CITY OF DIXON FIRE DEPARTMENT

DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

100% CD - BID SET

LIONAKIS

2025 19TH STREET, SACRAMENTO, CA. 95818
P. (916) 558-1900 F. (916) 558-1919



TEAM DIRECTORY

OWNER:

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EMAIL: andrewm@cartwrightengineers.com

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* **REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE**

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RANCHO CORDOVA, CA 95670
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PHONE: (916) 852.9118

JOB NUMBER: 22204

DATE: **06/19/2026**

REVISONS

AGENCY

PLANS AND SPECIFICATIONS
APPROVED FOR PUBLIC BID:

CHRISTOPHER FONG RCE 72017
CITY ENGINEER

SEAL

LICENSED ARCHITECT
DEBORAH LESNEFSKA
C36478
REN 11-30-27
STATE OF CALIFORNIA

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SHEET TITLE: **COVER SHEET**

SHEET NUMBER: **CS.1**

2"
1"
0 1/4" 1/2"
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

ABBREVIATIONS

Ø	Diameter
(N)	New
(E)	Existing
#	Pound or Number
℄	Centerline
@	At
&	And
AFF	Above Finished Floor
ALUM	Aluminum
APPROX	Approximate
APT	Apartment
ARCH	Architectural
AB	Above Bolt
BAT	Batten
BD	Board
BLDG	Building
BO	Bottom of
BDRM	Bedroom
BLKG	Blocking
BTWN	Between
BOT	Bottom
CB	Catch Basin
CER	Ceramic
CAB	Cabinet
CG	Corner Guard
CLG	Ceiling
CJ	Control Joint
CFCI	Contractor Furnished/ Contractor Installed
CFOI	Contractor Furnished/ Owner Installed
CLO	Closet
CLR	Clear
CMU	Concrete Masonry Unit
CNTR	Center
CONC	Concrete
CONF	Conference
CONSTR	Construction
CORR	Corridor
CONT	Continuous
CPT	Carpet
CUST	Custodian
CEM	Cement
CLKG	Caulking
COL	Column
COMM	Communications
DBL	Double
DEMO	Demolition/Demolished
DEPT	Department
DEG	Degree
DET	Detail
DF	Drinking Fountain
DIA	Diameter
DISP	Dispenser
DR	Door
DN	Down
DIST	Distance
DIM	Dimension
DS	Downspout
DW	Dish Washer
DWR	Drawer
DWG	Drawing
EA	Each
EIFS	Exterior Insulation and Finish System
ELEC	Electrical
EJ	Expansion Joint
ELEV	Elevator
EQ	Equal
EQUIP	Equipment
EWC	Electrical Water Cooler
EOS	Edge Of Slab
EXH	Exhaust
EQPT	Equipment
EL	Elevation
EXT	Exterior
EW	Eye Wash
EXP	Expansion
FA	Fire Alarm
FACP	Fire Alarm Control Panel
FD	Floor Drain
FND	Foundation
FE	Fire Extinguisher
FEC	Fire Extinguisher Cabinet
FIN	Finish
FIXT	Fixture
FLR	Floor
FTG	Footing
FT	Foot or Feet
FOC	Face of Concrete
FRP	Fiberglass Reinforced Plastic
FURN	Furniture
FOF	Face of Finish
FOM	Face of Masonry
FS	Face of Stud
FSR	Fire Sprinkler Riser
FURR	Furring
FF	Face of Framing
GA	Gauge
GALV	Galvanized
GB	Grab Bar
GEN	General
GL	Glass
GLZ	Glazing
GR	Grade
GYP	Gypsum
GWB	Gypsum Wall Board
GSM	Galvanized Sheet Metal

HC	Hollow Core
HDWD	Hardwood
HDWE	Hardware
HB	Hose Bibb
HM	Hollow Metal
HORIZ	Horizontal
HGT	Height
HSS	Hollow Structural Section
HR	Hour
HVAC	"Heating, Ventilating and Air Conditioning"
HW	Hot Water
HYD	Hydrant
ID	Inside Diameter
INCL	Include
INFO	Information
INSUL	Insulation
INTERM	Intermediate
INT	Interior
INSUL	Insulation
JAN	Janitor
JT	Joint
JST	Joist
KIT	Kitchen
LAM	Laminate
LAB	Laboratory
LAV	Lavatory
LT	Light
LKR	Locker
LP	Laminated Plastic
LF	Linear Feet
LIN	Linen Cabinet
MAX	Maximum
MB	Machine Bolt
MBH	Mop and Broom Holder
MC	Medicine Cabinet
MD	Metal Deck
MEMB	Membrane
MECH	Mechanical
MDF	Medium Density Fiberboard
MIN	Minimum
MISC	Miscellaneous
MFR	Manufacturer
MIR	Mirror
MO	Masonry Opening
MTL	Metal
MULL	Mullion
MTD	Mounted
MW	Microwave
MFG	Manufacturer
NIC	Not In Contract
NTS	Not To Scale
NO	Number
NOM	Nominal
NS	Near Side
OA	Overall
OC	On Center
OD	Outside Diameter
OFF	Office
OFCI	Owner Furnished Contractor Installed
OFOI	Owner Furnished Owner Installed
OH	Overhang
OPNG	Opening
OPP	Opposite
OPH	Opposite Hand
O/	Over
PTD	Paper Towel Dispenser
PL	Plate or Property Line
PERIM	Perimeter
PERF	Perforated
PLAM	Plastic Laminate
PLUMB	Plumbing
PLYWD	Plywood
PR	Pair
PSF	Pound Per Square Foot
PSI	Pound Per Square Inch
QTY	Quantity
QT	Quarry Tile
R	Riser
RAD	Radius
RB	Reinforced Concrete
RD	Roof Drain
RCP	Reflected Ceiling Plan
REF	Reference
REINF	Reinforced
REQD	Required
RH	Robe Hook
RESID	Resident
RM	Room
RESIL	Resilient
RWD	Redwood
RWL	Rain Water Leader
RO	Rough Opening
REVR	Reverse
REFR	Refrigerator

SC	Solid Core
SCHED	Schedule
SD	Soap Dispenser
SECT	Section
SF	Square Feet
SHT	Sheet
SIM	Similar
SHR	Shower
SND	Sanitary Napkin Dispenser
SP	Space
STD	Standard
STL	Steel
STOR	Storage
STRUCT	Structure/Structural
SUB	Suspended
SYM	Symmetrical
SCD	Seat Cover Dispenser
SGB	Shower Grab Bar
SHTG	Sheathing
SNR	Sanitary Napkin Receptacle
SOG	Slab on Grade
SPEC	Specification
SS	Stainless Steel
SIM	Similar
SEVR	Service
SH	Shelf
SSD	See Structural Drawings
SCR	Shower Curtain Rod
T	Tread
TB	Towel Bar
T&B	Top and Bottom
TEL	Telephone
THK	Thick
T.O.	To of
TOF	Top of Footing
TOM	Top of Masonry
TOS	Top of Steel
TCSD	Toilet Seat Cover Dispenser
TOC	Top Of Concrete
TTD	Toilet Tissue Dispenser
TV	Television
TYP	Typical
U/C	Under Counter
UNF	Unfinished
UTIL	Utility
UR	Urinal
UNO	Unless Noted Otherwise
VCT	Vinyl Composite Tile
VERT	Vertical
VEST	Vestibule
VIF	Verify In Field
VAT	Vinyl Abestos Tile
VWC	Vinyl Wall Covering
W/	With
W/O	Without
WC	Water Closet
WD	Wood
WH	Water Heater
WT	Weight
WWF	Welded Wire Fabric
WWM	Welded Wire Mesh
WRB	Water Resistive Barrier

APPLICABLE CODES

2022 CALIFORNIA BUILDING CODE
2022 CALIFORNIA MECHANICAL CODE
2022 CALIFORNIA PLUMBING CODE
2022 CALIFORNIA ELECTRICAL CODE
2022 CALIFORNIA FIRE CODE
2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
2022 CALIFORNIA REFERENCE STANDARDS CODE
CCR TITLE 19. PUBLIC SAFETY: DIVISION 1. STATE FIRE MARSHAL
2022 NFPA 13 - INSTALLATION OF FIRE SPRINKLERS*
2019 NFPA 24 - INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES*
2013 NFPA 25CA- CALIFORNIA EDITION, INSPECTION, TESTING & MAINTENANCE OF WATER BASED FIRE PROTECTION SYSTEMS
2022 NFPA 72 - NATIONAL FIRE ALARM AND SIGNALING CODE*
2019 NFPA 1221 - STANDARD FOR THE INSTALLATION, MAINTENANCE, AND USE OF EMERGENCY SERVICES COMMUNICATIONS SYSTEMS*
*AS AMENDED BY CALIFORNIA
CITY OF DIXON MUNICIPAL FIRE CODE
SOLANO COUNTY FIRE SAFE ORDINANCE.

SYMBOLS



SECTION (DETAIL SIMILAR)
SECTION IDENTIFICATION
SHEET SECTION LOCATION
(NO ARROW AT DETAIL BUBBLE)



INTERIOR ELEVATIONS
ELEVATION IDENTIFICATION
VIEW ON SHEET
SHEET



ROOM IDENTIFICATION
ROOM NAME
ROOM NUMBER



KEY NOTE



WALL TYPE



DOOR & GATE SYMBOL



WINDOW SYMBOL



WORK POINT, CONTROL POINT, OR DATUM



PROJECT NORTH

DEFERRED SUBMITTALS

- PRE-FABRICATED WOOD TRUSSES
- VEHICLE EXHAUST REMOVAL SYSTEM
- COMMUNICATIONS ANTENNA

SEPARATE PERMITS

- Fire Protection Underground Infrastructure
- Fire Sprinkler System
- Fire Alarm System
- Con-Vault Fuel Tank
- LPG/Propane Tank(s)
- Emergency Generator and Fuel Tank
- PV/Solar/BESS/ESS (Emergency Power System including HAZMAT)
- ERRCS (If required)
- Perimeter Fences and Gates
- Kitchen Hood and Duct Extinguishing System (If present)

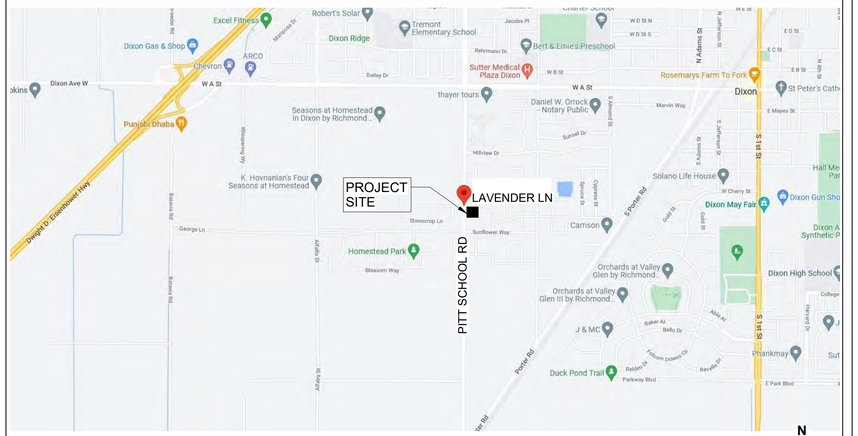
PROJECT DESCRIPTION

OWNER / APPLICANT	: CITY OF DIXON
PROJECT ADDRESS	: 600 A STREET, DIXON, CA 95620
PARCEL NUMBER	: 0114-355-010
SITE AREA	: 0.73 ACRE
LOT COVERAGE	: (BUILDING AREA / 31,799 = %) 7504 GSF / 31,799 = 23.6%
ZONE	: LOW DENSITY RESIDENTIAL
OCCUPANCY	: B BUSINESS - **2,154 sf** R-2 RESIDENTIAL (DORMS) - **2,031 sf** S-2 STORAGE (APPARATUS BAY) - **3,319 sf**
OCCUPANT LOAD	: 61
CONSTRUCTION	: V-B
FIRE PROTECTION	: SEPARATED OCCUPANCIES
FIRE SPRINKLERED	: YES; WET
FIRE ALARM	: YES; MANUAL SYSTEM
BUILDING AREA	: 7,504 GSF
ALLOWABLE AREA	:SEE ALLOWABLE BUILDING AREA FOR MIXED OCCUPANCY CALCULATION SHEET G0.2
AREA INCREASE	: NONE
NUMBER OF STORIES	: 1 STORY
BUILDING HEIGHT	: 33'-3"
HEIGHT INCREASE	: NONE
WUIA: (WILDLAND URBAN INTERFACE ASSESSMENT)	: NO
FLOOD ZONE:	: NO
HIGH FIRE HAZARD SEVERITY ZONE	: NO
RISK CATEGORY	: IV
SEISMIC JOINTS	: NO

SCOPE OF WORK

CONSTRUCTION OF NEW 7,504 SF FIRE STATION ON .73 ACRE VACANT LOT. FIRE STATION TO INCLUDE 2 DRIVE THROUGH BAYS, STAFF DORM ROOMS, OFFICE, TOILET FACILITIES, FITNESS ROOM, KITCHEN, DAY ROOM, AND UTILITY SPACES. CONSTRUCTION IS SLAB ON GRADE WITH SPREAD FOOTINGS, WOOD FRAMING, AND PREFABRICATED WOOD TRUSSES. SYSTEMS TO INCLUDE MECHANICAL, PLUMBING, ELECTRICAL, AND LOW VOLTAGE DESIGN FOR FULLY FUNCTIONAL FIRE STATION. SITE IMPROVEMENTS TO INCLUDE: CONCRETE PAVING, PARKING, TRASH ENCLOSURE, EMERGENCY GENERATOR, FUEL TANK, PROPANE TANK, PATIO SPACES, AND LANDSCAPE.

PROJECT LOCATION MAP



LIONAKIS
2025 Nineteenth Street
Sacramento, CA 95818
P 916.558.1900
www.lionakis.com

CONSULTANT

SEAL



PROJECT
DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

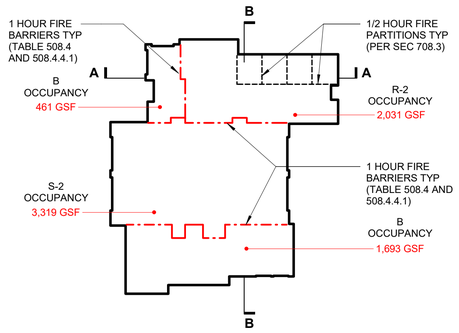
TITLE
ABBREV., PROJECT INFORMATION AND MAP

SHEET
G0.1

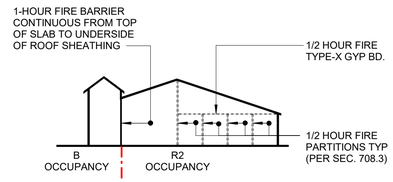
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2"
1"
0 1/4" 1/2"
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

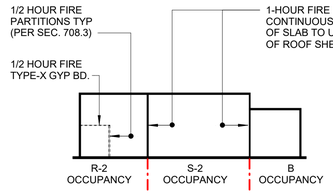
FIRE DIAGRAM



PLAN



SECTION A - A



SECTION B - B

LEGEND

- 1/2 HOUR FIRE PARTITION WALL
- 1 HOUR FIRE BARRIER

PLUMBING FIXTURES QUANTITY ANALYSIS

RESIDENTIAL OCCUPANCY: 4 TOTAL OCCUPANTS (4 SINGLE DORM ROOMS)

BUSINESS AND STORAGE OCCUPANCIES: THE SAME 4 OCCUPANTS OCCUPY EITHER THE BUSINESS / STORAGE PORTION OR THE RESIDENTIAL PORTION OF THE FACILITY. NO SIMULTANEOUS OCCUPANCY BY OUTSIDE PERSONNEL.

422.2 EXCEPTION: WHEN TOTAL OCCUPANT LOAD IS 10 OR LESS, ONE SINGLE OCCUPANCY FACILITY SHALL BE PERMITTED FOR USE BY BOTH SEXES

TABLE 422.1 FOR R-2 RESIDENTIAL OCCUPANCY, ≤ 8 OCCUPANTS:

TYPE	REQUIRED	PROVIDED
WATER CLOSETS	1	4
URINALS	1	2
LAVATORIES	1	4
BATHTUBS OR SHOWERS *	1	3
DRINKING FOUNTAINS	0 *	1*
SERVICE SINK OR LAUNDRY TRAY	1	2

* NOT REQUIRED PER 415.2 W/ WATER STATION AND OCCUPANT LOAD < 30

CODE ANALYSIS

APPLICABLE CODES:

2022 CALIFORNIA BUILDING CODE
2022 CALIFORNIA RESIDENTIAL CODE, SECTION R310.2 ONLY
2022 CALIFORNIA MECHANICAL CODE
2022 CALIFORNIA PLUMBING CODE
2022 CALIFORNIA ELECTRICAL CODE
2022 CALIFORNIA FIRE CODE
2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

BUILDING CODE:

302 OCCUPANCY CLASSIFICATIONS
B BUSINESS
R-2 RESIDENTIAL DORM
S-2 APPARATUS ROOM

420.2 WALLS SEPARATING B AND R2 OCCUPANCIES SHALL BE 1-HOUR FIRE PARTITIONS.

504.3 ALLOWABLE BUILDING HT = 60'-0" (1 STORY)
ACTUAL BUILDING HT = 33'-3" (1 STORY)

506.2 ALLOWABLE AREAS BY OCCUPANCY (TYPE V-B, SPRINKLERED CONSTRUCTION)

B 36,000 SF
R2 28,000 SF
S2 54,000 SF

506.3 – FRONTAGE INCREASE: NOT USED. NOT REQUIRED PER 508.4.2 CALCULATION

508.4 B, R2 AND S2 ARE SEPARATED BY RATED ASSEMBLIES.

508.4.2 ALLOWABLE BUILDING AREA FOR MIXED OCCUPANCY

B (461 SF + 1693 SF) /36,000 SF =0.06
R-2 2,031 SF/28,000 SF =0.07
S-2 3,319 SF/54,000 SF =0.06
=0.19<1 (COMPLIES)

ACTUAL BUILDING AREA : 7,504 GSF

508.4.4.1 WALLS SEPARATING S2 OCCUPANCY FROM B AND R2 OCCUPANCIES SHALL BE 1-HOUR FIRE BARRIER WALLS PER 707.

CHPT. 6 - CONSTRUCTION TYPE: V-B FULLY SPRINKLERED

TABLE 602 – FIRE RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE:

EXTERIOR WALLS: MINIMUM 5' SEPARATION DISTANCE ALL SIDES. NO FIRE RESISTANCE RATING REQUIRED.

705.8.1, EXCEPTION 2 EXTERIOR WALL UNLIMITED UNPROTECTED OPENINGS ALLOWED DUE TO NO FIRE RESISTANCE RATING REQUIRED.

708.3, EXCEPTION 2: WALLS SEPARATING DORM ROOMS SHALL BE ½ HOUR FIRE PARTITIONS FOR TYPE VB CONSTRUCTION, FULLY SPRINKLERED.

TABLE 716.1(2): DOORS IN 1-HR FIRE BARRIERS AND 1-HR FIRE PARTITIONS REQUIRED TO BE 45-MINUTE RATED.

DOORS IN ½ HOUR FIRE PARTITIONS SHALL BE 20-MINUTE RATED.

TABLE 717.3.2.1 FIRE DAMPERS REQUIRED TO BE 1.5 HOUR RATED.

903 FIRE SPRINKLERS REQUIRED

906 PROVIDE ONE 2A:10B:C PORTABLE FIRE EXTINGUISHER FOR EVERY 3000 SF. (5 PROVIDED). MAXIMUM 75' TRAVEL DISTANCE.

1005.3.2 EXIT WIDTH: CAPACITY OF A SINGLE 36" WIDE DOOR: 36"/.2" PER PERSON = 180 PEOPLE
LARGEST ACTUAL DOOR EGRESS LOAD IS 30 PEOPLE, SO NO LARGER DOORS REQUIRED.

1008 EGRESS ILLUMINATION: MINIMUM 1 FOOTCANDLE AT WALKING SURFACE REQUIRED FOR ALL MEANS OF EGRESS OTHER THAN SLEEPING UNITS. EMERGENCY POWER FOR EGRESS ILLUMINATION ONLY REQUIRED WHERE MORE THAN ONE EXIT REQUIRED.

1010.1.2.1 DOORS SHALL SWING IN THE DIRECTION OF EGRESS WHEN SERVING 50 OR MORE.

1013 ILLUMINATED EXIT SIGNS REQUIRED WHERE MORE THAN 1 EXIT REQUIRED.

1017 EXIT ACCESS TRAVEL DISTANCE:
B: 300' MAXIMUM (W/ SPRINKLERS)
S2: 400' MAXIMUM (W/ SPRINKLERS)
R2: 250' MAXIMUM (W/ SPRINKLERS)

11B-201.1 ALL AREAS OF NEWLY DESIGNED AND NEWLY CONSTRUCTED BUILDINGS … SHALL COMPLY WITH THESE [CHAPTER 11B ACCESSIBILITY] REQUIREMENTS.

RESIDENTIAL REQUIREMENTS:

CBC SECTION 1031 PROVIDE ONE WINDOW IN EACH SLEEPING ROOM MEETING EMERGENCY ESCAPE AND RESCUE MINIMUM REQUIREMENTS OF 5.7 SF NET AREA, 24" CLEAR HEIGHT, 20" CLEAR WIDTH, WITH SILL NOT GREATER THAN 44" ABOVE FLOOR.

FIRE CODE:

TABLE B105.1(2) MINIMUM FIRE FLOW REQUIRED: 3,000 GPM FOR 3 HOURS (TYPE VB, 12,411 SF).

TABLE C102.1 MINIMUM NUMBER OF HYDRANTS: 3 (FOR 3,000 GPM FIRE FLOW)

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DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

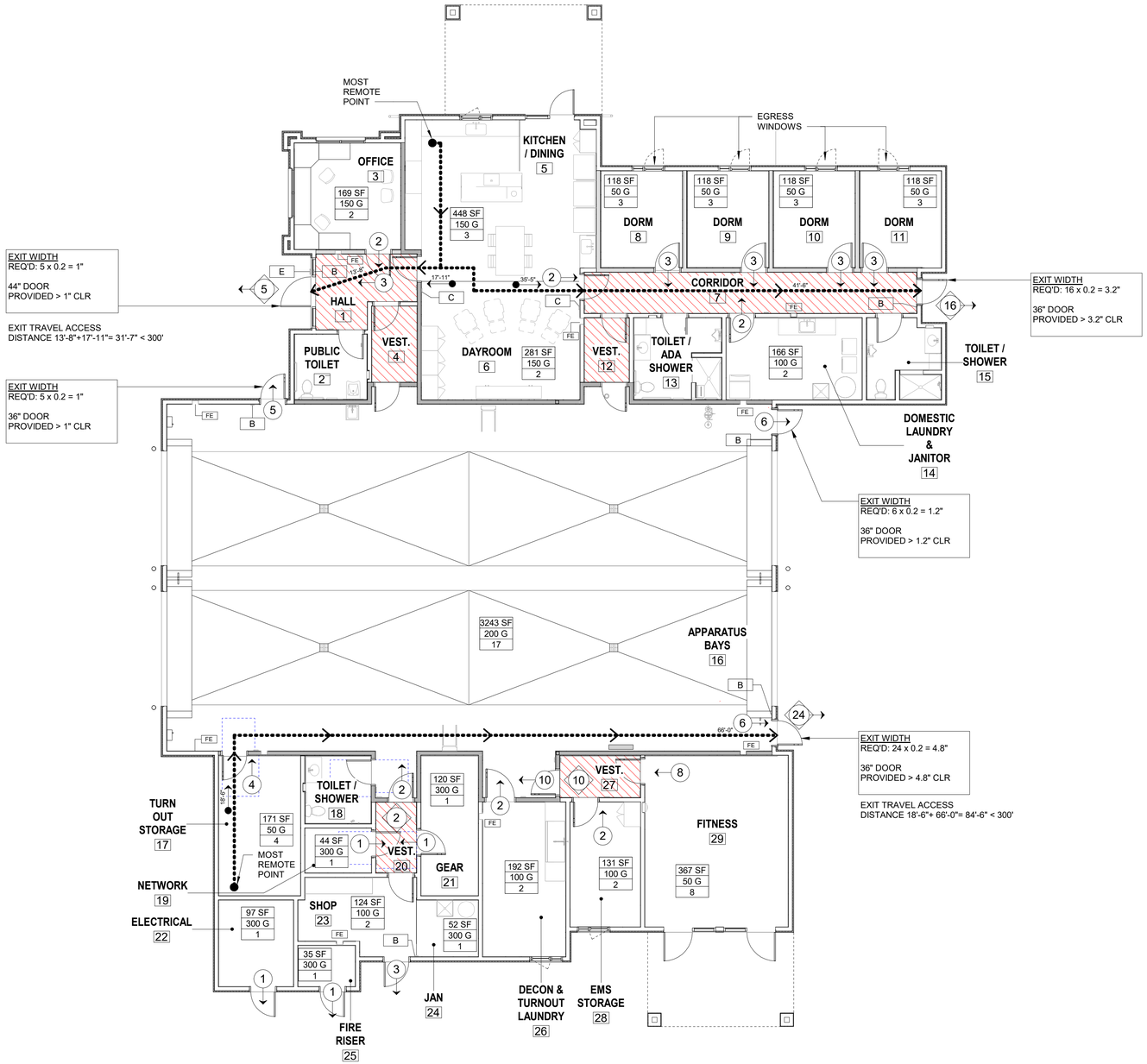
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AGENCY

TITLE
CODE COMPLIANCE DATA

SHEET
G0.2

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NOTE:
REFER TO FIRE DIAGRAM ON SHEET G0.2 FOR WALL FIRE-RESISTANCE RATING.

1 EGRESS PLAN
1/8" = 1'-0"

N

EXITING LEGEND

- AREA
- LOAD FACTOR (NET OR GROSS)
- TOTAL OCCUPANT LOAD
- FE — FIRE EXTINGUISHER CABINET (SEMI-RECESSED)
- NON-CALCULATED CIRCULATION AREA
- X'-XX" — EXIT ACCESS TRAVEL DISTANCE (CBC TABLE 1017.2)
- X'-XX" — COMMON PATH OF EGRESS TRAVEL DISTANCE: (CBC TABLE 1006.2.1)
- 1 — CUMULATIVE OCCUPANT LOAD
- ILLUMINATED EXIT SIGN - SEE ELECTRICAL DRAWINGS
- 1 — EXITING OCCUPANTS
- B — "EXIT" SIGNAGE
- C — "EXIT ROUTE" SIGNAGE
- E — "ADA" SYMBOL SIGNAGE
- REFER TO SHEET A2.6 FOR ADDITIONAL INFORMATION (CBC 107.2.1)

ROOM OCCUPANCY

NO. REQD EXIT	ROOM NAME	AREA	OCCUPANT LOAD FACTOR	OCCUPANT LOAD
1	HALL	94 SF		
2	PUBLIC TOILET	70 SF	0	
3	OFFICE	169 SF	150	2
4	VEST.	51 SF		
5	KITCHEN / DINING	448 SF	150	3
6	DAYROOM	281 SF	150	2
7	CORRIDOR	203 SF		
8	DORM	118 SF	50	3
9	DORM	118 SF	50	3
10	DORM	118 SF	50	3
11	DORM	118 SF	50	3
12	VEST.	43 SF	0	
13	TOILET / ADA SHOWER	107 SF	0	
14	DOMESTIC LAUNDRY & JANITOR	166 SF	100	2
15	TOILET / SHOWER	87 SF		
16	APPARATUS BAYS	3243 SF	200	17
17	TURN OUT STORAGE	171 SF	50	4
18	TOILET / SHOWER	66 SF		
19	NETWORK	44 SF	300	1
20	VEST.	43 SF		
21	GEAR	120 SF	300	1
22	ELECTRICAL	97 SF	300	1
23	SHOP	124 SF	100	2
24	JAN	52 SF	300	1
25	FIRE RISER	35 SF	300	1
26	DECON & TURNOUT LAUNDRY	192 SF	100	2
27	VEST.	51 SF	0	
28	EMS STORAGE	131 SF	100	2
29	FITNESS	367 SF	50	8
		6926 SF		61

WALL LEGEND

- WOOD STUD FRAMED WALL - **1HR** FIRE BARRIER
- WOOD STUD FRAMED WALL - **1/2 HR** FIRE PARTITION
- WOOD STUD FRAMED WALL - NON-RATED PARTITION

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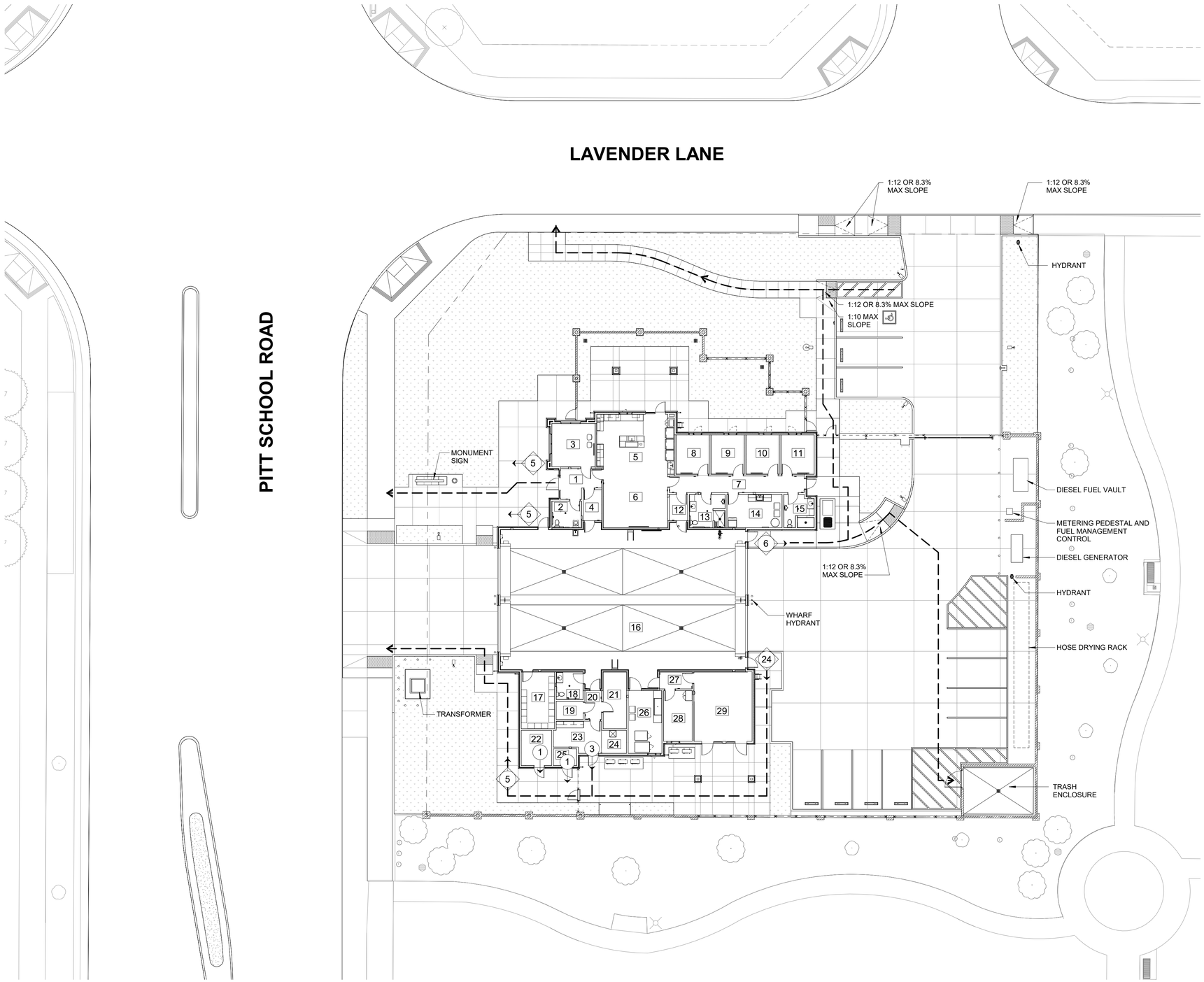
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TITLE
CODE COMPLIANCE EGRESS

SHEET
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EXITING LEGEND

- EXIT DISCHARGE / ACCESSIBLE PATH OF TRAVEL TO & FROM PUBLIC WAY, PER CBC SECTION 1028.5.
  RUNNING SLOPE NOT TO EXCEED 5%. CROSS SLOPE NOT TO EXCEED 2%. 1/4" MAXIMUM VERTICAL CHANGE IN ELEVATION, 1/2" MAXIMUM CHANGE IN ELEVATION WITH TOP 1/4" BEVELED AT 1:2 SLOPE, 48" CONTINUOUS WIDTH AND 80" VERTICAL CLEARANCE.
- ACCESSIBLE CURB RAMP 8.3% MAXIMUM SLOPE
- (1) CUMULATIVE OCCUPANT LOAD
- (1) EXITING OCCUPANTS

1 EGRESS SITE PLAN

1/16" = 1'-0"

N

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CODE COMPLIANCE EGRESS

SHEET

G0.4

2022 GENERAL NOTES - CALGREEN

- CONTRACTOR IS RESPONSIBLE FOR ENSURING CONSTRUCTION WASTE MANAGEMENT COMPLIES WITH CGBSC (CALGreen) SECTION 5.408.
- BUILDING OCCUPANT RESPONSIBLE FOR ENSURING COMPLIANCE WITH CGBSC (CALGreen) SECTION 5.410.1 RECYCLING BY OCCUPANTS.
- CONTRACTOR SHALL PROVIDE OPERATION AND MAINTENANCE (O&M) MANUAL AS REQUIRED BY CGBSC (CALGreenn) SECTION 5.410.4.5, 4.410.1 AND AS DIRECTED BY PROEJCT SPECIFICATIONS.
- CONTRACTOR SHALL PROVIDE INSPECTIONS AND REPORTS AS PART OF THE OPERATION AND MAINTENANCE (O&M) MANUAL AS REQUIRED BY CGBSC (CALGreen) SECTION 5.410.4.5.1 AND AS DIRECTED BY PROEJCT SPECIFICATIONS.
- CONTRACTOR SHALL PERFORM TESTING AND ADJUSTING PROCEDURES IN ACCORDANCE WITH MANUFATURER'S SPECIFICATIONS, APPLICABLE STANDARDS ON EACH SYSTEM, AND BALANCE THE SYSTEM IN ACCORDANCE WITH THE PROCEDURES DEFINED BY THE TESTING ADJSTING AND BALANCE THE SYSTEM AS DIRECTED MY THE PROJECT SPECIFICATIONS (CALGreen 5.410.4.2)
- ADHESTIVES, SEALANTS AND CAULKS SHALL COMPLY WITH CGBSC (CALGreen) SECTION 5.504.4.1. ADHESIVES SHALL MEET THE VOC LIMIT OUT LINED IN TABLE 5.504.4.1. SEALANTS SHALL MEET HTE VOC LIMIT OUTLINED IN TABLED 5.504.4.2.
- PAINTS AND COATINGS SHALL COMPLY WITH CGBSC (CALGreen) SECTION 5.504.4.3 WITH VOC CONTENT LIMITS MEETING TABLE 5.504.4.3. AREOSOL PAINTS AND COATINGS SHALL COMPLY WITH SECTION 5.504.4.3.1. VERIFICATION DOCUMENTS SHALL BE PROVIDED UPON REQUEST OF THE ARCHTIECT AS REQUIRED FOR COMPLIANCE WITH THE PROJECT SPECIFICATION OR AS REQUESTED BY THE ENFORCING AGENCY PER 5.504.4.3.2.
- CARPET SYSTEMS SHALL COMPLY WITH CGBSC (CALGreen) SECTION 5.504.4.4.
- COMPOSITE WOOD PRODUCTS SHALL COMPLY WITH CGBSC (CALGreen) SECTION 5.504.4.5 AND FORMALDEHYDE LIMITS SHALL COMPLY WITH TABLE 5.504.4.5. VERIFICATION DOCUMENTS SHALL BE PROVIDED UPON REQUEST OF THE ARCHTIECT AS REQUIRED FOR COMPLIANCE WITH THE PROJECT SPECIFICATION OR AS REQUESTED BY THE ENFORCING AGENCY PER 5.504.4.5.3.
- TIER 1 - RESILIENT FLOORING SYSTEMS SHALL COMPLY WITH CGBSC (CALGreen) SECTION 5.504.4.7. 90% OF FLOOR AREA RECEIVING RESILIENT FLOORING SHALL MEET THE REQUIREMENTS OF "STANDARD METHOD FOR THE TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS." VERIFICATION DOCUMENTS SHALL BE PROVIDED TO ENSURE MATERIALS MEET POLLUTANT EMISSION LIMITS.
- TIER 1 - THERMAL INSULATION SHALL COMPLY WITH CGBSC (CALGreen) SECTION 5.504.4.8. INSULATION SHALL MEET THE REQUIREMENTS OF "STANDARD METHOD FOR THE TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS." VERIFICATION DOCUMENTS SHALL BE PROVIDED TO ENSURE MATERIALS MEET POLLUTANT EMISSION LIMITS.
- FILTERS WITH A MINIMUM EFFICIENCY REPORTING VALUE (MERV) RATING OF 13 SHALL BE INSTALLED PRIOR TO OCCUPANCY PER CGBSC (CALGreen) SECTION 5.504.5.3. LABLING AS REQUIRED PER 5.504.5.3.1.
- INDOOR AIR QUALITY SHALL COMPLY WITH CGBSC (CALGreen) SECTION 5.506 AND OUTSIDE AIR DELIVERY PER 5.506.1.
- ENVIROMENTAL COMFORT SHALL COMPLY WITH CGBSC (CALGreen) SECTION 5.507.
  - ACOUSTICAL CONTROL PER 5.507.4. BY MEANS OF 5.507.4.1. EXTERIOR NOISE TRANSMISSION, PERSCRIPTIVE METHOD.
- OZONE DEPLETION AND GREENHOUSE GAS REDUCTIONS SHALL COMPLY WITH CGBSC (CALGreen) SECTION 5.508.1. CHLOROFLUORCARBONS (CFCs) AND HALONS SHALL NOT BE USED.
- ACOUSTICAL CEILING AND WALL PANELS SHALL COMPLY WITH CGBSC (CALGreen) SECTION 5.504.4.8. INSULATION SHALL MEET THE REQUIREMENTS OF "STANDARD METHOD FOR THE TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS." VERIFICATION DOCUMENTS SHALL BE PROVIDED TO ENSURE MATERIALS MEET POLLUTANT EMISSION LIMITS.
- BUILDING MATERIALS WITH VISIBLE SIGNS OF WATER DAMAGE SHALL NOT BE INSTALLED. WALL AND FLOOR FRAMING SHALL NOT BE ENCLOSED WHEN THE FRAMING MEMBERS EXCEED 19 PERCENT MOISTURE CONTENT. MOISTURE CONTENT SHALL BE VERIFIED.
- THE QII PROCEDURES SPECIFIED IN THE BUILDING ENERGY EFFICIENCY STANDARDS REFERENCE APPENDICES RA3.5 SHALL BE COMPLETED. (A4.203.1.1.2)
- TOTAL PROJECT RECEYCLED CONTENT TO BE NO LESS THAN 10% OF THE TOTAL MATERIALS ON THE PROJECT. (CALGREEN A4.405.3.1). PROVIDE VERIFYING DOCUMENTATION.
- ANNULAR SPACES AROUND PIPES, ELECTRIC CABLES, CONDUITS OR OTHER OPENINGS IN PLATES AT EXTERIOR WALLS SHALL BE PROTECTED AGAINST THE PASSAGE OF RODENTS.

CALGREEN ANALYSIS

MANDATORY MEASURES PROJECT COMPLIES WITH THE MANDATORY MEASURES

VOLUNTARY MEASURES NONE

MIXED USE PROJECT CONTAINING RESIDENTIAL AND NON-RESIDENTIAL USES. PER CALGREEN (CGBSC) EACH PORTION OF THE BUILDING SHALL COMPLY WITH THE SPECIFIC GREEN BUILDING MEASURES APPLICABLE TO EACH SPECIFIC OCCUPANCY. THE MAIN OCCUPANCY OF SITE AND BUILDING IS NON-RESIDENTIAL WITH A SECONDARY RESIDENTIAL APPLICATION.

SITE, BUILDING ENVELOPE, AND NON-RESIDENTIAL ROOMS CHAPTER 5 - NON-RESIDENTIAL MANDATORY MEASURES, DIVISION 5.1 THRU 5.5. APPENDIX A5 - NON-RESIDENTIAL MANDATORY MEASURES DIVISION A5.1 THRU A5.5.

DAYROOM, KITCHEN, DORMS, BATHS AND LAUNDRY CHAPTER 4 - RESIDENTIAL MANDATORY MEASURES DIVISION 4.2 THRU 4.5. DIVISION 4.1 - NOT APPLICABLE. APPENDIX A4 - RESIDENTIAL MANDATORY MEASURES APPLICABLE DIVISION A4.2 THRU A4.5.

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AGENCY

TITLE

CAL GREEN

SHEET

G0.5

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

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

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 permitted work.

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 banner will be used.

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 seq.* for definitions, types of commercial real property affected, effective dates, circumstances necessitating replacement of noncompliant plumbing fixtures, and duties and responsibilities for ensuring compliance.

301.3.2 Waste Diversion. The requirements of Section 5.408 shall be required for additions and alterations whenever a permit is required for work.

301.4 PUBLIC SCHOOLS AND COMMUNITY COLLEGES. (see GBSC)
301.5 HEALTH FACILITIES. (see GBSC)

SECTION 302 MIXED OCCUPANCY BUILDINGS

302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

SECTION 303 PHASED PROJECTS

303.1 PHASED PROJECTS. For shell buildings and others constructed for future tenant improvements, only those code measures relevant to the building components and systems considered to be new construction (or newly constructed) shall apply.

303.1.1 Initial Tenant improvements. The provisions of this code shall apply only to the initial tenant improvements to a project. Subsequent tenant improvements shall comply with the scoping provisions in Section 301.3 non-residential additions and alterations.

ABBREVIATION DEFINITIONS:

HCD	Department of Housing and Community Development
BSC	California Building Standards Commission
DSA-SS	Division of the State Architect, Structural Safety
OSHPD	Office of Statewide Health Planning and Development
LR	Low Rise
HR	High Rise
AA	Additions and Alterations
N	New

CHAPTER 5
NONRESIDENTIAL MANDATORY MEASURES
DIVISION 5.1 PLANNING AND DESIGN

SECTION 5.101 GENERAL
5.101.1 SCOPE
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 10 as regulated under 40 CFR Section 600 Subpart D.

NEIGHBORHOOD ELECTRIC VEHICLE (NEV). A motor vehicle that meets the definition of "low-speed vehicle" either in Section 385.5 of the Vehicle Code or in 49CFR571.500 (as it existed on July 1, 2000), and is certified to zero-emission vehicle standards.

TENANT-OCCUPANTS. Building occupants who inhabit a building during its normal hours of operation as 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 mototrruck 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 ordinance.

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.

1. 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.
   e. Erosion control to protect slopes.
   f. Protection of storm drain inlets (gravel bags or catch basin inserts).
   g. Perimeter sediment control (perimeter silt fence, fiber rolls).
   h. Sediment trap or sediment basin to retain sediment on site.
   i. Stabilized construction exits.
   j. 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:
   a. 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.
   g Spill prevention and control.
   h. Other housekeeping BMPs acceptable to the enforcing agency.

GC

5.106.2 STORMWATER POLLUTION PREVENTION FOR PROJECTS THAT DISTURB ONE OR MORE ACRES OF LAND. Comply with all lawfully enacted stormwater discharge regulations for projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of a larger common plan of development sale.

Note: Projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of the larger common plan of development or sale must comply with the post-construction requirements detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board or the Lahontan Regional Water Quality Control Board (for projects in the Lake Tahoe Hydrologic Unit).

The NPDES permits require postconstruction runoff (post-project hydrology) to match the preconstruction runoff (pre-project hydrology) with the installation of postconstruction stormwater management measures. The NPDES permits emphasize runoff reduction through on-site stormwater use, interception, evapotranspiration, and infiltration through nonstructural controls, such as Low Impact Development (LID) practices, and conversation design measures. Stormwater volume that cannot be addressed using nonstructural practices is required to be captured in structural practices and be approved by the enforcing agency.

Refer to the current applicable permits on the State Water Resources Control Board website at: www.waterboards.ca.gov/constructionstormwater. Consideration to the stormwater runoff management measures should be given during the initial design process for appropriate integration into site development.

ARCH

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 spaces with a minimum of one bicycle parking facility.

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:

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

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 and 5.106.4.2.2

5.106.4.2.1 Student bicycle parking. Provide permanently anchored bicycle racks conveniently accessed with a minimum of four two-bike capacity racks per new building.
5.106.4.2.2 Staff bicycle parking. Provide permanent, secure bicycle parking 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:

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

ARCH

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.

Exceptions:
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 requirements:
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 permanently and visibly marked as "EV CAPABLE."

Note: A parking space served by electric vehicle supply equipment or designed as a future EV charging space shall count as at least one standard automobile parking space only for the purpose of complying with any applicable minimum parking space requirements established by an enforcement agency. See vehicle Code Section 22511.2 for further details.

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[1]	25% of EV capable spaces[1]

1. Where there is insufficient electrical supply.
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 provided.

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 service panel or subpanel.

ENG

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

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 Chapter 8) and
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.

Exceptions: [N]

1. Luminaires that qualify as exceptions in Sections 130.2 (b) and 140.7 of the California Energy Code.
2. Emergency lighting.
3. 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 [1,2]

ALLOWABLE RATING	LIGHTING ZONE LZ0	LIGHTING ZONE LZ1	LIGHTING ZONE LZ2	LIGHTING ZONE LZ3	LIGHTING ZONE LZ4
MAXIMUM ALLOWABLE BACKLIGHT RATING [3]					
Luminaire greater than 2 mounting heights (MH) from property line	N/A	No Limit	No Limit	No Limit	No Limit
Luminaire back hemisphere is 1-2 MH from property line	N/A	B2	B3	B4	B4
Luminaire back hemisphere is 0.5-1 MH from property line	N/A	B1	B2	B3	B3
Luminaire back hemisphere is less than 0.5 MH from property line	N/A	B0	B0	B1	B2
MAXIMUM ALLOWABLE UPLIGHT RATING (U)					
For area lighting [3]	N/A	U0	U0	U0	U0
For all other outdoor lighting,including decorative luminaires	N/A	U1	U2	U3	UR
MAXIMUM ALLOWABLE GLARE RATING [1] (G)					
MAXIMUM ALLOWABLE GLARE RATING [1] (G)	N/A	G1	G2	G3	G4
MAXIMUM ALLOWABLE GLARE RATING [1] (G)	N/A	G0	G1	G1	G2
MAXIMUM ALLOWABLE GLARE RATING [1] (G)	N/A	G0	G0	G1	G1
MAXIMUM ALLOWABLE GLARE RATING [1] (G)	N/A	G0	G0	G0	G1

1. IESNA Lighting Zones 0 and 5 are not applicable; refer to Lighting Zones as defined in the *California Energy Code* and Chapter 10 of the *California Administrative Code.*

2. For property lines that abut public walkways, bikeways, plazas and parking lots, the property line may be considered to be 5 feet beyond the actual property line for purpose of determining compliance with this section. For property lines that abut public roadways and public transit corridors, the property line may be considered to be the centerline of the public roadway or public transit corridor for the purpose of determining compliance with this section.

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

5.106.8.1 Facing- Backlight
Luminaries within 2MH of a property line shall be oriented so that the nearest property line is behind the fixture, and shall comply with the backlight rating specified in Table 5.106.8 based on the lighting zone and distance to the nearest point of that property line.
Exception: Corners. If two property lines (or two segments of the same property line) have equidistant point to the luminaire, then the luminaire may be oriented so that the intersection of the two lines (the corner) is directly behind the luminaire. The luminaire shall still use the distance to the nearest points(s) on the property lines to determine the required backlight rating.

5.106.8.2 Facing-Glare.
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 hemisphere.

Note: [N]
1.See also *California Building Code*, Chapter 12, Section 1205.6 for college campus lighting requirements for parking facilities and walkways.
2.Refer to Chapter 8 (Compliance Forms, Worksheets and Reference Material) for IES TM-15-11 Table A-1. *California Energy Code* Tables 130.2-A and 130.2-B.
3. Refer to the *California Building Code* for requirements for additions and alterations.

ENG

5.106.10 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:

1. Swales.
2. Water collection and disposal systems.
3. French drains.
4. Water retention gardens.
5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.
Exception: Additions and alterations not altering the drainage path.

ARCH

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

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

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

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.

Exceptions:
1. Walks, hardscape areas covered by solar photovoltaic shade structures or shade structures with roofing materials that comply with Table A5.106.11.2.2 in Appendix A5 shall be permitted in whole or in part in lieu of shade tree planting.
2. Designated and marked play areas of organized sport activity are not included in the total area calculation.

DIVISION 5.2 ENERGY EFFICIENCY
SECTION 5.201 GENERAL
5.201.1 Scope [BSC-CG]. ***California Energy Code [DSA-SS].*** For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory building standards.

DIVISION 5.3 WATER EFFICIENCY AND CONSERVATION
SECTION 5.301 GENERAL
5.301.1 Scope. The provisions of this chapter shall establish the means of conserving water use indoors, outdoors and in wastewater conveyance.

SECTION 5.302 DEFINITIONS
5.302.1 Definitions. The following terms are defined in Chapter 2 *(and are included here for reference)*

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

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

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

GRAYWATER. Pursuant to Health and Safety Code Section 17922.12, "graywater" means untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy 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 dishwashers.

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

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 as effective as the MWELO.

POTABLE WATER. Water that is drinkable and meets the U.S. Environmental Protection Agency (EPA) Drinking 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 Having Jurisdiction.

RECYCLED WATER. Water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur [Water Code Section 13050 (n)]. Simply put, recycled water is water treated to remove waste matter attaining a quality that is suitable to use the water 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 1954.202 (g) and Water code Section 517 for additional details.)

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

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PROJECT
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653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT
CITY OF DIXON FIRE DEPARTMENT

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2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

NONRESIDENTIAL MANDATORY MEASURES, SHEET 2 (January 2023)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

SECTION 5.303 INDOOR WATER USE

5.303.1 METERS. Separate submeters or metering devices shall be installed for the uses described in Sections 503.1.1 and 503.1.2.

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, 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.

ENG **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.

ENG **5.303.3.2 Urinals.**
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.

ENG **5.303.3.3 Showerheads. [BSC-CG]**
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.

ENG **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 per minute at 60 psi.

5.303.3.4.3 Wash fountains. Wash fountains shall have a maximum flow rate of not more than1.8 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].

Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.

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 1605.3 (h)(4)(A).

TABLE H-2

STANDARDS FOR COMMERCIAL PRE-RINSE SPRAY VALUES MANUFACTURED ON OR AFTER JANUARY 28, 2019

PRODUCT CLASS [spray force in ounce force (ozf)]	MAXIMUM FLOW RATE (gpm)
Product Class 1 (≤ 5.0 ozf)	1.00
Product Class 2 (> 5.0 ozf and ≤ 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 installation.

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

ENG **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.

Notes:
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/.

ENG **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 EFFICIENCY

SECTION 5.401 GENERAL

5.401.1 SCOPE. The provisions of this chapter shall outline means of achieving material conservation and resource efficiency through protection of buildings from exterior moisture, construction waste diversion, employment of techniques to reduce pollution through recycling of materials, and building commissioning or testing and adjusting.

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 a damper.

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.

ARCH **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.
3. 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 RECYCLING

GC **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.
2. Determines if construction and demolition waste materials will be sorted on-site (source-separated) or bulk mixed (single stream).
3. Identifies diversion facilities where construction and demolition waste material collected will be taken.
4. Specifies that the amount of construction and demolition waste materials diverted shall be calculated byweight or volume, but not by both.

5.408.1.2 Waste Management Company. Utilize a waste management company that can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with this section.

Note: The owner or contractor shall make the determination if the construction and demolition waste material will be diverted by a waste management company.

Exceptions to Sections 5.408.1.1 and 5.408.1.2:

1. 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 and markets.

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.

Notes:

1. 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 items 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 materials shall be included in the construction documents.

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.

Notes:

1. If contamination by disease or pest infestation is suspected, contact the County Agricultural Commissioner and follow its direction for recycling or disposal of the material.
2. For a map of know pest and/or disease quarantine zones, consult with the California Department of Food and Agriculture. (www.cdfa.ca.gov)

SECTION 5.410 BUILDING MAINTENANCE AND OPERATIONS

OWNER **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 floor area.

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 CalRecycle's web site.

ENG **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 comparable 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.
2. 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.

Exceptions:

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:
1. 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 operation.
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.
3. 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.
   b. 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.
4. Commissioning team information.
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 made.

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.
2. Site contact information.
3. Basic operations and maintenance, including general site operating procedures, basic troubleshooting, recommended maintenance requirements, site events log.
4. Major 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 representative.

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 systems.

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.
3. 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.

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 Council National Standards or as approved by the enforcing agency.

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 regulations.

5.410.4.5.1 Inspections and reports. Include a copy of all inspection verifications and reports required by the enforcing agency.

DIVISION 5.5 ENVIRONMENTAL QUALITY

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^{0} 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-propelled 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) (EVCS). One or more spaces intended for charging electric vehicles.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). The conductors, including the ungrounded, grounded, and equipment grounding conductors and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

ENERGY EQUIVALENT (NOISE) LEVEL (Leq). The level of a steady noise which would have the same energy as the fluctuating noise level integrated over the time of period of interest.

EXPRESSWAY. An arterial highway for through traffic which may have partial control of access, but which may or may not be divided or have grade separations at intersections.

FREEWAY. A divided arterial highway with full control of access and with grade separations at intersections.

GLOBAL WARMING POTENTIAL (GWP). The radiative forcing impact of one mass-based unit of a given greenhouse gas relative to an equivalent unit of carbon dioxide over a given period of time. Carbon dioxide is the reference compound with a GWP of one.

GLOBAL WARMING POTENTIAL VALUE (GWP VALUE). A 100-year GWP value published by the Intergovernmental Panel on Climate Change (IPCC) in either its Second Assessment Report (SAR) (IPCC, 1995); or its Fourth Assessment A-3 Report (AR4) (IPCC, 2007). The SAR GWP values are found in column "SAR (100-yr)" of Table 2.14.; the AR4 GWP values are found in column "100 yr" of Table 2.14.

HIGH-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that is: (a) a chlorofluorocarbon, a hdrochlorofluorocarbon, a hydrofluorocarbon, a perfluorocarbon, or any compound or blend of compounds, with a GWP value equal to or greater than 150, or (B) any ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009).

LONG RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, with a radius 1.5 times the pipe diameter.

LOW-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that: (A) has a GWP value less than 150, and (B) is not an ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009).

MERV. Filter minimum efficiency reporting value, based on ASHRAE 52.2–1999.

MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the "Base REactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to hundreths of a gram (g O^{3}/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 ozone formation in the troposphere.

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

GC **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.

GC **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 may enter the system.

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.*

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CONSULTANT

SEAL
LICENSED ARCHITECT DEBORAH LESNESKA C36478 RENEW 11-30-27 STATE OF CALIFORNIA

PROJECT
DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT
LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
CAL GREEN

SHEET
G0.7

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AIA California

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

NONRESIDENTIAL MANDATORY MEASURES, SHEET 3 (January 2023)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

5.504.4 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.6.

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 with Section 94507.

TABLE 5.504.4.1 - ADHESIVE VOC LIMIT[1,2]

Less Water and Less Exempt Compounds in Grams per Liter

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
FIBERGLASS	80

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

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.

TABLE 5.504.4.3 - CONT.

GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS

COATING CATEGORY	CURRENT VOC LIMIT
SPECIALTY COATINGS	
ALUMINUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	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 COATINGS[1]	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
ZINC-RICH PRIMERS	340

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 THE TABLE.

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
2. Field verification of on-site product containers

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 Specifications 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

5.504.4.4.1 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 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

5.504.4.4.2 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 Table 5.504.4.5.

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:

1. Product certifications and specifications.
2. Chain of custody certifications.
3. 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 standards.
5. Other methods acceptable to the enforcing agency.

TABLE 5.504.4.5 - FORMALDEHYDE LIMITS[1]

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 FIBERBOARD[2]	0.13

1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIFORNIA CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.

2. 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 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

5.504.4.6.1 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 limits.

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 rating.

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 (CO_2) MONITORING. For buildings or additions equipped with demand control ventilation, CO_2 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:

1. 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 windows.
2. 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.
3. 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 exceeded 1,100ppm.
4. 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.
5. 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.
6. The monitor or sensor shall be certified by the manufacturer to be accurate within 75ppm at 1,000ppm carbon dioxide concentration and shall be certified by the manufacturer to require calibration no more frequently than once every 5 years.

SECTION 5.507 ENVIRONMENTAL COMFORT

5.507.4 ACOUSTICAL CONTROL. Employ building assemblies and components with Sound Transmission Class (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 Section 5.507.4.1 or 5.507.4.2.

Exception: Buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings.

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.

   Exceptions:

   1. L_{dn} or CNEL for military airports shall be determined by the facility Air Installation Compatible Land Use Zone (AICUZ) plan.
   2. L_{dn} 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 L_{dn} 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_{eq} - 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 contain CFCs.

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 replacement 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_2), 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.

5.508.2.1.2.1 Anchorage. One-fouth-inch OD tubing shall be securely clamped to a rigid base to keep vibration levels below 8 mils.

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 recommendations.

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 follows.

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 permitted for use.

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.

5.508.2.2.2.2.1 Chain tethers. Chain tethers to fit ovr the stem are required for valves designed to have seal caps.

Exception: Valves with seal caps that are not removed from the valve during stem operation.

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 charging.

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 gauge.

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 hold for 30 minutes.

5.508.2.6.2 Second vacuum. Pull a second system vacuum to a minimum of 500 microns and hold for 30 minutes.

5.508.2.6.3 Third vacuum. Pull a third vacuum down to a minimum of 300 microns, and hold for 24 hours with a maximum drift of 100 microns over a 24-hour period.

CHAPTER 7
INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702 QUALIFICATIONS

702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper installation 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 responsibility 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.
2. Public utility training programs.
3. Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.
4. 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 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 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:

1. 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.

Notes:

1. Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.
2. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS).

[BSC-CG] When required by the enforcing agency, the 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.

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.*

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AIA California

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

RESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2023)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

Y | N/A | RESPON. PARTY

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.

301.1.1 Additions and alterations. [HCD] The mandatory provisions of Chapter 4 shall be applied to additions or alterations of existing residential buildings where the addition or alteration increases the building's conditioned area, volume, or size. The requirements shall apply only to and/or within the specific area of the addition or alteration.

The mandatory provision of Section 4.106.4.2 may apply to additions or alterations of existing parking facilities or the addition of new parking facilities serving existing multifamily buildings. See Section 4.106.4.3 for application.

Note: Repairs including, but not limited to, resurfacing, restriping and repairing or maintaining existing lighting fixtures are not considered alterations for the purpose of this section.

Note: On and after January 1, 2014, residential buildings undergoing permitted alterations, additions, or improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy or final permit approval by the local building department. See Civil Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.

301.2 LOW-RISE AND HIGH-RISE RESIDENTIAL BUILDINGS. [HCD] The provisions of individual sections of CALGreen may apply to either low-rise residential buildings high-rise residential buildings, or both. Individual sections will be designated by banners to indicate where the section applies specifically to low-rise only (LR) or high-rise only (HR). When the section applies to both low-rise and high-rise buildings, no banner will be used.

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.
Exceptions:
1. [HCD] *Accessory structures and accessory occupancies* serving residential buildings shall comply with Chapter 4 and Appendix A4, as applicable.
2. [HCD] For purposes of *CALGreen*, live/work units, complying with Section 419 of the *California Building Code*, shall not be considered mixed occupancies. Live/Work units shall comply with Chapter 4 and Appendix A4, as applicable.

DIVISION 4.1 PLANNING AND DESIGN

ABBREVIATION DEFINITIONS:

HCD	Department of Housing and Community Development
BSC	California Building Standards Commission
DSA-SS	Division of the State Architect, Structural Safety
OSHPD	Office of Statewide Health Planning and Development
LR	Low Rise
HR	High Rise
AA	Additions and Alterations
N	New

CHAPTER 4
RESIDENTIAL MANDATORY MEASURES

SECTION 4.102 DEFINITIONS

4.102.1 DEFINITIONS
The following terms are defined in Chapter 2 *(and are included here for reference)*

FRENCH DRAIN. A trench, hole or other depressed area loosely filled with rock, gravel, fragments of brick or similar pervious material used to collect or channel drainage or runoff water.

WATTLES. Wattles are used to reduce sediment in runoff. Wattles are often constructed of natural plant materials such as hay, straw or similar material shaped in the form of tubes and placed on a downflow slope. Wattles are also used for perimeter and inlet controls.

4.106 SITE DEVELOPMENT

ENG — **4.106.1 GENERAL.** Preservation and use of available natural resources shall be accomplished through evaluation and careful planning to minimize negative effects on the site and adjacent areas. Preservation of slopes, management of storm water drainage and erosion controls shall comply with this section.

GC — **4.106.2 STORM WATER DRAINAGE AND RETENTION DURING CONSTRUCTION.** Projects which disturb less than one acre of soil and are not part of a larger common plan of development which in total disturbs one acre or more, shall manage storm water drainage during construction. In order to manage storm water drainage during construction, one or more of the following measures shall be implemented to prevent flooding of adjacent property, prevent erosion and retain soil runoff on the site.

1. Retention basins of sufficient size shall be utilized to retain storm water on the site.
2. Where storm water is conveyed to a public drainage system, collection point, gutter or similar disposal method, water shall be filtered by use of a barrier system, wattle or other method approved by the enforcing agency.
3. Compliance with a lawfully enacted storm water management ordinance.

Note: Refer to the State Water Resources Control Board for projects which disturb one acre or more of soil, or are part of a larger common plan of development which in total disturbs one acre or more of soil.

(Website: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html)

ENG — **4.106.3 GRADING AND PAVING.** Construction plans shall indicate how the site grading or 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:

1. Swales
2. Water collection and disposal systems
3. French drains
4. Water retention gardens
5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.

Exception: Additions and alterations not altering the drainage path.

ARCH — **4.106.4 Electric vehicle (EV) charging for new construction.** New construction shall comply with Sections 4.106.4.1 or 4.106.4.2 to facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the *California Electrical Code,* Article 625.

Exceptions:
1. On a case-by-case basis, where the local enforcing agency has determined EV charging and infrastructure are not feasible based upon one or more of the following conditions:
1.1 Where there is no local utility power supply or the local utility is unable to supply adequate power.
1.2 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 4.106.4, may adversely impact the construction cost of the project.
2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities.

4.106.4.1 New one- and two-family dwellings and townhouses with attached private garages. For each dwelling unit, install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or other enclosure in close proximity to the proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible or concealed areas and spaces. The service panel and/or subpanel shall provide capacity to install a 40-ampere 208/240-volt minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.

Exemption: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the proposed location of an EV charger at the time of original construction in accordance with the *California Electrical Code*.

4.106.4.1.1 Identification. The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE".

Y | N/A | RESPON. PARTY

ARCH — **4.106.4.2 New multifamily dwellings, hotels and motels and new residential parking facilities.**
When parking is provided, parking spaces for new multifamily dwellings, hotels and motels shall meet the requirements of Sections 4.106.4.2.1 and 4.106.4.2.2. Calculations for spaces shall be rounded up to the nearest whole number. A parking space served by electric vehicle supply equipment or designed as a future EV charging space shall count as at least one standard automobile parking space only for the purpose of complying with any applicable minimum parking space requirements established by a local jurisdiction. See Vehicle Code Section 22511.2 for further details.

ARCH — **4.106.4.2.1Multifamily development projects with less than 20 dwelling units; and hotels and motels with less than 20 sleeping units or guest rooms.**
The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to this section.

1.EV Capable. Ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes.

The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.

Exceptions:

1.When EV chargers (Level 2 EVSE) are installed in a number equal to or greater than the required number of EV capable spaces.

2.When EV chargers (Level 2 EVSE) are installed in a number less than the required number of EV capable spaces, the number of EV capable spaces required may be reduced by a number equal to the number of EV chargers installed.

Notes:

a.Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.

b.There is no requirement for EV spaces to be constructed or available until receptacles for EV charging or EV chargers are installed for use.

2.EV Ready. Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.

Exception: Areas of parking facilities served by parking lifts.

4.106.4.2.2 Multifamily development projects with 20 or more dwelling units, hotels and motels with 20 or more sleeping units or guest rooms.
The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to this section.

1.EV Capable. Ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes.

The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.

Exception: When EV chargers (Level 2 EVSE) are installed in a number greater than five (5) percent of parking spaces required by Section 4.106.4.2.2, Item 3, the number of EV capable spaces required may be reduced by a number equal to the number of EV chargers installed over the five (5) percent required.

Notes:

a.Construction documents shall show locations of future EV spaces.

b.There is no requirement for EV spaces to be constructed or available until receptacles for EV charging or EV chargers are installed for use.

2.EV Ready. Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.

Exception: Areas of parking facilities served by parking lifts.

3.EV Chargers. Five (5) percent of the total number of parking spaces shall be equipped with Level 2 EVSE. When one power level parking is provided, at least one EV charger shall be located in the common use parking area and shall be available for use by all residents or guests.

When low power Level 2 EV charging receptacles or Level 2 EVSE are installed beyond the minimum required, an automatic load management system (ALMS) may be used to reduce the maximum required electrical capacity to each space served by the ALMS. The electrical system and any on-site distribution transformers shall have sufficient capacity to deliver at least 3.3 kW simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuit shall have a minimum capacity of 40 amperes, and installed EVSE shall have a capacity of not less than 30 amperes. ALMS shall not be used to reduce the minimum required electrical capacity to the required EV capable spaces.

4.106.4.2.2.1 Electric vehicle charging stations (EVCS).
Electric vehicle charging stations required by Section 4.106.4.2.2, Item 3, shall comply with Section 4.106.4.2.2.1.

Exception: Electric vehicle charging stations serving public accommodations, public housing, motels and hotels shall not be required to comply with this section. See California Building Code, Chapter 11B, for applicable requirements.

4.106.4.2.2.1.1 Location.
EVCS shall comply with at least one of the following options:

1.The charging space shall be located adjacent to an accessible parking space meeting the requirements of the California Building Code, Chapter 11A, to allow use of the EV charger from the accessible parking space.

2.The charging space shall be located on an accessible route, as defined in the California Building Code, Chapter 2, to the building.

Exception: Electric vehicle charging stations designed and constructed in compliance with the California Building Code, Chapter 11B, are not required to comply with Section 4.106.4.2.2.1.1 and Section 4.106.4.2.2.1.2, Item 3.

4.106.4.2.2.1.2 Electric vehicle charging stations (EVCS) dimensions.
The charging spaces shall be designed to comply with the following:

1.The minimum length of each EV space shall be 18 feet (5486 mm).

2.The minimum width of each EV space shall be 9 feet (2743 mm).

3.One in every 25 charging spaces, but not less than one, shall also have an 8-foot (2438 mm) wide minimum aisle. A 5-foot (1524 mm) wide minimum aisle shall be permitted provided the minimum width of the EV space is 12 feet (3658 mm).

a.Surface slope for this EV space and the aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083 percent slope) in any direction.

4.106.4.2.2.1.3 Accessible EV spaces.
In addition to the requirements in Sections 4.106.4.2.2.1.1 and 4.106.4.2.2.1.2, all EVSE, when installed, shall comply with the accessibility provisions for EV chargers in the California Building Code, Chapter 11B. EV ready spaces and EVCS in multifamily developments shall comply with California Building Code, Chapter 11A, Section 1109A.

4.106.4.2.3 EV space requirements.
1.Single EV space required. Install a listed raceway capable of accommodating a 208/240-volt dedicated branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or enclosure in close proximity to the location or the proposed location of the EV space. Construction documents shall identify the raceway termination point, receptacle or charger location, as applicable. The service panel and/ or subpanel shall have a 40-ampere minimum dedicated branch circuit, including branch circuit overcurrent protective device installed, or space(s) reserved to permit installation of a branch circuit overcurrent protective device.

Exception: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the location or the proposed location of the EV space, at the time of original construction in accordance with the California Electrical Code.

2.Multiple EV spaces required. Construction documents shall indicate the raceway termination point and the location of installed or future EV spaces, receptacles or EV chargers. Construction documents shall also provide information on amperage of installed or future receptacles or EVSE, raceway method(s), wiring schematics and electrical load calculations. Plan design shall be based upon a 40-ampere minimum branch circuit. Required raceways and related components that are planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the time of original construction.

Y | N/A | RESPON. PARTY

Exception: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the location or the proposed location of the EV space at the time of original construction in accordance with the California Electrical Code.

4.106.4.2.4 Identification.
The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.

4.106.4.2.5 Electric Vehicle Ready Space Signage.
Electric vehicle ready spaces shall be identified by signage or pavement markings, in compliance with Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s).

4.106.4.3 Electric vehicle charging for additions and alterations of parking facilities serving existing multifamily buildings.
When new parking facilities are added, or electrical systems or lighting of existing parking facilities are added or altered and the work requires a building permit, ten (10) percent of the total number of parking spaces added or altered shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE.

Notes:

1.Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.

2.There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

DIVISION 4.2 ENERGY EFFICIENCY

4.201 GENERAL

4.201.1 SCOPE. For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory standards.

DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION

4.303 INDOOR WATER USE

ENG — **4.303.1 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS.** Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the sections 4.303.1.1, 4.303.1.2, 4.303.1.3, and 4.303.4.4.

Note: All noncompliant plumbing fixtures in any residential real property shall be replaced with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy, or final permit approval by the local building department. See Civil Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.

4.303.1.1 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.

4.303.1.2 Urinals. The effective flush volume of wall mounted urinals shall not exceed 0.125 gallons per flush. The effective flush volume of all other urinals shall not exceed 0.5 gallons per flush.

4.303.1.3 Showerheads.

4.303.1.3.1 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.

4.303.1.3.2 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 only allow one shower outlet to be in operation at a time.

Note: A hand-held shower shall be considered a showerhead.

4.303.1.4 Faucets.

4.303.1.4.1 Residential Lavatory Faucets. The maximum flow rate of residential lavatory faucets shall not exceed 1.2 gallons per minute at 60 psi. The minimum flow rate of residential lavatory faucets shall not be less than 0.8 gallons per minute at 20 psi.

4.303.1.4.2 Lavatory Faucets in Common and Public Use Areas. The maximum flow rate of lavatory faucets installed in common and public use areas (outside of dwellings or sleeping units) in residential buildings shall not exceed 0.5 gallons per minute at 60 psi.

4.303.1.4.3 Metering Faucets. Metering faucets when installed in residential buildings shall not deliver more than 0.2 gallons per cycle.

4.303.1.4.4 Kitchen Faucets. The maximum flow rate of kitchen faucets shall not exceed 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 per minute at 60 psi.

Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.

4.303.1.4.5 Pre-rinse spray valves.
When installed, shall meet the requirements in the *California Code of Regulations*, Title 20 (Appliance Efficiency Regulations), Sections 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 1605.3 (h)(4)(A).

TABLE H-2

STANDARDS FOR COMMERCIAL PRE-RINSE SPRAY VALVES MANUFACTURED ON OR AFTER JANUARY 28, 2019

PRODUCT CLASS [spray force in ounce force (ozf)]	MAXIMUM FLOW RATE (gpm)
Product Class 1 (≤ 5.0 ozf)	1.00
Product Class 2 (> 5.0 ozf and ≤ 8.0 ozf)	1.20
Product Class 3 (> 8.0 ozf)	1.28

Title 20 Section 1605.3 (h)(4)(A): Commercial prerinse spray values manufactured on or after January 1, 2006, shall have a minimum spray force of not less than 4.0 ounces-force (ozf)[113 grams-force(gf)]

4.303.2 Submeters for multifamily buildings and dwelling units in mixed-used residential/commercial buildings.
Submeters shall be installed to measure water usage of individual rental dwelling units in accordance with the *California Plumbing Code*.

ARCH — **4.303.3 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*.

NOTE:
THIS TABLE COMPILES THE DATA IN SECTION 4.303.1, AND IS INCLUDED AS A CONVENIENCE FOR THE USER.

TABLE - MAXIMUM FIXTURE WATER USE

FIXTURE TYPE	FLOW RATE
SHOWER HEADS (RESIDENTIAL)	1.8 GMP @ 80 PSI
LAVATORY FAUCETS (RESIDENTIAL)	MAX. 1.2 GPM @ 60 PSI MIN. 0.8 GPM @ 20 PSI
LAVATORY FAUCETS IN COMMON & PUBLIC USE AREAS	0.5 GPM @ 60 PSI
KITCHEN FAUCETS	1.8 GPM @ 60 PSI
METERING FAUCETS	0.2 GAL/CYCLE
WATER CLOSET	1.28 GAL/FLUSH
URINALS	0.125 GAL/FLUSH

Y | N/A | RESPON. PARTY

ENG — **4.304 OUTDOOR WATER USE**
4.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. Residential 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.

NOTES:

1. The Model Water Efficient Landscape Ordinance (MWELO) is located in the *California Code Regulations*, Title 23, Chapter 2.7, Division 2. MWELO and supporting documents, including water budget calculator, are available at: https://www.water.ca.gov/

DIVISION 4.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

4.406 ENHANCED DURABILITY AND REDUCED MAINTENANCE

ARCH — **4.406.1 RODENT PROOFING.** Annular spaces around pipes, electric cables, conduits or other openings in sole/bottom plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or a similar method acceptable to the enforcing agency.

4.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

GC — **4.408.1 CONSTRUCTION WASTE MANAGEMENT.** Recycle and/or salvage for reuse a minimum of 65 percent of the non-hazardous construction and demolition waste in accordance with either Section 4.408.2, 4.408.3 or 4.408.4, or meet a more stringent local construction and demolition waste management ordinance.

Exceptions:

1. 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 or are not located reasonably close to the jobsite.
3. The enforcing agency may make exceptions to the requirements of this section when isolated jobsites are located in areas beyond the haul boundaries of the diversion facility.

GC — **4.408.2 CONSTRUCTION WASTE MANAGEMENT PLAN**. Submit a construction waste management plan in conformance with Items 1 through 5. The construction waste management plan shall be updated as necessary and shall be available during construction for examination by the enforcing agency.

1. Identify the construction and demolition waste materials to be diverted from disposal by recycling, reuse on the project or salvage for future use or sale.
2. Specify if construction and demolition waste materials will be sorted on-site (source separated) or bulk mixed (single stream).
3. Identify diversion facilities where the construction and demolition waste material collected will be taken.
4. Identify construction methods employed to reduce the amount of construction and demolition waste generated.
5. Specify that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

GC — **4.408.3 WASTE MANAGEMENT COMPANY.** Utilize a waste management company, approved by the enforcing agency, which can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with Section 4.408.1.

Note: The owner or contractor may make the determination if the construction and demolition waste materials will be diverted by a waste management company.

GC — **4.408.4 WASTE STREAM REDUCTION ALTERNATIVE [LR].** Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 3.4 lbs./sq.ft. of the building area shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1

4.408.4.1 WASTE STREAM REDUCTION ALTERNATIVE. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 2 pounds per square foot of the building area, shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1

GC — **4.408.5 DOCUMENTATION**. Documentation shall be provided to the enforcing agency which demonstrates compliance with Section 4.408.2, items 1 through 5, Section 4.408.3 or Section 4.408.4..

Notes:

1. Sample forms found in "A Guide to the California Green Building Standards Code (Residential)" located at www.hcd.ca.gov/CALGreen.html may be used to assist in documenting compliance with this section.
2. Mixed construction and demolition debris (C & D) processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle).

4.410 BUILDING MAINTENANCE AND OPERATION

GC — **4.410.1 OPERATION AND MAINTENANCE MANUAL.** At the time of final inspection, a manual, compact disc, web-based reference or other media acceptable to the enforcing agency which includes all of the following shall be placed in the building:

1. Directions to the owner or occupant that the manual shall remain with the building throughout the life cycle of the structure.
2. Operation and maintenance instructions for the following:
   a. Equipment and appliances, including water-saving devices and systems, HVAC systems, photovoltaic systems, electric vehicle chargers, water-heating systems and other major appliances and equipment.
   b. Roof and yard drainage, including gutters and downspouts.
   c. Space conditioning systems, including condensers and air filters.
   d. Landscape irrigation systems.
   e. Water reuse systems.
3. Information from local utility, water and waste recovery providers on methods to further reduce resource consumption, including recycle programs and locations.
4. Public transportation and/or carpool options available in the area.
5. Educational material on the positive impacts of an interior relative humidity between 30-60 percent and what methods an occupant may use to maintain the relative humidity level in that range.
6. Information about water-conserving landscape and irrigation design and controllers which conserve water.
7. Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5 feet away from the foundation.
8. Information on required routine maintenance measures, including, but not limited to, caulking, painting, grading around the building, etc.
9. Information about state solar energy and incentive programs available.
10. A copy of all special inspections verifications required by the enforcing agency or this code.
11. Information from the Department of Forestry and Fire Protection on maintenance of defensible space around residential structures.
12. Information and/or drawings identifying the location of grab bar reinforcements.

OWNER — **4.410.2 RECYCLING BY OCCUPANTS.** Where 5 or more multifamily dwelling units are constructed on a building site, provide readily accessible area(s) that serves all buildings on the site 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 waster, 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 Section 42649.82 (a)(2)(A) et seq. are note required to comply with the organic waste portion of this section.

DIVISION 4.5 ENVIRONMENTAL QUALITY

SECTION 4.501 GENERAL

4.501.1 Scope
The provisions of this chapter shall outline means of reducing the quality 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 4.502 DEFINITIONS

5.102.1 DEFINITIONS
The following terms are defined in Chapter 2 *(and are included here for reference)*

AGRIFIBER PRODUCTS. Agrifiber products include wheatboard, strawboard, panel substrates and door cores, not including furniture, fixtures and equipment (FF&E) not considered base building elements.

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, prefabricated wood I-joists or finger-jointed lumber, all as specified in California Code of regulations (CCR), title 17, Section 93120.1.

DIRECT-VENT APPLIANCE. A fuel-burning appliance with a sealed combustion system that draws all air for combustion from the outside atmosphere and discharges all flue gases to the outside atmosphere.

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.*

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CONSULTANT

SEAL
LICENSED ARCHITECT DEBORAH LESNESKA C36478 RENEWAL 11-30-27 STATE OF CALIFORNIA

PROJECT
DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
CAL GREEN

SHEET
G0.9

2"
0 1/4" 1/2" 1"
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
RESIDENTIAL MANDATORY MEASURES, SHEET 2 (January 2023)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

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 hundredths of a gram (g O^3/g ROC).
Note: MIR values for individual compounds and hydrocarbon solvents are specified in CCR, Title 17, Sections 94700 and 94701.

MOISTURE CONTENT. The weight of the water in wood expressed in percentage of the weight of the oven-dry wood.

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).
Note: PWMIR is calculated according to equations found in CCR, Title 17, Section 94521 (a).

REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere.

VOC. A volatile organic compound (VOC) 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).

4.503 FIREPLACES

4.503.1 GENERAL. Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove 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. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances.

4.504 POLLUTANT CONTROL

4.504.1 COVERING OF DUCT OPENINGS & PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION. At the time of rough installation, during storage on the construction site and until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of water, dust or debris which may enter the system.

4.504.2 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with this section.

4.504.2.1 Adhesives, Sealants and Caulks. Adhesives, sealant and caulks used on the project shall meet the requirements of the following standards unless more stringent local or regional air pollution or air quality management district rules apply:

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 Table 4.504.1 or 4.504.2, as applicable. 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 1 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 with section 94507.

4.504.2.2 Paints and Coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Suggested Control Measure, as shown in Table 4.504.3, 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 4.504.3 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 4.504.3 shall apply.

4.504.2.3 Aerosol Paints and Coatings. Aerosol paints and coatings shall meet the Product-weighted MIR Limits for ROC in Section 94522(a)(2) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(e)(1) and (f)(1) 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.

4.504.2.4 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.
2. Field verification of on-site product containers.

TABLE 4.504.1 - ADHESIVE VOC LIMIT[1,2]
(Less Water and Less Exempt Compounds in Grams per Liter)

ARCHITECTURAL APPLICATIONS	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 ADHESIVE	70
STRUCTURAL GLAZING ADHESIVES	100
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250
OTHER ADHESIVES NOT 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
FIBERGLASS	80

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.

TABLE 4.504.2 - SEALANT VOC LIMIT
(Less Water and Less Exempt Compounds in Grams per Liter)

SEALANTS	VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
SEALANT PRIMERS	
ARCHITECTURAL	
NON-POROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

TABLE 4.504.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS[2,3]
GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS

COATING CATEGORY	VOC LIMIT
FLAT COATINGS	50
NON-FLAT COATINGS	100
NONFLAT-HIGH GLOSS COATINGS	150
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 COATINGS[1]	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
ZINC-RICH PRIMERS	340

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 THE TABLE.
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.

TABLE 4.504.5 - FORMALDEHYDE LIMITS[1]
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 FIBERBOARD[2]	0.13

1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIF. AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIF. CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.
2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16" (8 MM).

DIVISION 4.5 ENVIRONMENTAL QUALITY (continued)

4.504.3 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 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.

4.504.3.1 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 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.

4.504.3.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 4.504.1.

4.504.4 RESILIENT FLOORING SYSTEMS. Where resilient flooring is installed , at least 80% 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 Specification 01350)

See California Department of Public Health's website for certification programs and testing labs.

hhttps://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

4.504.5 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 for Composite Wood (17 CCR 93120 et seq.), by or before the dates specified in those sections, as shown in Table 4.504.5

4.504.5.1 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:

1. Product certifications and specifications.
2. Chain of custody certifications.
3. 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, European 636 3S standards, and Canadian CSA 0121, CSA 0151, CSA 0153 and CSA 0325 standards.
5. Other methods acceptable to the enforcing agency.

4.505 INTERIOR MOISTURE CONTROL

4.505.1 General. Buildings shall meet or exceed the provisions of the *California Building Standards Code*.

4.505.2 CONCRETE SLAB FOUNDATIONS. Concrete slab foundations required to have a vapor retarder by California Building Code, Chapter 19, or concrete slab-on-ground floors required to have a vapor retarder by the California Residential Code, Chapter 5, shall also comply with this section.

4.505.2.1 Capillary break. A capillary break shall be installed in compliance with at least one of the following:

1. A 4-inch (101.6 mm) thick base of 1/2 inch (12.7mm) or larger clean aggregate shall be provided with a vapor barrier in direct contact with concrete and a concrete mix design, which will address bleeding, shrinkage, and curling, shall be used. For additional information, see American Concrete Institute, ACI 302.2R-06.
2. Other equivalent methods approved by the enforcing agency.
3. A slab design specified by a licensed design professional.

4.505.3 MOISTURE CONTENT OF BUILDING MATERIALS. Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19 percent moisture content. Moisture content shall be verified in compliance with the following:

1. Moisture content shall be determined with either a probe-type or contact-type moisture meter.Equivalent moisture verification methods may be approved by the enforcing agency and shall satisfy requirements found in Section 101.8 of this code.
2. Moisture readings shall be taken at a point 2 feet (610 mm) to 4 feet (1219 mm) from the grade stamped end of each piece verified.
3. At least three random moisture readings shall be performed on wall and floor framing with documentation acceptable to the enforcing agency provided at the time of approval to enclose the wall and floor framing.

Insulation products which are visibly wet or have a high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. Wet-applied insulation products shall follow the manufacturers' drying recommendations prior to enclosure.

4.506 INDOOR AIR QUALITY AND EXHAUST

4.506.1 Bathroom exhaust fans. Each bathroom shall be mechanically ventilated and shall comply with the following:

1. Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building.
2. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a humidity control.
   a. Humidity controls shall be capable of adjustment between a relative humidity range less than or equal to 50% to a maximum of 80%. A humidity control may utilize manual or automatic means of adjustment.
   b. A humidity control may be a separate component to the exhaust fan and is not required to be integral (i.e., built-in)

Notes:

1. For the purposes of this section, a bathroom is a room which contains a bathtub, shower or tub/shower combination.
2. Lighting integral to bathroom exhaust fans shall comply with the *California Energy Code*.

4.507 ENVIRONMENTAL COMFORT

4.507.2 HEATING AND AIR-CONDITIONING SYSTEM DESIGN. Heating and air conditioning systems shall be sized, designed and have their equipment selected using the following methods:

1. The heat loss and heat gain is established according to ANSI/ACCA 2 Manual J - 2011 (Residential Load Calculation), ASHRAE handbooks or other equivalent design software or methods.
2. Duct systems are sized according to ANSI/ACCA 1 Manual D - 2014 (Residential Duct Systems), ASHRAE handbooks or other equivalent design software or methods.
3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S - 2014 (Residential Equipment Selection), or other equivalent design software or methods.

Exception: Use of alternate design temperatures necessary to ensure the system functions are acceptable.

CHAPTER 7
INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702 QUALIFICATIONS

702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper installation 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 responsibility 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.
2. Public utility training programs.
3. Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.
4. 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 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 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:

1. 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.

Notes:

1. Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.
2. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS).

[BSC] 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.

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.

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CONSULTANT

SEAL
LICENSED ARCHITECT DEBORAH LESNESKA C36478 RENEWAL 11-30-27 STATE OF CALIFORNIA

PROJECT
DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
CAL GREEN

SHEET
G0.10

Autodesk Docs://MF22204 The City of Dixon - Fire Station 82/MF22204_ARCHNSTR_R24_CENTRAL.rvt
6/19/2026 12:03:38 PM

2" 1" 1/2" 0 1/4"
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

ABBREVIATIONS

NOTE: NOT ALL ABBREVIATIONS MAY BE USED ON THESE PLANS.

AB	AGGREGATE BASE
AC	ASPHALTIC CONCRETE
AD	AREA DRAIN
APN	ASSESSOR'S PARCEL NUMBER
ARV	AIR RELEASE VALVE
ASB	AGGREGATE SUB-BASE
BO	BLOW-OFF VALVE
BV	BUTTERFLY VALVE
BW	BACK OF WALK
C/L	CENTERLINE
CB	CATCH BASIN
CL	CLASS
CMP	CORRUGATED METAL PIPE
CATV	CABLE TELEVISION
CO	CLEANOUT
COMM	COMMUNICATION
CONC.	CONCRETE
CONST.	CONSTRUCT
CR	CURB RETURN
CS	CONCRETE SURFACE
DC	DOUBLE CHECK VALVE
DDC	DOUBLE DETECTOR CHECK VALVE
DG	DECOMPOSED GRANITE
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DWG	DRAWING
DS	DOWNSPOUT
E	ELECTRIC
EP	EDGE OF PAVEMENT
ESMT	EASEMENT
EX	EXISTING
FS	FIRE SERVICE LINE
FDC	FIRE DEPARTMENT CONNECTION
FL	FLOWLINE
FM	SANITARY SEWER FORCE MAIN
FF	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
G	GAS
GB	GRADE BREAK
GR	GRATE ELEVATION
GRD	GRADE ELEVATION
GV	GATE VALVE
HB	HOSE BIBB
HBD	HEADER BOARD
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HP	HIGH POINT
INV	PIPE INVERT ELEVATION
JP	JOINT UTILITY POLE
LF	LINEAL FEET
LIP	LIP OF GUTTER
LT	LEFT
MS	MOWSTRIP
NTS	NOT TO SCALE
OH	OVERHEAD
PAD	BUILDING PAD
PCC	PORTLAND CEMENT CONCRETE
PD	PLANTER DRAIN
PIV	POST INDICATOR VALVE
P/L	PROPERTY LINE
PP	POWER POLE
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
R	RADIUS
RIM	MANHOLE RIM ELEVATION (SOLID COVER)
RP	REDUCED PRESSURE BACKFLOW PREVENTER
RW	RIGHT OF WAY
SCH	SCHEDULE
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SG	SUBGRADE ELEVATION
SP	FIRE SPRINKLER SERVICE
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
STD	STANDARD
S/W	SIDEWALK
T	TELEPHONE
TC	TOP OF CURB
TD	TRENCH DRAIN
TDCB	TRENCH DRAIN CATCH BASIN
TP	TELEPHONE POLE
TRW	TOP OF RETAINING WALL
TSW	TOP OF SEAT WALL
TW	TOP OF WALK ELEVATION
U	UTILITY
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
VCP	VITRIFIED CLAY PIPE
W	WATER
W/	WITH
W/O	WITHOUT
WV	WATER VALVE

LEGEND

NOTE: NOT ALL SYMBOLS MAY BE USED ON THESE PLANS.

PROPOSED GRADING & DRAINAGE SYMBOLS:

- 8" SD — STORM DRAIN LINE (SIZE AND FLOW SHOWN)
- STORM DRAIN MANHOLE (SDMH)
- CATCH BASIN (CB)
- DROP INLET (DI)
- AREA DRAIN (AD)
- PLANTER DRAIN (PD) OR FLOOR DRAIN (FD)
- CO — STORM DRAIN CLEANOUT
- 99.99 — ELEVATION
- FF=100.00 — FINISHED FLOOR ELEVATION
- PAD=99.33 — BUILDING PAD ELEVATION
- CONCRETE SIDEWALK
- GRADED DIRECTION FOR DRAINAGE FLOW
- SWALE
- SLOPE
- TREE TO BE REMOVED
- RETAINING WALL

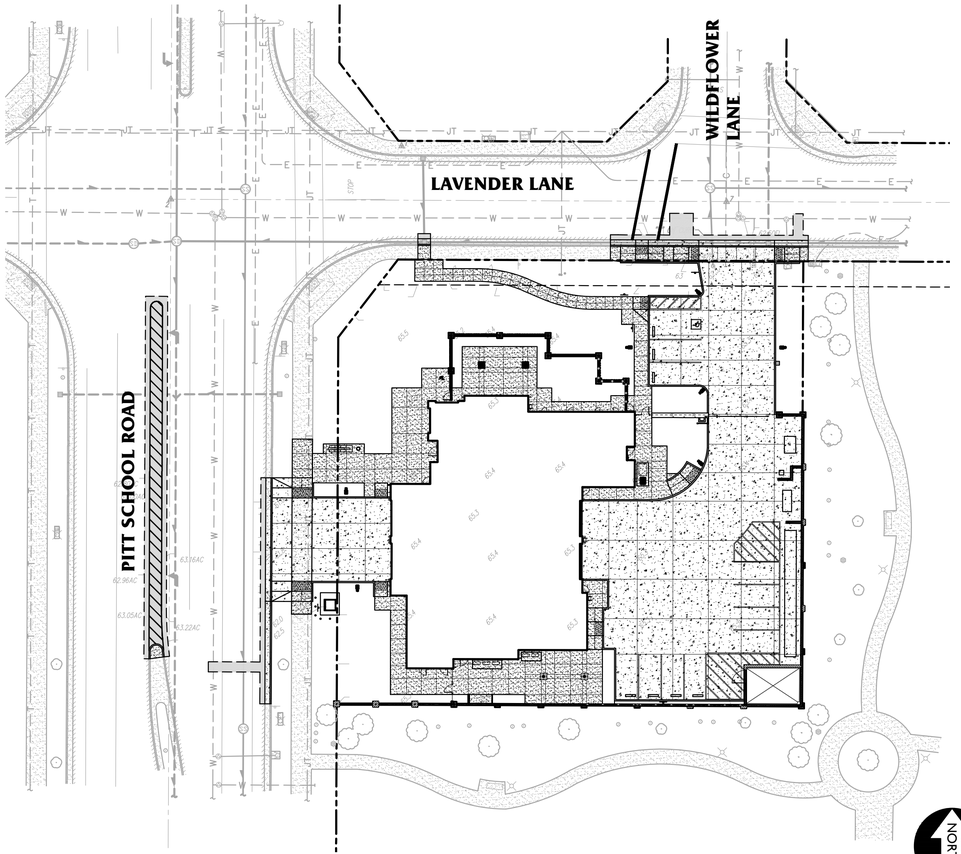
PROPOSED SANITARY SEWER SYMBOLS:

- 6" SS — SANITARY SEWER LINE (SIZE AND FLOW SHOWN)
- SANITARY SEWER MANHOLE (SSMH)
- CO — SEWER CLEANOUT FLUSHER BRANCH

PROPOSED WATER SYMBOLS:

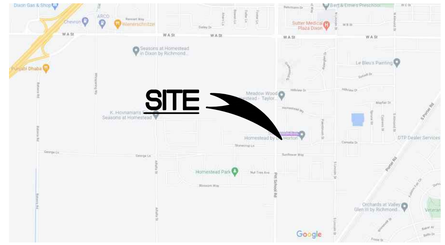
- 8" W — WATER LINE & SIZE
- 8" FS — FIRE LINE & SIZE
- 8" DW — DOMESTIC WATER LINE & SIZE
- 8" RW — RECLAIMED WATER LINE & SIZE
- 8" IRR — IRRIGATION SERVICE LINE & SIZE
- 8" NP — NON POTABLE WATER LINE & SIZE
- 8" SP — FIRE SPRINKLER SERVICE LINE & SIZE
- GATE VALVE
- M — WATER METER
- FH — FIRE HYDRANT ASSEMBLY
- FDC — FIRE DEPARTMENT CONNECTION
- DC — DETECTOR CHECK VALVE
- DDC — DOUBLE DETECTOR CHECK VALVE
- RP — REDUCED PRESSURE BACKFLOW PREVENTER
- BUTTERFLY VALVE
- 1" — AIR RELEASE VALVE + SIZE
- 1" — BLOW-OFF VALVE + SIZE
- PIV — POST INDICATOR VALVE

IMPROVEMENT PLANS FOR:
DIXON FIRE STATION 82
DIXON, CA 95620



SITE PLAN

SCALE 1"=30'



VICINITY MAP

NO SCALE

SHEET INDEX (CIVIL)

C0.0	CIVIL COVER SHEET
C0.1	GENERAL NOTES
C0.2	TOPOGRAPHIC SURVEY
C1.1	ENGINEERED FILL PLAN
C1.2	HORIZONTAL CONTROL PLAN
C2.1	GRADING PLAN
C3.1	DRAINAGE PLAN
C4.1	UTILITY PLAN
C5.1	PAVING PLAN
C6.1	EROSION CONTROL PLAN
C7.1	DETAILS AND SECTIONS
C7.2	DETAILS AND SECTIONS
C7.3	DETAILS AND SECTIONS
C7.4	DETAILS AND SECTIONS
C1 OF 4	COVER SHEET-OFF SITE IMPROVEMENTS
C2 OF 4	DEMOLITION PLAN
C3 OF 4	PITT SCHOOL ROAD IMPROVEMENT PLAN & PROFILE
C4 OF 4	LAVENDER LANE IMPROVEMENT PLAN & PROFILE

A.P.N.	0114-355-010

BENCHMARK NO. DIXON #21 ELEV. 65.73 (NGVD 29)

MONUMENT AT INTERSECTION OF PITT SCHOOL RD. AND W. "A" ST. (LS 3737)

DATUM CONVERSION:
NAVD88 = NGVD29 + 2.57'

EARTHWORK VOLUMES:	
CUT	2814 CY
FILL	0 CY
NET CUT	2814 CY

CONTRACTOR SHALL VERIFY VOLUMES INDEPENDENTLY EXPORT SHALL COMPLY WITH CITY STDS. VOLUME DOES NOT INCLUDE OVEREXCAVATION. REFER TO GEOTECHNICAL REPORT.

UNDERGROUND FIRE PROTECTION

THESE SHEETS WERE NOT REVIEWED AND ARE NOT APPROVED FOR THE INSTALLATION OF ANY ONSITE PRIVATE FIRE PROTECTION UNDERGROUND INFRASTRUCTURE. A SEPARATE SUBMITTAL TO THE CITY OF DIXON FIRE DEPARTMENT FOR REVIEW AND APPROVAL IS REQUIRED BY THE INSTALLING C-16 LICENSED FIRE PROTECTION CONTRACTOR PRIOR TO ANY INSTALLATION OF ANY UNDERGROUND FIRE PROTECTION COMPONENTS

811 Know what's **below.** **Call** before you dig.

CONTRACTOR SHALL CONTACT U.S.A. PRIOR TO ANY EXCAVATION, GIVING 48 HOURS NOTICE, AS REQUIRED BY USA.

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CONSULTANT

WCE
WARREN CONSULTING ENGINEERS, INC.
1117 WINDFIELD WAY, SUITE 110
EL DORADO HILLS, CA 95762 | (916) 985-1870

SEAL

REGISTERED PROFESSIONAL ENGINEER — ANTHONY J. TASSANO — NO. C74696 — STATE OF CALIFORNIA
06/18/2026

PROJECT
DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
CIVIL COVER SHEET

SHEET
C0.0

Autodesk Docs://Dixon Fire Station 82/22204_ARCHMSTR_R22_CENTRAL.rvt
1/31/2023 4:12:10 PM

FILENAME: I:\22-081\CIVIL\DWG\22-081-C00.DWG

CITY OF DIXON GENERAL NOTES

1. APPROVAL BY THE CITY ENGINEER, OR AN AUTHORIZED REPRESENTATIVE, IS REQUIRED PRIOR TO: (A) PLACING ANY CONCRETE; (B) PLACING ANY AGGREGATE BASE; (C) PLACING ANY ASPHALT CONCRETE; AND (D) BACKFILLING TRENCHES FOR PIPE. WORK DONE WITHOUT SUCH APPROVAL SHALL BE AT THE CONTRACTOR'S RISK. SUCH APPROVAL SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF PERFORMING THE WORK IN AN ACCEPTABLE MANNER.
2. THE TYPES, LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THE IMPROVEMENT PLANS ARE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. THE PROJECT ENGINEER ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF THE DELINEATION OF SUCH UNDERGROUND UTILITIES NOR FOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES WHICH ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR IS HEREBY NOTIFIED THAT, PRIOR TO COMMENCING CONSTRUCTION, HE/SHE IS RESPONSIBLE FOR CONTACTING THE UTILITY COMPANIES INVOLVED AND REQUESTING VISUAL VERIFICATION OF THE LOCATIONS OF THEIR UNDERGROUND FACILITIES SHOWN ON THESE IMPROVEMENT PLANS. THE PROJECT ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR OF THE SCHEDULED TIME AND PLACE OF SUCH VISUAL VERIFICATION TO ENABLE SAID FIRM TO HAVE A REPRESENTATIVE PRESENT. SHOULD A CONFLICT BECOME APPARENT, THE PROJECT ENGINEER WILL CONTACT THE PARTIES RESPONSIBLE FOR RELOCATION OF THE CONFLICTING FACILITY.
3. THE CONTRACTOR SHALL REMOVE ALL OBSTRUCTIONS, BOTH ABOVE GROUND AND UNDERGROUND, EXCEPT AS NOTED IN ITEM 2 ABOVE, AS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
4. WHERE THE PROJECT ENGINEER, OR HIS SAID REPRESENTATIVE, IS TO PROVIDE CONSTRUCTION STAKES, SAID FIRM WILL ASSUME NO RESPONSIBILITY WHATSOEVER FOR IMPROVEMENTS CONSTRUCTED THEREFROM UNLESS THE FOLLOWING PROCEDURE IS OBSERVED BY THE CONTRACTOR: (A) THE CONTRACTOR SHALL, THROUGH THE OFFICE OF THE PROJECT ENGINEER, REQUEST CONSTRUCTION STAKES FOR ANY PARTICULAR PHASE OF THE WORK AT LEAST 48 HOURS PRIOR TO THE PLANNED USE OF SAID STAKES. NO REQUEST FOR STAKES RECEIVED FROM A CONTRACTOR WILL BE RECOGNIZED UNLESS A WORK ORDER OR AUTHORIZATION IS RECEIVED FROM THAT SUBCONTRACTOR; (B) WHERE CONSTRUCTION STAKES ARE INTENDED FOR USE IN SETTING CONCRETE FORMS, THE CONTRACTOR SHALL, UPON COMPLETION OF FORM SETTING, CONTACT THE PROJECT ENGINEER TO REQUEST A FORM CHECK. IF THE GRADE AND ALIGNMENT OF THE FORMS ARE NOT APPROVED, CERTAIN CORRECTIONS WILL BE REQUESTED PRIOR TO PERMITTING CONCRETE TO BE PLACED. A REPRESENTATIVE OF THE CONTRACTOR MUST BE PRESENT AT THE FORM CHECK. NO AUTHORIZATION WILL BE GIVEN TO A SUBCONTRACTOR.
5. CERTAIN CONTROL POINTS WILL BE SET BY THE PROJECT ENGINEER, OR A REPRESENTATIVE, WHICH ARE CRITICAL TO THE CONSTRUCTION STAKING OF THE PROJECT. THESE POINTS WILL BE DESIGNATED AT A PRE-CONSTRUCTION CONFERENCE BETWEEN REPRESENTATIVES OF THE PROJECT ENGINEER AND THE CONTRACTOR. THE CONTROL POINTS WILL BE PERMANENT MONUMENTS (REBAR) SET AND CLEARLY MARKED ON THE JOB SITE. THE CONTRACTOR SHALL NOT DISTURB THE CONTROL POINTS IN ANY MANNER. IF IT BECOMES NECESSARY TO REMOVE SAID CONTROL POINTS DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS IN ADVANCE OF SAID REMOVAL TO ALLOW FOR REFERENCING SAID CONTROL POINTS AND THEIR EVENTUAL REPLACEMENT. IF CONTROL POINTS ARE REMOVED OR DESTROYED WITHOUT SAID NOTIFICATION, THE COST OF REPLACEMENT SHALL BE DEDUCTED FROM THE CONTRACTOR'S PAYMENT AND PAYMENT SHALL BE MADE BY OWNER TO THE PROJECT ENGINEER.
6. THE CONTRACTOR SHALL BE RESPONSIBLE TO PREPARE BOTH PRE AND POST CONSTRUCTION CORNER RECORDS AS REQUIRED BY SECTION 8700 (ET SEQ.), OF THE STATE OF CALIFORNIA PROFESSIONAL LAND SURVEYOR'S ACT FOR THE PRESERVATION AND PROTECTION OF ALL EXISTING SURVEY MONUMENTS AND OTHER SURVEY MARKERS DURING CONSTRUCTION. ALL SUCH MONUMENTS OR MARKERS DESTROYED DURING CONSTRUCTION SHALL BE RE-ESTABLISHED AT THE CONTRACTOR'S EXPENSE.
7. THE SITE MAP IS SHOWN FOR GENERAL INFORMATION ONLY AND IS NOT INTENDED TO REPLACE THE DETAILED SHEETS ELSEWHERE IN THIS SET OF PLANS.
8. THE CITY OF DIXON IS A MEMBER OF THE UNDERGROUND SERVICE ALERT (U.S.A.) ONE-CALL PROGRAM. THE CONTRACTOR OR ANY SUBCONTRACTOR FOR THIS CONTRACT SHALL NOTIFY MEMBERS OF U.S.A. 2 WORKING DAYS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK BY CALLING THE TOLL FREE NUMBER (800) 227-2600.
9. THE CONTRACTOR SHALL EXPOSE EXISTING SEWER AND DRAIN LINES FOR THE PROJECT ENGINEER TO VERIFY LOCATION AND ELEVATION PRIOR TO PLACEMENT OF PIPE, WHERE NOTED ON THE DRAWINGS. ALL COSTS OF SUCH EXCAVATION AND BACKFILL SHALL BE INCLUDED IN THE PRICES PAID FOR VARIOUS ITEMS OF WORK.
10. THE CONTRACTOR SHALL ADJUST ALL EXISTING MANHOLES AND VALVE BOXES WITHIN THE WORK AREA TO GRADE UNLESS NOTED OTHERWISE.
11. ALL MATERIALS AND CONSTRUCTION OF PUBLIC IMPROVEMENTS SHALL CONFORM TO THE LATEST EDITION OF THE CITY OF DIXON STANDARD SPECIFICATIONS, UNLESS OTHERWISE SHOWN ON THESE PLANS OR NOTED IN THE SPECIAL PROVISIONS. ALL WORK SHALL CONFORM TO THE CALTRANS STANDARD SPECIFICATIONS, LATEST EDITION, EXCEPT AS MODIFIED HEREIN.
12. THE CONTRACTOR SHALL OBTAIN THE NECESSARY ENCROACHMENT PERMITS FROM THE CITY OF DIXON OR ANY OTHER AGENCIES HAVING JURISDICTION PRIOR TO COMMENCING ANY WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CALTRANS ENCROACHMENT PERMITS.
13. THE CONTRACTOR SHALL NOTIFY THE CITY OF DIXON 48 HOURS PRIOR TO COMMENCING WORK.
14. CONTRACTOR AGREES THAT THE CONTRACTOR 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. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL AND CITY WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE PROJECT ENGINEER 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 PROJECT ENGINEER.
15. STATIONING IS TAKEN FROM CENTERLINE DISTANCES, EXCEPT AS NOTED.
16. ALL GRAVITY FLOW PIPELINES TO BE LAID UPHILL FROM THE LOWEST POINT STARTING AT THE END OF EXISTING IMPROVEMENTS.
17. PRIOR TO REQUESTING A FINAL ACCEPTANCE OF IMPROVEMENTS, THE ENGINEER SHALL SET SURVEY MONUMENTS AS SHOWN IN THE CONSTRUCTION DETAILS.
18. UNDERGROUND FACILITIES SHALL BE INSTALLED PRIOR TO INSTALLATION OF CURB, GUTTER, SIDEWALK, AND AGGREGATE BASE.
19. CASTINGS COLLARS FOR UNDERGROUND UTILITIES SHALL BE ADJUSTED TO 3/8 INCH BELOW FINISH GRADE BY THE UNDERGROUND CONTRACTOR (AFTER COMPLETION OF PAVING).
20. THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER WITH A RECORD OF ALL FIELD CHANGES FROM THESE PLANS AND THE PROJECT ENGINEER SHALL SUPPLY THE CITY WITH MYLAR "AS-BUILT" AND ELECTRONIC PLANS UPON COMPLETION OF THE PROJECT.
21. IF UNUSUAL AMOUNTS OF BONE, STONE OR ARTIFACTS ARE UNCOVERED, WORK WITHIN 50 METERS OF THE AREA SHALL CEASE IMMEDIATELY AND A QUALIFIED ARCHAEOLOGIST SHALL BE CONSULTED TO DEVELOP, IF NECESSARY, MITIGATION MEASURES TO REDUCE ANY ARCHAEOLOGICAL IMPACT TO A LESS THAN SIGNIFICANT EFFECT BEFORE CONSTRUCTION RESUMES IN THE AREA.
22. THE CONTRACTOR IS TO VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITY STUBS PRIOR TO INSTALLATION OF ANY PIPE.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION AND SHORING PROCEDURES AND SHALL CONFORM TO THE LATEST O.S.H.A. REQUIREMENTS.
24. THE CONTRACTOR SHALL MAINTAIN AN ONGOING DUST CONTROL PROGRAM, INCLUDING WATERING OF OPEN AREAS AND/OR PLACING SOIL STABILIZER, IN ORDER TO CONFORM WITH THE LATEST STATE AND COUNTY AIR POLLUTION REGULATIONS.
25. THE CONTRACTOR SHALL MAINTAIN AN ONGOING PROCESS OF REMOVAL OF ALL SPILLAGE AND TRACKING OF EXCAVATION MATERIAL ON ALL PAVED STREETS.
26. THE CONTRACTOR SHALL PURSUE THE WORK IN A CONTINUOUS AND DILIGENT MANNER, CONFORMING TO ALL PERTINENT SAFETY REGULATIONS, TO ENSURE A TIMELY COMPLETION OF THE PROJECT.
27. ALL DIMENSIONS AND DISTANCES ARE TO FACE OF CURB, CURB RETURN, FACE OF BUILDING, FACE OF WALL, FLOW LINE, PROPERTY LINE, CENTER OF STRIPING, CENTERLINE OF PIPE OR LIMITS OF IMPROVEMENTS.
28. THE CONTRACTOR SHALL, AT ALL TIMES DURING CONSTRUCTION, PROTECT FROM DAMAGE EXISTING IMPROVEMENTS ON AND AROUND THE SITE, INCLUDING, BUT NOT LIMITED TO, PAVEMENT, CURB AND GUTTER, SIDEWALK, LANDSCAPING, SIGNAGE, STORM AND SANITARY SEWER AND ALL UTILITIES. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR THE REPAIR OF ANY IMPROVEMENTS (EXISTING OR PROPOSED) DAMAGED THROUGHOUT THE COURSE OF CONSTRUCTION.
29. ALL QUANTITIES SHOWN HEREIN ARE APPROXIMATE AND USED FOR PERMIT AND BOND PURPOSES ONLY. THEY SHALL NOT BE USED IN ANY WAY FOR BIDDING OR CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT QUANTITY TAKE-OFFS FOR BIDDING AND CONSTRUCTION PURPOSES.
30. GROUND PROFILE IS SHOWN ALONG CENTERLINE UNLESS OTHERWISE NOTED.
31. PRIOR TO WORK ON DRAWINGS THAT TIE INTO EXISTING FACILITIES, THE CONTRACTOR SHALL VERIFY ELEVATIONS SHOWN. IF ELEVATIONS DIFFER FROM THAT SHOWN ON THE PLANS, ADJUSTMENTS TO CONFORM WILL BE MADE BY THE PROJECT ENGINEER.
32. WHEN A UTILITY POLE IS LOCATED IN THE PROPOSED PAVEMENT SECTION, THIS NOTE SHALL BE PLACED NEAR THE POLE TO BE RELOCATED: "NO EXCAVATION WORK WILL OCCUR WITHIN THE STREET RIGHT-OF- WAY PRIOR TO COMPLETION OF UTILITY POLE RELOCATION."
33. CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUCTING HIS/HER OPERATION ENTIRELY OUTSIDE OF ANY FLOODPLAIN BOUNDARIES OR "NO GRADING AREAS." FLOODPLAIN BOUNDARIES SHALL BE CLEARLY DELINEATED IN THE FIELD PRIOR TO CONSTRUCTION.
34. WHERE WORK IS BEING DONE IN AN OFF-SITE EASEMENT, THE CONTRACTOR SHALL NOTIFY THE PROPERTY OWNER 48 HOURS PRIOR TO COMMENCING WORK.

STREET NOTES

1. PUBLIC SAFETY AND TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE CITY ENGINEER. SAFE VEHICULAR AND PEDESTRIAN ACCESS SHALL BE PROVIDED AT ALL TIMES DURING CONSTRUCTION.
2. WHEN STREET WORK OR TRENCHING IS DONE THAT WOULD INTERFERE WITH EMERGENCY RESPONSE TRAFFIC, THE CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT FROM THE CITY OF DIXON, SUBMIT A TRAFFIC CONTROL PLAN, AND NOTIFY THE FIRE AND POLICE DEPARTMENTS 24-HOURS IN ADVANCE OF THE TIME AND LOCATION OF SUCH CLOSURES. THE CONTRACTOR SHALL AGAIN CONTACT THESE DEPARTMENTS AS SOON AS THE STREET IS REOPENED.
3. UNLESS SPECIFICALLY SET FORTH IN THE SPECIAL PROVISIONS, ALL MARKED LANES OF TRAFFIC SHALL BE OPEN ON ALL MAJOR STREETS IN EACH DIRECTION DURING THE PEAK TRAFFIC HOURS OF 7:00 AM TO 8:00 AM AND 3:00 PM TO 5:00 PM. A TRAFFIC LANE SHALL BE CONSIDERED OPEN IF IT IS SURFACED WITH ASPHALT AND IS AT LEAST 10 FEET WIDE.
4. WHENEVER A WORK ZONE IS WITHIN 10 FEET OF A TRAFFIC LANE AND THERE IS A PAVEMENT CUT, DITCH OR TRENCH GREATER THAN 2 INCHES DEEP, THE CONTRACTOR SHALL MAINTAIN CONTINUOUS BARRICADES SPACED AT APPROXIMATELY 50 FOOT INTERVALS. IF THE CUT, DITCH OR TRENCH IS MORE THAN 10 FEET FROM A TRAVEL LANE, THE SPACING MAY BE GREATER, BUT NOT TO EXCEED 200 FEET.
5. PRIOR TO ORDERING STREET NAME SIGNS, THE CONTRACTOR SHALL VERIFY STREET NAMES AND STREET SIGN SPECIFICATIONS WITH THE CITY ENGINEER.
6. THE CONTRACTOR SHALL REMOVE, TEMPORARILY RELOCATE AND REINSTALL ALL PUBLIC SIGNS, PRIVATE SIGNS AND MAILBOXES IN CONFLICT WITH THE CONSTRUCTION. MAIL BOX LOCATIONS SHALL BE AS APPROVED BY THE UNITED STATES POSTAL DEPARTMENT. PUBLIC SIGN RELOCATION SHALL BE COORDINATED WITH THE SIGN OWNERS AND THE CITY OF DIXON.

SEWER NOTES VITRIFIED CLAY PIPE

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL SEWER LATERAL LOCATIONS WITH THE PROJECT ENGINEER PRIOR TO CONSTRUCTION.
2. CONTRACTOR TO EXPOSE END OF EXISTING SEWER LINES FOR SURVEYORS TO VERIFY LOCATION AND ELEVATION PRIOR TO PLACEMENT OF PIPE.
3. ALL SEWER SERVICES SHALL HAVE 5'-0" TO 5'-6" OF COVER AT THE PROPERTY LINE AND 4'-0" COVER AT STORM DRAIN CROSSINGS. WATER TIGHT PLUGS SHALL BE INSTALLED AT THE END OF LATERALS AND MAINS TO BE EXTENDED IN THE FUTURE. INSTALLATION SHALL BE APPROVED BY THE CITY PRIOR TO BACKFILL.
4. ANY SEWER PIPE HAVING LESS THAN 20" OF COVER MEASURED AT THE BELL WITHIN THE STREET BEFORE THE ADDITION OF ROCK BASE SHALL BE DUCTILE IRON PIPE. ALL OTHER PIPE SHALL BE V.C.P. CONFORMING TO A.S.T.M. C-700.
5. CLEANOUTS SHALL BE INSTALLED 18" TO 24" FROM THE BACK EDGE OF WALK FOR ALL SEWER SERVICE LATERALS. SERVICES SHALL BE EXTENDED 10 FEET BEYOND THE BACK OF SIDEWALK. THE CLEANOUT SHALL HAVE A SCREW TIGHT PLUG WITH A BOX AND LID.
6. THE CONTRACTOR SHALL PLACE AN "S" IN THE WET CONCRETE CURB TOP AT SEWER LATERAL LOCATIONS.
7. USE V.C.P. CHANNEL SECTIONS IN ALL SEWER TRANSITION MANHOLES.
8. ALL SEWER SERVICES TO MANHOLES SHALL MATCH INVERT OF THE INLET PIPE TO CROWN OF THE OUTLET PIPE, UNLESS OTHERWISE NOTED.
9. ALL SEWER SERVICES TO MANHOLES SHALL BE AIR TESTED TO THE SATISFACTION OF THE CITY ENGINEER AFTER AGGREGATE BASE AND SIDEWALK PLACEMENT AND PRIOR TO PLACEMENT OF ASPHALT CONCRETE. SERVICES SHALL BE BALL AND FLUSHED AND TV TESTED. ALSO, NOT LESS THAN 11 MONTHS AFTER ACCEPTANCE AND PRIOR TO EXPIRATION OF THE ONE YEAR WARRANTY PERIOD, SEWER MAINS AND LATERALS SHALL BE BALL AND FLUSHED AND TV RETESTED. CONTRACTOR SHALL SUBMIT DVD DISK AND LOGS TO THE CITY AFTER IMPLEMENTING ANY REPAIRS REQUIRED OF RETEST.
10. ANY WATER ENTERING THE SANITARY SEWER SYSTEM TO BE CONSTRUCTED UNDER THESE PLANS SHALL NOT BE DISCHARGED INTO THE EXISTING SYSTEM. PLUGS MUST BE INSTALLED IN EXISTING MANHOLES AS NECESSARY TO PERMIT PUMPING THE NEW SYSTEM CLEAR OF WATER AND DEBRIS PRIOR TO ACCEPTANCE. CARE SHALL BE EXERCISED IN LOCATING PLUGS TO AVOID INTERRUPTING SERVICE CONNECTIONS. MORTAR OR BRICKS MUST BE USED, INFLATABLE DEVICES ARE NOT SATISFACTORY.
11. ALL MANHOLE RISERS SHALL BE SEALED BETWEEN RINGS WITH "RAMNECK" OR SIMILAR SEALING MATERIAL. JOINTS SHALL BE GROUTED INSIDE AND OUT.
12. DURING INSTALLATION AND BACKFILLING, ALL TRENCHES SHALL BE FREE OF WATER. ALL DEWATERING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR OWNER.
13. SEWER PIPE SHALL BE EXTRA-STRENGTH, BELL AND SPIGOT, UNGLAZED VITRIFIED CLAY PIPE CONFORMING TO ASTM C-700.

STORM DRAIN NOTES

1. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING DRAINAGE FACILITIES AND PROVIDE NECESSARY EROSION CONTROL MEASURES WITHIN THE CONSTRUCTION AREA UNTIL THE DRAINAGE IMPROVEMENTS ARE IN PLACE AND FUNCTIONING. IF REQUESTED BY THE CITY ENGINEER, THE CONTRACTOR SHALL PROVIDE AN EROSION CONTROL PLAN TO THE CITY FOR APPROVAL.
2. UNLESS OTHERWISE NOTED ON THE PLANS, ALL REINFORCED CONCRETE PIPE (RCP) SHALL BE A.S.T.M. C76 CLASS III. CAST-IN-PLACE NON-REINFORCED CONCRETE PIPE (CIPP) SHALL CONFORM WITH CALTRANS STANDARD SPECIFICATIONS SECTION 63 WITH THE FOLLOWING ADDITIONAL REQUIREMENTS: (1) CONCRETE SHALL BE 3,500 PSI. MINIMUM 28 DAY COMPRESSIVE STRENGTH; (2) PORTLAND CEMENT SHALL BE CALTRANS TYPE II MODIFIED; AND (3) BACKFILL SHALL COMPLY WITH THE PROJECT SPECIFICATIONS.
3. INSTALL WEAK CONCRETE PLUG AT ALL STORM DRAIN STUBS.
4. MANHOLE BARREL SECTIONS TO BE GROUTED INSIDE AND OUTSIDE.

WATER SYSTEM NOTES

1. ALL MATERIALS AND INSTALLATION OF THE CITY OF DIXON WATER DISTRIBUTION SYSTEM SHALL BE IN ACCORDANCE WITH THE CITY'S ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST REVISIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL EXISTING UTILITIES.
3. WATER MAINS SHALL BE PVC C-900 CLASS 150 AND SHALL BE LAID IN SEPARATE TRENCHES WITH A MINIMUM HORIZONTAL SEPARATION OF 10 FEET AND A MINIMUM VERTICAL SEPARATION OF 1 FOOT.
4. ALL SECTIONALIZING VALVES SHALL BE BUTTERFLY VALVES AND CONFORM TO THE APPLICABLE PROVISIONS OF AWWA C-504. ALL BUTTERFLY VALVES SHALL BE FLANGED (SHORT BODY) AND NOT OF THE WAFER TYPE, WITH A PRESSURE RATING EQUIVALENT TO THAT OF THE PIPELINE. REFER TO CITY STANDARDS FOR COATING REQUIREMENTS.
5. CONTRACTOR SHALL USE PVC PIPE FOR VALVE BOX DEPTH EXTENSIONS.
6. THE CONTRACTOR SHALL PLACE A "W" IN THE WET CONCRETE CURB TOP FOR WATER SERVICE LOCATIONS.
7. CONTRACTOR SHALL NOTIFY THE CITY OF DIXON AT (707)678-7030, 48 HOURS PRIOR TO THE INSPECTION OF THE WATER SYSTEM.
8. PROVIDE FIVE COPIES OF SHOP AND FABRICATION DRAWINGS TO THE CITY OF DIXON FOR REVIEW AND APPROVAL.

SEWER NOTES SDR 26 PVC

PVC SEWER PIPE SHALL NOT BE INSTALLED WITHOUT WRITTEN APPROVAL BY THE CITY ENGINEER

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL SEWER LATERAL LOCATIONS WITH THE PROJECT ENGINEER PRIOR TO CONSTRUCTION.
2. CONTRACTOR TO EXPOSE END OF EXISTING SEWER LINES FOR SURVEYORS TO VERIFY LOCATION AND ELEVATION PRIOR TO PLACEMENT OF PIPE.
3. ANY SEWER PIPE HAVING LESS THAN 20" OF COVER MEASURED AT THE BELL WITHIN THE STREET BEFORE THE ADDITION OF ROCK BASE SHALL BE DUCTILE IRON PIPE. ALL OTHER PIPE SHALL BE V.C.P. CONFORMING TO A.S.T.M. D3034.
4. THE CONTRACTOR SHALL PLACE AN "S" IN THE WET CONCRETE CURB TOP AT SEWER LATERAL LOCATIONS.
5. ALL SEWER SERVICES TO MANHOLES SHALL MATCH INVERT OF THE INLET PIPE TO CROWN OF THE OUTLET PIPE, UNLESS OTHERWISE NOTED.
6. ALL SEWER SERVICES TO MANHOLES SHALL BE AIR TESTED TO THE SATISFACTION OF THE CITY ENGINEER AFTER AGGREGATE BASE AND SIDEWALK PLACEMENT. SERVICES SHALL BE TV TESTED. PRIOR TO EXPIRATION OF THE 1 YEAR WARRANTY PERIOD. SEWER MAINS AND LATERALS SHALL BE TV TESTED.
7. ANY WATER ENTERING THE SANITARY SEWER SYSTEM TO BE CONSTRUCTED UNDER THESE PLANS SHALL NOT BE DISCHARGED INTO THE EXISTING SYSTEM. TEMPORARY PLUGS MUST BE INSTALLED IN EXISTING MANHOLES AS NECESSARY TO PERMIT PUMPING THE NEW SYSTEM CLEAR OF WATER AND DEBRIS PRIOR TO ACCEPTANCE. CARE SHALL BE EXERCISED IN LOCATING PLUGS TO AVOID INTERRUPTING SERVICE CONNECTIONS.
8. ALL SEWER SERVICES TO MANHOLES SHALL MATCH INVERT OF THE INLET PIPE TO CROWN OF THE OUTLET PIPE, UNLESS OTHERWISE NOTED.
9. FOR ALL SANITARY SEWER SYSTEMS, AT THE CONTRACTOR'S DISCRETION, CONTRACTOR MAY PREFORM PRELIMINARY LOW PRESSURE AIR TESTING FROM SSMH TO SSMH. EXCEPTANCE LOW AIR PRESSURE TESTING TO THE SATISFACTION OF THE CITY ENGINEER AND IN THE PRESENCE OF A CITY PUBLIC WORKS INSPECTOR SHALL BE PERFORMED AFTER AGGREGATE BASE, CURB, GUTTER AND SIDEWALK PLACEMENT AND PRIOR TO PLACEMENT OF HOT MIX ASPHALT. SERVICES SHALL BE BALL AND FLUSHED AND TV TESTED. ALSO, NOT LESS THAN 11 MONTHS AFTER ACCEPTANCE AND PRIOR TO EXPIRATION OF THE ONE YEAR WARRANTY PERIOD, SEWER MAINS AND LATERALS SHALL BE BALL AND FLUSHED AND TV RETESTED. CONTRACTOR SHALL SUBMIT ELECTRONIC COPY AND LOGS TO THE CITY AFTER IMPLEMENTING ANY REPAIRS REQUIRED OF RETEST.
10. ANY WATER ENTERING THE SANITARY SEWER SYSTEM TO BE CONSTRUCTED UNDER THESE PLANS SHALL NOT BE DISCHARGED INTO THE EXISTING SYSTEM. PLUGS MUST BE INSTALLED IN EXISTING MANHOLES AS NECESSARY TO PERMIT PUMPING THE NEW SYSTEM CLEAR OF WATER AND DEBRIS PRIOR TO ACCEPTANCE. CARE SHALL BE EXERCISED IN LOCATING PLUGS TO AVOID INTERRUPTING SERVICE CONNECTIONS. MORTAR OR BRICKS MUST BE USED, INFLATABLE DEVICES ARE NOT SATISFACTORY.
11. ALL MANHOLE RISERS SHALL BE SEALED BETWEEN RINGS WITH "RAMNECK" OR SIMILAR SEALING MATERIAL. JOINTS SHALL BE GROUTED INSIDE AND OUT.
12. DURING INSTALLATION AND BACKFILLING, ALL TRENCHES SHALL BE FREE OF WATER. ALL DEWATERING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR OWNER.
13. ALL LEAKAGE TESTS SHALL BE COMPLETED AND APPROVED AFTER BACKFILLING AND PRIOR TO PLACING OF PERMANENT SURFACING.
14. ALL SEWER MAINS AND LATERALS SHALL BE CLEANED AND FLUSHED, DEFLECTION TESTED AND AIR TESTED ACCORDING TO CITY OF DIXON STANDARD SPECIFICATIONS.
15. THE COMPLETE JOB SITE IS READY FOR TELEVISION INSPECTION WHEN THE FOLLOWING WORK IS COMPLETED:
   A. ALL SEWER PIPELINES ARE INSTALLED AND BACKFILLED.
   B. ALL STRUCTURES ARE IN PLACE, ALL CHANNELING IS COMPLETE AND PIPELINES ARE ACCESSIBLE FROM STRUCTURES.
   C. ALL OTHER UNDERGROUND FACILITIES, UTILITY PIPING AND CONDUITS ARE INSTALLED.
   D. FINAL STREET SUBGRADING IS COMPLETE AND READY FOR ASPHALT CONCRETE SURFACING. PIPELINES TO BE INSPECTED HAVE BEEN PRELIMINARILY BALLED AND FLUSHED OR CLEANED WITH A HIGH PRESSURE CLEANER.
   E. FINAL AIR TESTS HAVE BEEN COMPLETED AND APPROVED. WHEN THE ABOVE ITEMS ARE COMPLETE, THE CONTRACTOR SHALL NOTIFY THE CITY IN WRITING AS TO THE SCHEDULED DATE OF THE TELEVISION INSPECTION AND THE INSPECTION SHALL BE COMPLETED PER THE CITY OF DIXON STANDARD SPECIFICATIONS.
16. ALL SEWER LATERALS ARE TO USE ABS CLEANOUTS.
17. ALL LATERALS AND MAINS ARE TO BE VIDEO TAPED TO THE SERVICE CLEANOUT.

GRADING NOTES

1. GRADING SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO CONSTRUCT GRADES AS SHOWN ON THE GRADING PLAN. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE DISPOSAL OF EXCESS EXCAVATION PLACED AT THE DIRECTION OF THE PROJECT ENGINEER IN ADVANCE OF ANY CHANGES DEEMED NECESSARY TO OBTAIN A BALANCED GRADING PROGRAM TO MEET MINIMUM STANDARDS. MINIMUM COMPACTION OUTSIDE THE STREET RIGHT-OF-WAY SHALL BE 90 PERCENT.
2. ALL GRADING SHALL BE COMPLETED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PRELIMINARY SOILS REPORT.

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SEAL

REGISTERED PROFESSIONAL ENGINEER
ANTHONY J. TASSANO
NO. C74696
STATE OF CALIFORNIA
06/18/2026

PROJECT

DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE

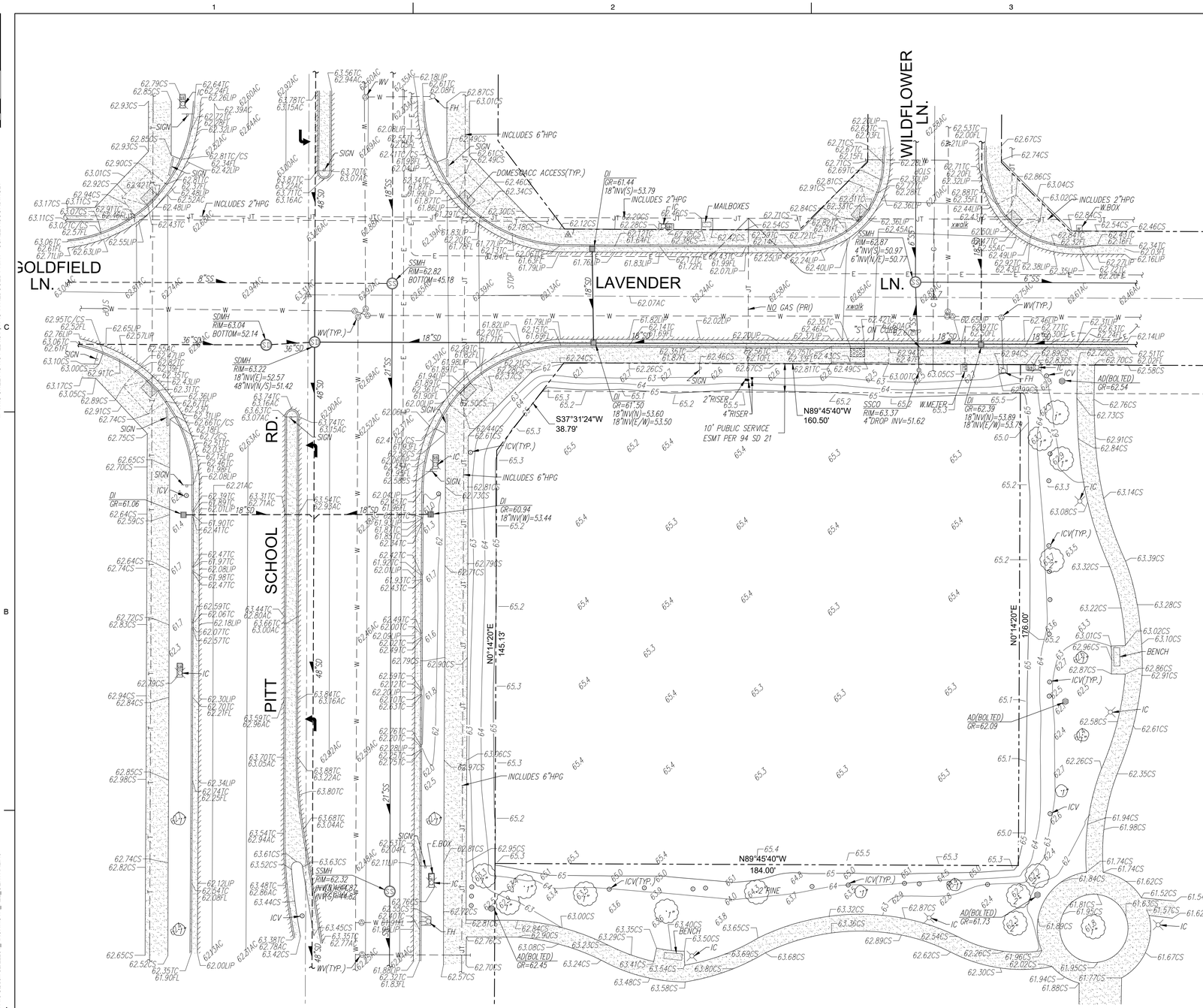
GENERAL NOTES

SHEET

C0.1

2" 1" 1/2" 0 1/4"
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
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EXISTING UTILITIES

12"SD	= STORM DRAIN LINE (SIZE & DIRECTION OF FLOW)
12"SD	= STORM DRAIN LINE (RECORD INFORMATION)
12"SD	= STORM DRAIN LINE (UNDERGROUND LOCATING)
SD	= STORM DRAIN MANHOLE
	= STORM DRAIN CLEANOUT
	= DROP INLET
	= AREA DRAIN
RWL	= RAIN WATER LEADER
DS	= DOWNSPOUT
12"SS	= SANITARY SEWER LINE (SIZE & DIRECTION OF FLOW)
12"SS	= SANITARY SEWER LINE (RECORD INFORMATION)
12"SS	= SANITARY SEWER LINE (UNDERGROUND LOCATING)
SS	= SANITARY SEWER MANHOLE
	= SANITARY SEWER CLEANOUT
—W—	= WATER LINE (SIZE INDICATED)
- - -W- - -	= WATER LINE (RECORD INFORMATION)
— —W— —	= WATER LINE (UNDERGROUND LOCATING)
W	= WATER MANHOLE
	= WATER VALVE
WM	= WATER METER
	= WATER BOX
	= IRRIGATION CONTROL VALVE
	= FIRE HYDRANT
	= BACKFLOW PREVENTER
	= SPRINKLER
	= HOSE BIBB
— OH—E —	= OVERHEAD ELECTRIC LINE
—E—	= UNDERGROUND ELECTRIC LINE
- - -E- - -	= UNDERGROUND ELECTRIC LINE (RECORD INFORMATION)
— —E— —	= UNDERGROUND ELECTRIC LINE (UNDERGROUND LOCATING)
E	= ELECTRIC MANHOLE
	= UTILITY POLE (WITH GUY WIRE)
EM	= ELECTRIC METER
E	= ELECTRIC BOX
SL	= STREET LIGHTING BOX
OR	= LIGHT STANDARD
	= SIGNAL LIGHT
	= FLOOD LIGHT
	= ELECTRICAL OUTLET
—G—	= GAS LINE (SIZE INDICATED)
- - -G- - -	= GAS LINE (RECORD INFORMATION)
— —G— —	= GAS LINE (UNDERGROUND LOCATING)
G	= GAS MANHOLE
	= GAS VALVE
GM	= GAS METER
—t—	= TELEPHONE LINE
- - -t- - -	= TELEPHONE LINE (RECORD INFORMATION)
— —t— —	= TELEPHONE LINE (UNDERGROUND LOCATING)
SD	= STORM DRAIN BOX
TS	= TRAFFIC SIGNAL BOX

ABBREVIATIONS

NOTE: NOT ALL ABBREVIATIONS MAY BE USED ON THESE PLANS.

AC	ASPHALTIC CONCRETE
ACC	ACCESSIBLE
ACU	AIR CONDITIONING UNIT
AD	AREA DRAIN
APN	ASSESSOR'S PARCEL NUMBER
ARV	AIR RELEASE VALVE
BBALL	BASKETBALL POLE
BCM	BRASS CAP MONUMENT
BFP	BACK FLOW PREVENTER
BL.	BLOCK
BLDG	BUILDING
BOL	BOLLARD
BOV	BLOW-OFF VALVE
BR.	BRICK
B.W.F.	BARBED WIRE FENCE
C	COMMUNICATION
C/L	CENTERLINE
CATV	CABLE TELEVISION
CIP	CAPPED IRON PIPE
C.L.F.	CHAIN LINK FENCE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
COL	COLUMN
CONC.	CONCRETE
COND.	CONDENSATE
CPF	CONTROL POINT FOUND
CPS	CONTROL POINT SET
CS	CONCRETE SURFACE
D	DEPTH
DF	DRINKING FOUNTAIN
DG	DECOMPOSED GRANITE
DI	DROP INLET
DIA	DIAMETER
DRWY	DRIVEWAY
DS	DOWNSPOUT
DWG	DRAWING
E	ELECTRIC
EP	EDGE OF PAVEMENT
ESMT	EASEMENT
FA	FIRE ALARM
FDC	FIRE DEPARTMENT CONNECTION
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FL	FLOWLINE
FO	FIBER OPTIC
FS	FIRE SERVICE
G	GAS
GB	GRADE BREAK
GR	GRATE
GRB	GROUND ROD BOX
GROD	GROUND ROD
GV	GAS VALVE
HB	HOSE BIBB
HBD	HEADER BOARD
HPG	HIGH PRESSURE GAS
HR	HANDRAIL
HVE	HIGH VOLTAGE ELECTRIC
HWF	HOG WIRE FENCE
IC	IN CONCRETE
ICP	IRRIGATION CONTROL PANEL
ICV	IRRIGATION CONTROL VALVE
INV	PIPE INVERT ELEVATION
IRR	IRRIGATION
JP	JOINT UTILITY POLE
JT	JOINT TRENCH
LNDG	LANDING
LVE	LOW VOLTAGE ELECTRIC
M.	METAL
MH	MANHOLE
MS	MOW STRIP
MSC	METAL STORAGE CONTAINER
NTS	NOT TO SCALE
OH	OVERHEAD
OHANG	OVERHANG
OIP	OPEN IRON PIPE
OSPH	OLD STEEL POST HOLE
P/L	PROPERTY LINE
PA	PLANTER AREA
PB	PARKING BUMPER
PH	POSTHOLE
PIV	POST INDICATOR VALVE
PRI	PER RECORD INFORMATION
PRKG	PARKING
PUE	PUBLIC UTILITY EASEMENT
PV	PAVERS
PVC	POLYVINYL CHLORIDE
R	RUBBER
RG	ROLLING GATE
RIM	MANHOLE RIM ELEVATION
ROW	RIGHT OF WAY
RW	RETAINING WALL
RWL	RAIN WATER LEADER
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SIG	SIGNAL
SL	STREET LIGHT
SLB	STREET LIGHT BOX
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEANOUT
SSMH	SANITARY SEWER MANHOLE
STL.	STEEL
T	TELEPHONE
TBALL	TETHER BALL POLE
TBM	TEMPORARY BENCHMARK
TC	TOP OF CURB
TOW	TOP OF WALL
TP	TELEPHONE POLE
TRW	TOP OF RETAINING WALL
UG	UNDERGROUND
UNK	UNKNOWN
V	VENT
VBALL	VOLLEYBALL
W	WATER
W/	WITH
WD.	WOOD
WF	WOOD FENCE
W.I.F.	WROUGHT IRON FENCE
W.R.F.	WOOD RAIL FENCE
XF	TRANSFORMER
XWALK	CROSSWALK

EXISTING TOPOGRAPHY

	= PROPERTY LINE
	= CENTERLINE
	= EASEMENT
	= PROPERTY CORNER FOUND AS NOTED
	= PROPERTY CORNER NOTHING FOUND OR SET
△123	= TEMPORARY BENCHMARK (SEE TBM LIST FOR INFO)
	= SWALE OR DRAINAGE FLOW
	= DRAINAGE FLOW
	= TREE (SIZE/TYPE INDICATED)
	= SLOPE
100	= CONTOUR
	= CONCRETE SURFACE
	= EDGE OF ASPHALT
	= EDGE OF BUILDING
	= SIGN
	= POST OR BOLLARD
99.9	= GROUND ELEVATION
99.99	= HARD SURFACE ELEVATION

A.P.N.	0114-355-010

BENCHMARK NO. DIXON #21 ELEV. 65.73 (NGVD 29)

MONUMENT AT INTERSECTION OF PITT SCHOOL RD. AND W. "A" ST. (LS 3737)

DATUM CONVERSION:
NAVD88 = NGVD29 + 2.57'

TBM LIST

NUMBER	DESCRIPTION	NORTHING	EASTING	ELEVATION
1	CPF CHISELED "+"	1922058.54	667283.97	62.09
2	CPF CL MON LS7960	1922037.50	667192.60	63.10
7	CPF CL MON LS7960	1922036.51	667412.61	62.48

BASIS OF BEARINGS:
94 SD 21

F.E.M.A. INFORMATION:
THE SUBJECT PROPERTY IS LOCATED IN "ZONE X--AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN" PER FLOOD INSURANCE RATE MAP 06095C0200F DATED AUGUST 2, 2012.

NOTE:
EXISTING UTILITIES BASED ON VISIBLE SURFACE STRUCTURES AND RECORD INFORMATION.

GRAPHIC SCALE
20' 0 10' 20' 40'
(IN FEET) 1 inch = 20 feet
NORTH
THIS DRAWING MAY HAVE BEEN ENLARGED OR REDUCED.

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SEAL
REGISTERED PROFESSIONAL ENGINEER
ANTHONY J. TASSANO
NO. C74696
STATE OF CALIFORNIA
06/18/2026

PROJECT
DIXON FIRE STATION 82
DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

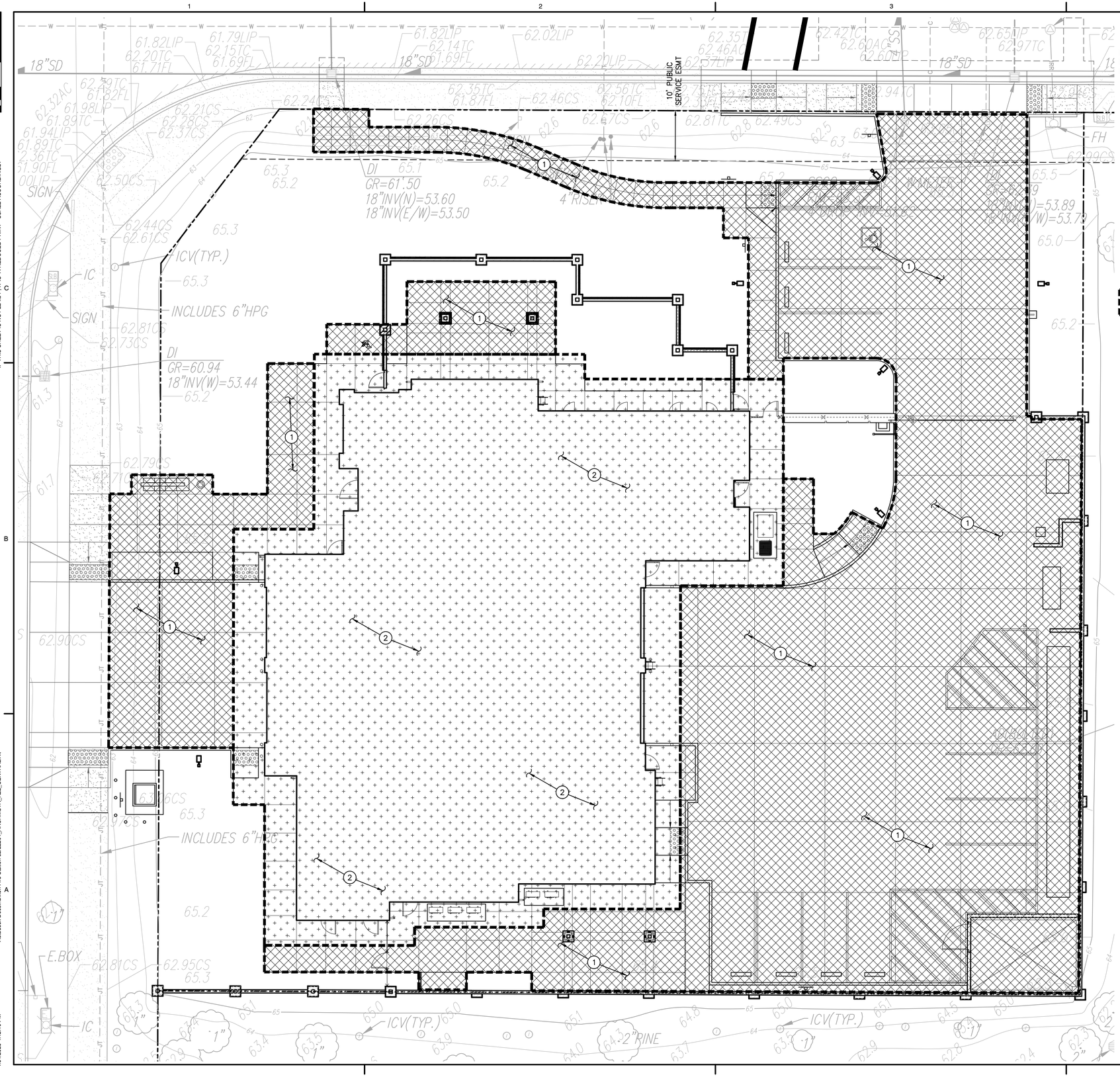
MANAGEMENT
LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
TOPOGRAPHIC SURVEY

SHEET
C0.2

IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
0 1/4" 1/2" 1" 2"
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1/31/2023 4:12:10 PM
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ENGINEERED FILL NOTES

PAVEMENT/FLATWORK SUBGRADE PREPARATION

1. FOLLOWING SITE CLEARING AND VEGETATION REMOVAL, OVER-EXCAVATE EXISTING SOILS TO PROPOSED SUBGRADE ELEVATIONS.

   FOLLOWING OVER-EXCAVATION SCARIFY EXPOSED SOILS TO A DEPTH OF AT LEAST 12 INCHES, MOISTURE CONDITION TO AT LEAST 2 PERCENT ABOVE OPTIMUM AND COMPACT TO AT LEAST 90 PERCENT OF THE ASTM D1557 MAXIMUM DRY UNIT WEIGHT.

   FILL MATERIAL, IF REQUIRED TO ACHIEVE PROPOSED SUBGRADE ELEVATIONS SHALL BE PLACE FILL IN LIFTS NOT EXCEEDING 8 INCHES IN LOOSE THICKNESS. EACH LIFT SHALL BE MOISTURE CONDITIONED TO AT LEAST 2 PERCENT ABOVE OPTIMUM MOISTURE CONTENT AND COMPACTED TO AT LEAST 90 PERCENT RELATIVE COMPACTION.

   THE UPPER 12 INCHES OF PROPOSED SUBGRADE SHALL BE TREATED WITH 4.5 POUNDS OF LIME PER CUBIC FOOT (BY DRY WEIGHT OF SOIL) AND COMPACTED TO AT LEAST 95 PERCENT RELATIVE COMPACTION AT A MOISTURE CONTENT OF AT LEAST 2 PERCENT ABOVE THE OPTIMUM MOISTURE CONTENT.

   SOIL TREATMENT, OVER-EXCAVATION AND SUBGRADE PREPARATION REQUIREMENTS SHALL EXTEND AT LEAST 2 FEET BEYOND PAVING LIMITS.

   NOTE: ALL LIME LOCATED WITHIN LANDSCAPE AREAS SHALL BE REMOVED REPLACED WITH 12" TOPSOIL.

BUILDING PAD SUBGRADE PREPARATION

2. FOLLOWING SITE CLEARING AND VEGETATION REMOVAL, OVER-EXCAVATE EXISTING FILL MATERIAL AT BUILDING PAD TO A DEPTH OF AT LEAST 3 FEET TO EXPOSE NATIVE SOILS.

   FOLLOWING OVER-EXCAVATION SCARIFY EXPOSED SOILS TO A DEPTH OF AT LEAST 12 INCHES, MOISTURE CONDITION TO AT LEAST 2 PERCENT ABOVE OPTIMUM AND COMPACT TO AT LEAST 90 PERCENT OF THE ASTM D1557 MAXIMUM DRY UNIT WEIGHT.

   FILL MATERIAL, SHALL BE PLACE FILL IN LIFTS NOT EXCEEDING 8 INCHES IN LOOSE THICKNESS. EACH LIFT SHALL BE MOISTURE CONDITIONED TO AT LEAST 2 PERCENT ABOVE OPTIMUM MOISTURE CONTENT AND COMPACTED TO AT LEAST 90 PERCENT RELATIVE COMPACTION.

   THE UPPER 12 INCHES OF PROPOSED SUBGRADE SHALL BE TREATED WITH 4.5 POUNDS OF LIME PER CUBIC FOOT (BY DRY WEIGHT OF SOIL) AND COMPACTED TO AT LEAST 95 PERCENT RELATIVE COMPACTION AT A MOISTURE CONTENT OF AT LEAST 2 PERCENT ABOVE THE OPTIMUM MOISTURE CONTENT.

   SOIL TREATMENT, OVER-EXCAVATION AND SUBGRADE PREPARATION REQUIREMENTS SHALL EXTEND AT LEAST 5 FEET BEYOND EDGE OF BUILDING FOOTINGS.

   NOTE: ALL LIME LOCATED WITHIN LANDSCAPE AREAS SHALL BE REMOVED REPLACED WITH 12" TOPSOIL.

ENGINEERED FILL GENERAL NOTES

1. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE GEOTECHNICAL INVESTIGATION REPORT FOR THIS PROJECT:

   PREPARED BY: GEOCON CONSULTANTS, INC.

   TITLED: GEOTECHNICAL INVESTIGATION

   DIXON FIRE STATION 82

   PROJECT NO.: S9731-05-37

   DATED: MARCH 2023 (REVISED JUNE 2023)

2. IN THE EVENT THAT ANY UNUSUAL CONDITIONS NOT COVERED BY THE GEOTECHNICAL INVESTIGATION REPORT OR ARE ENCOUNTERED DURING GRADING OPERATIONS THE GEOTECHNICAL ENGINEER AND THE ARCHITECT SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTIONS.

3. NO BURNING OR BLASTING SHALL BE PERMITTED, UNLESS APPROVED BY THE ARCHITECT AND CITY/COUNTY ENGINEER, AND GEOTECHNICAL ENGINEER OF RECORD.

4. THE TYPES, LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS, AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES. HOWEVER, WARREN CONSULTING ENGINEERS CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES, NOR FOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR OR ANY SUBCONTRACTOR FOR THIS CONTRACT SHALL NOTIFY THE DISTRICT TWO (2) WORKING DAYS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK IN ORDER TO VERIFY TO THE GREATEST EXTENT POSSIBLE THE EXISTING UTILITY LINES, CONFLICTS AND PROPOSED UTILITY CONNECTION POINTS.

5. ALL FILL MATERIAL, EXISTING ONSITE MATERIAL OR IMPORTED, SHALL BE REVIEWED AND APPROVED BY THE SITE GEOTECHNICAL ENGINEER BEFORE USED AS ENGINEERED FILL.

GRAPHIC SCALE

10' 0 5' 10' 20'

(IN FEET) 1 inch = 10 feet

NORTH

THIS DRAWING MAY HAVE BEEN ENLARGED OR REDUCED.

LIONAKIS

2025 Nineteenth Street
Sacramento, CA 95818
P 916.558.1900
www.lionakis.com

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1117 WINDFIELD WAY, SUITE 110
EL DORADO HILLS, CA 95762 | (916) 985-1870

SEAL

REGISTERED PROFESSIONAL ENGINEER
ANTHONY J. TASSANO
NO. C74696
STATE OF CALIFORNIA
06/18/2026

PROJECT

DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE

ENGINEERED FILL PLAN

SHEET

C1.1

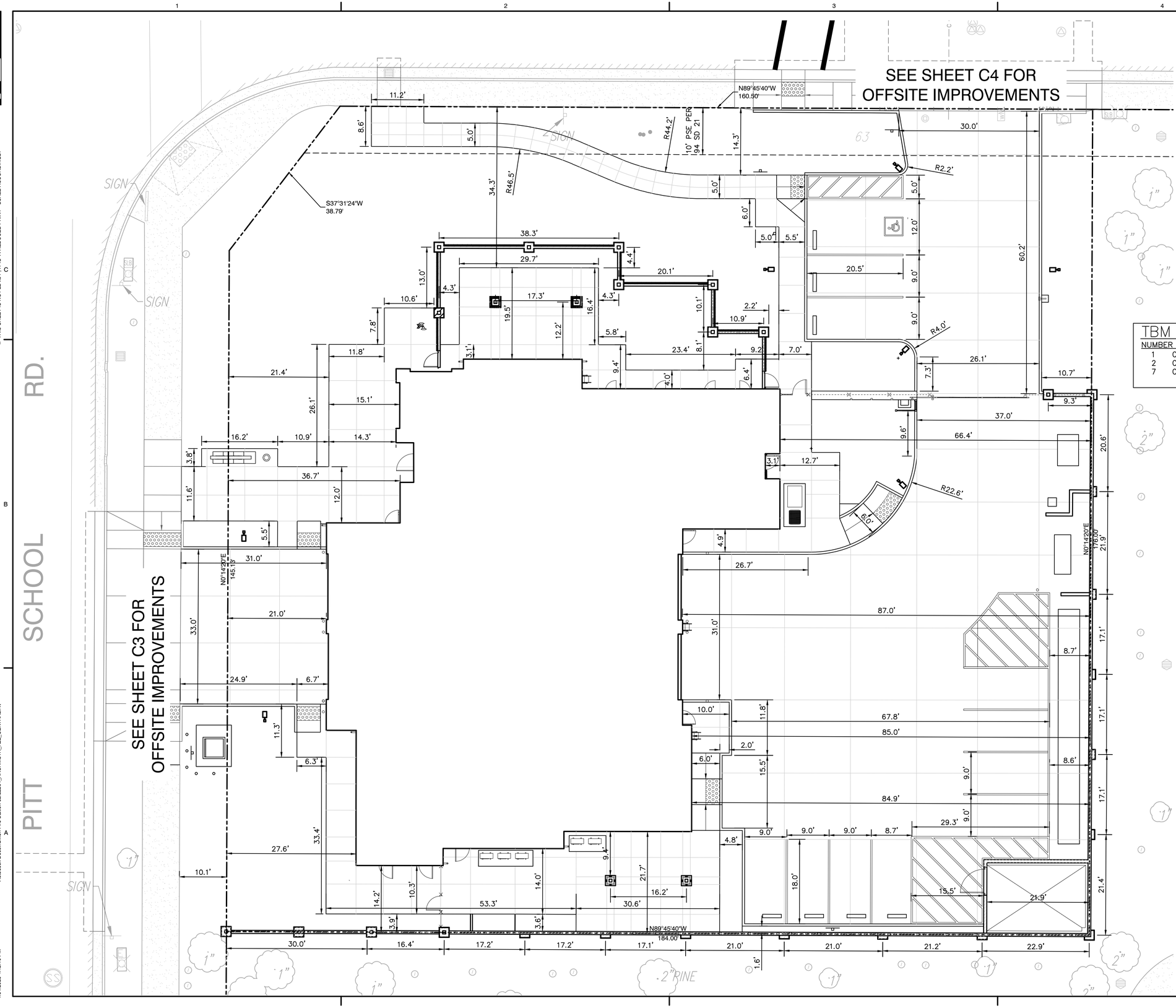
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

0 1/4" 1/2" 1"

Autodesk Docs://Dixon Fire Station 82/22204_ARCHMSTR_R22_CENTRAL.rvt

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TBM LIST

NUMBER	DESCRIPTION	NORTHING	EASTING	ELEVATION
1	CPF CHISELED "+"	1922058.54	667283.97	62.09
2	CPF CL MON LS7960	1922037.50	667192.60	63.10
7	CPF CL MON LS7960	1922036.51	667412.61	62.48

GRAPHIC SCALE

10' 0 5' 10' 20'

(IN FEET) 1 inch = 10 feet

NORTH

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IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

0 1/4" 1/2" 1" 2"

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MANAGEMENT

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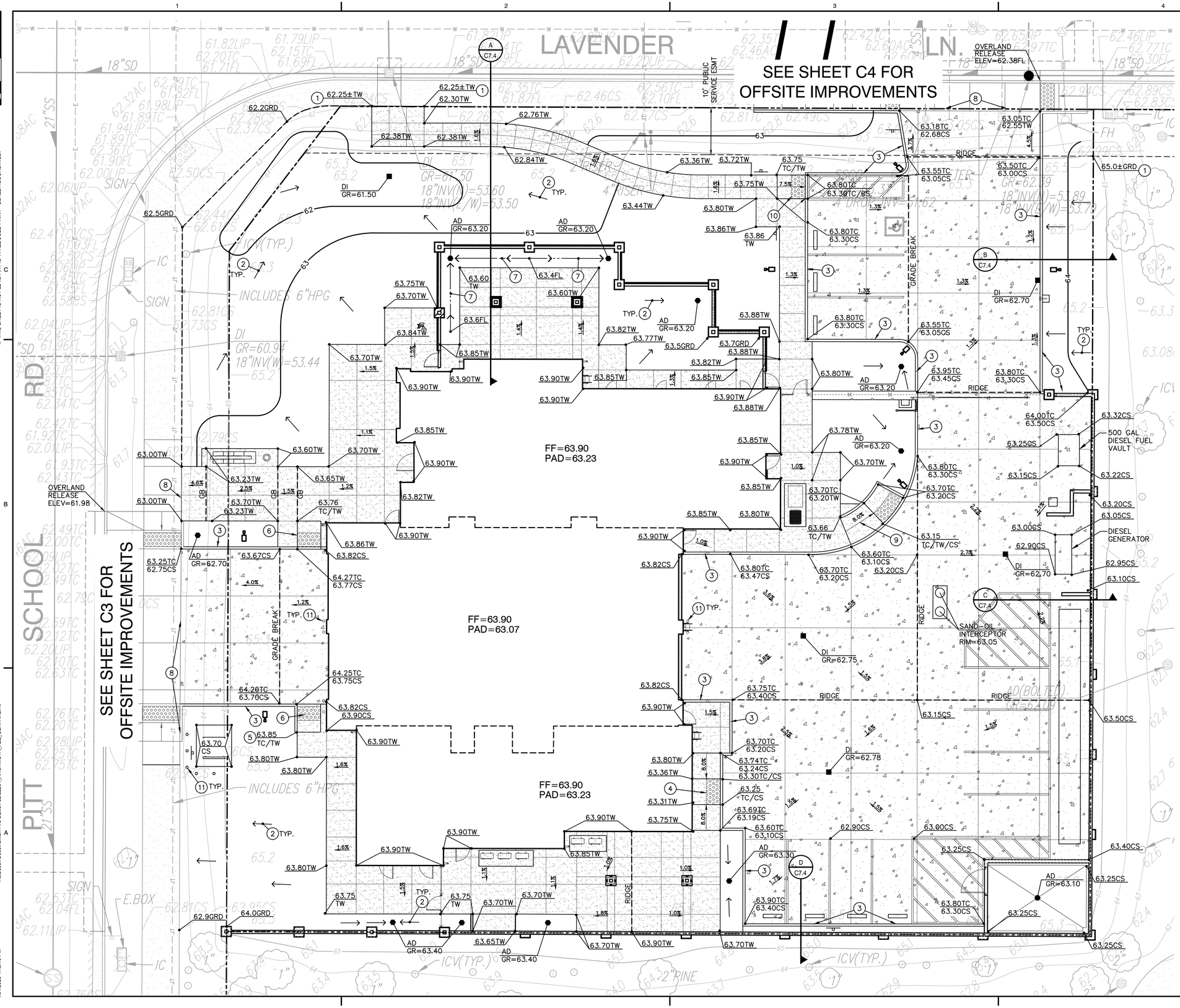
TITLE

HORIZONTAL CONTROL PLAN

SHEET

C1.2

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GRADING NOTES

1. MATCH EXISTING GRADE/ELEVATION.
2. GRADE UNIFORMLY TO INLET AND/OR SWALE.
3. CONSTRUCT CONCRETE CURB PER (3 C7.1)
4. CONSTRUCT ACCESSIBLE CURB RAMP #1 PER (4 C7.1)
5. TAPER LAST 6" OF CURB AT 45° TO FLUSH WITH ADJACENT PAVING.
6. CONSTRUCT ACCESSIBLE CURB #2 RAMP PER (5 C7.1)
7. CONSTRUCT SWALE.
8. SEE OFF-SITE PLANS FOR IMPROVEMENTS WITHIN PUBLIC RIGHT OF WAY.
9. CONSTRUCT ACCESSIBLE CURB #3 RAMP PER (6 C7.1)
10. CONSTRUCT ACCESSIBLE CURB #4 RAMP PER (5 C7.3)
11. BOLLARDS PER ARCHITECTURAL PLANS.

GENERAL NOTE:

THE RUNNING SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:20 (5%). THE CROSS SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:48 (2%).

*EXCEPTION: THE RUNNING SLOPE OF SIDEWALKS SHALL NOT EXCEED THE GENERAL GRADE ESTABLISHED FOR THE ADJACENT STREET.

GRAPHIC SCALE

10' 0 5' 10' 20'

(IN FEET) 1 inch = 10 feet

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TITLE

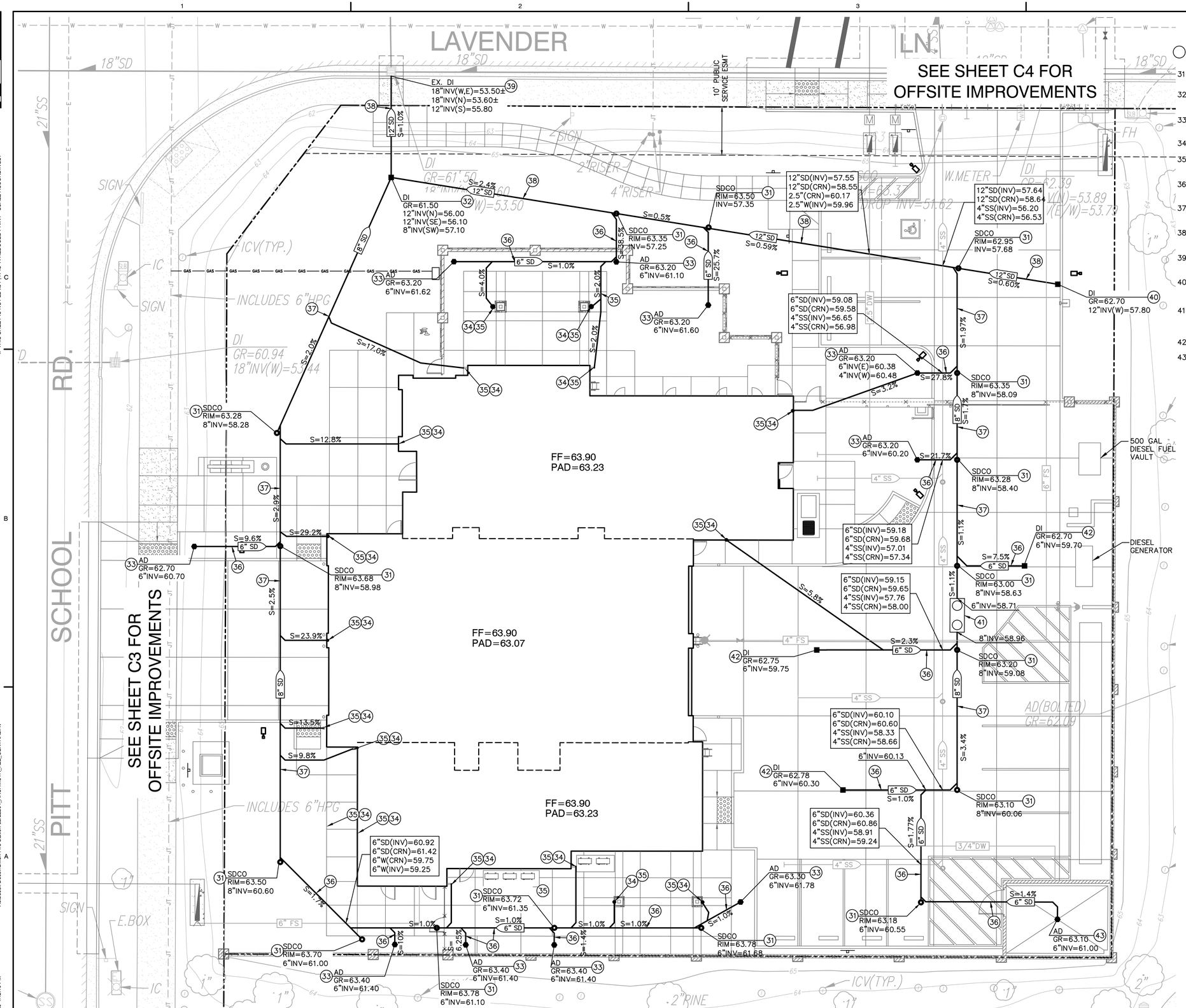
GRADING PLAN

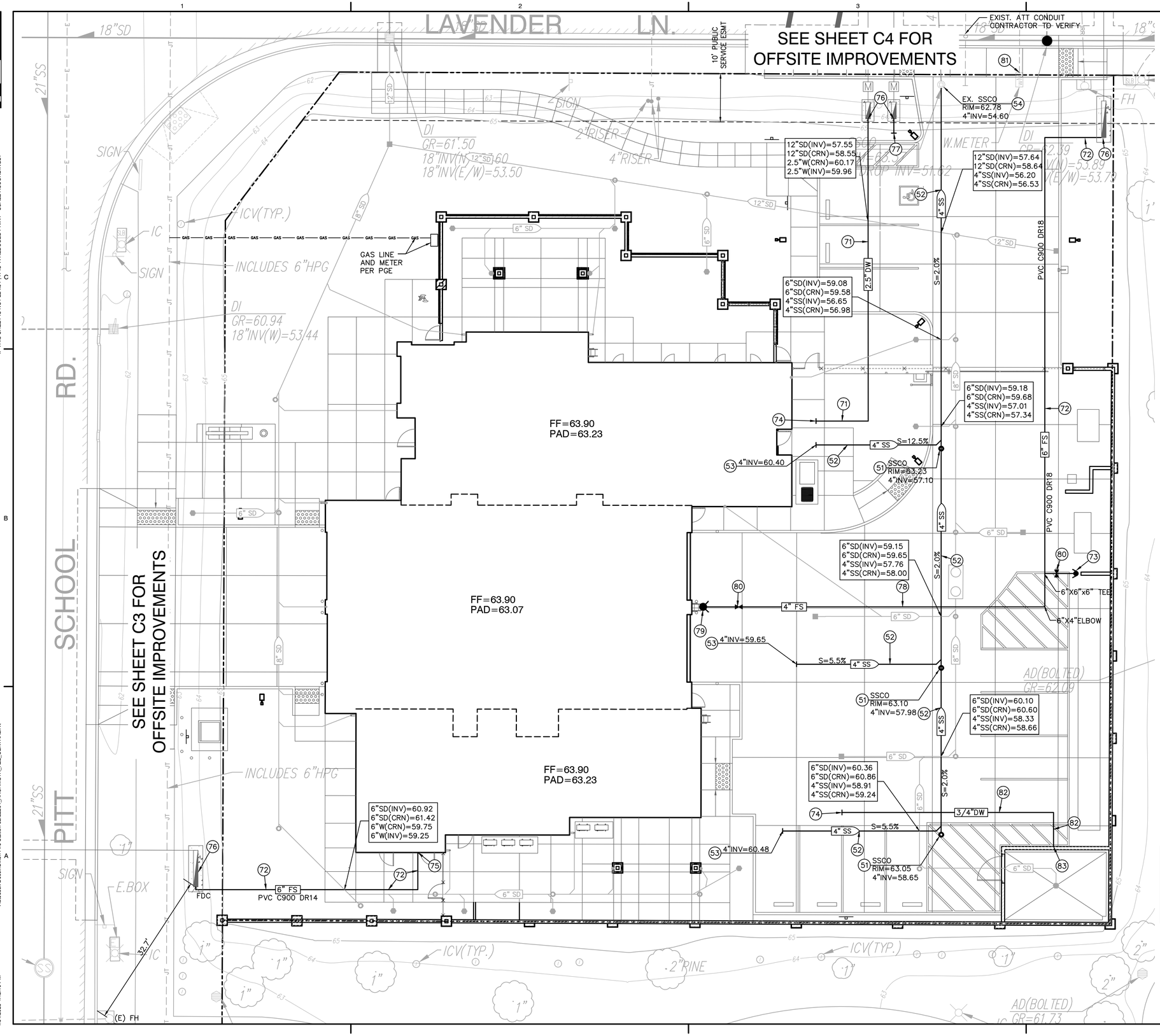
SHEET

C2.1

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LAVENDER LN.
SEE SHEET C4 FOR OFFSITE IMPROVEMENTS
SEE SHEET C3 FOR OFFSITE IMPROVEMENTS
PITT RD.
SCHOOL
10' PUBLIC SERVICE ESMT
EX. DI
18"INV(W,E)=53.50±
18"INV(N)=53.60±
12"INV(S)=55.80
DI
GR=61.50
12"INV(N)=56.00
12"INV(SE)=56.10
8"INV(SW)=57.10
DI
GR=60.94
18"INV(W)=53.44
DI
GR=61.50
18"INV(W)=53.50
DI
GR=62.70
12"INV(W)=57.80
SDCO
RIM=63.35
INV=57.25
SDCO
RIM=63.50
INV=57.35
SDCO
RIM=62.95
INV=57.68
SDCO
RIM=63.35
8"INV=58.09
SDCO
RIM=63.28
8"INV=58.40
SDCO
RIM=63.28
8"INV=58.28
SDCO
RIM=63.68
8"INV=58.98
SDCO
RIM=63.50
8"INV=60.60
SDCO
RIM=63.72
6"INV=61.35
SDCO
RIM=63.78
6"INV=61.68
SDCO
RIM=63.70
6"INV=61.00
SDCO
RIM=63.78
6"INV=61.10
SDCO
RIM=63.00
8"INV=58.63
SDCO
RIM=63.20
8"INV=59.08
SDCO
RIM=63.10
8"INV=60.06
SDCO
RIM=63.18
6"INV=60.55
AD
GR=63.20
6"INV=61.62
AD
GR=63.20
6"INV=61.10
AD
GR=63.20
6"INV=61.60
AD
GR=63.20
6"INV(E)=60.38
4"INV(W)=60.48
AD
GR=63.20
6"INV=60.20
AD
GR=62.70
6"INV=60.70
AD
GR=63.40
6"INV=61.40
AD
GR=63.40
6"INV=61.40
AD
GR=63.40
6"INV=61.40
AD
GR=63.30
6"INV=61.78
AD
GR=63.10
6"INV=61.00
AD(BOLTED)
GR=62.09
DI
GR=62.75
6"INV=59.75
DI
GR=62.78
6"INV=60.30
DI
GR=62.70
6"INV=59.70
12"SD(INV)=57.55
12"SD(CRN)=58.55
2.5"(CRN)=60.17
2.5"W(INV)=59.96
12"SD(INV)=57.64
12"SD(CRN)=58.64
4"SS(INV)=56.20
4"SS(CRN)=56.53
6"SD(INV)=59.08
6"SD(CRN)=59.58
4"SS(INV)=56.65
4"SS(CRN)=56.98
6"SD(INV)=59.18
6"SD(CRN)=59.68
4"SS(INV)=57.01
4"SS(CRN)=57.34
6"SD(INV)=59.15
6"SD(CRN)=59.65
4"SS(INV)=57.76
4"SS(CRN)=58.00
6"SD(INV)=60.10
6"SD(CRN)=60.60
4"SS(INV)=58.33
4"SS(CRN)=58.66
6"INV=60.13
6"SD(INV)=60.36
6"SD(CRN)=60.86
4"SS(INV)=58.91
4"SS(CRN)=59.24
6"SD(INV)=60.92
6"SD(CRN)=61.42
6"W(CRN)=59.75
6"W(INV)=59.25
FF=63.90
PAD=63.23
FF=63.90
PAD=63.07
FF=63.90
PAD=63.23
500 GAL DIESEL FUEL VAULT
DIESEL GENERATOR
INCLUDES 6"HPG
ICV(TYP.)
2"RINE
12" SD S=1.0%
12" SD S=2.4%
12" SD S=0.5%
12" SD S=0.59%
12" SD S=0.60%
18" SD
6" SD S=1.0%
8" SD S=25.7%
8" SD S=1.7%
6" SD S=9.6%
6" SD S=29.2%
6" SD S=2.3%
6" SD S=7.5%
6" SD S=1.0%
6" SD S=1.4%
8" SD
4" SS
6" FS
3/4"DW
S=4.0%
S=2.0%
S=2.0%
S=2.0%
S=17.0%
S=12.8%
S=2.9%
S=2.5%
S=23.9%
S=13.5%
S=9.8%
S=17.7%
S=1.0%
S=6.25%
S=1.4%
S=27.8%
S=3.2%
S=21.7%
S=1.1%
S=1.1%
S=5.8%
S=1.97%
S=3.4%
S=1.77%
S=1.0%
S=1.0%
S=1.0



SEWER NOTES

51. CONSTRUCT PRIVATE SEWER CLEANOUT PER CITY OF DIXON STANDARD DETAIL 6020. (4/C7.2)
52. PLACE 4" SDR35 SEWER PER CITY OF DIXON STD. DTL. 3280 AND 3290. (1/C7.2) (2/C7.2)
53. CONNECT TO BUILDING SEWER SERVICE, REFER TO PLUMBING PLANS FOR EXACT LOCATION AND DEPTH PRIOR TO TRENCHING. PROVIDE ALL FITTINGS NECESSARY TO MAKE CONNECTION
54. CONNECT TO EXISTING SEWER CLEANOUT PER CITY OF DIXON STANDARDS AND SPECIFICATIONS. (4/C7.2)

GENERAL THRUST BLOCK NOTE

1. ALL JUNCTION AND BENDS ON WATER MAIN PIPES 4" OR LARGER IN DIAMETER, VERTICAL AND HORIZONTAL SHALL BE PROTECTED WITH THRUST BLOCKS PER CITY OF DIXON STD. DTLS. 5030, 5040 AND 5050 (3/C7.3)

WATER NOTES

71. PLACE 2.5" PVC WATER PIPE PER CITY OF DIXON STD. DTL. 5000. (1/C7.3)
72. PLACE 6" PVC WATER PIPE PER CITY OF DIXON STD. DTL. 5000. (1/C7.3)
73. CONSTRUCT FIRE HYDRANT ASSEMBLY PER CITY OF DIXON STD. DTLS. 5060 AND 5070. (2/C7.3)
74. CONNECT TO BUILDING DOMESTIC WATER SERVICE. REFER TO PLUMBING PLANS FOR EXACT DEPTH AND LOCATION, PROVIDE ALL FITTINGS NECESSARY TO MAKE CONNECTION.
75. CONNECT TO BUILDING FIRE SPRINKLER SERVICE. PROVIDE ONE PIECE AMES IBR FABRICATED 304 STAINLESS STEEL TUBE, OR APPROVED EQUAL. SEE DETAIL (4/C7.3)
76. REFER TO OFFSITE IMPROVEMENT PLANS FOR CONTINUATION.
77. REFER TO IRRIGATION PLANS FOR CONTINUATION.
78. PLACE 4" WATER PIPE PER CITY OF DIXON STD. DTL. 5000. (1/C7.3)
79. PLACE 4" WHARF HYDRANT PER CITY OF DIXON STD. DTL. 5220. (1/C7.4)
80. PLACE VALVE AND VALVE BOX, SIZE TO MATCH LINE SIZE PER CITY OF DIXON STD. DTL. 5090. (2/C7.4)
81. REMOVE EXISTING WATER SERVICE AND METER TO MAIN. PROVIDE THE WATER METER TO THE CITY. INSTALL THREADED PLUG AT CORP STOP.
82. PLACE 3/4" PVC WATER PIPE PER CITY OF DIXON STD. DTL. 5000. (1/C7.3)
83. CONNECT TO PROPOSED HOSE BIBB AT TRASH ENCLOSURE. SEE DETAIL (2/P2.00)

UNDERGROUND FIRE PROTECTION

THESE SHEETS WERE NOT REVIEWED AND ARE NOT APPROVED FOR THE INSTALLATION OF ANY ONSITE PRIVATE FIRE PROTECTION UNDERGROUND INFRASTRUCTURE. A SEPARATE SUBMITTAL TO THE CITY OF DIXON FIRE DEPARTMENT FOR REVIEW AND APPROVAL IS REQUIRED BY THE INSTALLING C-16 LICENSED FIRE PROTECTION CONTRACTOR PRIOR TO ANY INSTALLATION OF ANY UNDERGROUND FIRE PROTECTION COMPONENTS

GRAPHIC SCALE

10' 0 5' 10' 20'
(IN FEET) 1 inch = 10 feet
NORTH
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STATE OF CALIFORNIA
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CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE

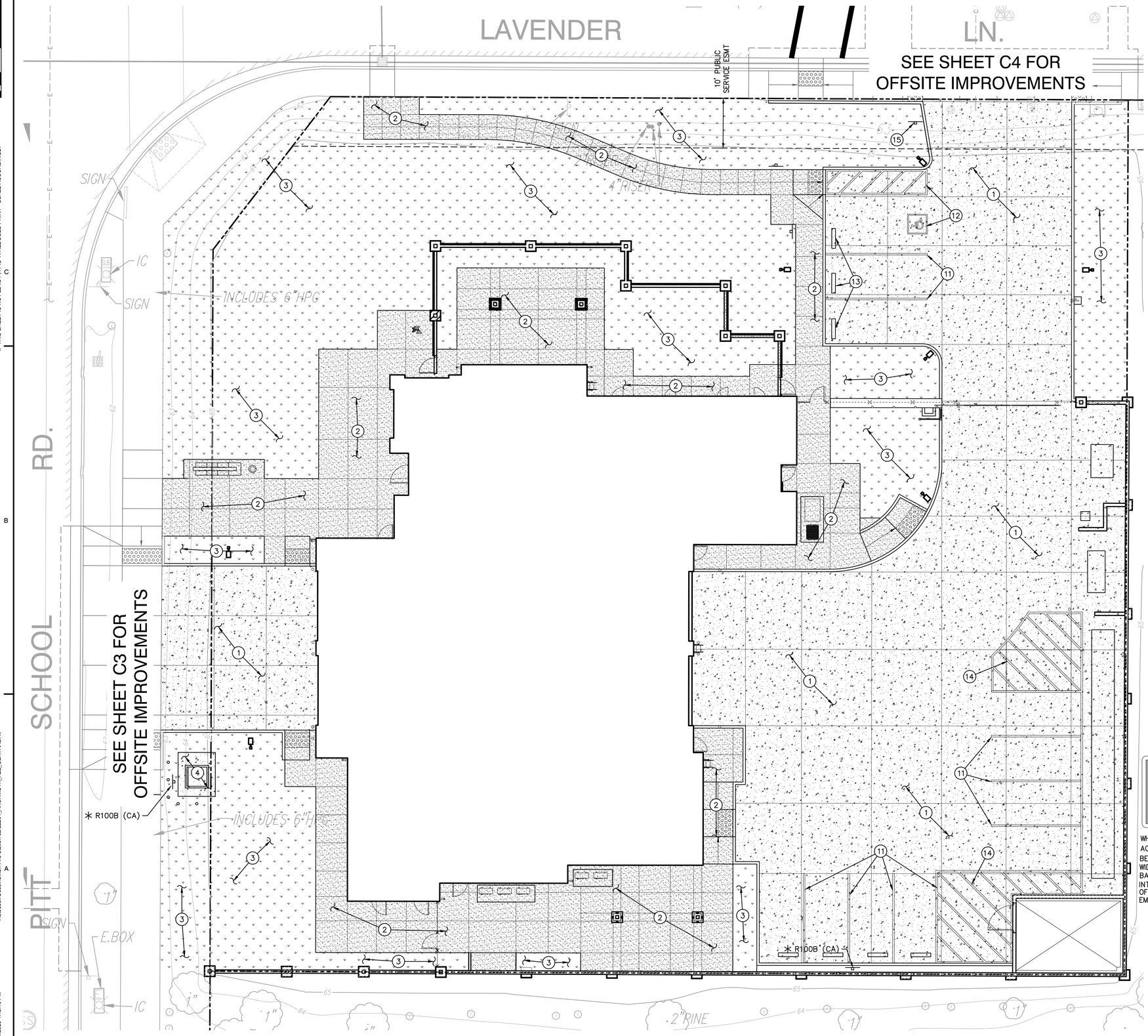
UTILITY PLAN

SHEET

C4.1

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PAVING GENERAL NOTES:

1. ASPHALT MIX SHALL MEET CALTRANS SPECIFICATIONS FOR TYPE B ASPHALTIC CONCRETE. REFERENCE CALTRANS SPECIFICATION SECTION 39, AND PROJECT SPECIFICATIONS
2. AGGREGATE BASE SHALL MEET CALTRANS SPECIFICATIONS FOR CLASS II AGGREGATE BASE. REFERENCE CALTRANS SPECIFICATION SECTION 26. AND PROJECT SPECIFICATIONS
3. ALL AGGREGATE BASE SHALL BE MOISTURE CONDITIONED TO, OR SLIGHTLY ABOVE, OPTIMUM MOISURE CONTENT AND COMPACTED TO 95% RELATIVE COMPACTION.
4. RECYCLED ASPHALT MAY BE USED AS CONCRETE AND ASPHALT BASE MATERIAL PROVIDED IT MEETS CALTRANS SPECIFICATIONS FOR CLASS II AB, REFERENCE CALTRANS SPECIFICATION SECTION 26–1.02A.
5. PAVEMENT SUBGRADE PREPARATION, I.E. SCARIFICATION, MOISTURE CONDITIONING, LIME TREATMENT (IF USED), AND COMPACTION SHALL BE PERFORMED AFTER THE INSTALLATION OF UNDERGROUND UTILITIES AND TRENCHES BACKFILLED IN ACCORDANCE WITH THESE PLANS.
6. ALL AREAS DISTURBED BY GRADING, DEMOLITION, OR CONSTRUCTION ACCESS, WHICH ARE NOT SURFACED BY THIS SET OF PLANS, OR LANDSCAPE PLANS, SHALL BE SEEDED WITH EROSION CONTROL TYPE NON–WATERED SEED MIX. REFER TO EROSION CONTROL SPECIFICATIONS FOR ACCEPTABLE SEED MIXES.
7. REFER TO GRADING PLANS FOR CURBS, CURB GUTTERS, VALLEY GUTTERS, AND OTHER CONCRETE STRUCTURES AND PAVING FEATURES NOT SPECIFICALLY NOTED ON THIS PLAN.

PAVING LEGEND

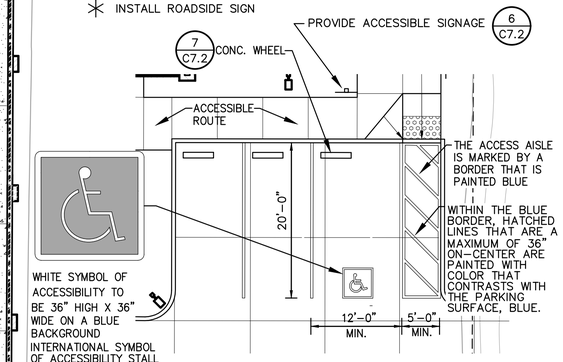
1. TYPE 1 PAVING
   PLACE 7" PCC W/ #4 REBAR AT 18"O.C.E.W. OVER 6" AB ON COMPACTED SUBGRADE. (1 / C7.1)
2. TYPE 2 PAVING
   PLACE 6" PCC W/ #4 REBAR AT 18"O.C.E.W. OVER 4" AB ON COMPACTED SUBGRADE. (1 / C7.1)
3. TYPE 3
   PLACE 12" NATIVE TOPSOIL, TO ACHIEVE FINISH GRADES AS SHOWN ON GRADING PLAN FOR ALL AREAS TO RECEIVE PLANTING. SUBGRADE TO BE GRADED TO PROVIDE SLOPE AND SMOOTH LINES CONSISTENT WITH FINISH GRADES TO ALLOW FOR UNIFORM THICKNESS OF TOP SOIL.
4. TYPE 4 PAVING
   PLACE 6" PCC W/ #4 REBAR AT 12"O.C.E.W. OVER 6" AB ON COMPACTED SUBGRADE PER PGE TRANSFORMERS GREENBOOK DOCUMENT 045292.

STRIPING NOTES

11. PROVIDE 4" WIDE WHITE PARKING STALL STRIPING.
12. PROVIDE ACCESSIBLE PARKING STRIPING PER (1 / C5.1)
13. PROVIDE CONCRETE WHEEL STOP PER (7 / C7.2)
14. PROVIDE WHITE "NO PARKING" STRIPING, DIAGONAL, 3' O.C.
15. PROVIDE ACCESSIBLE TOW–AWAY SIGN AND POST PER (9 / C7.2)

LEGEND: SIGNING

✳ INSTALL ROADSIDE SIGN



*2% MAXIMUM RUNNING AND CROSS SLOPES WITHIN ACCESSIBLE PARKING SPACES AND ACCESS AISLES. (CBC 11B–502.4)

(1 / C5.1) ACCESSIBLE PARKING 1" = 10'

GRAPHIC SCALE
10' 0 5' 10' 20'
(IN FEET) 1 inch = 10 feet
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WARREN CONSULTING ENGINEERS, INC.
1117 WINDFIELD WAY, SUITE 110
EL DORADO HILLS, CA 95762 | (916) 985-1870

SEAL

REGISTERED PROFESSIONAL ENGINEER
ANTHONY J. TASSANO
NO. C74696
STATE OF CALIFORNIA
06/18/2026

PROJECT
DIXON FIRE STATION 82
DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

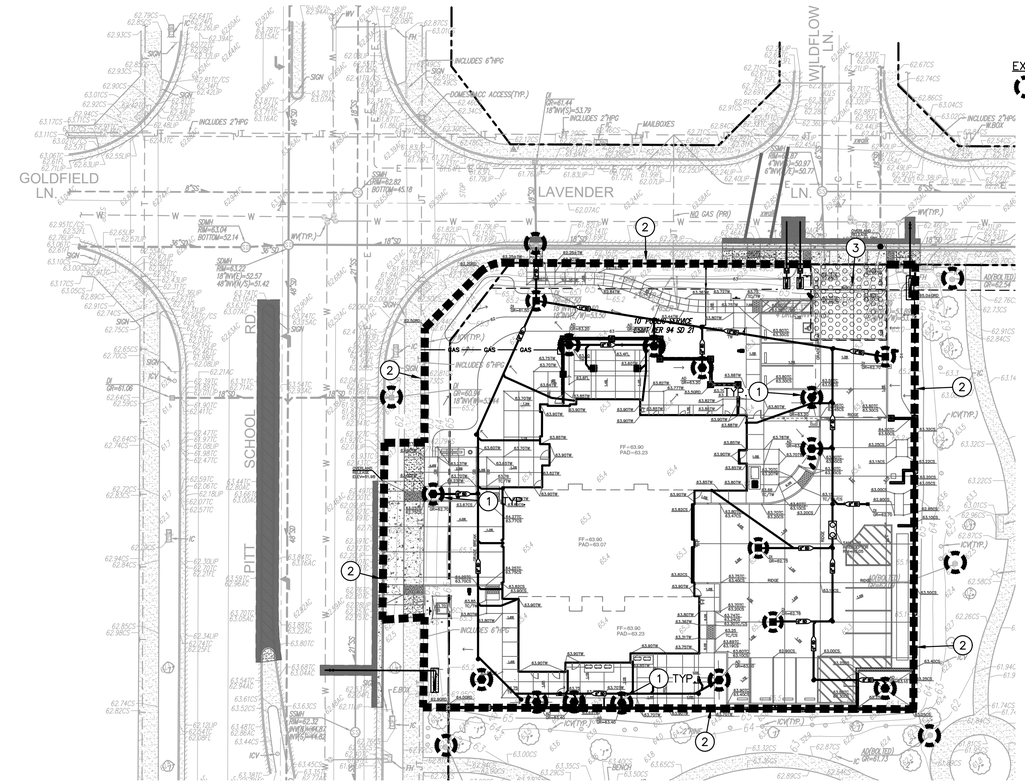
AGENCY

TITLE
PAVING PLAN

SHEET
C5.1

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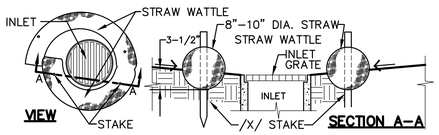
LEGEND:

EXIST. NEW

1. CONTRACTOR SHALL PROVIDE STRAW WATTLE BARRIER AT ALL INLETS (NEW AND/OR EXIST.) IN AREAS OF ON-SITE WORK PER THE DETAIL PROVIDED. IN ADDITION TO WATTLE, PROVIDE FILTER BAG AT EACH INLET. STRAW WATTLES NOT REQUIRED AT INLETS IN PAVED AREAS, ONLY FILTER BAG. (1 C6.1) (4 C6.1)
2. CONTRACTOR SHALL PROVIDE STRAW WATTLES AT PERIMETER OF SITE PER DETAIL (2 C6.1)
3. CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION SITE ACCESS PER DETAIL (3 C6.1)

(#) EROSION CONTROL NOTES

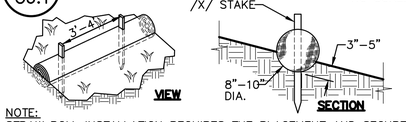
NOTE: EXACT LOCATION WILL BE COORDINATED BY CONTRACTOR AND PROJECT QSP.



NOTE: STRAW WATTLE INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE WATTLE IN A TRENCH, 3-1/2" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.

(1 C6.1) STRAW WATTLE INLET FILTER

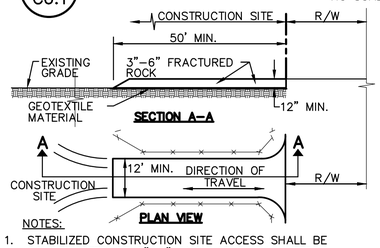
NO SCALE



NOTE: STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3"-5" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.

(2 C6.1) STRAW ROLLS

NO SCALE

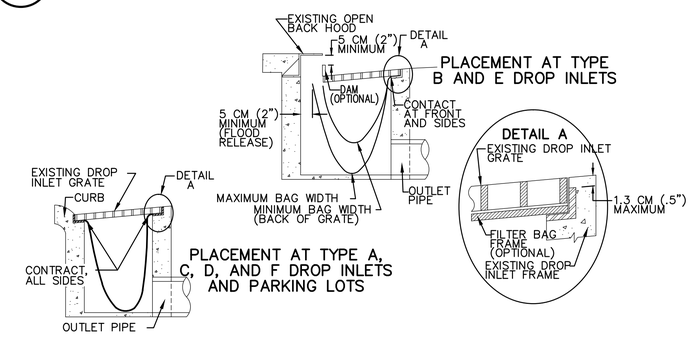


NOTES:

1. STABILIZED CONSTRUCTION SITE ACCESS SHALL BE CONSTRUCTED OF 3"-6" ANGULAR ROCK MATERIAL CONFORMING TO SECTION 26 OF STATE SPECIFICATIONS PLACED OVER GEOTEXTILE MATERIAL. ROCK SHALL BE PLACED TO A MINIMUM THICKNESS OF SIX INCHES. THE METHOD OF PLACING, SPREADING AND COMPACTING ROCK SHALL CONFORM TO SECTION 26 OF THE STATE SPECIFICATIONS.
2. LENGTH OF SITE ACCESS SHALL BE A MINIMUM LENGTH OF FIFTY FEET. WIDTH SHALL BE A MINIMUM WIDTH OF TWELVE FEET OR AS NECESSARY TO COVER ALL VEHICULAR INGRESS AND EGRESS.
3. THE SITE ACCESS SHALL BE KEPT IN GOOD CONDITION BY OCCASIONAL TOP DRESSING.

(3 C6.1) STABILIZED CONSTRUCTION SITE ACCESS

NO SCALE



NOTES:

1. THE MAXIMUM DRAINAGE AREA PER FILTER SHALL BE NO MORE THAN 0.8 HECTARES(2 ACRES).
2. THE FILTER BAG SHALL BE MANUFACTURED FROM UV RESISTANT POLYPROPYLENE, NYLON, POLYESTER, OR ETHYLENE FABRIC WITH A MINIMUM TENSILE STRENGTH OF 50 LBS. PER LINER FEET, AN EQUIVALENT OPENING SIZE NOT GREATER THAN A 20 SIEVE AND WITH A MINIMUM FLOW RATE OF 40 GALLON/MINUTE/SQUARE FOOT.
3. THE FILTER BAG MAY BE SUSPENDED FROM OR HELD IN PLACE BY THE EXISTING INLET GRATE (OR OTHER APPROVED METHOD), PROVIDING NO M MODIFICATION OR DAMAGE SHALL BE DONE TO THE INLET GRATE OR FRAME. THE INLET GRATE SHALL NOT BE CAUSED THE REST MORE THAN 1.3 CM (.5") ABOVE THE INLET FRAME. (SEE DETAIL A).
4. THE FILTER BAG MAY EXTEND TO THE BOTTOM OF THE INLET BOX PROVIDED THE OUTLET PIPE IS UNOBSTRUCTED.
5. FLOWS SHALL NOT BE ALLOWED TO BYPASS THE BAG. THE BAG OR ITS FRAME SHALL CATCH FLOWS AT ALL SIDES OF THE INLET, EXCEPT AS SHOWN FOR FLOOD RELEASE. INLET FILTER BAGS SHALL BE INSPECTED WEEKLY AND AFTER EACH RAINFALL DURING THE WET SEASON AND MONTHLY DURING THE DRY SEASON. SEDIMENT AND DEBRIS SHALL BE REMOVED BEFORE ACCUMULATIONS HAVE REACHED ONE THIRD THE DEPTH OF THE BAG. BAGS SHALL BE REPAIRED OR REPLACED AS SOON AS DAMAGE OCCURS.

(4 C6.1) STORM DRAIN INLET FILTER BAG

NO SCALE

EROSION CONTROL GENERAL NOTES

1. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE EFFECTIVE FOR THE DURATION OF CONTROL ACTIVITY.
2. NO STORM RUNOFF WATER SHALL BE ALLOWED TO DRAIN DIRECTLY INTO THE EXISTING UNDERGROUND STORM SYSTEM BEFORE THE ON-SITE STORM DRAIN SYSTEM IS INSTALLED.
3. AS SOON AS PRACTICAL AFTER THE NEW ON-SITE SYSTEM IS INSTALLED, THE CATCH BASINS SHALL BE INSTALLED AND STRAW BALES OR APPROVED SCREENS SHALL BE PLACED AROUND THE CATCH BASINS, AS SHOWN ON CITY STANDARD DETAILS. THE CONTRACTOR SHALL HAVE AN OPTION TO INSTALL PREFABRICATED FRAMES WITH FILTER FABRIC ATTACHED TO THE FRONT OF THE DRAIN INLET AND EXTENDED 12 INCHES ON EACH SIDE OF THE DRAIN INLET OPENING. FRAME SHALL BE APPROVED BY THE CITY ENGINEER AND SHALL FIT THE OPENING WITH LESS THAN ONE-QUARTER INCH GAP AT ANY ONE POINT.
4. SHOULD THE PROPOSED ON-SITE STORM SYSTEM NOT BE INSTALLED BY OCTOBER 15, TEMPORARY SEDIMENT BASINS SHALL BE CONSTRUCTED AROUND THE OPENING OF ANY EXISTING STORM PIPES THAT DRAIN THE SITE, PER CITY STANDARD DETAILS OR PER A SPECIAL DETAIL SHOWN ON THE PLAN.
5. THE NAME, ADDRESS AND 24-HOUR TELEPHONE NUMBER OF THE RESPONSIBLE PERSON FOR IMPLEMENTATION OF EROSION AND SEDIMENTATION CONTROL PLAN SHALL BE PROVIDED.
6. A MINIMUM OF 50 LINEAR FEET BY 12 FEET WIDTH OF DRAIN ROCK, 1-1/2" DIAMETER OR LARGER AT A MINIMUM DEPTH OF 6", SHALL BE INSTALLED AT EACH SITE INGRESS/EGRESS. THIS DOES NOT NEED BE DONE AT INGRESS/EGRESS LOCATIONS, WHICH WILL BE CLOSED BY IMMOVABLE BARRICADES DURING CONSTRUCTION.
7. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED. CHANGES TO THE EROSION AND SEDIMENTATION CONTROL PLAN SHALL BE MADE TO MEET FIELD CONDITIONS, BUT ONLY WITH THE APPROVAL OF OR AT THE DIRECTION OF THE CITY ENGINEER.
8. DURING THE RAINY SEASON AS SPECIFIED IN NOTE # 1, ALL SIDEWALK AND PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT LADEN RUNOFF FROM ENTERING ANY STORM DRAINAGE SYSTEM.
9. THE EROSION AND SEDIMENTATION CONTROL PLAN COVERS ONLY THE FIRST WINTER DURING WHICH CONSTRUCTION IS TO TAKE PLACE. PLANS ARE TO BE RESUBMITTED PRIOR TO SEPTEMBER 1 OF EACH SUBSEQUENT YEAR UNTIL THE CITY ACCEPTS THE SITE IMPROVEMENTS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE TO INSPECT AND REPAIR ALL EROSION CONTROL FACILITIES AT THE END OF EACH WORKDAY DURING THE RAINY SEASON.
11. THE CONTRACTOR SHALL BE RESPONSIBLE TO CLEAN OUT SEDIMENT BASINS WHENEVER THE LEVEL OF SEDIMENT REACHES THE SEDIMENT CLEAN OUT LEVEL INDICATED ON THE PLANS.
12. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT BORROW AREAS AND/OR STOCKPILES WITH APPROPRIATE EROSION CONTROL MEASURES SATISFACTORY TO THE CITY ENGINEER.
13. THE CLEANING OF PAVED STREETS, DURING AND AT THE COMPLETION OF CONSTRUCTION, SHALL BE PERFORMED WITH MECHANICAL SWEEPERS. THE USE OF WATER TRUCKS TO "WASH DOWN" THE STREET IS PROHIBITED.
14. THE EROSION AND SEDIMENTATION CONTROL PLAN, DETAILS, NOTES AND CALCULATION IF REQUIRED, MUST BE A PART OF THE PLAN CHECK SUBMITTAL PACKAGE FOR EITHER GRADING PERMIT ONLY OR FINAL SITE APPROVAL. THE DESIGN ENGINEER PRIOR TO PLAN PREPARATION SHOULD CONSULT THE CITY ENGINEER IF THE NEED FOR A SEPARATE PLAN IS IN DOUBT.

ADD TO MAP AS LOCATED IN THE FIELD

- CONSTRUCTION TRAILER.
- VEHICLE/EQUIPMENT MAINTENANCE AND FUELING AREA.
- COVERED WASTE STORAGE (DUMPSTERS).
- STAGE — STAGING AREA
- MATERIAL STORAGE
- SP — SOIL STOCKPILES.
- CWO — CONCRETE WASHOUT.

GRAPHIC SCALE

30' 0 15' 30' 60'

(IN FEET) 1 inch = 30 feet

THIS DRAWING MAY HAVE BEEN ENLARGED OR REDUCED.

PHASE OF CONSTRUCTION	EROSION AND SEDIMENT CONTROL MEASURES																	
	WET SEASON					WET & DRY SEASON												
	EROSION CONTROLS	STRAW MULCHING TACTIFIER	SOIL BINDERS	PRESERVATION OF EXISTING VEGITATION	BLANKETS MATS & GEOTEXTILES	FIBER ROLLS	DUST CONTROL	OUTLET PROTECTION	SILT FENCING	SAND/GRAVEL BAG BARRIERS	STORM DRAIN INLET PROTECTION	SEDIMENT BASIN	SEDIMENT TRAP	DEWATERING	STABILIZED CONSTRUCTION ENTRANCE	MATERIAL & WASTE DISPOSAL LOCATION	CONCRETE WASHOUT
PRE-GRADING	X			X			X											
CUT-FILL ACTIVITIES	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X
UNDERGROUND WORK		X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X
STORM IMPROVEMENTS		X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X
CURB AND GUTTER	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X
STREET IMPROVEMENTS	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X
PAVE OUT				X	X		X	X		X	X			X		X	X	
POST CONSTRUCTION		X	X	X	X													
MAINTENANCE SCHEDULE																		
DAILY*																		
WEEKLY*		X	X		X	X		X		X	X	X	X		X	X		
MONTHLY*																		
BEFORE RAIN	X	X	X		X	X		X		X	X	X	X					
DURING RAIN	X	X	X		X	X		X		X	X	X	X					
AFTER RAIN	X	X	X		X	X		X		X	X	X	X					
AS NEEDED				X			X							X				

* = WHEN RAIN EVENT INSPECTIONS OCCURS, THEY MAY QUALIFY AS A DAILY, WEEKLY, OR MONTHLY INSPECTION AS APPLIES.

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CONSULTANT

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DIXON, CA 95620

CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE

EROSION CONTROL PLAN

SHEET

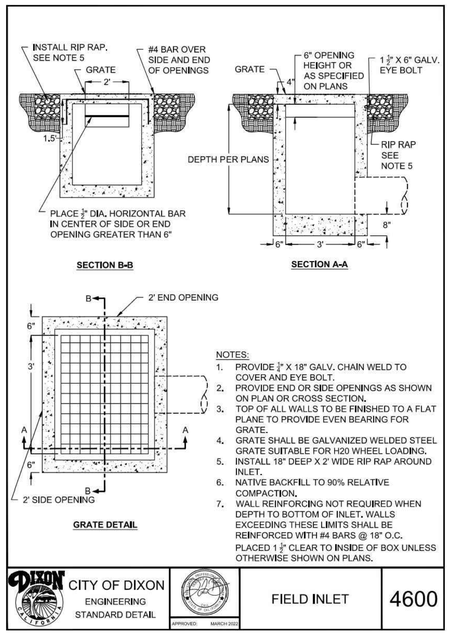
C6.1

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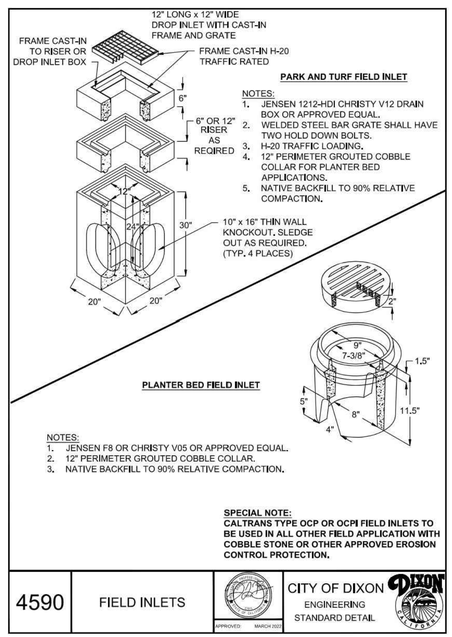
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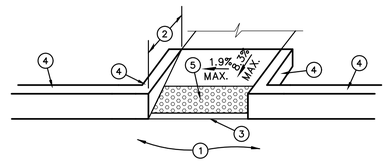
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8 / C7.1 FIELD INLET — NO SCALE

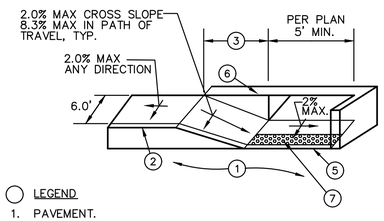


9 / C7.1 PLANTER BED FIELD INLET — NO SCALE



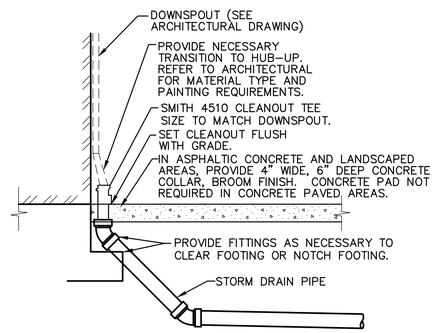
LEGEND
1. PAVEMENT.
2. 8.3% (1:12) MAXIMUM SLOPE, 1.9% MAX CROSS SLOPE.
3. 6" FLUSH CURB TRANSITION SHALL BE FLUSH AND FREE OF ABRUPT CHANGE PER CALIFORNIA BUILDING CODE, TITLE 24, SECTION 11B-503.
4. 6" WIDE RETAINING CURB, HEIGHT TO BE DETERMINED BY PROJECTED BACK OF WALK GRADE AT EACH END OF CURB RETURN AND BACK OF LANDING SURFACE.
5. PLACE 36" WIDE PREFABRICATED CAST IN PLACE DETECTABLE WARNING TILE BY ARMOR-TILE OR APPROVED EQUAL. (2 / C7.1)

5 / C7.1 ACCESSIBLE CURB RAMP#2 — NO SCALE

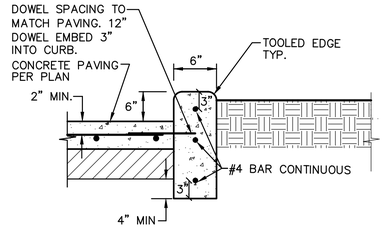


LEGEND
1. PAVEMENT.
2. TOP FACE OF CURB, STANDARD 6" HIGH.
3. 8.3% (1:12) MAXIMUM SLOPE, 2.0% MAX CROSS SLOPE.
4. SCORE MARK, 6" BACK OF CURB.
5. TRANSITION SHALL BE FLUSH AND FREE OF ABRUPT CHANGE PER CALIFORNIA BUILDING CODE, TITLE 24, SECTION 11B-503.
6. 6" WIDE RETAINING CURB, HEIGHT TO BE DETERMINED BY PROJECTED BACK OF WALK GRADE AT EACH END OF CURB RETURN AND BACK OF LANDING SURFACE.
7. PLACE 36" WIDE PREFABRICATED CAST IN PLACE DETECTABLE WARNING TILE BY ARMOR-TILE OR APPROVED EQUAL. DETECTABLE WARNINGS AT CURB RAMPS SHALL EXTEND 36 INCHES IN THE DIRECTION OF TRAVEL. DETECTABLE WARNINGS SHALL EXTEND THE FULL WIDTH OF THE RAMP RUN LESS 2 INCHES MAXIMUM ON EACH SIDE, EXCLUDING ANY FLARED SIDES. DETECTABLE WARNINGS SHALL BE LOCATED SO THE EDGE NEAREST THE CURB IS 6 INCHES MINIMUM AND 8 INCHES MAXIMUM FROM THE LINE AT THE FACE OF THE CURB MARKING THE TRANSITION BETWEEN THE CURB AND THE GUTTER OR STREET. (2 / C7.1)

6 / C7.1 ACCESSIBLE CURB RAMP #3 — NO SCALE

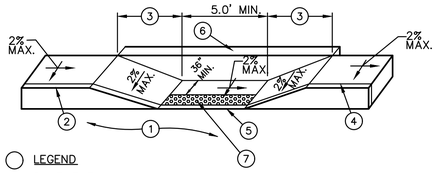


7 / C7.1 DOWNSPOUT CONNECTION — NO SCALE



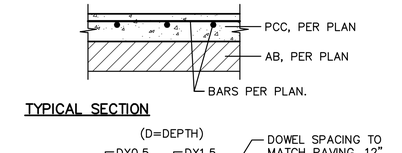
NOTES:
1. PROVIDE FELT EXPANSION JOINTS (E.J.) AT 60 FEET O.C. MAXIMUM PROVIDE CONTROL JOINTS AT 10 FEET O.C. MAXIMUM, EXCEPT WHEN PLACING ADJACENT TO CONCRETE WALKS THE EXPANSION JOINTS SHALL ALIGN WITH THE EXPANSION JOINTS SHOWN FOR THE CONCRETE WALKS.
2. AT E.J. USE 1/2"X24" SMOOTH DOWELS, ALIGN WITH REBAR, GREASE 1/2 THE LENGTH BEFORE CONCRETE PLACEMENT.

3 / C7.1 CONCRETE CURB — NO SCALE

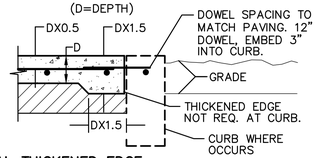


LEGEND
1. PAVEMENT.
2. TOP FACE OF CURB, STANDARD 6" HIGH.
3. 8.3% (1:12) MAXIMUM SLOPE, 2% MAX CROSS SLOPE.
4. SCORE MARK, 6" BACK OF CURB.
5. TRANSITION SHALL BE FLUSH AND FREE OF ABRUPT CHANGE PER CALIFORNIA BUILDING CODE, TITLE 24, SECTION 11B-406.5.8.
6. 6" WIDE RETAINING CURB, HEIGHT TO BE DETERMINED BY PROJECTED BACK OF WALK GRADE AT EACH END OF CURB RETURN AND BACK OF LANDING SURFACE.
7. PLACE 36" WIDE PREFABRICATED CAST IN PLACE DETECTABLE WARNING TILE BY ARMOR-TILE OR APPROVED EQUAL. DETECTABLE WARNINGS SHALL EXTEND THE FULL WIDTH OF THE TURNING SPACE AT THE FLUSH TRANSITION BETWEEN THE STREET AND THE SIDEWALK LESS 2 INCHES MAXIMUM ON EACH SIDE PER 11B-705.1.2.2. (2 / C7.1)

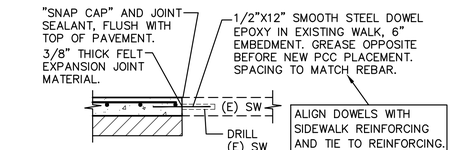
4 / C7.1 ACCESSIBLE CURB RAMP#1 — NO SCALE



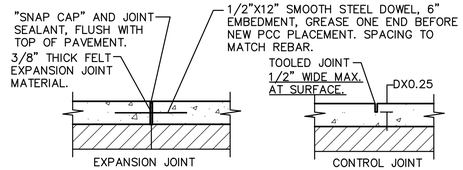
TYPICAL SECTION



TYPICAL THICKENED EDGE



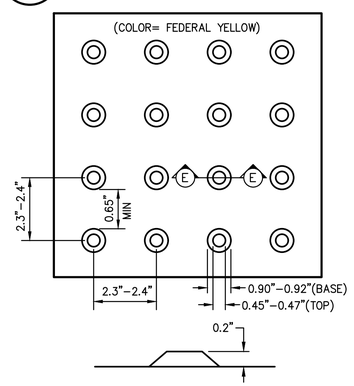
CONNECTION TO (E) CONCRETE



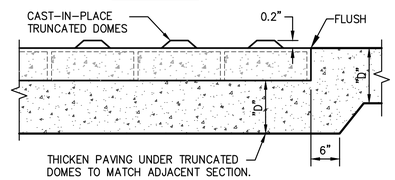
TYPICAL JOINTS

NOTES:
1. PROVIDE FELT EXPANSION JOINTS AT 20 FEET O.C. MAX. SEE PLAN FOR LAYOUT.
2. PROVIDE CONTROL JOINTS AT 10 FEET O.C. MAX. SEE PLAN FOR LAYOUT.
3. EXPANSION OR CONTROL JOINTS SHALL NOT EXCEED 1/2" IN SURFACE WIDTH.

