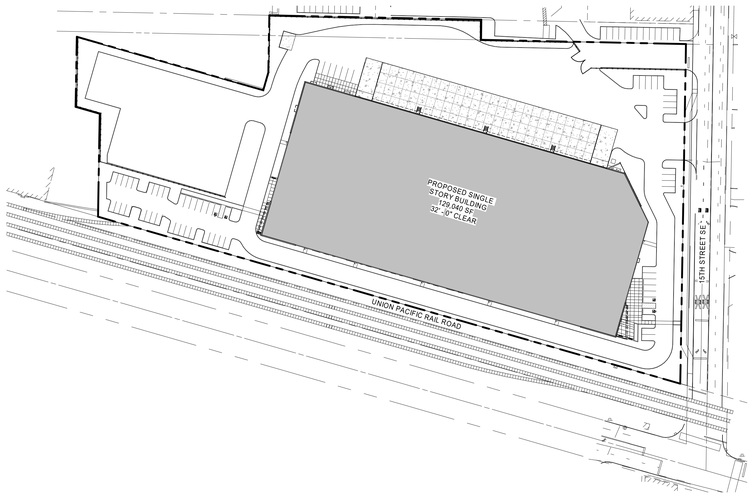
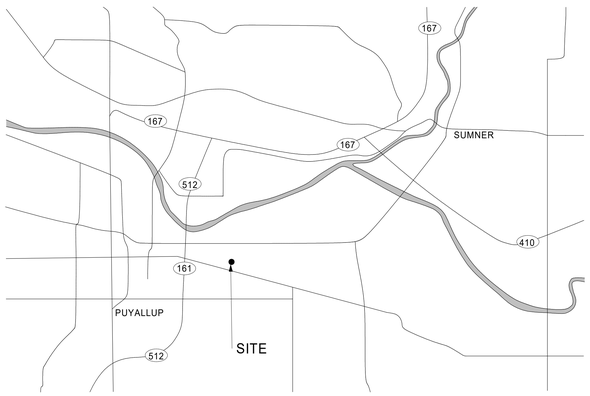
CREF3 PUYALLUP OWNER LLC

240 15TH ST SE PUYALLUP
WA, 98372

PERMIT SET – JUNE 28, 2023



1 G0.01 SITE PLAN
1" = 80'-0"



2 G0.01 VICINITY MAP
12" = 1'-0"

OWNER

CREF3 PUYALLUP OWNER LLC

11611 SAN VICENTE BLVD 10TH FLOOR
LOS ANGELES, CA, 90049
PHONE: (310) 228-3030
CONTACT: BRADY THOMSON
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ARCHITECT

MACKENZIE

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SEATTLE, WA 98101
PHONE: (206) 749-9993
ARCHITECT: BRETT CONWAY
CONTACT: JUSTIN ABRAHAM
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STRUCTURAL

MACKENZIE

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CIVIL

BARGHAUSEN

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EMAIL: JHUBBELL@BARGHAUSEN.COM

LANDSCAPE

MACKENZIE

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EMAIL: NFERREIRA@MCKNZE.COM

TRAFFIC

TENW - TRANSPORTATION ENGINEERING NORTHWEST

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CONTACT: AMY WASSERMAN
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GEOTECHNICAL

TERRA ASSOCIATES

12220 113TH AVE NE, SUITE 130
KIRKLAND, WA 98034
PHONE: (425) 821-7777

SITE AND BUILDING INFORMATION

240 15TH ST SE PUYALLUP, WA, 98372
PIERCE COUNTY TAX ID: 7845000161, 7845000170, 0420274126

FOR ADDITIONAL SITE AND BUILDING INFORMATION, SEE SHEET A1.10 - SITE PLAN

PROJECT DESCRIPTION

CONSTRUCTION OF A NEW SINGLE-STORY TILT-UP CONCRETE SHELL AND CORE SPECULATIVE WAREHOUSE SPACE. FUTURE OCCUPANCIES MAY CONSIST OF B, F-1, AND S-1 OCCUPANCIES

GEOTECHNICAL REPORT

SEE GEOTECHNICAL REPORT DATED 1/12/22 BY TERRA ASSOCIATES PROVIDED TO CITY SEPARATELY

PERMITS

- GRADING AND TESC PERMIT APPLICATION: #PRGR20230909

DEFERRED SUBMITTALS

- DESIGN BUILD STAIRS
- OPEN WEB METAL JOIST & GIRDERS
- LOADING DOCK CANOPIES

SEPARATE PERMITS

- DESIGN BUILD FIRE SPRINKLER
- DESIGN BUILD FIRE ALARM
- ELECTRICAL
- PUBLIC WORKS
- UNDERGROUND FIRE LINES
- SIGNAGE

23-0623 Plans-combined G0.01 Underground fire lines must be included in site civil permits.

NOTES:

1. DESIGN BUILDERS ARE FULLY RESPONSIBLE FOR THE DESIGN OF THESE SYSTEMS / COMPONENTS. THESE SYSTEMS / COMPONENTS SHOWN ON DOCUMENTS ARE SCHEMATIC ONLY; THEY ARE NOT INTENDED TO REPRESENT FINAL / CODE COMPLIANT DESIGN. PROVIDE DESIGN DOCUMENT SUBMITTAL TO MACKENZIE FOR REVIEW PRIOR TO SUBMITTAL TO CITY OF PUYALLUP, WASHINGTON.

DRAWING INDEX

23-0623 Plans-combined G0.01
Design Build deferred submittal proposed by McKenzie Architects. Provide electrical plans that detail code compliance. include exit capacity from electrical room, exit illumination, exit signage, energy code compliance and EV as proposed per code.

Architecture • Interiors
Planning • Engineering

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Vancouver, WA
360.695.7879
Seattle, WA
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www.mcknze.com

MACKENZIE.
DESIGN DRIVEN • CLIENT FOCUSED

Client

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11611 SAN VICENTE BLVD.
10TH FLOOR
LOS ANGELES, CA 90049

Project

FORTRESS - PUYALLUP
240 15TH ST SE
PUYALLUP, WA 98372

Mechanical/Electrical

REGISTERED ARCHITECT
BRETT H. CONWAY
STATE OF WASHINGTON

REVISION SCHEDULE

Delta	Issued As	Issue Date

SHEET TITLE:
TITLE SHEET AND DRAWING INDEX

SHEET
G0.01

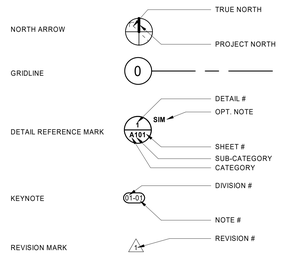
JOB NO. **2220290.00**

PERMIT SET 6/28/2023
Autodesk Docs://Fortress-Puyallup/290-Fortress-Puyallup-V23-A.rvt 6/28/2023 2:46:48 PM As indicated

STANDARD ABBREVIATIONS

@	AT
AB	ANCHOR BOLT
AC	ASPHALTIC CONCRETE
ACI	AMERICAN CONCRETE INSTITUTE
ADA	AMERICANS WITH DISIBILITIES ACT
ADDL	ADDITIONAL
ADJ	ADJACENT/ ADJUSTABLE
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
AFF	ABOVE FINISH FLOOR
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AL / ALUM	ALUMINUM
ALT	ALTERNATE
APPROX	APPROXIMATE
ARCH	ARCHITECT(URAL)
ATR	ALL-THREAD ROD
B/	BOTTOM OF
BATT	BATTEN INSULATION
BD	BOARD
BLD / BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BENCHMARK / BEAM
BN	BOUNDARY NAIL
BOT / BOTT	BOTTOM
BRG	BEARING
BSMT	BASEMENT
BTWN	BETWEEN
BUR	BUILT UP ROOFING
CAB	CABINET
CB	CATCH BASIN
CDF	CONTROLLED DENSITY FILL
CIP	CAST IRON
CJ	CONTROL JOINT
CL /	CENTERLINE
CLNG	CEILING
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CNTR	CENTER
CO	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONF	CONFERENCE
CONN	CONNECTION
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
CORR	CORRUGAT(ED) (ION)
CPT	CARPET
CRC	CHEMICAL RESISTANT COATING
CSK	COUNTERSINK
CSP	CONCRETE SEWER PIPE
CTOP	COUNTERTOP
CTR / CNTR	CENTER
CW	CONCRETE WALL
d	PENNY(NAILS)
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DC	DEMAND CRITICAL WELD
DET / DTL	DETAIL
DET/DTL	DETAIL
DF	DRINKING FOUNTAIN / DOUGLAS FIR
DIA / ø	DIAMETER
DIAPH	DIAPHRAGM
DIM	DIMENSION
DL	DEAD LOAD
DN	DOWN
DP	DEEP
DR	DOOR
DS	DOWN SPOUT
DWG	DRAWING
DWLS	DOWELS
(E) / EXIST	EXISTING
E/	EDGE OF
EA	EACH
EF	EACH FACE
EIFS	EXTERIOR INSULATION FINISH SYSTEM
ELECT	ELECTRICAL
ELEV	ELEVATION
EN	EDGE NAIL
ENGR	ENGINEER
EOP	EDGE OF PANEL
EP	EPOXY PAINT / EDGE OF PAVEMENT
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EQ	EQUAL
ES	EACH SIDE
ETC	EPOXY TRAFFIC COATING / ETCETERA
EW	EACH WAY
EXP	EXPOSED STRUCTURE
EXP JT / EJ	EXPANSION JOINT
EXT	EXTERIOR
F/	FACE OF
F/STUD	FACE OF STUD
FB	FLAT BAR
FC	FACE OF CURB
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FE	FIRE EXTINGUISHER
FF	FACTORY FINISH / FINISHED FACE
FFE	FINISH FLOOR ELEVATION
FIN	FINISH(ED)
FL	FLUSH
FLR	FLOOR
FM	FACTORY MUTUAL
FN	FIELD NAILING
FND	FOUNDATION
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOIC	FURNISH BY OWNER INSTALL BY CONTRACTOR
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FOW	FACE OF WALL
FS	FAR SIDE
FT	FEET/FOOT FIRE TREATED
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GEN	GENERAL
GLB	GLULAM BEAM
GLZ	GLAZING
GR	GRADE
GRD	GRID ONLY
GSA	U.S. GENERAL SERVICES ADMINISTRATION
GYP BD	GYPSUM BOARD
HB	HOSE BIB
HC	HOLLOW CORE / HANDICAP
HCM	HOLLOW CLAY MASONRY
HDPE	HIGH DENSITY POLYETHELENE
HDR	HEADER
HDWR	HARDWARE
HGR	HANGER
HL	HALF LITE
HM	HOLLOW METAL
HMK	HOLLOW METAL KNOCKDOWN
HMW	HOLLOW METAL WELDED
HORIZ	HORIZONTAL
HR(S)	HOUR(S)
HS	HEADED STUD
HSB	HIGH STRENGTH BOLT
HSS	HOLLOW STRUCTURAL STEEL
HTG	HEATING
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
HWS	HEADED WELD STUD
IBC	INTERNATIONAL BUILDING CODE
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IF	INSIDE FACE
IFC	INTERNATIONAL FIRE CODE
IMC	INTERNATIONAL MECHANCIAL CODE
INFO	INFORMATION
INSP	INSPECTION / INSPECTOR
INSUL	INSULATION
INT	INTERIOR
IPC	INTERNATIONAL PLUMBING CODE
JNT	JOINT
JST	JOIST
K	KIPS
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
L	ANGLE
LAM	LAMINATE
LAV	LAVATORY
LB	LAG BOLT
LL	LIVE LOAD
LLV	LONG LEG VERTICAL
LONG / LONGIT	LONGITUDINAL
LP	LOWPOINT
LSL	LAMINATED STRAND LUMBER
LVL	LAMINATED VENEER LUMBER
LWC	LIGHTWEIGHT CONCRETE
M	MIRROR
M/E/P	MECHANICAL/ ELECTRICAL/ PLUMBING OR PROCESS
MANF	MANUFACTURER
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MDF/MDO	MEDIUM DENSITY FIBERBOARD / OVERLAY
MECH	MECHANICAL
MFD	MANUFACTURED
MFG	MANUFACTURING
MFR	MANUFACTURER
MGR	MANAGER
MH	MAN HOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MK	MARK
MLP	METAL LINEAR PANEL
MO	MASONRY OPENING
MOD BIT	MODIFIED BITUMINOUS
MP	METAL PANEL
MTL	METAL
(N)	NEW
NFPA	NATIONAL FIRE PROTECTION AGENCY
NIC	NOT IN CONTRACT
NO. / #	NUMBER
NOM	NOMINAL
NR	NON RATED
NS	NEAR SIDE
NTE	NOT TO EXCEED
NTS	NOT TO SCALE
O/A	OVERALL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, OWNER INSTALLED
OH	OPPOSITE HAND
OHD	OVERHEAD DOOR
OPNG	OPENING
OPP	OPPOSITE
OSF / OFACE	OUTSIDE FACE
OSSC	OREGON STRUCTURAL SPECIALTY CODE
OTS	OPEN TO STRUCTURE
P	PAINT
P-LAM	PLASTIC LAMINATE
P.E.	PROFFESSIONAL ENGINEER
PB	PARTICLE BOARD
PDA / PAF	POWDER DRIVEN ANCHORS/POWDER ACTUATED FASTENER
PJ	PANEL JOINT
PL /	PLATE
PLB	PARALLAM BEAM
PLMB	PLUMBING
PLY / PLYWD	PLYWOOD
PNL	PANEL
PR	PAIR
PS	POUR STRIP
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSL	PARALLEL STRAND LUMBER
PT	PRESSURE TREATED / PORCELAIN TILE
PVC	POLY VINYL CHLORIDE
PVMT	PAVEMENT
R	RADIUS
RAD	RADIUL
RB	RUBBER BASE
RBE	ROOF BASE ELEVATION
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
RECEPT	RECEPTION(IST)
REF	REFERENCE / REFRIGERATOR
REINF	REINFORCING
REQ / REQ'D	REQUIRED
REV	REVISION
RM	ROOM
RO	ROUGH OPENING
ROW	RIGHT OF WAY
S	STAIN
SAT	SUSPENDED ACOUSTICAL TILE
SC	SEALED CONCRETE / SOLID CORE WOOD
SCHED	SCHEDULE
SCM	STRUCTURAL CLAY MASONRY
SF	STORE FRONT / SQUARE FEET
SFRS	SEISMIC FORCE RESISTING SYSTEM
SHTG / SHT'G	SHEATHING
SIM	SIMILAR
SLRS	SEISMIC LOAD RESISTIVE SYSTEM
SLV	SHORT LEG VERTICAL
SMS	SHEET METAL SCREW
SOG	SLAB ON GRADE
SP	SPACE(D)(S)
SPEC(S)	SPECIFICATION(S)
SQ	SQUARE
SS	STAINLESS STEEL / SOLID SURFACE
ST	STONE
STA PT	STATION POINT
STAGG	STAGGERED
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STRUCT	STRUCTURAL
SUSP	SUSPENDED
SV	SHEET VINYL
T	TEMPERED
T&B	TOP AND BOTTOM
T/	TOP OF
TC	TOP OF CURB
TEMP	TEMPERATURE / TEMPORARY
THK	THICK / THICKNESS
TL	TOTAL LOAD
TN	TOE NAIL
TO	TOP OF
TOF	TOP OF FOOTING
TOS	TOP OF STEEL
TOW	TOP OF WALL
TPO	THERMOPLASTIC POLYOLEFIN
TRANS / TRANSV	TRANSVERSE
TS	TUBE STEEL
TYP	TYPICAL
U/S	UNDERSIDE
UC	UNDER COUNTER
UL	UNDER WRITERS LABORATORIES
UNO / UON	UNLESS NOTED OTHERWISE
USG	UNITED STATES GYPSUM
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VFY	VERIFY
VIF	VERIFY IN FIELD
VP	VISION PANEL
W/	WITH
W/CRC	COATING WITH CHEMICAL RESISTANCE
W/O	WITHOUT
WB	WOOD BASE
WC	WATER CLOSET / WALL COVERING
WD	WOOD
WF	WIDE FLANGE BEAM
WH	WATER HEATER
WP	WATER PROOF / WOOD PANELING / WORK POINT
WR	WATER RESISTANT
WRGB	WATER RESISTANT GYPSUM BOARD
WS	WATER STOP / WELDED STUD
WWF	WELDED WIRE FABRIC
WWR	WELDED WIRE MESH

SYMBOLS AND REFERENCES



PROJECT GENERAL NOTES

A. THE DRAWINGS LOCATE PRODUCTS, SURFACES, AND MATERIALS AND THE NOTES CONVEY DESIGN INTENT. THE PROJECT INTENT IS TO PROVIDE FOR A COMPLETE, WORKING SYSTEM.
B. ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE LATEST ADOPTED BUILDING CODE EDITION, AND TO CONDITIONS AND SPECIFICATIONS OF ALL GOVERNING AUTHORITIES.
C. VERIFY AND CONFIRM ALL CONDITIONS, DIMENSIONS, AND LAYOUT INFORMATION PRIOR TO START OF CONSTRUCTION. NOTIFY MACKENZIE OF ANY DISCREPANCIES PRIOR TO START OF WORK. ANY CORRECTION WORK REQUIRED AS A RESULT OF NOT REPORTING SUCH DISCREPANCIES SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
D. CONTRACTOR AND SUBCONTRACTORS SHALL CAREFULLY EXAMINE THE SITE AND THE CONSTRUCTION DOCUMENTS OF THE ENTIRE WORK. INCONSISTENCIES IN THE PLANS OR SPECIFICATIONS SHALL BE CALLED TO THE ATTENTION OF MACKENZIE.
E. REFER TO ENLARGED PLANS AND ELEVATIONS WHERE INDICATED FOR ADDITIONAL INFORMATION. ENLARGED PLANS TAKE PRECEDENCE OVER PLANS OF SMALLER SCALE, AND DETAILS TAKE PRECEDENCE OVER PLANS. IN THE CASE OF A CONFLICT, THE HIGHEST COST OPTION SHOULD BE PRICED.
F. DETAIL REFERENCES SHALL BE APPLIED TO ALL INSTANCES WHERE THE SAME CONDITIONS OCCUR, UNLESS NOTED OTHERWISE.
G. THE TERMS "ABOVE FINISH FLOOR" (AFF) AND "FINISH FLOOR ELEVATION" (FFE) REFER TO FINAL FINISHED FLOOR ELEVATION, WHETHER BUILT-UP SLAB, COMPOSITE DECK, OR RAISED ACCESS FLOOR.
H. DO NOT SCALE DRAWINGS.
I. CUTTING AND DRILLING OF STRUCTURAL MEMBERS NOT DETAILED REQUIRES THE WRITTEN PERMISSION OF THE STRUCTURAL ENGINEER OF RECORD.
J. GROUND FLOOR ELEVATION OF 0'-0" = 61.1' AS INDICATED ON CIVIL DRAWINGS.
K. SAVE AND RECYCLE DEMOLITION DEBRIS AS APPLICABLE. ALL DEMOLISHED OR REMOVED EXISTING MATERIAL SHALL BE LEGALLY DISPOSED. COORDINATE WITH AUTHORITY HAVING JURISDICTION REQUIREMENTS FOR RECYCLING/RE-USE OF DEMOLITION DEBRIS.
L. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE RESULTING FROM THEIR WORK. THE CONTRACTOR WILL COORDINATE CLEAN UP OF ALL AREAS AFFECTED BY DUST OR ANY MATERIALS, BOTH DURING CONSTRUCTION AND UPON COMPLETON OF THE PROJECT, INCLUDING THE INSIDE OF ALL WINDOWS AS NECESSARY SO THAT THE SPACE IS READY FOR OCCUPANCY BY TENANT.
M. ALL DESIGN-BUILD ITEMS, SYSTEMS, AND ELEMENTS ARE TO BE SUBMITTED FOR REVIEW AND APPROVED BY MACKENZIE.
N. EXISTING MATERIAL NOTED TO BE RETURNED TO THE OWNER SHALL BE SAFELY STORED AND PROTECTED UNTIL IT IS REMOVED FROM THE SITE BY THE OWNER

Architecture • Interiors
Planning • Engineering

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Project

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PUYALLUP, WA 98372

Mechanical/Electrical

7031 REGISTERED ARCHITECT BRENT HOUTMAN STATE OF WASHINGTON

REVISION SCHEDULE

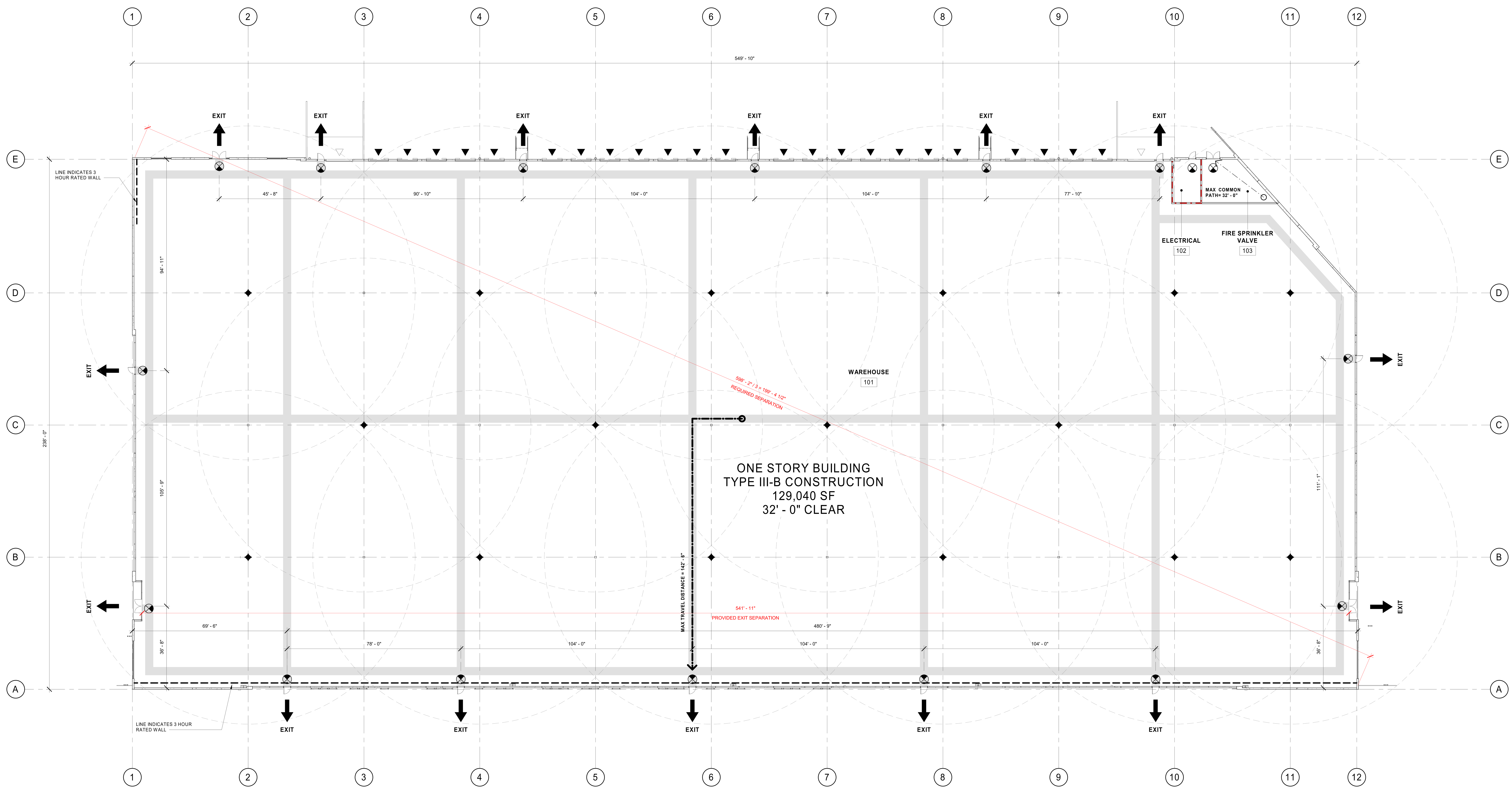
Delta	Issued As	Issue Date

SHEET TITLE:
PROJECT GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS

SHEET
G0.02

JOB NO. **2220290.00**

PERMIT SET 6/28/2023
Autodesk Docs://Fortress-Puyallup/290-Fortress-Puyallup-V23-A.rvt 6/28/2023 2:46:51 PM 12" = 1'-0"



1 / G1.10 CODE ANALYSIS PLAN
1/16" = 1'-0"

ENERGY CODE REQUIREMENTS - COMPONENT PERFORMANCE PATH, SEMI HEATED

BASED ON WASHINGTON STATE ENERGY CODE, COMMERCIAL, 2018 - CHAPTER 51-11C WAC
CLIMATE ZONE: MARINE 4C (TABLE C301.1)
SEMI-HEATED BUILDING: PROVIDE FREEZE PROTECTION TO HEAT BUT NOT COOL THE BUILDING WITH CAPACITY GREATER THAN OR EQUAL TO 3.4 BTU/(H-SQ. FT.) BUT NOT GREATER THAN 8 BTU/(H-SQ. FT.) PER C202.
ADDITIONAL INFORMATION:

A. MAX LIGHTING POWER DENSITY (WAREHOUSE): 0.40 W/SF PER TABLE C405.4.2(1)
B. CONTINUOUS AIR BARRIER REQUIRED PER C402.5.1.
   a. WOOD ROOF DECK
   b. SINGLE-PLY ROOF MEMBRANE
   c. TILT-UP CONCRETE WALLS W/ SEALED JOINTS
C. ALL PENETRATIONS OF THE CONTINUOUS AIR BARRIER MUST BE SEALED PER C402.5.1.1
D. DOCK SEALS TO BE INSTALLED AT LOADING DOORS PRIOR TO OCCUPANCY W/ TENANT IMPROVEMENTS PER C402.5.6.
E. VESTIBULES, WHERE REQUIRED, TO BE INSTALLED W/ TENANT IMPROVEMENT.
F. IDENTIFICATION MARK SHALL BE APPLIED TO ALL INSULATION MATERIALS AND INSULATION SUCH THAT THE MARK IS READILY OBSERVED DURING INSPECTION PER C303.1.1.
G. FENESTRATION SHALL BE LABELED WITH NFRC U-FACTOR, SOLAR HEAT GAIN COEFFICIENT, VISIBLE TRANSMITTANCE AND LEAKAGE RATING PER C303.1.3.
H. BUILDING ENCLOSURE AIR LEAKAGE TESTING REQUIRED PER SECTION C402.5.1.2. TESTING SHALL BE PERFORMED PER ASTM C779 (OR EQUIVALENT METHOD APPROVED BY THE CODE OFFICIAL) AND THE TARGET LEAKAGE RATE IS 0.25 CFM/FT2 (1.5 L/S*M2) AT 0.3 IN. WG (75 PA). INCLUDE THE FOLLOWING REQUIREMENTS IN PROJECT DOCUMENTS: (1) SUBMIT BUILDING ENCLOSURE AIR LEAKAGE TEST REPORTS TO JURISDICTION AND OWNER; (2) IF INITIAL TEST RESULT EXCEEDS 0.25 CFM/FT2 (1.5 L/S*M2), INDICATE THAT INSPECTION AND ALL PRACTICAL CORRECTIVE ACTIONS BE COMPLETED AND DOCUMENTED IN THE AIR LEAKAGE TEST REPORT; (3) IF INITIAL TEST RESULT EXCEEDS 0.40 CFM/FT2 (2.0 L/S*M2), INDICATE THAT CORRECTIVE ACTIONS SHALL ALSO INCLUDE RE-TESTING; (4) INDICATE THAT CORRECTIVE MEASURES AND RETESTING MUST BE REPEATED UNTIL THE TEST RESULT IS 0.40 CFM/FT2 (2.0 L/S*M2) OR LESS; (4) INCLUDE AIR BARRIER TEST REPORT IN PROJECT CLOSE OUT DOCUMENTATION PROVIDED TO BUILDING OWNER.
I. TO COMPLY WITH ADDITIONAL EFFICIENCY PACKAGE C406 PROVIDE :
   a. MORE EFFICIENT HVAC EQUIPMENT AND FAN PERFORMANCE PER C406.2.
   b. REDUCED LIGHTING POWER: OPTION 2 IN ACCORDANCE WITH SECTION C406.3.2.
J. PROJECT CLOSE OUT DOCUMENTATION IS REQUIRED INCLUDING APPLICABLE CALCULATIONS, WSEC ENVELOPE COMPLIANCE FORMS, AND FENESTRATION NFRC RATING CERTIFICATES PER C103.6.

BUILDING CODE DATA

BASED ON THE 2018 WASHINGTON STATE BUILDING CODE

GENERAL CODE ANALYSIS:

CONSTRUCTION TYPE:	III-B SINGLE STORY
PROPOSED BUILDING:	129,040 SF 32'-0" CLEAR
FIRE PROTECTION:	AUTOMATIC FIRE SPRINKLER SYSTEM (ESFR)
OCCUPANCIES:	THE BUILDING TO BE UNOCCUPIED UNDER THIS PERMIT. FUTURE OCCUPANCIES MAY CONSIST OF B, F-1, AND S-1 OCCUPANCIES.

BUILDING HEIGHT & STORIES (TABLE 504.3, TABLE 504.4):

ALLOWABLE:	60'-0" / 2 STORIES
PROVIDED:	45'-6" / 1 STORY

UNLIMITED AREA BUILDING (SEE SECTION 507.4):

BUILDING HAS 60' PUBLIC WAYS AND/OR YARDS ON ALL *SIDES, IS ONLY ONE LEVEL ABOVE GRADE, AND IS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM.

REDUCED OPEN SPACE (SEE SECTION 507.2.1):
*SOUTH WALL IS LOCATED BETWEEN 40 AND 60 FEET AWAY AND IS 3 HOUR RATED IN ACCORDANCE WITH SECTION 507.2.1. OPENINGS IN WALL TO BE 3 HOUR FIRE RATED.

CHAPTER 9 - FIRE PROTECTION

BASED ON 2018 WASHINGTON STATE FIRE CODE & 2018 WASHINGTON STATE BUILDING CODE

WSFC SECTION 503 - FIRE APPARATUS ACCESS ROADS
SEE SHEET C15 FOR AERIAL FIRE APPARATUS ACCESS ROAD. 26 FOOT LANE PROVIDED.

WSFC SECTION 509.1 - IDENTIFICATION
ALL FIRE PROTECTION & UTILITY EQUIPMENT SHALL BE IDENTIFIED WITH APPROVED SIGNAGE CONSTRUCTED OF DURABLE MATERIALS AND BE READILY VISIBLE.

WSBC TABLE 601 - FIRE RESISTIVE REQUIREMENTS

EXTERIOR BEARING WALL	2-HR
INTERIOR BEARING WALL	NR
EXTERIOR NON-BEARING WALL	NR
INTERIOR NON-BEARING WALL	NR
STRUCTURAL FRAME	NR
FLOOR	NR
ROOF	NR
FIRE PUMP ROOM (913.2.1)	2-HR

WSBC SECTION 903 - AUTOMATIC SPRINKLER SYSTEMS
FULLY SPRINKLERED ESFR FIRE SYSTEM

WSFC SECTION 906 - PORTABLE FIRE EXTINGUISHERS
PORTABLE FIRE EXTINGUISHERS (2A:10BC MINIMUM) SHALL BE PROVIDED THROUGHOUT BASED ON 2018 WASHINGTON STATE FIRE CODE.

WSFC CHAPTER 32 - HIGH-PILED COMBUSTIBLE STORAGE
BUILDING IS DESIGNED TO ACCOMMODATE HIGH PILED STORAGE TYPE I-IV UNENCAPSULATED COMMODITIES UP TO 32' PER WSFC TABLE 3206.2:

- AN AUTOMATIC SPRINKLER SYSTEM IS PROVIDED IN ACCORDANCE WITH WSFC SECTION 3206.4
- FIRE DETECTION SYSTEM IS NOT REQUIRED PER TABLE 3206.2
- BUILDING ACCESS IS PROVIDED PER WSFC SECTION 3206.6
- SMOKE AND HEAT REMOVAL IS NOT REQUIRED PER TABLE 3206.2 FOOTNOTE H: NOT REQUIRED WHERE STORAGE AREAS ARE PROTECTED BY EITHER EARLY SUPPRESSION FAST RESPONSE (ESFR) SPRINKLER SYSTEMS OR CONTROL MODE SPECIAL APPLICATION SPRINKLERS WITH A RESPONSE TIME INDEX OF 50 $(M*S)^{1/2}$ OR LESS THAT ARE LISTED TO CONTROL A FIRE IN THE STORED COMMODITIES WITH 12 OR FEWER SPRINKLERS, INSTALLED IN ACCORDANCE WITH NFPA 13.
- DRAFT CURTAINS ARE NOT REQUIRED PER TABLE 3206.2

CHAPTER 10 - MEANS OF EGRESS

SECTION 1008 - MEANS OF EGRESS ILLUMINATION
PROVIDE MEANS OF EGRESS ILLUMINATION AT A MINIMUM OF ONE FOOT-CANDLE AT PATH OF EGRESS TO MEET SECTION 1008. EXTEND TO 5' - 0" OUTSIDE EGRESS DOORS.

- EMERGENCY POWER LIGHTING REQUIRED THROUGHOUT PER WSBC 1008 PROVIDE:
- EMERGENCY POWER FOR MINIMUM 90 MINUTES. (BATTERY BACK-UP)
- AVERAGE INITIAL ILLUMINATION OF 1 FOOT-CANDLE (1 LUX)
- MAXIMUM TO MINIMUM UNIFORMITY RATIO OF 40 TO 1, MAXIMUM

SECTION 1010: DOORS, GATES, AND TURNSTILES
RATED, SIZED, AND HARDWARE PROVIDED TO MEET SECTION 1010 - SEE INDIVIDUAL FLOOR PLANS AND SPECIFICATIONS.

- PROVIDE PANIC HARDWARE AT ELECTRICAL ROOM (1010.1.10)

SECTION 1013 - EXIT SIGNS
PROVIDE EXIT SIGNAGE TO MEET SECTION 1013.1 - EXIT SIGNAGE TO BE PART OF ELECTRICAL PL

SECTION 1016 AND 1017 - EXIT ACCESS
ALL SPACES EXIT DIRECTLY TO THE EXTERIOR, THROUGH AN ENTRY FOYER OR THROUGH AN INTERVENING ROOM (SECTION 1016.2)

WAREHOUSE: MAXIMUM DISTANCE ALLOWED: 400' - 0"
MAXIMUM DISTANCE PROVIDED: 142' - 6"

MAXIMUM COMMON PATH ALLOWED: 100' - 0"
MAXIMUM COMMON PATH PROVIDED: 32'-0"

SECTION 1006 - EXIT ACCESS DOORWAYS
F-1 INDUSTRIAL: 129,040 SF/100 OCC. = 1,291 OCC.
WAREHOUSE: (4) EXITS REQUIRED
(15) EXITS PROVIDED
ALL EXITS DISCHARGE DIRECTLY TO EXTERIOR.
MIN. EXIT WIDTH REQUIRED = .2" X 1,291 OCC. = 258.2"
EXIT WIDTH PROVIDED: 15 X 36" = 540"

SECTION 1022: EXITS
COMPONENTS AND OPENINGS ARE SHOWN ON THIS SHEET AND INDIVIDUAL FLOOR PLANS.

SECTION 1028: EXIT DISCHARGE
ALL EXITS DISCHARGE AT THE GROUND LEVEL. SEE SITE PLAN

LEGEND

- EGRESS DOOR LOCATION
- PROVIDE EMERGENCY ILLUMINATED EXIT SIGNS PER THESE LOCATIONS
- MAXIMUM TRAVEL DISTANCE
- 44" EGRESS PATH, PROVIDE 1 FC EMERGENCY ILLUMINATION
- 75' MAXIMUM TRAVEL DISTANCE BETWEEN FIRE EXTINGUISHERS
- FIRE EXTINGUISHER LOCATION. GC TO COORDINATE FINAL QUANTITIES AND LOCATIONS WITH FIRE MARSHAL
- DRIVE IN OVERHEAD DOOR
- AT-GRADE OVERHEAD DOOR
- 1HR RATED WALL
- 2HR RATED WALL
- 3HR RATED WALL

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Project

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PUYALLUP, WA 98372

Mechanical/Electrical

7031 REGISTERED ARCHITECT
BRETT TIMOTHY CONWAY
STATE OF WASHINGTON

REVISION SCHEDULE

Delta	Issued As	Issue Date

SHEET TITLE:
CODE ANALYSIS PLAN

SHEET
G1.10

JOB NO. **2220290.00**

PERMIT SET 6/28/2023

GENERAL STRUCTURAL NOTES

DESIGN CRITERIA

1. GOVERNING BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE WITH WASHINGTON STATE AMENDMENTS
2. RISK CATEGORY ... **II**
3. LIVE
   - ROOF ... **20 PSF**
4. SNOW
   - GROUND SNOW (Pg) ... **20 PSF**
   - FLAT ROOF SNOW LOAD (Pf) ... **14 PSF**
   - SLOPED ROOF SNOW (Ps) ... **14 PSF**
   - IMPORTANCE FACTOR ... **1.0**
   - (SNOW BUILD-UP IN ACCORDANCE w/ IBC)
5. WIND
   - BASIC WIND SPEED (3 SECOND GUST) ... **97 MPH**
   - EXPOSURE ... **B**
6. SEISMIC
   - 0.2 SEC. SPECTRAL RESPONSE ACCELERATION (Ss) ... **1.264**
   - 1.0 SEC. SPECTRAL RESPONSE ACCELERATION (S1) ... **0.435**
   - DESIGN SPECTRAL ACCELERATION (SDS) ... **0.843**
   - DESIGN SPECTRAL ACCELERATION (SD1) ... **0.538**
   - SITE CLASSIFICATION ... **F***

   SEISMIC DESIGN CATEGORY ... **D**
   - IMPORTANCE FACTOR ... **1.0**
   - SEISMIC FORCE RESISTING SYSTEM (SFRS)
     - BUILDING (LEVEL 1 TO ROOF):
       - BEARING SPECIAL REINFORCED CONCRETE SHEARWALLS
       - R ... **5.0**
       - DESIGN RESPONSE COEFFICIENT (Cs) ... **0.169**

   BASE SHEAR (V) ... **V=Cs * W**

   ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE

   * PARAMETERS ARE FOR SITE CLASS D, WHICH CAN BE USED FOR STRUCTURES WITH A FUNDAMENTAL PERIOD OF 0.5 SEC OR LESS PER ASCE 7-16 20.3.1

GENERAL

1. THE PROJECT SPECIFICATIONS, DRAWINGS, STANDARD DETAILS, DETAILS IN THE DRAWINGS, AND THE STRUCTURAL NOTES ARE TO BE COMPLEMENTARY. IN THE CASE OF AN INCONSISTENCE NOT CLARIFIED BY THE DESIGNER OF RECORD THE MOST STRINGENT, HIGHEST QUALITY AND BEST QUALITY PROVISIONS SHALL BE PROVIDED.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE CONSTRUCTION. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES. DO NOT SCALE DRAWINGS; COORDINATE DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
3. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE WITH AMENDMENTS.
4. SEE ARCHITECTURAL DRAWINGS INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
   - A. SIZE AND LOCATION OF ALL OPENINGS, EXCEPT AS NOTED.
   - B. SIZE AND LOCATION OF ALL INTERIOR AND EXTERIOR NONBEARING WALLS
   - C. SIZE AND LOCATION OF ALL CONCRETE CURBS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHANGES IN LEVEL, CHAMFERS, GROOVES, INSERTS, ETC.
   - D. SIZE AND LOCATION OF ALL FLOOR AND ROOF OPENINGS, EXCEPT AS SHOWN.
   - E. FLOOR AND ROOF FINISHES.
   - F. STAIR FRAMING AND DETAILS, EXCEPT AS SHOWN.
   - G. DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS.
5. SEE CONSTRUCTION DOCUMENTS FOR THE FOLLOWING, INCLUDING BUT NOT LIMITED TO:
   - A. PIPE RUNS, SLEEVES, HANGERS, TRENCHES, WALL AND SLAB OPENINGS, ETC., EXCEPT AS SHOWN OR NOTED.
   - B. ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS.
   - C. CONCRETE INSERTS FOR FIXTURES.
   - D. SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES, ANCHOR BOLTS FOR MOTOR MOUNTS.
   - E. SEISMIC BRACING REQUIREMENTS.
6. METHODS, PROCEDURES, AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.
7. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKERS AND VISITORS DURING CONSTRUCTION. SUCH MEASURE SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR CONSTRUCTION LOADS, ETC. VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE REVIEW OF THE ABOVE ITEMS.
8. OPENINGS, POCKETS, ETC. SHALL NOT BE PLACED IN STRUCTURAL ELEMENTS UNLESS SPECIFICALLY DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.
9. CONSTRUCTION LOAD (MATERIAL AND EQUIPMENT) SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT. PROVIDE ADEQUATE SHORING AND/ OR BRACING WHERE STRUCTURES HAVE NOT ATTAINED DESIGN STRENGTH.
10. WHEN A DETAIL IS IDENTIFIED, THE CONTRACTOR SHALL APPLY THIS DETAIL IN ESTIMATING AND CONSTRUCTION TO EVERY LIKE CONDITION WHETHER OR NOT THE REFERENCE IS MADE IN EVERY INSTANCE.
11. ANY REFERENCES TO THE RECOMMENDATIONS, GUIDELINES, OR REQUIREMENTS IN NATIONAL PUBLICATIONS, SUCH AS BUT NOT LIMITED TO ASCE, ASTM, IBC, ACI, AISC, NDS, OR AWS, IN THE CONSTRUCTION DOCUMENTS SHALL BE FOLLOWED AS IF THEY ARE SPECIFICALLY MANDATED.

FOUNDATION

1. THE SUBSURFACE INFORMATION AND FOUNDATION DESIGN ARE BASED ON THE FOLLOWING GEOTECHNICAL REPORT:
   - REPORT PREPARED BY ... **TERRA ASSOCIATES, INC**
   - DATED ... **JANUARY 12, 2022**
2. FOUNDATIONS FOR THE STRUCTURE HAVE BEEN DESIGNED USING THE FOLLOWING VALUES:
   - LONG-DURATION ALLOWABLE **NET** SOIL BEARING PRESSURE ... **2500 PSF**
   - SHORT-DURATION ALLOWABLE **NET** SOIL BEARING PRESSURE ... **(4/3)*(LONG DURATION)**
3. THE CONTRACTOR SHALL PERFORM EXCAVATIONS, FOOTING CONSTRUCTION AND PREPARATION OF THE SUB GRADE UNDER THE SLAB ON GRADE IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT AND THE PROJECT SPECIFICATIONS.
4. FOUNDATION CONDITIONS NOTED DURING CONSTRUCTION, WHICH DIFFER FROM THOSE DESCRIBED IN THE GEOTECHNICAL REPORT SHALL BE REPORTED TO THE STRUCTURAL ENGINEER AND/OR GEOTECHNICAL ENGINEER BEFORE FURTHER CONSTRUCTION IS ATTEMPTED.
5. CONTRACTOR WILL PROVIDE FOR DE-WATERING OF EXCAVATIONS FROM EITHER SURFACE, GROUND, OR SEEPAGE WATER.
6. ALL ABANDONED FOOTINGS, UTILITIES, ETC., THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED.
7. SITE PREPARATION, OVER-EXCAVATION / RECOMPACTION OF SOILS, AND THE INSTALLATION OF FOUNDATION AND WALL DRAINS AS REQ'D SHALL BE PERFORMED IN ACCORDANCE WITH RECOMMENDATIONS PRESENTED IN THE SOILS REPORT REFERENCED ABOVE.
8. CONTRACTOR SHALL PROVIDE FOR DESIGN AND INSTALLATION OF ALL CRIBBING, SHEATHING, AND SHORING REQUIRED TO SAFELY RETAIN THE EARTH BANKS.
9. MINIMUM FROST DEPTH FOR BOTTOM-OF-FOUNDATIONS ... **18" BELOW GRADE**
10. REFERENCE FOUNDATION PLANS FOR TOP OF FOOTING INFORMATION.
11. CONTRACTOR TO REVIEW ALL TOP AND BOTTOM FOOTING ELEVATIONS, SITE GRADING PLANS, UTILITIES AND EXISTING CONDITIONS. NOTIFY EOR OF ANY DISCREPANCIES PRIOR TO EXCAVATION AND FOOTING INSTALL.
12. CONTINUOUS FOOTINGS AT VARYING ELEVATIONS SHALL BE STEPPED PER TYPICAL DETAILS. SLOPING OF FOOTINGS IS PROHIBITED.
13. UTILITIES MAY NOT BE PLACED THROUGH OR BELOW FOUNDATION WITHOUT PRIOR APPROVAL BY THE EOR.
14. WHERE EXISTING FOOTINGS OCCUR, FOOTING ELEVATIONS ARE APPROXIMATE AND ARE BASED ON EXISTING INFORMATION PROVIDED. CONTRACTOR TO FIELD VERIFY AND NOTIFY EOR OF ANY DISCREPANCIES DISCOVERED.
15. PROVIDE PERIMETER FOOTING DRAINS IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT.

CONCRETE

1. CONCRETE MIXES SHALL BE FULLY DOCUMENTED AND REVIEWED BY A QUALIFIED TESTING LABORATORY AND REVIEWED BY THE ENGINEER. REVIEW OF MIX SUBMITTALS BY THE ENGINEER OF RECORD INDICATES ONLY THAT THE INFORMATION PRESENTED CONFORMS GENERALLY WITH CONTRACT DOCUMENTS. CONTRACTOR OR SUPPLIER MAINTAINS FULL RESPONSIBILITY FOR SPECIFIED PERFORMANCE. MIX SUBMITTAL SHALL INCLUDE THE AMOUNTS OF CEMENT, CEMENTITIOUS MATERIAL, FINE AND COARSE AGGREGATE, WATER AND ADMIXTURES, AS WELL AS THE WATER-CEMENT RATIO, SLUMP, CONCRETE YIELD AND SUBSTANTIATING STRENGTH TEST DATA. SUBMIT TEST DATA ON EACH PROPOSED MIX FOR REVIEW IN ACCORDANCE WITH ACI 318 AND PROJECT SPECIFICATIONS. MIX SUBMITTED WITHOUT THE REQUIRED TEST DATA WILL BE RETURNED WITHOUT REVIEW.
2. AN INDEPENDENT TESTING AGENCY TO PERFORM FIELD QUALITY CONTROL TEST. PROVIDE FREE ACCESS TO CONCRETE OPERATIONS AT PROJECT SITE AND COOPERATE WITH APPOINTED FIRM. SUBMIT PROPOSED MIX DESIGN OF EACH CLASS OF CONCRETE TO INSPECTION AND TESTING FIRM FOR REVIEW PRIOR TO COMMENCEMENT OF CONCRETE OPERATIONS. COMPRESSIVE STRENGTH TESTS: ASTM C39/C39M. FOR EACH TEST, MOLD, AND CURE THREE CONCRETE TEST CYLINDERS. OBTAIN TEST SAMPLES FOR EVERY 100 CU YD OR LESS OF EACH CLASS OF CONCRETE PLACED. TAKE ONE ADDITIONAL THREE TEST CYLINDERS DURING COLD & HOT WEATHER CONCRETING AS DEFINED BY ACI 305 AND ACI 306, CURED ON JOB SITE UNDER SAME CONDITIONS AS CONCRETE IT REPRESENTS. PERFORM ONE SLUMP TEST FOR EACH SET OF TEST CYLINDERS TAKEN, FOLLOWING PROCEDURES OF ASTM C143/C143M. PERFORM ONE AIR CONTENT TEST FOR EACH SET OF COMPRESSIVE STRENGTH SPECIMENS, COMPLYING WITH ASTM C231.
3. PROVIDE CONSTRUCTION OR CONTROL JOINTS IN SLABS-ON-GRADE AS SHOWN IN TYPICAL DETAILS SO AS TO DIVIDE SLABS INTO APPROXIMATELY RECTANGULAR AREAS NOT OVER 225 SQUARE FEET WITH A RATIO OF LONG TO SHORT SIDES NOT OVER 1.5 AND SPACING NOT EXCEEDING 15'-0" ON CENTER. IN ADDITION, PROVIDE CONTROL JOINTS OFF OF ALL REENTRANT CORNERS TO INTERSECTION OF CONTROL JOINTS BEYOND. PROVIDE CONTROL JOINTS TO CONNECT OFFSET COLUMNS, PITS AND OTHER INTERRUPTIONS TO THE SLAB.
4. CONCRETE COVER PROTECTION FOR REINFORCEMENT BARS SHALL BE AS FOLLOWS: (SEE ACI 318 TABLE 20.6.1.3.1 FOR CONDITIONS NOT NOTED.)
   - A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH ... **3"**
   - B. CONCRETE EXPOSED TO EARTH OR WEATHER:
     - BARS #6 AND LARGER ... **2"**
     - BARS #5 AND SMALLER ... **1 1/2"**
   - C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
     - SLABS, WALLS, JOISTS - #11 BARS AND SMALLER ... **3/4"**
     - BEAMS, COLUMNS - TIES, STIRRUPS, SPIRALS ... **1 1/2"**
5. FORMS FOR CONCRETE SHALL BE LAID OUT AND CONSTRUCTED TO PROVIDE FOR THE REQUIRED CAMBERS/SLOPES. DO NOT REMOVE FORMS OR BRACING UNTIL CONCRETE HAS GAINED THE SPECIFIED 28 DAY STRENGTH OR SUFFICIENT STRENGTH TO CARRY ITS OWN WEIGHT AND SUPERIMPOSED LOADS PER THE APPLICABLE PROVISIONS OF ACI 347.
6. MIXING, TRANSPORTING, AND PLACING OF CONCRETE SHALL CONFORM TO THE LATEST EDITION OF ACI 304R AND PROJECT SPECIFICATIONS. ALL CONCRETE SURFACES AGAINST WHICH CONCRETE IS TO BE PLACED SHALL BE THOROUGHLY CLEANED. LAITANCE AND STANDING WATER SHALL BE REMOVED.
7. CURE AND PROTECT CONCRETE IMMEDIATELY AFTER PLACEMENT IN ACCORDANCE WITH ACI 308, ACI 305, AND ACI 306. CURING COMPOUNDS USED ON CONCRETE THAT IS TO RECEIVE A RESILIENT TILE FINISH SHALL BE APPROVED BY THE TILE MANUFACTURER BEFORE USE.
8. WHERE INDICATED ON THE DRAWINGS, INTENTIONALLY ROUGHENED CONCRETE SHALL BE CLEAN AND FREE OF LAITANCE AND ROUGHENED TO A FULL AMPLITUDE OF 1/4".
9. GROUT SHALL BE NON-SHRINKABLE GROUT CONFORMING TO ASTM C1107 AND SHALL HAVE A SPECIFIED COMPRESSIVE STRENGTH AT 28 DAYS OF 5000 PSI. PRE GROUTING OF BASE PLATES WILL NOT BE PERMITTED.
10. ALL REINFORCING BARS, WELDED WIRE FABRIC, ANCHOR BOLTS, EMBEDDED PLATES AND OTHER CONCRETE INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE. PROVIDE STANDARD BAR CHAIRS AND SPACERS AS REQUIRED TO MAINTAIN CONCRETE PROTECTION SPECIFIED. "PULLING-UP" WELDED WIRE FABRIC WITH HOOKS DURING CONCRETE PLACEMENT IS NOT PERMITTED.
11. REINFORCING STEEL FOR CONCRETE SHALL BE AS FOLLOWS:
    - #3 TO #18 (NON-WELDABLE) ... GRADE 60, ASTM A615
    - #3 TO #18 (WELDABLE) ... GRADE 60, ASTM A706
    - WELDED WIRE REINFORCEMENT ... GRADE 70, DEFORMED, ASTM A1064

    REINFORCING IN SHEAR WALLS, BOUNDARY ELEMENTS, PIERS, AND COUPLING BEAMS SHALL CONFORM TO A706 OR MEET THE REQUIREMENTS OF ACI 318-14 20.2.2.5 FOR DUCTILITY OF A615 GRADE 60. REINFORCING BARS SHALL NOT BE TACK WELDED, WELDED, HEATED, OR CUT UNLESS INDICATED ON THE CONTRACT DOCUMENTS OR APPROVED BY THE STRUCTURAL ENGINEER.
12. WELDING REINFORCEMENT BARS, WHEN APPROVED BY THE STRUCTURAL ENGINEER, SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STANDARD D1.4, LATEST EDITION. E70XX ELECTRODES SHALL BE USED IN WELDING A706 REINFORCING BARS TO STRUCTURAL STEEL.
13. DETAILING OF CONCRETE REINFORCEMENT BARS AND ACCESSORIES SHALL CONFORM TO THE RECOMMENDATIONS OF THE LATEST EDITION OF THE ACI 315 DETAILING MANUAL.
14. CONDUIT OR PIPE SIZE (OD) SHALL NOT EXCEED 30 PERCENT OF SLAB THICKNESS AND SHALL BE PLACED BETWEEN TOP AND BOTTOM REINFORCING, UNLESS SPECIFICALLY DETAILED OTHERWISE. CONCENTRATION OF CONDUITS OR PIPES SHALL BE AVOIDED EXCEPT WHERE DETAILED OPENINGS ARE PROVIDED.
15. PROVIDE SLEEVES FOR PLUMBING AND ELECTRICAL OPENINGS IN CONCRETE BEFORE PLACING. CORING THROUGH CONCRETE IS NOT PERMITTED EXCEPT WHERE SHOWN. NOTIFY THE STRUCTURAL ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE DRAWINGS.
16. FOR CONCRETE MIX REQUIREMENTS. SEE CONCRETE MIX DESIGN TABLE. ALTERNATIVE MIX DESIGNS ARE ACCEPTABLE PROVIDED IT IS STAMPED BY A REGISTERED PROFESSIONAL.
17. SEE OTHER DISCIPLINE DRAWINGS FOR CONCRETE REQUIREMENTS FOR NON-STRUCTURAL EXTERIOR CONCRETE (SIDEWALKS, APRONS, ETC).

CONCRETE MIX DESIGN

APPLICATION	f'c (PSI)	EXPOSURE CATEGORY PER ACI 318 TABLE 19.3.1.1	MAX W/CM RATIO
FOOTINGS, GRADE BEAMS, FND TIES, & EQUIPMENT PADS	3,000	F0	N/A
SLAB ON GRADE (SEE NOTE G)	3,500	F0	0.5
CONCRETE WALL/TILT	4,000	F0	N/A

NOTES:

- A. CEMENT SHALL BE PORTLAND CEMENT TYPE I OR TYPE II AND CONFORM TO ASTM C150 OR BLENDED HYDRAULIC CEMENT TYPE IL AND CONFORM TO ASTM C595. SEE NOTE G FOR SLAB ON GRADE AND SLAB ON METAL DECK CEMENT.
- B. AGGREGATE FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33. AGGREGATE FOR LIGHTWEIGHT CONCRETE SHALL CONFORM TO ASTM C330. MINIMUM COARSE AGGREGATE SIZE IS 1/2 INCH AND A MAXIMUM COARSE AGGREGATE SIZE PER ACI 318-14 SECTION 26.4.2.1(a)(4). USE AGGREGATES WITH A NOMINAL MAXIMUM SIZE OF 1 1/2" FOR SLABS ON GRADE.
- C. ADMIXTURES TO BE INCLUDED IN MIX TEST DATA FOR APPROVAL. ADMIXTURES USED TO INCREASE THE WORKABILITY OF THE CONCRETE SHALL NOT BE CONSIDERED TO REDUCE THE SPECIFIED MINIMUM CEMENT CONTENT. CALCIUM CHLORIDE SHALL NOT BE USED.
- D. CONCRETE SLUMP SHALL BE 4 INCHES +/- 1 INCH. EXCEPTION: MIX DESIGNED WITH PLASTICISER OR WATER REDUCER.
- E. MAXIMUM WEIGHT OF NORMAL-WEIGHT CONCRETE SHALL BE 150 PCF AND MAXIMUM WEIGHT OF LIGHT-WEIGHT CONCRETE SHALL BE 115 PCF.
- F. FOR CONCRETE IN EXPOSURE CATEGORIES F1,F2, OR F3, AIR CONTENT SHALL MEET THE REQUIREMENTS OF ACI 318-14 TABLE 19.3.3.1
- G. ADDITIONAL REQUIREMENTS FOR SLAB-ON-GRADE AND CONCRETE OVER METAL DECK MIX:
  - COARSENESS FACTOR OF 70% +/- 2%.
  - TYPE II CEMENT WEIGHT OF 520LB MAX PER CUBIC YARD
  - 4" MAX SLUMP W/O ADMIXTURE. WITH AN ADMIXTURE, SLUMP MAY BE INCREASED PROVIDED THE STRENGTH AND SLUMP WITH THE ADMIXTURE IS INCLUDED IN TEST DATA.
  - WHERE ALTERNATIVE MIX DESIGN IS DESIRED, SEE CONCRETE NOTE 16.

SITE CAST TILT-UP CONCRETE WALL PANEL

1. UNLESS NOTED OTHERWISE, PANELS SHOWN ON DRAWINGS ARE TO BE PRE CAST ON SITE, TILT-UP CONCRETE WALL PANELS.
2. SEE GENERAL NOTES SECTIONS: "CONCRETE" AND "STRUCTURAL STEEL" FOR CONCRETE, REINFORCEMENT BARS, AND EMBEDDED PLATE SPECIFICATIONS.
3. THE CENTERLINE OF SINGLE MAT STEEL SHALL COINCIDE WITH THE CENTERLINE OF THE STRUCTURAL THICKNESS OF THE PANEL. PANELS WITH TWO LAYERS OF MAT STEEL SHALL HAVE A MAT 1-1/2" CLEAR ON THE OUTSIDE FACE AND 1" CLEAR ON THE INSIDE FACE U.O.N. SEE PANEL ELEVATIONS FOR ADDITIONAL REINFORCEMENT REQUIREMENTS.
4. PROVIDE (2) #5 CONTINUOUS AT THE TOP, BOTTOM AND SIDES OF EACH PANEL AND AT THE HEAD, JAMBS AND SILL OF EACH OPENING AND EACH FUTURE KNOCKOUT OPENING IN THE PANEL. SEE DRAWINGS FOR ADDITIONAL REINFORCEMENT.
5. THE GENERAL CONTRACTOR SHALL REVIEW AND VERIFY ALL PANEL DIMENSIONS, OPENINGS, BEAM AND JOIST POCKET LOCATIONS, WELD PLATE LOCATIONS AND REPORT ANY DISCREPANCIES TO THE STRUCTURAL ENGINEER PRIOR TO CASTING PANELS.
6. EXPOSED EDGES OF PANELS SHALL BE CHAMFERED, EXCEPT AT THE INSIDE FACE OF OVERHEAD DOORS.
7. SEE ARCHITECTURAL DRAWINGS FOR PANEL FINISHES, REVEALS, CHAMFERS, ETC.
8. THE PANELS HAVE BEEN DESIGNED FOR THE IN-SERVICE CONDITIONS ONLY. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PANEL LIFTING DESIGN AND METHOD.
9. LIFTING INSERTS VISIBLE AFTER FINAL CONSTRUCTION SHALL BE PATCHED AND FINISHED TO MEET THE ARCHITECT'S APPROVAL.
10. TEMPORARY BRACING OF PANELS SHALL NOT BE REMOVED UNTIL AFTER THE PERMANENT STRUCTURE HAS BEEN COMPLETED.
11. SET UNITS DRY, WITHOUT GROUT, ATTAINING JOINT DIMENSIONS WITH SHIMS. PROVIDE SUFFICIENT SHIMS TO PREVENT SETTLEMENT, ROTATION, OR DAMAGE TO THE FOOTINGS. GROUT PACK BASE OF UNIT WITH NON-SHRINKABLE GROUT CONFORMING TO ASTM C1107 WITH A COMPRESSIVE STRENGTH AT 28 DAYS OF 5000 PSI.

