DETECTOR ASSEMBLY DEMOLISH	PUE PVC	PUBLIC UTILITY EASEMENT POLYVINYL CHLORIDE PIPE
DEPT DI	DEPARTMENT DROP/DRAIN INLET/DUCTILE IRON	R R=	RIGHT RADIUS
DIA DIP	DIAMETER DUCTILE IRON PIPE	RC RCP	RELATIVE COMPACTION REINFORCED CONCRETE PIPE
DOM, (DOM) DR	DOMESTIC DRIVE	RD RJ	ROAD, RELATIVE DENSITY RESTRAINED JOINT
DS DTL	DOWNSPOUT DETAIL	RP RPPA	RADIUS POINT REDUCED PRESSURE PRINCIPLE ASSEMBLY
OW	DOMESTIC WATER/DRYWELL/DEWATERING	RSC	RECEIVING AND SUPPORT CENTER
DWG DWY	DRAWING DRIVEWAY	RV RW	RESISTANCE VALUE RECYCLED WATER
DYL E	DOUBLE YELLOW LINE EAST/EASTING COORDINATE/ELECTRIC	RW, R/W, ROW RWL	RIGHT-OF-WAY RAINWATER LEADER
E) EC	EXISTING END CURVE	S S.A.D.	SOUTH, SLOPE SEE ARCHITECTURAL DRAWINGS
EG EL, ELEV	EXISTING GRADE ELEVATION	SBL SC	SETBACK LINE, SOLID BLACK LINE SAN JOAQUIN COUNTY
ELB ELC/ELEC	ELECTRIC BOX ELECTRICAL	SCO SD	SEWER CLEANOUT STORM DRAIN
ELV EM	ELECTRIC VAULT ELECTRIC METER	SDB SDCB	STORM DRAIN BASIN STORM DRAIN CATCH BASIN
EMH	ELECTRIC MAINTENANCE HOLE	SDCO	STORM DRAIN CLEAN OUT
EP ES	EDGE OF PAVEMENT END STRIPING	SDDW SDI	STORM DRAIN DEWATERING STORM DRAIN INLET
ESMT OR EASE EVC	EASEMENT END OF VERTICAL CURVE	SDFM SDMH	STORM DRAIN FORCE MAIN STORM DRAIN MAINTENANCE HOLE
EX OR EXIST EVA	EXISTING EMERGENCY VEHICLE ACCESS	S.E.D. SG	SEE ELECTRICAL DRAWINGS SUB-GRADE
F) <sup>-</sup> A	FUTURE FIRE ALARM	SF SHT	SILT FENCE SG SUBGRADE SHEET
FAB FC, F/C	FIRE ALARM BOX FACE OF CURB	SIM SL	SIMILAR STREET LIGHT
-D	FOUND/FRENCH DRAIN	S.L.D.	SEE LANDSCAPE DRAWINGS
DC E	FIRE DEPARTMENT CONNECTION FENCE	SLB SMH	STREET LIGHT BOX SIGNAL MANHOLE
ES F	FLARED END SECTION FINISH FLOOR	S.M.D. SNS	SEE MECHANICAL DRAWINGS STREET NAME SIGN
FE G	FINISH FLOOR ELEVATION FINISH GRADE	SP S.P.D	SERVICE POLE SEE PLUMBING DRAWINGS
H IPT	FIRE HYDRANT FEMALE IRON PIPE THREAD	SRL SS	SOLID RED LINE SANITARY SEWER
::L :LG	FLOW LINE/FLANGE FLANGE	SSCO SSFM	SANITARY SEWER CLEAN OUT SANITARY SEWER FORCE MAIN
:M :OUND	FLOWMETER/FORCE MAIN FOUNDATION	SSMH SSPS	SANITARY SEWER MAN/MAINTENANCE HOLE SANITARY SEWER PUMP STATION
S SR	FINISHED SURFACE, FIRE SERVICE FIRE SPRINKLER RISER	ST STA	SANITARY SEWER POMP STATION  STREET, SEPTIC TANK  STATION
T	FOOT, FEET	STD	STANDARD
W	FIRE WATER GAS, GROUND	STL S/W, SW	STEEL SIDEWALK
AB AE	GRADE BREAK GROUND ELEVATION	SWL T	SOLID WHITE LINE, SWALE TELEPHONE
al aM	GALVANIZED IRON GAS METER	TC TBC	TOP OF CURB TOP BACK OF CURB
ar ARD	GRATE GROUND	TCP TD	TEMPORARY CONTROL POINT TRENCH DRAIN
AS GUY	GROUND SHOT ELEVATION GUY/GUIDE LINE	TEL TELB	TELEPHONE TELEPHONE BOX
θV	GAS VALVE	TELV	TELEPHONE VAULT
120 1B	WATER HOSE BIB	TEMP TFC	TEMPORARY TOP FACE OF GRATE
HMA HORIZ	HOT MIX ASPHALT HORIZONTAL	TG TH	TOP OF GRATE THRESHOLD
HT HP	HEIGHT HIGH POINT	THK TI	THICK TRAFFIC INDEX
" HPS HT	HIGH PRESSURE SODIUM/SYSTEM HEIGHT	TMH TOD	TELEPHONE MAINTENANCE HOLE TOP OF DOCK
HWY	HIGHWAY	TOW	TOP OF WALL
HWL BX	HIGH WATER LINE IRRIGATION BOX	TP TPE	TELEPHONE POLE, TEST PIT TREE PLANTING EASEMENT
CB CV	IRRIGATION CONTROL BOX IRRIGATION CONTROL VALVE	TS TSB	TRAFFIC SIGNAL TRAFFIC SIGNAL BOX
HW M	IRRIGATION HEADWALL IRRIGATION METER	TSCE TSP	TEMPORARY STABILIZED CONSTRUCTION ENTRA TRAFFIC SIGNAL POLE
MH D	IRRIGATION MAINTENANCE HOLE INSIDE DIAMETER	TV TVR	TELEVISION CABLE TV RISER
NV NST	INSTALL	TYP U/UTIL/UTL	TYPICAL UTILITY
INCL	I HAOTALE	■ U/UTIL/UTL	O TIETT

UNDERGROUND
UNLESS OTHERWISE NOTED

IRRIGATION STAND PIPE



UNLESS OTHERWISE SPECIFIED

COMMUNICATION CATV (ORANGE)

PROPOSED EXCAVATION (WHITE)

GAS, OIL, STEAM (YELLOW)

TEMPORARY SURVEY MARKINGS (MAGENTA)

RECLAIMED WATER IRR. SLURRY (PURPLE)

SEWER/STORM DRAIN (GREEN)

WATER (BLUE)

ELECTRICAL (RED)

VERTICAL CURVE VITRIFIED CLAY PIPE

WATER METER BOX WASHOUT AREA

WELDED WIRE FABRIC

WATER SERVICE WATER VALVE

WATER WELL

YARD

VERTICAL

WITH WALL

WEST, WATER

WATER BOX WATER METER

USA-G

USA-M

USA-O

USA-P

USA-W USA-Y



**IDENTIFICATION STAMP** DIV. OF THE STATE ARCHITEC APP: 02-122792 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 DATE:

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			MARK DATE D	





CIVIL IMPROVEMENT PLANS FOR ROOSEVELT ELEMENTARY SCHOOL

23-12907 DRAWING

620 12th Street

• CIVIL ENGINEERING • SURVEYING • PLANNING •

Modesto, CA 95354

APP: 02-122792 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 (209) 524-3525 Phone (209) 524-3526 Fax DATE: \_ 12/4/2024

IDENTIFICATION STAMP

DIV. OF THE STATE ARCHITEC

ENGINEERING GROUP'S TYPICAL GENERAL NOTES AND SOME NOTES MAY NOT BE APPLICABLE TO THIS

ALL IMPROVEMENTS SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE FOLLOWING: CITY OF STOCKTON ("CITY") STANDARD SPECIFICATIONS AND THE LATEST FDITION 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.

CONTRACTOR SHALL BE AWARE THAT THE FOLLOWING NOTES LISTED BELOW ARE NORTHSTAR

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 NORTHSTAF ENGINEERING GROUP, INC. ("ENGINEER") 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 EXTRA 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 SITE 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 AND 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 TRAFFIC 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.) AND SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY INTERIM TRAFFIC MANAGEMENT MEASURES 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

CABLE TV, ELECTRICAL, GAS, AND TELEPHONE UNDERGROUND WORK SHALL BE COMPLETED PRIOR T 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 OF 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 SHALI 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 DISRUPTION

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 197 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

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.

**GENERAL NOTES (CONT)** 

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

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

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

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 SOLIRCE REVIEW (ISR) REQUIREMENT. THE CONTRACTOR IS REQUIRED TO KEEP DAILY RECORDS OF THE TOTAL HOURS OF OPERATION FOR EACH PIECE OF FOUIPMENT 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 FLEE 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 NECESSARY MITIGATION FEE SHALL BE PAID. IF THE AIR BOARD IS NOT NOTIFIED PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE REQUIRED TO PAY THE PENALTY TO THE AIR BOARD.

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.

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

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.

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 THE ESTIMATED EXISTING GRADES FROM ASBUILT DOCUMENTS COMPARED WITH THE SUBGRADE

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

STRUCTURAL SECTIONS OF THE PROPOSED GRADING DESIGN. SEE STRUCTURAL SECTIONS IN HATCH

EARTHWORK QUANTITY CALCULATIONS DO NOT INCLUDE STRIPPING, SHRINKAGE, SWELL FACTORS OR MATERIAL FROM UTILITY TRENCH SPOILS.

**NPDES NOTES** 

LEGEND ON PAVING PLAN.

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 WIT 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 P.O. BOX 1977

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.

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

TRANSMITTAL MEMO THAT INCLUDES \* 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 WILL BE INSTALLED TO SATISFY THE REQUIREMENTS OF THE CITY OF STOCKTON MUNICIPAL CODE CHAPTER TITLES 13 AND 15.

COPY OF A SIGNED NOTICE OF INTENT FORM OR A WASTE DISCHARGE IDENTIFICATION NUMBER. WDID#: CONTRACTOR TO PROVIDE PRIOR TO CONSTRUCTION; IF REQUIRED

\* COPY OF SWPPP MUST REMAIN ON SITE DURING CONSTRUCTION AT ALL TIMES.

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 INSPECTIO TRAINING, SAMPLING, TESTING, REPORTING, CHANGES OF INFORMATION (COI), SWPPP REVISIONS, NOTICE OF TERMINATION (NOT), AND OTHER QSP-RELATED RESPONSIBILITIES AS IDENTIFIED IN THE

**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 CURVES AND TESTS.

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,

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 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

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

INCLUDED IN THE UNIT PRICE BID FOR ALL PIPE CONSTRUCTION. THE STATIC WATER LEVEL SHALL BE DRAWN DOWN A MINIMUM OF 1 FOOT BELOW THE BOTTOM OF EXCAVATIONS TO MAINTAIN THE UNDISTURBED STATE OF NATURAL SOILS AND ALLOW THE PLACEMENT OF ANY FILL TO THE SPECIFIED DENSITY. THE CONTRACTOR SHALL HAVE ON HAND, PUMPING EQUIPMENT AND MACHINERY IN GOOD WORKING CONDITION FOR EMERGENCIES AND SHALL HAVE WORKMEN AVAILABLE FOR IT'S OPERATION. DEWATERING SYSTEMS SHALL OPERATE CONTINUOUSLY UNTIL BACK FILL HAS BEEN COMPLETED TO 1 FOOT ABOVE THE NORMAL STATIC GROUNDWATER LEVEL.

THE CONTRACTOR SHALL CONTROL SURFACE WATER TO PREVENT ENTRY INTO EXCAVATIONS. AT EACH EXCAVATION, A SUFFICIENT NUMBER OF TEMPORARY OBSERVATION WELLS TO CONTINUOUSLY CHECK THE GROUNDWATER LEVEL SHALL BE PROVIDED.

THE CONTROL OF GROUNDWATER SHALL BE SUCH THAT SOFTENING OF THE BOTTOM OF 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. THE RELEASE OF GROUNDWATER AT ITS STATIC LEVEL SHALL BE PERFORMED IN SUCH A MANNER AS TO MAINTAIN THE UNDISTURBED STATE OF THE NATURAL FOUNDATIONS SOILS. PREVENT DISTURBANCE OF COMPACTED BACK FILL, AND PREVENT FLOTATION OR MOVEMENT OF STRUCTURES. PIPELINES AND SEWERS. IF AN NPDES (NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM) PERMIT IS REQUIRED FOR DISPOSAL OF WATER FROM CONSTRUCTION DEWATERING ACTIVITIES, IT SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO ANY DEWATERING ACTIVITIES.

ONE HUNDRED PERCENT STANDBY PUMPING CAPACITY SHALL BE AVAILABLE ON SITE AT ALL TIMES AND SHALL BE CONNECTED TO THE DEWATERING SYSTEM PIPING TO PERMIT IMMEDIATE USE. IN 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 AND AUTOMATIC SWITCH OVER TO THE EMERGENCY GENERATOR WHEN NORMAL POWER FAILS. DEWATERING SYSTEMS SHALL NOT BE SHUT DOWN BETWEEN SHIFTS, ON HOLIDAYS, ON WEEKENDS, OR DURING WORK STOPPAGES.

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

STORM DRAIN NOTES

ALL STORM DRAIN CONSTRUCTION. MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE CALIFORNIA PLUMBING CODE.

THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN OR OTHER DEVICES NECESSARY FOR PUBLIC SAFETY.

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 STOCKTON DEPARTMENT OF PUBLIC WORKS, AND STATE REGULATIONS.

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 MAINTENANCE HOLES.

ALL STORM DRAIN LINES SHALL BE CLEANED OF ALL SAND AND DEBRIS PRIOR TO ACCEPTANCE BY THE CITY OF STOCKTON.

THE CONTRACTOR SHALL EXPOSE ALL EXISTING STORM DRAIN PIPES, WHERE A CONNECTION IS TO BE MADE, AND NOTIFY THE ENGINEER IF THERE IS A DISCREPANCY BETWEEN THE SIGNED PLANS AND THE EXISTING FIELD CONDITION PRIOR TO THE START OF CONSTRUCTION.

STORM DRAIN CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND WILL BE RESPONSIBLE FOR PROTECTION OF THE SAME.

CONTRACTOR TO BE RESPONSIBLE FOR ALL TESTING OF STORM DRAIN FACILITIES IN ACCORDANCE WITH THE CITY OF STOCKTON STANDARD SPECIFICATIONS AND PLANS.

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.

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 CONSTRUCTION.

SEWER MAINS SHALL BE INSTALLED FROM THE EXISTING FACILITIES UPSTREAM TO THE END OF THE

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

ALL SANITARY SEWER CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS O

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 CROSSINGS IN ACCORDANCE WITH THE CALIFORNIA HEALTH DEPARTMENT REQUIREMENTS

SEWER CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UNDERGROUND UTILITIES, AND WILL BE RESPONSIBLE FOR THE PROTECTION OF SAME.

MAINTENANCE HOLE CASTINGS AND COVERS SHALL BE ADJUSTED TO FINISH GRADES BY THE PAVING 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.

**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, OR 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

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 STOCKTON

STANDARDS & SPECIFICATIONS; BACTERIOLOGICAL TESTING PER OF CITY OF STOCKTON 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 SAMPLES 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

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.

BACTERIOLOGICAL QUALITY, AND SHALL SHOW THE ABSENCE OF COLIFORM ORGANISMS. A

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

BUILDING CODE.

COVERAGE ON THE WATER LINE SHALL BE 30 INCHES MINIMUM AND 36 INCHES MAXIMUM FROM TOP OF PIPE TO PROPOSED FINISH GRADE AS SPECIFIED BY THE CITY OF STOCKTON.

ALL WATER IMPROVEMENTS MUST BE REVIEWED AND APPROVED BY THE CITY OF STOCKTON. 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.

PROPOSED BUILDING 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 WITH CITY OF STOCKTON STANDARDS AND SPECIFICATIONS.

ALL FIRE SERVICE LINES BEYOND THE DOUBLE DETECTOR CHECK VALVE EXTENDING TO THE

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

WATER NOTES (CONT)

CONTRACTOR IS ADVISED THAT ANY FIELD CHANGES DUE TO EXISTING CONDITIONS MUST COMPLY WITH STATE HEALTH DEPARTMENT CRITERIA.

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

ALL VALVES TWELVE (12) INCHES AND LARGER SHALL BE BUTTERFLY VALVES AND OPERATORS INTENDED FOR BURIED SERVICE IN A DOMESTIC WATER SYSTEM.

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

ACCORDANCE WITH CITY OF STOCKTON STANDARDS AND SPECIFICATIONS.

ACTUAL CONNECTIONS TO EXISTING WATER LINES WILL NOT BE PERMITTED PRIOR TO THE COMPLETION OF STERILIZATION AND TESTING OF NEW WATER MAINS. ALL EXISTING WATER VALVES 1 BE OPERATED UNDER THE DIRECTION OF THE WATER DIVISION OF THE REGULATORY AGENCY

REDUCED PRESSURE BACKFLOW PREVENTION DEVICE MUST BE INSPECTED AND APPROVED BY AN APPROVED TESTING FIRM PRIOR TO THE FINAL APPROVAL OF THE BUILDING.

THE WATER METER AND METER BOX SHALL BE PROVIDED AND INSTALLED BY THE CITY OF STOCKTON. PAID BY THE DEVELOPER.

FIRE HYDRANT MAINS SHALL BE HYDROSTATICALLY TESTED AT 50 PSI FOR ONE HOUR AND FIRE SPRINKLER MAINS, ON THE SYSTEM SIDE OF THE FDC, SHALL BE HYDROSTATICALLY TESTED AT 200 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 DEPARTMENT BY THE CONTRACTOR. THEY SHALL BE PROVIDED AT A RATIO OF ONE REFLECTOR PEF 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 AND FIGURE 3B-102.

CONTRACTOR SHALL PAINT FIRE HYDRANTS WITH ENAMEL SAFETY YELLOW PAINT.

FIRE HYDRANT STEM BREAKAWAY MUST COINCIDE WITH BREAKAWAY SPOOL

A LOCATING "TRACE WIRE" IS REQUIRED ON ALL MAINS AND SERVICE LINES. THE "TRACE WIRE" SHAL 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 MECHANICALLY AND ELECTRONICALLY SOUND AND MADE WATERPROOF WITH AN APPROVED COMPOUND. INSTALLATION OF THE "TRACE WIRE" SYSTEM SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO BACKELL. THE "TRACE WIRE" SYSTEM SHALL BE TESTED BY APPROVED. TESTING PERSONNEL AFTER THE TRENCHES HAVE BEEN BACKFILLED AND HYDROSTATIC TESTS HAVI BEEN PERFORMED, BUT BEFORE ANY PAVEMENT HAS BEEN PLACED. THE CITY SHALL PAY THE COST OF THE INITIAL TEST. ANY SUBSEQUENT TESTING COSTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

THE DISCHARGE OF CHLORINATED AND DE-CHLORINATED WATER INTO THE STORM DRAIN SYSTEM I PROHIBITED. THE DISCHARGE OF CHLORINATED AND DE-CHLORINATED WATER INTO THE SANITARY SEWER SYSTEM REQUIRES PRIOR APPROVAL FROM MUD.

WATER SYSTEM WILL BE PRIVATELY OWNED AND MAINTAINED

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 UNTIL COMPLIANCE HAS BEEN MET.

**TOPOGRAPHY NOTES** 

PLAN SET DESIGN BASED OFF OF TOPOGRAPHIC SURVEY PERFORMED ON FEB 27, 2024, CONTRACTOR SHALL BE AWARE THAT SINCE THIS INITIAL SURVEY THE SITE MAY HAVE CHANGED.

ALL EXISTING UTILITIES WERE PLOTTED FROM RECORD INFORMATION AND FIELD TOPOGRAPHY ACTUAL LOCATIONS MAY VARY AND ADDITIONAL CROSSINGS MAY EXIST IN THE FIELD.

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 CONFLICTS EXIST BETWEEN PROPOSED AND EXISTING IMPROVEMENTS.

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

CONTRACTOR/DEVELOPER SHALL OBTAIN AN ENCROACHMENT PERMIT FROM THE APPROPRIATE AGENCY TO DO ANY WORK WITHIN RIGHT-OF-WAY PRIOR TO CONSTRUCTION.

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 VISIBLE FROM THE SURFACE.

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 THEN THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER IMMEDIATELY.

IN ACCORDANCE WITH SECTION 8771 OF THE PROFESSIONAL LAND SURVEYORS ACT 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 EXISTING, THE PERPETUATION OR FACILE REESTABLISHMENT OF ANY POINT OR LINE OF THE

B) WHEN MONUMENTS EXIST THAT CONTROL THE LOCATION OF SUBDIVISIONS, TRACTS, 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, RECONSTRUCTED, MAINTAINED, RESURFACED, OR RELOCATED, AND A CORNER RECORD OR 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 THE RECORDING OF A CERTIFICATE OF COMPLETION FOR THE PROJECT. SUFFICIENT CONTROLLING MONUMENTS SHALL BE RETAINED OR REPLACED IN THEIR ORIGINAL POSITIONS TO ENABLE PROPERTY, RIGHT-OF-WAY AND EASEMENT LINES, PROPERTY CORNERS, AND SUBDIVISION AND TRACT BOUNDARIES TO BE REESTABLISHED WITHOUT PREVIOUS SURVEYS NECESSARILY ORIGINATING ON MONUMENTS DIFFERING FROM THOSE THAT CURRENTLY CONTROL THE AREA. IT 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 GOVERNMENTAL AGENCY IN MATTERS OF MAPS, FIELD NOTES, AND OTHER PERTINENT RECORDS. MONUMENTS SET TO MARK THE LIMITING LINES OF HIGHWAYS, ROADS, STREETS OR RIGHT-OF-WAY OR EASEMENT LINES SHALL NOT BE DEEMED ADEQUATE FOR THIS PURPOSE UNLESS SPECIFICALLY NOTED ON THE CORNER RECORD OR RECORD OF SURVEY OF THE IMPROVEMENT WORKS WITH DIRECT TIES IN BEARING OR AZIMUTH AND DISTANCE BETWEEN THESE AND OTHER MONUMENTS OF RECORD.

C) CONTRACTOR SHALL COORDINATE WITH THE LAND SURVEYOR OF RECORD, PRIOR TO STARTING CONSTRUCTION, TO IDENTIFY ALL SURVEY MONUMENTS THAT MAY BE SUBJECT TO DISTURBANCE AND SHALL INCLUDE COSTS FOR MONUMENT PRESERVATION, REPLACEMENT, AND PREPARATION OF CORNER RECORDS OR RECORD OF SURVEY IN CONTRACTOR'S BID.

REGISTERED CIVIL ENGINEER SUBMITTING THE DOCUMENT, AT CONTRACTOR'S EXPENSE. §732.5, §1492.5, §1810.5 OF THE CALIFORNIA STREETS AND HIGHWAYS CODES STATE: SURVEY MONUMENTS SHALL BE PRESERVED, REFERENCED, OR REPLACED PURSUANT TO SECTION

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

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

CONTRACTOR TO BE CAUTIOUS OF UNDERGROUND STUBS AND LINES. CONTRACTOR SHALL USE

AN ATTEMPT HAS BEEN MADE TO SHOW ALL EXISTING STRUCTURES, UTILITIES, DRIVES, PAVEMENTS, CLIRBS, 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 VISITIN 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. II SUCH FACILITIES OBSTRUCT THE PROGRESS OF THE WORK AND ARE NOT INDICATED TO BE REMOVED

SITE LAYOUT NOTES

SEE LANDSCAPE PLANS FOR ALL LANDSCAPE IMPROVEMENTS INCLUDING LANDSCAPE IRRIGATION,

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.

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

CONSTRUCT CONTROL AND CONSTRUCTION JOINTS IN ACCORDANCE WITH CURRENT PORTLAND

GEOTECHNICAL ENGINEER SHALL VERIFY MOISTURE CONTENT AND CONDITIONING PRIOR TO POURING

AND UNINTERRUPTED AND ACCESSIBILITY REQUIREMENTS ARE BEING MET. 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 LANDSCAPI

# **TOPOGRAPHY NOTES(CONT)**

EXTREME CAUTION AS TO OTHER LINES MAY EXIST ON THE SITE THAT ARE NOT CLEARLY MARKED.

OR RELOCATED, THEY SHALL BE REMOVED OR RELOCATED ONLY AS DIRECTED BY THE OWNER.

THE CONTRACTOR SHALL REPORT ANY EXISTING SITE ELEMENT NOT SHOWN ON THE WORKING DRAWINGS TO THE ARCHITECT OF RECORD SO THAT THE PROPER DISPENSATION OF THAT ELEMENT

SEE ARCHITECTURAL PLANS FOR ALL BUILDING DETAILS, STRUCTURAL DETAILS, FOOTING DETAILS, 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 PLUMBING PLANS FOR CONTINUATION OF UTILITIES WITHIN 5 FEET OF THE BUILDING.

LANDSCAPE AREA GRADING, LANDSCAPE SLEEVE CROSSINGS AND LANDSCAPE SLOPE TREATMENT

GEOTECHNICAL ENGINEER SHALL BE PRESENT TO PROVIDE RECOMMENDATIONS AS TO THE EXTENT OF OVER-EXCAVATION AND SUBGRADE REQUIREMENTS PER THE GEOTECHNICAL RECOMMENDATIONS DOCUMENT FOUND IN THE APPENDIX OF THE PROJECT SPECIFICATIONS.

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. SE

GEOTECHNICAL REPORT FOR ADDITIONAL PCC RECOMMENDATIONS.

ANY CONCRETE OR ASPHALT.

TO THE FULL DEPTH AND REPLACED WITH COMPACTED ENGINEERED FILL OR APPROVED IMPORT

ANY UNSUITABLE MATERIAL ENCOUNTERED AT OR BELOW GRADE SHALL BE COMPLETELY REMOVED

PRIOR TO CONSTRUCTION CONTRACTOR SHALL REVIEW EXISTING GRADES ALONG SAWCUT LINE AND TRANSITIONS TO MATCH EXISTING IMPROVEMENTS TO ENSURE BOTH DRAINAGE FLOW IS CONTINUOL

ARCHITECT PLANS.

CONTRACTOR SHALL MAINTAIN EROSION RESISTANT VEGETATION ON FACE OF ALL SLOPES.

PLANS MEN

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> O O □ R S

STOCKTON STANDARDS AND SPECIFICATIONS. STORM DRAINAGE SYSTEM WILL BE PRIVATELY OWNED AND MAINTAINED. IMMEDIATELY IF ANY GRADE ADJUSTMENTS WILL CREATE ADA ACCESSIBILITY ISSUES. 8771 OF THE BUSINESS AND PROFESSIONS CODE.



\_1/2"x24" SMOOTH DOWEL, DOWELS SHALL BE SET LEVEL

1/2 THE LENGTH BEFORE CONCRETE PLACEMENT

\_SILICONE SEALANT DOW CORNING 890SL OR APPROVED EQUAL

1/2" MAX. THICK EXPANSION JOINT

-BACKER ROD FLUSH TRANSITION

**EXPANSION JOINT** 

ALIGN DOWELS WITH CONCRETE REINFORCEMENT, GREASE

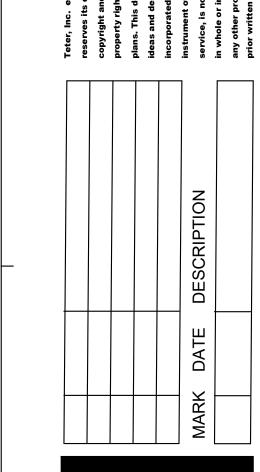
1. EXPANSION JOINTS SHALL BE

PROVIDED AT A MAXIMUM SPACING

OF 60D=20 FEET ON CENTER BOTH

Engineering Group, Inc. • CIVIL ENGINEERING • SURVEYING • PLANNING • 620 12th Street Modesto, CA 95354 (209) 524-3525 Phone (209) 524-3526 Fax

**IDENTIFICATION STAMP** DIV. OF THE STATE ARCHITEC APP: 02-122792 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 DATE: 12/4/2024





CIVIL IMPROVEMENT PLANS FOR ROOSEVELT ELEMENTAR SCHOOL

PROJECT NO.

CONCRETE FLATWORK AT EXISTING FLATWORK

-AGGREGATE BASE

AC PAVING FLUSH WITH CONCRETE

-SEE CONCRETE THICKNESS ON SHEETS C3.1-C3.2

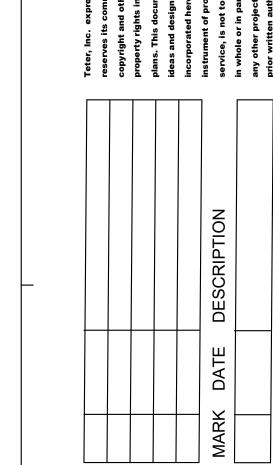
THICKENED CONCRETE EDGE AT A MINIMUM

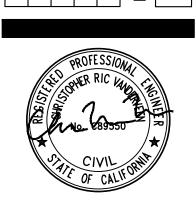
4' CONCRETE WHEEL STOP



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DATE: 12/4/2024





FOR TAR PLANS EMEN

ROVEMI:VELT Д П О SO HO HO **>** O O

S A S PROJECT NO.

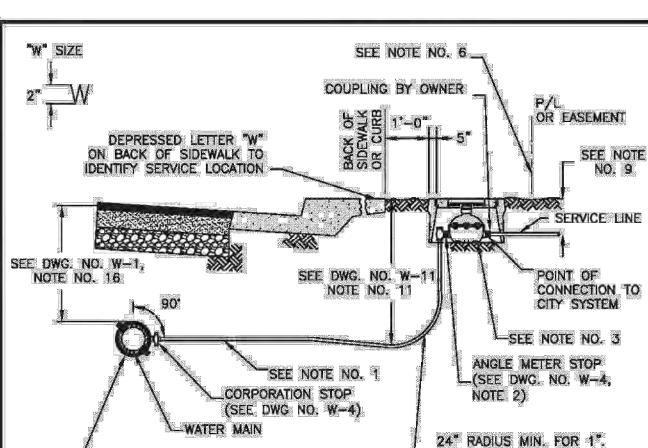
DRAWING





36" RADIUS MIN. FOR

1-1/2" & 2"

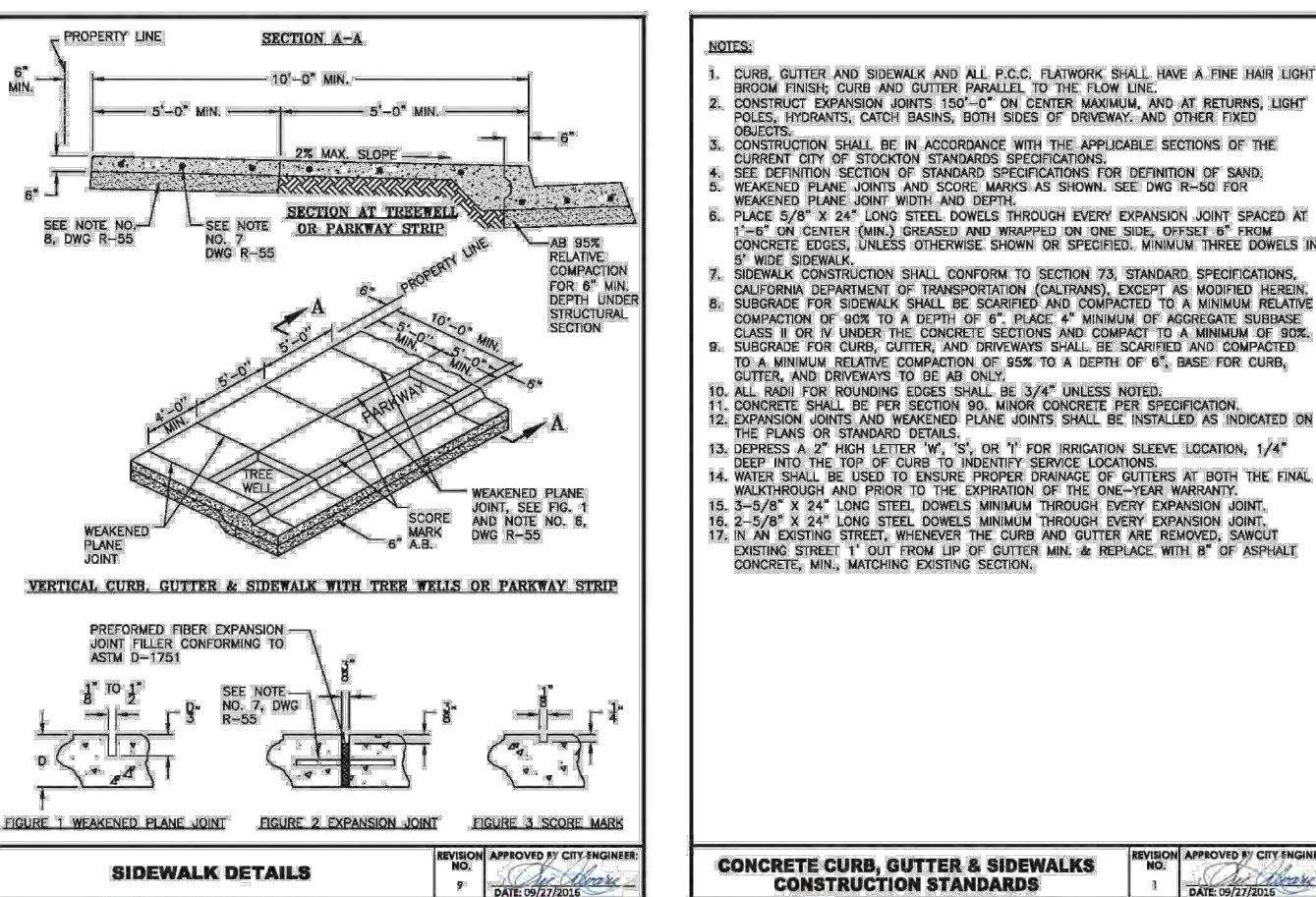


#### TYPICAL WATER SERVICE INSTALLATION FOR CITY WATER SERVICE AREAS ONLY

SERVICE SADDLE

- 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 8" 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 INSTALLATION OF A BACKFLOW PREVENTION DEVICE SHALL BE REQUIRED FOR ALL
- CONNECTIONS TO THE CITY WATER SYSTEM, EXCEPT FOR SINGLE FAMILY RESIDENCES. 9. 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.

WATER SERVICE INSTALLATION 1", 1.5", AND 2" SERVICE	REVISION NO:	APPROVED D	CITY ENGINEER:
CITY OF STOCKTON DEPARTMENT OF PUBLIC WORKS	SCALE NONE	SUPERSEDES DWG DATED 11/25/03	DRAWING NO.



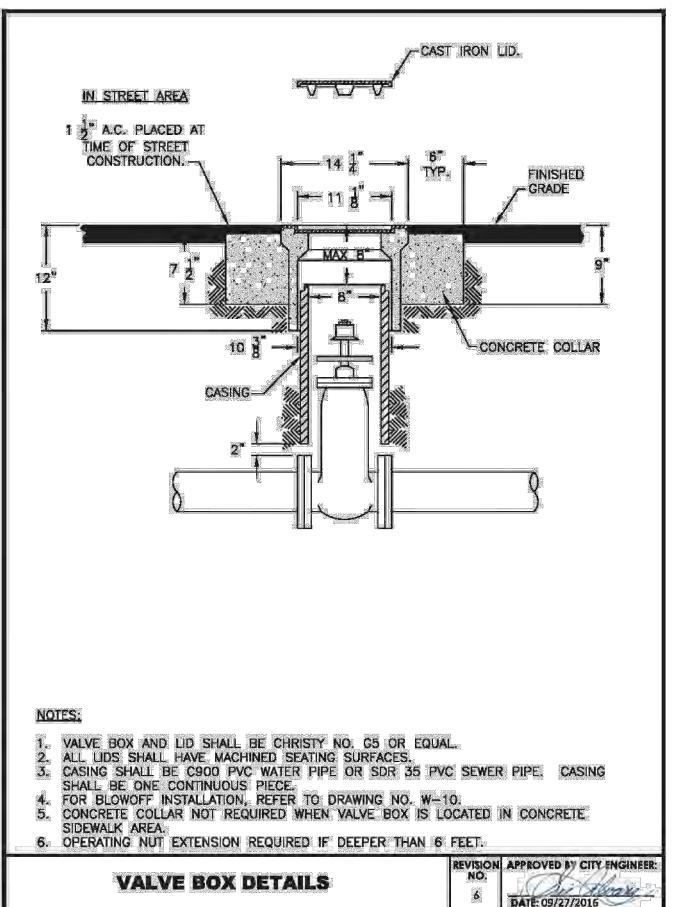
1-1/2" AND 2" METER BOXES SHALL BE CHRISTY

#### 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
- 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

- READ HOLE 1-3/4" DIA.
- LOADING WITH TOUCH READ HOLE 1-3/4" DIA.

			Page 2 of 2
FITTINGS FOR WATER SERVICE	REVISION NO.	APPROVED BY DATE: 09/27/	CITY ENGINEER:
S CITY OF STOCKTON DEPARTMENT OF PUBLIC WORKS	SCALE NONE	SUPERSEDES DWG. DATED 01/09/02	DRAWING NO.



BROOM FINISH; CURB AND GUTTER PARALLEL TO THE FLOW LINE.

SEE DEFINITION SECTION OF STANDARD SPECIFICATIONS FOR DEFINITION OF SAND.

1'-6" ON CENTER (MIN.) GREASED AND WRAPPED ON ONE SIDE, OFFSET 6" FROM

SIDEWALK CONSTRUCTION SHALL CONFORM TO SECTION 73, STANDARD SPECIFICATIONS

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%.

TO A MINIMUM RELATIVE COMPACTION OF 95% TO A DEPTH OF 6", BASE FOR CURB,

EXISTING STREET 1' OUT FROM LIP OF GUTTER MIN. & REPLACE WITH 8" OF ASPHALT

REVISION APPROVED BY CITY ENGINEER

SCALE SUPERSEDES DRAWING NO. NONE 11/25/03 R-55

SCALE SUPERSEDES DRAWING NO

NONE 01/09/02

W-11

DATE: 09/27/2015

WALKTHROUGH AND PRIOR TO THE EXPIRATION OF THE ONE-YEAR WARRANTY.

CONCRETE EDGES, UNLESS OTHERWISE SHOWN OR SPECIFIED. MINIMUM THREE DOWELS II

CURRENT CITY OF STOCKTON STANDARDS SPECIFICATIONS.

WEAKENED PLANE JOINT WIDTH AND DEPTH.

GUTTER, AND DRIVEWAYS TO BE AB ONLY.

CONCRETE, MIN., MATCHING EXISTING SECTION.

CONSTRUCTION STANDARDS

CITY OF STOCKTON

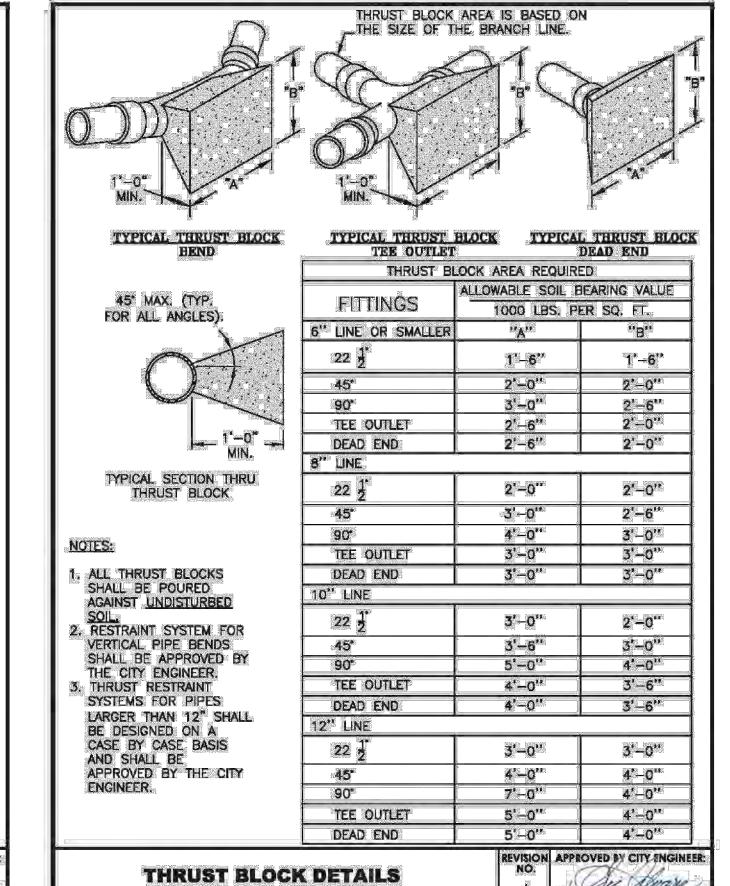
CITY OF STOCKTON

DEPARTMENT OF PUBLIC WORKS.

DEPARTMENT OF PUBLIC WORKS

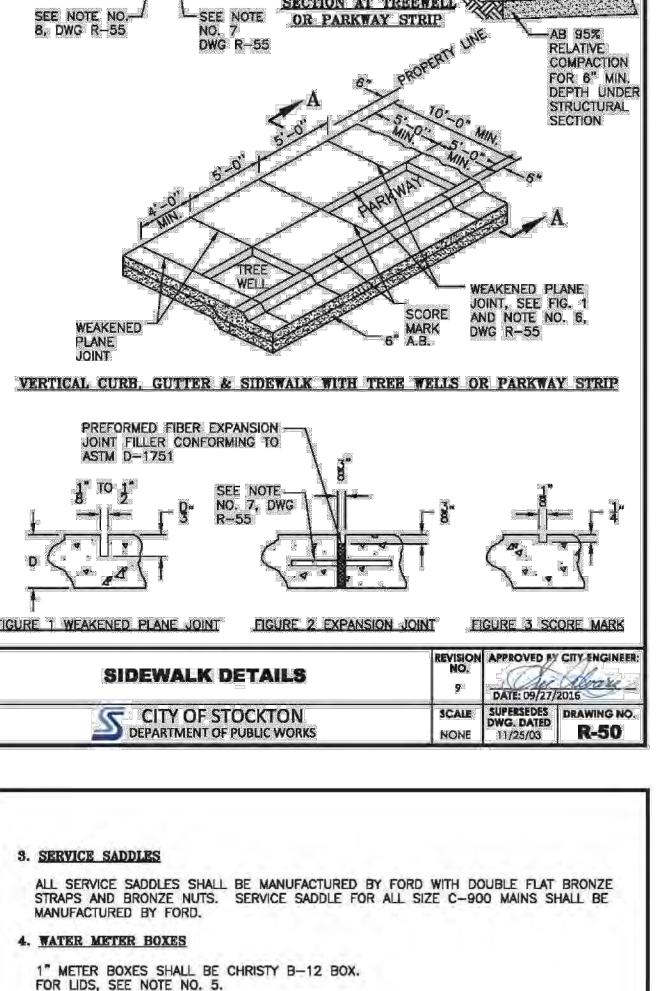
THE PLANS OR STANDARD DETAILS.

5' WIDE SIDEWALK.



CITY OF STOCKTON

DEPARTMENT OF PUBLIC WORKS



Page 1 of 2 REVISION APPROVED BY CITY ENGINEE war CITY OF STOCKTON DRAWING NO W-4 DEPARTMENT OF PUBLIC WORKS NONE 01/09/02

NEW PAVEMENT TO BE 1/8" HIGHER THAN

OF CSS-1 OR SS-1 ASPHALT EMULSION.

NOTE NO. 2

THE ENGINEER.

PE BEDDING:

D+16" MIN.

INVESTIGATO TERENTOS ESTROPEON IN INVESTIMOS INTEROLYM ESTRAPARES

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

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

ALL VERTICAL EDGES OF EXISTING ASPHALT CONCRETE SHALL BE TACK COATED. PAVING SHALL CONFORM TO SECTION 100-1.06 OF THE STANDARD SPECIFICATIONS.

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

1" X 1" CORPORATION STOPS AS MANUFACTURED BY FORD OR EQUIVALENT

1" DIAMETER CORPORATION STOPS AS MANUFACTURED BY FORD OR EQUIVALENT

(2) 1" X 1" CORPORATION STOP. FORD NO. 800 PLUS A C-16-44 COMPRESSION

1" I.D. ANGLE METER STOP AS MANUFACTURED BY FORD OR EQUIVALENT COMPLETE

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

WITH LOCK WING AND STAINLESS STEEL INSERT FOR 1" I.D. PLASTIC PIPE.

COMPLETE WITH STAINLESS STEEL INSERTS FOR 1" I.D. PLASTIC PIPE.

COMPLETE WITH STAINLESS STEEL INSERTS FOR 1" I.D. PLASTIC PIPE.

(1) 1" CORPORATION STOP. FORD NO. 1001 WITH SS INSERTS.

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

ADS OR APPROVED EQUAL WITH MINIMUM PRESSURE RATING OF 160 P.S.I.

). ALL JOINT PIPE REPAIRS SHALL BE BEDDED WITH A MINIMUM OF 6 INCHES OF ᢪ

**EXISTING STREET TRENCH SECTION** 

FOR TRENCHES LARGER THAN 8"

NOTE: SEE DWG. NO. W-3 FOR DETAILS.

CONNECTION SHALL BE AS FOLLOWS:

B. 8 AND 12 INCH DIAMETER LINES

C. ALTERNATE PRODUCT SUPPLIER

ADAPTER WITH SS INSERTS.

A. 1 INCH DIAMETER ANGLE METER STOPS

WITH STAINLESS STEEL INSERTS.

A. 6 INCH DIAMETER LINES

1. CORPORATION STOPS

2. ANGLE METER STOPS

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

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

T-D+24" MAX.

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%.

DEBRIS, ETC., HAVING THE FOLLOWING GRADING: 100%

NO. 200 MINIMUM SAND

MECHANICAL MEANS.

MATERIAL TO BE IMPORTED SAND OR AN APPROVED CLEAN GRANULAR

MATERIAL FREE OF ALL LUMPS AND

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

EQUIVALENT = 20. COMPACTION BY

REVISION APPROVED BY CITY ENGINEE.

SCALE SUPERSEDES DRAWING NO. 11/25/03 R-36

DAYE: 09/27/2016

FOR LOCAL AND COLLECTOR

DIAMOND SAW CUTTING, MILLING, OR

OTHER APPROVED DEVICE SHALL BE USED. REPAVE TO A CLEAN -

STRAIGHT EDGE (TYP).

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

IMPORT OR SUITABLE SITE

EXCAVATED MATERIAL

SHAPE BOTTOM OF TRENCH TO FIT PIPE BARREL AND

CENTERED IN TRENCH.

SEE NOTE #1 AND #6.

PIPE JOINTS. PIPE SHALL BE

CRUSHED ROCK.

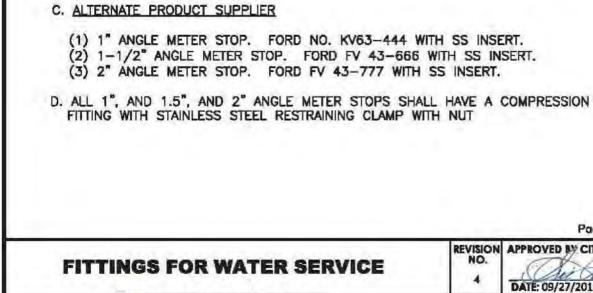
PLASTIC PIPE:

ADJACENT PAVEMENT. APPLY FOG SEAL COAT

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SCALE SUPERSEDES DRAWING NO

01/09/02



#### 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
- 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
- CONSTRUCTION. 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

EDGES OF THE FACILITIES.

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

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

BOTH WATER MAIN AND SEWER LINE. 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>

SPECIAL CONSTRUCTION REQUIREMENTS

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

CASE 1 - NEW SEWER BEING INSTALLED

ZONES A.B.C. AND D INDICATE RESTRICTED AREAS.

ZONES P INDICATE PROHIBITED USE AREAS.

-ZONE "A"

(SPECIAL

—PERMISSION)

ZONE '

**CALIFORNIA HEALTH** 

**DEPARTMENT REQUIREMENTS** 

CITY OF STOCKTON DEPARTMENT OF PUBLIC WORKS

(SPECIAL

//NO JOINT:

zone "p" ⊢zone "a"

\_PERMISSION)\_/

<del>| - - | - - - | - - - 6</del>'-0" →

4" ZONE "P

(PROHIBITED)

4" ZONE "P" (PROHIBITED)

REVISION APPROVED BY CITY ENGINEER

SCALE SUPERSEDES DRAWING NO.

DWG. DATED

NONE 01/09/02

Page 4 of 5

**S-4** 

(PROHIBITED) ☐(SPECIAL

WATER PIPE

PARALLEL CONSTRUCTION

(SPECIAL NO

JOINT PIPES)

PERPENDICULAR CONSTRUCTION

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

ZONE SPECIAL CONSTRUCTION REQUIRED FOR SEWER

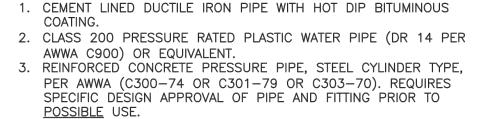
- SEWER LINES PARALLEL TO WATER MAINS SHALL NOT BE PERMITTED IN THIS ZONE WITHOUT APPROVAL FROM THE RESPONSIBLE HEALTH AGENCY AND
- A SEWER LINE PLACED PARALLEL TO A WATER LINE SHALL BE CONSTRUCTED OF:
  - 1. EXTRA STRENGTH VITRIFIED CLAY PIPE WITH COMPRESSION JOINTS. 2. PLASTIC SEWER PIPE WITH RUBBER 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 COATING
  - 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).
- 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	SCALE	SUPERSEDES DWG. DATED	DRAWING NO.



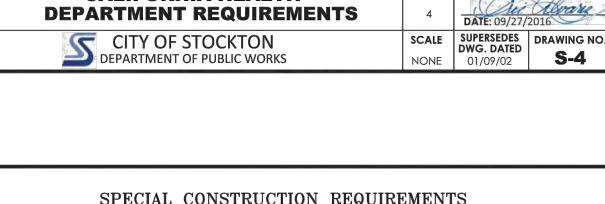
IF THE SEWER CROSSING THE WATER MAIN DOES NOT MEET THE REQUIREMENTS FOR ZONE D, CASE 1, THE WATER MAIN SHALL HAVE NO JOINTS WITHIN FOUR FEET FROM EITHER SIDE OF THE SEWER AND SHALL BE CONSTRUCTED OF:

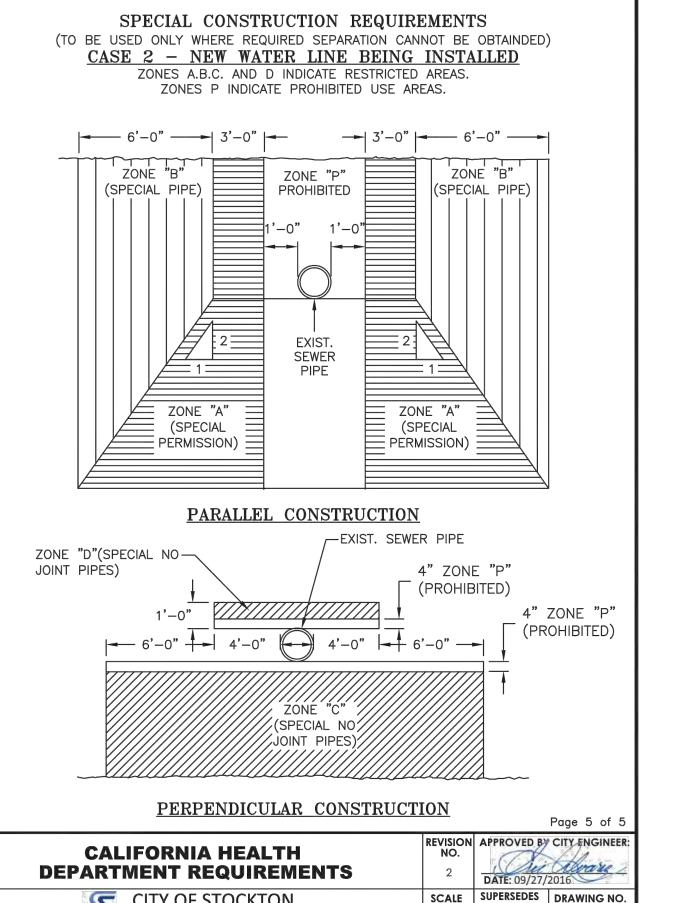
- 1. CEMENT LINED DUCTILE IRON PIPE WITH HOT DIP BITUMINOUS COATING.
- 2. CLASS 200 PRESSURE RATED PLASTIC WATER PIPE (DR 14 PER
- AWWA C900) OR EQUIVALENT. 3. REINFORCED CONCRETE PRESSURE PIPE, STEEL CYLINDER TYPE, PER AWWA (C300-74 OR C301-79 OR C303-70). REQUIRES SPECIFIC DESIGN APPROVAL OF PIPE AND 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:
CITY OF STOCKTON	SCALE	SUPERSEDES DWG. DATED	DRAWING NO.





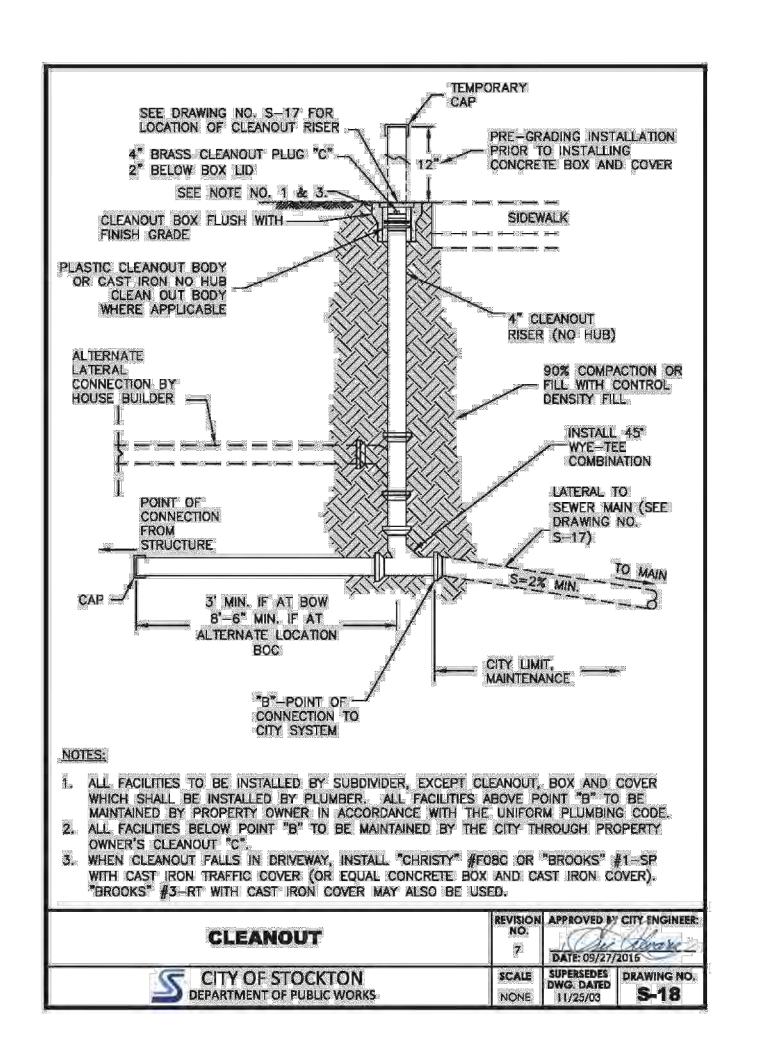
DWG. DATED

NONE 01/09/02

**S-4** 

CITY OF STOCKTON

DEPARTMENT OF PUBLIC WORKS

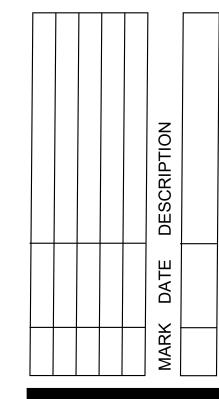






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12/4/2024



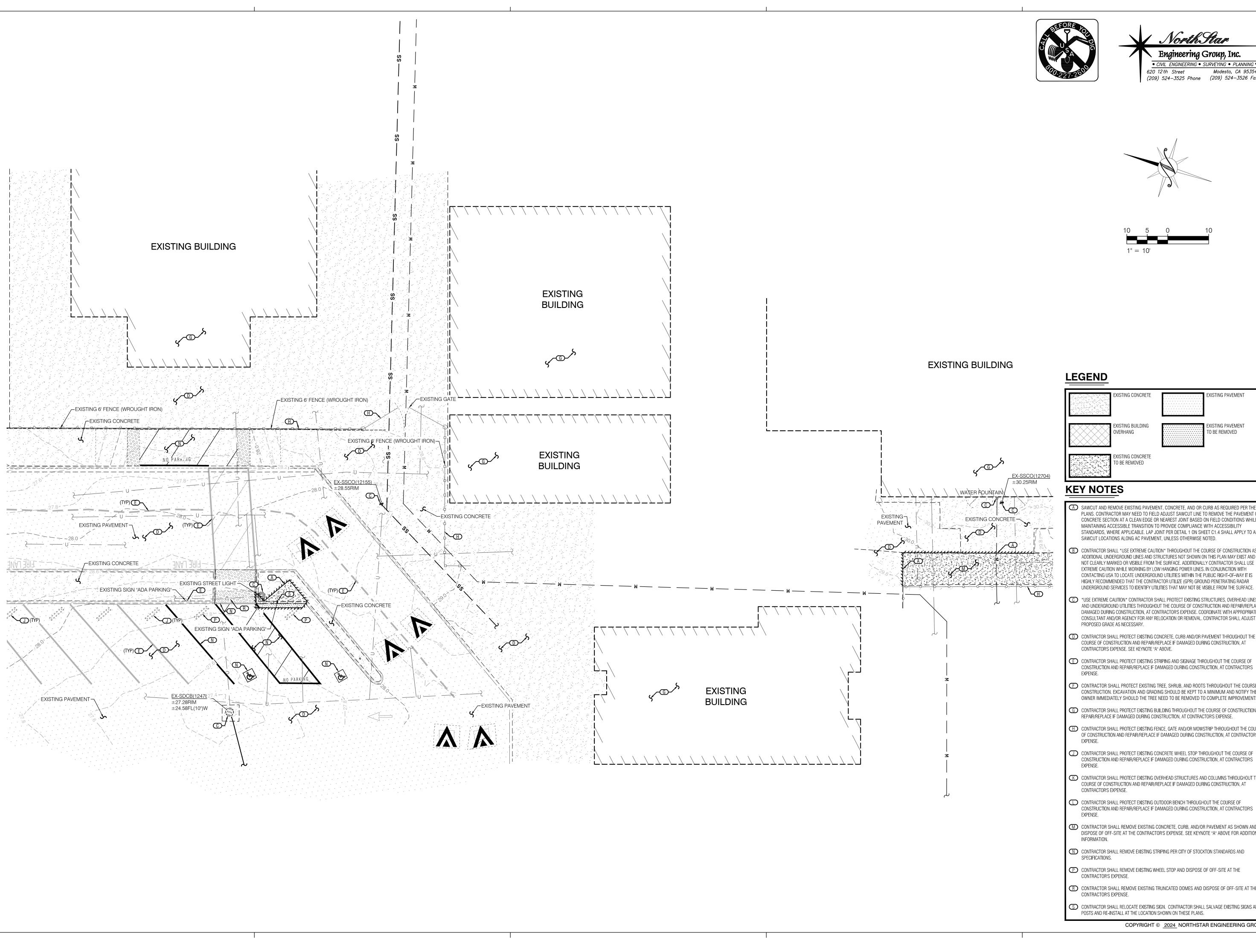


PROVEMENT PLANS FOR EVELT ELEMENTAR OL SO HO HO ROM SCI

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PROJECT NO.

23-12907

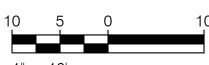




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DATE: 12/4/2024



EXISTING CONCRETE	EXISTING PAVEMENT
EXISTING BUILDING OVERHANG	EXISTING PAVEMENT TO BE REMOVED
EXISTING CONCRETE TO BE REMOVED	

- 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 1 ON SHEET C1.4 SHALL APPLY TO ALL SAWCUT LOCATIONS ALONG AC PAVEMENT, UNLESS OTHERWISE NOTED.
- B CONTRACTOR SHALL \*USE EXTREME CAUTION\* THROUGHOUT THE COURSE OF CONSTRUCTION AS ADDITIONAL UNDERGROUND LINES AND STRUCTURES NOT SHOWN ON THIS PLAN MAY EXIST AND ARE NOT CLEARLY MARKED OR VISIBLE FROM THE SURFACE. ADDITIONALLY CONTRACTOR SHALL USE EXTREME CAUTION WHILE WORKING BY LOW HANGING POWER LINES. 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
- \*USE EXTREME CAUTION\* CONTRACTOR SHALL PROTECT EXISTING STRUCTURES, OVERHEAD LINES AND UNDERGROUND UTILITIES THROUGHOUT THE COURSE OF CONSTRUCTION AND REPAIR/REPLACE IF DAMAGED DURING CONSTRUCTION, AT CONTRACTOR'S EXPENSE. COORDINATE WITH APPROPRIATE CONSULTANT AND/OR AGENCY FOR ANY RELOCATION OR REMOVAL. CONTRACTOR SHALL ADJUST TO
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- (H) CONTRACTOR SHALL PROTECT EXISTING FENCE, GATE AND/OR MOWSTRIP THROUGHOUT THE COURSE OF CONSTRUCTION AND REPAIR/REPLACE IF DAMAGED DURING CONSTRUCTION, AT CONTRACTOR'S
- ONTRACTOR SHALL PROTECT EXISTING CONCRETE WHEEL STOP THROUGHOUT THE COURSE OF CONSTRUCTION AND REPAIR/REPLACE IF DAMAGED DURING CONSTRUCTION, AT CONTRACTOR'S
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- M CONTRACTOR SHALL REMOVE EXISTING CONCRETE, CURB, AND/OR PAVEMENT AS SHOWN AND DISPOSE OF OFF-SITE AT THE CONTRACTOR'S EXPENSE. SEE KEYNOTE "A" ABOVE FOR ADDITIONAL
- N CONTRACTOR SHALL REMOVE EXISTING STRIPING PER CITY OF STOCKTON STANDARDS AND
- P CONTRACTOR SHALL REMOVE EXISTING WHEEL STOP AND DISPOSE OF OFF-SITE AT THE
- R CONTRACTOR SHALL REMOVE EXISTING TRUNCATED DOMES AND DISPOSE OF OFF-SITE AT THE
- S CONTRACTOR SHALL RELOCATE EXISTING SIGN. CONTRACTOR SHALL SALVAGE EXISTING SIGNS AND POSTS AND RE-INSTALL AT THE LOCATION SHOWN ON THESE PLANS.

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CIVIL IMPROVEMENT PLANS FOR ROOSEVELT ELEMENTARY SCHOOL

PROJECT NO.

23-12907

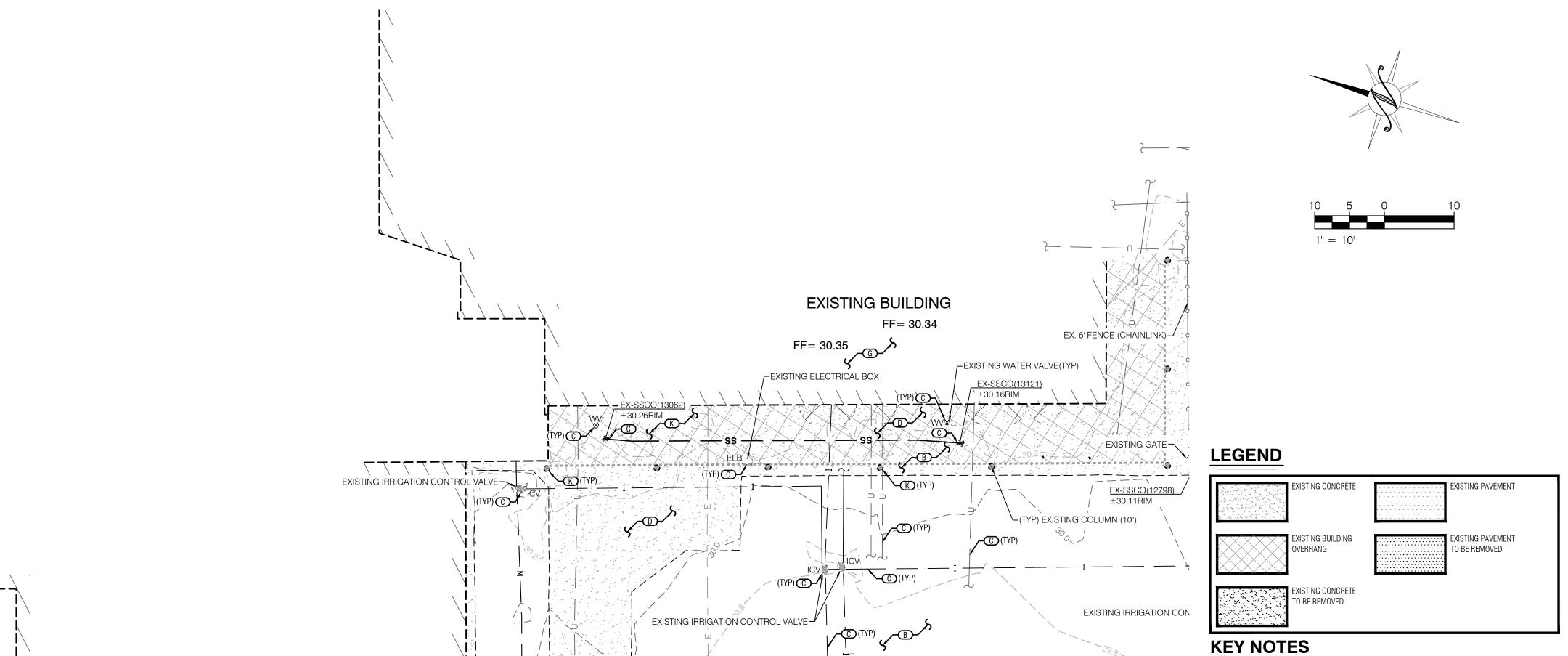




DIV. OF THE STATE ARCHITEC APP: 02-122792 INC: REVIEWED FOR

SS 🗹 FLS 🗹 ACS 🗹 DATE: 12/4/2024

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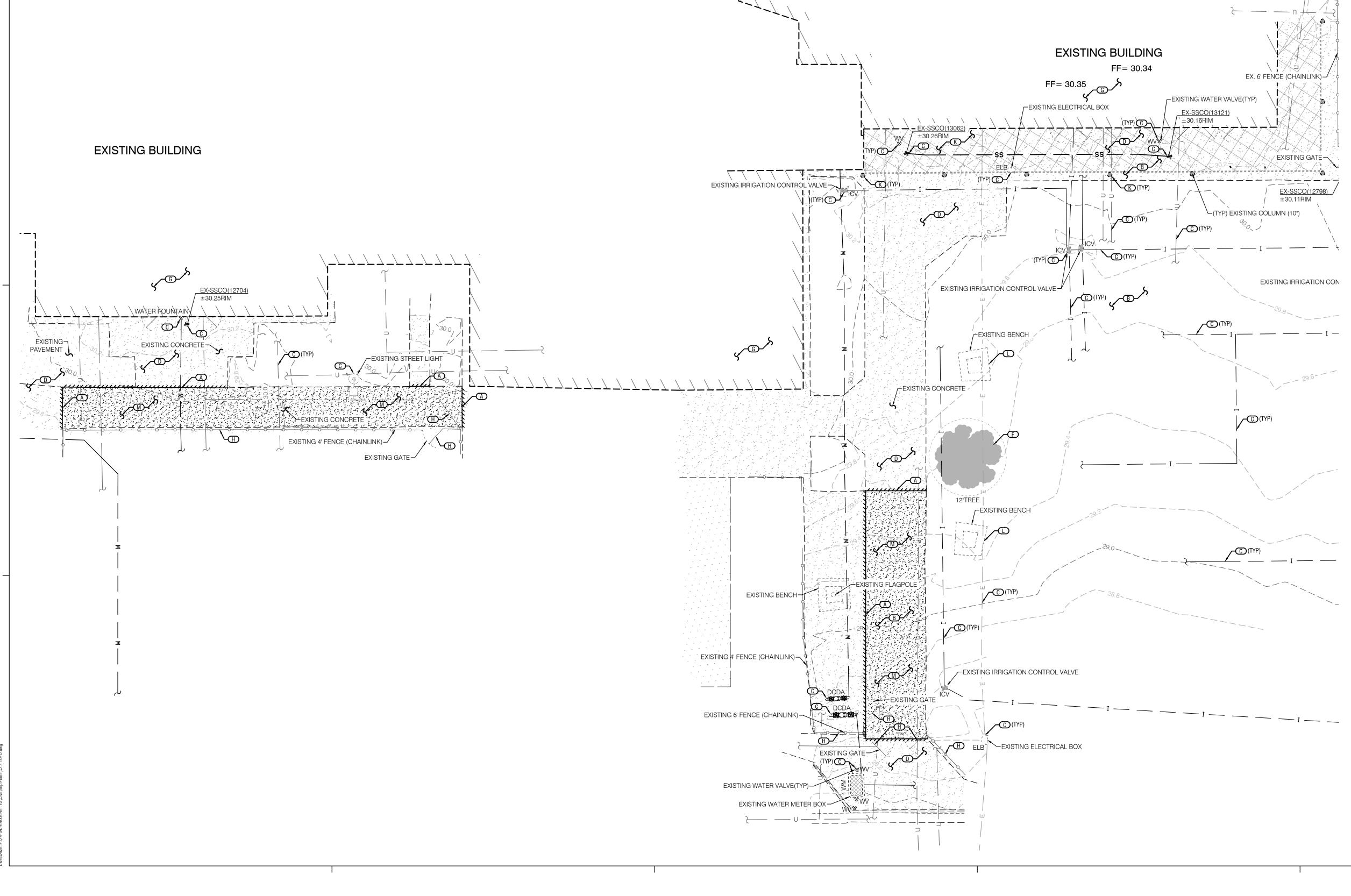
- PLANS. CONTRACTOR MAY NEED TO FIELD ADJUST SAWCUT LINE TO REMOVE THE PAVEMENT OR CONCRETE SECTION AT A CLEAN EDGE OR NEAREST JOINT BASED ON FIELD CONDITIONS WHILE MAINTAINING ACCESSIBLE TRANSITION TO PROVIDE COMPLIANCE WITH ACCESSIBILITY STANDARDS, WHERE APPLICABLE. LAP JOINT PER DETAIL 1 ON SHEET C1.4 SHALL APPLY TO ALL SAWCUT LOCATIONS ALONG AC PAVEMENT, UNLESS OTHERWISE NOTED.
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- S CONTRACTOR SHALL RELOCATE EXISTING SIGN. CONTRACTOR SHALL SALVAGE EXISTING SIGNS AND POSTS AND RE-INSTALL AT THE LOCATION SHOWN ON THESE PLANS.

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ROVEMENT PLANS FOR VELT ELEMENTAR CIVIL IMPR ROOSE\ SCHOOL

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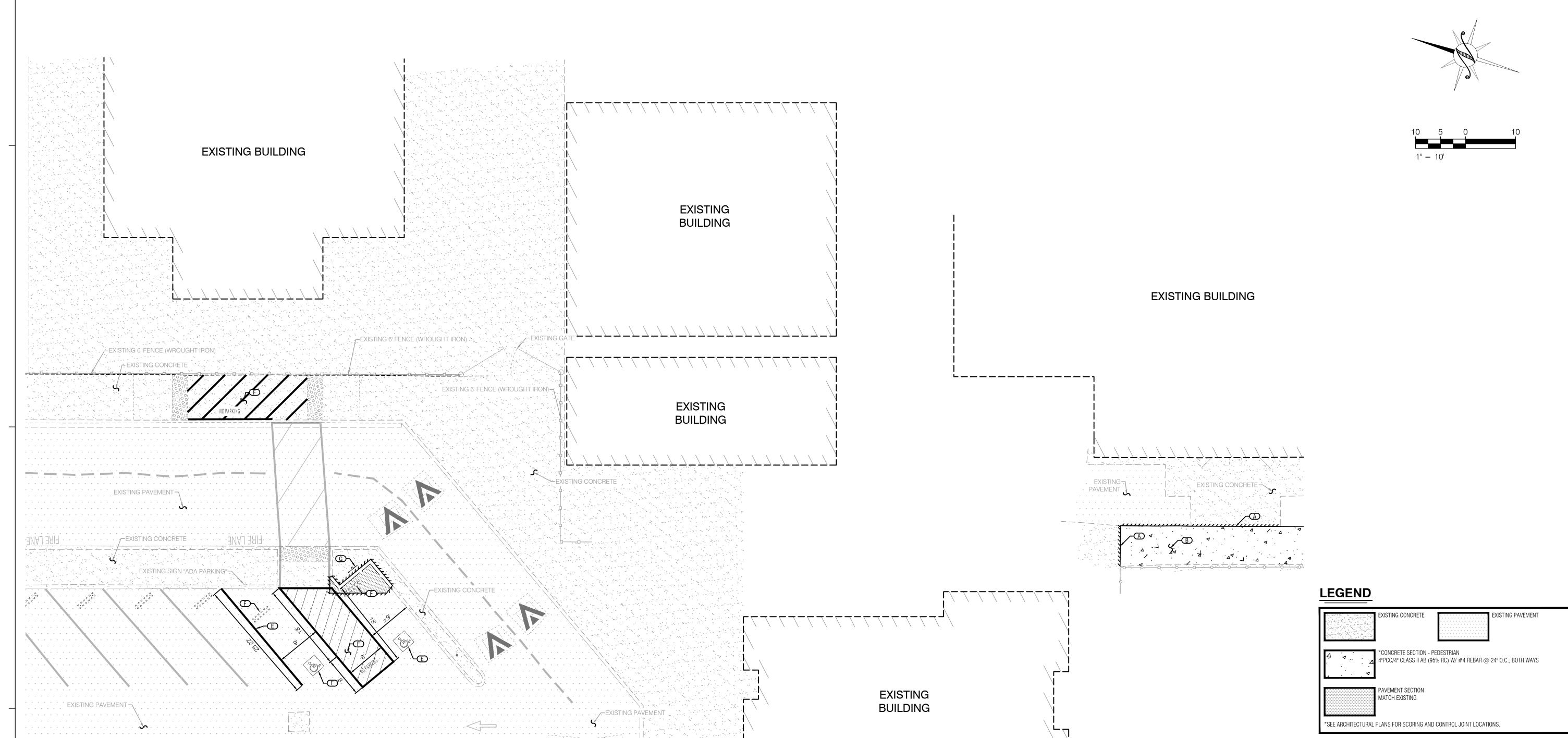
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#### **KEY NOTES**

SEE TOPOGRAPHIC AND DEMOLITION SHEET C2.1-2.2 FOR ADDITIONAL REMOVAL, REPLACEMENT

- 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 LAP JOINT PER DETAIL 1 ON SHEET C1.4 SHALL APPLY TO ALL SAWCUT LOCATIONS ALONG AC PAVEMENT, UNLESS OTHERWISE NOTED.
- (B) ACCESSIBLE PATH OF TRAVEL NOT TO EXCEED 5.0% MAX RUNNING SLOPE AND 2.0% MAX CROSS SLOPE. 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 CONTRACTOR SHALL INSTALL FENCE AND/OR GATE, AND MOW STRIP PER ARCHITECTURAL PLANS
- AND SPECIFICATIONS.
- ONTRACTOR SHALL CONSTRUCT BUILDING PER ARCHITECTURAL PLANS AND SPECIFICATIONS.
- © 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.
- © CONTRACTOR SHALL INSTALL CONCRETE WHEEL STOPS PER DETAIL 7 ON SHEET C1.4.
- © CONTRACTOR SHALL RE-INSTALL ACCESSIBLE SIGNAGE. SEE ARCHITECTURAL PLANS FOR ADDITIONAL DETAILS AND SPECIFICATIONS. USE EXTREME CAUTION WHEN INSTALLING SIGN FOOTINGS AS UNDERGROUND UTILITIES MAY EXIST.

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CIVIL IMPROVEMENT PLANS FOR ROOSEVELT ELEMENTARY SCHOOL STOCKTON, CALIFORNIA DRAWING TITLE DIMENSION AND PAVING PLAN

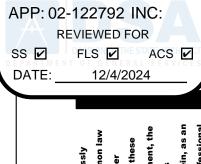
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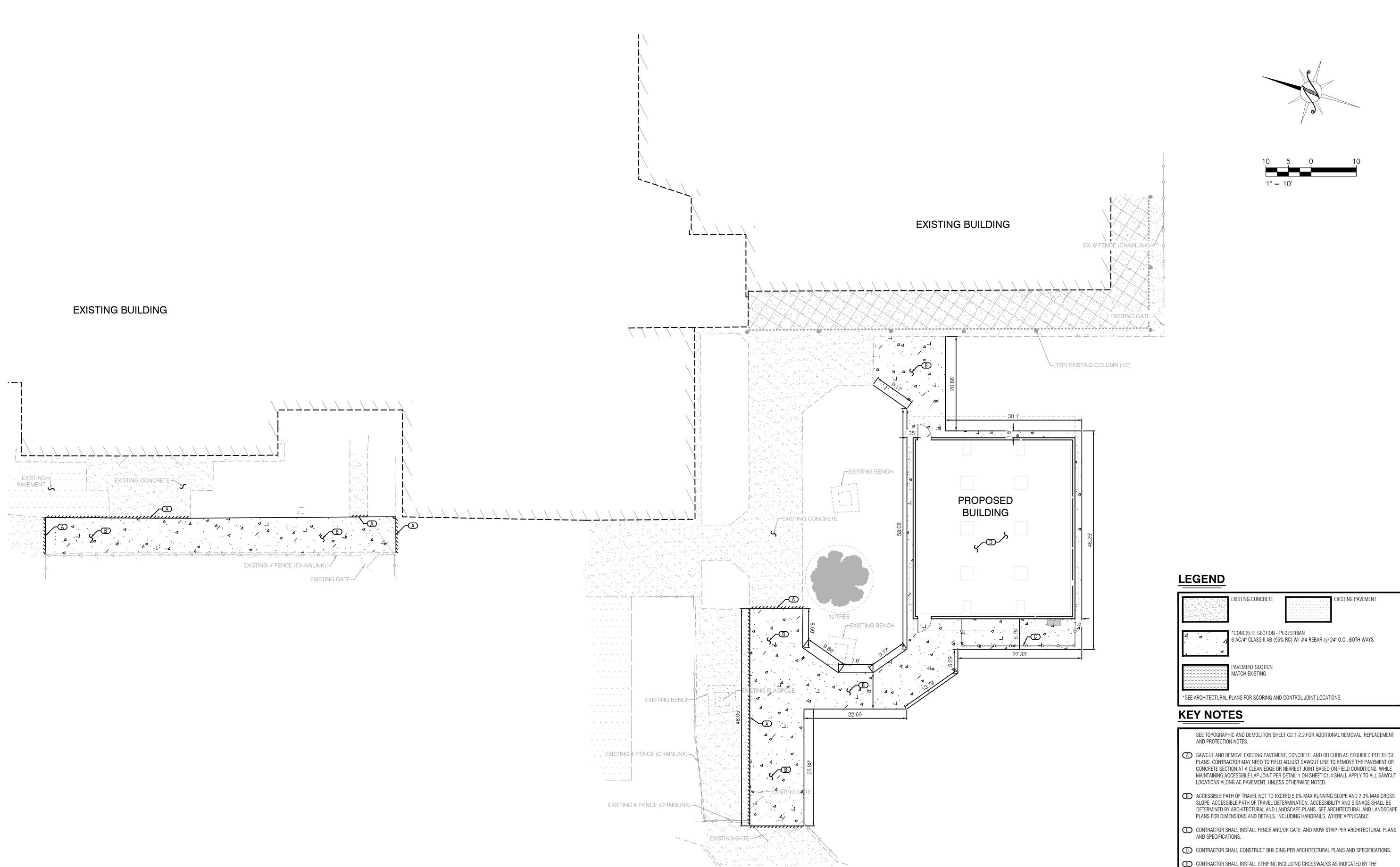
23-12907 DRAWING





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CIVIL IMPROVEMENT PLANS FOR ROOSEVELT ELEMENTARY SCHOOL STOCKTON, CALIFORNIA DRAWING TITLE

PROJECT NO.

23-12907

ARCHITECT AND THE LATEST EDITIONS OF THE CALIFORNIA BUILDING CODE STANDARDS. SEE

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ARCHITECTURAL PLANS FOR ADDITIONAL DETAILS AND SPECIFICATIONS.

FOOTINGS AS UNDERGROUND UTILITIES MAY EXIST.

