PORT OF TACOMA

PIER 4 PHASE 2
RECONFIGURATION (MARINE BUILDING)
PROJECT NO. - 091251
CONTRACT NO. - 070136

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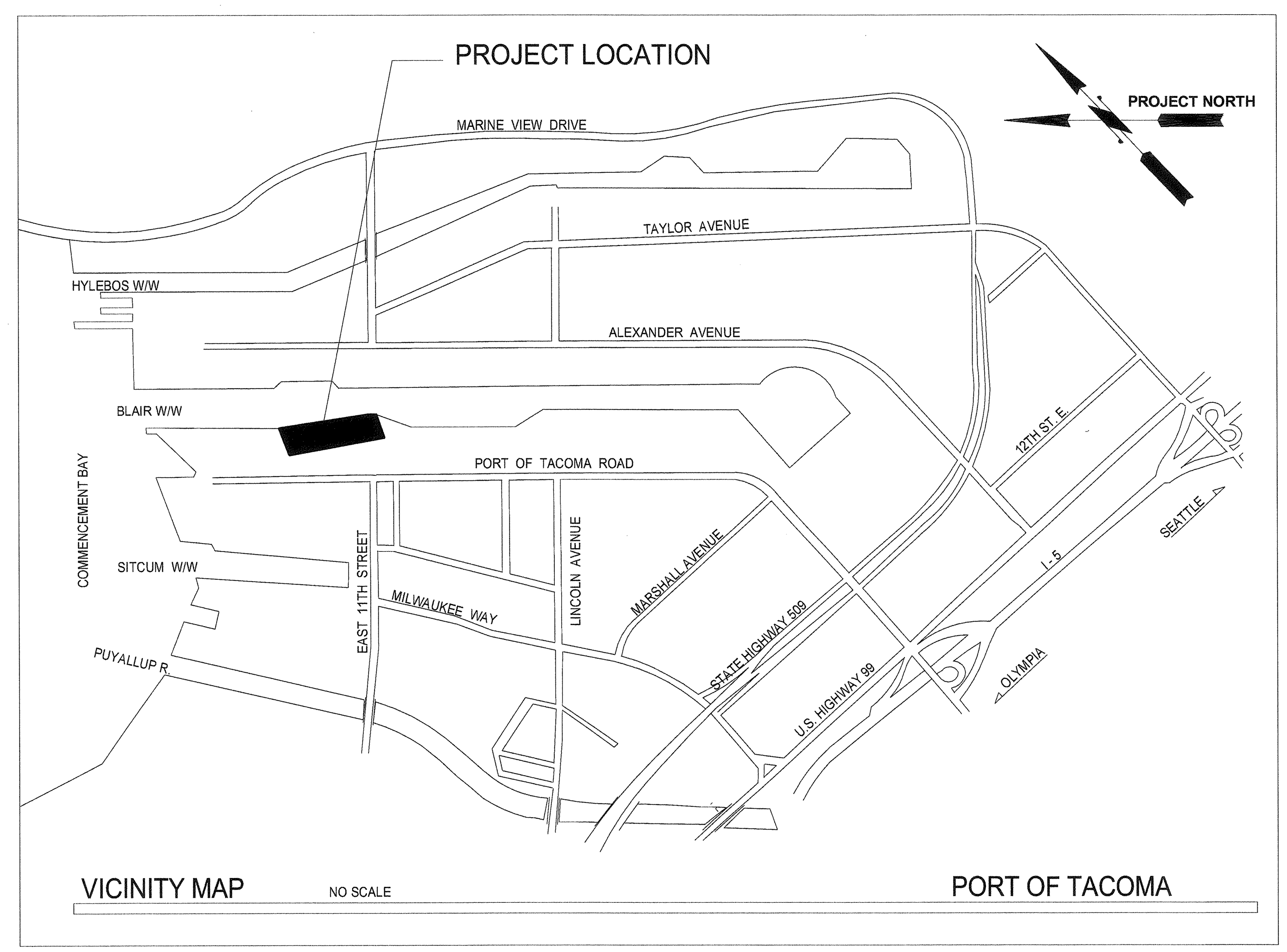

VICINITY MAP NO SCALE PORT OF TACOMA

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PIER 4 PHASE 2
MARINE BUILDING
COVER SHEET

TOWNSHIP: | RANGE: | SECTION:
DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933
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6552
G1.00
SH # 388 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

BINDING EDGE

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GENERAL

SHEET #	SHEET DESIGNATION	SHEET TITLE
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GENERAL NOTES

A. GENERAL REQUIREMENTS: IT SHALL BE THE SPECIFIC DUTY AND RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH EACH TRADE AND SUPPLIER IN EXAMINING ALL DRAWINGS, DETAILS AND SPECIFICATIONS, AND TO PROVIDE AND FURNISH PROPER EQUIPMENT, HARDWARE, FIXTURES, MATERIALS, LABOR, ETC., PERTAINING TO THEIR PART OF THE WORK SHOWN OR LISTED IN ANY PART OF THE CONTRACT DOCUMENTS. SCHEDULES ARE FOR THE CONVENIENCE OF THE CONTRACTOR TO ASSIST THEM IN UNDERSTANDING AND CONSTRUCTING THE PROJECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT ALL ITEMS IN THE SCHEDULES REFLECT THE PLANS AND DETAILS. ANY OMISSIONS OR CONTRADICTIONS IN THESE DOCUMENTS SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER PRIOR TO THE CONTRACTOR'S FINAL BID. THE CONTRACTOR'S FINAL BID SHALL BE CONSIDERED TO INCLUDE ALL ITEMS SHOWN AND/OR SPECIFIED OR SCHEDULED FOR A COMPLETE PROJECT.

B. CONFLICTING INFORMATION: IN THE EVENT OF CONFLICTING INFORMATION WITHIN THE DOCUMENTS, IMMEDIATELY CONTACT THE ENGINEER FOR CLARIFICATION. PROCEEDING WITHOUT SUCH CLARIFICATION IS AT THE CONTRACTORS RISK AND COST.

C. SCALING DRAWINGS: DO NOT SCALE DRAWINGS; CONTACT ENGINEER FOR ANY MISSING OR INACCURATE DIMENSIONS PRIOR TO PROCEEDING WITH THE WORK.

D. FLOOR TYPES: SEE BUILDING AND WALL SECTIONS FOR FLOOR TYPE CALLOUTS. SEE A21 SERIES SHEETS FOR FLOOR TYPE DESCRIPTIONS.

E. WALL TYPES: SEE FLOOR PLANS, BUILDING AND WALL SECTIONS FOR WALL TYPE CALLOUTS. SEE A30, A31 AND A32 SERIES SHEETS FOR EXTERIOR AND INTERIOR WALL TYPE DESCRIPTIONS.

F. CEILING TYPES: SEE REFLECTED CEILING PLANS FOR CEILING TYPE CALLOUTS AND FOR CEILING TYPE DESCRIPTIONS.

G. ROOF TYPES: SEE BUILDING AND WALL SECTIONS AND ROOF PLAN FOR ROOF TYPE CALLOUTS. SEE A40 SERIES SHEETS FOR ROOF TYPE DESCRIPTIONS.

H. FINISH AND COLOR SCHEDULES: SEE A70 AND A71 SERIES SHEETS.

I. SIGNAGE DETAILS: SEE A73 SERIES SHEETS.

J. DRAWINGS AND SCHEDULES FORMAT: NOTE: DRAWING SERIES IS LISTED IN ORDER

(G) SERIES - GENERAL INFORMATION

(A) SERIES- ARCHITECTURAL DRAWINGS
- A2.xx FLOOR PLANS
- A3.xx ROOF PLANS
- A4.xx REFLECTED CEILING PLANS
- A5.xx EXTERIOR ELEVATIONS
- A6.xx BUILDING & WALL SECTIONS
- A7.xx VERTICAL CIRCULATION PLANS & SECTIONS
- A8.xx INTERIOR ELEVATIONS
- A20.xx FOUNDATION DETAILS
- A21.xx FLOOR TYPES AND BASE DETAILS
- A31.xx WALL TYPES & EXTERIOR WALL DETAILS
- A32.xx INTERIOR WALL DETAILS
- A40.xx ROOF TYPES & DETAILS
- A50.xx VERTICAL CIRCULATION DETAILS
- A6x.xx DOOR, FRAME, WINDOW, & DETAILS
- A7x.xx FINISH, COLOR SCHEDULES & DETAILS, SIGN TYPES AND DETAILS
- A80.xx CASEWORK TYPES & DETAILS

(S) SERIES - STRUCTURAL DRAWINGS
(M) SERIES- MECHANICAL / PLUMBING DRAWINGS
(F) SERIES - FIRE PROTECTION
(E) SERIES - ELECTRICAL DRAWINGS

K. HAZARDOUS MATERIALS:
1. ALL PRODUCTS AND MATERIALS USED IN THIS PROJECT MUST BE CERTIFIED AS BEING "ASBESTOS FREE," NO EXCEPTIONS.
2. NO PRODUCTS CONTAINING PCB OR OTHER HAZARDOUS MATERIALS SHALL BE USED ON THIS PROJECT, NO EXCEPTIONS.
3. NO PRODUCTS CONTAINING LEAD SHALL BE USED ON THIS PROJECT WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.

L. DOWN SPOUTS: THE CONTRACTOR SHALL COORDINATE ALL DOWNSPOUT LOCATIONS AND CONNECTIONS TO TIGHTLINES AND STORM DRAINAGE SYSTEM(S). THE ARCHITECTURAL PLANS, ELEVATIONS AND DETAILS ILLUSTRATE AND DIMENSION DOWNSPOUT LOCATIONS AND SHALL TAKE PRECEDENCE. ALSO SEE CIVIL DRAWINGS AND SPECIFICATIONS. COORDINATE ALL REQUIRED FOUNDATION BLOCK-OUTS WITH STRUCTURAL AND CIVIL DRAWINGS.

M. FINISH LUMBER SIZES: THE LUMBER SIZES SHOWN FOR WOOD BLOCKING, BACKING, ETC., WILL NOT BE ACTUAL SIZES BUT NOMINAL SIZES. FINISHED TRIM CALLOUTS WILL BE A "NET" DRESSED SIZE, TYP. UNLESS NOTES OTHERWISE.

N. INSULATION SYSTEMS: THERMAL INSULATION IS INTENDED TO PROVIDE A CONTINUOUS INSULATED BUILDING ENVELOPE, AND SHALL BE INSTALLED AS SUCH. SOUND INSULATION IS INTENDED TO PROVIDE A CONTINUOUS ROOM ENVELOPE, AND SHALL BE INSTALLED AS SUCH. IN BOTH CASES, FILL ALL VOIDS IN ASSEMBLIES WITH INSULATION TO PROVIDE A COMPLETE, THOROUGHLY INSULATED ASSEMBLY. INSULATION IDENTIFICATION MARK SHALL BE APPLIED TO ALL INSULATION MATERIALS. WHERE TWO OR MORE LAYERS OF RIGID INSULATION WILL BE USED, JOINTS BETWEEN LAYERS MUST BE STAGGERED.

O. VAPOR RETARDER (BARRIER): CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF THE VAPOR RETARDER (BARRIER) MEMBRANE AT THE FLOOR SLAB. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO VAPOR RETARDERS (BARRIERS), OR REPLACE THEM PRIOR TO COVER, AS APPROVED. CONTRACTOR SHALL EXERCISE CARE DURING THE INSTALLATION OF THE VAPOR BARRIER TO PROVIDE SPECIFIED OVERLAP BETWEEN INDIVIDUAL SHEETS AND SHALL TAPE ALL JOINTS. SHOULD THE MATERIAL BE TORN OR PUNCTURED, PATCH BY ADDITION OF MATERIAL OVER AFFECTED AREA WITH AT LEAST 12" COVERAGE BEYOND DAMAGE, AND TAPE ALL JOINTS AND PENETRATIONS. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. ALSO SEE A21 SERIES SHEETS FOR DETAILS

P. AIR BARRIER: A CONTINUOUS AIR BARRIER SHALL BE MAINTAINED AT THE BUILDING'S EXTERIOR MEMBRANE LAYER (WRB), AND OR FINISH CEILING WHERE INDICATED. SEE GENERAL NOTES TO THE WALL, ROOF, AND CEILING TYPES AND THE REFLECTED CEILING PLAN GENERAL NOTES FOR MORE INFORMATION. ALL JOINTS, PENETRATIONS, RECESSES, AND CONNECTIONS THROUGH THE AIR BARRIER SHALL BE SEALED AND BE AIR TIGHT IN CONSTRUCTION. AIR BARRIER TEST IS REQUIRED AND SHALL FOLLOW THESE STEPS; (1) AIR BARRIER TEST REPORT SHALL BE SUBMITTED TO JURISDICTION ONCE TEST IS COMPLETED; (2) IF TEST RESULTS EXCEED 0.4 cfm/ft2 AT 0.3 IN. WG THEN VISUALLY INSPECT AIR BARRIER AND SEAL NOTED SOURCES OF LEAKAGE; (3) SUBMIT A FOLLOW UP REPORT TO JURISDICTION NOTING CORRECTIVE MEASURES TAKEN

Q. WALL OPENINGS: COORDINATE WALL OPENING REQUIREMENTS FOR MECHANICAL DUCTS, PIPES, ETC. AND FOR ELECTRICAL CONDUIT WITH MECHANICAL AND ELECTRICAL DRAWINGS AND PROVIDE AS NEEDED. OPENINGS SHALL BE SIZED ONLY AS NEEDED FOR THESE PENETRATIONS AND SHALL BE SEALED AT EDGES FOR SOUND CONTROL AND FIRE-STOPPED PER SPECIFICATIONS AND BUILDING CODE REQUIREMENTS WHERE REQUIRED, TYP.

R. FIRE SPRINKLER SYSTEM: SPRINKLER PIPES, DRAIN VALVES AND OTHER COMPONENTS OF THE SYSTEM (EXCEPT HEAD) SHALL NOT BE EXPOSED TO VIEW EXCEPT IN MECHANICAL ROOMS, ELECTRICAL ROOMS, CUSTODIAN ROOMS, ROOMS WITH EXPOSED STRUCTURE AND ATTICS, UNLESS NOTED OTHERWISE. ALSO SEE ARCHITECTURE REFLECTED CEILING PLANS FOR LOCATION OF EXPOSED FIRE LINES. EXPOSED FIRE LINE LOCATIONS WILL NEED TO BE COORDINATED WITH MECHANICAL, ELECTRICAL LIGHTING, AND ARCHITECTURAL CEILING ELEMENTS. PROVIDE ACCESS PANELS/DOORS FOR FIRE SPRINKLER SYSTEM ACCESS WHERE SPRINKLER HEADS, DRAIN VALVES, INSPECTORS, TESTS, ETC. ARE INACCESSIBLE WITHOUT DEMOLITION OF BUILDING ELEMENTS. PANELS SHALL BE OF A FUNCTIONAL SIZE FOR APPLICATION, MEET ALL CODE REQUIREMENTS AND CONTRACTOR SHALL COORDINATE WITH THE FIRE SPRINKLER SYSTEM DESIGNER (BIDDER / DESIGN) TO ASSURE ALL SUCH PANELS AND INSTALLATION COSTS ARE INCLUDED IN THE BID. ALL PANELS EXPOSED TO VIEW FROM OCCUPIED SPACES SHALL BE OF A FLUSH DESIGN, PAINTED TO MATCH ADJACENT SURFACES AND FIRE RATED WHERE REQUIRED BY CODE. FIRE SPRINKLER SUB-CONTRACTOR SHALL PROVIDE DRAWINGS CLEARLY INDICATING PROPOSED LOCATIONS OF EXPOSED PIPES, SPRINKLER HEADS AND ACCESS PANELS FOR THE ENGINEER'S REVIEW AND APPROVAL. SHOULD THE ENGINEER NOT APPROVE OF PROPOSED LOCATIONS, CONTRACTOR AND SPRINKLER SYSTEM DESIGNER SHALL ENDEAVOR TO WORK WITH THE ENGINEER TO FIND ACCEPTABLE LOCATIONS. SUCH CHANGES SHALL BE INCLUDED IN THE BID COSTS.

S. DEVICE COORDINATION: ARCHITECTURAL DRAWINGS DO NOT ILLUSTRATE ALL MECHANICAL AND ELECTRICAL ITEMS AND DEVICES. ITEMS AND DEVICES WHICH ARE SHOWN ARE FOR COORDINATION AND LOCATING PURPOSES. SEE MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. LACK OF ILLUSTRATION OF DEVICES AND/OR BUILDING ELEMENTS ON ARCHITECTURAL DRAWINGS DOES NOT EXCLUDE SUCH WORK FROM BID. NOTIFY ENGINEER IMMEDIATELY OF ANY CONFLICTS FOR CLARIFICATION. DO NOT PROCEED WITH WORK WITHOUT CLARIFICATION.

SYMBOLS

EXT/INT ELEVATION REFERENCE
- ELEVATION NUMBER
- SHEET NUMBER

BUILDING SECTION REFERENCE
- SECTION NUMBER
- SHEET NUMBER

ROOM NUMBER REFERENCE
- OFFICE 101
- ROOM NAME
- ROOM NUMBER

DOOR NUMBER REFERENCE
- DOOR DESIGNATION (GENERALLY CORRESPONDS TO ROOM NUMBER WHERE DOOR OCCURS)
- DOOR SUFFIX

WINDOW NUMBER REFERENCE
- WINDOW TYPE
- WINDOW NUMBER

DETAIL REFERENCE
- DETAIL LETTER
- DETAIL NUMBER

CABINET REFERENCE
- CABINET DESIGNATION
- A8.XX INTERIOR ELEVATIONS

WALL TYPE REFERENCES
- NOTES
- WALL TYPE DESIGNATION
- FIRE RATING
- WALL TYPE EXTENTS

SIGNAGE REFERENCE
- SIGN NUMBER
- SIGN TYPE

GRID LINE REFERENCE
- LETTER OR NUMBER DESIGNATION

REFERENCE POINT/ DIM. POINT
OR

CENTERLINE

DIMENSION LINE

PLAN
- WOOD STUD WALL

SECTION
- CONCRETE
- FINISH WOOD
- WOOD MEMBER CONTINUOUS
- WOOD MEMBER NON-CONTINUOUS
- GYPSUM WALL BOARD
- PLYWOOD
- RIGID INSULATION
- BATT INSULATION, LOOSE FILL OR BLANKET INSULATION
- SPRAY FOAM INSULATION
- CRUSHED ROCK, GRAVEL OR PEA GRAVEL, AS NOTED
- SUBSURFACE, SEE SPECIFICATIONS

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GENERAL ABBREVIATIONS

NOTE: ALSO SEE GENERAL NOTES AND SCHEDULES FOR ADDITIONAL SPECIFIC ABBREVIATIONS NOT LISTED HERE, SPECIFIC ABBREVIATIONS IN THE SCHEDULES AND GENERAL NOTES SHALL SUPERCEDE THE DEFINITION OF ABBREVIATIONS GIVEN IN THE GENERAL ABBREVIATIONS

@	At
&	And
A/C	Air Conditioning
A/V	Audio/Video
AB	Anchor Bolt
AC	Asphalt Concrete
ACP	Acoustical Ceiling Panels
ACT	Acoustical Ceiling Tile
ACL	Acoustical
AD	Above Datum
ADA	Americans with Disabilities Act
ADD	Additive
ADD'L	Additional
ADJ	Adjustable
ADM	Addendum
ADMIN	Administration or Administrative
AFF	Above Finish Floor
AL	Aluminum
ALT	Alternate
ALUM	Aluminum
ANOD	Anodized
AP	Access Panel
APRX	Approximate
ARCH	Architect (ural)
ASPH	Asphalt
ASST	Assistant
ASSY	Assembly
AUTO	Automatic
AWP	Acoustical Wall Panel
B	Bottom
BD	Board
BEL	Below
BLDG	Building
BLK	Block
BLKG	Blocking
BLT	Built
BLKG	Blocking
BM	Beam
BO	Bottom Of
STRUCT	Bottom Of Structure
BOT	Bottom
BPL	Base Plate
BRG	Bearing
BRK	Brick
BS	Back Splash
BTWN	Between
C	Channel or Camera
CABT	Cabinet
CB	Catch Basin
C/C	Center to Center
CEM	Cement
CH	Coat Hook
CIP	Cast-In-Place
CIPC	Cast-in-Place Concrete
CJ	Control Joint
C/L	Centerline
CLG	Ceiling
CLOS	Closet
CLR	Clear
CMU	Concrete Masonry Unit
CO	Cleanout
COJ	Construction Joint
COL	Column
COMP	Composition or Composite
CONC	Concrete
COND	Condition
CONF	Conference
CONST	Construction
CONT	Continuous
CONTR	Contract(or)
COORD	Coordinate
CORR	Corridor
CPT	Carpet
CT	Ceramic Tile
CTR	Center or Counter
CW	Curtain Wall
CWT	Ceramic Wall Tile
CTW	Ceramic Tile Wainscot

DBL	Double
DEG	Degree
DEMO	Demolition
DET	Detail
DF	Drinking Fountain
DIAG	Diagonal
DIA	Diameter
DIM	Dimension
DISP	Dispenser
DL	Dead Load
DMPR	Damp-proofing
DMT	Demountable
DN	Down
DR	Door
DS	Downspout/Door Swing
DW	Dishwasher
DWG	Drawing
DWR	Drawer
E	East
EA	Each
EB	Expansion Bolt
EC	Electrical Contractor
EJ	Expansion Joint
EL	Elevation
ELEC	Electrical
ELEV	Elevation or Elevator
EMER	Emergency
ENCL	Enclosure
EOFL	Edge of Flange
EP	Electrical Panel
EPS	Expanded Polystyrene
EQ	Equal
EQP	Equipment
ES	Each Side
ETC	Et Cetera
EW	Each Way
EXEC	Executive
EXH	Exhaust
EXIST	Existing
EXP	Exposed
EXPN	Expansion
EXT	Exterior
EXTN	Extinguisher
F	Fire Alarm Pull Station
FA	Fire Alarm Horn
FAP	Fire Alarm Panel
FCMU	Face of Concrete Masonry Unit
FD	Floor Drain
FE	Fire Extinguisher
FEB	Fire Extinguisher Bracket
FEC	Fire Extinguisher Cabinet
FF	Factory Finish
FGWB	Face of Gypsum Wallboard
FH	Fire Hydrant or Flat Head
FIN	Finish
FIO	Furnish & Installed by Owner
FIX	Fixture
FLEX	Flexible
FLR	Floor
FLSH	Flash or Flashing
FM	Floor Mat and Frame
FND	Foundation
FO	Face of
FOC	Face of Concrete
FOCL	Face of Column
FOF	Face of Finish
FOIC	Furnished by Owner; Installed by Contractor
FOM	Face of Masonry
FOS	Face of Stud
FOSH	Face of Sheathing
FRP	Fiberglass Reinforced Panels
FRCP	Fiber Reinforced Cement Panel
FS	Foreshortened
FT	Feet or Foot
FTG	Footing
FUR	Furred or Furring
FWAP	Fluid Applied Water Resistant Product
GA	Gauge
GB	Grab Bar
GALV	Galvanized
GEJ	Gutter Expansion Joint
GL	Glass
GWB	Gypsum Wall Board

H	Height
HBD	Hardboard
HD	Hand Dryer
HDO	High Density Overlay
HDR	Header
HDW	Hardware
HGT	Height
HM	Hollow Metal
HMP	Horizontal Metal Panel
HORZ	Horizontal
HP	High Point
HPC	High Performance Coating
HR	Hour
HSD	Hand Sanitizer Dispensor
HSS	Hollow Structural Section
HT	Height
HVAC	Heating/Ventilating/Air Conditioning
HWH	Hot Water Heater
H20	Water
ID	Inside Diameter
IF	Insulated Float
INCL	Including
INSUL	Insulation
INT	Interior
INV	Invert
ISO	Isometric
IT	Insulated Tempered
JAN	Janitor
JT	Joint
KEC	Kitchen Equip. Sub-Contractor
KIT	Kitchen
KO	Knockout
KP	Kickplate
KS	Knee Space
KSI	Kips per Square Inch
L	Length of Span or Structural Angle
LAB	Laboratory
LAV	Lavatory
LB	Pound or Lag Bolt
LBL	Label
LBS	Pounds
LE	Latex Enamel
LF	Linear Foot
LH	Left Hand
LL	Live Load
LLV	Long Leg Vertical
LOC	Location
LP	Light Proof, Low Point or Light Pole
LT	Light
LTWT	Light Weight
LVR	Louver
MACH	Machine
MAN	Manual
MANUF	Manufactured
MAT	Material
MAX	Maximum
MB	Machine Bolt
MBR	Member
MDF	Medium Density Fiberboard
MDO	Medium Density Overlay
M/E	Mechanical/ Electrical
MEAS	Measure
MECH	Mechanical
MED	Medium
MEMB	Membrane
M/E/P	Mechanical/Electrical/Plumbing
MFR	Manufacturing
MFR	Manufacturer
MH	Manhole
MHO	Magnetic Hold Open
MIN	Minimum
MISC	Miscellaneous
MO	Masonry Opening
MOD	Modular
MOV	Movable
MTD	Mounted
MTG	Mounting
MTL	Metal
MULL	Mullion
MWK	Millwork

H	Height
HBD	Hardboard
HC/	
HDCP	Handicap(ped)
HDO	High Density Overlay
HDR	Header
HDW	Hardware
HGT	Height
HM	Hollow Metal
HMP	Horizontal Metal Panel
HORZ	Horizontal
HP	High Point
HPC	High Performance Coating
HR	Hour
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LL	Live Load
LLV	Long Leg Vertical
LOC	Location
LP	Light Proof, Low Point or Light Pole
LT	Light
LTWT	Light Weight
LVR	Louver
MACH	Machine
MAN	Manual
MANUF	Manufactured
MAT	Material
MAX	Maximum
MB	Machine Bolt
MBR	Member
MDF	Medium Density Fiberboard
MDO	Medium Density Overlay
M/E	Mechanical/ Electrical
MEAS	Measure
MECH	Mechanical
MED	Medium
MEMB	Membrane
M/E/P	Mechanical/Electrical/Plumbing
MFR	Manufacturing
MFR	Manufacturer
MH	Manhole
MHO	Magnetic Hold Open
MIN	Minimum
MISC	Miscellaneous
MO	Masonry Opening
MOD	Modular
MOV	Movable
MTD	Mounted
MTG	Mounting
MTL	Metal
MULL	Mullion
MWK	Millwork

N	North
N/A	Not Applicable
NIC	Not In Contract
NO	Number
NOM	Nominal
NTS	Not to Scale
O/	Over
O/R	Oven/Range
OA	Overall
OC	On Center
OD	Overflow Drain or Outside
OFF	Office
OH	Overhead
OPG	Opening
OPH	Opposite Hand
OPP	Opposite
OS	Outside
PAV	Paving
PAR	Parallel
PART	Partition or Partial
PCC	Precast Concrete
PERF	Perforated
PERIM	Perimeter
PJ	Panel Joint
PKG	Parking or Package
PL	Property Line or Panel
PLAM	Plastic Laminate
PLAS	Plastic
PLY	Plywood
PR	Pair
PREC	Precast
PREFIN	Pre-finished
PROJ	Project
PSF	Pounds/Square Foot
PSI	Pounds/Square Inch
PT	Paint(ed) or Point
PTD	Paper Towel Dispenser
PTRT	Pressure Treated
PW	Plywood
QTY	Quantity
R	Radius or Riser
RA	Return Air
RB	Rubber Base
RC	Resilient Channel
RCP	Reflected Ceiling Plan
RD	Roof Drain
REF	Refrigerator
REINF	Reinforcing
REL	Relocate
REQ'D	Required
REQ'S	Requirements
RESIL	Resilient
RETG	Retaining
RFG	Roofing
RH	Right Hand
RECEPT	Reception
RECPT	Receptacle
RECT	Rectangular
REF	Reference
REFL	Reflected
REFR	Refrigerator
RL	Rain Leader
RM	Room
RO	Rough Opening
ROW	Right-of-Way

S	South
SAM	Self Adheared Water Resistant Membrane
SB	Splash Block
SC	Solid Core
SCH	Schedule
SCHED	Schedule
SD	Soap Dispenser or Storm Drain
SF	Store Front
SECT	Section
SHLVS	Shelves
SHT	Sheet
SHTHG	Sheathing
SIM	Similar
SM	Sheet Metal
SND	Sanitary Napkin Disposal
SOG	Slab on Grade
SPECD	Specified
SPECS	Specifications
SQ	Square
SS	Stainless Steel
SSD	See Structural Drawings
ST	Stain
STD	Standard
STG	Storage
STL	Steel
STRUCT	Structural
SUSP	Suspended
SV	Sheet Vinyl
SVC	Sheet Vinyl Cove
SW	Shear Wall
SYM	Symmetrical/Symmetry
SY	System
xxx	Tread or Top
TC	Top of Curb
TEL	Telephone
T&G	Tongue and Groove
THK	Thick
TJ	Trim Joint
TO	Top of
TOA	Top of Accessory
TOB	Top of Beam
TOC	Top of Concrete or Top of Column
TOF	Top of Fixture
TOP	Top of Parapet
TOPL	Top of Plate
TOR	Top of Rim
TOS	Top of Slab or Top of Steel
TOST	Top of Seat
TOW	Top of Wall
TP	Top of Pavement
TPD	Toilet Paper Dispenser
TRANSP	Transparent
TSCD	Toilet Seat Cover Dispenser
TYP	Typical
UNF	Unfinished
UNO	Unless Noted Otherwise
UON	Unless Otherwise Noted
UR	Urinal
VB	Vapor Barrier
VCT	Vinyl Composition Tile
VERT	Vertical
VEST	Vestibule
VIF	Verify in Field
VMP	Vertical Metal Panel
VOL	Volume
VWC	Vinyl Wall Covering
W	West
W	Width
W/	With
W/D	Washer/Dryer
WB	Wood Base
WC	Water Closet
WD	Wood
WDW	Window
WF	Wide Flange
WGT	Weight
W/O	Without
WP	Waterproof
WR	Weather Resistant
WRB	Weather Resistant Barrier
WSCT	Wainscot
WT	Weight
WWF	Welded Wire Fabric

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MARK: REVISION: BY: APPR: DATE:

5617 REGISTERED ARCHITECT MANUAL J. COOK STATE OF WASHINGTON

APPROVED: 3-29-16
DIRECTOR ENG. DATE CHECKED BY DATE PROJ. ENGR DATE

PRINTED BY:
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PIER 4 PHASE 2 MARINE BUILDING

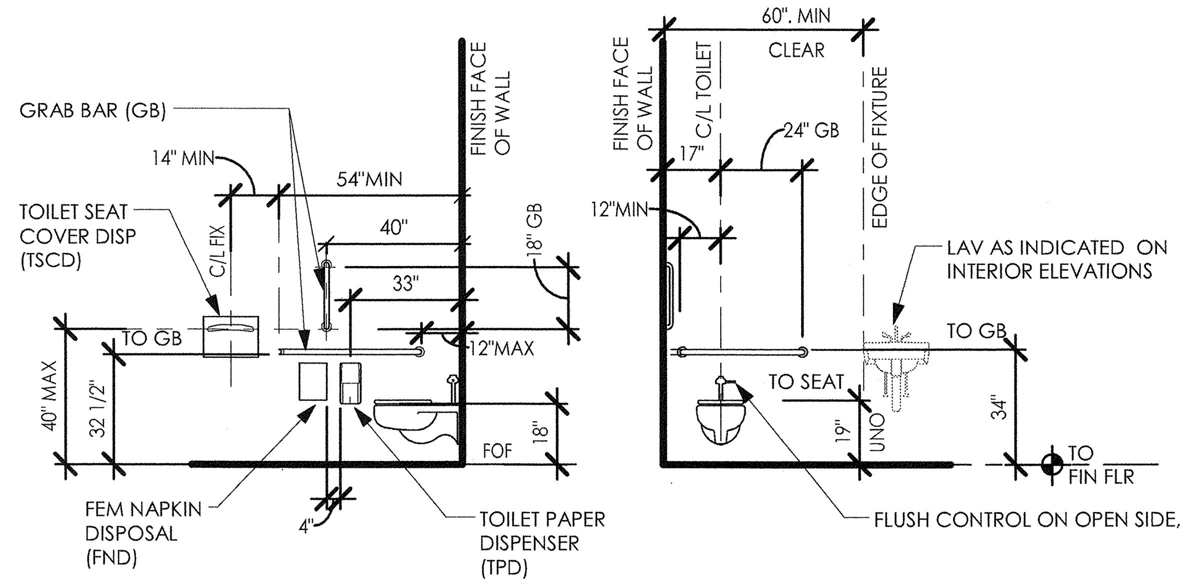
ABBREVIATIONS

TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

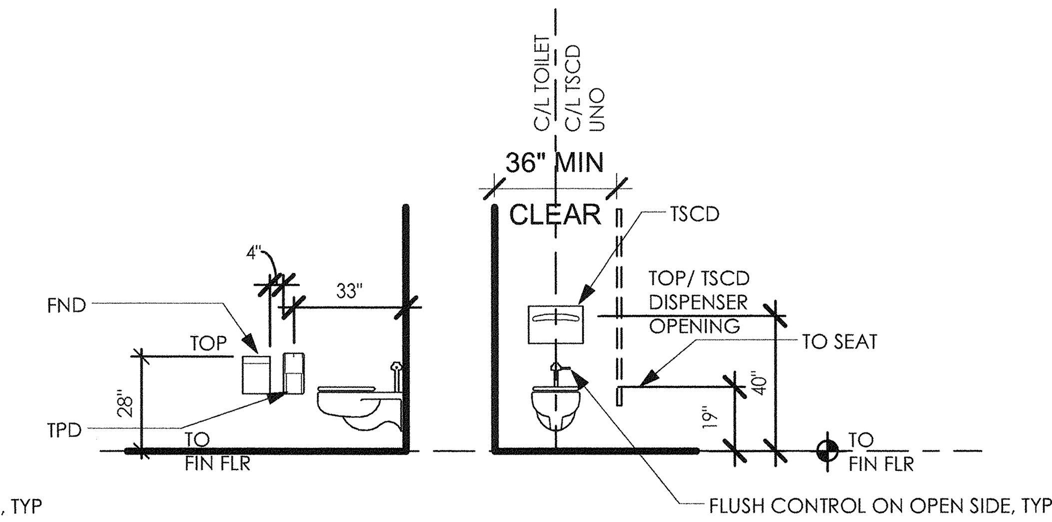
6552
G2.02
SH # 391 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

BINDING EDGE

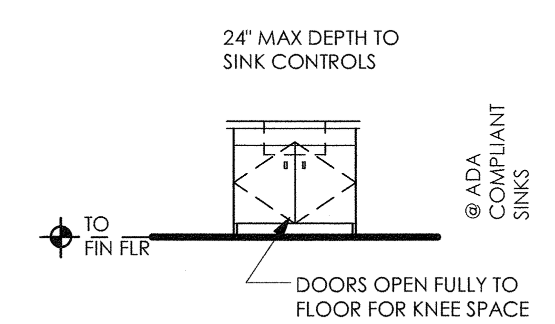
NOTE: ACCESSIBLE COMPARTMENTS TO HAVE; SELF CLOSING DOOR AND HARDWARE AND 9" OF TOE CLEARANCE.



ADA WATER CLOSET

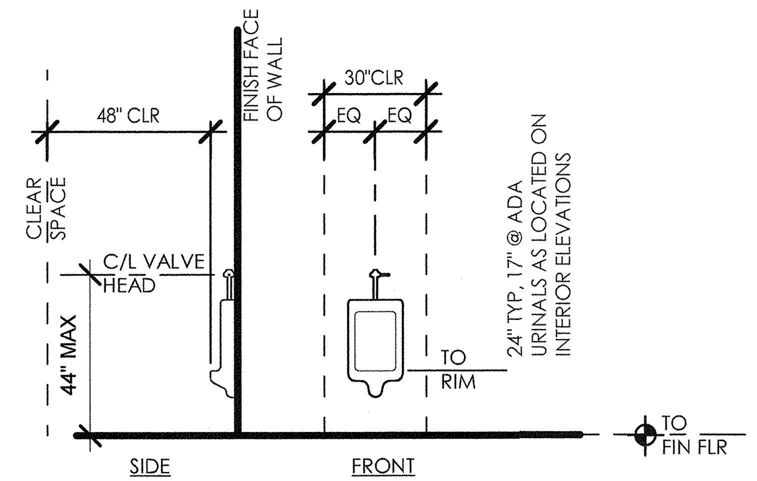


STANDARD WATER CLOSET

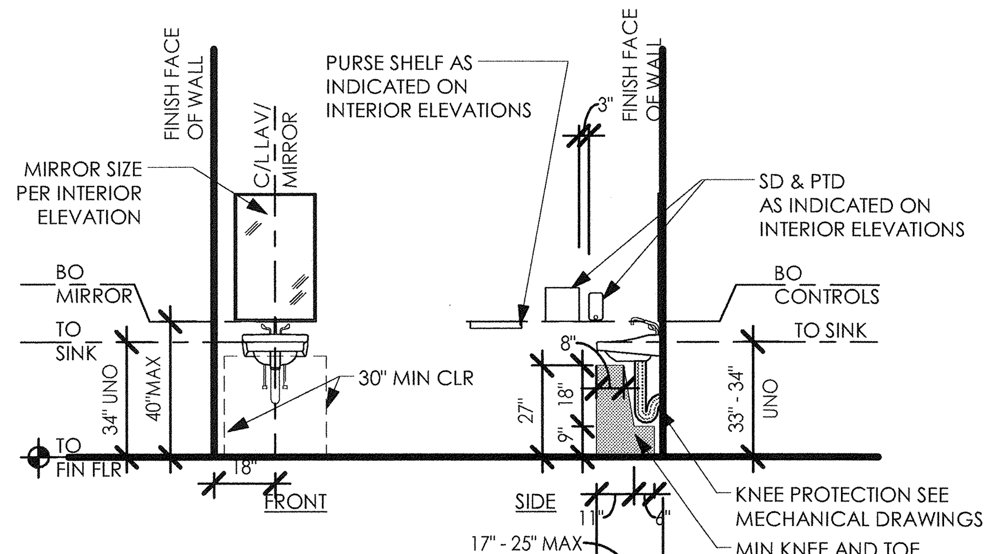


ADA SINK IN CABINET

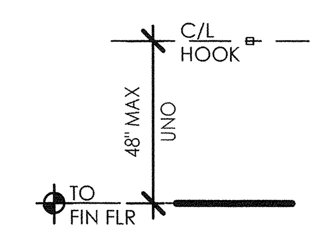
NOTE: PROVIDE KNEE PROTECTION AT PLUMBING INSIDE CASEWORK, SEE MECHANICAL DRAWINGS



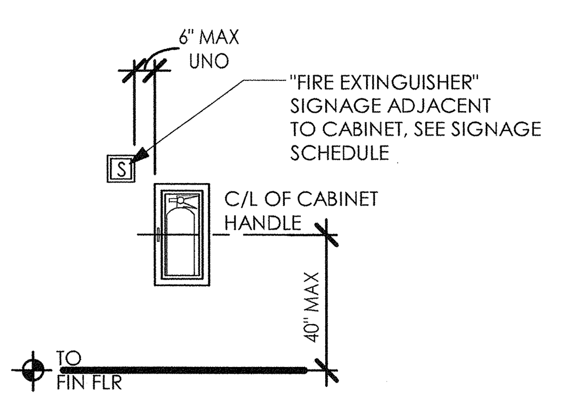
ADA WALL-HUNG URINAL



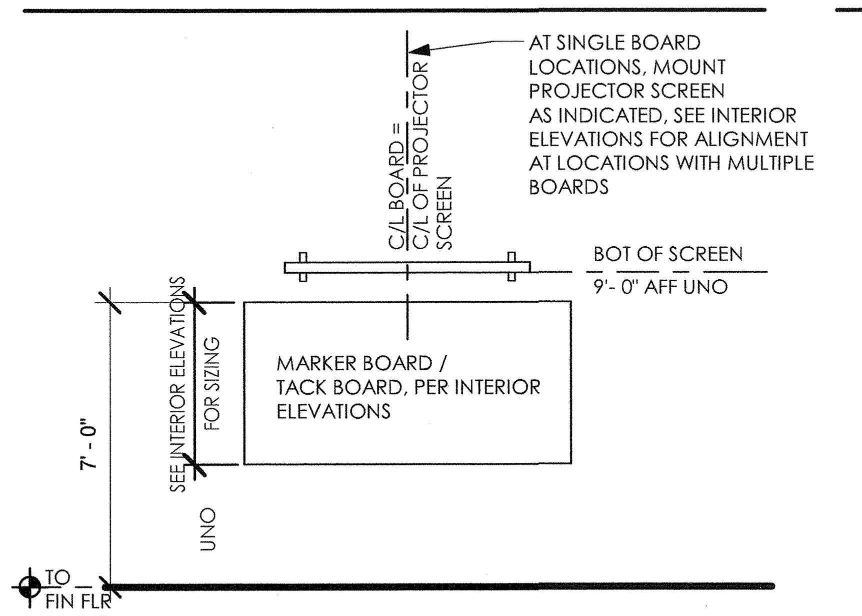
ADA LAVATORY & MIRROR



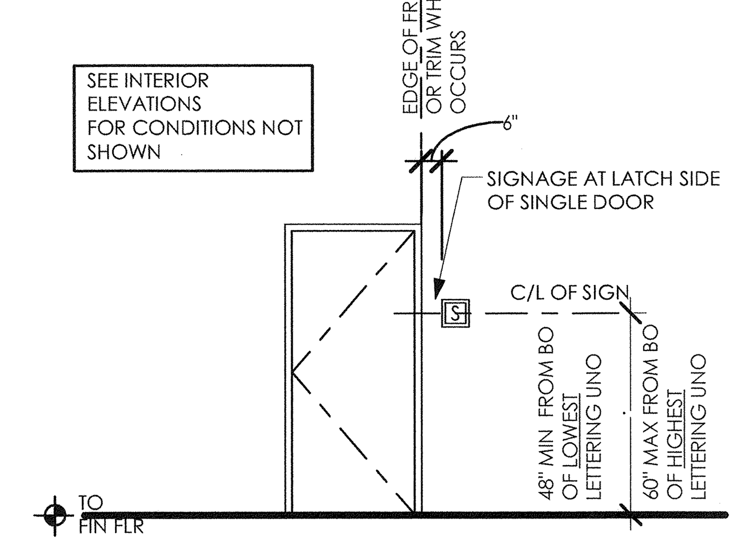
ROBE/ COAT HOOK



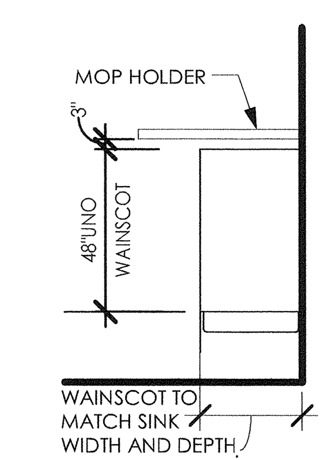
FIRE EXTINGUISHER



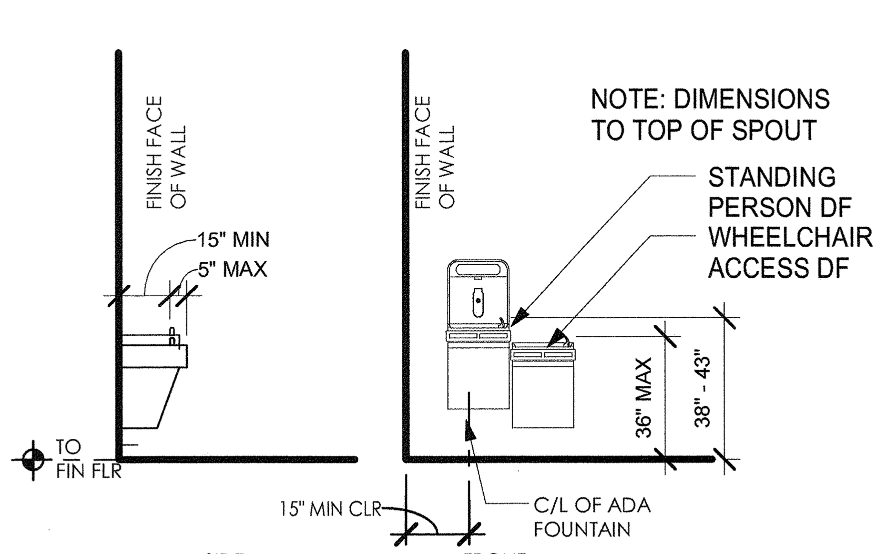
MARKER BOARD, TACK BOARD, AND PROJECTION SCREENS



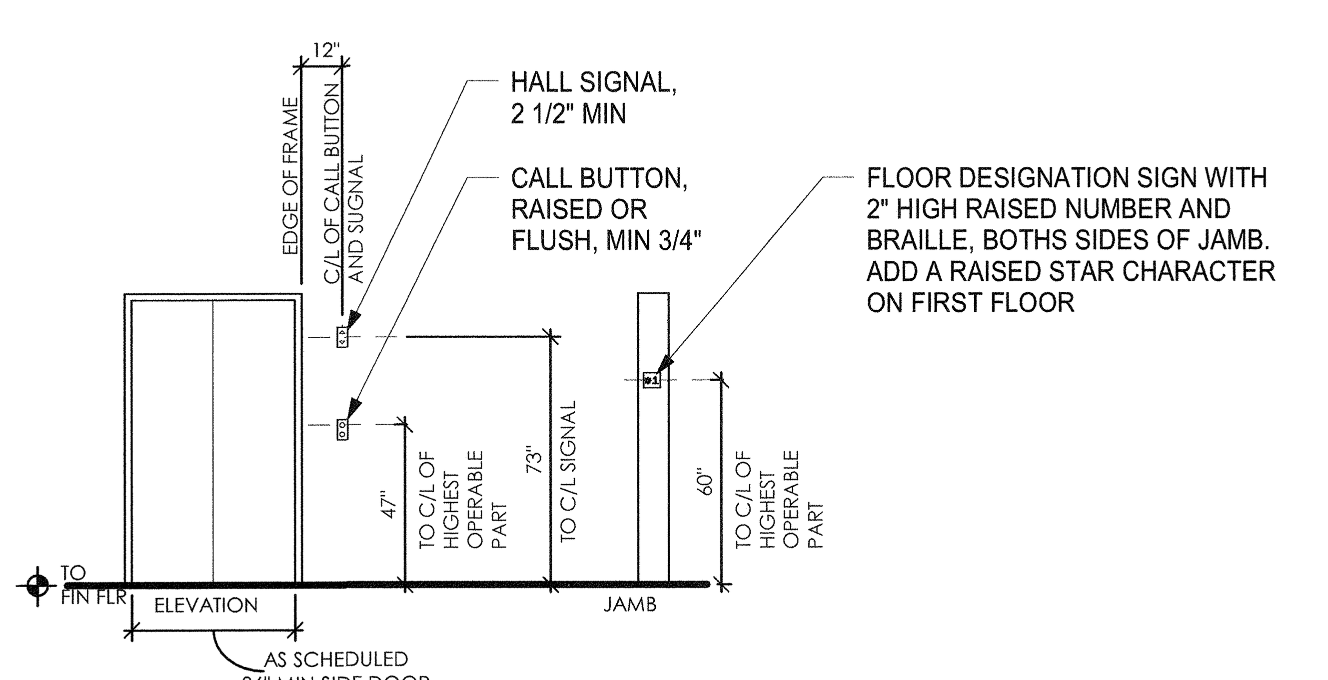
ROOM SIGNAGE



MOP SINK



ADA DRINKING FOUNTAIN



ADA ELEVATOR LANDING

TYPICAL MOUNTING HEIGHTS AND LOCATIONS

A. ACCESSIBILITY: ALL FIXTURES AND ACCESSORIES INDICATED TO BE ADA COMPLIANT OR ACCESSIBLE SHALL FULLY COMPLY WITH ACCESSIBILITY, HANDICAPPED OR DISABLED CODE REQUIREMENTS OF THE LOCAL JURISDICTION, ANSI 117.1-2009 AND THE ADA (AMERICANS WITH DISABILITIES ACT). ANY CONFLICTS IN THESE DRAWINGS OR BETWEEN CODES AND THE ADA SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY FOR CLARIFICATION, PRIOR TO PROCEEDING WITH INSTALLATION.

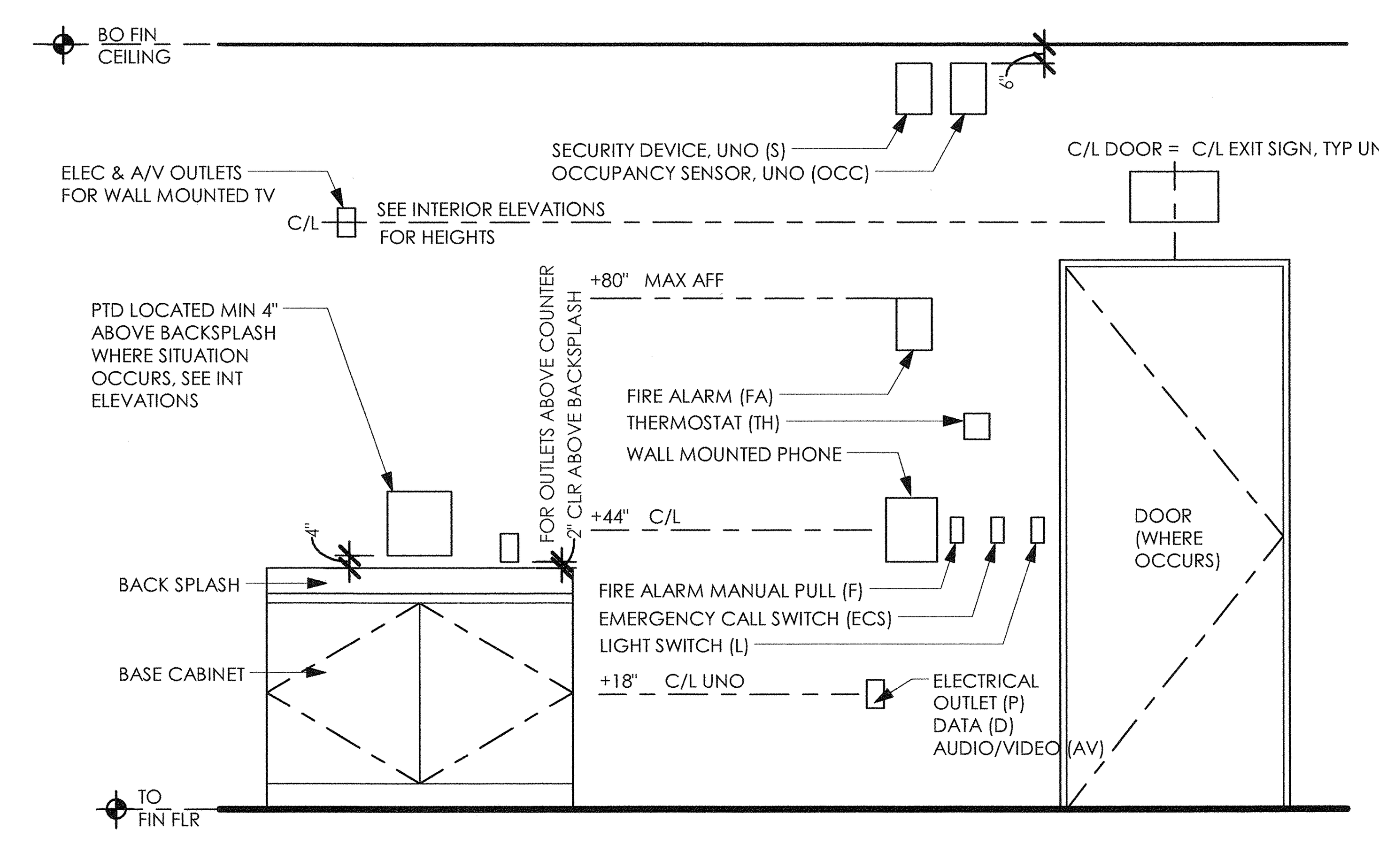
B. SPECIFIC ITEM MOUNTING HEIGHTS: SEE THE INTERIOR ELEVATIONS FOR MOUNTING HEIGHTS OF SPECIFIC ITEMS. MOUNTING HEIGHTS MAY VARY FROM STANDARD MOUNTING HEIGHTS SHOWN HEREIN. MOUNTING HEIGHTS SHOWN ON THE INTERIOR ELEVATIONS SHALL SUPERSEDE THOSE ON THE TYPICAL MOUNTING HEIGHTS SHEET.

C. ITEM PLACEMENT: CONTRACTOR SHALL COORDINATE WITH ALL SUBCONTRACTORS TO ASSURE ALL FIXTURES AND ACCESSORIES ARE ACCURATELY PLACED. IT IS THE INTENT OF THESE DOCUMENTS TO HAVE ALL FIXTURES AND ACCESSORIES PLACED WITHIN VERY CLOSE TOLERANCES TO THE LOCATIONS AND DIMENSIONS INDICATED. FLOOR SLOPES AND FINISHES SHALL BE TAKEN INTO ACCOUNT WHEN LOCATING FIXTURES AND ACCESSORIES.

D. BACKING: CONTRACTOR TO PROVIDE BACKING FOR ALL WALL AND CEILING MOUNTED ITEMS INCLUDING NIC, FOIC, FIO AND FUTURE ITEMS FOR ALL WALLS AS A PART OF THE BASE BID. INSTALL BACKING PER MANUFACTURER'S RECOMMENDATIONS AND AS REQUIRED BY THE CONTRACT DOCUMENTS. SOLICIT INFORMATION FROM OWNER OR ENGINEER WHERE NEEDED. SEE SPECIFICATIONS AND STRUCTURAL DRAWINGS FOR MORE INFORMATION.