STRUCTURAL WOOD

1. THE QUALITY OF ALL WOOD MEMBERS AND THEIR FASTENINGS SHALL CONFORM TO CHAPTER 23 OF THE IBC.
2. ALL FRAMING MEMBERS AND PLYWOOD SHALL CONFORM TO THE FOLLOWING SPECIFIED TABLES, UNLESS NOTED OTHERWISE:
   - FRAMING MEMBERS ... **DF-L PORTION OF TABLE 4A & 4B (NDS)Q**
   - SHEATHING ... **TABLE 3 (APA PDS)**
3. ALL STRUCTURAL SHEATHING SHALL BE FABRICATED WITH EXTERIOR GLUE CONFORMING TO U.S. PRODUCTS STANDARD PS-1 FOR CONSTRUCTION AND INDUSTRIAL SHEATHING.
4. ALL FRAMING MEMBERS AND SHEATHING SHALL BE GRADE MARKED.
5. FRAMING MEMBERS SHALL CONFORM TO THE FOLLOWING GRADES UNO ON PLANS:
   - STUDS ... **DF-L, STUD OR BETTER**
   - JOISTS ... **DF-L, #2 OR BETTER**
   - PLATES ... **DF-L, #2 OR BETTER**
6. IBC TABLE 2304.10.1, NAILING SCHEDULE, SHALL GOVERN UNLESS MORE RESTRICTIVE NAILING IS INDICATED ON THE PLANS OR DETAILS.
7. WHERE LEDGER, SILL PLATES, POSTS, OR STUDS ARE BEARING DIRECTLY ON CONCRETE OR MASONRY, PROVIDE GRACE VYCOR PLUS BARRIER BETWEEN WOOD MEMBERS AND CONCRETE OR MASONRY.
8. BOLT HOLES IN WOOD SHALL BE 1/32" TO 1/16" LARGER THAN THE BOLT, DEPENDING ON BOLT SIZE.
9. BOLT HOLES SHALL NOT BE LESS THAN 7x DIA. FROM THE END AND 4x DIA. FROM THE EDGE OF THE MEMBER, UNLESS NOTED OTHERWISE.
10. BOLTS USED IN WOOD SHALL BE A307.
11. PRE-DRILL NAIL HOLES WHERE NECESSARY TO PREVENT SPLITTING.
12. EACH GLU-LAMINATED MEMBER SHALL BE STAMPED WITH AN IDENTIFYING NUMBER AND SHALL BE ACCOMPANIED BY A CERTIFICATE OF INSPECTION CERTIFYING THAT THE MEMBERS MEET THE IBC REQUIREMENTS. SUCH CERTIFICATES MUST BE MADE BY AN APROVED AGENCY OF THE A.P.A.
13. GLU-LAMINATED MEMBERS SHALL BE A COMBINATION OF 24F-1.8E-V4 (DF-L) INDUSTRIAL GRADE, AND EXTERIOR GLUE, UNLESS NOTED OTHERWISE ON PLAN.
14. GLU-LAMINATEDS COLUMNS SHALL BE 2-DF-L2 (DF-L).
15. ALL SUSPENDED LOADS FROM SUBPURLINS ARE PROHIBITED WITHOUT PRIOR APPROVAL FROM ENGINEER.
16. ALL HANGERS, POST CAPS AND BASES ARE BY SIMPSON OR APPROVED EQUIVALENT. PROVIDE SIMPSON (OR APPROVED EQUIVALENT) HANGERS FOR BEAMS, JOISTS, POST BASES AND CAPS FOR COLUMNS UNLESS NOTED ON PLANS AND DETAILS.
17. WHERE DIAPHRAGM AND SHEARWALL SHEATHING NAILING IS LESS THAN 3" ON CENTER USE 3x FRAMING AND STAGGER NAILING PER SHEET **S0.10 U.O.N.** ALL DIAPHRAM AND SHEAR WALL PANEL EDGES TO BE BLOCKED U.N.O.
18. ALL WOOD STRUCTURAL/BEARING WALLS SHALL HAVE FOUNDATION/SILL ANCHORAGE MEETING THE MINIMUM REQUIREMENTS OF IBC SECTION 2308 U.N.O. BUT NOT LESS THAN 1/2" Ø ANCHOR BOLTS @ 6'-0" O.C. MAX WITH A MINIMUM OF (2) PER WALL SEGMENT AND MINIMUM 6" EMBEDMENT.

LIGHT GAGE STEEL FRAMING

1. LIGHT-GAGE STEEL SHALL CONFORM TO:
   - A. ASTM A 653 SS GRADE 50, CLASS 1 OR CLASS 3 (Fy = 50 KSI) FOR 0.0566 INCH THROUGH 0.1017 INCH THICKNESS.
   - B. ASTM A 653 SS GRADE 33 (Fy = 33 KSI) FOR 0.0180 INCH THROUGH 0.0451 INCH THICKNESS.
2. ALL FABRICATION, ERECTION, AND IDENTIFICATION OF LIGHT-GAGE STEEL FRAMING SHALL CONFORM TO IBC SECTIONS 2209 AND 2210 AND AISI SPECIFICATIONS.
3. PROVIDE ALL ACCESSORIES INCLUDING, BUT NOT LIMITED TO, TRACKS, CLIPS, WEB STIFFENERS, ANCHORS, FASTENING DEVICES AND OTHER ACCESSORIES REQUIRED FOR A COMPLETE AND PROPER INSTALLATION.
4. INSTALL BRIDGING/BLOCKING IN LIGHT-GAGE STEEL STUD WALLS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND AS SHOWN IN THE DRAWINGS.
5. WELD LIGHT-GAGE STEEL FRAMING CONNECTIONS, EXCEPT WHERE SELF- DRILLING SCREWS ARE SPECIFIED.
6. WELDS SHALL CONFORM TO AWS SPECIFICATIONS. WELDERS SHALL BE CERTIFIED FOR LIGHT-GAGE STEEL UNDER AWS SPECIFICATIONS.
7. DESIGNATIONS OF COLD-FORMED, LIGHT-GAGE STEEL SHAPES REFER TO THOSE DESCRIBED IN ICC-ES EVALUATION REPORT ESR-3064P OF THE METAL STUD MANUFACTURERS' ASSOCIATION.
8. SHEET METAL SCREWS SHALL BE OF THE MAKE SPECIFIED IN THE DRAWINGS OR, WHERE NO SPECIFIC MAKE IS GIVEN, SHALL BE RATED BY THEIR MANUFACTURER AS POSSESSING DESIGN LOAD CAPACITIES IN SHEAR AND TENSION AT LEAST EQUAL TO THOSE PUBLISHED IN ICBO EVALUATION REPORT NO. 4943 OF THE METAL STUD MANUFACTURERS' ASSOCIATION FOR THE SCREW SIZE SPECIFIED.
9. FOR EXTERIOR STUDS SEE DETAILS AT PERIMETER. FOR NON-BEARING INTERIOR STUDS SEE ARCH.
10. SHEET METAL SCREWS SHALL HAVE A MINIMUM CENTER-OF-SCREW TO EDGE-OF-STEEL DIMENSION OF 1.5 TIMES THE NOMINAL DIAMETER OF THE SCREW. WHERE MULTIPLE FASTENERS ARE USED IN A CONNECTION, THE MINIMUM CENTER-TO-CENTER SPACING OF SCREWS SHALL BE 3 TIMES THE NOMINAL DIAMETER OF THE SCREW.

STRUCTURAL STEEL

1. ALL W-SECTION SHAPES SHALL CONFORM TO ASTM A992. CHANNEL SHAPES, ANGLES, AND PLATES SHALL CONFORM TO ASTM A36. (UNLESS OTHERWISE NOTED ON THE DWG).
2. STRUCTURAL STEEL PIPE SHALL CONFORM TO ASTM A53, GRADE B (Fy = 35 KSI). MILL TEST REPORTS FOR STEEL PIPE SHALL BE SUBMITTED FOR APPROVAL.
3. HOLLOW STRUCTURAL SECTIONS SHALL CONFORM TO ASTM A500, GRADE C (Fy = 50 KSI RECTANGULAR, Fy = 46 KSI ROUND).
4. ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 GR 36, UNLESS NOTED OTHERWISE.
5. STRUCTURAL STEEL DETAILING, FABRICATION AND ERECTION SHALL CONFORM TO THE LATEST EDITION OF AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" WITH AMENDMENTS, AND THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" WITH AMENDMENTS.
6. BUCKLING-RESTRAINED BRACED FRAMES SHALL CONFORM TO THE REQUIREMENTS OF AISC 341, SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS AS WELL AS THE DESIGN PARAMETERS SET FORTH IN THE DRAWINGS. STRUCTURAL CALCULATIONS AND DETAILS FOR THE BRB CONNECTIONS SHALL BE PROVIDED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE PROJECTS TO ARCHITECT/ENGINEER BEFORE SUBMITTING TO JURISDICTION FOR REVIEW AND PERMITTING.
7. BOLTS 3/4"Ø AND GREATER TO BE ASTM A325 OR ASTM F1852, TYPE 1 (TWIST - OFF TENSION CONTROL BOLTS) WITH THREADS INCLUDED IN SHEAR PLANE, INSTALLED PER SECTION 8. FOR BOLTS INDICATED AS SLIP CRITICAL ON THE DRAWING MINIMUM PRETENSION AS STATED IN TABLE 8.1 AND INSPECTED PER SECTION 9 OF THE RCSC SPECIFICATION. FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS. PROVIDE ASTM A490 BOLTS OR ASTM F2280 TWIST-OFF TENSION CONTROL BOLTS WHERE ASTM A1064 GR 70 BOLTS ARE INDICATED ON PLANS OR DETAILS. BOLTS NOTED AS TYPE SC (SLIP-CRITICAL) IN DETAILS SHALL BE INSTALLED AS SLIP-CRITICAL WITH FAYING SURFACES PREPARED AS CLASS A SURFACE PER AISC 360. FOR BOLTS LESS THAN 3/4"Ø USE A307. FOR BOLTS NOT INDICATED AS SLIP CRITICAL SNUG TIGHT CONNECTIONS ARE ACCEPTABLE.
8. SPLICING OF STRUCTURAL STEEL MEMBERS WHERE NOT DETAILED ON THE CONTRACT DOCUMENTS IS PROHIBITED WITHOUT THE PRIOR APPROVAL OF THE STRUCTURAL ENGINEER AS TO LOCATION, TYPE OF SPLICE AND CONNECTION TO BE MADE.
9. HEADED SHEAR CONNECTORS STUDS ON COMPOSITE STEEL BEAMS SHALL BE UNIFORMLY SPACED U.O.N. DO NOT USE MORE THAN ONE STUD PER RIB WHERE THE NUMBER OF STUDS REQUIRED IS LESS THAN OR EQUAL TO THE NUMBER OF RIBS AVAILABLE. PLACE A MINIMUM OF ONE STUD PER RIB FULL LENGTH OF THE BEAM. PLACE ADDED STUDS IN EACH RIB BEGINNING AT THE SUPPORTS AND MOVING TOWARDS THE MID-SPAN UNTIL REQUIRED NUMBER OF STUDS IS SUPPLIED. FOR MULTIPLE STUDS TRANSVERSE TO THE LONGITUDINAL AXIS OF THE BEAM. THE MINIMUM STUD SPACING TO BE 3" OC AND 1" MINIMUM CLEAR FROM THE FLANGE EDGE. SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO THE INSTALLATION OF THE HEADED STUDS.PROVIDE STUDS AT 12" O.C. IF NOT SHOWN ON PLAN.
10. HEADED CONCRETE ANCHORS SHALL BE NELSON HEADED CONCRETE ANCHORS (OR APPROVED EQUAL), AND SHALL CONFORM TO ASTM A1064. ANCHORS SHALL BE AUTOMATICALLY END WELDED WITH SUITABLE STUD WELDING EQUIPMENT IN THE SHOP OR IN THE FIELD. WELDING SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE NELSON STUD WELDING COMPANY.
11. DEFORMED BAR ANCHORS (DBA) SHALL BE NELSON DEFORMED BAR ANCHORS (OR APPROVED EQUAL), AND SHALL BE MADE FROM LOW CARBON STEEL CONFORMING TO ASTM A496. ANCHORS SHALL BE AUTOMATICALLY END- WELDED WITH SUITABLE WELDING EQUIPMENT IN THE SHOP OR IN THE FIELD. WELDING SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE NELSON STUD WELDING COMPANY.
12. WELDS USED IN MEMBERS & CONNECTIONS DESIGNATED IN THE DRAWINGS AS SEISMIC FORCE REISSTING SYSTEM (SFRS) SHALL BE MADE WITH FILLER METALS MEETING THE REQUIREMENTS IN AWS D1.8 SECTION 6.3 (AISC341-10 SECTIONS A3.4a&b). WELDS USED IN MEMBERS & CONNECTIONS DESIGNATED IN THE DRAWINGS AS DEMAND CRITICAL (DC) SHALL BE MADE WITH FILLER METALS MEETING THE REQUIREMENTS IN AWS D1.8 SECTION 6.3, INCLUDING SUB-CLAUSES 6.3.5, 6.3.6, 6.3.7, & 6.3.8
13. SUBMIT A WELDING PROCEDURE IN ACCORDANCE WITH LATEST EDITION OF AWS D1.1. WHERE WELDS ARE FOR MEMBERS DESIGNATED PART OF THE SFRS OR LABELED DEMAND CRITICAL, WELDING PROCEDURES SHALL CONFORM TO AWS D1.8 AND MANUFACTURER'S RECOMMENDATIONS (WHERE APPLICABLE). APPROVED PROCEDURES TO BE SUBMITTED TO SPECIAL INSPECTOR FOR REVIEW AND APPROVAL THEN TO THE ENGINEER FOR REVIEW.
14. WELDS SHALL CONFORM TO AWS SPECIFICATIONS. WELDERS SHALL BE CERTIFIED UNDER AWS SPECIFICATIONS. E70xx ELECTRODES SHALL BE USED FOR ALL WELDS.
15. SEE FRAME ELEVATIONS FOR LOCATION OF PROTECTED ZONES FOR LATERAL RESISTIVE FRAMES. NO CONNECTIONS OR ATTACHMENTS ARE PERMITTED WITHIN PROTECTED ZONES.
16. LOWEST ANTICIPATED SERVICE TEMPERATURE (LAST) SHALL BE 50° F FOR INDOOR CONDITIONED STRUCTURES & 0° F FOR OUTDOOR/UNCONDITIONED STRUCTURES
17. ALL EXTERIOR STEEL TO BE GALVANIZED. PLUG GALV HOLES w/ ALUMINUM PLUGS.

OPEN WEB STEEL JOIST

1. GENERAL CONTRACTOR TO COORDINATE MECHANICAL, ELECTRICAL, PLUMBING, AND SPRINKLER LOADS WITH JOIST DESIGNER.
2. ALL LOADS UNLESS OTHERWISE NOTED ARE ALLOWABLE LOADS (ASD).
3. OPEN WEB STEEL JOISTS & JOIST GIRDERS WITH THEIR BRIDGING, BRACING, END SUPPORTS AND ANCHORAGE, AND ERECTION STABILITY AND HANDLING REQUIREMENTS SHALL CONFORM TO THE APPLICABLE STEEL JOIST INSTITUTE STANDARD SPECIFICATIONS FOR STEEL JOISTS AND JOIST GIRDERS, LATEST EDITION. TOP CHORDS OF JOISTS AND JOIST GIRDERS SHALL CONSIST OF ANGLES OR TEES.
4. SUBMIT ERECTION DRAWINGS AND CALCULATIONS (BEARING THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT) FOR THE DESIGN OF THE STEEL JOISTS AND JOIST GIRDERS, PER SECTION 2207 OF THE IBC. PROVIDE A CERTIFICATE OF COMPLIANCE FROM THE MANUFACTURER PER SECTION 2207 OF THE IBC. APPROVED ERECTION DRAWINGS AND CALCULATIONS ARE TO BE SUBMITTED TO JURISDICTION FOR REVIEW AND PERMITTING. CONTRACTOR TO COORDINATE ALL MECHANICAL, ELECTRICAL, PLUMBING, AND SPRINKLER LOADS WITH THE JOIST DESIGNER.

POST-INSTALLED ANCHORS

1. POST-INSTALLED ANCHOR SYSTEMS SHALL COMPLY WITH THE LATEST REVISION OF ICC-ES ACCEPTANCE CRITERIA AND HAVE A VALID ICC-ES REPORT (OR APPROVED EQUIVALENT) IN ACCORDANCE WITH THE APPLICABLE BUILDING CODE.
2. UNLESS OTHERWISE NOTED ON THE DRAWINGS USE ANCHORS LISTED BELOW:
   - EXPANSION ANCHORS IN CONCRETE SHALL BE ONE OF THE FOLLOWING:
     - HILTI HSL-3 CARBON STEEL HEAVY DUTY EXPANSION ANCHOR (ICC-ES REPORT ESR-1545)
     - HILTI HDA CARBON AND STAINLESS STEEL UNDERCUT ANCHOR (ICC-ES REPORT ESR-1546)
     - HILTI KWIK BOLT TZ CARBON AND STAINLESS STEEL ANCHORS (ICC-ES REPORT ESR-1917)
     - DeWALT POWER-STUD+SD2 ANCHOR (ICC-ES REPORT ESR-2502)
     - SIMPSON STRONG-TIE STRONG-BOLT 2 ANCHOR (ICC-ES REPORT ESR-3037)
   - ADHESIVE ANCHORS IN CONCRETE SHALL BE ONE OF THE FOLLOWING:
     - HILTI HIT-RE 500 V3 ADHESIVE ANCHOR (ICC-ES REPORT ESR-3814)
     - HILTI HIT-HY 200 ADHESIVE ANCHOR (ICC-ES REPORT ESR-3187)
     - DeWALT PURE 110+ EPOXY ADHESIVE ANCHOR (ICC-ES REPORT ESR-3298)
     - DeWALT AC200+ ADHESIVE ANCHOR (ICC-ES REPORT ESR-4027)
     - SIMPSON STRONG-TIE SET-XP EPOXY ADHESIVE ANCHOR (ICC-ES REPORT ESR-2508)
     - SIMPSON STRONG-TIE AT-XP EPOXY ADHESIVE ANCHOR (IAPMO UES ER-263)
   - SCREW ANCHORS IN CONCRETE SHALL BE ONE OF THE FOLLOWING:
     - DeWALT SCREW-BOLT+ SCREW ANCHOR (ICC-ES REPORT ESR-3889)
     - HILTI KWIK HUS-EZ SCREW ANCHOR (ICC-ES REPORT ESR-3027)
     - SIMPSON STRONG-TIE TITEN HD SCREW ANCHOR (ICC-ES REPORT ESR-2713)
   - ANCHORS IN CONCRETE OVER STEEL DECK SHALL BE ONE OF THE FOLLOWING:
     - HILTI KWIK BOLT TZ CARBON AND STAINLESS STEEL ANCHORS (ICC-ES REPORT ESR-1917)
     - HILTI HIT-RE 500 V3 ADHESIVE ANCHORS (ICC-ES REPORT ESR-3814)
     - DeWALT POWER-STUD+SD2 EXPANSION ANCHOR (ICC-ES REPORT ESR-2502)
     - DeWALT POWER-STUD+SD1 EXPANSION ANCHOR (ISS-ES REPORT ESR-2818)
     - DeWALT SCREW-BOLT+ SCREW ANCHOR (ICC-ES REPORT ESR-3889)
     - SIMPSON STRONG-TIE STRONG-BOLT 2 WEDGE ANCHOR (ICC-ES REPORT ESR-3037)
     - SIMPSON STRONG-TIE TITEN HD SCREW ANCHOR (ICC-ES REPORT ESR-2713)
   - EXPANSION ANCHORS IN MASONRY SHALL BE ONE OF THE FOLLOWING:
     - HILTI KWIK BOLT 3 (KB3) ANCHORS (ICC-ES ESR-1385)
     - DeWALT POWER-STUD+SD1 (ICC-ES ESR-2966)
     - SIMPSON STRONG-TIE WEDGE-ALL ANCHOR (ICC-ES REPORT ESR-1396)
     - SIMPSON STRONG-TIE STRONG-BOLT 2 WEDGE ANCHOR (IAPMO UES ER-240)
   - ADHESIVE ANCHORS IN MASONRY SHALL BE ONE OF THE FOLLOWING:
     - HILTI HIT-HY 270 ADHESIVE ANCHOR (ICC-ES REPORT ESR 4143 & 4144)
     - DeWALT AC100+ GOLD ADHESIVE ANCHOR (ICC-ES REPORT ESR-3200 FOR CMU & ICC-ES REPORT ESR-4105 FOR UNREINFORCED MASONRY)
     - SIMPSON STRONG-TIE SET-XP EPOXY ADHESIVE ANCHOR (IAPMO UES ER-265)
     - SIMPSON STRONG-TIE AT-XP EPOXY ADHESIVE ANCHOR (IAPMO UES ER-281)
   - SCREW ANCHORS IN MASONRY SHALL BE ONE OF THE FOLLOWING:
     - HILTI KWIK HUS-EZ SCREW ANCHOR (ICC-ES REPORT ESR-3056)
     - DeWALT SCREW-BOLT+ SCREW ANCHOR (ICC-ES REPORT ESR-4042)
     - SIMPSON STRONG-TIE TITEN HD SCREW ANCHOR (ICC-ES REPORT ESR-1056)
3. ANCHORS INSTALLED IN THE BOTTOM OF CONCRETE OVER STEEL DECK SHALL BE INSTALLED IN THE BOTTOM FLUTE ONLY.
4. ANCHORS ARE NOT TO BE INSTALLED UNTIL CONCRETE HAS REACHED ITS DESIGN STRENGTH.
5. FOR ANCHOR EMBEDMENT, SEE DRAWINGS OR TYPICAL DETAIL. USE EMBEDMENT RECOMMENDED BY MANUFACTURER WHERE NO EMBEDMENT IS SHOWN.
6. MANUFACTURER'S INSTALLATION TRAINING AND CERTIFICATION IS REQUIRED ON ALL POST-INSTALLED ANCHORS FOR ANCHOR INSTALLER.
7. CONTRACTOR COORDINATE ANCHOR AND REINFORCING LOCATION. IT IS UNACCEPTABLE TO CUT REBAR FOR POST INSTALLED ANCHORS WITHOUT PRIOR APPROVAL FROM A&E.

SPECIAL INSPECTION

WABO Certified inspectors meet screening requirements of the IBC for the City of Puyallup.

IN ACCORDANCE WITH IBC CHAPTER 17, THE FOLLOWING TYPES OF WORK REQUIRE SPECIAL INSPECTION. SEE THE SPECIFICATIONS AND DRAWINGS FOR ADDITIONAL REQUIREMENTS FOR INSPECTION AND TESTING. SPECIAL INSPECTION SHALL BE PAID FOR AND PROVIDED BY THE OWNER.

MATERIAL	TASK			FREQUENCY		RESPONSIBLE FIRM
				CONTINUOUS	PERIODIC	
EARTHWORK	GRADING, EXCAVATING, & FILL			INSP	-	GEOTECH OF RECORD
	FILL MATERIAL			-	TEST	GEOTECH OF RECORD
	SOIL COMPACTION			-	TEST	GEOTECH OF RECORD
CAST-IN-PLACE CONCRETE	REINFORCING STEEL, INCLUDING PRESTRESSING STEEL, AND PLACEMENT			-	INSP	SPECIAL INSPECTOR
	USE OF REQUIRED CONCRETE DESIGN MIX			-	INSP	SPECIAL INSPECTOR
	SHAPE, LOCATION, & DIMENSIONS OF CONCRETE MEMBER			-	INSP	SPECIAL INSPECTOR
	BOLTS INSTALLED IN CONCRETE			INSP	-	SPECIAL INSPECTOR
	REINFORCED CONCRETE PLACEMENT			INSP	-	SPECIAL INSPECTOR
	ADHESIVE ANCHORS			INSP	-	SPECIAL INSPECTOR
	EXPANSION ANCHORS			-	INSP	SPECIAL INSPECTOR
	SPECIFIED CURING TECHNIQUES			-	INSP	SPECIAL INSPECTOR
	CONCRETE MATERIALS			-	TEST	TESTING LAB
STRUCTURAL STEEL, STEEL DECK, & PRECAST CONCRETE	SHOP FABRICATION			-	-	NOTE 1
	SHOP WELDING			-	-	NOTE 1
	STEEL FRAME FOR CONFORMANCE WITH CONSTRUCTION DOCUMENTS			-	INSP	SPECIAL INSPECTOR
	FIELD WELDED CONNECTIONS					
		SINGLE-PASS FILLET WELDS EQUAL TO OR LESS THAN 5/16"		-	INSP	SPECIAL INSPECTOR
		SINGLE-PASS FILLET WELDS GREATER THAN 5/16"		INSP	-	SPECIAL INSPECTOR
		MULTI-PASS FILLET WELDS		INSP	-	SPECIAL INSPECTOR
		PJP GROOVE WELDS		INSP	-	SPECIAL INSPECTOR
		CJP GROOVE WELDS	BEFORE	-	INSP	SPECIAL INSPECTOR
			DURING	INSP	-	TESTING LAB
			AFTER	-	TEST	TESTING LAB
		DECK WELDS		-	INSP	SPECIAL INSPECTOR
		WELDING OF REINFORCING STEEL		INSP	-	NOTE 2
		HEADED STUDS		-	TEST	SPECIAL INSPECTOR
				-	TEST	SPECIAL INSPECTOR
	HIGH-STRENGTH BOLT INSTALLATION (BEARING TYPE)			-	INSP	SPECIAL INSPECTOR
				-	TEST	TESTING LAB
	HIGH-STRENGTH BOLT INSTALLATION (SLIP-CRITICAL)			-	INSP	SPECIAL INSPECTOR
				-	TEST	TESTING LAB
	ERECTION OF PRECAST CONCRETE MEMBERS			-	INSP	SPECIAL INSPECTOR
STRUCTURAL WOOD FRAMING	ALL SUB-PURLIN HANGERS			-	INSP	SPECIAL INSPECTOR
	LATERAL FORCE RESISTING MEMBERS					
		NAILING ≤ 4" OC & STRAPPING OF SHEARWALLS, DIAPHRAGMS, & TOP CHORDS		-	INSP	SPECIAL INSPECTOR
		NAILING, BOLTING, ANCHORING, & FASTENING OF OTHER ELEMENTS		-	INSP	SPECIAL INSPECTOR
		GANG NAIL TRUSSES W/ SPAN > 60': MEMBER RESTRAINT BRACING INSTALLATION		-	INSP	SPECIAL INSPECTOR
STRUCTURAL MASONRY	CONSTRUCTION OF MORTAR JOINTS			-	INSP	SPECIAL INSPECTOR
	GROUT SPACE PREPARATION			-	INSP	SPECIAL INSPECTOR
	TYPE, SIZE, & LOCATION OF REINF & ANCHORAGES			-	INSP	SPECIAL INSPECTOR
	PLACEMENT OF GROUT			INSP	-	SPECIAL INSPECTOR
	COLD & HOT WEATHER PROCEDURES			-	INSP	SPECIAL INSPECTOR
	MORTAR & GROUT PROPORTIONS			-	INSP	SPECIAL INSPECTOR
	GROUT & MORTAR SPECIMENS / PRISMS			-	INSP	SPECIAL INSPECTOR
COLD-FORMED STEEL FRAMING	FIELD WELDED CONNECTIONS			-	INSP	SPECIAL INSPECTOR
	ADHESIVE ANCHORS			INSP	-	SPECIAL INSPECTOR
	EXPANSION ANCHORS			-	INSP	SPECIAL INSPECTOR
	SCREWS			-	INSP	SPECIAL INSPECTOR
	FIELD WELDED CONNECTIONS			-	INSP	SPECIAL INSPECTOR
	LATERAL FORCE RESISTING MEMBERS					
		FASTENING < 4" OC & STRAPPING OF SHEARWALLS, DIAPHRAGMS, & TOP CHORDS		-	INSP	SPECIAL INSPECTOR
		BOLTING, ANCHORING, & FASTENING OF OTHER ELEMENTS		-	INSP	SPECIAL INSPECTOR
METAL FABRICATIONS, METAL STAIRS, RAILINGS, & HANDRAILS	ADHESIVE ANCHORS			INSP	-	SPECIAL INSPECTOR
	EXPANSION ANCHORS			-	INSP	SPECIAL INSPECTOR
	CONCRETE PLACEMENT			-	INSP	SPECIAL INSPECTOR
	CONCRETE MATERIALS			-	TEST	TESTING LAB
SPRAYED FIRE-RESISTIVE MATERIAL	SPRAYED FIRE-RESISTIVE MATERIALS			-	TEST	TESTING LAB
SPECIAL CASES						

NOTES:

1. SPECIAL INSPECTION OF SHOP FABRICATION AND SHOP WELDING SHALL MATCH THE REQUIREMENTS FOR FIELD FABRICATION AND FIELD WELDING UNLESS SHOP CERTIFICATION DOCUMENTS ARE REVIEWED AND ACCEPTED BY THE OWNER. IF APPROVED BY THE OWNER, SPECIAL INSPECTION OF SHOP FABRICATION AND SHOP WELDING SHALL NOT BE REQUIRED FOR CERTIFIED FABRICATORS AS REQUIRED BY THE STRUCTURAL STEEL SECTION OF THE GENERAL STRUCTURAL NOTES.
2. CONTINUOUS INSPECTION REQUIRED FOR WELDING OF REINFORCING STEEL RESISTING FLEXURAL & AXIAL FORCES IN INTERMEDIATE & SPECIAL MOMENT FRAMES, BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALL OF CONCRETE, & SHEAR REINFORCEMENT. PERIODIC INSPECTION IS ACCEPTABLE FOR WELDING OF OTHER REINFORCING STEEL.

CONTACT INFORMATION

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ABBREVIATIONS

&	AND
(N)	NEW
@	AT
AB	ANCHOR BOLTS
ACI	AMERICAN CONCRETE INSTITUTE
ADDL	ADDITIONAL
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
AFF	ABOVE FINISHED FLOOR
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT	ALTERNATE
APPROX	APPROXIMATE
ARCH	ARCHITECT(URAL)
ATR	ALL-THREAD ROD
B/	BOTTOM OF
BE	BOUNDARY ELEMENT
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BN	BOUNDARY NAIL(ING)
BOT / BOTT	BOTTOM
BP	BASE PLATE
BRG	BEARING
BTWN	BETWEEN
CFS	COLD FORMED STEEL
CIP	CAST-IN-PLACE
CJ	CONTROL/CONTRACTION/ CONSTRUCTION JOINT
CL /	CENTER LINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
CTR / CNTR	CENTER
d	PENNY (NAILS)
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DC	DEMAND CRITICAL WELD
DET / DTL	DETAIL
DFL	DOUGLAS FIR/LARCH
DIA / Ø	DIAMETER
DIAPH	DIAPHRAGM
DIM	DIMENSION
DL	DEAD LOAD
DWG	DRAWING
E/	EDGE OF
EA	EACH
EF	EACH FACE
EFF	EFFECTIVE
EIFS	EXTERIOR INSULATION FINISH SYSTEM
ELEC / ELECT	ELECTRICAL
ELEV	ELEVATION / ELEVATOR
EN	EDGE NAIL(ING)
ENGR	ENGINEER
EQ	EQUAL
ES	EACH SIDE
EW	EACH WAY
EXIST / (E)	EXISTING
EXP JT / EJ	EXPANSION JOINT
EXT	EXTERIOR
F/	FACE OF
FB	FLAT BAR
FHS	FULL HEIGHT STIFFENER
FIN	FINISH(ED)
FLR	FLOOR
FND	FOUNDATION
FOW	FACE OF WALL
FS	FAR SIDE
FT	FEET / FOOT
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GL	GLULAM
GLB	GLULAM BEAM
HCM	HOLLOW CLAY MASONRY
HDR	HEADER
HGR	HANGER
HORIZ	HORIZONTAL
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
HWS	HEADED WELD STUD
IBC	INTERNATIONAL BUILDING CODE
ID	INSIDE DIAMETER
IF / ISF	INSIDE FACE
INFO	INFORMATION
INSP	INSPECTION / INSPECTOR
INT	INTERIOR

ABBREVIATIONS

JST	JOIST
K	KIPS
KN	KEYNOTE
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
L	ANGLE
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG / LONGIT	LONGITUDINAL
LSL	LAMINATED STRAND LUMBER
LVL	LAMINATED VENEER LUMBER
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MECH	MECHANICAL
MFR / MANUF	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
NIC	NOT IN CONTRACT
NO / #	NUMBER
NOM	NOMINAL
NS	NEAR SIDE
NTE	NOT TO EXCEED
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF / OSF	OUTSIDE FACE
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OWWJ	OPEN WEB WOOD JOIST
PDA	POWER DRIVEN ANCHOR
PERP	PERPENDICULAR
PJ	PANEL JOINT
PL /	PLATE
PLB	PARALLAM BEAM
PLYWD / PLY	PLYWOOD
PNL	PANEL
PS	POUR STRIP
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSL	PARALLEL STRAND LUMBER
PT	PRESSURE TREATED/POST TENSIONED
REF	REFERENCE
REINF	REINFORCING
REQ / REQD	REQUIRED
REV	REVISION
SCHED	SCHEDULE
SFRS	SEISMIC FORCE RESISTING SYSTEM
SHTG / SHT'G	SHEATHING
SIM	SIMILAR
SLRS	SEISMIC LOAD RESISTIVE SYSTEM
SLV	SHORT LEG VERTICAL
SMS	SHEET METAL SCREW
SOG	SLAB ON GRADE
SP	SPACE (D)(S)
SPEC(S)	SPECIFICATION
STAGG	STAGGERED
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STRUCT	STRUCTURAL
T&B	TOP & BOTTOM
T/	TOP OF
THK	THICK / THICKNESS
THRU	THROUGH
TL	TOTAL LOAD
TN	TOE NAIL
TRANS / TRANSV	TRANSVERSE
TS	TUBE STEEL
TYP	TYPICAL
UON / UNO	UNLESS OTHERWISE NOTED
VERT	VERTICAL
VIF	VERIFY IN FIELD
VRFY	VERIFY
W/	WITH
W/O	WITHOUT
WD	WOOD
WF	WIDE FLANGE BEAM
WP	WORK POINT
WWF	WELDED WIRE FABRIC

STRUCTURAL DEFERRED SUBMITTALS

CONTRACTOR TO SUBMIT DRAWINGS & CALCULATIONS BEARING THE SEAL OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE PROJECT TO ARCHITECTURE / ENGINEER BEFORE SUBMITTING TO JURISDICTION FOR REVIEW & PERMITTING

ITEM
1. ANCHORAGE FOR AND ATTACHMENT OF M/E/P/F SYSTEMS & EQUIPMENT TO STRUCTURE
2. OPEN WEB METAL JOISTS & GIRDERS
3. DESIGN-BUILD STAIRS AND GUARDRAILS

STRUCTURAL OBSERVATIONS

IN ACCORDANCE W/ IBC CH 17 & AT THE DIRECTION OF THE ENGINEER OF RECORD, THE FOLLOWING ITEMS REQUIRE PERIODIC STRUCTURAL OBSERVATION. NOTIFY ENGINEER OF RECORD AT LEAST 48 HOURS BEFORE A DESIGNATED WORK IS TO BE COVERED.

ITEM	DESCRIPTION
1. FOUNDATION	REINFORCING STEEL
2. WOOD DIAPHRAGMS	NAILING & STRAPPING OF WOOD DIAPHRAGM
3. TILT PANELS	REINFORCING STEEL & EMBED PLACEMENT

M.
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Mechanical/Electrical

JOSHUA D. McDOWELL
STATE OF WASHINGTON
41987
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER
6/28/23

REVISION SCHEDULE

Delta	Issued As	Issue Date

SHEET TITLE:

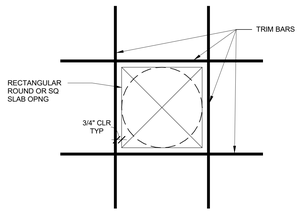
STRUCTURAL GENERAL NOTES

SHEET

S0.00

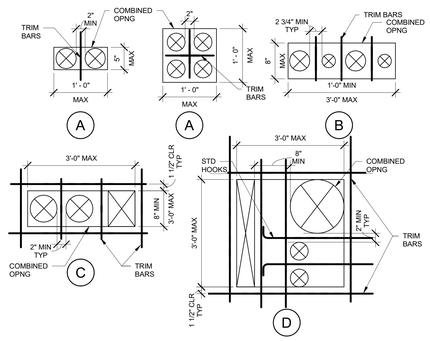
JOB NO. **2220290.00**

90% CONSTRUCTION DOCUMENT 6/14/23



NOTES:
1. THIS DIAGRAM IS FOR ISOLATED SLAB OPENINGS WHOSE LARGER DIMENSION IS BETWEEN 12" AND 36". NO TRIM BARS ARE REQUIRED FOR ISOLATED SLAB OPNGS SMALLER THAN 12". SEE PLANS FOR OPENINGS LARGER THAN 36"
2. PROVIDE (1) #5 TRIM BAR TOP AND BOTTOM ON EACH SIDE OF OPENING. BARS SHALL EXTEND 18" PAST EDGES OF OPENING.
3. DISPLACE SLAB PRINCIPAL REINFORCEMENT TO EACH SIDE OF OPNGS. DO NOT CUT SLAB PRINCIPAL REINFORCEMENT.

1 S0.10 TRIM BARS FOR ISOLATED SLAB OPENINGS
1 1/2" = 1'-0"

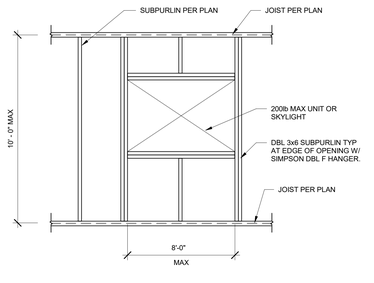


NOTES:
1. SLAB OPENINGS WHICH ARE CLOSER TO ONE ANOTHER THAN THE DIAMETER OR SHORTER SIDE OF THE LARGER OF THE TWO ARE CONSIDERED TO FORM A COMBINED OPENING.
2. THESE DIAGRAMS ARE FOR COMBINED OPENINGS WHOSE LARGER DIMENSIONS DOES NOT EXCEED 36". SEE PLANS FOR OPENINGS LARGER THAN 36"
3. TRIM BAR EXTENSION PAST EDGES OF COMBINED OPENINGS SHALL BE 12" FOR #4 BARS AND 18" FOR #5 BARS.
4. DISPLACED SLAB PRINCIPAL REINFORCEMENT TO EACH SIDE OF COMBINED OPENINGS OR PLACE BETWEEN INDIVIDUAL OPENINGS. DO NOT CUT SLAB PRINCIPAL REINFORCEMENT.
5. TENDONS MAY PASS BETWEEN SLAB OPENINGS WHEN THE DISTANCE BETWEEN OPENINGS IS GREATER THAN OR EQUAL TO THE SLAB THICKNESS PLUS (N-1) TIMES 3 INCHES, WHERE 'N' IS THE NUMBER OF TENDONS IN A BUNDLE OR DUCT. TENDONS MUST FOLLOW A STRAIGHT ALIGNMENT (IN PLAN) THROUGH THE COMBINED OPENINGS AND FOR AT LEAST 24" ON EACH SIDE.
6. SUBMIT SPECIAL SITUATIONS TO ENGINEER FOR REVIEW.
7. SEE 1/SO.10 FOR TRIM BARS AT ISOLATED OPENINGS.

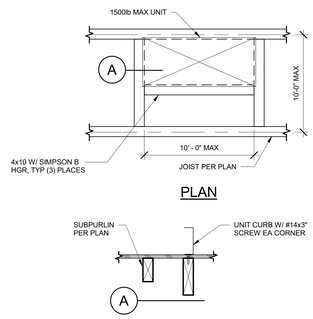
TRIM BAR REQUIREMENTS:

A. IF THE COMBINED OPNG IS SMALLER THAN 12", PROVIDE (1)#4 TOP AND BOTTOM BETWEEN OPENINGS.
B. IF THE LARGER DIMENSION OF A COMBINED OPENING EXCEEDS 12" BUT THE SMALLER DIMENSION IS LESS THAN OR EQUAL TO 8", AND PROVIDED THE COMBINED OPENING IS ALIGNED WITH THE PRINCIPAL REINFORCEMENT, PROVIDE (1)#4 TOP AND BOTTOM BETWEEN OPENINGS.
C. IN ALL OTHER CASES WHERE OPENINGS ARE ARRANGED IN A SINGLE LINE PROVIDE (1)#4 TOP AND BOTTOM BETWEEN OPENINGS AND (1)#5 TOP AND BOTTOM AROUND PERIMETER OF COMBINED OPENING.
D. WHERE INDIVIDUAL OPNGS OF A COMBINED OPNG FORM TWO OR MORE ROWS, THE ROWS SHALL BE SEPARATED BY AT LEAST 8" OF CONCRETE. PROVIDE (2)#4 TOP AND BOTTOM BETWEEN ROWS OF OPENINGS, (1)#4 TOP AND BOTTOM BETWEEN OPENINGS IN THE PERPENDICULAR DIRECTION, AND (1)#5 TOP AND BOTTOM AROUND PERIMETER OF COMBINED OPENING. PROVIDE STANDARD HOOKS WHERE BARS TERMINATE WITHIN THE COMBINED OPENING.

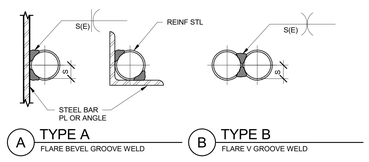
2 S0.10 TRIM BARS FOR MULTIPLE SLAB OPENINGS
1" = 1'-0"



3 S0.10 OPENING IN WOOD ROOF
1/2" = 1'-0"



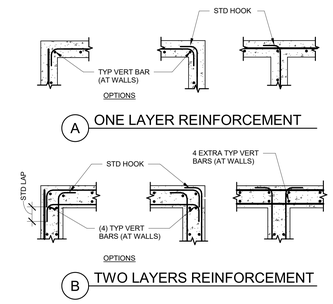
7 S0.10 MECHANICAL UNIT SUPPORT (WOOD ROOF)
1 1/2" = 1'-0"



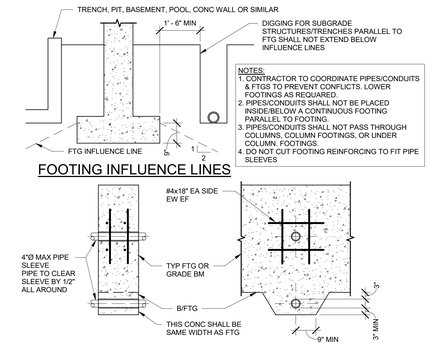
BAR		MIN WELD SIZE IN INCHES		LENGTH IN INCHES OF "FULL SIZE" WELD	
#	S	TYPE A (E=0.4S	TYPE B (E=0.6S	TYPE A	TYPE B
8	1/2	7/32	5/16	4 1/2	2 1/2
9	9/16	1/4	11/32	5	2 1/2
10	5/8	1/4	3/8	5 1/2	3
3	3/16	3/32	1/8	2	1 1/2
4	1/4	1/8	5/32	2 1/2	1 1/2
5	5/16	1/8	3/16	3	1 1/2
6	3/8	5/32	1/4	3 1/2	2
7	7/16	3/16	9/32	4	2

NOTES:
1. SEE AWS FOR ELECTRODES GRADE REQUIREMENTS.
2. CONTINUOUS INSPECTIONS REQUIRED.
3. MATERIALS, QUALIFICATIONS OF WELDING PROCEDURES AND WELDERS ARE TO BE VERIFIED BY THE SPECIAL INSPECTOR PRIOR TO THE START OF WORK.

8 S0.10 WELDING OF REINFORCED STEEL
1 1/2" = 1'-0"



9 S0.10 REINFORCING AT CONCRETE WALL, BEAM AND FOOTING INTERSECTIONS
1 1/2" = 1'-0"



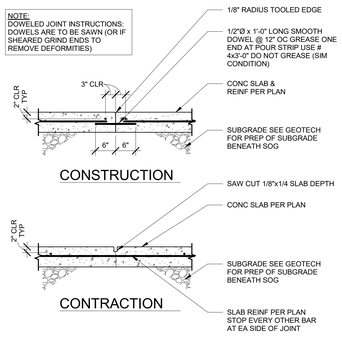
NOTES:
1. CONTRACTOR TO COORDINATE PIPES/CONDUITS & FTGS TO PREVENT CONFLICTS. LOWER FOOTINGS AS REQUIRED.
2. PIPES/CONDUITS SHALL NOT BE PLACED INSIDE/BELOW A CONTINUOUS FOOTING PARALLEL TO FOOTING.
3. PIPES/CONDUITS SHALL NOT PASS THROUGH COLUMNS, COLUMN FOOTINGS, OR UNDER COLUMN. FOOTINGS.
4. DO NOT CUT FOOTING REINFORCING TO FIT PIPE SLEEVES

10 S0.10 PIPING CONDUITS AT GRADE BEAMS & FOOTINGS
1/2" = 1'-0"

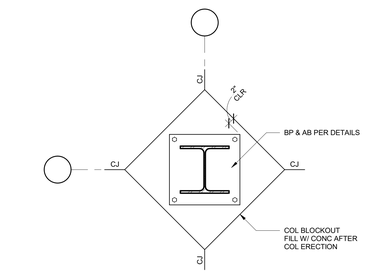
CONCRETE LAP SPLICES						
	LENGTH (UNO) IN INCHES					
	F'c = 3000 PSI		F'c = 4000 PSI		F'c = 5000 PSI	
BAR	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
#3	28	22	25	19	22	17
#4	38	29	33	25	29	23
#5	47	36	41	31	36	28
#6	56	43	49	37	44	34
#7	81	63	71	54	63	49
#8	93	72	81	62	72	56
#9	105	81	91	70	81	63
#10	118	91	102	79	92	71

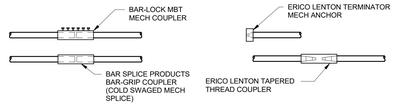
NOTES:
1. WHEN TWO BAR SIZES ARE SPLICED, USE LAP LENGTH FOR SMALLER BAR.
2. TABLE IS FOR CLASS B SPLICES.
3. TABLE DOES NOT APPLY TO SPLICES WITH EPOXY-COATED BARS.
4. FOR LIGHTWEIGHT CONCRETE MULTIPLY VALUES BY 1.3.
5. YIELD STRENGTH OF THE STEEL BARS IS ASSUMED TO BE 60,000 PSI.
6. TOP BARS ARE DEFINED AS HORIZONTAL BARS PLACED SUCH THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST BELOW THE BARS.
7. SEE DRAWINGS FOR EXCEPTIONAL CASES.
8. AT CONTRACTOR'S OPTION, USE MECHANICAL COUPLERS PER 13/S0.10 TO REDUCE CONGESTION

12 S0.10 TYPICAL LAP SPLICE - CONCRETE
NTS



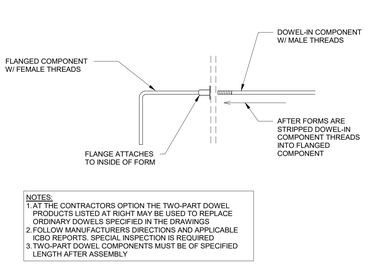
13 S0.10 MECHANICAL REBAR COUPLERS & ANCHORS
1" = 1'-0"





NOTES:
1. EITHER THE BAR SPLICE PRODUCTS BAR-GRIP COUPLER, THE ERICO LENTON TAPERED THREAD COUPLER OR THE BAR-LOCK MBT COUPLER MAY BE USED TO SPLICE REBAR. COMPLY W/ ER REPORTS AND FOLLOW MANUFACTURER'S RECOMMENDATIONS.
2. AT THE CONTRACTOR'S OPTION POSITION COUPLERS MAY BE USED EXCEPT THAT THE ERICO LENTON P8 COUPLER MAY BE USED ONLY IN COMPRESSION SPLICES W/ APPROVAL OF THE ENGINEER.
3. SPLICES MUST HAVE STRENGTH IN EXCESS OF 125% OF THE SPECIFIED YIELD STRENGTH OF THE REINFORCING BAR.
4. SPECIAL INSPECTION COMPLYING WITH THE FINDINGS OF THE ER REPORTS IS REQUIRED.
5. IN GRADE BEAMS, SPLICE TOP AND BOTTOM BARS AT MID-SPAN.
6. IN BEAMS, OPTIONALLY, IN LIEU OF LAP SPLICES, SPLICE TOP BARS AT MID-SPAN AND SPLICE BOTTOM BARS OVER SUPPORTS USING MECH BAR COUPLERS.
7. IN SHEAR WALL BOUNDARY ELEMENTS, OPTIONALLY, IN LIEU OF LAP SPLICES, SPLICE VERTICAL BARS WHERE CONVENIENT. STAGGER 50% OF SPLICES AT LEAST 24". USE TYPE 2 MECHANICAL COUPLERS.
8. IN COLUMNS, OPTIONALLY, IN LIEU OF LAP SPLICES, SPLICE VERTICAL BARS WITHIN THE CENTER HALF OF A COLUMN'S HEIGHT, STAGGER 50% OF SPLICES AT LEAST 24".
9. ERICO LENTON TERMINATOR MAY BE USED TO REPLACE A BAR HOOK (90, 135, OR 180° W/ EOR APPROVAL). THE EMBEDMENT LENGTH OF TERMINATOR SHOULD MATCH OR EXCEED AMOUNT AS DETAILED W/ HOOK. COMPLY W/ ESR REPORTS AND FOLLOW MANUFACTURER'S RECOMMENDATIONS.

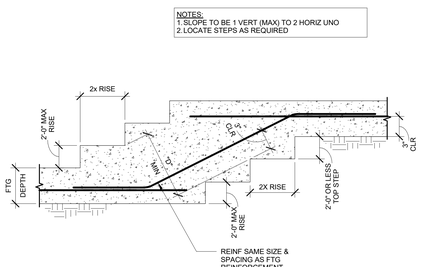
18 S0.10 DIAMOND BLOCKOUT AT COL
3/4" = 1'-0"



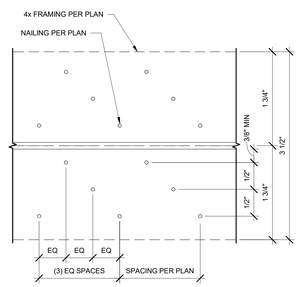
NOTES:
1. AT THE CONTRACTORS OPTION THE TWO-PART DOWEL PRODUCTS LISTED AT RIGHT MAY BE USED TO REPLACE ORDINARY DOWELS SPECIFIED IN THE DRAWINGS
2. FOLLOW MANUFACTURERS DIRECTIONS AND APPLICABLE ICBO REPORTS. SPECIAL INSPECTION IS REQUIRED
3. TWO-PART DOWEL COMPONENTS MUST BE OF SPECIFIED LENGTH AFTER ASSEMBLY

14 S0.10 TWO PART DOWEL SYSTEM
1 1/2" = 1'-0"

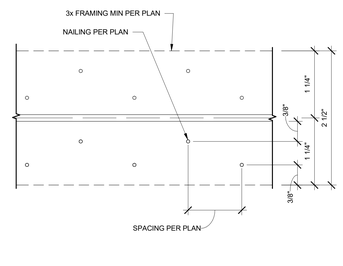
REQUIRED SIZE OF FABRICATED TWO-PART DOWEL COMPONENTS						
	#4		#5		#6	
MANUFACTURER & BRAND NAME	DOWEL-IN COMPONENT	DOWEL-IN COMPONENT	DOWEL-IN COMPONENT	DOWEL-IN COMPONENT	DOWEL-IN COMPONENT	DOWEL-IN COMPONENT
RICHMOND DOWEL BAR SUBSTITUTION	#4	#4	#5	#5	#6	#6
LENTON FORM SAVER	#4	#4	#5	#5	#6	#6
DAYTON-SUPERIOR D-90 DOWEL BAR REPLACEMENT	#4	#4	#5	#5	#6	#6



16 S0.10 TYPICAL STEP IN WALL FOOTING
1 1/2" = 1'-0"



19 S0.10 HEAVY STAGGERED NAILING
12" = 1'-0"



20 S0.10 STAGGERED NAILING
12" = 1'-0"

17 S0.10 CONTRACTION/CONSTRUCTION JOINTS
3/4" = 1'-0"

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Mechanical/Electrical

REVISION SCHEDULE

Delta	Issued As	Issue Date

SHEET TITLE:
TYPICAL DETAILS

SHEET
S0.10

JOB NO. **2220290.00**

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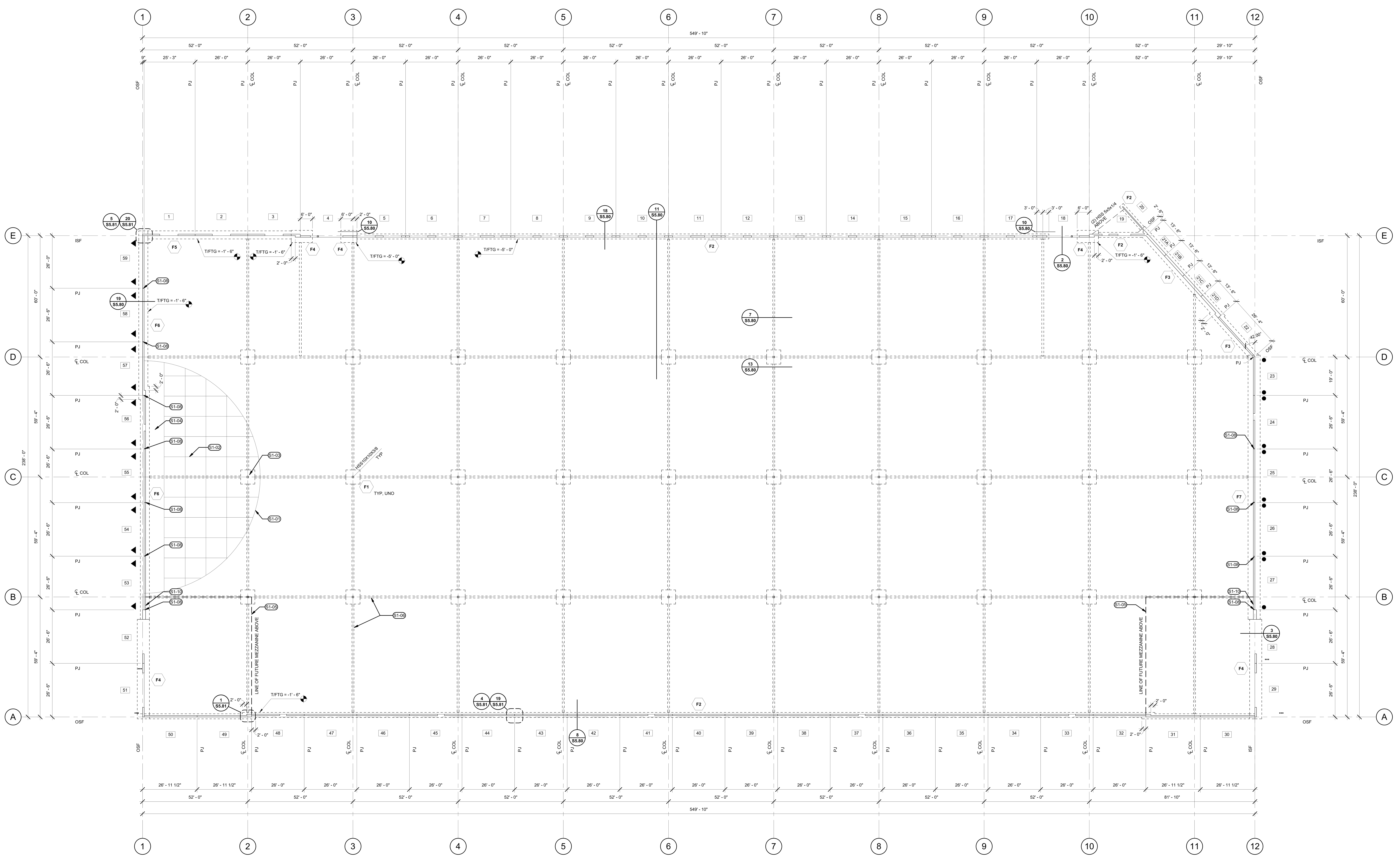

FOUNDATION PLAN
1 / S1.11 — 1/16" = 1'-0"

SHEET NOTES

A. FOR GENERAL STRUCTURAL NOTES SEE SHEET S0.00.
B. FOR TYPICAL STRUCTURAL DETAILS SEE SHEET S0.10.
C. FOR SLAB-ON-GRADE AND FOUNDATION SUB-BASE, VAPOR-RETARDING MEMBRANE, GEOTEXTILE AND DRAINAGE REFER TO GEOTECHNICAL REPORT.
D. LOCATE CL OF FOOTINGS AT CL OF COLUMNS AND/OR WALLS, UNO.
E. SEE GENERAL STRUCTURAL NOTES FOR CONTRACTION / CONSTRUCTION JOINT REQUIREMENTS FOR SLAB ON GRADE.
F. SEE TYPICAL DETAILS FOR REINFORCEMENT AT SLAB PENETRATION AND BLOCKOUTS.
G. SEE TYPICAL DETAILS FOR TYPICAL REINFORCEMENT AT WALL AND FOOTING CORNERS AND INTERSECTIONS.
H. SEE TYPICAL DETAILS FOR REINFORCEMENT LAP SPLICE LENGTH.
I. CHAIR SLAB REINFORCING AS REQ'D. LIFTING OF BARS WHILE PLACING OF CONCRETE NOT ALLOWED.
J. TOP OF FOOTING ELEVATIONS ARE SHOWN RELATIVE TO TOP OF SLAB ON GRADE ELEVATION OF 0'-0". SEE CIVIL/ARCH FOR REFERENCE ELEVATION DATUM INFORMATION.
K. TYPICAL TOP OF FOOTING ELEVATIONS = -0'-9" (INTERIOR) UON ON PLAN.
L. SEE GENERAL STRUCTURAL NOTES FOR CONTRACTOR'S RESPONSIBILITIES FOR COORDINATING TOP & BOTTOM OF FOOTING ELEVATIONS, FOOTING STEPS, SITE CONDITIONS AND UTILITIES.
M. COORDINATE ALL DIMENSIONS AND ELEAVTIONS WITH ARCH DRAWING INCLUDING SLAB ELEVATIONS, SLOPES, STEPS, AND RECESSES.