1 / C7.1 CONCRETE SIDEWALK — NO SCALE



SECTION E-E



2 / C7.1 TRUNCATED DOMES — TYPICAL PATTERN — NO SCALE

LIONAKIS
2025 Nineteenth Street
Sacramento, CA 95818
P 916.558.1900
www.lionakis.com

CONSULTANT

WCE
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SEAL



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DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT
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CLIENT PROJECT NO:

AGENCY

TITLE
DETAILS AND SECTIONS

SHEET
C7.1

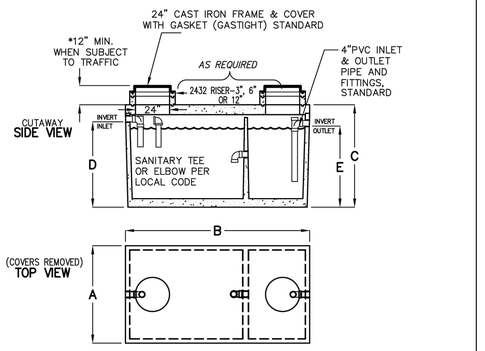
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1/31/2023 4:12:10 PM

320-1500 GALLON SAND-OIL INTERCEPTORS

TRAFFIC RATED ACCEPTED BY UPC●



MODEL NUMBER	LIQUID CAPACITY GALLONS	WIDTH 'A'	OVERALL LENGTH 'B'	TANK HEIGHT 'C'	INLET 'D'	OUTLET 'E'	MINIMUM EXCAVATION WIDTH	MINIMUM EXCAVATION LENGTH	DEPTH OF BURY	TANK WEIGHT LBS.
KJP320S0	320	3'-0"	7'-0"	4'-6"	3'-7"	3'-4"	4'-0"	8'-0"	6' MAX.	6,600
KJP500S0	500	4'-0"	6'-0"	5'-10"	4'-10"	4'-7"	5'-0"	7'-0"	6' MAX.	6,750
KJP750S0	750	4'-0"	8'-1"	6'-0"	5'-0"	4'-9"	5'-0"	9'-1"	6' MAX.	9,000
KJP1000S0	1000	5'-1"	8'-2"	6'-0"	5'-0"	4'-9"	6'-1"	9'-2"	6' MAX.	11,000
KJP1200S0	1200	5'-9"	8'-8"	6'-0"	5'-0"	4'-9"	6'-9"	9'-6"	6' MAX.	12,600
KJP1500S0	1500	5'-7"	10'-8"	6'-0"	5'-0"	4'-9"	6'-7"	11'-8"	6' MAX.	14,900

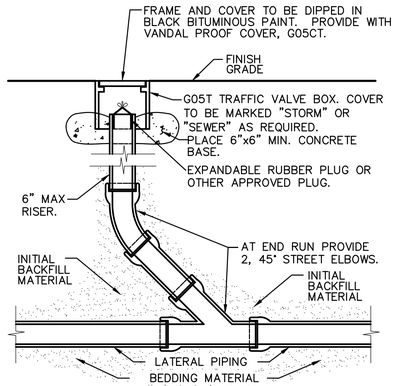
- TANK DESIGNED FOR H-20 TRAFFIC WHEEL LOAD WITH DRY SOIL CONDITIONS (WATER TABLE BELOW TANK).
- SUITABLE NATIVE OR SUB-BASE SHALL BE PREPARED TO HANDLE ANTICIPATED LOADS. THE EXCAVATION SHALL BE BEDDED WITH SUITABLE GRANULAR MATERIAL AND SHALL BE COMPACTED TO 90% MAXIMUM DRY DENSITY, OR TO REQUIREMENTS OF THE PROJECT GEOTECHNICAL ENGINEER.
- FOR COMPLETE DESIGN AND PRODUCT INFORMATION CONTACT JENSEN PRECAST.

THE DESIGN AND DETAIL OF THIS DRAWING ARE THE PROPERTY OF JENSEN PRECAST AND NOT TO BE USED EXCEPT IN CONNECTION WITH ITS OWN WORK. DESIGN AND INVENTION RIGHTS ARE RESERVED.

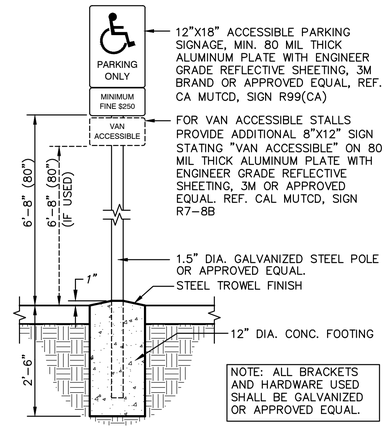
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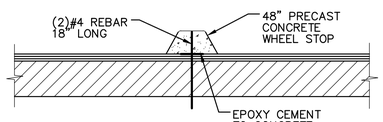
8 / C7.2 SAND OIL INTECEPTOR — NO SCALE



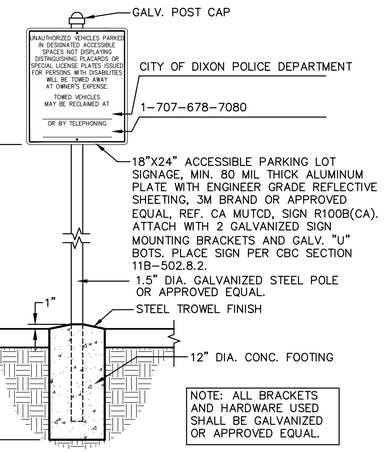
5 / C7.2 CLEANOUT — NO SCALE



6 / C7.2 PARKING SIGNAGE — ACCESSIBLE STALLS (CALIFORNIA ONLY) — NO SCALE



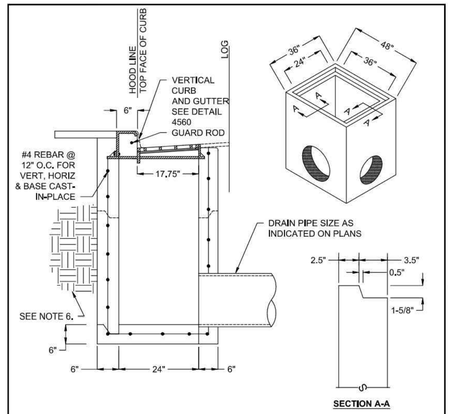
7 / C7.2 CONCRETE WHEEL STOP — NO SCALE



9 / C7.2 PARKING AREA SIGN (CALIFORNIA ONLY)

UNDERGROUND FIRE PROTECTION

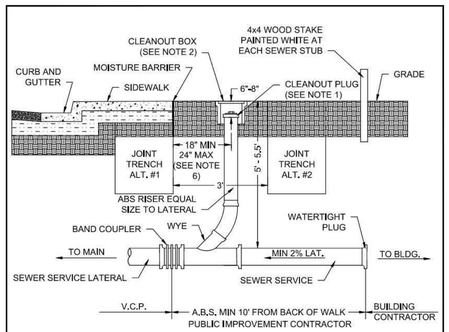
THESE SHEETS WERE NOT REVIEWED AND ARE NOT APPROVED FOR THE INSTALLATION OF ANY ONSITE PRIVATE FIRE PROTECTION UNDERGROUND INFRASTRUCTURE. A SEPARATE SUBMITTAL TO THE CITY OF DIXON FIRE DEPARTMENT FOR REVIEW AND APPROVAL IS REQUIRED BY THE INSTALLING C-16 LICENSED FIRE PROTECTION CONTRACTOR PRIOR TO ANY INSTALLATION OF ANY UNDERGROUND FIRE PROTECTION COMPONENTS



NOTES:
1. BASE MAY BE CAST-IN-PLACE OR PRECAST CONSTRUCTION.
2. PRECAST CATCH BASIN BASE SHALL BE JENSEN PRECAST MODEL #2436 OR APPROVED EQUAL
3. CAST-IN-PLACE WALLS AND BASE SHALL BE REINFORCED WITH #4 REBAR @ 12" O.C. WALLS SECTION SHALL IN NO CASE EXCEED 10" IN WIDTH.
4. CATCH BASINS SHALL HAVE A GUARD ROD AND THE INLET FRAME AND HOOD SHALL BE BOLTED TOGETHER ALLOWING FOR A ONE PIECE INSTALLATION.
5. GRATES SHALL BE CONSTRUCTED TO RECEIVE WATER EITHER FROM ONE OR TWO DIRECTIONS DEPENDING ON GUTTER FLOW LINE DIRECTION.
6. 95% RELATIVE COMPACTION FOR APPROVED BACKFILL SHALL BE INSTALLED AROUND PERIMETER OF BASIN WHEN PRECAST IS USED.

4510	STORM DRAIN CURB INLET TYPE A PIPES < 24"	APPROVED MARCH 2020	CITY OF DIXON ENGINEERING STANDARD DETAIL

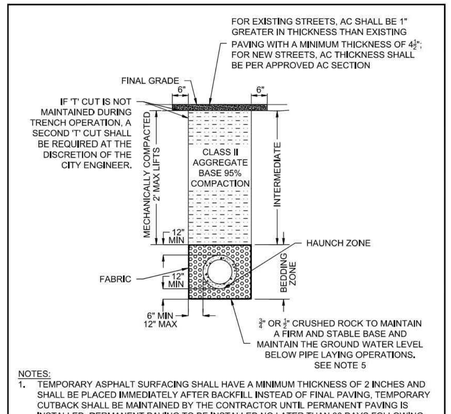
3 / C7.2 CURB INLET — NO SCALE



NOTE:
1. CLEANOUT PLUG TO CONSIST OF AN ABS THREADED CLEANOUT ADAPTER AND ABS CLEANOUT PLUG.
2. CLEANOUT BOX:
   2.1. IN LANDSCAPED AREAS USE CONCRETE LID MARKED "SEWER" SEE APPROVED MATERIALS LIST.
   2.2. IN CONCRETE DRIVEWAY OR PAVED AREAS, USE CAST IRON LID MARKED "SEWER" SEE APPROVED MATERIALS LIST.
   2.3. ALTERNATES TO BE USED UPON CITY ENGINEER APPROVAL ONLY.
3. UNDERGROUND CONTRACTOR TO LAY ABS LATERAL A MINIMUM OF 10 FEET BEYOND BACK OF WALK, PLUG AND INSTALL WOOD MARKER STAKE PAINTED WHITE.
4. BUILDING CONTRACTOR TO CONNECT TO STUB FOR SERVICE TO BUILDING.
5. LOCATION OF WATER LINES AND PUBLIC UTILITY LINES SHALL ACCOMMODATE GRAVITY FLOW OF SEWER SERVICES.
6. IN AREAS WHERE NO SIDEWALK EXISTS, THE CLEANOUT SHALL BE LOCATED WITHIN 18 INCHES OF THE BACK OF CURB AND THE BOX SET LEVEL WITH FINISH GRADE.
7. ALL PIPE AND FITTINGS FROM BAND COUPLER TO BUILDING SHALL BE ABS.
8. SERVICE LATERAL FROM THE MAIN TO THE BAND COUPLER SHALL BE V.C.P.

6020	SEWER LATERAL CLEANOUT	APPROVED MARCH 2020	CITY OF DIXON ENGINEERING STANDARD DETAIL

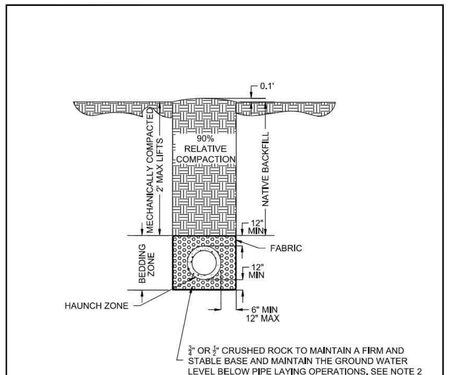
4 / C7.2 SEWER LATERAL CLEANOUT — NO SCALE



NOTES:
1. TEMPORARY ASPHALT SURFACING SHALL HAVE A MINIMUM THICKNESS OF 2 INCHES AND SHALL BE PLACED IMMEDIATELY AFTER BACKFILL INSTEAD OF FINAL PAVING. TEMPORARY CUTBACK SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL PERMANENT PAVING IS INSTALLED. PERMANENT PAVING TO BE INSTALLED NO LATER THAN 30 DAYS FOLLOWING BACKFILL OPERATION.
2. PRIOR TO PERMANENT PAVING, EXISTING A.C. SHALL BE SAWCUT TO A NEAT EDGE 6" ON EITHER SIDE AND SHALL BE TACKED PRIOR TO REPAVING.
3. FINAL TRENCH DETAIL DEPENDENT UPON DESIGN, PIPE MATERIAL AND SOIL CONDITIONS.
4. FINAL A.C. PAVING SHALL BE PLACED ¼" ABOVE ADJACENT A.C. GRADE
5. BEDDING ZONE SHALL CONSIST OF ¾" OR ½" CRUSHED ROCK AS PER ASTM C-12. CRUSHED ROCK SHALL BE PLACED IN A MANNER SUCH AS SHOVEL-SLICING SPADE OR SHOVEL RODDING TO ENSURE CONSOLIDATION OF HAUNCH ZONE BELOW SPRINGLINE OF THE PIPE.
6. INTERMEDIATE BACKFILL REQUIREMENTS SHALL BE AS SPECIFIED BY THE SOILS ENGINEER, OR THE DESIGN ENGINEER IN ACCORDANCE WITH THE SOIL REPORT, AS APPROVED BY THE CITY ENGINEER.
7. A 2-SACK SAND SLURRY BACKFILL MAY BE UTILIZED IN THE INTERMEDIATE ZONE AS APPROVED BY THE CITY ENGINEER.

DIXON	CITY OF DIXON ENGINEERING STANDARD DETAIL	APPROVED MARCH 2020	TRENCH BACKFILL FOR CITY UTILITIES WITHIN PAVED AREA	3280

1 / C7.2 TRENCH BACKFILL IN PAVED AREAS — NO SCALE



NOTES:
1. FINAL TRENCH DETAIL DEPENDENT UPON DESIGN, PIPE MATERIAL, AND SOIL CONDITIONS.
2. BEDDING ZONE SHALL CONSIST OF ¾" OR ½" CRUSHED ROCK AS PER ASTM-C-12. CRUSHED ROCK SHALL BE PLACED IN A MANNER SUCH AS SHOVEL-SLICING SPADE OR SHOVEL RODDING TO ENSURE CONSOLIDATION OF HAUNCH ZONE BELOW SPRINGLINE OF THE PIPE.

3290	TRENCH BACKFILL FOR CITY UTILITIES IN UNPAVED AREAS	APPROVED MARCH 2020	CITY OF DIXON ENGINEERING STANDARD DETAIL

2 / C7.2 TRENCH BACKFILL IN UNPAVED AREAS — NO SCALE

LIONAKIS
2025 Nineteenth Street
Sacramento, CA 95818
P 916.558.1900
www.lionakis.com

CONSULTANT

WCE
WARREN CONSULTING ENGINEERS, INC.
1117 WINDFIELD WAY, SUITE 110
EL DORADO HILLS, CA 95762 | (916) 985-1870

SEAL

REGISTERED PROFESSIONAL ENGINEER
ANTHONY J. TASSANO
NO. C74696
CIVIL
STATE OF CALIFORNIA
06/18/2026

PROJECT

DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

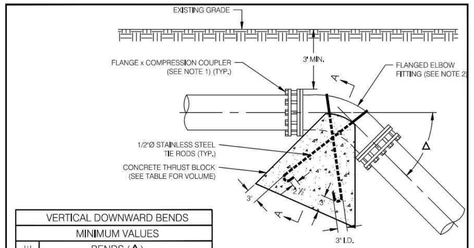
AGENCY

TITLE

DETAILS AND SECTIONS

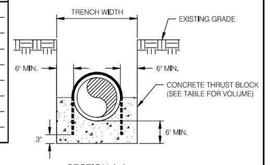
SHEET

C7.2



PLAN VIEW

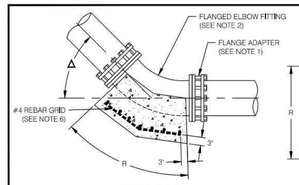
VERTICAL DOWNWARD BENDS MINIMUM VALUES					
PIPE SIZE	BENDS (Δ) 3°-7°	>7°-22 ½°	>22 ½°-45°	>45°-60°	
	CU YRD	CU YRD	CU YRD	CU YRD	
4"	0,25	0,5	0,5	0,5	
6"	0,25	0,5	1	1,5	
8"	0,5	1,5	2,5	3	
10"	0,5	1,5	3	3,5	
12"	1	2,5	4	5	
14"	1	3,5	6	8	
16"	1,5	4	8	10	
18"	2	5	9	11	
20"	3	6	10	12	



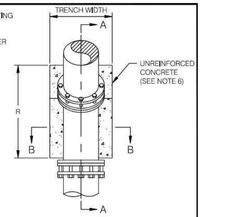
SECTION A-A

NOTES:
1. FLANGE ADAPTER MAY BE FLANGE BY MECHANICAL JOINT OR FLANGED COUPLING ADAPTER.
2. FITTINGS MAY BE FLANGED OR MECHANICAL JOINT TYPE.
3. ALL FLANGED OR MECHANICAL JOINT CROSSES, TEES AND BENDS SHALL BE DUCTILE IRON (AWWA C-110 OR C-153) CLASS 150, THE INTERIOR SURFACES SHALL BE CEMENT MORTAR LINED PER AWWA C-104 AND THE EXTERIOR SURFACES SHALL BE COAL TAR COATED PER AWWA C-203.
4. ALL BELOW GROUND NUTS, BOLTS AND MISCELLANEOUS STEEL SHALL BE POLYETHYLENE ENCASED AS PER AWWA C-105 OR TAPE WRAPPED PER AWWA C-209, 20 MILS MINIMUM IN BOTH CASES, STAINLESS STEEL MAY BE SUBSTITUTED.
5. ALL THRUST BLOCKS SHALL BE CAST AGAINST UNDISTURBED NATIVE MATERIAL, NO BACKFILL ALLOWED BETWEEN UNDISTURBED NATIVE MATERIAL AND THRUST BLOCK.
6. THE CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI. ALL CEMENT SHALL BE PORTLAND CEMENT, TYPE II, WITH A MINIMUM OF 5 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE.
7. FOR DESIGN PRESSURES GREATER THAN 150 PSI, THRUST BLOCK DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.

5030	FITTINGS & THRUST BLOCKS FOR VERTICAL DOWNWARD BENDS	APPROVED MARCH 2022	CITY OF DIXON ENGINEERING STANDARD DETAIL

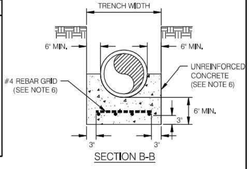


SECTION A-A



PLAN VIEW

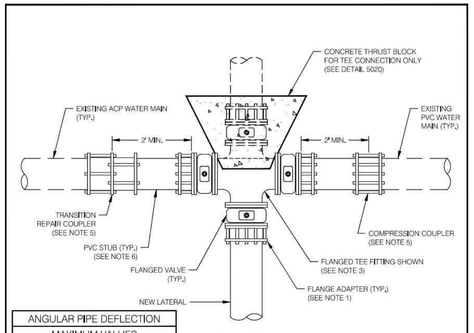
VERTICAL UPWARD BENDS MINIMUM VALUES					
PIPE SIZE	BENDS (Δ) 3°-7°	>7°-22 ½°	>22 ½°-45°	>45°-60°	
	R	R	R	R	
4"	NA	1'	1'	1'	
6"	NA	1'	1,5'	2'	
8"	NA	1,5'	2,5'	3,5'	
10"	1'	1,5'	3'	4'	
12"	1'	2'	4,5'	5,5	
14"	1'	3'	6'	8'	
16"	1'	3,5'	7'	9'	
18"	1,5'	4'	8'	10'	
20"	2'	5'	10'	12'	



SECTION B-B

NOTES:
1. FLANGE ADAPTER MAY BE FLANGE BY MECHANICAL JOINT OR FLANGED COUPLING ADAPTER.
2. FITTINGS MAY BE FLANGED OR MECHANICAL JOINT TYPE.
3. ALL FLANGED OR MECHANICAL JOINT CROSSES, TEES AND BENDS SHALL BE DUCTILE IRON (AWWA C-110 OR C-153) CLASS 150 AND COMPATIBLE WITH CAST IRON PIPE SIZE PVC, THE INTERIOR SURFACES SHALL BE CEMENT MORTAR LINED PER AWWA C-104 AND THE EXTERIOR SURFACES SHALL BE COAL TAR COATED PER AWWA C-203.
4. ALL BELOW GROUND NUTS, BOLTS AND MISCELLANEOUS STEEL, SHALL BE POLYETHYLENE ENCASED AS PER AWWA C-105 OR TAPE WRAPPED PER AWWA C-209, 20 MILS MINIMUM IN BOTH CASES, STAINLESS STEEL MAY BE SUBSTITUTED.
5. ALL THRUST BLOCKS SHALL BE CAST AGAINST UNDISTURBED NATIVE MATERIAL, NO BACKFILL ALLOWED BETWEEN UNDISTURBED NATIVE MATERIAL AND THRUST BLOCK.
6. IF THE MINIMUM DIMENSION 'R' IS GREATER THAN THE TRENCH WIDTH, THE THRUST BLOCK SHALL BE REINFORCED WITH #4 REBAR GRID @ 12" O.C. EACH WAY AND LOCATED AS SHOWN.
7. THE CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI. ALL CEMENT SHALL BE PORTLAND CEMENT, TYPE II, WITH A MINIMUM OF 5 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE.
8. FOR DESIGN PRESSURES GREATER THAN 150 PSI, THRUST BLOCK DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.

5040	FITTINGS & THRUST BLOCKS FOR VERTICAL UPWARD BENDS	APPROVED MARCH 2022	CITY OF DIXON ENGINEERING STANDARD DETAIL



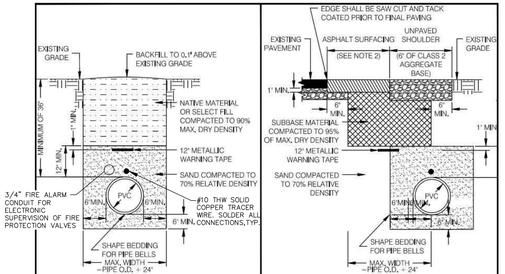
PLAN VIEW

ANGULAR PIPE DEFLECTION MAXIMUM VALUES			
PIPE SIZE	SLEEVE LENGTH 5"	7"	10"
4" - 14"	4°	4 1/2°	4 1/2°
16" - 24"	2°	4°	4 1/2°
26" - 36"	1 1/2°	3 1/2°	3 1/2°

Note: Deflection (in degrees) is PER COUPLER

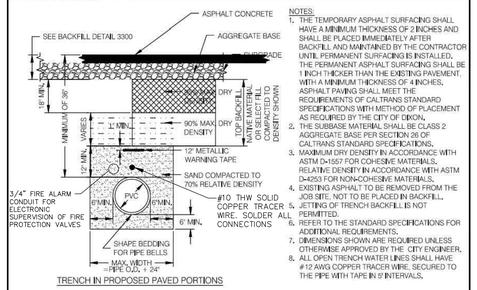
NOTES:
1. FLANGE ADAPTER MAY BE FLANGE BY MECHANICAL JOINT OR FLANGED COUPLING ADAPTER.
2. FITTINGS MAY BE FLANGED OR MECHANICAL JOINT TYPE.
3. ALL FLANGED OR MECHANICAL JOINT CROSSES AND TEES SHALL BE DUCTILE IRON (AWWA C-110 OR C-153) CLASS 150 AND COMPATIBLE WITH CAST IRON PIPE SIZE PVC, THE INTERIOR SURFACES SHALL BE CEMENT MORTAR LINED PER AWWA C-104 AND THE EXTERIOR SURFACES SHALL BE COAL TAR COATED PER AWWA C-203.
4. ALL BELOW GROUND NUTS, BOLTS AND MISCELLANEOUS STEEL SHALL BE POLYETHYLENE ENCASED AS PER AWWA C-105 OR TAPE WRAPPED PER AWWA C-209, 20 MILS MINIMUM IN BOTH CASES.
5. ALL COMPRESSION AND REPAIR COUPLERS SHALL BE RESTRAINED AND SHALL BE PER APPROVED MATERIALS LIST, FOR SEVERE ANGULAR PIPE DEFLECTIONS, REPAIR COUPLERS SHALL BE SUBMITTED TO AND APPROVED BY THE CITY ENGINEER.
6. PVC STUBS SHALL BE 2 FEET (2') MINIMUM IN LENGTH AND HAVE A CLASS AND PRESSURE RATING EQUAL TO, OR GREATER THAN, THE EXISTING WATER MAIN.
7. AT CONTRACTOR'S EXPENSE, ADDITIONAL FITTINGS AND PIPE SECTIONS MAY BE REQUIRED BY THE CITY ENGINEER TO ACCOMMODATE SEVERE MISALIGNMENTS IN THE PIPELINE AFTER IT HAS BEEN CUT.

5050	"CUT-IN" TEE OR CROSS DETAIL FOR LATERAL CONNECTION	APPROVED MARCH 2022	CITY OF DIXON ENGINEERING STANDARD DETAIL



TRENCH IN OPEN AREAS

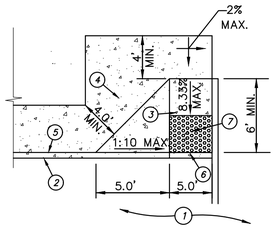
TRENCH IN EXISTING PAVED PORTIONS AND IN UNPAVED SHOULDERS



TRENCH IN PROPOSED PAVED PORTIONS

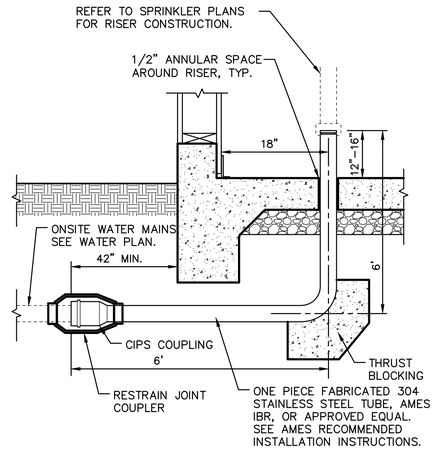
NOTES:
1. THE TEMPORARY ASPHALT SURFACING SHALL HAVE A MINIMUM THICKNESS OF 2 INCHES AND SHALL BE PLACED IMMEDIATELY AFTER BACKFILL AND MAINTAINED BY THE CONTRACTOR UNTIL PERMANENT SURFACING IS INSTALLED. THE PERMANENT ASPHALT SURFACING SHALL BE 1 INCH THICKER THAN THE EXISTING PAVEMENT, WITH A MINIMUM THICKNESS OF 4 INCHES. ASPHALT PAVING SHALL MEET THE REQUIREMENTS OF CALTRANS STANDARD SPECIFICATIONS WITH METHOD OF PLACEMENT AS REQUIRED BY THE CITY OF DIXON.
2. THE SUBBASE MATERIAL SHALL BE CLASS 2 AGGREGATE BASE PER SECTION 26 OF CALTRANS STANDARD SPECIFICATIONS.
3. MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557 FOR COHESIVE MATERIALS, RELATIVE DENSITY IN ACCORDANCE WITH ASTM D-4253 FOR NON-COHESIVE MATERIALS.
4. EXISTING ASPHALT TO BE REMOVED FROM THE JOB SITE, NOT TO BE PLACED IN BACKFILL.
5. JETTING OF TRENCH BACKFILL IS NOT PERMITTED.
6. REFER TO THE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
7. DIMENSIONS SHOWN ARE REQUIRED UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
8. ALL OPEN TRENCH WATER LINES SHALL HAVE #12 AWG COPPER TRACER WIRE, SECURED TO THE PIPE WITH TAPE IN 3' INTERVALS.

5000	TRENCH DETAILS FOR POLYVINYL CHORIDE PIPE (PVC)	APPROVED MARCH 2022	CITY OF DIXON ENGINEERING STANDARD DETAIL



◯ LEGEND
1. PAVEMENT.
2. TOP FACE OF CURB, STANDARD 6" HIGH.
3. 8.3% (1:12) MAXIMUM SLOPE, 2%MAX CROSS SLOPE LENGTH=6.5'.
4. LANDING SHALL BE 48" MIN. AND SLOPE SHALL NOT EXCEED 1:48 MAX PER CALIFORNIA BUILDING CODE, TITLE 24, SECTION 11B-406.5.3
5. SCORE MARK, 6" BACK OF CURB.
6. TRANSITION SHALL BE FLUSH AND FREE OF ABRUPT CHANGE WITH A COUNTER SLOPE NOT EXCEEDING 1:20 MAX FOR 24" PER CALIFORNIA BUILDING CODE, TITLE 24, SECTION 11B-406.5.8.
7. PLACE 36" WIDE PREFABRICATED CAST IN PLACE DETECTABLE WARNING TILE BY ARMOR-TILE OR APPROVED EQUAL. DETECTABLE WARNINGS AT CURB RAMPS SHALL EXTEND 36 INCHES IN THE DIRECTION OF TRAVEL. DETECTABLE WARNINGS SHALL EXTEND THE FULL WIDTH OF THE RAMP RUN LESS 2 INCHES MAXIMUM ON EACH SIDE, EXCLUDING ANY FLARED SIDES. DETECTABLE WARNINGS SHALL BE LOCATED SO THE EDGE NEAREST THE CURB IS 6 INCHES MINIMUM AND 8 INCHES MAXIMUM FROM THE LINE AT THE FACE OF THE CURB MARKING THE TRANSITION BETWEEN THE CURB AND THE GUTTER OR STREET.

5 / C7.3 ACCESSIBLE CURB RAMP #4 — NO SCALE



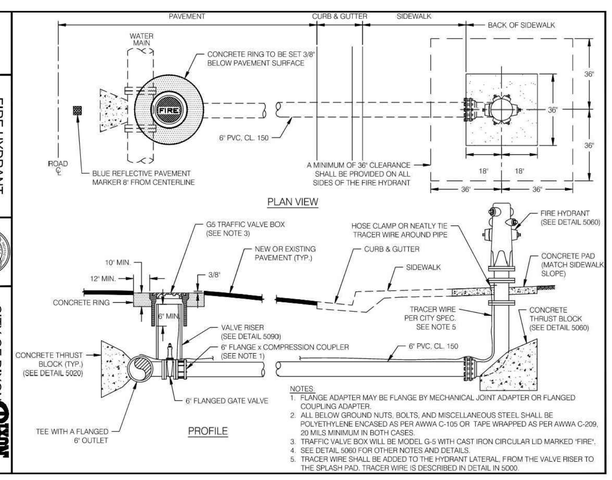
2 / C7.1

4 / C7.3 FIRE RISER — NO SCALE

UNDERGROUND FIRE PROTECTION

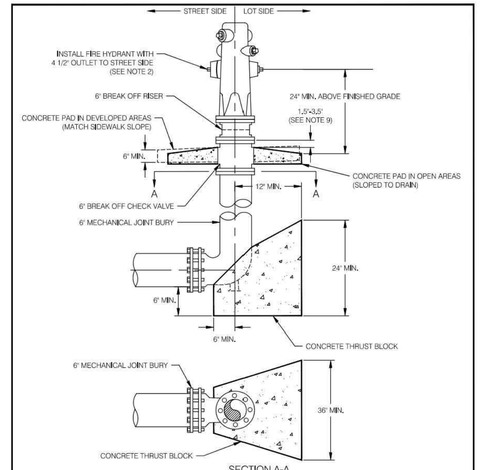
THESE SHEETS WERE NOT REVIEWED AND ARE NOT APPROVED FOR THE INSTALLATION OF ANY ONSITE PRIVATE FIRE PROTECTION UNDERGROUND INFRASTRUCTURE. A SEPARATE SUBMITTAL TO THE CITY OF DIXON FIRE DEPARTMENT FOR REVIEW AND APPROVAL IS REQUIRED BY THE INSTALLING C-16 LICENSED FIRE PROTECTION CONTRACTOR PRIOR TO ANY INSTALLATION OF ANY UNDERGROUND FIRE PROTECTION COMPONENTS

5070 FIRE HYDRANT INSTALLATION FOR DEVELOPED AREAS — CITY OF DIXON ENGINEERING STANDARD DETAIL — APPROVED MARCH 2022



NOTES:
1. FLANGE ADAPTER MAY BE FLANGE BY MECHANICAL JOINT ADAPTER OR FLANGED COUPLING ADAPTER.
2. ALL BELOW GROUND NUTS, BOLTS, AND MISCELLANEOUS STEEL SHALL BE POLYETHYLENE ENCASED AS PER AWWA C-105 OR TAPE WRAPPED AS PER AWWA C-209, 20 MILS MINIMUM IN BOTH CASES.
3. TRAFFIC VALVE BOX WILL BE MODEL G-5 WITH CAST IRON CIRCULAR LID MARKED "FIRE".
4. SEE DETAIL 5060 FOR OTHER NOTES AND DETAILS.
5. TRACER WIRE SHALL BE ADDED TO THE HYDRANT LATERAL, FROM THE VALVE RISER TO THE SPLASH PAD. TRACER WIRE IS DESCRIBED IN DETAIL IN 5000.

2 / C7.3 FIRE HYDRANT ASSEMBLY — NO SCALE



SECTION A-A

NOTES:
1. FIRE HYDRANT SHALL BE CLOW 960.
2. 4 1/2" OUTLET CAP TO BE PAINTED ACCORDING TO NFPA STANDARDS BASED ON FLOW TEST RESULTS.
3. HYDRANT SHALL BE FURNISHED WITH FACTORY APPLIED "BRIGHT WHITE" EPOXY COATING, FIELD APPLIED TOUCH-UP MAY BE REQUIRED.
4. PRIVATE FIRE HYDRANTS SHALL BE FURNISHED WITH FACTORY APPLIED "RED" EPOXY COATING.
5. ALL EXPOSED METAL SHALL BE PROPERLY PREPARED AND PAINTED WITH BRIGHT WHITE INDUSTRIAL ENAMEL PAINT. FIELD APPLIED TOUCH-UP MAY BE REQUIRED.
6. ALL BELOW GROUND NUTS, BOLTS, AND MISCELLANEOUS STEEL SHALL BE POLYETHYLENE ENCASED AS PER AWWA C-105 OR TAPE WRAPPED AS PER AWWA C-209, 20 MILS MINIMUM IN BOTH CASES.
7. THE CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI. ALL CONCRETE SHALL HAVE A MINIMUM OF 5 SACKS PORTLAND TYPE II CEMENT PER CUBIC YARD OF CONCRETE.
8. HYDRANT LATERAL SHALL BE INSTALLED AND BACKFILLED AS PER DETAIL 5000.
9. THE BOTTOM OF THE BREAKAWAY RISER SHALL BE 1,5'-3,5' FROM THE TOP OF THE CONCRETE SPLASH PAD.

5060	FIRE HYDRANT DETAIL	APPROVED MARCH 2022	CITY OF DIXON ENGINEERING STANDARD DETAIL

3 / C7.3 THRUST BLOCKS — NO SCALE

1 / C7.3 WATER TRENCH DETAIL — NO SCALE

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2025 Nineteenth Street
Sacramento, CA 95818
P 916.558.1900
www.lionakis.com

CONSULTANT

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SEAL

REGISTERED PROFESSIONAL ENGINEER — ANTHONY J. TASSANO — NO. C74696 — STATE OF CALIFORNIA — 06/18/2026

PROJECT

DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE

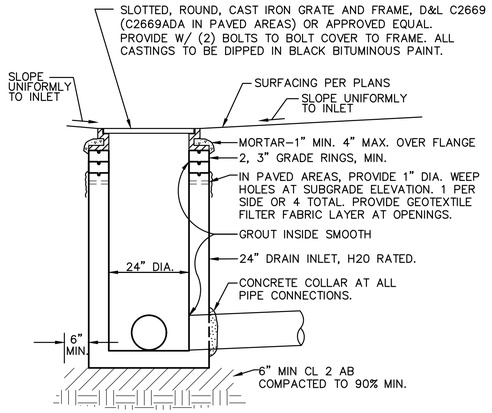
DETAILS AND SECTIONS

SHEET

C7.3

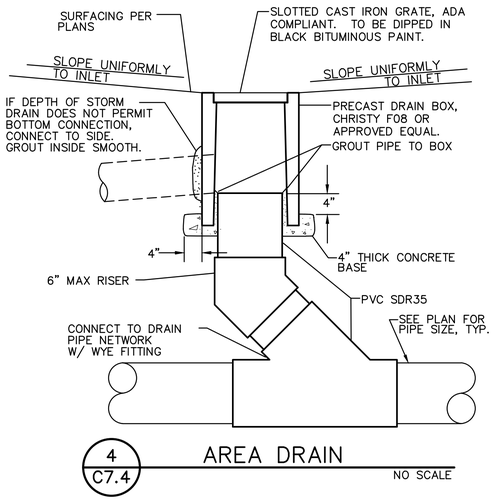
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0 1/4" 1/2" 1" 2"
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11/31/2023 4:12:10 PM

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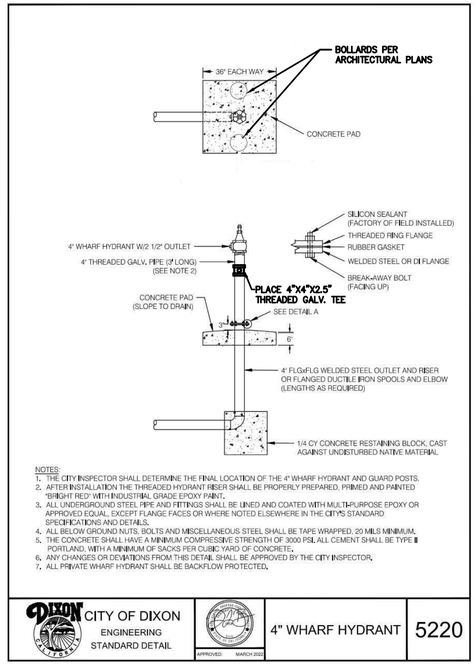
3 / C7.4 DROP INLET

NO SCALE



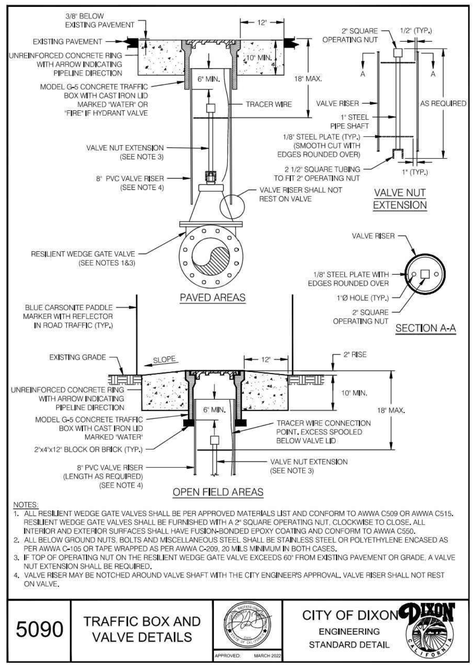
4 / C7.4 AREA DRAIN

NO SCALE



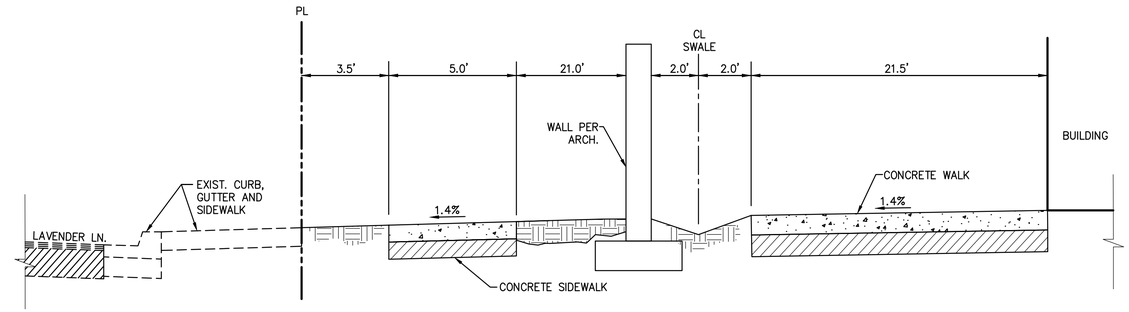
1 / C7.4 4" WHARF HYDRANT

NO SCALE



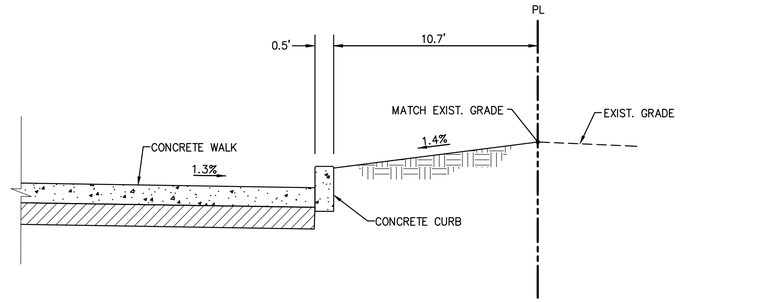
2 / C7.4 VALVE DETAIL

NO SCALE



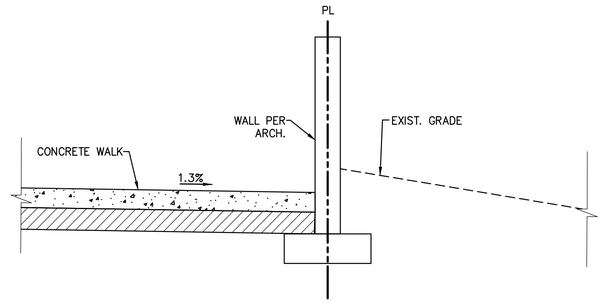
A / C7.4 SECTION

NO SCALE



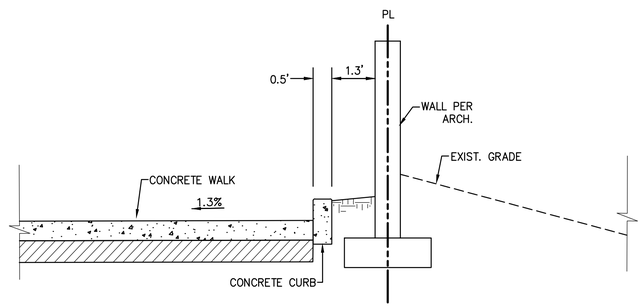
B / C7.4 SECTION

NO SCALE



C / C7.4 SECTION

NO SCALE



D / C7.4 SECTION

NO SCALE

UNDERGROUND FIRE PROTECTION

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STATE OF CALIFORNIA
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PROJECT

DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE

DETAILS AND SECTIONS

SHEET

C7.4

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Autodesk Docs://Dixon Fire Station 82/22204_ARCHMSTR_R22_CENTRAL.rvt
1/31/2023 4:12:10 PM

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CIVIL ABBREVIATIONS AND LEGEND

ABBREVIATIONS

NOTE: NOT ALL ABBREVIATIONS MAY BE USED ON THESE PLANS.

AB	AGGREGATE BASE
AC	ASPHALTIC CONCRETE
AD	AREA DRAIN
APN	ASSESSOR'S PARCEL NUMBER
ARV	AIR RELEASE VALVE
ASB	AGGREGATE SUB-BASE
BO	BLOW-OFF VALVE
BV	BUTTERFLY VALVE
BW	BACK OF WALK
C/L	CENTERLINE
CB	CATCH BASIN
CL	CLASS
CMP	CORRUGATED METAL PIPE
CATV	CABLE TELEVISION
CO	CLEANOUT
COMM	COMMUNICATION
CONC.	CONCRETE
CONST.	CONSTRUCT
CR	CURB RETURN
CS	CONCRETE SURFACE
DC	DOUBLE CHECK VALVE
DDC	DOUBLE DETECTOR CHECK VALVE
DG	DECOMPOSED GRANITE
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DWG	DRAWING
DS	DOWNSPOUT
E	ELECTRIC
EP	EDGE OF PAVEMENT
ESMT	EASEMENT
EX	EXISTING
FS	FIRE SERVICE LINE
FDC	FIRE DEPARTMENT CONNECTION
FL	FLOWLINE
FM	SANITARY SEWER FORCE MAIN
FF	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
G	GAS
GR	GRATE ELEVATION
GRD	GRADE ELEVATION
GV	GATE VALVE
HB	HOSE BIBB
HBD	HEADER BOARD
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HP	HIGH POINT
INV	PIPE INVERT ELEVATION
JP	JOINT UTILITY POLE
LF	LINEAL FEET
LIP	LIP OF GUTTER
LT	LEFT
MS	MOWSTRIP
NTS	NOT TO SCALE
OH	OVERHEAD
PCC	PORTLAND CEMENT CONCRETE
PD	PLANTER DRAIN
PIV	POST INDICATOR VALVE
P/L	PROPERTY LINE
PP	POWER POLE
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
R	RADIUS
RIM	MANHOLE RIM ELEVATION (SOLID COVER)
RP	REDUCED PRESSURE BACKFLOW PREVENTER
RW	RIGHT OF WAY
SCH	SCHEDULE
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SG	SUBGRADE ELEVATION
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
STD	STANDARD
S/W	SIDEWALK
T	TELEPHONE
TC	TOP OF CURB
TD	TRENCH DRAIN
TDCB	TRENCH DRAIN CATCH BASIN
TP	TELEPHONE POLE
TRW	TOP OF RETAINING WALL
TSW	TOP OF SEAT WALL
TW	TOP OF WALK ELEVATION
U	UTILITY
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
VCP	VITRIFIED CLAY PIPE
W	WATER
W/	WITH
W/O	WITHOUT
WV	WATER VALVE

LEGEND

NOTE: NOT ALL SYMBOLS MAY BE USED ON THESE PLANS.

PROPOSED GRADING & DRAINAGE SYMBOLS:

- 8" SD — STORM DRAIN LINE (SIZE AND FLOW SHOWN)
- STORM DRAIN MANHOLE (SDMH)
- CATCH BASIN (CB)
- DROP INLET (DI)
- AREA DRAIN (AD)
- PLANTER DRAIN (PD) OR FLOOR DRAIN (FD)
- CO — STORM DRAIN CLEANOUT
- 99.99 — ELEVATION
- FF=100.00 — FINISHED FLOOR ELEVATION
- PAD=99.33 — BUILDING PAD ELEVATION
- CONCRETE SIDEWALK
- GRADED DIRECTION FOR DRAINAGE FLOW
- SWALE
- SLOPE
- TREE TO BE REMOVED
- RETAINING WALL

PROPOSED SANITARY SEWER SYMBOLS:

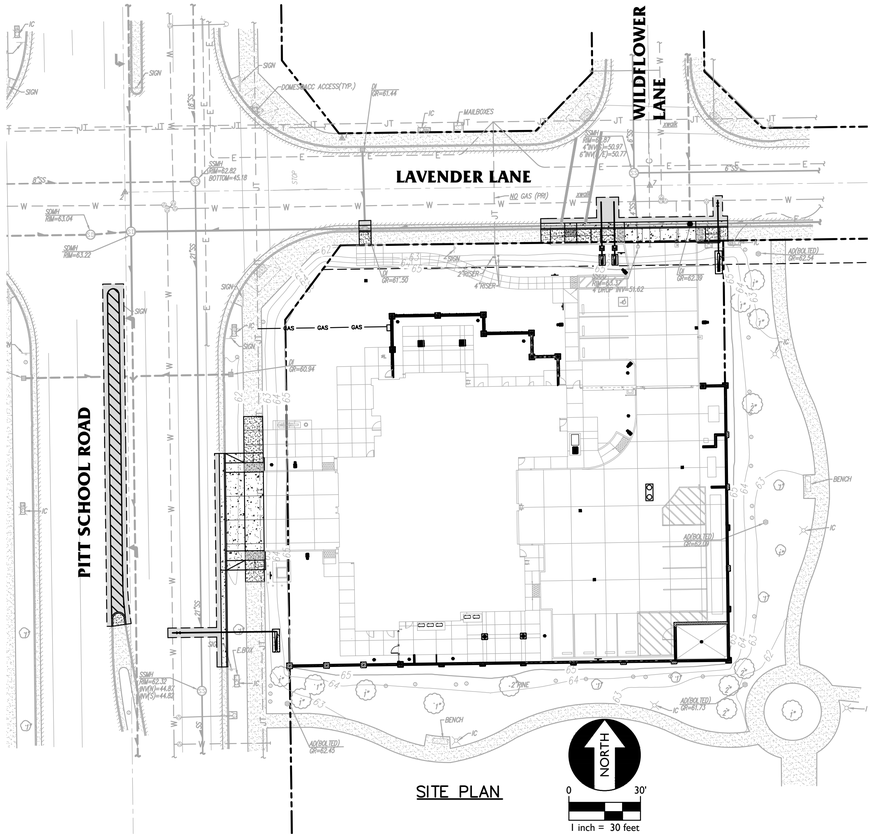
- 6" SS — SANITARY SEWER LINE (SIZE AND FLOW SHOWN)
- SANITARY SEWER MANHOLE (SSMH)
- CO — SEWER CLEANOUT FLUSHER BRANCH

PROPOSED WATER SYMBOLS:

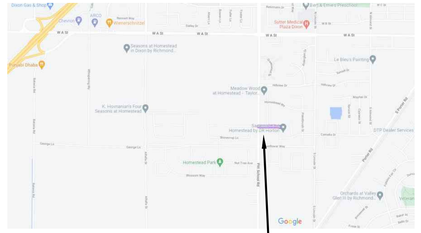
- 8" W — WATER LINE & SIZE
- 8" FS — FIRE LINE & SIZE
- 8" DW — DOMESTIC WATER LINE & SIZE
- 8" RW — RECLAIMED WATER LINE & SIZE
- 8" IRR — IRRIGATION SERVICE LINE & SIZE
- 8" NP — NON POTABLE WATER LINE & SIZE
- 8" SP — FIRE SPRINKLER SERVICE LINE & SIZE
- GATE VALVE
- M — WATER METER
- FH — FIRE HYDRANT ASSEMBLY
- FDC — FIRE DEPARTMENT CONNECTION
- DC — DETECTOR CHECK VALVE
- DDC — DOUBLE DETECTOR CHECK VALVE
- RP — REDUCED PRESSURE BACKFLOW PREVENTER
- BUTTERFLY VALVE
- 1" — AIR RELEASE VALVE + SIZE
- 1" — BLOW-OFF VALVE + SIZE
- PIV — POST INDICATOR VALVE

DIXON FIRE STATION 82
OFF-SITE IMPROVEMENT PLANS

DIXON, CA 95620



SITE PLAN



PROJECT LOCATION

VICINITY MAP — NORTH — NOT TO SCALE

SHEET INDEX

C1 OF 4 COVER SHEET – OFF SITE IMPROVEMENTS
C2 OF 4 DEMOLITION PLAN
C3 OF 4 PITT SCHOOL ROAD IMPROVEMENT PLAN & PROFILE
C4 OF 4 LAVENDER LANE IMPROVEMENT PLAN & PROFILE

CITY OF DIXON STREET NOTES

1. PUBLIC SAFETY AND TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE CITY ENGINEER. SAFE VEHICULAR AND PEDESTRIAN ACCESS SHALL BE PROVIDED AT ALL TIMES DURING CONSTRUCTION.
2. WHEN STREET WORK OR TRENCHING IS DONE THAT WOULD INTERFERE WITH EMERGENCY RESPONSE TRAFFIC, THE CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT FROM THE CITY OF DIXON, SUBMIT A TRAFFIC CONTROL PLAN, AND NOTIFY THE FIRE AND POLICE DEPARTMENTS 24-HOURS IN ADVANCE OF THE TIME AND LOCATION OF SUCH CLOSURES. THE CONTRACTOR SHALL AGAIN CONTACT THESE DEPARTMENTS AS SOON AS THE STREET IS REOPENED.
3. UNLESS SPECIFICALLY SET FORTH IN THE SPECIAL PROVISIONS, ALL MARKED LANES OF TRAFFIC SHALL BE OPEN ON ALL MAJOR STREETS IN EACH DIRECTION DURING THE PEAK TRAFFIC HOURS OF 7:00 AM TO 8:00AM AND 3:00 PM TO 5:00 PM. A TRAFFIC LANE SHALL BE CONSIDERED OPEN IF IT IS SURFACED WITH ASPHALT AND IS AT LEAST 10 FEET WIDE.
4. WHENEVER A WORK ZONE IS WITHIN 10 FEET OF A TRAFFIC LANE AND THERE IS A PAVEMENT CUT, DITCH OR TRENCH GREATER THAN 2 INCHES DEEP, THE CONTRACTOR SHALL MAINTAIN CONTINUOUS BARRICADES SPACED AT APPROXIMATELY 50 FOOT INTERVALS. IF THE CUT, DITCH OR TRENCH IS MORE THAN 10 FEET FROM A TRAVEL LANE, THE SPACING MAY BE GREATER, BUT NOT TO EXCEED 200 FEET.
5. PRIOR TO ORDERING STREET NAME SIGNS, THE CONTRACTOR SHALL VERIFY STREET NAMES AND STREET SIGN SPECIFICATIONS WITH THE CITY ENGINEER.
6. THE CONTRACTOR SHALL REMOVE, TEMPORARILY RELOCATE AND REINSTALL ALL PUBLIC SIGNS, PRIVATE SIGNS AND MAILBOXES IN CONFLICT WITH THE CONSTRUCTION. MAIL BOX LOCATIONS SHALL BE AS APPROVED BY THE UNITED STATES POSTAL DEPARTMENT. PUBLIC SIGN RELOCATION SHALL BE COORDINATED WITH THE SIGN OWNERS AND THE CITY OF DIXON.

GENERAL NOTE:

THE RUNNING SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:20 (5%). THE CROSS SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:48 (2%).

*EXCEPTION: THE RUNNING SLOPE OF SIDEWALKS SHALL NOT EXCEED THE GENERAL GRADE ESTABLISHED FOR THE ADJACENT STREET.

UNDERGROUND FIRE PROTECTION

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811 Know what's below. Call before you dig.

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CITY ENGINEER _____ DATE _____

No.	Revision:	Date:	By:

Horizontal Scale: AS NOTED

Vertical Scale: AS NOTED

Bench mark:
BENCHMARK NO. DIXON #21 ELEV. 65.73 (NGVD 29)
MONUMENT AT INTERSECTION OF PITT SCHOOL RD. AND W. "A" ST. (LS 3737)

DATUM CONVERSION:
NAVD88 = NGVD29 + 2.57'

Computed by: AT
Drawn by: AT
Designed by: AT
Project Engineer: AT

REGISTERED PROFESSIONAL ENGINEER — ANTHONY J. TASSANO — No. C74606 — STATE OF CALIFORNIA — 06/18/2026

WARREN CONSULTING ENGINEERS, INC.
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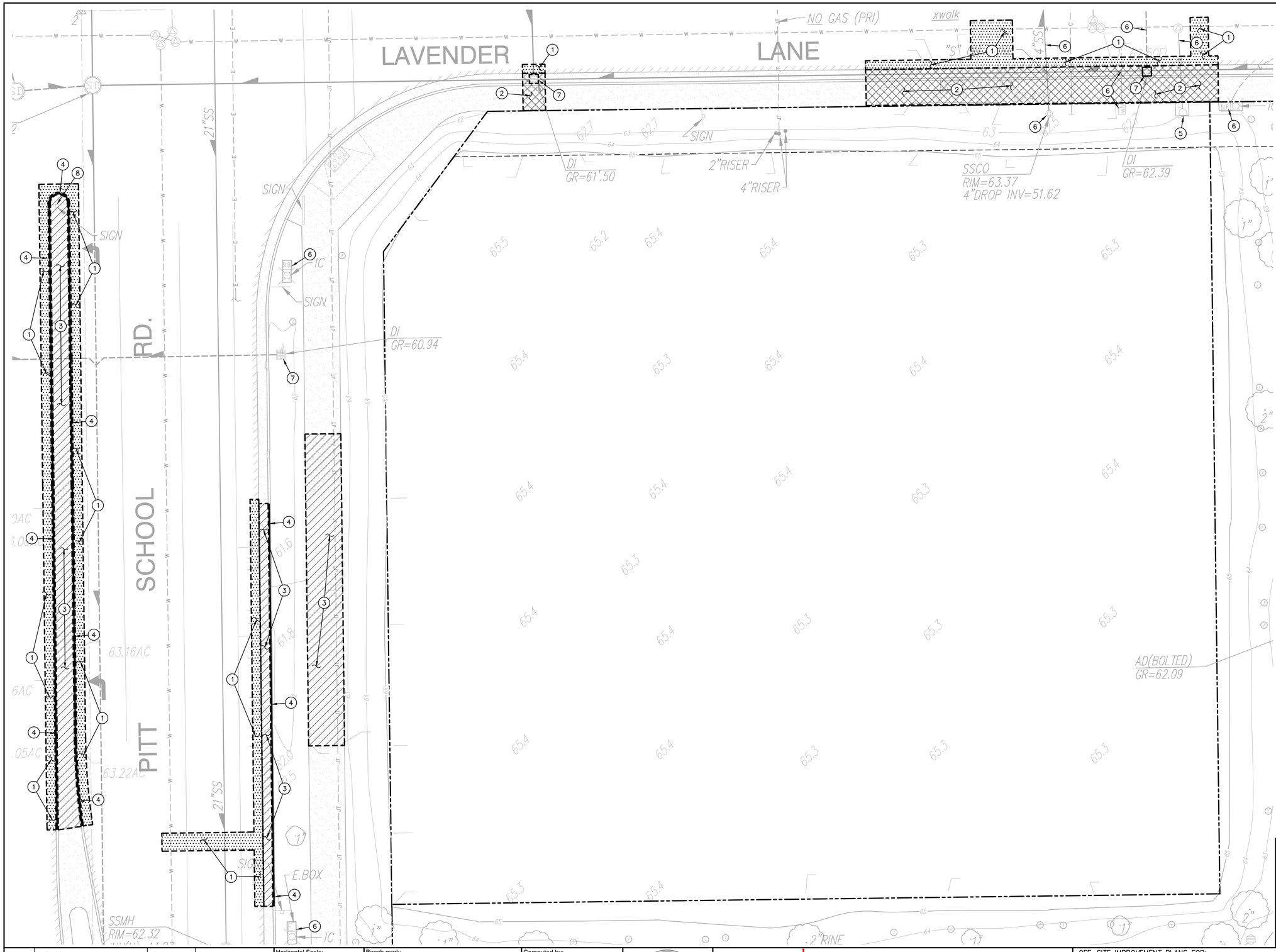
OFF-SITE IMPROVEMENT PLANS FOR:
DIXON FIRE STATION 82
DIXON, CA 95620

COVER SHEET-OFF SITE IMPROVEMENTS

Date: MAY/2026

Sheet No. C1 of 4

FILENAME: I:\22-081\CIVIL\DWG\22-081 C1 OF 4.DWG



CITY OF DIXON DEMOLITION NOTES

1. SAWCUT, REMOVE AND DISPOSE OF EXISTING ASPHALT PAVING AND AGGREGATE BASE PER CITY OF DIXON STANDARDS AND SPECIFICATIONS.
2. SAWCUT, REMOVE AND DISPOSE OF EXISTING CURB, GUTTER, SIDEWALK AND AGGREGATE BASE PER CITY OF DIXON STANDARDS AND SPECIFICATIONS.
3. SAWCUT, REMOVE AND DISPOSE OF EXISTING CONCRETE PAVING AND AGGREGATE BASE PER CITY OF DIXON STANDARDS AND SPECIFICATIONS.
4. REMOVE AND DISPOSE OF EXISTING CONCRETE CURB.
5. EXISTING HYDRANT AND RISER TO BE PROTECTED IN PLACE.
6. EXISTING UTILITIES TO BE PROTECTED IN PLACE.
7. PROTECT EXISTING DROP INLET IN PLACE.
8. REMOVE AND DISPOSE OF SIGN, POST AND ASSOCIATED FOOTING.

GRAPHIC SCALE

10' 0 5' 10' 20'

(IN FEET) 1 inch = 10 feet

NORTH

THIS DRAWING MAY HAVE BEEN ENLARGED OR REDUCED.

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No. 074695
STATE OF CALIFORNIA
06/18/2026

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1117 WINDFIELD WAY, SUITE 110
EL DORADO HILLS, CA 95762 | (916) 985-1870

OFF–SITE IMPROVEMENT PLANS FOR:

DIXON FIRE STATION 82

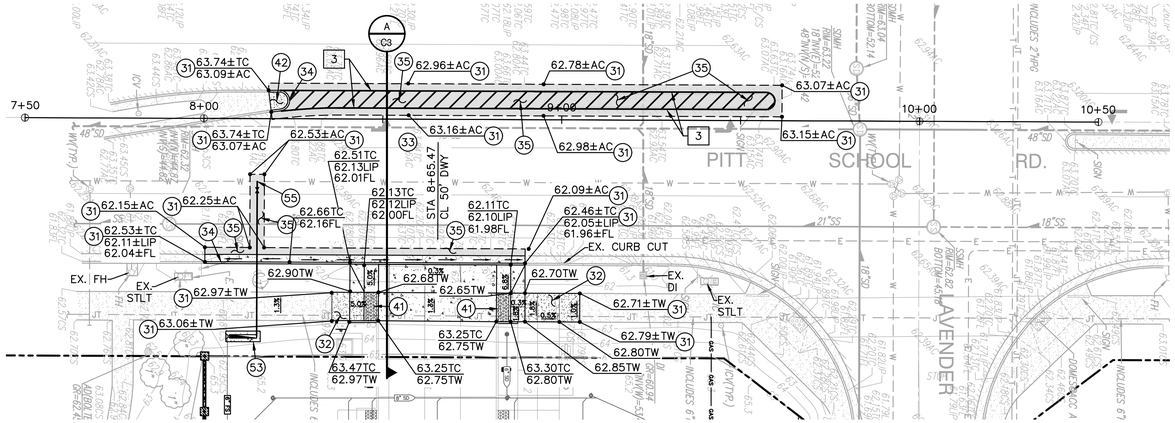
DIXON, CA 95620

DEMOLITION PLAN

Date: MAY/2026

Sheet No. C2 of 4

FILENAME:I:\22-081\CIVIL\DWG\22-081 C2 OF 4.DWG



GRAPHIC SCALE

20' 0 10' 20' 40'

(IN FEET) 1 inch = 20 feet

NORTH

THIS DRAWING MAY HAVE BEEN ENLARGED OR REDUCED.

CITY OF DIXON CONSTRUCTION NOTES

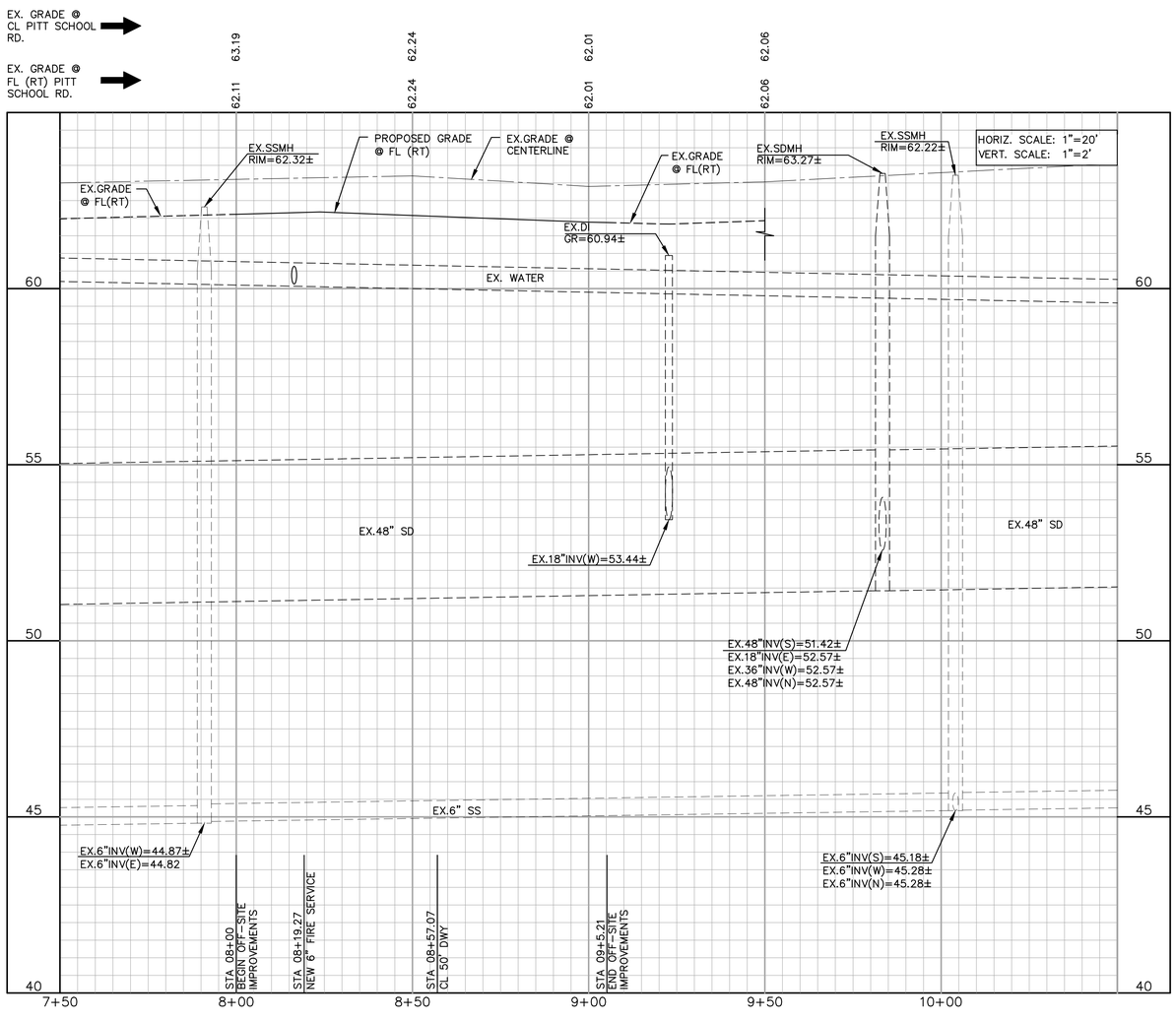
31. MATCH EXISTING GRADE/ELEVATION.
32. CONSTRUCT SEPARATED CONCRETE SIDEWALK PER CITY OF DIXON STD. DTL. 3030. (4" PCC OVER 6" AB). REPLACE TO NEAREST HORIZONTAL JOINT.
33. CONSTRUCT COMMERCIAL DRIVEWAY PER CITY OF DIXON STD. DTL. 3100.
34. CONSTRUCT TYPE "E" CURB PER CITY OF DIXON STD. DTL. 3050.
35. PATCH BACK AC PAVING. 4" AC OVER 12" AB OR MATCH EXISTING SECTION, WHICHEVER IS GREATER AND PER CITY OF DIXON STD. DTL. 3130.
41. PLACE TRUNCATED DOMES PER CITY OF DIXON STANDARDS AND SPECIFICATION SECTION CS15-02.
42. PROVIDE STAMPED COLORED CONCRETE, TO MATCH EXISTING.

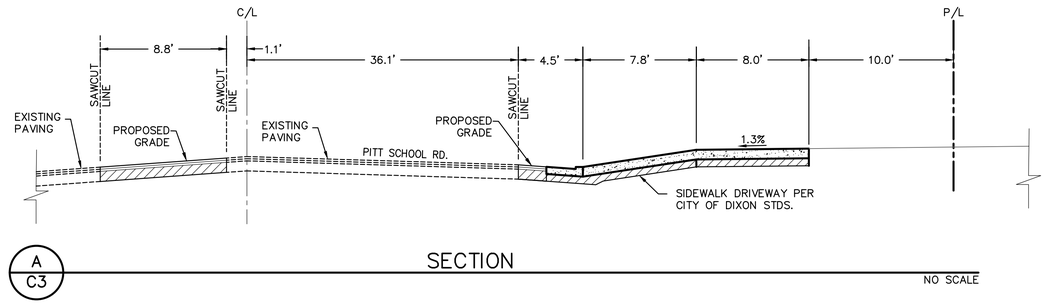
CITY OF DIXON WATER NOTES

53. PROVIDE REDUCED PRESSURE DETECTOR ASSEMBLY WITH FIRE DEPARTMENT CONNECTION PER CITY OF DIXON STD. DTL. 5190.
55. PROVIDE 6" FIRE SERVICE TAP PER CITY OF DIXON DTL. 5050.

SIGNING AND STRIPING NOTES

3 PAINT WITH 4" WIDE WHITE EDGE LINES AND 4" WIDE WHITE CROSS HATCHING LINES AT 36" O.C.





A/C3 SECTION

NO SCALE

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Vertical Scale: AS NOTED

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Drawn by: AT
Designed by: AT
Project Engineer: AT

REGISTERED PROFESSIONAL ENGINEER ANTHONY J TASSANO NO. C74626 OF CALIFORNIA 06/18/2026

WCE
WARREN CONSULTING ENGINEERS, INC.
1117 WINDFIELD WAY, SUITE 110
EL DORADO HILLS, CA 95762 | (916) 985-1870

OFF-SITE IMPROVEMENT PLANS FOR:

DIXON FIRE STATION 82

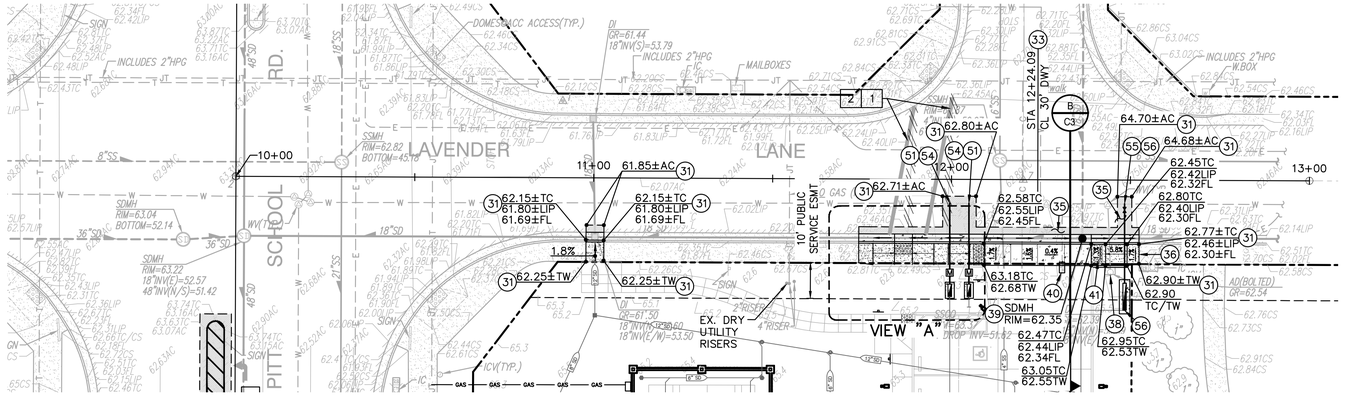
DIXON, CA 95620

PITT SCHOOL ROAD IMPROVEMENT PLAN & PROFILE

Date: MAY/2026

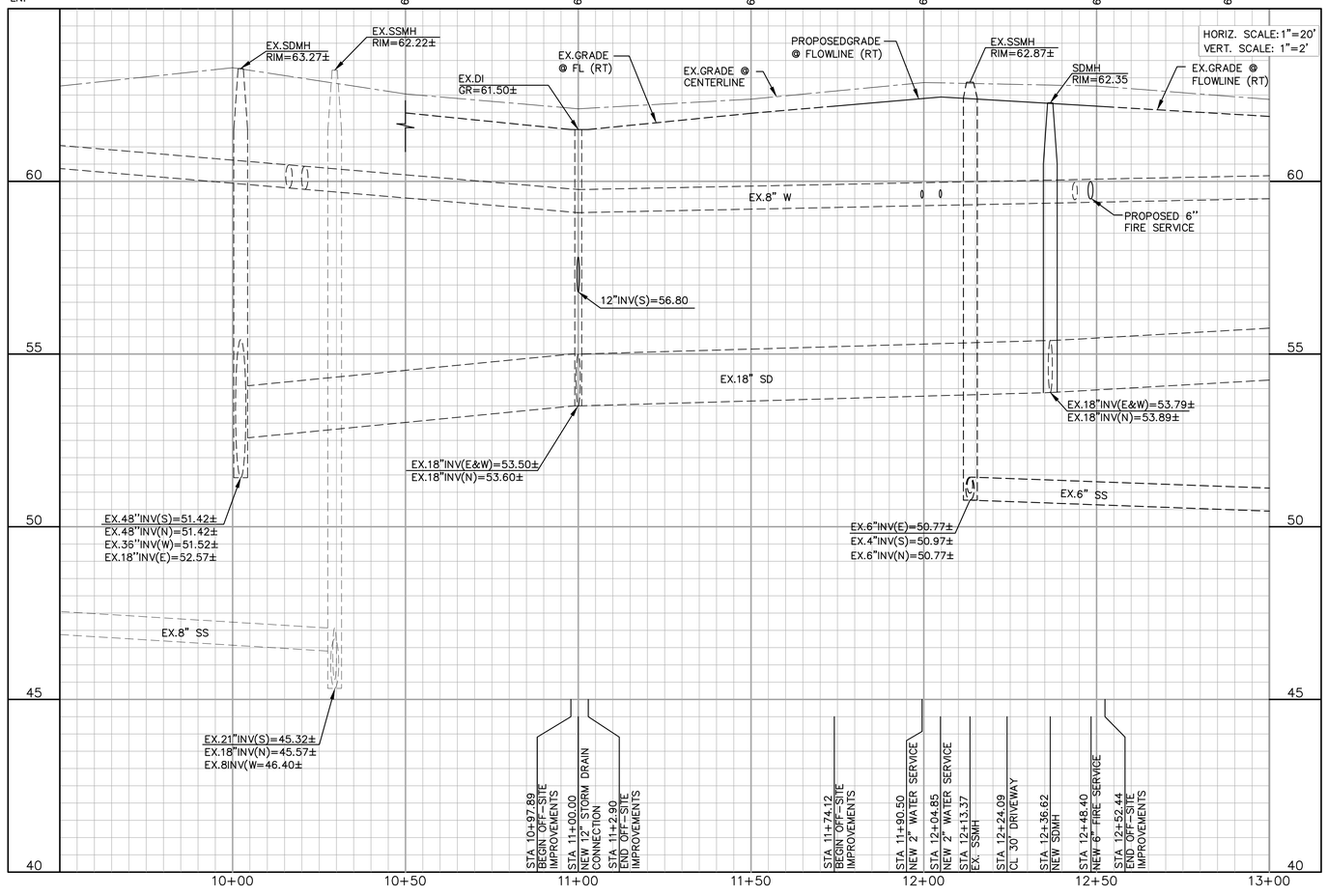
Sheet No. C3 of 4

FILENAME:I:\22-081\CIVIL\DWG\22-081 C3-C4 OF 4.DWG



EX. GRADE @ CL LAVENDER LN. → 63.29 | 62.53 | 62.10 | 62.38 | 62.86 | 62.75 | 62.46

EX. GRADE @ FL (RT) LAVENDER LN. → 61.97 | 61.69 | 61.97 | 62.18 | 62.18 | 62.02



LEGEND: SIGNING AND STRIPING

REMOVE EXISTING TRAFFIC STRIPING OR PAVEMENT MARKING

SIGNING AND STRIPING NOTES

1. INSTALL 12" YELLOW CROSSWALK STRIPING. CROSSWALKS TO BE 12' WIDE.
2. REMOVE EXISTING WHITE CROSSWALK STRIPING.

GRAPHIC SCALE

20' 0 10' 20' 40'

(IN FEET) 1 inch = 20 feet

NORTH

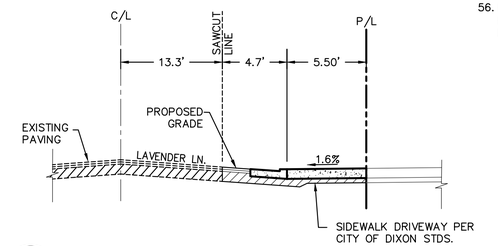
THIS DRAWING MAY HAVE BEEN ENLARGED OR REDUCED.

CITY OF DIXON CONSTRUCTION NOTES

31. MATCH EXISTING GRADE/ELEVATION.
33. CONSTRUCT COMMERCIAL DRIVEWAY PER CITY OF DIXON STD. DTL. 3110.
35. PATCH BACK AC PAVING. 4" AC OVER 12" AB OR MATCH EXISTING SECTION, WHICHEVER IS GREATER AND PER CITY OF DIXON STD. DTL. 3130.
36. CONSTRUCT VERTICAL CURB, GUTTER AND SIDEWALK PER CITY OF DIXON STD. DTL. 3000. REPLACE TO NEAREST HORIZONTAL JOINT.
37. CONSTRUCT TYPE 5 CURB RAMP PER CITY OF DIXON STD. DTL. 3170.
38. EXISTING FIRE HYDRANT AND SPLASH PAD TO BE PROTECTED IN PLACE.
39. REMOVE EXIST. STORM DRAIN INLET AND CONSTRUCT STORM DRAIN MANHOLE PER CITY OF DIXON STD. DTL. 4010.
40. ABANDON EXISTING WATER SERVICE METER.
41. PLACE TRUNCATED DOMES PER CITY OF DIXON STANDARDS AND SPECIFICATION SECTION CS15-02.

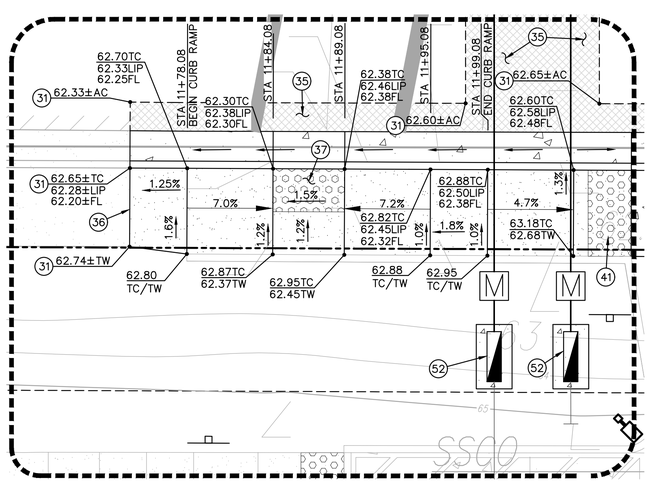
CITY OF DIXON WATER NOTES

51. PROVIDE 1" METER CONNECTION PER CITY OF DIXON STD. DTL. 5100.
52. PROVIDE 2" REDUCED PRESSURE BACKFLOW PREVENTER PER CITY OF DIXON STD. DTL. 5160.
54. CONNECT TO EXISTING WATER PER CITY OF DIXON STANDARDS AND SPECIFICATIONS.
55. PROVIDE 6" FIRE SERVICE TAP PER CITY OF DIXON DTL. 5050.
56. PROVIDE 6" METER ASSEMBLY WITH 6" REDUCED PRESSURE BACKFLOW ASSEMBLY (WITHOUT) FDC PER CITY OF DIXON STD. DTL. 5190.



B / C4 SECTION

NO SCALE



VIEW "A"

SCALE 1" = 5'

NORTH

0 5'

1 inch = 5 feet

No.	Revision:	Date:	By:

Horizontal Scale: AS NOTED

Vertical Scale: AS NOTED

Bench mark:
BENCHMARK NO. DIXON #21 ELEV. 65.73 (NGVD 29)
MONUMENT AT INTERSECTION OF PITT SCHOOL RD. AND W. "A" ST. (LS 3737)

DATUM CONVERSION:
NAVD88 = NGVD29 + 2.57'

Computed by: AT
Drawn by: AT
Designed by: AT
Project Engineer: AT

REGISTERED PROFESSIONAL ENGINEER ANTHONY J TASSANO NO. C74696 STATE OF CALIFORNIA 06/18/2026

WARREN CONSULTING ENGINEERS, INC.
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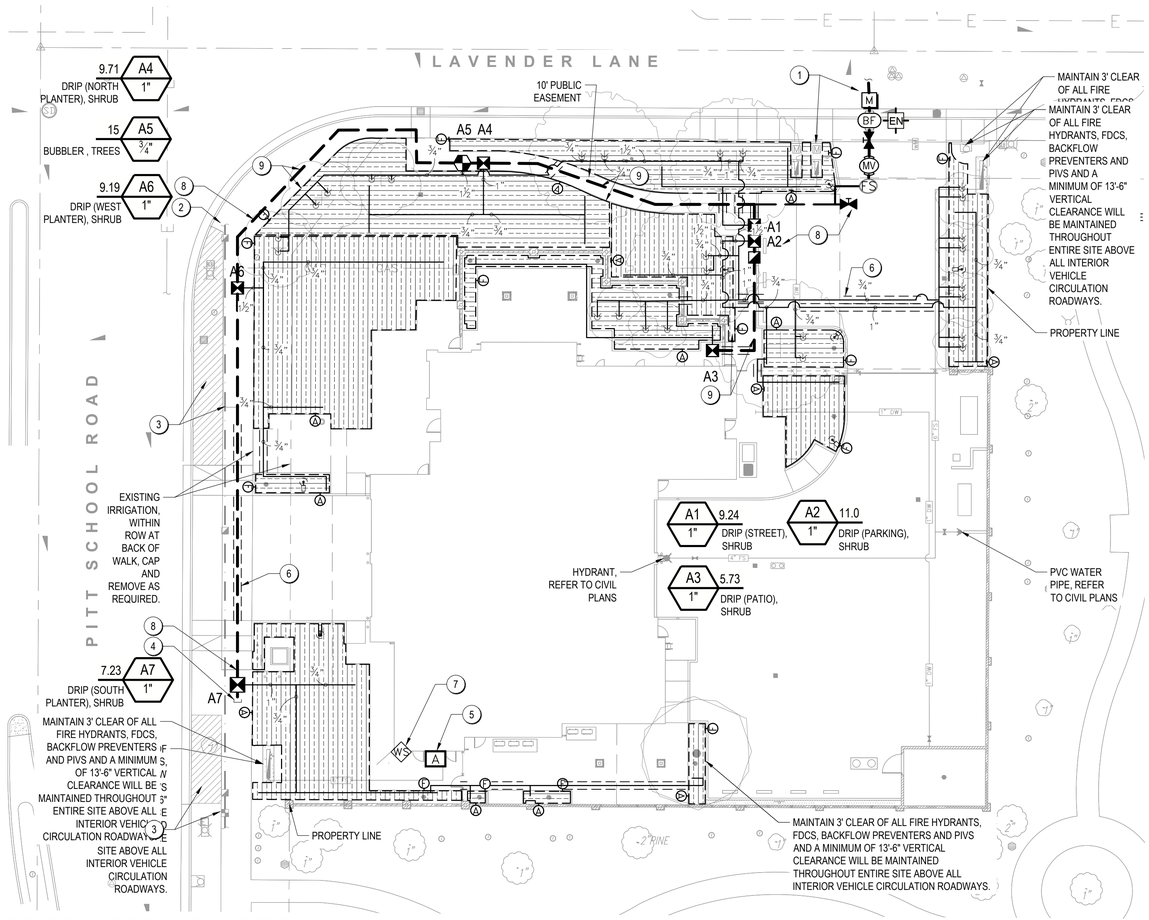
DIXON, CA 95620

LAVENDER LANE IMPROVEMENT PLAN & PROFILE

Date: MAY/2026

Sheet No. C4 of 4

FILENAME: I:\22-081\CIVIL\DWG\22-081 C3-C4 OF 4.DWG



NOTE: CONTRACTOR TO VERIFY EXISTING IRRIGATION SYSTEM WITHIN ROW AND MAINTAIN FUNCTION OF OVERALL SYSTEM EXCEPT AS NOTED. CONTRACTOR TO REPAIR OR REPLACE ANY IRRIGATION HEADS, PIPE, OR EQUIPMENT DAMAGED, OR REMOVED DURING THE CONSTRUCTION PROCESS NOT COORDINATED WITH CITY'S REPRESENTATIVE. CONTRACTOR RESPONSIBLE FOR REPAIR AND REPLACEMENT OF ANY PLANT MATERIAL DISTURBED, DAMAGED, OR REMOVED DURING THE CONSTRUCTION PROCESS OR AS A RESULT OF NOT MAINTAINING OVERALL SYSTEM FUNCTION AFFECTING ADJACENT PARCELS. REPLACEMENT SHALL BE 1-GAL GROUNDCOVER, 5-GAL SHRUBS, 15 GAL TREES.

GENERAL IRRIGATION NOTES

NOTE: DIFFER TO CITY OF DIXON NOTES (L1.5) WHERE INFORMATION IS IN CONFLICT

1. SITE ACCEPTANCE: THE CONTRACTOR SHALL OBSERVE THE SITE AND VERIFY THAT ROUGH GRADING AND ALL OTHER WORK HAS BEEN COMPLETED TO THE CONTRACTOR'S SATISFACTION. ANY PREVIOUS WORK THAT IS NOT COMPLETE SHALL BE BROUGHT TO THE OWNER'S OR LANDSCAPE ARCHITECT'S ATTENTION IN WRITING. BEGINNING WORK CONSTITUTES ACCEPTANCE OF THE SITE.

2. UNDERGROUND UTILITIES: THE CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING WORK. CALL C.G.A. (811) TO LOCATE EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY DAMAGED UTILITIES, TO THE SATISFACTORY OF THE OWNER AND GOVERNING AGENCY AT NO COST TO THE OWNER OR INCREASE IN BID AMOUNT.

3. QUANTITIES: (IF SHOWN) ARE FOR CONTRACTOR'S CONVENIENCE ONLY, AND SHALL NOT RELIEVE THE CONTRACTOR OF THE OBLIGATION TO INSTALL A COMPLETE AND FUNCTIONAL IRRIGATION SYSTEM, WITH EVEN AND HEAD-TO-HEAD COVERAGE OF ALL IRRIGATED AREAS, UNLESS SPECIFICALLY NOTED OTHERWISE.

4. EXPLANATION OF DRAWINGS: THESE PLANS ARE DIAGRAMMATIC IN NATURE, AND ARE NOT INTENDED TO SHOW EVERY FITTING OR EXACT PIPING LAYOUT. IN MANY CASES, THE MAINLINE AND LATERALS ARE SHOWN IN WALKWAYS OR PAVED AREAS. IRRIGATION EQUIPMENT AND PIPING SHALL BE INSTALLED IN PLANTED AREAS ONLY, UNLESS SPECIFICALLY NOTED OTHERWISE. MAINLINE SHALL BE INSTALLED AS CLOSELY AS POSSIBLE TO BACK OF WALK OR CURB, BUT IN NO CASE GREATER THAN 18" AWAY. IRRIGATION DETAILS ARE CONSIDERED TYPICAL AND ALL WORK SHALL CONFORM TO THESE DETAILS.

5. FIELD CONDITIONS: THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL FIELD CONDITIONS. DO NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN WHEN EXISTING WORK, OBSTRUCTIONS, SITE CONDITIONS, GRADE DIFFERENCES, OR OTHER ASPECTS ARE APPARENT IN THE FIELD THAT AFFECT INSTALLATION OF THE IRRIGATION SYSTEM. IN THE EVENT THAT DISCREPANCIES ARE FOUND, INFORM THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT IN WRITING. IF WRITTEN NOTICE IS NOT RECEIVED, THE CONTRACTOR ASSUMES ALL LIABILITY FOR THE IRRIGATION SYSTEM, INCLUDING ANY RE-DESIGN OR RE-WORK THAT MAY BE REQUIRED.

6. FIELD ADJUSTMENTS: ARE REQUIRED TO OBTAIN OPTIMUM EFFICIENCY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ADJUSTMENTS AS REQUIRED TO MINIMIZE OR ELIMINATE OVERSPRAY AND RUNOFF, AND TO MAXIMIZE DISTRIBUTION UNIFORMITY. ADJUSTMENTS INCLUDE BUT ARE NOT LIMITED TO: NOZZLE SELECTION, INSTALLATION OF IN-LINE OR IN-HEAD CHECK VALVES TO ELIMINATE LOW-HEAD DRAINAGE AND PONDING, AND ADJUSTMENT OF HEAD SPACING OR HEAD LAYOUT TO ACCOMMODATE IN-FIELD OBSTRUCTIONS OR CONDITIONS.

7. POINT OF CONNECTION: .THE CONTRACTOR SHALL VERIFY A MINIMUM OF 55 PSI (STATIC) AND A MINIMUM FLOW OF 25 GPM IS AVAILABLE AT THE POINT OF CONNECTION. IN THE EVENT THIS PRESSURE IS NOT AVAILABLE, IMMEDIATELY INFORM THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT IN WRITING. IF WRITTEN NOTICE IS NOT RECEIVED, THE CONTRACTOR ASSUMES ALL LIABILITY FOR THE IRRIGATION SYSTEM DESIGN, INCLUDING ANY RE-DESIGN OR RE-WORK THAT MAY BE REQUIRED.

8. NEW MATERIALS: ALL EQUIPMENT AND PIPING SHALL BE NEW. CONFORM TO ALL MANUFACTURER'S HANDLING AND INSTALLATION REQUIREMENTS.

9. PIPE SIZING: PIPE SIZES AS SHOWN ON PLAN INCLUDE THE LARGEST PIPE DIAMETER IN EACH ZONE, AND THEN PIPE DIAMETER AT REDUCTIONS ONLY. IF NO PIPE SIZE IS SHOWN, PIPE SHALL BE THE SAME DIAMETER AS THE NEXT UPSTREAM SIZE LABELED. SMALLEST PIPE SIZE IS 3/4". IN NO CASE SHALL THE VELOCITY OF WATER THROUGH IRRIGATION LATERALS EXCEED 5 FPS UNLESS SPECIFICALLY NOTED OTHERWISE.

10. IRRIGATION SCHEDULE: IS PROVIDED AS A GUIDELINE ONLY. THE CONTRACTOR SHALL OBSERVE EXISTING AND INSTALLED CONDITIONS, AND SHALL ADJUST THE CONTROLLER SCHEDULE ACCORDING TO ACTUAL FIELD CONDITIONS, USING THE PROVIDED SCHEDULE AS A BASELINE. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL PLANTED AREAS RECEIVE ADEQUATE MOISTURE, WITHOUT OVERWATERING. THIS INCLUDES MANUAL WATERING AS REQUIRED. DEPENDING ON SEASON, CONTRACTOR MAY ANTICIPATE ADJUSTING IRRIGATION SCHEDULE BY UP TO 50% DURING PLANT ESTABLISHMENT PERIOD. ALL OVERHEAD IRRIGATION SHALL BE SCHEDULED BETWEEN THE HOURS OF 8PM AND 10AM (OR AS PER LOCAL REQUIREMENTS).

11. CONTROL WIRING: THE CONTRACTOR SHALL INSTALL A MINIMUM OF TWO SPARE WIRES, AND ADDITIONAL PILOT WIRES EQUAL TO THE NUMBER OF UN-USED STATIONS ON THE CONTROLLER, TO THE FURTHEST EXTENT(S) OF THE MAINLINE. LEAVE 36" OF COILED "PIGTAIL" IN THE CONTROLLER ENCLOSURE AND AT THE END OF THE MAINLINE, AND LABEL "SPARE." CONTROL WIRING SHALL BE MINIMUM 14 AMERICAN WIRE GAUGE (AWG). COMMON WIRE INSULATION SHALL BE WHITE, SPARE WIRES SHALL BE YELLOW, AND PILOT (CONTROL) WIRES SHALL BE RED, MASTER VALVE PILOT WIRES SHALL BE BLACK, SENSOR WIRES SHALL BE BLUE, AND TRACER WIRE SHALL BE GREEN. WIRE RUNS UNDER PAVING SHALL BE INSTALLED IN SCH. 80 PVC UL LISTED ELECTRICAL CONDUIT WITHIN SLEEVES.

12. WARRANTY: ALL WORK SHALL BE WARRANTIED FROM ONE YEAR OF THE DATE OF SUBSTANTIAL COMPLETION. PRIOR TO ACCEPTANCE, PROVIDE A GUARANTEE STATING THE PROJECT NAME, PROJECT LOCATION, DATE OF SUBSTANTIAL COMPLETION, INSTALLING CONTRACTOR'S NAME, CONTACT INFORMATION (PHONE, ADDRESS, EMAIL) AND LICENSE NUMBER ON COMPANY LETTERHEAD.

13. THREADED CONNECTIONS: ALL PLASTIC THREADED CONNECTIONS EXCEPT MARLEX SHALL RECEIVE THREE WRAPS "EXTRA HEAVY" OR "FULL DENSITY" TEFLON OR PTFE TAPE PRIOR TO ASSEMBLY. PLASTIC MALE THREADED ADAPTORS SHALL NOT BE USED AND WILL BE REJECTED, EXCEPT WHEN MAKING CONNECTION TO METAL: ALL THREADED CONNECTIONS TO METAL PIPE SHALL USE PLASTIC MALE THREADS TO FEMALE METAL THREADS.

14. SLEEVES: ALL PIPING UNDER PAVED AREAS TO BE RUN IN PVC SCH. 40 SLEEVES AT LEAST TWICE THE DIAMETER OF THE PIPE BEING SLEEVED. ALL CONTROL WIRING UNDER PAVED AREAS TO BE RUN IN A SEPARATE SLEEVE, SIZED TO FACILITATE PULLING WIRE BUNDLE. SLEEVES TO EXTEND A MINIMUM OF 18" BEYOND PAVEMENT.

15. LONG TERM MAINTENANCE: ALL WORK WITHIN THE RIGHT OF WAY OR TO BE MAINTAINED BY THE LOCAL AGENCY SHALL BE INSTALLED PER THE LATEST EDITION OF THE AGENCY CONSTRUCTION STANDARDS, AND ALL OTHER AGENCY REQUIREMENTS.

16. IRRIGATION AUDIT: CONTRACTOR SHALL OBTAIN IRRIGATION AUDIT PER LOCAL AGENCY WATER EFFICIENT LANDSCAPE ORDINANCE (WELO)

16.1. ALL LANDSCAPE IRRIGATION AUDITS SHALL BE CONDUCTED BY A THIRD PARTY CERTIFIED LANDSCAPE IRRIGATION AUDITOR. LANDSCAPE AUDITS SHALL NOT BE CONDUCTED BY THE PERSON WHO DESIGNED THE LANDSCAPE OR INSTALLED THE LANDSCAPE.

16.2. CONTRACTOR SHALL PROVIDE THE RESULTS OF THE AUDIT TO THE LANDSCAPE ARCHITECT, AND MAKE ANY CORRECTIONS IDENTIFIED DURING THE AUDIT AT NO ADDITIONAL COST TO THE OWNER.

16.3. THE PROJECT APPLICANT SHALL SUBMIT TO THE LOCAL AGENCY A CERTIFICATE OF INSTALLATION PER LOCAL AGENCY REQUIREMENTS.

IRRIGATION KEYNOTES

1. LOCATE POINT-OF-CONNECTION IN FIELD. EQUIPMENT SHOWN IN PAVING FOR PLAN CLARITY ONLY. EQUIPMENT SHALL BE INSTALLED IN PLANTER AREA, SCREENED FROM VIEW. VERIFY LOCATION OF EQUIPMENT IN FIELD WITH OWNERS REPRESENTATIVE.
2. EXISTING IRRIGATION, REFER TO 'HOMESTEAD PHASE 1 BACKBONE' PLANS DATED 12/16/19, PREPARED BY OTHERS. CONTRACTOR TO FIELD VERIFY EXISTING SYSTEM LOCATION AND RETAIN AND PROTECT FUNCTION OF EXISTING SYSTEM DURING CONSTRUCTION.
3. EXISTING VALVE RETAIN AND PROTECT, REFER TO 'HOMESTEAD PHASE 1 BACKBONE' PLANS DATED 12/16/19, PREPARED BY OTHERS. CONTRACTOR TO VERIFY LIMITS OF IRRIGATION AND CAP WHERE OVERLAPS WITH NEW IRRIGATION SYSTEM. REPAIR AND REPLACE SYSTEM AS NECESSARY WHERE BEING RETAINED.
4. STUB MAINLINE.
5. LOCATE CONTROLLER AS DIRECTED BY OWNER. COORDINATE WITH BUILDER FOR ALL REQUIRED PENETRATIONS AND 120V POWER.
6. COORDINATE WITH OTHER TRADES FOR ALL SLEEVING, ETC. IRRIGATION CONTROL WIRING SHALL BE SLEEVED (SEPARATELY FROM IRRIGATION PIPING) WHEN UNDER PAVING.
7. LOCATE ET-SENSOR IN FULL SUN AND PER MANUFACTURER'S REQUIREMENTS. VERIFY COMMUNICATION AND CORRECT OPERATION WITH CONTROLLER
8. PIPING/EQUIPMENT SHOWN IN PAVING FOR PLAN CLARITY ONLY. LOCATE IN PLANTER AREA. REFER TO PLANTING PLAN.
9. MAINLINE SHOWN SCHEMATICALLY. INSTALL MAINLINE IN PLANTER AREA 6-12" FROM BACK OF WALK OR CURB.

I HAVE COMPLIED WITH THE CRITERIA OF THE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO) AND APPLIED THEM ACCORDINGLY FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE AND IRRIGATION DESIGN PLANS.

SIGNED — DATE 06/03/26

SEE SHEET L1.2 FOR LEGEND, L1.3-L1.5 FOR DETAILS, AND L1.5 FOR CITY OF DIXON NOTES

0' 20' 40' — 1" = 20' — N

LIONAKIS
2025 Nineteenth Street
Sacramento, CA 95818
P 916.558.1900
www.lionakis.com

CONSULTANT
Roach & Campbell
947 Enterprise Drive Loft B
Sacramento,
California 95825
916.827.4020
4409 CRLA 5044

SEAL
LICENSED LANDSCAPE ARCHITECT — WILLIAM D. ROACH — CRLA 4409 — Signature — Renewal Date: 06/30/26 — STATE OF CALIFORNIA

DATE SIGNED: 06/03/26

PROJECT
DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
IRRIGATION PLAN

SHEET
L1.1

IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
Autodesk Docs://Dixon Fire Station 82/22204_ARCHMSTR_R22_CENTRAL.rvt
4/3/2023 10:46:56 AM

ESTIMATED IRRIGATION DEMAND

Estimate of Site Irrigation Demand — **Project:** 22027
Dixon Fire Station 82 — **Date:** 4/12/2023

Reference Data

Location of ETo Data: Fairfield — Ref ETo for July: 7.65 in/month — ETo per week: 1.73 in/week

Hydrozone #1 Area (H_A): 7,302 sqft — 0.2 acres — Description: *Sub surface drip irrigation (low and moderate water use)*

Species factor (k_s):	0.5	Medium	Landscape Coefficient (K_L) = (K_s x k_d x k_{mc}) = 0.50
Density factor (k_d):	1	Average	
Microclimate factor (k_{mc}):	1	Average	Landscape Evapotranspiration (ET_L) = (K_L x ET_O) = 0.86 in/week
Irrigation Efficiency (IE):	0.88	Drip	Total Water Applied (TWA) / week = (ET_L / IE) = 0.98 in/week
Days per week	3		
Hours per day	8		Gallons per week (GPW) = (TWA x H_A x 0.62) = 4443 gal/week
Watering Window (WW):	24	hrs/week	Gallons per minute (GPM) = ((GPW / WW) x (1/60)) = 10 gpm

Hydrozone #2 Area (H_A): 2,012 sqft — 0.05 acres — Description: *Spray heads, stormwater basin (high water use)*

Species factor (k_s):	0.8	High	Landscape Coefficient (K_L) = (K_s x k_d x k_{mc}) = 0.80
Density factor (k_d):	1	Average	
Microclimate factor (k_{mc}):	1	Average	Landscape Evapotranspiration (ET_L) = (K_L x ET_O) = 1.38 in/week
Irrigation Efficiency (IE):	0.65	Sprays	Total Water Applied (TWA) / week = (ET_L / IE) = 2.13 in/week
Days per week	3		
Hours per day	8		Gallons per week (GPW) = (TWA x H_A x 0.62) = 2,652.1 gal/week
Watering Window (WW):	24	hrs/week	Gallons per minute (GPM) = ((GPW / WW) x (1/60)) = 10 gpm

Overall Site Demand

Calculated irrigation demand subtotal: 20 gpm
Adjusted demand per scheduling factor (150%) = (GPM x 1.5) = 30 gpm
Meter Size (per AWWA M-22): 1.0 in

Notes

1. Estimate gpm is the lowest irrigation demand necessary to irrigate the landscape within the specified watering window.
2. Adjusted demand (scheduling factor) accounts for varying flows throughout individual zones. It is not practical to design an irrigaton system in which all zones have a flow equal to the maximum demand.
3. An increase in water demand during plant establishment (125% of normal) is typically addressed by temporarily extending system operation outside of the watering window, except in situations where the watering window is legally mandated (eg. Reclaimed water).
4. Based on "A guide to estimating irrigation water needs of landscape plantings in California" by the UC Cooperative Extension, 2000ed.
5. Refer to WUCOLS and local 'best practice' for information on determining water requirements for landscape plants.
6. Refer to CIMIS data for the historical average reference evapotranspiration rate.

PRESSURE LOSS CALCULATIONS

Preliminary Pressure Loss Calculation — **Project:** 22027
Dixon FireStation 82 — **Date:** 2/18/2026

Valve/GPM: **PRELIMINARY: A2/ 11.0 gpm**

Pressure Loss For:	Comments/Size	Calculations			Total
Service Line	1-1/2" (assume 20 LF)				0.50
Irrigation Water Meter	Generic 1" per AWWA				1.80
Wye Strainer	n/a				0.00
Backflow Prevention Device	Wilkens 974XL 1" @11 gpm				12.00
P.O.C. Plumbing (10% RP loss)					1.20
Master Valve	Irritrol 700- 1.5" @11 gpm				2.23
Flow Sensor	from catalog @ 1.5" Sensor				0.18
Isolation Valves	assumed 2				0.20
Electric Remote Control Valve	Irritrol 700B- .75" (X2) @11 GPM				2.03
Pressure regulating bodies	(req. in CA October 2020)				3.00
		LF	Loss/100'	Sub total	
Main Line Pipe	1-1/2" SCH 40	71	0.10	0.07	
		0	0.00	0.00	
		0	0.00	0.00	
		0	0.00	0.00	
			Total =	0.07	0.07
Lateral Line Pipe					1.12
Addt'l 10% for fittings					0.12
		Elevation (feet)	Multiplier	Loss/ Gain	
Elevation Change		0	0.43	0	0.00
Total Pressure Loss					**24.45**

Static Pressure		**55.00**
10% for static fluctuation		5.50
Total Pressure Loss		24.45
Available Pressure		25.05
Pressure Required at head		20.00
Surplus Pressure/Boost Required	**20%**	**5.05**

Preliminary Note: (1) This scenario does not account for the need to operate mulitple valves at the same time during a reduced watering window. (2) This scenario accounts for a 10% static pressure variation and the use of traditional spray heads set at the minimum operating pressure at the storm detention basin. (3) With these considerations, a booster pump would be not be necessary to achieve the required operating pressure, but could be considered to operate at maximum efficiency.

Preliminary Pressure Loss Calculation — **Project:** 22027
Dixon FireStation 82 — **Date:** 2/18/2026

Valve/GPM: **Highest valve A5/ 15 gpm**

Pressure Loss For:	Comments/Size	Calculations			Total
Service Line	1-1/2" (assume 20 LF)				0.50
Irrigation Water Meter	Generic 1" per AWWA				1.80
Wye Strainer	n/a				0.00
Backflow Prevention Device	Wilkens 974XL 1" @15 gpm				12.00
P.O.C. Plumbing (10% RP loss)					1.20
Master Valve	Irritrol 700- 1.5" @15 gpm				2.23
Flow Sensor	from catalog @ 1.5" Sensor				0.18
Isolation Valves	assumed 2				0.20
Electric Remote Control Valve	Irritrol 700B- .75" (X2) @15 GPM				1.50
Pressure regulating bodies	(req. in CA October 2020)				3.00
		LF	Loss/100'	Sub total	
Main Line Pipe	1-1/2" SCH 40	112	0.10	0.11	
		0	0.00	0.00	
		0	0.00	0.00	
		0	0.00	0.00	
			Total =	0.11	0.11
Lateral Line Pipe					0.70
Addt'l 10% for fittings					0.08
		Elevation (feet)	Multiplier	Loss/ Gain	
Elevation Change		0	0.43	0	0.00
Total Pressure Loss					**23.50**

Static Pressure		**55.00**
10% for static fluctuation		5.50
Total Pressure Loss		23.50
Available Pressure		26.00
Pressure Required at head		25.00
Surplus Pressure/Boost Required	**4%**	**1.00**

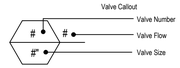
Preliminary Note: (1) This scenario does not account for the need to operate mulitple valves at the same time during a reduced watering window. (2) This scenario accounts for a 10% static pressure variation and the use of traditional spray heads set at the minimum operating pressure at the storm detention basin. (3) With these considerations, a booster pump would be not be necessary to achieve the required operating pressure, but could be considered to operate at maximum efficiency.

IRRIGATION LEGEND

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
1402 1408 1401 1404	ROOT ZONE WATERER RAIN BIRD RWS-B-C. ROOT WATERING SYSTEM WITH 4.0" DIAMETER X 36.0" LONG WITH LOCKING GRATE, SEMI-RIGID MESH TUBE. CHECK VALVE AND LOCKING GRATE. RAIN BIRD BUBBLER OPTION AS INDICATED: 1401 0.25 GPM, 1402 0.5 GPM, 1404 1.0 GPM, 1408 2.0 GPM.	26	25

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	DRIP CONTROL VALVE IRRITROL 700DK-1-LF. ELECTRIC DRIP ZONE VALVE KIT: 1IN. 700 ULTRAFLOW INLINE VALVE, FILTER, LOW FLOW REGULATOR & FITTINGS	6
DI	DRIP INDICATOR RAIN BIRD OPERIND. DRIP SYSTEM OPERATION INDICATOR, STEM RISES 6IN. FOR CLEAR VISIBILITY WHEN DRIP SYSTEM IS CHARGED TO A MINIMUM OF 20PSI. INCLUDES 16IN. OF 1/4IN. DISTRIBUTION TUBING WITH CONNECTION FITTING PRE-INSTALLED. INSTALL AT EACH DRIP AREA. (NOT SHOWN ON PLAN)	1
	AREA TO RECEIVE DRIPLINE RAIN BIRD XFS-CV-06-18 XFS-CV SUB-SURFACE AND ON-SURFACE LANDSCAPE DRIPLINE WITH A HEAVY-DUTY 4.3 PSI CHECK VALVE. 0.6 GPH EMITTERS AT 18" O.C. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. SPECIFY XF INSERT FITTINGS.	4,131 LF

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	REMOTE CONTROL VALVE IRRITROL 700 WITH OMR-30. ELECTRIC REMOTE CONTROL VALVE, WITH OMNI-REG 5-30 PSI REGULATOR	1
	HUNTER HQ-44LRC QUICK COUPLER VALVE, YELLOW RUBBER LOCKING COVER, RED BRASS AND STAINLESS STEEL, WITH 1" NPT INLET, 2-PIECE BODY.	1
	SHUT OFF VALVE NIBCO T-113 CLASS 125 BRONZE GATE SHUT OFF VALVE WITH WHEEL HANDLE, SAME SIZE AS MAINLINE PIPE DIAMETER AT VALVE LOCATION. SIZE RANGE - 1/4" - 3". VALVE SHALL BE LOCATED IN RAINBIRD VB-JBM BOX OR APPROVED EQUAL WITH LOCKING LID HEAT STAMPED "IRRIGATION GATE VALVE"	2
MV	MASTER VALVE 1" IRRITROL 700-1- 1IN. ULTRAFLOW ELECTRIC VALVE, INTERNAL BLEED FLOW CONTROL. 0.1-50 GPM FLOW RANGE. 4-1/2IN. H X 3" W X 4-35" D. LOCATE IN RAINBIRD VB-JBM OR APPROVED EQUAL.	1
BF	REDUCED PRESSURE BACKFLOW DEVICE 1" PER CITY/WATER PURVEYOR STANDARD DETAILS (ZURN 975XL OR EQUAL, ON STATE APPROVED LIST). INSTALL CONRETE PAD, BACKFLOW ENCLOSURE, AND INSULATING BLANKET PER DETAILS.	1
A	CONTROLLER RAIN BIRD ESP4ME3 WITH (1) ESP-SM3 (1) ESP-SM6. 13 STATION, HYBRID MODULAR OUTDOOR CONTROLLER. FOR RESIDENTIAL OR LIGHT COMMERCIAL USE. LNK WIFI MODULE AND FLOW SENSOR READY. VERIFY CONTROLLER LOCATION AND COORDINATE POWER.	1
WS	WIRELESS RAIN/FREEZE RAIN BIRD WR2-48. WIRELESS RAIN SENSOR COMBO, INCLUDES 1 RECEIVER AND 1 RAIN SENSOR TRANSMITTER WITH 48 HOUR DELAY.	1
FS	FLOW SENSOR CREATIVE SENSOR TECHNOLOGY FSI-T10-001. 1IN. PVC TEE TYPE FLOW SENSOR W/SOCKET ENDS, CUSTOM MOUNTING TEE AND ULTRA-LIGHTWEIGHT IMPELLER ENHANCES LOW FLOW MEASUREMENT. 2 WIRE DIGITAL OUTPUT COMPATIBLE W/ALL IRRIGATION CONTROLLERS. FLOW RANGE: .86 GPM - 52 GPM.	1
EN	INSULATED BACKFLOW ENCLOSURE V.I.T. PRODUCTS CB-30R LOW PROFILE, EXPANDED WIRE MESH CONSTRUCTION 30"L, 24"H, 12"W AND PBB-30 INSULATED BLANKET 28"L, 24"H, 6"W. VERIFY FIT PRIOR TO ORDER.	1
M	WATER METER 1" 1" WATER METER AND 1-1/2" SERVICE LINE, REFER TO CIVIL DRAWINGS.	1
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40 PVC 1120 SCH. 40, MIN. DIAMETER 3/4".	1,254 LF
	IRRIGATION MAINLINE: PVC SCHEDULE 40 PVC 1120 SCH. 40. 1-1/2" MAINLINE U.N.O.	395.6 LF
	PIPE SLEEVE: PVC 1120 SCHEDULE 40 DIAMETER: 2X PIPE OR ITEM BEING SLEEVED. EXTEND 12" MINIMUM BEYOND EDGES OF HARDSCAPE ABOVE. SEPARATE SLEEVES FOR EACH LINE OR ITEM TO BE SLEEVED.	201.6 LF



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916.827.4020
4409 CRLA 5044

SEAL
LICENSED LANDSCAPE ARCHITECT — WILLIAM D. ROACH — CRLA 4409 — Signature Renewal Date: 06/30/26 — STATE OF CALIFORNIA

DATE SIGNED: 06/03/26

PROJECT
DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

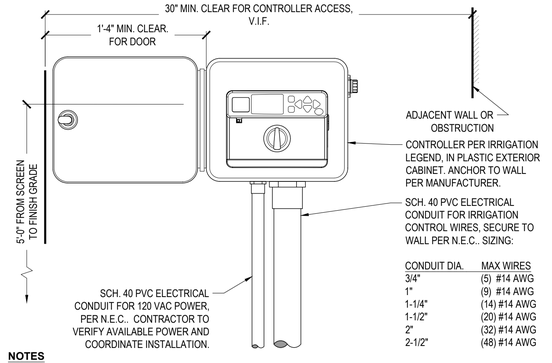
LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
IRRIGATION LEGEND AND SUPPLEMENTAL

SHEET
L1.2

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CONDUIT DIA.	MAX WIRES
3/4"	(5) #14 AWG
1"	(9) #14 AWG
1-1/4"	(14) #14 AWG
1-1/2"	(20) #14 AWG
2"	(32) #14 AWG
2-1/2"	(48) #14 AWG

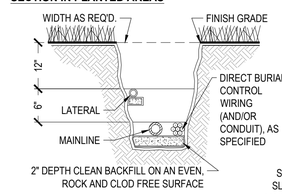
NOTES

A. VERIFY CONTROLLER LOCATION (INTERIOR OR EXTERIOR) PRIOR TO CONSTRUCTION. CONTRACTOR SHALL COORDINATE POWER AND ROUTING OF IRRIGATION CONTROL WIRES WITH SUPERINTENDENT AND LOCAL INSPECTOR.
B. ALL WIRING PER N.E.C. AND APPLICABLE LOCAL REQUIREMENTS.
C. PAINT ALL CONDUIT AND CABINET WALL COLOR OR AS DIRECTED BY OWNER.
D. TYPE OR NEATLY HAND-WRITE CONTROLLER STATION ASSIGNMENTS AND SCHEDULE ON MANUFACTURER-PROVIDED INFORMATION CARD OR ON SEPARATE SHEET ATTACHED TO CONTROLLER MANUAL. LEAVE ALL PRODUCT LITERATURE WITH CONTROLLER.

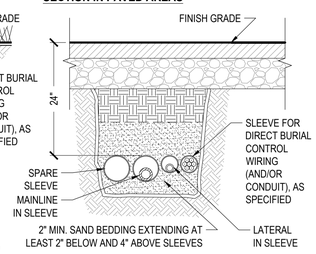
1 IRRIGATION CONTROLLER: EXTERIOR WALL MOUNT

NO SCALE — ELEVATION

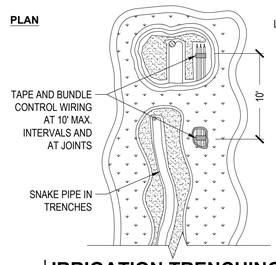
SECTION IN PLANTED AREAS



SECTION IN PAVED AREAS



PLAN

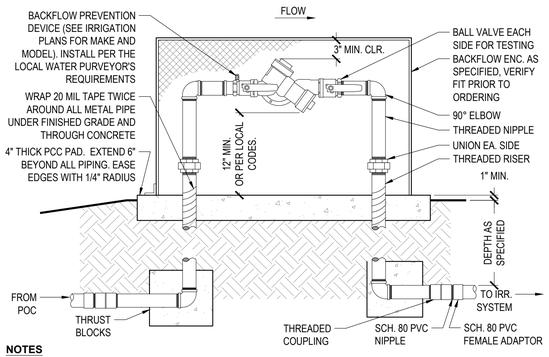


NOTES

1. INSTALL 24-VOLT CONTROL WIRING ADJACENT TO PRESSURE MAINLINE, MAX. 3-INCHES ABOVE AND TO THE SIDE OF MAINLINE.
2. PROVIDE EXPANSION LOOP IN WIRE BUNDLES AT ALL CHANGES IN DIRECTION (45°, 90°, CORNERS, ETC.)
3. PVC PIPE SHALL NOT BE BENT INSIDE TRENCH TO A POINT WHERE THERE IS STRESS ON GLUED FITTINGS.
4. NO STACKING OF PIPES ALLOWED, OR MORE THAN THREE PIPES IN CONJOINED TRENCHES.
5. COMPACT TRENCHES TO 85% IN PLANTED AREAS, 95% IN PAVED AREAS. SETTLEMENT SHALL BE EVIDENCE OF INSUFFICIENT COMPACTION AND SHALL BE REPAIRED AT NO ADDITIONAL COST TO OWNER.
6. EXTEND SLEEVING MIN. 12" BEYOND PAVING
7. ONE LINE/PIPE PER SLEEVE, SEP. SLEEVE FOR WIRING
8. INSTALL (1) EXTRA SLEEVE AT EACH SLEEVED LOCATION, SAME DIAMETER AS LARGEST SLEEVE.

2 IRRIGATION TRENCHING

NO SCALE — AS NOTED

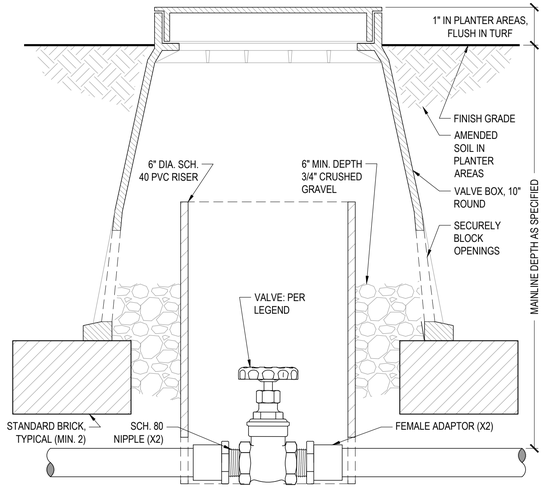


NOTES

A. ALL ASSEMBLY PARTS (THREADED NIPPLES, FITTINGS, ETC.) SHALL BE BRASS OR OTHER METAL AS REQUIRED PER LOCAL CODES AND REQUIREMENTS, AND SHALL NOT BE PVC EXCEPT WHERE NOTED TO TRANSITION TO MAINLINE.
B. GALVANIZED NIPPLE SHALL EXTEND 12" PAST THE EDGE OF THE CONCRETE FOOTING.
C. SCH. 80 PVC MALE ADAPTER SHALL BE USED IN CONNECTION FROM METAL FITTINGS TO THE MAINLINE FOR BACKFLOWS 2" AND SMALLER. LARGER SIZES SHALL BE FLANGED OR RESTRAINED.
D. BACKFLOW PREVENTION DEVICE SHALL BE LOCATED AS CLOSE AS POSSIBLE TO THE LANDSCAPE METER.
E. BACKFLOW PREVENTION DEVICE SHALL BE LOCATED IN PLANTING AREA AS APPROVED BY OWNER'S REPRESENTATIVE.
F. ALL BACKFLOW PREVENTION DEVICES SHALL HAVE A FREEZE PROTECTION.
G. ALL METAL THREADED CONNECTIONS SHALL BE MADE USING PIPE THREAD SEALANT. ALL SCH. 80 PVC TO METAL CONNECTIONS TO BE MADE USING TEFLON TAPE.

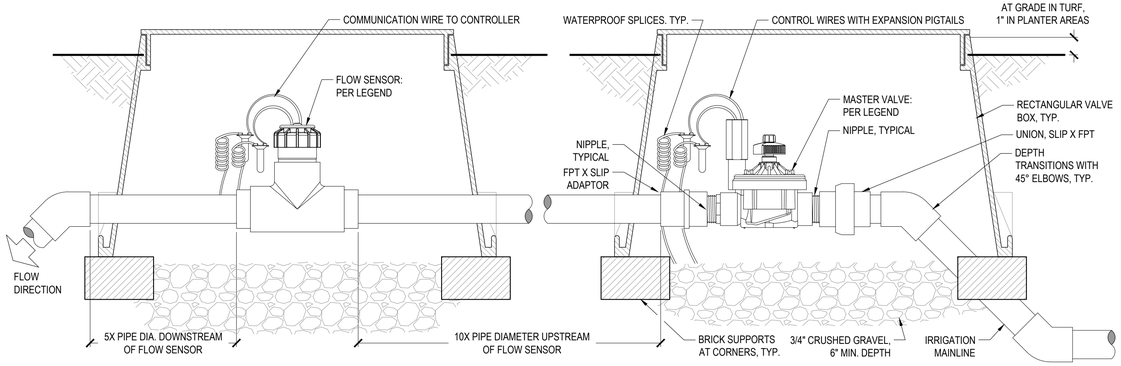
3 BACKFLOW PREVENTER

NO SCALE — SECTION



4 SHUTOFF VALVE: THREADED END (3" AND SMALLER)

NO SCALE

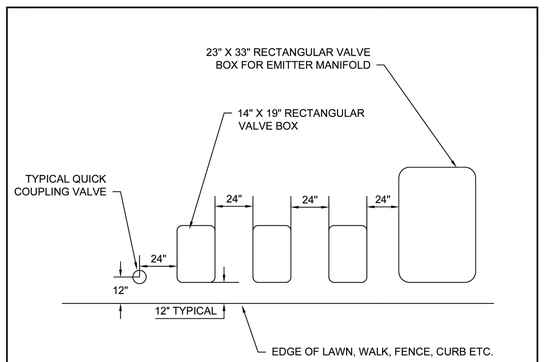


NOTES

A. LOCATE VALVES IN PLANTING AREAS, ADJACENT WALLS OR VERTICAL WORK. ALIGN ALL VALVES, LEAVING ROOM FOR SERVICE INCLUDING FILTER REMOVAL.
B. ALL THREADED CONNECTIONS SHALL RECEIVE 3 WRAPS TEFLON TAPE. ALL THREADED RISERS AND NIPPLES SHALL BE SCHEDULE 80.
C. MINIMUM MAINLINE AND RISER SIZE SHALL BE 1" DIA.

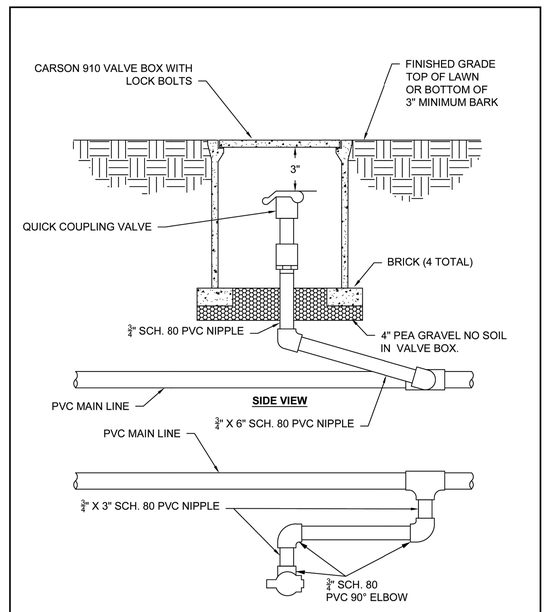
5 FLOW SENSOR AND MASTER VALVE

NO SCALE



NOTES:
1. CENTER VALVE BOX OVER REMOTE CONTROL VALVE TO FACILITATE SERVICING VALVE.
2. SET PCV AND VALVE BOX ASSEMBLY IN GROUND COVER / SHRUB AREA WHERE POSSIBLE. INSTALL IN LAWN ONLY IF GROUND COVER DOES NOT EXIST ADJACENT TO LAWN.
3. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE.
4. AVOID HEAVILY COMPACTED SOIL AROUND VALVE BOXES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES.
5. STAMP LIDS AND TAG VALVES.

8070	IRRIGATION BOX ARRANGEMENT	APPROVED: MARCH 2022	CITY OF DIXON ENGINEERING STANDARD DETAIL



NOTES:
1. ALL MAINLINES SHALL HAVE LOCATING WIRE.

8050	QUICK COUPLER	APPROVED: MARCH 2022	CITY OF DIXON ENGINEERING STANDARD DETAIL

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SEAL



DATE SIGNED: 06/03/26

PROJECT
DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

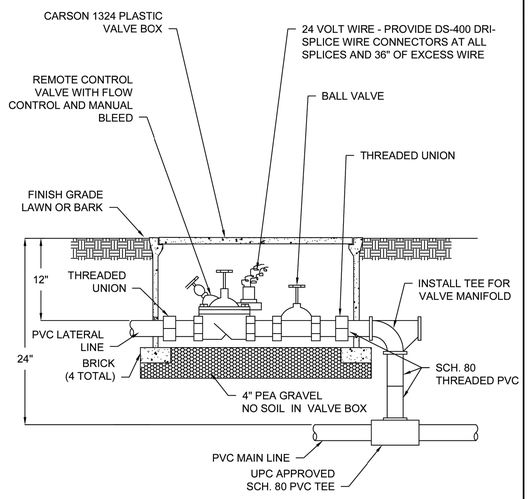
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CLIENT PROJECT NO:

AGENCY

TITLE
IRRIGATION DETAILS

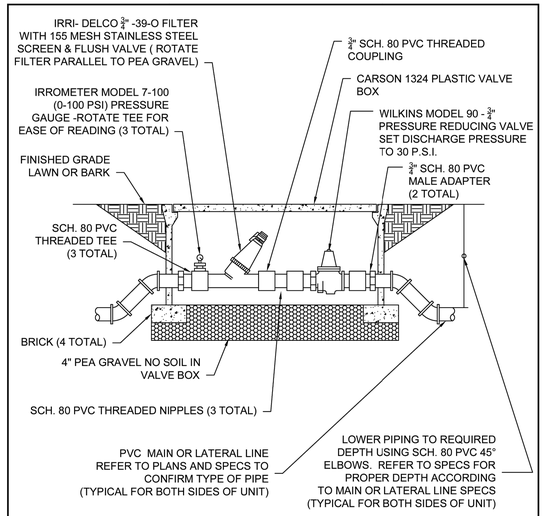
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L1.3

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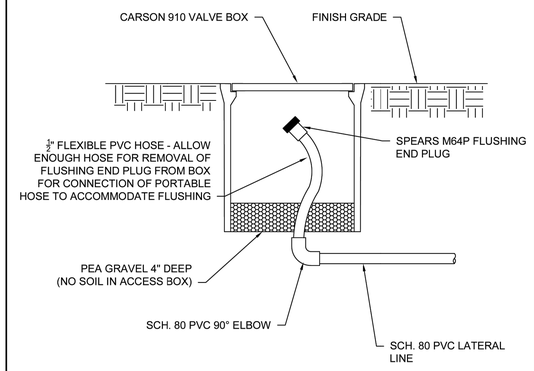
NOTES:
1. WHEN PLASTIC VALVES ARE USED, THE CARSON VALVE BOX SHALL HAVE AN EMS DEVICE IN THE COVER TO FACILITATE DETECTION BY A METAL DETECTOR.
2. ONLY ONE (1) REMOTE CONTROL VALVE PER BOX - NO EXCEPTIONS.
3. PROVIDE DS-400 DRI-SPLICE WIRE CONNECTORS AT ALL SPLICES.
4. ALL WIRES SHALL BE LABELED OR TAGGED.
5. ALL MAINLINES SHALL HAVE LOCATING WIRE.

8030	REMOTE CONTROL AND BALL VALVE COMBINATION	APPROVED: MARCH 2022	CITY OF DIXON ENGINEERING STANDARD DETAIL



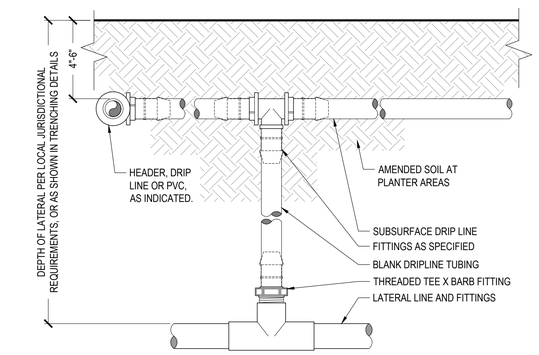
NOTES:
1. PRESSURE GAUGES ON EITHER SIDE OF FILTER ARE TO INDICATE WHEN FILTER IS CLOGGED AND NEEDS CLEANING.
2. ONE MANIFOLD UNIT MAY BE USED UPSTREAM OF A GROUP OF DRIP VALVES, IF EQUIPMENT IS PRESSURE RATED.
3. PLACE MANIFOLD UNIT DOWNSTREAM OF SINGLE DRIP VALVE.
4. EMITTER MANIFOLD UNITS TO BE INSTALLED IN VALVE BOX AT GRADE FOR EASE OF FILTER CLEANING.

CITY OF DIXON ENGINEERING STANDARD DETAIL	APPROVED: MARCH 2022	IRRIGATION DRIP FILTERING SYSTEM	8040



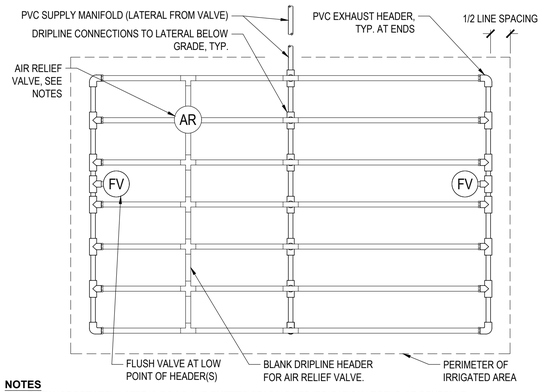
NOTES:
1. THIS FLUSHING END PLUG IS TYPICAL OF ALL LATERAL ENDS IN DRIP SYSTEM.

8090	DRIP IRRIGATION FLUSH PLUG	APPROVED: MARCH 2022	CITY OF DIXON ENGINEERING STANDARD DETAIL



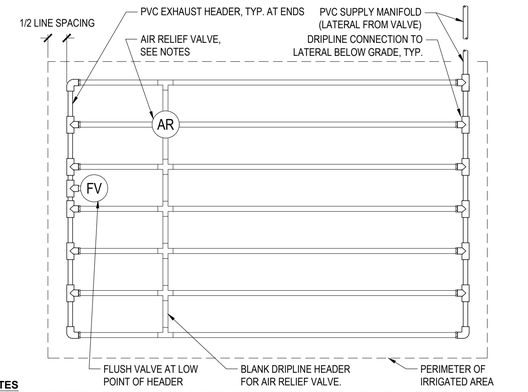
NOTES
A. INSTALL PER MANUFACTURER'S DIRECTIONS AND RECOMMENDATIONS.

1 SUBSURFACE DRIP: LATERAL CONNECTION
NO SCALE



NOTES
A. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING PER IRRIGATION LEGEND OR SCHEDULE.
B. LENGTH OF LONGEST DRIPLINE LATERAL SHALL NOT EXCEED THE MANUFACTURER'S RECOMMENDED MAXIMUM.
C. FLUSH VALVE TO BE INSTALLED AT EACH LOCALIZED LOW POINT. VERIFY LOCATIONS IN FIELD AND INSTALL ADDITIONAL VALVES AS REQUIRED.
D. DO NOT ALLOW THE INLET PRESSURE TO EXCEED 50 PSI. INSTALL PRESSURE REDUCERS AT THE CONTROL VALVE IF REQUIRED.
E. AIR RELIEF VALVE(S) TO BE INSTALLED AT EACH LOCALIZED HIGH POINT(S). VERIFY LOCATIONS IN FIELD AND INSTALL ADDITIONAL VALVES AS REQUIRED. NOT REQ. FOR LINES W/ INTEGRAL CHECK VALVES UNLESS SHOWN ON PLAN.

2 SUBSURFACE DRIPLINE: CENTER FEED
NO SCALE



NOTES
A. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING PER IRRIGATION LEGEND OR SCHEDULE.
B. LENGTH OF LONGEST DRIPLINE SHALL NOT EXCEED THE MANUFACTURER'S MAXIMUM RECOMMENDED LENGTH.
C. FLUSH VALVE TO BE INSTALLED AT EACH LOCALIZED LOW POINT(S). VERIFY LOCATIONS IN FIELD AND INSTALL ADDITIONAL VALVES AS REQUIRED.
D. DO NOT ALLOW THE INLET PRESSURE TO EXCEED 50 PSI. INSTALL PRESSURE REDUCERS AT THE CONTROL VALVE IF REQUIRED.
E. AIR RELIEF VALVE(S) TO BE INSTALLED AT EACH LOCALIZED HIGH POINT(S). VERIFY LOCATIONS IN FIELD AND INSTALL ADDITIONAL VALVES AS REQUIRED. NOT REQ. FOR LINES W/ INTEGRAL CHECK VALVES UNLESS SHOWN ON PLAN.

3 SUBSURFACE DRIPLINE: END FEED
NO SCALE

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4409 CRLA 5044

SEAL
LICENSED LANDSCAPE ARCHITECT
WILLIAM D. ROACH
CRLA 4409
Signature
Renewal Date: 06/30/26
STATE OF CALIFORNIA

DATE SIGNED: 06/03/26

PROJECT
DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

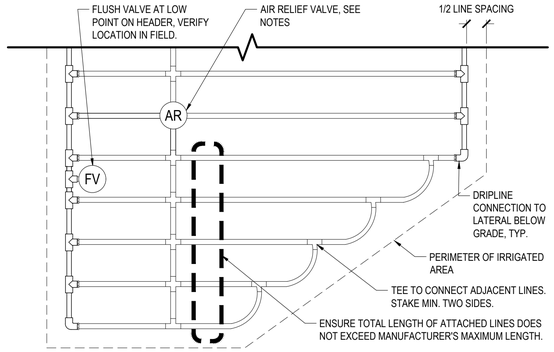
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CLIENT PROJECT NO:

AGENCY

TITLE
IRRIGATION DETAILS

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L1.4

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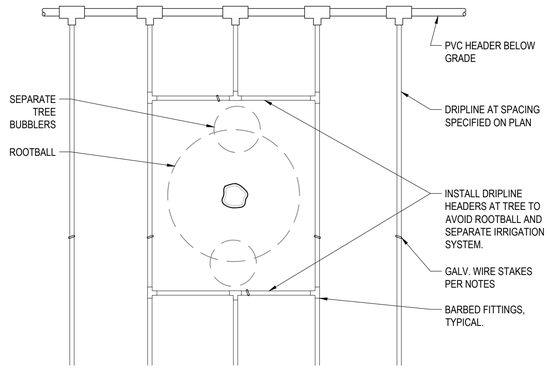


NOTES

A. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING PER IRRIGATION LEGEND OR SCHEDULE.
B. LENGTH OF LONGEST DRIPLINE SHALL NOT EXCEED THE MANUFACTURER'S MAXIMUM RECOMMENDED LENGTH.
C. FLUSH VALVE TO BE INSTALLED AT EACH LOCALIZED LOW POINT. VERIFY LOCATIONS IN FIELD AND INSTALL ADDITIONAL VALVES AS REQUIRED.
D. DO NOT ALLOW THE INLET PRESSURE TO EXCEED 50 PSI. INSTALL PRESSURE REDUCERS AT THE CONTROL VALVE IF REQUIRED.
E. AIR RELIEF VALVE(S) TO BE INSTALLED AT EACH LOCALIZED HIGH POINT(S). VERIFY LOCATIONS IN FIELD AND INSTALL ADDITIONAL VALVES AS REQUIRED. NOT REQ. FOR LINES W/ INTEGRAL CHECK VALVES UNLESS SHOWN ON PLAN.

1 SUBSURFACE DRIPLINE: IRREGULAR ENDS

NO SCALE

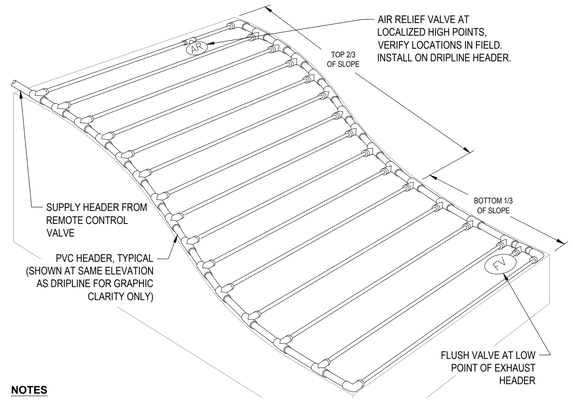


NOTES

A. DISTANCE BETWEEN LATERAL ROWS AND RINGS AT TREE SHALL BE EQUAL, AND PER IRRIGATION LEGEND.
B. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH RECOMMENDED BY THE MANUFACTURER.
C. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
D. INSTALL SEPARATE TREE BUBBLER SYSTEM AS INDICATED ON PLAN. USE DRIPLINE FITTINGS TO ROUTE DRIPLINE AROUND TREE AS NECESSARY.

2 SUBSURFACE DRIPLINE: TREES W/ BUBBLERS

NO SCALE



NOTES

A. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING PER IRRIGATION LEGEND OR SCHEDULE. DISTANCE BETWEEN LATERAL ROWS FOR BOTTOM 1/3 OF SLOPE TO BE SPACED 1.5X GREATER THAN REGULAR SPACING.
B. LENGTH OF LONGEST DRIPLINE SHALL NOT EXCEED THE MANUFACTURER'S MAXIMUM RECOMMENDED LENGTH. AIR RELIEF VALVE TO BE INSTALLED AT EACH LOCALIZED HIGH POINT. VERIFY LOCATIONS IN FIELD AND INSTALL ADDITIONAL AIR RELIEF VALVES AS REQUIRED TO AVOID TRAPPED AIR POCKETS.
C. DO NOT ALLOW THE INLET PRESSURE TO EXCEED 50 PSI. INSTALL PRESSURE REDUCER(S) AT THE REMOTE CONTROL VALVE IF REQUIRED.

3 SUBSURFACE DRIPLINE: SLOPED LAYOUT

NO SCALE

CITY OF DIXON GENERAL NOTES (DS13-.04)

1. UNLESS OTHERWISE SHOWN ON THESE PLANS OR NOTED IN THE SPECIAL PROVISIONS, ALL WORK, MATERIALS AND CONSTRUCTION OF PUBLIC IMPROVEMENTS SHALL CONFORM TO THE CITY OF DIXON CONSTRUCTION SPECIFICATIONS, DESIGN STANDARDS AND/OR LATEST EDITION OF CALTRANS STANDARD PLANS AND SPECIFICATIONS.
2. APPROVAL OF THE CITY ENGINEER, OR HIS AUTHORIZED REPRESENTATIVE, IS REQUIRED ON COMPLETED WORK PRIOR TO (A) PLACING OF CONCRETE; (B) PLACING OF AGGREGATE BASE; (C) PLACING OF ASPHALT CONCRETE; (D) BACKFILLING TRENCHES. WORK DONE WITHOUT SUCH APPROVAL SHALL BE AT THE CONTRACTOR'S RISK AND SUBJECT TO REJECTION BY THE CITY. SUCH APPROVAL SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY OF PERFORMING THE WORK IN AN ACCEPTABLE MANNER.
3. THE CONTRACTOR SHALL COORDINATE CITY INSPECTIONS AND SUBMIT REQUIRED SAMPLES PRIOR TO COMMENCING WORK FOR APPROVAL.

   REQUIRED INSPECTIONS SHALL INCLUDE BUT ARE NOT NECESSARILY LIMITED TO:

   a. PRE-CONSTRUCTION MEETING- GRADING, SITE CONDITIONS ETC.
   b. SOIL PREPARATION INCLUDING APPLICATION OF WEED KILLER, REQUIRED AMENDMENTS AND PRE-EMERGENT HERBICIDE
   c. IRRIGATION TRENCHING LAYOUT
   d. OPEN TRENCH HYDROSTATIC PRESSURE TEST FOR MAIN LINE & LATERAL LINES BEFORE BACKFILLING TRENCHES (CONTRACTOR SHALL CENTER LOAD PIPING PROVIDING ALL PIPE JOINTS AND CONNECTIONS ARE EXPOSED FOR THE TEST):
      i) IRRIGATION MAINLINE- THE SECTION(S) OF THE MAINLINE SHALL BE FLUSHED OF AIR, CAPPED AT ENDS AND TESTED UNDER FULL STATIC LINE PRESSURE FOR A MINIMUM OF 4 HOURS. ANY LEAKS NOTED SHALL BE REPAIRED, DEFECTIVE MATERIALS REPLACED AND RE-TESTED. (AT THE CONTRACTOR'S OPTION A ONE HOUR PRESSURE TEST AT 100 PSI MAY BE SUBSTITUTED FOR THE ABOVE TEST, HOWEVER THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE PUMP AND MISC. EQUIPMENT AS MAY BE NECESSARY).
      ii) IRRIGATION LATERALS- ALL LATERAL LINES SHALL BE TESTED AS SPECIFIED ABOVE EXCEPT THAT THE TEST PERIOD SHALL BE A MINIMUM ONE (1) HOUR. LATERAL PIPES SHALL BE PLUGGED OR CAPPED AT SPRINKLERS, BUBBLER OR DRIP CONNECTIONS AND OTHER LOCATIONS NECESSARY TO PERFORM THE TEST.
   e. IRRIGATION OPERATION AND COVERAGE
   f. PLANT MATERIAL
   g. PLANTING LAYOUT
   h. PRE-NINETY DAY MAINTENANCE PERIOD FINAL INSPECTION
   i. POST-NINETY DAY MAINTENANCE PERIOD FINAL INSPECTION.

   THE FOLLOWING SAMPLES SHALL BE SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION:

   a. SHREDDED BARK MULCH
   b. MASONRY BLOCK
   c. SOIL AMENDMENTS, HERBICIDES & WEED KILLER
   d. OTHER SPECIALTY ITEM AS DETERMINED BY THE CITY ENGINEER
4. CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIM/HERSELF FAMILIAR WITH CONSTRUCTION SITE INCLUDING ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES AND SHALL TAKE SOLE RESPONSIBILITY FOR ALL COST DUE TO DAMAGES CAUSED BY HIS CONSTRUCTION OPERATIONS AND SUBSEQUENT REPLACEMENT OF SAID UTILITIES AND STRUCTURES.
5. CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS, AREA DISCREPANCIES AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CITY REPRESENTATIVE. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH SUBCONTRACTORS OR UTILITY AGENCY AS REQUIRED TO COMPLETE ALL CONSTRUCTION ITEMS OF WORK. ALL PIPING, CONDUIT, SLEEVES, ETC., SHALL BE SET IN PRIOR TO INSTALLATION OF OTHER CONSTRUCTION ITEMS SUCH AS CONCRETE OR ASPHALT CONCRETE PAVEMENT.
7. ALL DIMENSIONS ARE FROM FACE OF PAVING, WALLS, ETC. UNLESS OTHERWISE NOTED.
8. ALL PROPERTY LINES AND LOT LINES SHALL BE VERIFIED PRIOR TO COMMENCING WORK.
9. CONTRACTOR IS RESPONSIBLE TO REFER TO COORDINATE GRADING WITH ALL IMPROVEMENT PLANS WHEN SUCH PLANS PERTAIN TO ANY ASPECT OF HIS WORK ITEMS (E.G., GRADING, DRAINAGE STRUCTURES, WALLS, FOOTINGS, AND OTHER STRUCTURES).
10. SEE CIVIL ENGINEER'S IMPROVEMENT PLANS, IF APPLICABLE, FOR LAYOUT AND CONSTRUCTION OF STREETS, DRAINAGE STRUCTURES, PARKING LOTS, CURBS AND SIDEWALKS AND OTHER CIVIL IMPROVEMENTS.
11. ALL GRADIENTS BETWEEN SPOT ELEVATIONS ARE ASSUMED TO BE STRAIGHT GRADIENTS.
12. VERIFY ALL STATION POINT LOCATIONS IN FIELD, AND REPORT ANY DISCREPANCIES BETWEEN STATION NUMBER SHOWN AND ACTUAL LOCATION OF ITEM TO CITY REPRESENTATIVE BEFORE PROCEEDING WITH WORK.
13. ALL EXISTING IMPROVEMENTS, MATERIALS AND PLANT MATERIAL TO REMAIN WITHIN THE NEW CONSTRUCTION AREA SHALL BE PROPERLY AND ADEQUATELY PROTECTED FROM DAMAGE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RESTORE TO ORIGINAL CONDITION ANY EXISTING ITEM THAT IS DAMAGED OR DISTURBED IN ANY WAY.
14. ALL MATERIALS TO BE USED OR SALVAGED SHALL BE STORED IN AN AREA DESIGNATED BY THE CITY OR DEVELOPER/OWNER FOR THAT PURPOSE. ALL SALVAGED MATERIALS SHALL REMAIN THE PROPERTY OF THE CITY OR DEVELOPER/OWNER.
15. ALL STREETS, SIDEWALKS AND ADJACENT PROPERTIES SHALL BE PROTECTED THROUGHOUT CONSTRUCTION OPERATIONS.
16. LANDSCAPE MAINTENANCE PERIOD SHALL COMMENCE AFTER ACCEPTANCE OF IMPROVEMENTS BY THE DIXON CITY COUNCIL AND SHALL CONTINUE FOR 90 CALENDAR DAYS. MAINTENANCE ITEMS SHALL INCLUDE WATERING, WEEDING, FERTILIZING, MOWING, SPRAYING, AND PRUNING NECESSARY TO KEEP THE PLANTS IN A HEALTHY GROWING CONDITION. AT THE END OF THE MAINTENANCE PERIOD, ALL PLANT MATERIALS SHALL BE IN HEALTHY GROWING CONDITION AND LANDSCAPE AREAS WEED FREE AND CLEANED OF ALL DEBRIS. AT THE DIRECTION OF THE CITY ENGINEER DURING THE MAINTENANCE PERIOD, ANY PLANT EXHIBITING WEAKNESS, VANDALIZED OR DISPLAYING THE PROBABILITY OF DYING, SHALL BE REPLACED IMMEDIATELY BY THE CONTRACTOR AT HIS OWN EXPENSE.
17. SHOULD ANY PLANT MATERIALS BE DISEASED OR OTHER INSTALLED MATERIAL PROVE DEFECTIVE OR SHOULD THE INSTALLATION AS A WHOLE PROVE DEFECTIVE, DUE TO FAULTY WORKMANSHIP, MATERIALS FURNISHED OR METHODS OF INSTALLATION, OR SHOULD THE SAID IMPROVEMENT OR ANY PART THEREOF FAIL TO LIVE OR FUNCTION PROPERLY, AS PLANNED, DUE TO ANY OF THE ABOVE CAUSES, ALL WITHIN ONE YEAR AFTER ACCEPTANCE OF LANDSCAPE IMPROVEMENTS BY THE DIXON CITY COUNCIL, THE CONTRACTOR AGREES THAT REPAIRS SHALL BE MADE WITHIN FIFTEEN (15) CALENDAR DAYS AFTER RECEIPT OF WRITTEN NOTICE FROM THE CITY.
18. THE CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PROTECT THE PUBLIC FROM ALL HAZARDS CREATED BY HIS OPERATIONS. ALL EXCAVATIONS & TRENCHES OVER 12" IN DEPTH ADJACENT TO PUBLIC WALKWAYS, WITHIN PARKS ETC. SHALL BE BARRICADED FROM THE PUBLIC OR AS DIRECTED BY THE CITY ENGINEER.
19. THE CONTRACTOR OR ANY SUBCONTRACTOR SHALL NOTIFY MEMBERS OF USA 2 WORKING DAYS IN ADVANCE OF PERFORMING EXCAVATION WORK BY CALLING THE TOLL-FREE NUMBER 1-800-227-2600. EXCAVATION IS DEFINED AS BEING 18" OR MORE IN DEPTH BELOW THE EXISTING GRADE SURFACE.

CITY OF DIXON GRADING NOTES (DS13-.04)

1. ALL PROPOSED GRADES SHALL BE CONSTRUCTED TO PROPERLY DRAIN IN ACCORDANCE WITH APPROVED GRADING PLANS. GRADES ARE TO MEET OR BLEND IN WITH EXISTING GRADING AT PROJECT LIMITS AND EXISTING WALKWAYS AND SIDEWALKS. PRECISE ELEVATIONS INDICATED ON PLANS TO BE VERIFIED IN FIELD TO AS-BUILT CONDITION.
2. THE LOCATION OF FEATURES TO BE CONSTRUCTED NOT SPECIFICALLY DIMENSIONED MAY BE DETERMINED BY SCALE. IF CONFLICTS ARISE IN FIELD, CONTACT CITY REPRESENTATIVE FOR RESOLUTION.
3. IF IN THE FIELD, SCALED DIMENSIONS CONFLICT WITH STATED GRADES, AND/OR ELEVATIONS, THE STATED DESIGN ELEVATIONS SHALL TAKE PRECEDENCE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR "ROUNDING OFF" ALL SHARP RIDGES EXISTING ON SITE WHETHER OR NOT SUCH CONDITIONS ARE INDICATED ON PLANS.
5. GRADE TOLERANCES SHALL CONFORM TO THE FOLLOWING APPROVED SCHEDULE UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIAL PROVISIONS:

   5.a. ROUGH GRADING - +/- 0.2 FT
   5.b. FINISH GRADING - +/- 0.1 FT
   5.c. ALL PAVING - +/- 0.1 FT
   5.d. ALL 85 & SD PIPE - +/- 0.1 FT
   5.e. ALL STRUCTURES -0.1 FT

CITY OF DIXON LANDSCAPING NOTES (DS13-.04)

1. CONTRACTOR SHALL FIELD VERIFY AND ACCEPT EXISTING SITE GRADING PRIOR TO COMMENCEMENT OF WORK. SAID WORK SHALL CONSIST OF INSTALLATION OF IRRIGATION SYSTEMS, SOIL PREPARATION, PLANTING, FERTILIZING AND MAINTAINING LANDSCAPE PLANTINGS THROUGHOUT CONSTRUCTION ACTIVITIES AND 90 DAY MAINTENANCE PERIOD. ALL PLANTER BEDS SHALL RECEIVE A 3 INCH THICK LAYER OF SHREDDED BARK MULCH.
2. NO PLANTING SHALL OCCUR DURING WEATHER CONDITIONS WHICH WILL ADVERSELY AFFECT MATERIALS OR WHEN SOIL IS IN A MUDDY CONDITION AS DETERMINED BY THE LANDSCAPE ARCHITECT. CONTRACTOR SHALL NOT PLANT AT THE END OF THE DAY, ON FRIDAYS OR BEFORE HOLIDAYS UNLESS A SPECIAL CREW HAS BEEN ASSIGNED TO CARE FOR PLANTS ON THE NEXT CALENDAR DAY, AND ON WEEKENDS AND HOLIDAYS.
3. SOIL PREPARATION
   3.a. IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT'S RECOMMENDATIONS, ALL IMPORTED SOILS SHALL BE TESTED BY A CITY APPROVED SOILS LABORATORY.
   3.b. THE CONTRACTOR SHALL PREPARE ALL LANDSCAPE AREAS BY REMOVING ALL WEEDS, DEBRIS, RUBBISH AND 1" DIAMETER OR LARGER STONES.
   3.c. PLANTING AREAS SHALL BE COMPLETELY TILL CULTIVATED WITH SOIL AMENDMENTS RECOMMENDED BY THE LANDSCAPE ARCHITECT, TO A MINIMUM DEPTH OF 12 INCHES. SEE PLANTING DETAILS FOR ADDITIONAL INFORMATION.
   3.d. SUBSEQUENT TO INSTALLATION OF IRRIGATION SYSTEM(S) AND PRIOR TO INSTALLATION OF PLANT MATERIALS, THE CONTRACTOR SHALL:
      I) RESTORE PLAN GRADES BY FLOATING TURF AREAS AND PLANTER BEDS TO A SMOOTH UNIFORM GRADE AND SLOPE.
      II) THOROUGHLY WATER DOWN BEDS, TURF AREAS ETC. AND ALLOW 7 DAYS TO PASS BEFORE APPLYING RON-STAR, ROUND-UP OR OTHER APPROVED WEED KILLING AGENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
   3.a. APPLIED FERTILIZER SHALL BE COMMERCIAL GRADE INORGANIC IN GRANULAR OR PELLET FORM. THE CONTRACTOR SHALL FOLLOW LANDSCAPE ARCHITECT'S RECOMMENDATIONS FOR REQUIRED FERTILIZER APPLICATION. SEE PLANTING DETAILS FOR ADDITIONAL INFORMATION.
4. PRIOR TO INSTALLATION OF MULCH, A PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO ALL PLANTER BEDS IN ACCORDANCE TO MANUFACTURER'S RECOMMENDATIONS AFTER PLANTINGS HAVE BEEN INSTALLED. AS REQUIRED BY LANDSCAPE ARCHITECT, CHEMICALS USED ARE TO BE IN WRITTEN CHEMICAL WEED CONTROL PROGRAM PREPARED BY A LICENSED PEST CONTROL ADVISOR AND APPROVED BY THE CITY. THE CONTRACTOR IS RESPONSIBLE TO POSSESS AND MAINTAIN ALL LOCAL AGENCY PERMITS OR LICENSES NECESSARY FOR APPLICATION OF HERBICIDE CHEMICALS.
5. PLANTING NOTES- PLANT MATERIALS SHALL BE PLANTED IN ACCORDANCE WITH THE FOLLOWING PROVISIONS AND AS DIRECTED BY THE CITY ENGINEER OR HIS AUTHORIZED REPRESENTATIVE. PLANT SUBSTITUTIONS SHALL NOT BE PERMITTED UNLESS PREVIOUSLY RECOMMENDED BY THE LANDSCAPE ARCHITECT AND APPROVED BY THE CITY ENGINEER. IN ALL CASES, THE CITY SHALL GIVE FINAL APPROVAL OF ALL SUBSTITUTIONS.
   5.a. PLANTS SHALL BE DELIVERED TO SITE HEALTHY, SHAPELY, AND WELL-ROOTED. ROOTS SHALL SHOW NO EVIDENCE OF HAVING BEEN ROOT BOUND, GIRDLED, RESTRICTED OR DEFORMED. PLANTS SHALL HAVE STRAIGHT TRUNKS WITH THE LEADER INTACT, UNDAMAGED AND UNCUT. ALL OLD ABRASIONS AND CUTS SHALL BE COMPLETELY CALLOUSED OVER. ALL PLANTS SHALL BE MEASURED WHEN THEIR BRANCHES ARE IN THEIR NORMAL POSITION. HEIGHT OF PLANT IS MEASURED FROM THE ROOT CROWN TO THE TOP OF THE PLANT. WIDTH OF PLANT IS MEASURED AT BRANCHING AT THE WIDEST POINT. INDICATED SIZES SHOWN ARE BEFORE PRUNING. PLANTS SHALL NOT BE PRUNED PRIOR TO DELIVERY EXCEPT UPON APPROVAL OF THE CITY ENGINEER.
   5.b. TREES SHALL BE SHAPELY AND WELL TAPERED FROM TRUNK BASE SO THAT WHEN THE NURSERY STAKE IS REMOVED, THE TREE SUPPORTS ITSELF UPRIGHT WITHOUT FURTHER STAKING. TREES SHALL HAVE A MAIN LEADER, AND THE MAIN BRANCHES SHALL BE SPACED VERTICALLY AND ALTERNATELY ALONG THE TRUNK. BRANCHING SHALL NOT BE CONCENTRATED IN ONE LOCATION NOR SHALL THERE BE SEVERE CROSSING OF BRANCHES. BRANCHES SHALL BE SMALLER IN DIAMETER THAN THE TRUNK, AND AT LEAST ONE-HALF OF THE FOLIAGE ON THE BRANCHES SHALL BE LOCATED ALONG THE LOWER TWO-THIRDS OF THE TRUNK.
   5.c. PLANT MATERIAL SHALL BE REMOVED FROM THE CONTAINERS IN SUCH A MANNER THAT THE ROOT BALL IS NOT BROKEN, AND THEY SHALL BE PLANTED AND WATERED AS HEREINAFTER SPECIFIED IMMEDIATELY AFTER THEIR REMOVAL. CONTAINERS SHALL NOT BE CUT PRIOR TO DELIVERY OF PLANTS TO PLANTING AREA. ROOT BALLS OF PLANTS TEMPORARILY REMOVED FROM CONTAINERS PRIOR TO PLANTING SHALL BE KEPT MOIST AND COVERED AT ALL TIMES, AND SHALL NOT BE EXPOSED TO THE AIR EXCEPT WHILE ACTUALLY BEING PLACED IN THE GROUND.
   5.d. NO PLANTING WILL BE ALLOWED UNTIL SOIL PREPARATIONS HAVE BEEN COMPLETED AND REQUIRED AMENDMENTS, HERBICIDES AND OTHER QUANTITIES USED HAVE BEEN INSPECTED AND VERIFIED BY THE CITY REPRESENTATIVE. THE CITY REPRESENTATIVE MAY ALSO INSPECT ALL PLANTS PRIOR TO PLANTING. PLANTS DISPLAYING ROOT BOUND OR GIRDLED ROOT CHARACTERISTICS SHALL BE REJECTED AND THE CONTRACTOR SHALL REMOVE SUCH PLANTS FROM WORK SITE AT THE END OF THE WORKDAY.
   5.e. SHREDDED BARK MULCH SHALL NOT BE INSTALLED UNTIL THE CITY HAS VERIFIED APPLICATION OF PRE-EMERGENT HERBICIDE AND HAS APPROVED OF SHREDDED BARK MULCH SAMPLE.
6. IRRIGATION NOTES- ALL IRRIGATION PARTS AND MATERIALS UTILIZED THROUGHOUT THE SYSTEM(S) SHALL BE NEW AND IN PERFECT CONDITION. CONTRACTOR SHOULD REFERENCE IRRIGATION EQUIPMENT PARTS EXCEPT FOR PIPING, OFFSETS & SLEEVES ON THE PLAN CONSTRUCTION DETAIL SHEET OF THE CONSTRUCTION PLANS. IRRIGATION DESIGN IS DIAGRAMMATIC UNLESS OTHERWISE NOTED; THEREFORE PIPING SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY. SUCH PIPING SHALL BE INSTALLED IN PLANTING AREAS UNLESS INSTALLED IN PIPE SLEEVES. GENERALLY, IRRIGATION MAINLINE AND LATERALS SHALL BE INSTALLED ADJACENT TO WALKWAYS, WALLS OR OTHER EXISTING FEATURES AS APPROPRIATE. ADDITIONALLY, PIPING SHALL NOT BE INSTALLED BENEATH TREES OR SHRUBBERY. UNDER NO CIRCUMSTANCE SHALL IRRIGATION PIPING BE INSTALLED SO THAT PIPES COME IN CONTACT WITH ONE ANOTHER. ALL PIPING SHALL BE INSTALLED SO AS TO MAINTAIN A MINIMUM 6 INCH SEPARATION. THE CONTRACTOR SHALL KEEP DETAILED NOTES OF APPROXIMATE LOCATIONS OF PIPING AND INCORPORATE INTO AS-BUILT CONSTRUCTION PLANS.
   6.a. GENERALLY DUE TO SCALE OF DRAWING, IT IS NOT POSSIBLE TO INDICATE ALL IRRIGATION OFFSETS, FITTINGS, SLEEVES, ETC. WHICH MAY BE REQUIRED. THEREFORE, THE CONTRACTOR SHALL BE RESPONSIBLE TO INVESTIGATE SITE CONDITIONS AFFECTING HIS WORK AND PLAN ACCORDINGLY.
   6.b. A LICENSED ELECTRICAL CONTRACTOR SHALL SUPPLY POWER TO CONTROLLER, AND IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE TO MAKE FINAL ELECTRICAL CONNECTION WHEN INSTALLING CONTROLLER AND VALVE WIRING.
      I) EACH CONTROLLER SHALL HAVE ITS OWN INDEPENDENT GROUND WIRE.
      II) SPLICING OF 24 VOLT WIRES SHALL NOT BE PERMITTED EXCEPT IN VALVE BOXES WHERE THERE ARE 24 INCH WIRE COILS OF EXCESS WIRING AT EACH SPLICE AND 100 FEET ON-CENTER ALONG WIRE RUN. TAPE EXCESS WIRE IN BUNDLES 10 FEET ON-CENTER EXCEPT INSIDE SLEEVES.
      III) INSTALL A SPARE CONTROL WIRE (DIFFERENT COLOR) ALONG ENTIRE WIRING RUN, AND LOOP THE SAME IN 36 INCH EXCESS COIL INSIDE EACH SINGLE REMOTE VALVE BOX AND INSIDE ONE OF EACH GROUP OF VALVE BOXES.
      IV) CONTRACTOR SHALL INSTALL IDENTIFICATION TAG INSIDE EACH REMOTE VALVE BOX NOTING CONTROLLER & REMOTE VALVE NUMBER.
   6.c. THE IRRIGATION CONTRACTOR SHALL FLUSH, CLEAN AND ADJUST IRRIGATION HEADS FOR OPTIMUM PERFORMANCE AND TO PREVENT OVERSPRAY ONTO WALKWAYS, ROADS, BUILDINGS ETC. AS NECESSARY. THIS SHALL INCLUDE SELECTING THE BEST DEGREE OF ARC TO FIT THE EXISTING SITE CONDITIONS AND TO THROTTLE THE FLOW CONTROL AT EACH REMOTE VALVE TO OBTAIN OPTIMUM OPERATING PRESSURE FOR EACH SYSTEM. ADDITIONALLY CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS TO THE SYSTEM AS MAY BE NECESSARY AND SHALL REPORT ANY REQUIRED MAJOR ADJUSTMENTS TO THE CITY. THE CITY SHALL EITHER DIRECT THE CONTRACTOR AS TO CORRECTIVE MEASURES REQUIRED OR SHALL CONSULT THE IRRIGATION DESIGNER REGARDING THE DEFICIENCY.
   6.d. IRRIGATION BOXES SHALL BE INSTALLED APPROXIMATELY 12 INCH FROM AND PERPENDICULAR TO WALKS, CURBS ETC. AND A MINIMUM OF 12 INCH SEPARATION SHALL BE MAINTAINED BETWEEN OTHER REMOTE VALVE BOXES WHEN GROUPED. UNLESS SPECIFIED THE SHORT END OF VALVE BOX SHALL BE INSTALLED ADJACENT TO WALKS, CURBS ETC. EACH IRRIGATION REMOTE VALVE BOX SHALL HOUSE A SINGLE REMOTE CONTROL VALVE.
   6.e. ALL EXISTING SURFACE AND UNDERGROUND FACILITIES DAMAGED OR CUT AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO ORIGINAL CONDITION. EXCEPT AS SPECIFIED HEREIN, EXCAVATING AND TRENCHING, BACKFILL AND COMPACTION SHALL CONFORM TO CITY OF DIXON CONSTRUCTION DETAILS AND SPECIFICATIONS FOR PIPING LARGER THAN 4 INCHES IN DIAMETER. WITHIN LANDSCAPED AREAS, BACKFILL AND COMPACTION OF TRENCHES HOUSING PIPING 4 INCHES IN DIAMETER AND LESS SHALL BE AS FOLLOWS:
      I) BACKFILL MATERIAL SHALL BE CLEAN NATIVE FILL FREE OF STONES, DEBRIS OR OTHER FOREIGN MATERIALS.
      II) TRENCH COMPACTION SHALL BE MAINTAINED AT 90 PERCENT RELATIVE COMPACTION (APPLIES TO ALL PIPE SIZES). JETTING OF IRRIGATION TRENCHES MAY BE APPROVED BY THE CITY INSPECTOR IN LANDSCAPED AREAS WHICH ARE NOT BENEATH SIDEWALKS OR OTHER STRUCTURES.
   6.a. PIPE, FITTINGS AND OTHER IRRIGATION COMPONENTS SHALL BE ASSEMBLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. PIPE, FITTINGS ETC. SHALL BE THOROUGHLY CLEANED BEFORE APPLYING PRIMER AND SOLVENT. CONNECTIONS BETWEEN PVC PIPE AND METAL VALVES OR STEEL PIPE WITH THREADED FITTINGS SHALL BE MADE USING PLASTIC MALE ADAPTERS, AND A NON-HARDENING PIPE DOPE (RECTOR SEAL OR TEFLON TAPE) SHALL BE APPLIED TO MALE THREADS. UNLESS OTHERWISE SPECIFIED, BRASS UNIONS SHALL BE INSTALLED ON EACH SIDE OF ALL IRRIGATION VALVES, BACKFLOW PREVENTION EQUIPMENT, FILTERS AND BALL CONTROLLED SHUT OFF VALVES SHALL BE INSTALLED UPSTREAM OF ALL REMOTE CONTROL VALVES.

   THE IRRIGATION CENTRAL CONTROL SYSTEM SHALL BE THE RAIN MASTER IRRIGATION SYSTEMS, INC. WHEN 6 OR MORE REMOTE VALVES ARE REQUIRED, THE CONTROLLER SHALL BE EVOLUTION DX2 INCLUDING FLOW SENSOR DEVICE (FSAY), EVOLUTION COMMUNICATION HARDWARE INCLUDING RADIO AND DOME RDM AND PROMAX REMOTE CONTROL (PMR-CAC) RECEIVER.

   FOR SYSTEMS REQUIRING LESS THAN 6 REMOTE VALVES, THE CONTROLLER SHALL BE RAINMASTER EAGLE CONTROLLER INCLUDING FLOW SENSOR & MASTER VALVE (ESMV) AND PROMAX RECEIVER (PMR-CAC). THERE IS NO KNOWN EQUAL TO RAINMASTER CONTROLLER SYSTEMS, SUBMITTALS SHALL BE REQUIRED.

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SEAL
LICENSED LANDSCAPE ARCHITECT
WILLIAM D. ROACH
CRLA 4409
Signature
Renewal Date: 06/30/26
STATE OF CALIFORNIA

DATE SIGNED: 06/03/26

PROJECT
DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

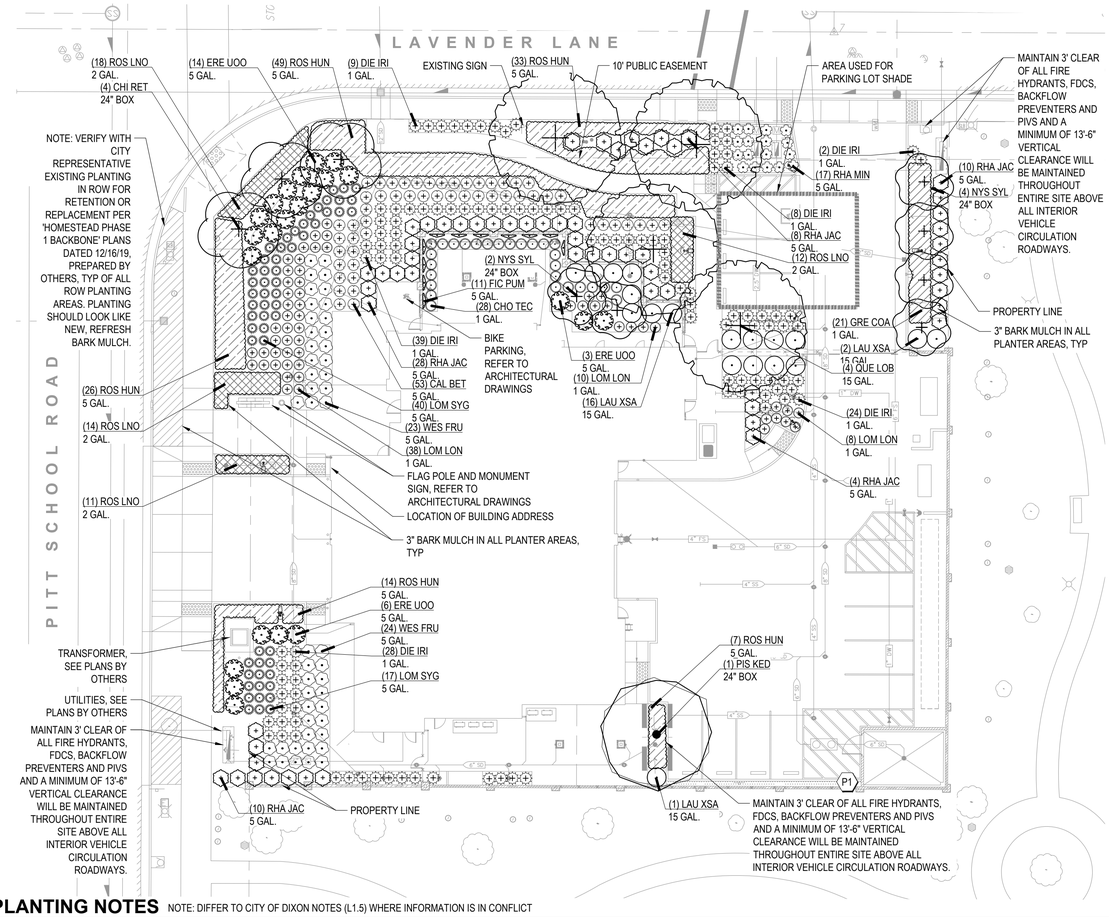
MANAGEMENT
LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
IRRIGATION DETAILS

SHEET
L1.5

IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
2" 1" 1/2" 0 1/4"
Autodesk Docs://Dixon Fire Station 82/22204_ARCHMSTR_R22_CENTRAL.rvt
4/3/2023 10:46:56 AM



CONSTRUCTION NOTES

1. LOCAL CODES AND ORDINANCES: WORK SHALL CONFORM TO ALL LOCAL CODES, ORDINANCES, AND REQUIREMENTS, INCLUDING FEDERAL ACCESSIBILITY GUIDELINES. NOTHING IN THE CONTRACT DOCUMENTS SHALL BE CONSTRUED AS AN EXEMPTION TO APPLICABLE CODES OR OTHER JURISDICTIONAL REQUIREMENTS.
2. UTILITIES: CONTACT COMMON GROUND ALLIANCE (C.G.A.) AT 811, AT LEAST TWO WORKING DAYS IN ADVANCE OF WORK (PER CA GOV. CODE 4216). THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES, WHETHER SHOWN OR NOT, AND SHALL PAY FOR ANY REPAIRS REQUIRED DUE TO THE CONTRACTOR'S OPERATIONS AT NO ADDITIONAL EXPENSE TO THE OWNER.
3. DISCREPANCIES: NOTIFY OWNER'S REPRESENTATIVE OF ANY VARIATIONS BETWEEN THE CONTRACT DOCUMENTS AND FIELD CONDITIONS. DO NOT PROCEED WHERE DIFFERENCES EXIST THAT WOULD AFFECT THE WORK. ALL ADJUSTMENTS DUE TO FIELD CONDITIONS MUST BE APPROVED BY THE DISTRICT'S REPRESENTATIVE PRIOR TO CONTINUING.
4. LAYOUT NOTES: THE WRITTEN DIMENSION SUPERCEDES SCALED OR GRAPHIC DENOTATION. DIMENSIONS ARE BETWEEN PARALLEL OR PERPENDICULAR POINTS UNLESS NOTED OTHERWISE. DIMENSIONS ARE TO CENTERLINE OR FACE OF MASONRY, CONCRETE, OR FRAMING SUBSTRATE FINISH SURFACES, UNLESS NOTED OTHERWISE.
5. COORDINATION: CONTRACTOR SHALL COORDINATE WORK BETWEEN TRADES. ALL REQUIRED SLEEVING SHALL BE COORDINATED WITH SITE WORK, INCLUDING OTHER UNDERGROUND UTILITIES, CURBS, AND CONCRETE.
6. VERTICAL WORK: ALL VERTICAL CONSTRUCTION SHALL BE INSTALLED TRUE AND PLUMB. ALL UNIT COURSING AND TOPS OF WALLS, FENCES, ETC. SHALL BE LEVEL UNLESS NOTED OTHERWISE. ALL CURVES SHALL BE CONTINUOUS AND EVEN, WITH NO BREAKS OR ANGLES AT POINTS OF TANGENCY OR FORMWORK JOINTING.
7. LEAD TIME: SPECIFIED MATERIALS MAY REQUIRE A SIGNIFICANT LEAD TIME. CONTRACTOR IS SOLELY RESPONSIBLE TO LEAD TIMES AND TO PROVIDE SUBMITTALS, AND ORDER MATERIAL, AND ENSURE DELIVERY TO THE JOB SITE TO ALLOW TIMELY PROGRESSION OF WORK.
8. SUBSTITUTIONS: IF PROPOSED, SHALL BE SUBMITTED IN WRITING BY THE CONTRACTOR TO THE OWNER AND LANDSCAPE ARCHITECT, AND SHALL DEMONSTRATE HOW MATERIAL IS EQUAL OR BETTER TO ORIGINALLY SPECIFIED MATERIALS. ANY SUBSTITUTIONS NOT APPROVED IN WRITING ARE SUBJECT TO REJECTION.
9. EXISTING WORK: WHERE NEW CONSTRUCTION ABUTS EXISTING WORK, ALL EXISTING WORK SHALL BE PROTECTED. CONTRACTOR SHALL REPLACE ANY DAMAGED EXISTING WORK AT NO ADDITIONAL EXPENSE TO THE OWNER. ALL NEW WORK WILL CONFORM TO TO EXISTING WORK , INCLUDING FLATWORK JOINTS, ELEVATIONS, COLOR, AND FINISH.

PAVING LEGEND

P1 STABILIZED DECOMPOSED GRANITE : SEE DETAIL 4/L2.2

PLAN LEGEND

ROOT BARRIER, SEE NOTES AND DETAILS

EXISTING TREE

PLANT LEGEND

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONT	QTY
TREES				
	CHI RET	CHIONANTHUS RETUSUS / CHINESE FRINGE TREE	24" BOX	3
	NYS SYL	NYSSA SYLVATICA / SOUR GUM	24" BOX	6
	PIS KED	PISTACIA CHINENSIS `KEITH DAVEY` / KEITH DAVEY CHINESE PISTACHE	24" BOX	1
	QUE LOB	QUERCUS LOBATA / VALLEY OAK	15 GAL.	4
SHRUBS				
	CAL BET	CALLISTEMON VIMINALIS `BETTER JOHN` / DWARF WEEPING BOTTLE BRUSH	5 GAL.	53
	CHO TEC	CHONDROPETALUM TECTORUM / CAPE RUSH	1 GAL.	28
	DIE IRI	DIETES IRIDIOIDES / FORTNIGHT LILY	1 GAL.	110
	ERE UOO	EREMOPHILA GLABRA `EREM1` / GREY HORIZON EMU BUSH	5 GAL.	23
	FIC PUM	FICUS PUMILA / CREEPING FIG	5 GAL.	11
	LAU XSA	LAURUS X `SARATOGA` / SARATOGA LAUREL	15 GAL.	19
	LOM LON	LOMANDRA LONGIFOLIA `BREEZE` / MAT RUSH	1 GAL.	56
	LOM SYG	LOMANDRA LONGIFOLIA `ROMA 13` / PLATINUM BEAUTY® VARIEGATED MAT RUSH	5 GAL.	57
	RHA JAC	RHAPHIOLEPIS INDICA `JACK EVANS` / INDIAN HAWTHORN	5 GAL.	60
	RHA MIN	RHAPHIOLEPIS UMBELLATA `MINOR` / DWARF YEDDA HAWTHORN	5 GAL.	17
	WES FRU	WESTRINGIA FRUTICOSA `BLUE GEM` / COAST ROSEMARY	5 GAL.	47

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONT	SPACING	QTY
GROUND COVERS					
	GRE COA	GREVILLEA LANIGERA `COASTAL GEM` / COASTAL GEM GREVILLEA	1 GAL.	42" o.c.	21
	ROS LNO	ROSA X `MEIZORLAND` TM / WHITE DRIFT ROSE	2 GAL.	36" o.c.	55
	ROS HUN	ROSMARINUS OFF. `HUNTINGTON CARPET` / PROSTRATE ROSEMARY	5 GAL.	42" o.c.	129

SHADE CALCULATIONS

Parking Lot Shade Calculations — **Project: 22027**
Dxon Firestation 82 — **Date: 2/16/2026**

	25%	50%	75%	100%	Total
Qty. 35' Diameter Trees	1	1			
sub total of shade at 962 sf for 100% canopy	240	481	0	0	721
Qty. 30' Diameter Trees					
sub total of shade at 706 sf for 100% canopy	0	0	0	0	-
Qty. 25' Diameter Trees					
sub total of shade at 491sf for 100% canopy	0	0	0	0	-
Qty. 20' Diameter Trees					
sub total of shade at 314sf for 100% canopy	0	0	0	0	-
				Total Shade Provided	721
				Total Parking Area	1,181
				Percent Shaded	**61%**

I HAVE COMPLIED WITH THE CRITERIA OF THE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO) AND APPLIED THEM ACCORDINGLY FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE AND IRRIGATION DESIGN PLANS.

SIGNED — DATE 06/03/26

SEE SHEETS L2.2- L2.3 FOR DETAILS

0' 20' 40' — 1" = 20'

N

PLANTING NOTES

NOTE: DIFFER TO CITY OF DIXON NOTES (L1.5) WHERE INFORMATION IS IN CONFLICT

1. SITE ACCEPTANCE: THE CONTRACTOR SHALL OBSERVE THE SITE AND VERIFY THAT ROUGH GRADING AND ALL OTHER WORK HAS BEEN COMPLETED TO THE CONTRACTOR'S SATISFACTION. ANY PREVIOUS WORK THAT IS NOT COMPLETE SHALL BE BROUGHT TO THE OWNER'S OR LANDSCAPE ARCHITECT'S ATTENTION IN WRITING. BEGINNING WORK CONSTITUTES ACCEPTANCE OF THE SITE.
2. SITE PREPARATION: ALL EXISTING VEGETATION SHALL BE REMOVED (CLEAR AND GRUB). PRIOR TO ROUGH GRADING OPERATIONS, PRESERVE ALL TOPSOIL BY STOCKPILING ON SITE. TOPSOIL SHALL BE REPLACED IN PLANTING AREAS TO ACHIEVE FINAL FINISH GRADES. FOR PLANTERS IN LIME-TREATED AREAS, REMOVE AND DISPOSE OF EXISTING SOIL TO A DEPTH OF 24" THROUGHOUT THE ENTIRE PLANTER, AND REPLACE WITH CLEAN TOPSOIL.
3. POSITIVE DRAINAGE: ENSURE POSITIVE DRAINAGE IN ALL LANDSCAPE AREAS, AND SHALL ADJUST ELEVATIONS AS REQUIRED. MINIMUM SLOPE IN TURF AREAS SHALL BE 0.5% TO OUTLET, MINIMUM SLOPE IN PLANTED AREAS SHALL BE 1.0%.
4. EXPLANATION OF DRAWINGS: PLANTING INTENT IS TO COMPLETELY FILL ALL PLANTING AREAS, UNLESS SPECIFICALLY NOTED OTHERWISE. QUANTITIES, (IF SHOWN) ARE FOR CONTRACTOR'S CONVENIENCE ONLY, AND SHALL NOT RELIEVE THE CONTRACTOR OF THE OBLIGATION TO INSTALL PLANTS TO MEET THIS INTENT. PLANTING DETAILS ARE CONSIDERED TYPICAL AND ALL WORK SHALL CONFORM TO THESE DETAILS.
5. SUBSTITUTIONS: IN THE EVENT ANY PLANT MATERIAL SPECIFIED IS NOT AVAILABLE, CONTRACTOR SHALL SUBMIT PROPOSED SUBSTITUTION IMMEDIATELY TO LANDSCAPE ARCHITECT. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO DETERMINE THE SUITABILITY OF ANY PROPOSED SUBSTITUTION. SUBSTITUTIONS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
6. PLANTING PIT DRAINAGE: EXCAVATED PLANTING PITS SHALL HAVE POSITIVE DRAINAGE. PLANT PITS WHEN FULLY FLOODED WITH WATER SHALL DRAIN WITHIN 2 HOURS OF FILLING. IF PLANTING PITS DO NOT DRAIN, OTHER MEASURES, INCLUDING A 1' DIAMETER X 8' DEEP AUGURED HOLE BACKFILLED WITH CRUSHED DRAIN ROCK, WILL BE REQUIRED.
7. PLANT MATERIAL: ALL PLANT MATERIAL SHALL COMPLY WITH ANSI Z60.1 "STANDARD FOR NURSERY STOCK," NOTES AND DETAILS ON THE DRAWINGS. UNLESS OTHERWISE NOTED MINIMUM PLANT SIZES SHALL BE AS FOLLOWS. EVERGREEN SHRUBS (EXCEPT DWARF VARIETIES): 9" H. X 8" W. FOR 1-GALLON (#1); 15" H. X 12" W. FOR 5-GALLON (#5); AND 30" H. X 24" W. FOR 15-GALLON (#15). SINGLE TRUNK TREES: 5' H. W/ 1" CALIPER FOR 15-GALLON (#15); 8' H. W/ 2" CALIPER FOR 24" BOX (#25). CONTRACTOR SHALL SUBMIT PHOTOS OF ALL TREES 36" AND ABOVE FOR LANDSCAPE ARCHITECT'S APPROVAL PRIOR TO PURCHASE OR DELIVERY. APPROVAL OF PHOTOS DOES NOT PRECLUDE ON-SITE REJECTION OF UNSUITABLE PLANT MATERIAL.
8. SITE CLEANLINESS: THE CONTRACTOR IS RESPONSIBLE TO KEEP THE SITE CLEAN, FOR SOIL EROSION CONTROL MEASURES, AND FOR ANY OTHER GENERAL REQUIREMENTS. SHOULD EXISTING CONDITIONS REQUIRE MITIGATION, THE CONTRACTOR SHALL ALERT THE OWNER OR LANDSCAPE ARCHITECT PRIOR TO PERFORMING WORK.
9. UNDERGROUND UTILITIES: THE CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING WORK. CALL C.G.A. (811) TO LOCATE EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY DAMAGED UTILITIES, TO THE SATISFACTORY OF THE OWNER AND GOVERNING AGENCY AT NO COST TO THE OWNER OR INCREASE IN BID AMOUNT.
10. BARK MULCH: A 3" LAYER OF "WALK-ON" BARK MULCH SHALL BE INSTALLED IN ALL PLANTER AREAS. CONTRACTOR SHALL SUBMIT A MULCH SAMPLE PRIOR TO ORDER. APPLY PRE-EMERGENT PRIOR TO PLACING MULCH. IF MAINTENANCE PERIOD EXTENDS PAST 90 CALENDAR DAYS FROM APPLICATION, APPLY AGAIN PER MANUFACTURER'S INSTRUCTIONS.
11. SOIL FERTILITY ANALYSIS AND AMENDMENT: THE CONTRACTOR SHALL OBTAIN ONE SOILS FERTILITY ANALYSIS FOR 15,000 SF OF LANDSCAPE. ALL PLANTING AREAS SHALL BE AMENDED PER THE SOILS REPORT, AND PER LOCAL ORDINANCE. EVEN WHEN NOT REQUIRED BY THE SOILS FERTILITY TEST, APPLY A MINIMUM OF 4 CUBIC YARDS PER 1,000 S.F. COMPOST OVER ALL PLANTED AREAS AND TILL INTO TOP 8" OF SOIL, ALONG WITH OTHER RECOMMENDATIONS PER THE SOILS FERTILITY TEST. ALL PLANTING PITS SHALL BE BACKFILLED WITH AMENDED SOIL MIX. DOCUMENTATION VERIFYING IMPLEMENTATION OF SOIL ANALYSIS REPORT SHALL BE SUBMITTED TO THE AHJ PRIOR TO OCCUPANCY (PER AHJ WATER EFFICIENT LANDSCAPE ORDINANCE). IN ADDITION, BACKFILL FOR ALL SUCCULENTS SHALL BE 50% CLEAN WASHED SAND.
12. ESTABLISHMENT PERIOD: SHALL BE A MINIMUM OF 60 CALENDAR DAYS, BEGINNING UPON WRITTEN VERIFICATION OF SUBSTANTIAL COMPLETION BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. ESTABLISHMENT PERIOD SHALL CONSIST OF REGULAR LANDSCAPE MAINTENANCE BY THE INSTALLING CONTRACTOR, ENSURING ALL PLANTING IS IN A VIGOROUS AND HEALTHY CONDITION, AND ALLOWING PLANTS TO GROW-IN AND ACCLIMATIZE TO THE SITE. ANY PLANT THAT HAS BEEN REPLACED DURING THE ESTABLISHMENT PERIOD SHALL BE SUBJECT TO AN ADDITIONAL ESTABLISHMENT PERIOD EQUAL TO THE ORIGINAL ESTABLISHMENT PERIOD, BEGINNING ON THE DATE OF REPLACEMENT. ANY DAY OF IMPROPER MAINTENANCE, AS DETERMINED BY THE LANDSCAPE ARCHITECT OR LOCAL JURISDICTION, SHALL NOT COUNT TOWARD THE ESTABLISHMENT PERIOD.
13. ROOT CONTROL BARRIERS: FOLLOW ALL JURISDICTIONAL REQUIREMENTS. AT MINIMUM IF NOT OTHERWISE REQUIRED OR NOTED: WHERE STREET TREES ARE WITHIN 3 FEET OF THE PAVING OR CURB (HARDSCAPE), PROVIDE A ROOT CONTROL BARRIER PANEL ALONG THE FACE OF HARDSCAPE. PANELS SHALL BE MINIMUM 18" DEEP. FROM CENTERLINE OF TREE, EXTEND PANELS EXTEND 10' IN EACH DIRECTION AT EDGE OF HARDSCAPE. ADDITIONALLY, MEDIANS WITH TREES SHALL HAVE A 24" DEEP CONTINUOUS ROOT CONTROL BARRIER PANEL. "ENCIRCLING" APPLICATIONS ARE NOT ALLOWED.
14. UTILITY CLEARANCE: FOLLOW ALL JURISDICTIONAL REQUIREMENTS. AT MINIMUM IF NOT OTHERWISE REQUIRED OR NOTED: NO TREES SHALL BE PLANTED WITHIN 5' OF WATER AND SANITARY SEWER LINES. NO TREES SHALL BE PLANTED UNDER EXISTING OR FUTURE OVERHEAD POWERLINES, AND ALL REQUIRED CLEARANCES SHALL BE MAINTAINED. ALL PLANTING EXCEPT LOW-GROWING GROUNDCOVER SHALL BE 3' CLEAR OF ALL FIRE APPURTENANCES PER NFPA 18.5.7.
15. WORK IN RIGHT-OF-WAY: ALL WORK WITHIN THE RIGHT OF WAY OR TO BE MAINTAINED BY THE LOCAL AGENCY SHALL BE INSTALLED PER THE LATEST EDITION OF THE AGENCY CONSTRUCTION STANDARDS, AND ALL OTHER AGENCY REQUIREMENTS.
16. LIME TREATED AREAS: ANY PLANTER AREA TREATED WITH LIME SHALL BE EXCAVATED TO A DEPTH OF 2', AND THE SPOILS LEGALLY DISPOSED OF OFF SITE. EXCAVATED AREAS SHALL BE BACKFILLED WITH CLEAN TOPSOIL. PROVIDE A SOILS FERTILITY TEST OF PROPOSED TOPSOIL PRIOR TO IMPORT.
17. SLOPES EXCEEDING 3:1: JUTE MESH NETTING IS REQUIRED WITHIN DISTURBED, PLANTED AREAS FOR TEMPORARY STABILIZATION. REFER TO APPLICABLE JURISDICTIONAL STANDARDS FOR SPECIFIC INSTALLATION REQUIREMENTS. MINIMUM OVERLAP 3' AT NEW PIECES, BURY UPPER END OF NETTING IN 18" DEEP TRENCH.
18. TURF INSTALLATION: CONTRACTOR SHALL PLACE AND ESTABLISH SOD IN ALL AREAS AS DELINEATED ON THE PLANS AS FOLLOWS.
    - 18.1. REMOVE ALL ROCKS AND OTHER DELETERIOUS MATERIAL GREATER THAN 3/4" IN DIAMETER. ESTABLISH SMOOTH GRADES, WITH NO PONDING. ENSURE ADEQUATE SOIL COMPACTION TO AVOID SETTLEMENT, WITHOUT EXCEEDING 85% RELATIVE DENSITY. SUBSEQUENT SETTLEMENT SHALL BE CLEAR EVIDENCE OF INADEQUATE COMPACTION.
    - 18.2. WITHIN 24 TO 48 HOUR OF SODDING, MOISTEN AREA TO BE SODDED TO A DEPTH OF AT LEAST 6", AND MAINTAIN MOISTURE UNTIL SODDING. DO NOT ALLOW SOIL TO BE COME SATURATED.
    - 18.3. APPLY A STARTER FERTILIZER PRIOR TO LAYING SOD.
    - 18.4. INSTALL SOD WITHIN 12 HOURS OF DELIVERY. DO NOT ALLOW SOD TO SIT IN DIRECT SUNLIGHT OR TO DRY OUT.
    - 18.5. STARTING AT A STRAIGHT EDGE, LAY SOD IN STAGGERED ROWS, OFFSETTING JOINTS A MINIMUM OF 2 FEET.
    - 18.6. AFTER LAYING, ROLL SOD WITH A LIGHT-WEIGHT WATER-DRUM ROLLER (APPROXIMATELY 50 LBS), AND ENSURE FULL CONTACT WITH SOIL. WATER AS SOON AS POSSIBLE, AND IN ALL CASES, WITHIN 1 HOUR AFTER LAYING.

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CONSULTANT
Roach & Campbell
947 Enterprise Drive Loft B
Sacramento,
California 95825
916.827.4020
4409 CRLA 5044

SEAL
LICENSED LANDSCAPE ARCHITECT — WILLIAM D. ROACH — CRLA 4409 — Signature — Renewal Date: 06/30/26 — STATE OF CALIFORNIA

DATE SIGNED: 06/03/26

PROJECT
DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT
LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

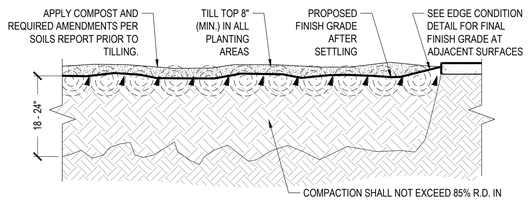
AGENCY

TITLE
PLANTING PLAN

SHEET
L2.1

IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
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2" 1" 1/2" 1/4" 0
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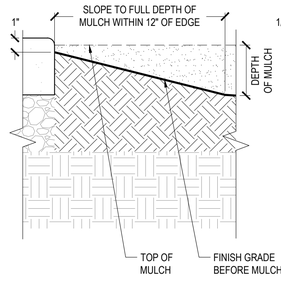
NOTES

A. SEE SPECIFICATIONS (IF PROVIDED) FOR ADDITIONAL REQUIREMENTS.

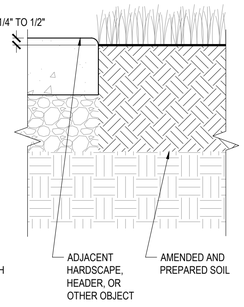
1 PLANTING AREA SOIL PREPARATION

NO SCALE — SECTION

PLANTED AREAS



SODDED OR SEEDED AREAS



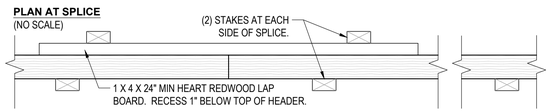
NOTES

A. PROVIDE POSITIVE DRAINAGE TO OUTLET IN ALL PLANTED AREAS. DO NOT ALLOW SURFACE DRAINAGE ONTO WALKWAYS, DRIVEWAYS, OR OTHER HARDSCAPE, OR SURFACE DRAINAGE TOWARD OR AGAINST STRUCTURES.

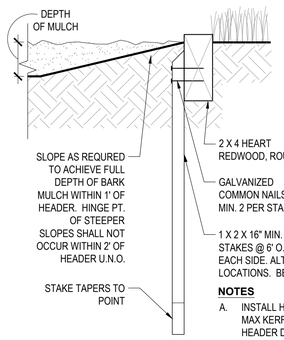
2 PLANTED AREA EDGE CONDITION AT HARDSCAPE

NO SCALE — SECTION

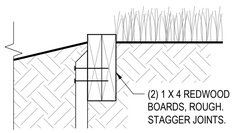
PLAN AT SPLICE
(NO SCALE)



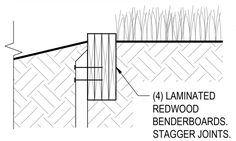
SECTION AT STRAIGHT RUNS



SECTION AT MODERATE CURVES



SECTION AT TIGHT CURVES

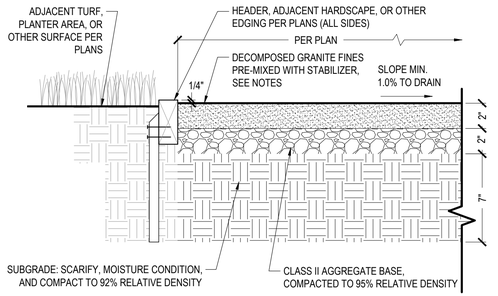


NOTES

A. INSTALL HEADER TRUE TO LINE AND GRADE. FOR SLOPED AREAS, 1/8" MAX KERFS ALLOWABLE @ 6" O.C., NOT THROUGH MORE THAN 1/2 THE HEADER DEPTH.

3 REDWOOD HEADER

NO SCALE — AS NOTED



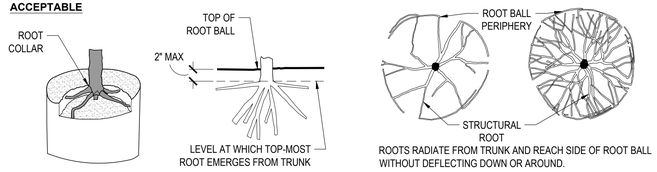
NOTES

A. PAVEMENT DEPTHS AND REQUIREMENTS HEREIN ARE SUPERCEDED BY THE PROJECT GEOTECHNICAL REPORT AND RECOMMENDATIONS, IF EXISTING.
B. DECOMPOSED GRANITE FINES SHALL BE 1/4" MINUS, GOLD OR LIGHT TAN COLOR. SUBMIT SAMPLE PRIOR TO ORDERING. APPROVED SOURCES:
   CL SMITH TRUCKING, WOODLAND
   CASCADE ROCK, SACRAMENTO (TAN/RUST COLOR)
   HASTIES CAPITAL SAND AND GRAVEL, SACRAMENTO/ROSEVILLE (GOLD AND TAN, "PREMIUM")
C. STABILIZER SHALL BE A PSYLIUM BASED PRODUCT PRE-MIXED WITH DECOMPOSED GRANITE FINES PER MANUFACTURER'S RECOMMENDATIONS. APPROVED PRODUCTS:
   1. STABILIZER BY STABILIZER SOLUTIONS, 800.336.2468
   2. NATRACIL BY GAIL MATERIALS, 951.667.6106
   3. ORGANIC-LOCK BY ENVIROBOND, 866.636.8476

4 DECOMPOSED GRANITE (PEDESTRIAN)

1" = 0'-6" — SECTION

ACCEPTABLE

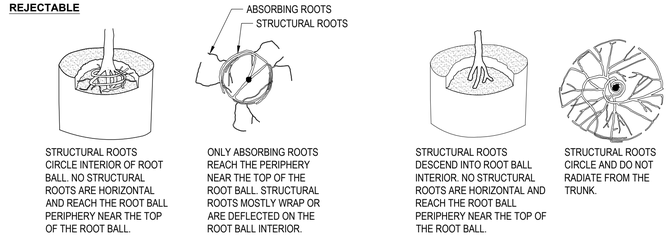


THE POINT WHERE TOP-MOST ROOT(S) EMERGES FROM THE TRUNK (ROOT COLLAR) SHOULD BE WITHIN THE TOP 2" OF SUBSTRATE. THE ROOT COLLAR AND THE ROOT BALL INTERIOR SHOULD BE FREE OF DEFECTS INCLUDING CIRCLING, KINKED, ASCENDING, AND STEM GIRDLING ROOTS. STRUCTURAL ROOTS SHALL REACH THE PERIPHERY NEAR THE TOP OF THE ROOT BALL.

NOTES

A. OBSERVATIONS OF ROOTS SHALL OCCUR PRIOR TO ACCEPTANCE. ROOTS AND SUBSTRATE MAY BE REMOVED DURING THE OBSERVATION PROCESS; SUBSTRATE/SOIL SHALL BE REPLACED AFTER OBSERVATION HAS BEEN COMPLETED.
B. SMALL ROOTS (1/4" OR LESS) THAT GROW AROUND, UP, OR DOWN THE ROOT BALL PERIPHERY ARE CONSIDERED A NORMAL CONDITION IN CONTAINER PRODUCTION AND ARE ACCEPTABLE HOWEVER THEY SHOULD BE ELIMINATED AT THE TIME OF PLANTING. ROOTS ON THE PERIPHERY MAY BE REMOVED AT THE TIME OF PLANTING.
C. SEE SPECIFICATIONS (IF PROVIDED) FOR OBSERVATION PROCESS AND REQUIREMENTS.
D. PRIOR TO PLANTING, SOIL SHALL BE REMOVED FROM THE TOP OF THE ROOT BALL AS REQUIRED TO EXPOSE THE ROOT FLARE.

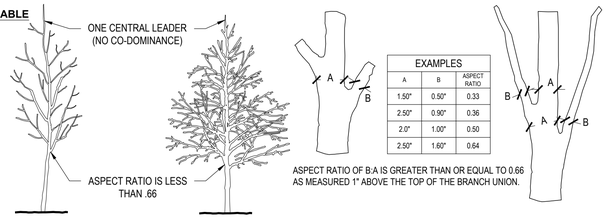
REJECTABLE



5 ROOT STRUCTURE: CONTAINERIZED PLANTS

NO SCALE — AS NOTED

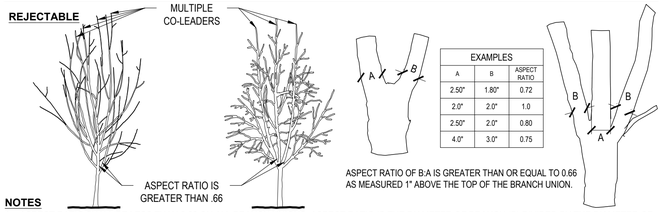
ACCEPTABLE



EXAMPLES		
A	B	ASPECT RATIO
1.50"	0.50"	0.33
2.50"	0.90"	0.36
2.0"	1.00"	0.50
2.50"	1.60"	0.64

ASPECT RATIO OF B:A IS GREATER THAN OR EQUAL TO 0.66 AS MEASURED 1" ABOVE THE TOP OF THE BRANCH UNION.

REJECTABLE



EXAMPLES		
A	B	ASPECT RATIO
2.50"	1.80"	0.72
2.0"	2.0"	1.0
2.50"	2.0"	0.80
4.0"	3.0"	0.75

ASPECT RATIO OF B:A IS GREATER THAN OR EQUAL TO 0.66 AS MEASURED 1" ABOVE THE TOP OF THE BRANCH UNION.

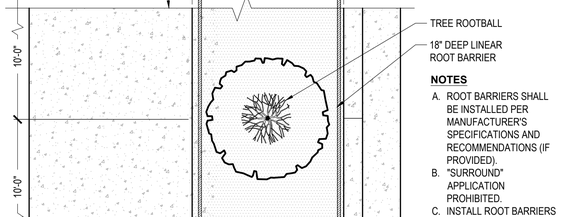
NOTES

A. ASPECT RATIO SHALL BE LESS THAN 0.66 ON ALL BRANCH UNIONS. ASPECT RATIO IS THE DIAMETER OF BRANCH (B) DIVIDED BY THE DIAMETER OF THE TRUNK (A) AS MEASURED 1" ABOVE THE TOP OF THE BRANCH UNION.
B. ANY TREE NOT MEETING THESE REQUIREMENTS MAY BE REJECTED, EXCEPTING THOSE NOTED AS "MULTI-TRUNKED"

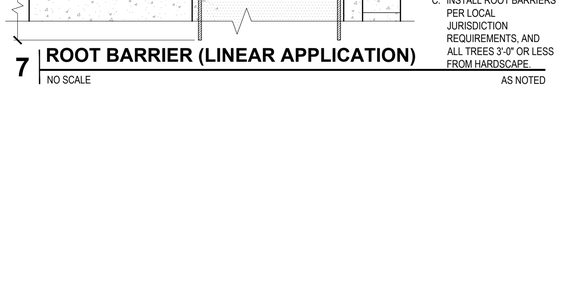
6 TREE BRANCHING STRUCTURE

NO SCALE — AS NOTED

SECTION VIEW



PLAN VIEW



NOTES

A. ROOT BARRIERS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS (IF PROVIDED).
B. "SURROUND" APPLICATION PROHIBITED.
C. INSTALL ROOT BARRIERS PER LOCAL JURISDICTION REQUIREMENTS, AND ALL TREES 3'-0" OR LESS FROM HARDSCAPE.

7 ROOT BARRIER (LINEAR APPLICATION)

NO SCALE — AS NOTED

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CONSULTANT
Roach & Campbell
947 Enterprise Drive Loft B
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California 95825
916.827.4020
4409 CRLA 5044

SEAL



DATE SIGNED: 06/03/26

PROJECT
DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

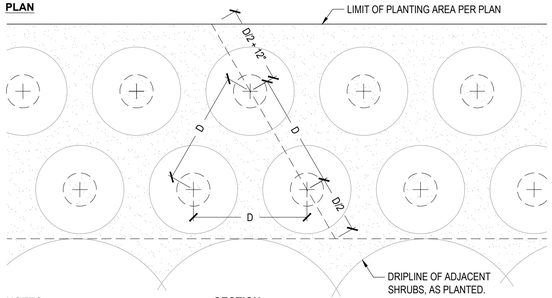
TITLE
PLANTING DETAILS

SHEET
L2.2

Autodesk Docs://Dixon Fire Station 82/22204_ARCHMSTR_R22_CENTRAL.rvt
4/3/2023 10:46:56 AM

2" 1" 0 1/4" 1/2"
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

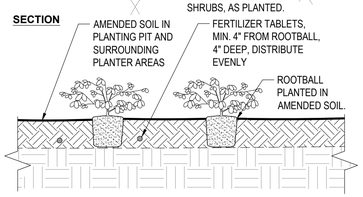
PLAN



NOTES

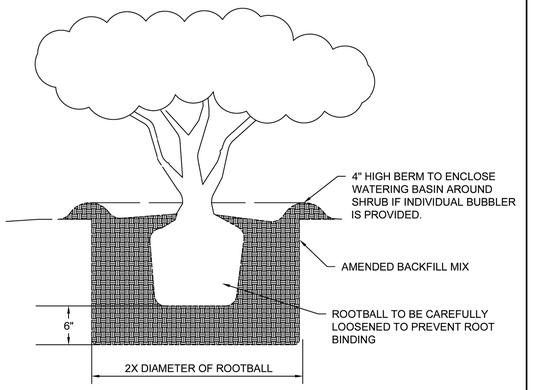
A. "D" IS ON-CENTER SPACING PER PLANTING LEGEND
B. GROUNDCOVER SHALL BE EQUILATERALLY SPACED UNLESS NOTED OTHERWISE.
C. MULCH MIN. 3" DEPTH, KEEP 3" FROM TRUNK.
D. FERTILIZER TABLETS SHALL BE 21 GRAM, SLOW-RELEASE, QUANTITY:
1 GALLON: 1 TABLET
2 GALLON: 2 TABLETS

SECTION



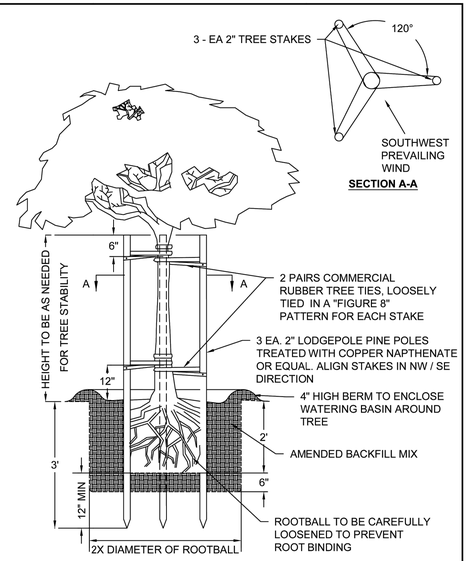
1 GROUNDCOVER PLANTING

NO SCALE — SECTION



NOTES:
1. ROOT CONTROL PLANTER BOXES OR BARRIER PANELS SHALL BE REQUIRED WHERE SHRUB IS 10 FEET OR LESS FROM EXISTING OR FUTURE SIDEWALK OR CURB. EWING STANDARD PLANTER, UNIVERSAL PLANTER OR CENTURY RC 24 OR EQUAL MAY BE USED. LENGTH OF BARRIER = 6' CENTERED ON SHRUB.
2. SHRUBS SHALL BE PROVIDED WITH AUTOMATIC IRRIGATION SYSTEMS (INDIVIDUAL BUBBLERS WITH WATERING BASIN).

8010	SHRUB PLANTING	APPROVED: MARCH 2022	CITY OF DIXON ENGINEERING STANDARD DETAIL



NOTES:
1. ROOT CONTROL PLANTER BOXES SHALL BE REQUIRED WHERE TREE IS 10 FEET OR LESS FROM EXISTING OR FUTURE SIDEWALK OR CURB. EWING STANDARD PLANTER, UNIVERSAL PLANTER OR CENTURY RC 24 OR EQUAL MAY BE USED. LENGTH OF BARRIER = 6' CENTERED ON TREE.
2. TREES SHALL BE PROVIDED WITH AUTOMATIC IRRIGATION SYSTEMS (INDIVIDUAL BUBBLERS WITH WATER BASIN).

CITY OF DIXON ENGINEERING STANDARD DETAIL	APPROVED: MARCH 2022	TREE PLANTING	8000

WATER USE CALCULATIONS

Water Efficient Landscape Worksheet — **Project:** 22027
Dixon Fire Station 82 — **Date:** 2/18/2026

Hydrozone/Planting Description	Plant Factor (PF)	Irrigation Method	Irrigation Efficiency	ETAF	Landscape Area (sf)	ETAF x Area	Estimated Total Water Use
Regular Landscape Areas							
shrub (low/ moderate water use)	0.35	DripLine	0.81	0.43	8,806	3,805	125,453
Tree Bubbler A7 (low /moderate water use)	0.4	Bubbler	0.81	0.43	212	92	3,020
				Totals	9,018	3,897	
Special Landscape Areas							
description				1.00		-	-
				1.00		-	-
				1.00		-	-
				1.00		-	-
				Totals	-	-	

Nearest Data Location	Davis		
Reference Eto	52.5	Estimated Total Water Use (ETWU)[1]	**128,473**
Reference ETAF	0.45	Maximum Allowed Water Allowance (MAWA)[2]	**132,091**

ETAF Calculations/Regular Landscape

Total ETAF x Area	3,897
Total Area (sf)	9,018
Average ETAF	0.43

Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, 0.45 or below for non-residential areas, and 0.65 for DSA projects. These values are also reference values for determining MAWA.

ETAF Calculations/All Landscape

Total ETAF x Area	3,897
Total Area (sf)	9,018
Average ETAF	0.43

[1]ETWU= Eto x 0.62 x ETAF x Area
[2]MAWA = (Eto) (0.62) [(ETAF x LA) + ((1-ETAF) x SLA)}
**ETWU must be less than or equal to MAWA*

SOIL ANAYALIS REPORT

NOTE: CONTRACTOR TO OBTAIN ADDITIONAL SOILS REPORT PER CITY REQUIREMENTS, SEE PLANTING NOTES.