E. NIC, FOIC, FIO AND FUTURE WORK: SEE THE FLOOR PLANS, INTERIOR ELEVATIONS AND SPECIFICATIONS FOR INDICATION OF ITEMS NIC (NOT IN CONTRACT), FOIC (FURNISHED BY OWNER, INSTALLED BY CONTRACTOR), FIO (FURNISHED AND INSTALLED BY OWNER), FUTURE, ETC.

F. DIMENSIONS FOR MOUNTING HEIGHTS: **DIMENSIONS GIVEN FOR TYPICAL MOUNTING HEIGHTS AND LOCATIONS ARE TO FINISH SURFACES.** CONTRACTOR SHALL CAREFULLY COORDINATE ROUGH-IN LOCATIONS TO ACCOUNT FOR FINISH AND WALLBOARD THICKNESS.



ELECTRICAL DEVICES

NOTE: DIMENSIONS SHOWN SHALL BE SUPERSEDED BY DIMENSIONS SHOWN ON INTERIOR ELEVATIONS

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MARK:	REVISION:	BY:	APPR:	DATE:

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MANUAL J. COOK
STATE OF WASHINGTON
5617

APPROVED:
3-29-16
DIRECTOR ENG. DATE | PROJ. ENGR DATE | CHECKED BY DATE

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PIER 4 PHASE 2
MARINE BUILDING
MOUNTING HEIGHT NOTES

TOWNSHIP:	RANGE:	SECTION:	
DAT-HRZ:	WA83-SF	VERT:	MLLW 19.39' @ TIDE 22 1933
PARCEL:		DRAWING SCALE:	AS NOTED

6552
G2.03
SH # 392 OF # 499

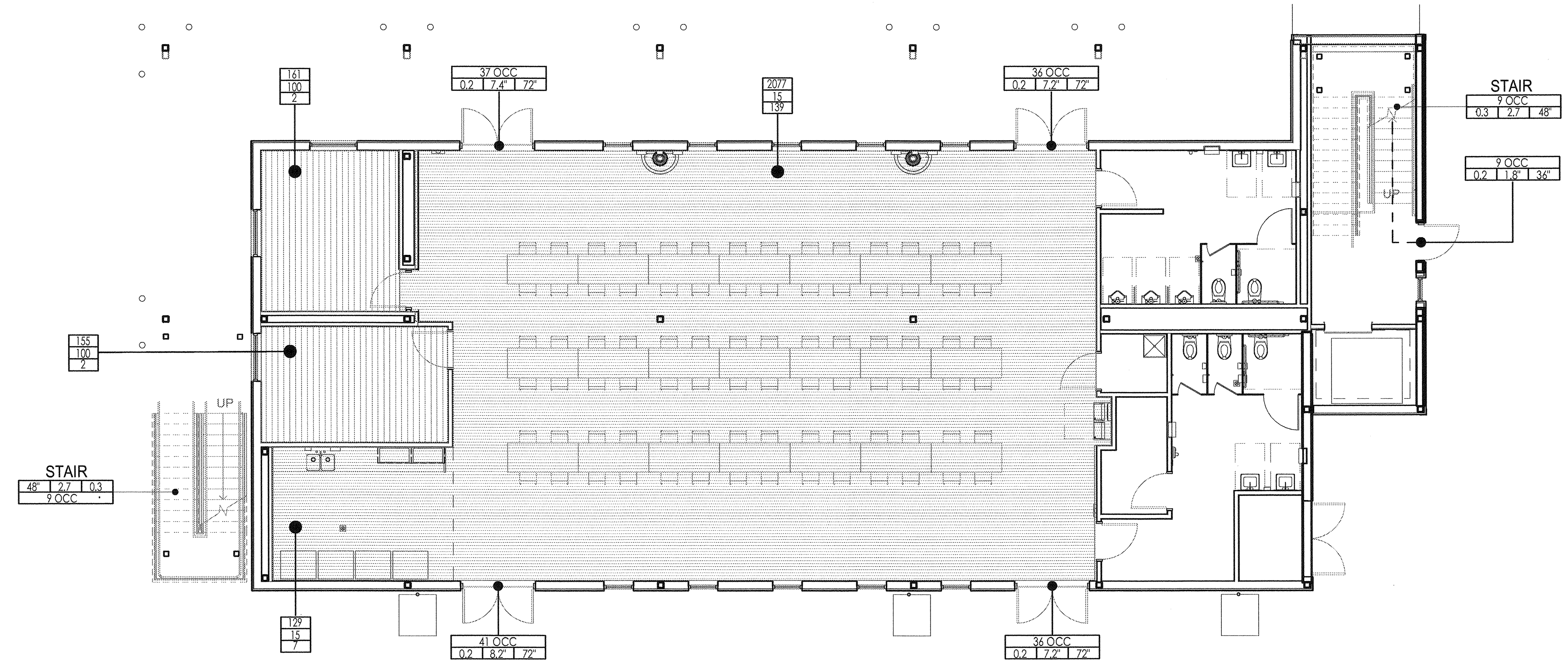
CONT/CONS:	070136
M. ID:	091251
PHASE:	BID

BINDING EDGE

IBC SQUARE FOOTAGE	
BUILDING	6,302 SF
CANOPY (USABLE)	1,019 SF
TOTAL	7,321 SF

IFC SQUARE FOOTAGE	
BUILDING	6,302 SF
CANOPY (USABLE)	1,019 SF
ROOF OVERHANG	0 SF
MEZZANINE/PLATFORM	0 SF
TOTAL	7,321 SF

FENESTRATION	
VERTICAL FENESTRATION	1,207 SF
WALL AREA	8,482 SF
PERCENTAGE	14.23 %



1 LEVEL 1 OCCUPANCY TYPE AND LOAD

1/8" = 1'-0"

150 TOTAL OCCUPANTS

OCCUPANCY LEGEND

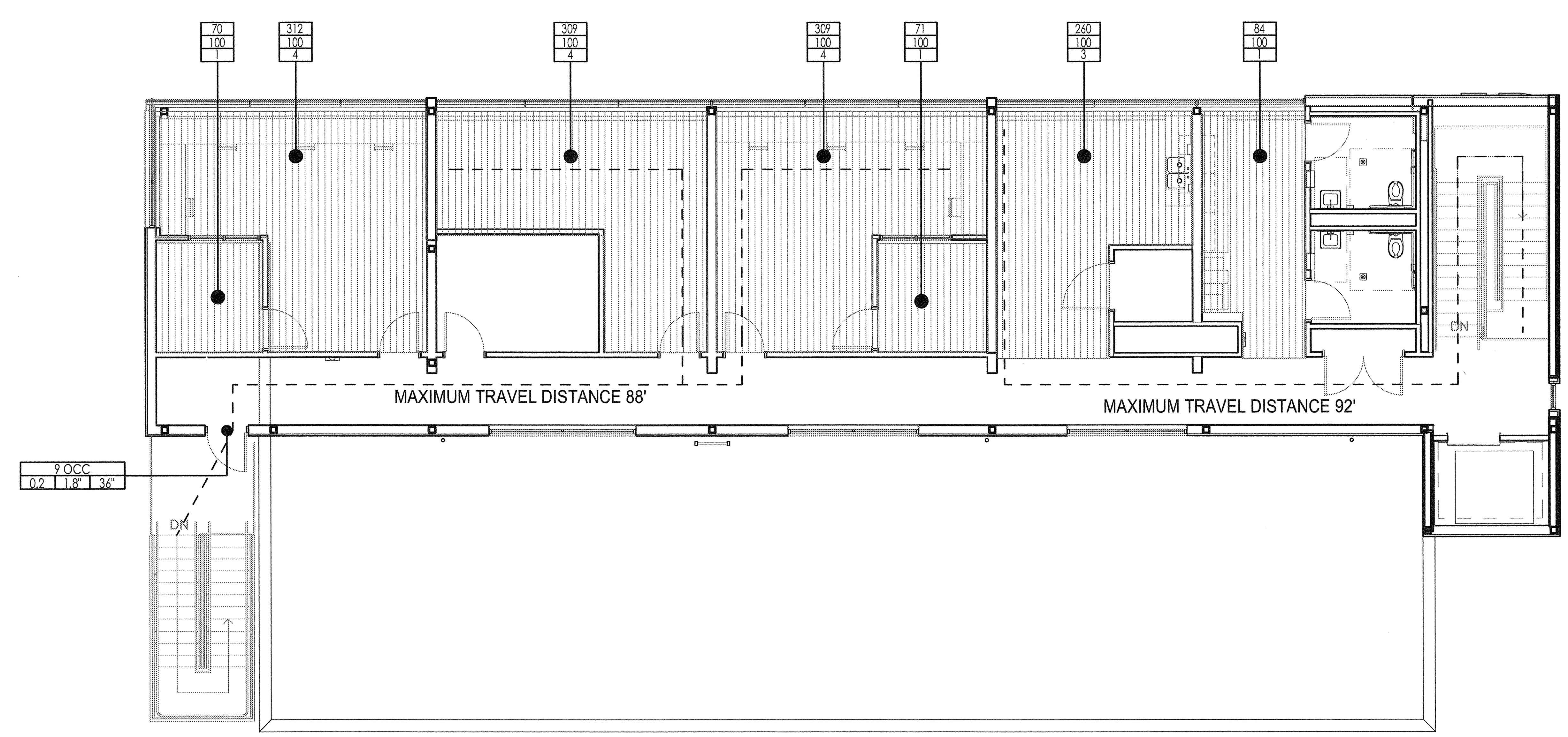
TYPE A-2

TYPE B

SYMBOL LEGEND

ROOM SIZE IN SQUARE FEET
OCCUPANT LOAD FACTOR
ROOM OCCUPANT

XXX OCC
NUMBER OF OCCUPANTS
ACTUAL WIDTH
MINIMUN OPENING SIZE REQUIRED
WIDTH FACTOR



2 LEVEL 2 OCCUPANCY TYPE AND LOAD

1/8" = 1'-0"

18 TOTAL OCCUPANTS

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PIER 4 PHASE 2
MARINE BUILDING
OCCUPANCY TYPES AND LOADS

TOWNSHIP: | RANGE: | SECTION:
DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: | DRAWING SCALE: AS NOTED

6552
G3.01
SH # 393 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

BINDING EDGE

www.tcfarchitecture.com TCF Architecture

COMPREHENSIVE CODE REVIEW

Jurisdictions

City of Tacoma	
Planning	X
Building & Fire Division	X
Washington State Department of Labor and Industries	
Electrical	X

Land Use

Address:	1101 Port of Tacoma Road
Assoc. Parcel #'s:	2275200610
Associated Permits:	4-251456 (For all site and civil related items)

2012 INTERNATIONAL BUILDING CODE REVIEW BY CHAPTER

CHAPTER 1: ADMINISTRATION

101 General

101.4 Referenced Codes

Codes Adopted by Jurisdiction: (Note: All codes are as adopted by the State of Washington and the City of Tacoma. See: *http://www.ci.Tacoma.wa.us/*

Tacoma Municipal Code and Tacoma Amendments

Building	*2012 International Building Code*
Electrical	*2008 National Electrical Code*
Mechanical	*2012 International Mechanical Code*
Plumbing	*2012 Uniform Plumbing Code*
Fire Prevention	*2012 International Fire Code*
Energy	*2012 Washington State Energy Code*
Accessibility	2009 ANSI/ICC A117.1, Uniform Federal Accessibility Standards (UFAS) Port Requirement

102 Applicability

102.6 Existing Structures

Any legally occupied structure existing on the date of adoption of this code, can continue without changes, except as specifically covered in this code, the *International Property Maintenance Code* or the *International Fire Code*, or as is deemed necessary by the *City of Tacoma building official* for the general safety and welfare of the occupants and the public.

No existing structures are a part of this project.

105 Permits

Required Permits

- *Building*
- *Mechanical*
- *Electrical, Department of Labor and Industries*
- *Plumbing*
- *HVAC*
- *Elevator*
- *Fire Sprinkler – deferred submittal by contractor*
- *Fire Alarm – deferred submittal by contractor*

107 Submittal Documents

107.1 General

Number and type of sets to be submitted to the City of Tacoma, *None.*

Electronic submittal, *Yes.*

109 Fees

Fees for plan review and permits to be confirmed with the City of Tacoma

CHAPTER 2: DEFINITIONS

Definitions from Chapter 2 are included in their respective chapter reviews

CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION

302 Classification

302.1 General

A space that is used for multiple *Occupancy Classifications* at different times shall comply with all of the *Occupancy Classification* requirements for each use.

Occupancy Group Classifications Designated in the Project:

Group	IBC Code Section
A (Assembly)	*See Section 303 Below*
B (Business)	*See Section 304 Below*

303 Assembly Group A-2

Food and/or drink consumption is occurring. *The break rm on the first floor falls into this category.*

304 Business Group B

Office, professional or service-type transactions. *All offices on the first floor and the entire second floor fall into this category.*

CHAPTER 4: SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

No special requirements for this project.

CHAPTER 5: GENERAL BUILDING HEIGHTS AND AREAS

502 Definitions

502.1 Definitions

Chapter 2 Definition of "Story": "That portion of a building included between the upper surface of a floor and the upper surface of the floor or roof next above (also see "*Basement*," "*Building height*," "*Grade plane*" and "*Mezzanine*"). It is measured as the vertical distance from top to top of two successive tiers of beams or finished floor surfaces and, for the topmost story, from the top of the floor finish to the top of the ceiling joists or, where there is not a ceiling, to the top of the roof rafters."

Chapter 2 Definition of "Mezzanine": "An intermediate level or levels between the floor and ceiling of any story and in accordance with Section 505."

Chapter 2 Definition of "Building Height": "The vertical distance from grade plane to the average height of the highest roof surface."

Chapter 2 Definition of "Equipment Platform": An unoccupied, elevated platform used exclusively for mechanical systems or industrial process equipment, including the associated elevated walkways, stairs, alternating tread devices and ladders necessary to access the platform (see Section 505.3).

No mezzanine or equipment platforms are a part of this project

Table 503 Allowable Height and Building Areas

Group A-2 (Controlling) Type V-B Construction

Height:	*40'*
Stories:	*1*
Area:	*6,000 SF*

504 Height

504.2 Automatic Sprinkler System Increase

Where the building is equipped throughout with a fire sprinkler system per 903.3.1.1, the table 503 values may be increased by 20 feet in height and one-story.

These increases are permitted in addition to the area increase in 506.2., but cannot be used if a fire-resistive substitute is used in table 601.

Allowable Height with Sprinkler Increase

Height:	*60'*
Stories:	*2*

505 Mezzanines

505.2 Mezzanines

This project has no mezzanines proposed.

505.3 **Equipment Platforms**

This project has no equipment platforms proposed.

506 Building Area Modifications

506.1 General

Table 503 areas may be increased for frontage and fire sprinklers as follows:

$$A_a = \{A_t + [A_t \times I_f] + [A_t \times I_s]\}$$

A_a = Allowable area per story in square feet.

A_t = Tabular area per story per Table 503 in square feet.

I_f = Area increase factor (%) due to frontage per 506.2.

I_s = Area increase factor (%) due to sprinkler protection per 506.3.

506.2 Frontage Increase

Where more than 25% of the building perimeter is on a public way or open space at least 20 feet wide, area may be increased as follows:

$$I_f = [F/P - 0.25]W/30$$

I_f = Area increase factor (%) due to frontage.

F = Building perimeter which fronts on a public way or open space of at least 20 feet wide in feet.

P = Perimeter of entire building in feet.

W = Width of public way or open space in feet per 506.2.1 (W must be at least 20 feet and W/30 shall not exceed 1.0)

506.3 Fire Sprinkler Increase

Where a building is equipped throughout with an automatic fire sprinkler system, the building area may be increased by 200% for multi-story buildings, in addition to allowed height and story increases.

506.4.1 Mixed Occupancies

In buildings with mixed occupancies, the allowable area per story (Aa) shall be based on the most restrictive provisions for each occupancy when the mixed occupancies are treated according to Section 508.3.2

506 Allowable Area Calculations

The building is separated by an area separation into two separate areas by floor. The allowable area for each area is calculated below

Total Areas	
1st Floor Area (interior)	3,702 SF
Floor Overhang (Canopy)	1,019 SF
Roof Overhangs	SF
Total First Floor Area	**4,721 SF**
2nd Floor Area (interior)	2,600 SF
Total Area 1st + 2nd	**7,321 SF**
Total Frontage	
Perimeter	292 LF
Frontage	292 LF

Weighted Average W

W=(37x27) + (89x30) + (9x30) + (10x30) + (31x30) + (10x30) + (15x30) + (89x30) / 292 = 29.6

Frontage Increase

If = [	292 LF /	292 LF	-0.25	]	29.6 /	30	=	0.74
If =	74.0%							

Sprinkler Increase

Is =	200%	two story building

Allowable Area Calculations

Area	*At* Allowable Area	*[At x If]* Frontage Increase	*[At x Is]* Sprinkler Increase	*Aa* Total Allowable
		74%	200%	per floor
	6,000 SF	4,440 SF	12,000 SF	22,440 SF
Aa =	22,440 SF	total square feet allowable per floor		

Actual Allowable Area Check

Total 1st Floor Actual:	4,721 SF	< Aa	Less than	22,440 SF	OK
Total 2nd Floor Actual:	2,600 SF	< Aa	Less than	22,440 SF	OK

507 Unlimited Area Buildings

Not applicable to this project

508 Mixed Use and Occupancy

508.1 General

Each portion of a building shall be individually classified per 302.1. If the building has more than one occupancy group, it must comply with 508.

508.2 Accessory Occupancies

Accessory occupancies are those occupancies that are ancillary to the main occupancy of the building or portion thereof.

This project will be classified as non-separated occupancy and will comply with A-2 occupancy requirements, accessory occupancies does not apply to this project.

508.3 Non-Separated Occupancies

Buildings or portions of buildings that comply with the provisions of this section shall be considered as Non-Separated occupancies.

508.3.1 Non-Separated occupancies shall be individually classified in accordance with Section 302.1. The requirements of this code shall apply to each portion of the building based on the occupancy classification of that space. In addition, the most restrictive provisions of Chapter 9 which apply to the Non-Separated occupancies shall apply to the total Non-Separated occupancy area.

This project will be classified as non-separated occupancy and will comply with A-2 occupancy requirements.

508.3.2 The allowable building area and height of the building or portion thereof shall be based on the most restrictive allowances for the occupancy groups under consideration for the type of construction of the building in accordance with Section 503.1.

See 506.4.1 and 508.3.3.

508.3.3 No separation is required between the A occupancy and B occupancy.

508.4 Separated Occupancies

Buildings or portions of buildings that comply with the provisions of this section shall be considered as Non-Separated occupancies.

This project will be classified as non-separated occupancy and will comply with A-2 occupancy requirements.

509 Incidental Uses

509.1 Incidental uses located within single occupancy or mixed occupancy buildings shall comply with the provisions of this section. Incidental uses are ancillary functions associated with a given occupancy that generally pose a greater level of risk to that occupancy and are limited to those uses listed in Table 509.

Table 509

Not applicable to this project

Chapter 6: TYPES OF CONSTRUCTION

601 General

Table 601 Fire Resistive Rating Requirements for Building Elements

This project will be constructed with Type V-B construction

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PIER 4 PHASE 2
MARINE BUILDING
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6552
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SH # 394 **OF #** 499

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Required Fire Ratings Per Table 601
(Other parts of the code may supersede these requirements)

Primary Structural Frame = *Non-Rated*
Interior Nonbearing Walls = *Non-Rated*
Floor Construction = *Non-Rated*
Roof Construction = *Non-Rated*

602 Construction Classification

602.5 Type V
Type V construction is that type of construction in which the structural elements, *exterior walls* and interior walls are of any materials permitted by the code.

Table 602 Fire Resistive Rating Requirements for Exterior Walls Based on Fire Separation Distance.

All Exterior Walls have a fire separation distance greater than 10', thus no rating is required.

Chapter 7: FIRE-RESISTANCE-RATED CONSTRUCTION

704 Fire-Resistance Rating of Structural Members

704.1 The fire-resistance ratings of structural members and assemblies shall comply with this section and the requirements for the type of construction as specified in Table 601.

Per Table 601 for Type V-B construction, no fire-rated construction is required. This requirement may be superseded by other parts of the code.

705 Exterior Walls

The provisions of this section refer to the fire-resistance requirements contained in Tables 601 and 602. Construction type V-B is a non-rated construction. No building is immediately adjacent to this building.

706 Fire Walls

706.1 General
Each portion of a building separated by one or more *fire walls* that comply with the provisions of this section shall be considered a separate building. The extent and location of such *fire walls* shall provide a complete separation. Where a *fire wall* also separates occupancies that are required to be separated by a *fire barrier* wall, the most restrictive requirements of each separation shall apply.

This project has no fire walls, this section does not apply.

708 Fire Partitions

708.1 General
This section establishes wall assembly requirements per items 1-5.

Items 1, 2, 3, 4 and 5 do not apply to the project.

Item 4 - Corridor walls must comply with 1018.1.

Table 1018.1: Since the building in this project is fully sprinklered, Table 1018.1 does not require a fire rating at corridors for any of the occupancies in the project.

Item 5 – Lobby separation as required by 713.14.1.

713.14.1: Since the building in this project is under 3 stories, 713.14.1 does not require a separated enclosed lobby.

710 Smoke Partitions
If required elsewhere in the code, a smoke barrier shall comply with this section.

Per Table 509 no smoke partitions are required as part of this project.

711 Horizontal Assemblies

Floor and roof assemblies required to have a fire-resistive rating shall comply with this section. Nonfire-resistance-rated floor and roof assemblies shall comply with Section 714.4.2.

The project is not required to have fire-resistance rated horizontal assemblies for the following reasons:
- *The building construction type is non-rated construction.*
- *The building is designed as non-separated uses.*
- *Fire areas are not required to reduce the size of fire areas to below threshold values for sprinkler requirements in Section 903.*

711.4.1 Nonfire-resistance-rated assemblies
Joints in or between floor assemblies without a required fire-resistance rating shall comply with one of the following:
1. The joint shall be concealed within the cavity of a wall.
2. The joint shall be located above a ceiling.
3. The joint shall be sealed, treated or covered with an approved material or system to resist the free passage of flame and the products of combustion.

This project will comply with the requirement of this section for joints that don't meet one of the exceptions listed in Section 715.1.

714 Penetrations

This section shall govern the materials and methods of construction used to protect through penetrations and membrane penetrations of horizontal assemblies and fire-resistance rated wall assemblies.

714.3.2 Membrane penetrations
Membrane penetrations shall comply with Section 714.3.1. Where walls or partitions are required to have a fire-resistance rating, recessed fixtures shall be installed such that the required fire-resistance will not be reduced.

Membrane penetrations will be designed per the requirements and exceptions of this Section.

714.4.2 Nonfire-resistance-rated assemblies

Penetrations of nonfire-resistance-rated floor or floor/ceiling assemblies or the ceiling membrane of a nonfire-resistance-rated roof/ceiling assembly shall meet the requirements of Section 713 or shall comply with Section 714.4.2.1 or 714.4.2.2

For this project the annular space at all pipes, conduits, ducts, etc. are to be filled with an approved material meeting this standard.

714.5 Penetrations in smoke barriers
Penetrations in smoke barriers shall be protected by an approved through-penetration firestop system installed and tested in accordance with the requirements of UL 1479 for air leakage.

For this project the annular space at all pipes, conduits, ducts, etc. are to be filled with an approved material meeting this standard.

715 Fire-Resistant Joint Systems

Joints in fire-resistance-rated assemblies will be protected per the requirements and exceptions of this Section.

718 Concealed Spaces

718.2 Fireblocking
In combustible construction, fireblocking shall be installed to cut off concealed draft openings (both vertical and horizontal) and shall form an effective barrier between floors, between a top story and a roof or attic space. Fireblocking shall be installed in the locations specified in Sections 718.2.2 and 718.2.7.

For this project draftstopping is required and will be provided in accordance with requirements of this Section except for the following:

- *Per 718.2.6, exception 3, fireblocking is not required since the exterior wall finish is non-combustible.*
- *Per 718.2.7, exception 1, fireblocking is not required at the wood floor in the Gymnasium since it is installed over a slab-on-grade and it is existing.*
- *Per 718.3.3, exception, the building is fully sprinklered therefore draftstopping is not required in the floors.*
- *Per 718.4.3, exception, the building is fully sprinklered therefore draftstopping is not required at the mechanical attics.*

720 Thermal- and Sound-Insulating Materials

Insulating materials, including facings such as vapor retarders and vapor-permeable membranes, similar coverings, and all layers of single and multilayer reflective foil insulations, shall comply with the requirements of this section including specifications regarding flame spread index or smoke-developed index requirements.

721 Prescriptive Fire Resistance

Table 720.1 provides lists of assemblies and ratings.

CHAPTER 8: INTERIOR FINISHES

803 Wall and Ceiling Finishes

Wall and ceiling finishes shall be classified in accordance with ASTM E 84 and shall be grouped as follows:

Class A: F lame spread of 0-25; smoke developed 0-450.

Class B: Flame spread of 26-75; smoke developed 0-450.

Class C: Flame spread of 76-200; smoke developed 0-450.

Table 803.9 Interior Wall and Ceiling Finish Requirements by Occupancy (For Sprinklered Buildings)
- Exit enclosures and exit passageways: Class B for all occupancies associated with this project.
- Corridors: Class B at A occupancies and class C at B occupancies
- Rooms and enclosed spaces: Class C for all occupancies

All materials anticipated for this project will comply with 803

Flame Spread Index Table
Revised August 18th, 2014

Finish Material	Minimum Required	Flame Spread of Material Specified
Walls		
Ceramic Tile	Class B	Class A
Plastic Laminated (PLAM) Wainscot	Class B	Class B
Ceilings		
Acoustic Ceiling Panel (ACT)	Class B	Class A

804 Interior Floor Finish

Materials anticipated for this project will comply with section 804.

806 Decorative Materials and Trim

...Curtains, draperies, hangings and other decorative materials suspended from walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with 806.2 or be noncombustible...

Fixed or movable walls and partitions, paneling, wall pads and crash pads applied structurally or for decoration, acoustical correction, surface insulation or other purposes shall be considered interior finish if they cover 10 percent or more of the wall or of the ceiling area, and shall not be considered decorative materials or furnishings.

Applicable materials in this project do not cover more than 10% of the wall or ceiling area.

807 Insulation
Thermal and acoustical insulation shall comply with Section 720.

The requirements of this Section will be met for this project.

808 Acoustical Ceiling Systems

The requirements of this Section will be met for this project.

CHAPTER 9: FIRE PROTECTION SYSTEMS

903 Automatic Sprinkler Systems

903.2.1 Group A
An automatic sprinkler system will be in all Occupancies.

903.2.3 Group B
An automatic sprinkler system will be in all Occupancies.

903.3 Installation Requirements
Per 903.3.1.1 an automatic sprinkler system complying with the requirements of NFPA 13 shall be installed throughout.

The sprinkler system for this Project will be a bidder-design / installed system and will be submitted for permitting as a deferred submittal.

906 Portable Fire Extinguishers

Portable fire extinguishers shall be provided in occupancies and locations as required by the International Fire Code.

907 Fire Alarm and Detection Systems

907.1.1 Construction Documents
Construction documents for fire alarm systems will be submitted by the contractor for review and approval by the reviewing agency prior to system installation. Construction documents shall include those items listed in this section.

Note: For this Project, the fire alarm system will be a bidder-design /installed system and will be submitted for permitting as a deferred submittal.

907.2 Where Required
A system installed per this code and NFPA 72 shall be provided in new buildings and structures in accordance with this section and provide automatic notification in accordance with 907.9. Where automatic sprinkler protection is installed per 903.3 is provided and connected to the building fire alarm system, automatic heat detection required by this section shall not be required.

Bidder-design fire alarm system will comply with requirements of this section.

907.4.2 Manual Fire Alarm Boxes
Manual fire alarm boxes shall comply with the requirements of this section.

912 Fire Department Connections

Fire department connections and related signage shall be provided as required by this section and the NFPA.

CHAPTER 10: MEANS OF EGRESS

1003 General Means of Egress

The requirements of 1003 through 1013 shall apply to all three elements of the means of egress system.

1003.2 Ceiling Height
The means of egress shall have a ceiling height of not less than 7 feet 6 inches.

Note: Exception 4 applies to stairs per 1009.5 (80 inches min.).

1003.3 Protruding Objects

1003.3.1 Headroom
Head height can be reduced to 80" for hanging objects (lights, etc.). Need to provide a barrier if head height is less than 80". Per exception, at door closers and stops head height can be reduced to 78".

1003.3.3 Horizontal Projections
Structural elements, fixtures, etc. shall not project horizontally from the side by more than 4" over the walking surface from +27" to +80".

1004 Occupant Load

1004.1 Design Occupant Load

1004.1.1.1 Intervening Spaces
Where occupants egress from one room, area or space through another, the design occupant load shall be based on the cumulative occupant loads of all rooms, areas of spaces to that point along the path of egress travel.

1004.1.2 Areas without fixed seating
The number of occupants shall be computed at the rate of one occupant per unit of area as prescribed in Table 1004.1.2. Per Exception, the building official may determine the actual number of occupants for a space, floor or building, to be used in the calculation of occupant load.

Table 1004.1.1 Maximum Floor Area Allowances per Occupant

Accessory stg. areas, mech. equip. room	300 gross
Assembly without fixed seats	15 net at unconcentrated (tables & chairs)
Business areas	100 gross

1004.3 Posting of Occupant Load
Shall be posted for all assembly spaces near the main exit or exit access doorway. This applies to assembly occupancies.

1004.8 Outdoor areas
Yards, patios, courts and similar outdoor areas accessible to and usable by the building occupants shall be provided with means of egress as required by this chapter.

1005 Egress Width

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1005.3 Required capacity based on occupant load.
The required capacity, in inches, of any means of egress for any room, area, space or story shall not be less than that determined in accordance with Sections 1005.3.1 and 1005.3.2.

- *0.2 inches/occupant for stairs per 1005.3.1 exception*
- *0.15 inches/occupant for other egress components per 1005.3.2 exception*
- *Exceptions: mean of egress complying with section 1028*

1005.5 Distribution of egress capacity
Multiple means of egress shall be sized such that the loss of any one means of egress shall not reduce the available capacity to less than 50 percent of the required capacity. The maximum capacity required from any story of a building shall be maintained to the termination of the means of egress.

1005.7 Door Encroachment
Doors opening into the path of egress travel shall not reduce the required with not less than one-half during the course of the swing. When fully open, the door shall not project more than 7 inches into the required width.

1006 Means of Egress Illumination
The means of egress, including the exit discharge, shall be illuminated at all times the building space served by the means of egress is occupied.

1006.2 Illumination level
The means of egress illumination level shall not be less than 1 footcandle at the walking surface.

This requirement will be met in the project.

1006.3 Emergency power for illumination
The emergency power system shall provide power for a duration of not less than 90 minutes and shall consist of storage batteries, unit equipment or an on-site generator.

Emergency power will be provided as required.

1007 Accessible Means of Egress
Accessible spaces shall be provided with not less than one accessible means of egress. Where more than one means of egress is required by 1015.1 or 1021.1 from any accessible space, each accessible portion of the space shall be served by not less than two accessible means of egress.

A continuous and unobstructed means of egress travel from any accessible point in the building to a public way will be provided.

1007.2 Continuity & Components
Each required means of egress shall be continuous to a public way and shall consist of one or more of the listed components.

1007.3 Stairways
An exit stairway shall have a clear width of 48" min. between handrails. The following exceptions apply:

Per exception 1, the clear width of 48" between handrails is not required at exit stairways in buildings that are equipped throughout with a fire sprinkler system.

Per exception 2, an area of refuge is not required at stairways in buildings equipped throughout with an automatic fire sprinkler system.

1007.4 Elevators
In order to be considered part of an accessible means of egress, an elevator shall comply with the emergency operation and signaling device requirements of Section 2.27 of ASME A17.1. Standby power shall be provided in accordance with chapter 27 and section 3003.

Per exceptions 2 & 3, the elevator is not required to be accessed from an area of refuge or horizontal exit.

1007.6 Area of Refuge

No areas of refuge are required for this project per 1007.3, exception 2.

1007.9 Signage (for areas of refuge)

Not applicable to this project.

1008 Doors, Gates & Turnstiles

1008.1 Doors
Means of egress doors shall meet the requirements of this section. Doors serving a means of egress system shall meet the requirements of this section and 1020.2. Doors provided for egress purposes in numbers greater than required by this code shall meet the requirements of this section.

1008.1.1 Size of Doors
The minimum width of each door opening shall be sufficient for the occupant load thereof and shall provide a clear width of not less than 32 inches. The maximum width of a swinging door leaf shall be 48 inches nominal. The height of doors shall not be less than 80 inches.

1008.1.2 Door Swing
Egress doors shall be side-hinged swinging.

Doors shall swing in the direction of travel for occupant loads of 50 or more.

1008.1.5 Floor Elevation
There shall be a floor or landing on each side of a door at the same elevation on each side of the door, and shall be level except at the exterior which are allowed to slope at ¼ inch per foot.

1008.1.6 Landings at Doors
Landings shall have a width not less than the width of the stairway or the door, whichever is greater. Doors in the fully open position shall not reduce a required dimension by more than 7". When a landing serves an occupant load of 50 or more, doors in any position shall not reduce the landing to less than one-half its required width. Landings shall have a length measured in the direction of travel of not less than 44".

1008.1.8 Door Arrangement
Space between two doors in a series shall be 48 inches minimum plus the width of a door swinging into the space. Doors in a series shall swing either in the same direction or away from the space between the doors.

1008.1.9 Door Operations

Except as specifically permitted by this section egress doors shall be readily openable from the egress side without the use of a key or special knowledge or effort.

1008.1.9.9 Electromagnetically locked egress doors.
Doors in the *means of egress* in buildings with an occupancy in Group A, B, E, M, R-1 or R-2, and doors to tenant spaces in Group A, B, E, M, R-1 or R-2, shall be permitted to be electromagnetically locked if equipped with listed hardware that incorporates a built-in switch and meet the requirements below:

1. The listed hardware that is affixed to the door leaf has an obvious method of operation that is readily operated under all lighting conditions.
2. The listed hardware is capable of being operated with one hand.
3. Operation of the listed hardware directly interrupts the power to the electromagnetic lock and unlocks the door immediately.
4. Loss of power to the listed hardware automatically unlocks the door.
5. Where panic or *fire exit hardware* is required by Section 1008.1.10, operation of the listed panic or *fire exit hardware* also releases the electromagnetic lock.

1008.1.10 Panic and Fire Exit Hardware
...Each door in a means of egress from a Group A or E occupancy having an occupant load of 50 or more...shall not be provided with a latch or lock unless it is panic hardware or fire exit hardware.

Electrical rooms with equipment rated 1,200 amperes or more...with exit access doors must be equipped with panic hardware and doors must swing in the direction of egress.

1009 Stairways

1009.3 Exit Access Stairways
The enclosure requirements are for "interior exit access stairways" that are between stories. Exit access stairways between elevation changes on the same story or serving mezzanines do not serve different stories; therefore, the enclosure requirements in this section are not applicable.

1009.3, Exception 1
In other than Group I-2 and I-3 occupancies, exit access stairways that serve, or atmospherically communicate between, only two stories are not required to be enclosed.

1009.4 Stairway Width
The width of stairways shall be determined as specified per Section 1005.1 but shall not less than 44.

1009.4, Exception 1
Stairways serving an occupant load of less than 50 shall have a width of not less than 36 inches.

1009.5 Headroom
Stairways shall have minimum width headroom of 80 inches...

1009.7 Stair Treads and Risers
Risers shall be 4" minimum and 7" maximum. Treads shall be 11" minimum.

1009.7.2, Exception 2, ship ladders in accordance with Section 1009.14.

1009.8 Stairway Landings
There shall be a floor or landing at the top and bottom of each stairway. The width of landings shall not be less than the width of stairways they serve. Where the stairway has a straight run the depth need not exceed 48 inches. Doors opening onto a landing shall not reduce the landing to less than one-half the required width. When fully open, the door shall not project more than 7 inches into a landing.

1009.9 Stairway Construction

1009.9.3 Enclosures under Stairways
The walls and soffits within enclosed usable spaces under enclosed and unenclosed stairways shall be protected by 1-hour fire-resistance-rated construction or the fire-resistance rating of the stairway enclosure, whichever is greater. Access to the enclosed space shall not be directly from within the stair enclosure.

Areas beneath the stairways are not enclosed.

1009.10 Vertical Rise
A flight of stairs shall not have a vertical rise greater than 12 feet between floor levels or landings.

1009.15 Handrails
Stairways shall have handrails on each side and shall comply with 1012.

1010 Ramps

1010.2 Enclosure
All interior exit ramps shall be enclosed in accordance with the applicable provisions of Section 1022

1010.3 Slope
1:12 maximum

1010.5 Vertical Rise
30" maximum (between landings)

1010.5 Minimum Dimensions
Width per occupant load, but not less than 36". 80" minimum headroom.

1010.7 Landings
Ramps shall have landings at the bottom and top of each ramp, points of turning, entrance, exits and at doors.

The landing width shall be at least as wide as the widest ramp run adjoining the landing.

The landing length shall be 60 inches minimum.

1010.9 Handrails
Ramps with a rise greater than 6 inches shall have handrails on both sides and shall comply with 1012.

1010.10 Edge Protection

Edge protection complying with Section 1010.10.1 or 1010.10.2 shall be provided on each side of ramp runs and at each side of ramp landings.

1010.11 Guards
Guards shall be provided where required by 1013.

This project contains no ramps.

1011 Exit Signs
Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel.

Per exception 1, exit signs are not required in rooms or areas that require only one exit or exit access.

Per exception 2, main exterior exit doors or gates that are obviously and clearly identifiable as exits need not have exit signs where approved by the building official.

1012 Handrails

1012.2 Height
...Shall be uniform and not less than 34" and not more than 38"...

1012.3 Handrail Graspability
1012.3.1 ...outside diameter of at least 1.25 inches and not greater than 2"

1012.4 Continuity
Handrail-gripping surfaces shall be continuous, without interruption by obstructions.

1012.5 Fittings
Handrails shall not rotate within their fittings.

1012.6 Handrail Extensions
Handrails shall return to a wall, guard or the walking surface or shall be continuous to the handrail of an adjacent stair flight or ramp run. Where not continuous between flights, the handrails shall extend horizontally at least 12 inches beyond the top riser and continue to slope for the depth of one tread beyond the bottom riser.

1012.7 Clearance
Clear space between a handrail and a wall or other surface shall be a minimum of 1.5 inches.

1012.8 Projections
On ramps, the clear width between handrails shall be 36 inches minimum. Projections into the required width of stairways and ramps at each handrail shall not exceed 4.5 inches at or below the handrail height.

1013 Guards
1013.1 General
Guards shall comply with the provisions of Sections 1013.2 through 1013.7.
Guards shall be located along open-sided walking surfaces, mezzanines, industrial equipment platforms, stairways, ramps and landings that are located more than 30 inches above the floor or grade below.

1013.2 Where Required
Guards shall be located along open-sided walking surfaces, mezzanines, industrial equipment platforms, stairways, ramps and landings that are located more than 30 inches above the floor or grade below.

Per Exception 2, guards are not required on the audience side of stages and raised platforms, including steps leading up to the stage and raised platforms.

1013.3 Height
Guards shall form a protective barrier not less than 42 inches high.

1013.4 Opening Limitations
Open guards shall have balusters or ornamental patterns such that a 4-inch diameter sphere cannot pass through any opening up to a height of 36 inches.

Per exception 1, from a height of 36 to 42 inches guards shall not have openings which allow passage of a sphere of 4-3/8 inches in diameter.

Per exception 2, the triangular openings formed by the riser, tread and bottom rail at the open side of a stairway shall be of a maximum size such that a sphere of 6 inches in diameter cannot pass through the opening.

Per exception 3, at equipment access balusters shall be of a solid material such that a sphere with a diameter of 21 inches cannot pass through any opening.

1014 Exit Access

1014.2 Egress Through Intervening Rooms
Egress from a room or space shall not pass through adjoining or intervening rooms, except where such adjoining rooms or areas are accessory to the area served, are not high hazard, and provide a discernible path of egress travel to an exit.

Egress shall not pass through kitchens, storage rooms, closets or spaces used for similar purposes.

1014.3 Common Path of Egress Travel
The common path of egress travel shall not exceed the common path of egress travel distances in Table 1014.3

This defines the travel distance before two separate and distinct paths of egress travel are available. In reviewing the IBC Commentary, under the definition of an "Occupied Space", it specifically says that toilet rooms, closets and mechanical equipment rooms are not occupied spaces.

The maximum distance for B occupancies is 100', maximum distance for A is 75'.
All spaces in this project comply.

1015 Exit and Exit Access Doorways –
Two exists or exit access doorways from any space shall be provided where one of the following conditions exists:

1. Occupant load of the space exceeds one of the values in Table 1015.1
2. The common path of egress travel exceeds one of the limitations of section 1014.3
3. Where required by Section 1015.3, 1015.4, 1015.5, 1015.6 or 1015.6.1.

Table 1015.1 - Spaces with One Exit or Exit Access Doorway

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Occupancies	Max Occ. Load	Exits Provided
A, B	49	See Code Diagrams in Drawings

All spaces in this project comply.

1015.2.1 Two exits or exit access doorways
Where two exits or exit access doorways are required from any portion of the exit access, the exit doors or exit access doorways shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the area…

Per exception 2, Where a building is equipped throughout with an automatic sprinkler system … the separation distance shall not be less than one-third the length of the maximum overall diagonal dimension of the area served.

This project is fully sprinkled therefore this exception has been applied.

1015.3 Boiler, Incinerator, and Furnace Rooms

Not applicable

1016 Exit Access Travel Distance –
Exits shall be located on each story such that the maximum length of exit access travel, measured from the most remote point within a story along the natural and unobstructed path of egress travel to an exterior exit door at the level of exit discharge, an entrance to a vertical exit enclosure, and exit passageway, a horizontal exit, an exterior exit stairway, or an exterior exit ramp, shall not exceed the distances given in Table 1016.1.

Table 1016.2 - Exit Access Travel Distance

Occupancies	Max Distance with Sprinkler System (Feet)	Maximum Distance
A	250'	See Code Diagrams in Drawings
B	300'	See Code Diagrams in Drawings

1017 Aisles: Not applicable.

1018 Corridors:
1018.1 Construction
Corridors shall be fire-resistance rated in accordance with Table 1018.1.

Per Table 1018.1, Corridors in A/B occupancies in sprinklered buildings are not required to have a fire-resistance rating.

1018.2 Dead Ends, Exception 3
In occupancies in Groups E, where the building is equipped throughout with an automatic sprinkler system, the length of the dead-end corridor shall not exceed 50 feet.

1019 Egress Balconies: Not applicable

1020 Exits
Exits shall comply with Sections 1020 through 1026 and the applicable requirements of sections 1003 through 1013.

1021 Number of Exits and Exit Configuration
Each story and occupied roof shall have the minimum number of exits, or access to exits, as specific in this section.

1021.2 Exits From Stories
Two exits, or exit access stairways or ramps providing access to exits, from any story or occupied roof shall be provided where the following condition exists.

Table 1021.2(2) is the only one that applies to this project. Per this table the maximum occupants per story is 49 and maximum exit access travel distance 75 feet before a second exit is required. The second story has two exits and thus complies.

1022 Interior Exit Stairways and Ramps:

1022.2 Construction
Enclosures for interior exit stairways and ramps shall be constructed as fire barriers…Interior stairway and ramp enclosures shall have a fire resistance rating of…not less than 1 hour where connecting less than four stories.

Per Section 1009.3, exception 1, the stairs in this project only serve two floor therefore the stairs are not required to be enclosed interior exit stairways so this section does not apply.

1022.9 Stairway identification signs
A sign shall be provided at each floor landing in an interior exit stairway and ramp connecting more than three stories…

This requirement doesn't apply to this project since there are only two stories.

1023 Exit Passageways: *Not applicable to this project.*

1024 Luminous Egress Path Markings: *Not applicable to this project.*

1025 Horizontal Exits: 2hour wall, Mechanical Dampers, and Opening protections as indicated in the documents from foundation to roof sheathing.

1026 Exterior Exit Stairways and Ramps: *Not applicable to this project.*

1027 Exit Discharge

1027.1 General
Exits shall discharge directly to the exterior of the building. The exit discharge shall be at grade.

1027.5 Access to a public way
The exit discharge shall provide a direct and unobstructed access to a public way.

1028.2 Assembly Main Exit
In a building, room or space used for assembly purposes where there is no well-defined main exit or where multiple main exits are provided, exits shall be permitted to be distributed around the perimeter of the building provided that the total width of egress is not less than 100 percent of the required width

CHAPTER 11: ACCESSIBILITY

1101 General

1101.1 Scope: The provisions of this chapter shall control the design and construction of facilities for accessibility to physically disabled persons.

1101.2 Design: Buildings and facilities shall be designed and constructed to be accessible in accordance with this code and ICC A117.1

1103 Scoping Requirements

1103.1: Where Required: Sites, buildings, structures, facilities, elements and spaces, temporary or permanent, shall be accessible to persons with physical disabilities.

1103.2: General Exceptions:
1103.2.9: Equipment Spaces: Spaces frequented only by personnel for maintenance, repair, or monitoring of equipment are not required to be accessible.

1104 Accessible Route

1104.1: Site Arrival Points: Accessible routes within the site shall be provided from public transportation stops; accessible parking; accessible passenger loading zones; and public streets or sidewalks to the accessible building entrance served.

1104.2 Within a site. At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements and accessible spaces that are on the same site.

1105: Accessible Entrances

1105.1 Public Entrances: In addition to accessible entrances required by Sections 1105.1.1 through 1105.1.6, at least 60 percent of all public entrances shall be accessible.

1106: Parking and Passenger Loading Facilities

1106.1 Required: Where parking is provided, accessible parking spaces shall be provided in compliance w1th Table 1106.1, except as required by Sections 1106.2 through 1106.4. Where more than one parking facility is provided on a site, the number of parking spaces required to be accessible shall be calculated separately for each parking facility.

1106.5: Van Spaces: For every six or fraction of six accessible parking spaces, at least one shall be a van accessible parking space.

1106.6 Location (From Washington State Amendments): Accessible parking spaces shall be located on the shortest accessible route of travel from adjacent parking to an accessible building entrance. In parking facilities that do not serve a particular building, accessible parking spaces shall be located on the shortest route to an accessible pedestrian entrance to the parking facility. Where buildings have multiple accessible entrances with adjacent parking, spaces shall be dispersed and located near accessible entrances. Wherever practical, the accessible route shall not cross lanes of vehicular traffic. Where crossing traffic lanes is necessary, the route shall be designated and marked as a crosswalk.

1109 Other Features and Facilities

1109.2 Toilet and Bathing Facilities
Each toilet room and bathing room shall be accessible.

Exception 3. Where multiple single-user toilet rooms or bathing rooms are clustered at a single location, at least 50 percent but not less than one room for each use at each cluster shall be accessible.

1109.2.1 Family or assisted-use toilet and bathing rooms
In assembly and mercantile occupancies, an accessible family or assisted-use toilet room shall be provided…

1109.2.2 Water closet compartment
Where water closet compartments are provided in a toilet room or bathing room, at least one wheelchair-accessible compartment shall be provided.

1109.2.3 Lavatories
Where lavatories are provided, at least 5 percent, but not less than one, shall be accessible.

1109.4 Kitchens and Kitchenettes
Where kitchens and kitchenettes are provided in accessible spaces or rooms, they shall be accessible.

1109.5 Drinking Fountains
Where drinking fountains are provided, both a wheelchair height and 'standing' height fountain shall be provided.

This project uses pairs of dual height drinking fountains.

1109.8 Storage
Where fixed or built-in storage elements such as cabinets, shelves, etc. are provide, at least one shall contain storage space complying with ICC A117.1

1110 Signage

1110.1 Signs
Required accessible elements shall be identified by the International Symbol of Accessibility…

CHAPTER 29: PLUMBING SYSTEMS

Use Washington State Amended Chapter (7-1-10) replacing IBC Chapter 29 in its entirety, except for Educational occupancies per correspondence with Grays Harbor County Plan Reviewer.

2901.2 Minimum Requirements
Use Table 2902.1 for minimum fixtures to be provided. The number of occupants used for determining minimum fixtures and facilities shall be computed as prescribed in Table 2902.1

Table 2902.1 Minimum Plumbing Fixtures per WAC

Port of Tacoma Marine Building — TCF ARCHITECTURI 8/24/2015

Toilet fixture count for this project is based upon the 2012 IBC Chapter 29 and the Washington State Amendments.

TOILET FIXTURE OCCUPANCY SCHEDULE					
ROOM NO.	ROOM NAME	ROOM AREA	CODE USAGE	LOAD FACTOR	OCCUPANTS
FIRST FLOOR					
100	BREAK ROOM	2,077	A	15	139
105	KITCHENETTE	129	B	100	2
106	FORMAN OFFICE	155	B	100	2
107	FORMAN OFFICE	161	B	100	2
FIRST FLOOR TOTAL					145
SECOND FLOOR					
201	COPY/WORK RM	84	B	100	1
204	KITCHENETTE	260	B	100	3
205	CLERKS 2	309	B	100	4
206	SUPER CARGO	71	B	100	1
207	SUPERINTENDENTS	309	B	100	4
209	CLERKS 1	312	B	100	4
210	SUPER CARGO	70	B	100	1
SECOND FLOOR TOTAL					18
TOTAL BUILDING OCCUPANTS					163

FLOOR 1 REQ'D FIXT		MEN				WOMEN			
OCCUPANCY SUMMARY	OCC. TOTALS / 2	MEN WC LOAD FACTOR	MEN WC	MEN LAV LF	MEN LAV	WOMEN WC LF	WOMEN WC	WOMEN LAV LF	WOMEN LAV
A	69.5	75	0.927	200	0.348	75	0.92667	200	0.3475
B	3	25	0.12	40	0.075	25	0.12	40	0.075
TOTAL MEN	73	TTL REQ'D	2		1		2		1
TOTAL WOMEN	76								
TOTAL	148	1 DF**							
TOTAL PROVIDED FOR FLOOR 1			2	3 UR*	2		3		2
* URINAL									
** DRINKING FOUNTAIN									

FLOOR 2 REQ'D FIXT		MEN				WOMEN			
OCCUPANCY SUMMARY	OCC. TOTALS / 2	MEN WC LOAD FACTOR	MEN WC	MEN LAV LF	MEN LAV	WOMEN WC LF	WOMEN WC	WOMEN LAV LF	WOMEN LAV
B	9	25	0.36	40	0.225	25	0.36	40	0.225
TOTAL MEN	9	TTL REQ'D	1		1		1		1
TOTAL WOMEN	9								
TOTAL	18	0 DF**							
TOTAL PROVIDED FOR FLOOR 2			1		1		1		1
** DRINKING FOUNTAIN									

2902.2 Separate Facilities
Separate toilet facilities shall be provided for each sex.

2902.5.1 Drinking Fountain Number
Occupant loads over 30 shall have one drinking fountain for the first 150 occupants, then one per each additional 500 occupants. See code diagram sheets.

First Floor Total Occupancy = 145 occupants = 1 drinking fountains provided
Second Floor Total Occupancy = 18 occupants = 0 drinking fountains provided

Chapter 30: ELEVATORS AND CONVEYING SYSTEMS

3001.3 Accessibility
Shall be accessible per Chapter 11 and ANSI A117.1.

3002.1 Hoistway Enclosures – A rated shaft enclosure is not required per 713.

713.14 Elevator, dumbwaiter and other hoistways.
713.4 Shaft enclosures shall have a fire resistance rating of not less than 1 hour where connecting less than four stories.

3003 Emergency Operations
Confirm notification requirements with Thurston County.

3006.4 Machine Rooms and Machinery Spaces
Fire barrier per IBC 707 and horizontal assembly per 711 not less than hoistway enclosure. Since hoistway is unrated, so is the Elevator Machine Room.