LEGEND

T/FTG = x' - x"	TOP OF FOOTING ELEV. RELATIVE TO 0'-0"
FA	FOOTING PER SCHEDULE
●	HOLD DOWN PER 19/S5.80 W/ (4) #6 BARS
▼	HOLD DOWN PER 19/S5.80 W/ (2) #6 BARS
99	PANEL NUMBER

KEYNOTES

S1-01	7" CONCRETE SLAB-ON-GRADE W/ #3 @ 15" OC EW. FOR SUB-BASE, SEE GEOTECHNICAL REPORT
S1-02	CONTRACTION/CONSTRUCTION JOINTS PER TYPICAL DETAILS, S0.10 AND GENERAL NOTES, S0.00
S1-03	COLUMN BLOCKOUT PER 13/S5.80
S1-04	POUR STRIP, 10'-0" WIDE OR AS REQD W/ REINFORCING PER KEYNOTE S1-01. CONTINUE SAWCUTS INTO POUR STRIP
S1-05	FUTURE MEZZANINE ABOVE BY OTHERS. BASIS OF DESIGN ASSUMES: - LIGHT GAUGE METAL WALL STUDS AND FLOOR JOISTS W/ INTERMEDIATE BEARING WALLS (20'-0" MAXIMUM JOIST SPAN) - WOOD STRUCTURAL PANELS TONGUE AND GROOVE FLOOR SHEATHING - LIGHTWEIGHT GYPCRETE TOPPING 1 1/2" MAX THICKNESS AT ELEVATED DECK - 5/8" MAX THICKNESS GYPSUM BOARD AT WALLS - CARPET OR SIMILAR WEIGHT FINISH AT ELEVATED DECK - SUSPENDED ACOUSTICAL CEILING TILE CEILINGS - ELEVATED DECK CONNECTS TO TILT-UP PANELS (WHERE APPLICABLE)
S1-06	GRADE BEAMS W/ REINF PER 7/S5.80 CONNECT TO FTGS PER 9/S5.80. PROVIDE CONSTANT SLOPE TO LOW DOCK FTGS PER 11/S5.80.
S1-08	ADDL VERT REINF IN FTG PER 15/S5.80 AT PANEL JOINT. EXTEND VERT REINF FOR 4'-0" FROM PANEL JOINT EA SIDE. TOP REINF TO MATCH BOTT REINF, EXTEND FOR 5'-0" FROM PANEL JOINT EA SIDE.
S1-10	FUTURE DRAG MEMBER REQD TO TRANSFER FUTURE MEZZANINE SEISMIC LOAD INTO ADJACENT SOLID PANEL

STRUCT - FOOTING (F) SCHEDULE

NOTE: LENGTH PER PLAN IF BLANK IN SCHEDULE

MARK	DIMENSIONS			REINFORCEMENT		REMARKS
	WIDTH	LENGTH	DEPTH	LONGITUDINAL	TRANSVERSE	
F1	7' - 0"	7' - 0"	1' - 6"	#5 @ 9" OC	#5 @ 9" OC	
F2	2' - 6"		1' - 0"	#5 @ 12" OC	#5 @ 12" OC	
F3	4' - 6"		1' - 0"	#5 @ 12" OC	#5 @ 12" OC	
F4	6' - 0"		1' - 6"	#5 @ 9" OC	#5 @ 9" OC	
F5	4' - 0"		1' - 0"	#5 @ 12" OC	#5 @ 12" OC	
F6	4' - 6"		2' - 0"	#5 @ 9" OC	#5 @ 9" OC	SEE KEYNOTE FOR VERT REINF AND TOP REINF AT PANEL JOINTS
F7	6' - 0"		3' - 0"	#6 @ 9" OC	#6 @ 9" OC	SEE KEYNOTE FOR VERT REINF AND TOP REINF AT PANEL JOINTS

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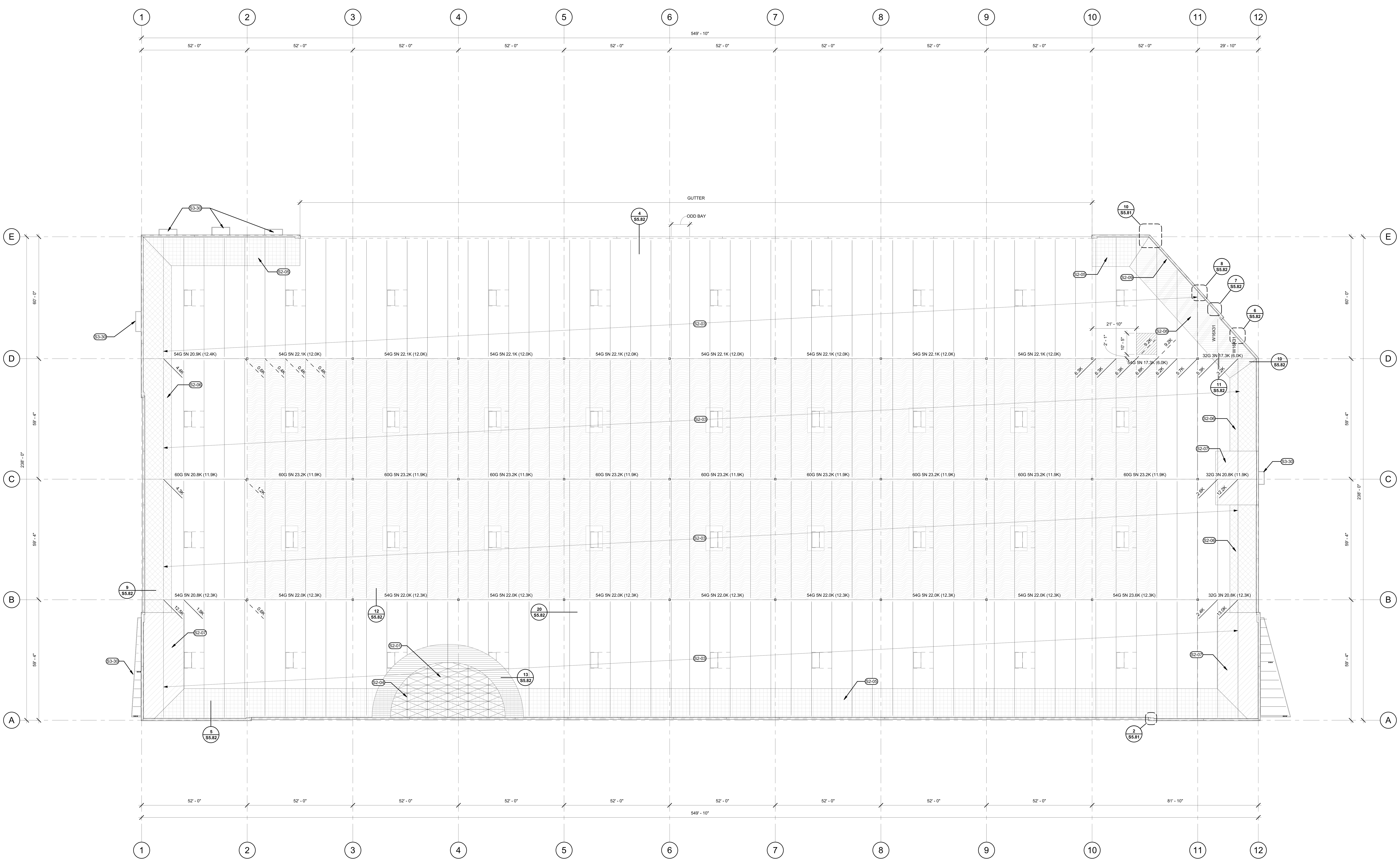
SHEET TITLE:
FOUNDATION PLAN

SHEET
S1.11

JOB NO. **2220290.00**

90% CONSTRUCTION DOCUMENT 6/14/23

Autodesk Docs://Fortress-Puyallup/290-Fortress-Puyallup-V23-A.rvt 6/27/2023 5:28:38 PM As indicated



1 ROOF FRAMING PLAN
S1.13
1/16" = 1'-0"

SHEET NOTES

A. FOR GENERAL STRUCTURAL NOTES SEE SHEET S0.00.
B. FOR TYPICAL STRUCTURAL DETAILS SEE SHEET S0.10.
C. SEE ARCHITECTURAL DRAWINGS FOR CONTROL ELEVATIONS
D. COORDINATE PERIMETER CONDITIONS WITH ARCHITECTURAL
E. SEE DETAILS FOR ADDITIONAL AXIAL LOADS REQ'D FOR GIRDERS, JOISTS, AND JOIST SEATS
F. CONTRACTOR TO COORDINATE AND CONFIRM MECH UNIT SIZE, LOCATION, & WEIGHTS. COORDINATE AND SUPPLY ALL REQUIRED LOADING TO THE JOIST SUPPLIER
G. CONTRACTOR TO COORDINATE w/ JOIST SUPPLIER ALL PIPING 4"Ø AND LARGER
H. SEE SHEET TYPICAL DETAILS FOR ADDITIONAL FRAMING REQUIRED FOR MECH EQUIPMENT AND OPENINGS. SEE ARCH FOR LOCATIONS OF SKYLIGHTS, SMOKE VENTS, ETC.
I. DESIGN GIRDERS FOR:
NET WIND UPLIFT (ASD):
INTERIOR. . . . . 0.3 PSF
WITHIN 37'-6" OF ROOF EDGE . . . . 3.5 PSF
J. CONTRACTOR TO COORDINATE PHOTO VOLTAIC PANEL LAYOUT, LOADING AND SUPPORT DETAILS W/ JOIST SUPPLIER
K. MEMBER DEPTHS ARE MAXIMUM AND MAY BE REDUCED FOR EFFICIENCY
L. FOR NAILING AND STRAPPING INFORMATION, SEE 16/S5.81
M. ROOF FRAMING LOADING SHOWN ON PLAN IS INTENDED TO SATISFY THE BUILDING CODE SOLAR READINESS REQUIREMENTS. EXISTING ROOF FRAMING WILL NEED TO BE VERIFIED AGAINST FUTURE SOLAR SYSTEM CONFIGURATION AND CONCENTRATED LOADS. FUTURE PV SYSTEM SHALL NOT CONTRIBUTE TO ADDITIONAL SNOW DRIFT.

LEGEND

48G 5N 20K (10K)
- MAX. GIRDER DEPTH
- NO. OF JOIST SPACES
- PANEL SNOW LOAD (ASD)
- PANEL POINT LOAD (ASD)

4K — ADDITIONAL SNOW POINT LOAD ON JOISTS (ASD)

4K — ADDITIONAL DEAD POINT LOAD ON JOISTS (ASD)

SOLAR READY ZONE, 4 PSF DEAD AREA LOAD IN ADDITION TO BASE DEAD LOAD.

SOLAR INVERTER ZONE. 175 PSF DEAD AREA LOAD IN ADDITION TO BASE DEAD LOAD. SUBPURLINS AND PLYWOOD FRAMING NOT DESIGNED FOR ADDL LOAD; ADDL FRAMING MAY BE REQD FOR FUTURE INVERTER(S).

SNOW DRIFT LOAD IN ADDITION TO BASE SNOW. SEE KEYNOTE S2-05 — 59 PSF, 0 PSF, 14'-8"

SNOW DRIFT LOAD IN ADDITION TO BASE SNOW. SEE KEYNOTE S2-06 — 28 PSF, 0 PSF, 13'-3"

SNOW DRIFT LOAD IN ADDITION TO BASE SNOW. SEE KEYNOTE S2-07 — 84 PSF, 0 PSF, 20'-3"

SNOW DRIFT LOAD IN ADDITION TO BASE SNOW. SEE KEYNOTE S2-08 — 71 PSF, 0 PSF, 17'-0"

KEYNOTES

S2-01	15/32" APA STRUCT-1 OSB SHTG (32/16 SPAN RATING SIZED FOR SPACING) W/ STRONG AXIS PARALLEL TO SUBPURLINS
S2-03	36" MAX DEPTH LH JOISTS 350/200 (ASD) @ 10'-0" OC DESIGN FOR THE FOLLOWING ADDL LOADS (ASD): FLOATING PANEL POINT LOAD (DEAD). . . . . 500 LB DRIFTED SNOW. . . . . PER PLAN NET WIND UPLIFT WITHIN 45' OF ROOF EDGE . . . . .10.2 PSF INTERIOR . . . . 1.0 PSF AXIAL LOADS FOR TOP CHORD AND SEAT DESIGN. . . . . . . PER DETAIL SOLAR READY ZONE . . . . PER PLAN
S2-04	2X6 DF-L #2 SUBPURLINS @ 2'-0" OC W/ SIMPSON HF26N HANGERS, TYP UNO. SUBPURLIN SIZE AND SPACING PER THE FOLLOWING KEYNOTES OR 16/S5.81 SHALL GOVERN WHERE APPLICABLE.
S2-05	DRIFT PER LEGEND, PROVIDE 2X6 DF-L #2 SUBPURLINS @ 1'-0" OC W/ SIMPSON HF26N HANGERS UP TO 10' FROM PARAPET.
S2-06	DRIFT PER LEGEND, PROVIDE 3X6 DF-L #2 SUBPURLINS @ 2'-0" OC W/ SIMPSON HF36N HANGERS UP TO 10' FROM PARAPET.
S2-07	DRIFT PER LEGEND, PROVIDE 3X6 DF-L #2 SUBPURLINS @ 1'-0" OC W/ SIMPSON HF36N HANGERS UP TO 10' FROM PARAPET, PROVIDE 2X6 DF-L #2 SUBPURLINS @ 1'-0" OC W/ SIMPSON HF26N HANGERS FROM 10' UP TO 20' FROM PARAPET.
S2-08	DRIFT PER LEGEND, PROVIDE 2X6 DF-L #2 SUBPURLINS @ 1'-0" OC W/ SIMPSON HF26N HANGERS UP TO 20' FROM PARAPET.
S2-09	STRAPPING/HOLD DOWNS ALIGNED WITH SUBPURLINS. SEE DETAIL 7/S5.82.
S3-30	EXTERIOR ACCENT/CANOPY FRAMING, SEE ARCH.

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Mechanical/Electrical

REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
ROOF FRAMING PLAN

SHEET
S1.13

JOB NO. 2220290.00

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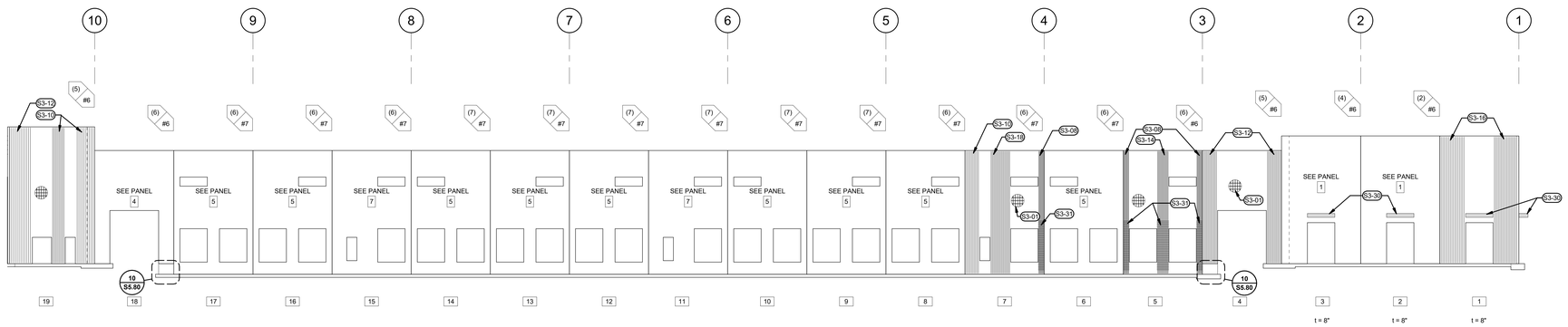
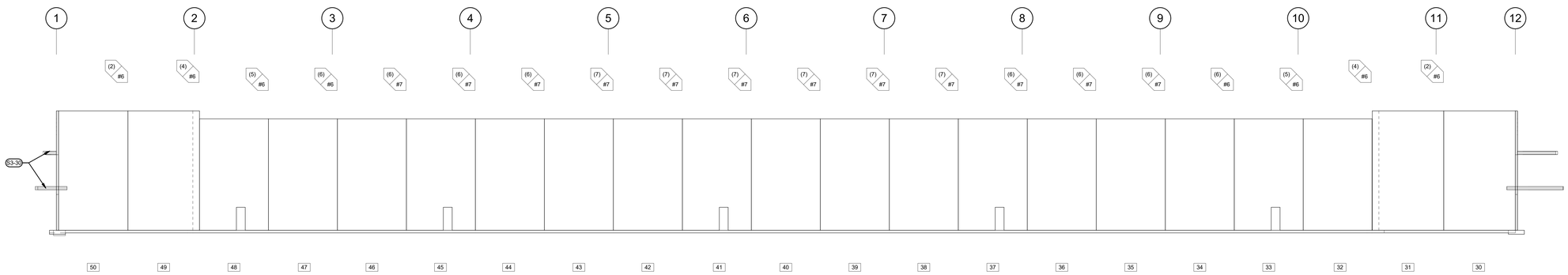


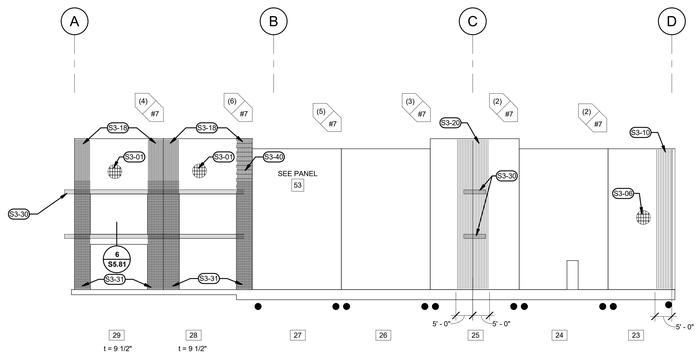
1 S2.10 NORTH ELEVATION
1/16" = 1'-0"

t=9 1/2", UNO



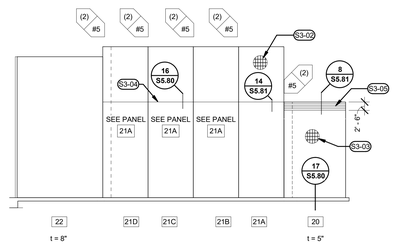
2 S2.10 SOUTH ELEVATION
1/16" = 1'-0"

t=8", UNO



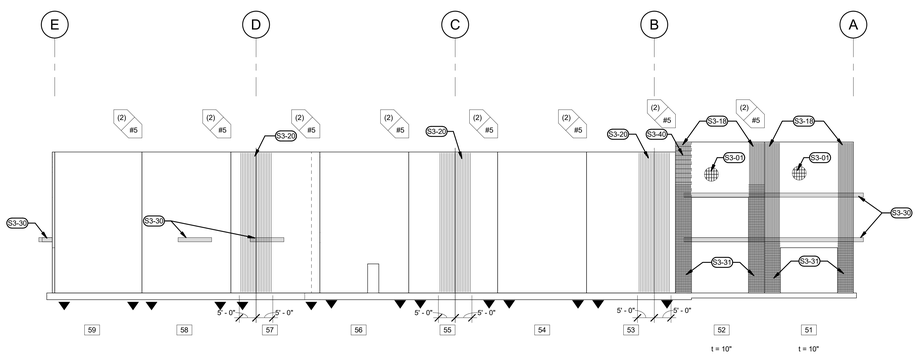
3 S2.10 EAST ELEVATION
1/16" = 1'-0"

t=8 3/4", UNO



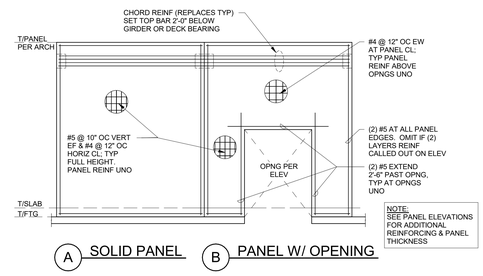
4 S2.10 NORTHEAST ELEVATION
1/16" = 1'-0"

t=9", UNO



5 S2.10 WEST ELEVATION
1/16" = 1'-0"

t=8 3/4", UNO



7 S2.10 TYPICAL PANEL REINFORCING
1/8" = 1'-0"

TYPICAL SHEET NOTES

A. FOR GENERAL STRUCTURAL NOTES SEE S0.00 SERIES SHEETS
B. FOR TYPICAL STRUCTURAL DETAILS SEE S0.10 SERIES SHEETS
C. SEE ARCHITECTURAL DRAWINGS FOR CONTROL ELEVATIONS

LEGEND

99 — PANEL NUMBER
(x) / (x) — # CHORD BARS, REF. 1S/S5.81 AND 2/S5.81 WHERE APPLICABLE
(x) — SIZE OF REINF.
● — HOLD DOWN PER 19/S5.80 W/ (4) #6 BARS
▼ — HOLD DOWN PER 19/S5.80 W/ (2) #6 BARS
t = — PANEL THICKNESS

KEYNOTES

S3-01	#4 @ 9"OC CL EW
S3-02	#5 VERT BARS @ 6" OC EF & #4 HORIZ BARS @ 12" OC CL. PROVIDE #4 HORIZ BARS @ 12" OC EF AT THICKENED PORTION OF PANEL
S3-03	BLADE WALL FEATURE. #5 VERT BARS @ 9" OC CL & #4 HORIZ BARS @ 12" OC CL
S3-04	STEP IN PANEL TO MATCH THICKNESS OF BLADE WALL FEATURE
S3-05	#4 HORIZ REINF @ 6" OC EF ((5) TOTAL MIN EF)
S3-06	#5 VERT @ 10" OC EF & #4 HORIZ @ 12" OC EF
S3-08	(8) #5 VERT BARS EF, EQ SPACED IN LEG
S3-10	(10) #5 VERT BARS EF, EQ SPACED IN LEG
S3-12	(12) #5 VERT BARS EF, EQ SPACED IN LEG
S3-14	(14) #5 VERT BARS EF, EQ SPACED IN LEG
S3-16	(16) #5 VERT BARS EF, EQ SPACED IN LEG
S3-18	(18) #5 VERT BARS EF, EQ SPACED IN LEG
S3-20	(20) #5 VERT BARS EF, EQ SPACED IN LEG
S3-30	EXTERIOR ACCENT/CANOPY FRAMING, SEE ARCH.
S3-31	#3 HOOPS @ 6" OC SEE 9/S5.81 FOR EXTENT
S3-40	#3 HOOPS AT THICKENED PANEL LEG PER 1/S5.81

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SHEET TITLE:
EXTERIOR WALL ELEVATIONS

SHEET
S2.10

JOB NO. **2220290.00**

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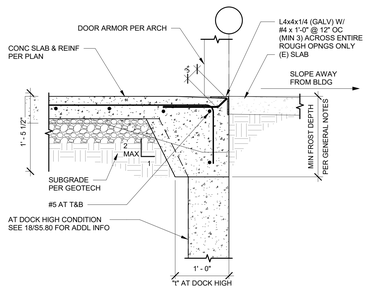
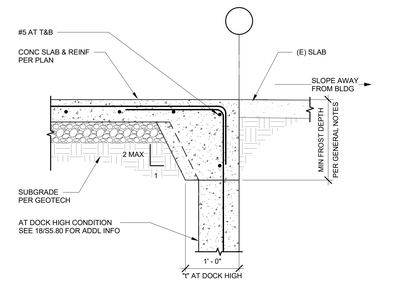
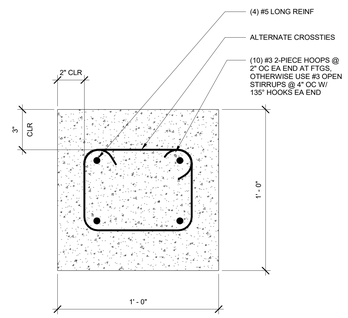


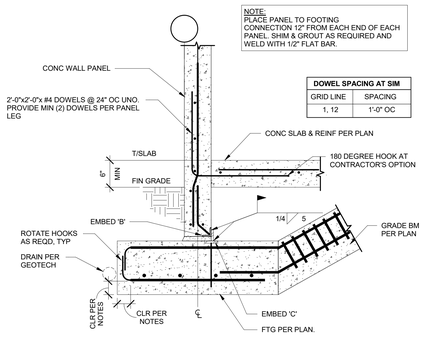
2 S5.80 TURN DOWN SLAB EDGE AT DRIVE-IN DOOR
1" = 1'-0"



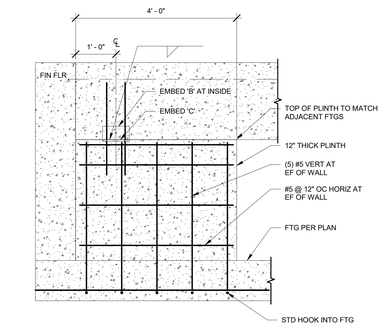
3 S5.80 TURN DOWN SLAB EDGE
1" = 1'-0"



7 S5.80 FOUNDATION TIES
3" = 1'-0"

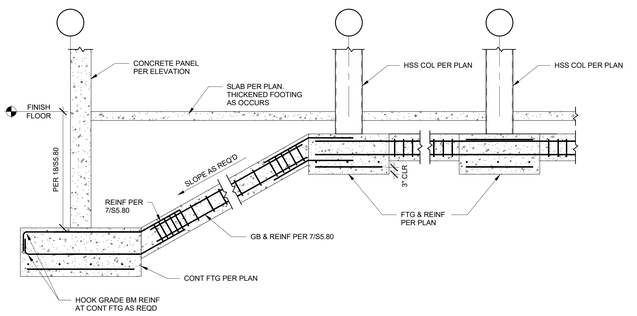


8 S5.80 PANEL TO SLAB AND FOOTING
1" = 1'-0"



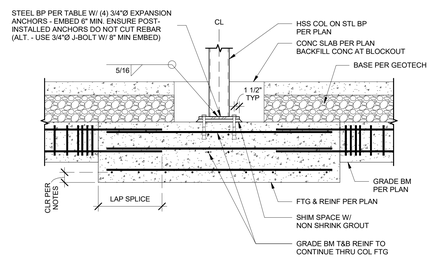
NOTE:
SEE 7/S5.81 FOR EMBEDS

10 S5.80 PLINTH DETAIL
3/4" = 1'-0"

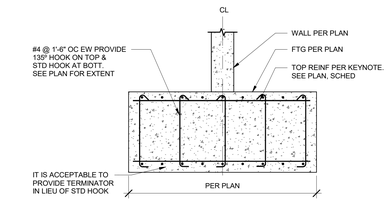


11 S5.80 GRADE BEAM AT DOCK PANEL FOOTING
1/2" = 1'-0"

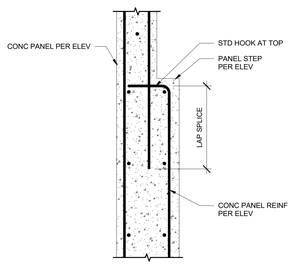
COLUMN	BASE PLATE
HSS10x10	PL1x16x1'-4"



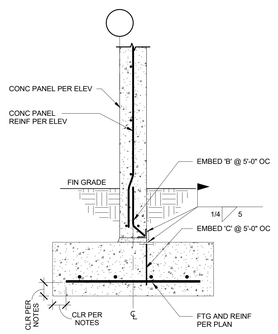
13 S5.80 COLUMN TO FOOTING
3/4" = 1'-0"



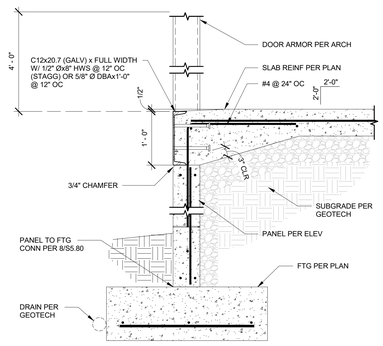
15 S5.80 VERTICAL REINF AT PANEL JOINT
1/2" = 1'-0"



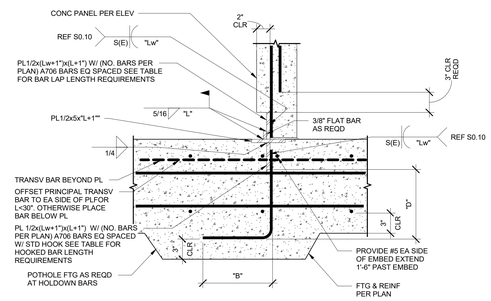
16 S5.80 BLADE WALL STEP AT SOLID PANEL
1" = 1'-0"



17 S5.80 BLADE WALL FOOTING
1" = 1'-0"



18 S5.80 DOCK HIGH DOOR
1" = 1'-0"



19 S5.80 SINGLE SIDED HOLDDOWN CONNECTION AT FOOTING (SFRS)
1 1/2" = 1'-0"

BAR SIZE	"Lw"	"LAP"	"D"	"B"	"L" (# OF BARS EA PL PER PLAN) (2)	(3)	(4)	(5)	(6)	(7)	(8)
#5	4.5"	48"	15"	10"	8"	12"	16"	20"	24"	30"	34"
#6	5.5"	56"	18"	12"	12"	18"	24"	30"	36"	42"	48"

NOTES:
1. PLACE EDGE OF CONNECTION 1'-0" FROM EACH END OF SHEAR WALLS, TYP
2. SEE PLAN & ELEVATION FOR NUMBER & SIZE OF REINFORCING

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SHEET TITLE:
TILT FOUNDATION DETAILS

SHEET
S5.80

JOB NO. **2220290.00**

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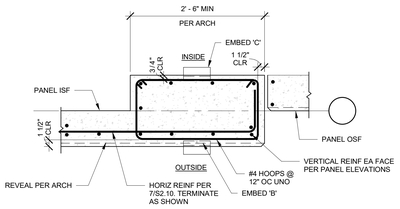
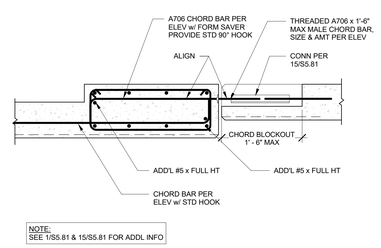
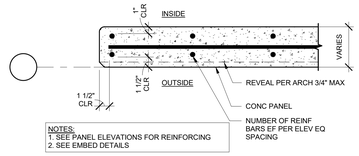


1 S5.81 THICKENED PANEL REINF
1" = 1'-0"



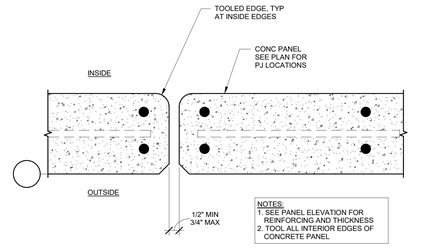
NOTE:
SEE 1/S5.81 & 15/S5.81 FOR ADDL INFO

2 S5.81 CHORD TIE
1" = 1'-0"



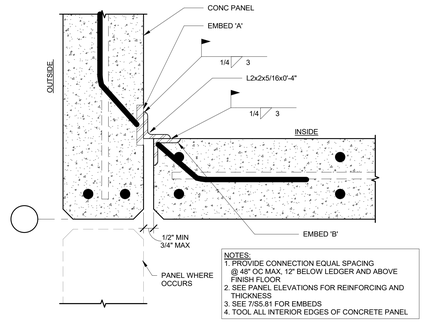
NOTES:
1. SEE PANEL ELEVATIONS FOR REINFORCING
2. SEE EMBED DETAILS

3 S5.81 TYP PANEL LEG REINF
1 1/2" = 1'-0"



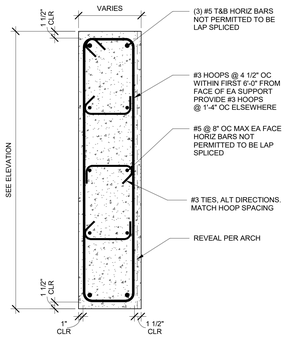
NOTES:
1. SEE PANEL ELEVATION FOR REINFORCING AND THICKNESS
2. TOOL ALL INTERIOR EDGES OF CONCRETE PANEL

4 S5.81 PANEL JOINT END TO END
3" = 1'-0"

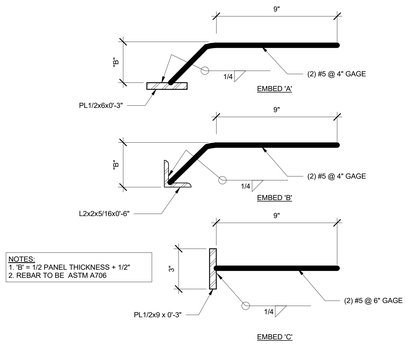


NOTES:
1. PROVIDE CONNECTION EQUAL SPACING @ 48" OC MAX, 12" BELOW LEDGER AND ABOVE FINISH FLOOR
2. SEE PANEL ELEVATIONS FOR REINFORCING AND THICKNESS
3. SEE 7/S5.81 FOR EMBEDS
4. TOOL ALL INTERIOR EDGES OF CONCRETE PANEL

5 S5.81 OUTSIDE CORNER 90 DEGREE EDGES
3" = 1'-0"

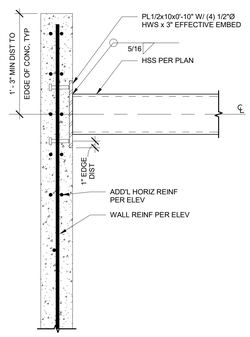


6 S5.81 COUPLING BEAM HOOP REINFORCING
1" = 1'-0"

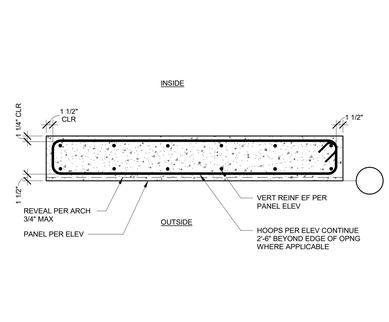


NOTES:
1. 'B' = 1/2 PANEL THICKNESS + 1/2"
2. REBAR TO BE ASTM A706

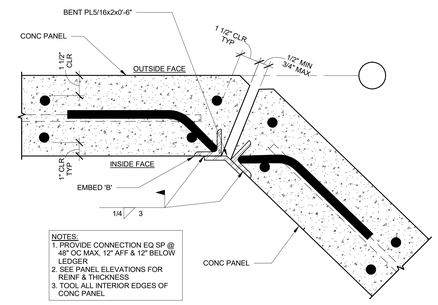
7 S5.81 WELD EMBED / CONNECTIONS
3" = 1'-0"



8 S5.81 HSS TO PANEL CONN
1 1/2" = 1'-0"

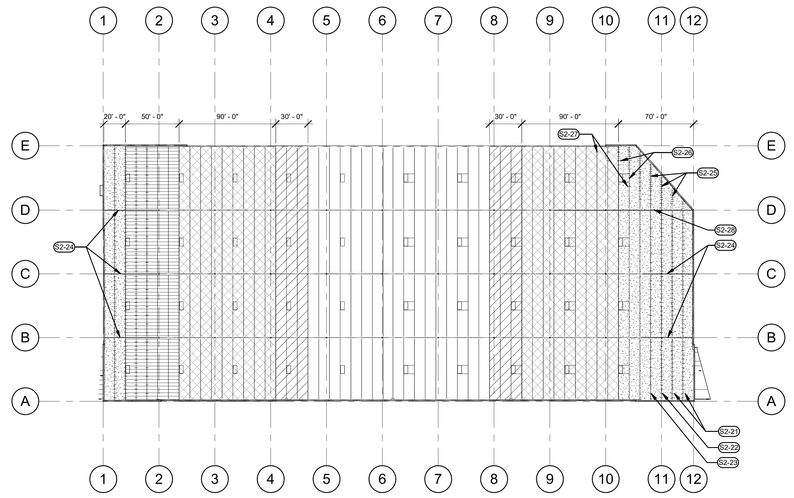


9 S5.81 PANEL LEG HOOP REINFORCING
1" = 1'-0"



NOTES:
1. PROVIDE CONNECTION EQ SP @ 48" OC MAX, 12" AFF & 12" BELOW LEDGER
2. SEE PANEL ELEVATIONS FOR REINF & THICKNESS
3. TOOL ALL INTERIOR EDGES OF CONC PANEL

10 S5.81 OUTSIDE CORNER ANGLED WALL
3" = 1'-0"



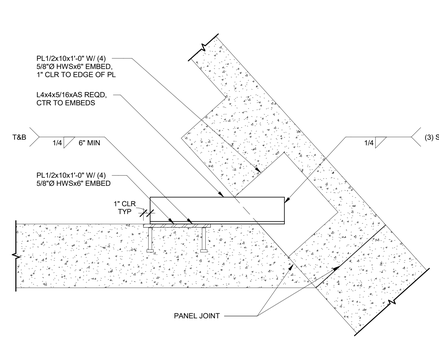
16 S5.81 NAILING AND STRAPPING PLAN
1" = 50'-0"

KEYNOTES

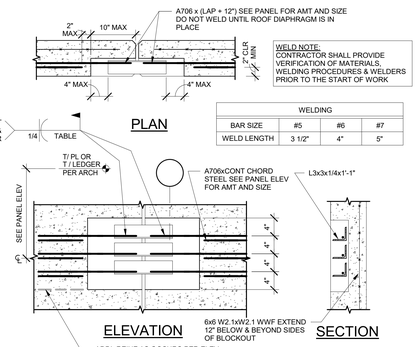
S2-21	SIMPSON CMST12 COILED STRAPS @ 4'-0" OC W/ (86) TOTAL 10D NAILS. SUBPURLIN TO SUBPULIN. STRAP ACROSS 1ST AND 2ND ROW OF JOISTS FROM WALL. USE 4X SUBPURINS AND ALIGN STRAPS W/ HOLDDOWNS IN DETAIL 15/S5.82.
S2-22	SIMPSON MST36 STRAPS @ 4'-0" OC W/ (36) TOTAL 10D NAILS. SUBPURLIN TO SUBPULIN. STRAP ACROSS 3RD ROW OF JOISTS FROM WALL. USE MIN 3X SUBPURINS AND ALIGN STRAPS W/ HOLDDOWNS IN DETAIL 15/S5.82.
S2-23	SIMPSON MST36 STRAPS @ 8'-0" OC W/ (36) TOTAL 10D NAILS. SUBPURLIN TO SUBPULIN. STRAP ACROSS 4TH ROW OF JOISTS FROM WALL. USE MIN 3X SUBPURINS AND ALIGN STRAPS W/ HOLDDOWNS IN DETAIL 15/S5.82.
S2-24	NAIL GIRDER W/ 10D NAILS @ 1 1/4" OC STAGGERED OVER FIRST 50FT FROM WALL. SEE 9/S5.82 FOR NAILER AND 20/S0.10 FOR NAILING PATTERN.
S2-25	SIMPSON CMST14 COILED STRAPS @ 2'-0" OC W/ (54) TOTAL 10D NAILS. SUBPURLIN TO SUBPULIN. STRAP ACROSS 1ST AND 2ND JOISTS FROM SKEWED WALL. USE MIN 4X SUBPURLINS AND ALIGN STRAPS W/ WELDED STRAPS IN DETAIL 7/S5.82.
S2-26	SIMPSON MST48 STRAPS @ 4'-0" W/ (48) TOTAL 10D NAILS. SUBPURLIN TO SUBPURLIN. STRAP ACROSS 3RD JOIST FROM SKEWED WALL. USE MIN 3X SUBPURLINS AND ALIGN STRAPS W/ WELDED STRAPS IN DETAIL 7/S5.82.
S2-27	SIMPSON MST48 STRAPS @ 8'-0" W/ (48) TOTAL 10D NAILS. SUBPURLIN TO SUBPURLIN. STRAP ACROSS 4TH JOIST FROM SKEWED WALL. USE MIN 3X SUBPURLINS AND ALIGN STRAPS W/ WELDED STRAPS IN DETAIL 7/S5.82.
S2-28	NAIL GIRDER W/ 10D NAILS @ 1 1/4" OC STAGGERED OVER FIRST 130FT FROM WALL. SEE 9/S5.82 FOR NAILER AND 20/S0.10 FOR NAILING PATTERN.

LEGEND

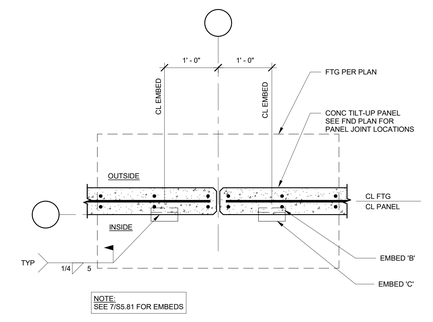
	10d @ 2 1/2" OC STAGGERED NAILING USING 3 ROWS OF FASTENERS PER 19/S0.10 AT PANEL EDGES AND 12" OC AT INTERIOR SUPPORTS. USE 4x SUBPURLINS
	10d @ 4" OC STAGGERED NAILING USING 3 ROWS OF FASTENERS PER 19/S0.10 AT PANEL EDGES AND 12" OC AT INTERIOR SUPPORTS. USE 4x SUBPURLINS
	10d @ 2 1/2" OC NAILING AT PANEL EDGES AND 12" OC AT INTERIOR SUPPORTS. USE 3x MIN SUBPURLINS UNO
	10d @ 4" OC NAILING USING AT PANEL EDGES AND 12" OC AT INTERIOR SUPPORTS. USE 2x SUBPURLINS UNO
	10d @ 6" OC NAILING AT PANEL EDGES AND 12" OC AT INTERIOR SUPPORTS. USE 2x SUBPURLINS UNO



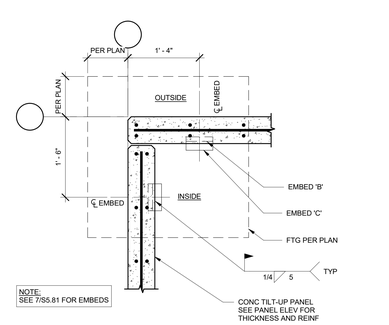
14 S5.81 TOP OF BLADE WALL CONN
1 1/2" = 1'-0"



15 S5.81 TYPICAL CHORD SPLICE (SFRS)
1" = 1'-0"



19 S5.81 PANEL END TO END
1" = 1'-0"



20 S5.81 OUTSIDE CORNER
1" = 1'-0"

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Mechanical/Electrical

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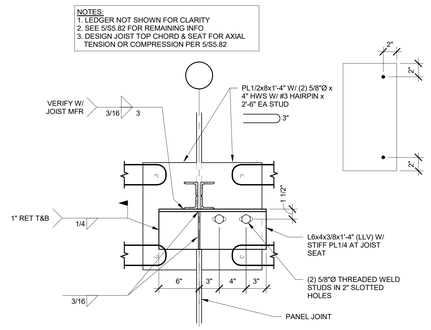
SHEET TITLE:
TILT DETAILS

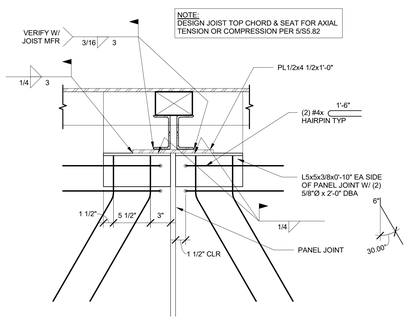
SHEET
S5.81

JOB NO. **2220290.00**

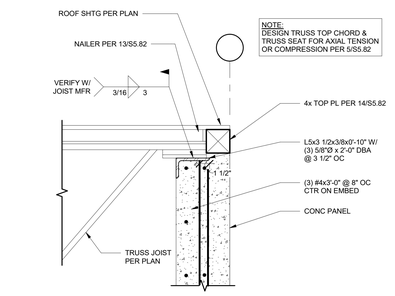
90% CONSTRUCTION DOCUMENT 6/14/23



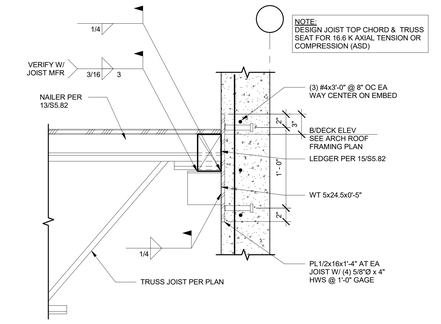
1 S5.82 JOIST AT PANEL JOINT
1 1/2" = 1'-0"



2 S5.82 JOIST BEARING AT PANEL JOINT
1 1/2" = 1'-0"



4 S5.82 JOIST CONNECTION AT TOP PLATE
1 1/2" = 1'-0"



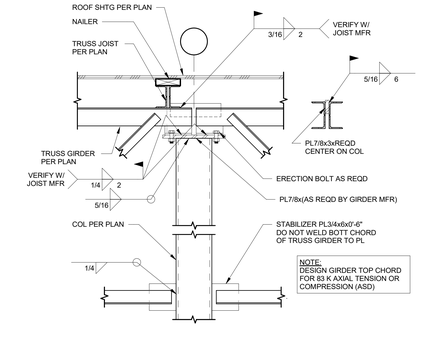
5 S5.82 JOIST AT WALL
1 1/2" = 1'-0"

6 S5.82 BEAM AT SKEWED WALL
1 1/2" = 1'-0"

7 S5.82 SUBPURLIN TO SKEWED WALL
1 1/2" = 1'-0"

8 S5.82 JOIST AT SKEWED WALL
1 1/2" = 1'-0"

9 S5.82 TRUSS GIRDER TO PANEL CONNECTION
1" = 1'-0"



10 S5.82 GIRDER BEARING AT PANEL JOINT
1 1/2" = 1'-0"

11 S5.82 JOIST & BEAM FRAMING TO GIRDER
1 1/2" = 1'-0"

12 S5.82 JOIST ACROSS GIRDER
1 1/2" = 1'-0"

13 S5.82 SUBPURLIN AT PURLIN
1 1/2" = 1'-0"

14 S5.82 TOP PLATE CONNECTION
1 1/2" = 1'-0"

15 S5.82 SUBPURLIN TO PARAPET
1 1/2" = 1'-0"

20 S5.82 TRUSS GIRDER AT COLUMN
1" = 1'-0"

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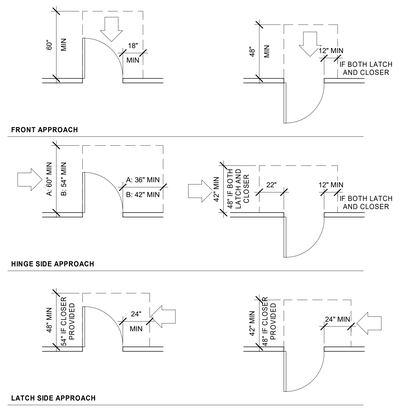
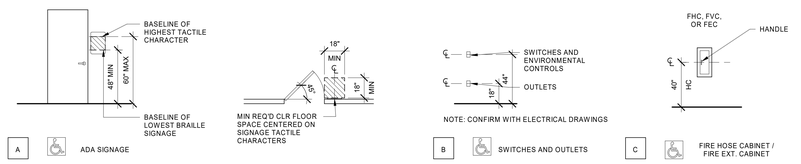
SHEET
S5.82

JOB NO. **2220290.00**



1 A0.01 ADA DOOR CLEARANCES
1/4" = 1'-0"



2 A0.01 ADA MOUNTING HEIGHTS
1/4" = 1'-0"

ARCHITECTURAL LEGEND

ANNOTATION SYMBOLS

ELEVATION KEY MARK — 1 / A2.10 — DETAIL # / SHEET #

PARTIAL/ENLARGED ELEVATION KEY MARK — 1 / A2.10 — DETAIL # / OPEN ARROW / SHEET #

INTERIOR ELEVATION KEY MARK — 1 / A4.10 — DETAIL # / FILLED ARROW / SHEET #

BUILDING SECTION KEY MARK — 1 / A101 — DETAIL # / OPT. NOTE / FILLED ARROW / SHEET #

WALL SECTION KEY MARK — 1 / A101 — DETAIL # / OPT. NOTE / OPEN ARROW / SHEET #

ROOM/SPACE IDENTIFICATION — ROOM NAME / 101 — SPACE NAME / SPACE #

DOOR NUMBER SYMBOL — 101

WINDOW TYPE SYMBOL — A

FLOOR/ROOF PLAN SYMBOLS

DOWNSPOUT LOCATION	DS
FLOOR DRAIN	FD
CLEAN OUT	CO
FIRE EXTINGUISHER	◆
DOCK HIGH OVERHEAD DOOR	▲
DRIVE IN OVERHEAD DOOR	△
CONTROL JOINT	CJ
CONSTRUCTION JOINT	CONST JT
POUR STRIP	PS

MISC. SYMBOLS

SANITARY SEWER LINE (DESIGN/BUILD PLUMBING) — SS

WALL TYPES

1HR RATED WALL

2HR RATED WALL

CONCRETE TILT-UP PANEL, SEE STRUCTURAL

INSULATED HM DOOR

ARCHITECTURAL GENERAL NOTES

A. OVERALL FLOOR PLANS ARE INTENDED TO IDENTIFY ENTIRE FLOOR AREA. SEE INDIVIDUAL AREA PLANS FOR SPECIFIC DIMENSIONS, DETAILING, PARTITION TYPES, AND ADDITIONAL INFORMATION.
B. PROVIDE 32'-0" CLEAR MINIMUM TO BOTTOM OF STRUCTURE BETWEEN GRID A & GRID D. MECHANICAL DUCTS, LIGHTING, SPRINKLERS, ETC.
C. ALL PARTITIONS TO BE TYPE A UNLESS OTHERWISE NOTED. ROOMS ARE TO RECEIVE THE SAME WALL TYPE UNLESS NOTED OTHERWISE.
D. ALL WALLS ARE FULL HEIGHT TO STRUCTURE OR UNDERSIDE OF ROOF/FLOOR DECK ABOVE UNLESS OTHERWISE NOTED.
E. WHERE TOP OF WALL MEETS UNDERSIDE OF ROOF DECK, PROVIDE DEFLECTION HEAD AS REQUIRED.
F. REFERENCE BUILDING ELEVATIONS FOR EXTERIOR WINDOW TYPE DESIGNATION.
G. REFERENCE DOOR SCHEDULE FOR DOOR TYPE DESIGNATION AND ADD'L INFORMATION.
H. SEE CODE ANALYSIS PLANS FOR FIRE EXTINGUISHER LOCATIONS.
I. PROVIDE BLOCKING AS REQUIRED ADJACENT TO FIRE EXTINGUISHERS FOR OWNER INSTALLED AED STATIONS
J. COORDINATE ALL EXTERIOR WALL PENETRATIONS AMONG AFFECTED DISCIPLINES.
K. WATERPROOFING SYSTEMS AND THEIR INSTALLATIONS SHALL BE SUITABLE FOR THEIR INTENDED PURPOSES.
L. PROVIDE APPROPRIATE AND COMPLETE SEALANT OF ALL PENETRATIONS THROUGH EXTERIOR ASSEMBLIES. SEAL VOIDS BETWEEN SLEEVES, CONDUITS, AND OTHER PENETRATIONS WITH APPROPRIATE JOINT SEALANT. CONTRACTOR TO ASSURE PROPER SEALANT OF ALL VOIDS AT OPENINGS AND PENETRATIONS.
M. EQUIPMENT BY OTHERS, SHOWN FOR REFERENCE ONLY.
N. CONTRACTOR TO COORDINATE WALL MOUNTED FURNITURE, INCLUDING BUT NOT LIMITED TO, CABINETRY, PROJECTION SCREENS, WHITE BOARDS, TELEVISIONS, ETC. AND PROVIDE NECESSARY BLOCKING AS REQUIRED.
O. CONTRACTOR SHALL COORDINATE DELIVERY AND INSTALLATION OF OWNER FURNISHED EQUIPMENT WITH THE OWNER.
P. ALL DIMENSIONS TO FACE OF FINISH, CENTERLINE OF COLUMN UNLESS OTHERWISE NOTED. ALIGN FINISHES WHERE INDICATED.
Q. WALL THICKNESSES ARE ACTUAL UNLESS OTHERWISE NOTED.
R. DIMENSIONS MARKED "CLR" ARE FROM FINISH SURFACE TO FINISH SURFACE. DIMENSIONS WITH THIS MARK TAKE PRIORITY OVER ADJACENT DIMENSIONS. DIMENSIONS ADJACENT TO LATCH SIDE OF DOORS INDICATE REQUIRED CLEARANCES BETWEEN CLEAR DOOR OPENING AND ADJACENT FINISH.
S. ALL DIMENSIONS SHOWN AS PLUS/MINUS (+/-) ARE FOR GENERAL LAYOUT AND REFERENCE ONLY.
T. DOORS NOT DIMENSIONED ARE TO BE LOCATED 4" FROM FACE OF WALL TO OUTSIDE EDGE OF JAMB.
U. ALL RATED CONSTRUCTION ASSEMBLIES EXTEND FROM FLOOR STRUCTURE TO UNDERSIDE OF STRUCTURE AND DECKING ABOVE UNLESS OTHERWISE NOTED.
V. PROVIDE TYPE 'X' GYPSUM BOARD AT ALL FIRE RATED WALLS AND PARTITIONS. SEE CODE SUMMARY DRAWINGS AND FLOOR PLANS FOR SCOPE OF FIRE RATED WALLS.
W. ALL PENETRATIONS AND VOIDS THROUGH FIRE-RATED ASSEMBLIES TO BE FIRE STOPPED WITH APPROVED MATERIALS.
X. PROVIDE FIRE BLOCKING AS REQUIRED.
Y. STAIRS ARE DESIGN-BUILD BY CONTRACTOR. SEE DRAWINGS FOR TREADS, RISERS, RAILING, AND DIMENSIONAL REQUIREMENTS. SEE SPECIFICATIONS FOR DESIGN REQUIREMENTS. PROVIDE SHOP DRAWINGS WITH CALCULATIONS PREPARED AND STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN WASHINGTON FOR REVIEW BY ARCHITECT.
Z. SEE STRUCTURAL DRAWINGS FOR FRAMING.
AA. SEE STRUCTURAL DRAWINGS FOR PANEL/WALL THICKNESS.
BB. PAINT ALL EXPOSED STEEL.
CC. ALL EXPOSED EXTERIOR STEEL TO BE GALVANIZED.

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Mechanical/Electrical

TODD REGISTERED ARCHITECT STATE OF WASHINGTON

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SHEET TITLE:
ARCHITECTURAL GENERAL NOTES AND SYMBOLS

SHEET
A0.01

JOB NO. 2220290.00

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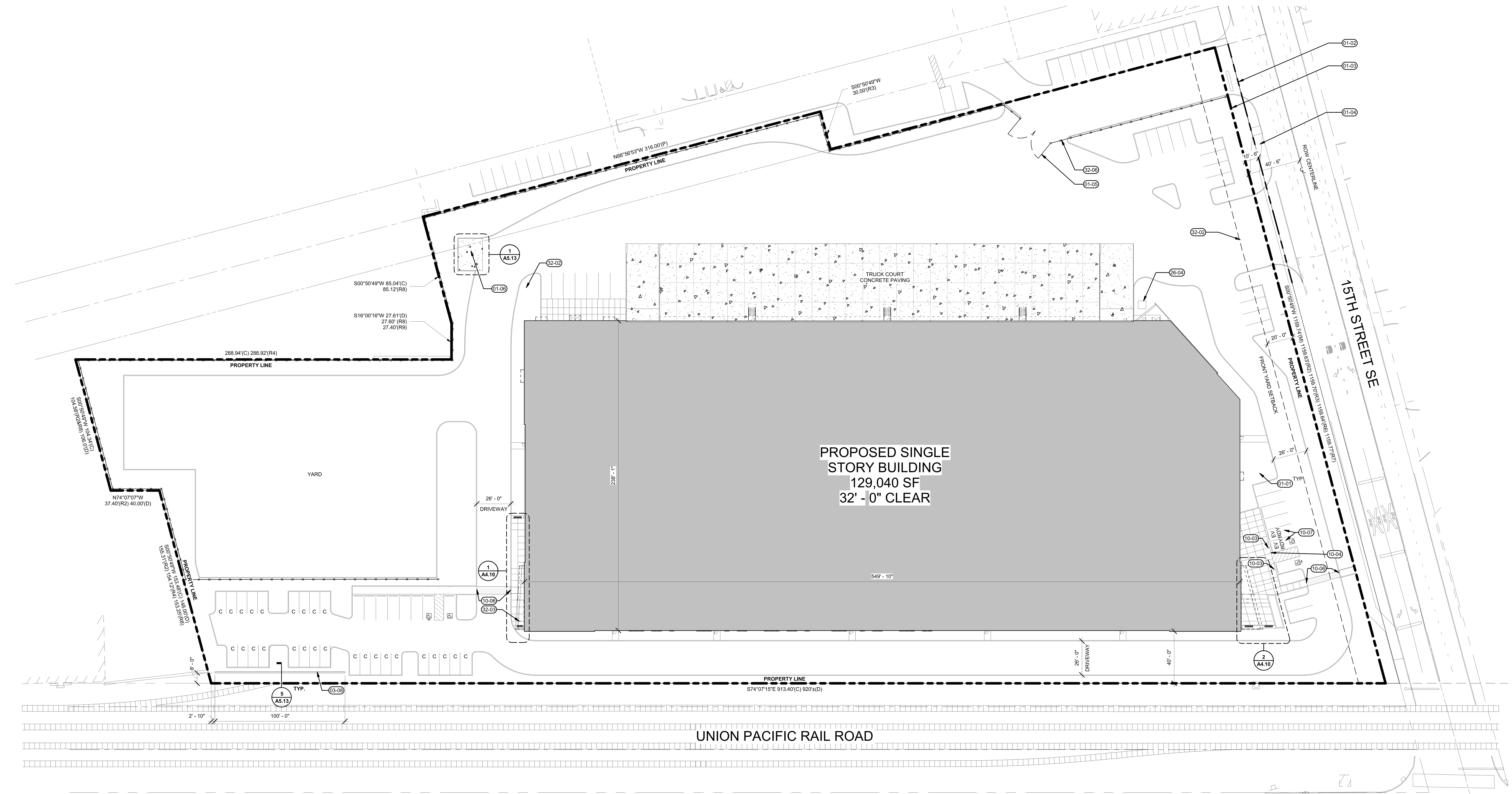

SITE PLAN
1 / A1.10 — 1" = 30'-0"

KEYNOTES

01-01	REFER TO LANDSCAPE PLANS IN SITE PERMIT DOCUMENTS FOR LANDSCAPE BUFFERS IN THIS AREA.
01-02	EXISTING PROPERTY LINE
01-03	PROPOSED NEW PROPERTY LINE
01-04	NEW SIDEWALK - REFER TO CIVIL DRAWINGS.
01-05	EMERGENCY ACCESS GATE: GATE TO BE SECURED WITH CITY APPROVED EMERGENCY VEHICLE ACCESS CONTROL (EVAC) ENTRY SYSTEM WITH MOTORIZED GATE DOORS.
01-06	TRASH ENCLOSURE.
03-08	CONCRETE SCREEN WALL.
10-03	ADA PARKING SIGN.
10-04	NO PARKING SIGN.
10-06	DETECTABLE WARNINGS.
10-07	EV READY STALL.
26-04	TRANSFORMER
32-02	LANDSCAPE ISLAND.
32-03	(2) BIKE RACKS - SEE DETAILS 8 & 9/A5.13.
32-06	7FT TALL BLACK VINYL-COATED STEEL CHAIN LINK FENCE.

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A1.10

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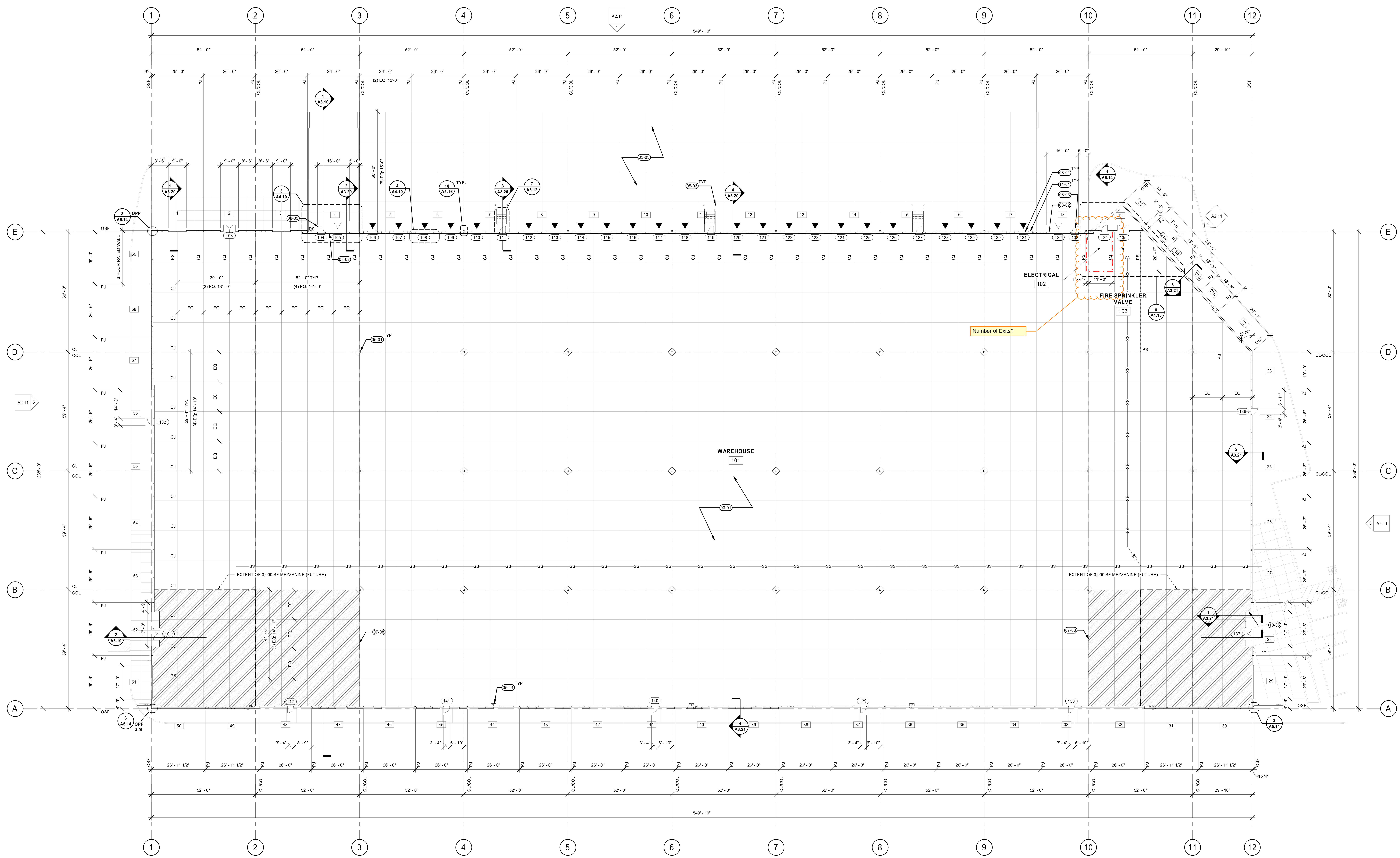

1 A1.11 FIRST FLOOR PLAN
1/16" = 1'-0"

ARCHITECTURAL GENERAL NOTES

A. SEE ARCHITECTURAL GENERAL NOTES ON A0.01 FOR MORE INFORMATION.
B. SEE A6.10 FOR DOOR AND WINDOW SCHEDULE.
C. ELECTRICAL SERVICE: 1600 AMP SERVICE.
D. PROVIDE ADDITIONAL 4" CONDUITS TO PULL IN ADDITIONAL FEEDERS FROM THE TRANSFORMER TO THE SERVICE IN THE FUTURE FOR A TOTAL OF 4000 AMPS.
E. ALL LIGHTING SHALL BE LED.
F. IBC 1006.2 PROVIDE EGRESS LIGHTING THROUGHOUT - 1 F.C. MIN.

KEYNOTES

03-01	REINFORCED CONCRETE SLAB PER STRUCTURAL, SEALED AND POLISHED WITH DAYTON PENTRA-HARD FINISHER.
03-03	REINFORCED CONCRETE TRUCK APRON. SEE CIVIL DRAWINGS.
05-01	HSS COLUMN, SEE STRUCTURAL. PAINT SAFETY YELLOW TO 12' AFF.
05-03	BOLLARD, SEE DETAIL 15/A5.13.
05-14	DOWNSPOUT OVERFLOW. SEE DETAIL 11/A5.16.
07-08	PROVIDE 10 MIL CLASS "A" UNDERSLAB VAPOR BARRIER AT FUTURE OFFICE AREAS.
08-01	INSULATED OVERHEAD DOOR. PAINT TO MATCH BUILDING. SEE DOOR TYPES ON A6.10 FOR ADDITIONAL INFO.
08-02	INSULATED OVERHEAD DRIVE-IN DOOR. PAINT TO MATCH. SEE DOOR TYPES ON A6.10 FOR ADDITIONAL INFO.
08-03	INSULATED HM DOOR. SEE DOOR TYPES ON A6.10 FOR ADDITIONAL INFO.
10-05	PROVIDE AND INSTALL KNOXBOX - VERIFY WITH FIRE DEPARTMENT.
11-01	DOCK DOOR BUMPER.