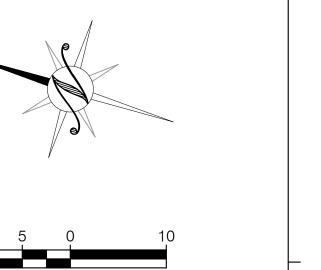
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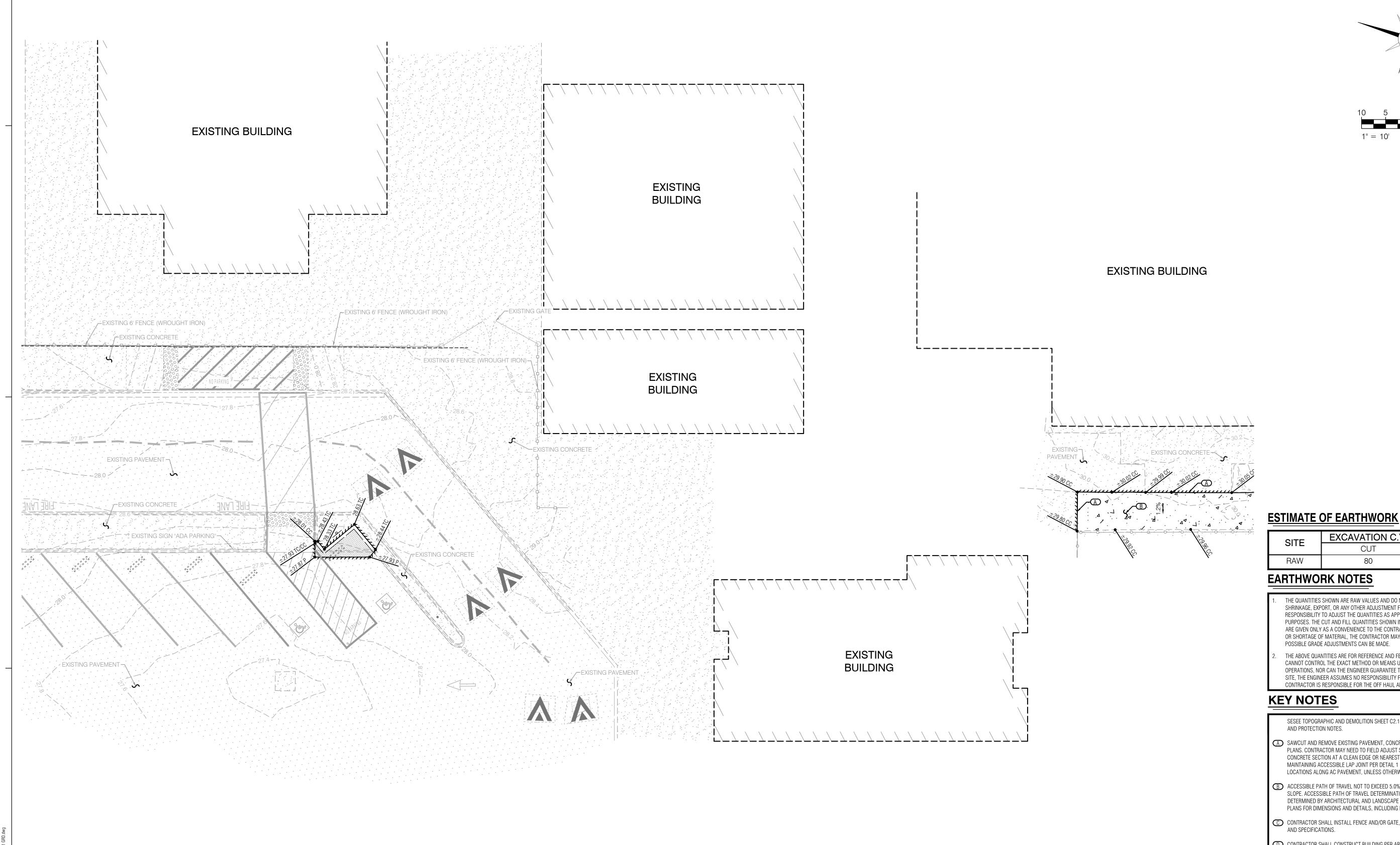


CIVIL IMPROVEMENT PLANS FOR ROOSEVELT ELEMENTARY SCHOOL STOCKTON, CALIFORNIA GRADING AND DRAINAGE PLAN

PROJECT NO.

23-12907

DRAWING





SITE	EXCAVATION C.Y.	EMBANKMENT C.Y
511E	CUT	FILL
RAW	80	17

#### **EARTHWORK NOTES**

THE QUANTITIES SHOWN ARE RAW VALUES AND DO NOT ACCOUNT FOR TRENCH SPOILS, SUBSIDENCE, SHRINKAGE, EXPORT, OR ANY OTHER ADJUSTMENT FACTORS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADJUST THE QUANTITIES AS APPROPRIATE FOR BIDDING AND CONSTRUCTION PURPOSES. THE CUT AND FILL QUANTITIES SHOWN INDICATE A THEORETICAL YARDAGE FIGURE AND ARE GIVEN ONLY AS A CONVENIENCE TO THE CONTRACTOR. IF IT APPEARS THERE WILL BE AN EXCESS OR SHORTAGE OF MATERIAL, THE CONTRACTOR MAY NOTIFY THE ENGINEER TO DETERMINE IF POSSIBLE GRADE ADJUSTMENTS CAN BE MADE.

THE ABOVE QUANTITIES ARE FOR REFERENCE AND FEE PURPOSES ONLY. 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 EARTH-WORK QUANTITIES. THE CONTRACTOR IS RESPONSIBLE FOR THE OFF HAUL AND DISPOSAL OF ANY AND ALL EXCESS DIRT.

#### **KEY NOTES**

SESEE TOPOGRAPHIC AND DEMOLITION SHEET C2.1-2.2 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 LAP JOINT PER DETAIL 1 ON SHEET C1.4 SHALL APPLY TO ALL SAWCUT LOCATIONS ALONG AC PAVEMENT, UNLESS OTHERWISE NOTED.

B ACCESSIBLE PATH OF TRAVEL NOT TO EXCEED 5.0% MAX RUNNING SLOPE AND 2.0% MAX CROSS SLOPE. 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 CONTRACTOR SHALL INSTALL FENCE AND/OR GATE, AND MOW STRIP PER ARCHITECTURAL PLANS AND SPECIFICATIONS.

ONTRACTOR SHALL CONSTRUCT BUILDING PER ARCHITECTURAL PLANS AND SPECIFICATIONS.

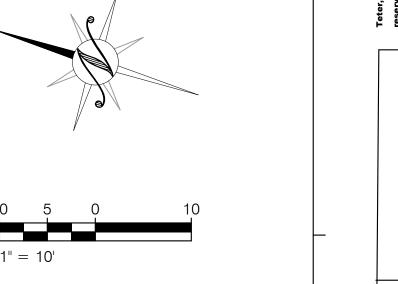
E PRIOR TO CONSTRUCTING ANY CONCRETE OR PAVEMENT THE CONTRACTOR SHALL VERIFY THE FINISH FLOOR ELEVATIONS AT ALL DOORS. CONTRACTOR SHALL HOLD FIELD VERIFIED FINISH FLOOR GRADES, ACCOUNT FOR DOOR THRESHOLDS, AND ADJUST GRADES AS NECESSARY TO STAY IN COMPLIANCE WITH CURRENT ACCESSIBLE STANDARDS. CONTRACTOR SHALL NOTIFY NORTHSTAR ENGINEERING IMMEDIATELY IF ANY GRADE ADJUSTMENTS WILL CREATE ANY ACCESSIBILITY ISSUES.

F ALL IMPERVIOUS SURFACES SHALL BE SLOPED AWAY FROM BUILDINGS 1.0% MIN FOR DRAINAGE AND 2.0% MAX FOR ACCESSIBILITY.



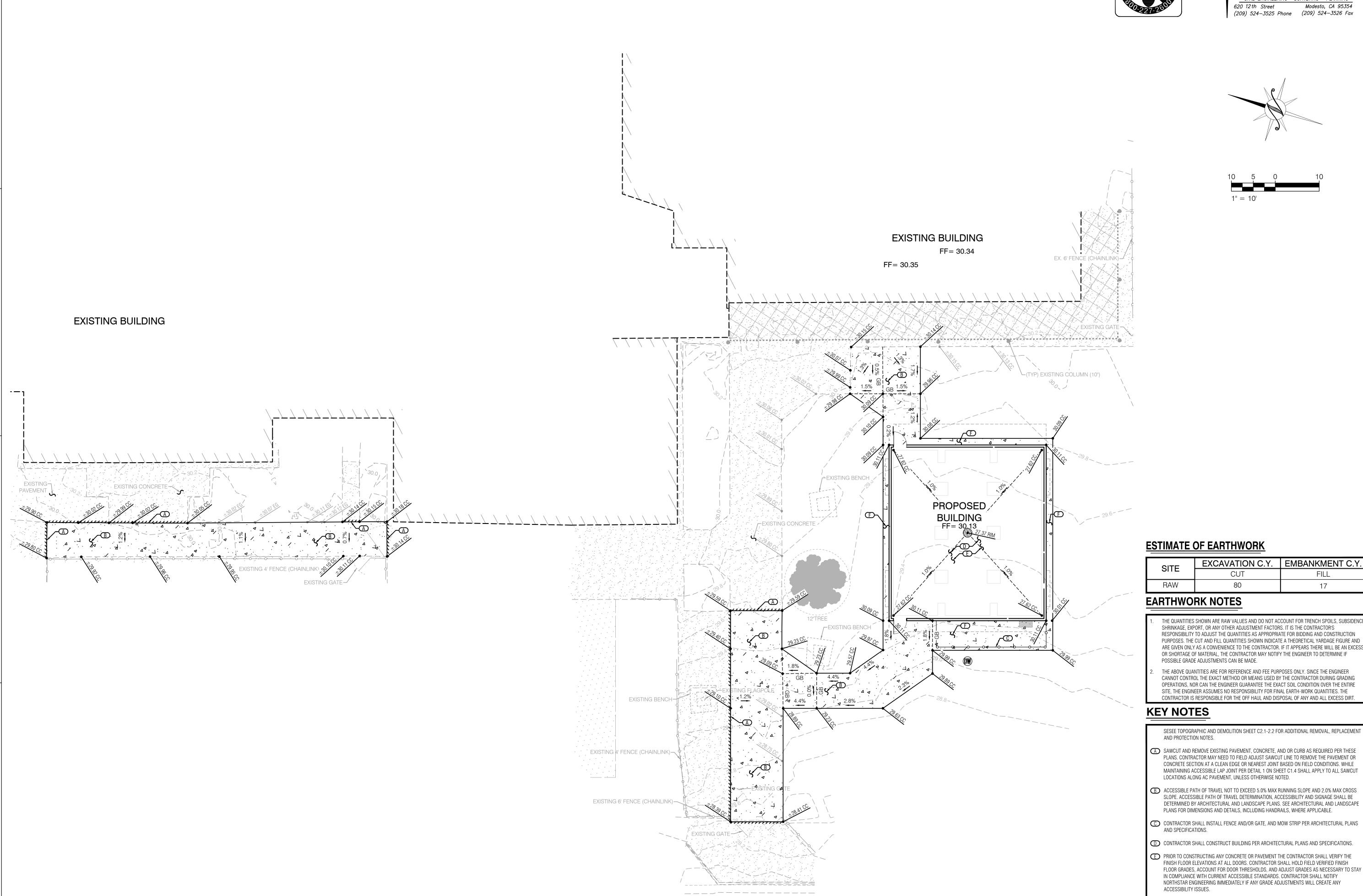


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ROVEMENT PLANS FOR VELT ELEMENTARY

PROJECT NO.





	SITE	EXCAVATION C.Y.	EMBANKMENT C.Y
SITE	CUT	FILL	
	RAW	80	17

#### **EARTHWORK NOTES**

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#### **KEY NOTES**

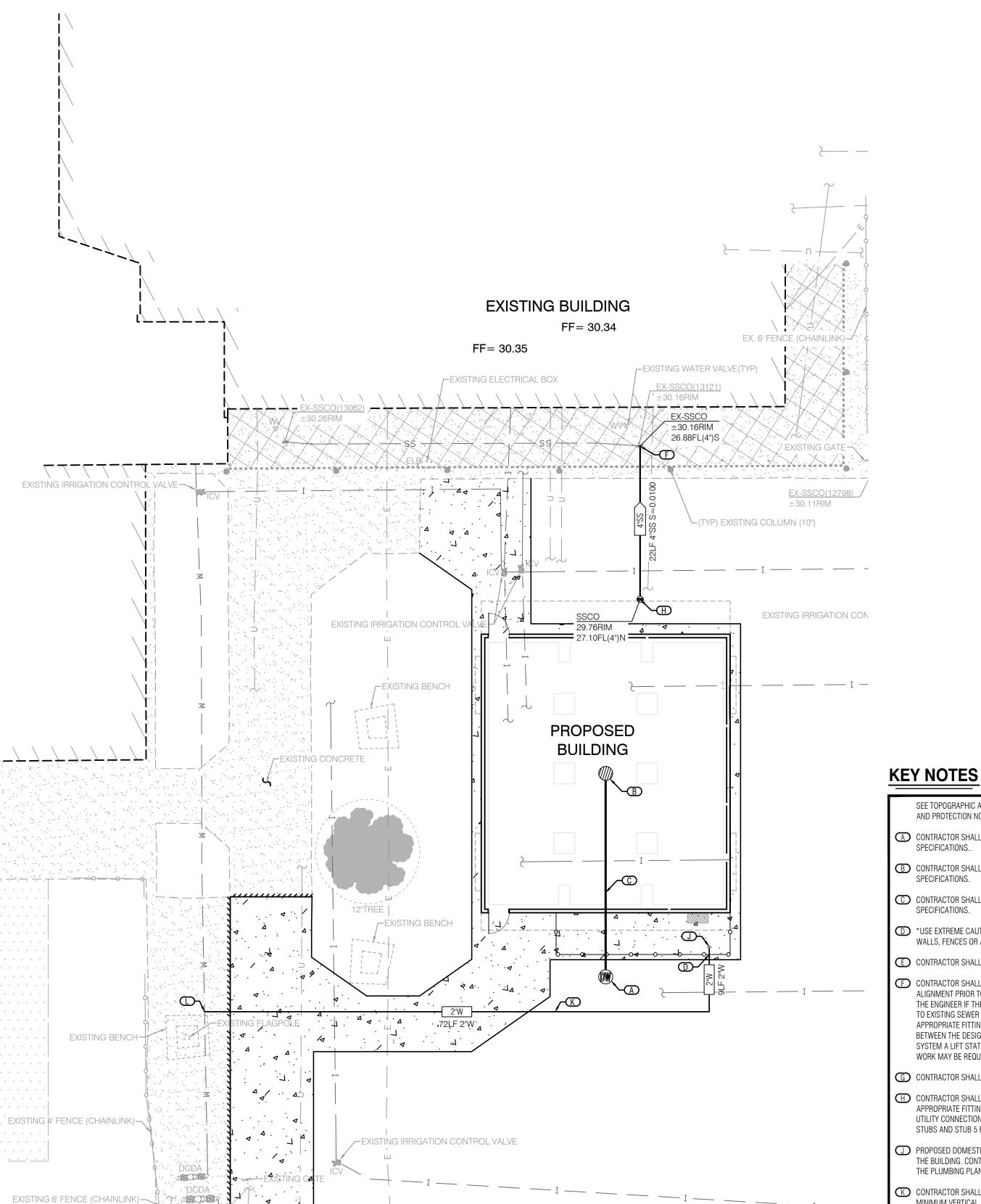
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ELB7 EXISTING ELECTRICAL BOX

EXISTING GATE

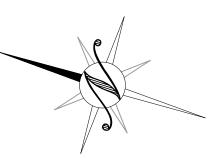
EXISTING WATER METER BOX

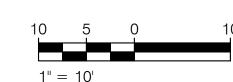
EXISTING WATER VALVE(TYP)

**EXISTING BUILDING** 

L. J. WATER FOUNTAIN

EXISTING -· PAVEMENT EXISTING STREET LIGHT









CIVIL IMPROVEMENT PLANS FOR ROOSEVELT ELEMENTARY SCHOOL STOCKTON, CALIFORNIA COMPOSITE UTILITY PLAN

PROJECT NO.

23-12907

DRAWING

SEE TOPOGRAPHIC AND DEMOLITION SHEETS C2.1-2.2 FOR ADDITIONAL REMOVAL, REPLACEMENT AND PROTECTION NOTES.

A CONTRACTOR SHALL INSTALL STORM DRAIN DRY WELL PER ARCHITECTURAL PLANS AND SPECIFICATIONS..

B CONTRACTOR SHALL INSTALL STORM DRAIN INLET PER ARCHITECTURAL PLANS AND

C CONTRACTOR SHALL INSTALL STORM DRAIN PIPING PER ARCHITECTURAL PLANS AND

\*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 STORM DRAIN CLEANOUT PER DETAIL 6 OR DETAIL 7 ON SHEET C1.4.

© 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.

G CONTRACTOR SHALL INSTALL SEWER CLEANOUT PER DETAIL 6 OR DETAIL 7 ON SHEET C1.4.

(H) CONTRACTOR SHALL INSTALL SEWER CLEANOUT PER DETAIL 6 OR DETAIL 7 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.

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.

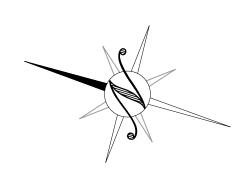
K CONTRACTOR SHALL INSTALL WATER PIPES WITH SUFFICIENT ENOUGH DEPTH TO MAINTAIN 1' MINIMUM VERTICAL CLEARANCE FORM OUTSIDE DIAMETER OF PIPES AND COMPLY WITH THE MOST CURRENT STATE HEALTH CODE AND THE CALIFORNIA BUILDING AND PLUMBING CODE STANDARDS. CONTRACTOR SHALL DEEPEN WATER PIPES AS NECESSARY AND 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 STD DWG NO. W-12 FOR THRUST BLOCK DETAILS AND

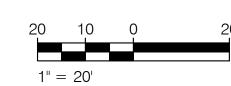
CONTRACTOR SHALL CONNECT TO EXISTING DOMESTIC WATER LINE PER CITY OF STOCKTON STANDARDS AND SPECIFICATIONS. CONTRACTOR SHALL EXCAVATE EXISTING WATER LINE TO VERIFY THE HORIZONTAL AND VERTICAL ALIGNMENT PRIOR TO THE INSTALLATION OF THE PROPOSED WATER PIPE. CONTRACTOR SHALL INFORM THE ENGINEER IF THE ALIGNMENTS ARE DIFFERENT THAN SHOWN.

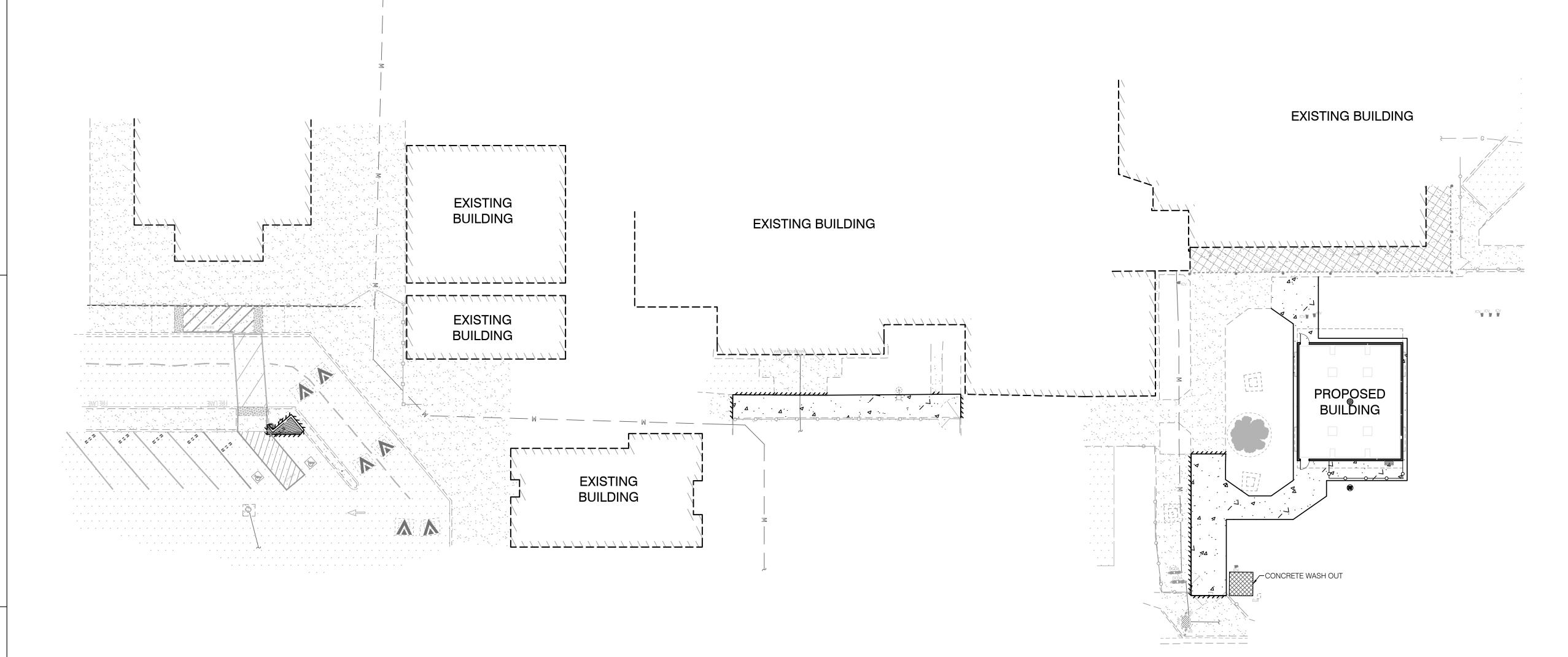




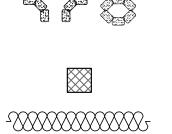
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# **LEGEND**



THE PROJECT SITE (ON EITHER DIRECTION).

CONCRETE WASHOUT AREA (SEE DETAIL "F") STRAW WATTLE (SEE DETAIL "E") TO BE PLACED AT ALL LOCATIONS SHOWN.

DETERMINED BY CONTRACTOR IN FIELD.

STRAW WATTLES SHALL ALSO BE PLACED AT THE FRONT OF ANY LOT WHERE AN UNDERCUT IS NOT PRESENT. TEMPORARY STABILIZED CONSTRUCTION ENTRANCE (SEE DETAIL "G") TO BE

INLET PROTECTION (SEE DETAILS "A", "B", C, AND "D") SHALL BE PLACED AROUND ALL CATCH BASINS WITHIN THE PROJECT DRAINAGE LIMITS; INCLUDING BUT NOT LIMITED TO ALL LANDSCAPE DRAINAGE. ALSO, INLET PROTECTION SHALL BE PLACED AT THE FIRST INLET DOWNSTREAM FROM

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CIVIL IMPROVEMENT PLANS FOR ROOSEVELT ELEMENTARY SCHOOL STOCKTON, CALIFORNIA EROSION CONTROL PLAN

PROJECT NO.

23-12907

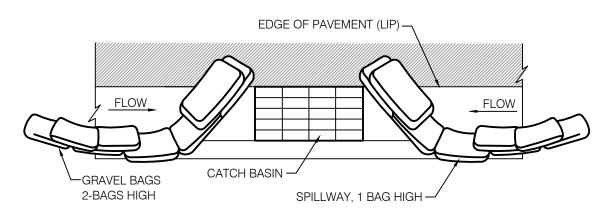
- ALL EROSION SEDIMENT STRUCTURES SHALL BE INSPECTED AFTER EACH RAINSTORM AND SHALL BE CLEANED OUT AS
- A STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF GRADING. THE LOCATION IS SHOWN ON THESE PLANS. ALL CONSTRUCTION TRAFFIC ENTERING THE PAVED ROAD MUST CROSS THE ENTRANCE.
- 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
- TO MINIMIZE EROSION OF GRADED BANKS, ALL GRADED BANKS AND STOCKPILE AREAS SHALL BE HYDROSEEDED, LANDSCAPED OR SEALED.
- 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:

101.711 FEIGHTION TINTEG OF INCEEDE 710 FOEL	EOWO / IO NE GOINED DI ONI C	or ordererer.			
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	

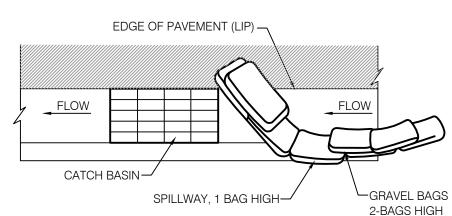
- 12. WHEN DIRECTED BY THE INSPECTOR, A 12-INCH BERM SHALL BE MAINTAINED ALONG THE TOP OF THE SLOPE OF THOSE FILLS ON WHICH GRADING IS NOT IN PROGRESS.
- 13. STAND-BY CREWS SHALL BE ALERTED BY THE PERMITTEE OR CONTRACTOR FOR EMERGENCY WORK DURING RAINSTORMS.
- . SEWER OR STORM DRAIN TRENCHES THAT DRAIN THROUGH BASIN DIKES SHALL BE PLUGGED WITH SANDBAGS FROM TOP OF PIPE TO TOP OF DIKE.
- 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 SLOP OF THE GROUND SURFACE, BUT NOT TO EXCEED THE FOLLOWING:

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

- 16. 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 BE USED AS VELOCITY CHECK DAMS.
- 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 OF THE FIELD INLET AT THE LOCATIONS SHOWN ON THIS PLAN.
- 19. 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 EACH STORM.
- 21. SANDBAGS SHALL BE STOCKPILED ON-SITE, READY TO BE PLACED IN POSITION WHEN RAIN FORECAST IS 40% CHANCE OR
- 22. EXPOSED SLOPES SHALL BE PROTECTED BY VEGETATION COVER OR FABRIC COVER AS APPROVED BY THE CITY ENGINEER
- 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.
- $^{24.}$  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.
- $27.\;\;$  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.
- 30. 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
- 31. 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).
- . 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.
- 35. CONTRACTOR SHALL ENSURE THAT CONSTRUCTION ACTIVITIES DO NOT DEPOSIT SEDIMENT ON TO THE PUBLIC ROADWAY, SIDEWALKS AND GUTTERS.
- i6. 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



## YPICAL PROTECTION FOR INLET ON GRADE

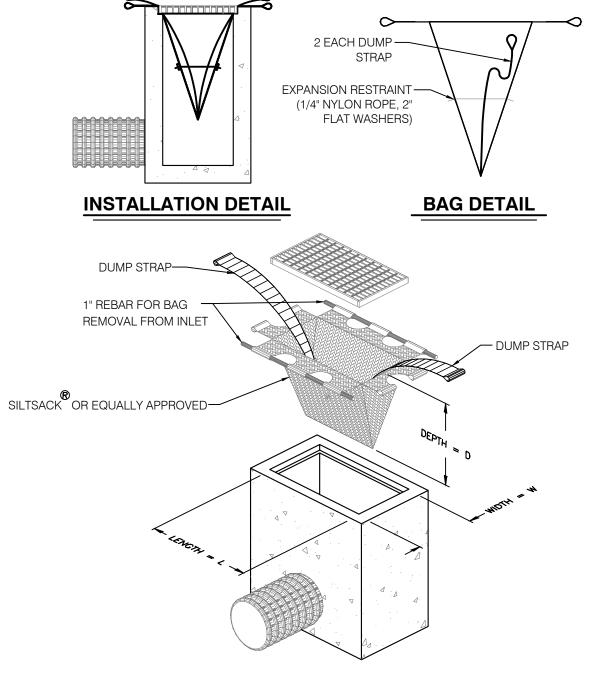
- INTENDED FOR SHORT-TERM USE.
- 2. USE TO INHIBIT NON-STORM WATER FLOW.
- 3. ALLOW FOR PROPER MAINTENANCE AND CLEAN UP. 4. BAGS MUST BE REMOVED AFTER ADJACENT OPERATION IS COMPLETED
- 5. NOT APPLICABLE IN AREAS WITH HIGH SILTS AND CLAYS WITHOUT FILTER FABRIC.

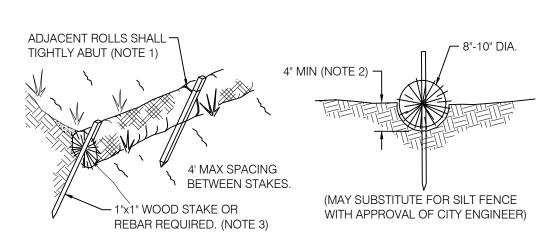
#### DI PROTECTION TYPE 3 - GRAVEL BAG

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.

- USE SAND BAG MADE OF GEOTEXTILE FABRIC (NOT BURLAP) AND FILL WITH 0.75 IN.
- ROCK OR 0.25 IN. PEA GRAVEL CONSTRUCT ON GENTLY SLOPING STREET.
- LEAVE ROOM UPSTREAM OF BARRIER FOR WATER TO POND AND SEDIMENT TO
- PLACE SEVERAL LAYERS OF SAND BAGS OVERLAPPING THE BAGS AND PACKING
- THEM TIGHTLY TOGETHER. 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.
- THIS DETAIL IS TO BE USED ON EXISTING STREETS WHERE SILTED FLOW IS TO BE 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.

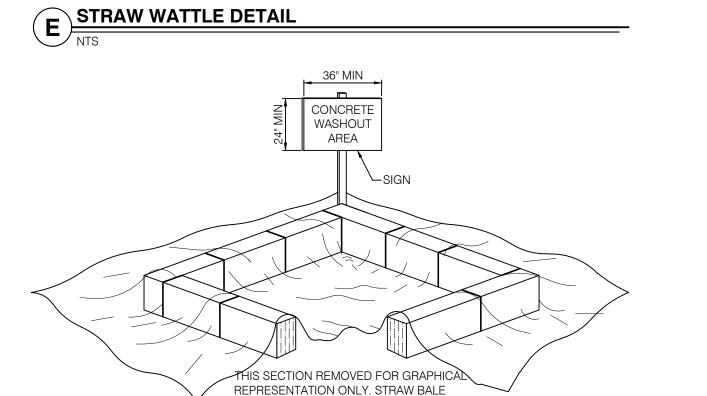
# C DI PROTECTION - TYPE 3





#### 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.



PERIMETER SHALL BE CONTINUOUS.

FACE SIGN TOWARD NEAREST STREET OR ACCESS POINT.

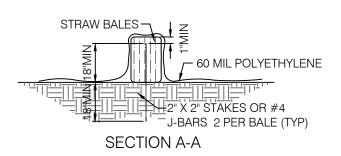
CONCRETE WASHOUT SHALL BE LOCATED BEHIND THE CURB AND

3. CONTRACTOR SHALL CONDUCT ALL CONCRETE WASHOUT OFF-SITE

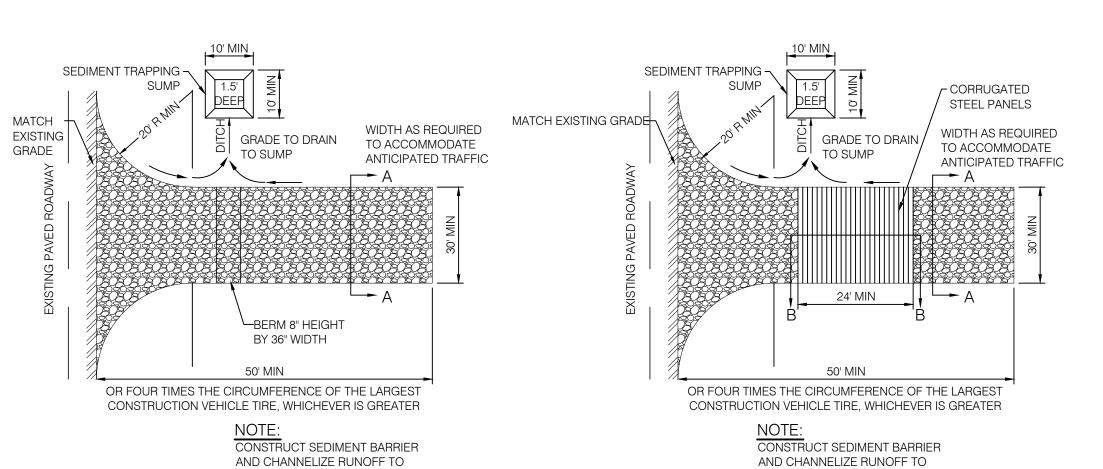
50 FEET MINIMUM FROM DRAINAGE INLETS OR WATERCOURSES.

# BALE CONFIGURATION

STRAW BALES

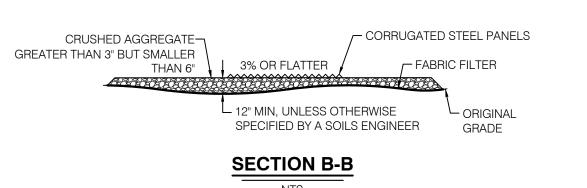


# **CONCRETE WASHOUT**



CRUSHED AGGREGATE GREATER THAN 3" BUT SMALLER TAPER EDGES 12" MIN, UNLESS OTHERWISE-└─ ORIGINAL GRADE SPECIFIED BY A SOILS ENGINEER

**SECTION A-A** 



SEDIMENT TRAPPING DEVICE

TEMPORARY STABILIZED CONSTRUCTION ENTRANCE

SEDIMENT TRAPPING DEVICE

DESIGN AND CONSTRUCTION SPECIFICATIONS: 1. THE TEMPORARY STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE PLANS AND SPECIFICATIONS OF

STORMWATER HANDBOOK, THE HANDBOOK SHALL GOVERN.

LATEST EDITION OF THE CALIFORNIA STORMWATER HANDBOOK, DETAIL TC-1. WHERE THERE IS A DISCREPANCY BETWEEN THIS DETAIL AND THE CALIFORNIA

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. 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,

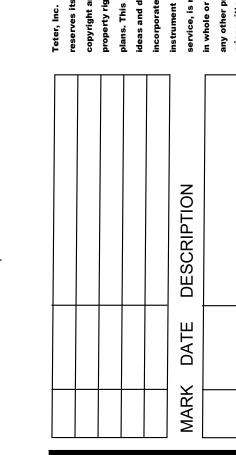
CONTRACTOR TO REMOVE AND DISPOSE OF STABILIZED CONSTRUCTION ENTRANCE UPON COMPLETION OF CONSTRUCTION 10. CONSTRUCTION AND MAINTENANCE SHALL BE IN ACCORDANCE WITH THE 2003 CALIFORNIA STORMWATER BMP HANDBOOK.

#### TEMPORARY STABILIZED CONSTRUCTION ENTRANCE

OR OTHER APPROVED METHODS.

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PLANS EMEN

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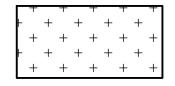
#### LANDSCAPE DEMOLITION LEGEND

#### SYMBOL DESCRIPTION

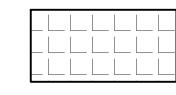


Existing Turf & Landscape Areas to Remain and Protect. Existing turf, plant material or trees that are damaged due to construction activities, vehicle damage, stress due to lack of water or other deterioration of the existing areas to remain are to be restored by the contractor to the existing condition prior to the project at no additional cost to the District. This includes damage that may occur at any area of the campus. In disturbed areas, the Contractor is to fill and grade low and depressed areas with clean sandy topsoil and sod damaged existing turf areas to match the adjacent existing turf. In shrub areas, after grading as described above, the Contractor is to repair any damage and replace any stressed or damaged plant material to match the existing. The Contractor is responsible for sodding over trenches and all disturbed turf areas due to any construction activities. Contractor is to maintain sodded and repaired landscape areas until fully established and weed free, a minimum of 90 days or until accepted by the District.

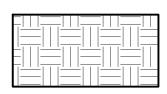
Existing Turf & Landscape Areas to Remain and Protect are not to have construction vehicle traffic or parking and are not to have stored materials in these areas. Automatic irrigation systems are to be maintained active and Contractor is to restore damaged areas as described above.



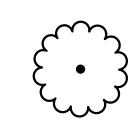
Existing Turf Demolition: Contractor is to remove existing turf areas after existing turf has been eradicated with approved chemical herbicide (3 applications min.) required. Contractor to irrigate existing turf to keep in healthy growth state. Herbicide applications are to be a minimum of 1 week apart. Contractor is to remove all vegetation and root mat. Regrade Landscape areas 1" (Turf Areas) below adjacent concrete sidewalks and contour grades to insure positive drainage in areas. Contractor is to remove all vegetation, green waste and debris off site at no additional cost to the District. All landscape areas are to have a positive slope and the site is to be free draining with no standing water. See Site Grading Plan. Contractor is to field verify the extent of Landscape Demolition prior to bid.



Existing Playground to Remain & protect.



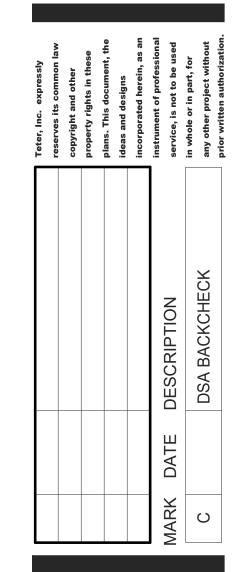
Utility Trench Repair - Contractor is to repair existing grading, landscape and irrigation improvements that are damaged or disturbed as a result of site utilities being installed. Contractor is to repair all damage to existing improvements as required. Contractor is to coordinate work with utility contractors and is to pot hole and field locate improvements to prevent damage to existing irrigation improvements. Contractor is to repair and restore damaged landscape and irrigation improvements to the pre-project condition using these plans and specifications for a standard to establish the quality of work. Utility trench repair areas where new irrigation and landscape are being installed are not shown but repair and restoration work is required in all areas of the campus, whether shown on the plans or not shown on the plans. All damaged landscape and irrigation improvements are to be repaired and restored at no additional cost to the District. Contractor to field verify.

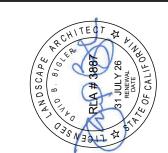


Existing Tree to Remain & Protect. Limit compaction and disturbance within the tree drip line. Provide temporary water as required to maintain a healthy growth state.

1589 W Shaw Avenue #5 Fresno, California 93711 Mail: davebigler @aol.com Tel: (559) 276-9495 Fax: (559) 276-9497

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PROJECT NO.

23-12907.00 DRAWING

LANDSCAPE DEMOLITION PLAN

#### **IRRIGATION DEMOLITION KEYNOTES**

- (1) EXISTING REMOTE CONTROL VALVE TO REMAIN & PROTECT AND MAINTAIN EXISTING CONTROLLER ASSIGNMENT. CONTRACTOR TO FIELD
- 2 EXISTING REMOTE CONTROL VALVE TO BE REMOVED, RELOCATED AND REPLACED. INSTALL NEW REMOTE CONTROL VALVE ON THE NEW IRRIGATION MAINLINE PIPE AND CONNECT TO NEW SPRINKLERS. CONTRACTOR IS INTERCEPT EXISTING LOW VOLTAGE CONTROL WIRING AND EXTEND TO THE NEW REMOTE CONTROL VALVE LOCATION FROM EXISTING CONTROLLER 'A' TO REMAIN AND PROTECT. ALL LOW VOLTAGE WIRE SPLICES ARE TO BE DONE WITH WATERPROOF DBY / DBR SPLICE KITS INSTALLED IN A VALVE BOX. SEE IRRIGATION PLAN ON PLAN SHEET L201 FOR ADDITIONAL INFORMATION. DELIVER USABLE PARTS AND VALVE BOX TO DISTRICT. DISPOSE OF ALL REMOVED MATERIALS NOT WANTED BY DISTRICT OFF SITE AT NO ADDITIONAL COST TO DISTRICT. CONTRACTOR TO FIELD VERIFY.
- EXISTING AIR RELIEF VALVE TO BE REMOVED, RELOCATED AND REPLACED. INSTALL NEW AIR RELIEF VALVE ON THE NEW IRRIGATION MAINLINE PIPE. SEE IRRIGATION PLAN ON PLAN SHEET L201 FOR ADDITIONAL INFORMATION. DELIVER USABLE PARTS AND VALVE BOX TO DISTRICT. DISPOSE OF ALL REMOVED MATERIALS NOT WANTED BY DISTRICT OFF SITE AT NO ADDITIONAL COST TO DISTRICT. CONTRACTOR TO FIELD VERIFY.
- (A) IRRIGATION POINT OF CONNECTION: CONTRACTOR IS TO CONNECT NEW IRRIGATION MAINLINE PIPE TO EXISTING IRRIGATION MAINLINE PIPE TO REMAIN IN SERVICE AT THE LOCATIONS INDICATED. EXISTING MAINLINE PIPE ROUTING IS DIAGRAMMATIC, AND CONTRACTOR IS TO FIELD LOCATE TO DETERMINE POINTS OF CONNECTION IN THE FIELD. SEE IRRIGATION PLAN L201 FOR ADDITIONAL INFORMATION. CONTRACTOR IS TO TRACE AND IDENTIFY EXISTING LOW VOLTAGE CONTROL WIRING THAT TRAVERSES THROUGH THE PROJECT AND IS TO INTERCEPT, AND EXTEND EXISTING LOW VOLTAGE CONTROL WIRING TO NEW RELOCATED REMOTE CONTROL VALVES. ALL REMOTE CONTROL VALVES BEING INSTALLED OR MODIFIED AS PART OF THIS PROJECT ARE TO HAVE EXISTING LOW VOLTAGE CONTROL WIRING EXTENDED AS REQUIRED TO NEW VALVE LOCATIONS FROM EXISTING CONTROLLER 'A'. CONTRACTOR IS TO TRACE ALL EXISTING LOW VOLTAGE CONTROL WIRING IN THE FIELD, FOR ALL EXISTING VALVES TO REMAIN AND PROTECT, TO DETERMINE THE BEST LOCATION TO INTERCEPT EXISTING CONTROL WIRES AS NOTED ABOVE. ALL EXISTING VALVES TO REMAIN AND PROTECT ARE NOT SHOWN ON THE PLAN AND CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING LOW VOLTAGE CONTROL WIRING TO ALL EXISTING VALVES TO REMAIN AND PROTECT FROM EXISTING IRRIGATION CONTROLLER TO REMAIN AND PROTECT. CONTRACTOR TO FIELD VERIFY.

#### IRRIGATION DEMOLITION LEGEND

SYMBOL DESCRIPTION

Existing Sprinklers to be removed. Deliver usable parts to the District. Dispose of all removed materials not wanted by the District off site at no additional cost to District. Contractor to field verify.

----- Existing Lateral Pipe to be modified as required. Routing shown is diagrammatic. Contractor is to pot hole and field locate all relevant existing irrigation improvements that affect construction activities. Modify as required for the project. See Keynotes, Designated Irrigation Demolition Areas and Landscape Irrigation Plans, L201 for additional information. Sections of the existing lateral pipe are being taken out of service. Lateral piping being taken out of service is to be removed where it interfere's with construction activities, or is located below the proposed buildings, otherwise lateral piping may be abandoned below grade. Contractor to field verify.

Existing Irrigation Mainline (Remain & Protect): Routing shown is diagrammatic. Contractor is to pot hole and field locate all relevant existing irrigation improvements that affect construction activities. Sections of the existing mainline pipe are to remain and protect and other sections are being taken out of service. Contractor is to field verify existing conditions prior to bid to determine the final extent of work. See Irrigation Plans for additional information where new irrigation mainline will replace existing irrigation mainline pipe. Contractor to field verify.

all relevant existing irrigation improvements that affect construction activities. Sections of the existing mainline pipe are being taken out of service. Mainline piping being taken out of service is to be removed where it interfere's with construction activities, or is located below the proposed buildings, otherwise mainline piping may be abandoned below grade. Cap ends to abandon below grade where it is cut or damaged. Contractor is to field verify existing conditions prior to bid to determine the final extent of work. See Irrigation Plans for additional information where new irrigation mainline will replace existing irrigation mainline pipe. Contractor to field verify.

 $\langle -|-\rangle$ Existing Remote Control Valve to Remain & Protect, unless otherwise noted. See Keynotes, designated Irrigation Demolition Areas and Landscape Irrigation Plan. Contractor to field verify.

Existing Air Relief Valve to be removed, relocated and replaced, unless otherwise noted. See Keynotes, designated Irrigation Demolition Areas and Landscape Irrigation Plan, L201 for additional information. Deliver usable parts and valve box to District. Dispose of all removed materials not wanted by District off site at no additional cost to District. Contractor to field verify.

Existing Controller # / Station # Gallons per minute (UNK - Valve flow rate is unknown)

NOT Existing Irrigation Controller 'A' to remain and protect. Contractor to field verify. See Landscape Irrigation Plan on Plan Sheet SHOWN L201 for additional information.

Existing Irrigation Improvements to Remain and Protect. All areas adjacent to the project area have existing Irrigation Improvements to Remain & Protect. Contractor is to repair all damage to existing improvements that are intended to remain & protect to match existing improvements. Damage may be a direct or indirect result of their work or may be caused by neglect. Contractor to field verify.

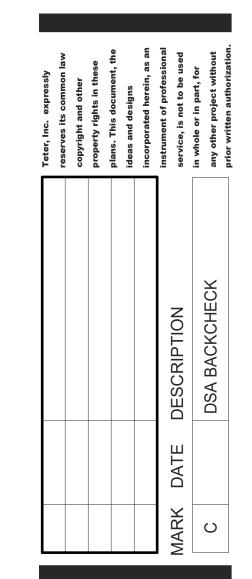
Existing Irrigation Areas to be Removed. The Contractor is to remove existing sprinklers, valves and other irrigation improvements visible at the surface in areas to receive new irrigation and deliver salvaged parts, including, but not limited to sprinklers, valves, valve boxes etc., to the District Maintenance Department. Piping is to be removed where it interferes with construction activities or is below proposed buildings, otherwise piping may be abandoned below grade. Where piping is brought to the surface, the Contractor shall cut it off a minimum of 12" below grade and capped. Depressions and holes that are created from removing existing irrigation improvements being replaced are to be filled with clean topsoil level with surrounding grade and compacted. Irrigation system and building water are to remain intact and operational for areas to remain and protect. Contractor to field verify.

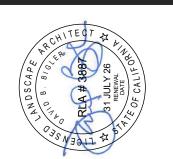
Existing Playground to Remain & protect.

Utility Trench Repair - Contractor is to repair existing grading, landscape and irrigation improvements that are damaged or disturbed as a result of site utilities being installed. Contractor is to repair all damage to existing improvements as required. Contractor is to coordinate work with utility contractors and is to pot hole and field locate improvements to prevent damage to existing irrigation improvements. Contractor is to repair and restore damaged landscape and irrigation improvements to the pre-project condition using these plans and specifications for a standard to establish the quality of work. Utility trench repair areas where new irrigation and landscape are being installed are not shown but repair and restoration work is required in all areas of the campus, whether shown on the plans or not shown on the plans. All damaged landscape and irrigation improvements are to be repaired and restored at no additional cost to the District. Contractor to field verify.

Dashed symbols represent existing irrigation improvements to Remain & Protect unless otherwise noted or located in areas to receive new improvements or areas to have new irrigation installed. Existing locations are diagrammatic. Contractor is to field locate all existing improvements that may effect the work. Contractor to field verify.

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SCI-LOP AVF

TON UNIFIED SEVELT E.S. ELC

PROJECT NO. 23-12907.00

DRAWING

David Bigler Associates

Landscape Architect #3887 1589 W Shaw Avenue #5

Fresno, California 93711 Mail: davebigler @aol.com Tel: (559) 276-9495 Fax: (559) 276-9497

# PROJECT LANDSCAPE AND HARDSCAPE AREA **SHADING CALCULATION**

	100%	75%	50%	25%	Total
LARGE TREE (35' - 40')	962 SF	722 SF	481 SF	241 SF	
1. Existing Trees	5	0	0	0	
	0	0	0	0	
	0	0	0	0	
	0	0	0	0	
SHADE QUANTITY (SF)	4,810 SF	0 SF	0 SF	0 SF	4,810 SF
MEDIUM TREE (30' - 35')	707 SF	530 SF	354 SF	177 SF	
, , , , ,	0	0	0	0	
SHADE QUANTITY (SF)	0 SF	0 SF	0 SF	0 SF	0 SF
SMALL TREE (20' - 25')	452 SF	339 SF	226 SF	113 SF	
1. Existing Trees	1	0	0	0	
SHADE QUANTITY (SF)	452 SF	0 SF	0 SF	0 SF	452 SF
TOTAL TREE SHADING PROVID	ED FOR PROJECT I	LANDSCAPE AI	ND HARDSCAPE	AREAS	5,262 SF
TOTAL PROJECT LANDSCAPE	AND HARDSCAPE A	AREAS			14,956 SF
PROJECT LANDSCAPE AND TR	EE SHADING PERC	ENTAGE (MIN. 2	20% REQ'D)		35%

## LANDSCAPE PLANTING LEGEND

WATER **DESCRIPTION** SYMBOL SIZE USE

 $\forall$   $\forall$   $\forall$ 

MOD

Existing Tree to Remain & Protect. Limit compaction and disturbance within the tree drip line. Provide temporary water as required to maintain a healthy growth state.

Sodded Turfgrass - Celebration Hybrid Bermudagrass Sod as supplied by Delta Bluegrass Sod, (800) 637-8873, or approved equal. See specifications. Contractor is to maintain sodded turfgrass until fully established and weed free.

Contractor is to remove existing turf areas where new improvements or sod are shown. Contractor is to remove all vegetation and shrubbery where new improvements are shown. Remove root systems as required to a minimum depth of 18" below grade for shrubs and trees. Regrade turf areas 1" below adjacent concrete sidewalks and contour grades to insure positive drainage. Contractor is to remove all vegetation, green waste and debris off site at no additional cost to the District. All planters are to have a positive slope away from buildings (min. 2%

Stabilized Decomposed Granite Areas - 3" compacted layer of stabilized Gold Decomposed Granite installed over compacted subgrade. Excavate existing soil as required to achieve the design finish grade (top of DG) to insure site drainage to established existing drainage patterns. See Installation Detail #10 on Plan Sheet L301 for additional information.

Existing Turf & Landscape Areas to Remain and Protect. Existing turf, plant material or trees that are damaged due to construction activities, vehicle damage, stress due to lack of water or other deterioration of 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. In disturbed areas, the Contractor is to fill and grade low and depressed areas with clean sandy topsoil and sod existing turf areas to match the adjacent existing turf. In shrub areas, after grading as described above, the Contractor is to repair any damage and replace any stressed or damaged plant material to match the existing. The Contractor is responsible for sodding over trenches and all disturbed turf areas due to any construction activities. Contractor is to maintain sodded and repaired landscape areas until fully established and weed free, a minimum of 90 days or until accepted by the District.

Existing Turf & Landscape Areas to Remain and Protect are not to have construction vehicle traffic or parking and are not to have stored materials in these areas. Automatic irrigation systems are to be maintained active and Contractor is to restore damaged areas as described above.

Existing Playground to Remain & protect.

Utility Trench Repair - Contractor is to repair existing grading, landscape and irrigation improvements that are damaged or disturbed as a result of site utilities being installed. Contractor is to repair all damage to existing improvements as required. Contractor is to coordinate work with utility contractors and is to pot hole and field locate improvements to prevent damage to existing irrigation improvements. Contractor is to repair and restore damaged landscape and irrigation improvements to the pre-project condition using these plans and specifications for a standard to establish the quality of work. Utility trench repair areas where new irrigation and landscape are being installed are not shown but repair and restoration work is required in all areas of the campus, whether shown on the plans or not shown on the plans. All damaged landscape and irrigation improvements are to be repaired and restored at no additional cost to the District. Contractor to field verify.

6" x 6" Concrete Mow Strip with one (1) #4 rebar and deep groove expansion joints installed ten feet (10'-0") on center. See Installation Detail #11 on Plan Sheet L301 for additional information.

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APP: 02-122792 INC:



PROJECT NO.

23-12907.00

David Bigler Associates

Landscape Architect #3887 1589 W Shaw Avenue #5

Fresno, California 93711 Mail: davebigler @aol.com Tel: (559) 276-9495 Fax: (559) 276-9497



SEE IRRIGATION LEGEND AND NOTES ON PLAN SHEET L203

#### **IRRIGATION KEYNOTES**

- (1) EXISTING REMOTE CONTROL VALVE TO REMAIN & PROTECT AND MAINTAIN EXISTING CONTROLLER ASSIGNMENT. CONTRACTOR TO FIELD
- 2 EXISTING REMOTE CONTROL VALVE TO BE REMOVED, RELOCATED AND REPLACED. INSTALL NEW REMOTE CONTROL VALVE ON THE NEW IRRIGATION MAINLINE PIPE AND CONNECT TO NEW SPRINKLERS. CONTRACTOR IS INTERCEPT EXISTING LOW VOLTAGE CONTROL WIRING AND EXTEND TO THE NEW REMOTE CONTROL VALVE LOCATION FROM EXISTING CONTROLLER 'A' TO REMAIN AND PROTECT. ALL LOW VOLTAGE WIRE SPLICES ARE TO BE DONE WITH WATERPROOF DBY / DBR SPLICE KITS INSTALLED IN A VALVE BOX. SEE IRRIGATION DEMOLITION PLAN ON PLAN SHEET L101 FOR ADDITIONAL INFORMATION. DELIVER USABLE PARTS AND VALVE BOX TO DISTRICT. DISPOSE OF ALL REMOVED MATERIALS NOT WANTED BY DISTRICT OFF SITE AT NO ADDITIONAL COST TO DISTRICT. CONTRACTOR TO FIELD VERIFY.
- EXISTING AIR RELIEF VALVE TO BE REMOVED, RELOCATED AND REPLACED. INSTALL NEW AIR RELIEF VALVE ON THE NEW IRRIGATION MAINLINE PIPE. SEE IRRIGATION DEMOLITION PLAN ON PLAN SHEET L101 FOR ADDITIONAL INFORMATION. DELIVER USABLE PARTS AND VALVE BOX TO DISTRICT. DISPOSE OF ALL REMOVED MATERIALS NOT WANTED BY DISTRICT OFF SITE AT NO ADDITIONAL COST TO DISTRICT. CONTRACTOR TO FIELD VERIFY.
- IRRIGATION POINT OF CONNECTION: CONTRACTOR IS TO CONNECT NEW IRRIGATION MAINLINE PIPE TO EXISTING IRRIGATION MAINLINE PIPE LOCATE TO DETERMINE POINTS OF CONNECTION IN THE FIELD. SEE IRRIGATION DEMOLITION PLAN L101 FOR ADDITIONAL INFORMATION. CONTRACTOR IS TO TRACE AND IDENTIFY EXISTING LOW VOLTAGE CONTROL WIRING THAT TRAVERSES THROUGH THE PROJECT AND IS TO INTERCEPT, AND EXTEND EXISTING LOW VOLTAGE CONTROL WIRING TO NEW RELOCATED REMOTE CONTROL VALVES. ALL REMOTE CONTROL VALVES BEING INSTALLED OR MODIFIED AS PART OF THIS PROJECT ARE TO HAVE EXISTING LOW VOLTAGE CONTROL WIRING EXTENDED AS REQUIRED TO NEW VALVE LOCATIONS FROM EXISTING CONTROLLER 'A'. CONTRACTOR IS TO TRACE ALL EXISTING LOW VOLTAGE CONTROL WIRING IN THE FIELD, FOR ALL EXISTING VALVES TO REMAIN AND PROTECT, TO DETERMINE THE BEST LOCATION TO INTERCEPT EXISTING CONTROL WIRES AS NOTED ABOVE. ALL EXISTING VALVES TO REMAIN AND PROTECT ARE NOT SHOWN ON THE PLAN AND CONTRACTOR IS RESPONSIBLE TO PROTECT EXISTING LOW VOLTAGE CONTROL WIRING TO ALL EXISTING VALVES TO REMAIN AND PROTECT FROM EXISTING IRRIGATION CONTROLLER 'A' TO REMAIN AND PROTECT. CONTRACTOR TO FIELD VERIFY.
- 5 CONTRACTOR IS TO FIELD LOCATE THE EXISTING LATERAL PIPE AND CONNECT NEW LATERAL PIPE AS SHOWN ON THE PLAN. CONTRACTOR IS TO MATCH EXISTING PIPE SIZE. CONTRACTOR TO FIELD VERIFY.

Water Usage Chart - MAWA vs. ETWU

MAWA=  $(Et_0) \times (0.62) \times [(0.45 \times LA) + (1.0 - 0.45) \times SLA)]$ 

=  $(53.3) \times (0.62) \times [(0.45 \times 13,520) + (1.0 - 0.45) \times 13,520)]$ 

= 446,782 gallons per year

**Hydrozone #1 -** SLA  $MAWA = (Et_0) \times (0.62) \times (SLA)$ 

 $= (53.3) \times (0.62) \times (13,520)$ 

= 446,782 gallons per year

TOTAL ETWU (Sum of Hydrozone 1) = 446,782 gallons per year

MAWA > ETWU

446,782 gallons > 446,782 gallons

Hydrozone (HZ)	Plant Water Use Req.	Plant Factor (PF)	Hydrozone Area (sq ft) (HA)	Zone or Valve Numbers	Irrigation Method	Percent of Landscape Area	Irrigation Efficiency (IE)
1	SLA	N/A	13,520	A-05 THRU A-11	Sprays	100%	N/A
		Sum	13,520				





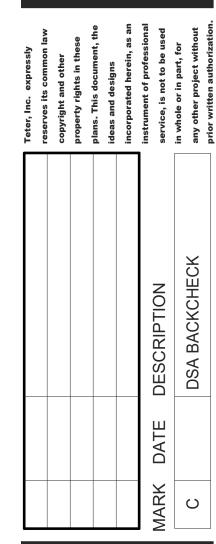
Landscape Architect #3887

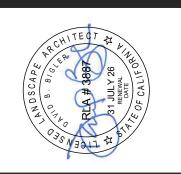
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PROJECT NO.

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- 1. PRODUCT "OR APPROVED EQUAL" SPECIFICATION NOTE: ALL SPECIFIED MATERIALS, PRODUCTS AND MANUFACTURERS ARE RELEVANT TO DESCRIBE THE REQUIRED QUALITY AND FEATURES OF A PARTICULAR COMPONENT OF THE PROJECT. HOWEVER, THE SPECIFIC PRODUCT OR MANUFACTURER NOTED IS TO BE CONSTRUED TO BE FOLLOWED BY THE WORDS. "OR APPROVED EQUAL".
- 2. GENERAL NOTE: THE CONTRACTOR IS TO SUPPLY ALL EQUIPMENT. MATERIALS AND LABOR TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM. ADDITIONAL EQUIPMENT AND MATERIALS IN ADDITION TO THE SYSTEM COMPONENTS LISTED IN THE LEGEND MAY BE REQUIRED TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.
- 3. SPRINKLER ADJUSTMENT NOTE: CONTRACTOR SHALL MAKE ANY ADJUSTMENTS OR CHANGES TO SPRINKLERS. NOZZLES. RADIUS AND ARCS AS REQUIRED TO PROVIDE 100% COVERAGE TO ALL LANDSCAPE AREAS AND PREVENT OVER SPRAY ONTO BUILDINGS OR HARDSCAPED SURFACES.
- 4. EXISTING IRRIGATION SYSTEM AND WATERING NOTE: THE CONTRACTOR IS RESPONSIBLE TO KEEP THE EXISTING IRRIGATION SYSTEM TO REMAIN OPERATIONAL TO IRRIGATE ALL LANDSCAPED AREAS. WHERE AUTOMATIC OPERATION OF EXISTING IRRIGATION SYSTEMS IS INTERRUPTED DUE TO CONSTRUCTION ACTIVITIES, THE CONTRACTOR IS RESPONSIBLE TO SUPPLY TEMPORARY IRRIGATION TO NEW AND/OR EXISTING AREAS THAT ARE AFFECTED BY THE SERVICE INTERRUPTION AS REQUIRED DUE TO PREVAILING WEATHER CONDITIONS. THE CONTRACTOR SHALL MAKE REPAIRS TO THE EXISTING SYSTEM AS NEEDED. THE CONTRACTOR IS TO ASSIST CAMPUS MAINTENANCE PERSONNEL AS NEEDED TO KEEP THE EXISTING LANDSCAPED AREAS IRRIGATED. AREAS AFFECTED BY NEW CONSTRUCTION ARE TO BE IRRIGATED BY THE CONTRACTOR. CONTRACTOR IS TO REPLACE ANY DEAD OR STRESSED PLANT MATERIALS (TO MATCH EXISTING) THAT WERE TO REMAIN THAT WERE DAMAGED OR NEGLECTED DUE TO CONSTRUCTION ACTIVITIES.
- 5. EXISTING IRRIGATION SYSTEM TO BE REPLACED BY NEW IRRIGATION SYSTEM NOTE: THE CONTRACTOR IS TO REMOVE EXISTING SPRINKLERS, VALVES AND OTHER IRRIGATION IMPROVEMENTS VISIBLE AT THE SURFACE IN AREAS TO RECEIVE NEW IRRIGATION AND DELIVER SALVAGED PARTS, INCLUDING, BUT NOT LIMITED TO SPRINKLERS, VALVES, VALVE BOXES ETC., TO THE CAMPUS MAINTENANCE DEPARTMENT. PIPING IS TO BE REMOVED WHERE IT INTERFERES WITH CONSTRUCTION ACTIVITIES, OTHERWISE PIPING MAY BE ABANDONED BELOW GRADE. WHERE PIPING IS BROUGHT TO THE SURFACE, THE CONTRACTOR SHALL CUT IT OFF A MINIMUM OF 12" BELOW GRADE. DEPRESSIONS AND HOLES THAT ARE CREATED FROM REMOVING EXISTING IRRIGATION IMPROVEMENTS BEING REPLACED ARE TO BE FILLED WITH CLEAN TOPSOIL LEVEL WITH SURROUNDING GRADE AND COMPACTED. IRRIGATION SYSTEM AND BUILDING WATER ARE TO REMAIN INTACT AND OPERATIONAL.
- 6. CAMPUS IRRIGATION WATER AVAILABILITY NOTE: THE CONTRACTOR IS TO INSTALL ALL REROUTED MAINLINE PIPES WHILE LEAVING THE EXISTING IRRIGATION SYSTEM IN SERVICE DURING THE PROJECT. WHEN ALL PIPING AND WIRE REROUTING WORK IS COMPLETE THE CONTRACTOR MAY ARRANGE TO SHUT OFF THE WATER TO MAKE FINAL CONNECTIONS FOR A PERIOD OF TIME NOT TO EXCEED TWO DAYS. THE CAMPUS MAINTENANCE SUPERVISOR IS TO BE GIVEN A MINIMUM OF ONE WEEK WRITTEN NOTICE TO OVERWATER THE CAMPUS AREAS IN QUESTION PRIOR TO SHUTTING OFF THE WATER TO MAKE FINAL CONNECTIONS. IF PREVAILING WEATHER CONDITIONS ARE OVER 95 DEGREES DAYTIME HIGH TEMPERATURES, THEN THE SHUT DOWN DURATION MAY BE LIMITED TO NO MORE THAN ONE DAY AS DECIDED BY CAMPUS MAINTENANCE SUPERVISOR.
- 7. EXISTING TURF, PLANT & TREE TO REMAIN & PROTECT NOTE: THE CONTRACTOR IS RESPONSIBLE TO REPLACE ANY EXISTING TURF, PLANT MATERIALS OR TREES THAT ARE DAMAGED DUE TO CONSTRUCTION ACTIVITIES, VEHICLE DAMAGE, AND STRESS DUE TO LACK OF WATER OR OTHER DETERIORATION OF 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.
- 8. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ANY VEGETATION WITHIN THE PROJECT AREA THAT IS NOT CALLED TO REMAIN AND PROTECT. ANY ADJACENT LANDSCAPE AREAS OUTSIDE THE PROJECT AREA THAT ARE TO REMAIN AND PROTECT THAT ARE DAMAGED ARE TO BE REPAIRED AND RESTORED AT NO ADDITIONAL COST TO THE DISTRICT, CONTRACTOR IS TO VISIT THE SITE PRIOR TO BID TO VERIFY EXISTING CONDITIONS AND IMPROVEMENTS.
- 9. EXISTING IRRIGATION REMOTE CONTROL VALVES TO BE REMOVED NOTE: PRIOR TO ANY DEMOLITION WORK CONTRACTOR IS TO FIELD VERIFY THAT ANY IRRIGATION SYSTEMS CONNECTED TO REMOTE CONTROL VALVES NOTED TO BE REMOVED HAVE NEW IRRIGATION PLANNED FOR THOSE AREAS. IF ANY IRRIGATION SYSTEM, OR PART THERE OF, IS LOCATED IN AN EXISTING AREA TO REMAIN & PROTECT, THE CONTRACTOR IS TO LEAVE THAT VALVE, OR A PORTION OF IT, IN SERVICE AS REQUIRED. NOTIFY THE LANDSCAPE ARCHITECT FOR DIRECTION. CONTRACTOR TO FIELD VERIFY.
- 10. ALL AREAS ADJACENT TO THE PROJECT AREA HAVE EXISTING IRRIGATION IMPROVEMENTS TO REMAIN & PROTECT. CONTRACTOR IS TO REPAIR ALL DAMAGE TO EXISTING IMPROVEMENTS THAT ARE INTENDED TO REMAIN & PROTECT TO MATCH EXISTING IMPROVEMENTS. DAMAGE MAY BE A DIRECT, INDIRECT RESULT OF THEIR WORK OR MAY BE CAUSED BY NEGLECT. CONTRACTOR TO FIELD VERIFY.
- 11. SEE LANDSCAPE IRRIGATION PLAN FOR WORK RELATING TO EXISTING SPRINKLERS AND LATERAL PIPING. CONTRACTOR TO FIELD VERIFY.
- 12. MANUAL IRRIGATION NOTE: THE CONTRACTOR IS RESPONSIBLE TO MANUALLY IRRIGATE ANY EXISTING IRRIGATION SYSTEM AREAS ON THE SITE WHERE THE EXISTING AUTOMATIC OPERATION OF THE EXISTING SYSTEMS TO REMAIN AND PROTECT ARE INTERRUPTED DUE TO CONSTRUCTION ACTIVITIES. DEPENDING UPON PREVAILING WEATHER CONDITIONS DAILY WATERING MAY BE REQUIRED AS REQUESTED BY THE CAMPUS MAINTENANCE SUPERVISOR. THIS MAY INCLUDE AN AREA NEAR10 ACRES IN SIZE WITH DOZENS OF REMOTE CONTROL VALVES. THE CONTRACTOR IS TO CAREFULLY FIELD VERIFY AND COORDINATE WORK TO AVOID DAMAGING THE EXISTING PIPING OR WIRING THAT MAY REQUIRE MANUAL IRRIGATION OF THE SITE BY THE CONTRACTOR FOR EXTENDED PERIODS OF TIME.
- 13. THE CONTRACTOR IS RESPONSIBLE TO CAREFULLY EXAMINE THE SITE AND PLANS TO FIELD VERIFY ALL EXISTING CONCRETE, PATIOS, SIDEWALKS, PAVING AND OTHER HARDSCAPING TO REMAIN AND PROTECT TO DETERMINE THE SCOPE OF WORK REGARDING THE REQUIRED HORIZONTAL DIRECTIONAL BORING THAT WILL BE NECESSARY TO COMPLETE THE PROJECT. ALL EXISTING CONCRETE, PATIOS, SIDEWALKS, PAVING AND OTHER HARDSCAPED SURFACES MAY NOT BE SHOWN ON THE PLANS. IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY ALL LOCATIONS THAT MAY REQUIRE BORING, OR CUTTING AND PATCHING OF EXISTING HARDSCAPED SURFACES PRIOR TO BIDDING. GENERALLY, ALL HARDSCAPED SURFACE CROSSINGS ARE TO BE BY HORIZONTAL DIRECTIONAL BORING. THE CONTRACTOR MUST RECEIVE WRITTEN PERMISSION FROM THE DISTRICT PROJECT MANAGER TO SAW CUT AND PATCH ANY EXISTING HARDSCAPED SURFACES.
- 14. EXISTING REMOTE CONTROL VALVES AND IRRIGATION IMPROVEMENTS SHOWN ON THE PLAN ARE DIAGRAMMATIC. CONTRACTOR IS RESPONSIBLE TO FIELD LOCATE ALL IMPROVEMENTS AND PERFORM THE WORK OUTLINED AS SHOWN ON THE PLANS. CONTRACTOR IS TO TRACE EXISTING WIRING. POT HOLE AND USE ALL REASONABLE MEANS TO FIELD LOCATE **EXISTING IMPROVEMENTS.**

#### LANDSCAPE IRRIGATION LEGEND

#### DESCRIPTION

Rainbird #1806-SAM-P45, 6" Pop-up Sprinkler with pressure regulation and check valve with Hunter MP Rotator 2000 series #MP-2000-90 / #MP-2000-210 nozzles. (1/2" inlet: 0.43 / 0.77 / 1.1 gpm @ 40 psi, respectively). Contractor is to adjust arc and radius to prevent overspray onto buildings and other hardscaped surfaces. If nozzle radius adjustment required is greater than 25% of nozzle rating, the Contractor is to substitute nozzle with MP-800, MP-1000 or MP-3000 nozzle as required at no additional cost to Owner. Contractor is to review nozzle substitutions with Landscape Architect for comment, prior to installation. See Installation Detail #03 on Plan Sheet L300 for additional

Rainbird #1806-SAM-P45, 6" Pop-up Sprinkler with pressure regulation and check valve with Hunter MP Rotator 2000 series #MP-2000-360 nozzles. (1/2" inlet: 1.48 gpm @ 40 psi). Contractor is to adjust arc and radius to prevent overspray onto buildings and other hardscaped surfaces. If nozzle radius adjustment required is greater than 25% of nozzle rating, the Contractor is to substitute nozzle with MP-800, MP-1000 or MP-3000 nozzle as required at no additional cost to Owner. Contractor is to review nozzle substitutions with Landscape Architect for comment, prior to installation. See Installation Detail #03 on Plan Sheet L300 for additional information.

Rainbird # 5006+ PC/FC SAM R SS-8.0, 6" pop up 5000+ Series Rotor Sprinkler with part & full circle arc and check valve with pressure regulator, stainless steel riser and #8.0 nozzle. (3/4" inlet: 8.0 gpm @ 45 psi). See Installation Detail #02 on Plan Sheet L300 for additional information.

Rainbird 44LRC, Quick Coupling Valve. Provide District with three (3) quick coupler keys with hose swivels. Install in separate 10" round valve box. See Installation Detail #07 on Plan Sheet L301 for additional information.

1" Rainbird #100-PESB, PESB Series Electric Remote Control Scrubber Valve w/ pressure regulation. Install one valve per standard rectangular valve box. Mainline schedule 80 nipple entering the valve is to be the same size as the lateral exiting the valve. See Installation Detail #04 on plan sheet L300 for additional information.

1 1/2" Rainbird #150-PESB, PESB Series Electric Remote Control Scrubber Valve w/ pressure

regulation. Install one valve per standard rectangular valve box. Mainline schedule 80 nipple entering

the valve is to be the same size as the lateral exiting the valve. See Installation Detail #05 on plan sheet L300 for additional information. 2" Rainbird #200-PESB, PESB Series Electric Remote Control Scrubber Valve w/ pressure regulation.

to be the same size as the lateral exiting the valve. See Installation Detail #06 on plan sheet L300 for additional information. 2" thru 3": Nibco #T-113 IRR BHW, Bronze Gate Valve with Non-Rising Stem. Gate Valves are to be

line size and installed in a 10" round valve box. Provide two (2) square operating nut handles (4' min.

the mainline piping system. Install in a standard rectangular valve box. Contractor to field locate. See

Install one valve per standard rectangular valve box. Mainline schedule 80 nipple entering the valve is

length) or each type required to the District. See Installation Detail #13 on Plan Sheet L302 for additional information. 1" Crispin #IC-10, Air and Vacuum Release Valve to be installed at high points and dead end runs of

Installation Detail #01 on Plan Sheet L300 for additional information.

Plan Sheet L301 and #15 on Plan Sheet L302 for additional information.

1" thru 2 1/2": PVC Class 200 Solvent Weld lateral pipe. Sleeve all pipe under paved surfaces over six feet wide with PVC Schedule 40 pipe for 2" thru 3" sleeves and with PVC Class 200 pipe for 4" and larger sleeves. Size sleeves a minimum of two times larger than the pipe being sleeved. One pipe per sleeve only. Minimum sleeve size is 2" size. Low voltage control wiring is to be sleeved separately from irrigation pipes. Size lateral pipes as noted on the plan and as outlined in the Lateral Pipe Sizing Chart for additional information. Pipe sizes shall not exceed a velocity of 5.0 feet per second. Install all PVC pipe in strict accordance with the manufacturers recommendations. See Installation Details #08 on

2" thru 3" PVC Schedule 40 SW Mainline Pipe. Mainline pipe fittings are to be PVC Schedule 80 solvent weld or threaded fittings or nipples.

Size Mainline Piping as noted on the plan. Install all pipe in strict accordance with manufacturers instructions. For mainlines 3" and larger install concrete thrust blocks at all changes in direction. No bending, or curving of the pipe will be allowed, except as permitted by the pipe manufacturer. Pipe manufacturer must be approved prior to installation. Use mechanical joint restraints where concrete thrust blocks are not applicable, such as vertical changes in direction, or when two pipelines are side by side. See Installation Details #08 on Plan Sheet L301 and #14 and #15 on Plan Sheet L302 for

#### SYMBOL DESCRIPTION

A-11 Controller # / Station # 64.0 Gallons per minute (UNK - Valve flow rate is unknown)

> Existing Remote Control Valve to Remain & Protect. See Key Notes and Irrigation Demolition Plan. Contractor to field verify.

----- Existing Lateral Pipe to Remain & Protect. See Key Notes and Irrigation Demolition Plan. Contractor

is to remove lateral pipe where it interferes with their work or is located below proposed buildings. All other locations, the existing lateral pipe is to be abandoned in place. Cap all openings and open ends of the abandoned pipe. Contractor to field verify. Existing Irrigation Mainline Pipe to remain and protect. Contractor is to field verify existing conditions

is to field locate and modify existing lateral pipes as required. In Irrigation Demolition Areas, Contractor

prior to bid to evaluate the extent of work. See Irrigation Demolition Plan for additional information where the existing irrigation mainline will remain and protect. See Key Notes and Landscape Irrigation Plan. Contractor to field verify.

NOT Existing Irrigation Controller 'A' to remain and protect. Contractor to field verify. SHOWN

Existing Irrigation Controller # / Station # Gallons per minute (UNK - GPM is unknown for existing valves)

Existing Irrigation Improvements to Remain and Protect. All areas adjacent to the project area have existing Irrigation Improvements to Remain & Protect. Contractor is to repair all damage to existing improvements that are intended to remain & protect to match existing improvements. Damage may be a direct or indirect result of their work or may be caused by neglect. Contractor to field verify.

> Utility Trench Repair - Contractor is to repair existing grading, landscape and irrigation improvements that are damaged or disturbed as a result of site utilities being installed. Contractor is to repair all damage to existing improvements as required. Contractor is to coordinate work with utility contractors and is to pot hole and field locate improvements to prevent damage to existing irrigation improvements. Contractor is to repair and restore damaged landscape and irrigation improvements to the pre-project condition using these plans and specifications for a standard to establish the quality of work. Utility trench repair areas where new irrigation and landscape are being installed are not shown but repair and restoration work is required in all areas of the campus, whether shown on the plans or not shown on the plans. All damaged landscape and irrigation improvements are to be repaired and restored at no additional cost to the District. Contractor to field verify.

Dashed symbols represent existing irrigation improvements to Remain & Protect unless otherwise noted or located in areas to receive new improvements or areas to have new irrigation installed. Existing sprinkler, lateral and mainline locations are diagrammatic. Contractor is to field locate all existing improvements that may effect the work. Contractor to field verify.

EXISTING REMOTE CONTROL VALVES AND IRRIGATION IMPROVEMENTS SHOWN ON THE PLAN ARE DIAGRAMMATIC. CONTRACTOR IS RESPONSIBLE TO FIELD LOCATE ALL EXISTING IMPROVEMENTS AND PERFORM THE WORK OUTLINED AS SHOWN ON THE PLANS. CONTRACTOR IS TO TRACE EXISTING LOW VOLTAGE CONTROL WIRING, POT HOLE AND USE ALL REASONABLE MEANS TO FIELD LOCATE EXISTING IMPROVEMENTS. ALL EXISTING IMPROVEMENTS MAY NOT BE SHOWN AND EXISTING IMPROVEMENTS SHOWN ARE DIAGRAMMATIC AS NOTED ABOVE. CONTRACTOR IS TO FIELD VERIFY ALL EXISTING IMPROVEMENTS.

		SPRINKLER FLOW RATE CHART
S	YMBOL	RESPECTIVE FLOW RATE (GPM)
	$\Diamond$	0.43 GPM, 0.77 GPM, 1.1 GPM
	•	1.48 GPM
		8.0 GPM, 8.0 GPM
	PIPE SIZE	ALLOWABLE FLOW (GPM)
LATERAL PIPE SIZING CHART	3/4"	NOT USED
AL P CH/	1"	0 - 12.0
1 1/2"		12.1 - 36.0
LA: SIZ	2"	36.1 - 55.0
	2 1/2"	55.1 - 80.0

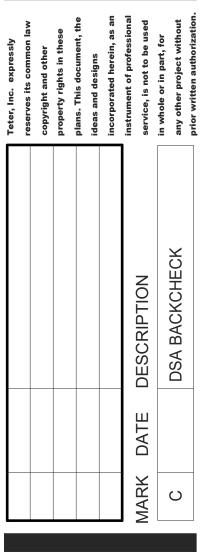
LATERAL PIPE SIZING NOTE: CONTRACTOR TO USE SPECIFIED NOZZLE RATING (GPM) FOR LATERAL PIPE SIZE CALCULATIONS AS SHOWN IN THE SPRINKLER FLOW RATE CHART. FLOW RATINGS (GPM) ARE TO BE USED AT THE 50-60 PSI PRESSURE. FLOW VELOCITIES OF FIVE FEET PER SECOND SHALL NOT BE EXCEEDED. PIPE SIZES NOTED ON THE PLAN SHALL SUPERCEDE CALCULATED PIPE SIZES BY THE CONTRACTOR. LANDSCAPE ARCHITECT TO REVIEW ALL PIPE SIZING IN THE FIELD PRIOR TO BACKFILL OF ANY TRENCHES. CONTRACTOR TO SUBMIT A SHOP DRAWING FOR REVIEW AND APPROVAL PRIOR TO TRENCHING.

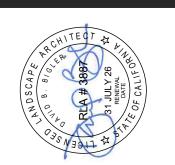
David Bigler Associates

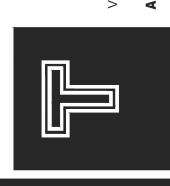
Landscape Architect #3887 1589 W Shaw Avenue #5

Fresno, California 93711 Mail: davebigler @aol.com Tel: (559) 276-9495 Fax: (559) 276-9497

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ED SCI ELOP AVE

TON UNIFIED EVELT E.S. EL STOCK ROOSI 776 S I

PROJECT NO.

23-12907.00

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TON UNIFIED STATES ELC

PROJECT NO.

David Bigler Associates Landscape Architect #3887 1589 W Shaw Avenue #5

Fresno, California 93711 Mail: davebigler @aol.com Tel: (559) 276-9495 Fax: (559) 276-9497

23-12907.00

NO ROCK (3/8") OR LARGER ALLOWED IN

BACKFILL WITHIN 6" OF PIPES OR WIRES.

**MAINLINE** 

TIE A 24-INCH LOOP IN

OF DIRECTION OF 30° OR GREATER UNTIE

HAVE BEEN MADE

ALL WIRING AT CHANGES

AFTER ALL CONNECTIONS

PIPE

MIN 6" HORIZONTAL CLEAR SPACE BETWEEN PVC MAINLINE & ELECT CONDUIT & WIRES.

LATERAL

PIPE

LOW VOLTAGE

CONTROL WIRING

BUNDLE

PLAN VIEW

WIRE W/O CONDUIT

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NTS

3/8" R-TYPICAL

FINISH GRADE

STOCKTON UNIFIED SCH ROOSEVELT E.S. ELOP 776 S BROADWAY AVE

PROJECT NO.

23-12907.00

DRAWING

QUICK-COUPLING VALVE

MAINLINE/CONDUIT

THE SAME TRENCH

AND WIRING IN

SECTION VIEWS

4" LAYER SCREENED BACKFILL AT SURFACE

OVER IRRIGATION MAINLINE

WHERE ROCK IS

FOIL MARKER TAPE

6" BELOW GRADE

LOW VOLTAGE CONTROL WIRING BUNDLED AND INSTALLED ALONG

IRRIGATION MAINLINE

PIPE. MAINTAIN MINIMUM

FOUR INCH SEPARATION.

NOTES:

PVC MAINLINE PIPE —

6" BEDDING OF SCREENED

BACKFILL BELOW PIPES WHERE ROCK IS ENCOUNTERED

**ENCOUNTERED** 

(09) NOT USED

WIDTH VARIES FINISH GRADE SLOPE TO DRAIN PERIMETER CONCRETE SIDEWALK OR MOWSTRIP (TYP) 3" THICK COMPACTED LAYER - STABILIZED DECOMPOSED GRANITE. INSTALL FLUSH WITH FINISH GRADE AND SLOPE TO DRAIN. NATIVE SUB GRADE, COMPACT BELOW DECOMPOSED GRANITE TO 90% RELATIVE DENSITY.

CONTRACTOR IS TO FINE GRADE THE ENTIRE SITE AND INSURE THE SITE IS FREE DRAINING.

CONTRACTOR IS TO EXCAVATE THE NATIVE SOIL TO A DEPTH OF THREE (3") INCHES WITH CLEAN EDGES. CONTRACTOR IS TO REMOVE SPOILS FROM THE SITE AT NO ADDITIONAL COST TO THE DISTRICT, OR INCORPORATE THEM INTO THE OVERALL GRADING SCHEME. CONTRACTOR IS TO THOROUGHLY COMPACT THE NATIVE SOIL BELOW THE DECOMPOSED GRANITE AREAS.

CONTRACTOR IS TO IMPORT CLEAN HIGH QUALITY STABILIZED DECOMPOSED GRANITE (GOLD) AND PLACE IT IN WIND ROWS WITHIN THE DESIGNATED AREAS. THE DECOMPOSED GRANITE IS TO BE CAREFULLY SPREAD (DO NOT MIX WITH ADJACENT SOILS), GRADED AND COMPACTED TO A FINAL THICKNESS OF THREE INCHES (3").

AREA IS TO BE GRADED SO IT DOES NOT IMPEDE SITE DRAINAGE (SITE IS TO BE FREE DRAINING) AND NO WATER IS TO COLLECT OR PUDDLE ON ANY AREA OF THE DECOMPOSED GRANITE.

1. SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH PVC SCH. 40 (2" - 3") OR CLASS 200

(4" AND LARGER) TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN, MIN

2. INSTALL ALL PIPE AND WIRE IN STRICT CONFORMANCE WITH MANUFACTURERS

STABILIZED DECOMPOSED GRANITE

CONCRETE MOW STRIP

#4 REBAR

TRENCHING DETAIL

INSTRUCTIONS AND RECOMMENDATIONS

SLEEVE SIZE IS 2".

1/2" ABOVE GRADE

NOTES:

INSTALL EXPANSION JOINTS 10'-0" O.C.