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Roach & Campbell
947 Enterprise Drive Loft B
Sacramento,
California 95825
916.827.4020
4409 CRLA 5044

SEAL

LICENSED LANDSCAPE ARCHITECT — WILLIAM D. ROACH — CRLA 4409 — Signature — Renewal Date: 06/30/26 — STATE OF CALIFORNIA

DATE SIGNED: 06/03/26

PROJECT
DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

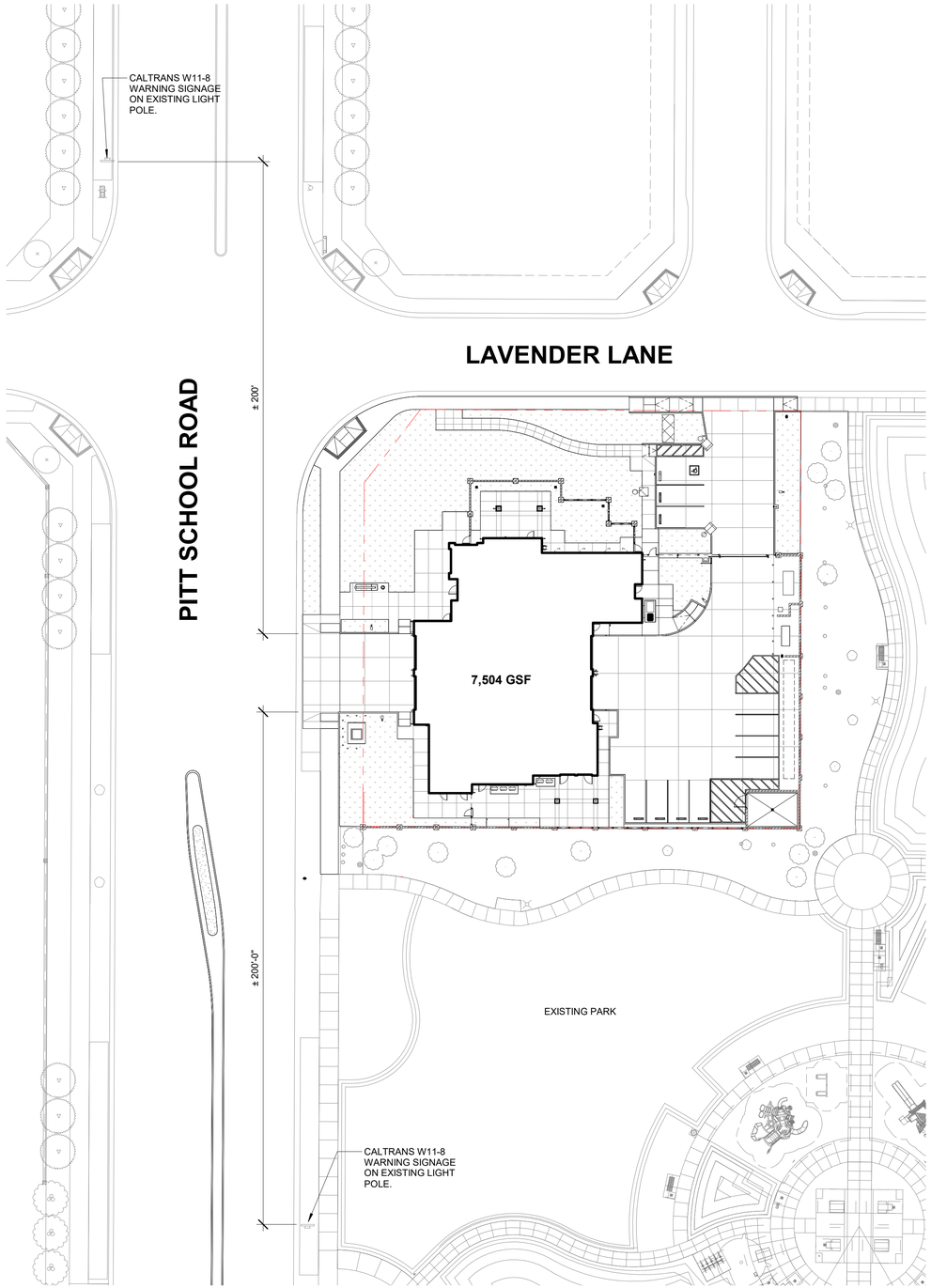
MANAGEMENT
LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
PLANTING DETAILS AND SUPPORT

SHEET
L2.3

Autodesk Docs://Dixon Fire Station 82/22204_ARCHMSTR_R22_CENTRAL.rvt
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1 SITE PLAN - OFF SITE SIGNAGE
1" = 30'-0"

N

IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

0 1/4" 1/2" 1"

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LICENSED ARCHITECT
DEBORAH LESNEFSKA
C36478
REN 11-30-27
STATE OF CALIFORNIA

PROJECT
DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

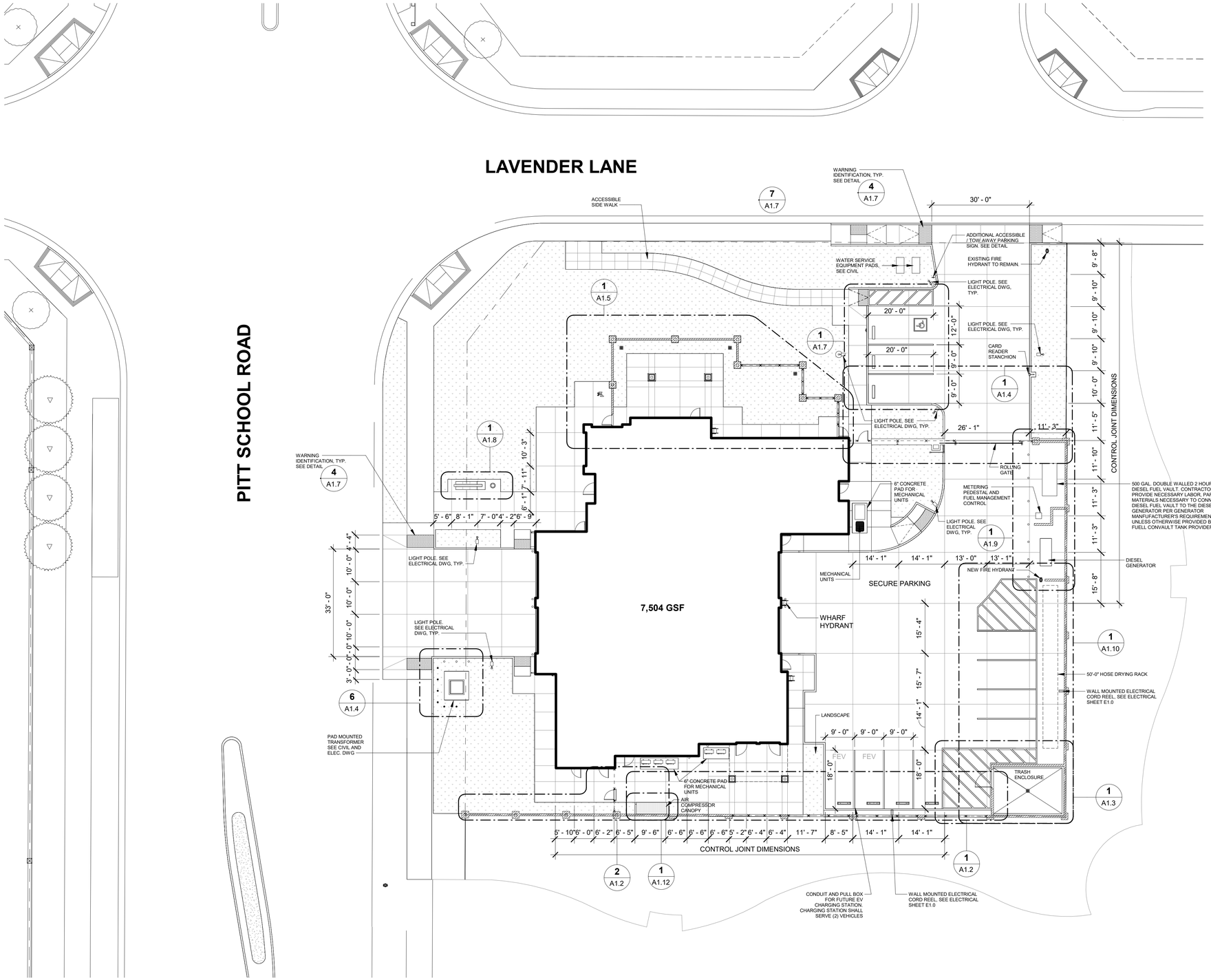
AGENCY

TITLE
SITE PLAN - OFF SITE SIGNAGE

SHEET
A1.0

0 1/4" 1/2" 1" 2"

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1 SITE PLAN
1/16" = 1'-0"

SHEET NOTES

a. SEE CIVIL DRAWINGS FOR SITE PAVING INFORMATION.

b. SEE LANDSCAPE DRAWINGS FOR MORE INFORMATION.

c. SEE MECHANICAL DRAWINGS FOR MORE INFORMATION.

d. SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION.

NOTE:
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LICENSED ARCHITECT DEBORAH LESNEWSKA C36478 REN. 11-30-27 STATE OF CALIFORNIA

PROJECT

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CITY OF DIXON FIRE DEPARTMENT

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MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE

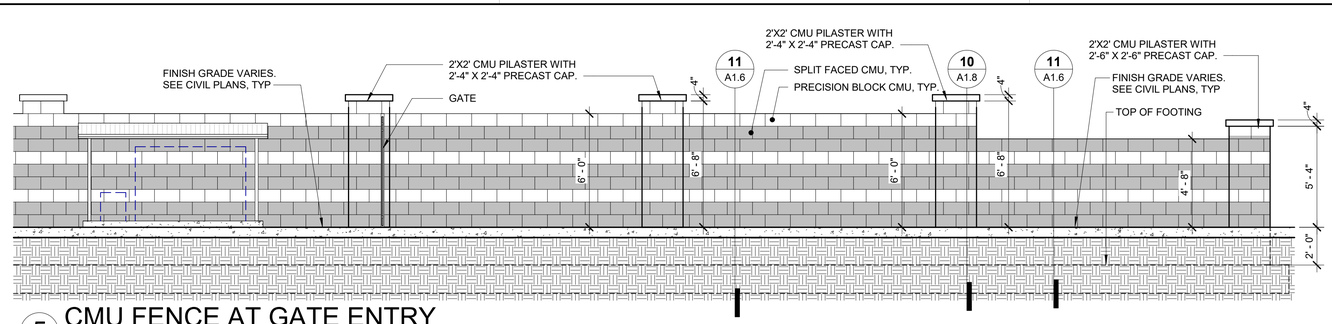
SITE PLAN

SHEET

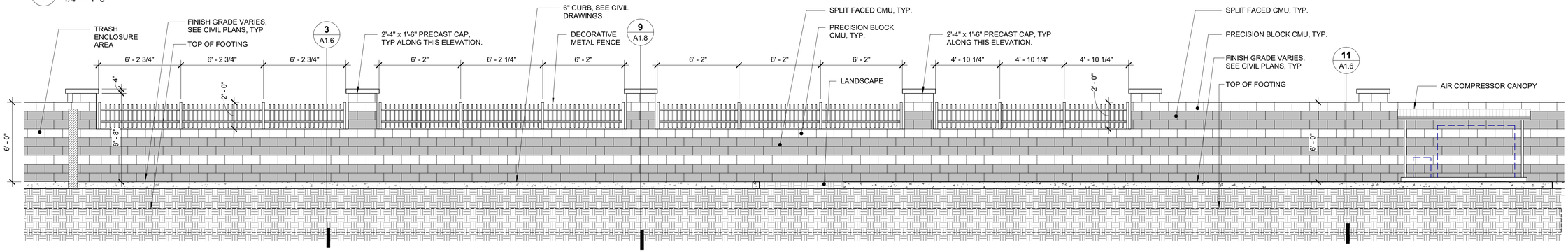
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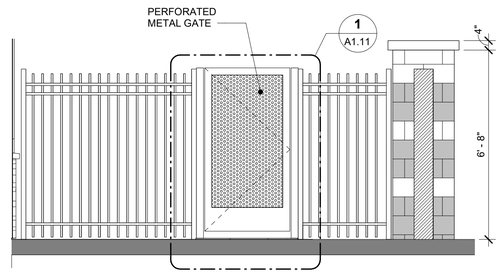
2"
1"
0 1/4" 1/2"
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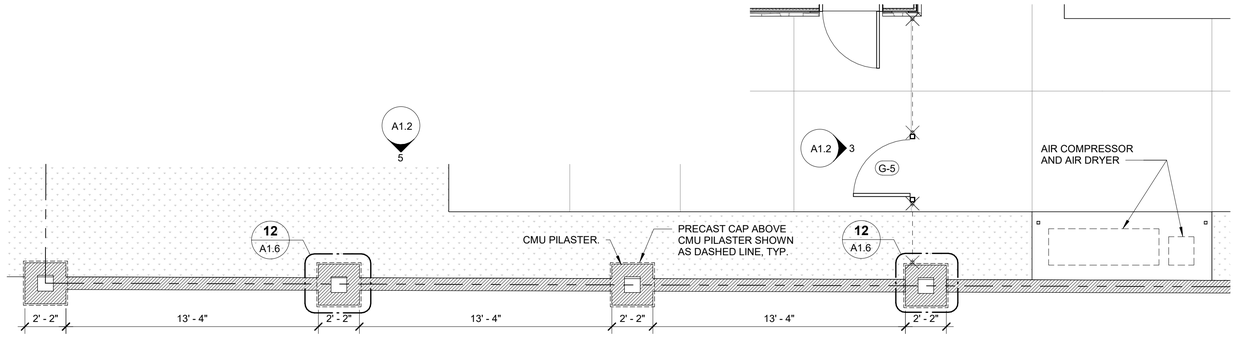
5 CMU FENCE AT GATE ENTRY
1/4" = 1'-0"



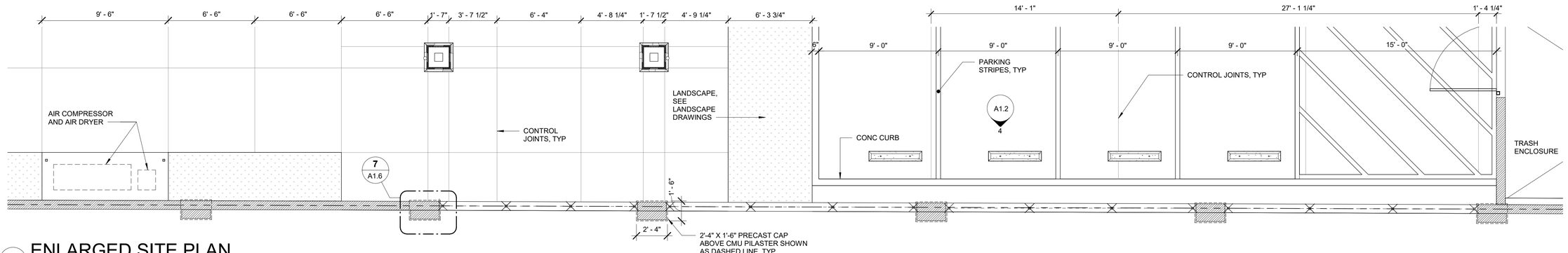
4 SITE ELEVATION
1/4" = 1'-0"



3 GATE ENTRY ELEVATION
3/8" = 1'-0"



2 GATE ENTRY
1/4" = 1'-0"



1 ENLARGED SITE PLAN
1/4" = 1'-0"

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C36478
REN 11-30-27
STATE OF CALIFORNIA

PROJECT
DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

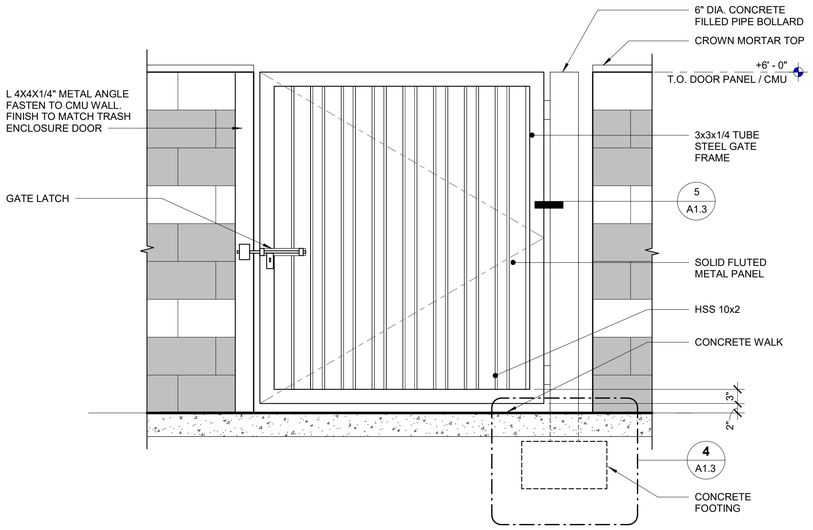
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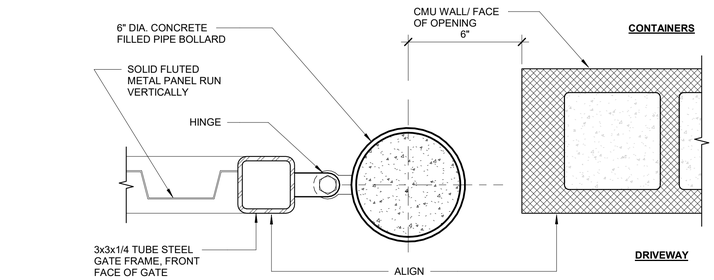
TITLE
SITE DETAILS

SHEET
A1.2

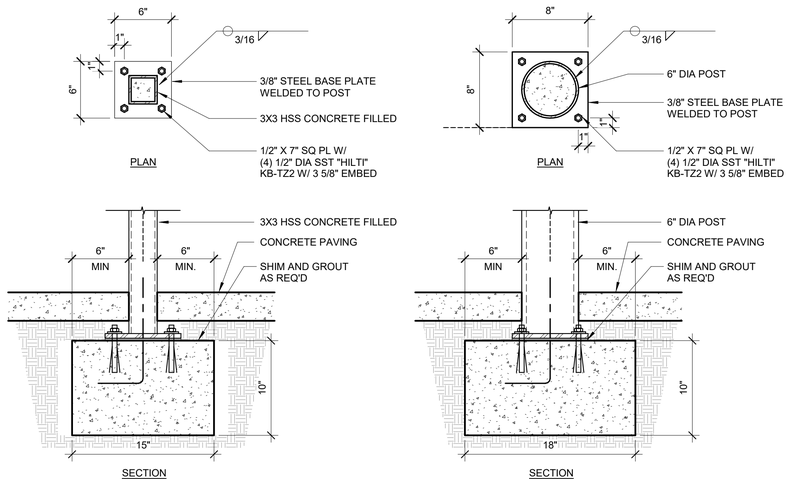
2"
1"
0 1/4" 1/2"
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY



6 METAL GATE ELEVATION AT TRASH ENCLOSURE
3/4" = 1'-0"



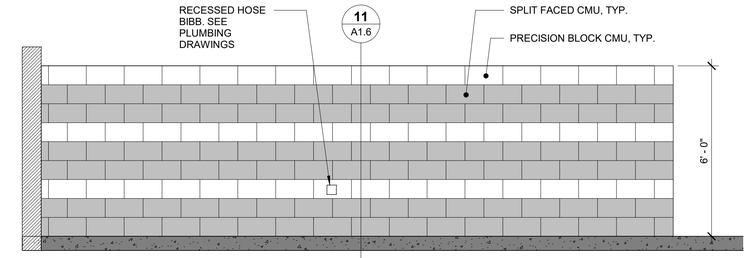
5 GATE HINGE AT TRASH ENCLOSURE
3" = 1'-0"



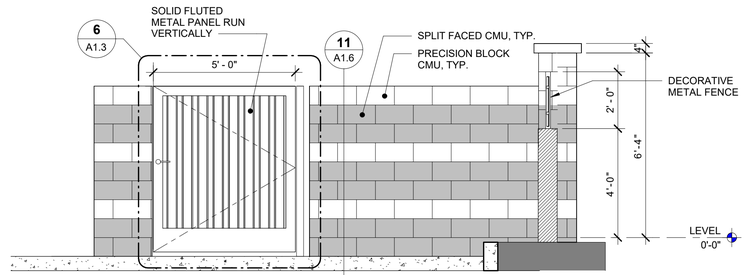
4 GATE POST FOOTING
1 1/2" = 1'-0"

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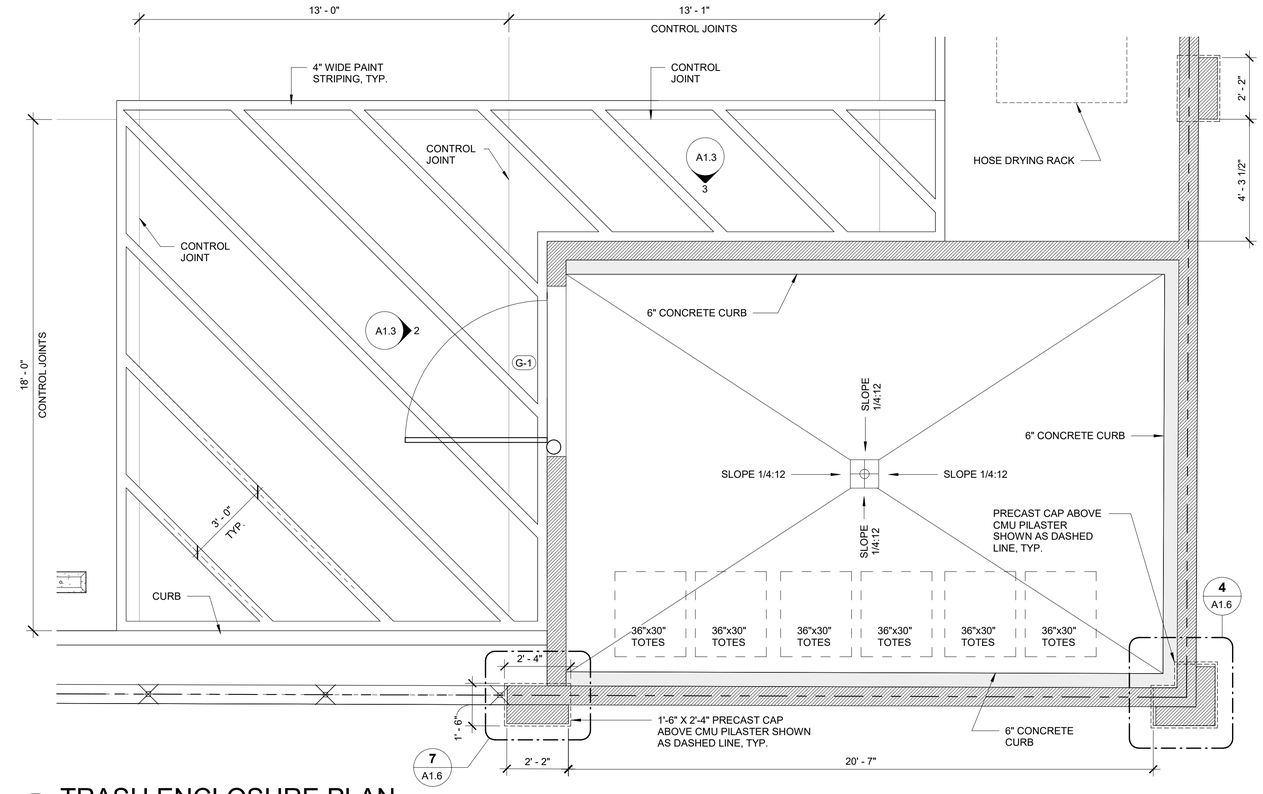
PER 2022 CFC §106.1, §106.2.1, §106.2.2, §503.4, §503.6 & CITY OF DIXON MUNICIPAL FIRE CODES.



3 TRASH ENCLOSURE ELEVATION
3/8" = 1'-0"



2 TRASH ENCLOSURE ELEVATION
3/8" = 1'-0"



1 TRASH ENCLOSURE PLAN
3/8" = 1'-0"

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PROJECT
DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

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CLIENT PROJECT NO:

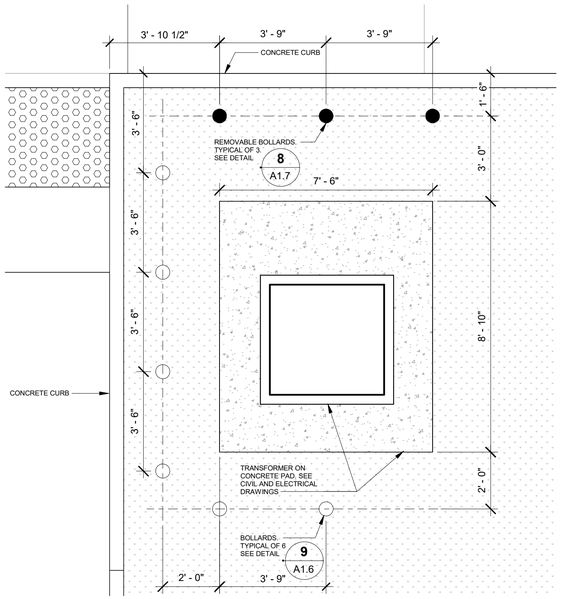
AGENCY

TITLE
SITE DETAILS

SHEET
A1.3

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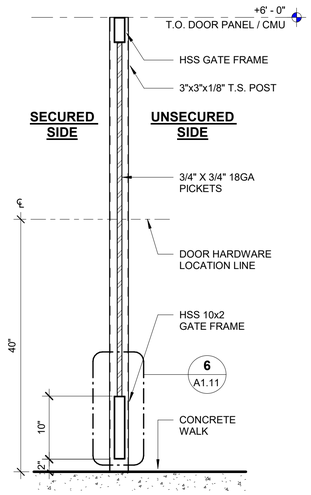
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0 1/4" 1/2" 1" 2"



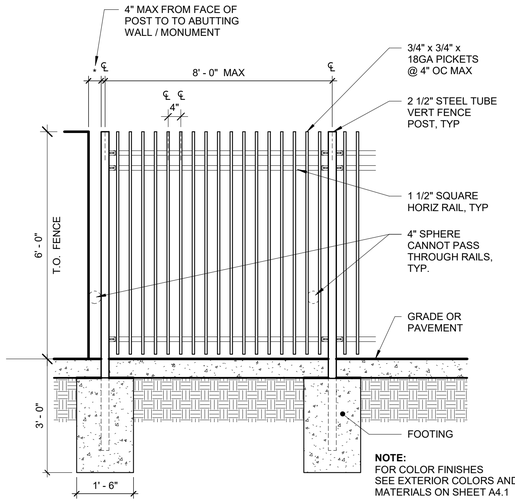
6 TRANSFORMER PAD AND BOLLARDS
3/8" = 1'-0"

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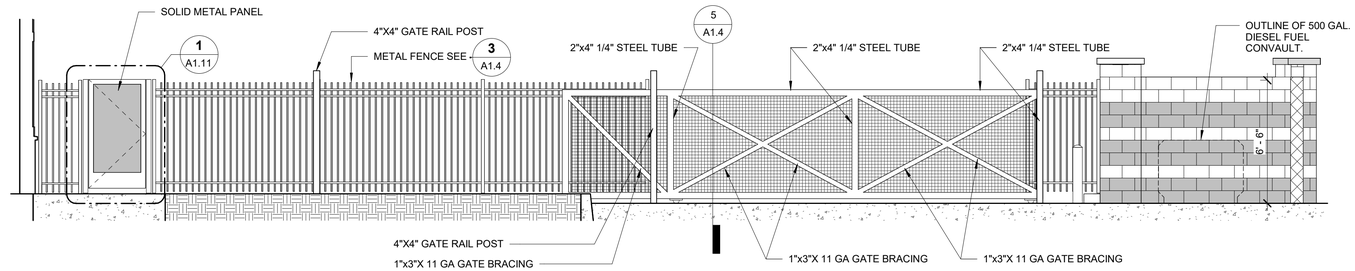
PER 2022 CFC §106.1, §106.2.1, §106.2.2, §503.4, §503.6 & CITY OF DIXON MUNICIPAL FIRE CODES.



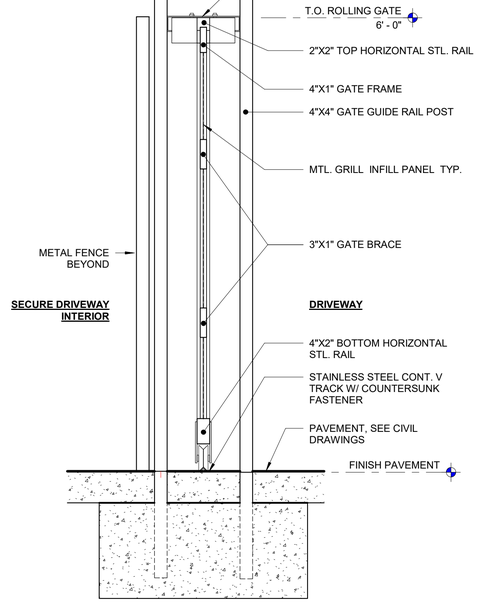
4 METAL GATE SECTION
1" = 1'-0"



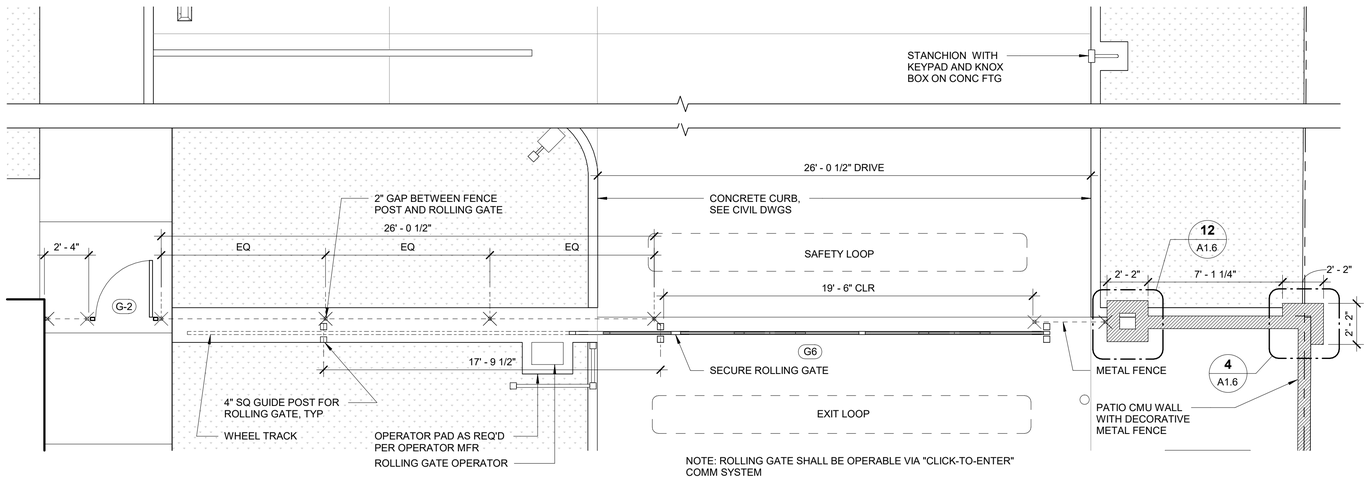
3 METAL FENCE ELEVATION
1/2" = 1'-0"



2 ROLLING GATE ELEVATION
1/4" = 1'-0"



5 GATE SECTION - DRIVEWAY
1" = 1'-0"



1 ROLLING GATE PLAN
1/4" = 1'-0"

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PROJECT
DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
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APN: 0114355010

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

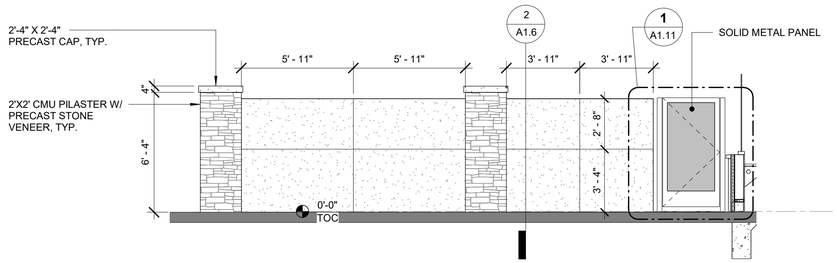
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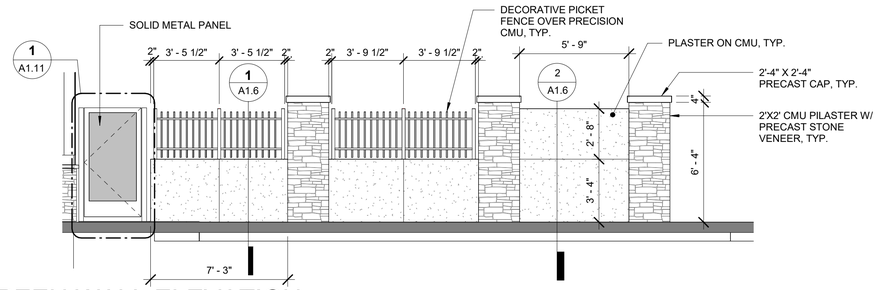
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SITE DETAILS

SHEET
A1.4

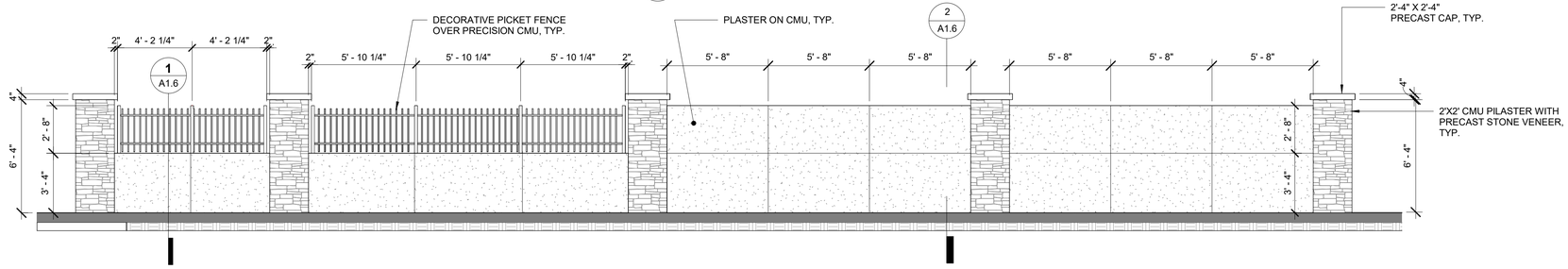
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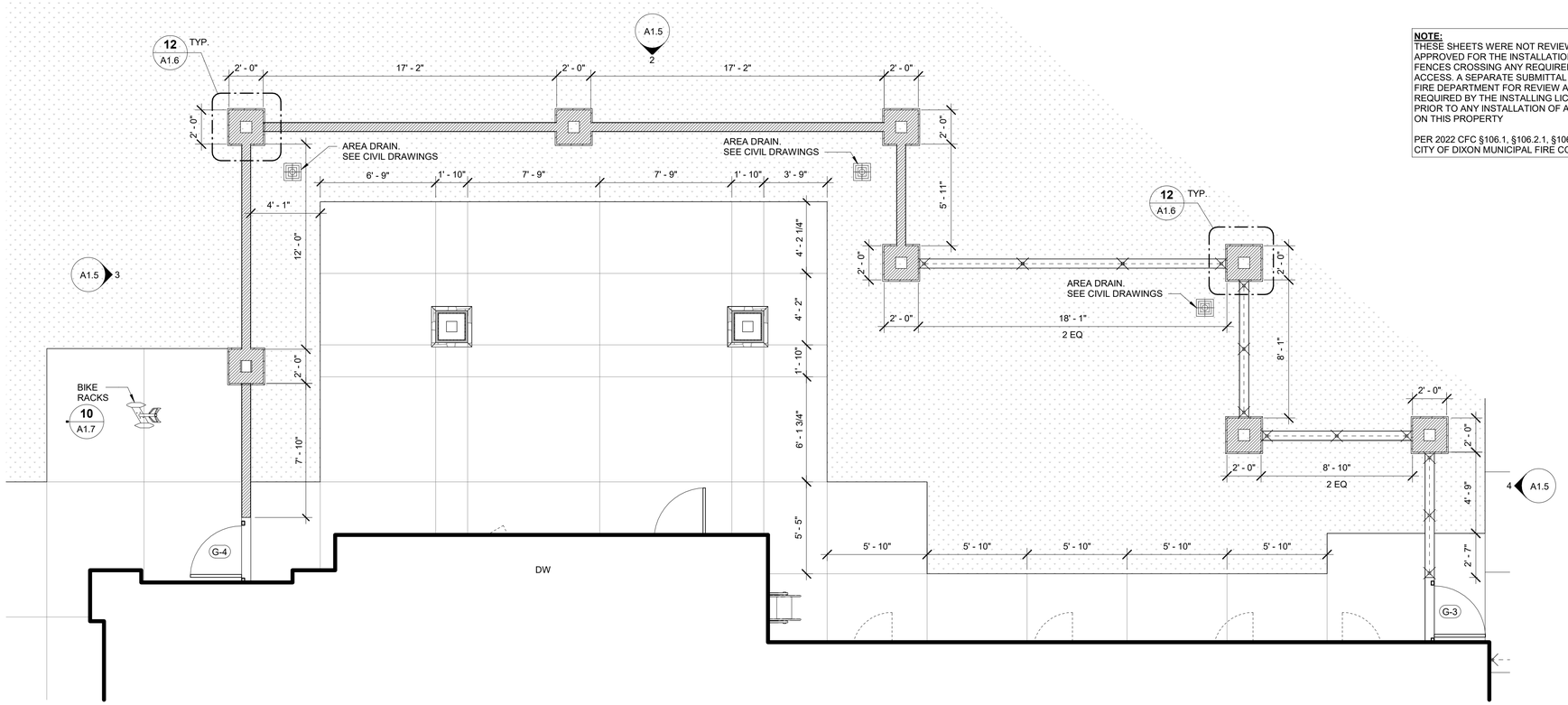
3 SCREEN WALL ELEVATION
1/4" = 1'-0"



4 SCREEN WALL ELEVATION
1/4" = 1'-0"



2 SCREEN WALL ELEVATION
1/4" = 1'-0"



NOTE: PILLASTERS ARE DIMENSIONED TO FACE OF CMU BLOCK. SEE 12 / A1.6

1 SITE PLAN - PATIO
1/4" = 1'-0"

NOTE:
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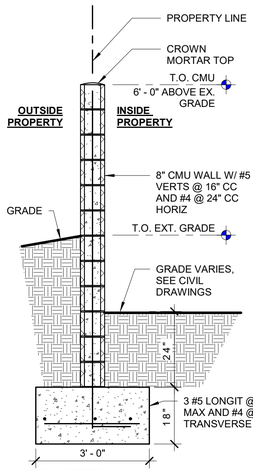
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CLIENT PROJECT NO:

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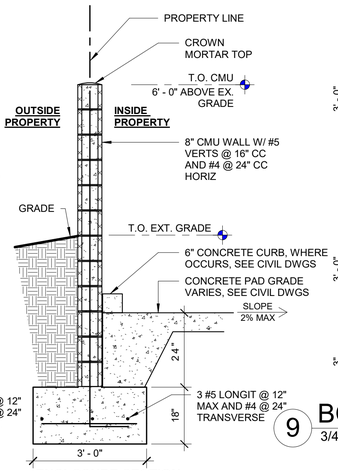
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SITE DETAILS

SHEET
A1.5

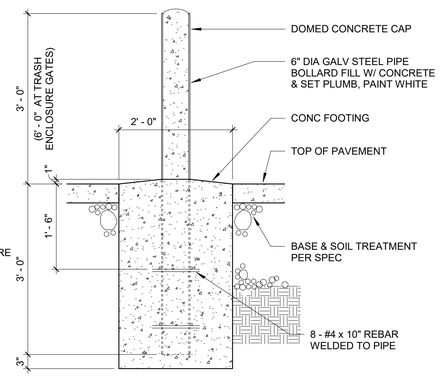
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6/19/2026 12:04:08 PM



PERIMETER WALL SECTION



ENCLOSURE SECTION



9 BOLLARD SECTION
3/4" = 1'-0"

NOTE:
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PER 2022 CFC §106.1, §106.2.1, §106.2.2, §503.4, § 503.6 & CITY OF DIXON MUNICIPAL FIRE CODES.

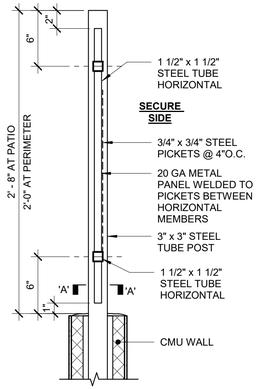


SECTION 'A'-'A'

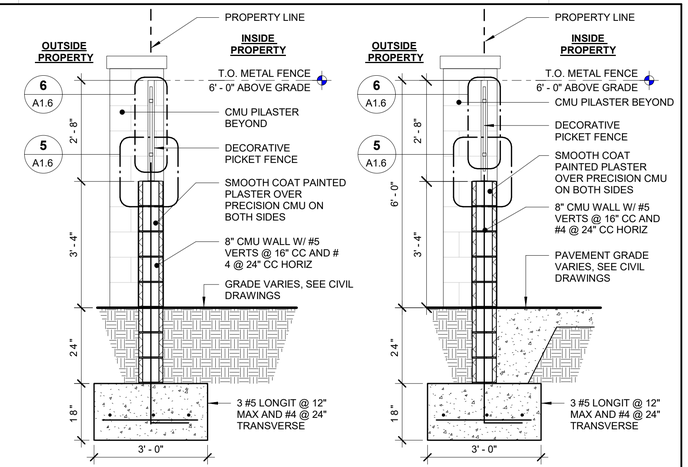
NOTES:

1. ALL STEEL FENCING FINISH IS POWER COAT, BLACK

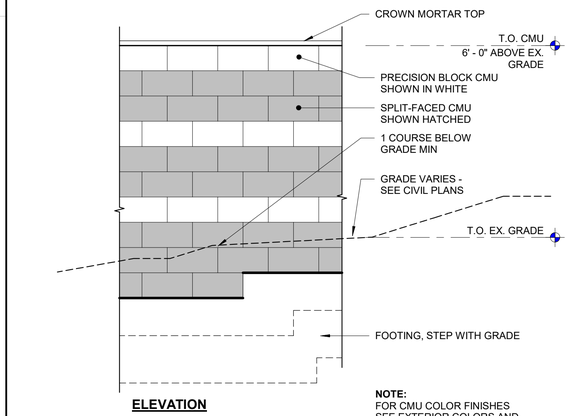
2. STEEL FENCING IS ALL WELDED CONSTRUCTION TOUCH UP WELDS PER COATING MANUFACTURERS RECOMMENDATIONS



6 METAL FENCE DETAIL
1 1/2" = 1'-0"



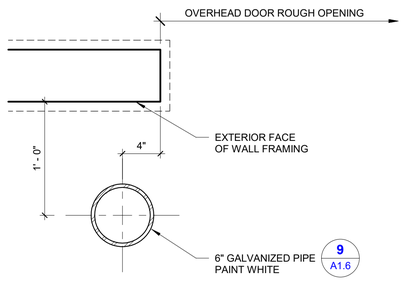
3 PERIMETER CMU WITH METAL DECORATIVE FENCE
1/2" = 1'-0"



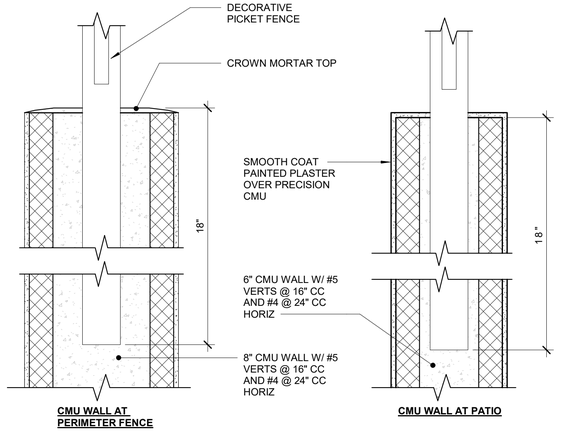
ELEVATION

NOTE:
FOR CMU COLOR FINISHES SEE EXTERIOR COLORS AND MATERIALS ON SHEET A4.1

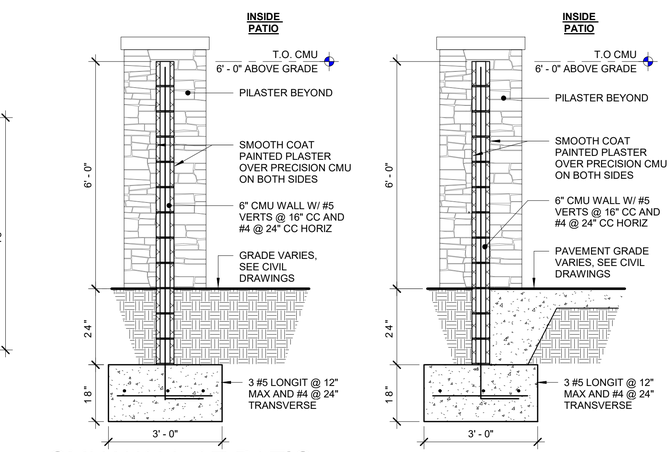
11 PERIMETER & ENCLOSURE CMU WALL
1/2" = 1'-0"



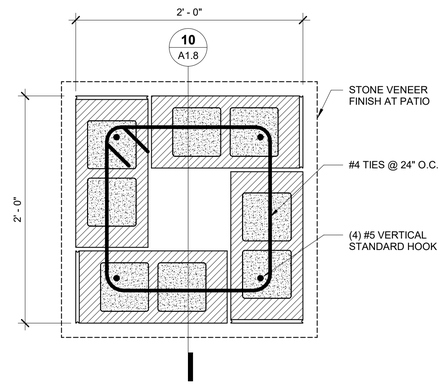
8 BOLLARD PLAN
1 1/2" = 1'-0"



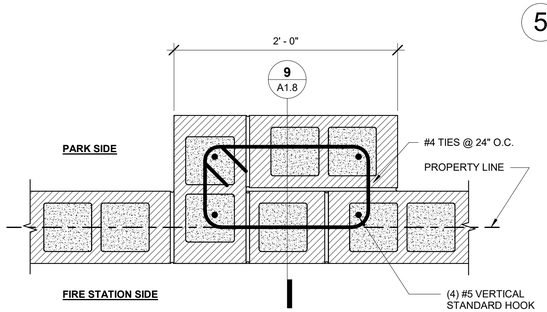
5 CMU WALL W/ PICKET FENCE
3" = 1'-0"



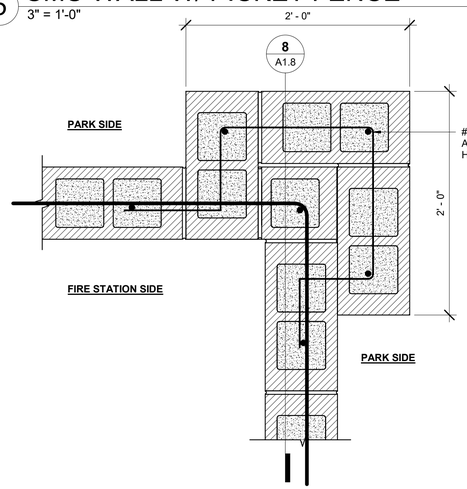
2 CMU WALL AT PATIO
1/2" = 1'-0"



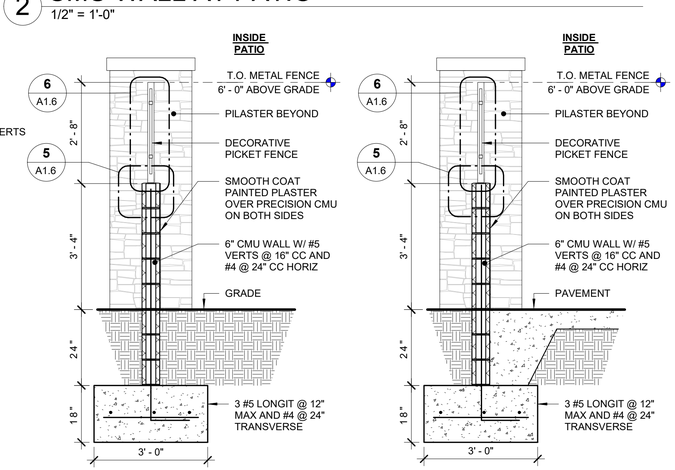
12 PILASTER DETAIL - 01
1 1/2" = 1'-0"



7 PILASTER DETAIL - 02
1 1/2" = 1'-0"



4 PILASTER DETAIL - 03
1 1/2" = 1'-0"



1 CMU WALL WITH METAL DECORATIVE FENCE AT PATIO
1/2" = 1'-0"

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CONSULTANT

SEAL

LICENSED ARCHITECT DEBORAH LESNESKA C36478 REGEN 11-30-25 STATE OF CALIFORNIA

PROJECT
DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

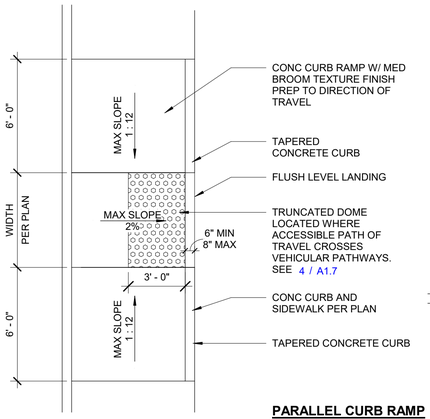
AGENCY

TITLE
SITE DETAILS

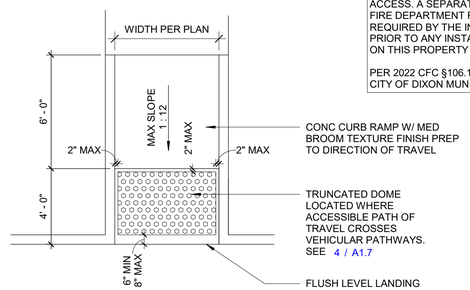
SHEET
A1.6

2" 1" 1/4" 1/2" 0
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Autodesk Docs://MF22204 The City of Dixon - Fire Station 82/MF22204_ARCHMSTR_R24_CENTRAL.rvt
6/23/2026 2:53:52 PM

IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
0 1/4" 1/2" 1"
Autodesk Docs://MF22204 The City of Dixon - Fire Station 82/MF22204_ARCHMSTR_R24_CENTRAL.rvt
6/19/2026 12:04:12 PM



PARALLEL CURB RAMP

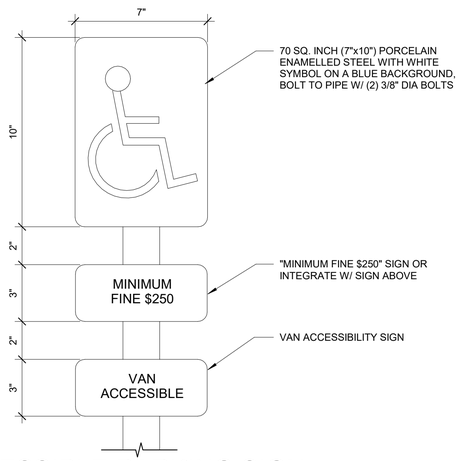


PERPENDICULAR CURB RAMP

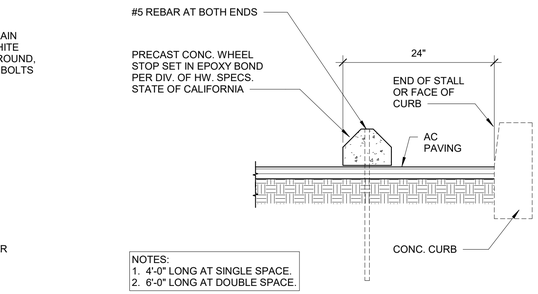
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11 ACCESSIBLE CURB RAMP
1/4" = 1'-0"

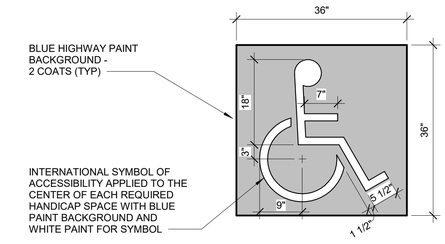


6 ACCESSIBLE PARKING SIGN
3" = 1'-0"



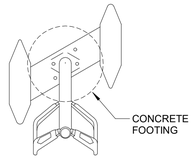
NOTES:
1. 4'-0" LONG AT SINGLE SPACE.
2. 6'-0" LONG AT DOUBLE SPACE.

3 WHEEL STOP
1" = 1'-0"



2 ACCESSIBLE PARKING SYMBOL
3/4" = 1'-0"

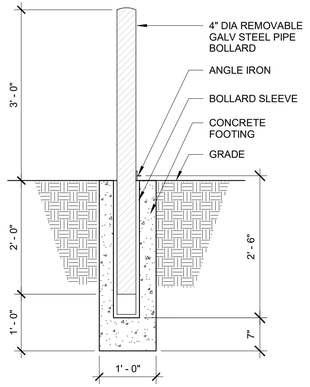




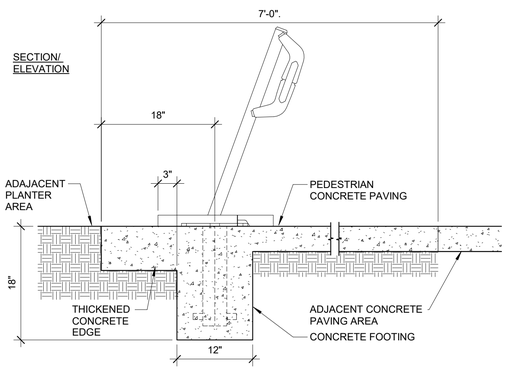
PLAN

NOTE:
A. PRIOR TO INSTALLATION, CONTRACTOR SHALL FIELD VERIFY LOCATION OF BIKE RACK TO ALLOW FOR PARKED BICYCLES TO CLEAR PATH OF TRAVEL.
B. BICYCLE RACK SHALL BE MANUFACTURED BY GROUND CONTROL SYSTEMS, MODEL DV212 IN-GROUND MOUNT. STEEL WITH BLACK POWER COATED FINISH.

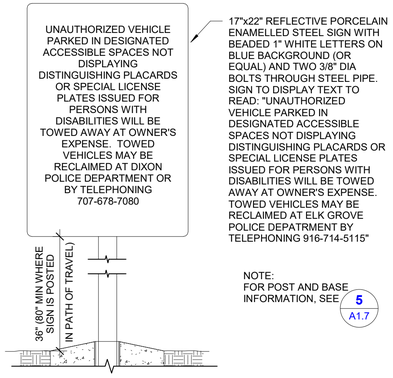
10 BIKE RACK
1" = 1'-0"



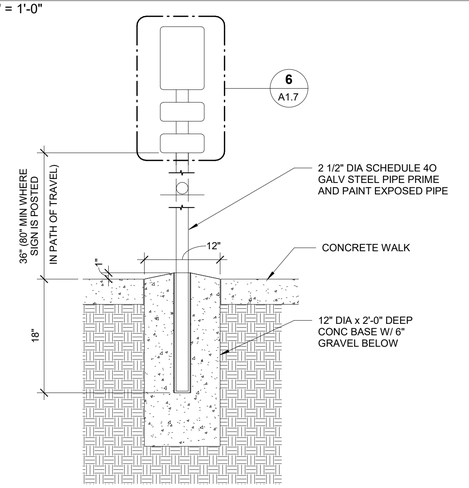
8 REMOVABLE BOLLARD SECTION
3/4" = 1'-0"



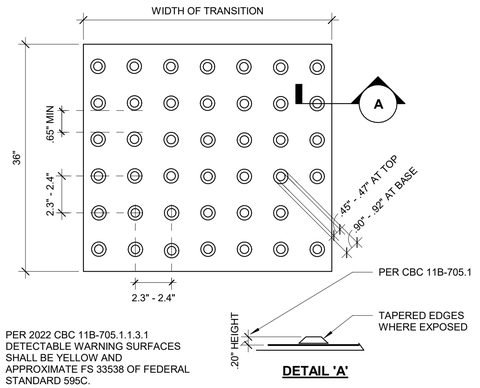
7 TOW-AWAY SIGN
1 1/2" = 1'-0"



5 ACCESSIBLE POLE MOUNTED SIGN
1" = 1'-0"



DETECTABLE WARNING SHALL EXTEND 36" PERPENDICULAR TO CURB AND FULL WIDTH OF "LANDING". DETECTABLE WARNING SHALL BE SLIP-RESISTANT AND CONSIST OF RAISED TRUNCATED DOMES W/ DIA NOMINAL 0.90 INCHES AT THE BASE TAPERING TO 0.45 INCHES AT THE TOP, A HEIGHT OF NOMINAL 0.18 INCHES AND A CENTER- TO -CENTER SPACING OF NOMINAL 2.3 INCHES.



PER 2022 CBC 11B-705.1.1.3.1 DETECTABLE WARNING SURFACES SHALL BE YELLOW AND APPROXIMATE FS 33538 OF FEDERAL STANDARD 595C.

DETAIL 'A'

4 WARNING IDENTIFICATION
1" = 1'-0"

1 ACCESSIBLE PARKING 180
1/4" = 1'-0"

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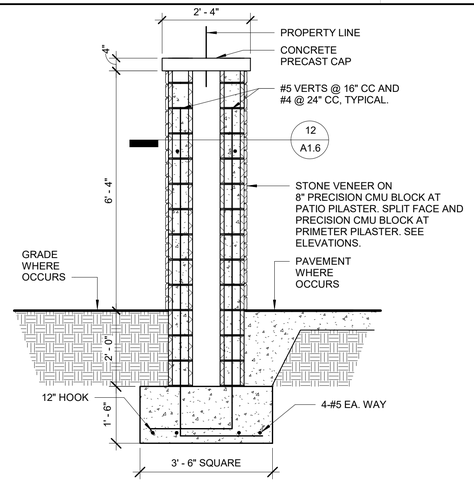
MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

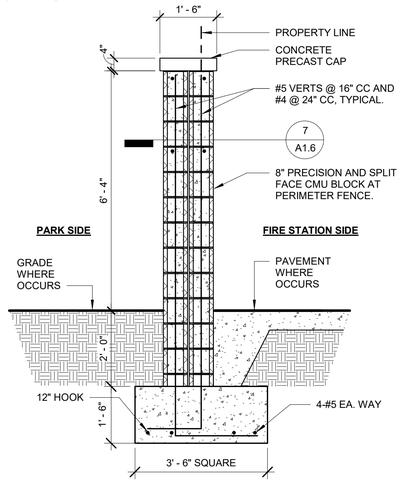
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TITLE
SITE DETAILS

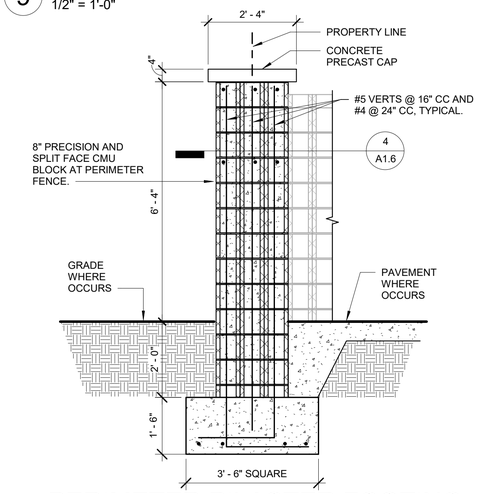
SHEET
A1.7



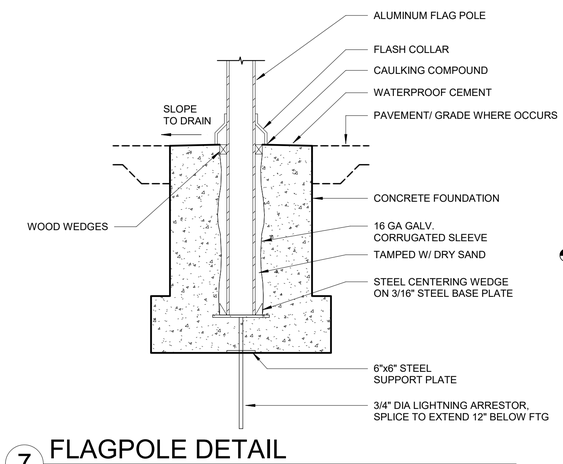
10 PERIMETER PILASTER FOOTING - 01
1/2" = 1'-0"



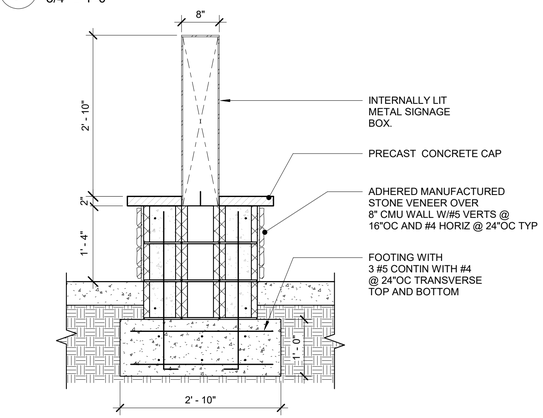
9 PERIMETER PILASTER FOOTING - 02
1/2" = 1'-0"



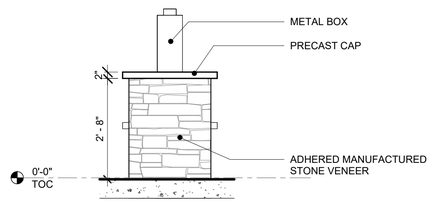
8 PERIMETER PILASTER FOOTING - 03
1/2" = 1'-0"



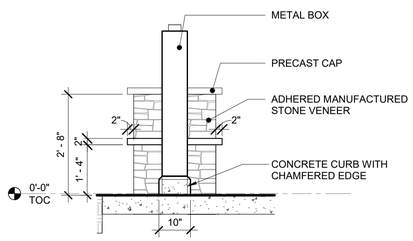
7 FLAGPOLE DETAIL
3/4" = 1'-0"



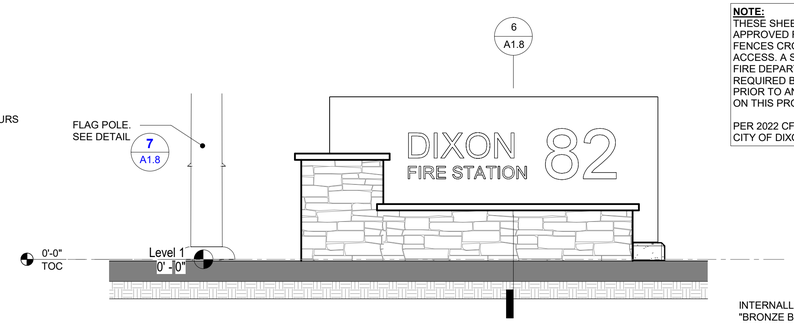
6 MONUMENT SIGN SECTION
3/4" = 1'-0"



5 MONUMENT SIGN ELEVATION
1/2" = 1'-0"



4 MONUMENT SIGN ELEVATION
1/2" = 1'-0"

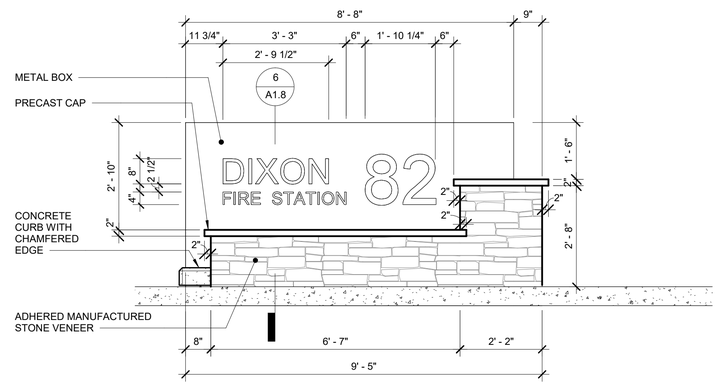


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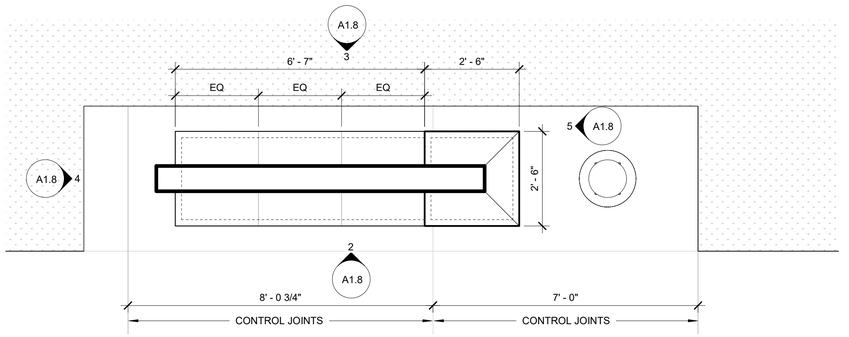
PER 2022 CFC §106.1, §106.2.1, §106.2.2, §503.4, §503.6 & CITY OF DIXON MUNICIPAL FIRE CODES.

INTERNALLY LIT METAL BOX SIGN. POWDERCOAT "BRONZE BROWN" FINISH ON METAL BOX WITH STENCIL CUT-OUT LETTERS AND NUMBERS WITH TRANSLUCENT PANELS BEHIND CUT-OUTS "DIXON" TO BE ILLUMINATED WHITE TRANSLUCENT PANEL. "FIRE STATION" AND "82" TO BE RED COLOR TRANSLUCENT PANELS. ARCHITECT TO CONFIRM ALL COLORS DURING SHOP DRAWING REVIEW.

3 MONUMENT SIGN ELEVATION - NORTH
1/2" = 1'-0"



2 MONUMENT SIGN ELEVATION - SOUTH
1/2" = 1'-0"



1 MONUMENT SIGN PLAN
1/2" = 1'-0"

N

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APN: 0114355010

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MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
SITE DETAILS

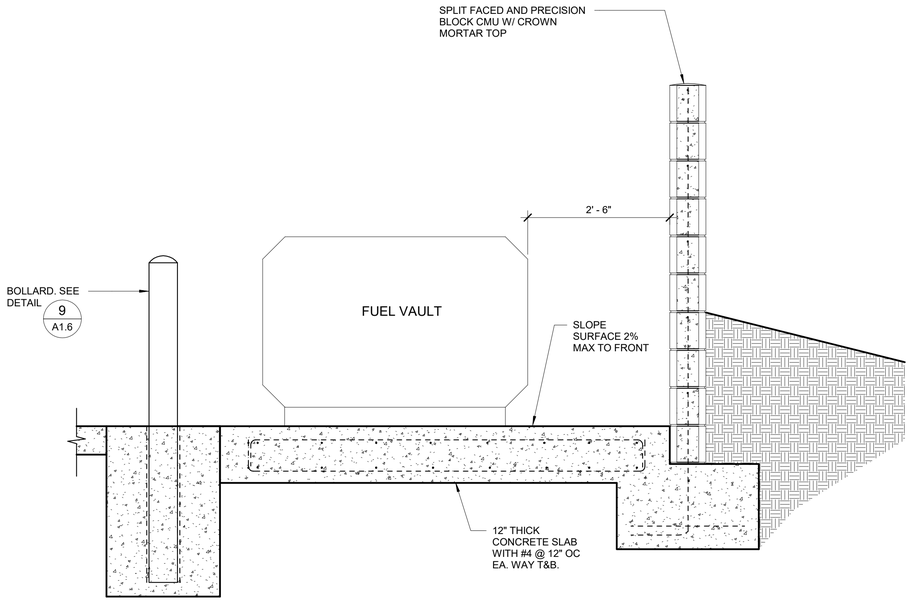
SHEET
A1.8

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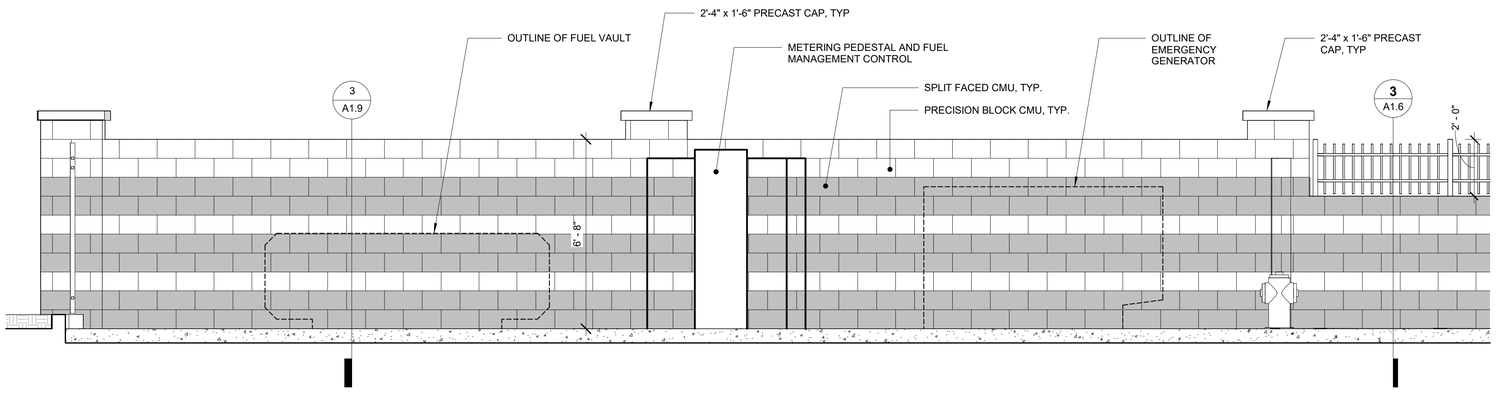
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0 1/4" 1/2" 1"
2"

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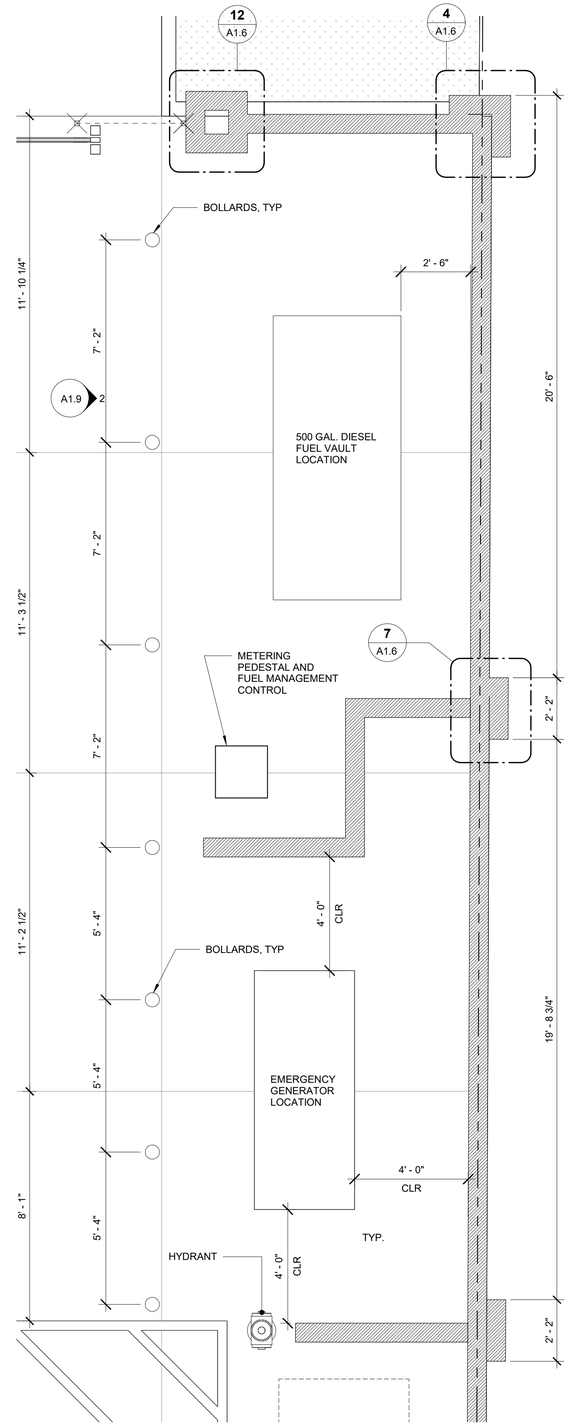
PER 2022 CFC §106.1, §106.2.1, §106.2.2, §503.4, §503.6 & CITY OF DIXON MUNICIPAL FIRE CODES.



3 FUEL VAULT SECTION
3/4" = 1'-0"



2 GENERATOR / FUL ENCLOSURE ELEVATION
3/8" = 1'-0"



1 GENERATOR / FUEL ENCLOSURE PLAN
3/8" = 1'-0"

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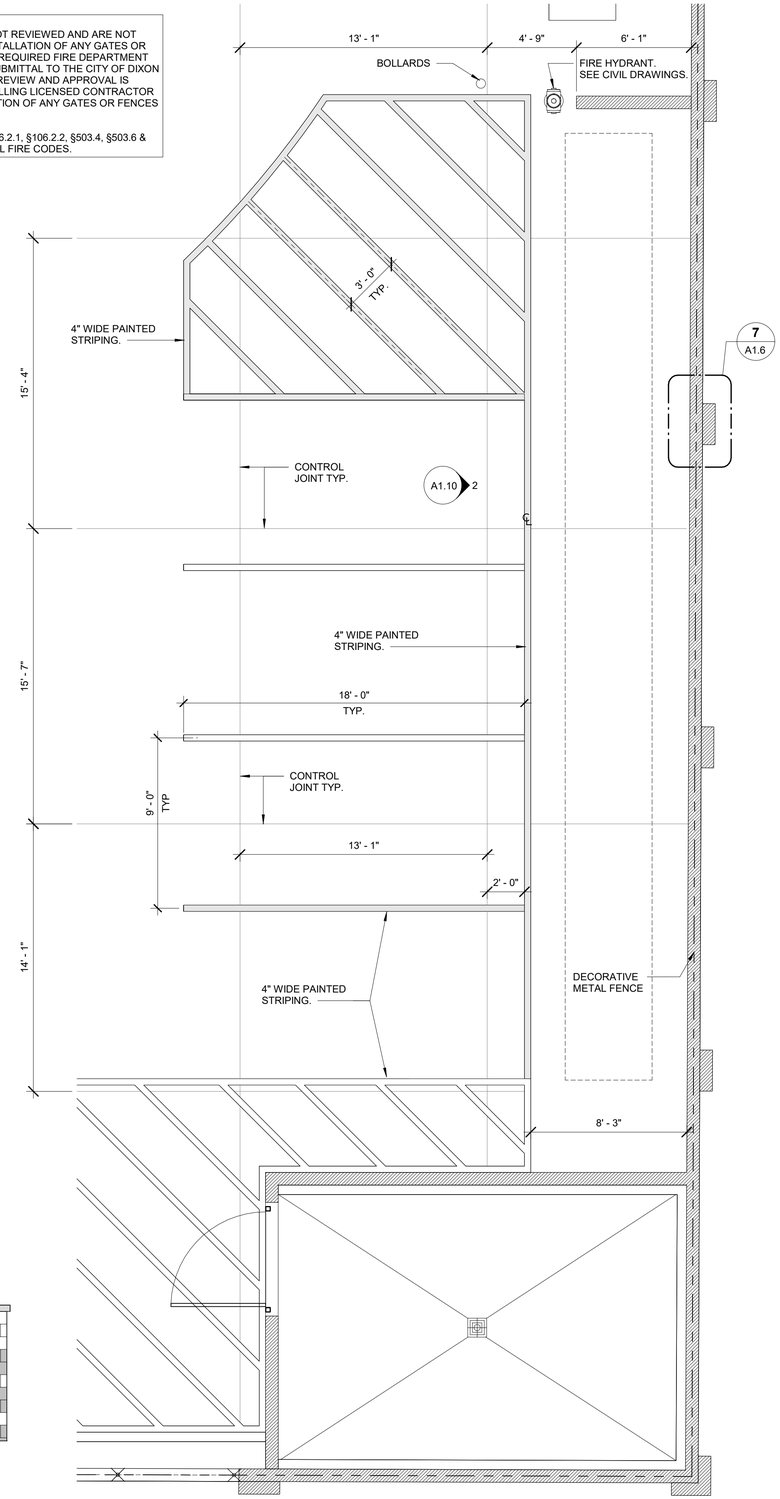
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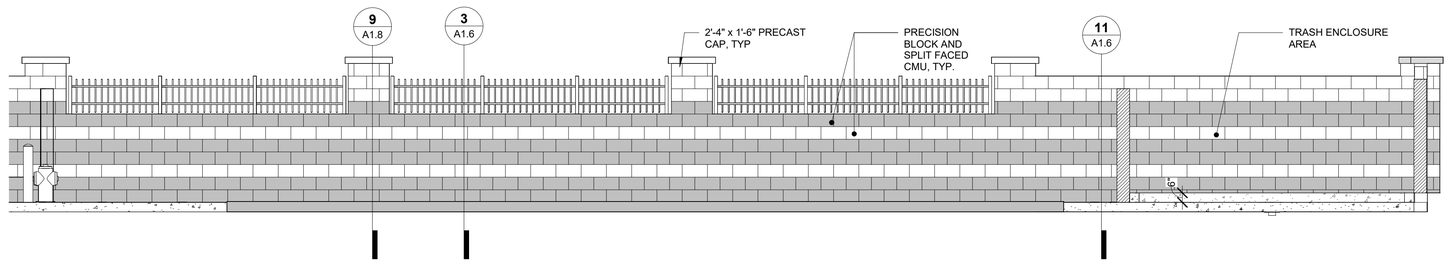
0 1/4" 1/2" 1" 2"
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NOTE:
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PER 2022 CFC §106.1, §106.2.1, §106.2.2, §503.4, §503.6 & CITY OF DIXON MUNICIPAL FIRE CODES.



1 ENLARGED SITE PLAN
1/4" = 1'-0"



2 SITE ELEVATION
1/4" = 1'-0"

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DEBORAH LESNEFSKA
C36478
RENEWAL 11-30-27
STATE OF CALIFORNIA

PROJECT
DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

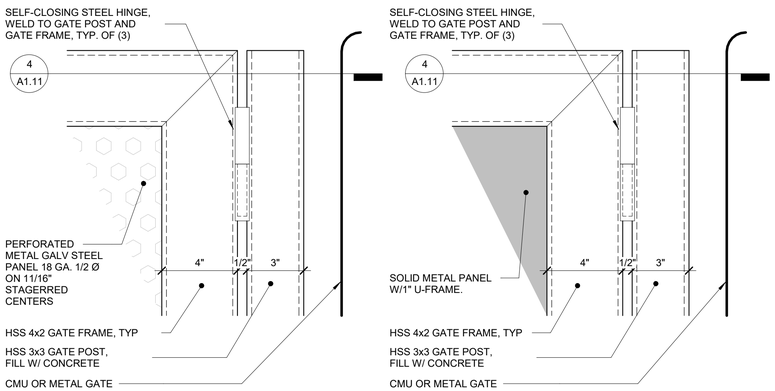
LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

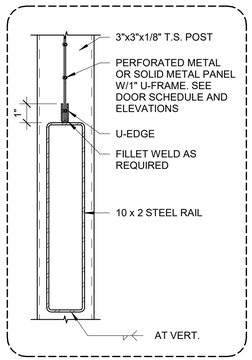
TITLE
SITE DETAILS

SHEET
A1.10

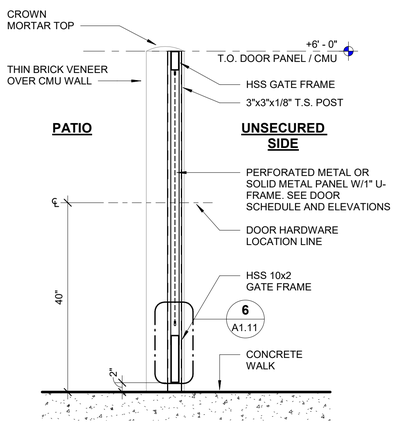
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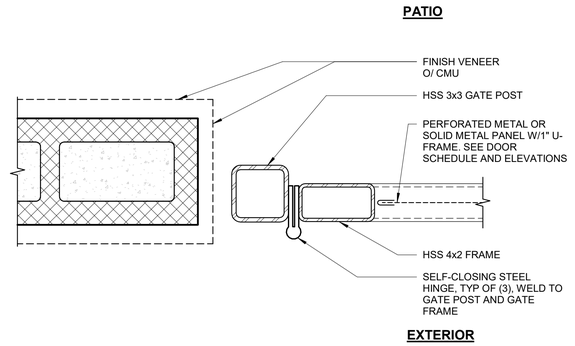
7 GATE HINGE ELEVATION
3" = 1'-0"



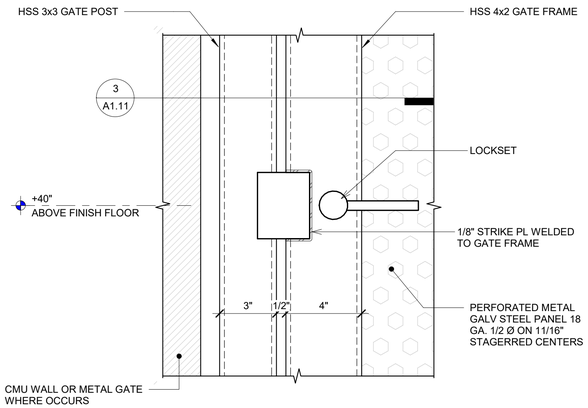
6 FRAME DETAIL
3" = 1'-0"



5 GATE SECTION
3/4" = 1'-0"

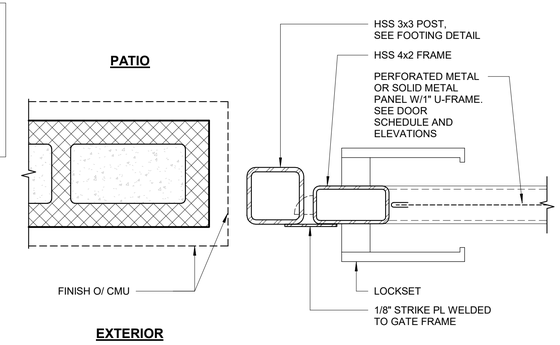


4 GATE HINGE
3" = 1'-0"

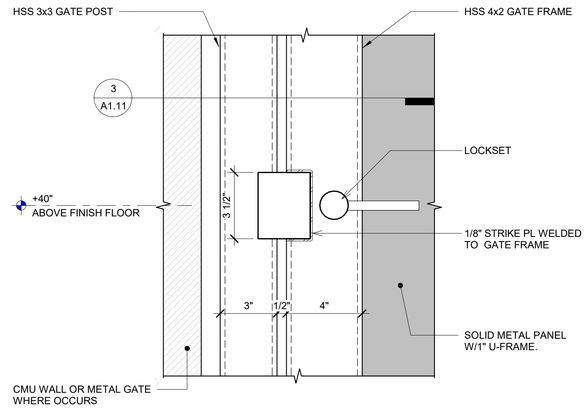


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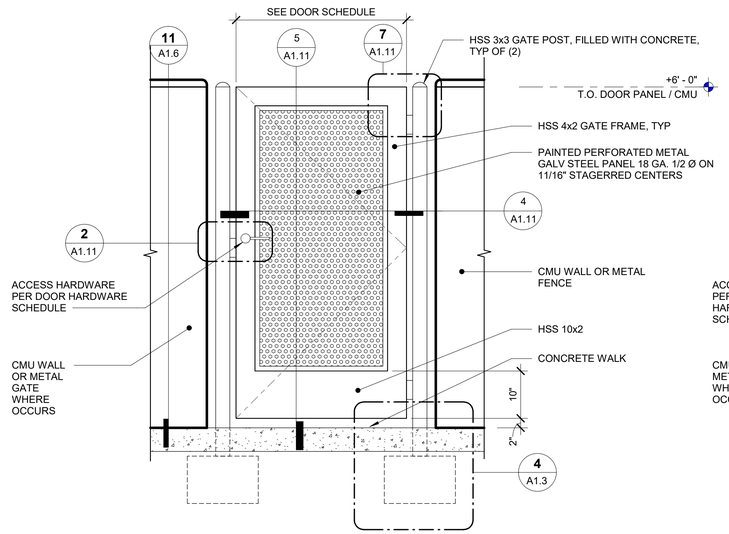
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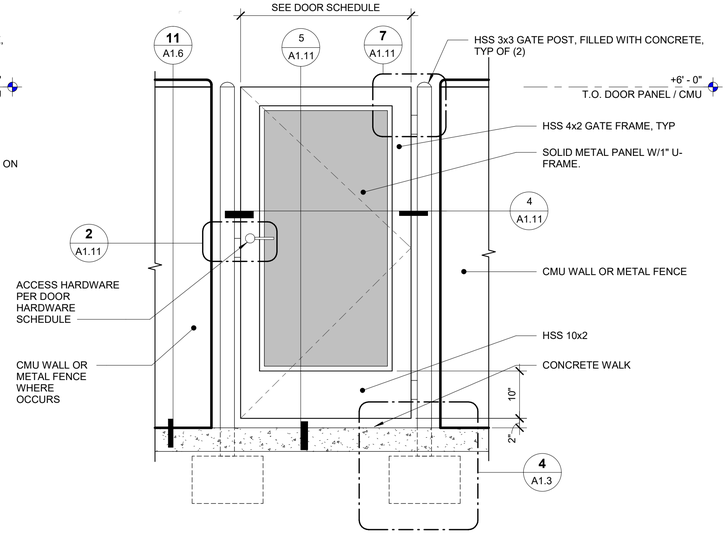


3 GATE LATCH
3" = 1'-0"



2 GATE LATCH ELEVATION
3" = 1'-0"





1 METAL GATE ELEVATION
3/4" = 1'-0"

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ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

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CLIENT PROJECT NO:

AGENCY

TITLE
SITE DETAILS

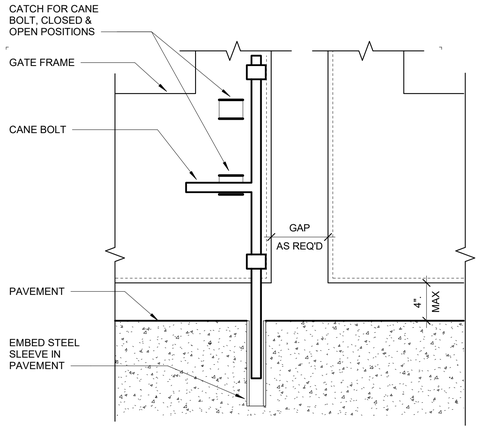
SHEET
A1.11

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0 1/4" 1/2" 1"
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6/19/2026 12:04:18 PM

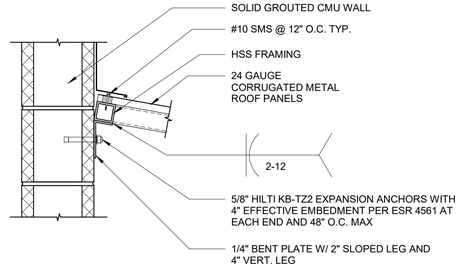
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0 1/4" 1/2" 1" 2"

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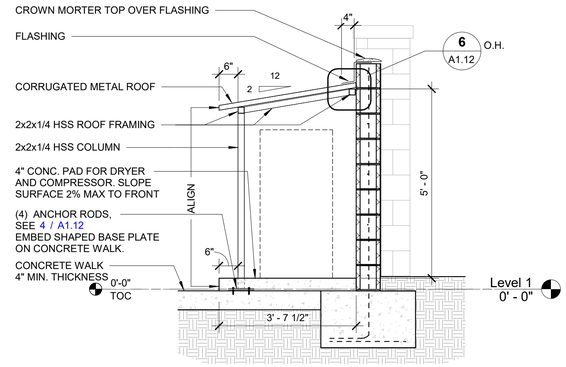
PER 2022 CFC §106.1, §106.2.1, §106.2.2, §503.4, §503.6 & CITY OF DIXON MUNICIPAL FIRE CODES.



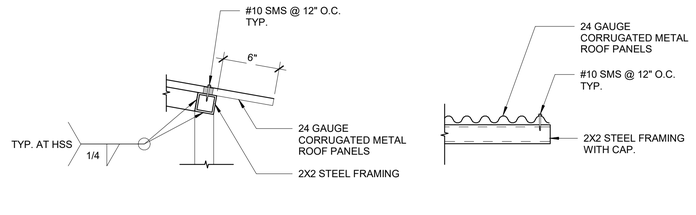
8 GATE CANE BOLT DETAIL
3" = 1'-0"



BACK

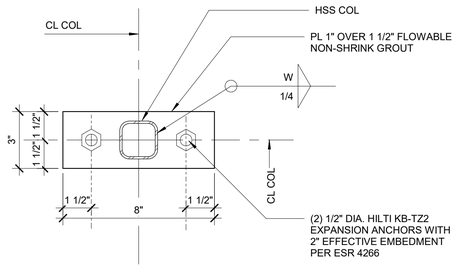


6 AIR COMPRESSOR ROOF DETAIL AT CMU
1 1/2" = 1'-0"



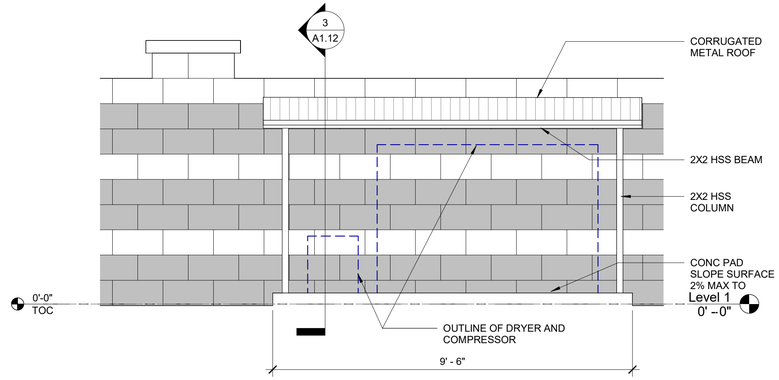
FRONT **SIDE**

5 AIR COMPRESSOR ROOF DETAIL
1 1/2" = 1'-0"

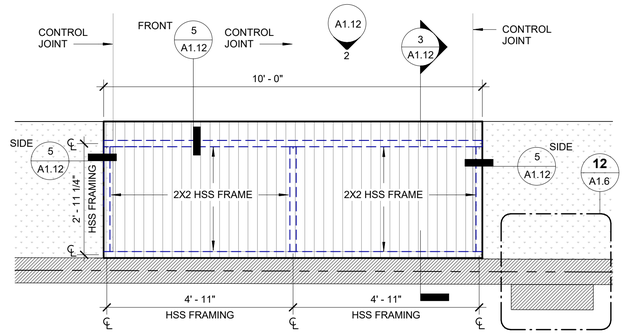


4 SHAPED BASE PLATE AT HSS COLUMN
3" = 1'-0"

3 AIR COMPRESSOR CANOPY - SECTION
1/2" = 1'-0"



2 AIR COMPRESSOR CANOPY - FRONT ELEVATION
1/2" = 1'-0"



1 AIR COMPRESSOR CANOPY - PLAN
1/2" = 1'-0"

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PROJECT
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653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

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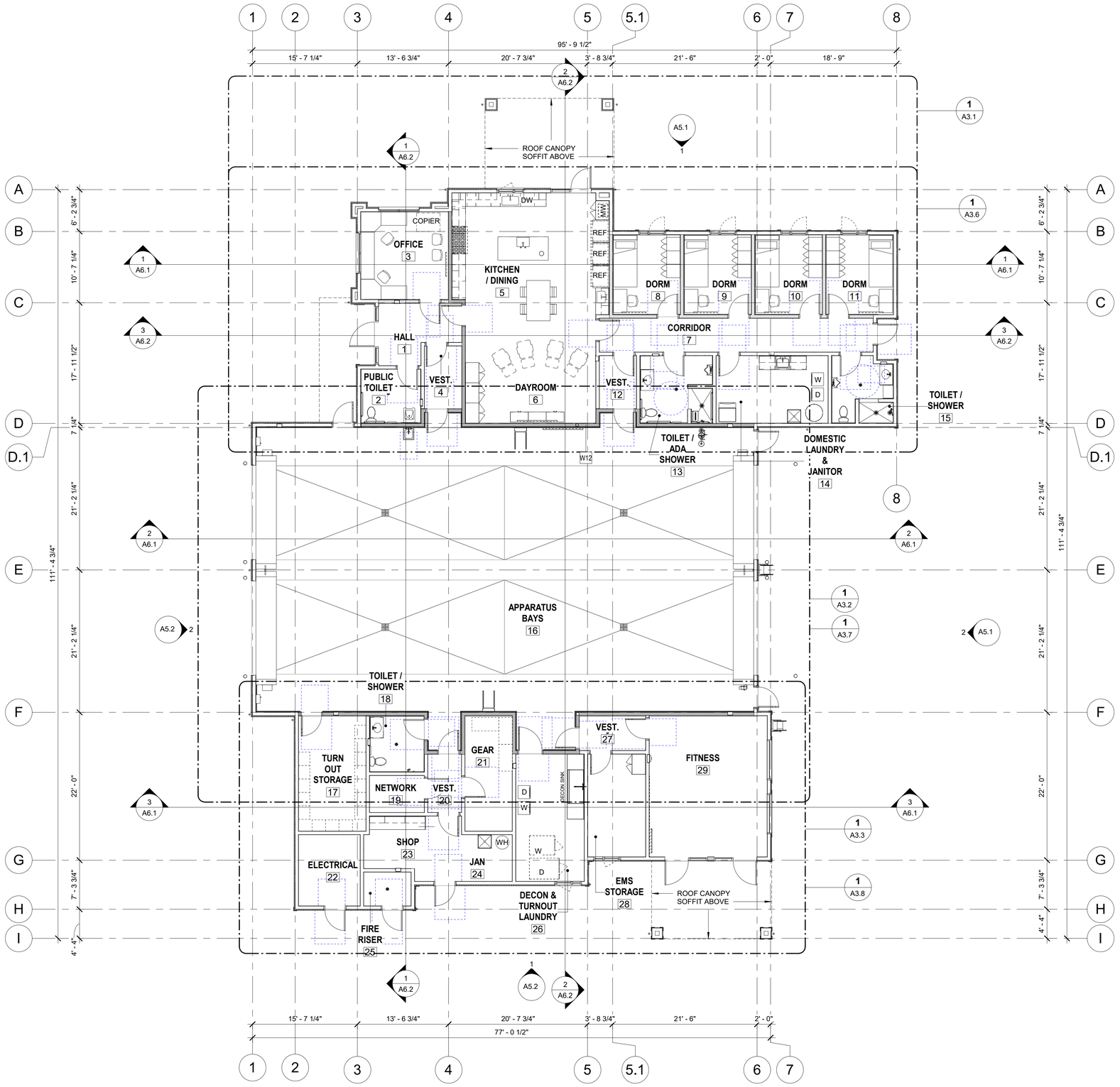
LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
SITE DETAILS

SHEET
A1.12

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1 FLOOR PLAN
1/8" = 1'-0"

SHEET NOTES

a. ALL DIMENSIONS ARE TO THE FACE OF STUD OR GRIDLINE, UNLESS NOTED OTHERWISE.

b. SEE SHEETS A10.1 AND A10.2 FOR ALL ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS.

c. FIELD VERIFY DIMENSIONS PRIOR TO FABRICATION OF CASEWORK, STOREFRONT AND WINDOWS.

d. SEE SHEET G0.2 AND G0.3 FOR FIRE EXTINGUISHER INFORMATION. FIRE EXTINGUISHER LOCATIONS AND REQUIREMENTS TO BE VERIFIED WITH THE FIRE MARSHAL.

e. EXERCISE MACHINES AND EQUIPMENT SHALL HAVE A CLEAR FLOOR SPACE COMPLYING WITH SECTION 11B-305 POSITIONED FOR TRANSFER OR FOR USE BY AN INDIVIDUAL SEATED IN A WHEELCHAIR. (CBC 11B-1004.1)

WALL LEGEND

- WOOD STUD FRAMED WALL - **1HR** FIRE BARRIER
- WOOD STUD FRAMED WALL - **1/2 HR** FIRE PARTITION
- WOOD STUD FRAMED WALL - NON-RATED PARTITION

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AGENCY

TITLE

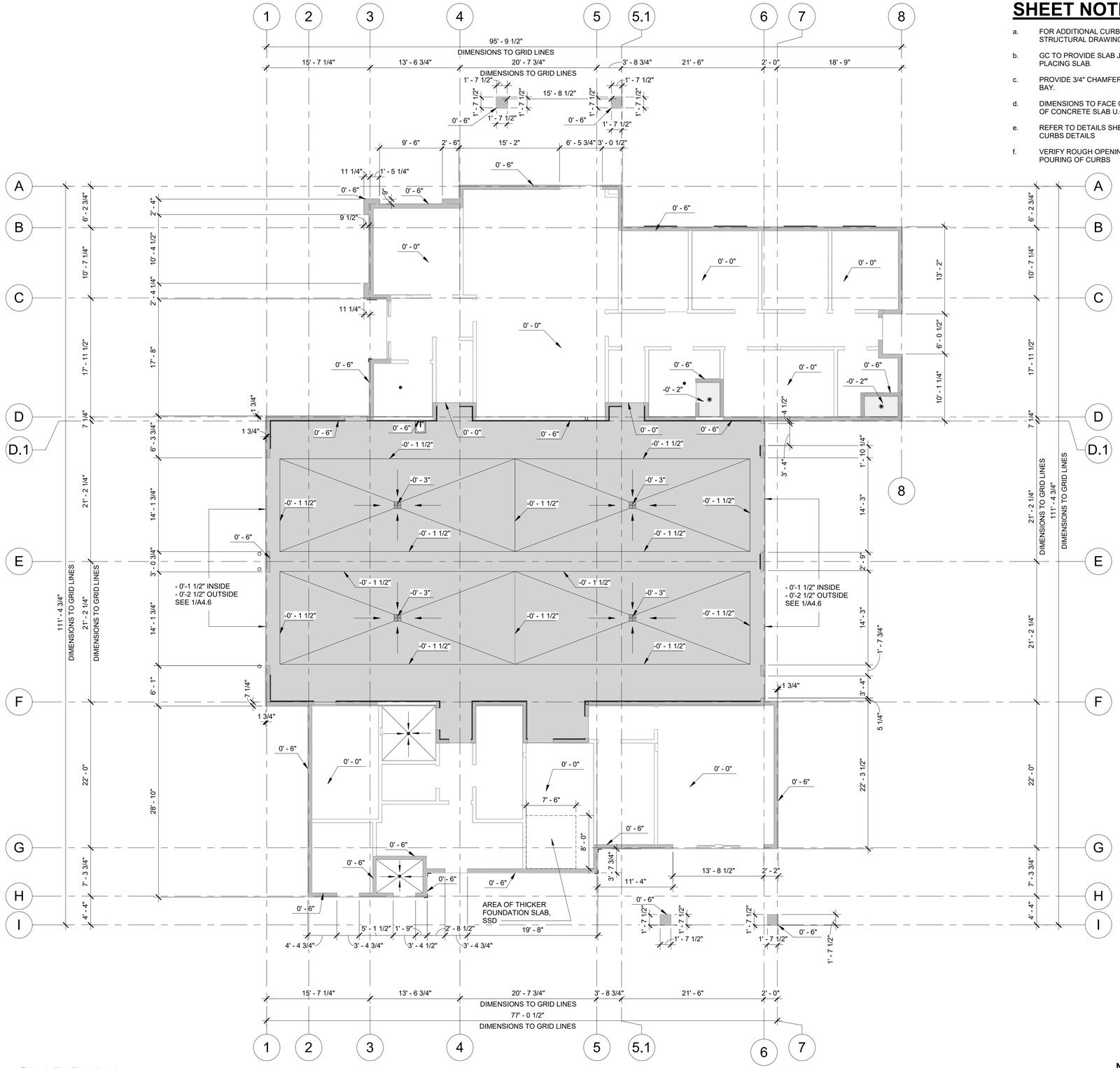
FLOOR PLAN

SHEET

A2.1

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0 1/4" 1/2" 1" 2"



1 SLAB PLAN
1/8" = 1'-0"

SHEET NOTES

a. FOR ADDITIONAL CURBS AND DEPRESSED SLAB, SEE STRUCTURAL DRAWINGS.

b. GC TO PROVIDE SLAB JOINT LAYOUT PRIOR TO PLACING SLAB.

c. PROVIDE 3/4" CHAMFER ON ALL CURBS IN APPARATUS BAY.

d. DIMENSIONS TO FACE OF CONCRETE CURB OR FACE OF CONCRETE SLAB U.O.N

e. REFER TO DETAILS SHEET FOR ADDITIONAL WALL CURBS DETAILS

f. VERIFY ROUGH OPENING OF ALL DOORS PRIOR TO POURING OF CURBS

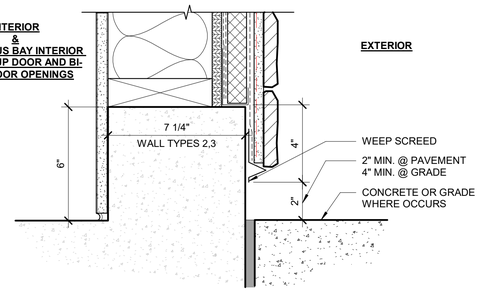
SLAB LEGEND

X' - XX" INDICATES T.O. CONCRETE ELEVATION

-X' - XX" INDICATES DEPRESSED SLAB

INTERIOR & APPARATUS BAY INTERIOR AT ROLL UP DOOR AND BI-FOLD DOOR OPENINGS

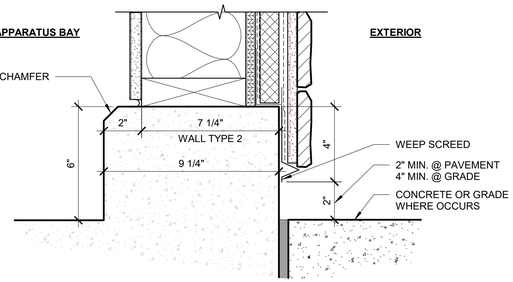
EXTERIOR



2 CONCRETE CURB WIDTH
3" = 1'-0"

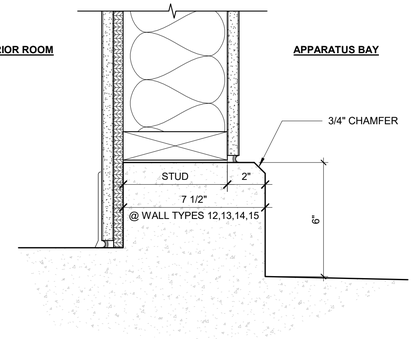
APPARATUS BAY

EXTERIOR



CONCRETE CURB WIDTH AT APPARATUS BAY EXTERIOR WALL
3 3" = 1'-0"

INTERIOR ROOM **APPARATUS BAY**



CURB AT APPARATUS BAY AT INTERIORS
4 3" = 1'-0"

N

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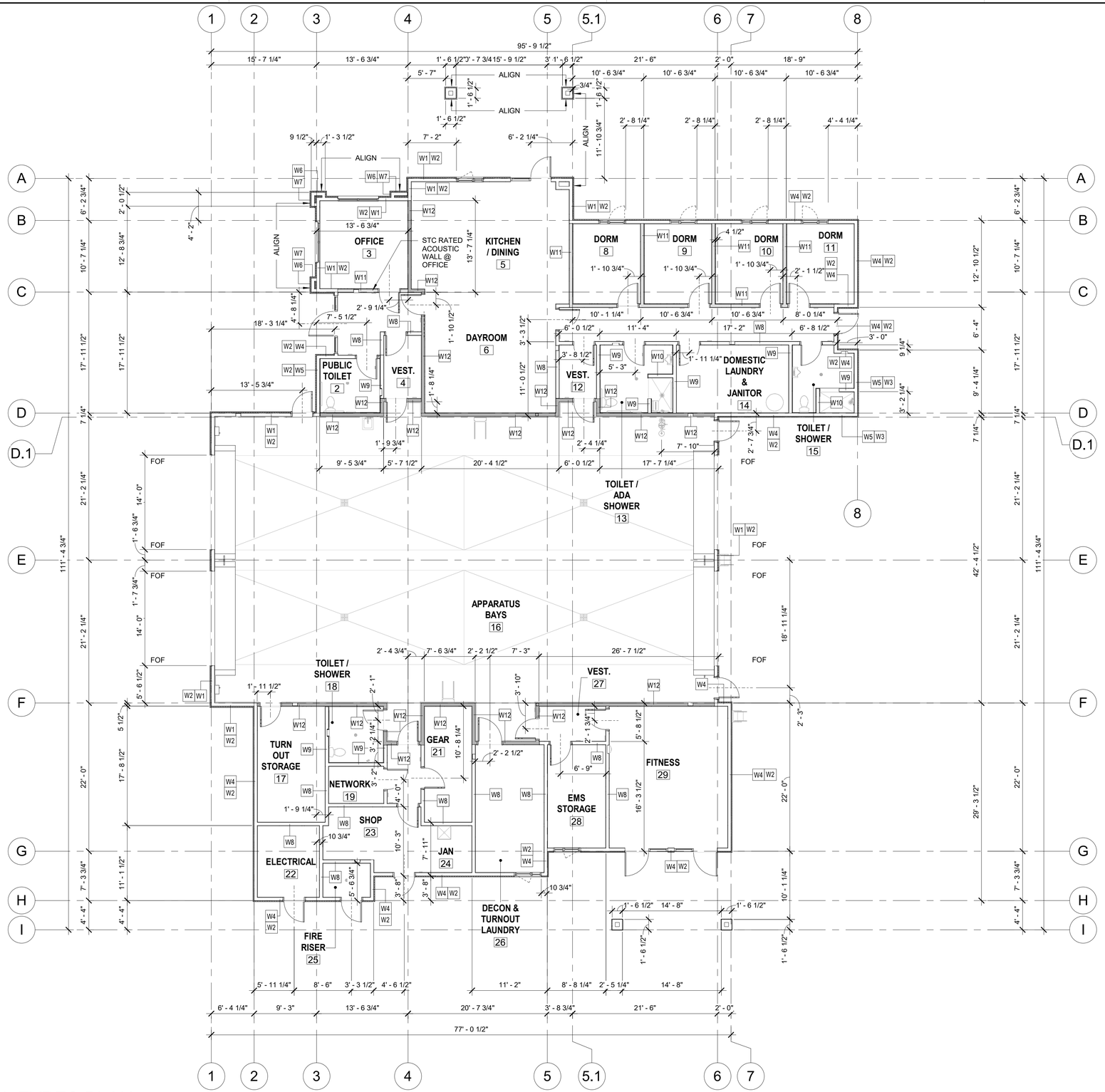
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CLIENT PROJECT NO:

AGENCY

TITLE
SLAB PLAN AND EDGE OF SLAB PLAN

SHEET
A2.2

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1 WALL TYPES PLAN
1/8" = 1'-0"

SHEET NOTES

a. SEE SHEET A2.4 FOR WALL TYPES.

b. SEE SHEET A10.8 FOR WALL HEAD & BASE CONDITIONS AND TYPICAL PENETRATIONS AT RATED WALLS.

c. RATED WALLS AT APPARATUS BAY TO BE FULL HEIGHT TO UNDERSIDE OF ROOF DECKING.

d. SHEAR WALLS TO BE FULL HEIGHT TO UNDERSIDE OF ROOF DECKING. SEE STRUCTURAL DRAWINGS FOR EXTENT AND LOCATION

e. ADD PLYWOOD LAYER FOR SHEAR WALLS PER STRUCTURAL DRAWINGS. SEE STUCTURAL SHEAR WALL SCHEDULE AND DRAWINGS FOR PLYWOOD TYPE AND EXTENT.

f. WALL CONCRETE CURB BASE REQUIRED AT RATED WALL AT APPARATUS BAY, SEE DETAIL 5/A10.3

g. FOR ADDITIONAL CURBS, SEE STRUCTURAL DRAWINGS.

h. DIMENSIONS TO FACE OF STUD, U.O.N.

WALL LEGEND

- WOOD STUD FRAMED WALL - **1HR** FIRE BARRIER
- WOOD STUD FRAMED WALL - **1/2 HR** FIRE PARTITION
- WOOD STUD FRAMED WALL - NON-RATED PARTITION

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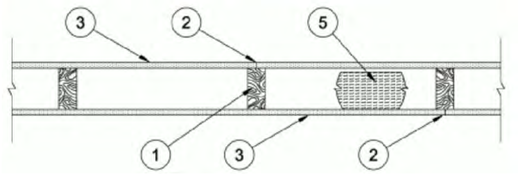
TITLE
WALL TYPES PLAN

SHEET
A2.3

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DESIGN NO. UL U305

Bearing Wall Rating - 1 HR



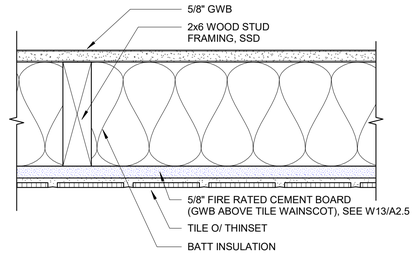
1. Wood Studs — Nom 2 by 6 in. spaced 16 in. OC max, effectively firestopped.

2. Joints and Nail-Heads — Joints covered with joint compound and paper tape. Joint compound and paper tape may be omitted when square edge boards are used. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard with the joints reinforced with paper tape. Nailheads exposed or covered with joint compound.

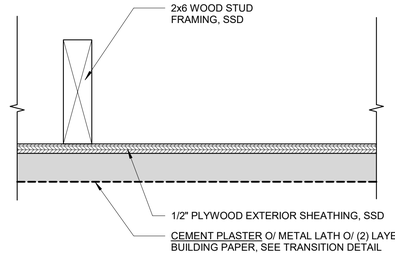
3. Gypsum Board* — 5/8 in. thick paper or vinyl surfaced, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. When used in widths other than 48 in., gypsum panels are to be installed horizontally.

5D. Glass Fiber Insulation — 3 in. thick glass fiber batts bearing the UL Classification Marking as to Surface Burning and/or Fire Resistance, friction-fitted to fill the interior of the wall.

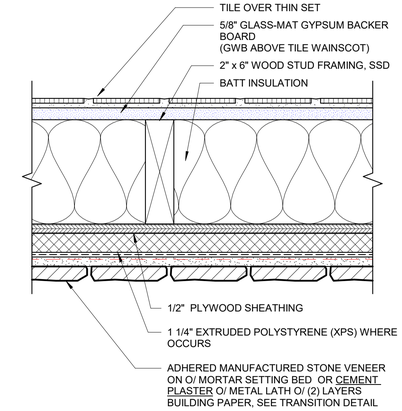
W12 - INT 6" - 1 HR RATED



W9 - INT 6" - RESTROOM



W6 - EXT 6" BUILDOUT PILASTER



W3 - EXT 6"

BASED ON GA FILE NO. WP3242

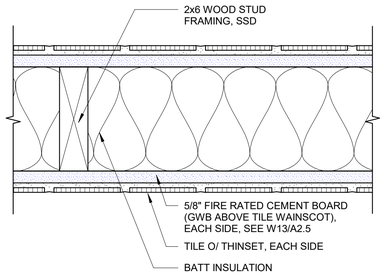
50 TO 54 STC SOUND

W11 - INT 6" - 1/2 HR + STC RATED

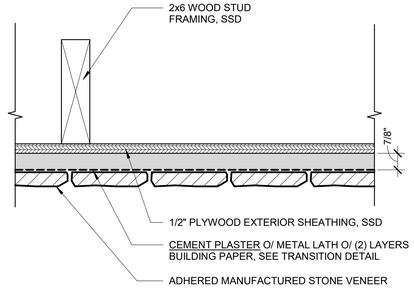
W8 - INT 6"

W5- EXT 6"

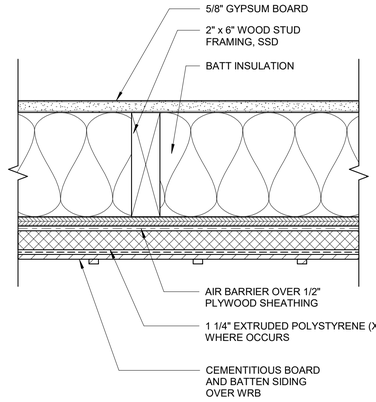
W2 - EXT 6"



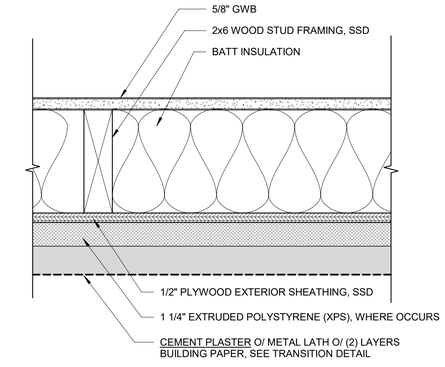
W10 - INT 6" - RESTROOM



W7 - EXT 6" BUILDOUT PILASTER W/ STONE VENEER



W4 - EXT 6"



W1 - EXT 6"

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LICENSED ARCHITECT DEBORAH LESNESKA C36478 RENEWAL 11-30-27 STATE OF CALIFORNIA

PROJECT

DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

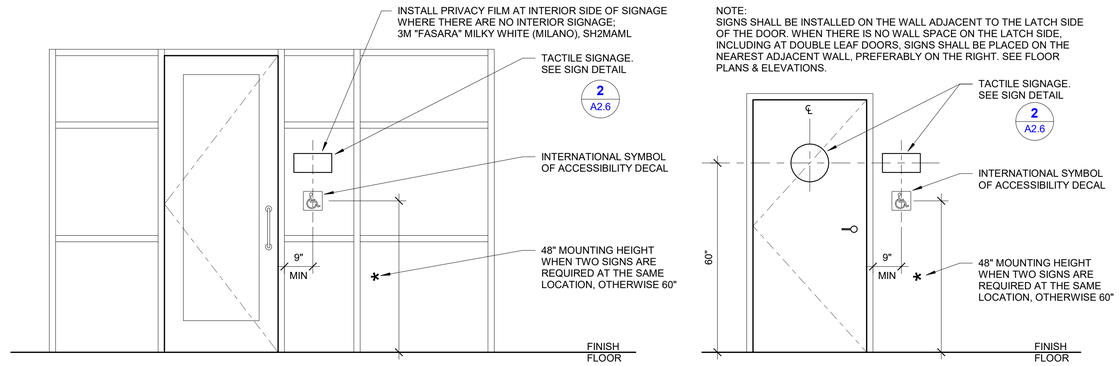
TITLE

WALL TYPES

SHEET

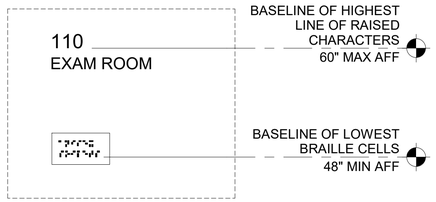
A2.4

2" 1" 1/2" 1/4" 0
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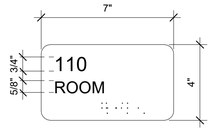


4 DOOR SIGNAGE LOCATIONS
1/2" = 1'-0"

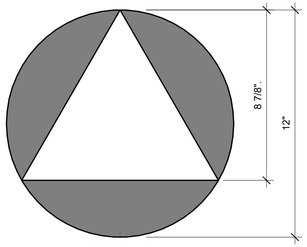
NOTES:
1. CALIFORNIA CONTRACTED GRADE 2 BRAILLE SHALL BE USED WHEREVER BRAILLE SYMBOLS ARE SPECIFICALLY REQUIRED IN OTHER PORTIONS OF THESE STANDARDS.
2. BRAILLE DOT DISTANCES SHALL BE A MAX. OF 0.100 INCHES (2.5 MM) ON CENTER IN THE SAME CELL, A MAX. 0.300 INCHES (7.6 MM) ON CENTER IN ADJACENT CELLS AND A MIN. OF 0.395 INCHES (10 MM) TO A MAX. OF 0.400 (10.2 MM) ON CENTER FROM ONE CELL DIRECTLY BELOW. BASE DIAMETER SHALL BE A MIN. OF 0.059 (1.5 MM) TO A MAX. OF 0.063 (1.6 MM) AND BE RAISED A MIN. OF 0.025 INCHES (0.6 MM) TO A MAX. OF 0.037 INCHES (0.9 MM) ABOVE THE BACKGROUND W/ A DOMED OR ROUNDED SHAPE, TABLE 11B-703.31.



2 TYPICAL TACTILE SIGNAGE MOUNTING HEIGHT
6" = 1'-0"

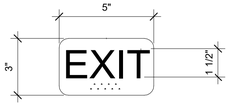


TYPE 'A'

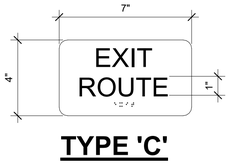


RESTROOM

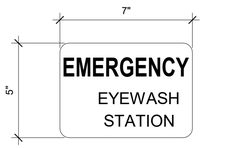
TYPE 'G'



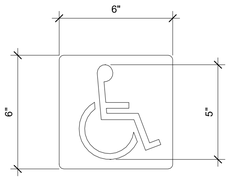
TYPE 'B'



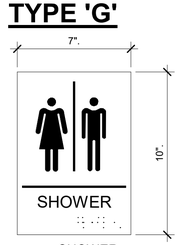
TYPE 'C'



TYPE 'D'



TYPE 'E'



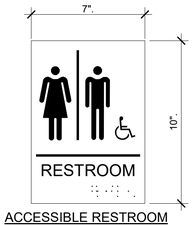
SHOWER

TYPE 'I'



ACCESSIBLE SHOWER

TYPE 'J'



ACCESSIBLE RESTROOM

TYPE 'K'

3 SIGNAGE
3" = 1'-0"



1 SIGNAGE PLAN
1/8" = 1'-0"

SHEET NOTES

a. SIGNAGE TYPES. SEE DETAIL 3 / A2.6

b. TYPCIAL SIGNAGE MOUNTING LOCATIONS. SEE DETAIL 4 / A2.6

c. TYPICAL TACTILE SIGN MOUNTING HEIGHT. SEE DETAIL 2 / A2.6

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PROJECT

DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

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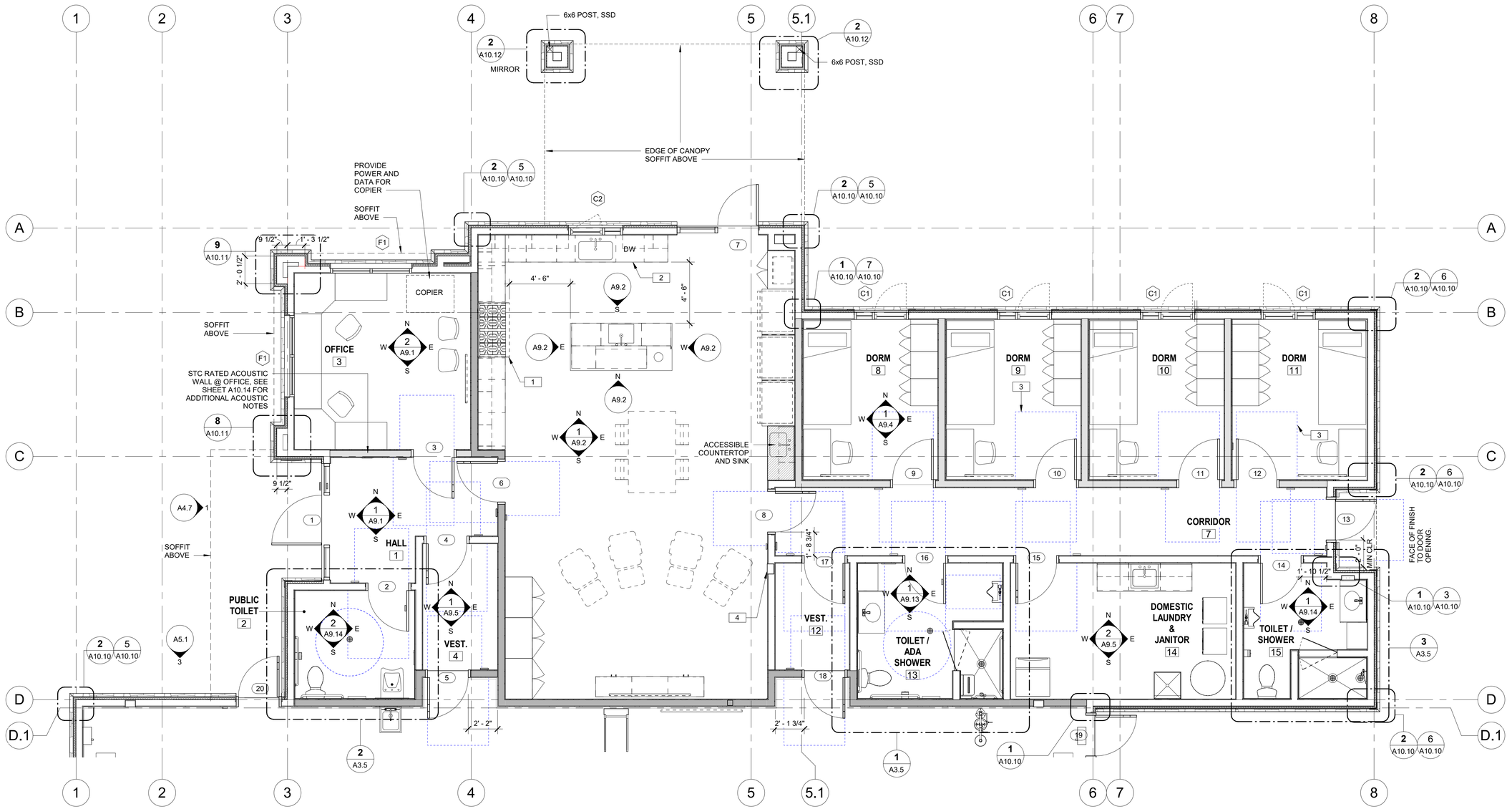
TITLE

SIGNAGE PLAN + DETAILS

SHEET

A2.6

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1 ENLARGED FLOOR PLAN

1/4" = 1'-0"

KEY NOTES

1

1 COOKTOP WITH HOOD ABOVE.

2 DISHWASHER., (OFCI)

3 DASH LINE INDICATES REQUIRED DOOR CLEARANCES, TYP.

4 FIRE EXTINGUISHER CABINET

WALL LEGEND

WOOD STUD FRAMED WALL - **1HR** FIRE BARRIER

WOOD STUD FRAMED WALL - **1/2 HR** FIRE PARTITION

WOOD STUD FRAMED WALL - NON-RATED PARTITION

SHEET NOTES

a. ALL DIMENSIONS ARE TO THE FACE OF STUD OR GRIDLINE, UNLESS NOTED OTHERWISE.

b. SEE SHEETS A10.1 AND A10.2 FOR ALL ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS.

c. FIELD VERIFY DIMENSIONS PRIOR TO FABRICATION OF CASEWORK, STOREFRONT AND WINDOWS.

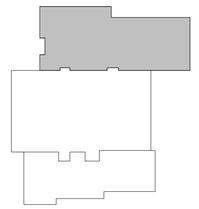
d. SEE SHEET A10.8 FOR PENETRATION ON RATED WALL AND TOP OF WALL CONDITION.

e. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

f. SEE ELECTRICAL DRAWINGS FOR LIGHTING FIXTURES.

g. EXERCISE MACHINES AND EQUIPMENT SHALL HAVE A CLEAR FLOOR SPACE COMPLYING WITH SECTION 11B-305 POSITIONED FOR TRANSFER OR FOR USE BY AN INDIVIDUAL SEATED IN A WHEELCHAIR (CBC 11B-1004.1)

KEY PLAN



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PROJECT

DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT

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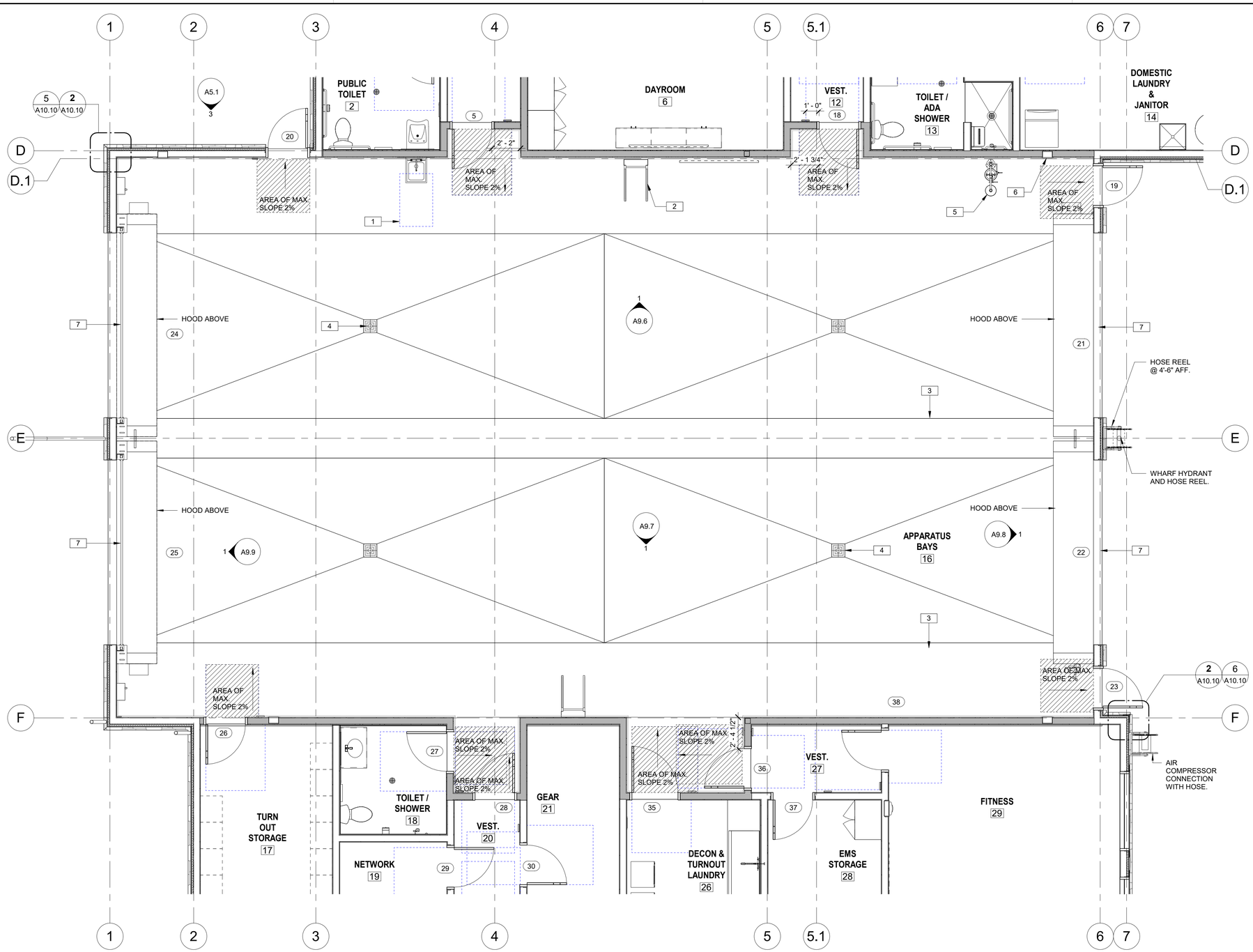
TITLE

ENLARGED FLOOR PLAN

SHEET

A3.1

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1 ENLARGED FLOOR PLAN
1/4" = 1'-0"

SHEET NOTES

a. ALL DIMENSIONS ARE TO THE FACE OF STUD OR GRIDLINE, UNLESS NOTED OTHERWISE.

b. SEE SHEETS A10.1 AND A10.2 FOR ALL ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS.

c. FIELD VERIFY DIMENSIONS PRIOR TO FABRICATION OF CASEWORK, STOREFRONT AND WINDOWS.

d. SEE SHEET A10.8 FOR PENETRATION ON RATED WALL AND TOP OF WALL CONDITION.

e. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

f. SEE ELECTRICAL DRAWINGS FOR LIGHTING FIXTURES.

g. EXERCISE MACHINES AND EQUIPMENT SHALL HAVE A CLEAR FLOOR SPACE COMPLYING WITH SECTION 11B-305 POSITIONED FOR TRANSFER OR FOR USE BY AN INDIVIDUAL SEATED IN A WHEELCHAIR (CBC 11B-1004.1)

KEY NOTES 1

1 CLEARANCE 30"W X 48"D AT FIXTURE, TYP.

2 MEZZANINE / STORAGE LADDER

3 LINE OF OVERHEAD DOOR TRACK.

4 FLOOR DRAIN INCLUDING A TRAP PRIMER, TYP AT APPARATUS BAY. SEE PLUMBING DRAWINGS.

5 EMERGENCY SHOWER AND EYEWASH COMBINATION. SEE PLUMBING DRAWINGS.

6 FIRE EXTINGUISHER CABINET

7 HI SPEED COIL UP DOOR.

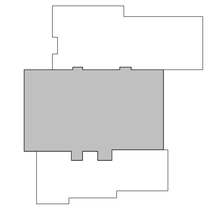
WALL LEGEND

WOOD STUD FRAMED WALL - **1HR** FIRE BARRIER

WOOD STUD FRAMED WALL - **1/2 HR** FIRE PARTITION

WOOD STUD FRAMED WALL - NON-RATED PARTITION

KEY PLAN



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PROJECT
DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

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CITY OF DIXON FIRE DEPARTMENT

ISSUED

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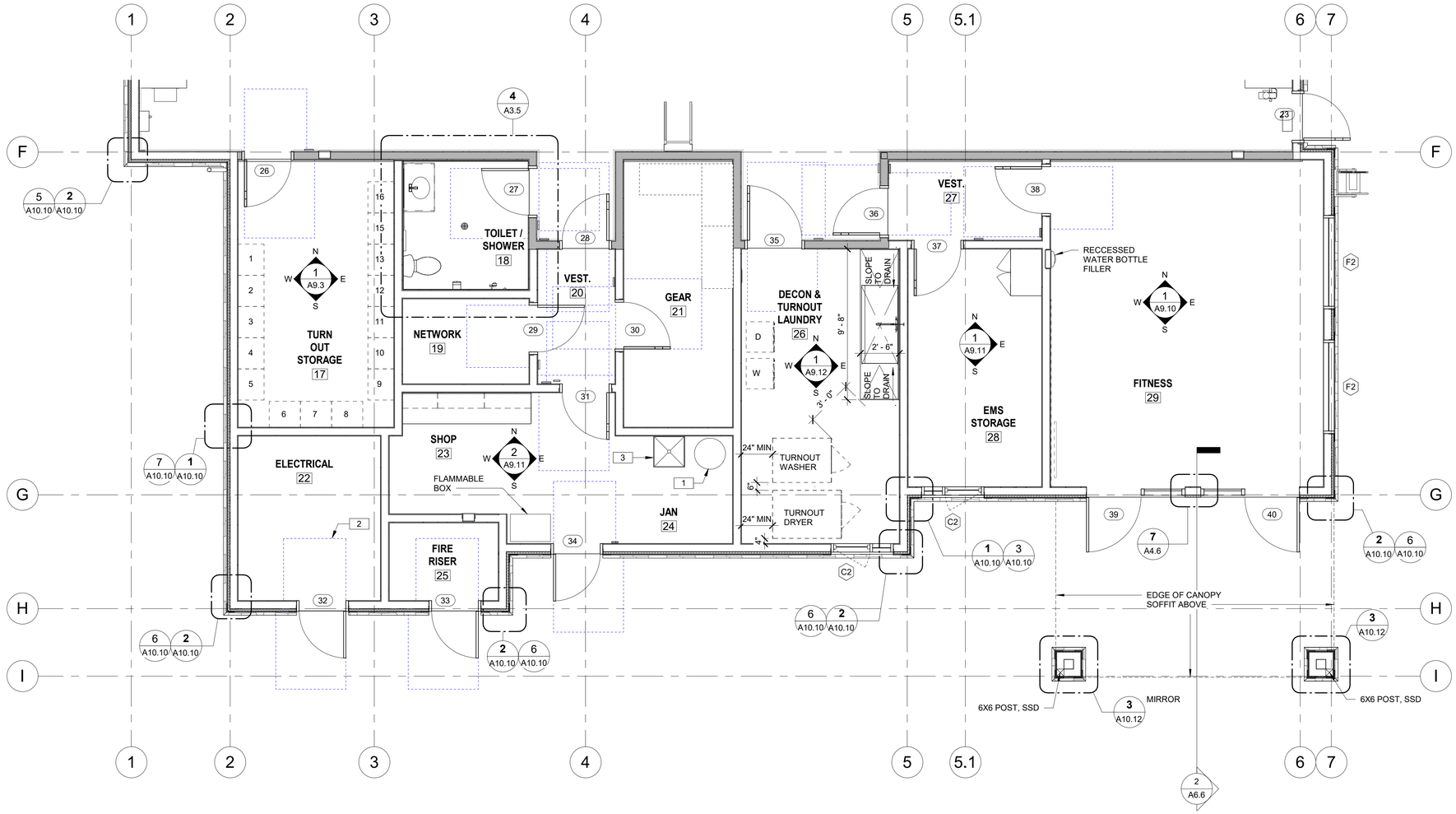
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TITLE
ENLARGED FLOOR PLAN

SHEET
A3.2

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1 ENLARGED FLOOR PLAN
1/4" = 1'-0"

SHEET NOTES

a. ALL DIMENSIONS ARE TO THE FACE OF STUD OR GRIDLINE, UNLESS NOTED OTHERWISE.

b. SEE SHEETS A10.1 AND A10.2 FOR ALL ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS.

c. FIELD VERIFY DIMENSIONS PRIOR TO FABRICATION OF CASEWORK, STOREFRONT AND WINDOWS.

d. SEE SHEET A10.8 FOR PENETRATION ON RATED WALL AND TOP OF WALL CONDITION.

e. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

f. SEE ELECTRICAL DRAWINGS FOR LIGHTING FIXTURES.

g. EXERCISE MACHINES AND EQUIPMENT SHALL HAVE A CLEAR FLOOR SPACE COMPLYING WITH SECTION 11B-305 POSITIONED FOR TRANSFER OR FOR USE BY AN INDIVIDUAL SEATED IN A WHEELCHAIR (CBC 11B-1004.1)

KEY NOTES 1

1 WATER HEATER, SEE PLUMBING DRAWINGS.

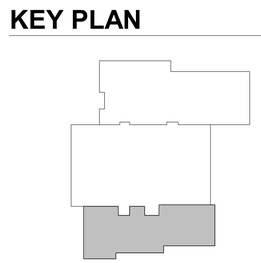
2 DASH LINE INDICATES REQUIRED DOOR CLEARANCES, TYP.

3 MOP SINK. SEE PLUMBING DRAWINGS.

WALL LEGEND

- WOOD STUD FRAMED WALL - **1HR** FIRE BARRIER
- WOOD STUD FRAMED WALL - **1/2 HR** FIRE PARTITION
- WOOD STUD FRAMED WALL - NON-RATED PARTITION

KEY PLAN



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PROJECT
DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
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APN: 0114355010

CLIENT
CITY OF DIXON FIRE DEPARTMENT

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MANAGEMENT

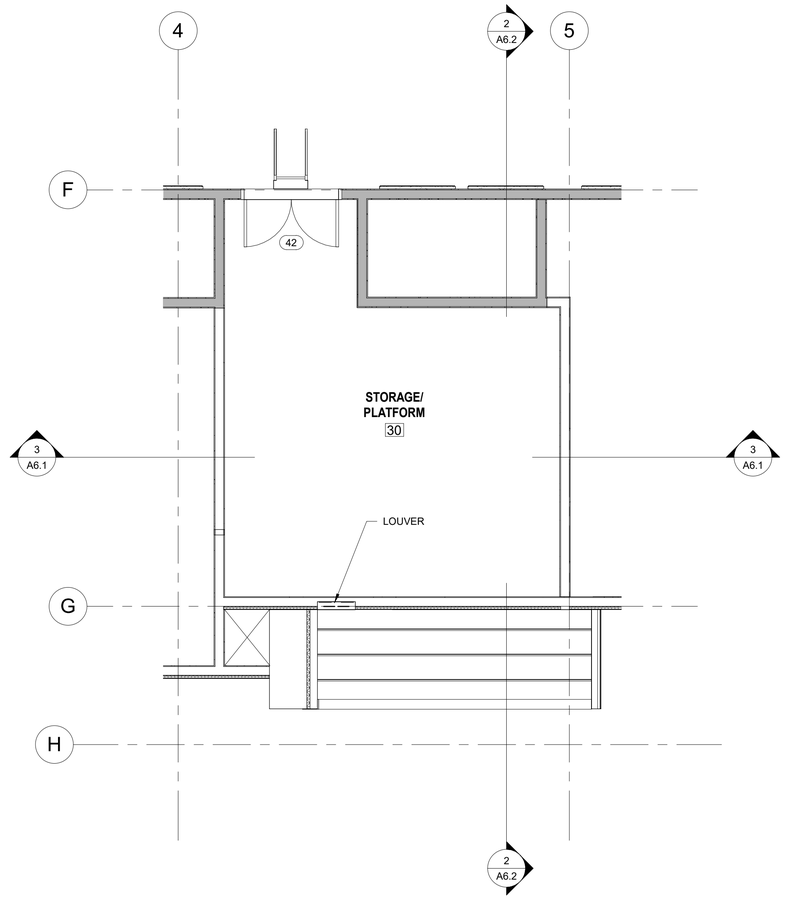
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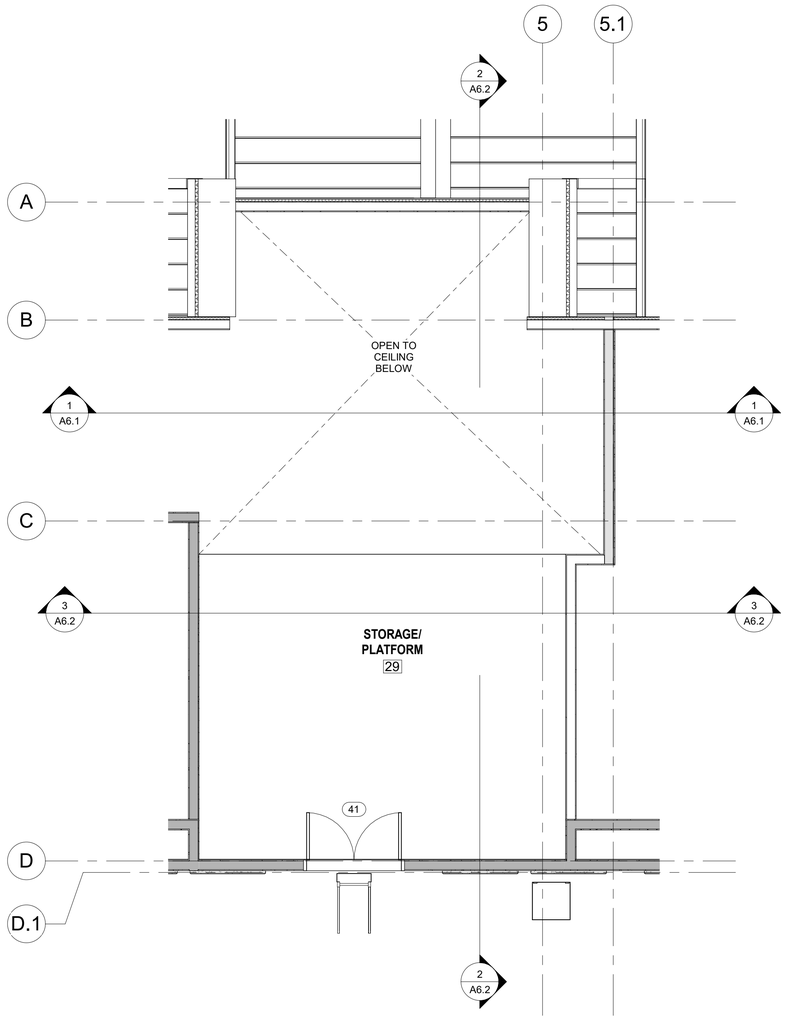
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TITLE
ENLARGED FLOOR PLAN

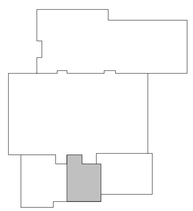
SHEET
A3.3

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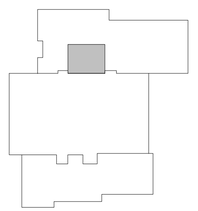




KEY PLAN



KEY PLAN



2 ENLARGED PLATFORM / STORAGE - SOUTH
1/4" = 1'-0"

1 ENLARGED PLATFORM / STORAGE - NORTH
1/4" = 1'-0"

SHEET NOTES

a. ALL DIMENSIONS ARE TO THE FACE OF STUD OR GRIDLINE, UNLESS NOTED OTHERWISE.

b. SEE SHEETS A10.1 AND A10.2 FOR ALL ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS.

c. FIELD VERIFY DIMENSIONS PRIOR TO FABRICATION OF CASEWORK, STOREFRONT AND WINDOWS.

d. SEE SHEET A10.8 FOR PENETRATION ON RATED WALL AND TOP OF WALL CONDITION.

e. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

f. SEE ELECTRICAL DRAWINGS FOR LIGHTING FIXTURES.

g. EXERCISE MACHINES AND EQUIPMENT SHALL HAVE A CLEAR FLOOR SPACE COMPLYING WITH SECTION 11B-305 POSITIONED FOR TRANSFER OR FOR USE BY AN INDIVIDUAL SEATED IN A WHEELCHAIR (CBC 11B-1004.1)

KEY NOTES 1

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DEBORAH LESNEFSKA
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STATE OF CALIFORNIA

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CLIENT PROJECT NO:

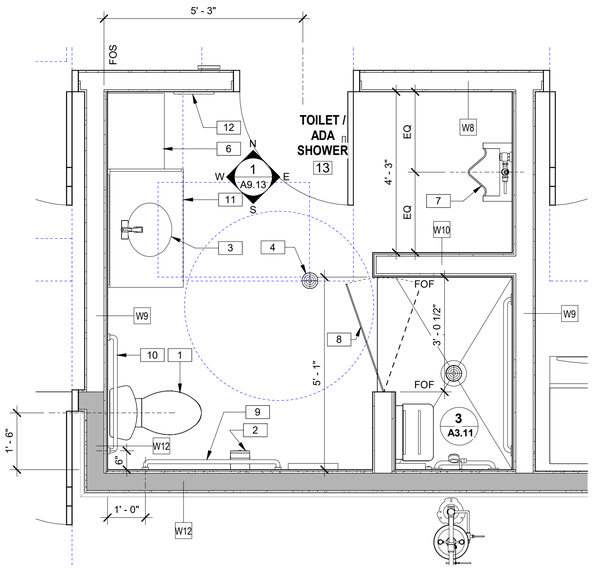
AGENCY

TITLE
PLATFORM / STORAGEPLAN

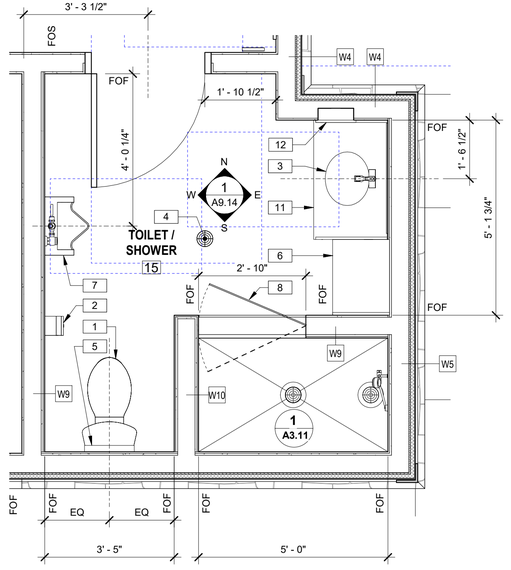
SHEET
A3.4

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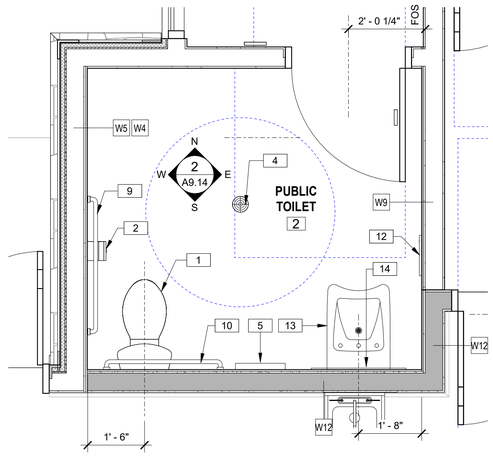
2"
1"
0 1/4" 1/2"
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY



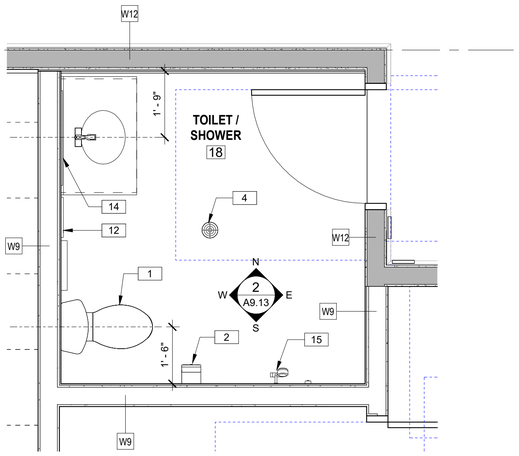
1 TOILET / ADA SHOWER - 13
1/2" = 1'-0"



3 TOILET / SHOWER - 15
1/2" = 1'-0"



2 ACCESSIBLE PUBLIC TOILET - 2
1/2" = 1'-0"



4 TOILET / SHOWER - 18
1/2" = 1'-0"

SHEET NOTES

a. ALL DIMENSIONS ARE TO THE FACE OF STUD OR GRIDLINE, UNLESS NOTED OTHERWISE.

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d. SEE SHEET A10.8 FOR PENETRATION ON RATED WALL AND TOP OF WALL CONDITION.

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KEY NOTES 1

1 FLOOR MOUNTED TOILET. SEE PLUMBING DWGS.

2 SURFACE-MOUNTED MULTI-ROLL TOILET TISSUE DISPENSER.

3 LAVATORY AT COUNTERTOP

4 FLOOR DRAIN, SEE PLUMBING DRAWINGS.

5 SURFACE-MOUNTED TOILET SEAT COVER DISPENSER.

6 TALL CABINET

7 WALL HUNG URINAL. SEE PLUMBING DWGS.

8 GLASS SHOWER DOOR W/ DOUBLE PIVOT HINGE

9 42" GRAB BAR.

10 36" GRAB BAR.

11 QUARTZ COUNTERTOP AND BACKSPLASH.

12 RECESSED PAPER TOWEL DISPENSER

13 WALL MOUNTED LAVATORY. SEE PLUMBING DWGS.

14 MIRROR.

15 FIXED SHOWER HEAD AND HAND HELD SHOWER HEAD WITH WATER MIXING VALUE AND DIVERTER VALVE. SEE DETAIL 1/A 3.11 SHOWER HEAD FOR MOUNTING HEIGHTS.

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C36478
EXPIRES 11-30-25
STATE OF CALIFORNIA

PROJECT
DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

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CLIENT PROJECT NO:

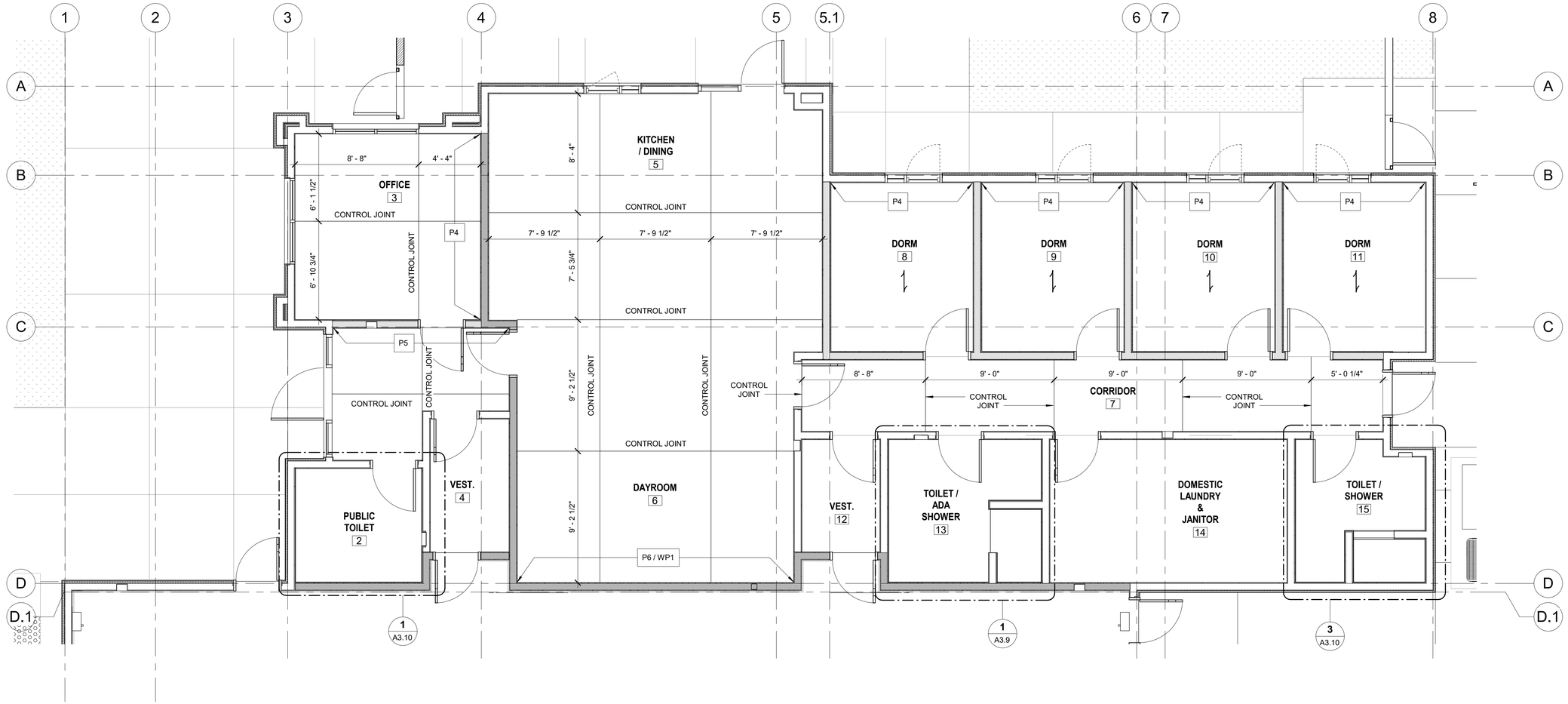
AGENCY

TITLE
ENLARGED RESTROOMS

SHEET
A3.5

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0 1/4" 1/2" 1" 2"
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1 ENLARGED FLOOR PLAN

1/4" = 1'-0"

NOTE:
ALL FINISHES, FURNISHINGS AND MATERIALS SHALL MEET THE MINIMUM REQUIREMENTS OF 2022 CBC/CFC CHAPTER 8 AND CCR TITLE 19 FOR FLAME SPREAD AND SMOKE DEVELOPMENT

PER CSFM, 2022 CBC/CFC CH. 8 & CCR TITLE 19

SHEET NOTES

a. EXERCISE MACHINES AND EQUIPMENT SHALL HAVE A CLEAR FLOOR SPACE COMPLYING WITH SECTION 11B-305 POSITIONED FOR TRANSFER OR FOR USE BY AN INDIVIDUAL SEATED IN A WHEELCHAIR. (CBC 11B-1004.1)

b. SEE SHEET A4.1 FINISH SCHEDULEAND AND SHEET A4.2 FOR FINISH LEGEND.

c. REFER TO STRUCTURAL DETAIL 6/S5.01 FOR CONCRETE JOINTS. SUBMIT CONCRETE JOINT PLAN FOR APPROVAL BY ARCHITECT AND STRUCTURAL ENGINEER.

LEGEND

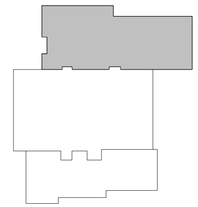
FLOOR FINISH TRANSITION, SEE DETAIL

CENTER OF DOOR PANEL. WHERE THERE ARE NO DOORS, CENTER AT OPENING.

ALIGN — ALIGN TO FACE FINISH.

ORIENTATION OF PLANK LVT FLOORING

KEY PLAN



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MANAGEMENT

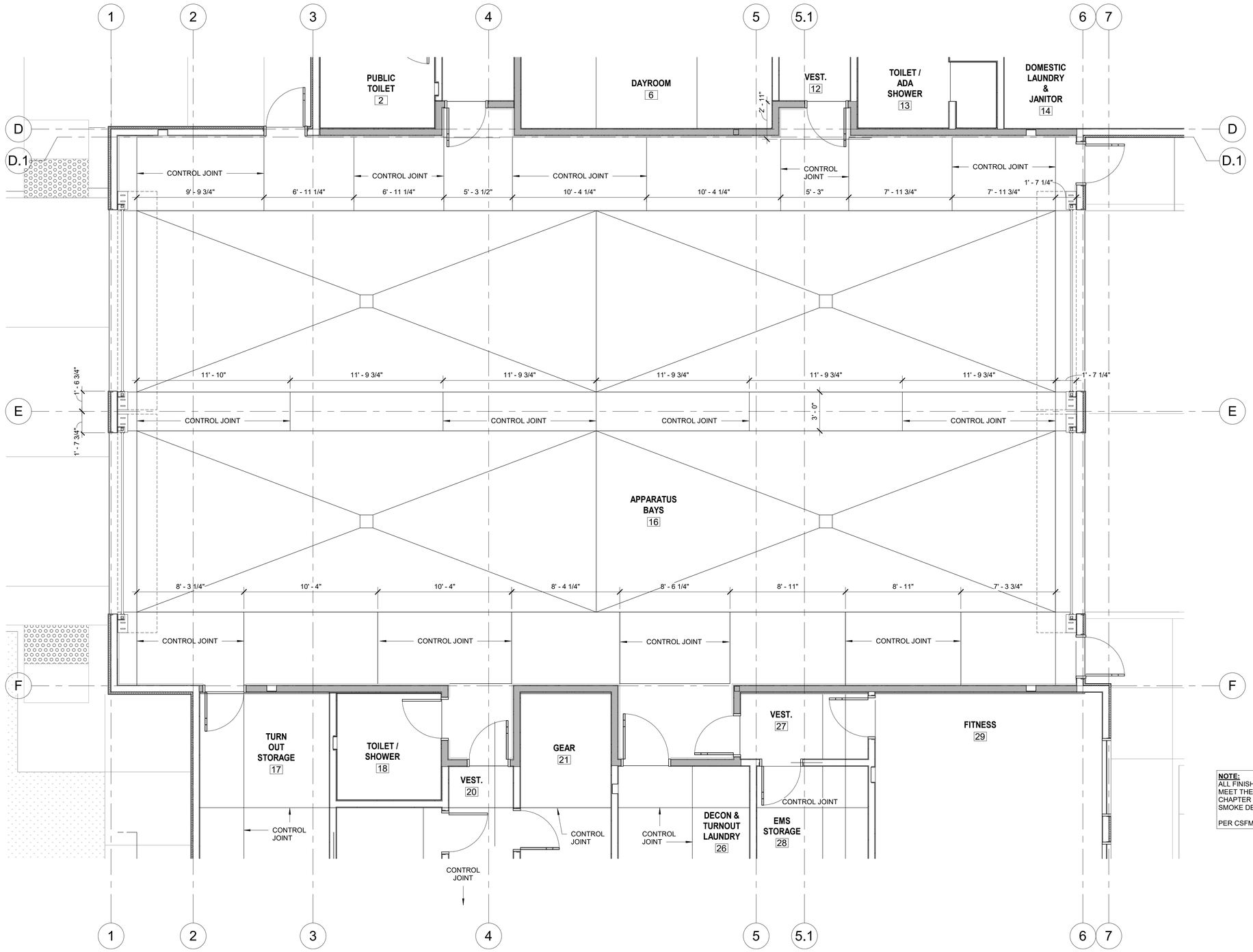
LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
ENLARGED FINISH PLAN

SHEET
A3.6

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6/19/2026 12:04:42 PM



1 ENLARGED FLOOR PLAN
1/4" = 1'-0"

SHEET NOTES

a. EXERCISE MACHINES AND EQUIPMENT SHALL HAVE A CLEAR FLOOR SPACE COMPLYING WITH SECTION 11B-305 POSITIONED FOR TRANSFER OR FOR USE BY AN INDIVIDUAL SEATED IN A WHEELCHAIR. (CBC 11B-1004.1)

b. SEE SHEET A4.1 FINISH SCHEDULEAND AND SHEET A4.2 FOR FINISH LEGEND.

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LEGEND

FLOOR FINISH TRANSITION, SEE DETAIL

CENTER OF DOOR PANEL. WHERE THERE ARE NO DOORS, CENTER AT OPENING.

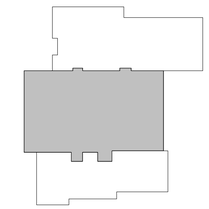
ALIGN — ALIGN TO FACE FINISH.

ORIENTATION OF PLANK LVT FLOORING

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AGENCY

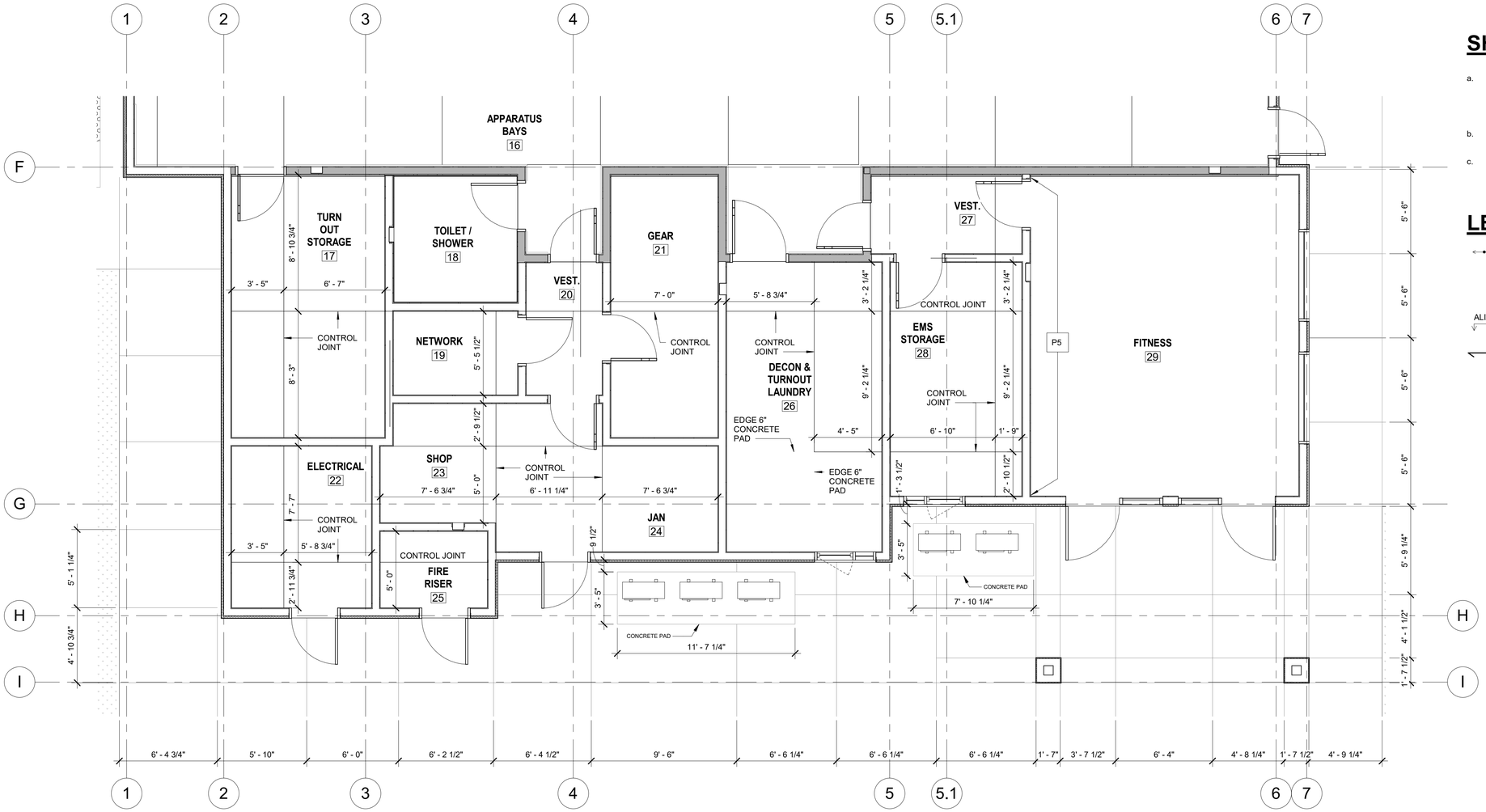
TITLE

ENLARGED FINISH PLAN

SHEET

A3.7

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1 ENLARGED FLOOR PLAN
1/4" = 1'-0"

SHEET NOTES

a. EXERCISE MACHINES AND EQUIPMENT SHALL HAVE A CLEAR FLOOR SPACE COMPLYING WITH SECTION 11B-305 POSITIONED FOR TRANSFER OR FOR USE BY AN INDIVIDUAL SEATED IN A WHEELCHAIR. (CBC 11B-1004.1)

b. SEE SHEET A4.1 FINISH SCHEDULEAND AND SHEET A4.2 FOR FINISH LEGEND.

c. REFER TO STRUCTURAL DETAIL 6/SS.01 FOR CONCRETE JOINTS. SUBMIT CONCRETE JOINT PLAN FOR APPROVAL BY ARCHITECT AND STRUCTURAL ENGINEER.

LEGEND

FLOOR FINISH TRANSITION, SEE DETAIL

CENTER OF DOOR PANEL. WHERE THERE ARE NO DOORS, CENTER AT OPENING.

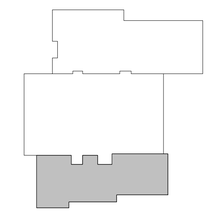
ALIGN — ALIGN TO FACE FINISH.

ORIENTATION OF PLANK LVT FLOORING

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MANAGEMENT

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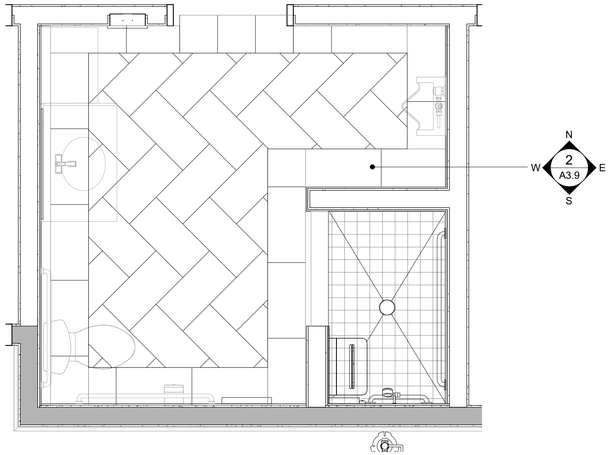
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TITLE
ENLARGED FINISH PLAN

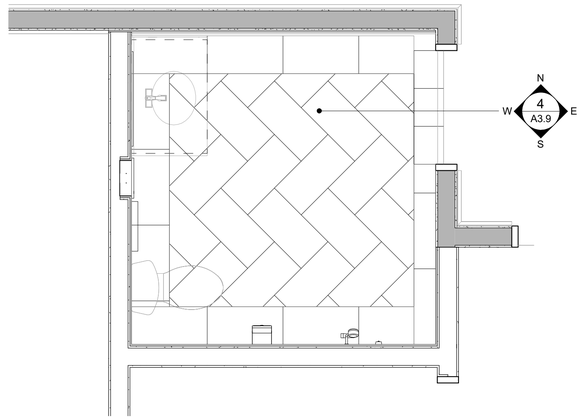
SHEET
A3.8

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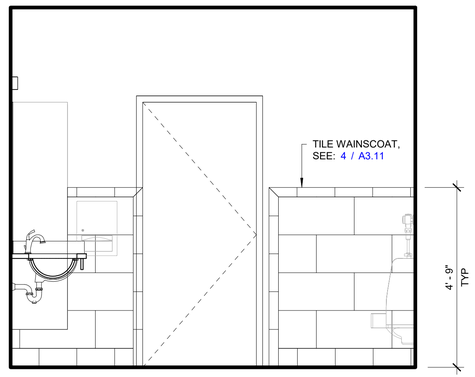
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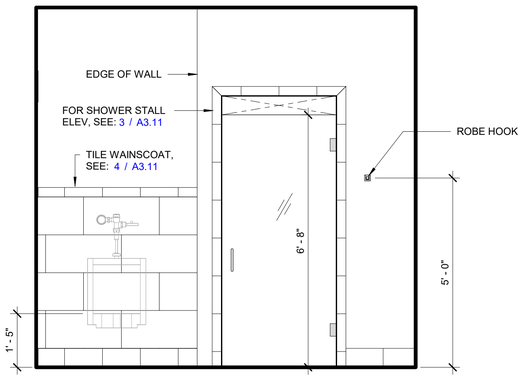
1 ACCESSIBLE TOILET / SHOWER 13 - FINISH PLAN
1/2" = 1'-0"



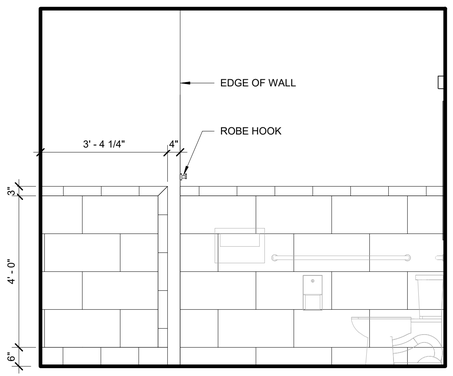
3 TOILET / SHOWER 18 - FINISH PLAN
1/2" = 1'-0"



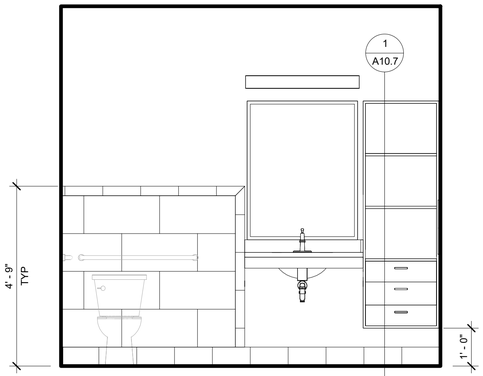
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E

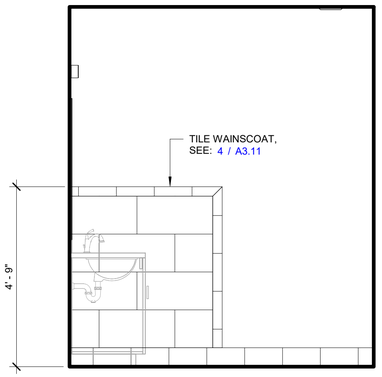


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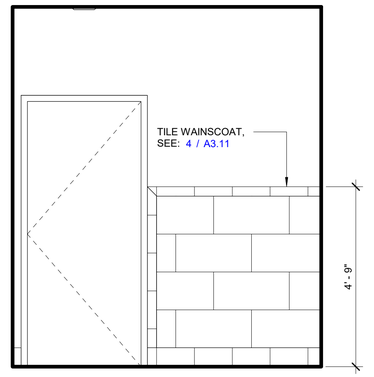


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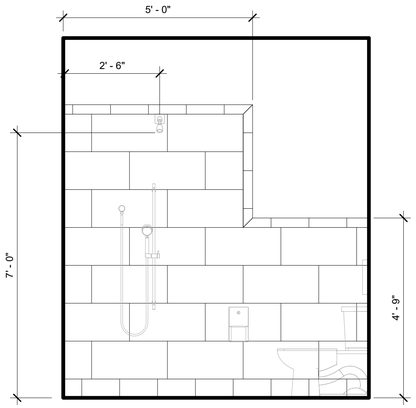
2 FINISH - 13 TOILET / SHOWER
1/2" = 1'-0"



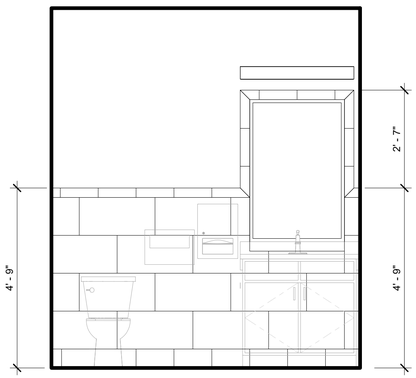
N



E



S



W

4 TOILET / SHOWER 18 - FINISH ELEVATIONS
1/2" = 1'-0"

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PROJECT
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APN: 0114355010

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

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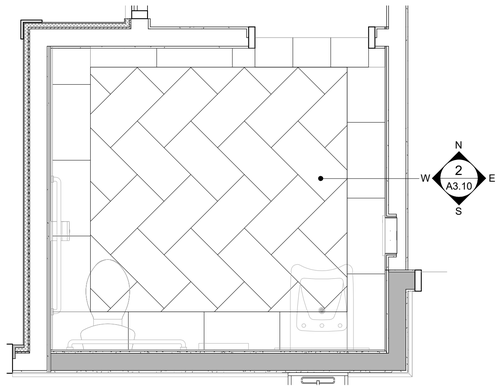
AGENCY

TITLE
ENLARGED RESTROOMS FINISH PLAN & ELEVATIONS

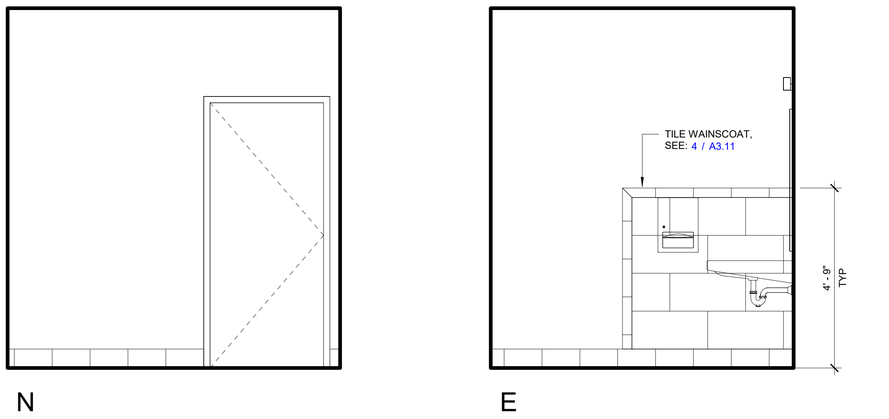
SHEET
A3.9

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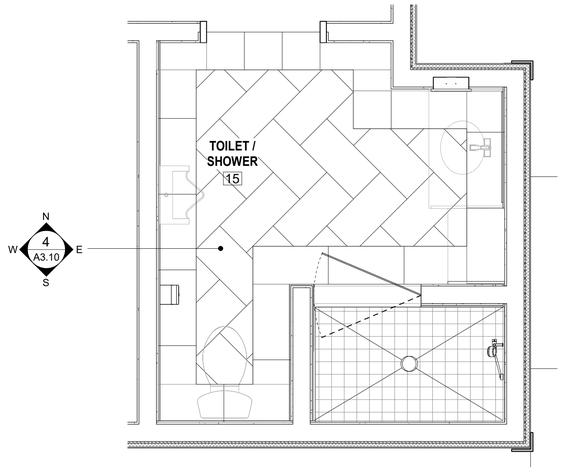
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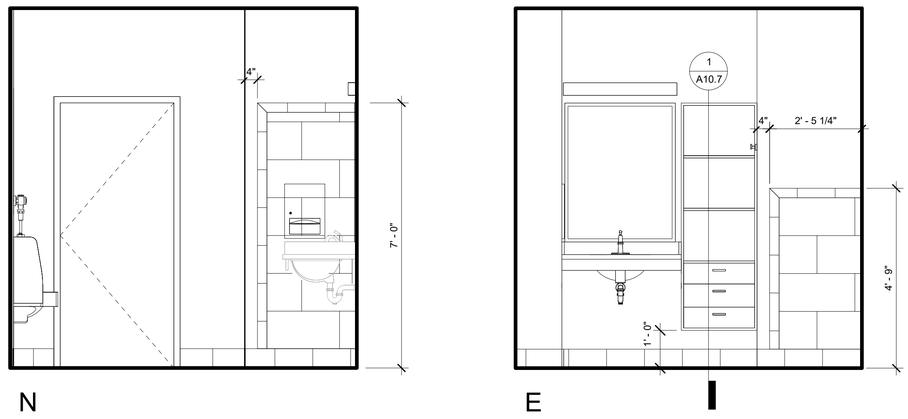
1 ACCESSIBLE PUBLIC TOILET 2 - FINISH PLAN
1/2" = 1'-0"

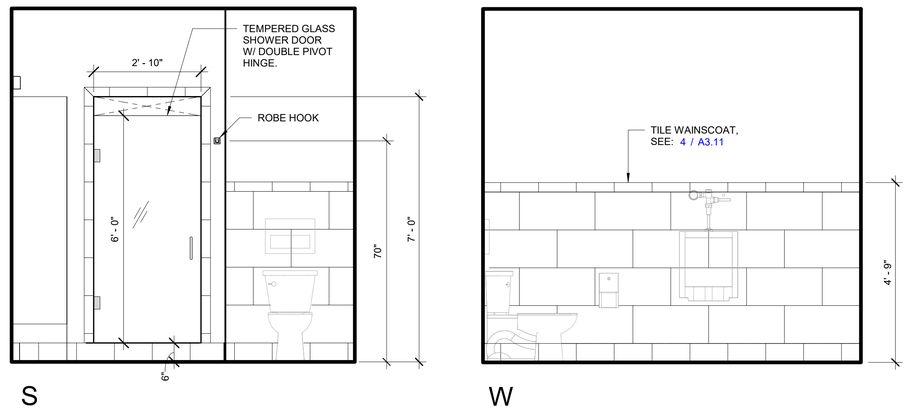


2 ACCESSIBLE PUBLIC TOILET 2 - FINISH ELEVATIONS
1/2" = 1'-0"



3 TOILET / SHOWER 15 - FINISH PLAN
1/2" = 1'-0"





4 FINISH - 15 TOILET / SHOWER - FINISH ELEVATIONS
1/2" = 1'-0"

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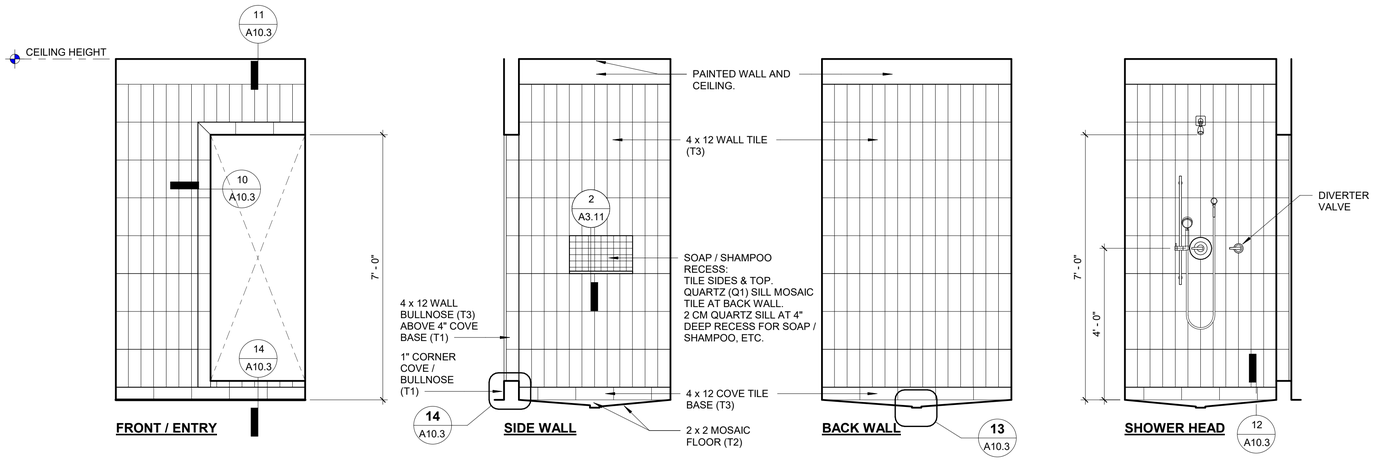
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AGENCY

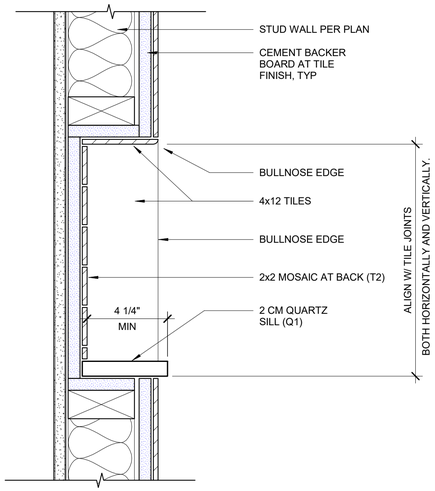
TITLE
ENLARGED RESTROOMS FINISH PLAN & ELEVATIONS

SHEET
A3.10

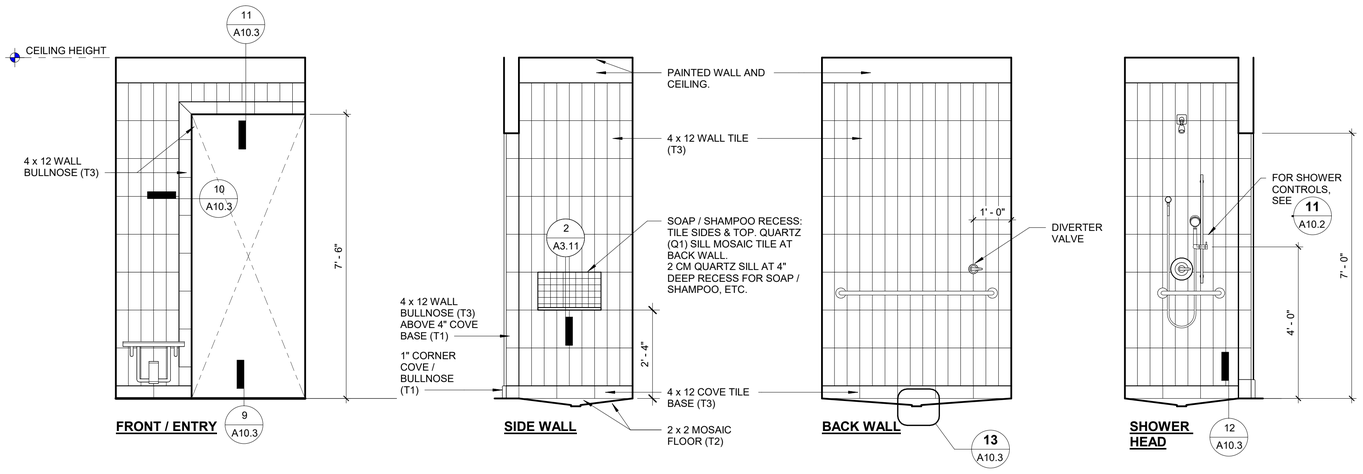
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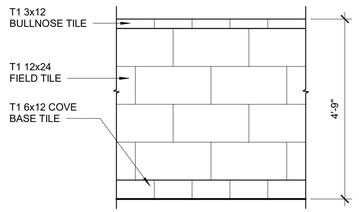
1 SHOWER STALL ELEVATIONS (STANDARD)
1/2" = 1'-0"



2 SOAP / SHAMPOO RECESSED SHELF1
3" = 1'-0"



3 SHOWER STALL ELEVATIONS (ACCESSIBLE)
1/2" = 1'-0"



NOTE:
1. TILE TO COMPLETELY CAPTURE ALL TOILET ACCESSORIES, MIRROR, ETC. SUCH THAT NO FIXTURE IS HALF IN HALF OUT OF TILE.
2. INSTALL WAINSCOT TILE OVER CEMENTITIOUS BACKER BOARD.

SEE DETAIL 7 A10.3

4 WAINSCOT TILE PATTERN1
1/2" = 1'-0"

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AGENCY

TITLE
ENLARGED RESTROOM FINISH ELEVATIONS

SHEET
A3.11

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6/19/2026 12:04:52 PM

ROOM FINISH SCHEDULE

NO.	ROOM NAME	FLOOR MAT.	FLOOR FIN.	BASE	WALLS NORTH MAT.	WALLS NORTH FIN.	WALLS EAST MAT.	WALLS EAST FIN.	WALLS SOUTH MAT.	WALLS SOUTH FIN.	WALLS WEST MAT.	WALLS WEST FIN.	WAINSCOT MAT.	WAINSCOT FIN.	WAINSCOT HEIGHT	CEILING MAT.	CEILING FIN.	CEILING HEIGHT	REMARKS
1	HALL	CONCRETE	SC1	RB1	GYP	P5	GYP	P1	GYP	P1	GYP	P1							
2	PUBLIC TOILET	TILE	T1	T1	GYP / TILE	T1	GYP / TILE	T1	GYP / TILE	T1	GYP / TILE	T1	TILE	T1	4'-9"	GYP	P2	9'-6"	
3	OFFICE	CONCRETE	SC1	RB1	GYP	P1	GYP	P4	GYP	P1	GYP	P1				ACT	ACT1	9'-6"	
4	VEST.	CONCRETE	SC1	RB1	GYP	P1	GYP	P1	GYP	P1	GYP	P1				ACT	ACT1	9'-6"	
5	KITCHEN / DINING	CONCRETE	SC1	RB1	GYP	P1	GYP	P1	GYP	P1	GYP	P1				GYP	P2	11'-0"	
6	DAYROOM	CONCRETE	SC1	RB1	GYP	P1	GYP	P1	GYP	P6 / WP1	GYP	P1	TP2	P6	10'-6"	ACT	ACT1	10'-6"	
7	CORRIDOR	CONCRETE	SC1	RB1	GYP	P1	GYP	P1	GYP	P1	GYP	P1				ACT	ACT2	9'-6"	
8	DORM	LVT	LVT1	RB1	GYP	P4	GYP	P1	GYP	P1	GYP	P1				ACT	ACT1	9'-6"	
9	DORM	LVT	LVT1	RB1	GYP	P4	GYP	P1	GYP	P1	GYP	P1				ACT	ACT1	9'-6"	
10	DORM	LVT	LVT1	RB1	GYP	P4	GYP	P1	GYP	P1	GYP	P1				ACT	ACT1	9'-6"	
11	DORM	LVT	LVT1	RB1	GYP	P4	GYP	P1	GYP	P1	GYP	P1				ACT	ACT1	9'-6"	
12	VEST.	CONCRETE	SC1	RB1	GYP	P1	GYP	P1	GYP	P1	GYP	P1				ACT	ACT1	9'-6"	
13	TOILET / ADA SHOWER	TILE	T1 / T2	T1	GYP / TILE	P1 / T1 / T3	GYP / TILE	P1 / T1 / T3	GYP / TILE	P1 / T1 / T3	GYP / TILE	P1 / T1 / T3	TILE	T1	4'-9"	GYP	P2	9'-6"	
14	DOMESTIC LAUNDRY & JANITOR	CONCRETE	SC2	RB1	GYP	P3	GYP	P3 / FRP1	GYP	P3 / FRP1	GYP	p3	RFP	FRP1	6'-0"	GYP	P2	9'-6"	
15	TOILET / SHOWER	TILE	T1 / T2	T1	GYP / TILE	P1 / T1 / T3	GYP / TILE	P1 / T1 / T3	GYP / TILE	P1 / T1 / T3	GYP / TILE	P1 / T1 / T3	TILE	T1	4'-9"	GYP	P2	9'-6"	
16	APPARATUS BAYS	CONCRETE	SC2	CONCRETE	GYP / FRP	P3 / FRP1	GYP / FRP	P3 / FRP1	GYP / FRP	P3 / FRP1	GYP / FRP	P3 / FRP1	RFP	FRP1	7'-2"	GYP / TP1	TP1 / P2	19'-6"	
17	TURN OUT STORAGE	CONCRETE	SC2	RB1	GYP	P1	GYP	P1	GYP	P1	GYP	P1				ACT	ACT1	9'-6"	
18	TOILET / SHOWER	TILE	T1	T1	GYP / TILE	T1	GYP / TILE	T1	GYP / TILE	T1	GYP / TILE	T1	TILE	T1	4'-9"	GYP	P2	9'-6"	
19	NETWORK	CONCRETE	SC2	RB1	GYP	P1	GYP	P1	GYP	P1	GYP	P1				GYP	P2	9'-6"	
20	VEST.	CONCRETE	SC2	RB1	GYP	P1	GYP	P1	GYP	P1	GYP	P1				ACT	ACT1	9'-6"	
21	GEAR	CONCRETE	SC2	RB1	GYP	P1	GYP	P1	GYP	P1	GYP	P1				ACT	ACT1	9'-6"	
22	ELECTRICAL	CONCRETE	SC2	RB1	GYP	P1	GYP	P1	GYP	P1	GYP	P1				GYP	P2	9'-6"	
23	SHOP	CONCRETE	SC2	RB1	GYP	P3	GYP / FRP	P3 / FRP1	GYP	P3 / FRP1	GYP	P3				ACT	ACT1	9'-6"	
24	JAN	CONCRETE	SC2	RB1	GYP	P3	GYP / FRP	P3 / FRP1	GYP	P3 / FRP1	GYP	P3				ACT	ACT1	9'-6"	
25	FIRE RISER	CONCRETE	SC2	RB1	GYP	P1	GYP	P1	GYP	P1	GYP	P1							
26	DECON & TURNOUT LAUNDRY	CONCRETE	SC2	RB1	GYP / FRP	P3 / FRP1	GYP / FRP	P3 / FRP1	GYP / FRP	P3 / FRP1	GYP	P3 / FRP1				GYP	P2	9'-6"	
27	VEST.	CONCRETE	SC2	RB1	GYP	P1	GYP	P1	GYP	P1	GYP	P1				ACT	ACT1	9'-6"	
28	EMS STORAGE	CONCRETE	SC2	RB1	GYP	P1	GYP	P1	GYP	P1	GYP	P1				GYP	P2	9'-6"	
29	FITNESS	RUBBER	RF1	RB1	GYP / FRP	P3 / FRP1	GYP / FRP	P3 / FRP1	GYP / FRP	P3 / FRP1	GYP	P5 / FRP1	RFP	FRP1	6'-0"	ACT	ACT1	11'-6"	
29	STORAGE/ PLATFORM																		
30	STORAGE/ PLATFORM																		

NOTE:
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PER CSFM, 2022 CBC/CFC CH. 8 & CCR TITLE 19

LIONAKIS
2025 Nineteenth Street
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CONSULTANT

SEAL

LICENSED ARCHITECT DEBORAH LESNESKA C36478 REN 11-30-25 STATE OF CALIFORNIA

PROJECT

DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE

FINISH SCHEDULE

SHEET

A4.1

2" 1" 1/2" 1/4" 0
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
Autodesk Docs://MF22204 The City of Dixon - Fire Station 82/MF22204_ARCHMSTR_R24_CENTRAL.rvt
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0 1/4" 1/2" 1"
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
Autodesk Docs://MF22204 The City of Dixon - Fire Station 82/MF22204_ARCHMSTR_R24_CENTRAL.rvt
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INTERIOR FINISH MATERIAL AND COLOR

06-03-26 Revised

Dixon Fire No. 82

Interior Color & Materials

LVT

LVT1	Shaw Contract	Style: Abide #4107V	Color: "Wheat Oak" #07220 20 mil wear layer, 7" x 48" plank 2.5mm overall plank thickness

RUBBER BASE

RB1	Flexco	Style: 4" Wallflowers Rubber	Color: TS #523 "Black Brown"

RUBBER SPORTS FLOORING

RF1	Mannington	Style: reset Sports Flooring	Color: #824 "Beige Tones" 9.0 mm, 24"x24" Rubber Interlocking Tile

TILE

T1	Daltile	Style: Dignitary	Color: DR10 Unpolished "Eminence Grey" 12x24 Field Tile, Cove Base, Bullnose and corner
T2	Daltile	Style: Haut Monde	Color: HM03 Unpolished "Glitterati Granite" 2x2 Mosaic for shower floor and shampoo recess
T3	Daltile	Style: Linear Color Wheel	Color: 0190 "Artic White" 4x12 Wall Tile in Shower, 4x12 Cove and various Wall Bullnose

TILE GROUT

G1	CUSTOM	Color: #335 "Winter Gray"	All tile

PAINT

P1	Dunn Edwards	Color: #DE6226 "Foggy Day" - Eggshell	Neutral Wall paint
P2	Dunn Edwards	Color: #DE6225 "Fossil" – Eggshell	Ceiling paint
P3	Dunn Edwards	Color: #DEC786 "Miner's Dust" – Eggshell	Wall paint
P4	Dunn Edwards	Color: #DE6231 "Shaker Gray" – Eggshell	Accent wall paint
P5	Dunn Edwards	Color: #DET683 "Wild Horses" – Eggshell	Accent wall paint
P6	PPG	Color: #PPG1008-7 "Stone's Throw" - Eggshell	Accent wall paint
P7	PPG	Color: #PPG1008-7 "Stone's Throw" - Semi-Gloss	Door frames and doors

FRP (Fiberglass Reinforced Polyester wall panels)

FRP1	Marlite	Color: #P-145 "Silver"

QUARTZ COUNTERTOPS

Q1	Wilsonart	Color: #Q4008 "Haida" - 2cm	All Kitchen and Bathrooms countertops & backsplashes, and sill for shampoo recess in showers

STAINLESS STEEL COUNTERTOPS

SS1	EMS Storage countertops & backsplashes

GALVANIZED STEEL COUNTERTOPS

GS1	Shop countertop & backsplash

CONCRETE FLOORS

SC1	Ameripolish	"Ameripolish Concrete Dyes"	Color: Chocolate Brown
SC2	Sealed Concrete – no color		

PLASTIC LAMINATE

(Note: No vinyl edges for wood-look cabinet doors and drawers – wrap in laminate. Vinyl edges required for all laminate countertop and worksurfaces – match laminate top color.)

PL1	ARBORITE	Color: #W-475 LE "Downtown Urban Walnut"	All Kitchen/Day Room TV cabinet, Wardrobe in Dorms,
PL2	Wilsonart	Color: #1595-60 "Black"	TV cabinet top and toe kick base
PL3	Wilsonart	Color: #1500-60 "Grey" (Use light melamine interior color)	Admin. Office countertops, Bath cabinetry, EMS Storage, cabinetry

ROLLER SHADES

Inpro	H100 Solo Mount Manual Shade Fabric: WT243, Color: White/Haze 3% Open, Fascia Finish: White 10	All exterior windows, Lobby/Dining Storefronts, and sliding doors at Fitness Room

BLACK-OUT ROLLER SHADES w/ ALUM. BLACK-OUT SIDE CHANNELS

Inpro	H100 Solo Mount Manual Shade Fabric: 245B, Color: White/Haze Fascia Finish: White 10	All exterior Dorm windows. Provide 2.5" side channels in color White 10

ACOUSTIC CEILING PANELS

ACT1	Armstrong	Style: Cirrus Second Look # 510 9/16" Beveled Tegular	Color: White 24"x48"x3/4" All rooms w/ ACT
ACT2	Armstrong	Style: Cirrus # 558 9/16" Beveled Tegular	Color: White 24"x24"x3/4" All hallways w/ ACT

TECTUM PANELS

TP1	Armstrong	Style: Lay-In 48" x 48" Beveled edges	Color: "White" Walls & ceilings in App Bays

WALL PANELS

WP1	Ezobord	Style: 24"x48" beveled edges, 9mm Thick	Color: Graphite (GR10) TV wall in Day Room

CABINET HARDWARE

Richelieu	Cabinet Pulls	Model # BP873128195 5" Nickel finish

COMPOSITE LUMBER

TREX	Select Composite Decking – 2" Square edge board	Color: "Winchester Grey" Accessible Bath Bench

ELECTRICAL OUTLETS / SWITCHES

White

Dixon Fire - Station No.82
Dixon, CA.

LIONAKIS
2025 19TH Street, Sacramento, CA 95818
P. 916-558-1900

EXTERIOR COLOR & MATERIALS

Exterior Color & Materials

EXTERIOR PLASTER

P9	Dunn Edwards	Color: #DET683 "Wild Horses" Eggshell	Field
P10	Dunn Edwards	Color: #DE6222 "Weather Board" Eggshell	Field

EXTERIOR HARDIE PLANK SIDING & TRIMS

HP 1	James Hardie	Siding: Select Cedarmill	Color: Monterey Taupe - Field
HP 2	James Hardie	Trim: 4/4 Hardie Trim Batten Boards	Color: Monterey Taupe – Battens
HP 3	James Hardie	Trim: 4/4 Hardie Trim Boards	Color: Timber Bark – Trim

EXTERIOR PAINTED DOORS & FRAMES

P12	Dunn Edwards	#DE6217 "Ancient Earth" Semi-gloss	Metal Doors/Frames

EXTERIOR WINDOWS, STOREFRONT

Color: Factory custom painted finish to match metal roofing "Cool Weathered Copper"

EXTERIOR APARATUS HI-SPEED COIL UP DOOR and ROLL-UP OVERHEAD DOORS

Color: Factory custom painted finish to match metal roofing "Cool Weathered Copper"

EXTERIOR WINDOW/DOOR GLASS

Glazing: PPG Solar gray Float Glass, low-e third surface of dual pane assembly

EXTERIOR ELDORADO STONE

ES1	ELDORADO STONE	Style: Mountain Ledge	Color: Yukon or Durango (Architect to choose)

PRE-FINISHED STANDING SEAM METAL ROOFING & GUTTERS

AEP SPAN	Standing Seam Roof, fascia, and gutters	Color: "Cool Weathered Copper"

DOWNSPOUTS

Paint to Match Standing Seam Roof, fascia, and gutters Color: "Cool Weathered Copper"

STRUCTURAL CONCRETE BLOCK

CMU1	BASALITE	8"x8"x16" Precision Block (Both sides)	Color: D375 "Brown"
CMU2	BASALITE	8"x8"x16" Split-face Block (Both sides)	Color: D375 "Brown"

PAINTED METAL (All Fencing and Gates)

P14	Dunn Edwards	"Aristoshield" Enamel	Color: Fired Bronze #DEB008 Exterior Semi-Gloss

Dixon Fire - Station No.82
Dixon, CA.

LIONAKIS
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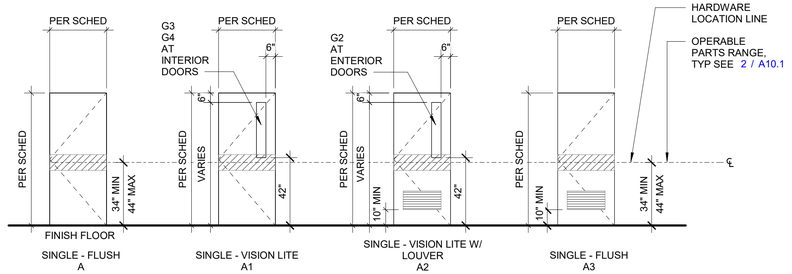
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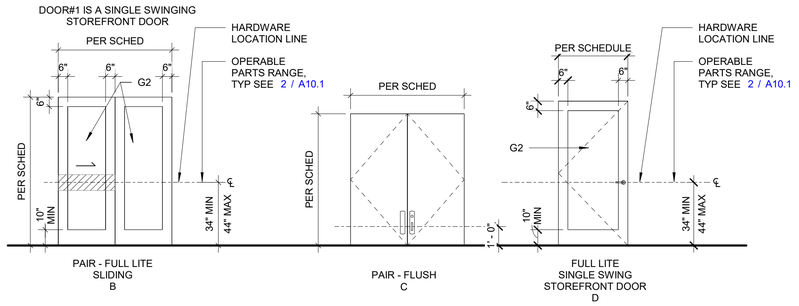
FINISH LEGENDS

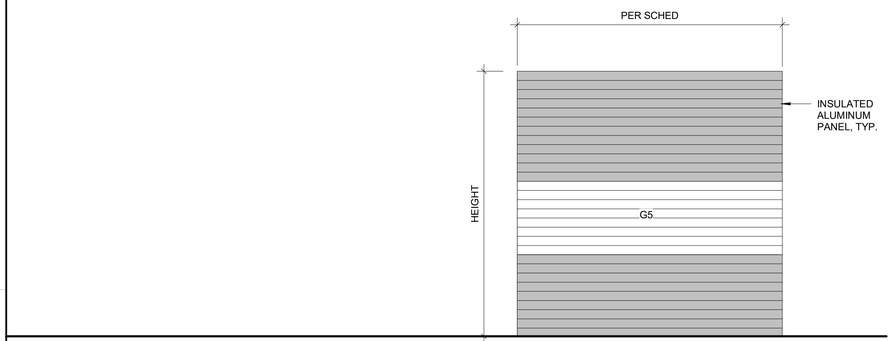
SHEET

A4.2

DOOR TYPE







DOOR SCHEDULE

FUNCTION	NO.	LOCATION	SIZE			FIRE RATING	DOOR			FRAME		DETAILS			HARDWARE GROUP	REMARKS
			WIDTH	HEIGHT	THICKNESS		MATERIAL	FINISH	TYPE	MATERIAL	FINISH	THRESHOLD	JAMB	HEAD		
Exterior	1	HALL	3' - 8"	7' - 7 1/2"	1 3/4"	-	ALUM		D	ALUM		11/A4.8	12/A4.8	12/A4.8	01	SEE TYPE S1, SHEET A4.7
Interior	2	PUBLIC TOILET	3' - 0"	7' - 0"	1 3/4"	-	METAL	PAINT	A	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	106.1	
Interior	3	OFFICE	3' - 0"	7' - 0"	1 3/4"	-	WOOD	PAINT	A1	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	102	VIEW PANEL, G3, SEE A10.14
Interior	4	HALL	3' - 0"	7' - 0"	1 3/4"	-	WOOD	PAINT	A1	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	104.1	VIEW PANEL, G3
Interior	5	VEST.	3' - 0"	7' - 0"	1 3/4"	45 MNTS	METAL	PAINT	A1	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	104	VIEW PANEL(FIRE RATED, G4)
Interior	6	KITCHEN / DINING	3' - 0"	7' - 0"	1 3/4"	45 MNTS	WOOD	PAINT	A1	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	101	VIEW PANEL(FIRE RATED, G4)
Exterior	7	KITCHEN / DINING	3' - 0"	7' - 0"	1 3/4"	-	ALUM		D	ALUM		11/A4.8	12/A4.8	12/A4.8	02	S2
Interior	8	DAYROOM	3' - 0"	7' - 0"	1 3/4"	-	WOOD	PAINT	A1	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	104.1	VIEW PANEL, G3
Interior	9	DORM	3' - 0"	7' - 0"	1 3/4"	20 MNTS	WOOD	PAINT	A	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	105	
Interior	10	DORM	3' - 0"	7' - 0"	1 3/4"	20 MNTS	WOOD	PAINT	A	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	105	
Interior	11	DORM	3' - 0"	7' - 0"	1 3/4"	20 MNTS	WOOD	PAINT	A	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	105	
Interior	12	DORM	3' - 0"	7' - 0"	1 3/4"	20 MNTS	WOOD	PAINT	A	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	105	
Exterior	13	CORRIDOR	3' - 0"	7' - 10"	1 3/4"	-	METAL	PAINT	A1	METAL	PAINT	4/A4.5	8/A4.5	9/A4.5	03	VIEW PANEL, G2
Interior	14	TOILET / SHOWER	3' - 0"	7' - 0"	1 3/4"	-	METAL	PAINT	A	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	106	
Interior	15	CORRIDOR	3' - 0"	7' - 0"	1 3/4"	-	WOOD	PAINT	A1	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	105	VIEW PANEL, G3
Interior	16	TOILET / ADA SHOWER	3' - 0"	7' - 0"	1 3/4"	-	METAL	PAINT	A	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	106	
Interior	17	CORRIDOR	3' - 0"	7' - 0"	1 3/4"	-	WOOD	PAINT	A1	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	104.1	VIEW PANEL, G3
Interior	18	VEST.	3' - 0"	7' - 0"	1 3/4"	45 MNTS	METAL	PAINT	A1	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	104	VIEW PANEL(FIRE RATED, G4)
Exterior	19	APPARATUS BAYS	3' - 0"	7' - 10"	1 3/4"	-	METAL	PAINT	A2	METAL	PAINT	4/A4.5	8/A4.5	9/A4.5	04	VIEW PANEL - G2, LOUVER
Exterior	20	APPARATUS BAYS	3' - 0"	7' - 10"	1 3/4"	-	METAL	PAINT	A2	METAL	PAINT	4/A4.5	8/A4.5	9/A4.5	04	VIEW PANEL - G2, LOUVER
Exterior	21	APPARATUS BAYS	14' - 0"	14' - 0"	2"	-	ALUM		OH1	METAL	PAINT	1/A4.6	2/A4.6	3/A4.6	08	
Exterior	22	APPARATUS BAYS	14' - 0"	14' - 0"	2"	-	ALUM		OH1	METAL	PAINT	1/A4.6	2/A4.6	3/A4.6	08	
Exterior	23	APPARATUS BAYS	3' - 0"	7' - 10"	1 3/4"	-	METAL	PAINT	A2	METAL	PAINT	4/A4.5	8/A4.5	9/A4.5	04	VIEW PANEL - G2, LOUVER
Exterior	24	APPARATUS BAYS	14' - 0"	14' - 0"	2"	-	ALUM		OH1	METAL	PAINT	1/A4.6	2/A4.6	3/A4.6	08	
Exterior	25	APPARATUS BAYS	14' - 0"	14' - 0"	2"	-	ALUM		OH1	METAL	PAINT	1/A4.6	2/A4.6	3/A4.6	08	
Interior	26	APPARATUS BAYS	3' - 0"	7' - 0"	1 3/4"	45 MNTS	METAL	PAINT	A1	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	108	VIEW PANEL(FIRE RATED, G4)
Interior	27	TOILET / SHOWER	3' - 0"	7' - 0"	1 3/4"	45 MNTS	WOOD	PAINT	A	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	106.1	
Interior	28	VEST.	3' - 0"	7' - 0"	1 3/4"	45 MNTS	METAL	PAINT	A1	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	108.1	VIEW PANEL(FIRE RATED, G4)
Interior	29	VEST.	3' - 0"	7' - 0"	1 3/4"	-	WOOD	PAINT	A	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	109	
Interior	30	VEST.	3' - 0"	7' - 0"	1 3/4"	-	WOOD	PAINT	A1	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	107	VIEW PANEL, G3
Interior	31	VEST.	3' - 0"	7' - 0"	1 3/4"	-	WOOD	PAINT	A1	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	107	
Exterior	32	ELECTRICAL	3' - 0"	7' - 10"	1 3/4"	-	METAL	PAINT	A3	METAL	PAINT	4/A4.5	5/A4.5	6/A4.5	05	VINYL STENCIL, LOUVER
Exterior	33	FIRE RISER	3' - 0"	7' - 10"	1 3/4"	-	METAL	PAINT	A	METAL	PAINT	4/A4.5	5/A4.5	6/A4.5	06	VINYL STENCIL
Exterior	34	SHOP	3' - 0"	7' - 10"	1 3/4"	-	METAL	PAINT	A	METAL	PAINT	4/A4.5	5/A4.5	6/A4.5	04.1	
Interior	35	DECON & TURNOUT LAUNDRY	3' - 6"	7' - 0"	1 3/4"	45 MNTS	METAL	PAINT	A1	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	108.1	VIEW PANEL(FIRE RATED, G4)
Interior	36	VEST.	3' - 0"	7' - 0"	1 3/4"	45 MNTS	METAL	PAINT	A1	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	108.1	VIEW PANEL(FIRE RATED, G4)
Interior	37	VEST.	3' - 0"	7' - 0"	1 3/4"	45 MNTS	WOOD	PAINT	A1	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	107.1	VIEW PANEL, G3
Interior	38	FITNESS	3' - 0"	7' - 0"	1 3/4"	-	WOOD	PAINT	A1	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	103	VIEW PANEL, G3
Exterior	39	FITNESS	3' - 6"	7' - 10"	1 3/4"	-	ALUM		E	ALUM		11/A4.8	5/A4.5	6/A4.5	07	SEE TYPE S2, SHEET A4.7
Exterior	40	FITNESS	3' - 6"	7' - 10"	1 3/4"	-	ALUM		D	ALUM		11/A4.8	5/A4.5	6/A4.5	07	SEE TYPE S2, SHEET A4.7
Interior	41	STORAGE/ PLATFORM	5' - 0"	5' - 10"	1 3/4"	45 MNTS	METAL	PAINT	C	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	09	
Interior	42	STORAGE/ PLATFORM	5' - 0"	5' - 10"	1 3/4"	45 MNTS	METAL	PAINT	C	METAL	PAINT	7/A4.5	10/A4.5	11/A4.5	09	

Exterior	G-1	TRASH ENCLOSURE	5' - 0"	6' - 0"	2"	-	METAL	PAINT	GA2	METAL	PAINT	1/A1.11	1/A1.11	1/A1.11	10	
Exterior	G-2	GATE ENTRY	3' - 0"	6' - 0"	2"	-	METAL	PAINT	GA3	METAL	PAINT	1/A1.11	1/A1.11	1/A1.11	11	
Exterior	G-3	PATIO	3' - 0"	6' - 0"	2"	-	METAL	PAINT	GA3	METAL	PAINT	1/A1.11	1/A1.11	1/A1.11	11	
Exterior	G-4	PATIO	3' - 0"	6' - 0"	2"	-	METAL	PAINT	GA3	METAL	PAINT	1/A1.11	1/A1.11	1/A1.11	11	
Exterior	G-5	GATE ENTRY	3' - 0"	6' - 0"	2"	-	METAL	PAINT	GA3	METAL	PAINT	1/A1.11	1/A1.11	1/A1.11	11	

DOOR TYPE NOTES

1. THE MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 LBS. FOR EXTERIOR DOORS AND 5 LBS. FOR INTERIOR DOORS. SUCH PULL OR PUSH EFFORT BEING APPLIED AT RIGHT ANGLES TO HINGED DOORS AND AT THE CENTER PLANE OF SLIDING OR FOLDING DOORS. COMPENSATING DEVICES OR AUTOMATIC DOOR OPERATORS MAY BE UTILIZED TO MEET THE ABOVE STANDARDS. WHEN FIRE DOOR ARE REQUIRED, THE MAXIMUM EFFORT TO OPERATE THE DOOR MAY NOT EXCEED 15 LBS.
2. SIGN AT HEAD OF DOOR TO READ 'THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS' IN LETTERS NOT LESS THAN 1" HIGH ON A CONTRASTING BACKGROUND. THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED. 1010.1.9.4 OF 2022 CBC.
3. LOUVER WHERE OCCURS, PER SCHEDULE.
4. A KEY TO THE FIRE RISER ROOM SHALL BE LOCATED WITHIN AN APPROVED FIRE DEPARTMENT KNOX COMPANY MODEL NO. 4400 OR LARGER KEY BOX LOCATED ADJACENT TO THE ACCESS DOOR ON THE EXTERIOR OF THE BUILDING CONTACT THE KNOX COMPANY DIRECTLY AT (866) 623-4563 FOR CUSTOMER SERVICE AND COST.
5. SEE SHEET A2.6 FOR SIGNAGE PLAN AND SIGNAGE DETAILS.

DOORS SCHEDULE NOTES

1. SEE SHEET A4.7 FOR GLAZING TYPES & NOTES.
2. SEE SHEET SPECIFICATIONS FOR DOOR HARDWARE. DOOR HARDWARE SHALL BE 34" MINIMUM AND 44" MAXIMUM ABOVE THE FINISH FLOOR.
3. PREPARE DOORS WITH ELECTRIFIED HARDWARE FOR CARD READERS. CARD READERS OFOI.
4. GLAZING TYPE TO BE G1 UNO.
5. FIRE RATED DOORS ARE TO BE SELF CLOSING WITH SMOKE SEALS.
6. ALL GLAZING AT DOORS TO BE SAFETY GLASS (G2).
7. PAINT FINISH:
   DOORS TYPICALLY PAINTED P7.
   FRAMES TYPICALLY PAINTED P7.
8. HARDWARE SHALL BE 34" MINIMUM AND 44" MAXIMUM ABOVE THE FINISH FLOOR.

GLAZING TYPES

G1 1" INSULATED GLAZING UNIT.

G2 1" INSULATED TEMPERED GLAZING UNIT.

G3 1/4" TEMPERED GLAZING.

G4 3/4" 45 MINUTE FIRE RATED GLAZING.