LEGEND

UNDER SLAB VAPOR BARRIER
EXTENT OF (FUTURE) MEZZANINE ABOVE

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FIRST FLOOR PLAN

SHEET
A1.11

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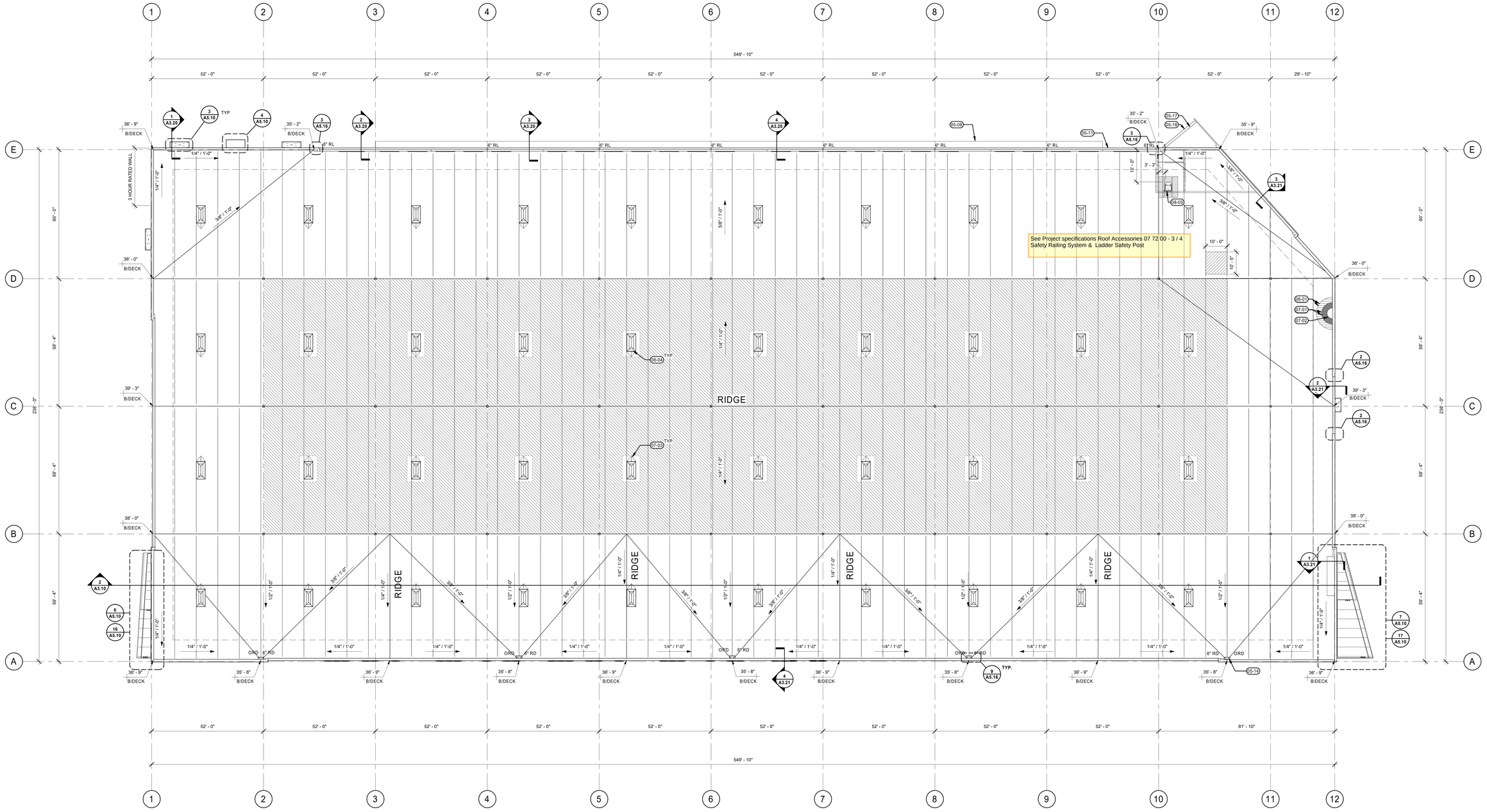
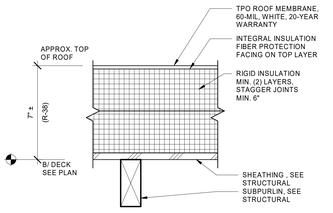


1 A1.12 ROOF PLAN
1/16" = 1'-0"



2 A1.12 TYPICAL ROOF ASSEMBLY
3" = 1'-0"

GENERAL NOTES

A. MAINTAIN ¼" PER FOOT MINIMUM SLOPE THROUGHOUT ROOF.
B. ALL ROOF ELEVATIONS TO BOTTOM OF DECK.
C. WALKWAY PADS ARE SHOWN SCHEMATICALLY. WALKWAY PADS SHOULD BE PROVIDED AT AREAS SHOWN AND TO INCLUDE ALL EQUIPMENT INSTALLATIONS, DOORWAYS, STAIR/LADDER LANDINGS, AND OTHER AREAS REQUIRING REGULAR MAINTENANCE.
D. CONTRACTOR TO PROVIDE COVERS, ENCLOSURES, AND/OR SEALANTS AT ALL ROOF PENETRATIONS, PIPES, CURBS, DUCTS, AND CONNECTIONS. COORDINATE AND REFER TO MECHANICAL/ELECTRICAL DISCIPLINES FOR ADDITIONAL INFORMATION.
E. PROVIDE SPLASHBLOCKS AT DOWNSPOUTS OF ALL ROOF ACCESSORY STRUCTURES.
F. SEE DETAIL 2/A5.17 FOR PIPE/CONDUIT PENETRATIONS
G. SEE DETAIL 3/A5.17 FOR MECHANICAL UNIT CURBS

KEYNOTES

05-08	BIDDER-DESIGN: DOCK DOOR CANOPY. SEE DETAILS 14, 15, & 16 ON SHEET A5.14.
05-11	SHEET METAL GUTTER, PAINT. SEE DETAIL 3/A5.16.
05-14	DOWNSPOUT OVERFLOW. SEE DETAIL 11/A5.16.
05-17	STEEL KICKER PER STRUCTURAL.
05-18	METAL PANEL. PAINT.
06-01	WOOD DECKING, SEE STRUCTURAL DRAWINGS.
07-01	RIGID INSULATION, SEE DETAIL 2/A1.12.
07-02	TPO SINGLE PLY ROOFING SYSTEM OVER INSULATION, SEE DETAIL 2/A1.12.
07-03	CRICKET AS REQUIRED FOR MIN. 1/4" PER FOOT SLOPE, SEE DETAIL 8/A5.16.
08-04	4' X 8' SKYLIGHT, SEE DETAIL 6/A5.16.
08-05	ROOF HATCH ACCESS, SEE DETAIL 6/A5.17.

LEGEND

SKYLIGHT WITH CRICKET AT HIGH SIDE 1/4" PER FT MIN SLOPE.

BUILT UP CRICKET, 1/4" MIN (SEE PLAN FOR ELEVATIONS)

SOLAR PANEL READY AREA

NOTE: SOLAR ZONE REQUIREMENTS: 40% OF CODE PRESCRIBED ROOF AREA TO BE DESIGNED TO BE THE SOLAR ZONE AND READY FOR FUTURE PHOTOVOLTAIC OR SOLAR WATER HEATING SOLUTIONS. (129,040 SF x 40% = 51,104 SF)

SOLAR PANEL INVERTER READY AREA

NOTE: INVERTER SPACE REQUIREMENTS: SPACE TO BE DESIGNED EITHER WITHIN THE SOLAR ZONE OR ADJACENT WITH MIN. 2 SF/1,000 SF OF SOLAR ZONE AREA. (51,104 SF/1,000 x 2 = 102 SF)

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SHEET TITLE:
ROOF PLAN

SHEET
A1.12

JOB NO. 2220290.00

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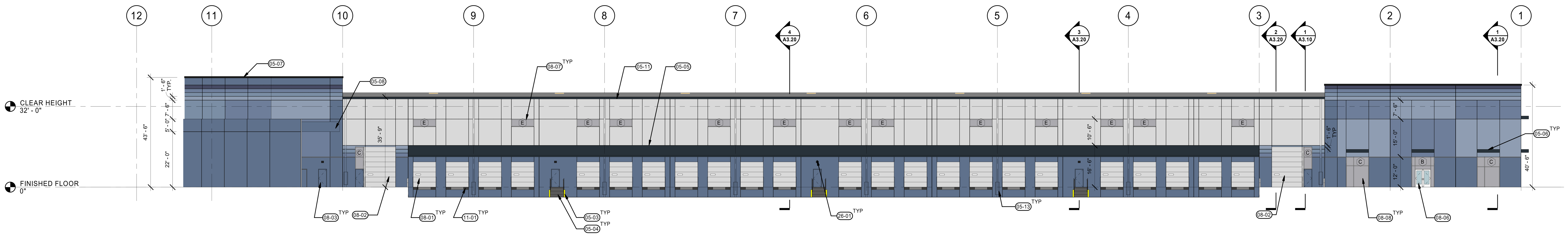
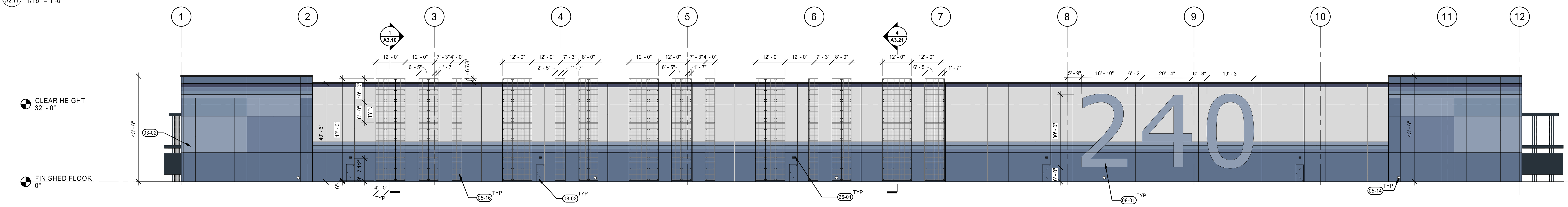
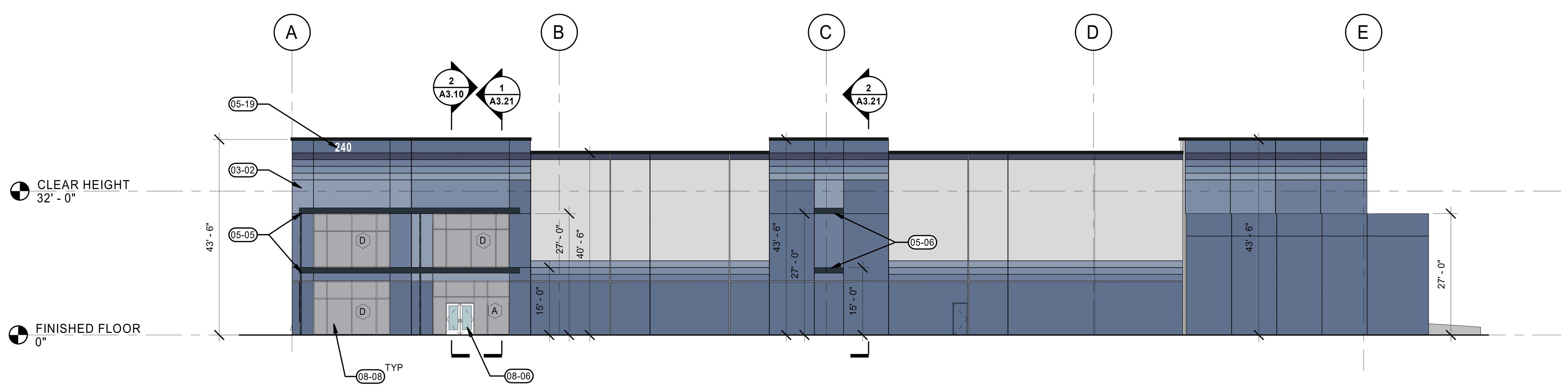


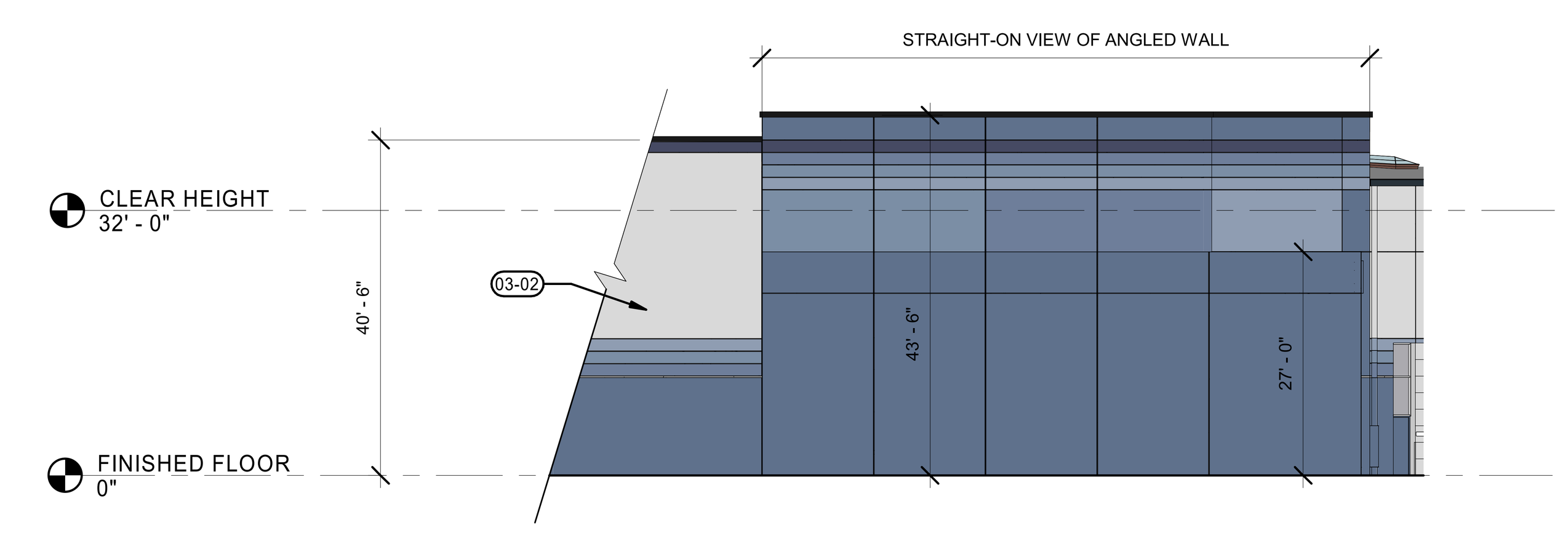
1 A2.11 NORTH ELEVATION
1/16" = 1'-0"



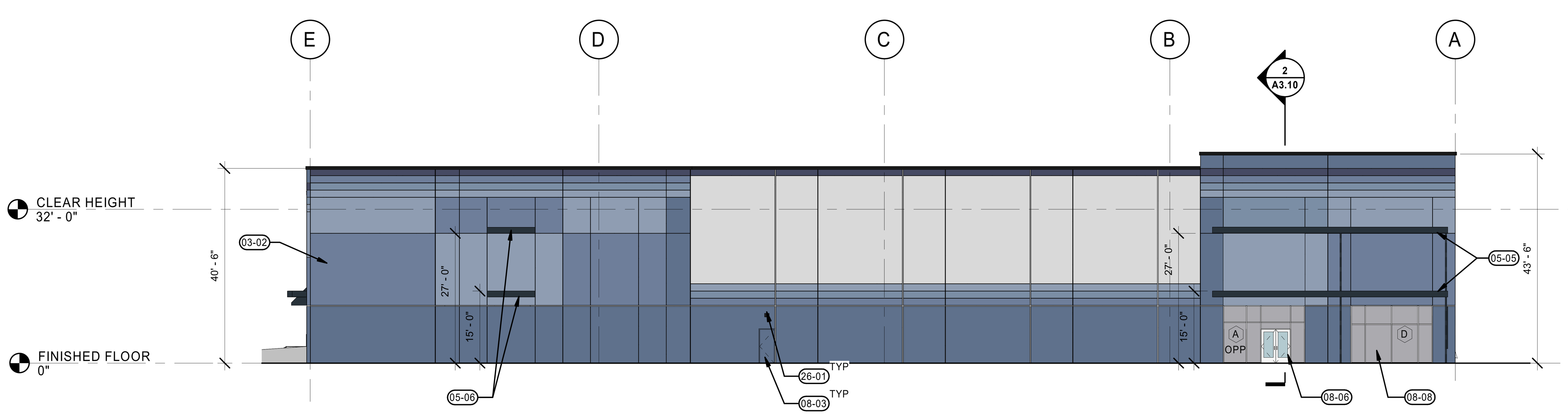
2 A2.11 SOUTH ELEVATION
1/16" = 1'-0"



3 A2.11 EAST ELEVATION
1/16" = 1'-0"



4 A2.11 NORTHEAST ELEVATION
1/16" = 1'-0"



5 A2.11 WEST ELEVATION
1/16" = 1'-0"

KEYNOTES

03-02	TILT-UP CONCRETE WALL, SEE STRUCTURAL. NO PAINT ON INTERIOR WALL.
05-03	BOLLARD, SEE DETAIL 15/A5.13.
05-04	STEEL ACCESS STAIR, BY DESIGN BUILD.
05-05	METAL CANOPY. SEE SHEET DETAILS 9, 15, 18, & 19 ON SHEET A5.10.
05-06	METAL ACCENT DETAIL PROJECTING FROM WALL. SEE DETAILS 9, 13, & 18 ON SHEET A5.10.
05-07	METAL COPING. SEE DETAIL 1/A5.16.
05-08	BIDDER-DESIGN: DOCK DOOR CANOPY. SEE DETAILS 14, 15, & 16 ON SHEET A5.14.
05-11	SHEET METAL GUTTER, PAINT. SEE DETAIL 3/A5.16.
05-13	DOWNSPOUT GUARD, PAINT TO MATCH BUILDING BEHIND. SEE DETAIL 7/A5.14.
05-14	DOWNSPOUT OVERFLOW. SEE DETAIL 11/A5.16.
05-16	TRELLIS PANEL SYSTEM. SEE DETAIL 16/A5.13.
05-19	FIRE DEPARTMENT BUILDING ADDRESS. 24" TALL AND 1/2" THICK METAL LETTERS, COLOR WHITE.
08-01	INSULATED OVERHEAD DOOR. PAINT TO MATCH BUILDING. SEE DOOR TYPES ON A6.10 FOR ADDITIONAL INFO.
08-02	INSULATED OVERHEAD DRIVE-IN DOOR. PAINT TO MATCH. SEE DOOR TYPES ON A6.10 FOR ADDITIONAL INFO.
08-03	INSULATED HM DOOR. SEE DOOR TYPES ON A6.10 FOR ADDITIONAL INFO.
08-06	STOREFRONT ENTRY.
08-07	CLERESTORY GLAZING.
08-08	CLEAR ANODIZED ALUMINUM STOREFRONT SYSTEM.
09-01	BUILDING ADDRESS, PAINTED P-TBD.
11-01	DOCK DOOR BUMPER.
26-01	WALL MOUNTED EGRESS LIGHT BY ELECTRICAL.

PAINT LEGEND

PAINT - PT1
SW 6523 WINDCHILL

PAINT - PT2
SW 7619 DENIM

PAINT - PT3
SW 7619 LABRADORITE

PAINT - PT4
SW 6522 SPORTY BLUE

PAINT - PT5
SW 9151 DAPHNE

PAINT - PT6
SW 9176 DRESS BLUES

PAINT - PT
SW 9179 ANCHORS AWEIGH

NOTE:
EXTERIOR WALL PAINT: LOXON XP OR ALERNATE (ELASTOMERIC)

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Project

FORTRESS - PUYALLUP
240 15TH ST SE
PUYALLUP, WA 98372

Mechanical/Electrical

7031 REGISTERED ARCHITECT
BRETT TIMOTHY CONWAY
STATE OF WASHINGTON

REVISION SCHEDULE

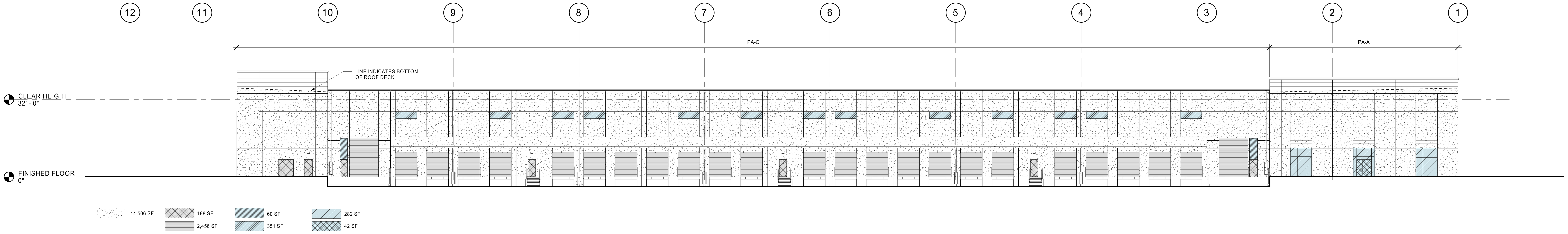
Delta	Issued As	Issue Date

SHEET TITLE:
BUILDING ELEVATIONS

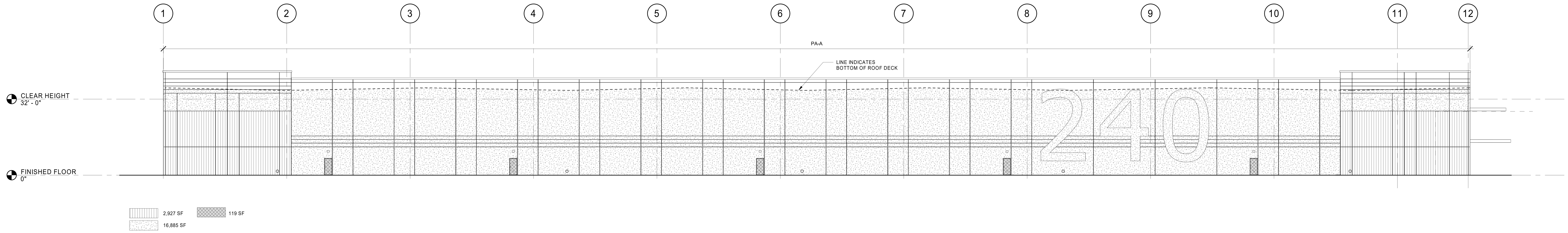
SHEET
A2.11

JOB NO. 2220290.00

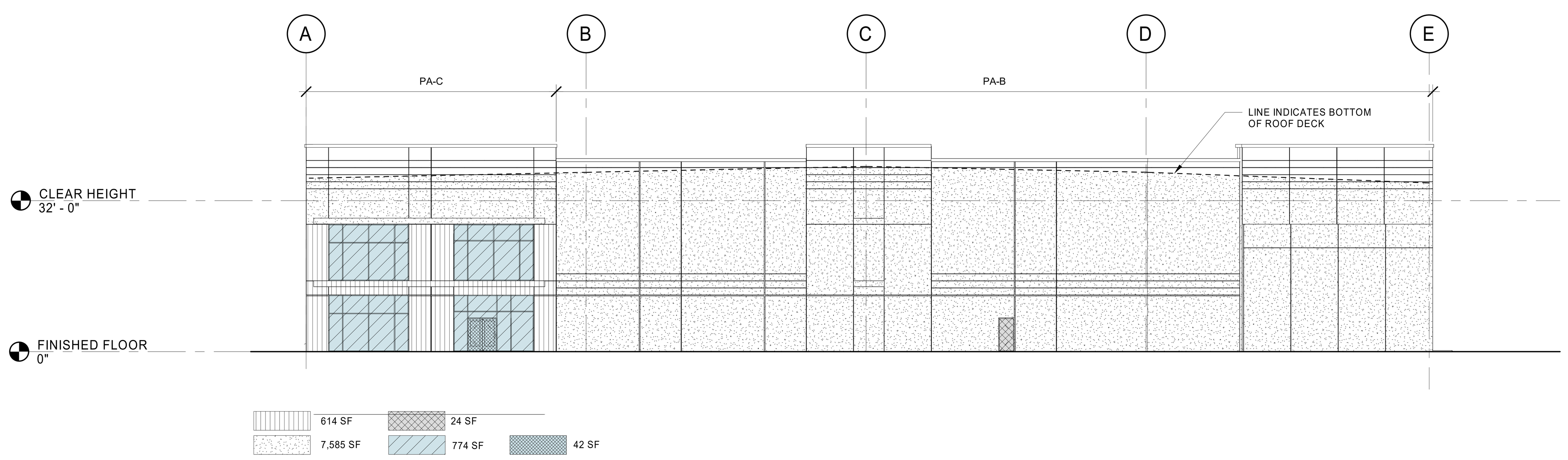
PERMIT SET 6/28/2023



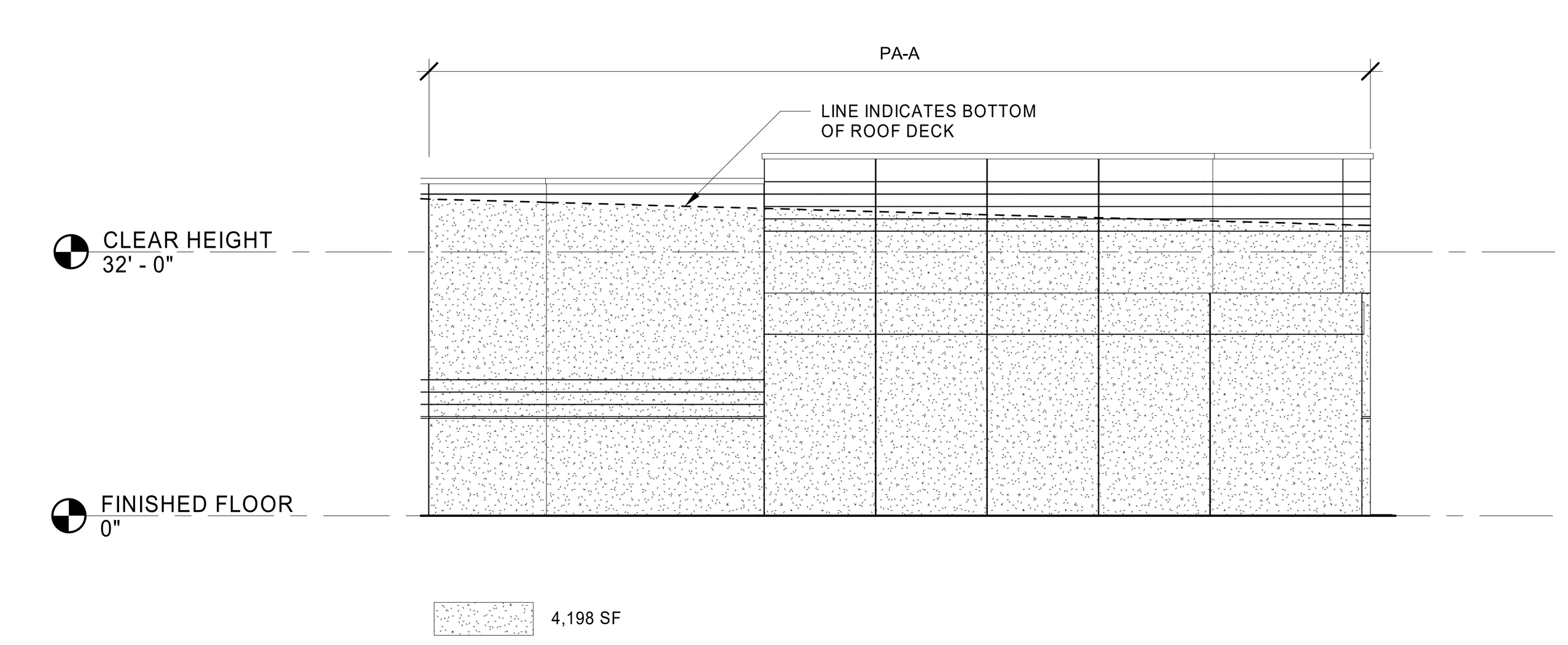
1 A2.12 NORTH ELEVATION
1/16" = 1'-0"



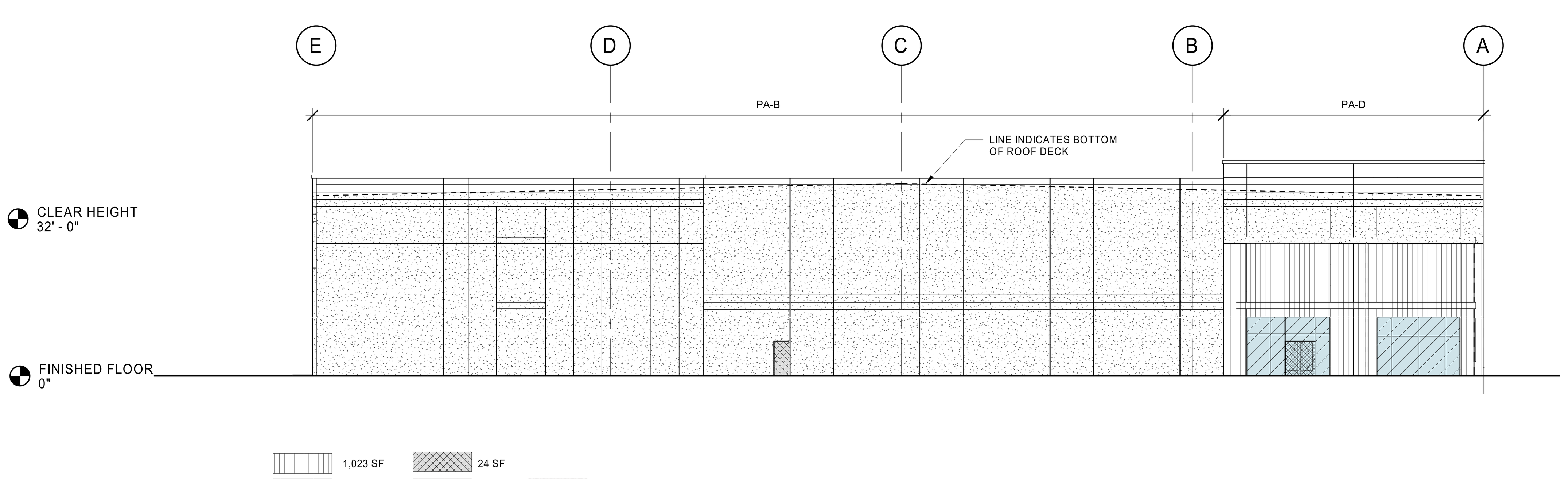
2 A2.12 SOUTH ELEVATION
1/16" = 1'-0"



3 A2.12 EAST ELEVATION
1/16" = 1'-0"



4 A2.12 NORTHEAST ELEVATION
1/16" = 1'-0"



5 A2.12 WEST ELEVATION
1/16" = 1'-0"

GENERAL NOTES

A. SEE STRUCTURAL DRAWINGS FOR PANEL THICKNESS
B. WALL INSULATION TO BE INSTALLED AS PART OF FUTURE TENANT IMPROVEMENT, SHOWN FOR CODE COMPLIANCE ONLY

PA-A 8" PANEL - SEE STRUCTRUAL DRAWINGS
PA-B 8-3/4" PANEL - SEE STRUCTRUAL DRAWINGS
PA-C 9-1/2" PANEL - SEE STRUCTURAL DRAWINGS
PA-D 10" PANEL - SEE STRUCTURAL DRAWINGS

NOTE: THIS PROJECT IS A SEMI-HEATED BUILDING WITHOUT ELECTRIC RESISTANCE HEATING, THEREFORE THE FOLLOWING WA STATE ENERGY CODE PROVISION APPLIES: "SECTION 402.1.1.2 - SEMI-HEATED SPACES HEATED BY MECHANICAL SYSTEMS THAT DO NOT INCLUDE ELECTRIC RESISTANCE HEATING EQUIPMENT ARE NOT REQUIRED TO COMPLY WITH THE OPAQUE WALL INSULATION PROVISIONS OF SECTION C402.2.3 FOR WALL THAT SEPARATE SEMI-HEATED SPACES FROM THE EXTERIOR OR LOW ENERGY SPACES.

BASE AND ADJUSTED "U" VALUES

OVERHEAD DOOR: U=0.25
HM DOOR: U=0.37 MAX
GLASS: BASE U=0.29 SHGC=0.31
BASIS OF DESIGN: INSULATED SOLAR GREY W/ SOLARBAN 60, LOW E

ADJUSTED U (REDUCED FOR "ASSEMBLY VALUE")

GLASS AT STOREFRONT (91% GLASS)
U=0.38 MAX SHGC=0.295
GLASS AT TRANSOM (83.3% GLASS)
U=0.38 MAX SHGC=0.27
GLASS SF DOOR (69% GLASS)
U=0.60 MAX SHGC=0.24

LEGEND

CONCRETE WALL		46,591 SF
CONCRETE WALL WITH METAL STUD FURRING & BATT INSULATION	U=0.055 (R-13)	4,664 SF
HOLLOW METAL DOORS	U=0.37	356 SF
INSULATED OVERHEAD DOORS	U=0.25	2,456 SF
STOREFRONT GLAZING	U=0.38	1,422 SF
CLERESTORY WINDOWS	U=0.29	351 SF
TRANSOM WINDOWS	U=0.38	60SF
STOREFRONT DOORS	U=0.60	126 SF

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Project

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Mechanical/Electrical

7031 REGISTERED ARCHITECT
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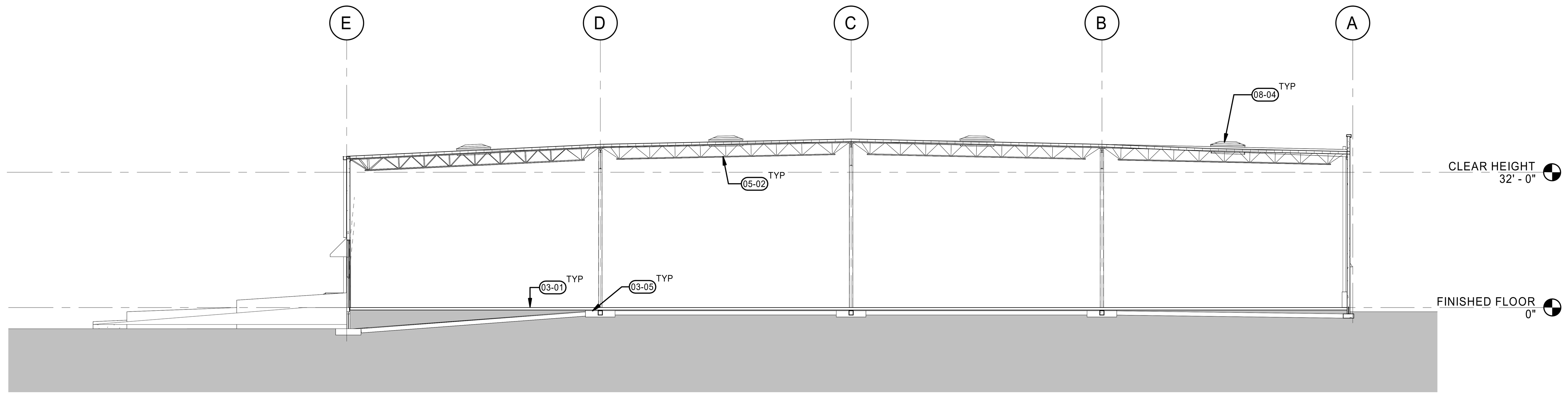
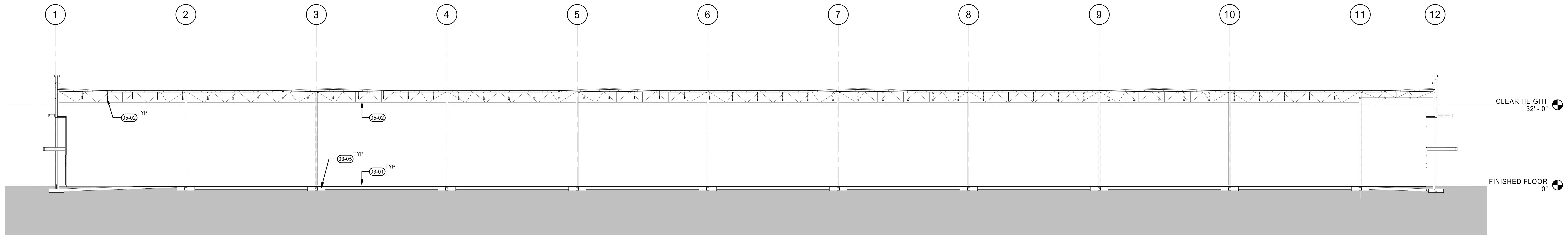
SHEET TITLE:
BUILDING INSULATION ELEVATIONS

SHEET
A2.12

JOB NO. **2220290.00**



1
A3.10
WALL SECTION
1/16" = 1'-0"



2
A3.10
WALL SECTION
1/16" = 1'-0"

KEYNOTES

03-01	REINFORCED CONCRETE SLAB PER STRUCTURAL, SEALED AND POLISHED WITH DAYTON PENTRA-HARD FINISHER.
03-05	CONCRETE FOOTING, SEE STRUCTURAL FOR SIZE AND REINFORCING.
05-02	STEEL JOIST FRAMING, SEE STRUCTURAL FOR ADDITIONAL INFO.
08-04	4' X 8' SKYLIGHT, SEE DETAIL 6/A5.16.

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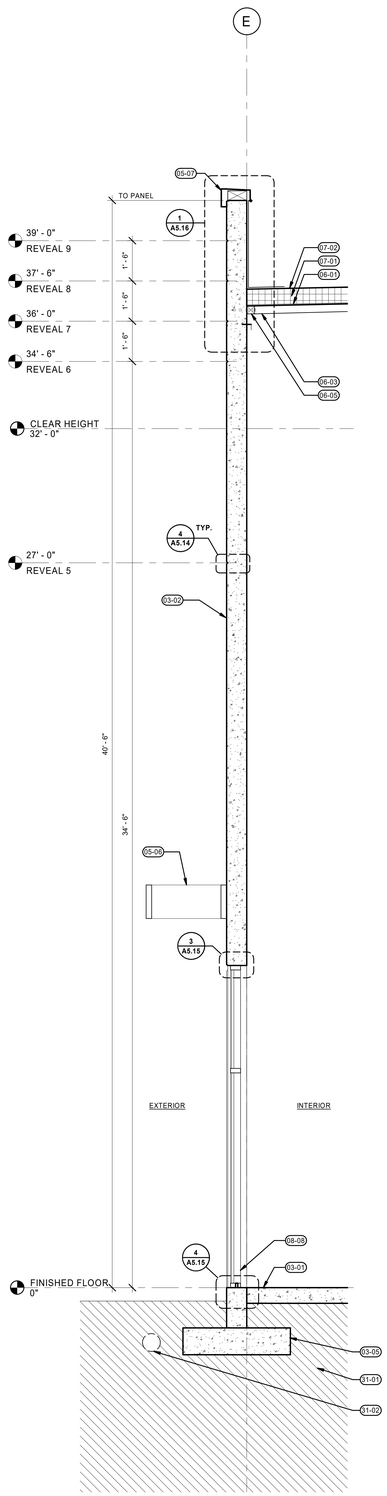
REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
BUILDING SECTIONS

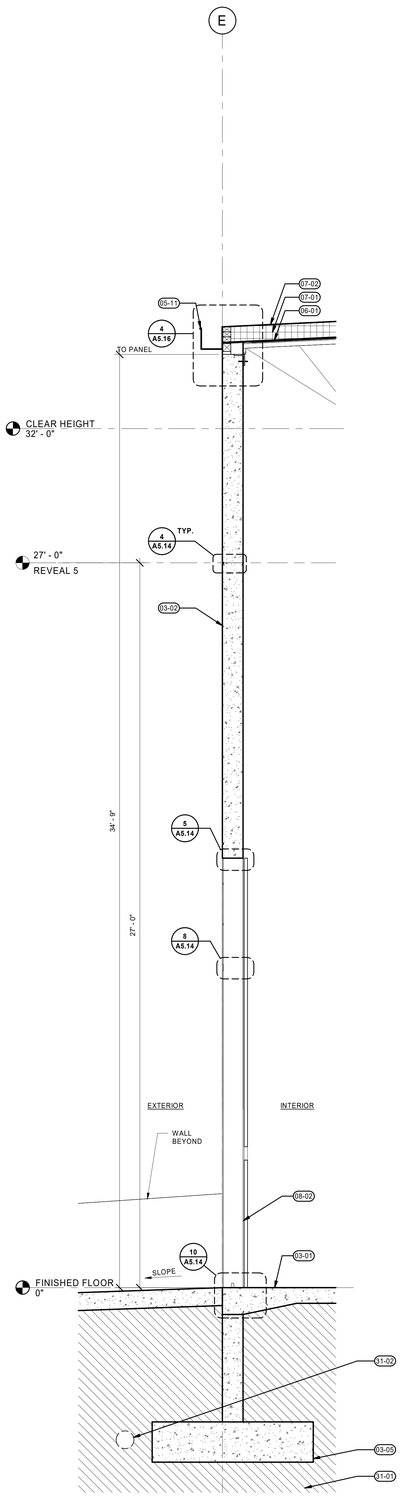
SHEET
A3.10

JOB NO. **2220290.00**

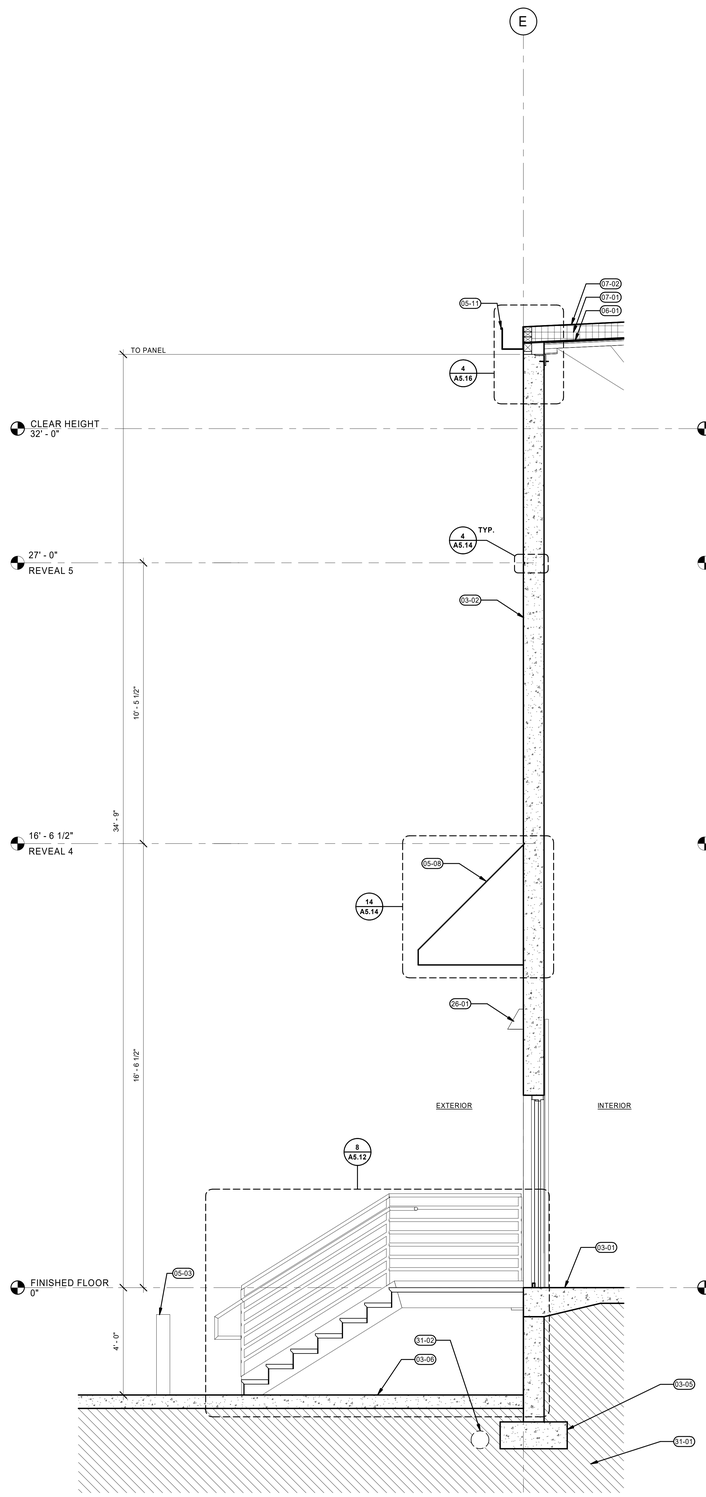
PERMIT SET 6/28/2023
Autodesk Docs://Fortress-Puyallup/290-Fortress-Puyallup-V23-A.rvt 6/28/2023 2:47:31 PM 1/16" = 1'-0"



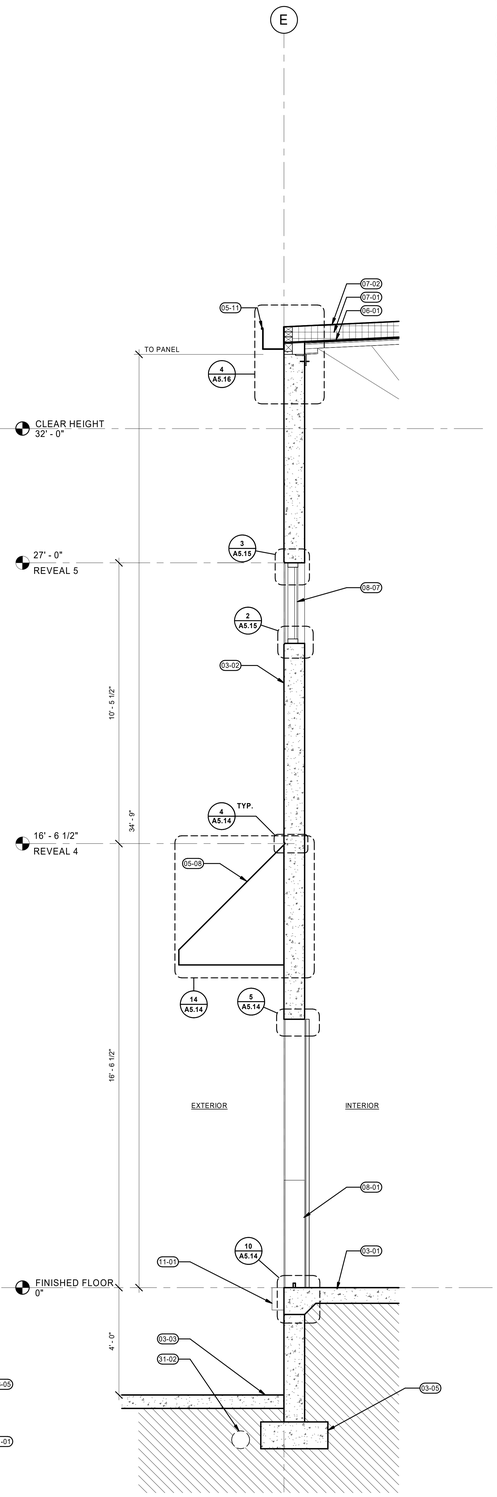
1 A3.20 NORTH ENTRY WALL SECTION
1/2" = 1'-0"



2 A3.20 DOCK RAMP WALL SECTION
1/2" = 1'-0"



3 A3.20 DOCK STAIR WALL SECTION
1/2" = 1'-0"



4 A3.20 DOCK DOOR WALL SECTION
1/2" = 1'-0"

CANOPY GENERAL NOTES

A. VERIFY AND CONFIRM ALL DIMENSIONS AND CONDITIONS. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
B. SEE STRUCTURAL DRAWINGS FOR PANEL THICKNESS.

KEYNOTES

03-01	REINFORCED CONCRETE SLAB PER STRUCTURAL, SEALED AND POLISHED WITH DAYTON PENTRA-HARD FINISHER.
03-02	TILT-UP CONCRETE WALL, SEE STRUCTURAL. NO PAINT ON INTERIOR WALL.
03-03	REINFORCED CONCRETE TRUCK APRON. SEE CIVIL DRAWINGS.
03-05	CONCRETE FOOTING, SEE STRUCTURAL FOR SIZE AND REINFORCING.
03-06	CONCRETE PAVING.
05-03	BOLLARD, SEE DETAIL 15/A5.13.
05-06	METAL ACCENT DETAIL PROJECTING FROM WALL. SEE DETAILS 9, 13, & 18 ON SHEET A5.10.
05-07	METAL COPING. SEE DETAIL 1/A5.16.
05-08	BIDDER-DESIGN: DOCK DOOR CANOPY. SEE DETAILS 14, 15, & 16 ON SHEET A5.14.
05-11	SHEET METAL GUTTER, PAINT. SEE DETAIL 3/A5.16.
06-01	WOOD DECKING, SEE STRUCTURAL DRAWINGS.
06-03	SUB-PURLIN, SEE STRUCTURAL
06-05	LEDGER, SEE STRUCTURAL
07-01	RIGID INSULATION, SEE DETAIL 2/A1.12.
07-02	TPO SINGLE PLY ROOFING SYSTEM OVER INSULATION, SEE DETAIL 2/A1.12.
08-01	INSULATED OVERHEAD DOOR. PAINT TO MATCH BUILDING. SEE DOOR TYPES ON A6.10 FOR ADDITIONAL INFO.
08-02	INSULATED OVERHEAD DRIVE-IN DOOR. PAINT TO MATCH. SEE DOOR TYPES ON A6.10 FOR ADDITIONAL INFO.
08-07	CLERESTORY GLAZING.
08-08	CLEAR ANODIZED ALUMINUM STOREFRONT SYSTEM.
11-01	DOCK DOOR BUMPER.
26-01	WALL MOUNTED EGRESS LIGHT BY ELECTRICAL.
31-01	REFER TO GEOTECHNICAL REPORT FOR SUBSURFACE PREPARATION FOR CONSTRUCTION.
31-02	FOOTING DRAINS AS PRESCRIBED BY GEOTECHNICAL REPORT. REFER TO CIVIL DRAWINGS.

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Project

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PUYALLUP, WA 98372

Mechanical/Electrical

7037 REGISTERED ARCHITECT BRETT D. CRAIG STATE OF WASHINGTON

REVISION SCHEDULE

Delta	Issued As	Issue Date

SHEET TITLE:
WALL SECTIONS

SHEET
A3.20

JOB NO. **22020290.00**

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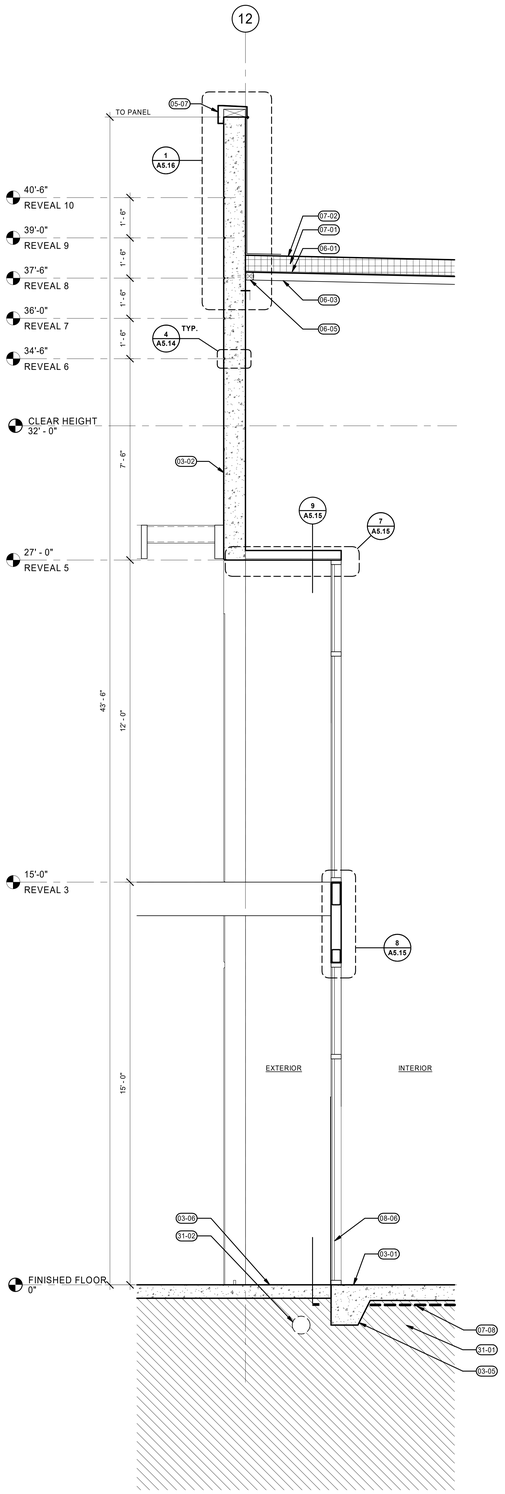
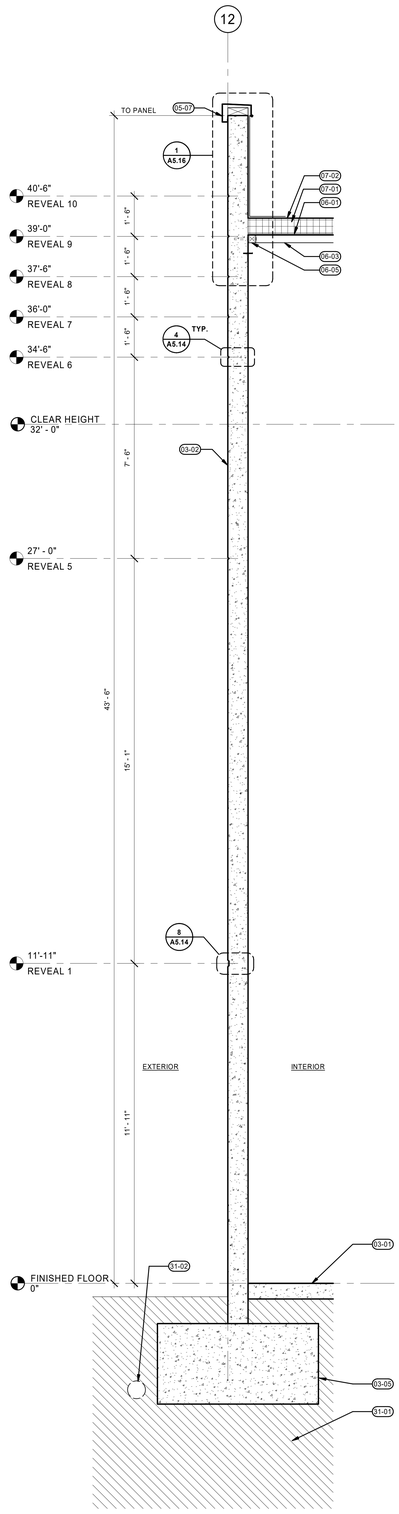
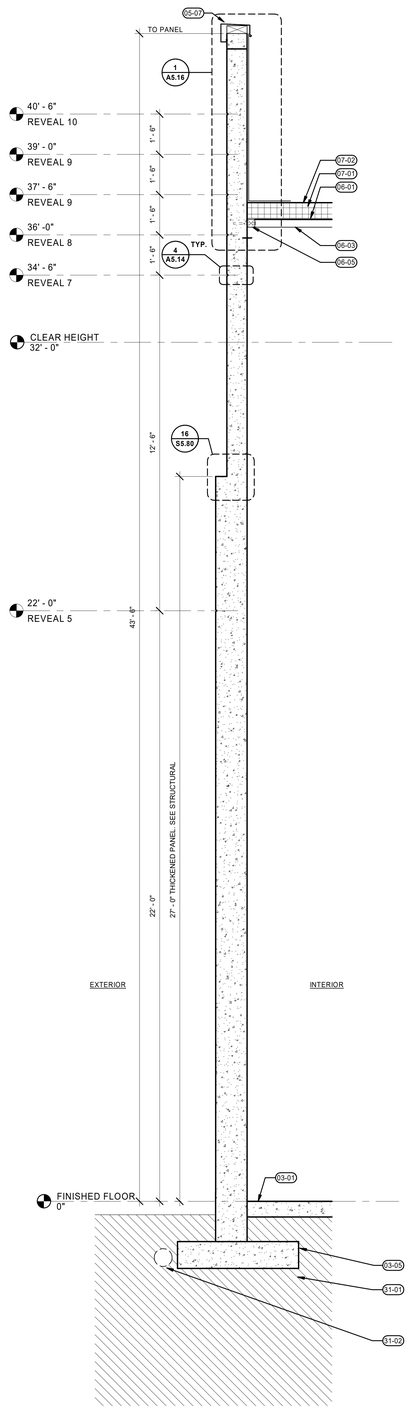


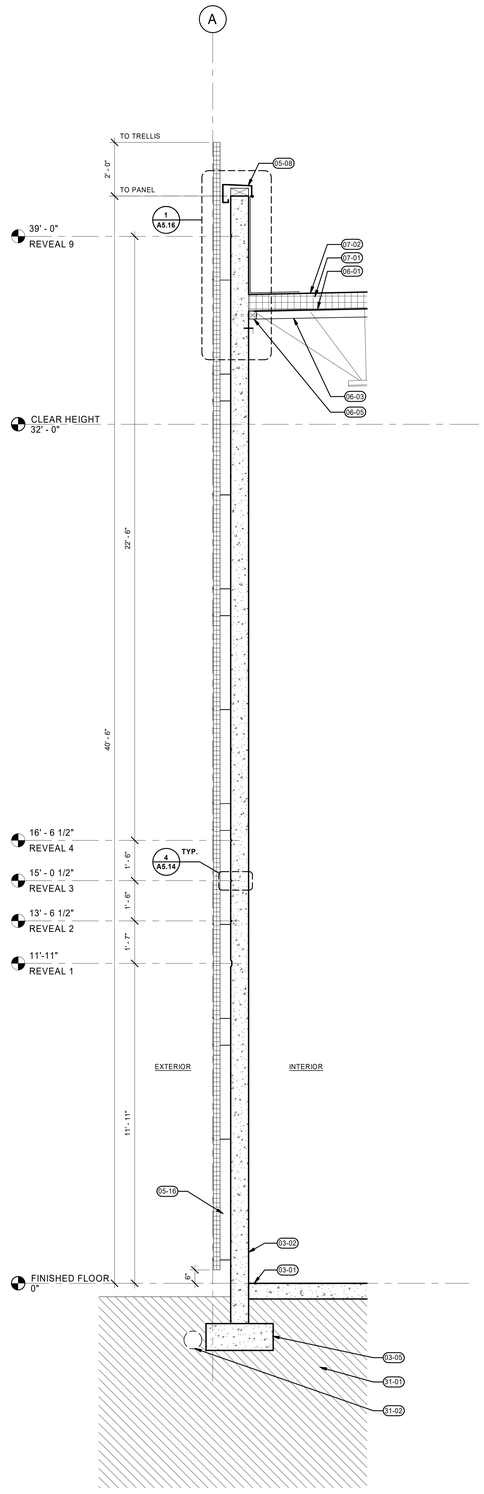
1 A3.21 EAST ENTRY WALL SECTION
1/2" = 1'-0"



2 A3.21 TYPICAL TILT-UP WALL SECTION
1/2" = 1'-0"



3 A3.21 NORTHEAST WALL SECTION
1/2" = 1'-0"



4 A3.21 TRELLIS PANEL WALL SECTION
1/2" = 1'-0"

CANOPY GENERAL NOTES

A. VERIFY AND CONFIRM ALL DIMENSIONS AND CONDITIONS. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
B. SEE STRUCTURAL DRAWINGS FOR PANEL THICKNESS.