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REGISTERED ARCHITECT
5617
STATE OF WASHINGTON

APPROVED:
3-29-16
DIRECTOR ENG. DATE
CHECKED BY DATE
PROJ. ENGR DATE
PRINTED BY:
PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837

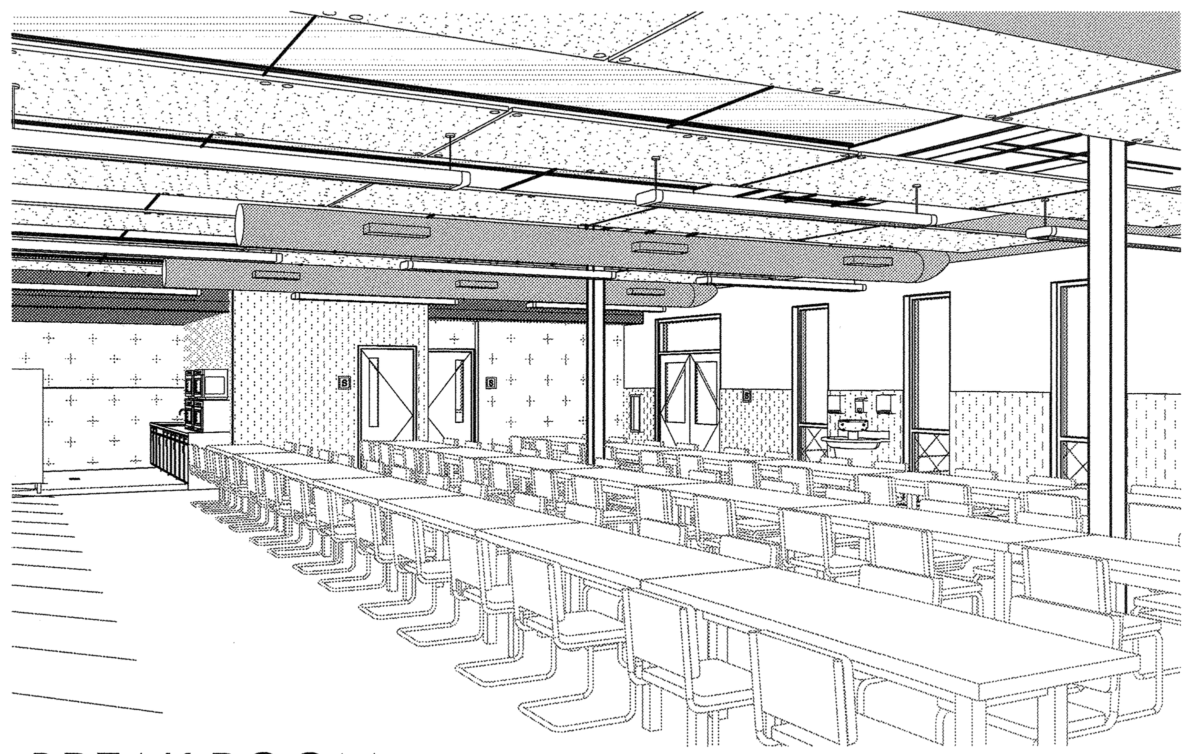
PIER 4 PHASE 2
MARINE BUILDING
BUILDING CODE, FIRE AND LIFE SAFETY SUMMARY

TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

6552
G3.05
SH # 397 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

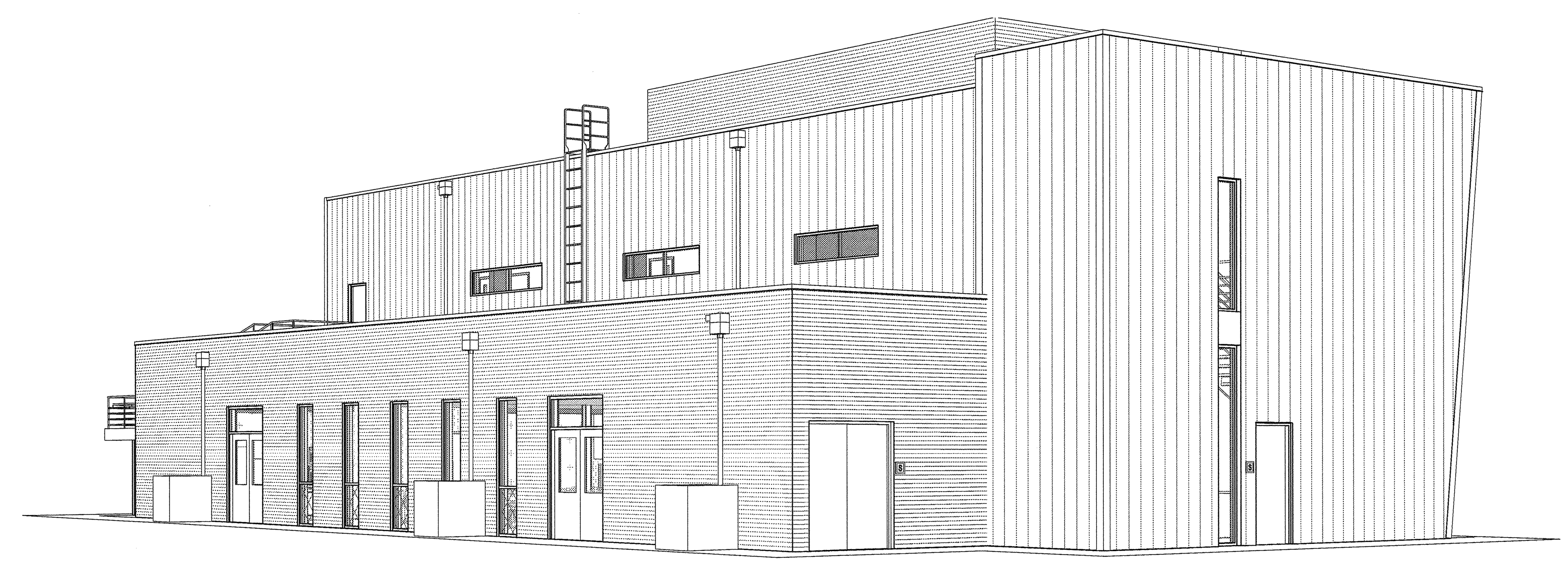
C:\Autodesk\Revit\410 Arch_mark@tcfarchitecture.com.rvt

BINDING EDGE



3 BREAK ROOM

1 LOOKING SOUTH EAST



2 LOOKING NORTH WEST

C:\Autodesk\Revit\410 Arch_mark@tcfarchitecture.com.rvt

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MARK:	REVISION:	BY:	APPR:	DATE:

5617 REGISTERED ARCHITECT
RANDAL J. COOK
STATE OF WASHINGTON

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PIER 4 PHASE 2 MARINE BUILDING

3D VIEWS

TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

6552
G4.01
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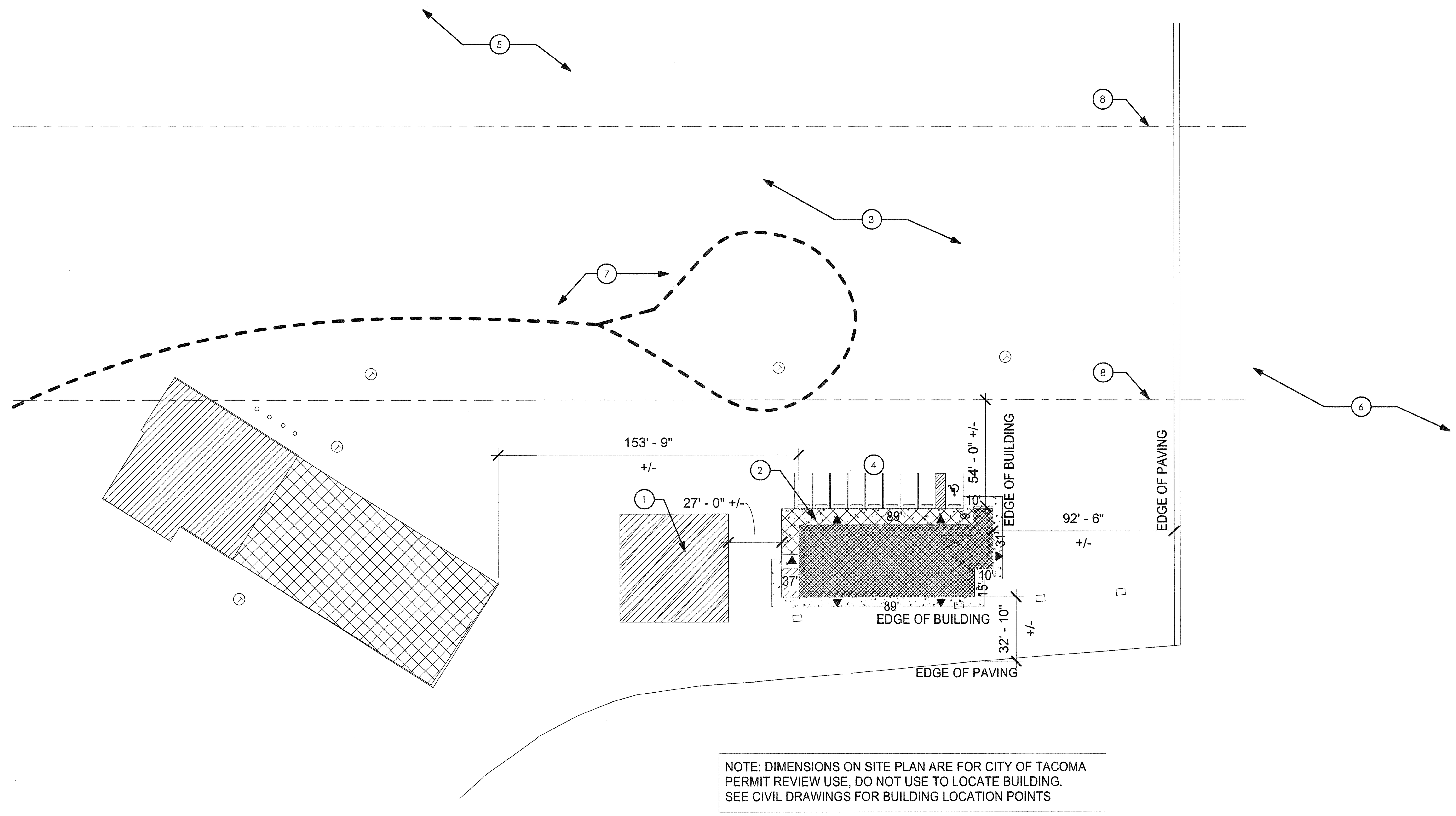
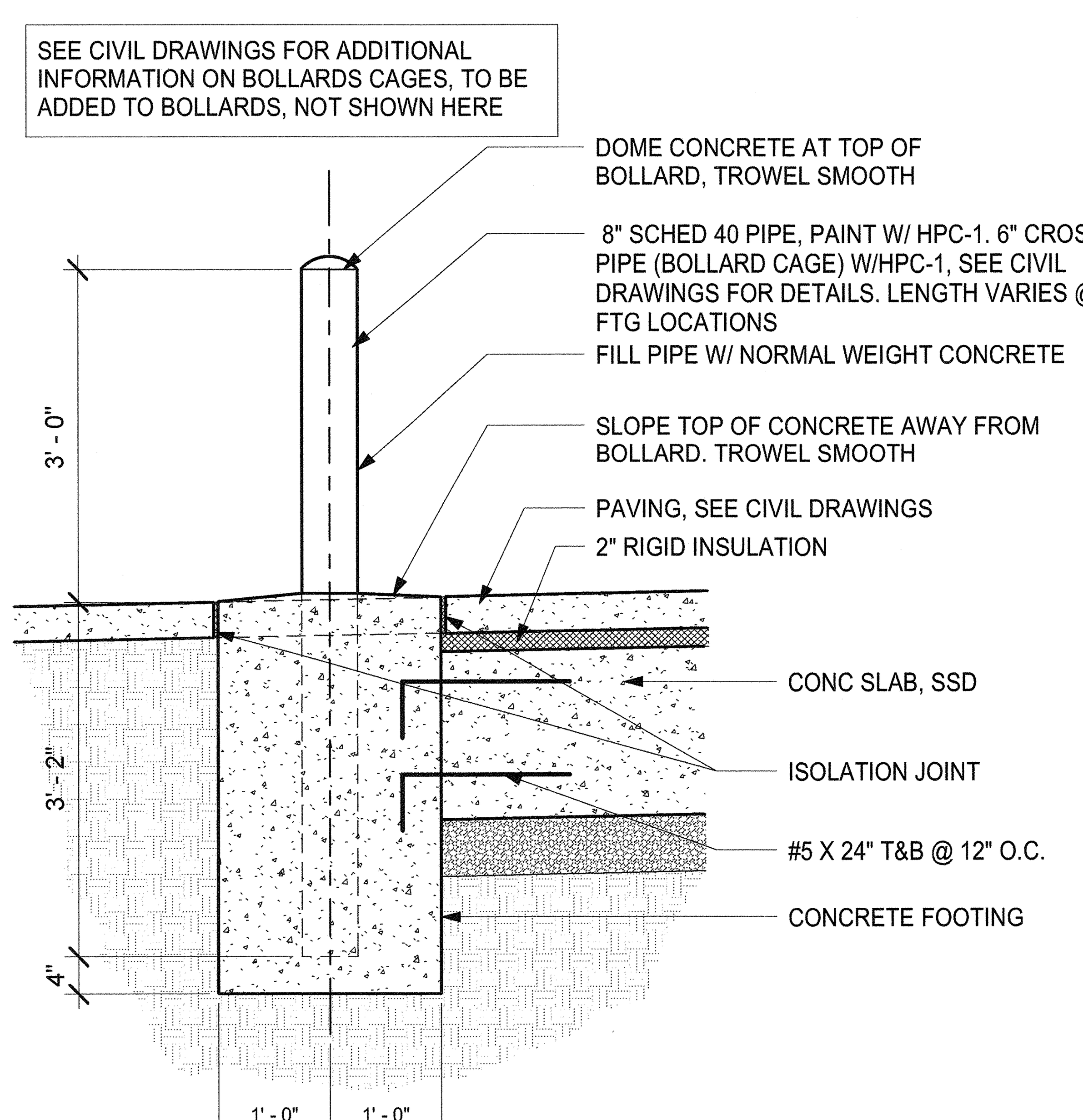
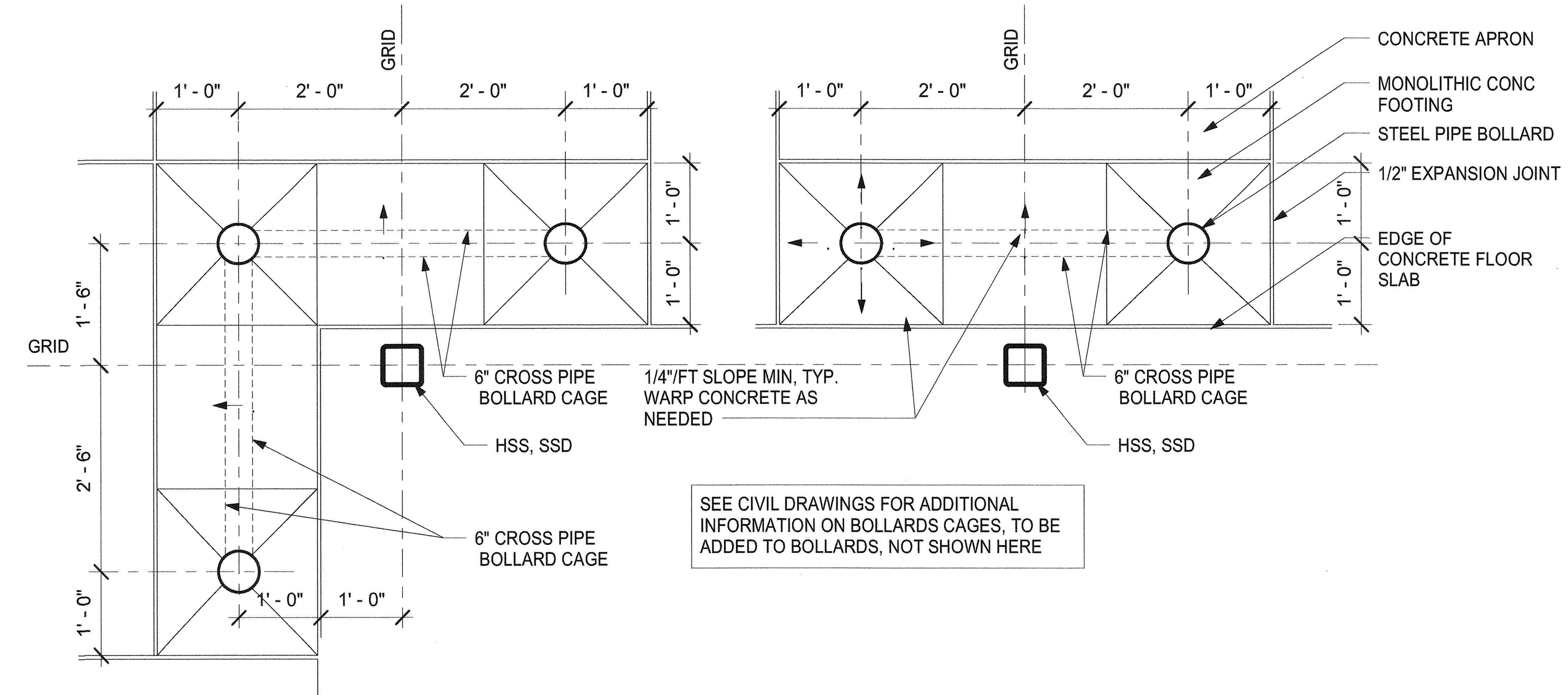


1 ARCHITECTURAL ENLARGED SITE PLAN
1" = 40'-0"



2 BOLLARD DETAIL
3/4" = 1'-0"



3 BOLLARD PLAN
3/4" = 1'-0"

SITE PLAN GENERAL NOTES

A. OTHER NOTES : SEE GENERAL NOTES ON G2 SERIES SHEETS FOR ADDITIONAL INFORMATION.

B. SYMBOLS AND ABBREVIATIONS : SEE G2 SERIES SHEETS.

C. OTHER DISCIPLINES : SEE OTHER DISCIPLINES FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

D. CODE INFORMATION : SEE G3 SERIES SHEETS.

E. SOILS INFORMATION : SEE SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING REPORT IN THE SPECIFICATIONS

F. SITE IMPROVEMENTS AND UTILITIES : A PORTION OF IMPROVEMENTS AND UTILITIES ARE SHOWN ON THIS PLAN FOR CLARITY ONLY AND MAY NOT BE COMPLETE. SEE CIVIL DRAWINGS FOR ALL UTILITIES, CLEARING AND GRUBBING, GRADING REQUIREMENTS, CONCRETE WALKS, ASPHALT PAVING, CONCRETE PAVING AND OTHER SITE IMPROVEMENTS AND FOR ADDITIONAL SITE WORK DIMENSIONS.

G. EROSION CONTROL : SEE CIVIL TESC PLAN FOR TEMPORARY EROSION CONTROL PLAN.

H. EARTHWORK QUANTITIES : IT IS THE CONTRACTOR'S RESPONSIBILITY TO CALCULATE QUANTITIES OF ALL EARTHWORK BASED ON CONTRACT DOCUMENTS AND ANY IMPACTS OF OTHER TRADES' WORK AND TO INCLUDE ALL SUCH QUANTITIES AND COSTS IN THE BID.

I. EXCAVATION AND FILL : THE CONTRACTOR SHALL VERIFY SITE AND SOIL CONDITIONS AND PROVIDE ALL LABOR AND MATERIALS AS NECESSARY TO COMPLETE THE WORK OF THIS CONTRACT. THIS WILL GENERALLY INCLUDE EXCAVATION TO ELEVATIONS REQUIRED BY THIS WORK, AND STRUCTURAL FILL, BACKFILL, TOPSOIL PLACEMENT, GRADING AND OTHER WORK. ALSO SEE OTHER DISCIPLINES DRAWINGS.

J. HORIZONTAL AND VERTICAL CONTROL : REFER TO CIVIL DRAWINGS FOR ELEVATIONS OF ALL PAVING, LOCATIONS OF BUILDINGS ON THE SITE, AND PAVEMENT STRIPING.

K. DOWN SPOUTS : SEE ARCHITECTURAL FLOOR PLANS FOR DOWN SPOUT LOCATIONS.

L. FIRE DEPARTMENT REQUIREMENTS : CONTRACTOR SHALL ASCERTAIN AND MEET THE FIRE DEPARTMENT'S REQUIREMENTS FOR SITE AND BUILDING ACCESS FOR THE PURPOSE OF FIRE FIGHTING THROUGHOUT THE TERM OF CONSTRUCTION. SUCH REQUIREMENTS SHALL SUPERSEDE ANY CONFLICTING DIRECTION FOUND IN THESE DOCUMENTS.

M. TEMPORARY ROOF DRAINAGE : AT THE TIME THE ROOF CONDUCTOR BOXES & DOWN SPOUTS ARE INSTALLED, PROVIDE TEMPORARY CORRUGATED PLASTIC PIPE FROM DOWNSPOUTS TO DIRECT WATER AWAY FROM THE BUILDING TO TEMPORARY STORM DRAINAGE SYSTEMS, UNTIL SUCH TIME AS THE FINAL STORM DRAINAGE SYSTEM IS READY FOR CONNECTION TO THE DOWNSPOUT.

N. SEE BUILDING FLOOR PLANS FOR REQURED BOLLARDS & LOCATIONS

O. SEE CIVIL SITE PLAN FOR BUILDING LOCATION ON THE OVERALL SITE

SITE PLAN KEYNOTES

1. ELECTRICAL SUBSTATION, SEE CIVIL DRAWINGS
2. CONCRETE APRON, SEE CIVIL DRAWINGS
3. EXISTING PAVING, SEE CIVIL DRAWINGS
4. PARKING FOR ON SITE VEHICLES, NO EMPLOYEE PARKING
5. CONTAINER STORAGE, SEE CIVIL DRAWINGS
6. BLAIR WATERWAY
7. EMERGENCY VEHICLE ACCESS WITH 96' TURNING RADIUS SEE 1 / A1.00 FOR CONTINUATION
8. EASEMENT, SEE CIVIL DRAWINGS

SITE PLAN LEGEND

- ENCLOSED BUILDING
- CANOPY COVERED/OVERHANG BUILDING
- EXISTING BUILDING, NO WORK
- ▲ BUILDING EXIT
- BUILDING PERIMETER DIMENSIONS - TOTAL 289 LF

GENERAL CODE INFORMATION

SEE G3 SERIES SHEETS FOR FULL CODE REVIEW INFORMATION, ALSO SEE RELATED PERMIT 4-251456 FOR ALL SITE RELATED INFORMATION

CONSTRUCTION TYPE: V-B

FULLY SPRINKLED (NON SEPARATED)

OCCUPANICES:
TYPE B
TYPE A-2 (CONTROLLING)

ALLOWABLE AREA: 22,440 SF PER FLOOR
ACTUAL AREA: 1ST FLOOR 3,721 SF (OK)
2ND FLOOR 2,600 SF (OK)

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PIER 4 PHASE 2
MARINE BUILDING
ENLARGED ARCHITECTURAL / CODE SITE PLAN

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6552
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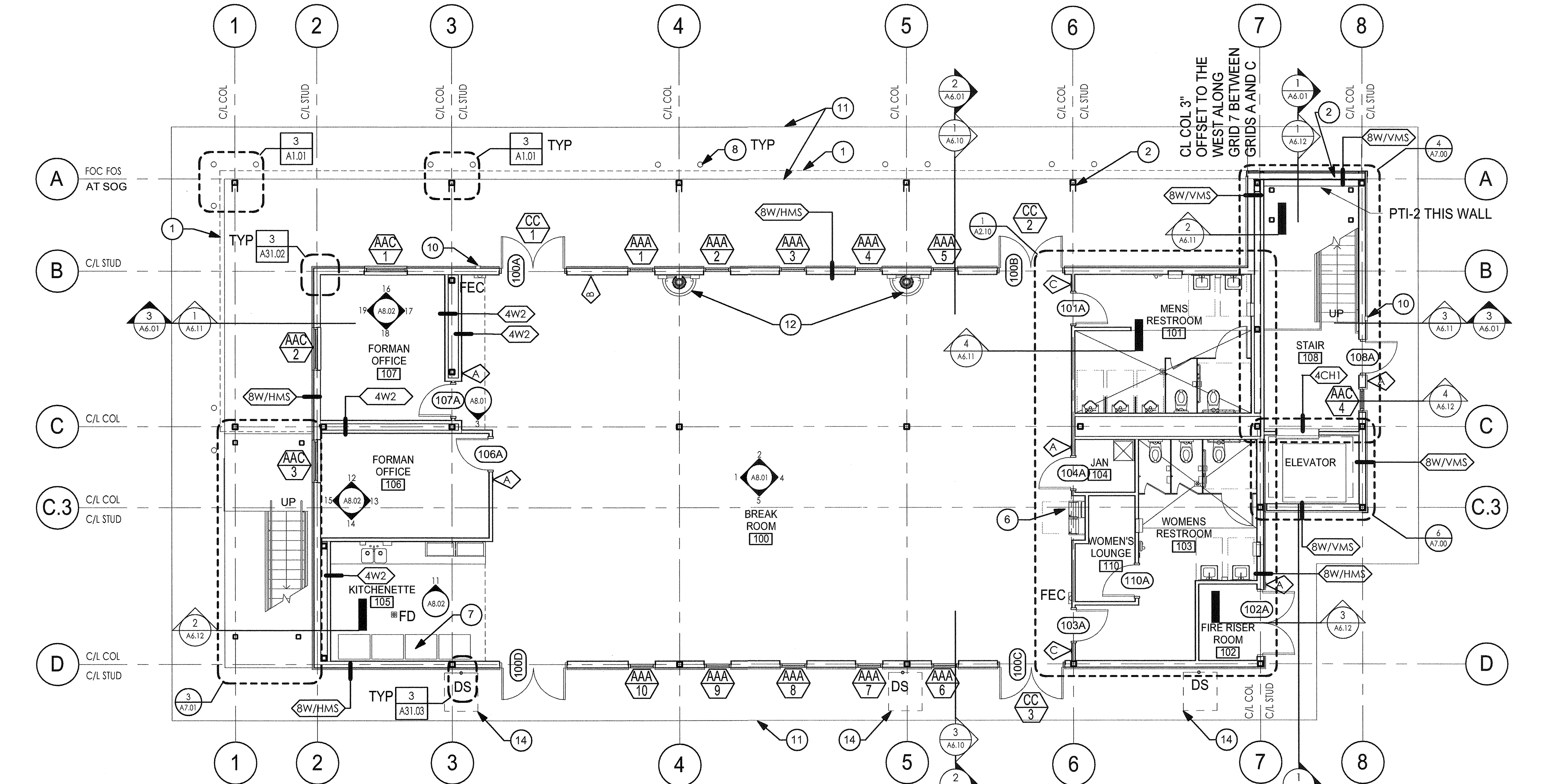
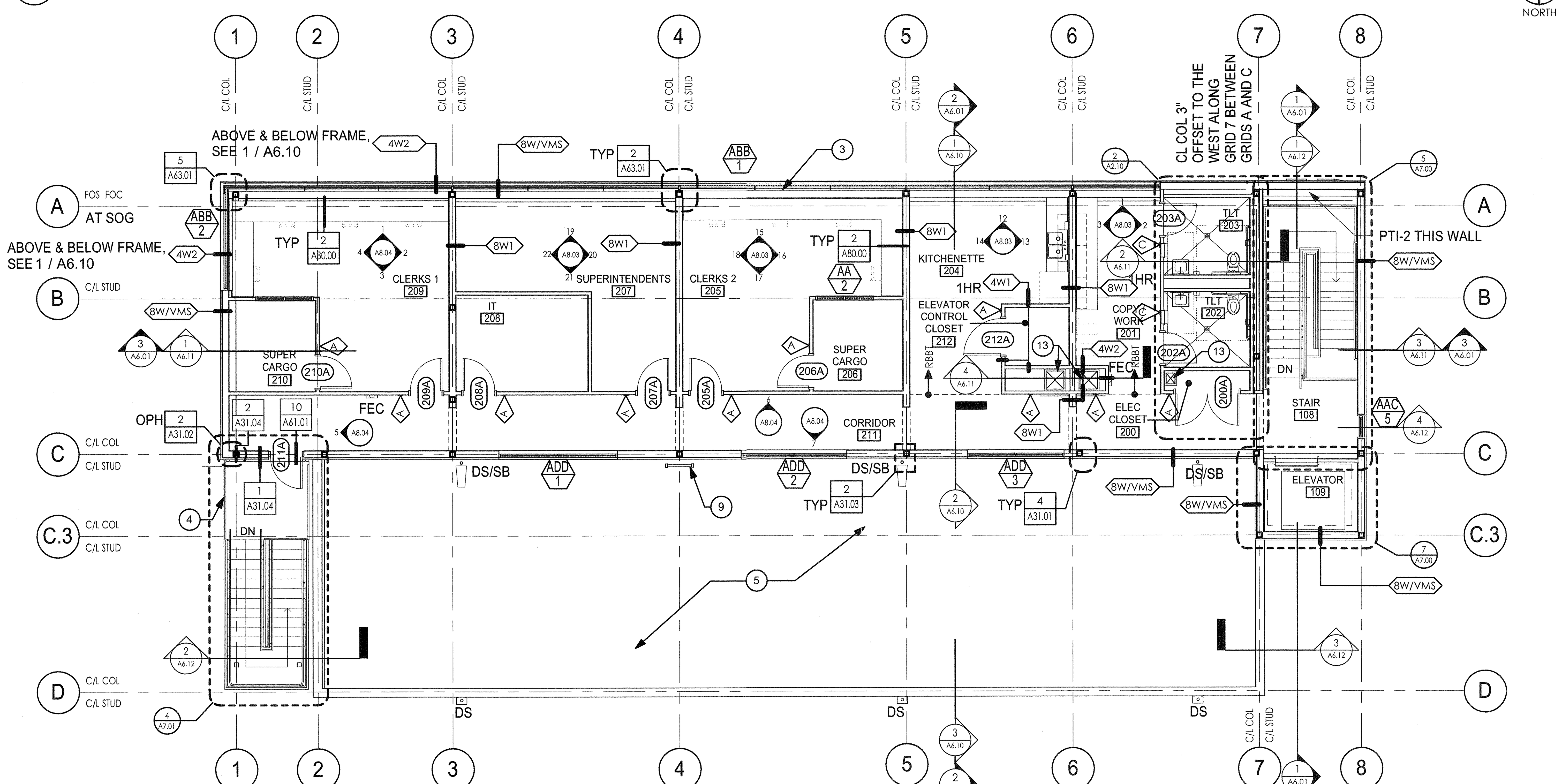


1 LEVEL 1 FLOOR PLAN
1/8" = 1'-0"



2 LEVEL 2 FLOOR PLAN
1/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

A. SEE GENERAL NOTES ON SHEET G2.01 FOR ADDITIONAL INFORMATION.

B. DIMENSIONING: REFER TO SITE PLANS, DIMENSION PLANS, FLOOR PATTERN PLANS, REFLECTED CEILING PLANS, ELEVATIONS, SECTIONS, INTERIOR ELEVATIONS, ENLARGED FLOOR PLANS, AND DETAILS FOR ADDITIONAL DIMENSIONAL INFORMATION.

EXTERIOR WALLS: ALL DIMENSIONS TO EXTERIOR WALLS ARE TO CENTER LINE OF STUD OR CENTERLINE OF COLUMNS UNO

INTERIOR WALLS: ALL DIMENSIONS TO INTERIOR WALLS ARE TO CENTERLINE OF STUD, CENTER OF OPENING OR CENTERLINE OF STEEL COLUMNS, UNO

ABBREVIATIONS:
C/L COL - CENTERLINE OF COLUMN
C/L STUD - CENTERLINE OF STUD
C/L FIX - CENTERLINE OF FIXTURE (LIGHTING OR PLUMBING)
C/L CLG - CENTERLINE OF CEILING CLOUD

DOORS: AT DOORS WITHOUT LOCATION DIMENSIONS LOCATE HINGE JAMB PER DIAGRAM IN FLOOR PLAN LEGEND.

C. WALL LAYOUT: WALLS ARE TYPICALLY 90 DEGREES FROM A HORIZONTAL PLANE, UNO

D. VERTICAL HEIGHTS ON ARCHITECTURAL DRAWINGS: TOP OF CONCRETE FLOOR SLAB, (MAY ALSO BE NOTED AS TOP OF FINISH FLOOR), IS GENERALLY REFERENCED AS ELEVATION 0' - 0" FOR THE MAIN FLOOR LEVEL. ALL OTHER VERTICAL DIMENSION REFERENCE POINTS ABOVE (+) OR BELOW (-) 0' - 0":

E. FLOOR SLOPES: AT ROOMS W/ FLOORS SHOWN SLOPED TO DRAIN DO NOT REDUCE SLAB THICKNESS OF SLAB ON GRADE. ONLY MINOR ADJUSTMENTS SHALL BE MADE W/TILE GROUT BASE.

F. SEE THE A8 SHEETS FOR INTERIOR ELEVATIONS, INTERIOR ELEVATIONS ARE REFERENCED IN EACH ROOM WITH A SYMBOL INDICATING THE WALL ELEVATED AND THE SHEET NUMBER OF THE ELEVATION (SEE LEGEND ON G2.01)

G. SEE INTERIOR ELEVATIONS FOR WALL MOUNTED ITEMS

H. ALL ACCESSIBLE TOILETS AND URINALS SHALL MEET CURRENT STATE RULES AND REGULATIONS FOR BARRIER-FREE DESIGN.

J. SEE G SERIES SHEETS FOR SYMBOLS, ABBREVIATIONS, TYPICAL MOUNTING HEIGHTS, SEE SHEET A70.00 FOR FINISH SCHEDULE, SEE DETAIL SHEETS FOR SCHEDULES, DETAILS AND ADDITIONAL NOTES.

K. UNLESS OTHERWISE NOTED, REFER TO SPECIFICATIONS FOR FLOORING REDUCERS, WHERE DIFFERING MATERIALS MEET. PROVIDE APPROPRIATE REDUCER AT ALL TRANSITIONS AS APPROVED WHETHER DETAILED OR NOT. SEE A21 SERIES FOR FLOOR & BASE DETAILS.

L. REFER TO SHEETS SERIES A30 AND A31 FOR WALL TYPES AND GENERAL NOTES TO WALL TYPES, BUILDING & WALL SECTIONS.

N. THERMAL AND SOUND INSULATION IS INTENDED TO PROVIDE A CONTINUOUS ENVELOPE AS INDICATED.

P. IN THE EVENT OF CONFLICTING INFORMATION WITHIN THE DOCUMENTS, IMMEDIATELY CONTACT THE ENGINEER FOR CLARIFICATION, PROCEEDING WITHOUT SUCH CLARIFICATION IS AT THE CONTRACTORS RISK & COST.

Q. THE CONTRACTOR SHALL COORDINATE ALL DOWNSPOUT LOCATIONS AND CONNECTIONS TO TIGHTLINES AND STORM DRAINAGE SYSTEM(S), THE ARCHITECTURAL PLANS, ELEVATIONS AND DETAILS ILLUSTRATE AND DIMENSION DOWNSPOUT LOCATIONS AND WILL TAKE PRECEDENCE WHEN INSTALLING ALL ASSOCIATED WORK, ALSO SEE CIVIL DRAWING AND SPECIFICATIONS

R. VAPOR RETARDER (BARRIER): CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF THE VAPOR RETARDER (BARRIER) MEMBRANE AT FLOOR SLAB. BACKER ROD, SEALANT, AND OTHER APPROVED MEANS SHALL BE APPLIED CONTINUOUSLY AROUND ALL EXTERIOR DOOR AND WINDOW OPENINGS AND OTHER AREAS OF POTENTIAL AIR INFILTRATION, INCLUDING STRUCTURAL, MECHANICAL, AND ELECTRICAL PENETRATIONS. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO VAPOR RETARDER(S) (BARRIERS), OR REPLACE THEM PRIOR TO COVER, AS APPROVED. CONTRACTOR SHALL EXERCISE CARE DURING THE INSTALLATION OF THE VAPOR BARRIER TO PROVIDE SPECIFIED OVERLAP BETWEEN INDIVIDUAL SHEETS AND SHALL TAPE ALL JOINTS. SHOULD THE MATERIAL BE TORN OR PUNCTURED, PATCH BY ADDITION OF MATERIAL OVER AFFECTED AREA WITH AT LEAST 12" COVERAGE BEYOND DAMAGE, AND TAPE ALL JOINTS. ALSO SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

S. DO NOT SCALE DRAWINGS: CONTACT ENGINEER FOR ANY NEEDED CLARIFICATION.

T. COORDINATE LOCATION OF SIGNS WITH, INTERIOR AND EXTERIOR ELEVATIONS AND FLOOR PLANS.

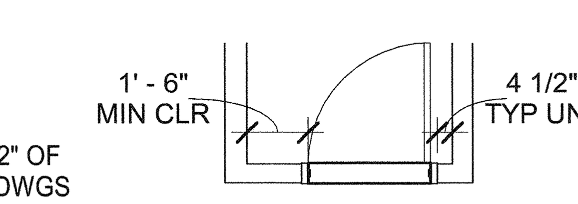
U. COORDINATE WALL OPENING REQUIREMENTS FOR MECHANICAL DUCTS, PIPES, ETC. AND FOR ELECTRICAL CONDUIT WITH MECHANICAL AND ELECTRICAL DRAWINGS AND PROVIDE AS NEEDED. OPENINGS SHALL BE SIZED ONLY AS NEEDED FOR THESE PENETRATIONS AND SHALL BE SEALED AT EDGES FOR SOUND CONTROL REQUIREMENTS WHERE REQUIRED, TYP.

FLOOR PLAN KEYNOTES

1. LINE OF FLOOR ABOVE
2. ANGLED HSS COLUMN (7), SSD
3. ANGLED STOREFRONT/WALL, ALONG GRID 'A' BETWEEN GRIDS 1-8, SEE BUILDING/WALL SECTIONS AND DETAILS
4. CABLE RAILING. SEE VERTICAL CIRCULATION DRAWINGS
5. ROOF BELOW, SEE ROOF PLAN FOR CALLOUTS
6. DRINKING FOUNTAIN, SEE MEP DRAWINGS
7. VENDING MACHINES, NIC
8. BOLLARD (x13), SEE DETAILS 2 / A1.01 & 3 / A1.01
9. ROOF ACCESS LADDER, SEE DETAIL 1 / A50.03
10. RECESSED KNOX-BOX
11. CONCRETE APRON, SEE CIVIL DRAWINGS
12. HANDWASH, SEE MECHANICAL DRAWINGS
13. FLOOR PENETRATION FOR MECHANICAL DUCT, MIN 12" OF CLEARANCE BETWEEN EACH, SSD AND MECHANICAL DWGS
14. DOWNSPOUT TREATMENT UNIT 38" x 43" x 44", OFOI. CONTRACTOR TO COORDINATE STUB UP LOCATION AND DS CONNECTION TO TREATMENT UNIT WITH ENGINEER PRIOR TO INSTALLATION. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION

FLOOR PLAN LEGEND

6S/MV1 BELOW	WALL TYPE REFERENCE, IN THIS CASE STEEL STUD WALL WITH WALL TYPE REFERENCE, SEE SHEETS A30.00 AND A31.00 FOR WALL TYPE DESCRIPTION
	INTERIOR FRAMED WALL - FRAMED TO FLOOR OR ROOF DECK ABOVE
	ITEMS NOT IN CONTRACT (NIC), SHOWN FOR REFERENCE AND COORDINATION PURPOSES
FD	FLOOR DRAIN, SEE PLUMBING DRAWINGS
DS	DOWNSPOUT, SEE NOTE UNDER GENERAL NOTES
FEC	WALL MOUNTED FIRE EXTINGUISHER IN RECESSED CABINET



TYPICAL DOOR LOCATION DIAGRAM

ALL INTERIOR WALL TYPES ARE 4W1, UNO

NOTE: DRAWING MAY BE REDUCED
0 4' 8' 16'

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PIER 4 PHASE 2
MARINE BUILDING
FLOOR PLANS

6552
A2.01
SH # 400 OF # 499

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DRAWING SCALE: AS NOTED
PHASE: BID
CONT/CONS: 070136
M. ID: 091251
DAT-HRZ: WA83-SF
VERT: MLLW 19.39' @ TIDE 22 1933

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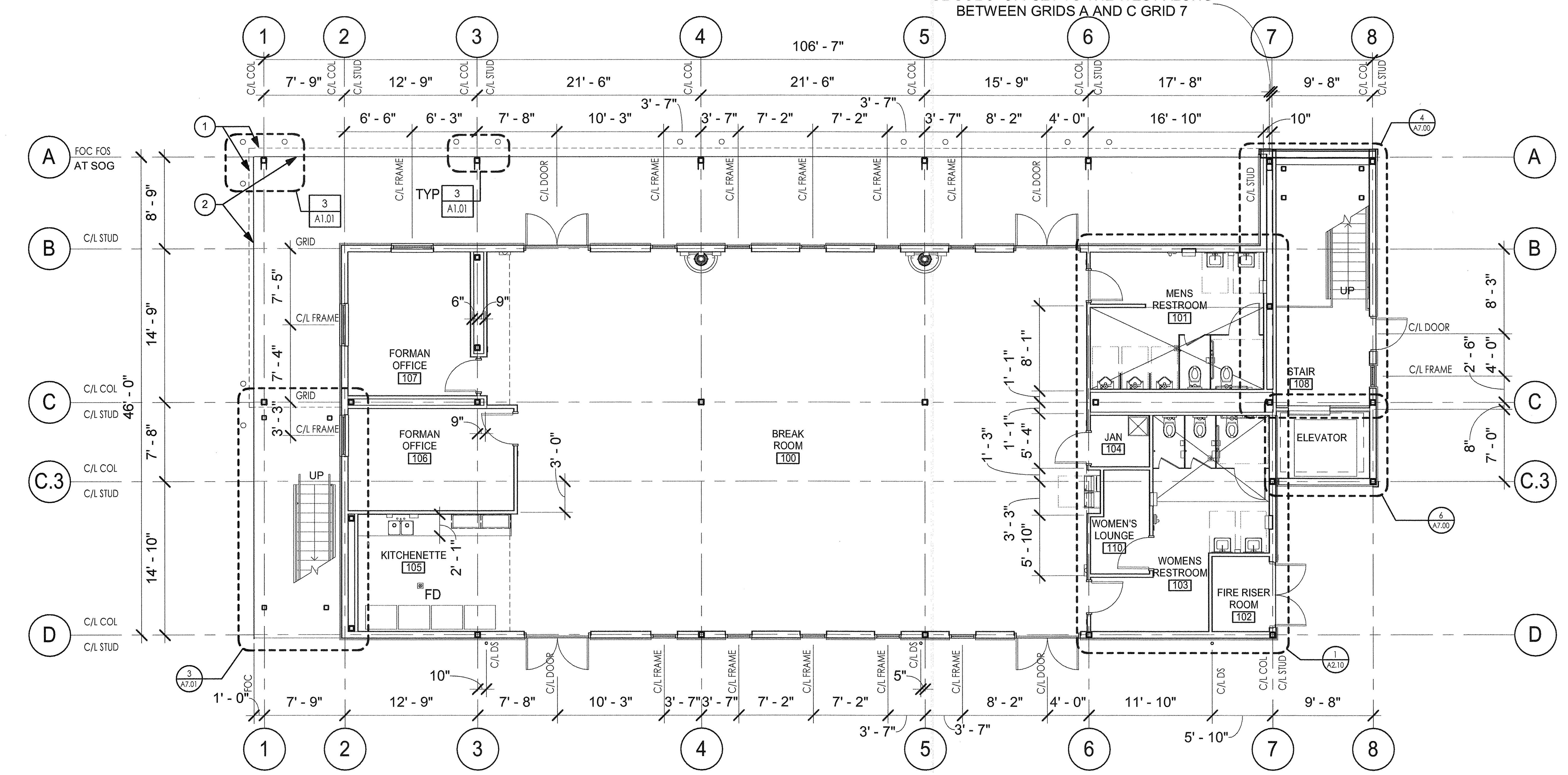
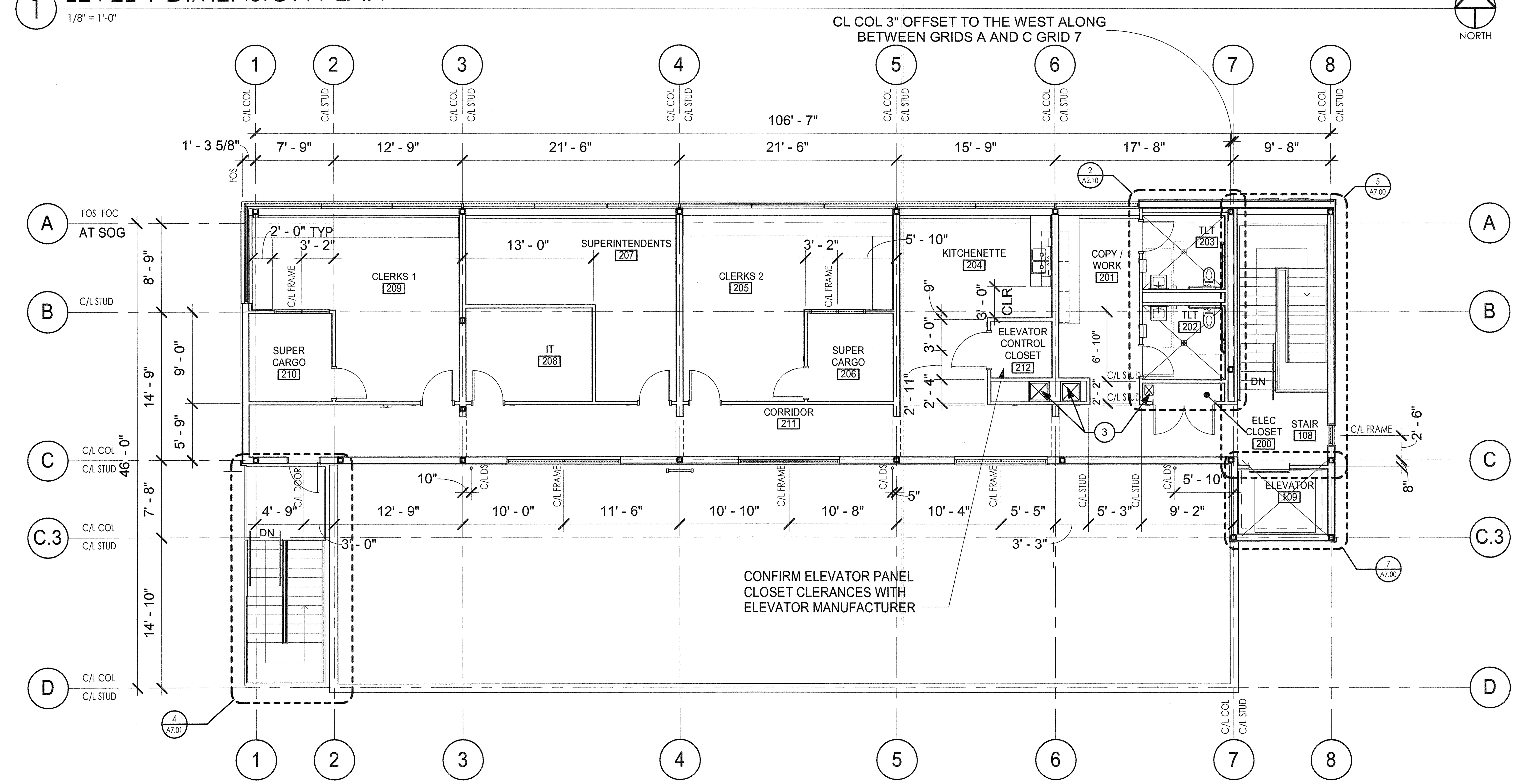
BINDING EDGE

BINDING EDGE



1 LEVEL 1 DIMENSION PLAN

1/8" = 1'-0"



2 LEVEL 2 DIMENSION PLAN

1/8" = 1'-0"

DIMENSION PLAN KEYNOTES

1. LINE OF FLOOR ABOVE
2. CONCRETE APRON, SEE CIVIL DRAWINGS
3. FLOOR PENETRATION FOR MECHANICAL DUCT, SEE MECHANICAL DWGS AND SSD

SEE FLOOR PLANS FOR ADDITIONAL INFORMATION

NOTE: DRAWING MAY BE REDUCED
0 4' 8' 16'

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PIER 4 PHASE 2
MARINE BUILDING
DIMENSION PLANS

TOWNSHIP:	RANGE:	SECTION:	
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933		
PARCEL:	DRAWING SCALE: AS NOTED		

6552
A2.02
SH # 401 OF # 499
CONT/CONS: 070136
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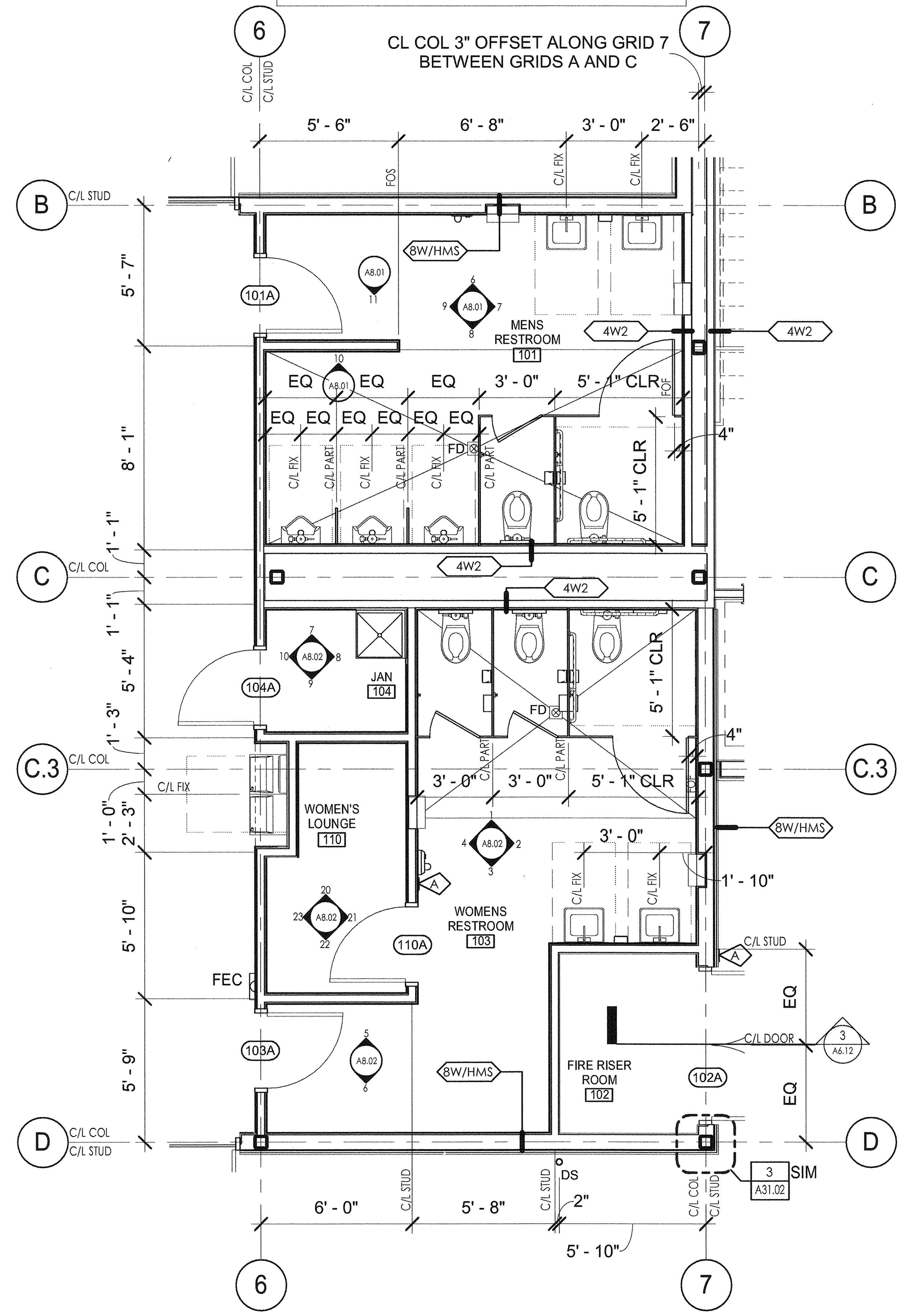
NOTE: ALL CERAMIC TILE FLOORS ON THE FIRST LEVEL ARE FLOOR TYPE 'C', SEE FINISH SCHEDULE FOR LOCATIONS OF CERAMIC TILE. SLOPE 1/4":1' FLOOR AT FLOOR DRAINS AS SHOWN

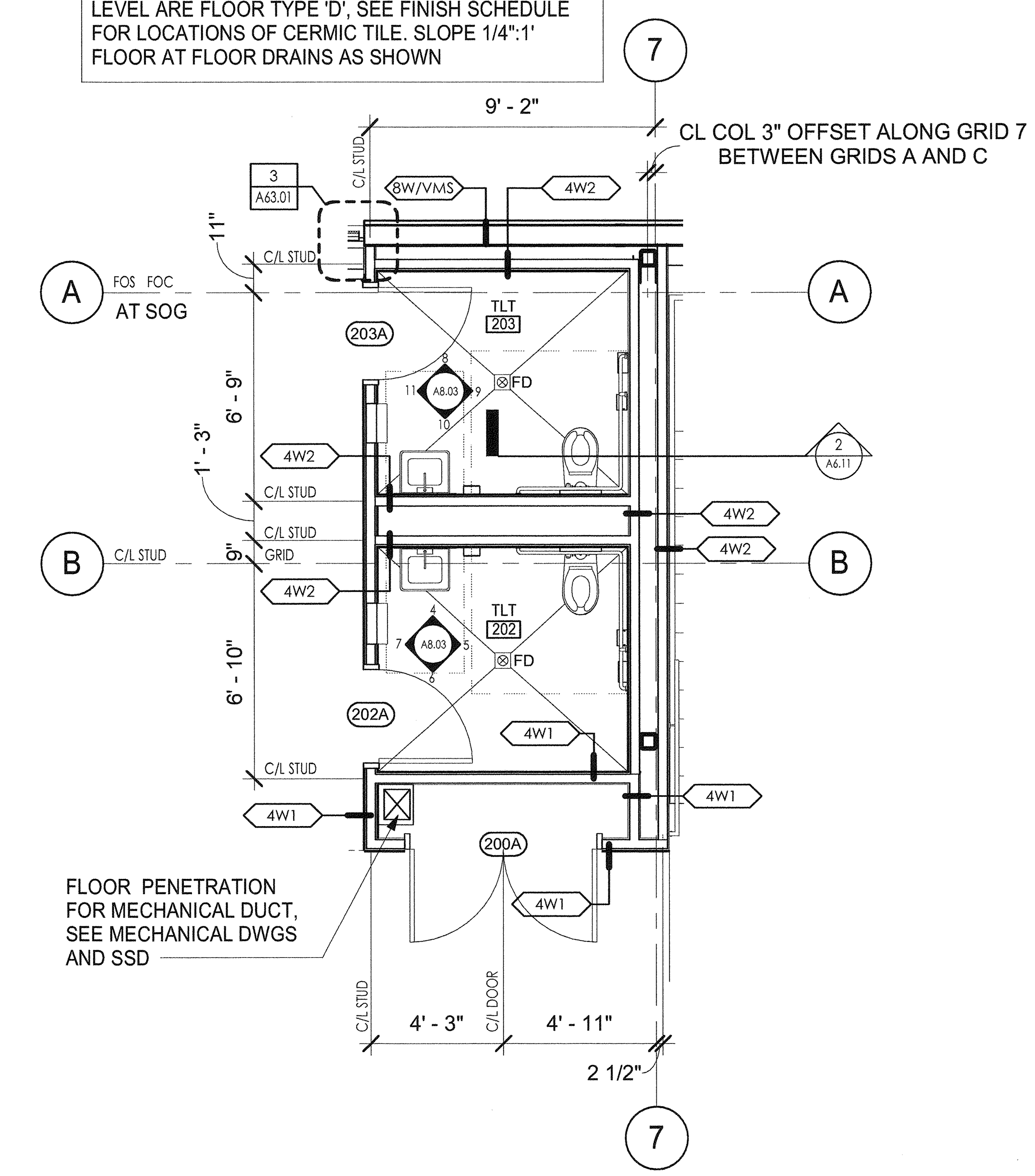
ALL INTERIOR WALL TYPES ARE 4W1, UNO



1 ENGLARGED FLOOR PLAN - RESTROOMS

1/4" = 1'-0"

NOTE: ALL CERAMIC TILE FLOORS ON THE SECOND LEVEL ARE FLOOR TYPE 'D', SEE FINISH SCHEDULE FOR LOCATIONS OF CERMIC TILE. SLOPE 1/4":1' FLOOR AT FLOOR DRAINS AS SHOWN



2 ENLARGED FLOOR PLAN - RESTROOMS

1/4" = 1'-0"

NOTE: DRAWING MAY BE REDUCED

6552

A2.10

SH # 402 OF # 499

CONT/CONS:	070136
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PIER 4 PHASE 2
MARINE BUILDING
ENLARGED FLOOR PLANS

TOWNSHIP: RANGE: SECTION:
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PARCEL: DRAWING SCALE: AS NOTED

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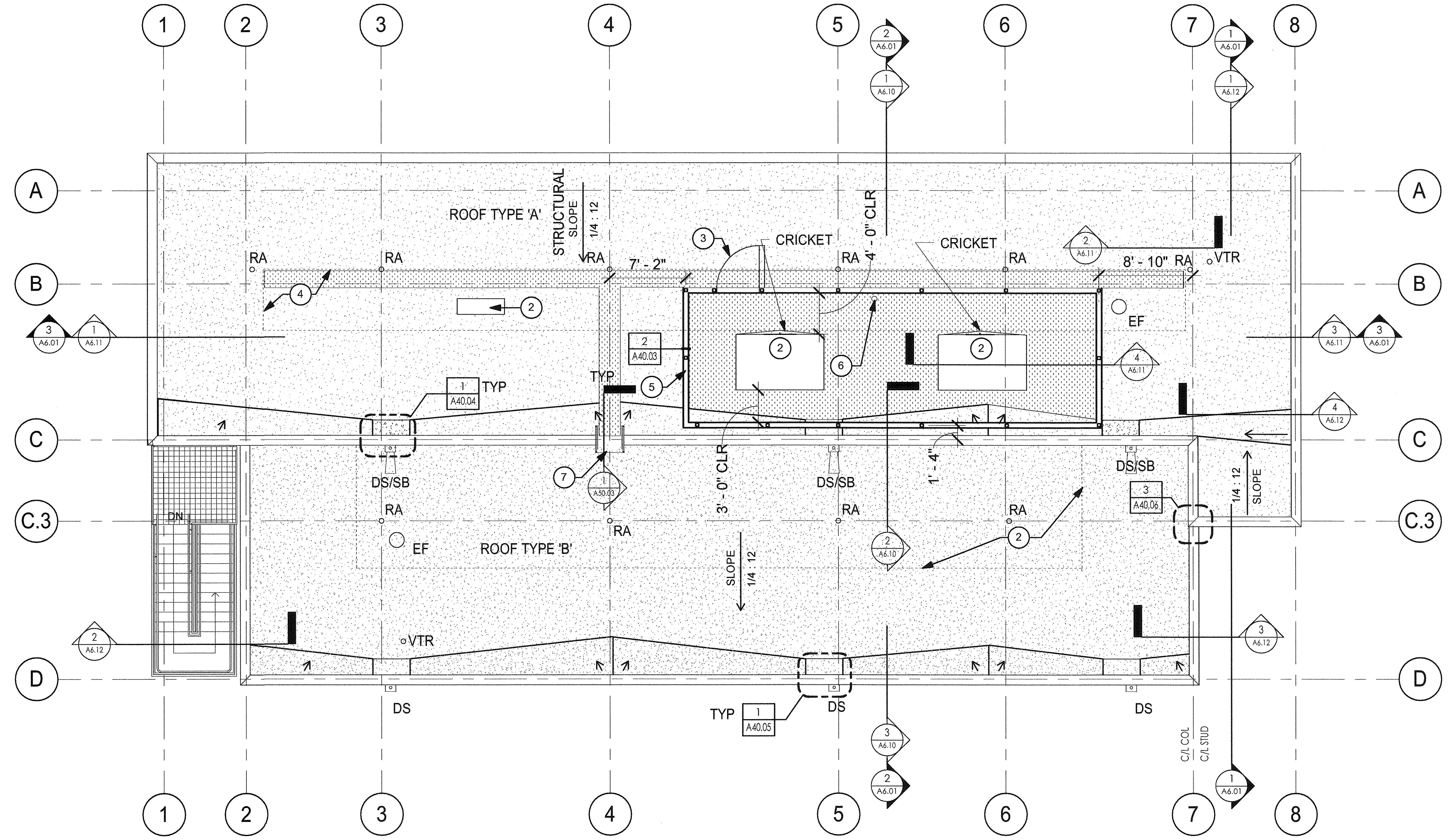

1 ROOF PLAN
1/8" = 1'-0"

NORTH

ROOF PLAN GENERAL NOTES

A. OTHER NOTES: SEE GENERAL NOTES IN G SERIES SHEETS FOR ADDITIONAL INFORMATION.

B. ROOF PENETRATIONS: ALL ROOF PENETRATIONS SHALL BE LOCATED AWAY FROM ROOF VALLEYS. ALL ROOF PENETRATIONS SHALL BE PROPERLY FLASHED TO DIRECT PRECIPITATION TO GUTTERS AND SCUPPERS IN CONFORMANCE WITH DETAILS AND CURRENT "SMACNA" PUBLISHED STANDARDS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL FOR ITEMS NOT DETAILED.