G5 POLYCARBONATE

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PROJECT

DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE

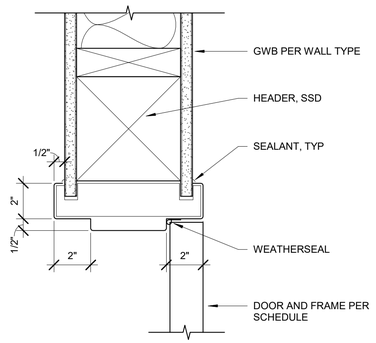
DOOR SCHEDULE AND TYPES

SHEET

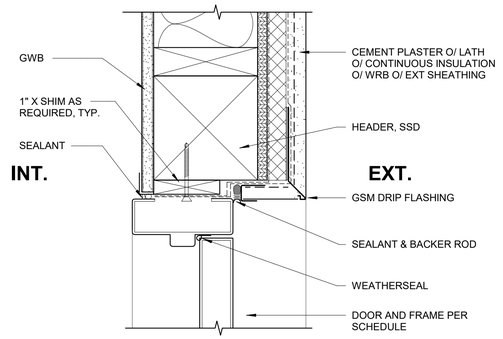
A4.3

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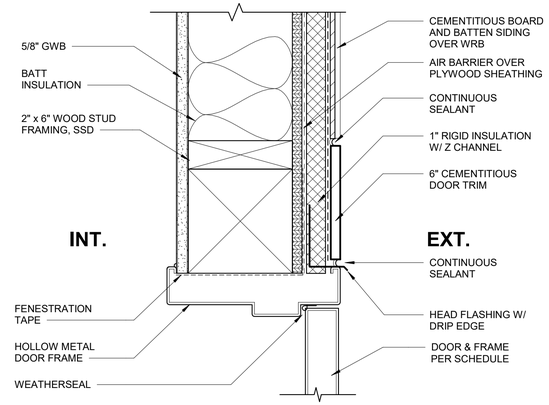
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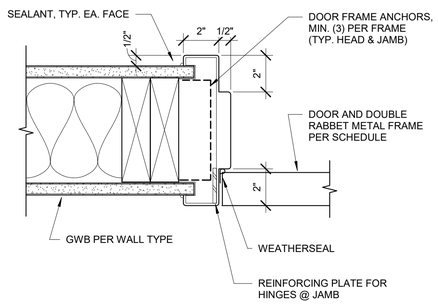
11 INT DOOR HEAD
3" = 1'-0"



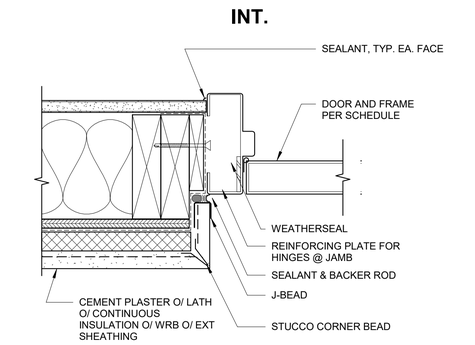
9 EXT MTL DOOR HEAD - STUCCO.
3" = 1'-0"



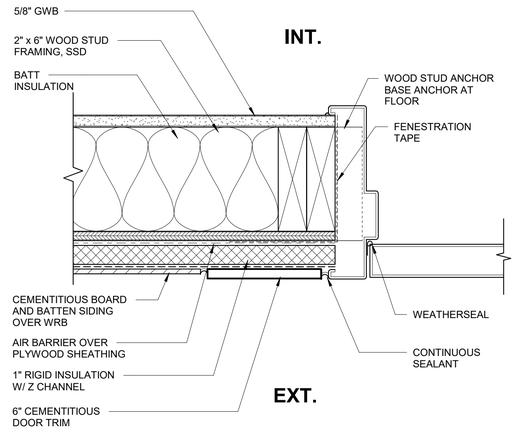
6 EXT DOOR HEAD - BATTEN SIDING
3" = 1'-0"



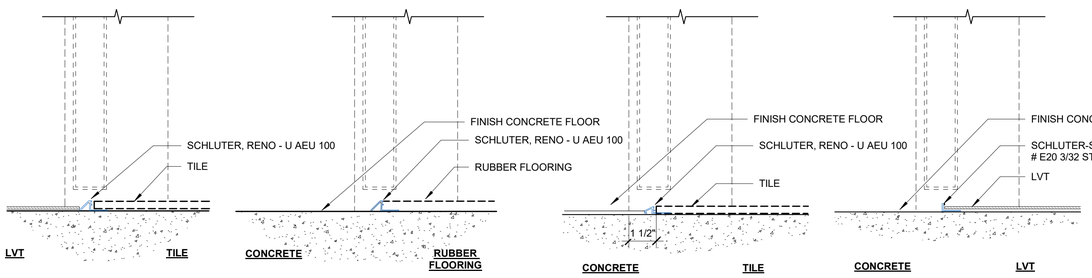
10 INT DOOR JAMB
3" = 1'-0"



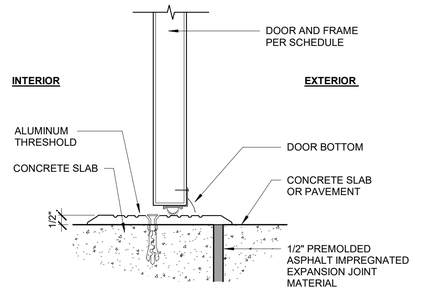
8 EXT MTL DOOR JAMB - STUCCO.
3" = 1'-0"



5 EXT DOOR JAMB - BATTEN SIDING
3" = 1'-0"



7 FINISH FLOOR TRANSITIONS
3" = 1'-0"



4 EXT MTL DOOR THRESHOLD
3" = 1'-0"

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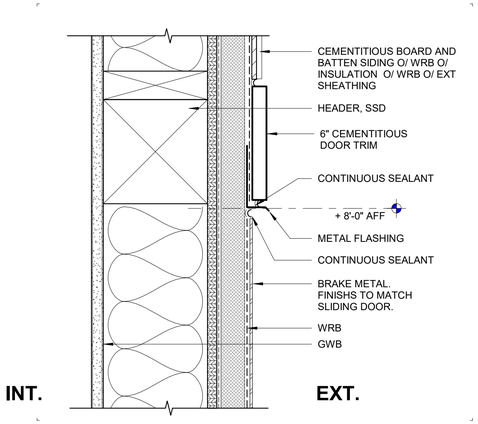
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DOOR DETAILS

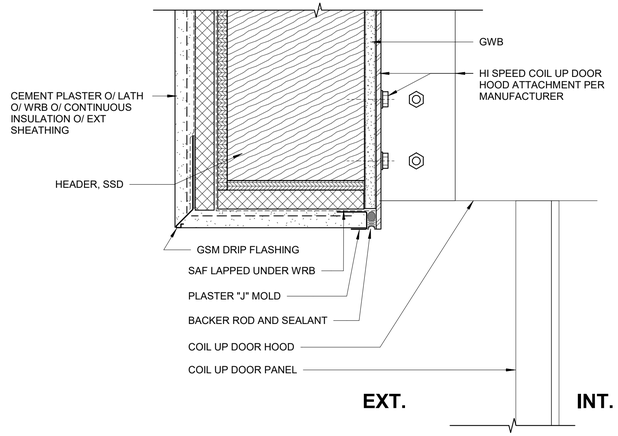
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A4.5

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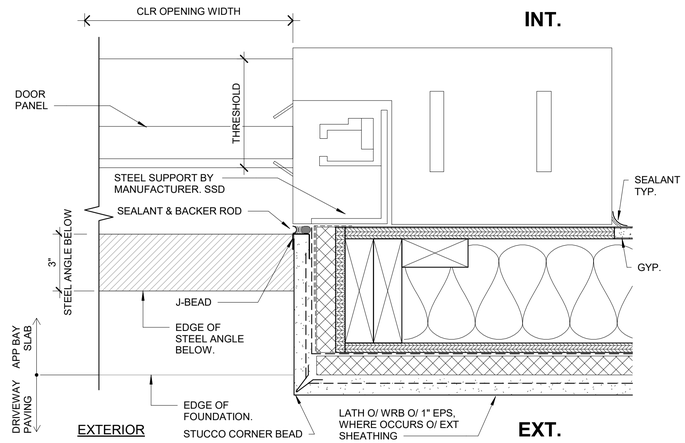
2"
1"
0 1/4" 1/2"
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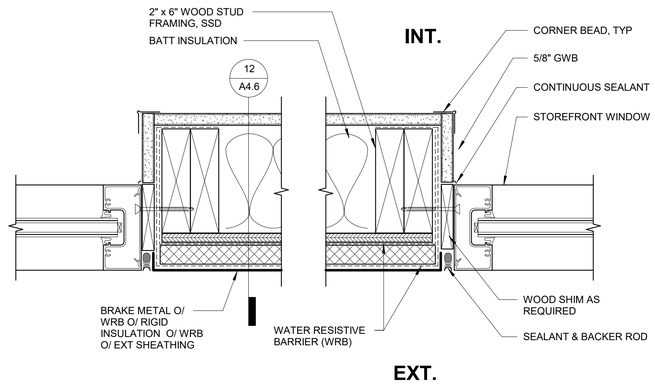
12 DOOR HEAD - IN FILL
3" = 1'-0"



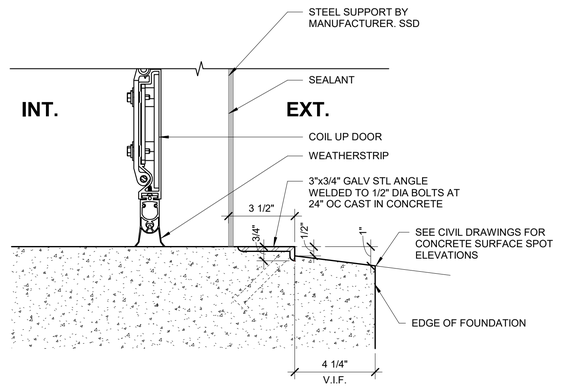
3 HI SPEED COIL UP DOOR HEAD
3" = 1'-0"



2 HI SPEED COIL UP DOOR JAMB
3" = 1'-0"



7 DOOR / STOREFRONT JAMB - BRAKE METAL
3" = 1'-0"



1 HI SPEED COIL UP DOOR THRESHOLD
3" = 1'-0"

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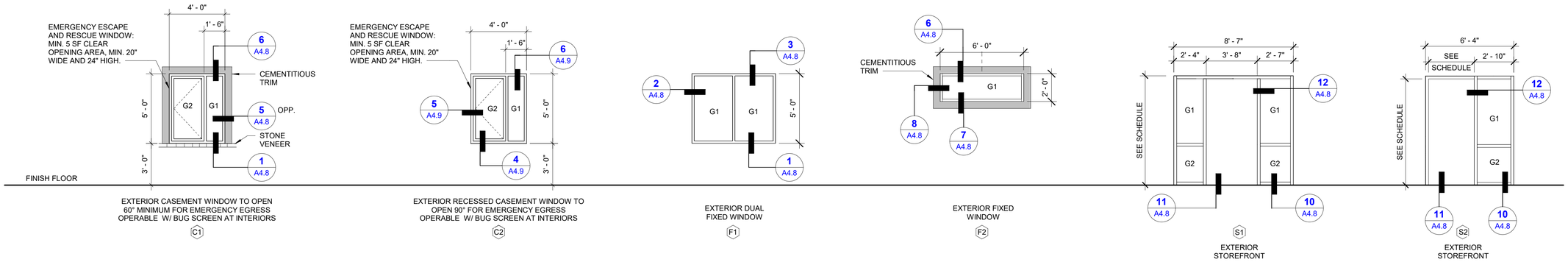
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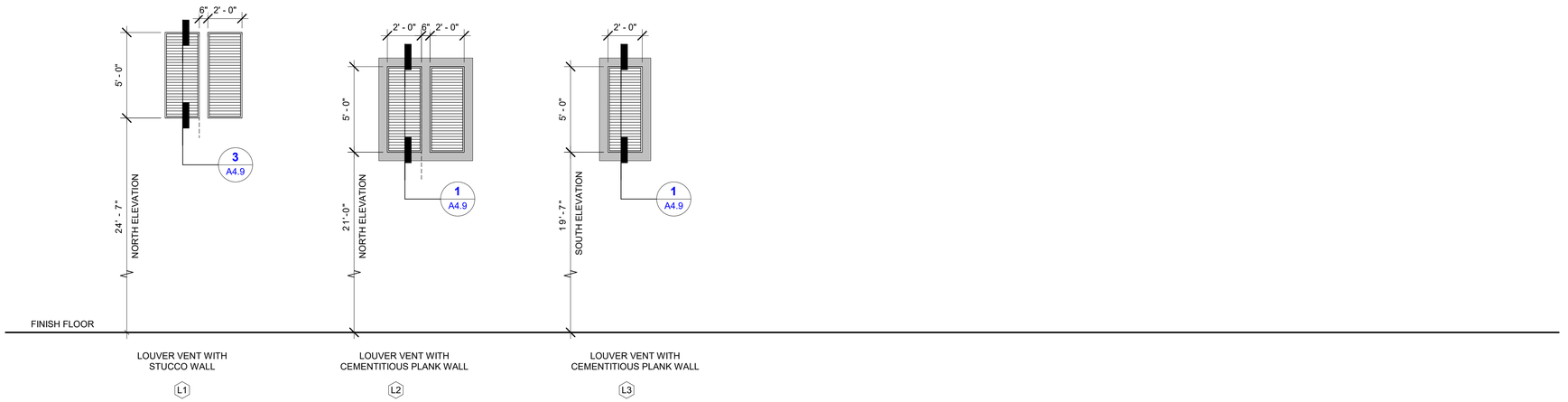
SHEET
A4.6

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WINDOW TYPES



LOUVER TYPES



GLAZING TYPES

G1	1" INSULATED GLAZING UNIT
G2	1" INSULATED TEMPERED GLAZING UNIT
G3	1/4" TEMPERED GLAZING
G4	3/4" 45 MINUTE FIRE RATED GLAZING

NOTES

1. EXTERIOR GLAZING TO BE TYPE G1 UNO.
2. SEE A4.8 FOR WINDOWS & STOREFRONT DETAILS.
3. SEE A4.9 FOR LOUVER DETAILS.
4. PROVIDE SAFETY GLASS (TEMPERED) AT ALL GLAZING SUBJECT TO HUMAN IMPACT AND HAZARDOUS LOCATIONS AS REQUIRED PER CBC SECTION 2406.4.2 AND 2406.4.3.
5. ALL OVERALL DIMENSIONS ARE TO ROUGH OPENING. VERIFY IN FIELD PRIOR TO FABRICATION.
6. PROVIDE INTERIOR BUG SCREEN IN ALL OPERABLE WINDOWS.
7. ALL LOUVERS TO HAVE INSECT SCREENS.
8. ALL EXTERIOR GLASS TO BE LOW-E.

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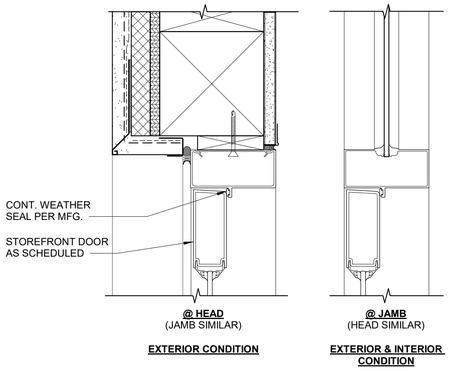
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WINDOW & LOUVER TYPES

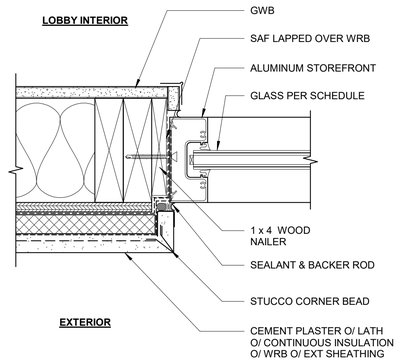
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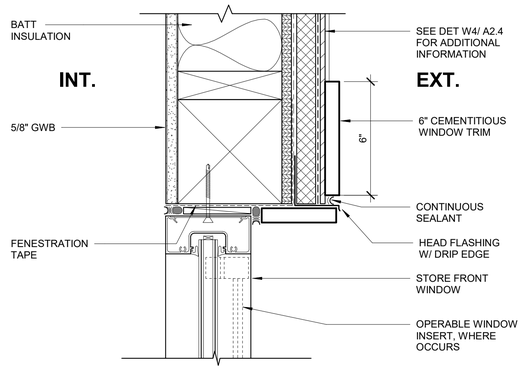
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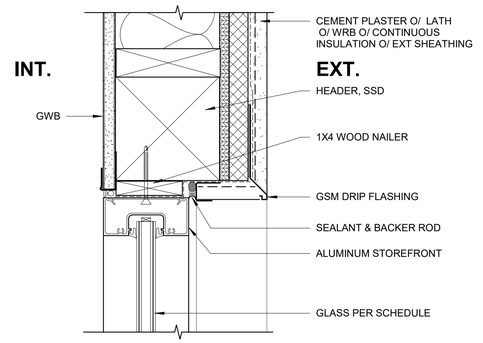
12 STOREFRONT ALUM. DOOR HEAD
3" = 1'-0"



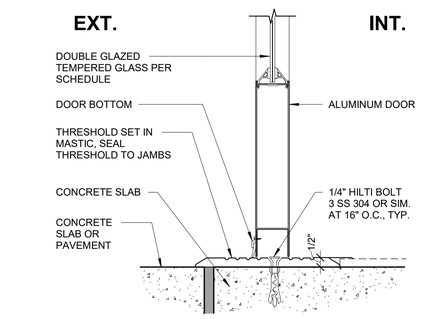
9 STOREFRONT WINDOW JAMB
3" = 1'-0"



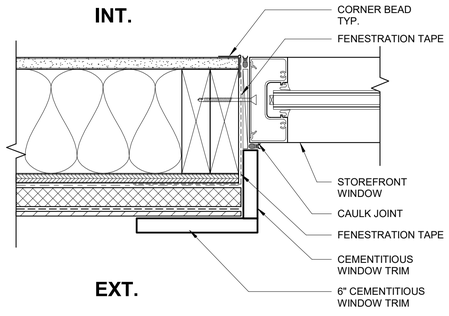
6 WINDOW HEAD - BATTEN SIDING
3" = 1'-0"



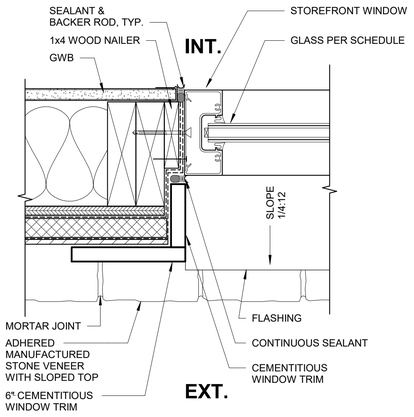
3 WINDOW HEAD - STUCCO
3" = 1'-0"



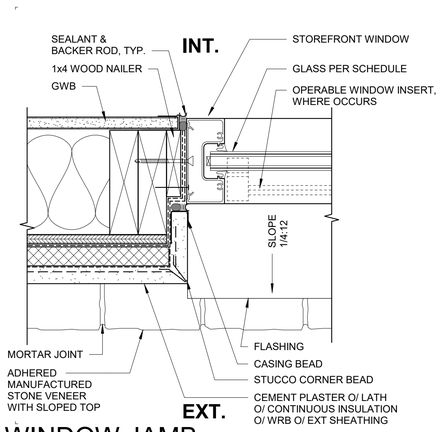
11 STOREFRONT ALUM. DOOR SILL
3" = 1'-0"



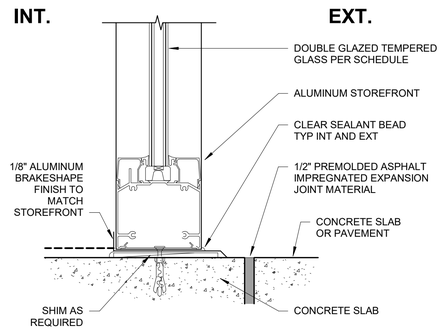
8 WINDOW JAMB - BATTEN SIDING
3" = 1'-0"



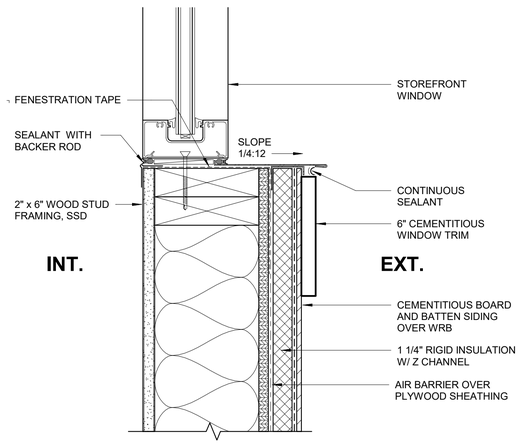
WINDOW JAMB
BATTEN SIDING W/ STONE VENEER
3" = 1'-0"



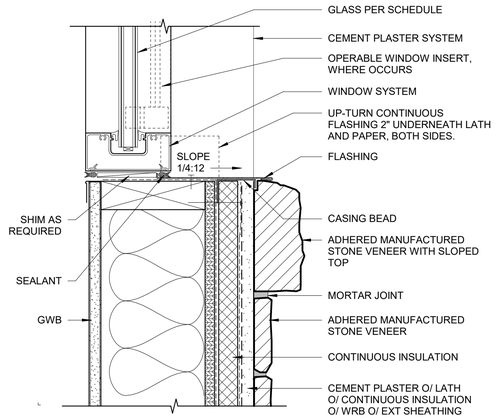
2 WINDOW JAMB - STUCCO W/ STONE VENEER
3" = 1'-0"



10 STOREFRONT WINDOW SILL
3" = 1'-0"



7 WINDOW SILL - BATTEN SIDING
3" = 1'-0"



WINDOW SILL -
STUCCO W/ STONE VENEER
3" = 1'-0"

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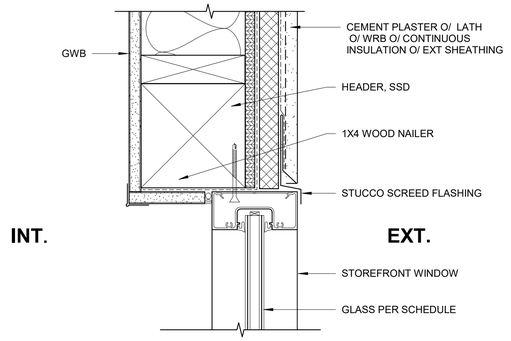
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WINDOW & STOREFRONT DETAILS

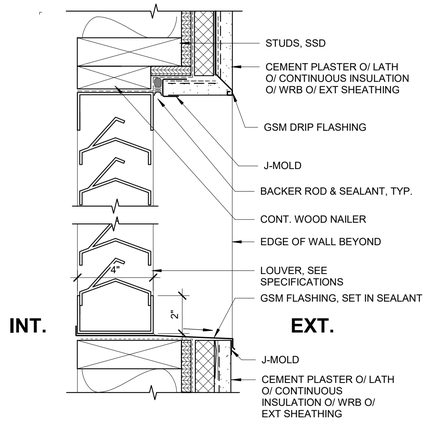
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A4.8

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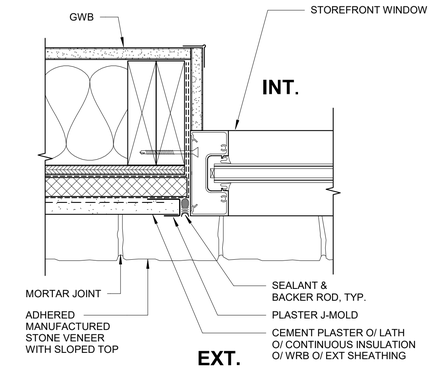
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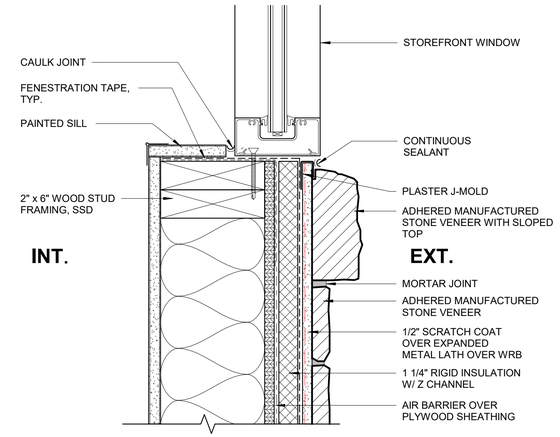
6 WINDOW HEAD - STUCCO
3" = 1'-0"



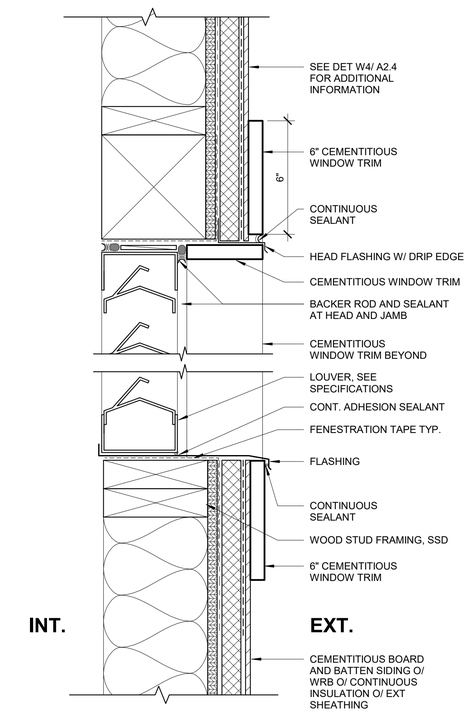
3 LOUVER AT CEM. PLASTER
3" = 1'-0"



5 WINDOW JAMB - STUCCO W/ STONE VENEER
3" = 1'-0"



4 WINDOW SILL - STONE VENEER SIDING
3" = 1'-0"



1 LOUVER BATTEN SIDING
3" = 1'-0"

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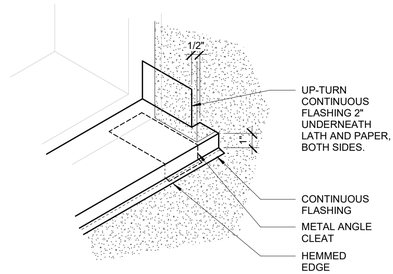
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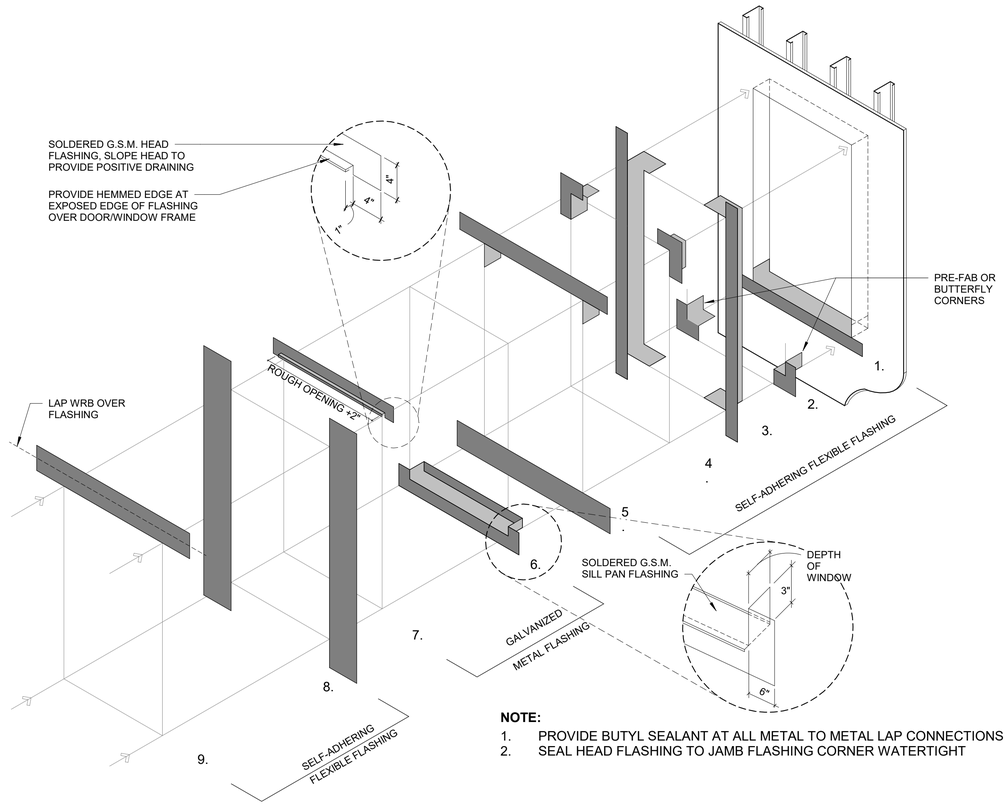
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2 TYPICAL FLASHING AT SILL (EXTERIOR WINDOW)

3" = 1'-0"



NOTE:

1. PROVIDE BUTYL SEALANT AT ALL METAL TO METAL LAP CONNECTIONS
2. SEAL HEAD FLASHING TO JAMB FLASHING CORNER WATERTIGHT

1 ISOMETRIC WINDOW FLASHING (EXTERIOR WINDOW)

1/2" = 1'-0"

LIONAKIS
2025 Nineteenth Street
Sacramento, CA 95818
P 916.558.1900
www.lionakis.com

CONSULTANT

SEAL

LICENSED ARCHITECT
DEBORAH LESNEFSKA
C36478
REN 11-30-25
STATE OF CALIFORNIA

PROJECT

DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

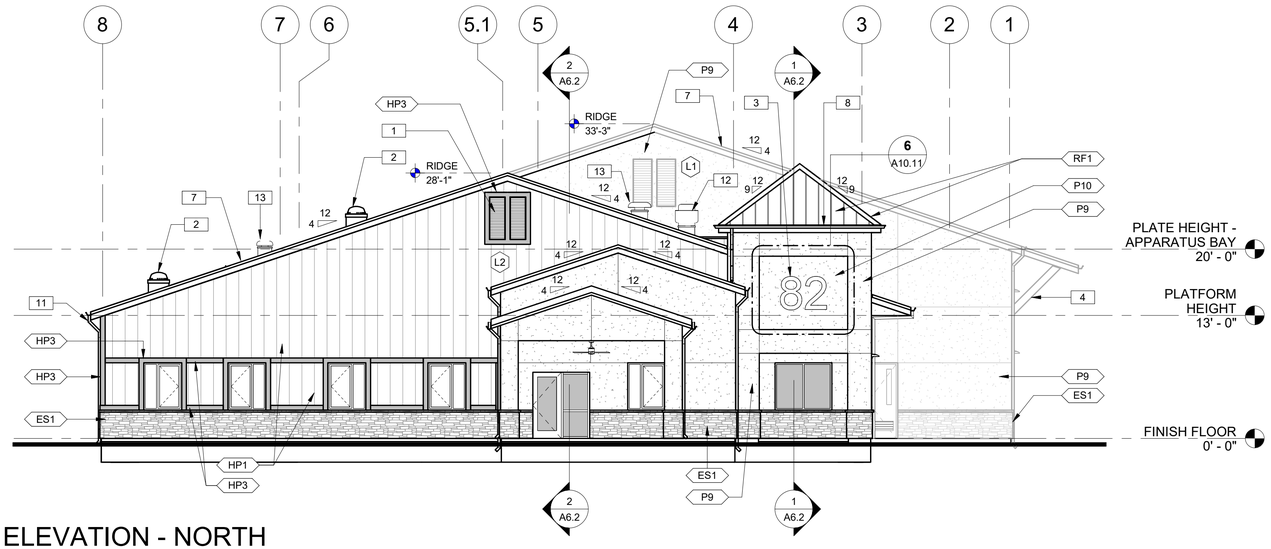
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WINDOW DETAILS

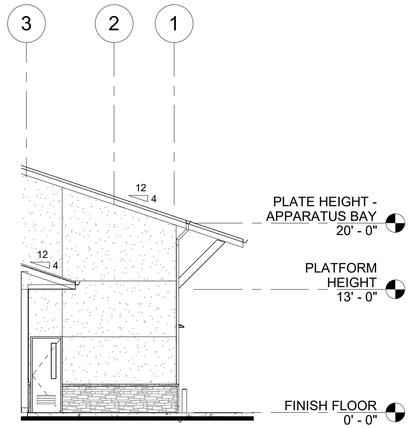
SHEET

A4.10

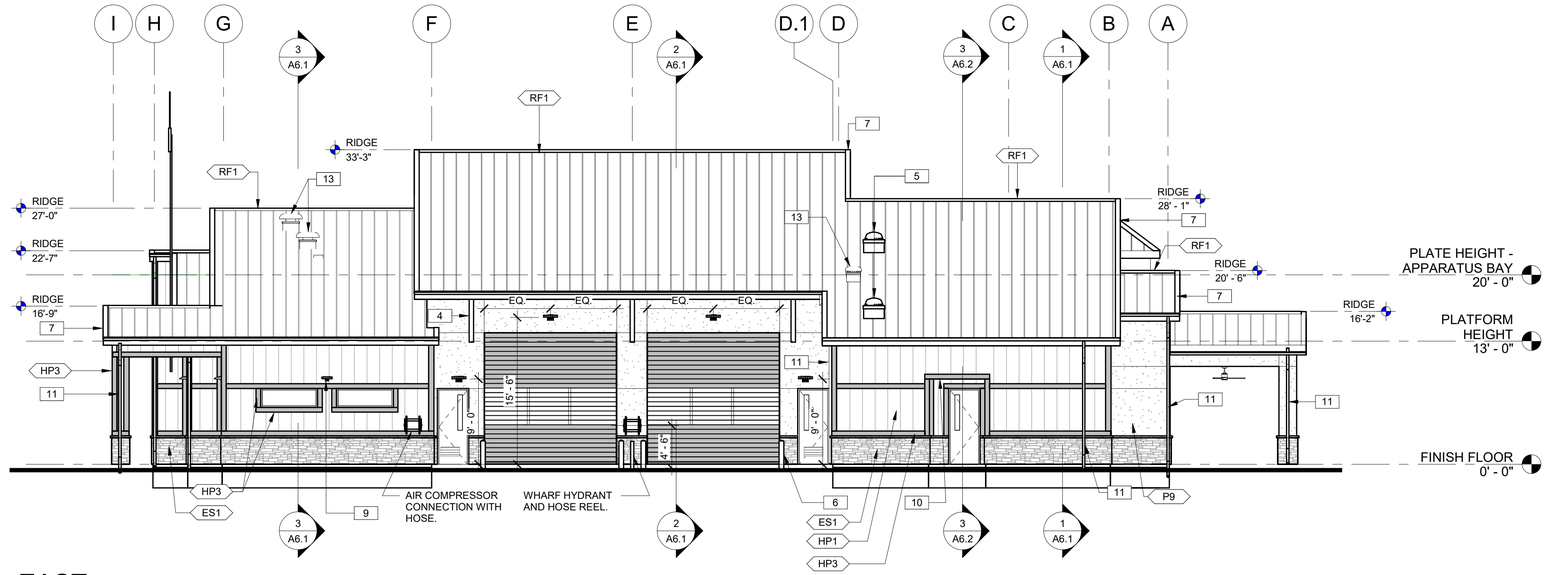
0 1/4" 1/2" 1" 2"
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY



1 ELEVATION - NORTH
1/8" = 1'-0"



3 ELEVATION - NORTH
1/8" = 1'-0"



2 ELEVATION - EAST
1/8" = 1'-0"

SHEET NOTES

a. SEE SHEET A4.2 FOR ADDITIONAL EXTERIOR FINISHES.
b. EXTERIOR LIGHT FIXTURES TO BE MOUNTED AT 9'-0" UON
c. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
d. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
e. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
f. SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.

KEY NOTES 1

1 METAL LOUVER AT BATTEN SIDING
2 SOLATUBE SKYLIGHT, TYP.
3 METAL BUILDING SIGNAGE
4 CANOPY SUPPORT, TYP.
5 TUBULAR SKYLIGHT AT STANDING SEAM ROOFING
6 BOLLARD, TYP.
7 METAL ROOF TRIM, TYP.
8 GUTTER, TYP.
9 EXTERIOR WALL LIGHTING, TYP., SEE ELECTRICAL DRAWINGS
10 CEMENT PLASTER SOFFIT
11 DOWNSPOUT, TYP.
12 EXHAUST FAN. SEE MECHANICAL DRAWINGS.
13 INTAKE / RELIEF HOOD, SEE MECHANICAL DRAWINGS

EXTERIOR FINISH LEGEND

P10 FINISH TAG

EXTERIOR CEMENTITIOUS BOARD AND TRIM

HP1 MFG: JAMES HARDIE
COLOR: MONTEREY TAUPE - FIELD
SIZE:

HP2 MFG: JAMES HARDIE
COLOR: MONTEREY TAUPE - BATTENS
SIZE: 4/4 HARDIE TRIM BATTEN BOARDS

HP3 MFG: JAMES HARDIE
COLOR: TIMBER BARK - TRIM
SIZE: 4/4 HARDIE TRIM BOARDS

EXTERIOR PLASTER

P9 MFG: DUNN EDWARDS
COLOR: #DET683 "WILD HORSES" EGGSHELL FIELD

P10 MFG: DUNN EDWARDS
COLOR: #DE6222 "WEATHER BOARD" EGGSHELL FIELD

EXTERIOR STONE VENEER

ES1 MFG: ELDORADO STONE
COLOR: MOUNTAIN LEDGE - YUKON OR DURANGO (ARCHITECT TO CHOOSE)

EXTERIOR DOORS AND FRAME

P12 MFG: DUNN EDWARDS
COLOR: #DE6217 "ANCIENT EARTH" SEMI-GLOSS METAL DOORS / FRAME

DOWNSPOUTS

PAINT TO MATCH STANDING SEAM ROOF, FASCIA, AND GUTTERS

COLOR : "COOL WEATHERED COPPER"

EXTERIOR WINDOWS, STOREFRONT, ROLL-UP OVERHEAD DOORS, BI-FOLD DOORS

COLOR: FACTORY CUSTOM PAINTED FINISH TO MATCH ROOFING "COOL WEATHERED COPPER"

EXTERIOR WINDOW / DOOR GLASS

GLAZING: PPG SOLAR GRAY FLOAT GLASS, LOW-E THIRD SURFACE OF DUAL PANE ASSEMBLY.

PRE-FINISHED STANDING SEAM METAL ROOFING & GUTTERS

RF1 MFG: AEP SPAN - STANDING SEAM ROOF FASCIA AND GUTTERS
COLOR: "COOL WEATHERED COPPER"

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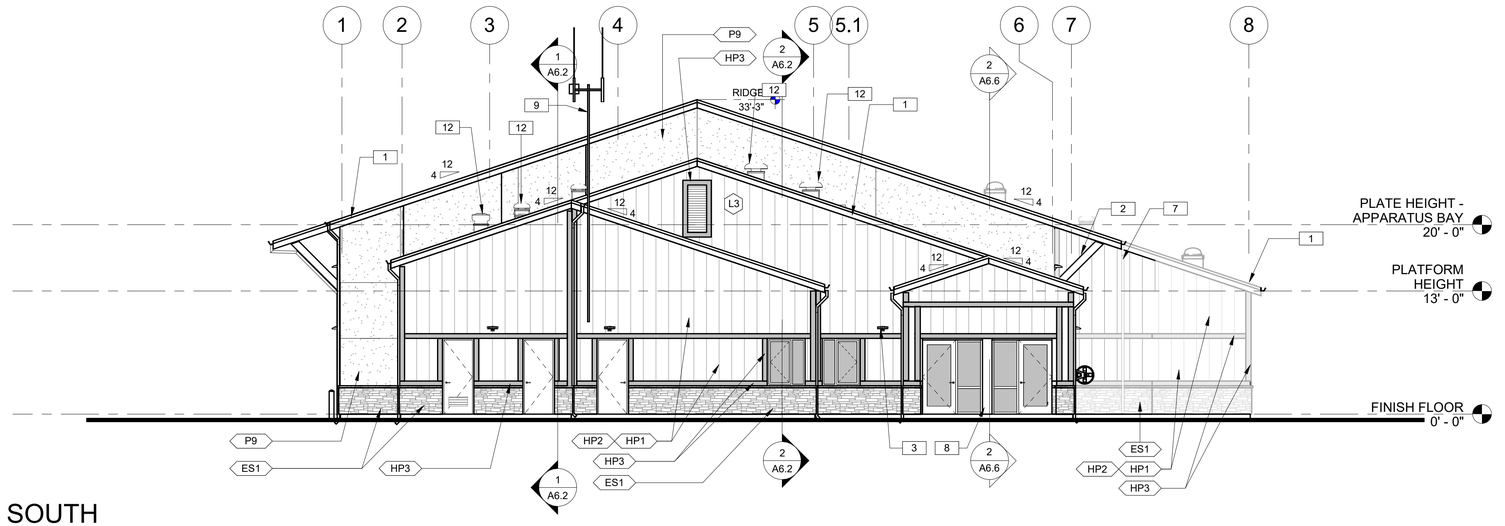
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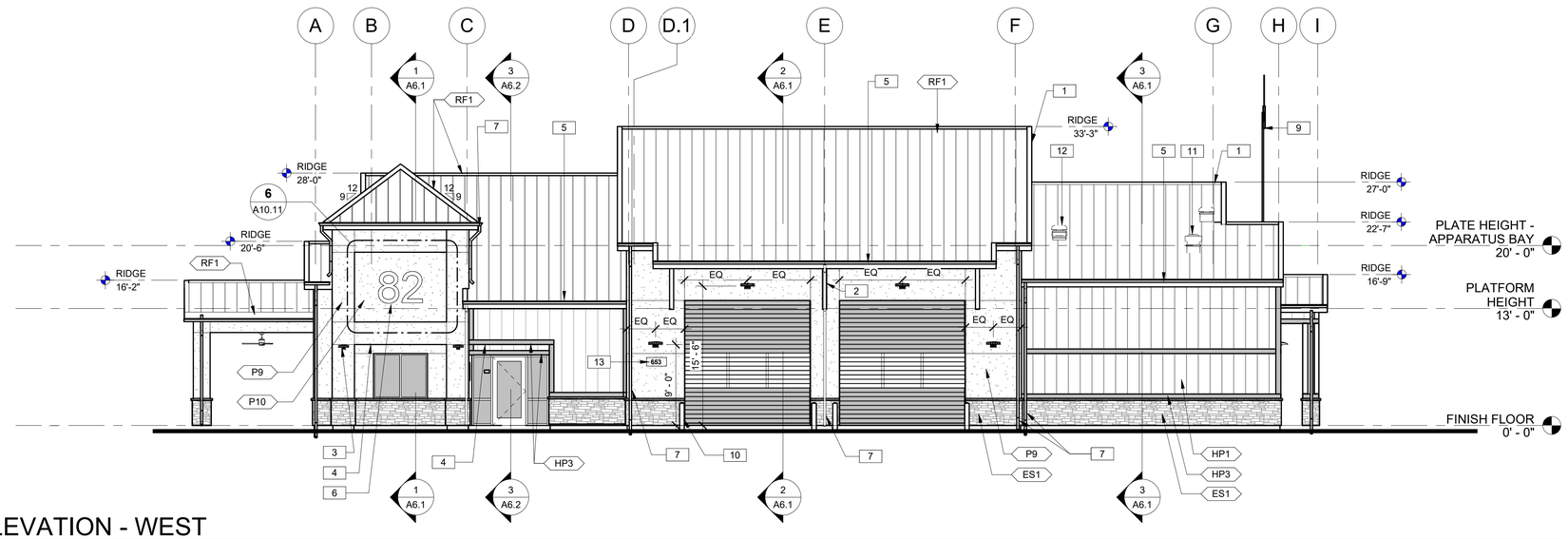
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EXTERIOR ELEVATIONS

SHEET
A5.1

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1 ELEVATION - SOUTH
1/8" = 1'-0"



2 ELEVATION - WEST
1/8" = 1'-0"

SHEET NOTES

a. SEE SHEET A4.2 FOR ADDITIONAL EXTERIOR FINISHES.
b. EXTERIOR LIGHT FIXTURES TO BE MOUNTED AT 9'-0" UON
c. SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
d. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
e. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
f. SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.

KEY NOTES 1

1 METAL ROOF TRIM, TYP.
2 CANOPY SUPPORT, TYP.
3 EXTERIOR WALL LIGHTING, TYP., SEE ELECTRICAL DRAWINGS
4 CEMENT PLASTER SOFFIT
5 GUTTER, TYP.
6 METAL BUILDING SIGNAGE
7 DOWNSPOUT, TYP.
8 BREAK METAL.
9 ANTENNA
10 BOLLARD
11 EXHAUST FAN. SEE MECHANICAL DRAWINGS.
12 INTAKE / RELIEF HOOD, SEE MECHANICAL DRAWINGS
13 PREMISES ADDRESS NUMBERS; EXTERNALLY ILLUMINATED. SEE BUILDING ADDRESS NOTES, SHEET A5.2.

BUILDING ADDRESS NOTES

1. MINIMUM SIZE ON STRUCTURES. ADDRESS NUMBERS SHALL BE NOT LESS THAN 4 (FOUR) INCHES IN HEIGHT FOR RESIDENTIAL BUILDINGS AND NOT LESS THAN 8 (EIGHT) INCHES IN HEIGHT FOR COMMERCIAL, INDUSTRIAL, OR MULTI-FAMILY BUILDINGS. MINIMUM STROKE WIDTH IS 1/2 IN FOR RESIDENTIAL AND 1" FOR COMMERCIAL. LARGER NUMBERS SHOULD HAVE A MINIMUM STROKE WIDTH 1/7 OF THE NUMERAL HEIGHT FOR READABILITY AT DISTANCE.
2. MINIMUM SIZE ON MONUMENTS OR SIGNS. WHERE BUILDINGS ARE NOT VISIBLE FROM THE STREET, ADDRESS NUMBERS SHALL BE DISPLAYED ON A MONUMENT, SIGN, OR OTHER APPROVED STRUCTURE AT THE PROPERTY ENTRANCE. SUCH NUMBERS SHALL NOT BE LESS THAN 4 (FOUR) INCHES IN HEIGHT FOR RESIDENTIAL PROPERTIES AND NOT LESS THAN 8 (EIGHT) INCHES IN HEIGHT FOR COMMERCIAL OR MULTI-FAMILY PROPERTIES.
3. ILLUMINATION. ADDRESS NUMBERS SHALL BE INTERNALLY OR EXTERNALLY ILLUMINATED AND VISIBLE DURING HOURS OF DARKNESS. SOLAR-POWERED LIGHTING MAY BE APPROVED BY THE FIRE CODE OFFICIAL.
4. ROADWAY VISIBILITY. FOR LONG DRIVEWAYS, FLAG LOTS, OR MULTIPLE STRUCTURES SHARING COMMON ACCESS, ADDITIONAL ADDRESS MARKERS SHALL BE INSTALLED AT ALL ROADWAY INTERSECTIONS AND DIRECTIONAL CHANGES AS REQUIRED BY THE FIRE CODE OFFICIAL.
5. CONTRAST. NUMBERS SHALL BE OF A COLOR THAT SHARPLY CONTRASTS WITH THE BACKGROUND UPON WHICH THEY ARE PLACED. REFLECTIVE MATERIALS MAY BE REQUIRED BY THE FIRE CODE OFFICIAL TO IMPROVE NIGHT VISIBILITY.
6. MAINTENANCE. ADDRESS NUMBERS AND SIGNS SHALL BE MAINTAINED IN A LEGIBLE AND VISIBLE CONDITION AT ALL TIMES.

EXTERIOR FINISH LEGEND

P10 FINISH TAG

EXTERIOR CEMENTITIOUS BOARD AND TRIM

HP1 MFG: JAMES HARDIE
COLOR: MONTEREY TAUPE - FIELD
SIZE:

HP2 MFG: JAMES HARDIE
COLOR: MONTEREY TAUPE - BATTENS
SIZE: 4/4 HARDIE TRIM BATTEN BOARDS

HP3 MFG: JAMES HARDIE
COLOR: TIMBER BARK - TRIM
SIZE: 4/4 HARDIE TRIM BOARDS

EXTERIOR PLASTER

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COLOR: "COOL WEATHERED COPPER"

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CITY OF DIXON FIRE DEPARTMENT

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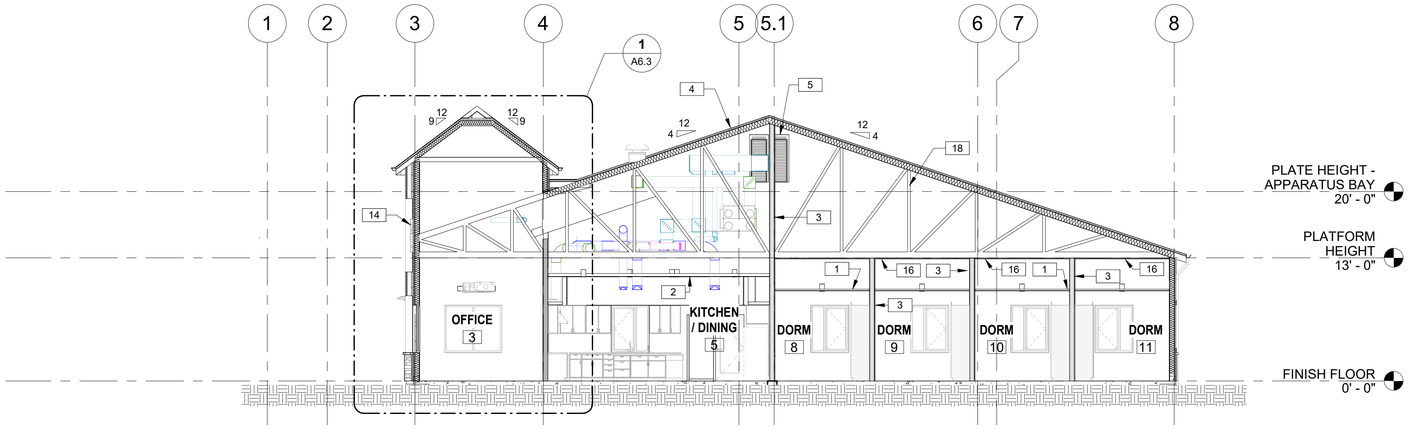
LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

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EXTERIOR ELEVATIONS

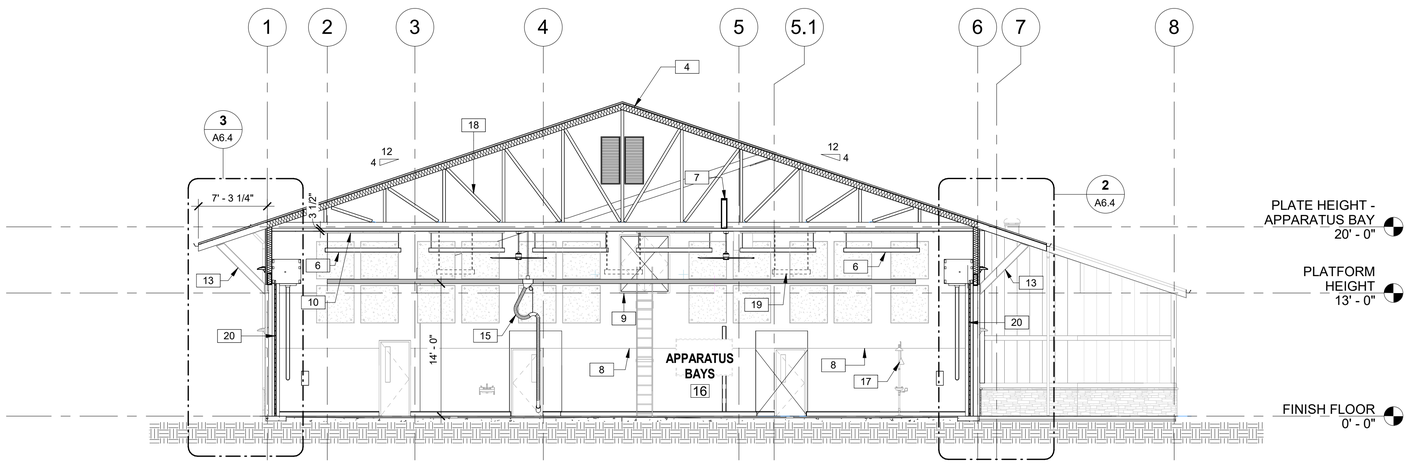
SHEET
A5.2

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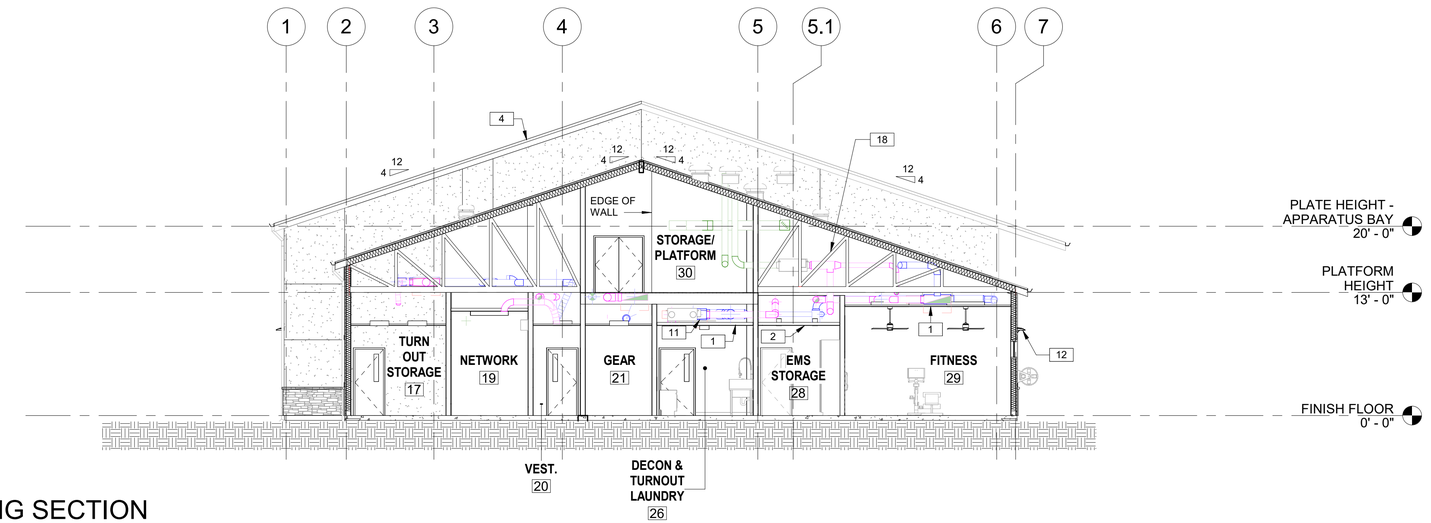
1 BUILDING SECTION

1/8" = 1'-0"



2 BUILDING SECTION

1/8" = 1'-0"



3 BUILDING SECTION

1/8" = 1'-0"

SHEET NOTES

a. SEE SHEET A5.1 AND A5.2 FOR EXTERIOR FINISHES.

b. ALL DIMENSIONS ARE TO THE FACE OF STUD OR GRIDLINE, UNLESS NOTED OTHERWISE.

c. SEE SHEETS A10.1 AND A10.2 FOR ALL ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS.

d. FIELD VERIFY DIMENSIONS PRIOR TO FABRICATION OF CASEWORK, STOREFRONT AND WINDOWS.

e. SEE SHEET A10.8 FOR PENETRATION ON RATED WALL AND TOP OF WALL CONDITION

KEY NOTES 1

1 SUSPENDED CEILING (ACOUSTICAL GRID PANELS).

2 GWB CEILING.

3 FIRE RATED WALL PER WALL TYPE, SEE WALL TYPE PLAN

4 INSULATED ROOF, SEE ROOF DETAIL, SHEET A7.3

5 METAL LOUVER AT BATTEN SIDING

6 LINEAR PENDANT LIGHT, SEE ELECTRICAL DRAWINGS.

7 GLUE LAM BEAM, SEE STRUCTURAL DRAWINGS.

8 FRP WAINSCOT, TYP.

9 STORAGE / PLATFORM ACCESS DOOR.

10 47 3/4" X 48" TECTUM ACOUSTICAL PANEL, SEE FINISH SCHEDULE

11 LIGHT FIXTURE. SEE ELECTRICAL DWGS.

12 EXTERIOR WALL LIGHTING, TYP., SEE ELECTRICAL DRAWINGS

13 CANOPY SUPPORT, TYP.

14 BUILDING SIGNAGE

15 EXHAUST REMOVAL SYSTEMS, PER MFR AND CBC 406.6.2, CMC 505.1, 505.8, 505.9. SEE MECHANICAL DRAWINGS.

16 1/2 HR RATED TYPE-X GYP BD.

17 EYE WASH, SEE PLUMBING DRAWINGS

18 TRUSS, SEE TRUSSES MFR. DRAWINGS AND STRUCTURAL DRAWINGS

19 RADIANT HEATER SHOWN AS DASHED LINES, TYP. SEE MECHANICAL DRAWINGS.

20 HI SPEED COIL UP DOOR.

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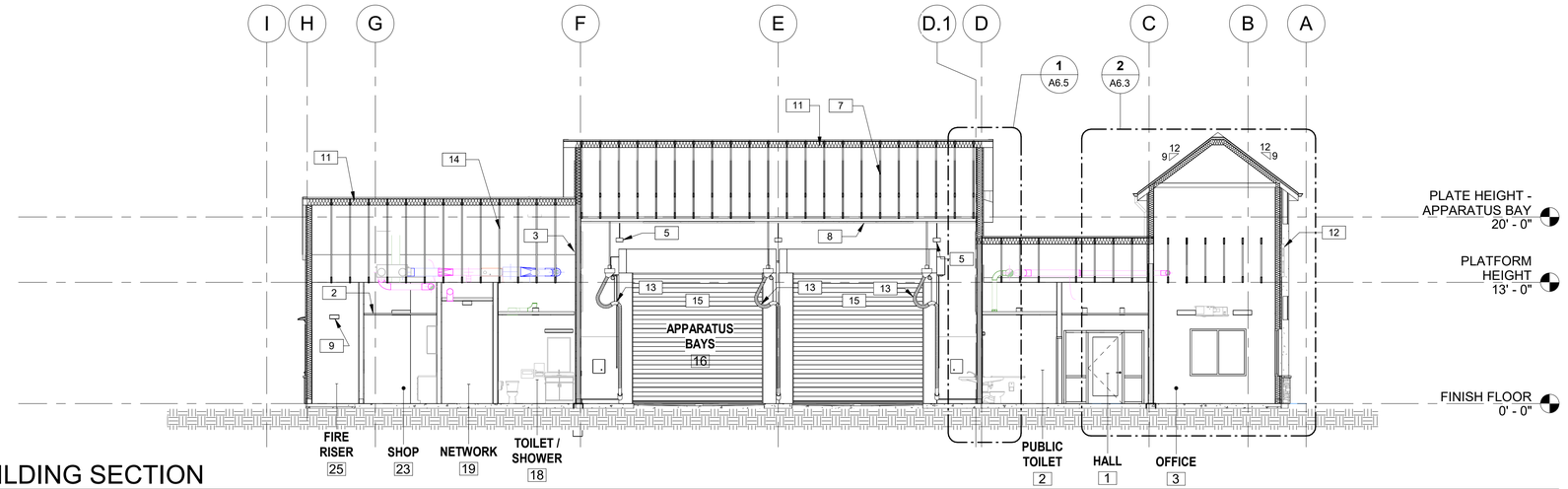
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BUILDING SECTIONS

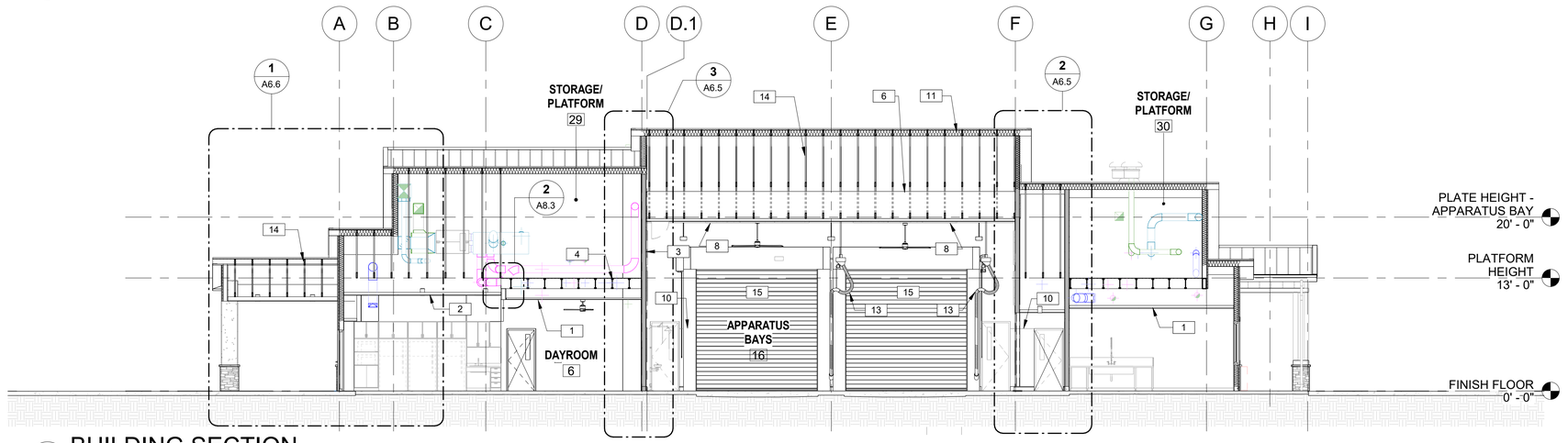
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A6.1

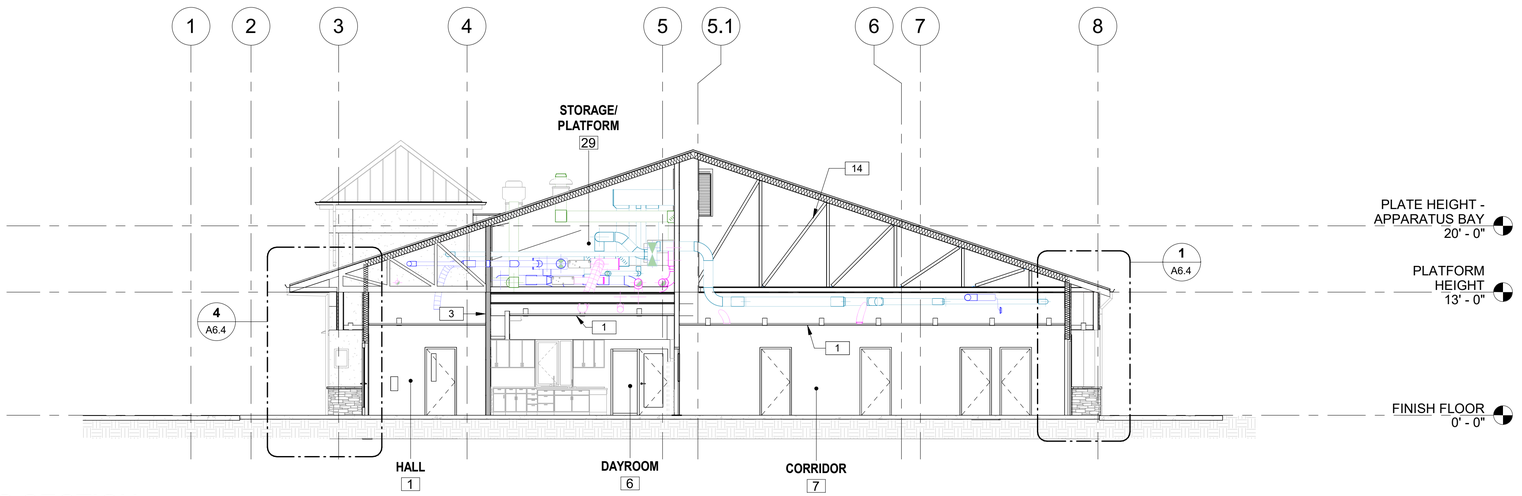
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2"
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1 BUILDING SECTION
1/8" = 1'-0"



2 BUILDING SECTION
1/8" = 1'-0"



3 BUILDING SECTION
1/8" = 1'-0"

SHEET NOTES

a. SEE SHEET A5.1 AND A5.2 FOR EXTERIOR FINISHES.

b. ALL DIMENSIONS ARE TO THE FACE OF STUD OR GRIDLINE, UNLESS NOTED OTHERWISE.

c. SEE SHEETS A10.1 AND A10.2 FOR ALL ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS.

d. FIELD VERIFY DIMENSIONS PRIOR TO FABRICATION OF CASEWORK, STOREFRONT AND WINDOWS.

e. SEE SHEET A10.8 FOR PENETRATION ON RATED WALL AND TOP OF WALL CONDITION

KEY NOTES 1

1 SUSPENDED CEILING (ACOUSTICAL GRID PANELS).

2 GWB CEILING.

3 FIRE RATED WALL PER WALL TYPE, SEE WALL TYPE PLAN

4 STORAGE / EQUIPMENT PLATFORM, SEE STRUCTURAL DRAWINGS

5 LINEAR PENDANT LIGHT, SEE ELECTRICAL DRAWINGS.

6 GLUE LAM BEAM, SEE STRUCTURAL DRAWINGS.

7 ROOF FRAMING, SSD

8 47 3/4" X 48" TECTUM ACOUSTICAL PANEL, SEE FINISH SCHEDULE

9 LIGHT FIXTURE. SEE ELECTRICAL DWGS.

10 FRP WAINSCOT, TYP.

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14 TRUSS, SEE TRUSSES MFR. DRAWINGS AND STRUCTURAL DRAWINGS

15 HI SPEED COIL UP DOOR.

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BUILDING SECTIONS

SHEET
A6.2

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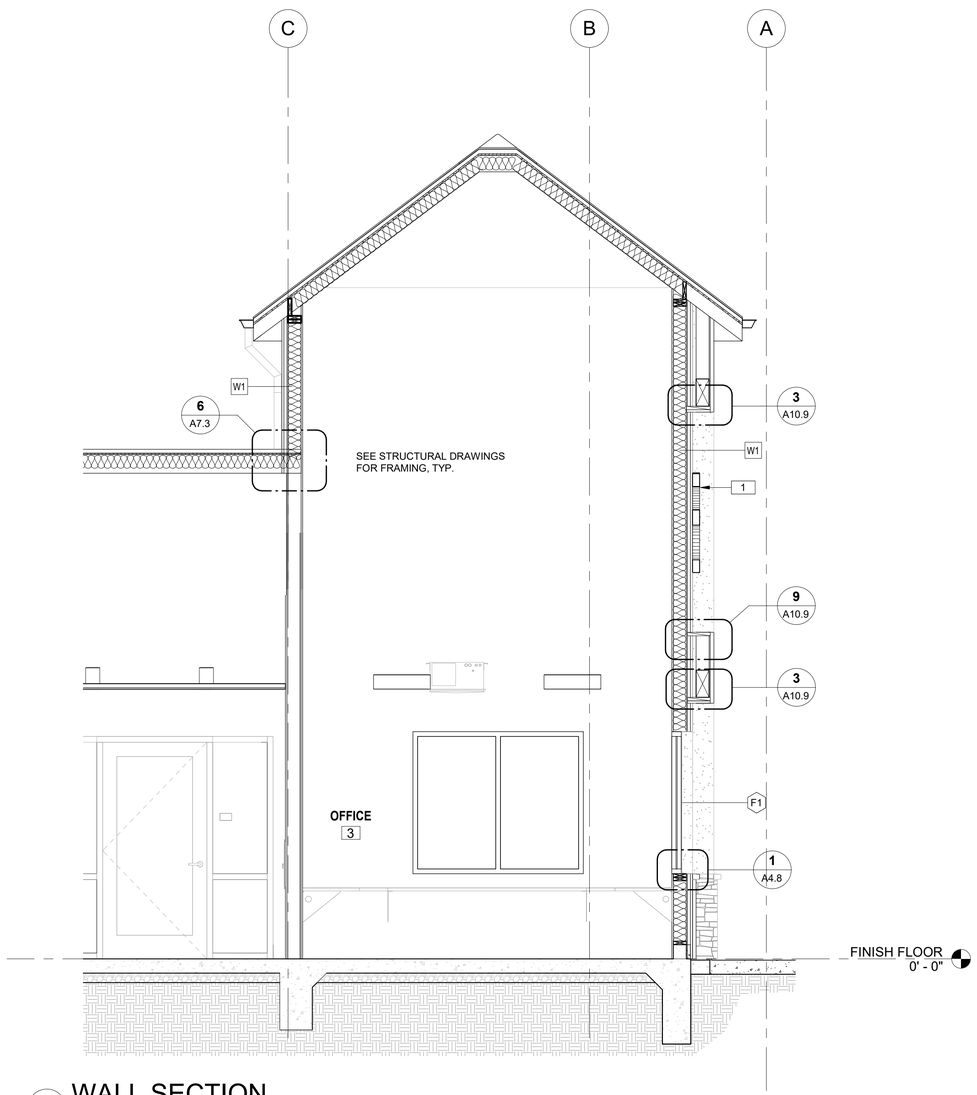
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KEY NOTES 1

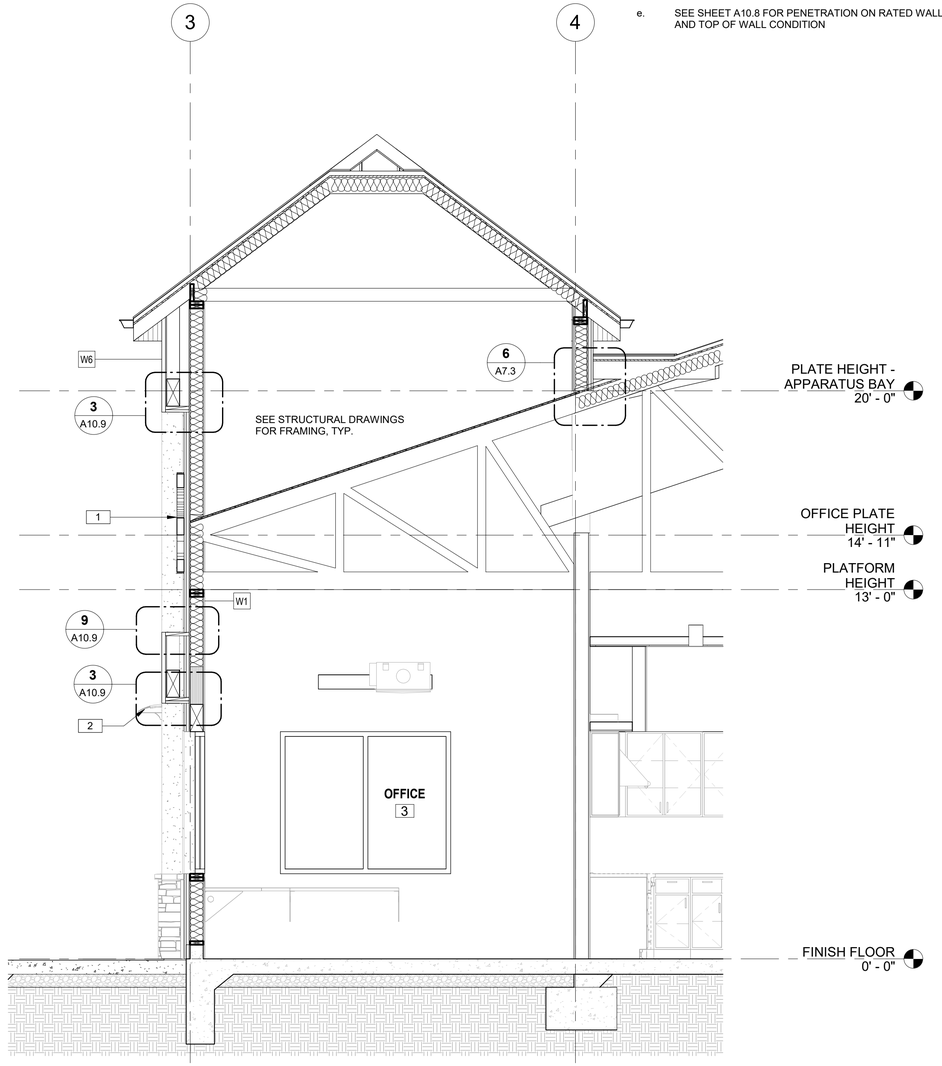
1 METAL BUILDING SIGNAGE
2 EXTERIOR WALL LIGHTING, TYP., SEE ELECTRICAL DRAWINGS

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b. ALL DIMENSIONS ARE TO THE FACE OF STUD OR GRIDLINE, UNLESS NOTED OTHERWISE.
c. SEE SHEETS A10.1 AND A10.2 FOR ALL ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS.
d. FIELD VERIFY DIMENSIONS PRIOR TO FABRICATION OF CASEWORK, STOREFRONT AND WINDOWS.
e. SEE SHEET A10.8 FOR PENETRATION ON RATED WALL AND TOP OF WALL CONDITION



2 WALL SECTION
3/8" = 1'-0"



1 WALL SECTION
3/8" = 1'-0"

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TITLE
WALL SECTIONS

SHEET
A6.3

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2"
1"
0 1/4" 1/2"
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

KEY NOTES 1

1 BOLLARD, TYP.

2 EXTERIOR WALL LIGHTING, TYP., SEE ELECTRICAL DRAWINGS

3 GWB CEILING.

4 DEDICATION SIGNAGE

5 HI SPEED COIL UP DOOR.

SHEET NOTES

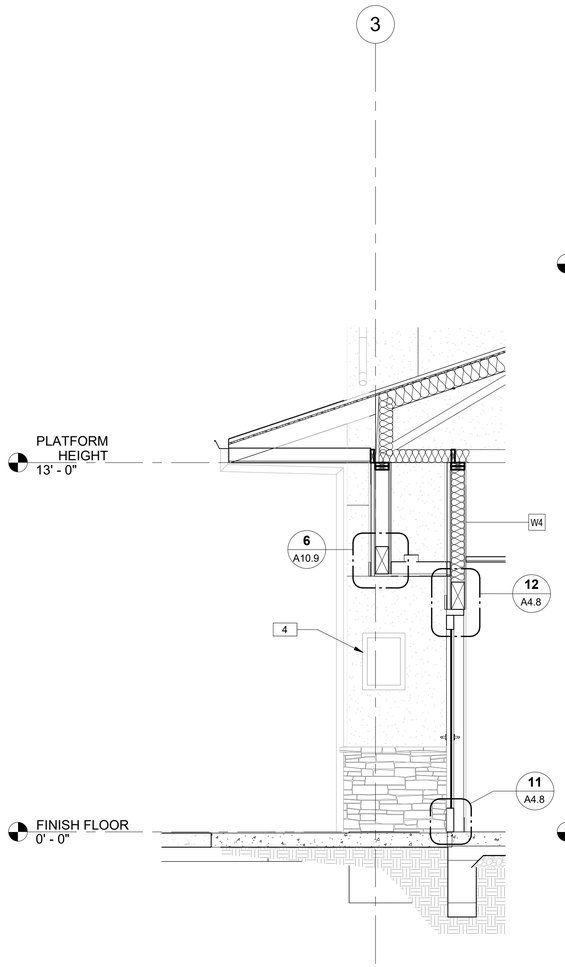
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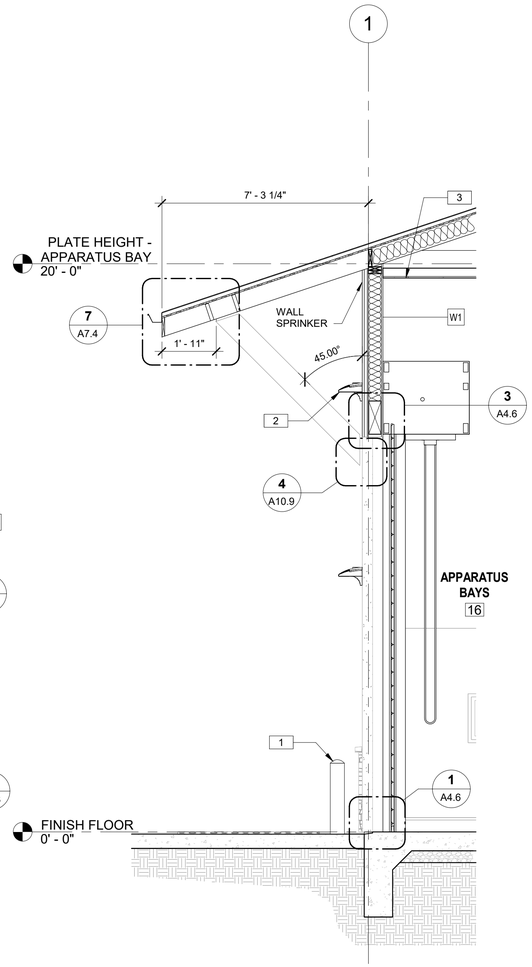
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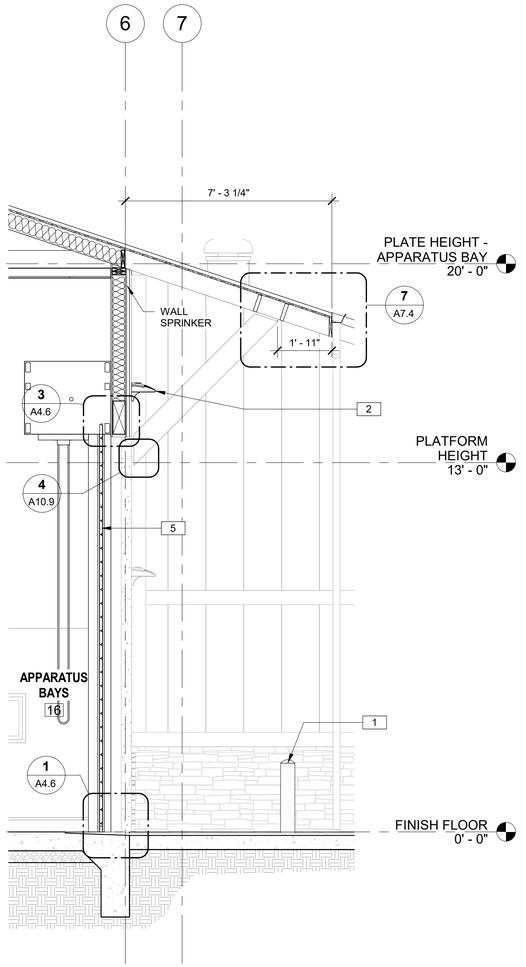
e. SEE SHEET A10.8 FOR PENETRATION ON RATED WALL AND TOP OF WALL CONDITION



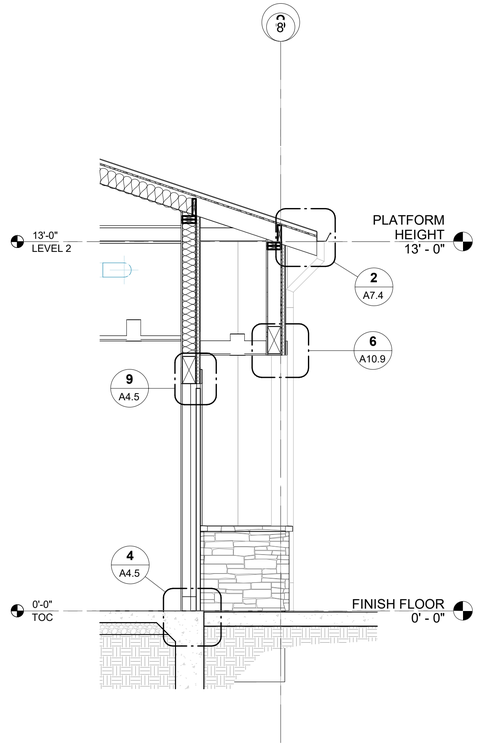
4 WALL SECTION
3/8" = 1'-0"



3 WALL SECTION
3/8" = 1'-0"



2 WALL SECTION
3/8" = 1'-0"



1 WALL SECTION
3/8" = 1'-0"

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C36478
REN 11-30-26
STATE OF CALIFORNIA

PROJECT
DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
WALL SECTIONS

SHEET
A6.4

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2"
1"
1/2"
1/4"
0
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

KEY NOTES

1

1 SUSPENDED CEILING (ACOUSTICAL GRID PANELS).

2 GWB CEILING.

3 SHEATHING AND I-JOISTS, SSD.

SHEET NOTES

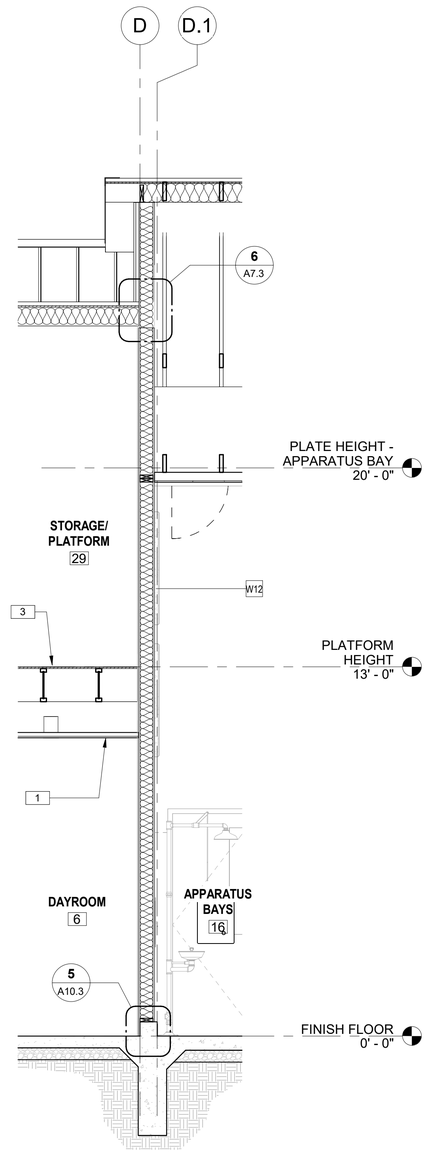
a. SEE SHEET A5.1 AND A5.2 FOR EXTERIOR FINISHES.

b. ALL DIMENSIONS ARE TO THE FACE OF STUD OR GRIDLINE, UNLESS NOTED OTHERWISE.

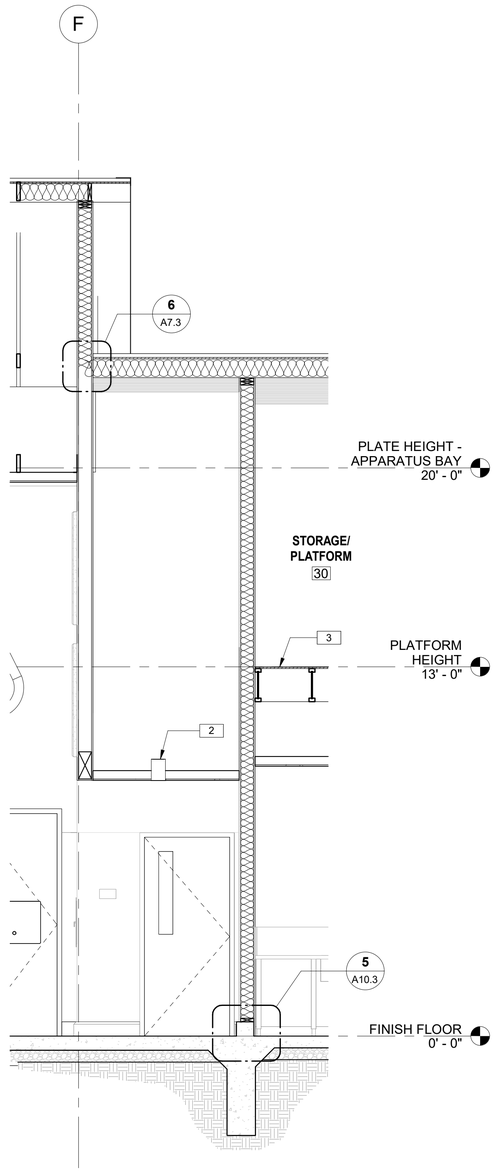
c. SEE SHEETS A10.1 AND A10.2 FOR ALL ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS.

d. FIELD VERIFY DIMENSIONS PRIOR TO FABRICATION OF CASEWORK, STOREFRONT AND WINDOWS.

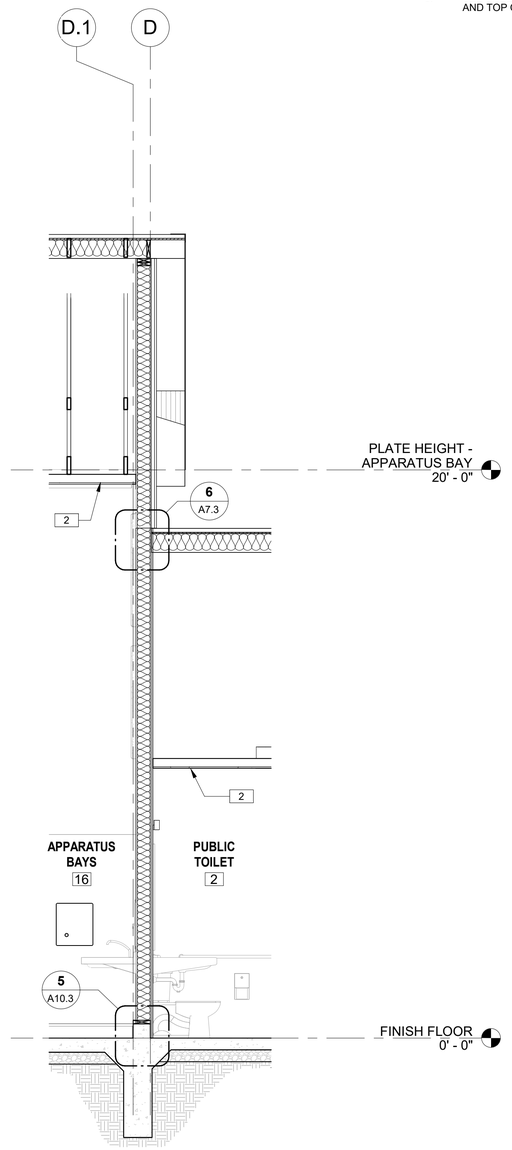
e. SEE SHEET A10.8 FOR PENETRATION ON RATED WALL AND TOP OF WALL CONDITION



3 WALL SECTION
3/8" = 1'-0"



2 WALL SECTION
3/8" = 1'-0"



1 WALL SECTION
3/8" = 1'-0"

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LIONAKIS PROJECT NO: 22204
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TITLE

WALL SECTIONS

SHEET

A6.5

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6/19/2026 12:05:28 PM

2"
1"
1/2"
1/4"
0
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KEY NOTES

1

1 GWB CEILING.

2 SUSPENDED CEILING (ACOUSTICAL GRID PANELS).

SHEET NOTES

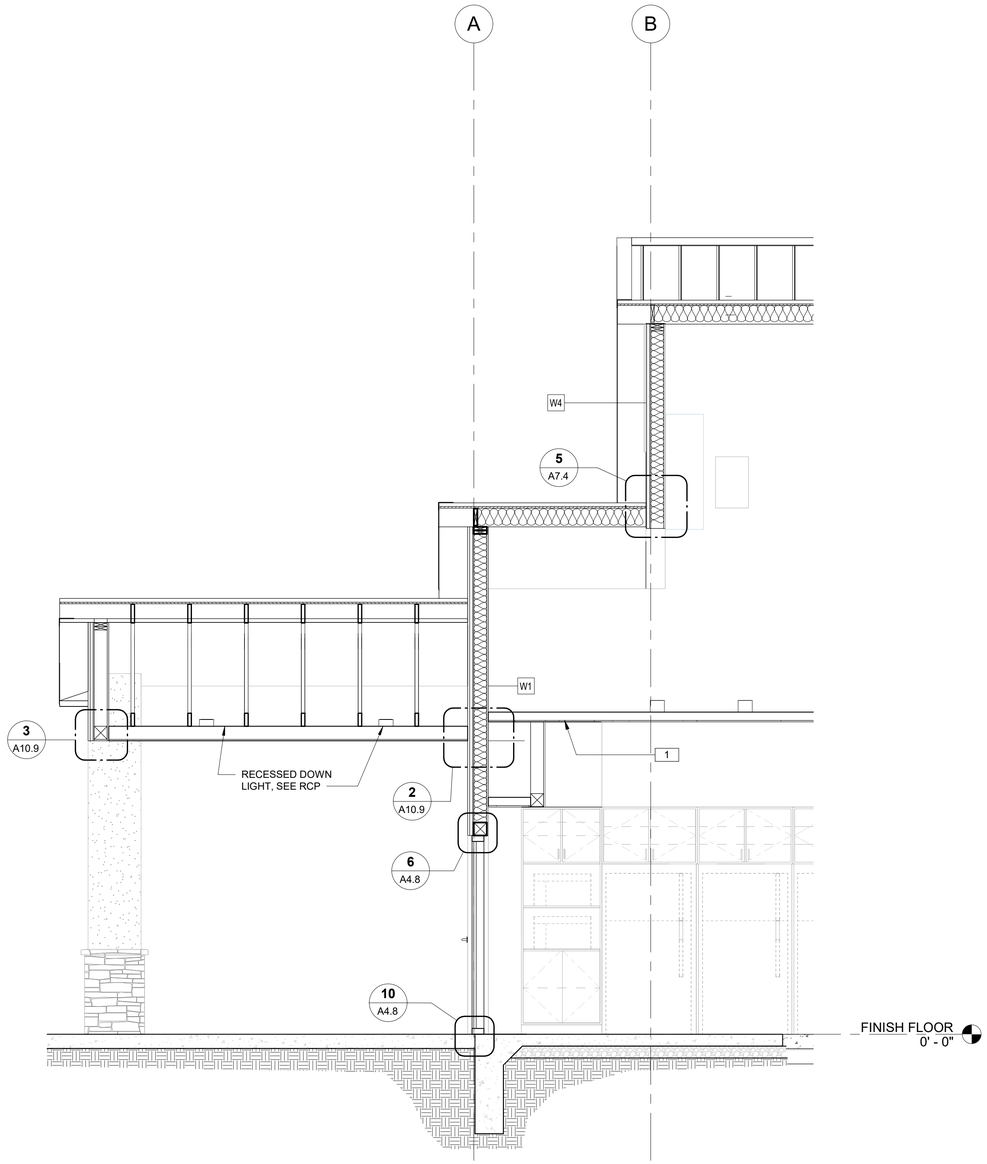
a. SEE SHEET A5.1 AND A5.2 FOR EXTERIOR FINISHES.

b. ALL DIMENSIONS ARE TO THE FACE OF STUD OR GRIDLINE, UNLESS NOTED OTHERWISE.

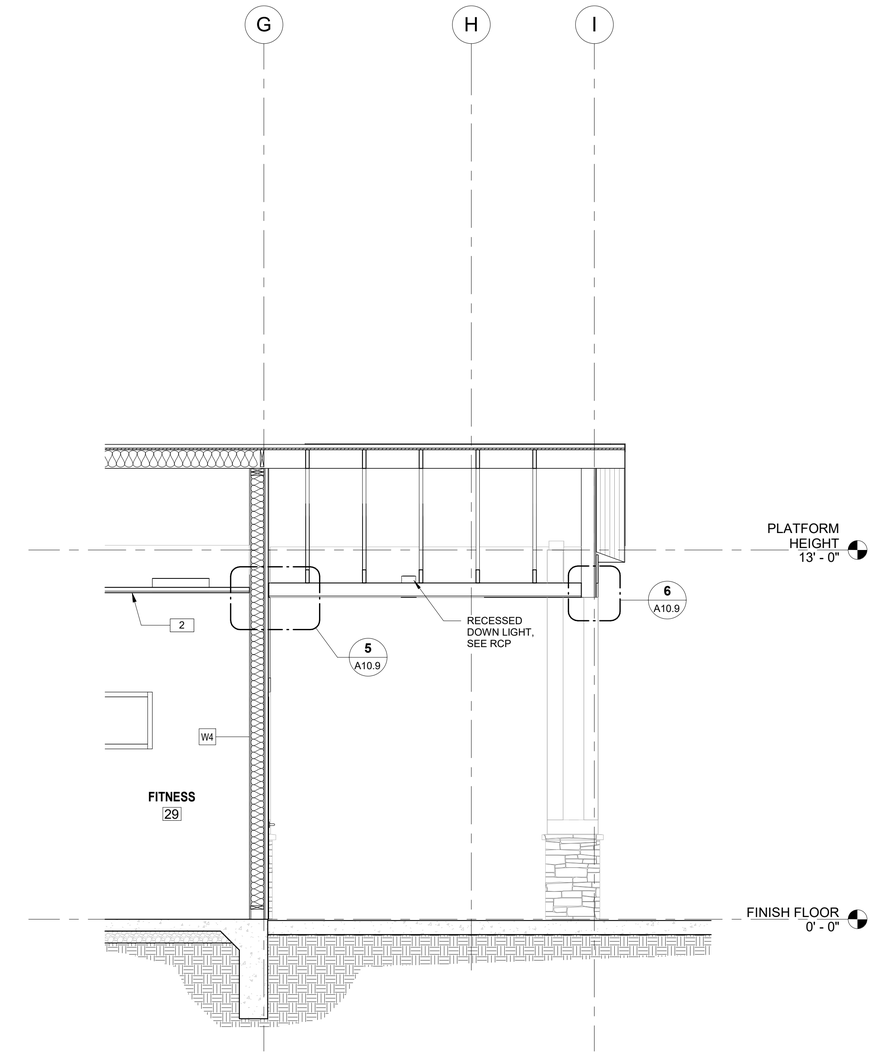
c. SEE SHEETS A10.1 AND A10.2 FOR ALL ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS.

d. FIELD VERIFY DIMENSIONS PRIOR TO FABRICATION OF CASEWORK, STOREFRONT AND WINDOWS.

e. SEE SHEET A10.8 FOR PENETRATION ON RATED WALL AND TOP OF WALL CONDITION



1 WALL SECTION
3/8" = 1'-0"



2 WALL SECTION
3/8" = 1'-0"

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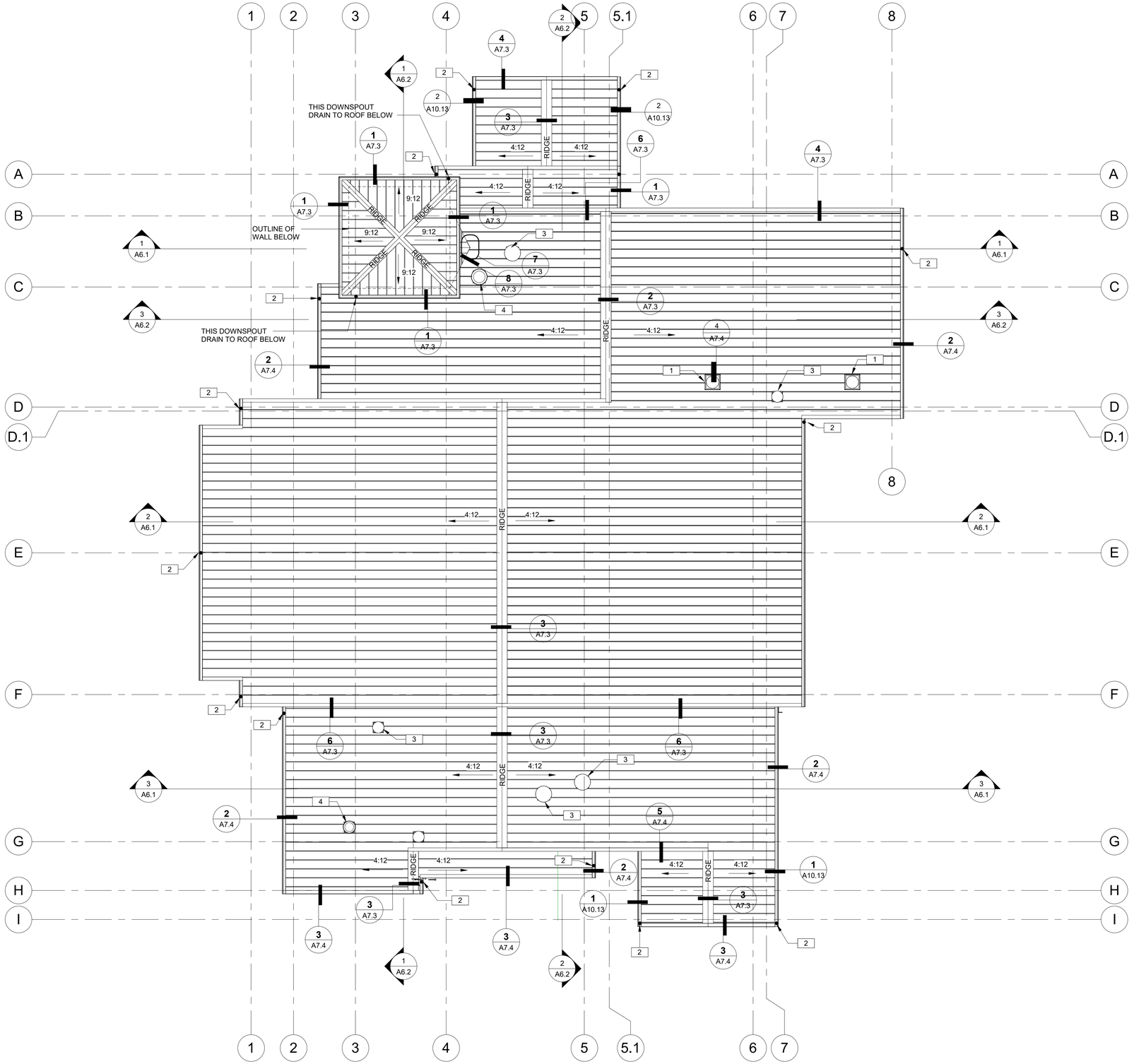
TITLE

WALL SECTIONS

SHEET

A6.6

2"
1"
0 1/4" 1/2"
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1 ROOF PLAN
1/8" = 1'-0"

SHEET NOTES

a. ALL DIMENSIONS ARE TO THE EXTERIOR FACE OF FINISH (FROM 2x FASCIA OR TRIM WHERE OCCURS), UNLESS NOTED OTHERWISE.

b. FOR ROOF PENETRATIONS SEE DETAILS 9/A7.3, 11/A7.3 AND 12/A7.3.

c. DOWNSPOUTS CONNECTS TO STORM DRAINS. U.O.N. SEE CIVIL DRAINAGE PLAN, SHEET C3.1.

d. SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.

KEY NOTES 1

1 TUBULAR SKYLIGHT AT STANDING SEAM ROOFING

2 DOWNSPOUT, TYP.

3 INTAKE / RELIEF HOOD, SEE MECHANICAL DRAWINGS

4 EXHAUST FAN. SEE MECHANICAL DRAWINGS.

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AGENCY

TITLE
ROOF PLAN

SHEET
A7.1

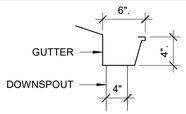
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ROOF DRAINAGE CALCULATIONS

GUTTER DESIGN: **4" DEPTH X 6" WIDTH** BEVELED PROFILE
DOWNSPOUT DESIGN: **4" ROUND = 11.04 SI** (SMACNA TABLE 1-3)

PITCHED ROOF DESIGN FACTOR: 1.20 (SMACNA TABLE 1-1) ROOF AREAS 1-4
1.05 (SMACNA TABLE 1-1) ROOF AREAS 5-12

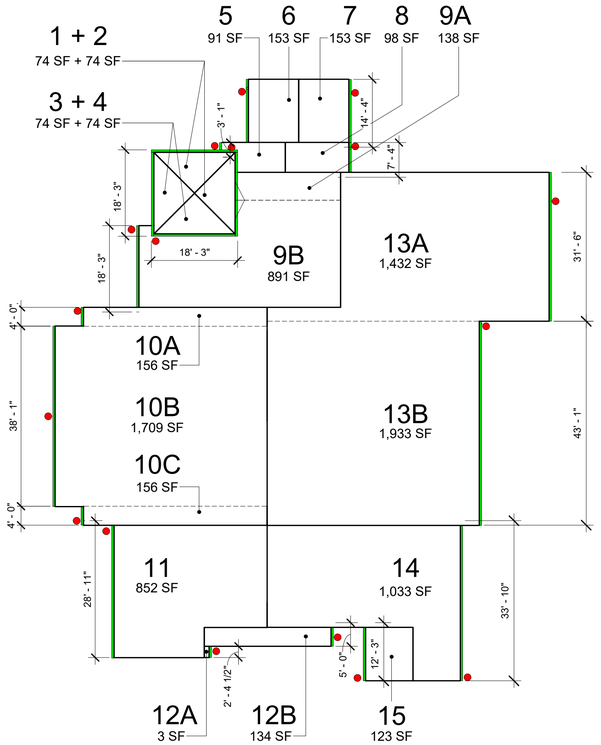
I = RAINFALL INTENSITY: 3.9 IN / HR (SMACNA TABLE 1-2)
AREA DRAINED PER DOWNSPOUT AREA: 310 SF / SI (SMACNA TABLE 1-2)
M = GUTTER DEPTH / WIDTH: 0.75 (SMACNA TABLE 1-1)



	AREA			GUTTER SIZING				DOWNSPOUT SIZING	
	PLAN AREA (SQ. FT.)	DESIGN AREA sq. ft. x 1.20 (SQ. FT.)	DESIGN AREA sq. ft. x 1.05 (SQ. FT.)	RAINFALL INTENSITY (I X A)	LENGTH OF GUTTER (FT)	LENGTH OF GUTTER SERVED BY A DOWNSPOUT (FT)	MIN. GUTTER WIDTH (SMACNA CHART 1-1) (INCHES)	NO. OF DOWNSPOUTS*	MIN. DOWNSPOUT CROSS SECTION AREA (ROUND) (SI) (DESIGN AREA / 310)
ROOF AREA 1	74	89	-	347	18'-3"	18'-3"+18'-3" < 50	2.5 < 6	1	0.58 SI < 11.04 SI
ROOF AREA 2	74	89	89+89 =178	347	18'-3"				
ROOF AREA 3	74	89	-	347	18'-3"	18'-3"+18'-3" < 50	2.5 < 6	1	0.58 SI < 11.04 SI
ROOF AREA 4	74	89	89+89 =178	347	18'-3"				
ROOF AREA 5	91	-	**96**	375	3'-1"	**3'-1" < 50**	**1.5 < 6**	1	**0.31 SI < 11.04 SI**
ROOF AREA 6	153	-	**161**	628	14'-4"	**14'-4" < 50**	**2 < 6**	1	**0.52 SI < 11.04 SI**
ROOF AREA 7	153	-	**161**	628	14'-4"	**14'-4" < 50**	**2 < 6**	1	**0.52 SI < 11.04 SI**
ROOF AREA 8	98	-	**103**	402	7'-4"	**7'-4" < 50**	**2 < 6**	1	**0.33 SI < 11.04 SI**
ROOF AREA 9A	138	-	**145**	566	N/A	**N/A**	**N/A**	0	**N/A**
ROOF AREA 9B	891	-	**936**	3651	18'-3"	**18'-3" < 50**	**4 < 6**	1	**3.02 SI < 11.04 SI**
ROOF AREA 10A	156	-	**164**	640	4'-0"	**4'-0" < 50**	**2 < 6**	1	**0.53 SI < 11.04 SI**
ROOF AREA 10B	1,709	-	**1795**	7001	38'-1"	**38'-1" < 50**	**5.5 < 6**	1	**5.79 SI < 11.04 SI**
ROOF AREA 10C	156	-	**164**	640	4'-0"	**4'-0" < 50**	**2 < 6**	1	**0.53 SI < 11.04 SI**
ROOF AREA 11	852	-	**895**	3,491	28'-11"	**28'-11" < 50**	**4 < 6**	1	**2.89 SI < 11.04 SI**
ROOF AREA 12A	3	-	**3**	8	5'-0"	**5'-0" < 50**	**0.5 < 6**	1	**0.01 SI < 11.04 SI**
ROOF AREA 12B	134		**141**	550	2'-4"	**2'-4" < 50**	**2 < 6**	1	**0.45 SI < 11.04 SI**
ROOF AREA 13A	1,432	-	**1504**	5866	31'-6"	**31'-6" < 50**	**5 < 6**	1	**4.85 SI < 11.04 SI**
ROOF AREA 13B	1,933	-	**2030**	7917	43'-1"	**43'-1" < 50**	**6 ≤ 6**	1	**6.55 SI < 11.04 SI**
ROOF AREA 14	1,033	-	**1085**	4232	33'-10"	**33'-10" < 50**	**4.5 < 6**	1	**3.50 SI < 5.94 SI**
ROOF AREA 15	123	-	**130**	507	12'-3"	**12'-3" < 50**	**2 < 6**	1	**0.42 SI < 5.94 SI**

CALCULATIONS BASED ON SMACNA DESIGN GUIDELINES FOR GUTTER AND DOWNSPOUT SIZING.

* NUMBER OF DOWNSPOUTS BASED ON ROOF CONFIGURATION AND RECOMMENDED PRACTICAL MAXIMUM LENGTH OF GUTTER TO BE SERVED BY A DOWNSPOUT (50'). (SMACNA)



1 ROOF DRAIN AREAS

1/16" = 1'-0"

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DIXON FIRE STATION 82

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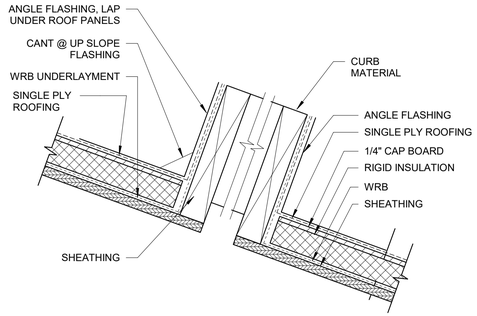
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ROOF DRAINAGE CALCULATIONS

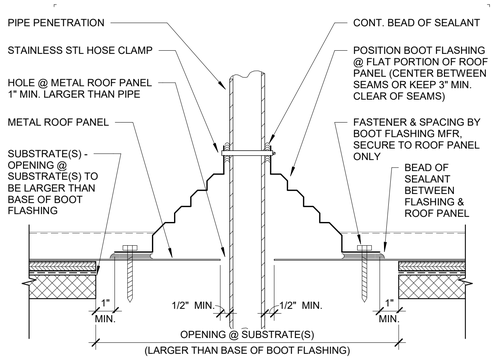
SHEET

A7.2

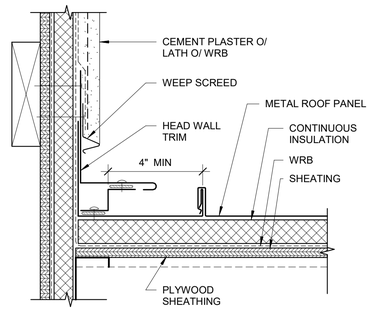
2" 1" 1/2" 1/4" 0
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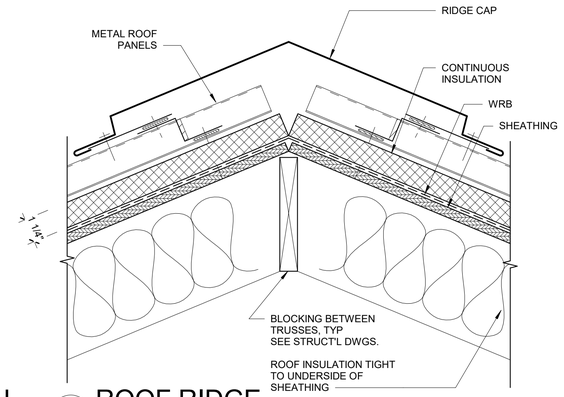
12 ROOF PENETRATION SECTION - 1
3" = 1'-0"



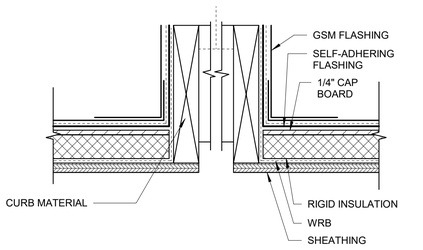
9 PIPE PENETRATION
3" = 1'-0"

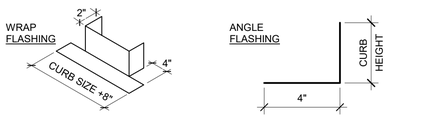


6 ROOF FINISH AT STUCCO SIDE WALL
3" = 1'-0"

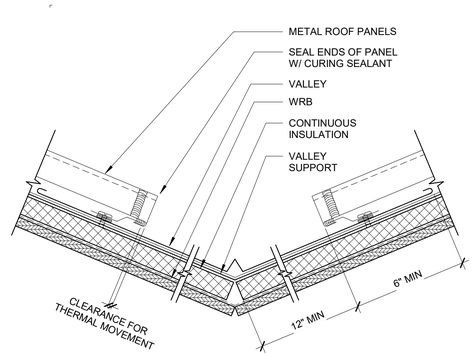


3 ROOF RIDGE
3" = 1'-0"

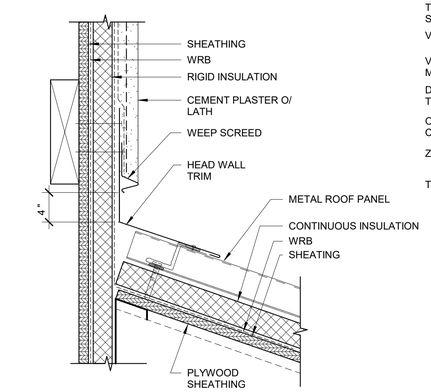




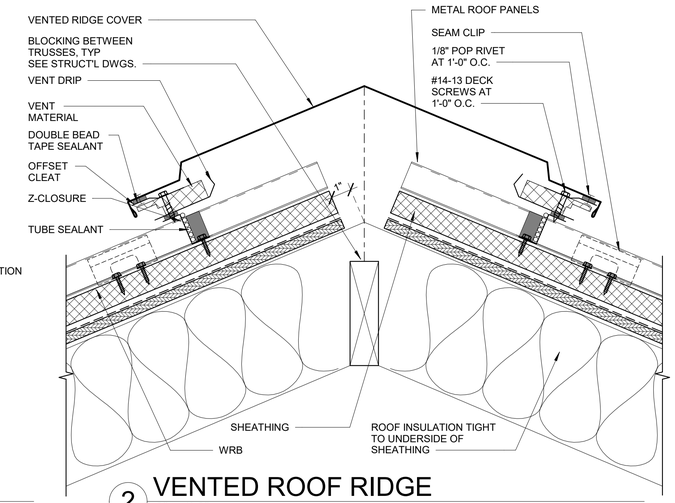
11 ROOF PENETRATION SECTION - 2
3" = 1'-0"



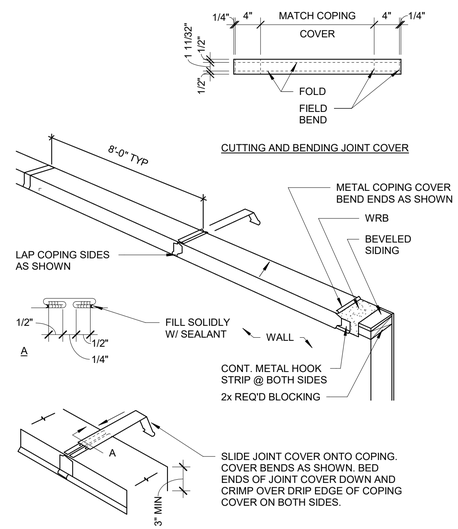
8 ROOF VALLEY
3" = 1'-0"



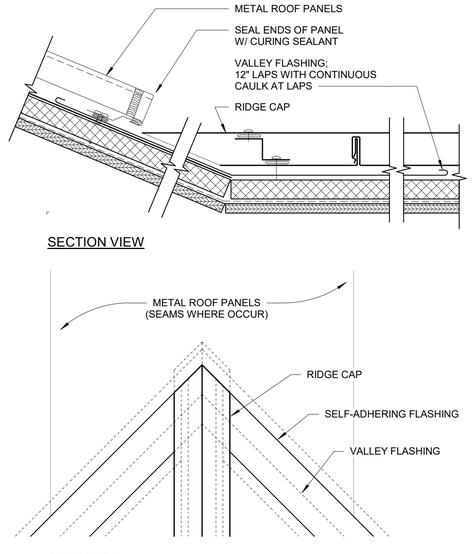
5 ROOF FINISH AT WALL
3" = 1'-0"



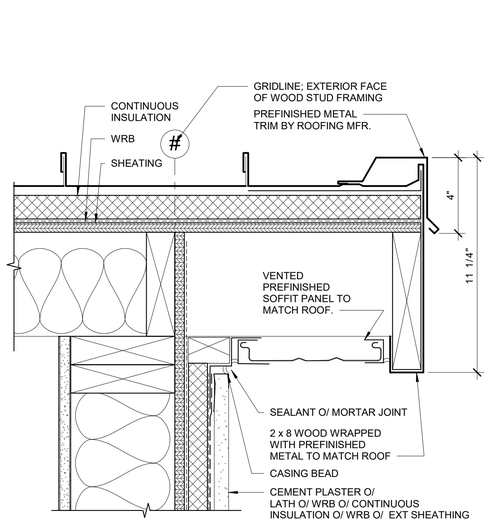
2 VENTED ROOF RIDGE
3" = 1'-0"



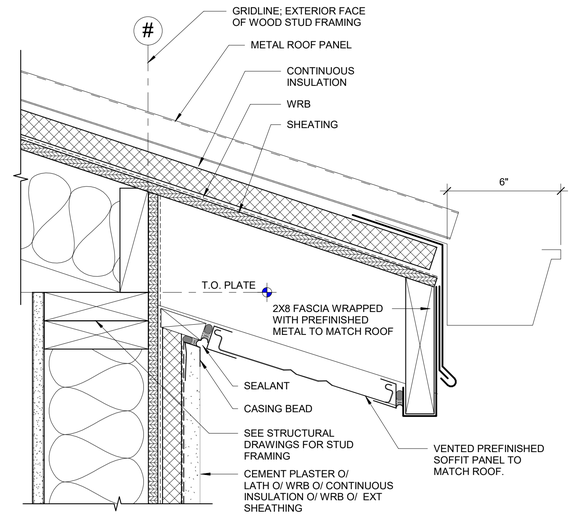
10 METAL COPING JOINTS
1"= 1'-0"



7 ROOF SLOPE TRANSITION
3" = 1'-0"



4 ROOF RAKE @ STUCCO WALL
3" = 1'-0"



1 ROOF EAVE @ STUCCO WALL
3" = 1'-0"

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0 1/4" 1/2" 1"

2"

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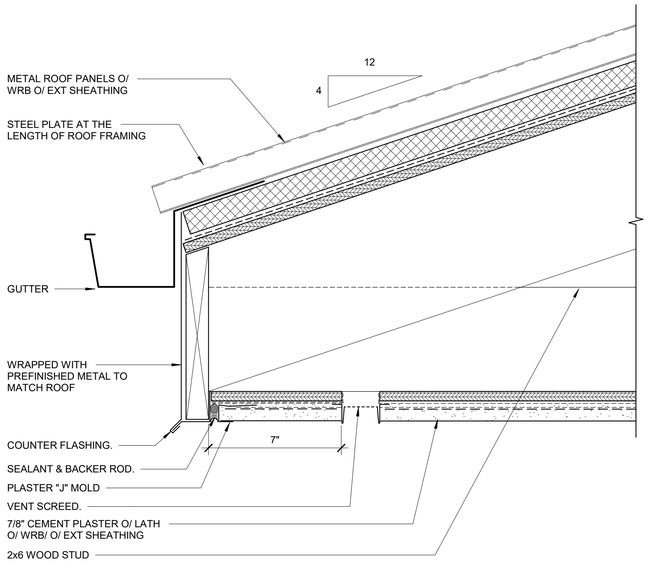
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ROOF DETAILS

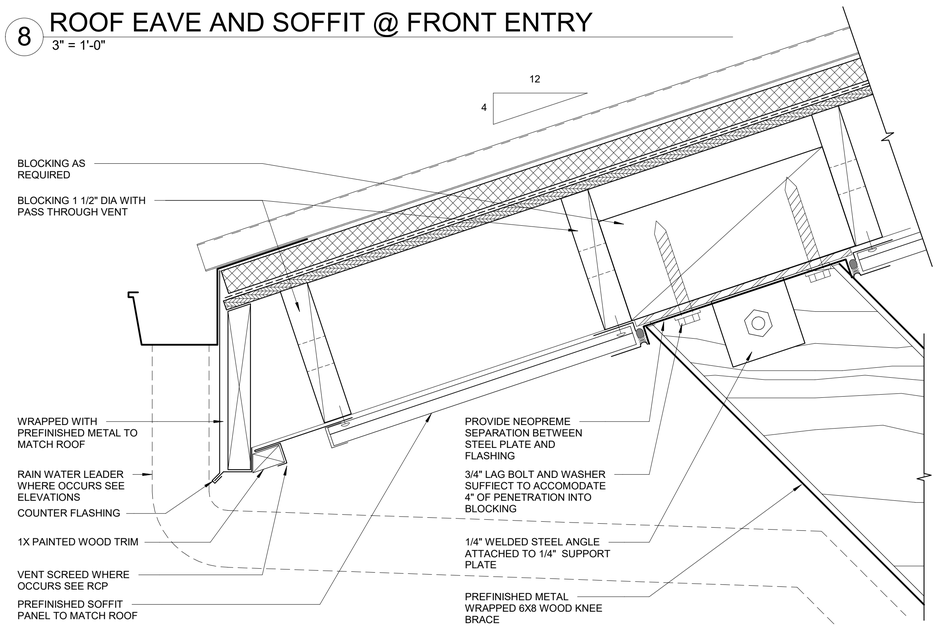
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A7.3

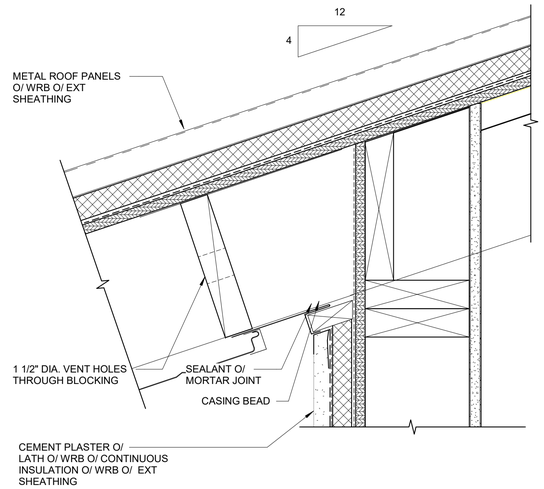
2"
1"
0 1/4" 1/2"
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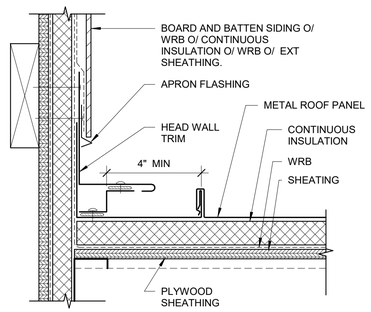
8 ROOF EAVE AND SOFFIT @ FRONT ENTRY
3" = 1'-0"



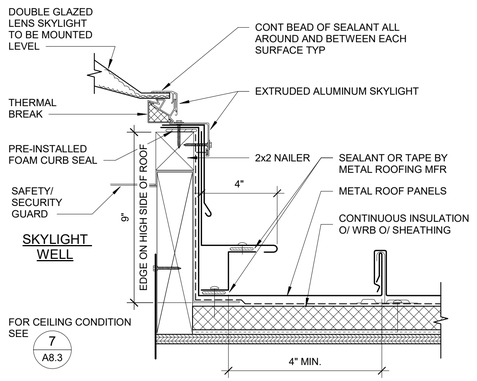
7 CANOPY AT APPARATUS
3" = 1'-0"



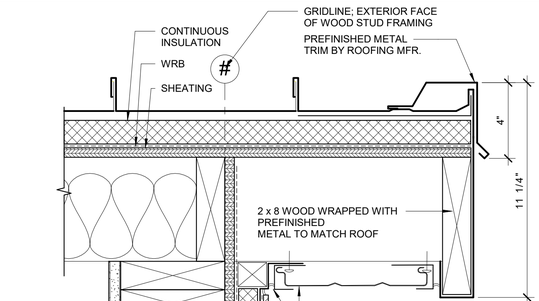
6 ROOF TO WALL AT APPARATUS BAY CANOPY
3" = 1'-0"



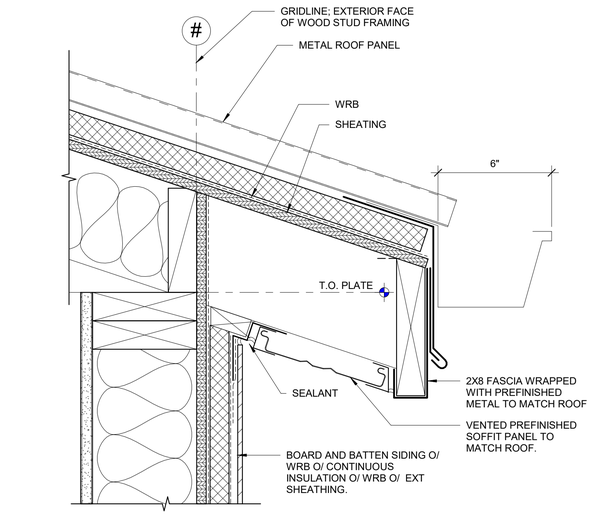
5 ROOF FINISH AT BOARD AND BATTEN SIDE WALL
3" = 1'-0"



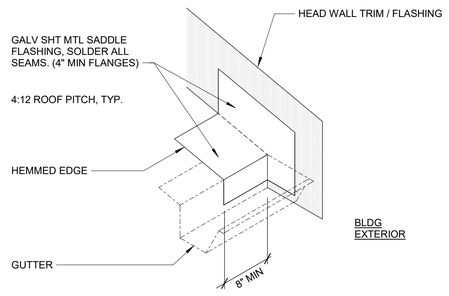
4 TUBULAR SKYLIGHT AT STANDING SEAM ROOF
3" = 1'-0"



3 ROOF RAKE3 @ BOARD & BATTEN SIDING
3" = 1'-0"



2 ROOF EAVE5 @ BOARD & BATTEN SIDING
3" = 1'-0"



1 PITCHED ROOF SADDLE FLASHING
1" = 1'-0"

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DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

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AGENCY

TITLE

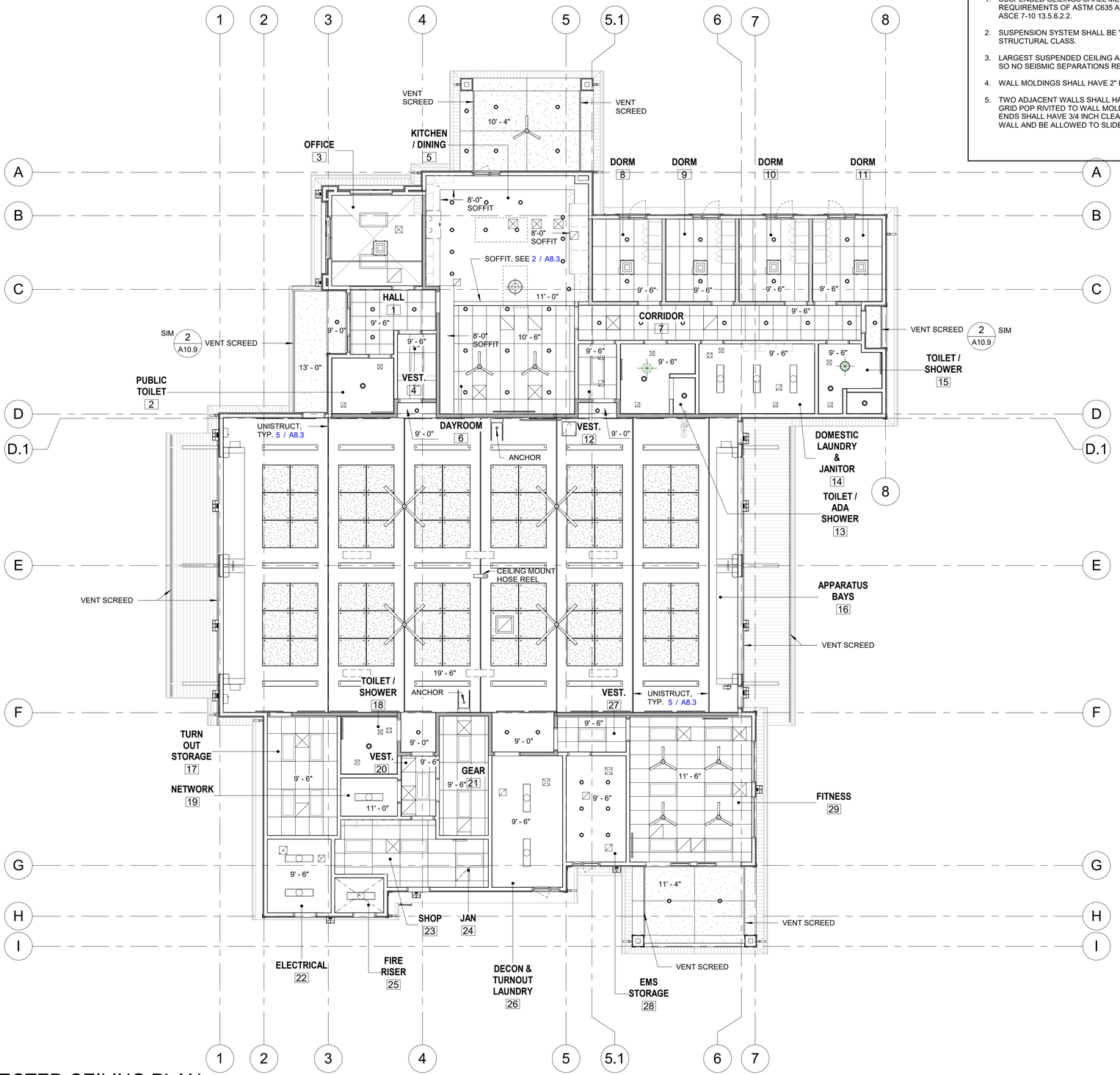
ROOF DETAILS

SHEET

A7.4

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1 REFLECTED CEILING PLAN
1/8" = 1'-0"

GENERAL NOTES

1. SUSPENDED CEILINGS SHALL MEET ALL APPLICABLE REQUIREMENTS OF ASTM C635 AND C636, AND ASCE 7-10 13.5.6.2.2.
2. SUSPENSION SYSTEM SHALL BE "HEAVY DUTY" STRUCTURAL CLASS.
3. LARGEST SUSPENDED CEILING AREA IS 688 SF, SO NO SEISMIC SEPARATIONS REQUIRED.
4. WALL MOLDINGS SHALL HAVE 2" HORIZONTAL FLANGE.
5. TWO ADJACENT WALLS SHALL HAVE THE SUSPENSION GRID POP RIVITED TO WALL MOLDINGS AND OPPOSITE ENDS SHALL HAVE 3/4 INCH CLEARANCE FROM THE WALL AND BE ALLOWED TO SLIDE.
6. PROVIDE SPREADER BARS AS REQUIRED.
7. CEILINGS WITHOUT BRACES TO LIMIT LATERAL MOVEMENT SHALL PROVIDE FOR FREE MOVEMENT OF 1 INCH IN ALL HORIZONTAL DIRECTIONS AT PENETRATIONS SUCH AS SPRINKLER HEADS.
8. SEE SPEC SECTION 09 5 00 FOR ADDITIONAL REQUIREMENTS.
9. CEILING SUSPENSION SYSTEM TYPE: DIRECT HUNG.
10. SUSPENSION WIRES SHALL NOT PRESS AGAINST DUCTS OR PIPES.
11. LIGHTING TO MOUNT UNDERSIDE OF STRUCTURE FOR FIRE RISER ROOM.
12. SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
13. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

CEILING LEGEND

NOTE:
1. 5/8" GYPSUM BOARD AT ALL CEILINGS, TYP. UNLESS NOTED OTHERWISE.
2. SEE SHEETS A8.2 & A8.3 FOR CEILING DETAILS.

- DOWN LIGHT
- EXTERIOR WALL MOUNTED LIGHT
- EXTERIOR CEILING MOUNTED SPOT LIGHT
- INTERIOR WALL MOUNTED LIGHT
- SOLATUBE LENS SEE DETAIL 7 / A8.3
- PENDANT LIGHT
- SMOKE DETECTOR, SEE FIRE ALARM DWGS.
- MODERN FAN ALTUS 52" CEILING FAN
- 8'-0" DIAMETER CEILING FAN
- LAY-IN LIGHT FIXTURE, SEE ELECTR. DWGS
- 2' x 4' SUSPENDED ACOUSTICAL TILE CEILING SYSTEM. SEE DETAIL 1 / A8.2
- 2' x 2' SUSPENDED ACOUSTICAL TILE CEILING SYSTEM. SEE DETAIL 1 / A8.2
- SURFACE LIGHT FIXTURE
- PENDANT LIGHT FIXTURE
- ELECTRIC INFRARED RADIANT HEATER
- ACOUSTICAL PANEL 47 3/4" x 48" TECTUM PANEL SEE DETAIL 5 / A8.3
- CEMENT PLASTER CEILING
- GYPSUM BOARD CEILING
- METAL SOFFIT PANEL
- MECHANICAL AIR REGISTER
- SUPPLY AIR REGISTER
- RETURN AIR REGISTER
- EXHAUST AIR REGISTER / DUCT
- RELIEF
- HVAC
- VENT SCREED
- ANCHOR
- ACCESS PANEL 24"X24"

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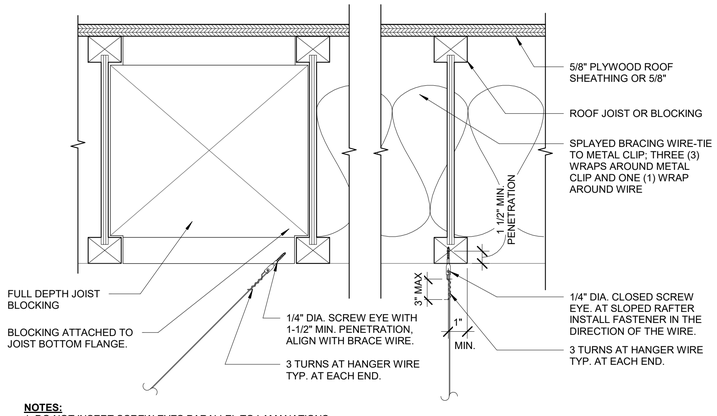
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TITLE
REFLECTED CEILING PLAN

SHEET
A8.1



NOTES:
1. DO NOT INSERT SCREW EYES PARALLEL TO LAMANATIONS.

2. WHEN FIRE RATED GYP. BOARD IS INSTALLED ON THE BOTTOM FLANGES, USE SCREW EYES WITH SUFFICIENT LENGTH TO AVOID DAMAGING THE FIRE RATED GYP.

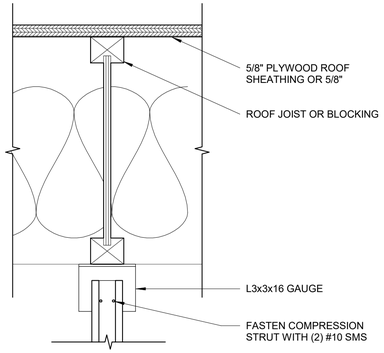
6 CEILING - HANGER WIRE TO ROOF STRUCTURE
3" = 1'-0"

COMPRESSION STRUT
STELL SECTION WITH L/R RATIO OF 200 MAXIMUM. ATTACH TO MAIN RUNNERS WITHIN 2" OF CROSS RUNNER WITH (2) #12 S.D.S.T. SCREWS. COMPRESSION STRUT SHALL NOT REPLACE HANGER WIRE.

ATTACH TOP OF STRUT PER DETAIL: 4 / A8.2

METAL STRUT (STUD) ASTM A446, GRADE A

ALLOWABLE HEIGHTS OF 1 5/8" x 20 GA. STRUT	
HEIGHTS	FLANGE DEPTH
0'-0" TO 7'-6"	1 1/4"
7'-7" TO 8'-6"	1 3/8"
8'-7" TO 10'-0"	1 5/8"
10'-1" TO 12'-0"	2"



4 CEILING - TOP OF COMPRESSION STRUT
3" = 1'-0"

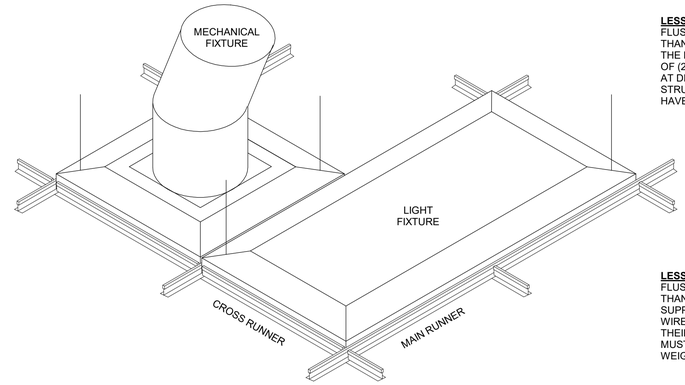
ATTACH TOP OF WIRE PER DETAIL: 6 / A8.2

NOTE:

1. SUSPENDED ACOUSTICAL CEILING SYSTEM WITH A CEILING AREA OF 144 SQ. FT. OR LESS, AND FIRE RATED SUSPENDED ACOUSTICAL. CEILING SYSTEM WITH A CEILING AREA OF 96 SQ. FT. OR LESS, SURROUNDED BY WALLS WHICH CONNECT DIRECTLY TO THE STRUCTURE ABOVE, DO NOT REQUIRE BRACING ASSEMBLIES WHEN ATTACHED TO TWO ADJACENT WALLS.

2. STRUTS SHALL NOT REPLACE HANGER WIRES.

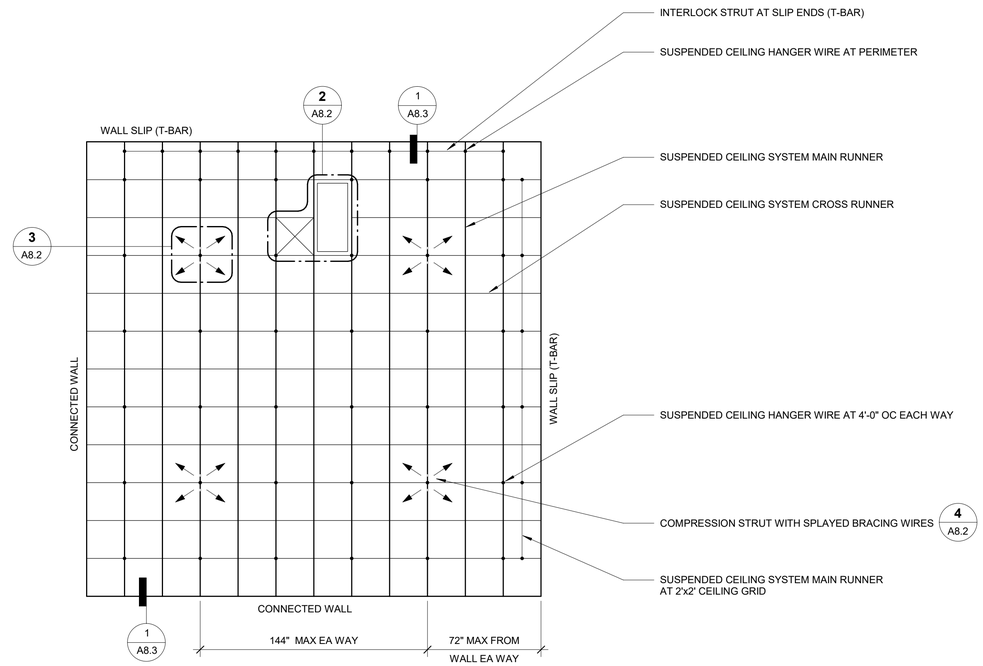
3. THE MINIMUM ACCEPTABLE ANGLE IS DETERMINED SUCH THAT THE WIRES DO NOT INTERFERE WITH THE RUNNERS, LIGHT FIXTURES,ETC. AND REMAIN STRAIGHT AND UNOBSTRUCTED

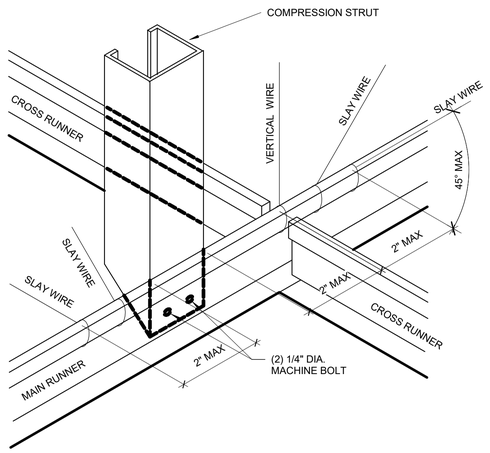


LESS THAN 56 LBS.
FLUSH OR RECESSED FIXTURES WEIGHTING LESS THAN 56 LBS. MAY BE SUPPORTED DIRECTLY ON THE RUNNERS, BUT, IN ADDITION, MUST HAVE A MIN. OF (2) 12 GA. SLACK SAFETY WIRES ATTACHED FIXTURE AT DIAGONAL CORNERS AND ANCHORED TO THE STRUCTURE ABOVE. ALL 4'x4' LIGHTING FIXTURES MUST HAVE SLACK SAFETY WIRES AT EACH CORNER.

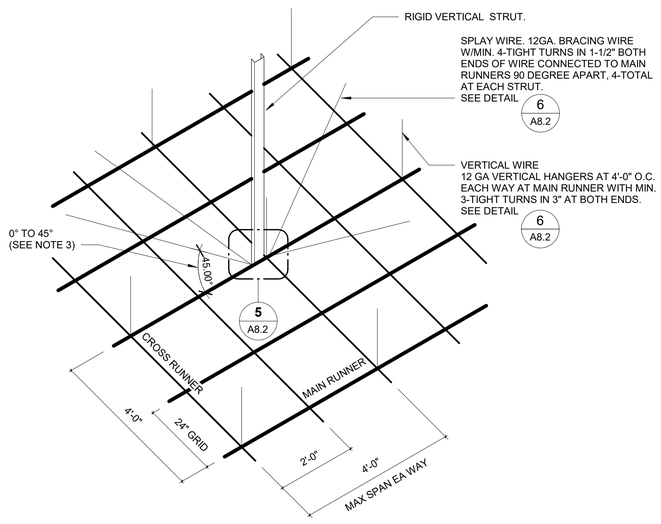
LESS THAN 56 LBS.
FLUSH OR RECESSED FIXTURES WEIGHTING LESS THAN 56 LBS. OR MORE MUST BE INDEPENDANTLY SUPPORTED BY NOT LESS THAN (4) TAUT 12 GA. WIRES EACH ATTACHED TO THE TERMINAL AND THEIR ATTACHMENT TO THESTRUCTURE ABOVE MUST BE CAPABLE OF SUPPORTING 4 TIMES THE WEIGHT OF THE UNIT.

2 CEILING SUSPENDED MECH & LIGHT FIXTURE SUPPORT
1" = 1'-0"





5 CEILING - BOTTOM OF COMPRESSION STRUT
6" = 1'-0"



3 CEILING SUSPENDED T-BAR GRID
1/2" = 1'-0"

FIRE SPRINKLER NOTE:
EXCEPT WHERE RIGID BRACES ARE USED TO LIMIT LATERAL DEFLECTIONS, SPRINKLERS SHALL HAVE A 2-INCH OVERSIZE RING, SLEEVE, OR ADAPTER THROUGH THE CEILING TO ALLOW FOR FREE MOVEMENT OF AT LEAST 1 INCH IN ALL HORIZONTAL DIRECTIONS. ALTERNATIVELY, A SWING JOINT THAT CAN ACCOMMODATE 1 INCH OF CEILING MOVEMENT IN ALL HORIZONTAL DIRECTIONS IS PERMITTED TO BE PROVIDED AT THE TOP OF THE SPRINKLER HEAD EXTENSION PER ASCE 7-16.

NOTE:
- IN ALL CASES, HANGER WIRES SHALL BE 12 GA. (T-BAR) & 8 GA. (GYPSUM) AND ATTACH TO THE GRID MEMBERS WITHIN 3 INCHES OF EACH CORNER OF THE FIXTURE.
- SUSPENDED CEILING TO BE DESIGNED TO ASTM C636 AND C636 FOR SEISMIC DESIGN CATEGORY D.

2022 CBC

808.1 ACOUSTICAL CEILING SYSTEMS.
THE QUALITY, DESIGN, FABRICATION AND ERECTION OF METAL SUSPENSION SYSTEMS FOR ACOUSTICAL TILE AND LAY-IN PANEL CEILINGS IN BUILDINGS OR STRUCTURES SHALL CONFORM TO GENERALLY ACCEPTED ENGINEERING PRACTICE, THE PROVISIONS OF THIS CHAPTER AND OTHER APPLICABLE REQUIREMENTS OF THIS CODE.

1613.1 SCOPE.
EVERY STRUCTURE, AND PORTION THEREOF, IN CLUDING NON STRUCTURAL COMPONENTS THAT ARE PERMANENTLY ATTACHED TO STRUCTURES AND THEIR SUPPORTS ATTCHMENTS, SHALL BE DESIGNED AND CONSTRUCTED TO RESIST THE EFFECTS OF EARHQUAKE MOTIONS IN ACCORDANCE WITH CHAPTER 11, 12, 13, 15, 17, AND 18 OF ASCE 7, AS APPLICABLE. THE SEISMIC DESIGN CATEGORY FOR A STRUCTURE IS PERMITTED TO BE DETERMINED IN ACCORDANCE WITH SECTION 1613 OR ASCE 7.

1 CEILING SUSPENDED T-BAR & COMPRESSION STRUCT LAYOUT
1/4" = 1'-0"

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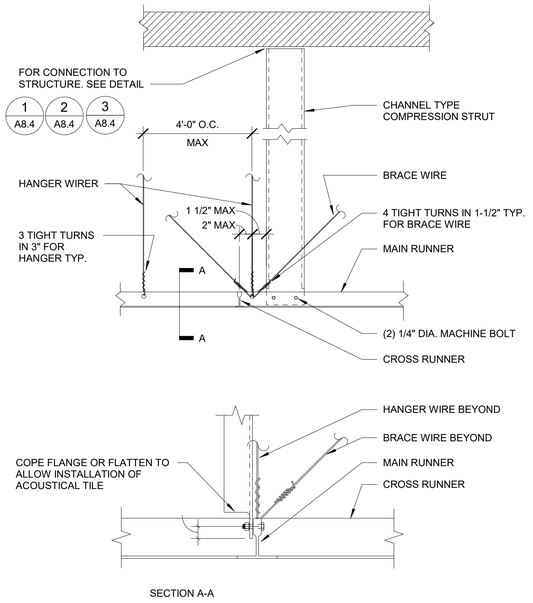
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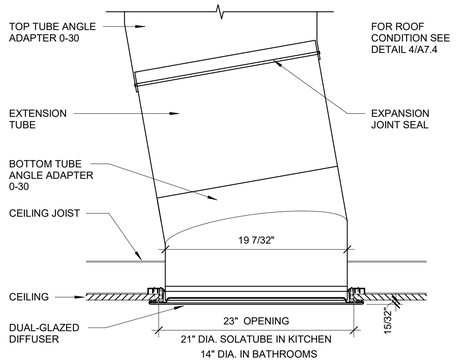
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A8.2

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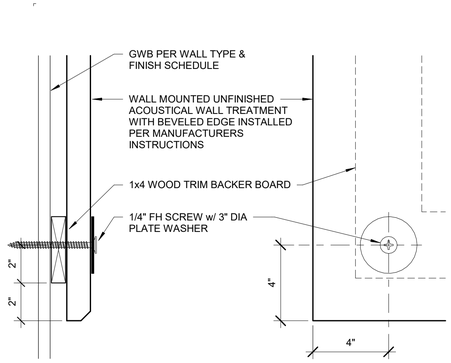
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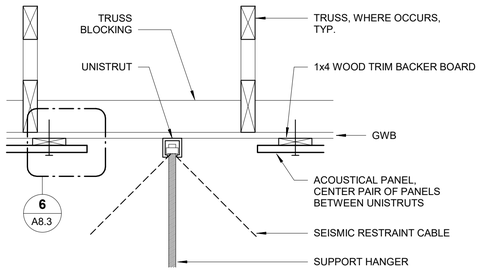
8 COMRESSION STRUT
1 1/2" = 1'-0"



7 SOLATUBE SECTION
1 1/2" = 1'-0"

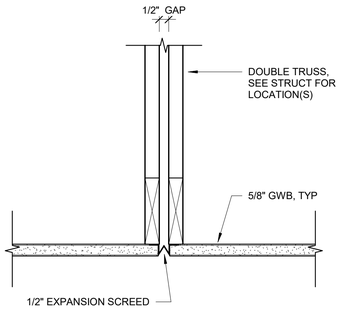


6 ACOUST. PANEL ATTACHMENT
3" = 1'-0"

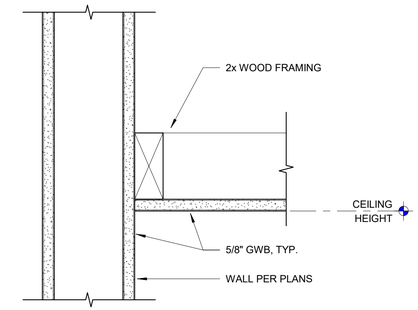


NOTE:
SUPPORT HANGERS FOR APPARATUS BAY EQUIPMENT SHALL UTILIZE UNISTRUTS (10'-0" CC) AND SHALL BE HUNG IN A VERTICAL FASHION (EXCEPT FOR DIAGONAL BRACING, WHERE REQUIRED)

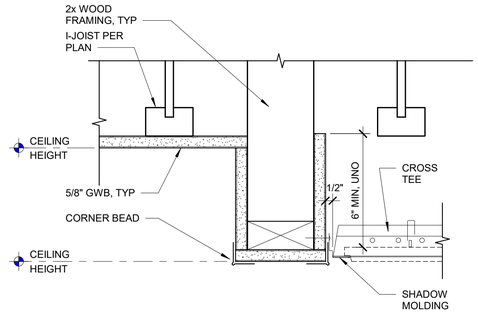
5 CEILING - SECTION AT UNISTRUT
1 1/2" = 1'-0"



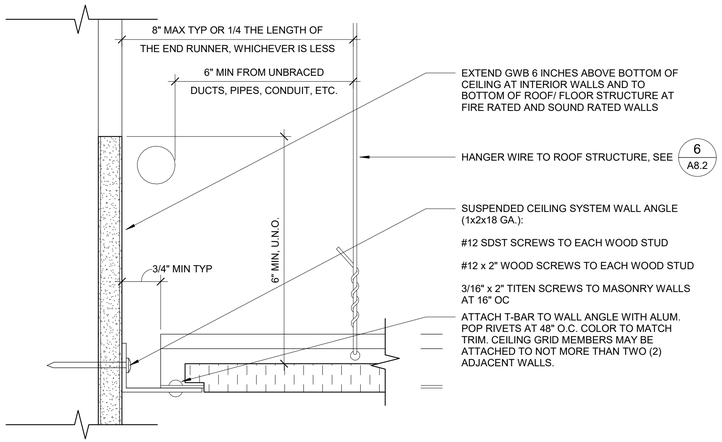
4 GWB CLG EXPANSION SCREED
3" = 1'-0"



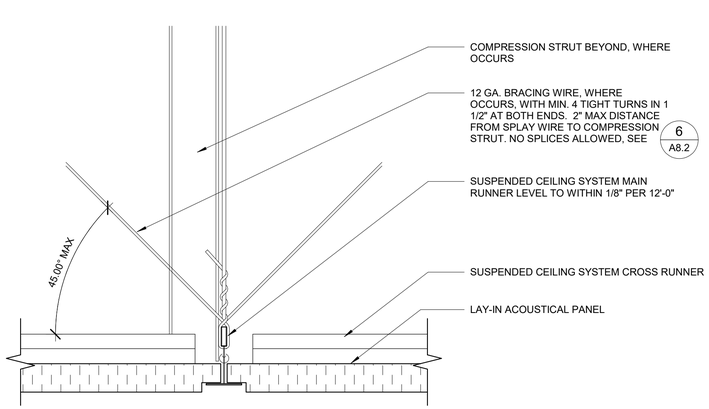
3 CEILING - GWB CEILING AT WALL
3" = 1'-0"

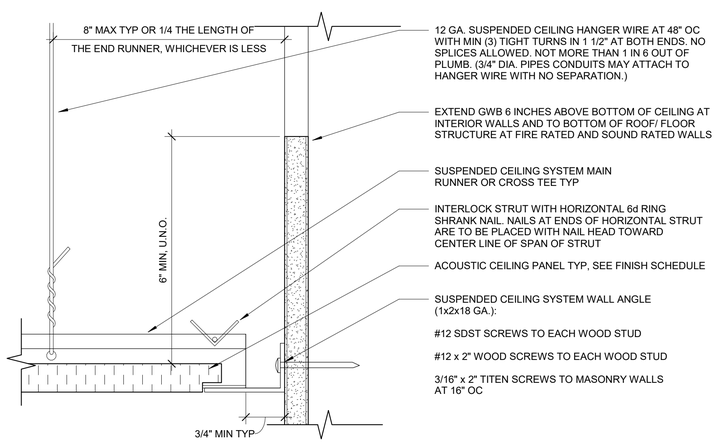


2 CEILING - GWB CEILING TO SUSP. CEILING TRANSITION
3" = 1'-0"



1 CEILING T-BAR ATTACHMENTS
6" = 1'-0"





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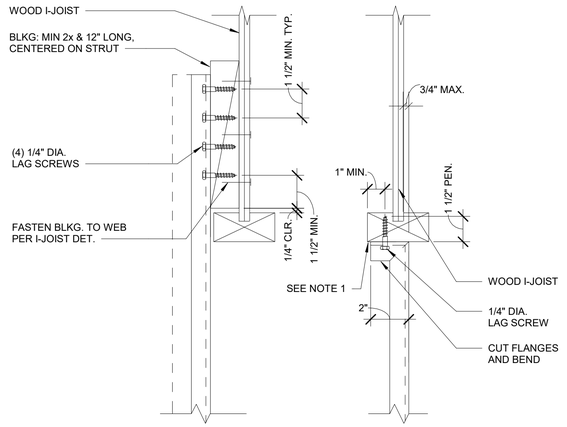
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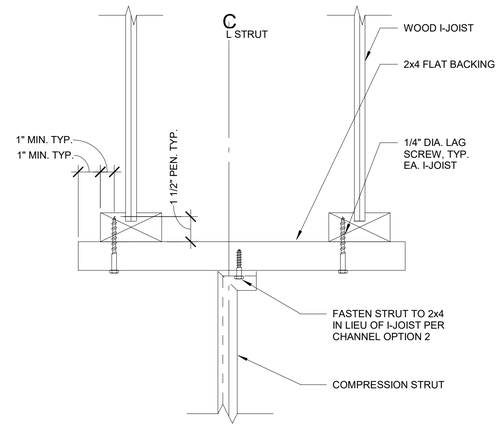
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CHANNEL STRUT: OPTION 1 | **CHANNEL STRUT: OPTION 2**

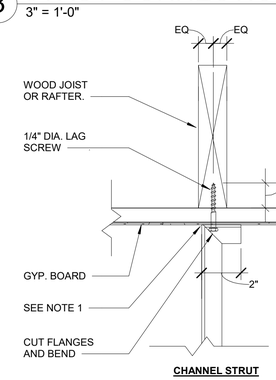


CHANNEL STRUT: BETWEEN I-JOIST

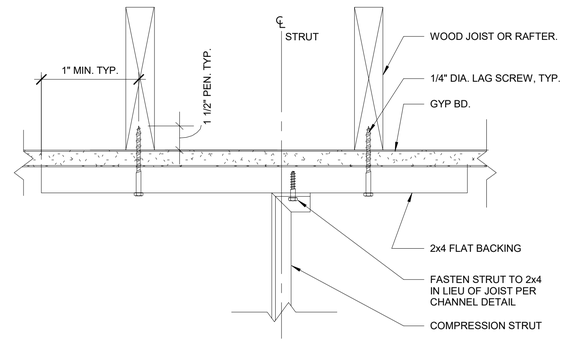
NOTES:
1. WEB OF CHANNEL TO BEAR WITHIN WIDTH OF WOOD MEMBER.
2. PEN = MINIMUM PENETRATION OF LAG SCREW THREADS INTO THE WOOD MEMBER.
3. NO. 14 WOOD SCREW MAY BE USED IN LIEU OF 1/4" LAG SCREW.

3 STRUT CONNECTION TO I-JOIST

3" = 1'-0"



CHANNEL STRUT

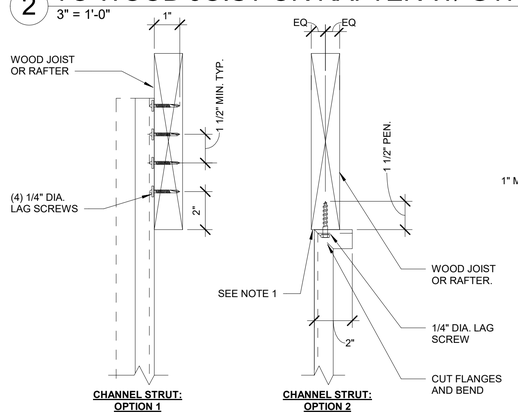


CHANNEL STRUT: BETWEEN JOIST OR RAFTER

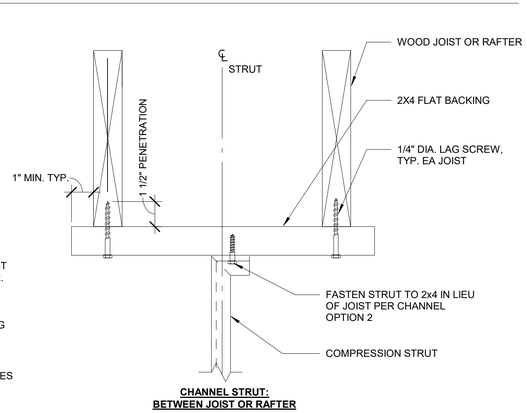
NOTES:
1. WEB OF CHANNEL TO BEAR WITHIN WIDTH OF THE WOOD MEMBER.
2. PEN. = MINIMUM PENETRATION OF LAG SCREW THREADS INTO THE WOOD MEMBER.
3. NO. 14 WOOD SCREW MAY BE USED IN LIEU OF 1/4" LAG SCREW.

2 STRUT CONNECTION TO WOOD JOIST OR RAFTER W/ GYP BD.

3" = 1'-0"



CHANNEL STRUT: OPTION 1 | **CHANNEL STRUT: OPTION 2**



CHANNEL STRUT: BETWEEN JOIST OR RAFTER

NOTES:
1. WEB OF CHANNEL TO BEAR WITHIN WIDTH OF WOOD MEMBER.
2. VERTICAL LEG OF MEMBER TO FALL WITHIN THE WIDTH OF THE WOOD MEMBER.
3. PEN. = MINIMUM PENETRATION OF LAG SCREW THREADS INTO THE WOOD MEMBER.
4. NO. 14 WOOD SCREW MAY BE USED IN LIEU OF 1/4" LAG SCREW.

1 STRUT CONNECTION TO WOOD JOIST OR RAFTER

3" = 1'-0"

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PROJECT

DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

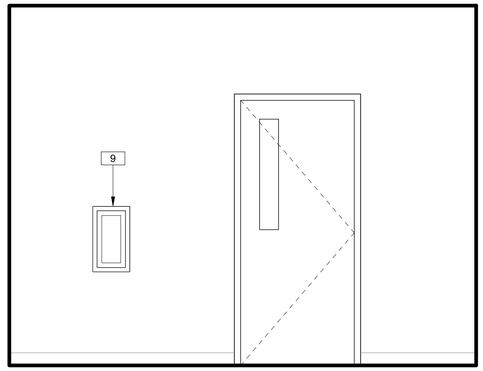
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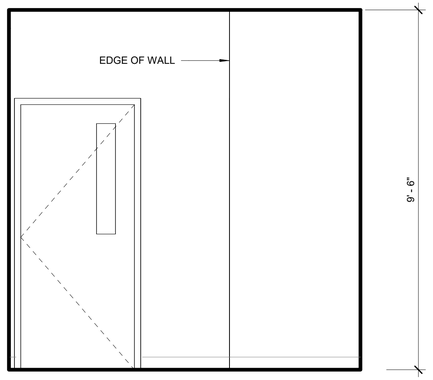
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A8.4

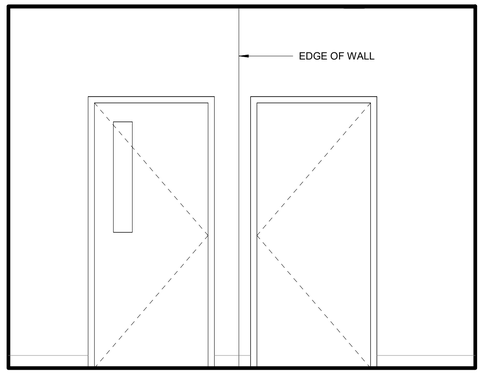
0 1/4" 1/2" 1" 2"
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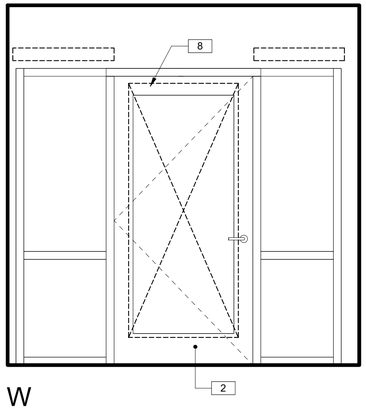
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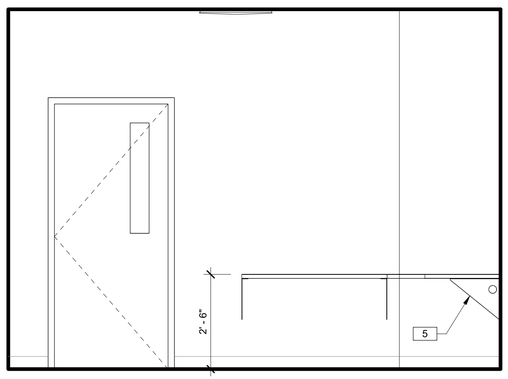
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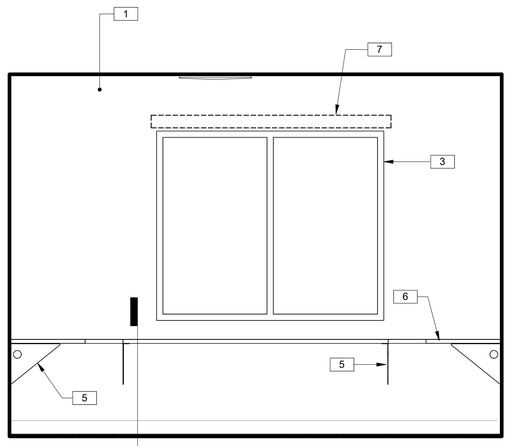
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1 SECURE LOBBY 01 - ELEVATIONS

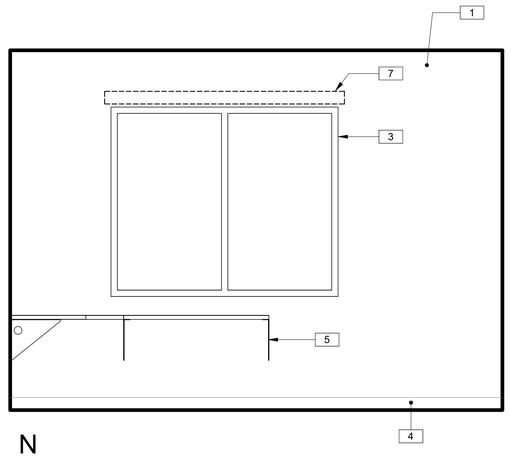
1/2" = 1'-0"



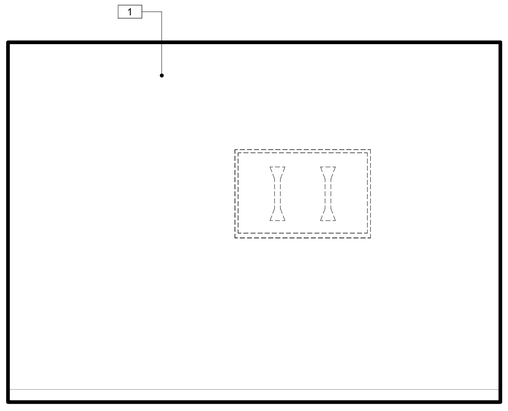
S



W



N



E

2 OFFICE 05 - ELEVATIONS

1/2" = 1'-0"



SHEET NOTES

a. FIXTURES AND ACCESSORIES ARE DIMENSIONED TO THE FACE OF FINISH, UNO.

b. CASEWORK SHOWN FOR DESIGN AND FUNCTION INTENT ONLY. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION.

c. SEE SHEETS A10.1 AND A10.2 FOR ALL ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS.

d. FOR INTERIOR FINISHES, SEE THE FINISH SCHEDULE ON SHEET A4.1.

KEY NOTES 1

1 PAINTED GWB, TYP

2 DOOR PER SCHEDULE, TYP

3 STOREFRONT WINDOW, TYP

4 WALL BASE, TYP.

5 COUNTER SUPPORT METAL ANGLE.

6 COUNTERTOP

7 ROLLER SHADE BOX.

8 ROLLER SHADE FABRIC FIXED PANEL AT DOOR.

9 FIRE EXTINGUISHER CABINET

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CITY OF DIXON FIRE DEPARTMENT

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CLIENT PROJECT NO:

AGENCY

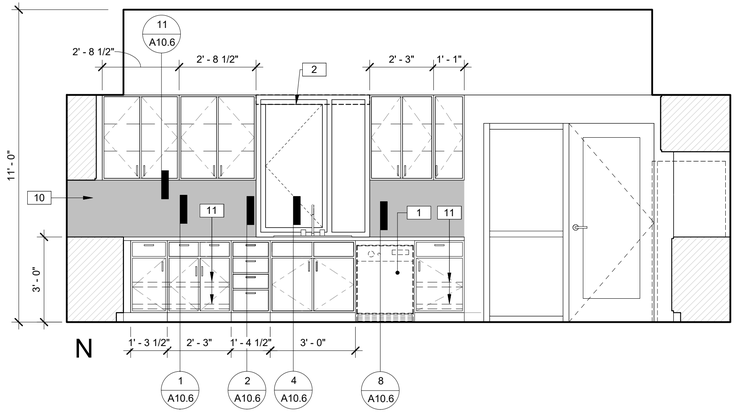
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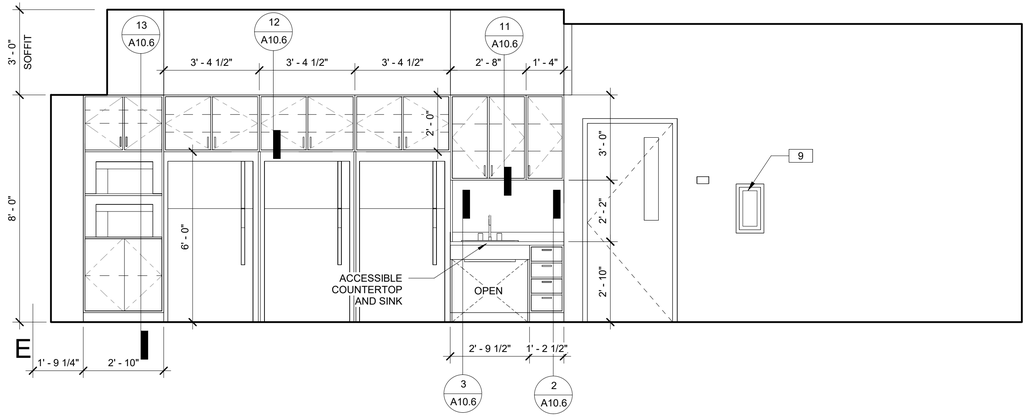
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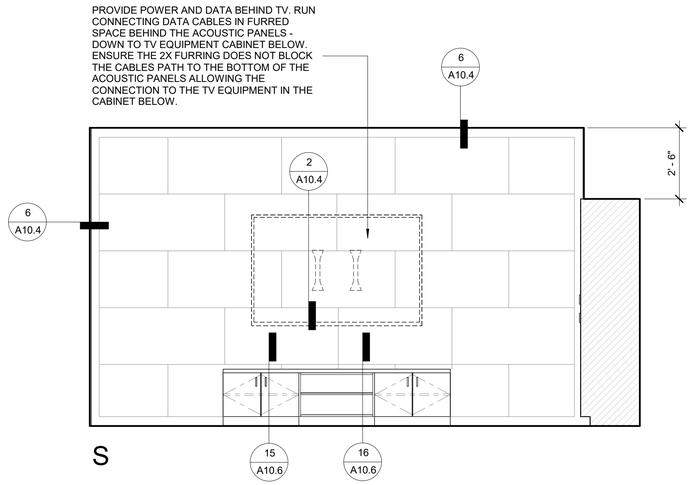
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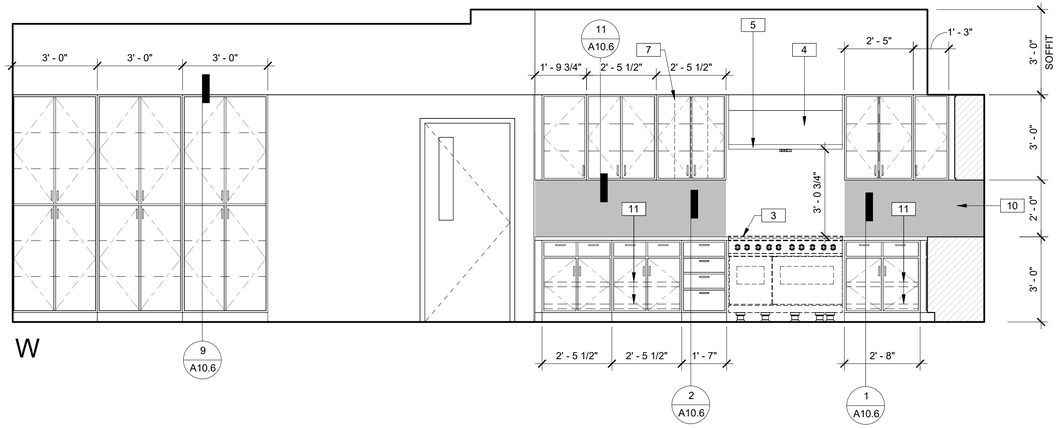
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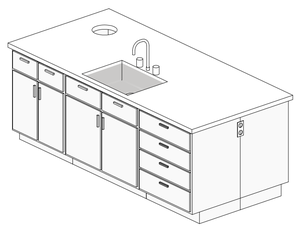


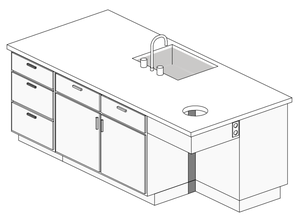


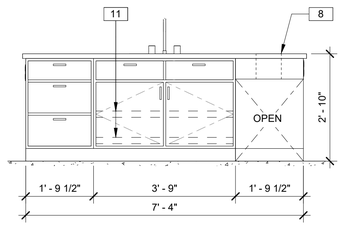


1 KITCHEN / DINING 05 - DAYROOM 06 - ELEVATIONS

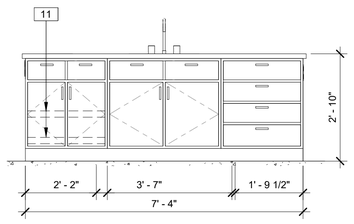
3/8" = 1'-0"



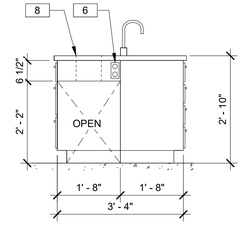




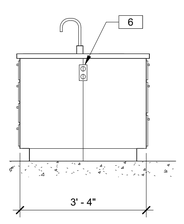
NORTH FACING



SOUTH FACING



EAST FACING



WEST FACING

2 KITCHEN ISLAND

1/2" = 1'-0"

SHEET NOTES

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c. SEE SHEETS A10.1 AND A10.2 FOR ALL ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS.

d. FOR INTERIOR FINISHES, SEE THE FINISH SCHEDULE ON SHEET A4.1.

KEY NOTES 1

1 DISHWASHER., (OFCI)

2 ROLLER SHADE BOX.

3 COOKTOP WITH HOOD ABOVE.

4 STAINLESS STEEL HOOD EXHAUST

5 STAINLESS STEEL BACK

6 DUPLEX OUTLET

7 (3) VERTICAL DIVIDERS

8 8" DIA STAINLESS STEEL TRASH CHUTE AT TOP

9 FIRE EXTINGUISHER CABINET

10 QUARTZ BACKSPLASH

11 SLIDE OUT SHELVES (MIDDLE AND BOTTOM), AT ALL LOWER CABINETS IN THE KITCHEN, TYP.

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C36478
RENEWAL 11-30-27
STATE OF CALIFORNIA

PROJECT

DIXON FIRE STATION 82

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APN: 0114355010

CLIENT

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ISSUED

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MANAGEMENT

LIONAKIS PROJECT NO: 22204
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AGENCY

TITLE

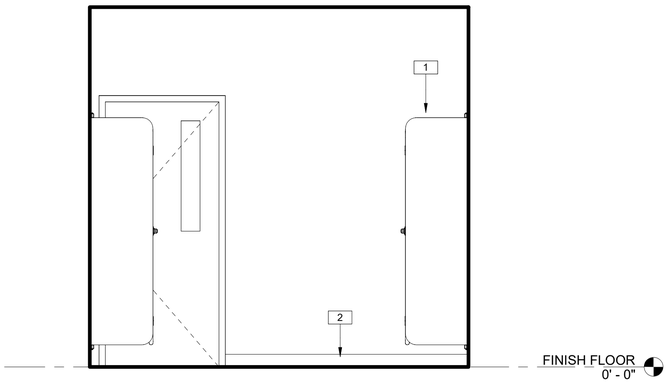
INTERIOR ELEVATIONS

SHEET

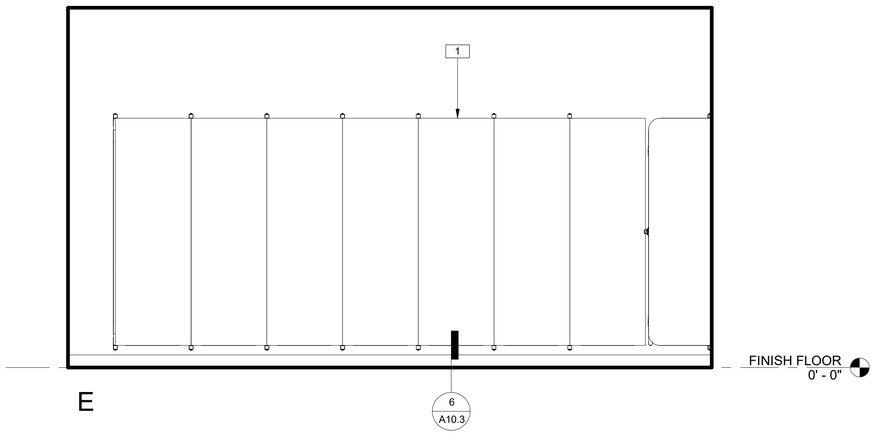
A9.2

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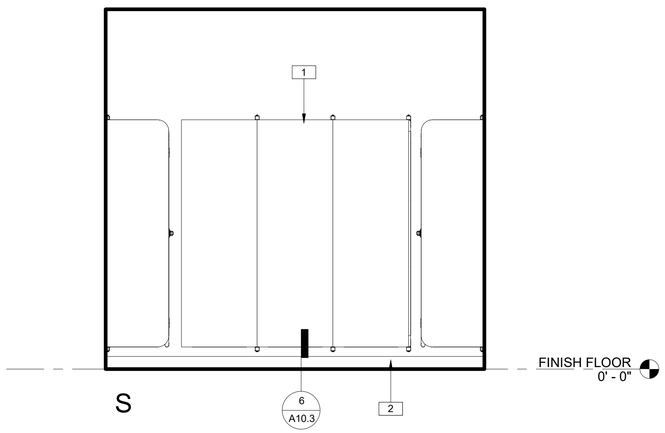
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0 1/4" 1/2" 1" 2"



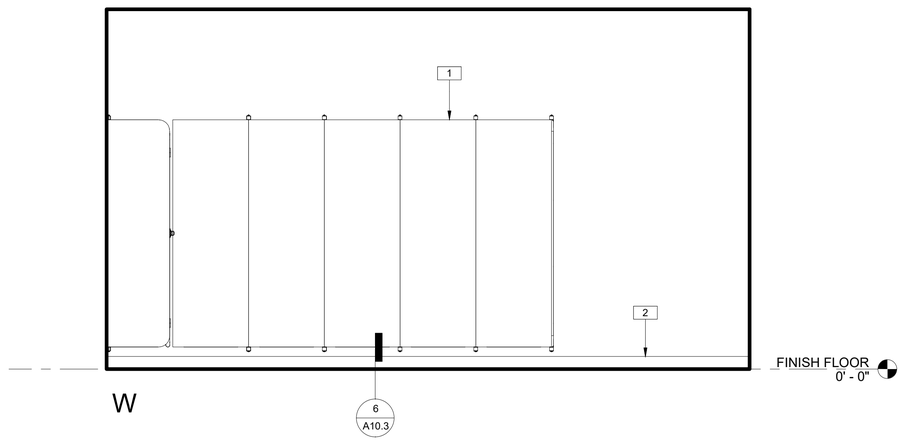
1 TURN OUT STORAGE 17 - NORTH ELEVATION
1/2" = 1'-0"



2 TURN OUT STORAGE 17 - EAST ELEVATION
1/2" = 1'-0"



3 TURN OUT STORAGE 17 - SOUTH ELEVATION
1/2" = 1'-0"



4 TURN OUT STORAGE 17 - WEST ELEVATION
1/2" = 1'-0"

SHEET NOTES

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c. SEE SHEETS A10.1 AND A10.2 FOR ALL ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS.

d. FOR INTERIOR FINISHES, SEE THE FINISH SCHEDULE ON SHEET A4.1.

KEY NOTES 1

1 WALL MOUNT METAL CAGE LOCKERS (CFCI), PROVIDE BACKING AS REQUIRED BY MFR.

2 WALL BASE, TYP.

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MANAGEMENT

LIONAKIS PROJECT NO: 22204
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AGENCY

TITLE
INTERIOR ELEVATIONS

SHEET
A9.3

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0 1/4" 1/2" 1" 2"
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KEY NOTES

1

1 LOCKABLE DORM WARDROBE, (CFCI).
2 PAINTED GWB, TYP
3 WALL BASE, TYP.
4 EXT. STOREFRONT WINDOW, SEE WINDOW TYPES
5 DOOR PER SCHEDULE, TYP
6 FURNITURE, (OFOI).
7 ROLLER SHADE BOX.

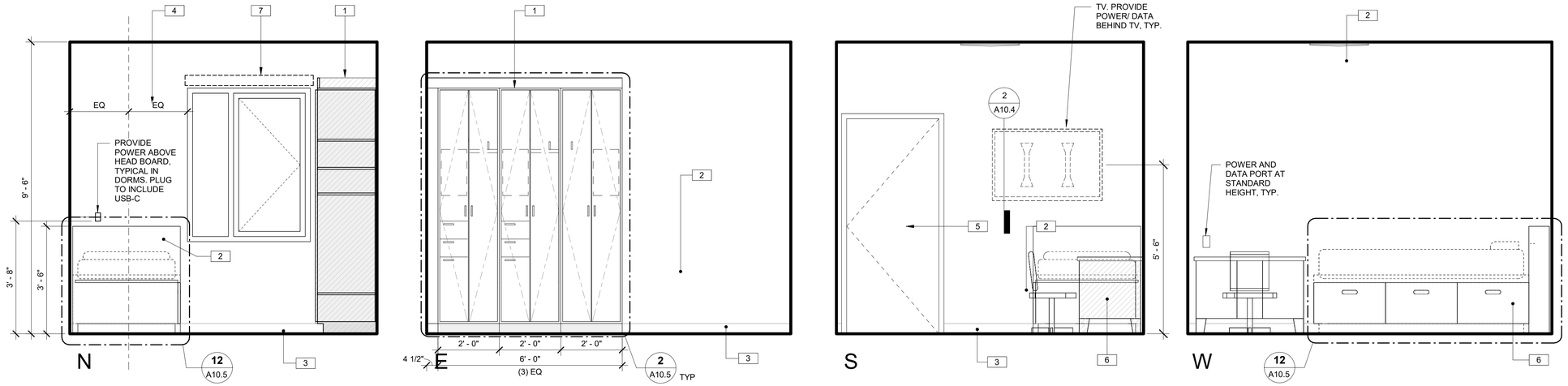
SHEET NOTES

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1 DORM 10,11,12 TYP. DORM 13 SIM.
1/2" = 1'-0"

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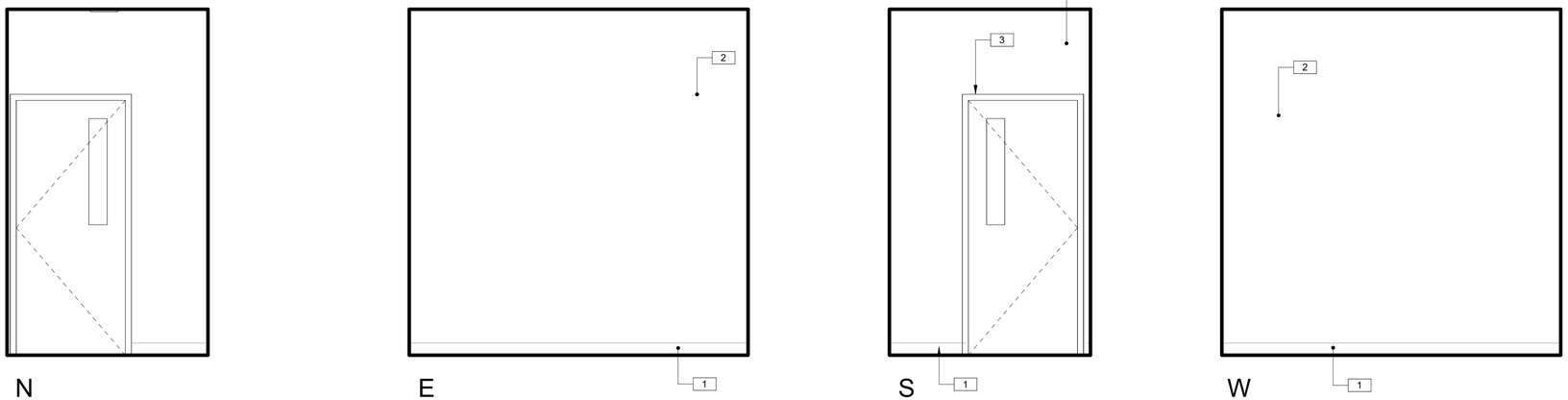
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TITLE
INTERIOR ELEVATIONS

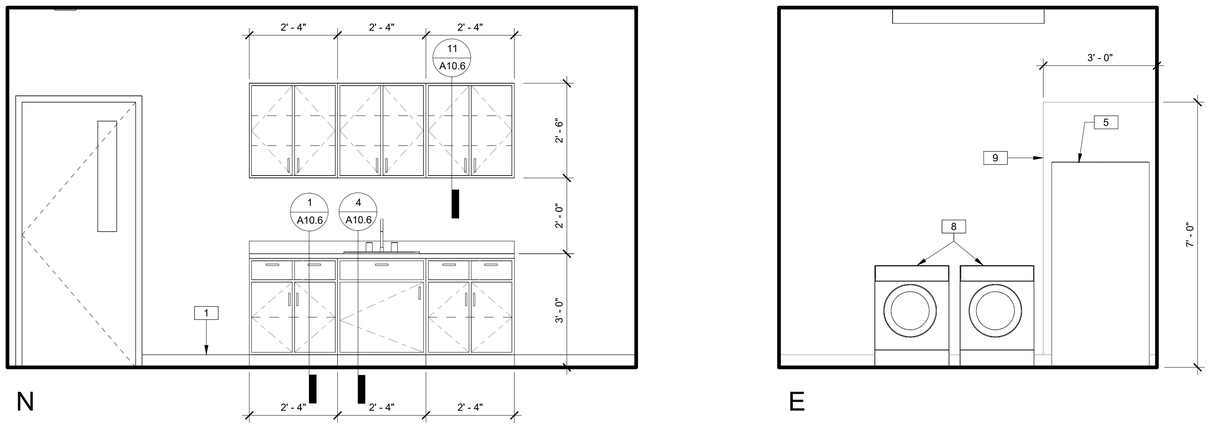
SHEET
A9.4

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1 VESTIBULE 04 (VESTIBULE 12, 20, AND 27 SIMILAR)

1/2" = 1'-0"



2 DOMESTIC LAUNDRY & JANITOR 14

1/2" = 1'-0"

SHEET NOTES

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d. FOR INTERIOR FINISHES, SEE THE FINISH SCHEDULE ON SHEET A4.1.

KEY NOTES 1

1 WALL BASE, TYP.

2 PAINTED GWB, TYP

3 DOOR PER SCHEDULE, TYP

4 MOP SINK. SEE PLUMBING DRAWINGS.

5 WATER HEATER, SEE PLUMBING DRAWINGS.

6 ICE MACHINE (OFCI)

7 SURFACE MOUNTED LIGHT FIXTURE, TYP.

8 WASHER DRYER, (OFOI).

9 FRP WAINSCOT, TYP.

10 MOP / BROOM HOLDER

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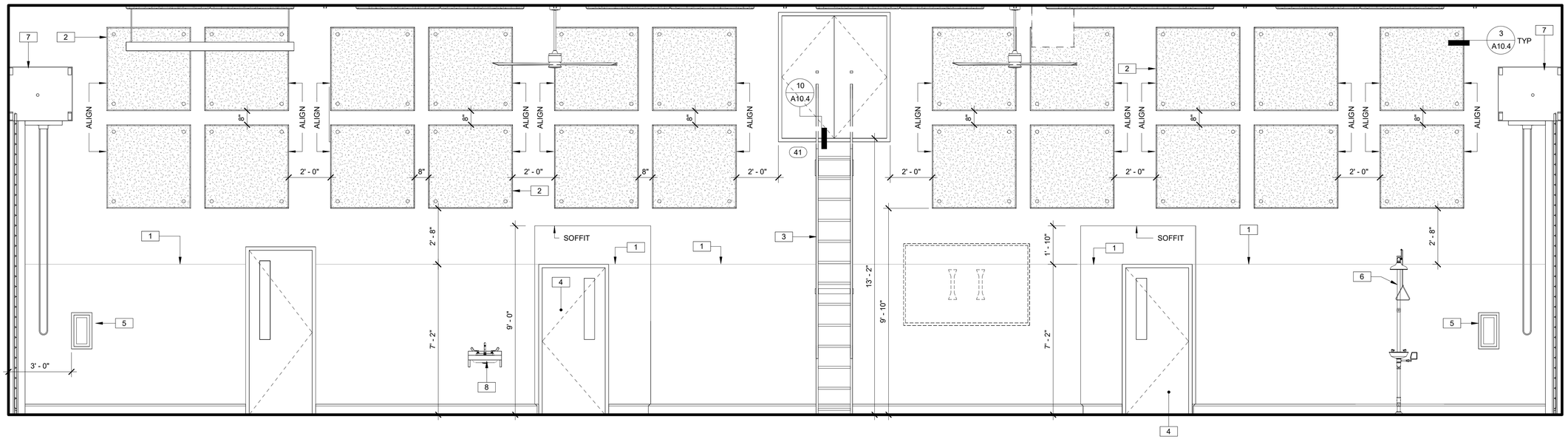
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INTERIOR ELEVATIONS

SHEET

A9.5

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1 APPARATUS BAY 19 - NORTH ELEVATION

3/8" = 1'-0"

SHEET NOTES

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d. FOR INTERIOR FINISHES, SEE THE FINISH SCHEDULE ON SHEET A4.1.

KEY NOTES 1

1 FRP WAINSCOT, TYP.

2 47 3/4" X 48" TECTUM ACOUSTICAL PANEL, SEE FINISH SCHEDULE

3 MEZZANINE / STORAGE LADDER

4 DOOR PER SCHEDULE, TYP

5 FIRE EXTINGUISHER CABINET

6 EMERGENCY SHOWER AND EYEWASH COMBINATION. SEE PLUMBING DRAWINGS.

7 HI SPEED COIL UP DOOR.

8 WALL MOUNTED LAVATORY, SEE PLUMBING DRAWINGS

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MANAGEMENT

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CLIENT PROJECT NO:

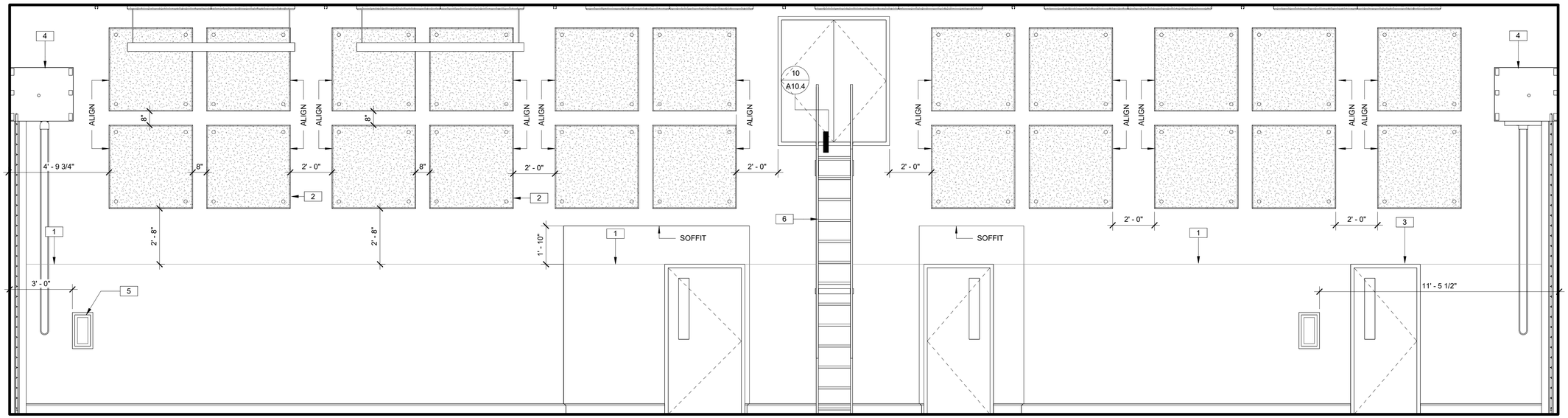
AGENCY

TITLE
INTERIOR ELEVATIONS

SHEET
A9.6

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0 1/4" 1/2" 1" 2"
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1 APPARATUS BAY 19 - SOUTH ELEVATION

3/8" = 1'-0"

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d. FOR INTERIOR FINISHES, SEE THE FINISH SCHEDULE ON SHEET A4.1.

KEY NOTES 1

1 FRP WAINSCOT, TYP.

2 47 3/4" X 48" TECTUM ACOUSTICAL PANEL, SEE FINISH SCHEDULE

3 DOOR PER SCHEDULE, TYP

4 HI SPEED COIL UP DOOR.

5 FIRE EXTINGUISHER CABINET

6 MEZZANINE / STORAGE LADDER

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CONSULTANT

SEAL

LICENSED ARCHITECT
DEBORAH LESNEFSKA
C36478
REN 11-30-27
STATE OF CALIFORNIA

PROJECT

DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

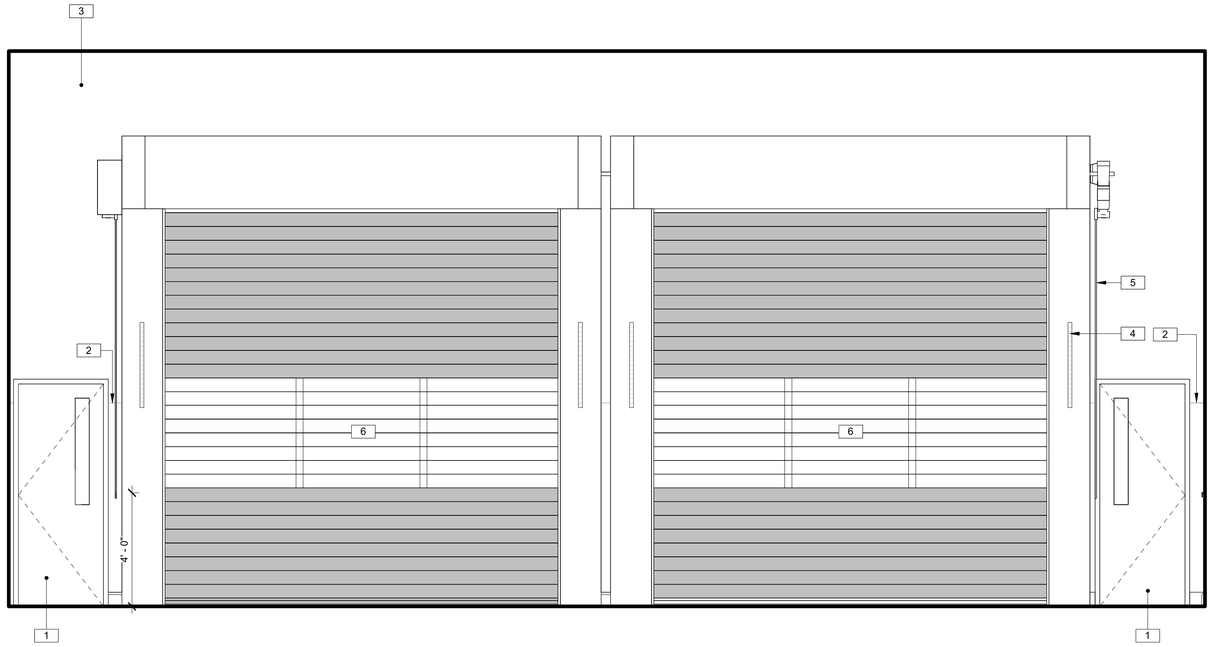
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INTERIOR ELEVATIONS

SHEET

A9.7

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NOTE:

CONTRACTOR TO COORDINATE NECESSARY STRUCTURAL BACKING WITH ROLL-UP DOOR MANUFACTURER FOR MOUNTING OF ALL RELEVANT PARTS OF THE ROLL-UP DOORS.

1 APPARATUS BAY 19 - EAST ELEVATION

3/8" = 1'-0"

SHEET NOTES

a. FIXTURES AND ACCESSORIES ARE DIMENSIONED TO THE FACE OF FINISH, UNO.

b. CASEWORK SHOWN FOR DESIGN AND FUNCTION INTENT ONLY. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION.

c. SEE SHEETS A10.1 AND A10.2 FOR ALL ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS.

d. FOR INTERIOR FINISHES, SEE THE FINISH SCHEDULE ON SHEET A4.1.

KEY NOTES 1

1 DOOR PER SCHEDULE, TYP

2 FRP WAINSCOT, TYP.

3 PAINTED GWB, TYP

4 RED, YELLOW, GREEN LED INDICATOR

5 ROLL UP DOOR MANUAL CHAIN HOIST

6 HI SPEED COIL UP DOOR.

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C36478
EXPIRES 11-30-2
STATE OF CALIFORNIA

PROJECT

DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

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MANAGEMENT

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CLIENT PROJECT NO:

AGENCY

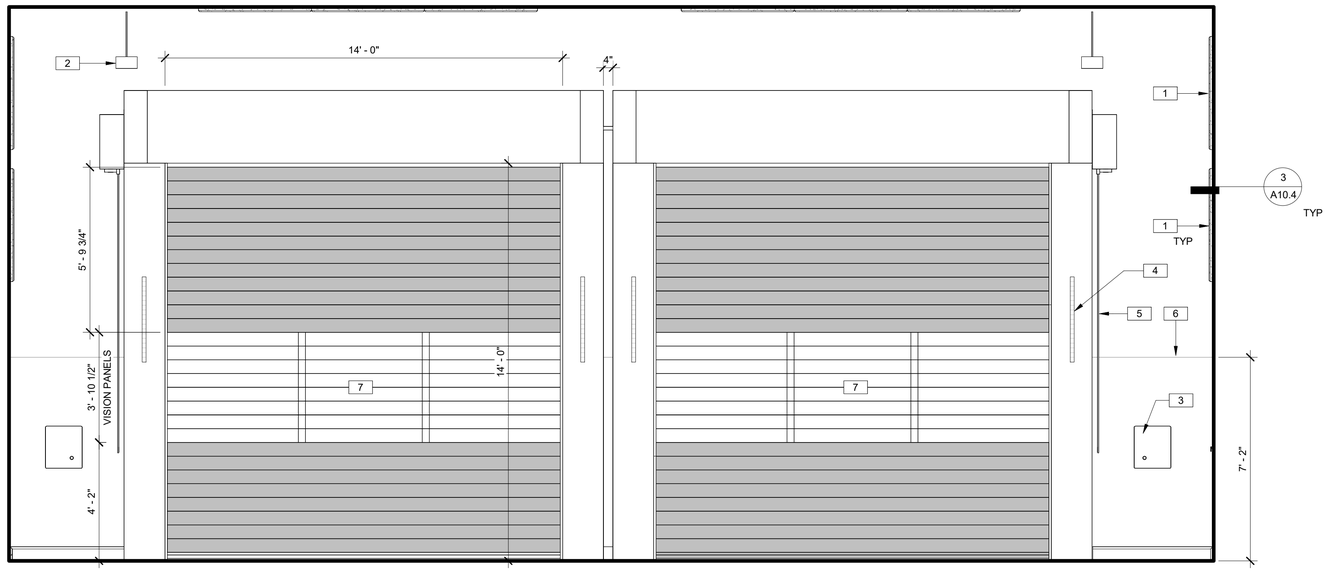
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INTERIOR ELEVATIONS

SHEET

A9.8

2"
1"
0 1/4" 1/2"
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
Autodesk Docs://MF22204 The City of Dixon - Fire Station 82/MF22204_ARCHMSTR_R24_CENTRAL.rvt
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NOTE:

CONTRACTOR TO COORDINATE NECESSARY STRUCTURAL BACKING WITH HI-SPEED COIL UP DOOR MANUFACTURER FOR MOUNTING OF ALL RELEVANT PARTS OF THE HI-SPEED COIL UP DOORS.

1 APPARATUS BAY 19 - WEST ELEVATION

3/8" = 1'-0"

SHEET NOTES

a. FIXTURES AND ACCESSORIES ARE DIMENSIONED TO THE FACE OF FINISH, UNO.

b. CASEWORK SHOWN FOR DESIGN AND FUNCTION INTENT ONLY. VERIFY ALL DIMENSIONS IN FIELD PRIOR TO FABRICATION.

c. SEE SHEETS A10.1 AND A10.2 FOR ALL ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS.

d. FOR INTERIOR FINISHES, SEE THE FINISH SCHEDULE ON SHEET A4.1.

KEY NOTES 1

1 47 3/4" X 48" TECTUM ACOUSTICAL PANEL, SEE FINISH SCHEDULE

2 LIGHT FIXTURE. SEE ELECTRICAL DWGS.

3 HI SPEED ROLL UP DOOR CONTROLLER

4 RED, YELLOW, GREEN LED INDICATOR

5 ROLL UP DOOR MANUAL CHAIN HOIST

6 FRP WAINSCOT, TYP.

7 HI SPEED COIL UP DOOR.

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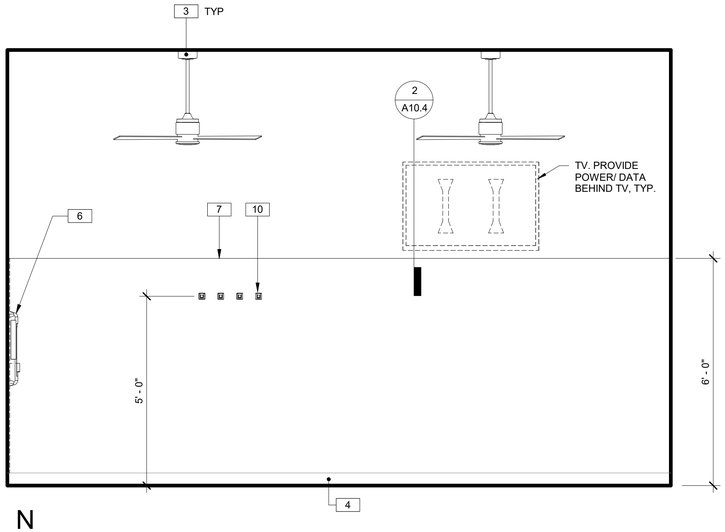
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INTERIOR ELEVATIONS

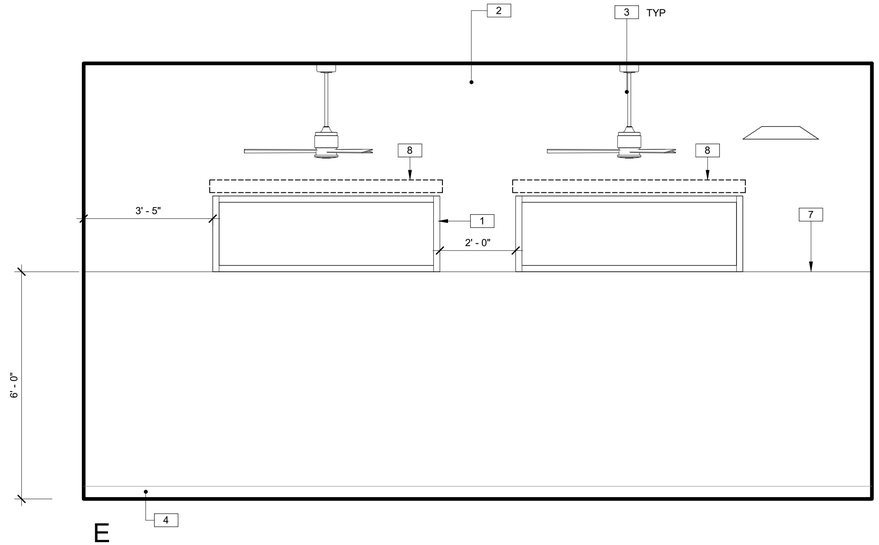
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A9.9

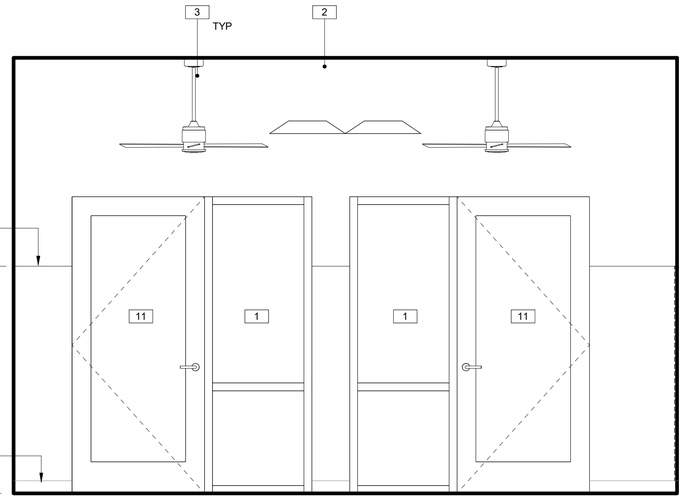
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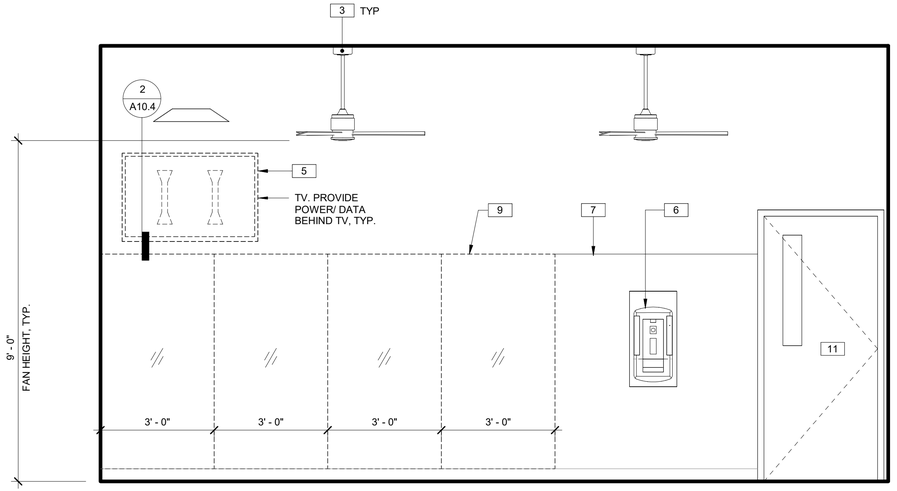
N



E



S



W

1 FITNESS 20 - ELEVATIONS

1/2" = 1'-0"

SHEET NOTES

a. FIXTURES AND ACCESSORIES ARE DIMENSIONED TO THE FACE OF FINISH, UNO.

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c. SEE SHEETS A10.1 AND A10.2 FOR ALL ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS.

d. FOR INTERIOR FINISHES, SEE THE FINISH SCHEDULE ON SHEET A4.1.

KEY NOTES 1

1 EXT. STOREFRONT WINDOW, SEE WINDOW TYPES
2 PAINTED GWB, TYP
3 MODERN FAN ALTUS 52" CEILING FAN, SEE ELECTRICAL DWGS.
4 WALL BASE, TYP.
5 TV AND MOUNT, OFOI
6 RECESSED REFRIGERATED BOTTLE FILLER
7 FRP WAINSCOT, TYP.
8 ROLLER SHADE BOX.
9 MIRROR.
10 COAT HOOKS
11 DOOR PER SCHEDULE, TYP

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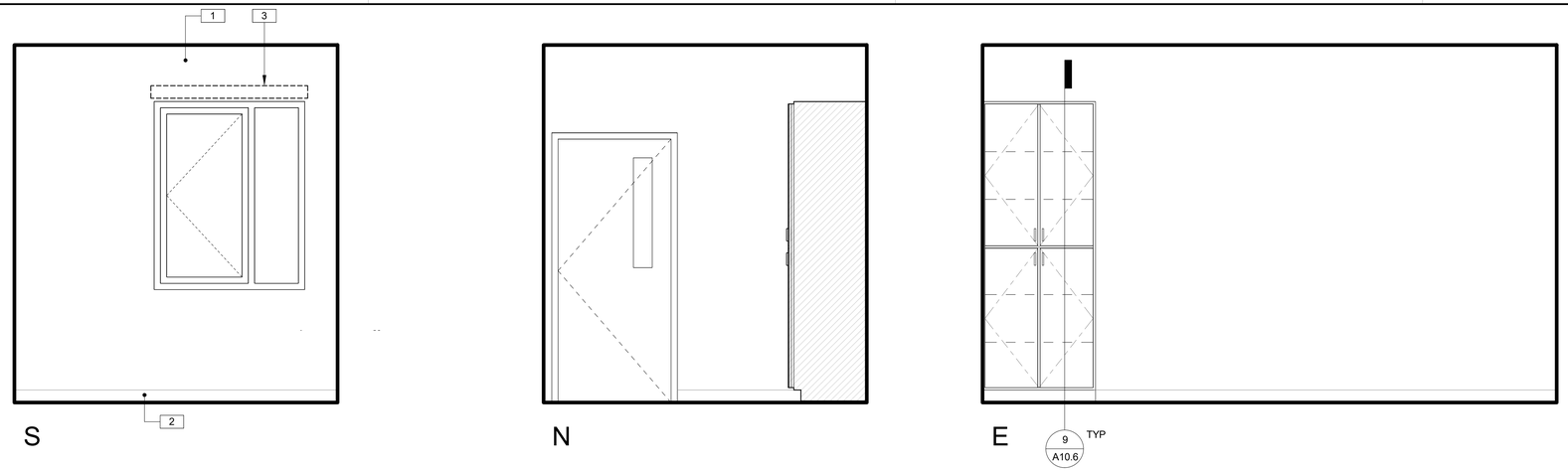
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INTERIOR ELEVATIONS

SHEET

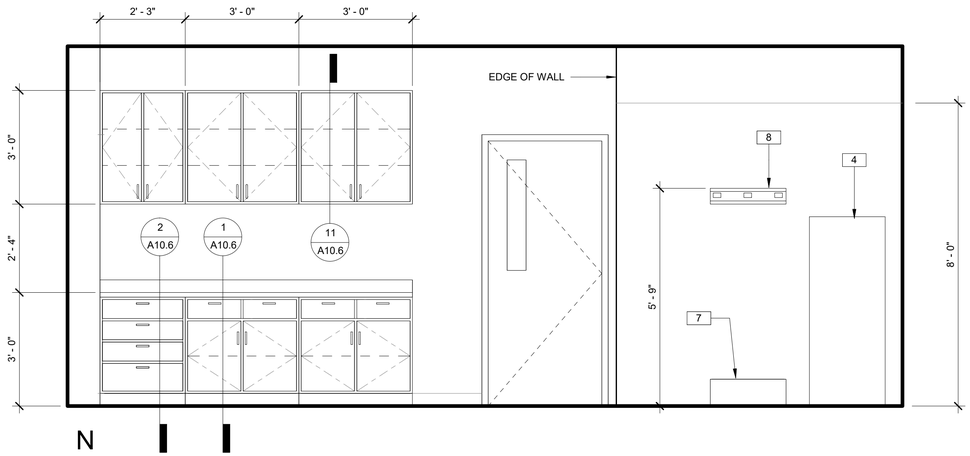
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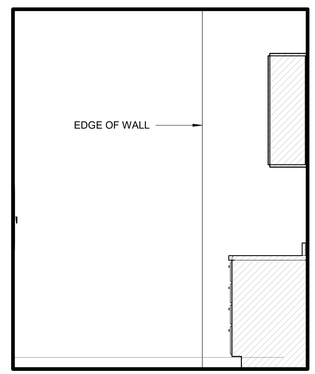
2" 1" 1/2" 1/4" 0
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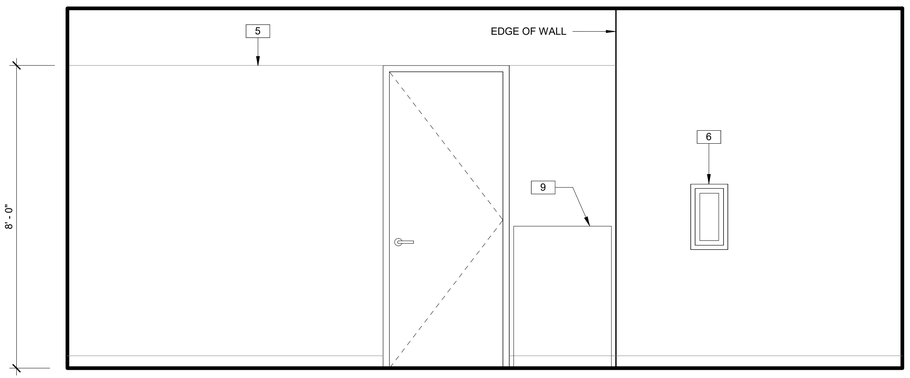


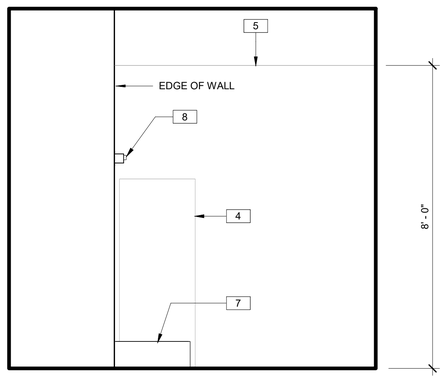
1 EMS STORAGE 22 - ELEVATIONS

1/2" = 1'-0"









2 SHOP 25 AND JANITOR 24 - ELEVATIONS

1/2" = 1'-0"

SHEET NOTES

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c. SEE SHEETS A10.1 AND A10.2 FOR ALL ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS.

d. FOR INTERIOR FINISHES, SEE THE FINISH SCHEDULE ON SHEET A4.1.

KEY NOTES 1

1 PAINTED GWB, TYP

2 WALL BASE, TYP.

3 ROLLER SHADE BOX.

4 WATER HEATER, SEE PLUMBING DRAWINGS.

5 FRP WAINSCOT, TYP.

6 FIRE EXTINGUISHER CABINET

7 MOP SINK. SEE PLUMBING DRAWINGS.

8 MOP / BROOM HOLDER

9 FLAMMABLE BOX

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AGENCY

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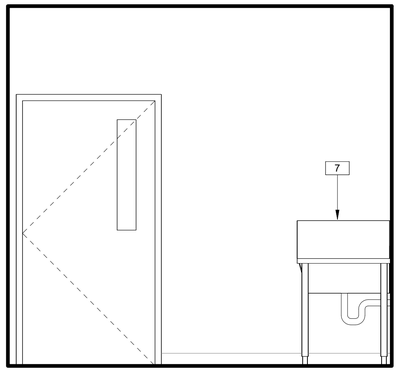
INTERIOR ELEVATIONS

SHEET

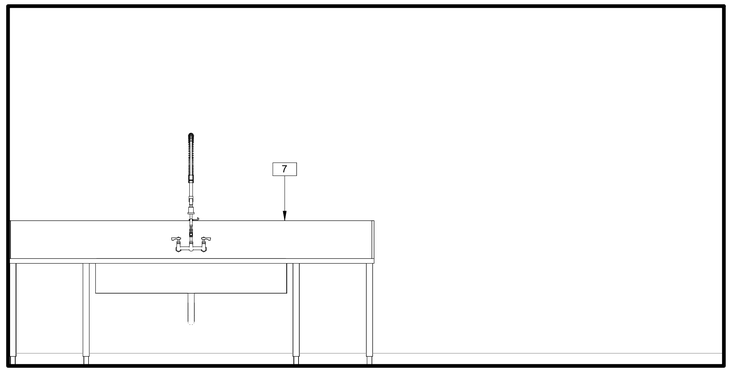
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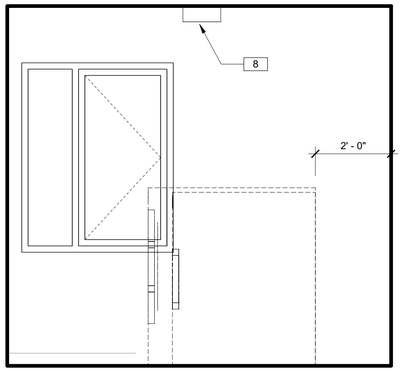
0 1/4" 1/2" 1" 2"
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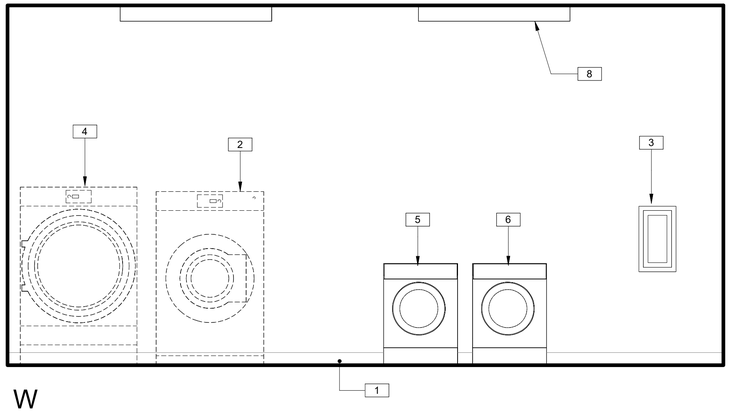
N



E



S



W

1 TURN OUT LAUNDRY & GEAR 23 - ELEVATIONS

1/2" = 1'-0"

SHEET NOTES

a. FIXTURES AND ACCESSORIES ARE DIMENSIONED TO THE FACE OF FINISH, UNO.