KEYNOTES

03-01	REINFORCED CONCRETE SLAB PER STRUCTURAL, SEALED AND POLISHED WITH DAYTON PENTRA-HARD FINISHER.
03-02	TILT-UP CONCRETE WALL, SEE STRUCTURAL. NO PAINT ON INTERIOR WALL.
03-05	CONCRETE FOOTING, SEE STRUCTURAL FOR SIZE AND REINFORCING.
03-06	CONCRETE PAVING.
05-07	METAL COPING. SEE DETAIL 1/A5.16.
05-08	BIDDER-DESIGN; DOCK DOOR CANOPY. SEE DETAILS 14, 15, & 16 ON SHEET A5.14.
05-16	TRELLIS PANEL SYSTEM. SEE DETAIL 16/A5.13.
06-01	WOOD DECKING, SEE STRUCTURAL DRAWINGS.
06-03	SUB-PURLIN, SEE STRUCTURAL
06-05	LEDGER, SEE STRUCTURAL
07-01	RIGID INSULATION, SEE DETAIL 2/A1.12.
07-02	TPO SINGLE PLY ROOFING SYSTEM OVER INSULATION, SEE DETAIL 2/A1.12.
07-08	PROVIDE 10 MIL CLASS "A" UNDERSLAB VAPOR BARRIER AT FUTURE OFFICE AREAS.
08-06	STOREFRONT ENTRY.
31-01	REFER TO GEOTECHNICAL REPORT FOR SUBSURFACE PREPARATION FOR CONSTRUCTION.
31-02	FOOTING DRAINS AS PRESCRIBED BY GEOTECHNICAL REPORT. REFER TO CIVIL DRAWINGS.

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Project

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PUYALLUP, WA 98372

Mechanical/Electrical

2024
REGISTERED ARCHITECT
SCOTT ANTHONY CHASEY
STATE OF WASHINGTON

REVISION SCHEDULE

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SHEET TITLE:
WALL SECTIONS

SHEET
A3.21

JOB NO. 2220290.00

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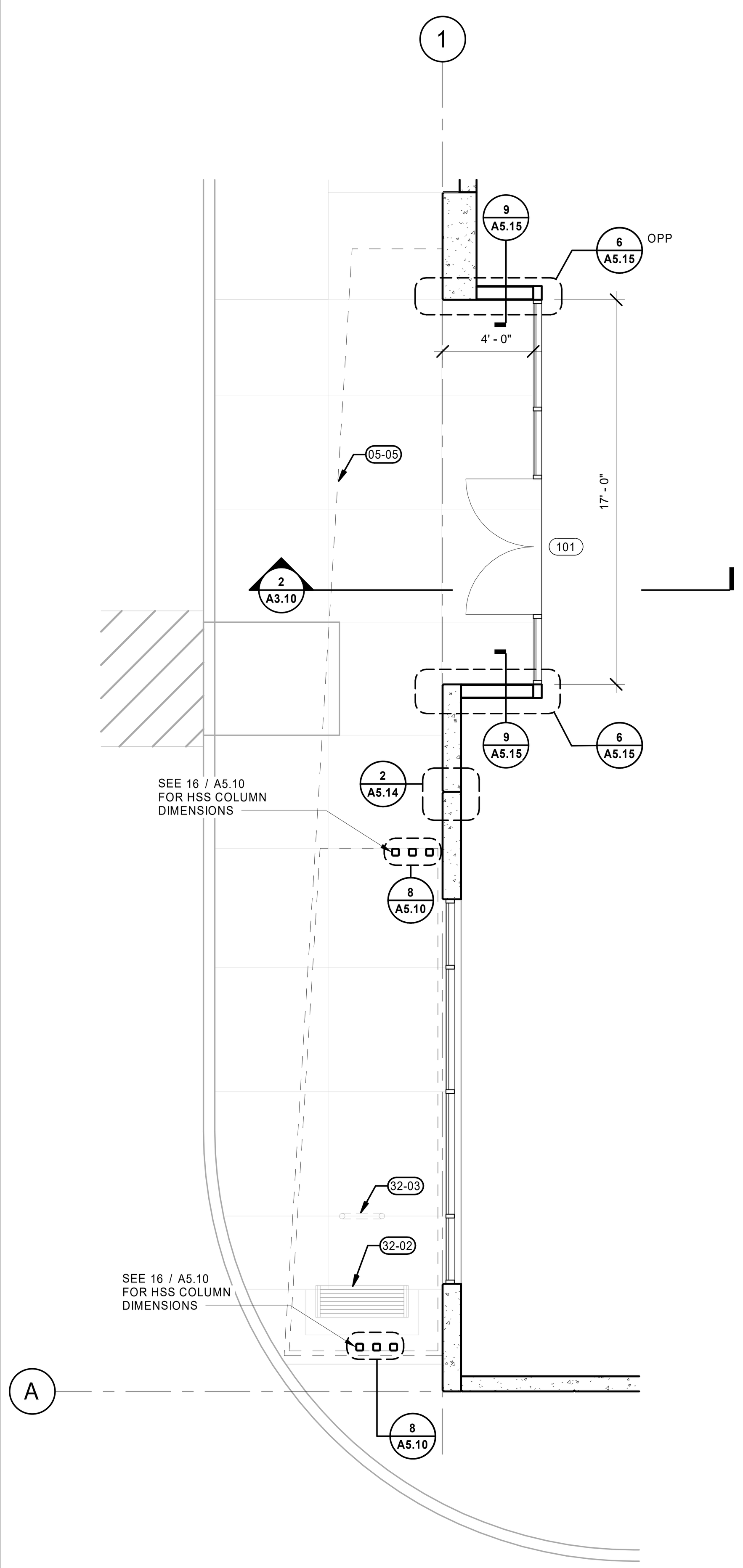
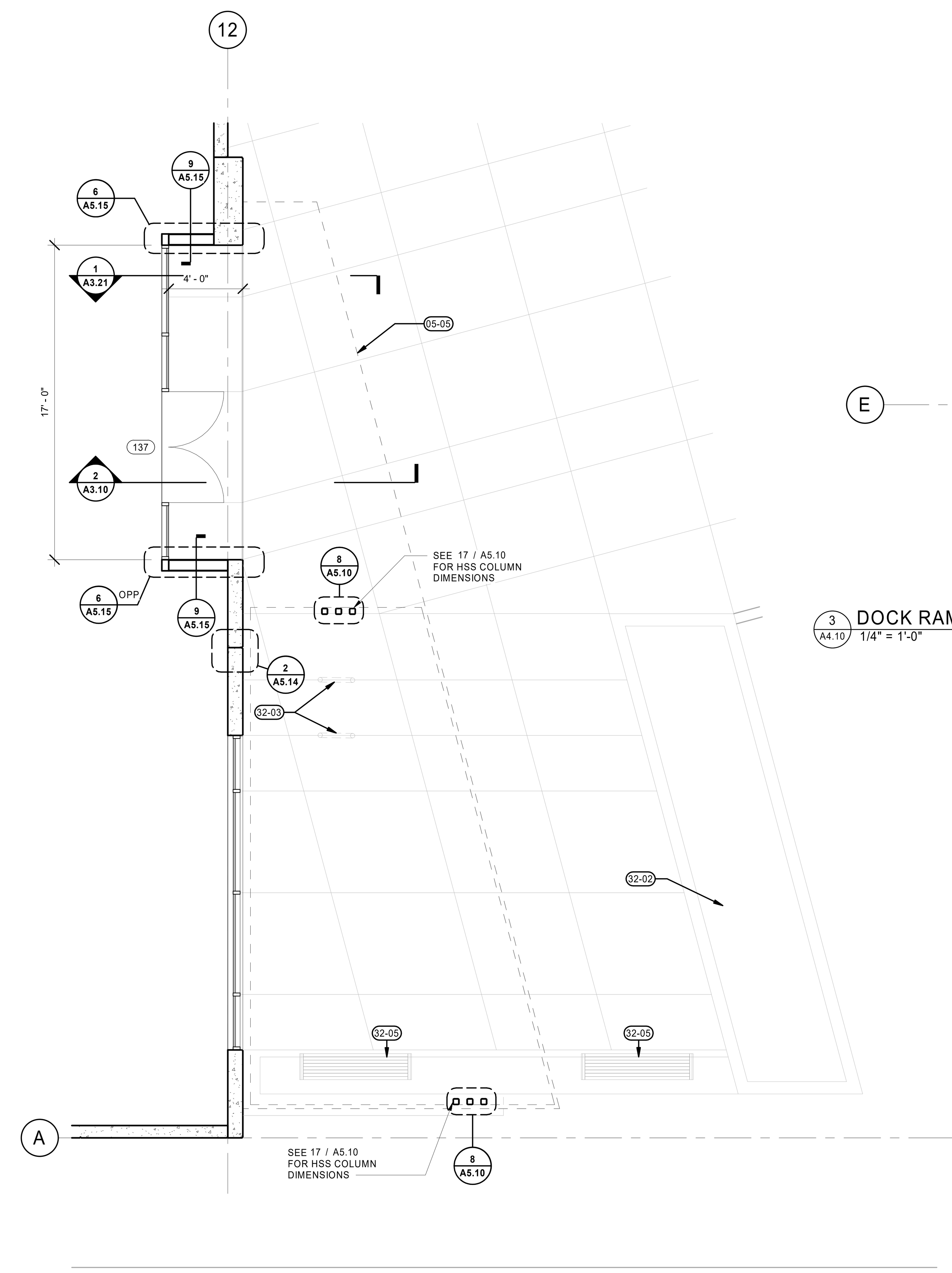
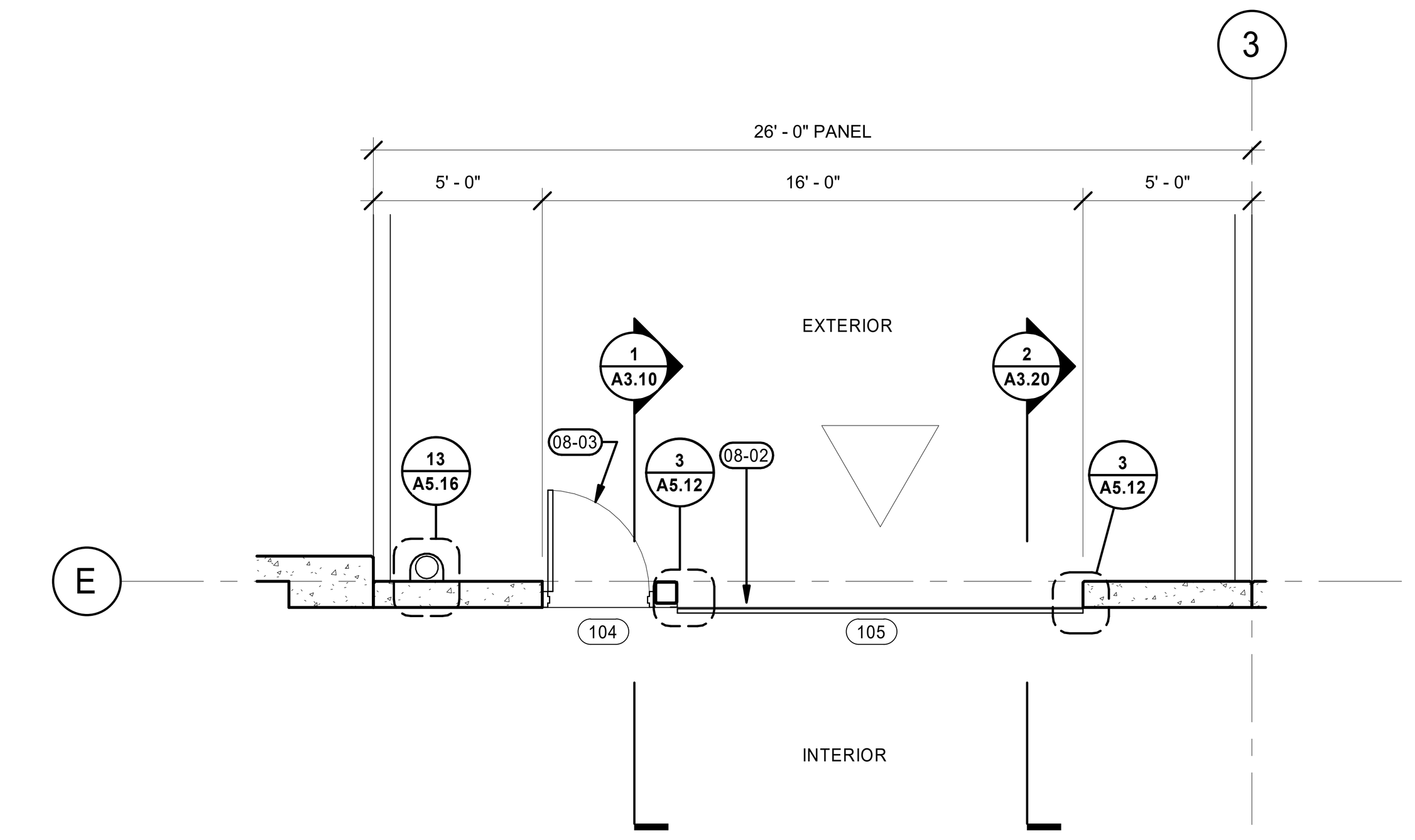


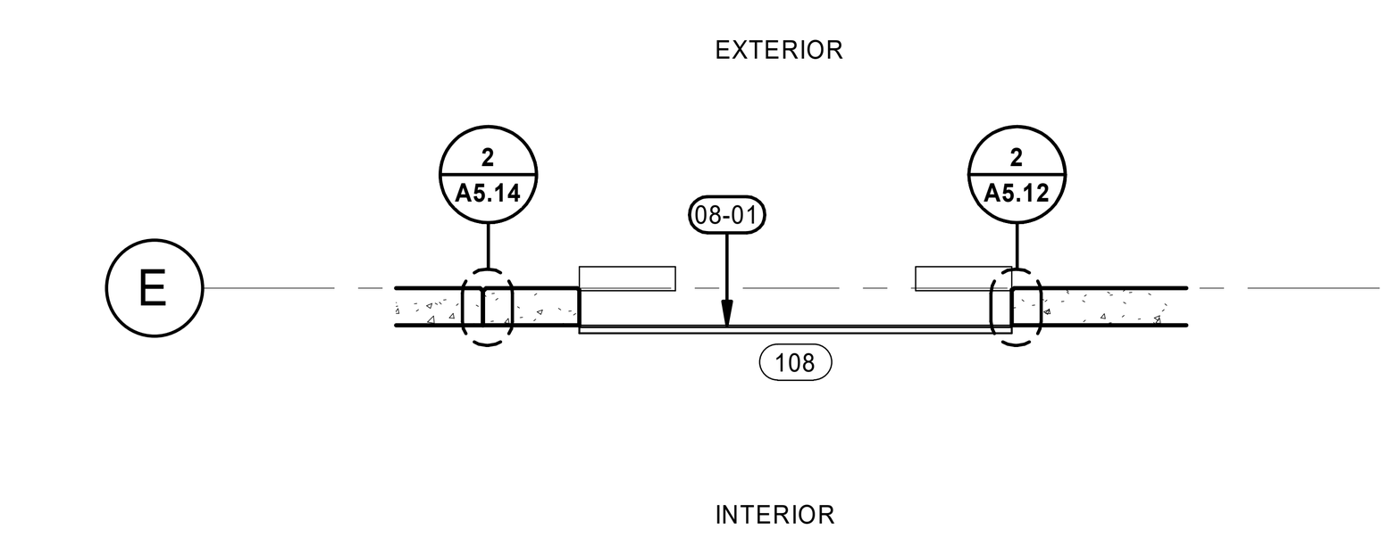
1 WEST ENTRY
A4.10 1/4" = 1'-0"



2 EAST ENTRY
A4.10 1/4" = 1'-0"



3 DOCK RAMP
A4.10 1/4" = 1'-0"



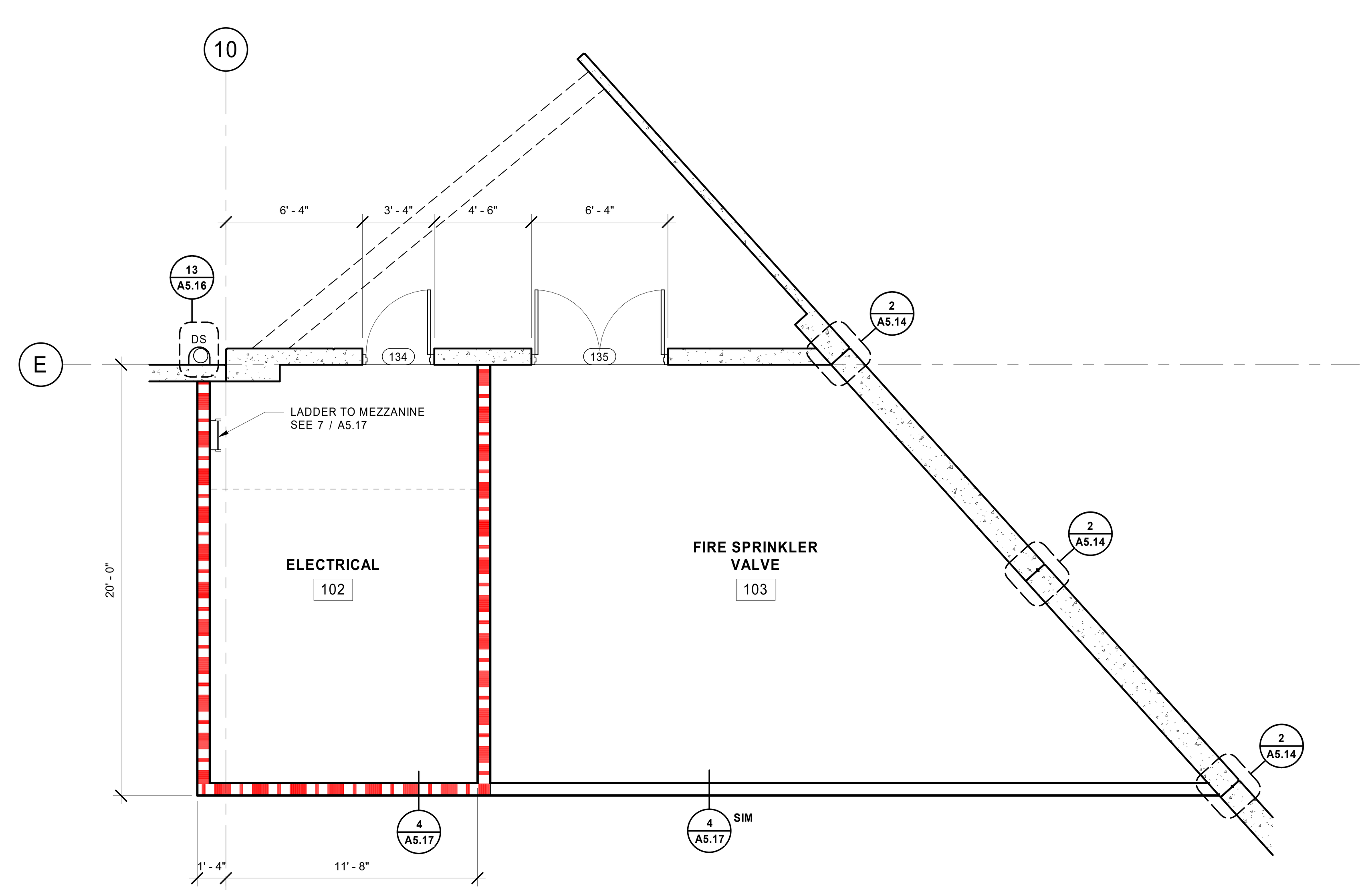
4 DOCK
A4.10 1/4" = 1'-0"

CANOPY GENERAL NOTES

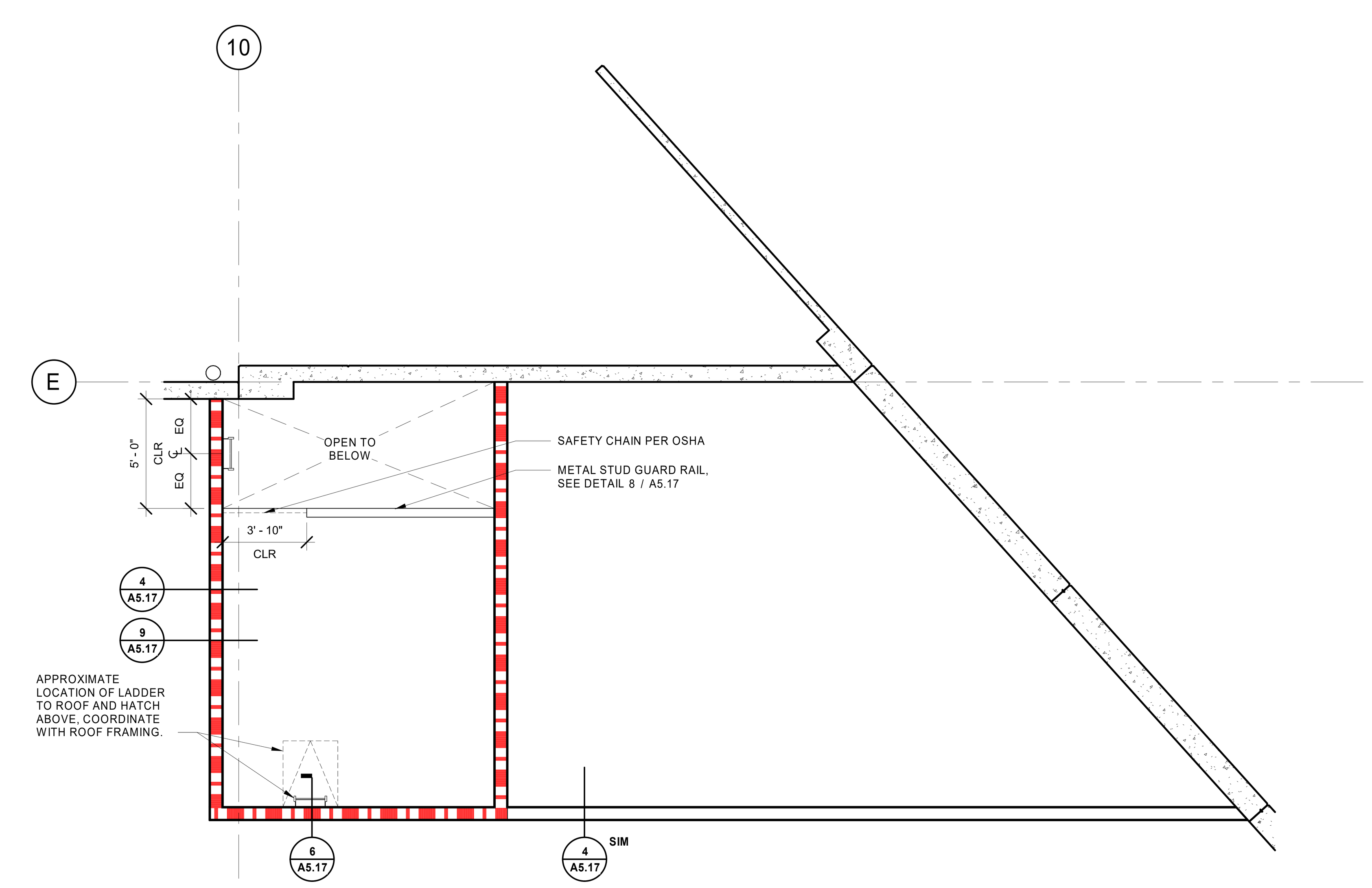
A. VERIFY AND CONFIRM ALL DIMENSIONS AND CONDITIONS. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
B. SEE STRUCTURAL DRAWINGS FOR PANEL THICKNESS.

KEYNOTES

05-05	METAL CANOPY. SEE SHEET DETAILS 9, 15, 18, & 19 ON SHEET A5.10.
08-01	INSULATED OVERHEAD DOOR. PAINT TO MATCH BUILDING. SEE DOOR TYPES ON A6.10 FOR ADDITIONAL INFO.
08-02	INSULATED OVERHEAD DRIVE-IN DOOR. PAINT TO MATCH. SEE DOOR TYPES ON A6.10 FOR ADDITIONAL INFO.
08-03	INSULATED HM DOOR. SEE DOOR TYPES ON A6.10 FOR ADDITIONAL INFO.
32-02	LANDSCAPE ISLAND.
32-03	(2) BIKE RACKS - SEE DETAILS 8 & 9/A5.13.
32-05	CAST IN PLACE CONCRETE WITH WOOD BENCH TOPPERS. SEE LANDSCAPE.



5 ELECTRICAL ROOM AND FIRE SPRINKLER
A4.10 1/4" = 1'-0"



6 MEZZANINE
A4.10 1/4" = 1'-0"

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Mechanical/Electrical

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SHEET TITLE:
ENLARGED PLANS

SHEET
A4.10

JOB NO. **2220290.00**

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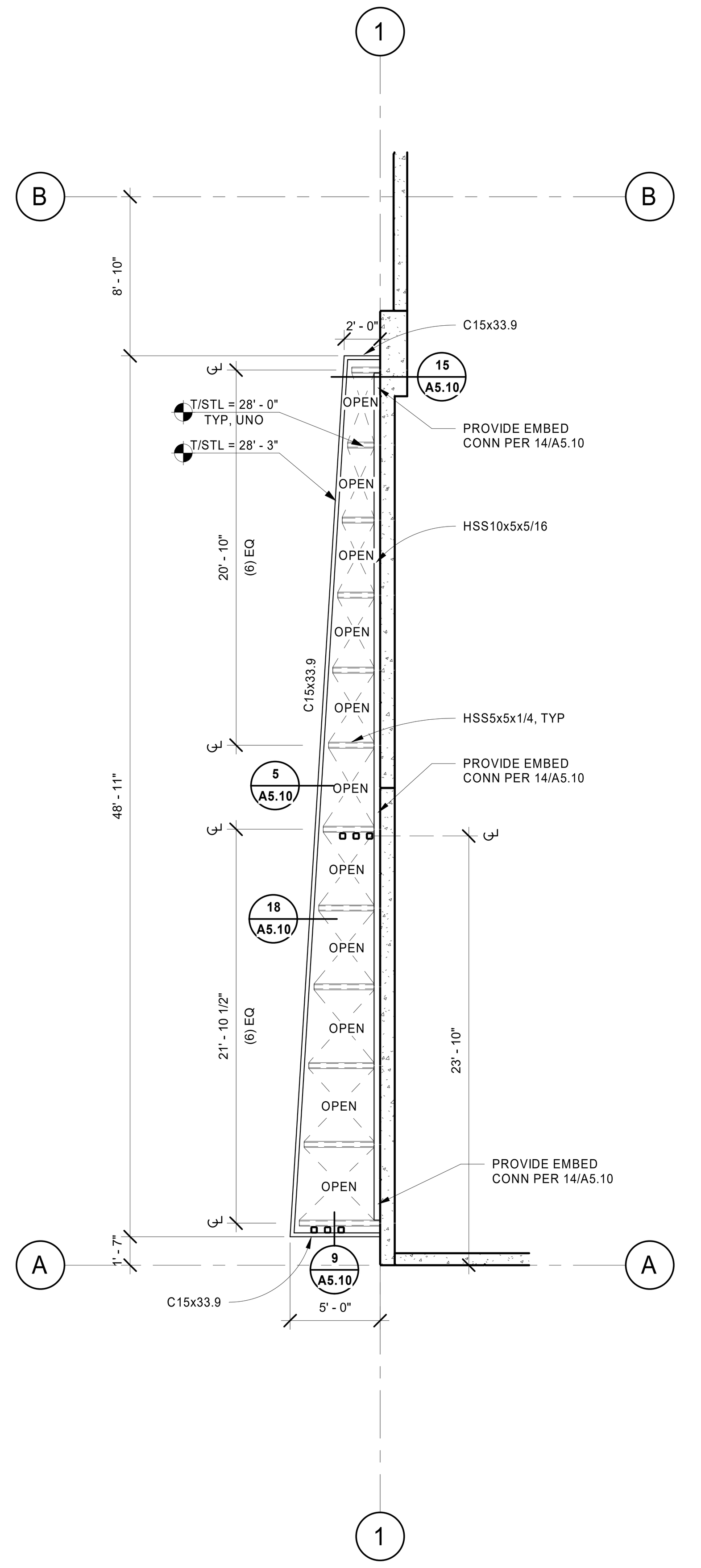
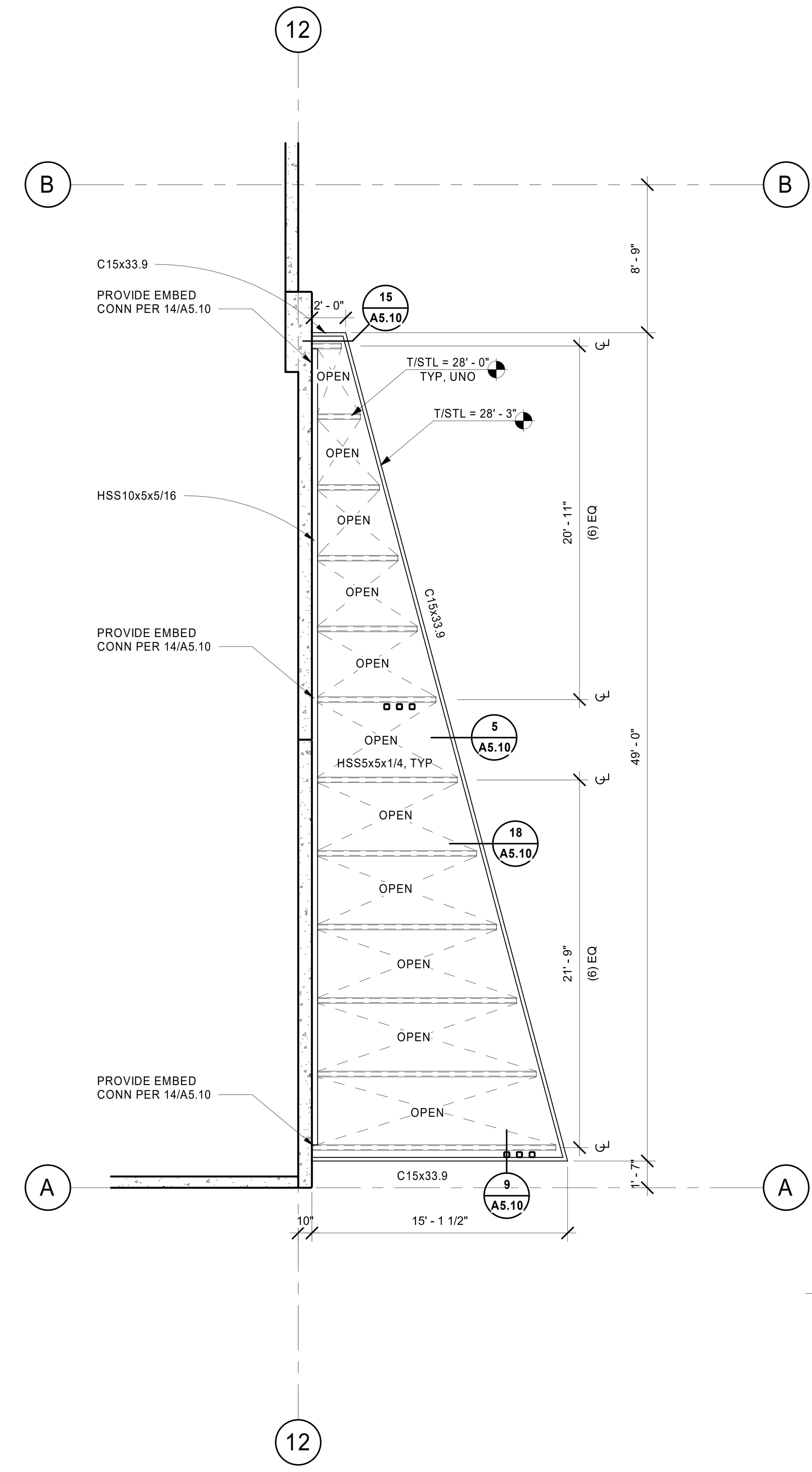
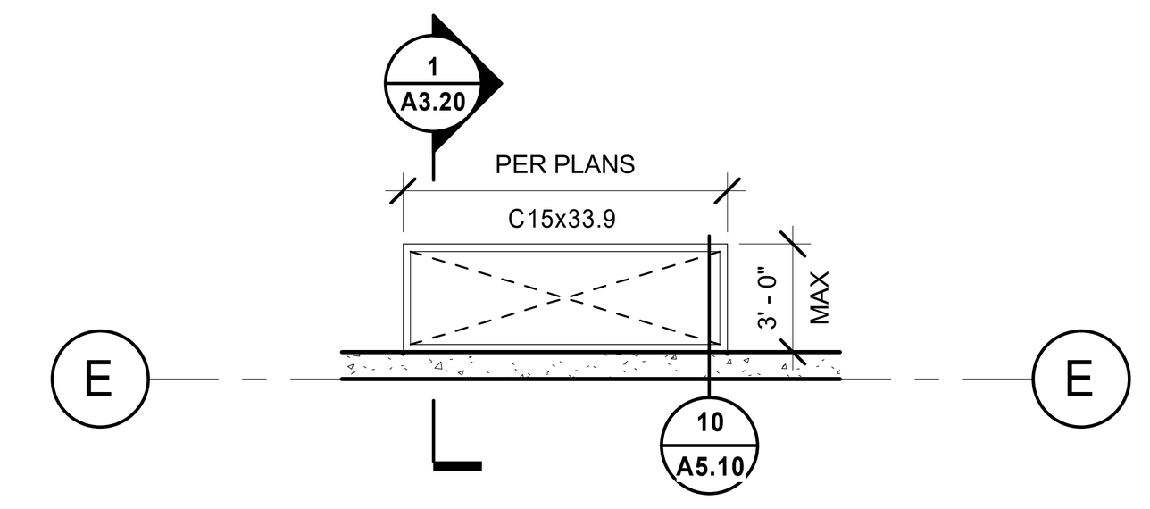


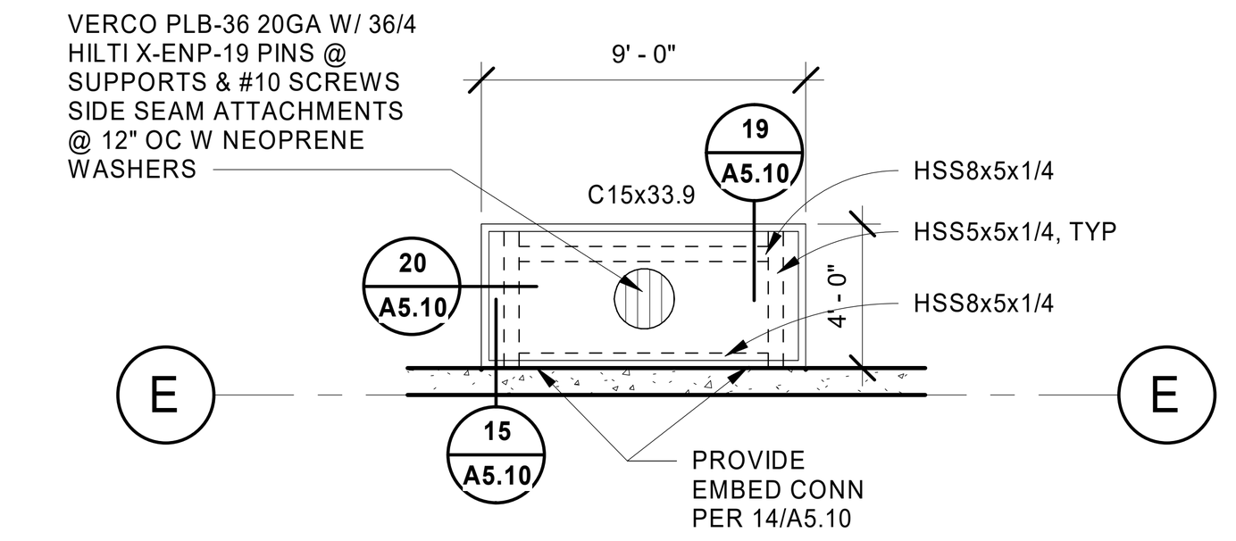
6 METAL ACCENT FRAMING PLAN - WEST SIDE
A5.10 3/16" = 1'-0"



7 METAL ACCENT FRAMING PLAN - EAST SIDE
A5.10 3/16" = 1'-0"



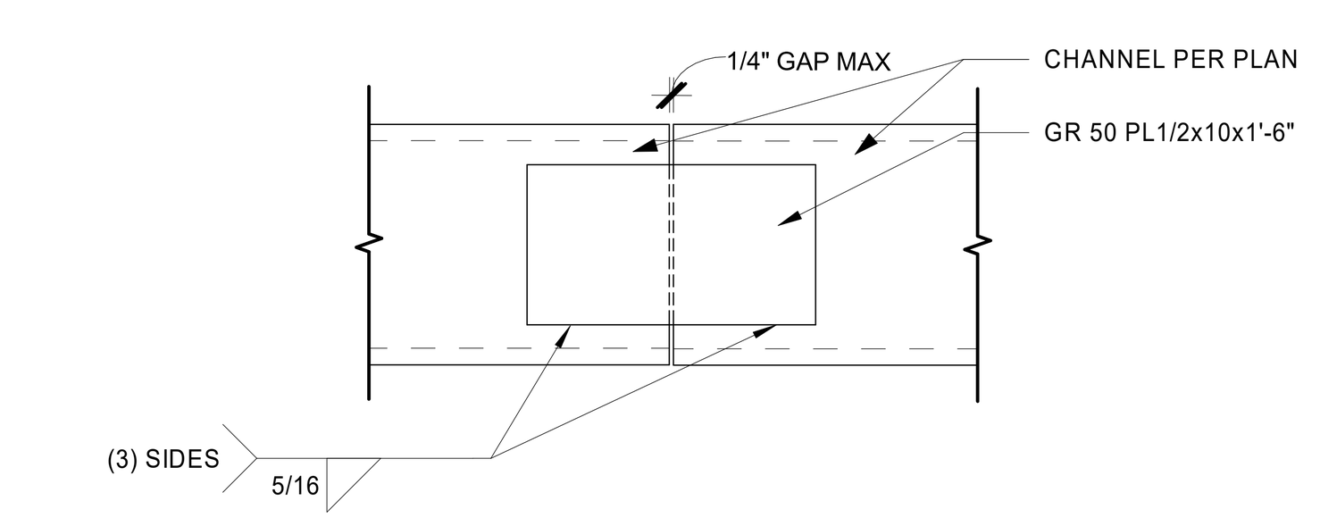
3 TYPICAL SMALL METAL ACCENT FRAMING
A5.10 3/16" = 1'-0"



4 CANOPY FRAMING PLAN - NORTH SIDE
A5.10 3/16" = 1'-0"

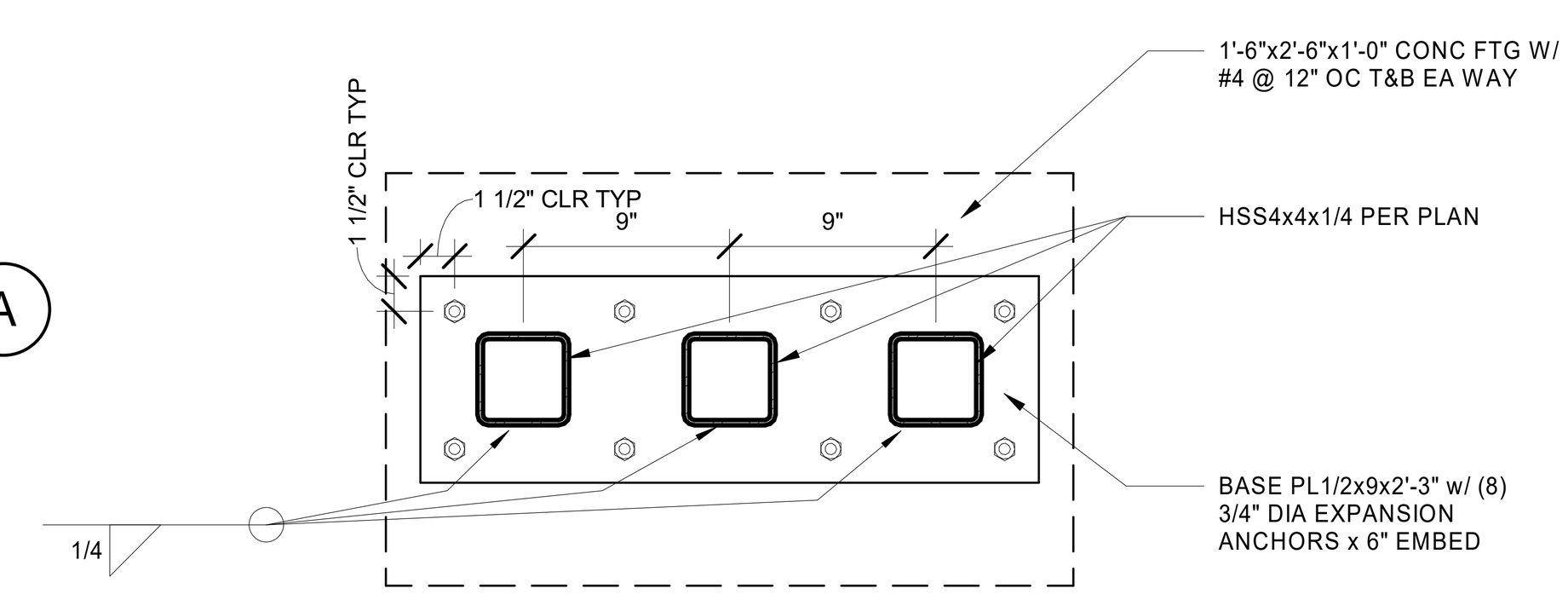
CANOPY GENERAL NOTES

A. ALL CANOPY STEEL TO BE GALVANIZED UNO. WELDS/CONNECTIONS TO BE REPAIRED WITH COLD GALVANIZING
B. CANOPY STEEL AND DECK TO BE PAINTED PER ELEVATIONS. PRIMER TO BE COMPATIBLE WITH GALVANIZING.



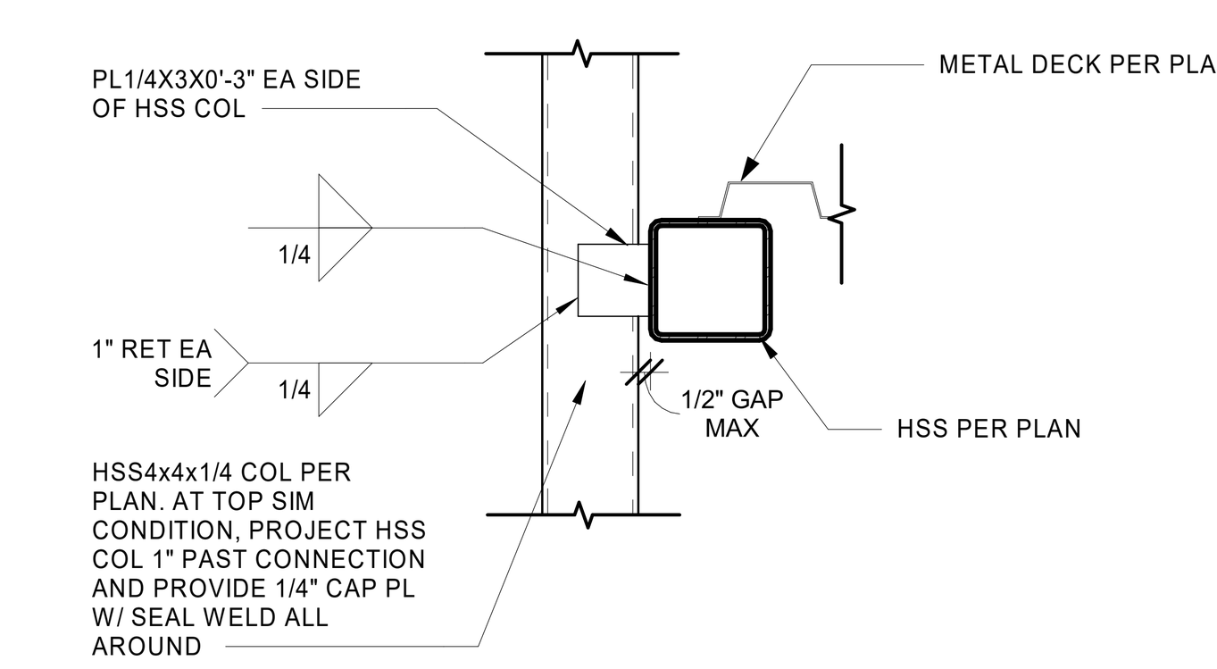
NOTE:
AT SIM CONDITION, PROVIDE GR 50 PL3/8x7x1'-6" EA SIDE OF HSS

5 CANOPY - CHANNEL SPLICE DETAIL
A5.10 1" = 1'-0"

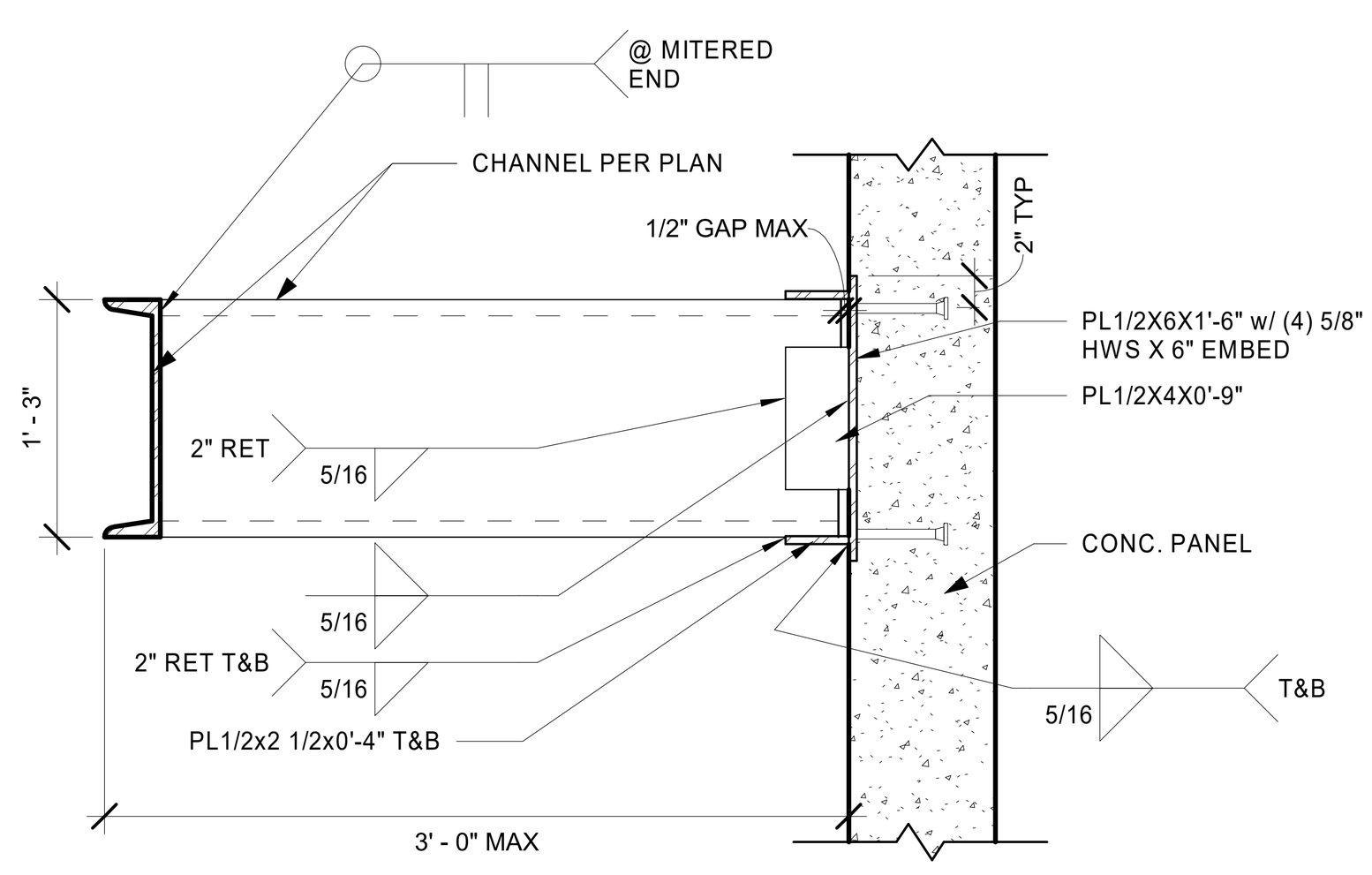


NOTE:
SEE S0.00, S0.10 & 13/S5.80 FOR ADDL INFO

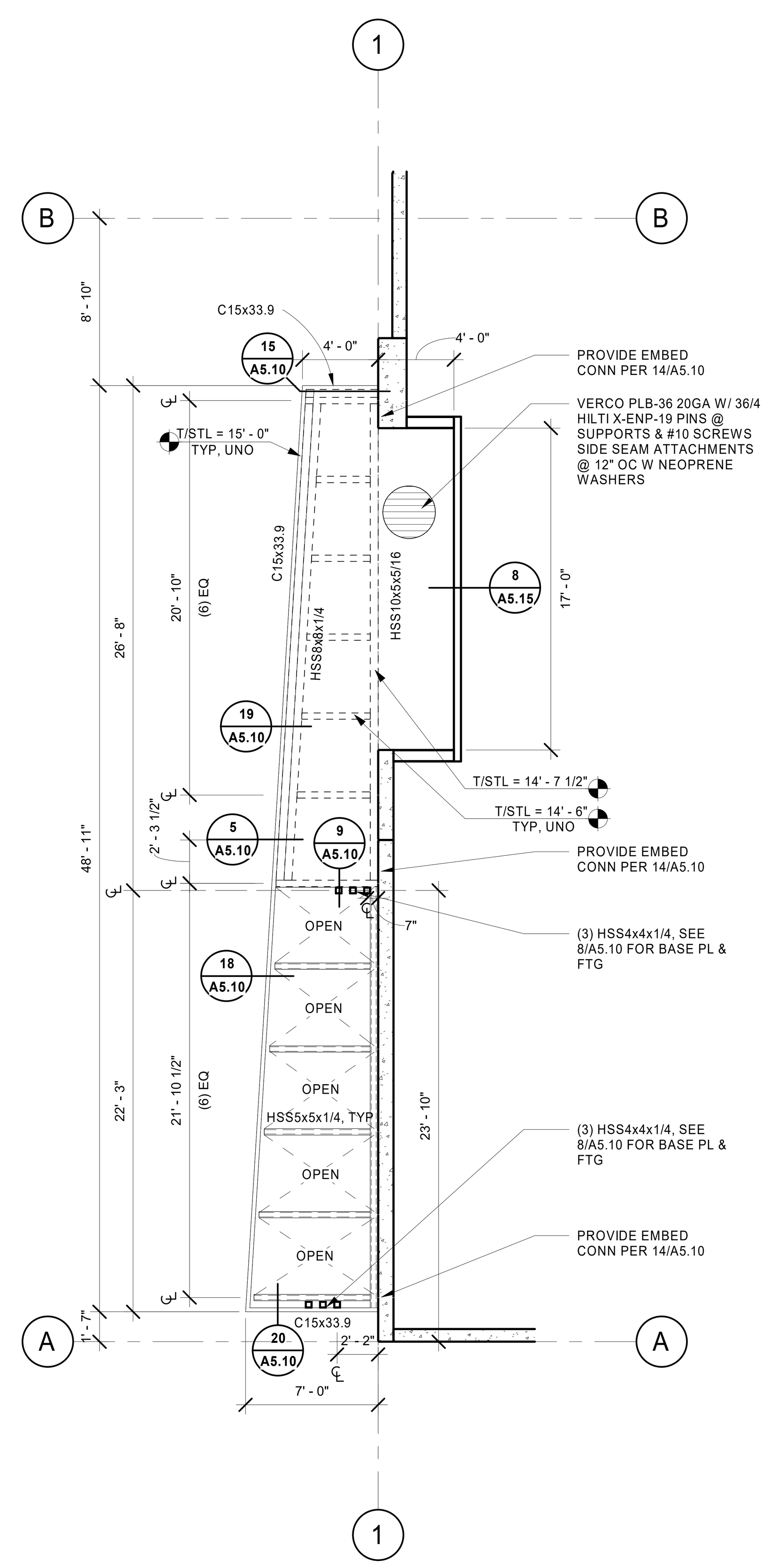
8 CANOPY - COL BASE PL
A5.10 1 1/2" = 1'-0"



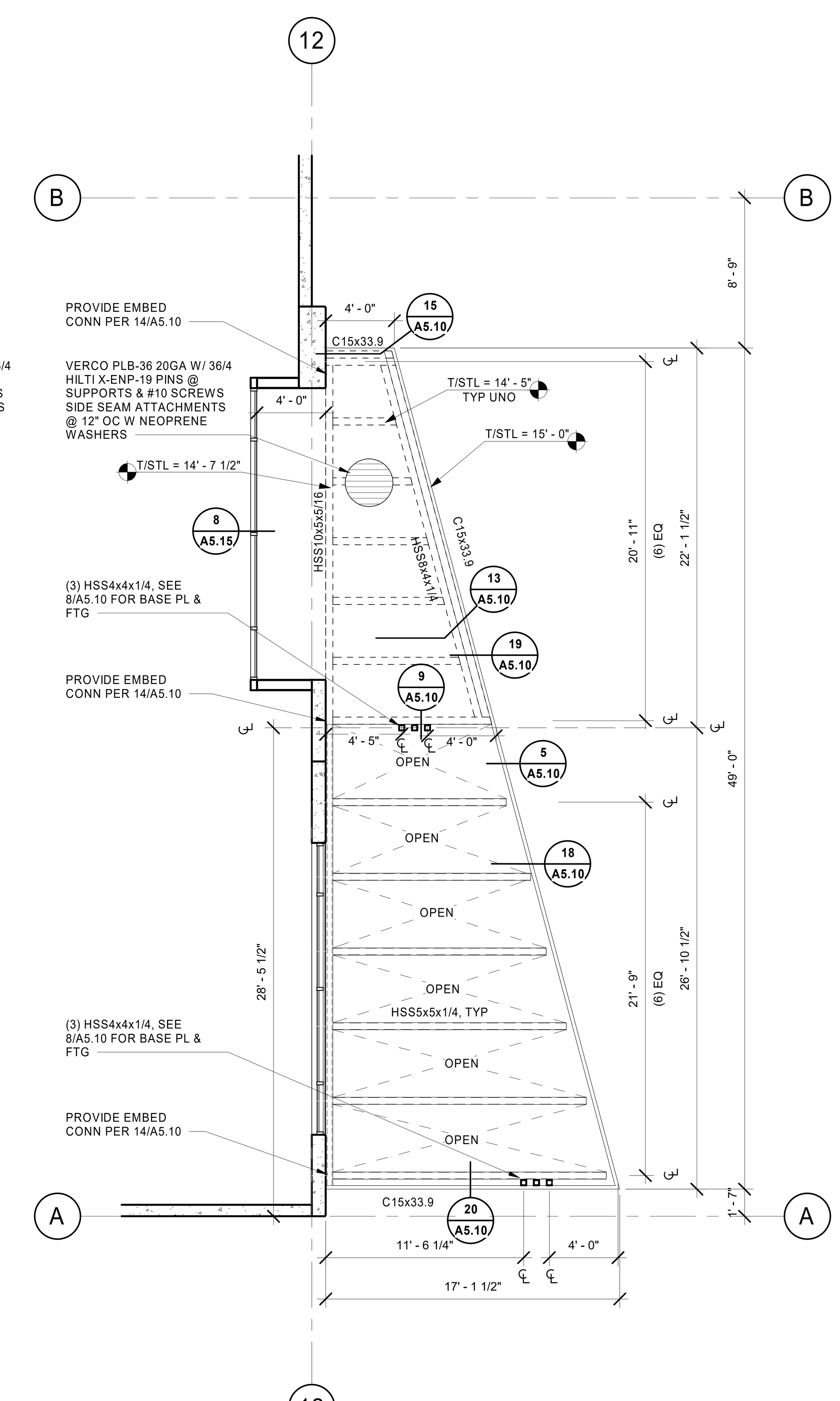
9 CANOPY - HSS COL TO HSS BEAM
A5.10 1 1/2" = 1'-0"



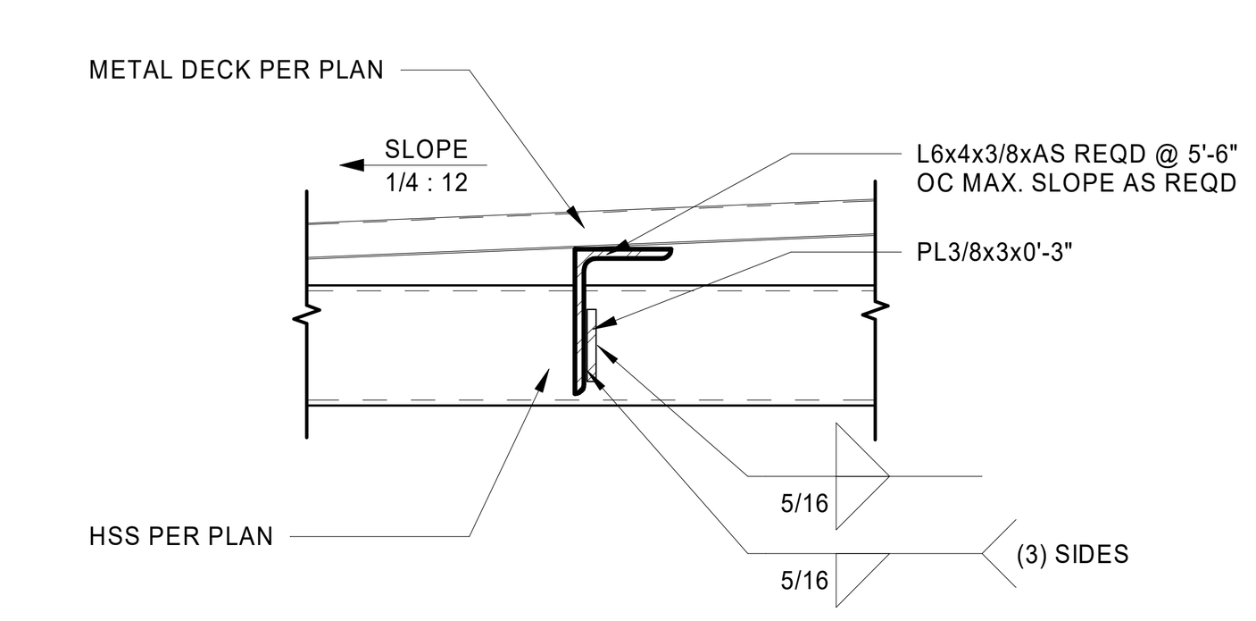
10 CANOPY - CHANNEL TO WALL CONN
A5.10 1" = 1'-0"



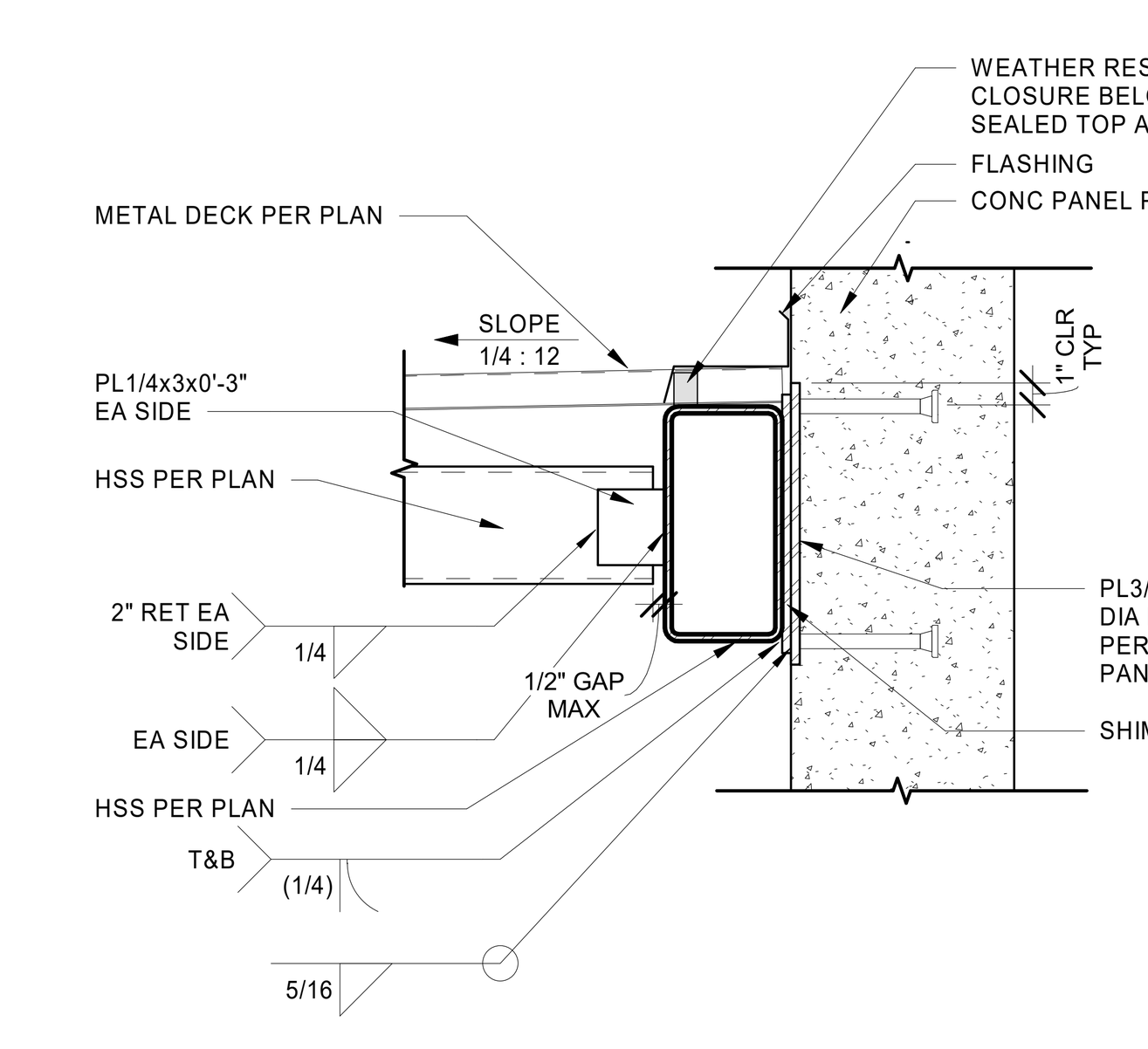
16 CANOPY FRAMING PLAN - WEST SIDE
A5.10 3/16" = 1'-0"