C. POSITIVE ROOF SLOPE: ALL ROOF CONSTRUCTION SHALL PROVIDE POSITIVE SLOPE TO DRAIN IN CONFORMANCE WITH NRCA PUBLISHED RECOMMENDATIONS. STANDING WATER OR PONDING SHALL NOT BE ACCEPTABLE. NOTE: ALL ROOF SLOPES ON ROOF PLAN ARE SURFACE SLOPE IN DIRECTION OF ARROW, TYP. ALL CRICKETS, MADE OF BUILT UP INSULATION SLOPE AT 1:12 (SURFACE SLOPE), UNO.

D. SECTION REFERENCES: SEE FLOOR PLANS FOR ADDITIONAL BUILDING AND WALL SECTION REFERENCES.

E. ROOF TYPES AND DETAILS: SEE A40 SERIES SHEETS.

F. DOWNSPOUTS: SEE FLOOR PLANS AND EXTERIOR ELEVATIONS FOR EXACT DOWNSPOUT, DOWNSPOUT BRACKET AND CONDUCTOR HEAD LOCATIONS. CAREFULLY COORDINATE WITH CIVIL DRAWINGS AND SUBCONTRACTOR TO ASSURE EXACT ALIGNMENT WITH STORM SEWER LINE CONNECTION AT GRADE.

1. ALL DOWNSPOUTS SIZES GIVEN ARE ID DIMENSIONS. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS AND PECIFICATIONS FOR RESPECTIVE ROOF-MOUNTED EQUIPMENT AND ROOF PENETRATIONS.

2. PROVIDE TEMPORARY DRAINAGE FROM GUTTERS, SCUPPERS AND ROOF DRAINS AWAY FROM BUILDING UNTIL SUCH TIME AS FINAL DOWNSPOUT INSTALLATION AND CONNECTION TO STORM DRAINAGE SYSTEM.

G. PENETRATIONS: NOT ALL REQUIRED ROOF PENETRATIONS ARE ILLUSTRATED ON ARCHITECTURAL ROOF PLANS. PROVIDE CURBS, FLASHING, CRICKETS, COLLARS, ETC. PER ARCHITECTURAL DETAILS FOR ALL PENETRATIONS AND EQUIPMENT WHETHER SHOWN OR NOT. ALSO SEE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS.

H. M/E/P EQUIPMENT: REFER TO MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR ROOF-MOUNTED EQUIPMENT AND ROOF

ROOF PLAN KEYNOTES

1. MECHANICAL SCREEN, HSS AT CORNERS & AS NOTED ON STRUCTURAL DRAWINGS, SSD. CONFIRM CLEARANCES WITH EQUIPMENT MANUFACTURER. SEE DETAIL 2 / A40.03
2. MECHANICAL EQUIPMENT WITH CURB, SEE MECHANICAL DRAWINGS AND DETAILS4 / A40.03
3. MECHANICAL SCREEN GATE, 4'-0" CLEAR OPENING
4. LINE INDICATES 10' OFFSET FROM ROOF EDGE
5. MECHANICAL SCREEN, SEE DETAIL 2 / A40.03 AND SSD. COORDINATE SIZE OF MECHANICAL SCREEN WITH CLEARANCE REQUIREMENTS OF MECHANICAL EQUIPMENT AND LAYOUT OF MECHANICAL SCREEN STEEL POSTS. STEEL POSTS TO BE LOCATED ON TOP OF EACH ROOB BEAM CROSSING, COORDINATE WITH STRUCTURAL DRAWINGS
6. CONDUIT FOR ROOF ANTENNAES, COORDINATE LOCATION AND QUANTITY WITH ELECTRICAL DRAWINGS.
7. ROOF ACCESS LADDER, SEE DETAIL 1 / A50.03

ROOF PLAN LEGEND

	MEMBRANE ROOF
EF	EXHAUST FAN, SEE 3 / A40.03 & 4 / A40.03
DS	DOWNSPOUT, SEE 2 / A31.03 & 3 / A31.03
SB	SPLASH BLOCK, SEE 4 / A40.02
VTR	VENT PIPE, SEE 5 / A40.03
RA	ROOF ANCHOR, ATTACH TO BEAM BELOW SSD AND 5 / A40.03 SIM
	24" WIDE WALKWAY PADS

NOTE: DRAWING MAY BE REDUCED
0 4' 8' 16'

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PIER 4 PHASE 2
MARINE BUILDING
ROOF PLAN

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:	DRAWING SCALE: AS NOTED	

6552
A3.01
SH # 403 OF # 499

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PHASE: BID

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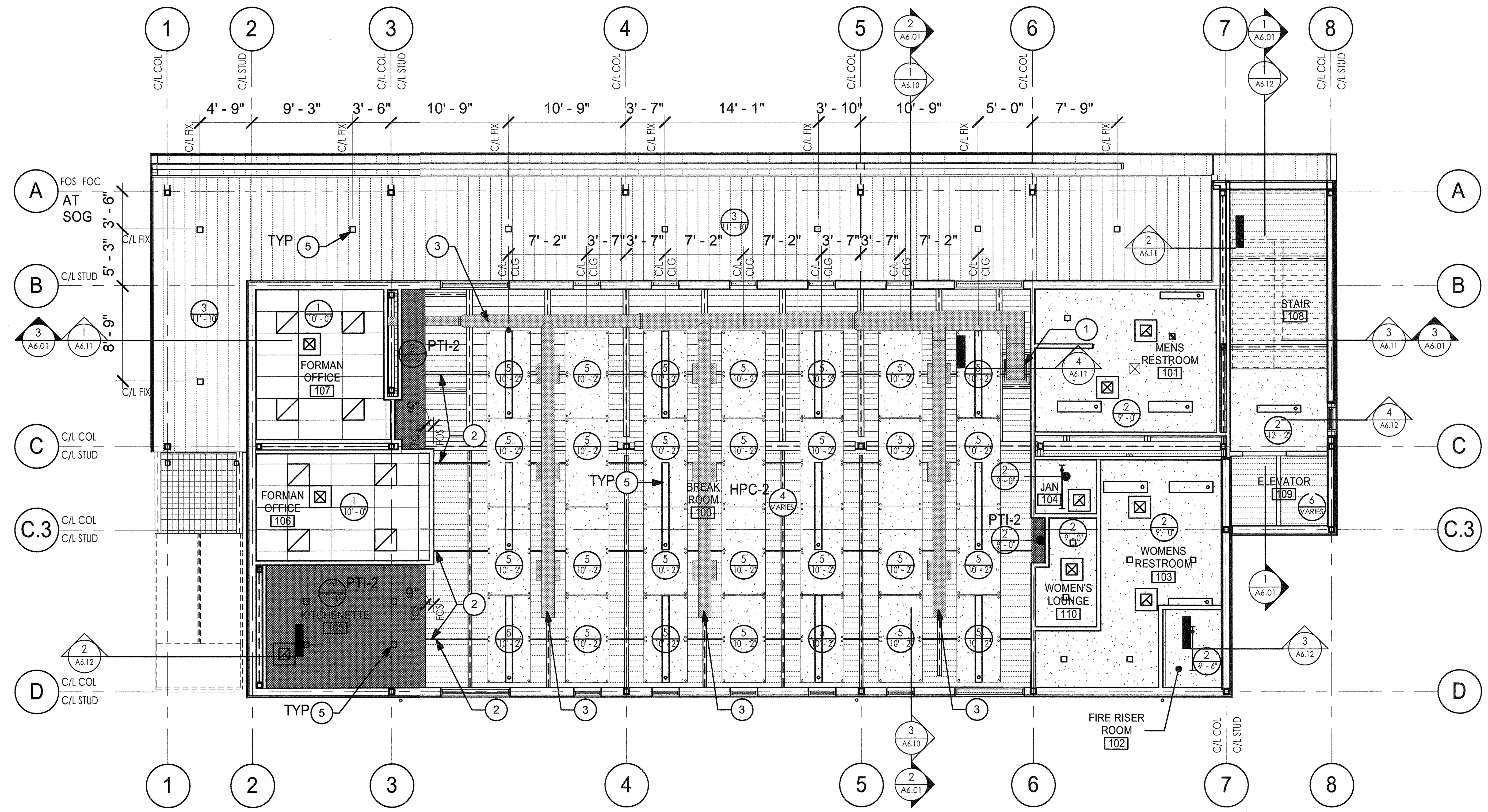
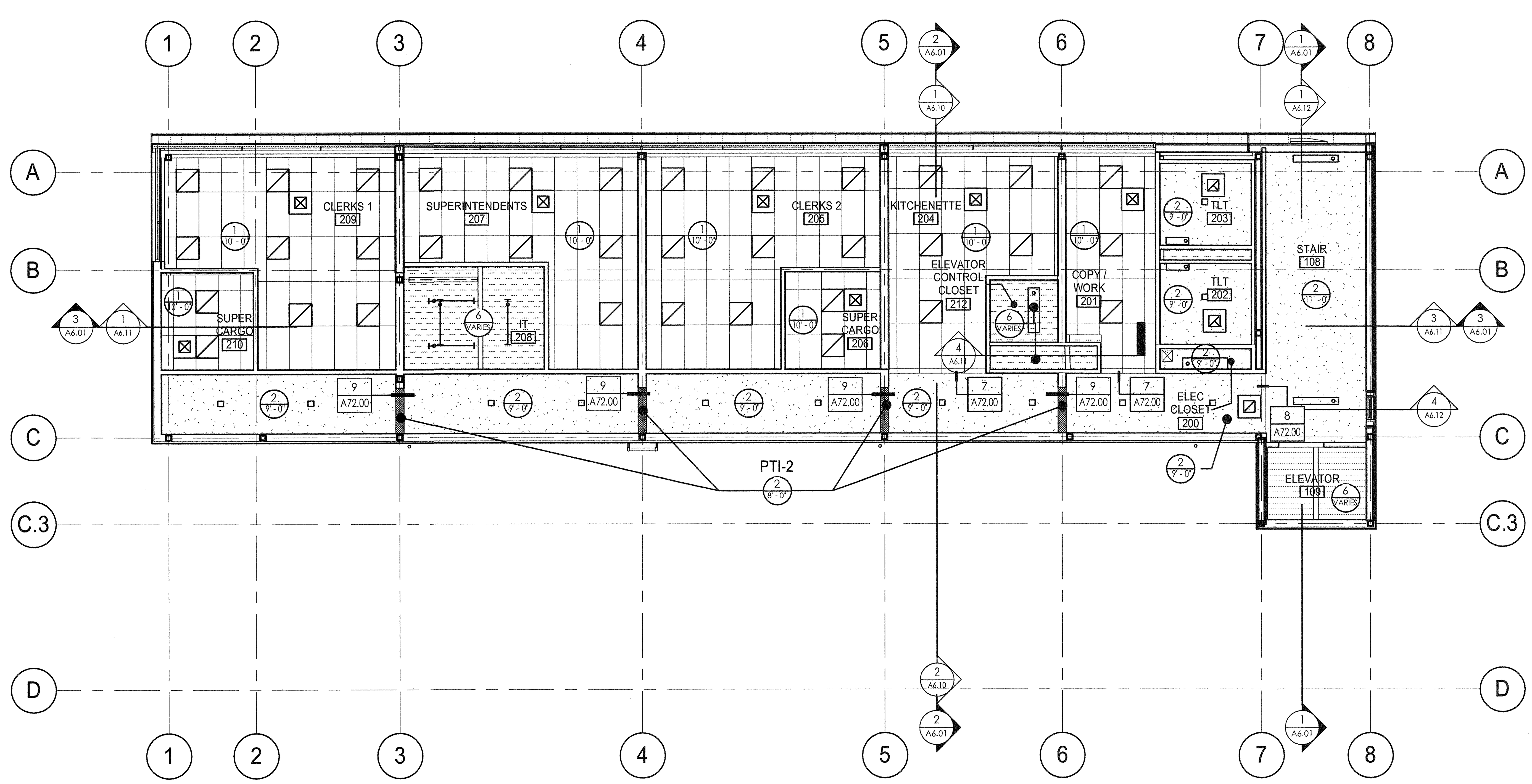


1 LEVEL 1 REFLECTED CEILING PLAN
1/8" = 1'-0"



2 LEVEL 2 REFLECTED CEILING PLAN
1/8" = 1'-0"

REFLECTED CEILING PLAN GENERAL NOTES

A. CONTRACTOR SHALL COORDINATE THE WORK OF THE APPLICABLE TRADES TO PROVIDE PROPER LOCATIONS AND INSTALLATION OF CEILING ELEMENTS AND SYSTEMS.

B. MECHANICAL AND ELECTRICAL INFORMATION SHOWN ON ARCHITECTURAL REFLECTED CEILING PLANS IS FOR USE IN LOCATING CEILING MOUNTED FIXTURES, DIFFUSERS, GRILLES, ETC. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR QUANTITIES OF DEVICES AND ALL OTHER RELATED INFORMATION.

C. STRUCTURAL ELEMENTS ARE SHOWN FOR CONTRACTORS CONVENIENCE, SEE STRUCTURAL DRAWINGS FOR ACTUAL SIZES AND SPACING OF SUCH ELEMENTS.

D. ALL CEILING HEIGHTS ARE FROM THE TOP OF CONCRETE SLAB DIRECTLY BELOW, UNO.

E. CEILING HEIGHTS ARE NOMINAL HEIGHTS, SEE WALL SECTIONS FOR ACTUAL CONSTRUCTION REQUIREMENTS.

F. IF LIGHT FIXTURE IS NOT DIMENSIONALLY LOCATED, CENTER IN ROOM. COORDINATE WITH ENGINEER.

G. SEE FLOOR PLAN GENERAL NOTES FOR ADDITIONAL INFORMATION

H. SEAL ALL PENETRATIONS MADE THROUGH ROOF DECK TO MAINTAIN AIR BARRIER CONTINUITY AND PREVENT AIR LEAKAGE (TYP).

I. SUSPENDED CEILING TO COMPLY WITH NCWB TECHNICAL DOCUMENT 401, ASCE 7-10 AND OTHER APPLICABLE CODES. SEE DETAIL 4 / A72.00 FOR MORE INFORMATION

CEILING TYPES

1. 2x4 SUSPENDED ACCOUSTICAL PANEL CEILING GRID (NON-RATED)
2. (1) LAYER 5/8" TYPE 'X' GWB FASTENED TO WOOD CEILING FRAMING. WHERE STRUCTURAL DRAWINGS DO NOT ADDRESS FRAMING SIZE, USE 2x6 WOOD STUD FRAMING @ 16" OC (NON-RATED)
3. SOFFIT PANEL TO MATCH VERTICAL METAL WALL PANEL, ALIGN WITH VERTICAL METAL WALL PANEL JOINTS FASTENED TO SHEATHING, MATCH JOINTS TO WALL SIDING. (1) LAYER 1/2" PLYWOOD SHEATHING APPLIED TO WOOD FRAMING. WHERE STRUCTURAL DRAWINGS DO NOT ADDESS FRAMING SIZE, USE 2x6 WOOD FRAMING @ 16" OC (NON-RATED)
4. OPEN TO STRUCTURE, HPC-2, STRUCTURAL STEEL, METAL DECK, COUDUIT, FIRE SPRINKLER LINES, AND OTHER ITEMS MOUNTED TO DECK OR STEEL
5. 48"x96" LARGE FORMAT SUSPENDED ACOUSTICAL CEILINGS, USING THE "CAPZ" SYSTEM BY ARMSTRONG CEILING SYSTEMS, CENTER LIGHTING AND FIRE SPRINKLER HEADS IN NORTH/SOUTH DIRECTION OF CLOUD
6. OPEN TO STRUCTURE, UNPAINTED

REFLECTED CEILING PLAN KEYNOTES

1. SEAL BETWEEN DUCT AND FLOOR, COORD WITH MECHANICAL. PAINT TO MATCH FLOOR DECK COLOR
2. FIRE SPRINKLER BRANCH LINE ABOVE "CLOUDS", CENTERED ON "CLOUD", ALSO CENTER FIRE SPRINKLER HEAD PENETRATION IN "CLOUD", SEE FIRE PROTECTION DRAWINGS
3. EXPOSED MECHANICAL DUCT, SEE MECHANICAL DRAWINGS. TAKE CARE NOT TO EXPOSE SEALANT/ADHESIVE. COORDINATE WITH STRUCTURE, CLOUDS, FIRE LINES AND LIGHTING
4. NOT USED
5. LIGHT FIXTURE, SEE ELECTRICAL. LOCATE IN CENTER OF CEILING CLOUD OR SOFFIT PANEL. IN KITCHENETTE, CONTRACTOR TO COORDINATE MUDDING AROUND TRIMLESS RECESSED LIGHT FIXTURE

NOTE: DRAWING MAY BE REDUCED
0 4' 8' 16'

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PIER 4 PHASE 2
MARINE BUILDING
REFLECTED CEILING PLANS

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:	DRAWING SCALE: AS NOTED	

6552
A4.01
SH # 404 OF # 499
CONT/CONS: 070136
M. ID: 091251
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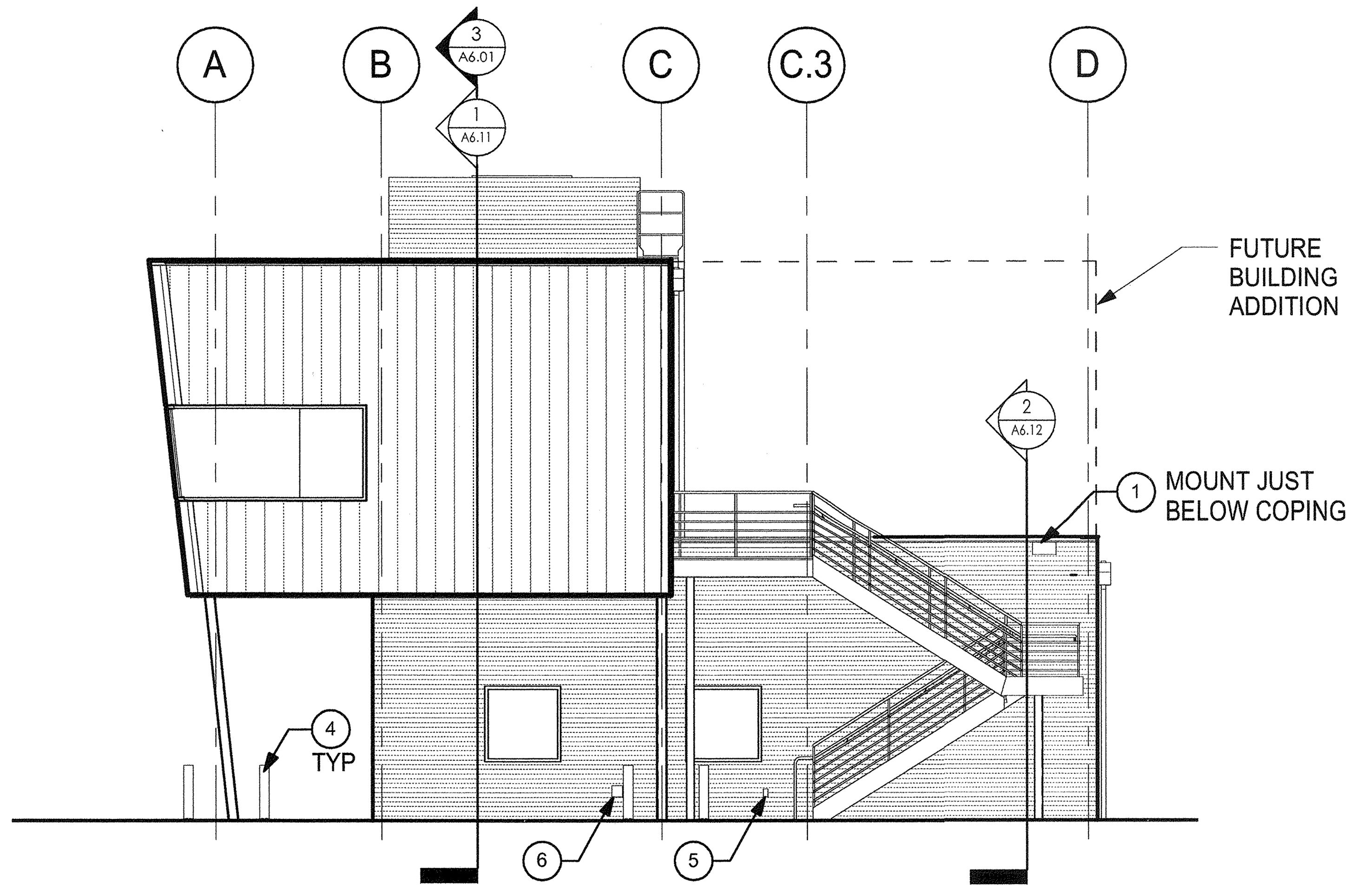
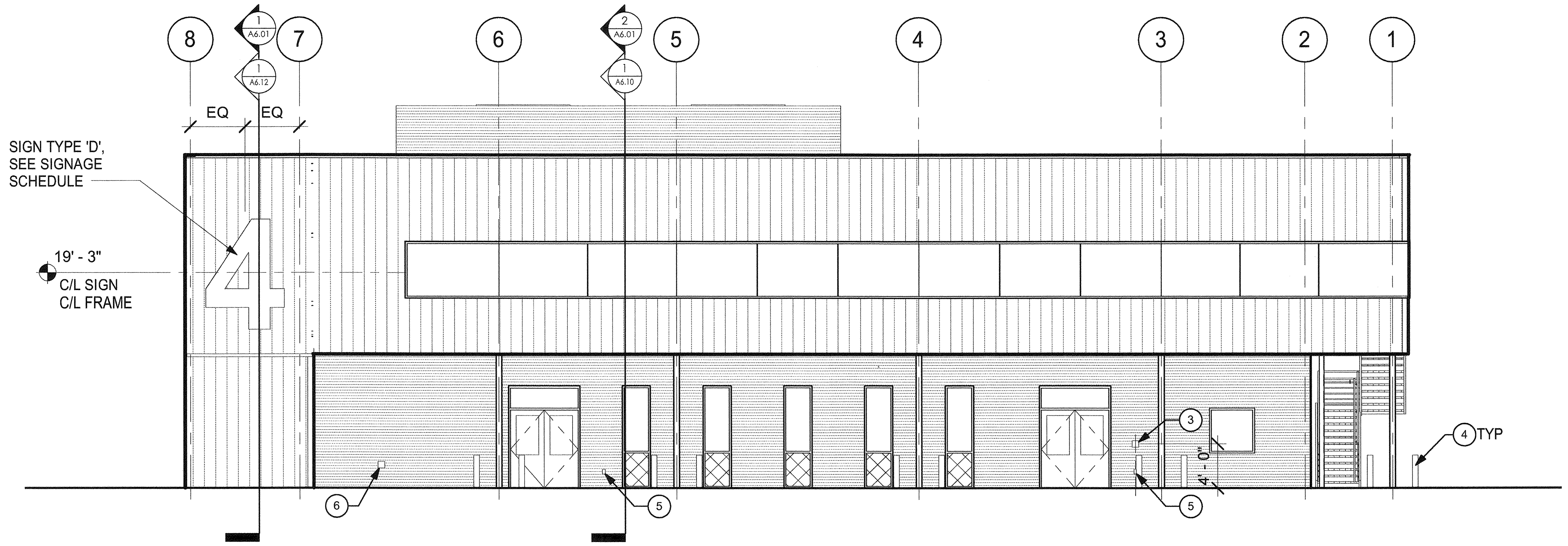
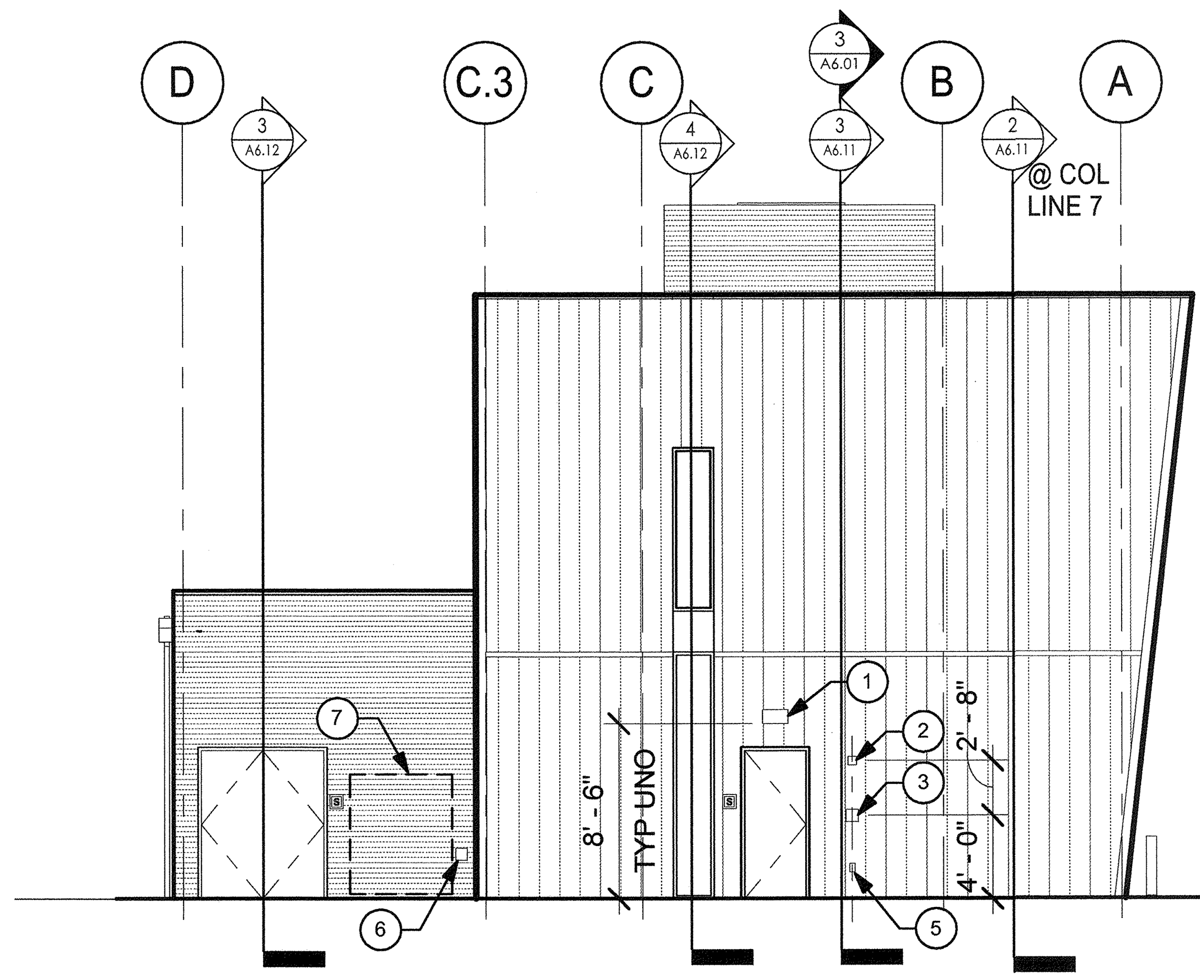


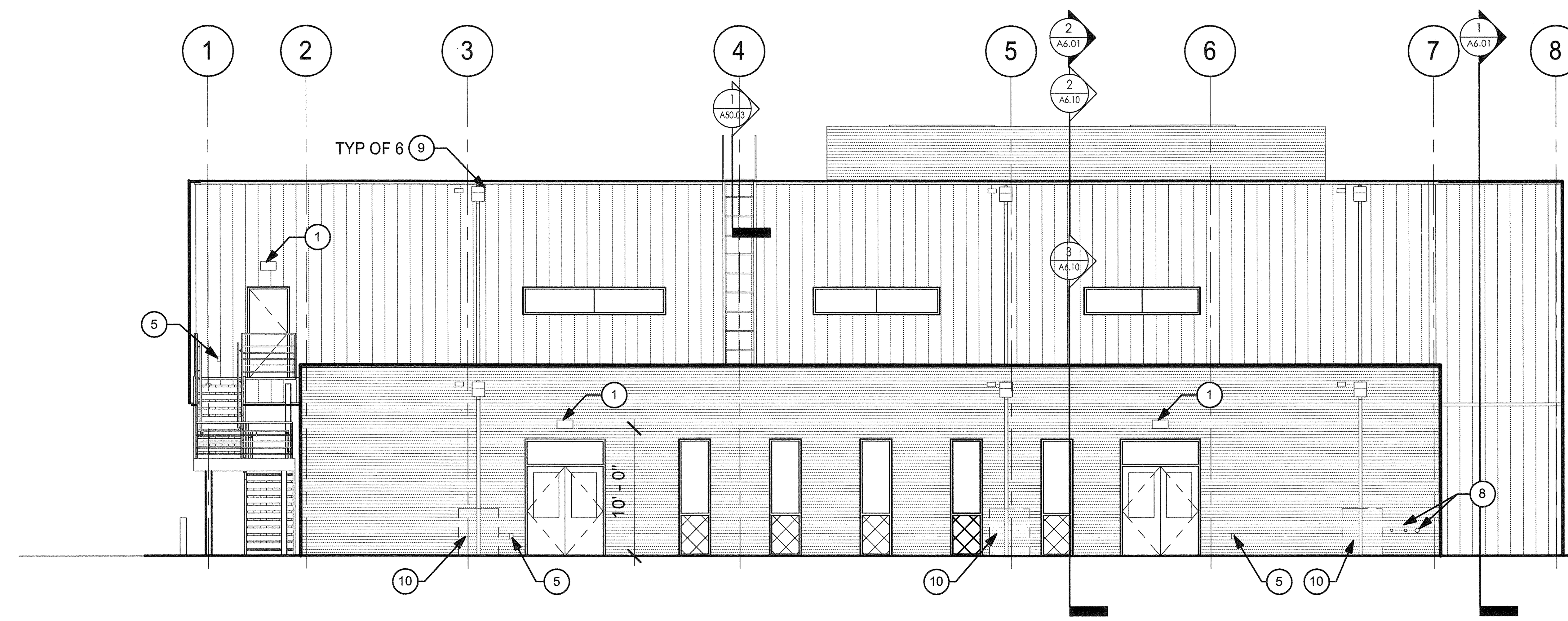
1 WEST EXTERIOR ELEVATION
1/8" = 1'-0"



2 NORTH EXTERIOR ELEVATION
1/8" = 1'-0"



3 EAST EXTERIOR ELEVATION
1/8" = 1'-0"



4 SOUTH EXTERIOR ELEVATION
1/8" = 1'-0"

EXTERIOR ELEVATION KEYNOTES

1. LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS
2. COMBINATION HORN/STROBE, SEE FIRE ALARM DWGS
3. KNOX-BOX
4. BOLLARDS , SEE 2 / A1.01 & 3 / A1.01
5. DUPLEX ELECTRIC OUTLET, SEE ELECTRIC DRAWINGS. SEE 2 / A31.03 & 3 / A31.03 FOR SIM FLASHING DETAILS
6. WALL HYDRANTS, SEE PLUMBING DRAWINGS, SEE 2 / A31.03 &3 / A31.03 FOR SIM FLASHING DETAILS
7. RACK-MOUNTED ELECTRIC PANELS AND TRANSFORMER, SEE ELECTRIC DRAWINGS
8. FIRE DEPARTMENT SIAMESE CONNECTION AND HOSE VALVES, SEE FIRE PROTECTION DWGS
9. OVERFLOW SCUPPERS, SEE DETAILS 3 / A40.04 & 3 / A40.05
10. DOWNSPOUT TREATMENT UNIT 38" x 43" x 44", OFOI. CONTRACTOR TO COORDINATE STUB UP LOCATION WITH ENGINEER PRIOR TO INSTALLATION. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION

EXTERIOR ELEVATION GENERAL NOTES

A. OTHER NOTES: SEE GENERAL NOTES ON G2 SERIES SHEETS FOR ADDITIONAL INFORMATION

B. METAL WALL PANEL DETAILS: SEE A31 SERIES SHEETS, INCLUDING, BUT NOT LIMITED TO, PANEL JOINTS, INSIDE & OUTSIDE CORNERS, HEAD & SILL TRANSITIONS

C. TYPICAL DOWNSPOUT DETAIL: DOWNSPOUTS ARE 3" DIAMETER, UNO

D. M/E/P DEVICES: ARCHITECTURAL DRAWINGS DO NOT ILLUSTRATE ALL MECHANICAL AND ELECTRICAL ITEMS AND DEVICES. ITEMS AND DEVICES WHICH ARE SHOWN ARE FOR COORDINATION AND LOCATING PURPOSES. SEE MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. NOTIFY ARCHITECT IMMEDIATELY OF ANY CONFLICTS FOR CLARIFICATION

EXTERIOR ELEVATION LEGEND

HORIZONTAL METAL PANEL, MP-1

VERTICAL METAL PANEL, MP-2

DS — DOWNSPOUT, SEE 2 / A31.03&3 / A31.03 BRACKETS AT 3'-0" AFF AND 11'-0" AFF OR AS RECOMMENDED BY MANUFACTURER

NOTE: DRAWING MAY BE REDUCED
0 4' 8' 16'

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PIER 4 PHASE 2
MARINE BUILDING
EXTERIOR ELEVATIONS

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DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: | DRAWING SCALE: AS NOTED

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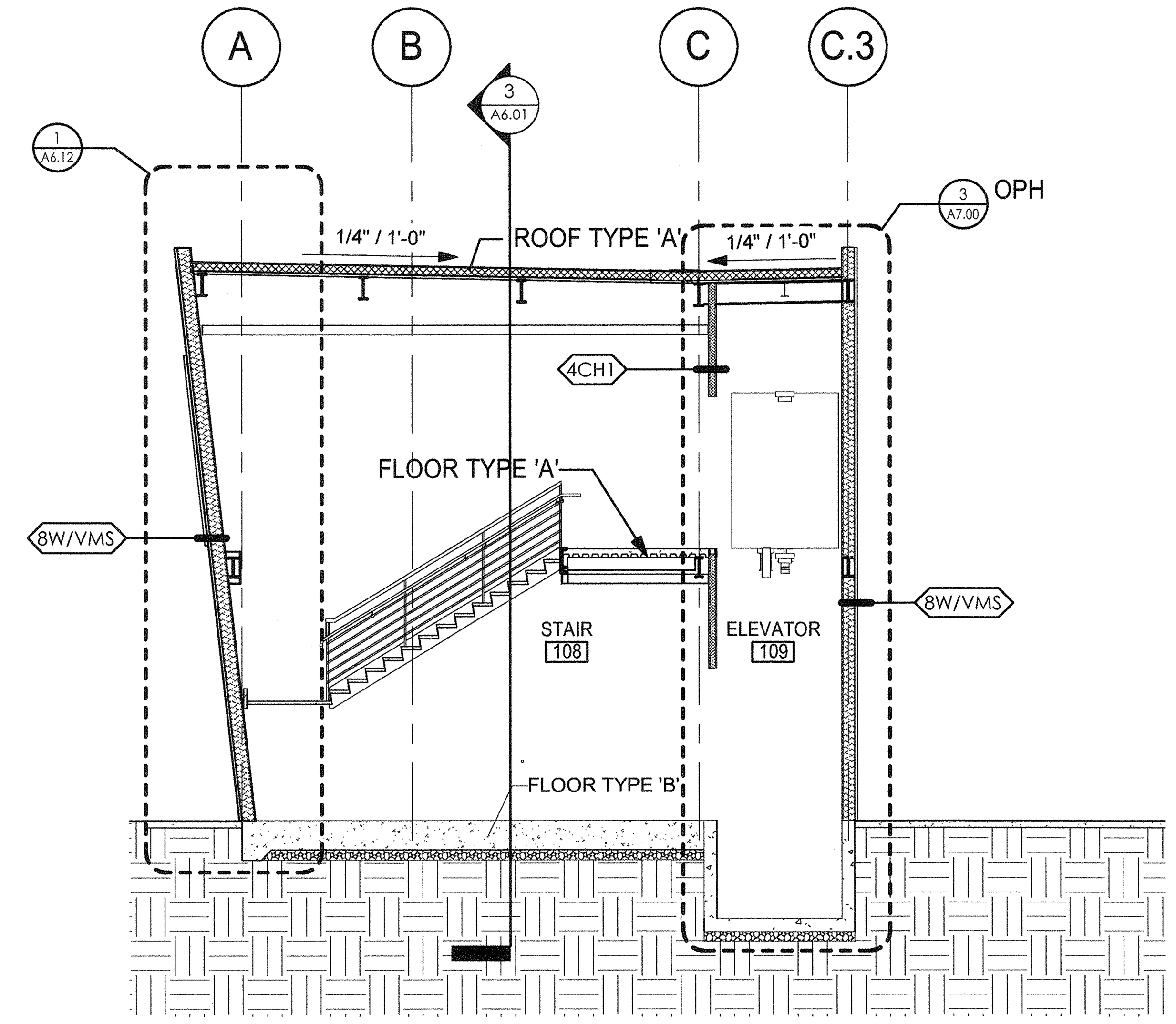
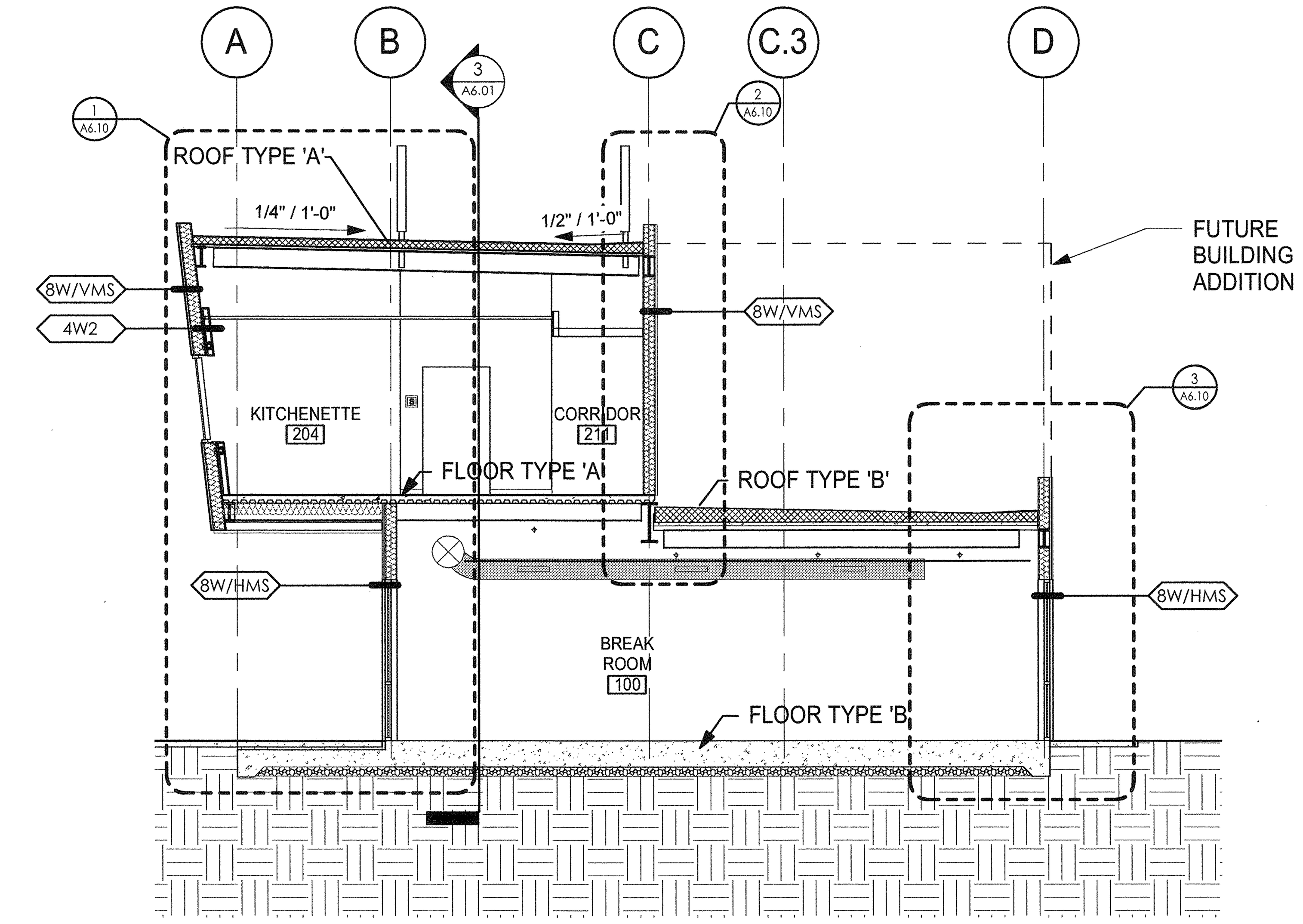
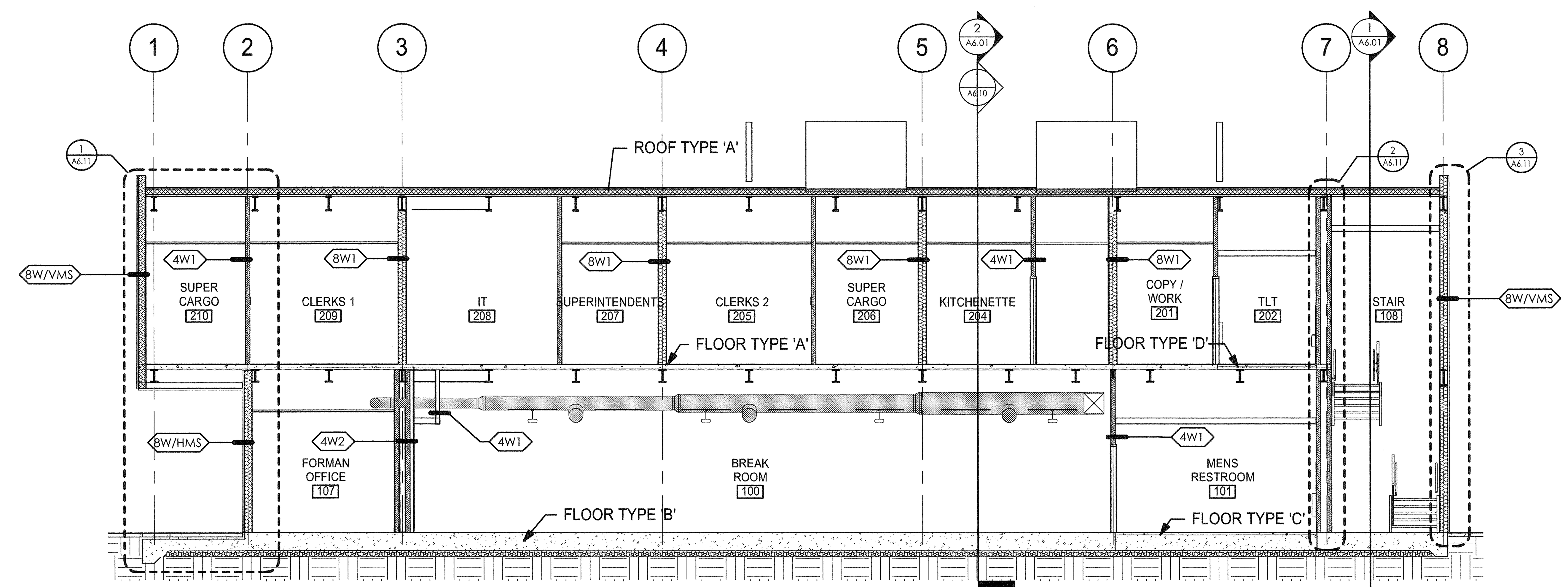


1 BUILDING SECTION
1/8" = 1'-0"



2 BUILDING SECTION
1/8" = 1'-0"



3 BUILDING SECTION
1/8" = 1'-0"

SECTIONS GENERAL NOTES

1. SEE A30 SERIES SHEETS FOR BUILDING AND WALL SECTION AND WALL TYPE GENERAL NOTES
2. SEE A31 SERIES SHEETS FOR WALL TYPE DESCRIPTION AND NOTES
3. SEE RCP'S FOR LAYOUT OF CEILINGS, CLOUDS, MECHANICAL DUCTS AND FIRE SPRIKLER LINES IN OPEN TO STRUCTURE CONDITIONS

ALL INTERIOR WALL TYPES ARE 4W1 UNO

NOTE: DRAWING MAY BE REDUCED
0 4' 8' 16'