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c. SEE SHEETS A10.1 AND A10.2 FOR ALL ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS.

d. FOR INTERIOR FINISHES, SEE THE FINISH SCHEDULE ON SHEET A4.1.

KEY NOTES 1

1 WALL BASE, TYP.

2 TURNOUT WASHER

3 FIRE EXTINGUISHER CABINET

4 TURNOUT DRYER

5 WASHER

6 DRYER

7 DECON SINK

8 SURFACE MOUNT LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS

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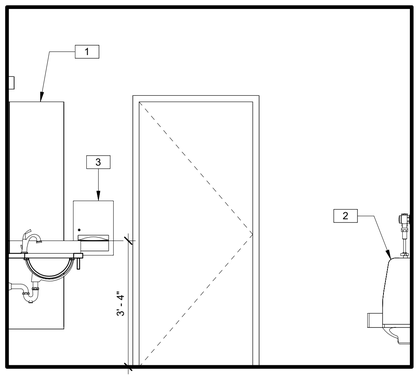
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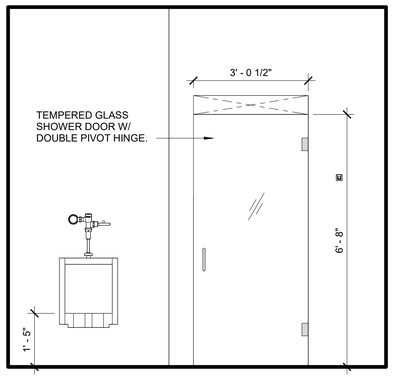
INTERIOR ELEVATIONS

SHEET

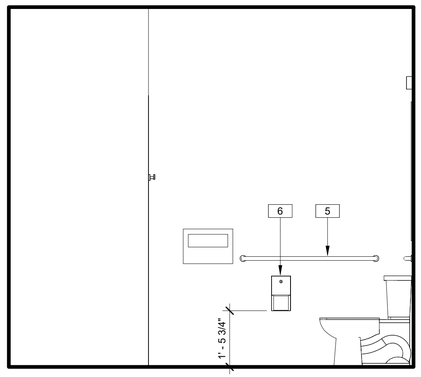
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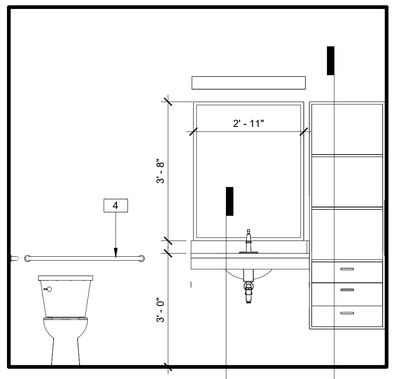
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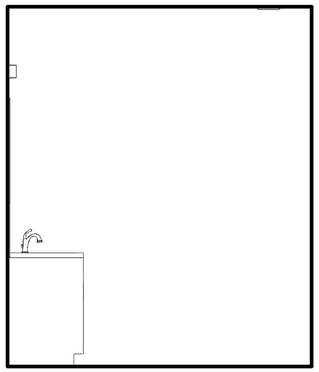


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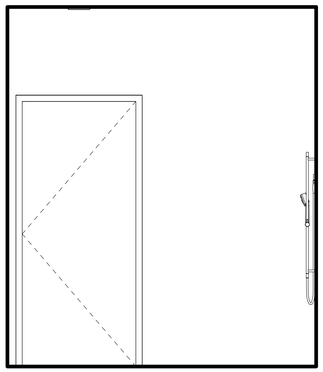
1 ACCESSIBLE TOILET / SHOWER 13 - ELEVATIONS

1/2" = 1'-0"

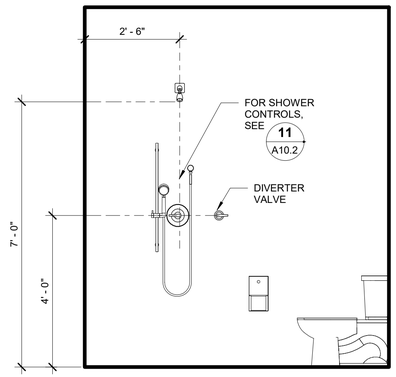
NOTE:
REFER TO A3.9 THRU A3.11 FOR WALL FINISHES IN SHOWER ROOMS



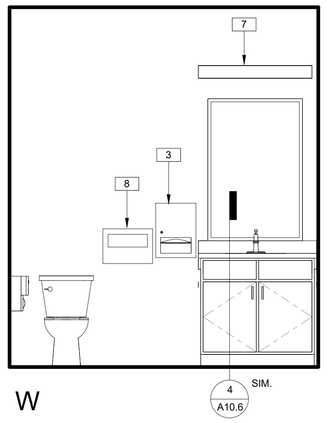
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E



S



W

2 TOILET / SHOWER 18 - ELEVATIONS

1/2" = 1'-0"

NOTE:
REFER TO A3.9 THRU A3.11 FOR WALL FINISHES IN SHOWER ROOMS

SHEET NOTES

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c. SEE SHEETS A10.1 AND A10.2 FOR ALL ACCESSIBLE CLEARANCES AND MOUNTING HEIGHTS.

d. FOR INTERIOR FINISHES, SEE THE FINISH SCHEDULE ON SHEET A4.1.

KEY NOTES 1

1 TALL CABINET

2 WALL HUNG URINAL. SEE PLUMBING DWGS.

3 RECESSED PAPER TOWEL DISPENSER

4 36" GRAB BAR.

5 42" GRAB BAR.

6 SURFACE-MOUNTED MULTI-ROLL TOILET TISSUE DISPENSER.

7 LIGHT FIXTURE. SEE ELECTRICAL DWGS.

8 SURFACE-MOUNTED TOILET SEAT COVER DISPENSER.

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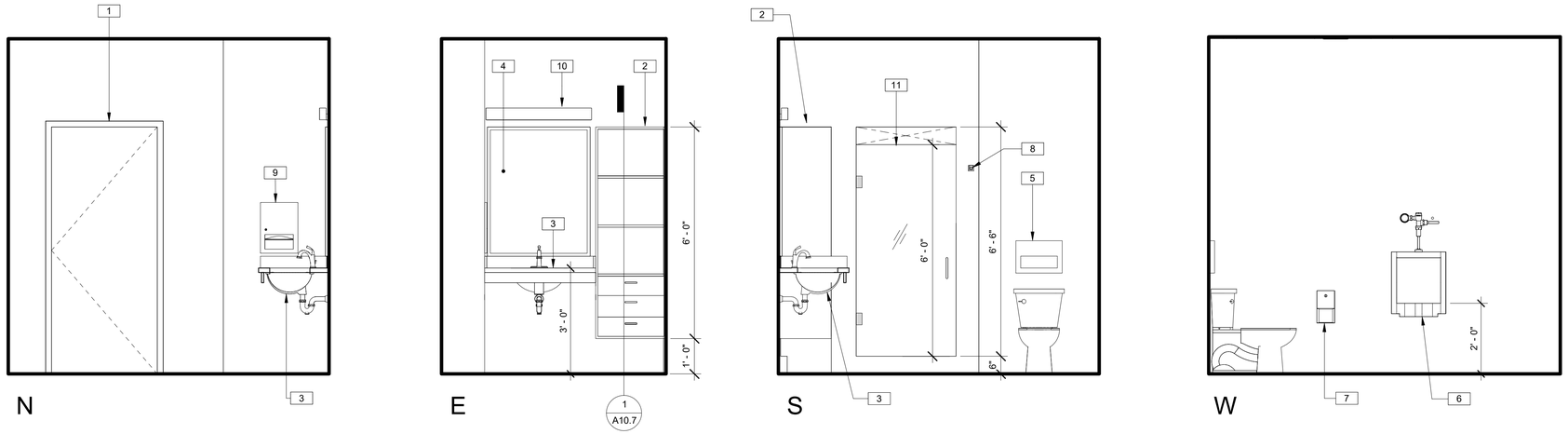
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TITLE
INTERIOR ELEVATIONS

SHEET
A9.13

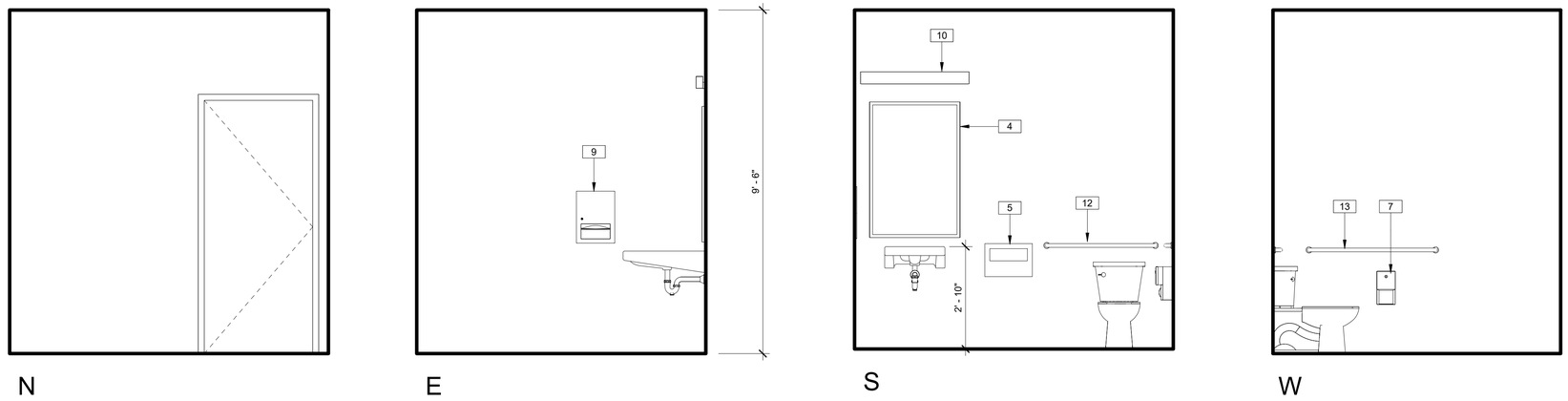
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6/19/2026 12:06:13 PM



NOTE:
REFER TO A3.9 THRU A3.11 FOR WALL FINISHES IN SHOWER ROOMS

1 TOILET / SHOWER 15 - ELEVATIONS

1/2" = 1'-0"



NOTE:
REFER TO A3.9 THRU A3.11 FOR WALL FINISHES IN SHOWER ROOMS

2 PUBLIC ACCESSIBLE TOILET 2 - ELEVATIONS

1/2" = 1'-0"

SHEET NOTES

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d. FOR INTERIOR FINISHES, SEE THE FINISH SCHEDULE ON SHEET A4.1.

KEY NOTES 1

1	DOOR PER SCHEDULE, TYP
2	TALL CABINET
3	LAVATORY AT COUNTERTOP
4	MIRROR.
5	SURFACE-MOUNTED TOILET SEAT COVER DISPENSER.
6	WALL HUNG URINAL. SEE PLUMBING DWGS.
7	SURFACE-MOUNTED MULTI-ROLL TOILET TISSUE DISPENSER.
8	ROBE HOOK
9	RECESSED PAPER TOWEL DISPENSER
10	LIGHT FIXTURE. SEE ELECTRICAL DWGS.
11	GLASS SHOWER DOOR W/ DOUBLE PIVOT HINGE
12	36" GRAB BAR.
13	42" GRAB BAR.

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TITLE

INTERIOR ELEVATIONS

SHEET

A9.14

IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
0 1/4" 1/2" 1" 2"
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2"
1"
0 1/4" 1/2"
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

BUILDING SIGNAGE

1. THE ADDITION OF OR REPLACEMENT OF SIGNS AND/OR IDENTIFICATION DEVICE SHALL NOT TRIGGER ANY ADDITIONAL PATH OF TRAVEL REQUIREMENT.
2. IDENTIFICATION SIGNS: COMPLY WITH NOTES **A**, **B**, **D**, **E**, AND **F**.
3. DIRECTION AND INFORMATION SIGNS: COMPLY WITH NOTES **A**, **B**, AND **C**.
4. ACCESSIBILITY SIGNS: COMPLY WITH NOTES **A** AND **G**

A) FINISH & CONTRAST

CHARACTERS, SYMBOLS AND THEIR BACKGROUND SHALL HAVE A NONGLARE FINISH. CHARACTERS AND SYMBOLS, SHALL CONTRAST WITH THEIR BACKGROUND, EITHER LIGHT ON DARK BACKGROUND OR DARK ON LIGHT BACKGROUND.

B) PROPORTIONS

CHARACTERS ON SIGN SHALL HAVE A WIDTH-TO-HEIGHT RATIO OF BETWEEN 3:5 AND 1:1, AND A STROKE WIDTH-TO-HEIGHT RATIO OF BETWEEN 1:5 AND 1:10.

C) CHARACTER HEIGHT

CHARACTERS AND NUMBER ON SIGNS SHALL BE SIZED ACCORDING TO THE VIEWING DISTANCE FROM WHICH THEY WILL BE READ. THE MINIMUM HEIGHT IS MEASURED USING AN UPPERCASE 'X'. LOWERCASE CHARACTERS ARE PERMITTED. FOR SIGN SUSPENDED OR PROJECTED ABOVE THE FINISH FLOOR SHALL HAVE A CHARACTER HEIGHT OF AT LEAST 3 ".

D) RAISED CHARACTER AND PICTORIAL SYMBOL SIGNS

WHEN RAISED CHARACTERS REQUIRED OR WHEN PICTORIAL SYMBOLS (PICTOGRAMS) ARE USE ON SIGNS, THEY SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

1. CHARACTERS SHALL BE RAISED 1/32" MINIMUM AND SHALL BE SANS SERIF UPPERCASE CHARACTERS ACCOMPAINIED BY GRADE 2 BRAILLE COMPLYING WITH NOTE **E**.
2. RAISED CHARACTERS SHALL BE SIZED A MINIMUM OF 5/8" AND MAXIMUM OF 2" HIGH.
3. PICTORIAL SYMBOLS SIGNS SHALL BE ACCOMPANIED BY THE VERBAL DESCRIPTION PLACE DIRECTLY BELOW THE PICTOGRAM. THE OUTSIDE DIMENSION OF THE PICTOGRAM FIELD SHALL BE A MINIMUM OF 6" IN HEIGHT.

E) BRAILLE

CONTRACTED GRADE 2 BRAILLE SHALL BE USED WHENEVER BRAILLE IS REQUIRED. DOTS SHALL BE 1/10" ON CENTERS IN EACH CELL WITH 2/10" SPACE BETWEEN CELLS, MEASURED FROM THE SECOND COLUMN OF DOTS IN THE FIRST CELL TO THE FIRST COLUMN OF DOTS IN THE SECOND CELL. DOTS SHALL BE RAISED A MINIMUM OF 1/40". BRAILLE DOTS SHALL BE DOMED OR ROUNDED.

F) MOUNTING LOCATION AND HEIGHT

SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. WHERE THERE IS NO WALL SPACE ON THE LATCH SIDE, INCLUDING AT DOUBLE LEAF DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL, PREFERBLY ON THE RIGHT SIDE. MOUNTING LOCATION SHALL BE ON THE APPROACH SIDE OF THE DOOR AS ONE ENTERS THE ROOM OR SPACE. MOUNTING HEIGHT SHALL BE 60" ABOVE TO THE BASELINE OF THE BRAILLE CELLS. MOUNTING LOCATION SHALL BE DETERMINED SO THAT A PERSON MAY APPROACH WITHIN 3" OF THE SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF THE DOOR.

G) SYMBOL OF ACCESSIBILITY

THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE THE STANDARD USED TO IDENTIFY FACILITIES THAT ARE ACCESSIBLE TO AND USABLE BY PHYSICALLY DISABLED PERSON.

1. THE SYMBOL SHALL HAVE A WHITE FIGURE ON A BLUE BACKGROUND. (THE BLUE COLOR SHALL BE EQUAL TO COLOR No. 15090 IN FEDERAL STANDARD 595B.)
2. THE SYMBOL SHALL BE USED TO IDENTIFY ALL BUILDING ENTRANCES THAT ARE ACCESSIBLE. PROVIDE ADDITIONAL SYMBOLS AND DIRECTIONAL SIGNAGE ALONG APPROACHING CIRCULATION PATHS.

HAZARDS AND PROTRUDING OBJECTS

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

ENTRANCES/ DOORS

1. ALL PRIMARY ENTRANCES AND EXTERIOR GROUND FLOOR EXIT DOORS TO BUILDING AND FACILITIES SHALL BE MADE ACCESSIBLE TO THE PHYSICALLY DISABLED.
2. PROVIDE BUILDING ENTRANCE SIGNAGE AT THE ENTRANCE DOORS.
3. EVERY REQUIRED ENTRANCE OR PASSAGE DOORWAY SHALL BE OF A SIZE AS TO PERMIT THE INSTALLATION OF A DOOR NOT LESS THAN 36" IN WIDTH AND NOT LESS THAN 80" IN HEIGHT. DOORS SHALL BE CAPABLE OF OPENING AT LEAST 90 DEGREES AND SHALL BE SO MOUNTED THAT THE CLEAR WIDTH OF THE DOORWAY IS NOT LESS THAN 32".
4. LATCHING AND LOCKING DOORS THAT ARE HAND ACTIVATED AND WHICH ARE IN A PATH OF TRAVEL, SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE, PANIC BARS, PUSH-PULL ACTIVATING BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE.
5. HAND ACTIVATED DOOR OPENING HARDWARE SHALL BE CENTERED BETWEEN 34" AND 44" ABOVE THE FLOOR AND SHALL HAVE RETURNS TO WITHIN 1/2" OF DOOR FACE.
6. THE FLOOR OR LANDING LENGTH ON EACH SIDE OF AN ENTRANCE OR A PASSAGE DOOR SHALL BE LEVEL AND CLEAR AT LEAST 60" IN THE DIRECTION OF THE DOOR SWING AND AT LEAST 48" OPPOSITE THE DIRECTION OF DOOR AS MEASURED AT RIGHT ANGLES TO THE FACE OF THE DOOR IN ITS CLOSED POSITION. THE WIDTH OF THE LEVEL AND CLEAR AREA ON THE SIDE WHICH THE DOOR SWINGS SHALL EXTEND 24" " PAST THE STRIKE EDGE OF THE DOOR FOR EXTERIOR DOORS, AND 18" PAST THE STRIKE SIDE OF THE INTERIOR DOORS.
7. THE FLOOR OR LANDING SHALL NOT BE MORE THAN 1/2" LOWER THAN THE TOP OF THRESHOD OF THE DOORWAY. CHANGES IN LEVEL BETWEEN 1/4" AND 1/2" SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2.
8. THE BOTTOM 10" OF ALL DOORS (EXCEPT AUTOMATIC AND SLIDING) SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPEN BY WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION. WHERE NARROW FRAME DOOR ARE USED, A 10" HIGH SMOOTH PANEL SHALL BE INSTALLED ON THE PUSH SIDE OF THE DOOR, WHICH WILL ALLOW THE DOOR TO BE OPEN BY A WHEELCHAIR FOOTREST.
9. THE MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 LBS. FOR EXTERIOR DOORS AND 5 LBS. FOR INTERIOR DOORS. SUCH PULL OR PUSH EFFORT BEING APPLIED AT RIGHT ANGLES TO HINGED DOOR AND AT THE CENTER PLANE OF SLIDING OR FOLDING DOORS. COMPENSATING DEVICES OR AUTOMATIC DOOR OPERATORS MAY NOT EXCEED 15 LBS. ALL DOORS THAT ARE PROVIDED WITH CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION 12 DEGREES FROM THE LATCH IS 5 SECONDS MINIMUM.

ADDITIONAL REQUIREMENTS

1. THE CENTER OF RECEPTACLE OUTLETS SHALL BE NOT LESS THAN 15" ABOVE THE FLOOR OR WORKING PLATFORM.
2. THE CENTER OF THE GRIP OF THE OPERATING HANDLE OF SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF THE ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES, OR COOLING, HEATING AND VENTILATING EQUIPMENT, SHALL BE NOT LESS THAN 36" NOR MORE THAN 48" ABOVE THE FLOOR OR WORKING PLATFORM.
3. THE CENTER OF FIRE ALARM INITIATING DEVICES (BOXES) SHALL BE LOCATED 42" MINIMUM - 48" MAXIMUM ABOVE THE LEVEL OF THE FLOOR, WORKING PLATFORM, GROUND SURFACE, OR SIDEWALK.
4. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE THE STANDARD USED TO IDENTIFY FACILITIES THAT ARE ACCESSIBLE TO AND USABLE BY PHYSICALLY DISABLED PERSONS. THE SYMBOL SPECIFIED ABOVE SHALL CONSIST OF A WHITE FIGURE ON BLUE BACKGROUND. THE BLUE SHALL BE EQUAL TO COLOR NO. 15090 IN FEDERAL STANDARD 595A.

SANITY FACILITIES (GENERAL)

1. ALL DOORWAYS LEADING TO SANITARY FACILITIES SHALL HAVE A MINIMUM 32 " CLEAR, UNOBSTRUCTED OPENINGS.
2. ALL SINKS, FAUCET CONTROLS, AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, P"ING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBS. LEVER-OPERATED, PUSH-TYPE, AND ELECTRONICALLY CONTROLLED MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGNS. SELF-CLOSING VALVES ARE ALLOWED IF THE FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS.
3. LAVATORIES SHALL BE MOUNTED WITH A MINIMUM DISTANCE OF 18 " FROM A WALL OR PARTITION TO THE CENTER LINE OF THE FIXTURE. ACCESSIBLE LAVATORIES SHALL BE MOUNTED WITH THE RIM OR COUNTER SURFACE NO HIGHER THAN 34 " ABOVE THE FINISHED FLOOR.

TOILET ROOM FIXTURES AND ACCESSORIES

1. THE HEIGHT OF ACCESSIBLE WATER CLOSETS SHALL BE A MINIMUM OF 17" AND A MAXIMUM OF 19" MEASURED TO THE TOP OF THE TOILET SEAT.
2. PROVIDE 17" MIN TO 18" MAX FROM THE CENTERLINE OF THE WATER CLOSET TO THE ADJACENT WALL.
3. TOILET AND URINAL FLUSH CONTROLS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, P"ING, OR TWISTING OF THE WRIST. CONTROLS FOR THE FLUSH VALVES SHALL BE MOUNTED ON THE APPROACH SIDE OF THE TOILET NO MORE THAN 44" ABOVE THE FLOOR. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBS.
4. WHERE URINALS ARE PROVIDED, AT LEAST ONE SHALL HAVE A CLEAR SPACE 30" WIDE X 48" LONG IN FRONT OF THE URINAL. AT LEAST ONE URINAL WITH A RIM PROJECTING A MINIMUM OF 14" FROM THE WALL AND A MAXIMUM OF 17" ABOVE THE FLOOR SHALL BE INSTALLED.
5. A CLEAR FLOOR SPACE 30" WIDE X 48" LONG SHALL BE PROVIDED IN FRONT OF A LAVATORY TO ALLOW A FORWARD APPROACH. SUCH CLEAR FLOOR SPACE SHALL ADJOIN OR OVERLAP AN ACCESSIBLE ROUTE AND SHALL EXTEND INTO KNEE AND TOE SPACE UNDERNEATH THE LAVATORY.
6. LAVATORIES SHALL BE MOUNTED WITH A CLEARANCE OF AT LEAST 29" FROM THE FLOOR TO THE BOTTOM OF THE APRON WITH KNEE CLEARANCE UNDER THE FRONT LIP EXTENDING A MINIMUM OF 30" IN WIDTH WITH 8" MINIMUM DEPTH AT THE TOP. TOE CLEARANCE SHALL BE THE SAME WIDTH AND SHALL BE A MINIMUM OF 9 " HIGH FROM THE FLOOR AND A MINIMUM OF 17" DEEP FROM THE FRONT OF THE LAVATORY.
7. HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE COVERED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.
8. MIRRORS SHALL BE MOUNTED WITH THE BOTTOM EDGE OF REFLECTED SURFACE NOT MORE THAN 40 " FROM THE FLOOR.
9. LOCATE PAPER TOWEL DISPENSERS, SANITARY NAPKIN DISPENSERS, AND WASTE RECEPTACLES WITH ALL OPERABLE PARTS NOT MORE THAN 40 " FROM THE FLOOR.
10. LOCATE TOILET TISSUE DISPENSERS ON THE WALL WITHIN 7-9 " OF THE FRONT EDGE OF THE TOILET SEAT.

MULTIPLE ACCOMODATION TOILET FACILITIES

1. A CLEAR SPACE MEASURED FROM THE FLOOR TO A HEIGHT OF 27" ABOVE THE FLOOR, WITHIN THE SANITARY FACILITY ROOM, OF SUFFICIENT SIZE TO INSCRIBE A CIRCLE WITH A DIAMETER NOT LESS THAN 60" IN SIZE SHALL BE PROVIDED. DOORS OTHER THAN THE DOOR TO THE DISABLED TOILET COMPARTMENT, IN ANY POSITION, MAY ENCROACH INTO THIS SPACE BY NOT MORE THAN 12".
2. AN ACCESSIBLE INDIVIDUAL TOILET STALL SHALL PROVIDE AT LEAST 60" CLEAR SPACE FROM A WALL AT ONE SIDE OF THE WATER CLOSET. A 48" LONG CLEAR SPACE IN FRONT OF THE WATER CLOSET SHALL BE PROVIDED IF THE COMPARTMENT HAS AN END OPENING DOOR (FACING THE WATER CLOSET). A 60" LONG CLEAR SPACE SHALL BE PROVIDED IN A COMPARTMENT WHEN THE DOOR IS LOCATED AT THE SIDE. GRAB BARS SHALL NOT PROJECT MORE THAN 3" INTO THE CLEAR SPACES AS SPECIFIED ABOVE.
3. WATER CLOSET COMPARTMENTS SHALL BE EQUIPPED WITH A DOOR THAT HAS AN AUTOMATIC CLOSING DEVICE, AND SHALL HAVE A CLEAR UNOBSTRUCTED OPENING WIDTH OF 32" WHEN LOCATED AT THE END AND 34" WHEN LOCATED AT THE SIDE WITH THE DOOR POSITIONED AT AN ANGLE OF 90 DEGREES FROM ITS CLOSED POSITION.
4. EXCEPT FOR DOOR OPENING WIDTHS AND DOOR SWINGS, A CLEAR UNOBSTRUCTED ACCESS NOT LESS THAN 44" SHALL BE PROVIDED TO WATER CLOSET COMPARTMENTS DESIGNED FOR USE BY THE DISABLED. THE SPACE IMMEDIATELY IN FRONT OF A WATER CLOSET COMPARTMENT SHALL BE NOT LESS THAN 48" AS MEASURED AT RIGHT ANGLES TO THE COMPARTMENT DOOR IN ITS CLOSED POSITION.

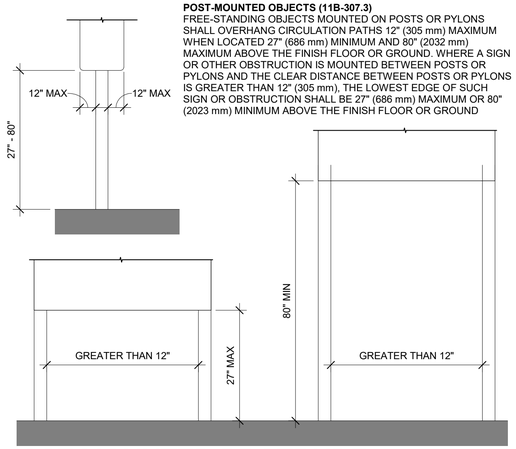
GRAB BARS

1. GRAB BARS SHALL BE LOCATED ON ONE SIDE AND THE BACK OF THE PHYSICALLY DISABLED TOILET STALL OR COMPARTMENT AND SHALL BE SECURELY ATTACHED 33" ABOVE AND PARALLEL TO THE FLOOR.
2. GRAB BARS AT THE SIDE SHALL BE AT LEAST 42 " LONG WITH THE FRONT END POSITIONED 24" MIN IN FRONT OF THE WATER CLOSET STOOL. GRAB BARS AT THE BACK WALL SHALL NOT BE LESS THAN 36" LONG.
3. THE DIAMETER OR WIDTH OF THE GRIPPING SURFACES OF A GRAB BAR SHALL BE 1-1/4" OR THE SHAPE SHALL PROVIDE AN EQUIVALENT GRIPPING SURFACE. IF THE GRAB BARS ARE MOUNTED ADJACENT TO A WALL, THE SPACE BETWEEN THE WALL AND THE GRAB BARS SHALL BE 1-1/2 ".
4. GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.
5. GRAB BARS SHALL BE DESIGNED TO SUPPORT A 250 POUND FORCE.

CLEAR FLOOR OR GROUND SPACE FOR WHEELCHAIR

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

POST-MOUNTED OBJECTS (11B-307.3)
FREE-STANDING OBJECTS MOUNTED ON POSTS OR PYLONS SHALL OVERHANG CIRCULATION PATHS 12" (305 mm) MAXIMUM WHEN LOCATED 27" (686 mm) MINIMUM AND 80" (2032 mm) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. WHERE A SIGN OR OTHER OBSTRUCTION IS MOUNTED BETWEEN POSTS OR PYLONS AND THE CLEAR DISTANCE BETWEEN POSTS OR PYLONS IS GREATER THAN 12" (305 mm), THE LOWEST EDGE OF SUCH SIGN OR OBSTRUCTION SHALL BE 27" (686 mm) MAXIMUM OR 80" (2023 mm) MINIMUM ABOVE THE FINISH FLOOR OR GROUND

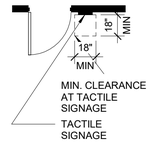


POST MOUNTED PROTRUDE OBJECT SIGN
5 1" = 1'-0"

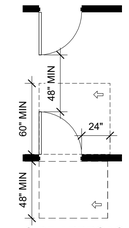
DOOR & GATE OPENING FORCE (11B-404.2.9)
THE FORCE FOR PUSHING OR PULLING OPEN DOOR OR GATE SHALL BE AS FOLLOWS:
1. INTERIOR HINGED DOORS AND GATE: 5 POUNDS MAXIMUM.
2. SLIDING OR FOLDING DOORS: 5 POUNDS MAXIMUM.
3. REQUIRED FIRE DOORS: THE MINIUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY, NOT TO EXCEED15 POUNDS.
4. EXTERIOR HINGED DOORS: 5 POUNDS MAXIMUM.

DOOR CLOSERS AND GATE CLOSERS (11B-404.2.8.1)
DOOR CLOSERS AND GATE CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPENING POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12 DEGREES FROM THE LATCH IS 5 SECONDS MINIMUM.

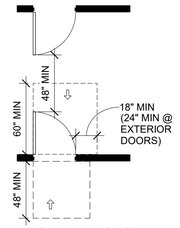
SPRING HIGES (11B-404.2.8.2)
DOOR AND GATE SPRING HINGES SHALL BE ADJUSTED SO THAT FROM AN OPENING POSITION OF 70 DEGREES, THE DOOR AND GATE SHALL MOVE TO THE CLOSE POSITION IN 1.5 SECONDS MINIMUM.



CLEARANCE AT TACTILE SIGNAGE

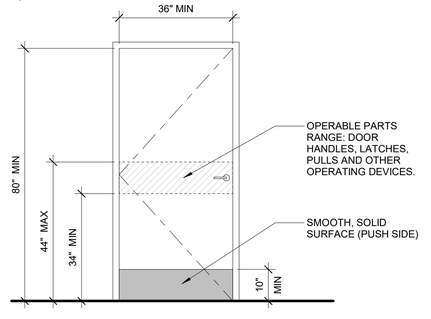


SIDE APPROACH (LATCH SIDE)



FRONT APPROACH

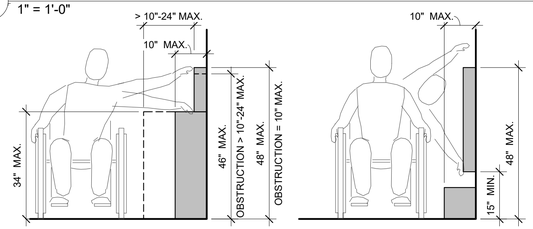
CLEARANCE AT MANUAL SWINGING DOORS
3 3/16" = 1'-0"



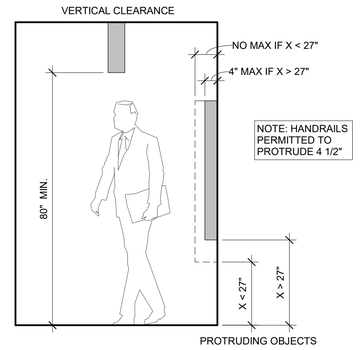
DOOR, GATE, & OPERABLE PARTS, OPENING FORCE (11B-404.2.9)
THE FORCE FOR PUSHING OR PULLING OPEN DOOR OR GATE SHALL BE AS FOLLOWS:
1. INTERIOR HINGED DOORS AND GATE: 5 POUNDS MAXIMUM.
2. SLIDING OR FOLDING DOORS: 5 POUNDS MAXIMUM.
3. REQUIRED FIRE DOORS: THE MAXIMUM 15 POUNDS.
4. EXTERIOR HINGED DOORS: 5 POUNDS MAXIMUM.

OPERABLE PARTS (11B-309.4)
SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST.

ACCESSIBLE DOOR HARDWARE
2 1/2" = 1'-0"



REACH RANGES
4 1/2" = 1'-0"



PROTRUDING OBJECTS

PROTRUDING OBJECTS
1 1/2" = 1'-0"

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CONSULTANT

SEAL

LICENSED ARCHITECT DEBORAH LESNESKA C36478 RENEWAL 11-30-27 STATE OF CALIFORNIA

PROJECT
DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

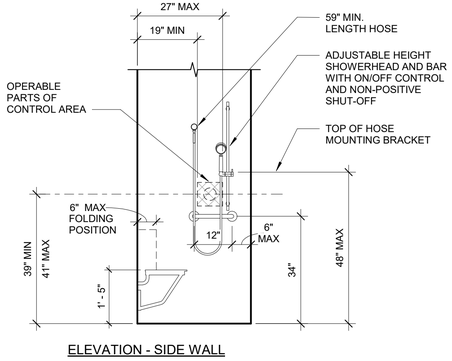
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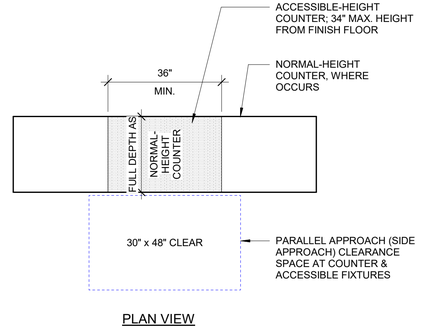
TITLE
ACCESSIBILITY DETAILS

SHEET
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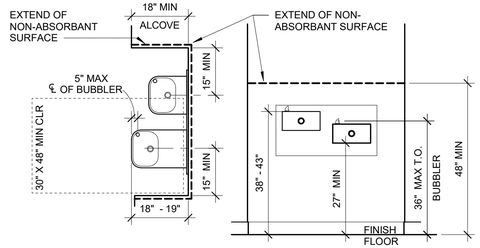


ELEVATION - SIDE WALL

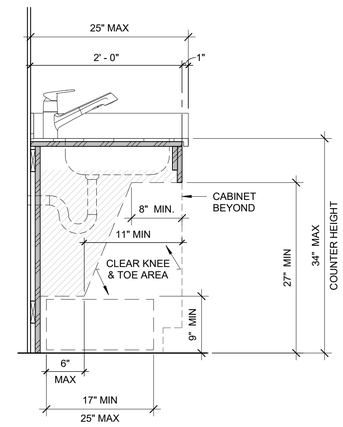


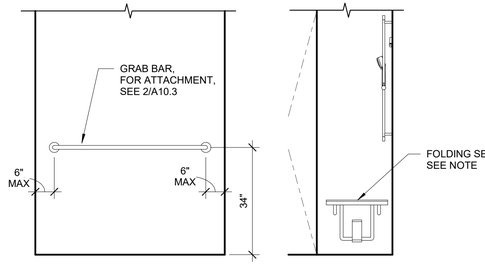
PLAN VIEW

NOTES:
1. IF ALCOVE IS GREATER THAN 24" DEEP THAN REQUIRED MANUVERING CLEAR AREA INCREASES TO 36"X48".
2. TYPICAL KNEE CLEARANCE REQUIRED.
3. SMOOTH, HARD AND NON-ABSORBANT SURFACE REQUIRED WITHIN 2'-0" OF WATER SOURCE.



PLAN VIEW FRONT VIEW





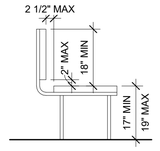
ELEVATION - BACK WALL

ELEVATION - FRONT WALL

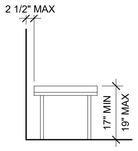
9 SIDE APPROACH CLEARANCE & SALES / SERVICE COUNTERS
1/2" = 1'-0"

6 ACCESSIBLE HIGH LOW FOUNTAIN
1/2" = 1'-0"

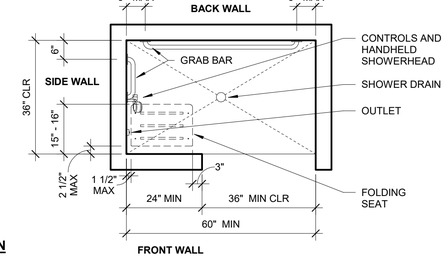
3 KNEE AND TOE CLEARANCE AT ACCESS. SINK
1" = 1'-0"



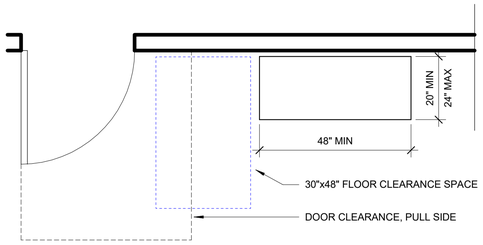
FREE STANDING



AFFIXED



PLAN



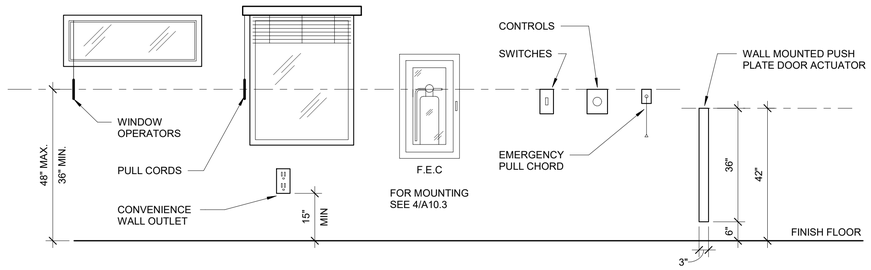
FOLDING SEAT: ALLOWABLE STRESSES SHALL NOT BE EXCEEDED FOR MATERIALS USED WHEN A VERTICAL OR HORIZONTAL FORCE OF 250 POUNDS IS APPLIED AT ANY POINT ON THE SEAT, FASTENER, MOUNTING DEVICE, OR SUPPORTING STRUCTURE.

OPERABLE PARTS (11B-309.4)
SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST.

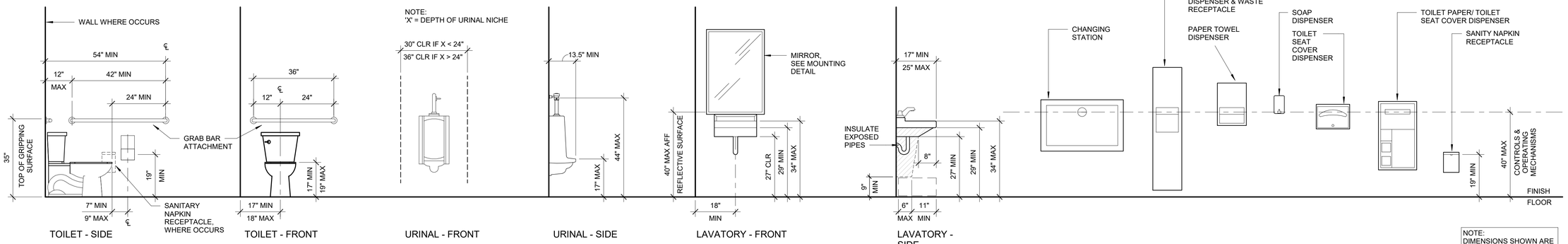
11 SHOWER STALL (ACCESSIBLE)
1/2" = 1'-0"

8 ACCESSIBLE BENCH DETAIL
1/2" = 1'-0"

NOTE:
1. ELECTRICAL CONVENIENCE FLOOR OUTLETS AND BASEBOARD ELECTRICAL OUTLETS USED IN MOVABLE PARTITIONS OR WINDOW WALLS ARE NOT SUBJECT TO THE MINIMUM HEIGHT REQUIREMENTS. ELECTRICAL CONVENIENCE FLOOR OUTLETS AND BASEBOARD ELECTRICAL OUTLETS USED IN MOVABLE PARTITIONS OR WINDOW WALLS ARE NOT SUBJECT TO THE MINIMUM HEIGHT REQUIREMENTS.
2. HEIGHTS SHOWN ARE TO OPERABLE PART OF THE DEVICES.



5 ACCESSIBLE CONTROL HEIGHTS
1/2" = 1'-0"



TOILET - SIDE | TOILET - FRONT | URINAL - FRONT | URINAL - SIDE | LAVATORY - FRONT | LAVATORY - SIDE

NOTE:
DIMENSIONS SHOWN ARE TO FACE OF FINISH UNO

10 ACCESSIBLE TYPICAL MOUNTING HEIGHTS - FIXTURES & ACCESSORIES
1/2" = 1'-0"

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LICENSED ARCHITECT DEBORAH LESNESKA C36478 RENEWAL 11-30-27 STATE OF CALIFORNIA

PROJECT
DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

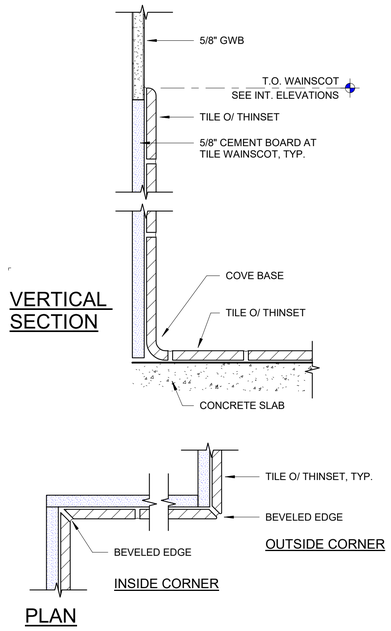
AGENCY

TITLE
ACCESSIBILITY DETAILS

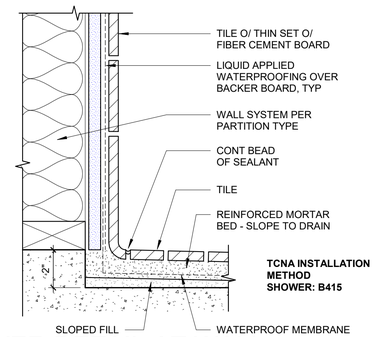
SHEET
A10.2

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0 1/4" 1/2" 1"
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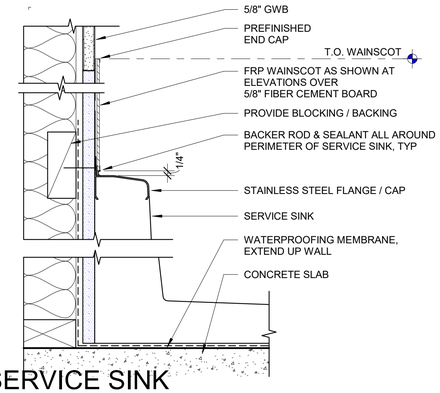
0 1/4" 1/2" 1" 2"
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY



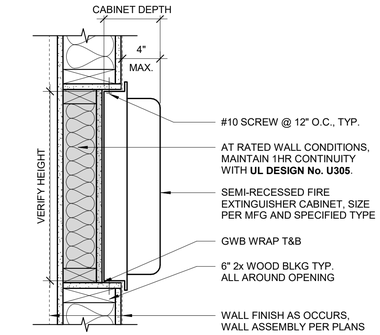
15 TILE WAINSCOT JOINTS
3" = 1'-0"



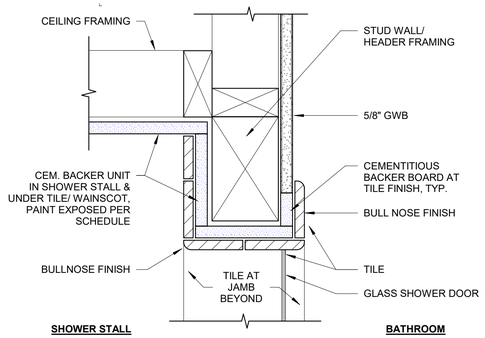
12 SHOWER DETAIL AT WALL
3" = 1'-0"



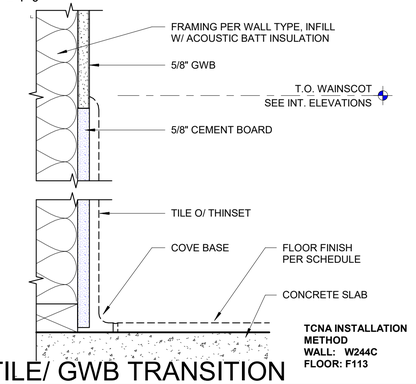
8 SERVICE SINK
3" = 1'-0"



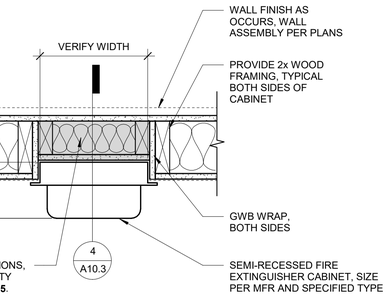
4 FIRE EXTINGUISHER CAB. SECT.
1 1/2" = 1'-0"



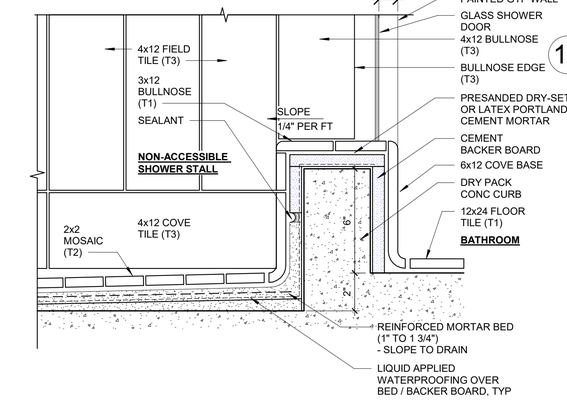
SHOWER STALL ENTRY HEAD
3" = 1'-0"



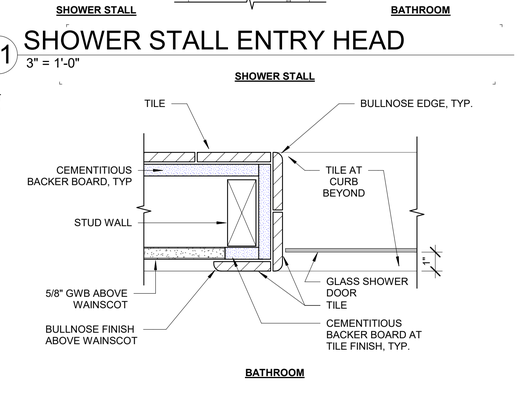
7 TILE/ GWB TRANSITION
3" = 1'-0"



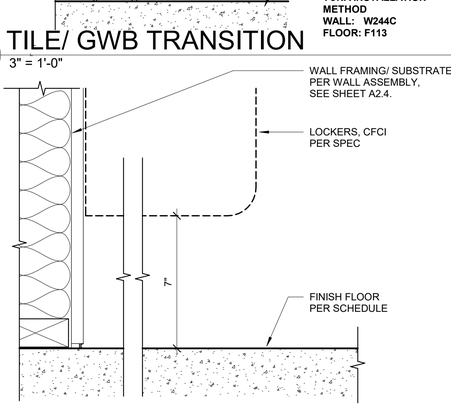
3 FIRE EXTINGUISHER CAB. PLAN
1 1/2" = 1'-0"



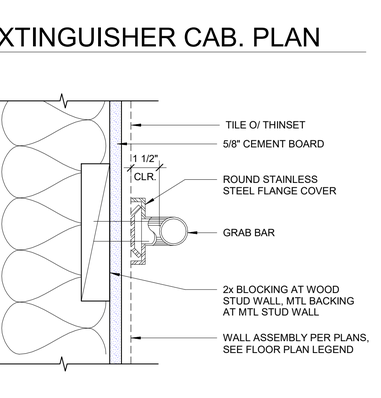
14 SHOWER ENTRY CURB
3" = 1'-0"



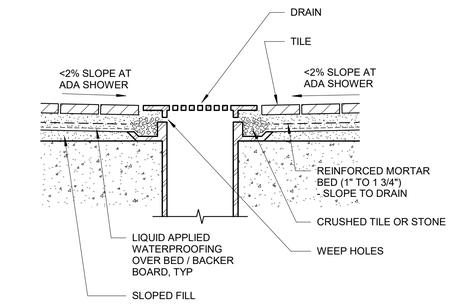
10 SHOWER STALL ENTRY JAMB
3" = 1'-0"



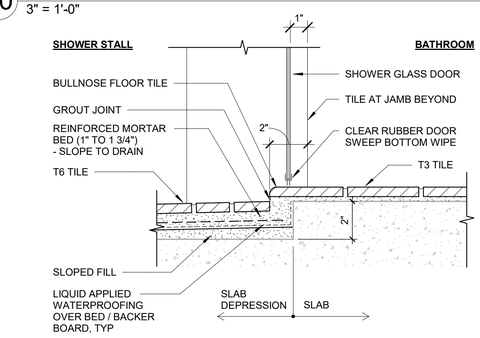
6 TURNOUT LOCKERS
3" = 1'-0"



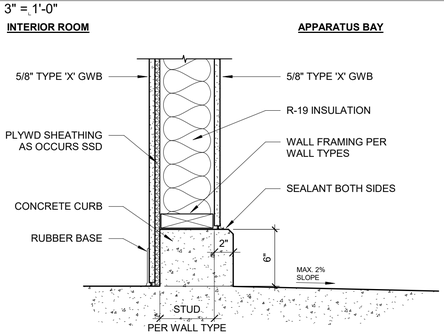
2 GRAB BAR SECTION
3" = 1'-0"



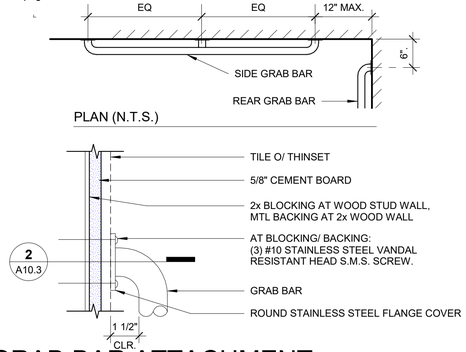
13 SHOWER DRAIN
3" = 1'-0"



9 SHOWER STALL THRESHOLD
3" = 1'-0"



5 CURB AT APPARATUS BAY
1 1/2" = 1'-0"



1 GRAB BAR ATTACHMENT
3" = 1'-0"

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AGENCY

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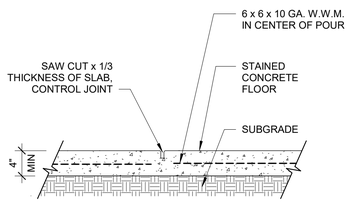
SHEET
A10.3

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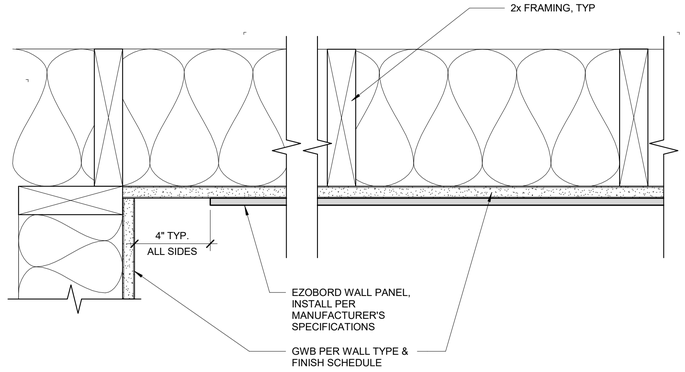
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CONTROL JOINT SEE A2.4 FOR LOCATION

9 CONC FLOOR CONTROL JOINT

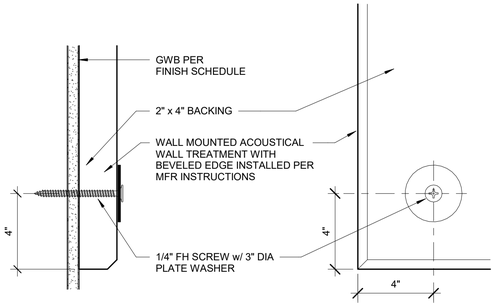
1" = 1'-0"



FOR DAY ROOM

6 EZOBORD WALL PANEL JOINT

3" = 1'-0"

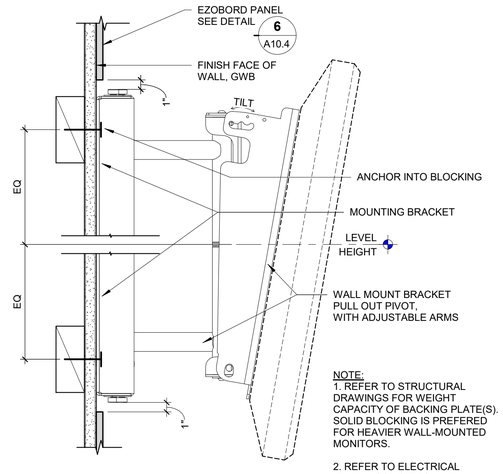


HORIZONTAL SECTION **ELEVATION**

FOR APPARATUS BAY

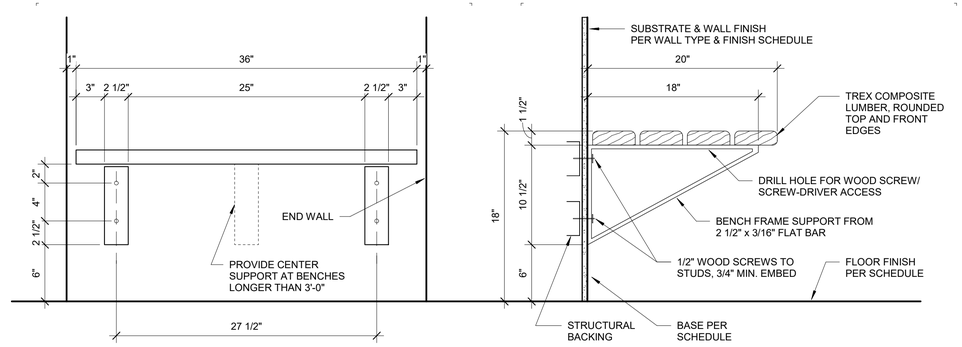
3 TECTUM PANEL ATTACHMENT

3" = 1'-0"



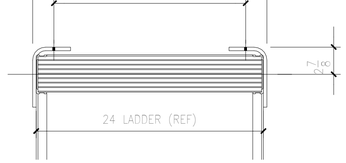
NOTE:
1. REFER TO STRUCTURAL DRAWINGS FOR WEIGHT CAPACITY OF BACKING PLATE(S). SOLID BLOCKING IS PREFERED FOR HEAVIER WALL-MOUNTED MONITORS.

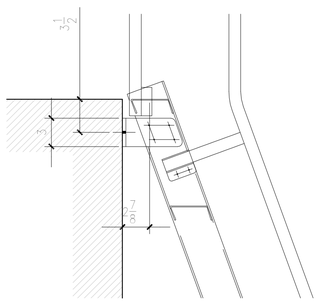
2. REFER TO ELECTRICAL DRAWINGS FOR POWER AND DATA BEHIND TV



8 BENCH DETAILS

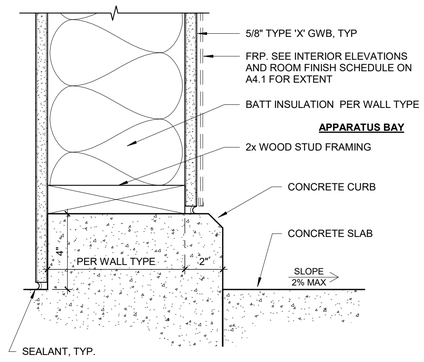
1 1/2" = 1'-0"





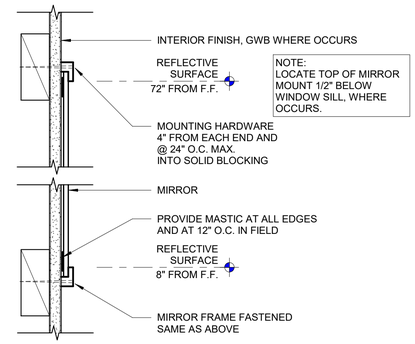
10 SHIP LADDER ATTACHMENTS

1 1/2" = 1'-0"



7 CURB AT APP BAY RATED WALL

3" = 1'-0"



NOTE:
LOCATE TOP OF MIRROR MOUNT 1/2" BELOW WINDOW SILL, WHERE OCCURS.

1 MIRROR ATTACHMENT

3" = 1'-0"

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DIXON FIRE STATION 82

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CLIENT PROJECT NO:

AGENCY

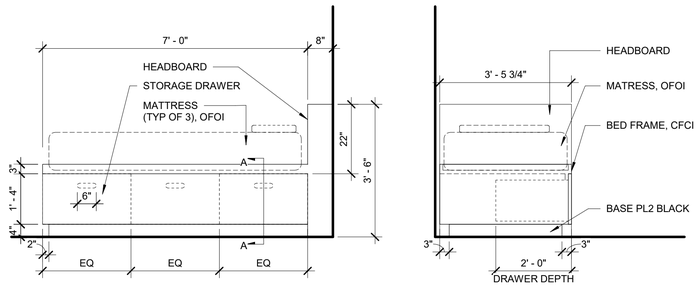
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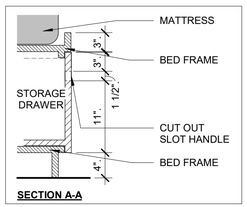
SHEET

A10.4

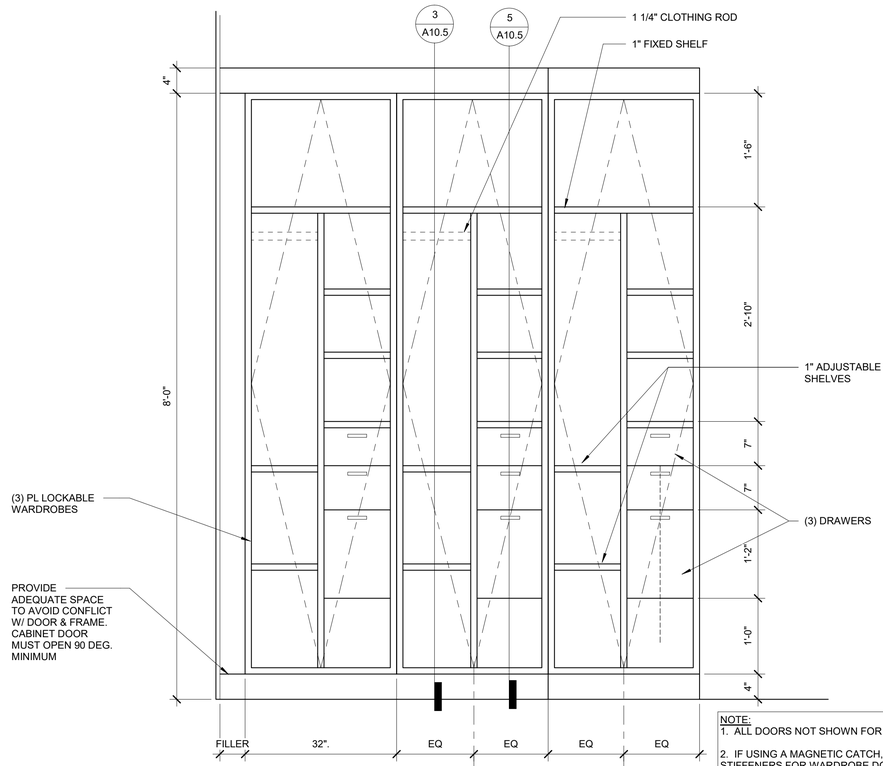
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0 1/4" 1/2" 1" 2"



NOTE:
1. EASE ALL EDGES AND CORNERS.
2. THE CONTRACTOR SHALL VERIFY W/ THE OWNER BED HEADBOARD AND ELECTRICAL ISSUES ASSOCIATED W/ DORMS.
3. STAINED WOOD CONSTRUCTION - TO MATCH LAMINATE PL1 COLOR/ FINISH/ APPEARANCE.
4. CONSTRUCT AS FURNITURE MOVEABLE, DO NOT FASTEN TO FLOOR.

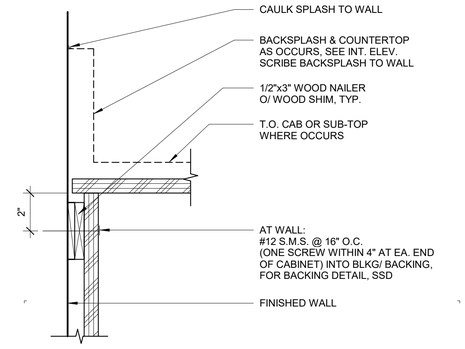


12 DORM BED ELEVATION -TYP
1/2" = 1'-0"

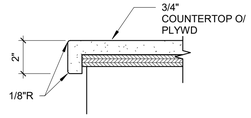


NOTE:
1. ALL DOORS NOT SHOWN FOR CLARITY.
2. IF USING A MAGNETIC CATCH, PROVIDE DOOR STIFFENERS FOR WARDROBE DOORS SUFFICIENT TO OFF-SET TENDENCY FOR DOORS TO DIFFICULT TO OPEN AGAINST A MAGNETIC CATCH. DOORS SHOULD NOT BEND BEFORE THE MAGNETIC CATCH RELEASES DOOR.

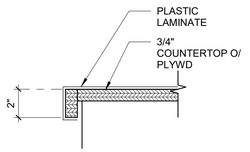
11 WALL HUNG CABINET ANCHORS
3" = 1'-0"



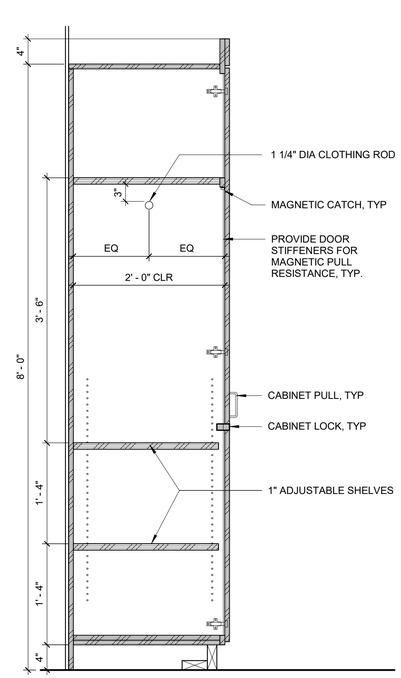
7 COUNTERTOP DETAIL
3" = 1'-0"

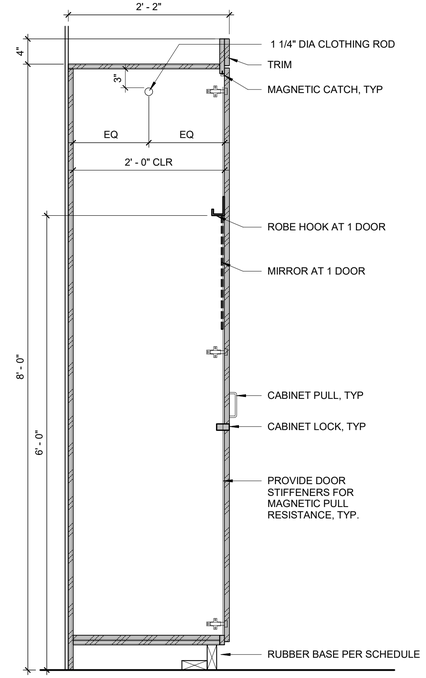


6 LAMINATE COUNTERTOP DETAIL
3" = 1'-0"

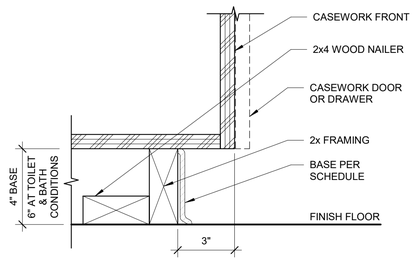


2 DORM WARDROBE INSIDE DETAIL - TYP.
1" = 1'-0"





10 BASE CABINET ANCHOR
3" = 1'-0"



9 BASE CABINET ANCHOR AT TOE
3" = 1'-0"

5 WARDROBE CAB - DRAWERS
1" = 1'-0"

3 WARDROBE CAB - ADJ SHELVES
1" = 1'-0"

1 WARDROBE CABINET
1" = 1'-0"

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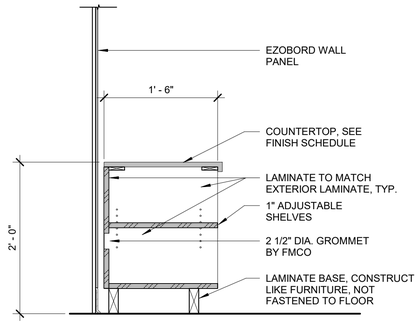
AGENCY

TITLE
CASEWORK DETAILS

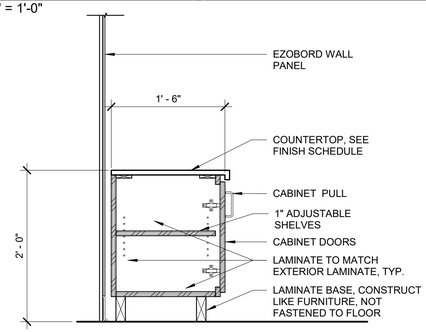
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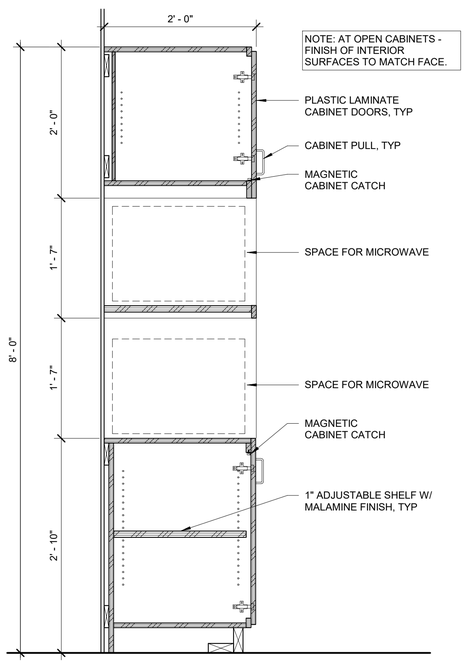
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
0 1/4" 1/2" 1" 2"



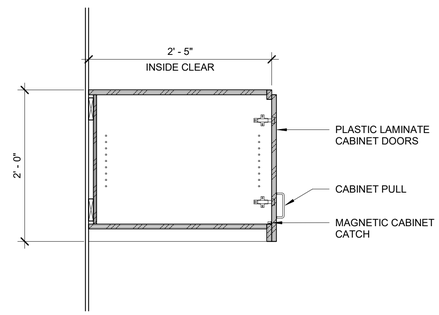
16 BASE CABINET @ TV CONSOLE
1" = 1'-0"



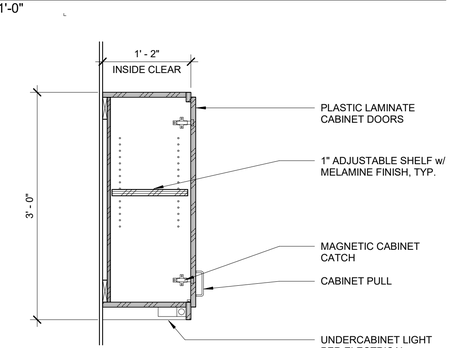
15 BASE CABINET @ TV CONSOLE
1" = 1'-0"



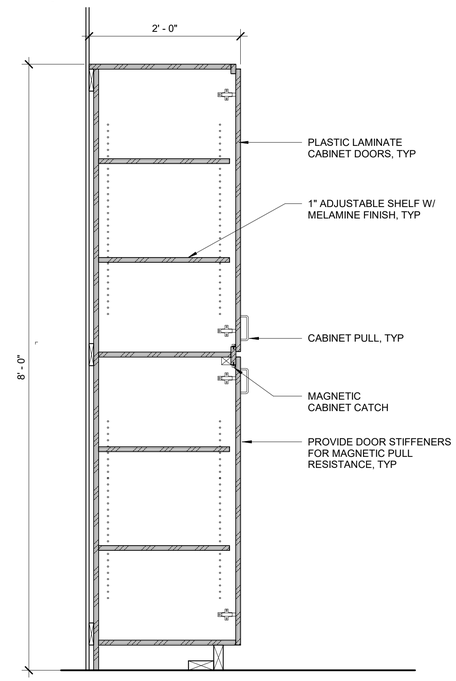
13 PANTRY CABINET W/ MICROWAVE
1" = 1'-0"



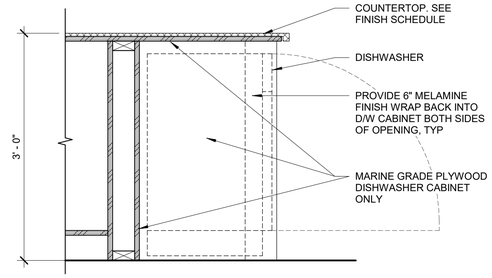
12 UPPER CABINET ABOVE FRIDGE
1" = 1'-0"



11 UPPER CABINET
1" = 1'-0"

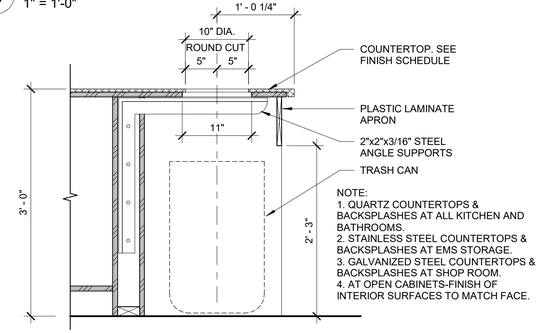


9 PANTRY CABINET
1" = 1'-0"



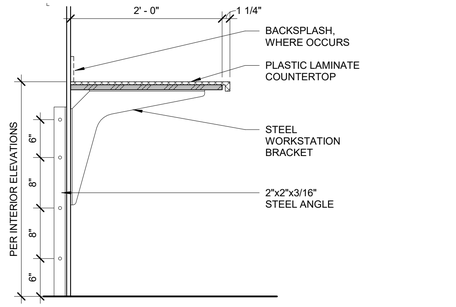
NOTE:
1. QUARTZ COUNTERTOPS & BACKSPLASHES AT ALL KITCHEN AND BATHROOMS.
2. STAINLESS STEEL COUNTERTOPS & BACKSPLASHES AT EMS STORAGE.
3. GALVANIZED STEEL COUNTERTOPS & BACKSPLASHES AT SHOP ROOM.

8 BASE CABINET O/ DISHWASHER
1" = 1'-0"

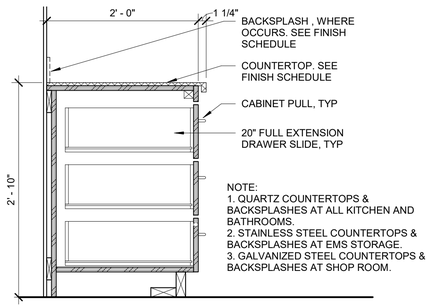


NOTE:
1. QUARTZ COUNTERTOPS & BACKSPLASHES AT ALL KITCHEN AND BATHROOMS.
2. STAINLESS STEEL COUNTERTOPS & BACKSPLASHES AT EMS STORAGE.
3. GALVANIZED STEEL COUNTERTOPS & BACKSPLASHES AT SHOP ROOM.
4. AT OPEN CABINETS-FINISH OF INTERIOR SURFACES TO MATCH FACE.

7 BASE CABINET O/ TRASH CAN
1" = 1'-0"

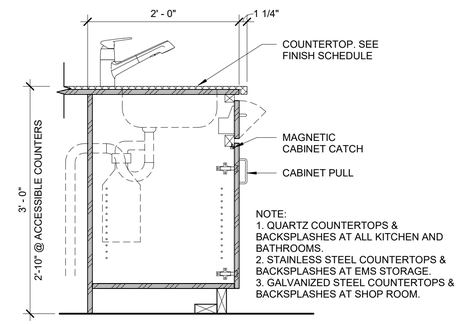


6 COUNTERTOP W/ BRACKET
1" = 1'-0"



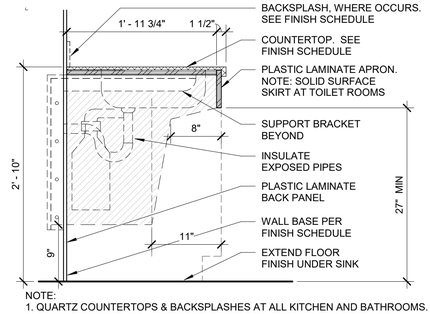
NOTE:
1. QUARTZ COUNTERTOPS & BACKSPLASHES AT ALL KITCHEN AND BATHROOMS.
2. STAINLESS STEEL COUNTERTOPS & BACKSPLASHES AT EMS STORAGE.
3. GALVANIZED STEEL COUNTERTOPS & BACKSPLASHES AT SHOP ROOM.

5 CABINET W/ THREE DRAWERS
1" = 1'-0"



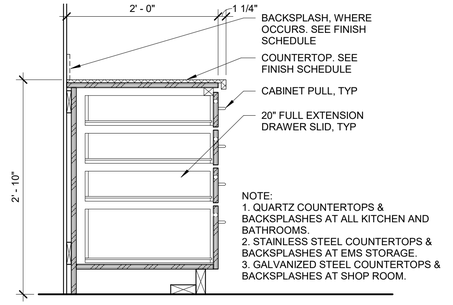
NOTE:
1. QUARTZ COUNTERTOPS & BACKSPLASHES AT ALL KITCHEN AND BATHROOMS.
2. STAINLESS STEEL COUNTERTOPS & BACKSPLASHES AT EMS STORAGE.
3. GALVANIZED STEEL COUNTERTOPS & BACKSPLASHES AT SHOP ROOM.

4 CABINET AT KITCHEN SINK
1" = 1'-0"



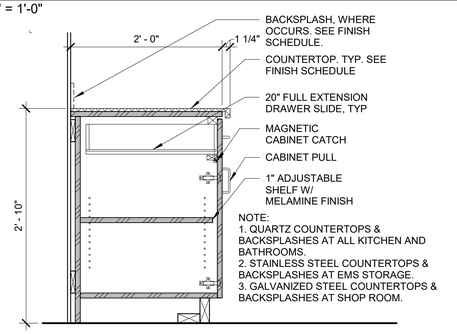
NOTE:
1. QUARTZ COUNTERTOPS & BACKSPLASHES AT ALL KITCHEN AND BATHROOMS.
2. STAINLESS STEEL COUNTERTOPS & BACKSPLASHES AT EMS STORAGE.
3. GALVANIZED STEEL COUNTERTOPS & BACKSPLASHES AT SHOP ROOM.

3 CABINET AT ACCESS. SINK
1" = 1'-0"



NOTE:
1. QUARTZ COUNTERTOPS & BACKSPLASHES AT ALL KITCHEN AND BATHROOMS.
2. STAINLESS STEEL COUNTERTOPS & BACKSPLASHES AT EMS STORAGE.
3. GALVANIZED STEEL COUNTERTOPS & BACKSPLASHES AT SHOP ROOM.

2 BASE CABINET W/ DRAWERS
1" = 1'-0"



NOTE:
1. QUARTZ COUNTERTOPS & BACKSPLASHES AT ALL KITCHEN AND BATHROOMS.
2. STAINLESS STEEL COUNTERTOPS & BACKSPLASHES AT EMS STORAGE.
3. GALVANIZED STEEL COUNTERTOPS & BACKSPLASHES AT SHOP ROOM.

1 BASE CABINET W/ ADJ. SHELF
1" = 1'-0"

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LICENSED ARCHITECT DEBORAH LESNEFSKA C36478 RENEW 11-30-25 STATE OF CALIFORNIA

PROJECT
DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

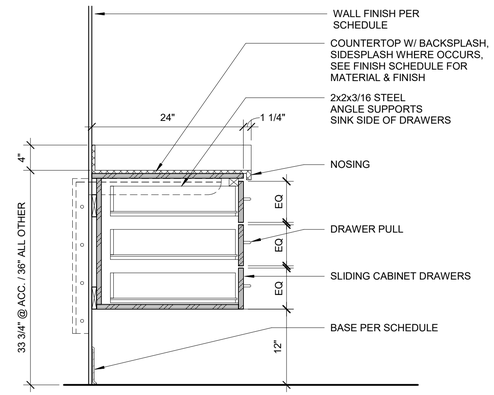
AGENCY

TITLE
CASEWORK DETAILS

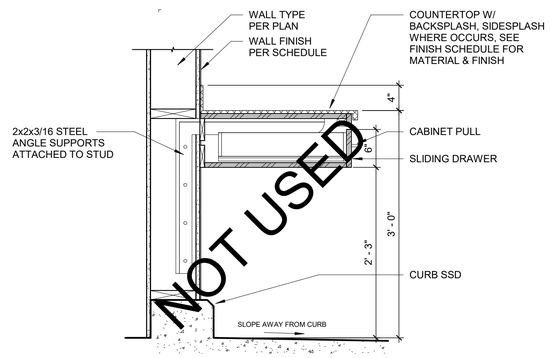
SHEET
A10.6

Autodesk Docs://MF22204 The City of Dixon - Fire Station 82/MF22204_ARCHINSTR_R24_CENTRAL.rvt
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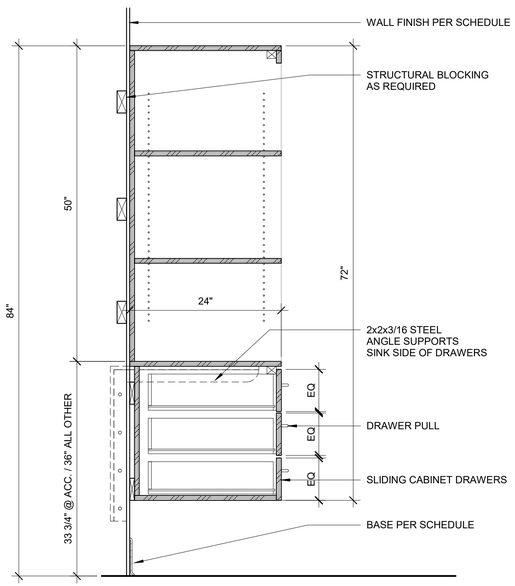
0 1/4" 1/2" 1" 2"
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
Autodesk Docs://MF22204 The City of Dixon - Fire Station 82/MF22204_ARCHMSTR_R24_CENTRAL.rvt
6/19/2026 12:06:24 PM



2 RESTROOM CABINET W/ (3) DRAWERS
1" = 1'-0"



4 COUNTERTOP W/ DRAWER
1" = 1'-0"



1 RESTROOM LINEN CABINET
1" = 1'-0"

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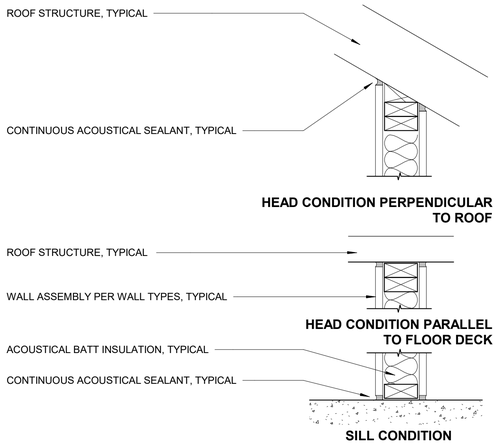
TITLE

CASEWORK DETAILS

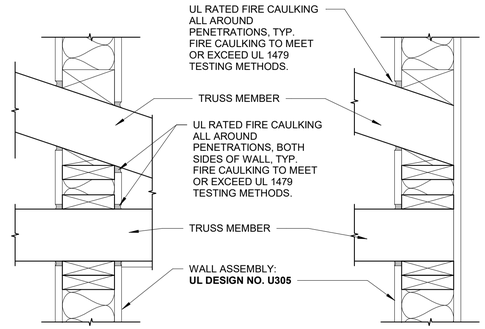
SHEET

A10.7

0 1/4" 1/2" 1" 2"
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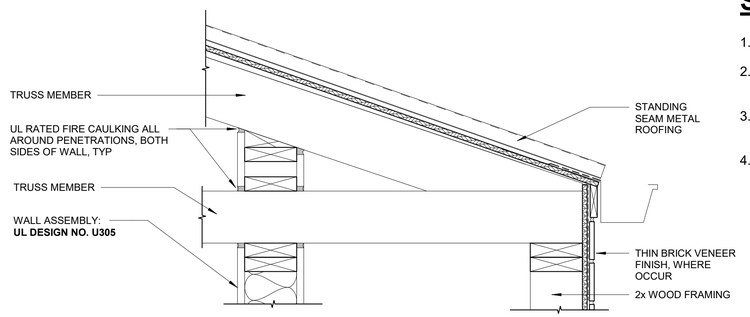


5 TYPICAL SOUND / ACOUSTICAL WALL
1 1/2" = 1'-0"



TRUSS PENETRATION AT INTERIOR WALL

UL U305 DESIGN ASSEMBLY

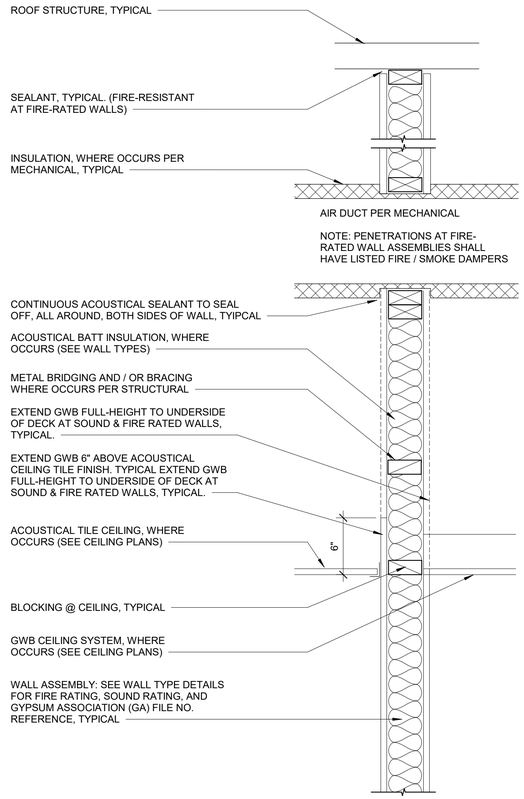


PENETRATION AT INTERIOR WALL AND END OF TRUSS CONDITION

NOTES:

1. PENETRATIONS OF FIRE-RATED PARTITIONS SHALL BE SEALED, IT SHALL BE FILLED WITH FIRE BLOCKS CUT TO SIZE FOR PENETRATIONS IN PLACE, PRIOR TO INSULATING FIRESTOP SEALANT.
2. FIRE BLOCK AND FIRESTOP SEALANT PROVISIONS FOR PENETRATIONS AT FIRE-RATED WALL ASSEMBLIES TAKE PRIORITY OVER ACOUSTICAL PROVISIONS.

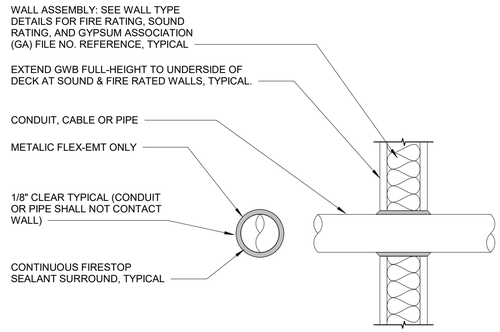
6 TRUSS PENETRATION AT RATED WALL
1 1/2" = 1'-0"



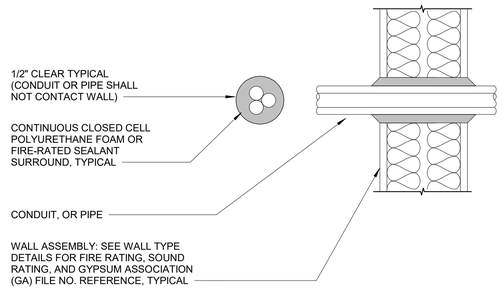
NOTE:
DUCTWORK PENETRATIONS OF ACOUSTICAL PARTITIONS SHALL BE ACOUSTICALLY SEALED AS SHOWN, ANY GAP LARGER THAN1/2" SHALL BE COVERED WITH SCREW ATTACHED GWB, LAPPED A MINIMUM OF 2", PRIOR TO INSTALLING ACOUSTICAL SEALANT

FULL-HEIGHT SOUND RATED WALL PARTITION:

FOR TYPICAL ACOUSTIC AND FIRE-RATED WALL, HEAD AND SILL CONDITIONS, SEE: 4 / A10.8



SINGLE CONDUIT, CABLE OR PIPE
(DOUBLE STUD PARTITION SIMILAR)

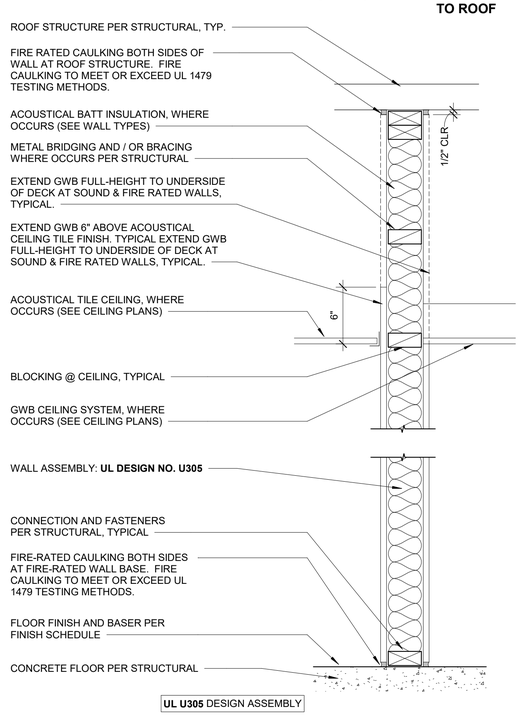


MULTIPLE CONDUITS
(SINGLE STUD PARTITION SIMILAR)

NOTE:

CONDUIT, CABLE, PIPE, ETC. PENETRATIONS OF ACOUSTICAL PARTITIONS SHALL BE SEALED AS SHOWN. ANY GAP LARGER THAN 1/2" SHALL BE COVERED WITH SCREW ATTACHED GWB, LAPPED A MINIMUM 2", PRIOR TO INSTALLING ACOUSTICAL SEALANT

4 TYPICAL FULL-HEIGHT RATED BARRIER
1 1/2" = 1'-0"



UL U305 DESIGN ASSEMBLY

3 DUCT PENETRATION ACOUSTIC PROVISIONS
1 1/2" = 1'-0"

2 CONDUIT OR PIPE PENETRATION ACOUSTIC PROVISIONS
1 1/2" = 1'-0"

SHEET NOTES

1. FIRE CAULKING TO MEET OR EXCEED UL 1479 TESTING METHODS.
2. FOR ELECTRICAL CONDUIT RATED PENETRATIONS, SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
3. FOR PLUMBING RATED PENETRATIONS, SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
4. FOR MECHANICAL DUCT RATED PENETRATIONS, SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.

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DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
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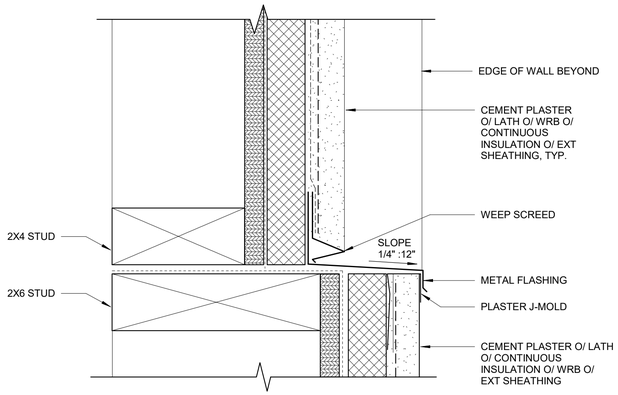
AGENCY

TITLE
PENETRATIONS & HEAD OF WALL CONDITIONS

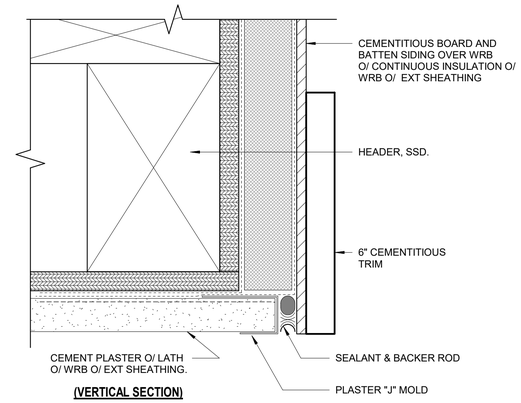
SHEET
A10.8

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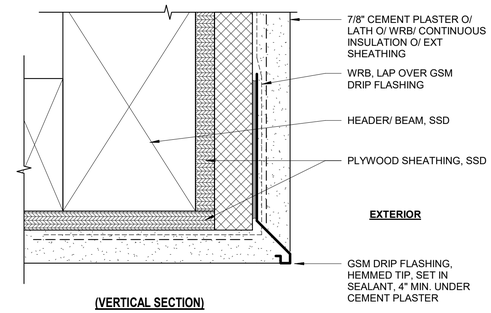
0 1/4" 1/2" 1" 2"
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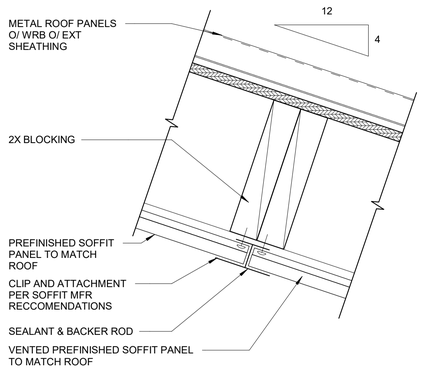
9 RECESSED AT CEM. PLASTER SILL
6" = 1'-0"



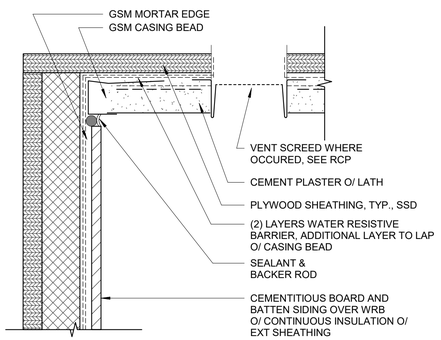
6 CEMENTITIOUS BOARD W/ CENMENT PLASTER SOFFIT
6" = 1'-0"



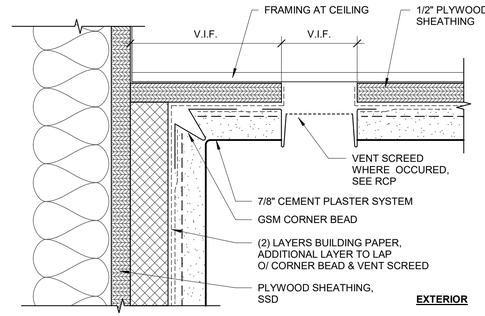
3 CEMENT PLASTER SOFFIT OUTSIDE CORNER
6" = 1'-0"



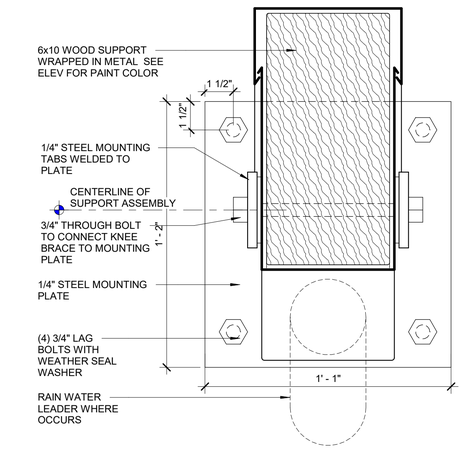
8 CANOPY METAL SOFFIT TO CEMENT PLASTER BOARD
3" = 1'-0"



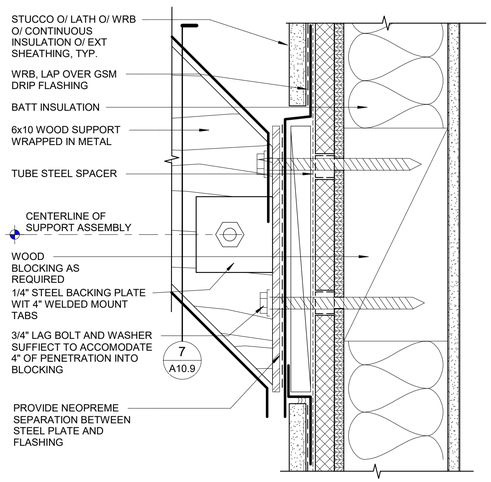
5 CEMENTITIOUS BOARD TO PLASTER - INSIDE SOFFIT CORNER
6" = 1'-0"



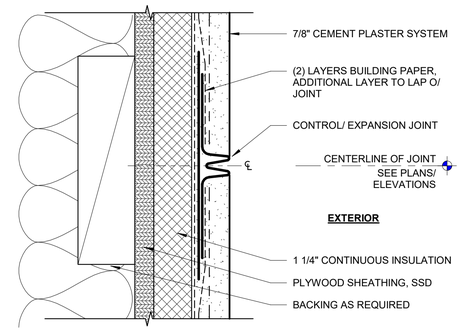
2 CEMENT PLASTER SOFFIT INSIDE CORNER/ VENT SCREED
6" = 1'-0"



7 CANOPY SUPPORT BRACE CROSS SECTION
3" = 1'-0"



4 CANOPY SUPPORT TO WALL
3" = 1'-0"



1 CEM. PLASTER CONTROL JOINT2
6" = 1'-0"

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PROJECT

DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
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LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

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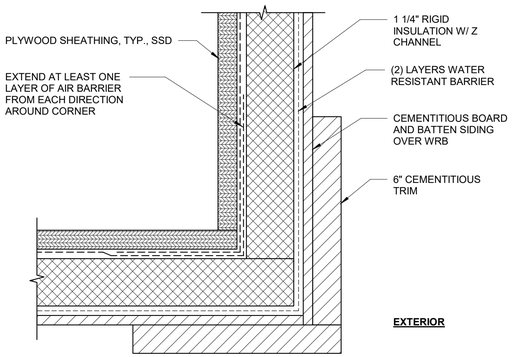
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EXTERIOR DETAILS

SHEET

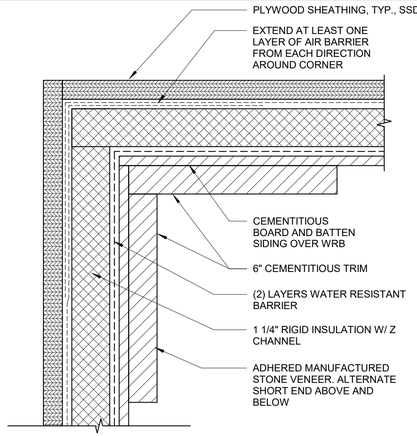
A10.9

2"
1"
0 1/4" 1/2"
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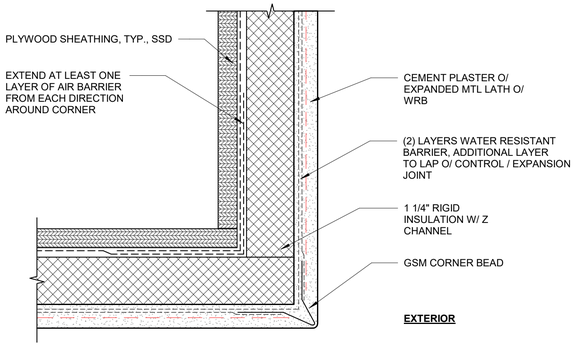
CEMENT. BATTEN TO CEMENT. BATTEN OUTSIDE CORNER

6 6" = 1'-0"



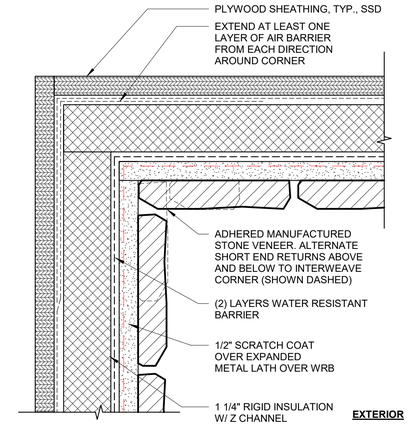
CEMENT. BATTEN TO CEMENT. BATTEN - INSIDE CORNER

3 6" = 1'-0"



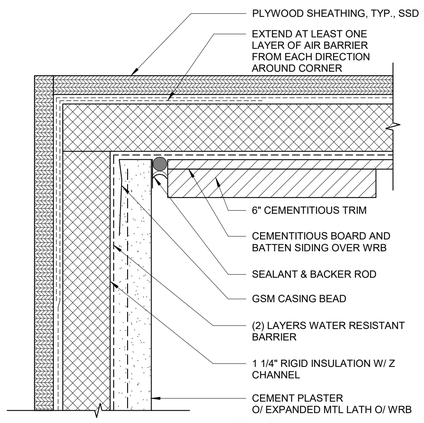
CEMENT PLASTER TO CEMENT PLASTER - OUTSIDE CORNER

5 6" = 1'-0"



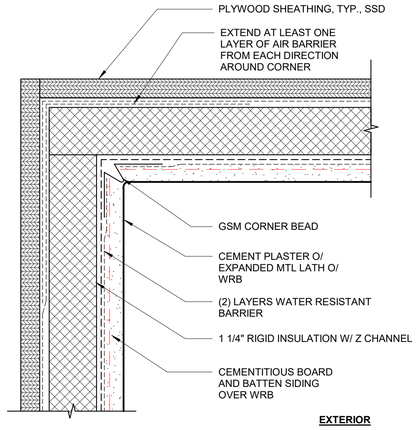
STONE VENEER TO STONE VENEER - OUTSIDE CORNER

2 6" = 1'-0"



CEMENT PLASTER TO CEMENT. BATTEN INSIDE CORNER

7 6" = 1'-0"



CEMENT PLASTER TO CEMENT PLASTER - INSIDE CORNER

4 6" = 1'-0"

STONE VENEER TO STONE VENEER - INSIDE CORNER

1 6" = 1'-0"

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DEBORAH LESNEFSKA
C36478
RENEWAL 11-30-27
STATE OF CALIFORNIA

PROJECT

DIXON FIRE STATION 82

653 PITT SCHOOL ROAD
DIXON, CA 95620
APN: 0114355010

CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

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CLIENT PROJECT NO:

AGENCY

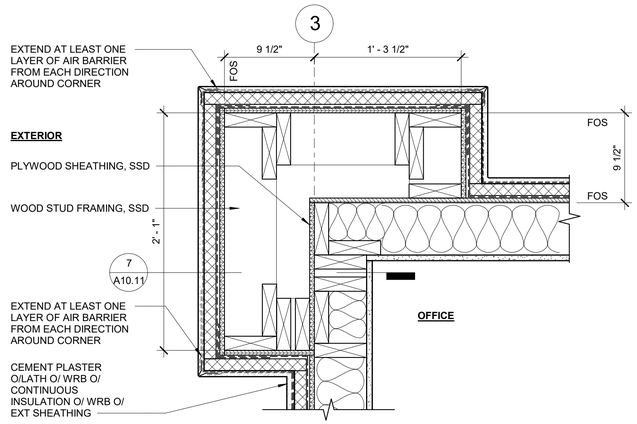
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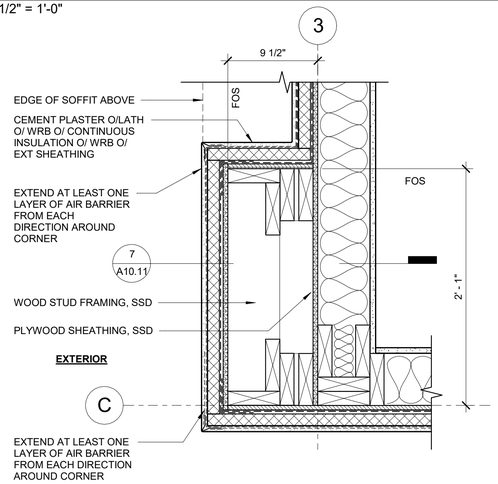
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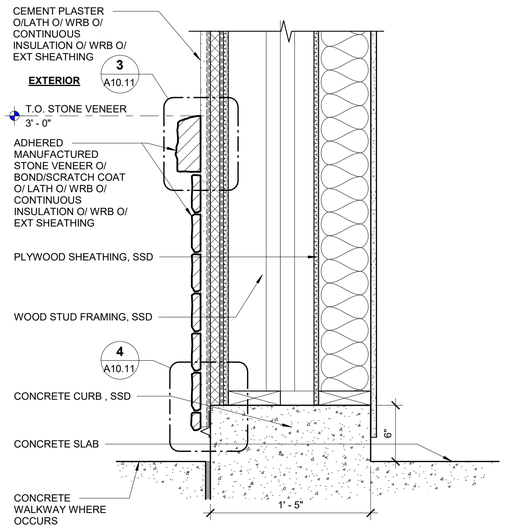
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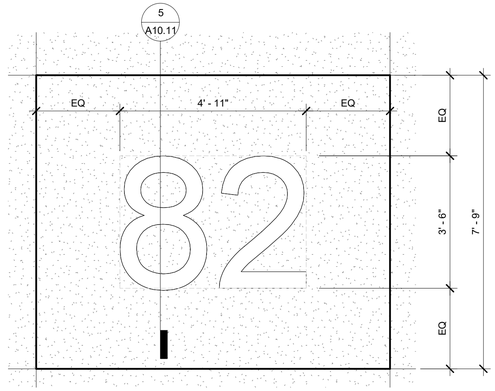
9 STUCCO FINISH PILASTER PLAN
1 1/2" = 1'-0"



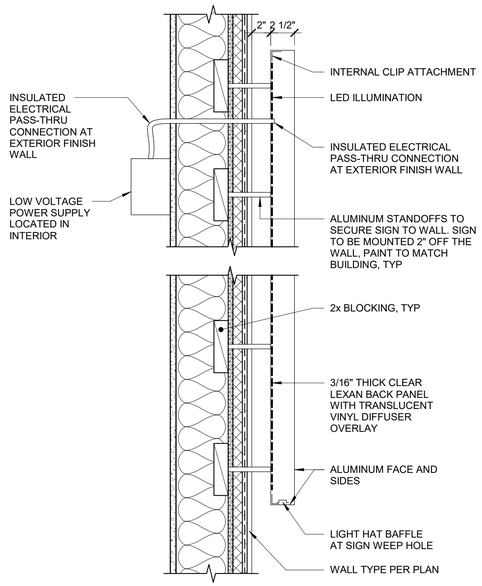
8 STUCCO FINISH PILASTER PLAN
1 1/2" = 1'-0"



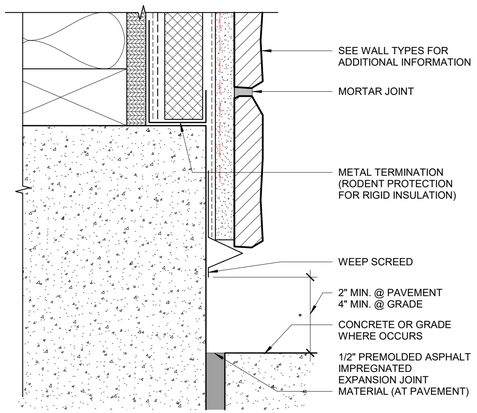
7 STUCCO FINISH PILASTER SECTION
1 1/2" = 1'-0"



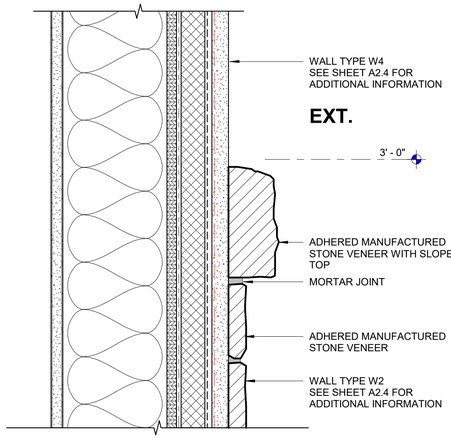
6 EXTERIOR SIGNAGE ELEVATION
1/2" = 1'-0"



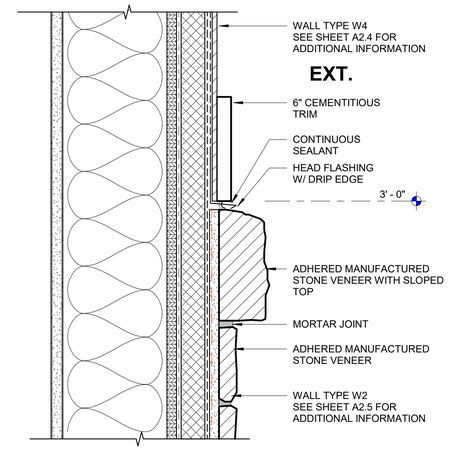
5 CHANNEL LETTERS - BACK LIT
1 1/2" = 1'-0"



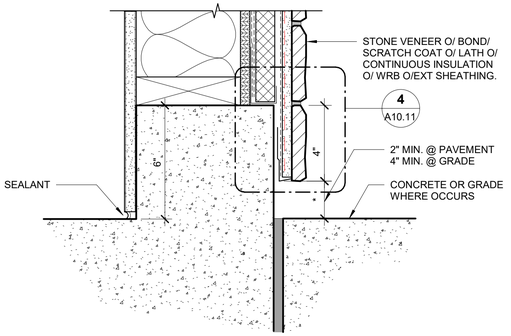
4 STONE VENEER WALL BASE
6" = 1'-0"



3 CEMENT PLASTER WAINSCOT CAP
3" = 1'-0"



2 STONE VENEER WAINSCOT CAP
3" = 1'-0"



1 STONE VENEER SILL AT WALL BASE
3" = 1'-0"

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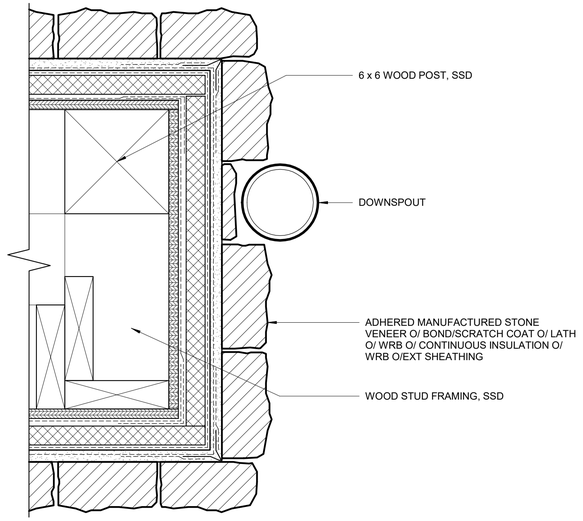
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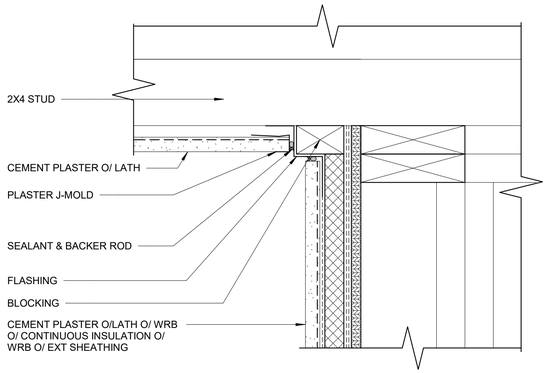
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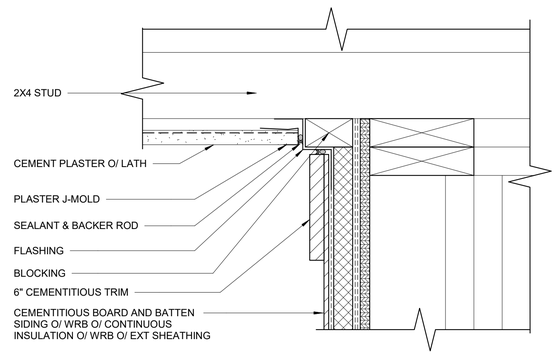
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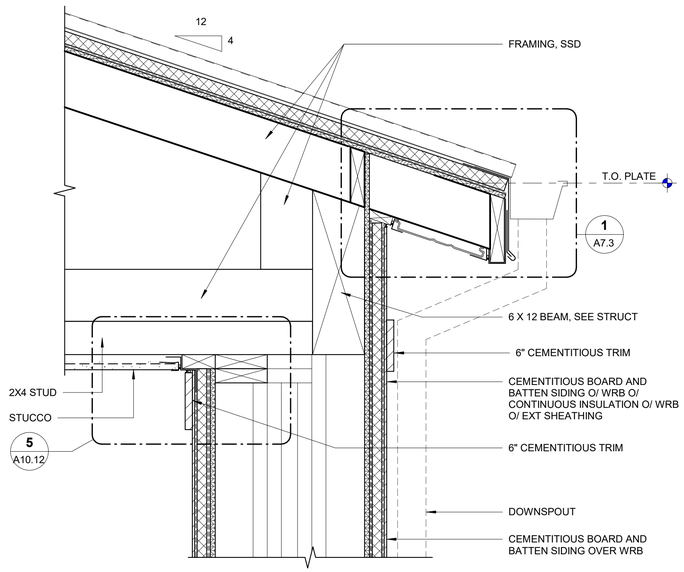
7 DOWNSPOUT AT COLUMN
3" = 1'-0"

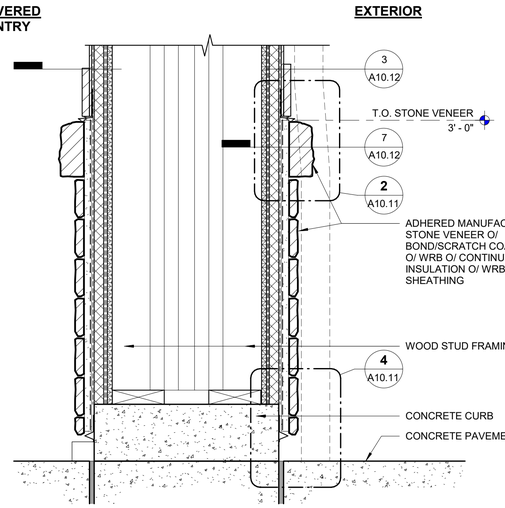


6 PATIO SOFFIT - STUCCO FINISH
3" = 1'-0"

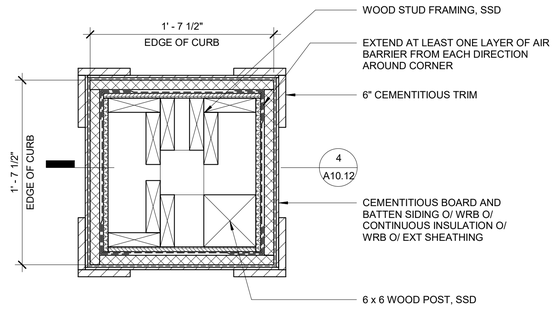


5 PATIO SOFFIT - BOARD AND BATTEN FINISH
3" = 1'-0"

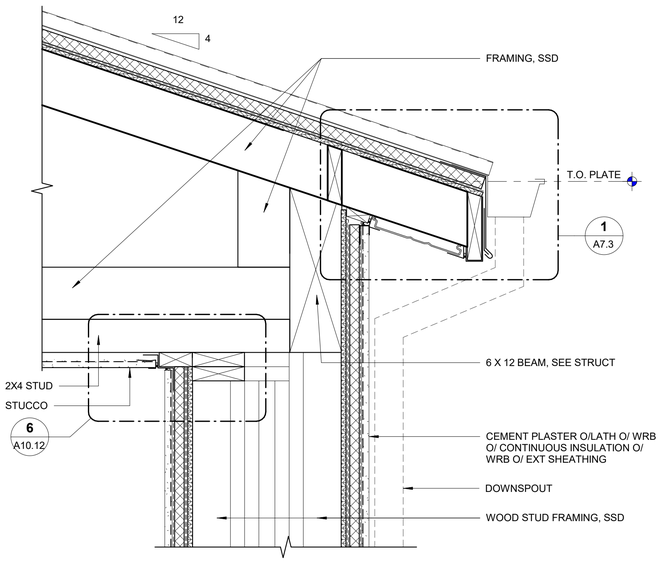


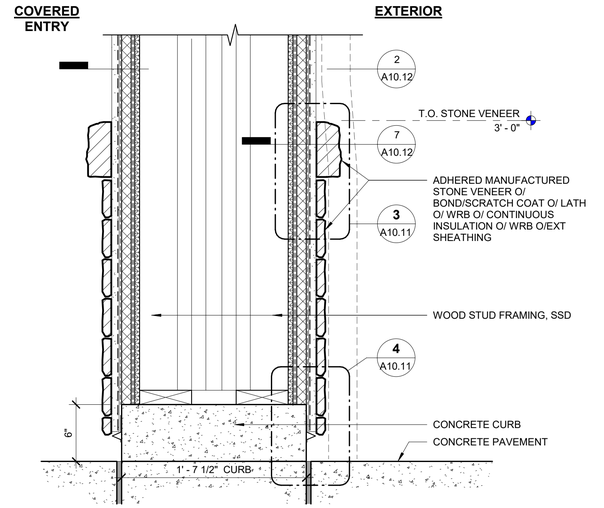


4 SOUTH COLUMN SECTION - BOARD AND BATTEN FINISH
1 1/2" = 1'-0"

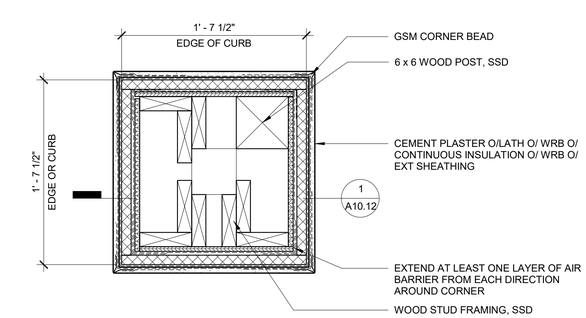


3 SOUTH COLUMN PLAN - BOARD AND BATTEN FINISH
1 1/2" = 1'-0"





1 NORTH COLUMN SECTION - STUCCO FINISH
1 1/2" = 1'-0"



2 NORTH COLUMN PLAN - STUCCO FINISH
1 1/2" = 1'-0"

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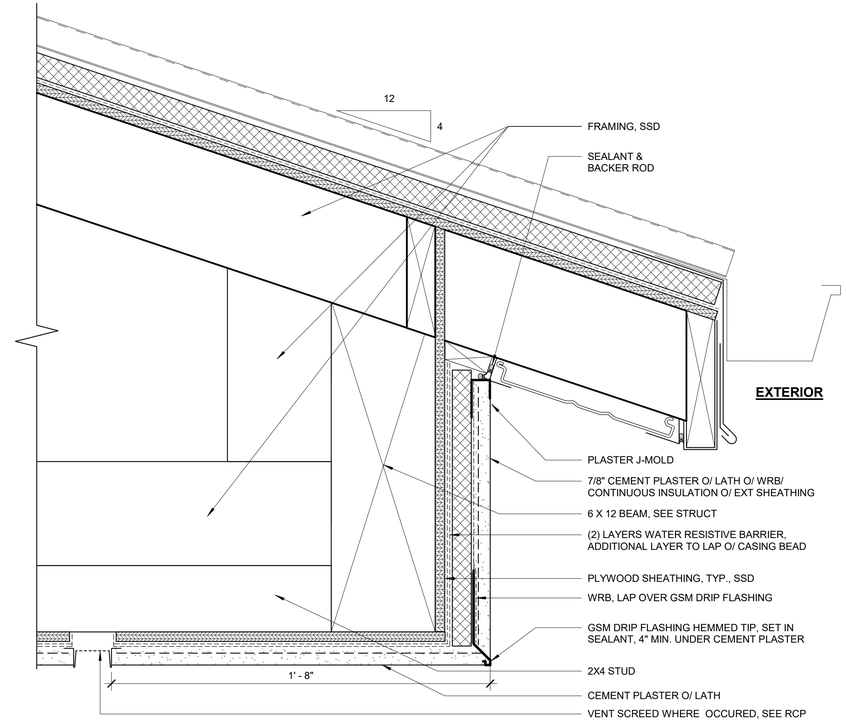
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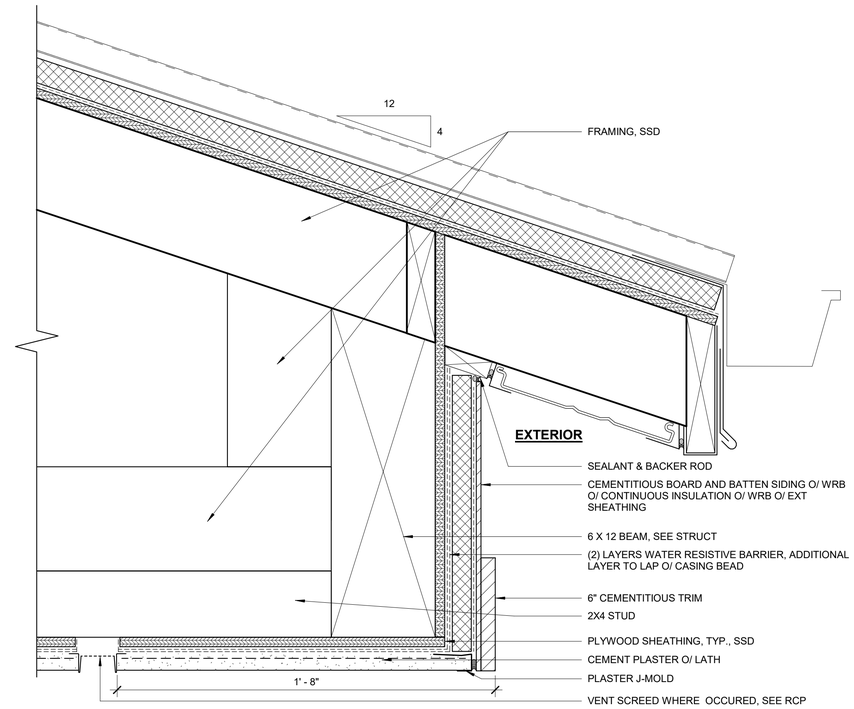
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2 NORTH PATIO SOFFIT - STUCCO FINISH
3" = 1'-0"



1 SOUTH PATIO SOFFIT - BOARD AND BATTEN FINISH
3" = 1'-0"

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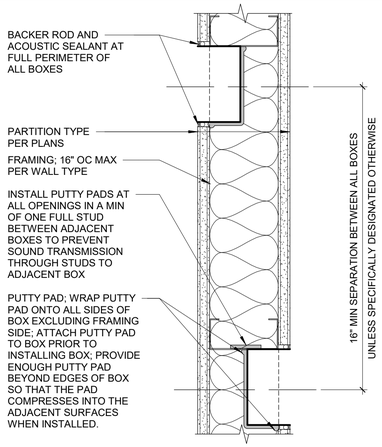
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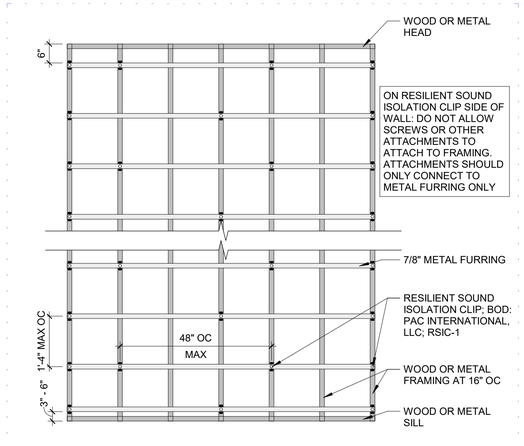
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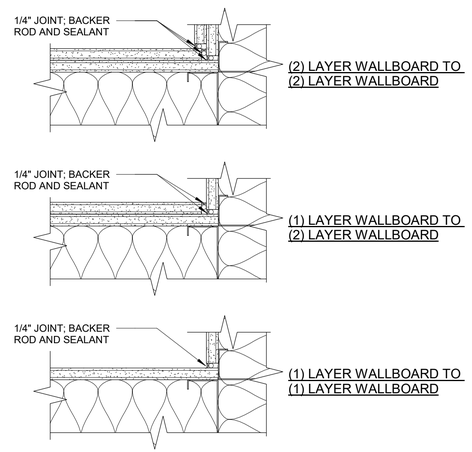
9 WALL BOXES AND STUD OPENINGS AT ACCOUSTICAL WALL

3" = 1'-0"



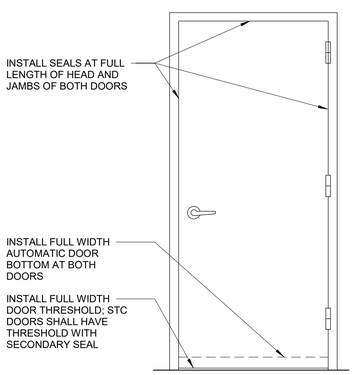
6 RESILIENT SOUND ISOLATION CLIP (RSIC) LAYOUT @ OC FRAMING

1/2" = 1'-0"



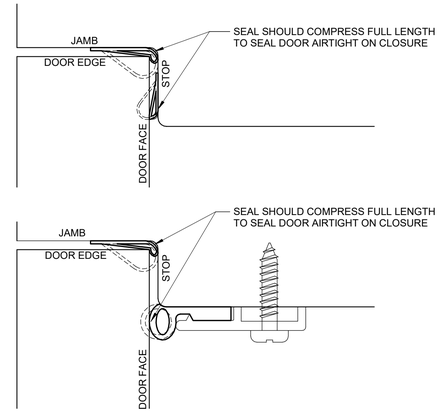
5 WALLBOARD CORNER JOINTS

3" = 1'-0"



4 SINGLE DOOR WITH FULL PERIMETER SEALS

12" = 1'-0"



1 DOOR PERIMETER SEALS

6" = 1'-0"

ACOUSTIC NOTES

Q1

1. ALL GLAZING IN DOORS TO MATCH STC OF DOOR
2. WHERE SOUND DAMPENED GYP BOARD IS CALLED OUT, INSTALL DIRECTLY AGAINST STUDS
3. WHERE WALL MOUNTED ELEMENTS REQUIRING BLOCKING ARE PLACED ON ACOUSTIC WALLS THAT INCORPORATE RESILIENT SOUND ISOLATION CLIPS, INSTALL SOUND ISOLATION CLIPS ON OPPOSITE SIDE OF WALL FROM MOUNTED OBJECT AND BLOCKING; WHERE BLOCKING IS REQUIRED ON BOTH SIDES OF WALL OR IN CONDITIONS WHERE THE RESILIENT SOUND ISOLATION CLIPS CANNOT BE INSTALLED ON THE OTHER SIDE OF THE WALL, USE RESILIENT SOUND ISOLATION CLIP BACKER, BOD: PAC INTERNATIONAL RSIC BACKER STANDARD
4. WHERE WALL MOUNTED ELEMENTS THAT DO NOT REQUIRE BACKING (UNDER 20 LBS) ARE ATTACHED TO WALLS WITH RESILIENT SOUND ISOLATION CLIPS, ATTACH ELEMENT TO HAT CHANNEL ONLY; DO NOT SCREW THROUGH BOTH HAT CHANNEL AND STUD
5. ALL INTERIOR GLAZING INSTALLED AT ACOUSTIC LOCATIONS SHALL BE INSULATED GLASS (1/4" GLASS + 1/2" AIRSPACE + 1/4" GLASS) UON
6. SOUND DAMPENED GYP BOARD SHALL NOT BE INSTALLED AT LOCATIONS WITH MOISTURE THAT REQUIRE MOISTURE RESISTANT GYP BOARD OR CEMENT BOARD
7. ALL STC WALLS SHALL BE FULL HEIGHT FROM FLOOR TO STRUCTURE ABOVE UON
8. PROVIDE 1/4" MINIMUM GAP FOR GYP ON STC WALLS AT UNDERSIDE OF DECK, CONCRETE FLOOR, AND ADJACENT WALL CORES. SEAL PERIMETER OF WALL AT THESE LOCATIONS WITH BACKER ROD AND ACOUSTIC SEALANT; COMPLETE SEALANT WORK PRIOR TO INSIDE TAPING WORK
9. WHERE MULTIPLE LAYERS OF GYPSUM BOARD ARE USED, STAGGER THE SEAMS BETWEEN LAYERS SO NO SEAMS OVERLAP
10. TAPE AND SEAL ALL JOINTS AND SCREW HEADS PER GYPSUM ASSOCIATION-216-2021
11. MINIMIZE AMOUNT OF PENETRATIONS THROUGH ASSEMBLY
12. PROVIDE 1/4" OR SMALLER GAP AROUND ALL PENETRATING OBJECTS; GAP SHALL BE SEALED WITH BACKER ROD AND ACOUSTIC SEALANT ON BOTH SIDES OF WALL; WHERE GAP IS REQUIRED TO BE LARGER THAN 1/4", FILL AROUND PENETRATION FOR FULL DEPTH OF WALL WITH ACOUSTIC INSULATION AND SEAL FACE OF ACOUSTIC INSULATION WITH BACKER ROD AND SEALANT OR ACOUSTIC ACRYLIC LATEX SPRAY SEALANT
13. ALL GAPS ABOVE TOP PLATE OF WALLS SHALL BE FILLED WITH MINERAL WOOL AND SHALL BE SEALED AIRTIGHT WITH AN ELASTOMERIC FIRE STOP SPRAY
14. DO NOT INSTALL ELECTRICAL, LOW VOLTAGE, OR OTHER BACK BOXES BACK TO BACK UNLESS SPECIFICALLY CALLED OUT AS A LOCATION REQUIREMENT; ALL BOXES MUST BE SEPARATED BY A MINIMUM OF 24"
15. INSTALL PUTTY PADS AT THE BACK AND SIDES OF ALL BOXES IN WALLS; OVERLAP PUTTY PAD ONTO ADJACENT STUD TO PROVIDE SOUND PROOF SEAL BETWEEN BOX AND STUD; SEAL AROUND THE PERIMETER OF ALL BOXES TO PUTTY PAD WITH ACOUSTIC CAULKING TO CREATE FULLY SEALED BOX ISOLATED FROM ADJACENT GYP
16. JUNCTION BOXES, BACK BOXES, AND OTHER WALL INSET ELEMENTS (LIKE FIRE EXTINGUISHER CABINETS) LARGER THAN 4-GANG BOX WILL REQUIRE A FIVE-SIDED GYPSUM BOARD ENCLOSURE WHEN INSTALLED IN WALLS
17. UNFACED ACOUSTICAL FIBERGLASS BATT INSULATION IN WALLS SHALL FILL THE ENTIRE CAVITY, VOIDS ARE NOT PERMITTED
18. DUCTING MUST MAINTAIN SOUND ISOLATION; PROVIDE ACOUSTIC SOUND RATED BOOTS AT REGISTERS AND Z-SHAPED ACOUSTICALLY LINED TRANSFER DUCTS THROUGH ACOUSTIC WALLS

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GENERAL NOTES

APPLICABLE TO ALL DRAWINGS UNLESS NOTED OR SHOWN OTHERWISE

GENERAL NOTES
100SN001

1. INTERPRETATION OF DRAWINGS & SPECIFICATIONS
   A. WHERE SPECIFICATIONS HAVE BEEN PREPARED FOR THIS PROJECT, THEY ARE ARRANGED IN SEVERAL SECTIONS, BUT SUCH SEPARATION SHALL NOT BE CONSIDERED AS THE LIMITS OF THE WORK REQUIRED OF ANY SEPARATE TRADE. THE TERMS AND CONDITIONS OF SUCH LIMITATIONS ARE WHOLLY BETWEEN THE CONTRACTOR AND THEIR SUBCONTRACTORS.
   B. IN GENERAL, THE WORKING DETAILS WILL INDICATE DIMENSIONS, POSITION AND KIND OF CONSTRUCTION, AND THE SPECIFICATIONS, QUALITIES AND METHODS. ANY WORK INDICATED ON THE WORKING DETAILS AND NOT MENTIONED IN THE SPECIFICATIONS, OR VICE VERSA, SHALL BE FURNISHED AS THOUGH FULLY SET FORTH IN BOTH. WORK NOT PARTICULARLY DETAILED, MARKED OR SPECIFIED, SHALL BE IDENTICAL OR SIMILAR TO LIKE CASES OF CONSTRUCTION THAT ARE DETAILED, MARKED OR SPECIFIED. IF CONFLICTS OCCUR ON DRAWINGS AND/OR SPECIFICATIONS, THE MOST EXPENSIVE MATERIALS OR METHODS WILL PREVAIL.
   C. SHOULD AN ERROR APPEAR IN THE WORKING DETAILS OR SPECIFICATIONS OR IN WORK DONE BY OTHERS AFFECTING THIS WORK, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AT ONCE AND IN WRITING. IF THE CONTRACTOR PROCEEDS WITH THE WORK SO AFFECTED WITHOUT HAVING GIVEN SUCH WRITTEN NOTICE AND WITHOUT RECEIVING THE NECESSARY APPROVAL, DECISION OR INSTRUCTIONS IN WRITING FROM THE OWNER, THEN THE CONTRACTOR SHALL HAVE NO VALID CLAIM AGAINST THE OWNER, FOR THE COST OF SO PROCEEDING AND SHALL MAKE GOOD ANY RESULTING DAMAGE OR DEFECT. NO VERBAL APPROVAL, DECISION, OR INSTRUCTION SHALL BE VALID OR BE THE BASIS FOR ANY CLAIM AGAINST THE OWNER, ITS OFFICERS, EMPLOYEES OR AGENTS. THE FOREGOING INCLUDES TYPICAL ERRORS IN THE SPECIFICATIONS OR NOTATIONAL ERRORS IN THE WORKING DETAILS WHERE THE INTERPRETATION IS DOUBTFUL OR WHERE THE ERROR IS SUFFICIENTLY APPARENT AS TO PLACE A REASONABLY PRUDENT CONTRACTOR ON NOTICE THAT, SHOULD THE CONTRACTOR ELECT TO PROCEED, THEY ARE DOING SO AT THEIR OWN RISK.
2. CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE CODES AND REGULATIONS.
3. SHOP DRAWING NOTE:
   A. WHEN NOT ADDRESSED BY DIVISION 1 OF THE SPECIFICATIONS, SUBMITTALS SHALL BE ELECTRONIC PDF FORMAT.
   B. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE STRUCTURAL ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT BY INDICATING WHICH MATERIAL THE CONTRACTOR INTENDS TO FURNISH AND INSTALL, AND BY DETAILING THE FABRICATION AND INSTALLATION METHODS THE CONTRACTOR INTENDS TO USE ON A STAND ALONE SET OF DOCUMENTS. DUPLICATION OF DESIGN DOCUMENTS FOR THE PURPOSE OF SHOP DRAWINGS IS NOT ACCEPTABLE.
   C. PRIOR TO FABRICATION, SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW BY THE STRUCTURAL ENGINEER. SHOP DRAWING SUBMITTALS SHALL INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, STRUCTURAL STEEL, REINFORCING STEEL, & GLUE-LAMINATED BEAMS.
   D. PRIOR TO SUBMISSION THE CONTRACTOR SHALL REVIEW ALL SUBMITTALS FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS AND SHALL STAMP SUBMITTALS AS BEING "REVIEWED FOR CONFORMANCE".
   E. SHOP DRAWING SUBMITTALS PROCESSED BY THE STRUCTURAL ENGINEER ARE NOT CHANGE ORDERS.
   F. ANY DETAIL ON THE SHOP DRAWINGS THAT DEVIATES FROM THE CONTRACT DOCUMENTS SHALL CLEARLY BE MARKED WITH THE NOTE "THIS IS A CHANGE".
   G. SHOP DRAWINGS OR CALCULATIONS SUBMITTED FOR REVIEW THAT REQUIRE RESUBMITTAL FOR RE-REVIEW SHALL BE BILLED HOURLY FOR SUCH TIME TO THE GENERAL CONTRACTOR. RE-REVIEW WILL NOT PROCEED WITHOUT WRITTEN APPROVAL FROM THE GENERAL CONTRACTOR FOR ADDITIONAL ENGINEERING REVIEW SERVICES.
4. SAFETY NOTE:
   A. IT IS THE CONTRACTORS RESPONSIBILITY TO COMPLY WITH THE PERTINENT SECTIONS, AS THEY APPLY TO THIS PROJECT, OF THE "CONSTRUCTION SAFETY ORDERS" ISSUED BY THE STATE OF CALIFORNIA LATEST EDITION, AND ALL OSHA REQUIREMENTS.
   B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATE DESIGN AND CONSTRUCTION OF ALL FORMS AND SHORING REQUIRED. SHORING INDICATIONS (LOCATION, DIRECTION, DURATION, ETC.) ARE ONLY SHOWN ON THE STRUCTURAL DWGS WHEN REQUIRED TO IMPLEMENT THE DESIGN INTENT OF THE FINAL WORK PRODUCT. DETERMINATION WHETHER SHORING IS REQUIRED FOR TEMPORARY OR INTERMEDIATE CONDITIONS DURING CONSTRUCTION IS WHOLLY THE RESPONSIBILITY OF THE CONTRACTOR.
   C. THE OWNER AND THE STRUCTURAL ENGINEER DO NOT ACCEPT ANY RESPONSIBILITY FOR THE CONTRACTOR'S FAILURE TO COMPLY WITH THESE REQUIREMENTS.
5. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER WHERE A CONFLICT OR DISCREPANCY OCCURS BETWEEN THE STRUCTURAL DRAWINGS AND ANY OTHER PORTION OF THE CONTRACT DOCUMENTS OR EXISTING FIELD CONDITIONS. SUCH NOTIFICATION SHALL BE GIVEN IN DUE TIME SO AS NOT TO AFFECT THE CONSTRUCTION SCHEDULE. IN CASE OF A CONFLICT BETWEEN STRUCTURAL DRAWINGS AND SPECIFICATIONS THE MORE RESTRICTIVE CONDITION SHALL TAKE PRECEDENCE UNLESS WRITTEN APPROVAL HAS BEEN GIVEN FOR THE LEAST RESTRICTIVE. CONTRACTOR SHALL VERIFY ALL DIMENSIONS WITH ARCHITECTURAL PRIOR TO COMMENCING ANY WORK.
6. WHEN CONSTRUCTION ATTACHES TO OR IS WITHIN AN EXISTING BUILDING, A COMPLETE SET OF DRAWINGS OF THE EXISTING BUILDING SHALL BE KEPT ON THE JOB SITE. CONTRACTOR TO OBTAIN THESE DRAWINGS FROM THE OWNER (IF THEY ARE AVAILABLE).
7. CONTRACTOR SHALL PROVIDE AN ALLOWANCE EQUAL TO 2% OF THE BID FOR STRUCTURAL STEEL, MISC. IRON AND REINFORCING STEEL TO BE USED AT THE DISCRETION OF THE STRUCTURAL ENGINEER. UNUSED AMOUNT TO REVERT TO THE OWNER UPON COMPLETION OF THE JOB.
8. ANY SUBSTITUTIONS FOR STRUCTURAL MEMBERS, HARDWARE OR DETAILS SHALL BE REVIEWED BY THE ARCHITECT AND STRUCTURAL ENGINEER. SUCH REVIEW WILL BE BILLED ON A TIME AND MATERIALS BASIS TO THE GENERAL CONTRACTOR WITH NO GUARANTEE THAT THE SUBSTITUTION WILL BE ALLOWED.
9. DO NOT SCALE DRAWINGS. CONTACT THE ARCHITECT OR STRUCTURAL ENGINEER FOR ANY DIMENSIONS NOT SHOWN.
10. THESE DRAWINGS ARE NOT COMPLETE UNTIL REVIEWED AND ACCEPTED BY LOCAL BUILDING OFFICIALS AND THE OWNER AND SIGNED BY THE STRUCTURAL ENGINEER.

DESIGN CRITERIA
100SN002-19

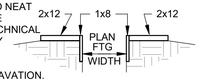
1. CODES AND STANDARDS
   2022 CALIFORNIA BUILDING CODE (CBC)
   ASCE 7-16
   ACI 318-19
   AISC 360-16, 341-16, 358-16
   AISI S100-16 w/ S2-20, S240-20, S400-20
   TMS 402/602-16
   2018 NDS, 2021 SDPWS
2. VERTICAL LOADS
   SOLAR ZONE ROOF DEAD LOAD = 0 PSF
   (INCLUDES 4 PSF FUTURE PV LOAD)
   ROOF LIVE LOAD = 20 PSF
   FLOOR LIVE LOAD = 40 PSF
   FLOOR PARTITION LIVE LOAD = 15 PSF
   STORAGE LOAD = 125 PSF
   LIVE LOADS ARE REDUCED WHERE PERMITTED BY CODE.
3. SOILS VALUES
   ALLOWABLE SOILS PRESSURE
   A. DL + LL 2000 PSF
   B. DL + LL + SEISMIC 2667 PSF
   FOOTING
   MINIMUM DEPTH = 18"
   MINIMUM WIDTH = 12"
4. LATERAL LOADS
   SEISMIC:
   SITE CLASS D C_S = 0.189
   S_S = 1.025; S_{DS} = 0.75
   S_1 = 0.38; S_{D1} = 0.73
   R = 6.5; I_E = 1.5
   Ω_O = 3; C_D = 4
   I_P = 1.0 TYPICAL
   I_P = 1.5 PER ASCE 7-16 SECT 13.1.3
   RISK CATEGORY: IV
   SEISMIC DESIGN CATEGORY: D
   SEISMIC BASE SHEAR
   = 84 KIPS (NS DIR.)
   = 84 KIPS (EW DIR.)
   SEISMIC FORCE RESISTING SYSTEM:
   LIGHT FRAMED WOOD SHEAR WALLS
   ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
   WIND:
   V = 103 MPH
   RISK CATEGORY: IV
   EXPOSURE CATEGORY: C
   GC_{Pi} = 0.18

DEFERRED APPROVALS
100SN007

1. THE FOLLOWING ITEMS REQUIRE DEFERRED APPROVAL FROM THE ENFORCEMENT AGENCY:
   A. WINDOW WALL/STORE FRONT SYSTEMS
   B. FIRE SPRINKLER SUPPORT
   C. EQUIPMENT STRUCTURAL ANCHORAGE
   D. SEISMIC BRACING OF MECHANICAL, ELECTRICAL AND PLUMBING DISTRIBUTION SYSTEMS
   E. EXTERIOR BUILDING MAINTENANCE OR FALL RESTRAINT/ FALL ARREST EQUIPMENT
   F. PREFABRICATED LIGHT GAGE STEEL OR WOOD TRUSSES
2. THE DESIGN OF THE ABOVE ITEMS IS BY THE CONTRACTOR/MANUFACTURER. CONTRACTOR/MANUFACTURER MUST PREPARE ALL NECESSARY CALCULATIONS AND DRAWINGS PER THE CALIFORNIA BUILDING CODE UNDER THE SUPERVISION OF A CIVIL ENGINEER, REGISTERED IN CALIFORNIA, AND SHALL OBTAIN ALL NECESSARY PLAN CHECK APPROVALS FROM THE ENFORCEMENT AGENCY.
3. INSTALLATION OF THE ABOVE ITEMS SHALL NOT BE STARTED UNTIL DETAILED PLANS, SPECIFICATIONS AND ENGINEERING CALCULATIONS HAVE BEEN REVIEWED BY THE ARCHITECT OR STRUCTURAL ENGINEER OF RECORD, AND APPROVED BY THE ENFORCEMENT AGENCY.

FOUNDATIONS
200SN001

1. THE BASIS OF DESIGN AND ALLOWABLE CAPACITIES OF THE FOUNDATION SYSTEM HAVE BEEN PROPORTIONED IN ACCORDANCE WITH THE RECOMMENDATIONS OF GEOTECHNICAL REPORT # S9731-05-37 BY GEOCON CONSULTANTS, INC. THE CONTRACTOR SHALL OBTAIN THE GEOTECHNICAL REPORT FROM THE OWNER. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR THE ACCURANCY OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL REPORT.
2. FOUNDATIONS SHALL BEAR ON UNDISTRUBED SOIL OR ENGINEERED FILL. SEE NOTES AND DETAILS ON SHEET S2.01.
3. ALL FILLING, BACKFILLING AND COMPACTION SHALL BE DONE UNDER THE OBSERVATION OF A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER AND MUST BE COMPACTED TO THE MINIMUM DENSITY SPECIFIED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN THE GEOTECHNICAL REPORT.
4. BUILDING PAD CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE GEOTECHNICAL REPORT. THE EXTENT AND DEPTH OF OVEREXCAVATION AND PLACEMENT OF ENGINEERED FILL SHALL AT A MINIMUM BE AS SHOWN ON THE PLANS. FINAL DEPTH AND EXTENT OF EXCAVATION AND FILL SHALL BE DETERMINED AT TIME OF CONSTRUCTION BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER. FOUNDATION DEPTHS INDICATED ON PLANS ARE FOR ESTIMATING PURPOSES ONLY.
5. BOTTOMS OF ALL FOUNDATIONS SHALL BE LEVEL. CHANGES IN BOTTOM OF FOUNDATION ELEVATION SHALL BE MADE ACCORDING TO STEPPED FOOTING DETAIL ON THE TYPICAL DETAIL SHEET.
6. FOUNDATION CONCRETE MAY BE PLACED DIRECTLY INTO NEAT EXCAVATIONS PROVIDED THE EXCAVATIONS ARE STABLE (AS DETERMINED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER). OTHERWISE, FOUNDATIONS SHALL BE FULLY FORMED. USE MINIMUM PLANKING SHOWN TO PROTECT AGAINST SLOUGHING, AS REQUIRED. PLANKING DOES NOT REPLACE FORMWORK REQUIRED TO STABILIZE EXCAVATION.



7. THE SURFACE OF ALL HORIZONTAL CONSTRUCTION JOINTS SHALL BE CLEANED & ROUGHENED BY EXPOSING CLEAN AGGREGATE SOLIDLY EMBEDDED IN MORTAR MATRIX.
8. NOTIFY THE STRUCTURAL ENGINEER 48 HOURS BEFORE CASTING FOUNDATIONS.
9. A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER SHALL ADVISE THE BUILDING OFFICIAL IN WRITING THAT:
   A. THE BUILDING PAD WAS PREPARED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
   B. THE UTILITY TRENCHES HAVE BEEN PROPERLY BACKFILLED AND COMPACTED.
   C. THE FOUNDATION EXCAVATION DEPTH AND MATERIAL ARE ADEQUATE TO ACHIEVE DESIGN BEARING CAPACITY.
   D. FORMING COMPLIES WITH THE GEOTECHNICAL REPORT AND APPROVED PLAN.

STRUCTURAL OBSERVATION
100SN017

1. IN ACCORDANCE WITH SECTION 1704.6 OF THE IBC, THIS PROJECT IS REQUIRED TO HAVE STRUCTURAL OBSERVATION. STRUCTURAL OBSERVATION MEANS THE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM, FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS, AT SIGNIFICANT CONSTRUCTION STAGES AND AT COMPLETION OF THE STRUCTURAL SYSTEM. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED BY IBC SECTIONS 110 OR 1705. THE FOLLOWING PROJECT MILESTONES SHALL BE OBSERVED:
   A. FOUNDATIONS (PRIOR TO CONCRETE PLACEMENT)
   B. WOOD SHEATHED SHEAR WALLS, FLOORS, AND ROOFS (PRIOR TO COVERING)
2. THE OWNER SHALL EMPLOY THE ARCHITECT OR STRUCTURAL ENGINEER OF RECORD, OR ANOTHER REGISTERED PROFESSIONAL ENGINEER OR ARCHITECT DESIGNATED TO PERFORM STRUCTURAL OBSERVATION. OBSERVED DEFICIENCIES SHALL BE REPORTED IN WRITING TO THE OWNER'S REPRESENTATIVE, SPECIAL INSPECTOR, CONTRACTOR AND BUILDING OFFICIAL. THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE BUILDING OFFICIAL A STATEMENT THAT THE FIELD VISITS HAVE OCCURRED AND IDENTIFY ANY REPORTED DEFICIENCIES THAT, TO THE BEST OF THE STRUCTURAL OBSERVER'S KNOWLEDGE, HAVE NOT BEEN RESOLVED.
3. THE CONTRACTOR SHALL NOTIFY THE STRUCTURAL OBSERVER A MINIMUM OF 48 HOURS IN ADVANCE OF PROJECT MILESTONES SO THAT OBSERVATIONS MAY BE SCHEDULED.

CONCRETE
300SN001

1. CONCRETE SHALL ATTAIN 28 DAY COMPRESSIVE STRENGTH AS REQUIRED IN NOTE #28. MAXIMUM SLUMP SHALL NOT EXCEED 4 INCHES.
2. CONCRETE MIX DESIGNS SHALL BE PREPARED ACCORDING TO ACI 318-14 CHAPTER 26.4 AND ACI 301-10 SECTION 4, REVIEWED BY OWNER'S TESTING LABORATORY AND SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW.
3. CEMENTITIOUS MATERIALS:
   CEMENT SHALL CONFORM TO ASTM C-150 TYPE II OR V.
   FLY ASH SHALL CONFORM TO ASTM C-618. MAX. QUANTITY OF FLY ASH SHALL BE 25% OR AS GIVEN IN SPECS.
4. CONCRETE AGGREGATES SHALL CONFORM TO ASTM C-33 FOR NORMAL WEIGHT CONCRETE AND ASTM C-330 FOR LIGHTWEIGHT CONCRETE.
5. NON-SHRINK GROUT OR DRYPACK SHALL CONSIST OF A PREMIXED NONMETALLIC FORMULA.
6. REINFORCING STEEL SHALL CONFORM TO ASTM A-615 GRADE 60 UNO. REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A-706 GRADE 60. CONTRACTOR SHALL SUBMIT REBAR MILL CERTIFICATES. REINFORCING STEEL IN SPECIAL REINFORCED SHEAR WALLS OR MOMENT FRAMES, EXCEPT TIES AND HOOPS, SHALL CONFORM TO ASTM A-706.
7. ALL PREHEATING AND WELDING OF REINFORCING BARS SHALL BE DONE IN ACCORDANCE WITH AWS D1.4 LATEST EDITION AND SHALL BE CONTINUOUSLY INSPECTED BY A QUALIFIED LABORATORY. CONTRACTOR SHALL FURNISH WPS FOR ALL REBAR WELDING TO THE LABORATORY.
8. REINFORCING STEEL SHALL BE FABRICATED ACCORDING TO "MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION".
9. WIRE FABRIC SHALL CONFORM TO ASTM A1064.
10. DIMENSIONS SHOWN FOR LOCATION OF REINFORCING ARE TO THE FACE OF BARS LISTED AND DENOTE CLEAR COVERAGE. NON-PRESTRESSED, CAST-IN-PLACE CONCRETE COVERAGE SHALL BE AS FOLLOWS, UNO:
    CONCRETE DEPOSITED DIRECTLY AGAINST GROUND (EXCEPT SLABS)---------- 3"
    CONCRETE EXPOSED TO GROUND OR WEATHER BUT PLACED IN FORMS:
    #5 AND SMALLER---------- 1-1/2"
    #6 AND LARGER---------- 2"
    BEAMS & COLUMNS (TIES)---------- 1-1/2"
    BEAMS & COLUMNS (MAIN REINFORCING)---------- 2"
    CAST-IN-PLACE WALLS (EXTERIOR FACE & SOIL SIDE)---------- SEE ABOVE
    CAST-IN-PLACE WALLS (INTERIOR FACE-#11 & SMALLER)---------- 3/4"
    TILT-UP WALLS---------- SEE DETAILS
    SLABS (ON FORMS)---------- 3/4"
    SLABS (ON GROUND)---------- 2" CLEAR FROM TOP
11. SPLICES IN CONTINUOUS REINFORCEMENT SHALL BE LAPPED UNO, SEE SCHEDULE THIS SHEET. SPLICES IN ADJACENT BARS SHALL BE GREATER THAN 5'-0" APART. SPLICE CONTINUOUS BARS IN SOIL-BEARING GRADE BEAMS, STRUCTURAL SLABS ON GRADE AND MAT FOUNDATIONS AS FOLLOWS UNO: TOP BARS AT CENTERLINE OF SUPPORT; BOTTOM BARS AT MID-SPAN. SPLICE CONTINUOUS BARS IN ELEVATED SLABS AND BEAMS, ETC. AS FOLLOWS UNO: TOP BARS AT MID-SPAN; BOTTOM BARS AT CENTERLINE OF SUPPORT. ALL BARS SIZE #14 AND LARGER SHALL BE CONTINUOUS FOR FULL LENGTH SHOWN OR SPLICED WITH MECHANICAL COUPLERS AS NOTED IN DETAILS. SPLICES IN WWF SHALL BE 1-1/2 MESHES WIDE.
12. THE MINIMUM CLEAR SPACING BETWEEN PARALLEL BARS IN A LAYER SHALL NOT BE LESS THAN THE LARGER OF BAR DIAMETER, 1", OR 33% GREATER THAN THE MAXIMUM AGGREGATE SIZE (NOMINAL), WHICHEVER IS GREATEST. THIS REQUIREMENT ALSO APPLIES TO THE CLEAR SPACING BETWEEN DIFFERENT LAYERS OF PARALLEL BARS AND TO THE CLEAR DISTANCE BETWEEN A CONTACT LAP SPLICE AND ADJACENT SPLICES OR BARS.
13. ALL HOOKS SHALL BE STANDARD HOOKS UNLESS OTHERWISE SHOWN OR NOTED. AT WALLS, PROVIDE HOOKS AT ENDS OF ALL REINFORCING AT ENDS, CORNERS AND INTERSECTIONS, UNO.
14. CONSTRUCTION JOINTS SHALL BE MADE ROUGH AND ALL LAITANCE REMOVED FROM THE SURFACE. CONCRETE MAY BE ROUGHENED BY CHIPPING THE ENTIRE SURFACE, SAND BLASTING, OR RAKING THE SURFACE TO PROVIDE 1/4" DEEP DEFORMATIONS.
15. REMOVE ALL DEBRIS FROM FORMS BEFORE CASTING ANY CONCRETE.
16. REINFORCING, DOWELS, BOLTS, ANCHORS, SLEEVES, ETC. TO BE EMBEDDED IN CONCRETE SHALL BE SECURELY POSITIONED BEFORE PLACING CONCRETE.
17. ANCHOR BOLTS (AB'S) CAST IN CONCRETE FOR WALL SILL AND LEDGER APPLICATIONS SHALL BE HEADED BOLTS WITH CUT THREADS CONFORMING TO ASTM F1554, UNO. REFER TO "WOOD" NOTES FOR ADDITIONAL REQUIREMENTS FOR BOLTS IN CONTACT WITH PRESSURE TREATED OR FIRE RETARDANT MATERIAL. REFER TO 'STRUCTURAL STEEL' NOTE FOR REQUIREMENTS FOR ANCHOR RODS (AR'S) CAST IN CONCRETE FOR COLUMN BASE PLATE AND STEEL EMBED APPLICATIONS.
18. WALLS SHALL BE CAST IN HORIZONTAL LAYERS OF 2'-0" MAXIMUM DEPTH.
19. CONCRETE IN WALLS, PIERS OR COLUMNS SHALL SET AT LEAST 2 HOURS BEFORE PLACING CONCRETE IN BEAMS, SPANDRELS, OR SLABS SUPPORTED THEREON.
20. HORIZONTAL WALL BARS IN MULTI-CURTAIN CAST IN PLACE WALLS SHALL BE STAGGERED.
21. DOWEL ALL VERTICAL REINFORCING IN WALLS AND COLUMNS FROM FOUNDATION WITH SAME SIZE BAR.
22. CONSOLIDATE CONCRETE PLACED IN FORMS BY MECHANICAL VIBRATING EQUIPMENT SUPPLEMENTED BY HAND-SPADING, RODDING OR TAMPING. USE EQUIPMENT AND PROCEDURES FOR CONSOLIDATION OF CONCRETE IN ACCORDANCE WITH THE RECOMMENDED PRACTICES OF ACI 309 TO SUIT THE TYPE OF CONCRETE AND PROJECT CONDITIONS. CONCRETE SHALL NOT BE DROPPED THROUGH REINFORCING STEEL (AS IN WALLS) SO AS TO CAUSE SEGREGATION OF AGGREGATES. IN SUCH CASES HOPPERS AND CHUTES OR TRUNKS OF VARIABLE LENGTHS SHALL BE USED SO THAT THE FREE UNCONFINED FALL OF CONCRETE SHALL NOT EXCEED 6 FEET.
23. NO WOOD SPREADERS ALLOWED. NO WOOD STAKES ALLOWED IN AREAS TO BE CONCRETED.
24. ADDITIONAL REINFORCING IN PRECAST OR TILT-UP PANELS REQUIRED FOR LIFTING STRESSES SHALL BE SUPPLIED BY CONTRACTOR.
25. PROVIDE #4x4'-0" DIAGONAL REINFORCING AT EACH REINFORCING LAYER OF SLAB AT ALL RE-ENTRANT CORNERS TYPICAL UNO. THIS APPLIES TO SLAB ON GRADE, CONCRETE OVER METAL DECK, AND ELEVATED STRUCTURAL SLAB CONDITIONS.
26. ALL SAW CUTTING SHALL BE DONE AFTER INITIAL SET HAS OCCURRED TO AVOID TEARING OR DAMAGE BY THE SAW BLADE, BUT BEFORE INITIAL SHRINKAGE HAS OCCURRED.
27. NOTIFY STRUCTURAL ENGINEER A MINIMUM OF 48 HOURS BEFORE PLACING ANY CONCRETE.
28. CONCRETE STRENGTHS & MIX PROPERTIES:

ITEM	F'C @ 28 DAYS	MAX AGGR SIZE	WEIGHT	MAX W/CM* RATIO
A. FOUNDATIONS, ELEVATOR PITS, TIE BEAMS	3000 PSI	1-1/2"	NW	0.58
B. SLAB ON GRADE SITE & MISCELLANEOUS - SEE CIVIL OR ARCH DRAWINGS	3500 PSI	1"	NW	0.45

* W/CM = WATER : CEMENTITIOUS MATERIAL RATIO

ABBREVIATIONS
100SN003

(A) - OCCURS ABOVE
AB - ANCHOR BOLT
ABV - ABOVE
ADDL - ADDITIONAL
AHU - AIR HANDLING UNIT
ALT - ALTERNATE
APPROX - APPROXIMATE
ARCH - ARCHITECTURAL
(B) - OCCURS BELOW
BLDG - BUILDING
BLKG - BLOCKING
BLW - BELOW
BM - BEAM
B.O. - BOTTOM OF
BOF - BOTTOM OF FOOTING
BOTT - BOTTOM
BRCG - BRACING
BRG - BEARING
BTWN - BETWEEN
BYND - BEYOND
CC - CENTER TO CENTER
CG - CENTER OF GRAVITY
CJ - CONSTRUCTION JOINT
CJP - COMPLETE JOINT PENETRATION
CL - CENTERLINE
CLG - CEILING
CLR - CLEAR
CMU - CONCRETE MASONRY UNIT
COL - COLUMN
CONC - CONCRETE
CONN - CONNECTION
CONT - CONTINUOUS
CONTR - CONTRACTOR
COORD - COORDINATE
CSK - COUNTERSINK
DBL - DOUBLE
DF - DOUGLAS FIR
DIAG - DIAGONAL
DL - DEAD LOAD
DWG - DRAWING
(E) - EXISTING
EA - EACH
EF - EACH FACE OR EDGE FASTENER
EJ - EXPANSION JOINT
ELEV - ELEVATION
EN - EDGE NAILING
EOS - EDGE OF SLAB
EQ - EQUAL
EW - EACH WAY
FB - FACE OF BLOCK/BRICK OR FLAT BAR
FC - FACE OF CONCRETE
FDN - FOUNDATION
FF - FINISH FLOOR
FRMG - FRAMING
FRT - FIRE RETARDANT TREATED
FS - FACE OF STUD OR FAR SIDE
FTG - FOOTING
GA - GAUGE OR GAGE
GALV - GALVANIZED
GLB - GLUED LAMINATED BEAM
GR - GRADE
GYP - GYPSUM
HD - HOLDOWN
HDR - HEADER
HGR - HANGER
HK - HOOK
HORIZ - HORIZONTAL
HSB - HIGH STRENGTH BOLT
HSS - HOLLOW STRUCTURAL SECTION
HT - HEIGHT
JH - JOIST HANGER
LL - LIVE LOAD
LLH - LONG LEG HORIZONTAL
LLV - LONG LEG VERTICAL
LONGIT - LONGITUDINAL
LS - LAG SCREW
LW - LIGHTWEIGHT
MECH - MECHANICAL
MFR - MANUFACTURER
MI - MALLEABLE IRON
x - MARK
MTL - METAL
(N) - NEW
NIC - NOT IN CONTRACT
NS - NEAR SIDE
NTS - NOT TO SCALE
NW - NORMAL WEIGHT
O/ - OVER
OH - OPPOSITE HAND
OPNG - OPENING
OSB - ORIENTED STRAND BOARD
PC - PIECE
PERP - PERPENDICULAR
PJP - PARTIAL JOINT PENETRATION
PL - PLATE
PT - PRESSURE TREATED
PW - PUDDLE WELD
REINF - REINFORCING OR REINFORCEMENT
REQD - REQUIRED
RWD - REDWOOD
SC - SLIP CRITICAL
SCH - SCHEDULE
SEOR - STRUCTURAL ENGINEER OF RECORD
SHTG - SHEATHING
SIM - SIMILAR
SJ - SLAB CONTROL JOINT
SMS - SHEET METAL SCREW
SOG - SLAB-ON-GRADE
SP - STRUCTURAL PANEL
SPCG - SPACING
SQ - SQUARE
STD - STANDARD
STFNR - STIFFENER
STGRD - STAGGERED
STL - STEEL
STRUCT - STRUCTURAL
SW - SHEAR WALL
T&B - TOP & BOTTOM
T&G - TONGUE & GROOVE
THRD - THREADED
TN - TOE NAIL
T.O. - TOP OF
TOC - TOP OF CONCRETE (SLAB UNO)
TOF - TOP OF FOOTING OR TOP OF FRAMING
TOS - TOP OF STEEL
TOW - TOP OF WALL
TRANS - TRANSVERSE
TYP - TYPICAL
UNO - UNLESS NOTED OTHERWISE
VERT - VERTICAL
VIF - VERIFY IN FIELD
WF - WIDE FLANGE
WHS - WELDED HEADED STUD
WP - WORK POINT
WS - WOOD SCREW
WWF - WELDED WIRE FABRIC
XS - EXTRA STRONG
XXS - DOUBLE EXTRA STRONG
Ø - ROUND OR DIAMETER

STRUCTURAL SHEET INDEX

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S1.02	GENERAL NOTES
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S5.18	TYPICAL WOOD TRUSS DETAILS
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S5.20	TYPICAL STEEL DETAILS
S5.30	INTERIOR TYPICAL NON-STRUCTURAL DETAILS
S5.31	INTERIOR TYPICAL NON-STRUCTURAL DETAILS

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SEAL

REGISTERED PROFESSIONAL ENGINEER
WILLIAM B. RADER
No. 3592
STRUCTURAL
STATE OF CALIFORNIA
6/04/26

PROJECT

DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION
	6/4/26	Plan Check Response

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE

GENERAL NOTES

SHEET

S1.01

IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
0 1/4" 1/2" 1" 2"
Autodesk Docs://MF22204 The City of Dixon - Fire Station 82/22022-0166_Dixon Fire 82_Central_R24.rvt
6/4/2026 5:02:42 PM

GENERAL NOTES

APPLICABLE TO ALL DRAWINGS UNLESS NOTED OR SHOWN OTHERWISE

LAP SPLICE LENGTHS FOR GRADE 60 REINFORCING BARS IN TENSION (Lst) — ACI 318 CBC/IBC
300SN002
(ALL LENGTHS SHOWN ARE IN INCHES)

f'c= 3000 PSI CONC										
SPLICE CLASS	REINF LOCATION	#3	#4	#5	#6	#7	#8	#9	#10	#11
B	TOP	28	38	47	56	81	93	105	118	131
	OTHER	22	29	36	43	63	72	81	91	101

f'c = 3500 PSI CONC										
SPLICE CLASS	REINF LOCATION	#3	#4	#5	#6	#7	#8	#9	#10	#11
B	TOP	26	35	43	52	75	86	97	109	121
	OTHER	20	27	33	40	58	66	75	84	93

DEFINITIONS:
L_D = DEVELOPMENT LENGTH OF DEFORMED BARS IN TENSION
L_{ST} = TENSION LAP SPLICE LENGTH
TOP = HORIZONTAL REINFORCEMENT LOCATED SUCH THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE SPLICE.

NOTES:
1. SCHEDULE APPLIES TO NORMAL WEIGHT CONCRETE WITH UNCOATED, GRADE 60 REINFORCING STEEL FOR #3 BARS AND LARGER.
2. ROUND UP TO THE NEAREST WHOLE NUMBER FOR ALL LENGTH CALCULATIONS.
3. Lst SHALL BE 12 INCHES MINIMUM.
4. WHERE EPOXY-COATED BARS ARE USED, MULTIPLY LAP LENGTHS BY 1.2. BUT WHERE EPOXY-COATED BARS HAVE CLEAR COVER LESS THAN 3 BAR DIA. OR CLEAR SPACING LESS THAN 6 BAR DIA., MULTIPLY LAP LENGTHS BY 1.31 FOR TOP REBAR AND 1.5 FOR OTHER REBAR.
5. WHEN LIGHTWEIGHT CONCRETE IS USED, MULTIPLY LAP LENGTHS BY 1.33.
6. WHERE CLEAR SPACING OF BARS BEING SPLICED IS LESS THAN 2 BAR DIA. OR WHERE CLEAR COVER OF BARS BEING SPLICED IS LESS THAN 1 BAR DIA., MULTIPLY LAP LENGTHS BY 1.50, UNO.
7. WHERE CLASS A LAP SPLICE IS NOTED IN DETAIL, DIVIDE LENGTHS ABOVE BY 1.30.
8. FOR GRADE 75 REINFORCING BARS, MULTIPLY THE TABULATED VALUES BY 1.44. FOR GRADE 80 REINFORCING BARS, MULTIPLE THE TABULATED VALUES BY 1.54.
9. DEVELOPMENT LENGTH OF DEFORMED BARS, Ld, SHALL BE CALCULATED BY DIVIDING THE LENGTH ABOVE BY 1.30. Ld SHALL BE 12 INCHES MINIMUM.
10. WHEN SPLICING DIFFERENT SIZE BARS, Lst SHALL BE THE GREATER OF Ld OF THE LARGER BAR AND Lst OF THE SMALLER BAR.
11. INDIVIDUAL BAR SPLICES WITHIN A BUNDLE SHALL NOT OVERLAP. INCREASE LAP LENGTHS BY 20 PERCENT FOR A THREE-BAR BUNDLE AND 33 PERCENT FOR A FOUR-BAR BUNDLE
12. THE LENGTHS SHOWN IN THE SCHEDULE SHALL BE INCREASED BY ALL APPLICABLE MULTIPLIERS LISTED IN THE NOTES ABOVE.

STRUCTURAL STEEL
500SN001

1. FABRICATION, ERECTION AND MATERIALS SHALL CONFORM WITH THE AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, THE AISC SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS AND THE AISC CODE OF STANDARD PRACTICE, LATEST EDITIONS ADOPTED BY THE BUILDING CODE SPECIFIED IN THE DESIGN CRITERIA NOTES, UNO.
2. ALL HOT ROLLED STEEL SHAPES, PLATES AND BARS SHALL BE NEW STEEL CONFORMING TO ASTM A6, UNO IN THE STRUCTURAL DRAWINGS. STRUCTURAL STEEL SHALL BE AS FOLLOWS:
   A. WIDE FLANGE AND WT SHAPES: ASTM A992
   B. M- AND S- SHAPES: ASTM A572 GRADE 50
   C. C- AND MC- SHAPES: ASTM A992
   D. L- SHAPES: ASTM A572 GRADE 50
   E. ROUND HSS: ASTM A500 GRADE C (Fy = 50 KSI)
   F. RECTANGULAR HSS: ASTM A500 GRADE C (Fy = 50 KSI)
   G. PIPE: ASTM A53, GRADE B (Fy = 35 KSI)
   H. BASE PLATES UP TO 4" THICK: ASTM A572 GRADE 50
   I. ALL OTHER PLATE MATERIAL: ASTM A572 GRADE 50, UNO
   J. BUILT UP COLUMNS: ASTM A572 GRADE 50
   K. PLATE GIRDERS: ASTM A572 GRADE 50
   L. CONNECTION MATERIAL
      a. COLUMN CONTINUITY PLATES AND DOUBLER PLATES: ASTM A572 GRADE 50
      b. BRACED FRAME GUSSET PLATES: ASTM A572 GRADE 50
3. ALL STRUCTURAL STEEL EXPOSED TO WEATHER OR NOT FULLY CONCEALED AND PROTECTED FROM EXTERIOR EXPOSURE SHALL BE PRIMED AND PAINTED PER ARCHITECTURAL FINISH SPECIFICATIONS. DO NOT SHOP-PRIME STEEL SURFACES THAT ARE EMBEDDED IN CONCRETE, FIELD WELDED, RECEIVING WELDED METAL DECK, SLIP-CRITICAL CONNECTIONS, FIREPROOFED, GALVANIZED, OR RECEIVING WELDED STUDS. IF NO ARCHITECTURAL FINISH SPECIFICATIONS ARE PROVIDED, ALL EXTERIOR OR UNPROTECTED STEEL AND CONNECTIONS EXPOSED TO WEATHER SHALL BE GALVANIZED.
4. ALL STRUCTURAL STEEL SHALL BE ERECTED PLUMB AND TRUE TO LINE. TEMPORARY BRACING SHALL BE INSTALLED AND REMAIN UNTIL ADEQUATE PERMANENT BRACING IS IN PLACE. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL BASE PLATE AND SUPPORT CONDITIONS DURING ERECTION AND BRACING. SEE AISC AND OSHA REQUIREMENTS.
5. GROUT BELOW BASE PLATES SHALL BE NON-METALLIC, NON-SHRINK GROUT WITH A MINIMUM COMPRESSIVE STRENGTH OF 7,000 PSI AT 28 DAYS UNO. COLUMN BASE PLATES SHALL BE PROMPTLY GROUTED AFTER THE STEEL FRAME HAS BEEN PLUMBED. BEFORE GROUTING, THE ERECTOR SHALL PROVIDE SUPPLEMENTAL SUPPORT TO PREVENT ANCHOR ROD LOADING WHEN:
   A. THE UNLOADED STEEL FRAME EXCEEDS A SINGLE COLUMN TIER ELEVATION
   B. MATERIALS OTHER THAN STRUCTURAL STEEL ARE SUPPORTED BY THE STEEL FRAME
6. STRUCTURAL STEEL BELOW GRADE SHALL HAVE 3 INCHES MINIMUM OF CONCRETE COVER.
7. STRUCTURAL BOLTS AND THREADED FASTENERS
   A. BOLTED CONNECTIONS SHALL CONSIST OF UNFINISHED BOLTS CONFORMING TO ASTM F3125 GRADE A325 UNO.
   B. WHERE HIGH-STRENGTH BOLTS ARE SPECIFIED, BOLTS CONFORMING TO ASTM F3125 GRADE A325 OR GRADE A490 SHALL BE PROVIDED AS INDICATED. HIGH STRENGTH BOLTS IN SLIP-CRITICAL AND PRETENSION JOINTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F1852 FOR TWIST-OFF TYPE TENSION CONTROL BOLT PRETENSIONING OR BE PROVIDED WITH DIRECT TENSION INDICATOR WASHERS CONFORMING TO THE REQUIREMENTS OF ASTM F959.
   C. ANCHOR RODS CAST IN CONCRETE OR MASONRY SHALL BE HEADED BOLTS WITH CUT THREAD, FULL DIAMETER BODY STYLE CONFORMING TO ASTM F1554 GRADE 36, 55 (WELDABLE PER S1 SUPPLEMENTARY REQUIREMENTS), OR GRADE 105 AS INDICATED ON DRAWINGS. IN LIEU OF HEADED ANCHOR RODS, THREADED ROD CONFORMING TO THE ABOVE SPECIFICATIONS MAY BE USED WITH DOUBLE NUTS TIGHTENED TO PREVENT ROTATION. ANCHOR ROD PROJECTION ABOVE TOP OF FOUNDATION SHALL BE AS NOTED ON THE DRAWINGS.
   D. BOLTED CONNECTIONS SHALL HAVE WASHERS CONFORMING TO ASTM F436 UNO. WASHERS MAY BE OMITTED AT SNUG-TIGHTENED AND SLIP-CRITICAL CONNECTIONS, EXCEPT WHERE REQUIRED BY THE RCSC SPECIFICATION FOR STRUCTURAL JOINTS, LATEST EDITION.
   E. BASE PLATES SHALL HAVE NUTS AND WASHERS AT TOP AND BOTTOM OF PLATE. WASHERS FOR BASE PLATES SHALL BE A36 SQUARE OR CIRCULAR PLATE UNLESS ASTM F844 WASHERS ARE PERMITTED. SEE BASE PLATE DETAILS FOR PLATE WASHER SIZE AND PERMISSIBLE WASHER TYPE.
   F. THREADED RODS SHALL CONFORM TO ASTM A36 UNLESS NOTED OTHERWISE ON THE DRAWINGS.
   G. PINS: ALL PINS IN PIN CONNECTED MEMBERS SHALL CONFORM TO ASTM A36 OR ASTM A108 AS INDICATED ON THE DRAWINGS.
8. ADDITIONAL REQUIREMENTS FOR "SLIP-CRITICAL" BOLTED CONNECTIONS:
   A. "SLIP-CRITICAL" CONNECTIONS (A325-SC DESIGN VALUES WITH SPECIAL INSPECTION) ARE REQUIRED AT ALL MOMENT FRAME CONNECTIONS, BRACED FRAME CONNECTIONS, AT ALL CONNECTIONS ALONG CHORD LINES AND DRAG LINES (AS NOTED ON PLANS), AND UNO, AT ALL BOLTS IN OVERSIZED OR SLOTTED HOLES.
   B. THE SPECIAL INSPECTOR MUST BE PRESENT DURING THE INSTALLATION AND TIGHTENING OPERATION OF "SLIP-CRITICAL" CONNECTIONS.
9. PROVIDE 3/4" DIAMETER STITCH BOLTS AND RING FILLS, SPACED AT NOT MORE THAN 2'-0" ON CENTER AT ALL DOUBLE ANGLE MEMBERS UNO.
10. AT WOOD TO STEEL PARALLEL CONTACT, BOLT WITH 1/2" DIAMETER BOLTS AT MAXIMUM 24"CC UNLESS NOTED OTHERWISE IN THE DRAWINGS.
11. BOLT HOLES SHALL BE AISC STANDARD HOLES UNLESS SPECIFIED OTHERWISE. USE STANDARD AISC GAGE AND PITCH FOR BOLTS EXCEPT AS NOTED OTHERWISE.
12. WELDING SHALL BE DONE BY THE ELECTRIC ARC PROCESS IN ACCORDANCE WITH AMERICAN WELDING SOCIETY STANDARDS, USING ONLY CERTIFIED WELDERS. ALL GROOVE WELDS SHALL HAVE COMPLETE PENETRATION UNLESS NOTED OTHERWISE. ALL ELECTRODES FOR WELDING SHALL COMPLY WITH AWS D1.1 AND D1.8 AS APPLICABLE, E70 SERIES MINIMUM.
13. WELD LENGTHS SPECIFIED ON PLANS ARE THE NET EFFECTIVE LENGTHS REQUIRED.
14. MINIMUM FILLET WELDS: (T = THICKNESS OF THINNER PART JOINED)
    3/16" @ T < 1/2"
    1/4" @ T < 3/4"
    5/16" @ T > 3/4"
15. WELDING PROCEDURE SPECIFICATIONS (WPS) FOR SHOP AND FIELD PREQUALIFIED WELD JOINTS AND WELD JOINTS QUALIFIED BY TEST SHALL BE SUBMITTED FOR REVIEW BY THE STRUCTURAL ENGINEER AND THE OWNER'S TESTING LABORATORY PRIOR TO FABRICATION. ALL WELDING PROCEDURE ITEMS SUCH AS BASE METALS, WELDING PROCESSES, FILLER METALS AND JOINT DETAILS THAT MEET THE REQUIREMENTS OF AWS D1.1 SECTION 3 SHALL BE CONSIDERED AS PREQUALIFIED. ANY CHANGE OR SUBSTITUTION THAT IS BEYOND THE RANGE OR TOLERANCE OR REQUIREMENTS FOR PREQUALIFICATION SHALL BE QUALIFIED BY TEST PER AWS D1.1 SECTION 4 PART B. SUBMIT TEST REPORTS SHOWING SUCCESSFUL PASSAGE OF QUALIFICATION TESTS FOR ALL NON-PREQUALIFIED WELDING PROCEDURE SPECIFICATIONS.

WOOD
600SN001

1. ALL STRUCTURAL WOOD SHALL CONFORM WITH THE FOLLOWING SPECIFICATIONS:
   SPECIES COMBINATION SHALL BE DOUG FIR - LARCH PER WCLIB GRADING RULES #17 OR WWPA STANDARD GRADING RULES FOR WESTERN LUMBER. DOUGLAS FIR – LARCH (NORTH) AND DOUGLAS FIR (SOUTH) ARE NOT PERMITTED WITHOUT APPROVAL FROM THE STRUCTURAL ENGINEER.
   2x, 3x AND 4x MEMBERS - #2 UNO.
   6x AND LARGER MEMBERS - #1 UNO.
   2x DECKING - SELECT DEX
   EXPOSED EXTERIOR LUMBER SHALL BE WESTERN CEDARS #1 PER WCLIB OR WWPA OR REDWOOD #1 PER RIS.
   SHEATHING - US PRODUCT STANDARD PS 1-09 AND PS2-10. APA RATED
   SHEATHING w/ EXTERIOR GLUE @ WALLS, FLOORS, & ROOFS UNO
   PRESSURE TREATED DOUGLAS FIR - TYPE AS APPROPRIATE FOR EXTERIOR ABOVE GROUND USE AS SPECIFIED, BY AWPA.
2. ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED, EXCEPT ABOVE GRADE, INTERIOR LEDGERS.
3. FIELD CUTS AND BOLT HOLES IN PRESSURE TREATED WOOD SHALL BE PROTECTED IN ACCORDANCE WITH AWPA STANDARD M4.
4. BEARING AND SHEAR WALLS SHALL HAVE DOUBLE TOP PLATES, LAPPED AT WALL AND PARTITION INTERSECTION WITH (3) 16d NAILS. SPLICE UPPER AND LOWER PLATES AS IN "TYPICAL STUD WALL & OPENING FRAMING DETAIL" ON TYPICAL DETAIL SHEET **S5.11**.
5. PROVIDE SOLID BLOCKING BETWEEN JOISTS AND RAFTERS AT ALL SUPPORTS.
6. PROVIDE BLOCKING AS REQUIRED AT CEILINGS, WALL FINISHES, FIRE BLOCKING, BACKING ETC.
7. JOISTS UNDER AND PARALLEL TO PARTITIONS SHALL BE DOUBLED AND NAILED TOGETHER.
8. THE MOISTURE CONTENT OF 2x MATERIAL AT TIME OF INITIAL USE SHALL BE LESS THAN 19%. THE MOISTURE CONTENT OF LUMBER 3x AND LARGER AT TIME OF INITIAL USE SHALL BE LESS THAN 30% UNO. MOISTURE CONTENT OF EXPOSED EXTERIOR LUMBER SHALL BE LESS THAN 19%.
9. HOLES FOR BOLTS IN WOOD SHALL BE BORED WITH A BIT OF THE SAME NOMINAL DIAMETER AS THE BOLT PLUS 1/16".
10. HOLES FOR LAG SCREWS SHALL BE FIRST BORED TO THE SAME DIAMETER AND DEPTH AS THE UNTHREADED SHANK. THE THREADED PORTION SHALL BE DRILLED TO 50% OF THE SHANK DIAMETER UNLESS NOTED OTHERWISE IN THE SPECIFICATIONS.
11. LAG SCREWS AND WOOD SCREWS SHALL BE SCREWED AND NOT DRIVEN INTO PLACE. SOAP MAY BE USED TO LUBRICATE SCREWS.
12. ALL BOLTS, LAG SCREWS AND POST-INSTALLED ANCHORS SHALL BE PROVIDED WITH METAL WASHERS UNDER HEADS AND NUTS WHICH BEAR ON WOOD. STEEL WASHERS SHALL BE SIMPSON BP OR BPS TYPE (3" SQ MIN w/ STD CUT WASHER WHERE REQD BY CODE). MALLEABLE IRON (MI) WASHERS SHALL BE ROUND AND CAST. STANDARD FLAT WASHERS SHALL BE PER ANSI B18.22.1 TYPE A - WIDE PATTERN. FOR WASHERS AT SILL ANCHORS, SEE SCHEDULE:

SILL ANCHOR BOLT WASHER SCHEDULE

WALL TYPE	2x4	2x6	2x8 & LARGER 1 SIDE SHTG	2x8 & LARGER 2 SIDES SHTG
WASHER DESIGNATION	BPS 5/8-3	BPS 5/8-6	BPS 5/8-6	3GA x 3" x STUD WIDTH - 1/2" w/ 11/16"Ø @ CL

13. ALL BOLTS AND LAG SCREWS SHALL BE TIGHTENED ON INSTALLATION AND RETIGHTENED BEFORE CLOSING IN OR AT COMPLETION OF JOB.
14. ALL BOLTS SHALL BE FULL NOMINAL DIMENSION AT UNTHREADED PORTION. NO UPSET THREADED BOLTS ALLOWED.
15. ALL FASTENERS, INCLUDING NUTS AND WASHERS, IN CONTACT w/ PRESERVATIVE-TREATED OR FIRE-RETARDANT MATERIAL SHALL BE HOT-DIPPED GALVANIZED STEEL OR STAINLESS STEEL. BOLTS MAY BE HOT-DIPPED OR MECHANICALLY DEPOSITED ZINC-COATED STEEL. PLAIN CARBON STEEL FASTENERS ARE PERMITTED IN CONTACT w/ SBX/DOT OR ZINC BORATE PRESERVATIVE-TREATED WOOD IN AN INTERIOR, DRY ENVIRONMENT.
16. USE OF MACHINE NAILING IS SUBJECT TO SATISFACTORY REVIEW FOR EACH PROJECT AND SUBJECT TO APPROVAL BY THE GOVERNING AGENCY. THE APPROVAL IS SUBJECT TO CONTINUED SATISFACTORY PERFORMANCE. MACHINE NAILING WILL NOT BE APPROVED IN 5/16" SHEATHING. IF NAIL HEADS PENETRATE THE OUTER PLY BY MORE THAN WOULD BE NORMAL FOR A HAMMER OR IF MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED, THE PERFORMANCE WILL BE DEEMED UNSATISFACTORY.
17. BLOCK SHTG JOINTS WITH 2x4 FLAT BLOCKING WHERE NOTED ON ROOF OR FLOOR FRAMING PLANS AND WITH BLOCKING SAME SIZE AS STUDS AT WALLS. USE PLYCLIPS AT MIDSPAN OF UNSUPPORTED ROOF SHEATHING EDGES.
18. FRAMING HARDWARE SHOWN ON THE PLANS IS SIMPSON STRONG-TIE. USE FRAMING HARDWARE AS MANUFACTURED BY SIMPSON COMPANY OR EQUIVALENT. PRIOR TO INSTALLATION OF ANY NON-SIMPSON HARDWARE, THE CONTRACTOR SHALL SUBMIT A LIST OF ALL DETAIL REFERENCES WHERE A HARDWARE SUBSTITUTION IS PROPOSED, THE DESIGNATION FOR THE SIMPSON ITEM AND NON-SIMPSON PROPOSED EQUIVALENT AND AN ICC REPORT FOR EACH SUBSTITUTION ITEM.
19. LAY ALL STRUCTURAL SHEATHING ON ROOF AND FLOORS WITH LONG DIMENSION PERPENDICULAR TO SUPPORTS UNLESS NOTED OTHERWISE.
20. NOTIFY STRUCTURAL ENGINEER AFTER WALL, FLOOR, AND ROOF SHTG NAILING HAS BEEN COMPLETED AND A MINIMUM OF 48 HOURS PRIOR TO CONCEALING NAILING.

SIMPSON HARDWARE
600SN004

1. UNLESS SPECIFICALLY NOTED OTHERWISE, HARDWARE SPECIFIED ON THE DRAWINGS SHALL BE SIMPSON HARDWARE.
2. SIMPSON HARDWARE FOR THIS PROJECT HAS BEEN SPECIFIED BASED ON THE ALLOWABLE LOAD VALUES AND PRODUCT INFORMATION GIVEN IN THE SIMPSON CATALOG FOR THE YEAR THAT THESE DRAWINGS ARE DATED.
3. PLANS, SECTIONS AND DETAILS INDICATE GENERAL PRODUCT TYPE AND ANY REQUIRED MODIFICATIONS (I.E.: SLOPES AND SKEWS). SPECIFIC CATALOG CALL OUTS ARE DETERMINED BY INDIVIDUAL MEMBER SIZES.
   EXAMPLES:
   PLANS/SECTIONS INDICATE 2x10 MEMBERS SUPPORTED BY SIMPSON 'U' HANGERS.
   SIMPSON CALL-OUT: U210.
   PLANS/SECTIONS INDICATE 5-1/8"x18" GLB SUPPORTED BY 4X6 POST AND SIMPSON ECC CAP. SIMPSON CALL-OUT: ECC5&1/4-4 OR OPTION WITH STRAPS ROTATED 90° ECC5&1/4-6
4. WHERE THE SIMPSON CATALOG INDICATES TWO SIZES MAY BE USED FOR THE SAME SIZE MEMBER, USE THE LARGER SIZE.
   EXAMPLE:
   PLANS/SECTIONS INDICATE 4x8 MEMBER SUPPORTED BY SIMPSON LUS HANGERS.
   SIMPSON CATALOG INDICATES LUS46 OR LUS48 MAY BE USED. THE LUS48 SHALL BE USED UNO.
5. USE SIMPSON 'MAX' NAILING CONFIGURATION ("FILL ALL HOLES WITH NAILS"), TYPICAL UNO.
6. WHERE MULTIPLE NAIL SIZES ARE INDICATED IN SIMPSON CATALOG, USE LARGEST NAIL SIZE LISTED, TYPICAL UNO.
7. HARDWARE SUPPLIER OTHER THAN SIMPSON SHALL SUBMIT A COMPARATIVE MATERIAL LIST ITEMIZING PRODUCT DESIGNATION, LOAD RATING, AND SUPPORTED MEMBER SIZE FOR REVIEW BY THE ENFORCEMENT AGENCY AND THE STRUCTURAL ENGINEER.

GLUED LAMINATED BEAMS
640SN003

1. TYPICAL GLUED LAMINATED BEAMS SHALL BE MANUFACTURED FROM VISUALLY GRADED WESTERN SPECIES AND SHALL CONFORM TO THE FOLLOWING COMBINATIONS:
   SIMPLE SPAN MEMBERS: 24F-V4
   CANTILEVER AND CONTINUOUS MEMBERS: 24F-V8
   EXTERIOR MEMBERS NOT PROTECTED FROM WEATHER SHALL BE ALASKAN YELLOW CEDAR (AYC) OR AS INDICATED ABOVE WITH AN APPROVED PRESERVATIVE TREATMENT. WHERE AYC MEMBERS OCCURS, THEY SHALL CONFORM TO THE FOLLOWING COMBINATIONS:
   SIMPLE SPAN MEMBERS: 20F-V12
   CANTILEVER AND CONTINUOUS MEMBERS: 20F-V13.
2. CAMBER ALL BEAMS ON AS INDICATED ON PLANS. WHERE CANTILEVER MEMBERS ARE CAMBERED, THE MEMBER SHALL ONLY BE CAMBERED AT THE INTERIOR SPAN. NO CAMBER AT CANTILEVERS, TYPICAL UNLESS NOTED OTHERWISE.
3. EACH GLUED LAMINATED BEAM SHALL BE INSPECTED BY A QUALIFIED INSPECTOR AND STAMPED WITH A QUALITY CONTROL MARK SIGNIFYING IT WAS MANUFACTURED ACCORDING TO ANSI/AITC A190.1.
4. ALL GLUED LAMINATED BEAMS SHALL BE FABRICATED USING WET-USE ADHESIVES COMPLYING WITH ANSI/AITC A190.1.

ENGINEERED LUMBER
640SN005

1. ALL ENGINEERED LUMBER TO BE PROVIDED ACCORDING TO THE MANUFACTURER'S ICC-ESR. SEE PLANS FOR SIZES.

MEMBER	MATERIAL TYPE	E PSI	F_b (BEAM) PSI	F_b (PLANK) PSI	F_v PSI	F_c PERP PSI	F_c PAR PSI
PSL	2.2E	2200000	2900	-	290	625	2900
LVL	2.0E	2000000	2600	-	285	750	2510
LSL	1.3E	1300000	1700	-	425	710	1835
LSL	1.55E	1550000	2325	-	525	900	2170

PSL - PARALLEL STRAND LUMBER
LVL - LAMINATED VENEER LUMBER
LSL - LAMINATED STRAND LUMBER

2. ALLOWABLE STRESS INCREASE FOR LOAD DURATION SHALL BE:
   WIND/SEISMIC LOAD - 60% ROOF LIVE LOAD - 25%
   SNOW LOAD - 15% NORMAL LOAD - 0%
3. DRAWINGS AND PRODUCT DATA SHALL BE SUBMITTED TO THE ARCHITECT AND/OR STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION.
4. NO HOLES OR NOTCHES OF ANY KIND ARE ALLOWED IN ENGINEERED LUMBER UNLESS SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS.
5. MANUFACTURER TO VERIFY AND GENERAL CONTRACTOR TO APPROVE ALL DIMENSIONS REQUIRING COORDINATION BETWEEN STRUCTURAL DRAWINGS AND ARCHITECTURAL DRAWINGS. ADDITIONALLY, GENERAL CONTRACTOR SHALL VERIFY SUPPORT DIMENSIONS AND WALL LAYOUT IN FIELD PRIOR TO FABRICATION.

POWER-ACTUATED FASTENERS (SHOT PINS)
100SN016

1. THESE NOTES GOVERN ALL CONDITIONS CALLED OUT ON THE PLANS AS 'SHOT PINS' UNLESS SPECIFICALLY NOTED OTHERWISE.
2. ALL SHOT PINS SHALL BE X-U UNIVERSAL KNURLED SHANK FASTENERS WITH SHANK DIAMETER OF 0.157" AS MANUFACTURED BY HILTI INCORPORATED IN ACCORDANCE WITH ICC ESR-2269 AND THE CURRENT EDITION OF THE HILTI 'PRODUCT TECHNICAL GUIDE' OR CSI KNURLED SHANK FASTENERS w/ SHANK DIAMETER OF 0.157" AS MANUFACTURED BY DEWALT IN ACCORDANCE w/ ICC ESR-2024.
3. ALL SHOT PINS SHALL INCLUDE STANDARD HILTI STEEL WASHERS OR STANDARD DEWALT STEEL WASHERS.
4. SHOT PINS DRIVEN INTO STEEL BASE MATERIAL SHALL MAINTAIN A MINIMUM EDGE DISTANCE AT ALL STEEL ELEMENTS OF 1/2" AND MINIMUM FASTENER SPACING SHALL BE 1". LENGTH OF PIN SHALL BE AS REQUIRED TO PENETRATE THRU STEEL MEMBER UNO. AT 3/4" THICK STEEL, PENETRATION NEED NOT EXCEED 1/2".
5. SHOT PINS DRIVEN INTO CONCRETE BASE MATERIAL SHALL MAINTAIN A MINIMUM EDGE DISTANCE AT ALL CONCRETE ELEMENTS OF 3" AND MINIMUM FASTENER SPACING SHALL BE 4". PINS SHALL HAVE 1 1/4" PENETRATION UNO. MINIMUM CONCRETE THICKNESS SHALL BE 3 TIMES THE PENETRATION DEPTH. CONCRETE SHALL ATTAIN FULL DESIGN STRENGTH PRIOR TO INSTALLING SHOT PINS.
6. SHOT PINS DRIVEN INTO 3 1/4" MINIMUM LIGHT WEIGHT CONCRETE FILL OVER 3"x 20GA MINIMUM METAL DECK MAY BE INSTALLED FROM THE TOP OR FROM THE BOTTOM IN EITHER THE HIGH OR LOW FLUTE. PINS INSTALLED FROM THE TOP SHALL BE SPACED AS NOTED ABOVE FOR TYPICAL CONCRETE ELEMENTS. PINS INSTALLED FROM THE BOTTOM IN THE HIGH FLUTES SHALL BE INSTALLED WITHIN 1" OF FLUTE CENTER. PINS INSTALLED FROM THE BOTTOM IN THE LOW FLUTES SHALL BE INSTALLED WITHIN 1" OF THE FLUTE CENTER AND SHALL BE NO CLOSER THAN 1 1/8" TO THE EDGE OF THE LOW FLUTE. PINS INSTALLED FROM THE BOTTOM SHALL BE SPACED NO CLOSER THAN 5 1/2" PARALLEL TO THE FLUTES. PINS SHALL HAVE 1" PENETRATION INTO CONCRETE UNO. CONCRETE SHALL ATTAIN FULL DESIGN STRENGTH PRIOR TO INSTALLING SHOT PINS.
7. SHOT PINS MAY BE DRIVEN INTO 8" NOMINAL MINIMUM THICKNESS FULLY GROUTED NORMAL-WEIGHT CMU WITH TYPE S MORTAR AND MINIMUM f'm = 1500 PSI AT TIME OF INSTALLATION. SHOT PINS MAY BE INSTALLED INTO THE FACE SHELLS, HORIZONTAL MORTAR JOINTS OR VERTICALLY CENTERED IN THE TOP OF GROUTED CELLS. SHOT PINS SHALL NOT BE INSTALLED IN VERTICAL MORTAR JOINTS OR WITHIN 1" OF VERTICAL MORTAR JOINTS. NO MORE THAN ONE SHOT PIN MAY OCCUR IN AN INDIVIDUAL MASONRY UNIT CELL AND MUST BE INSTALLED A MINIMUM OF 4" FROM THE EDGE OF THE WALL. SHOT PINS IN MORTAR JOINTS MUST BE A MINIMUM OF 8" FROM THE END OF THE WALL AND SHALL HAVE A MINIMUM SPACING OF 8".
8. SHOT PIN INSTALLERS SHALL BE CERTIFIED BY HILTI AND HAVE A CURRENT HILTI ISSUED OPERATORS LICENSE OR CERTIFIED BY DEWALT AND HAVE A CURRENT DEWALT ISSUED OPERATORS LICENSE. SHOT PIN INSTALLATION SHALL MEET ALL OSHA REQUIREMENTS.

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SEAL
REGISTERED PROFESSIONAL ENGINEER
WILLIAM B. RADER
No. 3592
STRUCTURAL
STATE OF CALIFORNIA
6/04/26

PROJECT
DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT
LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
GENERAL NOTES

SHEET
S1.02

IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
0 1/4" 1/2" 1" 2"
Autodesk Docs://MF22204 The City of Dixon - Fire Station 82/22022-0166_Dixon Fire 82_Central_R24.rvt
6/4/2026 5:02:42 PM

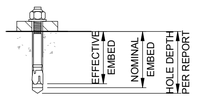
GENERAL NOTES

APPLICABLE TO ALL DRAWINGS UNLESS NOTED OR SHOWN OTHERWISE

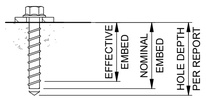
POST-INSTALLED ANCHORS
3055N001

1. FOR CONCRETE CONSTRUCTION, POST-INSTALLED ANCHORS SHALL BE ONE OF THE FOLLOWING:
   A. ADHESIVE ANCHORS FOR THRD ROD & REBAR:
      a. HILTI HIT-HY 200 PER ESR-3187
      b. HILTI HIT-RE500 V3 PER ESR-3814
      c. SIMPSON SET-XP PER ESR-2508
      d. SIMPSON SET-3G PER ESR-4057
      e. DEWALT/PURE ESR-3298
   B. EXPANSION ANCHORS:
      a. HILTI KB-TZ2 PER ESR-4266
      b. SIMPSON STRONG BOLT 2 PER ESR-3037
      c. DEWALT/POWER-STUD+ SD2 ESR-2502
   C. SCREW ANCHORS:
      a. HILTI KWIK HUS-EZ (KH-EZ) PER ESR-3027
      b. SIMPSON TITEN HD PER ESR-2713
      c. DEWALT/SCREWBOLT+ PER ESR-3889
2. FOR GROUT-FILLED MASONRY CONSTRUCTION, POST-INSTALLED ANCHORS SHALL BE ONE OF THE FOLLOWING:
   A. ADHESIVE ANCHORS FOR THRD ROD & REBAR:
      a. HILTI HIT-HY 270 PER ESR-4143
      b. SIMPSON SET-XP IAPMO UES ER-265
      c. DEWALT/AC 100+ GOLD ESR-3200
   B. EXPANSION ANCHORS:
      a. HILTI KB-TZ2 PER ESR-4561
      b. SIMPSON WEDGE-ALL PER ESR-1396
      c. DEWALT/POWER-STUD+ SD1 ESR-2966
   C. SCREW ANCHORS:
      a. HILTI KWIK HUS-EZ (KH-EZ) PER ESR-3056
      b. SIMPSON TITEN HD PER ESR-1056
      c. DEWALT/SCREWBOLT+ PER ESR-4042
3. FOR UNREINFORCED MASONRY CONSTRUCTION, ADHESIVE ANCHORS SHALL BE ONE OF THE FOLLOWING:
   a. HILTI HY-270 PER ESR-4144
   b. DEWALT AC100+ GOLD PER ESR-4105
4. PLASTIC MESH SCREEN TUBES SHALL BE PROVIDED AND EXISTING WALL THICKNESS AND MORTAR SHEAR STRENGTH SHALL MEET THE REQUIREMENTS OF THE EVALUATION REPORT.
5. ANCHOR TYPE, SIZE & EMBEDMENT SHALL BE AS INDICATED IN DRAWINGS. POST-INSTALLED ANCHORS FOR REPAIR SHALL BE EVALUATED ON A CASE BY CASE BASIS. NOTIFY STRUCTURAL ENGINEER FOR REPAIRS.
6. ALL EMBEDMENT DEPTHS CALLED OUT IN DRAWINGS REFER TO EFFECTIVE EMBEDMENT UNLESS OTHERWISE NOTED. SEE DIAGRAM BELOW AND ICC REPORTS.
7. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS GIVEN IN THE EVALUATION REPORT. PROVIDE MINIMUM EMBEDMENT PROVIDED IN ICC ESR REPORT UNLESS NOTED OTHERWISE.
8. PROVIDE SPECIAL INSPECTION AS INDICATED IN THE STATEMENT OF STRUCTURAL SPECIAL INSPECTIONS AND TESTING AND THE EVALUATION REPORT.
9. WHEN INSTALLING POST-INSTALLED ANCHORS IN EXISTING CONCRETE OR MASONRY, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING EXISTING REINFORCING BARS. DO NOT INSTALL ANCHORS WITHIN 1 1/2" OF CMU HEAD JOINTS. DO NOT INSTALL ANCHORS IN PRESTRESSED CONCRETE ELEMENTS.
10. ANCHORS INSTALLED FROM THE BOTTOM INTO METAL DECK WITH CONCRETE SHALL BE INSTALLED IN THE CENTER OF THE LOW FLUTE OF THE DECKING UNLESS NOTED OTHERWISE IN EVALUATION REPORT. THE DECKING SHALL HAVE A MINIMUM THICKNESS OF 20 GAUGE. THE MINIMUM THICKNESS OF THE CONCRETE ABOVE THE HIGH FLUTE OF THE METAL DECK SHALL BE AS INDICATED IN THE EVALUATION REPORT. SEE EVALUATION REPORT FOR ADDITIONAL REQUIREMENTS, INCLUDING MINIMUM DIMENSIONS FOR FLUTE WIDTH AND DEPTH.
11. THE CONCRETE SHALL HAVE ATTAINED ITS MINIMUM DESIGN STRENGTH PRIOR TO INSTALLATION OF THE ANCHORS.
12. ADHESIVE ANCHORS SHALL BE INSTALLED IN CONCRETE HAVING A MINIMUM AGE OF 21 DAYS AT THE TIME OF ANCHOR INSTALLATION PER ACI 318, CHAPTER 17.
13. INSTALLER CERTIFICATION AND INSPECTION IS REQUIRED FOR HORIZONTAL AND UPWARDLY INCLINED ADHESIVE ANCHORS SUBJECTED TO SUSTAINED TENSION LOADING IN ACCORDANCE WITH ACI 318, CHAPTER 17.
14. IF TEMPERATURE OF BASE MATERIAL AT TIME OF ADHESIVE ANCHOR INSTALLATION IS 45 DEGREES FARENHEIT OR LOWER, AN "ACRYLIC" OR COLD WEATHER ADHESIVE IS REQUIRED. USE DEWALT AC200+, SIMPSON AT-XP, OR HILTI HIT-HY200 WHEN THIS OCCURS.
15. THE INSPECTION OF THE ANCHORS SHALL BE DONE BY A QUALIFIED INSPECTION AGENCY AND A REPORT OF THE INSPECTION RESULTS SHALL BE SUBMITTED TO THE GOVERNING AGENCY AND ARCHITECT/STRUCTURAL ENGINEER.

INSTALLED ANCHOR DIAGRAMS



EXPANSION ANCHOR



SCREW ANCHOR

POST-INSTALLED ANCHOR TESTING CRITERIA
3057N002

1. EXPANSION ANCHOR TESTING SHALL COMPLY WITH INSTALLATION TORQUE VALUES PROVIDED IN MANUFACTURER'S EVALUATION REPORT. EPOXY AND SCREW ANCHOR TESTING SHALL COMPLY WITH TENSION TEST VALUES SPECIFIED IN DRAWINGS. TESTING FREQUENCY SHALL COMPLY WITH CBC SECTION 1910A.5.3.
2. APPLY PROOF TEST LOADS TO EXPANSION ANCHORS WITHOUT REMOVING THE NUT IF POSSIBLE. IF NOT, REMOVE NUT AND INSTALL A THREADED COUPLER TO THE SAME TIGHTNESS AS THE ORIGINAL NUT USING A TORQUE WRENCH TO APPLY THE TEST LOAD.
3. REACTION LOADS FROM TEST FIXTURES MAY BE APPLIED CLOSE TO THE ANCHOR BEING TESTED, PROVIDED THE ANCHOR IS NOT RESTRAINED FROM WITHDRAWING BY THE FIXTURE(S).
4. TEST EQUIPMENT (INCLUDING TORQUE WRENCHES) IS TO BE CALIBRATED BY AN APPROVED TESTING LABORATORY IN ACCORDANCE WITH STANDARD RECOGNIZED PROCEDURES.
5. THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS:
   A. HYDRAULIC RAM METHOD: THE ANCHOR SHALL HAVE NO OBSERVABLE MOVEMENT FOR A MINIMUM OF 15 SECONDS AT THE APPLICABLE TEST LOAD. FOR EXPANSION AND SLEEVE TYPE ANCORS, A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER UNDER THE NUT BECOMES LOOSE.
   B. TORQUE WRENCH METHOD: THE APPLICABLE TEST TORQUE MUST BE REACHED WITHIN THE FOLLOWING LIMITS:
      EXPANSION TYPE:
      - ONE-QUARTER (1/4) TURN OF THE NUT FOR 3/8"Ø SLEEVE ANCHORS.
      - ONE-HALF (1/2) TURN OF THE NUT FOR 1/4"Ø AND LARGER ANCHORS.
6. PROVIDE SPECIAL INSPECTION AS NOTED IN THE ICC REPORT.
7. IF ANY ANCHOR FAILS TESTING, ALL ANCHORS OF THE SAME TYPE AND INSTALLED BY THE SAME TRADE SHALL BE TESTED, UNTIL TWENTY (20) CONSECUTIVE ANCHORS PASS, THEN RESUME THE INITIAL TEST FREQUENCY. ANCHORS PREVIOUSLY TESTED PRIOR TO FAILED TEST SHALL NOT BE RETESTED.
8. TORQUE EXPANSION ANCHORS TO THE VALUES SHOWN BELOW:

CONCRETE EXPANSION ANCHOR TORQUE TEST VALUE (FT-LB)

DIAMETER	HILTI KB-TZ2		SIMPSON STRONG BOLT 2		DEWALT POWER-STUD+ SD2	DEWALT POWER-STUD+ SD4 & SD6
	CARBON STEEL	STAINLESS STEEL	CARBON STEEL	STAINLESS STEEL	CARBON STEEL	STAINLESS STEEL
1/4"	4	6	4	4		6
3/8"	30	30	30	30	20	25
1/2"	50	40	60	65	40	40
5/8"	40	60	90	80	60	60
3/4"	110	125	150	150	110	110

STRUCTURAL SPECIAL INSPECTIONS AND TESTING

APPLICABLE TO ALL DRAWINGS UNLESS NOTED OR SHOWN OTHERWISE

STATEMENT OF STRUCTURAL SPECIAL INSPECTIONS AND TESTING
110SN001

1. SPECIAL INSPECTIONS AND TESTING SHALL BE PROVIDED BY A TESTING AND INSPECTION AGENCY, EMPLOYED BY THE OWNER (OR OWNER'S AUTHORIZED AGENT), AND APPROVED BY THE BUILDING OFFICIAL TO PROVIDE SPECIAL INSPECTIONS AND TESTING FOR THE PARTICULAR TYPE OF CONSTRUCTION.
2. TABLES OF SPECIAL INSPECTIONS AND TESTING ARE DERIVED FROM THE STRUCTURAL PROVISIONS OF THE CBC AND REFERENCED STANDARDS AND ARE FOR REFERENCE ONLY. THE INCLUDED TABLES ARE PROVIDED FOR THE CONVENIENCE OF THE OWNER, TESTING AGENCY AND CONTRACTOR IN DEVELOPING THE SCOPE OF WORK FOR REQUIRED TESTING AND INSPECTION OF STRUCTURAL MATERIALS AND COMPONENTS. FINAL DEFINITION OF THIS SCOPE OF WORK IS TO BE DETERMINED BY THE TESTING AGENCY AND THE OWNER (OR OWNER'S AUTHORIZED AGENT).
3. FREQUENCY OF SPECIAL INSPECTIONS AND TESTING SHALL BE, AT A MINIMUM, AS NOTED FOR THE INDIVIDUAL ELEMENTS WITHIN THE TABLES BELOW. THE CONTRACTOR SHALL COORDINATE TIMING OF SPECIAL INSPECTIONS AND TESTING WITH THE SPECIAL INSPECTION AND TESTING AGENCY.
4. PRIOR TO THE START OF CONSTRUCTION, THE TESTING AND INSPECTION AGENCY SHALL PROVIDE DOCUMENTATION TO THE BUILDING OFFICIAL DEMONSTRATING COMPETENCE AND RELEVANT EXPERIENCE OR TRAINING OF THE SPECIAL INSPECTORS WHO WILL PERFORM THE SPECIAL INSPECTIONS AND TESTS DURING CONSTRUCTION, IN ACCORDANCE WITH CBC SECTION 1704.2.1.
5. THE TESTING AND INSPECTION AGENCY SHALL SUBMIT REPORTS OF SPECIAL INSPECTIONS AND TESTS TO THE BUILDING OFFICIAL, STRUCTURAL ENGINEER OF RECORD AND THE CONTRACTOR, PER CBC SECTION 1704.2.4. THE REPORTS SHALL INDICATE WHETHER WORK INSPECTED OR TESTED CONFORMED TO THE APPROVED CONSTRUCTION DOCUMENTS. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF DISCREPANCIES ARE NOT CORRECTED, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND THE STRUCTURAL ENGINEER OF RECORD.
6. SPECIAL INSPECTION AND TESTING RECORDS SHALL BE RETAINED BY THE CONTRACTOR ON SITE UNTIL COMPLETION OF CONSTRUCTION.
7. THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT TO THE BUILDING OFFICIAL ACKNOWLEDGING RESPONSIBILITY FOR CONSTRUCTION OF THE MAIN LATERAL-FORCE RESISTING SYSTEM PRIOR TO COMMENCEMENT OF THAT WORK AS REQUIRED BY CBC SECTION 1704.4.
8. THE OWNER OR THE OWNER'S AUTHORIZED AGENT SHALL SUBMIT TO THE BUILDING OFFICIAL, A FINAL REPORT DOCUMENTING SPECIAL INSPECTIONS AND TESTS PER CBC SECTION 1704.2.4, AND REPORTS AND CERTIFICATES PER CBC SECTION 1704.5.
9. ALL SOILS AND FOUNDATION EXCAVATION INSPECTIONS SHALL BE BY THE GEOTECHNICAL ENGINEER OF RECORD, OR A GEOTECHNICAL FIRM HIRED BY THE OWNER PER CBC SECTION 1705.6.
10. SPECIAL INSPECTION IS REQUIRED FOR ALL SHOP FABRICATED MEMBERS OR ASSEMBLIES UNLESS WAIVED PER THE EXCEPTIONS IN CBC SECTION 1704.2.5.
11. DEFINITIONS:
    a. CONTINUOUS - SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS CONTINUOUSLY PRESENT WHEN AND WHERE THE WORK TO BE INSPECTED IS BEING PERFORMED.
    b. PERIODIC - SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS INTERMITTENTLY PRESENT WHERE THE WORK TO BE INSPECTED HAS BEEN OR IS BEING PERFORMED.
    c. QUALITY ASSURANCE (QA) - MONITORING AND INSPECTION TASKS PERFORMED BY AN AGENCY OR FIRM OTHER THAN THE FABRICATOR OR ERECTOR TO ENSURE THAT THE MATERIAL PROVIDED AND WORK PERFORMED BY THE FABRICATOR AND ERECTOR MEET THE REQUIREMENTS OF THE APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. QUALITY ASSURANCE INCLUDES THOSE TASKS DESIGNATED 'SPECIAL INSPECTION' BY THE APPLICABLE CODE.
    d. QUALITY CONTROL (QC) - CONTROLS AND INSPECTIONS IMPLEMENTED BY THE FABRICATOR OR ERECTOR, AS APPLICABLE, TO ENSURE THAT THE MATERIAL PROVIDED AND WORK PERFORMED MEET THE REQUIREMENTS OF THE APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS.
    e. OBSERVE (O) - OBSERVE THESE ITEMS ON A RANDOM BASIS (DAILY FOR LFRS). OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.
    f. PERFORM (P) - PERFORM THOSE TASKS PRIOR TO FINAL ACCEPTANCE FOR EACH ITEM OR ELEMENT.
    g. DOCUMENT (D) - THE INSPECTOR SHALL PREPARE REPORTS INDICATING THAT THE WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE REPORT NEED NOT PROVIDE DETAILED MEASUREMENTS FOR JOINT FIT-UP, WPS SETTINGS, COMPLETED WELDS, OR OTHER INDIVIDUAL ITEMS LISTED IN THE TABLES. FOR SHOP FABRICATION, THE REPORT SHALL INDICATE THE PIECE MARK OF THE PIECE INSPECTED. FOR FIELD WORK, THE REPORT SHALL INDICATE THE REFERENCE GRID LINES AND FLOOR OR ELEVATION INSPECTED. WORK NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS AND WHETHER THE NONCOMPLIANCE HAS BEEN SATISFACTORILY REPAIRED SHALL BE NOTED IN THE INSPECTION REPORT.
12. SPECIAL INSPECTIONS AND TESTING SHALL BE PERFORMED DURING CONSTRUCTION ON THE WORK SHOWN IN THE CONSTRUCTION DOCUMENTS AS REQUIRED BY CBC CHAPTER 17, THE TABLES LISTED BELOW, AND THE JURISDICTION'S SPECIAL INSPECTION AND TESTING FORM. IF DISCREPANCIES ARE NOTED, CONTACT THE SEOR. ALL EXCEPTIONS INCLUDED IN CBC CHAPTER 17 ARE PERMITTED TO BE USED.
    - SOILS
    - CONCRETE CONSTRUCTION
      LFRS (SEE NOTE #13)
    - STRUCTURAL WOOD LFRS
13. SPECIAL INSPECTIONS AND TESTING ARE REQUIRED FOR THE LATERAL FORCE-RESISTING SYSTEM (LFRS) AND SHALL BE PROVIDED FOR ALL COMPONENTS AND CONNECTIONS ASSOCIATED WITH THE DESCRIPTION BELOW. SPECIAL INSPECTIONS AND TESTING FOR THE LFRS SHALL BE PER THE LFRS TABLES ABOVE, AND ARE IN ADDITION TO ALL OTHER REQUIRED INSPECTIONS AND TESTING. IF NO LFRS TABLES ARE INCLUDED, INSPECTIONS AND TESTING FOR THE LFRS ITEMS NOTED SHALL BE PER THE TYPICAL MATERIAL TABLES.