17 CANOPY FRAMING PLAN - EAST SIDE
A5.10 3/16" = 1'-0"

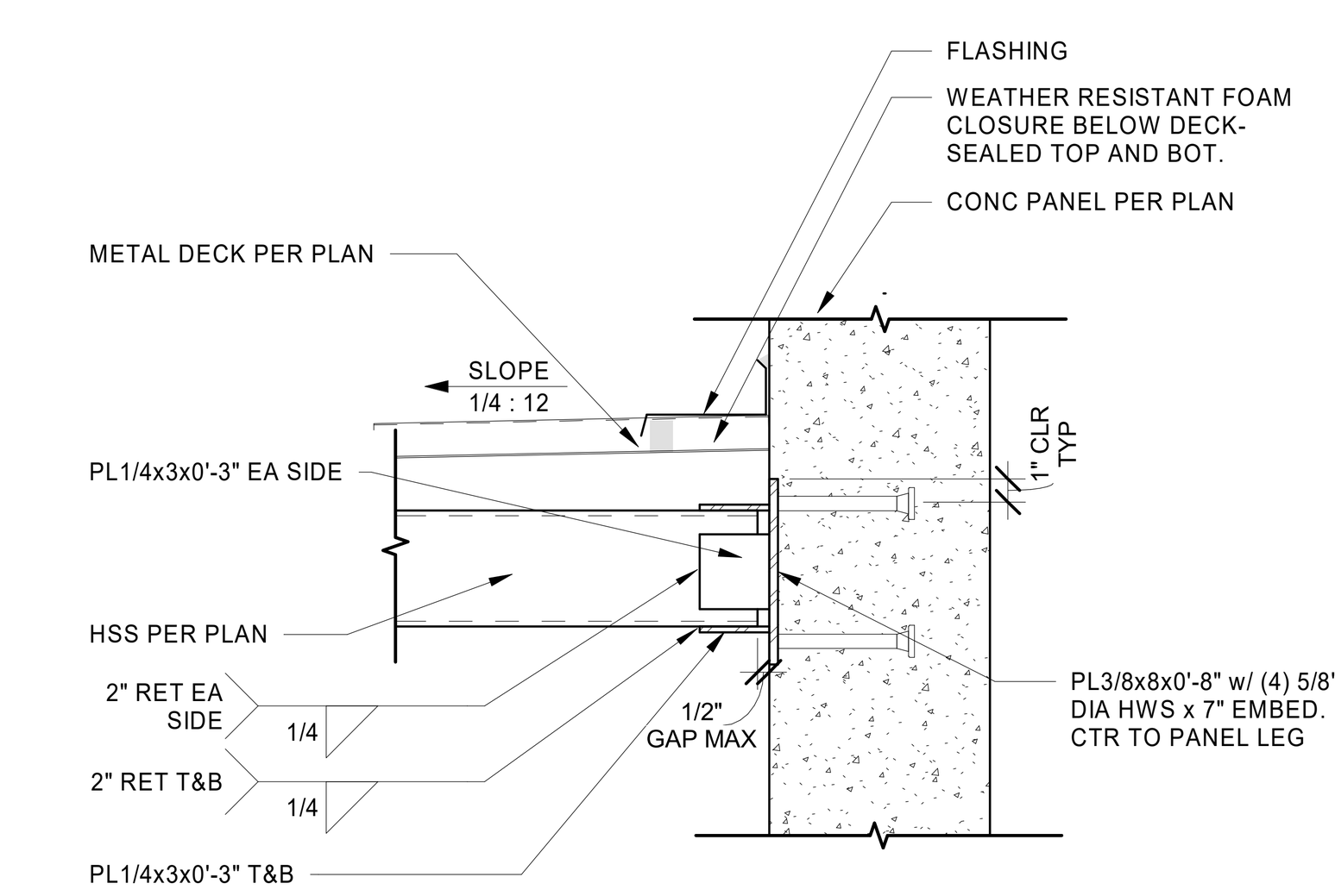


13 CANOPY - METAL DECK LEDGER ANGLE
A5.10 1 1/2" = 1'-0"

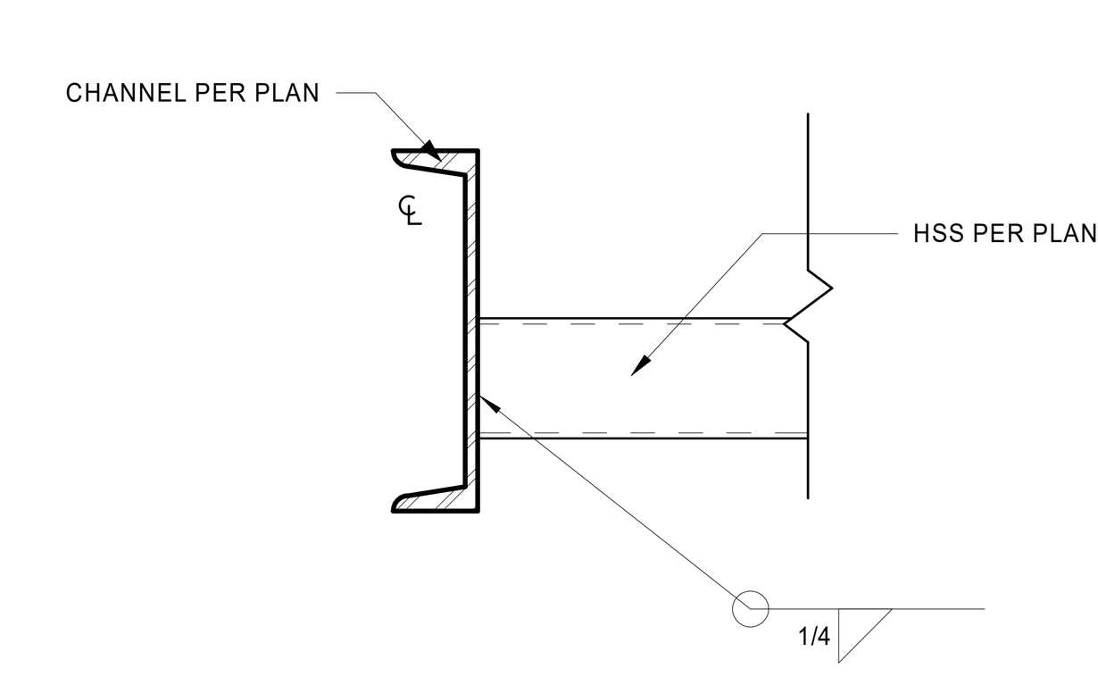


NOTE:
SEE PLAN FOR LOCATIONS

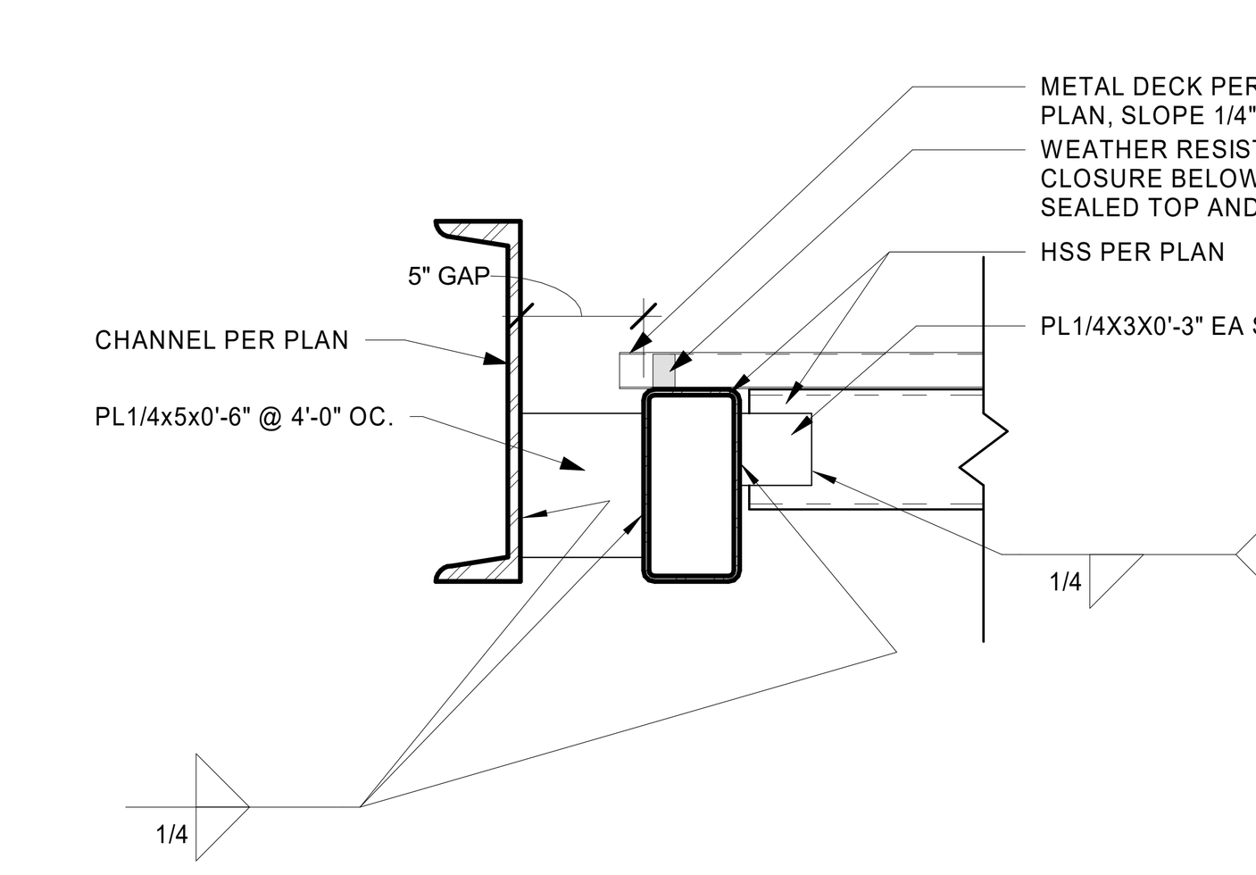
14 CANOPY - HSS TO PANEL CONN - FLAT
A5.10 1 1/2" = 1'-0"



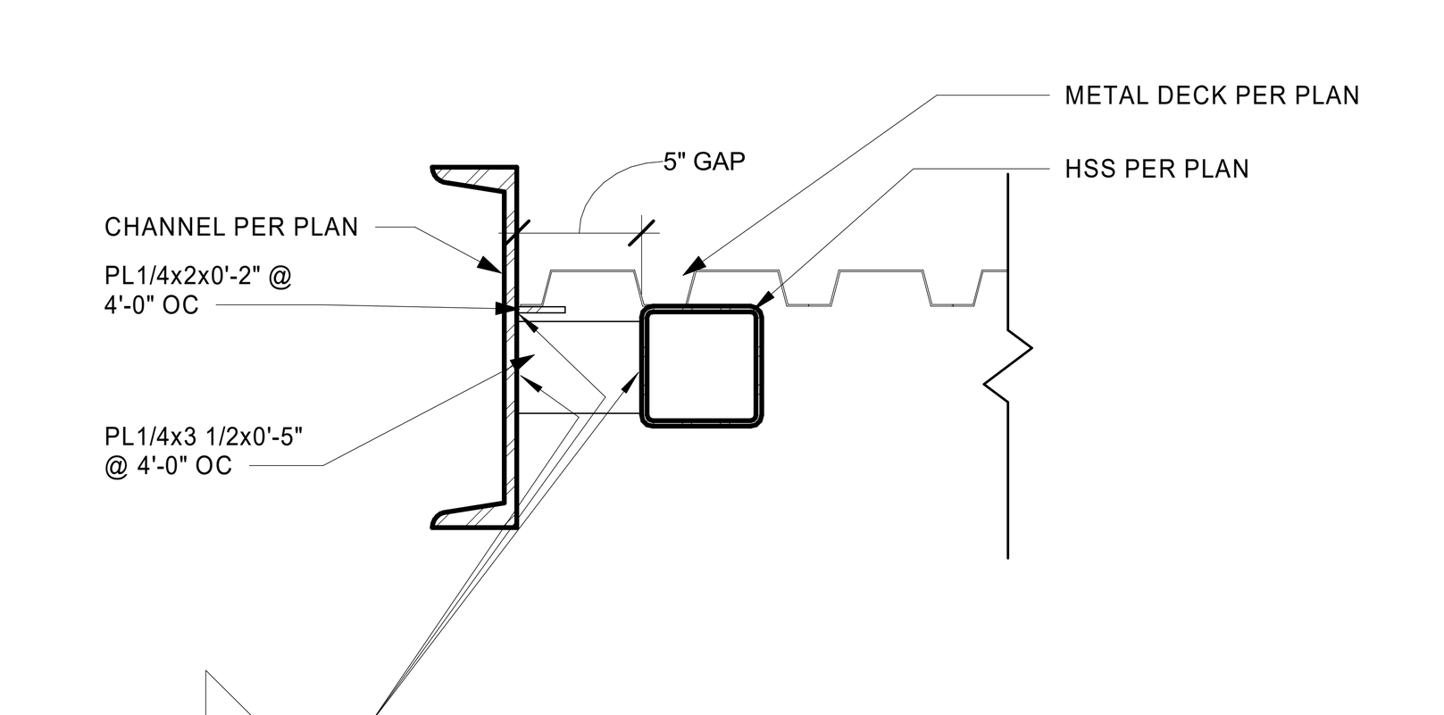
15 CANOPY - HSS TO PANEL CONN
A5.10 1 1/2" = 1'-0"



18 CANOPY - CHANNEL TO HSS CONN
A5.10 1 1/2" = 1'-0"



19 CANOPY - CHANNEL TO HSS CONN
A5.10 1 1/2" = 1'-0"



20 CANOPY - CHANNEL TO HSS CONN
A5.10 1 1/2" = 1'-0"

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Mechanical/Electrical

JOSHUA D. McDOWELL
STATE OF WASHINGTON
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER
6/28/23

7031
REGISTERED ARCHITECT
BRETT TIMOTHY CONWAY
STATE OF WASHINGTON

REVISION SCHEDULE

Delta	Issued As	Issue Date

SHEET TITLE:
METAL ACCENT, ENLARGED PLANS & DETAILS

SHEET
A5.10

JOB NO. **2220290.00**

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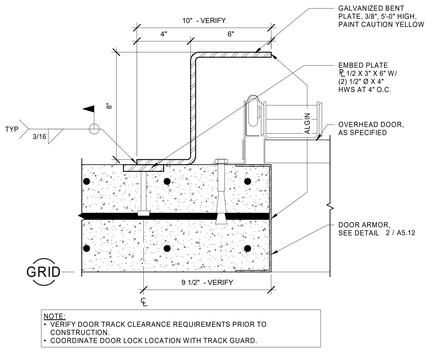
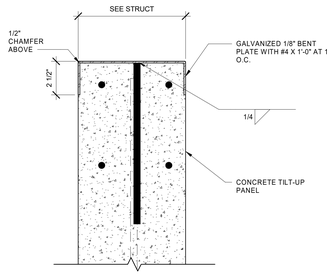
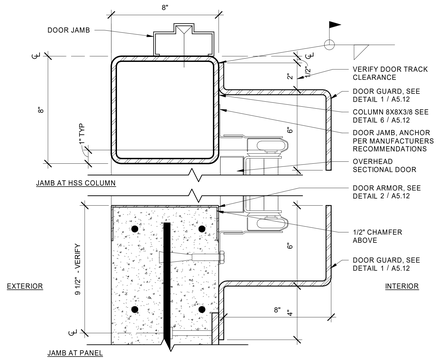


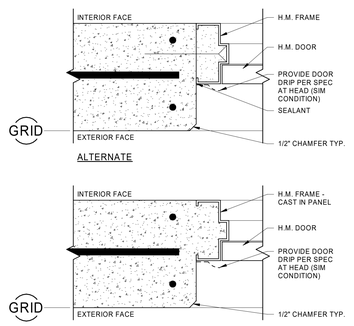
1 A5.12 OVERHEAD DOOR GUARD
3" = 1'-0"



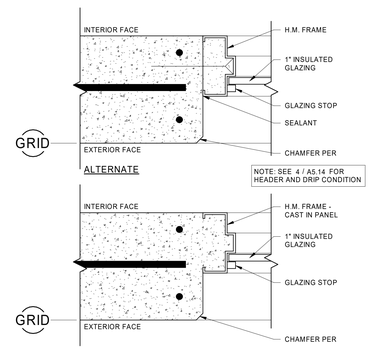
2 A5.12 DOOR ARMOR
3" = 1'-0"



3 A5.12 DRIVE-IN DOOR JAMB
3" = 1'-0"



4 A5.12 EXTERIOR DOOR JAMB/HEAD
3" = 1'-0"



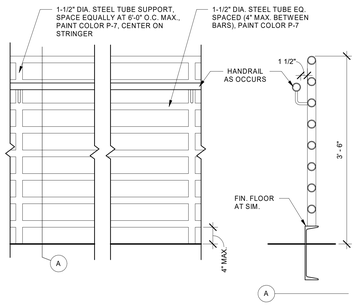
5 A5.12 EXTERIOR TRANSOM WINDOW
3" = 1'-0"

6 A5.12 HSS CONNECTION AT SLAB PANEL
1 1/2" = 1'-0"

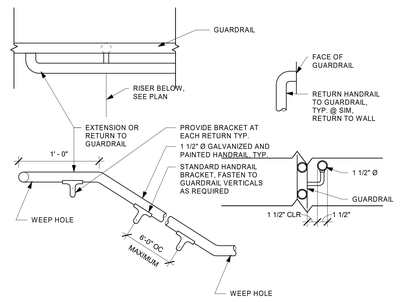
7 A5.12 DESIGN BUILD - METAL STAIR FRAMING PLAN
1/2" = 1'-0"

8 A5.12 DESIGN BUILD - METAL STAIR SECTION
1/2" = 1'-0"

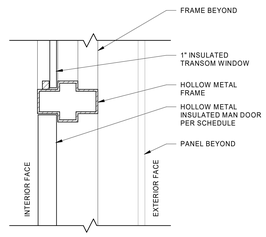
9 A5.12 DESIGN BUILD - STAIR LANDING SECTION
1 1/2" = 1'-0"



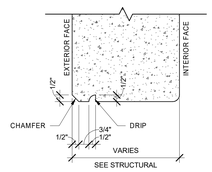
10 A5.12 DESIGN BUILD - TYPICAL GUARD RAIL ELEVATION
1" = 1'-0"



11 A5.12 DESIGN BUILD - TYPICAL HANDRAIL AT EXT. METAL STAIR
1 1/2" = 1'-0"



12 A5.12 EXTERIOR TRANSOM WINDOW
3" = 1'-0"



13 A5.12 OVERHEAD CONCRETE DRIP
3" = 1'-0"

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BRANDT CROSBY
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A5.12

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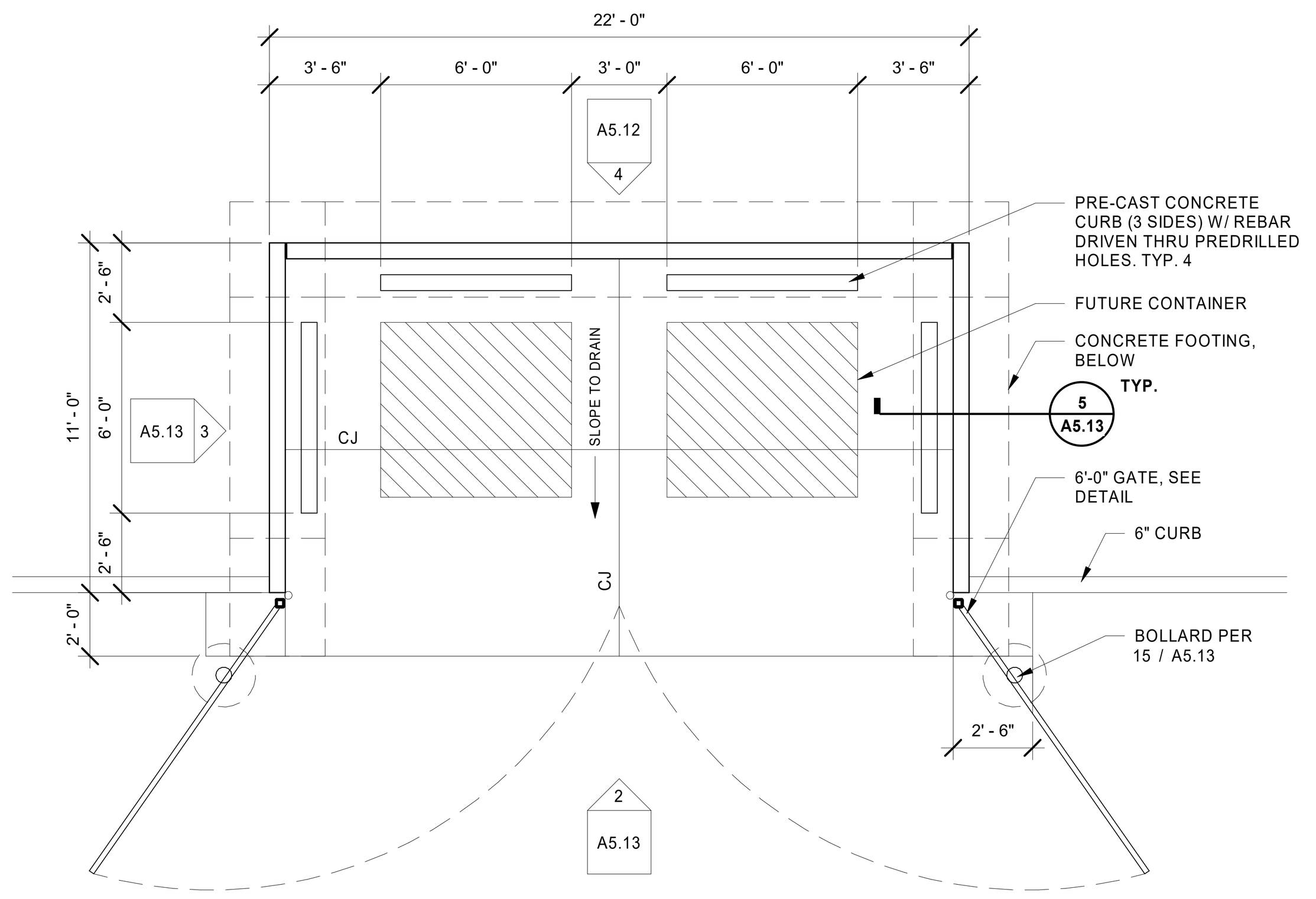
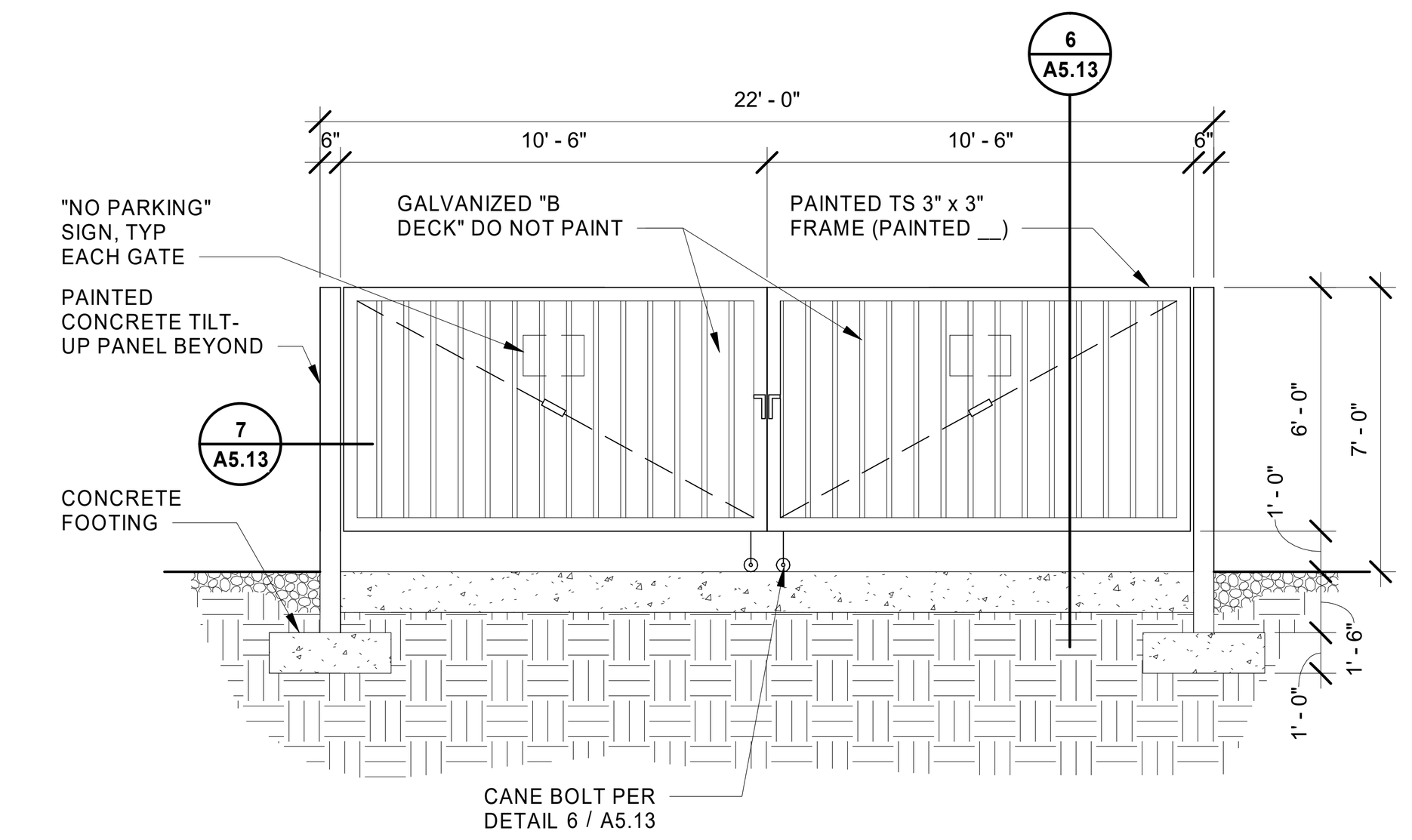
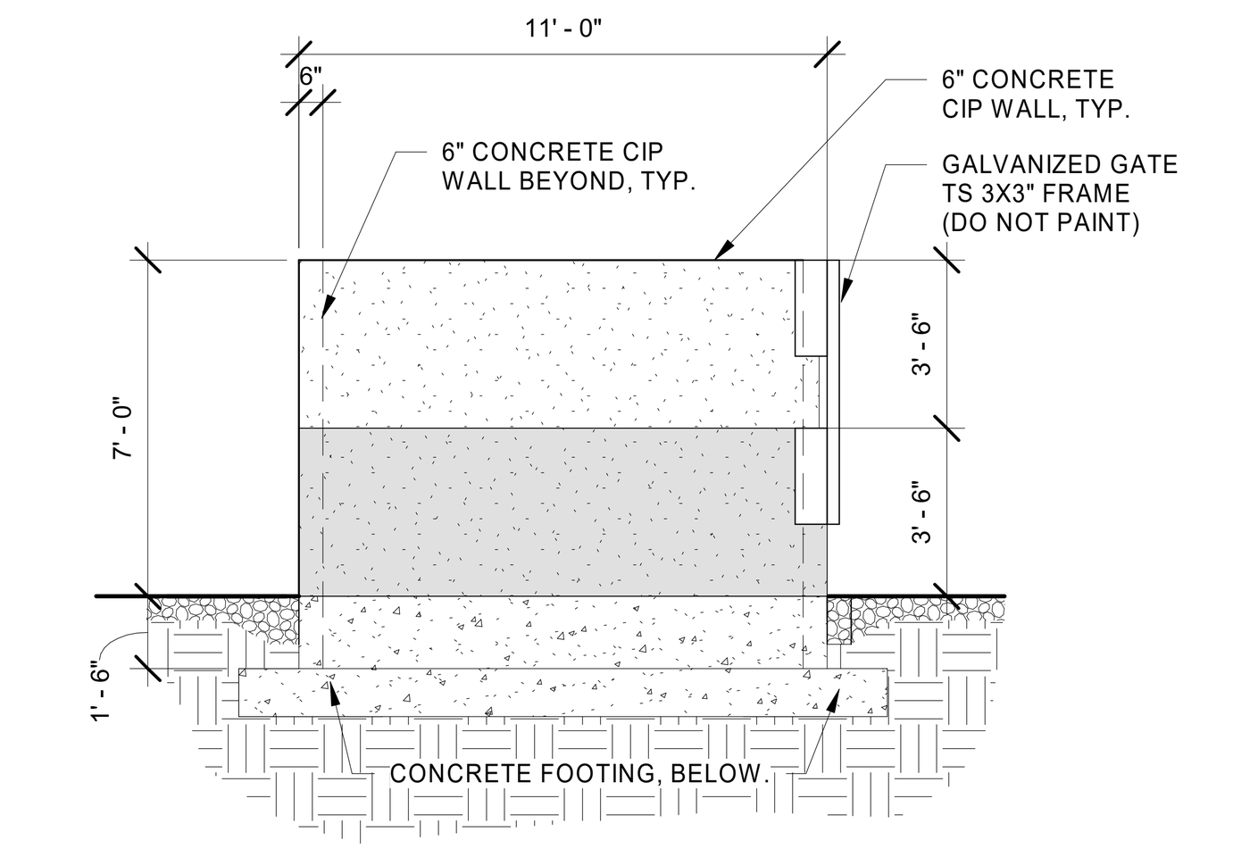


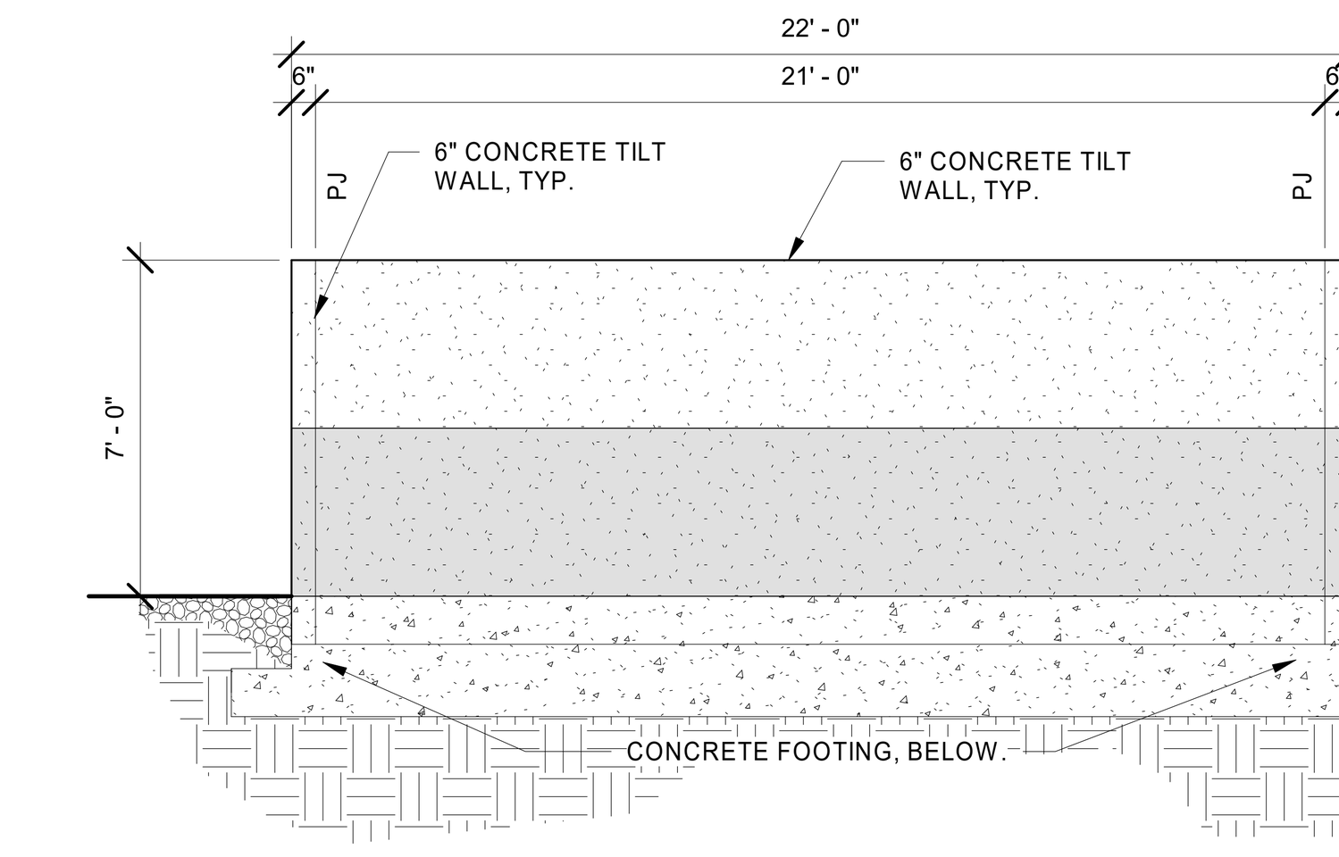
1 TRASH ENCLOSURE PLAN
A5.13 1/4" = 1'-0"



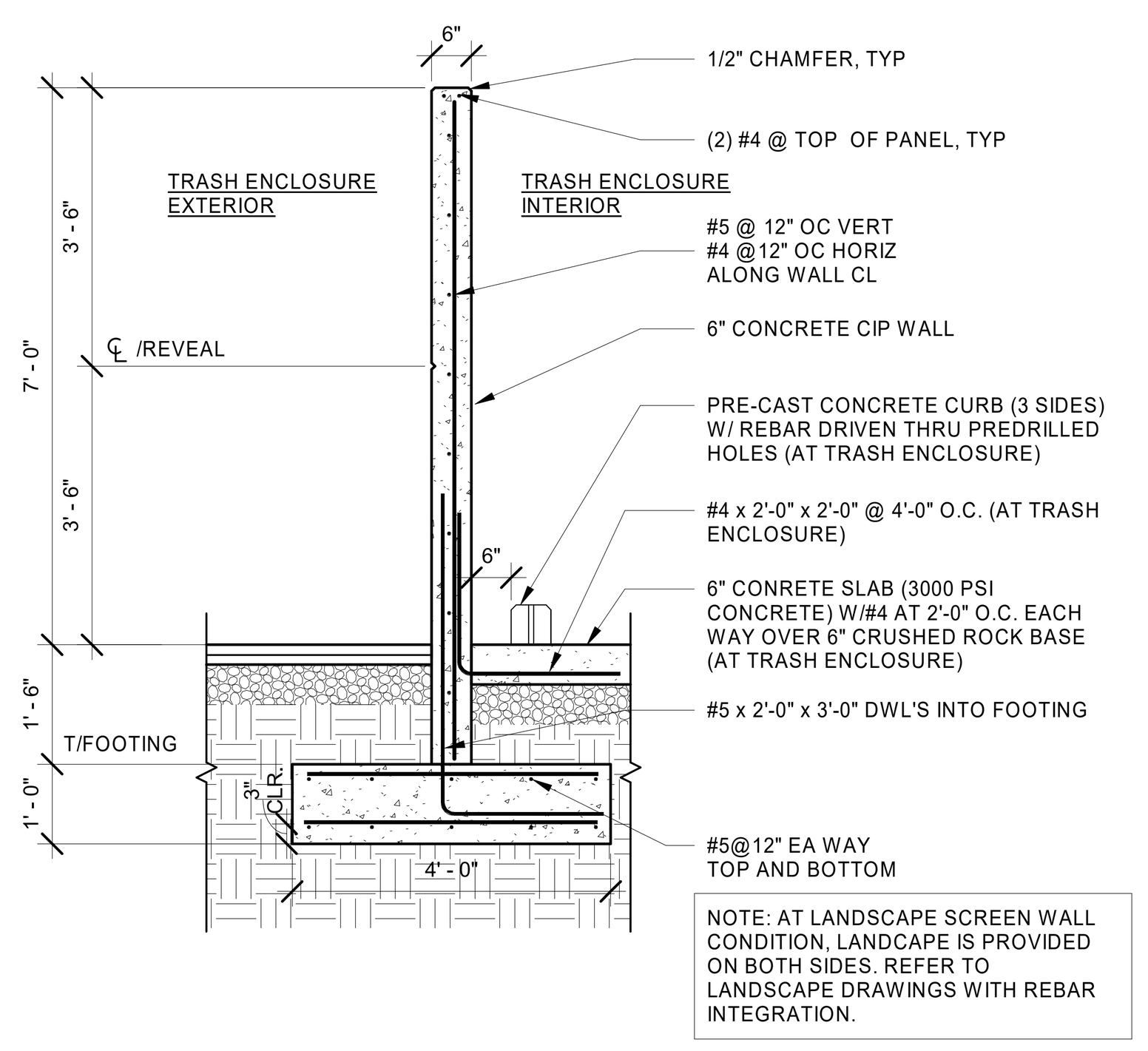
2 TRASH ENCLOSURE FRONT ELEVATION
A5.13 1/4" = 1'-0"



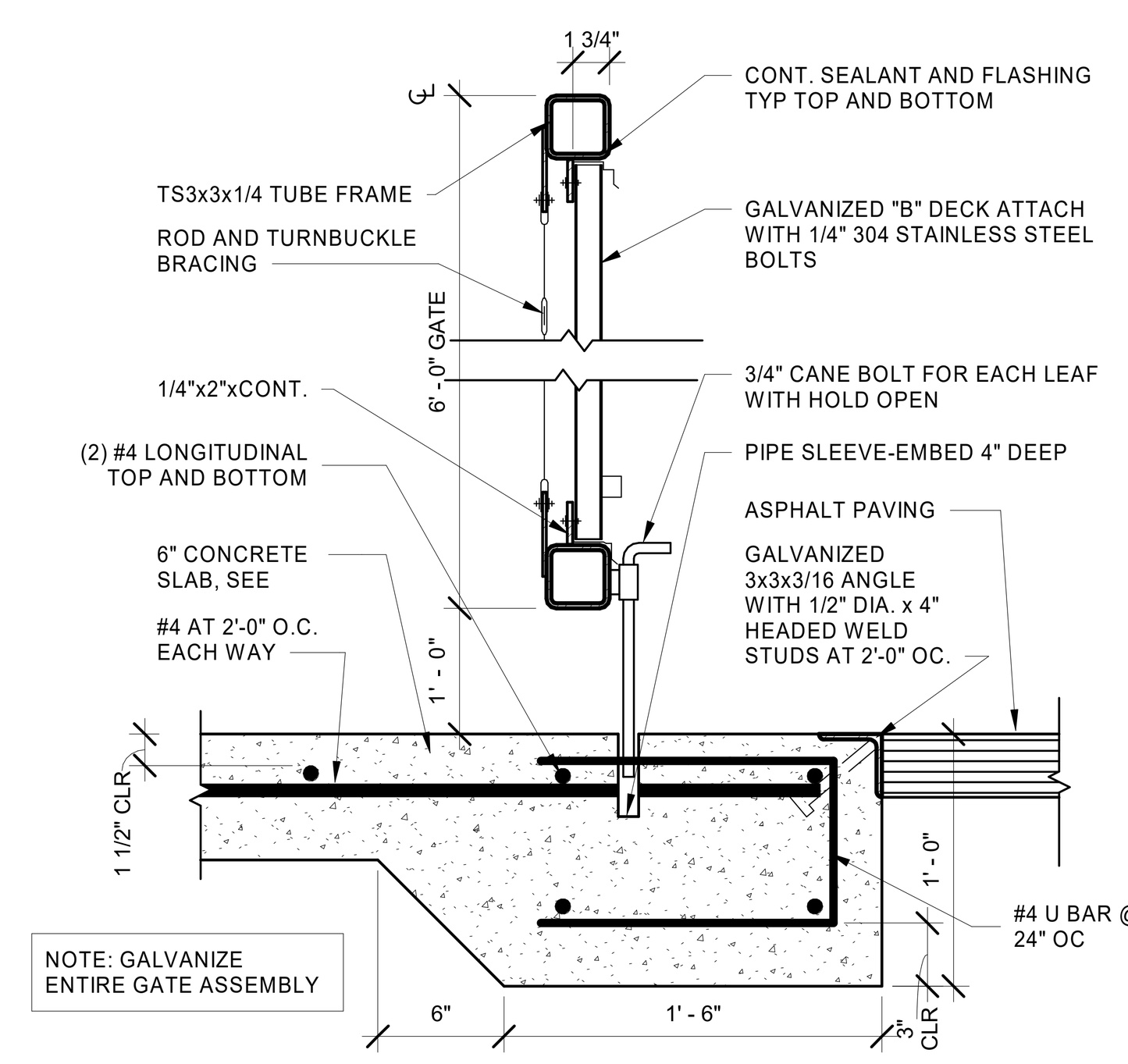
3 TRASH ENCLOSURE SIDE ELEVATION
A5.13 1/4" = 1'-0"



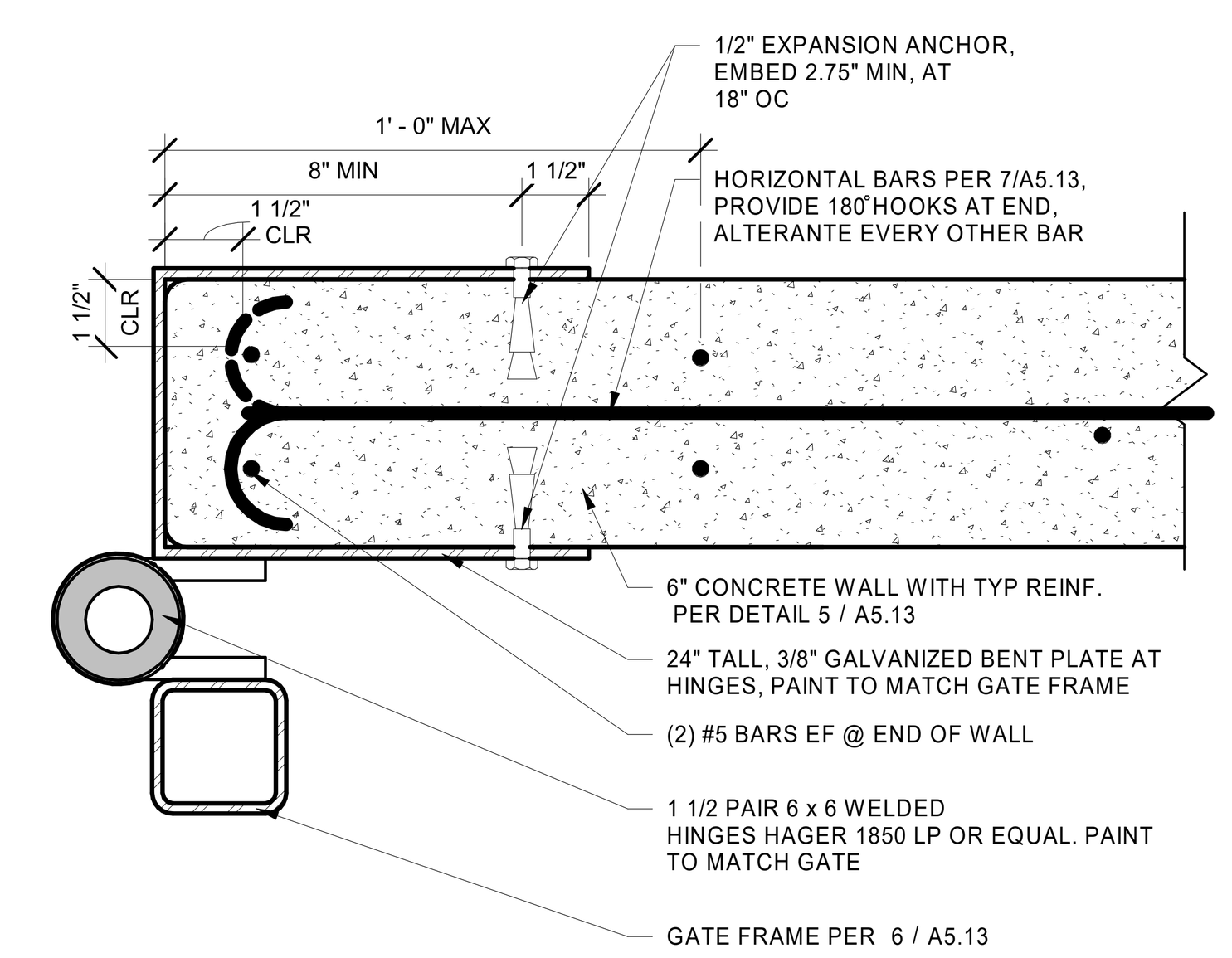
4 TRASH ENCLOSURE REAR ELEVATION
A5.13 1/4" = 1'-0"



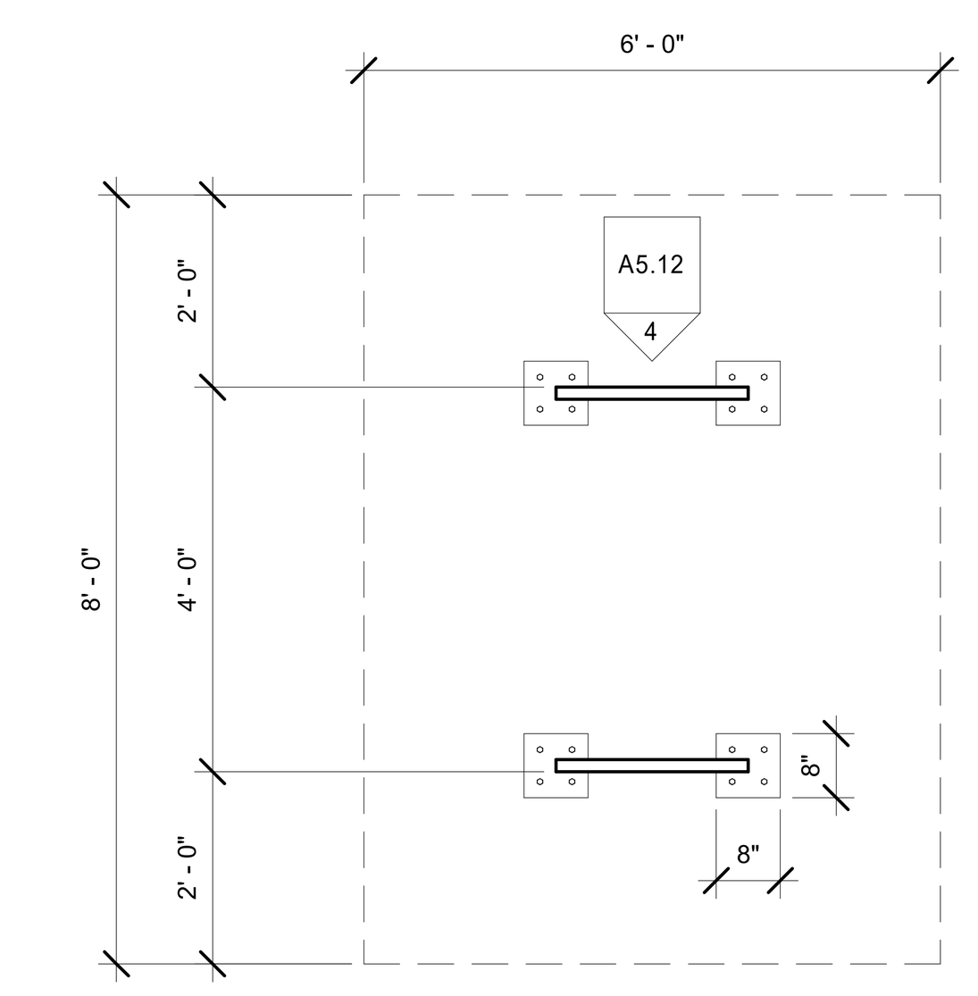
5 TRASH ENCLOSURE WALL / LANDSCAPE SCREEN WALL
A5.13 1/2" = 1'-0"



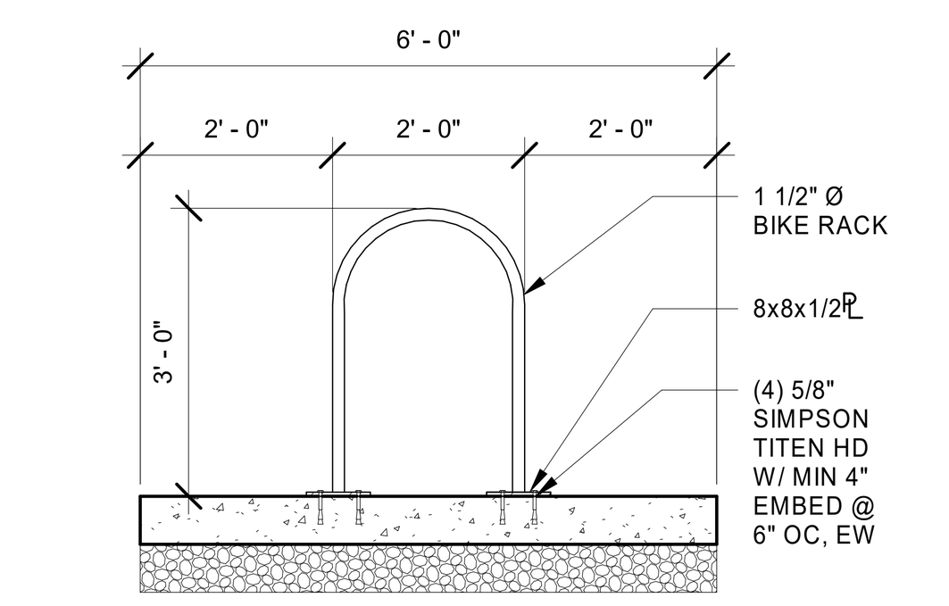
6 GATE SECTION
A5.13 1 1/2" = 1'-0"



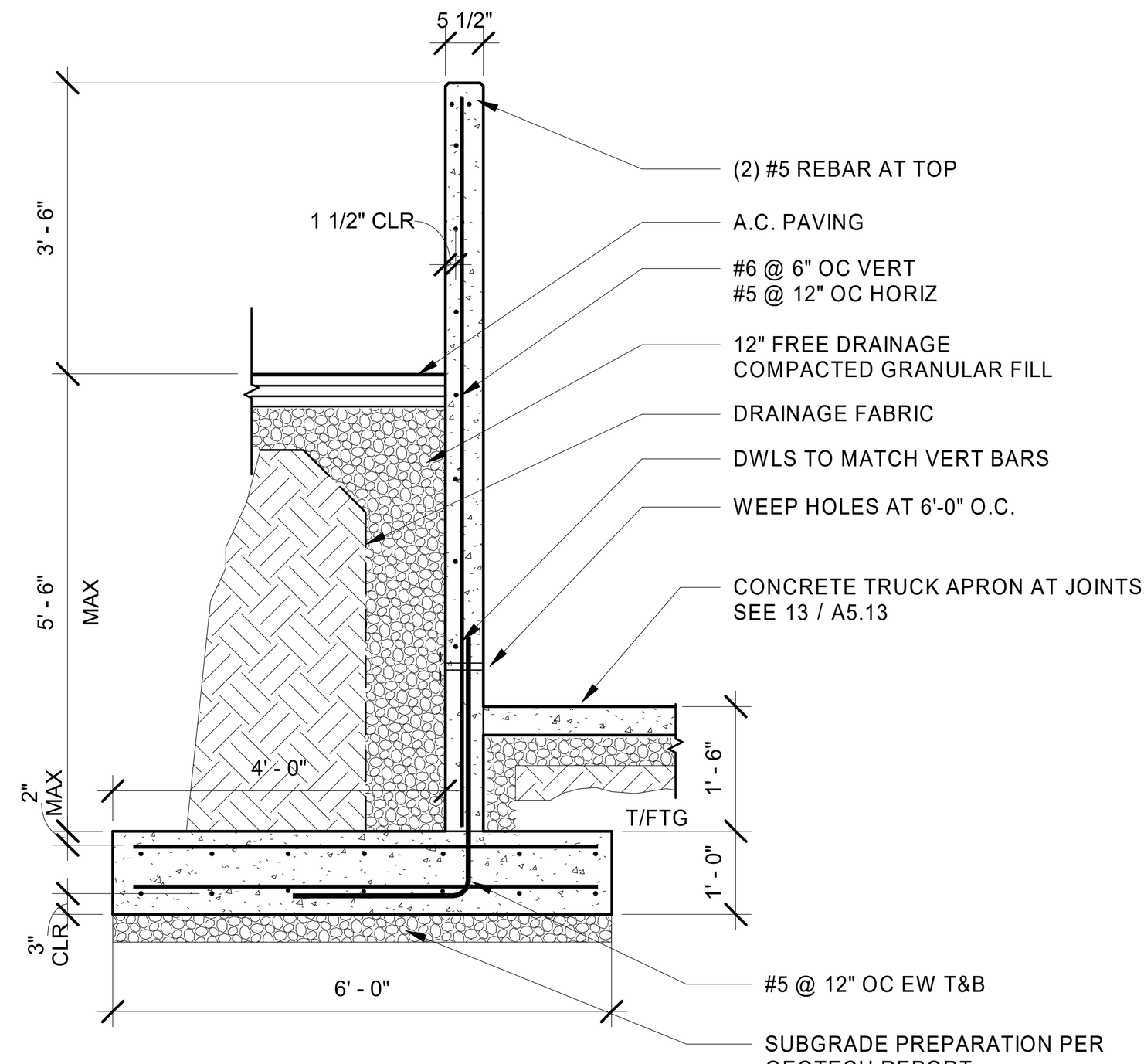
7 HINGE CONNECTION
A5.13 3" = 1'-0"



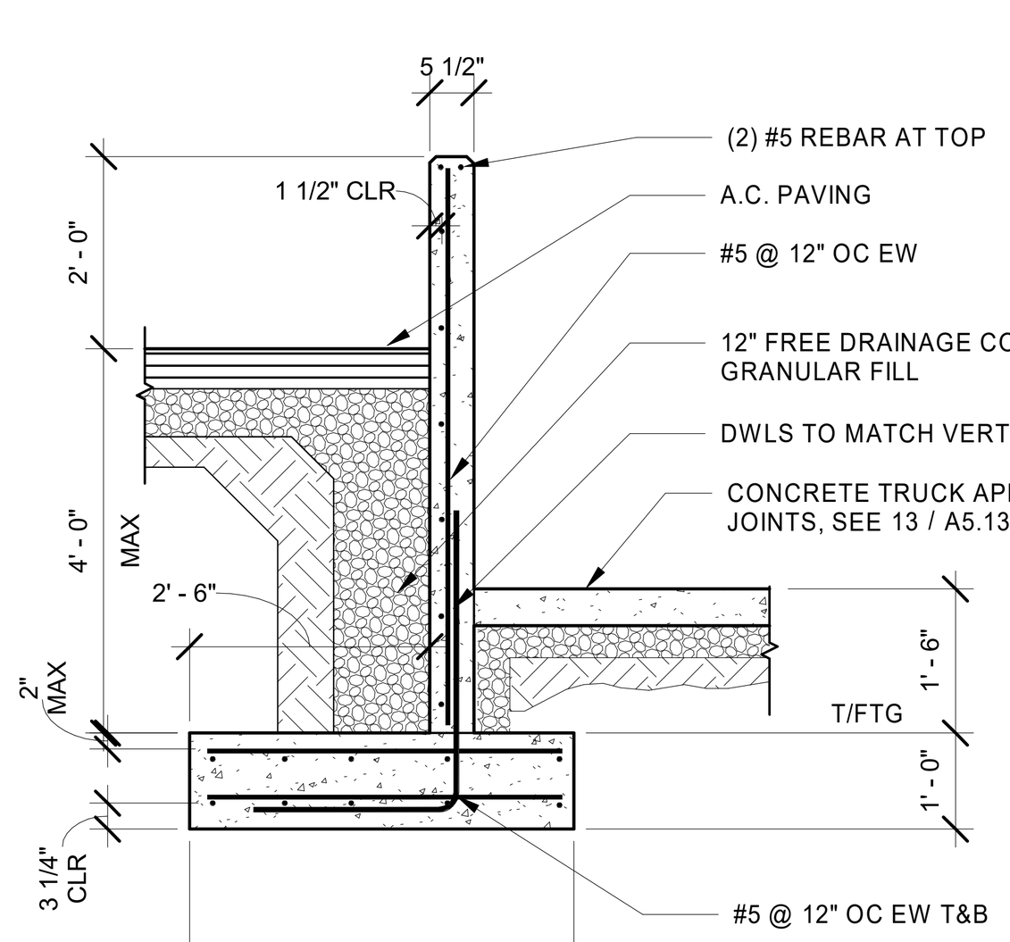
8 BIKE RACK PLAN
A5.13 1/2" = 1'-0"



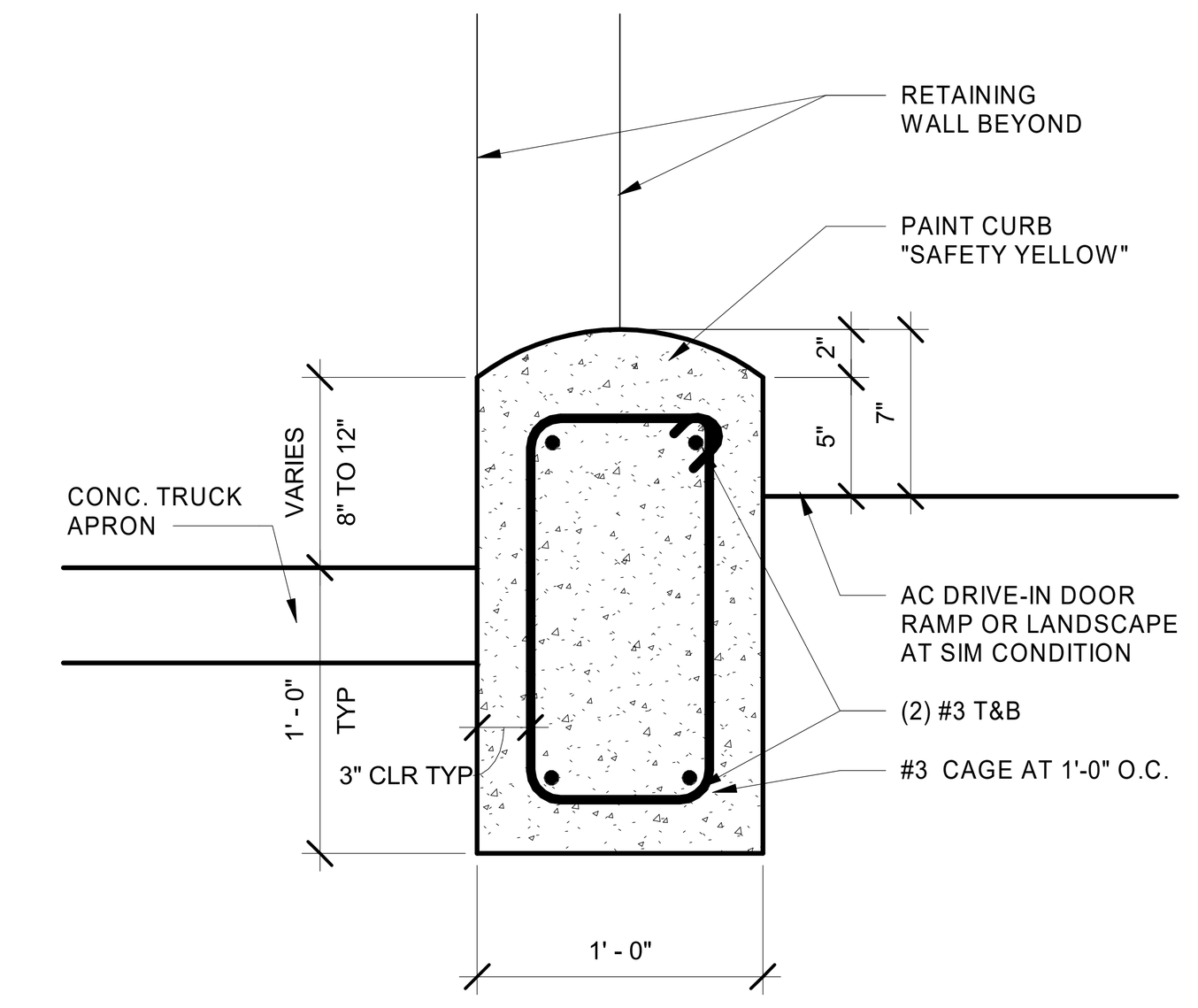
9 BIKE RACKS ELEVATION
A5.13 1/2" = 1'-0"