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PIER 4 PHASE 2
MARINE BUILDING
BUILDING SECTIONS

RANGE: | SECTION:
TOWNSHIP:
DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: | DRAWING SCALE: AS NOTED

6552
A6.01
SH # 406 OF # 499
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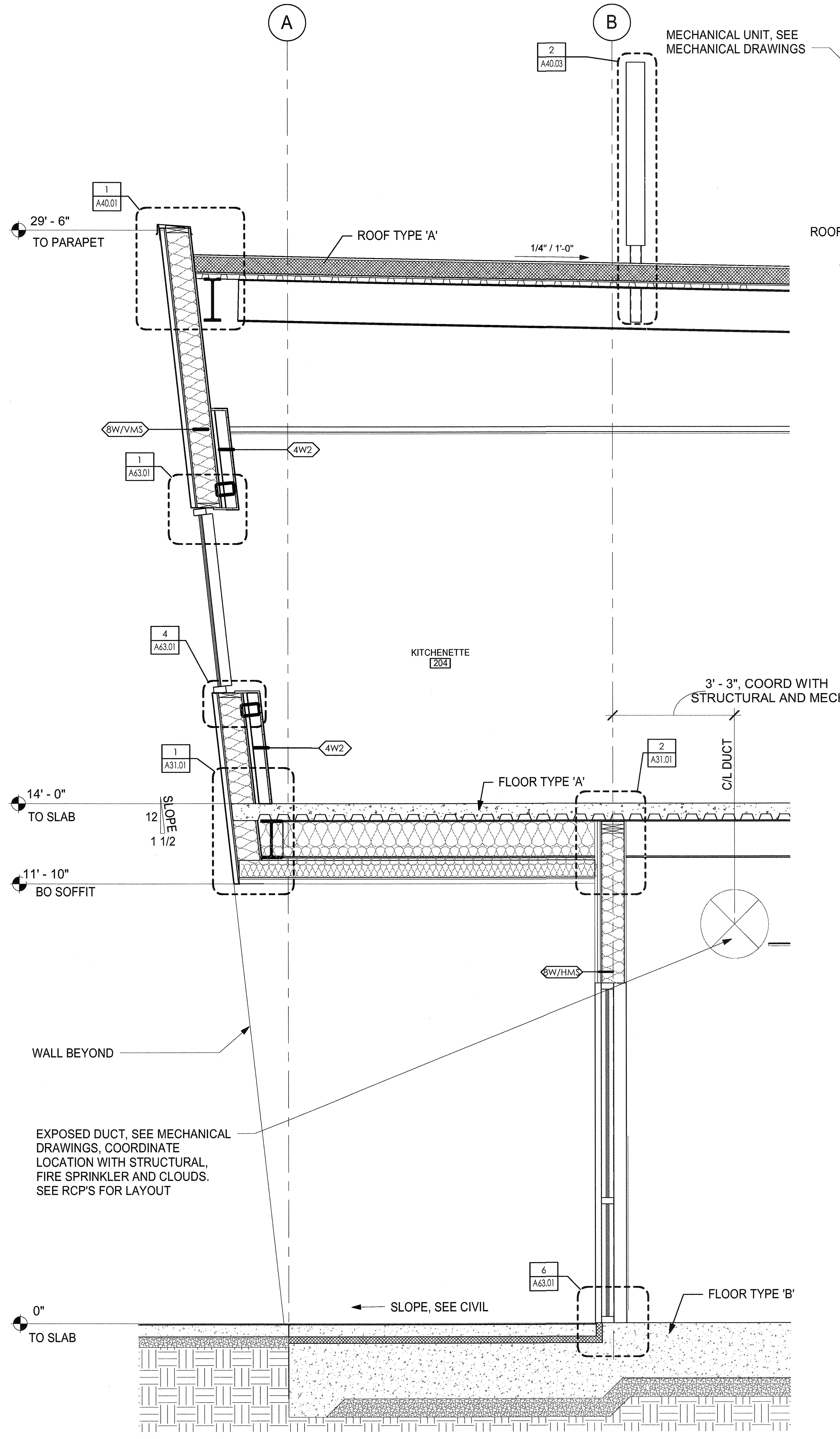
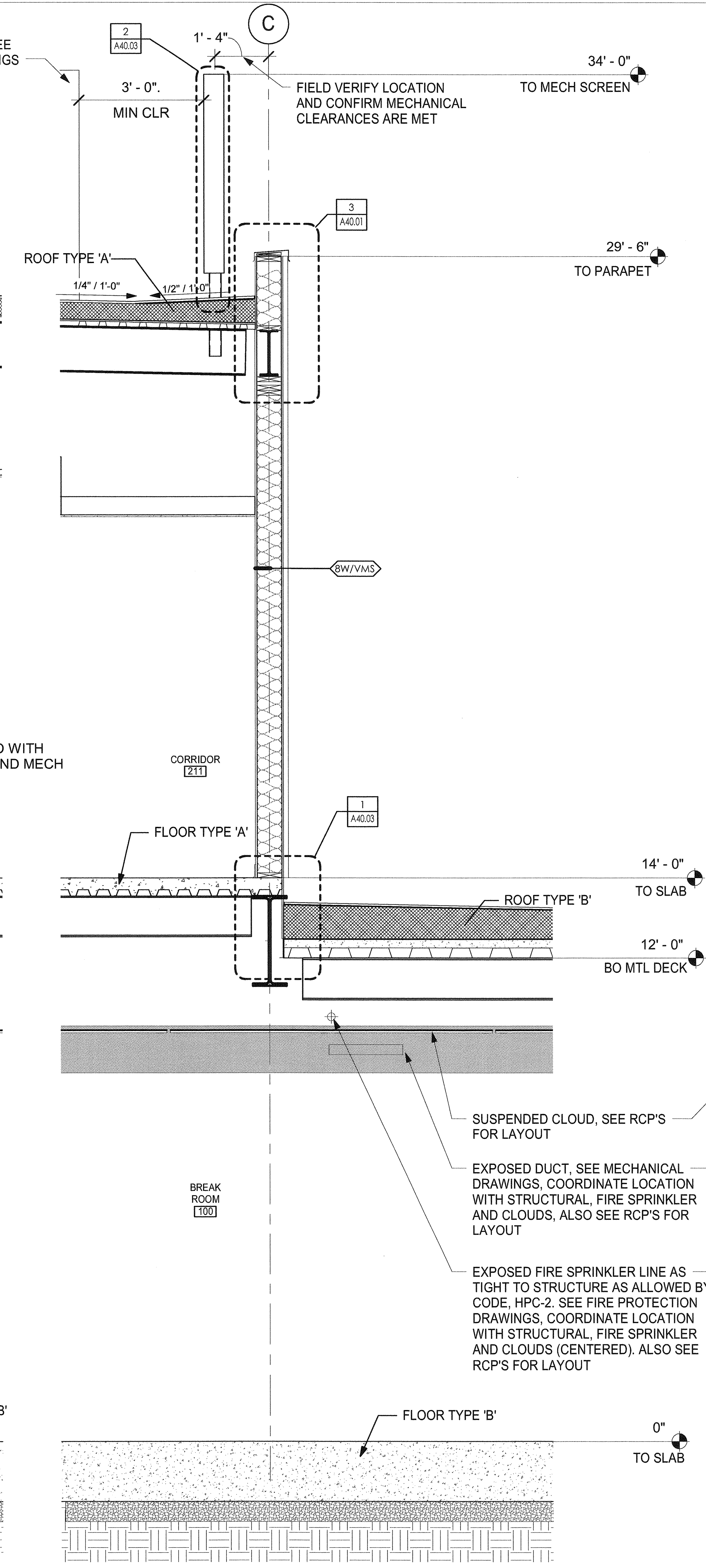
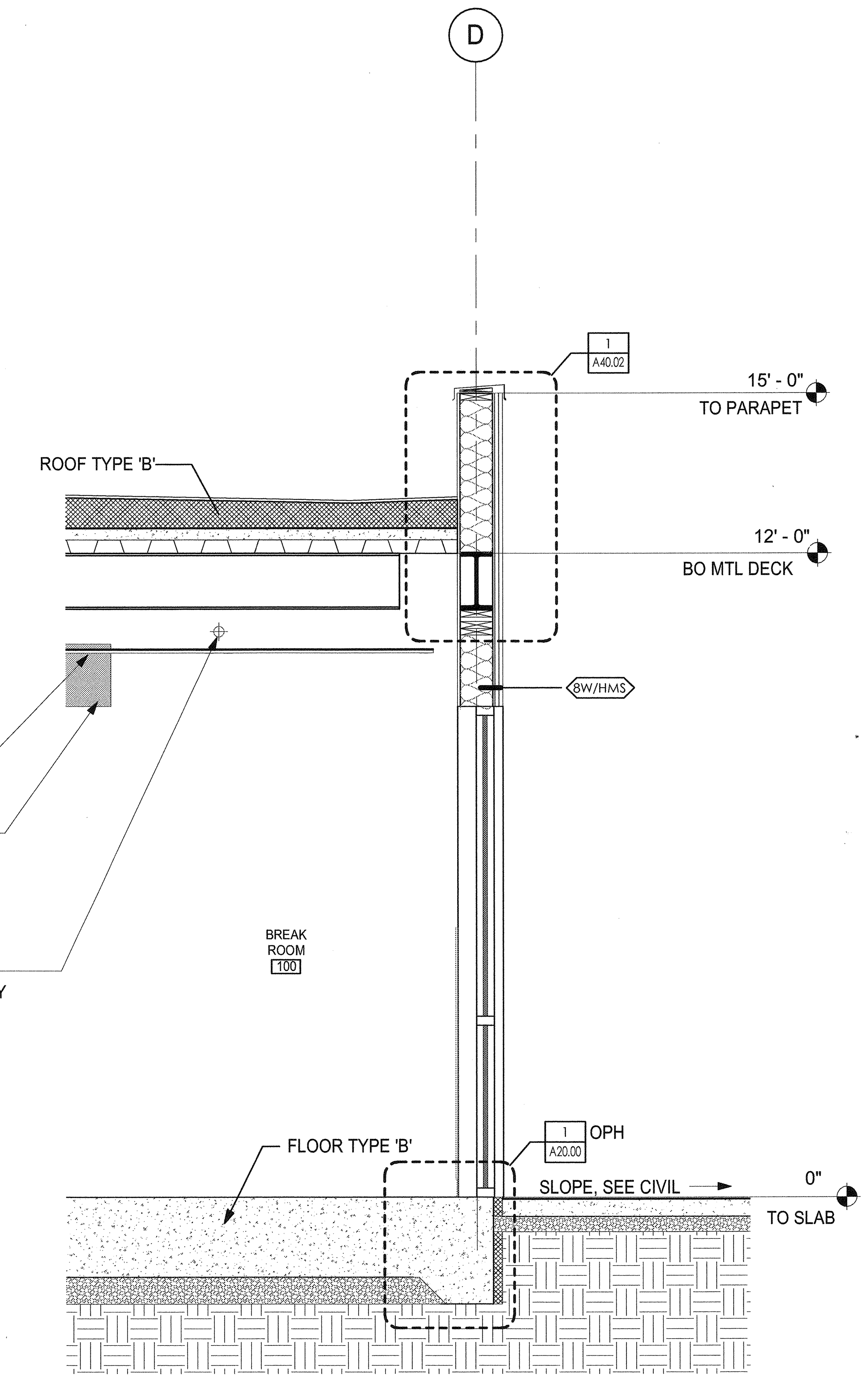


1 WALL SECTION
1/2" = 1'-0"



2 WALL SECTION
1/2" = 1'-0"



3 WALL SECTION
1/2" = 1'-0"

SECTIONS GENERAL NOTES

1. SEE A30 SERIES SHEETS FOR BUILDING AND WALL SECTION AND WALL TYPE GENERAL NOTES
2. SEE A31 SERIES SHEETS FOR WALL TYPE DESCRIPTION AND NOTES
3. SEE RCP'S FOR LAYOUT OF CEILINGS, CLOUDS, MECHANICAL DUCTS AND FIRE SPRINKLER LINES IN OPEN TO STRUCTURE CONDITIONS

ALL INTERIOR WALL TYPES ARE 4W1 UNO

NOTE: DRAWING MAY BE REDUCED
0 1' 2' 4'

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PIER 4 PHASE 2
MARINE BUILDING
WALL SECTIONS

TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

6552
A6.10
SH # 407 OF # 499

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

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BINDING EDGE

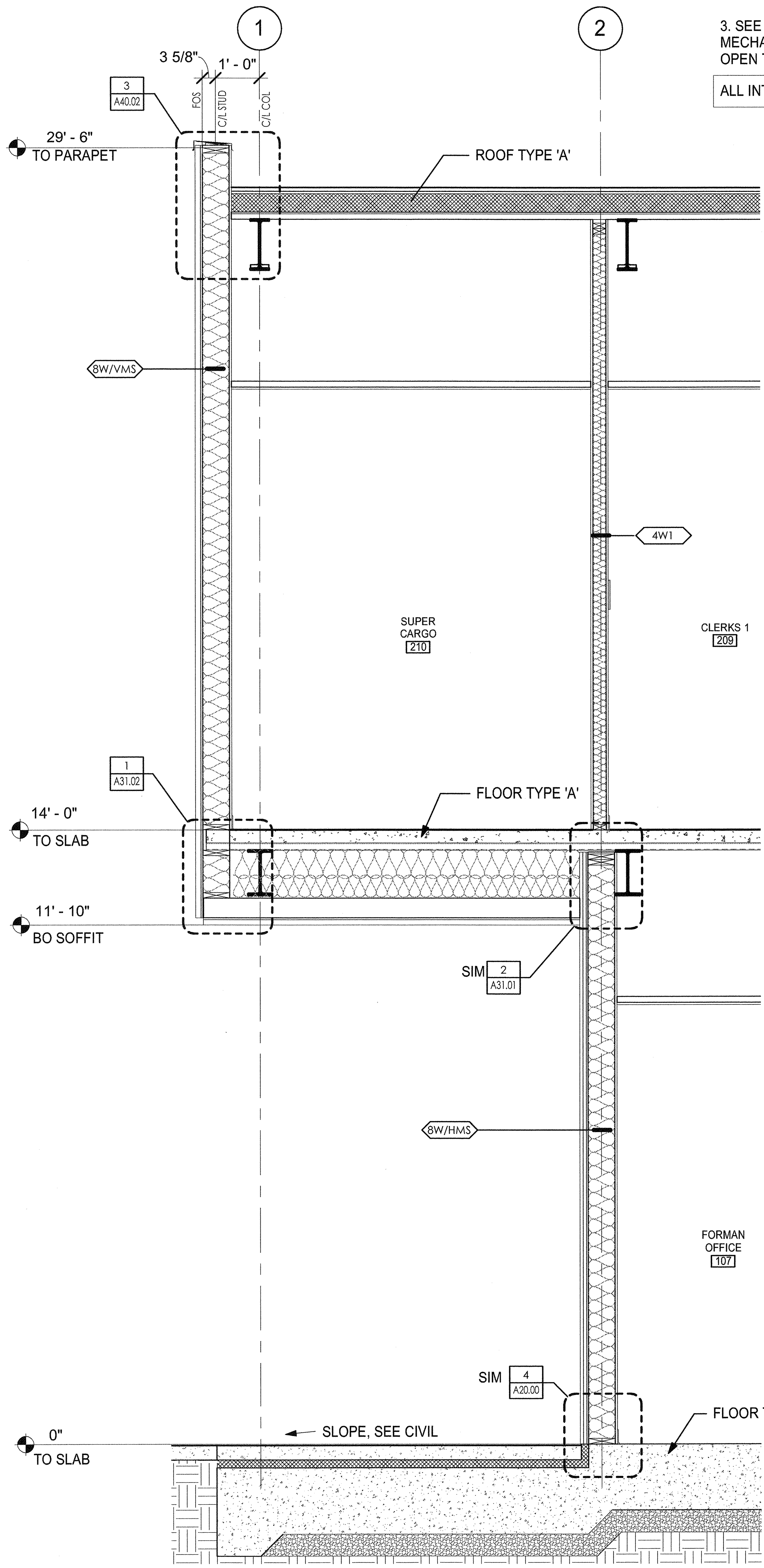
SECTIONS GENERAL NOTES

NOTE: DRAWING MAY BE REDUCED

0 1' 2' 4'

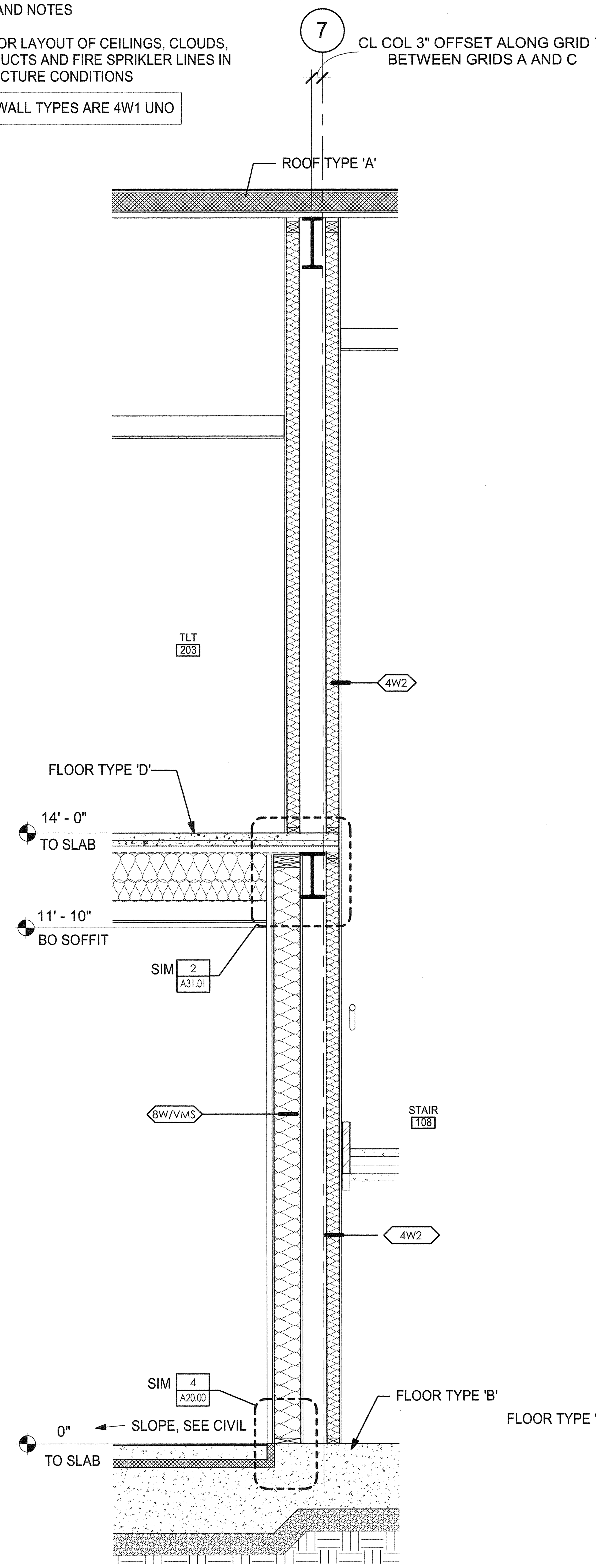
1. SEE A30 SERIES SHEETS FOR BUILDING AND WALL SECTION AND WALL TYPE GENERAL NOTES
2. SEE A31 SERIES SHEETS FOR WALL TYPE DESCRIPTION AND NOTES
3. SEE RCP'S FOR LAYOUT OF CEILINGS, CLOUDS, MECHANICAL DUCTS AND FIRE SPRIKLER LINES IN OPEN TO STRUCTURE CONDITIONS

ALL INTERIOR WALL TYPES ARE 4W1 UNO



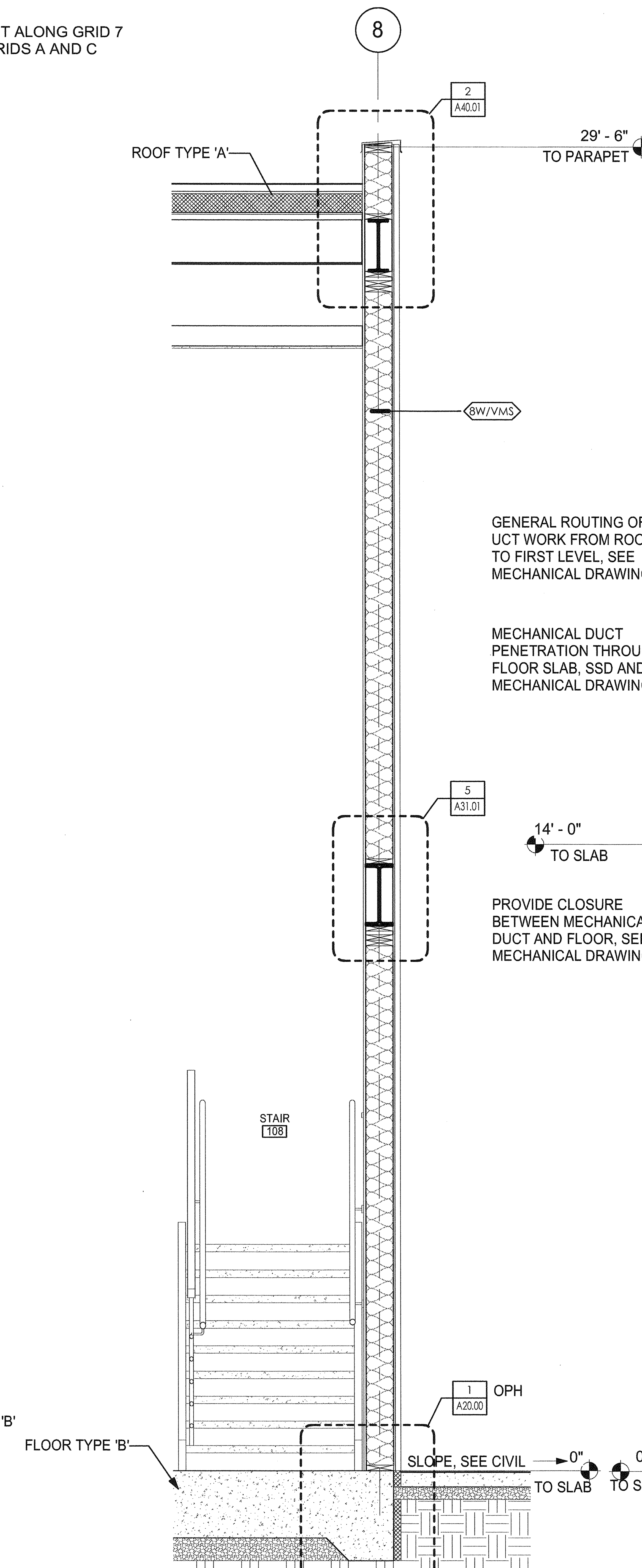
1 WALL SECTION

1/2" = 1'-0"



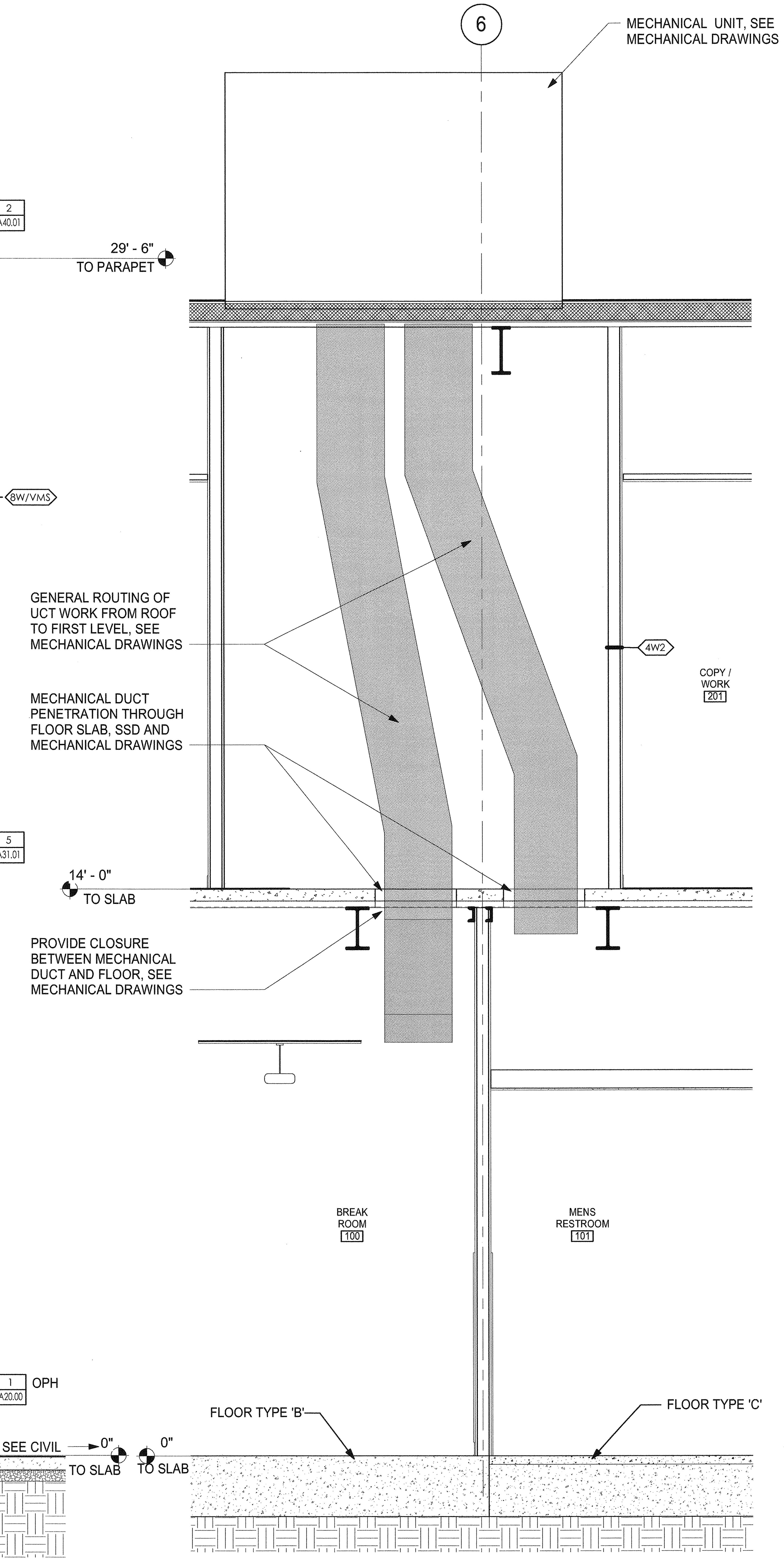
2 WALL SECTION

1/2" = 1'-0"



3 WALL SECTION

1/2" = 1'-0"



4 WALL SECTION

1/2" = 1'-0"

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PIER 4 PHASE 2 MARINE BUILDING

WALL SECTIONS

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:	DRAWING SCALE: AS NOTED	

6552

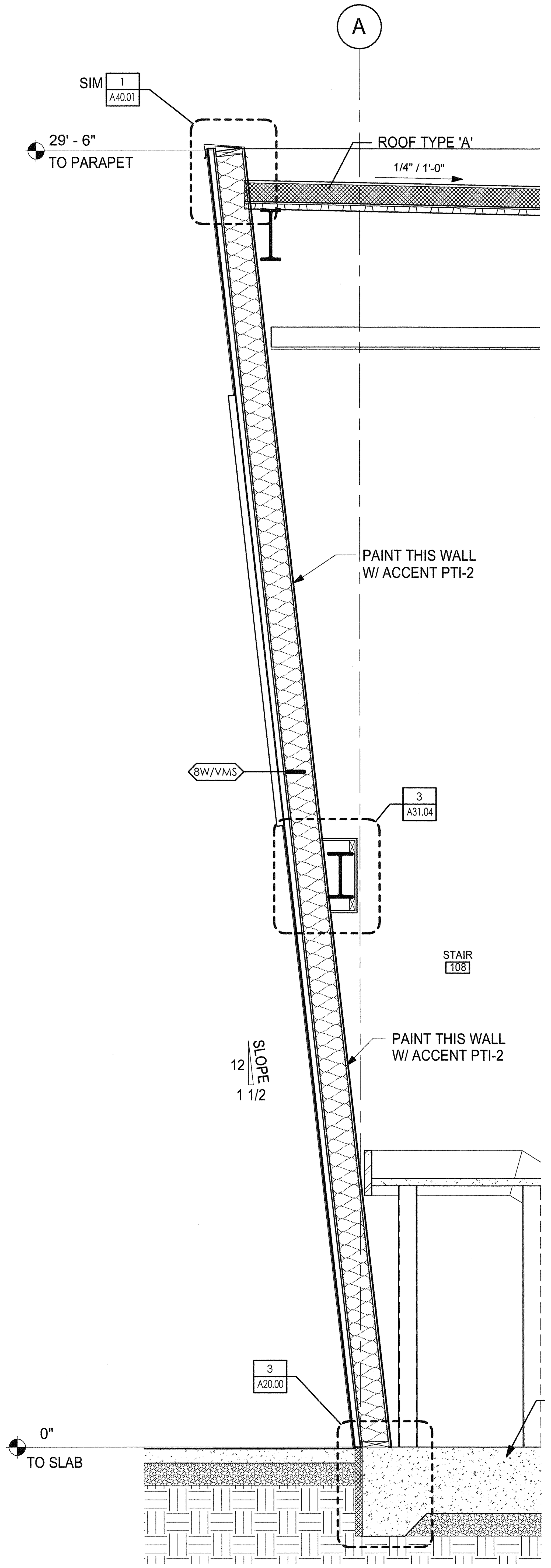
A6.11

SH # 408 OF # 499

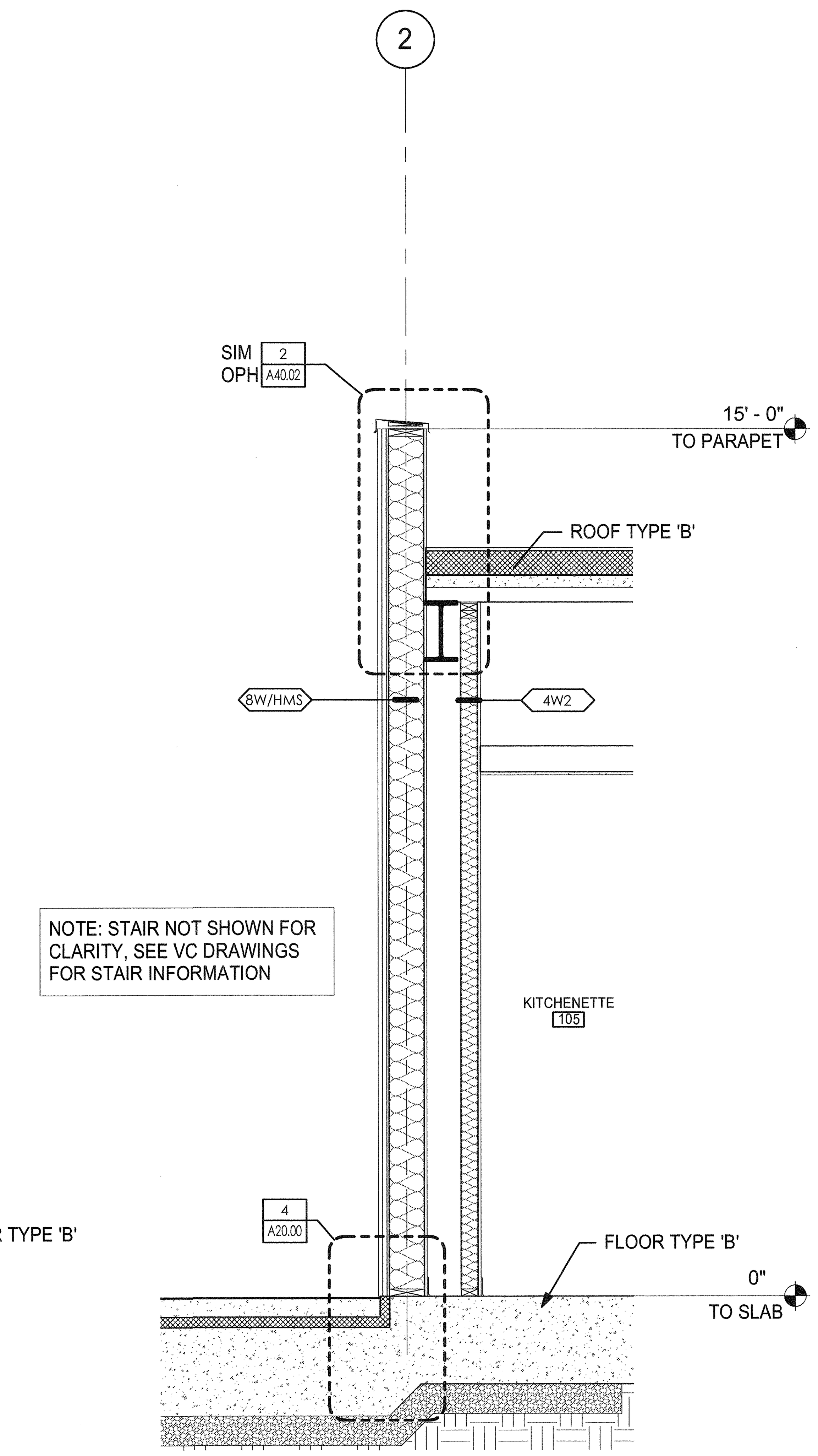
CONT/CONS: 070136

M. ID: 091251

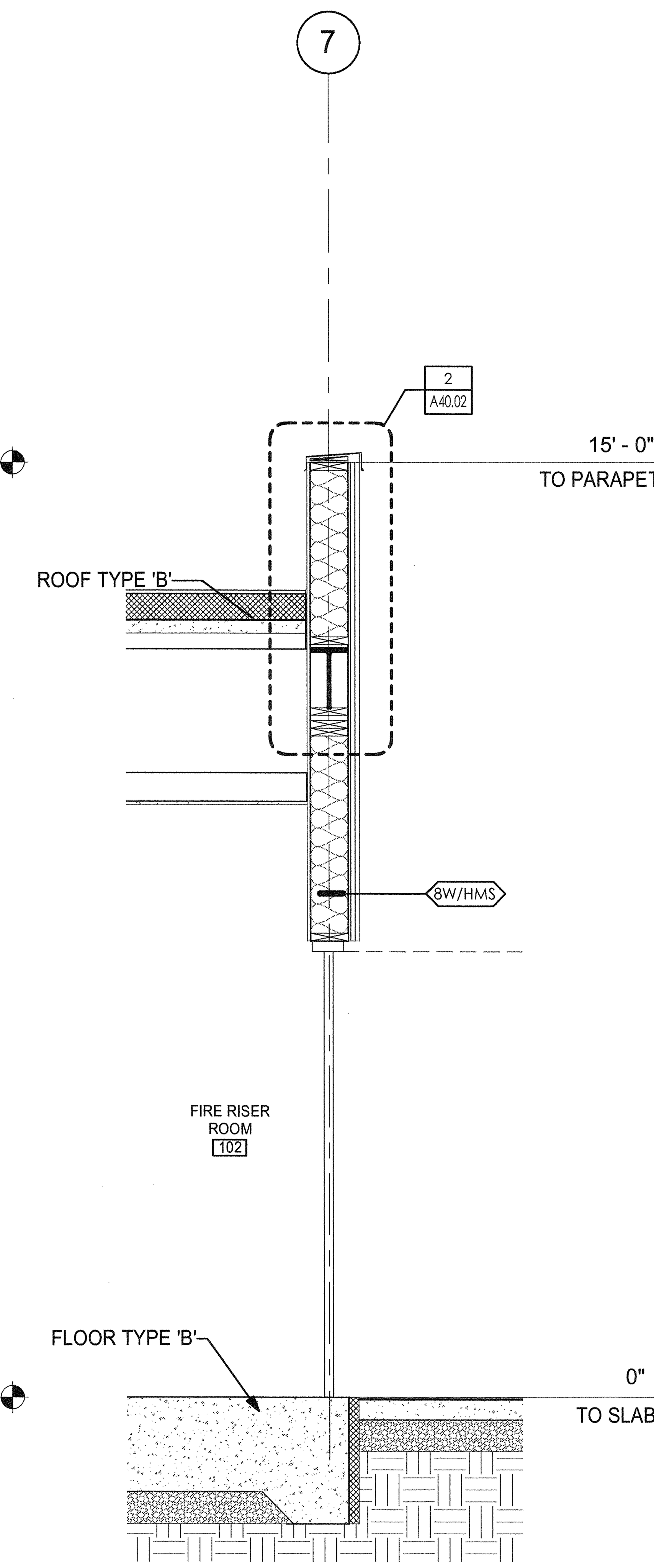
PHASE: BID



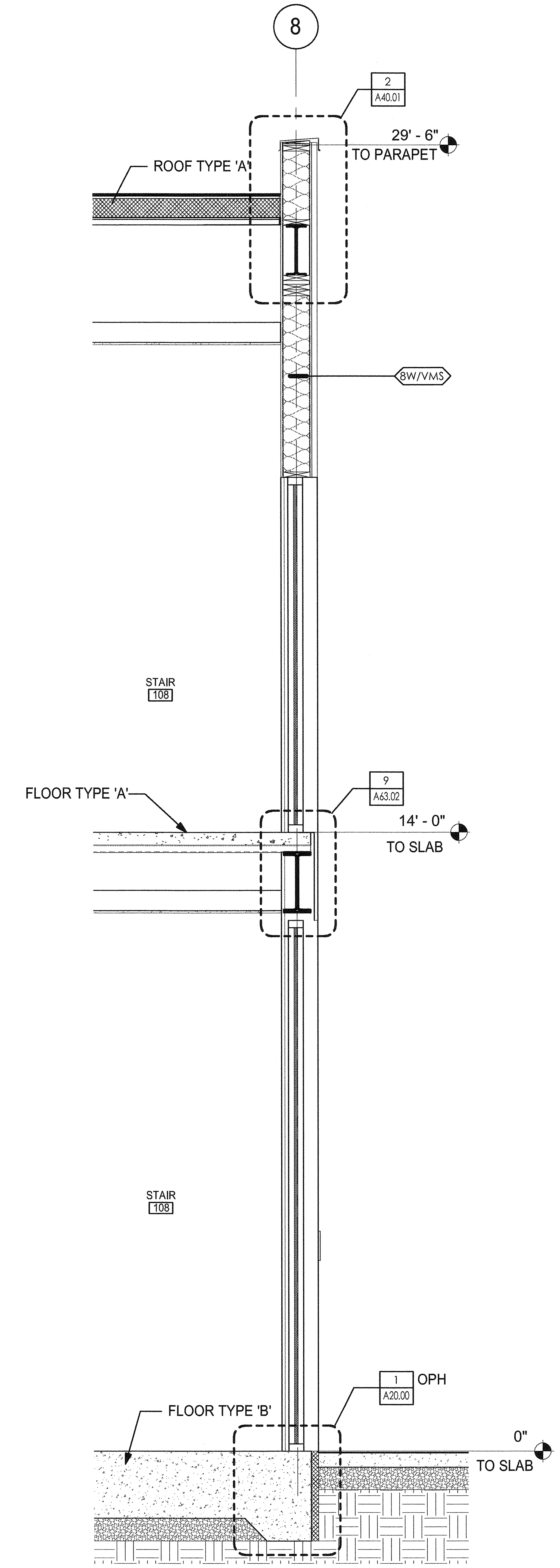
1 WALL SECTION
1/2" = 1'-0"



2 WALL SECTION
1/2" = 1'-0"



3 WALL SECTION
1/2" = 1'-0"



4 WALL SECTION
1/2" = 1'-0"

SECTIONS GENERAL NOTES

1. SEE A30 SERIES SHEETS FOR BUILDING AND WALL SECTION AND WALL TYPE GENERAL NOTES
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ALL INTERIOR WALL TYPES ARE 4W1 UNO

NOTE: DRAWING MAY BE REDUCED
0 1' 2' 4'

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PIER 4 PHASE 2 MARINE BUILDING
WALL SECTIONS

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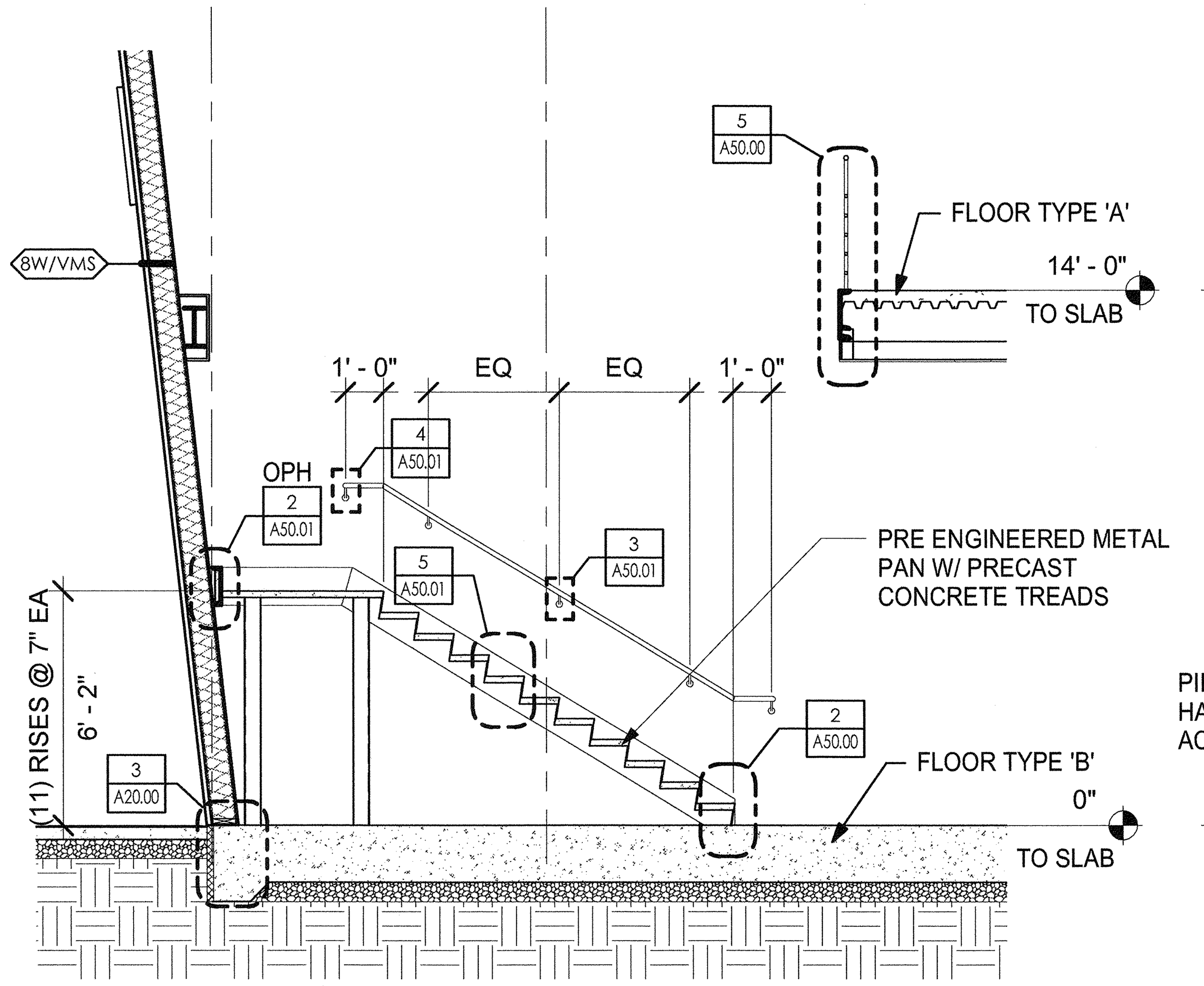
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933		
PARCEL:	DRAWING SCALE: AS NOTED		

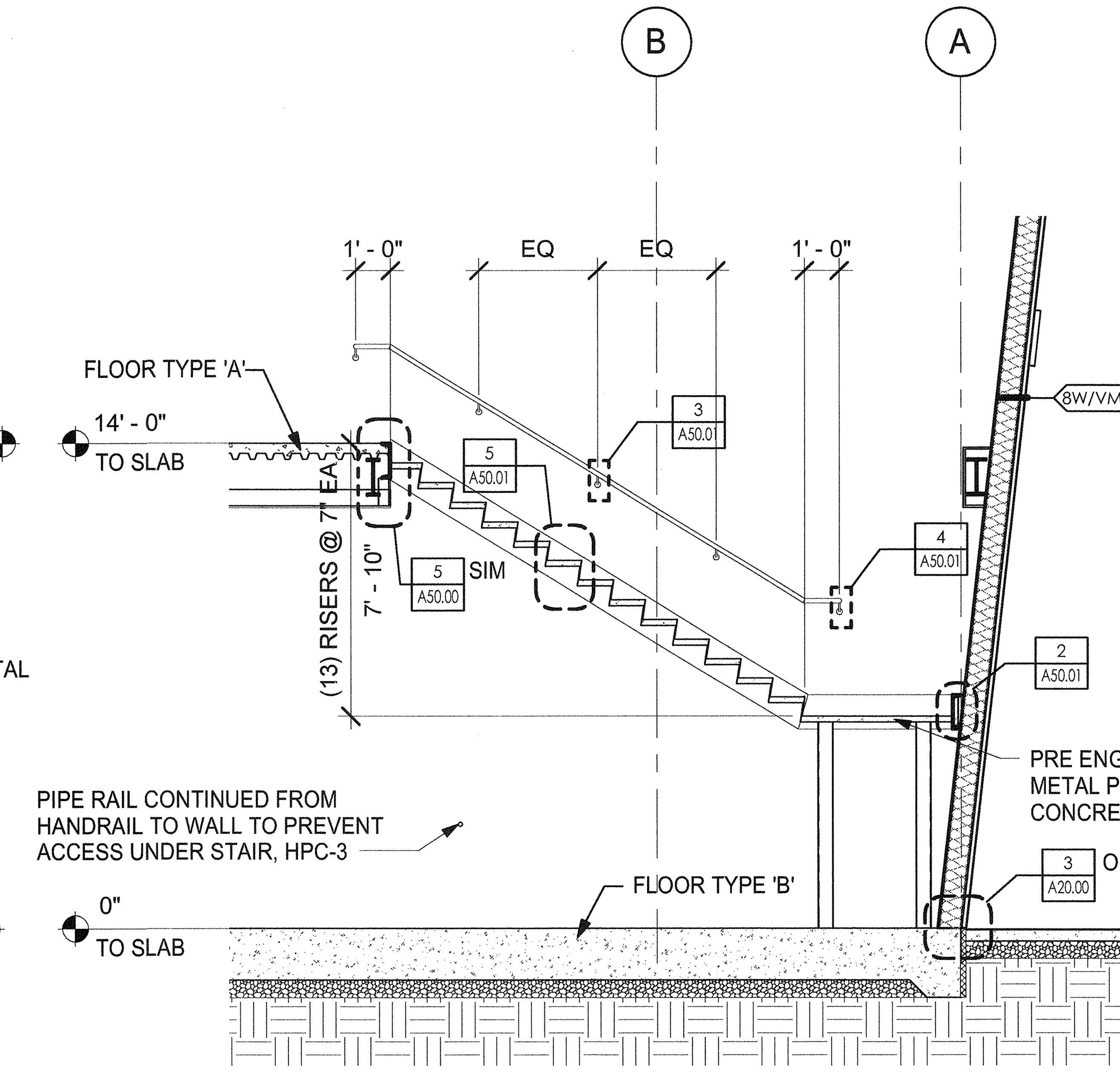
6552
A6.12
SH # 409 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

BINDING EDGE

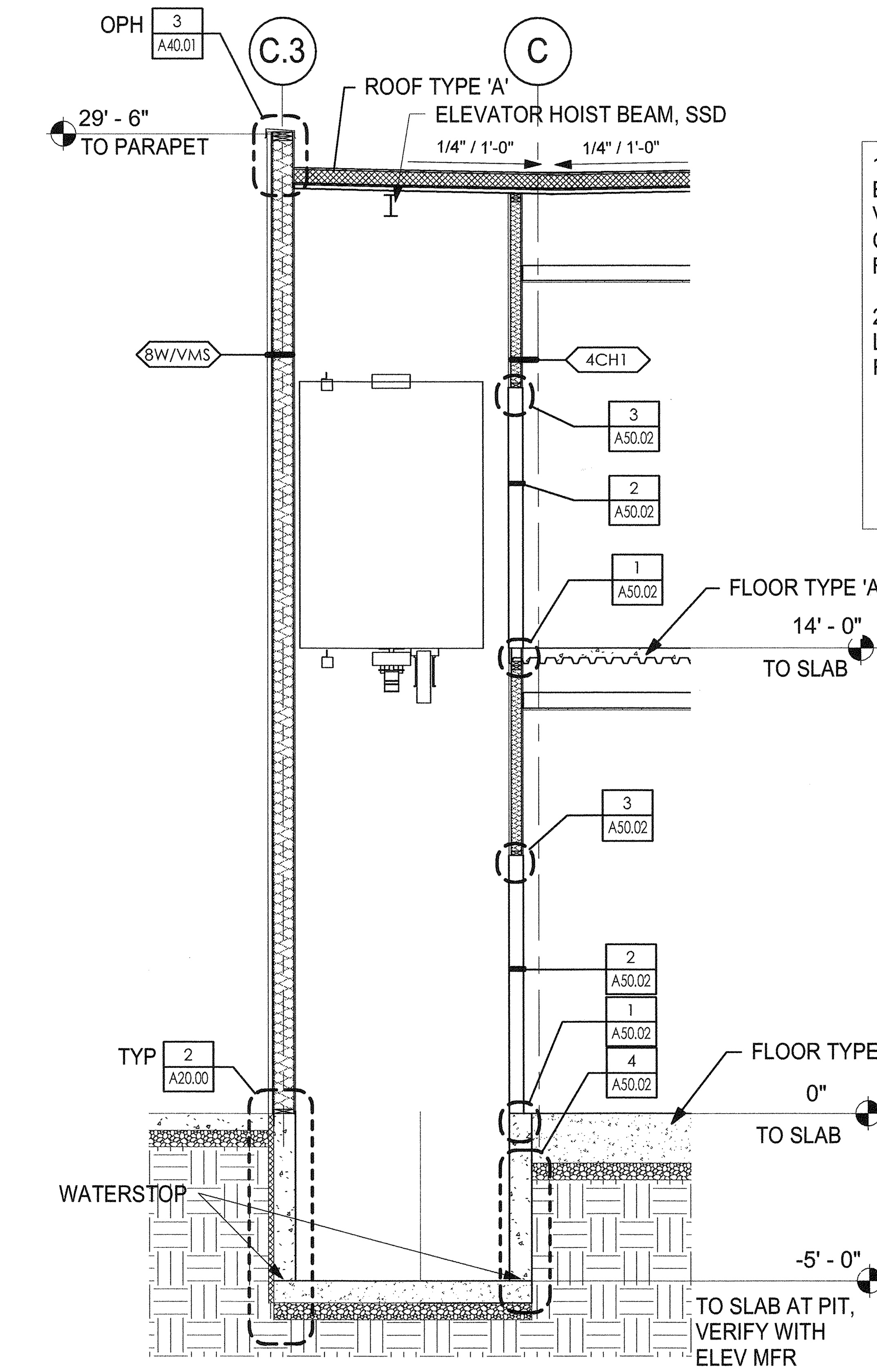
NOTE: STAIR GUARDRAILS AND HANDRAILS ARE TO MEET IBC CHAPTER 1607.8.1 AND OTHER APPLICABLE CODE REQUIREMENTS



1 VERTICAL CIRCULATION - STAIR
1/4" = 1'-0"



2 VERTICAL CIRCULATION - STAIR
1/4" = 1'-0"

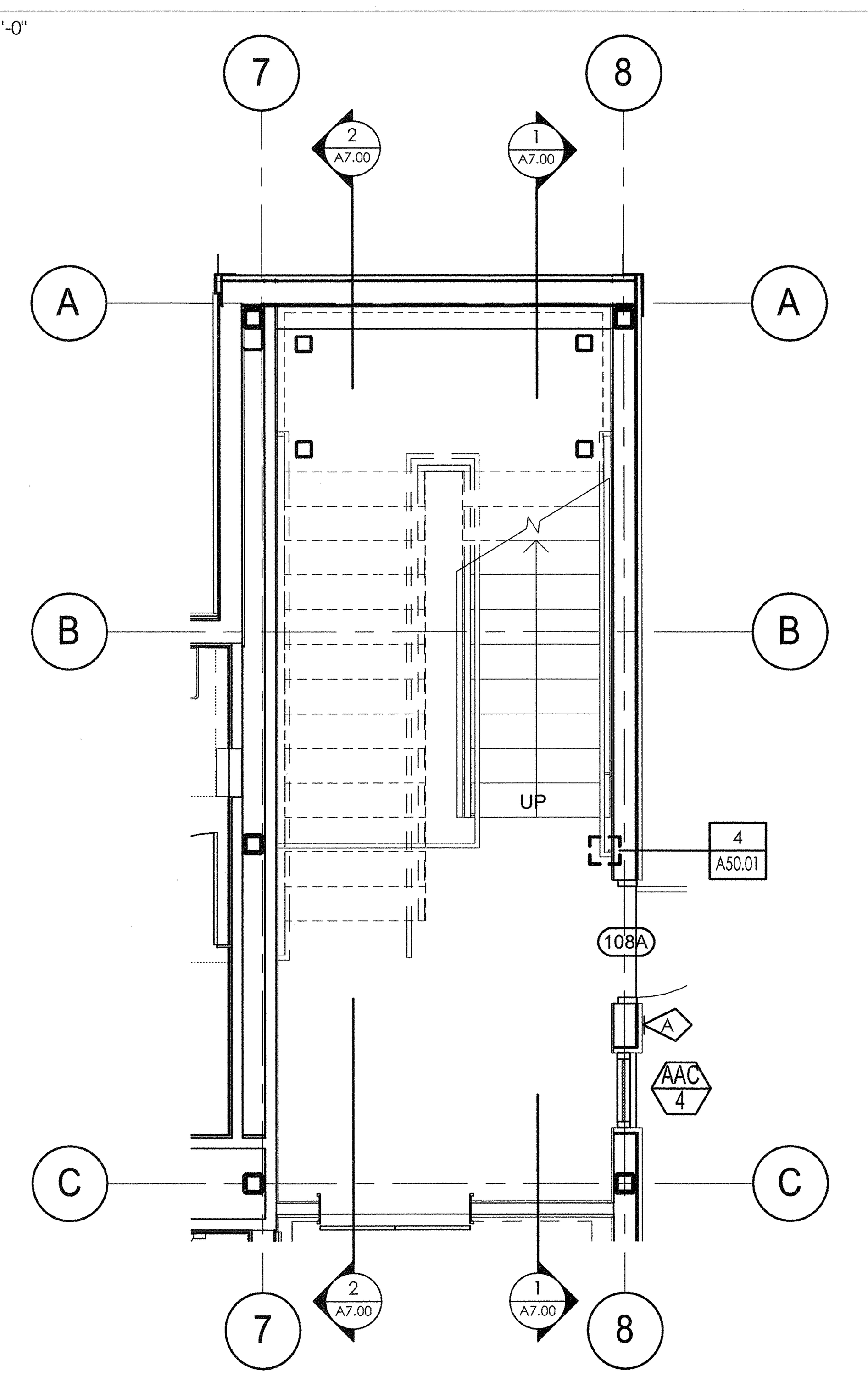


3 VERTICAL CIRCULATION - ELEVATOR
1/4" = 1'-0"

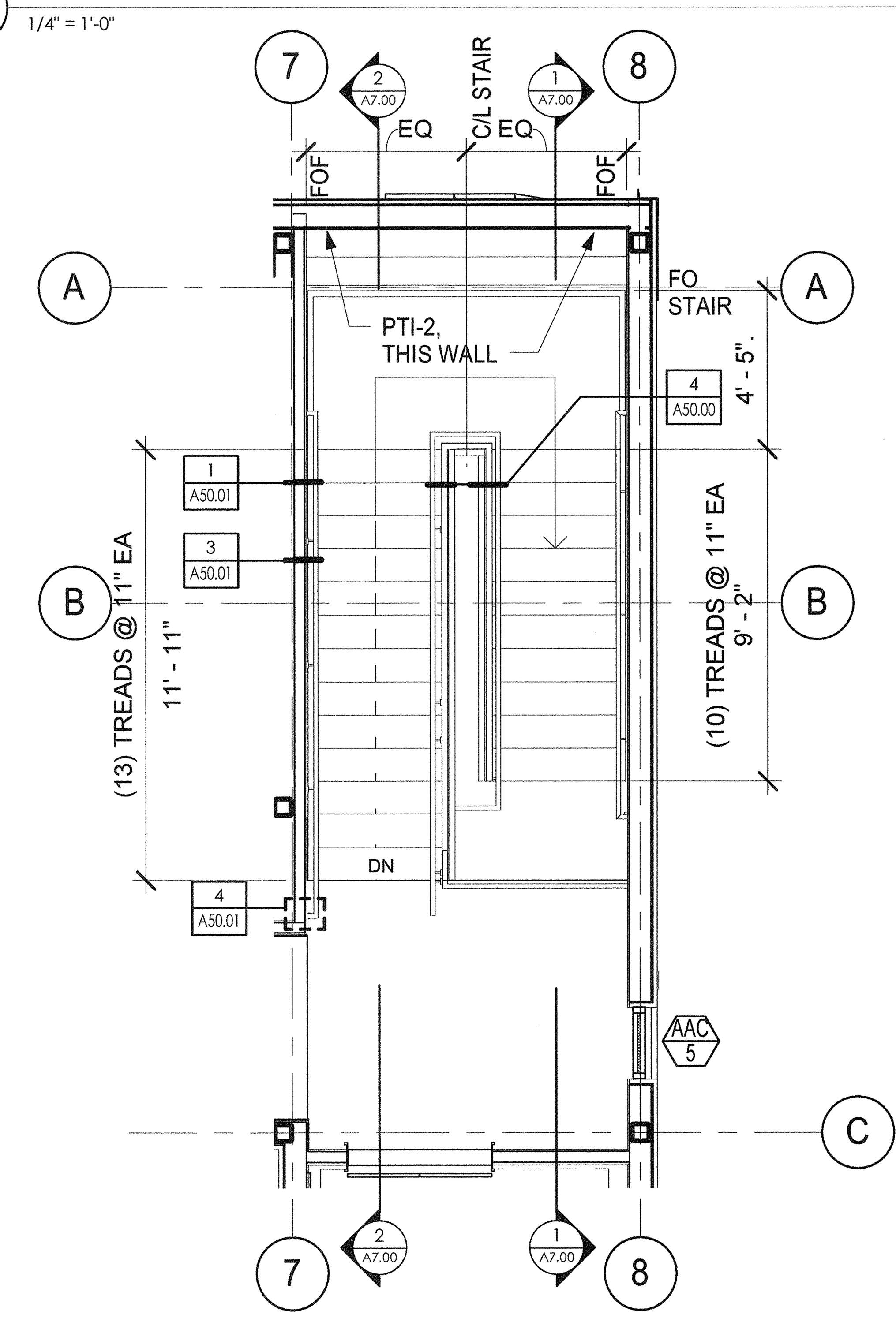
1. THE CONTRACTOR SHALL COORDINATE WITH THE ELEVATORS MANUFACTURER TO CONFIRM AND VERIFY ALL DIMENSIONS, CLEARANCES, ELEVATIONS OF THE ELEVATOR PIT, SHAFT, REMOTE CLOSET, AND RELEVANT STRUCTURES PRIOR TO CONSTRUCTION