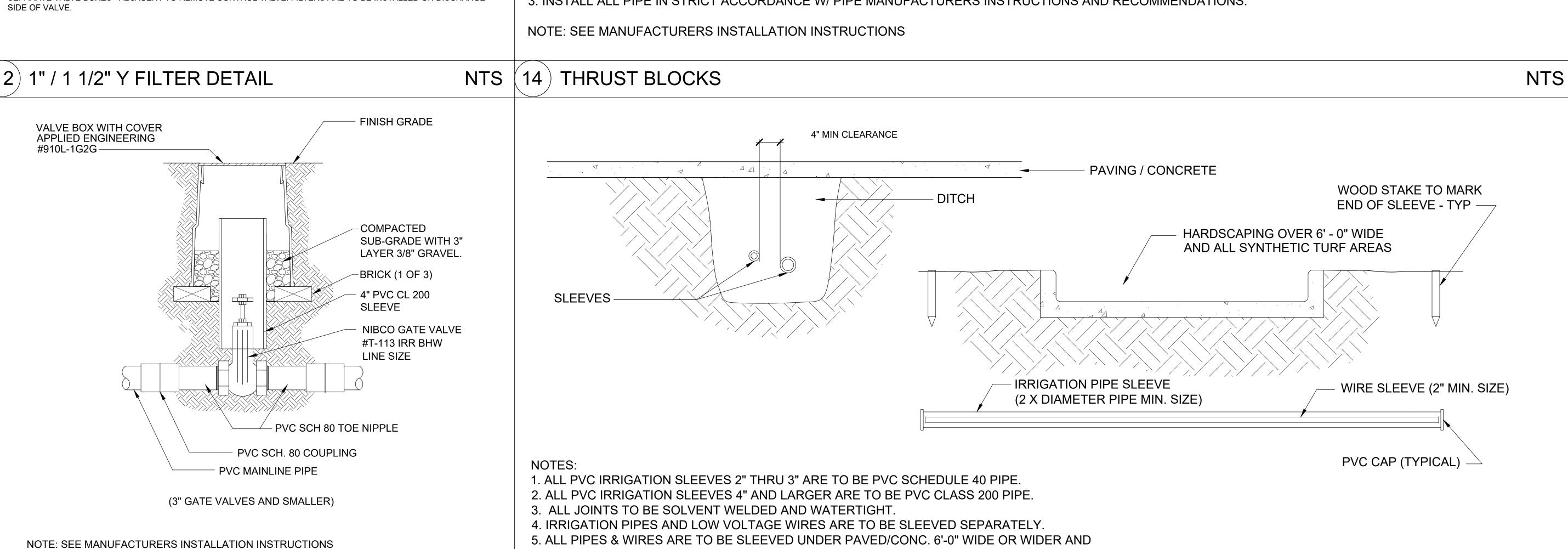
NTS

LANDSCAPE AND IRRIGATION DETAILS

David Bigler Associates Landscape Architect #3887 1589 W Shaw Avenue #5 Fresno, California 93711 Mail: davebigler @aol.com Tel: (559) 276-9495 Fax: (559) 276-9497

NTS

L301



UNDER ALL SYNTHETIC TURF AREAS. MECHANICALLY COMPACT TO 95% PROCTOR.

SLEEVING DETAIL

NTS David Bigler Associates 1589 W Shaw Avenue #5 Fresno, California 93711 Tel: (559) 276-9495 Fax: (559) 276-9497

45° ELL

PIPE - TYP

FITTING - TYP

FITTING - TYP

BLOCK

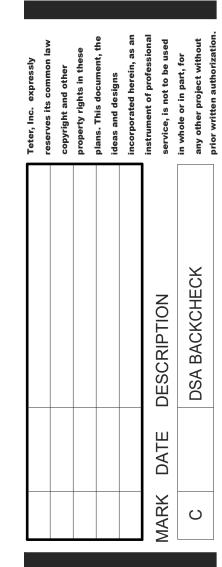
TYP

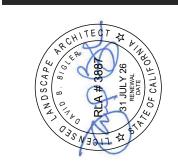
**REBAR BENT AROUND** 

**CONCRETE THRUST** 

**UNDISTURBED SOIL -**

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DRAWING L302

(13) MAINLINE GATE VALVE

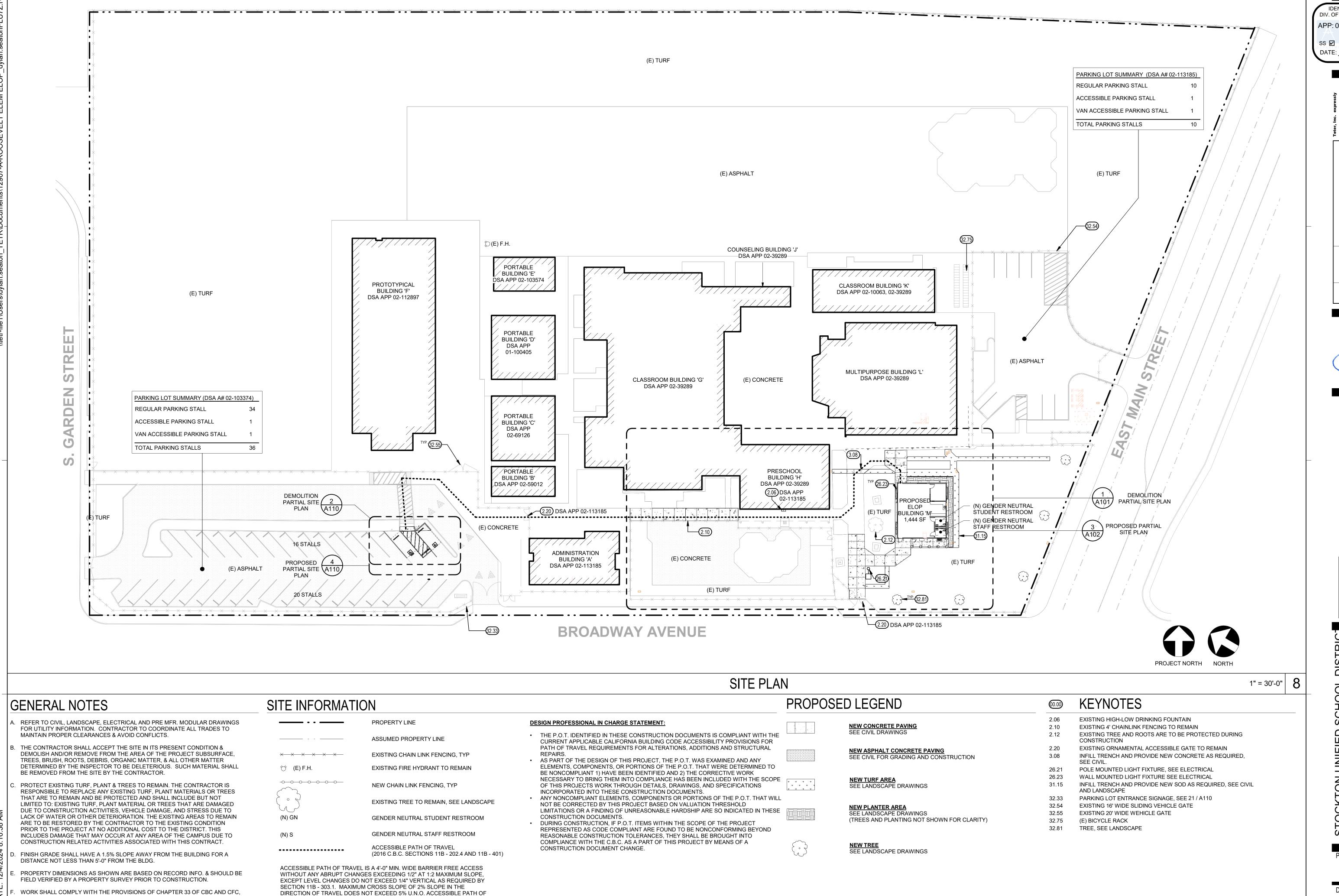
NOTE: SEE MANUFACTURERS INSTALLATION INSTRUCTIONS

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AD EV BR

**ABBREVIATIONS** 

23-12907.00



"FIRE SAFETY DURING CONSTRUCTIONS AND DEMOLITION"

ANY EXISTING PLAY AREA STRIPING THAT HAS BEEN DEMOLISHED FOR

FLATWORK, WILL BE RESTRIPED AFTER INSTALLATION OF NEW FLATWORK.

TRAVEL SHALL NOT HAVE A DROP-OFF OVER 4" VERTICAL @ EDGE OF ROUTE OR LANDING PER C.B.C. SECTION 11B - 303.5 AT HAZARDOUS VEHICULAR

AREAS DETECTABLE WARNING SURFACES SHALL BE PROVIDED PER C.B.C.

SECTION 11B - 705.

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DATE: 12/4/2024

property rights in these property rights in these plans. This document, the ideas and designs incorporated herein, as an instrument of professional service, is not to be used in whole or in part, for any other project without



FETER, INC.

FRESNO HEADQUARTERS

A I BAKERSFIELD I MODESTO I SAN LUIS OBISPO



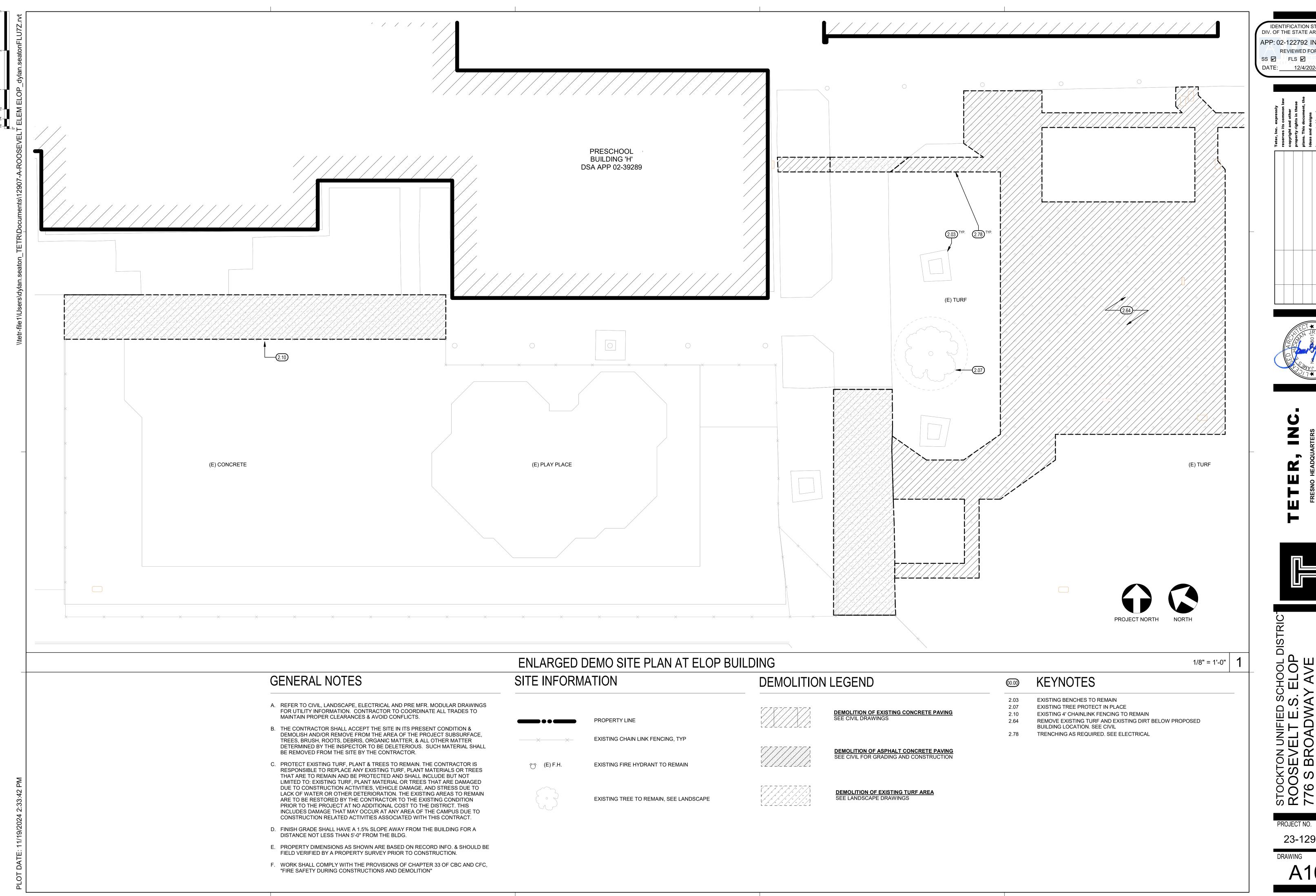
SKTON UNIFIED SCHOOL DISTRICTORENCE SEVELT E.S. ELOP
S BROADWAY AVE

OJECT NO.

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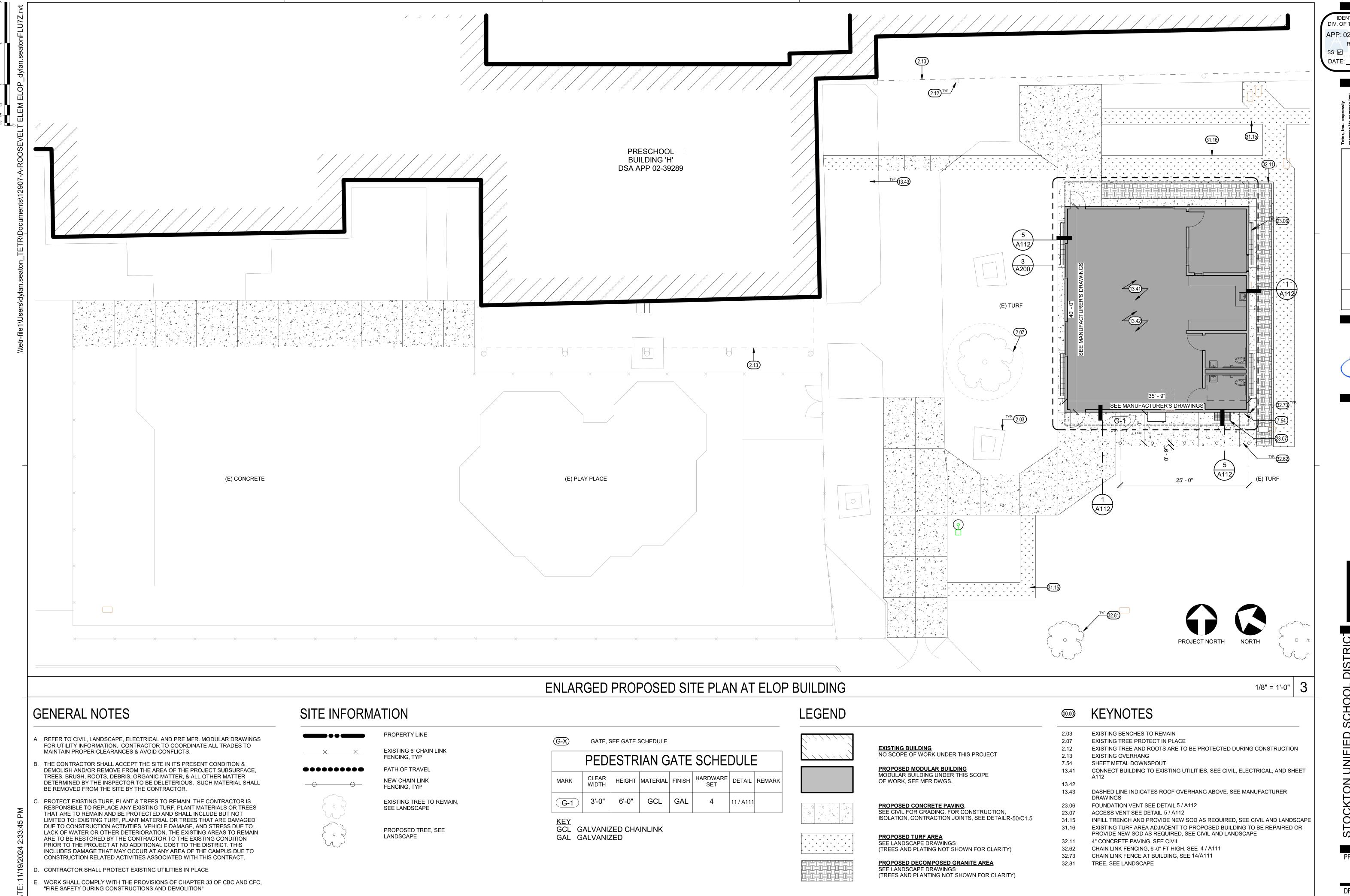
RAWING

A100



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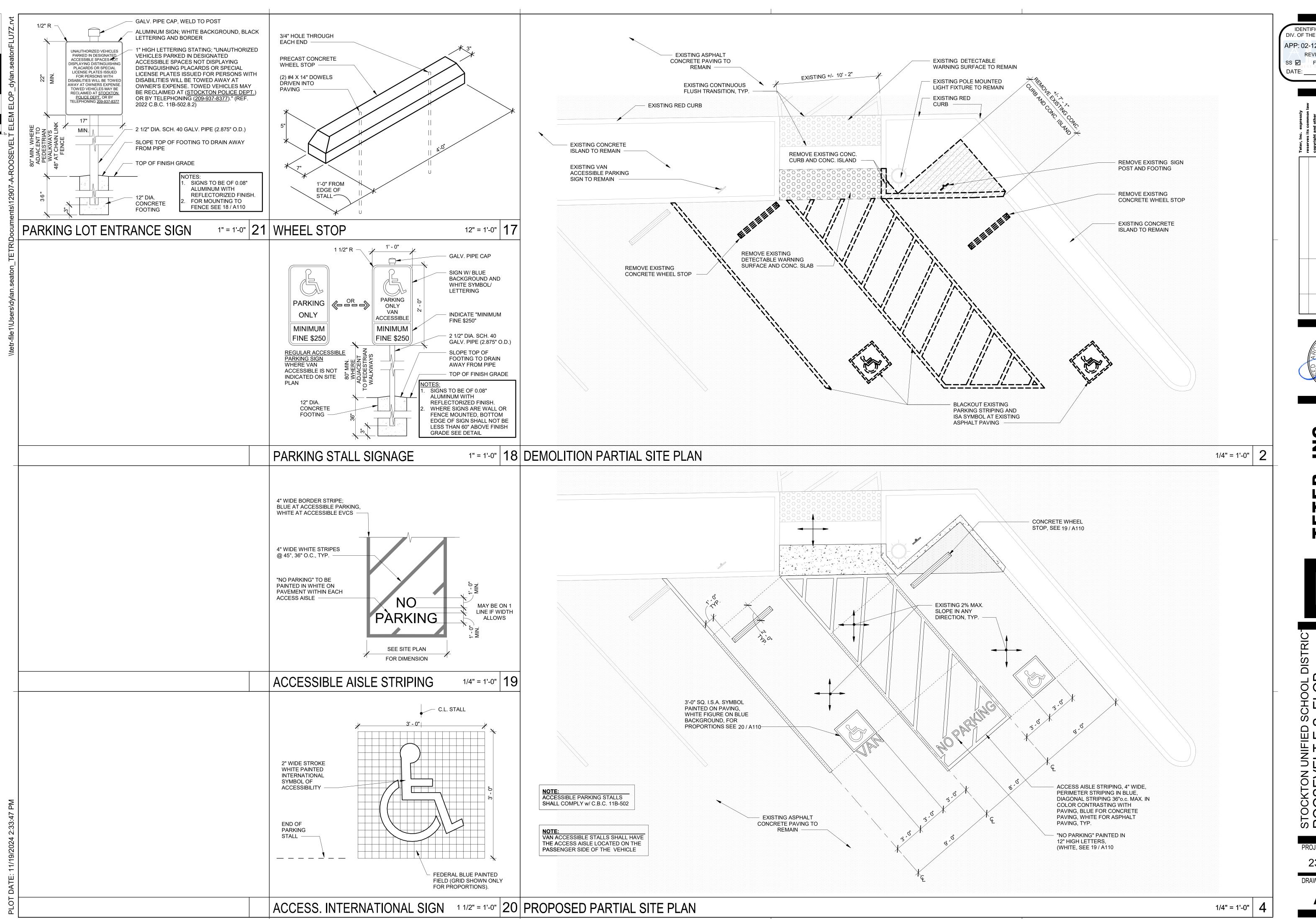




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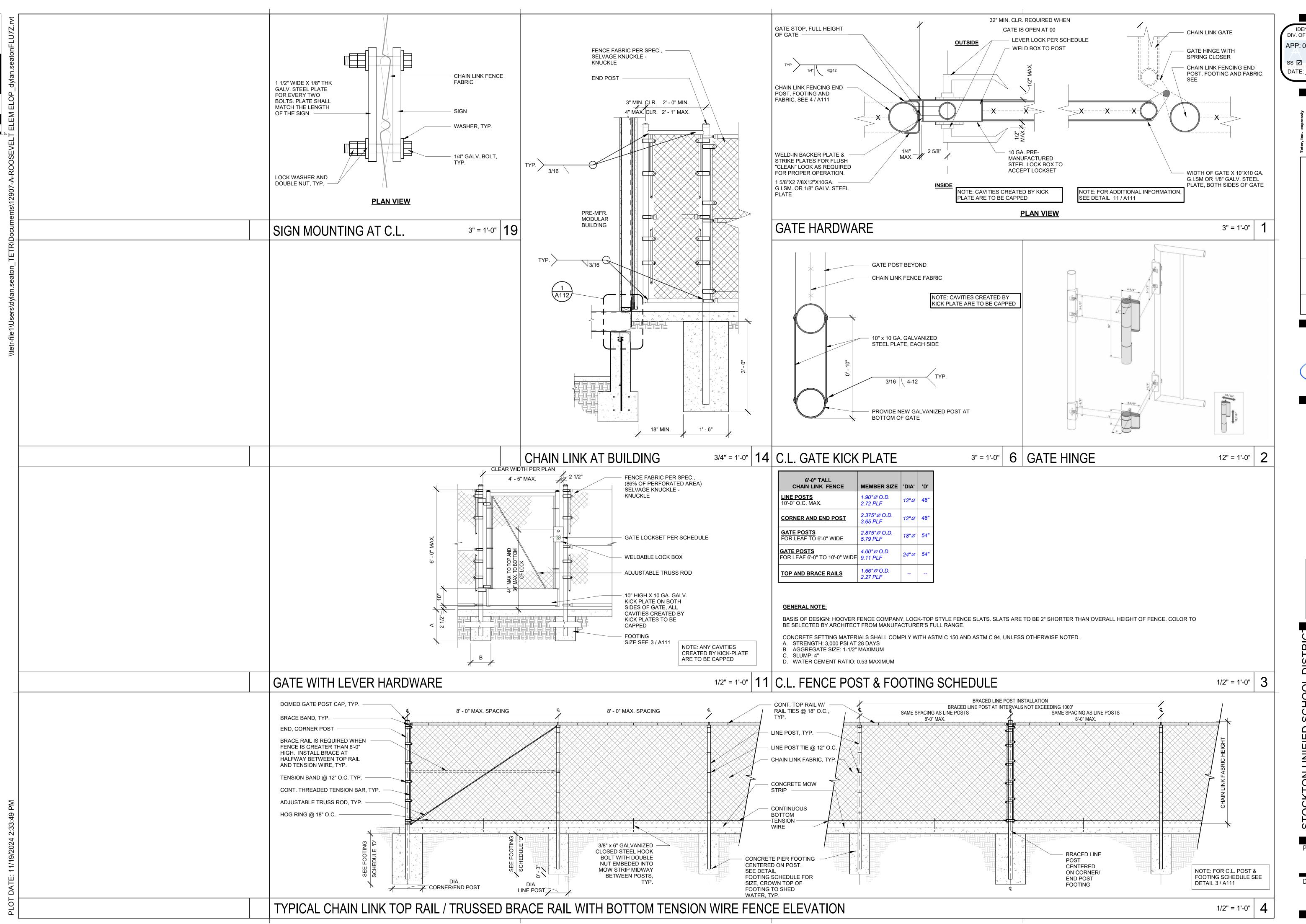
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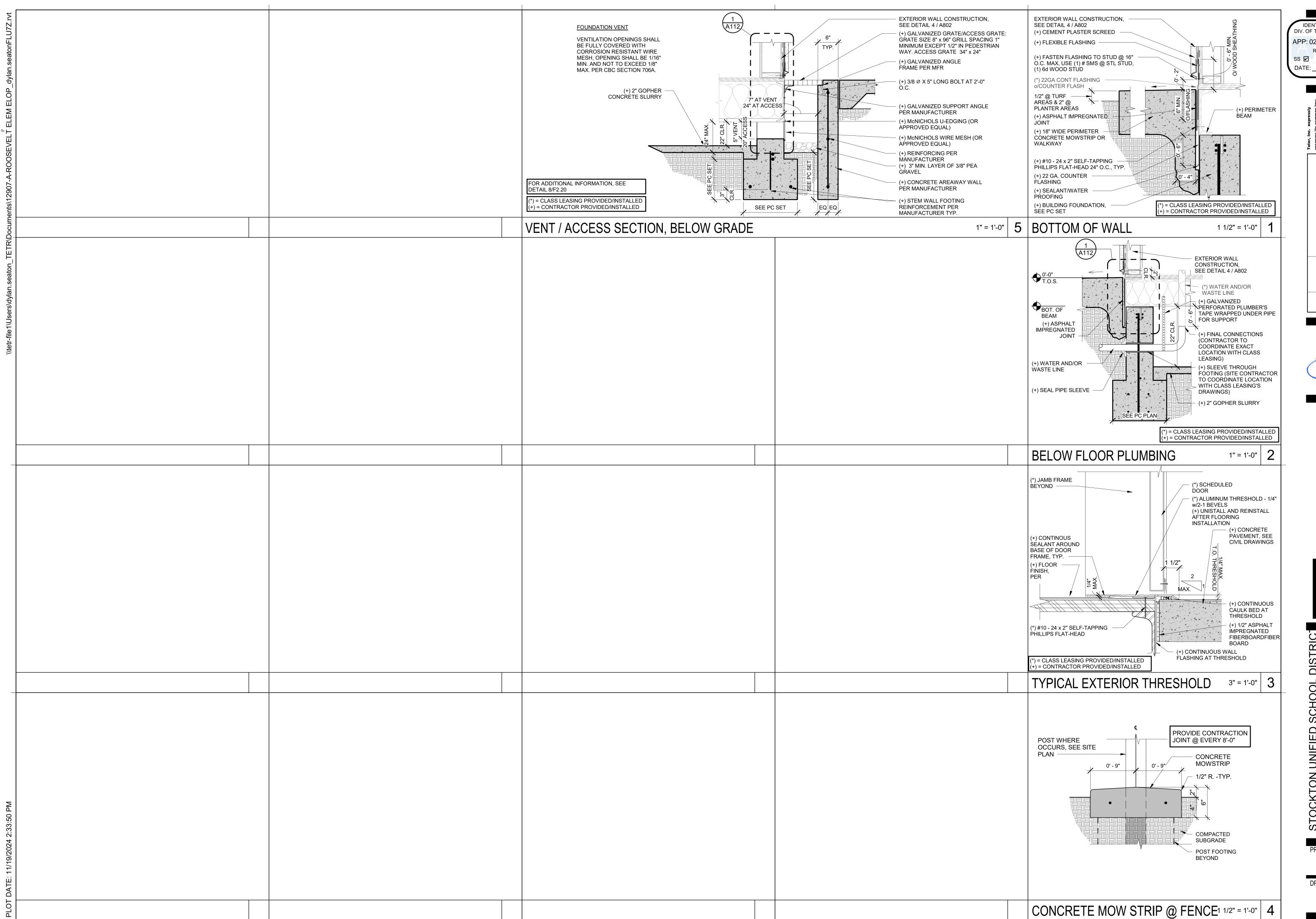
OOL DISTRIC SEVELT E.S. E. BROADWAY,



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ADWA

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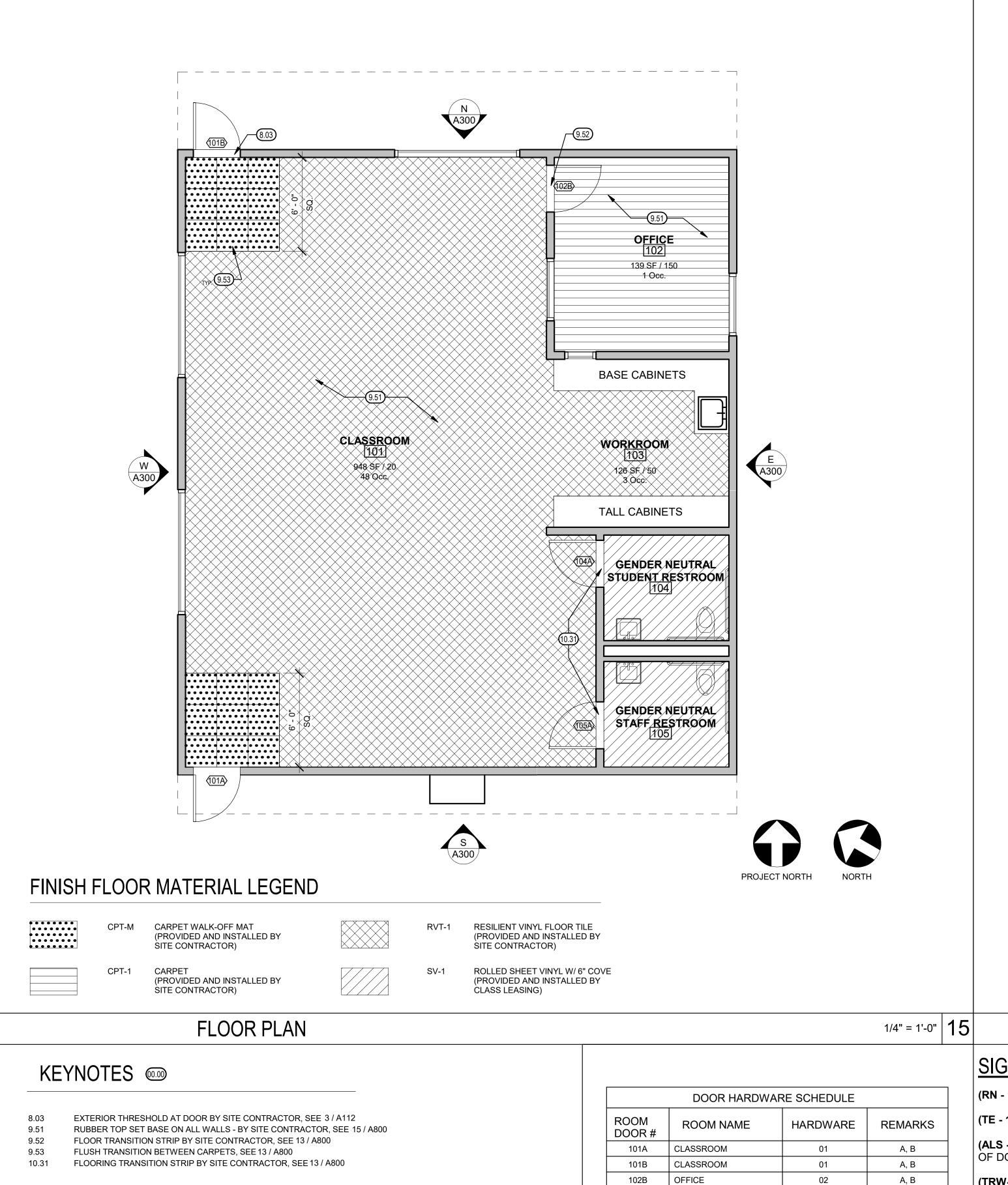


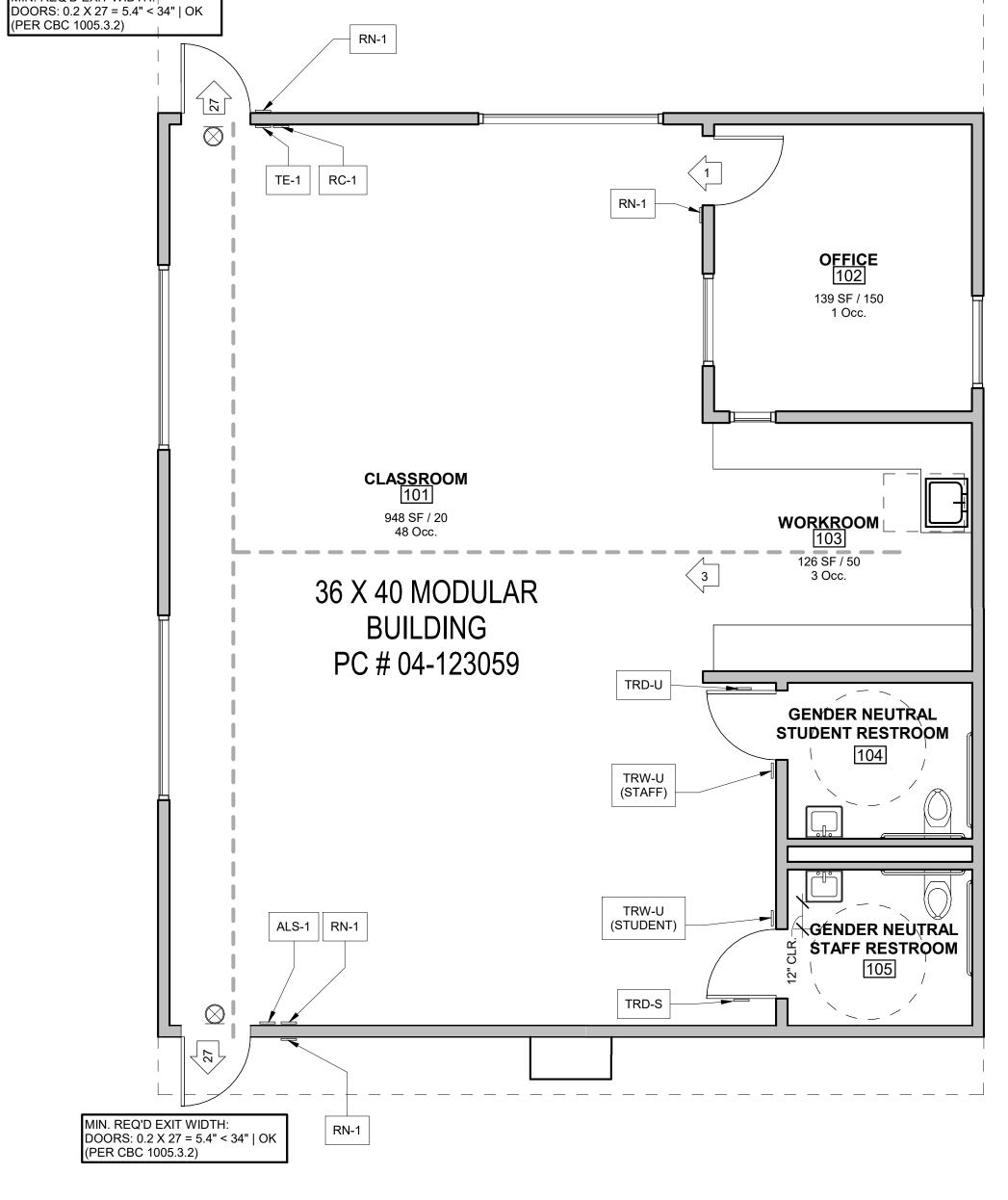
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STOCKTON UNIFIED SCHOOL DISTRIC-ROSEVELT E.S. ELOP
776 S BROADWAY AVE
STOCKTON, CA
SITE DETAILS





PROJECT NORTH



1/4" = 1'-0" 3

FOR TYPICAL IDENTIFICATION AND TACTILE SIGNAGE, SEE DETAIL

(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 RESTOOM"

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

(TRD - S) PROVIDE DOOR MOUNTED TOILET ROOM SIGNAGE

# EXIT ANALYSIS LEGEND

PATH OF EGRESS TRAVEL NUMBER OF OCCUPANTS EXITING

**ROOM NAME & NUMBER ROOM AREA** 150 SF / 50 OCCUPANT LOAD FACTOR

XX

CALCULATED LOAD FACTOR ILLUMINATED EXIT SIGNS, SEE ELECTRICAL FOR ADDITIONAL

INFORMATION

# **GENERAL NOTES**

- OWNER TO PROVIDE EMERGENCY EVACUATION SIGNAGE PER CFC 403.2, 403.4 AND 403.5, AS APLICABLE, PRIOR TO OCCUPANCY OF THE BUILDINGS OR
- 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.

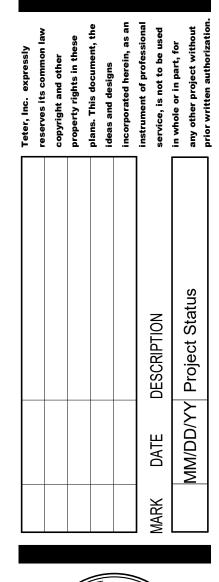
**ASSISTIVE LISTENING:** CLASSROOM 48 OCC

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

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

TOTAL OCCUPANTS: 54

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ELT E.S. TON SEV BR

23-12907.00

EXIT ANALYSIS AND SIGNAGE PLAN

SIGNAGE LEGEND

MIN. REQ'D EXIT WIDTH: —

(RN - 1) PROVIDE ROOM IDENTIFIACTION SIGN

EXTERIOR SIDE OF DOOR, LABELED "STUDENT RESTOOM"

(TRD - U) PROVIDE DOOR MOUNTED TOILET ROOM SIGNAGE

(RC - 1) ROOM CAPACITY SIGN

DOOR HARDWARE SCHEDULE

SITE CONTRACTOR SHALL SALVAGE AND REMOVE HARDWARE FROM

SITE CONTRACTOR SHALL PROVIDE NEW HARDWARE AS INDICATED IN

03

GENDER NEAUTRAL RR

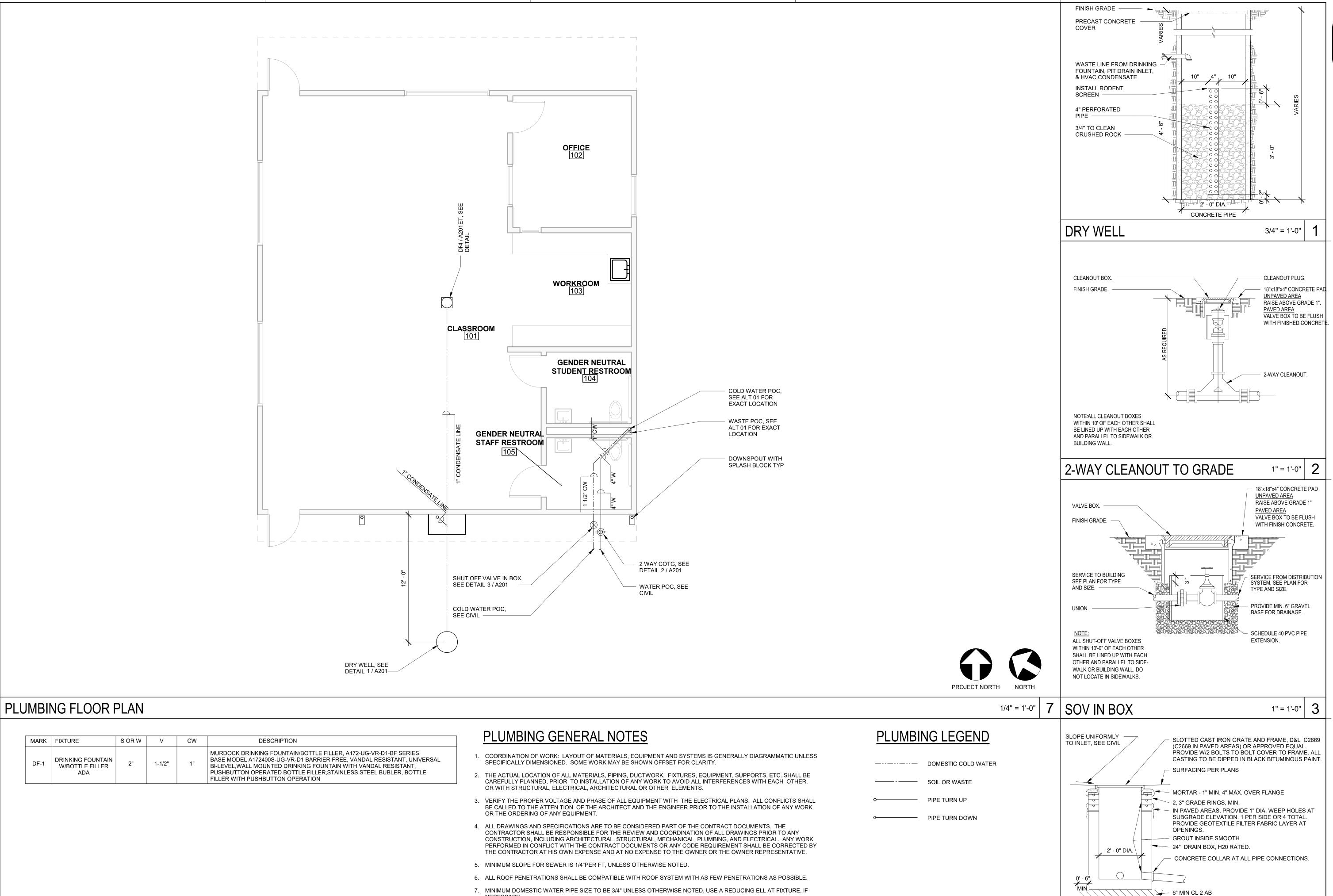
GENDER NEAUTRAL RR

DOORS AND RETURN TO DISTRICT.

A, B

A, B

1" = 1'-0" | 16 |



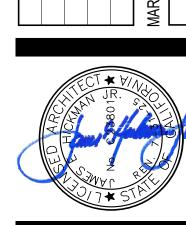
8. ALL PLUMBING FIXTURES, VALVES, FAUCETS, FIXTURE STOPS, ETC. WHICH PROVIDE WATER FOR HUMAN

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 2022 CBC, SECTIONS

CONSUMPTION MUST MEET THE "LEAD FREE" REQUIREMENT FOR THE STATE OF CALIFORNIA.

1617A.1.24, 1617A.1.25 AND 1617A.1.26.

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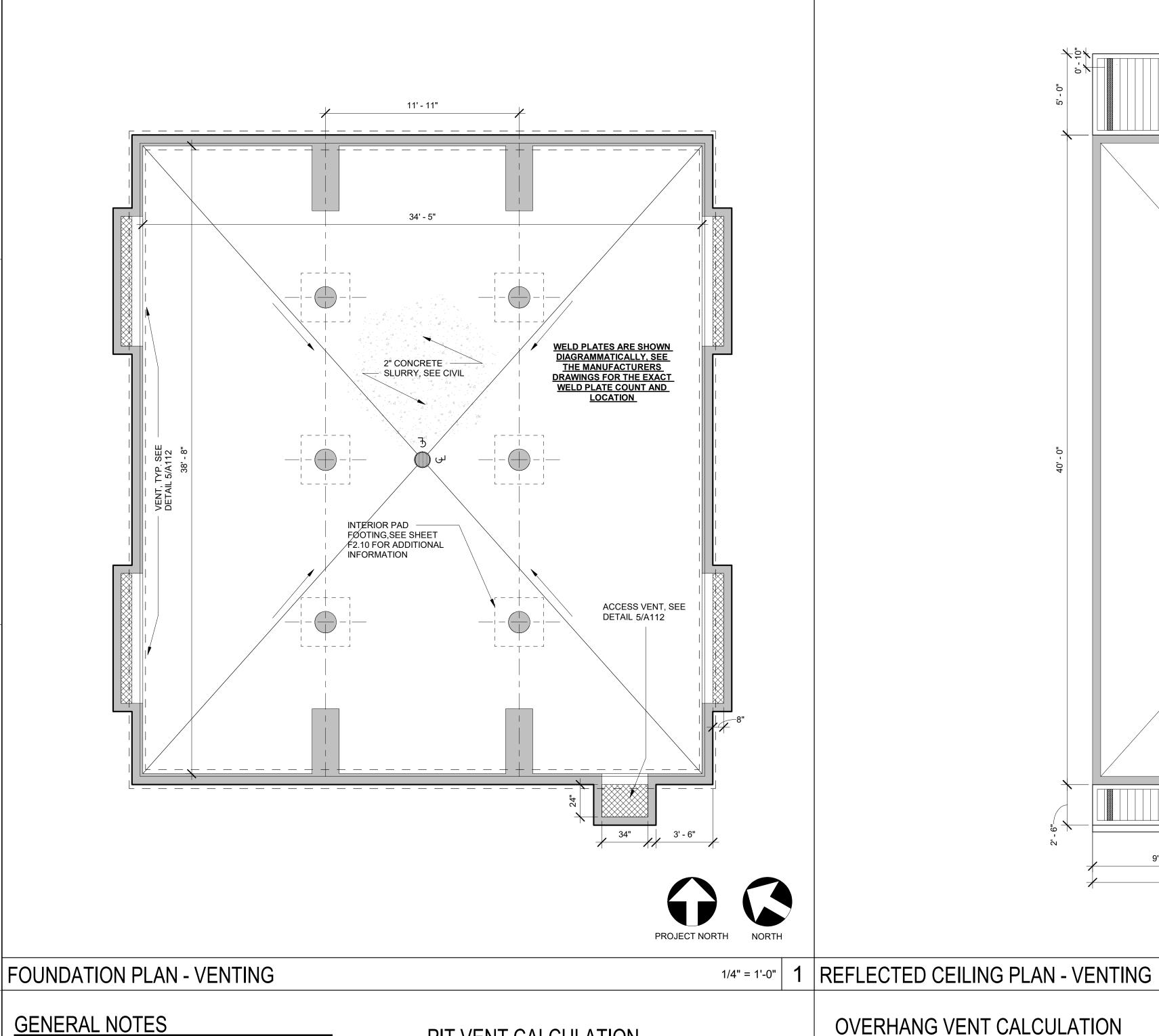


AD

COMPACTED TO 90%

1/2" = 1'-0"

DROP INLET



SEE MANUFÁCTURERS **DRAWINGS** 9' - 10 1/4" 35' - 9" - 4" x 22" PERFORATED METAL PANEL, TYP.

METAL PANELS

LATITUDE SERIEAS WALL PANELS

LW6S SYMMETRICAL PROFILE

PROJECT NORTH

4" x 52" PERFORATED METAL PANEL, TYP.



1/4" = 1'-0" 3



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PIT VENT CALCULATION

PIT SIZE 34'-5" X 38'-8" 1330SF ÷ 150 = 8.86SF 8.86SF X 144= 1275.84

VENT 5" X 96" = 480" X .74 = 355.2 355.2 X 4 = 1420.8

REQUIRED 1275.84IN < PROVIDED 1420.8 = OK

McNICHOLS WIRE MESH (OR APPROVED EQUAL)

**WEAVE**: WOVEN

PERCENT OPEN AREA: 74%

MESH TYPE: SQUARE CONSTRUCTION TYPE: WOVEN PRIMARY MATERIAL: STAINLESS STEEL

OVERHANG VENT CALCULATION

<u>LEGEND</u>

OVERHANG 2'-6" X 35'-9" 89SF ÷ 150 = .59SF .59SF X 144 = 84.96IN 88" X 2 = 176IN

REQUIRED 84.96IN < PROVIDED 176 = OK

OVERHANG 5'-0" X 35'-9" 89SF ÷ 150 =1.18SF 1.18SF X 144 = 169.92IN 208" X 2 = 416IN

REQUIRED 169.92IN < PROVIDED 416 = OK

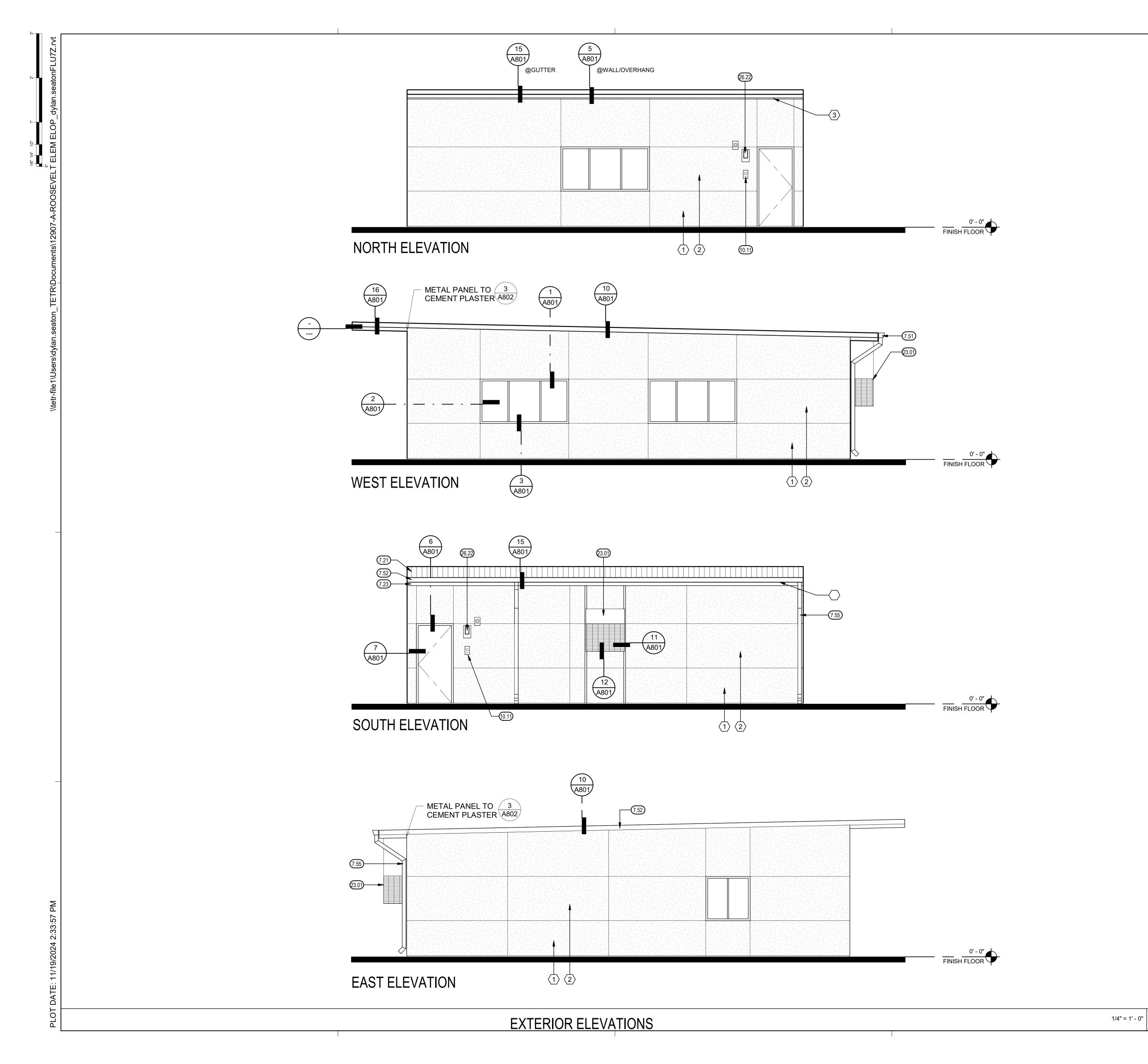
1. MODULAR MANUFACTURER WILL PROVIDE THE WELD PLATES TO THE SITE CONTRACTOR, THE SITE CONTRATOR IS RESPONSIBLE FOR THE PLACEMENT OF THE WELD PLATES.

2. SITE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING THE BUILDING FOUNDATION AS SHOWN IN THE MANUFACTURERS DRAWINGS.

OF THE RELOCATABLE MODULES ON THE BUILDING FOUNDATION.

3. SITE CONTRACTOR IS TO MEASURE AND VERIFY EXACT BUILDING SIZE AT THE MANUFACTURERS WAREHOUSE PRIOR TO THE EXCAVATION AND THE PLACMENT OF BUILDING FOUNDATION.

SITE CONTRACTOR IS RESPPONSIBLE FOR THE OFFLOADING AND INSTALLATION



### <u>KEYNOTES</u>

- STANDING SEAM METAL ROOF AND FLASHING, PROVIDED AND INSTALLED OFF SITE BY CLASS LEASING, SEE RELOCATABLE DRAWINGS FOR ADDITIONAL INFORMATION
- METAL SOFFIT PANELS TO BE PROVIDED AND INSTALLED BY SITE
- CONTRACTOR GUTTER PROVIDED BY SITE CONTRACTOR
- METAL FLASHING TRIM PROVIDED BY CLASS LEASING IS TO BE UNINSTALLED BY SITE CONTRACTOR. SITE CONTRACTOR TO PROVIDE NEW PREFINISHED METAL FLASHING AS SHOWN ON
- 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
- SIGNAGE BY SITE CONTRACTOR, SEE SIGNAGE PLAN ON A200 FOR ADDITIONAL INFORMATION
- HVAC UNIT, SEE NEW RELOCATABLE CLASSROOM BUILDING
- EXTERIOR LIGHT PROVIDED BY CLASS LEASING. SITE CONTRACTOR TO REMOVE AND SALVAGE FOR RE-INSTALLATION AFTER FINISHES HAVE BEEN INSTALLED

### **GENERAL NOTES**

SHEET A801

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>	CEMENT PLASTER SYSTEM,	4 / A802
	EXTERIOR PAINT: MATCH EXISTING CAMPUS COLORS	
	CEMENT PLASTER SYSTEM, PAINT 2	4 / A802
2	EXTERIOR PAINT: MATCH EXISTING CAMPUS COLORS	
$\langle \overline{3} \rangle$	METAL PANEL SYSTEM: LATITUDE SERIES (PAN RIB D 6" COVERAGE 1" REVEAL)	2 / A802
(3)	EXTERIOR COLOR: MATCH EXISTING CAMPUS COLORS	
$\langle 4 \rangle$	METAL SHEET METAL FLASHING AND DOWNSPOUT	
\ <del>4</del> /	EXTERIOR COLOR: MATCH EXISTING CAMPUS COLORS	

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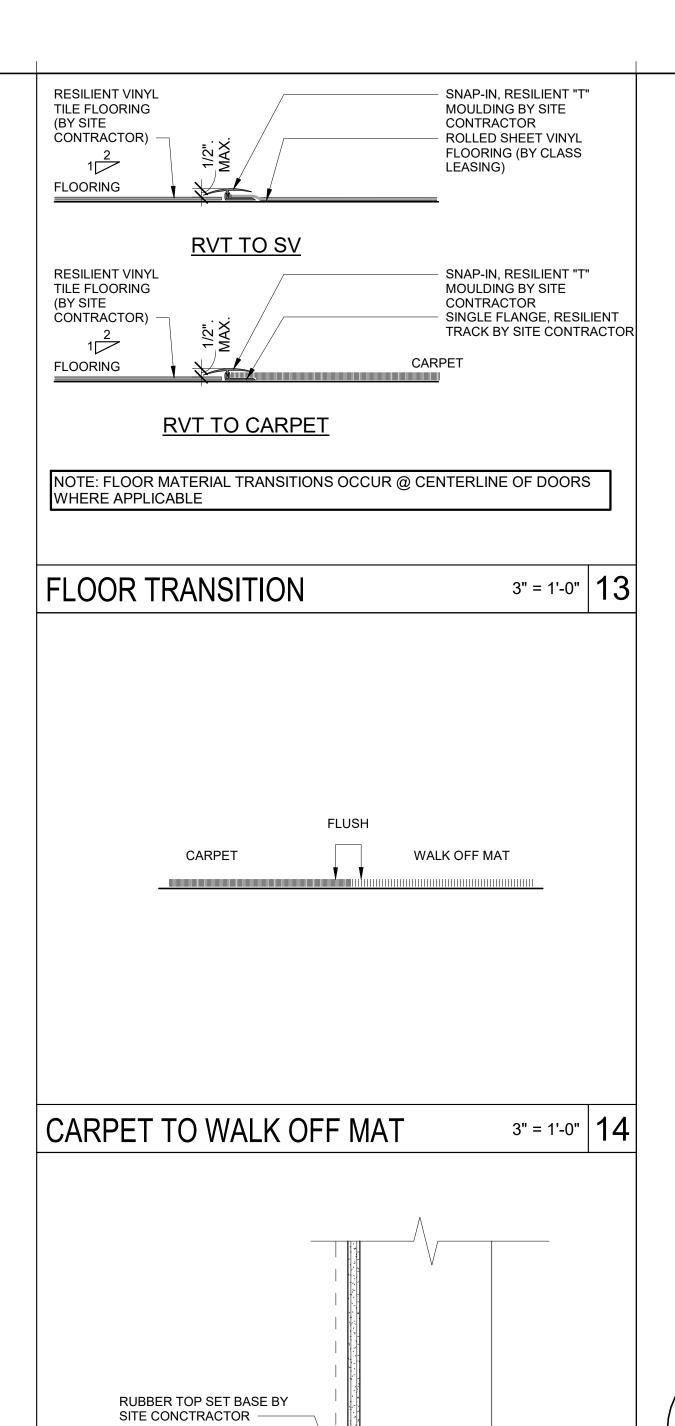
Teter, Inc. expressly	reserves its common law	copyright and other	property rights in these	plans. This document, the	ideas and designs	incorporated herein, as an	instrument of professional	service, is not to be used	in whole or in part, for	any other project without
								DESCRIPTION		MM/DD/YY Project Status
								DATE		MM/DD/Y

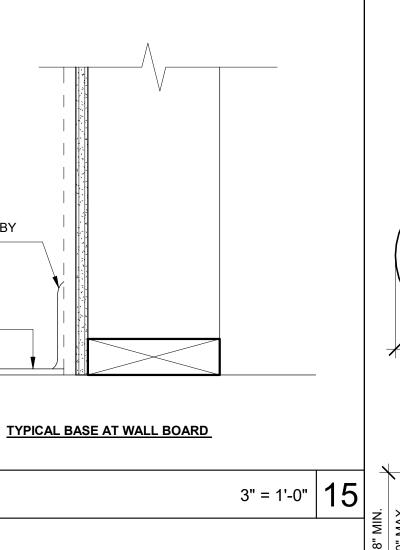




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A300





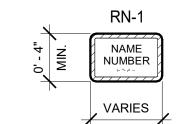
SPECIFIED FLOORING

R.T.B. AT WALL

### TYPICAL SIGNAGE

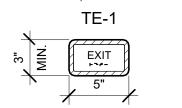
### WALL MOUNTED IDENTIFICATION SIGNAGE @ FUNCTIONAL ROOMS (RN)

COORDINATE ROOM NAME AND NUMBER WITH OWNER PRIOR TO FABRICATION. DO NOT USE IDENTIFICATION FOUND ON THE DRAWINGS, U.N.O.

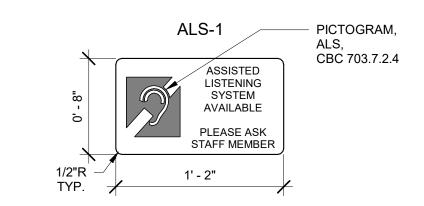


#### WALL MOUNTED TACTILE EXIT SIGN (TE)

EXIT DOOR LEADS DIRECTLY TO GRADE LEVEL EXTERIOR EXIT, SIGN TO STATE: "EXIT"

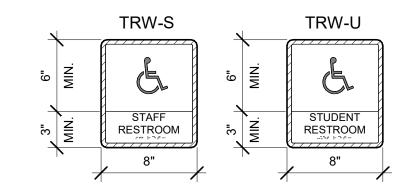


### **ROOM CAPACITY SIGN (RC)** RC-1 - 1/2" R TYP. MAXIMUM \_ - 1" TEXT HEIGHT OCCUPANCY 1 3/4" TEXT PERSONS 1' - 4"

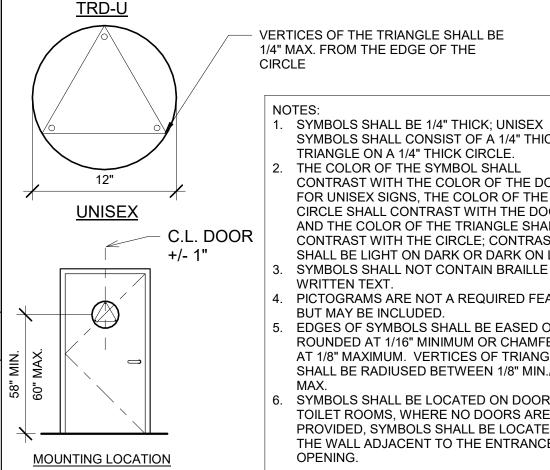


ASSISTED LISTENING DEVICE (ALS)

### WALL MOUNTED TOILET SIGNAGE AT ACCESSIBLE TOILETS (TRW)



### TOILET ROOM DOOR IDENTIFICATION SYMBOL (TRD)



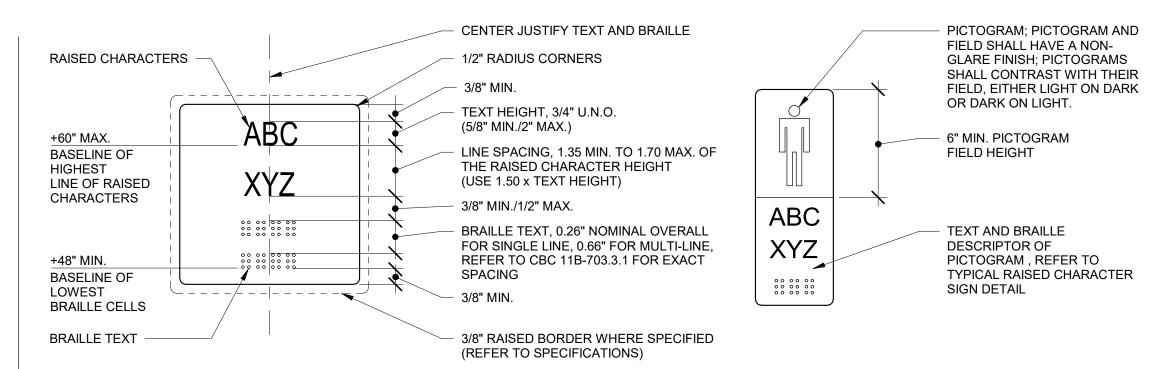
	SYMBOLS SHALL CONSIST OF A 1/4" THICK
	TRIANGLE ON A 1/4" THICK CIRCLE.
2.	THE COLOR OF THE SYMBOL SHALL
	CONTRAST WITH THE COLOR OF THE DOOR;
	FOR UNISEX SIGNS, THE COLOR OF THE
	CIRCLE SHALL CONTRAST WITH THE DOOR
	AND THE COLOR OF THE TRIANGLE SHALL
	CONTRAST WITH THE CIRCLE; CONTRAST
	SHALL BE LIGHT ON DARK OR DARK ON LIGHT.
3.	SYMBOLS SHALL NOT CONTAIN BRAILLE OR
	WRITTEN TEXT.
4.	PICTOGRAMS ARE NOT A REQUIRED FEATURE
	BUT MAY BE INCLUDED.

5. EDGES OF SYMBOLS SHALL BE EASED OR ROUNDED AT 1/16" MINIMUM OR CHAMFERED AT 1/8" MAXIMUM. VERTICES OF TRIANGLES SHALL BE RADIUSED BETWEEN 1/8" MIN./ 1/4" SYMBOLS SHALL BE LOCATED ON DOORS TO TOILET ROOMS, WHERE NO DOORS ARE PROVIDED, SYMBOLS SHALL BE LOCATED ON

THE WALL ADJACENT TO THE ENTRANCE

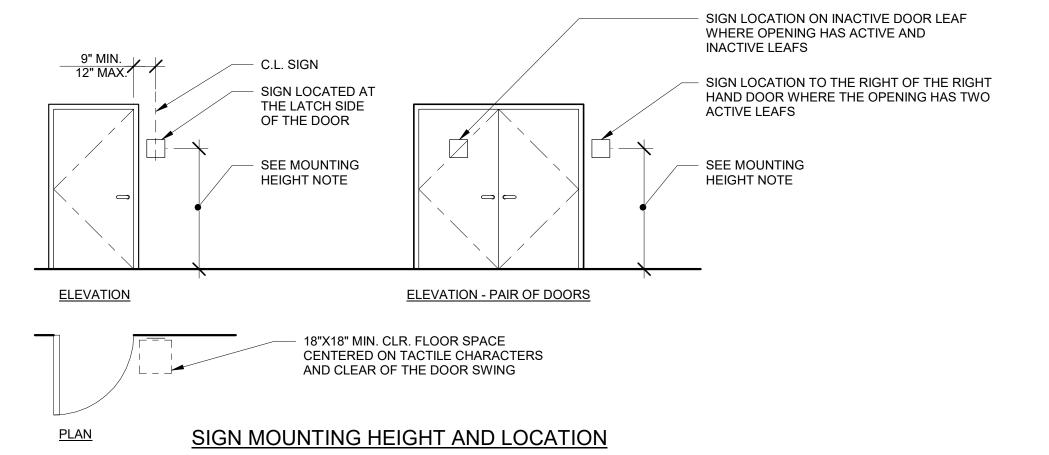
TABLE 11B-703.5.5 (VISUAL CHARACTER HEIGHT)							
HEIGHT TO FINISH FLOOR OR GROUND FROM BASELINE OF CHARACTER	HORIZONTAL VIEWING DISTANCE	MINIMUM CHARACTER HEIGHT					
40 INCHES TO LESS THAN	LESS THAN 72 INCHES	5/8 INCHES					
OR EQUAL TO 70 INCHES	72 INCHES AND GREATER	5/8 INCHES, PLUS 1/8 INCH PER FOOT OF VIEWING DISTANCE ABOVE 72 INCHES					
GREATER THAN 70 INCHES	LESS THAN 180 INCHES	2 INCHES					
TO LESS THAN OR EQUAL TO 120 INCHES	180 INCHES AND GREATER	2 INCHES, PLUS 1/8 INCH PER FOOT OF VIEWING DISTANCE ABOVE 180 INCHES					
	LESS THAN 21 FEET	3 INCHES					
GREATER THAN 120 INCHES	21 FEET AND GREATER	3 INCHES, PLUS 1/8 INCH PER FOOT OF VIEWING DISTANCE ABOVE 21 FOOT					

OPENING.



### TYPICAL ROOM IDENTIFICATION OR TACTILE EXIT SIGN

### SIGN WITH PICTOGRAM



GENERAL: SIGNAGE SHALL COMPLY WITH CBC SECTION 11B-703, RAISED CHARACTER SIGNS SHALL COMPLY WITH CBC 11B-703.2, 11B-703.3 AND 11B-703.4

RAISED CHARACTERS (CBC 11B-703.2): RAISED CHARACTERS (TEXT) SHALL COMPLY WITH CBC SECTION 11B-703.2 AND SHALL BE DUPLICATED IN BRAILLE. RAISED CHARACTERS SHALL BE UPPER CASE AND BE RAISED 1/32-INCH MINIMUM ABOVE THEIR BACKGROUND. CHARACTERS SHALL BE SANS SERIF AND NOT BE ITALIC, OBLIQUE, SCRIPT, HIGHLY DECORATIVE, OR OTHER UNUSUAL FORMS. 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". CHARACTER HEIGHT MEASURED VERTICALLY FROM THE BASELINE OF THE CHARACTER SHALL BE 5/8-INCH MINIMUM AND 2 INCHES MAXIMUM BASED ON THE HEIGHT OF THE UPPERCASE LETTER "I". STROKE THICKNESS OF THE UPPERCASE LETTER "I" SHALL BE 15 PERCENT MAXIMUM OF THE HEIGHT OF THE CHARACTER. TEXT SHALL BE IN A HORIZONTAL FORMAT. 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 ON A LIGHT BACKGROUND.

BRAILLE (CBC 11B-703.3): BRAILLE SHALL BE CONTRACTED (GRADE 2) AND SHALL COMPLY WITH CBC SECTIONS 11B-703.3. BRAILLE DOTS SHALL HAVE A DOMED OR ROUNDED SHAPE AND SHALL COMPLY WITH CBC TABLE 703.3.1. BRAILLE SHALL BE POSITIONED BELOW THE CORRESPONDING TEXT IN A HORIZONTAL FORMAT, CENTER JUSTIFIED. IF TEXT IS MULTI-LINED, BRAILLE SHALL BE PLACED BELOW THE ENTIRE TEXT. BRAILLE SHALL BE SEPARATED 3/8 INCH MINIMUM AND 1/2 INCH MAXIMUM FROM ANY OTHER TACTILE CHARACTERS AND 3/8 INCH MINIMUM AND FROM RAISED BORDERS AND DECORATIVE ELEMENTS.

MOUNTING HEIGHT (CBC 11B-703.4.1): TACTILE CHARACTERS ON SIGNS SHALL BE LOCATED 48 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE LOWEST BRAILLE CELLS AND 60 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FORM THE BASELINE OF THE HIGHEST LINE OF RAISED CHARACTERS.

LOCATION (CBC 11B-703.4.2): SIGNS 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 MINIMUM BY 18 INCHES MINIMUM, CENTERED ON THE TACTILE CHARACTERS, IS PROVIDED BEYOND THE ARC OF ANY DOOR SWING BETWEEN THE CLOSED POSITION AND 45 DEGREE OPEN POSITION. WHERE PROVIDED, SIGNS IDENTIFYING PERMANENT ROOMS AND SPACES SHALL BE LOCATED AT THE ENTRANCE TO, AND OUTSIDE OF THE ROOM OR SPACE, WHERE PROVIDED, SIGNS IDENTIFYING EXITS SHALL BE LOCATED AT THE EXIT DOOR WHEN APPROACHED IN THE DIRECTION OF EGRESS TRAVEL.

PICTOGRAMS (CBC 11B-703.6): PICTOGRAMS SHALL HAVE A FIELD HEIGHT OF 6 INCHES MINIMUM, CHARACTERS AND BRAILLE SHALL NOT BE LOCATED IN THE PICTOGRAM FIELD. PICTOGRAMS AND THEIR FIELD SHALL HAVE A NON-GLARE FINISH, PICTOGRAMS SHALL CONTRAST WITH THEIR FIELD WITH EITHER A LIGHT PICTOGRAM ON A DARK FIELD OR A DARK PICTOGRAM ON A LIGHT FIELD. PICTOGRAMS SHALL HAVE TEXT DESCRIPTORS LOCATED DIRECTLY BELOW THE PICTOGRAM FIELD AND BRAILLE TRANSLATION BELOW TEXT DESCRIPTION, TEXT DESCRIPTORS SHALL COMPLY WITH CBC SECTIONS 11B-703.2, 11B-703.3, AND

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### **GENERAL NOTES:**

- 1. INFORMATIONAL SIGNAGE SHALL COMPLY WITH CBC 11B-703.5
- 2. INFORMATIONAL SIGNS ARE NOT REQUIRED TO HAVE RAISED CHARACTERS AND ACCOMPANYING BRAILLE. 3. LETTERING TO BE 3/4" HIGH MIN. U.N.O.

FINISH AND CONTRAST (CBC 11B-703.5.1): VISUAL 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 ON A LIGHT BACKGROUND.

CASE (CBC 11B-703.5.2): CHARACTERS SHALL BE UPPERCASE OR LOWERCASE OR A COMBINATION OF BOTH.

STYLE (CBC 11B-703.5.3): CHARACTERS SHALL BE CONVENTIONAL IN FORM. CHARACTERS SHALL NOT BE ITALIC, OBLIQUE, SCRIPT, HIGHLY DECORATIVE, OR OF OTHER UNUSUAL FORMS.

CHARACTER PROPORTIONS (CBC 11B-703.5.4): 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".

CHARACTER HEIGHT (CBC 11B-703.5.5): MINIMUM CHARACTER HEIGHT SHALL COMPLY WITH TABLE 11B-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".

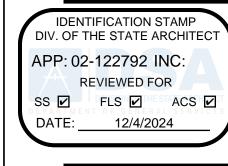
STROKE THICKNESS (CBC 11B-703.5.7): STROKE THICKNESS OF THE UPPERCASE LETTER "I" SHALL BE 10 PERCENT MINIMUM AND 20 PERCENT MAXIMUM OF THE

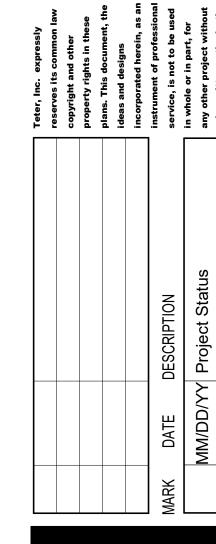
CHARACTER SPACING (CBC 11B-703.5.8): CHARACTER SPACING SHALL BE MEASURED BETWEEN THE TWO CLOSEST POINTS OF ADJACENT CHARACTERS, EXCLUDING WORD SPACES. SPACING BETWEEN INDIVIDUAL CHARACTERS SHALL BE 10 PERCENT MINIMUM AND 35 PERCENT MAXIMUM OF CHARACTER HEIGHT.

LINE SPACING (CBC 11B-703.5.9): 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.

FORMAT (CBC 11B-703.5.10): TEXT SHALL BE IN A HORIZONTAL FORMAT.

PICTOGRAMS (CBC 11B-703.6): PICTOGRAMS SHALL HAVE A FIELD HEIGHT OF 6 INCHES MINIMUM, CHARACTERS AND BRAILLE SHALL NOT BE LOCATED IN THE PICTOGRAM FIELD. PICTOGRAMS AND THEIR FIELD SHALL HAVE A NON-GLARE FINISH, PICTOGRAMS SHALL CONTRAST WITH THEIR FIELD WITH EITHER A LIGHT PICTOGRAM ON A DARK FIELD OR A DARK PICTOGRAM ON A LIGHT FIELD. PICTOGRAMS SHALL HAVE TEXT DESCRIPTORS LOCATED DIRECTLY BELOW THE PICTOGRAM FIELD AND BRAILLE TRANSLATION BELOW TEXT DESCRIPTION, TEXT DESCRIPTORS SHALL COMPLY WITH CBC SECTIONS 11B-703.2, 11B-703.3, AND 11B-703.4.1.

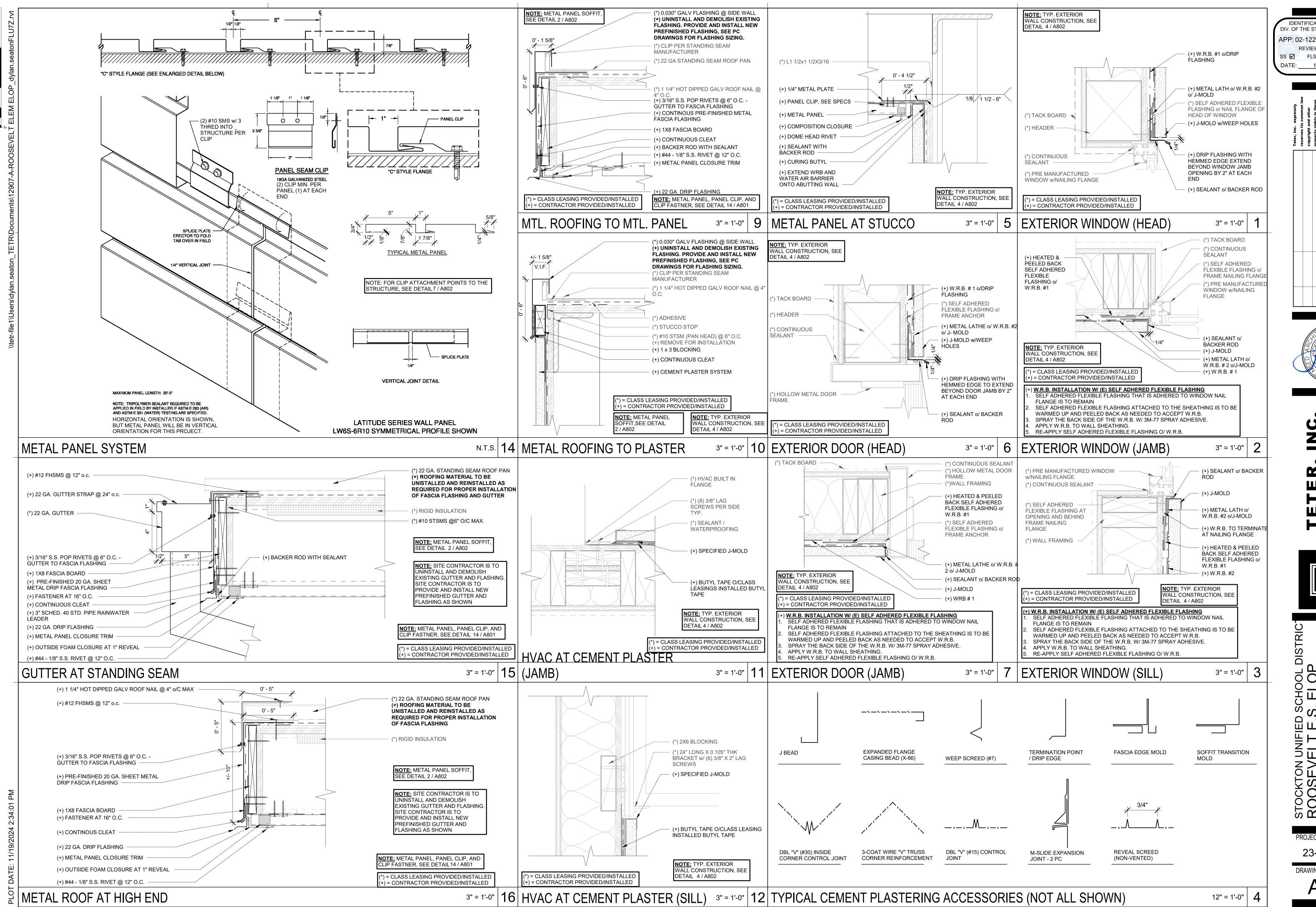




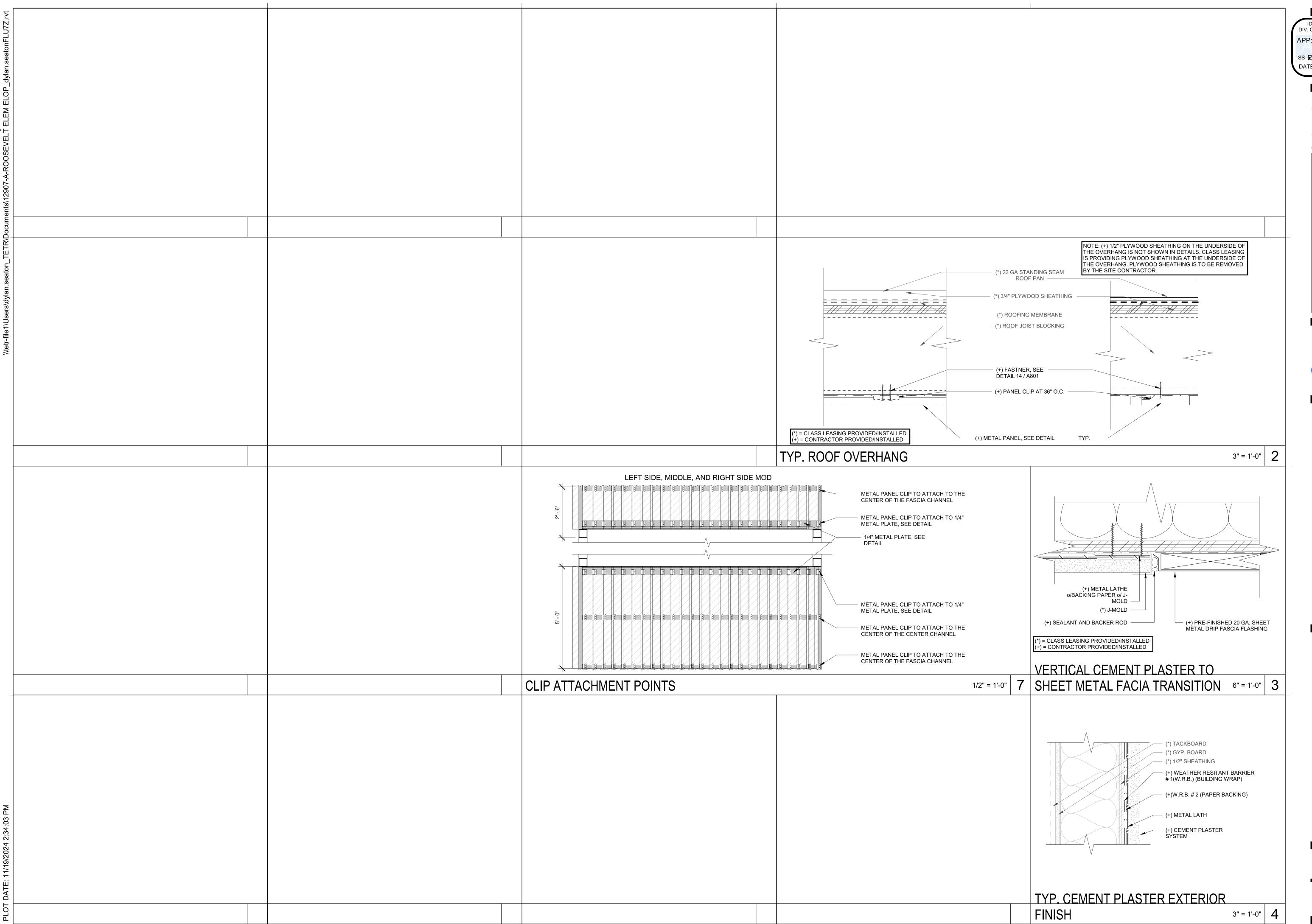




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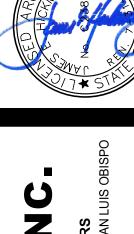
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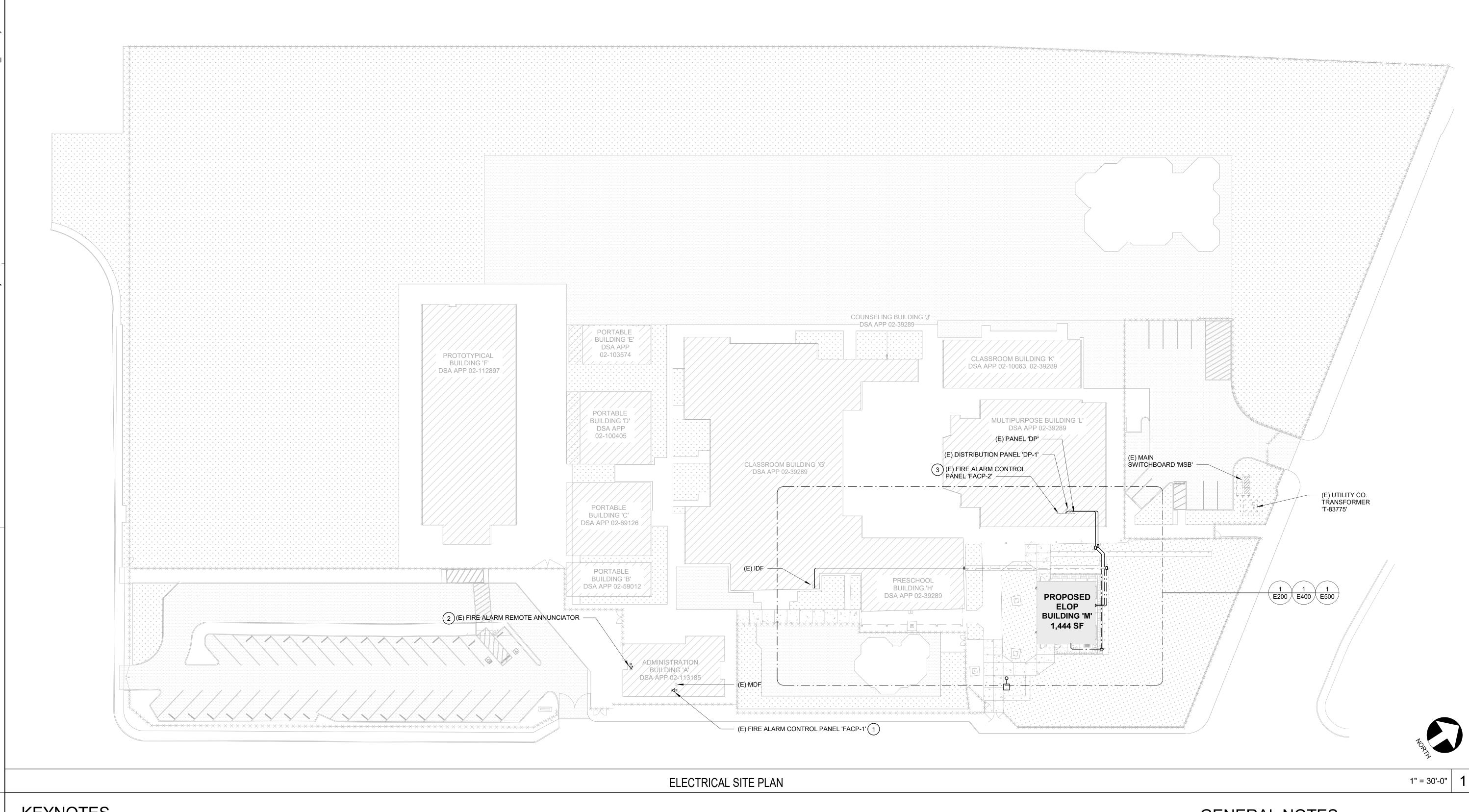
SEVELT E.S. ELOP S BROADWAY AVE

ROOSEVELT E.
776 S BROADW
STOCKTON, CA

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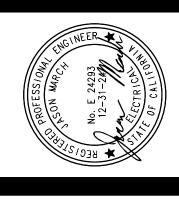
### KEYNOTES

- 1 PROVIDE (N) AUDIO SOURCE UNIT WITH PAGING MICROPHONE AT (E) FIRE ALARM CONTROL PANEL 'FACP-1'.
- (E) FIRE ALARM REMOTE ANNUNCIATOR (EDWARDS #3-LCDANN) INSTALLED IN LOBBY/RECEPTION AREA AT ADMIN BUILDING (DSA APPL. #01-113185). DISCONNECT AND REMOVE INTERNAL COMPONENTS, AND PRESERVE COMPONENTS AND CIRCUITING FOR REINSTALLATION AND RECONNECTION. REMOVE (E) BACKBOX AND REPLACE WITH (N) BACKBOX (EDWARDS # 4ANN/B). FURNISH, INSTALL, AND CONNECT (N) REMOTE MICROPHONE (EDWARDS #3-REMICA), AND REINSTALL AND RECONNECT (E) REMOTE ANNUNCIATOR.
- PROVIDE (N) ZONE AMPLIFIER AT EXISTING FIRE ALARM CONTROL PANEL 'FACP-2'

### GENERAL NOTES

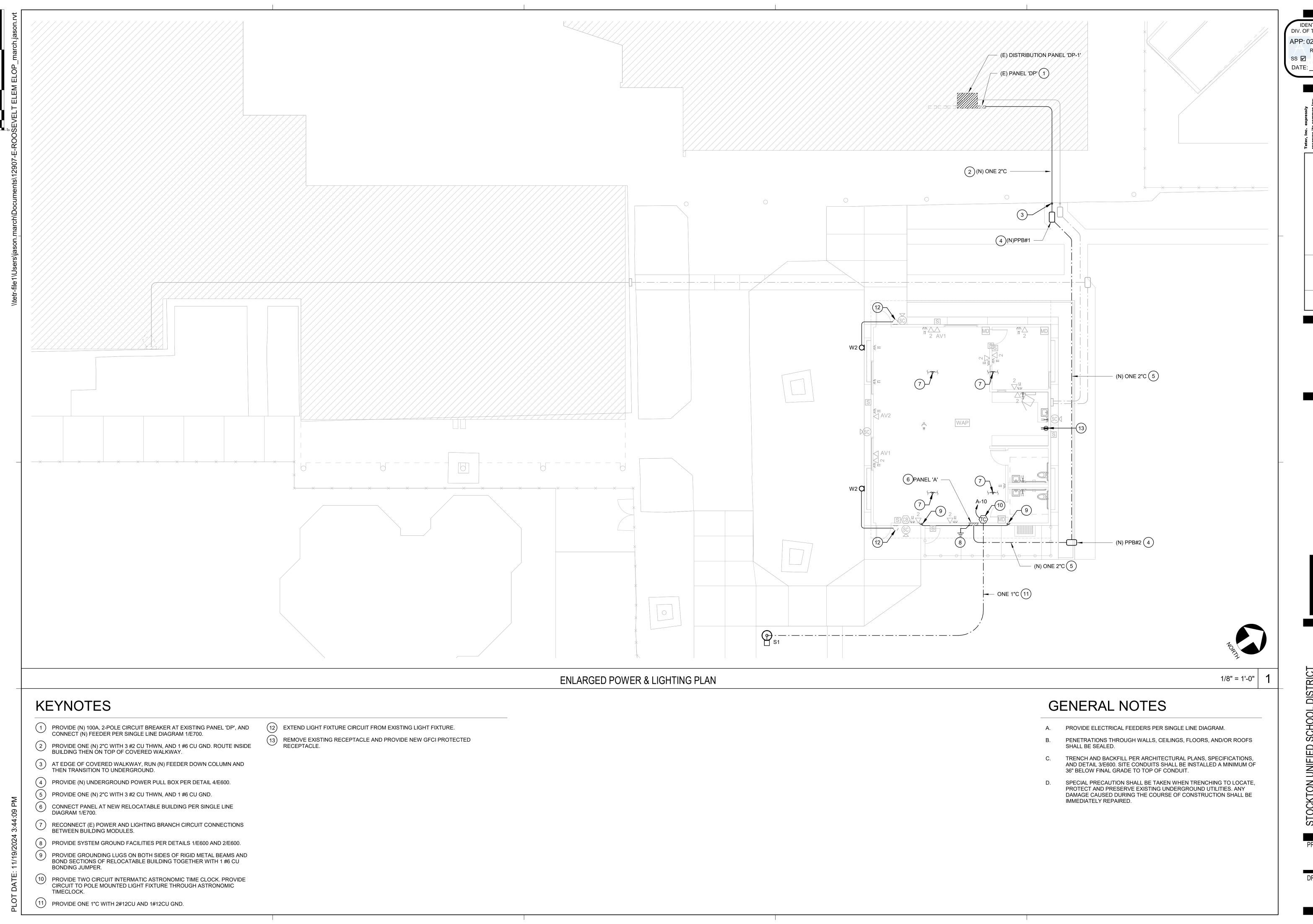
- PROVIDE ELECTRICAL FEEDERS PER SINGLE LINE DIAGRAM.
- SITE CONDUITS OF TRADE SIZE 2" AND LARGER SHALL BE GROUPED AND INSTALLED PER DETAIL 3/E600. SITE CONDUITS SHALL BE INSTALLED A MINIMUM OF 36" BELOW FINAL GRADE TO TOP OF CONDUIT.
  - SPECIAL PRECAUTION SHALL BE TAKEN WHEN TRENCHING TO LOCATE, PROTECT AND PRESERVE EXISTING UNDERGROUND UTILITIES. ANY DAMAGE CAUSED DURING THE COURSE OF CONSTRUCTION SHALL BE IMMEDIATELY REPAIRED.