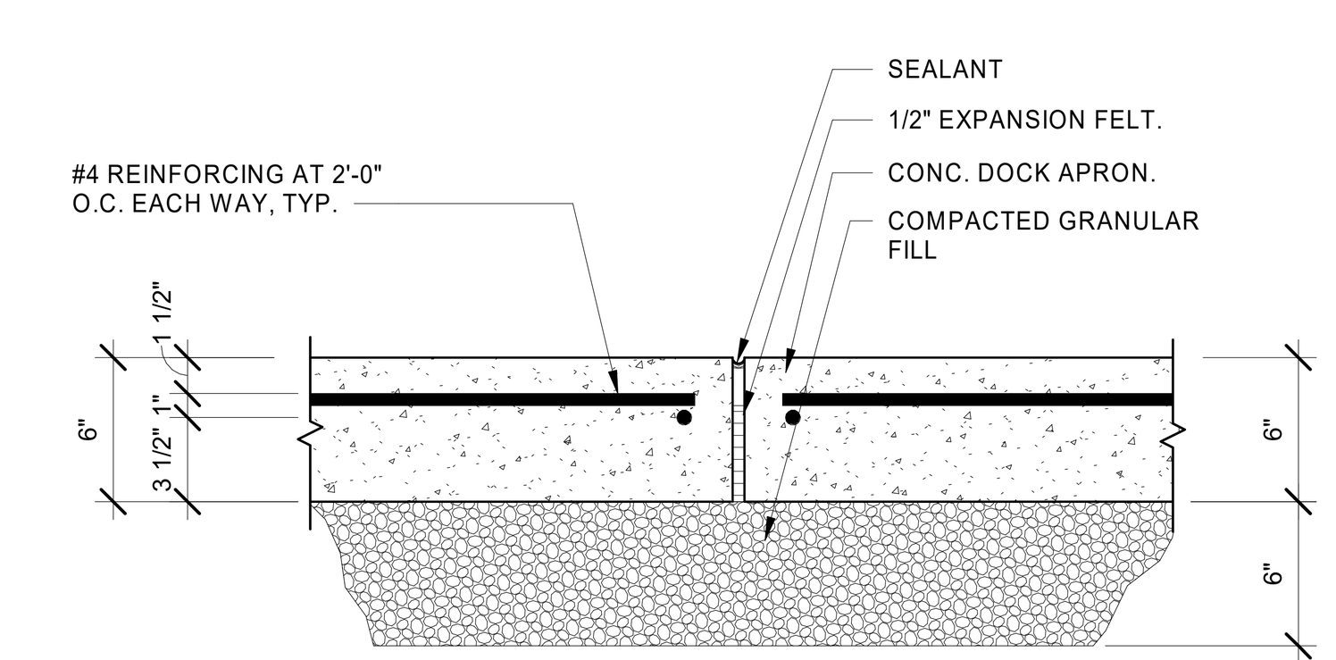
10 RETAINING WALL SECTION
A5.13 1/2" = 1'-0"



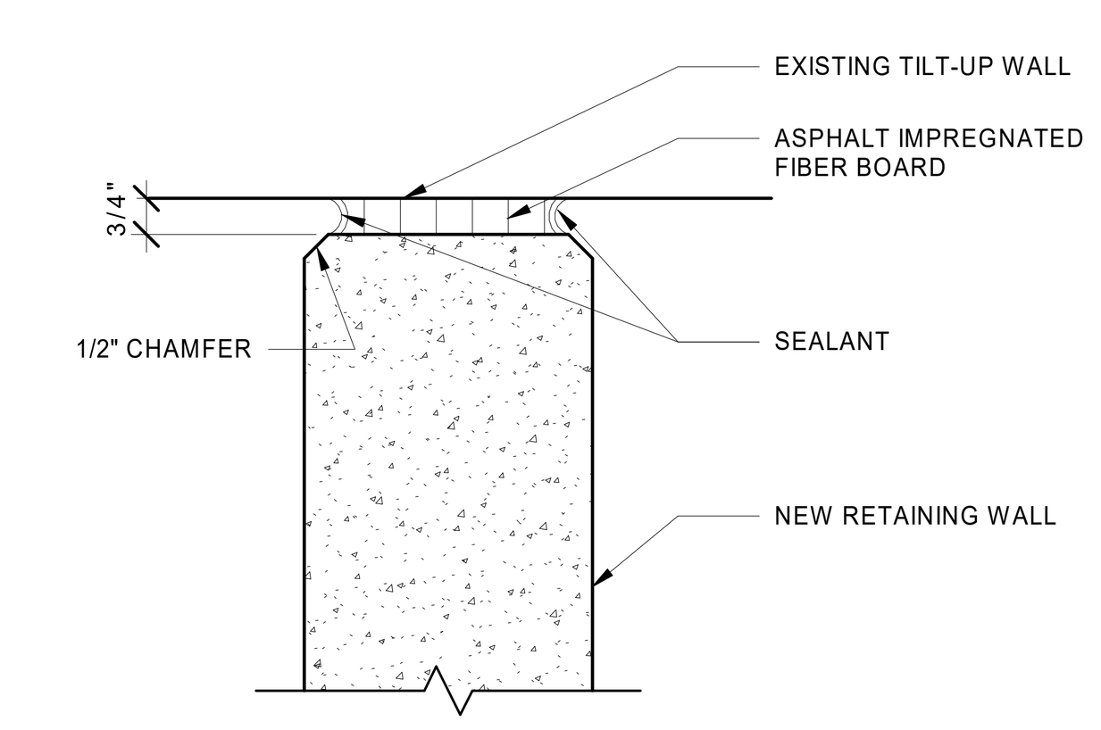
11 RETAINING WALL SECTION
A5.13 1/2" = 1'-0"



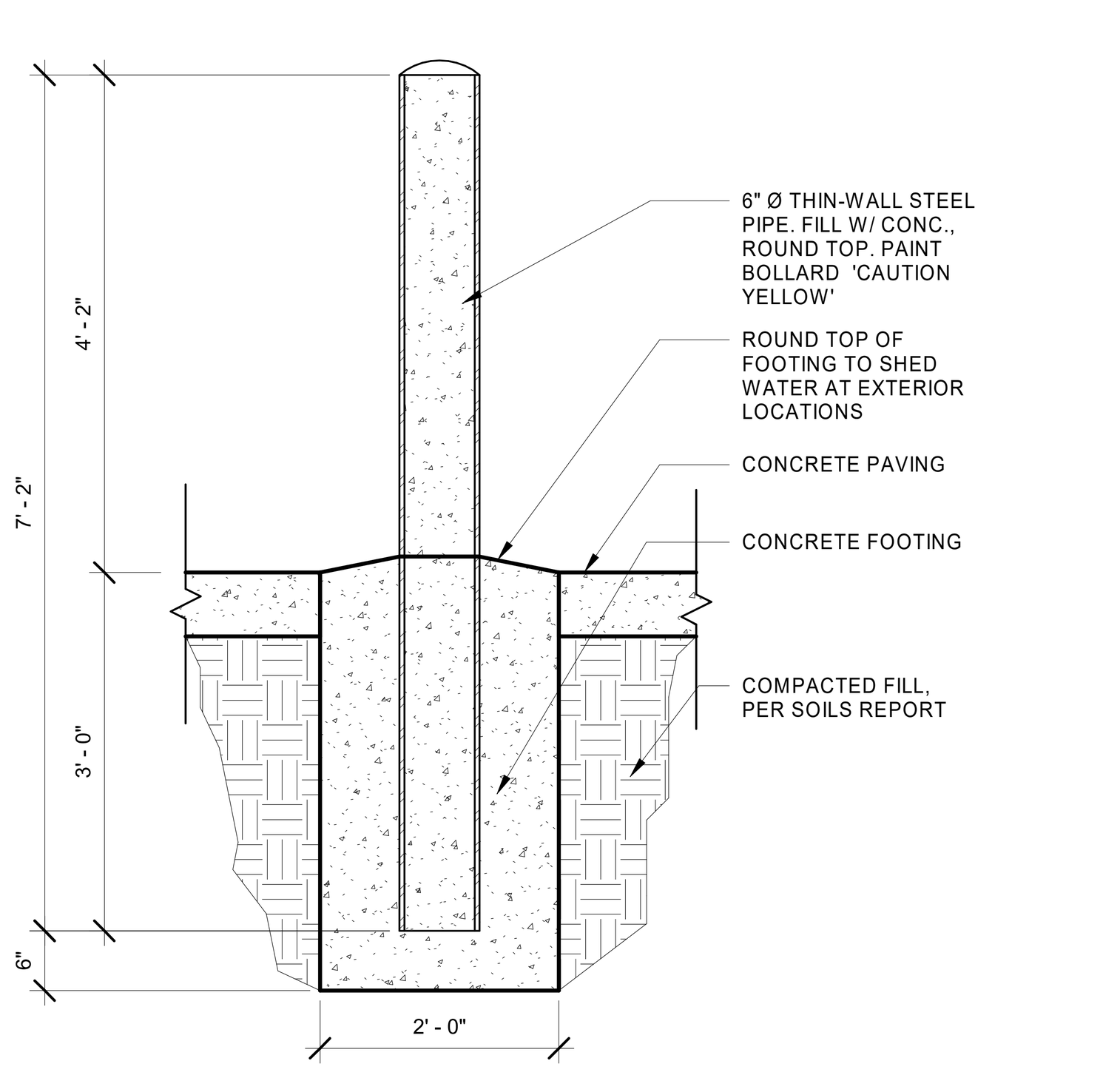
12 MOUNTABLE CURB
A5.13 1 1/2" = 1'-0"



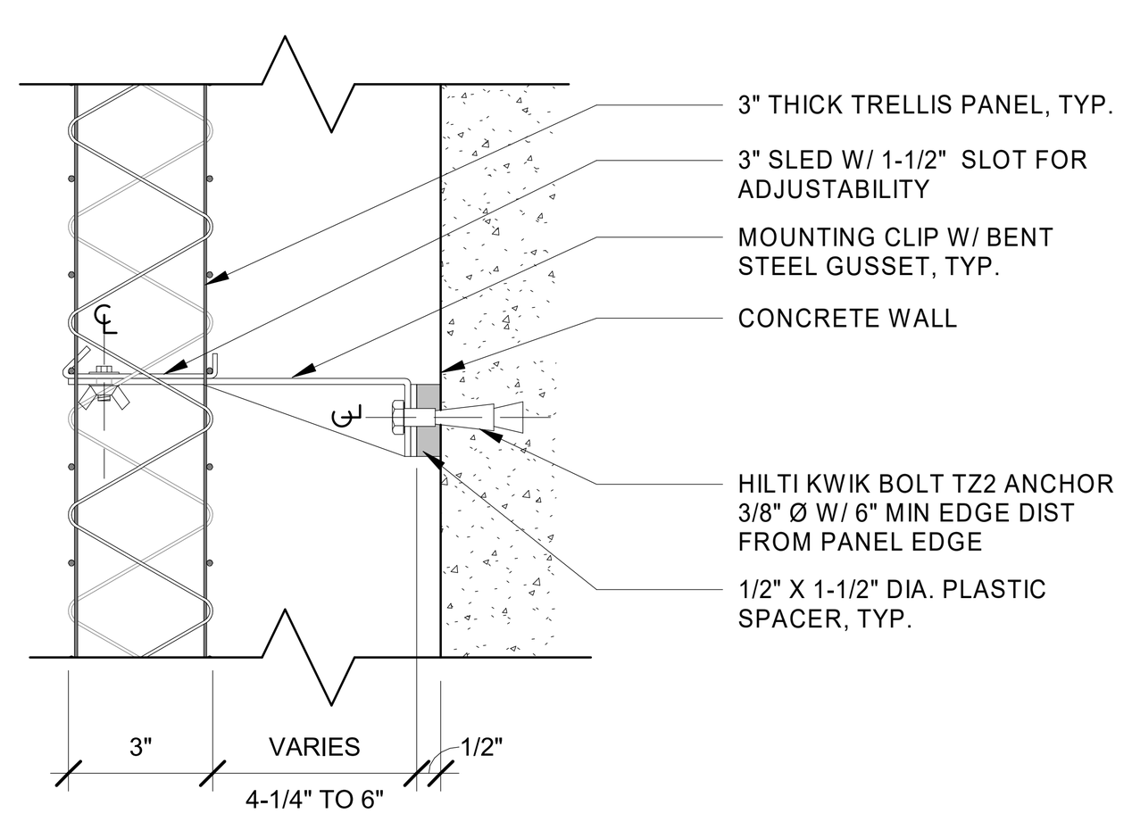
13 DOCK APRON JOINT
A5.13 1 1/2" = 1'-0"



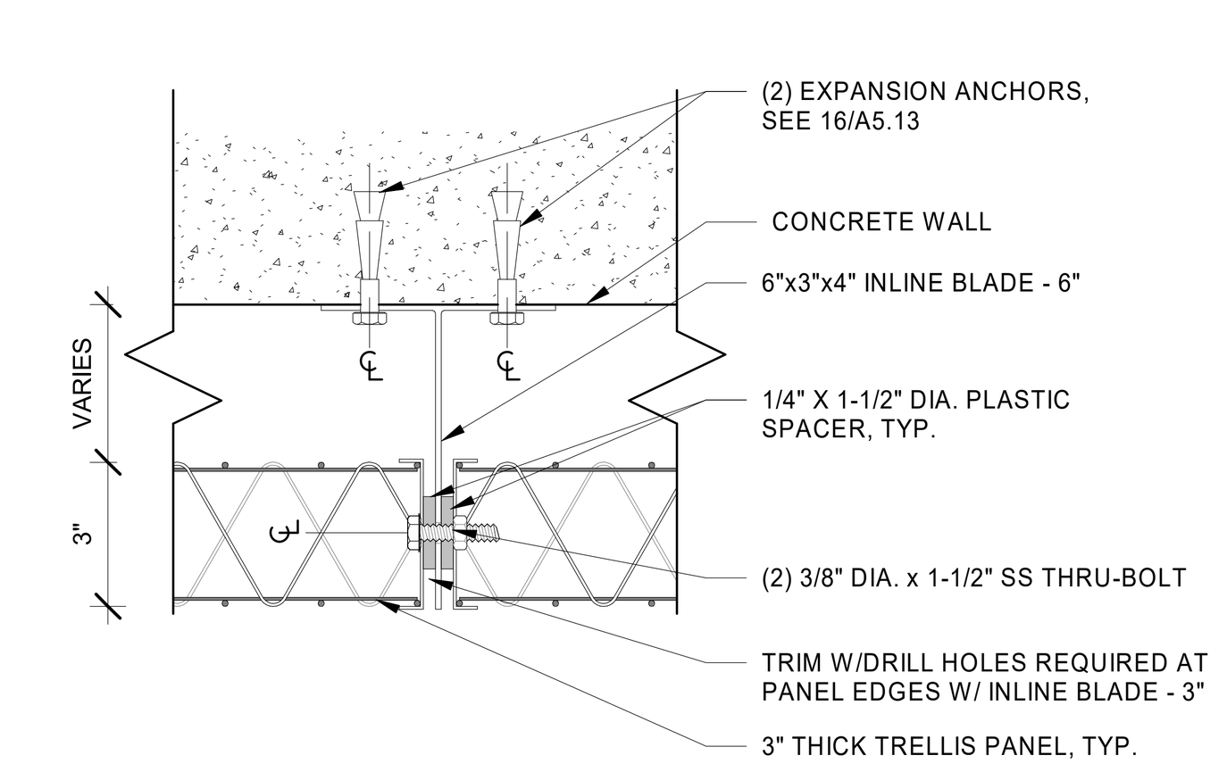
14 RETAINING WALL JOINT
A5.13 3" = 1'-0"



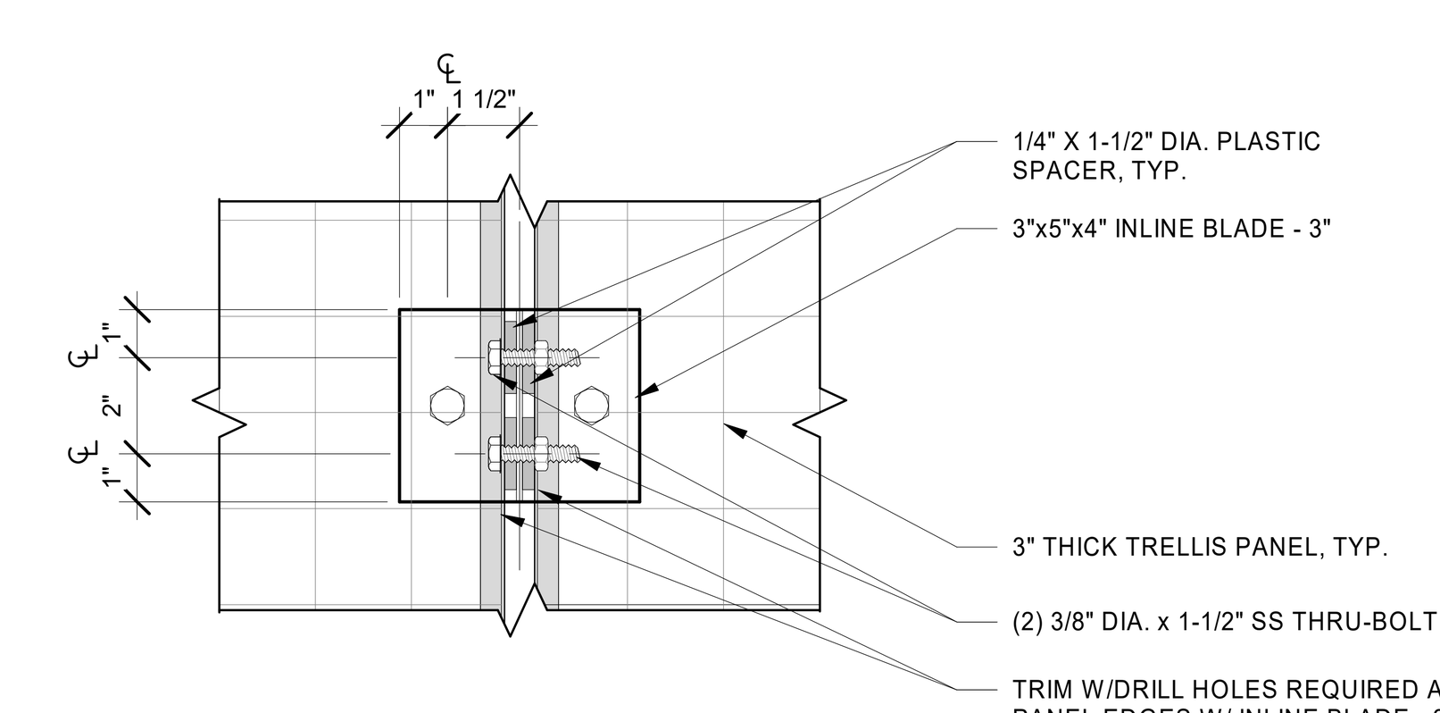
15 BOLLARD
A5.13 3/4" = 1'-0"



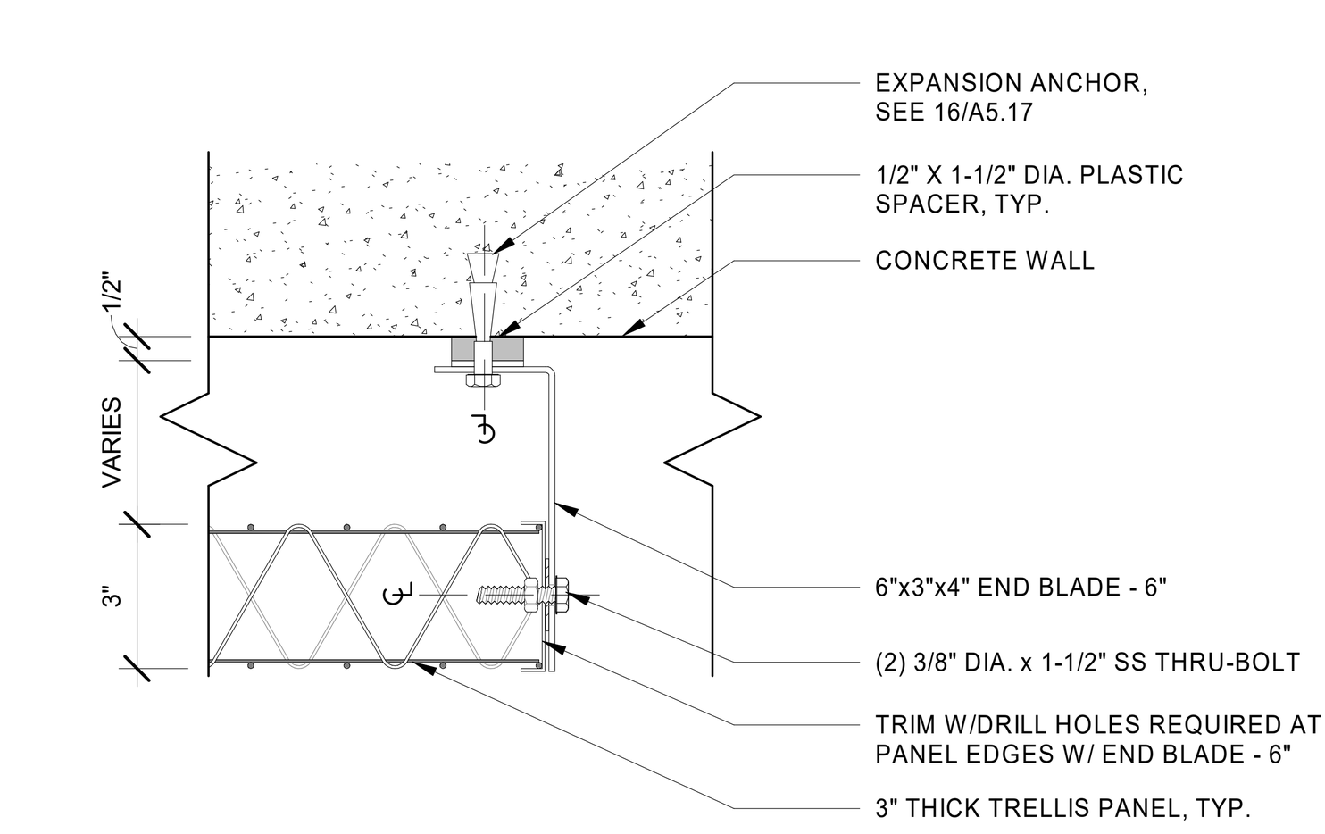
16 FACE OF TRELLIS PANEL TO FACE OF WALL
A5.13 3" = 1'-0"



17 PLAN VIEW - TRELLIS INLINE BLADE
A5.13 3" = 1'-0"



18 ELEVATION VIEW - TRELLIS INLINE BLADE
A5.13 3" = 1'-0"



19 PLAN VIEW - TRELLIS PANEL END BLADE
A5.13 3" = 1'-0"

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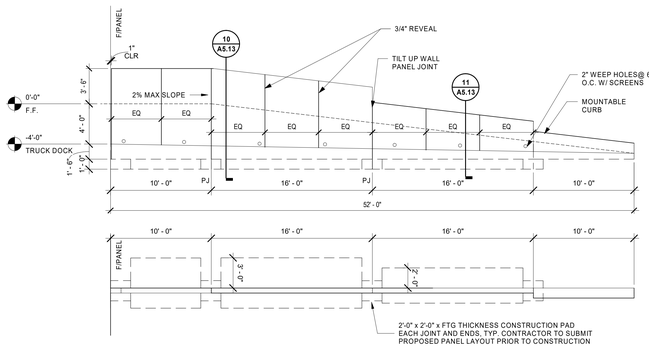
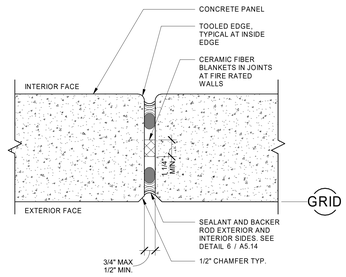
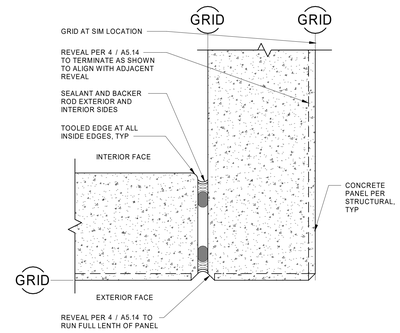


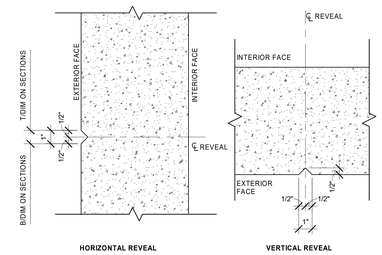
1 A5.14 DOCK RAMP ELEVATION AND PLAN
3/16" = 1'-0"



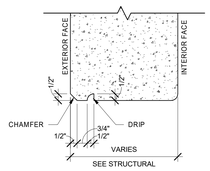
2 A5.14 END TO END CONNECTION
3" = 1'-0"



3 A5.14 HORIZONTAL REVEAL AT OUTSIDE CORNER
3" = 1'-0"

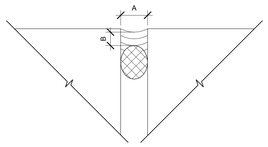


4 A5.14 TYPICAL CONCRETE REVEAL
3" = 1'-0"

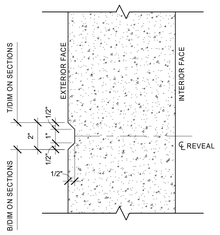


5 A5.14 CONCRETE DRIP
3" = 1'-0"

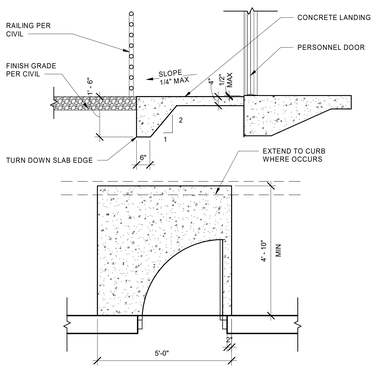
NOTES:
DIMENSIONS A AND B MUST BE AT LEAST 1/4", JOINT SURFACE TOOLED CONCAVE
POROUS SUBSTRATES: IF A = 1/4"-1/2", THEN B = A. IF A = 1/2"-1", THEN A:B IS 2:1. IF A = 1"-2", THEN A:B IS 2:1 (WITH B NOT GREATER THAN 1/2"). IF A IS GREATER THAN 2", CONSULT THE MANUFACTURER. **NON-POROUS SUBSTRATES:** IF A = 1/4"-1/2", THEN B = 1/4". IF A = 1/2"-1", THEN A:B IS 2:1 (WITH B NOT GREATER THAN 3/8"). IF A = 1"-2", THEN B IS NOT GREATER THAN 3/8". IF A IS GREATER THAN 2", CONSULT THE MANUFACTURER.
SEE MANUFACTURING SPECIFICATIONS FOR ADDITIONAL INFORMATION. IN THE EVENT OF A CONFLICT, MANUFACTURING REQUIREMENTS TAKE PRECEDENCE.



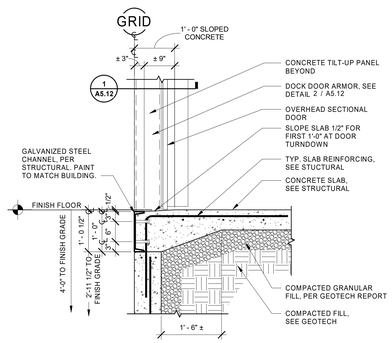
6 A5.14 TYPICAL SEALANT JOINT
12" = 1'-0"



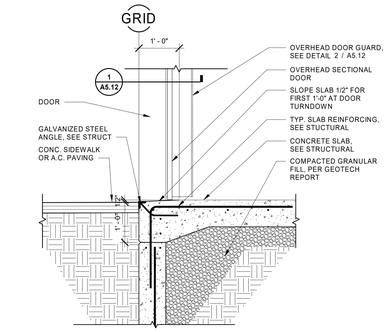
8 A5.14 LARGE CONCRETE REVEAL
3" = 1'-0"



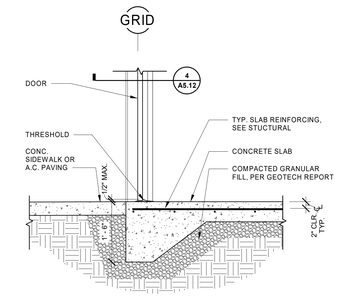
9 A5.14 LANDING
1/2" = 1'-0"



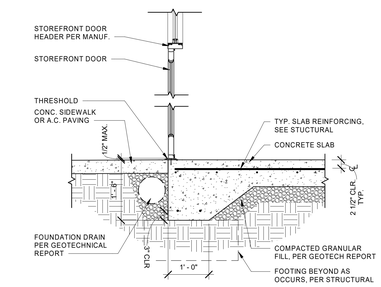
10 A5.14 TURN DOWN SLAB EDGE AT DOCK DOOR
3/4" = 1'-0"



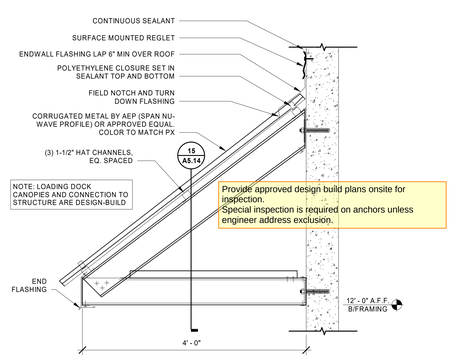
11 A5.14 TURN DOWN SLAB EDGE AT DRIVE IN DOOR
3/4" = 1'-0"



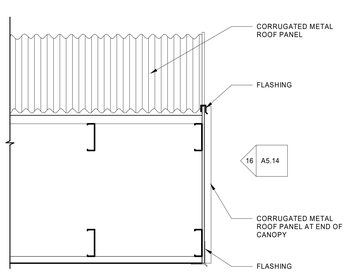
12 A5.14 TURN DOWN AT PERSONNEL DOOR
3/4" = 1'-0"



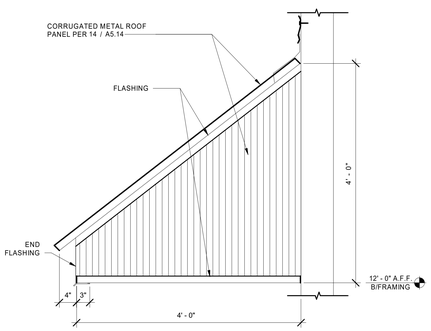
13 A5.14 TURN DOWN AT STOREFRONT DOOR
3/4" = 1'-0"



14 A5.14 DOCK CANOPY SECTION
1" = 1'-0"



15 A5.14 DOCK CANOPY SECTION 2
1" = 1'-0"



16 A5.14 DOCK CANOPY ELEVATION
1" = 1'-0"

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Project

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PUYALLUP, WA 98372

Mechanical/Electrical

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SHEET TITLE:
EXTERIOR DETAILS

SHEET
A5.14

JOB NO. **2220290.00**

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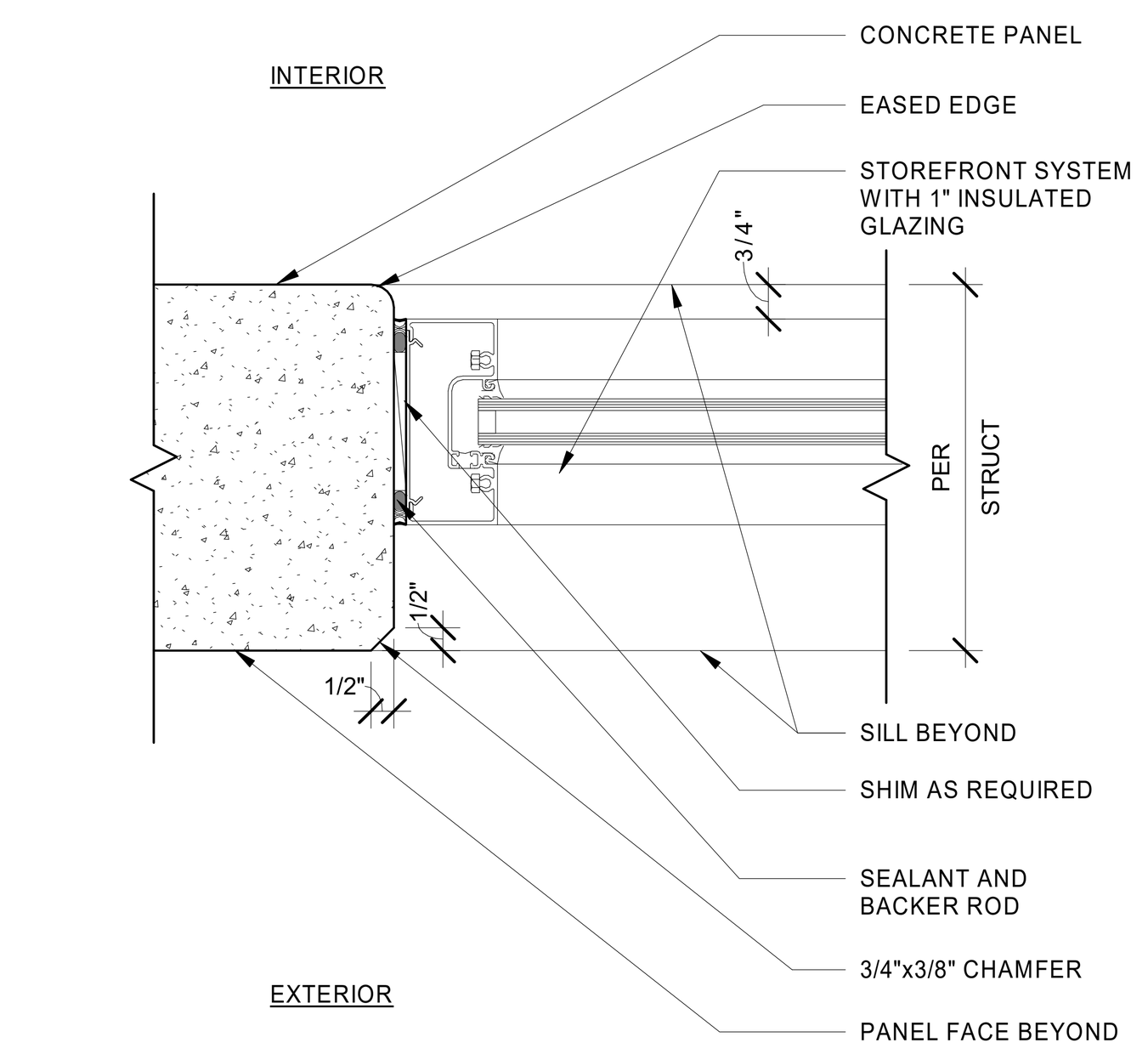
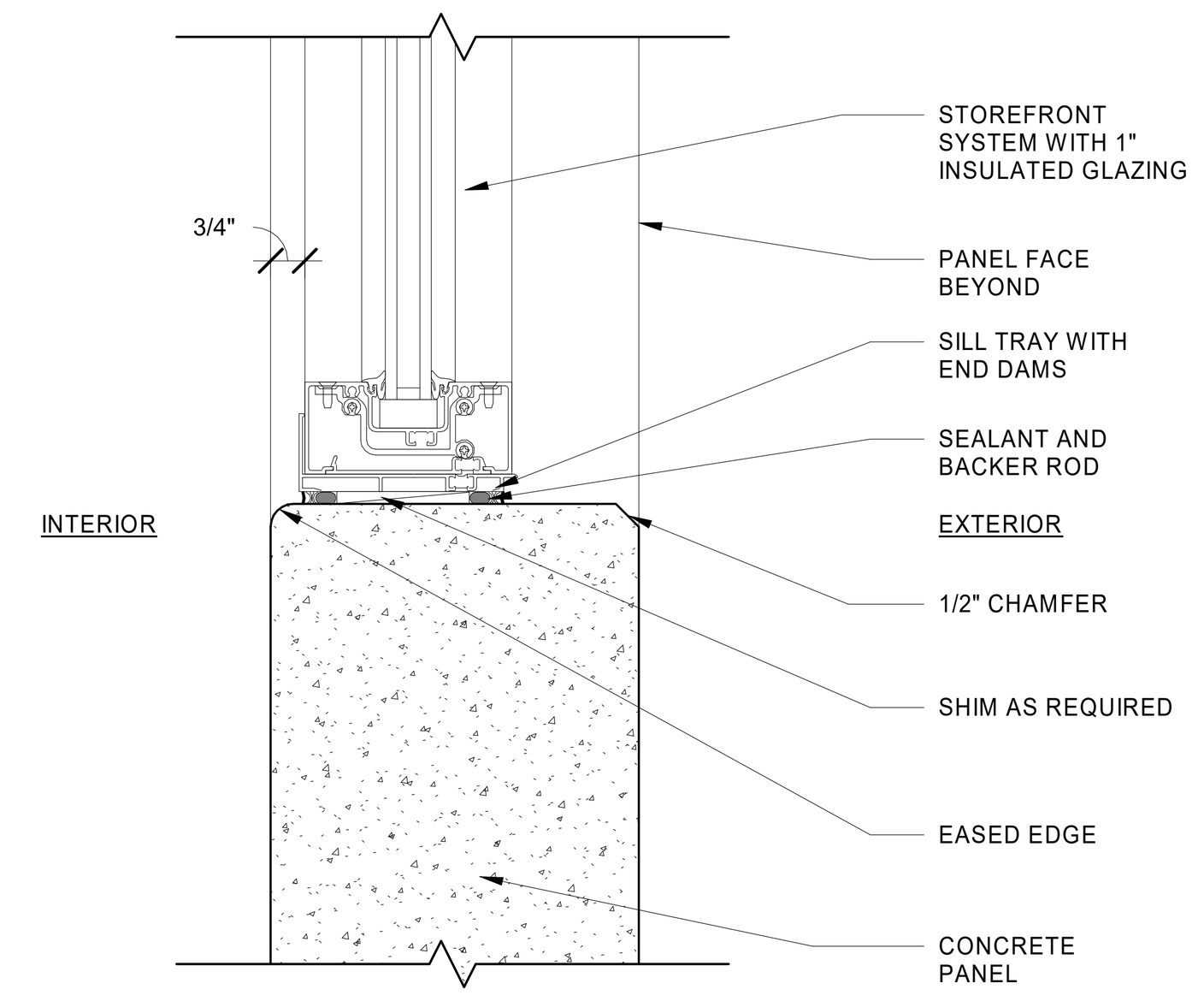
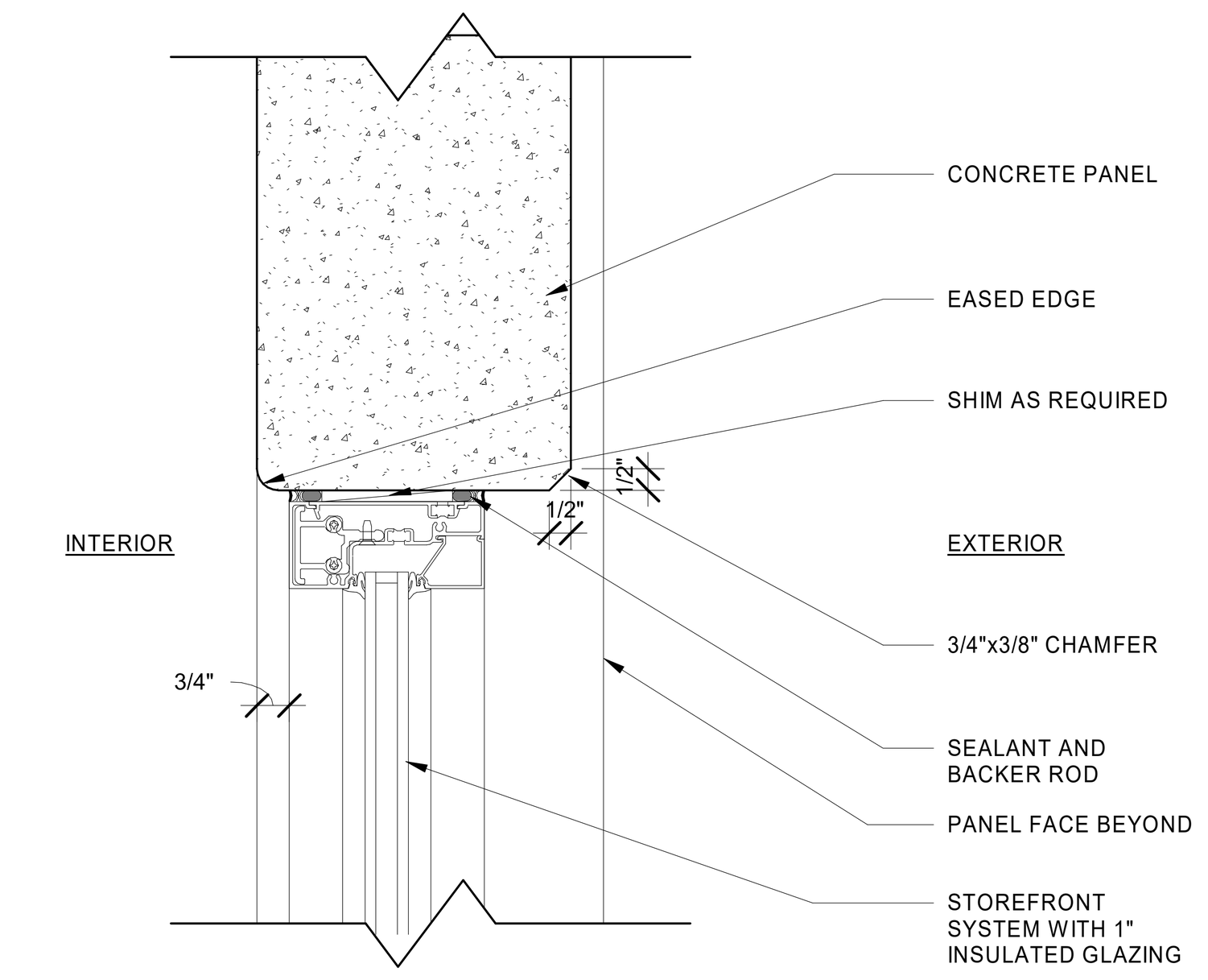


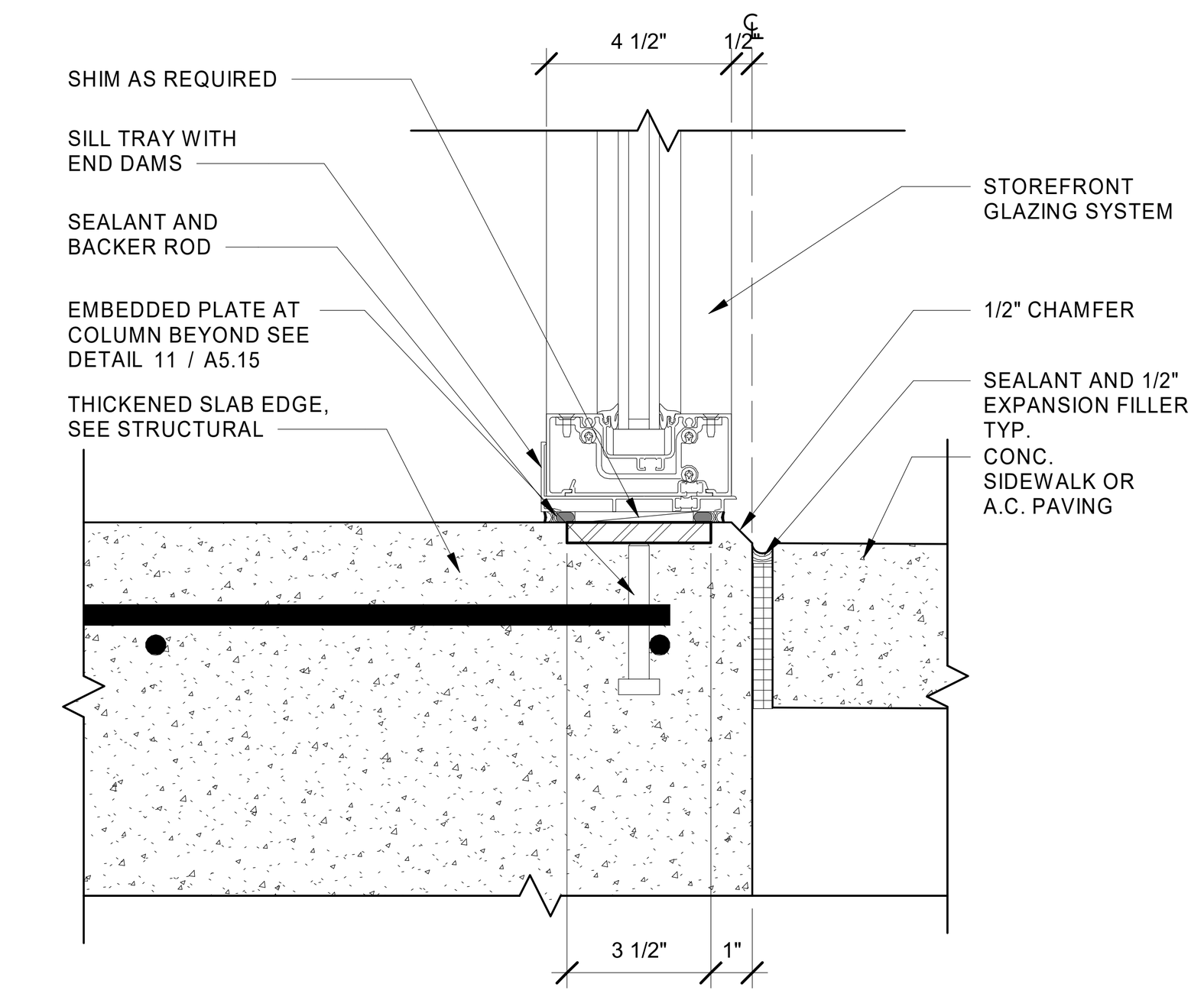
1 WINDOW JAMB
A5.15 3" = 1'-0"



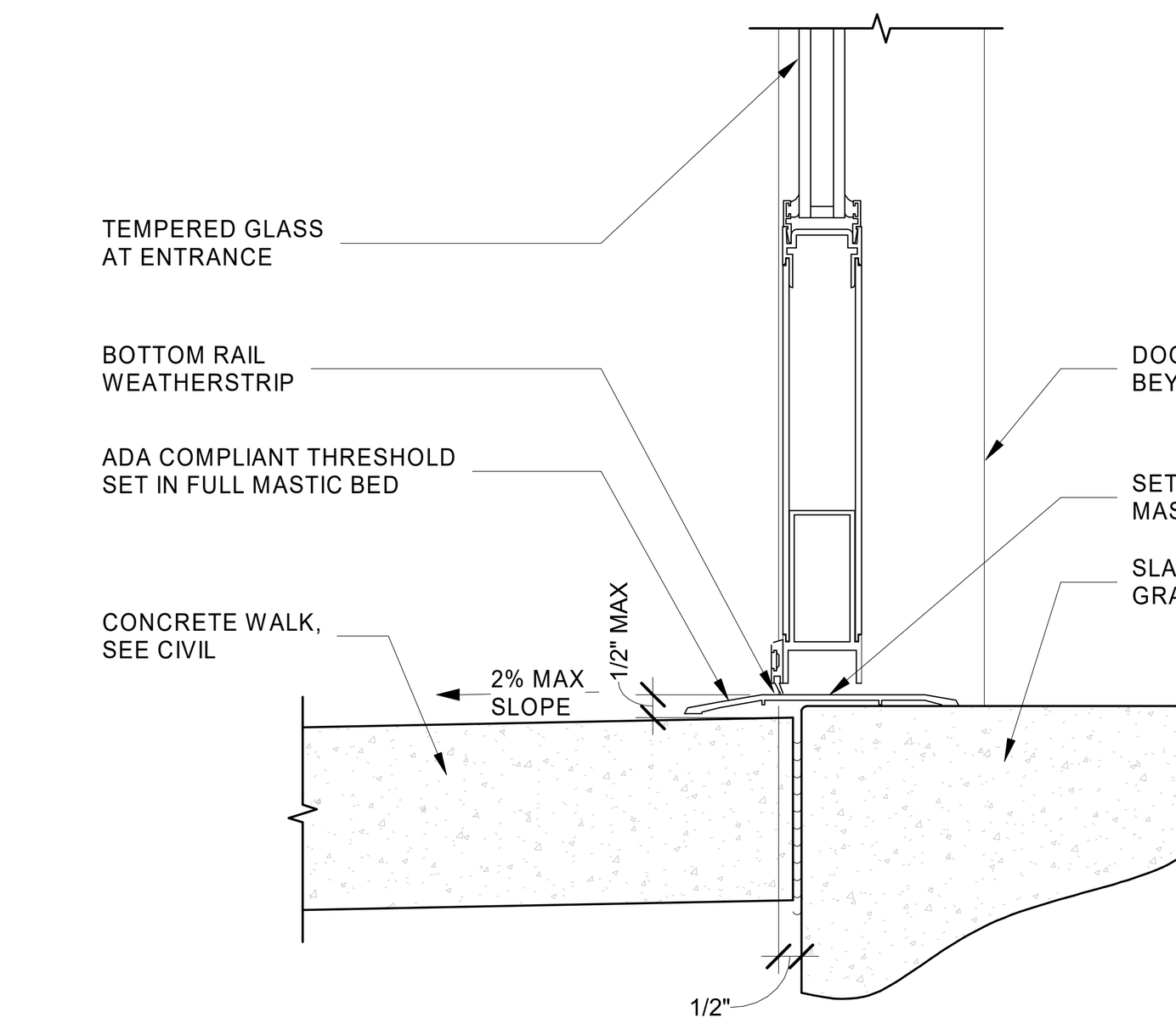
2 WINDOW SILL
A5.15 3" = 1'-0"



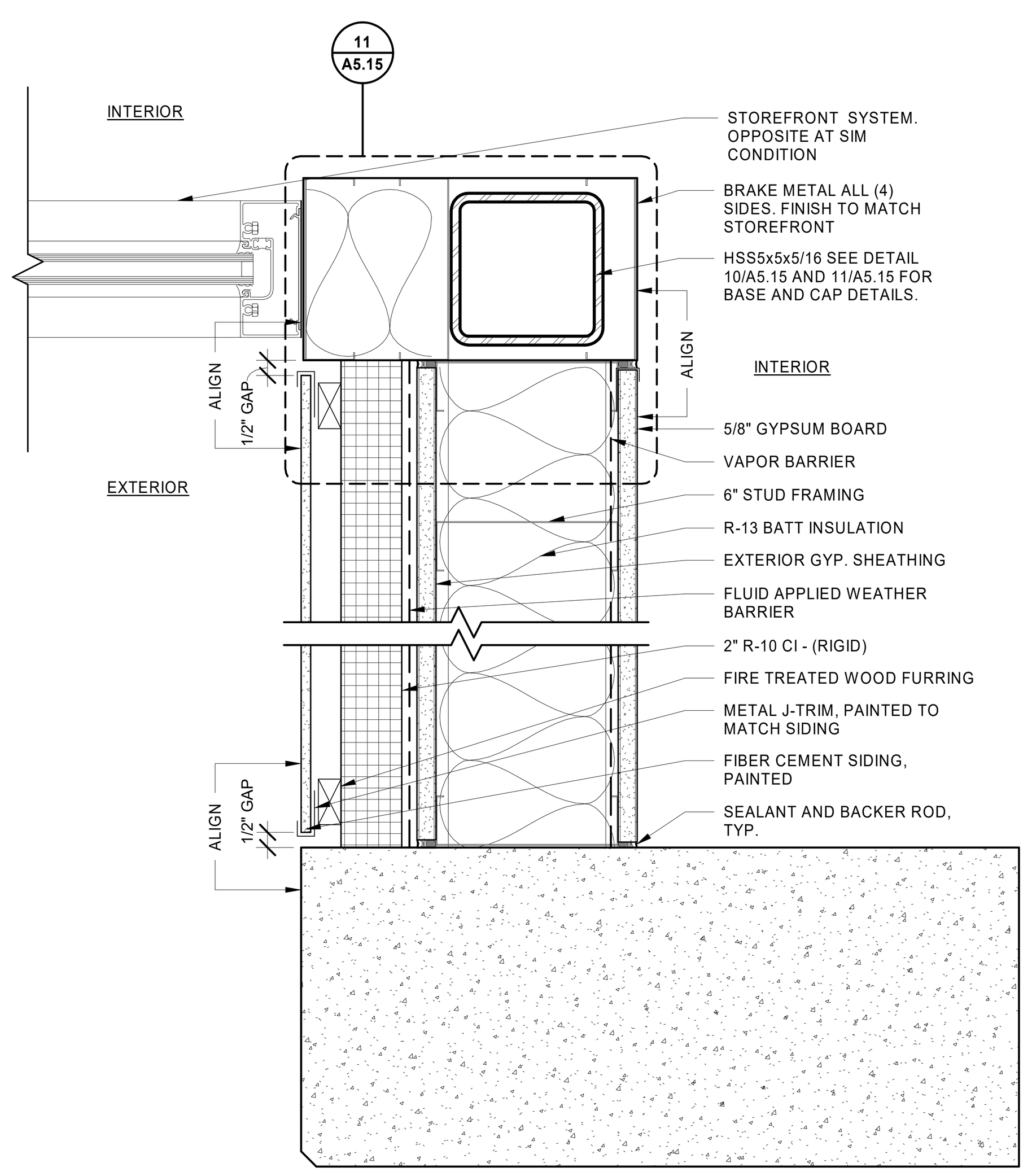
3 WINDOW HEAD
A5.15 3" = 1'-0"



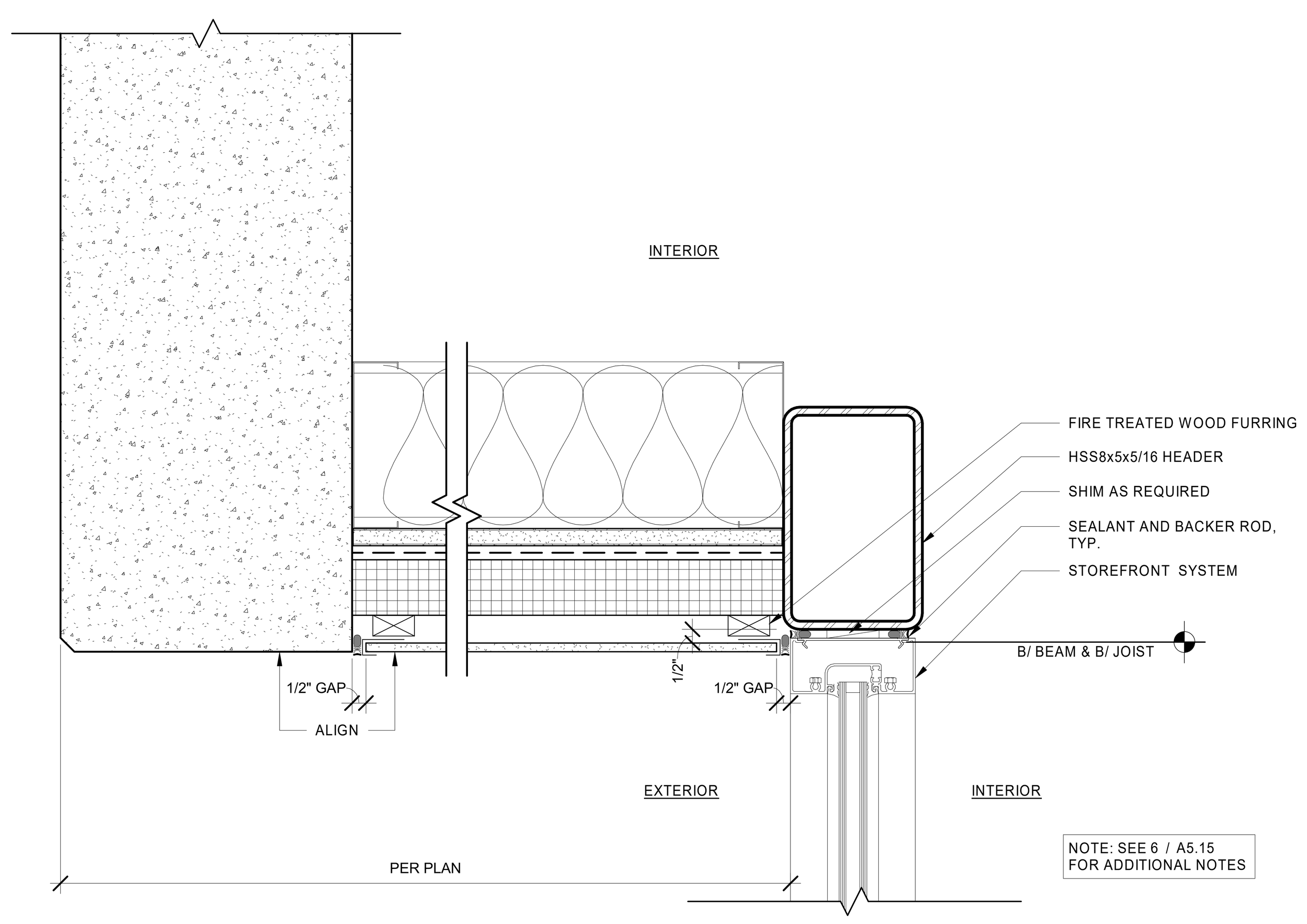
4 STOREFRONT SILL @ ENTRY
A5.15 3" = 1'-0"



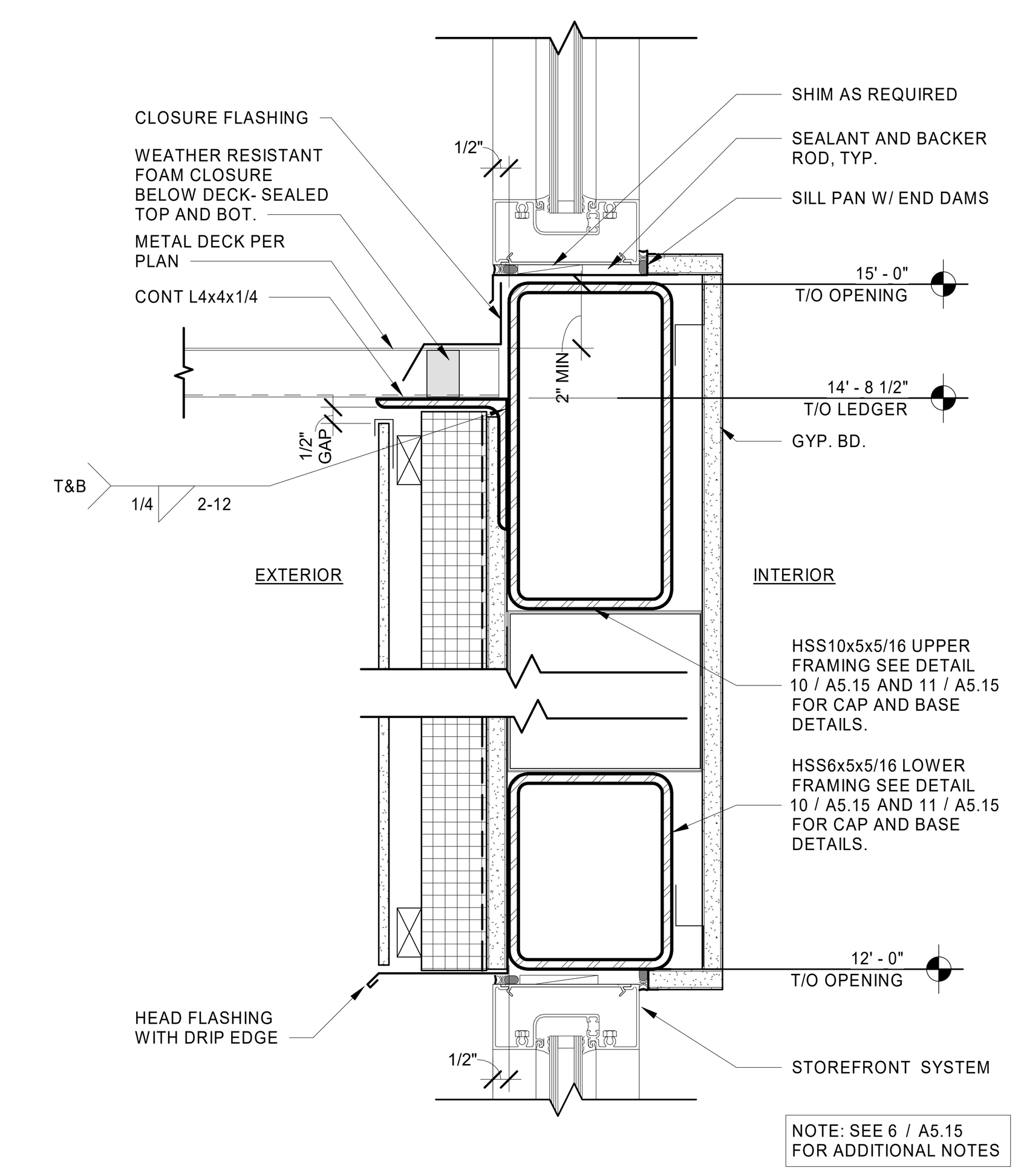
5 STOREFRONT DOOR SILL
A5.15 3" = 1'-0"