2. PROVIDE THE FOLLOWING AT EACH ELEVATOR LANDING PER IBC 1007.8. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION AND LOCATION

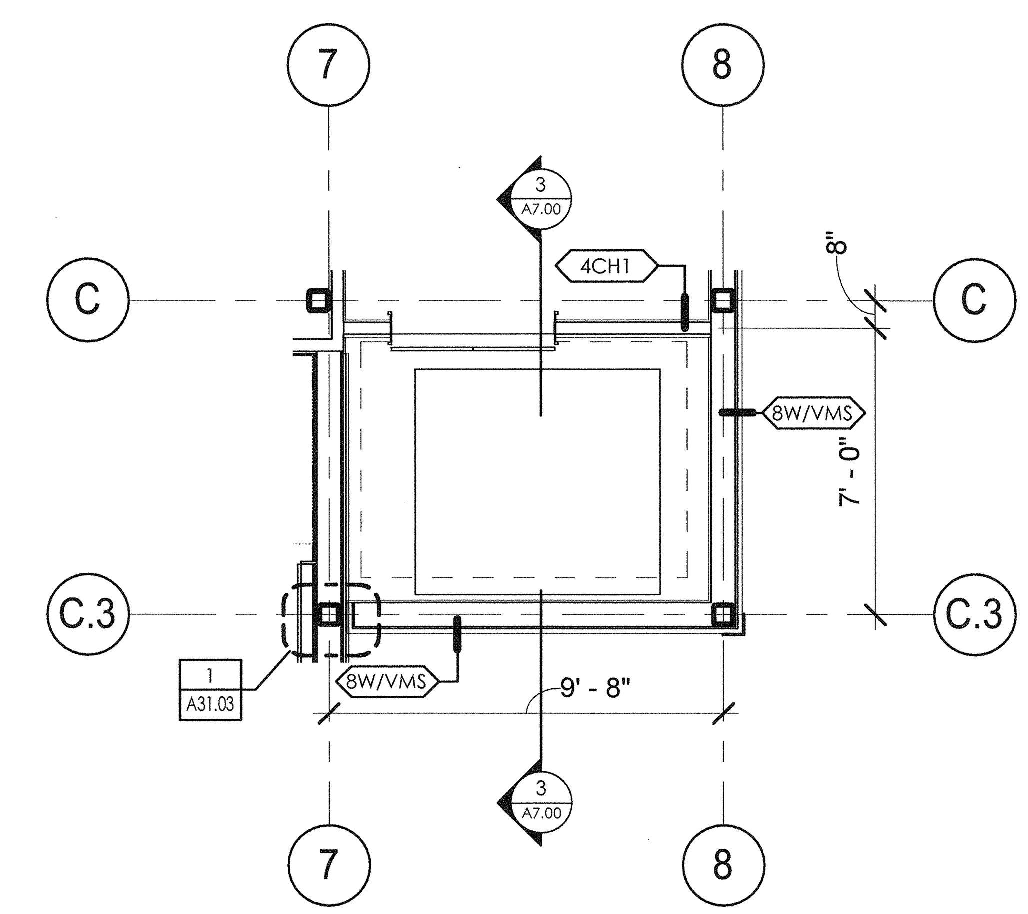
A) TWO WAY COMMUNICATION
B) SIGNAGE ON HOW TO USE THE TWO WAY COMMUNICATION SYSTEM AND IDENTIFICATION OF LOCATIONS



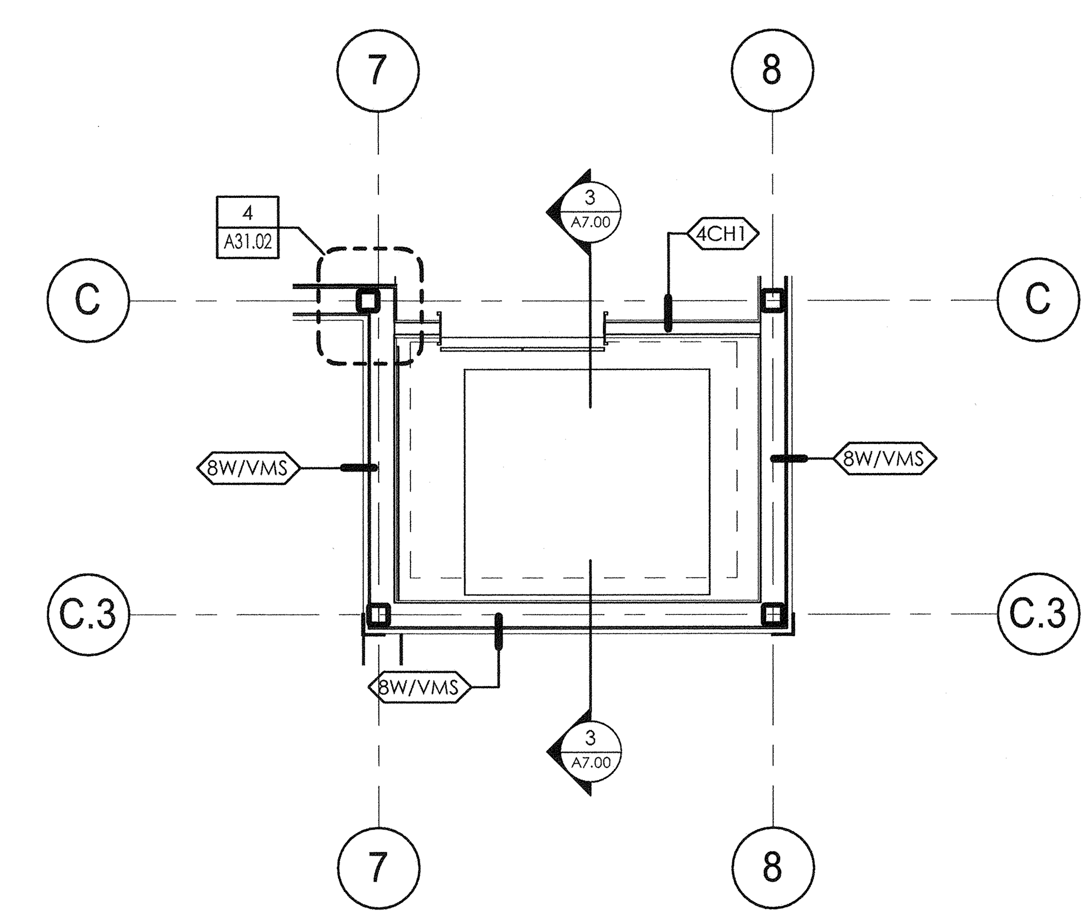
4 ENLARGED PLAN - STAIR
1/4" = 1'-0"



5 ENLARGED PLAN - STAIR
1/4" = 1'-0"



6 ENLARGED PLAN - ELEVATOR
1/4" = 1'-0"



7 ENLARGED PLAN - ELEVATOR
1/4" = 1'-0"

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NOTE: DRAWING MAY BE REDUCED
0 2' 4' 8'

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STATE OF WASHINGTON

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PIER 4 PHASE 2
MARINE BUILDING
VERTICAL CIRCULATION

TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.35' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

6552
A7.00
SH# 410 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

BINDING EDGE

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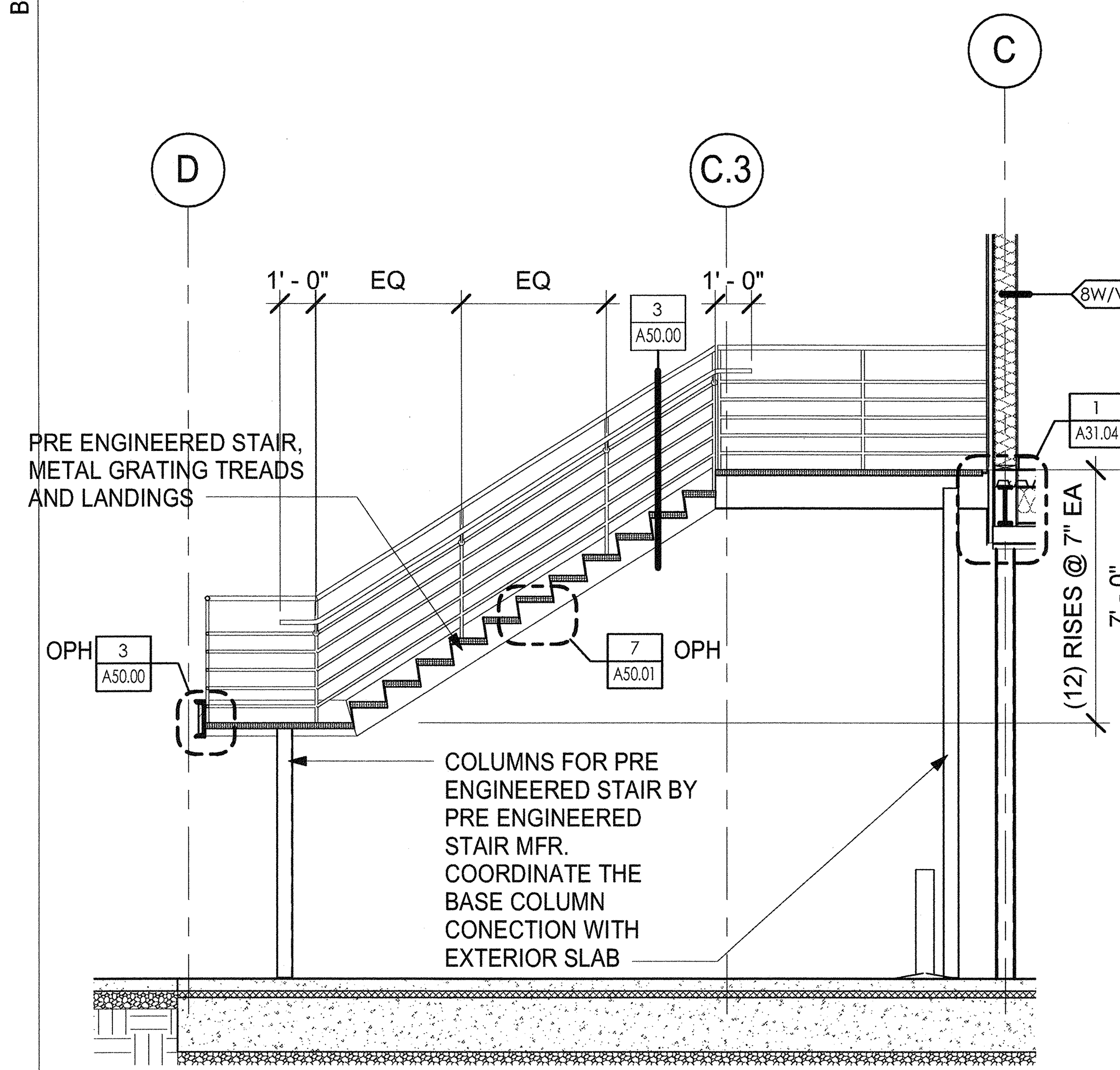
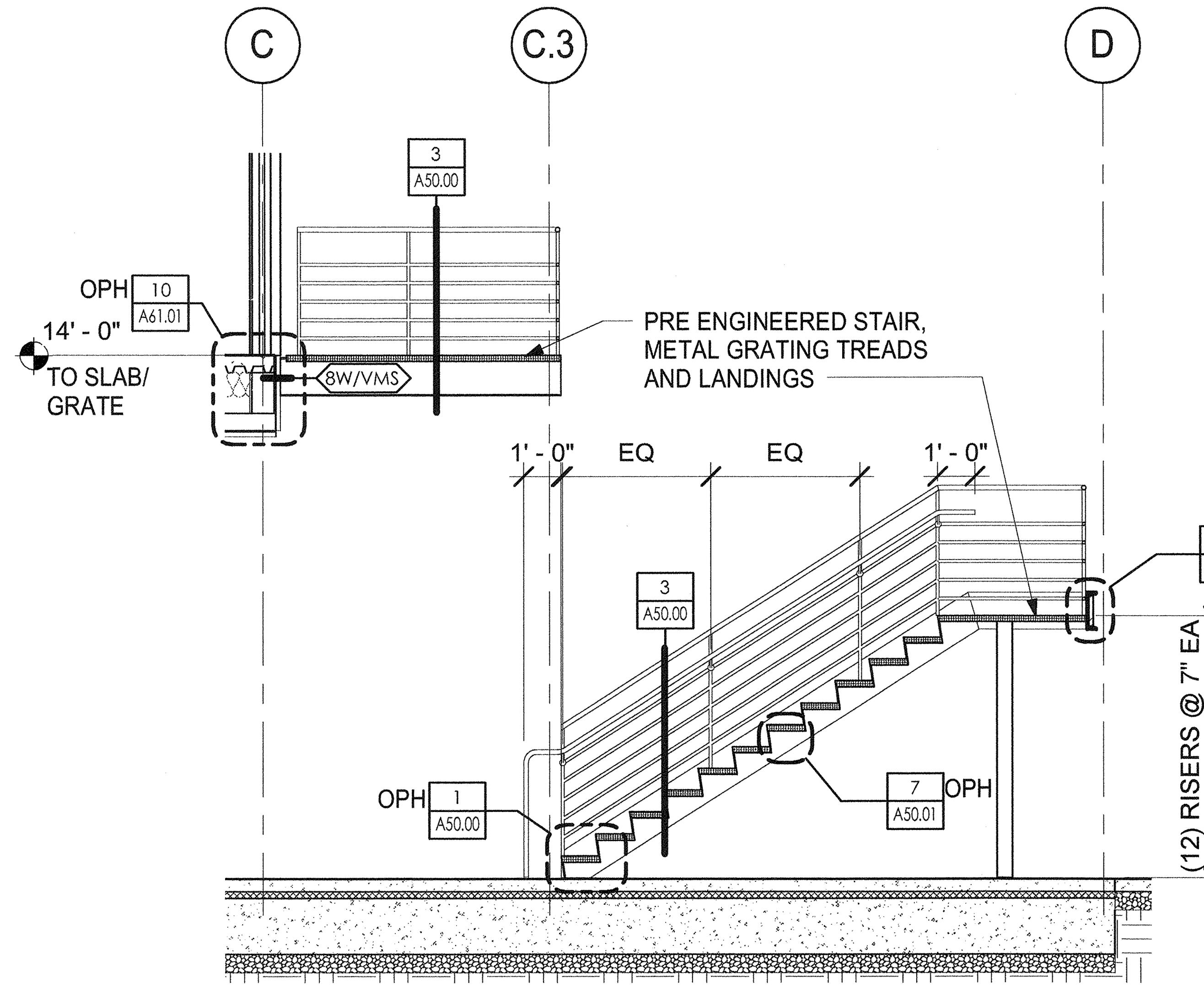


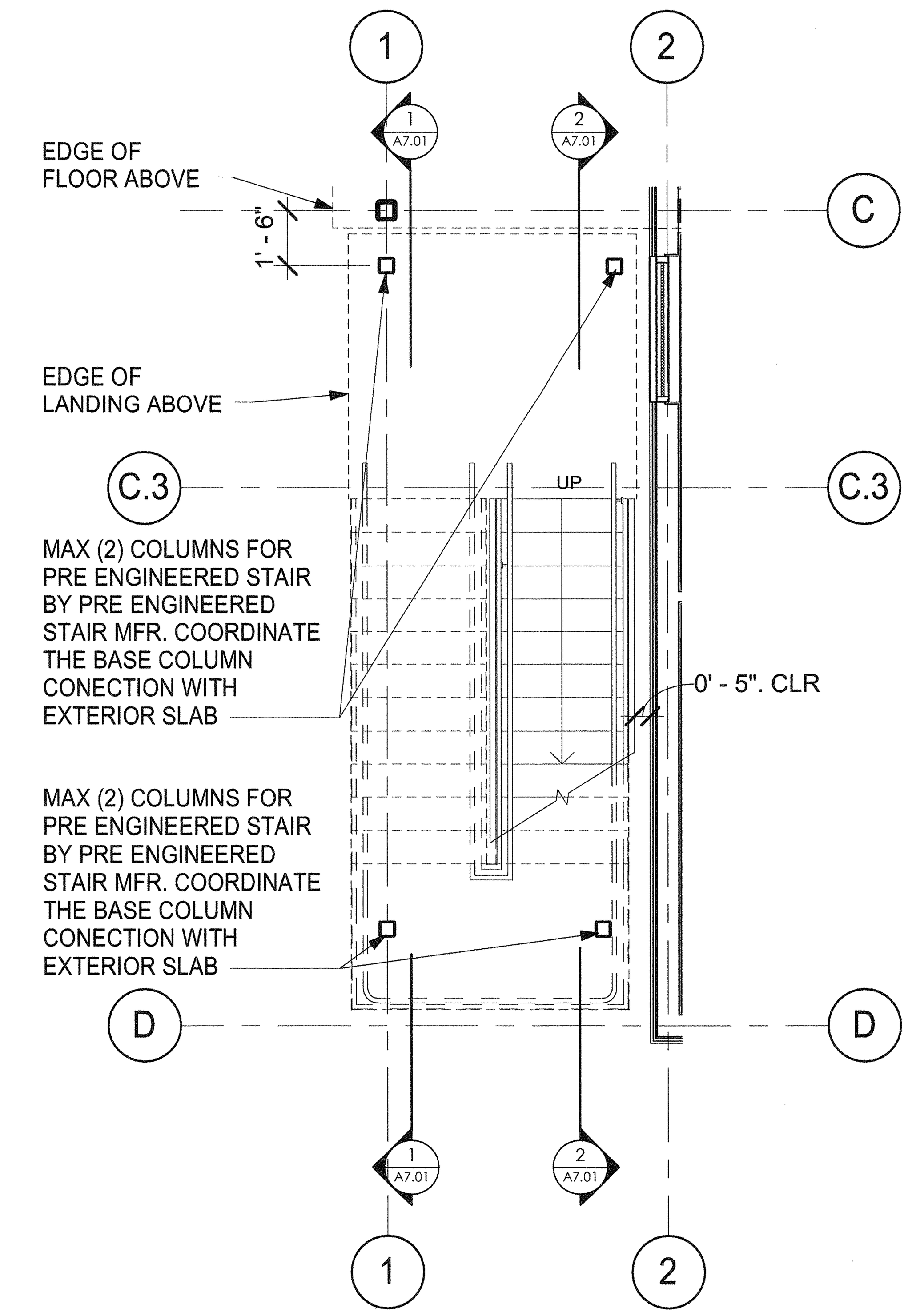
1 VERTICAL CIRCULATION - EXTERIOR STAIR

1/4" = 1'-0"



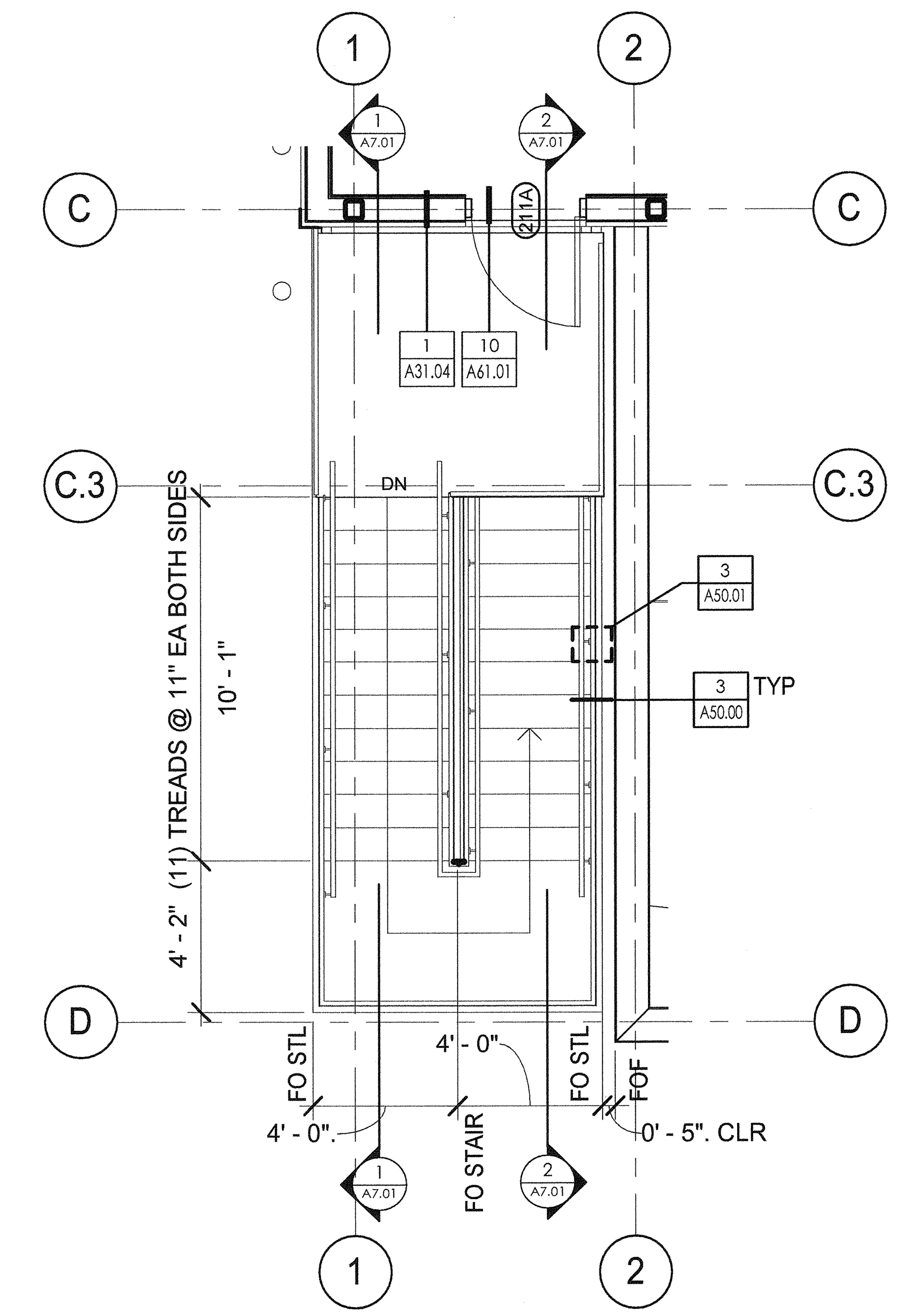
2 VERTICAL CIRCULATION - EXTERIOR STAIR

1/4" = 1'-0"



3 ENLARGED PLAN - EXTERIOR STAIR

1/4" = 1'-0"



4 ENLARGED PLAN - EXTERIOR STAIR

1/4" = 1'-0"

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RANDAL A. COOK
STATE OF WASHINGTON

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PIER 4 PHASE 2
MARINE BUILDING
VERTICAL CIRCULATION

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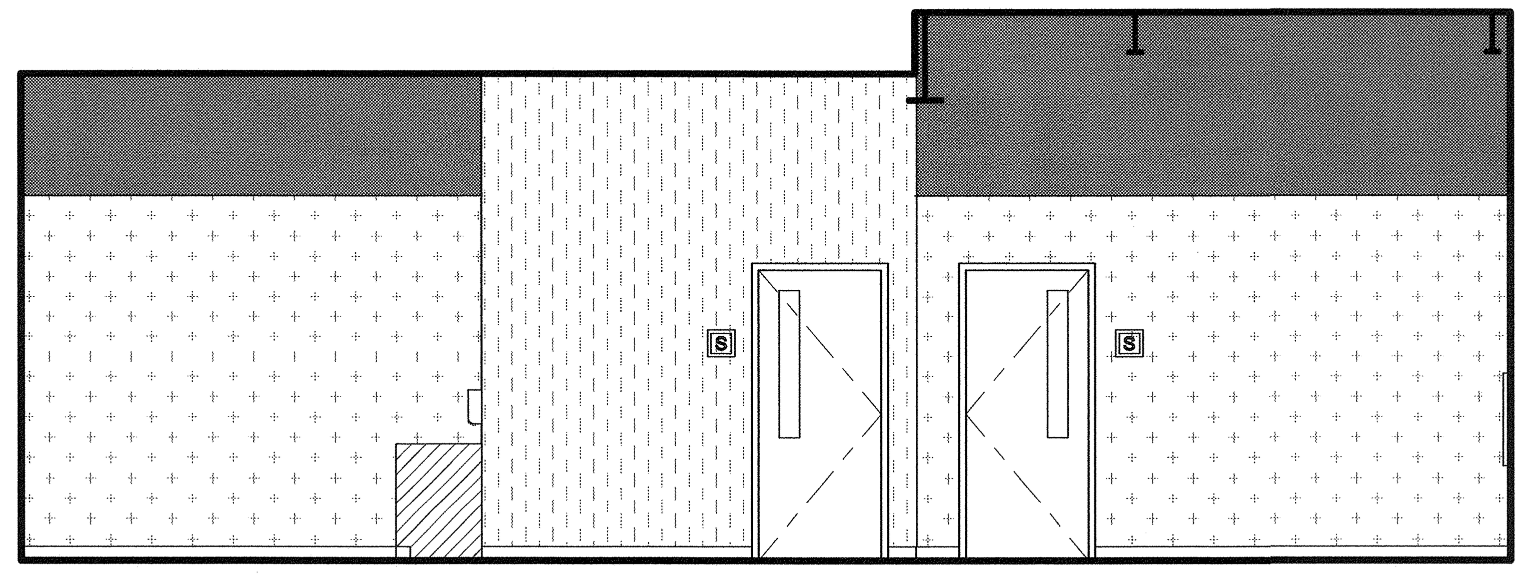
TACOMA, WA 98401-1837

TOWNSHIP: | RANGE: | SECTION:
DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: | DRAWING SCALE: AS NOTED

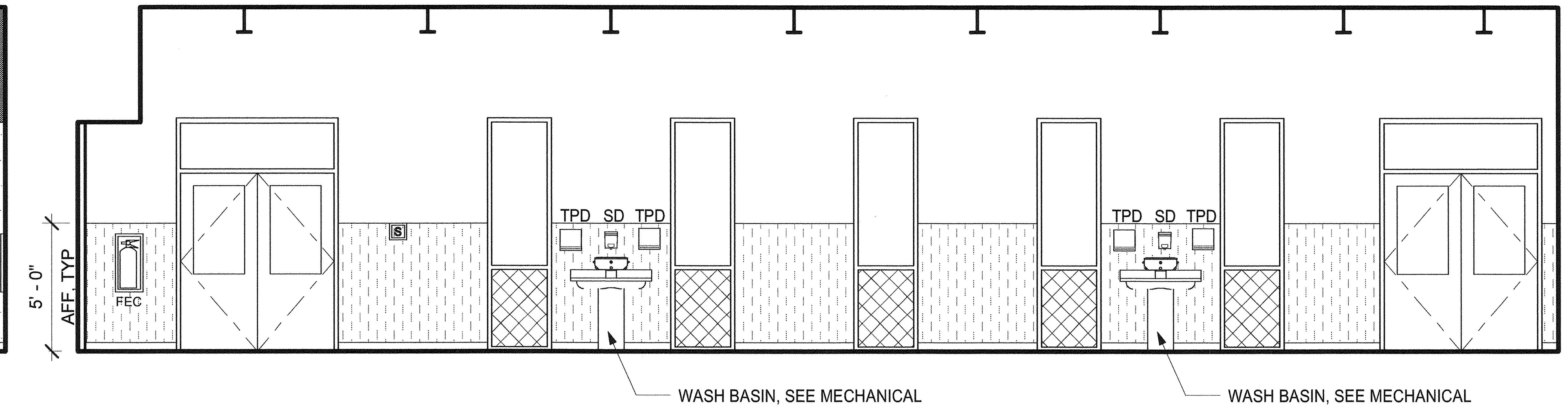
6552
A7.01
SH # 411 OF # 499

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

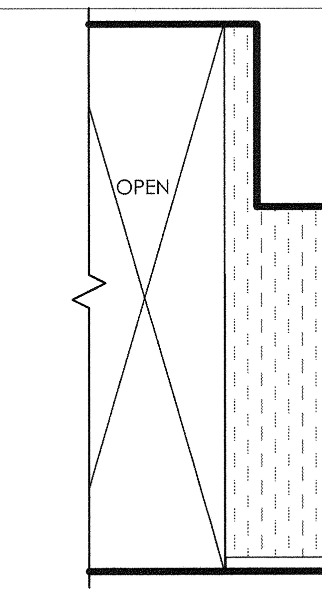
BINDING EDGE



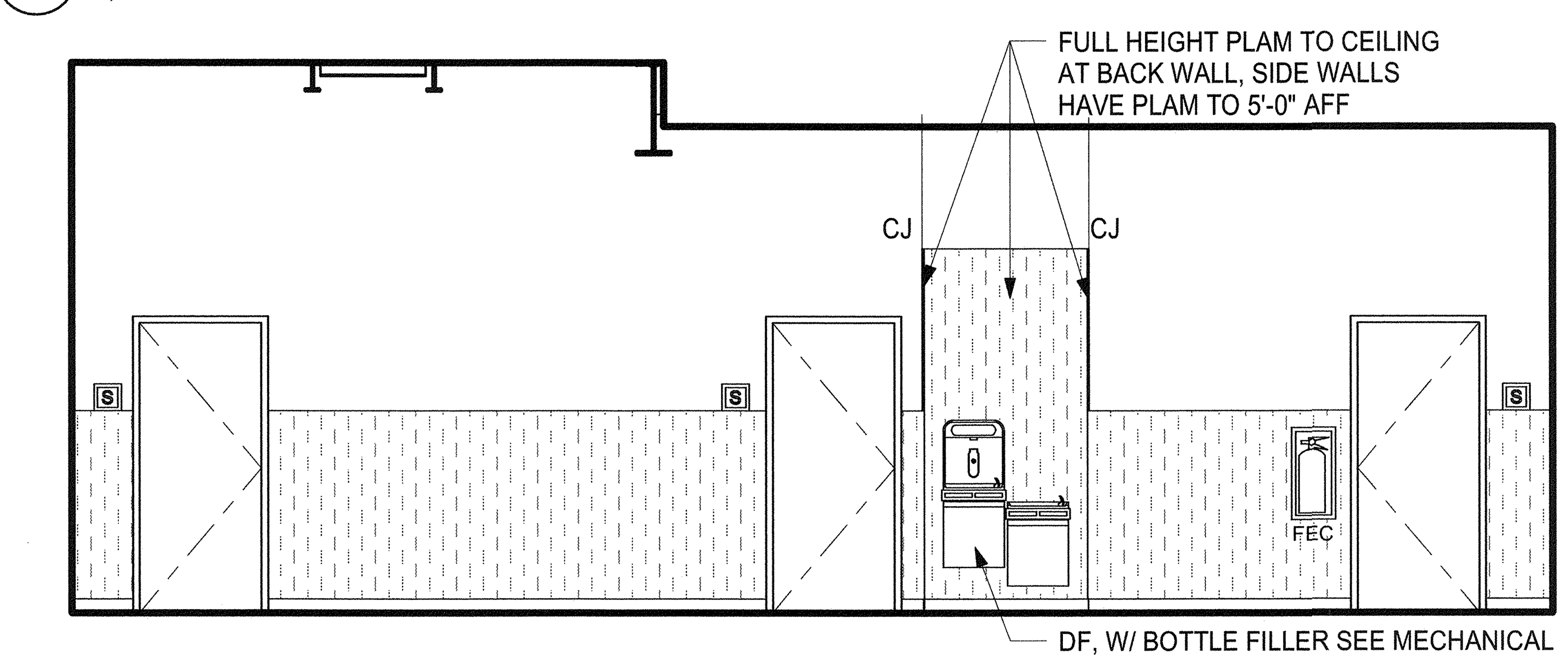
1 100 BREAK ROOM W
1/4" = 1'-0"



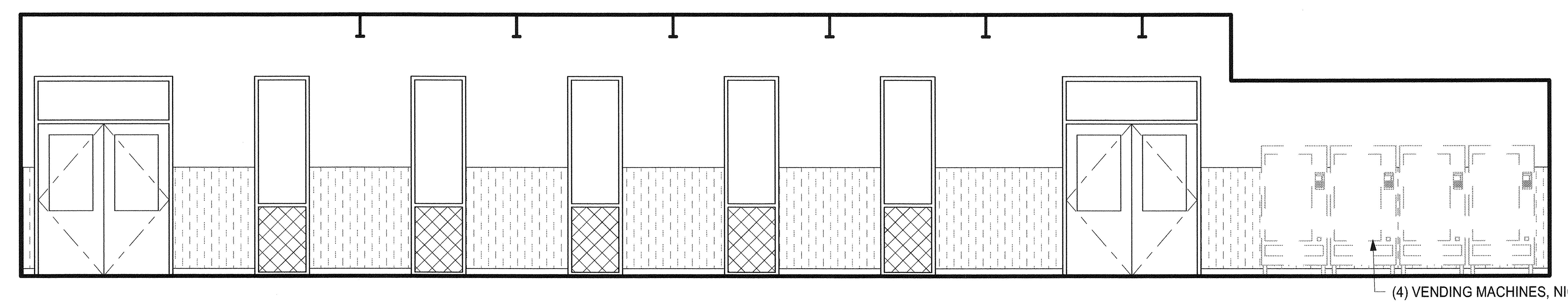
2 100 BREAK ROOM N
1/4" = 1'-0"



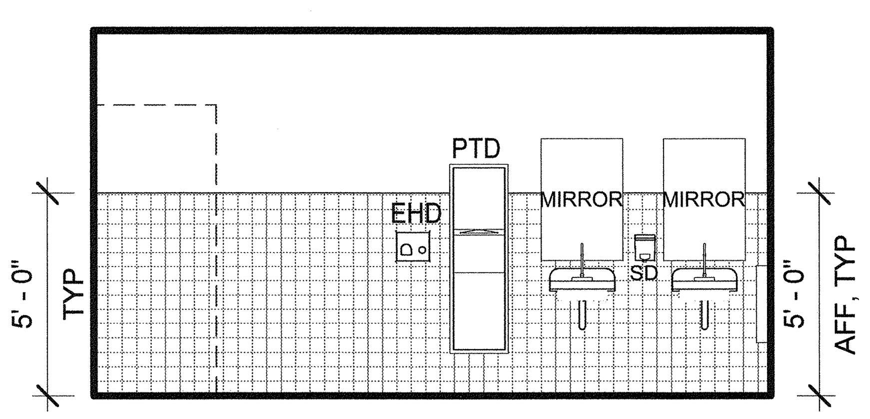
3 100 NICHE S
1/4" = 1'-0"



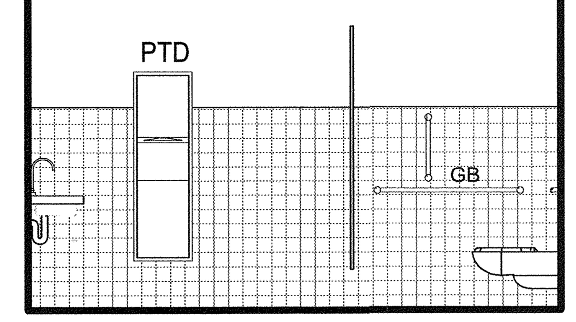
4 100 BREAK ROOM E
1/4" = 1'-0"



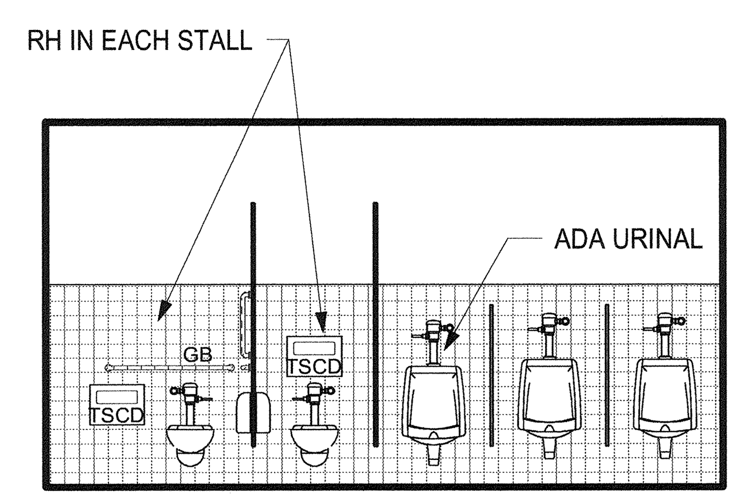
5 100 BREAK ROOM S
1/4" = 1'-0"



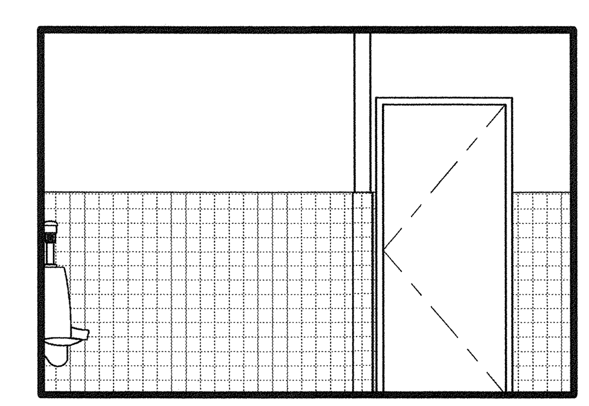
6 101 MEN'S N
1/4" = 1'-0"



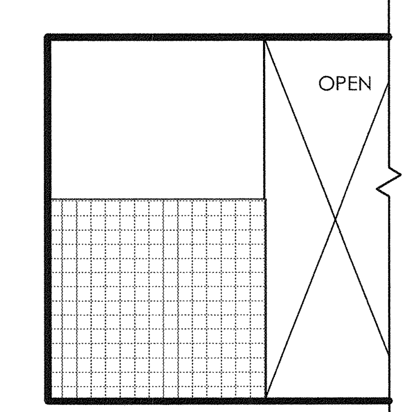
7 101 MEN'S E
1/4" = 1'-0"



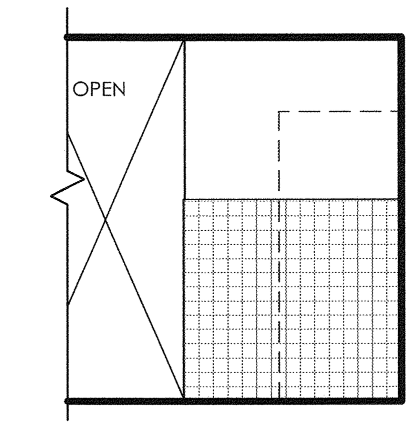
8 101 MEN'S S
1/4" = 1'-0"



9 101 MEN'S W
1/4" = 1'-0"



10 101 MEN'S ENTRY N
1/4" = 1'-0"



11 101 MEN'S ENTRY S
1/4" = 1'-0"

INTERIOR ELEVATIONS GENERAL NOTES

1. ALSO SEE GENERAL NOTES ON G2 SERIES SHEETS

2. SEE G2 SERIES SHEETS FOR ABBREVIATIONS & A70.00 FOR FINISH SCHEDULE ABBREVIATIONS

3. SEE G2 SERIES SHEETS FOR TYPICAL MOUNTING HEIGHTS.

4. ALL TRADES TO COORDINATE THEIR WORK TO ACHIEVE LAYOUTS AS SHOWN ON INTERIOR ELEVATIONS.

5. INTERIOR ELEVATIONS DO NOT ILLUSTRATE ALL ELECTRICAL OR MECHANICAL ITEMS TO BE LOCATED ON WALLS. DEVICES SHOWN ON ELEVATIONS ARE FOR COORDINATION AND LOCATING PURPOSES, SEE ELECTRICAL AND MECHANICAL PLANS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. NOTIFY ENGINEER IMMEDIATELY OF ANY CONFLICTS FOR CLARIFICATION. LACK OF ILLUSTRATION OF MECH. & ELEC. ITEMS ON ARCHITECTURAL DRAWINGS DOES NOT EXCLUDE SUCH WORK FROM BID.

6. PROVIDE BACKING IN WALLS AS REQUIRED FOR MISCELLANEOUS WALL MOUNTED ITEMS. ALSO SEE GENERAL NOTES TO THE INTERIOR WALL TYPES ON SHEET A31.00.

7. WALL BASES MAY NOT BE ILLUSTRATED ON THESE DRAWINGS. SEE ROOM FINISH SCHEDULE SHEET A70.00. IT IS THE INTENT TO PROVIDE A WALL BASE AT ALL ROOMS, UNO.

8. SEE A21 & A70 SERIES DRAWINGS FOR TYPICAL TRIM DETAILS

9. INTERIOR ELEVATIONS HAVE BEEN DRAWN FOR WALLS WITH CASEWORK, MAJOR ACCESSORIES, OR COMPLEX GROUPINGS OF FIXTURES AND SERVICES. LACK OF INCLUSION OF A PARTICULAR WALL IN THE INTERIOR ELEVATION DRAWINGS SHALL NOT EXCLUDE IT FROM BEING FULLY CONSTRUCTED AND FINISHED AS SCHEDULED.

10. EXACT LOCATION OF ROOM ACCESSORY, FIXTURE, ALARM, OR MAJOR SERVICES NOT SHOWN SHALL BE VERIFIED WITH ENGINEER PRIOR TO INSTALLATION. SEE G2 SERIES SHEETS FOR ACCESSORY MOUNTING HEIGHTS NOT SHOWN (TYP). MOUNTING HEIGHTS SHOWN ON INTERIOR ROOM ELEVATIONS TAKE PRECEDENCE OVER TYPICAL (TYP.) HEIGHTS GIVEN ON G2 SERIES SHEETS.

11. PROVIDE COUNTER SUPPORT BRACKET AS REQUIRED, SPACED 36" O.C. (MAXIMUM) FOR ALL COUNTERTOPS NOT SUPPORTED BY BASE CABINETS, UNLESS SPECIFICALLY DETAILED OTHERWISE. SEE A80 SERIES SHEETS AND COORDINATE.

12. COORDINATE WALL AND CEILING FRAMING LAYOUT/PLACEMENT TO ACCOMMODATE PLACEMENT OF ITEMS SHOWN ON ELEVATIONS

13. SCHEDULED WALL FINISH MATERIAL SHALL TYPICALLY CONTINUE BEHIND WALL MOUNTED ITEMS OTHER THAN CASEWORK.

14. DIMENSIONS GIVEN ON INTERIOR ELEVATIONS ARE TYPICALLY TO FINISHED SURFACES, UNO. COORDINATE WITH FINISH MATERIAL THICKNESS AND FRAMING REQUIREMENTS.

15. AT ANY LOCATION WHERE STRUCTURAL CONNECTIONS, BOLTS, ETC., ARE NOT FULLY COVERED BY A SINGLE LAYER OF FINISH, ADD A SECOND LAYER OF THAT SAME MATERIAL TO COVER TO FULL EXTENT OF THAT WALL, OR AS DIRECTED BY THE ENGINEER. INCLUDE ALL SUCH COSTS IN BID. CONSULT WITH ENGINEER PRIOR TO COMMENCING IN SUCH LOCATIONS.

16. AT RESTROOM LAVATORIES IN ACCESSIBLE RESTROOMS, PUBLIC AND PRIVATE, MECHANICAL SUBCONTRACTOR TO PROVIDE PIPE INSULATION ON ALL PIPES FROM LAVATORY TO WALL, NEATLY PLACED AND TRIMMED, TO PROVIDE ACCESSIBLE KNEE PROTECTION. THE INSULATION SHALL BE MOLDED TYPE, DESIGNED AND MANUFACTURED FOR THE PURPOSE OF PROVIDING KNEE PROTECTION. CONTRACTOR SHALL COORDINATE.

17. PROVIDE FILLER BEHIND TOILET MIRRORS TO OBTAIN STABLE VERTICAL BACKING SURFACE.

18. CABINET SIZES MUST BE COORDINATED WITH FINAL APPLIANCE SIZES, TYP

19. ALSO SEE FINISH SCHEDULE, FLOOR PLANS, SECTIONS AND DETAILS AND OTHER DRAWINGS FOR ADDITIONAL FINISHES LOCATIONS NOT SHOWN ON INTERIOR ELEVATION

20. SEE SPECIFICATIONS FOR LOCATIONS OF CONTROL JOINTS IN GYP BOARD WALLS AND CEILINGS, TYP. JOINTS SHOWN ON ELEVATIONS ARE IN ADDITION TO THOSE SPECIFIED.