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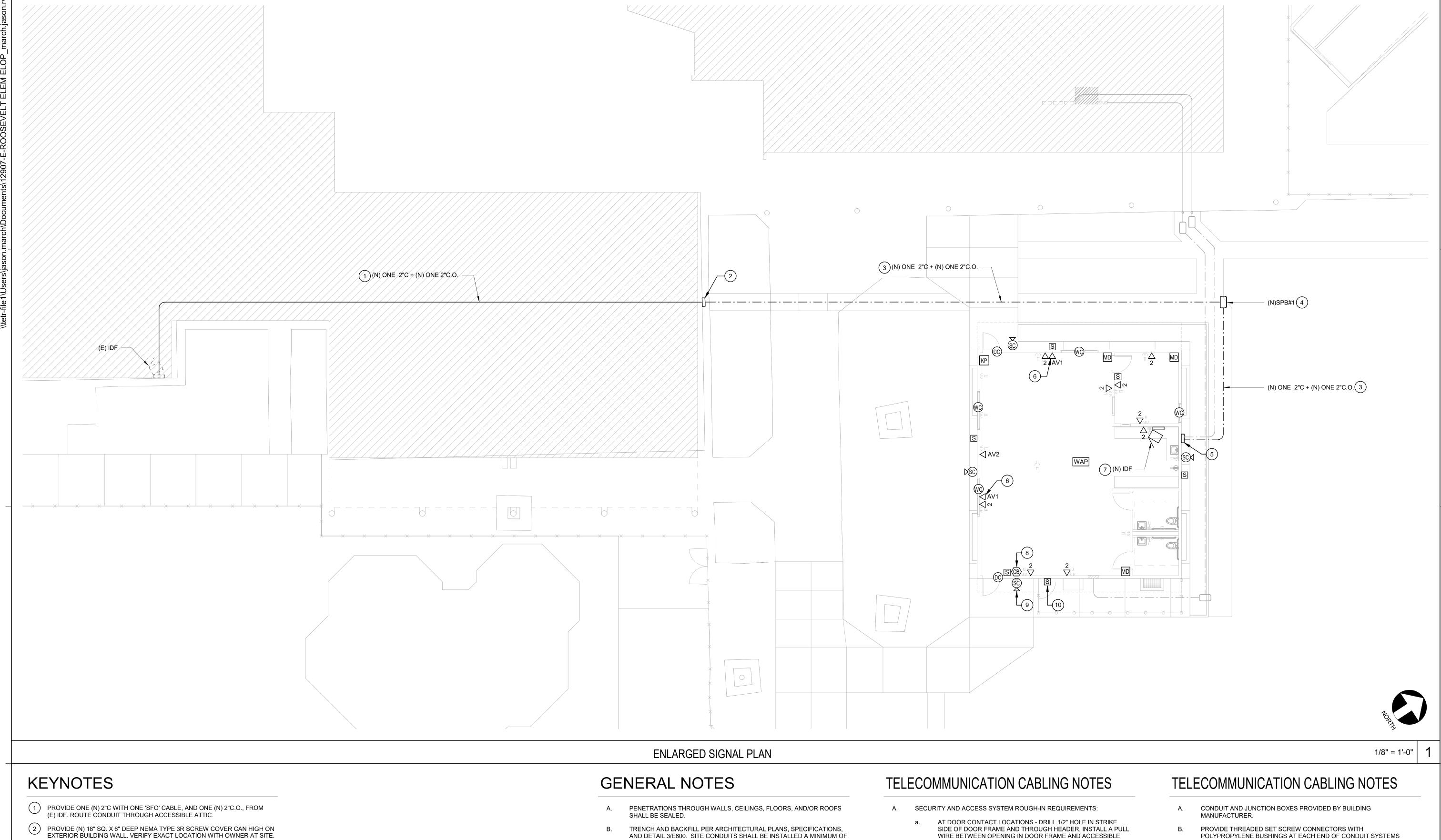
STOCKTON UNIFIED SCHOOL DISTRICT ROOSEVELT E.S. ELOP 776 S. BROADWAY AVE.



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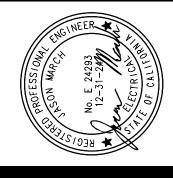


- AND DETAIL 3/E600. SITE CONDUITS SHALL BE INSTALLED A MINIMUM OF 36" BELOW FINAL GRADE TO TOP OF CONDUIT.
- SPECIAL PRECAUTION SHALL BE TAKEN WHEN TRENCHING TO LOCATE, PROTECT AND PRESERVE EXISTING UNDERGROUND UTILITIES. ANY DAMAGE CAUSED DURING THE COURSE OF CONSTRUCTION SHALL BE IMMEDIATELY REPAIRED.
- WIRE BETWEEN OPENING IN DOOR FRAME AND ACCESSIBLE
- 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 ATTIC.

ATTIC.

- 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 NEW IDF AT NEW BUILDING.
  - 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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3 PROVIDE ONE (N) 2"C WITH ONE 'SFO' CABLE, AND ONE (N) 2"C.O.

OWNER AT SITE.

LOACTIONS.

(4) PROVIDE (N) UNDERGROUND SIGNAL PULL BOX PER DETAIL 4/E600.

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

(7) MOUNT (N) IDF CABINET HIGH ON WALL, BELOW CEILING PER DETAIL 5/E600.

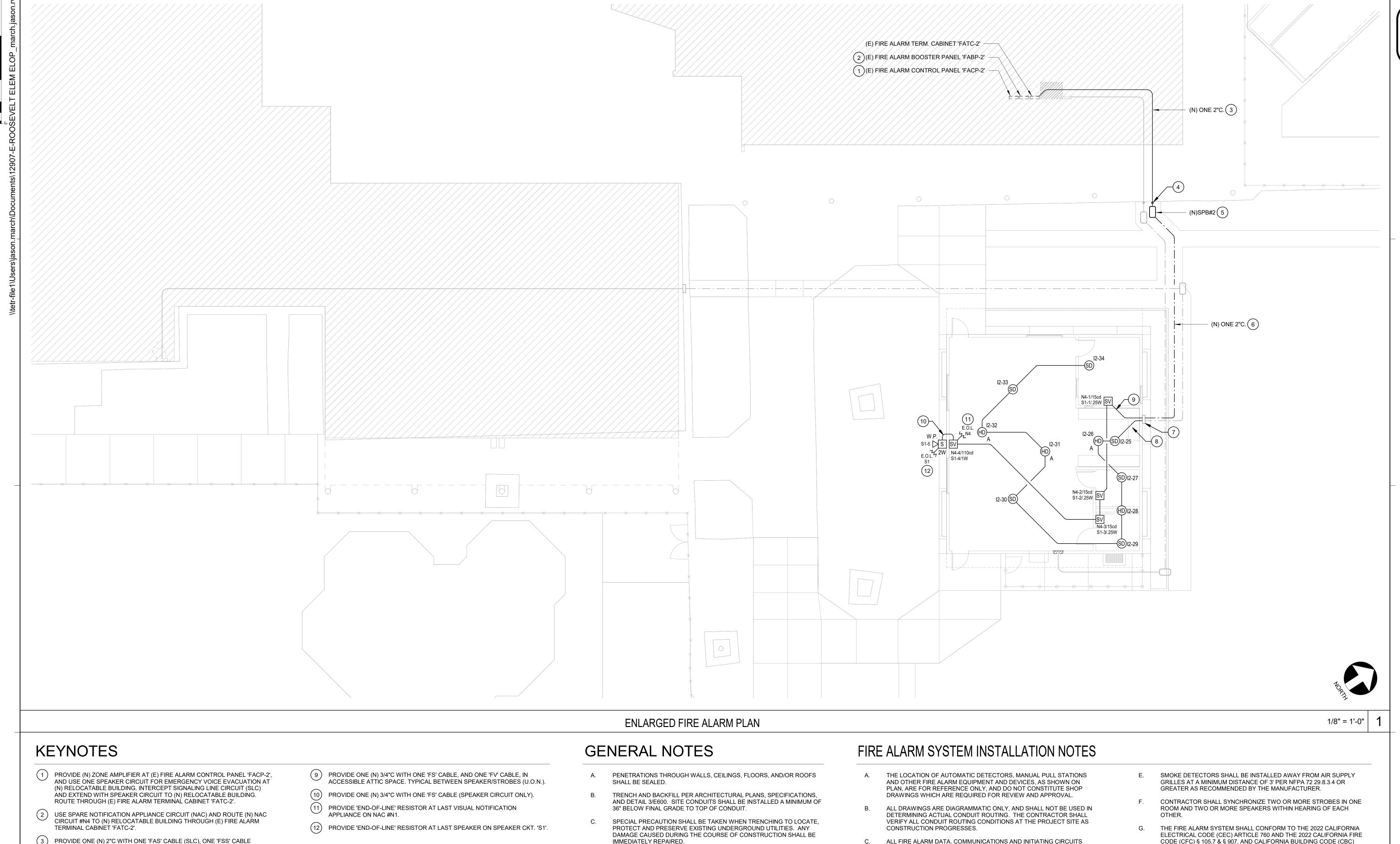
9 PROVIDE ONE TYPE 'D' CABLE TO IDF. TYPICAL AT ALL SECURITY CAMERA

10 PROVIDE ONE TYPE 'D' CABLE TO IDF. TYPICAL AT ALL INTERIOR AND

6 PROVIDE ONE (N) TYPE 'H' CABLE FROM EACH 'AV1' HDMI JACK TO 'AV2"

(8) PROVIDE ONE TYPE 'D' CABLE TO IDF, FROM CALL BUTTON.

EXTERIOR SPEAKER LOACATIONS.



- PROVIDE ONE (N) 2"C WITH ONE 'FAS' CABLE (SLC), ONE 'FSS' CABLE (SPEAKER CIRCUIT), AND ONE 'FVS' CABLE (NAC N4) FROM (E) FIRE ALARM TERMINAL CABINET 'FATC-2'. ROUTE INSIDE BUILDING THEN ON TOP OF COVERED WALKWAY.
- 4 AT EDGE OF COVERED WALKWAY, RUN (N) FEEDER DOWN COLUMN AND THEN TRANSITION TO UNDERGROUND.
- (5) (N) UNDERGROUND SIGNAL PULL BOX PER DETAIL 4/E600.
- 6 PROVIDE ONE (N) 2"C WITH ONE 'FAS' CABLE, ONE 'FSS' CABLE, AND ONE 'FVS' CABLE. RUN IN JOINT TRENCH WITH (N) SIGNAL CONDUIT.
- (7) (N) NEMA TYPE 3R SCREW COVER CAN ON EXTERIOR BUILDING WALL AT NÉW RELOCATABLE BUILDING PER ENLARGED SIGNAL PLAN 1/E400.
- 8 PROVIDE ONE (N) 3/4"C WITH ONE 'FA' CABLE IN ACCESSIBLE ATTIC SPACE. TYPICAL BETWEEN ADDRESSABLE INITIATION DEVICES.

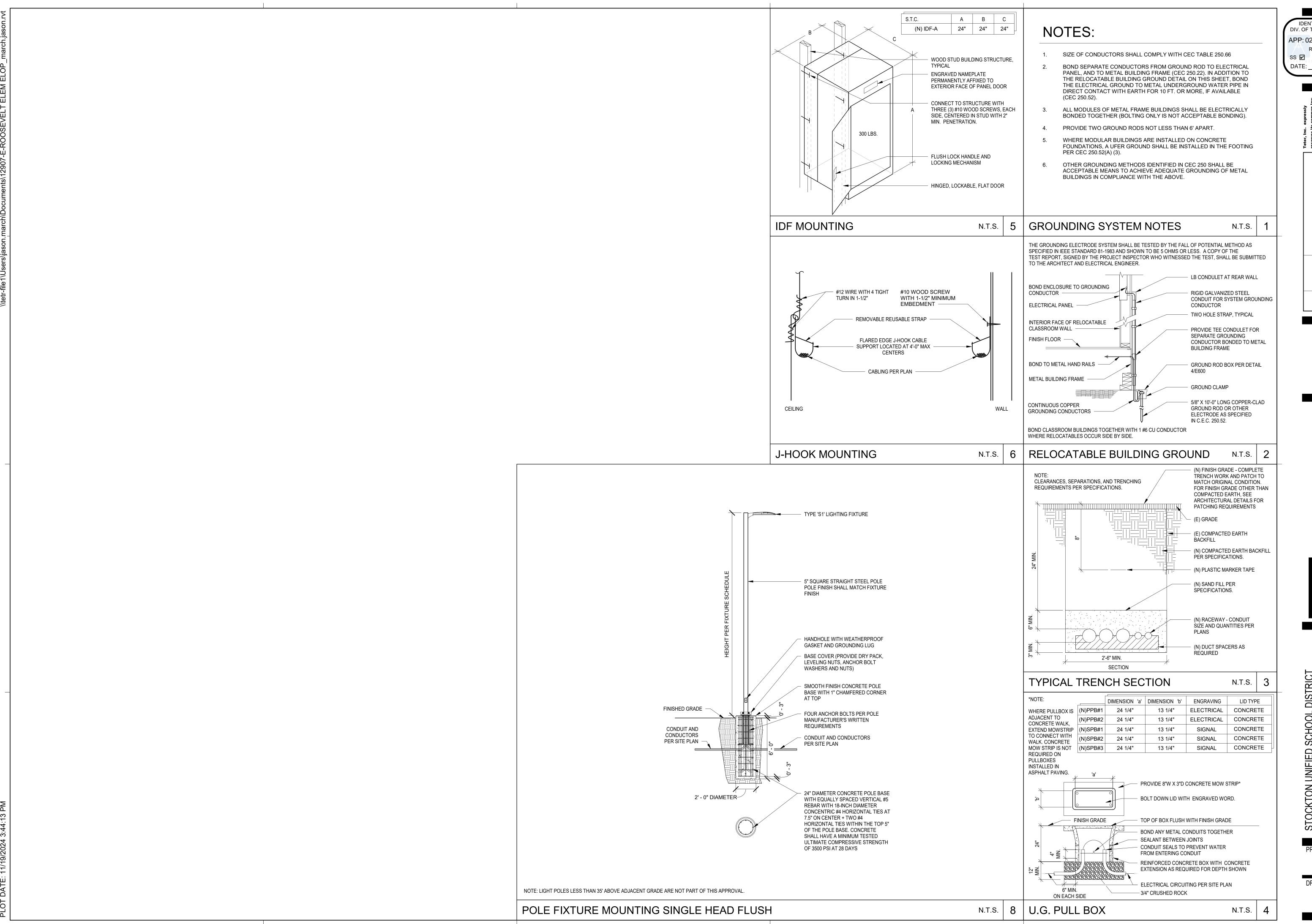
- ALL FIRE ALARM DATA, COMMUNICATIONS AND INITIATING CIRCUITS SHALL BE INSTALLED UTILIZING SOLID COPPER CONDUCTORS WITH OUTER COVERING COLORS PER THE SPECIFICATIONS AND AS SHOWN ON THE DRAWINGS. ALL SMOKE DAMPER AND REMOTE TROUBLE INDICATOR CIRCUITS SHALL BE YELLOW. ALL CIRCUITS SHALL BE INDIVIDUALLY LABELED, BOTH AT THE DEVICE END AND AT THE SIGNAL TERMINAL CABINET AND/OR FIRE ALARM MASTER PANEL TERMINATION
- 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.
- CODE (CFC) § 105.7 & § 907, AND CALIFORNIA BUILDING CODE (CBC)

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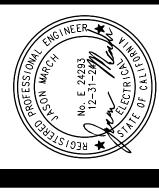


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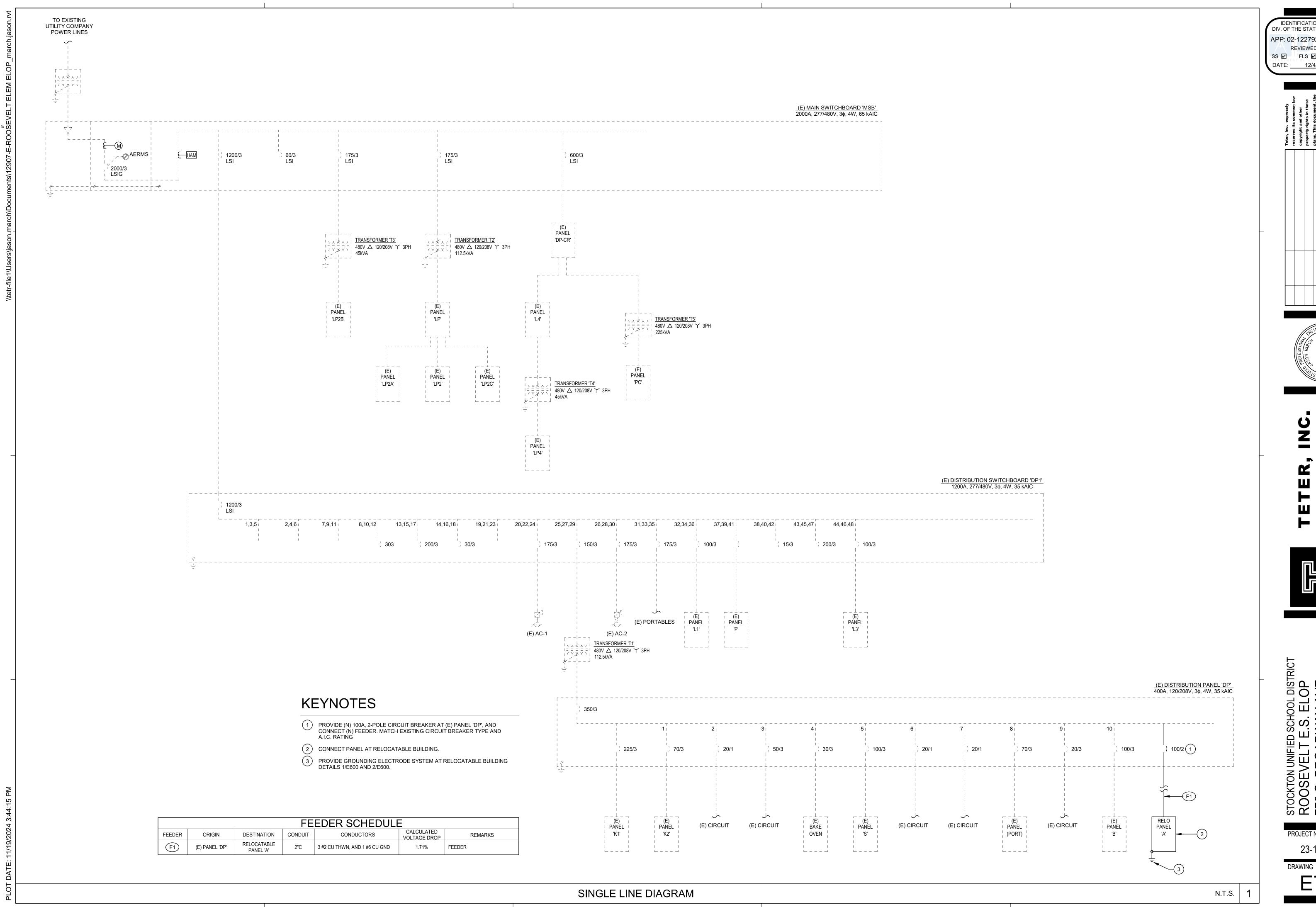
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### SPECIFICATIONS IS A <u>MANUAL</u> AND <u>AUTOMATIC</u> SYSTEM. THIS SYSTEM UTILIZES SMOKE DETECTORS ON CEILINGS AND IN THE ROOMS HOUSING THE FIRE ALARM SYSTEM EQUIPMENT, WITH HEAT DETECTORS INSTALLED IN ATTICS. THE SYSTEM IS ADDRESSABLE AND IS WIRED CLASS 'B' WITHIN THE BUILDINGS AND CLASS 'B' BETWEEN

#### FIRE ALARM APPROVAL

THE FIRE ALARM SYSTEM DESIGN IS A "COMPLETE PLAN SUBMITTAL" PER DSA FIRE ALARM SUBMITTAL GUIDELINES. THE CONTRACTOR SHALL INSTALL THE SYSTEM AS SHOWN AND AS HEREIN SPECIFIED. IF ANY SUBSTITUTION OF FIRE ALARM EQUIPMENT IS TO BE REQUESTED, SUCH REQUEST SHALL BE MADE A MINIMUM OF TWO WEEKS PRIOR TO PROJECT BID DATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING THE SUBSTITUTION PER THE DSA GUIDELINES AND SHALL PAY ALL ADDITIONAL COSTS REQUIRED TO ACCOMMODATE REVIEW OF THE SUBSTITUTED FIRE ALARM SYSTEM BY DSA, WHETHER OR NOT SUCH APPROVAL IS GIVEN. THE CONTRACTOR'S SUBMITTAL SHALL INCLUDE MANUFACTURER'S CATALOG CUT SHEETS AND CSFM LISTING SHEETS FOR THE INDIVIDUAL COMPONENTS COMPRISING THE SUBSTITUTED FIRE ALARM SYSTEM, BATTERY LOAD CALCULATIONS AND VOLTAGE DROP CALCULATIONS FOR EACH

#### APPLICABLE CODES AND STANDARDS

- 2022 CA BUILDING CODE CCR, TITLE 24, PART 2, VOLUMES 1 & 2
- (2021 IBC AND CALIFORNIA AMENDMENTS)
- (2020 NEC AND CALIFORNIA AMENDMENTS) 2022 CA MECHANICAL CODE - CCR, TITLE 24, PART 4
- (2021 UMC AND CALIFORNIA AMENDMENTS)
- 2022 CA PLUMBING CODE CCR, TITLE 24, PART 5 (2021 UPC AND CALIFORNIA AMENDMENTS)
- 2022 CA FIRE CODE CCR, TITLE 24, PART 9 (2021 IFC AND CALIFORNIA AMENDMENTS)
- 2022 CA REFERENCE STANDARDS CODE CCR, TITLE 24, PART 12
- 2022 NFPA 13, INSTALLATION OF SPRINKLER SYSTEMS AND 2022 CALIFORNIA AMENDMENTS 2022 NFPA 72. NATIONAL FIRE ALARM CODE. AND 2022 CALIFORNIA AMENDMENTS PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS - CCR, TITLE 19
- DSA GUIDELINES FOR FIRE AND LIFE SAFETY SYSTEMS, DIVISION OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES.

### FIRE ALARM GENERAL NOTES

- UNDERGROUND AND EXTERIOR CONDUITS WILL HAVE WATERTIGHT FITTINGS. (CEC 110.11
- OUTLETS ON OPPOSITE SIDES OF A FIRE RATED WALL SHALL BE INSTALLED WITH A MINIMUM HORIZONTAL SPACING OF TWO FEET.
- FIRE ALARM DEVICE MOUNTING HEIGHTS SHALL BE AS FOLLOWS:
- PULL STATION OPERABLE PART OF A MANUALLY ACTUATED ALARM INITIATING DEVICE SHALL BE NOT LESS THAN 42" FROM FINISHED FLOOR; AND TOP OF BOX SHALL NOT BE MORE THAN 48" FROM FINISHED FLOOR. (CBC 11B 308.1.1, NFPA 72
- INTERIOR AUDIBLE NOTIFICATION APPLIANCE AT LEAST 90" TO THE TOP OF DEVICE ABOVE FINISHED FLOOR AND NOT LESS THAN 6" BELOW FINISHED CEILING.
- WALL-MOUNTED STROBE OR SPEAKER/STROBE AT LEAST 80" TO BOTTOM OF LENS AND NOT GREATER THAN 96" TO TOP OF LENS ABOVE FINISHED FLOOR.
- AUDIBLE SIGNAL DEVICES OF A FIRE ALARM SYSTEM INTENDED TO ALERT ALL OCCUPANTS SHALL BE SO LOCATED AND UNOBSTRUCTED AS TO CAUSE A LEVEL OF AUDIBILITY OF AT LEAST 15 dBA ABOVE AVERAGE AMBIENT SOUND LEVEL BUT NOT LESS THAN 75 dBA AT TEN FEET, OR MORE THAN 110 dBA IN TOTAL. (NFPA 72 18.4.3.1, 18.4.1.2 AND CFC 907.5.2.1.2)
- AMBIENT NOISE LEVELS SHALL BE CONSTRUED TO MEAN THAT WHICH CAN NORMALLY BE EXPECTED TO EXIST WHEN THE FACILITY, BUILDING, ROOM OR AREA IS FUNCTIONING UNDER NORMAL OPERATIVE OR WORKING CONDITIONS. (CFC 907.5.2.1.1)
- AUDIBLE DEVICES SHALL SOUND THE CA UNIFORM FIRE ALARM SIGNAL IN TEMPORAL MODE. PROVIDE AT LEAST ONE EXTERIOR AUDIBLE DEVICE ON BUILDING FOR E OCCUPANCIES. (CFC 907.5.2.1.3)
- EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM SHALL COMPLY WITH CBC 907.2.3 AND NFPA 72 24.4.2
- VISUAL DEVICES SHALL NOT EXCEED TWO FLASHES PER SECOND AND SHALL NOT BE SLOWER THAN ONE FLASH EVERY SECOND. (NFPA 72 18.5.3.1)
- AUTOMATIC SMOKE DETECTION SHALL BE PROVIDED AT THE LOCATION OF EACH FIRE ALARM CONTROL UNIT, NOTIFICATION APPLIANCE CIRCUIT POWER EXTENDER AND SUPERVISING STATION TRANSMITTING EQUIPMENT TO PROVIDE NOTIFICATION OF FIRE AT THAT LOCATION. (NFPA 72 10.4.4)
- BRANCH CIRCUITS PROTECTING FIRE ALARM EQUIPMENT SHALL BE LABELED PER NFPA 72 10.6.5.2.2 AND SHALL INCLUDE A LISTED CIRCUIT BREAKER LOCKING DEVICE PER NFPA 72
- COMPLETE THE NFPA 72 RECORD OF COMPLETION, TESTING ALL DEVICES AND APPLIANCES. PROVIDE A COPY OF THE COMPLETED RECORD OF COMPLETION TO THE OWNER (SCHOOL DISTRICT), ARCHITECT, LOCAL FIRE AUTHORITY, AND DSA VIA THE PROJECT INSPECTOR. TESTING OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE LOCAL FIRE AUTHORITY AND THE DSA INSPECTOR OF RECORD (IOR). FINAL TEST SHALL INCLUDE READ OUT VERIFICATION FORM FROM CENTER STATION.

**EVACUATION** 

SIGNALS/STROBES

THE AUTOMATIC ALARM SYSTEM SHALL BE INSTALLED, TESTED, AND MAINTAINED IN ACCORDANCE WITH THE STATE FIRE MARSHAL'S REGULATIONS (CFC 907.8.5, NFPA 72 14.4.1.1, NFPA 72 14.5)

FIRE ALARM CODES AND NOTES

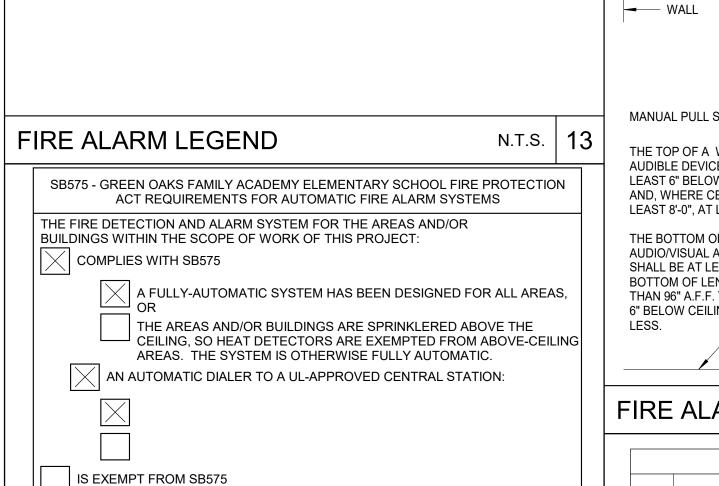
**DEVICE** 

FIRE ALARM PANEL SYSTEM TROUBLE

SMOKE DETECTOR

HEAT DETECTOR

#### FIRE ALARM SYSTEM EQUIPMENT LEGEND DESCRIPTION EXISTING FIRE ALARM CONTROL PANEL 'FACP': EDWARDS EST3 SERIES W/ AUTOMATIC CHARGING SYSTEM C.S.F.M. #7165-1657:0186 NEW AUDIO SOURCE UNIT EDWARDS #3-ASU; C.S.F.M. #7165-1657:0186 (MOUNT INSIDE EXISTIN FIRE ALARM CONTROL PANEL 'FACP-1') EDWARDS #3-ZA20X; C.S.F.M. #7165-1657:0186 (MOUNT INSIDE EXISTING FIRE ALARM CONTROL PANEL 'FACP-2') EXISTING FIRE ALARM REMOTE ANNUNCIATOR EDWARDS #3-LCDANN; C.S.F.M. #7120-1657:0193 (MOUNT INSIDE NEW BACKBOX - EDWARDS #4ANN/B) NEW FIRE ALARM REMOTE MICROPHONE EDWARDS #3-REMICA; C.S.F.M. #7120-1657:0193 (MOUNT INSIDE NEW BACKBOX - EDWARDS #4ANN/B) NEW ADDRESSABLE SYNCRONIZATION OUTPUT MODULE : EDWARDS #SIGA-CC1S, C.S.F.M.#7300-1657:0121 (MOUNT INSIDE NEW FIRE ALARM AUXILIARY POWER SUPPLY 'APS') NEW ADDRESSABLE SMOKE DETECTOR AND BASE (ON CEILING): EDWARDS #SIGA-OSD; C.S.F.M. #7272-1657:0511 EDWARDS #SIGA-SB; C.S.F.M. #7300-1657:0120 NEW ADDRESSABLE HEAT DETECTOR AND BASE (ON CEILING): EDWARDS #SIGA-HRD; C.S.F.M. #7270-1657:0333 EDWARDS #SIGA-SB; C.S.F.M. #7300-1657:0120 NEW ADDRESSABLE HEAT DETECTOR AND BASE (IN ATTIC): EDWARDS #SIGA-HRD; C.S.F.M. #7270-1657:0333 EDWARDS #SIGA-SB; C.S.F.M. #7300-1657:0120 NEW SPEAKER/STROBE ANNUNCIATOR - WALL MOUNTED (XX REPRESENTS CANDELA) X | EDWARDS #G4SVRF; C.S.F.M. #7320-1657:0516 NEW VOICE EVACUATION SYSTEM SPEAKER (OUTDOOR - WEATHERPROOF) EDWARDS #WG+13. C.S.F.M. #7320-1657:0289 EDWARDS #WG4RF-S, WG4RTS



THE TOTAL PROJECT CONSTRUCTION VALUE IS LESS THAN \$200,000,

THE PROJECT CONSISTS OF ONLY MODULAR BUILDINGS WHICH ARE

EXTENSION IS APPROVED BY DSA, OR

SB575

FIRE ALARM SYSTEM OPERATIONAL MATRIX

SHUTDOWN FIRE/SMOKE

DAMPER, OR ACTIVATE

SMOKE VENT RELEASE

TEMPORARY; THESE BUILDINGS SHALL BE REMOVED NO MORE THAN

THE PROJECT IS NOT FUNDED UNDER CHAPTER 12.5 OF THE LEROY F.

FIRE ALARM MONITORING NOTE

SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING

STATION AS REQUIRED BY NFPA 72 AS AMENDED BY CFC CHAPTER 80

STANDARD 3011. SUPERVISION OF SYSTEM AND LEASED TELEPHONE

THE SUPERVISING STATION SHALL BE LISTED AS EITHER UUFX OR

UUJS BY UNDERWRITERS LABORATORY OR SHALL MEET THE

REQUIREMENTS OF FACTORY MUTUAL RESEARCH APPROVAL

ANNUNCIATE AT

BUILDING FACP AND ALL

REMOTE ANNUNCIATORS

SEND SIGNAL TO

CENTRAL STATION

LINES SHALL BE ARRANGED BY OWNER.

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

SHUTDOWN HVAC

**EQUIPMENT** 

AUTOMATIC FIRE ALARM SYSTEMS SHALL TRANSMIT THE ALARM,

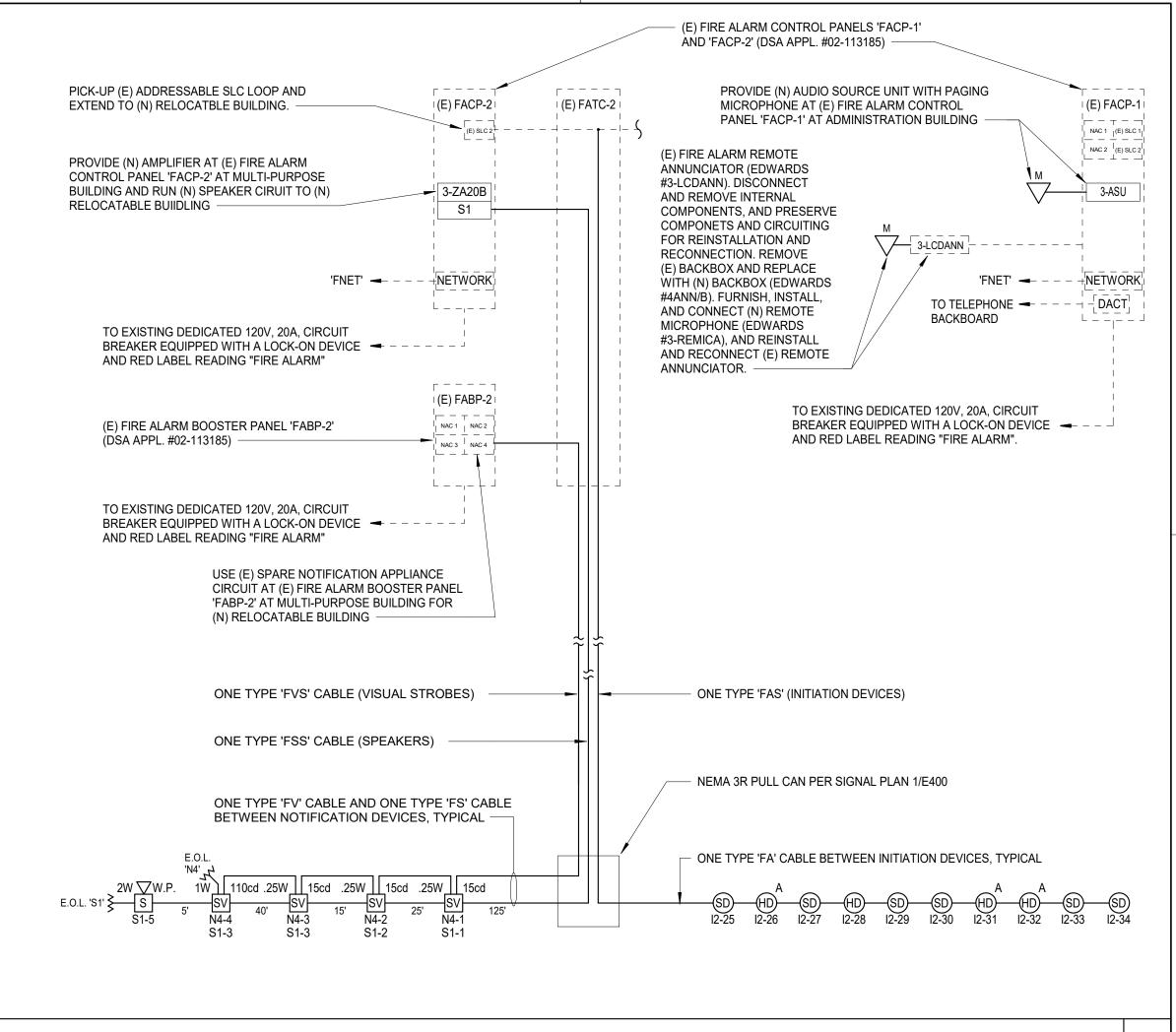
GREENE SCHOOL FACILITIES ACT. IT WILL BE 100% FUNDED BY LOCAL

N.T.S. | 14

N.T.S. | 15

THREE YEARS FROM THE INSTALLATION DATE UNLESS A THREE-YEAR

SMOKE DETECTOR (★) FINISH CEILING 12" MIN. VISUAL DEVICE (\*) SMOKE DETECTORS 15' MAX. SHALL BE INSTALLED A AUDIBLE DEVICE — MINIMUM OF 36" FROM SUPPLY AND RETURN GRILLES AND SHALL 96" MAX TO TOP NOT BE LOCATED IN OF LENS DIRECT AIRFLOW MANUAL PULL STATION -80" MIN. TO BOTTOM OF LENS THE TOP OF A WALL-MOUNTED AUDIBLE DEVICE SHALL BE AT LEAST 6" BELOW FINISH CEILING AND, WHERE CEILING HEIGHT IS AT LEAST 8'-0", AT LEAST 90" A.F.F. FIRE ALARM THE BOTTOM OF A WALL-MOUNTED AUDIO/VISUAL AND VISUAL DEVICES SHALL BE AT LEAST 80" A.F.F. TO BOTTOM OF LENS AND NO MORE THAN 96" A.F.F. TO TOP OF LENS OR 6" BELOW CEILING - WHICHEVER IS FINISH FLOOR FIRE ALARM DEVICE ELEVATIONS N.T.S. | 10 | FIRE ALARM RISER DIAGRAM



EXISTING FIRE ALARM CONTROL PANEL 'FACP-1' BATTERY CALCULATIONS ALARM CURRENT/D CURRENT DEVICE **DESCRIPTION EVICE** EST3 (E) Fire Aalrm Control Panel - Base panel 3-PPS/M (E) Power Supply 3-CPU3 0.155 (E) Central Processor 0.145 3-RS485B 0.055 0.055 0.055 (E) Communications Card 3-LCD (E) LCD Module 0.038 0.038 3-SSDC1 0.204 0.204 (E) SIGA Controller 0.144 0.600 0.900 0.900 3-MODCON (E) Dact Module 3-12/S1GY 0.002 0.015 0.015 (E) Annuciation Module 2 3-EVDVRA 0.040 (E) Driver for Third Party Graphic Annunciators 3-EVPWRA 0.012 0.012 0.012 (E) Power Supply for EVDVRA Drivers 1 3-ASU 0.08000 0.080 0.080 (N) Audio Source Unit (E) Remote Annunciator CPU 3-ANNCPU 0.144 0.144 0.144 3-LCDANN 0.186 (E) Remote Annunciator 0.184 0.186 1 3-REMICA (N) New Remote Microphone 0.06400 0.064 0.064 4ANN/B (N) New Backbox for Remote Annunciator and Microphone ----TOTALS 1.893 1.933 0.25 HR x 1.933 TOTAL ALARM AMP-HOURS (15 MIN.) = 0.4833 A-H TOTAL STANDBY AMP-HOURS (24 HRS) = 24 HR x 1.478 35.4720 A-H TOTAL REQUIRED AMP-HOURS = 35.9553 A-H TOTAL DESIGN AMP-HOURS WITH 20% SAFETY FACTOR = 43.1463 A-H NEW BATTERIES 44 000 A-H

NEM R	ATTERIES								46.000	A-H
	EXIST	ING FIRE ALAR	M CONTR	OL P	ANE	L 'FACP-2	' BATTERY	CALCULATIO	ONS	
QTY.	DEVICE			DESCR	IPTIOI	N		STANDBY CURRENT	ALARM CURRENT/D EVICE	ALARM CURRENT
1	EST3	(E) Fire Aalrm Co	ntrol Panel -	Base p	anel					
1	3-PPS/M	(E) Power Supply	′							
1	3-CPU3	(E) Central Proce	essor					0.145	0.155	0.155
1	3-RS485B	(E) Communicat	ions Card					0.055	0.055	0.055
1	3-LCD	(E) LCD Module	(E) LCD Module				0.038	0.038	0.038	
1	3-SSDC1	(E) SIGA Controll	er					0.144	0.204	0.204
1	3-ZA20x	(N) 20W Zone Ar	mplifier					0.062	1.120	1.120
6	SIGA2-PS	(N) Addressable	Smoke Dete	ctors				0.00045	0.018	0.108
4	SIGA2-HRS	(N) Addressable	Heat Detect	ors				0.00045	0.018	0.072
		TC	OTALS					0.445	1.608	1.752
OTAL	ALARM AMP-HOUR	2S (15 MIN.) =	0.25	HR	Х	1.752	Α	=	0.4380	A-H
OTAL	STANDBY AMP-HOL	JRS (24 HRS) =	24	HR	Х	0.445	Α	=	10.6776	A-H
OTAL	REQUIRED AMP-HC	OURS =						=	11.1156	A-H
OTAL	DESIGN AMP-HOUF	RS WITH 20% SAFETY F.	ACTOR =					=	13.3387	A-H
EXISTII	NG BATTERIES								18.000	Δ-Η

SPEAKER VOLTAGE =	24					_	
	DEVICE BOWER	SIGN	IAL CKT	SIGN	AL CKT	SPEAKER	AAINI AAAD
SPEAKERS	DEVICE POWER (WATTS)		\$1		<b>S2</b>	QTY	MIN. AMP SIZE (WATTS
	(1171110)	QTY.	WATTS	QTY. WATTS		TOTAL.	0122 (1171110
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	4.5
SPEAKER - 1 WATT TAP	1	1	1	0	0	1	4.5
SPEAKER - 2 WATT TAP	2	1	2	0	0	1	
TOTAL POWER ON CKT (P) WATTS			3.75		0		
LOAD RESISTANCE (LR) OHMS			154		-		
TOTAL WIRE LENGTH (D) FT			210		0		
WIRE SIZE		14	AWG	14	AWG		
TOTAL WIRE RESISTANCE (WR) OHMS			3692		-		
POWER LOSS (PL) dB	112.40 (1451).*	-	0.04	1 11/1/05 05	0107431057	(D) (D (1	0001 # 5
FORMULAS WIRE RESISTANCE (R) (O 18 AWG	HMS/Kff)* =	8.08	1			WR) = (R / 1 PEAKER VC	•
16 AWG		5.08	LOAD	KESISTAINC	,c (LK) – (3	PEAKER VC	LIAGE JAZ
14 AWG		3.26				Г	
12 AWG	=	2.05	POWER II	POWER LINE LOSS (PL) = $10 * LOG (1 - (WR / (WR + LR)))$			2 / (\M\P+I P)
12 AWG	_	2.00	II OVVEN LI	11 LOSS (1		J	\

	_	NAC 'N4' VOLTAGE DROP CALCULATION		
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
LENG1	H OF WIRE F	ROM FACP TO LAST DEVICE (IN FEET) =		210
ACTU/	AL SIZE OF W	IRE INSTALLED = 12 AWG 6530 CIRCULAR MILS		
CALC	ULATED VOL	TAGE DROP (IN VDC) =		0.078
CIRCL	JIT VOLTAGE	CALCULATED AT LAST DEVICE (IN VDC) =		23.9 VDC
PERCE	NT VOLTAG	E DROP (%) =		0.32 %
VOLTA	AGE DROP FO	ORMULA:		
VOLTA	AGE DROP =	2 X 10.8 x LENGTH OF CIRCUIT TO FARTHEST DEVICE x CURRENT		
		WIRE SIZE IN C.M.		
COM	PUTED WITH 1	OTAL CURRENT ON CIRCUIT AT MAXIMUM LENGTH (CLASS A CIRCUIT).		

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-122792 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 12/4/2024

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								DESCRIPTION		11/19/24 DSA BACKCHECK	
								DAIE		11/19/24	
								MAKK		<u>m</u>	





FIRE ALARM OPERATIONAL MATRIX

N.T.S. | 16 | BATTERY AND VOLTAGE DROP CALCULATIONS

N.T.S. | 4

		FIRE ALA	RM CABLE	SCHEDULE	
CABLE DESIGNATION	DESCRIPTION	MANUFACTURER & CATALOG #	OUTER JACKET COLOR	SYSTEM	USE
'FAS'	1 PR, #16 AWG STRANDED UNSHIELDED AQUASEAL FPL	WEST PENN #AQC225	BLACK	FIRE ALARM	SITE ADDRESSABLE SLC LOOP CABLE - EXTERIOR/OUTDOOR
'FA'	1 PR, #16 AWG SOLID UNSHIELDED FPL	WEST PENN #D990	RED	FIRE ALARM	ADDRESSABLE SLC LOOP CABLE - INTERIOR
'FSS'	1 PR, #14 AWG SOLID SHIELDED, FPL	WEST PENN #AQC295	BLACK	FIRE ALARM	AUDIBLE (SPEAKER) NOTIFICATION APPLIANCE CIRCUIT - EXTERIOR/OUTDOOR
'FS'	1 PR, #14 AWG SOLID SHIELDED, FPLP	WEST PENN #60992B	RED	FIRE ALARM	AUDIBLE (SPEAKER) NOTIFICATION APPLIANCE CIRCUIT - INTERIOR
'FVS'	1 PR, #12 STRANDED UNSHIELDED FPL	WEST PENN #AQ227	BLACK	FIRE ALARM	VISUAL (STROBE) NOTIFICATION APPLIANCE CIRCUIT - EXTERIOR/OUTDOOR
'FV'	1 PR, #12 SOLID UNSHIELDED FPLP	WEST PENN #60995B	RED	FIRE ALARM	VISUAL (STROBE) NOTIFICATION APPLIANCE CIRCUIT - INTERIOR

### FIRE ALARM CABLE SCHEDULE

N.T.S. | 13

		TELECOMMU	JNICATION	CABLE SCH	EDULE
CABLE DESIGNATION	DESCRIPTION	MANUFACTURER & CATALOG #	OUTER JACKET COLOR	SYSTEM	USE
'SFO'	12-STRAND SINGLE-MODE FIBER OPTIC CABLE	CORNING SMF-28e+ OR EQUIVALENT	BLACK	DATA	SITE OPTICAL FIBER DATA NETWORK
'D'	4 UTP #24 AWG CATEGORY 6 FILLED OUTDOOR	COMMSCOPE MEDIA 6 #6NF4+	BLACK	DATA	HORIZONTAL DATA CABLE - OUTDOOR
'H'	ACTIVE FIBER OPTIC HDMI CABLE	CHROMIS #AOC-18G-R-OBXP OR EQUIVALENT	BLACK	VIDEO	BUILDING HDM1 CABLE M/M

### TELECOMMUNICATIONS CABLE SCHEDULE

N.T.S. | 14

				LIGHTI	NG FIXTURE SCHEDULE		
FIXTURE DESIGNATION	FIXTURE VOLTAGE		MOUNTING	DRIVER & COLOR TEMP	DESCRIPTION	MANUFACTURER	CATALOG #
S1	120 V	69	POLE PER 8/E600		SINGLE HEAD POLE MOUNTED SITE LIGHT + 12'-6" x 5" SQUARE STRAIGHT STEEL POLE WITH HANDHOLE	LITHONIA	DSX0 LED-P3-40K-80CRI-T5LG-MVOLT-SPA-PIR-DDBX D + SSS-12-6-5G-DM19AS-CPL12/15B-EHH15D-DDB XD
W2	120 V	32	WALL MOUNTED	LED - 4000K	WALL MOUNTED LED LIGHT FIXTURE, +8'AFF (13.5 LBS)	LITHONIA	WDGE2 LED-P3-40K-80CRI-TFTM-MVOLT-SRM

LIGHT FIXTURE SCHEDULE N.T.S. 15

### 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 ANY WORK NOT IN CONFORMANCE WITH THESE CODES, RULES AND REGULATIONS. WHERE WORK OF A GREATER DEGREE IS INDICATED IN THESE PLANS OR SPECIFICATIONS, THAT REQUIREMENT SHALL GOVERN SUCH WORK.

### C.E.C. TITLE 24 COMPLIANCE

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 ALL MECHANICAL, HVAC AND PLUMBING EQUIPMENT.
- 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 INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2022 CBC, SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26 AND 30.

- 1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
- 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 HAVING FLEXIBLE CABLE.
- 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
- COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE

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.

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

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

# **ELECTRICAL SYMBOL LEGEND**

DIMENSIONS INDICATED ARE MEASURED TO CENTERLINE OF ENCLOSURE, UNLESS OTHERWISE NOTED NOTE: SOME SYMBOLS SHOWN MAY NOT APPLY TO THIS PROJECT DENOTES EXPLOSION PROOF CONSTRUCTION

TEMPORARY, MOVABLE OR MOBILE EQUIPMENT EQUIPMENT WHICH IS HEAVIER

DIRECTLY SUPPORT THE COMPONENT.

SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE THE HANGER AND BRACE LOADS.

### **ELECTRICAL DISTRIBUTION SYSTEMS:**

	DENOTES DUST TIGHT CONSTRUCTION	\$ <sub>2</sub>	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.
	DENOTES RAIN TIGHT CONSTRUCTION	\$ 4	FOUR WAY AC SNAP SWITCH @ +48" TO TOP OF BOX, U.O.N.
U.G.	DENOTES UNDERGROUND INSTALLATION	\$ M	HORSEPOWER RATED AC SNAP SWITCH @ +48" TO TOP OF BOX U.O.N.
	DENOTES VAPOR TIGHT CONSTRUCTION	\$ <sub>P</sub>	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	\$ A	SINGLE POLE AC SNAP SWITCH @ +48" TO TOP OF BOX, U.O.N.
	DENOTES ABOVE FINISHED FLOOR	1	KEY OPERATED AC SNAP SWITCH @ +48" TO TOP OF BOX U.O.N.
	DENOTES ABOVE FINISHED FLOOR  DENOTES ABOVE FINISHED GRADE	\$к \$	WALL SWITCH WITH INTEGRAL OCCUPANCY SENSOR @ +48" TO TOP OF BOX, U.O.N.
		(M)	OCCUPANCY SENSOR - CEILING MOUNTED
	DENOTES FURNISHED BY OTHERS		OCCUPANCY SENSOR - WALL MOUNTED @ +90" TO TOP OF BOX, U.O.N.
	DENOTES UNLESS OTHERWISE NOTED	M <sub>W</sub>	LIGHTING CONTROL SYSTEM DIMMING/POWER PACK MOUNTED IN ATTIC
	DENOTES EXISTING TO REMAIN, NO WORK U.O.N.	P	
	DENOTES NEW	(RP)	LIGHTING CONTROL SYSTEM PLUG LOAD RELAY PACK MOUNTED IN ATTIC  LIGHTING CONTROL SYSTEM 2-BUTTON DIMMING WALL SWITCH
$\overline{}$	ELECTRICAL KEYNOTES: DENOTES KEYNOTE #1 OF NOTES ON SAME SHEET	<u>(1)</u>	@ +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>(C4)</u>	(@ +48" TO TOP OF BOX, U.O.N.
(1)	CIRCUIT FEEDER: DENOTES FEEDER 'F1' PER SYSTEM FEEDER SCHEDULE	(C1) <sub>L</sub>	LIGHTING CONTROL SYSTEM DIMMING WALL SWITCH WITH LOCKING COVER @ +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.	(nB)	LIGHTING CONTROL SYSTEM NETWORK BRIDGE
	DENOTES EXISTING CONDUIT RUN TO REMAIN	⟨nG⟩	LIGHTING CONTROL SYSTEM NETWORK GATEWAY
<del></del> 3	CONDUIT RUN - STUBBED, CAPPED AND LABELED.	(AD)	LIGHTING CONTROL SYSTEM AUTOMATED DEMAND RESPONSE MODULE
	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
	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
	CONDUIT RUN: DENOTES 1"C - 6 #12 AWG CU THWN + 1 #12 CU GND, U.O.N.		
	SEPARATE POWER AND DATA FLOOR BOXES (2)	V222	
	FLUSH FLOOR BOX WITH DEVICE(S) INSTALLED PER PLANS, U.O.N. (2)	2222	ELECTRICAL PANELBOARD PER PLANS, SURFACE MOUNTED ON WALL
			,
<u> </u>	TAMPER-RESISTANT SINGLE RECEPTACLE IN WALL @ +18", U.O.N.	M	TERMINAL CABINET PER PLANS, FLUSH MOUNTED IN WALL (5)
<u></u>	TAMPER-RESISTANT DUPLEX RECEPTACLE IN WALL @ +18", U.O.N.		TERMINAL CABINET PER PLANS, SURFACE MOUNTED ON WALL
<del>=</del>	TAMPER-RESISTANT DUPLEX GFI RECEPTACLE, IN WALL @ 18", U.O.N.	шш	LIGHTING CONTROL PANEL PER PLANS, FLUSH MOUNTED IN WALL (5)
<del>=</del>	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	<u> </u>	LIGHTING CONTROL PANEL PER PLANS, SURFACE MOUNTED ON WALL
$\rightleftharpoons_{WP}$	TAMPER-RESISTANT WEATHER RESISTANT (W/R) DUPLEX GFCI RECEPTACLE W/ W.P. COVER   @+18", U.O.N.		FIRE ALARM PANEL PER PLANS, FLUSH MOUNTED IN WALL (5)
<b>=</b>	TAMPER-RESISTANT DUPLEX ISOLATED GROUND RECEPTACLE IN WALL @ +18", U.O.N. (7)		FIRE ALARM PANEL PER PLANS, SURFACE MOUNTED ON WALL
<del> </del>	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
	DUPLEX RECEPTACLE FLUSH IN CEILING	<u> </u>	SPEAKER IN CEILING, U.O.N.
<del></del>	TAMPER-RESISTANT QUADRUPLEX RECEPTACLE IN WALL @ +18" A.F.F., U.O.N. ONE UNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE	<u>s</u> b	SPEAKER/CLOCK IN COMMON BACKBOX PER PLAN @ 12" BELOW CEILING, U.O.N.
	JUNSWITCHED RECEPTACLE AND ONE SWITCHED (OCC. SENSOR CONTROLLED) RECEPTACLE JUNCTION BOX	Ф	WALL CLOCK PER PLAN @ 12" BELOW CEILING, U.O.N.
	JUNCTION BOX WITH FLEXIBLE CONDUIT CONNECTION TO EQUIPMENT	S	
	NON-FUSIBLE DISCONNECT SWITCH	MD	INTRUSION ALARM SYSTEM MOTION DETECTOR (WALL MOUNTED) (3)
	FUSIBLE DISCONNECT SWITCH	<u>©</u>	INTRUSION ALARM SYSTEM MAGNETIC DOOR CONTACT (3)
$oxedsymbol{igwedge}_{oldsymbol{1}}$	FUSIBLE DISCONNECT SWITCH WITH INTEGRAL MAGNETIC STARTER	(WC)	INTRUSION ALARM SYSTEM MAGNETIC WINDOW CONTACT (3)
•		(CD)	
<del></del>	ELECTRIC MOTOR	(GB)	INTRUSION ALARM SYSTEM GLASS BREAK DETECTOR (3)
	ELECTRIC MOTOR  EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR	KP	INTRUSION ALARM SYSTEM GLASS BREAK DETECTOR (3) INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED) (3)
<u> </u>	EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR	KP	INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED) (3)
\(\sqrt{\text{Q}}\)	EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR SURFACE MOUNTED RACEWAY, MOUNT @ +18" A.F.F. U.ON.	KP CR FR	INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED) (3) INTRUSION ALARM SYSTEM CARD READER (WALL MOUNTED) (3)
	EXHAUST FAN OR FRACTIONAL HORSEPOWER MOTOR  SURFACE MOUNTED RACEWAY, MOUNT @ +18" A.F.F. U.ON.  RECESSED LED LIGHTING FIXTURE	KP CR	INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  (3) INTRUSION ALARM SYSTEM CARD READER (WALL MOUNTED)  (3) INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  (3)
	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	ER SCA	INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  (3) INTRUSION ALARM SYSTEM CARD READER (WALL MOUNTED)  (3) INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  (3) SECURITY CAMERA (WALL MOUNTED) ROUGH-IN LOCATION PER PLAN  (3)
	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	ER SSA SD	INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  (3) INTRUSION ALARM SYSTEM CARD READER (WALL MOUNTED)  (3) INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  (3) SECURITY CAMERA (WALL MOUNTED) ROUGH-IN LOCATION PER PLAN  (3) FIRE ALARM SMOKE DETECTOR ON CEILING, U.O.N.
	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	ER ER SS SD ED	INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  (3) INTRUSION ALARM SYSTEM CARD READER (WALL MOUNTED)  (3) INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  (3) SECURITY CAMERA (WALL MOUNTED) ROUGH-IN LOCATION PER PLAN  (3) FIRE ALARM SMOKE DETECTOR ON CEILING, U.O.N.  FIRE ALARM HEAT DETECTOR ON CEILING, U.O.N.
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	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  SURFACE MOUNTED LED STRIP LIGHT WITH EMERGENCY BATTERY BACKUP  POST TOP MOUNTED LIGHTING FIXTURE		INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  (3) INTRUSION ALARM SYSTEM CARD READER (WALL MOUNTED)  (3) INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  (3) SECURITY CAMERA (WALL MOUNTED) ROUGH-IN LOCATION PER PLAN  (3) FIRE ALARM SMOKE DETECTOR ON CEILING, U.O.N. FIRE ALARM HEAT DETECTOR ON CEILING, U.O.N. FIRE ALARM HEAT DETECTOR IN ATTIC U.O.N. FIRE ALARM DUCT DETECTOR IN HVAC DUCT
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	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  WALL MOUNTED LIGHTING FIXTURE  WALL MOUNTED LIGHTING FIXTURE  CEILING MOUNTED LIGHTING FIXTURE  CEILING MOUNTED LIGHTING FIXTURE  CEILING MOUNTED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED LIGHTING FIXTURE  RECESSED FIXTURE WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED ROUND LIGHTING FIXTURE  SURFACE MOUNTED ROUND LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  ILLUMINATED EXIT SIGN MOUNTED ON CEILING	ER CR FR SS SD HD A DD CR CS AM F WF WF WF	INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM CARD READER (WALL MOUNTED)  (3)  INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  (3)  SECURITY CAMERA (WALL MOUNTED) ROUGH-IN LOCATION PER PLAN  (3)  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 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 WATERFLOW DETECTION SWITCH  FIRE ALARM ADDRESSABLE WATERFLOW / TAMPER SWITCH MODULE  FIRE ALARM TAMPER SWITCH
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	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 WITH EMERGENCY BATTERY BACKUP  CEILING MOUNTED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  CEILING MOUNTED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED LIGHTING FIXTURE  RECESSED LIGHTING FIXTURE  RECESSED FIXTURE WITH EMERGENCY BATTERY BACKUP  SURFACE MOUNTED ROUND LIGHTING FIXTURE  SURFACE MOUNTED ROUND LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  ILLUMINATED EXIT SIGN MOUNTED ON CEILING  ILLUMINATED EXIT SIGN MOUNTED ON WALL  LOW LEVEL PHOTOLUMINESCENT EXIT SIGN MOUNTED ON WALL  POLE MOUNTED EXTERIOR LIGHTING FIXTURE  COMBINATION VOICE AND DATA OUTLET IN WALL, WITH TWO 'D' CABLES TO IDF  + TWO 'T' CABLES TO TELEPHONE BACKBOARD.  COMBINATION VOICE AND DATA OUTLET IN WALL, WITH TWO 'D' CABLES TO IDF  + TWO 'T' CABLES TO TELEPHONE BACKBOARD.  COMBINATION VOICE AND DATA OUTLET IN WALL, WITH TWO 'D' CABLES TO IDF  + TWO 'T' CABLES TO TELEPHONE BACKBOARD.  COMBINATION VOICE AND DATA OUTLET IN WALL, WITH TWO 'D' CABLES TO IDF  + TWO 'T' CABLES TO TELEPHONE BACKBOARD.  COMBINATION VOICE AND DATA OUTLET IN WALL WITH TWO 'D' CABLES TO IDF  + TWO 'T' CABLES TO TELEPHONE BACKBOARD.  (1) (6)  BATA OUTLET IN WALL @ +18", U.O.N.  (1) (1)  MICROPHONE OUTLET IN WALL @ +18", U.O.N.  (1)  MICROPHONE OUTLET IN WALL @ +18", U.O.N.  (1)  INTERCOMMUNICATIONS HANDSET ON WALL @ +48" TO TOP OF BOX U.O.N.		INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  (3) INTRUSION ALARM SYSTEM CARD READER (WALL MOUNTED)  (3) INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  (3) SECURITY CAMERA (WALL MOUNTED) ROUGH-IN LOCATION PER PLAN  (3)  FIRE ALARM SMOKE DETECTOR ON CEILING, U.O.N.  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 WATERFLOW DETECTION SWITCH  FIRE ALARM WATERFLOW DETECTION SWITCH  FIRE ALARM WATERFLOW DETECTION 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)  INTERIOR FIRE ALARM HORN (STERIOR WALL)  VOICE EVACUATION SPEAKER/STROBE ALARM UNIT (CEILING)  EXTERIOR FIRE ALARM HORN (EXTERIOR WALL)  VOICE EVACUATION SPEAKER/STROBE ALARM UNIT (CEILING)  EXTERIOR FOR EVACUATION SPEAKER/STROBE ALARM UNIT (CEILING)
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	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  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  WALL MOUNTED LIGHTING FIXTURE  WEILING MOUNTED LIGHTING FIXTURE  CEILING MOUNTED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED LIGHTING FIXTURE  RECESSED FIXTURE WITH EMERGENCY BATTERY BACKUP  RECESSED FIXTURE WITH EMERGENCY BATTERY BACKUP  ILLUMINATED EXIT SIGN MOUNTED ON CEILING  ILLUMINATED EXIT SIGN MOUNTED ON WALL  LOW LEVEL PHOTOLUMINESCENT EXIT SIGN MOUNTED ON WALL  POLE MOUNTED EXTERIOR LIGHTING FIXTURE  COMBINATION VOICE AND DATA OUTLET IN WALL WITH TWO "D' CABLES TO IDF  (1) (6)  DATA OUTLET IN WALL @ +18", U.O.N. (1)  MICROPHONE OUTLET IN WALL @ +18", U.O.N. (1)  MICROPHONE OUTLET IN WALL @ +18", U.O.N. (1)  MICROPHONE OUTLET IN WALL @ +18", U.O.N. (1)  INTERCOMMUNICATIONS HANDSET ON WALL @ +49" TO TOP OF BOX U.O.N.  WIRELESS ACCESS POINT LOCATION, PROVIDE TWO TYPE 'D' CABLES TO IDF OR MDF  (II) WIRELESS ACCESS POINT LOCATION, PROVIDE TWO TYPE 'D' CABLES TO IDF OR MDF  WIRELESS ACCESS POINT LOCATION, PROVIDE TWO TYPE 'D' CABLES TO IDF OR MDF	ER SS SD ED A DD BR CR SS	INTRUSION ALARM SYSTEM KEYPAD (WALL MOUNTED)  INTRUSION ALARM SYSTEM CARD READER (WALL MOUNTED)  (3) INTRUSION ALARM SYSTEM FOB READER (WALL MOUNTED)  SECURITY CAMERA (WALL MOUNTED) ROUGH-IN LOCATION PER PLAN  (3)  FIRE ALARM SMOKE DETECTOR ON CEILING, U.O.N.  FIRE ALARM HEAT DETECTOR ON CEILING, U.O.N.  FIRE ALARM HEAT DETECTOR IN ATTIC U.O.N.  FIRE ALARM DOOR RELEASE  FIRE ALARM DOOR RELEASE  FIRE ALARM ADDRESSABLE CONTROL RELAY MODULE  FIRE ALARM ADDRESSABLE INPUT/OUTPUT MODULE  FIRE ALARM MIDIVIDUAL ADDRESSABLE MODULE  FIRE ALARM MANUAL PULL STATION @ +48" TO TOP OF BOX, U.O.N.  FIRE ALARM WATERFLOW DETECTION 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)  INTERIOR FIRE ALARM HORN/STROBE ALARM UNIT (WALL@ +80" MINIMUM, U.O.N.)  EXTERIOR FIRE ALARM HORN (EXTERIOR WALL)  VOICE EVACUATION SPEAKER/STROBE ALARM UNIT (CEILING)  EXTERIOR FIRE ALARM HORN (EXTERIOR WALL)  VOICE EVACUATION SPEAKER/STROBE ALARM UNIT (CEILING)  EXTERIOR FIRE ALARM HORN (EXTERIOR WALL)  VOICE EVACUATION SPEAKER/STROBE ALARM UNIT (CEILING)  EXTERIOR FIRE ALARM HORN (EXTERIOR WALL)  VOICE EVACUATION SPEAKER/STROBE ALARM UNIT (CEILING)  EXTERIOR FIRE ALARM HORN (EXTERIOR WALL)  VOICE EVACUATION SPEAKER/STROBE ALARM UNIT (CEILING)  EXTERIOR FIRE ALARM HORN (EXTERIOR WALL)  FIRE ALARM CIRCUIT END OF LINE RESISTOR
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- 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 T-BAR CEILING, Ù.O.N. THIS REQUIREMENT APPLIES TO EACH POWER AND LIGHTING PANEL INDICATED FLUSH MOUNTED ON POWER PLAN.
- INDICATED FLUSH MOUNTED ON SIGNAL PLAN.
- (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".

N.T.S. | 4

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

GENERAL NOTES

IDENTIFICATION STAMP

DIV. OF THE STATE ARCHITEC

**REVIEWED FOR** 

SS 🗹 FLS 🗹 ACS 🗹

12/4/2024

APP: 02-122792 INC:

DATE: \_\_

STATE OF CALIFORNIA

Project Address:

**Outdoor Lighting** 

CERTIFICATE OF COMPLIANCE

A. GENERAL INFORMATION 01 Project Location (city)

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Report Version: 2022.0.000

Schema Version: rev 20220101

This document is used to demonstrate compliance with requirements in 110.9, 130.0, 130.2, 140.7, and 141.0(b)2L for outdoor lighting scopes using the prescriptive path for nonresidential and hotel/motel occupancies. It is also used to document compliance with requirements in 160.5, 170.2(e)6, 180.1(a) and 180.2(b)4Bv for autdoor lighting scopes using

the prescriptive path for multifamily and mixed-use occupancies. Multifamily includes dormitory and senior living facilities.