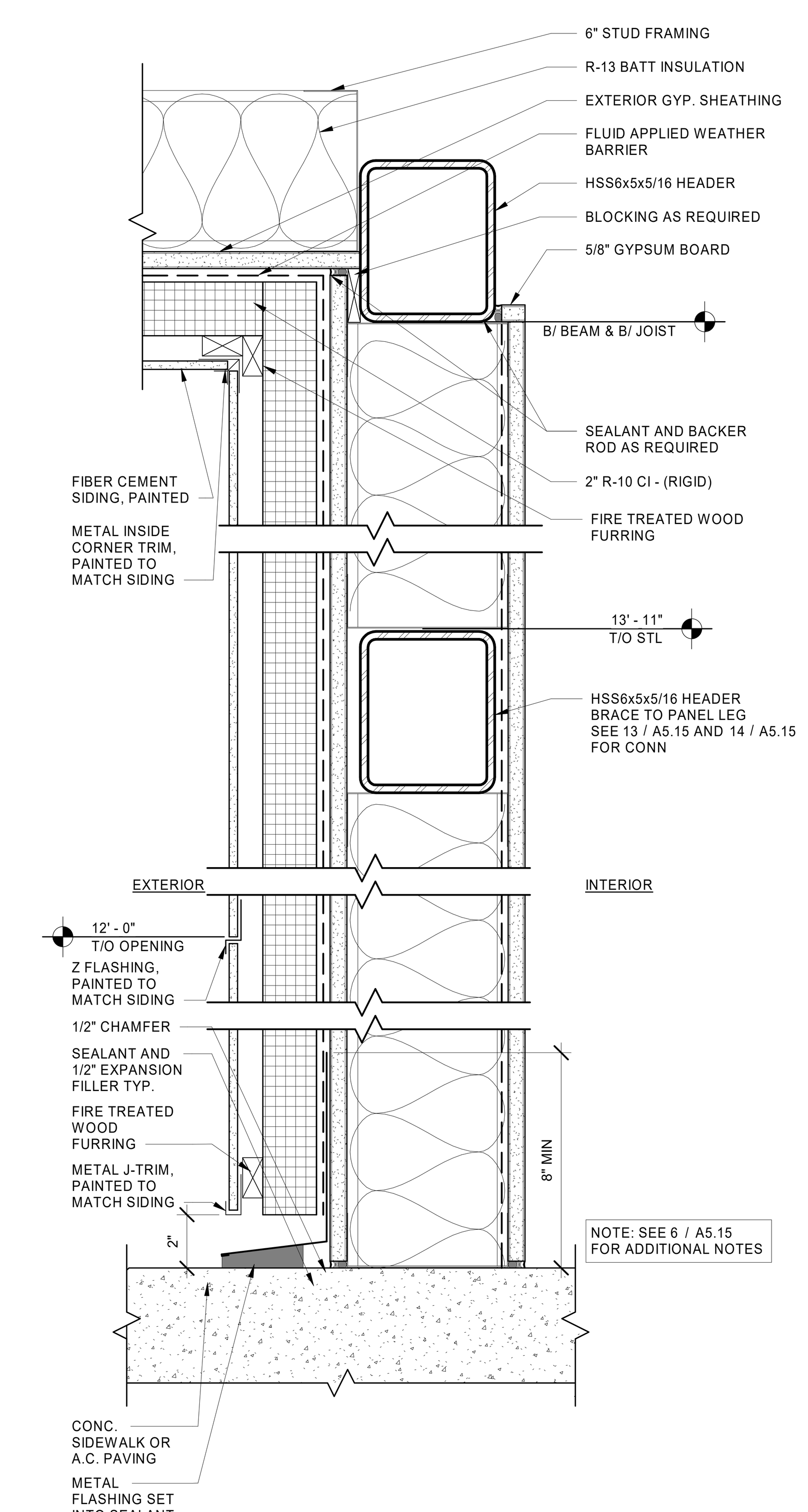
6 STOREFRONT CORNER PLAN
A5.15 3" = 1'-0"



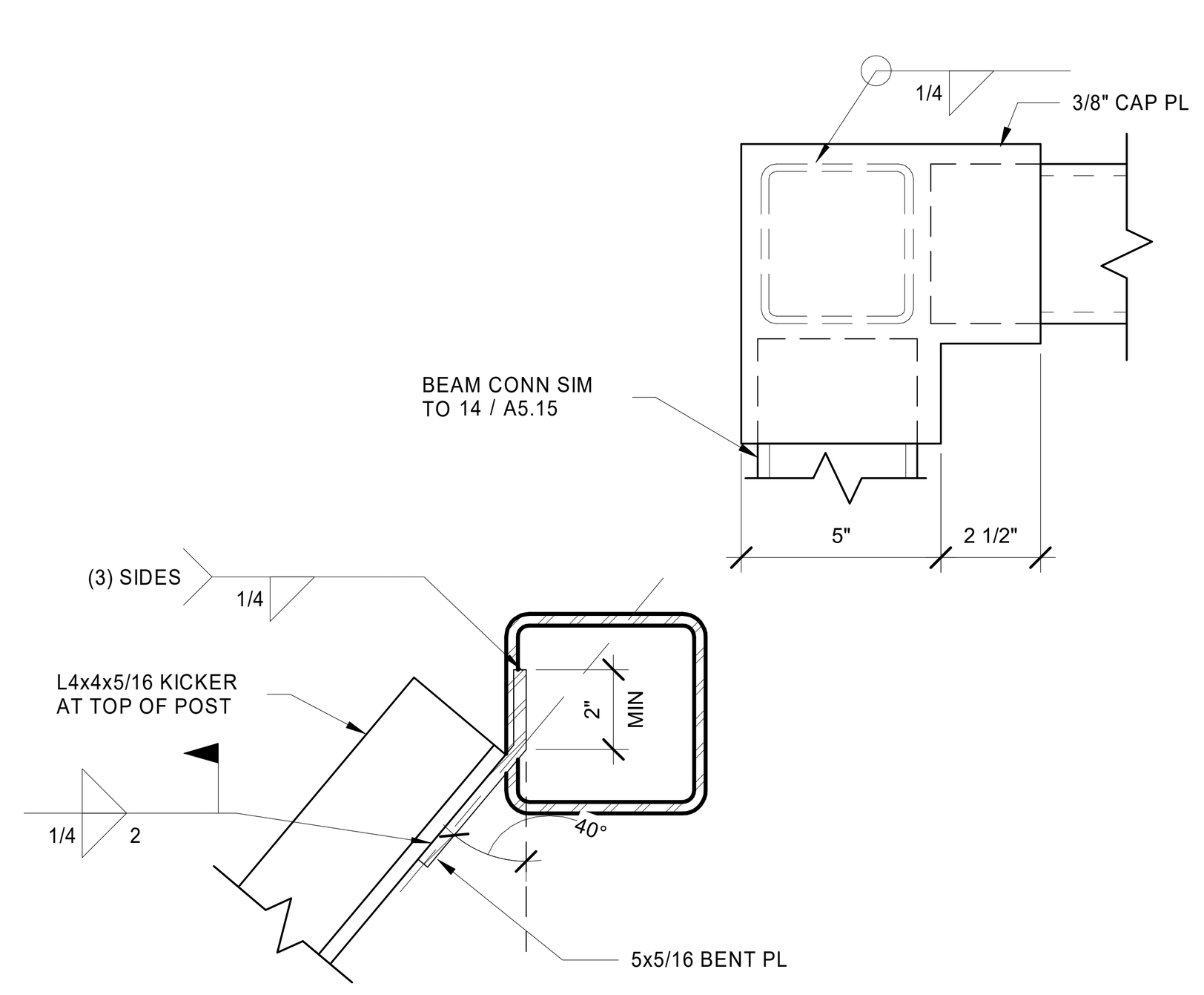
7 STOREFRONT HEAD SECTION
A5.15 3" = 1'-0"



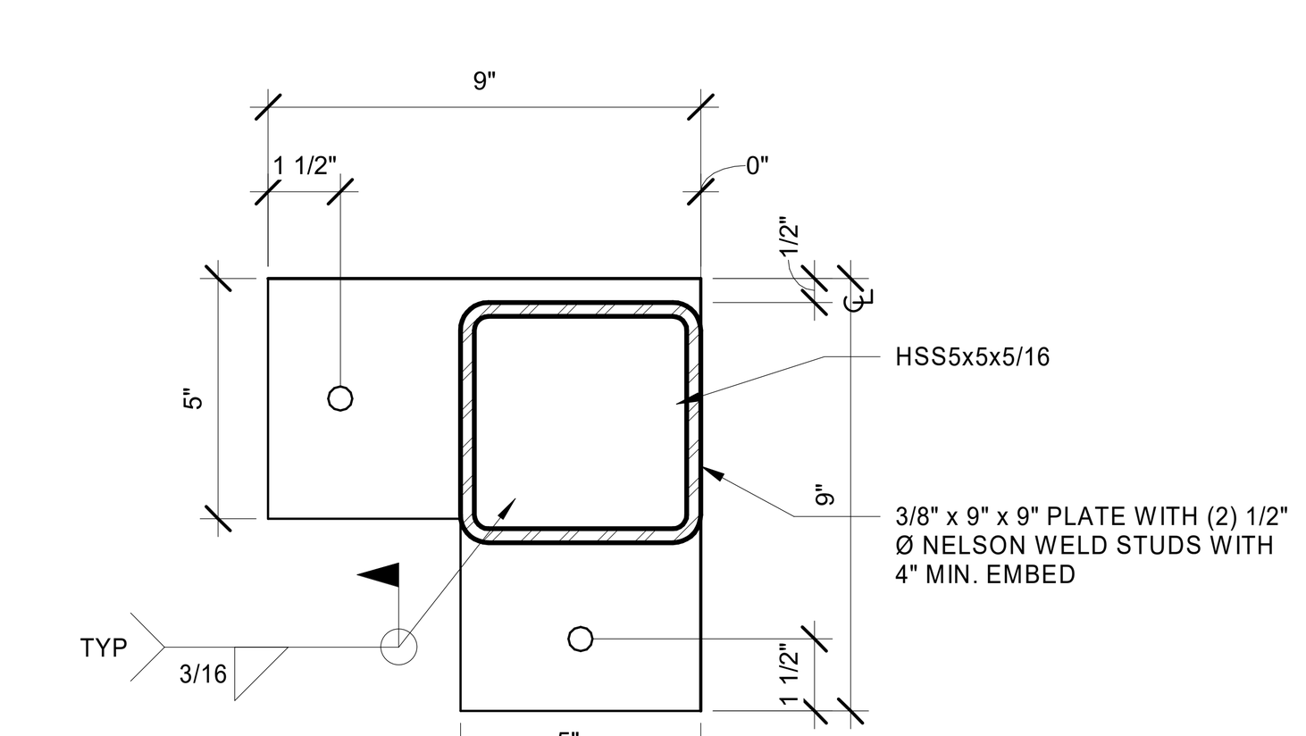
8 STOREFRONT HEAD & SILL SECTION
A5.15 3" = 1'-0"



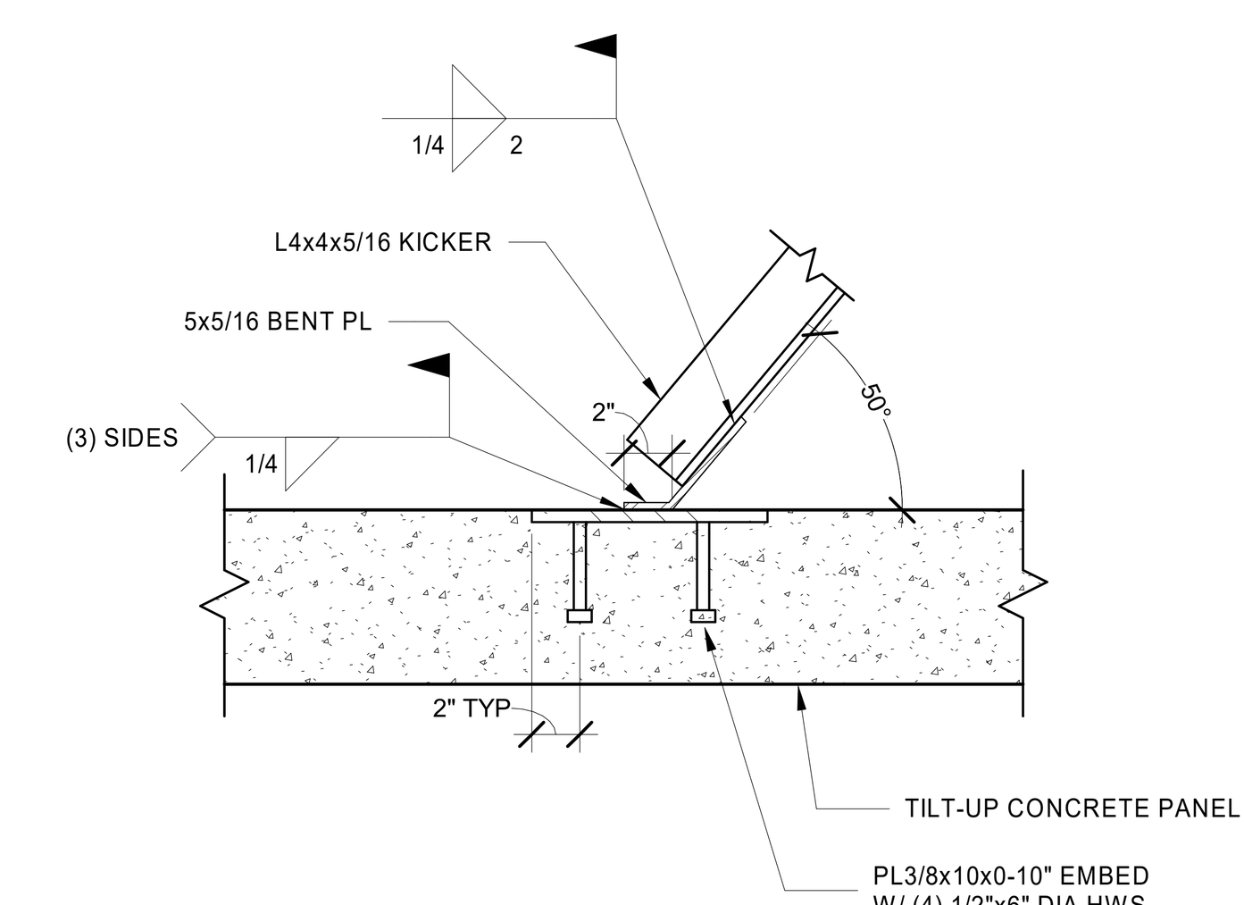
9 FIBER CEMENT SIDING SECTION
A5.15 3" = 1'-0"



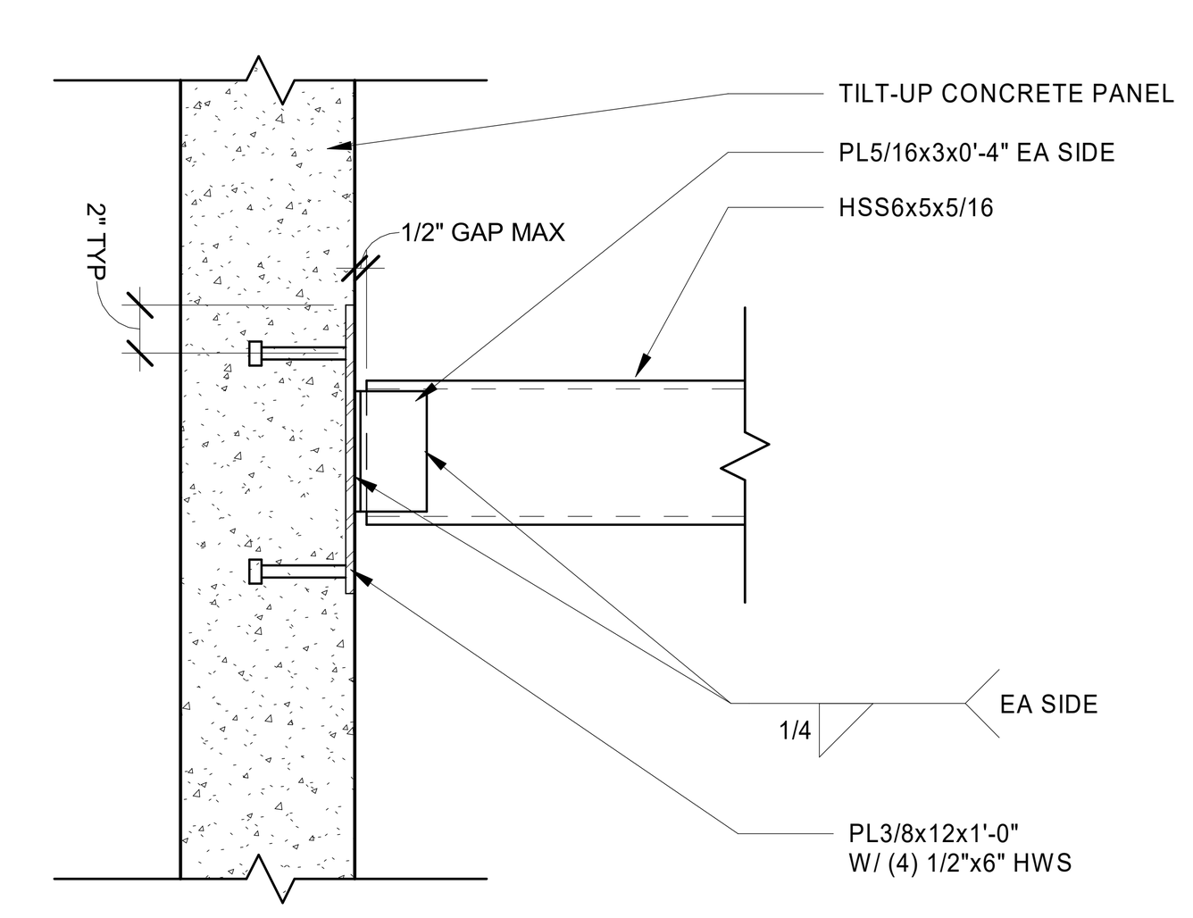
10 STOREFRONT COLUMN CAP
A5.15 3" = 1'-0"



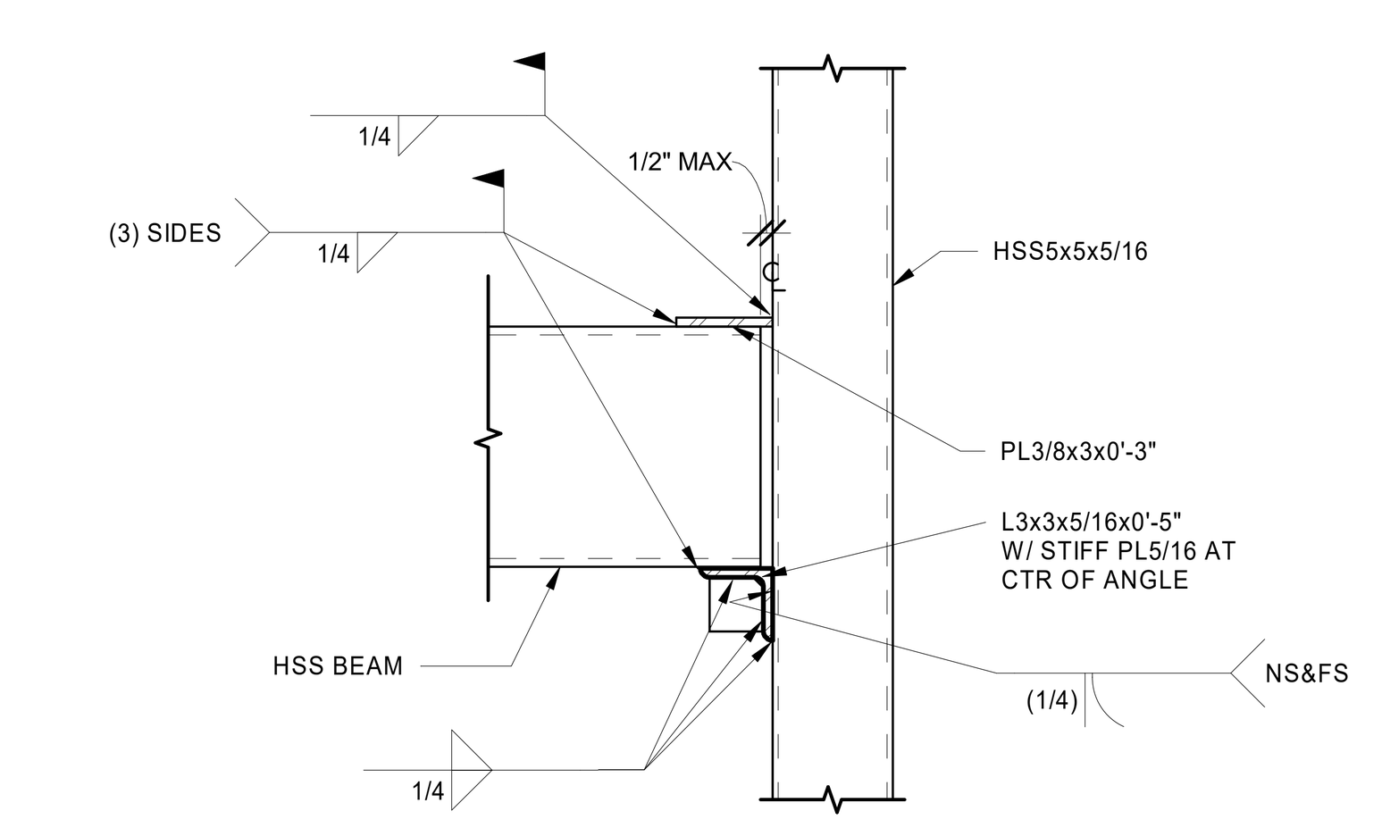
11 STOREFRONT COLUMN BASE
A5.15 3" = 1'-0"



12 ENTRANCE FRAMING KICKER TO PANEL
A5.15 1 1/2" = 1'-0"



13 HSS TO PANEL CONNECTION
A5.15 1 1/2" = 1'-0"



14 HSS BEAM TO POST CONNECTION
A5.15 1 1/2" = 1'-0"

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SHEET TITLE:
STOREFRONT AND ENTRY DETAILS

SHEET
A5.15

JOB NO. 2220290.00

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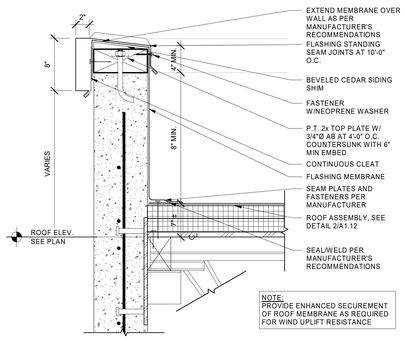
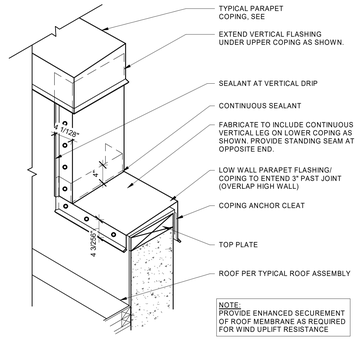
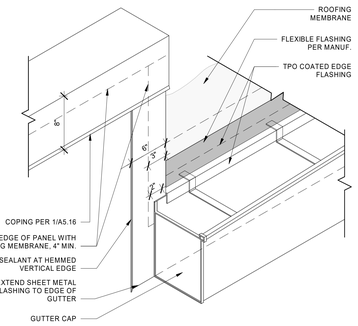


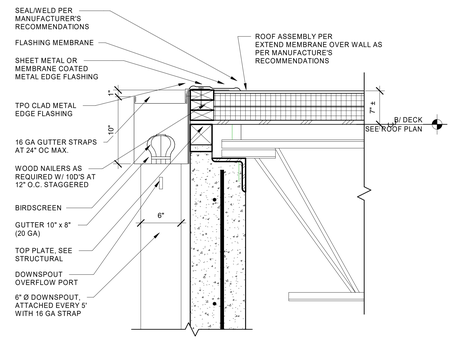
1 A5.16 PARAPET FLASHING
1 1/2" = 1'-0"



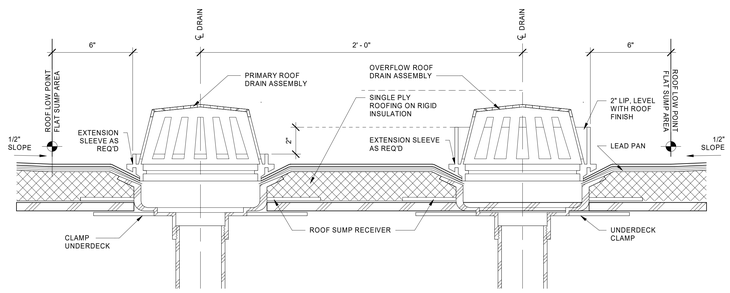
2 A5.16 STEP AT PARAPET
1" = 1'-0"



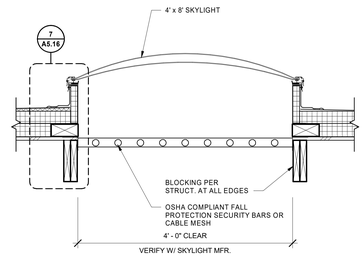
3 A5.16 GUTTER TERMINATION
1 1/2" = 1'-0"



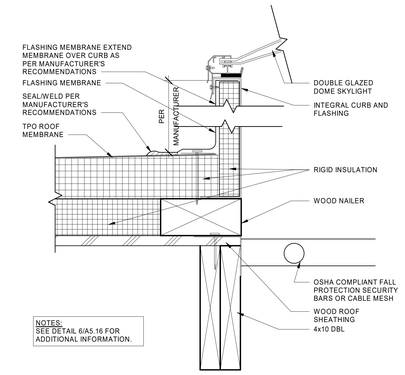
4 A5.16 GUTTER EDGE
1 1/2" = 1'-0"



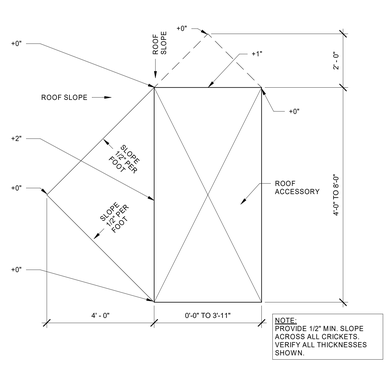
5 A5.16 TRANSFER ROOF DRAIN SECTION
3" = 1'-0"



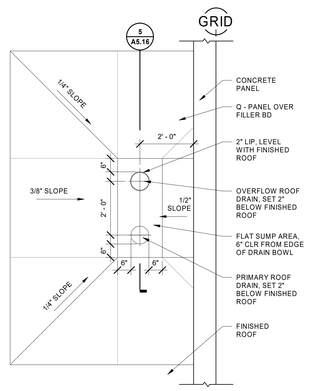
6 A5.16 SKYLIGHT SECTION
1" = 1'-0"



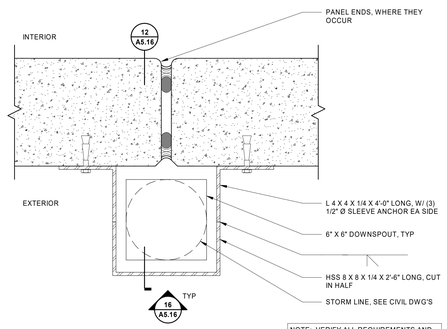
7 A5.16 SKYLIGHT CURB
3" = 1'-0"



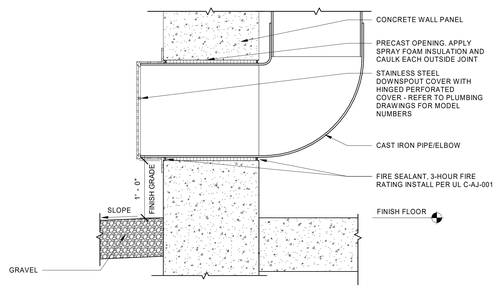
8 A5.16 CRICKET PLAN
1/2" = 1'-0"



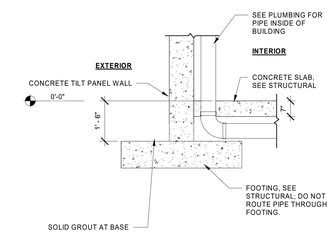
9 A5.16 ROOF DRAIN PLAN
1/2" = 1'-0"



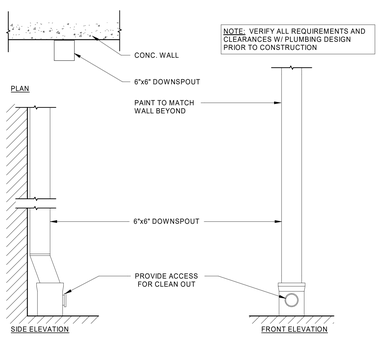
10 A5.16 DOWNSPOUT GUARD PLAN
3" = 1'-0"



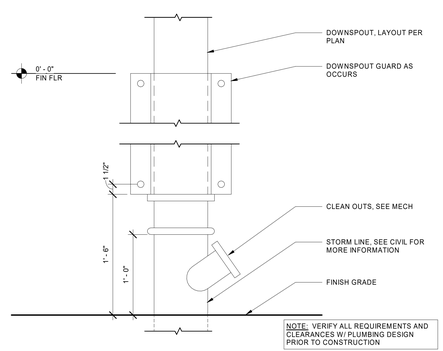
11 A5.16 OVERFLOW DRAIN
1 1/2" = 1'-0"



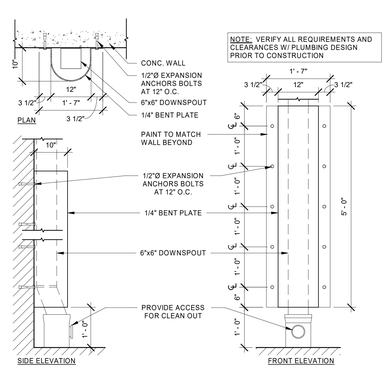
12 A5.16 ROOF DRAIN @ SLAB
1/2" = 1'-0"



13 A5.16 DOWNSPOUT
3/4" = 1'-0"



16 A5.16 DOWNSPOUT GUARD ELEVATION
1 1/2" = 1'-0"



14 A5.16 DOWNSPOUT GUARD
3/4" = 1'-0"

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SHEET TITLE:
ROOF DETAILS

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A5.16

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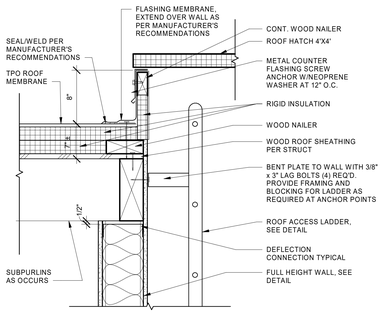
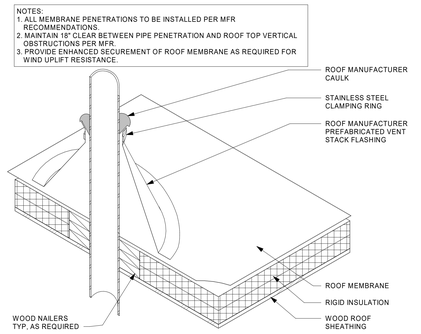
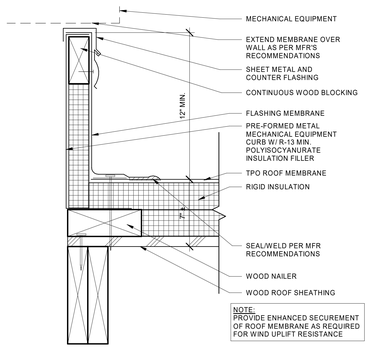


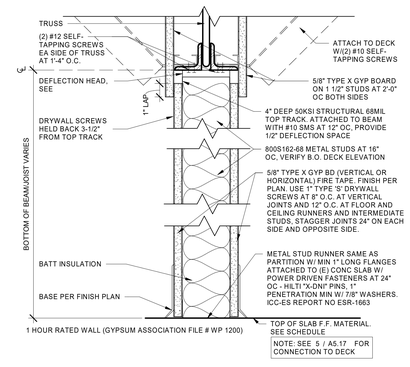
1 A5.17 ROOF HATCH
1 1/2" = 1'-0"



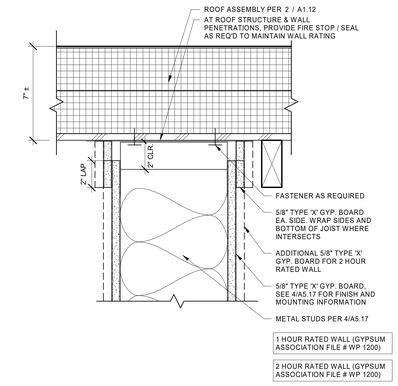
2 A5.17 PIPE/CONDUIT FLASHING
1 1/2" = 1'-0"



3 A5.17 MECHANICAL CURB
3" = 1'-0"



4 A5.17 FULL HEIGHT WALL
3" = 1'-0"



5 A5.17 FULL HEIGHT WALL AT WOOD DECK
3" = 1'-0"

6 A5.17 ROOF ACCESS LADDER
1/2" = 1'-0"

7 A5.17 ACCESS LADDER SECTION
1 1/2" = 1'-0"

8 A5.17 RAILING SECTION
1 1/2" = 1'-0"

9 A5.17 MEZZANINE
1 1/2" = 1'-0"

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ROOF DETAILS & INTERIOR DETAILS

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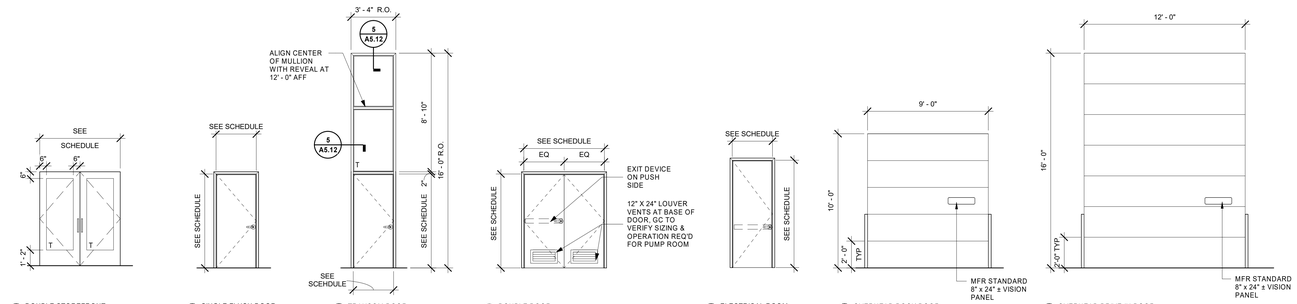
DOOR SCHEDULE

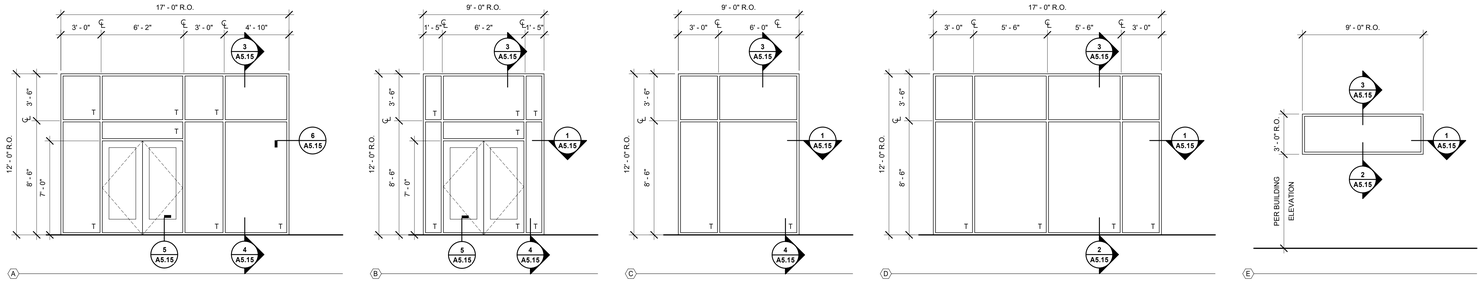
DOOR	DOOR WIDTH	DOOR HEIGHT	DOOR THK	DOOR TYPE	DOOR MAT'L	DOOR FINISH	FRAME TYPE	FRAME MAT'L	FRAME FINISH	DETAIL HEAD	DETAIL JAMB	DETAIL SILL	HDWR GROUP	RATING	COMMENTS
101	6' - 0"	7' - 0"		A	AL/GL	PREFIN	SF	AL	FF	-	-	5/A5.15	H1		
102	3' - 0"	7' - 0"	1 3/4"	B	HM	P	HM	STL	P	4/A5.12	4/A5.12	12/A5.14	H2		
103	6' - 0"	7' - 0"		A	AL/GL	PREFIN	SF	AL	FF		-	5/A5.15	H1		
104	3' - 0"	7' - 0"	1 3/4"	C	HM	P	HM	STL	P	4/A5.12	4/A5.12	12/A5.14	H2		
111	3' - 0"	7' - 0"	1 3/4"	B	HM	P	HM	STL	P	4/A5.12	4/A5.12	12/A5.14	H2		
119	3' - 0"	7' - 0"	1 3/4"	B	HM	P	HM	STL	P	4/A5.12	4/A5.12	12/A5.14	H2		
127	3' - 0"	7' - 0"	1 3/4"	B	HM	P	HM	STL	P	4/A5.12	4/A5.12	12/A5.14	H2		
133	3' - 0"	7' - 0"	1 3/4"	B	HM	P	HM	STL	P	4/A5.12	4/A5.12	12/A5.14	H2		
134	3' - 0"	7' - 0"	1 3/4"	E	HM	P	HM	STL	P	4/A5.12	4/A5.12	12/A5.14	H5		
135	6' - 0"	7' - 0"	1 3/4"	D	HM	P	HM	STL	P	4/A5.12	4/A5.12	12/A5.14	H3		
136	3' - 0"	7' - 0"	1 3/4"	B	HM	P	HM	STL	P	4/A5.12	4/A5.12	12/A5.14	H2		
137	6' - 0"	7' - 0"		A	AL/GL	PREFIN	SF	AL	FF	-	-	5/A5.15	H1		
138	3' - 0"	7' - 0"	1 3/4"	B	HM	P	HM	STL	P	4/A5.12	4/A5.12	12/A5.14	H2	3 HOUR	
139	3' - 0"	7' - 0"	1 3/4"	B	HM	P	HM	STL	P	4/A5.12	4/A5.12	12/A5.14	H2	3 HOUR	
140	3' - 0"	7' - 0"	1 3/4"	B	HM	P	HM	STL	P	4/A5.12	4/A5.12	12/A5.14	H2	3 HOUR	
141	3' - 0"	7' - 0"	1 3/4"	B	HM	P	HM	STL	P	4/A5.12	4/A5.12	12/A5.14	H2	3 HOUR	
142	3' - 0"	7' - 0"	1 3/4"	B	HM	P	HM	STL	P	4/A5.12	4/A5.12	12/A5.14	H2	3 HOUR	

DOCK DOOR SCHEDULE

DOOR	DOOR WIDTH	DOOR HEIGHT	DOOR THK	DOOR TYPE	DOOR MAT'L	DOOR FINISH	FRAME TYPE	FRAME MAT'L	FRAME FINISH	DETAIL HEAD	DETAIL JAMB	DETAIL SILL	HDWR GROUP	RATING	COMMENTS
105	12' - 0"	16' - 0"	1 1/2"	G	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
106	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
107	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
108	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
109	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
110	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
112	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
113	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
114	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
115	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
116	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
117	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
118	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
120	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
121	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
122	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
123	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
124	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
125	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
126	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
128	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
129	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
130	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
131	9' - 0"	10' - 0"	1 1/2"	F	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		
132	12' - 0"	16' - 0"	1 1/2"	G	-	PREFIN	-	STL	GL/FF		3/A5.12	10/A5.14	H4		



DOOR TYPE SCHEDULE



DOOR HARDWARE GROUPS

GROUP H1:
STOREFRONT ENTRY DOORS

1 CONTINUOUS HINGE
2 PANIC HARDWARE
1 EXTERIOR PULL
2 OVERHEAD CLOSER
1 THRESHOLD
1 FULL SET WEATHER STRIPPING
1 SWEEP

GROUP H2:
EXTERIOR MAN DOORS

1 1/2 PAIR HINGES
1 THRESHOLD
1 LEVER HANDLE MORTISE (EXTERIOR)
1 CLOSER
1 FULL SET WEATHER STRIPPING
1 PANIC ALARM UPON OPENING

GROUP H3:
FIRE SPRINKLER ROOM

1 1/2 PAIR HINGES
1 THRESHOLD
1 CLOSER
1 LEVER HANDLE MORTISE (EXTERIOR)
1 FULL SET WEATHER STRIPPING
1 DOOR BOTTOM SWEEP
1 LOCK GUARD & DRIP GUARD

GROUP H4:
OVERHEAD DOCK DOORS

- FULL SET WEATHERSTRIP PACKAGE PROVISION FOR PADLOCK

GROUP H5:
ELECTRICAL ROOM

1 1/2 PAIR HINGES
1 THRESHOLD
1 LEVER HANDLE MORTISE (EXTERIOR)
1 PANIC HARDWARE (INTERIOR)
1 CLOSER
1 FULL SET WEATHER STRIPPING
1 PANIC ALARM UPON OPENING

ABBREVIATIONS

AL	ALUMINUM	PW	PREFINISHED WOOD
ELO	ELECTRONICALLY OPERATED	OHI	OVERHEAD DOOR INSULATED
FF	FACTORY FINISH	S	STAINED
FL	FULL LIGHT	SC	SOLID CORE
GLZ/GL	GLAZING	SF	STOREFRONT
HM	HOLLOW METAL	STL	STEEL
HMI	HOLLOW METAL INSULATED	T	TEMPERED
HMW	HOLLOW METAL WELDED	VP	VISION PANEL
P	PAINT	W	WOOD

LEGEND

T = TEMPERED GLAZING

STOREFRONT TYPES

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Client

CREF3 PUYALLUP OWNER LLC
11611 SAN VICENTE BLVD.
10TH FLOOR
LOS ANGELES, CA 90049

Project

FORTRESS - PUYALLUP
240 15TH ST SE
PUYALLUP, WA 98372

Mechanical/Electrical

REVISION SCHEDULE

Delta	Issued As	Issue Date

SHEET TITLE:
DOOR AND WINDOW SCHEDULE

SHEET
A6.10

JOB NO. 2220290.00

PERMIT SET 6/28/2023
Autodesk Docs://Fortress-Puyallup/290-Fortress-Puyallup-V23-A.rvt 6/28/2023 2:48:18 PM As indicated

HVAC ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
BDD	BACKDRAFT DAMPER
BTUH	BRITISH THERMAL UNIT PER HOUR
CD	CEILING DIFFUSER
CFM	CUBIC FEET PER MINUTE
CU	CONDENSING UNIT
DB	DECIBEL
DH	DUCT HEATER
DOAS	DEDICATED OUTSIDE AIR SYSTEM
DN	DOWN
EC	EVAPORATOR COIL
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
EG	EXHAUST GRILLE
ERV	ENERGY RECOVERY VENTILATOR
ESP	EXTERNAL STATIC PRESSURE
EXH	EXHAUST
FCU	FAN COIL UNIT
FD	FIRE DAMPER, FLOOR DRAIN
FPM	FEET PER MINUTE
FSD	FIRE AND SMOKE DAMPER
GA	GAUGE
GF	GAS FURNACE
GRD	GRILLE, REGISTER, DIFFUSER
HP	HORSEPOWER, HEAT PUMP
ID	INSIDE DIMENSION
IHP	INDOOR (SECTION) HEAT PUMP
IRH	INFRARED HEATER
KW	KILOWATT
MBH	THOUSAND BTU PER HOUR
MCD	MOTORIZED CONTROL DAMPER
NC	NOISE CRITERIA
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER
OD	OUTSIDE DIMENSION OR DIAMETER
OHP	OUTDOOR HEAT PUMP
OSA	OUTSIDE AIR
OSCI	OWNER SUPPLIED CONTR. INSTALLED
POC	POINT OF CONNECTION
RA	RETURN AIR
RAG	RETURN AIR GRILLE
RPM	REVOLUTIONS PER MINUTE
RTU	ROOFTOP UNIT
SA	SUPPLY AIR
SG	SUPPLY GRILLE
SP	STATIC PRESSURE
SSG	SIDEWALL SUPPLY GRILLE
TBD	TO BE DETERMINED
TG	TRANSFER GRILLE
TYP	TYPICAL
UH	UNIT HEATER
VFD	VARIABLE FREQUENCY DRIVE
VTR	VENT TO ROOF
VVT	VARIABLE VOLUME AND TEMPERATURE

HVAC LEGEND

	INLINE EXHAUST FAN(S)
	ROOFTOP EXHAUST FAN
	SIDEWALL EXHAUST FAN
	VAV FAN BOX
	CEILING EXHAUST FAN
M	GAS METER
ZD12	VVT DAMPER
T	THERMOSTAT
	T-BAR SUPPLY DIFFUSER
	T-BAR RETURN GRILLE
	HARDLID SUPPLY DIFFUSER
	HARDLID RETURN GRILLE
FD	FIRE DAMPER
FSD	FIRE SMOKE DAMPER
	VOLUME DAMPER
SD	SMOKE DETECTOR
	FLEXIBLE DUCT SA/RA
	ROUND DUCT UP
	ROUND DUCT DOWN
10x10 CD 300 CFM-1PH	DIFFUSER TAG

HVAC NOTES

1. DUCT INSULATION TO MEET THE REQUIREMENTS OF SECTION C403.10 OF THE 2018 WSEC AND SECTION 604 OF THE IECC (INTERNATIONAL ENERGY CONSERVATION CODE).
2. SMOKE DETECTOR(S) INSTALLED IN MAIN RETURN AIR DUCTS PER SECTION 606 OF THE 2018 IMC. HVAC SMOKE DUCT DETECTORS SHALL SHUT DOWN POWER TO THE UNIT UPON ACTIVATION AND A "SUPERVISORY" ZONE SHALL BE INITIATED AT FIRE ALARM PANEL UPON SMOKE DUCT DETECTOR ACTIVATION. 2018 IMC SECTION 606.4 & 604.6.1.
3. SUPPLY & RETURN AIR DUCT IS MIN. R-6 IN UNCONDITIONED SPACES & MIN. R-8 WHEN LOCATED OUTSIDE OF BUILDING AS PER THE 2018 WSEC C403.10.1.2.
4. ALL SINGLE PACKAGE HVAC UNITS SHALL BE INSTALLED WITH ECONOMIZERS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS PER 2018 IMC, SECTION 403 AND SHALL OPERATE PER 2018 WSEC, SECTION C403.5.1.
5. EQUIPMENT INSTALLATION INSTRUCTIONS TO BE ON-SITE FOR INSPECTIONS.
6. ALL HVAC EQMT. TO BE LABELED TO THE SPACE SERVED.
7. DUCTS TO BE SUPPORTED AT EACH DIRECTION CHANGE VERTICAL AT 12'-0" MAX., HORIZONTAL AT 10'-0" MAX. WITH STRAP, OR 8'-0" MAX. TRAPEZE SUPPORT.
8. THERMOSTAT TO BE SEVEN-DAY TYPE AND HAVE NIGHT SETBACK WITH 5 DEGREE DEADBAND.
9. THE HVAC INSTALLATION SHALL BE COMPLETE WHEN ALL SECTIONS OF 2018 WSEC C408 HAVE BEEN SATISFIED. THIS SHALL INCLUDE AS-BUILT DRAWINGS, SUBMITTALS, O&M MANUALS, SYSTEM BALANCE REPORT, AND A COMMISSIONING REPORT.
10. DUCT SEALING SHALL MEET REQUIREMENTS OF 2018 WSEC C403.10.2. DUCT WORK WHICH IS DESIGNATED TO OPERATE AT PRESSURES ABOVE 1/2" WATER COLUMN STATIC PRESSURE SHALL BE SEALED AS FOLLOWS:
    1. STATIC PRESSURE 1/2 INCH TO 2 INCHES: SEAL ALL TRANSVERSE JOINTS AND LONGITUDINAL SEAMS. SPIRAL LOCK SEAMS IN ROUND AND FLAT OVAL DUCT WORK DO NOT REQUIRE SEALING; HOWEVER, OTHER SEAMS SHALL BE SEALED.
11. 2018 WSEC FORMS, DUCT PLANS, BALANCING FEATURES, AS WELL AS VENTILATION REQUIREMENTS (AS PER TABLE 403.3.1.1, 2018 IMC MINIMUM VENTILATION RATES) AND OCCUPANCY, ALONG WITH A MECHANICAL PERMIT AT THE TIME OF THE TENANT IMPROVEMENT PERMIT.

SCOPE OF WORK
JOB# 23xxx

1. INSTALL (1) ELECTRIC WALL HEATER.
2. INSTALL (4) ROOFTOP EXHAUST FANS.
3. INSTALL (4) GAS FIRED UNIT HEATERS.
4. INSTALL NATURAL GAS PIPING.

VENTILATION CALCULATION

WAREHOUSE VENTILATION = (CFM/SF) x (SQ FT)
" " " " " = (.06) x (128,547 SQ FT')
" " " " " = 7,713 MINIMUM CFM
(4) FANS)(2,000 CFM/FAN) = 8,000 TOTAL CFM

SEMI-HEAT CALCULATION

$\frac{\text{EQUIPMENT OUTPUT TOTAL}}{\text{WAREHOUSE SQUARE FOOTAGE}}$ = BTUH/SQ. FT.

$\frac{\text{(4) UNIT HEATERS x (167,400) BTUH OUTPUT}}{\text{(128,547) SQ FT}}$ = BTUH/SQ. FT.

$\frac{\text{(669,600) BTUH}}{\text{(128,547) SQ FT}}$ = (5.21) BTUH/SQ. FT.

HIGH EFFICIENCY GAS UNIT HEATER SCHEDULE

ID	BRAND NAME	MODEL NUMBER	CFM	Btuh INPUT	Btuh OUTPUT	EFFICIENCY	GAS CONNECTION	VENT OUTLET	V/PH	FLA	WT.
UH 1-4	MODINE	PTC180	3,020	180,000	167,400	93%	1/2	4"Ø	115/1Ø	3.73 A	215 LBS

FAN SCHEDULE

ID	BRAND NAME	MODEL NUMBER	CFM	SP	HP/AMP	FLOW	V/PH	SOUND RATING	DUCT	LOCATION	WEIGHT
EF 1-4	ILG	CRBA13	2,000	.125"	1/2 HP	CV	208/1	14.4 SONES	14"x14" B.D.D.	ROOF	117 LBS

NOTE: These plans are diagrammatical only.
Please verify all dimensions at job site.

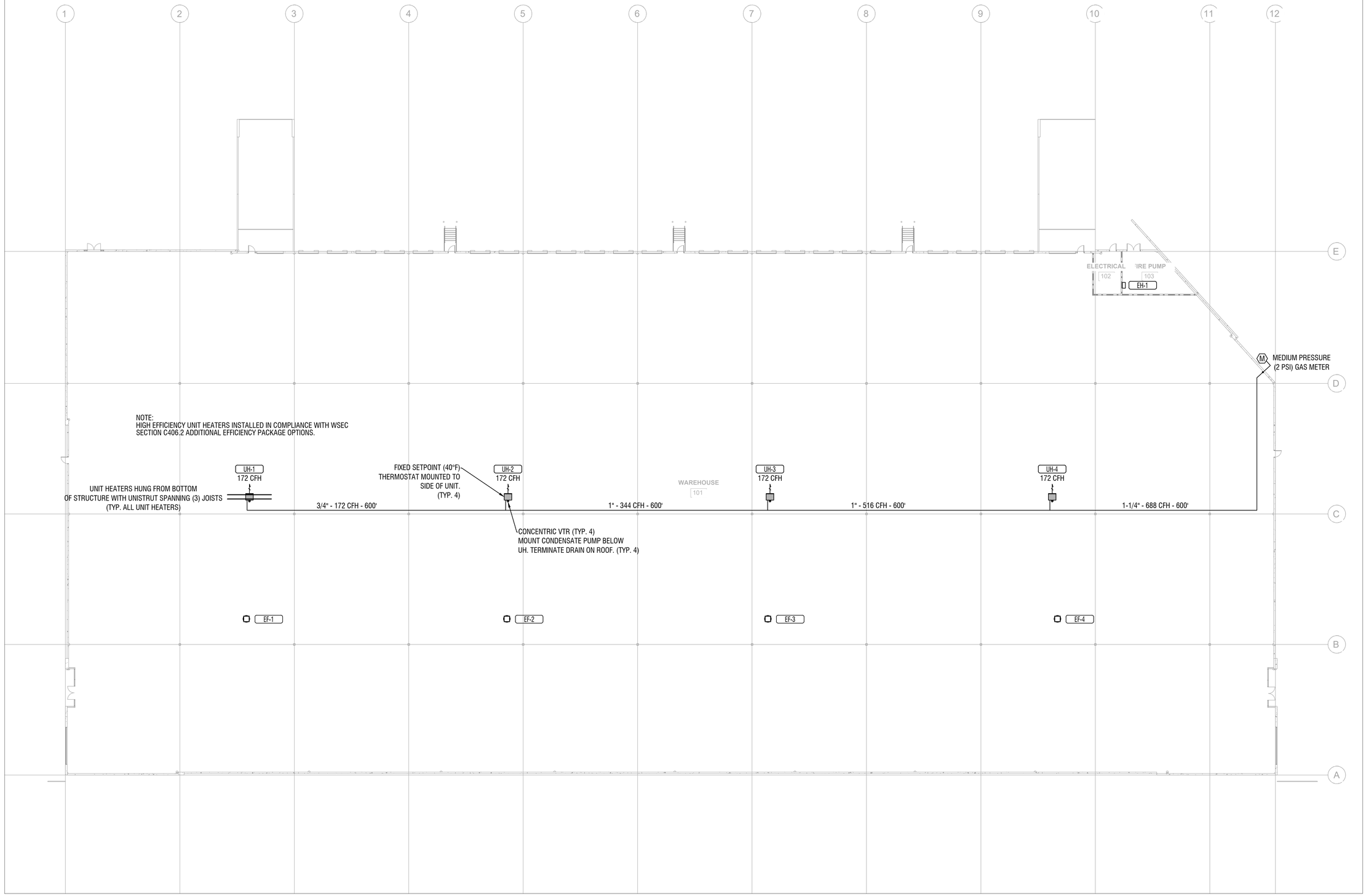
PENDING CITY APPROVAL

UNIVERSAL REFRIGERATION
- AIR CONDITIONING - HEAT PUMPS - REFRIGERATION -
CONTRACTOR'S LICENSE NUMBER: UNIVERI 159RF
AUBURN: (253) 939-5501 TACOMA: (253) 922-3141
SEATTLE: (253) 839-2126 FAX: (253) 735-3432
P.O. BOX 614 - AUBURN, WASHINGTON 98071

REV.	DATE	REVISION DESCRIPTION
1	5/15/23	PERMIT ISSUE

PROJECT TITLE:
FORTRESS - PUYALLUP
240 15TH ST. SE. PUYALLUP, WA. 98372

PRINT/PLOT DATE:
DRAFTER: ARW
DESIGNER: BG
PROJECT MANAGER: BG
JOB NUMBER: 23xxx
SHEET NUMBER: M-C



NOTE: These plans are diagrammatical only.
Please verify all dimensions at job site.

N

WAREHOUSE HVAC PLAN

SCALE: 1" = 20'-0"

PENDING CITY APPROVAL

UNIVERSAL REFRIGERATION

- AIR CONDITIONING - HEAT PUMPS - REFRIGERATION -

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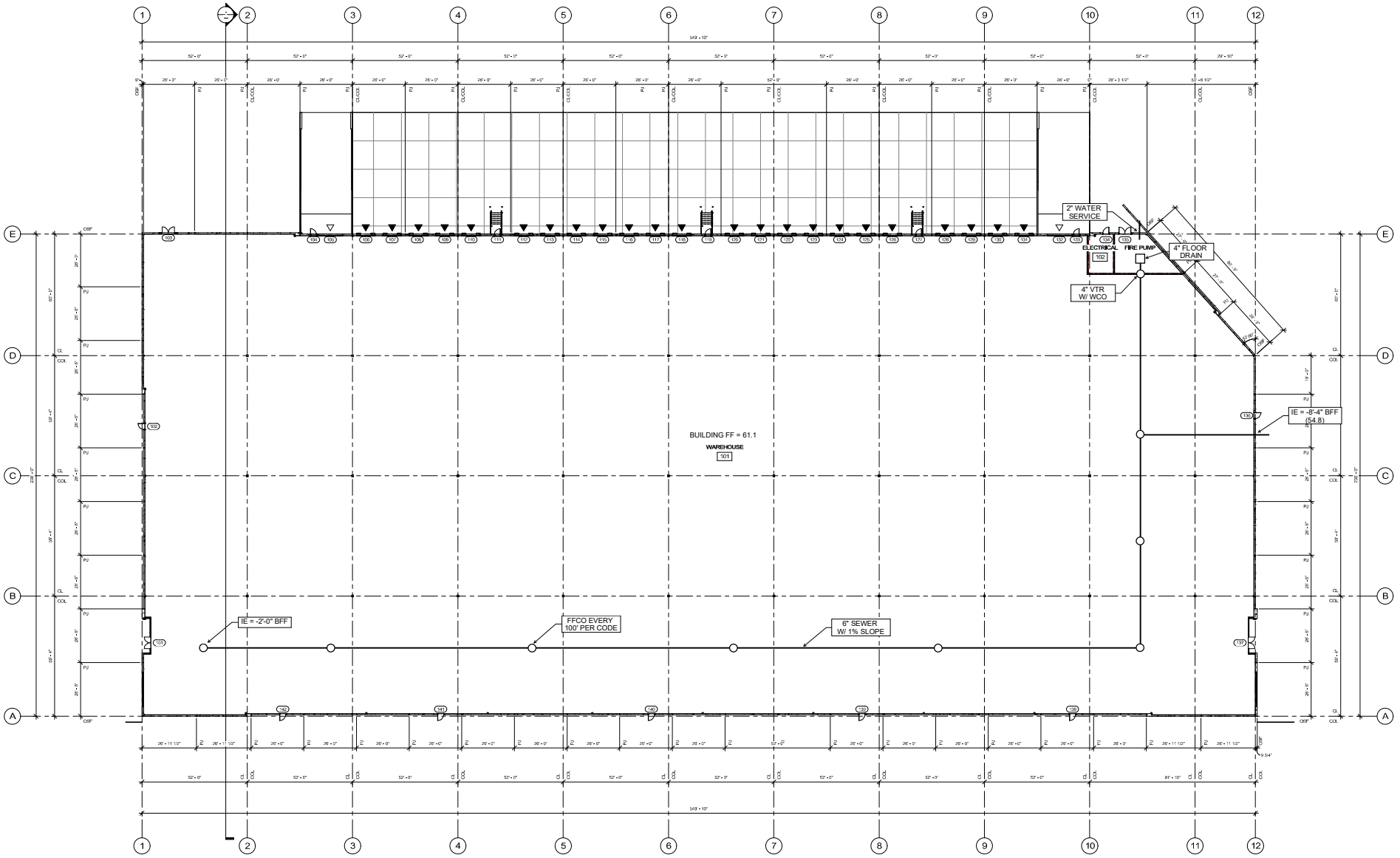
SHEET NUMBER:	M-1



1 A1.11 FIRST FLOOR PLAN
1/16" = 1'-0"

Client

CREF3 PUYALLUP OWNER LLC
11611 SAN VICENTE BLVD
10TH FLOOR LOS ANGELES
CA 90049

Project

FORTRESS - PUYALLUP
240 15TH ST SE
PUYALLUP, WA, 98372

STATE MECHANICAL

REVISION SCHEDULE

Delta	Issued As	Issue Date
1	PERMIT SET	5/7/25

SHEET TITLE

WATER AND SEWER PLAN

SHEET

P-1.0