INTERIOR ELEVATIONS LEGEND & ABBREVIATIONS

CT - CERAMIC TILE, SEE DETAIL 4 / A21.00

PAINTED ACCENT COLOR, PT-2 (SEE SHEET A71.00), ALSO SEE RCP, FP, BS, WS

CORK BOARD

PLYWOOD WAINSCOT, PAINTED

P-LAM WAINSCOT, SEE DETAIL 1 / A70.00

PTD W/ GARBAGE RECEPTACLE

PTD PAPER TOWEL DISPENSER

SD SOAP DISPENSER

S SIGNS, SEE FLOOR PLAN FOR TAGS & A72 SERIES FOR SCHEDULE

FEC SEMI RECESSED FIRE EXTINGUISHER & CABINET

RH ROBE HOOK, EACH STALL

TSCD TOILET SEAT COVER DISPENSER

TPD TOILET PAPER DISPENSER

FND FEMININE NAPKIN DISPOSAL

EHD ELECTRIC HAND DRYER, SEE ELEC

DF DRINKING FOUNTAIN
GB GRAB BAR
KS KNEE SPACE
MW MICROWAVE
CJ CONTROL JOINT

NOTE: ALSO SEE MATERIAL AND COLOR SCHEDULE, FINISH SCHEDULE, FLOOR PLANS, SECTIONS, DETAILS AND OTHER DRAWINGS FOR ADDITIONAL FINISHES LOCATIONS NOT SHOWN ON INTERIOR ELEVATION

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PIER 4 PHASE 2
MARINE BUILDING
INTERIOR ELEVATIONS

TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

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SH # 412 OF # 499

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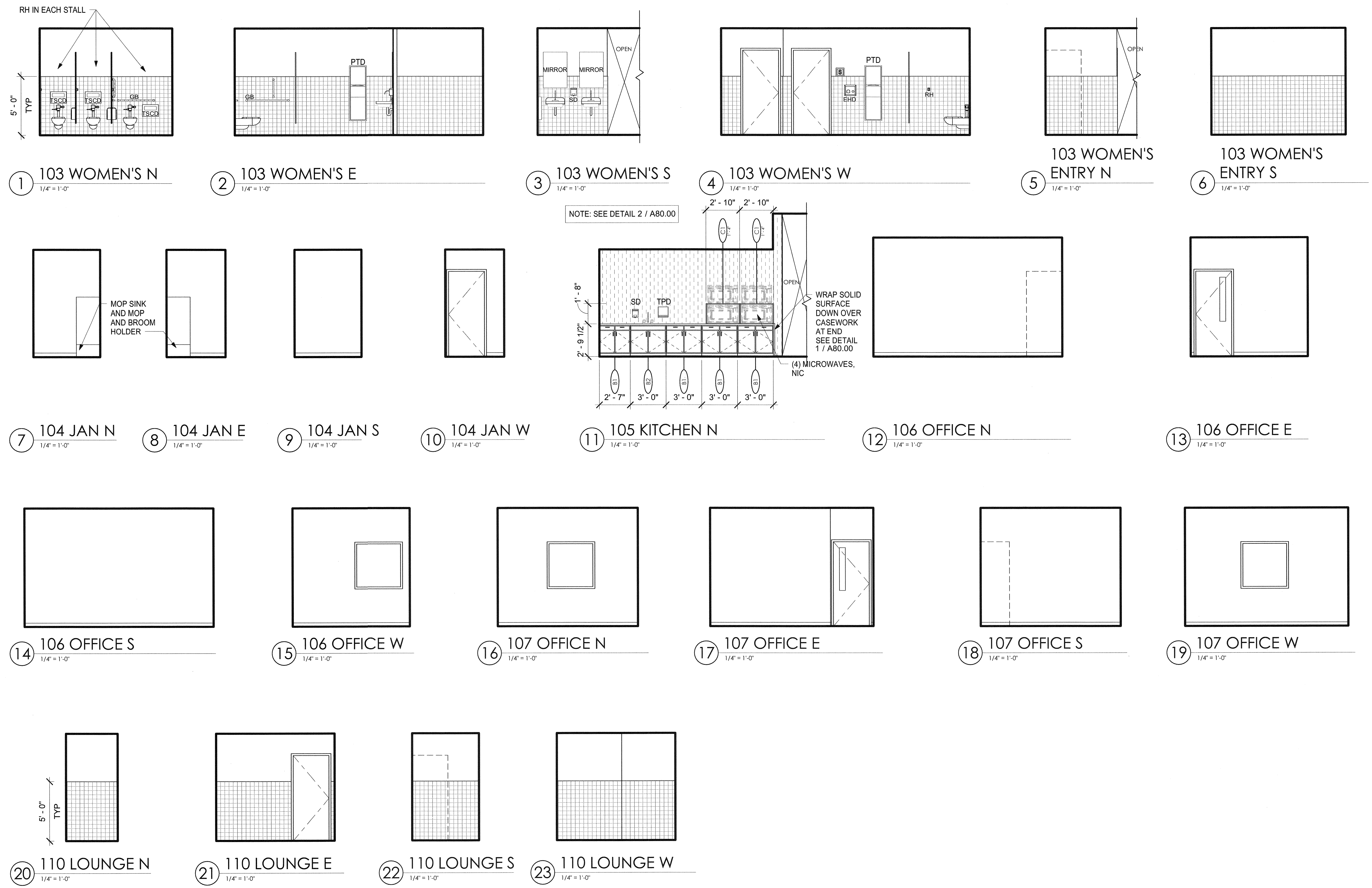

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PIER 4 PHASE 2 MARINE BUILDING
INTERIOR ELEVATIONS

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PARCEL: | DRAWING SCALE: AS NOTED

6552
A8.02
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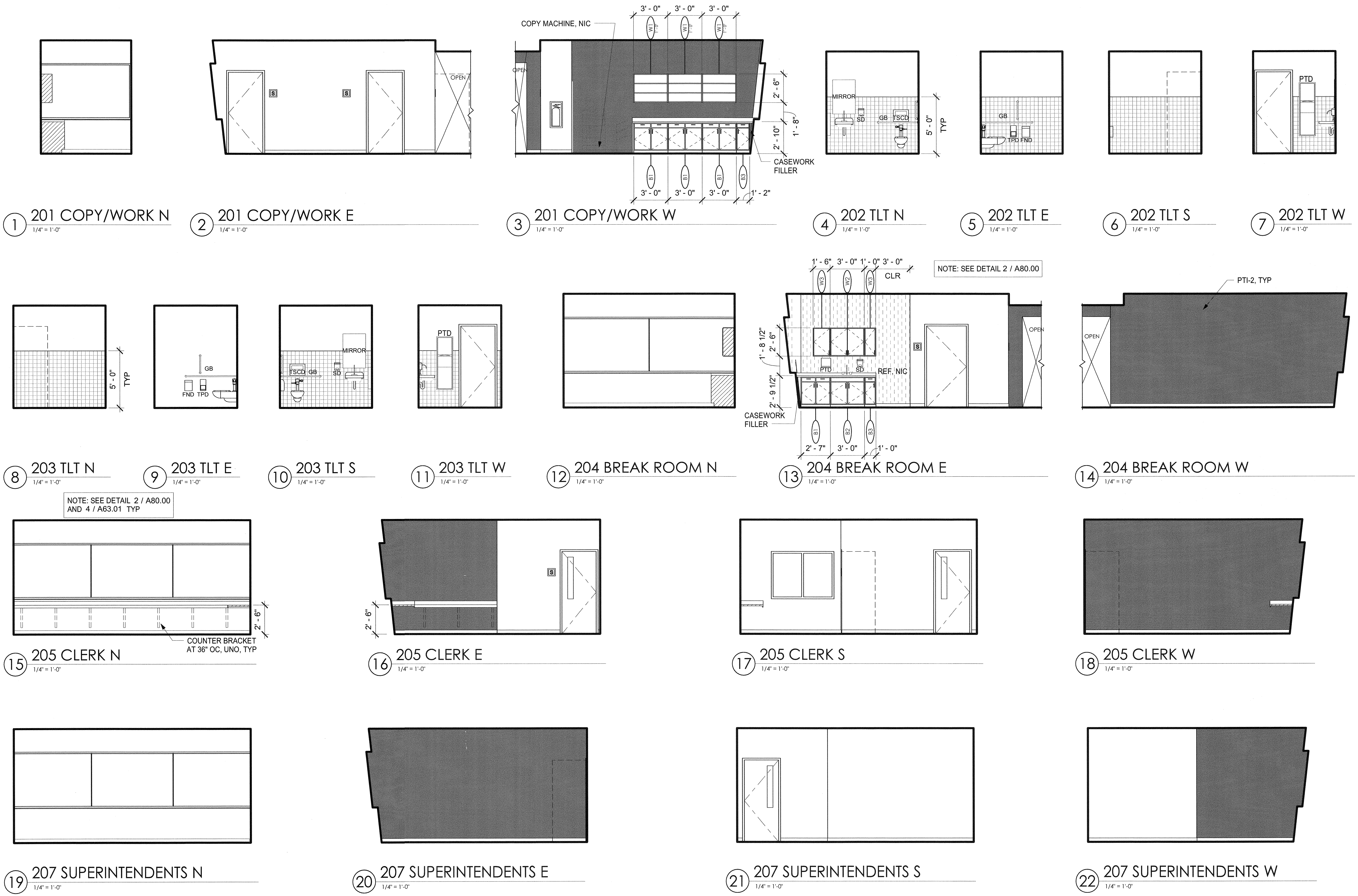
M. ID: 091251
PHASE: BID



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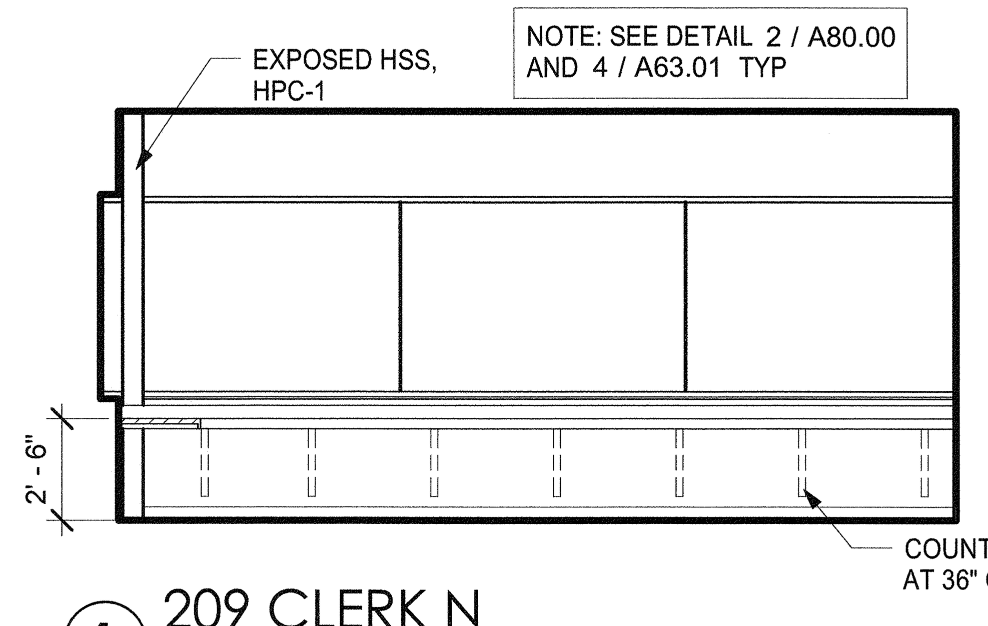
PIER 4 PHASE 2 MARINE BUILDING
INTERIOR ELEVATIONS

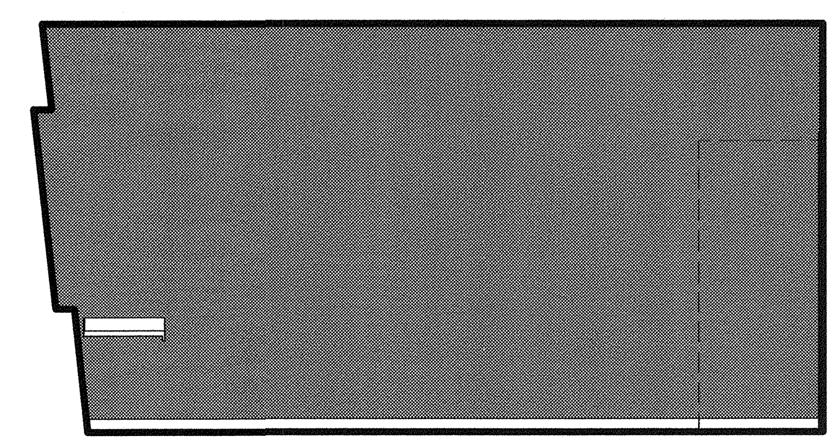
TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

6552
A8.03
SH # 414 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

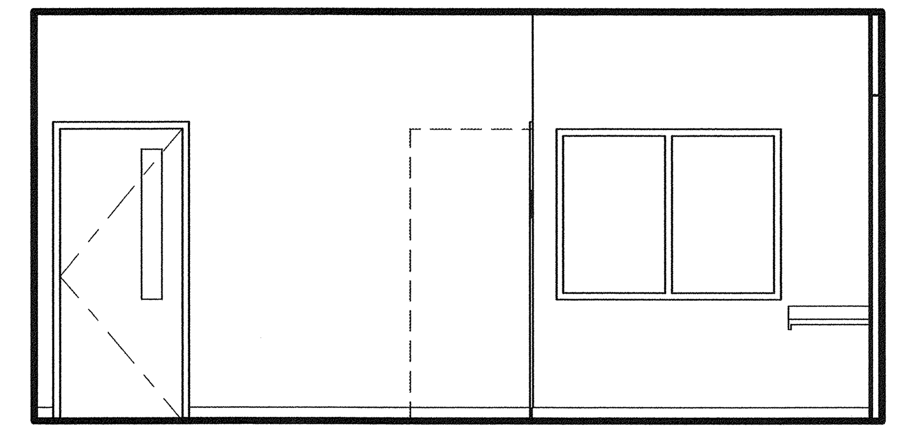
BINDING EDGE



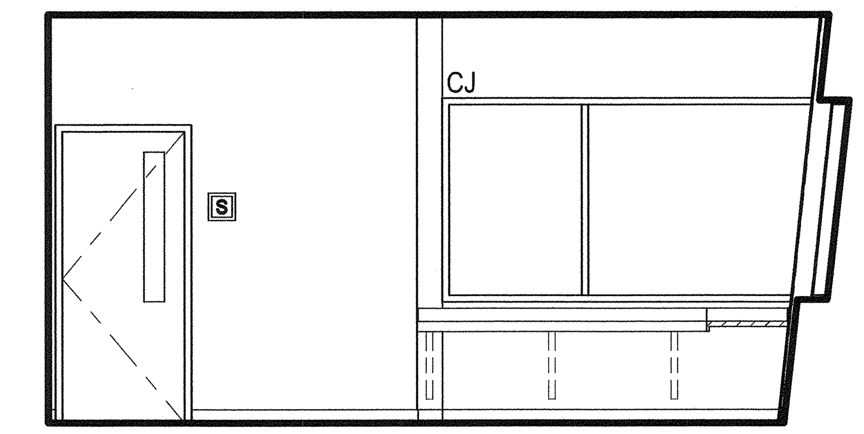
1 209 CLERK N
1/4" = 1'-0"



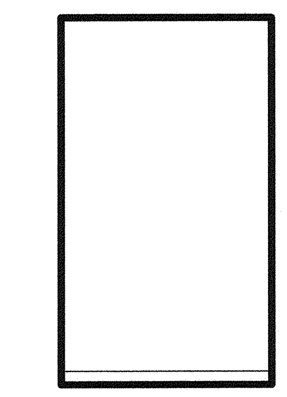
2 209 CLERK E
1/4" = 1'-0"



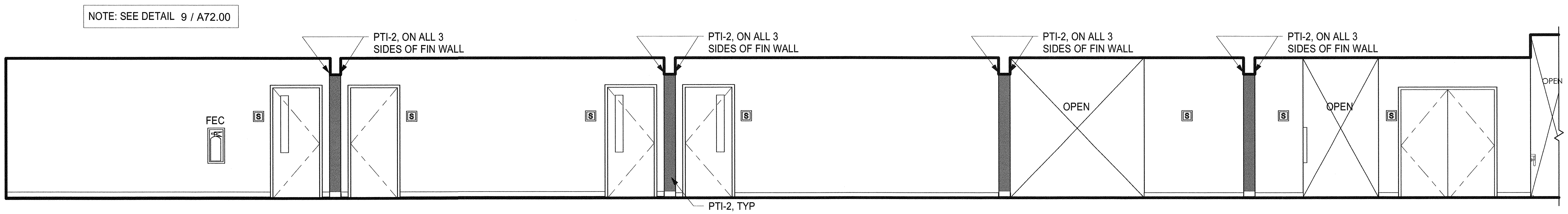
3 209 CLERK S
1/4" = 1'-0"



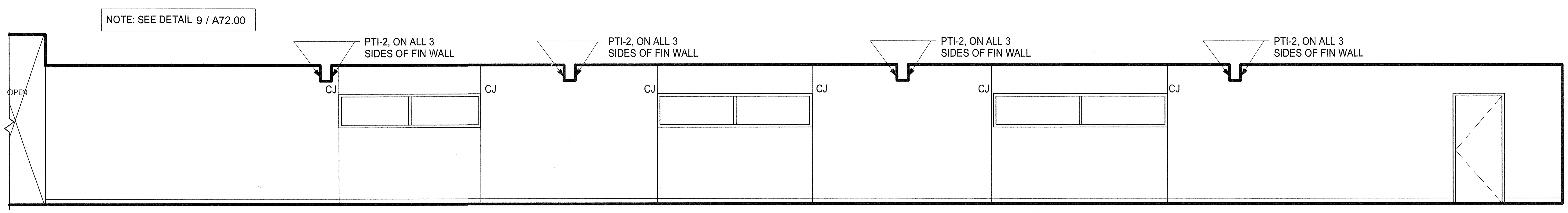
4 209 CLERK W
1/4" = 1'-0"



5 211 CORRIDOR W
1/4" = 1'-0"



6 211 CORRIDOR N
1/4" = 1'-0"



7 211 CORRIDOR S
1/4" = 1'-0"

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STATE OF WASHINGTON

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PIER 4 PHASE 2
MARINE BUILDING
INTERIOR ELEVATIONS

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PARCEL: DRAWING SCALE: AS NOTED

6552
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SH # 415 OF # 499
CONT/CONS: 070136
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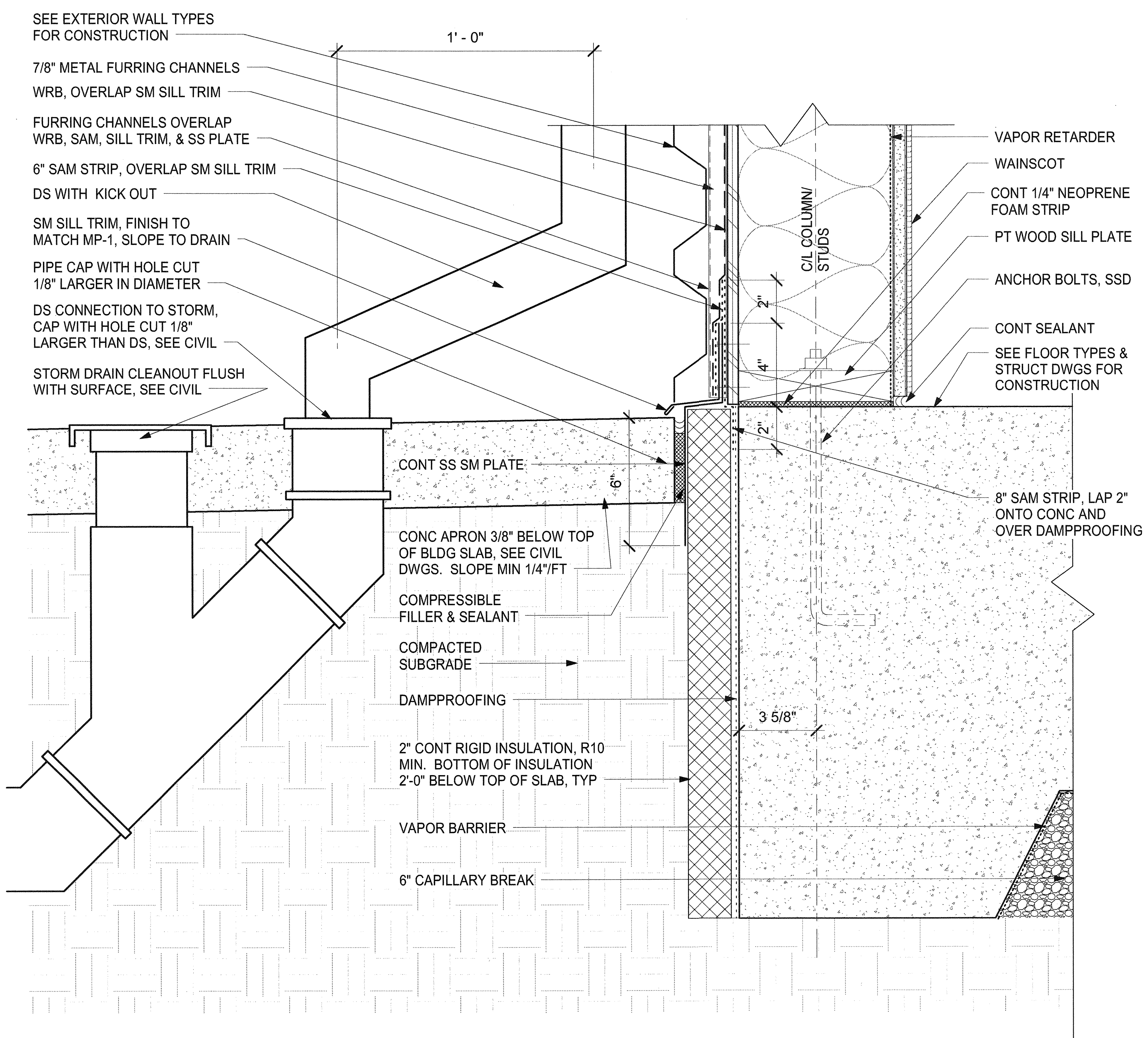
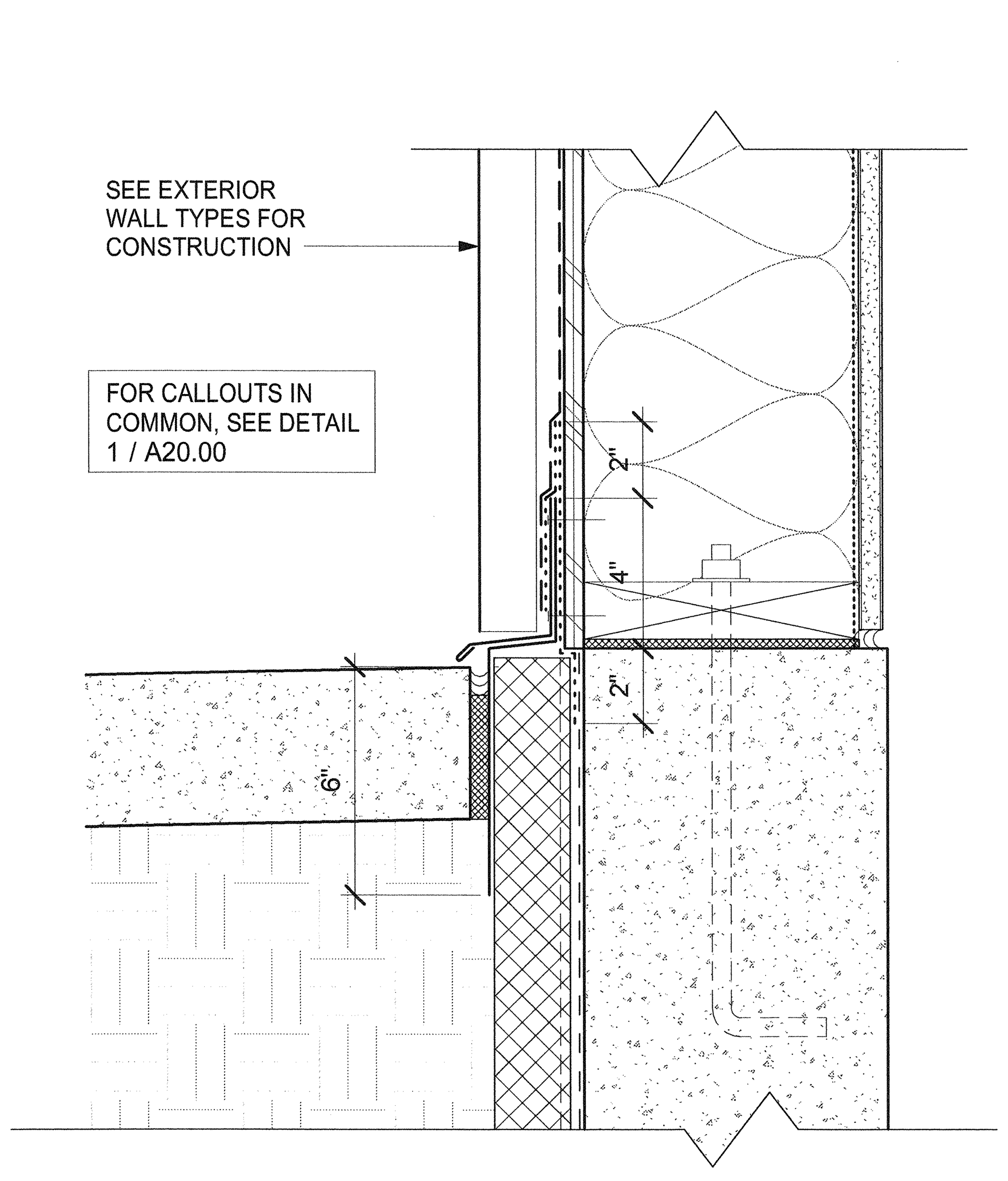
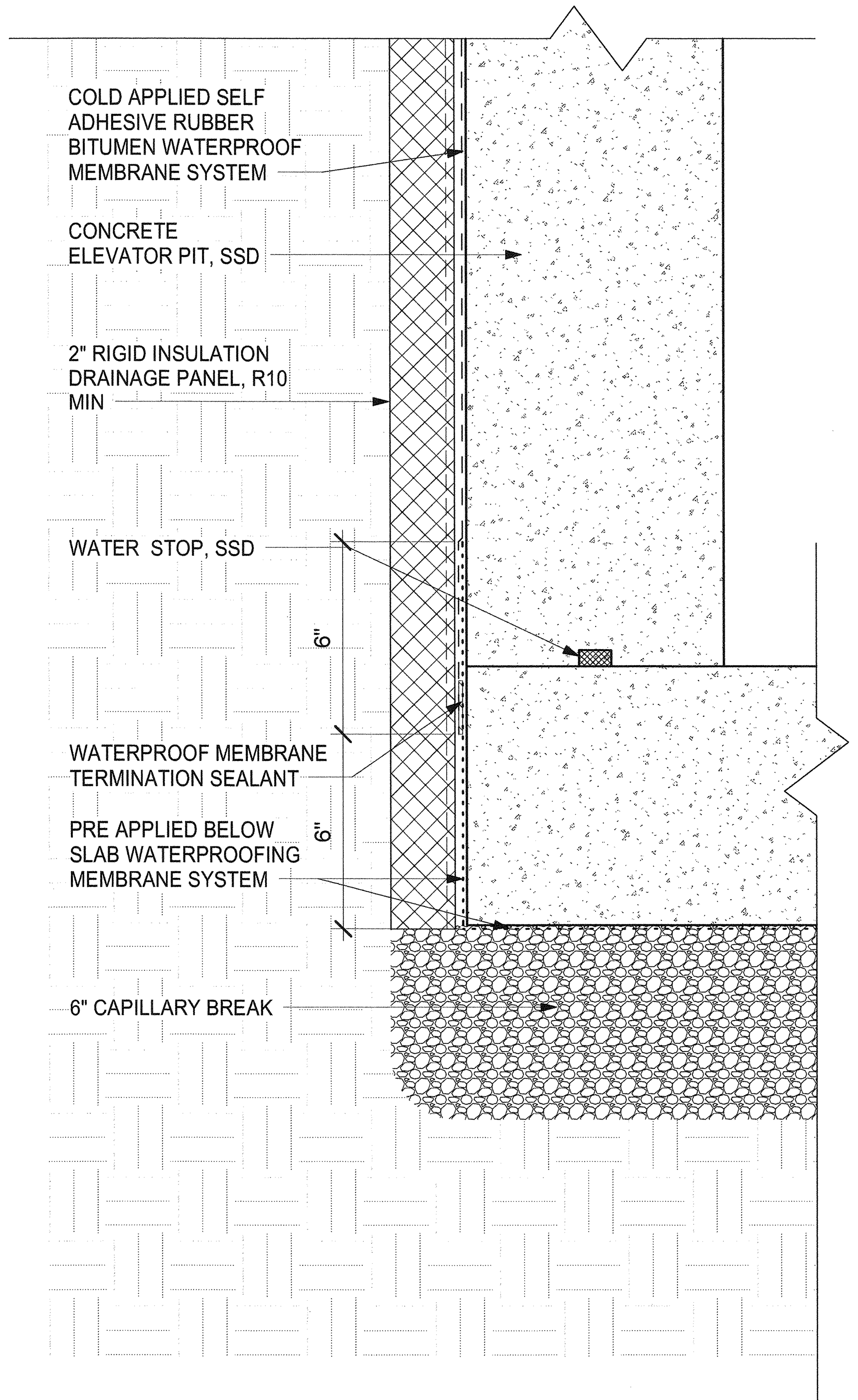
SEE CIVIL DRAWINGS FOR DS CONNECTION TO STORM DETAIL

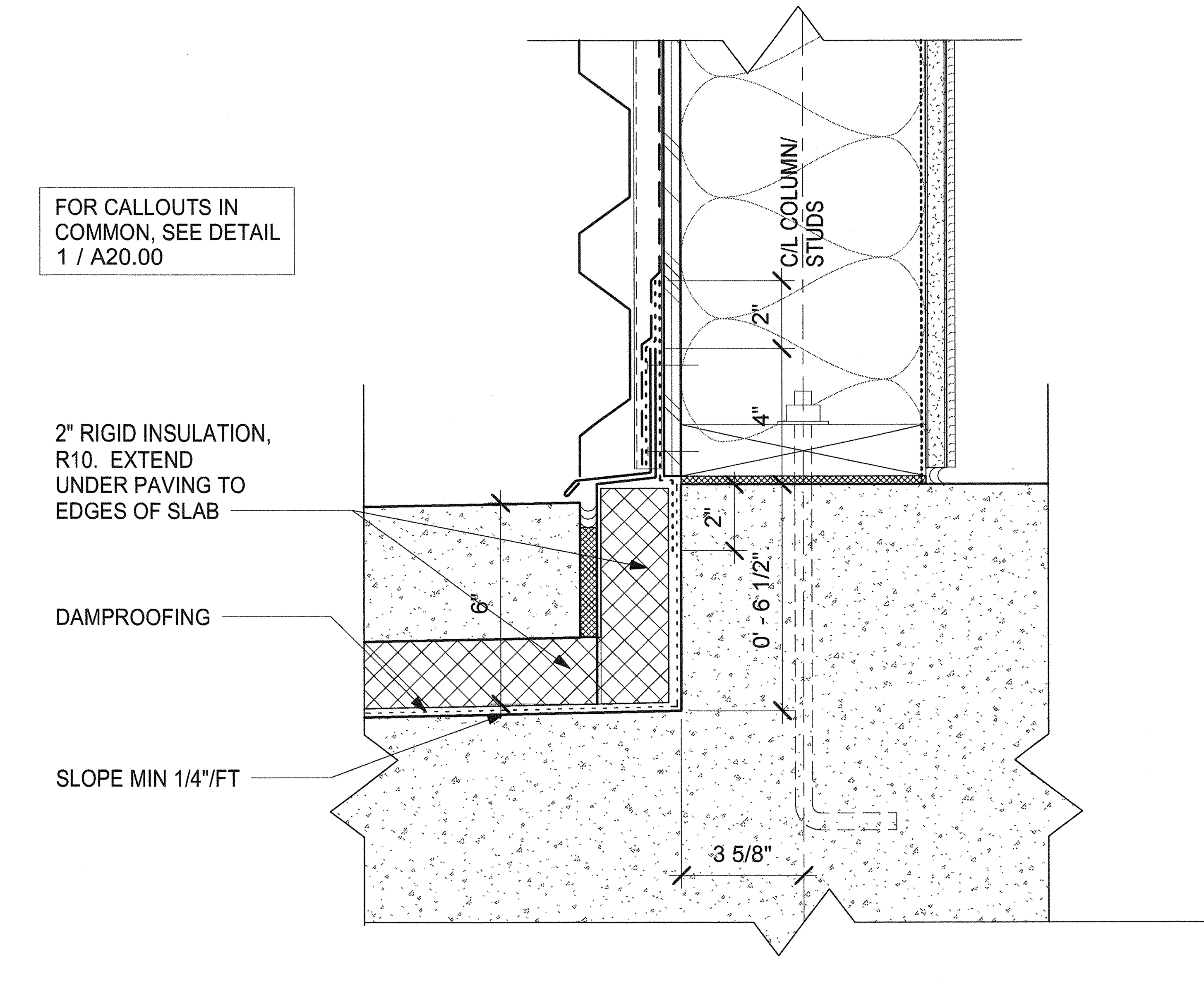


1 FOUNDATION DETAIL - HMS
3" = 1'-0"

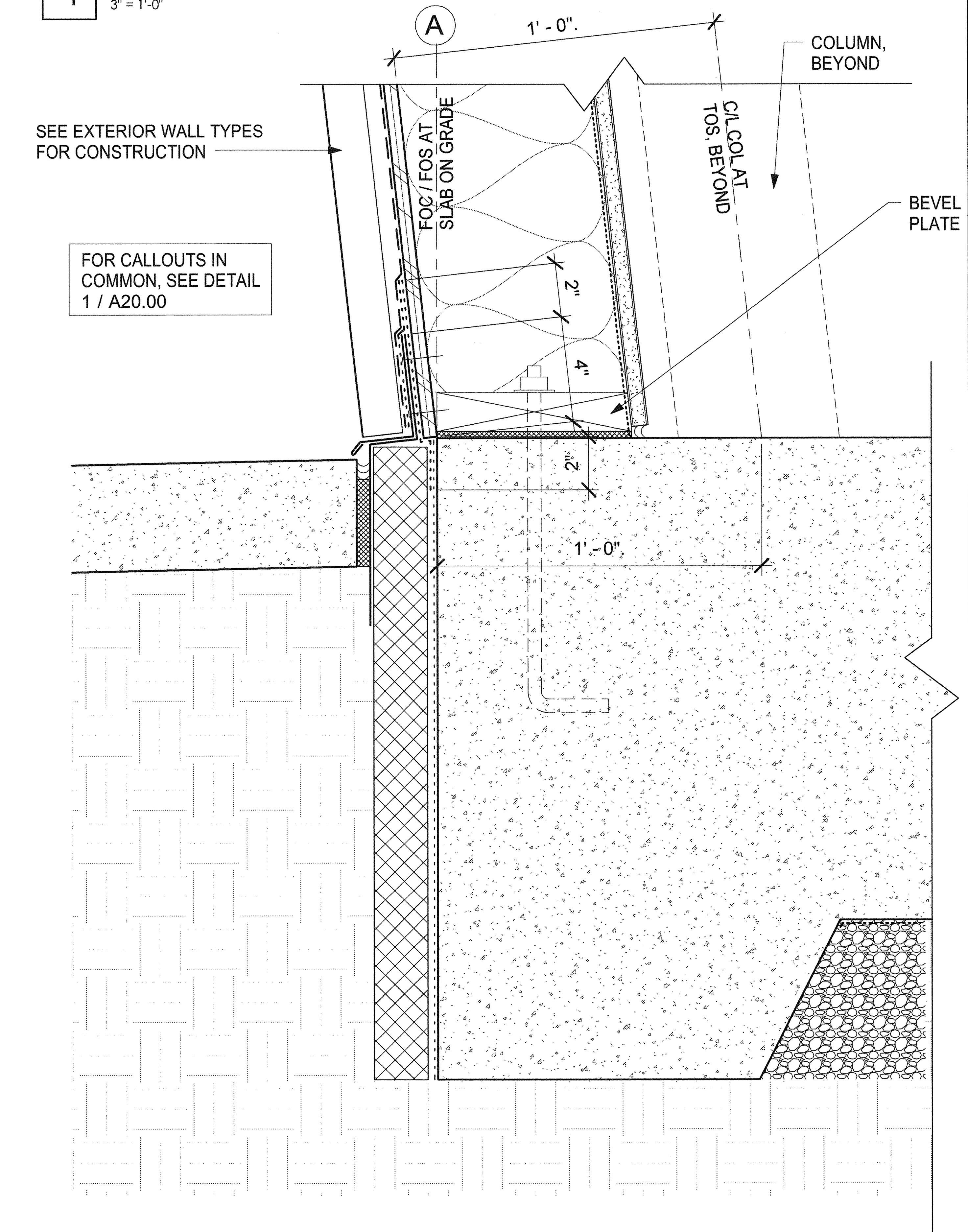




2 ELEVATOR PIT
3" = 1'-0"



4 EXTERIOR WALL AT DEPRESSED SLAB
3" = 1'-0"



3 FOUNDATION DETAIL - SLOPED WALL
3" = 1'-0"

BINDING EDGE

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PIER 4 PHASE 2
MARINE BUILDING
FOUNDATION DETAILS

TOWNSHIP:	RANGE:	SECTION:
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PARCEL:	DRAWING SCALE: AS NOTED	

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SH # 416 OF # 499

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PHASE: BID

FOUNDATION AND FLOOR TYPES GENERAL NOTES

A. OTHER NOTES: SEE GENERAL NOTES ON G2 SERIES SHEETS FOR ADDITIONAL INFORMATION.

B. OTHER DRAWINGS: SEE FLOOR PLANS, DIMENSION PLANS AND ENLARGED PLANS FOR ADDITIONAL INFORMATION.

C. STRUCTURAL REQUIREMENTS: REFER TO STRUCTURAL DRAWINGS AND DETAILS FOR CONCRETE REINFORCING AND OTHER STRUCTURAL REQUIREMENTS.

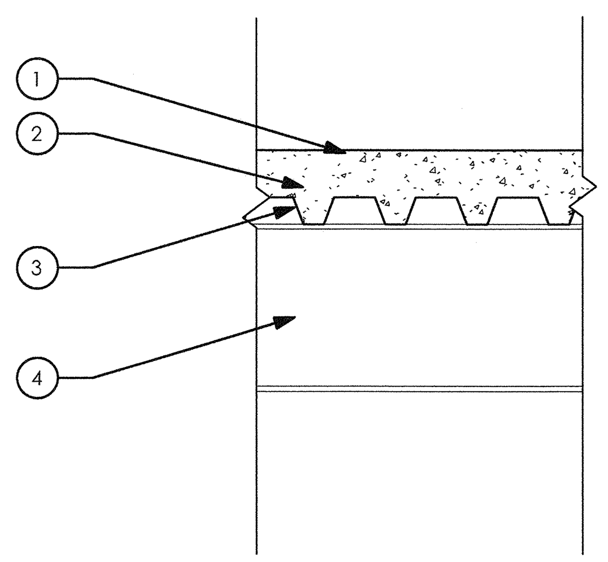
D. ATYPICAL CONDITIONS: DETAILS MAY BE LIMITED TO ILLUSTRATION OF TYPICAL CONDITIONS. CONTRACTOR SHALL ADAPT TYPICAL DETAILS FOR VARIANT AND SIMILAR CONDITIONS.

E. CIVIL COORDINATION: REFER TO CIVIL DRAWINGS AND SPECIFICATIONS FOR MATERIALS BELOW SLABS. COORDINATE CIVIL AND ARCHITECTURAL DETAILING WITH RESPECT TO PERIMETER FOUNDATION DRAINAGE SYSTEMS, RAINLEADER / DOWNSPOUT LOCATIONS AND TIGHTLINE CONNECTIONS.

F. TOP OF SLAB ELEVATIONS: COORDINATE ALL TOP OF SLAB FLOOR ELEVATIONS WITH FINISHED GRADES. CONTRACTOR SHALL NOTIFY THE ENGINEER IF/WHEN DISCREPANCIES ARE IDENTIFIED PRIOR TO PROCEEDING.

G. EXCAVATION AND FILL: THE CONTRACTOR SHALL VERIFY SITE AND SOIL CONDITIONS AND PROVIDE ALL LABOR AND MATERIALS AS NECESSARY TO COMPLETE THE WORK OF THIS CONTRACT. WORK WILL GENERALLY INCLUDE EXCAVATION TO ELEVATIONS REQUIRED BY THIS WORK, AND STRUCTURAL FILL, BACKFILL, TOPSOIL PLACEMENT, GRADING AND OTHER WORK. ALSO SEE CIVIL, STRUCTURAL, AND LANDSCAPE DRAWINGS. SEE THE GEOTECHNICAL REPORT FOR SOILS INFORMATION AVAILABLE TO THE BIDDER.

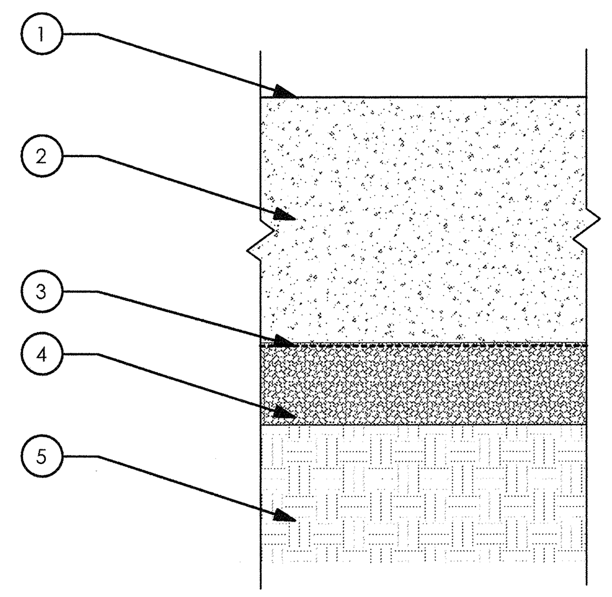
FLOOR TYPE 'A'



ASSEMBLY

1. FINISH FLOORING AS SCHEDULED (NOT SHOWN)
2. CONCRETE (2.5" OVER TOP OF FLUTE), SSD. SEE FLOOR DETAILS FOR SLAB DEPRESSION AT FLOOR DRAINS
3. 3" METAL DECK, SEE STRUCTURAL. HPC WHERE EXPOSED, SEE CEILING PLANS AND FINISH SCHEDULES
4. STEEL STRUCTURE AT SOME LOCATIONS, SSDHPC WHERE EXPOSED, SEE CEILING PLANS AND FINISH SCHEDULES

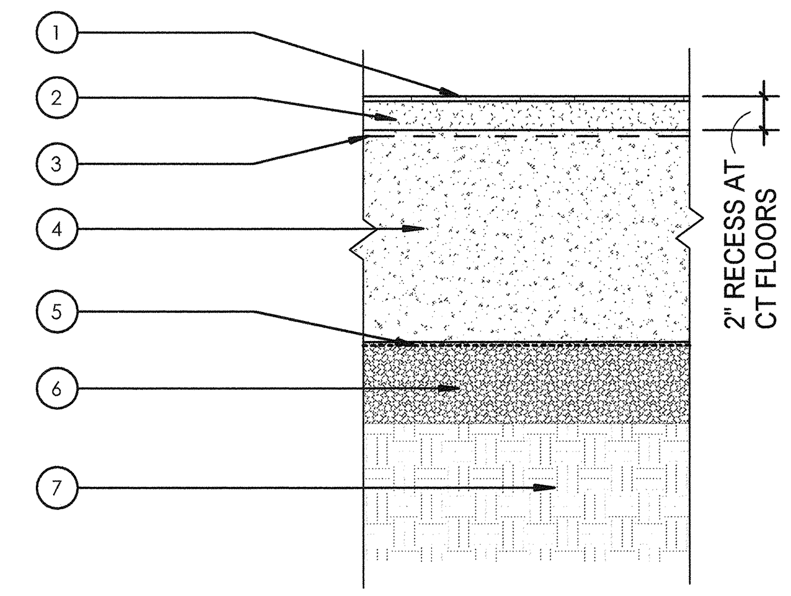
FLOOR TYPE 'B'



ASSEMBLY

1. FINISH FLOORING AS SCHEDULED (NOT SHOWN)
2. CONCRETE SLAB ON GRADE, SSD. SLOPE SLAB UNIFORMLY TO DRAIN AT ROOMS W/ FLOOR DRAINS & FLOOR SINKS, SEE MECH. MAINTAIN UNIFORM SLAB THICKNESS AT SLOPED SLABS
3. CLASS I VAPOR RETARDER (VAPOR BARRIER)
4. 6" CAPILLARY BREAK
5. COMPACTED SUBGRADE, SEE CIVIL

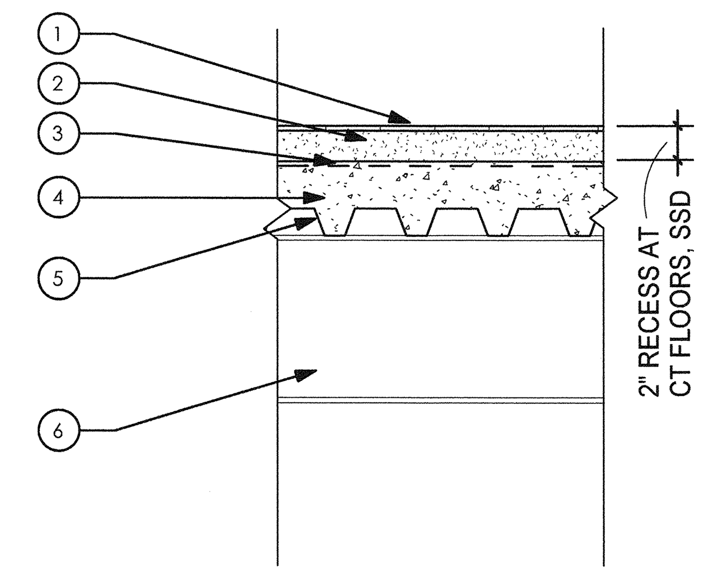
FLOOR TYPE 'C'



ASSEMBLY

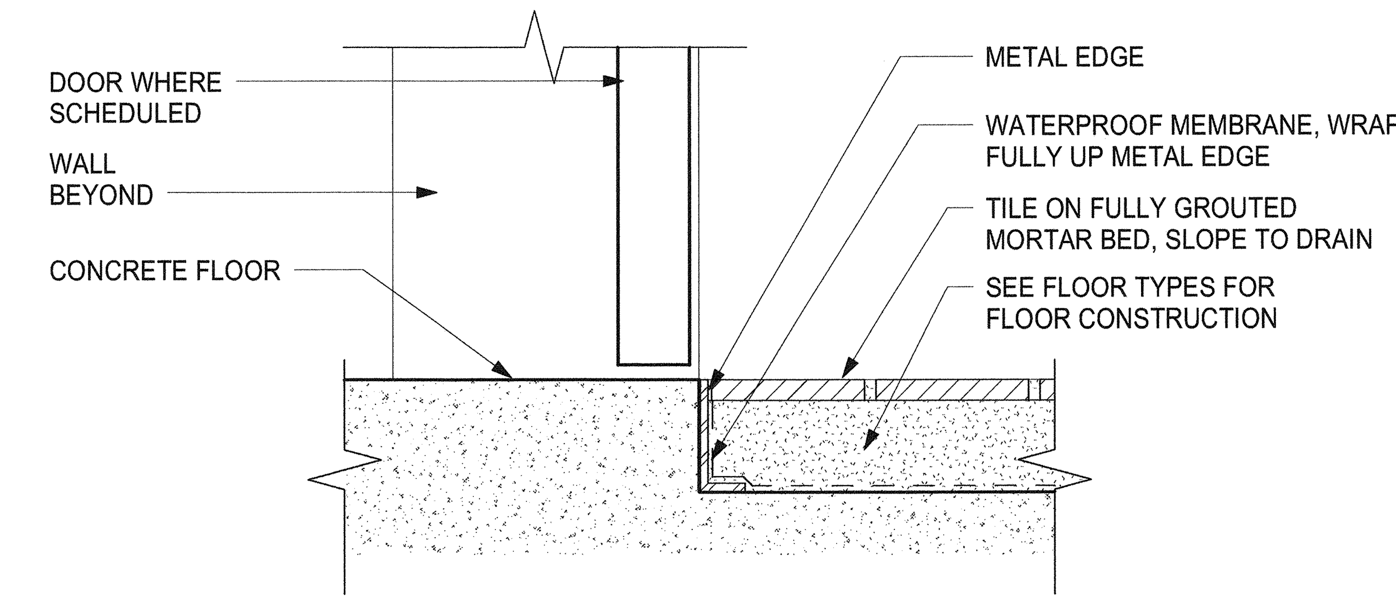
1. TILE FLOORING, AS SCHEDULED
2. GROUT BED. ENSURE 1 1/2" MIN. THICKNESS.
3. WATERPROOF MEMBRANE
4. CONCRETE SLAB ON GRADE, SSD. SLOPE SLAB UNIFORMLY TO DRAIN AT ROOMS W/ FLOOR DRAINS & FLOOR SINKS, SEE MECH. MAINTAIN UNIFORM SLAB THICKNESS AT SLOPED AND RECESSED SLABS.
5. CLASS I VAPOR RETARDER (VAPOR BARRIER)
6. 6" CAPILLARY BREAK
7. COMPACTED SUBGRADE, SEE CIVIL

FLOOR TYPE 'D'

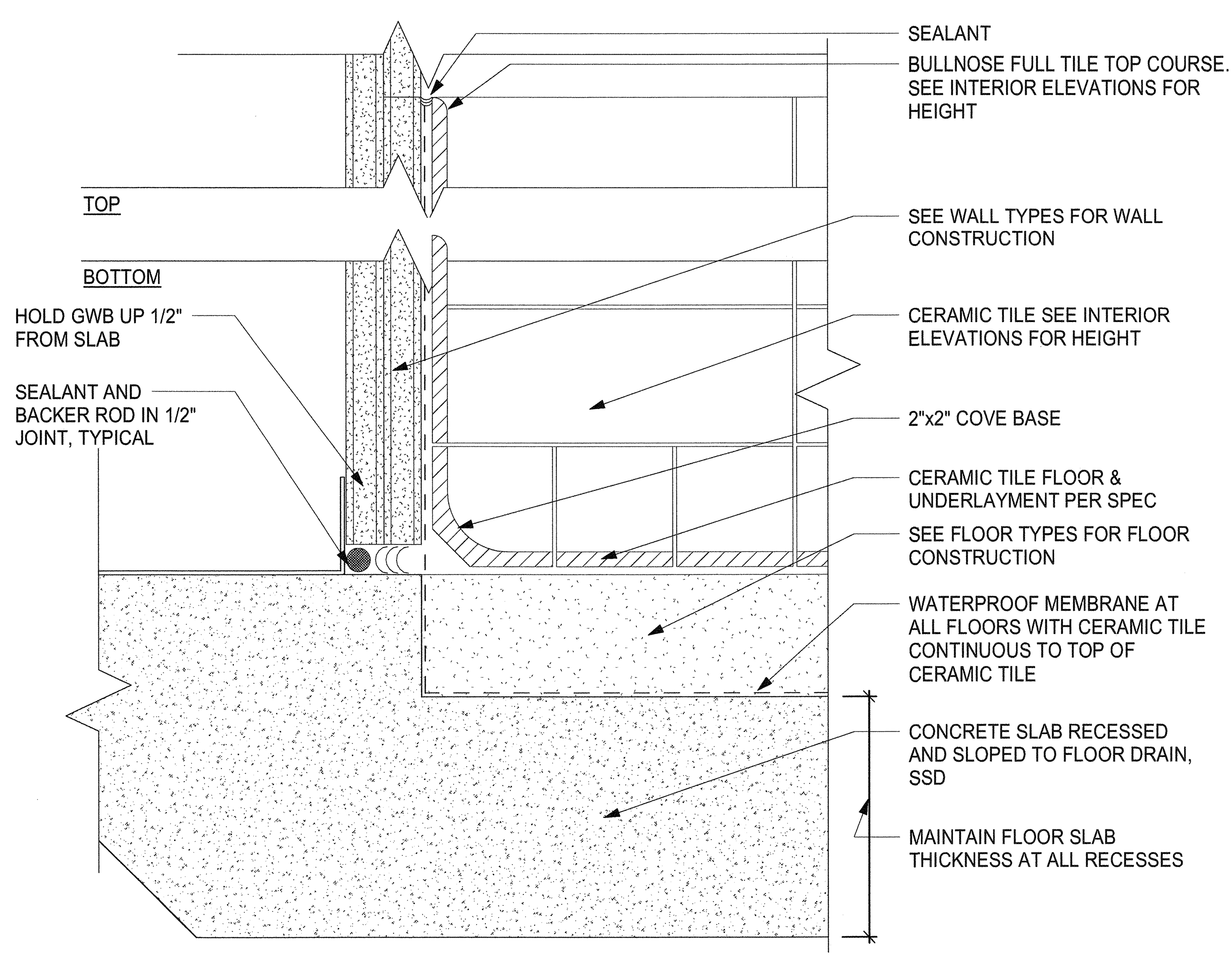


ASSEMBLY

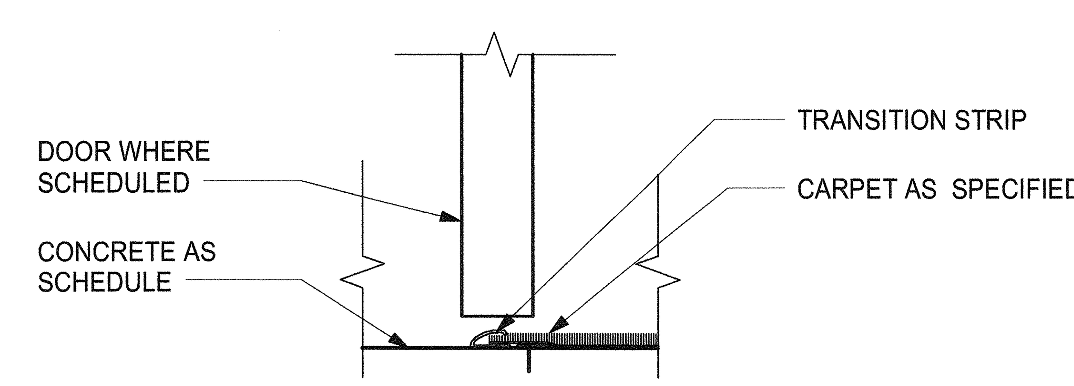
1. TILE FLOORING AS SCHEDULED
2. GROUT BED. ENSURE 1 1/2" MIN. THICKNESS
3. WATERPROOF MEMBRANE
4. CONCRETE (2.5" OVER TOP OF FLUTE), SSD. SEE FLOOR DETAILS FOR SLAB DEPRESSION AT FLOOR DRAINS
5. 3" METAL DECK, SEE STRUCTURAL. PAINT WHERE EXPOSED, SEE CEILING PLANS AND FINISH SCHEDULES
6. STEEL STRUCTURE AT SOME LOCATIONS, SSD. HPC WHERE EXPOSED, SEE CEILING PLANS AND FINISH SCHEDULES



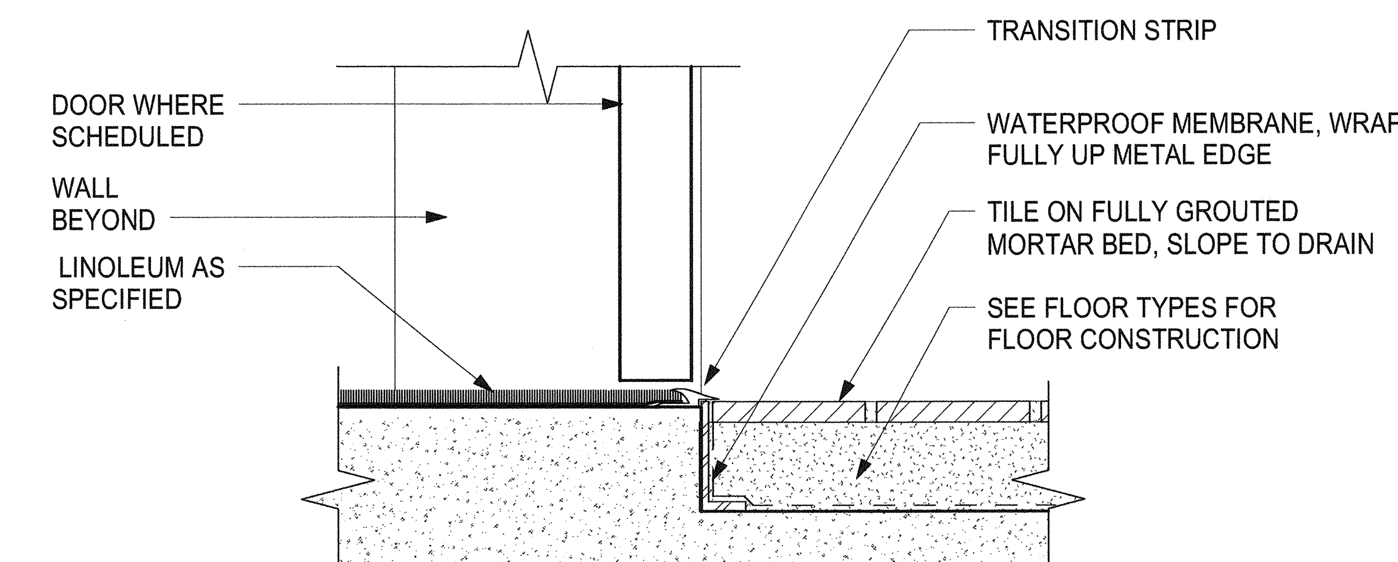
1 CERAMIC TILE TO CONC TRANSITION
3" = 1'-0"



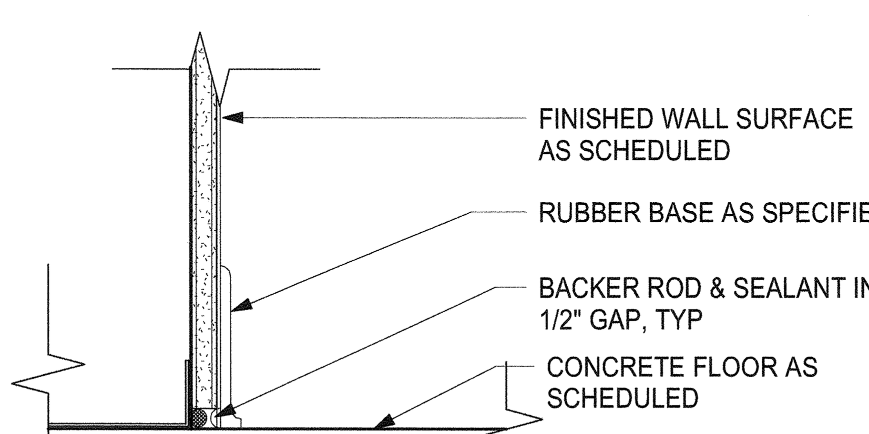
4 CERAMIC TILE FLOOR TRANSITION
6" = 1'-0"



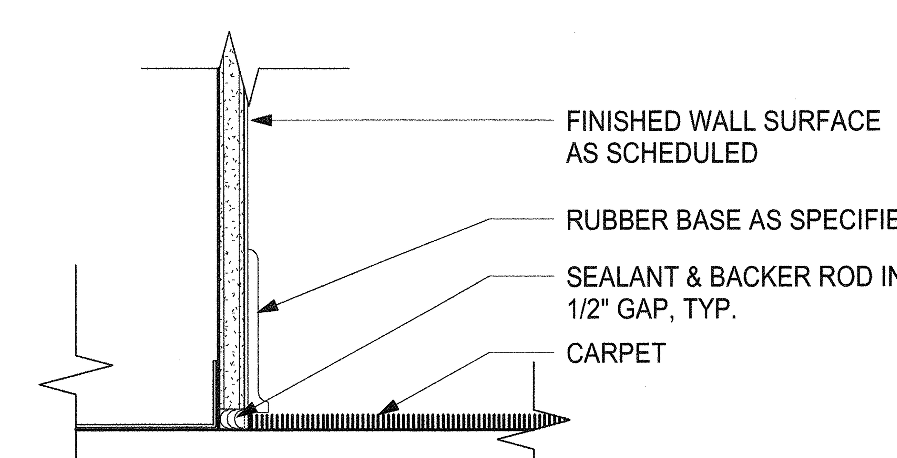
2 CONC TO CARPET TRANSITION
3" = 1'-0"



3 RESILIENT FLOORING TO TILE TRANSITION
3" = 1'-0"



5 RUBBER BASE TO CONC TRANSITION
3" = 1'-0"



6 RUBBER BASE TO CARPET TRANSITION
3" = 1'-0"

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PIER 4 PHASE 2
MARINE BUILDING
FLOOR TYPES AND FLOOR DETAILS

TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

6552
A21.00
SH # 417 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

BINDING EDGE

BUILDING & WALL SECTION AND WALL TYPE GENERAL NOTES

A. OTHER NOTES: SEE GENERAL NOTES ON G2 SERIES SHEETS FOR ADDITIONAL INFORMATION.

B. WALL TYPES: ALL WALL TYPES ARE NOT NECESSARILY USED. SEE FLOOR PLANS, BUILDING, WALL AND VERTICAL CIRCULATION SECTIONS FOR SCOPE. WALL TYPES SHOWN ON FLOOR PLANS GENERALLY APPLY TO THE FULL EXTENT OF THE WALL EVEN WHEN INTERSECTED BY ANOTHER WALL. SEE SECTIONS FOR ADDITIONAL REQUIREMENTS WHICH MAY MODIFY THE WALL TYPES ABOVE THE MAIN FLOOR LEVEL, IN WHICH CASE THE WALL SECTIONS SHALL GOVERN. ALL WALL TYPES SHALL BE ASSUMED TO RUN FLOOR TO UNDERSIDE OF STRUCTURE ABOVE, UNLESS SPECIFICALLY DETAILED OTHERWISE. SEE WALL TYPES, SECTIONS AND STRUCTURAL DRAWINGS FOR MORE DETAILED INFORMATION.