The content of the	Section   Control   Cont	LZ-0: Ve LZ-1: Lo Occupa	y Low - Undeveloped v - Rural Areas			by Authorit	y Having Jurisdictio	n (AHJ):							0.1		0.7				- 1 -
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Report Page:   Page 7 of 19   Date Prepared:   Page 7 of 19   Date Prepared:   Page 8   Page 8   Date Prepared:   Date Prepar	Poject Name: Rosewit E.S. ELOP Report Page: [Page] of 8]  LUGHTING ALLOWANCE: PER SPECIFIC AREA  its section does not apply to this project.  LUGHTING CONDITIONS POWER ALLOWANCE (alterations only)  Its section does not apply to this project.  LEXISTING CONDITIONS POWER ALLOWANCE (alterations only)  Its section does not apply to this project.  LEXISTING CONDITIONS POWER ALLOWANCE (alterations only)  Its section does not apply to this project.  LEXISTING CONDITIONS POWER ALLOWANCE (alterations only)  Its section does not apply to this project.  LEXISTING CONDITIONS POWER ALLOWANCE (alterations only)  Its section does not apply to this project.  Company  LEXISTING CONDITIONS POWER ALLOWANCE (alterations only)  Its section does not apply to this project.  Company  LEXISTING CONDITIONS POWER ALLOWANCE (alterations only)  Its section does not apply to this project.  Company  LEXISTING CONDITIONS POWER ALLOWANCE (alterations only)  Its section does not apply to this project.  Company  LEXISTING CONDITIONS POWER ALLOWANCE (alterations only)  Its section does not apply to this project.  Company  LEXISTING CONDITIONS POWER ALLOWANCE (alterations only)  Its section does not apply to this project.  Company  LEXISTING CONDITIONS POWER ALLOWANCE (alterations only)  Its section does not apply to this project.  Allowance allowance allowance allowance and company to the project (alterations only)  LEXISTING CONDITIONS POWER ALLOWANCE (alterations on project on the alteration on the conditions on the conditions on the alterat	DOTNOTES: I uthority Hav UG ratings v	lounting Height is labele ng Jurisdiction may ask ith a lower number than the lower number than grey Efficiency Standard	- 2 MH from prop line ed MH in this table. for Luminaire cut sheets or n the 'Max Allowable' are co	ompliant. Ex.		Generated Date/Til Report Version: 207	, then 80, 81, t me: 22,0.000			t. Compli	Documentation Sc ance ID: EnergyPr	ftware: Ene -4886-112	4-0735	<sup>1</sup> FOOTNOTE: Text has been abbre <sup>2</sup> Authority having jurisdiction ma <sup>3</sup> Recessed luminoires marked for <sup>3</sup> Recessed luminoires marked for <sup>3</sup> Cooperation of the cooper	ny ask for cutsheets or other doct use in fire-rated installations, ar	imentation to confirm compliance of recessed luminaires installed in Ger ompliance Rep	of light source. non-insulated ceilli erated Date/Time: ort Version: 2022.0	ngs are excepted from it and III.	Compliance II	): EnergyPro-4886-1
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Jason March  Company  Teter Activates & Engineers  Address:  CEA! HBS. Certification identification (if applicable):  4503-65AB-F91-2C98-06AB-CBA0-OAEE-883B-FCAA-3090-D8EB-OC15-086E-E5FS-4DCI  5DAC-EARATION OF REQUIRED CERTIFICATES OF INSTALLATION  Address:  Address:  Address:  CIV. JEBS Certification identification (if applicable):  Address:  Address:  Address:  Address:  CIV. JEBS Certification identification (if applicable):  4503-65AB-F91-2C98-06AB-CBA0-OAEE-883B-FCAA-3090-D8EB-OC15-086E-E5FS-4DCI  5DAC-E-883B-FCAA-3090-D8EB-OC15-086E-E5FS-4DCI  5DAC-E-893311  RESPONSIBLE PERSON'S DECLARATION STATEMENT  I certify the following under penalty of perjudy, under the law, under the l	Jason March  EXISTING CONDITIONS POWER ALLOWANCE (alterations only)  It is section does not apply to this project.  DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION  DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION  Dections have been made based on information provided in this document. If any selection has been changed by permit applicant, an explanation should be included in Table E. Idditional Remarks. These documents must be provided to the building inspector during construction and can be found online  RCI-LIO-E - Must be submitted for all buildings  RCI-LIO-E and the submitted for all buildings  Jason March  Company.  CEA! HERS Certification identification (it applicable):  4503-ESB3B-FC4A-3D90-D8EB-OC15-086E-ESFS-4DC 5D6A  CEAP HERS Certification identification (it applicable):  4503-ESB3B-FC4A-3D90-D8EB-OC15-086E-ESFS-4DC 5D6A  CEAP HERS Certification identification (it applicable):  4503-ESB3B-FC4A-3D90-D8EB-OC15-086E-ESFS-4DC 5D6A  CEAP HERS Certification identification (it applicable):  4503-ESB3B-FC4A-3D90-D8EB-OC15-086E-ESFS-4DC 5D6A  CEN/State/Tip: Bakersfield CA 93311  RESPONSIBLE PERSON'S DECLARATION STATEMENT  It certify the following under penalty into growing under penalty in growing under penalty	A Building E	lounting Height is labele  ng Jurisdiction may ask  this a lower number than  ergy Efficiency Standard  ighting  COMPLIANCE	- 2 MH from prop line ed MH in this table. for Luminaire cut sheets or in the 'Max Allowable' are co	ompliant. Ex.		Generated Date/Tir Report Version: 20: Schema Version: re	me: 22,0,000 vy 20220101			Compli Rep	Documentation Sc ance ID: EnergyPr ort Generated: 20	ftware: Ene 4886-112- 4-11-18 09 GY COMM NRC (Page	4-0735 :01:20 HISSION C-LTO-E = 7 of 8)	**TFOOTNOTE: Text has been abbre **Pauthority having jurisdiction mada **Recessed luminaires marked for **TRECESSED LUMINAIRES MARKET STATE OF CALIFORNIA **Outdoor Lighting**CERTIFICATE OF COMPLIANCE Project Name: Roosevelt E.S. Project Address:	ny ask for cutsheets or other docu use in fire-rated installations, or tandards - 2022 Nonresidential C	imentation to confirm compliance decessed luminaires installed in Gerompliance Rep	of light source. non-insulated ceilii erated Date/Time: ort Version: 2022.0 ma Version: rev 20	ngs are excepted from il and ill.	Compliance II Report Gel	D: EnergyPro-4886-1 nerated: 2024-11-18 RNIA ENERGY COI
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Address: 10000 Stockdale HWY #350  CIV/State/Tip: Bakersfield CA 93311  RESPONSIBLE PERSON'S DECLARATION STATEMENT  Icetions have been made based on information provided in this document. If any selection has been changed by permit applicant, an explanation should be included in Table E.  Form/Title  RECI-LIO-E - Must be submitted for all buildings  ACI-LIO-E - Must be submitted for all buildings  Address:  CEA/ HERS Certification identification (if applicable): 4503-ESAB-CBA0-OAEE-883B-FC4A-3090-D8EB-0C15-086E-E5FS-4DC 5DA0  CIV/State/Tip: Bakersfield CA 93311  RESPONSIBLE PERSON'S DECLARATION STATEMENT  Icertify the following under penalty of perjury, under the leave of the state of California:  1. The information provided on this Certificate of Compliance (responsible designer)  3. The energy features and performance specification, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance documents, worksheets, calculation plans and specifications submitted to the enforcement agency for approval with this building permit application.	Compliance II Report Gei  CALIFO	D: EnergyPro-4886-1 nerated: 2024-11-18 RNIA ENERGY COI																			
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Form/Title  Systems/Spaces To Be Field Verified  Verified  Verified  RCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls are added to <= 20 luminaires.  PEDESTRIAN HARDSCAPE:  10000 Stockdale HWY #350  TETER INC.  2024-11-18  Address: 10000 Stockdale HWY #350  E24293	Iditional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification ovider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html  Form/Title  Systems/Spaces To Be Field Verified  Verified  Address:  ACA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls are added to <= 20 luminaires.  PEDESTRIAN HARDSCAPE:  1ason March  Company:  TETER INC.  Address:  1cony 3  Address:	A Building E  A	ergy Efficiency Standard  ighting  COMPLIANCE  Roosevelt E.S. ELOP  CONDITIONS POW  the sond apply to this particles and apply to this particles and apply to this particles and apply to this particles. These documents are the submitted for the particles and apply to the particles and apply to this particles. These documents are the particles and the particles are the particles and the particles are the particles and the particles are the pa	SPECIFIC AREA project.  CERTIFICATES OF INST in information provided in its must be provided to the information provided in its must be provided to the information provided in its must be provided to the information provided in its must be provided to the information provided in its must be provided to the information provided in its must be provided to the information provided in its must be provided to the information provided in its must be provided to the information provided in its must be provided to the information visit: http://www.en	mpliance  mpliance  mpliance  mpliance  mpliance  mpliance  mpliance  mpliance	ment. If any inspector a visible 24/att	Generated Date/Tit Report Version: 20: Schema Version: re  Report Pa Date Prep  Selection has been uring construction Form/Title  selection has been uring construction of the constructio	me: 22,0,000 v 20220101  changed by j and can be for	germit ap pound onlin permit ap complete	plicant, an expl plicant, an expl d through an Ad	Compliance	Documentation Science ID: EnergyProof Generated: 20 ALIFORNIA ENER  uld be included in the inc	ftware: Ene 1-4886-112. 24-11-18 09  GY COMM  NRC  (Page 11/1  in Table E.  rtification aces To Be	4-0795 1:01:20 IISSION C-LTO-E 2 7 of 8) 18/2024	**TAUTHON TEST TEST HAS been abbre **PAUTHON TO THE PROOF	tandards - 2022 Nonresidential Compliance documents  S. ELOP  DR'S DECLARATION STATEMENT of perjury, under the laws of the State of Compliance documents and an office of the State of State of the State of St	Ger ompliance Rep Sch  T76 S. Broadway  TENT  Itation is accurate and con  tie of California: It code to accept responsibility for the lis, components, and manufactured of tions. Tied on this Occurate of Compliance of Complian	rerated Date/Time:  perated Date/Time:  perated Date/Time:  present Version: 2022.0  ma Version: rev 20  Report Page:  Ave. Date Prepared  Signature Date: 2024-11-18  CEA/ HERS Cert 45D3-E54B-7  5DA0  Phone: 661-84  building design or systemic systemic systemic systemic with the distribution of the prepared systemic	Author Signature:  Author Signat	Compliance II Report Gei CALIFO  CALIFO  State of Compliance (response this Certificate of Compliance documents are available to the enforce the style of the building owner as the style of	D: EnergyPro-4886-1 nerated: 2024-11-18 RNIA ENERGY COI  (F  1  3-OC15-086E-E5F5 ble designer) ince conform to the re- ints, worksheets, calcu-
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Form/Title Systems/Spaces To Be Field Verified TETER INC. 2024-11-18  TETER INC. 2024-11-18  License: 574292	Iditional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification ovider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html  Form/Title  Systems/Spaces To Be Field Verified  Verified  Jason March  TETER INC.  Address:  Address:  10000 Stockdale NAVY #350	A Building E  A	ergy Efficiency Standard  ighting  COMPLIANCE  Roosevelt E.S. ELOP  CONDITIONS POW  the sond apply to this particles and apply to this particles and apply to this particles and apply to this particles. These documents are the submitted for the particles and apply to the particles and apply to this particles. These documents are the particles and the particles are the particles and the particles are the particles and the particles are the pa	SPECIFIC AREA project.  CERTIFICATES OF INST in information provided in its must be provided to the information provided in its must be provided to the information provided in its must be provided to the information provided in its must be provided to the information provided in its must be provided to the information provided in its must be provided to the information provided in its must be provided to the information provided in its must be provided to the information provided in its must be provided to the information visit: http://www.en	mpliance  mpliance  mpliance  mpliance  mpliance  mpliance  mpliance  mpliance	ment. If any inspector a visible 24/att	Generated Date/Tit Report Version: 20: Schema Version: re  Report Pa Date Prep  Selection has been uring construction Form/Title  selection has been uring construction of the constructio	me: 22,0,000 v 20220101  changed by j and can be for	germit ap pound onlin permit ap complete	plicant, an expl plicant, an expl d through an Ad	Compliance	Documentation Science ID: EnergyProof Generated: 20 ALIFORNIA ENER  uld be included in the inc	ftware: Ene 1-4886-112. 24-11-18 09  GY COMM  NRC  (Page 11/1  in Table E.  rtification aces To Be	4-0795 1:01:20 IISSION C-LTO-E 2 7 of 8) 18/2024	**TAUTHON THE TIME TIME THE TI	tandards - 2022 Nonresidential Compliance documents  S. ELOP  DR'S DECLARATION STATEMENT of perjury, under the laws of the State of Compliance documents and an office of the State of State of the State of St	Ger ompliance Rep Sch  T76 S. Broadway  TENT  Itation is accurate and con  tie of California: It code to accept responsibility for the lis, components, and manufactured of tions. Tied on this Occurate of Compliance of Complian	rerated Date/Time: prevaled by the prevalence of	Author Signature:  Author Signat	Compliance II Report Gei CALIFO  CALIFO  State of Compliance (response this Certificate of Compliance documents are available to the enforce the style of the building owner as the style of	D: EnergyPro-4886-1 nerated: 2024-11-18 RNIA ENERGY COI  (F  1  3-OC15-086E-E5F5 ble designer) ince conform to the re- ints, worksheets, calcu-
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ovider (ATTCP). For more information visit: http://www.energy.cg.gov/fitle?4/attcn/orgviders.html	Iditional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification  Jason March	A Building E  A	ergy Efficiency Standard  ighting  COMPLIANCE  Roosevelt E.S. ELOP  CONDITIONS POW  bes not apply to this part of the property	SPECIFIC AREA  or oject.  CERTIFICATES OF INST in information provided ints must be provided to the information provid	mpliance  mpliance  mpliance  mpliance  mpliance  mpliance  mpliance	y) Iment: If any inspector a	Generated Date/Tit Report Version: re  Report Pa Date Prep  Selection has been uring construction Form/Title	me: 22,0,000 ev 20220101 changed by j and can be for	permit ap	plicant, an expl	Compliance	Documentation Science ID: EnergyProort Generated: 20 ALIFORNIA ENER	ftware: Ene 0-4886-112- 4-11-18 09  GY COMM  NRC  (Page 11/1	4-0795 ::01:20 IISSION C-LTO-E = 7 of 8) IB/2024	**TATE OF CALIFORNIA**  Outdoor Lighting  CERTIFICATE OF COMPLIANCE Project Name: Roosevelt E.S. Project Address:  DOCUMENTATION AUTHO I certify that this Certificat Documentation Author Name: Jason March Company: Teter Architects & Engineers Address: 10000 Stockdale HWY #350  City/State/Zip: Bakersfield CA 93  RESPONSIBLE PERSON'S D I certify the following under penalty in the energy features and of Title 24, Part 1 and Part	tandards - 2022 Nonresidential Compliance documents  S. ELOP  DR'S DECLARATION STATEMENT of perjury, under the laws of the State of Compliance documents and an office of the State of the	Ger ompliance Rep Sch  T76 S. Broadway  TENT  Itation is accurate and con  tie of California: It code to accept responsibility for the lis, components, and manufactured of tions. Tied on this Occurate of Compliance of Complian	erated Date/Time: erated Date/Time: ort Version: 2022.0 ma Version: rev 20  Report Page: Ave. Date Prepared  Signature Date: 2024-11-18 CEA/ HERS Certi 45D3-E54B-7 5DA0 Phone: 661-84  building design or systyces for the building are consistent with thit application. With be included with Responsible Designations and the system of the property of th	Author Signature:  Author Signat	Compliance II Report Gei CALIFO  CALIFO  State of Compliance (response this Certificate of Compliance documents are available to the enforce the style of the building owner and the style to the enforce the style to the building owner as the style to the enforce the style to the enforce the style to the building owner as the style to the style to the enforce the style to the style to the enforce the style the	D: EnergyPro-4886-1 nerated: 2024-11-18 RNIA ENERGY COI  (F  1  3-OC15-086E-E5F5 ble designer) ince conform to the re- ints, worksheets, calcu-
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Form/Title Systems/Spaces To Be Field Verified TETER INC. 2024-11-18  TETER INC. 2024-11-18  License: 574293	Iditional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification ovider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html  Form/Title  Systems/Spaces To Be Field Verified  Verified  RCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls are added to <= 20 luminaires.  PEDESTRIAN HARDSCAPE:    Jason March   Company:   TETER INC.   2024-11-18     Address:   Uicense:   1000-1000-1000-1000-1000-1000-1000-10	A Building E  A	ergy Efficiency Standard  ighting  COMPLIANCE  Roosevelt E.S. ELOP  CONDITIONS POW  the sond apply to this particles and apply to this particles and apply to this particles and apply to this particles. These documents are the submitted for the particles and apply to the particles and apply to this particles. These documents are the particles and the particles are the particles and the particles are the particles and the particles are the pa	SPECIFIC AREA project.  CERTIFICATES OF INST in information provided in its must be provided to the information provided in its must be provided to the information provided in its must be provided to the information provided in its must be provided to the information provided in its must be provided to the information provided in its must be provided to the information provided in its must be provided to the information provided in its must be provided to the information provided in its must be provided to the information visit: http://www.en	mpliance  mpliance  mpliance  mpliance  mpliance  mpliance  mpliance  mpliance	ment. If any inspector a visible 24/att	Generated Date/Tit Report Version: 20: Schema Version: re  Report Pa Date Prep  Selection has been uring construction Form/Title  selection has been uring construction of the constructio	me: 22,0,000 v 20220101  changed by j and can be for	germit ap pound onlin permit ap complete	plicant, an expl plicant, an expl d through an Ad	Compliance	Documentation Science ID: EnergyProof Generated: 20 ALIFORNIA ENER  uld be included in the inc	ftware: Ene 0-4886-112. 4-11-18 09  GY COMM  NRC  (Page 11/1  in Table E.  rtification  aces To Be	4-0795 1:01:20 IISSION C-LTO-E 2 7 of 8) 18/2024	**TAUTHON TEST TEST HAS been abbre **PAUTHON TO THE PROOF	tandards - 2022 Nonresidential Compliance documents  S. ELOP  DR'S DECLARATION STATEMENT of perjury, under the laws of the State of Compliance documents and an office of the State of the	Ger ompliance Rep Sch  T76 S. Broadway  TENT  Itation is accurate and con  tie of California: It code to accept responsibility for the lis, components, and manufactured of tions. Tied on this Occurate of Compliance of Complian	rerated Date/Time:  perated Date/Time:  perated Date/Time:  present Version: 2022.0  ma Version: rev 20  Report Page:  Ave. Date Prepared  Signature Date: 2024-11-18  CEA/ HERS Cert 45D3-E54B-7  5DA0  Phone: 661-84  building design or systemic systemic systemic systemic with the distribution of the prepared systemic	Author Signature:  Author Signat	Compliance II Report Gei CALIFO  CALIFO  State of Compliance (response this Certificate of Compliance documents are available to the enforce the style of the building owner and the style to the enforce the style to the building owner as the style to the enforce the style to the enforce the style to the building owner as the style to the style to the enforce the style to the style to the enforce the style the	D: EnergyPro-4886-1 nerated: 2024-11-18 RNIA ENERGY COI  (F  1  3-OC15-086E-E5F5 ble designer) ince conform to the re- ints, worksheets, calcu-

Compliance ID: EnergyPro-4886-1124-0735

Report Generated: 2024-11-18 09:01:20

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Report Version: 2022.0,000

Schema Version: rev 20220101

STATE OF CALIFORNIA

CALIFORNIA ENERGY COMMISSION

**Outdoor Lighting** 

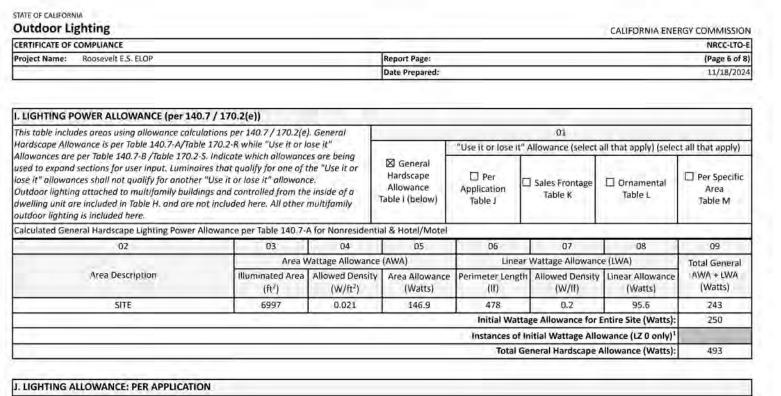
CERTIFICATE OF COMPLIANCE Project Name: Roosevelt E.S. ELOP

C. COMPLIANCE RESULTS

Results in this table are automatically calculated from data input and calculations in Tables F through N. Note; If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable Table referenced below.

	OMPLIANCE									NR	CC-LTO-
Project Name:	Roosevelt E.S. ELOP				Report Page:						ge 3 of 8
					Date Prepared:					11/	18/202
OUTDOOR L	IGHTING FIXTURE SC	HEDULE		7.7.							
nstalled and rep Outdoor lighting ighting is includ	12.00,2.80	ing installed as part	of the project sc	ope are include	d (ie, existing lun	ninaires remai	ning or existing I	uminaires being	moved are not	t include	ed).
Designed Watta	4.7		1 22	74	I 25 I	00	07	00	200		
01	02		03	04	05	06	07	08	09	-	10
Name or Item Tag	Complete Lumina	ire Description	Watts per Juminaire <sup>1,2</sup>	How is Wattage	Total Number	Luminaire Status <sup>3</sup>	Excluded per 140.7(a) /	Design Watts	Cutoff Req. > 6,200 initial lumen output	10000	eld ector
			WWW.	determined	a similar co	Status	170.2(e)6A		130.2(b) / 160.5(c)1 <sup>4</sup>	Pass	Fail
S1	S1	☐ Linear	69	Mfr. Spec	-1	New		69	Provided		
W2	W2	☐ Linear	32	Mfr. Spec	2	New		64	NA: < 6200 lumens		
			•		7	Tota	l Design Watts:	133			
				lance is achieved	4	Tota	al Design Watts:	133	lumens		

CALIFORNIA ENERGY COMMISSION



Generated Date/Time:

Report Version: 2022.0.000 Schema Version: rev 20220101

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

This section does not apply to this project.

Compliance ID: EnergyPro-4886-1124-0735 Report Generated: 2024-11-18 09:01:20

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Documentation Software: EnergyPro

Compliance ID: EnergyPro-4886-1124-0735

Report Generated: 2024-11-18 09:01:20

Documentation Software: EnergyPro

Compliance ID: EnergyPro-4886-1124-0735 Report Generated: 2024-11-18 09:01:20

02	03	04	05	06	07	08	09
Auto No.	Area V	Vattage Allowance	(AWA)	Linear	Wattage Allowance	e (LWA)	Total General
Area Description	Illuminated Area (ft²)	Allowed Density (W/ft²)	Area Allowance (Watts)	Perimeter Length (If)	Allowed Density (W/lf)	Linear Allowance (Watts)	AWA + LWA (Watts)
SITE	6997	0.021	146.9	478	0.2	95.6	243
				Initial Wattag	ge Allowance for E	ntire Site (Watts):	250
				Instances of In	itial Wattage Allo	wance (LZ 0 only)1	
				Total Ge	neral Hardscape A	llowance (Watts):	493
IGHTING ALLOWANCE: PER APPLICATION a section does not apply to this project.							
section aces not apply to this project.							
IGHTING ALLOWANCE: SALES FRONTAGE							
s section does not apply to this project.							
IGHTING ALLOWANCE: ORNAMENTAL							

Generated Date/Time:

Report Version: 2022.0.000 Schema Version: rev 20220101

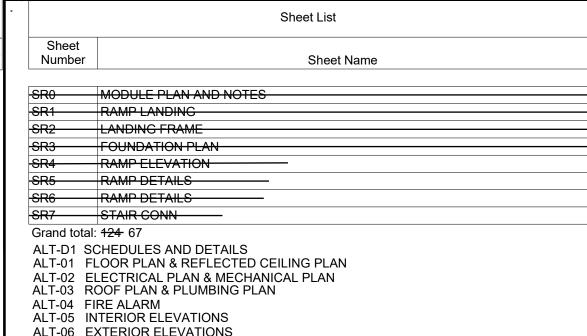


IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT

APP: 02-122792 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹

DATE: 12/4/2024





### STOCKPILE 351 (24)36x40

C-24-3112 A/B/C C-24-3120 A/B/C C-24-3128 A/B/C C-24-3113 A/B/C C-24-3121 A/B/C C-24-3129 A/B/C C-24-3114 A/B/C C-24-3122 A/B/C C-24-3130 A/B/C C-24-3115 A/B/C C-24-3123 A/B/C C-24-3131 A/B/C <del>C-24-3116 A/B/C | C-24-3124 A/B/C | C-24-3132 A/B/C</del> C-24-3117 A/B/C C-24-3125 A/B/C C-24-3133 A/B/C 

```
SEISMIC DESIGN -SITE SPECIFIC PARAMETERS
  Design based on Site Class D<sub>default</sub>
       No geotechnical investigation required
       Ss = .689 Fa = 1.2
       Design based on site class determined per chapter 20 of ASCE 7-16
       Geotechnical investigation provided
       Ss = ____ per ASCE 7-16 Suppl 3, Table 11.4-1
       Design based on site specific ground motion hazard analysis
               per chapter 21 of ASCE 7-16
       Short-period design spectral response parameter, S<sub>DS</sub>, shall be as
               specified in geotechnical investigation
       CGS approval required
       Not eligible for OTC review
       Site Class: C D E
 S_{DS} = 2/3 \text{ Fa Ss} = .574
     Site Class C or D: 0.7 \times S_{DS}^* = 0.7 \times .574 = .401 \le 1.307
     Site Class E:
 C_S = 0.373 used in design
 Seismic Design Category: X D E
  * Site specific S<sub>DS</sub> value before applying reduction
  allowed by ASCE 7 section 12.8.1.3
```

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'

						CONSTRUCT	TION OF CLA	SSRO	OOM BUILDING (RELOCATABLE)
) B BC BV	AT ANCHOR BOLT AGGREGATE BASE COURSE ABOVE	FIXT FJT FLR FLUR	FIXTURE FLUSH JOINT FLOOR FLUORESCENT	PAR PBD PCC PCF	PARALLEL PARTICLE BOARD PRECAST CONCRETE POUNDS PER CUBIC FOOT	SCOE	PE OF '	\//	nRK
.D .DD	AREA DRAIN ADDENDUM	FLEX FND	FLEXIBLE FOUNDATION	PCS PERF	PIECES PERFORATE (D)			v v C	
.DH .DJ .DOH	ADHESIVE ADJACENT, ADJUSTABLE ALTERNATE DIRECTION	FO* FP FP'G	FACE OF FIREPROOF (ED) FIREPROOFING	PERI PFB PFS	PERIMETER PREFABRICATE (D) POUNDS PER SQUARE FOOT	BUILDING DESIGN			
FF .GG	OF HOOK ABOVE FINISHED FLOOR AGGREGATE	FR FRC FRGD	FRAME (D)(ING) FIRE RESISTANT COATING FORGED	PL PLBG PLF	PLATE PLUMBING POUNDS PER LINEAR FOOT	NUMBER OF STORIES OCCUPANCY:		gn with Flo	por Live Load <u>150 psf</u> only must be used for occupancy B)
LT LUM	_ALTERNATE ALUMINUM	FRMG FT	FRAMING FOOT, FEET	P.L. PLWD	PARALLAM PLYWOOD	CONSTRUCTION TYPE			
.NCH AN .NOD .PPRX	ICHOR (AGE) ANODIZED APPROXIMATE	FTG FURR FV	FOOTING FURRED, FURRING FIELD VERIFY	PMT PNL POSTEN	PAVEMENT PANEL POST TENSION (D)		□ 100 PSF □ 15	0 PSF	
RCH SPH	ARCHITECT (URAL) ASPHALT	GA	GAUGE	PRETEN POLY	PRETENSIONED POLYETHYLENE	FLOOR DEAD LOAD:			
UTO	AUTOMATIC BOTTOM	GALV GC GI	GALVANIZED GENERAL CONTRACTOR GALVANIZED IRON	PR PRJ PSC	PAIR PROJECT PRESTRESSED CONCRETE	ROOF LIVE LOAD:	20 PSF		
B C D	BOND BEAM BOTTOM CHORD	GKT GL	GASKET GLASS, GLAZING	PSF PSI	POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH	<b>ROOF SNOW LOAD:</b>	20 PSF	LIDEC C	DDINIZI EDC 9 2DCE COLAD DANEL)
EG EL	BOARD BEGIN (ING) BELOW	GLM GP GPM	GLULAM GALVANIZED PIPE GALLONS PER MINUTE	PT P.T. PTC	POINT PRESSURE TREATED POST-TENSIONED CONCRETE	ROOF DEAD LOAD: RAMPLIVE LOAD:	100PSF		PRINKLERS & 3PSF SOLAR PANEL)
IT JT LDG	BITUMINOUS BED JOINT BUILDING	GPPL GRVL GRD	GYPSUM PLASTER GRAVEL, GRANULAR GRADE, GRADING	PTD PVC PVMT	PAINTED POLYVINYL CHLORIDE PAVEMENT	FLOOD DESIGN: zone other than X, a lette	This PC has not er stamped and si	t been de igned froi	esigned to accommodate flood loads. If located in a m a soils engineer is needed to validate the
LK LW	BLOCK ('G, ING) BELOW	GRN GSS	GRANITE GALVANIZED SHEET STEEL	QTY	QUANTITY				applicable. (OWNER SUPPLIED)
M MK O*	BEAM BENCH MARK BOTTOM OF	GT GVL GWB	GROUT GRAVEL GYPSUM WALLBOARD	R RAD RD	RADIUS, RISER RADIUS ROOF DRAIN	FLOOD DESIGN DATA	: PROJECT NOT	LOCAT	ED IN A FLOOD ZONE
PL RD	BEARING PLATE BOARD	GYP	GYPSUM	RECT REF	RETANGULAR REFERENCE, REFER TO	BUILDING AREA	NO OVERHAN	G	WITH OVERHANG (5' @ EA. END)
RDG RG RK	BRIDGING BEARING BRICK	H HBD HC	HIGH HARDBOARD HOLLOW CORE	REINF REM REQD	REFORCE (D) (ING) REMOVE REQUIRED	ALLOWABLE AREA =9,500 sf	□ 24x40 960 sf □ 36x40 1440 sf	f	□ 24x40 1200 sf ★ 36x40 1800 sf
RZ S	BRONZE BOTH SIDES	HD HDNR	HEAVY DUTY HARDENER	REQS RETG	REQUIREMENTS RETAINING	ACTUAL AREA =4,800 SF	□ 48x40 1920 st	f	□ 48x40 2400 sf □ 60x40 3000 sf
TWN VL W	BETWEEN BEVELED BOTH WAYS	HDR HDWR HDWD	HEADER HARDWARE HARDWOOD	REV RFG RFH	REVISION, REVISED ROOFING ROOF HATCH	-4,000 31	□ 72x40 2880 st	f	□ 72x40 3600 sf
; :AD	CHANNEL, COMPRESSION CADMIUM	HES HH	HIGH EARLY STRENGTH CEMENT HANDHOLE HEADJOINT	RFL RM RO	REFLECT (ED)(IVE)(OR) ROOM		□ 84x40 3360 st □ 96x40 3840 st		□ 84x40 4200 sf* □ 96x40 4800 sf*
:AD :AM :/C	CADMIONI CAMBER CENTER TO CENTER	HJT HK HM	HOOK HOLLOW METAL	RT RT	ROUGH OPENING FIRE RETARDANT TREATED RUBBER TILE		□ 108x40 4320 : □ 120x40 4800 :		□ 108x40 5400 sf* □ 120x40 6000 sf*
EM F HAM	CEMENT CUBIC FOOT CHAMFER	HORIZ HPT HR	HORIZONTAL HIGH POINT HOUR	RTG RVS RVT	RATING REVERSE SIDE RIVET				and approved by CGS for building area more than
:I :IP	CAST IRON CAST-IN-PLACE	HSA HSB	HEADED STUD ANCHOR HIGH STRENGHT BOLT	S	SOUTH	4000 sf			
IR IRC J	CIRCLE CIRCUMFERENCE CONSTRUCTION JOINT	HT HWD	HEIGHT HARDWOOD	SC SCHED SDL	SOLID CORE SCHEDULE SUPERIMPOSED DEAD LOAD	ALLOWABLE SOIL PR	ESSURE:		OD FTG -1000PSF □ CONCRETE FTG 1500PSI
JT LG	CONTROL JOINT CEILING	ID	INSIDE DIAMETER	SDS SE	SELF DRILL SCREW STRUCTURAL ENGINEER	FOUNDATION:	□ WOOD (cond		□ CONCRETE ABOVE GRADE GRADE <2160sf (conditional)
LK LKG LR	CAULK, ('G, ING) CAULKING CLEAR	IN INCL INSUL	INCHE (ES) INCLUDE (D), INCLUDING INSULATE, INSULATION	SDST SECT SF	SELF-DRILL, SELF-TAP'G SCREW SECTION SQUARE FOOT, SQUARE FEET		□ CONCRETE I	BELOW	GRADE (AMM)
LS M	CLOSURE CENTIMETER	INT INTM	INTERIOR INTERMEDIATE	SHO SHT SHTH	SHORE, SHORING SHEET	PC IS DESIGNED BASI	SEE GENERA ED ON A PINNED		ECTION TO THE FOUNDATION.
:MP :MU :NTR	CORRUDATED METAL PIPE CONCRETE MASONRY UNIT CENTER	INV JST	JOIST	SHTH SI SIM	SHEATHING SQUARE INCH SIMILAR	CEC CLIMATE ZONE:	1-16		
OL OG	COLUMN CENTER OF GRAVITY OMBINATION	JT K	JOINT KIP (S)	SL SLNT SMS	SLOPE SEALANT SHEET METAL SCREW	□ CZ 1-2 RIGID R-10 / 2"		R-5 / 1" 🗆	<del>- CZ 16 RIGID R-15 / 4"</del> -
OMP CC	OMPRESS (ED)(ION)(IBLE) OMPOSITE	KO KSI	KNOCKOUT KIPS PER SQUARE INCH	SOG SPA	SLAB ON GRADE SPACE, (ING)	Ι	SEE ALT-D	1	
ONN ONC ONST	CONNECT (ION) CONCRETE CONSTRUCT (ION) (ED)	L LAM	LONG, LENGTH LAMINATE (D)	SPC SPEC SQ	SPACER SPECIFICATION (S) SQUARE	WIND DESIGN			
ONTR	CONSTRUCT (ION) (ED) CONTINUE, CONTINUOUS CONTRACTOR	LB LBL	POUND, LAG BOLT LABEL	SSTL STG	STAINLESS STEEL STAGGERED	ULTIMATE DESIGN SP	<b>PEED:</b> Vult = 1	110 mph.	3 sec GUST, Kzt = 1.0
OR :P :PG	CORRUGATED COMPLETE PENETRATION COPING	LC LD LF	LIGHT CONTROL DEVELOPMENT LENGHT LINEAR FOOT	STD STL STOR	STANDARD STEEL STORAGE	RISK CATEGORY: EXPOSURE:	II C	- ,	
:PR :RS	COPPER COURSE (S)	LH LL LLH	LEFT HAND LIVE LOAD LONG LEG HORIZONTAL	STRUCT STR SYM	STRUCTURE STRUCTURAL SYMETRICAL, SYMETRY				
S TSK	COUNTERSINK COUNTERSUNK SCREW	LLV LPT	LONG LEG VERTICAL LOW POINT	SYS	SYSTEM	EARTHQUAKE DESIG	<u>N</u>		
:U :X :Y	CUBIC CONNECTION CUBIC YARD	LT LTL LVL	LIGHT LINTEL LEVEL (ING)	T T&B	TOP, TORSION, TREAD TOP AND BOTTOM	RISK CATEGORY: SEISMIC IMPORTANCI	E FACTOR:		   = 1
1	DEEP, DEPTH	LW LWC	LIGHT WEIGHT LIGHT WEIGHT CONCRETE	T&G TC	TONGUE AND GROOVE TOP CHORD	MAPPED SPECTRAL F			□Ss = 2.33, □Ss =2.8** S1 = 1.99
BL EF EG	DOUBLE DEFLECTION DEGREE	LWF M	LIGHT WEIGHT FILL METER (S) MOMENT	TEN TEMP THD	TESION, TENSILE TEMPORARY, TEMPERATURE THREAD (ED)	DRIFT LIMIT:			0.02 x H <sub>story</sub> x 12 = 2.82 PER TABLE 12.12-1
EM0 EP EPT	DEMOLISH, DEMOLITION DEPRESSED DEPARTMENT	MATL MAS MAX	MATERIÀL MASONRY MAXIMUM	THK TMPD TO*	THICK (NÈSS) TEMPERED TOP OF	SITE CLASS: SEISMIC DESIGN CAT			D-DEFAULT* E
ET IAG	DETAIL DIAGONAL	MB MBR	MACHINE BOLT MEMBER	TL TR	TOTAL LOAD TREAD	Note: For SDC (E) site stand/or meets other exer			not required if not in a seismic hazard zone
IA IM IV	DIAMETER DIMENSION (ED) DIVISION	MCONN MECH MED	MOMENT CONNECTION MECHANICAL MEDIUM	TS TYP	TUBE STEEL TYPICAL	SHORT/LONG PERIOD DEISIGN SPECTRAL R		ENT:	□Fa = 1.2, □Fa=1.0**, Fv = 1.7 Sds = 1.86
L N	DEAD LOAD DOWN	MET MEMB	METAL MEMBER	UC UGD	UNDERCUT UNDERGROUND				Sd1 = 2.26
O P WL	DITTO DAMPROOFING DOWEL (ED)	MEP MFD	MECHANICAL, ELECTRICAL, & PLUMBING METAL FLOOR DECKING	UL UND UNF	UNDEREWRITERS LABORATORY UNDER UNFINISHED	SEISMIC RESPONSE (	COEFFICIENT, C	S:	0.373 (using reduced Sds as allowed by ASCE 12.8.1.3)
WG	DRAWING, (S)	MFR MID	MANUFACTURE (R) (ED) MID, MIDDLE	UNO	UNLESS NOTED OTHERWISE				
A	EAST, MODULUS OF ELASTICITY EACH	MIN MISC MM	MINIMUM, MINUTE MISCELLANEOUS MILLIMETER (S)	V VB VER	SHEAR FORCE, VELOCITY VAPOR BARRIER VERIFY				
B F JT	EXPANSION BOLT EACH FACE EXPANSION JOINT	MMB MO MOD	MEMBRANE MASONRY OPENING MODEL	VERT VG VIF	VERTICAL VERTICAL GRAIN VERIFY IN FIELD				
L LEC	ELEVATION ELECTRIC (AL)	MODU MOV	MODULAR MOVABLE	VJ VNR	V-JOINTED VENEER				
NCL NG Q	ENCLOSURE, ENCLOSED ENGINEER EQUAL, EQUALIBRIUM	MTL ML N	MATERIAL MODULE (MOD)LINE NORTH, NEW	V.T.R. W	VENT THROUGH ROOF WEST, WIDTH, WIDE,	;			
QUIP STM	EQUIPMENT ESTIMATE (ED)	NAT NL	NATURAL NAILABLE	W/	WIDE FLANGE WITH				
V W XCA	EXPANSION BOLT EACH WAY EXCAVATE (D) (ION)	NMT NO NOM	NONMETALLIC NUMBER NOMINAL	W/O WD WI	WITHOUT WOOD WROUGHT IRON	1			
	EXISTING EXPANDED METAL PLATE EXPOSED	NTS OA	NOT TO SCALE  OVERALL	WM WP WPR	WIRE MESH WATERPROFFING WATER REPELLENT	BASIC SEISMIC FORC		rs:	OMF, R = 3.5 EQUIVALENT LATERAL FORCE
XPN XS	EXPANSION EXTRA STRONG	o.c. OD	ON CENTER OUTSIDE DIAMETER	WPT WS	WORKING POINT WATER STOP	BASE SHEAR PER 24)			FLOOR, LL ≤ 100, BASE SHEAR= 26.44 kip
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			CONC.	FLOOR, LL = 150, BASE SHEAR= 39.87 kip FLOOR, LL ≤ 100, BASE SHEAR= 34.68 kip
BO D	FURNISHED BY OTHERS FLOOR DRAIN	OJ OPH	OPEN-WEB JOINT (S) OPPOSITE HAND	WWM	WELDED WIRE MESH	NOTE: FOR SDC (E) SI	TE SPECIFIC MC		FLOOR, LL = 150, BASE SHEAR= 48.1 kip NALYSIS IS NOT REQUIRED IF NOT IN A SEISM
HMS HS HWS IN	FLATHEAD MACHINE SCREW FIRE HOSE STATION FLATHEAD WOOD SCREW FINISH (ED)	OPNG OPP OFOI	OPENING OPPOSITE OWNER FURNISHED OWNER INSTAL	LED		HAZARD ZONE AND/O *Site Specific Ground Mo	R MEETS OTHER otion Analysis is n	R EXEMF	

area more than

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 exception 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 Energy Code, Part 6, Title 24 CCR

2022 California Fire Code (CFC), Part 9, 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.

		R	EQUIRE	D PV S	121FM	SIZE (K)	/V)						
-	BUILDING SIZE												
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. WHEN PV IS NOT REQUIRED, SEE GENERAL NOTES ITEM 15

### PV SIZING CHART

WHERE APPLICABLE

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

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. 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
- 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

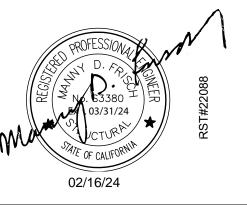
- 40 PER CALGREEN THE CONCRETE BELOW GRADE FOUNDATION (AMM) OPTION IN THIS PC USES A DSA-APPROVED ALTERNATE MEANS OF COMPLIANCE FOR FOUNDATION DURABILITY REQUIREMENTS OF CBC SECTIONS 1402.2 AND 1403.2 FOR PROVIDING A WEATHER-RESISTANT EXTERIOR WALL ENVELOPE AND CONTINUOUS WATER-RESISTIVE BARRIER ON WALLS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

ROJECT SPECIFIC STATE AGENCY APPROVAL **IDENTIFICATION STAMP** DIV. OF THE STATE ARCHITEC APP: 02-122792 INC: **REVIEWED FOR** SS 🗹 FLS 🗹 ACS 🗹 12/4/2024



PROFESSIONAL STAMP



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ORIGINAL PC STATE AGENCY APPROVAL



**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

# ARCHITECTURAL

General Architectur	ral S	She	ets GE	NE	RA	L ARCH	HITECTU	JRAL S	HEETS						Sheet
COVER SHEET															A0.0
PROJECT OPTIONS SCI	HED	OUL	 Е												A0.0.1
TYPICAL KEY PLAN ANI	) S	CHE	ΞDI	ULF	Ξ, (	GEN NO	TES								A0.1
SIGNAGE AND SYMBOL					,										A0.2
DSA-103 T&I CONCRETI	E Fl	LOC	R	S											A0.3
DSA-103 T&I PLYWOOD	FL	00	RS	,											A0.4
CALGREEN SPEC'S															A0.5
CALGREEN SHEET															A0.6
CALGREEN SHEET															A0.7
CALGREEN SHEET															A0.8
Floor Plan Details 1/4" = 1'-0"				AF	RCH	HITECTU	JRAL FI	LOOR F	PLANS						Sheet
¥ Floor Plans				Flo	or l	Plan - 24	1'x40'								A1.0
			X	Flo	or l	Plan - 36	6'x40'								A3.1 & ALT-01
			_			Plan - 48									A1.2
Arch Floor Framing	De	tails	S P	۱RC	CHI	TECTUR	RAL FLO	OOR FF	RAMING	DETAIL	S				
															Sheet
⋉ Wood Floor									1	2	3	4	5	6	A2.9
□ Concrete Floor									7	8	9	10	11	12	A2.9
2 Wall Schedule 1/4" = 1'-0"						ARCHIT	ECTUR	RAL WA	LL DET	AILS					
Wood Studs								De	etail						Sheet
	Do	oor		ML		Window	Corner	HVAC	Top PL	T6" SEF	1-HR OPT 1	1-HR OPT 2	EXT HDR	INT HDR	
□ Sheating	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	9	3	4	5	11	1	16	17	5	х	х	10A	10B	A2.2
□ 1-HR Sheating	8	9		3 4		11	1	16	17	5	-	-	10A	-	A2.5(A)
□ 1-HR Sheating	8	9	_	3 4	_	11	1	16	17	5	-	-	10A	-	A2.5(B)
□ 1-HR Plaster	8	9	_	3 4		11	1	16	17	4	-	-	10A	-	A2.6
□ Additional Fire Rating D	)eta	ils a	ınd	Nc	otes	3									A3.0
Single OCC. Bathroom														A3.1	& ALT-01
□ Single OCC. Bathroom															A3.1.1

4 Ceiling Plans 1/4" = 1'-0"	A	RCHITECTURAL CEILING	PLANS				Sheet
Reflected Ceiling	□ 24' x 40'	□ 8 (2'x4') Recessed Lig	ht Fixture				A3.2
Plans:		□ 12 (1'x8') Pendant Ligh	nt w/ 4				
		(1'x16') Recessed Light					A3.2
	≱ 36' x 40'	□ 12 (2'x4') Recessed Li	_				A3.2
			nt w/ 4				A3.2 & ALT-01
	□ 48' x 40'	□ 16 (2'x4') Recessed Light	aht Eixturo				ALT-01
	40 X 40	□ 18 (1'x8') Pendant Light					73.2
		(1'x16') Recessed Light	10 00/				A3.2
Celing Notes	•						A3.2.1
3 Ceiling Detain 1/4" = 1'-0"	ils	ARCHITECTURAL (	CEILING DE	TAILS			
Celing Framing	]			De	tail	_	Sheet
			Wall	Joists	Access	BLK'G	
xT-GRID						SEE PLAN	
□ Wood			1	2	5	Тур	A3.4
7 Roof Plans 1/4" = 1'-0"		ARCHITECTURAL	ROOF PLA	NS			
<u> </u>							Sheet
			□ EPDM				A4.2.1
			⋉ Standing	Seam			A4.0.1
			□ Parapet				A4.4.1
⊐ Dual							
			□ EPDM	Soom			A4.2.2 A4.0.2
Roof Details			□ Standing	Seam			A4.0.2
22 Roof Details 1/4" = 1'-0"		ARCHITECTURAL	ROOF DET	AILS			
≭ Mono							Sheet
			□ EPDM				A4.3
			≰ Standing	Seam			A4.1
			□ Parapet				A4.5
⊐ Dual			□ EPDM				A4.3
			□ Standing	Seam			A4.3 A4.1
8 Arch Building	g Section	ADOLUTEOTUDAL					7.4.1
<u> </u>		ARCHITECTURAL	BUILDING S	ECTION			<u> </u>
x( Mono							Sheet
			□ EPDM ⋈ Standing	Seam			A6.3 A6.0
			JA Stariuling	Ocalli			Αυ.υ
⊐ Dual			_				A C 4
			□ EPDM	Soom			A6.1 A6.0.1
			□ Standing	Seam			A6.0.1

# ARCHITECTURAL

1/4" = 1'-0"	ARCHITECTURAL EXT				Б.	••	01 1
		_	etail	Sheet	Det		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	ALT-06
	□ 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	2	A5.0	9	10	A5.1
	□ 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	RIOR EI	EV/ATIO	NS			
1/4" = 1'-0"	ANOTHEOTOTAL INTE	INIONEL			etail		Sheet
Interior Elevations:			Le		Front	Rear	Sileet
intenor Lievations.	□ 24'x40'		1	-	3	4	A5.2
	□ 24 x40 ⋈ 36'x40'		'		5	6	AJ.2 ALT-0
	□ 48'x40' - 120'X40'		'		8	7	
	PTIONS DETAILS		<u> </u>		0	1	A5.2
23 ADDITIONAL C	ADDITIONAL OPTION	IS DETAIL	_S				
							Sheet
							A7.0
ADDITIONAL OPTIO	NS DETAILS						
ADDITIONAL OPTIO							A7.1

		MEP		
9 Plumbing 1/4" = 1'-0'	1	PLUMBING		Sheet
✓ Plumbing Details				P1.0
10 Mechanica 1/4" = 1'-0'		MECHANICAL	She	eet
MISCELLANEOUS NO			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	<del>-M6.2</del>
		□ 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		
		□ Roof Mount		
	□ 72' x 40'	□ Wall Mount		
	0.41 4.01	□ Roof Mount		
	□ 84' x 40'	□ Wall Mount		\
	- 06! v 40!	□ Roof Mount	A0	J. 1
	□ 96' x 40'	□ Wall Mount □ Roof Mount		
	□ 108' x 40'	□ Wall Mount		
	100 X 40	□ Roof Mount		
	□120' x 40'	□ Wall Mount		
	120 X 40	□ Roof Mount		
Electrical		-		
11) Electrical 1/4" = 1'-0'		ELECTRICAL	She	eet
Reflected Ceiling	□ 24' x 40'	□ 8 (2'x4') Recessed Light Fixture		
Plans:		□ 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		
		(1'x16') Recessed Light		

Foundations Plans 1/4" = 1'-0"	FOUNDATION	
□ Wood		Shee
Foundation	Wood Foundation NOTES SCHED FOR BLDG W/ 50+15	F1.1
Plan:	□ 24'x40' (50+15 PSF)	F1.1
	□ 24'x40' (100 PSF)	F1.2
	□ 24'x40' (150 PSF)	F1.3
	□ 36'x40' (50+15 PSF)	F1.1
	□ 36'x40' (100 PSF)	F1.2
	□ 36'x40' (150 PSF)	F1.3
	□ 48'x40' (50+15 PSF)	F1.1
	□ 48'x40' (100 PSF)	F1.2
	□ 48'x40' (150 PSF)	F1.3
	Wood Foundation Details	F1.4
⊠ Concrete Foundation Plan		F2.1
x Concrete Above Grade Foundation Detail	s	F2.2
		F2.2
•		F2.2
General Structural Sheets 1/4" = 1'-0"	GENERAL STRUCTURAL SHEETS	She
STRUCTURAL GEN NOTES		S0.
Floor Framing Plans	STRUCTURAL FLOOR FRAMING PLANS	
<u> </u>		She
து wood Sheating Floor:	⋉(50+15 PSF)	S1.0
	□ (100 PSF)	S1.0
	□ (150 PSF)	S1.0
□ Concrete	(130 1 01 )	01.0
Framing Floor:	□ (50+15 PSF)	S1.1
	□ (100 PSF)	S1.1
	□(150 PSF)	S1.1
19 Floor Framing Details	STRUCTURAL FLOOR FRAMING DETAILS	She
<u>1/4" = 1'-0"</u> ⋈ Wood Framing	THOUTOIC LE LOCITITO MAINTO DE ITALES	S1.2
□ Concrete Framing		S1.2
Roof Framing Plans	STRUCTURAL ROOF FRAMING PLANS	She
Mono Slope Roof Framing     Mono Slope Roof Framing		S3.0
□ Dual Slope Roof Framing		S3.0
·	STRUCTURAL DETAILS ROOF	She
STRUCTURAL DETAILS		S3.1
ROOF DETAILS(SOFFIT/ PARRAPET)		S3.2
,		S3.2
ROOF PERIMETER TRUSS  Wall Framing Details		33.3
· 1/4" = 1'-0"	STRUCTURAL WALL FRAMING DETAILS	
⊠ Wood:		She
≭ Framing Elevation		S4.1
⋉ Wall Details		S4.2
■ Typ Framing:		S4.4
▼ Framing Schedule:		S4.5

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

	TRUCTURAL	
Foundations Plans 1/4" = 1'-0"	FOUNDATION	
Vood		Sheet
ındation	Wood Foundation NOTES SCHED FOR BLDG W/ 50+15	F1.10
n:	□ 24'x40' (50+15 PSF)	F1.11
	□ 24'x40' (100 PSF)	F1.21
	□ 24'x40' (150 PSF)	F1.31
	□ 36'x40' (50+15 PSF)	F1.12
	□ 36'x40' (100 PSF)	F1.22
	□ 36'x40' (150 PSF)	F1.32
	□ 48'x40' (50+15 PSF)	F1.13
	□ 48'x40' (100 PSF)	F1.13
	□ 48'x40' (150 PSF)	F1.33
	Wood Foundation Details	F1.40
concrete Foundation Plan	VVCCU I CUITUALIOTI DELAIIS	F2.10
concrete Above Grade Foundation Details		F2.20
concrete Below Grade Foundation Details		F2.22
		F2.23
General Structural Sheets 1/4" = 1'-0"  GE	NERAL STRUCTURAL SHEETS	Sheet
RUCTURAL GEN NOTES		S0.1
Floor Framing Plans 1/4" = 1'-0"  STRU	CTURAL FLOOR FRAMING PLANS	
Vood	1	Sheet
eating Floor:	⋉(50+15 PSF)	\$1.0.4
3	□ (100 PSF)	S1.02
	□ (150 PSF)	S1.03
concrete	(100 1 01 )	01.00
ming Floor:	□ (50+15 PSF)	S1.1.1
Ğ	□ (100 PSF)	S1.1.2
	□(150 PSF)	S1.1.3
Floor Framing Details 1/4" = 1'-0"  STRU	CTURAL FLOOR FRAMING DETAILS	Sheet
Vood Framing		S1.2
concrete Framing		S1.2
Roof Framing Plans	CTURAL ROOF FRAMING PLANS	Sheet
lono Slope Roof Framing		\$3.0.3
ual Slope Roof Framing		S3.0.2
STRU	CTURAL DETAILS ROOF	Sheet
RUCTURAL DETAILS		S3.1
OF DETAILS(SOFFIT/ PARRAPET)		S3.2
OF PERIMETER TRUSS		S3.3
Wall Framing Details 1/4" = 1'-0"  STRU	CTURAL WALL FRAMING DETAILS	
Vood:		Sheet
শু Framing Elevation		S4.1
⋉ Wall Details		S4.2
yp Framing:		S4.4

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

PROJECT SPECIFIC STATE AGENCY APPROVAL IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 02-122792 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 DATE: 12/4/2024

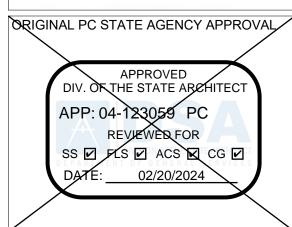


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Revision Schedule Description

PRE-CHECK (PC) DOCUMENT

A separate project application for construction is required

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

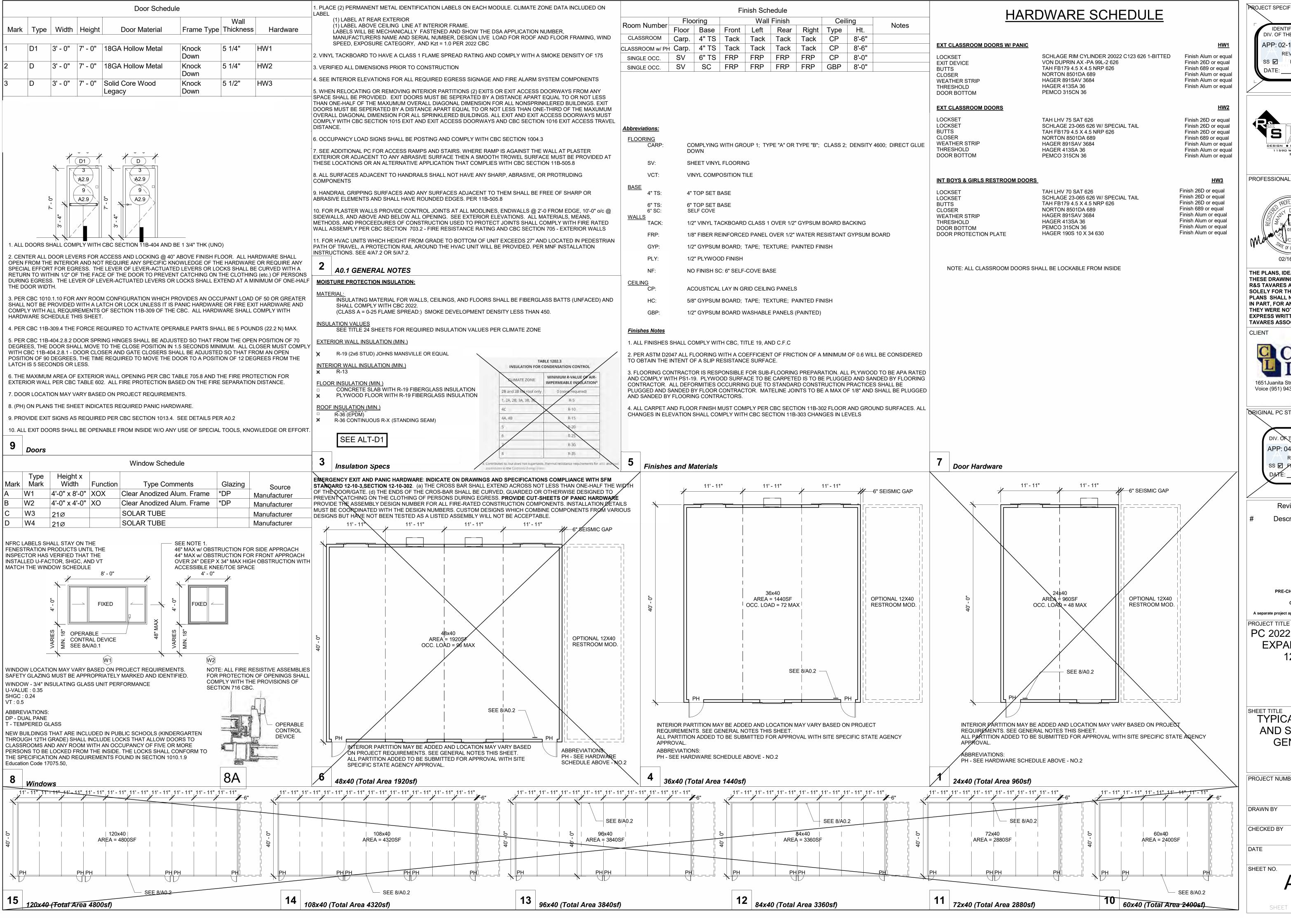
PROJECT OPTIONS SCHEDULE

PROJECT NUMBER 22088 CHECKED BY

06/15/2021

SHEET OF

A0.0.1



PROJECT SPECIFIC STATE AGENCY APPROVAL IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-122792 INC: **REVIEWED FOR** SS 🗹 FLS 🗹 ACS 🗹 DATE: 12/4/2024

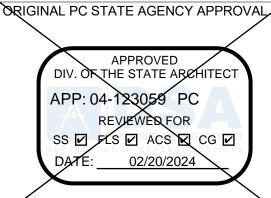


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Revision Schedule Description

PRE-CHECK (PC) DOCUMENT

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

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

TYPICAL KEY PLAN AND SCHEDULES GEN NOTES,

PROJECT NUMBER 22088 DRAWN BY

rMc/SC CHECKED BY

RH/RT

A0.

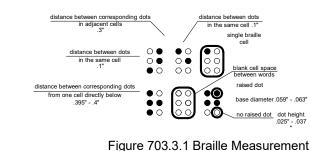
11B.703.2.6 Stroke Thickness for raised characters. Stroke thickness of the uppercase letter "I" shall be 15 percent maximum of the height of the character.

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.

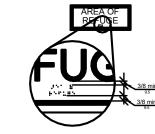


Figure 703.3.2 Position of Braille

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

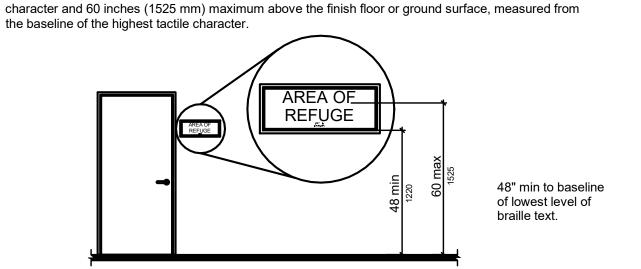


Figure 703.4.1 Height of Tactile Characters Above Finish Floor or Ground

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.

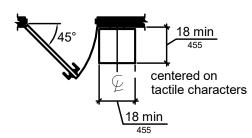


Figure 703.4.2 Location of Tactile Signs at Doors

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.

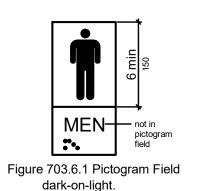
11B.703.5.7 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 10 percent minimum and 20 percent maximum of the height of the character.

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.



<u>MULTIPURPOSE</u>

DOOR SYMBOLS: CIRLCLE & TRIANGLE1/4"

SUPERIMPOSED OVER 1/4" THICK CIRCLE AT

1/4"=1'-0"

NOTE: TACTILE SIGN TEXT

SHALL BE CENTERED 18"

CLEAR FROM STRIKE OF

DOOR

THICK. 1/4" THICK TRIANGLE SHALL BE

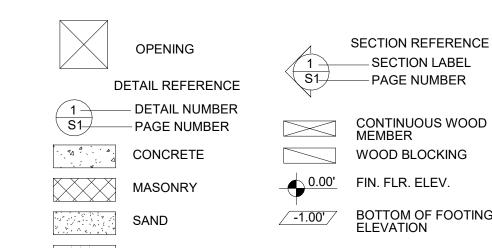
UNISEX AND GENDER NEUTRAL RR.

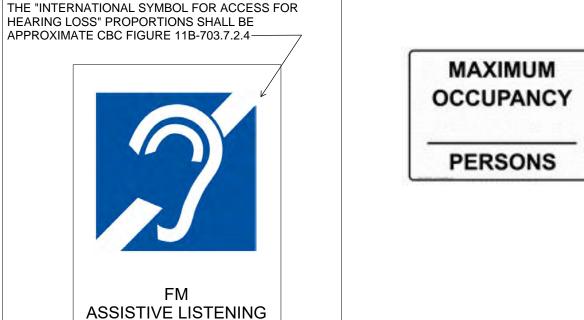
CIRCLE SHALL

CONTRAST WITH

MULTIPURPOS

**BOTH THE TRIANGLE** AND DOOR COLORS





OCCUPANT LOAD SIGN REQUIRED PER DSA BU11-08.

SECTION REFERENCE

SECTION LABEL

- PAGE NUMBER

BOTTOM OF FOOTING

S———S STEPPED 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

SYSTEM AVAILABLE - PLEASE ASK - 🦟

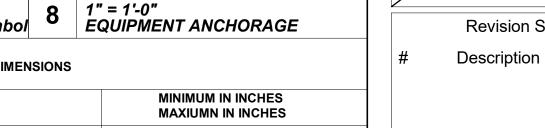
**BUILDINGS ARE SITE LOCATED"** 

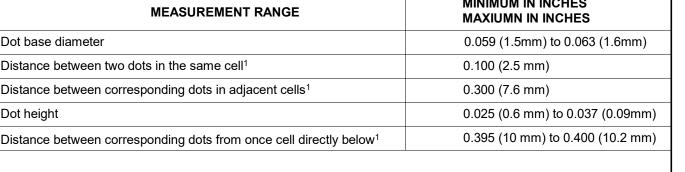
REQUIRED PER 11B-219 & 11B-706

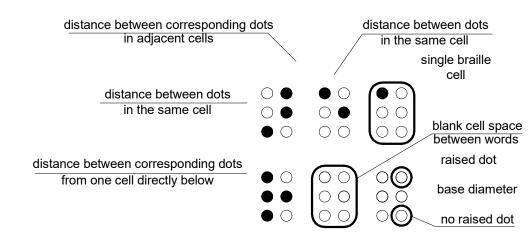
(SEE FLOOR PLANS FOR MORE INFO)

NOTE: TEXT ON THIS SIGN IN VISUAL

"INFORMATION TO BE PROVIDED WHEN

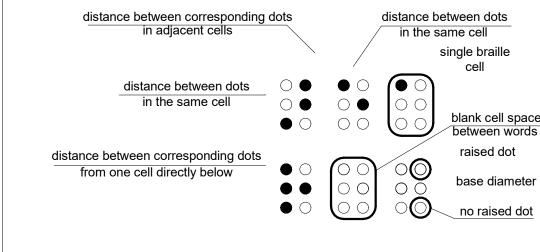




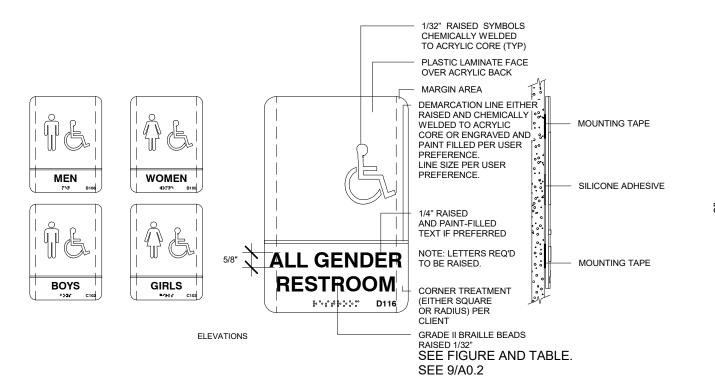


# **BRAILLE DIMENSIONS**

MINIMUM IN INCHES MAXIUMN IN INCHES
0.059 (1.5mm) to 0.063 (1.6mm)
0.100 (2.5 mm)
0.300 (7.6 mm)
0.025 (0.6 mm) to 0.037 (0.09mm)
0.395 (10 mm) to 0.400 (10.2 mm)
_



### 1/4" = 1'-0' Sign Notes



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

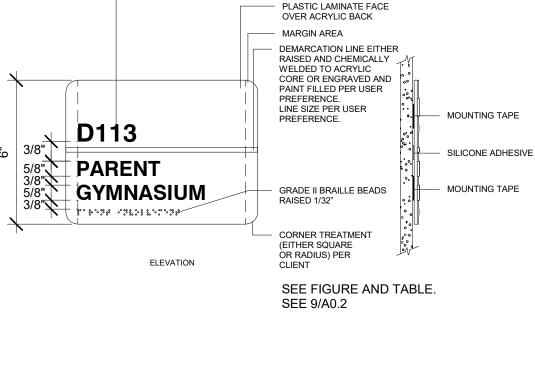
ace between corresponding dots from one cell directly below

Distance between two dots in the same cel

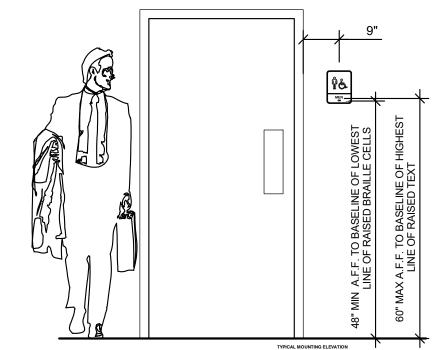
Measured center to center

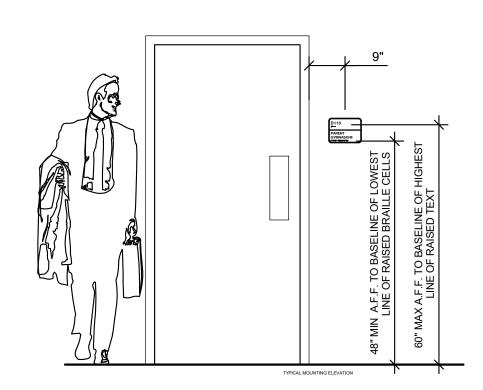
NFPA 72 (2022 edition)

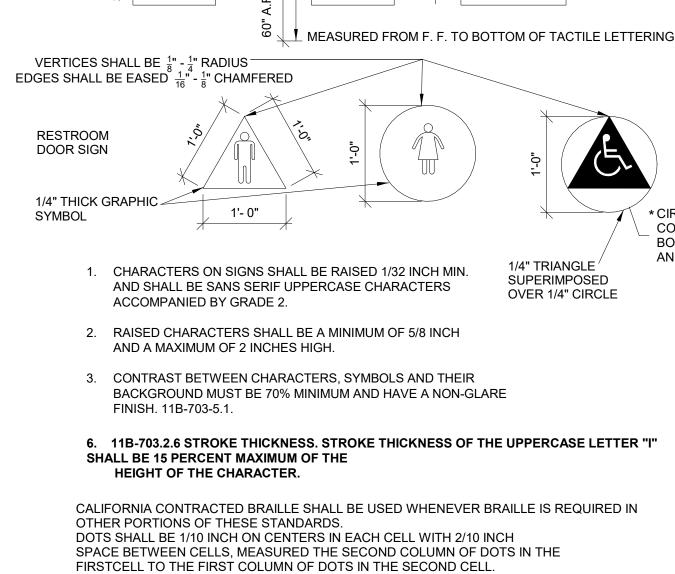
11B.703 Signs



1/32" RAISED TEXT PAINT-FILLED
TEXT IF PREFERRED







LEXIT

RAMP DOWN

**RESTROOM** 

WALL SIGN Z

DOTS SHALL BE RAISED A MINIMUM OF 1/40 INCHES ABOVE THE BACKGROUND. SEE FIGURE AND TABLE. SEE 2/A0.2

\* NOTE FOR UNISEX OR SINGLE USER RESTROOM DOOR SYMBOL 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

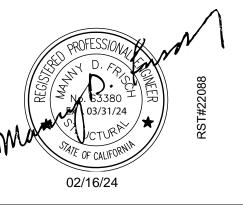
DIV. OF THE STATE ARCHITEC APP: 02-122792 INC: **REVIEWED FOR** SS 🗹 FLS 🗹 ACS 🗹 12/4/2024

ROJECT SPECIFIC STATE AGENCY APPROVAC

**IDENTIFICATION STAMP** 

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

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CLIENT



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

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)

1/4" = 1'-0" Signage and Notes

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

(2) 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 2.4, PART 2, SECTION 1910A.1
(4) THE FOUNDATION DESIGN HAS BEEN PREPARED USING A MINIMUM 28-DAY COMPRESSIVE CONCRETE STRENGTH (f°c) OF 3500 PSI

### DEFAULT CONCRETE MIX DESIGN

$\overline{}$			MAXIMUM	MINIMU	REQUIRED AIR	R CONTENT	LIMITS ON
EXPOSURE 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		3500	1/2"	5.5	N/A
	F1	WITH LIMITED EXPOSURE TO WATER	0.55		3/4"	5	
	WITH LIWITED EXPOSORE TO WATER			1"	4.5		
					1 1/2"		4.5
			0.45	4500	3/8"	7.5	N/A
		CONCRETE EXPOSED TO FREEZING-AND-THAWING CYCLES WITH FREQUENT EXPOSURE TO WATER			1/2"	7	
	F2				3/4"	6	
		WITH REQUENT EXPOSORE TO WATER			1"	6	
				1 1/2"	5.5		
					3/8"	7.5	
		CONCRETE EXPOSED TO FREEZING-AND-THAWING CYCLES			1/2"	7	ACI 318, SECTION 26.4.2.2(b)
	F3	WITH FREQUENT EXPOSURE TO WATER AND EXPOSURE TO	0.4	5000	3/4"	6	
		DEICNIG CHEMICALS			1"	6	
		\			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 CATEGORY: SULFATE (S)								
			CONDITIO				CEM	YPES	CALCIUM CHLORIDE	
	EXPOS	URE CLASS	WATER-SOLUBLE SULFATE (SO <sub>4</sub> <sup>2-</sup> ) 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
[		<b>S1</b>	$0.10 \le SO_4^{2} < 0.20$	150 ≤ SO <sub>4</sub> <sup>2-</sup> < 1500 OR SEAWATER	0.50	4000	=	TYPES WITH (MS) DESIGNATION	MS	NO RESTRICTION
[		<b>S2</b>	$0.20 \le SO_4^{2^-} \le 2.0$	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 POZXOLAN 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	HS	NOT PERMITTED

	EXPOSURE CATEGORY: IN CONTACT WITH WATER (W)							
EXPOSU	RE CLASS	CONDITION	MAXIMUM W/CM	MINIMU M f'c	ADDITIONAL REQUIREMENTS			
	WO	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			

	EXPOSURE CATEGORY: CORROSION PROTECTION OF REINFORCEMENT							
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		

MENTATION OF CONCRETE MIXTURES CHARACTERISTICS SHALL BE IN ACCORDANCE WITH ACI, SECTION 26.4.4 NT SHALL BE CERTIFIED FER TITLE 24, PART 2, SECTION 1910A.1

FOR SITE-SPECIFIC LOCATIONS WITH MULTIPLE EXPOSURE CLASSES IDENTIFIED IN THE GEOTECHNICAL EXPLORATION REPORT, THE GREATER 1°C 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 Application Number: School Name:

**Increment Number:** 

DSA File Number:

#### 2022 CBC

**Date Created:** 

2023-05-16 13:25:31

\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 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)

EY	TO COLUMNS \			/
	1. TYPE		2.	PERFORMED BY
	tinuous – Indicates that a continuous special inspection is			technical Engineer) – Indicates that the special inspection shall be ed by a registered geotechnical engineer or his or her authorized tative.
requ	nired		be perfor	<b>poratory of Record)</b> – Indicates that the test or special inspection shall rmed by a testing laboratory accepted in the DSA Laboratory Evaluation ptance (LEA) Program. See CAC/Section 4-335.
	odic – Indicates that a periodic special inspection is required		by a proje	ct Inspector) – Indicates that the special inspection may be performed ect r when specifically approved by DSA.
lest	- Indicates that a test is required			<b>al Inspection)</b> – Indicates that the special inspection shall be performe propriately qualified/approved special inspector.
	C1. CAST-IN-PLACE CONCRETE			
	Test or Special Inspection	Туре	Performed By	Code References and Notes
<b>V</b>	a. Verify use of required design mix.	Periodic	SI	Table 1705A.3 Item 5, 1910A.1.
<b>✓</b>	<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 Appendix (end of this form) for exemptions.)
<b>✓</b>	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>V</b>	d. Test concrete (fc).	Test	LOR	<b>1905A.1.17</b> ; ACI 318-19 Section 26.12.
<b>✓</b>	e. Batch plant inspection: <b>Continuous</b>	See Notes	SI	Default of 'Continuous' per 1705A.3.3. If approved by DSA, batch plant inspection may be reduced to 'Periodic' subject to requirement 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 A	· \		
	Test or Special Inspection	Туре	Performed By	Code References and Notes
<b>✓</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	2202A.1.
<b>√</b>	c. Examine seam welds of HSS shapes	Periodic /	SI	DSA IR 17-3.
<b>√</b>	d. Verify and document steel fabrication per DSA-approved construction documents.	Periodic	21	Not applicable to cold-formed steel light-frame construction, except for trusses (1705A.2.4).
	S/A3. WELDING:  Test or Special Inspection	<b>Тур</b> е	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	1705A.2.5, Table 1705A.2.1 Items 4 & 5; 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	SI	DSA IR 17-3.
<b>√</b>	c. Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA 18 17-3.
	S/A4. SHOP WELDING (IN ADDITION TO SECTION S/A3): Test or Special Inspection	Туре	Performed By	Code References and Notes
<b>✓</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>✓</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>✓</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
			Df	Code References and Notes
	S/A6. NONDESTRUCTIVE TESTING:  Test or Special Inspection	Type	PELIULMEN EN	vouc note office and 14000
<b>V</b>	Test or Special Inspection  a. Ultrasonic	Type Test	Performed By  LOR	<b>1705A.2.1, 1705A.2.5</b> ; AISC 341-16 J6.2, AISC 360-16 N5.5; AW D1.1, AWS D1.8; DSA IR 17-2.

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

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.

Date Created: 2023-05-16 13:35:53 DSA File Number: **Increment Number:** 2022 CBC

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

**Application Number:** 

KEY TO COLUMNS

1. TYPE

**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 Cod

2. PERFORMED BY

GE (Geotechnical Engineer) – Indicates that the special in spection shall be performed by a registered geotechnical engineer or his or/her authorized

Cont	tinuous – Indicates that a continuous special inspection is		performe represent	d by a registered geotechnical engineer or his of her authorized tative.
requ	1.			poratory of Record) – Indicates that the test of special inspection shall med by a testing laboratory accepted in the DSA Laboratory Evaluation
Perio	odic – Indicates that a periodic special inspection is required		and Acce	ptance (LEA) Program. See CAC Section 4-385.  ct Inspector) – Indicates that the special inspection may be performed
			by a proje	
Test	- Indicates that a test is required			al Inspection) – Indicates that the special inspection shall be perform propriately qualified/approved special inspector.
Geot	technical Reports: Project does NOT have and	does NOT re		<del></del>
	S1. GENERAL: Test or Special Inspection	Type	Performed By	Code References and Notes
<b>7</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.	Type 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.
	Materials below footings are adequate to achieve the design bearing capacity.			
	S2. SOIL COMPACTION AND FILL:	_	1	
<b>V</b>	Test or Special Inspection  a. Verify use of proper materials densities and inspect lift	Type Continuous	Performed By  LOR*	Code References and Notes  * Under the supervision of a geotechnical engineer or LOR's
	thicknesses, placement and compaction during placement of fill.	Continuous	LOK	engineering manager. Refer to specific items identified in the Appendix listing exemptions for limitations.
<b>V</b>	b. Compaction testing.	Test	LOR*	* Under the supervision of a geotechnical engineer or LOR's engineering manager. Refer to specific items identified in the Appendia listing exemptions for limitations.
	C1. CAST-IN-PLACE CONCRETE		1	
	Test or Special Inspection	Type	Performed By	Code References and Notes
✓	a. Verify use of required design mix.      b. Identifiy, sample, and test reinforcing steel.	Periodic Test	SI	Table 1705A.3 Item 5, 1910A.1.  1910A.2; ACI 318-19 Ch.20 and Section 26.6.1.2; DSA IR 17-10. (See
<u> </u>	c. During concrete placement, fabricate specimens	Test	LOR	ppendix (end of this form) for exemptions.)  Table 1705A.3 Item 6; ACI 318-19 Sections 26.5 & 26.12.
ت	for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	, cot		12.10 1. 20.10 No.11 3,7 (c) 310 17 Sections 20.3 (c) 20.12.
<b>V</b>	d. Test concrete (f'c).	Test	LOR	<b>1905A.1.17</b> ; ACI 318-19 Section 26.12.
<b>V</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: Test or Special Inspection	Туре	Performed By	Code References and Notes
<b>V</b>	a. Inspect installation of post-installed anchors	See Notes	/ SI*	1617A.1.19, Table 1705A.3 Item 4a (Continuous) & 4b (Periodic)
				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 inspector when specifically approved by DSA.
<b>7</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  Test or Special Inspection	LUMINUM UŠE Type	D FOR STRUCTUI	RAL PURPOSES  Code References and Notes
<b>V</b>	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>V</b>	b. Test unidentified materials	Test	OR	2202A.1.
<b>7</b>	c. Examine seam welds of HSS shapes      d. Verify and document steel fabrication per DSA-approved construction documents.  S/A3. WELDING:	Periodic Periodic	SI SI	DSA IR 17-3.  Not applicable to cold-formed steel light-frame construction, exceptor trusses (1705A.2.4).
	Test or Special Inspection	Туре	Performed By	Code References and Notes
<b>7</b>	a. Verify weld filler material identification markings per AWS designation listed on the DSA-approved documents	Periodic	SI	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
<b>V</b>	and the WPS.  b. Verify weld filler material manufacturer's certificate of	Periodic	SI	breel; AWS D1.4 for reinforcing steel; DSA IR 17-3.
<b>V</b>	c. Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA R 17-3.
	S/A4. SHOP WELDING (IN ADDITION TO SECTION S/A3):	Tues	Dorformed D.	Code References and Notes
<b>V</b>	Test or Special Inspection  a. Inspect groove welds, multi-pass fillet welds, single pass	Type Continuous	Performed By SI	Table 1705A.2.1 Items 5a.1 4; AISC 360-16 (and AISC 341-16 as
<b>V</b>	fillet welds > 5/16", plug and slot wedds.  b. Inspect single-pass fillet welds ≰ 5/16", floor and roof	Periodic	SI	applicable) DSA IR 17-3.  1705A.2.2, Table 1705A.2.1 Items 5a.5 & 5a.6; AISC 360-16 (and
<b>✓</b>	deck welds.  c. Inspect welding of stairs and failing systems.	Periodic	SI	AISC 341-16 a applicable); DSA IR 17-3.  1705A.2.1; AISQ 360-16 (and AISC 341-16 as applicable); AWS D1.1 8
	d. Verification of reinforcing steel weldability	Periodic	SI	D1.3; DSA IR 17-3 1705A.3.1; AWS D1.4; DSA IR 17-3. Verify carbon equivalent reporte
<b>7</b>	e. Inspect welding of reinforcing steel.	Continuous	SI	on mill certificates.  Table 1705A.2.1 Item 5b, 1705A.3.1, Table 1705A.3 Item 2,
	Test or Special Inspection	Туре	Performed By	1903A.8; AWS D1.4; DSA IR 17-3.  Code References and Notes
<b>7</b>	S/A5. FIELD WELDING (IN ADDITION TO SECTION S/A3):  b. Inspect single-pass fillet welds ≤ 5/16".	Periodic	SI	Table 1705A.2.1 Item 5a.5 AISC 360-16 (AISC 341-16 as applicable
<b>V</b>	d. Inspect floor and roof deck welds.	Periodic	SI	DSA IR 17-3.  1705A.2.2, Table 1705A.2.1 (em 5a.6; AISC 360-16 (AISC 341-16 a
	Test or Special Inspection	Туре	Performed By	applicable); AWS D1.3; DSA IR 13-3.  Code References and Notes
	S/A6. NONDESTRUCTIVE TESTING:			
<b>V</b>	Test or Special Inspection  a. Ultrasonic	Type Test	Performed By LOR	Code References and Notes
لکا	u. Sittaspine	IESL	LUK	<b>1705A.2.1, 1705A.2.5</b> ; AISC 341-1 J6.2, AISC 360-16 N5.5; AID1.1, AWS D1.8; DSA IR 17-2.
<b>7</b>	h Magnetic Particle	Test	LOR	17054 2 1 17054 2 5: AISC 341-16 16 2 AISC 360-16 N5 5: AI

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

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

LOR 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.

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

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

. Syructural Testing and Inspection: Laboratory Verified Report Form DSA 291

Concrete Batch Plant Inspection: Laboratory Verified Report Form DSA 291

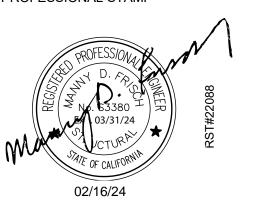
DSA-103 CONCRETE FLOOR (CONCRETE FOUNDATION)

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 02-122792 INC: REVIEWED FOR SS FLS ACS DATE: 12/4/2024

PROJECT 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. ©



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

APP: 04-123059 PC

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 CONCRETE

PROJECT NUMBER

CHECKED BY

NOT IN USE

DSA-103 CONCRETE FLOOR (STOCKPILE)

**KEY TO COLUMNS** 

DSA File Number: **Increment Number:** Date Created: 2023-05-16 13:57:04

### 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 Code.

LI	10 COLOIVING			
	1. TYPE		2.	PERFORMED BY
<b>Con</b> trequ	tinuous – Indicates that a continuous special inspection is uired		performe represent LOR (Lab	echnical Engineer) – Indicates that the special inspection shall be d by a registered geotechnical engineer or his or her authorized rative.  oratory of Record) – Indicates that the test or special inspection shall med by a testing laboratory accepted in the DSA Laboratory Evaluation
				ptance (LEA) Program. See CAC Section 4-335.
Perio	odic – Indicates that a periodic special inspection is required			
				ct Inspector) – Indicates that the special inspection may be performed
			by a proje	when specifically approved by DSA.
Test	: – Indicates that a test is required			
				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>7</b>	<ul> <li>a. Verify identification of all materials and:</li> <li>Mill certificates indicate material properties that comply with requirements.</li> </ul>	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. * By special inspector or qualified technician when performed off-site.
	Material sizes, types and grades comply with requirements.			special inspector of qualified technician when periorified on site.
<b>✓</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>V</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	1705A.2.5, Table 1705A.2.1 Items 4 & 5; 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	\$I	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):		Y	
	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.
7	<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:	<del>'</del> /	<u> </u>	
	Test or Special Inspection	Туре	Performed By	Code References and Notes
<b>7</b>	a. Ultrasonic	Test	LOR	<b>1705A.2.1, 1705A.2.5</b> ; AISC 341-16 J6.2, AISC 360-16 N5.5; AWD 1.1, AWS D1.8; DSA IR 17-2.
	h Marria et a Danti da	Test	LOD	470FA 2 4 470FA 2 F AIGC 241 16 IC 2 AIGC 260 16 NF F AIG

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

**1705A.2.1, 1705A.2.5**; AISC 341-16 J6.2, AISC 360-16 N5.5; AWS

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

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.

	·
KEÝ TO COLUMNS	
\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.
	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	
	<b>PI (Project Inspector)</b> – Indicates that the special inspection may be performed by a project
	inspector when specifically approved by DSA.
Test – Indicates that ₹ test is required	
	SI (Special Inspection) – Indicates that the special inspection shall be performed by an appropriately qualified/approved special inspector.

	S1. GENERAL:			/
	Test or Special Inspection	Туре	Performed By	Code References and Notes
<b>7</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.	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.
	S2. SOIL COMPACTION AND FILL:			
	Test or Special Inspection	Туре	Performed By	Code References and Notes
<u> </u>	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.
<b>∀</b>	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	Time	Doufouss of Du	Code Deferences and Nates
	Test or Special Inspection	Type	Performed By	Code References and Notes
✓	a. Verify use of required design mix.	Periodic	SI	Table 1705A.3 Item 5, 1910A.1.
✓	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 Appendix (end of this form) for exemptions.)
<b>V</b>	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	1905A.1.17; ACI 31/8-19 Section 26.12.
<b>V</b>	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 requireme in Section 1705A.3.3.1, or eliminated per 1705A.3.3.2. See IR 17-1: (See Appendix (end of this form) for exemptions.)
	C5. POST-INSTALLED ANCHORS:			
	Test or Special Inspection	Туре	Pel formed By	Code References and Notes
<b>V</b>	a. Inspect installation of post-installed anchors	See Notes	SI*	1617A.1.19, Table 1705A.3 Item 4a (Continuous) & 4b (Periodic 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>V</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 STRUCTU	RAL PURPOSES
	Test or Special Inspection	Туре	Performed By	Code References and Notes
<b>V</b>	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.
<b>√</b>	c. Examine seam welds of HSS shapes	Periodic	SI	DSA IR 17-3
<b>√</b>	d. Verify and document steel fabrication per DSA-approved construction documents.	Periodic /	SI	Not applicable to cold-formed steel light-frame construction, exceptor trusses (1705A.2.4).
	S/A3. WELDING:	T.,/-	Doufous ad Du	Code Deferences and Notes
<b>V</b>	Test or Special Inspection  a. Verify weld filler material identification markings per AWS designation listed on the DSA-approved documents	Type Periodic	Performed By	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
<b>V</b>	and the WPS.      b. Verify weld filler material manufacturer's certificate of compliance.  //	Periodic	SI	steel; AWS D1.4 for reinforcing steel; DSA IR 17-3.  DSA IR 17-3.
<b>V</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	Type	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.	Type Continuous	SI	Table 1705A.2.1 Items 5a.1 4; AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
<b>V</b>	<ul> <li>b. Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds.</li> </ul>	Periodic	SI	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.
<b>V</b>	c. Inspect welding of stairs and railing systems.	Periodic	SI	1705A.2.1; AISC 360-16 (and AISC 341-16 as applicable); AWS D1.1 D1.3; DSA IR 17-3.
	d. Verification of reinforcing steel weldability other than ASTM A706.	Periodic	SI	1705A.3.1; AWS D1.4; DSA IR 17-3. Verify carbon equivalent reported on mill certificates.
<b>V</b>	e. Inspect welding of reinforcing steel.	Continuous	SI	Table 1705A.2.1 Item 5b, 1705A.3.1, Table 1705A.3 Item 2, 1903A.8; AWS D1.4; DSA IR 17-3.
	S/A5. FIELD WELDING (IN ADDITION TO SECTION S/A3):		T= -	
<b>7</b>	Test or Special Inspection  b. Inspect single-pass fillet welds ≤ 5/16".	Type Periodic	Performed By SI	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:	ı	·	
	Test or Special Inspection	Туре	Performed By	Code References and Notes
				1
<b>7</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

NOTES:
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).

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

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, 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 CB $\not Q$ ).

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

\L.	TO COLUMNS \			DEDECORMED BY			
	1. TYPE			2. PERFORMED BY  GE (Geotechnical Engineer) – Indicates that the special inspection shall be			
<b>Con</b>	tinuous – Indicates that a continuous special inspection is			d by a registered geotechnical engineer or his or her authorized			
requ			be perfor	<b>oratory of Record)</b> – Indicates that the test or special inspection shall med by a testing laboratory accepted in the DSA Laboratory Evaluatio ptance (LEA) Program. See CAC Section 4-335.			
Peri	<b>odic</b> – Indicates that a periodic special <b>I</b> nspection is required		by a proje				
Test	- Indicates that a test is required		SI (Specia	when specifically approved by DSA.  al Inspection) – Indicates that the special inspection shall be performer or oprivately 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	*	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. * E special inspector or qualified technician when performed off-site.			
<b>✓</b>	b. Test unidentified materials	Test	LOR	2202A.1.			
<u> </u>	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, except for trusses (1705A.2.4).			
	S/A3. WELDING:	<del>'                                    </del>		<del> </del>			
	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	SV	1705A.2.5, Table 1705A.2.1 Items 4 & 5; AWS D1.1 and AWS D1.8 is 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	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>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>√</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 (and AISC 341-16 as applicable); DSA IR 17-3.			
<b>7</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	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 applicable 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; AVD1.1, AWS D1.8; DSA IR 17-2.			
	/	ĺ	Í.	\ \ \			

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: 02-122792 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 12/4/2024

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)

DSA-103 PLYWOOD FLOOR (CONCRETE FOUNDATION)

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

Fire Rating 1 hr.