LFRS DESCRIPTION:
- ROOF SHEATHING
- FLOOR SHEATHING
- ROOF TRUSSES
- FLOOR BEAMS & STRAPPING/HOLDOWNS IN LINE WITH SHEAR WALLS
- SHEAR WALLS AND ASSOCIATED FOUNDATIONS

STRUCTURAL WOOD LFRS - REQUIRED SPECIAL INSPECTIONS
CBC SECTION 1705.12.1, 1705.13.2
110SN611

TYPE	CONTINUOUS	PERIODIC
1. FIELD GLUING OPERATIONS OF ELEMENTS OF THE LFRS.	X	-
2. NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF ELEMENTS OF THE LFRS, INCLUDING WOOD SHEAR WALLS, WOOD DIAPHRAGMS, DRAG STRUTS, BRACES, SHEAR PANELS AND HOLD-DOWNS.	-	X

SOILS - REQUIRED SPECIAL INSPECTIONS AND TESTS
CBC TABLE 1705.6
110SN201

TYPE	CONTINUOUS	PERIODIC
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	-	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	-	X
4. DURING FILL PLACEMENT, VERIFY USE OF PROPER MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT. VERIFY DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	-
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-	X

CONCRETE CONSTRUCTION - REQUIRED SPECIAL INSPECTIONS AND TESTS
CBC TABLE 1705.3
110SN301

TYPE	CONTINUOUS	PERIODIC	REFERENCED STANDARD[a]
1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	-	X	ACI 318 CH. 20, 25.2, 25.3, 26.6.1-26.6.3
2. REINFORCING BAR WELDING:			AWS D1.4 ACI 318: 26.6.4
A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706	-	X	
B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"	-	X	
C. INSPECT ALL OTHER WELDS	X	-	
3. INSPECT ANCHORS CAST IN CONCRETE.	-	X	ACI 318: 17.8.2
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS. [b]			ACI 318: 17.8.2.4, 17.8.2
A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	x	-	
B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.A.	-	X	
5. VERIFY USE OF REQUIRED DESIGN MIX.	-	X	ACI 318: CH. 19, 26.4.3, 26.4.4
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	-	ASTM C172 ASTM C31 ACI 318: 26.5, 26.12
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	-	ACI 318: 26.5
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	X	ACI 318: 26.5.3-26.5.5
9. INSPECT PRESTRESSED CONCRETE FOR:			ACI 318: 26.10
A. APPLICATION OF PRESTRESSING FORCES	X	-	
B. GROUTING OF BONDED PRESTRESSING TENDONS.	X	-	
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	-	X	ACI 318: CH. 26.9
11. FOR PRECAST CONCRETE DIAPHRAGM CONNECTIONS OR REINFORCEMENT AT JOINTS CLASSIFIED AS MODERATE OR HIGH DEFORMABILITY ELEMENTS (MDE OR HDE) IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E OR F, INSPECT SUCH CONNECTIONS AND REINFORCEMENT IN THE FIELD FOR:			ACI 318: 26.13.1.3 ACI 550.5
A. INSTALLATION OF THE EMBEDDED PARTS.	X	-	
B. COMPLETION OF THE CONTINUITY OF REINFORCEMENT ACROSS JOINTS.	X	-	
C. COMPLETION OF CONNECTIONS IN THE FIELD.	X	-	
12. INSPECT INSTALLATION TOLERANCES OF PRECAST CONCRETE DIAPHRAGM CONNECTIONS FOR COMPLIANCE WITH ACI 550.5.	-	X	ACI 318: 26.13.1.3

A. WHERE APPLICABLE, SEE SECTION 1705.13.

B. SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH 17.8.2 IN ACI 318, OR OTHER QUALIFICATION PROCEDURES. WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, SPECIAL INSPECTION REQUIREMENTS SHALL BE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO COMMENCEMENT OF THE WORK.

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SEAL
REGISTERED PROFESSIONAL ENGINEER
WILLIAM B. RADER
No. 3592
STRUCTURAL
STATE OF CALIFORNIA
6/04/26

PROJECT
DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

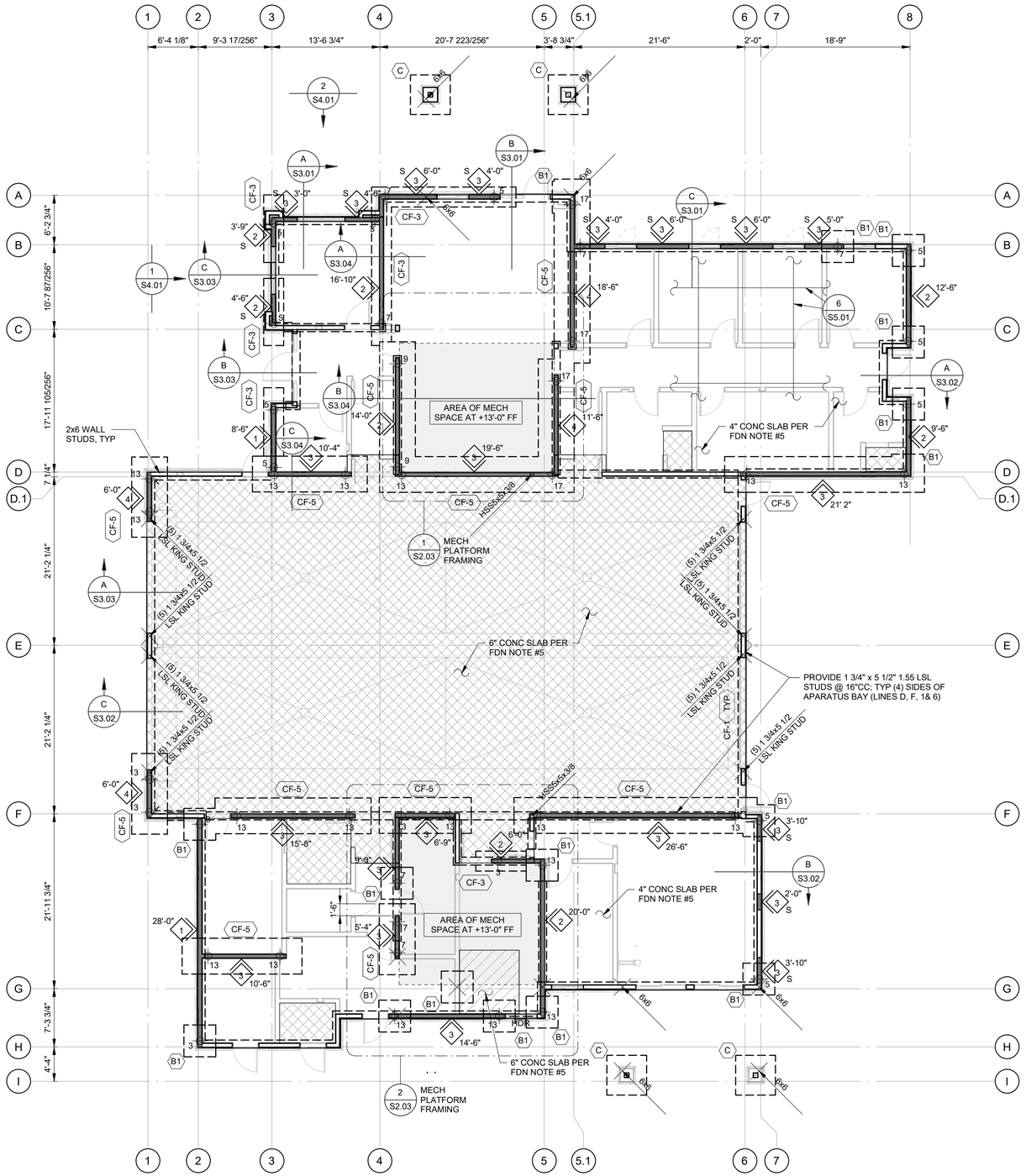
MANAGEMENT
LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
GENERAL NOTES AND STRUCTURAL SPECIAL INSPECTIONS

SHEET
S1.03

2" 1" 1/4" 1/2" 0
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
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6/4/2026 5:02:43 PM



FOUNDATION PLAN 1/8" = 1'-0"

FOUNDATION PLAN NOTES

1. NOTES AND DETAILS ON SHEETS LABELED AS "GENERAL" OR "TYPICAL" ARE APPLICABLE TO ALL DRAWINGS, UNO.
2. VERIFY ALL BUILDING DIMENSIONS AND ELEVATIONS w/ ARCH DRAWINGS. NOTIFY THE ARCHITECT IMMEDIATELY IF THERE ARE ANY CONFLICTS w/ DIMENSIONS SHOWN.
3. DIMENSIONS SHOWN ARE TO THE FACE OF STUD.
4. SITE PREPARATION AND BUILDING PAD CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT LISTED IN THE FOUNDATION GENERAL NOTES. BOTTOM OF FOOTING EXCAVATIONS SHALL BE REVIEWED BY GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF REINFORCING STEEL. THE BOTTOM OF ALL FOOTINGS SHALL BE AT LEAST 24" BELOW ADJACENT MINIMUM PREPARED BUILDING PAD ELEVATION ON ALL SIDES, TYP UNO OR AS SHOWN ON SECTIONS.
5. SLAB ON GRADE SHALL BE AS INIDCATED ON PLANS. AT 6" SLAB, REINFORCE WITH #4 @ 12"CC EW . AT 4" SLAB, REINFORCE WITH #4 @ 18"CC. REINFORCING TO BE AT MID DEPTH OF SLAB. CONCRETE SHALL BE INSTALLED OVER 15 MIL VAPOR RETARDER OVER 6" AGGREGATE BASEAT 6" SLAB, #4 SLAB OVER 4" AGGRETATE BASE. TOP OF CONCRETE SLAB IS 0'-0" UNO. DATUM ELEVATION = +123.20'.
6. CONTRACTOR SHALL SUBMIT AN EDGE OF SLAB PLAN TO ARCHITECT & SEOR FOR REVIEW. SUBMITTAL SHALL BE DIMENSIONED AND LOCATED RELATIVE TO STRUCTURAL GRIDS.
7. PROVIDE SLAB ON GRADE CONTROL JOINTS (SJ) AS INDICATED PER **S5.01** TYP AT ALL INTERIOR SLABS. CONSTRUCTION JOINTS (CJ) MAY REPLACE CONTROL JOINTS AS REQUIRED.
8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE SLAB CONTROL JOINTS WITH ANY ARCHITECTURALLY EXPOSED SLAB AREAS OR THE LOCATION OF TILE CRACK CONTROL JOINTS. VERIFY SPECIAL CONDITION CONTROL JOINTS WITH ARCH DRAWINGS.
9. CONTRACTOR TO COORDINATE EXACT DIMENSIONS AND LOCATIONS OF THICKENED SLABS, HOUSEKEEPING PADS, ETC. WITH ALL OTHER DISCIPLINE'S DRAWINGS AS WELL AS WITH THE EQUIPMENT PROVIDED, PRIOR TO COMMENCING WORK.
10. COORDINATE CURB LOCATIONS AND EXTENTS WITH ARCH DRAWINGS. FOR CURBS BELOW NON-STRUCTURAL WALLS, SEE **10/S5.01** & **1/S5.02** .
11. TEMPORARY LOADS APPLIED DURING CONSTRUCTION HAVE NOT BEEN CONSIDERED IN SLAB ON GRADE DESIGN.
12. SEE ARCH & CIVIL DRAWINGS FOR ALL EXTERIOR CURBS, FLATWORK, PLANTERS, RAMPS, ETC.
13. PROVIDE 3" MIN. CONCRETE COVER AT STRUCTURAL STEEL AND ANCHOR BOLTS BELOW GRADE, TYP.
14. CONTINUE ALL REINFORCING IN CONTINUOUS FOOTINGS THROUGH SPREAD FOOTINGS, TYP UNO.
15. FACE OF CONCRETE AT PERIMETER OF BLDG SHALL BE 1/2" OUTSIDE FACE OF STUD, TYP UNO. COORDINATE WITH ARCH DWGS.
16. ANCHOR BOLTS AT NON-SHEARWALLS SHALL BE AS INDICATED ON **1/S5.31** .
17. All WOOD STUD WALLS ARE TO BE 2x6 @ 16" CC UNO ON THE PLANS, SECTIONS, OR SCHEDULES. COORDINATE STUD SIZE WITH ARCH DWGS.

FOUNDATION LEGEND

- Mk — FOOTING PER SCHEDULE
- SLOPED AND/OR DEPRESSED SLAB. DEPRESS BUILDING PAD AND PROVIDE FULL SLAB AND BASE THICKNESS. SEE ARCHITECTURAL DRAWINGS.
- THICKENED SLAB.
- X'-XX" TOC — TOP OF CONCRETE SLAB ELEVATION RELATIVE TO REFERENCED TOP OF CONCRETE 0'-0".
- WOOD STRUCTURAL WALL.
- WOOD POST, 6x6 OR (4) 2x6 STUDS @ 6" NOMINAL WALLS, 4x4 OR (3) 2x4 STUDS @ 4" NOMINAL WALLS, TYP UNO.
- Mk X'-X" — SHEAR WALL TYPE, EXTENT, AND ANCHOR BOLT LAYOUT, SEE **A/S5.13** FOR SCHEDULE, UNO. EXTENT INDICATES MINIMUM REQUIRED SHEAR WALL LENGTH.
- Mk (2)MK — SIMPSON HOLDOWN LOCATION. REFERENCE NUMBER INDICATES HDUE HOLDOWN TYPE. SEE **B/S5.13** .

FOOTING SCHEDULE

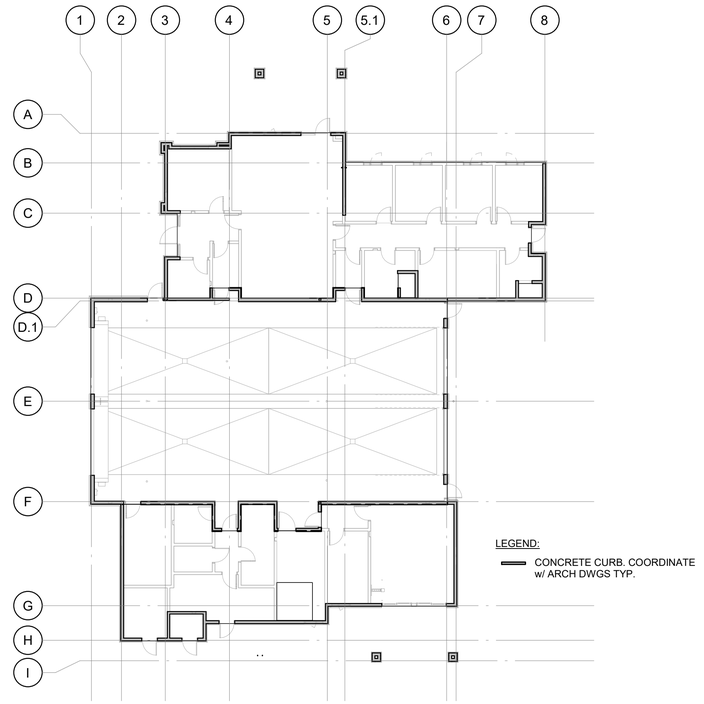
NOTE:
TOP OF FOOTING AT -1'-0" TYP UNO ON PLANS.

Mk	SIZE (WxLxD)	BOTT REINF	TOP REINF
B1	4'-0" x 4'-0" x 2'-0"	(6) #5 EW	
C	5'-0" x 5'-0" x 1'-6"	(7) #5 EW	

CONTINUOUS FOOTING SCHEDULE

NOTE:
ALL REINF SHALL BE 3" CLEAR FROM EARTH. ALL FOOTINGS TO BE CF-1 UNO.

Mk	WIDTH	DEPTH	REINFORCING
CF-1	1'-0"	1'-6"	(2) #5 T&B, PROVIDE #3 TRANS T&B @ 18"CC WHERE SHEAR WALL OCCURS; EXTENT OF TRANSVERSE REINFORCING TO BE 12" MIN OF SHEAR WALL OR TO CORNER OF FOOTING, WHICHEVER IS LESS
CF-3	2'-6"	1'-6"	(4)#5 T&B, #3 TRANS T&B @ 18"CC
CF-4	3'-6"	2'-0"	(6)#5 T&B, #3 TRANS T&B @ 18"CC
CF-5	4'-6"	2'-0"	(7) #6 T&B, #4 TRANS T&B @ 6"CC PROVIDE 3'-0" TOES EITHER END ON EXTENTS OF FOOTINGS



CURB PLAN 1/S2.01 1/16" = 1'-0"

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STATE OF CALIFORNIA
6/04/26

PROJECT
DIXON FIRE STATION 82
DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION
	6/4/26	Plan Check Response

MANAGEMENT
LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

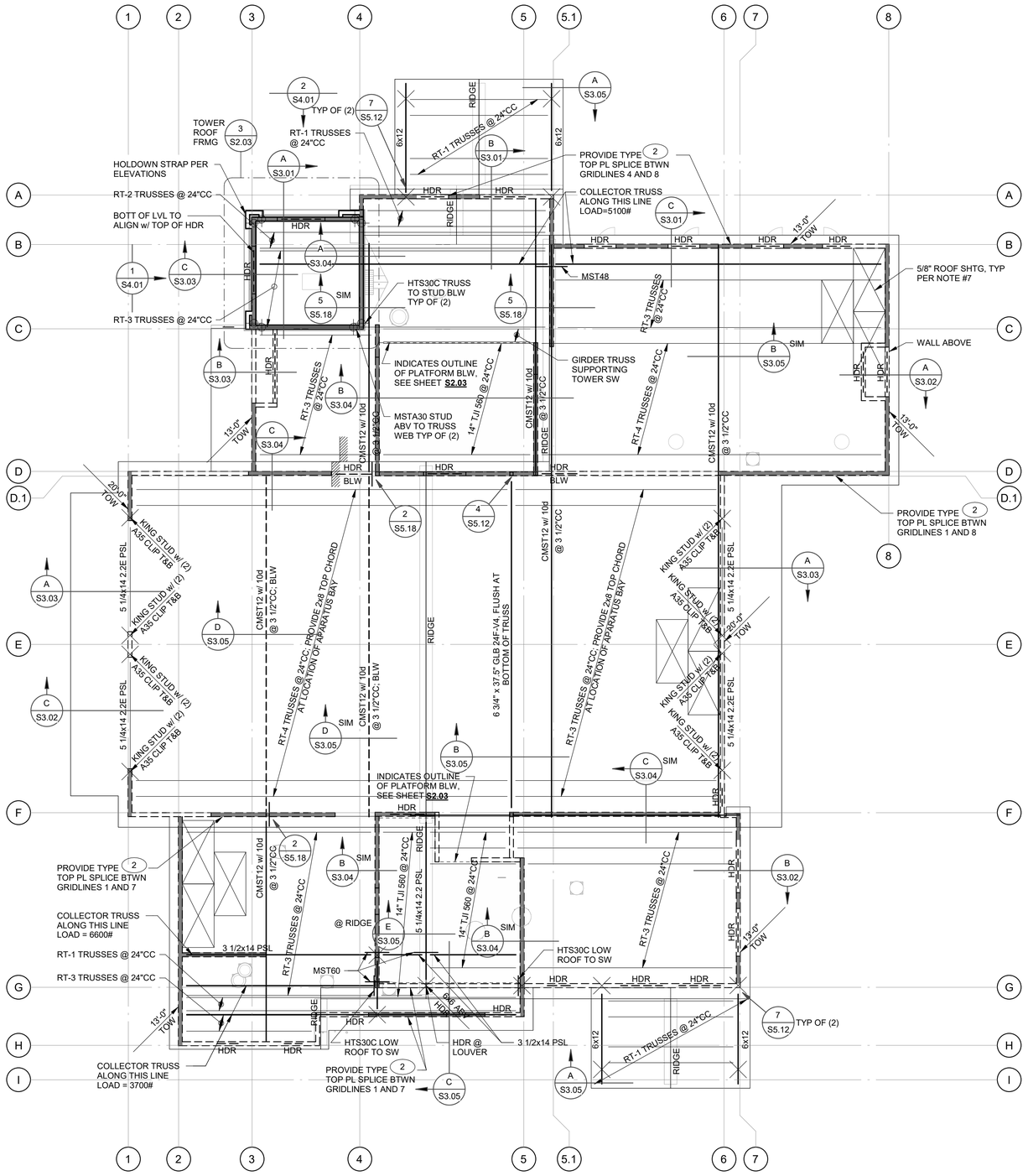
AGENCY

TITLE
FOUNDATION PLAN

SHEET
S2.01

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0 1/4" 1/2" 1" 2"
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ROOF FRAMING PLAN

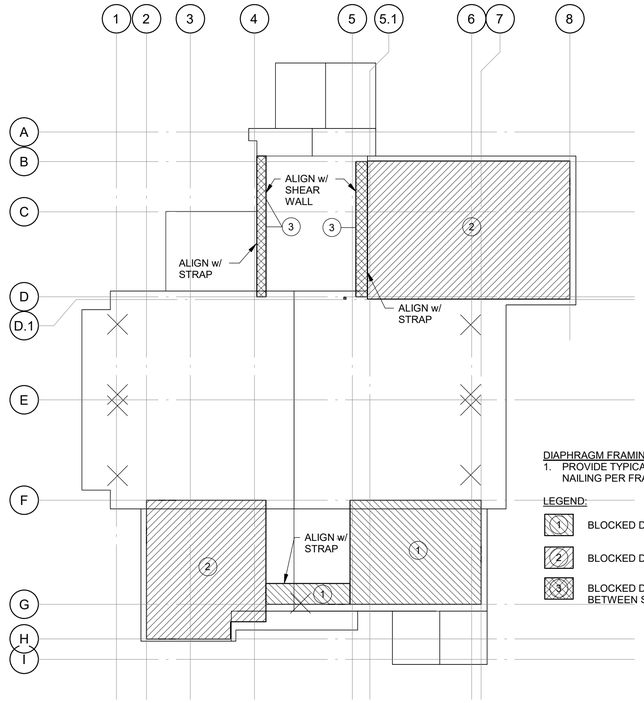
1/8" = 1'-0"

FRAMING PLAN NOTES

1. NOTES AND DETAILS ON SHEETS LABELED AS "GENERAL" OR "TYPICAL" ARE APPLICABLE TO ALL DRAWINGS, UNO.
2. VERIFY ALL BUILDING DIMENSIONS AND ELEVATIONS w/ ARCH DRAWINGS. NOTIFY THE ARCHITECT IMMEDIATELY IF THERE ARE ANY CONFLICTS w/ DIMENSIONS SHOWN.
3. DIMENSIONS SHOWN ARE TO FACE OF STUD.
4. SEE BEARING WOOD WALL STUD SCHEDULE ON **S5.13** FOR SIZE AND SPACING OF MEMBERS. MOISTURE CONTENT OF ALL TOP AND BOTTOM PLATES SHALL BE AS NOTED IN THE WOOD NOTES ON SHEET **S1.02** .
5. ALL EXTERIOR WALLS AND EXTERIOR SOFFITS SHALL BE SHEATHED WITH 1/2" APA RATED SHTG, CD GRADE WITH EXTERIOR GLUE. NAIL w/ 10d @ 6"CC EDGE, 12"CC FIELD, UNO ON SHEAR WALL SCHEDULE ON **S5.13** .
6. FLOOR SHEATHING SHALL BE 23/32" (3/4" NOMINAL) T&G APA RATED SHEATHING GRADE CD w/ EXTERIOR GLUE. MIN SPAN RATING SHALL BE 48/24. LAY LONG DIMENSION PERPENDICULAR TO SUPPORTS, ENDS STAGGERED AS SHOWN ON PLAN. NAIL w/ 10d SHEATHING RINGSHANK SHEATHING NAILS @ 6"CC EDGES, 10"CC FIELD UNO ON PLANS. GLUE SHEATHING TO FRAMING IN ACCORDANCE WITH APA GLUED FLOOR SYSTEM. WHERE BLOCKING IS REQUIRED, USE 2x4 FLAT AT ALL SHTG EDGES SUPPORTED IN Z2 CLIPS.
7. ROOF SHEATHING SHALL BE 15/32" (1/2" NOMINAL) APA RATED SHEATHING GRADE CD w/ EXTERIOR GLUE. MIN SPAN RATING SHALL BE 24/0. LAY LONG DIMENSION PERPENDICULAR TO SUPPORTS, ENDS STAGGERED AS SHOWN ON PLAN. NAIL w/ 10d SHEATHING NAILS @ 6"CC EDGES, 12"CC FIELD UNO ON PLANS. WHERE BLOCKING IS NOTED, USE 2x4 FLAT AT ALL SHTG EDGES SUPPORTED IN Z2 CLIPS. USE PLYCLIPS AT MIDSPAN OF UNSUPPORTED ROOF SHEATHING EDGES.
8. ALIGN JOISTS OVER STUDS BELOW WHERE FRAMING IS PERPENDICULAR TO WALL.
9. PROVIDE JOIST HANGERS WHERE SPECIFIED ON PLANS, SECTIONS, OR WHERE JOIST IS NOT IN DIRECT BEARING.
10. SPLICES AT CMST STRAPS SHALL BE LAPPED A MINIMUM OF 16" w/ NAILS DRIVEN THRU BOTH.
11. INSTALL STRAPS OVER SHTG UNO. STRAP NAILS MAY REPLACE TYP SHTG NAILING.
12. SEE ARCH DWGS FOR INFORMATION REGARDING VENT OPENINGS AT BLOCKING AND SHEATHING.
13. WHERE EXTENT OF SHEAR WALL DOES NOT COINCIDE WITH EXTENT OF WALL FACE, PROVIDE GYPSUM BOARD FURRING TO PLANE OUT FINISHES. COORDINATE SIDE OF WALL TO BE SHEATHED WITH ARCH DRAWINGS, UNO.
14. WHERE FRAMING HARDWARE IS REQUIRED TO BE IN THE SAME PLANE AS THE WALL FINISHES, HARDWARE SHALL BE "LET-IN" TO FINISHES FOR A FLAT, SMOOTH APPEARANCE. TYPICAL ALL FLOORS.
15. SEE ARCH FOR LOCATION OF CRICKETS REQUIRED FOR DRAINAGE. ROOF SHEATHING BELOW SHALL BE CONTINUOUS.
16. GENERAL CONTRACTOR TO COORDINATE SKYLIGHT LOCATIONS WITH ROOF TRUSS MANUFACTURER AND ARCH.
17. SEE PRE-MANUFACTURED WOOD TRUSS NOTES FOR LOADING AND CONFIGURATION INFORMATION.
18. PROVIDE TB36 BRIDGING AT FLOOR I-JOISTS AT 1/3 POINTS AND 1'-0" MAX FROM HANGERS PER **8/S5.11** . ANY TEMPORARY BRIDGING DURING INSTALLATION SHALL BE IN ACCORDANCE WITH MFR RECOMMENDATIONS.

FRAMING LEGEND

- OPENING. LOCATE OPENING PER AMEP DRAWINGS. FOR SUPPORT SEE **1/S5.12**.
- WOOD STRUCTURAL WALL ABOVE
- WOOD STRUCTURAL WALL BELOW.
- SHEAR WALL ABOVE; TYPE AND EXTENT, SEE **S5.13** FOR SCHEDULE, UNO. EXTENT INDICATES MINIMUM REQUIRED SHEAR WALL LENGTH. (X'-X" / Mk)
- SHEAR WALL BELOW
- C= HEIGHT OF CL OF BEAM CAMBER AS NOTED ON PLANS. WHERE C IS NOT NOTED, BEAMS ARE NOT CAMBERED. FABRICATE AND ERECT ALL BEAMS WITH NATURAL BEAM CAMBER UP WHERE NO CAMBER IS INDICATED ON PLANS.
- RCT ROOF COLLECTOR TRUSS. COORDINATE COLLECTOR TRUSS PROFILE WITH ROOF CONFIGURATION.
- HDR HEADER BELOW. SEE **2/S5.11** UNO ON PLAN.
- MST48 SIMPSON STRAP PER PLAN.
- X'-XX" TOW TOP OF WALL ELEVATION ABOVE REFERENCE TOP OF CONCRETE (0'-0") (i.e. TOP OF DBL TOP PL, TYP UNO).
- WOOD POST, 6x6 @ 6" NOMINAL WALLS, 4x4 @ 4" NOMINAL WALLS, TYP UNO.
- (A) POST IS ABOVE ONLY
- MECHANICAL UNIT. THE CONTRACTOR SHALL COORDINATE ALL MECHANICAL EQUIPMENT FOR SIZE & LOCATION WITH OTHER TRADES & THE STRUCTURAL DRAWINGS. UNIT SIZES & LOCATIONS SHOWN ARE APPROXIMATE.
- Mk TOP PLATE SPLICE. TYPE PER **3/S5.13**. WHERE NO INDICATION OCCURS SEE **2/S5.11**.



DIAPHRAGM FRAMING PLAN NOTES
1. PROVIDE TYPICAL UNBLOCKED DIAPHRAGM NAILING PER FRAMING NOTES UNO.

LEGEND:
- 1 BLOCKED DIAPHRAGM, EN @ 6"CC.
- 2 BLOCKED DIAPHRAGM, EN @ 4"CC.
- 3 BLOCKED DIAPHRAGM, EN @ 2"CC. TYP BETWEEN STRAP AND SHEAR WALL.

DIAPHRAGM NAILING PLAN

1/S2.02 — 1/16" = 1'-0"

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WILLIAM B. RADER
No. 3592
STRUCTURAL
STATE OF CALIFORNIA
6/04/26

PROJECT
DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

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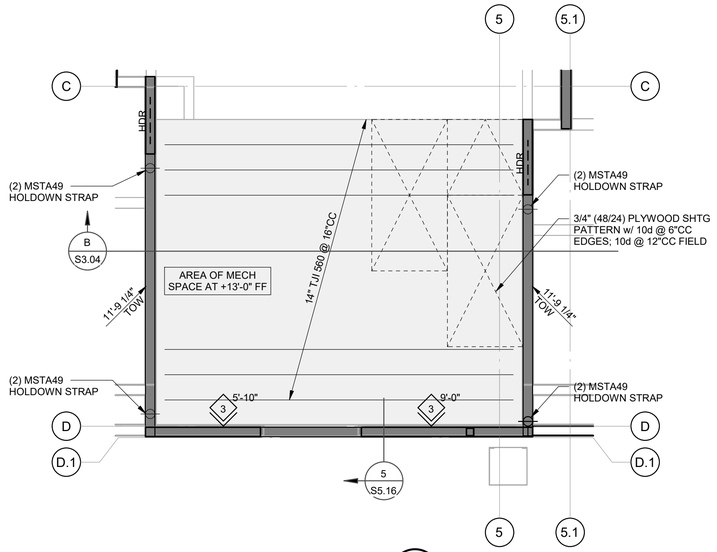
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ROOF FRAMING PLAN

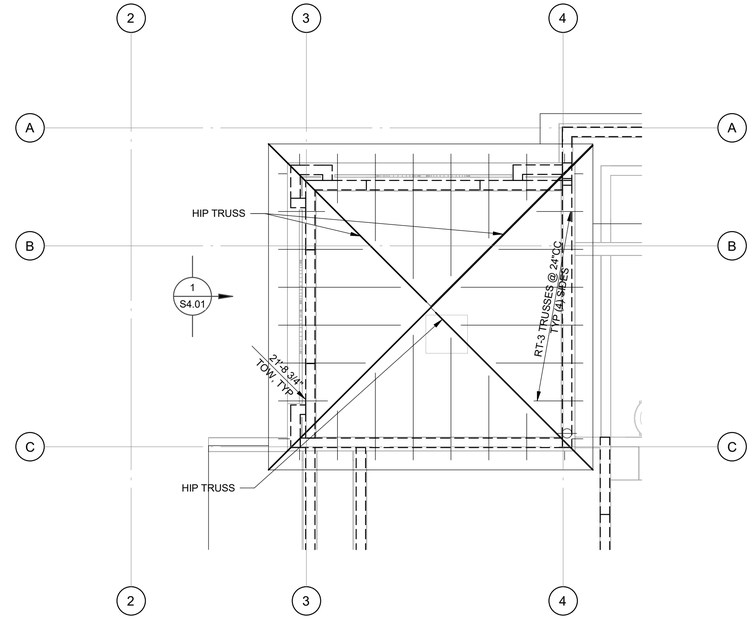
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S2.02

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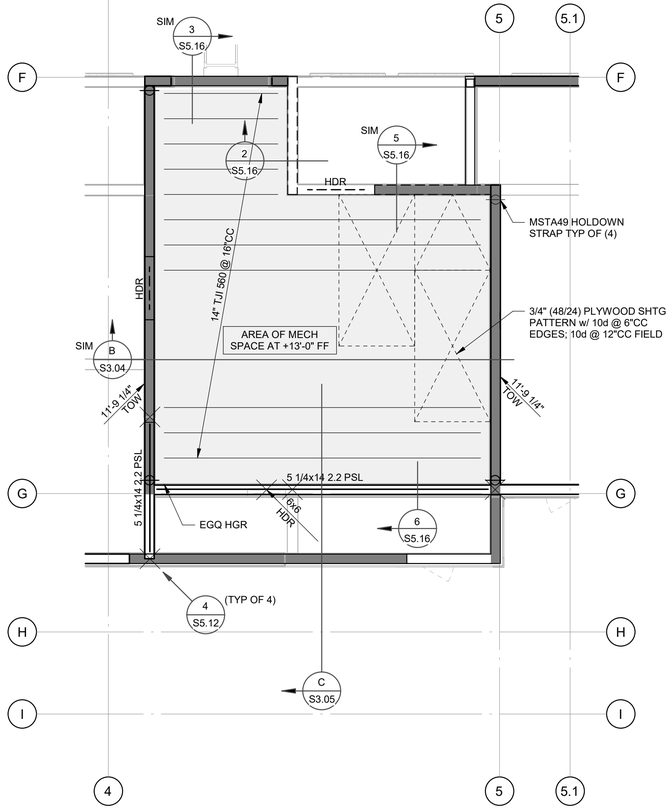
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PARTIAL PLAN 1 S2.03 — 1/4" = 1'-0"
ROOF FRAMING PLAN - Callout 1



PARTIAL PLAN 3 S2.03 — 1/4" = 1'-0"
ROOF FRAMING PLAN - Callout 3



PARTIAL PLAN 2 S2.03 — 1/4" = 1'-0"
ROOF FRAMING PLAN - Callout 2

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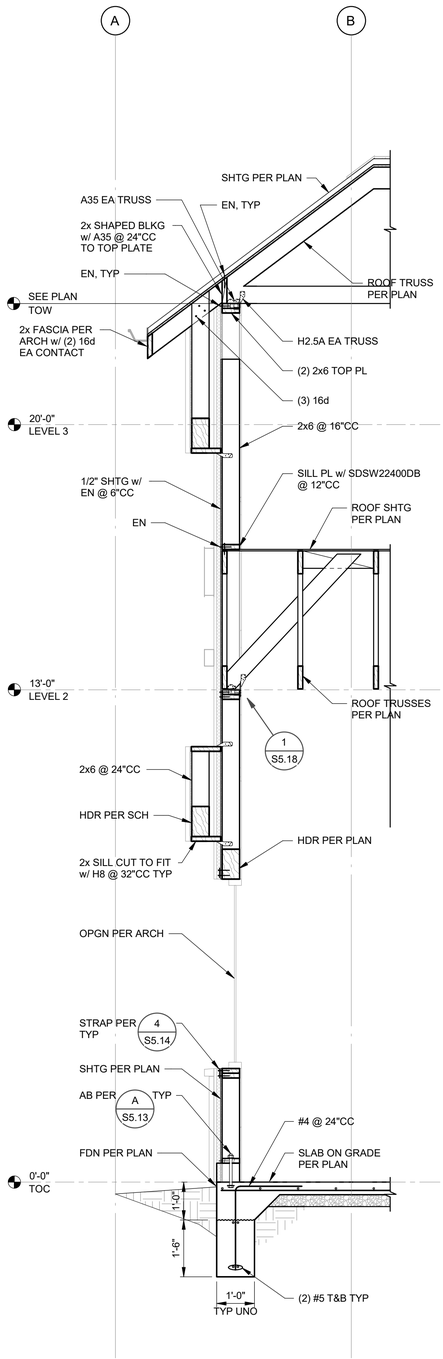
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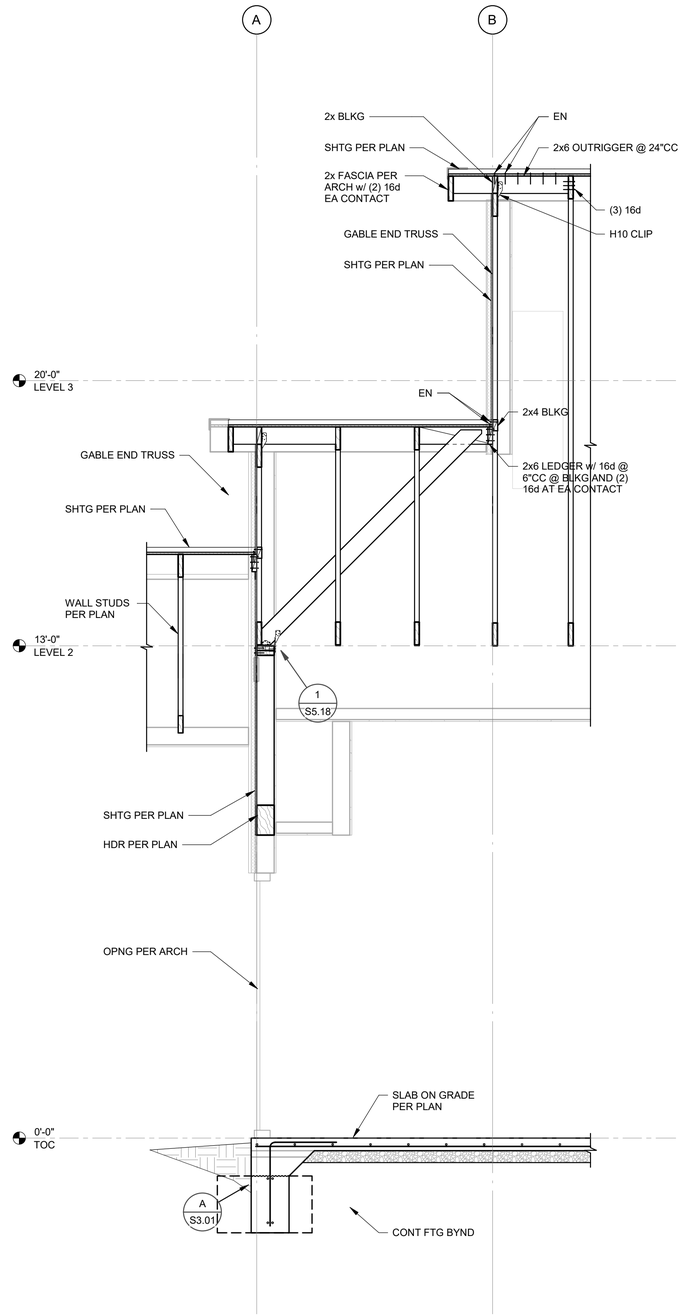
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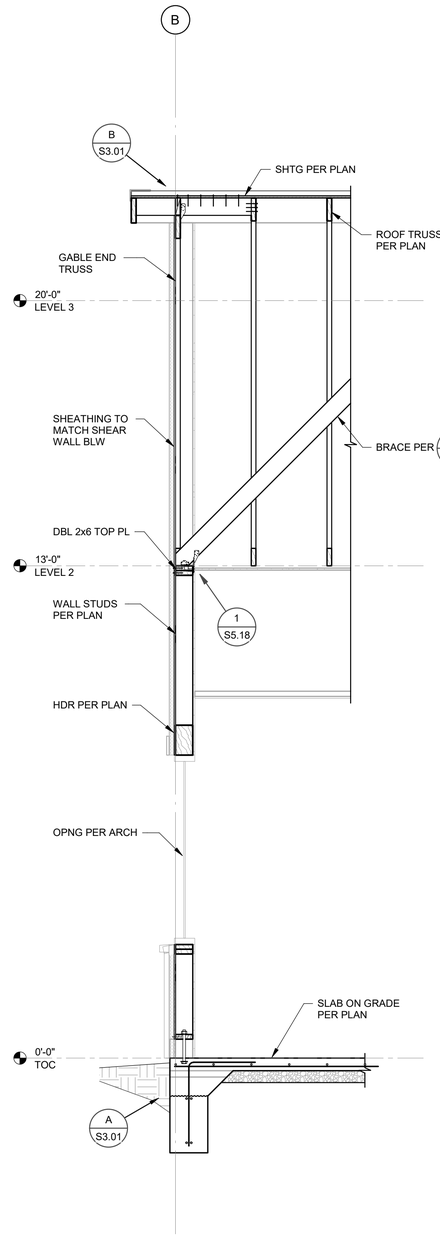
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SECTION A S3.01 1/2" = 1'-0"



SECTION B S3.01 1/2" = 1'-0"



SECTION C S3.01 1/2" = 1'-0"

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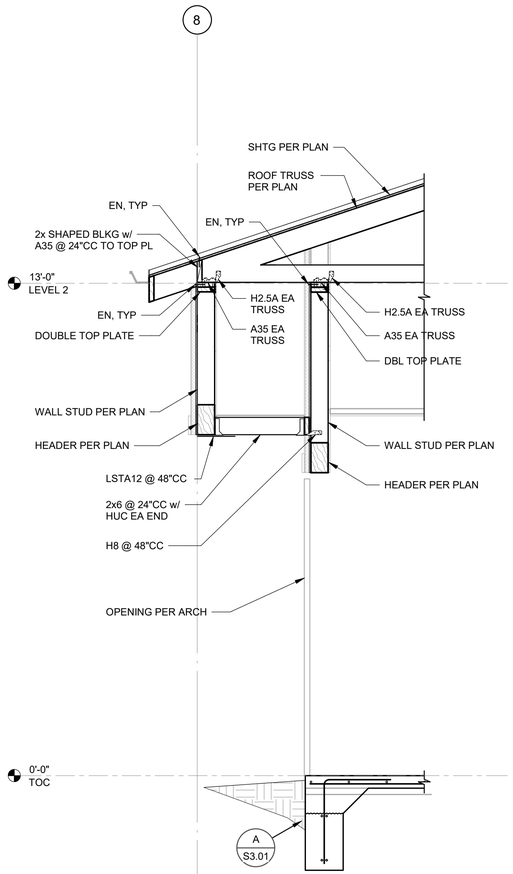
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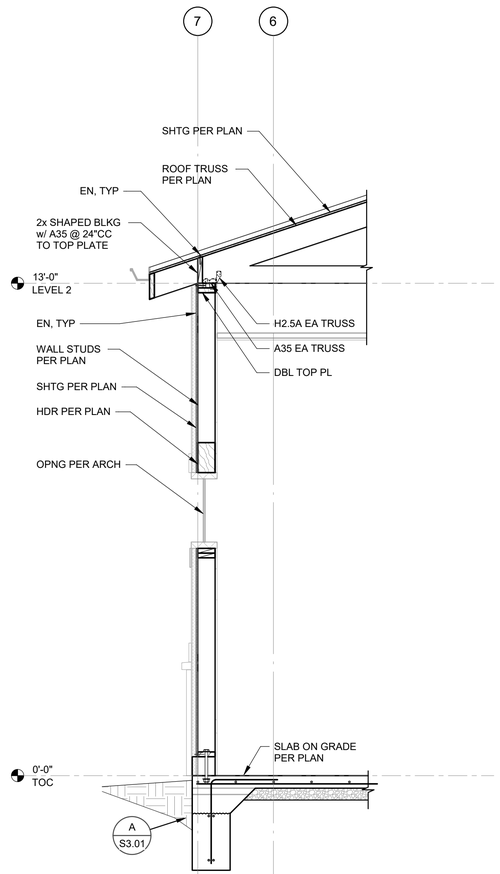
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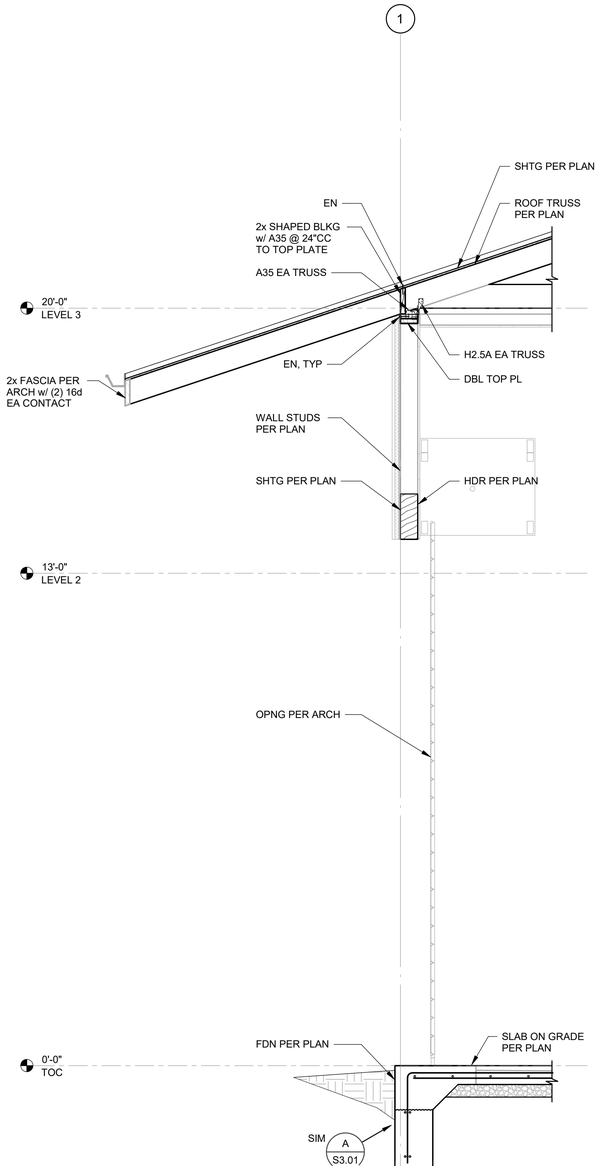
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SECTION A S3.02 1/2" = 1'-0"
Section 31



SECTION B S3.02 1/2" = 1'-0"
Section 10



SECTION C S3.02 1/2" = 1'-0"
Section 16

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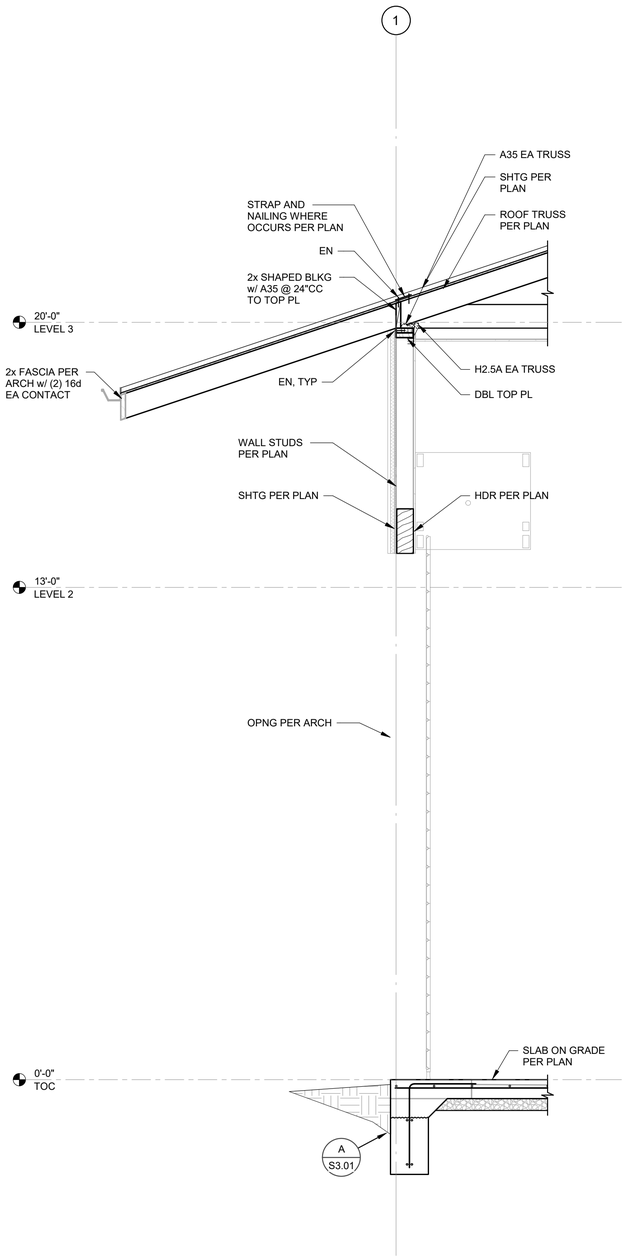
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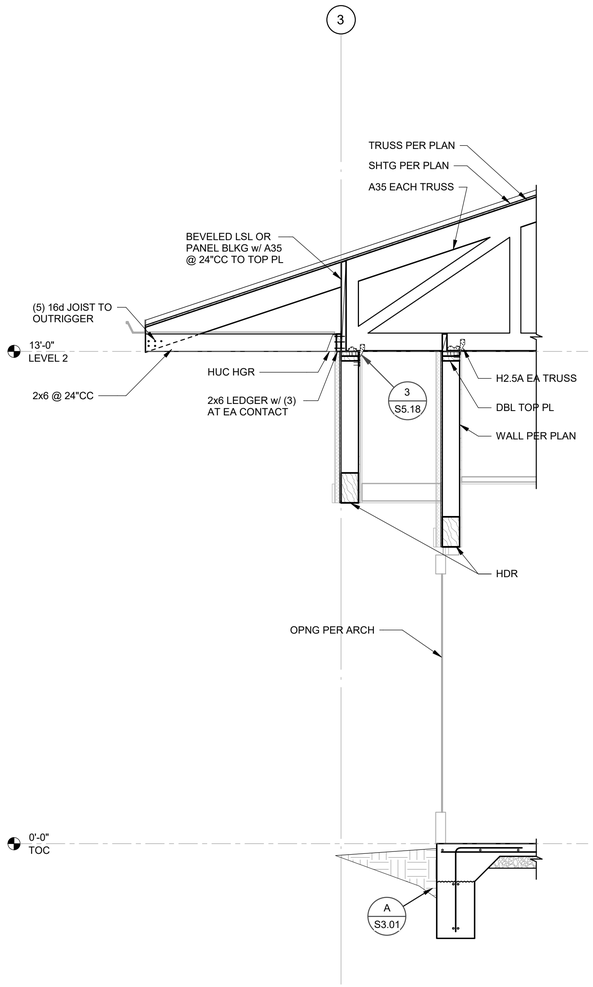
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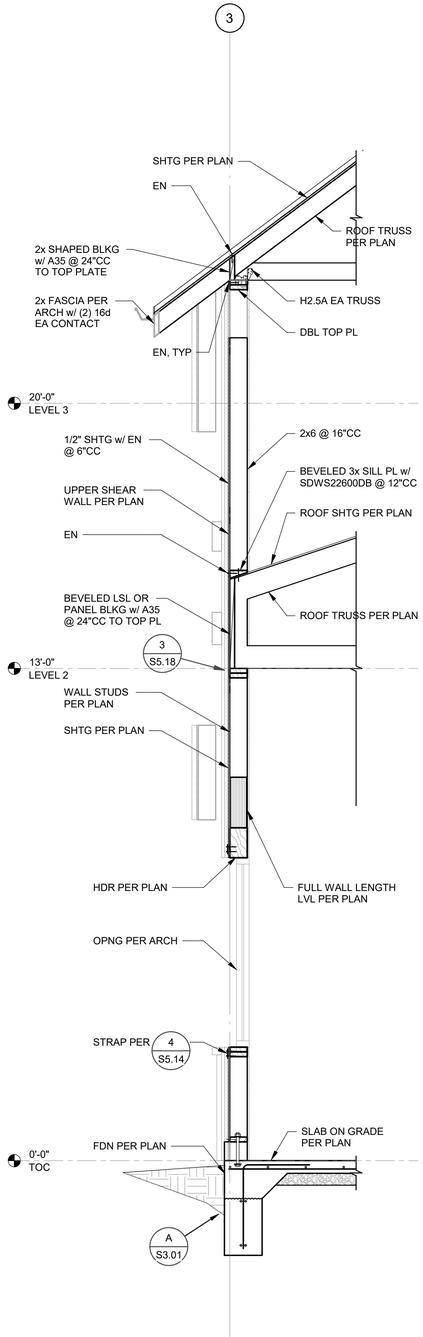
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SECTION A S3.03 1/2" = 1'-0" Section 10



SECTION B S3.03 1/2" = 1'-0" Section 29



SECTION C S3.03 1/2" = 1'-0" Section 17

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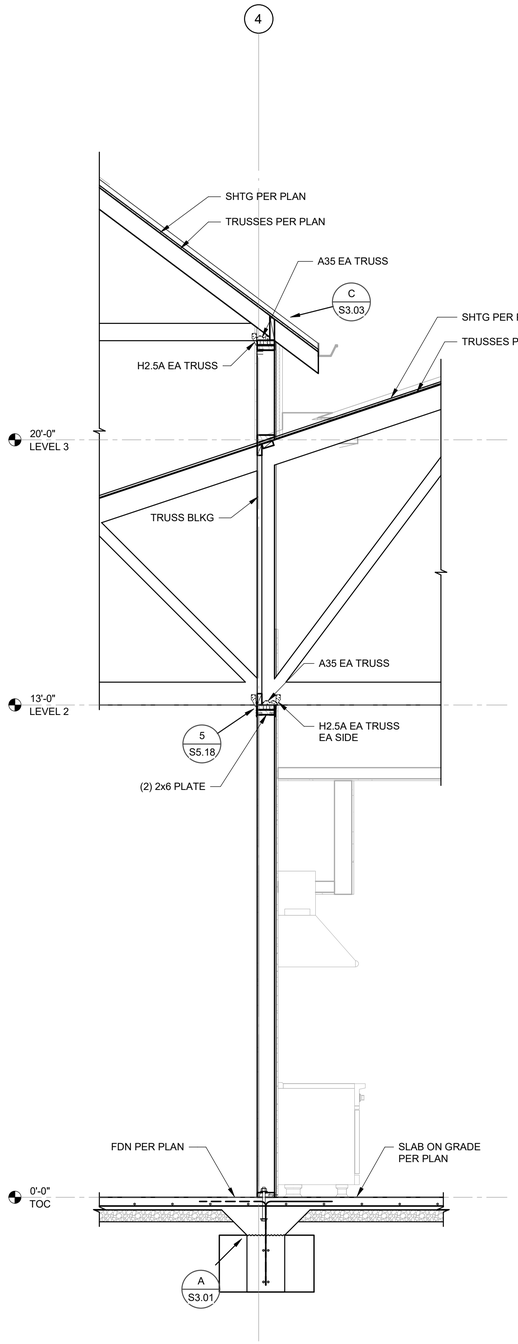
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SECTIONS

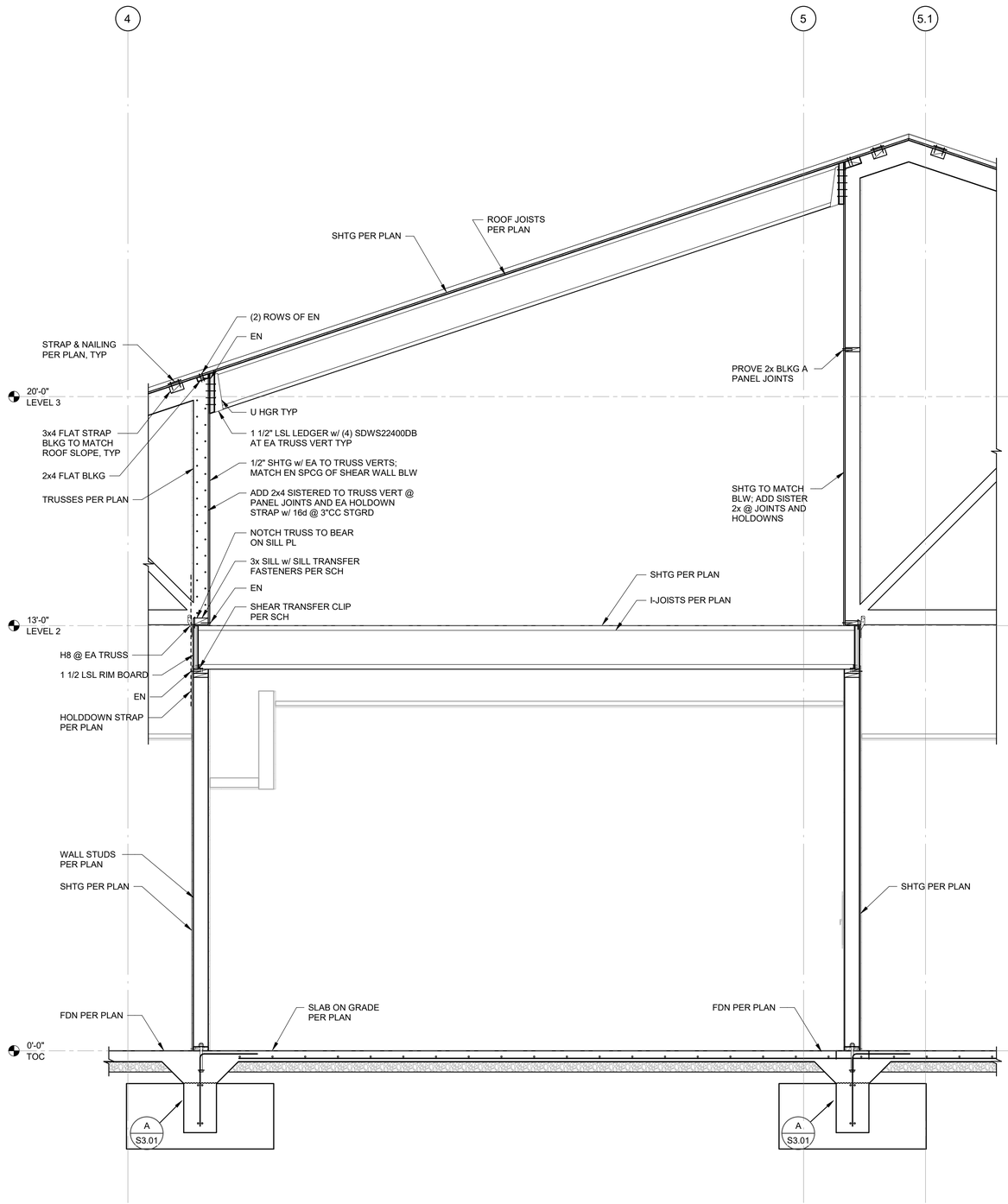
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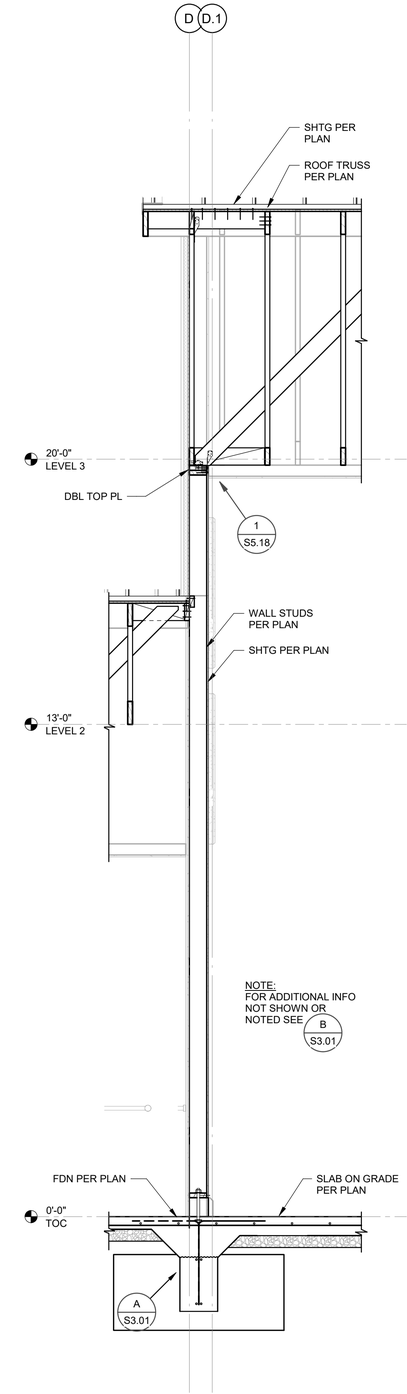
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SECTION A S3.04 1/2" = 1'-0"



SECTION B S3.04 1/2" = 1'-0"



SECTION C S3.04 1/2" = 1'-0"

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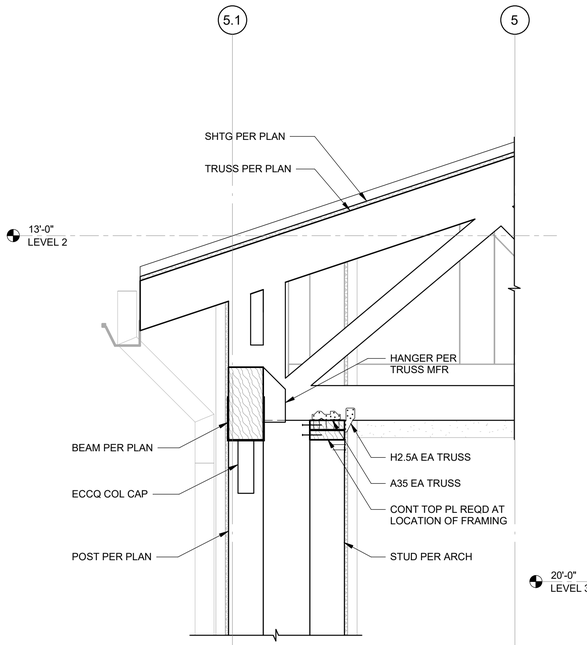
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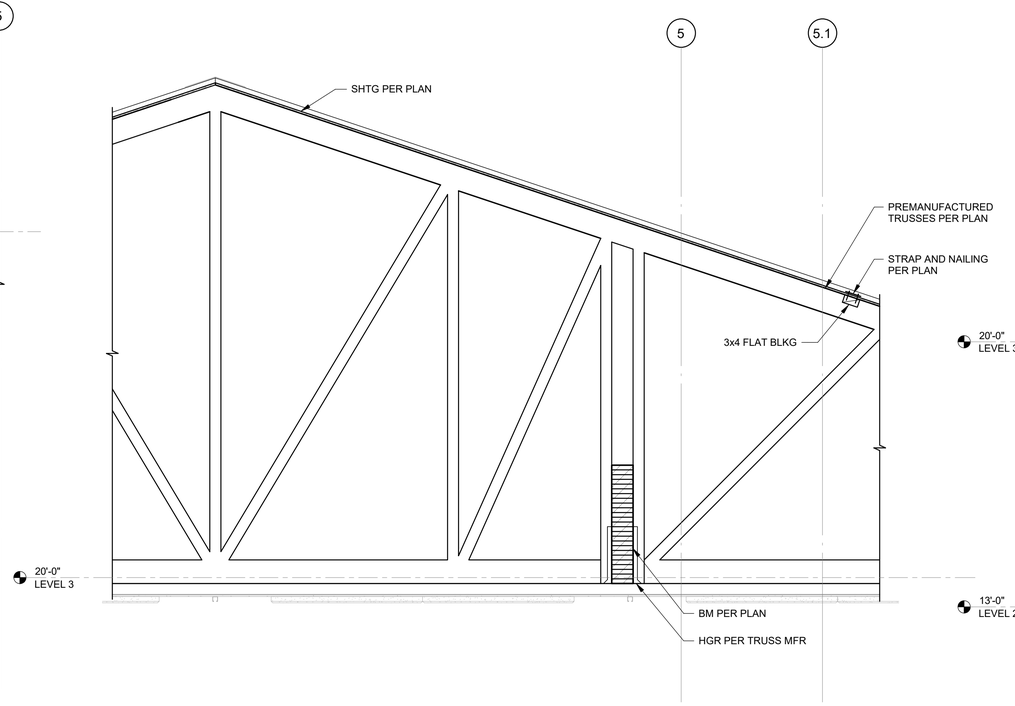
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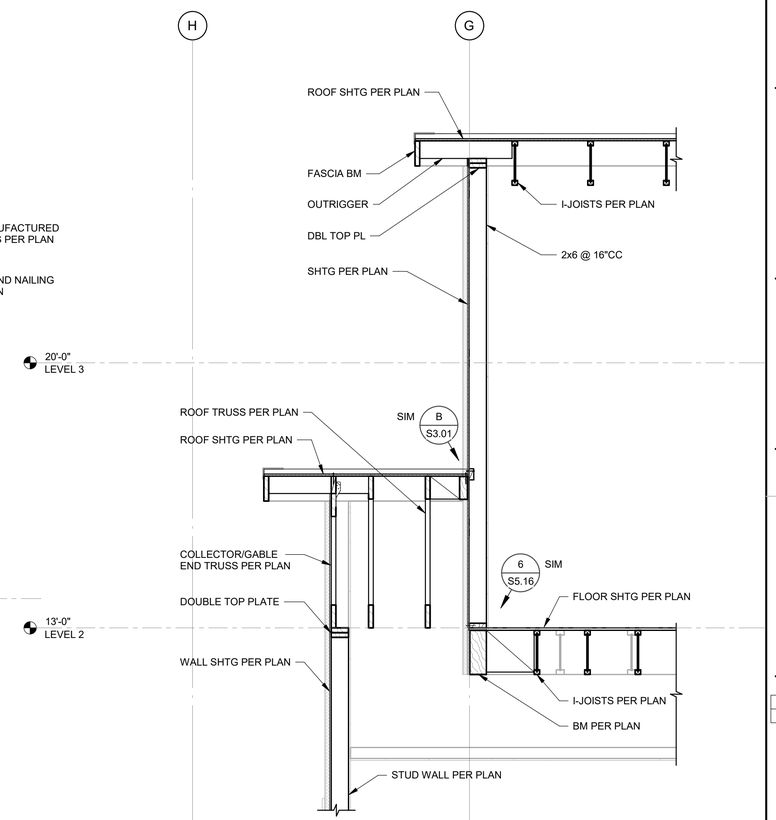
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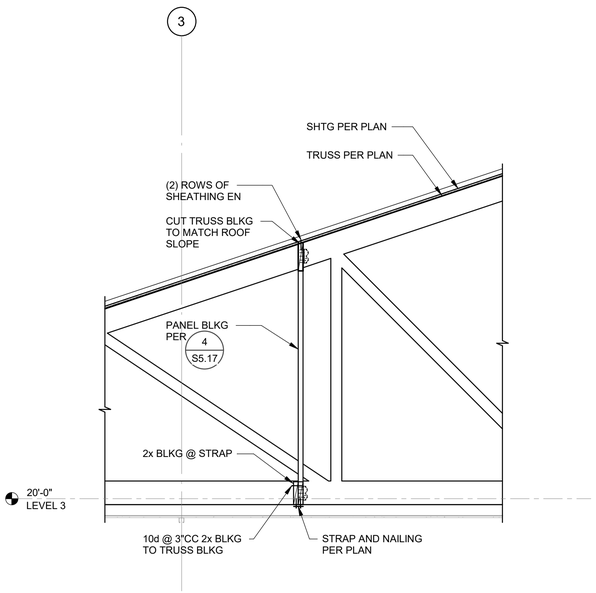
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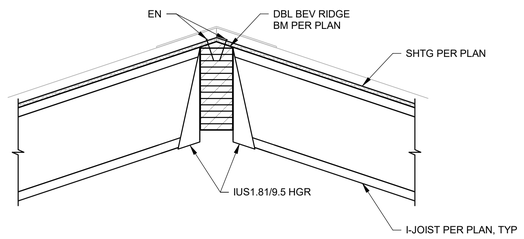
SECTION B S3.05 — 1/2" = 1'-0" (Section 36)



SECTION C S3.05 — 1/2" = 1'-0" (Section 62)



SECTION D S3.05 — 1/2" = 1'-0" (Section 7)



SECTION E S3.05 — 1" = 1'-0" (Section 61)

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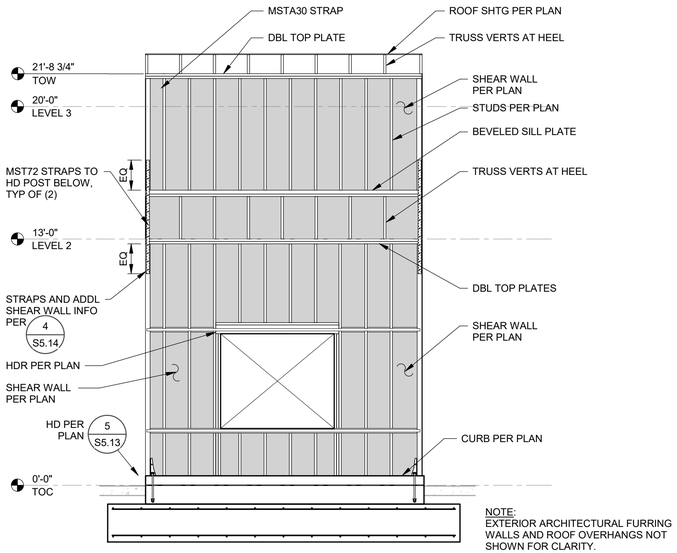
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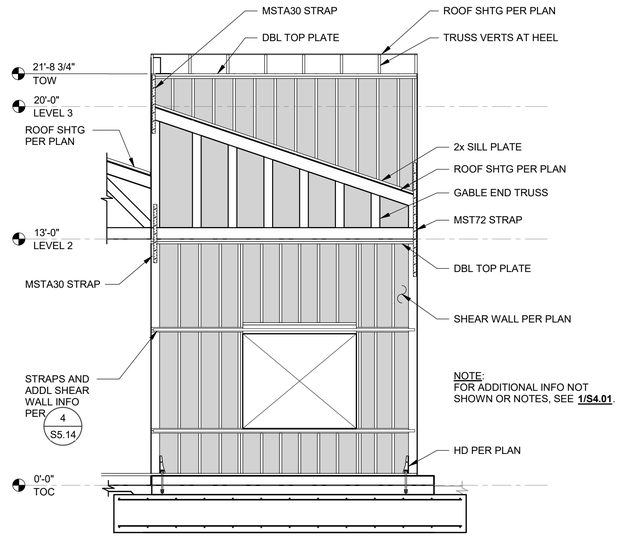
S3.05

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NOTE:
EXTERIOR ARCHITECTURAL FURRING WALLS AND ROOF OVERHANGS NOT SHOWN FOR CLARITY.

ELEVATION 1 S4.01 **1/4" = 1'-0"**
Elevation 2 - a



NOTE:
FOR ADDITIONAL INFO NOT SHOWN OR NOTES, SEE **1/S4.01**.

ELEVATION 2 S4.01 **1/4" = 1'-0"**
Elevation 7 - a

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TITLE

ELEVATIONS

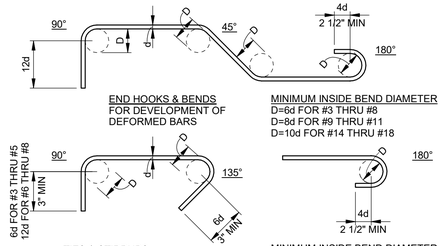
SHEET

S4.01

2" 1" 1/2" 1/4" 0
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TYPICAL DETAILS

APPLICABLE TO ALL DRAWINGS UNLESS NOTED OR SHOWN OTHERWISE



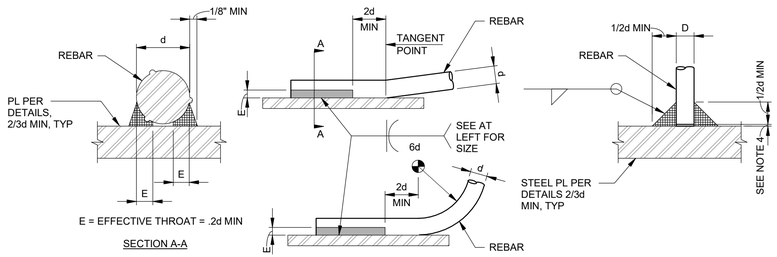
END HOOKS & BENDS
FOR DEVELOPMENT OF DEFORMED BARS

MINIMUM INSIDE BEND DIAMETER
D=6d FOR #3 THRU #8
D=8d FOR #9 THRU #11
D=10d FOR #14 THRU #18

TIES & STIRRUPS

MINIMUM INSIDE BEND DIAMETER
D=4d FOR #3 THRU #5
D=6d FOR #6 THRU #8

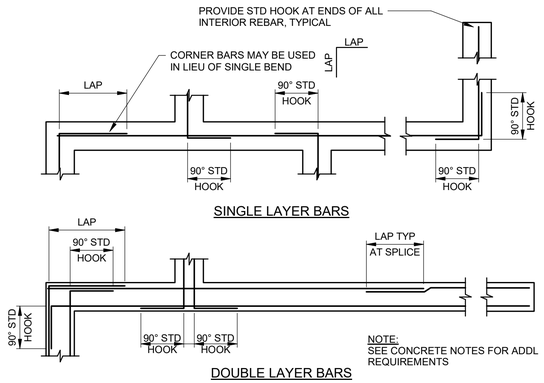
NOTE:
ALL HOOKS SHALL BE 90° OR 180° STANDARD HOOKS UNLESS OTHERWISE SHOWN OR NOTED.



WELD PARALLEL TO BAR LENGTH

BUTT WELDED BAR

NOTES:
1. REINFORCING TO BE WELDED, EXCEPT ASTM A706, SHALL CONFORM TO THE MATERIAL PROPERTY REQUIREMENTS OF ANSI/AWS D1.4, NEWEST EDITION.
2. ALL PREHEATING AND WELDING SHALL BE DONE IN ACCORDANCE WITH ANSI/AWS D1.4, NEWEST EDITION. ALL ELECTRODES FOR WELDING SHALL COMPLY WITH AWS CODE, E80 SERIES MINIMUM FOR ASTM A706 GR60 AND E90 SERIES MINIMUM FOR ASTM A615 GR60. FOR HIGHER GRADE REINFORCING, REFER TO AWS D1.4, NEWEST EDITION, FOR ELECTRODE REQUIREMENTS.
3. ALL WELDING SHALL BE CONTINUOUSLY INSPECTED BY A QUALIFIED LABORATORY.
4. GAPS BETWEEN REBAR AND PLATE SHALL NOTE EXCEED 1/4d OR 3/16", WHICHEVER IS LESS.



NOTE:
SEE CONCRETE NOTES FOR ADDL REQUIREMENTS

DETAIL 1 S5.01 — STANDARD REBAR HOOKS & BENDS

1" = 1'-0"

300SD001 - Std Rebar Hooks & Bends

DETAIL 2 S5.01 — REBAR WELDING

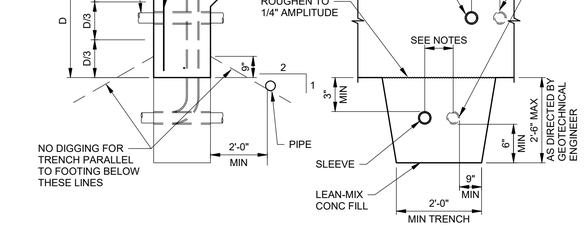
3/8" = 1'-0"

300SD002 - Rebar Welding Detail

DETAIL 3 S5.01 — INTERSECTION & CORNER REINF AT FTGS

3/8" = 1'-0"

200SD011 - Corner Reinforcing

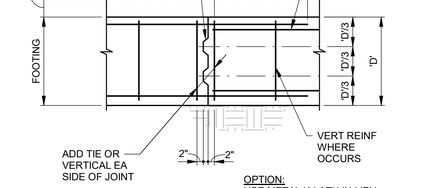


NOTES:
1. THE PROVISIONS HEREIN ARE APPLICABLE TO CONTINUOUS FOOTINGS AND GRADE BEAMS.
2. NO PIPES SHALL BE PLACED BELOW ISOLATED SPREAD FOOTINGS OR WITHIN 2 TO 1 BEARING ZONE AROUND SPREAD FOOTINGS.
3. REINFORCING SHALL NOT BE INTERRUPTED, CUT OR DISPLACED BY PLACEMENT OF UTILITY PIPE.
4. LEAN MIX CONCRETE FILL TO BE PLACED BEFORE FOOTING IS CAST (MONO-POUR FOOTING CONC OPTIONAL.) MAKE SAME WIDTH AS FOOTING AND FULL WIDTH OF PIPE TRENCH.
5. STEP FOOTING IF PIPE OCCURS OUTSIDE OF MIDDLE THIRD OF ORIGINAL FOOTING DEPTH.
6. IF PIPE IS IN PLACE PRIOR TO CASTING CONCRETE, WRAP PIPE w/ 1" STYROFOAM INSULATION IN LIEU OF SLEEVE.
7. UTILITY PIPES ARE NOT ALLOWED PARALLEL IN FOOTING.
8. MULTIPLE UTILITY PIPES (TWO OR MORE) MAY BE INSTALLED AS SHOWN, PROVIDED THEY ARE SPACED A MINIMUM OF (4) PIPE/CONDUIT DIAMETERS ON CENTER WITH A MINIMUM OF 3" OF CONCRETE BETWEEN. PIPE DIAMETER INDICATED IS THE ROUGH HOLE SIZE THRU FOOTING.
9. UTILITY PIPE RISERS MAY OCCUR IN CONTINUOUS FOOTINGS PROVIDED THEY ARE NO LARGER THAN (FOOTING WIDTH/6) AND OCCUR WITHIN THE MIDDLE 1/2 OF THE FOOTING WIDTH. MULTIPLE RISERS MAY OCCUR IF SPACED AS NOTED ABOVE.
10. UTILITY PIPES PERPENDICULAR TO FOOTINGS AND MORE THAN 2'-0" BELOW BOTTOM OF FOOTINGS DO NOT REQUIRE LEAN-MIX CONCRETE ENCASEMENT, SUBJECT TO ACCEPTANCE BY THE GEOTECHNICAL ENGINEER.
11. CONDITIONS NOT CONFORMING TO THE PARAMETERS NOTED ABOVE SHALL BE REVIEWED ON A CASE-BY-CASE BASIS.

DETAIL 4 S5.01 — FOOTINGS AT UTILITY PIPES

3/8" = 1'-0"

300SD003 - Footings at Utility Pipes

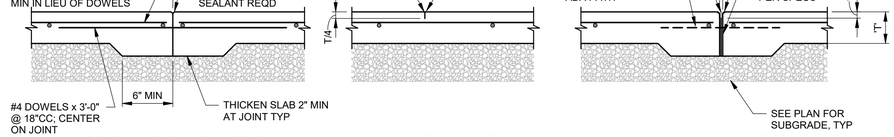


OPTION:
USE METAL K-LATH IN LIEU OF KEYS FOR FULL DEPTH OF FOUNDATION AT UNEXPOSED FOUNDATIONS ONLY.

DETAIL 5 S5.01 — FOUNDATION CONSTRUCTION JOINT

1/2" = 1'-0"

200SD012 - Foundation Construction Joint



CONSTRUCTION JOINT (CJ)

SLAB CONTROL JOINT (SJ)

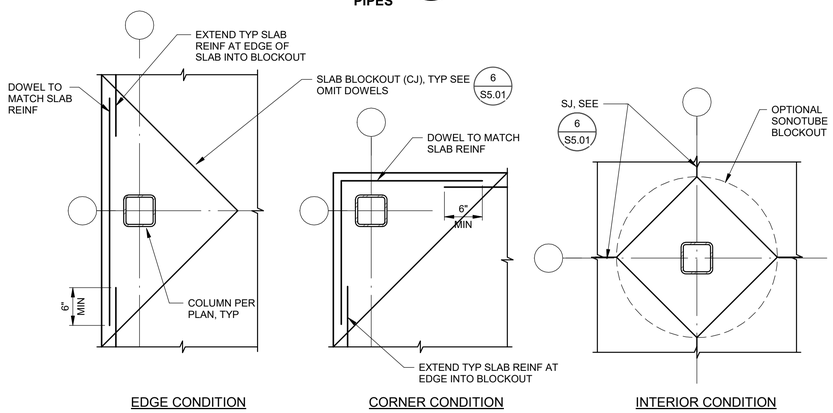
EXPANSION JOINT (EJ)

NOTES:
1. CONSTRUCTION JOINTS AND CONTROL JOINTS SHALL DIVIDE SLAB INTO AREAS NOT EXCEEDING 225 SQ FT WITHOUT REENTRANT CORNERS AND WITH LENGTH TO WIDTH RATIOS NOT EXCEEDING 1 1/2 TO 1. JOINT SPACING SHALL NOT EXCEED 15 FEET IN EITHER DIRECTION.
2. CONTRACTOR SHALL SUBMIT LAYOUT PLAN SHOWING PROPOSED CONTROL AND CONSTRUCTION JOINT LOCATIONS TO ARCHITECT & STRUCTURAL ENGINEER FOR REVIEW & APPROVAL.
3. SEMIRIGID SEALANT TO BE EUCLID EUCO #700 OR EQUAL.

DETAIL 6 S5.01 — SLAB ON GRADE JOINTS

1" = 1'-0"

310SD001 - Slab On Grade Joints



EDGE CONDITION

CORNER CONDITION

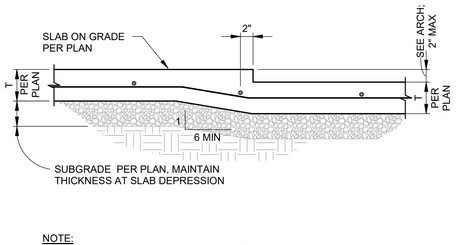
INTERIOR CONDITION

NOTES:
1. SLAB BLOCKOUT SHALL NOT EXTEND BEYOND FOOTING.
2. AT EXPOSED CONCRETE CONDITIONS, COORDINATE BLOCKOUT SHAPE AND SIZE w/ ARCH DWGS.

DETAIL 7 S5.01 — SLAB ON GRADE BLOCKOUT

1" = 1'-0"

310SD002 - Slab Blockout

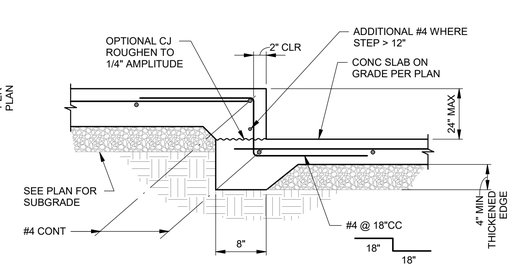


NOTE:
DETAIL APPLIES TO DEPRESSION / STEPS ≤ 2". FOR LARGER DEPRESSION / STEPS, SEE **9/S5.01**

DETAIL 8 S5.01 — SLAB DEPRESSION

1" = 1'-0"

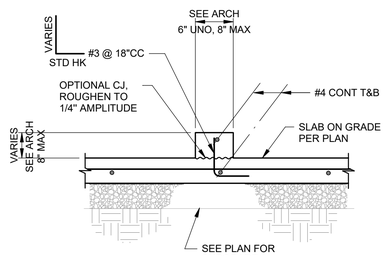
310SD004 - Slab Depression



DETAIL 9 S5.01 — STEP IN SLAB

1" = 1'-0"

310SD003 - Step In Slab



DETAIL 10 S5.01 — CURB AT SOG

1" = 1'-0"

310SD006 - Curb at Slab on Grade

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SEAL

REGISTERED PROFESSIONAL ENGINEER
WILLIAM B. RADER
No. 3592
STRUCTURAL
STATE OF CALIFORNIA
6/04/26

PROJECT

DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE

TYPICAL CONCRETE DETAILS

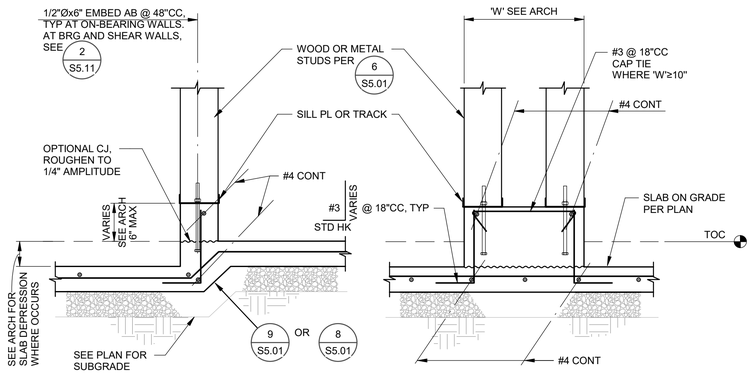
SHEET

S5.01

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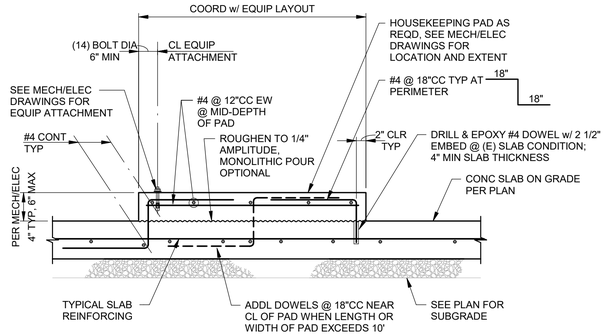
TYPICAL DETAILS

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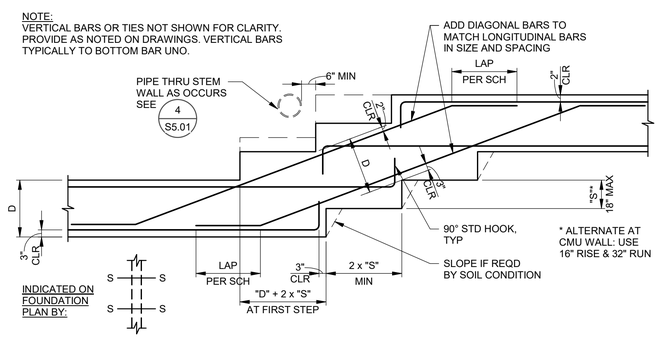
DETAIL 1 S5.02 — NO SCALE

CURB AT SLAB DEPRESSION



DETAIL 2 S5.02 — NO SCALE

HOUSEKEEPING PAD AT SLAB ON GRADE



DETAIL 3 S5.02 — NO SCALE

FOOTING STEP

DETAIL 4 S5.02 — NO SCALE

SPREAD FOOTING

DETAIL 5 S5.02 — NO SCALE

ENGINEERED FILL

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CITY OF DIXON FIRE DEPARTMENT

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MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE

TYPICAL CONCRETE DETAILS

SHEET

S5.02

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TYPICAL DETAILS

APPLICABLE TO ALL DRAWINGS UNLESS NOTED OR SHOWN OTHERWISE

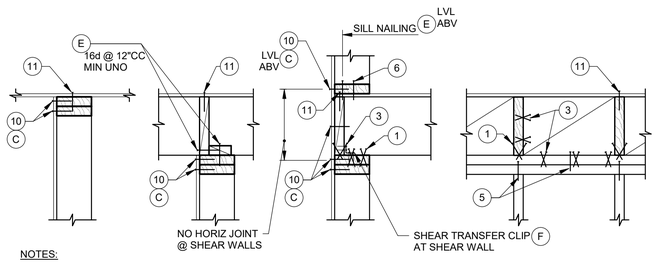
NAILING SCHEDULE
600SN002

ALL NAILS FOR STRUCTURAL WORK SHALL BE COMMON WIRE NAILS UNO, CONFORMING TO THE FOLLOWING MINIMUM SIZES:

8d	- 0.131" SHANK DIA (0.281" HEAD DIA) x 2-1/2"
10d	- 0.148" SHANK DIA (0.312" HEAD DIA) x 3"
10d SHEATHING	- 0.148" SHANK DIA (0.312" HEAD DIA) x 1 1/2" PLUS THICKNESS OF SHTG
10d SHORT	- 0.148" SHANK DIA (0.312" HEAD DIA) x 1 1/2"
16d	- 0.162" SHANK DIA (0.344" HEAD DIA) x 3 1/2"
20d	- 0.192" SHANK DIA (0.406" HEAD DIA) x 4"
20d BOX	- 0.148" SHANK DIA (0.375" HEAD DIA) x 4"
40d BOX	- 0.162" SHANK DIA (0.406" HEAD DIA) x 5"
RSRS-03	- 0.131" SHANK DIA (0.281" HEAD DIA) x 2 1/2" (ROOF SHTG RING SHANK)

HOLES SHALL BE PRE-DRILLED WHERE NECESSARY TO PREVENT SPLITTING. NAILING NOT NOTED BELOW OR ON PLANS SHALL BE A MINIMUM OF TWO NAILS AT EACH CONTACT. 8d FOR 1x MATERIAL AND 16d FOR 2x MATERIAL.

1. JOISTS OR RAFTERS------SAWN LUMBER BRG ON PLATES — TN EACH SIDE----------(2)10d
   I-JOISTS BRG ON PLATES — EACH SIDE OF WEB----------(2)10d
   LAPPED TO SIDES OF STUDS — 2x4, 2x6 ----------(3)16d
   2x8 - 2x12 ----------(4)16d
2. STUDS TO BEARINGS-----2x4 STUDS (3x, 4x SIM) — TN EACH SIDE----------(2)10d; EN IN LIEU OF TN----------(2)16d
   2x6 AND 2x8 STUDS — TN EACH SIDE ----------(3)10d; EN IN LIEU OF TN----------(3)16d
   2x10 AND 2x12 STUDS — TN EACH SIDE----------(4)10d; EN IN LIEU OF TN----------(4)16d
3. BLOCKING---------- BETWEEN JOISTS, RAFTERS OR STUDS — TN EACH SIDE EACH END----(2)10d; EN IN PLACE OF TN----------(2)16d
   BETWEEN JOIST OR RAFTER BEARINGS (PLATES) — TN EA SIDE ----------(3)10d
4. CONTINUOUS RIM----------TO DBL TOP PLATES — TN EA SIDE----------16d @ 16"CC; OMIT WHERE SHEAR TRANSFER FASTENERS PER **2/S5.11** OCCUR
5. LEDGERS ----------TO STUDS — 1x LEDGER ----------(2)8d; 2x LEDGER----------(3)16d
6. DOUBLE TOP PLATES -----LOWER PLATE TO 2x4 STUD----------(2)16d; LOWER PLATE TO 2x6 OR 2x8 STUD----------(3)16d; UPPER PLATE TO LOWER PLATE ----------SEE **2/S5.11**
7. SILL PLATES ----------TO PARALLEL FRAMING----------16d @ 12"CC; TO PERPENDICULAR FRAMING -------EACH CONTACT----------(2)16d
8. MULTIPLE STUDS---------- STAGGER FOR WIDTHS MORE THAN 4" ----------16d @ 12"CC
9. BUILT UP BEAMS ----------(2)2x MEMBERS, TOP AND BOTTOM ----------16d @ 12"CC CLINCHED; 3 OR MORE 2x MEMBERS ----------1/2" DIA BOLTS @ 12"CC STAGGERED
10. CEILING STRIPPING ----- HOLES SHALL BE PRE-DRILLED FOR NAILS AT ENDS OF STRIPPING BOARDS. WHERE CEILING IS PLASTER OR 5/8" GYPSUM USE ANNULAR RING NAILS (NO SLANT). — 1x ---------- (2)8d (1-SLANT); 2x ----------(2)16A (1-SLANT)
11. SHEAR WALL NAILING----------SEE **1/S5.13**
12. FLOOR OR ROOF NAILING----------SEE PLAN NOTES AND **9/S5.11**
13. NON-STRUCTURAL -------AT EDGES AND INTERIOR SIDING SUPPORTS — HDG CASING NAILS----------6d @ 6"CC
14. NON-STRUCTURAL -------AT EDGES SHEATHING — NAILS TO MATCH SHEAR WALLS @ 6"CC; AT FIELD — NAILS TO MATCH SHEAR WALLS @ 12"CC
15. USE DEFORMED SHANK NAILS FOR ALL FLOOR SHEATHING.
16. ALL EXPOSED FASTENERS SHALL HAVE A ZINC-COATING CORROSION RESISTIVE SURFACE.
17. NAILS USED INTO PRESSURE TREATED OR FIRE RETARDANT MATERIAL SHALL BE HOT-DIPPED GALVANIZED PER ASTM A123 OR STAINLESS STEEL.



NOTES:

(#) INDICATES CORRESPONDING NOTE FROM NAILING SCHEDULE. THIS IS THE MINIMUM REQUIRED NAILING, SHEAR WALL SCHEDULE NAILING SUPERCEDES THIS DETAIL.

(X) INDICATES CORRESPONDING NAILING FROM SHEAR WALL SCHEDULE **A/S5.13**

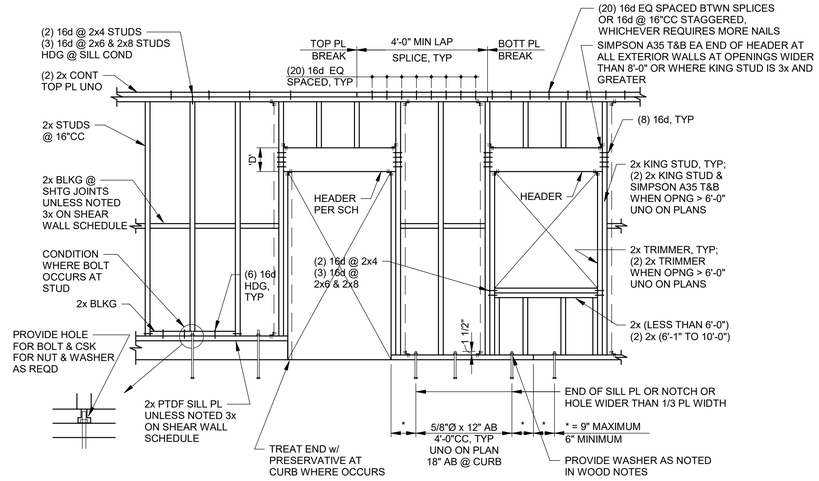
DETAIL 1 S5.11 — TYPICAL NAILING

1" = 1'-0"

600SD011 - Nailing Examples

HEADER SCHEDULE	
WIDTH OF OPENING	NOMINAL HEADER DEPTH 'D'
0 TO 4'-0"	8"
4'-1" TO 6'-0"	10"
6'-1" TO 8'-0"	12"
> 8'-0"	SEE PLAN
TYP UNO ON PLAN OR IN PLAN NOTES	

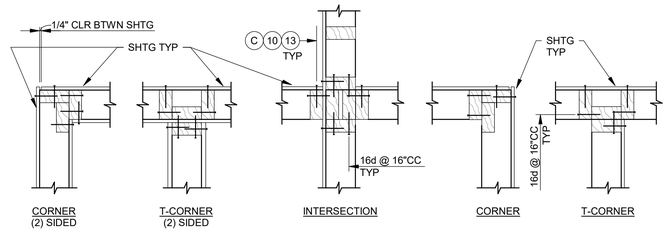
NOTES:
1. HEADER SHALL BE FULL WIDTH OF STUD WALL.
2. PROVIDE POSTS & ANCHORS AT HOLDOWNS WHERE OCCUR PER PLAN, SEE **4/S5.13**
3. AT OPENINGS FOR MECH DUCTS, SEE **2/S5.13**
4. FOR SHEAR WALL NAILING, SEE SCH AND **1/S5.13**
5. LOCATE TOP PLATE BREAKS OVER STUDS.



DETAIL 2 S5.11 — STRUCTURAL WALL FRAMING

3/8" = 1'-0"

600SD001 - Wall & Opening Framing at Structural Walls



NOTES:

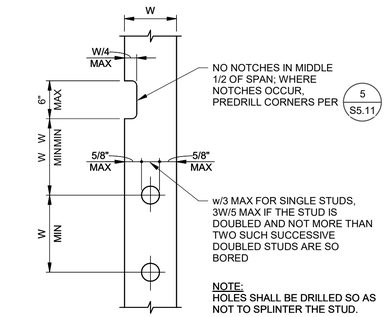
(#) INDICATES CORRESPONDING NOTE FROM NAILING SCHEDULE ON GENERAL NOTES SHEET. THIS IS THE MINIMUM REQUIRED NAILING, SHEAR WALL SCHEDULE NAILING SUPERCEDES THIS DETAIL.

(X) INDICATES CORRESPONDING NAILING FROM SHEAR WALL SCHEDULE **2/S5.11**

DETAIL 3 S5.11 — STRUCTURAL STUD FRAMING CONDITIONS

1" = 1'-0"

600SD014 - Structural Stud Framing Conditions

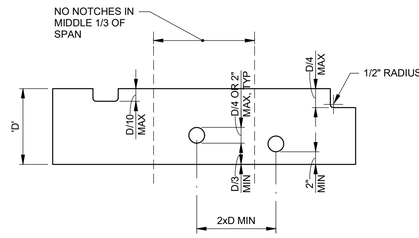


NOTE:
HOLES SHALL BE DRILLED SO AS NOT TO SPLINTER THE STUD.

DETAIL 4 S5.11 — HOLE OR NOTCH AT STUD

1" = 1'-0"

600SD013 - Hole or Notch at Stud

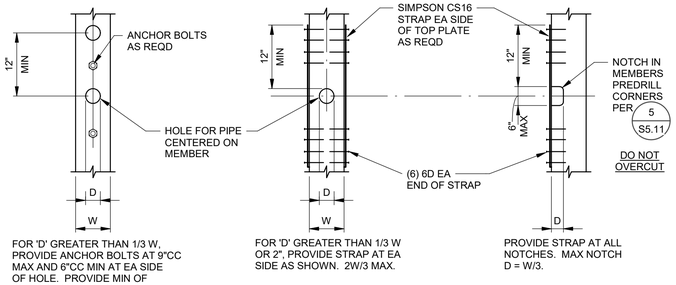


NOTES:
1. PREDRILL CORNERS OF NOTCHES SO AS NOT TO OVER CUT.
2. NOTCHES IN THE BOTTOM OF JOISTS ALLOWED ONLY WHERE SPECIFICALLY SHOWN ON DRAWINGS.
3. APPLIES TO SAWN LUMBER MEMBERS ONLY. NO NOTCHES ALLOWED IN OTHER TYPES OF MEMBER UNLESS SPECIFICALLY DETAILED IN THE DRAWINGS.

DETAIL 5 S5.11 — NOTCHES IN JOISTS & HEADERS

1" = 1'-0"

600SD101 - Notches for Joists & Headers



FOR 'D' GREATER THAN 1/3 W, PROVIDE ANCHOR BOLTS AT 9"CC MAX AND 6"CC MIN AT EA SIDE OF HOLE. PROVIDE MIN OF (2) AB PER SILL PIECE.

FOR 'D' GREATER THAN 1/3 W OR 2", PROVIDE STRAP AT EA SIDE AS SHOWN. 2W/3 MAX.

PROVIDE STRAP AT ALL NOTCHES. MAX NOTCH D = W/3.

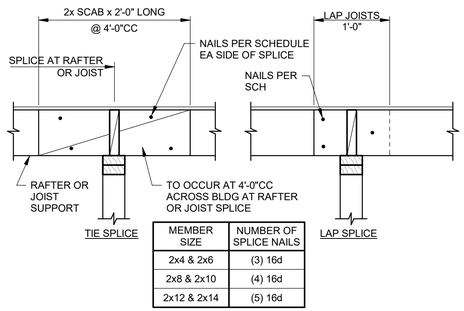
PLAN - HOLE IN SILL PLATE — PLAN - HOLE IN DOUBLE TOP PLATES — NOTCH IN PLATES

NOTE:
FOR MULTIPLE HOLES AND NOTCHES, MAINTAIN 18" CLEAR MIN AND EXTEND STRAP 12" PAST LAST HOLE OR NOTCH.

DETAIL 6 S5.11 — HOLE OR NOTCH THRU PLATES

NO SCALE

600SD012

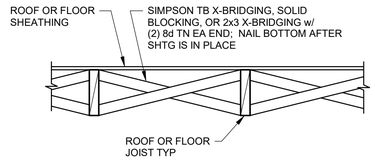


MEMBER SIZE	NUMBER OF SPLICE NAILS
2x4 & 2x6	(3) 16d
2x8 & 2x10	(4) 16d
2x12 & 2x14	(5) 16d

DETAIL 7 S5.11 — JOIST & RAFTER SPLICE

1" = 1'-0"

600SD102 - Joist & Rafter Splice

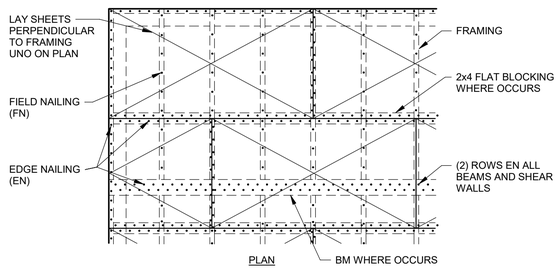


NOTE:
CROSS BRIDGING TO OCCUR AT 8'-0"CC IN FLOORS AND 10'-0"CC IN ROOFS. OMIT AT ROOF RAFTER 8" DEEP AND SMALLER UNO ON PLAN.

DETAIL 8 S5.11 — CROSS BRIDGING

1" = 1'-0"

600SD100 - Cross Bridging



NOTES:
1. SEE PLAN FOR SHEATHING TYPE AND NAIL SIZE AND SPACING.
2. PROVIDE EN AT ALL SHEET EDGES, BEAMS, SHEAR WALLS, BLOCKING, AND MECHANICAL UNITS.
3. EN SHALL BE PER PLAN.
   FN SHALL BE @ 12"CC. NAIL SIZE TO MATCH EN.
4. PROVIDE FLAT BLOCKING AND EN AT ALL UNSUPPORTED EDGES WHERE BLOCKING AND NAILING ARE INDICATED ON PLAN.
5. STAGGER SP JOINTS AS SHOWN. MINIMUM PANEL DIMENSION IN EITHER DIRECTION IS 24".
6. EN SHALL BE 10d "SHEATHING" NAILS, UNO.
7. FRAMING AT PANEL EDGES, SHALL BE 3x WHERE NAILS ARE SPACED -< 3"CC.
8. ALL 3x AND GREATER MATERIAL IN DIAPHRAGMS SHALL BE LESS THAN 19% MOISTURE CONTENT UNLESS SPECIFICALLY ALLOWED BY SEOR IN WRITING.

DETAIL 9 S5.11 — FLOOR & ROOF NAILING

1/2" = 1'-0"

600SD100 - Floor & Roof Nailing

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SACRAMENTO, CA 95811
916 443 0303

SEAL

REGISTERED PROFESSIONAL ENGINEER — WILLIAM B. RADER — No. 3592 — STRUCTURAL — STATE OF CALIFORNIA

6/04/26

PROJECT

DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION
	6/4/26	Plan Check Response

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE

TYPICAL FRAMING AND NAILING DETAILS

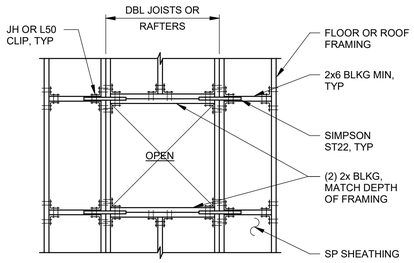
SHEET

S5.11

2" 1" 1/2" 0 1/4"
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
Autodesk Docs://MF22204 The City of Dixon - Fire Station 82/22022-01R0_Dixon Fire 82_Central_R24.rvt
6/4/2026 5:02:51 PM

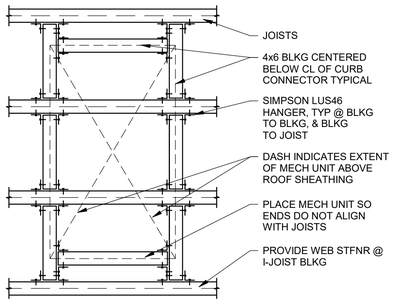
TYPICAL DETAILS

APPLICABLE TO ALL DRAWINGS UNLESS NOTED OR SHOWN OTHERWISE



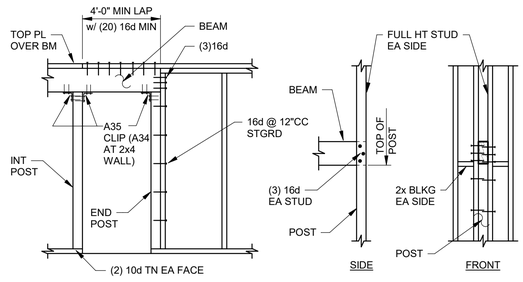
NOTE:
OPENINGS TO BE 4'-0" SQUARE MAXIMUM
SPACING NO CLOSER THAN 6'-0"CC

DETAIL 1 S5.12 — **1" = 1'-0"**
OPENING IN FLOOR OR ROOF
600501104 - Opening in Roof, Floor or Wall Plywood Diaphragm

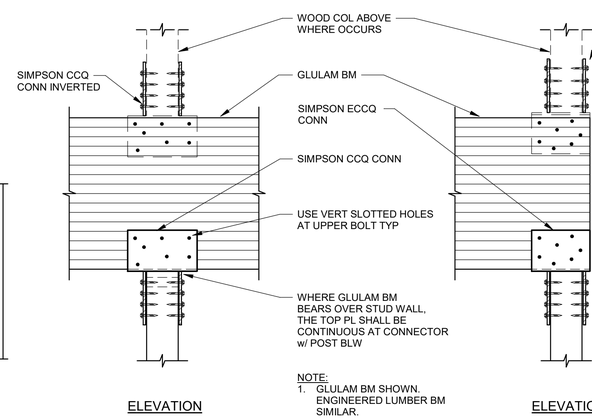


NOTE:
ALL UNITS SHALL BE PLACED TO ELIMINATE JOISTS
WHICH MUST BE HEADED OFF FOR PLENUMS

DETAIL 2 S5.12 — **1" = 10'-0"**
MECHANICAL UNIT SUPPORT AT JOISTS
600507103 - Blocking @ Mechanical Unit



DETAIL 3 S5.12 — NO SCALE
POST & BEAM CONNECTION
600503350



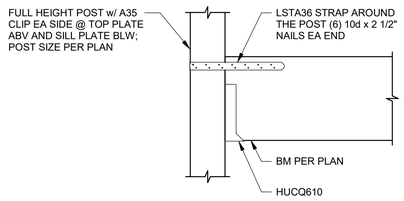
NOTE:
1. GLULAM BM SHOWN. ENGINEERED LUMBER BM SIMILAR.

DETAIL 4 S5.12 — **1" = 1'-0"**
BEAM AT POST w/ CAP
600520011 - Beam @ Post w/ Premanufactured Cap

DETAIL 5 S5.12 — **3/4" = 1'-0"**
POST BASE
663SD001 - Typical Post Base

NOTES:
1. IN LIEU OF ADDING BLOCKING, ADDITIONAL STUD CENTERED BELOW JOIST MAY BE PROVIDED.
2. ADDITIONAL BLOCKING NOT REQUIRED WHERE TOP PLATES BEAR ON HEADER DIRECTLY BELOW.

DETAIL 6 S5.12 — **1" = 1'-0"**
TOP PL SUPPORT
600505015 - TOP PLATE SUPPORT



DETAIL 7 S5.12 — **1" = 1'-0"**
CANOPY TIE
PLS-400

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TITLE
TYPICAL FRAMING AND NAILING DETAILS

SHEET
S5.12

0 1/4" 1/2" 1" 2"
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TYPICAL DETAILS

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A S5.13 SHEAR WALL SCHEDULE

15/32" APA RATED SHEATHING

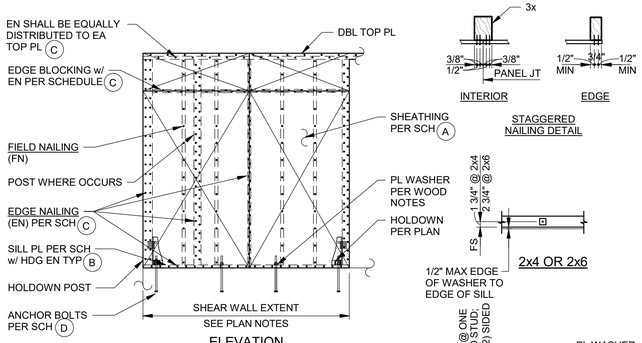
MK	SHEATHING MATERIAL (A)	STUDS & BLKG @ PANEL JOINTS	SILL & TOP PLATES (B)	SHEATHING EDGE NAILING (C)	ANCHOR BOLT SPACING (D)	SHEAR/SILL TRANSFER FASTENERS (E)	SHEAR TRANSFER CLIPS (F)
1	15/32" SHTG (1) SIDE	2x	2x	10d @ 6"CC	5/8"Ø @ 48"CC	SDS @ 12"CC	@ 12"CC
2	15/32" SHTG (1) SIDE	2x	2x	10d @ 4"CC	5/8"Ø @ 32"CC	SDS @ 8"CC	@ 8"CC
3	15/32" SHTG (1) SIDE	3x	2x TYP UNO 3x @ FND	10d @ 3"CC STAGGERED	5/8"Ø @ 32"CC	SDS @ 8"CC	@ 8"CC
4	15/32" SHTG (1) SIDE	3x	2x TYP UNO 3x @ FND	10d @ 2"CC STAGGERED	5/8"Ø @ 24"CC	SDS @ 6"CC	@ 6"CC
5	15/32" SHTG (2) SIDES	3x ALL STUDS	2x TYP UNO 3x @ FND	10d @ 4"CC	5/8"Ø @ 24"CC	SDS @ 8"CC INTO RIM & 8"CC INTO 2x BLKG	@ 8"CC (2) SIDES
6	15/32" SHTG (2) SIDES	3x ALL STUDS	2x TYP UNO 3x @ SILL PL	10d @ 3"CC STAGGERED	5/8"Ø @ 16"CC	SDS @ 8"CC INTO RIM & 8"CC INTO 2x BLKG	@ 8"CC (2) SIDES
7	15/32" SHTG (2) SIDES	3x ALL STUDS	2x TYP UNO 3x @ SILL PL	10d @ 2"CC STAGGERED	5/8"Ø @ 12"CC	SDS @ 6"CC INTO RIM & 6"CC INTO 2x BLKG	@ 6"CC (2) SIDES

NOTES:
A. APA RATED SHEATHING GRADE.
B. ALL TOP PLATES SHALL BE (2) 2x NOMINAL UNO ON SECTIONS OR DETAILS. NAILING SHALL BE STAGGERED BETWEEN PLATES.
C. FOR SHEAR WALL NAILING AND FRAMING REQUIREMENTS, SEE **1/S5.13**.
D. PROVIDE 12" LONG ANCHOR BOLTS EXCEPT AT CONCRETE OVER METAL DECK WHERE A MINIMUM OF 5" EMBEDMENT IS REQUIRED. PROVIDE 18" LONG ANCHOR BOLTS AT CURBS, TYP. SEE WOOD NOTES ON GENERAL NOTES SHEET FOR WASHER REQUIREMENTS.
E. SHEAR/SILL FASTENERS ONLY REQUIRED WHERE INDICATED ON SECTIONS AND DETAILS. WHERE INDICATED, FASTENERS SHALL BE SIMPSON SDS 1/4" DIAMETER SCREWS x 4-1/2" LONG AT 2x SILLS AND 6" LONG @ 3x SILLS.
F. SHEAR TRANSFER CLIPS ARE ONLY REQD WHERE INDICATED ON SECTIONS AND DETAILS. WHERE INDICATED, CLIPS SHALL BE SIMPSON LTP4 WITH 0.131x2 1/2" NAILS (INSTALLED WITH LONG DIMENSION HORIZONTAL)OR A35 CLIPS.

B S5.13 HD ANCHOR AND POST SCHEDULE

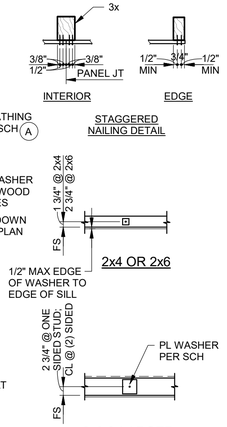
Mk	HOLDOWN MODEL	SDS SCREW & QUANTITY	ROD DIAMETER	ALTERNATE STRAP @ FLOOR FRAMING	POST @ SINGLE HD MINIMUM	POST @ DOUBLE HD MINIMUM
3	HDUE3	(7) 1/4"Ø x 3"	5/8"	MST60	(2) 2x	4x
5	HDUE5	(10) 1/4"Ø x 3"	5/8"	MST72	(2) 2x	4x
7	HDUE7	(13) 1/4"Ø x 3"	5/8"	NONE	(2) 2x	4x
9	HDUE9	(16) 1/4"Ø x 3 1/2"	7/8"	NONE	4x6 OR 6x	6x
13	HDUE13	(23) 1/4"Ø x 3 1/2"	1"	NONE	4x8 OR 6x6	8x
17	HDUE17	(28) 1/4"Ø x 4 1/2"	1"	NONE	6x6	8x

NOTES:
1. HD ANCHORS DO NOT REPLACE SILL BOLTS AT FOUNDATION.
2. DOUBLE HOLDOWN CONDITION, INDICATED WITH (2).
3. SCREWS IN HDUE3 AND HDUE5 SHALL BE INSTALLED PERPENDICULAR TO WOOD POST. ALL OTHER MODELS HAVE SCREWS IN BOTH AN ANGLED (TABBED HOLE) AND PERPENDICULAR ORIENTATION (ROUND HOLE).
4. ANCHOR RODS SHALL BE ASTM F1554 GR. 36 UNO.
5. FOR TYPICAL ANCHOR ROD INSTALLATION AT FDN. SEE DETAIL **4/S5.13**.
6. WHERE TWO POST SIZES ARE SHOWN, FIRST SIZE IS FOR 2X4 WALLS.
7. WHERE 6x OR 8x POST SIZES ARE SHOWN, HOLDOWN NOT PERMITTED IN 2x4 WALLS.



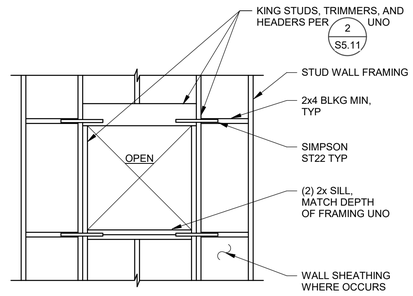
ELEVATION

NOTES:
1. SEE SCHEDULE FOR SHEATHING TYPE AND NAIL SIZE AND SPACING.
2. PROVIDE EN AT ALL SHEET EDGES, SILL PL, TOP PL, BLOCKING, AND POSTS. AT ALL SHTG SHOWN ON THE STRUCTURAL DRAWINGS, EN SHALL BE 6"CC MIN.
3. EN SHALL BE 10d "SHEATHING" NAILS, UNO.
4. FN SHALL BE @ 12"CC. NAIL SIZE TO MATCH EN.
5. MINIMUM PANEL DIMENSION IN EITHER DIRECTION IS 12".
6. SEE SHEAR WALL SCHEDULE FOR INFORMATION NOT NOTED.
7. EDGE NAILING INTO ALL PRESSURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED. STAINLESS STEEL MAY BE USED AS AN OPTION.
8. SHEAR WALL LENGTH ON PLAN INDICATES MINIMUM. CONTINUOUS REQUIRED LENGTH. ACTUAL SHEAR WALL LENGTH SHALL EXTEND TO WALL ENDS, CORNERS, OR OPENINGS PER ARCH DWGS UNO.
9. COORDINATE SIDE OF WALL TO RECEIVE SHEATHING WITH ARCH DWGS. NOTIFY ARCHITECT OF CONFLICTS PRIOR TO COMMENCING ANY WORK.



DETAIL SHEAR WALL NAILING — 1 / S5.13 — 1/2" = 1'-0"

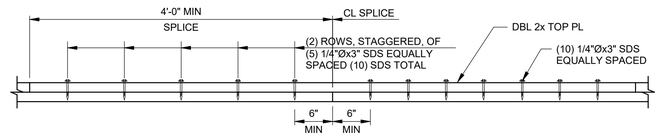
6105D505 - Shear Wall Nailing



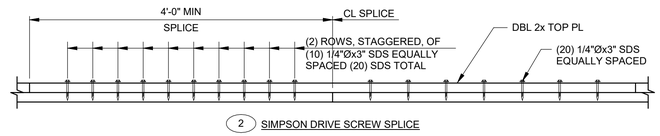
NOTES:
1. OPENINGS TO BE 4'-0" SQUARE MAXIMUM SPACING NO CLOSER THAN 6'-0"CC.
2. OPENINGS IN DESIGNATED SHEAR WALLS NOT PERMITTED UNLESS SPECIFICALLY DETAILED ON PLAN.

DETAIL OPENING IN WALL SHEATHING — 2 / S5.13 — 1" = 1'-0"

6105D300 - Opening in Wall Sheathing



1 SIMPSON DRIVE SCREW SPLICE

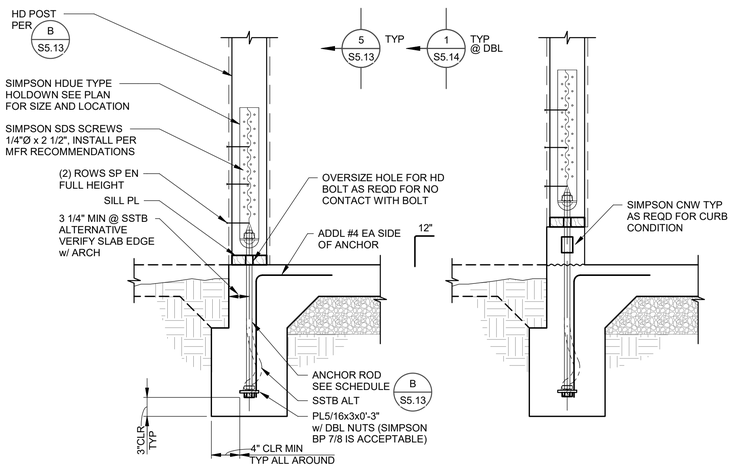


2 SIMPSON DRIVE SCREW SPLICE

NOTE:
FASTENERS WILL OCCUR AT EA SIDE OF SPLICE TO ESTABLISH CONTINUITY OF DBL TOP PL.

DETAIL TOP PLATE SDS SPLICE — 3 / S5.13 — 1" = 1'-0"

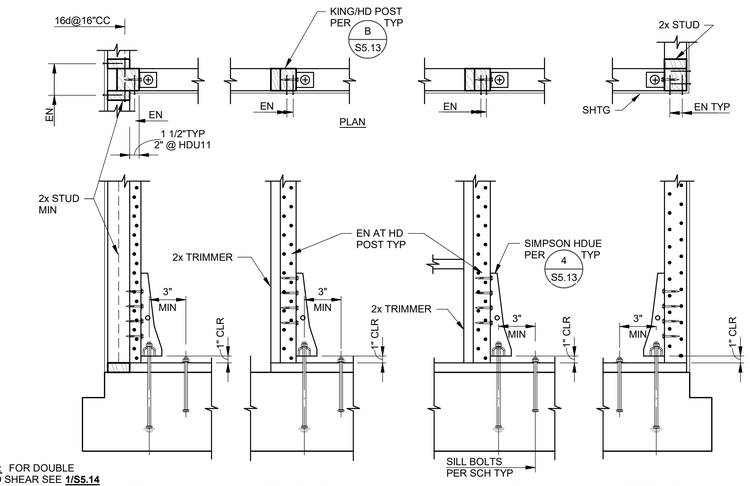
6105D300 - Top Plates - Nailed Splice



NO CURB WITH CURB

DETAIL HOLDOWN AT FOUNDATION — 4 / S5.13 — 1" = 1'-0"

6105D201 - Holdown @ Foundation



NOTE: FOR DOUBLE SIDED SHEAR SEE **1/S5.14** SIM

T-CORNER AT DOOR AT WINDOW AT CORNER

DETAIL HOLDOWN PLACEMENT AT FOUNDATION — 5 / S5.13 — 1" = 1'-0"

6105D205 - Anglin Holdown Placement @ Foundation

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DIXON, CA 95620

CLIENT

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MANAGEMENT

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AGENCY

TITLE

TYPICAL SHEAR WALL AND HOLDOWN DETAILS

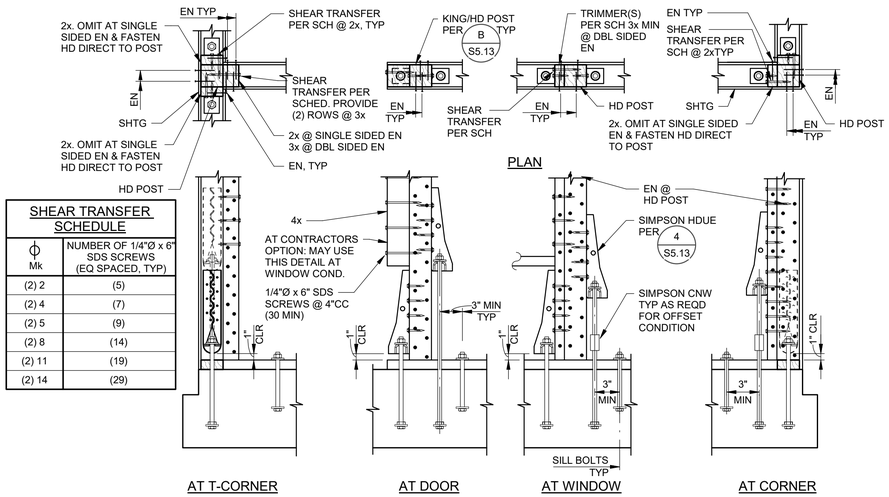
SHEET

S5.13

2" 1" 1/2" 0 1/4"
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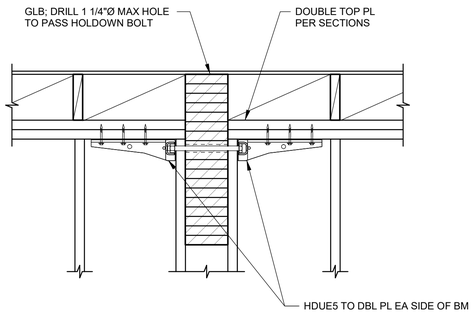
TYPICAL DETAILS

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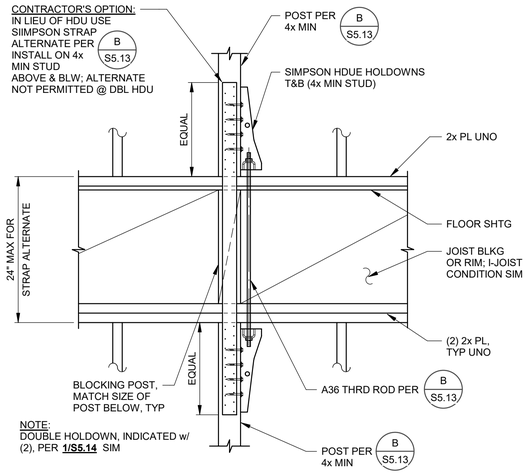


SHEAR TRANSFER SCHEDULE	
ϕ Mk	NUMBER OF 1/4"Ø x 6" SDS SCREWS (EQ SPACED, TYP)
(2) 2	(5)
(2) 4	(7)
(2) 5	(9)
(2) 8	(14)
(2) 11	(19)
(2) 14	(29)

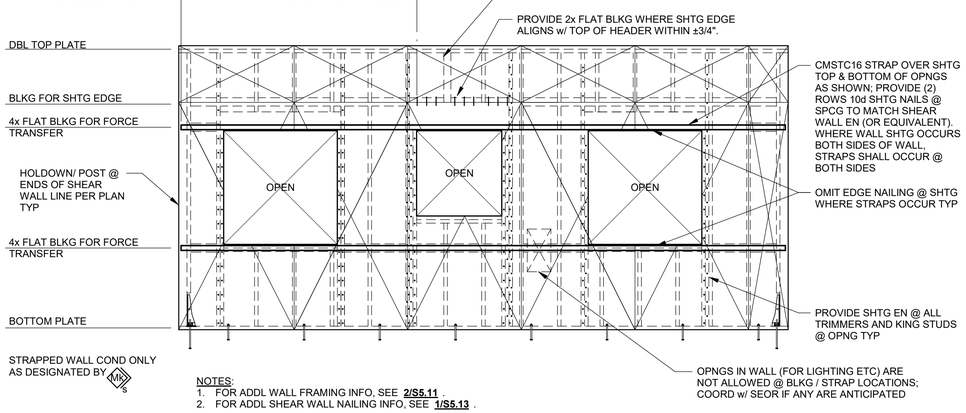
DETAIL 1/S5.14 — **DOUBLE HOLDOWN PLACEMENT AT FDN** — 1" = 1'-0"
610S0204 - Double Holdown Placement @ Foundation



DETAIL 2/S5.14 — **TOP PLATE HOLDOWN AT BEAM** — 1" = 1'-0"
620S0232 - Top Plate - Holdown at Beam



DETAIL 3/S5.14 — **HOLDOWN AT FLOOR** — 1" = 1'-0"
610S0301 - Holdown Strap and HDU Thru Floor (T/J)



NOTES:
1. FOR ADDL WALL FRAMING INFO, SEE **2/S5.11** .
2. FOR ADDL SHEAR WALL NAILING INFO, SEE **1/S5.13** .

DETAIL 4/S5.14 — **STRAPPED SHEAR WALL FRAMING** — 3/8" = 1'-0"
610S0026 - Force Transfer Shear Wall Framing

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0 1/4" 1/2" 1" 2"
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TYPICAL DETAILS

APPLICABLE TO ALL DRAWINGS UNLESS NOTED OR SHOWN OTHERWISE

I-JOIST
640SN001

FLOOR DESIGN LOAD 15 PSF DL 40 PSF LL

ROOF DESIGN LOAD 19 PSF DL 20 PSF LL

NET WIND UPLIFT LOAD (0.6D+0.6W) FOR ZONE 1 18.54 PSF

NET WIND UPLIFT LOAD (0.6D+0.6W) FOR ZONE 2 & 3 18.54 PSF

NET WIND UPLIFT LOAD (0.6D+0.6W) FOR ZONE 2' & 3' 31.74 PSF

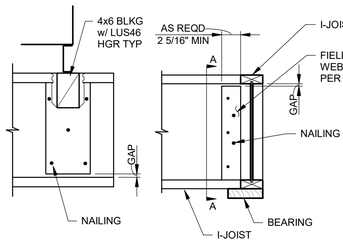
WIND LOAD ZONES DEFINED IN ASCE 7-16 FIG 30.3

DISCONTINUITY DISTANCE 'A' = 6 FT.

1. I-JOISTS AS INDICATED ON DRAWINGS ARE I-LEVEL (OR RED-BUILT) DESIGNATIONS AND ARE FOR REFERENCE TO INDICATE REQUIRED DEPTH, SPACING AND CAPACITY ONLY. SUBMIT ALLOWABLE LOAD TABLES AND ICC-ESR FOR EQUIVALENT I-JOIST AND HARDWARE REVIEW BY DIRECT COMPARISON. FOR MINIMUM MATERIAL PROPERTIES AT NORMAL DURATION SEE TABLE BELOW.

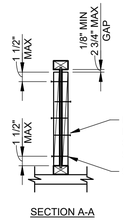
JOIST TYPE	DEPTH	FLANGE	FLANGE GRADE	WEB	RESIST MOMENT	RESIST SHEAR	MIN EIx10^6
14" TJI 560	14"	1 3/8" x 3 1/2"	1.9E LVL	7/16"	11,275 'ǂ	2,390 #	926 # IN²

2. CHORD MATERIAL SHALL BE LAMINATED VENEER LUMBER (LVL) OR MACHINE STRESS RATED LUMBER WITH A MINIMUM SPECIFIC GRAVITY OF 0.50.
3. WEB MATERIAL SHALL BE OSB.
4. DESIGN AND FABRICATION SHALL CONFORM TO THE MANUFACTURERS ICC-ESR.
5. ALLOWABLE STRESS INCREASE FOR LOAD DURATION SHALL BE:
   WIND/SEISMIC - 60% ROOF - 25% SNOW - 15% FLOOR - 0%
6. I-JOIST SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED TO THE ARCHITECT AND/OR STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION. DRAWINGS SHALL BE "STAND ALONE" WITH NO REFERENCES TO STRUCTURAL PLANS OR DETAILS. DETAILING FOR INSTALLATION SHALL BE COMPLETE. DUPLICATION (I.E. PHOTOCOPYING) OF DESIGN DRAWINGS IS NOT ACCEPTABLE.
7. I-JOIST SHOP DRAWINGS SHALL DETAIL THE REQUIRED BRIDGING AT ANY UNBRACED CHORD IN COMPRESSION UNDER ANY APPLICABLE LOAD COMBINATION. SPACING OF BRIDGING SHALL BE AS REQUIRED BY MANUFACTURER'S ICC REPORT OR ENGINEERING ANALYSIS.
8. MANUFACTURER TO PROVIDE LOCATIONS WHERE WEB STIFFENERS ARE REQUIRED (AT EACH SIDE OF WEB) AS PART OF THE I-JOIST SHOP DRAWINGS
9. CALCULATIONS SHALL BE SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED.
10. I-JOIST DESIGNER SHALL INCORPORATE ONE 400# (150#DL, 250#LL NON-CONCURRENT) VERTICAL LOAD ON THE BOTTOM CHORD OF ALL JOISTS FROM ONE SPRINKLER LINE. JOIST MUST BE DESIGNED TO CARRY THE LOAD AT ANY POINT.
11. I-JOISTS SHALL BE DESIGNED FOR ALL CONCENTRATED LOADS SHOWN ON DRAWINGS IN ADDITION TO THE UNIFORM LOADINGS SHOWN ABOVE.
12. SEE FRAMING PLANS AND MECHANICAL PLANS FOR LOCATIONS AND WEIGHTS OF MECHANICAL UNITS. COORDINATE ADDITIONAL EQUIPMENT LOADS WITH THE MECHANICAL CONTRACTOR PRIOR TO FABRICATION.
13. FLOOR JOISTS SHALL BE DESIGNED FOR A MAXIMUM LIVE LOAD DEFLECTION OF L/360 AND TOTAL LOAD DEFLECTION OF L/240. ROOF JOISTS SHALL BE DESIGNED FOR A MAXIMUM LIVE LOAD DEFLECTION OF L/240 AND A MAXIMUM TOTAL LOAD DEFLECTION OF L/180. IF ROOF JOISTS SUPPORT PLASTER CEILINGS A MAXIMUM TOTAL LOAD DEFLECTION OF L/240 IS REQUIRED.
14. PROVIDE FULL HEIGHT BLOCKING AND/OR RIM JOIST AT ALL BOTTOM CHORD BEARING CONDITIONS AND WHERE NOTED ON DRAWINGS.
15. GENERAL CONTRACTOR TO PROVIDE TEMPORARY ERECTION BRACING AS REQUIRED BY MANUFACTURER'S ICC-ESR.
16. MANUFACTURER TO VERIFY AND GENERAL CONTRACTOR TO APPROVE ALL DIMENSIONS REQUIRING COORDINATION BETWEEN STRUCTURAL DRAWINGS WITH ARCHITECTURAL DRAWINGS. ADDITIONALLY, GENERAL CONTRACTOR SHALL VERIFY SUPPORT DIMENSIONS AND WALL LAYOUT IN FIELD PRIOR TO FABRICATION.
17. MANUFACTURER TO COORDINATE I-JOIST LAYOUT WITH PLUMBING DRAWINGS. PROVIDE ADDITIONAL I-JOIST AS REQUIRED TO MAINTAIN I-JOIST SPACING LIMITS EACH SIDE OF PIPE OR FIXTURE.
18. PROVIDE AN ADDITIONAL I-JOIST UNDER INTERIOR PARTITION WALLS THAT ARE PARALLEL TO THE I-JOISTS WHERE WALL LENGTH IS GREATER THAN 1/3 OF THE JOIST SPAN AND WHERE JOIST IS OFFSET UP TO WIDTH OF WALL.
19. WHERE DOUBLE I-JOISTS ARE REQUIRED OR INDICATED ON DESIGN DRAWINGS PROVIDE LOAD TRANSFER PER DOUBLE I-JOIST ATTACHMENT DETAIL **2/S5.15** .
20. FIRE SPRINKLER INSTALLER SHALL USE CONNECTORS WITH ICC APPROVAL.
21. CONTRACTOR TO PROVIDE BEVELED WOOD PLATES, BEAMS, NAILERS ETC. AT ALL SLOPED BEARING CONDITIONS 1/4:12 OR GREATER.
22. ALLOWABLE PENETRATIONS IN I-JOISTS SHALL BE COORDINATED WITH AND APPROVED BY I-JOIST MANUFACTURER PRIOR TO CONSTRUCTION. ALLOWABLE PENETRATIONS IN I-JOISTS SHALL BE PER **5/S5.15** .



MECH UNIT OR OTHER CONCENTRATED LOAD

BEARING

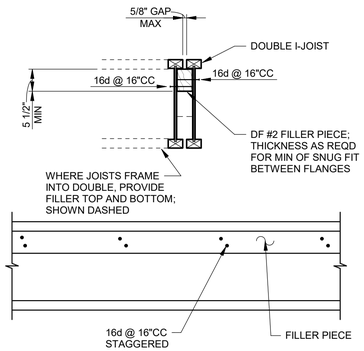


SECTION A-A

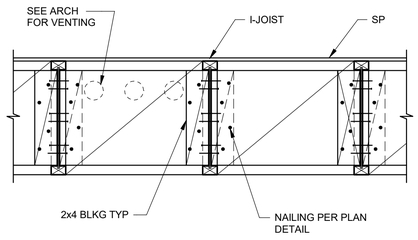
WEB STIFFENER SCHEDULE	
FLANGE SIZE	STIFFENER/NAILS
1 3/4	5/8" SHTG w/ (2) ROWS 8d @ 4"CC STGRD & CLINCHED
2 1/16	3/4" SHTG w/ (2) ROWS 8d @ 4"CC STGRD & CLINCHED
2 5/16	7/8" SHTG w/ (2) ROWS 8d @ 8"CC STGRD EA SIDE
2 1/2	1" SHTG w/ (2) ROWS 8d @ 8"CC STGRD EA SIDE
3 1/2	2x4 DF#2 w/ (2) ROWS 16d @ 8"CC STGRD EA SIDE

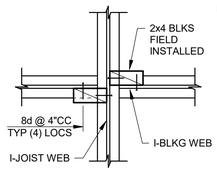
NOTES:
1. WEB STIFFENERS TO BE FIELD INSTALLED AT ALL BEARING POINTS AND CONCENTRATED LOADS (MECH UNITS ETC) WHERE INDICATED ON THE SHOP DRAWINGS.
2. GAP MUST BE AT TOP AT ALL BEARING LOCATIONS AND AT BOTTOM AT CONCENTRATED LOADS.

DETAIL 1 S5.15 — **I-JOIST WEB STIFFENERS** — **1" = 1'-0"** — 640SD001 - I-Joist Web Stiffeners

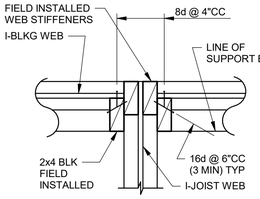


DETAIL 2 S5.15 — **DOUBLE I-JOIST ATTACHMENT** — NO SCALE — 640SD005



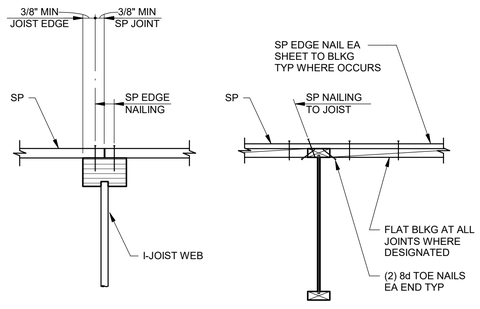


PLAN AT NON-BRG COND

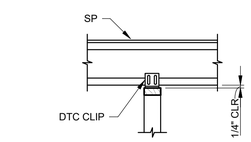


PLAN AT BRG COND

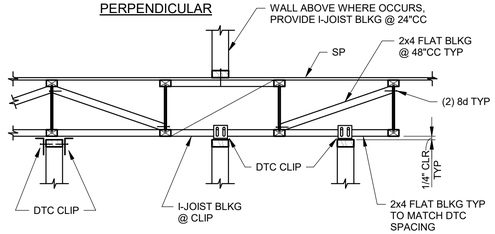
DETAIL 3 S5.15 — **I-JOIST BLOCKING** — **1" = 1'-0"** — 640SD002 - Typical I-Joist Blocking



DETAIL 4 S5.15 — **I-JOIST NAILING** — NO SCALE — 640SD007



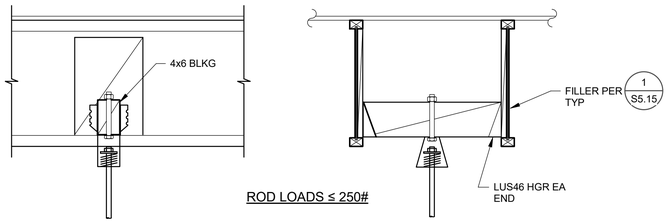
PERPENDICULAR



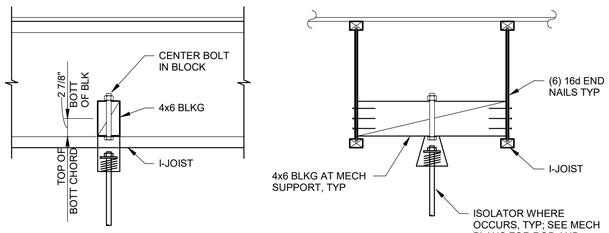
PARALLEL TO JOISTS

NOTES:
1. AT WALL HEIGHTS UP TO 10'-0", SPACE DTC CLIPS @ 4'-0"CC.
2. AT WALL HEIGHTS UP TO 20'-0", USE CLIPS EA SIDE OF JOISTS/BLOCKING.

DETAIL 5 S5.15 — **INTERIOR NON-BEARING PARTITION AT TOP PLATE** — **3/4" = 1'-0"** — 640SD003 - Non-Bearing Partition at Top Plate

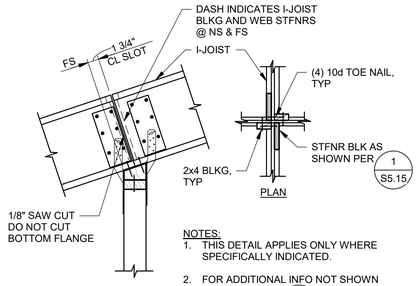


ROD LOADS ≤ 250#



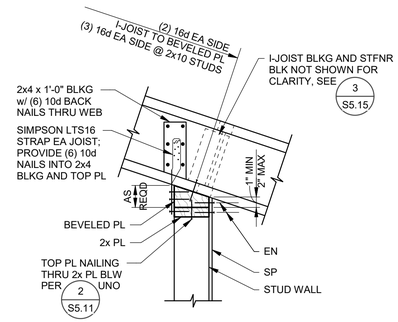
ROD LOADS ≤ 60#

DETAIL 6 S5.15 — **BLOCKING SUPPORT IN I-JOIST** — NO SCALE — 640SD020



NOTES:
1. THIS DETAIL APPLIES ONLY WHERE SPECIFICALLY INDICATED.
2. FOR ADDITIONAL INFO NOT SHOWN OR NOTED SEE 8 S5.15

DETAIL 7 S5.15 — **I-JOIST CONTINUITY BREAK** — **1" = 1'-0"** — 640SD009 - TJI Flange Break



DETAIL 8 S5.15 — **I-JOIST TIE-DOWN** — **1" = 1'-0"** — 640SD006 - I-Joist Tie-Down

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SACRAMENTO, CA 95811
916 443 0303

SEAL

REGISTERED PROFESSIONAL ENGINEER — WILLIAM B. RADER — No. 3592 — STRUCTURAL — STATE OF CALIFORNIA — 6/04/26

PROJECT

DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION
	6/4/26	Plan Check Response

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE

TYPICAL I-JOIST DETAILS

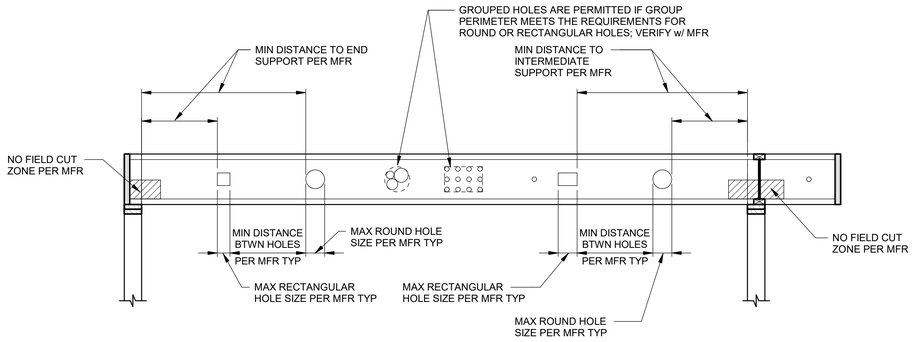
SHEET

S5.15

IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
0 1/4" 1/2" 1" 2"
Autodesk Docs://MF22304 The City of Dixon - Fire Station 82/2022-0166_Dixon Fire 82_Central_R24.rvt
6/4/2026 5:02:54 PM

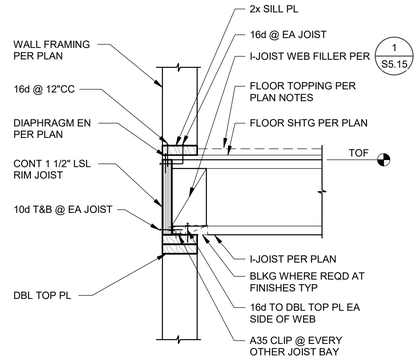
TYPICAL DETAILS

APPLICABLE TO ALL DRAWINGS UNLESS NOTED OR SHOWN OTHERWISE

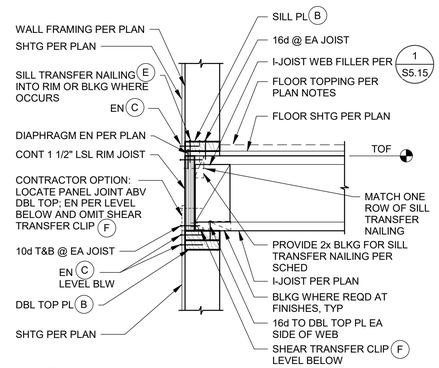


NOTES:
1. **DO NOT** CUT, DRILL, OR NOTCH FLANGES.
2. **DO NOT** CUT HOLES LARGER THAN 1 1/2" IN CANTILEVER WITHOUT CONSULTING MFR.
3. SEE I-JOIST MANUFACTURER FOR ALLOWABLE HOLE SIZES AND MINIMUM DISTANCE BETWEEN HOLES AND BETWEEN HOLES AND NEAREST SUPPORT. ALLOWABLE HOLE SIZES AND MINIMUM DISTANCES MAY VARY BASED ON SUPPORT AND LOADING CONDITIONS.
4. MAINTAIN MINIMUM DISTANCE FROM BOTH SUPPORTS.
5. HOLES SHOULD BE LOCATED VERTICALLY IN THE WEB PER THE MFR TOLERANCES. LEAVE A MINIMUM OF 1/8" OF WEB AT TOP AND BOTTOM OF HOLE. DO NOT CUT FLANGES.
6. WHERE 1 1/2" KNOCKOUTS ARE PRESENT, CONFIRM WITH THE MFR THAT THEY DO NOT AFFECT HOLE PLACEMENT.

DETAIL 1/S5.16 — **I-JOIST ALLOWABLE HOLES** — 1/2" = 1'-0"
04SD0008 - I-Joist Allowable Holes



DETAIL 2/S5.16 — **EXTERIOR BEARING WALL JOIST PERPENDICULAR** — 1" = 1'-0"
04SD0421 - EXTERIOR BEARING WALL JOIST PERPENDICULAR



NOTE:
SEE SHEAR WALL SCHEDULE ON SHEET **S5.13** FOR NAILING AND Mk

DETAIL 3/S5.16 — **EXTERIOR SHEAR WALL JOIST PERPENDICULAR** — 1" = 1'-0"
04SD0411 - EXTERIOR SHEAR WALL JOIST PERPENDICULAR

DETAIL 4/S5.16 — **EXTERIOR BEARING WALL JOIST PARALLEL** — 1" = 1'-0"
04SD0420 - EXTERIOR BEARING WALL JOIST PARALLEL

NOTE:
SEE SHEAR WALL SCHEDULE ON SHEET **S5.13** FOR NAILING AND Mk

DETAIL 5/S5.16 — **EXTERIOR SHEAR WALL JOIST PARALLEL** — 1" = 1'-0"
04SD0410 - EXTERIOR SHEAR WALL JOIST PARALLEL

PERPENDICULAR CONDITION

PARALLEL CONDITION

DETAIL 6/S5.16 — **WOOD BEAM AND I-JOIST CONNECTION** — 1" = 1'-0"
04SD0420 - WOOD BEAM AND I-JOIST CONNECTION

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916 443 0303

SEAL

REGISTERED PROFESSIONAL ENGINEER — WILLIAM B. RADER No. 3592 — STRUCTURAL — STATE OF CALIFORNIA — 6/04/26

PROJECT

DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE

TYPICAL I-JOIST DETAILS

SHEET

S5.16

2" 1" 1/2" 0 1/4"
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
Autodesk Docs://MF22204 The City of Dixon - Fire Station 82/22022-0166_Dixon Fire 82_Central_R24.rvt
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TYPICAL DETAILS

APPLICABLE TO ALL DRAWINGS UNLESS NOTED OR SHOWN OTHERWISE

PRE-MANUFACTURED WOOD TRUSS NOTES
6505N001

TYP ROOF DESIGN LOADS UNO, SEE **1/S5.17** .

SLOPED TOP CHORD 8 PSF DL
20 PSF LL

BOTTOM CHORD 9 PSF DL
10 PSF LL (NONCONCURRENT w/ TOP CHORD LL)

NET WIND UPLIFT LOAD (0.6D+0.6W) FOR ZONE 1 18.54 PSF WL_{NU}

NET WIND UPLIFT LOAD (0.6D+0.6W) FOR ZONE 2 18.54 PSF WL_{NU}

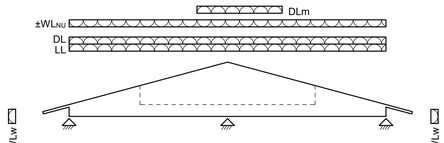
NET WIND UPLIFT LOAD (0.6D+0.6W) FOR ZONE 3 31.74 PSF WL_{NU}

WIND LOAD ZONES DEFINED IN ASCE 7-16 FIG 30.3

DISCONTINUITY DISTANCE 'A' = 6 FT

WIND WALL LOADS (0.6W) (BASED ON ZONE 5) 32.40 PSF WL_W

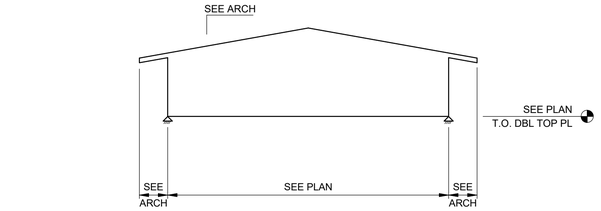
1. ALL MEMBERS SHALL BE 2x4 MIN UNO.
2. ALL TOP CHORD MEMBERS SHALL BE OF MATERIAL w/ A MINIMUM SPECIFIC GRAVITY OF 0.50.
3. PLATE MATERIAL SHALL BE ASTM A-446 GRADE A OR BETTER.
4. DESIGN AND FABRICATION SHALL CONFORM TO THE CODE AS DESIGNATED IN THE DESIGN CRITERIA NOTES AND ANSI/TPI 1-2014.
5. DESIGN AND CONSTRUCTION OF CONNECTIONS SHALL BE IN ACCORDANCE WITH PUBLISHED APPROVALS OF MANUFACTURER'S ICC-ESR. HEEL JOINT DESIGN SHALL CONSIDER THE EFFECTS OF ECCENTRIC LOADING IN ACCORDANCE WITH TRUSS PLATE INSTITUTE (TPI).
6. TRUSS DESIGNER SHALL OVERSIZE PLATES FOR CHORD MEMBERS TO ACCOUNT FOR WOOD DEFECTS LIKE KNOTS, KNOT HOLES AND GREATLY DISTORTED GRAINS. MAXIMUM ALLOWABLE DEFECT SIZE PER MEMBER SHALL BE 2 SQUARE INCHES. NO DEFECTS ALLOWED UNDER PLATES FOR WEB MEMBERS.
7. STRUCTURAL DESIGN OF BEAMS, POSTS & FOUNDATIONS SUPPORTING ROOF TRUSSES HAS BEEN BASED ON FRAMING CONFIGURATIONS SHOWN ON PLANS. DEVIATIONS TO THE FRAMING CONFIGURATIONS SHOWN WILL REQUIRE ADDITIONAL DESIGN COORDINATION AND POTENTIAL REVISIONS TO FRAMING AND FOUNDATIONS. ANY REQUIRED REVISIONS TO THE STRUCTURAL DRAWINGS WILL BE PREFORMED ON A TIME AND MATERIAL BASIS AND WILL BE CHARGED TO THE GENERAL CONTRACTOR.
8. ALL HARDWARE REQUIRED FOR CONNECTING TRUSSES (JACK TO HIP, HIP TO GIRDER OR GIRDER TO GIRDER, ETC.) SHALL BE DESIGNED, DETAILED AND PROVIDED BY TRUSS DESIGNER/MANUFACTURER.
9. TRUSS DESIGNER TO ACCOUNT FOR THE WEIGHT AND LATERAL RESTRAINT FORCES OF ALL EQUIPMENT IN THE DESIGN OF ALL TRUSSES WHICH SUPPORT SUCH EQUIPMENT. SEE OTHER DISCIPLINES DRAWINGS FOR WEIGHTS AND DETAILING. ADDITIONALLY, TRUSS DESIGNER SHALL INCORPORATE WEIGHT AND SEISMIC RESTRAINT FORCES OF ALL PIPING AND CONDUIT IN TRUSS DESIGN. SEE OTHER DISCIPLINES DWGS FOR TYPE AND LOCATION.
10. TRUSS DESIGNER SHALL INCORPORATE ONE 400# (150#DL, 250#LL NON-CONCURRENT) VERTICAL LOAD ON THE BOTTOM CHORD OF ALL TRUSSES FROM ONE SPRINKLER LINE. TRUSS MUST BE DESIGNED TO CARRY THE LOAD AT ANY POINT ALONG THE TOP AND BOTTOM CHORDS.
11. TRUSS DESIGNER SHALL INCORPORATE COLLECTOR LOADS FOR ALL COLLECTOR TRUSSES SHOWN ON PLANS. COLLECTOR LOADS ARE SHOWN @ 0.7E OR 0.6W (ASD FORCE LEVELS). WHERE LOAD NOT INDICATED ON PLAN, COLLECTOR LOAD = 2500 LBS MIN. TRUSS MUST BE DESIGNED TO RESIST FULL COLLECTOR LOAD APPLIED AXIALLY AT ANY POINT ALONG THE TOP OR BOTTOM CHORD AND TO TRANSFER THE COLLECTOR LOAD THROUGH WEB MEMBERS AND CONNECTIONS FROM TOP CHORD DOWN TO BOTTOM CHORD (APPLIED IN POUNDS PER FOOT) ALONG THE LENGTH OF THE TRUSS.
12. THE STRUCTURAL DRAWINGS GENERALLY INDICATE THE WIND UPLIFT CONNECTION DETAILING AT THE TRUSS SUPPORTS. TRUSS MANUFACTURER SHALL REVIEW THE STRUCTURAL DRAWINGS FOR UPLIFT DESIGN AND SHALL MAKE A STATEMENT ON THE SHOP DRAWING SUBMITTAL STATING SUCH. ANY CONNECTIONS THAT ARE INCOMPATIBLE WITH THE TRUSS SYSTEM SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER FOR REVIEW AND INPUT DURING THE SHOP DRAWING SUBMITTAL PROCESS.
13. TRUSS MANUFACTURER SHALL PROVIDE DESIGNS THAT DO NOT EXCEED A BEARING STRESS OF 600 PSI AT THE REACTION POINTS. AT TRUSS MANUFACTURER'S OPTION, BEARING PLATES OR OTHER CONNECTORS AS REQUIRED TO REDUCE BEARING STRESS AT SUPPORTING MEMBER TO 600 PSI MAX MAY BE DESIGNED, DETAILED, AND SUBMITTED FOR REVIEW TO THE ARCHITECT/STRUCTURAL ENGINEER.
14. ROOF JOISTS SHALL BE DESIGNED FOR A MAXIMUM TOTAL LOAD DEFLECTION OF L/180. IF ROOF JOISTS SUPPORT PLASTER CEILINGS A MAXIMUM TOTAL LOAD DEFLECTION OF L/240 IS REQUIRED.
15. TRUSS DESIGNER/MANUFACTURER SHALL CLEARLY DESIGNATE TRUSS MEMBER BRACING LOCATIONS IN THE SHOP DRAWINGS.
16. TRUSS MANUFACTURER TO VERIFY ALL DIMENSIONS SHOWN ON STRUCTURAL DRAWINGS WITH ARCHITECTURAL DRAWINGS AND IN FIELD WITH WALL LAYOUT PRIOR TO FABRICATION. PROVIDE SHOP DRAWINGS WHICH SHALL INCLUDE PLAN DRAWING SHOWING TRUSS LOCATIONS AND TRUSS PROFILES, WITH DIMENSIONS REVIEWED AND APPROVED BY GENERAL CONTRACTOR, PRIOR TO FABRICATION.
17. TRUSS LAYOUT AND PROFILE DRAWINGS, CALCULATIONS AND THE LATEST ICC APPROVED TEST DATA FOR TRUSS METAL PLATE CONNECTORS SHALL BE SUBMITTED TO THE ARCHITECT AND/OR ENGINEER FOR REVIEW AND SHALL ADDRESS ALL COMMENTS FROM THAT REVIEW PRIOR TO SUBMITTAL TO THE BUILDING DEPARTMENT.
18. TRUSS LAYOUT, PROFILE DRAWINGS AND CALCULATIONS FOR TRUSS DESIGNS AND ANY BEARING DETAILING PER NOTE 13 SHALL BE SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS LOCATED. IT SHALL BE THE RESPONSIBILITY OF THE MANUFACTURER TO OBTAIN BUILDING DEPARTMENT APPROVAL PRIOR TO FABRICATION.
19. BUILT UP GIRDER TRUSSES SHALL BE LAMINATED USING 1/2"Ø BOLTS AT 24"CC MAXIMUM THROUGH ALL MEMBERS (OR OTHER METHOD BY WRITTEN REQUEST).
20. GABLE END TRUSSES SHALL HAVE 2x VERTICALS AT 16"CC TYPICAL UNLESS NOTED OTHERWISE. WHERE GABLE END TRUSSES ARE REQUIRED TO SPAN OVER OPENINGS OR TRANSFER COLLECTOR LOADS VERTICALS SHALL BE INFILLED AROUND TYPICAL WEB MEMBERS. TRUSS MANUFACTURER SHALL DESIGN, DETAIL AND PROVIDE INTERMEDIATE BRACING OF THE GABLE TRUSS WEBS AND VERTICALS AS REQUIRED TO RESIST OUT-OF-PLANE WIND LOADS.
21. GENERAL CONTRACTOR TO DETERMINE AND PROVIDE TEMPORARY ERECTION BRACING AS REQUIRED.
22. FIRE SPRINKLER INSTALLER SHALL USE CONNECTORS WITH ICC APPROVAL.



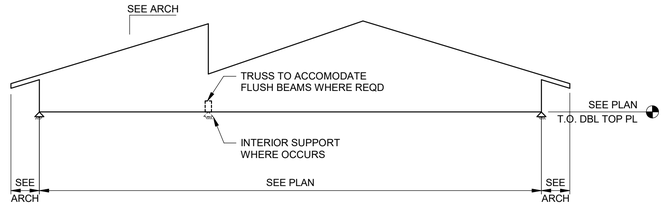
LEGEND:
DL = DEAD LOAD
LL = LIVE LOAD
WL_{NU} = WIND NET UPLIFT LOAD
DLm = DEAD LOAD AT MECHANICAL UNIT, SEE PLAN FOR WEIGHT AND VERIFY LOCATIONS w/ MECH
WLw = WIND LOAD AT WALL (APPLY WALL LOAD TO GABLE TRUSS VERTICAL AND WEB ELEMENTS)

NOTE:
SEE PLANS, SECTIONS AND DETAILS FOR ADDITIONAL LOADS.

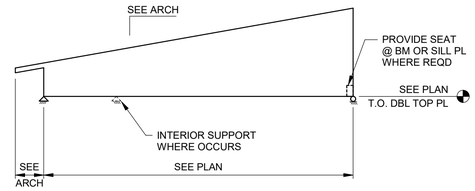
DETAIL 1/S5.17 — **ROOF TRUSS LOADING GABLE/MANSARD** — **3/8" = 1'-0"**
6505D10 - ROOF TRUSS LOADING GABLE/MANSARD



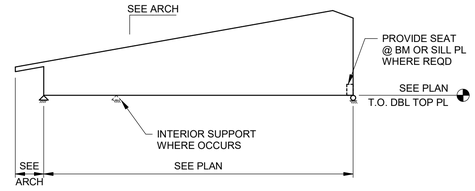
RT-1



RT-2

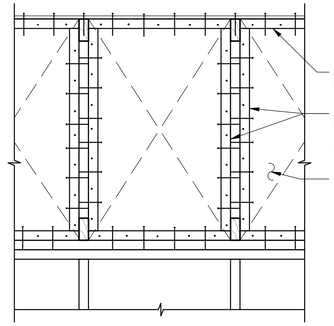


RT-3

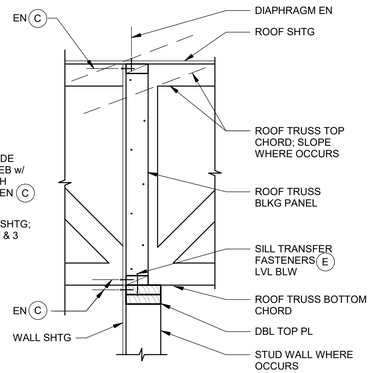


RT-4

DETAIL 2/S5.17 — **TRUSS PROFILES** — **1/4" = 1'-0"**
6505D100 - TRUSS PROFILES



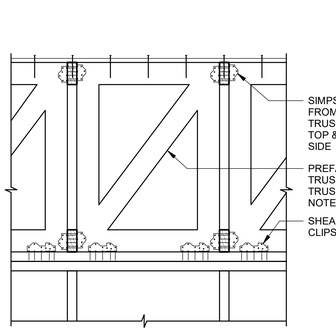
ELEVATION



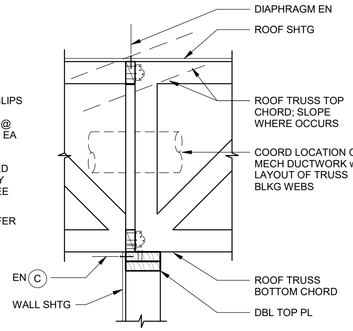
SECTION

NOTES:
1. SEE SHEAR WALL SCHEDULE **A/S5.13** FOR NAILING AND (Mk) .
2. BLKG PANEL SHTG TO MATCH WALL SHTG THICKNESS & EDGE NAILING. WHERE WALL SHTG IS NOT REQUIRED PER PLAN, BLKG PANEL SHTG SHALL BE 1/2" WITH NAILING TO MATCH ROOF SHTG DIAPHRAGM EN.
3. WHERE WALL SHTG IS NOT REQUIRED PER PLAN, NAIL 2x4 TO TRUSS AND TOP PL w/ 16d @ SPACING TO MATCH ROOF SHTG DIAPHRAGM EN.
4. CONTRACTOR'S OPTION: PROVIDE PREFABRICATED TRUSS BLKG PER **4/S5.17** IN LIEU OF BLKG PANEL. PREFABRICATED TRUSS BLKG OPTION IS NOT RECOMMENDED AT POTENTIAL CONFLICTS WITH WEB AND MECHANICAL OR PLUMBING ELEMENTS.
5. AT BLKG PANELS DIRECTLY BELOW A STRAP, PROVIDE 10d @ 3"CC BLKG PANEL EDGE NAILING AND 16d @ 3"CC BLKG PANEL TO TRUSS AND TOP PLATE NAILING MIN.

DETAIL 3/S5.17 — **TRUSS BLOCKING PANEL** — **1" = 1'-0"**
6505D010 - Blocking Panel @ Trusses1



ELEVATION



SECTION

NOTES:
1. SEE SHEAR WALL SCHEDULE **A/S5.13** FOR NAILING AND (Mk) .
2. WHERE WALL SHTG IS NOT REQUIRED PER PLAN, SHEAR TRANSFER SHALL BE (2) A35 OR (2) LTP4 WITH 0.131x2 1/2" NAILS (INSTALLED WITH LONG DIMENSION HORIZONTAL)
3. PREFABRICATED TRUSS BLKG BY TRUSS MFR TO BE DESIGNED TO TRANSFER LATERAL LOAD FROM ROOF TO WALL BELOW. BLKG DESIGN LOAD SHALL BE 600 PLF MIN UNO. BEVEL TOP AS REQD TO ACCOMMODATE ROOF SLOPE
4. CONTRACTOR'S OPTION: PROVIDE LSL BLKG (UP TO 24" DEEP) OR TRUSS BLKG PANEL PER **3/S5.17** IN LIEU OF PREFABRICATED BLKG PANEL.

DETAIL 4/S5.17 — **PREFABRICATED PANEL BLOCKING** — **1" = 1'-0"**
6505D020 - Pre-Fabricated Panel Blocking1

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6/04/26

PROJECT
DIXON FIRE STATION 82

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CITY OF DIXON FIRE DEPARTMENT

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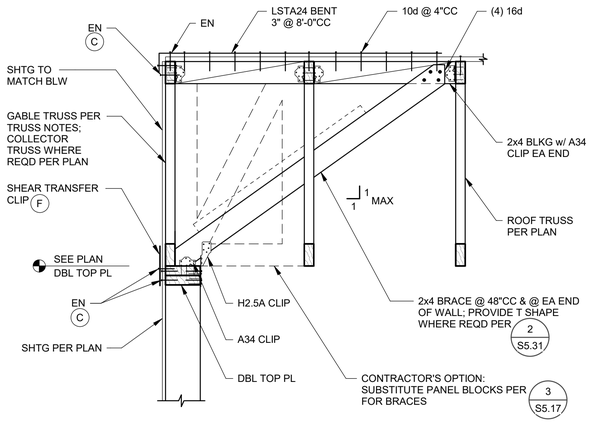
TITLE
TYPICAL WOOD TRUSS NOTES AND DETAILS

SHEET
S5.17

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TYPICAL DETAILS

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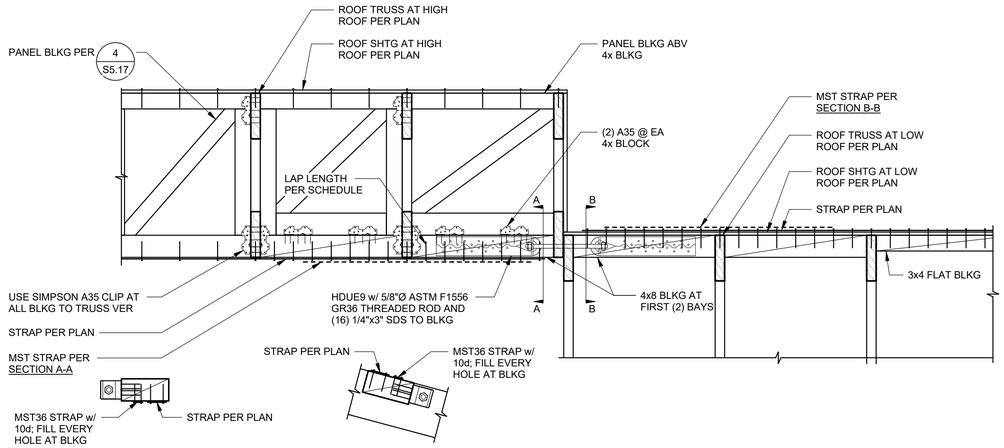


NOTE:
SEE SHEAR WALL SCHEDULE ON SHEET **S5.13** FOR NAILING AND (Mk).

DETAIL 1/S5.18 — EXTERIOR WALL TRUSS PARALLEL

1" = 1'-0"

6505D602 - Exterior Wall Truss Parallel



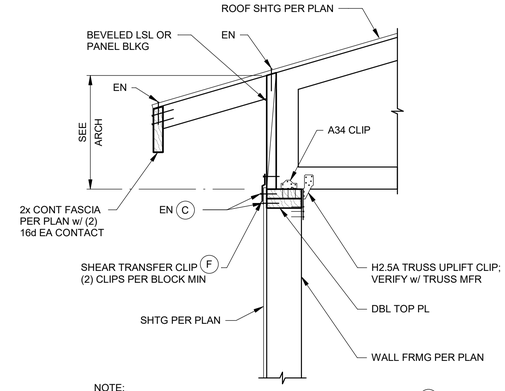
SECTION A-A

SECTION B-B

DETAIL 2/S5.18 — HIGH ROOF TO LOW ROOF TIE - STGRD CONDITION

NO SCALE

C4K-001

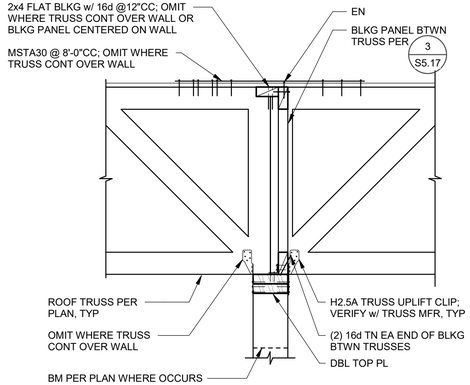


NOTE:
SEE SHEAR WALL SCHEDULE ON SHEET **S5.13** FOR NAILING AND (Mk).

DETAIL 3/S5.18 — EXTERIOR WALL TRUSS PERPENDICULAR

1" = 1'-0"

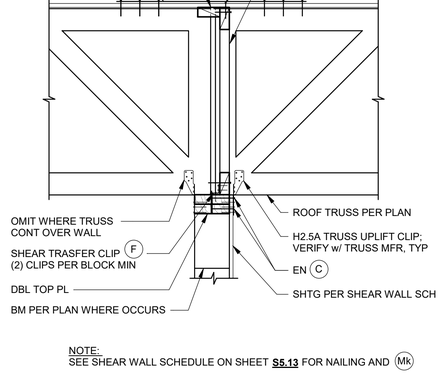
6505D601 - Exterior Wall Truss Perpendicular



DETAIL 4/S5.18 — INTERIOR BEARING WALL TRUSS PERPENDICULAR

1" = 1'-0"

6505D603 - Interior Bearing Wall Truss Perpendicular

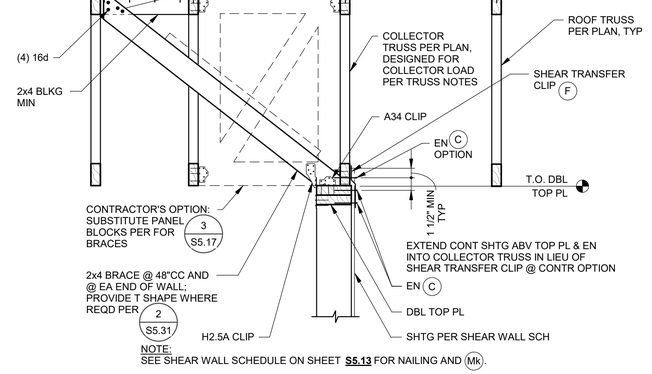


NOTE:
SEE SHEAR WALL SCHEDULE ON SHEET **S5.13** FOR NAILING AND (Mk)

DETAIL 5/S5.18 — INTERIOR SHEAR WALL TRUSS PERPENDICULAR

1" = 1'-0"

6505D613 - Interior Shear Wall Truss Perpendicular

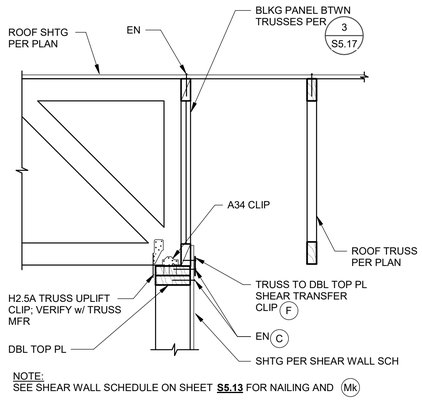


NOTE:
SEE SHEAR WALL SCHEDULE ON SHEET **S5.13** FOR NAILING AND (Mk).

DETAIL 6/S5.18 — INTERIOR SHEAR WALL TRUSS PARALLEL

1" = 1'-0"

6505D614 - Interior Shear Wall Truss Parallel



NOTE:
SEE SHEAR WALL SCHEDULE ON SHEET **S5.13** FOR NAILING AND (Mk)

DETAIL 7/S5.18 — SHEAR WALL AT TRUSS DIRECTION CHANGE

1" = 1'-0"

6505D615 - Shear Wall at Truss Direction Change

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TYPICAL WOOD TRUSS DETAILS

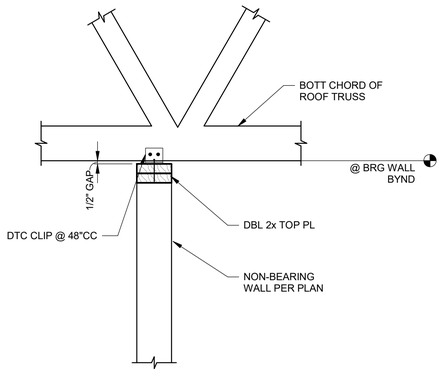
SHEET

S5.18

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TYPICAL DETAILS

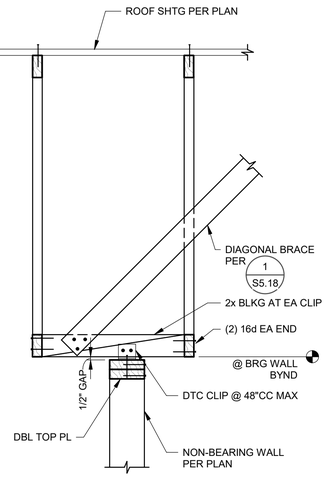
APPLICABLE TO ALL DRAWINGS UNLESS NOTED OR SHOWN OTHERWISE



DETAIL 1 S5.19 — **NON-STRUCTURAL WALL TRUSS PERPENDICULAR**

1" = 1'-0"

650SD631 - Non-Structural Wall Truss Perpendicular



DETAIL 2 S5.19 — **NON-STRUCTURAL WALL TRUSS PARALLEL**

1" = 1'-0"

650SD632 - Non-Structural Wall Truss Parallel

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TYPICAL WOOD TRUSS DETAILS

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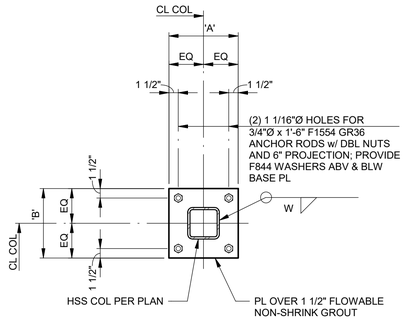
TYPICAL DETAILS

APPLICABLE TO ALL DRAWINGS UNLESS NOTED OR SHOWN OTHERWISE

A S5.20 HSS BASE PLATE SCHEDULE

BASE PLATE MARK / HSS COLUMN SIZE	BASE PLATE DIMENSIONS						ANCHOR ROD HOLE SIZE	GROUT BED THICKNESS	ANCHOR RODS					WASHER PL	
	"T"	'A'	'B'	'C'	'D'	'E'			ANCHOR Ø	QUANTITY	MATERIAL	EMBEDMENT	PROJECTION	DIMENSIONS	"T"
5x5	5/8"	10"	0'-10"	5"	2 1/2"	7 1/2"	1 5/16"	1 1/2"	3/4"	4	4	12"	6"	2"	1/4"

NOTES:
1. FOR BASE PLATE DETAIL AND ANCHOR ROD ASSEMBLY, SEE **1/S5.20**
2. BASE PL MATERIAL SHALL BE ASTM A572 GR 50.
3. MAX OVERSIZED HOLE IN BASE PLATE SHALL BE IN ACCORDANCE WITH AISC TABLE 14-2.
4. WELD 'W' SHALL BE 1/4 AT BASE PLATES 3/4 AND LESS, 5/16 AT BASE PLATES GREATER THAN 3/4.
5. FOR ROUND HSS OR PIPE COLUMNS, BASE PLATE SIZE SHALL BE THE SAME SIZE AS THAT FOR AN HSS SQUARE COLUMN OF EQUIVALENT WIDTH. FOR PIPE COLUMNS WITH AN OUTSIDE DIAMETER THAT INCLUDES FRACTIONAL INCHES, THE BASE PLATE SIZE SHALL BE BASED ON THE EQUIVALENT SQUARE COLUMN WIDTH BASED ON ROUNDING THE PIPE DIAMETER UP TO THE NEAREST INCH
6. CIRCULAR OR SQUARE WASHERS MEETING THE WASHER SIZE ARE ACCEPTABLE. ASTM F844 WASHERS ARE PERMITTED INSTEAD OF PLATE WASHERS WHEN HOLE CLEARANCES ARE LIMITED TO 5/16" FOR ROD DIAMETERS UP TO 1", 1/2" FOR ROD DIAMETERS OVER 1" TO 2", AND 1" FOR ROD DIAMETERS OVER 2". THIS EXCEPTION TO USE F844 WASHERS SHALL NOT BE USED UNLESS THE CONTRACTOR AGREES TO MEET SMALLER TOLERANCE FOR ANCHOR ROD PLACEMENT THAN THOSE PERMITTED IN ACI 117.
7. HOLES IN PL WASHERS SHALL BE 1/16" DIAMETER GREATER THAN ANCHOR ROD DIAMETER.



NOTE:
FOR PLATE DIMENSIONS AND WELDING, SEE **A/S5.20**.

DETAIL 1 S5.20 NO SCALE
BASE PLATE AT HSS COLUMN

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TYPICAL STEEL DETAILS

SHEET

S5.20

2" 1" 0 1/4" 1/2"
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TYPICAL DETAILS

APPLICABLE TO ALL DRAWINGS UNLESS NOTED OR SHOWN OTHERWISE

A S5.30 NON-BEARING INTERIOR STUD MAX HEIGHT SCHEDULE

E0050001

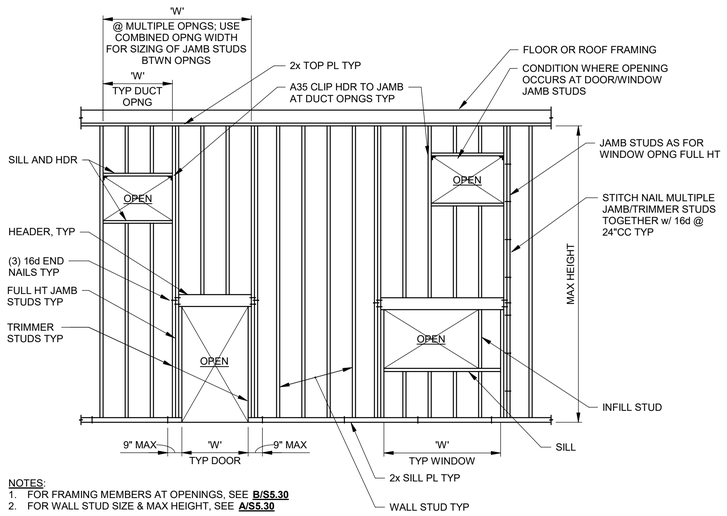
STUD SIZE	SPACING		
	@ 12"CC	@ 16"CC	@ 24"CC
2x4	15'-6"	14'-0"	12'-4"
2x6	22'-0"	20'-0"	18'-6"

NOTE:
ALL STUDS SHALL BE DF #2 OR BETTER.

B S5.30 NON-BEARING INTERIOR HEADER AND JAMB FRAMING SCHEDULE

E0050002

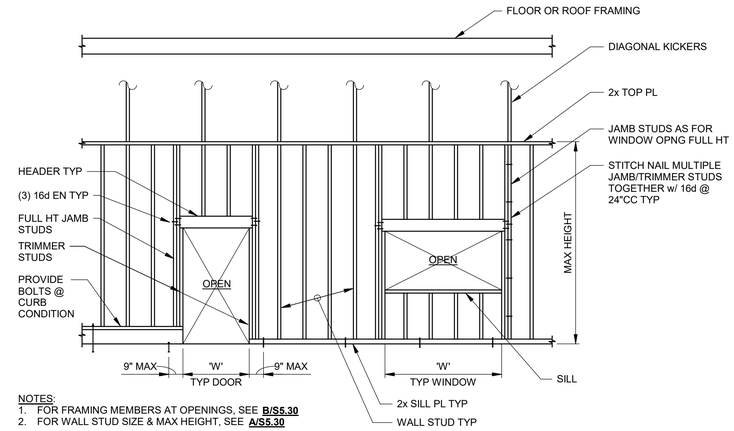
OPENING TYPE	"W" WIDTH	HEADER SIZE	SILL SIZE	JAMB STUDS	TRIMMER STUDS
1	1'-4" TO 4'-8"	STUD WIDTH x 6" D	2x FLAT	2x	2x
2	4'-9" TO 9'-10"	STUD WIDTH x 8" D	2x FLAT	2x	2x
3	9'-11" TO 14'-4"	STUD WIDTH x 10" D	2x FLAT	(2) 2x	(2) 2x
4	14'-5" TO 18'-0"	STUD WIDTH x 12" D	(3) 2x FLAT	(3) 2x	(2) 2x



NOTES:
1. FOR FRAMING MEMBERS AT OPENINGS, SEE **B/S5.30**
2. FOR WALL STUD SIZE & MAX HEIGHT, SEE **A/S5.30**

DETAIL 1 S5.30 — **1/4" = 1'-0"**
E0050001 - Full Ht Interior Wood Stud Wall Elevation

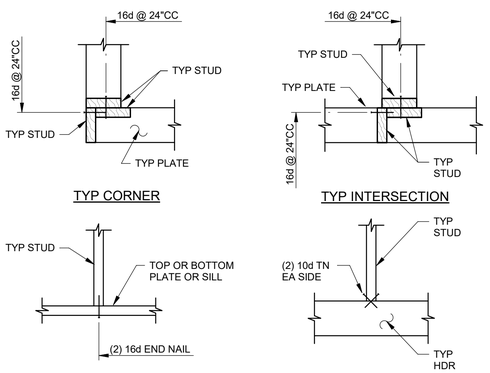
FULL HT INTERIOR WOOD STUD WALL ELEVATION



NOTES:
1. FOR FRAMING MEMBERS AT OPENINGS, SEE **B/S5.30**
2. FOR WALL STUD SIZE & MAX HEIGHT, SEE **A/S5.30**

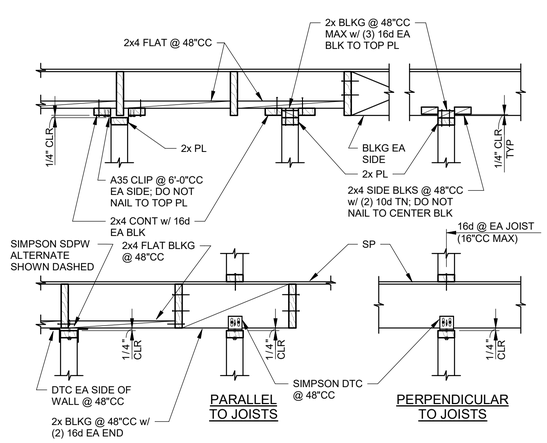
DETAIL 2 S5.30 — **1/4" = 1'-0"**
E0050006 - Partial Ht Interior Wood Stud Wall Elevation

PARTIAL HEIGHT INTERIOR WALL FRAMING



DETAIL 3 S5.30 — **1" = 1'-0"**
E0050030 - Non-Structural Framing Conditions

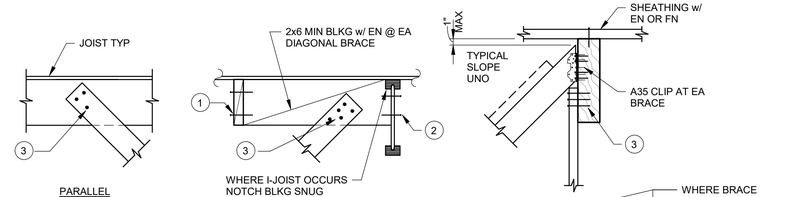
NON-STRUCTURAL FRAMING CONDITIONS



NOTES:
1. AT CONTRACTORS OPTION USE SIMPSON SDPW SCREWS IN LIEU OF DTC CLIPS.
2. FOR WALLS > 10' USE (2) DTC CLIPS EA BLK. OR (2) SIMPSON SDPW SCREWS @ 48" CC.

DETAIL 4 S5.30 — **3/4" = 1'-0"**
E0050022 - Non-Bearing Partition at Top Plate

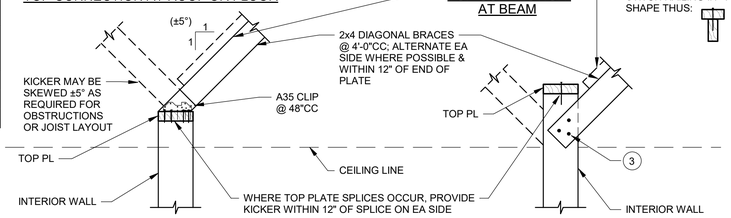
INTERIOR NON-BEARING PARTITION AT TOP PLATE



FASTENER SCHEDULE

MAX HEIGHT OF PARTITION WALL	(1) 16d END NAILS	(2) 10d END NAILS	(3) #10 WOOD SCREWS
10'-0"	2	3	3
14'-0"	3	4	4
18'-6"	4	6	5

TOP CONNECTION AT ROOF OR FLOOR



TOP CONNECTION AT BEAM

DETAIL 5 S5.30 — **1" = 1'-0"**
E0050023 - Typical Partial Height Wall Bracing

INTERIOR PARTIAL HEIGHT WALL BRACING

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TITLE

INTERIOR TYPICAL NON-STRUCTURAL DETAILS

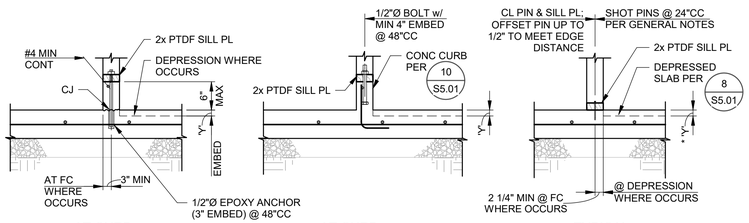
SHEET

S5.30

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TYPICAL DETAILS

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AT CURB

CURB POURED SEPARATELY

AT CURB

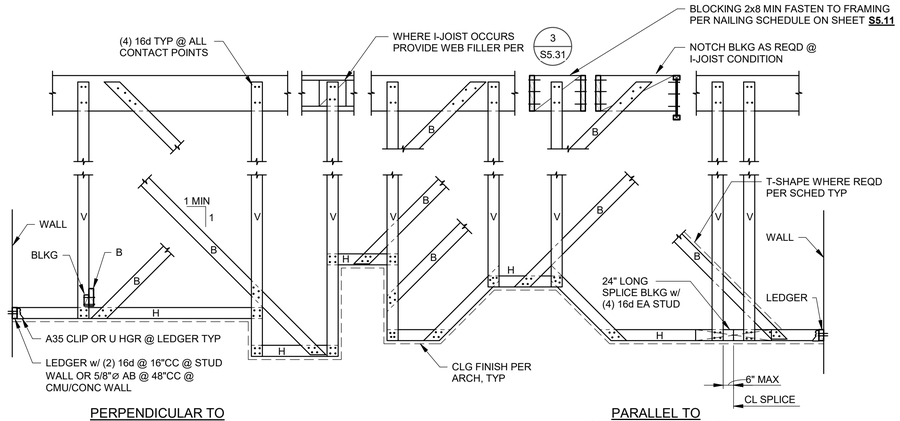
MONOLITHIC

TYPICAL

* WHERE 'Y' IS GREATER THAN 1 1/2", USE 1/2"Ø POST-INSTALLED ANCHOR (3" EMBED) @ 48"CC IN LIEU OF SHOT PINS.

DETAIL 1 S5.31 — INTERIOR NON-BEARING PARTITION AT SILL PLATE — 3/4" = 1'-0"

630SB2021 - Non-Bearing Partition at Sill Plate



PERPENDICULAR TO SUPPORT MEMBERS

PARALLEL TO SUPPORT MEMBERS

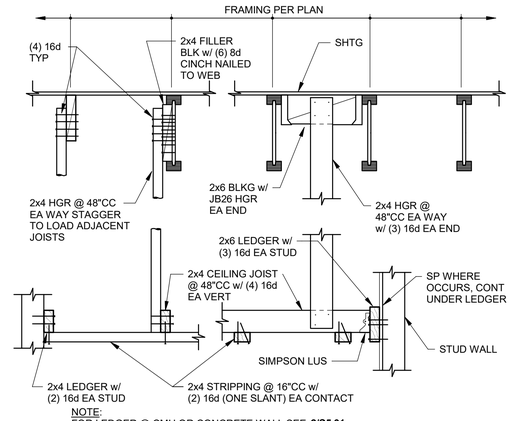
SOFFIT FRAMING SCHEDULE

	H	V	B	
MAX MEMBER SPACING	2'-0"	2'-0"	8'-0"	
MAX ALLOW AREA SUPP	16 FT²	18 FT²	64 FT²	
	20 FT² *			
MAX LENGTH OF MEMBER	8'-0"	8'-0"	<6'-0"	6'-1" TO 14'-0" DBL 2x4 "T' SHAPE BRACE**
	10'-0"*			

NOTES:
1. BRACE REQUIRED IN ALL VERTICAL OFFSETS. ALTERNATE DIRECTION OF BRACE WHERE POSSIBLE.
2. SCHEDULE BASED ON:
   - 2x4 DF #2 MEMBERS UNO
   - 13.0 PSF DL + 10 PSF LL
   - MAX DL DEFLECTION = L/360
   - * 2x6 DF #2
   - ** REQUIRES DBL 2x4 w/ 16d @ 12"CC STITCH NAILING IN 'T' SHAPE THUS:

DETAIL 2 S5.31 — SOFFIT FRAMING — 1/2" = 1'-0"

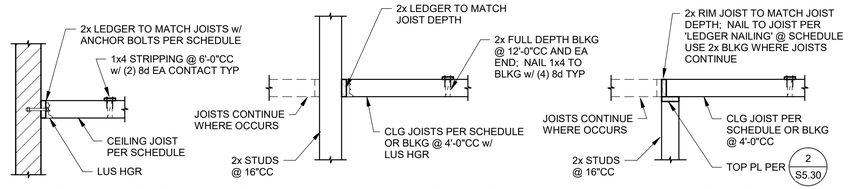
630SD103 - Typical Strut Soffit Details



NOTE:
FOR LEDGER @ CMU OR CONCRETE WALL SEE **2/S5.31**

DETAIL 3 S5.31 — SUSPENDED FRAMING — 1" = 1'-0"

630SD100 - Typical Suspended Framing



MASONRY OR CONCRETE WALLS

FULL HEIGHT WOOD WALLS

PARTIAL HEIGHT WOOD WALLS

CEILING JOIST SCHEDULE

MAXIMUM SPAN	SIZE & SPACING	LEDGER NAILING	LEDGER BOLTING
UP TO 7'-6"	2x4 @ 16"CC	(2) 16d / CONTACT	5/8"Ø @ 4'-0"CC
7'-7" TO 14'-0"	2x6 @ 16"CC	(2) 16d / CONTACT	5/8"Ø @ 4'-0"CC
14'-1" TO 18'-0"	2x8 @ 16"CC	(3) 16d / CONTACT	5/8"Ø @ 2'-8"CC

DETAIL 4 S5.31 — CEILING FRAMING — 1/2" = 1'-0"

630SD102 - Typical Framed Ceilings

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SEAL

REGISTERED PROFESSIONAL ENGINEER — WILLIAM B. RADER — No. 3592 — STRUCTURAL — STATE OF CALIFORNIA — 6/04/26

PROJECT

DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT

CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION
	6/4/26	Plan Check Response

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE

INTERIOR TYPICAL NON-STRUCTURAL DETAILS

SHEET

S5.31

IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
0 1/4" 1/2" 1" 2"
Autodesk Docs://MF22204 The City of Dixon - Fire Station 82/22022-0166_Dixon Fire 82_Central_R24.rvt
6/4/2026 5:02:57 PM

2" 1" 1/2" 1/4" 0
IF THIS SHEET IS NOT 22"x34" IT IS A REDUCED PRINT - SCALE ACCORDINGLY

MECHANICAL GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH ALL APPLICABLE CODES, SPECIFICATIONS, LOCAL ORDINANCES, AND INDUSTRY STANDARDS.
2. VERIFY EXACT LOCATION OF ALL (E) EQUIPMENT, DUCTWORK, DIFFUSERS, REGISTERS, AND GRILLES. NOTIFY ARCHITECT IMEDIATELY OF ANY DISCREPANCIES BETWEEN (E) SYSTEMS AND DRAWINGS.
3. COORDINATE EXACT LOCATION OF EQUIPMENT AND ALL PENETRATIONS THROUGH ROOF, FLOORS, AND WALLS WITH ARCHITECTURAL STRUCTURAL SYSTEMS PRIOR TO COMMENCING WORK.
4. COORDINATE EXACT SIZE AND ROUTING OF DUCTWORK WITH ARCHITECTURAL PLANS, STRUCTURE, AND EQUIPMENT PRIOR TO COMMENCING WORK.
5. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL CEILING DIFFUSERS, REGISTERS, AND GRILLES.
6. FURNISH AND INSTALL MANUAL AIR DAMPERS AT ALL DUCT BRANCH TAKEOFFS TO A SINGLE SUPPLY DIFFUSER.
7. FLEXIBLE DUCTWORK CONNECTIONS TO CEILING DIFFUSERS ARE LIMITED TO 5' MAXIMUM LENGTH.
8. ALL DUCTWORK, CEILING DIFFUSERS/REGISTERS/GRILLES, EQUIPMENT, PIPING, ETC. ARE NEW U.O.N. (SHOWN HEAVY). (E) DUCTWORK, PIPING, ETC. IS SHOWN LIGHT. SEE LEGEND.
9. (E) DUCTWORK AND ITEMS TO BE REMOVED ARE SHOWN CROSSED ("X") OUT, SEE LEGEND. COORDINATE CLOSELY WITH (N) DUCTWORK AND P.O.C.'S SHOWN. ALL OTHER (E) DUCTWORK, ETC. TO REMAIN.
10. WHERE INLET DUCT DIAMETER AND DIFFUSER NECK SIZE ARE THE SAME (I.E. 9"ø AND 9x9) CONTRACTOR SHALL OVERSIZE THE SHEET METAL PLENUM TO ACCOMODATE THE ROUND DUCT CONNECTION.
11. COMPLIANCE WITH THE 2022 CMC REQUIREMENT §609 SHALL BE MET FOR AIR HANDLING UNITS (AHU) / AIR MOVING SYSTEM (SEE 2022 CMC DEFINITIONS) GLOBAL / AGGREGATE SIMULTANEOUS SMOKE SHUTDOWN OF AREA SERVED UPON ACTIVATION OF ANY SINGLE DUCT SMOKE DETECTOR
12. ALL AHU / HVAC UNIT DUCT-SMOKE DETECTORS SHALL BE CONNECTED TO BUILDING FIRE ALARM PANEL TO INITIATE A SUPERVISORY SIGNAL UPON ACTIVATION. BE INTERCONNECTED AND SHALL SHUT DOWN ALL UNITS SERVING THE SAME AMBIENT AIR SPACE SIMULTANEOUSLY UPON ACTIVATION OF ANY ONE SINGLE DETECTOR
13. ALL AHU / HVAC UNIT DUCT-SMOKE DETECTORS SHALL BE TESTED BY CALIBRATED MANOMETER PROVIDED BY THE INSTALLING CONTRACTOR TO ENSURE AIR VOLUME AND VELOCITIES ARE WITHIN THE TOLERANCE SPECIFICATIONS OF THE RATINGS REQUIRED BY THE MANUFACTURER'S DATA ON EACH DUCT-SMOKE DETECTOR INSTALLED WITHIN THE UNIT / DUCTWORK

TABLE OF DUCT S/A, R/A, E/A CONNECTIONS TO DIFFUSERS, GRILLES, & REGISTERS

CFM	DUCT SIZE (INCHES) (1)				REMARKS (3) (4)
	ROUND	SQUARE	RECTANGULAR	MIN. AREA (SQ. IN.) (2)	
0-210	8Ø	8x8	8x6	48	
211-380	10Ø	10x10	10x8	80	
381-600	12Ø	12x12	12x10, 16x8	120	
601-900	14Ø	14x14	14x12, 16x10, 20x8	160	
901-1300	16Ø	16x16	16x14, 18x12, 22x10	220	
1301-1800	18Ø	18x18	18x16, 20x14, 22x12	264	
1801-2400	20Ø	20x20	22x16, 24x14, 30x12	340	

NOTES:

(1) SIZE OF DUCT CONNECTION IF SHOWN ON PLANS OR FROM ABOVE TABLE IS NOT THE INLET SIZE TO DIFFUSER, GRILLE OR REGISTER. PROVIDE PLENUM BOX PER 6/M-501. SEE NOTE . (3)

(2) MINIMUM DUCT AREA TO BE USED FOR ALTERNATE DUCT SIZES (DIFFERENT THAN THIS TABLE) WHEN REQUESTED BY CONTRACTOR FOR SA, RA, AND EA.

(3) SEE 6/M-501 FOR PLENUM BOX AT DIFF/REG/GRILLE AND FOR DETAIL OF DUCT BRANCH CONNECTION TO OUTLET (AND INLET) PLENUMS AT DIFF/REG.

(4) ALL DUCT SIZES SHALL BE SHOWN CLEARLY ON THE CONTRACTOR'S SUBMITTAL DRAWINGS. SHOW SIZE OF EACH DUCT ON THE PLANS AT EACH DUCT LOCATION.

DUCT LEGEND

SINGLE LINE SYMBOL	DOUBLE LINE SYMBOL	DESCRIPTION
24x12	24x12	RECTANGULAR DUCT: WIDTH x DEPTH (PLAN VIEW) DEPTH x WIDTH (SECTION VIEW)
26x14L	26x14L	ACOUSTICALLY LINED RECTANGULAR DUCT - DIMENSIONS ARE OUTSIDE
		MANUAL AIR DAMPER
R or D	R or D	RISE OR DROP DUCT IN DIRECTION OF AIR FLOW
	OR	RECTANGULAR TO RECTANGULAR TRANSISTION OR ROUND TO ROUND TRANSITION, MAX. SLOPE OF 1:3
		RECTANGULAR TO ROUND TRANSITION, MAX. SLOPE OF 1:3
	W, R, R/W = 1.5	ELBOW, RECTANGULAR, SMOOTH RADIUS, WITHOUT TURNING VANES
		SQUARE/RECTANGULAR DUCT ELBOW WITH TURNING VANES
		CONVERGING OR DIVERGING TEE, 45° ENTRY, RECTANGULAR MAIN AND BRANCH. WHEN REDUCING MAIN, SIDE OF TAKE OFF OR ENTRY BRANCH TO BE FLAT, OTHER SIDES MAX. SLOPE OF 1:3
	ROUND DUCT	ROUND DUCT TAKE OFF FROM RECTANGULAR VIA SMOOTH CONVERGING BELL MOUTH
		RECTANGULAR DUCT TEE MAD'S ON THE 2 BRANCHES, THROAT SIZED FOR EQUAL PRESSURE DROP
		RECTANGULAR DUCT SPLIT MAD'S, THROAT SIZED FOR EQUAL PRESSURE DROP
		3-WAY RECTANGULAR SPLIT WITH TWO TRANSITIONAL ELBOWS AND TRANSITIONING MAIN. DOWNSTREAM MAD'S OF THE TREE BRANCHES. THROATS SIZED FOR EQUAL PRESSURE DROP.
		FOR CONCEALED DUCT: DROP TO DIFFUSER SHALL BE FULL SIZE OF DIFFUSER NECK. FOR EXPOSED DUCT: DROP SHALL BE FULL SIZE OF OD DIFFUSER FRAME, FLANGE FOR MOUNTING DIFFUSER TURNED IN. AIR EXTRACTOR AND EQUALIZER GRID AT CONNECTION TO MAIN.
		SUPPLY AIR, SUPPLY DROP/RISE
		RETURN AIR, RETURN AIR DROP/RISE
		EXHAUST AIR, EXHAUST AIR DROP/RISE
		NEW - FLEXIBLE DUCT (ROUND)
	OR	EXISTING - FLEXIBLE DUCT (ROUND)
	10"Ø, 18"Ø, 12"Ø; 10"Ø, 18"Ø, 12"Ø	45° REDUCING LATERAL FITTING
	18"Ø, 10"Ø, 12"Ø; 18"Ø, 10"Ø, 12"Ø	90° REDUCING TEE FITTING

HVAC ABBREVIATIONS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
ABC	ABOVE CEILING	KEF	KITCHEN EXHAUST FAN
ABV	ABOVE	KW	KILOWATTS
ACC DR	ACCESS DOOR	LAV	LAVATORY
ACC P	ACCESS PANEL	LAT	LEAVING AIR TEMPERATURE
ACU	AIR CONDITIONING UNIT	LBS	POUNDS
AFF	ABOVE FINISHED FLOOR	LD	LOUVERED DOOR
AHU	AIR HANDLING UNIT	LDB	LEAVING DRY BULB
APD	AIR PRESSURE DROP, INCHES WATER COLUMN	LPS	LOW PRESSURE STEAM
APPROX	APPROXIMATE	LRA	LOCKED ROTOR AMPS
ARCH	ARCHITECTURAL	LTCP	LOCAL TEMPERATURE CONTROL PANEL
ATTEN	ATTENUATORS	LVR	LOUVER
ATV	ACOUSTIC TURNING VANE	LWB	LEAVING WET BULB
BD	BALANCE DAMPER	LWT	LEAVING WATER TEMPERATURE
BDD	BACK DRAFT DAMPER	MAT	MIXED AIR TEMPERATURE
BHP	BRAKE HORSE POWER	MAU	MAKE-UP AIR UNIT
BLDG	BUILDING	MAV	MANUAL AIR VENT
BOD	BOTTOM OF DUCT	MAX	MAXIMUM
BOR	BOTTOM OF REGISTER	MBH	THOUSAND BTUs PER HOUR
BTUH	BRITISH THERMAL UNITS PER HOUR	MCA	MINIMUM CIRCUIT AMPACITY
CAP	CAPACITY	MCC	MOTOR CONTROL CENTER
CD	CONDENSATE DRAIN	MD	MOTORIZED
CEF	CEILING EXHAUST FAN	MECH	MECHANICAL
CFH	CUBIC FEET OF GAS PER HOUR	MFR	MANUFACTURER
CFM	CUBIC FEET OF AIR FLOW PER MINUTE	MIN	MINIMUM
CHV	CHECK VALVE	MOCP	MAXIMUM OVERCURRENT PROTECTION
CLG	CEILING	OA	OUTSIDE AIR
CLR	CLEAR	OAD	OUTSIDE AIR DAMPER
CONC	CONCRETE	OC	ON CENTER
COND	CONDENSER	OD	OUTSIDE DIAMETER
CONN	CONNECT/CONNECTION	OH	OVERHEAD
CONT	CONTINUATION	OV	OUTLET VELOCITY
CONTR	CONTRACTOR	PCR	PUMPED CONDENSATE RETURN
D	DAMPER	PD	PRESSURE DROP
DGP	DATA GATHERING PANEL	PRV	PRESSURE REDUCING VALVE/ PRESSURE REGULATING VALVE
DIA	DIAMETER	PSI (G) (A)	POUNDS PER SQUARE INCH (GAUGE) (ABSOLUTE)
DL	DOOR LOUVER	RA	RETURN AIR
DN	DOWN	RAD	RETURN AIR DAMPER
DSP	DRY STAND PIPE	REF	ROOF EXHAUST FAN
DB	DRY BULB	RF	RETURN FAN
DTR	DOWN THROUGH ROOF	RPM	REVOLUTIONS PER MINUTE
DWG	DRAWING	RLA	RATED LOAD AMPS
EA	EXHAUST AIR	RV	RELIEF VENTILATOR
EAD	EXHAUST AIR DAMPER	S & R	SUPPLY AND RETURN
EC	EVAPORATIVE COOLER	SA	SUPPLY AIR
EDB	ENTERING DRY BULB	SAD	SEE ARCHITECTURAL DRAWINGS
EER	ENERGY EFFICIENCY RATING	SB	SECURITY BARS
EF	EXHAUST FAN	SD	SPLITTER DAMPER
EFF	EFFICIENCY	SEER	SEASONAL ENERGY EFFICIENCY RATING
EH	EXHAUST HOOD	SF	SUPPLY FAN
EL	ELEVATION	SG	STEAM GENERATOR
ELEC	ELECTRIC/ELECTRICAL	SK	SINK
ENT	ENTERING	SM	SHEET METAL
EQUIP	EQUIPMENT	SOV	SHUT OFF VALVE
ESP	EXTERNAL STATIC PRESSURE	SP	STATIC PRESSURE
EVAP	EVAPORATOR	SPD	STATIC PRESSURE DROP
EW	ENTERING WATER	SQ FT	SQUARE FEET
EWB	ENTERING WET BULB	SQ IN	SQUARE INCHES
EWC	ELECTRIC WATER COOLER	SS	STAINLESS STEEL
EWT	ENTERING WATER TEMPERATURE	STR	STRAINER
EXH	EXHAUST	STRUC	STRUCTURAL
EXT	EXPANSION TANK	TA	TO ABOVE
f	CUBIC FEET OF AIR FLOW PER MINUTE	TB	TO BELOW
F	DEGREES FAHRENHEIT	T.C.C.	TEMPERATURE CONTROL CONTRACTOR
FA	FROM ABOVE	TCP	TEMPERATURE CONTROL PANEL
FB	FROM BELOW	TCV	TEMPERATURE CONTROL VALVE
FC	FLEXIBLE CONNECTION	TEMP	TEMPERATURE
FCV	FLOW CONTROL VALVE	TFH	THERMAL FLUID HEATER
FD	FIRE DAMPER	THK	THICK
FF	FLY FAN	TP	TOTAL PRESSURE
FIN	FINISH	TSP	TOTAL STATIC PRESSURE
FLA	FULL LOAD AMPS	TYP	TYPICAL
FLR	FLOOR	UCD	UNDERCUT DOOR
FPM	FEET PER MINUTE	UF	UNDERFLOOR
FSD	FIRE AND SMOKE DAMPER	UG	UNDERGROUND
FT (')	FOOT OR FEET	UON	UNLESS OTHERWISE NOTED
FT 2	SQUARE FEET	UTR	UP THROUGH ROOF
FV	FACE VELOCITY	V (VTR)	VENT (VENT THROUGH ROOF)
GA	GAUGE	VAC	VACUUM
GALV	GALVANIZED	VD	VOLUME DAMPER
GI	GALVANIZED IRON	VF	VENTILATION FAN
GPH	GALLONS PER HOUR	VFC	VARIABLE FREQUENCY CONTROLLER
GPM	GALLONS PER MINUTE	VLV	VALVE
HC	HEATING COIL	VRF	VARIABLE REFRIGERANT FLOW
HDG	HEAVY DUTY GRILLE	VSD	VARIABLE SPEED DRIVE
HP	HORSE POWER	VV	VARIABLE AIR VOLUME CONTROLLER
HPS	HIGH PRESSURE STEAM	VVRH	VARIABLE AIR VOLUME CONTROLLER WITH REHEAT COIL
HTG	HEATING	W	WATTS
HV	HAND VALVE	WALL MTD (R)	WALL MOUNTED (RECESSED)
HW	HOT WATER	WB	WET BULB
HWR	HOT WATER RETURN	WC	WATER CLOSET
HWS	HOT WATER SUPPLY	WMS	WIRE MESH SCREEN
ICF	INSTANTENEOUS CURRENT FLOW	WP	WORKING PRESSURE
IE	INVERT ELEVATION	WPD	WATER PRESSURE DROP FEET OF WATER COLUMN
IN. (")	INCH	WT	WEIGHT
IN 2	SQUARE INCHES		

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CONSULTANT
capital engineering
RANCHO CORDOVA, CALIFORNIA
ADB-AL/IG/KD — PM - DESIGN TEAM
220508.00 — PROJECT NO.

SEAL
REGISTERED PROFESSIONAL ENGINEER — ANTHONY COLACCHIO — M 29743 — EXPIRES 6/30/27 — MECHANICAL — STATE OF CALIFORNIA
DATE SIGNED: 4/10/26

PROJECT
Dixon Fire Station 82

Dixon, CA 95620

CLIENT
City of Dixon

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT
LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
HVAC LEGEND & NOTES

SHEET
M0.01

Autodesk Docs://City of Dixon - Fire Station 82/220508_Dixon_Fire Station_MP24.rvt
6/2/2026 11:23:30 AM

SPLIT SYSTEM INDOOR UNIT SCHEDULE

EQUIP TAG	"MITSUBISHI" MODEL NO	NOM TONS	AIR FLOW (CFM)	OUTSIDE AIR (CFM)	COOL CAP [MBH]	HEAT CAP [MBH]	ELECTRICAL DATA			OPER WT (LBS)	MOUNTING DETAIL	NOTES
							VOLT	PHASE	MCA			
SAC-1	PEAD-AA12NL	1.0	495	180	12.0	15.0	208	1	2.5	75	1/M5.02	1-5
SAC-2	PEAD-AA15NL	1.5	600	200	15.0	18.0	208	1	2.25	75	1/M5.02	1-5
SAC-3	PEAD-AA12NL	1.0	495	470	12.0	15.0	208	1	2.5	75	1/M5.02	1-5
SAC-4	PEAD-AA12NL	1.0	495	470	12.0	15.0	208	1	2.5	75	1/M5.02	1-5
SAC-5	PKA-A24LA1	2.0	320	-	24.0	-	208	1	-	55	2/M5.03	1-5

NOTES:

1. INSTALL MANUFACTURER'S REFRIGERANT LINESET IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. PROVIDE ADDITIONAL REFRIGERANT PIPING WHERE REQUIRED.
2. PROVIDE WITH MANUFACTURER'S WASHABLE FILTERS FOR WALL MOUNTED UNITS. PROVIDE 2" MERV-13 FILTER IN FILTER BOX FOR DUCTED UNITS.
3. PROVIDE WITH 'BLUE DIAMOND' X87-721 CONDENSATE PUMP.
4. PROVIDE HARDWIRED SPACE TEMPERATURE SENSORS.
5. PROVIDE WITH GROUP A2L R-454B REFRIGERANT TYPE.