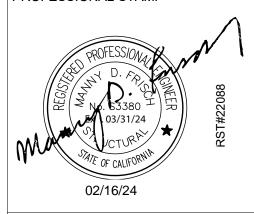
- STG Thickness (in.) Cement Board 1/2 thick board, square edge DUROCK Brand Cement Board Next Gen
  - . Batts and Blankets 3 in. mineral wool batt insulation
  - Gypsum Board 5/8 in. thick gypsum board applied vertically SHEETROCK Brand FIRECODE Core (Type X)

Visit U457 @ U457 @

PROJECT SPECIFIC STATE AGENCY APPROVAC IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 02-122792 INC: **REVIEWED FOR** SS 🗹 FLS 🗹 ACS 🗹 12/4/2024



PROFESSIONAL STAMP



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

> Revision Schedule Description

> > PRE-CHECK (PC) DOCUMENT

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

120' x 40'

SHEET TITLE
CALGREEN SPEC'S

22088

PROJECT NUMBER

ACOUSTIC CONTROL- When

the Pre-check building is site

adapted, the building and site

CALGreen Code, Section

5.507.4 for the specific site

place adjacent to another PC

building, the adjoining wall

transmission must meet the

minimum requirement of a STC

rating of 40 (per 2022 CALGreen

section for interior sound

Code, Section 507.4.3).

features need to comply with the

location, and when PC building is

rMc/SC

CHECKED BY

DATE

A0.5

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" BOARD IS NOT REQUIRED -STC RATINGS STILL APPLY)

4½*"	UL U419 or MEA 81- 98-M Steel Stud (Non-loadbearing) Interior Partitions Sound Test: RAL-TL11-125	Fire Rating 1 hr.	sтс 40	Thickness (In.) 4-7/8"	<ul> <li>Gypsum Board - 5/8 in. thick gypsum board applied vertically or horizontally SHEETROCK Brand FIRECODE Core (Type X)</li> <li>Steel Studs - 3-5/8 in. wide min. 25 gauge steel studs @ max 24 in. OC - 362S125-18</li> <li>Gypsum Board - 5/8 in. thick gypsum board applied vertically or horizontally SHEETROCK Brand FIRECODE Core (Type X)</li> <li>Visit U419 4</li> </ul>
47/8"	UL U465 Steel Stud (Non-loadbearing) Interior Partitions Sound Test: RAL-TL11-125	Fire Reting 1 hr.	sтс 40	Thickness (in.) 4-7/8"	<ul> <li>Gypsum Board - 5/8 in. thick board, applied vertically, attached to studs with 1 in. long, Type S -12 screws, spaced 8 in. OC along the edges and 12 in. OC of the board - SHEETROCK Brand FIRECODE Core (Type X)</li> <li>Steel Studs - 3-5/8 in. wide min. 25 gauge steel. Attached to floor and ceiling with fasteners, 24 in. OC - 362S125-18</li> <li>Gypsum Board - 5/8 in. thick gypsum board applied vertically or horizontally SHEETROCK Brand FIRECODE Core (Type X)</li> <li>Visit U465 ☑</li> </ul>

UL U457 (OR EQ) TO BE USED FOR EXT. STC RATING. WOOD STUD MAY BE USED ILO OF MTL STUD

4-3/4" • Steel Studs - 3-5/8 in. wide by 1-1/4 in. deep, min. 20 gauge steel, max 16 in. OC - 362S125-30

G2

G1

G0

G1

G1

G0

G0

G0

I. IESNA Lighting Zones 0 and 5 are not applicable; refer to Lighting Zones as defined in the California Energy

considered to be 5 feet beyond the actual property line for purpose of determining compliance with this section. For

property lines that abut public roadways and public transit corridors, the property line may be considered to be the

3. General lighting luminaires in areas such as outdoor parking, sales or storage lots shall meet these reduced

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

Exception: Corners. If two property lines (or two segments of the same property line) have equidistant point

directly behind the luminaire. The luminaire shall still use the distance to the nearest points(s) on the property

to the luminaire, then the luminaire may be oriented so that the intersection of the two lines (the corner) is

2. For property lines that abut public walkways, bikeways, plazas and parking lots, the property line may be

centerline of the public roadway or public transit corridor for the purpose of determining compliance with this

ratings. Decorative luminaries located in these areas shall meet *U*-value limits for "all other outdoor lighting"

N/A

N/A

Code and Chapter 10 of the Callifornia Administrative Code.

lines to determine the required backlight rating.

Water collection and disposal systems.

French drains.

Water retention gardens

the nearest point of that property line.

ROJECT SPECIFIC STATE AGENCY APPROVAL

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

**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.

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

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

MAXIMUM ALLOWABLE

MAXIMUM ALLOWABLE

**MAXIMUM ALLOWABLE** 

MAXIMUM ALLOWABLE

MAXIMUM ALLOWABLE

GLARE RATING 5 (G)

**5.301.1 Scope.** The provisions of this chapter shall establish the means of conserving water use indoors, outdoors

**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

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.

bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. "Graywater" includes, but is not limited to wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines and laundry tubs, but does not include waste water from kitchen sinks or

design, installation and maintenance practices that will ensure commercial, multifamily and other developer installed landscapes greater than 2500 square feet meet an irrigation water budget developed based on landscaped area and

MODEL WATER EFFICIENT LANDSCAPE 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 are required to adopt the updated MWELO, or adopt a local ordinance at least

Water Standards. See definition in the California Plumbing 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

**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 again.

SUBMETER. [HCD 1] A secondary device beyond a meter that measures water consumption of an individual rental unit within a multiunit residential structure or mixed-use residential and commercial structure. (See Civic Code Section

WATER BUDGET. Is the estimated total landscape irrigation water use which shall not exceed the maximum applied water allowance calculated in accordance with the Department of Water Resources Model Efficient Landscape

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** 

CAL GREEN

CHECKLIST

PROJECT NUMBER 22088

rMc/SC

CHECKED BY RH/RT

DATE

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

### **CHAPTER 3**

#### **GREEN BUILDING SECTION 301 GENERAL**

**301.1 SCOPE.** Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this 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). Code 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 Code Section 1101.3, shall have its noncompliant plumbing fixtures replaced with appropriate water-conserving plumbing fixtures under specific circumstances. See Civil Code Section 1101.1 et seg. for definitions, 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

### ABBREVIATION DEFINITIONS:

Department of Housing and Community Development California Building Standards Commission Division of the State Architect, Structural Safety Office of Statewide Health Planning and Development OSHPD

Section 301.3 non-residential additions and alterations.

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

TENANT-OCCUPANTS. Building occupants who inhabit a building during its normal hours of operation as permanent 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 of a larger common plan of development or sale, shall prevent the pollution of storm water runoff from the construction

activities through one or more of the following measures: **5.106.1.1 Local ordinance**. Comply with a lawfully enacted storm water management and/or erosion control

**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 good housekeeping BMPs. Soil loss BMPs that should be considered for implementation as appropriate for each project include,

but are not limited to, the following: a. Scheduling construction activity during dry weather, when possible. b. Preservation of natural features, vegetation, soil, and buffers around surface waters.

c. Drainage swales or lined ditches to control stormwater flow. d. Mulching or hydroseeding to stabilize disturbed soils. Erosion control to protect slopes Protection of storm drain inlets (gravel bags or catch basin inserts).

g. Perimeter sediment control (perimeter silt fence, fiber rolls). Sediment trap or sediment basin to retain sediment on site. Stabilized construction exits.

Wind erosion control. k. Other soil loss BMPs acceptable to the enforcing agency. 2. Good housekeeping BMPs to manage construction equipment, materials, non-stormwater discharges and wastes that should be considered for implementation as appropriate for each project include, but

are not limited to, the following: Dewatering activities. b. Material handling and waste management.

c. Building materials stockpile management.

d. Management of washout areas (concrete, paints, stucco, etc.). e. Control of vehicle/equipment fueling to contractor's staging area. f. Vehicle and equipment cleaning performed off site. Spill prevention and control.

h. Other housekeeping BMPs acceptable to the enforcing agency.

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).

practices and be approved by the enforcing agency.

5.106.4.2.1 and 5.106.4.2.2

spaces with a minimum of one bicycle parking facility.

Lockable, permanently anchored bicycle lockers.

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

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

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.

**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 tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking

**5.106.4.1.3** For additions or alterations that add 10 or more tenant-occupant vehicular parking spaces, provide secure bicycle parking for 5 percent of the tenant vehicular parking spaces being added, with a minimum of one 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 shall meet one of the following: Covered, lockable enclosures with permanently anchored racks for bicycles; 2. Lockable bicycle rooms with permanently anchored racks; or

Note: Additional information on recommended bicycle accommodations may be obtained from 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 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 conveniently 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 following:

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

**5.106.5.3 Electric vehicle (EV) charging.** [N] Construction to provide electric vehicle infrastructure and facilitate

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 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 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 section

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

1. Raceways complying with the California Electrical Code and no less that 1-inch (25 mm) diameter shall be provided and shall originate at a service panel or a subpanel(s) serving the area, and shall terminate in close proximity to the proposed location of the EV capable and into a suitable listed cabinet, box,enclosure or equivalent. A common raceway may be

used to serve multiple EV charging spaces. 2. A service panel or subpanel (s) shall be provided with panel space and electrical load capacity 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.

3. 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

|--|

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.

permanently and visibly marked as "EV CAPABLE."

2. The number of required EVCS (EV capable spaces provided with EVSE) in column 3 count towards the total number of required EV capable spaces shown in column 2.

5.106.5.3.2 Electric vehicle charging stations (EVCS)

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 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

5.106.5.3.3 Use of automatic load management systems (ALMS).

a. Where there is no local utility power supply.

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:

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 implementation 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 stores

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 subpanel(s) shall be installed at the time of construction in accordance with the California Electrical Code. Construction plans and specifications shall include but are not limited to, the following:

1. The transformer, main service equipment and subpanel shall meet the minimum power requirement in Table 5.106.5.4.1 to accommodate the dedicated branch circuits for the future 2. The construction documents shall indicate on or more location(s) convenient to the planned offstreet loading space(s) reserved for medium-and heavy-duty ŽEV charging cabinets and charging dispensers, and a pathway reserved for routing of conduit from the termination of the raceway(s) or busway(s) to the charging cabinet(s) and dispenser(s) as shown in Table

3. Raceway(s) or busway(s) originating at a main service panel or a subpanel(s) serving the area where potential future medium-and heavy-duty EVSE will be located and shall terminate in close proximity to the potential future location of the charging equipments for medium- and heavy-duty

4. The raceway(s) or busway(s) shall be sufficient size to carry the minimum additional system load

to the future location of the charging for medium- and heavy-duty ZEVs as shown in Table

TABLE 5.106.5.4.1 RACEWAY CONDUIT AND PANEL POWER REQUIREMENTS FOR MEDIUM- AND HEAVY-DUTY EVSE IN

BUILDING TYPE	BUILDING SIZE (SQ. FT.)	NUMBER OF OFF-STREET LOADING SPACES	ADDITIONAL CAPACITY REQUIRED (KVA) FOR RACEWAY & BUSWAY AND TRANSFORMER & PANEL		
	10,000 to 90,000	1 or 2	200		
Grocery	10,000 to 90,000	3 or Greater	400		
	Greater than 90,000	1 or Greater	400		
	10,000 to 135,000	1 or 2	200		
Retail	10,000 to 133,000	3 or Greater	400		
	Greater than 135,000	1 or Greater	400		
		1 or 2	200		
Warehouse	20,000 to 256,000	3 or Greater	400		

Greater than 256,000 1 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 California 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.

1. Luminaires that qualify as exceptions in Sections 130.2 (b) and 140.7 of the California Energy Code.

LIGHTING LIGHTING LIGHTING ALLOWABLE RATING ZONE LZ1 ZONE LZ2 ZONE LZ3 ZONE LZ4 Luminaire greater than 2 No Limit Luminaire back hemisphere is B2 1-2 MH from property line Luminaire back hemisphere is N/A B1 B2 B3 0.5-1 MH from property line

N/A U0 U0 U0 U0

Building facade meeting the requirements in Table 140.7-B of the California Energy Code, Part 6. 4. Custom lighting features as allowed by the local enforcing agency, as permitted by Section 101.8 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, UPLIGHT AND GLARE (BUG) RATINGS 1,3

MAXIMUM ALLOWABLE BACKLIGHT RATING 3 mounting heights (MH) from property line Luminaire back hemisphere is less than 0.5 MH from property MAXIMUM ALLOWABLE UPLIGHT RATING (U)

N/A

lighting,including decorative

For area lighting 3

U1

U2

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.

G2

G1

.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:

3. Refer to the California Building Code for requirements for additions and alterations.

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. .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

lieu of shade tree planting. **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.

1. Walks, hardscape areas covered by solar photovoltaic shade structures or shade structures with roofing

**5.201.1 Scope [BSC-CG].** California Energy Code [DSA-SS]. For the purposes of mandatory energy efficiency

and in wastewater convevance.

**SECTION 5.302 DEFINITIONS** 

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.

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

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO). The California ordinance regulating landscape

as effective as the MWELO. POTABLE WATER. Water that is drinkable and meets the U.S. Environmental Protection Agency (EPA) Drinking

1954.202 (g) and Water code Section 517 for additional details.)

DISCLAIMER: 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 NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.

**EFFICIENCY** 

**SECTION 5.401 GENERAL** 

**5.401.1 SCOPE.** The provisions of this chapter shall outline means of achieving material conservation and resource

techniques to reduce pollution through recycling of materials, and building commissioning or testing and adjusting.

efficiency through protection of buildings from exterior moisture, construction waste diversion, employment of

# California 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

NONRESIDENTIAL MANDATORY MEASURES, SHEET 2 (January 2023)

NOT APPLICABLE RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER,

**SECTION 5.303 INDOOR WATER USE 5.303.1 METERS.** Separate submeters or metering devices shall be installed for the uses described in Sections **5.303.1.1 Buildings in excess of 50,000 square feet.** Separate submeters shall be installed as follows: 1. For each individual leased, rented or other tenant space within the building projected to consume more than 100 gal/day (380 L/day), including, but not limited to, spaces used for laundry or cleaners. a damper. restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop. 2. Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems: a. Makeup water for cooling towers where flow through is greater than 500 gpm (30 L/s). b. Makeup water for evaporative coolers greater than 6 gpm (0.04 L/s). c. Steam and hot water boilers with energy input more than 500,000 Btu/h (147 kW). **5.303.1.2 Excess consumption.** A separate submeter or metering device shall be provided for any tenant within a new building or within an addition that is projected to consume more than 1,000 gal/day. 5.303.3 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following: **5.303.3.1 Water Closets.** The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-Type toilets. Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush. 5.303.3.2.1 Wall-mounted Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush. **5.303.3.2.2 Floor-mounted Urinals.** The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush. **5.303.3.3.1 Single showerhead.** Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads. **5.303.3.3.2 Multiple showerheads serving one shower.** When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time. Note: A hand-held shower shall be considered a showerhead RECYCLING 5.303.3.4 Faucets and fountains. **5.303.3.4.1 Nonresidential Lavatory faucets.** Lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi. **5.303.3.4.2 Kitchen faucets.** Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons **5.303.3.4.3 Wash fountains.** Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute/20 [rim space (inches) at 60 psi]. **5.303.3.4.4 Metering faucets.** Metering faucets shall not deliver more than 0.20 gallons per cycle. **5.303.3.4.5 Metering faucets for wash fountains.** Metering faucets for wash fountains shall have a maximum flow rate of not more than 0.20 gallons per minute/20 [rim space (inches) at 60 psi]. documentation that the percentage of construction and demolition waste material diverted from the landfill complies with this section. Note: Where complying faucets are unavailable, aerators or other means may be used to achieve 5.303.3.4.6 Pre-rinse spray value When installed, shall meet the requirements in the California Code of Regulations, Title 20 (Appliance Efficiency Regulations), Section 1605.1 (h)(4) Table H-2, Section 1605.3 (h)(4)(A), and Section 1607 (d)(7), and shall be equipped with an integral automatic shutoff. FOR REFERENCE ONLY: The following table and code section have been reprinted from the California Code of Regulations, Title 20 (Appliance Efficiency Regulations), Section 1605.1 (h)(4) and Section TABLE H-2 STANDARDS FOR COMMERCIAL PRE-RINSE SPRAY VALUES MANUFACTURED ON OR AFTER JANUARY 28, 2019 PRODUCT CLASS MAXIMUM FLOW RATE (qpm) [spray force in ounce force (ozf)] Product Class 1 (≤ 5.0 ozf) Product Class 2 (> 5.0 ozf and  $\leq$  8.0 ozf) 1.20 Product Class 3 (> 8.0 ozf) 1.28 5.303.4 COMMERCIAL KITCHEN EQUIPMENT. **5.303.4.1 Food Waste Disposers.** Disposers shall either modulate the use of water to no more than 1 gpm when the disposer is not in use (not actively grinding food waste/no-load) or shall automatically shut off after no more than 10 minutes of inactivity. Disposers shall use no more than 8 gpm of water. Note: This code section does not affect local jurisdiction authority to prohibit or require disposer materials shall be included in the construction documents. **5.303.5 AREAS OF ADDITION OR ALTERATION.** For those occupancies within the authority of the California Building Standards Commission as specified in Section 103, the provisions of Section 5.303.3 and 5.303.4 shall apply to new fixtures in additions or areas of alteration to the building. 5.303.6 STANDARDS FOR PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures and fittings shall be installed in accordance with the California Plumbing Code, and shall meet the applicable standards referenced in Table 1701.1 of the California Plumbing Code and in Chapter 6 of this code. SECTION 5.304 OUTDOOR WATER USE **5.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS.** Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent. 1. The Model Water Efficient Landscape Ordinance (MWELO) is located in the California Code of Regulations, Title 23, Chapter 2.7, Division 2. 2. MWELO and supporting documents, including a water budget calculator, are available at: https://www.water.ca.gov/. 5.304.6 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. For public schools and community colleges, landscape projects as described in Sections 5.304.6.1 and 5.304.6.2 shall comply with the California Department of Water Resources Model Water Efficient Landscape Ordinance (MWELO) commencing with Section 490 of Chapter 2.7, Division 2, Title 23, California Code of Regulations, except that the evapotranspiration adjustment factor (ETAF) shall be 0.65 with an additional water allowance for special landscape areas (SLA) of 0.35. Exception: Any project with an aggregate landscape area of 2,500 square feet or less may comply with the prescriptive measures contained in Appendix D of the MWELO. **5.304.6.1 Newly constructed landscapes.** New construction projects with an aggregate landscape area equal to or greater than 500 square feet. **5.304.6.2 Rehabilitated landscapes.** Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 1,200 square feet. DIVISION 5.4 MATERIAL CONSERVATION AND RESOURCE

SECTION 5.402 DEFINITIONS **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, according to design quantities. 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, tested, operated and maintained to meet the owner's project requirements. ORGANIC WASTE. Food waste, green waste, landscape and pruning wste, nonhazardous wood waste, and food soiled paper waste that is mixed in with food waste. TEST. A procedure to determine quantitative performance of a system or equipment 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 ordinance, whichever is more stringent. **5.407.2 MOISTURE CONTROL.** Employ moisture control measures by the following methods. **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 rain to prevent water intrusion into buildings as follows: **5.407.2.2.1 Exterior door protection.** Primary exterior entries shall be covered to prevent water intrusion by using nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings plus at least one of the following: 1. An installed awning at least 4 feet in depth. 2. The door is protected by a roof overhang at least 4 feet in depth. The door is recessed at least 4 feet. 4. Other methods which provide equivalent protection. **5.407.2.2.2 Flashing.** Install flashings integrated with a drainage plane.

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 meet a local construction and demolition waste management ordinance, whichever is more stringent.

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-site (source-separated) or bulk mixed (single stream).

Identifies diversion facilities where construction and demolition waste material collected will be taken. . Specifies that the amount of construction and demolition waste materials diverted shall be calculated

by weight or volume, but not by both. 5.408.1.2 Waste Management Company. Utilize a waste management company that can provide verifiable

Note: The owner or contractor shall make the determination if the construction and demolition waste material

will be diverted by a waste management compar **Exceptions to Sections 5.408.1.1 and 5.408.1.2:** 

Excavated soil and land-clearing debris

2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist. 3. Demolition waste meeting local ordinance or calculated in consideration of local recycling facilities

**5.408.1.3 Waste stream reduction alternative.** The combined weight of new construction disposal that does not exceed two pounds per square foot of building area may be deemed to meet the 65% minimum requirement as approved by the enforcing agency.

**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.

Sample forms found in "A Guide to the California Green Building Standards Code (Nonresidential)" located www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen may be used to assist in documenting compliance with the waste management plan.

2. Mixed construction and demolition debris processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle).

**5.408.2 UNIVERSAL WASTE. [A]** Additions and alterations to a building or tenant space that meet the scoping provisions in Section 301.3 for nonresidential additions and alterations, shall require verification that Universal Waste tems such as fluorescent lamps and ballast and mercury containing thermostats as well as other California prohibited Universal 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 material may be stockpiled on site until the storage site is developed.

**Exception:** Reuse, either on or off-site, of vegetation or soil contaminated by disease or pest infestation.

. 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

Food and Agriculture. (www.cdfa.ca.gov)

SECTION 5.410 BUILDING MAINTENANCE AND OPERATIONS **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 ordinance, if more restrictive.

**Exception**: Rural jurisdictions that meet and apply for the exemption in Public Resources Code 42649.82 (a)(2)(A) et seq. shall also be exempt from the organic waste portion of this section.

**5.410.1.1 Additions.** All additions conducted within a 12-month period under single or multiple permits,

resulting in an increase of 30% or more in floor area, shall provide recycling areas on site. **Exception**: Additions within a tenant space resulting in less than a 30% increase in the tenant space

**5.410.1.2 Sample ordinance.** Space allocation for recycling areas shall comply with Chapter 18, Part 3,

Division 30 of the Public Resources Code. Chapter 18 is known as the California Solid Waste Reuse and Recycling Access Act of 1991 (Act).

Note: A sample ordinance for use by local agencies may be found in Appendix A of the document at the

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. 5. 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 does not provide heating and or air conditioning.

Informational Notes

1. IAS AC 476 is an accreditation criteria for organizations providing training and/or certification of commissioning personnel. AC 476 is available to the Authority Having Jurisdiction as a reference for qualifications of commissioning personnel. AC 476 des not certify individuals to conduct functional performance tests or to adjust and balance systems.

2. Functional performance testing for heating, ventilation, air conditioning systems and lighting controls must be performed in compliance with the California Energy Code.

5.410.2.1 Owner's or Owner Representative's Project Requirements (OPR). [N] The expectations and requirements of the building appropriate to its phase shall be documented before the design phase of the project begins. This documentation shall include the following:

Environmental and sustainability goals.

2. Building sustainable goals. 3. Indoor environmental quality requirements.

4. Project program, including facility functions and hours of operation, and need for after hours

5. Equipment and systems expectations.

6. Building occupant and operation and maintenance (O&M) personnel expectations.

5.410.2.2 Basis of Design (BOD). [N] A written explanation of how the design of the building systems meets the OPR shall be completed at the design phase of the building project. The Basis of Design document shall cover the following systems:

1. Renewable energy systems.

2. 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 2. 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.

5. 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 regulations.

**5.410.2.5.1 Systems manual. [N]** Documentation 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, history and current requirements. 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 maintenance

staff for each equipment type and/or system shall be developed and documented in the commissioning report and shall include the following:

1. System/equipment overview (what it is, what it does and with what other systems and/or

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:

1. Renewable energy systems.

2. Landscape irrigation systems. Water reuse systems.

**5.410.4.3 Procedures.** Perform testing and adjusting procedures in accordance with manufacturer's specifications and applicable standards on each system.

Council National Standards or as approved by the enforcing agency.

**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 Standards; the National Environmental Balancing Bureau Procedural Standards; Associated Air Balance **5.410.4.4 Reporting.** After completion of testing, adjusting and balancing, provide a final report of testing signed by the individual responsible for performing these services.

**5.410.4.5 Operation and maintenance (O & M) manual.** 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 requirements in CCR, Title 8, Section 5142, and other related

**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

**SECTION 5.501 GENERAL 5.501.1 SCOPE.** The provisions of this chapter shall outline means of reducing the quantity of air contaminants that are odorous, irritating, and/or harmful to the comfort and well-being of a building's installers, occupants and neighbors.

SECTION 5.502 DEFINITIONS **5.502.1 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.

**EXPRESSWAY.** An arterial highway for through traffic which may have partial control of access, but which may or may

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.

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, with a radius 1.0 times the pipe diameter.

SUPERMARKET. For the purposes of Section 5.508.2, a supermarket is any retail food facility with 8,000 square feet or more conditioned area, and that utilizes either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor 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 contain 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-vent 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 stoves 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 occupied during alteration, at the conclusion of construction.

5.504.3 Covering of duct openings and protection of mechanical equipment during construction. At the time of rough installation and during storage on the construction site until final startup of the heating, cooling and ventilation equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheetmetal or other methods acceptable to the enforcing agency to reduce the amount of dust, water and debris which ROJECT SPECIFIC STATE AGENCY APPROVAL IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-122792 INC: **REVIEWED FOR** SS 🗹 FLS 🗹 ACS 🗹 12/4/2024



PROFESSIONAL STAMP



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

> 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'

Code: 2022 CBC

CAL GREEN

**CHECKLIST** 

RH/RT

22088

PROJECT NUMBER

rMc/SC CHECKED BY

DATE

DISCLAIMER: THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.

5.504.4 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with Sections 5.504.4.1 through

**5.504.4.1 Adhesives, sealants and caulks.** Adhesives, sealants, and caulks used on the project shall meet the requirements of the following standards: 1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution 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 Rule 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, below.

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 standards and other requirements, including prohibitions on use of certain toxic compounds, of California Code of Regulations, Title 17, commencing

Less Water and Less Exempt Compounds in Grams per Lite	I
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
POROUS MATERIAL (EXCEPT WOOD)	50
WOOD	30

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

FIBERGLASS

TABLE 5.504.4.2 - SEALANT VOC LIMIT					
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 do 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 shall apply.

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 compounds and ozone depleting substances, in Sections 94522(c)(2) and (d)(2) of California Code of Regulations, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation 8 Rule 49.

COATING CATEGORY	CURRENT VOC LIMIT
SPECIALTY COATINGS	
ALUMINUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	50
BITUMINOUS ROOF PRIMERS	350
BOND BREAKERS	350
CONCRETE CURING COMPOUNDS	350
CONCRETE/MASONRY SEALERS	100
DRIVEWAY SEALERS	50
DRY FOG COATINGS	150
FAUX FINISHING COATINGS	350
FIRE RESISTIVE COATINGS	350
FLOOR COATINGS	100
FORM-RELEASE COMPOUNDS	250
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500
HIGH-TEMPERATURE COATINGS	420
INDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS1	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, & UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS:	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB & TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
WOOD COATINGS	275
WOOD PRESERVATIVES	350

1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEMPT COMPOUNDS 2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN

3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.

5.504.4.3.2 Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation may include, but is not limited to, the following: 1. Manufacturer's product specification

5.504.4.4 Carpet Systems

All carpet 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

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

2. Field verification of on-site product containers

**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

Other methods acceptable to the enforcing agency.

MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION				
PRODUCT	CURRENT LIMIT			
HARDWOOD PLYWOOD VENEER CORE	0.05			
HARDWOOD PLYWOOD COMPOSITE CORE	0.05			
PARTICLE BOARD	0.09			
MEDIUM DENSITY FIBERBOARD	0.11			
THIN MEDIUM DENSITY FIBERBOARD2	0.13			

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

**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 acoustical finish materials meet the pollutant emission limits.

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

**Exceptions:** Existing mechanical equipment

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

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 intakes 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, campus of the California State University, or campus of the University of California, whichever are more stringent. When ordinances, regulations or policies are not in place, post signage to inform building occupants of the prohibitions.

SECTION 5.505 INDOOR MOISTURE CONTROL

5.505.1 INDOOR MOISTURE CONTROL. Buildings shall meet or exceed the provisions of California Building Code, CCR, Title 24, Part 2, Sections 1202 (Ventilation) and Chapter 14 (Exterior Walls). For additional measures, see Section 5.407.2 of this code.

**SECTION 5.506 INDOOR AIR QUALITY** 

5.506.1 OUTSIDE AIR DELIVERY. For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 120.1 (Requirements For Ventilation) of the California Energy Code, or the applicable local code, whichever is more stringent, and Division 1, Chapter 4 of CCR, Title 8.

5.506.2 CARBON DIOXIDE (CO2) MONITORING. For buildings or additions equipped with demand control ventilation, CO<sub>2</sub> sensors and ventilation controls shall be specified and installed in accordance with the requirements of 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 equipped 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 classroom have exceeded 1.100ppm. A sensor integral to an EMCS shall provide notification to facility personnel 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 sensor used to measure carbon dioxide levels shall have the capacity to measure carbon dioxide levels with a range of 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

SECTION 5.507 ENVIRONMENTAL COMFORT

(STC) values determined in accordance with ASTM E 90 and ASTM E 413, or Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E 1332, using either the prescriptive or performance method in

**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 meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 in the following locations:

1. Within the 65 CNEL noise contour of an airport.

1. Lan 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>eq</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 at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30).

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.

**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 refrigeration systems shall comply with the provisions of this section when installed in retail food stores 8,000 square feet or more conditioned area, and that utilize either refrigerated display cases, or walk-in coolers or freezers connected 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 facilities.

**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>), and potentially other refrigerants.

5.508.2.1 Refrigerant piping. Piping compliant with the California Mechanical Code shall be installed to be accessible for leak protection and repairs. Piping runs using threaded pipe, copper tubing with an outside diameter (OD) less than 1/4 inch, flared tubing connections and short radius elbows shall not be used in refrigerant systems except as noted below

**5.508.2.1.1 Threaded pipe.** Threaded connections are permitted at the compressor rack.

5.508.2.1.2 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.

keep vibration levels below 8 mils.

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

designed to have seal caps.

**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

**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

### CHAPTER 7 **INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS**

with a maximum drift of 100 microns over a 24-hour period

**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:

- 1. State certified apprenticeship programs. . Public utility training programs.
- Training programs sponsored by trade, labor or statewide energy consulting or verification organizations. Programs sponsored by manufacturing organizations.

5. Other programs acceptable to the enforcing agency.

**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 other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be considered by the enforcing agency when evaluating the qualifications of a special inspector:

Certification by a national or regional green building program or standard publisher. 2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building

performance contractors, and home energy auditors.

3. Successful completion of a third party apprentice training program in the appropriate trade. 4. Other programs 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. 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 owner 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 certification 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 project they are inspecting for compliance with this code.

### **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 other methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified applicable checklist.

ROJECT SPECIFIC STATE AGENCY APPROVAC IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-122792 INC: **REVIEWED FOR** SS 🗹 FLS 🗹 ACS 🗹 12/4/2024

> 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. ©



ORIGINAL PC STATE AGENCY APPROVAL

APPROVED DIV. OF THE STATE ARCHITECT

**Revision Schedule** 

Description

PRE-CHECK (PC) DOCUMENT

A separate project application for construction is required

Code: 2022 CBC

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

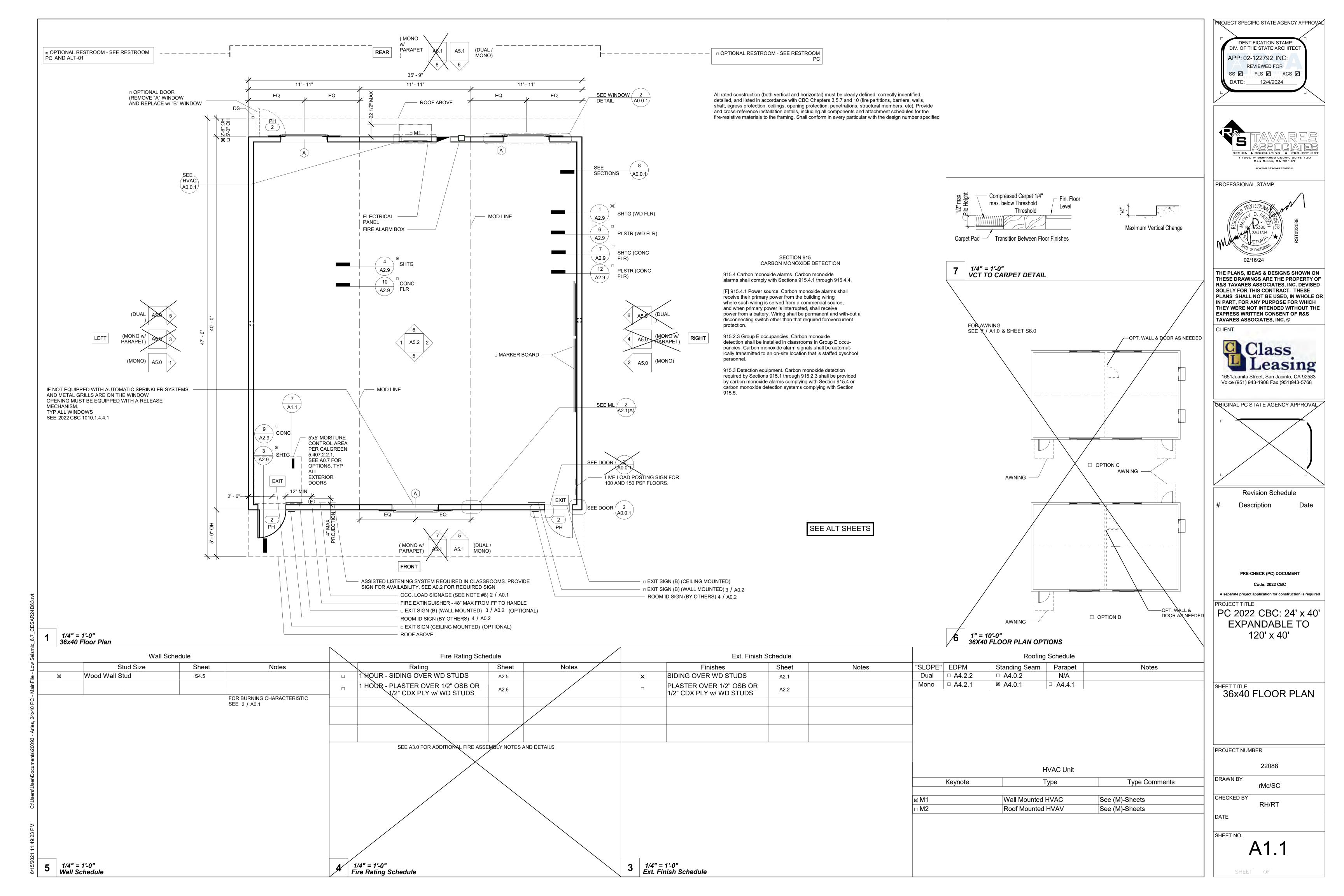
CAL GREEN

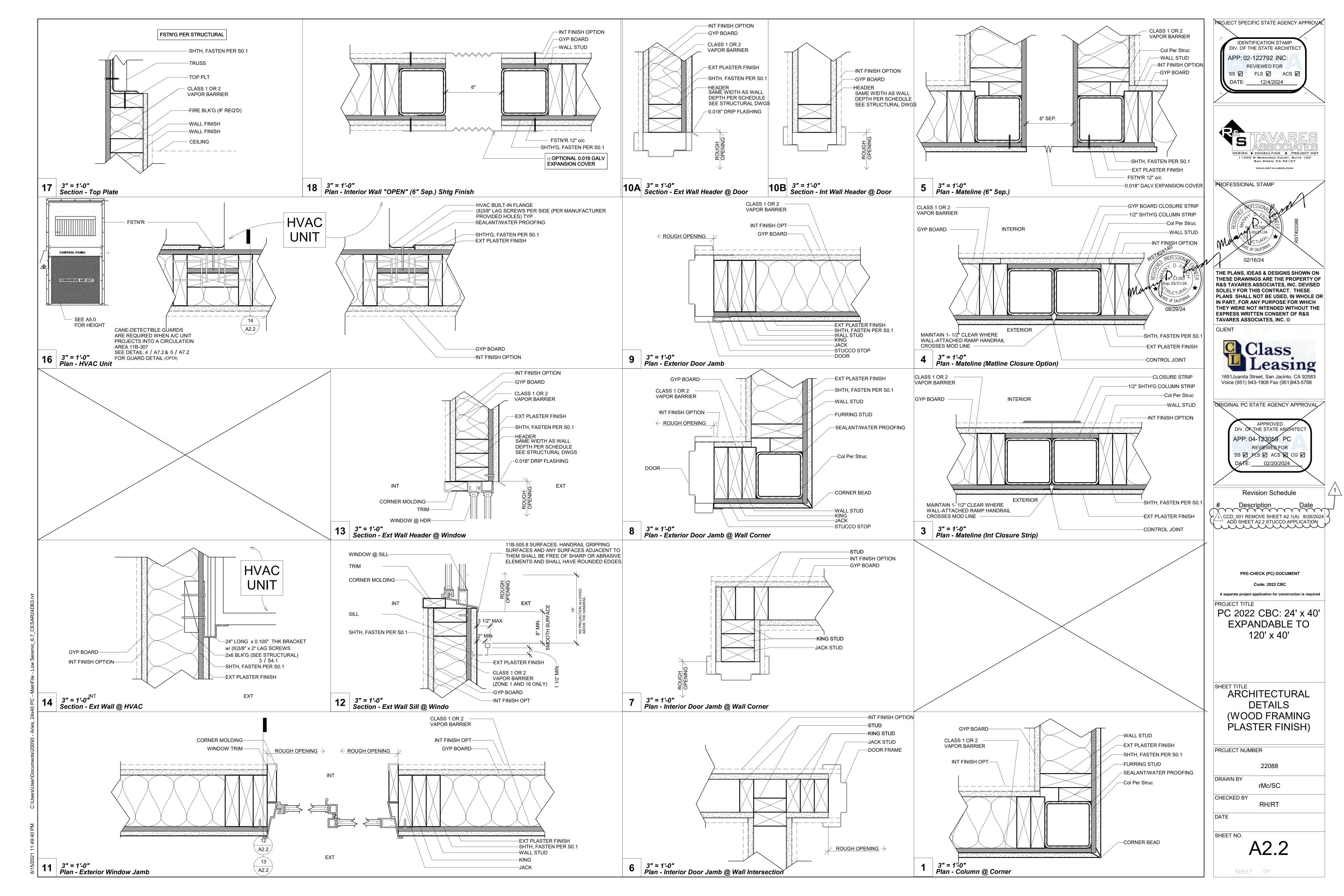
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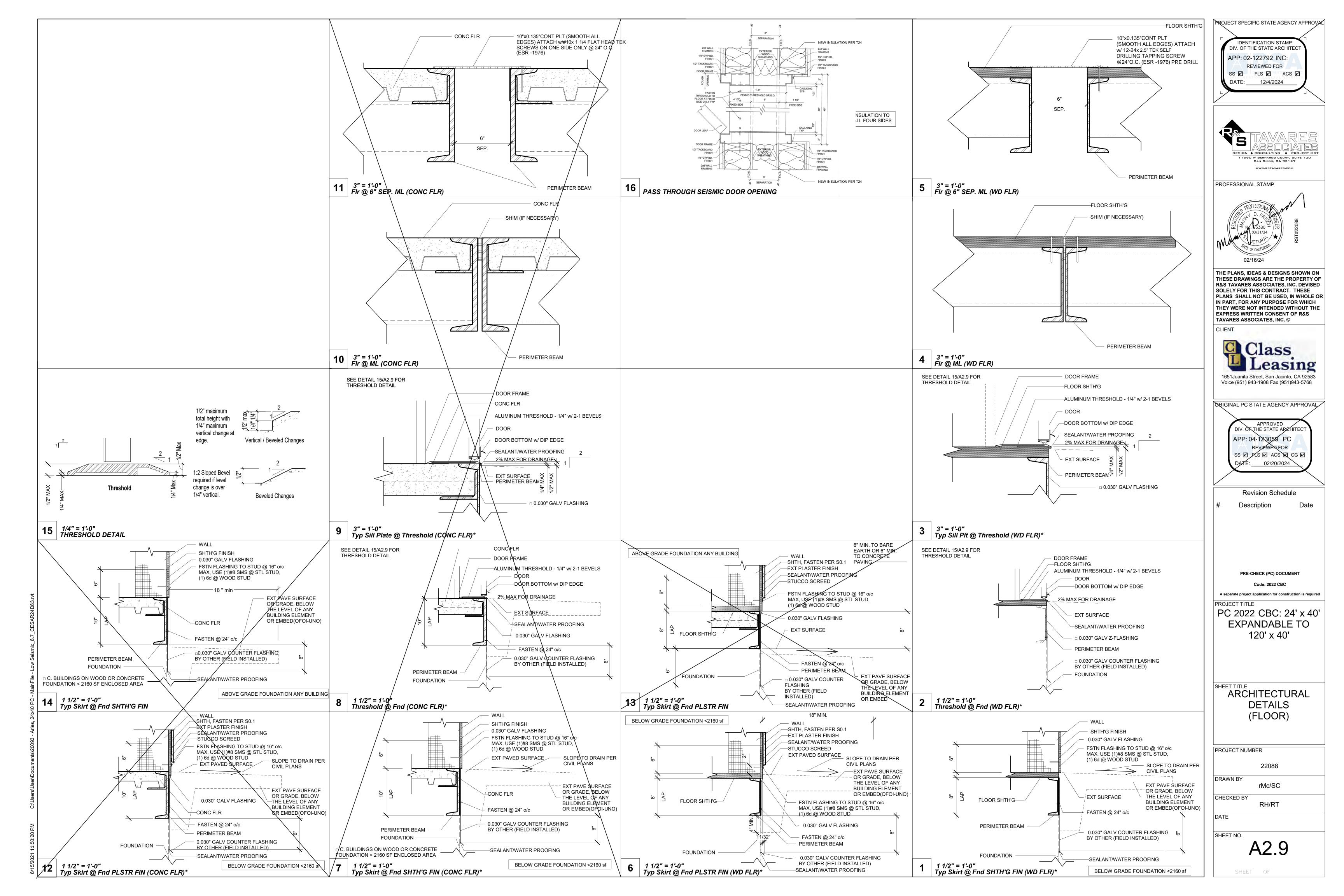
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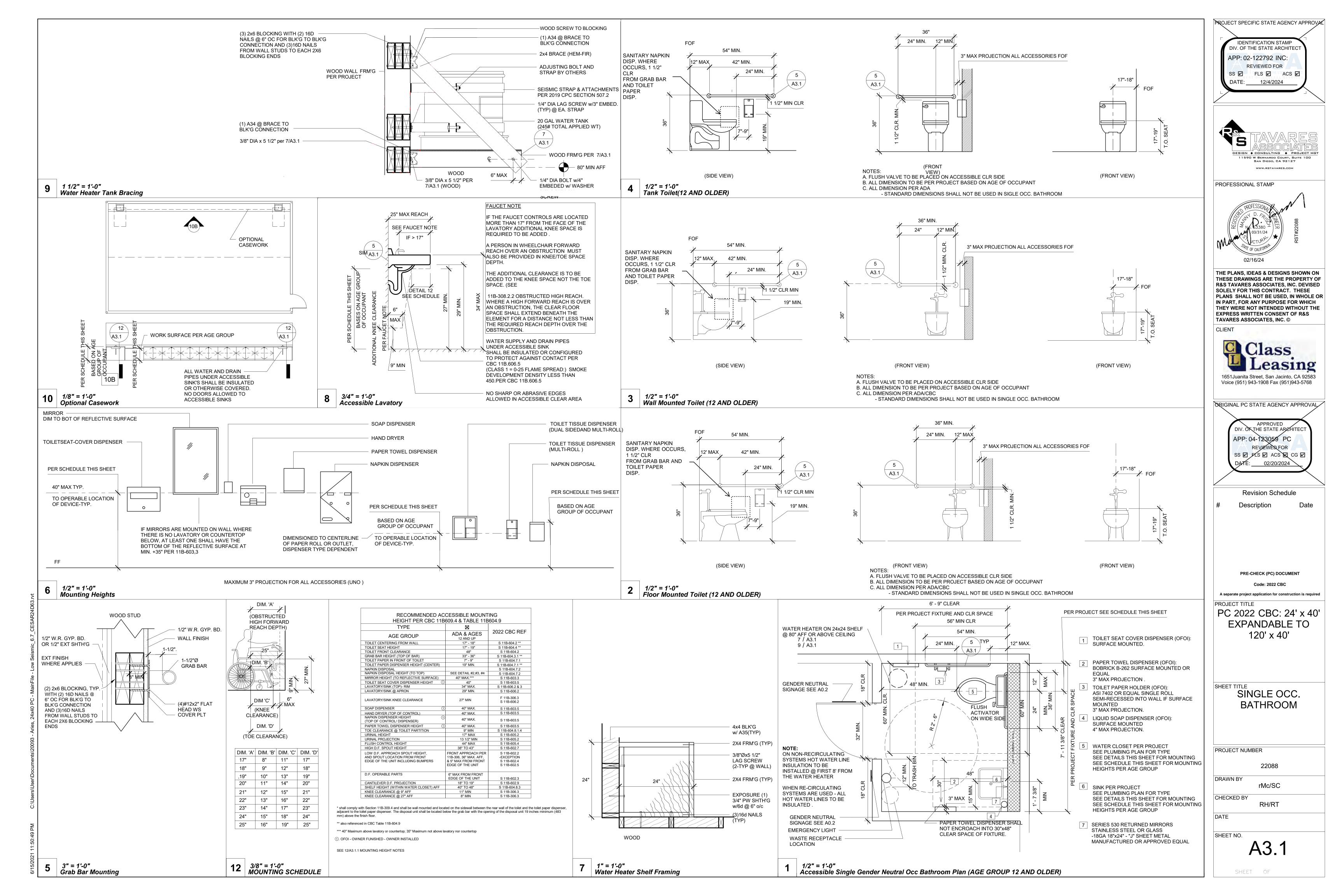
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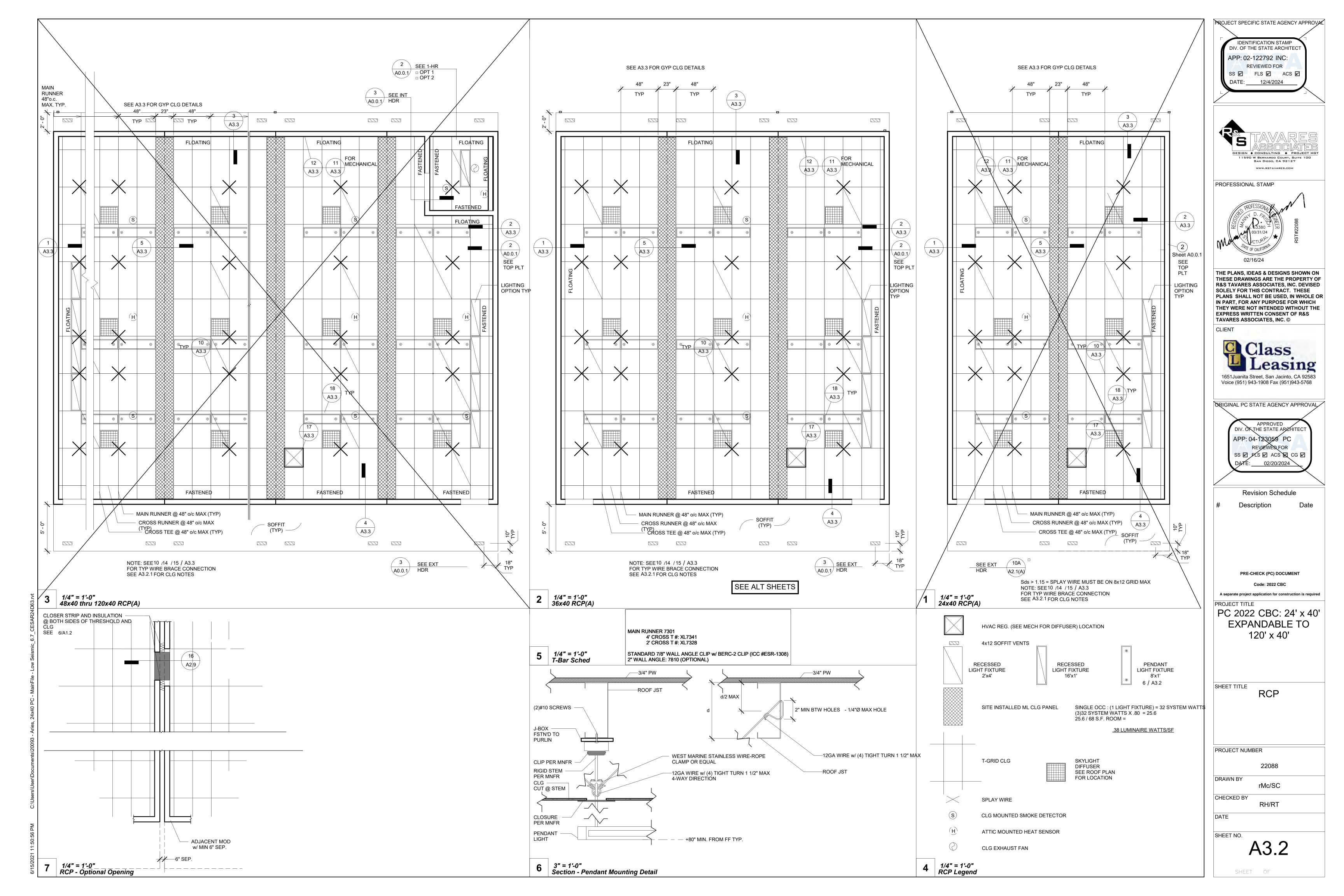
DATE











- 1.01 Ceiling system components shall comply with ASTM C635 and Section 5.1 of ASTM
- 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

1.04 Seismic Wall Clip: STANDARD 7/8" WALL ANGLE CLIP w/ BERC2 CLIP Manufacturer's Model:

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

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.

Detail Title:	REV: 09/21/2015	Detail No.
	REV: 03/2022	7 l
CEILING NOTES		I 1.00 ∣
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DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA

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.

TABLE 1: LATERAL FORCE BRACE ASSEMBLY SPACING				
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"		
$1.15 < S_{DS} \le 1.73$	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"		
Footnotes:  a. Where, as defined in ASCE 7 Section 13 z = height in structure of point of attachn		pase.		

SEE ALT SHEET FOR FINAL CONFIGURATION OF CEILING AND S<sub>DS</sub> VALUE SITE

b. It shall be permitted to use the brace assembly spacing for "z/h > 0.5" for the full building height.

h = average roof height of the structure with respect to the base.

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

IR 25-2

- 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

IR 25-2 (Revised 03/18/22)

- 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

Detail Title:	REV: 09/21/2015	Detail No.
CEILING NOTES	REV: 03/2022	1.00

DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA

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

IR 25-2

- 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.

Detail Title:	REV: 09/21/2015	Detail No.
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CLILING NOTES		1.00

DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA

SUBSTITUTED WITH AN OR EQUAL OR GREATER PRODUCT

1.ITEMS SHOWN WITH A MFR CALLOUT MAY BE

WITH DSA APPROVAL

ROJECT SPECIFIC STATE AGENCY APPROVAL **IDENTIFICATION STAMP** DIV. OF THE STATE ARCHITECT APP: 02-122792 INC: **REVIEWED FOR** SS 🗹 FLS 🗹 ACS 🗹 12/4/2024

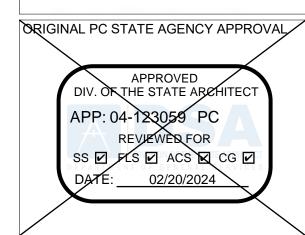


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Revision Schedule Description

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'

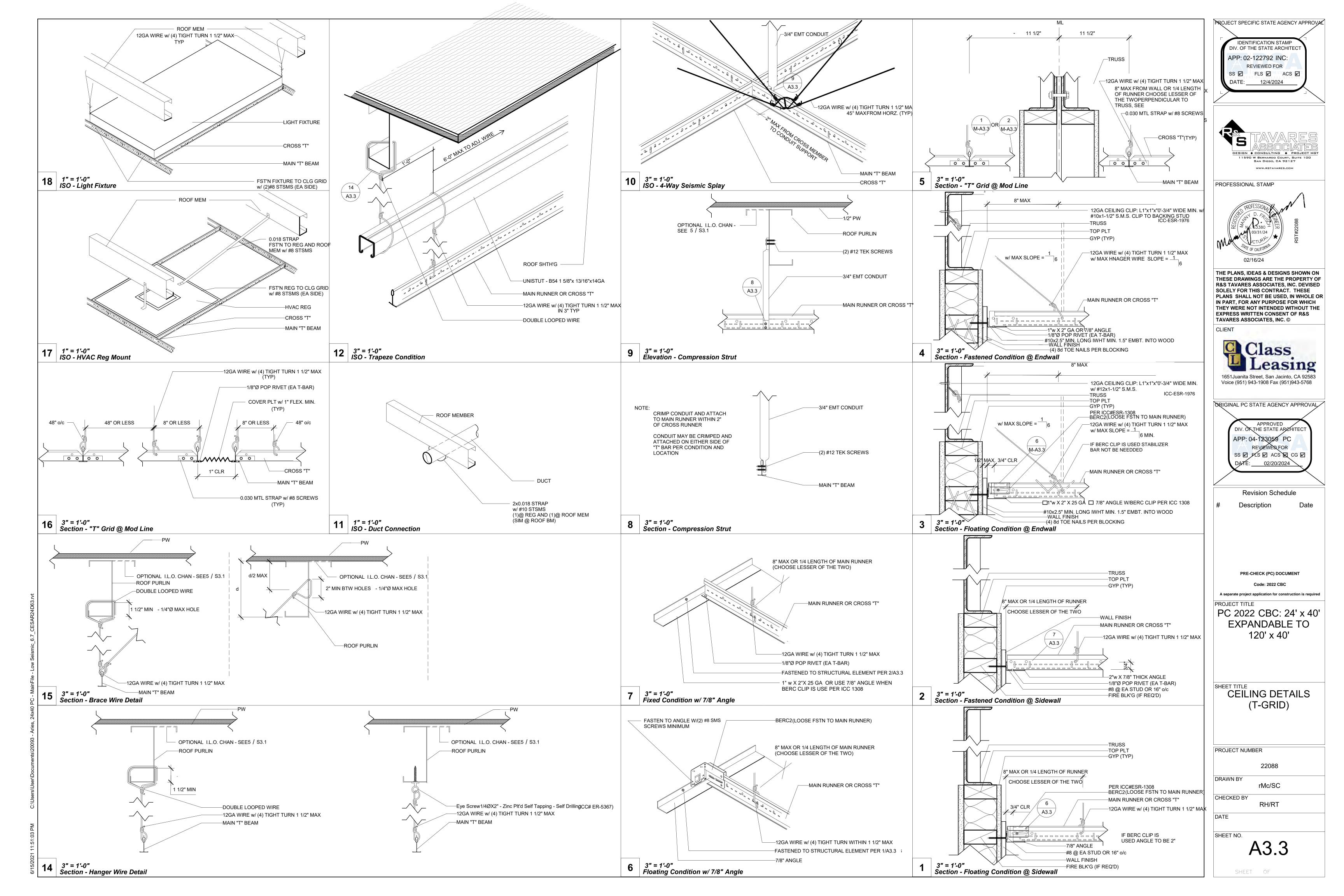
**CEILING NOTES** 

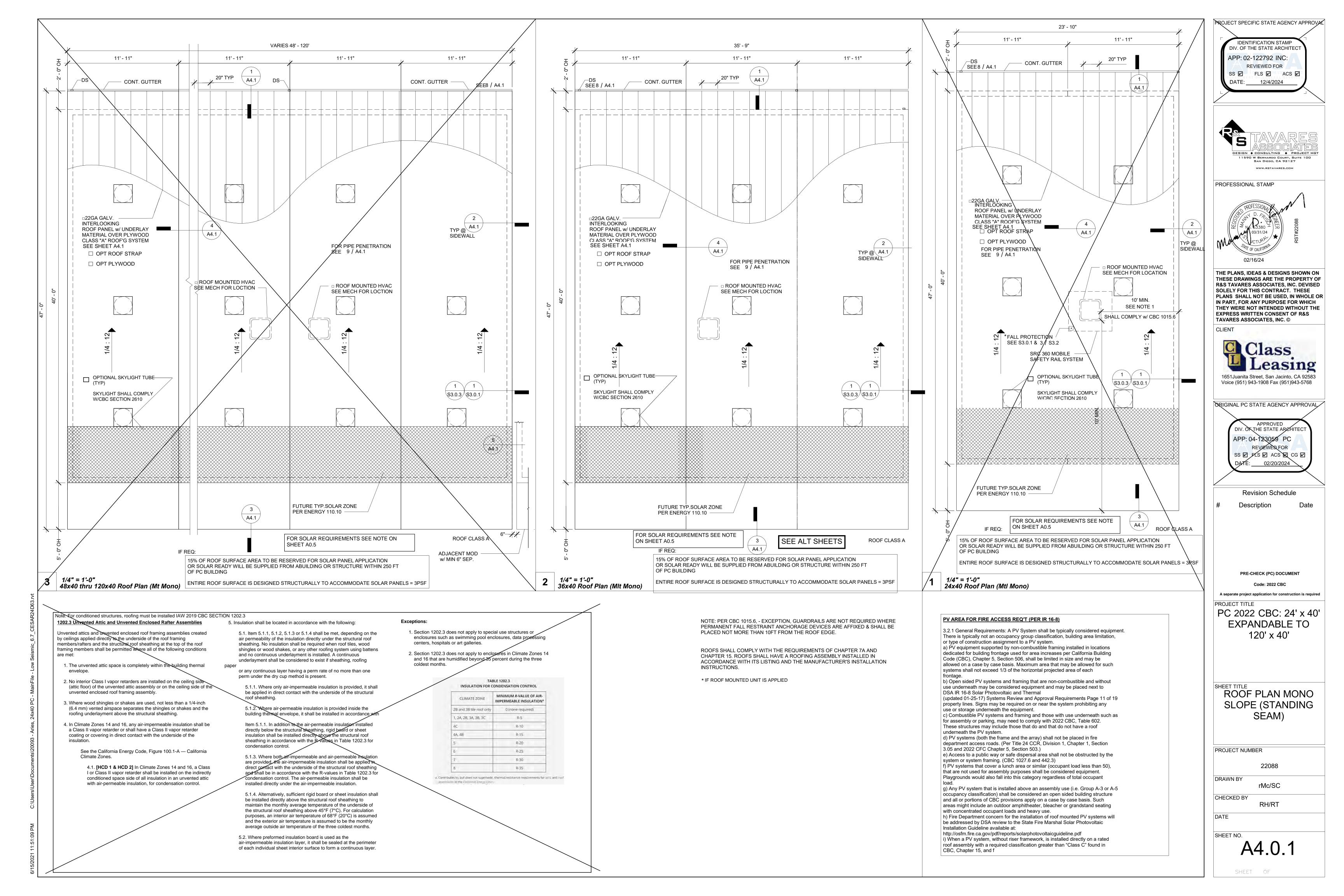
PROJECT NUMBER 22088

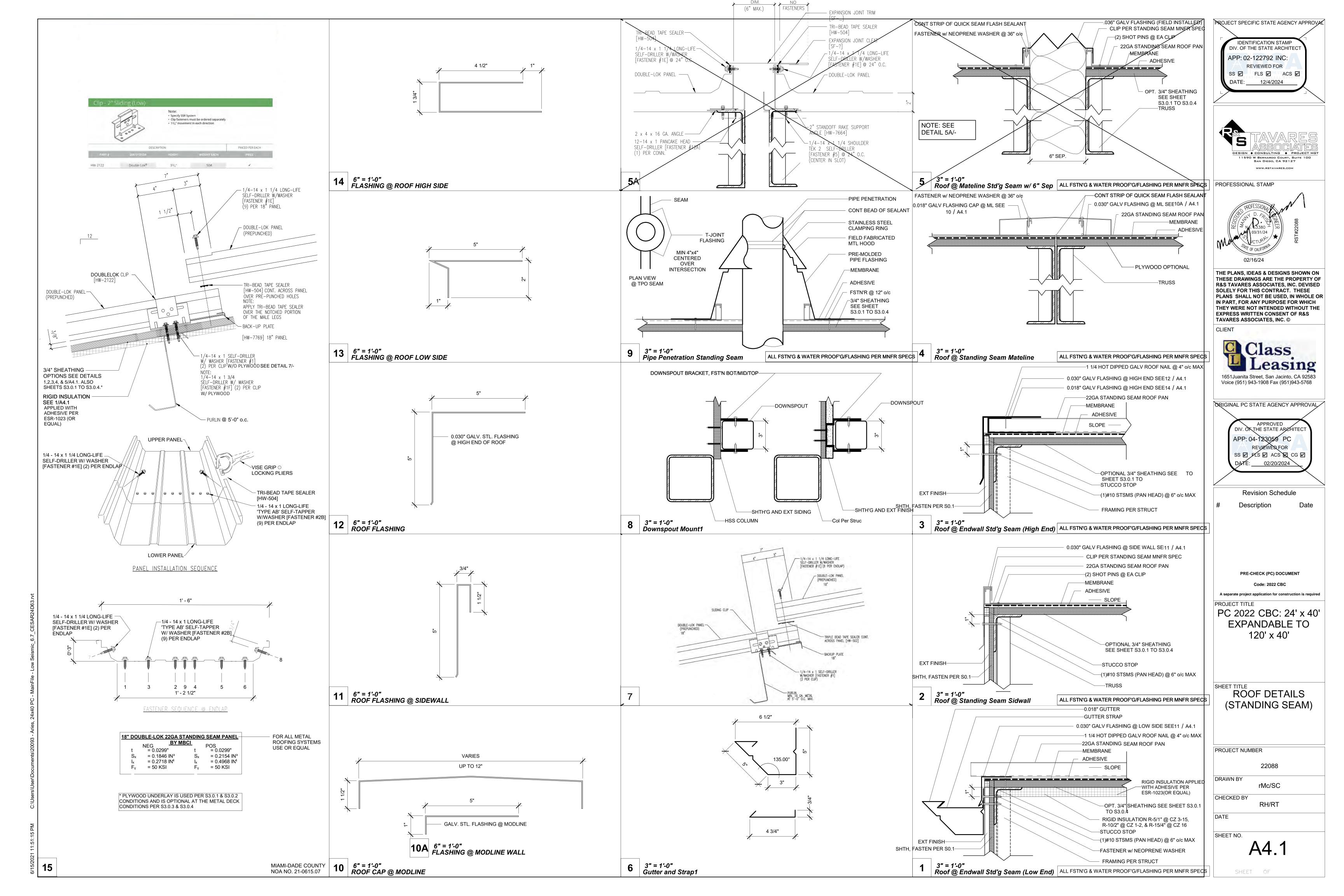
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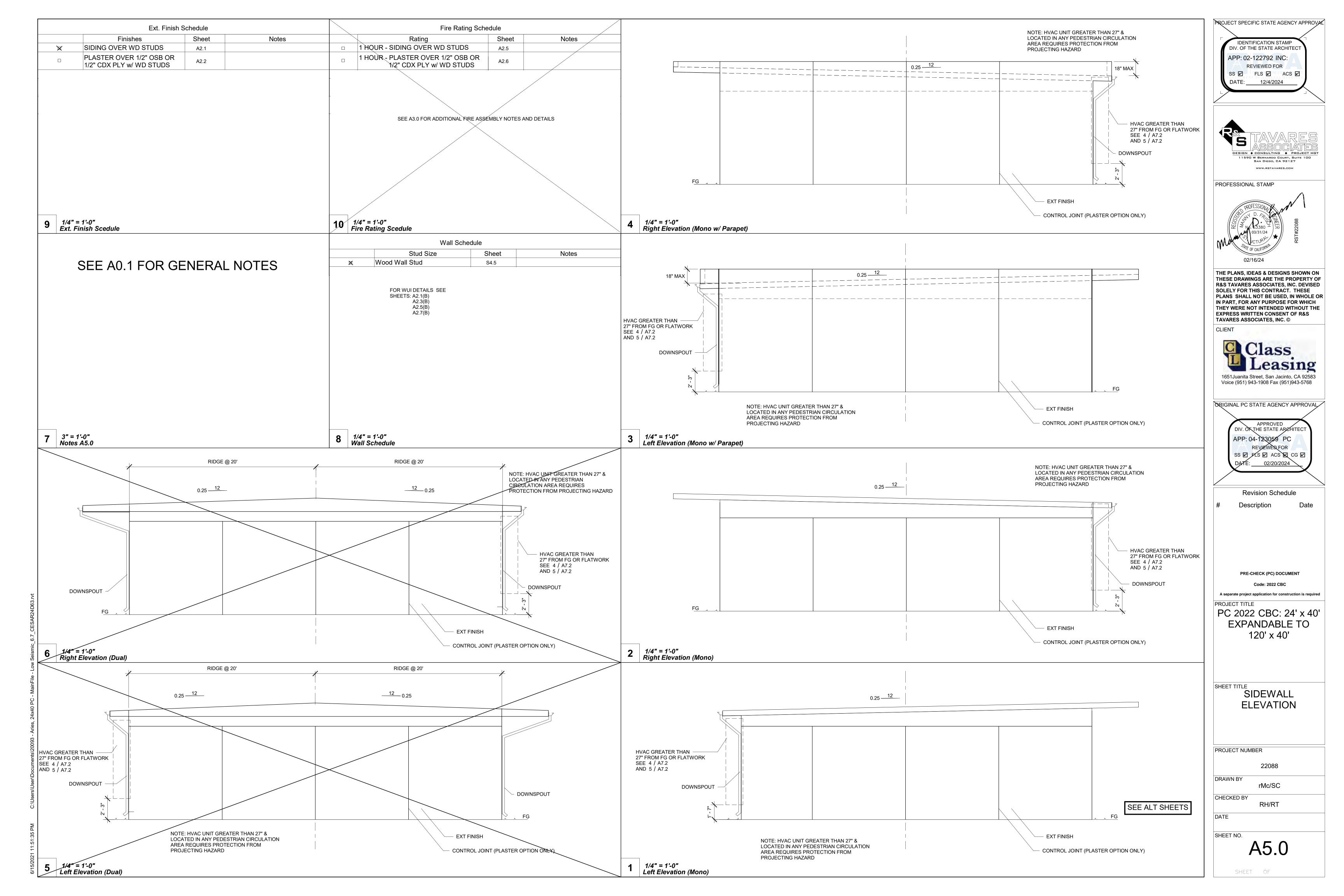
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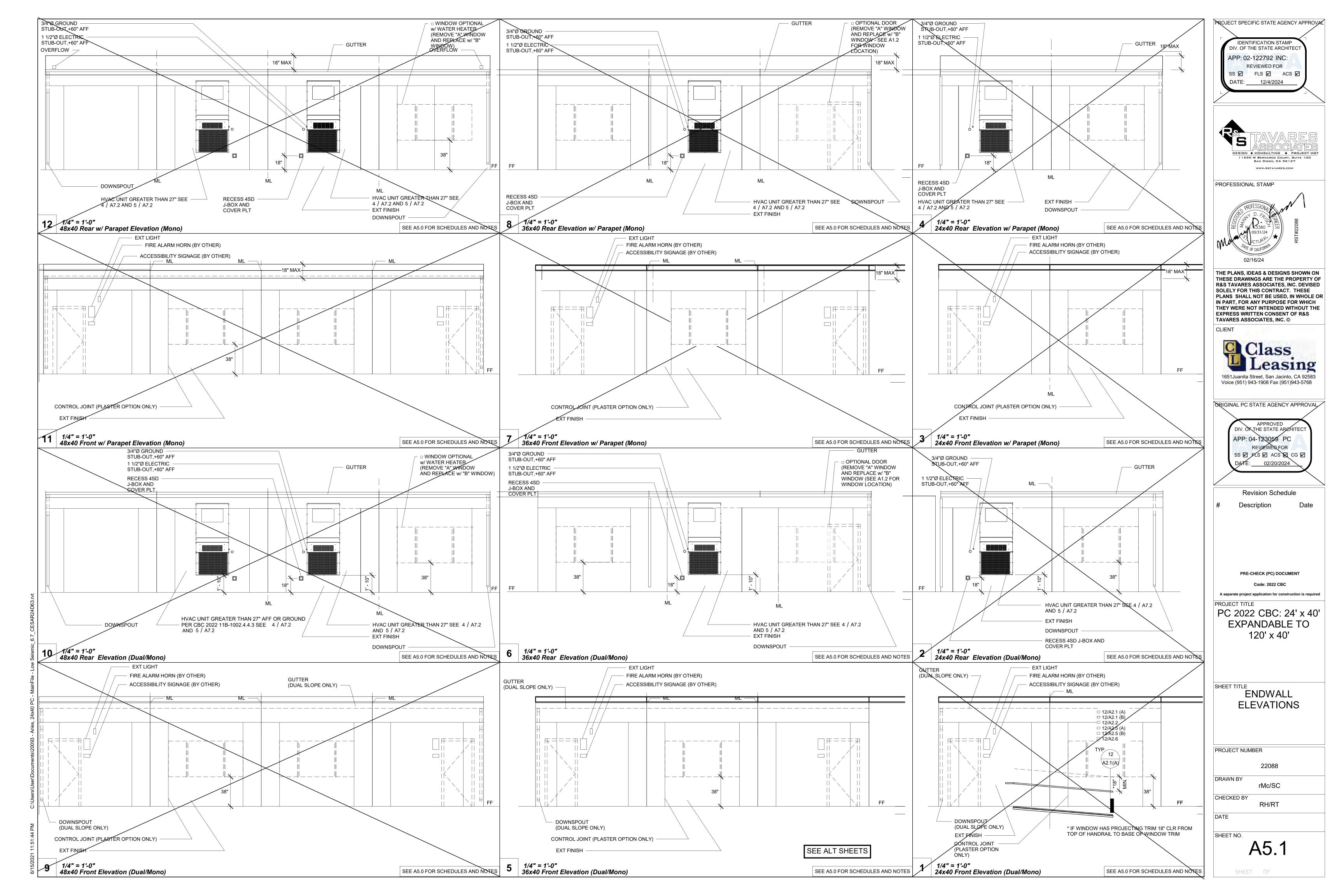
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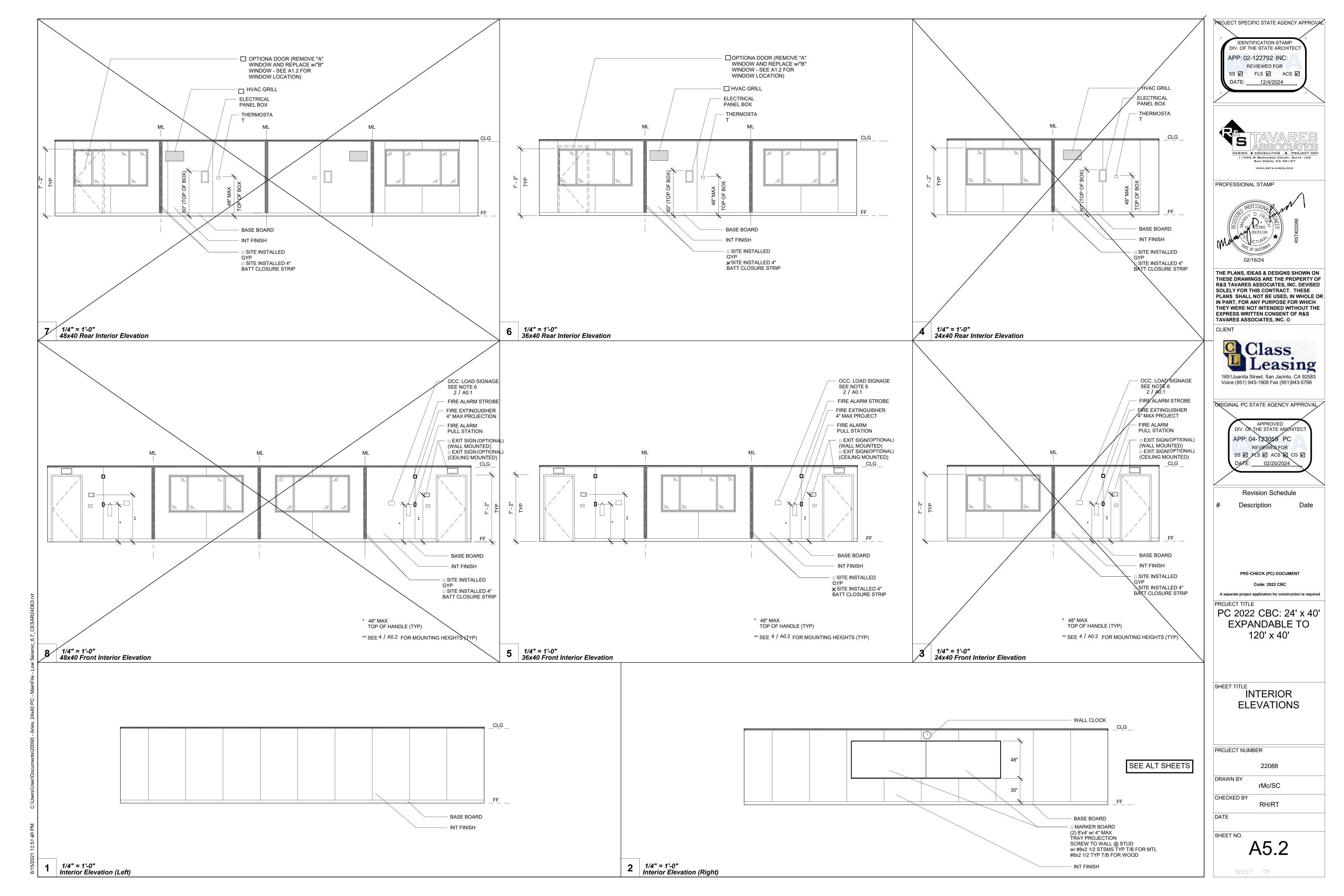


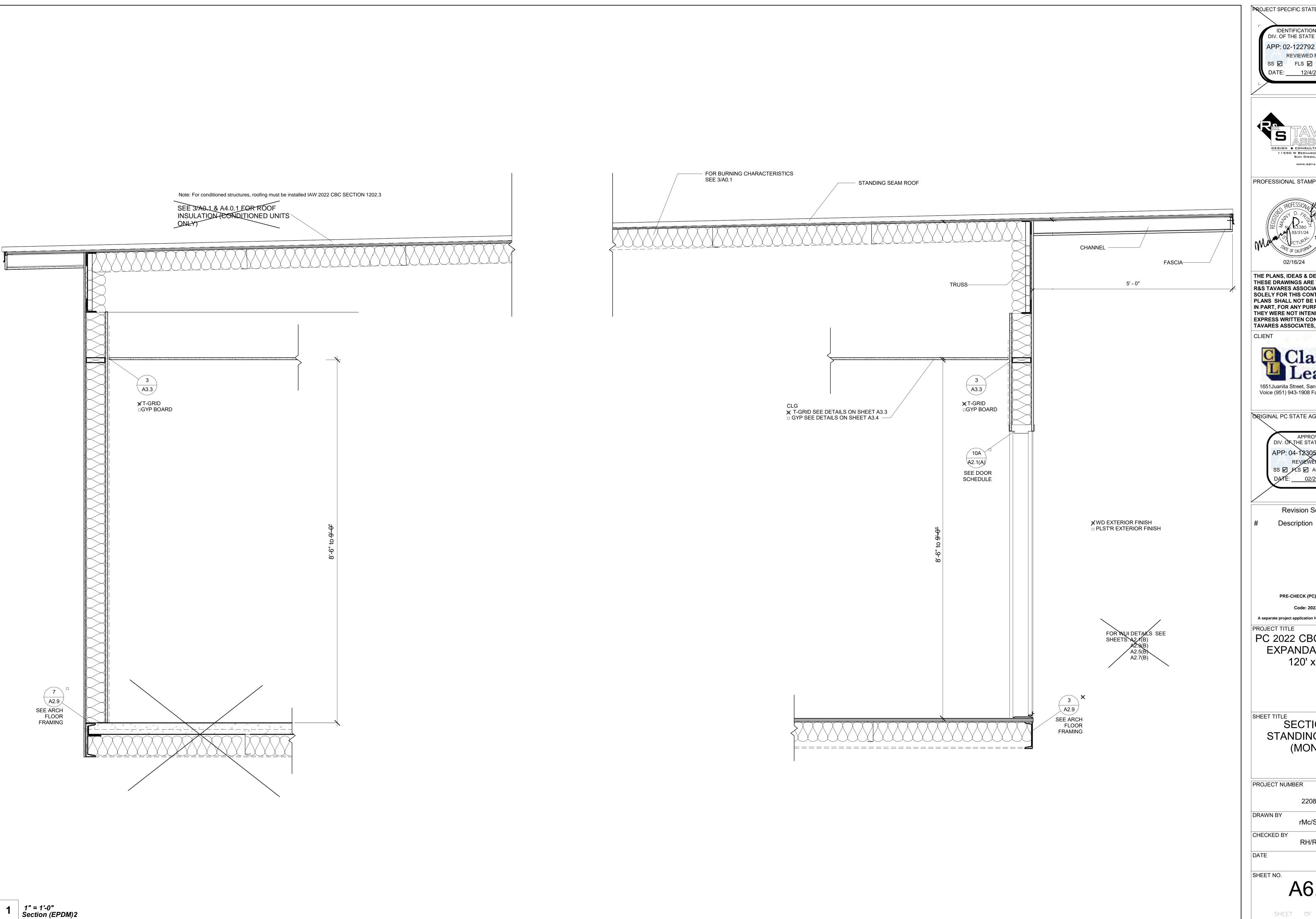












PROJECT SPECIFIC STATE AGENCY APPROVAL IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 02-122792 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 12/4/2024



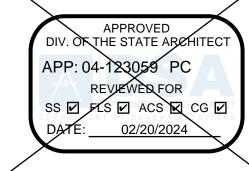
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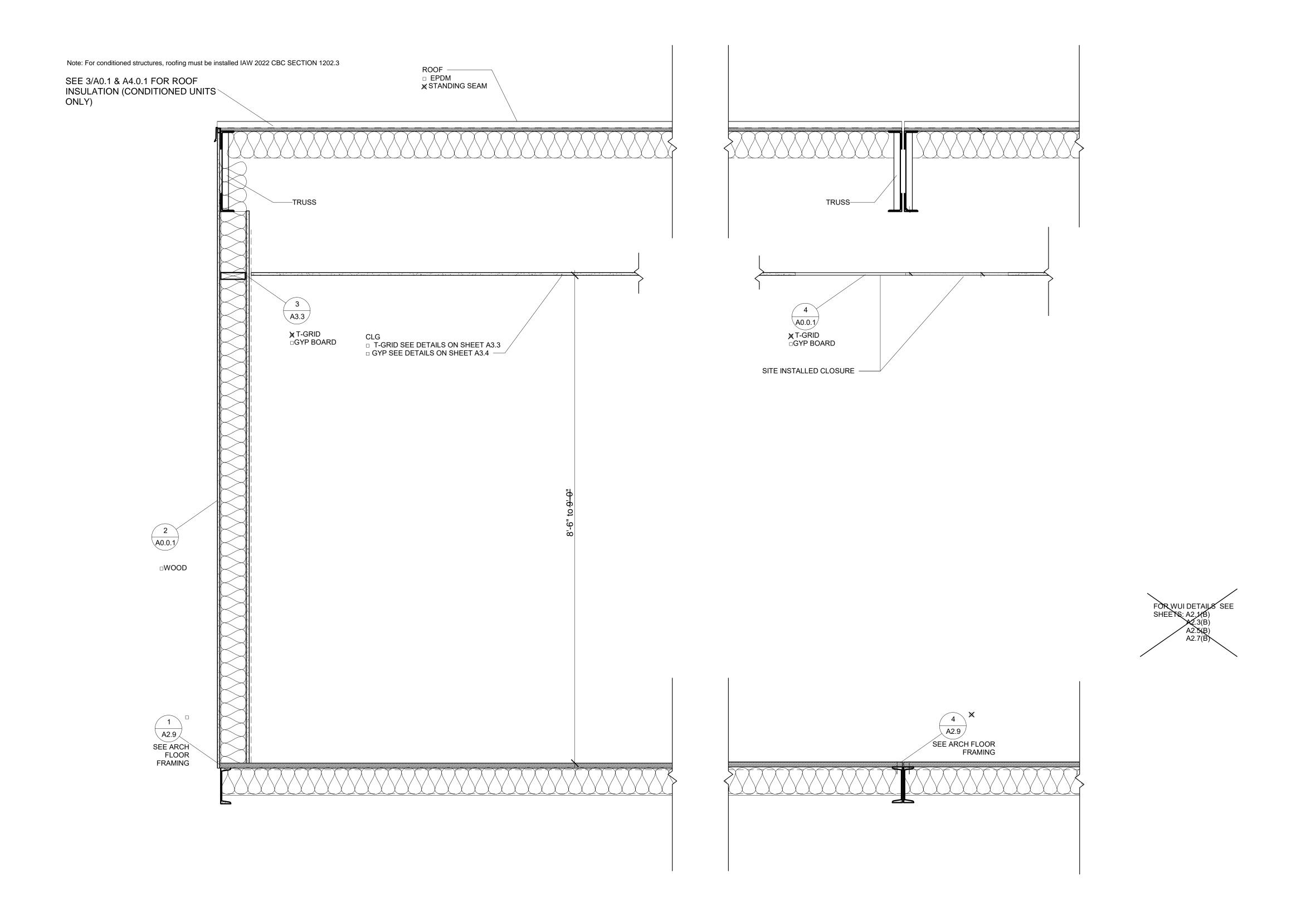
A separate project application for construction is required

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

SHEET TITLE
SECTION -STANDING SEAM (MONO)

22088

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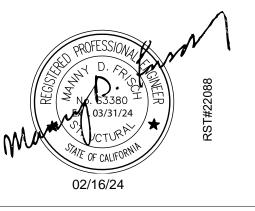
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DATE: 12/4/2024



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ORIGINAL PC STATE AGENCY APPROVAL



Revision Schedule

Description

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PRE-CHECK (PC) DOCUMENT

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

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PROJECT NUMBER

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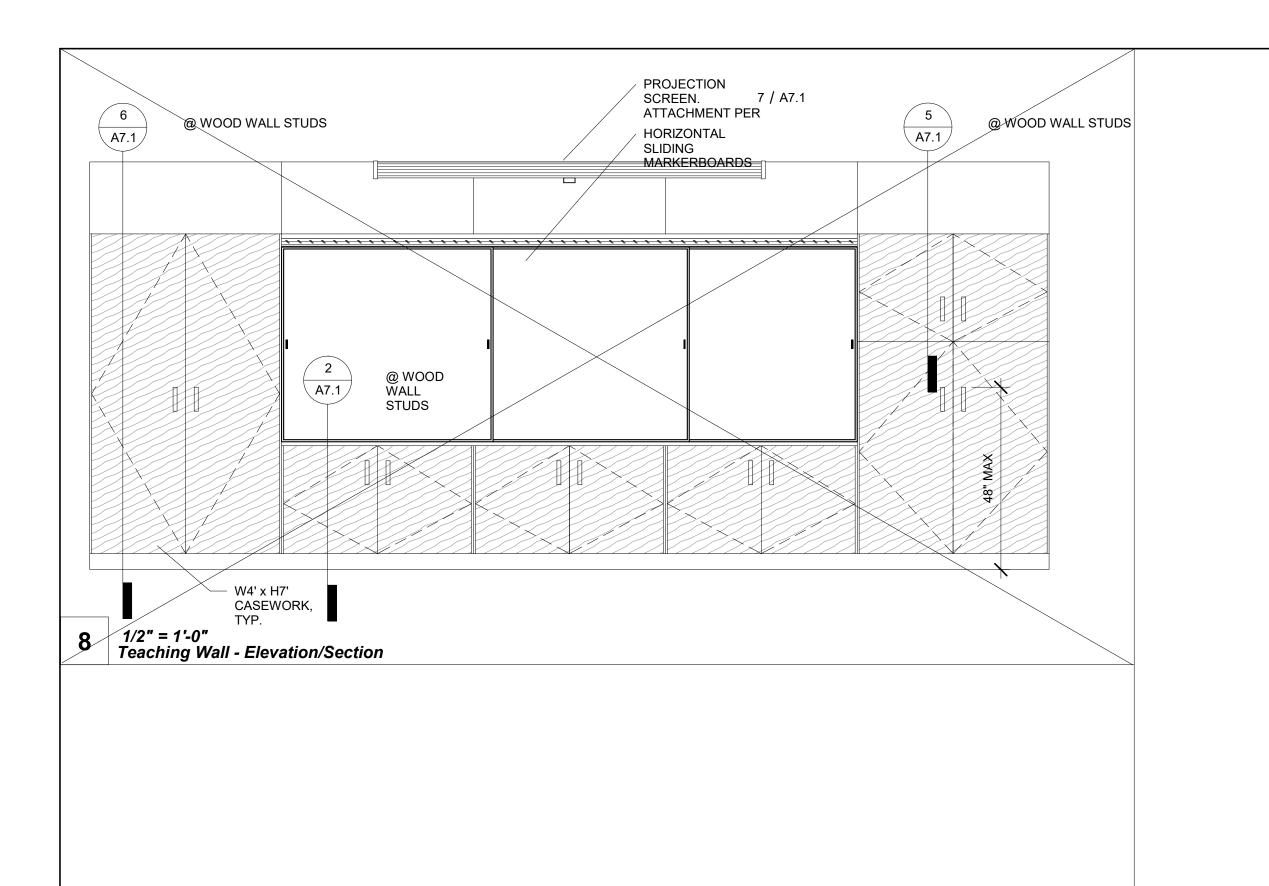
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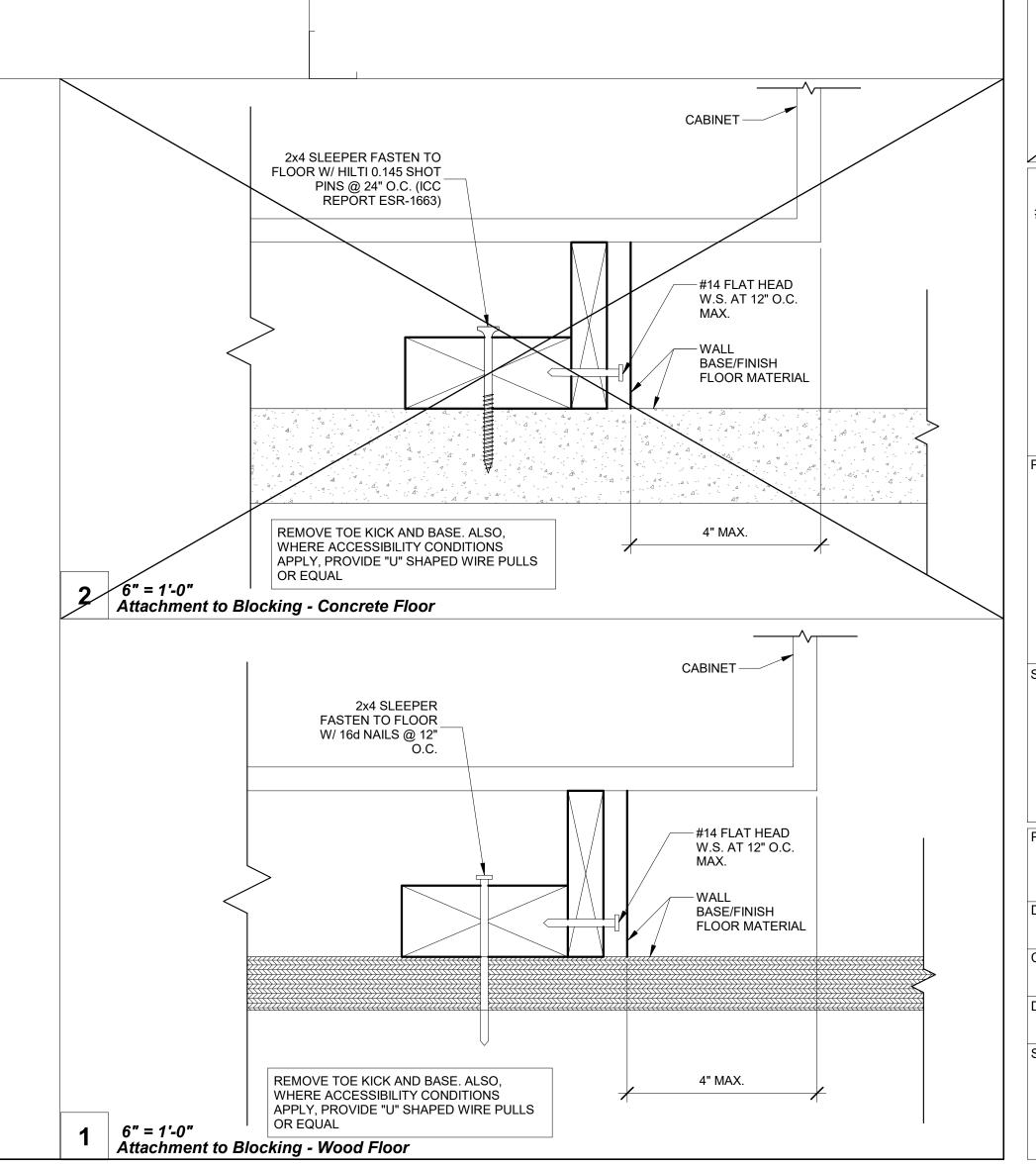
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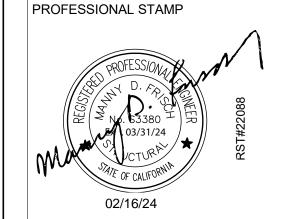
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APP: 04-123059 PC

REVIEWED FOR
SS FLS ACS CG 
DATE: 02/20/2024

Revision Schedule

Description Date

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'

EET TITLE

# ADDITIONAL OPTION DETAILS

PROJECT NUMBER

22088

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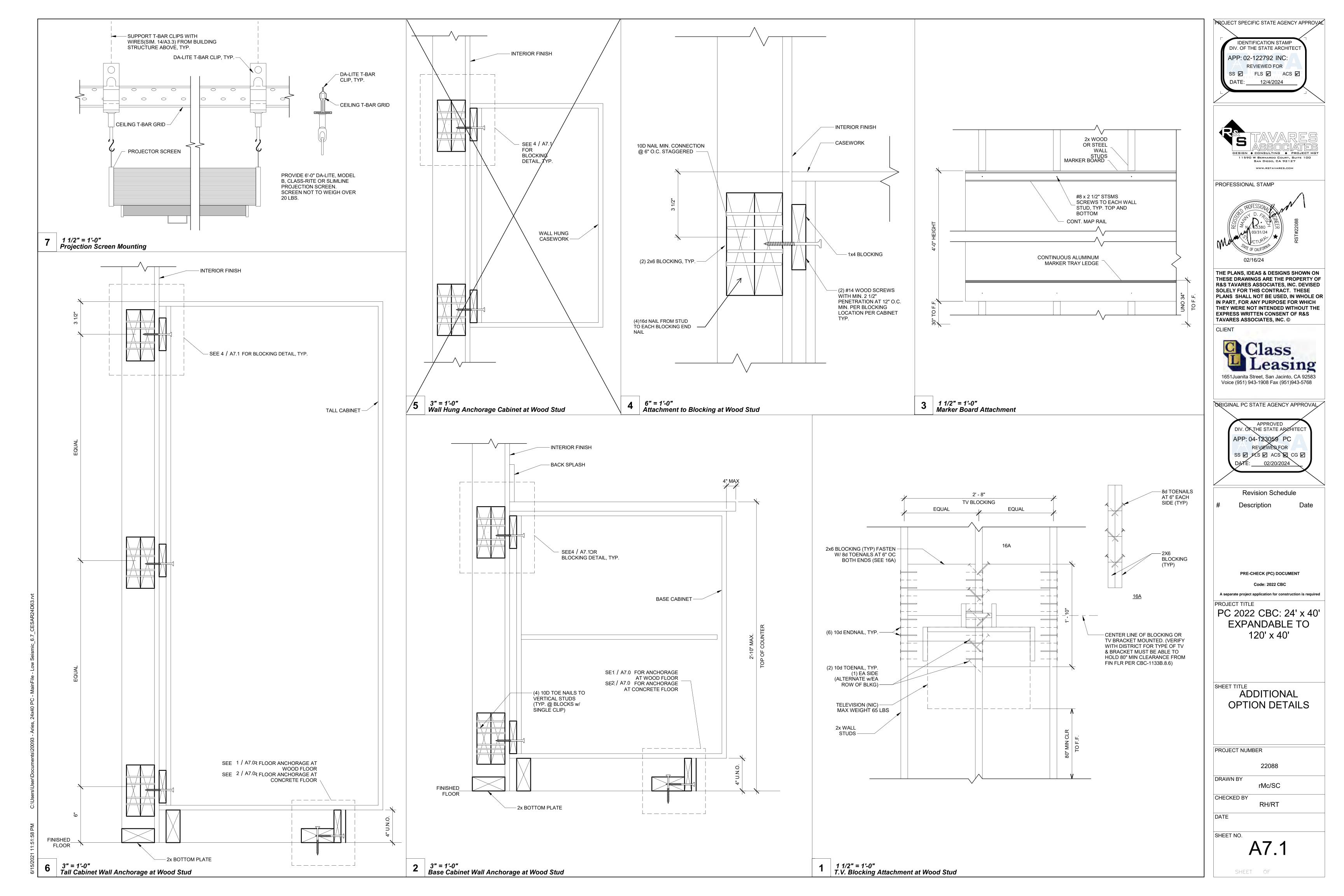
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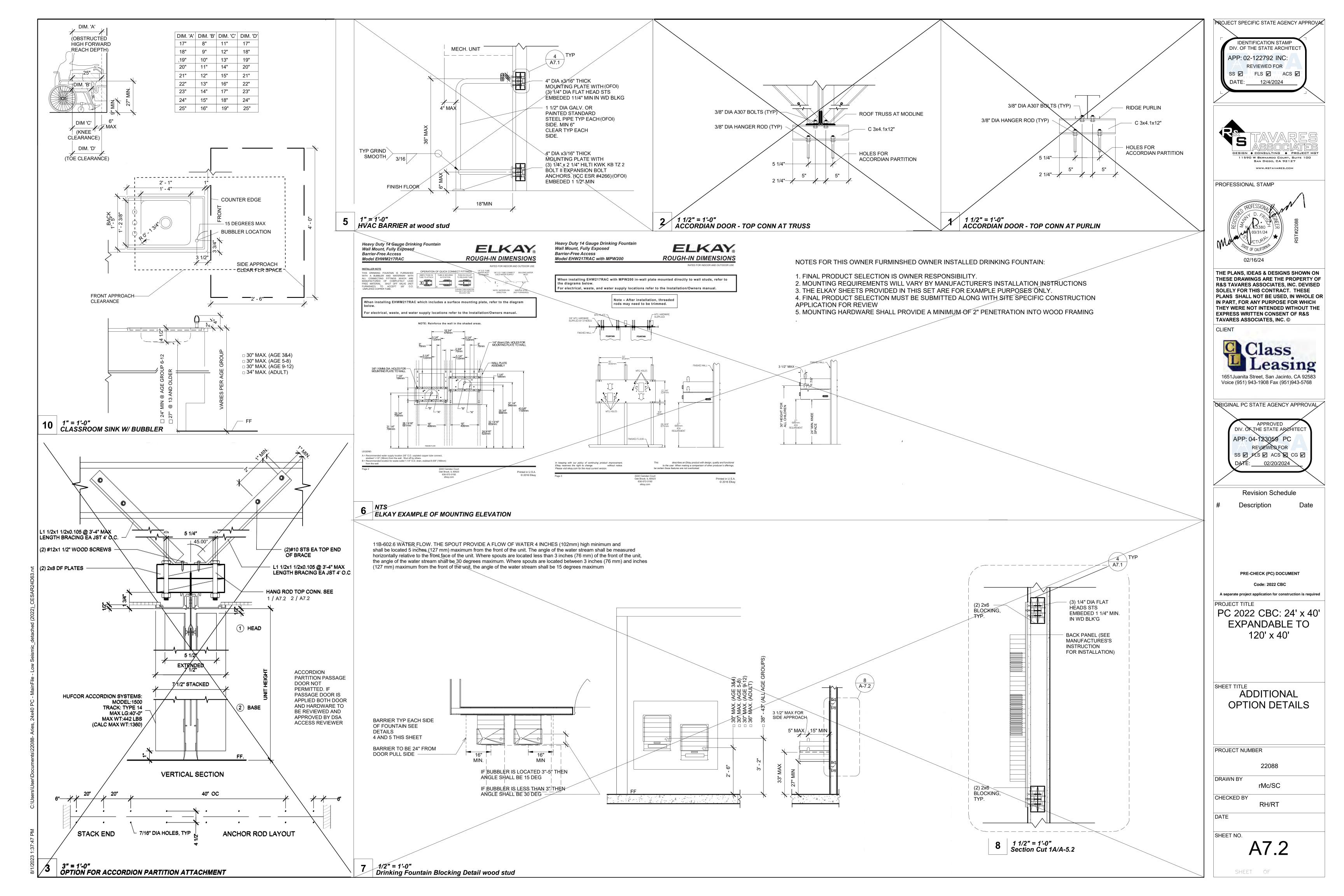
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(ALL CONDUCTORS SHALL BE TYPE THHN/THWN 75 DEG. C. COPPER)

# CONDUIT FILL AND CONDUCTOR CAPACITY TABLE

POY	BOX SIZE		MAX NO. OF CONDUCTORS					
ВОХ	SIZE	CU. IN.	#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

# 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

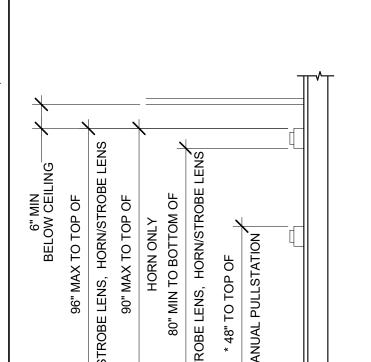
LOCATION FOR PERPENDICULAR APPROACH

25" MAX FOR SIDE APPROACH OVER OBSTRUCTION

\* SEE DETAIL 2/M0.2

THE KNEE/TOE SPACE MUST EXTEND TO THE SAME DEPTH AS THE ACCESSIBLE OUTLET/SWITCH LOCATED ABOVE- 25" MAX 11.B308.2.2

### MOUTING ELEV



FIRE ALARM MOUNTING HEIGHTS

1. PROVIDE MIN 30"x48" CLR FLOOR SPACE FOR PERPENDICULAR APPROACH AT EACH LOCATION.

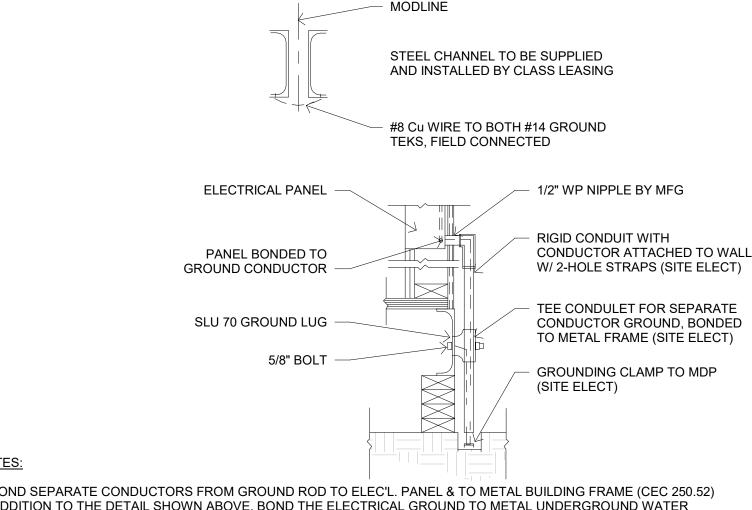
2. THE SWITCH OR SWITCHES INSTALLED IN EMERGENCY LIGHTING CIRCUITS SHALL BE SO ARRANGED THAT ONLY AUTHORIZED PERSONNEL WILL HAVE CONTROL OF EMERGENCY LIGHTING. (CEC art. 700.20)

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



1. 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)

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

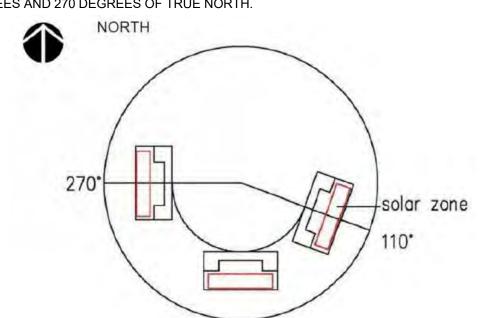
REFER TO DSA IR 16-8 & STATE FIRE MARSHAL SOLAR PHOTOVOLTAIC INSTALLATION GUIDELINE

REFER TO SECTION 110.10 - MANDATORY REQUIREMENTS FOR SOLAR READY BUILDINGS SOLAR ZONE AREAS WILL VARY DEPENDING ON PC BUILDING LOCATION.

### MINIMUM AREA:

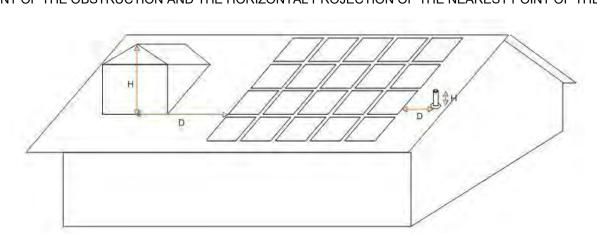
15% OF ROOF AREA (EXCLUDING ANY SKYLIGHT AREA) TO BE RESERVED FOR SOLAR PANEL APPLICATION OR SOLAR READY WILL BE SUPPLIED FROM A BUILDING OR STRUCTURE WITHIN 250 FT OF PC BUILDING.

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 GROUND FAULT CIRCUIT INTERRUPT RECEPTACLE WITHIN 6'-0" OF ALL SINKS

> EXTERIOR WEATHER PROOF GFI RECEPTACLE AT +24" AFF 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



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 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 &

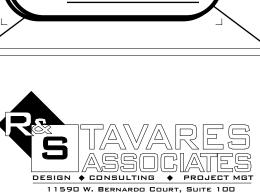
SIZE OF CONDUCTORS SHALL COMPLY WITH CEC TABLE 250.66

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

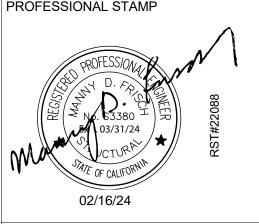
**ELECTRICAL GENERAL NOTES** 

ROJECT SPECIFIC STATE AGENCY APPROVAL **IDENTIFICATION STAMP** DIV. OF THE STATE ARCHITEC APP: 02-122792 INC: **REVIEWED FOR** SS 🗹 FLS 🗹 ACS 🗹 12/4/2024



SAN DIEGO, CA 92127

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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

A separate project application for construction is required

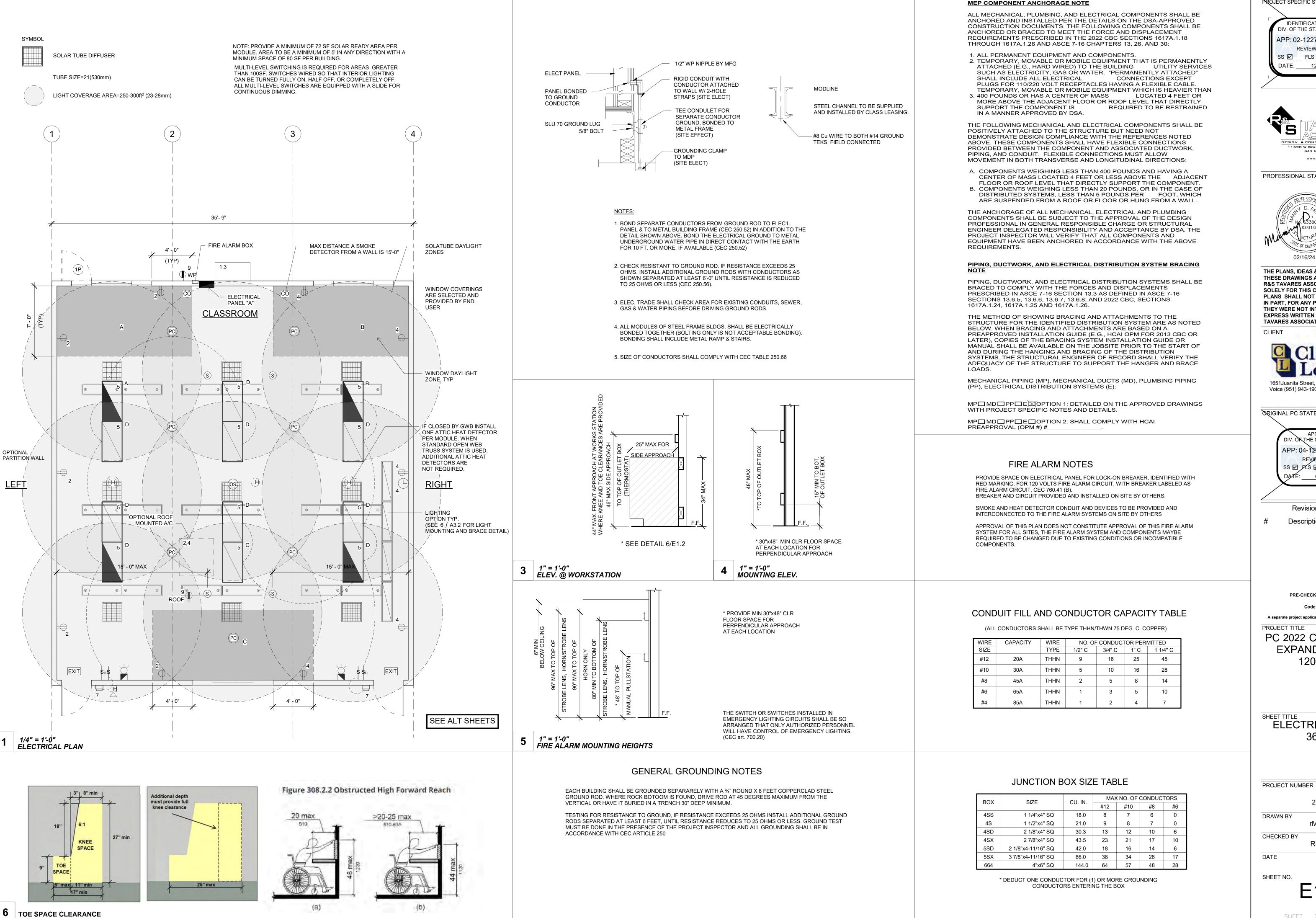
PROJECT TITLE PC 2022 CBC: 24' x 40' **EXPANDABLE TO** 120' x 40'

**ELECTRICAL GENERAL NOTES** 

PROJECT NUMBER 22088

DATE

CHECKED BY



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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

T TOOLOT TOOK	<i>5</i> L1 (
	22088
DRAWN BY	rMc/SC
CHECKED BY	RH/RT

PANEL A= 100A	120/20	08 VOLTS, 1	φ, 3 W	/IRE		MA	AIN LU	JGS ONLY			
FANLE A- 100A	LOADCENTER RECESSED G							GRD & NEU	GRD & NEUTRAL BARS AMP BUS		
	VOL	TAMPS		100	000	AIC		VC	DLTAMPS		
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	φВ						φА	φВ		
SUBTOTAL	9145	7785						1080	1260	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

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 EXIT 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 ROOF MOUNTED WEATHER PROOF GFI RECEPTACLE

GROUND FAULT CIRCUIT INTERRUPT RECEPTACLE WITHIN 6'-0" OF ALL SINKS

TO BOTTOM OF BOX

EXTERIOR WEATHER PROOF GFI RECEPTACLE AT +24" AFF 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

SINGLE SWITCH WALL OCCUPANCY SENSOR.

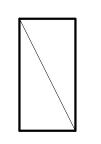
WATTSTOPPER PW-100 OR EQUAL. SENSOR TO BE WS-1 MOUNTED AT +44" AFF AND USE FOR OPEN ROOM (OR RESTROOM) LESS THAN 100 SQ FT W/ (1) CIRCUIT.

BOX, WATTSTOPPER #LMDM-101 OR EQUAL

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.

CEILING MOUNTED PHOTOCELL, WATTSTOPPER #LMLS-500

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



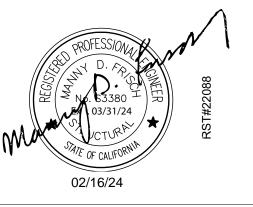
2x4 CEILING LIGHT WITH (3) LED PANELIGHT, LAY-IN LIGHT FIXTURE WITH DIMMABLE BALLAST DIMI LIGHTING-MODEL DM-P72448W-40K-ZZ WATTAGE: 48W (48" LG) OR EQUAL EACH LIGHT FIXTURE WHICH IS INDICATED AS BEING AN EMERGENCY LIGHT SHALL HAVE A BALLAST BATTERY PACK INSTALLED ON THE FIXTURE. THE BATTERY PACK SHALL 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

PROJECT SPECIFIC STATE AGENCY APPROVAL IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 02-122792 INC: **REVIEWED FOR** SS 🗹 FLS 🗹 ACS 🗹 DATE: 12/4/2024



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APPROVED DIV. OF THE STATE ARCHITECT APP: 04-123059 PC REVIEWED FOR SS Z FLS Z ACS Z CG Z DATE: 02/20/2024

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'

**ELECTRICAL** SCHEDULE 36x40

PROJECT NUMBER 22088

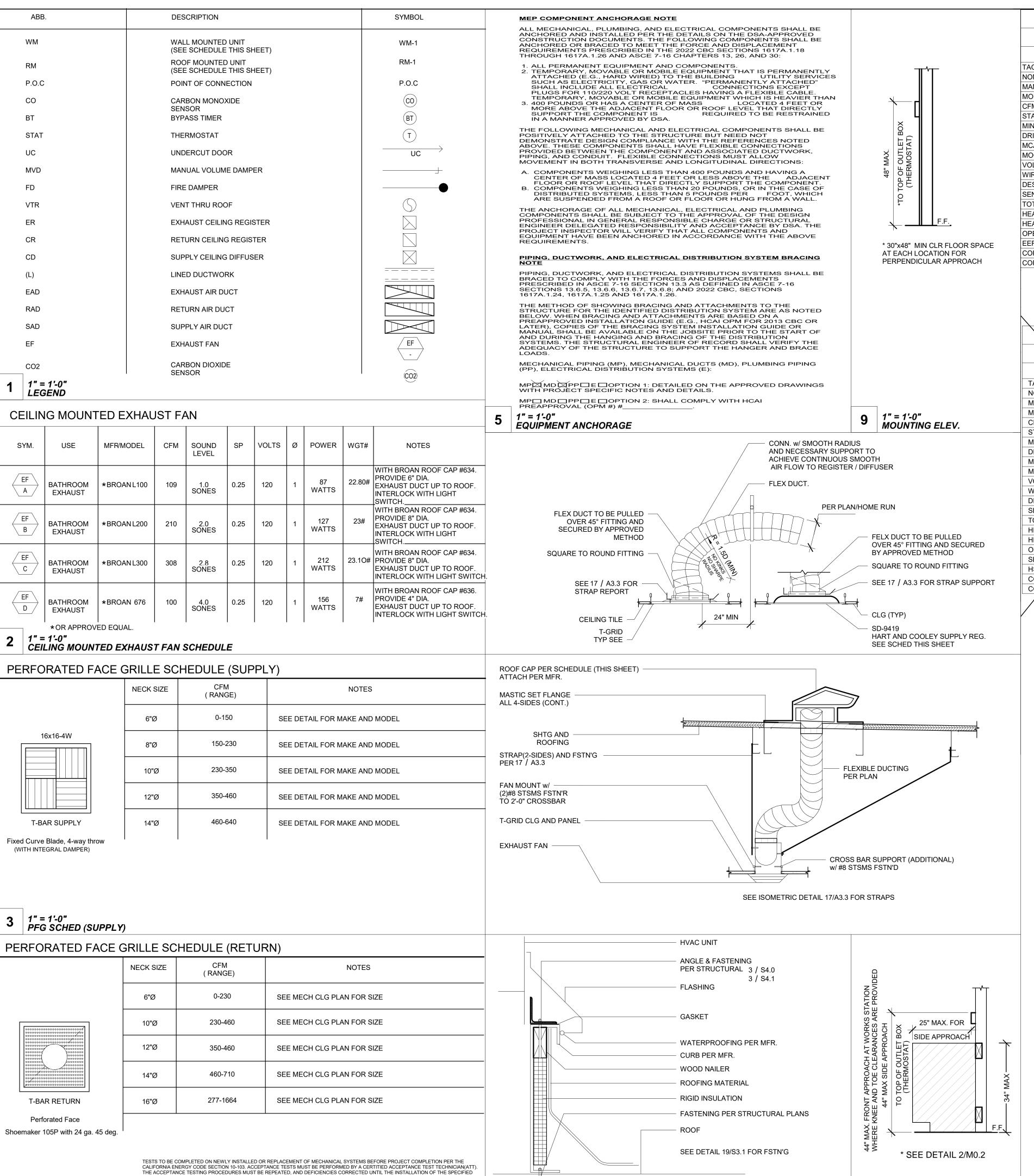
rMc/SC

CHECKED BY RH/RT

DATE

SHEET OF

ELECTRICAL PANEL ROOF MOUNTED



SYSTEMS CONFORM AND PASS THE REQUIRED ACCEPTANCE CRITERIA. COMPLETED NRCA FORMS SHALL BE SUBMITTED TO THE PROJECT

PFG SCHED (RETURN)

# 10.6 EER and 11 EER SINGLE PACKAGE VERTICAL HEAT PUMP SCHEDULE

STANDARD OPTION #I WM-1 WM-1 NOMINAL TONNAGE 3.0 TONS 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 COP @ 47° F 3.30 COP @ 17° F 2.00

	14 SEER	
SINGLE PACKAGE	E ROOF TOP HEAT	PUMP SOHEDULE
	STANDARD	OPTION #I
AG \	RM-1	RM-1
OMINAL TONNASE	3.0 TONS /	4 TONS
ANUFACTURER	**CARRIER	**CARRIER
ODEL#	50VTC48	50VTC48
FM	1200	1500
TATIC PRESSURE	0.15	0.4
IN OSA	36/5	548
RIVE	<b>BELT</b>	BELT
CA	59	64
OCP /	68	74
OLTAGE /	208/230-1	208/230-1
VIRE SIZE (PWR/GRND)	#6/#10	#4/#8
ESIGN RETURN AIR (DB/WB)	80/67	80/67
ENSIBLE COOLING @⁄95° F	30.500	35.260
OTAL COOLING @ 95° F	35.600	49.600
EATING CAP. BTI/H @ 47° F	35.500	45.5000
EATING CAP. ÞTUH @ 17° F	18.400	28,600
PERATING WEIGHT	572#	560#
EER /	14.00	14.00
SPF /	8.1	8.0
OP <b>@</b> 47° F	3.4	3.4
OP @ 47° F OP @ 17° F	2.3	2.4
/		<del>_</del>

This attachment summarizes all the HVAC equipment and controls required for each size modular building.

ATTACHMENT 3: Mechanical Equipment List

Indicate NA for all non-applicable boxes

HVAC SCHEDULE					
		# OF H			
BU	IILDING 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

VAC NOTES
. 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

120.1(D)
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. DUCTS MUST BE PULLED TIGHT WITH A MAXIMUM SAG OF ½" PER FOOT OF HORIZONTAL RUN.

BEND/RADIUS EQUAL TO THE DUCT DIAMETER OR GREATER.

DUCT SHALL NOT BE KINKED OR CRUSHED.

10 | 1" = 1'-0" | ELEV. @ WORKSTATION

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 915.5.

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

GENERAL NOTE:
UTLILITIES THAT SPAN BETWEEN UNITS OR ACROSS SEISMIC SEPARATION
JOINTS MUST BE DESIGNED WITH A FLEXIBLE CONNECTION THAT CAN

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT

APP: 02-122792 INC:

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DATE: 12/4/2024



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APP: 04-123059 PC

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SS PLS ACS CG D

DATE: 02/20/2024

Revision Schedule

Description

PRE-CHECK (PC) DOCUMENT

-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 rMc/SC

DATE

SHEET NO.

SHEET OF

M0.1

RH/RT

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.

THERMOSTAT SHALL BE PROGRAMED WITH EXPECTED OCCUPIED

FOR ROOF MOUNTED HVAC UNITS A GASKET SHALL BE PLACED

AND MASTIC SHALL BE USED TO SEAL THE DUCTS TO THE CURB.

FLEXIBLE AIR DUCTS AND CONNECTORS SHALL BE NOT MORE

THAN 5 FEET IN LENGTH AND SHALL NOT BE USED IN LIEU OF RIGID

DUCT INSTALLATION AND PLENUMS SHALL MEET THE REQUIREMENTS

HORIZONTAL FLEX DUCT SHALL BE SUPPORTED AT A MAXIMUM 4 FT

ELBOWS OR FITTINGS. FLEXIBLE AIR DUCTS SHALL BE PERMITTED

TO BE USED AS AN ELBOW AT A TERMINAL DEVICE PER ENERGY

OF ENERGY CODE SECTION 120.4 AND THE MANUFACTURERS

INTERVALS, WITH HANGING STRAPS A MINIMUM 1 1/2 IN. WIDE.

DUCTS MUST BE PULLED TIGHT WITH A MAXIMUM SAG OF 1/2" PER

WITH THE HVAC UNIT.

INSTALLATION INSTRUCTIONS.

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.

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

THE SUPPLY AND RETURN DUCTS SHALL BE THE SAME SIZE AND ALIGN

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

AT THE TIME OF ROUGH INSTALLATION, DURING IN THE FACTORY

#### 1/4" = 1'-0" **MECHANICAL NOTES**

Indicate NA for all non-applicable boxes.

ATTACHMENT 3: Mechanical Equipment List

LIST OF MECHANICAL EQUIPMENT Any substitutions of equipment made to the approved PC must be equal or better than the equipment listed below Modular size and equipment type 4.0 TON Responsible for 5.0 TON 3 TON WM HVAC WM HVAC WM HVAC programing/commissioning builder or HVAC contractor) HVAC Equipment BARD BARD BARD W36 W46HC-A W60H1 HB 38,500 51,000 45,500 55,500 40,000 1/3-825-2 1/3-825-2 1/3-825-2 24"-2900 24"-3700 24"-2900 PER TITLE PER TITLE PER TITLE

This attachment summarizes all the HVAC equipment and controls required for each size modular building.

Make and Model BTUH Heating Cooling Indoor/Blower Fan BHP/HP CFM @ at ? inch WC Strip Heating Maximum allowed or Not Allowed if not modeled Minimum allowed SEER, EER, 14, 11, 3.40, 3 NA 14, 11, 3.40, 3 14, 11, 3.30 ,3 HSPF and/or COP, and Phase Thermostat (Responsible Person) #8403-061 #8403-061 #8403-061 Make and Model Required Acceptance Test Setback – § 110.2(c) NRCA-MCH-03-A C48H1 C60H1 C42H1 Heat Pumps - § 110.2(b) Shut-off and Reset Responsible Person) STANDARD STANDARD **STANDARD** Make and Model Required Acceptance Test BUILT-IN BUILT-IN BUILT-IN NRCA-MCH-03-A Occupancy Sensor or 4 hr override – § 120.2(e) Responsible Person) ECON-NC5 ECON-NC5 ECON-NC5 Required Acceptance Test Equipment NRCA-MCH-02-A and 05-A Make and Model – § 140.4(e) Economizer Responsible Person) ECON-WD5 ECON-WD5 ECON-WD5 Required Acceptance Test Make and Model - § 140.4(e) NRCA-MCH-02-A and 05-A Responsible Person) ECON-DB5 ECON-DB5 ECON-DB5 Fault Detection Software Required Acceptance Test Make and Model - § 120.2(i) NRCA-MCH-12-A or 13-A Outside Air (Responsible Person) PER TITLE PER TITLE PER TITLE Required Acceptance Test In CFM - § 120.1(c)3 NRCA-MCH-02-A Responsible Person) Ventilation Kit N/A N/A If economizer is not installed Required Acceptance Test specify Make and Model. NRCA-MCH-02-A **Demand Control Ventilation** (esponsible Person PER BARD PER BARD PER BARD Required Acceptance Test Co2 Sensor with ppm display SPECIFICAIONS | SPECIFICAIONS SPECIFICAIONS NRCA-MCH-06-A Make and Model - §120.1(d)4 Minimum Designed Outside Air in Responsible Person) PER TITLE CFM - § 120.1(c)3 Required Acceptance Test NRCA-MCH-02-A Demand Shed Thermostat (Responsible Person) Make Model Required Acceptance Test NRCA-MCH-11-A If DDC to the zone § 120.2(h)

NOTE: SEE M0.1 AND CUT SHEETS FOR ADDITIONAL EQUIPMENT OPTIONS

# 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 bringing on second heat contactor, if so equipped. 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.

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.

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.

The second option has no "Auto" changeover position, but

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™ 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

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.

cooling operation or can be energized by manual fan

**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.

### TABLE 140.4-E AIR ECONOMIZER HIGH LIMIT SHUT OFF CONTROL REQUIREMENTS Required High Limit (Economizer Off When):

	l Climate l	i i i i i i i i i i i i i i i i i i i	int (2001101111201 011 11111011)
Device Type <sup>a</sup>	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 Bulb	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
_			

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 CONTRACTOR TO THE TEMPERATURE IN TABLE 140.4-E

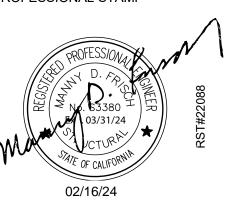
PC DESIGN REVIEW INFORMATION

		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Wall Mounted A/C			
Climate Zone 1	4 (Palmdale)					
	- (					
Azimuth (Front Orientation)		Standard Design	Proposed Design	Margin	Margin %	W
	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%	<u> </u>
	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%	<del>                                     </del>
	SOURCE	36.01	30.64	5.37	14.9125%	
165°	TDV-E TDV-T	366.46 366.46	297.42 297.42	69.04 69.04	18.8397% 18.8397%	<del>                                     </del>
	SOURCE	36.22	30.64	5.58	15.4059%	┢
0	TDV-E	366.40	297.14	69.26	18.9028%	
210°	TDV-T SOURCE	366.40 36.24	297.14 30.65	69.26 5.59	18.9028% 15.4249%	<u> </u>
	TDV-E	358.72	295.30	63.42	17.6795%	**
255°	TDV-T	358.72	295.30	63.42	17.6795%	**
	SOURCE TDV-E	35.63 363.47	30.56 296.44	5.07 67.03	14.2296%	**
300°	TDV-E	363.47	296.44 296.44	67.03	18.4417% 18.4417%	$\vdash$
	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%	<u> </u>
545	SOURCE	366.46	30.64	5.58	15.4059%	$\vdash$
Climate Zone 15	(Palm Springs)					_
(Front Orientation)		Standard Design	Proposed Design	Margin	Margin %	W
30°	TDV-E TDV-T	378.51 378.51	303.65 303.65	74.86 74.86	19.7775% 19.7775%	$\vdash$
	SOURCE	33.26	26.66	6.60	19.8437%	t
	TDV-E	369.92	301.77	68.15	18.4229%	**
75°	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%	$\vdash$
120°	TDV-T	370.43	302.74	67.69	18.2734%	
	SOURCE TDV-E	32.71	26.64	6.07 74.99	18.5570%	
165°	TDV-E	378.42 378.42	303.43 303.43	74.99	19.8166% 19.8166%	<del>                                     </del>
	SOURCE	33.23	26.65	6.58	19.8014%	
210°	TDV-E	378.51	303.65	74.86	19.7775%	
210	TDV-T SOURCE	378.51 33.26	303.65 26.66	74.86 6.60	19.7775% 19.8437%	<del>                                     </del>
	TDV-E	369.92	301.77	68.15	18.4229%	**
255°	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%	4
300°	TDV-T	370.43	302.74	67.69	18.2734%	
	SOURCE TDV-E	32.71 378.42	26.64 303.43	6.07 74.99	18.5570% 19.8166%	<u> </u>
345°	TDV-E	378.42	303.43	74.99	19.8166%	
	SOURCE	33.23	26.65	6.58	19.8014%	
Climate Zone 16	(Blue Canyon)	1				
Azimuth (Front Orientation)		Standard Design	Proposed Design	Margin	Margin %	Wo
30°	TDV-E	307.24	278.52	28.72	9.3477%	**
30-	TDV-T SOURCE	307.24 54.83	278.52 41.05	28.72 13.78	9.3477% 25.1322%	**
	TDV-E	341.77	272.69	69.08	20.2124%	_
75°	TDV-T	341.77	272.69	69.08	20.2124%	
	SOURCE	65.39	40.97	24.42	37.3452%	<u> </u>
120°	TDV-E TDV-T	307.35 307.35	273.40 273.40	33.95 33.95	11.0460% 11.0460%	<u> </u>
120	SOURCE	54.88	41.01	13.87	25.2733%	
	TDV-E	309.02	273.26	35.76	11.5721%	
165°	TDV-T	309.02	273.26	35.76	11.5721%	
	SOURCE	54.91	41.02	13.89	25.2959%	<u> </u>
210°	TDV-E TDV-T	307.24 307.24	273.52 273.52	33.72 33.72	10.9751% 10.9751%	<u> </u>
	SOURCE	54.83	41.05	13.78	25.1322%	
	TDV-E	341.77	272.69	69.08	20.2124%	
255°	TDV-T	341.77	272.69	69.08	20.2124%	$ldsymbol{oxed}$
	SOURCE	65.39	40.97 273.40	24.42 33.95	37.3452%	<u> </u>
300°	TDV-E TDV-T	307.35 307.35	273.40	33.95	11.0460% 11.0460%	<del>                                     </del>
	SOURCE	54.88	41.01	13.87	25.2733%	t
	TDV-E	309.02	273.26	35.76	11.5721%	_
345°	TDV-T	309.02	273.26	35.76	11.5721%	
	SOURCE	54.91	41.02	13.89	25.2959%	

ROJECT SPECIFIC STATE AGENCY APPROVAL **IDENTIFICATION STAMP** DIV. OF THE STATE ARCHITEC APP: 02-122792 INC: **REVIEWED FOR** SS 🗹 FLS 🗹 ACS 🗹 12/4/2024

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

PROFESSIONAL STAMP



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ORIGINAL PC STATE AGENCY APPROVAL APPROVED DIV. OF THE STATE ARCHITEC APP: 04-1230*5*9 PC SS / FLS / 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'

PROJECT TITLE

MISCELLANEOUS **NOTES & DETAILS** 

PROJECT NUMBER 22088 DRAWN BY Author

CHECKED BY Checker DATE

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.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	(Page 2 of 17)

Table B shows which building components are included in the performance calculation. If indicated as not included, the project must show compliance prescriptively if within the

В	Building Components Complying via Performance						scriptively	
Envelope (See Table C)	Nonres	Performance	Solar Thermal Water		Performance	The following building components are ONLY eligible for		
Envelope (See Table G)	MultiFam	Not Included	Heating (See Table I3)	$\boxtimes$	Not Included	and should be documented on the NRCC form listed if v permit application (i.e. compliance will not be shown		
Machanical (See Table II)	Nonres	Performance	Covered Process: Commercial Kitchens (see Table J)		Performance	Indoor Lighting (Unconditioned) 140.6 & 170.2(e)	NRCC-LTI-E is required	
Mechanical (See Table H)	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 1)	MultiFam	Not Included	Table J)	$\boxtimes$	Not Included	Building Components Complying with Mandatory 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 apliance will not be	
	MultiFam	Not Included		$\boxtimes$	Not Included	Electrical Power Distribution 110.11	NRCC-ELC-E is required	
			Pattory (soo Table E)		Performance	Commissioning 120.8	NRCC-CXR-E is required	
			Battery (see Table F)		Not Included	Solar and Battery 110.10	NRCC-SAB-E is required	

Report Version: 2022.0.000 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Schema Version: rev 20220601

C4. SOURCE ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual SOURCE Energy Use, kBtu/ft²/yr)

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

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Compliance ID: EnergyPro-4958-0723-0144

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PRF-E
Nonresidential Performance Compliance Method	(Page 6 of 17)

Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (S	
	2.72			
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%)	

Report Version: 2022.0.000

Schema Version: rev 20220601

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NRCC-PRF-E

Compliance ID: EnergyPro-4958-0723-0144

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)	Total <sup>2</sup> (kBtu/ft <sup>2</sup> - 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				

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220601

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

☐ This project is pursuing CalGreen Tier 1

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				

<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: 2023-07-25 10:52:04 Schema Version: rev 20220601 Compliance ID: EnergyPro-4958-0723-0144

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)	35.62	30.56	5.06 (14.2%)
Notes: This table is not used for Energy Code Compliance.		•	

☐ This project is pursuing CalGreen Tier 2

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CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E **Nonresidential Performance Compliance Method** (Page 1 of 17) 24X40 (PC 04-121369) - Wall AC | Date Prepared: 2023-07-25 **Project Name:** 

А. С	A. General Information								
1	Project Name	24X40 (PC 04-121369) - Wall AC							
2	Run Title	Title 24 Analysis	24 Analysis						
3	Project Location	Climate Zone 14							
4	City	Palmdale	5	Standards Version	Compliance 2022				
6	Zip code	99999		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				
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

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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) <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			63.41 (17.7%)	
EFFICIENCY COMPLIANCE TOTAL	358.72	295.31		
Photovoltaics				
Batteries				
TOTAL COMPLIANCE	358.72	295.31	63.41 (17.7%)	

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

Standard Design Site

(MWh)

0.8

2.3

5.2

---2

1.2

11.5

11.5

2.5

---

---

nresidential Performance Compliance Method

**C7. ENERGY USE SUMMARY** 

Space Heating

Space Cooling

Domestic Hot Water

Indoor Lighting

EFFICIENCY TOTAL

**ENERGY USE SUBTOTAL** 

Photovoltaics

Batteries

Receptacle

Other Ltg

Process Motors

ENERGY USE TOTAL

Process

Flexibility

Indoor Fans **Heat Rejection** Pumps & Misc.

Energy Component

Report Version: 2022.0.000 Schema Version: rev 20220601

Margin (MWh)

-0.5

2.4

0.4

2.3

2.3

0

2.3

Standard Design Site

**Proposed Design Site** 

2.3

2.8

0.8

9.2

9.2

2.5

11.7

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NRCC-PRF-E

(Page 8 of 17)

Margin (MBtu)

0

0

---

---

---

Proposed Design Site

(MBtu)

**CODE: 2019 CBC** 

Description

A separate project application for construction is required

PRE-CHECK (PC) DOCUMENT

ROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP

DIV. OF THE STATE ARCHITECT

REVIEWED FOR

SS 🗹 FLS 🗹 ACS 🗹

12/4/2024

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

THE PLANS, IDEAS & DESIGNS SHOWN ON

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THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S

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

TAVARES ASSOCIATES, INC. ©

PROFESSIONAL STAMP

APP: 02-122792 INC:

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

24'x40' T24 CZ 14

PROJECT NUMBER 22088 DRAWN BY rMc/SC CHECKED BY RH/RT

DATE 06/15/2021

SHEET OF

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

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0 Report Generated: 2023-07-25 10:52:04 Compliance ID: EnergyPro-4958-0723-0144

C8. ENERGY USE INTENSITY (EUI)									
	Standard Design (kBtu/ft² / 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	49.76 41.58 8.18							
<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.

01 02 03						
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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CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD	NRCC-PR
Nonresidential Performance Compliance Method	(Page 12 of
H3. NONRESIDENTIAL / COMMON USE AREA FAN SYSTEMS SUMMARY	

H3. NONRESIDENTIAL / COMMON USE AREA FAN SYSTEMS SUMMARY												
01	02	03	04	05	06	07	08	09	10	11	12	13
Name or Item Tag	Qty	Qty Design OA CFM	Supply Fan			Return / Relief Fan					6 1	
			CFM	Power	Power Units	Control	Fan Type	CFM	Power	Power Units	Control	Status <sup>1</sup>
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												

### H8. SYSTEM SPECIAL FEATURES

01	02	03	Other Special Features and Controls  Zone(s) With CO2 Sensor Vent. Control Fixed DB			
System Name	Equipment Type	Interlocks per 140.4(n) <sup>1</sup>				
AC-1	Single Package VHP Air System	No				
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						

 $^{1}$  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	Manatilasia a Faransia a	Mechanical	Conditioned Area (sf)	DCV or Occupant Sensor Controls, or Both		
l		Ventilation Function	# of People	Supply OA CFM	Exhaust CFM		controls, or both
	1-First Floor	Education - Classrooms (ages 9-18)	24	364.8	0	960	DCV

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NRCA-MCH-05-A - Air Economizer Controls

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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	

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
Indoor Lighting	NRCI-LTI-E - Indoor Lighting (for all buildings)
M. DECLARATION OF REQUIRED (	ERTIFICATES OF ACCEPTANCE
	n Author indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided nstruction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP).
Building Component	Form/Title
Envelope	NRCA-ENV-02-F - NRFC label verification for fenestration

NRCA-LTI-02-A - Occupancy Sensors and Automatic Time Switch Controls.

MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap

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.

Indoor Lighting

Mechanical

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

Report Generated: 2023-07-25 10:52:04 Report Version: 2022.0.000 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Schema Version: rev 20220601 Compliance ID: EnergyPro-4958-0723-0144 CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E (Page 10 of 17) Nonresidential Performance Compliance Method

G4. NONRESIDE	NTIAL AIR BARRIER					,						
		01					02					
		<b>Building Sto</b>	ry Name						Air Barrier			
	Com-Floor 1 No air barrier							No air barrier				
GE OPAQUE SUE	RFACE ASSEMBLY S	LINANAARY										
01	02	03	04	05	1 0	06	07	08	09	10		
Surface Name	Construction	A (f+2)	Framing	Cavity	Continuo	us R-Value	Units	Value	Description of Assembly Layers	Status <sup>1</sup>		
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	Wood siding - 1/2 in. Vapor permeable felt - 1/8 in. 0.0605 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		
<sup>1</sup> Status: N - Nev	v, A - Altered, E -	 Existing	•	•	•	•		•	•			

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000

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Compliance ID: EnergyPro-4958-0723-0144

Nonresidential Performance	Compliance Method									(Page 1	3 of 17)
H11. ZONAL SYSTEM AND TERM	IINAL UNIT SUMMARY			,							
01 02 03 04 05 06 07 08 09 10 11 1										12	
			Rated Capa	city (kBtuh)		Airflow (cfm)			Fan		
System ID	System Type	Qty	Heating	Cooling	Design	MIn.	Min. Ratio	Power	Power Units	Cycles	VSD

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 Footno (Watts)
Classroom, Lecture, or Training Vocational	960	384	0	0	0
Building Totals:	960	384	0	0	0

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

<sup>3</sup>Lighting information for existing spaces modeled is not included in this table

**Nonresidential Performance Compliance Method** 

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

1. I cer	tify that this Certificate of Compliance documentation is accurate a	nd complete.
Docum	entation Author Name: LAL B. SAHGAL	Documentation Author Signature:
Compa	ny: LSA CONSULTING ENGINEERS	Signature Date:
Addres	s: 83, WINDSWEPT WAY	CEA/HERS Certification Identification (if applicable): M26885
City/St	ate/Zip: MISSION VIEJO, CA 92692	Phone: (949) 830-4746
Respor	sible Person's Declaration statement	
I certif	y the following under penalty of perjury, under the laws of the State	
1.	The information provided on this Certificate of Compliance is true	
2.	I am eligible under Division 3 of the Business and Professions Code Compliance (responsible designer)	e to accept responsibility for the building design or system design identified on this Certificate of
3.	The energy features and performance specifications, materials, co Certificate of Compliance conform to the requirements of Title 24,	mponents, and manufactured devices for the building design or system design identified on this Part 1 and Part 6 of the California Code of Regulations.
4.		n this Certificate of Compliance are consistent with the information provided on other applicable ications submitted to the enforcement agency for approval with this building permit application.
5.	I understand that a registered copy of this Certificate of Compliance	e shall be made available with the building permit(s) issued for the building, and made available to

Responsible Designer Name:	Responsible Designer Signa	ture:			
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 Signa	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:			

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Compliance ID: EnergyPro-4958-0723-0144 Schema Version: rev 20220601

the enforcement agency for all applicable inspections, and I will take the necessary steps to accomplish this requirement.

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE		NRCC-PRF-E					
Nonresidential Performance Compliance Method	onresidential Performance Compliance Method						
Responsible Designer Name: Lal Sahgal	Responsible Designer Signatu	re:					
Company: LSA Consulting Engineers							
Address: 83, Windswept Way	Date Signed:						
City/State/Zip: Mission Viejo, Ca. 92692	License #: M26885	License #: M26885					
Phone:	Title:	Scope:					

Schema Version: rev 20220601

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	State
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

S-1-First Floor

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
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

**Training Vocational** 

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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 uminaire Schedule (includes all permanent installed lighting in conditioned space, and portable lighting over 0.3 w/f ${
m t}^2$  in offices)

01 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

<sup>1</sup>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)

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

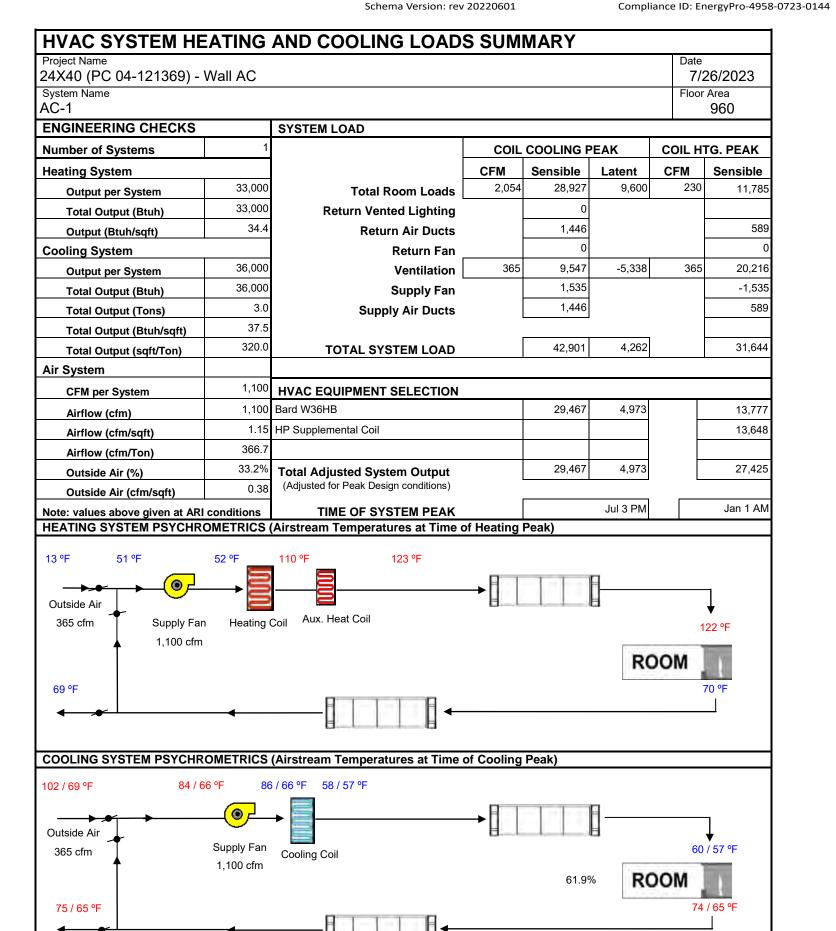
N/A

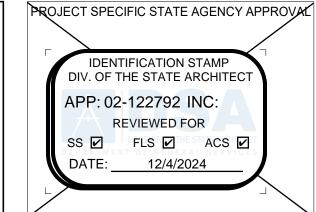
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000

N/A

Report Generated: 2023-07-25 10:52:04

Lighting Control Credits (Conditioned) Total (Watts)





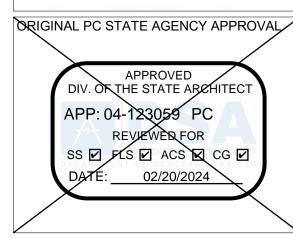


PROFESSIONAL STAMP



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



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 COMPLIANC	ERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD  NRCC-PRI											
Nonresidential Performance	Compliance I	Method					(Page 2 of 17)					
B. PROJECT SUMMARY												
Table B shows which building of permit application.	components a	re included in the	performance calculation. I	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 and should be documented on the NRCC form listed if w						
Lilvelope (See Table d)	MultiFam	Not Included	Heating (See Table I3)		Not Included	permit application (i.e. compliance will not be shown on the NRCC-						
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					
Wiechanical (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		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.)	uld be documented pliance will not be					
	MultiFam	Not Included		×	Not Included	Electrical Power Distribution 110.11	NRCC-ELC-E is required					

Not Included

Battery (see Table F)

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220601

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Commissioning 120.8

Solar and Battery 110.10

NRCC-CXR-E is

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					
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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CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Nonresidential Performance Compliance Method

onresidential Performance Compliance Method

☐ This project is pursuing CalGreen Tier 1

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

leating and Cooling Loads Summary	2

C1. COMPLIANCE SUMMARY					
	COMPLIES <sup>3</sup>				
	Time Dependent	Time Dependent Valuaton (TDV)			
	Efficiency¹ (kBtu/ft² - yr)	Total² (kBtu/ft² - yr)	Total² (kBtu/ft² - 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		

<sup>3</sup> Building complies when efficiency and total compliance margins are greater than or equal to zero and unmet load hour limits are not exceeded

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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%)	

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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%)				
Notes: This table is not used for Energy Code Compliance.							

☐ This project is pursuing CalGreen Tier 2

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	Schema Version: rev 20220601	Compliance ID: EnergyPro-4958-0723-0

CER	ERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD							
Nor	onresidential Performance Compliance Method							
Pro	ject Name:		24X40 (PC (	04-121369) - Wall AC	Date Pre	pared:	2023-07-2	
A. G	eneral Information							
1	Project Name	24X40 (PC 04-121369) - Wall AC						
2	Run Title	Title 24 Analysis						
3	3 Project Location Climate Zone 15							
4	City	Palm Springs	5	Standards Version		Compliance 2022		
6	Zip code	99999	7	Compliance Software	e (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/mote	el rooms	0		
16	Total Unconditioned Floor Area (ft²)	0	17	Fuel Type		Natural gas		
18	Nonresidential Conditioned Floor Area	960	19	Total # of Stories (Ha Above Grade)	bitable	1		

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Residential Conditioned Floor

NRCC-PRF-E

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CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E (Page 4 of 17) Nonresidential Performance Compliance Method

	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%)	

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CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E 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	0.1	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			

Compliance ID: EnergyPro-4958-0723-0145 Schema Version: rev 20220601

PROJECT SPECIFIC STATE AGENCY APPROVAL IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 02-122792 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 12/4/2024

DESIGN ♦ CONSULTING ♦ PROJECT MGT SAN DIEGO, CA 92127 PHONE: (858) 444-3344 WWW.RSTAVARES.COM

PROFESSIONAL STAMP



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

> Revision Schedule Description

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

24'x40' T24 CZ 15

PROJECT NUMBER 22088

rMc/CG CHECKED BY RH/RT

DATE 06/15/2021

SHEET NO.

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Schema Version: rev 20220601

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10:57:22 723-0145

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 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> / yr) GROSS EUI<sup>1</sup> 43.01 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) 02 04 01 03 Opaque Surfaces & Orientation Window to Wall Ratio (%) 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), <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),

4West-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), Report Generated: 2023-07-25 10:57:22 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000

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	Nonresidential Performance Compliance Method (Page 12									12 of 17)			
	H3. NONRESIDENTIAL / COMMON USE AREA FAN SYSTEMS SUMMARY												
	01	02	03	04	05	06	07	08	09	10	11	12	13
	Name or Item Tag (	04	Design OA	gn OA Supply Fan Return / Relief Fan			Supply Fan				C4-41		
		Qty	CFM	CFM	Power	Power Units	Control	Fan Type	CFM	Power	Power Units	Control	Status <sup>1</sup>
	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. Control Fixed DB
Notes: This table includes controls related to the	performance path only. For projects using the pre-	scriptive path, mandatory and prescriptive control	ls 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								
	01	02 03 04 05			06	07		
	Zone Name		Mechanical	Conditioned Area (sf)	DCV or Occupant Sensor			
l	Zone Name	Ventilation Function	# of People	Supply OA CFM	Exhaust CFM	Conditioned Area (31)	Controls, or Both	
	1-First Floor	Education - Classrooms (ages 9-18)	24	364.8	0	960	DCV	

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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 Mechanical NRCI-MCH-01-E - Must be submitted for all buildings 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). 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 ventilation (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

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 Surface Name Type R-Value Exterior ood siding - 1/2 in. apor permeable felt - 1/8 in. R-19 Wood N/A xterior Wall 1,280 Wood 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 xterior Floo Plywood - 1/2 in. Crawlspa14 arpet - 3/4 in. Standing Seam Metal Standing Seam - 1/16 in. Roof 960 N/A N/A N/A R-38 Metal16

Report Version: 2022.0.000 CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Generated: 2023-07-25 10:57:22 Compliance ID: EnergyPro-4958-0723-0145 Schema Version: rev 20220601 CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E **Nonresidential Performance Compliance Method** (Page 13 of 17)

H11. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY											
01	02	03	04	05	06	07	08	09	10	11	12
System ID	System Type	Qty	Rated Capacity (kBtuh)		Airflow (cfm)			Fan			
			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 LIGHTING GENERAL INFO

<sup>1</sup> Status: N - New, A - Altered, E - Existing

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 existin	ned spaces g spaces modeled is not included	in this table				

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

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Compliance ID: EnergyPro-4958-0723-0145

NRCC-PRF-E

CERTIFICATE OF COMPLIANCE - NONE	RESIDENTIAL PERFORMANCE COMPLIANCE ME	IHOD	NRCC-PRF-E		
Nonresidential Performance Complia	nce Method		(Page 16 of 17)		
Documentation Author's Declaration St	tatement				
1. I certify that this Certificate of Comp	oliance documentation is accurate and comple	te.			
Documentation Author Name: LAL B. SA	AHGAL	Documentation Author Signature:			
Company: LSA CONSULTING ENGINEERS	<u> </u>	Signature Date:			
Address: 83, WINDSWEPT WAY		CEA/HERS Certification Identification (if applicable): M26885			
City/State/Zip: MISSION VIEJO, CA 9269	)2	Phone: (949) 830-4746			
Responsible Person's Declaration state	ment	•			
I certify the following under penalty of	perjury, under the laws of the State of Califor	nia:			
<ol> <li>I am eligible under Division 3 Compliance (responsible designations)</li> <li>The energy features and performance comments</li> <li>The building design features or compliance documents, works</li> <li>I understand that a registered the enforcement agency for a</li> <li>I understand that a registered occupancy, and I will take the</li> </ol>	this Certificate of Compliance is true and correct of the Business and Professions Code to accept gner) ormance specifications, materials, components, form to the requirements of Title 24, Part 1 and or system design features identified on this Cert sheets, calculations, plans and specifications sulcopy of this Certificate of Compliance shall be applicable inspections, and I will take the necell copy of this Certificate of Compliance is requirements.	responsibility for the building design or system and manufactured devices for the building ded Part 6 of the California Code of Regulations. ificate of Compliance are consistent with the in bmitted to the enforcement agency for appromade available with the building permit(s) issuessary steps to accomplish this requirement. ed to be included with the documentation the conts.	esign or system design identified on this information provided on other applicable wal with this building permit application. used for the building, and made available to		
Responsible Designer Name:		Responsible Designer Signature:			
Company: R & S Tavares Associates					
Address: 11590 W. Bernardo Court, Suit	te 100	Date Signed:			
City/State/Zip: San Diego, Ca. 92127		License #:			
Phone:		Title:	Scope:		
Responsible Designer Name:		Responsible Designer Signature:			
Company: R & S Tavares Associates					
Address: 11590 W. Bernardo Court, Suit	te 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

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

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	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

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 Status: N - New, A - Altered, E - Existing

01	02	03	04	05	06	07	08	09	10	11	12
				Heating			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>2</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

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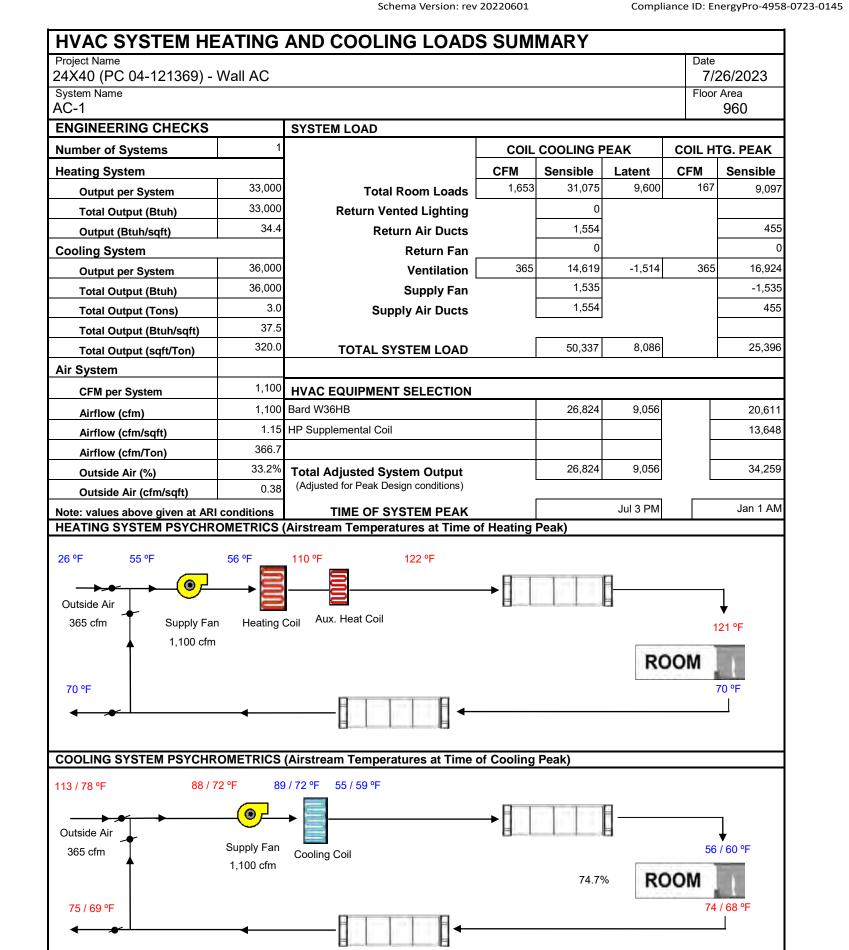
CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E Nonresidential Performance Compliance Method (Page 14 of 17)

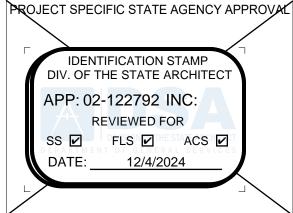
K2. INDOOR CONDITIONED LIGHTING SCHEDULE uminaire Schedule (includes all permanent installed lighting in conditioned space, and portable lighting over 0.3 w/f ${
m t}^2$  in offices) 06 **Complete Luminaire** Installed Watts (Conditioned) Description (i.e. 3-lamp Name or Item Tag fluorescent troffer, F32T8, Installed Watts one dimmable electronic 2x4 LED Panel According to <sup>1</sup>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** meet requirements of Table Area Description 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 384 Training Vocational Lighting Control Credits (Conditioned) Total (Watts)

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	

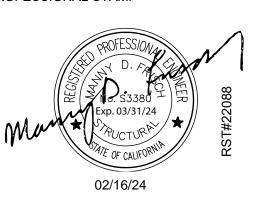
CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 Report Generated: 2023-07-25 10:57:22





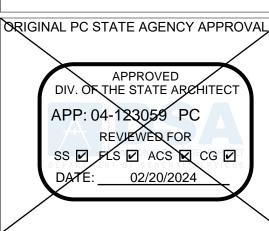


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Revision Schedule Description

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

24'x40' T24 CZ 15 (WALL AC)

PROJECT NUMBER 22088 DRAWN BY rMc/CG CHECKED BY RH/RT DATE

06/15/2021

PROJECT:

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.

CERTIFICATE OF COMPLIANC	E - NONRESIE	ENTIAL PERFOR	MANCE COMPLIANCE METH	HOD	•		NRCC-PRF-	
Nonresidential Performance	Compliance I	Method					(Page 2 of 17	
B. PROJECT SUMMARY								
Table B shows which building opermit application.	components a	re included in the	e performance calculation. Ij	f ina	licated as not inc	luded, the project must show compliance prescri	ptively if within th	
В	uilding Comp	onents Complyir	ng via Performance			Building Components Complying Pre	scriptively	
Envelope (See Table C)	Nonres	Performance	Solar Thermal Water		Performance	The following building components are ONLY eligible for		
Envelope (See Table G)	MultiFam	Not Included	Heating (See Table I3)		Not Included	and should be documented on the NRCC form listed if within the sco permit application (i.e. compliance will not be shown on the NRCC		
Machanical (Can Table II)	Nonres	Performance	Covered Process:		Performance	Indoor Lighting (Unconditioned) 140.6 & 170.2(e)	NRCC-LTI-E is required	
Mechanical (See Table H)	MultiFam	Not Included	Commercial Kitchens (see Table J)	×	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 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.)	uld be documente pliance will not be	
	MultiFam	Not Included		×	Not Included	Electrical Power Distribution 110.11	NRCC-ELC-E is required	
					Performance	Commissioning 120.8	NRCC-CXR-E is required	

Not Included

Battery (see Table F)

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Solar and Battery 110.10

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) <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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Tropic Dystem Freating and Geomig Leads Gammary	20

Nonresidential Performance Compliance Met	hod		(Page 3 of 1		
C1. COMPLIANCE SUMMARY					
	COMPLIES <sup>3</sup>				
	Time Dependent	Time Dependent Valuaton (TDV)			
	Efficiency¹ (kBtu/ft² - 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		

 $^3$  Building complies when efficiency and total compliance margins are greater than or equal to zero and unmet load hour limits are not exceeded

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

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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%)					

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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	54.84 41.05							
<sup>1</sup> Notes: This table is not used for Energy Code Compliance.			•						
CC IADOVE CODEL QUALIFICATIONS									
C6. 'ABOVE CODE' QUALIFICATIONS									
☐ This project is pursuing CalGreen Tier 1	oject is pursuing CalGreen Tier 1								

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000 CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E **Nonresidential Performance Compliance Method** (Page 1 of 17) 24X40 (PC 04-121369) - Wall AC | Date Prepared: 2023-07-26 **Project Name:** 

Α. Θ	A. General Information									
1	Project Name	24X40 (PC 04-121369) - Wall AC	X40 (PC 04-121369) - Wall AC							
2	Run Title	Title 24 Analysis	tle 24 Analysis							
3	Project Location	Climate Zone 16	imate 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								

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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) <sup>1</sup>
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%)

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CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD NRCC-PRF-E Nonresidential Performance Compliance Method (Page 8 of 17)

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	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 ROJECT SPECIFIC STATE AGENCY APPROVAL IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 02-122792 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 12/4/2024

DESIGN ♦ CONSULTING ♦ PROJECT MGT 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. ©



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

DATE 06/15/2021

SHEET OF

SHEET NO.

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NRCC-PRF-E

NRCC-PRF-E

Nonresidential Performance Compliance Method							
C8. ENERGY USE INTENSITY (EUI)							

Co. ENERGY USE INTENSITY (EUI)										
	Standard Design (kBtu/ft² / yr)	Proposed Design (kBtu/ft² / yr)	Margin (kBtu/ft² / yr)	Margin Percentage						
GROSS EUI <sup>1</sup>	67.5	49	18.5	27.41						
NET EUI¹	67.5	49	18.5	27.41						
<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.

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	

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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Nonresidential Performance Compliance Method		(Page 12 of 1

H3. NONRESIDENTIAL / COMMON USE AREA FAN SYSTEMS SUMMARY															
01	02	03	04	05	06	07	08	09	10	11	12	13			
Name or Item Tag	Design OA			Supply Fan			Return / Relief Fan					6 1			
	Qiy	Qty	ag Qty	Qty	Qty	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			

### 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. Control Fixed DB
Notes: This table includes controls related to the NRCC-MCH-F	performance path only. For projects using the pre	scriptive path, mandatory and prescriptive contro	ls requirements are documented on the

### H9. NONRESIDENTIAL / COMMON USE AREA & HOTEL/MOTEL VENTILATION

1 Yes = interlocks are provided, No = interlocks are not provided, NA means no operable openings.

			*				
	01	02	03	04	05	06	07
ſ	Zone Name		Mechanical Ventilation			Conditioned Area (sf)	DCV or Occupant Sensor
L		Ventilation Function	# of People	Supply OA CFM	Exhaust CFM	,	Controls, or Both
ſ	1-First Floor	Education - Classrooms (ages 9-18)	24	364.8	0	960	DCV

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NRCA-ENV-02-F - NRFC label verification for fenestration

NRCA-MCH-05-A - Air Economizer Controls

NRCA-LTI-02-A - Occupancy Sensors and Automatic Time Switch Controls.

MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap

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Nonresidential Performance Compliance Method	(Page 15 of 17)
DECLARATION OF PROJUPED CERTIFICATES OF INSTALLATION	

·	ector 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
Indoor Lighting	NRCI-LTI-E - Indoor Lighting (for all buildings)
I. DECLARATION OF REQUIRED	CERTIFICATES OF ACCEPTANCE
	on Author indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP).
Building Component	Form/Title

# (refer to ) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints.

Envelope

Indoor Lighting

Mechanical

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

NRCA-MCH-06-A Demand Control Ventilation Systems must be submitted for all systems required to employ demand controlled ventilation

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		01							02	
		Building Stor	y Name						Air Barrier	
		Com-Flo	or 1						No air barrier	
G5. OPAQUE SUR	RFACE ASSEMBLY S	UMMARY								
01	02	03	04	05	0	6	07	08	09	10
Surface Name	Construction	A === (f+2)	Framing	Cavity	Continuo	us R-Value	Units	Value	Description of Assembly Layers	Chahus
Surface Name	Туре	Area (ft²)	Туре	R-Value	Interior	Exterior	Oilles	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

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_												
	H11. ZONAL SYSTEM AND TERM	MINAL UNIT SUMMARY										
	01	02	03	04	05	06	07	08	09	10	11	12
				Rated Capa	city (kBtuh)		Airflow (cfm)			Fan	,	
	System ID	System Type	Qty	Heating	Cooling	Design	MIn.	Min. Ratio	Power	Power Units	Cycles	VSD
Г	1 First Floor Trm	Uncontrolled	1	NI/A	NI/A	1 100	NI/A	_	NI/A	NI/A	NI/A	

K1. INDOOR CONDITIONED LIG	HTING GENERAL INFO

Address: 11590 W. Bernardo Court, Suite 100

City/State/Zip: San Diego, Ca. 92127

GA NONRESIDENTIAL AIR BARRIER

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)	
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	ed spaces				
<sup>3</sup> Lighting information for existing	g spaces modeled is not included i	in this table			

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CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE COMPLIANCE METHOD

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Nonre	esidential Performance Compliance Method		(Page 16 of 17)
Docum	entation Author's Declaration Statement		
1. I cei	rtify that this Certificate of Compliance documentation is accura	ate and complete.	
Docum	nentation Author Name: LAL B. SAHGAL	Documentation Author Sign	ature:
Compa	ny: LSA CONSULTING ENGINEERS	Signature Date:	
Addres	ss: 83, WINDSWEPT WAY	CEA/HERS Certification Iden	tification (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	State of California:	
2. 3. 4. 5.	I am eligible under Division 3 of the Business and Professions Compliance (responsible designer) The energy features and performance specifications, materia Certificate of Compliance conform to the requirements of Tit The building design features or system design features identificompliance documents, worksheets, calculations, plans and solutions are understand that a registered copy of this Certificate of Compliance documents agency for all applicable inspections, and I will understand that a registered copy of this Certificate of Compliance, and I will take the necessary steps to accomplish the	Is, components, and manufactured devices for le 24, Part 1 and Part 6 of the California Code of the California Code of the California Code of the control of the consistence of the conforcement appliance shall be made available with the building will take the necessary steps to accomplish this pliance is required to be included with the docthese requirements.	the building design or system design identified on this of Regulations. stent with the information provided on other applicable gency for approval with this building permit application. In the provided for the building, and made available to requirement.  umentation the builder provides to the building owner at
Respor	nsible Designer Name:	Responsible Designer Signat	rure:
Compa	ny: 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 Signat	ure:
Compa	ny: R & S Tavares Associates		
		<u> </u>	

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Date Signed:

License #:

CERTIFICATE OF COMPLIANCE - NONRESIDENTIAL PERFORMANCE	NRCC-PRF-E		
Nonresidential Performance Compliance Method			(Page 17 of 17)
Responsible Designer Name: Lal Sahgal	Responsible Designer Signatu	ire:	
Company: LSA Consulting Engineers			
Address: 83, Windswept Way	Date Signed:		
City/State/Zip: Mission Viejo, Ca. 92692	License #: M26885		
Phone:	Title:	Scope:	

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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
AC-1	Single Package VHP Air System	1	34.37	13.65	СОР	3.3	34.56	EER	11	Fixed DB	N

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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 Luminaire Schedule (includes all permanent installed lighting in conditioned space, and portable lighting over  $0.3~\mathrm{w/ft^2}$  in offices) 01 **Complete Luminaire** Installed Watts (Conditioned) Description (i.e. 3-lamp Name or Item Tag fluorescent troffer, F32T8, **Total Number of Luminaires** Installed Watts one dimmable electronic 2x4 LED Panel According to <sup>1</sup>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 Control **Adjustment** Item Tag Luminaire (Watts) 140.6-A and 170.2-L) Factor (PAF) (Watts) S-1-First Floor 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)4C See NRCC-LTI-E for mandatory controls

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance Report Version: 2022.0.000

Outside Air

365 cfm

75 / 60 °F

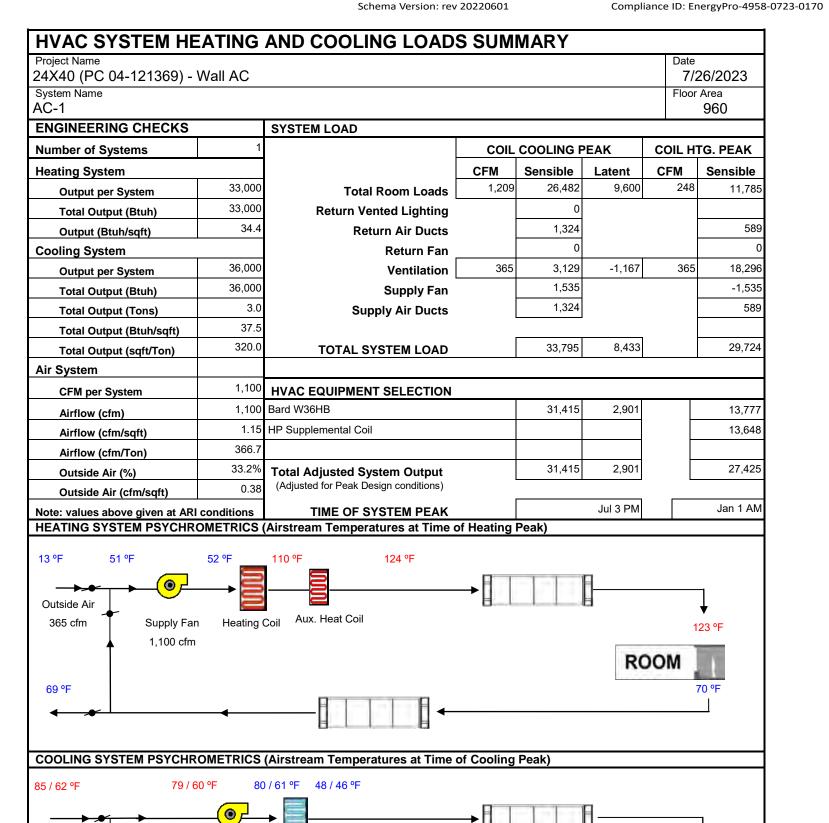
Supply Fan

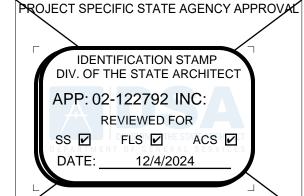
1,100 cfm

Cooling Coil

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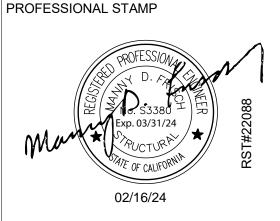
49 / 47 °F





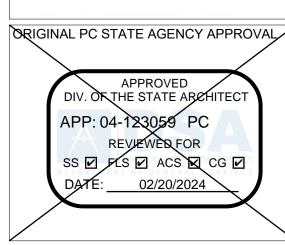


11590 W BERNARDO COURT, SUITE 100 SAN DIEGO, CA 92127



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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

**CODE: 2019 CBC** A separate project application for construction

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

120' x 40'

24'x40' T24 CZ 16 (WALL AC)

PROJECT NUMBER 22088 DRAWN BY Author CHECKED BY Checker

06/15/2021

DATE

	california estic Water	Heating System						CALIFORNIA ENE	RGY COMMISSION	Domest	<sup>FORNIA</sup> ic Water Heati	ng Syste	m			
CERTIFICA	CATE OF COMPLIA	NCE							NRCC-PLB-E		OF COMPLIANCE	<u> </u>				
		demonstrate compliance for no	· ·							Project Nan	ne: 24X40 (PC 04-12	1369) - Wall	AC	,		R
		water heating scopes using the 170.2(d), and with requirements				hotel/motel occupa	ancies compliar	ce is demonstrated with requ	uirements in							D
Project N		PC 04-121369) - Wall AC	3 100.1 Joi daditions an	u 100.2 joi t	Report Page	::			(Page 1 of 6)							
Project A		, , , , , , , , , , , , , , , , , , ,	Cl	mate Zone 14	4 Date Prepare				9/7/2023							
										E. ADDITI	ONAL REMARKS					
	IERAL INFORM				1 1					This table i	ncludes remarks mad	le by the pe	ermit applican	t to the Authority	Having Jurisdic	tion.
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03	Occupancy 1	ypes Within Project (select all th	nat apply):							F. DOMES	TIC HOT WATER EC	UIPMENT	•			
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											trated and with 141.  Schedule: Water He				scopes.	
	JECT SCOPE									Equipment	03	ating Emici	04	uby Loss		05
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		180.1, or 141.0(b)2N / 180.2 for a systems are documented on the			i neuting sys	terns are accumen	neu on the NKC	эмь compliance aocument.	Combined	System	A O Smith DEL 10	Exception	n to 140.5(c)/		П	w
		01				02		03		Name	A O Smith DEL-10		0.2(d)3			
	My pr	pject consists of (check all that a	pply):		Syste	em Type <sup>1,2</sup>		System Compone	ents	07	00	1 00		10	4.4	$\bot$
✓ Nev	, ,	system being installed for the fir	, ,	Individua		rving nonresidentia	al spaces)	Equipment 🛛 Distribution		07	08	09	Dotted I	10	11	4
		equipment, distribution or contr	·					Equipment Distribution		Name or	Equipment Type	Volume	Rated Input Capacity	Max GPM/ First Hour Rating	Rated	
		se water heaters, or other non-c		serve nonres	sidential spac	ces, are considered	individual syst	ms.		Item Tag	, , , , , , , , , , , , , , , , , , , ,	(gal)	(Btu/h)	(FHR)	Efficiency	
		hotel/motel guest rooms and u								A O Smith	Consumer Rated	10	5,120	FHR >=75	0.95	$\top$
HW s	systems serving	2 or more dwelling units are cons	sidered "Central System	s" for multif	tamily occupe	ancies				DEL-10	Electric Storage					$\perp$
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		e project data input into the con	mpliance document is co	mpliant wit	th water heat	tina requirements	If this table say	s "DOES NOT COMPLY" or "Co	OMPLIES with		ting Equipment All C	ccupancies	3			
		refer to Table D. or the table ind				g . equil cilicitis.	.,			-74101 1164		T	Not			
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	non-cru	shable casing or s					
			TABLE 120.3-A / 16	0.4-A PIPE INSU	LATION THICKNESS	5	
		Conductivity			N	Iominal Pipe Diameter (in)	
luid Tem	uid Temperature Range ( °F) per ho		Range (Btu-in Insulation Mean Rating Temp ( per hour per ft <sup>2</sup> °F)		1 to < 1.5	1.5 to < 4	1.5 to < 4 Multifamily & Hotel/Motel
		per °F)			Mi	nimum 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
DF CALIFOR	g Energy Efficiency Stand INIA Water Heating S		dential Compliance	Generated Date/T Report Version: 20 Schema Version: r	22.0.000	Re	Documentation Software: EnergyProblance ID: EnergyPro-4958-0923-024  port Generated: 2023-09-07 12:06:0
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	24X40 (PC 04-121369	a) Wall AC		Bonort Boss			NRCC-PLB-E (Page 5 of 6)
t Name:	24X4U (PC U4-1213b)	a) - vvali AC		Report Page Date Prepar			9/7/2023

	stem		CALIFORNIA ENERGY COMMISSIO
CERTIFICATE OF COMPLIANCE			NRCC-PLB
Project Name: 24X40 (PC 04-121369) -	Wall AC	Report Page:	(Page 5 of
		Date Prepared:	9/7/202
I. DECLARATION OF REQUIRED CER	TIFICATES OF INSTALLATION	1	
		ument. If any selection have been changed by permit applicant, an exp ig inspector during construction and can be found online	lanation should be included in Table E.
		Form/Title	
NRCI-PLB-E - Must be submitted for all	buildings		
J. DECLARATION OF REQUIRED CER	TIFICATES OF ACCEPTANCE		
There are no forms required for this pro	oject.		
K. DECLARATION OF REQUIRED CEI	RTIFICATES OF VERIFICATION	N	

Generated Date/Time:

Report Version: 2022.0.000

Schema Version: rev 20220101

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

STATE OF CALIFORNIA **Domestic Water Heating System** CERTIFICATE OF COMPLIANCE Project Name: 24X40 (PC 04-121369) - Wall AG Report Page:
Climate Zone 14 Date Prepared: DOCUMENTATION AUTHOR'S DECLARATION STATEMENT I certify that this Certificate of Compliance documentation is accurate and complete mentation Author Name LAL B. SAHGAL LSA CONSULTING ENGINEERS 33, WINDSWEPT WAY MISSION VIEJO CA 92692 (949) 830-4746 RESPONSIBLE PERSON'S DECLARATION STATEMENT ertify 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 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 Lal Sahgal Lal Sahgal 2023-09-07 LSA Consulting Engineers

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

3, Windswept Way

Mission Viejo Ca. 92692

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance

Documentation Software: EnergyPro

Compliance ID: EnergyPro-4958-0923-0242

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Water Heating | Capacity-weighted

Average Efficiency %

Efficiency Unit

Requirement

Isolation valves for instantaneous water heater with input rating >6.8 kBTUH or 2 kW has been specified per 110.3(c)6 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

struction documents require manufacturer certification that service water-heating systems are equipped with automatic

Systems with capacity > 167,000 BTUH equipped with outlet temperature controls per 110.3(c)1 unless covered by California

For recirculation systems serving multiple dwelling units, design includes automatic pump controls per 170.2(d) or 180.1(b)3 fo

r recirculation systems serving individual dwelling units, design includes manual on/off controls as specified in Reference

• Boilers with input capacity >= 2.5 MMBtu/h, in which the boiler is designed to operate with a nonpositive vent static

Boilers where one stack serves two or more boilers with a total combined input capacity per stack of 2.5 MMBtu/h.