SPLIT SYSTEM OUTDOOR UNIT SCHEDULE

EQUIP TAG	"MITSUBISHI" MODEL NO	COOL CAP (MBH)	HEAT CAP (MBH)	REFR. LINE SIZE		MAX REFR. CHARGE [LBS]	ELECTRICAL DATA				SEER2 / EER2	COP / HSPF2	OPER. WT. [LBS]	MOUNTING DETAIL	CONTROL DIAGRAM	NOTES
				RL	RS		VOLT	PHASE	MCA	MOCP						
SCU-1	SUZ-AA12NL	12	15	1/4	3/8	10	208	1	14	23	19.7 / 12.5	3.4 / 9.7	90	1/M5.01	4/M5.03	1, 2
SCU-2	SUZ-AA15NL	15	18	1/4	1/2	30	208	1	17	29	18.8 / 12.2	4.1 / 9.7	90	1/M5.01	4/M5.03	1, 2
SCU-3	SUZ-AA12NL	12	15	1/4	3/8	14	208	1	14	23	19.7 / 12.5	3.4 / 9.7	90	1/M5.01	4/M5.03	1, 2
SCU-4	SUZ-AA12NL	12	15	1/4	3/8	16	208	1	14	23	19.7 / 12.5	3.4 / 9.7	90	1/M5.01	4/M5.03	1, 2
SCU-5	PUY-AH24NL	24	0	3/8	5/8	3.8	208	1	22	37	21.1 / 12.0	- / -	180	1/M5.01	4/M5.03	1, 2

NOTES:

1. UNIT SHALL NOT EXCEED MANUFACTURER'S MAX REFRIGERANT LINE LENGTH. UNIT'S INSTALLED REFRIGERANT CHARGE SHALL NOT EXCEED SCHEDULED MAX ALLOWABLE REFRIGERANT CHARGE.
2. UNITS SHALL USE GROUP A2L R-454B REFRIGERANT TYPE.

VRF INDOOR UNIT SCHEDULE

EQUIP TAG	"MITSUBISHI" MODEL NO.	TYPE	SUPPLY AIR [CFM]	MIN. OA [CFM]	COOLING CAP.		HEATING CAP. [MBH]	REFR. LINE SIZE		MAX REFR. CHARGE [LBS]	ELECTRICAL DATA			OPER. WT. [LBS]	MOUNTING DETAIL	CONTROL DIAGRAM	NOTES
					SENS. [MBH]	TOT. [MBH]		RL [IN]	RS [IN]		VOLT/PH	MCA	MOCP				
FCU-01	TPLFYP006EM1M0A	CASSETTE	500	50	6.0	6.0	6.7	1/4	1/2	14	208/1	0.24	15	50	4/M5.01	4/M5.02	1-6
FCU-02	TPEFYP027MA1M0A	DUCTED	880	445	20.5	27.0	31.0	3/8	5/8	24	208/1	2.5	15	70	1/M5.02	4/M5.02	1-6
FCU-03	TPLFYP006EM1M0A	CASSETTE	500	70	6.0	6.0	6.7	1/4	1/2	10	208/1	0.24	15	50	4/M5.01	4/M5.02	1-6
FCU-04	TPLFYP006EM1M0A	CASSETTE	500	70	6.0	6.0	6.7	1/4	1/2	10	208/1	0.24	15	50	4/M5.01	4/M5.02	1-6
FCU-05	TPLFYP006EM1M0A	CASSETTE	500	70	6.0	6.0	6.7	1/4	1/2	10	208/1	0.24	15	50	4/M5.01	4/M5.02	1-6
FCU-06	TPLFYP006EM1M0A	CASSETTE	500	70	6.0	6.0	6.7	1/4	1/2	10	208/1	0.24	15	50	4/M5.01	4/M5.02	1-6
FCU-07	TPEFYP006EMA1M0A	DUCTED	300	165	5.8	6.0	6.7	1/4	1/2	14	208/1	1.75	15	50	1/M5.02	4/M5.02	1-6
FCU-08	TPEFYP006EMA1M0A	DUCTED	300	200	5.8	6.0	6.7	1/4	1/2	8.2	208/1	1.75	15	50	1/M5.02	4/M5.02	1-6
MAU-01	TPEFYP054EMA1M0A	DUCTED	1400	1400	38.1	54.0	60.0	3/8	5/8	35	208/1	3.4	15	100	1/M5.02	4/M5.02	1-5,7-8

NOTES:

1. UNIT SELECTED AT 104˚F DB / 72˚F WB SUMMER AMBIENT, 24˚F DB WINTER AMBIENT TEMPERATURE.
2. PROVIDE WITH MANUFACTURER'S WASHABLE FILTER FOR CASSETTE UNITS. PROVIDE WITH 2" MERV-13 FILTER IN FILTER BOXES AT DUCTED UNITS.
3. UNITS SHALL USE GROUP A2L R-32 REFRIGERANT TYPE.
4. UNIT SHALL NOT EXCEED MANUFACTURER'S MAX REFRIGERANT LINE LENGTH FROM INDOOR UNIT TO BRANCH BOX. UNIT'S INSTALLED REFRIGERANT CHARGE SHALL NOT EXCEED SCHEDULED MAX ALLOWABLE REFRIGERANT CHARGE.
5. SEE PIPING/CONTROL DIAGRAM ON M4.01 FOR INDICATION OF REQUIRED INDOOR UNIT REMOTE CONTROLLERS, SYSTEM CONTROLLERS, AND INTEGRATION DEVICES.
6. PROVIDE WITH 'BLUE DIAMOND' X88-721 CONDENSATE PUMP WITH RESERVOIR & SENSOR.
7. PROVIDE WITH 'BLUE DIAMOND' X87-835 CONDENSATE PUMP WITH RESERVOIR & SENSOR.
8. INTERLOCK WITH KITCHEN RANGE HOOD FAN, KEF-1. PROVIDE WITH MITSUBISHI DIDO CONTROLLER TO ENABLE/DISABLE UNIT BASED ON HOOD OPERATION. CONTRACTOR TO PROVIDE FIELD INTERLOCKING WIRING/RELAYS/TRANSFORMERS.

VRF OUTDOOR UNIT SCHEDULE

EQUIP TAG	"MITSUBISHI" MODEL NO.	COOLING CAP. [MBH]	HEATING CAP. [MBH]	REFR. LINE SIZE		ELECTRICAL DATA			IEER / SEER	COP	OPER. WT. [LBS]	MOUNTING DETAIL	CONTROL DIAGRAM	NOTES
				RL [IN]	RS [IN]	VOLT/PH	MCA	MOP						
CU-1	TURYE1203AMM0AN	120.0	135.0	3/4	1-1/8	208/3	51	80	23.6 / 13.0	3.91	620	1/M5.01	4/M5.01	1, 2

NOTES:

1. UNIT SELECTED AT 104˚F DB / 72˚F WB SUMMER AMBIENT, 24˚F DB WINTER AMBIENT TEMPERATURE.
2. UNITS SHALL USE GROUP A2L R-32 REFRIGERANT TYPE.

VRF HEAT RECOVERY BRANCH CONTROLLER SCHEDULE

EQUIPMENT TAG	MODEL	CONNECTED CAPACITY (MBH)	BRANCH PORTS	VOLT/PH	MCA	MOCP	MOUNTING DETAIL	CONTROL DIAGRAM	OPER. WT. [LBS]	NOTES
BC-1	CMB-M1012NU-MA-SV	123.0	12	208/1	1.1	15	7/M5.01	4/M5.02	170	1-3

NOTES:

1. FOR REFRIGERANT PIPE SIZING, SEE VRF PIPING DIAGRAM ON M4.01. CONTRACTOR SHALL PROVIDE COORDINATED SHOP DRAWINGS WITH PIPE SIZES AND ROUTING PER MANUFACTURER'S RECOMMENDATIONS.
2. INCLUDE DIAMONDBACK BALL VALVES BV-SERIES, 700PSIG WORKING PRESSURE, FULL PORT.
3. PROVIDE WITH CORRESPONDING WILSENERGY OUTDOOR ENCLOSURE BOX. INSTALL INSIDE ENCLOSURE BOX PER MANUFACTURER'S INSTRUCTIONS.

DIFFUSER, REGISTER & GRILLE SCHEDULE

SYMBOL	DESCRIPTION	KRUEGER	METALAIRE	PRICE	TITUS	TUTTLE & BAILEY
CD ☒	MODULAR CORE SURFACE MOUNT CEILING DIFFUSER FLAT FRAME	1240 FRAME 22	9000-1	SMCD FRAME 1	MCD BORDER TYPE 1	SQD-SF
CDL ☒	MODULAR CORE LAY-IN CEILING DIFFUSER FOR T-BAR CEILING 24x24 PANEL	1240 FRAME 23	9000-6P	SMCD FRAME 3	MCD BORDER TYPE 3	SQD-LT
CR, CT, CE ◿ ◺	CEILING RETURN, TRANSFER OR EXHAUST WITH 1/2" EGG CRATE CORE SURFACE MOUNT	EGC-5	CC5D	80	MODEL 50 F BORDER TYPE 1	CRE500-SF
CRL, CTL, CEL ◿ ◺	CEILING RETURN, TRANSFER OR EXHAUST WITH 1/2" EGG CRATE CORE IN 24x24 PANEL FOR T-BAR CEILING	EGC-5TB	CC5D-TBD	80-TBP	MODEL 50 F BORDER TYPE 3	CRE500-LT

NOTES:

1. ALL SYMBOLS NOTED MAY NOT BE USED. REFER TO PLANS FOR SIZE AND QUANTITY.
2. ALL SUPPLY AIR DIFFUSERS ARE 4 WAY BLOW UNLESS SHOWN OTHERWISE.
3. FURNISH ALL PRODUCTS OF A SINGLE MANUFACTURER.
4. COORDINATE DIFFUSER TYPE WITH ARCHITECTURAL REFLECTED CEILING PLAN.
5. OPPOSED BLADE DAMPERS ARE NOT REQUIRED AT DIFFUSERS, REGISTERS OR GRILLES.
6. PROVIDE MANUAL AIR DAMPERS AT EACH BRANCH DUCT TO A SINGLE DIFFUSER, REGISTER OR GRILLE.

* ALUMINUM REGISTERS FOR SHOWERS AND DAMP AREAS

ENERGY RECOVERY VENTILATOR SCHEDULE

EQUIP TAG	"LOSSNAY" MODEL NO.	EQUIP SERVING	SUPPLY FAN		EXHAUST FAN		ELECTRICAL DATA			EFFECTIVENESS		OPER. WT. [LBS]	MOUNTING DETAIL	CONTROL DIAGRAM	NOTES
			CFM	ESP [IN. W.G.]	CFM	ESP [IN. W.G.]	VOLT/PH	MCA	MOCP	SUMMER [%]	WINTER [%]				
ERV-1	TLGHF0940RVX02A	FCU-01 THRU FCU-07	940	1.0	705	0.56	208/1	10.1	15	64	75	230	6/M5.03	4/M5.02	1, 2
ERV-2	TLGHF0380RVX02A	SAC-1 & SAC-2	380	0.86	285	0.48	208/1	3.9	15	60	71	100	6/M5.03	4/M5.02	1, 2
ERV-3	TLGHF0470RVX02A	SAC-3	470	1.0	350	0.56	208/1	5.1	15	64	75	120	6/M5.03	4/M5.02	1, 2
ERV-4	TLGHF0470RVX02A	SAC-4	470	1.0	350	0.56	208/1	5.1	15	64	75	120	6/M5.03	4/M5.02	1, 2

NOTES:

1. PROVIDE WITH MERV-13 FILTER ON THE OUTSIDE AND MERV-8 FILTER ON THE EXHAUST SIDE.
2. UNIT TO BE SET TO POSITIVE PRESSURE MODE.

ELECTRIC RADIANT HEATER SCHEDULE

EQUIP TAG	"BLACK BODY INFRARED" MODEL NO	LOCATION	CAP. [KW]	ELECTRICAL DATA			MOUNTING DETAIL	CONTROL DIAGRAM	OPER. WT. [LBS]	NOTES
				VOLT	PHASE	RLA				
RH-1	41-6000U	19 - APPARATUS BAYS	6	230	1	26.1	6/M5.02	5/M5.02	50	
RH-2	41-6000U	19 - APPARATUS BAYS	6	230	1	26.1	6/M5.02	5/M5.02	50	
RH-3	41-6000U	19 - APPARATUS BAYS	6	230	1	26.1	6/M5.02	5/M5.02	50	
RH-4	41-6000U	19 - APPARATUS BAYS	6	230	1	26.1	6/M5.02	5/M5.02	50	
RH-5	41-6000U	19 - APPARATUS BAYS	6	230	1	26.1	6/M5.02	5/M5.02	50	
RH-6	41-6000U	19 - APPARATUS BAYS	6	230	1	26.1	6/M5.02	5/M5.02	50	

NOTES:

1. UNITS SELECTED AT 103°F DB / 71°F WB SUMMER AMBIENT, 24°F DB WINTER AMBIENT AIR TEMPERATURES. COOLING AND HEATING CAPACITIES SCHEDULED ARE NET TOTAL CAPACITIES.
2. PROVIDE WITH 2" MERV-13 THROWAWAY FILTER.
3. PROVIDE VARIABLE FREQUENCY DRIVE.

INTAKE/RELIEF HOOD SCHEDULE

EQUIPMENT TAG	MFR	MODEL NO	THROAT SIZE (IN)	AIR FLOW (CFM)	APD (IN)	TYPE	MOUNTING DETAIL	OPER WT (LBS)	NOTES
GV-1	GREENHECK	GRSR-12	12x12	705	0.1	RELIEF	3/M5.01	50	1-3
GV-2	GREENHECK	GRSR-16	16x16	1400	0.1	RELIEF	3/M5.01	50	1-3
GV-3	GREENHECK	GRSR-12	12x12	635	0.1	RELIEF	3/M5.01	50	1-3
GV-4	GREENHECK	GRSR-8	8x8	350	0.1	RELIEF	3/M5.01	50	1-3
GV-5	GREENHECK	GRSR-8	8x8	55	0.1	RELIEF	3/M5.01	50	1-3
GV-6	GREENHECK	GRSR-8	8x8	110	0.1	RELIEF	3/M5.01	50	1-3
GV-7	GREENHECK	GRSR-8	8x8	300	0.1	RELIEF	3/M5.01	50	1-3
GV-8	GREENHECK	GRSR-8	8x8	110	0.1	RELIEF	3/M5.01	50	1-3

NOTES:

1. PROVIDE WITH MANUFACTURER'S BACKDRAFT DAMPER ACCESSORY AND ALUMINUM GALVANIZED BIRD SCREEN.
2. PROVIDE WITH MANUFACTURER'S ROOF CURB.
3. PROVIDE WITH BIRD SCREEN.

FAN SCHEDULE

EQUIPMENT TAG	MFR	MODEL NO	CFM	SP [IN WG]	RPM	MOTOR HP [HP] (WATTS)	BHP	VOLT	PHASE	OPER. WT. [LBS]	MOUNTING DETAIL	CONTROL DIAGRAM	NOTES
CEF-1	GREENHECK	SP-A200	125	0.350	900	(50)	0.03	115	1	30	7/M5.02	3/M5.03	1
CEF-2	GREENHECK	SP-A200	125	0.350	900	(50)	0.03	115	1	30	7/M5.02	3/M5.03	1
CEF-3	GREENHECK	SP-A90	55	0.350	900	(14)	0.01	115	1	15	7/M5.02	3/M5.03	1
CSF-1	GREENHECK	CSP-A200	100	0.350	825	(118)	0.06	115	1	30	8/M5.02	3/M5.03	3
IEF-1	GREENHECK	CSP-A410	300	0.380	1000	(120)	0.06	115	1	36	8/M5.02	3/M5.03	1
KEF-1	GREENHECK	QEI-9	1300	1.085	2266	3/4	0.06	208	3	280	8/M5.02	-	1,2

NOTES:

1. PROVIDE WITH MANUFACTURER'S BACKDRAFT DAMPER ACCESSORY.
2. INTERLOCK TO OPERATE WITH MAU-01.
3. INTERLOCK CSF-1 WITH CEF-1 & CEF-2.

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CONSULTANT
capital engineering
RANCHO CORDOVA, CALIFORNIA

ADB-AL/IG/KD — PM - DESIGN TEAM
220508.00 — PROJECT NO.

SEAL

REGISTERED PROFESSIONAL ENGINEER — ANTHONY COLACCHIO — M 29743 — EXPIRES 9/30/27 — MECHANICAL — STATE OF CALIFORNIA

DATE SIGNED: 4/10/26

PROJECT
Dixon Fire Station 82

Dixon, CA 95620

CLIENT
City of Dixon

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT
LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
HVAC SCHEDULES

SHEET
M0.02

2" 1" 1/2" 0
IF THIS SHEET IS NOT 22"x34" IT IS A REDUCED PRINT - SCALE ACCORDINGLY
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2" 1" 1/2" 0 1/4"
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6/2/2026 11:23:34 AM

BUILDING ENERGY ANALYSIS REPORT

PROJECT:

Dixon FS #82

Dixon, CA 95620

Project Designer:

Lionakis
2025 Nineteenth St
Sacramento, CA 95818
916-558-1900

Report Prepared by:

Kathleen Dufort
Capital Engineering Consultants Inc.
11020 Sun Center Dr., Suite 100
Rancho Cordova, CA 95670
916.851.3500

Job Number:

220508.00

Date:

3/10/2026

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.

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Form NRCC-PLB-E Domestic Water Heating System	22

Project Name: Dixon FS #82 **Date Prepared:** 2026-03-10

A. General Information

1	Project Name	Dixon FS #82			
2	Run Title	Title 24 Analysis			
3	Project Location	- specify -			
4	City	Dixon	5	Standards Version	Compliance 2022
6	Zip code	95620	7	Compliance Software (version)	EnergyPro 9.4
8	Climate Zone	12	9	Building Orientation (deg)	0
10	Building Type(s)	• Mixed Occupancy	11	Weather File	VACAVILLE-NUT-TREE_STYP20.epw
12	Project Scope	• New envelope and mechanical	13	Number of Dwelling Units	0
14	Total Conditioned Floor Area in Scope (ft²)	3550.6	15	Total # of hotel/motel rooms	4
16	Total Unconditioned Floor Area (ft²)	0	17	Fuel Type	Liquefied propane gas
18	Nonresidential Conditioned Floor Area	3026.6	19	Total # of Stories (Habitable Above Grade)	1
20	Residential Conditioned Floor Area	524			

B. PROJECT SUMMARY

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 permit application.

Building Components Complying via Performance						Building Components Complying Prescriptively	
Envelope (See Table G)	Nonres	Performance	Solar Thermal Water Heating (See Table I3)	☐	Performance	The following building components are ONLY eligible for prescriptive compliance and should be documented on the NRCC form listed if within the scope of the permit application (i.e. compliance will not be shown on the NRCC-PRF-E).	
	MultiFam	Not Included		☒	Not Included		
Mechanical (See Table H)	Nonres	Performance	Covered Process: Commercial Kitchens (see Table J)	☒	Performance	Indoor Lighting (Unconditioned) 140.6 & 170.2(e)	NRCC-LTI-E is required
	MultiFam	Not Included		☐	Not Included	Outdoor Lighting 140.7 & 170.2(e)	NRCC-LTO-E is required
Domestic Hot Water (See Table I)	Nonres	Not Included	Covered Process: Laboratory Exhaust (see Table J)	☐	Performance	Sign Lighting 140.8 & 170.2(e)	NRCC-LTS-E is required
	MultiFam	Not Included		☒	Not Included	**Building Components Complying with Mandatory Measures**	
Lighting (Indoor Conditioned, see Table K)	Nonres	Not Included	Photovoltaics (see Table F)	☐	Performance	Electrical power systems, commissioning, solar ready, elevator and escalator requirements are mandatory and should be documented on the NRCC form listed if applicable (i.e. compliance will not be shown on the NRCC-PRF-E.)	
	MultiFam	Not Included		☒	Not Included	Electrical Power Distribution 110.11	NRCC-ELC-E is required
			Battery (see Table F)	☐	Performance	Commissioning 120.8	NRCC-CXR-E is required
				☒	Not Included	Solar and Battery 110.10	NRCC-SAB-E is required

C1. COMPLIANCE SUMMARY

	Time Dependent Valuation (TDV)		Source Energy Use
COMPLIES[3]	**Efficiency[1] (kBtu/ft² - yr)**	**Total[2] (kBtu/ft² - yr)**	**Total[2] (kBtu/ft² - yr)**
Standard Design	587.63	587.63	68.58
Proposed Design	572.38	572.38	55.7
Compliance Margins	**15.25**	**15.25**	**12.88**
	Pass	**Pass**	**Pass**

[1] *Efficiency measures include improvements like a better building envelope and more efficient equipment*
[2] *Compliance Totals include efficiency, photovoltaics and batteries*
[3] *New Construction, Complete Addition Scope: Building complies when all efficiency and total compliance margins are greater than or equal to zero and unmet load hour limits are not exceeded*
Existing, Addition and Alteration Scope: Building complies when efficiency compliance margin is greater than or equal to zero and unmet load hour limits are not exceeded

C2. TDV ENERGY COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft² - yr)

	COMPLIES[2]		
Energy Component	**Standard Design (TDV)**	**Proposed Design (TDV)**	**Compliance Margin (TDV)[1]**
Space Heating	183.28	111.51	71.77
Space Cooling	139.4	177.85	-38.45
Indoor Fans	185.92	169.34	16.58
Heat Rejection	0	0	0
Pumps & Misc.	0	34.65	-34.65
Domestic Hot Water	43.03	43.03	0
Indoor Lighting	36	36	0
Flexibility	---	---	---
EFFICIENCY COMPLIANCE TOTAL	**587.63**	**572.38**	**15.25 (2.6%)**
Photovoltaics	---	---	---
Batteries	---	---	---
TOTAL COMPLIANCE	**587.63**	**572.38**	**15.25 (2.6%)**

[1] *Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.*

C3. TDV ENERGY RESULTS FOR NON-REGULATED COMPONENTS[1]

Non-Regulated Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)[1]
Receptacle	207.68	207.68	---
Process	164.04	164.04	---
Other Ltg	4.54	4.54	---
Process Motors	---	---	---
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	**963.89**	**948.64**	**15.25 (1.6%)**

[1] *Notes: This table is not used for Energy Code Compliance.*

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

	COMPLIES[2]		
Energy Component	**Standard Design (SOURCE)**	**Proposed Design (SOURCE)**	**Compliance Margin (SOURCE)[1]**
Space Heating	34.63	15.71	18.92
Space Cooling	6.58	7.91	-1.33
Indoor Fans	15.69	16.6	-0.91
Heat Rejection	0	0	0
Pumps & Misc.	0	3.8	-3.8
Domestic Hot Water	8.63	8.63	0
Indoor Lighting	3.05	3.05	0
Flexibility	---	---	---
EFFICIENCY COMPLIANCE TOTAL	**68.58**	**55.7**	**12.88 (18.8%)**
Photovoltaics	---	---	---
Batteries	---	---	---
TOTAL COMPLIANCE	**68.58**	**55.7**	**12.88 (18.8%)**

[1] *Notes: This number in parenthesis following the Compliance Margin in column 4, represents the Percent Better than Standard.*

C5. SOURCE ENERGY RESULTS FOR NON-REGULATED COMPONENTS[1]

Non-Regulated Energy Component	Standard Design (SOURCE)	Proposed Design (SOURCE)	Compliance Margin (SOURCE)[1]
Receptacle	29.81	29.81	---
Process	15.25	15.25	---
Other Ltg	0.52	0.52	---
Process Motors	---	---	---
TOTAL (TOTAL COMPLIANCE + NON-REGULATED COMPONENTS)	**114.16**	**101.28**	**12.88 (11.3%)**

[1] *Notes: This table is not used for Energy Code Compliance.*

C6. 'ABOVE CODE' QUALIFICATIONS

☐ This project is pursuing CalGreen Tier 1 ☐ This project is pursuing CalGreen Tier 2

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REGISTERED PROFESSIONAL ENGINEER ANTHONY COLACCHIO M 29743 MECHANICAL EXPIRES 6/30/27 STATE OF CALIFORNIA

DATE SIGNED: 4/10/26

PROJECT
Dixon Fire Station 82

Dixon, CA 95620

CLIENT
City of Dixon

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
T24 COMPLIANCE FORMS

SHEET
M0.03

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	1.4	14	-12.6	116.4	---	---
Space Cooling	12.7	14	-1.3	---	---	---
Indoor Fans	22.9	21.2	1.7	---	---	---
Heat Rejection	---	---	---	---	---	---
Pumps & Misc.	---	4.4	---	---	---	---
Domestic Hot Water	0.1	0.1	0	30.5	30.5	0
Indoor Lighting	4.9	4.9	0	---	---	---
Flexibility	---	---	---	---	---	---
EFFICIENCY TOTAL	**42**	**58.6**	**-16.6**	**146.9**	**30.5**	**116.4**
Photovoltaics	---	---	---	---	---	---
Batteries	---	---	---	---	---	---
ENERGY USE SUBTOTAL	**42**	**58.6**	**-16.6**	**146.9**	**30.5**	**116.4**
Receptacle	14.8	14.8	0	68.8	68.8	0
Process	21.4	21.4	0	---	---	---
Other Ltg	0.5	0.5	0	---	---	---
Process Motors	---	---	---	---	---	---
ENERGY USE TOTAL	**78.7**	**95.3**	**-16.6**	**215.7**	**99.3**	**116.4**

C8. ENERGY USE INTENSITY (EUI)

	Standard Design (kBtu/ft² / yr)	Proposed Design (kBtu/ft² / yr)	Margin (kBtu/ft² / yr)	Margin Percentage
GROSS EUI[1]	136.38	119.55	16.83	12.34
NET EUI[1]	136.38	119.55	16.83	12.34

[1] *Notes: Gross EUI is Energy Use Total (not including PV)/Total Building Area. Net EUI is Energy Use Total (including PV)/Total Building Area.*

C9. UNMET LOAD HOURS

Thermal Zone Name	Cooling Unmet Load Hour Limit for Thermal Zone	Proposed Cooling Unmet Load Hours	Heating Unmet Load Hour Limit for Thermal Zone	Proposed Heating Unmet Load Hours
14-MAU-1	150	0	150	851

D1. EXCEPTIONAL CONDITIONS

- The project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylit Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (form NRCC-LTI-02-E) for the requirements of section 140.6(d) Automatic Daylighting Controls in Secondary Daylit Zones is required.
- The building does not include service water heating. Verify that service water heating is not required and is not included in the design.
- The user model includes space(s) that are designed to be served by mechanical cooling systems, but the cooling systems were not included in the simulation model. A cooling system has been modeled for both the proposed and standard cases.
- The user model includes space(s) without sufficient cooling equipment. Cooling equipment has been added to the model to meet cooling loads.
- PV/Battery Building Type has been modified from software defaults for one or more spaces. Review project's PV/Battery Building Type(s) with documentation author. Refer to Energy Code section 140.10 for Nonresidential or 170.2(g) for more information.

G1. ENVELOPE GENERAL INFORMATION (conditioned spaces only)

01	02	03	04
Opaque Surfaces & Orientation	Total Gross Surface Area (ft²)	Total Fenestration Area (ft²)	Window to Wall Ratio (%)
North-Facing[1]	995.5	189	18.99
East-Facing[2]	688.43	24	3.49
South-Facing[3]	1157.3	141.34	12.21
West-Facing[4]	577	30	5.2
Total	**3418.23**	**384.34**	**11.24**
Roof	3550.6	0	0

Notes
[1]*North-Facing is oriented to within 45 degrees of true north, including 4500'00" east of north (NE), but excluding 4500'00" west of north (NW),*
[2]*East-Facing is oriented to within 45 degrees of true east, including 4500'00" south of east (SE), but excluding 4500'00" north of east (NE),*
[3]*South-Facing is oriented to within 45 degrees of true south, including 4500'00" west of south (SW), but excluding 4500'00" east of south (SE),*
[4]*West-Facing is oriented to within 45 degrees of true west, including 4500'00" north of west (NW), but excluding 4500'00" south of west (SW),*

G4. NONRESIDENTIAL AIR BARRIER

01	02
Building Story Name	Air Barrier
Com-Floor 1	No air barrier

G5. OPAQUE SURFACE ASSEMBLY SUMMARY

01	02	03	04	05	06		07	08	09	10
Surface Name	Construction Type	Area (ft²)	Framing Type	Cavity R-Value	Continuous R-Value		Units	Value	Description of Assembly Layers	Status[1]
					Interior	Exterior				
R-8 o/ R-21 Wall6	Exterior Wall	3,418.23	Wood	21	N/A	6.25	U-factor	0.0449	Stucco - 7/8 in. Extruded Polystyrene - XPS - 1 1/4 in. R6.25 Vapor permeable felt - 1/8 in. Composite-1 Gypsum Board - 1/2 in.	N
Int Wall11	Interior Wall	3,919	N/A	0	N/A	N/A	U-factor	0.3145	Gypsum Board - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Gypsum Board - 1/2 in.	N
R8 + R-30 Roof o/ SSM13	Roof	3,550.6	Wood	30	N/A	8	U-factor	0.0264	Metal Standing Seam - 1/16 in. Compliance Insulation R8.00 Plywood - 1/2 in. Composite-2 Air - Ceiling - 3/4 in. Gypsum Board - 1/2 in.	N
Slab On Grade15	Underground Floor	3,550.6	N/A	0	N/A	N/A	F-factor	0.73	Slab Type =Unheated slab on grade Insulation Orientation =None Insulation R-Value =none	N
R-8 o/ R-21 Wall61	Interior Wall	405	Wood	21	N/A	6.25	U-factor	0.0438	Stucco - 7/8 in. Extruded Polystyrene - XPS - 1 1/4 in. R6.25 Vapor permeable felt - 1/8 in. Composite-1 Gypsum Board - 1/2 in.	N

[1] *Status: N - New, A - Altered, E - Existing*

G6A. OPAQUE DOOR SUMMARY (NONRESIDENTIAL)

01	02	03	04
Assembly Name	Area (ft²)	Overall U-factor	Status[1]
Wood Door64	28.93	0.5	N
Insulated Door83	26.67	0.2	N

[1] *Status: N - New, A - Altered, E - Existing*

G7A. FENESTRATION ASSEMBLY SUMMARY (NONRESIDENTIAL)

01	02	03	04	05	06	07	08	09
Fenestration Assembly Name	Fenestration Type/ Product Type / Frame Type	Certification Method[1]	Assembly Method	Area (ft²)	Overall U-factor	Overall SHGC	Overall VT	Status[2]
Metal Frame Low-E SB-70	Vertical fenestration Curtain Wall N/A	NFRC	Manufactured	183	0.47	0.38	0.5	N
Res Metal Frame Low-E SB-70	Vertical fenestration Curtain Wall N/A	NFRC	Manufactured	100	0.47	0.38	0.63	N
Operable Parition	Vertical fenestration Fixed window Non-metal	Default 110.6	Manufactured	101.34	0.55	0.67	0.77	N

[1] *Notes: Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis.*
[2] *Status: N - New, A - Altered, E - Existing*

H1. DRY SYSTEM EQUIPMENT (FURNACES, AIR HANDLING UNITS, HEAT PUMPS, VRF, ECONOMIZERS ETC.)

01	02	03	04	05	06	07	08	09	10	11	12
Equipment Name	Equipment Type	Qty	Heating				Cooling			Economizer Type (if present)	Status[1]
			Total Heating Output (kBtu/h)	Supp Heat Output (kBtu/h)	Efficiency Unit	Efficiency	Total Cooling Output (kBtu/h)	Efficiency Unit	Efficiency		
ERV-1	DOAS CV Air System	1	0	0	N/A	NA	0	N/A	NA	No Economizer	N
SCU-1	Single Zone Heat Pump (SZHP) Air System	1	12	9	HSPF	11.9	12	EER SEER	12.2 15	Fixed DB	N
SCU-2	Single Zone Heat Pump (SZHP) Air System	1	18.75	12	HSPF	12	14.4	EER SEER	12.2 15	No Economizer	N
SCU-4	Single Zone Heat Pump (SZHP) Air System	1	12.5	7	HSPF	12	11.04	EER SEER	12.2 15	Fixed DB	N
SCU-5	Single Zone Air Conditioner (SZAC) Air System	1	0	0	N/A	NA	11.04	EER SEER	12.2 15	No Economizer	N
MAU-1	Single Zone Heat Pump (SZHP) Air System	1	56.24	0	HSPF	11	51.85	EER SEER	12.2 15	No Economizer	N
SCU-3	Single Zone Heat Pump	1	14.58	9	HSPF	12	11.52	EER SEER	12.2 15	N/A	N
CU-1	Variable Refrigerant Flow	1	135	N/A	COP	3.3	120	EER IEER	13 23.6	N/A	N

[1] *Status: N - New, A - Altered, E - Existing*

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	Design OA CFM	Supply Fan				Return / Relief Fan					Status[1]
			CFM	Power	Power Units	Control	Fan Type	CFM	Power	Power Units	Control	
ERV-1	1	380.79	940	0.5	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
SCU-1	1	44.25	495	0.25	BHP	Constant Vol	N/A	285	0.25	BHP	Constant Vol	N
SCU-2	1	78.75	600	0.25	BHP	Constant Vol	N/A	142	0.25	BHP	Constant Vol	N
SCU-4	1	41.7	495	0.25	BHP	Constant Vol	N/A	350	0.25	BHP	Constant Vol	N
SCU-5	1	36.15	320	0.25	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
MAU-1	1	67.2	1,400	0.4	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N
2-FCU-1-01-VRF	1	0	494	0.06	BHP	VSD	N/A	N/A	N/A	N/A	N/A	N
3-FCU-1-02-VRF	1	0	883	0.14	BHP	VSD	N/A	N/A	N/A	N/A	N/A	N
4-FCU-1-03-VRF	1	0	494	0.06	BHP	VSD	N/A	N/A	N/A	N/A	N/A	N
5-FCU-1-04-VRF	1	0	494	0.06	BHP	VSD	N/A	N/A	N/A	N/A	N/A	N
6-FCU-1-05-VRF	1	0	494	0.06	BHP	VSD	N/A	N/A	N/A	N/A	N/A	N
7-FCU-1-06-VRF	1	0	494	0.06	BHP	VSD	N/A	N/A	N/A	N/A	N/A	N
8-FCU-1-07-VRF	1	0	300	0.06	BHP	VSD	N/A	N/A	N/A	N/A	N/A	N
9-FCU-1-08-VRF	1	0	300	0.06	BHP	VSD	N/A	N/A	N/A	N/A	N/A	N
SCU-3	1	6.6	495	0.25	BHP	Constant Vol	N/A	N/A	N/A	N/A	N/A	N

[1] *Status: N - New, A - Altered, E - Existing*

H5. GENERAL EXHAUST FAN SUMMARY

01	02	03	04	05	06	07	08
System ID	Zone Name	Qty	CFM	Power	Power Units	Continuous Operation?	Status[1]
MAU-1134-EF	14-MAU-1	1	1300	0.3	BHP	No	N

[1] *Status: N - New, A - Altered, E - Existing*

H8. SYSTEM SPECIAL FEATURES

01	02	03	04
System Name	Equipment Type	Interlocks per 140.4(n)[1]	Other Special Features and Controls
ERV-1	DOAS CV Air System	N/A	Single Maximum Reheat Controls Heat Recovery
SCU-1	Single Zone Heat Pump (SZHP) Air System	N/A	Heat Recovery Fixed DB
SCU-2	Single Zone Heat Pump (SZHP) Air System	N/A	Heat Recovery
SCU-4	Single Zone Heat Pump (SZHP) Air System	N/A	Heat Recovery Fixed DB
CU-1	Variable Refrigerant Flow	N/A	Heat Recovery

Notes: This table includes controls related to the performance path only. For projects using the prescriptive path, mandatory and prescriptive controls requirements are documented on the NRCC-MCH-E.

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

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

01	02	03	04	05	06	07
Zone Name	Mechanical Ventilation				Conditioned Area (sf)	DCV or Occupant Sensor Controls, or Both
	Ventilation Function	# of People	Supply OA CFM	Exhaust CFM		
1-FCU-1-01	Office - Office space	0.92	27.54	30.92	183.6	N/A
2-FCU-1-02	General - Break rooms	11.7	175.5	275.2	351	N/A
7-FCU-1-07	Misc - All others	18.9	85.05	102.04	567	N/A
8-FCU-1-08	General - Corridors	0.47	14.1	123.68	94	N/A
9-SAC-1	General - Corridors	1.48	44.25	0	295	N/A
10-SAC-2	Sports/Entertainment - Health club/aerobics room	5.25	78.75	0	525	N/A
11-SAC-3	Misc - All others	0.07	6.6	0	44	N/A
12-SAC-4	Misc - All others	1.39	41.7	0	278	N/A

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

01	02	03	04	05	06	07
Zone Name	Mechanical Ventilation				Conditioned Area (sf)	DCV or Occupant Sensor Controls, or Both
	Ventilation Function	# of People	Supply OA CFM	Exhaust CFM		
13-SAC-5	Misc - All others	1.21	36.15	0	241	N/A
14-MAU-1	Food Service - Kitchen (cooking)	1.12	67.2	1300	448	N/A

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			VSD
			Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	
8-FCU-1-08-Trm	Uncontrolled	1	N/A	N/A	200	N/A	0	N/A	N/A	N/A	☐
7-FCU-1-07-Trm	Uncontrolled	1	N/A	N/A	165	N/A	0	N/A	N/A	N/A	☐
6-FCU-1-06-Trm	Uncontrolled	1	N/A	N/A	70	N/A	0	N/A	N/A	N/A	☐
5-FCU-1-05-Trm	Uncontrolled	1	N/A	N/A	70	N/A	0	N/A	N/A	N/A	☐
4-FCU-1-04-Trm	Uncontrolled	1	N/A	N/A	70	N/A	0	N/A	N/A	N/A	☐
3-FCU-1-03-Trm	Uncontrolled	1	N/A	N/A	70	N/A	0	N/A	N/A	N/A	☐
2-FCU-1-02-Trm	Uncontrolled	1	N/A	N/A	445	N/A	0	N/A	N/A	N/A	☐
1-FCU-1-01-Trm	Uncontrolled	1	N/A	N/A	50	N/A	0	N/A	N/A	N/A	☐
9-SAC-1-Trm	Uncontrolled	1	N/A	N/A	495	N/A	0	N/A	N/A	N/A	☐
10-SAC-2-Trm	Uncontrolled	1	N/A	N/A	600	N/A	0	N/A	N/A	N/A	☐
12-SAC-4-Trm	Uncontrolled	1	N/A	N/A	495	N/A	0	N/A	N/A	N/A	☐
13-SAC-5-Trm	Uncontrolled	1	N/A	N/A	320	N/A	0	N/A	N/A	N/A	☐
14-MAU-1-Trm	Uncontrolled	1	N/A	N/A	1,400	N/A	0	N/A	N/A	N/A	☐
2-FCU-1-01-VRF	Variable Refrigerant Flow	1	6.7	6	494	0	N/A	0.06	BHP	Cycling	☒
3-FCU-1-02-VRF	Variable Refrigerant Flow	1	31	27	883	500	0.57	0.14	BHP	Cycling	☒
4-FCU-1-03-VRF	Variable Refrigerant Flow	1	6.7	6	494	300	0.61	0.06	BHP	Cycling	☒

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CONSULTANT
capital engineering
RANCHO CORDOVA, CALIFORNIA
ADB-AL/JG/KD PM - DESIGN TEAM
220508.00 PROJECT NO.

SEAL
REGISTERED PROFESSIONAL ENGINEER ANTHONY COLACCHI M 29743 EXPIRES 6/30/27 MECHANICAL STATE OF CALIFORNIA
DATE SIGNED: 4/10/26

PROJECT
Dixon Fire Station 82

Dixon, CA 95620

CLIENT
City of Dixon

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT
LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
T24 COMPLIANCE FORMS

SHEET
M0.04

0 1/4" 1/2" 1" 2"
IF THIS SHEET IS NOT 22"x34" IT IS A REDUCED PRINT - SCALE ACCORDINGLY
Autodesk Docs://City of Dixon - Fire Station 82/220508_Dixon_Fire Station_MP24.rvt
6/2/2026 11:23:38 AM

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			VSD
			Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	
S-FCU-1-04-VRF	Variable Refrigerant Flow	1	6.7	6	494	300	0.61	0.06	BHP	Cycling	☒
6-FCU-1-05-VRF	Variable Refrigerant Flow	1	6.7	6	494	300	0.61	0.06	BHP	Cycling	☒
7-FCU-1-06-VRF	Variable Refrigerant Flow	1	6.7	6	494	300	0.61	0.06	BHP	Cycling	☒
8-FCU-1-07-VRF	Variable Refrigerant Flow	1	6.7	6	300	200	0.67	0.06	BHP	Cycling	☒
9-FCU-1-08-VRF	Variable Refrigerant Flow	1	6.7	6	300	200	0.67	0.06	BHP	Cycling	☒
SCU-3	Single Zone Heat Pump	1	14.58	11.52	495	N/A	N/A	0.25	BHP	Continuous	☐

H13. ENERGY RECOVERY SUMMARY

01	02	03	04	05	06	07	08	09	10
Equipment Name	Equipment Type	Equipment Type	Heating			Cooling			Status[1]
			Sensible	Latent	Total	Sensible	Latent	Total	
ERV-1	DOAS CV Air System	HVI	0.75	0	0	0.75	0	0	N
SCU-1	Single Zone Heat Pump (SZHP) Air System	HVI	0.75	0	0	0.75	0	0	N
SCU-2	Single Zone Heat Pump (SZHP) Air System	HVI	0.75	0	0	0.75	0	0	N
SCU-4	Single Zone Heat Pump (SZHP) Air System	HVI	0.75	0	0	0.75	0	0	N

[1] Status: N - New, A - Altered, E - Existing

J2. COMMERCIAL KITCHENS

01	02	03	04	05
Space Name	Exhaust Hood Style	Exhaust Hood Duty	Exhaust Length	Exhaust Flow Rate (cfm)
S-14-MAU-1	Single Island	Heavy Duty	10	1,300

L. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections made by Documentation Author indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online

Building Component	Form/Title
Envelope	NRCI-ENV-E - Envelope (for all buildings)
Mechanical	NRCI-MCH-E - For all buildings with Mechanical Systems
Covered Process	NRCI-PRC-E - Covered Processes

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. Lighting controls and mechanical NRCAs must be completed through an Acceptance Test Technician Certification Provider (ATTCP).

Building Component[1]	Form/Title & System Name(s)
Envelope	NRCA-ENV-02-F - NRFC label verification for fenestration
Covered Process	NRCA-PRC-02-F Kitchen Exhaust
Mechanical	NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap
	ERV-1, SCU-1, SCU-2, SCU-4, SCU-5 and MAU-1., SCU-3
Mechanical	NRCA-MCH-03-A - Constant Volume Single Zone HVAC
	ERV-1, SCU-1, SCU-2, SCU-4, SCU-5 and MAU-1., SCU-3
Mechanical	NRCA-MCH-05-A - Air Economizer Controls
	SCU-1 and SCU-4., SCU-3

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

Documentation Author's Declaration Statement

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

Documentation Author Name: Kathleen Dufort	Documentation Author Signature:
Company: Capital Engineering Consultants Inc.	Signature Date:
Address: 11020 Sun Center Dr., Suite 100	CEA/HERS Certification Identification (if applicable):
City/State/Zip: Rancho Cordova, CA 95670	Phone: 916.851.3500

Responsible Person's Declaration statement

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

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

Responsible Designer Name:	Responsible Designer Signature:	
Company: Lionakis		
Address: 2025 Nineteenth St	Date Signed:	
City/State/Zip: Sacramento, CA 95818	License #:	
Phone: 916-558-1900	Title:	Scope:
Responsible Designer Name: Anthony Colacchia	Responsible Designer Signature:	
Company: Capital Engineering		
Address: 11020 Sun Center DR #100	Date Signed:	
City/State/Zip: Rancho Cordova, CA 95670	License #: M29743	
Phone:	Title:	Scope:

STATE OF CALIFORNIA
Domestic Water Heating System
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-PLB-E**

This document is used to demonstrate compliance for nonresidential occupancies with requirements in 110.1, 110.3, 120.3, and 140.5, and with requirements in 141.0 for additions and alterations, for domestic water heating scopes using the prescriptive path. For high-rise residential and hotel/motel occupancies compliance is demonstrated with requirements in 110.1, 110.3, 160.4 and 170.2(d), and with requirements 180.1 for additions and 180.2 for alterations.

Project Name: Dixon FS #82	**Report Page:** (Page 1 of 9)
Project Address:	**Date Prepared:** 3/10/2026

A. GENERAL INFORMATION

01	Project Location (city)	Dixon	02	Climate Zone	12
03	Occupancy Types Within Project (select all that apply):				

● Gymnasium ● Hotel/Motel ● Office ● Support Areas ● All Other Occupancies

B. PROJECT SCOPE

This table includes domestic water heating systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive paths outlined in 140./170.2(d) and 141.0(a)/ 180.1, or 141.0(b)2N / 180.2 for additions or alterations. Solar water heating systems are documented on the NRCC-SAB compliance document. Combined hydronic water heating systems are documented on the NRCC-MCH compliance document.

01	02	03		
My project consists of (check all that apply):	System Type[1,2]	System Components		
☒ New system (DHW system being installed for the first time)	Central System (serving nonresidential spaces)	☒ Equipment	☒ Distribution	☒ Controls
☒ New system (DHW system being installed for the first time)	Central System (serving 2 or more dwelling units)	☒ Equipment	☒ Distribution	☒ Controls
☐ System Alteration (equipment, distribution or controls)		☐ Equipment	☐ Distribution	☐ Controls

[1] FOOTNOTES: Point of use water heaters, or other non-central systems used to serve nonresidential spaces, are considered individual systems.
[2] Dwelling units refers to hotel/motel guest rooms and units in a multifamily residential occupancy.
[3] DHW systems serving 2 or more dwelling units are considered "Central Systems" for multifamily occupancies

C. COMPLIANCE RESULTS

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

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

D. EXCEPTIONAL CONDITIONS

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

STATE OF CALIFORNIA
Domestic Water Heating System
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-PLB-E**

Project Name: Dixon FS #82	**Report Page:** (Page 2 of 9)
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E. ADDITIONAL REMARKS

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

A solar thermal domestic hot water system must be documented for this project

STATE OF CALIFORNIA
Domestic Water Heating System
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-PLB-E**

Project Name: Dixon FS #82	**Report Page:** (Page 3 of 9)
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F. DOMESTIC HOT WATER EQUIPMENT

This table is used to demonstrate compliance with mandatory equipment requirements in 110.1 and 110.3. Compliance with prescriptive requirements in 140.5(c) / 170.2(d) must also be demonstrated and with 141.0 / 180.1/ 180.2 for addition and alteration scopes.

Equipment Schedule: Water Heating Efficiency and Standby Loss

03		04			05		06		
System Name	EHW-1	Exception to 140.5(c)/ 170.2(d)3			☐	Gas Service Water Heating System >= 1MMBtu/h[1]	Capacity-weighted Average Efficiency %		
07	08	09	10		11	12	13	14	15
Name or Item Tag	Equipment Type	Volume (gal)	Rated Input Capacity (Btu/h)	Max GPM/ First Hour Rating (FHR)	Rated Efficiency	Minimum Efficiency Required	Efficiency Unit	Designed Standby Loss	Maximum Standby Loss
EHW-1	Commercial Electric Storage Water Heater	119	81,840	FHR >=75	0.93	2.11	UEF		

[1] 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 average.

Water Heating Equipment All Occupancies

	Yes	No	Not Applicable	Requirement
18	☐	☐	☒	Unfired storage tank insulation shall have Internal + External >=R-16 OR External >=R-3.5. Label required per 110.3(c)3
19	☐	☐	☒	New state buildings 60% of energy for service water heating from site solar energy or recovered energy per 110.3(c)5
20	☐	☐	☒	Isolation valves for instantaneous water heater with input rating >6.8 kBTUH or 2 kW has been specified per 110.3(c)6
21	☐	☐	☒	School buildings < 25,000 ft^2 and < 4 stories must install a heat pump water heating system per 140.5(a)1. Water heating systems serving an individual bathroom space may be an instantaneous electric water heater.

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CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-PLB-E**

Project Name: Dixon FS #82	**Report Page:** (Page 4 of 9)
	Date Prepared: 3/10/2026

F. DOMESTIC HOT WATER EQUIPMENT

Water Heating Equipment for Central Systems Serving Dwelling Units 170.2(d)2&3

Equipment Type (select all that apply):

22	☐	Heat Pump Water Heater (New Construction and Additions Only)	
		☐	For systems with single pass primary heat pump water heater, the primary thermal storage tanks shall be piped in series if multiple tanks are used. For systems with multi-pass primary heat pump water heater, the primary thermal storage tanks shall be piped in parallel if multiple tanks are used.
		☐	The primary storage tank temperature setpoint shall be at least 135 °F.
		☐	The recirculation loop tank temperature setpoint shall be at least 10 °F lower than the primary thermal storage tank temperature setpoint such that hot water from the recirculation loop tank is used for the temperature maintenance load before engaging the recirculation loop tank heater.
		☐	Minimum heat pump water heater compressor cut-off temperature shall be equal to or lower than 40 °F ambient air temperature.
		☐	Design documentation shall specify the operating conditions at which the primary heat pump water heater can supply hot water at design outlet water temperature without engaging auxiliary heating mechanism..
	☒	Gas/ Propane Water Heater (New Construction and Additions Only)	
		☒	A solar water-heating system meeting the installation criteria specified in Reference Residential Appendix RA4 and with a minimum solar savings fraction of 0.20 in Climate Zones 1 through 9 or a minimum solar savings fraction of 0.35 in Climate Zones 10 through 16. This system should be documented on the NRCC-SAB form OR
		☒	A solar water-heating system meeting the installation criteria specified in Reference Residential Appendix RA4 and with a minimum solar savings fraction of 0.30 in Climate Zones 10 through 16. This system should be documented on the NRCC-SAB form. AND, a drain water heat recovery system that is field verified as specified in the Reference Appendix RA3.6.9.

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CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-PLB-E**

Project Name: Dixon FS #82	**Report Page:** (Page 5 of 9)
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G. DOMESTIC HOT WATER DISTRIBUTION SYSTEM

This table is used to demonstrate compliance for nonresidential occupancies with distribution requirements in 120.3 and 140.5. For multifamily and hotel/motel occupancies, compliance is demonstrated with requirements 110.3(c), 160.4, 170.2(d).

Recirculation Loops in Central Systems Serving Dwelling Units or Nonresidential Spaces

	Yes	No	Not Applicable	Requirement
01	●	○	○	Air release valve or vertical pump installation per 110.3(c)4A
02	●	○	○	Check valve or similar located between recirculation pump and water heating equipment to prevent backflow per 110.3(c)4B
03	●	○	○	Hose bibb installed between pump and equipment and isolation valve between hose bibb and equipment per 110.3(c)4C
04	●	○	○	Isolation valves on both sides of the pump per 110.3(c)4D
05	●	○	○	Cold water and recirculation loop piping shall not be connected to the hot water storage tank drain port per 110.3(c)4E
06	●	○	○	Check valve installed on cold water supply between hot water system and next closest tee on cold water supply per 110.3(c)4F
07	●	○	○	DWELLING UNITS ONLY: For central systems serving multiple dwelling units, design includes a recirculation system serving separate dwelling units per 170.2(d) unless building has <=8 dwelling units.
08	○	○	●	DWELLING UNITS ONLY: For heat pump water heating systems, the hot water return from the recirculation loop shall connect to a recirculation loop tank and shall not directly connect to the primary heat pump water heater inlet or the primary thermal storage tanks per 170.2(d)2A.
09	○	○	●	DWELLING UNITS ONLY: For heat pump water heating systems, the fuel source for the recirculation loop tank shall be electricity if auxiliary heating is needed. The recirculation loop heater shall be capable of multi-pass water heating operation per 170.2(d)2B.

STATE OF CALIFORNIA
Domestic Water Heating System
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE — **NRCC-PLB-E**

Project Name: Dixon FS #82	**Report Page:** (Page 6 of 9)
	Date Prepared: 3/10/2026

G. DOMESTIC HOT WATER DISTRIBUTION SYSTEM

Mandatory Pipe Insulation All Occupancies

13	☒	For systems serving dwelling units, pipe insulation must meet the minimum insulation requirements in Table 160.4-A (see blow) except: • Piping that penetrates framing members shall not be required to have pipe insulation for the distance of the framing penetration. Piping that penetrates metal framing shall use grommets, plugs, wrapping or other insulating material to assure that no contact is made with the metal framing. Insulation shall abut securely against all framing members • Piping installed in interior or exterior walls shall not be required to have pipe insulation if all of the requirements are met for compliance with Quality Insulation Installation (QII) as specified in the Reference Residential Appendix RA3.5. • Piping surrounded with a minimum of 1 inch of wall insulation, 2 inches of crawlspace insulation, or 4 inches of attic insulation, shall not be required to have pipe insulation.
14	☒	For systems serving nonresidential spaces, pipe insulation for the following applications is specified to comply with Table 120.3-A (see below) per 120.3: • Recirculating system piping, including supply and return piping of the water heater • The first 8 ft of hot and cold outlet piping, including between storage tank and heat trap, for a nonrecirculating storage system • Pipes that are externally heated
15	☒	Insulation shall be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather shall be installed with a cover suitable for outdoor service per 120.3(b) / 160.4(f). Pipe insulation buried below grade must be installed in a water proof and non-crushable casing or sleeve.

TABLE 120.3-A / 160.4-A PIPE INSULATION THICKNESS

Fluid Temperature Range (°F)	Conductivity Range (Btu-in per hour per ft^2 per °F)	Insulation Mean Rating Temp (°F)	Nominal Pipe Diameter (in)			
			< 1	1 to < 1.5	1.5 to < 4	1.5 to < 4 Multifamily & Hotel/Motel
			Minimum Insulation Required			
105-140	0.22 - 0.28	100	1.0 in or R-7.7	1.5 in or R-12.5	1.5 in or R-11	2.0 in or R-16

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TITLE
T24 COMPLIANCE FORMS

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H. DOMESTIC HOT WATER CONTROLS

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 demonstrated with requirements in 160.4(e) / 170.2(d).

	Yes	No	Not Applicable	Requirement
01	☒	☐	☐	Construction documents require manufacturer certification that service water-heating systems are equipped with automatic temperature controls capable of adjusting temperature settings per 110.3(a).
02	☐	☐	☒	Systems with capacity > 167,000 BTUH equipped with outlet temperature controls per 110.3(c)1 unless covered by California Plumbing Code 613.0.
03	☒	☐	☐	Controls for circulating pumps or electrical heat trace systems are capable of automatically turning off the system per §110.3(c)2 unless systems serves healthcare facility.
04	☒	☐	☐	For recirculation systems serving multiple dwelling units, design includes automatic pump controls per 170.2(d) or 180.1(b)3 for additions.
05	☐	☐	☒	For recirculation systems serving individual dwelling units, design includes manual on/off controls as specified in Reference Appendix RA4.4.9 per 170.2(d).
06	☐	☐	☒	Combustion air positive shut-off shall be provided per 160.4(3).on all newly installed commercial boilers as follows: • Boilers with input capacity >= 2.5 MMBtu/h, in which the boiler is designed to operate with a nonpositive vent static pressure • Boilers where one stack serves two or more boilers with a total combined input capacity per stack of 2.5 MMBtu/h.
07	☐	☐	☒	Boiler combustion air fans with motor >= 10 hp shall meet one of the following • The fan motor shall be driven by a variable speed drive OR • The fan motor shall include controls that limit the fan motor demand to <=30% of the total design wattage at 50% of the design air volume.
08	☐	☐	☒	Newly 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 control linkage or jack shaft is prohibited.

I. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online

Form/Title
NRCI-PLB-E - Must be submitted for all buildings

J. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no forms required for this project.

K. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no forms required for this project.

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Kathleen Dufort	Documentation Author Signature:
Company: Capital Engineering Consultants Inc.	Signature Date: 3/10/2026
Address: 11020 Sun Center Dr., Suite 100	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Rancho Cordova CA 95670	Phone: 916.851.3500

RESPONSIBLE PERSON'S DECLARATION STATEMENT

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

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

Responsible Designer Name: Anthony Colacchia	Responsible Designer Signature:
Company: Capital Engineering	Date Signed: 2026-03-10
Address: 11020 Sun Center DR #100	License: M29743
City/State/Zip: Rancho Cordova CA 95670	Phone:

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1 M1.01 HVAC ZONE PLAN

SCALE: 1/8" = 1'-0"

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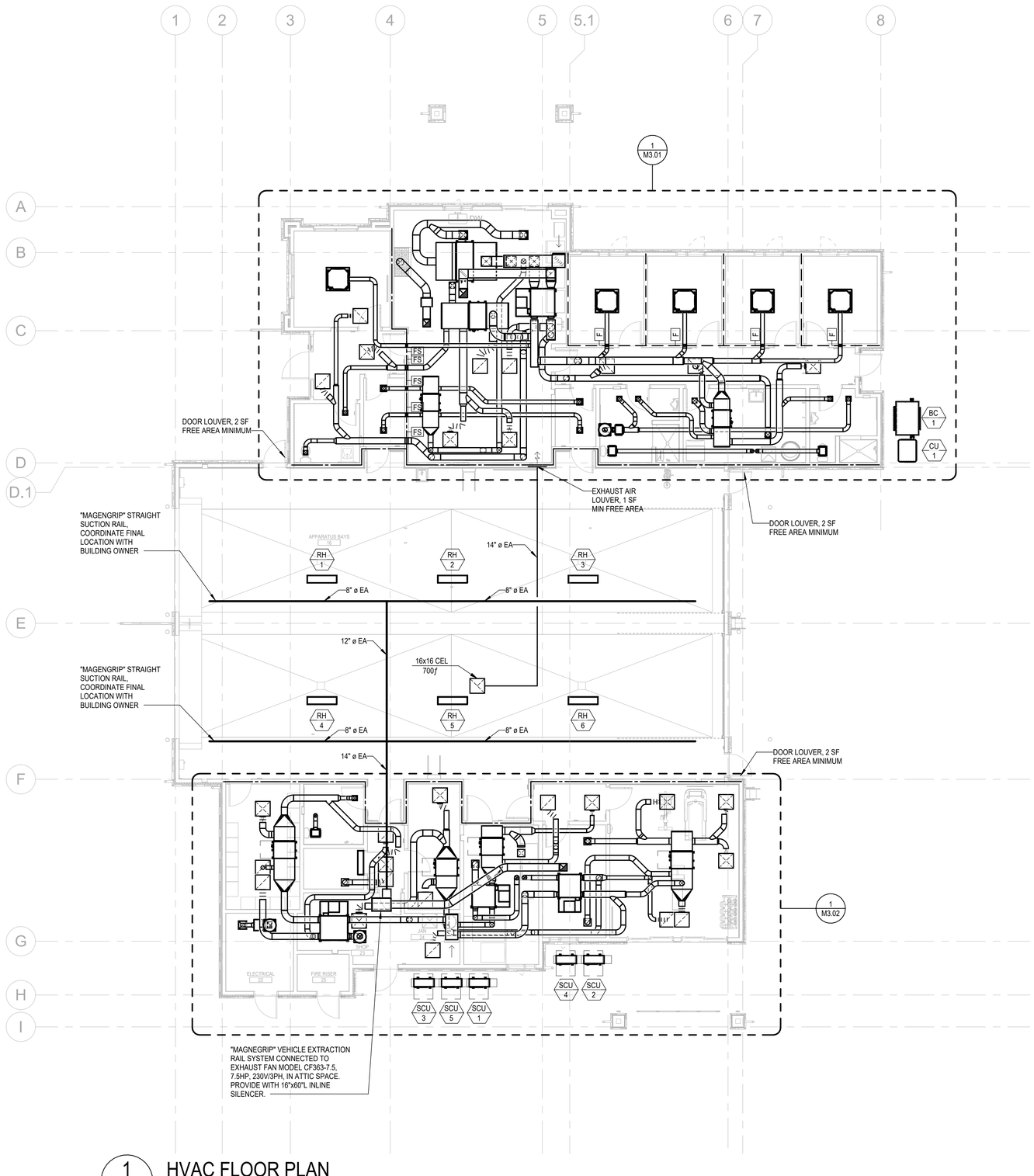
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MANAGEMENT
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CLIENT PROJECT NO:

AGENCY

TITLE
HVAC ZONE PLAN

SHEET
M1.01



1 M2.00 HVAC FLOOR PLAN

SCALE: 1/8" = 1'-0"

WALL LEGEND

- 1/2-HR FIRE PARITIONS
- 1-HR FIRE BARRIER

SHEET NOTES

1. THESE SHEETS WERE NOT REVIEWED AND ARE NOT APPROVED FOR THE INSTALLATION OR MODIFICATION OF ANY FIRE SUPPRESSION SYSTEM. A SEPARATE SUBMITTAL TO THE CITY OF DIXON FIRE DEPARTMENT FOR REVIEW AND APPROVAL IS REQUIRED BY THE INSTALLING C-16 LICENSED FIRE PROTECTION CONTRACTOR PRIOR TO ANY INSTALLATION OR MODIFICATION OF ANY FIRE PROTECTION COMPONENTS

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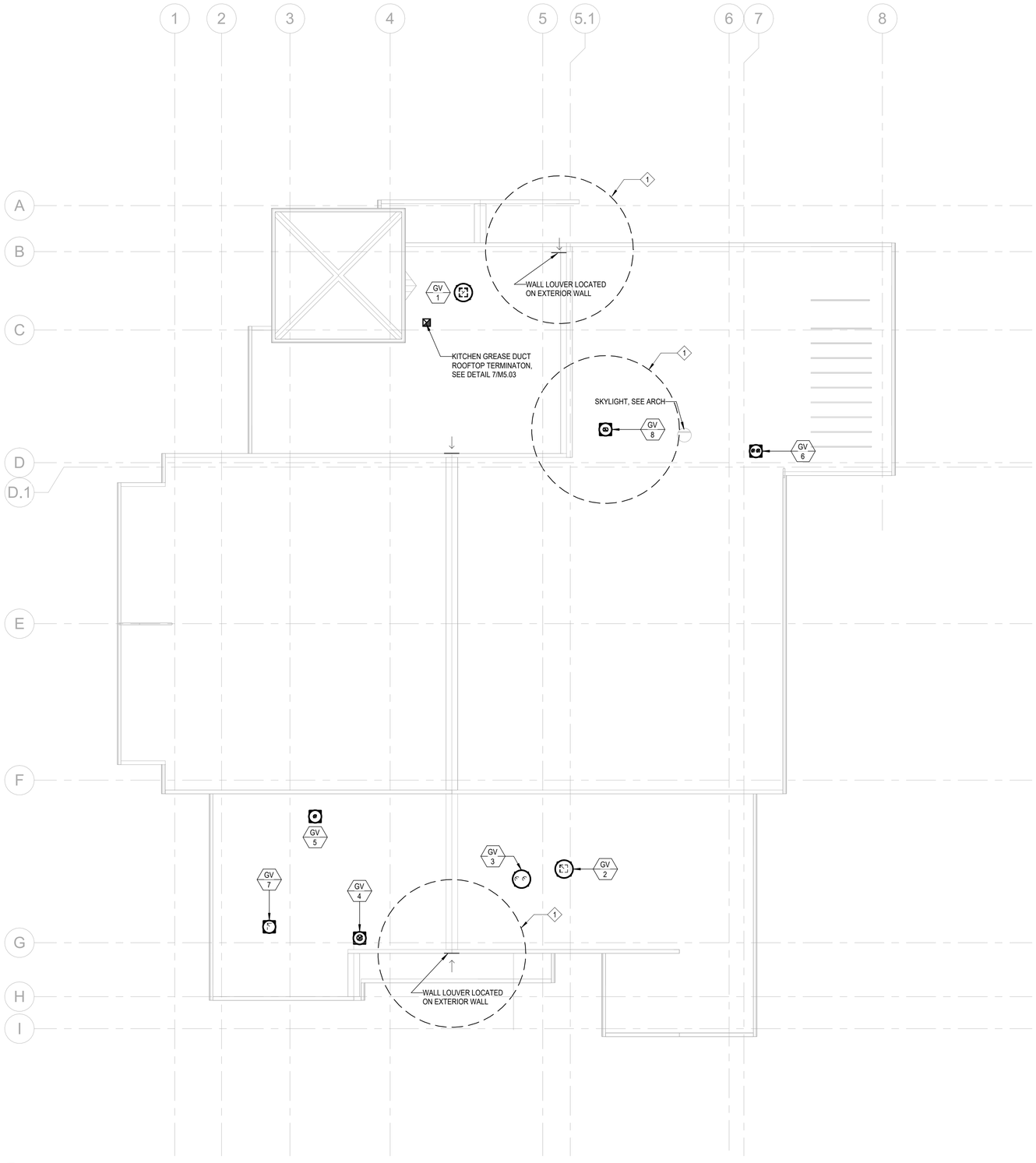
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TITLE
HVAC FLOOR PLAN

SHEET
M2.00

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1 M2.01 HVAC ROOF PLAN

SCALE: 1/8" = 1'-0"

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KEY NOTES

1 10'-0" MINIMUM CLEARANCE FOR OUTSIDE AIR INTAKE LOCATION FROM ALL EXHAUST AIR DISCHARGE LOCATIONS.

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TITLE

HVAC ROOF PLAN

SHEET

M2.01

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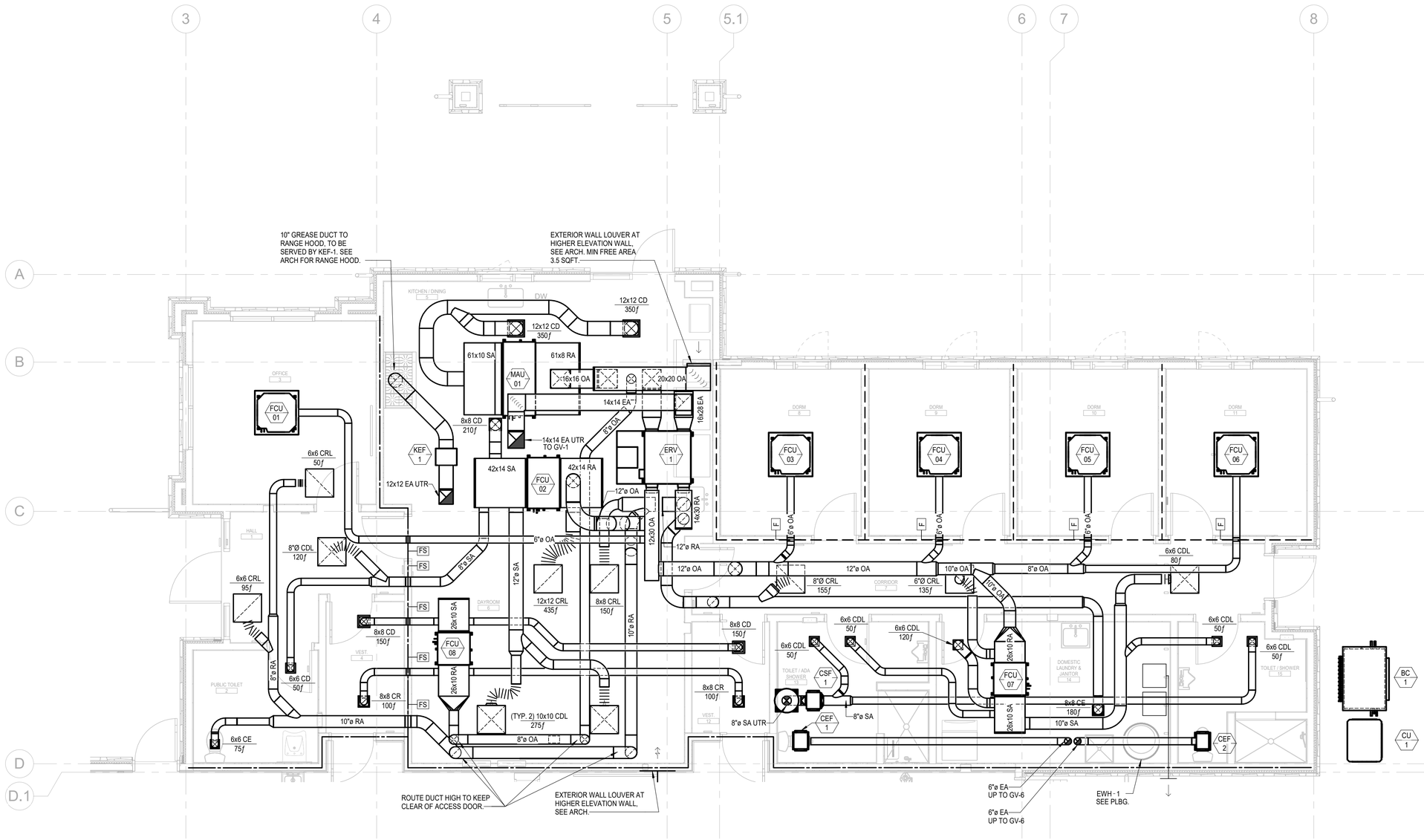
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WALL LEGEND

- 1/2-HR FIRE PARITIONS
- 1-HR FIRE BARRIER

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2. UNDER 2022 CBC/CFC 1020.6 COORIDORS SHALL NOT SERVE AS SUPPLY, RETURN, EXHAUST, RELIEF, OR VENTILATION AIR DUCTS, WITH THE EXCEPTION OF THE FOLLOWING CASES SEEN ON THIS FLOOR PLAN:
   A. WHERE LOCATED WITHIN A DWELLING UNIT THE USE OF CORRIDORS FOR CONVEYING RETURN AIR SHALL NOT BE PROHIBITED.
   B. WHERE LOCATED WITHIN TENANT SPACES OF 1,000 SQFT OR LESS IN AREA, UTILIZATION OR CORRIDORS FOR CONVEYING RETURN AIR IS PERMITTED.



1 M3.01 HVAC ENLARGED FLOOR PLAN - NORTH

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

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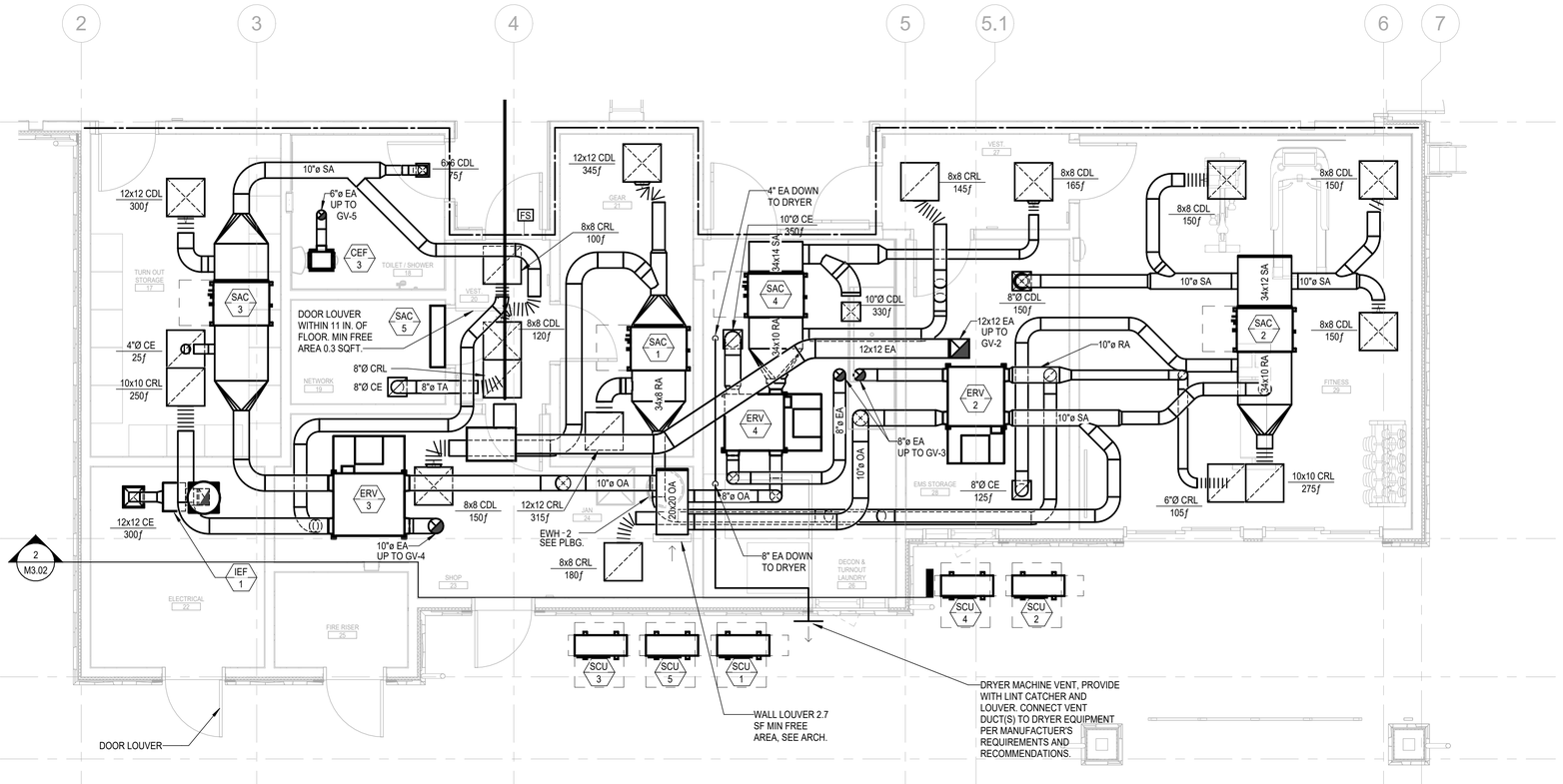
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TITLE
HVAC ENLARGED FLOOR PLAN - NORTH

SHEET
M3.01

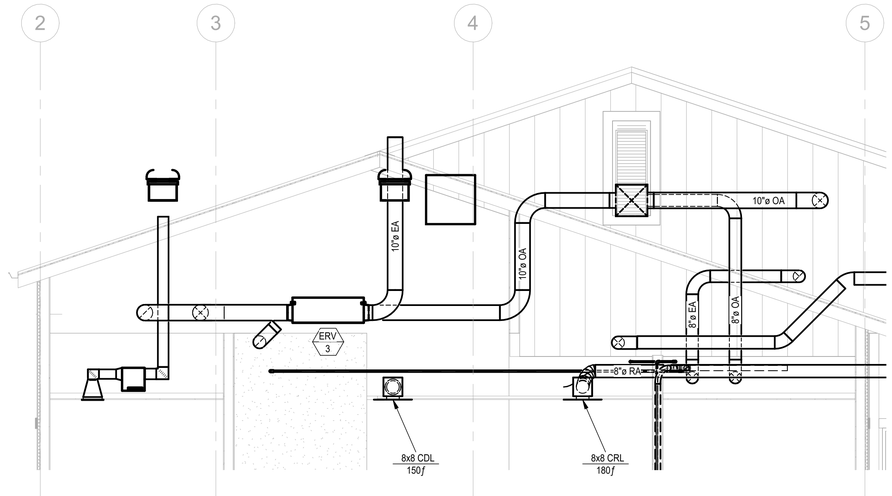
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1 M3.02 HVAC ENLARGED FLOOR PLAN - SOUTH

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



2 M3.02 SOUTH SECTION VIEW

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

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WALL LEGEND

- 1/2-HR FIRE PARITIONS
- 1-HR FIRE BARRIER

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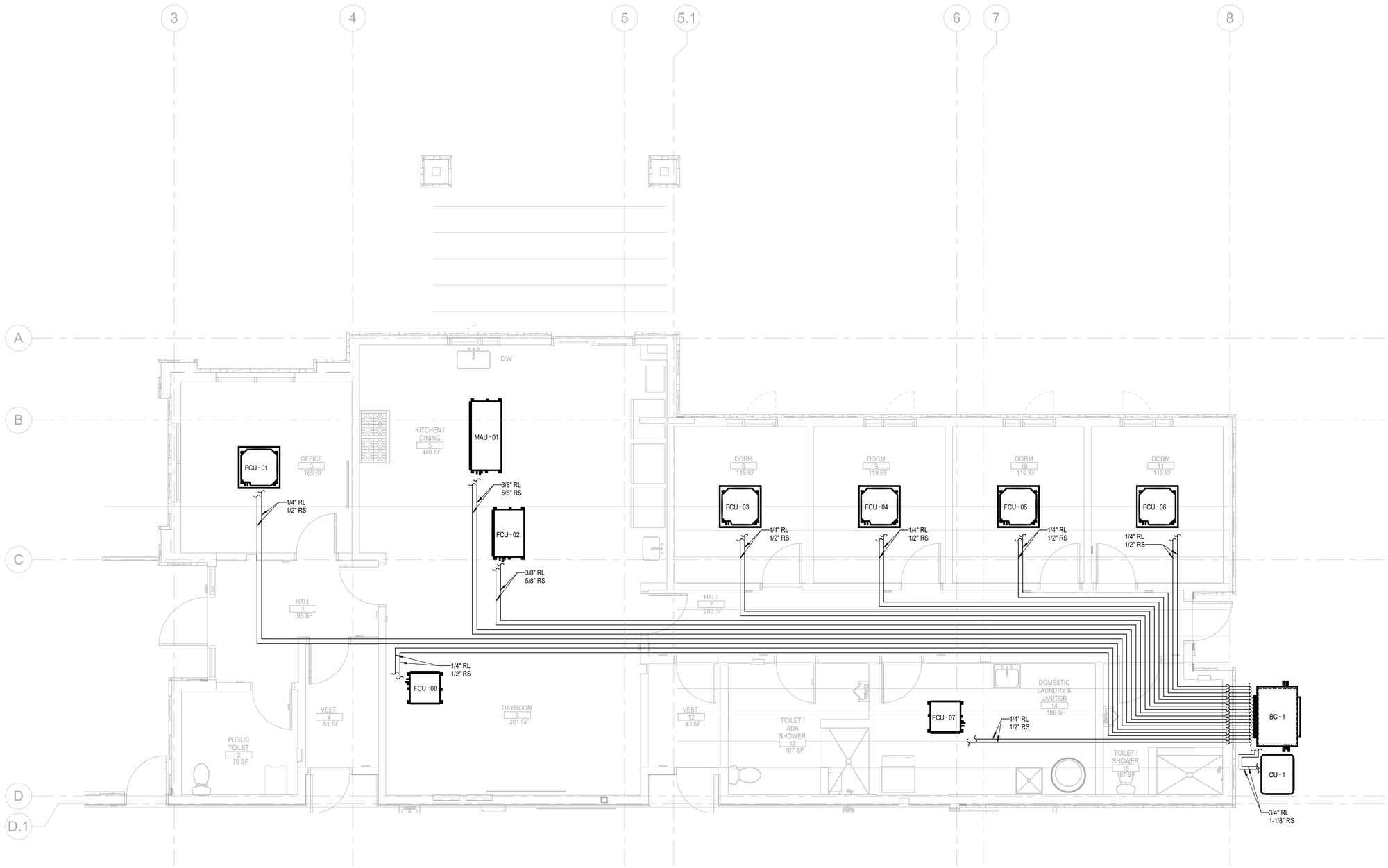
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1 / M3.03 HVAC ENLARGED PIPING PLAN - NORTH

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

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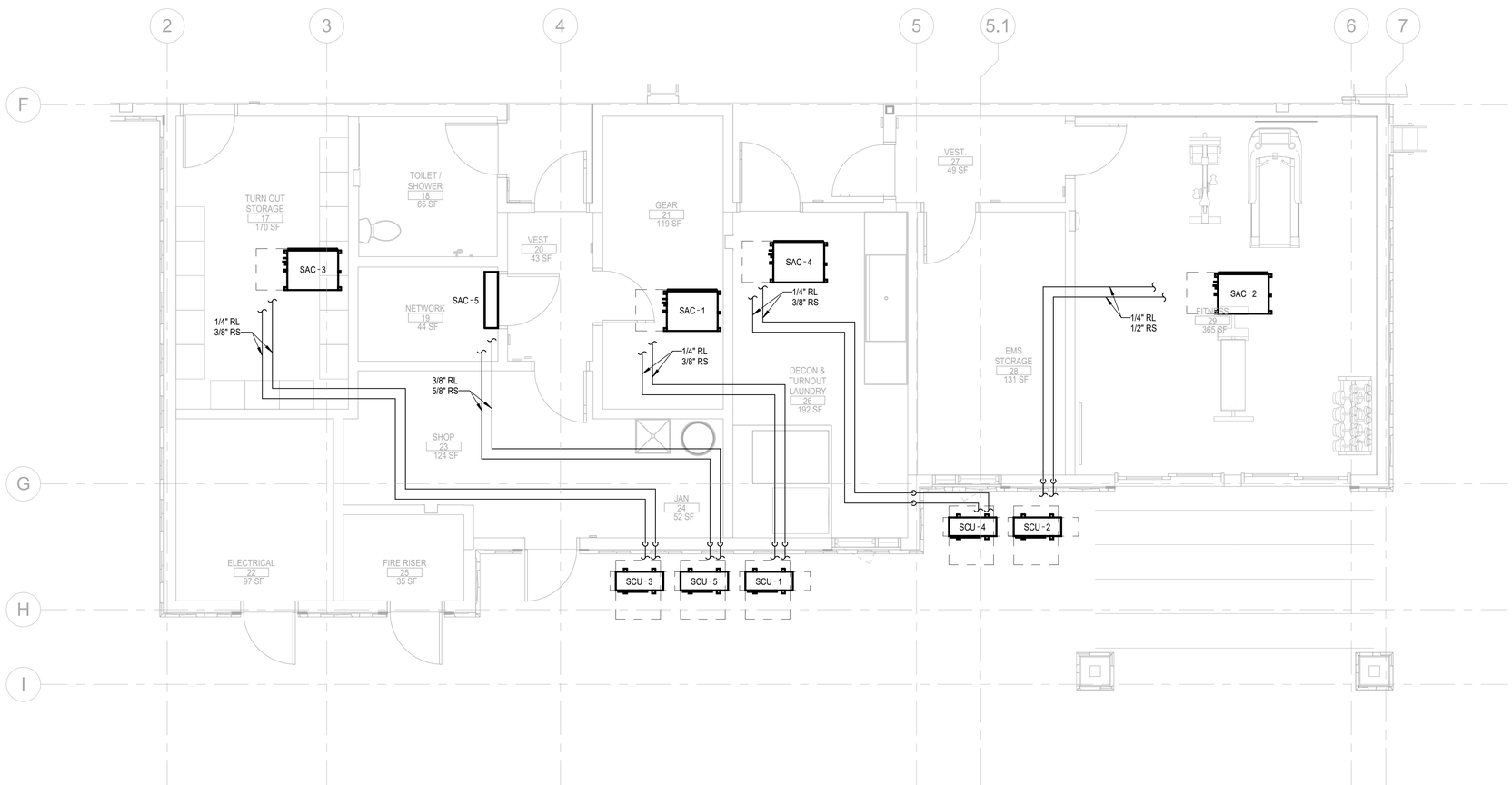
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1 / M3.04 HVAC ENLARGED PIPING PLAN - SOUTH

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

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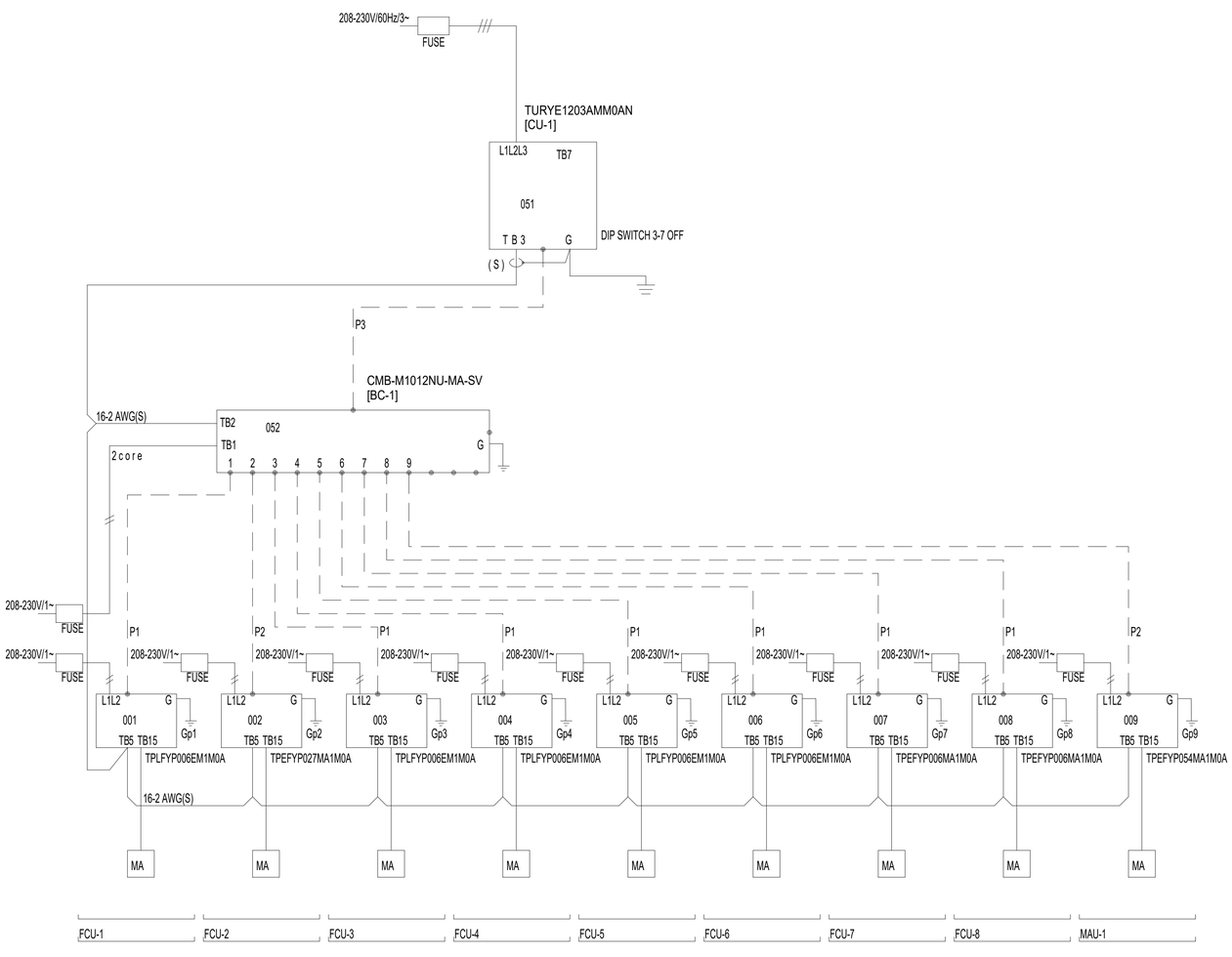
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DISPLAY	DESCRIPTION
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———	CONTROL WIRE
— — —	REF. PIPE

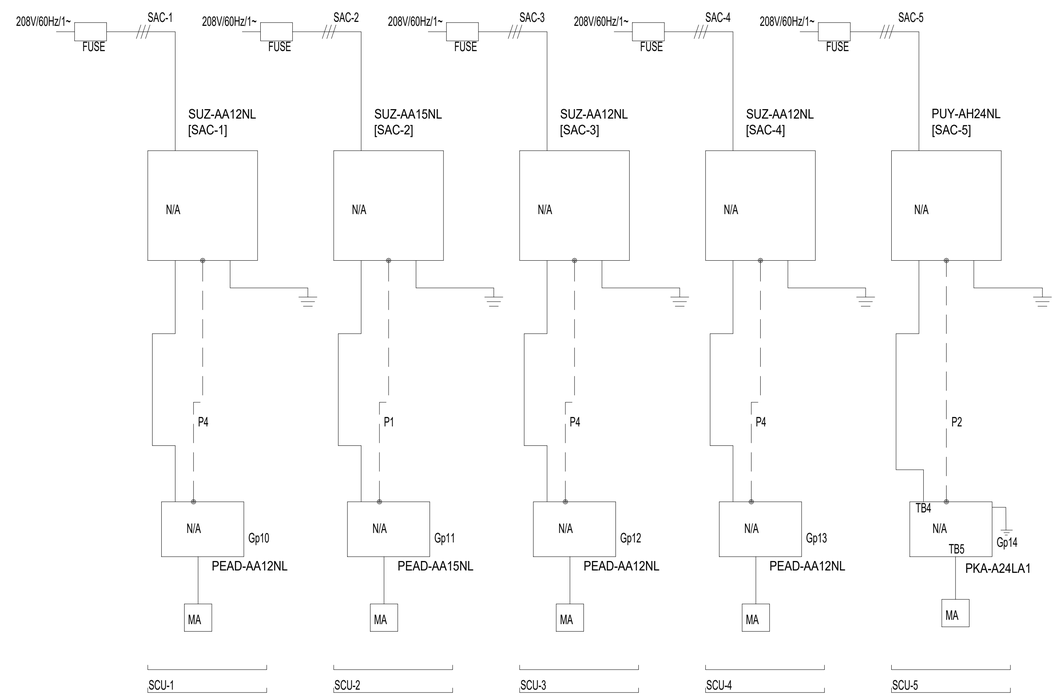
This drawing is schematic in nature. Final routing of piping & wiring shall be determined by the installing contractor and/or designer of record Additional refrigerant charge is needed depending on the size and length of extended piping. Please refer the amount of pre-charge and the formula of calculation which is mentioned on the data book.

1.25mm²(16 AWG) : 1.25mm²(16 AWG) or more.

0.75mm²(20 AWG) : between 0.5mm²(24 AWG) and 0.75mm²(20 AWG).

PIPING AND CONTROLS	
SYMBOL	LIQUID PIPE/GAS PIPE SIZE
P1	1/4 / 1/2
P2	3/8 / 5/8
P3	3/4 / 1-1/8
P4	1/4 / 3/8
SYMBOL	MODEL NUMBER
MA	TAR-CT01MAU-SB





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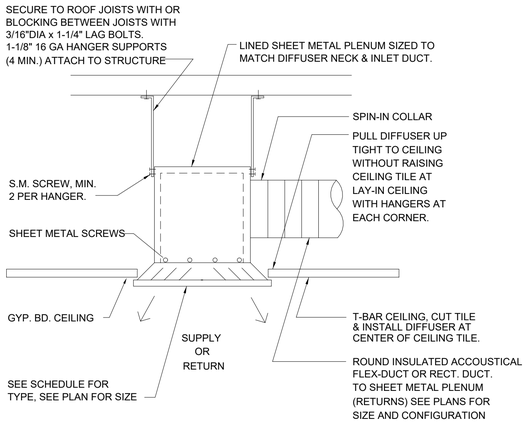
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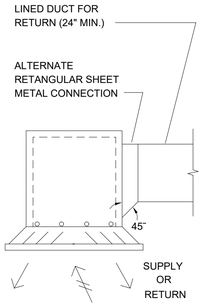
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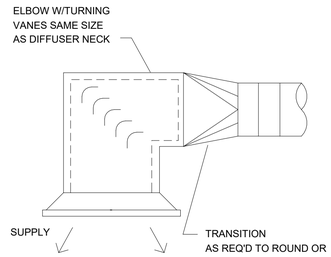
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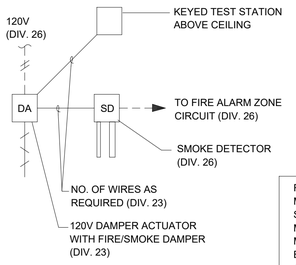




RETURN, EXHAUST & SUPPLY REGISTER DETAIL

6 M5.01

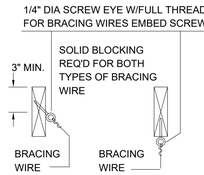
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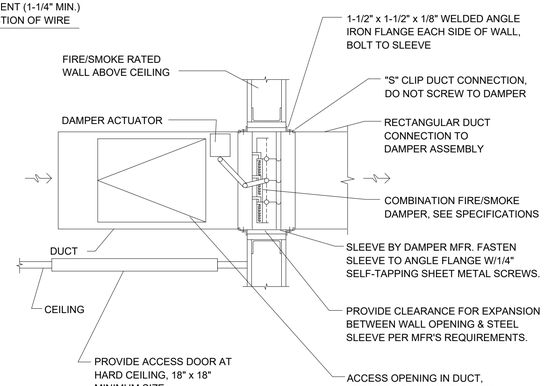
WIRING DIAGRAM

NOTES :

1. INSTALLATION SHALL BE PER THE DAMPER MANUFACTURER'S U.L. LISTING FOR DAMPER IN THE PLANE OF THE RATED SURFACE AND ACTUATOR OUTSIDE OF THE DUCT. MANUFACTURER SHALL PROVIDE ALL COMPONENTS NECESSARY TO INSTALL THE DAMPERS PER THIS REQUIREMENT.
2. WIRE TO CLOSE DAMPER UPON SENSING OF SMOKE IN AIR STREAM. PROVIDE ALL WIRING, CONDUIT, RELAYS, ETC. REQUIRED TO RENDER SYSTEM COMPLETE.



FIRE DAMPERS SHALL BE STATE FIRE MARSHAL APPROVED AND INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. MANUFACTURER'SINSTRUCTIONS SHALL BE MADE AVAILABLE TO THE INSPECTING AUTHORITY. DETAILS SHOWN ARE FOR REFERENCE ONLY.



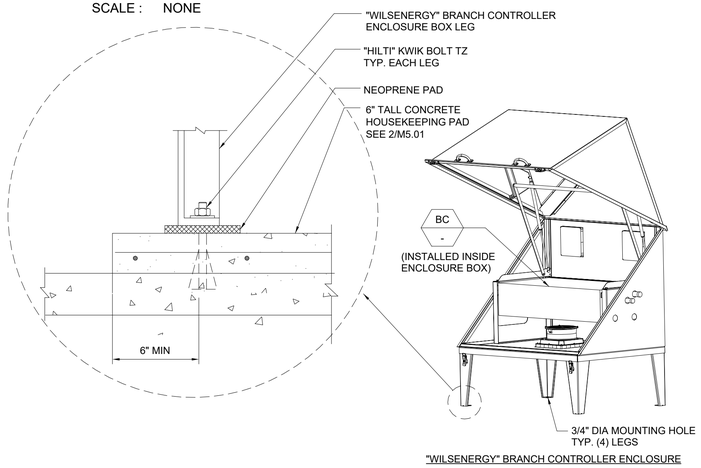
MOUNTING DETAIL

RUSKIN FSD60/FSD60LP OR EQUAL
CSFM LISTING #3235-0245:0126
CSFM LISTING #3235-0245:0129
UL555S LISTING R5531

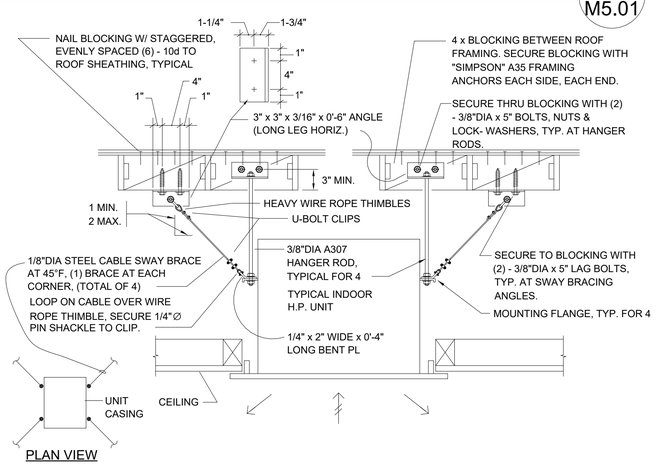
COMBINATION FIRE/SMOKE DAMPER DETAIL AT CEILING

5 M5.01

SCALE : NONE



"WILSENERGY" BRANCH CONTROLLER ENCLOSURE



PLAN VIEW

VRF BRANCH CONTROLLER MOUNTING

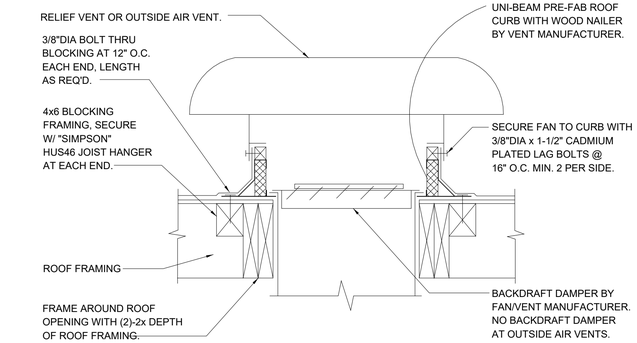
7 M5.01

SCALE : NONE

CLG. MTD. FCU MOUNTING

4 M5.01

SCALE : NONE



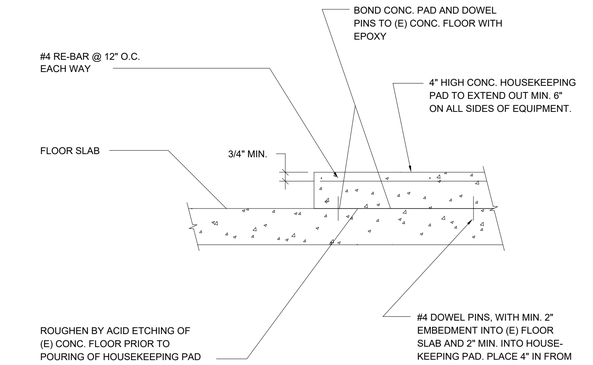
NOTE:

O.A.V.- 2B MOUNTED SIMILAR EXCEPT OMIT BACKDRAFT DAMPER.

RELIEF/INTAKE VENT MOUNTING

3 M5.01

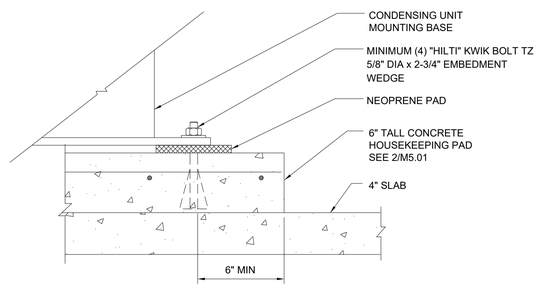
SCALE : NONE



CONC. EQUIPMENT PAD

2 M5.01

SCALE : NONE



GRADE MTD. CONDENSING MTG. DTL.

1 M5.01

SCALE : NONE

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220508.00 PROJECT NO.

SEAL



DATE SIGNED: 4/10/26

PROJECT
Dixon Fire Station 82

Dixon, CA 95620

CLIENT
City of Dixon

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

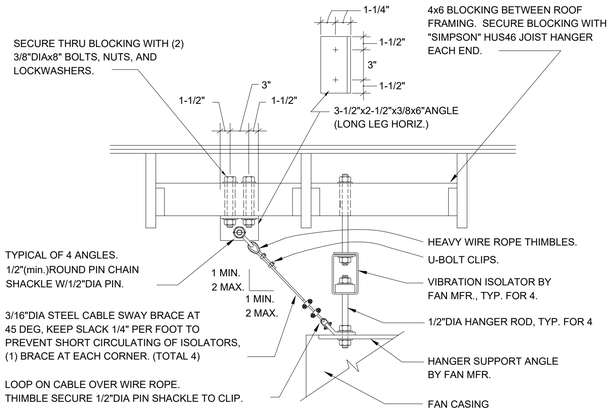
LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
HVAC DETAILS

SHEET
M5.01

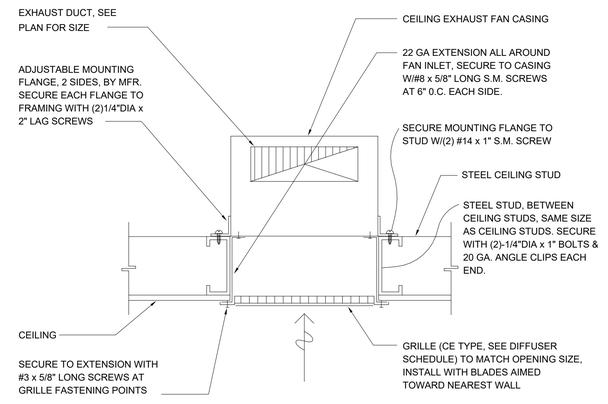
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INLINE EXH. FAN MOUNTING DETAIL

SCALE : NONE

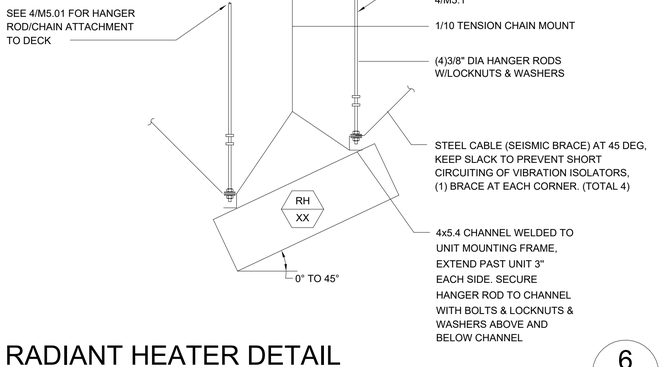
8 M5.02



CEILING EXH. FAN MOUNTING DETAIL

SCALE : NONE

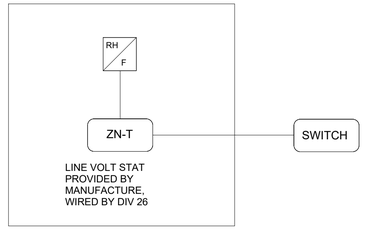
7 M5.02



RADIANT HEATER DETAIL

SCALE : NONE

6 M5.02



SEQUENCE OF OPERATION

GENERAL

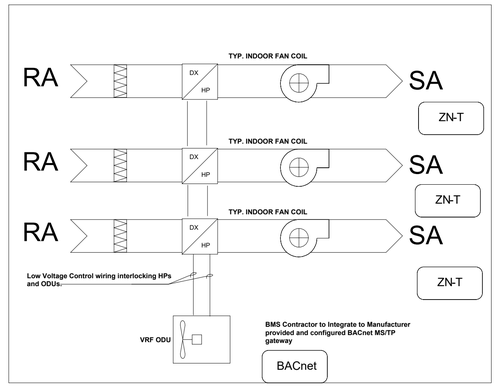
THE RADIANT HEATERS WILL BE ENABLED VIA WALL SWITCH. ONE SWITCH WILL ENABLE RADIANT HEATERS SERVING ONE BAY. TOTAL OF TWO SWITCHES.

HEATING CONTROL
THE HEATERS WILL HAVE LOCAL LINE VOLT THERMOSTAT PROVIDED WITH THE UNIT AND WIRED BY TCC. THE THERMOSTAT WILL ENABLE TO TURN ON HEATING WHENEVER THE ZN-T FALLS BELOW 70F.

RADIANT HEAT CONTROLS

SCALE : NONE

5 M5.02



VRF SEQUENCE OF OPERATION

UPON VRF STARTUP - MECHANICAL CONTRACTOR SHALL PROVIDE COMMISSIONING REPORT TO CONTROLS CONTRACTOR IDENTIFYING WHICH FAN COILS ARE CONNECTED TO WHICH ZONES. THIS REPORT WILL LINK THE FCU TAGS PROVIDED BY THE BACNET GATEWAY TO ACTUAL ZONE NUMBERS/LOCATIONS SHOWN ON THE DRAWING.

GENERIC SEQUENCE OF OPERATION
SUPPLY FAN CONTROL: THE SUPPLY FAN (SF-C) WILL BE STARTED BASED ON OCCUPANCY SCHEDULE. WHEN THE SUPPLY FAN STATUS (SF-S) INDICATES THE FAN STARTED, THE CONTROL SEQUENCE WILL BE ENABLED.

TEMPERATURE CONTROL: THE UNIT WILL CONTROL TO MAINTAIN THE LOCALLY ADJUSTABLE ZONE TEMPERATURE SETPOINT (ZN-SP) AS SENSED BY THE ZONE TEMPERATURE (ZN-T) SENSOR.

OCCUPIED MODE: OCCUPANCY MODE WILL BE CONTROLLED VIA A NETWORK INPUT

UNOCCUPIED MODE: THE UNIT WILL CYCLE TO MAINTAIN UNOCCUPIED ZONE SETPOINTS DURING UNOCCUPIED PERIODS.

COOLING MODE: THE DX COIL WILL BE STAGED IN SEQUENCE TO MAINTAIN THE TEMPERATURE SETPOINT.

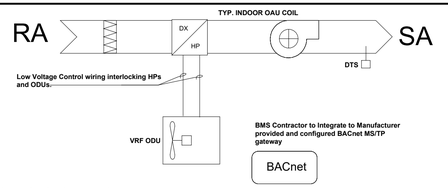
HEATING MODE: THE DX COIL WILL BE STAGED IN SEQUENCE TO MAINTAIN THE TEMPERATURE SETPOINT.

ALL VRF PROGRAMMING AND STARTUP TO BE PROVIDED BY VRF SUPPLIER.

VRF SYSTEM CONTROLS

SCALE : NONE

4 M5.02



OAU SEQUENCE OF OPERATION

UPON VRF STARTUP - MECHANICAL CONTRACTOR SHALL PROVIDE COMMISSIONING REPORT TO CONTROLS CONTRACTOR IDENTIFYING WHICH FAN COILS ARE CONNECTED TO WHICH ZONES. THIS REPORT WILL LINK THE HP TAGS PROVIDED BY THE BACNET GATEWAY TO ACTUAL ZONE NUMBERS/LOCATIONS SHOWN ON THE DRAWING.

GENERIC SEQUENCE OF OPERATION
SUPPLY FAN CONTROL: THE SUPPLY FAN (SF-C) WILL BE STARTED BASED ON OCCUPANCY SCHEDULE. WHEN THE SUPPLY FAN STATUS (SF-S) INDICATES THE FAN STARTED, THE CONTROL SEQUENCE WILL BE ENABLED.

TEMPERATURE CONTROL: THE UNIT WILL CONTROL TO MAINTAIN THE LOCALLY ADJUSTABLE ZONE TEMPERATURE SETPOINT (ZN-SP) AS SENSED BY THE DISCHARGE TEMPERATURE (DTS) SENSOR.

OCCUPIED MODE: OCCUPANCY MODE WILL BE CONTROLLED VIA A NETWORK INPUT

UNOCCUPIED MODE: WHEN OCCUPIED, THE CONTROLLER ENABLE THE OAU UNIT AND OPEN THE OA DAMPER.

COOLING MODE: THE DX COIL WILL BE STAGED IN SEQUENCE TO MAINTAIN THE TEMPERATURE SETPOINT.

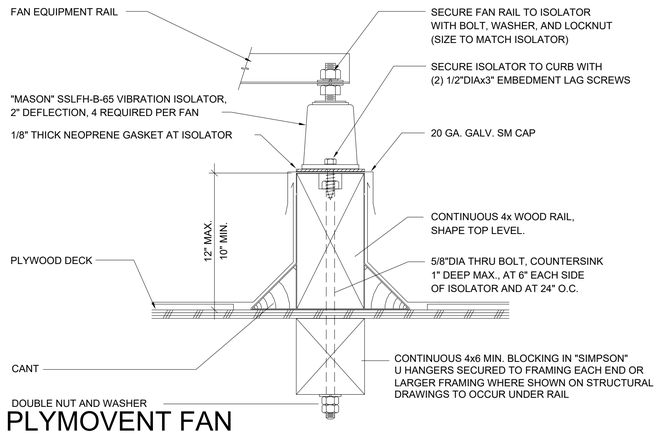
HEATING MODE: THE DX COIL WILL BE STAGED IN SEQUENCE TO MAINTAIN THE TEMPERATURE SETPOINT.

ALL VRF PROGRAMMING AND STARTUP TO BE PROVIDED BY VRF SUPPLIER.

OUTDOOR AIR UNIT CONTROLS

SCALE : NONE

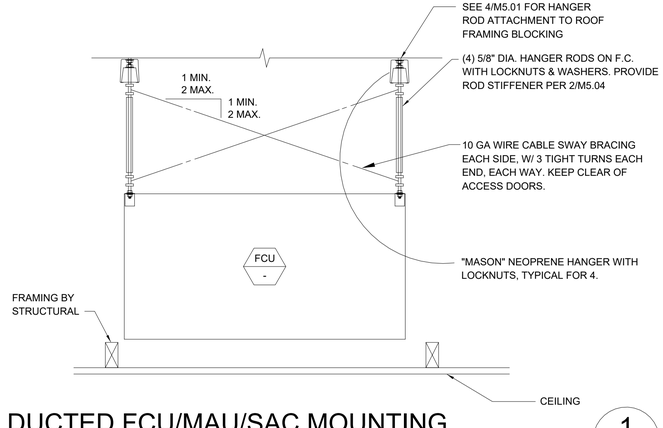
3 M5.02



PLYMOVENT FAN MOUNTING W/ ISOLATOR DETAIL

SCALE : NONE

2 M5.02



DUCTED FCU/MAU/SAC MOUNTING

SCALE : NONE

1 M5.02

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capital engineering
RANCHO CORDOVA, CALIFORNIA
ADB-AL/IG/KD — PM - DESIGN TEAM
220508.00 — PROJECT NO.

SEAL

REGISTERED PROFESSIONAL ENGINEER — ANTHONY COLACCHIO — M 29743 — EXPIRES 9/30/27 — MECHANICAL — STATE OF CALIFORNIA

DATE SIGNED: 4/10/26

PROJECT
Dixon Fire Station 82

Dixon, CA 95620

CLIENT
City of Dixon

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

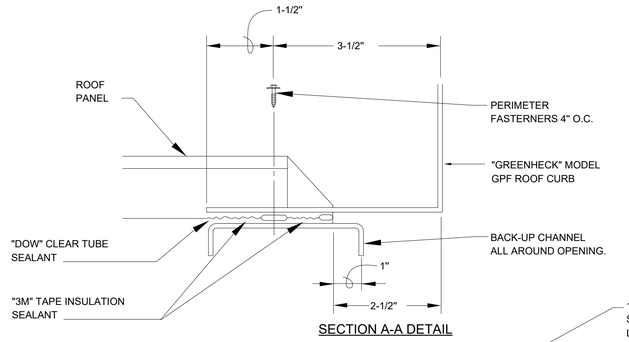
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CLIENT PROJECT NO:

AGENCY

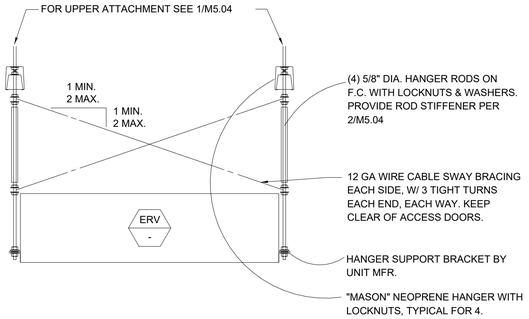
TITLE
HVAC DETAILS

SHEET
M5.02

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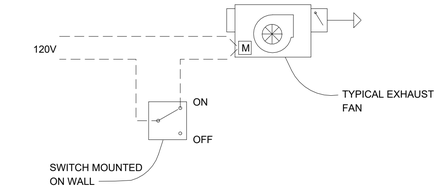
SECTION A-A DETAIL



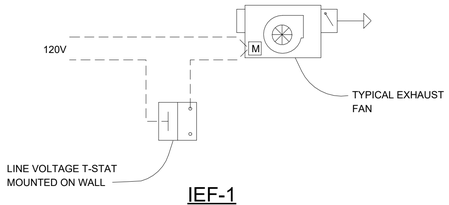
ERV MOUNTING

SCALE : NONE

6 M5.03



RESTROOM CEILING EXH. FANS

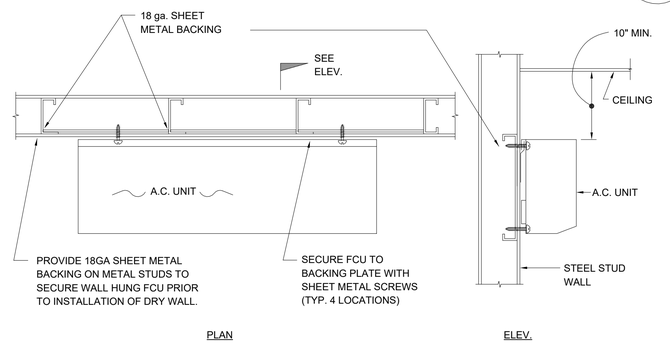


IEF-1

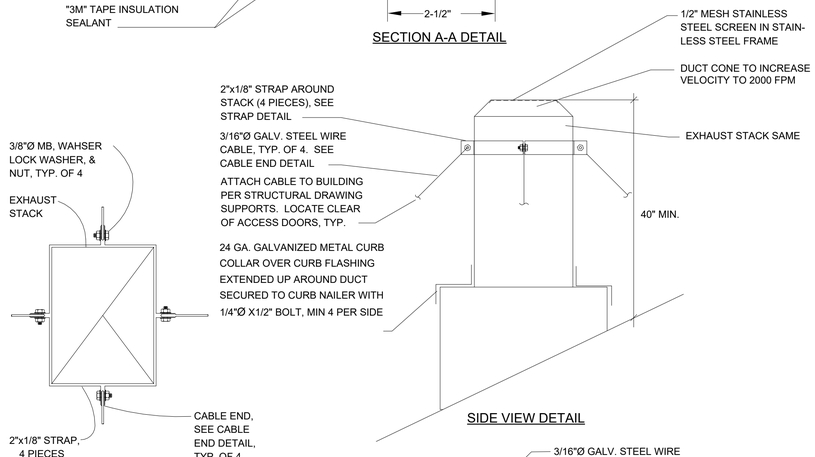
EXH. FAN CONTROL DIAGRAM

SCALE : NONE

3 M5.03

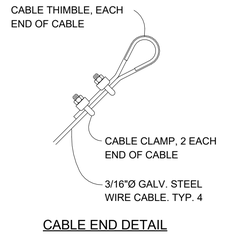


STUD WALL

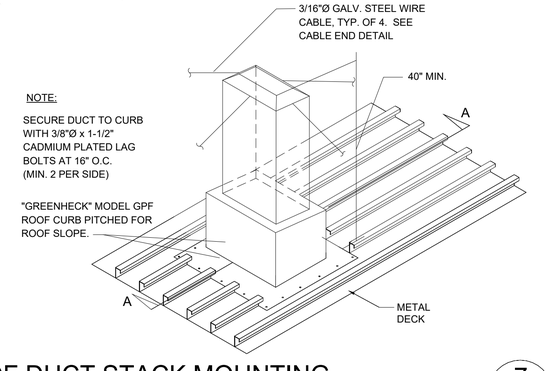


SIDE VIEW DETAIL

STRAP DETAIL



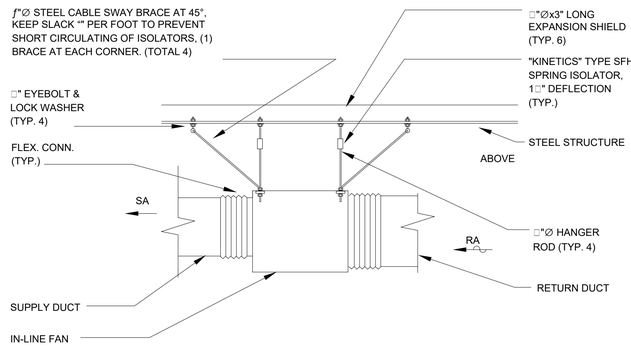
CABLE END DETAIL



SLOPED METAL ROOF DUCT STACK MOUNTING

SCALE : NONE

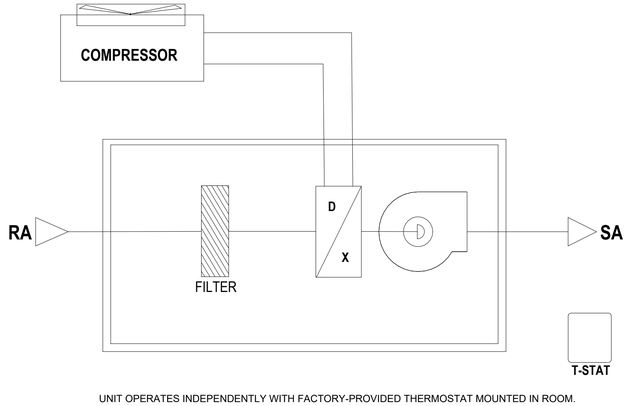
7 M5.03



IN-LINE FAN MOUNTING DETAIL

SCALE : NONE

5 M5.03



UNIT OPERATES INDEPENDENTLY WITH FACTORY-PROVIDED THERMOSTAT MOUNTED IN ROOM. THERMOSTAT SETPOINT SHALL BE 70F.

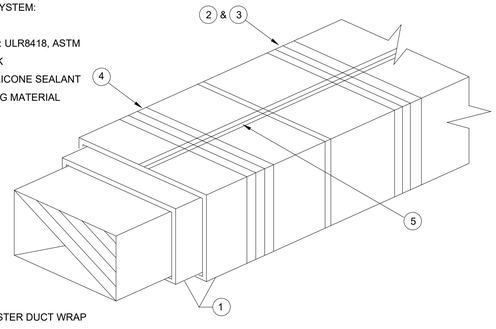
SPLIT SYSTEM CONTROLS

SCALE : NONE

4 M5.03

FIREMASTER GREASE DUCT SYSTEM:
COMPONENTS INCLUDE

1. FIREMASTER DUCT WRAP: ULR8418, ASTM E84/UL723, 1%%143" THICK
2. 3M FIRE BARRIER 2000 SILICONE SEALANT
3. FILAMENT TAPE & BANDING MATERIAL



LEGEND

1. 2 LAYERS OF FIREMASTER DUCT WRAP
2. FILAMENT TAPE
3. BANDING
4. 3" PERIMETER OVERLAP
5. 3" LONGITUDINAL OVERLAP

NOTE: INSTALLATION SHALL BE PER MANUF. INSTRUCTIONS

KITCHEN GREASE DUCT WRAP

SCALE : NONE

1 M5.03

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220508.00 PROJECT NO.

SEAL



DATE SIGNED: 4/10/26

PROJECT
Dixon Fire Station 82

Dixon, CA 95620

CLIENT
City of Dixon

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT
LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
HVAC DETAILS

SHEET
M5.03

2"
1"
1/2"
0 1/4"
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
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Autodesk Docs://City of Dixon - Fire Station 82/220508_Dixon_Fire Station_MP24.rvt
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1 2 3 4

System No. W-L-8142

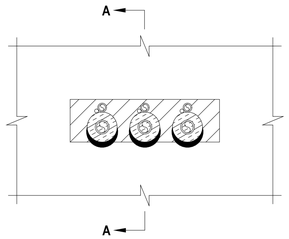
WL 8142

CLASSIFIED c UL us

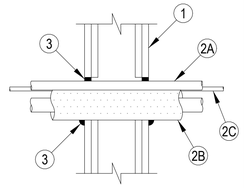
Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating – 1 and 2 Hr	F Rating – 1 and 2 Hr
T Ratings – 0 and 1/4 Hr (See Item 1)	FT Ratings – 0 and 1/4 Hr (See Item 1)
L Rating at Ambient — Less Than 1 CFM/Sq Ft	FH Rating – 1 and 2 Hr
L Rating at 400°F — Less Than 1 CFM/Sq Ft	FTH Ratings – 0 and 1/4 Hr (See Item 1)
	L Rating At Ambient — Less Than 5.1 L/s/m²
	L Rating At 204°C — Less Than 5.1 L/s/m²

FRONT VIEW



SECTION A-A



HILTI

Hilti Firestop Systems

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Page: 1 of 2

System No. W-L-8142

WL 8142

1. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300, U400, V400 or W400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs —Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced max 16 in. (406 mm) OC. Steel studs to be min 3-5/8 in. (92 mm) wide and spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — The gypsum board type, thickness number of layers, fastener type and sheet orientation shall be specified in the individual Wall and Partition Design in the UL Fire Resistance Directory. Max opening size is 10 in. (254 mm) by 3 in. (76 mm).

The T, FT and FTH Ratings are 0 and 1/4 hr for 1 and 2 hr rated assemblies, respectively.

2. Air Conditioning (AC) Line Set —One or more AC line sets installed eccentrically or concentrically within opening. Each AC line set consists of two pipes or tubes (Item 2A), tubing insulation (Item 2B) and a thermostat cable (Item 2C). The space between the AC line sets shall be min 1/2 in. (13 mm) to max 3/4 in. (19 mm). The space between the AC line sets and the periphery of the opening shall be min 0 in. (point contact) to max 1-1/2 in. (38 mm) to one side of opening.

2A. Through Penetrants — A max of two pipes or tubes to be installed in each AC line set. Of the two pipes or tubes, only one may have a nom diam greater than 1/2 in. (13 mm) Annular space between pipes or tubing and periphery of opening shall be min 0 in. (point contact) to max 1-1/2 in. (38 mm). Pipes or tubing to be rigidly supported on both sides of the wall assembly. The following types and sizes of through penetrants may be used:
   1. Copper Tube — Nom 1 in. (25 mm) diam (or smaller) Type L (or heavier) copper tube.
   2. Copper Pipe — Nom 1 in. (25 mm) diam (or smaller) Regular (or heavier) copper pipe.

2B. Tube Insulation — Plastics+ — Max 3/4 in. (19 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. The tube insulation may be installed on one max 1/2 in. (13 mm) diam pipe or tube in each AC line set. The annular space between the penetrating item and the periphery of the opening shall be min 0 in. (point contact) to max 3/4 in. (19 mm). The space between the pipes or tubing within each AC line set shall be 0 in. (point contact).

See Plastics+ (QMFZ2) category in the Plastics Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.

2C. Cables — Max of one 4 pair No. 18 AWG (or smaller) cable with PVC insulation and jacket materials.

3. Fill, Void or Cavity Material - Sealant* —Min 5/8 in. (16 mm) thickness of fill material applied within annulus between penetrants and gypsum board, flush with both surfaces of wall. At point contact, a 1/2 in. (5 mm) bead of fill material shall be applied at the penetrant/gypsum board interface on both sides of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

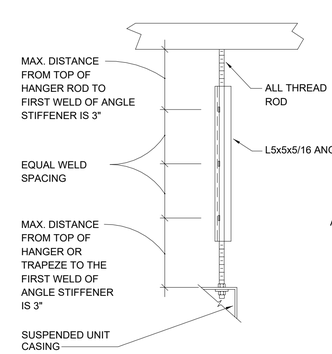
* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

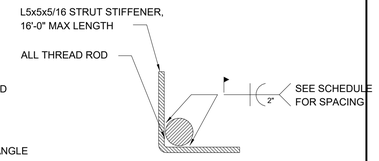
HILTI

Hilti Firestop Systems

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Page: 2 of 2



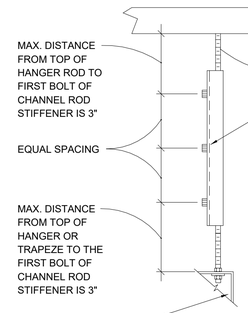


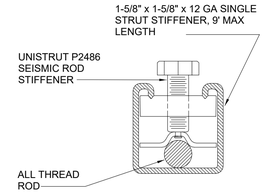
FOR 3/8" THRU 5/8" ROD

ANGLE STEEL STRUT ASSEMBLY RATINGS (ASD)

ATR Size	MAXIMUM COMPRESSIVE FORCE (LBS)	MAXIMUM ANGLE STIFFENER LENGTH (INCHES)	MAX WELD SPACING (INCHES)
3/8"	833	192	15
1/2"	1481	192	21
5/8"	2314	192	26

(ROD LENGTHS < 16'-0")





FOR 3/8" THRU 5/8" ROD

UNISTRUT STEEL STRUT ASSEMBLY RATINGS (ASD)

ATR Size	MAXIMUM COMPRESSIVE FORCE (LBS)	MAXIMUM STRUT STIFFENER LENGTH (INCHES)	MAX UCC SPACING (INCHES)
3/8"	833	108	15
1/2"	1481	108	21
5/8"	2314	108	26

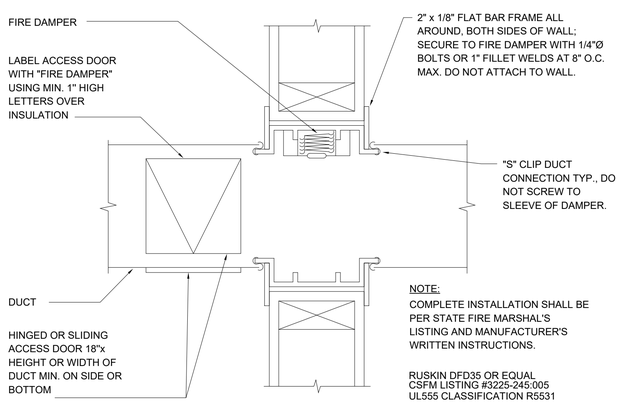
NOTE: IF HANGER ROD LENGTH IS LARGER THAN 9'-6", SEE 5/M5.00

(ROD LENGTHS < 9'-6")

PIPE PENETRATION DETAIL

3 M5.04

SCALE : NONE



NOTE:

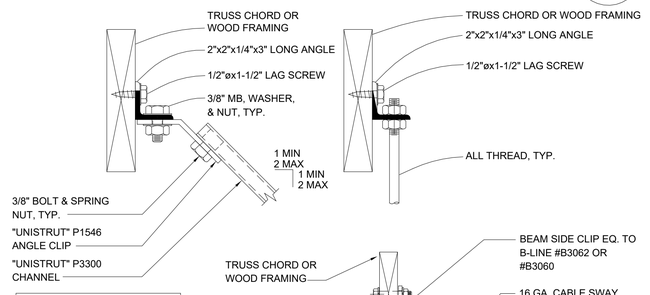
COMPLETE INSTALLATION SHALL BE PER STATE FIRE MARSHAL'S LISTING AND MANUFACTURER'S WRITTEN INSTRUCTIONS.

RUSKIN DFD35 OR EQUAL
CSFM LISTING #3225-245:005
UL555 CLASSIFICATION R5531

FIRE DAMPER AT WALL

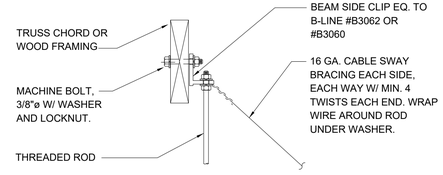
4 M5.04

SCALE : NONE



THREADED ROD LOAD CAPACITIES

Diameter 'D'	Allowable Load (In Tension)
in.	lbs.
3/8"	605
1/2"	1000
5/8"	1335
3/4"	1940



UPPER ATTACHMENT DETAILS

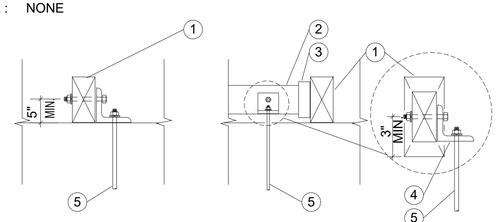
1 M5.04

SCALE : NONE

ROD STIFFENER DETAIL

2 M5.04

SCALE : NONE



ATTACHMENT TO TRUSS

ATTACHMENT BETWEEN TRUSSES

NUMBERED NOTES:

1. WOOD TRUSS CHORD OR WOOD FRAMING
2. 4x4 BLOCKING BETWEEN WOOD CHORDS
3. "SIMPSON" LUS44 HANGER (W/ 10D X 1-1/2" AT 2X FRAMING)
4. L2x2x1/4x3" LONG W/ 3/8" DIA THRU BOLT
5. HANGER ROD

SHEET NOTES: THESE SHEETS WERE NOT REVIEWED AND ARE NOT APPROVED FOR THE INSTALLATION OR MODIFICATION OF ANY FIRE SUPPRESSION SYSTEM. A SEPARATE SUBMITTAL TO THE CITY OF DIXON FIRE DEPARTMENT FOR REVIEW AND APPROVAL IS REQUIRED BY THE INSTALLING C-16 LICENSED FIRE PROTECTION CONTRACTOR PRIOR TO ANY INSTALLATION OR MODIFICATION OF ANY FIRE PROTECTION COMPONENTS

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CONSULTANT

capital engineering
RANCHO CORDOVA, CALIFORNIA
ADB-AL/JG/KD — PM - DESIGN TEAM
220508.00 — PROJECT NO.

SEAL

REGISTERED PROFESSIONAL ENGINEER — ANTHONY COLACCHIO — M 29743 — MECHANICAL — STATE OF CALIFORNIA

DATE SIGNED: 4/10/26

PROJECT

Dixon Fire Station 82

Dixon, CA 95620

CLIENT

City of Dixon

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE

HVAC DETAILS

SHEET

M5.04

2" 1" 1/2" 0 1/4" IF THIS SHEET IS NOT 22"x34" IT IS A REDUCED PRINT - SCALE ACCORDINGLY

MEP COMPONENT ANCHORAGE NOTE

ALL MECHANICAL, PLUMBING, AND 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 2025 CBC, SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 29 AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (e.g. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
3. MOVABLE EQUIPMENT THAT IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF THAT DIRECTLY SUPPORT THE EQUIPMENT ARE TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

THE ATTACHMENT OF THE FOLLOWING MECHANICAL AND 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 SUPPORT THE COMPONENT.

B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTION 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 INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING, DUCTWORK & 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, AND CBC 2025, SECTIONS 1616A.1.23, 1616A.1.24, 616A.1.25 AND 1616A.1.26.

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 (OPM #)

COPIES OF THE MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF HANGING THE 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.

PLUMBING GENERAL NOTES

1. ACCESS PANELS SHALL BE PROVIDED AS NECESSARY TO PROPERLY ACCESS THE PLUMBING SYSTEM INCLUDING VALVES, REFER TO SPECIFICATION SECTION 08310.
2. OFFSET VENT THROUGH ROOFS 10'-0" MINIMUM FROM AIR INTAKES AND 4'-0" FROM OUTSIDE WALLS.
3. HVAC EQUIPMENT IS SHOWN FOR THE COORDINATION OF UTILITIES ONLY. REFER TO 'M' SHEETS FOR MORE INFORMATION.
4. THE CONNECTION OF NATURAL GAS LINES TO EQUIPMENT SHALL INCLUDE A LINE SIZE SHUT-OFF VALVE, UNION AND A MINIMUM 6" LONG DIRT LEG WITH ACCESSIBLE END CAP.
5. THE CONNECTION OF CONDENSATE DRAIN LINES TO HVAC EQUIPMENT SHALL INCLUDE A MINIMUM 4" DEEP "P"-TRAP AND PLUGGED TEE AT ALL OFFSETS.
6. PROVIDE WATER HAMMER ARRESTORS (WHA) AS INDICATED ON PLUMBING PLANS AND/OR AS DESCRIBED WITHIN DIVISION 22 SPECIFICATIONS. SIZING SHALL BE IN ACCORDANCE WITH PDI STANDARD WH-201.
7. FOR PIPES PASSING THROUGH, UNDER OR PARALLEL TO BUILDING FOOTINGS, RETAINING WALLS ETC. REFER TO STRUCTURAL DETAILS, 'S' SHEETS, FOR TYPICAL ARRANGEMENT.
8. CONTRACTOR SHALL FIELD VERIFY ALL POINTS OF CONNECTION TO SITE PIPING (LOCATIONS AND INVERT) PRIOR TO EXCAVATION, FABRICATION AND INSTALLATION OF ASSOCIATED PIPING RUNS. NOTIFY ARCHITECT AND OR ENGINEER IMMEDIATELY IF POINTS OF CONNECTION OR INVERTS ARE DIFFERENT THAN REPRESENTED ON THE DRAWINGS.
9. OFFSET ALL RISERS AND DROPS TO AVOID PENETRATIONS AT TOP PLATES.
10. PENETRATION OF PIPES, CONDUIT, ETC., IN WALLS AND/OR FLOORS REQUIRING PROTECTED OPENINGS SHALL BE FIRE STOPPED. MATERIAL SHALL BE A TESTED ASSEMBLY APPROVED BY THE STATE FIRE MARSHAL.
11. SEAL ALL PIPE PENETRATIONS THRU FLOORS WATERTIGHT.
12. DRAWINGS SHALL BE CONSIDERED DIAGRAMMATIC ONLY. CONTRACTOR SHALL FIELD VERIFY WHERE POSSIBLE, EXACT LOCATIONS, SIZES, AND ELEVATIONS OF ALL ITEMS SHOWN PRIOR TO THE INSTALLATION OF ANY NEW WORK.
13. THE DRAWINGS ARE NOT INTENDED TO SHOW EVERY OFFSET OR FITTING OR EVERY STRUCTURAL DIFFICULTY THAT MAY BE ENCOUNTERED DURING INSTALLATION OF THE WORK. LOCATION OF ALL ITEMS NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. EXACT LOCATIONS NECESSARY TO SECURE BEST CONDITIONS AND RESULTS MUST BE DETERMINED AT THE JOB SITE AND SHALL HAVE THE APPROVAL OF THE ARCHITECT BEFORE BEING INSTALLED.
14. ALL VALVES SHOWN SHALL BE FULL LINE SIZE UNLESS OTHERWISE NOTED.
15. CLOSELY COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO TRENCHING OR INSTALLATION OF NEW. IDENTIFY SIZE AND LOCATIONS OF ALL PENETRATIONS THROUGH FOUNDATIONS, WALLS OR ROOFS PRIOR TO FABRICATION OF ANY SYSTEMS OR ORDERING MATERIALS AFFECTED BY POSSIBLE COORDINATION CONFLICTS.
16. CONCRETE ANCHORS SHALL BE HILTI, KWIK BOLT TZ 3/8" WITH EMBEDMENT AS PER STRUCTURAL PLAN, S0.3. ANCHORS SHALL BE TESTED PER IR 19-1, INTERPRETIVE REGULATION FOR EXPANSION ANCHORS IN HARDENED CONCRETE. ANCHOR TEST SHALL BE 968 LBS. TENSION.
17. PIPING SHALL BE SUPPORTED AND BRACED IN STRICT COMPLIANCE WITH DIVISION 22 SPECIFICATIONS.
18. PENETRATION OF PIPES, CONDUITS, ETC., IN WALLS AND/OR FLOORS REQUIRING PROTECTED OPENINGS SHALL BE FIRE STOPPED. MATERIAL SHALL BE A TESTED ASSEMBLY APPROVED BY THE STATE FIRE MARSHAL.
19. ALL NEW SANITARY WASTE PIPING SHOWN SHALL BE SLOPED AT 1/4" PER FOOT MINIMUM UNLESS OTHERWISE NOTED ON PLANS. WHERE SLOPES LESS THAN 1/4" PER FOOT ARE INDICATED, CONTRACTOR SHALL SLOPE NEW PIPING UNIFORMLY BETWEEN UPPER TERMINAL OF PIPE AND THE POINT OF CONNECTION TO THE SITE PIPING (AS INDICATED ON THE CIVIL PLANS) TO ACHIEVE MAXIMUM SLOPE POSSIBLE AND IN NO CASE SHALL THE PIPING BE SLOPED LESS THAN THE MINIMUM INDICATED.
20. CONCEAL ALL PIPING IN WALL FURRING, PARTITIONS, ETC., EXCEPT AT MECHANICAL ROOMS.
21. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING DIMENSIONS AND EXACT LOCAITONS OF PLUMBING FIXTURES.

PLUMBING ABBREVIATIONS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
ABC	ABOVE CEILING	(N)	NEW
ACC DR	ACCESS DOOR	NC	NORMALLY CLOSED
ACC P	ACCESS PANEL	NO	NORMALLY OPEN
AFF	ABOVE FINISHED FLOOR	NTS	NOT TO SCALE
AFG	ABOVE FINISHED GRADE		
AFP	ABOVE FINISHED PAVEMENT	OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
AHV	AIR HOSE VALVE	OFOI	OWNER FURNISHED, OWNER INSTALLED
ASH	AUTOMATIC SPRINKLER HEAD	OH	OVERHEAD
		OS & Y	OUTSIDE SCREW AND YOKE
BEL	BELOW		
BFF	BELOW FINISHED FLOOR	PH	PHASE
BFG	BELOW FINISHED GRADE	PLBG	PLUMBING
BFP	BACKFLOW PREVENTER	PLD	PLANTER DRAIN
BLDG	BUILDING	PO	PLUGGED OUTLET
		PRS	PRE-RINSE SINK
CDC	CALIFORNIA DEPARTMENT OF CORRECTIONS	PS	POT SINK
CFF	CAPPED FOR FUTURE	PT	PLASTER TRAP
CLG	CEILING		
CMP	CORRUGATED METAL PIPE	(R)	RISER
COL	COLUMN	REC	RECESSED
CONN	CONNECT/CONNECTION	REQD	REQUIRED
CONT	CONTINUATION	REV	REVISION
CWH	COLD WATER HEADER	RM	ROOM
		RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
(D)	DROP	RWL	RAIN WATER LEADER
DF	DRINKING FOUNTAIN		
DIA	DIAMETER	SD	STORM DRAIN
DN	DOWN	SH	SHOWER
DW	DRY WELL	SPEC	SPECIFICATION
DW	DISHWASHER	SS	STAINLESS STEEL/SERVICE SINK
DWG	DRAWING	STD	STANDARD
		STRUC	STRUCTURAL
(E)	EXISTING		
EL	ELEVATION	(TA)	TO ABOVE
ELEC	ELECTRICAL	(TB)	TO BELOW
EQUIP	EQUIPMENT	T.C.C.	TEMPERATURE CONTROLS CONTRACTOR
ES	EMERGENCY SHOWER	TD	TRENCH DRAIN
EW	EYE WASH	TEMP	TEMPERATURE
EWC	ELECTRIC WATER COOLER	TOC	TOP OF CONCRETE
		TS	TAMPER SWITCH
FA	FROM ABOVE	TYP	TYPICAL
FB	FROM BELOW		
FD	FLOOR DRAIN	UF	UNDER FLOOR
FFE	FINISHED FLOOR ELEVATION	UG	UNDERGROUND
FF	FINISHED FLOOR	UL	UNDERWRITERS' LABORATORIES
FLR	FLOOR	UR	URINAL
FSR	FIRE SPRINKLER RISER	US	UNDER SLAB
FT	FLOOR TOILET		
/FT	PER FOOT	V	VENT
FTK	FLUSH TANK	VTR	VENT THRU ROOF
FU	FIXTURE UNIT	VO	VALVED OUTLET
FV	FLUSH VALVE	VW	VACUUM WASTE
GAL	GALLONS	W/	WITH
		W/O	WITHOUT
HC	HANDICAPPED	W	WASTE
HR	HOUR	WC	WATER CLOSET
HS	HAND SINK	WC/L	WATER CLOSET AND LAVATORY
HT	HEIGHT	WF	WASH FOUNTAIN
HTR	HEATER		
HWH	HOT WATER HEATER	ZCV	ZONE CONTROL VALVE
IE	INVERT ELEVATION		
KEC	KITCHEN EQUIPMENT CONTRACTOR		
KS	KITCHEN SINK		
LV	LAVATORY		
MC	MOTOR CONTROLLER		
MECH	MECHANICAL		
MTD	MOUNTED		

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CONSULTANT
capital engineering
RANCHO CORDOVA, CALIFORNIA
ADB-AL/IG/KD — PM - DESIGN TEAM
220508.00 — PROJECT NO.

SEAL
REGISTERED PROFESSIONAL ENGINEER — ANTHONY COLACCHIO — M 29743 — EXPIRES 9/30/27 — MECHANICAL — STATE OF CALIFORNIA
DATE SIGNED: 4/10/26

PROJECT
Dixon Fire Station 82

Dixon, CA 95620

CLIENT
City of Dixon

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT
LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
PLUMBING LEGEND & NOTES

SHEET
P0.01

Autodesk Docs://City of Dixon - Fire Station 82/220508_Dixon_Fire Station_MP24.rvt
6/2/2026 11:24:00 AM

PLUMBING FIXTURE SCHEDULE

ADA	SYMBOL	FIXTURE	FIXTURE MANUFACTURER AND MODEL No.	FAUCET OR VALVE MANUFACTURER AND MODEL No.	TRIM MANUFACTURER AND MODEL No.	REMARKS	VENT	WASTE		COLD WATER		HOT WATER	
								BRANCH	OUTLET	BRANCH	OUTLET	BRANCH	OUTLET
♿	WC-1	WATER CLOSET FLOOR MOUNTED TANK TYPE ADA	"KOHLER" MODEL K-3658, COMFORT HEIGHT ELONGATED BOWL, PRESSURE ASSIST FLUSHOMETER TANK, "KOHLER" K-4666 OPEN FRONT SEAT WITH SELF SUSTAINING CHECK HINGE, 1.28 GPF, FLOOR MOUNT, PROVIDE SUPPLY AND STOP, ADA.	ADA COMPLIANT, 1.28 GPF (MANUAL)	SEAT: "CHURCH" MODEL 295SSCT OR "BEMIS" MODEL 1955SSCT. PROVIDE WITH SELF-SUSTAINING CONCEALED CHECK HINGES, ONE PIECE STEEL POST HINGES, WHITE COLOR.	WHERE USED FOR CBC ACCESSIBLE WATER CLOSETS, THE FLUSH VALVE HANDLE SHALL BE MOUNTED ON THE WIDE SIDE OF THE WATER CLOSET ENCLOSURE.	2"	4"	4"	1-1/4"	1"	-	-
	WC-2	WATER CLOSET FLOOR MOUNTED TANK TYPE STD	"KOHLER" MODEL K-3575, STANDARD HEIGHT, ELONGATED BOWL, PRESSURE ASSIST FLUSHOMETER TANK, "KOHLER" K-46666 OPEN FRONT SEAT WITH SELF SUSTAINING HINGE, 1.6 GPF, FLOOR MOUNT, PROVIDE SUPPLY AND STOP.	1.28 GPF (MANUAL)	SEAT: "CHURCH" MODEL 295SSCT OR "BEMIS" MODEL 1955SSCT. PROVIDE WITH SELF-SUSTAINING CONCEALED CHECK HINGES, ONE PIECE STEEL POST HINGES, WHITE COLOR.		2"	4"	4"	1-1/4"	1"	-	-
♿	UR-1	URINAL WALL MOUNTED FLUSH VALVE ADA	"KOHLER" MODEL K-4991 HIGH EFFICIENCY VITREOUS CHINA WALL MOUNTED TOP SPUD URINAL, PROVIDED WITH "KOHLER" K-13520 0.125 GPF MANUAL FLUSH VALVE. WALL HANGERS AND STRAINER INCLUDED.	"SLOAN" ROYAL 186 HEU 0.125, 0.125 GPF (MANUAL)	CARRIER: "J.R. SMITH" 637 SERIES OR "ZURN" Z1222	MOUNT AT HEIGHT INDICATED ON ARCHITECTURAL DRAWINGS.	1-1/2"	2"	2"	1"	3/4"	-	-
♿	L-1	LAVATORY COUNTER MOUNTED HOT AND COLD WATER ADA	"KOHLER" MODEL K-2210 19x15" OVAL, VITREOUS CHINA, UNDERMOUNT SINK, "DELTA" MODEL # 520-MPU SINGLE LEVER, SOLID BRASS BODY. POP-UP DRAIN, SINGLE-HOLE. 0.5 GPM MAXIMUM FLOW RATE. PROVIDE SUPPLIES, STOPS AND 17 GA. CHROME PLATED BRASS P-TRAP, COUNTER MOUNT. ADA COMPLIANT.	"CHICAGO" 410-T41E2805-717AB FAUCET, 7-1/4" SINGLE LEVER 0.5 GPM FLOW RATE, BELOW DECK THEMOSTATIC MIXING VALVE SET FOR HOT WATER OUTLET AT 110°F. WITH VANDAL RESISTANT ECONO-FLO SPRAY OUTLET. WITH IPS CONNECTIONS, ADA COMPLIANT.	ADA COMPLIANT. LAVATORY GRID DRAIN WITH 4-1/4" OFFSET TAILPIECE, INTEGRAL PERFORATED GRID NO. 7723.018, CHROME FINISH. MOUNT P-TRAP FLUSH TO WALL, AND PROVIDE INSULATED DRAIN PIPING. CARRIER: "J.R. SMITH" 0700 OR "ZURN" Z1231	MOUNT AT HEIGHT INDICATED ON ARCHITECTURAL DRAWINGS. PROVIDE CONCEALED ARMS AND FLOOR SUPPORT, WITH FEET OF SUPPORT SECURELY ANCHORED TO FLOOR. IN ADDITION ANCHOR TOP OF SUPPORT TO WALL CONSTRUCTION.	1-1/2"	2"	1-1/2"	3/4"	1/2"	3/4"	1/2"
♿	L-2	LAVATORY WALL MOUNTED HOT AND COLD WATER ADA	"KOHLER" MODEL K-2005 WALL HUNG, VITREOUS CHINA WITH CONTOURED BACK AND SIDE SPLASH SHIELDS, FRONT OVERFLOW, CONCEALED ARM RECESS, SINGLE-HOLE, 21-1/4" x 18-1/8" D SHAPED BOWL.	"CHICAGO" 410-T41E2805-717AB FAUCET, 7-1/4" SINGLE LEVER 0.5 GPM FLOW RATE, BELOW DECK THEMOSTATIC MIXING VALVE SET FOR HOT WATER OUTLET AT 110°F. WITH VANDAL RESISTANT ECONO-FLO SPRAY OUTLET. WITH IPS CONNECTIONS, ADA COMPLIANT.	ADA COMPLIANT. LAVATORY GRID DRAIN WITH 4-1/4" OFFSET TAILPIECE, INTEGRAL PERFORATED GRID NO. 7723.018, CHROME FINISH. MOUNT P-TRAP FLUSH TO WALL, AND PROVIDE INSULATED DRAIN PIPING.	COUNTER MOUNTED.	1-1/2"	2"	1-1/2"	3/4"	1/2"	3/4"	1/2"
♿	S-1	SINK COUNTER MOUNTED HOT AND COLD WATER ADA	"ELKAY" MODEL LRADQ2219-65-BP, 22"x19"x6.5" DEEP SINGLE BOWL, 18 GAUGE STAINLESS STEEL GAUGE,LEDGE BACK WITH SELF-RIM. PROVIDE SINGLE FAUCET HOLE. PROVIDE REAR DRAIN LOCATION. PROVIDE FACTORY ADHERED VANDEL RESISTANT BACKING PLATE AT FAUCET, AND SLOT AT FAUCET FOR VANDAL RESISTANT PIN. PROVIDE SUPPLIES, STOPS & CHROME-PLATED BRASS P-TRAP.	"ELKAY" ECAST MODEL LK500GN08T4, 8" GOOSENECK FAUCET, VANDAL RESISTANT. PROVIDE VANDAL PROOF PIN IN FAUCET, WRISTBLADE HANDLES. PROVIDE 1.5 GPM VANDAL RESISTANT LAMINAR FLOW AERATOR.	"ELKAY" MODEL LKAD18, OFFSET STRAINER DRAIN AND P-TRAP. INSTALL P-TRAP FLUSH TO WALL.	PROVIDE CLEANOUT FOR EACH FIXTURE.	1-1/2"	2"	1-1/2"	3/4"	1/2"	3/4"	1/2"
	S-2	SINK HOT AND COLD WATER	SEE ARCHITECTURAL DRAWINGS FOR STAINLESS STEEL COUNTERTOP AND INTEGRAL SINK	"CHICAGO FAUCETS" MODEL 509-GSKCAB SWING SPOUT WITH PRE-RINSE SPRAY. PROVIDE VANDAL PROOF PIN IN FAUCET, LEVER HANDLES. PROVIDE 1.5 GPM VANDAL RESISTANT LAMINAR FLOW AERATOR.	"ELKAY" MODEL LKAD18, OFFSET STRAINER DRAIN AND P-TRAP. INSTALL P-TRAP FLUSH TO WALL.	PROVIDE CLEANOUT FOR EACH FIXTURE.	1-1/2"	2"	1-1/2"	3/4"	1/2"	3/4"	1/2"
	S-3	SINK WALL MOUNTED HOT AND COLD WATER	"ELKAY" MODEL CHSB1716C 16-3/4"x15-1/2"x13" 6" DEEP SINGLE BOWL WALL MOUNT SINK. STAINLESS STEEL 20 GAUGE TYPE 304. PROVIDE SUPPLIES, STOPS & CHROME-PLATED BRASS P-TRAP.	"CHICAGO FAUCETS" MODEL 521-GN2AE35ABCP, 5-1/4" GOOSENECK FAUCET, 4" CENTER MOUNT, VANDAL PROOF 2-3/8" LEVER HANDELS. PROVIDE 1.5 GPM VANDAL RESISTANT LAMINAR FLOW AERATOR.	"ELKAY" MODEL LKAD18, OFFSET STRAINER DRAIN AND P-TRAP. INSTALL P-TRAP FLUSH TO WALL.	PROVIDE CLEANOUT FOR EACH FIXTURE.	1-1/2"	2"	1-1/2"	3/4"	1/2"	3/4"	1/2"
♿	KS-1	SINK COUNTER MOUNTED HOT AND COLD WATER ADA	"ELKAY" MODEL ECTRUF30179RFCC 35-7/8"x20-1/4x9" DEEP SINGLE BOWL UNDERMOUNT SINK. STAINLESS STEEL 18 GAUGE TYPE 304. "ELKAY" MODEL LKAV2061 FAUCET,3-HOLE DECK PLATE, 1.8 GPM, W/ PULL-DOWN SPRAY. PROVIDE "IN-SINK-ERATOR" MODEL BADGER-5XP GARBAGE DISPOSAL 120V - 1ø, 3/4 HP, AIR-ACTIVATED COUNTER TOP MOUNTED SWITCH. PROVIDE CHROME-PLATED BRASS P-TRAP.	"ELKAY" MODEL LKAV2061 FAUCET,3-HOLE DECK PLATE, 1.5 GPM, W/ PULL-DOWN SPRAY.	"ELKAY" MODEL LKAD18, OFFSET STRAINER DRAIN AND P-TRAP. INSTALL P-TRAP FLUSH TO WALL.	PROVIDE CLEANOUT FOR EACH FIXTURE.	1-1/2"	2"	1-1/2"	3/4"	1/2"	3/4"	1/2"
	PF-1	POT FILLER WALL MOUNTED		"CHICAGO" MODEL 515-ABCP POT FILLER FAUCET			-	-	-	3/4"	1/2"	-	-
	SS-1	SERVICE SINK FLOOR MOUNTED	"FLORESTONE" MSR-2424, 24"x24"x10" MOLDED ONE PIECE RECEPTOR, MR-375 3" INTEGRAL DRAIN WITH 18 GA. STAINLESS STEEL GRID, MR-371 FAUCET WITH VACUUM BREAKER AND BUCKET HOOK, MR-372 MOP HANGER WITH 3 CLAMPS, AND MR-370, 60" HOSE WITH SS CLAMP, TWO MR-377 24" PANELS AND TWO 24" MR-373 STAINLESS STEEL RIM GUARD.	"CHICAGO" MODEL 540-LD-897-WXF FAUCET 8" O.C. WITH LEVER HANDLES, CHROME FINISH, VACUUM BREAKER, TOP BRACE, PAIL HOOK AND 3/4" HOSE THREAD OUTLET AND CAST IRON TRAP.	"FIAT" MODEL 1453-BB STRAINER, PROVIDE SUITABLE BLOCKING FOR TOP BRACE AS PART OF ROUGH-IN FOR FAUCET WITH P-TRAP	PROVIDE "FIAT" MODEL 832-AA HOSE & BRACKET AND "FIAT" MODEL 889-CC MOP RACK	2"	2"	2"	3/4"	3/4"	3/4"	3/4"
♿	BF-1	BOTTLE FILLER IN-WALL MOUNTED ADA	"ELKAY" MODEL LZWSM8K, 8GPH, 115 V, 1 PL, 4.0 FLA, SENSOR OPERATED, PROVIDE SPARE REPLACEMENT FILTER.		WITH P-TRAP	1.1 FLA @ 115V/60Hz. MAX POWER DRAW 15 W.	1-1/2"	2"	2"	3/4"	1/2"	-	-
	HB-1	HOSE BIBB	"ACORN" MODEL 8121, BENT NOSE WITH FLANGE, CARTRIDGE OPERATED WITH LOCK SHIELD AND REMOVABLE KEY HANDLE, VACUUM BREAKER. POLISHED CHROME.		WITH INTEGRAL VACUUM BREAKER.	PROVIDE RECESSED 16 GA. STAINLESS STEEL HINGED BOX WITH FULL 180° HINGED LOCKING COVER. MOUNT 18" ABOVE FINISHED GRADE OR FLOOR	-	-	-	3/4"	3/4"	-	-
	HB-2	HOSE BIBB	"ACORN" MODEL 8160, DUAL CHECK NON-FREEZE, CARTRIDGE OPERATED WITH LOCK SHIELD AND REMOVABLE KEY HANDLE, VACUUM BREAKER. POLISHED CHROME.		WITH INTEGRAL VACUUM BREAKER.	MOUNT 18" ABOVE FINISHED GRADE OR FLOOR	-	-	-	3/4"	3/4"	-	-
	HB-3	WALL HYDRANT	"ACORN" MODEL 8151, 18 GA., TYPE 304 STAINLESS STEEL RECESSED WITH WALL FLANGE, LOCKING COVER, VACUUM BREAKER, LOOSE KEY. BRASS FINISH.		WITH INTEGRAL VACUUM BREAKER.		-	-	-	3/4"	3/4"	-	-
	FD	FLOOR DRAIN	"SMITH" 2005Y, 5" DIA., NB TOP, CAST IRON BODY, TRAP PRIMER CONNECTION.	TYPE "B" STRAINER FOR EXPOSED CONCRETE TYPE "S" STRAINER FOR TILE FLOOR TYPE "SL STRAINER FOR COMPOSITION FLOOR	PROVIDE FLASHING RING AND CLAMP AT FLOORS WITH WATER RESISTANT MEMBRANE. SET TOP OF DRAIN SLIGHTLY BELOW FLOOR TO INSURE DRAINAGE. INSTALL VENTED P-TRAP. WHERE TRAP PRIMERS ARE INDICATED PROVIDE PROPER CONNECTION TO P-TRAP.		2"	2" 3" 4"	2" 3" 4"	-	-	-	-
	AD	AREA DRAIN	"SMITH" 2233, 12" DIA., DUCTILE IRON GRATE-M, CAST IRON BODY, EXTRA HEAVY	Q45 HEEL PROOF GRATE	PROVIDE FLASHING RING AND CLAMP AT FLOORS WITH WATER RESISTANT MEMBRANE. SET TOP OF DRAIN SLIGHTLY BELOW FLOOR TO INSURE DRAINAGE.		2"	4"	4"	-	-	-	-
	FS	FLOOR SINK	FLOOR SINK, "SMITH" 3100, ACID RESISTANT, DOME BOTTOM STRAINER.		PROVIDE ANCHOR FLANGE, SEEPAGE PAN AND CLAMPING COLLAR. PROVIDE WHITE A.R.E. SEDIMENT BUCKET. PROVIDE 1/2 GRATE.	INSTALL FS FLUSH WITH FLOOR	2"	2" 3" 4"	2" 3" 4"	-	-	-	-
	TP-1	TRAP PRIMER	"PPP" PRIME-RITE TRAP PRIMER VALVE, MODEL FVP-1VB FOR FLUSH VALVES	PROVIDE WITH VACUUM BREAKER. SEE 2/P5.01 FOR CONNECTION OF TRAP PRIMER TO FLOOR DRAIN.		INSTALL PER MANUFACTURERS INSTRUCTIONS. PROVIDE DISTRIBUTION UNIT WITH FEEDER PIPING FOR A MAX. OF FOUR TRAPS WHEN NEEDED. PROVIDE SURFACE MOUNT BOX IN CHASES & MECHANICAL ROOMS. PROVIDE RECESSED BOX WITH ACCESS DOOR ALL OTHER LOCATIONS.	-	-	-	1/2"	1/2"	-	-
	WB	WASHMACHINE WASHER BOX	"ACORN" MODEL 8186-SSLF WASH MACHINE BOX. WHA-500L WATER HAMMER ARRESTORS.	INTEGRAL	INTEGRAL	WITH HOT AND COLD WATER HOSE BIBBS AND DRAIN CONNECTION	1-1/2"	2"	2"	3/4"	3/4"	3/4"	3/4"
	RIM	REFRIGERATOR ICE MAKER BOX	"GUY GRAY" BIM875, 18 GAUGE STEEL FACEPLATE, 20 GAUGE STEEL BOX, COMPRESSION VALVE.				-	-	-	1/2"	1/4"	-	-
	ESH/EW	EMERGENCY SHOWER EYEWASH STATION	"BRADLEY" S19314PDC, COMBINATION DRENCH SHOWER AND HALO EYEWASH WITH DUST COVER, STAINLESS STEEL EYEWASH BOWL WITH TRANPARENT PLASTIC COVER. PROVIDE WITH NAVIGATOR S19-2150 EFX20 MIXING VALVE.		WITH P-TRAP		-	-	-	1-1/2"	1-1/4"	3/4"	3/4"
	HUD	HUB DRAIN	"ZURN" MODEL Z-1870, TYPE 304 STAINLESS STEEL			USED TO DRAIN FROM FIRE SPINKLER RISER DURING TESTING, SEE DETAIL 1/P5.02 FOR INSTALLATION.	3"	4"	4"	-	-	-	-
	SH-1	SHOWER FLUSH MOUNTED	"SYMMONS" MODEL 3505-H321-V-CYL-B SHOWER SYSTEM WITH HAND SPRAY. INCLUDES 1.5 GPM SHOWER HEAD, MIXING VALVE, DETACHABLE SPRAY HEAD WITH 5' METAL HOSE. PROVIDE "J.R. SMITH" 2010C(B) NB 6" SQUARE DRAIN WITH STRAINER. PROVIDE HOT AND COLD WATER STOPS. SHOWER HEADS SHALL BE ROUGHED IN AT 78" ABOVE FINISH FLOOR.	COMPLETE WITH HOT AND COLD WATER PRESSURE BALANCED MIXING VALVES, 1.5 GPM FLOW CONTROL, TEMPTROL PRESSURE BALANCING VALVE WITH ADJUSTABLE STOP SCREW TO LIMIT HANDLE TURN, VANDAL RESISTANT ESCUTCHEON SCREWS, NON-SHARED DIVERTER VALVE.	INTEGRAL	MOUNT AT HEIGHT INDICATED ON ARCHITECTURAL DRAWINGS.	-	-	-	3/4"	1/2"	3/4"	1/2"

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SEAL
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DATE SIGNED: 4/10/26

PROJECT
Dixon Fire Station 82

Dixon, CA 95620

CLIENT
City of Dixon

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT
LIONAKIS PROJECT NO: 22204
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TITLE
PLUMBING FIXTURE SCHEDULE

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PLUMBING EQUIPMENT SCHEDULE

SOI 1	SAND OIL INTERCEPTOR "JENSEN PRECAST" MODEL JP750EPE-SO, 750 GALLON
EWH 1	ELECTRIC WATER HEATER "BRADFORD" MODEL CEDH-120A-3, 119 GAL STORAGE, 99 GPH RECOVERY @ 100F, 120F OUTLET TEMP, 24 KW INPUT, FLA 66.7, 208V/3PH, WEIGHT 1,600 LBS, SEE 1/P5.01 AND 3/P5.01 FOR MOUNTING AND PIPING DETAIL
EWH 2	ELECTRIC WATER HEATER "BRADFORD" MODEL CEDH-50A-3, 50 GAL STORAGE, 56 GPH RECOVERY @ 100F, 120F OUTLET TEMP, 13.5 KW INPUT, FLA 37.5, 208V/3PH, WEIGHT 750 LBS, SEE 1/P5.01 AND 3/P5.01 FOR MOUNTING AND PIPING DETAIL
CP 1	CIRCULATION PUMP "B&G" MODEL ECOCIRC XL 20-35B, 5 GPM, 12 HEAD, 1/12 HP, 1.3 AMP, 115V/1PH, VARIABLE SPEED ECM MOTOR, WEIGHT 20 LBS, SEE 3/P5.01 FOR CIRCULATION PUMP MOUNTING
CP 2	CIRCULATION PUMP "B&G" MODEL ECOCIRC XL 20-35B, 3 GPM, 12 HEAD, 1/12 HP, 1.3 AMP, 115V/1PH, VARIABLE SPEED ECM MOTOR, WEIGHT 20 LBS, SEE 3/P5.01 FOR CIRCULATION PUMP MOUNTING
ET 1	EXPANSION TANK "WESSELS" MODEL TXA-35, 10 GALLON, WEIGHT 200 LBS, SEE 3/P5.01 FOR EXPANSION TANK MOUNTING
ET 2	EXPANSION TANK "WESSELS" MODEL TXA-12, 5 GALLON, WEIGHT 150 LBS, SEE 3/P5.01 FOR EXPANSION TANK MOUNTING
CA 1	AIR COMPRESSOR "QUINCY" QT PRO MODEL 453DS80HCB20, FULLY PACKAGED 2 STAGE 17.2 CFM @ 175 PSIG, 80 GALLON STORAGE TANK, 5 HP, 208V/3PH, 17.5 AMPS, WEIGHT 680 LBS, SEE 5/P5.01 FOR AIR COMPRESSOR PIPING DIAGRAM.
RD 1	REFRIGERANT DRYER "INGERSOLL-RAND" MODEL D25IN, 15 SCFM @ 100 DEGREES, 1/8 HP, 115V/1PH, 3.2 AMPS, WEIGHT 60 LBS
GPR 1	GAS PRESSURE REGULATOR "MAXITROL" MODEL 325-L SERIES PROPANE GAS PRESSURE REGULATOR WITH OVERPRESSURE PROTECTION. DIVISION 22 CONTRACTOR SHALL COORDINATE AVAILABLE PROPANE LINE PRESSURE AND SELECT REGULATOR SPRING AND ORIFICE TO DELIVER 8" W.C. AT DESIGN FLOW.
TT 3	TUFF TROUGH STRIEM TT-3 TUFF TROUGH – POLYETHYLENE WASHER DRAIN TROUGH, 19 GAL CAPACITY, 4" PLAIN-END OUTLET, FIELD-INSTALLED INLETS, INTERNAL 1/8" PER FT SLOPE, REMOVABLE PRIMARY/SECONDARY 1/2" PERFORATED FILTER SCREENS, NESTED COVER, 165°F (INT) MAX TEMP, IAPMO/ANSI/CAN Z1167 & UPC LISTED,
PRV 1 PRV 2	PRESSURE REGULATING VALVE "NORGREN" B84G-6AT-AD3-RSG, 3/4" NPT, 10-250 PSI, SET REGULATOR TO 130 PSI.

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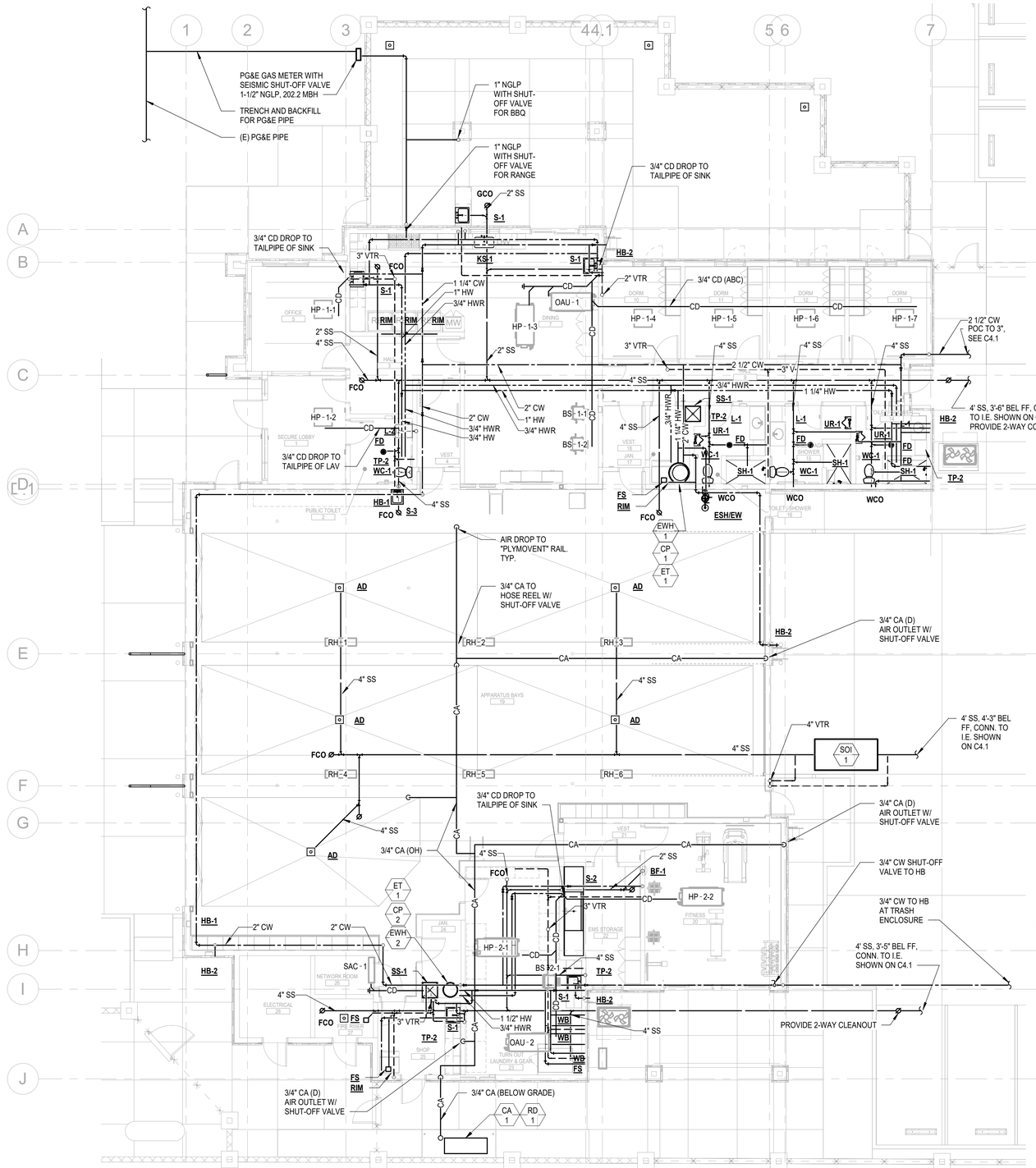
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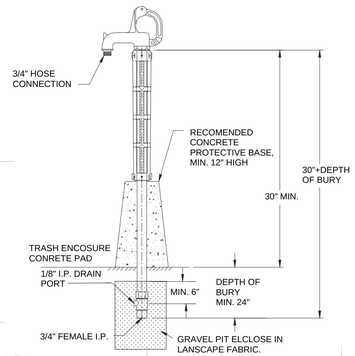
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1 PLUMBING FLOOR PLAN
P2.00 SCALE: 1/8" = 1'-0"



2 HYDRANT DETAIL
P2.00 SCALE: NONE "

NOTE:
PROVIDE FROST FREE YARD HYDRANT, ZURN ELKAY MODEL NO. Z1396XL-3/4 INSIDE TRASH ENCLOSURE. DEPTH OF BURY SHALL BE 24" MIN. WITH BED OF GRAVEL 6" ABOVE DRAIN PORT. PROVIDE CONCRETE PROTECTIVE BASE PER MANUFACTURER'S RECOMENDATION. LOCATE HYDRANT IN PROTECTED AREA.

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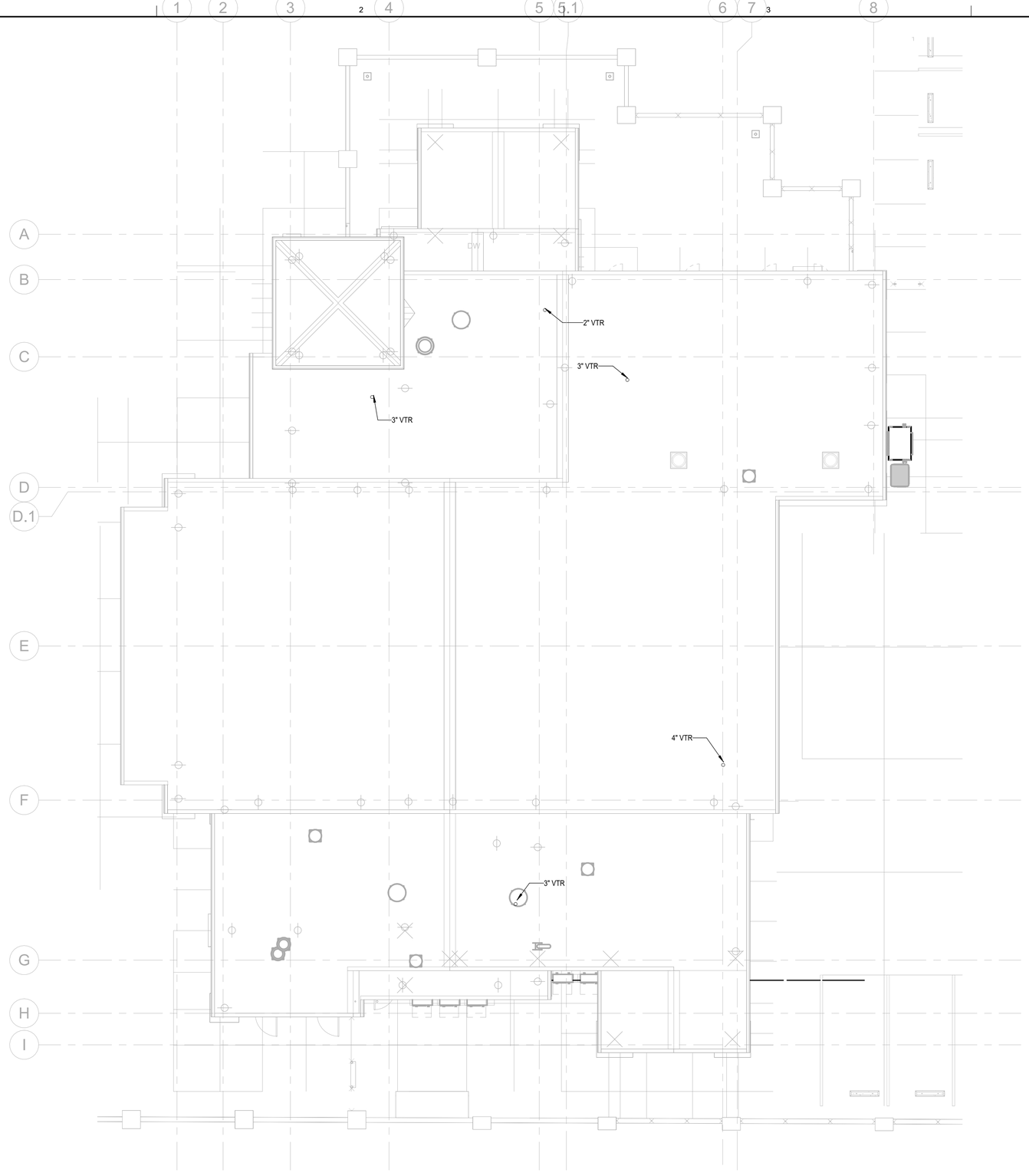
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TITLE
PLUMBING FLOOR PLAN

SHEET
P2.00

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1 P2.01 PLUMBING ROOF PLAN

SCALE: 1/8" = 1'-0"

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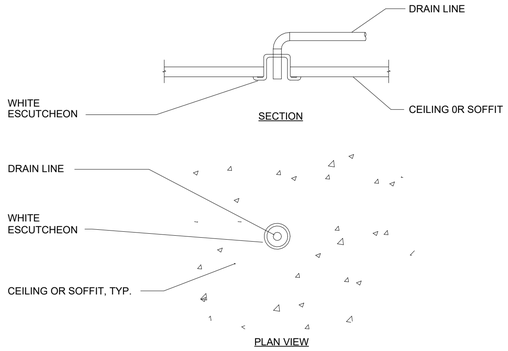
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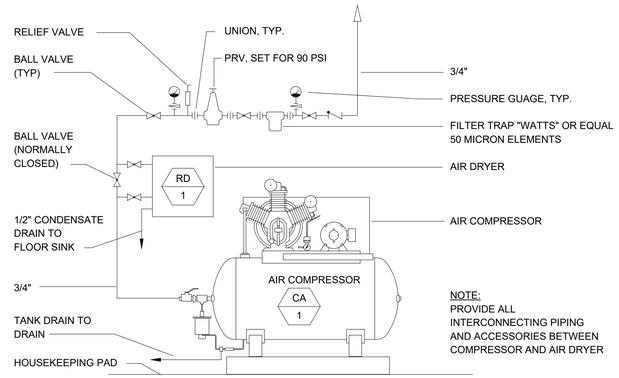


NOTE:
NEATLY CUT NOTCH IN CEILING AND LOCATE SQUARED-OFF SECONDARY DRAIN OUTLET IN CEILING AND TERMINATE PIPE FLUSH WITH CEILING. PAINT ALL EXPOSED PIPE FLAT WHITE INSIDE AND OUTSIDE OF PIPE.

SECONDARY DRAIN TERMINATION

SCALE : NONE

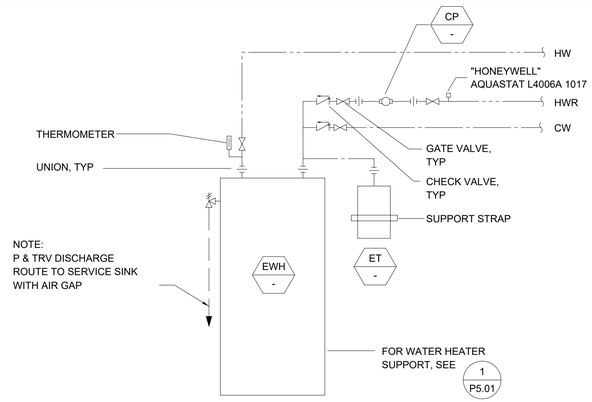
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AIR COMPRESSOR PIPING DIAGRAM

SCALE : NONE

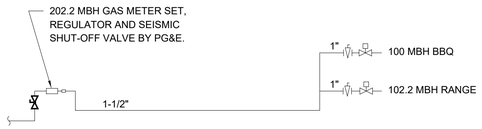
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ELECTRIC WATER HEATER PIPING

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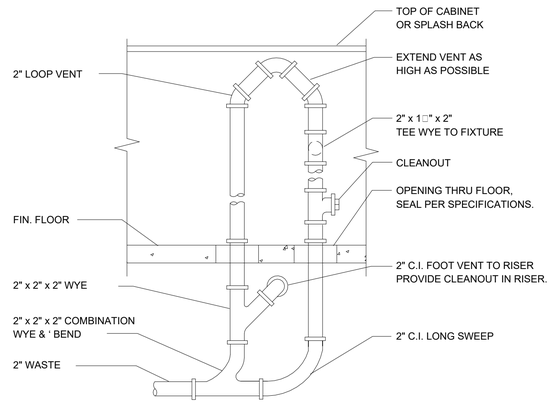
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GAS PIPING DIAGRAM

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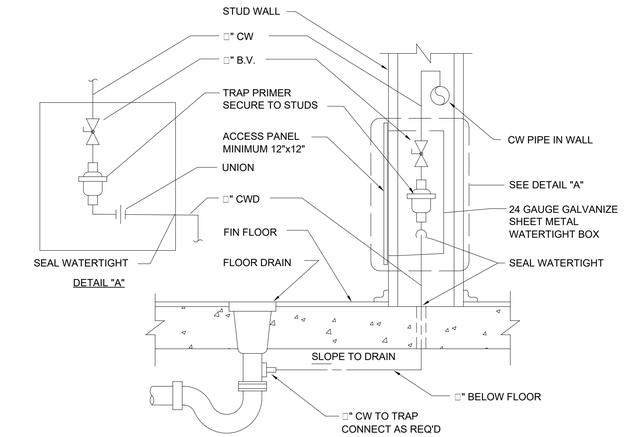
7 P5.01



LOOP VENT DETAIL

SCALE : NONE

4 P5.01

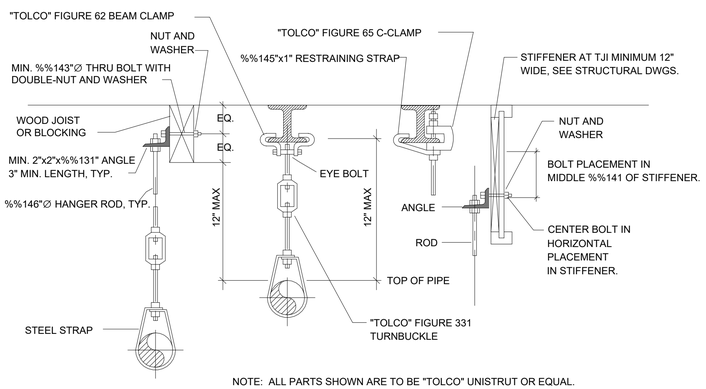


TRAP PRIMER TO FLOOR DRAIN

SCALE : NONE

2 P5.01

MINIMUM (4) "HILTI" KWIK BOLT TZ 5/8"DIA x 2-3/4" EMBEDMENT WEDGE

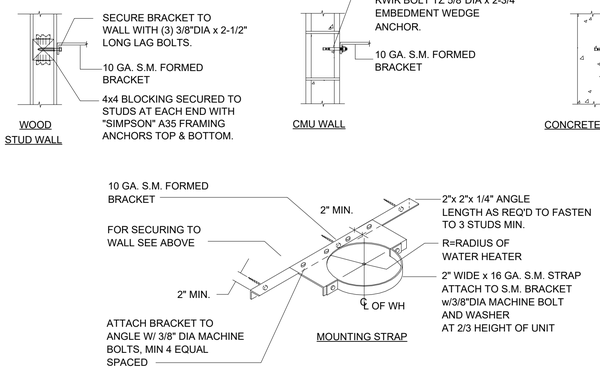


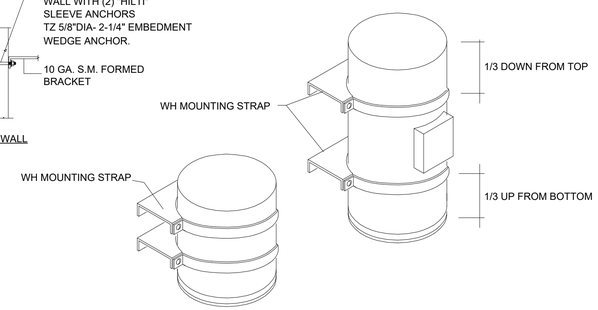
NOTE: ALL PARTS SHOWN ARE TO BE "TOLCO" UNISTRUT OR EQUAL.

TYPICAL PIPE SUPPORT DETAILS

SCALE : NONE

6 P5.01





WATER HEATER SUPPORT

20 GAL OR LARGER - FLOOR INSTALLATION

SCALE : NONE

1 P5.01

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CONSULTANT

capital engineering
RANCHO CORDOVA, CALIFORNIA

ADB-AL/IG/KD	220508.00
PM - DESIGN TEAM	PROJECT NO.

SEAL

REGISTERED PROFESSIONAL ENGINEER — ANTHONY COLACCHIO — M 29743 — EXPIRES 6/30/27 — MECHANICAL — STATE OF CALIFORNIA

DATE SIGNED: 4/10/26

PROJECT

Dixon Fire Station 82

Dixon, CA 95620

CLIENT

City of Dixon

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE

PLUMBING DETAILS

SHEET

P5.01

2" 1" 1/2" 0
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
Autodesk Docs://City of Dixon - Fire Station 82/220508_Dixon_Fire Station_MP24.rvt
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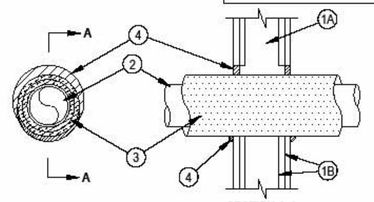
1 2 3 4

CLASSIFIED C UL US
Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

System No. W-L-5381

WL 5381

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 and 2 Hr (See Item 1)	F Ratings — 1 and 2 Hr (See Item 1)
T Ratings — 1 and 2 Hr (See Item 1)	FT Ratings — 1 and 2 Hr (See Item 1)
L Rating At Ambient — 4 CFM/Sq Ft	FH Ratings — 1 and 2 Hr (See Item 1)
L Rating At 400°F — Less Than 1 CFM/Sq Ft	FTH Ratings — 1 and 2 Hr (See Item 1)
	L Rating At Ambient — 20.2 L/s/m²
	L Rating At 204°C — Less Than 5.1 L/s/m²



SECTION A-A

1. Wall Assembly —The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs —Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 3-5/8 in. (92 mm) wide and spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* —Min 5/8 in. (16 mm) thick with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Wall and Partition Design. Max diam of opening is 9-1/2 in. (241 mm).
   The hourly F, T, FH and FTH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
2. Through Penetrants —One metallic pipe or tubing to be installed within the firestop system. Pipe or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or tubing may be used:
   A. Steel Pipe —Nom 4 in. (102 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. Iron Pipe —Nom 4 in. (102 mm) diam (or smaller) cast or ductile iron pipe.
3. Pipe Covering Material* — Nom 0.5 in. (12.7 mm) flexible sheet material. Pipe covering shall be continuously wrapped around the penetrant for a minimum three layers, with a min 2 in. (51 mm) overlap at the seam in the final layer. Seam to be sealed with FSK or foil tape. Pipe covering to be secured in position using min No. 18 AWG steel tie wire located within 1 in. (25 mm) of wall and spaced max 6 in. (152 mm) OC. The annular space between pipe covering and periphery of opening shall be min 0 in. (point contact) to max 1-5/8 in. (41 mm).
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFP-ES Endo-Shield
4. Fill, Void or Cavity Material* — Sealant —Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point contact location between pipe covering and gypsum board, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe covering/gypsum board interface on both surfaces of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

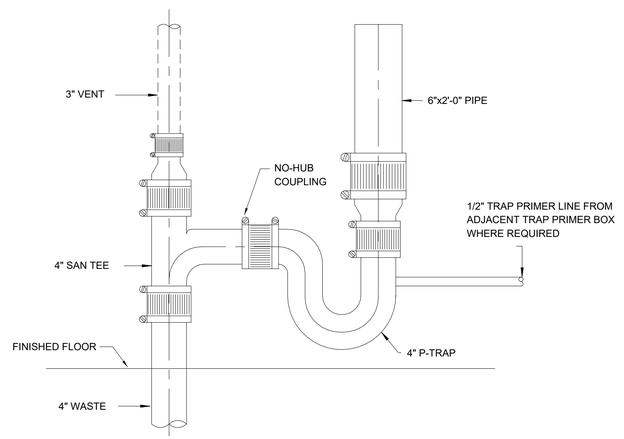
HILTI
Hilti Firestop Systems

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November 15, 2021

RATED PIPE PENETRATION

2
P5.02

SCALE: NONE



HUD DRAIN

1
P5.02

SCALE : NONE

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TITLE

PLUMBING DETAILS

SHEET

P5.02

SYMBOLS LIST

SOME OF THESE SYMBOLS SHOWN MAY NOT BE USED ON THIS PROJECT

POWER DISTRIBUTION

- SWITCHGEAR, SWITCHBOARD, DISTRIBUTION BOARD, SUBSTATION OR MOTOR CONTROL CENTER, FLOOR MOUNTED. DOUBLE LINE INDICATES FRONT FACE OF GEAR.
- PANELBOARD, 120/208V, SURFACE MOUNTED ON WALL.
- PANELBOARD, 120/208V, FLUSH MOUNTED IN WALL.
- DRY-TYPE STEPDOWN TRANSFORMER, FLOOR MOUNTED 3P, 480-120/208V, UON.
- ELECTRIC MOTOR, NIEC. MAKE POWER CONNECTIONS ONLY AS NOTED ON PLANS.
- (F) INDOOR EXHAUST FAN MOTOR, SINGLE PHASE. MAKE POWER CONNECTIONS TO INCLUDE JUNCTION BOX MOUNTED MANUAL MOTOR STARTER AND DISCONNECT ADJACENT TO FAN WITH 2 #12 CONDUCTORS PLUS GROUND IN 1/2" FLEXIBLE CONDUIT BETWEEN STARTER AND MOTOR.
- (V) INDOOR FAN POWERED VAV BOX MOTOR, SINGLE PHASE, MOUNTED FROM STRUCTURE ABOVE, NIEC. MAKE POWER CONNECTIONS TO INCLUDE JUNCTION BOX MOUNTED MANUAL MOTOR STARTER AND DISCONNECT ADJACENT TO VAV BOX WITH 2 #12 CONDUCTORS PLUS GROUND IN 1/2" FLEXIBLE CONDUIT BETWEEN STARTER AND MOTOR.
- P PULLBOX OR HANDHOLE, SIZE AND TYPE AS NOTED ON PLANS.
- CONCRETE VAULT, IN-GRADE, FOR EXTERIOR APPLICATIONS. SIZE AND TYPE AS NOTED ON THE PLANS.
- A AF SAFETY DISCONNECT SWITCH, 3 POLE, UON. ADJACENT NUMBER INDICATES FUSE SIZE WHEN APPLICABLE. LABELING CONVENTION AS FOLLOWS:
  - A: 30A, NON-FUSED — AF: 30A, FUSED
  - B: 60A, NON-FUSED — BF: 60A, FUSED
  - C: 100A, NON-FUSED — CF: 100A, FUSED
  - D: 200A, NON-FUSED — DF: 200A, FUSED
  - E: 400A, NON-FUSED — EF: 400A, FUSED
- 1 MAGNETIC MOTOR STARTER. ADJACENT NUMBER INDICATES NEMA SIZE OF STARTER.
- 1 COMBINATION MAGNETIC MOTOR STARTER WITH OVERCURRENT PROTECTION DISCONNECT. ADJACENT NUMBER INDICATES NEMA SIZE OF STARTER.
- PACKAGE MOTOR CONTROLLER OR STARTER FURNISHED AND INSTALLED UNDER ANOTHER DIVISION WITH EQUIPMENT CONTROLLED. PROVIDE SINGLE-POINT POWER SERVICE CONNECTION UNDER THIS DIVISION AS NOTED ON PLANS.
- VFD VARIABLE FREQUENCY DRIVE FURNISHED UNDER ANOTHER DIVISION. INSTALL VFD AND PROVIDE POWER SERVICE CONNECTION UNDER THIS DIVISION AS NOTED ON PLANS.
- VFD VARIABLE FREQUENCY DRIVE WITH INTEGRAL DISCONNECT FURNISHED UNDER ANOTHER DIVISION. INSTALL VDF AND PROVIDE POWER SERVICE CONNECTION UNDER THIS DIVISION AS NOTED ON PLANS.
- DRIVEN GROUND ROD.
- DRIVEN GROUND ROD IN GROUND WELL WITH COVER.
- ELECTRICAL VEHICLE CHARGING STATION, WALL MOUNTED.
- ELECTRICAL VEHICLE CHARGING STATION, PEDESTAL MOUNTED.
- CABLE TO BUS TERMINATION LUGS.
- GROUP MOUNTED MOLDED CASE CIRCUIT BREAKER.
- G GROUND FAULT RELAY INTEGRAL WITH CIRCUIT BREAKER.
- ST SHUNT-TRIP INTEGRAL WITH OVERCURRENT PROTECTION DEVICES.
- K1 KIRK-KEY INTERLOCK INTEGRAL WITH OVERCURRENT PROTECTION DEVICES. ADJACENT NUMBER CORRESPONDS WITH DEVICE INTERLOCK.
- M UTILITY METER, MOUNTED IN UTILITY METER SECTION OF SWITCHGEAR.
- GFR GROUND FAULT RELAY WITH SHUNT TRIP.
- GFA GROUND FAULT ALARM, NO SHUNT TRIP.
- TRANSFORMER.
- CONNECTION TO GROUND.
- AUTOMATIC OR MANUAL TRANSFER SWITCH.
- G EMERGENCY GENERATOR.
- SPD SURGE PROTECTION DEVICE, 'SPD'.
- DMU DIGITAL METERING UNIT.
- GND GROUND BUS.
- NEU NEUTRAL BUS.
- NEUTRAL SERVICE DISC. LINK.
- BATTERIES.

RACEWAYS

- CONDUIT RUN EXPOSED ON WALL OR CEILING.
- CONDUIT RUN CONCEALED IN SLAB, UNDER SLAB OR UNDERGROUND.
- CONDUIT RUN CONCEALED IN WALL OR ABOVE CEILING.
- CONDUIT HOMERUN, CONTINUOUS RUN TO PANEL OR EQUIPMENT CABINET. HOMERUN CAN OCCUR ON ANY OF THE ABOVE ROUTING CONDITIONS.
- CONDUIT CAPPED OR STUBBED WITH INSULATED BUSHINGS, CAN OCCUR ON ANY OF THE ABOVE ROUTING CONDITIONS.
- CONDUIT SLEEVE, WITH INSULATING BUSHINGS.
- FLEXIBLE METALLIC CONDUIT, EQUIPMENT CONNECTION.
- CROSSMARKS ON BRANCH CIRCUIT CONDUIT RUNS INDICATE THE QUANTITY OF CONDUCTORS AS FOLLOWS (GROUND CONDUCTORS ARE NOT NOTED, BUT SHOULD BE INCLUDED IN EVERY CONDUIT WITH POWER CONDUCTORS):
  1. NO CROSSMARKS INDICATES TWO #12 AWG CONDUCTORS, UON.
  2. THREE TO SIX CROSSMARKS INDICATES THE QUANTITY OF #12 AWG CONDUCTORS, UON.
  3. SEVEN OR MORE CROSSMARKS INDICATES THE QUANTITY OF #10 AWG CONDUCTORS, UON.

CONVENTIONS

- 1 NUMBERED SHEET NOTE, APPLIES TO DRAWING CONTAINING NOTES ONLY.
- NAME EQUIPMENT IDENTIFICATION TAG: ITEM FURNISHED AND INSTALLED UNDER ANOTHER SECTION AND WIRED UNDER THIS SECTION.
- 2004 FEEDER SIZE. REFER TO FEEDER SCHEDULE.
- 1 / E-801 DETAIL REFERENCE:
  - E-801: DETAIL DESIGNATION
  - 1: SHEET NUMBER

WIRING DEVICES

- JUNCTION BOX, WALL MOUNTED, +18" UON.
- JUNCTION BOX, MOUNTED IN FLUSH FLOOR BOX.
- J JUNCTION BOX, MOUNTED FLUSH IN CEILING.
- JUNCTION BOX, SURFACE OR PENDANT MOUNTED TO STRUCTURE IN ACCESSIBLE CEILING SPACE.
- JUNCTION BOX, MOUNTED ON CONDUIT STANCHION FLOOR PENETRATION, +12" UON.
- SINGLE-PLEX CONVENIENCE RECEPTACLE DEVICE, WALL MOUNTED, +18" UON.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, WALL MOUNTED, +18" UON. ADJACENT LETTERING DENOTED BELOW APPLY TO ALL RECEPTACLE DEVICES WHEN SHOWN ON DRAWINGS.
  - A: ARC FAULT CURRENT INTERRUPTER (AFCI)
  - G: GROUND FAULT CURRENT INTERRUPTER (GFCI)
  - IG: ISOLATED GROUND
  - U: INTEGRAL USB PORTS
  - WP: WEATHER-RESISTANT, GROUND FAULT CURRENT INTERRUPTER (GFCI) WITH WEATHERPROOF "IN USE" COVER
- DOUBLE DUPLEX CONVENIENCE RECEPTACLE DEVICE, WALL MOUNTED, +18" UON.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, WALL MOUNTED OVER COUNTER, 6" ABOVE BACK SPLASH UON, BUT NO HIGHER THAN ADA REQUIREMENTS.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, SPLIT-WIRED, WALL MOUNTED, +18" UON.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, ON EMERGENCY POWER, WALL MOUNTED, +18" UON.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, CONTROLLED PER T24, WALL MOUNTED, + 18" UON.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, HORIZONTALLY WALL MOUNTED, +18" UON.
- SPECIALTY OUTLET DEVICE, NEMA CONFIGURATION TYPE AS NOTED ON PLANS, WALL MOUNTED, +18" UON.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, MOUNTED IN FLUSH FLOOR BOX.
- DOUBLE DUPLEX CONVENIENCE RECEPTACLE DEVICE, MOUNTED IN FLUSH FLOOR BOX.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, MOUNTED FLUSH IN CEILING.
- DOUBLE DUPLEX CONVENIENCE RECEPTACLE DEVICE, MOUNTED FLUSH IN CEILING.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, MOUNTED ON CONDUIT STANCHION FLOOR PENETRATION, +12" UON.
- DUPLEX/DOUBLE DUPLEX CONVENIENCE RECEPTACLE DEVICE, CORD OR REEL HUNG FROM STRUCTURE ABOVE. TYPE AS NOTED ON PLANS.
- S^{T} SINGLE-POLE, MANUAL DISCONNECT SWITCH WITH THERMAL OVERLOAD ELEMENT, MOUNTED ADJACENT TO MOTOR.
- S^{MS} SINGLE-POLE, FRACTIONAL HORSEPOWER, MOTOR STARTER/DISCONNECT SWITCH, MOUNTED ADJACENT TO MOTOR.
- S^{F} SWITCH FURNISHED UNDER ANOTHER DIVISION, BUT INSTALLED AND WIRED UNDER THIS DIVISION, WALL MOUNTED, +42" UON.
- CONTROL STATION, WALL MOUNTED, +42" UON.

LIGHTING

- LUMINAIRE, RECESSED IN CEILING.
- LUMINAIRE, SURFACE MOUNTED.
- LUMINAIRE, WALL MOUNTED.
- STRIP LUMINAIRE, SURFACE OR PENDANT MOUNTED.
- ROUND AND SQUARE DOWNLIGHT LUMINAIRE, RECESSED IN CEILING.
- DOWNLIGHT/INDUSTRIAL LUMINAIRE, SURFACE OR PENDANT MOUNTED.
- EXIT SIGN LUMINAIRE, CEILING OR WALL MOUNTED WITH DIRECTIONAL ARROWS AS NOTED ON PLANS. WORD 'EXIT' TO BE LOCATED IN SHADED FACE(S).
- SHADING OF ANY LUMINAIRE INDICATES CRITICAL/STANDBY LIGHTING.
- HALF SHADING OF ANY LUMINAIRE INDICATES EMERGENCY/EGRESS LIGHTING.
- SINGLE-HEAD AREA LUMINAIRE WITH BRACKET ARM AND POLE, MOUNTED TO CONCRETE BASE.
- TWO-HEAD AREA LUMINAIRE WITH BRACKET ARMS AND POLE, MOUNTED TO CONCRETE BASE.
- SINGLE-HEAD AREA POST-TOP LUMINAIRE WITH POLE, MOUNTED TO CONCRETE BASE.
- AREA LUMINAIRE, SURFACE OR RECESSED MOUNTED TO WALL.
- LUMINAIRE BOLLARD, MOUNTED TO CONCRETE BASE.
- GROUNDWELL LUMINAIRE MOUNTED FLUSH IN FINISHED GRADE.
- FLOODLIGHT LUMINAIRE, STANCHION MOUNTED ABOVE GRADE.
- STEPLIGHT LUMINAIRE, WALL MOUNTED.

DIGITAL LIGHTING CONTROLS

- D SINGLE ZONE DIMMER SWITCH WITH ON/OFF/DIM CAPABILITIES, WALL MOUNTED, +42" UON.
- S SINGLE ZONE SWITCH WITH ON/OFF CAPABILITIES, WALL MOUNTED, +42" UON.
- SC SCENE OR MULTI-ZONE CONTROLLER WITH ON/OFF/DIM CAPABILITIES ZONE, WALL MOUNTED, +42" UON.
- DS DAYLIGHT HARVESTING SENSOR, CEILING MOUNTED.
- M OCCUPANCY SENSOR, CEILING MOUNTED FOR AREA COVERAGE.
- V VACANCY SENSOR, WALL MOUNTED, +42" UON.
- M LIGHTING CONTROL OCCUPANCY SENSOR WITH DIMMING, WALL MOUNTED, +42" UON.
- M1 LIGHTING CONTROL OCCUPANCY SENSOR WITH SINGLE LEVEL SWITCHING, WALL MOUNTED, +42" UON.

TELECOMMUNICATIONS

- TELECOMMUNICATION DEVICE, WALL MOUNTED, +18" UON.
- TELECOMMUNICATION DEVICE, 2 DATA DROPS UON, WALL MOUNTED +42" OR 6" ABOVE BACK SPLASH, UON, BUT NO HIGHER THAN ADA REQUIREMENTS.
- TELECOMMUNICATION DEVICE, MOUNTED IN FLUSH FLOOR BOX.
- TELECOMMUNICATION DEVICE, MOUNTED IN FIRE-RATED POKE-THRU FLOOR FITTING.
- TELECOMMUNICATION DEVICE, MOUNTED ABOVE ACCESSIBLE CEILING IN SURFACE MOUNT BOX.
- COMBINATION POWER/TELECOMMUNICATION DEVICES, MOUNTED IN FLUSH FLOOR BOX. TYPE AS NOTED ON PLANS OR IN SPECIFICATIONS.
- COMBINATION POWER/TELECOMMUNICATION DEVICES, MOUNTED IN FIRE-RATED POKE-THRU FLOOR FITTINGS. TYPE AS NOTED ON PLANS OR IN SPECIFICATIONS.
- WAP WIRELESS ACCESS POINT, WALL MOUNTED, 8" BELOW FINISHED CEILING, UON.
- WAP WIRELESS ACCESS POINT, CEILING MOUNTED.
- #D/#V QUANTITY OF DATA AND/OR VOICE TELECOMMUNICATIONS DEVICES.

FIRE ALARM

- C SMOKE DETECTOR INITIATING DEVICE WITH CARBON MONOXIDE DETECTOR, CEILING MOUNTED IN FLUSH JUNCTION BOX.
- SMOKE DETECTOR INITIATING DEVICE, MOUNTED TO STRUCTURE ABOVE SUSPENDED CEILING IN SURFACE JUNCTION BOX OR SUSPENDED IN JUNCTION BOX IN FRONT OF RETURN AIR FIRE/SMOKE DAMPERS.
- SMOKE DETECTOR INITIATING DEVICE, DUCT-MOUNTED TYPE WITH SAMPLING TUBE, LOCATED AT SUPPLY AIR FANS 2000cfm AND LARGER.
- SMOKE DETECTOR INITIATING DEVICE, IN-DUCT MOUNTED TYPE AT DUCTED SUPPLY AIR FIRE/SMOKE DAMPERS.
- PROJECTED BEAM SMOKE DETECTOR INITIATING DEVICES TO INCLUDE TRANSMITTER, RECEIVER AND REMOTE INDICATOR STATION, WALL MOUNTED IN FLUSH JUNCTION BOX BELOW BEAM DETECTOR AT +42" AFF. BEAM DETECTORS ARE EITHER CEILING OR WALL MOUNTED 6" BELOW CEILING.
- MANUAL PULL STATION INITIATING DEVICE, WALL MOUNTED AT +48" UON.
- SPRINKLER SYSTEM WATER FLOW SWITCH, NIEC. SYMBOL DENOTES INTERFACE FOR MONITORING CONNECTION FROM FIRE ALARM SYSTEM.
- SPRINKLER SYSTEM TAMPER SWITCH, NIEC. SYMBOL DENOTES INTERFACE FOR MONITORING CONNECTION FROM FIRE ALARM SYSTEM.
- SPRINKLER SYSTEM POST INDICATING VALVE 'PIV', NIEC. SYMBOL DENOTES INTERFACE FOR MONITORING CONNECTION FROM FIRE ALARM SYSTEM. INCLUDE A REMOTE MOUNTED ADDRESSABLE MONITORING MODULE AT PIV.
- SM REMOTE MOUNTED SINGLE INPUT, ADDRESSABLE, MONITORING MODULE FOR INITIATING CIRCUIT CONNECTION.
- DM REMOTE MOUNTED DUAL INPUT, ADDRESSABLE, MONITORING MODULE FOR INITIATING CIRCUIT CONNECTION.
- CR REMOTE MOUNTED PROGRAMMABLE CONTROL RELAY MODULE FOR ADDRESSABLE CONTROL.
- EOL END-OF-LINE RESISTOR.
- CT CURRENT TRANSFORMER FOR MONITORING AVAILABLE POWER.
- AUDIBLE NOTIFICATION APPLIANCE, WALL MOUNTED, 6" BELOW CEILING OR +80" AFF, WHICHEVER IS LOWER.
- VISIBLE NOTIFICATION APPLIANCE, WALL MOUNTED, 6" BELOW CEILING OR +80" AFF, WHICHEVER IS LOWER. NUMBER ASSOCIATED WITH 'cd' REPRESENTS CANDELA RATING OF STROBE.
- AUDIBLE/VISIBLE NOTIFICATION APPLIANCE, WALL MOUNTED, 6" BELOW CEILING OR +80" AFF, WHICHEVER IS LOWER. NUMBER ASSOCIATED WITH 'cd' REPRESENTS CANDELA RATING OF STROBE.

AUDIO/VISUAL

- S PA LOUDSPEAKER, WALL MOUNTED, 12" BELOW CEILING OR +96" AFF, WHICHEVER IS LOWER. 25V, 70V, 100V, OR IP AS INDICATED ON DRAWINGS AND SPECS.
- S PA LOUDSPEAKER, CEILING MOUNTED IN FLUSH BACK BOX. 25V, 70V, 100V OR IP AS INDICATED ON DRAWINGS AND SPECS.
- TD FLAT PANEL DISPLAY, WALL MOUNTED AFF AS NOTED.
- SD SIGNAGE DISPLAY, WALL MOUNTED AFF AS NOTED.
- V VOLUME CONTROLLER, WALL MOUNTED, +42" UON.
- MJ MICROPHONE JACK, WALL MOUNTED, +18" UON.
- MJ MICROPHONE JACK, MOUNTED IN FLUSH FLOOR BOX.
- I M INTERCOM STATION, WALL MOUNTED, +42" UON. 'M' DENOTES MASTER STATION.
- I M INTERCOM STATION, MOUNTED ON DESK. 'M' DENOTES MASTER STATION.
- TELEVISION JACK, WALL MOUNTED +18" UON OR AS NOTED.
- B DOOR BELL CHIME
- B DOOR BELL BUTTON

APPLIANCE ABBREVIATIONS

DO	DOUBLE OVEN	MW	MICROWAVE
DW	DISHWASHER	RF	REFRIGERATOR
ED	ELECTRIC DRYER	RH	RANGE HOOD
EO	ELECTRIC OVEN/RANGE	UR	UNDERCOUNTER REFRIGERATOR
GD	GARBAGE DISPOSER	WC	WINE COOLER
GR	GAS RANGE	WM	WASHING MACHINE

ABBREVIATIONS

A	AMPERES	LCP	LIGHTING CONTROL PANEL
AFI	ARC FAULT CIRCUIT INTERRUPTER	MBGB	MAIN BUILDING GROUND BUS
AF	AMPERE OVERCURRENT FRAME SIZE (WHEN APPLIED TO CIRCUIT BREAKERS) OR AMPERE FUSE SIZE (WHEN APPLIED TO FUSES)	MCB	MAIN CIRCUIT BREAKER
		MCC	MOTOR CONTROL CENTER
AFF	ABOVE FINISHED FLOOR	MLO	MAIN LUGS ONLY
AIC	ASYMMETRIC INTERRUPTING CURRENT	MTC	EMPTY CONDUIT
AL	ALUMINUM	(N)	NEW
AT	AMPERE OVERCURRENT TRIP (WHEN APPLIED TO CIRCUIT BREAKERS)	NC	NORMALLY CLOSED
		NF	NON-FUSED
AV	AUDIO / VIDEO	NIEC	NOT IN ELECTRICAL CONTRACT
ATS	AUTOMATIC TRANSFER SWITCH	NL	NIGHT LIGHT, UNSWITCHED
C	CONDUIT	NO	NORMALLY OPEN
CCTV	CLOSED CIRCUIT TELEVISION	NTS	NOT TO SCALE
CEC	CALIFORNIA ELECTRICAL CODE	OC	ON CENTER
CP	CIRCULATION PUMP	PA	PUBLIC ADDRESS
CT	CURRENT TRANSFORMER	PDZ	PRIMARY DAYLIGHT ZONE
CU	COPPER	PNL	PANEL
DF	DRINKING FOUNTAIN	PT	POTENTIAL TRANSFORMER
EC	ELECTRICAL CONTRACTOR	PVC	POLYVINYL CHLORIDE
EF	EXHAUST FAN	SAD	SEE ARCHITECTURAL DRAWINGS
EPO	EMERGENCY POWER OFF	TC	TIME CLOCK
EMT	ELECTRICAL METALLIC TUBING	SDZ	SECONDARY DAYLIGHT ZONE
EWH	ELECTRIC WATER HEATER	SPD	SURGE PROTECTION DEVICE
F	FUSED	TX	TRANSFORMER
(F)	FUTURE	TYP	TYPICAL
FACP	FIRE ALARM CONTROL PANEL	UON	UNLESS OTHERWISE NOTED
FFCP	FIREMAN'S FAN CONTROL PANEL	UPS	UNINTERRUPTIBLE POWER SUPPLY
FLA	FULL LOAD AMPERES	V	VOLTS
FMC	FLEXIBLE METAL CONDUIT	VA	VOLTS-AMPS
FSD	FIRE/SMOKE DAMPER	VFD	VARIABLE FREQUENCY DRIVE
FRAP	FIREMAN'S REMOTE ANNUNCIATOR PANEL	VM	VENDING MACHINE
		WAP	WIRELESS ACCESS POINT
G	GROUND	WP	WEATHERPROOF
GB	GROUND BUS	2SP	TWO SPEED
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	1Ø	1-PHASE
GND	GROUND	3Ø	3-PHASE
GRAP	GENERATOR REMOTE ANNUNCIATOR PANEL	1P	1-POLE
		2P	2-POLE
GRC	GALVANIZED RIGID CONDUIT	3P	3-POLE
HNC	HOME NETWORK CABINET	3W	3-WIRE
HPC	HIGH PRESSURE CONTACT SWITCH	4W	4-WIRE
IMC	INTERMEDIATE METAL CONDUIT		

SECURITY

- A ALARM MONITORING CONTACT, MOUNTED AS NOTED ON PLANS.
- EL ELECTRIC DOOR LOCK, NIEC, BUT WIRED UNDER THIS DIVISION.
- ES ELECTRIC DOOR STRIKE, NIEC, BUT WIRED UNDER THIS DIVISION.
- P POWER TRANSFER HINGE, NIEC.
- GB GLASS BREAK DETECTOR, CEILING MOUNTED, UON.
- CR CARD READER CONTROLLER, WALL MOUNTED, +36" UON.
- K KEY PAD CONTROLLER, WALL MOUNTED, +42" UON.
- PS REMOTE MOUNTED POWER SUPPLY FOR LOW-VOLTAGE EQUIPMENT CONNECTIONS.

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SCOTT WHEELER
ELECTRICAL
STATE OF CALIFORNIA

PROJECT
DIXON FIRE STATION 82
DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO: 22084

AGENCY

TITLE
SYMBOLS, ABBREVIATION , AND SHEET INDEX

SHEET
E0.01

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MECHANICAL EQUIPMENT COORDINATION SCHEDULE

GENERAL NOTES:

A. REFER TO FEEDER SCHEDULE FOR CONDUCTOR AND CONDUIT REQUIREMENTS.

B. WHERE FEEDERS ARE INSTALLED IN AMBIENT TEMPERATURES ABOVE 30 DEGREES C (86 DEGREES F) APPLY CORRECTION FACTORS PER CEC 310.15(B)(2).

C. CONTRACTOR SHALL FIELD VERIFY NAMEPLATE MCA AND MOCP RATINGS OF SUBMITTED/INSTALLED EQUIPMENT AND REPORT DISCREPANCIES TO THE ENGINEER.