The fan motor shall include controls that limit the fan motor demand to <=30% of the total design wattage at 50% of the

wly installed boilers with an input capacity  $\{d:gte/]$  5MMBtu/h and a steady state full-load combustion efficiency < 90% shall

maintain excess (stack-gas) oxygen concentrations <= 5% by volume on a dry basis over firing rates of 20-100%. Combustion air volume shall be controlled with respect to firing rate or flue gas oxygen concentration. Use of a common gas and combustion air

abustion air positive shut-off shall be provided per 160.4(3).on all newly installed commercial boilers as follows:

Controls for circulating pumps or electrical heat trace systems are capable of automatically turning off the system per

**Designed Standby Loss** 

System >=

1MMBtu/h1

Minimum

Efficiency

New state buildings 60% of energy for service water heating from site solar energy or recovered energy per 110.3(c)5

systems serving an individual bathroom space may be an instantaneous electric water heater

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Date Prepared

This table is used to demonstrate compliance with control requirements in 110.3 for all occupancies. For multifamily residential and hotel/motel occupancies, compliance is also

0.3(c)2 unless systems serves healthcare facility.

design air volume.

ntrol linkage or jack shaft is prohibited.

emperature controls capable of adjusting temperature settings per 110.3(a).

iler combustion air fans with motor >= 10 hp shall meet one of the following

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Schema Version: rev 20220101

• The fan motor shall be driven by a variable speed drive OR

<sup>1</sup>FOOTNOTE: In systems >= 1MMBtu/h with multiple units, gas water heaters with input capacity > 100,000 Btu/h may meet 90% Et requirements via an input capacity-weighted

12

(Page 6 of 6) 9/7/2023 Lal Sahgal 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

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Mandatory Measures: The following notes (items) represent the Mandatory Measures for

Heat pumps with supplementary electric resistance heaters shall have controls:

CALIFORNIA ENERGY COMMISSIO

(Page 2 of 6

aximum Standb

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CALIFORNIA ENERGY COMMISSION

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CALIFORNIA ENERGY COMMISSION

Compliance ID: EnergyPro-4958-0923-0242

Report Generated: 2023-09-07 12:06:05

NRCC-PLB-E

(Page 4 of 6

- That prevent supplementary heater operation when the heating load can be met by the heat pump alone; and
- 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

Sec. 110.2 (b)

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.

Sec. 120.1 (c) 3

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

- 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

5) Service water heating systems and equipment shall meet the applicable requirements of the Appliance Efficiency Regulations as required by Sec. 110.1.

readily accessible manual shut-off switch.

Documentation Software: EnergyPro 4) The piping for all space conditioning and service water heating systems shall be insulated in

accordance with TABLE 123-A.

Sec. 110.3 (b)

6) Service hot water systems with circulating pumps or with electrical heat trace systems shall be capable of automatically turning off the system. Sec. 110.3 (c) 2

7) Lavatories in public restrooms shall have controls that limit the water supply temperature to 110°F.

Sec. 110.3 (c) 3

**IDENTIFICATION STAMP** DIV. OF THE STATE ARCHITEC APP: 02-122792 INC: **REVIEWED FOR** SS 🗹 FLS 🗹 ACS 🗹 12/4/2024

ROJECT SPECIFIC STATE AGENCY APPROVAL



PROFESSIONAL STAMP



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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

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

**ENVELOPE AND** 

NOTES

PROJECT NUMBER 22088

DRAWN BY rMc/CG

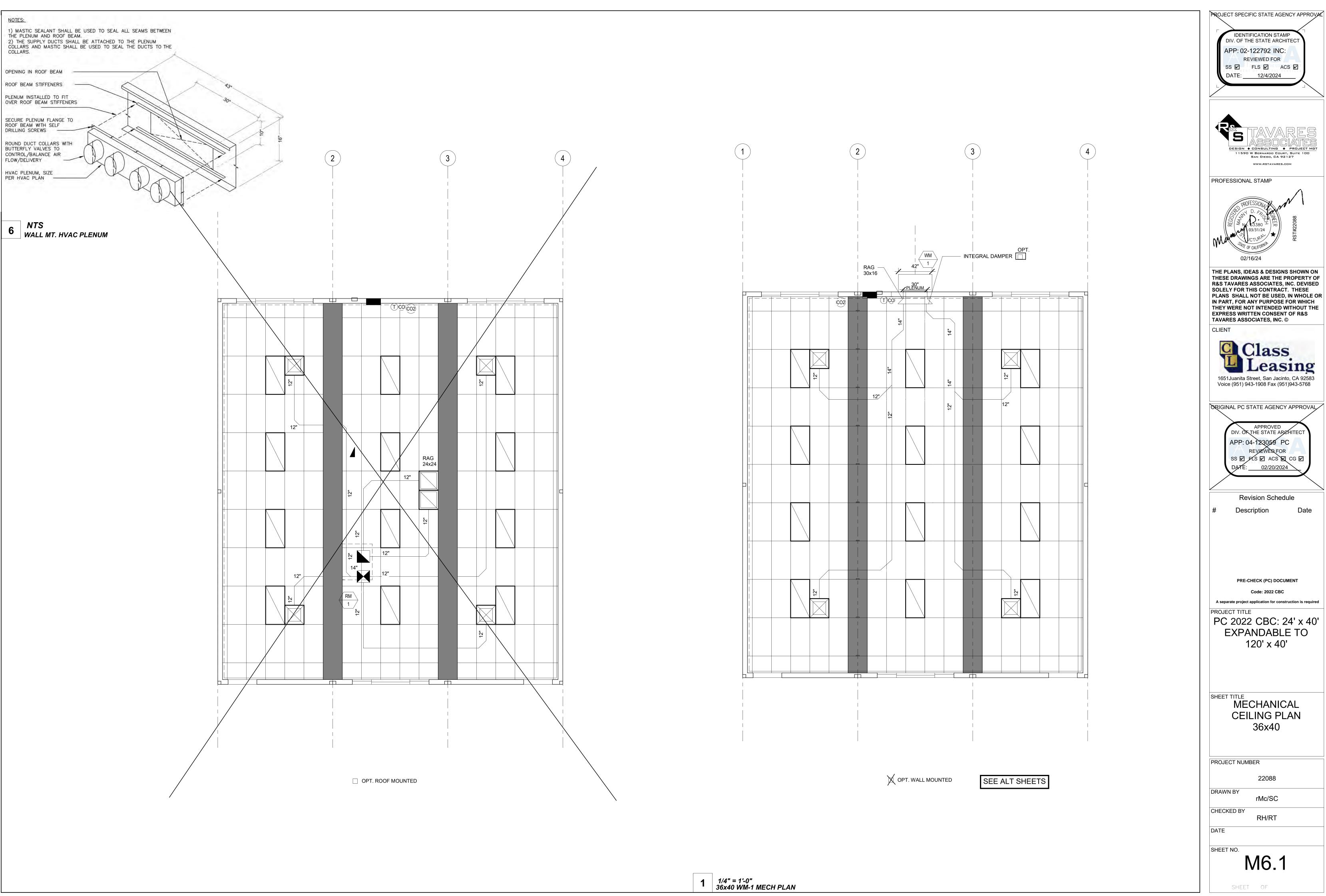
CHECKED BY RH/RT

DATE

SHEET NO.

SHEET OF

M3.3



IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 02-122792 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 DATE: 12/4/2024





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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

PRE-CHECK (PC) DOCUMENT

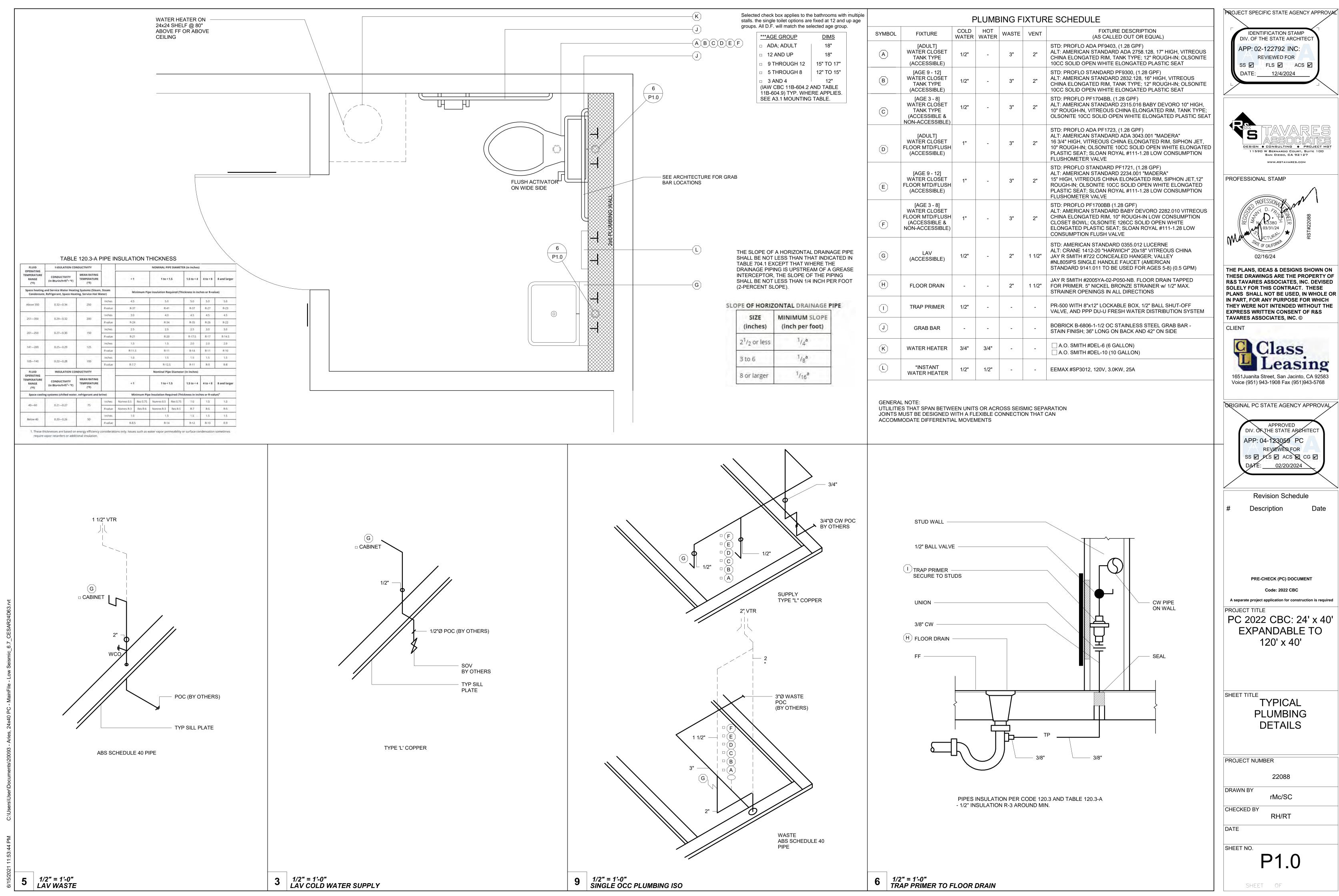
A separate project application for construction is required

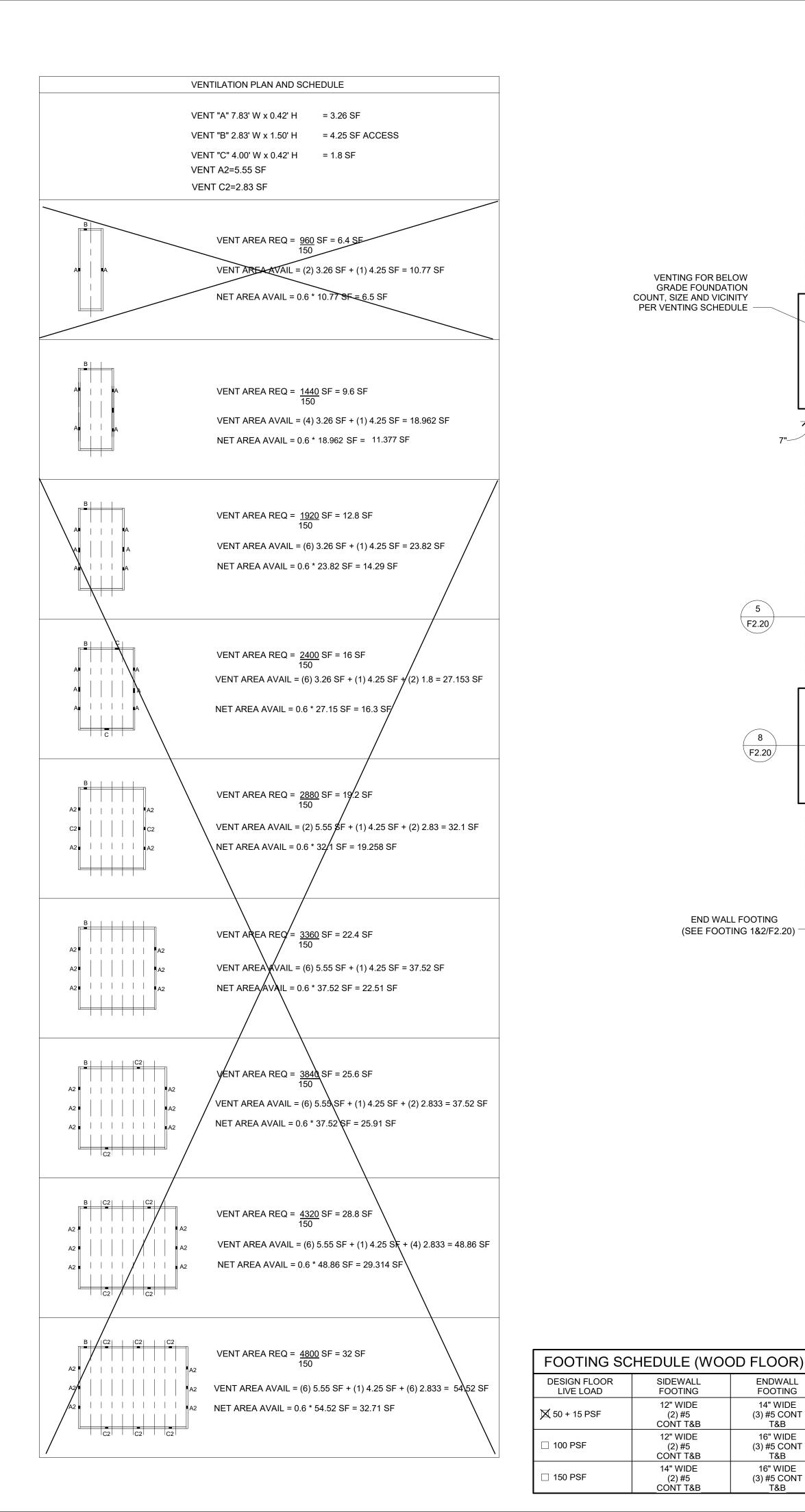
PC 2022 CBC: 24' x 40' **EXPANDABLE TO** 120' x 40'

> **CEILING PLAN** 36x40

22088

M6.1





SIDEWALL

**FOOTING** 

12" WIDE

(2) #5

CONT T&B

12" WIDE

(2) #5

CONT T&B

14" WIDE

(2) #5

CONT T&B

ENDWALL

FOOTING

14" WIDE

(3) #5 CONT

T&B

16" WIDE

(3) #5 CONT

T&B

16" WIDE

(3) #5 CONT

INTERIOR PAD

FOOTING

(3) #5 EW

3' - 4" SQ

(3) #5 EW

4' - 0" SQ

(4) #5 EW

PAD FOOTING @

SEPARATION

3' - 8" SQ

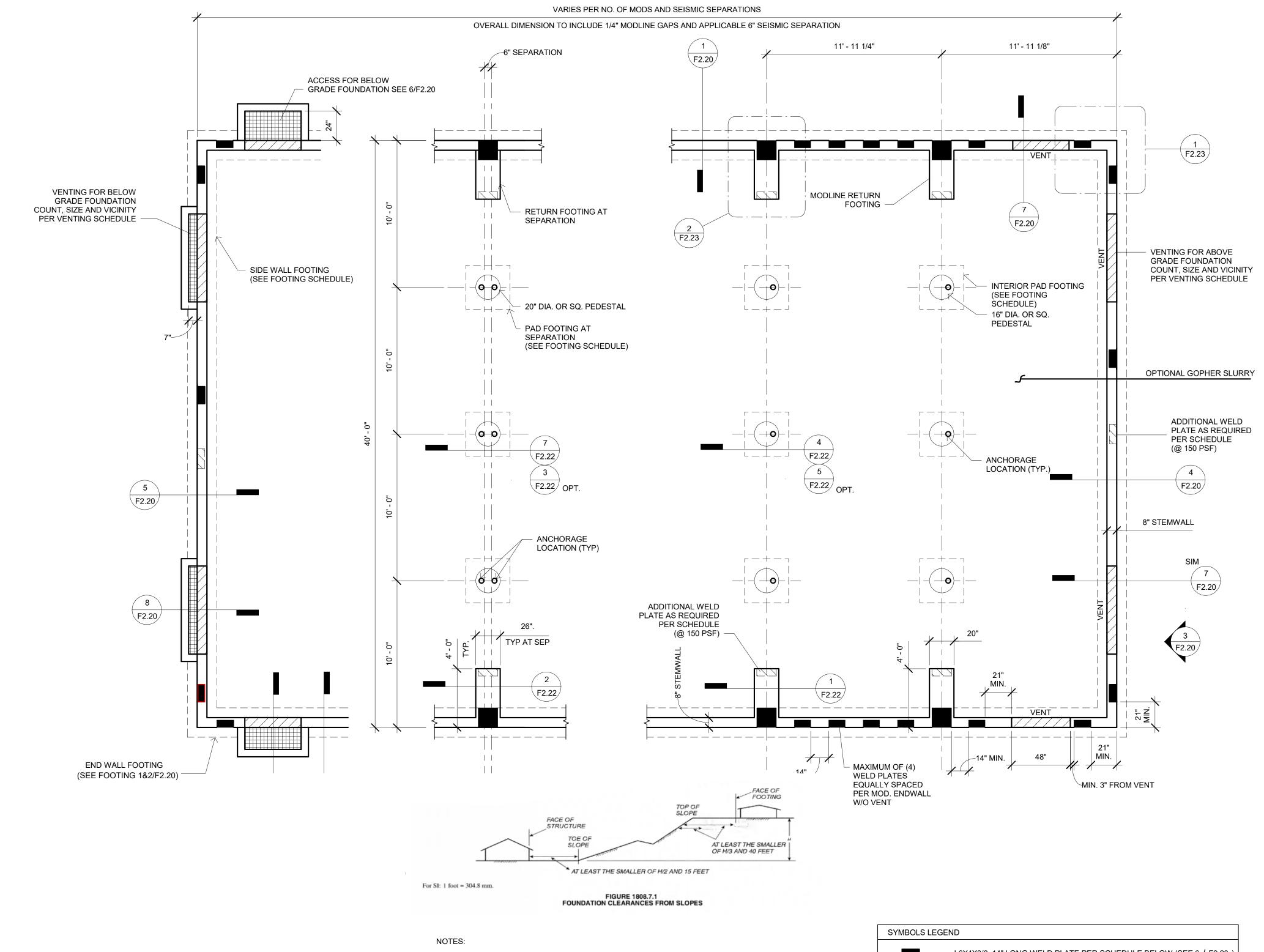
(4) #5 EW

4' - 2" SQ

(4) #5 EW

4' - 8" SQ

(4) #5 EW

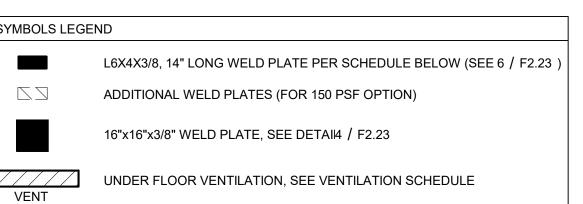


- THE FOUNDATION DESIGN CONSIDERS AN ALLOWABLE SOIL BEARING PRESSURE OF 1,500 PSF FOR LOCATIONS THAT DO NOT REQUIRE A
- SOILS INVESTIGATION REPORT. DISTRICT SHALL BE RESPONSIBLE IN ISSUING AND CONTRACTING A SOILS INVESTIGATION THROUGH A QUALIFIED GEOTECHNICAL ENGINEER FOR LOCATIONS DEEMED QUALIFIED BY 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
- TO THE VENT. SEE DETAIL 1/F2.23 FOUNDATION OVERALL CONSIDERS A 1/4" GAP AT EVERY MODLINE AND

REINFORCEMENT HAIRPINNED AROUND THE ANCHOR BOLT CLOSEST

- 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".

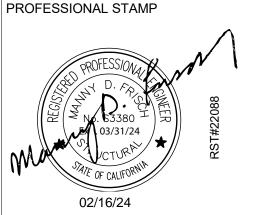
FOOTING SC	HEDULE (CON	CRETE FLOOF	R)	
DESIGN FLOOR LIVE LOAD	SIDEWALL FOOTING	ENDWALL FOOTING	INTERIOR PAD FOOTING	PAD FOOTING @ SEPARATION
☐ 50 + 15 PSF	12" WIDE (2) #5 CONT T&B	14" WIDE (3) #5.eONT	3' - 2" SQ (3) #5 EW	4' - 0" SQ (4) #5 EW
☐ 100 PSF	12" WIDE (2)#5 CONT T&B	16" WIDE (3) #5 CONT T&B	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



	\	WELD PLATE	SCHEDULE	
		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-	
	108x40	15	21_	
	120x40	16	23	<b> </b>

PROJECT SPECIFIC STATE AGENCY APPROVAL IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-122792 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 12/4/2024





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



ORIGINAL PC STATE AGENCY APPROVAL APPROVED DIV. OF THE STATE ARCHITECT APP: 04-123059 PC REVIEWED FOR SS PLS PLACS CG P

> Revision Schedule Description

> > PRE-CHECK (PC) DOCUMENT

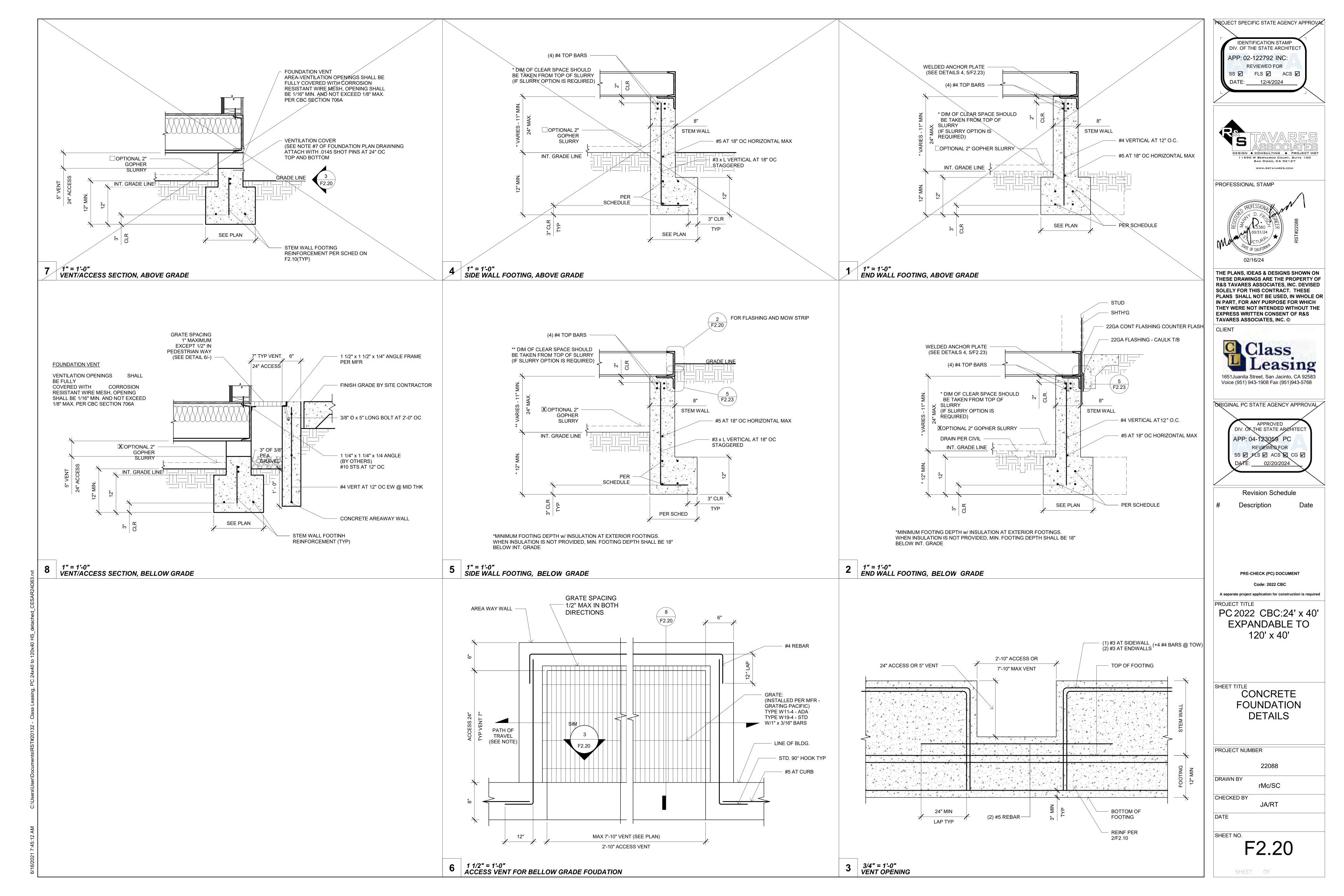
Code: 2022 CBC A separate project application for construction is required

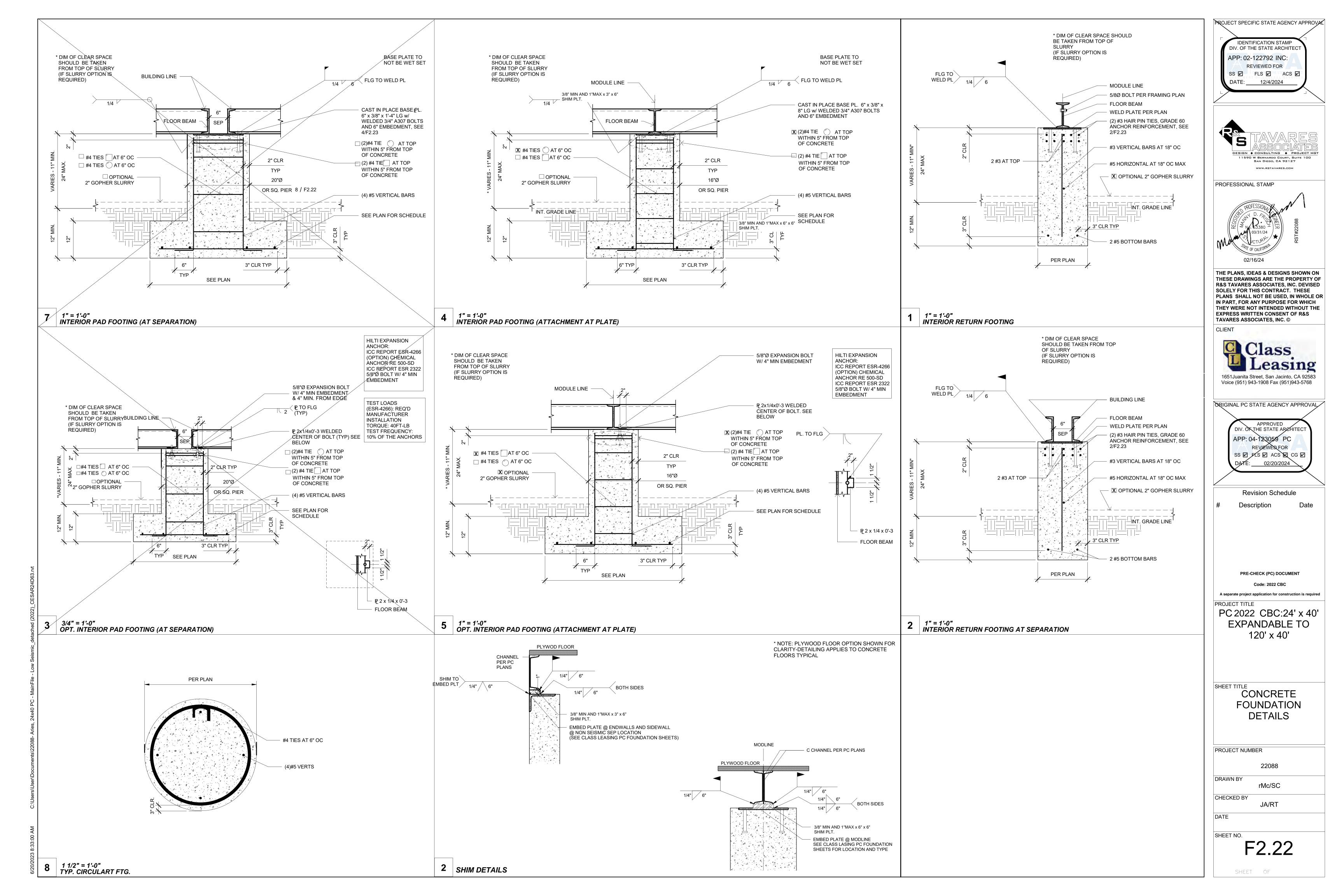
PROJECT TITLE PC 2022 CBC:24' x 40' **EXPANDABLE TO** 120' x 40'

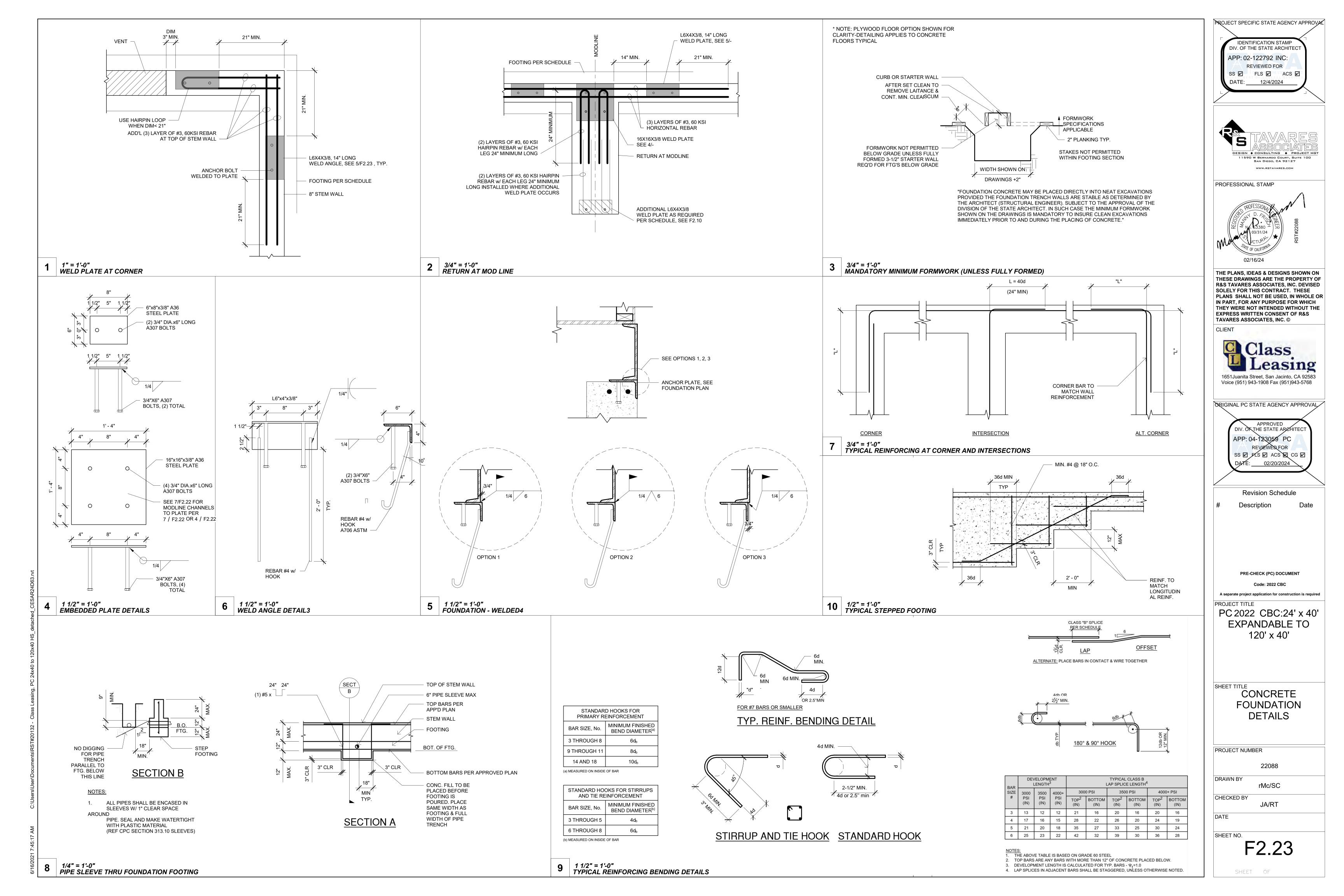
> CONCRETE **FOUNDATION** PLAN

PROJECT NUM	1BER
	22088
DRAWN BY	rMc/SC
CHECKED BY	JA/RT
DATE	

F2.10







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.

**BOLTS** 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:

COPPER PER CBC 2304.10.1.1

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

### **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:

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. PRE-DRILLED CLEARANCE AND LEAD HOLE SHALL BE REQUIRED AS DESCRIBED BELOW:

#### THE CLEARANCE HOLE FOR THE UNTHREADED PORTION OR THE SHANK SHALL HAVE SAME DEPTH AND DIAMETER.

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

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

COMMON FASTENERS BOX NAIL FASTENERS

CONNECTION	COMMO	N FASTENERS	BC	JX NA	IIL FASTENERS	LOCATION
•	QTY SIZE	SPACING O.C.	QTY	SIZE	SPACING O.C.	
<ol> <li>JOIST TO SILL OR GIRDER</li> </ol>	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	BLIND & FACE NAIL
SOLE PLT. TO JOIST OR BLK'G	2 .50			,,,	7477	
6. TO EA. JOIST	16d	@ 16"		16d	@ 12"	FACE NAIL
0. 10 2 00.0.	100	<b>©</b> 10		Tou	@ 12	7.02.17.12
SOLE PLT. TO JOIST OR BLK'G						
@ BRACED WALL PANEL	3- 16d	@ 16"	2	16d	@ 16"	TYP. FACE NAIL
7. TOP PLT. TO STUD	2- 16d	@ 16"		10d	@ 16	END NAIL
8. STUD TO SOLE PLT.						END NAIL
	2- 16d			10d		
OR	4- 8d	0.041	4-	10d	O 4011	TOENAIL
9. DOUBLE STUDS	16d	@ 24"		10d	@ 16"	FACE NAIL
10. DOUBLE TOP PLT.	16d	@ 16"	١	10d	@ 12"	TYP. FACE NAIL
DOUBLE TOP PLT.	8- 16d	MIN. U.N.O.	12-	10d		24" MIN LAP SPLICE
BLKG. BTW. JOIST OR						
11. RAFTERS TO TOP PLT.	3- 8d		3-	10d		TOENAIL
12. RIM JOIST TO TOP PLT.	8d	@ 6"		10d	@ 6"	TOENAIL
TOP PLT., LAPS &						
13. INTERSECTIONS	2- 16d		3-	10d		FACE NAIL
14. CONT. HDR. 2 PIECES	16d	@ 16"				ALONG EDGE
15. CLG. JOIST TO PLT.	3- 8d		3-	10d		EA. JOIST, TOENAIL
16. CONT. HDR. TO STUD	4- 8d		4-	10d		TOENAIL
CLG. JOIST LAP OVER						
17. PARTITIONS	3- 16d		4-	10d		FACE NAIL
CLG. JOIST PARALLEL TO						
18. RAFTERS	3- 16d		SFF :	TABLE	E 2308.7.3.1	FACE NAIL
19. RAFTER TO PLT.	3- 8d			16d		TOENAIL <sup>c</sup>
1" DIA. BRACE TO EZ. STUD &	3- ou		3-	Tou		TOENAIL
	0.04		١ ,	40-1		EACE 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						
22. BRG.	3- 8d		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"	1	10d	@ 24"	ON OPP. SIDES
			1			
	2- 20d		N/A	N/A	N/A	FACE NAIL @ ENDS & @ EA. SPLICE
25. 2" PLANKS	2- 16d		N/A	N/A	N/A	@ EA. BRG.
ZO. Z FLANNO	1		4-	10d		FACE NAIL
26. COLLAR TIE TO RAFTER	3- 10d					
	3- 10d 3- 10d			16d		TOENAIL
26. COLLAR TIE TO RAFTER			4-	16d 10d		TOENAIL END NAIL
26. COLLAR TIE TO RAFTER 27. JACK RAFTER TO HIP 28. ROOF RAFTER TO 2X RIDGE	3- 10d 2- 16d		4- 3-	10d		END NAIL
26. COLLAR TIE TO RAFTER 27. JACK RAFTER TO HIP	3- 10d		4- 3-	10d 10d	N/A	

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

**DECIMAL AND GAUGE CHARTS** 

60d, 40d

30d

20d

16d

12d, 10d

8d

6d

PENNY GAUGE

8

10

11

DEC.

0.2242

0.2092

0.1943

0.1793

0.1644

0.1495

0.1345

0.1196

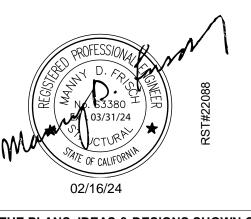
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FRACTION	DECIMAL	
1/32	0.03125	
1/16	0.0625	
3/32	0.09375	
1/8	0.125	
5/32	0.15625	
3/16	0.1875	
7/32	0.21875	
1/4	0.25	
9/32	0.28125	
5/16	0.3125	
11/32	0.34375	
3/8	0.375	
13/32	0.40625	
7/16	0.4375	
15/32	0.46875	
1/2	0.5	
17/32	0.53125	
9/16	0.5625	
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	
4	-	I

**IDENTIFICATION STAMP** DIV. OF THE STATE ARCHITEC APP: 02-122792 INC: **REVIEWED FOR** SS 🗹 FLS 🗹 ACS 🗹 12/4/2024

ROJECT SPECIFIC STATE AGENCY APPROVAL

DESIGN ♦ CONSULTING ♦ PROJECT 11777 BERNARDO PLAZA COURT, SUITE SAN DIEGO, CA 92128

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

PC 2022 CBC: 24' x 60' **EXPANDABLE TO** 

STRUCTURAL GEN NOTES

PROJECT NUMBER

22088 DRAWN BY rMc/SM

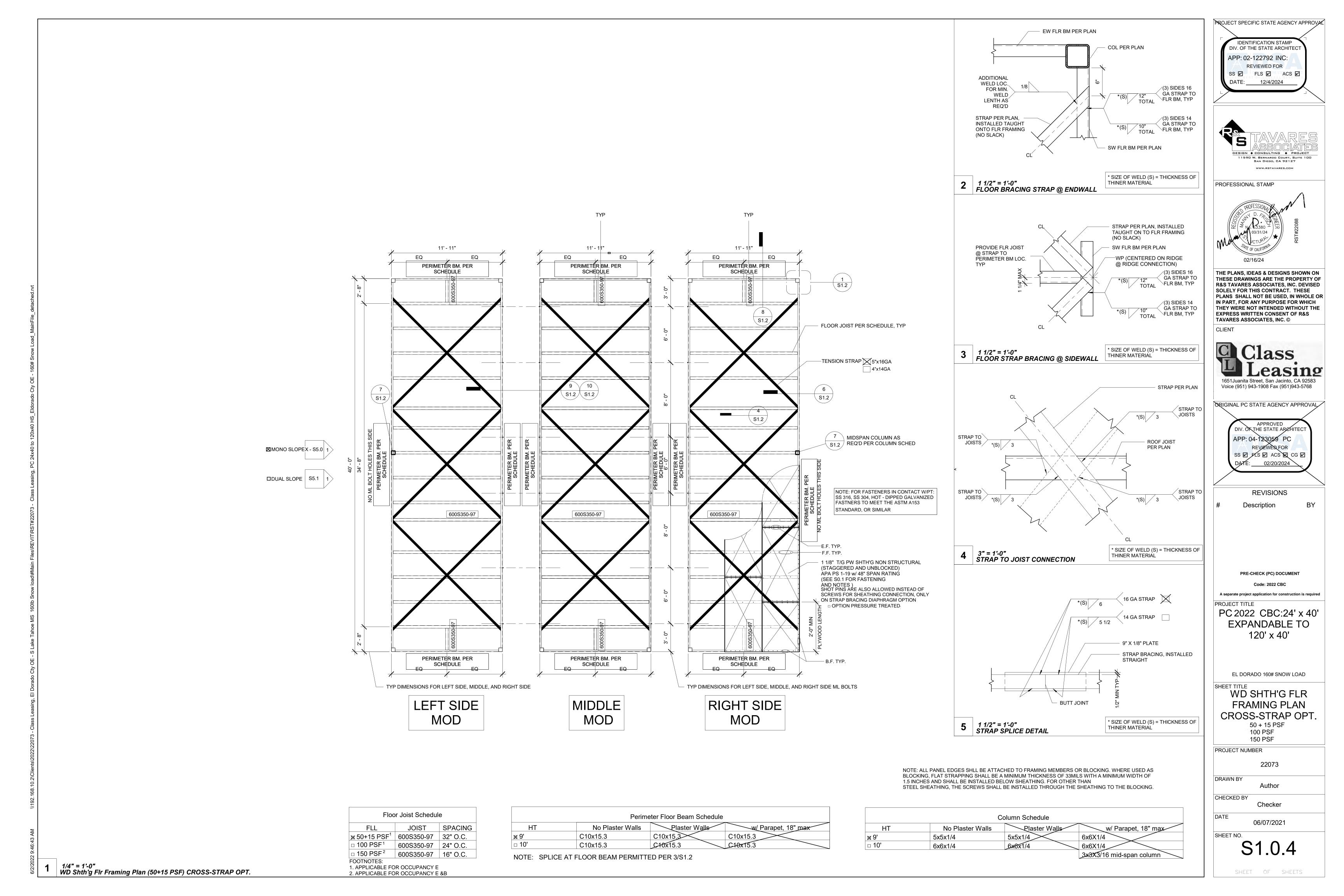
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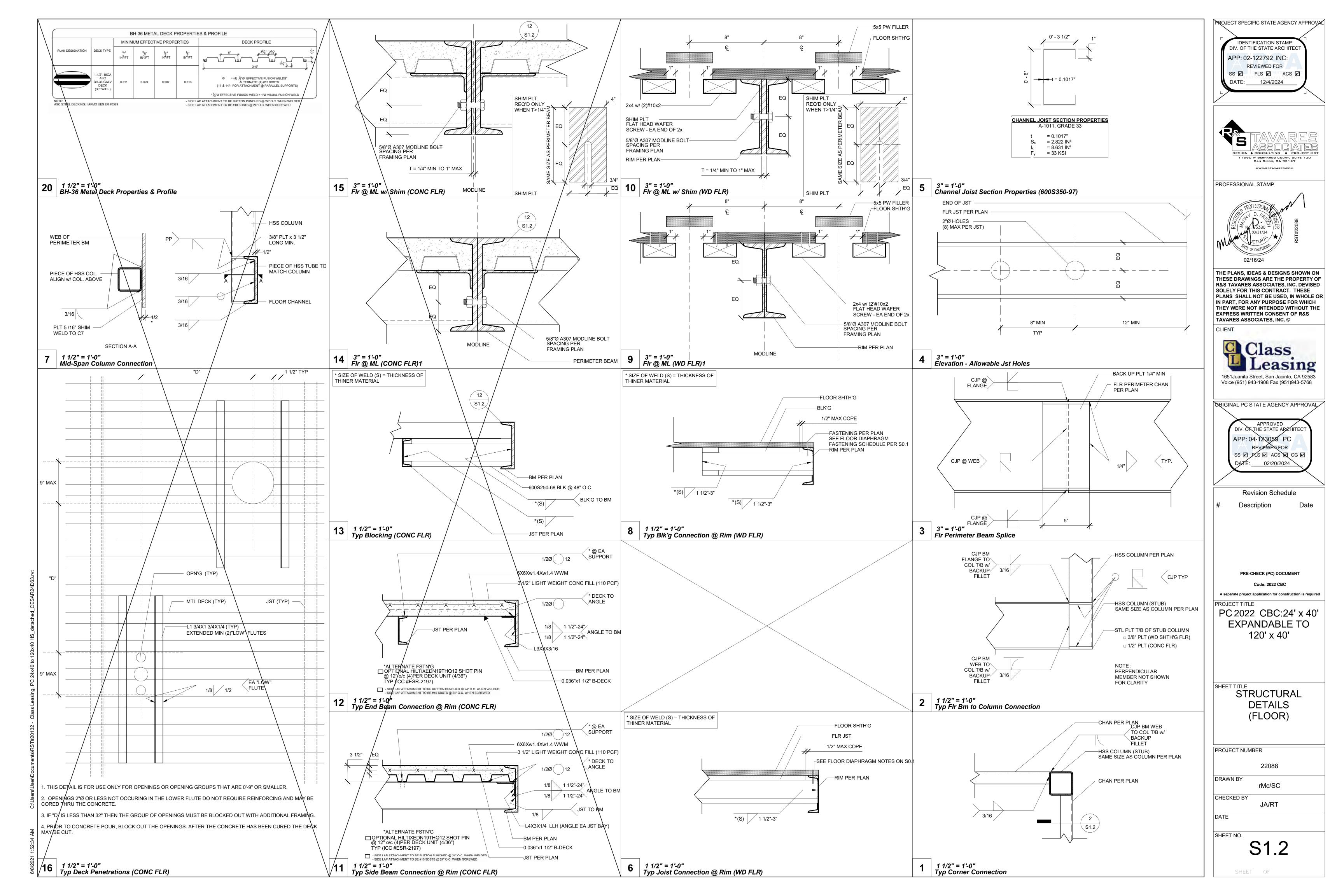
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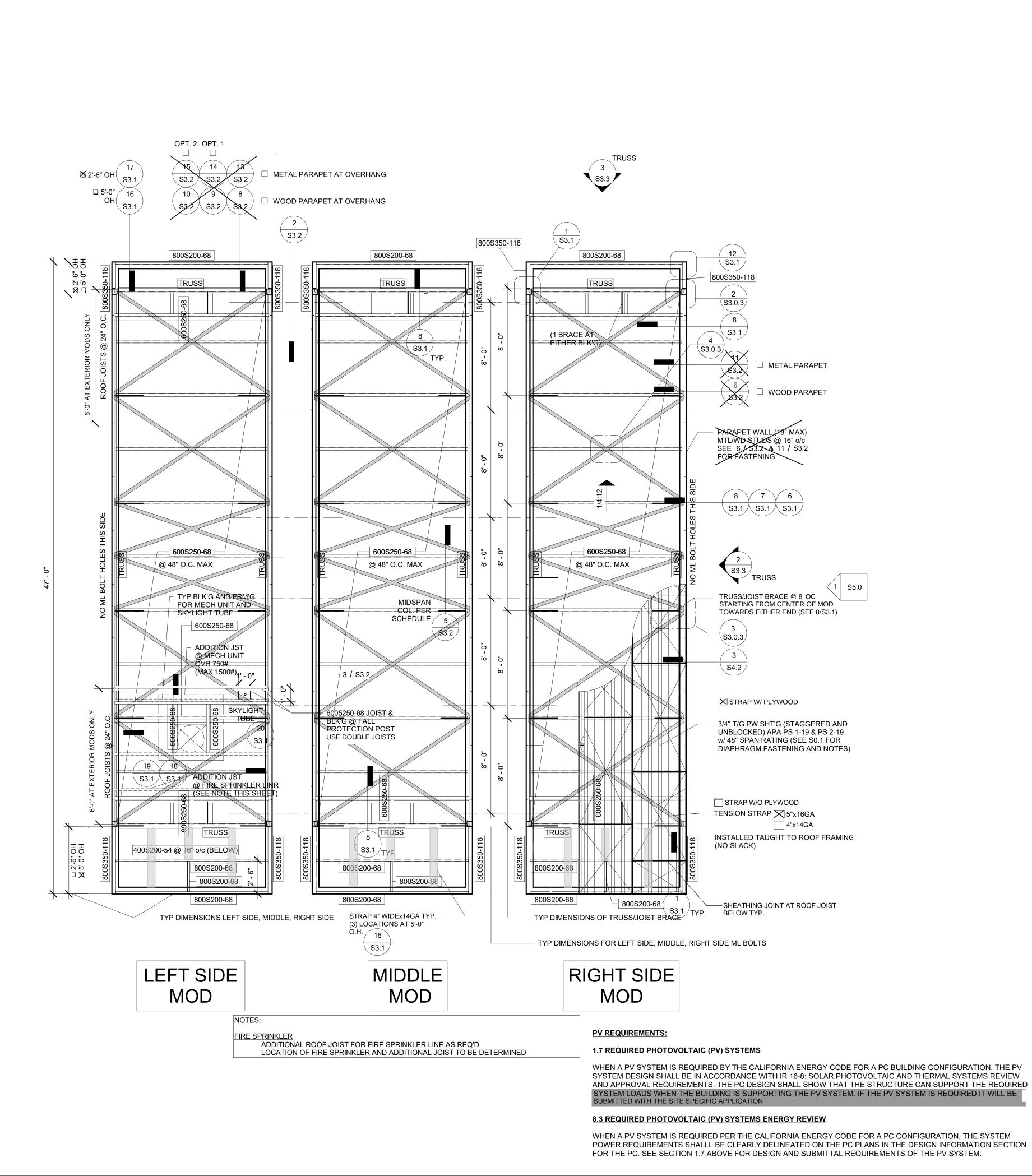
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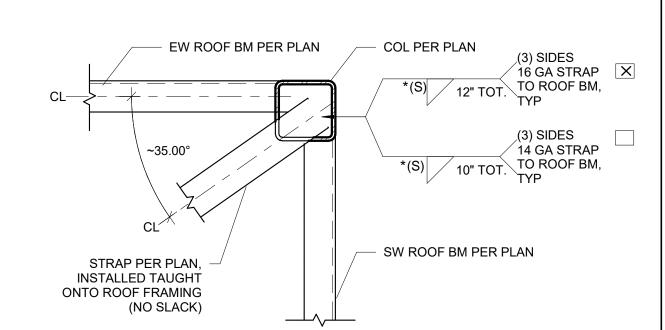
JA/RT

STRUCTURAL NOTES

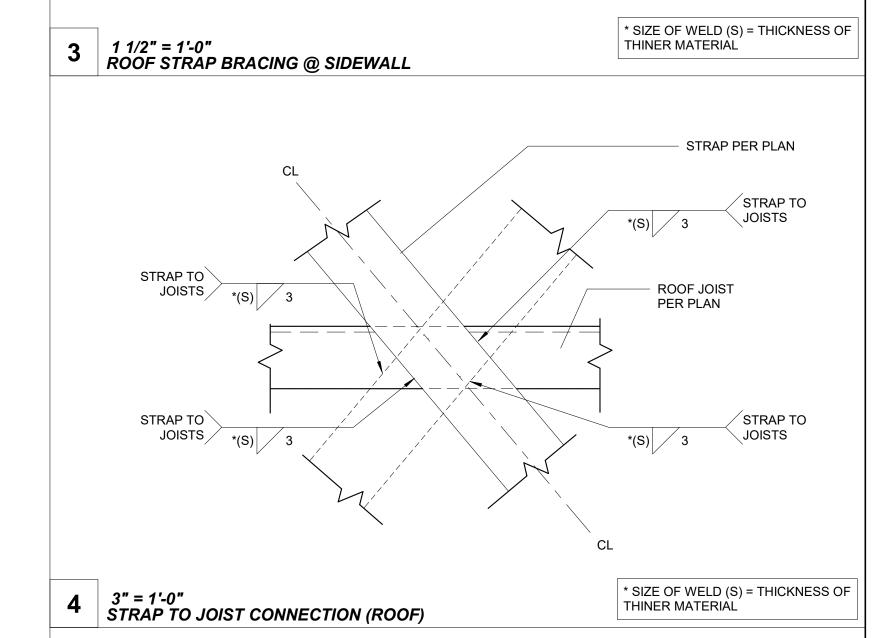


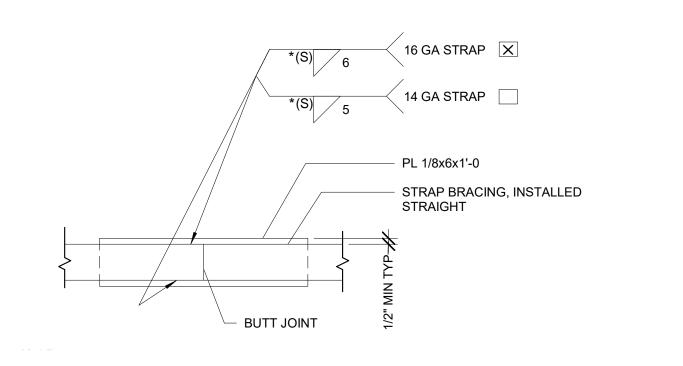






\* SIZE OF WELD (S) = THICKNESS OF 2 1 1/2" = 1'-0" ROOF BRACING STRAP @ ENDWALL THINER MATERIAL STRAP PER PLAN, INSTALLED TAUT ON TO TRUSS TOP CHORD (NO SLACK) SW TRUSS TOP CHORD JOIST REQ'D @ TRUSS BRACING LOCATIONS PER PLAN, TYP. (3) SIDES 16 GA STRAP \*(S) 12" TOT. TO ROOF BM, (3) SIDES 14 GA STRAP \*(S) 10" TOT. TO ROOF BM, TYP





5 1 1/2" = 1'-0" STRAP SPLICE DETAIL (ROOF)

\* SIZE OF WELD (S) = THICKNESS OF THINER MATERIAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT

APP: 02-122792 INC:

REVIEWED FOR
SS FLS ACS D

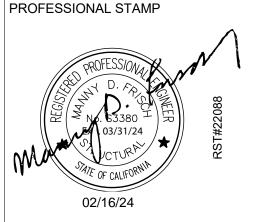
DATE: 12/4/2024

DESIGN + CONSULTING + PROJECT MGT

11590 W BERNARDO COURT, SUITE 100

SAN DIEGO, CA 92127

.....



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CLIENT



APPROVED
DIV. OF THE STATE ARCHITECT
APP: 04-123059 PC
REVIEWED FOR
SS PLS ACS CG D
DATE: 02/20/2024

Revision Schedule

Description Date

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

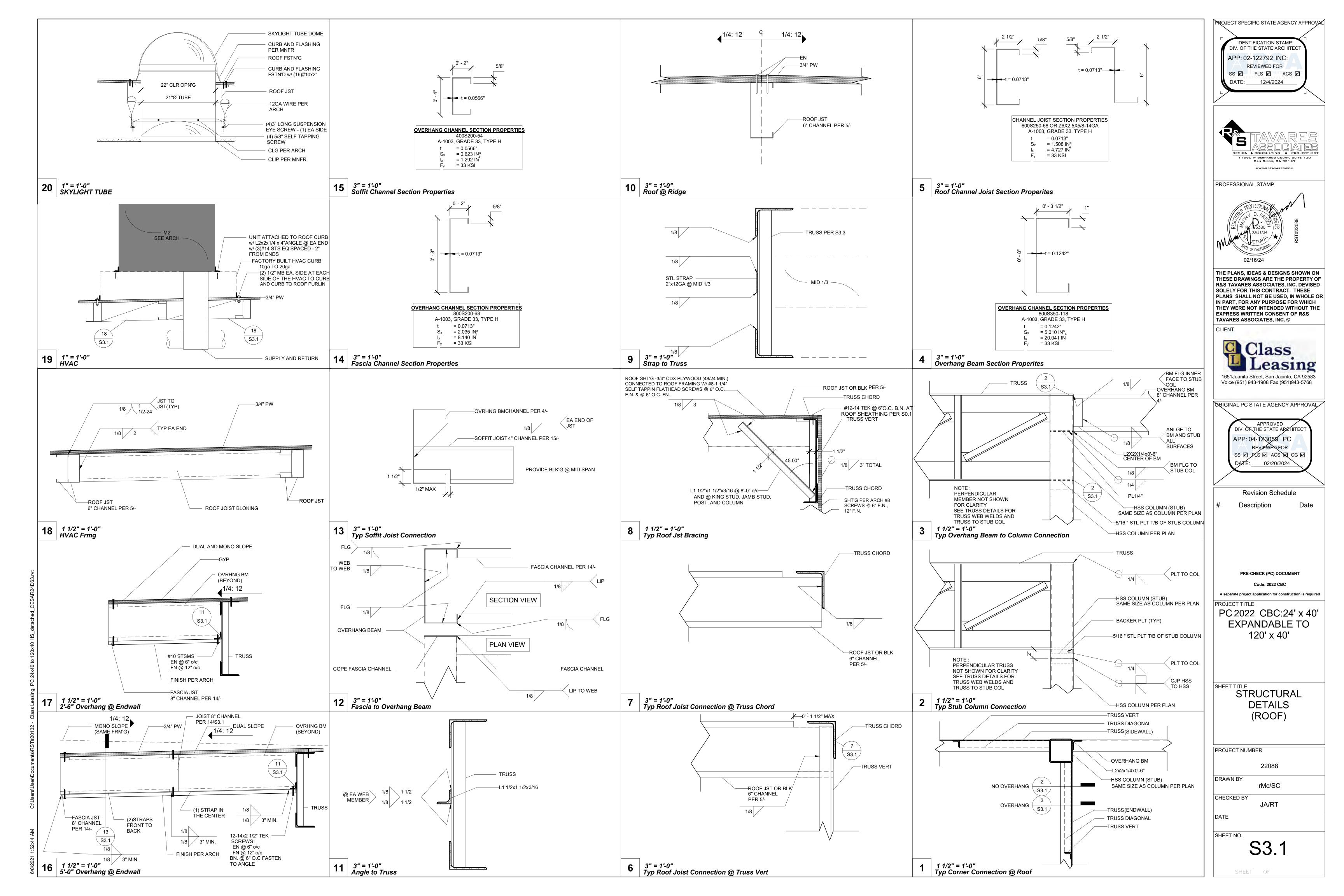
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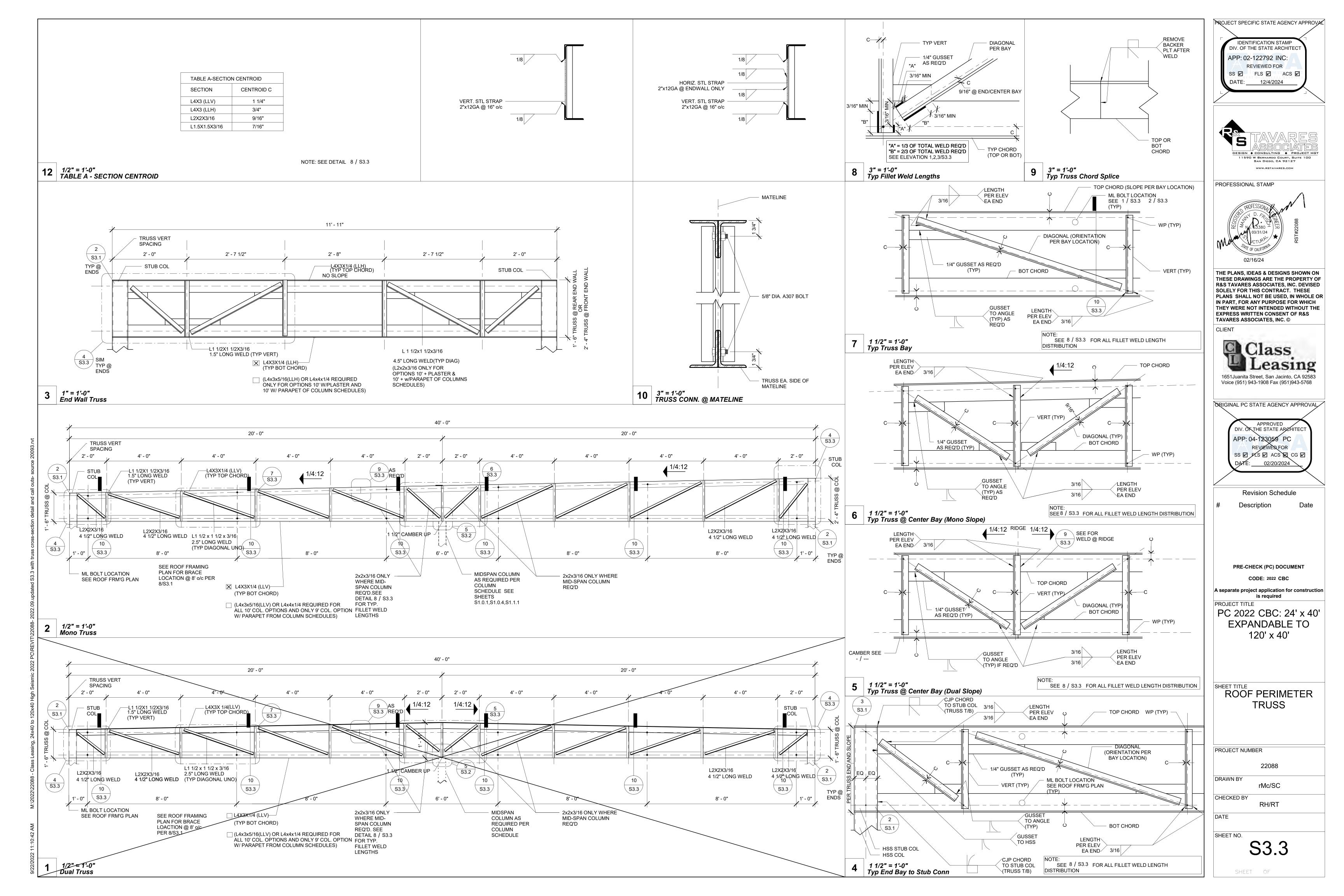
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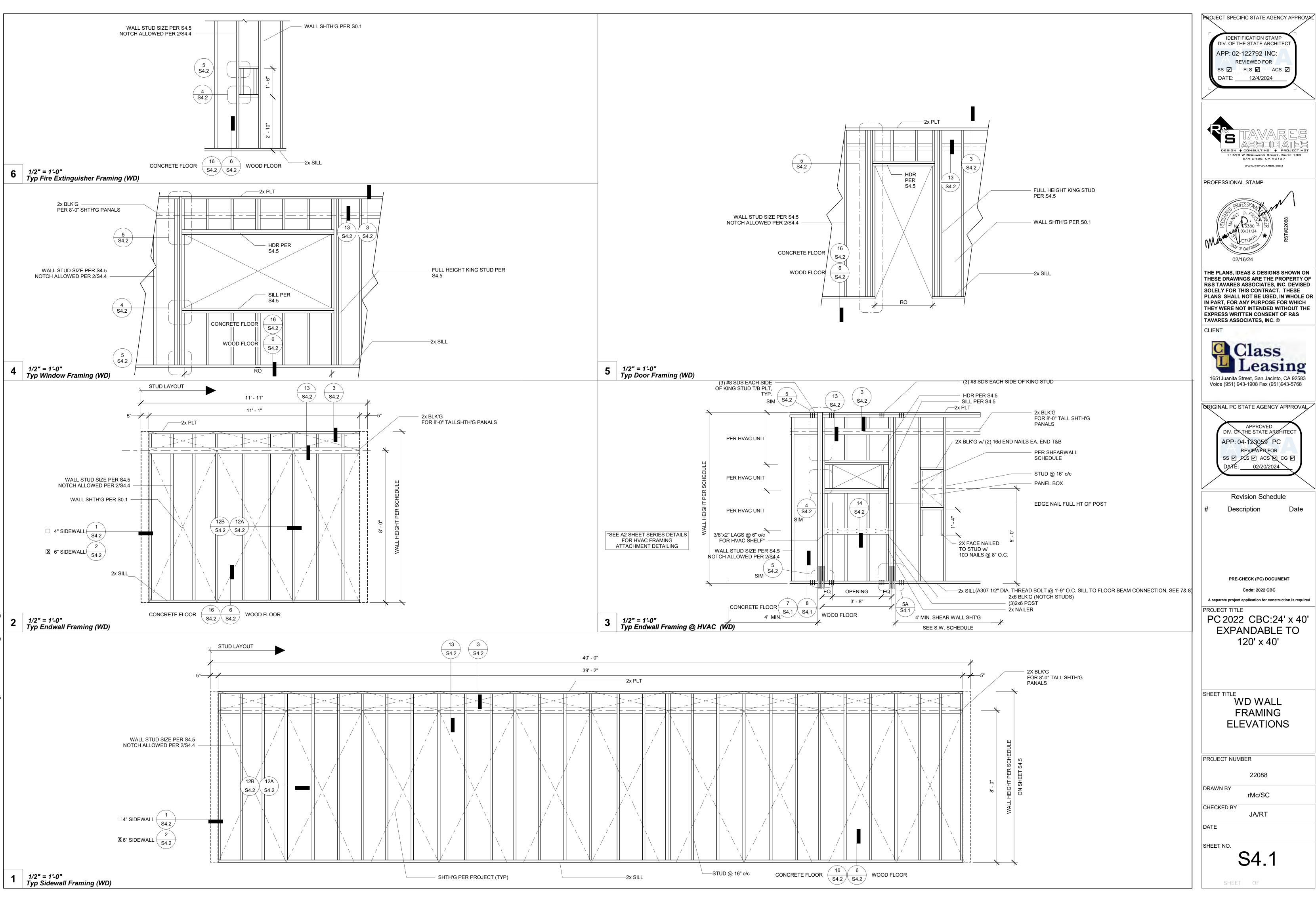
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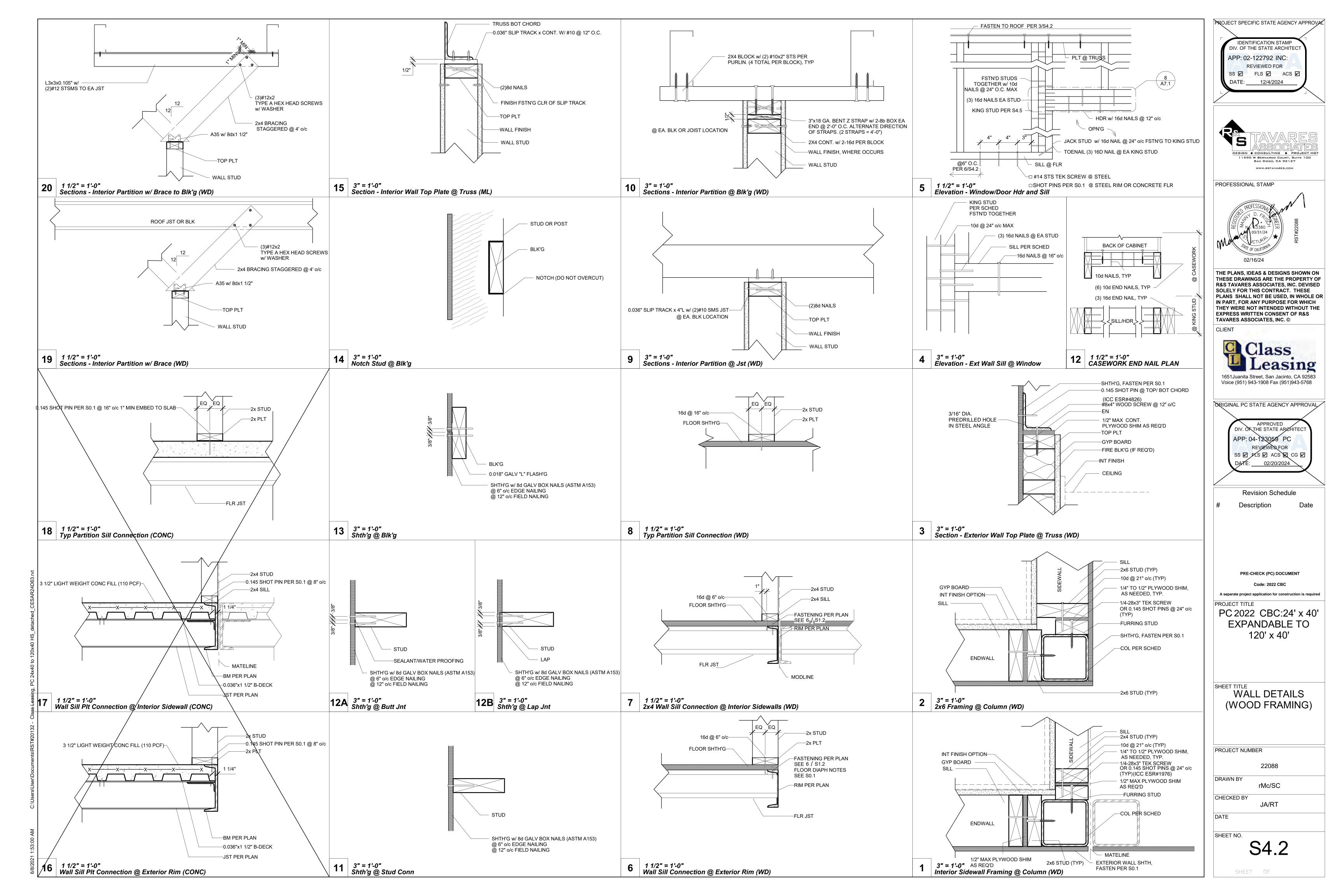
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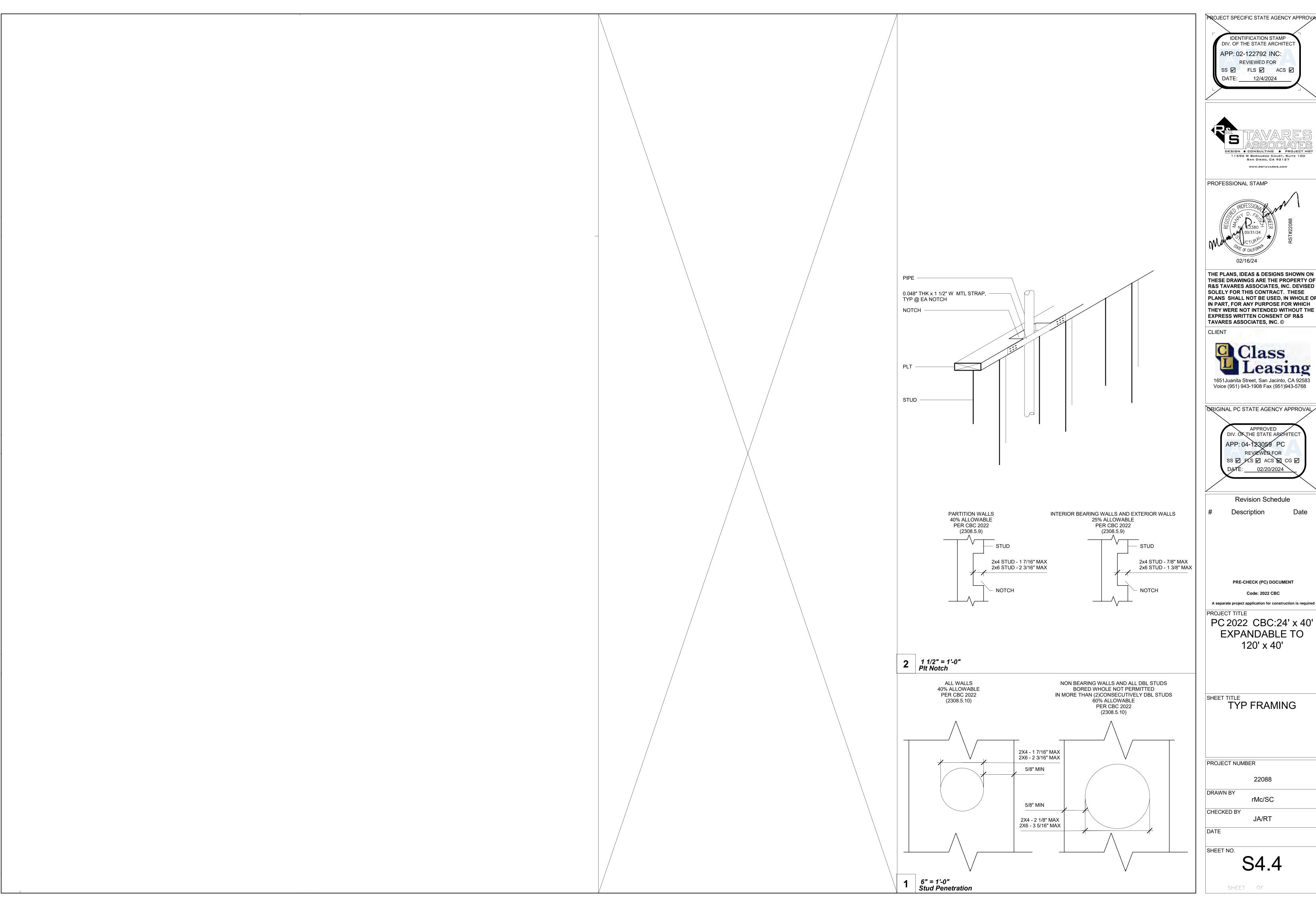
S3.0.3











PROJECT SPECIFIC STATE AGENCY APPROVAL SS 🗹 FLS 🗹 ACS 🗹





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ORIGINAL PC STATE AGENCY APPROVAL



PC 2022 CBC:24' x 40' EXPANDABLE TO

				2x4 Interior	Wall Openi	ng Schedule	!				
COL HEIGHT	OPN'G SIZE		HDR			SILL		FULL HEIGHT KING STUD			
		Lumber	Number	Type	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	#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	

		2x4 Interior	Wall Frami	ng Schedule						
COL HEIGHT		Typical I	ocation		4	4ft From Building Corner				
	Lumber	Number	Type	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	OPN'G		HDR			SILL		FULL I	HEIGHT KING	STUD	
HEIGHT	SIZE										
		Lumber	Number	Type	Lumber	Number	Type	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 Exte	erior Wall Fr	aming Sche	dule (SHTH'G	FINISH)				
COL HEIGHT		Typical	Location		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.	HF	1	#2	16" O.C.	
	DF	1	#2	16" O.C.	DF	1	#2	16" O.C.	

2x6 Exterior Wall Framing Schedule (PLASTER FINISH)								
COL HEIGHT		Typical Location			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.	HF	1	#2	16" O.C.
	DF	1	#2	16" O.C.	DF	1	#2	16" O.C.

2x6 Exterior Wall Opening Schedule (PLASTER FINISH)

HF

DF

1

Lumber Number

Type

#2

#2

#2

#2

#2

#2

#2

#2

#2

#2

#2

#2

Lumber

DF

HF

DF

DF

DF

DF

HF

Type

#2

#2

#2

#2

#2

#2

#2

#2

#2

#2

#2

#2

#2

OPN'G

4070

6040

8040

3070

4070

6040

Lumber

DF

HF

DF

HF

DF

HF

DF

HF

HF

Number

1

HEIGHT

9FT

10FT

FULL HEIGHT KING STUD

Number

Type

#2

#2

#2

#2

#2

#2

#2

#2

#2

#2

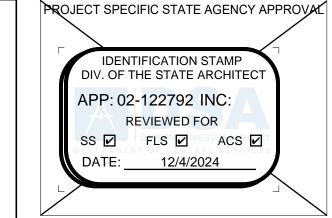
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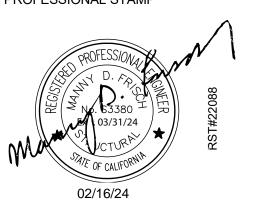
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NOTE: SEE DETAIL 1 ON SHEETS A2.1 - A2.6



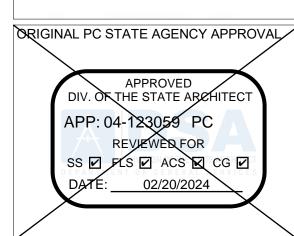


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Revision Schedule Description

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

S4.5