DISCONNECT TYPES: SM = MOTOR RATED SWITCH, F = FUSED, NF = NON-FUSED

REMARKS:

1. POWERED THROUGH OUTDOOR UNIT. REFER TO MANUFACTURER'S WIRING INSTRUCTIONS.

MARK	DESCRIPTION	ELECTRICAL DATA		ELECTRICAL DATA				DISCONNECT				STARTER			VFD		PANEL - CKT NUMBER	FEEDER SIZE	REMARKS
		VOLTAGE	PH	MOCP	MCA	FLA	kVA	RATING	TYPE	FUSE	DIVISION (FURN/INST)	NEMA SIZE	COMBO DISC	DIVISION (FURN/INST)	COMBO DISC	DIVISION (FURN/INST)			
VEF-1	VEHICLE EXHAUST FAN	208 V	3	40 A	30.25 A	24.2 A	8.71 kVA	60 A	F	40 AF	26/26	1	●	26/26		-	ELA-21,23,25	303	
CP-2	CIRCULATION PUMP	120 V	1	15 A	1.63 A	1.3 A	0.16 kVA	20 A	SM	-	26/26	-		-		-	LA-17	202	
CP-1	CIRCULATION PUMP	120 V	1	15 A	1.63 A	1.3 A	0.16 kVA	20 A	SM	-	26/26	-		-		-	LB-19	202	
CU-1	CONDENSING UNIT	208 V	3	80 A	51 A	40.8 A	14.68 kVA	100 A	F	70 AF	26/26	-		-		-	LB-2,4,6	603	
SAC-1	SPLIT SYSTEM INDOOR UNIT	208 V	1	30 A	2.5 A	2 A	0.42 kVA	30 A	F	15 AF	26/26	-		-		-	LA-19,21	202	1
SCU-1	SPLIT OUTDOOR AC UNIT	208 V	1	25 A	14 A	11.2 A	2.33 kVA	30 A	F	30 AF	26/26	-		-		-	LA-19,21	302	
CEF-3	CEILING EXHAUST FAN	120 V	1	15 A	0.15 A	0.12 A	0.01 kVA	20 A	SM	-	26/26	-		-		-	LA-23	202	
CEF-1	CEILING EXHAUST FAN	120 V	1	15 A	0.15 A	0.12 A	0.01 kVA	20 A	SM	-	26/26	-		-		-	LB-21	202	
RH-1	RADIANT HEATER	208 V	1	40 A	31 A	26.1 A	5.43 kVA	60 A	F	40 AF	26/26	-		-		-	LA-2,4	402	
RH-2	RADIANT HEATER	208 V	1	40 A	31 A	26.1 A	5.43 kVA	60 A	F	40 AF	26/26	-		-		-	LA-6,8	402	
RH-3	RADIANT HEATER	208 V	1	40 A	31 A	26.1 A	5.43 kVA	60 A	F	40 AF	26/26	-		-		-	LA-10,12	402	
RH-4	RADIANT HEATER	208 V	1	40 A	31 A	26.1 A	5.43 kVA	60 A	F	40 AF	26/26	-		-		-	LA-14,16	402	
RH-5	RADIANT HEATER	208 V	1	40 A	31 A	26.1 A	5.43 kVA	60 A	F	40 AF	26/26	-		-		-	LA-18,20	402	
RH-6	RADIANT HEATER	208 V	1	40 A	31 A	26.1 A	5.43 kVA	60 A	F	40 AF	26/26	-		-		-	LA-22,24	402	
IEF-1	INDOOR EXHAUST FAN	120 V	1	15 A	1.25 A	1 A	0.12 kVA	20 A	SM	-	26/26	-		-		-	LB-23	202	
EWH-2	ELECTRIC WATER HEATER	208 V	3	60 A	46.87 A	37.5 A	13.49 kVA	60 A	F	60 AF	26/26	-		-		-	LA-32,34,36	503	
EWH-1	ELECTRIC WATER HEATER	208 V	3	100 A	83.4 A	66.7 A	24 kVA	100 A	F	100 AF	26/26	-		-		-	LB-38,40,42	903	
CA-1	AIR COMPRESSOR	208 V	3	30 A	22 A	17.6 A	6.33 kVA	30 A	F	30 AF	26/26	-		-		-	MSB-4	303	
RD-1	REFRIGERANT DRYER	120 V	1	15 A	4.01 A	3.2 A	0.38 kVA	20 A	SM	-	26/26	-		-		-	LA-30	202	
SAC-2	SPLIT SYSTEM INDOOR UNIT	208 V	1	30 A	2.25 A	1.8 A	0.37 kVA	30 A	F	15 AF	26/26	-		-		-	LA-1,3	202	1
SAC-3	SPLIT SYSTEM INDOOR UNIT	208 V	1	30 A	2.5 A	2 A	0.42 kVA	30 A	F	15 AF	26/26	-		-		-	LA-5,7	202	1
SAC-4	SPLIT SYSTEM INDOOR UNIT	208 V	1	30 A	2.5 A	2 A	0.42 kVA	30 A	F	15 AF	26/26	-		-		-	LA-13,15	202	1
SAC-5	SPLIT SYSTEM INDOOR UNIT	208 V	1	0 A	0 A	0 A	0.45 kVA	-	F	15 AF	26/26	-		-		-	LA-26,28	202	1
SCU-2	SPLIT OUTDOOR AC UNIT	208 V	1	30 A	17 A	13.6 A	2.83 kVA	30 A	F	30 AF	26/26	-		-		-	LA-1,3	302	
SCU-3	SPLIT OUTDOOR AC UNIT	208 V	1	25 A	14 A	11.2 A	2.33 kVA	30 A	F	30 AF	26/26	-		-		-	LA-5,7	302	
SCU-4	SPLIT OUTDOOR AC UNIT	208 V	1	25 A	14 A	11.2 A	2.33 kVA	30 A	F	30 AF	26/26	-		-		-	LA-13,15	302	
SCU-5	SPLIT OUTDOOR AC UNIT	208 V	1	40 A	22 A	17.6 A	3.66 kVA	30 A	F	30 AF	26/26	-		-		-	LA-26,28	302	
ERV-3	ENERGY RECOVERY VENTILATOR	208 V	1	15 A	5.1 A	4.08 A	0.85 kVA	20 A	SM	-	26/26	-		-		-	LA-33,35	302	
ERV-4	ENERGY RECOVERY VENTILATOR	208 V	1	15 A	5.1 A	4.08 A	0.85 kVA	20 A	SM	-	26/26	-		-		-	LA-33,35	302	
ERV-2	ENERGY RECOVERY VENTILATOR	208 V	1	15 A	3.9 A	3.12 A	0.65 kVA	20 A	SM	-	26/26	-		-		-	LA-33,35	302	
BC-1	VRF HEAT RECOVERY BRANCH	208 V	1	15 A	1.1 A	0.88 A	0.18 kVA	30 A	F	30 AF	26/26	-		-		-	LB-25,27	302	
FCU-01	VRF INDOOR UNIT	208 V	1	15 A	0.24 A	0.19 A	0.04 kVA	30 A	F	30 AF	26/26	-		-		-	LB-5,7	302	
FCU-02	VRF INDOOR UNIT	208 V	1	15 A	2.5 A	2 A	0.42 kVA	30 A	F	30 AF	26/26	-		-		-	LB-5,7	302	
FCU-03	VRF INDOOR UNIT	208 V	1	15 A	0.24 A	0.19 A	0.04 kVA	30 A	F	30 AF	26/26	-		-		-	LB-13,15	302	
FCU-04	VRF INDOOR UNIT	208 V	1	15 A	0.24 A	0.19 A	0.04 kVA	30 A	F	30 AF	26/26	-		-		-	LB-13,15	302	
FCU-05	VRF INDOOR UNIT	208 V	1	15 A	0.24 A	0.19 A	0.04 kVA	30 A	F	30 AF	26/26	-		-		-	LB-13,15	302	
FCU-06	VRF INDOOR UNIT	208 V	1	15 A	0.24 A	0.19 A	0.04 kVA	30 A	F	30 AF	26/26	-		-		-	LB-13,15	302	
FCU-07	VRF INDOOR UNIT	208 V	1	15 A	1.75 A	1.4 A	0.29 kVA	30 A	F	30 AF	26/26	-		-		-	LB-13,15	302	
FCU-08	VRF INDOOR UNIT	208 V	1	15 A	1.75 A	1.4 A	0.29 kVA	30 A	F	30 AF	26/26	-		-		-	LB-5,7	302	
MAU-01	VRF INDOOR UNIT	208 V	1	15 A	3.4 A	2.72 A	0.57 kVA	30 A	F	30 AF	26/26	-		-		-	LB-5,7	302	
CEF-2	CEILING EXHAUST FAN	120 V	1	15 A	0.15 A	0.12 A	0.01 kVA	20 A	SM	-	26/26	-		-		-	LB-21	202	
ERV-1	ENERGY RECOVERY VENTILATOR	208 V	1	15 A	10.1 A	8.08 A	1.68 kVA	20 A	SM	-	26/26	-		-		-	LB-1,3	302	
KEF-1	KITCHEN EXHAUST FAN	208 V	3	15 A	4.38 A	3.5 A	1.26 kVA	30 A	F	5.6 AF	26/26	1		-		-	LB-8,10,12	202	

LUMINAIRE SCHEDULE

TYPE	MANUFACTURER CATALOG NUMBER	DESCRIPTION	LIGHT SOURCE	DRIVER, TRANSFORMER	WATTAGE	VOLTAGE	DETAIL
F1	LITHONIA 2BLT4-48L-ADP-EZ1-LP835-N100 OR APPROVED EQUAL	2'X4' ARCHITECTURAL HIGH EFFICIENCY RECESSED TROFFER WITH STEEL HOUSING, HIGHLY EFFICIENT SATIN WHITE LENS, AND INTEGRAL 0-10V LIGHTING CONTROL DEVICE WITH LUMEN MANAGEMENT.	LED 4856 LUMEN 3500K 82 CRI MIN 50,000 HR L80	0-10V DIMMING 1%	38 W	120 V	2/E7.3
F2	GOTHAM EVO4-30-10-WR-MWD-MVOLT-GZ10 OR APPROVED EQUAL	RECESSED LED DOWNLIGHT, NOMINAL 4" APERATURE. MEDIUM WIDE DISTRIBUTION WITH WHITE FINISH.	LED 1000 LUMENS 3000K 85CRI MIN 60,000 HR L70	0-10V DIMMING 10%	9.6 W	120 V	5/E7.3
F3	PRUDENTIAL R1-LED3-LO-4'-SAL-CC-UNV-SUR-X3-ND OR APPROVED EQUAL	WALL MOUNTED LINEAR LED LUMINAIRE, NOMINAL 4' LENGTH, WITH ACRYLIC LENS. VERIFY STANDARD FINISH AND MOUNTING HEIGHT WITH THE ARCHITECT.	LED 480 LUMENS / 1' 3000K 84 CRI MIN 50,000 HR L70	0-10V DIMMING	16.8 W	120 V	1/E7.3
F4	GOTHAM EVO4-30-05-WR-MWD-MVOLT-GZ10 OR APPROVED EQUAL	RECESSED LED DOWNLIGHT, NOMINAL 4" APERATURE. MEDIUM WIDE DISTRIBUTION WITH WHITE FINISH.	LED 500 LUMENS 3000K 85CRI MIN 60,000 HR L70	0-10V DIMMING	6.2 W	120 V	5/E7.3
F4A	GOTHAM EVO4SH-30-10-DFR-SMO-MVOLT-EX1 OR APPROVED EQUAL	SIMILAR TO F4 BUT WITH SHOWER TRIM.	LED 1000 LUMENS 3000K 85CRI MIN 60,000 HR L70	0-10V DIMMING	9.6 W	120 V	5/E7.3
F5	PRUDENTIAL "SNAPPRO" R1-LED35-04-WA-YGW-UNV-SUR-X1-DM10 OR APPROVED EQUAL	NOMINAL 4' LONG SURFACE MOUNTED COMPACT LINEAR LED FIXTURE, WITH STEEL HOUSING WITH WHITE PAINTED FINISH, AND WHITE ACRYLIC LENS. INSTALL IN CONTINUOUS ROW AS INDICATED ON THE PLANS.	LED ~3700 LUMEN / 4' 3500K 80+ CRI MIN 100,000 HR L70	0-10V DIMMING	43 W	120 V	3/E7.3
F6	LUX DYNAMICS DATA-8FT-8-20LM-ST-840-U1-WA-SM-OC-KO-DO-KO OR APPROVED EQUAL	DIMMABLE SURFACE MOUNTED LINEAR LUMINAIRE WITH INTEGRAL DUAL TECHNOLOGY HIGH BAY 360 DEGREE OCCUPANCY SENSOR AND DAYLIGHT SENSING. PROVIDE WITH WHITE ACRYLIC DIFFUSE LENS.	LED 20,000 LUMEN 80CRI, 4000K CCT	0-10V DIMMING, 1%	95 W	120 V	3/E7.3
F7	COLLAGE 450 COL-450-P / 1/22W LED/A-21/MEDIUM / 120V / TBD OR APPROVED EQUAL	PENDANT MOUNTED, GLARE FREE LED FIXTURE. LASER CUT ACRYLIC SHADE, NATURALLY ANODIZED ALUMINUM SUSPENSION. FINISH TBD.	LED 1625 LUMEN	0-10V DIMMING	22 W	120 V	6/E7.3
F8	HYDREL HSL11-RECT-LED-AMBLW-MVOLT-M-MIN5-BB-[FINISH] OR APPROVED EQUAL	RECESSED MOUNTED STEP LIGHT, MOUNTED FLUSH IN WALL WITH AMBER LIMITED WAVELENGTH CCT.	LED	LED DRIVER	3 W	120 V	
F9	JUNO JSF 5IN 120V 27K 90CR I MVOLTZT WH	5" SURFACE MOUNTED LED, MOUNTS DIRECTLY TO J-BOX. INSTALL WITH CLEAN BEAD OF SILICONE AFTER INSTALLATION TO PROVIDE A WATERPROOF SEAL.	LED 700 LUMEN 90 CRI 2700K	0-10V DIMMING	18 W	120 V	
SF1	LITHONIA D-SERIES SIZE 0 DSX0LED-P1-30K-80CRI-MVOLT-RPA-PIR OR APPROVED EQUAL	HIGH PERFORMANCE, LOW PROFILE, FULL CUT-OFF LED AREA LIGHT, DIE-CAST ALUMINUM HOUSING WITH 9" MOUNTING ARM, INTEGRAL THERMAL RADIATION FINS, AND TEXTURED POLYESTER POWDERCOAT FINISH (COLOR TO BE DETERMINED BY THE ARCHITECT). PROVIDE WITH TYPE II-M OPTICAL SYSTEM, UNIVERSAL VOLTAGE LED DRIVER. PROVIDE WITH 20' TALL, 4" ROUND POLE, FINISH TO MATCH THE FIXTURE FINISH, AND 24" DIA. CONCRETE BASE. BUG RATING B1-U0-G2.	LED ~5800 LUMEN 80CRI 3000K 3000K 530mA 8,371 LUMEN	LED DRIVER	45 W	120 V	7/E7.2 U.O.N.
SF2	LITHONIA D-SERIES SIZE 1 DSXW1LED-10C-700-30K-T3M-MVOLT-PIRH-DNAXD OR APPROVED EQUAL	EXTERIOR LED WALL SCONCE, WITH DIE-CAST ALUMINUM HOUSING WITH POWDER COAT FINISH, "GRAPHITE" COLOR TO BE VERIFY BY ARCH, FORWARD THROW ILLUMINATION, WITH UNIVERSAL MOUNTING BRACKET FOR INSTALLATION OVER 4" JUNCTION BOX. IP66 WET LOCATION LISTED.	LED 2567 LUMEN 85 CRI 3000K MIN 100,000 HR	LED DRIVER	27 W	120 V	1/E7.3
SF3	LITHONIA D-SERIES SIZE 2 DSXW2-LED-20C-1000-30K-T4M-MVOLT-PIRH-DNAXD OR APPROVED EQUAL	EXTERIOR LED WALL SCONCE, WITH DIE-CAST ALUMINUM HOUSING WITH POWDER COAT FINISH, "GRAPHITE" COLOR TO BE VERIFY BY ARCH, FORWARD THROW ILLUMINATION, WITH UNIVERSAL MOUNTING BRACKET FOR INSTALLATION OVER 4" JUNCTION BOX. IP66 WET LOCATION LISTED.	LED 6029 LUMENS 3000K MIN 100,000 HR	LED DRIVER	74 W	120 V	1/E7.3
SF4	THE FLAGPOLE BEACON ORN-322669 OR APPROVED EQUAL	8" GOLD BEACON, 2 LED BULBS, 359° REVOLVING TRUCK.	LED	LED DRIVER	6 W	120 V	
X1	LITHONIA LQC LQC-1-G-EL N OR APPROVED EQUAL	LED EXIT SIGN, 11 3/4" X 8 1/4". QUICK MOUNT INSTALLATION, UNIVERSAL MOUNTING, DIE-CAST ALUMINUM CANOPY PROVIDED.	LED	LED DRIVER	2 W	120 V	

PROJECT GENERAL NOTES

1. INSTALL AND CONNECT A CODE SIZED INSULATED OR BARE COPPER GROUNDING CONDUCTOR IN ALL BRANCH CIRCUITS AND FEEDERS.
2. MOUNTING HEIGHTS SHOWN ARE FROM FINISHED FLOOR TO THE CENTERLINE OF THE DEVICE. ALL MOUNTING HEIGHTS SHALL BE AS SHOWN ON THE SYMBOLS LIST UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
3. REFER TO POWER AND SIGNAL DRAWINGS AND ENLARGED PLANS FOR THE LOCATION OF ALL PANELBOARDS.
4. FURNISH AND INSTALL ALL PANELBOARDS WITH CIRCUIT BREAKERS AS SHOWN ON PANEL SCHEDULES.
5. SPEAKER VOLUME CONTROL SHALL BE PROVIDED BY OTHERS. PROVIDE FLUSH MOUNTED 4" OCTAGONAL OUTLET BOX AT HEIGHT PER PLAN. ROUTE 0.75"C FROM OUTLET BOX TO CABLE TRAY IN ATTIC. INSTALL PULL LINE IN CONDUITS. WIRE AND DEVICES BY OTHERS.
6. SUBSCRIPTS ON SWITCH SYMBOLS (Sa) DENOTE THE OUTLETS CONTROLLED.
7. DO NOT INSTALL TELEPHONE OR POWER OUTLETS BACK TO BACK IN STUD WALLS.
8. REFER TO POWER ONE LINE DIAGRAM AND FEEDER SCHEDULE FOR THE SIZE OF CONDUITS AND CONDUCTORS BETWEEN MAJOR POWER COMPONENTS OF THE ELECTRICAL SYSTEM.
9. REFER TO ARCHITECTURAL POWER AND SIGNAL PLANS FOR DIMENSIONAL LOCATION OF OUTLETS.
10. CONTRACTOR IS RESPONSIBLE TO SUBMIT REVISED LAYOUT OF EQUIPMENT IN MAIN ELECTRICAL ROOM OR EQUIPMENT ROOMS FOR WRITTEN APPROVAL BY ENGINEER IF PROPOSED INSTALLATION LAYOUT DIFFERS FROM CONSTRUCTION DOCUMENTS. SUBMISSION MUST BE APPROVED PRIOR TO RELEASE OF ORDER FOR EQUIPMENT AND PRIOR TO INSTALLATION.
11. THE CONTRACTOR SHALL VISIT THE JOBSITE AND VERIFY ALL EXISTING CONDITIONS BEFORE BIDDING AND SHALL INCLUDE IN THE BID THE NECESSARY COSTS TO CONSTRUCT THIS PROJECT IN ACCORDANCE WITH THE ELECTRICAL DRAWINGS, SPECIFICATIONS, AND ALL APPLICABLE CODES.
12. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE LISTED BY UNDERWRITERS LABORATORIES AND BEAR THEIR LABEL, OR ETL.
13. CONTRACTORS SHALL REMOVE ALL LEFT OVER CONDUIT, WIRE, SCRAPS, ATC. AND LEAVE PREMISES CLEAN AND FREE OF TRASH OR DEBRIS RESULTING FROM HIS WORK.
14. CONTRACTOR SHALL REPORT TO THE OWNER'S ENGINEER ANY OBSERVATIONS OF CONDITIONS WHICH ARE DISCOVERED IN THE BUILDING WHICH WOULD PREVENT THE CORRECT INSTALLATION OF THE ELECTRICAL SYSTEM.
15. WHERE RECEPTACLES ARE LOCATED OUTSIDE OR IN WET/DAMP LOCATIONS PROVIDE WEATHER RESISTANT TYPE, UON.
16. PROVIDE INDIVIDUAL GFCI RECEPTACLES AT EACH LOCATION SHOWN, DO NOT USE FEED-THRU GFCI TYPE RECEPTACLES. LOCATE RECEPTACLE AT END OF A BRANCH CIRCUIT WIRE
17. TELECOM OUTLETS SHALL BE PER DETAIL 1/E7.1. ROUTE CONDUIT TO ABOVE CEILING AND STUB TO WITHIN 6" OF CABLE TRAY IN ATTIC. WIRE JACK BACK TO TELECOM BACKBOARD VIA CABLE TRAY. COIL 6' PIGTAIL.
18. TELEVISION OUTLETS SHALL CONSIST OF WHITE COAXIAL TV OUTLET PLATE OVER FLUSH MOUNTED 4S OUTLET BOX. OUTLET HEIGHT SHALL MATCH POWER OUTLET HEIGHT UON. ROUTE 0.75"C TO ABOVE CEILING AND STUB AT CABLE TRAY IN ATTIC. HOMERUN RG-6 COAX CABLE BACK TO NETWORK ROOM 26. COIL 12' PIGTAIL AT BACKBOARD. COORDINATE WITH PROVIDER.
19. CEILING AND WALL MOUNTED SPEAKERS SHALL BE FURNISHED BY OWNER AND INSTALLED BY THE CONTRACTOR. FOR WALL MOUNTED PROVIDE FLUSH MOUNTED 4" OCTAGONAL OUTLET BOX AT HEIGHT PER PLAN. ROUTE 0.75"C FROM OUTLET BOX TO CABLE TRAY IN ATTIC. INSTALL PULL LINE IN CONDUITS. WIRED BY OTHERS.
20. ALL DEVICES SHALL HAVE TYPE ON TAPE LABELS INDICATING THE PANELBOARD AND CIRCUIT SERVING EACH DEVICE, TYPICAL OF ALL DEVICES INCLUDED ON THIS PROJECT.

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REGISTERED PROFESSIONAL ENGINEER
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EXP. 06/30/25
SCOTT WHEELER
ELECTRICAL
STATE OF CALIFORNIA

PROJECT
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DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO: 22084

AGENCY

TITLE
SCHEDULES AND GENERAL NOTES

SHEET
E0.02

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2" 1" 1/2" 1/4" 0
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
Autodesk Docs://Dixon Fire Station 82/22204_ARCHMSTR_R22_CENTRAL.rvt
4/3/2022 10:46:56 AM

Switchboard: MSB

Location: ELECTRICAL 26 | **Volts:** 120/208 | **A.I.C. Rating:** 30K
Supply From: UTX | **Phases:** 3 | **Mains Type:** MCB
Mounting: FLOOR | **Wires:** 4 | **Mains Rating:** 800 A
Enclosure: NEMA 1 | **MCB Rating:** 800 A

##	Circuit Description	Load	Remarks
1	PANEL LDA VIA ATS-SB	66.11 kVA	
2	PANEL LA	100.95 kVA	
3	PANEL LB	55.17 kVA	
4	CA-1	6.33 kVA	
5	PANEL ELA VIA ATS-E	27.84 kVA	
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
	Total Load:	256.39 kVA	
	Total Amps:	711.67 A	

Load Classification	Conn. Load	Demand Factor	Est. Demand	Panel Totals	
Motor	135.96 kVA	104.41%	141.96 kVA	**Connected Load:**	256.39 kVA
Other	1.36 kVA	100.00%	1.36 kVA	**Connected Amps:**	711.67 A
Electric Vehicle Charging Station	6.24 kVA	125.00%	7.8 kVA	**Est. Demand Load:**	244.05 kVA
Lighting	6.31 kVA	125.00%	7.89 kVA	**Est. Demand Amps:**	677.41 A
Receptacle	55.26 kVA	59.05%	32.63 kVA		
Non-Continuous	14.28 kVA	100.00%	14.28 kVA		
Continuous	4.6 kVA	125.00%	5.75 kVA		
Future	32.39 kVA	100.00%	32.39 kVA		

Notes:

Dist. board: LDA

Location: ELECTRICAL 26 | **Volts:** 120/208 | **A.I.C. Rating:** 22K
Supply From: ATS-SB | **Phases:** 3 | **Mains Type:** MCB
Mounting: SURFACE | **Wires:** 4 | **Mains Rating:** 225 A
Enclosure: Type 1 | **MCB Rating:** 225 A

##	Circuit Description	Load	Remarks
1	PANEL LD	30.4 kVA	
2	PANEL LC	35.71 kVA	
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
	Total Load:	66.11 kVA	
	Total Amps:	183.49 A	

Load Classification	Conn. Load	Demand Factor	Est. Demand	Panel Totals	
Electric Vehicle Charging Station	6.24 kVA	125.00%	7.8 kVA	**Connected Load:**	66.11 kVA
Lighting	5.07 kVA	125.00%	6.34 kVA	**Connected Amps:**	183.49 A
Receptacle	42.9 kVA	61.66%	26.45 kVA	**Est. Demand Load:**	53.29 kVA
Non-Continuous	8.66 kVA	100.00%	8.66 kVA	**Est. Demand Amps:**	147.93 A
Continuous	3.24 kVA	125.00%	4.05 kVA		

Notes:

Branch Panel: PNL LA

Location: ELECTRICAL 26 | **Served From** MSB | **Phases** 3 | **A.I.C. Rating:** 22K | **Bus Rating** 400 A
Mounting: SURFACE | **Volts:** 120/208 | **Wires** 4 | **Main Type:** MLO | **Main Rating:** NA

LC	Load Served	Amp	P	#	A (kVA)		#	B (kVA)		#	C (kVA)		P	Amp	Load Served	LC
M	SCU-2/SAC-2	30 A	2	1	1.60	2.71				2			2	40 A	RH-1	M
				3			1.60	2.71		4						
M	SCU-3/SAC-3	30 A	2	5					1.37	2.71	6		2	40 A	RH-2	M
				7	1.37	2.71				8						
Nc	CONDENSATE PUMPS	20 A	2	9			0.03	2.71		10			2	40 A	RH-3	M
				11					0.03	2.71	12					
M	SCU-4/SAC-4	30 A	2	13	1.37	2.71				14			2	40 A	RH-4	M
				15			1.37	2.71		16						
M	CP-2	15 A	1	17					0.16	2.71	18		2	40 A	RH-5	M
M	SCU-1/SAC-1	30 A	2	19	1.37	2.71				20						
				21			1.37	2.71		22			2	40 A	RH-6	M
M	CEF-1	15 A	1	23					0.01	2.71	24					
Nc	CEILING FAN RM 19	15 A	1	25	1.00	2.06				26						
Nc	CEILING FAN RM 19	15 A	1	27			1.00	2.06		28			2	40 A	SCU-5/SAC-5	M
Nc	CEILING FAN RM 19	15 A	1	29					1.00	0.38	30	1	20 A	RD-1	M	
Nc	CEILING FAN RM 19	15 A	1	31	1.00	4.50					32					
M	ERV-2,3,4	20 A	2	33			1.17	4.50			34	3	60 A	EWH-2	M	
				35					1.17	4.50	36					
--	SPARE	20 A	1	37	0.00	10.80					38					
--	SPARE	20 A	1	39			0.00	10.80			40	3	125 A	(F) ELECTRIC TUMBLE DRYER	F	
--	SPARE	20 A	1	41					0.00	10.80	42					
				Total Load:	35.92 kVA			34.75			30.28					
				Total Amps:	305 A			295.35 A			252.32 A					

Load Classification	Conn. Load	Demand Factor	Code Demand	Panel Totals	
Motor	64.52 kVA	105.23%	67.89 kVA	**Connected Load:**	100.95 kVA
Non-Continuous	4.05 kVA	100.00%	4.05 kVA	**Connected Amps:**	280.21 A
Future	32.39 kVA	100.00%	32.39 kVA	**Code Demand Load:**	104.32 kVA
				Code Demand Amps:	289.57 A

Notes:

Branch Panel: PNL LB

Location: VEST. 05 | **Served From** MSB | **Phases** 3 | **A.I.C. Rating:** 10K | **Bus Rating** 200 A
Mounting: RECESSED | **Volts:** 120/208 | **Wires** 4 | **Main Type:** MCB | **Main Rating:** 200 A

LC	Load Served	Amp	P	#	A (kVA)		#	B (kVA)		#	C (kVA)		P	Amp	Load Served	LC
M	ERV-1	15 A	2	1	0.84	4.89				2						
				3			0.84	4.89		4			3	80 A	CU-1	M
M	FCU -01, 02, 08, MAU-01	15 A	2	5					0.66	4.89	6					
				7	0.66	0.42				8						
Nc	CONDENSATE PUMPS	20 A	2	9			0.07	0.42		10			3	15 A	KEF-1	M
				11					0.07	0.42	12					
M	FCU-03, 04, 05, 06, 07	15 A	2	13	0.22	1.10				14			1	20 A	RM 6 FIRE/SMOKE DAMPER	M
				15			0.22	0.88		16			1	20 A	RM 8,9,10,11 FIRE/SMOKE...	M
z	RM 2 TRAP PRIMER	15 A	1	17					0.18	1.44	18	1	20 A	BI-FOLDING DOOR	Nc	
M	CP-1	15 A	1	19	0.16	3.12					20					
M	CEF-1 & CEF-2	15 A	1	21			0.03	3.12			22	2	40 A	DRYER	R	
M	IEF-1	15 A	1	23					0.12	1.32	24	1	20 A	WASHER MACHINE	R	
M	BC-1	15 A	2	25	0.09	0.00					26	1	20 A	SPARE	--	
				27			0.09	0.00			28	1	20 A	SPARE	--	
--	SPARE	20 A	1	29					0.00	0.00	30	1	20 A	SPARE	--	
--	SPARE	20 A	1	31	0.00	0.00					32	1	20 A	SPARE	--	
--	SPARE	20 A	1	33			0.00	0.00			34	1	20 A	SPARE	--	
--	SPARE	20 A	1	35					0.00	0.00	36	1	20 A	SPARE	--	
--	SPARE	20 A	1	37	0.00	8.00					38					
--	SPARE	20 A	1	39			0.00	8.00			40	3	100 A	EWH-1	M	
--	SPARE	20 A	1	41					0.00	8.00	42					
				Total Load:	19.50 kVA			18.57			17.10					
				Total Amps:	164 A			156.6 A			142.47 A					

Load Classification	Conn. Load	Demand Factor	Code Demand	Panel Totals	
Motor	45.85 kVA	113.09%	51.85 kVA	**Connected Load:**	55.17 kVA
Other	0.18 kVA	100.00%	0.18 kVA	**Connected Amps:**	153.12 A
Receptacle	7.56 kVA	100.00%	7.56 kVA	**Code Demand Load:**	61.17 kVA
Non-Continuous	1.57 kVA	100.00%	1.57 kVA	**Code Demand Amps:**	169.78 A

Notes:

Branch Panel: PNL LC

Location: VEST. 05 | **Served From** LDA | **Phases** 3 | **A.I.C. Rating:** 10K | **Bus Rating** 100 A
Mounting: RECESSED | **Volts:** 120/208 | **Wires** 4 | **Main Type:** MCB | **Main Rating:** 100 A

LC	Load Served	Amp	P	#	A (kVA)		#	B (kVA)		#	C (kVA)		P	Amp	Load Served	LC
R	REC RM 02, 03, 04,05	20 A	1	1	0.90	0.90				2			1	20 A	REC EXTERIOR NORTH	R
R	REC OFFICE 01	20 A	1	3			1.62	1.20		4			1	20 A	SMOKER	R
R	REC DAYROOM 08	20 A	1	5					0.90	1.74	6	1	20 A	REC NORTH PATIO	R	
R	MICROWAVE	20 A	1	7	2.54	1.14					8	1	20 A	GARBAGE DISPOSAL	R	
R	REFRIGERATOR	20 A	1	9			0.80	0.80			10	1	20 A	REFRIGERATOR	R	
R	REFRIGERATOR	20 A	1	11					0.80	0.72	12	1	20 A	REC KITCHEN 06	R	
R	GAS RANGE	20 A	1	13	1.80	0.54					14	1	20 A	REC KITCHEN 06	R	
R	GAS RANGE	20 A	1	15			1.80	1.44			16	1	20 A	DISHWASHER	R	
R	EXHAUST HOOD	20 A	1	17					1.80	1.80	18	1	20 A	EXHAUST HOOD	R	
R	{1} REC DORM 09, 10	20 A	1	19	0.90	0.72					20	1	20 A	REC RM 13, 14,15	R	
R	{1} REC DORM 10, 11	20 A	1	21			0.90	0.54			22	1	20 A	REC RESTROOM 16, 17, 18	R	
R	{1} REC DORM 11, 12	20 A	1	23					1.08	1.08	24	1	20 A	REC APPARATUS 19	R	
L	LTG EXT FACADE	20 A	1	25	0.84	1.62					26	1	20 A	ICE MACHINE	C	
L	LTG APPARATUS BAY NORTH	20 A	1	27			0.67	0.39			28	1	20 A	LTG APPARATUS LEVEL	L	
L	LTG APPARATUS BAY SOUTH	20 A	1	29					0.29	0.61	30	1	20 A	LTG NORTH	L	
L	LTG SIGNAGE	20 A	1	31	0.09	0.73					32	1	20 A	LTG SOUTH	L	
Nc	CEILING FANS NORTH	20 A	1	33			0.38	0.37			34	1	20 A	LTG SITE	L	
Nc	DOORBELL	20 A	1	35					0.18	1.00	36	1	20 A	LTG SIGNAGE	L	
L	LCP	20 A	1	37	0.09	0.00					38	1	0 A	SPARE	--	
--	SPARE	20 A	1	39			0.00	0.00			40	1	20 A	SPARE	--	
--	SPARE	20 A	1	41					0.00	0.00	42	1	20 A	SPARE	--	
				Total Load:	12.81 kVA			10.89			12.00					
				Total Amps:	108 A			90.78 A			101.4 A					

Load Classification	Conn. Load	Demand Factor	Code Demand	Panel Totals	
Lighting	5.07 kVA	125.00%	6.34 kVA	**Connected Load:**	35.71 kVA
Receptacle	28.46 kVA	67.57%	19.23 kVA	**Connected Amps:**	99.11 A
Non-Continuous	0.56 kVA	100.00%	0.56 kVA	**Code Demand Load:**	28.15 kVA
Continuous	1.62 kVA	125.00%	2.03 kVA	**Code Demand Amps:**	78.13 A

Notes:
{1} PROVIDE AFCI BREAKER.

Branch Panel: PNL LD

Location: ELECTRICAL 26 | **Served From** LDA | **Phases** 3 | **A.I.C. Rating:** 22K | **Bus Rating** 150 A
Mounting: SURFACE | **Volts:** 120/208 | **Wires** 4 | **Main Type:** MLO | **Main Rating:** NA

LC	Load Served	Amp	P	#	A (kVA)		#	B (kVA)		#	C (kVA)		P	Amp	Load Served	LC
R	REC APPARATUS RM 17	20 A	1	1	1.26	1.44				2			1	20 A	BI-FOLDING DOOR	Nc
R	REC RM 24, 27, 28	20 A	1	3			0.90	0.70		4			1	20 A	TREADMILL	R
R	REC SHOP RM 25	20 A	1	5					0.54	0.72	6	1	20 A	REC FITNESS RM 20	R	
R	WATER BOTTLE FILLER	20 A	1	7	0.60	1.44					8	1	20 A	BI-FOLDING DOOR	Nc	
Nc	CEILING FANS SOUTH	20 A	1	9			0.36	1.26			10	1	20 A	REC RM 22, 23	R	
R	REC RM 20,21	20 A	1	11					0.54	1.32	12	1	20 A	WASHER MACHINE	R	
R	DRYER	40 A	2	13	3.12	0.18					14	1	20 A	IRRIGATION CONTROLLER	Nc	
				15			3.12	0.00			16	1	20 A	SPARE	--	
C	ICE MACHINE	20 A	1	17					1.62	0.00	18	1	20 A	SPARE	--	
Nc	COMMERCIAL WASHER	15 A	3	19	0.72	0.00					20	1	20 A	SPARE	--	
				21			0.72	0.00			22	1	20 A	SPARE	--	
				23					0.72	0.18	24	1	20 A	REC PARKING	R	
Nc	COMMERCIAL DRYER	15 A	3	25	0.84	0.18					26	1	20 A	REC PARKING	R	
				27			0.84	3.12			28	2	40 A	(F) EV CHARGER	Ev	
				29					0.84	3.12	30					
				Total Load:	9.78 kVA			11.02			9.60					
				Total Amps:	82 A			92.08 A			79.99 A					

Load Classification	Conn. Load	Demand Factor	Code Demand	Panel Totals	
Electric Vehicle Charging Station	6.24 kVA	125.00%	7.8 kVA	**Connected Load:**	30.40 kVA
Receptacle	14.44 kVA	84.63%	12.22 kVA	**Connected Amps:**	84.38 A
Non-Continuous	8.1 kVA	100.00%	8.1 kVA	**Code Demand Load:**	30.15 kVA
Continuous	1.62 kVA	125.00%	2.03 kVA	**Code Demand Amps:**	83.68 A

Notes:

Branch Panel: PNL ELA

Location: ELECTRICAL 26 | **Served From** ATS-E | **Phases** 3 | **A.I.C. Rating:** 22K | **Bus Rating** 125 A
Mounting: SURFACE | **Volts:** 120/208 | **Wires** 4 | **Main Type:** MCB | **Main Rating:** 125 A

LC	Load Served	Amp	P	#	A (kVA)		#	B (kVA)		#	C (kVA)		P	Amp	Load Served	LC
L	INTERIOR EM LTG	20 A	1	1	1.24	0.60							2	30 A	REC COMM RM 26	R
R	REC EXTERIOR SOUTH	20 A	1	3			0.72	0.60					4			
M	ROLL-UP DOOR APP RM	20 A	3	5					1.27	0.18	6	1	20 A	REC COMM RM 26	R	
				7	1.27	0.54					8	1	20 A	REC COMM RM 26	R	
				9			1.27	0.18			10	1	20 A	ACCESS CONTROL PANEL	z	
M	ROLL-UP DOOR APP RM	20 A	3	11					1.27	1.00	12	1	20 A	EXT GATE	M	
				13	1.27	0.50					14	1	20 A	(F) FUEL CARD READER	C	
				15			1.27	1.92			16	1	25 A	CONVAULT FUEL DISPENSER	M	
R	CORD REEL APP RM	20 A	1	17					0.72	0.18	18	1	20 A	FUEL EMERGENCY SHUT-OFF...	C	
R	CORD REEL APP RM	20 A	1	19	1.08	0.50					20	1	20 A	FUEL PUMP	C	
M	VEF-1	40 A	3	21			2.90	0.50			22	1	20 A	EG-1 BATTERY CHARGER	z	
				23					2.90	0.50	24	1	20 A	EG-1 BLOCK HEATER	z	
				25	2.90	0.00					26	1	20 A	SPARE	--	
M	ROLL-UP DOOR APP RM	20 A	3	27			0.00	0.00			28	1	20 A	SPARE	--	
				29					0.00	0.00	30	1	20 A	SPARE	--	
				31	0.00	0.00					32	1	20 A	SPARE	--	
M	ROLL-UP DOOR APP RM	20 A	3	33			0.00	0.00			34	1	20 A	SPARE	--	
				35					0.00	0.00	36	1	20 A	SPARE	--	
				37	0.00	--					38	1	--	space	--	
R	REC EXT GENERATOR	20 A	1	39			0.36	--			40	1	--	space	--	
C	{1} FACP	20 A	1	41					0.18	--	42	1	--	space	--	
				Total Load:	9.90 kVA			9.73			8.21					
				Total Amps:	84 A			83 A			68.38 A					

Load Classification	Conn. Load	Demand Factor	Code Demand	Panel Totals	
Motor	19.26 kVA	111.31%	21.43 kVA	**Connected Load:**	27.84 kVA
Other	1.18 kVA	100.00%	1.18 kVA	**Connected Amps:**	77.26 A
Lighting	1.24 kVA	125.00%	1.55 kVA	**Code Demand Load:**	30.66 kVA
Receptacle	4.8 kVA	100.00%	4.8 kVA	**Code Demand Amps:**	85.11 A
Continuous	1.36 kVA	125.00%	1.7 kVA		

Notes:
{1} CIRCUIT BREAKER SHALL BE RED WITH LOCKING DEVICE.

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SEAL

REGISTERED PROFESSIONAL ENGINEER #E015491 EXP. 06/30/25 SCOTT WHEELER ELECTRICAL STATE OF CALIFORNIA

PROJECT
DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO: 22084

AGENCY

TITLE
PANEL SCHEDULES

SHEET
E0.03

STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ELC-E
This document is used to demonstrate compliance with mandatory requirements in §130.5, for electrical systems in newly constructed nonresidential and hotel/motel occupancies and §160.6 and §160.9 for electrical systems in newly constructed multifamily occupancies. Additions and alterations to electrical service systems in nonresidential and hotel/motel occupancies will also use this document to demonstrate compliance per §141.0(a) or §141.0(b)2P for alterations. For multifamily addition or alterations compliance will be documented per §180.1(a) or §180.2 (b)4Bvii	
Project Name: DIXON FIRE STATION 82	**Report Page:** (Page 1 of 6)
Project Address:	**Date Prepared:** 2026-03-05T18:35:59-05:00

A. GENERAL INFORMATION

01	Project Location (city)	Dixon	02	Climate Zone	12
			03	Occupancy Types Within Project:	
● All Other Occupancies					

B. PROJECT SCOPE

This table includes electrical systems that are within the scope of the permit application.

01	02	03	04	05	06	07
Electrical Service Designation/ Description	Scope of Work [1]	Rating[2] (kVA)	Utility Provided Metering System Exception to §130.5(a)/§160.6(a)[3]	System subject to CA Elec Code Article 517 Exception to §130.5(a)and (b)	Demand Response Controls	Provides power to dwelling units/common living areas only in multifamily occupancy
E6.0	New electrical service equipment and meter	244	☒	☐	Where required, demand response controls must be specified which are capable of receiving and automatically responding to at least one standards based messaging protocol which enables demand response after receiving a demand response signal. Sections §120.2/§160.3, §130.1/§160.5, and §130.3/§160.5, and mechanical, indoor lighting, and sign lighting Certificate of Compliance documents will indicate when demand response controls are required.	☐

[1] *FOOTNOTES: Adding only new feeders and branch circuits triggers Voltage Drop 130.5(c)/160.6(c), no other requirements from 130.5/160.6 are required.*
[2] *If common use areas in a multifamily are submetered, rating is for submeter size serving common use areas.*
[3] *Applicable if the utility company is providing a metering system that indicates instantaneous kW demand and kWh for a utility-defined period.*

STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ELC-E
Project Name: DIXON FIRE STATION 82	**Report Page:** (Page 2 of 6)
	Date Prepared: 2026-03-05T18:35:59-05:00

C. COMPLIANCE RESULTS

Results in this table are automatically calculated from data input and calculations in Tables F through J. 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.

01		02		03		04	05	06
Service Electrical Metering §130.5(a)/ §160.6(a) (See Table F)	AND	Separation for Monitoring §130.5(b)/ §160.6(b) (See Table G)	AND	Voltage Drop §130.5(c)/ §160.6(c) (See Table H)	AND	Controlled Receptacles §130.5(d)/ §160.6(d) (See Table I)	Electric Ready §160.9 (See Table J)	**Compliance Results**
	AND	Yes	AND	Yes	AND	Yes		COMPLIES with Exceptional Conditions

D. EXCEPTIONAL CONDITIONS

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

Table B indicates the project is exempt from §130.5(a) Service Electrical Metering requirements because the utility company has provided the project a metering system that indicates instantaneous kW demand and kWh for a utility-defined period.

E. ADDITIONAL REMARKS

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

CA Building Energy Efficiency Standards - 2025 Nonresidential Compliance
Generated Date/Time:
Report Version: 2025.0.000
Schema Version: rev 20250101
Documentation Software: Energy Code Ace
Compliance ID: ECA-385104-0326-0005
Report Generated: 2026-03-05 15:36:02

STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ELC-E
Project Name: DIXON FIRE STATION 82	**Report Page:** (Page 3 of 6)
	Date Prepared: 2026-03-05T18:35:59-05:00

G. SEPARATION OF ELECTRICAL CIRCUITS FOR ENERGY MONITORING

This table includes entirely new or complete replacement electrical power distribution systems to demonstrate compliance with §130.5(b)/§160.6(b). Any load types that are not included in the service do not need to be shown. For multifamily occupancies, submetered systems that provide power to dwelling units do not need to meet these separation requirements and therefore load types on those submetered systems also do not need to be shown.

01	02	03	04	05	
Load Type per Table 130.5-B [1]	Minimum Required Separation of Load per Table 130.5-B	Compliance Method[2]	Location of Requirements in Construction Documents	Field Inspector	
				Pass	Fail
E6.0					
HVAC systems and components	All HVAC in aggregate	Method 3: Branch circuits serve load types individually & provisions for adding future branch curcuit monitoring	E0.03, E6.0	☐	☐
Lighting including exit, egress and exterior	All lighting in aggregate	Method 3: Branch circuits serve load types individually & provisions for adding future branch curcuit monitoring	E0.03, E6.0	☐	☐
Plug Loads and appliances less than 25kVA	All plug loads in aggregate Groups of plug loads exceeding 25 kVA connected load in an area less than 5000 sf	Method 3: Branch circuits serve load types individually & provisions for adding future branch curcuit monitoring	E0.03, E6.0	☐	☐
Charging stations for electrical vehicle	All loads in aggregate	Method 3: Branch circuits serve load types individually & provisions for adding future branch curcuit monitoring	E0.03, E6.0	☐	☐

CA Building Energy Efficiency Standards - 2025 Nonresidential Compliance
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Schema Version: rev 20250101
Documentation Software: Energy Code Ace
Compliance ID: ECA-385104-0326-0005
Report Generated: 2026-03-05 15:36:02

STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ELC-E
Project Name: DIXON FIRE STATION 82	**Report Page:** (Page 4 of 6)
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G. SEPARATION OF ELECTRICAL CIRCUITS FOR ENERGY MONITORING

This table includes entirely new or complete replacement electrical power distribution systems to demonstrate compliance with §130.5(b)/§160.6(b). Any load types that are not included in the service do not need to be shown. For multifamily occupancies, submetered systems that provide power to dwelling units do not need to meet these separation requirements and therefore load types on those submetered systems also do not need to be shown.

01	02	03	04	05	
Load Type per Table 130.5-B [1]	Minimum Required Separation of Load per Table 130.5-B	Compliance Method[2]	Location of Requirements in Construction Documents	Field Inspector	
				Pass	Fail

** NOTES: If "Other*" is selected under Compliance Method above, please indicate how compliance has been achieved in the space provided below.*

[1] *FOOTNOTES: For each separate load type, up to 10% of the connected load may be of any type.*
[2] *Method 1: Switchboards/ motor control centers/ panelboard loads disaggregated for each load type.*
Method 2: Switchboards/ motor control centers/ panelboard supply other distribution equipment with loads disaggregated for each load type.
Method 3: Branch circuits serve load types individually and provisions for adding future branch circuit monitoring.
Method 4: Complete metering system measures and reports loads by type.
See Chapter 8 of the Nonresidential Compliance Manual for more detail on Compliance Methods.

H. VOLTAGE DROP

This table includes entirely new or complete replacement electrical power distribution systems, or alterations that add, modify or replace both feeders and branch circuits to demonstrate compliance with §130.5(c)/ §160.6(c). For alterations, only the altered circuits must demonstrate compliance per §141.0(b)2Piii/ §180.2(b)4Bviic.

01	02				03	04	05	
Electrical Service Designation/Description	Combined Voltage Drop on Installed Feeder/Branch Circuit Conductors Compliance Method				Location of Voltage Drop Calculations[1]	Sheet Number for Voltage Drop Calculations in Construction Documents	Field Inspector	
							Pass	Fail
E6.0	☒	Voltage drop less than 5%	☐	Permitted by CA Elec Code (Exception to 130.5(c))*	Contractor Responsible		☐	☐

** NOTES: If "Permitted by CA Elec Code *" is selected under Compliance Method above, please indicate where the exception applies in the space provided below.*

[1] *FOOTNOTES: Voltage drop calculations may be attached to the permit application outside the construction documents if allowed by the Authority Having Jurisdiction. Select "attached" if applicable. If calculations will be the responsibility of the installing contractor, select "Contractor Responsible".*

I. CIRCUIT CONTROLS FOR 120-VOLT RECEPTACLES AND CONTROLLED RECEPTACLES

This table includes entirely new or complete replacement electrical power distribution systems to demonstrate compliance with §130.5(d)/ §160.6(d).. Both controlled and uncontrolled receptacles must be provided in office areas, lobbies, conference rooms, kitchen areas in office spaces, copy rooms and hotel/motel guest rooms.

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SEAL

REGISTERED PROFESSIONAL ENGINEER
#E015491
EXP. 06/30/25
SCOTT WHEELER
ELECTRICAL
STATE OF CALIFORNIA

PROJECT
DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO: 22084

AGENCY

TITLE
TITLE 24 COMPLIANCE FORMS

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STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-ELC-E
Project Name: DIXON FIRE STATION 82	**Report Page:**	**(Page 5 of 6)**
	Date Prepared:	2026-03-05T18:35:59-05:00

I. CIRCUIT CONTROLS FOR 120-VOLT RECEPTACLES AND CONTROLLED RECEPTACLES

01	02	03	04	05	06	07	
Room name or Description	Location/ Type of Controlled Receptacles[1,2]	Shut-Off Controls	Demand Responsive Controls	Permanent Marking Will be Used	Location of Requirements in Construction Documents	Field Inspector	
						Pass	Fail
OFFICE	Within 6ft of uncontrolled receptacle	Occupancy Sensor	NA: Building does not require demand responsive lighting controls per §110.12(c)	☒	E3.1	☐	☐

** NOTES: If "Other*" is selected under Shut-Off Controls above, please indicate how compliance has been achieved in the space provided below.*

[1] FOOTNOTES: Receptacles dedicated to refrigerators and water dispensers in kitchens, located a minimum of 6ft above the floor specifically for clocks, network copiers, fax machines, A/V and data equipment other than personal computers in copy rooms, circuits rated more than 20 Amps, or connected to a UPS that are intended to be in continuous use and are marked to differentiate them from other receptacles or circuits are excepted from the requirements. .

[2] Plug-in strips and other plug-in devices shall not be used to comply with the requirements of section §130.5(d)

K. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online

Form/Title
NRCI-ELC-E - Must be submitted for all buildings

L. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no NRCA forms required for this project.

STATE OF CALIFORNIA
Electrical Power Distribution
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-ELC-E
Project Name: DIXON FIRE STATION 82	**Report Page:**	**(Page 6 of 6)**
Project Address:	**Date Prepared:**	2026-03-05T18:35:59-05:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Reese Wheeler		Documentation Author Signature:	
Company:	The Engineering Enterprise	Signature Date:	03-05-2026
Address:	1125 High St.	CEA/AEA/ECC Certification Identification (if applicable):	
City/State/Zip:	Auburn, CA 95603	Phone:	530-886-8556

RESPONSIBLE PERSON'S DECLARATION STATEMENT

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

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

Responsible Person Name:	Scott Wheeler	Responsible Person Signature:	
Responsible Person Scope:			
Company:	The Engineering Enterprise	Date Signed:	03-05-2026
Address:	1125 High St.	License:	E015491
City/State/Zip:	Auburn, CA 95603	Phone:	530-886-8556

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STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
This document is used to demonstrate compliance with requirements in §110.9, §110.12(c), §130.0, §130.1, §140.6 and §141.0(b)2 for indoor 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) and §180.2(b)4 for indoor lighting scopes using the prescriptive path for multifamily occupancies. Multifamily includes dormitory and senior living facilities.		
Project Name: DIXON FIRE STATION 82	**Report Page:**	**(Page 1 of 9)**
Project Address:	**Date Prepared:**	2026-03-05T18:19:02-05:00

A. GENERAL INFORMATION

01	Project Location (city)	Dixon	04	Total Conditioned Floor Area (ft²)	8,200
02	Climate Zone	12	05	Total Unconditioned Floor Area (ft²)	0
03	Occupancy Types Within Project (select all that apply):		06	# of Stories (Habitable Above Grade)	2

● All Other Occupancies

B. PROJECT SCOPE

This table includes any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.6 / §170.2(e) or §141.0(b)2 / §180.2(b)4 for alterations.

Scope of Work	Conditioned Spaces		Unconditioned Spaces	
01	02	03	04	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft²)	Calculation Method	Area (ft²)
☒ New Lighting System	Area Category Method	8200	N/A	0
☐ New Lighting System - Parking Garage	N/A	0	N/A	0
Total Area of Work (ft²)	8200			

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: DIXON FIRE STATION 82	**Report Page:**	**(Page 2 of 9)**
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C. COMPLIANCE RESULTS

If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per §140.6(b)1 /§170.2(e)	Allowed Lighting Power per §140.6(b) /§170.2(e) (Watts)					Adjusted Lighting Power per §140.6(a) /§170.2(e) (Watts)				Compliance Results
	01	02	03	04		05	06		07	08
	Complete Building §140.6(c)1	Area Category §140.6(c)2 /§170.2(e)4	Area Category Additional §140.6(c)2G / §170.2(e)4Av (+)	**Total Allowed** (Watts)	≥	Total Designed (Watts)	Adjustments PAF Lighting Control Credits §140.6(a)2 /§170.2(e)1B (-)	=	**Total Adjusted** (Watts) *Includes Adjustments	**05 must be >= 08 §140.6 /§170.2(e)**
	(See Table I)	(See Table I)	(See Table J)			(See Table F)	(See Table P)			
Conditioned		4,568		4,568	≥	3,870		=	3870	COMPLIES
Unconditioned					≥		0	=		
									Controls Compliance (See Table H for Details)	COMPLIES
									One-for-one Luminaire Alterations Compliance (See Table Q for Details)	

D. EXCEPTIONAL CONDITIONS

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

E. ADDITIONAL REMARKS

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

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EXD 06-30-25
SCOTT WHEELER
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STATE OF CALIFORNIA

PROJECT
DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO: 22084

AGENCY

TITLE
TITLE 24 COMPLIANCE FORMS

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F. INDOOR LIGHTING FIXTURE SCHEDULE

This table includes all planned permanent and portable lighting other than dwelling unit/ hotel/ motel room lighting. Multifamily dwelling unit and hotel/motel room lighting is documented in Table T. If using Table T to document lighting in multifamily common use areas providing shared provisions for living, eating, cooking or sanitation, those luminaires are not included here.

Designed Wattage: Conditioned Spaces

01	02	03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description	Modular (Track) Fixture	Small Aperture & Color Change [1]	Watts per luminaire[2]	How is Wattage determined	Total Number of Luminaires	Excluded per §140.6(a)3 / §170.2(e)2C	Design Watts	Field Inspector	
									Pass	Fail
F1	2X4 TROFFER	No	NA	38	Mfr. Spec	21	No	798	☐	☐
F2	RECESSED DOWNLIGHT	No	NA	9.6	Mfr. Spec	46	No	441.6	☐	☐
F3	WALL MOUNTED LINEAR LUMINAIRE	No	NA	16.8	Mfr. Spec	3	No	50.4	☐	☐
F4	RECESSED DOWNLIGHT	No	NA	6.2	Mfr. Spec	7	No	43.4	☐	☐
F4A	RECESSED DOWNLIGHT	No	NA	9.6	Mfr. Spec	1	No	9.6	☐	☐
F5	SURFACE MOUNTED COMPACT LINEAR	No	NA	43	Mfr. Spec	18	No	774	☐	☐
F6	DIMMABLE HIGH-BAY FIXTURE	No	NA	95	Mfr. Spec	18	No	1,710	☐	☐
F7	PENDANT MOUNTED FIXTURE	No	NA	22	Mfr. Spec	1	No	22	☐	☐
F8	RECESSED MOUNTED STEP LIGHT	No	NA	3	Mfr. Spec	7	No	21	☐	☐
							Total Designed Watts: CONDITIONED SPACES	3,870		

[1]*FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per §140.6(a)4B /§170.2(e)2D is adjusted to be 75% /80% of their rated wattage. Table F automatically makes this adjustment, the permit applicant should enter full rated wattage in column 05.*

[2]*Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c) /§160.5(b). Wattage used must be the maximum rated for the luminaire, not the lamp.*

G. MODULAR LIGHTING SYSTEMS

This section does not apply to this project.

H. INDOOR LIGHTING CONTROLS (Not including PAFs)

This table includes lighting controls for conditioned and unconditioned spaces.

Building Level Controls

01	02	03	
Mandatory Demand Response §110.12(c)	Shut-off controls §130.1(c) / §160.5(b)4C	Field Inspector	
		Pass	Fail
NA < 4,000W subject to multilevel	See Area/Space Level Controls (Column 8)	☐	☐

Area Level Controls

04	05	06	07	08	09	10	11	12	
Area Description	Complete Building or Area Category Primary Function Area	Manual Controls §130.1(a) /§160.5(b)4A	Multi-Level Controls §130.1(b) /§160.5(b)4B	Shut-Off Controls §130.1(c) //§160.5(b)4C	Primary/Sky lit Daylighting §130.1(d) /§160.5(b)4D	Secondary Daylighting §130.1(d) /§160.5(b)4D	Interlocked Systems §140.6(a)1/ §170.2(e)2A	Field Inspector	
								Pass	Fail
RESTROOM	Restroom	Readily Accessible and located in the same space.	NA: Restrooms	Occupancy Sensor	NA: Not daylit zone	NA: Not daylit zone	No	☐	☐
DORM	All Other Space Types	Readily Accessible and located in the same space.	Dimmer	Vacancy Sensor	NA: General Ltg < 75W	NA: General Ltg < 75W	No	☐	☐
KITCHEN	Kitchen/ Food Preparation	Readily Accessible and located in the same space.	Dimmer	Occupancy Sensor	Included	Included	No	☐	☐

H. INDOOR LIGHTING CONTROLS (Not including PAFs)

OFFICE	Office (<=250 square feet)	Readily Accessible and located in the same space.	Dimmer	Occupancy Sensor	Included	Included	No	☐	☐
CORRIDOR	Corridor	Readily Accessible and located in the same space.	Dimmer	Occupancy Sensor	Included	Included	No	☐	☐
LAUNDRY	Laundry	Readily Accessible and located in the same space.	Dimmer	Occupancy Sensor	NA: Not daylit zone	NA: Not daylit zone	No	☐	☐
ELECTRICAL/FIRE	Electrical, Mechanical, or Telephone Room	Readily Accessible and located in the same space.	Dimmer	Occupancy Sensor	NA: Not daylit zone	NA: Not daylit zone	No	☐	☐
BAY	Concourse and Atria Area	Readily Accessible and located in the same space.	Dimmer	Occupancy Sensor	Included	Included	No	☐	☐
LOUNGE	Lounge	Readily Accessible and located in the same space.	Dimmer	Occupancy Sensor	Included	Included	No	☐	☐
FITNESS	Exercise Center Gymnasium	Readily Accessible and located in the same space.	Dimmer	Occupancy Sensor	Included	Included	No	☐	☐
STORAGE	Storage - MF common areas	Readily Accessible and located in the same space.	Dimmer	Occupancy Sensor	NA: Not daylit zone	NA: Not daylit zone	No	☐	☐

H. INDOOR LIGHTING CONTROLS (Not including PAFs)

	13
	Plan Sheet Showing Daylit Zones:
	E2.1

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS

Each area complying using the Complete Building or Area Category Methods per §140.6(b) are included in this table. Column 06 indicates if additional lighting power allowances per §140.6(c) or adjustments per §140.6(a) are being used .

Conditioned Spaces

01	02	03	04	05	06	
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft^2)	Area (ft^2)	Allowed Wattage (Watts)	Additional Allowance / Adjustment	
					Area CategoryPAF	PAF
RESTROOM	Restroom	0.65	340	221	No	No
DORM	All Other Space Types	0.4	500	200	No	No
KITCHEN	Kitchen/ Food Preparation	0.95	430	408.5	No	No
OFFICE	Office (<=250 square feet)	0.65	180	117	No	No
LAUNDRY	Laundry	0.45	360	162	No	No
ELECTRICAL/FIRE	Electrical, Mechanical, or Telephone Room	0.4	190	76	No	No
BAY	Concourse and Atria Area	0.6	4,100	2,460	No	No
LOUNGE	Lounge	0.55	310	170.5	No	No
CORRIDOR	Corridor	0.4	750	300	No	No
FITNESS	Exercise Center Gymnasium	0.5	370	185	No	No
STORAGE	Storage - MF common areas	0.4	670	268	No	No
		TOTALS:	8,200	4,568	See Tables J, or P for detail	

J. ADDITIONAL ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM

This section does not apply to this project.

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DIXON FIRE STATION 82

DIXON, CA 95620

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CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO:	22204
CLIENT PROJECT NO:	22084

AGENCY

TITLE
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STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: DIXON FIRE STATION 82	**Report Page:**	**(Page 7 of 9)**
	Date Prepared:	2026-03-05T18:19:02-05:00

P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))

This section does not apply to this project.

Q. ONE-FOR-ONE LUMINAIRE ALTERATIONS

This section does not apply to this project.

R. 80% LIGHTING POWER FOR ALL ALTERATIONS - CONTROLS EXCEPTIONS

This section does not apply to this project.

S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)

This section does not apply to this project.

T. DWELLING UNIT LIGHTING

This section does not apply to this project.

U. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selections have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online

Form/Title
NRCI-LTI-E - Must be submitted for all buildings

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: DIXON FIRE STATION 82	**Report Page:**	**(Page 8 of 9)**
	Date Prepared:	2026-03-05T18:19:02-05:00

V. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and any with "-A" in the form name must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

Form/Title	Systems/Spaces To Be Field Verified
NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	RESTROOM; KITCHEN; OFFICE; CORRIDOR; LAUNDRY; ELECTRICAL/FIRE; BAY; LOUNGE; FITNESS; STORAGE
NRCA-LTI-03-A - Must be submitted for daylight responsive controls.	KITCHEN; OFFICE; CORRIDOR; BAY; LOUNGE; FITNESS

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: DIXON FIRE STATION 82	**Report Page:**	**(Page 9 of 9)**
Project Address:	**Date Prepared:**	2026-03-05T18:19:02-05:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Reese Wheeler		Documentation Author Signature:	
Company:	The Engineering Enterprise	Signature Date:	03-05-2026
Address:	1125 High St.	CEA/AEA/ECC Certification Identification (if applicable):	
City/State/Zip:	Auburn, CA 95603	Phone:	530-886-8556

RESPONSIBLE PERSON'S DECLARATION STATEMENT

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

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

Responsible Person Name:	Scott Wheeler	Responsible Person Signature:	
Responsible Person Scope:			
Company:	The Engineering Enterprise	Date Signed:	03-05-2026
Address:	1125 High St.	License:	E015491
City/State/Zip:	Auburn, CA 95603	Phone:	530-886-8556

STATE OF CALIFORNIA
Outdoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: DIXON FIRE STATION 82	**Report Page:**	**(Page 1 of 10)**
Project Address:	**Date Prepared:**	2026-03-05T17:56:57-05:00

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

A. GENERAL INFORMATION

01	Project Location (city)	Dixon	04	Total Illuminated Hardscape Area (ft²)	29500
02	Climate Zone	12			

03 Outdoor Lighting Zone per Title 24 Part 1 §10.114 or as designated by Authority Having Jurisdiction (AHJ):

☐ LZ-0: Very Low - Undeveloped Parkland ☒ LZ-2: Moderate - Urban Clusters ☐ LZ-4: High - Must be reviewed by CA Energy Commission for Approval

☐ LZ-1: Low - Rural Areas ☐ LZ-3: Moderately High - Urban Areas

05 Occupancy Types within Project

● All Other Occupancies

B. PROJECT SCOPE

This table includes outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.7 / §170.2(e)6 or §141.0(b)2L / § 180.2(b)4Bv for alterations.

My Project Consists of:

01	02		
☒ New Lighting System	Must Comply with Allowances from §140.7 / §170.2(e)6		
☐ Altered Lighting System	Is your alteration increasing the connected lighting load (Watts)? ○ Yes ○ No		
03	04	05	
% of Existing Luminaires Being Altered[1]	Sum Total of Luminaires Being Added or Altered	Calculation Method	
☐ < 10% ☐ >= 10% and < 50% ☐ >= 50%			

Please proceed to Table F. Outdoor Lighting Fixture Schedule to define the project's luminaires.

[1] *FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100.*

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EXP. 06/30/25
SCOTT WHEELER
ELECTRICAL
STATE OF CALIFORNIA

PROJECT
DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO: 22084

AGENCY

TITLE
TITLE 24 COMPLIANCE FORMS

SHEET
E0.07

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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.

Calculations of Total Allowed Lighting Power (Watts) §140.7 / §170.2(e)6 or §141.0(b)2L / § 180.2(b)4Bv														Compliance Results		
01		02		03		04		05		06		07		08	09
General Hardscape Allowance §140.7(d)1 / §170.2(e)6 (See Table I)	+	Per Application §140.7(d)2 / §170.2(e)6 (See Table J)	+	Sales Frontage §140.7(d)2 (See Table K)	+	Ornamental §140.7(d)2 / §170.2(e)6 (See Table L)	+	Per Specific Area §140.7(d)2 / §170.2(e)6 (See Table M)	OR	Existing Power Allowance §141.0(b)2L / § 180.2(b)4Bv (See Table N)	=	**Total Allowed** (Watts)	≥	**Total Actual** (Watts)	**07 must be >= 08**
880.5	+	280	+	---	+	---	+	219.1	OR	---	=	1,379.6	≥	1,237.6	COMPLIES
Shielding Compliance (See Table G for Details)															N/A
Controls Compliance (See Table H for Details)															COMPLIES

D. EXCEPTIONAL CONDITIONS

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

E. ADDITIONAL REMARKS

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

F. OUTDOOR LIGHTING FIXTURE SCHEDULE

For new or altered lighting systems demonstrating compliance with §140.7 / §170.2(e)6 all new luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application are included in the Table below. For altered lighting systems using the Existing Power method per §141.0(b)2L only new luminaires being installed and replacement luminaires being installed as part of the project scope are included (ie, existing luminaires remaining or existing luminaires being moved are not included). Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H. and are not included here. All other multifamily outdoor lighting is included here.

Designed Wattage:

01	02		03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description		Watts per luminaire[1, 2]	How is Wattage determined	Total Number Luminaires [2]	Luminaire Status[3]	Excluded per §140.7(a) / §170.2(e)6A	Design Watts	Cutoff Req. > 6,200 initial lumen output §130.2(b) /§160.5(c)1 [4]	Field Inspector	
										Pass	Fail
F2	RECESSED DOWNLIGHT	☐ Linear	9.6	Mfr. Spec	1	New	☐	9.6	NA: < 6200 lumens	☐	☐
F9	SURFACE MOUNTED LED	☐ Linear	18	Mfr. Spec	9	New	☐	162	NA: < 6200 lumens	☐	☐
SF1	AREA LIGHT	☐ Linear	45	Mfr. Spec	8	New	☐	360	NA: < 6200 lumens	☐	☐
SF2	EXTERIOR WALL SCONCE	☐ Linear	27	Mfr. Spec	4	New	☐	108	NA: < 6200 lumens	☐	☐
SF3	EXTERIOR WALL SCONCE	☐ Linear	74	Mfr. Spec	8	New	☐	592	NA: < 6200 lumens	☐	☐
SF4	FLAGPOLE BEACON	☐ Linear	6	Mfr. Spec	1	New	☐	6	NA: < 6200 lumens	☐	☐
							Total Design Watts:	1237.6			

* NOTES: Selections with a * require a note in the space below explaining how compliance is achieved.
EX: Luminaire is lighting a statue; EXCEPTION 2 to §130.2(b)

[1] FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c) / §160.5(b)
[2] For linear luminaires, wattage should be indicated as W/ft instead of Watts/luminaire. Total linear feet should be indicated in column 05 instead of number of luminaires.
[3] Select "New" for new luminaires in a new outdoor lighting project, or for added luminaires in an alteration. Select "Altered" for replacement luminaires in an alteration. Select "Existing to Remain" for existing luminaires within the project scope that are not being altered and are remaining. Select "Existing Reinstalled" for existing luminaires which are being removed and reinstalled as part of the project scope.

F. OUTDOOR LIGHTING FIXTURE SCHEDULE

For new or altered lighting systems demonstrating compliance with §140.7 / §170.2(e)6 all new luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application are included in the Table below. For altered lighting systems using the Existing Power method per §141.0(b)2L only new luminaires being installed and replacement luminaires being installed as part of the project scope are included (ie, existing luminaires remaining or existing luminaires being moved are not included). Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H. and are not included here. All other multifamily outdoor lighting is included here.

Designed Wattage:

01	02	03	04	05	06	07	08	09	10

[4] Compliance with mandatory shielding requirements is required for luminaires with initial lumen output >= 6,200 unless exempted by §130.2(b)/ §160.5(c)

G. SHIELDING REQUIREMENTS (BUG)

This section does not apply to this project.

H. OUTDOOR LIGHTING CONTROLS

This table demonstrates compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie untouched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application.
Outdoor lighting for nonresidential buildings, parking garages and common service areas in multifamily buildings must be documented separately from outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit

Mandatory Controls for Nonresidential Occupancies, Parking Garages & Common Areas in Multifamily Buildings

01	02	03	04	05	
Area Description	Shut-Off §130.2(c)1 / §160.5(c)	Auto-Schedule §130.2(c)2 / §160.5(c)	Motion Sensor §130.2(c)3 / §160.5(c)	Field Inspector	
				Pass	Fail
GENERAL HARDSCAPE: "SF1"	Astronomical Timer	Provided	Provided	☐	☐
GENERAL HARDSCAPE: "SF4"	Astronomical Timer	Provided	Provided	☐	☐
FIRE STATION MAIN ENTRANCE: "SF3"	Astronomical Timer	Provided	Provided	☐	☐
ENTRANCES/EXITS: "F2"	Astronomical Timer	Provided	Provided	☐	☐
ENTRANCES/EXITS: "F9"	Astronomical Timer	Provided	Provided	☐	☐
ENTRANCES/EXITS: "SF2"	Astronomical Timer	Provided	Provided	☐	☐
ENTRANCES/EXITS: "SF3"	Astronomical Timer	Provided	Provided	☐	☐
OUTDOOR DINING: "F9"	Astronomical Timer	Provided	Provided	☐	☐
BUILDING FACADE: "SF2"	Astronomical Timer	Provided	Provided	☐	☐

[1] FOOTNOTE: Text has been abbreviated, please refer to Table 160.5-A to confirm compliance with the specific light source technologies listed.
[2] Authority having jurisdiction may ask for cutsheets or other documentation to confirm compliance of light source.
[3] Recessed luminaires marked for use in fire-rated installations, and recessed luminaires installed in non-insulated ceilings are excepted from ii and iii.

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CLIENT PROJECT NO: 22084

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I. LIGHTING POWER ALLOWANCE (per §140.7 /§170.2(e))

This table includes areas using allowance calculations per §140.7 /§170.2(e). General Hardscape Allowance is per Table 140.7-A/Table 170.2-R while "Use it or lose it" Allowances are per Table 140.7-B /Table 170.2-S. Indicate which allowances are being used to expand sections for user input. Luminaires that qualify for one of the "Use it or lose it" allowances shall not qualify for another "Use it or lose it" allowance. Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H. and are not included here. All other multifamily outdoor lighting is included here.

01				
	"Use it or lose it" Allowance (select all that apply) (select all that apply)			
☒ General Hardscape Allowance Table I (below)	☒ Per Application Table J	☐ Sales Frontage Table K	☐ Ornamental Table L	☒ Per Specific Area Table M

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A for Nonresidential & Hotel/Motel

02	03	04	05	06	07	08	09
Area Description	Area Wattage Allowance (AWA)			Linear Wattage Allowance (LWA)			Total General AWA + LWA (Watts)
	Illuminated Area (ft^2)	Allowed Density (W/ft^2)	Area Allowance (Watts)	Perimeter Length (lf)	Allowed Density (W/lf)	Linear Allowance (Watts)	
GENERAL HARDSCAPE	29500	0.019	560.5	800	0.15	120	680.5
						Initial Wattage Allowance for Entire Site (Watts):	200
						Instances of Initial Wattage Allowance (LZ 0 only)[1]	
						Total General Hardscape Allowance (Watts):	880.5

J. LIGHTING ALLOWANCE: PER APPLICATION

This table includes areas using the wattage allowance per application from Table 140.7-B / Table 170.2-S.

01	02	03	04	05	06	07	08	09	10
Area Description	Application per Table 140.7-B [1]	CALCULATED ALLOWANCE (Watts)			DESIGN WATTS				Additional Allowance (Watts)
		# of Locations	Allowance per Location[2]	Extra Allowance (Watts)	Luminaire Name or Item Tag	Watts per Luminaire	# of Luminaires	Design Watts	
FIRE STATION MAIN ENTRANCE	Primary Entrance (Special)	4	40	160	SF3	74	4	296	160
							Total Design Watts for this Area:	296	
ENTRANCES/EXITS	Building Entrance/Exit	8	15	120	F2	9.6	1	9.6	120
					SF3	74	2	148	
					SF2	27	2	54	
					F9	18	1	18	
							Total Design Watts for this Area:	229.6	
							Total Allowance (Watts) All Areas:		280

[1] *FOOTNOTES: Primary entrance applications are only available for senior care facilities, healthcare facilities, police stations, hospitals, fire stations, and emergency vehicle facilities.*
[2] *The Allowance per Location for ATMs is 100W for the first ATM and 35W for each additional per Table 140.7-B /Table 170.2-S.*
[3] *For luminaires indicated in Table F as linear, wattage in column 07 is W/lf instead of Watts/luminaire. Total linear feet should be indicated in column 08 instead of number of luminaires.*

K. LIGHTING ALLOWANCE: SALES FRONTAGE

This section does not apply to this project.

L. LIGHTING ALLOWANCE: ORNAMENTAL

This section does not apply to this project.

M. LIGHTING ALLOWANCE: PER SPECIFIC AREA

This table includes areas using the wattage allowance per specific area from Table 140.7-B /Table 170.2-S. More than one specific area allowance may be taken in a single project, if applicable. However, multiple specific area allowances may not be taken for the exact same area on the site.

01	02	03	04	05	06	07	08	09	10
Area Description	Specific Area Type per Table 140.7-B	CALCULATED ALLOWANCE (Watts)			DESIGN WATTS				Additional Allowance (Watts)
		Specific Area (ft^2)[1]	Allowed Density (W/ft^2)	Extra Allowance (Watts)	Luminaire Name or Item Tag	Watts per Luminaire	# of Luminaires	Design Watts	
OUTDOOR DINING	OutdoorDining	570	0.03	17.1	F9	18	8	144	17.1
							Total Design Watts for this Area:	144	
BUILDING FACADE	BuildingFacade	5500	0.1	550	SF2	27	2	54	202
					SF3	74	2	148	
							Total Design Watts for this Area:	202	
							Total Allowance (Watts) All Areas:		219.1

[1] *FOOTNOTES: See Table 140.7-B /Table 170.2-S for rules for calculating the specific areas (ft^2 for these additional lighting allowances.*
[2] *For luminaires indicated in Table F as linear, wattage in column 07 is W/lf instead of Watts/luminaire. Total linear feet should be indicated in column 08 instead of number of luminaires.*

N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)

This section does not apply to this project.

O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections 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. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online

Form/Title
NRCI-LTO-E - Must be submitted for all buildings

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections 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. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

Form/Title	Systems/Spaces To Be Field Verified
NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls are added to <= 20 luminaires.	GENERAL HARDSCAPE: "SF1"; GENERAL HARDSCAPE: "SF4"; FIRE STATION MAIN ENTRANCE: "SF3"; ENTRANCES/EXITS: "F2"; ENTRANCES/EXITS: "F9"; ENTRANCES/EXITS: "SF2"; ENTRANCES/EXITS: "SF3"; OUTDOOR DINING: "F9"; BUILDING FACADE: "SF2"

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MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO: 22084

AGENCY

TITLE
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STATE OF CALIFORNIA

Outdoor Lighting

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: DIXON FIRE STATION 82	**Report Page:**	**(Page 10 of 10)**
Project Address:	**Date Prepared:**	2026-03-05T17:56:57-05:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT			
I certify that this Certificate of Compliance documentation is accurate and complete.			
Documentation Author Name: Reese Wheeler		Documentation Author Signature:	
Company:	The Engineering Enterprise	Signature Date:	03-05-2026
Address:	1125 High St	CEA/AEA/ECC Certification Identification (if applicable):	
City/State/Zip:	Auburn, CA 95603	Phone:	530-886-8556

RESPONSIBLE PERSON'S DECLARATION STATEMENT

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

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

Responsible Person Name:	Scott Wheeler	Responsible Person Signature:	
Responsible Person Scope:			
Company:	The Engineering Enterprise	Date Signed:	03-05-2026
Address:	1125 High St	License:	E015491
City/State/Zip:	Auburn, CA 95603	Phone:	530-886-8556

CA Building Energy Efficiency Standards - 2025 Nonresidential Compliance

Generated Date/Time:

Report Version: 2025.0.000
Schema Version: rev 20250101

Documentation Software: Energy Code Ace

Compliance ID: ECA-385104-0326-0002
Report Generated: 2026-03-05 14:57:00

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AGENCY

TITLE

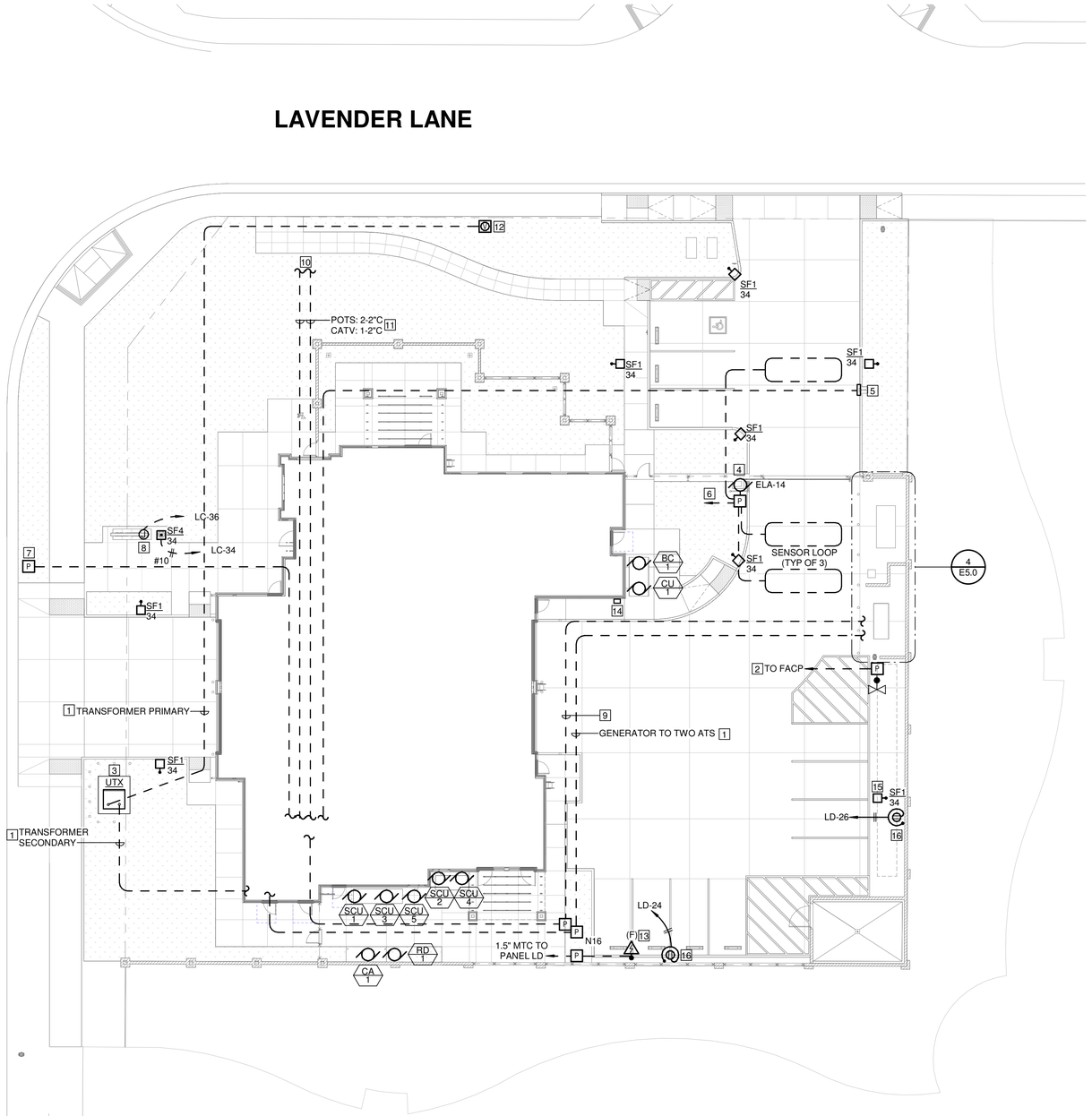
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1 ELECTRICAL SITE PLAN
SCALE: 1/16" = 1'-0"

GENERAL SHEET NOTES

A. ALL PULLBOXES SHOWN SHALL BE N9 UON. REFER TO DETAIL 2/E7.0 FOR INSTALLATION REQUIREMENTS.

B. REFER TO MECHANICAL AND PLUMBING PLANS AND MECHANICAL COORDIATION SCHEDULE ON SHEET E0.02 FOR EQUIPMENT ELECTRICAL REQUIREMENTS, REFER TO FINAL APPROVED MECHANICAL AND PLUMBING SHOP DRAWINGS TO VERIFY CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.

NUMBERED SHEET NOTES

1. REFER TO POWER ONE-LINE DIAGRAM FOR CONDUIT/FEEDER REQUIREMENTS.
2. PROVIDE CONDUIT AND WIRE FROM PIV TO FACP.
3. PACIFIC GAS & ELECTRIC PAD MOUNTED TRANSFORMER. REFER TO POWER ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
4. GATE OPERATOR. PROVIDE 2-0.75"C WITH 2 #12, 1 #12 GROUND AND CONTROL WIRING (POWER AND CONTROL RESPECTIVELY).
5. ENTRY CARDREADER AND KNOX SWITCH. PROVIDE 0.75"MTC TO NETWORK ROOM.
6. PROVIDE CONDUITS FOR AUTOMATIC GATE:
   (1) POWER HOMERUN ROUTED TO PANEL ELA.
   (1) 0.75" MTC WITH CONTROL WIRING ROUTED TO NETWORK ROOM.
7. PROVIDE N30 PULLBOX FOR TRAFFIC CONTROL. PROVIDE 1-3"MTC TO COMMUNICATION ROOM. COORDINATE LOCATION WITH CITY OF DIXON TRAFFIC ENGINEER.
8. PROVIDE DEDICATED 120V CONNECTION TO SIGNAGE. REFER TO SIGNAGE SHOP DRAWINGS FOR FINAL STUB LOCATION.
9. PROVIDE 2-1" CONDUITS TO COMMUNICATION ROOM FOR MONITORING OF EG-1.
10. UTILITY CONNECTION POINT. CONFIRM LOCATION PRIOR TO ROUGH IN.
11. PROVIDE CONDUIT (NUMBER AND SIZE AS INDICATED) FOR UTILITY SERVICE CABLES. CABLES FURNISHED, INSTALLED, AND CONNECTED BY UTILITY COMPANY.
12. PROVIDE A NEW 3' X 5' UTILITY VAULT, PER PG&E STANDARDS. EXTEND EXISTING CONDUIT TO UTILITY TRANSFORMER.
13. PROVIDE CONDUIT ONLY FOR FUTURE ELECTRIC VEHICLE CHARGING PEDESTAL AND CAP THE CONDUITS.
14. PROVIDE WEATHERPROOF EMERGENCY SHUT OFF BUTTON , +60" ABOVE FINISHED GRADE ON CONCRETE BASE AND UNISTRUT. LOCATE PER NEC 514 AND AHJ RECOMMENDATION. PROVIDE POWER TO CONVAULT DISPENSER VIA SHUTOFF BUTTON.
15. PROVIDE RAISED CONCRETE POLE BASE 24" BEHIND FACE OF THE CURB, REFER TO 7/E7.3 FOR RAISED POLE DETAIL.
16. PROVIDE WALL MOUNTED, OUTDOOR RATED, GFCI, RETRACTABLE CORD REEL WITH 40 FOOT 10-4 SJ CORD WITH NEMA 5-20R PLUG ENDS (LEVITON 5369-C).

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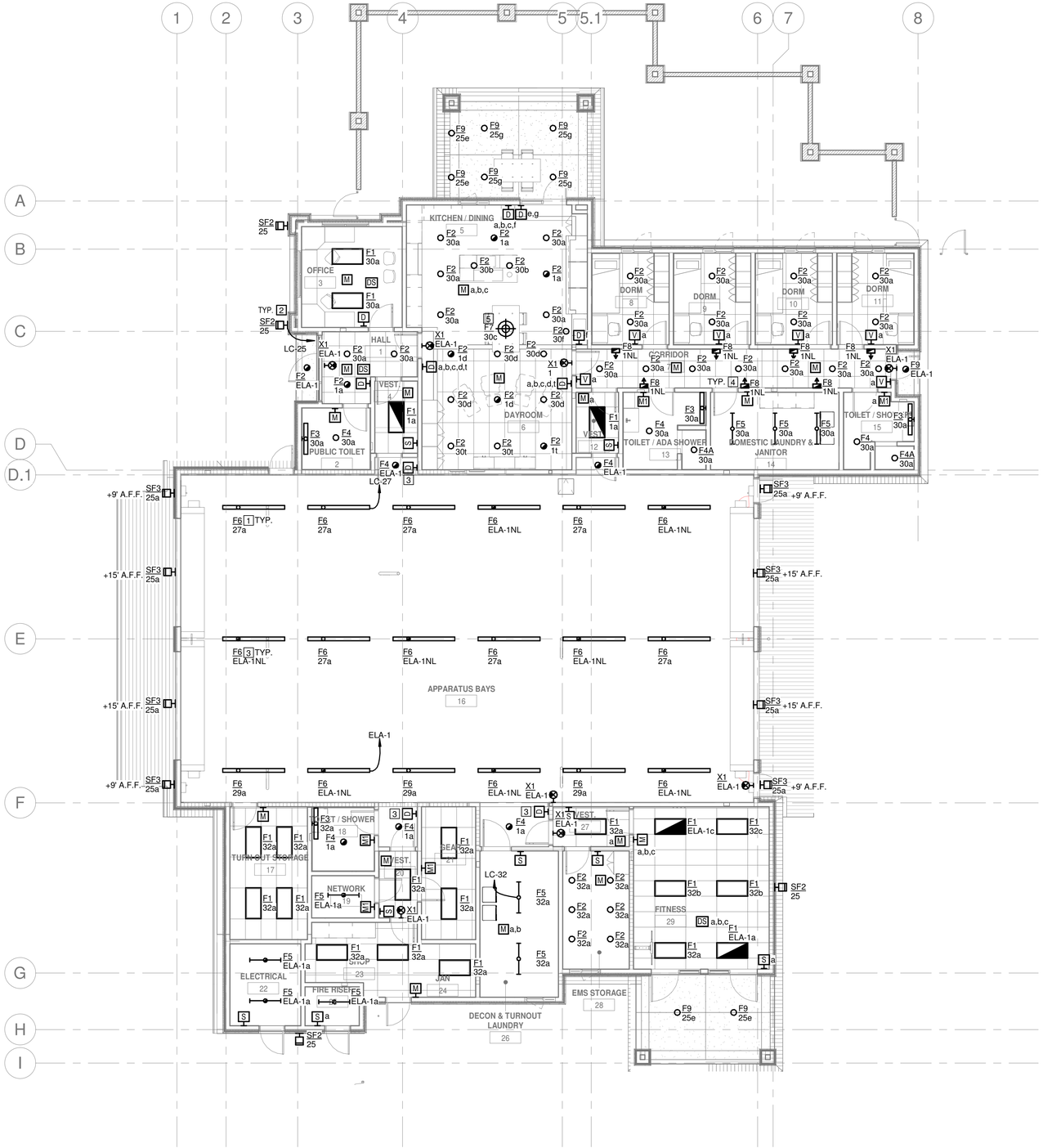
MANAGEMENT

LIONAKIS PROJECT NO:	22204
CLIENT PROJECT NO:	22084

AGENCY

TITLE
ELECTRICAL SITE PLAN

SHEET
E1.0



1 LIGHTING PLAN - LEVEL 1

SCALE: 1/8" = 1'-0"

NUMBERED SHEET NOTES

1. SURFACE MOUNT FIXTURE. TYPICAL OF ALL F6 IN APPARATUS BAY.
2. MOUNT FIXTURE AT 9"A.F.F TYPICAL OF ALL SF2 FIXTURES.
3. APP BAY NIGHT LIGHTS SHALL REDUCE TO 50% AT NIGHT. UPON LOSS OF POWER THE LIGHTS SHALL GO TO FULL BRIGHTNESS. THE NORMAL FIXTURES SHALL BE DIMMED AND THE SWITCH SHALL ACT AS A VACANCY SENSOR (MUST BE TURNED ON AND AUTO OFF WHEN NO MOTION).
4. RECESSED STEP/NIGHT LIGHTS SHALL COME ON AT NIGHT. UPON LOSS OF POWER THE LIGHTS SHALL TURN ON, REGARDLESS OF STATE. THE DOWNLIGHT FIXTURES SHALL BE TURNED ON VIA THE VACANCY SENSOR (MUST BE TURNED ON AND AUTO OFF WHEN NO MOTION). WHEN DOWNLIGHTS ARE OFF STEP/NIGHT LIGHTS ARE TO BE ON.
5. MOUNT FIXTURE AT 7' A.F.F. TYPICAL OF ALL F7 FIXTURES.

GENERAL SHEET NOTES

A. ALL LUMINAIRES SHOWN WITH HALF SHADE INDICATING EGRESS LIGHTING ARE CIRCUITED TO PANEL ELA.

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EXP. 06/30/25
SCOTT WHEELER
ELECTRICAL
STATE OF CALIFORNIA

PROJECT
DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT
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MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO:	22204
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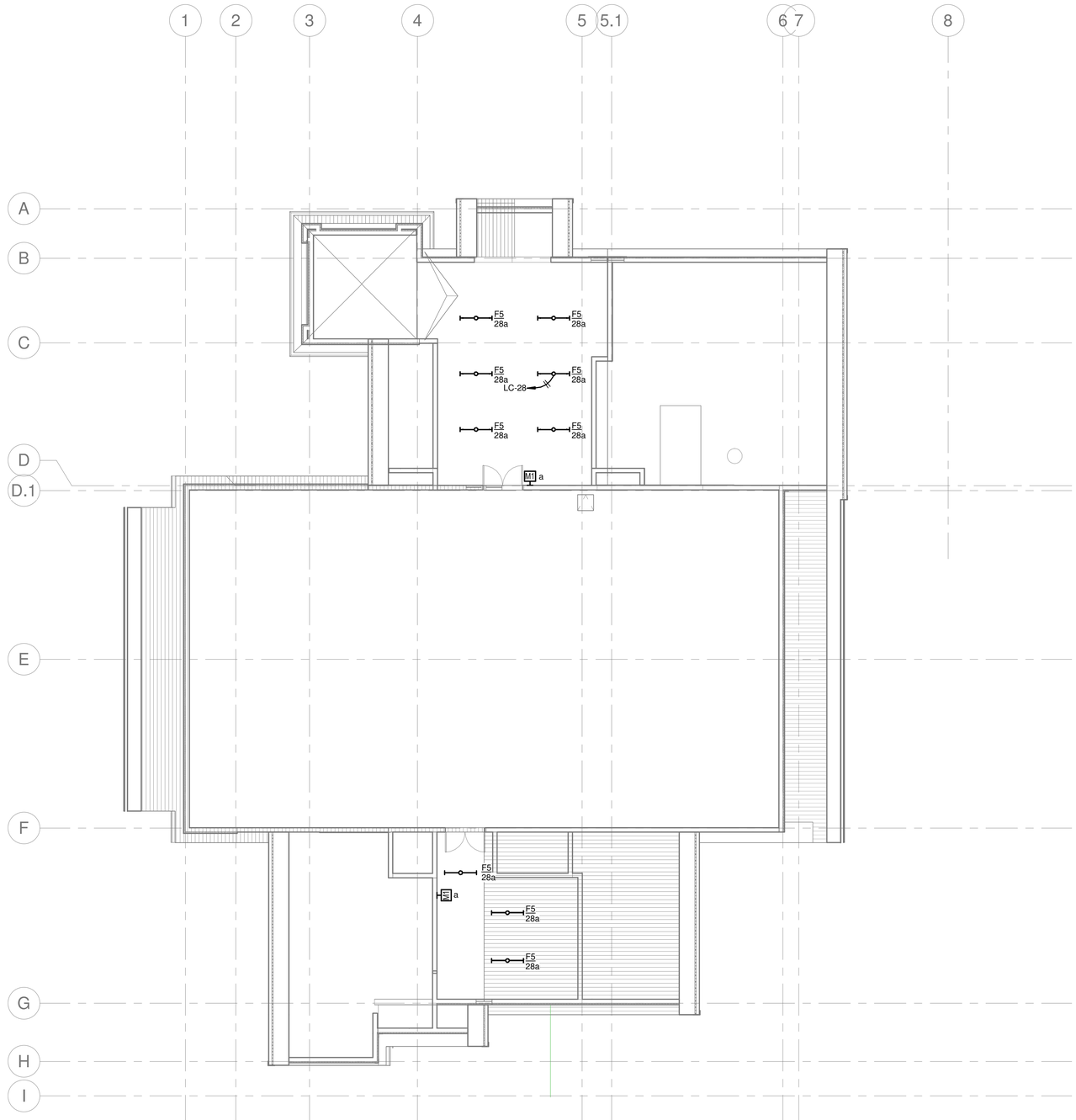
AGENCY

TITLE
LIGHTING PLAN - LEVEL 1

SHEET
E2.1

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1 LIGHTING PLAN - MEZZANINE LEVEL

SCALE: 1/8" = 1'-0"

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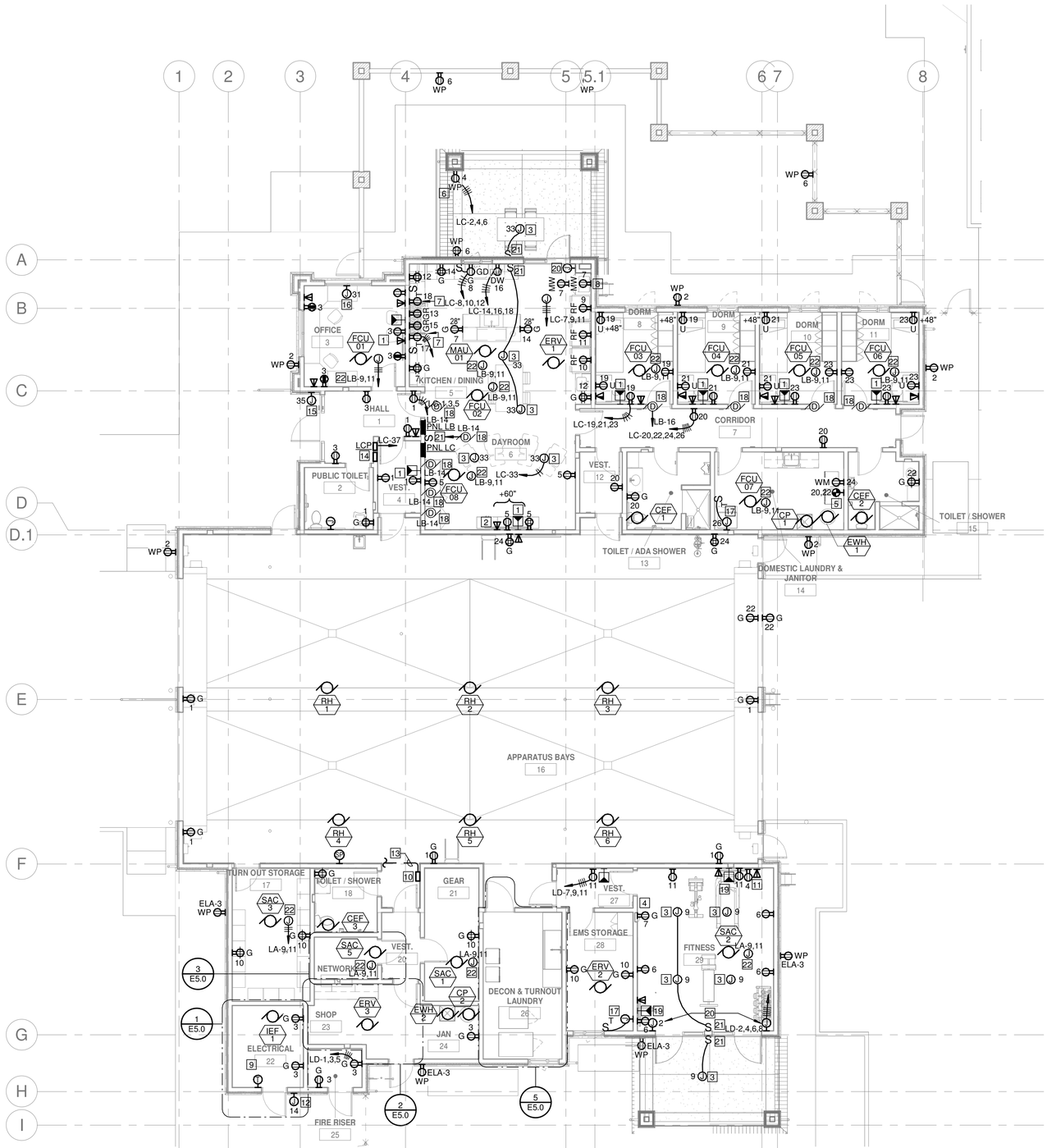
MANAGEMENT

LIONAKIS PROJECT NO:	22204
CLIENT PROJECT NO:	22084

AGENCY

TITLE
LIGHTING PLAN - APPARATUS LEVEL

SHEET
E2.2



1 POWER & SIGNAL PLAN - LEVEL 1

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO ARCHITECTURAL PLANS FOR ALL FIRE-RATES ASSEMBLIES INCLUDING RATED WALLS, CEILINGS, AND FLOORS.

B. PROVIDE TWO CAT6A CABLES FROM EACH TELECOM OUTLET TO TELECOM ROOM. REFER TO DETAIL 1/E7.1.

C. REFER TO MECHANICAL EQUIPMENT COORDINATION SCHEDULE ON E0.02 FOR EQUIPMENT INFORMATION.

NUMBERED SHEET NOTES

1. PROVIDE 120V POWER AND DATA FOR TELEVISION +72" AFF, UON.
2. PROVIDE RECESSED TV J-BOX BEHIND TV AND ANOTHER BEHIND THE TV CABINET BELOW. PROVIDE 1.25"C BETWEEN THE TWO. PROVIDE 1.25"C FROM UPPER BOX TO ABOVE CEILING TO WITHIN 6' OF THE CABLE TRAY. PROVIDE TELEVISION CABLE PER PROJECT GENERAL NOTES.
3. PROVIDE 120V CONNECTION TO CEILING FAN. CEILING FAN SHALL BE MODERN FAN - ALTUS 52" IN WHITE
4. PROVIDE DEDICATED 120V RECEPTACLE FOR WATER BOTTLE FILLER.
5. PROVIDE 208V RECEPTACLE FOR CLOTHES DRYER. PROVIDE RECEPTACLE WITH NEMA CONFIGURATION TO MATCH OEM CORDSET.
6. PROVIDE DEDICATED 120V CIRCUIT FOR SMOKER.
7. PROVIDE 120V CEILING RECEPTACLE FOR RANGE HOOD. WIRE VIA SWITCH MOUNTED ABOVE COUNTERTOP.
8. COORDINATE OUTLET LOCATIONS/ELEVATIONS WITH ARCHITECTURAL ELEVATIONS AND APPROVED CASEWORK SHOP DRAWINGS.
9. THERMOSTAT LINE VOLTAGE FURNISHED BY DIV. 23 INSTALLED AND WIRED BY THIS SECTION. REFER TO MECHANICAL PLANS FOR CONTROL WIRING.
10. TRAFFIC PULLBOX, PROVIDE FLUSH MOUNTED NEMA 1 PULLBOX, 8'H X 8"W X 4"D WITH COVER #A-FE8X8 OR EQUAL.
11. PROVIDE DEDICATED 120V RECEPTACLE FOR TREADMILL.
12. WEATHERPROOF J-BOX FOR IRRIGATION CONTROLLER.
13. PROVIDE 1-3" MTC FROM TRAFFIC CONTROL PULLBOX TO COMM ROOM.
14. LIGHTING CONTROL NETWORK HEAD-END.
15. PROVIDE A J-BOX AND DOORBELL TRANSFORMER FOR DOORBELL. PROVIDE 120V POWER TO DOORBELL TRANSFORMER.
16. PROVIDE POWER TO SIGNAGE LIGHTING.
17. PROVIDE DEDICATED 120V POWER TO ICE MAKER, VIA SWITCH ADJACENT TO UNIT. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
18. PROIDE POWER TO FIRE/SMOKE DAMPERS.
19. PROVIDE RECESSED TV J-BOX BEHIND TV AND 1.25"C FROM BOX TO ABOVE CEILING TO WITHIN 6' OF THE CABLE TRAY. PROVIDE TELEVISION CABLE PER PROJECT GENERAL NOTES.
20. PROVIDE DEDICATED 120V POWER TO BI-FOLDING DOOR. PROVIDE WIRING AND CONDUIT FROM CONTROL PANEL TO DOOR COMPONENTS. VERIFY LOCATION OF CONTROL PANEL PRIOR TO ROUGH-IN. COORDINATE REQUIREMENTS WITH APPROVED SHOP DRAWINGS.
21. PROVIDE ALTUS MULTI-FAN SPEED CONTROL.
22. PROVIDE POWER TO CONDENSATE PUMP. REFER TO MANUFACTURER'S INSTALLATION MANUAL FOR ADDITIONAL REQUIREMENTS.

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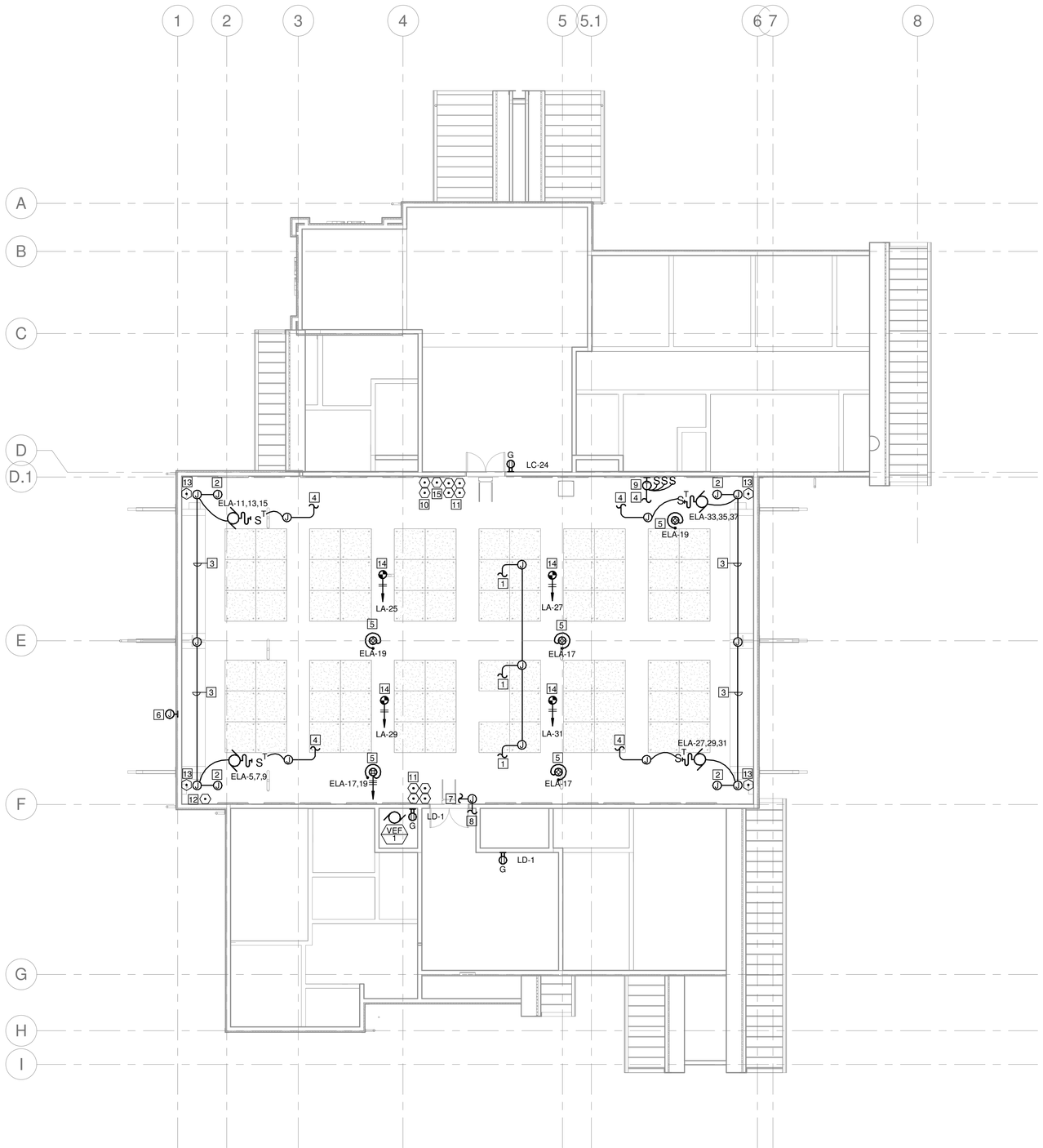
AGENCY

TITLE
POWER & SIGNAL PLAN - LEVEL 1

SHEET
E3.1

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1 POWER & SIGNAL PLAN- APARATUS LEVEL

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO ARCHITECTURAL PLANS FOR ALL FIRE-RATED ASSEMBLIES INCLUDING RATED WALLS, CEILINGS AND FLOORS.

B. REFER TO MECHANICAL EQUIPMENT COORDINATION SCHEDULE ON E0.02 FOR EQUIPMENT INFORMATION.

NUMBERED SHEET NOTES

1. PROVIDE 0.75" CONDUIT FROM ENGINE SENSOR CONTROL PANEL TO ENGINE SENSORS. WIRING FURNISHED BY MANUFACTURER. ENGINE SENSORS WILL BE LOCATED ALONG EACH RAIL. COORDINATE EXACT REQUIREMENTS PER MANUFACTURER'S DIRECTION.
2. FLUSH MOUNT JUNCTION BOX 24" AFF FOR DOOR PHOTO-ELECTRIC INTERLOCK DEVICE
3. PROVIDE CONDUIT AND WIRES AS REQUIRED TO CONNECT PHOTOELECTRIC INTERLOCK DEVICE(S) AND PUSH-BUTTON STATIONS TO OVERHEAD DOOR OPERATORS - CONNECT WIRING PER MANUFACTURER'S DIRECTION
4. PROVIDE LINE VOLTAGE INTERLOCK BETWEEN RADIANT HEATERS AND ROLL-UP DOOR OPERATORS (INTERRUPT THERMOSTAT CIRCUIT(S) WHEN ANY DOOR IS OPEN).
5. PROVIDE ENGINE CORD REEL ERICSON 5000 SERIES, MODEL #5104-30(120V,20A), 30 FOOT 10-4 SJ CORD WITH "Y" SPLITTER AND 2 EACH 5-20R PLUG ENDS (LEVITON 5369-C). CONTRACTOR TO PROVIDE FRAMING AND BRACING AS NECESSARY TO SUPPORT CORD REEL. TYPICAL OF (5). COORDINATE EXACT LOCATIONS REFER TO DETAIL 2/E7.1.
6. PROVIDE 1.0" MTC FROM JUNCTION BOX TO (F) OPTICOM CONTROL CABINET.
7. PROVIDE 1.0" MTC FROM (F)OPTICOM CONTROL CABINET TO ROLL-UP DOOR CONTROLLERS.
8. PROVIDE 1.0" MTC TO PANEL ELA FOR (F) OPTICOM CONTROL CABINET
9. THERMOSTAT LINE VOLTAGE FURNISHED BY DIV. 23 INSTALLED AND WIRED BY THIS SECTION. REFER TO 5/M5.02 FOR RADIANT HEATER DETAIL.
10. PROVIDE CONTROLS FOR EXHAUST FANS. LINK CONTROLS TO FIRE ALARM SYSTEM.
11. PROVIDE ROLL-UP DOOR PUSH-BUTTON STATIONS FOR ALL (4) DOORS. PROVIDE 0.75" CONDUIT FROM PUSH BUTTON STATION TO ROLL-UP DOOR CONTROL STATION. COORDINATE EXACT REQUIREMENTS PER MANUFACTURER'S DIRECTIONS.
12. PROVIDE TRAFFIC PRE-EMPT PUSHBUTTON STATION IN FLUSH MOUNTED DEVICE BOX. PUSHBUTTON TO BE 1 3/8" RED MUSHROOM HEAD, 1-NC & 1-NO CONTACT, STAINLESS STEEL DEVICE PLATE, SQUARE D #KR4RH13 W/#K25 PLATE.
13. THREE PHASE CONTROLLER MOUNTED ON MOTOR SIDE, REFER TO OVERHEAD DOOR INSTRUCTIONS.
14. PROVIDE L5-15R RECEPTACLE FOR 120V CONNECTION TO CEILING FAN. DAISYCHAIN FAN AND WIRE TO FAN CONTROLLER PROVIDED BY MANUFACTURER PER MANUFACTURERS STANDARDS. FAN SHALL BE HUNTER - XP HVLS 8'.
15. PROVIDE 350 SERIES HVLS FAN CONTROLLER.

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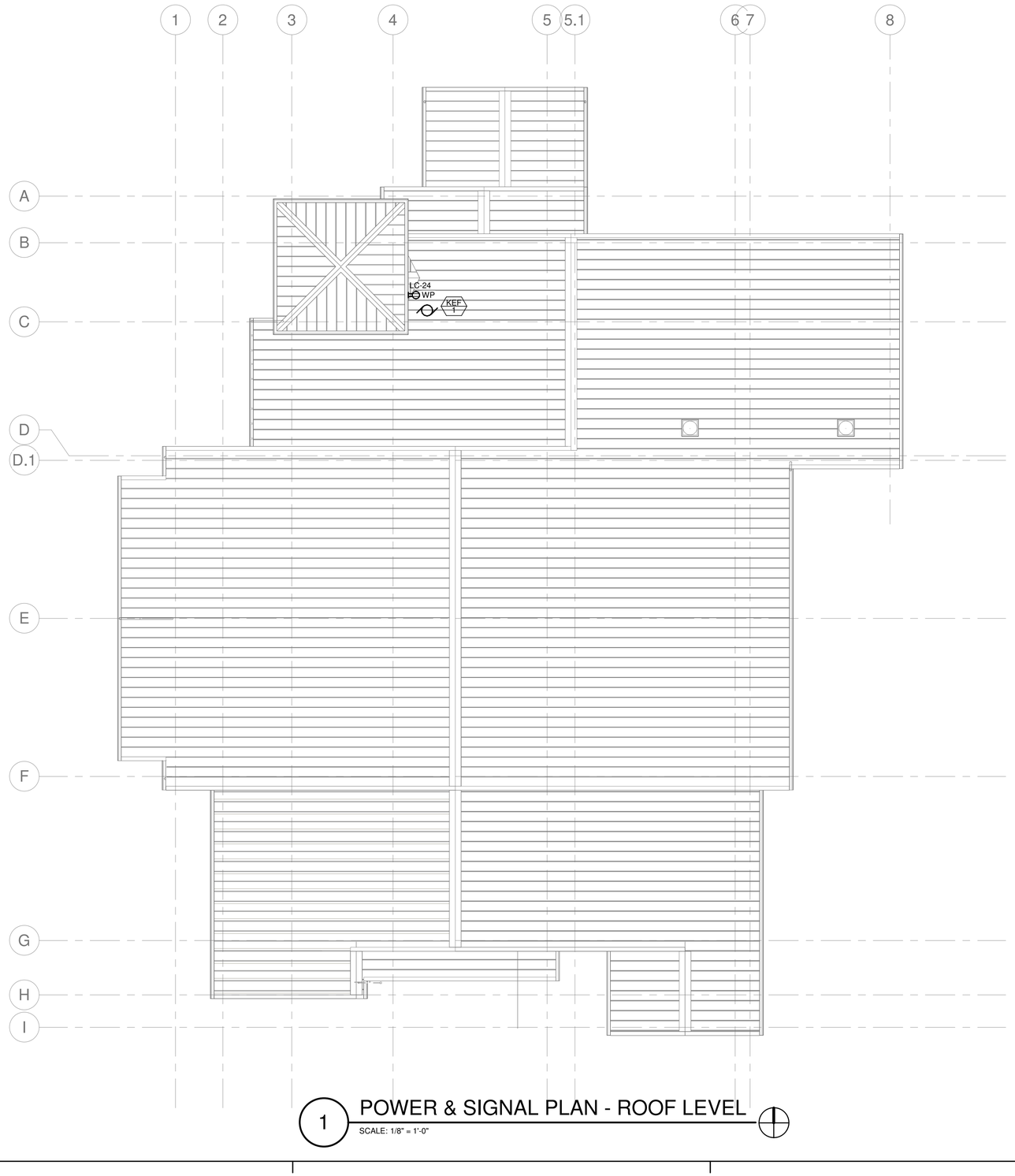
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CLIENT PROJECT NO: 22084

AGENCY

TITLE
POWER & SIGNAL PLAN- APPARATUS LEVEL

SHEET
E3.2

2"
1"
1/2"
1/4"
0
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1 POWER & SIGNAL PLAN - ROOF LEVEL

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO ARCHITECTURAL PLANS FOR ALL FIRE-RATED ASSEMBLIES INCLUDING RATED WALLS, CEILINGS AND FLOORS.

B. REFER TO MECHANICAL EQUIPMENT COORDINATION SCHEDULE ON E0.02 FOR EQUIPMENT INFORMATION.

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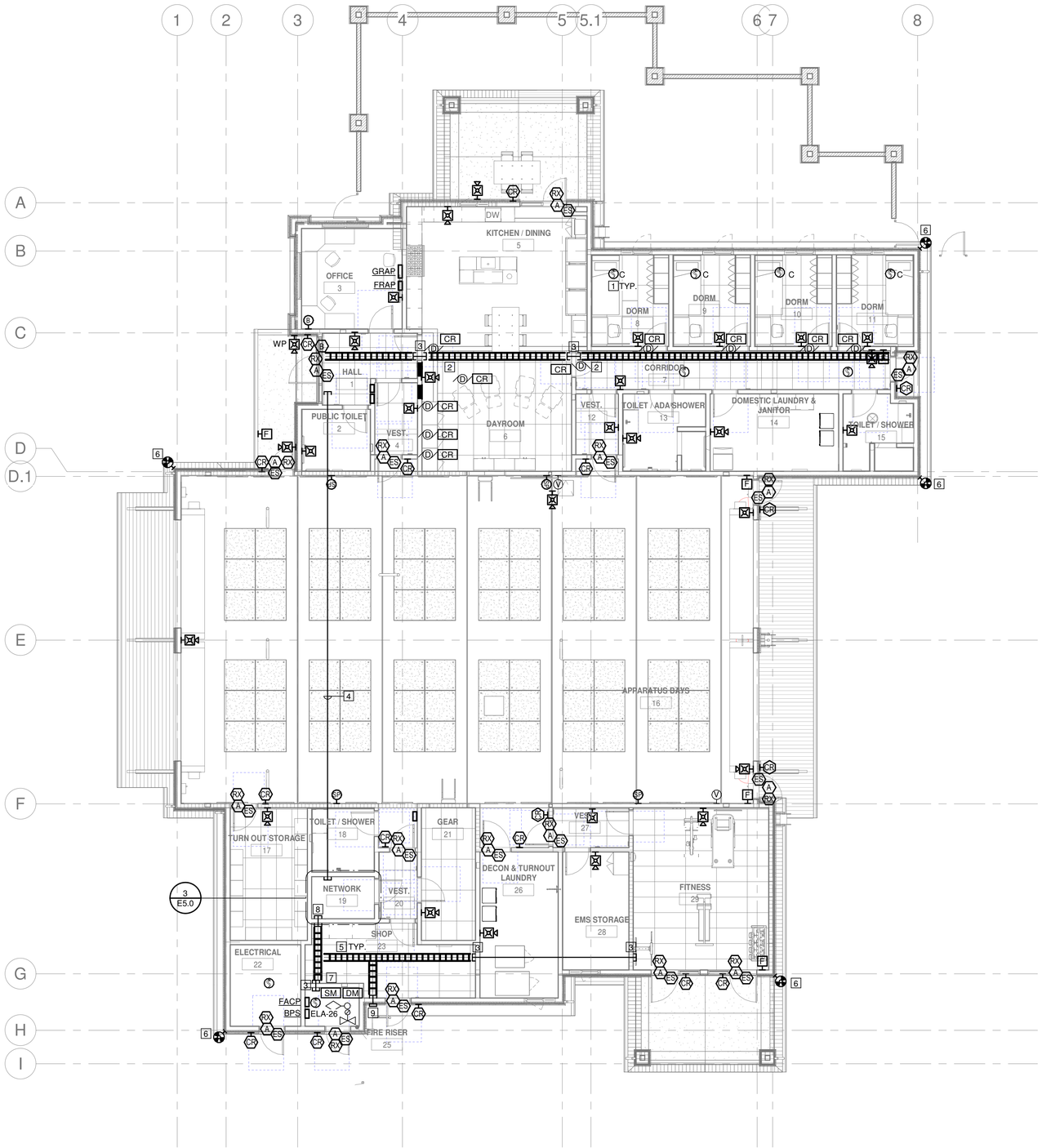
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AGENCY

TITLE
POWER & SIGNAL PLAN- ROOF LEVEL

SHEET
E3.3

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1 SPECIAL SYSTEMS PLAN - LEVEL 1

SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

A. REFER TO ARCHITECTURAL PLANS FOR ALL FIRE-RATED ASSEMBLIES INCLUDING RATED WALLS, CEILINGS AND FLOORS.

B. WIRELESS ACCESS POINT EQUIPMENT SHALL BE OWNER FURNISHED, OWNER INSTALLED. PROVIDE CAT6A CABLING TO EACH DEVICE. PROVIDE TWO NETWORK DROPS AT EACH LOCATION SHOWN, CONFIRM EXACT LOCATION PRIOR TO ROUGH-IN.

C. PROVIDE GROUNDING, BONDING, AND LIGHTING ARRESTORS FOR RADIO ANTENNA. COORDINATE BUS BAR LOCATION IN SHOP DRAWINGS, COORDINATED WITH RADIO SYSTEMS CONTRACTOR.

D. THESE SHEETS WERE NOT REVIEWED AND ARE NOT APPROVED FOR THE INSTALLATION OF ANY CO DETECTION OR FIRE ALARM SYSTEM COMPONENTS. A SEPARATE SUBMITTAL TO THE CITY OF DIXON FIRE DEPARTMENT FOR REVIEW AND APPROVAL IS REQUIRED BY THE INSTALLING C-10 LICENSED CONTRACTOR PRIOR TO ANY INSTALLATION OF ANY FIRE ALARM COMPONENTS

NUMBERED SHEET NOTES

1. SMOKE DETECTORS/HORNS WITHIN SLEEPING ROOMS AND SLEEPING ROOM CORRIDOR SHALL BE INTER-TIED SUCH THAT WHEN ANY ONE DETECTOR IS INITIATED ALL DEVICES WILL ENTER NOTIFICATION MODE. ALL MULTI CRITERIA SMOKE DETECTOR SHALL HAVE A SOUNDER BASE.
2. CABLETRAY TRANSITIONS FROM LOW CEILING TO HIGH CEILING OF DAYROOM.
3. PROVIDE 2-4" CONDUIT SLEEVES.
4. PROVIDE 6-2" CONDUITS ABOVE CEILING ACROSS APPARATUS BAY FOR TELECOM AND SIGNAL SYSTEM CABLING.
5. PROVIDE COMMUNICATION CABLE TRAY MOUNTED IN ATTIC, 8" WIDE X 2" DEEP, EZ TRAY #CF54/200 EZ SERIES OR EQUAL.
6. PROVIDE EXTERIOR PENETRATION AND BOX FOR CAMERAS. PROVIDE 1-CAT6A CABLE TO WP BOX AND CONDUIT SLEEVE INTO INTERIOR CEILING SPACE. COIL AND TERMINATE CABLE WITH 10' SLACK IN J-HOOK. CAMERAS ARE TO BE PROVIDED BY OTHERS. REVIEW FINAL LOCATION AND BOX TYPE WITH OWNER AND ARCHITECT PRIOR TO ROUGH IN.
7. PROVIDE SINGLE INPUT MONITORING MODULE FOR PIV. REFER TO SITE PLAN E1.0.
8. PROVIDE STI EZ-PATH 44+ SINGLE BANK, 4-DEVICE WALL FRAME. PROVIDE 4- EZ-PATH 44+PATHWAY DEVICES. PROVIDE ALL REQUIRED ACCESSORIES REQUIRED FOR INSTALLATION. LOCATE @ +6" ABOVE CABLE TRAY
9. PROVIDE 4-2" CONDUIT INTO A 24"X24"X12" JUNCTION BOX

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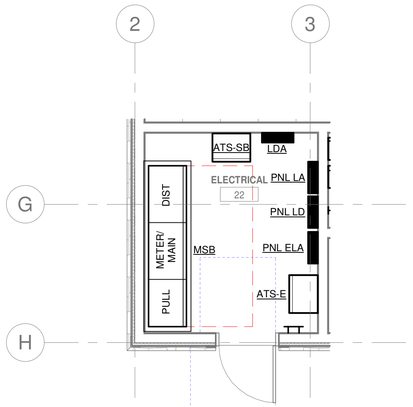
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AGENCY

TITLE
SPECIAL SYSTEMS PLAN - LEVEL 1

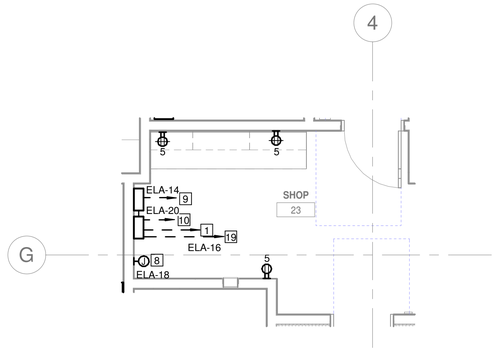
SHEET
E4.1

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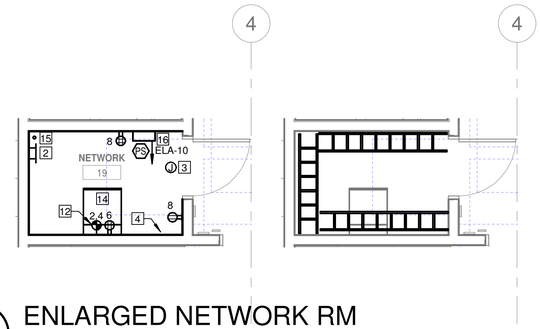
1 ENLARGED ELECTRICAL RM

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



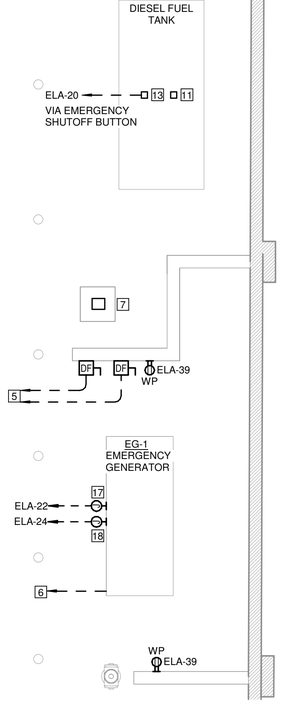
2 ENLARGED SHOP

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



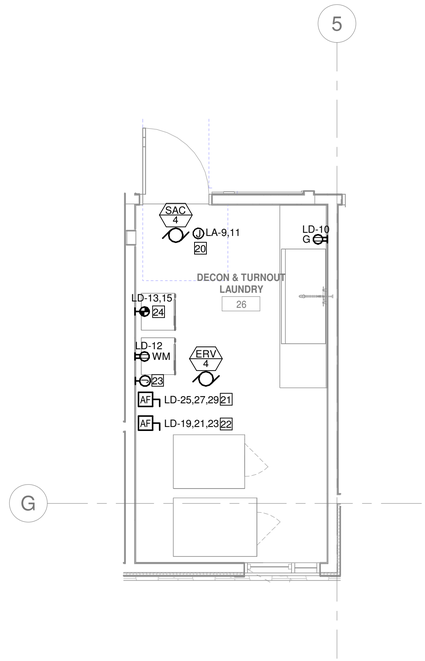
3 ENLARGED NETWORK RM

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



4 ENLARGED GENERATOR ENCLOSURE

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



5 ENLARGED LAUNDRY ROOM 26

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

GENERAL SHEET NOTES

A. REFER TO ARCHITECTURAL PLANS FOR ALL FIRE-RATED ASSEMBLIES INCLUDING RATED WALLS, CEILINGS AND FLOORS.

B. ALL ELECTRICAL WIRING AND DEVICES WITHIN THE FUELING AREA SHALL COMPLY WITH THE NEC 514.

C. REFER TO 3/E7.1 FOR GENERATOR PAD AND ANCHORAGE DETAIL.

D. REFER TO 3/E7.0 FOR GROUNDING SYSTEM SCHEMATIC DIAGRAM.

NUMBERED SHEET NOTES

1. PROVIDE 0.75"C (RGS) WITH 8 #12 TO FUEL PUMP EMERGENCY SHUTOFF SWITCH. REFER TO E1.0 ELECTRICAL SITE PLAN.
2. TELECOMMUNICATIONS GROUND BUS, REFER TO SPECIFICATIONS.
3. ALL CIRCUITS IN COMM ROOM SHALL BE SERVED FROM PANEL ELA.
4. PROVIDE PLYWOOD BACKBOARD (8'H) AROUND PERIMETER OF ROOM.
5. PROVIDE CONDUITS/ WIRE FROM EACH DISCONNECT FOR GENERATOR FEEDERS PER E6.0.
6. PROVIDE 2-1"C TO COMMUNICATION ROOM, 1 FOR GENERATOR CONTROLS WITH CABLING AND 1 SPARE.
7. FUTURE FUEL CARD READER. REFER TO NOTE 9.
8. PROVIDE 120V CONNECTION TO CONTROL POWER TRANSFORMER TO POWER KEY SWITCH.
9. FUTURE FUELING CARD READER CONTROLLER. PROVIDE 0.75"MTC (RGS) FUTURE FUEL CARD READER. REFER TO 3/E5.0
10. FUELING PUMP CONTROLLER. PROVIDE 0.75"C (RGS) WITH 2 #12, 1 #12G (FUEL PUMP POWER) TO FUEL DISPENSER PUMP. REFER TO 4/E5.0.
11. COORDINATE EXACT LOCATION OF FUEL DISPENSER PUMP. PROVIDE CONDUIT AND CONDUCTORS. REFER NOTE 10.
12. PROVIDE A NEMA 6-30R, 208V, 30A SPECIALTY RECEPTACLE WITH DEDICATED NEUTRALS AND #10 WIRE.
13. 120V CIRCUIT FOR CONVAULT PUMP. COORDINATE EXACT LOCATION.
14. PROVIDE 90"Hx24"Wx28"D WALL MOUNTED, FLOOR SUPPORTED EQUIPMENT RACK WITH 40 RACK SPACES, LEGRAND SR SERIES LARGE PIVOTING RACK OR EQUAL. PROVIDE 48-PORT PATCH PANELS AND OTHER HARDWARE PER SPECIFICATIONS. INSTALL RECEPTACLES SO ACCESSIBLE FROM BACKPLATE.
15. 3-2" CONDUIT FOR UTILITY SERVICE CABLES FROM SITE. REFER TO SITE PLAN ON E1.0
16. PROVIDE POWER FOR ACCESS CONTROL PANEL.
17. PROVIDE DEDICATED 120V POWER TO GENERATOR BATTERY CHARGER.
18. PROVIDE DEDICATED 120V POWER TO GENERATOR BLOCK HEATER.
19. PROVIDE 1"C WITH 2 #10, 1 #10G AND #88760 BELDEN CABLE TO FUEL DISPENSER.
20. PROVIDE POWER TO CONDENSATE PUMP. REFER TO MANUFACTURER'S INSTALLATION MANUAL FOR ADDITIONAL REQUIREMENTS.
21. PROVIDE 208V 3P POWER TO COMMERCIAL DRYER VIA THE FUSED DISCONNECT. REFER TO MANUFACTURER'S INSTRUCTIONS MANUAL FOR ADDITIONAL REQUIREMENTS.
22. PROVIDE 208V 3P POWER TO COMMERCIAL WASHER VIA THE FUSED DISCONNECT. REFER TO MANUFACTURER'S INSTRUCTIONS MANUAL FOR ADDITIONAL REQUIREMENTS.
23. ROUTE 1-1.5"MTC FROM PANEL LA TO JUNCTION BOX FOR FUTURE ELECTRIC COMMERCIAL DRYER.
24. PROVIDE 208V RECEPTACLE FOR CLOTHES DRYER. PROVIDE RECEPTACLE WITH NEMA CONFIGURATION TO MATCH OEM CORDSET.

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SEAL

REGISTERED PROFESSIONAL ENGINEER
#E015491
EXP. 06/30/23
SCOTT WHEELER
ELECTRICAL
STATE OF CALIFORNIA

PROJECT
DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

LIONAKIS PROJECT NO:	22204
CLIENT PROJECT NO:	22084

AGENCY

TITLE
ENLARGED PLANS

SHEET
E5.0

2" 1" 1/2" 1/4" 0
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
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FEEDER SCHEDULE

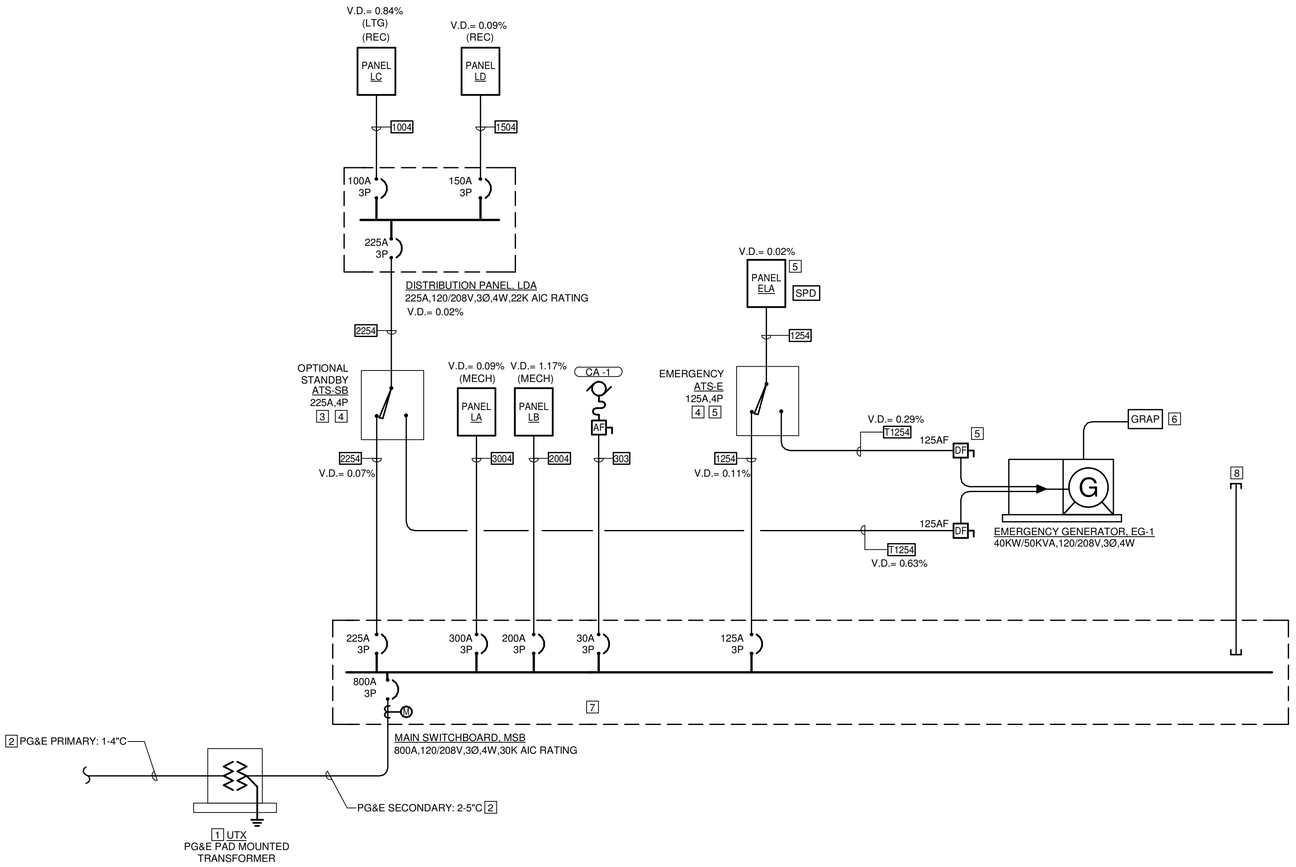
FEEDER SCHEDULE GENERAL NOTES

1. COPPER FEEDER SIZES SHOWN IN THIS SCHEDULE ARE BASED ON CONDUCTORS WITH THHN/THWN-2 INSULATION IN EMT CONDUIT.
2. ALUMINUM FEEDER SIZES SHOWN IN THIS SCHEDULE ARE BASED ON CONDUCTORS WITH XHHW-2 INSULATION IN EMT CONDUIT.
3. FEEDER SIZES SHOWN IN THIS SCHEDULE ARE BASED ON AN AMBIENT TEMPERATURE OF 30 DEGREES C (86 DEGREES F).
4. FEEDERS CONSISTING OF MULTIPLE SETS OF CONDUCTORS AND CONDUITS ARE TO BE PROVIDED WITH THE INDICATED SIZE GROUND CONDUCTOR IN EACH CONDUIT.
5. PER CEC ARTICLE 110.14, ALL FEEDERS SIZED AT #2 AWG OR LESS ARE CALCULATED PER 60 DEGREE TABLE. FEEDERS GREATER THAN #2 AWG ARE RATED 75 DEGREE.

FEEDER SCHEDULE REMARKS

A. OVERSIZED 150% NEUTRAL, SUITABLE FOR SERVICE FROM K-13 RATED TRANSFORMERS.
B. FEEDER APPROVED FOR USE WITH SEPARATELY DERIVED SYSTEM; GROUNDING AS REQUIRED BY CEC ARTICLES 240 AND 250.
C. FEEDER GROUND AND BONDING JUMPER SHALL HAVE AN AREA NOT LESS THAN 12.5% OF THE AREA OF THE LARGEST PHASE CONDUCTOR.
D. INCREASE CONDUIT TO THE NEXT LARGER TRADE SIZE WHEN USING SCHEDULE 40 OR 80 PVC CONDUIT.
E. PER CEC SECTION 240.4(B), FOR OVERCURRENT DEVICES RATED 800A OR LESS, THE NEXT HIGHER STANDARD OVERCURRENT DEVICE RATING (ABOVE THE AMPACITY OF THE CONDUCTORS) CAN BE USED. RULE CAN NOT BE APPLIED IF 100% RATED BREAKERS ARE USED.
F. PER CEC 240.21(C), THE PROVISIONS OF 240.4(B) SHALL NOT BE PERMITTED FOR TRANSFORMER SECONDARY CONDUCTORS.

FEEDER TAG	FEEDER DESCRIPTION	CONDUIT	CONDUCTORS		SEPARATELY DERIVED SYSTEM		REMARKS
			PHASE/NEUTRAL	GROUND	GROUNDING ELECTRODE	BONDING JUMPER	
202	20 AMP, 2 WIRE	1-0.75"	2 #12 CU	1 #12 CU	-	-	-
203	20 AMP, 3 WIRE	1-0.75"	3 #12 CU	1 #12 CU	-	-	-
302	30 AMP, 2 WIRE	1-0.75"	2 #10 CU	1 #10 CU	-	-	-
303	30 AMP, 3 WIRE	1-0.75"	3 #10 CU	1 #10 CU	-	-	-
402	40 AMP, 2 WIRE	1-0.75"	2 #8 CU	1 #10 CU	-	-	-
403	40 AMP, 3 WIRE	1-0.75"	3 #8 CU	1 #10 CU	-	-	-
503	55 AMP, 3 WIRE	1-0.75"	3 #6 CU	1 #8 CU	-	-	-
603	55 AMP, 3 WIRE	1-1.00"	3 #6 CU	1 #8 CU	-	-	D,E
703	70 AMP, 3 WIRE	1-1.00"	3 #4 CU	1 #8 CU	-	-	-
903	85 AMP, 3 WIRE	1-1.00"	3 #3 CU	1 #8 CU	-	-	D,E
1004	95 AMP, 4 WIRE	1-1.50"	4 #2 CU	1 #8 CU	-	-	D,E
1254	130 AMP, 4 WIRE	1-1.50"	4 #1 CU	1 #6 CU	-	-	-
T1254	130 AMP, 4 WIRE	1-2.00"	4 #1 CU	1 #6 CU	#6 CU IN 0.75" C.	#6 CU	B,F
1504	150 AMP, 4 WIRE	1-2.00"	4 #1/0 CU	1 #6 CU	-	-	-
2004	200 AMP, 4 WIRE	1-2.00"	4 #3/0 CU	1 #6 CU	-	-	-
2254	230 AMP, 4 WIRE	1-2.50"	4 #4/0 CU	1 #4 CU	-	-	-
3004	310 AMP, 4 WIRE	1-3.00"	4 #350 KCMIL CU	1 #4 CU	-	-	-



1 POWER ONE-LINE DIAGRAM

SCALE:NTS

NUMBERED SHEET NOTES

1. PG&E PAD MOUNTED TRANSFORMER, UTX. PROVIDE CONCRETE PAD, BLOCK OUTS, GROUNDING, ETC. PER PG&E STANDARDS.
2. PROVIDE CONDUITS (NUMBER AND SIZE AS INDICATED) FOR UTILITY SERVICE CABLES. CABLES FURNISHED, INSTALLED, AND CONNECTED BY UTILITY COMPANY. REFER TO ELECTRICAL SITE PLAN FOR ROUTING.
3. PROVIDE CONTROL SCHEME SUCH THAT ATS-SB CAN BE SHED (OR NOT ALLOWED TO TRANSFER) UPON GENERATOR OVERLOAD. PROVIDE ALL NECESSARY CT'S, RELAYS, ETC.
4. EQUIPMENT SHALL BE PROVIDED WITH SPECIAL CERTIFICATION PER ASCE 13.3.3, 13.3.7 AND CBC 1708.5.
5. EQUIPMENT SHALL BE SELECTIVELY COORDINATED PER CEC
6. PROVIDE GENERATOR REMOTE ANNUNCIATOR PANEL. LOCATE IN RECEPTION.
7. PROVIDE GROUNDING PER DETAIL 3/E7.0.
8. PROVIDE EMPTY CONDUIT FOR FUTURE PV CONNECTION. ROUTE CONDUIT BELOW SOLAR READY AREA DEFINED ON THE ARCHITECTURAL ROOF PLANS, NO ROOF PENETRATION REQUIRED.

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LIONAKIS PROJECT NO: 22204
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AGENCY

TITLE
POWER ONE-LINE DIAGRAM

SHEET
E6.0

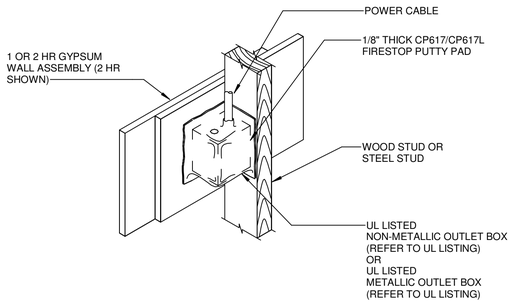
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WALL OPENING PROTECTIVE MATERIALS (CLIV)

AS TESTED TO ANSI/UL 263

1 OR 2 HR RATING



CP 617 Putty Pads,for use with max 4 by 4 in. flush device UL Listed Metallic Outlet Boxes installed with steel cover plates in 1 and 2 hr. fire rated gypsum wallboard wall assemblies framed with min 3-1/2 in. deep wood or steel studs and constructed as specified in the individual U300 or U400 Series Wall and Partition Designs in the Fire Resistance Directory. Min 1/8 in. thick moldable putty pads are to be installed to completely cover the exterior surfaces of the outlet box (except for the side of the outlet box against the stud) and completely seal against the stud within the stud cavity. When moldable putty pad outlet box protective material is used on boxes on both sides of wall as directed, the horizontal separation between outlet boxes on opposite sides of the wall may be less than 24 in. provided that the boxes are not installed back to back.

CP 617 Firestop Putty Pads,for use with max 4-11/16 by 4-11/16 in. flush device UL Listed Metallic Outlet Boxes installed with steel cover plates for use in 1 hr fire rated configuration of Wall and Partition Design No. V446 in the Fire Resistance Directory. Min 1/8 in. thick moldable putty pads are to be installed to completely cover the exterior surfaces of the outlet box (except for the side of the outlet box against the stud) and to completely seal against the box within the stud cavity. When moldable putty pad outlet box protective material is used on boxes on both sides of wall as directed, the horizontal separation between outlet boxes on opposite sides of the wall may be less than 24 in. and the boxes may be installed back to back.

CP 617 Firestop Putty Pads,for use with max 4 by 3-3/4 by 3 in. deep UL Listed Nonmetallic Outlet Boxes manufactured by Carlon Electrical Products, made from polyvinyl chloride, and bearing a 2 hr rating under the "Outlet Boxes and Fittings Classification for Fire Resistance" category in the Fire Resistance Directory. Putty pads and boxes for use in 1 and 2 hr fire rated gypsum wallboard assemblies, framed with min 3-1/2 in. deep wood studs and constructed as specified in the individual U300 Series Wall and Partition Designs in the Fire Resistance Directory. Outlet box secured to wood stud by means of two nailing tabs supplied with the outlet box. Min 1/8 in. thick moldable putty pads are to be installed to completely cover the exterior surfaces of the outlet box (except for the sides of the outlet box against the stud) including the nailing tab and completely seal against the stud within the stud cavity. Outlet boxes installed with steel or plastic cover plates. When moldable putty pad outlet box protective material is used on boxes on both sides of wall as directed, the horizontal separation between boxes on opposite sides of the wall may be less than 24 in. provided that the boxes are not installed back to back.

CP 617 Putty Pads,for use with max 4 by 4 by 2-7/8 in. deep UL Listed Nonmetallic Outlet Boxes manufactured by Carlon Electrical Products, made from polyvinyl chloride, and bearing a 2 hr rating under the "Outlet Boxes and Fittings Classification for Fire Resistance" category in the Fire Resistance Directory. Putty pads and boxes for use in the 1 hr fire rated V446 gypsum board/steel stud Wall and Partition Design in the Fire Resistance Directory. Outlet box secured to steel stud by means of fastening tab supplied with the outlet box. Min 1/8" thick moldable putty pads are to be installed to completely cover the exterior surfaces of the outlet box (except for the side of the outlet box against the stud) including the tab and completely seal against the stud within the stud cavity. Outlet boxes installed with steel or plastic cover plates. When moldable putty pad outlet box protective material is used on boxes on both sides of wall as directed, the horizontal separation between boxes on opposite sides of the wall may be less than 24 in. and the boxes may be installed back to back.

CP 617 Firestop Putty Pads,for use with max 2-1/4 by 3-3/4 by 2-3/4 in. deep UL Listed Nonmetallic Outlet Boxes manufactured by Pass and Seymore, Inc., and bearing a 2 hr rating under the "Outlet Boxes and Fittings Classification for Fire Resistance" category in the Fire Resistance Directory. Putty pads and boxes for use in 1 and 2 hr fire rated gypsum wallboard assemblies, framed with min 3-1/2 in. deep wood studs and constructed as specified in the individual U300 Series Wall and Partition Designs in the Fire Resistance Directory. Outlet box secured to wood stud by means of two nailing tabs supplied with the outlet box. Min 1/8 in. thick moldable putty pads are to be installed to completely cover the exterior surfaces of the outlet box (except for the sides of the outlet box against the stud) including the nailing tab and completely seal against the stud within the stud cavity. Outlet boxes installed with steel or plastic cover plates. When moldable putty pad outlet box protective material is used on boxes on both sides of wall as directed, the horizontal separation between boxes on opposite sides of the wall may be less than 24 in. provided that the boxes are not installed back to back.

CP 617 Firestop Putty Pads,for use with max 4 by 3-3/4 by 3 in. deep UL Listed Nonmetallic Outlet Boxes manufactured by Allied Molded Products, Inc., made from fiber reinforced thermoplastic and bearing a 2 hr rating under the "Outlet Boxes and Fittings Classification for Fire Resistance" category in the Fire Resistance Directory. Putty pads and boxes for use in 1 hr fire rated gypsum wallboard assemblies, framed with min 3-1/2 in. deep wood studs and constructed as specified in the individual U300 Series Wall and Partition Designs in the Fire Resistance Directory. Outlet box secured to wood stud by means of two nailing tabs supplied with the outlet box. Min 1/8 in. thick moldable putty pads are to be installed to completely cover the exterior surfaces of the outlet box (except for the sides of the outlet box against the stud) including the nailing tabs and completely seal against the stud within the stud cavity. Outlet boxes installed with plastic cover plates. When moldable putty pad outlet box protective material is used on boxes on both sides of wall as directed, the horizontal separation between boxes on opposite sides of the wall may be less than 24 in. provided that the boxes are not installed back to back.

HILTI® FIRESTOP SYSTEMS

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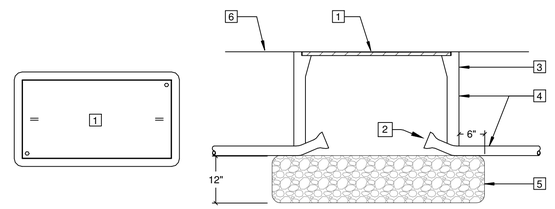
CLASSIFIED C UL US

GENERAL SHEET NOTES

A. REFER TO ARCHITECTURAL PLANS FOR IDENTIFICATION OF ALL RATED WALL ASSEMBLIES. ALL CONDUIT AND BOX PENETRATIONS OF RATED WALLS SHALL BE INSTALLED PER THE APPLICABLE UL LISTED ASSEMBLY.

1 RATED PENETRATION DETAIL

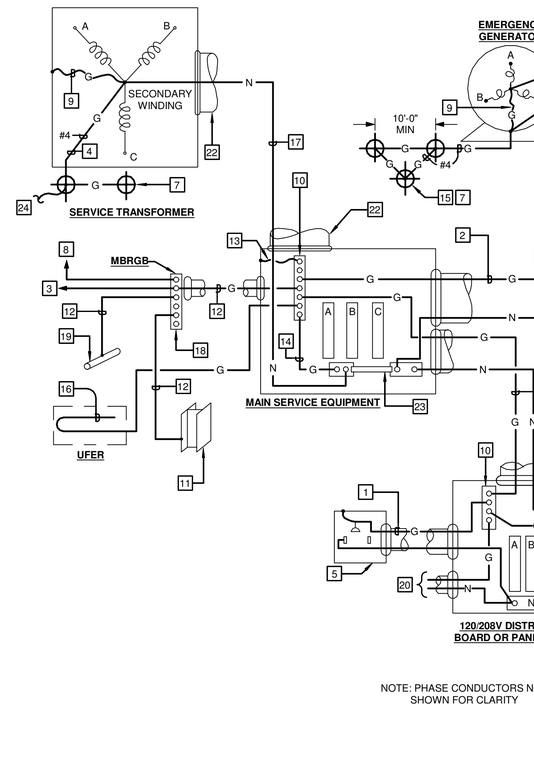
SCALE:NTS



1 CONCRETE COVER (TO SUIT APPLICATION) WITH HOLD DOWN BOLTS. LABEL COVER AS REQUIRED.
2 BELL ENDS TYP.
3 PRE CAST REINFORCED CONCRETE BOX, SIZE PER CEC. INSTALL FLUSH WITH GRADE.
4 SEAL AROUND CONDUIT, BOX & JUNCTION OF EXTENSION(S) WITH MORTAR.
5 CRUSHED ROCK
6 FINISHED GRADE

2 SITE PULLBOX INSTALLATION DETAIL

SCALE:NTS



NOTE: PHASE CONDUCTORS NOT SHOWN FOR CLARITY

1 ALL EQUIPMENT GROUNDING CONDUCTORS FOR RECEPTACLE BRANCH CIRCUITS SHALL BE SIZED PER CEC ARTICLE 250. MULTIPLE BRANCH CIRCUIT HOMERUNS SHALL USE ONLY ONE EQUIPMENT GROUNDING CONDUCTOR, UON.

2 SIZE EQUIPMENT GROUNDING CONDUCTORS FOR FEEDER CIRCUITS PER FEEDER SCHEDULE OR IF NOT SHOWN PER CEC ARTICLE 250.

3 PROVIDE MINIMUM #2 AWG MIN. FOR ANTENAE LIGHTNING ARRESTOR.

4 UTILITY SERVICE GROUNDING SHALL BE IN ACCORDANCE WITH CEC ARTICLE 250.

5 TYPICAL RECEPTACLE WITH EQUIPMENT GROUNDING CONDUCTOR. GROUND PER CEC ARTICLE 250.

6 CONNECT EQUIPMENT GROUNDING CONDUCTORS TO GROUND LUG BONDED TO THE ENCLOSURE.

7 GROUND ROD OR OTHER MADE ELECTRODES PER CEC ARTICLE 250 AND AS SHOWN ON DRAWINGS AND SPECIFICATIONS. PROVIDE 10'-0" MINIMUM BETWEEN RODS.

8 GROUND CONNECTION TO COMMUNICATION BACKBOARDS, ETC. REFER TO EACH SYSTEM FOR SIZE AND QUANTITY.

9 SYSTEM BONDING JUMPER: SIZE PER CEC ARTICLE 250.

10 EQUIPMENT COPPER GROUNDING BAR BONDED TO ENCLOSURE.

11 NEAREST EFFECTIVELY GROUNDED BUILDING STEEL.

12 GROUNDING ELECTRODE COPPER CONDUCTOR: #4/0 AWG MIN.

13 EQUIPMENT BONDING JUMPER PER CEC ARTICLE 250.

14 SERVICE MAIN BONDING JUMPER PER CEC ARTICLE 250.

15 SEPARATELY DERIVED SYSTEM GROUNDING ELECTRODE PER CEC ARTICLE 250. CONNECT TO MAIN BUILDING REFERENCE GROUND BUS IF IN SAME ROOM.

16 UFER GROUND. REFER TO SPECIFICATION SECTION 260526.

17 GROUNDED CONDUCTOR (NEUTRAL) BROUGHT TO SERVICE EQUIPMENT PER CEC ARTICLE 250.

18 MAIN BUILDING REFERENCE GROUND BUS. REFER TO SPECIFICATION SECTION 260526

19 COLD WATER PIPE PER CEC ARTICLE 250.

20 TO LIGHTING OR OTHER 120 VOLT BRANCH CIRCUIT.

21 ALL GROUNDING FOR THE EMERGENCY POWER DISTRIBUTION SYSTEM SHALL CONFORM TO ALL REQUIREMENTS SHOWN FOR THE NORMAL POWER DISTRIBUTION SYSTEM.

22 BOND PARALLEL METALLIC CONDUITS TOGETHER USING GROUNDING BUSHINGS AND ONE GROUNDING CONDUCTOR IDENTICAL IN SIZE TO GROUNDING CONDUCTOR IN EACH OF THE PARALLEL CONDUIT RUNS.

23 REMOVABLE NEUTRAL DISCONNECT LINK.

24 SUPPLY-SIDE BONDING JUMPER.

3 GROUNDING SYSTEM SCHEMATIC WIRING DIAGRAM

SCALE:NTS

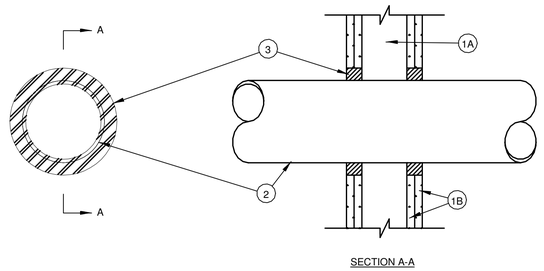
SYSTEM NO. W-L-1054

F RATINGS - 1 AND 2 HR (SEE ITEMS 1 AND 3)

T RATING - 0 HR

L RATING AT AMBIENT - LESS THAN 1 CFM/SQ FT

L RATING AT 400 F - 4 CFM/SQ FT



SECTION A-A

1. Wall Assembly -- The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs -- Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. wider and 4 to 6 in. higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. clearance is present between the penetrating item and the framing on all four sides.
   B. Gypsum Board* -- 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 32-1/4 in. for steel stud walls. Max diam of opening is 14-1/2 in. for wood stud walls.
   The F Rating of the firestop system is equal to the fire rating of the wall assembly.
2. Through-Penetrants -- One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space shall be min 0 in. to max 2-1/4 in. Pipe may be installed with continuous point contact. Pipe, conduit or tubing may be installed at an angle not greater than 45 degrees from perpendicular. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
   A. Steel Pipe -- Nom 30 in diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. Iron Pipe -- Nom 30 in. diam (or smaller) cast or ductile iron pipe.
   C. Conduit -- Nom 4 in diam (or smaller) steel electrical metallic tubing or 6 in. diam steel conduit.
   D. Copper Tubing -- Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.
   E. Copper Pipe -- Nom 6 in. diam (or smaller) regular (or heavier) copper pipe.
3. Fill, Void or Cavity Material* -- Sealant -- Min 5/8 in. thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. diam bead of fill material shall be applied at the pipe wall interface on both surfaces of wall .
   HILTI CONSTRUCTION CHEMICALS, DIV OF
   HILTI INC -- FS-One Sealant
*Bearing the UL Classification Mark

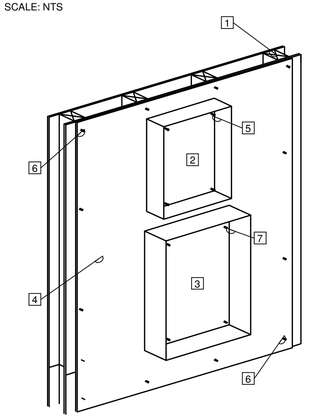
HILTI® FIRESTOP SYSTEMS

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CLASSIFIED C UL US

4 RATED PENETRATION

SCALE: NTS



DETAIL NOTES

1 FRAMED WALL
2 PANEL UNDER 20 LBS
3 PANEL 40 LBS TO 100 LBS
4 3/4" FIRE TREATED PLYWOOD BACKBOARD CUT TO FIT. PAINT P-1
5 #10 X 1" WOOD SCREW INTO PLYWOOD
6 ON WOOD STUD CENTERS USE: 1/4"x 2/5" LAG BOLT WITH LARGE WASHER. METAL STUDS CENTERS USE; HILTI-S-WW 12-24x2 PFH #4 SCREWS @12" O.C. ON PERIMETER & 24" O.C. IN FIELD OF PLYWOOD
7 1/4"x 1" LAG BOLT INTO PLYWOOD

5 WALL MOUNT PANELS AND BACKBOARD DETAILS

SCALE: NTS

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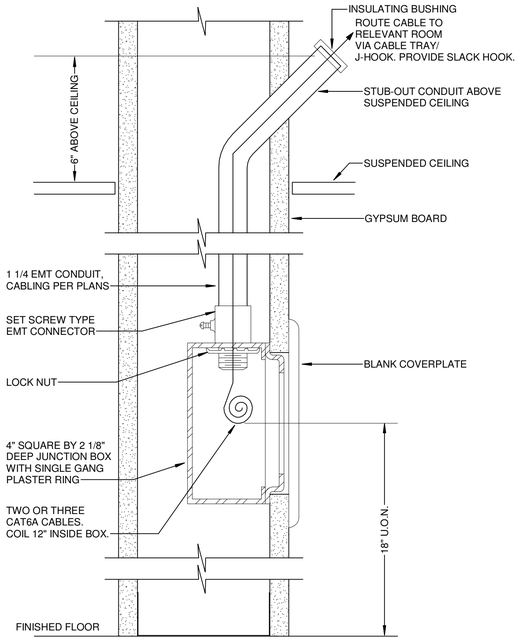
MANAGEMENT

LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO: 22084

AGENCY

TITLE
ELECTRICAL DETAILS

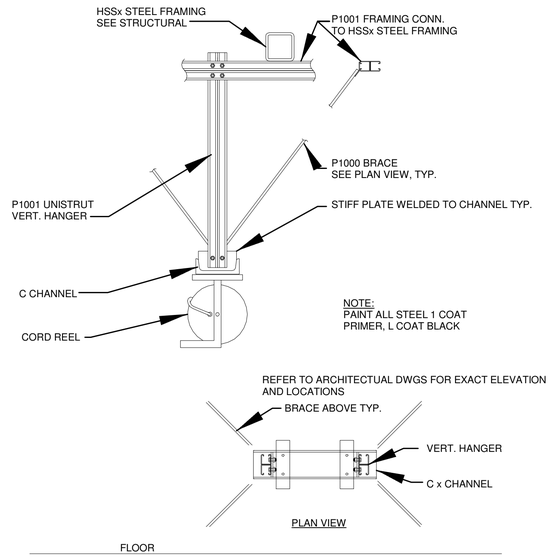
SHEET
E7.0



NOTES:
1. TYPICAL INSTALLATION WITH CONDUIT STUBBED ABOVE CEILING UNLESS SHOWN OTHERWISE ON PLANS.
2. INSTALL UL LISTED FIRE RATED SEALANT MATERIAL IN WALL AROUND DEVICE BOX TO PROVIDE FIRE-STOP AND FIRE RESISTANCE RATING WHERE INSTALLATION OCCURS.

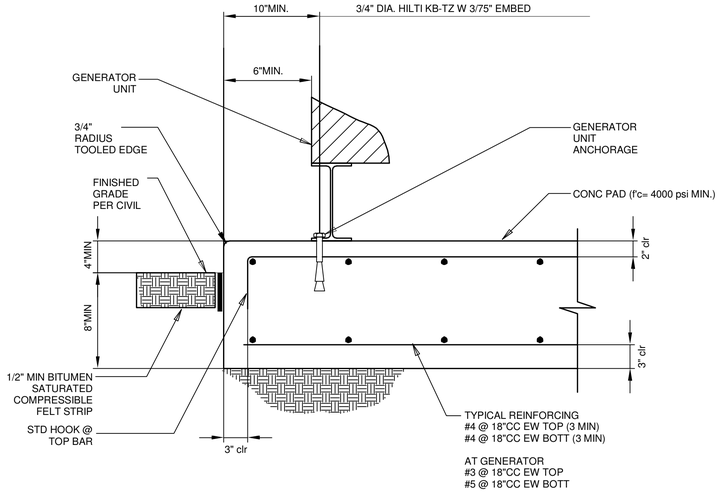
1 COMMUNICATIONS DEVICES

SCALE: NTS



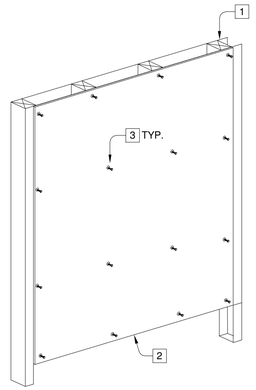
2 CORD REEL MOUNTING DETAIL

SCALE:NTS



3 GENERATOR MOUNTING DETAIL

SCALE: NTS



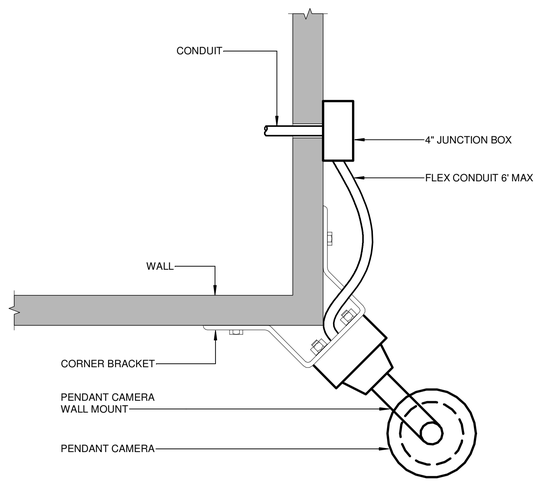
1. FRAMED WALL.

2. 3/4" THICK, 8' HIGH FIRE RETARDANT TREATED AND PAINTED PLYWOOD BACKBOARD CUT TO FIT, INSTALL +4" A.F.F.

3. ATTACH BACKBOARD EVERY 12" AT STUD CONSTRUCTION, USE HILTI-S-WW 12-24x2 PFH #10 SCREWS.

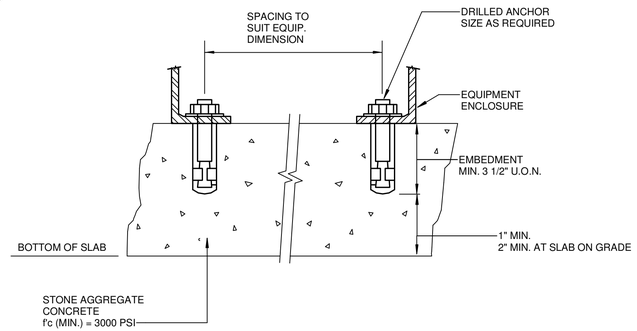
5 PLYWOOD BACKBOARD MOUNTING DETAIL

SCALE:NTS



4 EXTERIOR CAMERA - CORNER MOUNT

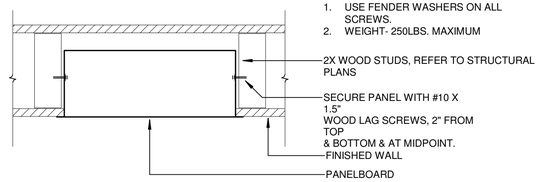
SCALE:NTS



DISTRIBUTION BOARDS : 3 PER SIDE PER CUBICLE.
TRANSFORMERS : 2 PER SIDE. (< 500 KVA).
TRANSFORMERS : 3 PER SIDE PER SECTION. (> 500 KVA).

7 ELECTRICAL EQUIPMENT FASTENING DETAIL

SCALE:NTS



6 SURFACE OR RECESSED PANELBOARD

SCALE:NTS

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SEAL

REGISTERED PROFESSIONAL ENGINEER
#E015491
EXP. 06/30/25
SCOTT WHEELER
ELECTRICAL
STATE OF CALIFORNIA

PROJECT
DIXON FIRE STATION 82

DIXON, CA 95620

CLIENT
CITY OF DIXON FIRE DEPARTMENT

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT

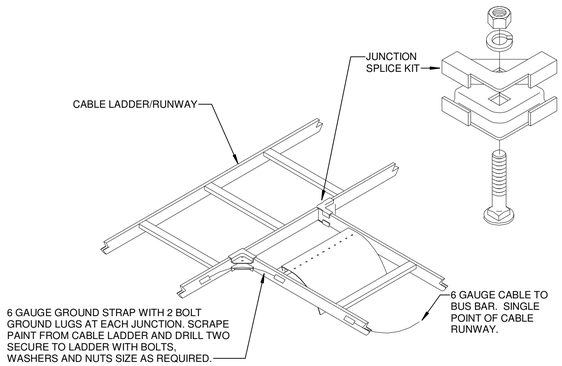
LIONAKIS PROJECT NO:	22204
CLIENT PROJECT NO:	22084

AGENCY

TITLE
ELECTRICAL DETAILS

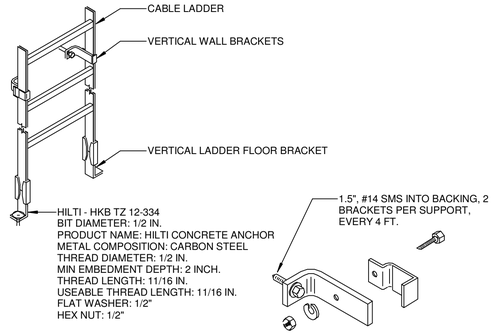
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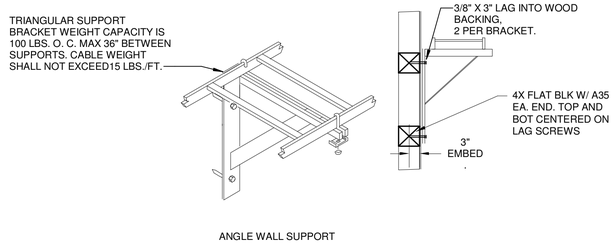
1 LADDER JUNCTION KIT

SCALE:NTS



2 VERTICAL LADDER SUPPORT

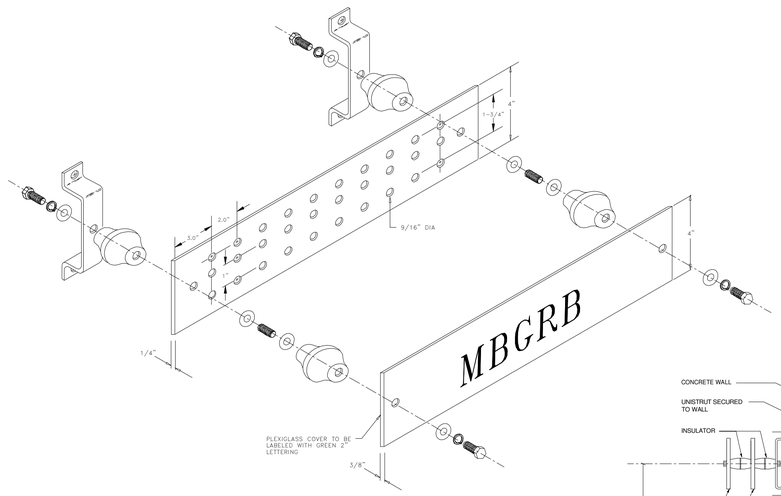
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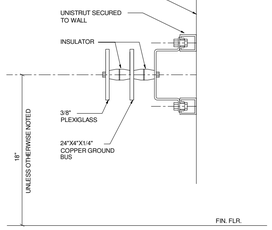


ANGLE WALL SUPPORT

3 ANGLE LADDER SUPPORT

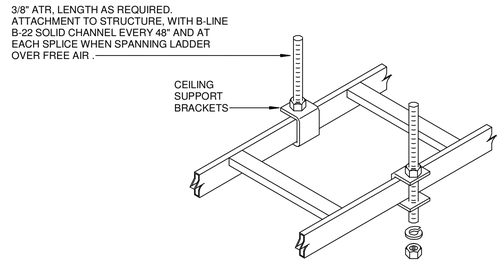
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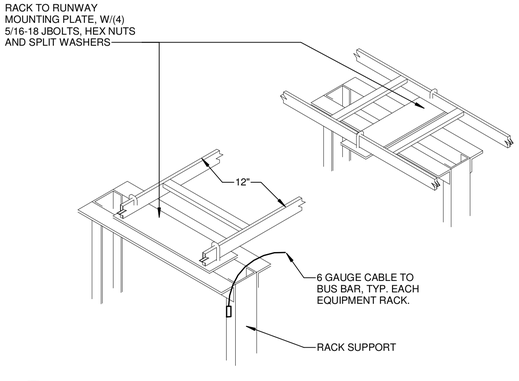
4 GROUNDING BUS DETAIL

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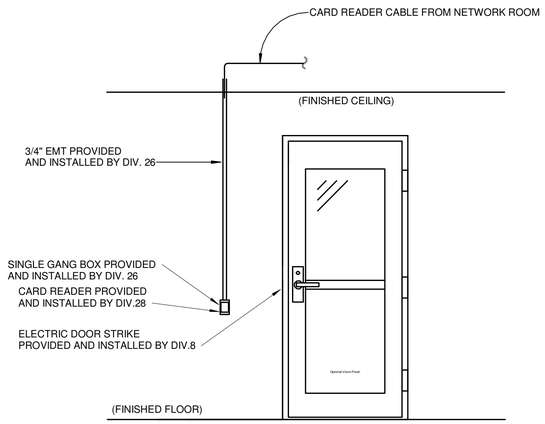
5 LADDER VERTICAL SUPPORT

SCALE:NTS



6 LADDER TO RACK SUPPORT

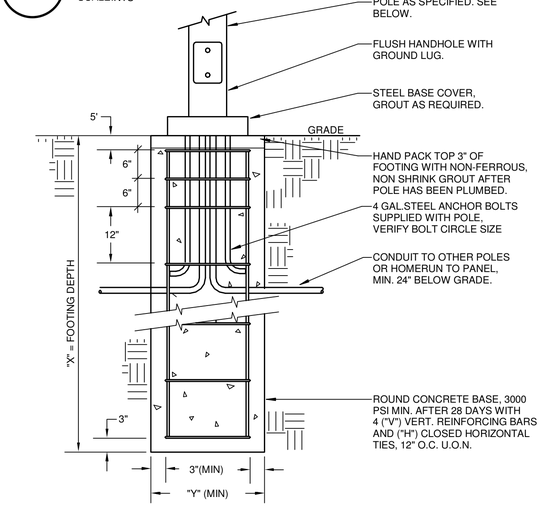
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SEE ARCHITECTURAL PLANS FOR DOOR SCHEDULE FOR ADDITIONAL INFORMATION (FRONT VIEW)

8 DOOR READER DETAIL

SCALE:NTS



NOMINAL HEIGHT	POLE HEIGHT	BOLT CIRCLE	"H"	"V"	'X'	"Y"
20'-0"	20'-0"	9.5"-11"	#3	#4	5'-0"	24"

7 LIGHTING POLE BASE

SCALE:NTS

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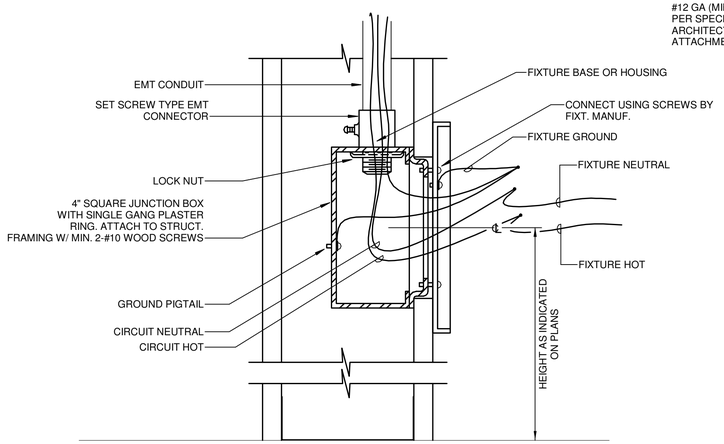
LIONAKIS PROJECT NO:	22204
CLIENT PROJECT NO:	22084

AGENCY

TITLE
ELECTRICAL DETAILS

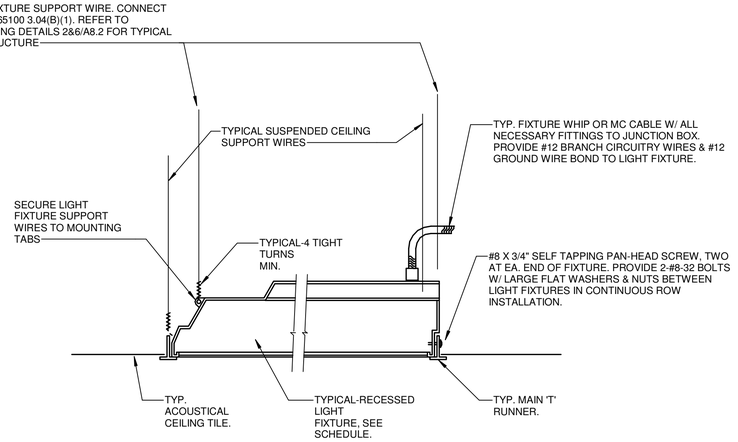
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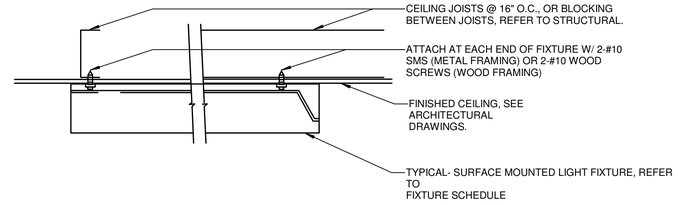
1 WALL MOUNTED FIXTURE

SCALE:NTS



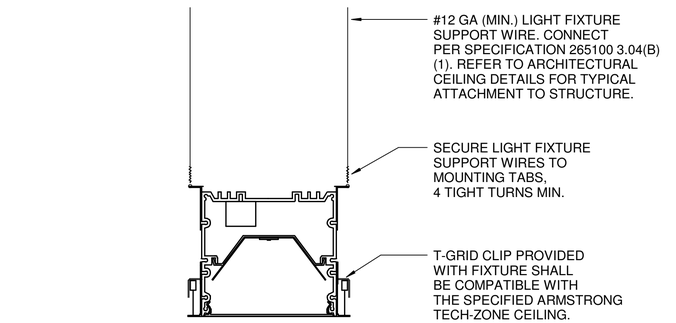
2 RECESSED FIXTURE AT T-BAR CEILING

SCALE: 12" = 1'-0"



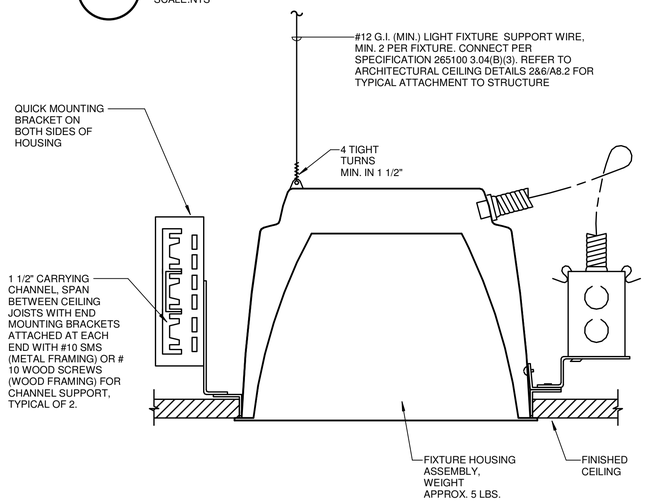
3 SURFACE MOUNTED FIXTURE

SCALE:NTS



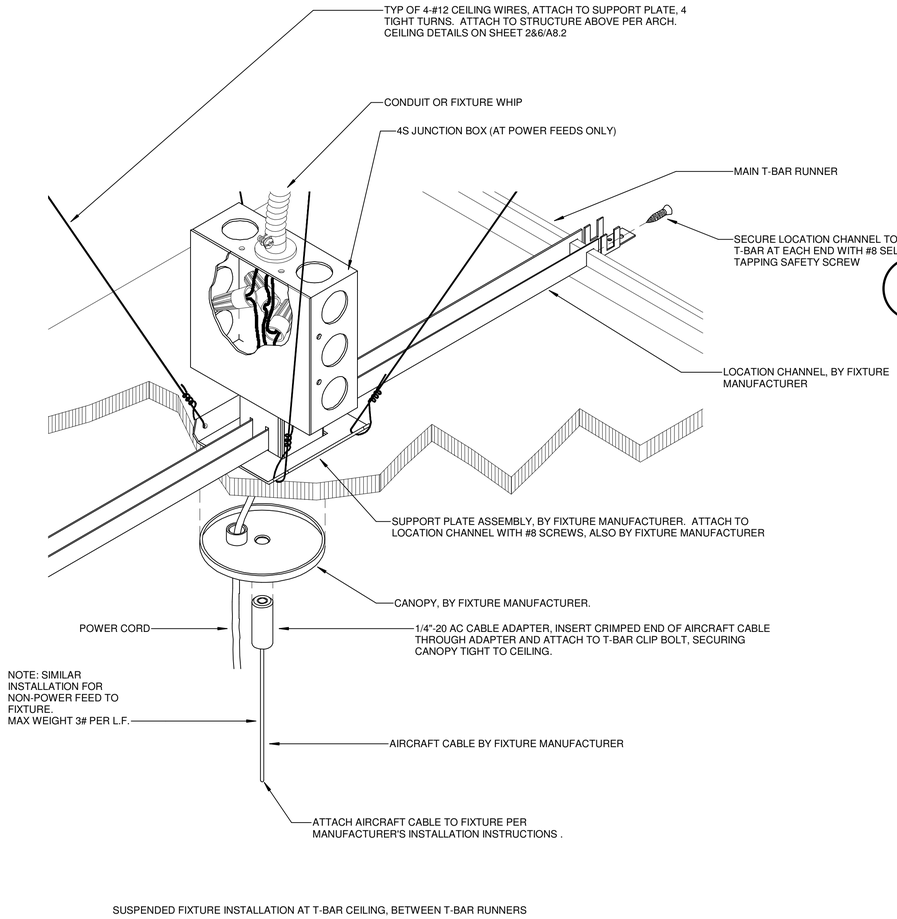
4 RECESSED LINEAR 'SLOT' LIGHT FIXTURE

SCALE:NTS



5 RECESSED DOWNLIGHT

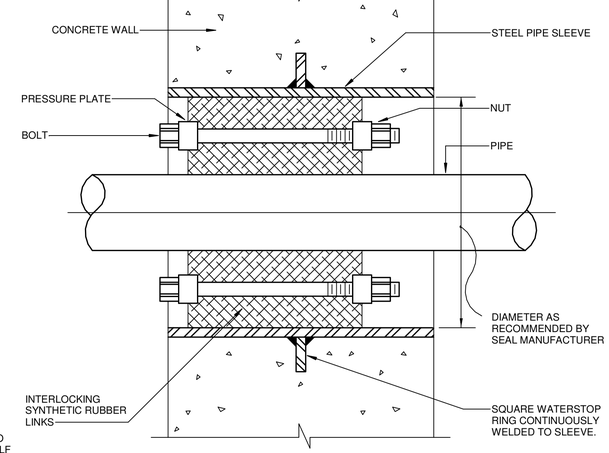
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SUSPENDED FIXTURE INSTALLATION AT T-BAR CEILING, BETWEEN T-BAR RUNNERS

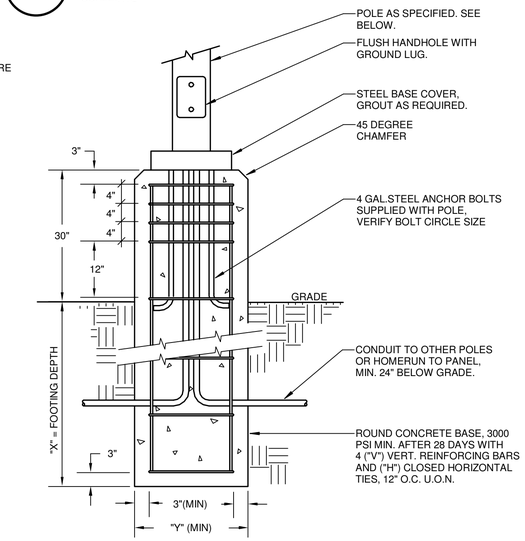
6 SUSPENDED LIGHT FIXTURE

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



8 EXTERIOR WALL PENETRATION DETAIL

SCALE:NTS



NOMINAL HEIGHT	POLE HEIGHT	BOLT CIRCLE	"H"	"V"	'X'	"Y"
20'-0"	17'-6"	9.5"-11"	#3	#4	5'-0"	24"

7 LIGHTING POLE BASE DETAIL - RAISED

SCALE:NTS

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ISSUED

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LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO: 22084

AGENCY

TITLE
ELECTRICAL DETAILS

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DEFERRED SUBMITTAL NOTES

AUTOMATIC FIRE SPRINKLER SYSTEM AND FIRE ALARM SYSTEM ARE DEFERRED-APPROVAL ITEMS.

DEFERRED SUBMITTALS FOR THE PERMIT SHALL BE SUBMITTED BY GENERAL CONTRACTOR FOR FIRE SPRINKLER AND FIRE ALARM SYSTEMS INCLUDING ANY MECHANICAL, ELECTRICAL, AND PLUMBING MODIFICATIONS TO ACCOMMODATE THE FIRE SPRINKLER AND FIRE ALARM SYSTEMS.

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR HIRING LICENSED PROFESSIONALS AS REQUIRED TO DESIGN AND CONSTRUCT THE SYSTEMS INCLUDING PROVIDING SERVICES FOR THE PREPARATION OF DRAWINGS NECESSARY TO OBTAIN A REVIEW AND PERMIT APPROVAL FROM THE OFFICE OF THE COUNTY FIRE MARSHAL HAVING JURISDICTION OVER THE PROJECT.

DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DESIGNATED SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE OFFICE OF THE COUNTY FIRE MARSHAL.

DEFERRED SUBMITTAL SHALL INCLUDE COMPREHENSIVE ENGINEERING ANALYSIS BY A CALIFORNIA LICENSED FIRE PROTECTION ENGINEER USING PERFORMANCE REQUIREMENTS AND DESIGN CRITERIA INDICATED ON THESE DRAWINGS AND THE CONTENTS OF SECTION 21 10 00 & SECTION 28 31 00 (INCLUDING RELATED AND/OR REFERENCED REQUIREMENTS IDENTIFIED THEREIN). SUBMITTAL SHALL INCLUDE COMPLETE HYDRAULIC CALCULATIONS AND CUTSHEETS FOR MATERIALS AND PRODUCTS USED IN THE SYSTEM.

COUNTY FIRE MARSHAL NOTES

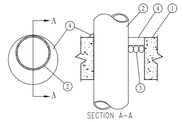
1. SHOP DRAWING SUBMITTALS TO THE COUNTY FIRE MARSHAL OFFICE FOR REVIEW SHALL INCLUDE A DETAILED SCOPE OF WORK DESCRIPTION FOR EACH BUILDING/SHEET.
2. SHOP DRAWINGS SHALL CLEARLY INDICATE THE POINT OF CONNECTION FOR SPRINKLER CONTRACTOR'S WORK (I.E. 6" ABOVE FINISHED FLOOR, ETC).
3. SPRINKLER PLANS SHALL BE APPROVED PRIOR TO THE INSTALLATION OF ANY PIPE. A STAMPED SET OF APPROVED AUTOMATIC FIRE SPRINKLER DRAWINGS SHALL BE ON THE JOB SITE & USED FOR INSTALLATION. ANY DEVIATION FROM THE APPROVED PLANS, INCLUDING THE SUBSTITUTION OF COMPONENTS, SHALL BE APPROVED BY THE COUNTY FIRE MARSHALL.
4. THIS AUTOMATIC SPRINKLER SYSTEM SHALL BE DESIGNED, FABRICATED, AND INSTALLED IN ACCORDANCE WITH 2025 NFPA 13 WITH CA AMENDMENTS.
5. ANY DISCREPANCIES BETWEEN THE DRAWING AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF THE INSPECTOR OF RECORD.
6. A MINIMUM OF 72 HOURS' NOTICE SHALL BE REQUIRED FOR ANY TESTING AND/OR INSPECTION.
7. ALL SPRINKLER PIPING SHALL REMAIN UNCOVERED UNTIL INSPECTED BY THE COUNTY FIRE MARSHAL.
8. UPON COMPLETION OF THE AUTOMATIC FIRE SPRINKLER SYSTEM, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE COUNTY FIRE MARSHAL.
9. A CERTIFICATE OF COMPLIANCE SHALL BE PREPARED BY THE INSTALLER AND GIVEN TO THE COUNTY FIRE MARSHAL UPON COMPLETION OF THE INSTALLATION.

ANCHORAGE & BRACING NOTES

1. SHOP DRAWINGS AND ENGINEERING CALCULATIONS FOR ANCHORAGE, SUPPORT, AND SEISMIC BRACING OF MECHANICAL EQUIPMENT, PIPING AND ETC NOT SHOWN ON DRAWING SHALL BE PROVIDED BY THE CONTRACTOR AND SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO FABRICATION. ALL SUBMITTALS SHALL BE SIGNED BY A CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE OF CA.
2. ALL FIRE PROTECTION EQUIPMENT SHALL BE ANCHORED OR BRACED TO MEET THE HORIZONTAL AND VERTICAL FORCES PRESCRIBED IN ASCE 7-16 CHAPTERS 13, 29, AND 30, AND AS DEFINED IN 2022 CBC SECTIONS 1617A.1.18 THROUGH 1617A.1.26.
3. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT BRACE LOADS.

SYSTEM NO. C-AJ-1044
(FORMERLY SYSTEM NO. 319)

F RATINGS–2, 3, AND 4 HR (SEE ITEMS 2A AND 4)
T RATING–0 HR
L RATING AT AMBIENT – 2 CFM/sq ft
L RATING AT 400° F – LESS THAN 1 CFM/sq ft



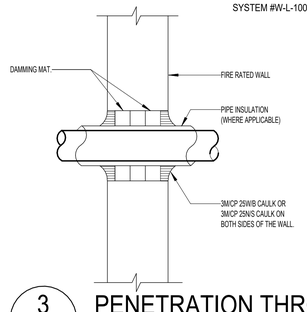
Min Floor Thkns In.	Nom Pipe Tube or Conduit Diam In.	Max Annular Space In.	Min Caulk Thkns In.	F Rating Hr
2 1/2	1/2 - 12	1 to 3/8	1/2	2
2 1/2	1/2 - 12	3 to 1/4	1	2
4 1/2	1/2 - 6	1 to 3/8	1/4 (a)	2
4 1/2	1/2 - 12	1 to 1/4	1/2	3
4 1/2	1/2 - 20	2	1	3
4 1/2	1/2 - 20	2	1	3
4 1/2	1/2 - 12	3 1/4	1	3
4 1/2	22 - 30	2	2	3
5 1/2	1/2 - 6	1 3/8	1 (b)	4

Metallic Pipes
(a) Min 2 in thickness of mineral wool batt insulation required in annular space.
(b) Min 1 in. thickness of mineral wool batt insulation required in annular space on both sides of floor or wall assembly. Min 1 in. thickness of caulk to be installed flush with each surface of floor or wall assembly.
MINNESOTA MINING & MFG CO - CP 25WB+.
*Bearing the UL Classification Marking

1. FLOOR OR WALL ASSEMBLY - LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. EXCEPT AS NOTED IN TABLE UNDER ITEM 4, MIN THICKNESS OF SOLID CONCRETE FLOOR OR WALL ASSEMBLY IS 4-1/2 IN. FLOOR MAY ALSO BE CONSTRUCTED OF ANY MIN 6 IN. THICK UL CLASSIFIED HOLLOW CORE PRECAST CONCRETE UNITS *. WHEN FLOOR IS CONSTRUCTED OF HOLLOW CORE PRECAST CONCRETE UNITS, PACKING MATERIAL (ITEM 3) AND CAULK FILL MATERIAL (ITEM 4) TO BE INSTALLED SYMMETRICALLY ON BOTH SIDES OF FLOOR, FLUSH WITH FLOOR SURFACE. WALL ASSEMBLY MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. MAX DIAM OF OPENING IS IN SOLID LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE. FLOOR IS 32 IN. MAX DIAM OF OPENING IN FLOOR CONSTRUCTED OF HOLLOW-CORE PRECAST CONCRETE UNITS IS 7 IN. SEE CONCRETE BLOCKS (CAZT) AND PRECAST CONCRETE UNITS (CFTV) CATEGORIES IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
2. THROUGH PENETRANTS - ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. MAX ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND EDGE OF THROUGH OPENING OR SLEEVE IS DEPENDENT ON THE PARAMETERS SHOWN IN ITEM 4. MIN ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND EDGE OF THROUGH OPENING IS ZERO IN. (POINT CONTACT). PIPE CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
   - A. STEEL PIPE - NOM 30 IN DIAM (OR SMALLER) SCH 10 (OR HEAVIER) STEEL PIPE
   - B. IRON PIPE - NOM 30 IN DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE
   - C. CONDUIT - NOM 6 IN DIAM (OR SMALLER) RIGID STEEL CONDUIT
   - D. CONDUIT - NOM 4 IN DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING
   - E. COPPER TUBING - NOM 6 IN DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBE
   - F. COPPER PIPE - NOM 6 IN DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE
3. PACKING MATERIAL - POLYETHYLENE BACKER ROD OR NOM 1 IN. THICKNESS OF TIGHTLY-PACKED MINERAL WOOL BATT OR GLASS FIBER INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF CAULK FILL MATERIAL (ITEM 4).
4. FILL VOID OR CAVITY MATERIAL* - CAULK - APPLIED TO FILL THE ANNULAR SPACE FLUSH WITH TOP SURFACE OF FLOOR IN WALL ASSEMBLIES, REQUIRED CAULK THICKNESS TO BE INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL, FLUSH WITH WALL SURFACE. AT POINT CONTACT LOCATION BETWEEN PENETRANT AND SLEEVE OR BETWEEN PENETRANT AND CONCRETE, A MIN 1/4 IN. DIAM BEAD OF CAULK SHALL BE APPLIED AT TOP SURFACE OF FLOOR AND AT BOTH SURFACES OF WALL. THE HOURLY F RATINGS AND THE MIN REQUIRED CAULK THICKNESSES ARE DEPENDENT UPON A NUMBER OF PARAMETERS, AS SHOWN IN THE FOLLOWING TABLE:
5. DO NOT CUT OR DRILL THROUGH WALL STUDS OR STRUCTURAL SLABS UNLESS SPECIFICALLY DETAILED ON APPROVED DRAWINGS.

4 PENETRATION THROUGH HORIZONTAL ASSEMBLY
FP0.01 SCALE: NONE

SYSTEM #W-L-1001 FOR UNISULATED PIPE.



DETAIL NOTES:

1. THE MAXIMUM ANNULAR SPACE TO BE FILLED IS 2". THE MINIMUM ANNULAR SPACE IS 3/4". THE MAXIMUM PIPE SIZE IS A NOMINAL 4".
2. FOR SOLID CONCRETE WALLS, 3M/CP 25 CAULK MAY BE CENTERED IN THE WALL WITH DAMMING MATERIAL ON BOTH SIDES OF CAULK.
3. USE CP 25S/L (SELF LEVELING) CAULK ON HORIZONTAL SURFACES WHEN SEALING OPENING FROM ABOVE THE PENETRATION. USE CP25N (NO SAG) CAULK ON VERTICAL SURFACES AND ON HORIZONTAL SURFACES WHEN SEALING OPENINGS FROM BELOW. USE CP 25WB CAULK ON EITHER APPLICATON.
4. SHRINKAGE OF CP CAULKS IS ACCEPTABLE AFTER INITIAL WET DEPTH INSTALLATION.
5. THE DEPTH OF THE CP 25 CAULKS DEPENDS ON THE INSULATION THICKNESS.

CAULK DEPTH (MIN.)	INSULATION
1"	1" THICK
2"	2" - 3" THICK

6. IF WATER PIPE IS INSULATED, CAULK PIPE OUTSIDE OF PIPE INSULATION.

3 PENETRATION THROUGH 1-HR OR 2-HR WALL
FP0.01 SCALE: NONE

FIRE SPRINKLER LEGEND

SYMBOL	ABBREVIATION	DESCRIPTION
AFS	AFS	AUTOMATIC FIRE SPRINKLER PIPING
BFP/WM	BFP/WM	BACKFLOW PREVENTOR/WATER METER
CSP	CSP	COMBINATION WET STAND PIPE AND AUTOMATIC SPRINKLER PIPING
FDC	FDC	FIRE DEPARTMENT CONNECTION
FH	FH	FIRE HYDRANT
F	F	FIRE SPRINKLER PIPING
D	D	FIRE SPRINKLER PIPING DRAIN
FSR	FSR	FIRE SPRINKLER RISER
	(FA) , (TA)	FROM ABOVE , TO ABOVE
	(FB) , (TB)	FROM BELOW , TO BELOW
OS & Y	OS & Y	OUTSIDE STEM & YOKE VALVE
PIV	PIV	POST INDICATOR VALVE
WSP	WSP	WET STAND PIPE
		UPRIGHT FIRE SPRINKLER HEAD
		PENDANT FIRE SPRINKLER HEAD
		SIDEWALL FIRE SPRINKLER HEAD

SPRINKLER SYSTEM DESIGN BASIS

BASIS OF DESIGN - SUPPLY PRESSURE

STATIC PRESSURE AVAILABLE IN SITE FIRE LOOP MAIN — 50 PSI (FIELD VERIFY)
RESIDUAL PRESSURE AVAILABLE IN SITE FIRE LOOP MAIN — 50 PSI (FIELD VERIFY)
BFP & SERVICE PRESSURE LOSSES: — 10 PSI
NOTE: BFP PRESSURE LOSS DOWNSTREAM OF SITE FIRE LOOP.
RESIDUAL PRESSURE AVAILABLE AT RISER: — 40 PSI
PRESSURE REQUIRED AT REMOTE SPRINKLER HEAD: — 20 PSI

DESIGN WATER DEMAND

BASIS OF DESIGN SPRINKLER FLOW BASED ON DENSITY/AREA CURVES OF NFPA 13 - FIGURE 11.2.3.1.1:

LIGHT HZ, GR-1*, 1500 SF @ 0.15 GPM/FT2 =	250 GPM
HOSE STREAM ALLOWANCE** =	250 GPM
TOTAL DESIGN WATER DEMAND	500 GPM

* ORDINARY HAZARD, GROUP 1 IS DRIVING DEMAND FOR FLOW DETERMINATION

** COMBINED HOSE STREAM FOR ORDINARY HAZARD

PIPING, DUCTWORK, & ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

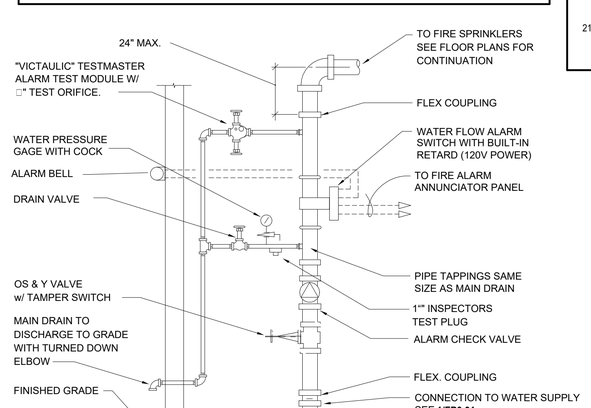
PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO RESIST THE FORCES PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTION 13.6.5, 13.6.6, 13.6.7,13.6.8, AND 2022 CBC, SECTIONS 1617A.1.24, 1617A.1.25, AND 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON PREPAPPROVED INSTALLATION GUIDE (E.G., SMACNA OR 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 REVORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

MP ☐ MD ☐ PP ☐ E ☐ OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS

MP ☐ MD ☐ PP ☒ E ☐ OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVED (OPM #) #0043-13.



2 WET PIPE FIRE SPRINKLER RISER
FP0.01 SCALE: NONE

DELEGATED DESIGN REQUIREMENTS

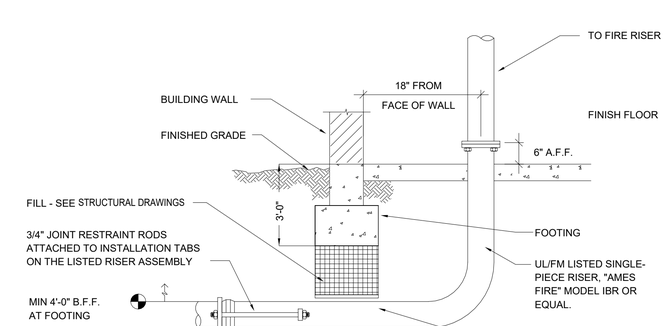
ENTIRE AUTOMATIC FIRE SPRINKLER SYSTEM IS A DEFERRED APPROVAL ITEM. DESIGN SPRINKLER SYSTEM(S), INCLUDING COMPREHENSIVE ENGINEERING ANALYSIS BY A QUALIFIED PROFESSIONAL ENGINEER, USING PERFORMANCE REQUIREMENTS AND DESIGN CRITERIA INDICATED ON THESE DRAWINGS AND IN SECTION 21 10 00.

SPRINKLER SYSTEM DESIGN SHALL BE APPROVED BY THE COUNTY FIRE MARSHALL AND AUTHORITIES HAVING JURISDICTION PRIOR TO START OF INSTALLATION.

REFER TO SPECIFICATIONS SECTION 21 10 00 FOR DELEGATED DESIGN REQUIREMENT DETAILS.

FIRE PROTECTION NOTES

1. DRAWINGS SHALL BE CONSIDERED DIAGRAMMATIC ONLY. CONTRACTOR SHALL FIELD VERIFY WHERE POSSIBLE EXACT LOCATIONS, SIZES AND ELEVATIONS OF ALL DUCTWORK, PIPING CONNECTIONS, OTHER WORK, ETC., PRIOR TO THE INSTALLATION OF ANY NEW WORK.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REVISIONS, TRANSITIONS, OFFSETS, ETC., TO AVOID DUCTWORK, PIPING, EQUIPMENT OR STRUCTURE AND TO MAKE A COMPLETE AND FUNCTIONING SYSTEM.
3. INSTALL ALL WORK TO CLEAR ARCHITECTURAL, STRUCTURAL MEMBERS AND MECHANICAL SYSTEMS. ADJUST PIPING AS NECESSARY. NO ITEM SUCH AS PIPE, ETC., SHALL BE IN CONTACT WITH ANY EQUIPMENT. INSTALL ALL PIPING AS HIGH AS POSSIBLE OR AS SPECIFIED ON DRAWINGS TO MAINTAIN MAXIMUM ACCESSIBILITY.
4. THE ENTIRE SYSTEM IS TO BE DESIGNED IN ACCORDANCE WITH THE 2022 CALIFORNIA BUILDING CODE, COUNTY FIRE MARSHAL REQUIREMENTS, THE LATEST EDITIONS OF THE NFPA CODES, AND ALL OTHER REGULATIONS THAT MAY APPLY.
5. INSTALLATION OF THE SPRINKLER SYSTEM SHALL NOT BE STARTED UNTIL COMPLETE PLANS AND SPECIFICATIONS, INCLUDING WATER SUPPLY INFORMATION HAVE BEEN APPROVED BY THE LOCAL FIRE MARSHAL AND ENGINEER OF RECORD. AT VARIOUS STAGES AND UPON COMPLETION, THE SYSTEM MUST BE TESTED IN THE PRESENCE OF THE INSPECTOR OF RECORD.
6. ALL AREAS OUTLINED ON PLANS SHALL BE FIRE SPRINKLERED. SEE PLANS FOR LOCATIONS. REFER TO DIVISION 21 SPECIFICATION FOR A COMPLETE DESCRIPTION OF FIRE PROTECTION REQUIREMENTS.
7. THE LOCATIONS OF RISERS, FEED MAINS, CROSS MAINS AND BRANCH PIPING WHERE SHOWN ON THE DRAWINGS IS APPROXIMATE. FINAL LOCATION IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE IN COMPLIANCE WITH THE SPECIFICATIONS AND ALL APPLICABLE CODES OR REGULATIONS.
8. ALL PIPING, HEADS, AND SPRINKLER WORK SHALL BE COORDINATED TO THE ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL WORK. PIPING SHALL BE CONCEALED, EXCEPT WHERE SO INDICATED OR WHERE WHERE ABSOLUTELY NECESSARY TO BE EXPOSED. EXPOSED PIPING SHALL BE PLACED AS APPROVED BY THE LOCAL FIRE MARSHAL PRIOR TO INSTALLATION. HEADS SHALL BE FULLY COORDINATED WITH ARCHITECTURAL REFLECTED CEILING PLAN.
9. IN GENERAL, HEADS SHALL BE SYMMETRICALLY LOCATED IN CENTER OF CEILING PANELS AND FULLY COORDINATED WITH CEILING OR SOFFIT LIGHT FIXTURES AND AIR CONDITIONING INLETS AND OUTLETS.
10. THE LOCATION OF FIRE SPRINKLER HEADS SHALL BE COORDINATED WITH CEILING LAYOUT AND ALL OTHER TRADES FOR COMPLETE FIRE PROTECTION COVERAGE OF ALL AREAS. PROVIDE DETAILED PLANS FOR APPROVAL BY THE COUNTY FIRE MARSHAL PRIOR TO INSTALLATION.
11. INSTALL FIRE SPRINKLER HEADS IN AREAS WITH NO CEILING ABOVE DUCTS, ALSO BELOW DUCTS WHEN DUCTS INTERFERE WITH PROPER FLOOR COVERAGE. HEADS THAT ARE SUBJECT TO MECHANICAL DAMAGE AND/OR BELOW 7'-0" MUST HAVE HEAD GUARDS.
12. PROVIDE SPRINKLER HEADS AS REQUIRED ON TOP OF SHAFTS, AT ELEVATORS, ENCLOSED STAIRWAYS, ETC.
13. PROVIDE PENDENT AND/OR UPRIGHT TYPE SPRINKLER HEADS WHERE REQUIRED BY CBC.
14. SLEEVE EACH PIPE THRU CONCRETE SLABS AND SEAL WATERTIGHT. PROVIED CEILING ESCUTCHEON AS REQUIRED. COORDINATE LOCATION OF ALL PIPE PENETRATIONS THRU CONCRETE SLABS WITH GENERAL CONTRACTOR.
15. PROVIDE FLEXIBLE CONNECTION EACH SIDE OF JOINT AT PIPE PENETRATIONS THRU BUILDING SEISMIC WALLS AND THRU BUILDING EXPANSION JOINTS.
16. DUE TO THE LIMITED SPACE AVAILABLE, ON-THE-JOB MEASUREMENT OF PIPE WILL BE REQUIRED. OFFSETS, PIPE, ADDITIONAL HEADS, FITTINGS, DRAINS, ETC., REQUIRED TO MEET JOB CONDITIONS SHALL BE FURNISHED AND INSTALLED AT NO EXTRA COST TO THE OWNER.
17. FIRE SPRINKLER HYDRAULIC DESIGN DENSITY SHALL BE PER NFPA 13.
18. FOR EXPOSED AREAS PIPING SHALL RUN PARALLEL TO STRUCTURE AND BEAMS, AS HIGH AS POSSIBLE, CONCEAL ADJACENT TO BEAMS AND STRUCTURE WHEREVER POSSIBLE. PIPING SHALL BE EXPOSED, PAINTED. HEADS SHALL BE UPRIGHT AND/OR SIDEWALL, STANDARD BRONZE FINISH.
19. PROTECT PENETRATIONS OF RATED FIRE ASSEMBLIES IN ACCORDANCE WITH THE CBC. REFER TO DETAILS 3/FP0.01 AND 4/FP0.01 FOR PENETRATION DETAILS.
20. NO PIPING SHALL BE INSTALLED IN OR OVER ANY ELECTRICAL OR DATA ROOMS OR OVER ELECTRICAL EQUIPMENT OTHER THAN TO SERVE HEADS WITHIN THE ROOM.
21. THESE SHEETS WERE NOT REVIEWED AND ARE NOT APPROVED FOR THE INSTALLATION OR MODIFICATION OF ANY FIRE SUPPRESSION SYSTEM. A SEPARATE SUBMITTAL TO THE CITY OF DIXON FIRE DEPARTMENT FOR REVIEW AND APPROVAL IS REQUIRED BY THE INSTALLING C-16 LICENSED FIRE PROTECTION CONTRACTOR PRIOR TO ANY INSTALLATION OR MODIFICATION OF ANY FIRE PROTECTION COMPONENTS



1 FIRE WATER SERVICE ENTRANCE
FP0.01 SCALE: NONE

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2025 Nineteenth Street
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P 916.558.1900
www.lionakis.com

CONSULTANT
capital engineering
RANCHO CORDOVA, CALIFORNIA
ADB-AL/JG/KD (PM - DESIGN TEAM) 220508.00 (PROJECT NO.)

SEAL
REGISTERED PROFESSIONAL ENGINEER — ANTHONY COLACCHI — M 29743 — EXPIRES 9/30/27 — MECHANICAL — STATE OF CALIFORNIA
DATE SIGNED: 4/10/26

PROJECT
Dixon Fire Station 82
Dixon, CA 95620

CLIENT
City of Dixon

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT
LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

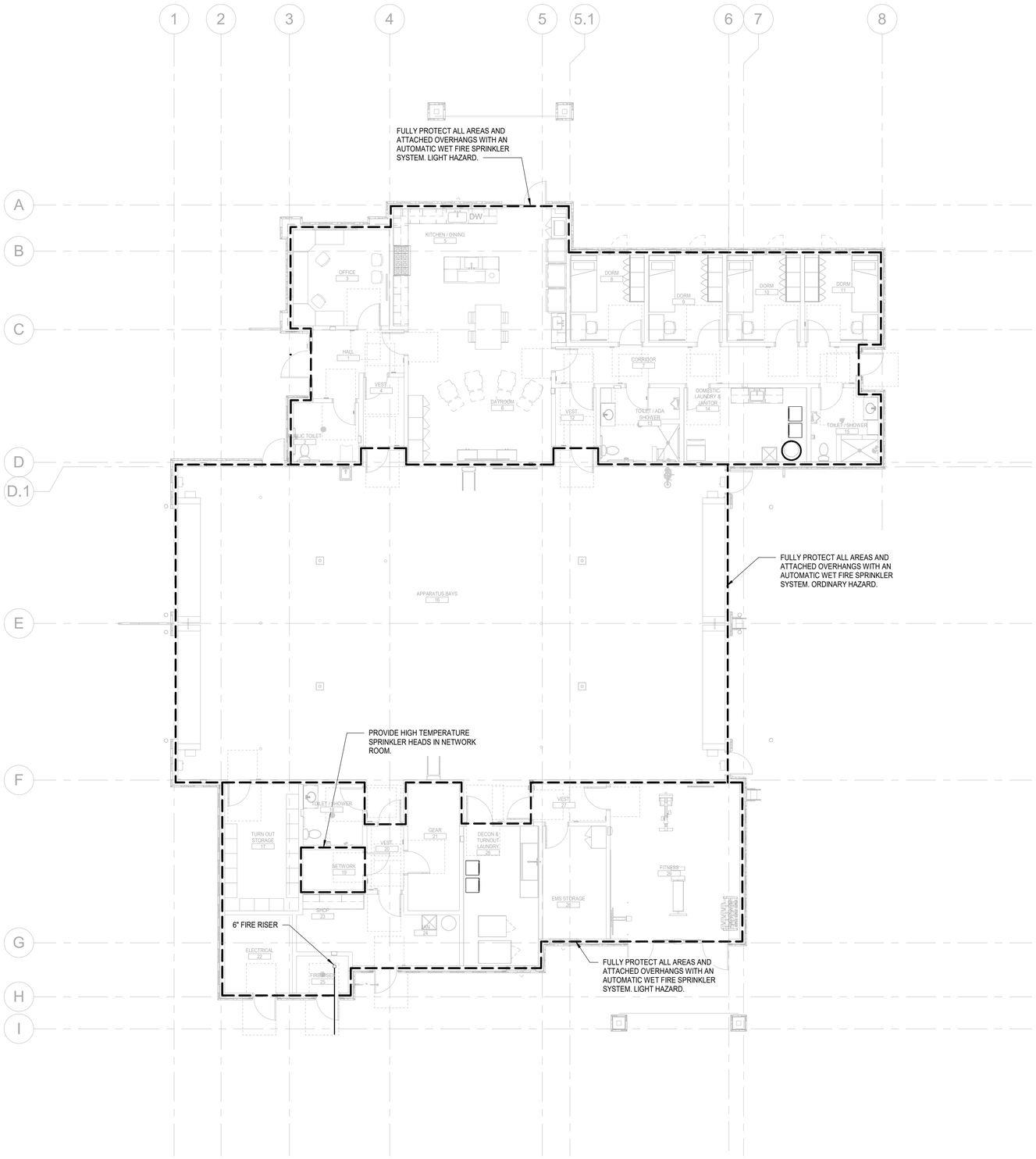
AGENCY

TITLE
FIRE PROTECTION LEGENDS & NOTES

SHEET
FP0.01

2" 1" 1/2" 0 1/4"
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
Autodesk Docs://City of Dixon - Fire Station 82/220508_Dixon_Fire Station_MP24.rvt
6/2/2026 11:23:27 AM

0 1/4" 1/2" 1" 2"
IF THIS SHEET IS NOT 22"x34", IT IS A REDUCED PRINT - SCALE ACCORDINGLY
Autodesk Docs://City of Dixon - Fire Station 82/220508_Dixon_Fire Station_MEP24.rvt
6/12/2026 9:09:20 AM



1 FP2.00 FLOOR PLAN

SCALE: 1/8" = 1'-0"

SHEET NOTES

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ADB-AL/IG/KD — PM - DESIGN TEAM
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SEAL
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DATE SIGNED: 4/10/26

PROJECT
Dixon Fire Station 82

Dixon, CA 95620

CLIENT
City of Dixon

ISSUED

MARK	DATE	DESCRIPTION

MANAGEMENT
LIONAKIS PROJECT NO: 22204
CLIENT PROJECT NO:

AGENCY

TITLE
FIRE PROTECTION FLOOR PLAN

SHEET
FP2.00