C. WALL CONSTRUCTION: WALL CONSTRUCTION SHALL BE PER THE WALL SECTION REFERENCED AT EACH LOCATION. PARTICULAR WALLS NOT REFERENCED SHALL BE ASSUMED AS THE SAME CONSTRUCTION MATERIALS (AS CLARIFIED AND CONFIGURED ON THE ELEVATIONS), AS THE MOST SIMILAR ADJACENT WALL SECTION AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY WITH THE ENGINEER PER THE GENERAL NOTES. IF WALL OR BUILDING SECTIONS AND/OR DETAILS ILLUSTRATE THE SAME CONDITION AS WALL TYPES DESCRIBE, SECTIONS AND DETAILS SHALL GOVERN.

D. STRUCTURAL DRAWING COORDINATION: SEE STRUCTURAL DRAWINGS FOR ANCHORAGE AND REINFORCEMENT OF WALLS, BOTH INTERIOR & EXTERIOR, AND FOR CONCRETE REINFORCING.

E. MEMBER SPACING: SPACING OF STRUCTURAL AND NON-STRUCTURAL MEMBERS INDICATED ON DRAWINGS IS THE MAXIMUM ALLOWABLE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ACTUAL LAYOUT PATTERN AND QUANTITIES REQUIRED, PARTICULARLY WITH RESPECT TO LAYOUT DEVIATIONS REQUIRED TO AVOID CONFLICT WITH MECHANICAL DUCTS, CHASES, LIGHT FIXTURES OR OTHER RECESSED EQUIPMENT FOR FIXTURES, ETC. PROVIDE ALL ADDITIONAL FRAMING, HEADERS, ETC., AS REQUIRED TO ACCOMMODATE.

F. CONCEALING STRUCTURE: STEEL COLUMNS AND OTHER STRUCTURAL STEEL ENGAGED BY PARTITIONS SHALL BE CONCEALED WITHIN WALLS AND FIRE PROTECTED WHERE REQUIRED. ADDITIONALLY, ALL FIRE RATED STEEL COLUMN BEAM SEATS SHALL BE COVERED WITH FIREPROOFING (INCLUDING BOLTS), WHERE A FIRE RATING IS REQUIRED.

G. STEEL STUD WALLS:

1. REFERENCED STANDARDS: CONSTRUCT ALL STEEL STUD WALLS IN ACCORDANCE WITH STEEL STUD MANUFACTURERS ASSOCIATION (SSMA) DETAILS, EXCEPT AS DETAILED ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS WHICH SHALL GOVERN.

2. BACKING AND BLOCKING: PROVIDE BLOCKING AND BACKING AS REQUIRED BY CODE, AND AS DETAILED ON ARCHITECTURAL AND STRUCTURAL DRAWINGS, AND AS REQUIRED BY THE SPECIFICATIONS. PROVIDE BACKING PLATES FOR ALL RAILS, CASEWORK, COUNTERS, DOOR STOPS, VISUAL DISPLAY BOARDS, FIRE EXTINGUISHER CABINETS, ROOM ACCESSORIES, TOILET PARTITIONS, ELECTRICAL AND DATA OUTLETS TOILET PARTITIONS, DRINKING FOUNTAINS, FIXTURES, AND ALL OTHER WALL MOUNTED EQUIPMENT, UNLESS NOTED OTHERWISE. SEE STRUCTURAL DRAWINGS, REQUIREMENTS ON THIS SHEET FOR TYPICAL BACKING PLATE DETAILS, THE REQUIREMENTS OF THE SPECIFICATIONS, AND PROVIDE AS REQUIRED BY WEIGHT TO BE SUPPORTED. VERIFY ALL MOUNTING HEIGHTS AND SPECIAL STRUCTURAL SUPPORT REQUIREMENTS WITH EQUIPMENT MANUFACTURERS BEFORE INSTALLING BACKING AND BLOCKING. ALSO PROVIDE CONTINUOUS BLOCKING/BACKING IN ALL WALLS, FULL WIDTH:

AT ALL CEILING LINES
AT LOCATIONS SHOWN ON BUILDING & WALL SECTIONS
AT LOCATIONS REQUIRED BY STRUCTURAL DRAWINGS
AS REQUIRED BY SPECIFICATIONS
AS REQUIRED BY CODE
AS REQUIRED FOR BACKING

3. BACKING COORDINATION PLANS: CONTRACTOR TO PROVIDE STEEL STUD WALL BACKING PLANS FOR ALL WALLS WITH WALL MOUNTED EQUIPMENT, PLUS ALL NIC, FOIC AND FIO ITEMS, TYP. SEE DIVISION 5 SECTION "COLD-FORMED METAL FRAMING" AND DIVISION 9 SECTION "NON-STRUCTURAL METAL FRAMING".

4. RECESSED ITEMS: WHERE EQUIPMENT OR CABINETS ARE SHOWN TO BE RECESSED IN OR MOUNTED ON FIRE RATED PARTITIONS, THE FINISH SURFACE SHALL BE MADE TO RUN CONTINUOUSLY BEHIND AND AROUND SUCH EQUIPMENT OR CABINETS BEFORE THEIR INSTALLATION TO MAINTAIN FIRE RATING; OR IN LIEU THEREOF, BACK PLASTER OR PROTECT BY OTHER APPROVED MEANS ALL PANELS, FIXTURES, AND OTHER PENETRATIONS IN PARTITIONS AND CEILINGS IN ORDER TO MAINTAIN REQUIRED FIRE SEPARATIONS AND RATED ASSEMBLIES.

5. SOUND INSULATION: IN WALLS WHERE SOUND INSULATION IS REQUIRED, IT SHALL BE CONTINUOUS FOR THE FULL LENGTH AND FULL HEIGHT OF THE WALL, UNLESS SPECIFICALLY NOTED OTHERWISE.

6. PARTIAL HEIGHT WALLS: STUD WALLS WHICH ARE NOT CONTINUOUS UP TO THE UNDERSIDE OF STRUCTURE ABOVE, SHALL HAVE THE TOP OF THE WALL BRACED, SEE STRUCTURAL DRAWINGS. WRAP ALL TRACKS/PLATES AND BRACING AS REQUIRED TO ACHIEVE FIRE RATING OF WALL, IF RATED.

H. SLABS AT WALL OPENINGS: AT EXTERIOR DOOR OPENINGS AND AT ALUMINUM CURTAIN WALL AND STOREFRONT SYSTEMS THAT SIT ATOP THE SLAB, BLOCK OUT TOP OF STEM WALL TO DEPTH OF BOTTOM OF THE INTERIOR SLAB (OR AS DETAILED ON STRUCTURAL DRAWINGS) AND CONTINUE INTERIOR FLOOR SLAB OUT OVER STEM WALL, UNLESS SPECIFICALLY NOTED OTHERWISE ON DRAWINGS OR DETAILS. INSTALL 24" LONG #4 REBAR, 1/2 OF LENGTH IN INTERIOR SLAB AND 1/2 OF LENGTH INTO EXTERIOR SLAB; USE (3) BARS PER 3'-0" WIDE DOOR, EQUALLY SPACED, UNLESS OTHERWISE NOTED. ALSO SEE STRUCTURAL DRAWINGS AND TYPICAL THRESHOLD DETAIL AT THESE LOCATIONS.

I. DIMENSION NOTES: SEE FLOOR PLAN GENERAL NOTES ON A2 SERIES SHEETS FOR INFORMATION ON DIMENSIONS.

J. WALL THICKNESS AND ALIGNMENT:

1. CONTRACTOR SHALL VERIFY AND COORDINATE WALLS AND OTHER FRAMING THAT REQUIRE A NON-TYPICAL WALL THICKNESS DUE TO STRUCTURAL, ELECTRICAL, MECHANICAL, EQUIPMENT, OR OTHER REQUIREMENTS.

2. ON A CONTINUOUS WALL SURFACE WHERE CONSTRUCTION INVOLVES MORE THAN ONE MATERIAL FINISH OR MATERIAL THICKNESS, ALIGN FACE OF FINISH, UNO.

K. GYPSUM WALL BOARD (GWB) AND FINISHES:

1. SEE DIVISION 9 SPECIFICATION SECTIONS FOR COMPLETE DESCRIPTION OF TYPES OF GWB TO BE USED.

2. SEE FINISH SCHEDULE AND FINISH SCHEDULE GENERAL NOTES ON A70 SERIES SHEETS FOR ADDITIONAL INFORMATION ON TYPES OF GWB.

3. FOR ALL WALL TYPES, PROVIDE INTERIOR FINISHES AND WAINSCOTS PER FINISH SCHEDULE AND INTERIOR ELEVATIONS.

4. AT ALL LOCATIONS NOT EXPOSED TO VIEW WHERE A FIRE AND/OR SOUND RATING IS REQUIRED OR WHERE INDICATED ON FINISH SCHEDULE, FIRE TAPE AND MUD ONLY TO MEET REQUIRMENTS OF FIRE AND/OR SOUND RATING, UNLESS NOTED OR SPECIFIED OTHERWISE. NOTE THAT FIRE TAPE AND MUD MAY BE SCHEDULED OR REQUIRED EVEN WHERE NOT REQUIRED BY CODE.

5. FLOOR AND CEILING FINISHES AND WALL BASES ARE NOT TYPICALLY SHOWN ON WALL SECTIONS OR WALL TYPES. SEE FLOOR PLANS, ROOM FINISH SCHEDULE AND REFLECTED CEILING PLANS.

L. FIRESTOPPING: CONTRACTOR IS RESPONSIBLE TO FIRE CAULK/ SEAL PENETRATIONS OF ALL FIRE RATED ASSEMBLIES, PENETRATIONS OF FIRE RATED FLOOR ASSEMBLIES, ALL FIRE RATED ASSEMBLIES, ALL SMOKE PARTITIONS, ALL PENETRATIONS OF FLOOR ASSEMBLIES ABOVE THE FIRST FLOOR, AND OTHER ASSEMBLIES REQUIRED BY CODE TO BE SEALED AND TO PROVIDE CODE APPROVED FIRESTOPPING AT ALL PENETRATIONS WHETHER OR NOT THE PENETRATION IS SPECIFICALLY DETAILED OR SPECIFIED - ALL TRADES INCLUDED. "PENETRATIONS" SHALL BE DEFINED PER THE CURRENT EDITION OF THE IBC OR OTHER GOVERNING CODE(S), AND AT A MINIMUM SHALL INCLUDE ALL CABLES, PIPES, CONDUITS, DUCTS, COLUMNS, BEAMS AND OTHER PENETRATING ITEMS. SEE DIVISION 7 SPECIFICATION SECTION "PENTRATION FIRESTROPPING" FOR FURTHER DEFINITION AND REQUIREMENTS. ALL OTHER PENETRATIONS OF BUILDING ASSEMBLIES SHALL BE SEALED FOR SOUND CONTROL PURPOSES BY GWB AND TAPE, SEALANT, OR OTHER APPROVED METHODS. ALL COSTS FOR FIRE-RATED AND NON-FIRE-RATED SEALING SHALL BE INCLUDED IN THE BID. ALSO SEE G3 SERIES CODE SHEETS.

M. SOUND CONTROL: AT WALLS ADJOINING POTENTIAL NOISY SPACES SUCH AS MECHANICAL ROOMS, ELEVATORS, ELEVATOR EQUIPMENT ROOMS, GATHERING ROOMS, RESTROOMS, ETC., AND WHERE AN 'S' MODIFIER IS INDICATED IN THE WALL TYPE, COMPLY WITH THE FOLLOWING (NOTE THAT MANY OF THESE REQUIREMENTS MAY BE REQUIRED BY OTHER PORTIONS OF THE DRAWINGS AND SPECIFICATIONS REGARDLESS OF THE USE OF AN 'S' MODIFIER OR NOT):

1. PLACE WALL GWB WITHIN 1/4" OF FLOOR SLAB, AND APPLY CONTINUOUS ACOUSTICAL SEALANT ALONG BASE TO SEAL ALL JOINTS AND CRACKS.

2. DO NOT PLACE ELECTRICAL OR OTHER OUTLETS OR OPENINGS PENETRATING THE WALL GWB BACK TO BACK WITHIN THE SAME STUD CAVITY.

3. APPLY SOUND SEALANT TO WALL TERMINATIONS ABOVE SUSPENDED CEILING AT FLOOR DECK OR AT ROOF DECK.

4. WHERE TOP OF WALL INTERSECTS METAL DECK, FILL FLUTES WITH BATT INSULATION.

5. FIRE TAPE AND MUD GWB ABOVE FINISHED CEILINGS TO FULL EXTENT OF WALL AND SEAL ALL PENETRATIONS.

N. EXCAVATION & FILL:

1. COORDINATE REQUIREMENTS WITH CIVIL DRAWINGS AND SPECIFICATIONS.

2. REFER TO CIVIL DRAWINGS AND SPECIFICATIONS FOR MATERIALS BELOW SLABS. COORDINATE CIVIL AND ARCHITECTURAL DETAILING WITH RESPECT TO PERIMETER FOUNDATION DRAINAGE SYSTEMS, RAINLEADER / DOWNSPOUT LOCATIONS AND TIGHTLINE CONNECTIONS.

3. REFER TO STRUCTURAL DRAWINGS AND DETAILS FOR CONCRETE REINFORCING AND OTHER STRUCTURAL REQUIREMENTS AND FOR RETAINING WALL REQUIREMENTS.

4. DETAILS ILLUSTRATE TYPICAL CONDITIONS. CONTRACTOR SHALL ADAPT TYPICAL DETAILS FOR VARIANT CONDITIONS. FOR VARIANT CONDITIONS TYPICAL DETAILS SHALL BE USED FOR PERFORMANCE CRITERIA.

5. COORDINATE ALL TOP OF SLAB ELEVATIONS WITH FINISHED GRADES. GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT IF/WHEN DISCREPANCIES ARE IDENTIFIED PRIOR TO PROCEEDING.

O. ADDITIONAL FRAMING DETAILS: SEE STRUCTURAL DRAWINGS.

P. INSULATION IDENTIFICATION: AN IDENTIFICATION MARK SHALL BE APPLLIED TO ALL INSULATION MATERIALS.

Q. ALL PENETRATIONS THROUGH THE WRB MUST BE TAPED OR SEALED IN A METHOD APPROVED BY THE WRB MANUFACTURER TO ENSURE CONTINUITY OF THE AIR BARRIER.

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6552
A30.00
SH # 418 OF # 499

PIER 4 PHASE 2
MARINE BUILDING
WALL TYPE NOTES

CONT/CONS: 070136	TOWNSHIP:	RANGE: SECTION:
M. ID: 091251	DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933
PHASE: BID	PARCEL:	DRAWING SCALE: AS NOTED

APPROVED:
3-25-16
DIRECTOR ENG. DATE | PROJ. ENGR DATE
CHECKED BY DATE
PRINTED BY:
PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837

REGISTERED ARCHITECT 5617 RANDALL S. COOK STATE OF WASHINGTON

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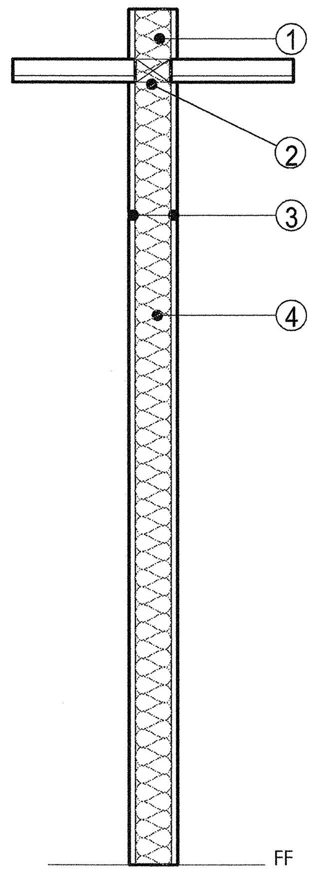
BINDING EDGE



SIZE
1. ACTUAL WALL STUD THICKNESS PER PLAN

CONSTRUCTION
1. DOUG FIR #2 @ 16" OC OR HEM FIR #2 @ 12" OC
2. BLOCKING AND OR BACKING AT CEILING LINE AND AS REQUIRED BY CODE
3. 5/8" TYPE 'X' GWB. FINISH AS SCHEDULED (NOT SHOWN)
4. SOUND BATT INSULATION FOR FULL HEIGHT OF WALL UNLESS 'X' MODIFIER IS INDICATED ON WALL TYPE, IN WHICH CASE INSULATION IS NOT REQUIRED. USE 3-1/2" BATTS AT 4" STUD WALLS AND 6" BATTS AT 6"WALLS.

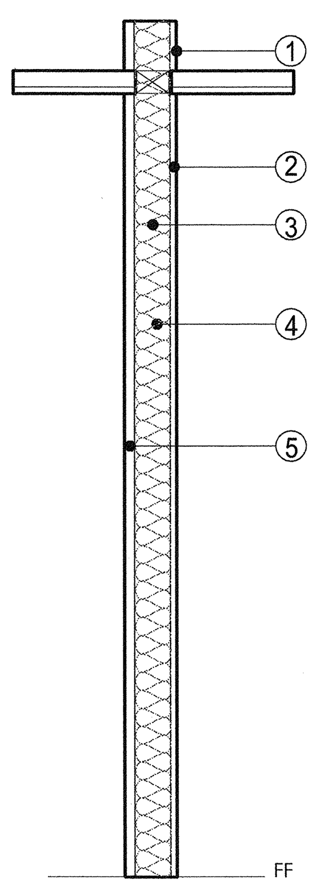
HEIGHT
1. WALL IS CONTINUOUS FROM FLOOR, FOUNDATION OR HEADER/BEAM AS APPLICABLE, TO UNDERSIDE OF FLOOR OR ROOF STRUCTURE, UNO.

FIRE RATING
1. 1 HOUR FIRE RATED WHERE '1H' IS NOTED ON THE FLOOR PLAN WALL TYPES. ONE HOUR FIRE RATING PER GA FILE NOS. WP 1072.

SOUND
1. STC 40-44 W/O INSULATION PER GA FILE NO. WP 1200.
2. STC 45-49 WITH 3-1/2" SOUND INSULATION PER GA FILE NO. WP 1072.

NOTES
1. SEE NOTES ON SHEET A30.00 FOR ADDITIONAL REQUIREMENTS.

INTERIOR WALL TYPE — W1



SIZE
1. ACTUAL WALL STUD THICKNESS PER PLAN

CONSTRUCTION
1. FINISH AS SCHEDULED
2. (1) LAYER 5/8" TYPE 'X' GWB
3. C-H STUDS 350S162-33 @ 24" OC ALSO PROVIDE BLOCKING / BACKING AS REQUIRED BY CODE, PER GENERAL NOTES
4. SOUND BATT INSULATION FOR FULL HEIGHT OF WALL UNLESS 'X' MODIFIER IS INDICATED ON WALL TYPE, IN WHICH CASE INSULATION IS NOT REQUIRED
5. 1" TYPE 'X' GWB SHAFT LINER AT SHAFT OR NON-PUBLIC SIDE

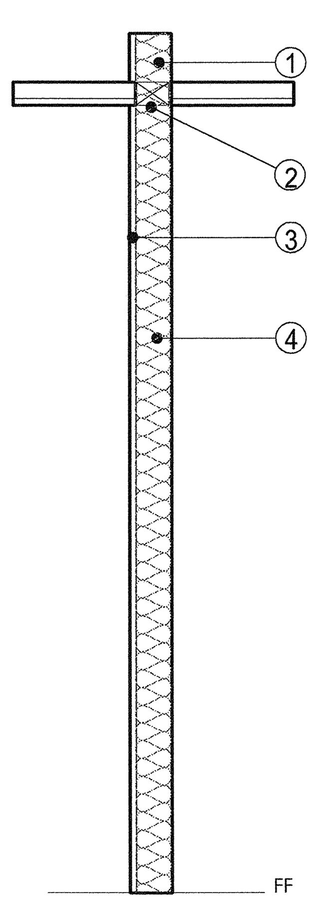
HEIGHT
1. WALL IS CONTINUOUS FROM FLOOR, FOUNDATION OR HEADER/BEAM AS APPLICABLE, TO UNDERSIDE OF FLOOR OR ROOF STRUCTURE, UNO.

FIRE RATING
1. 1 HOUR FIRE RATED WHERE '1H' IS NOTED ON THE FLOOR PLAN WALL TYPES. ONE HOUR FIRE RATING PER GA FILE NOS. WP 1072.

SOUND
1. STC 40-44 W/O INSULATION PER GA FILE NO. WP 1200.
2. STC 45-49 WITH 3-1/2" SOUND INSULATION PER GA FILE NO. WP 1072.

NOTES
1. SEE NOTES ON SHEET A30.00 FOR ADDITIONAL REQUIREMENTS.

INTERIOR WALL TYPE — CH1



SIZE
1. ACTUAL WALL STUD THICKNESS PER PLAN

CONSTRUCTION
1. DOUG FIR #2 @ 16" OC OR HEM FIR #2 @ 12" OC
2. BLOCKING AND OR BACKING AT CEILING LINE AND AS REQUIRED BY CODE
3. 5/8" TYPE 'X' GWB. FINISH AS SCHEDULED (NOT SHOWN)
4. SOUND BATT INSULATION FOR FULL HEIGHT OF WALL UNLESS 'X' MODIFIER IS INDICATED ON WALL TYPE, IN WHICH CASE INSULATION IS NOT REQUIRED. USE 3-1/2" BATTS AT 4" STUD WALLS AND 6" BATTS AT 6"WALLS.

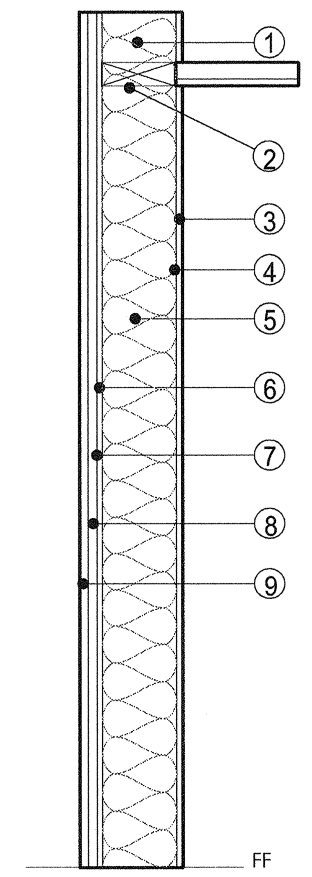
HEIGHT
1. WALL IS CONTINUOUS FROM FLOOR, FOUNDATION OR HEADER/BEAM AS APPLICABLE, TO UNDERSIDE OF FLOOR OR ROOF STRUCTURE, UNO.

FIRE RATING
1. 1 HOUR FIRE RATED WHERE '1H' IS NOTED ON THE FLOOR PLAN WALL TYPES. ONE HOUR FIRE RATING PER GA FILE NOS. WP 1072.

SOUND
1. STC 40-44 W/O INSULATION PER GA FILE NO. WP 1200.
2. STC 45-49 WITH 3-1/2" SOUND INSULATION PER GA FILE NO. WP 1072.

NOTES
1. SEE NOTES ON SHEET A30.00 FOR ADDITIONAL REQUIREMENTS.

INTERIOR WALL TYPE — W2



SIZE
1. ACTUAL WALL STUD THICKNESS PER PLAN

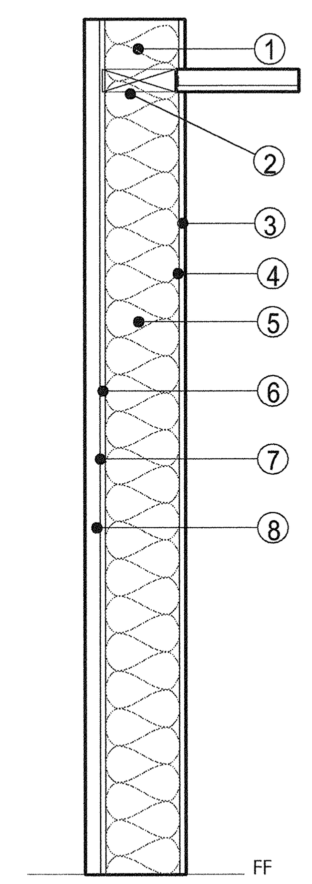
CONSTRUCTION
1. DOUG FIR #2 @ 16" OC OR HEM FIR #2 @ 16" OC ALSO SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION, FRAMING & BACKING/BLOCKING REQUIREMENTS.
2. BLOCKING AND OR BACKING AT CEILING LINE AND AS REQUIRED BY CODE.
3. 5/8" TYPE 'X' GWB. FINISH AS SCHEDULED (NOT SHOWN)
4. CLASS III VAPOR RETARDER
5. FILL CAVITY WITH UNFACED BATT INSULATION, R-21 MIN
6. 19/32" PLYWOOD SHEATHING
7. WATER RESISTANT BARRIER (WRB), ALSO SERVES AS AIR BARRIER
8. 7/8" VERTICAL METAL HAT CHANNEL
9. METAL SIDING, HORIZONTAL, SEE EXTERIOR ELEVATIONS

HEIGHT
1. WALL IS CONTINUOUS FROM FLOOR, FOUNDATION OR HEADER/BEAM AS APPLICABLE, TO UNDERSIDE OF FLOOR OR ROOF STRUCTURE, UNO.

SOUND
1. STC 40-44 W/O INSULATION PER GA FILE NO. WP 1200.
2. STC 45-49 WITH 3-1/2" SOUND INSULATION PER GA FILE NO. WP 1072.
3. STC. 50-54 WITH 3-1/2" SOUND INSULATION PER GA FILE NO. WP 1052 W/ ADDITIONAL LAYER OF GWB AT ONE SIDE.
4. STC 55-59 WITH 3-1/2" SOUND INSULATION PER FILE NO. WP 1522 W/ADDITIONAL LAYER OF GWB AT BOTH SIDES

NOTES
1. SEE NOTES ON SHEET A30.00 FOR ADDITIONAL REQUIREMENTS.

EXTERIOR WALL TYPE — W/HMS



SIZE
1. ACTUAL WALL STUD THICKNESS PER PLAN

CONSTRUCTION
1. DOUG FIR #2 @ 16" OC OR HEM FIR #2 @ 16" OC ALSO SEE STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION, FRAMING & BACKING/BLOCKING REQUIREMENTS.
2. BLOCKING AND OR BACKING AT CEILING LINE AND AS REQUIRED BY CODE.
3. 5/8" TYPE 'X' GWB. FINISH AS SCHEDULED (NOT SHOWN)
4. CLASS III VAPOR RETARDER
5. FILL CAVITY WITH UNFACED BATT INSULATION, R-21 MIN
6. 19/32" PLYWOOD SHEATHING
7. WATER RESISTANT BARRIER (WRB), ALSO SERVES AS AIR BARRIER
8. METAL SIDING, VERTICAL, SEE EXTERIOR ELEVATIONS

HEIGHT
1. WALL IS CONTINUOUS FROM FLOOR, FOUNDATION OR HEADER/BEAM AS APPLICABLE, TO UNDERSIDE OF FLOOR OR ROOF STRUCTURE, UNO.

SOUND
1. STC 40-44 W/O INSULATION PER GA FILE NO. WP 1200.
2. STC 45-49 WITH 3-1/2" SOUND INSULATION PER GA FILE NO. WP 1072.
3. STC. 50-54 WITH 3-1/2" SOUND INSULATION PER GA FILE NO. WP 1052 W/ ADDITIONAL LAYER OF GWB AT ONE SIDE.
4. STC 55-59 WITH 3-1/2" SOUND INSULATION PER FILE NO. WP 1522 W/ADDITIONAL LAYER OF GWB AT BOTH SIDES

NOTES
1. SEE NOTES ON SHEET A30.00 FOR ADDITIONAL REQUIREMENTS.

EXTERIOR WALL TYPE — W/VMS

NOTES TO INTERIOR WALL TYPES

A. SEE SHEET A30.00 FOR BUILDING AND WALL SECTION AND WALL TYPES GENERAL NOTES.

B. SEE STRUCTURAL DRAWINGS FOR FRAMING REQUIREMENTS

FOR INTERIOR WALL TYPES AND LEGEND:

WALL THICKNESS: (THICKNESS OF BASIC WALL MATERIAL, LESS FINISHES)

2, 4, 6, ETC. BASIC WALL THICKNESS, NOMINAL SIZE IN INCHES (ACTUAL SIZE FOR STEEL)

WALL MATERIAL: (TYPE OF MATERIAL OF BASIC WALL MEMBERS(S))

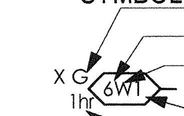
CH C/H STEEL STUDS
W WOOD STUDS

HEIGHT: WALLS ARE TYPICALLY CONTINUOUS FROM FLOOR, FOUNDATION OR HEADER / BEAM AS APPLICABLE TO BOTTOM OF DECK OR STRUCTURE EXCEPT AS NOTED OR IDENTIFIED OTHERWISE. SEE FLOOR PLANS, WALL TYPE MODIFIER 'H', FLOOR PLAN LEGEND, SECTIONS, INTERIOR ELEVATIONS AND DETAILS FOR INFORMATION ON WALLS WHICH TERMINATE 6" ABOVE HIGHEST ADJACENT CEILING.

SEE INDIVIDUAL WALL TYPES FOR SPECIAL MODIFIERS NOT LISTED HERE.

ASSUMPTIONS:
WALLS ARE FULL HEIGHT FROM POINT OF ORIGIN TO BOTTOM OF STRUCTURE ABOVE (FLOOR OR ROOF) UNLESS NOTED OTHERWISE, SEE BUILDING AND WALL SECTIONS.

SYMBOLS:

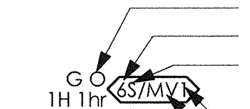


LETTER OUTSIDE SYMBOL: SPECIAL NOTE (IF ANY).
1ST NUMBER IN SYMBOL: THICKNESS OF BASIC WALL MATERIAL, LESS FINISHES.
1ST LETTER IN SYMBOL: BASIC WALL MATERIAL
2ND NUMBER IN SYMBOL: SPECIFIC WALL TYPE.
FIRE RATING: WALL FIRE RATING (IF ANY)

NOTES TO EXTERIOR WALL TYPES

A. SEE 'BUILDING AND WALL SECTION AND WALL TYPES GENERAL NOTES' FOR ADDITIONAL INFORMATION.
B. SEE STRUCTURAL DRAWINGS FOR NON-STRUCTURAL STUD GAUGE AND FRAMING REQUIREMENTS.

SYMBOLS:



LETTER OUTSIDE SYMBOL: SPECIAL NOTE (IF ANY).
1ST NUMBER IN SYMBOL: STUD SIZE OF BASIC WALL, LESS FINISHES.
1ST LETTER IN SYMBOL: BASIC WALL MATERIAL
2ND NUMBER IN SYMBOL: SPECIFIC WALL TYPE.
2ND LETTERS IN SYMBOL: EXTERIOR FINISH MATERIAL
FIRE RATING: WALL FIRE RATING (IF ANY)

EXTERIOR WALL TYPES AND LEGEND:
WALL THICKNESS: (THICKNESS OF BASIC WALL MATERIAL LESS FINISHES)

4, 6, ETC. BASIC WALL THICKNESS, IN INCHES, ACTUAL SIZE FOR CONCRETE AND STEEL STUDS, NOMINAL SIZE FOR MASONRY.

ABBREVIATIONS TO THE WALL ASSEMBLIES

EXTERIOR MATERIAL (EXTERIOR WALL DESIGNATION)

VMS VERTICALLY ORIENTED METAL SIDING
HMS HORIZONTALLY ORIENTED METAL SIDING

STUD MATERIAL

W WOOD FRAMING
CH LIGHT GAGE CHANNEL STUDS

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PIER 4 PHASE 2
MARINE BUILDING
WALL TYPES

TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

6552
A31.00
SH # 419 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

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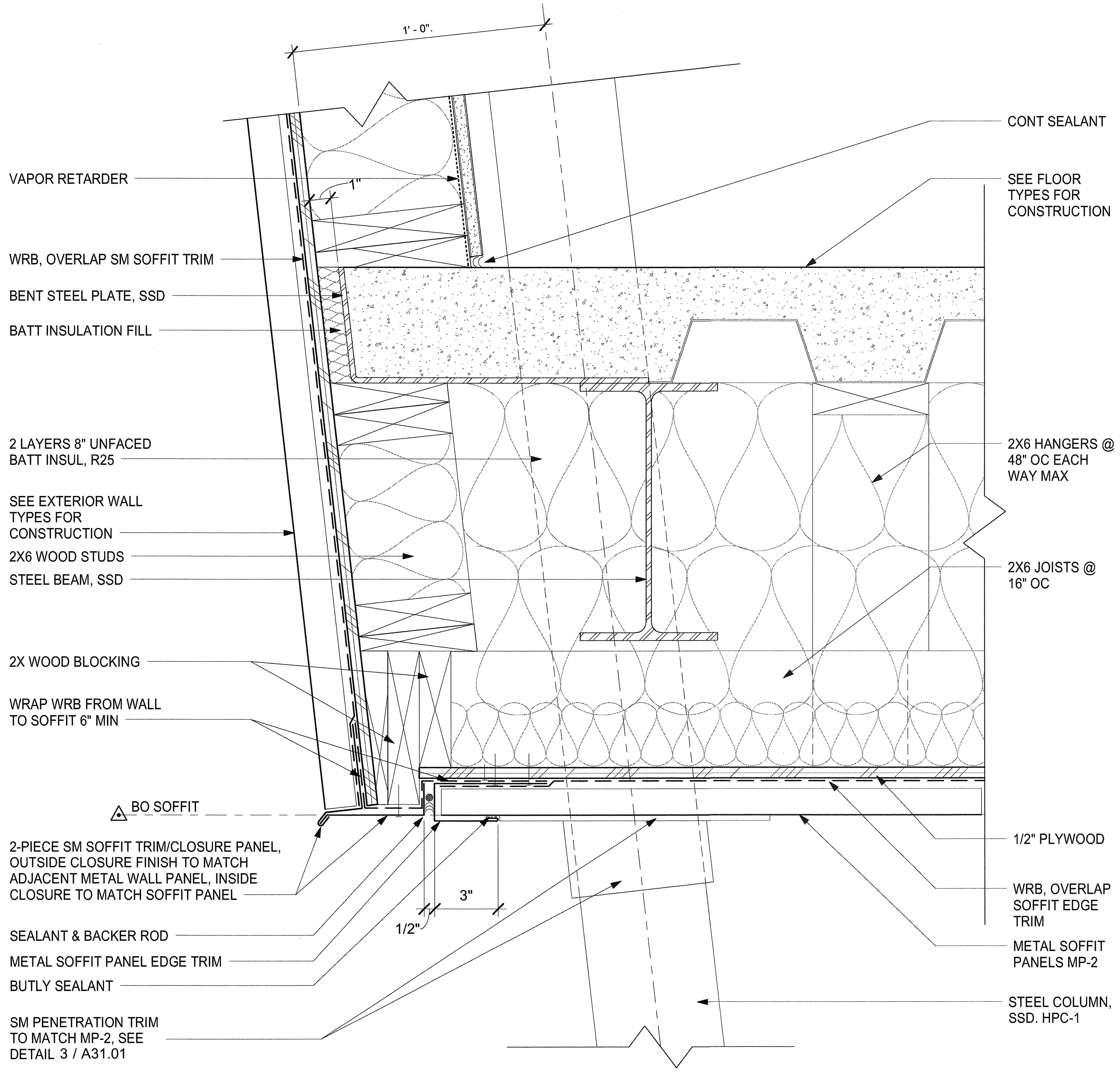
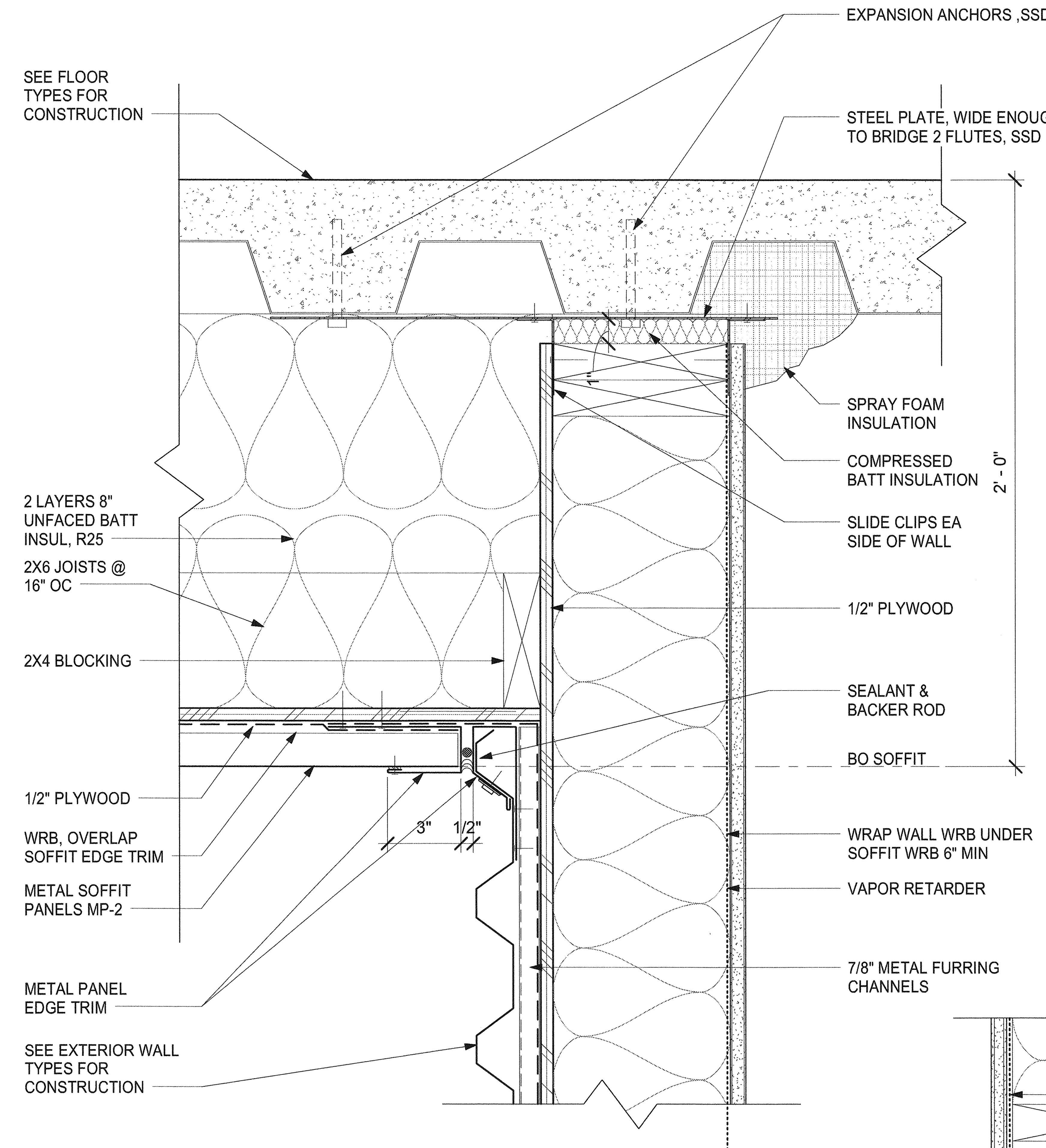
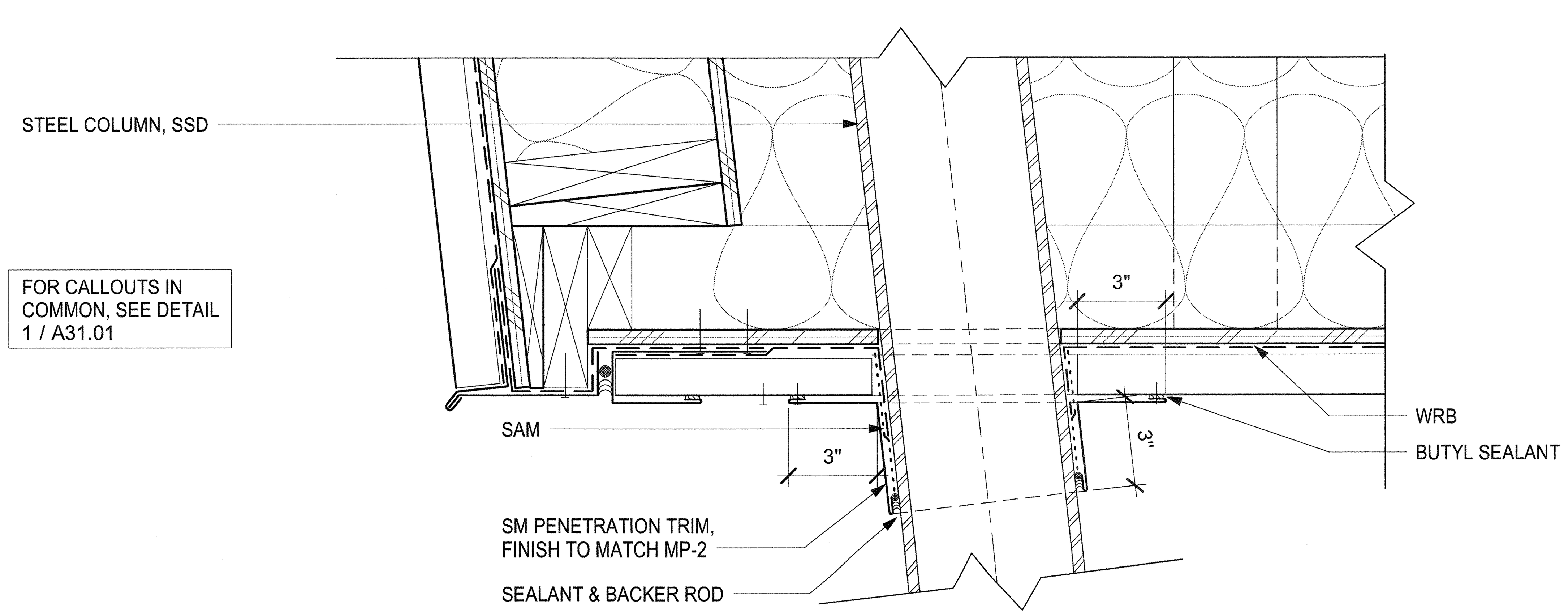
BINDING EDGE



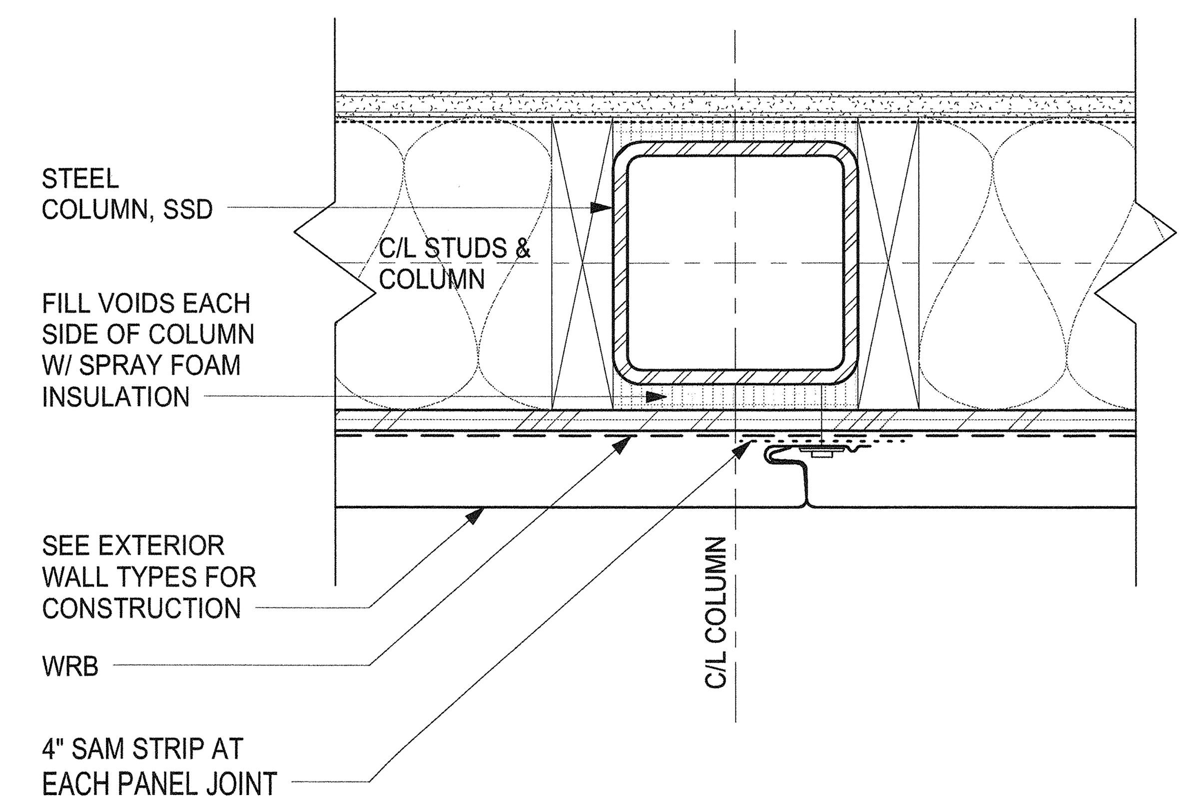
1 SOFFIT TO SLOPED WALL
3" = 1'-0"



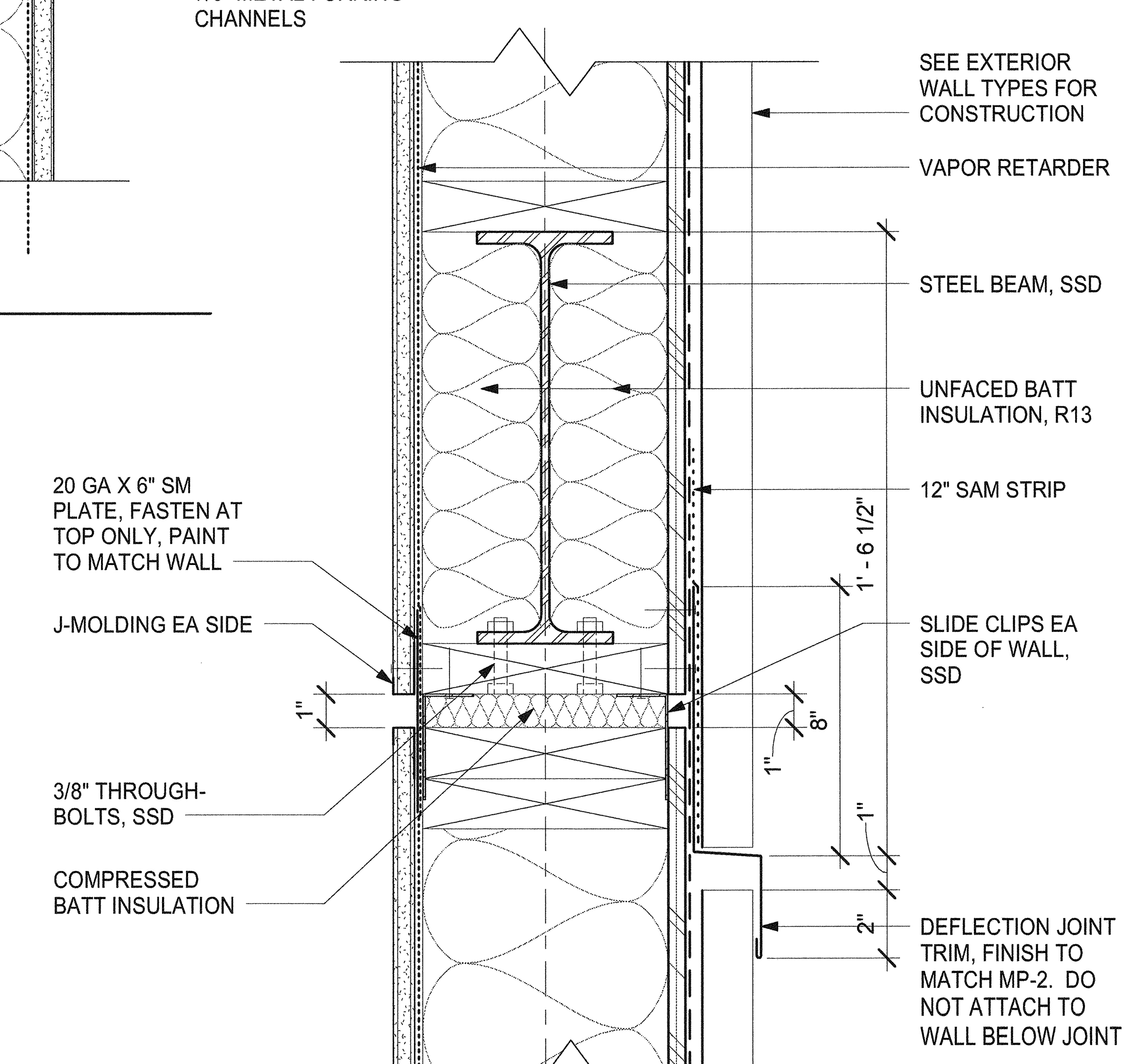
2 SOFFIT TO WALL
3" = 1'-0"



3 COLUMN PENETRATION THROUGH SOFFIT
3" = 1'-0"



4 COLUMN IN EXTERIOR WALL
3" = 1'-0"



5 BEAM IN EXTERIOR WALL
3" = 1'-0"

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STATE OF WASHINGTON

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PIER 4 PHASE 2
MARINE BUILDING
EXTERIOR WALL DETAILS

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:	DRAWING SCALE: AS NOTED	

6552
A31.01
SH # 420 OF # 499

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

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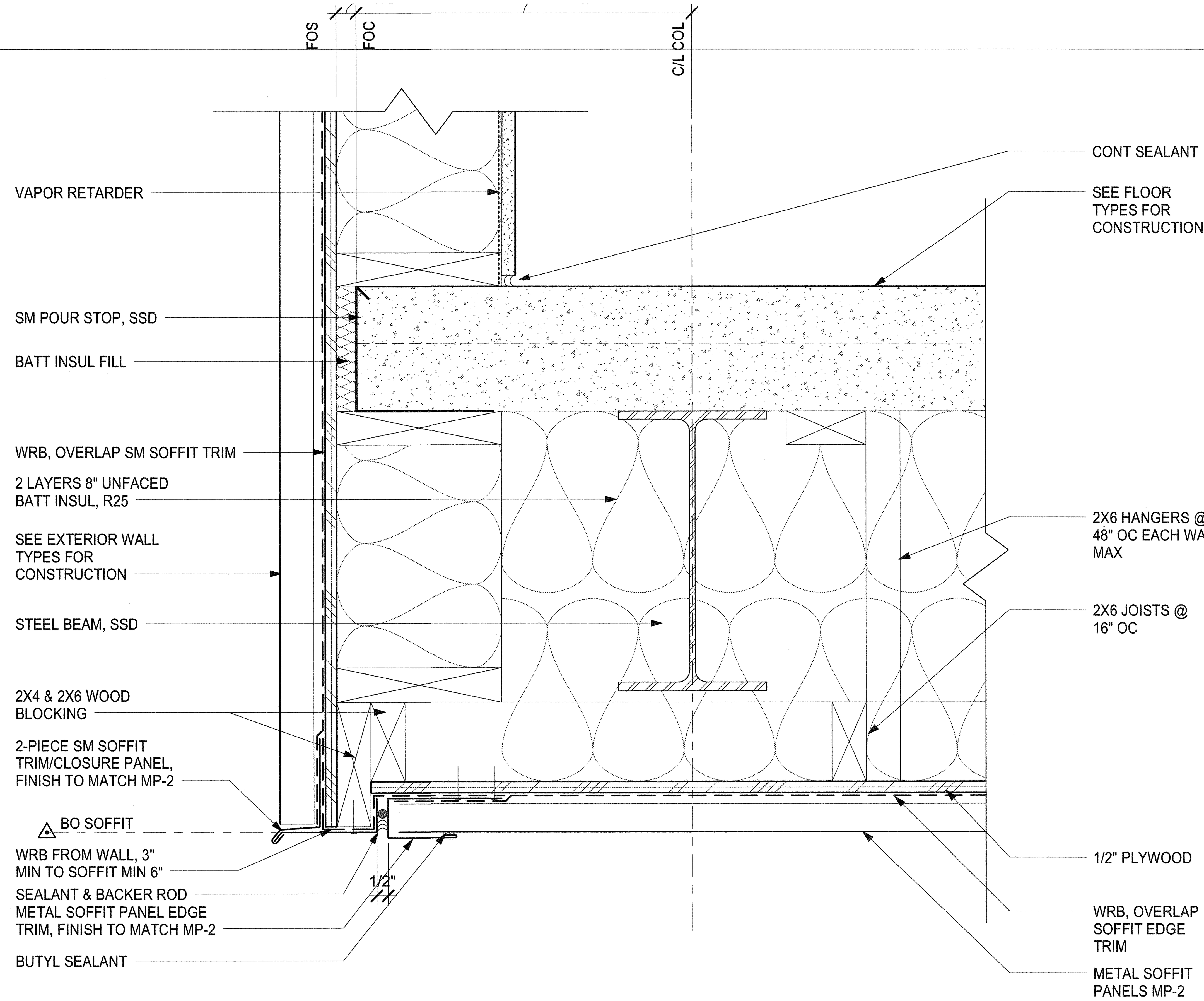
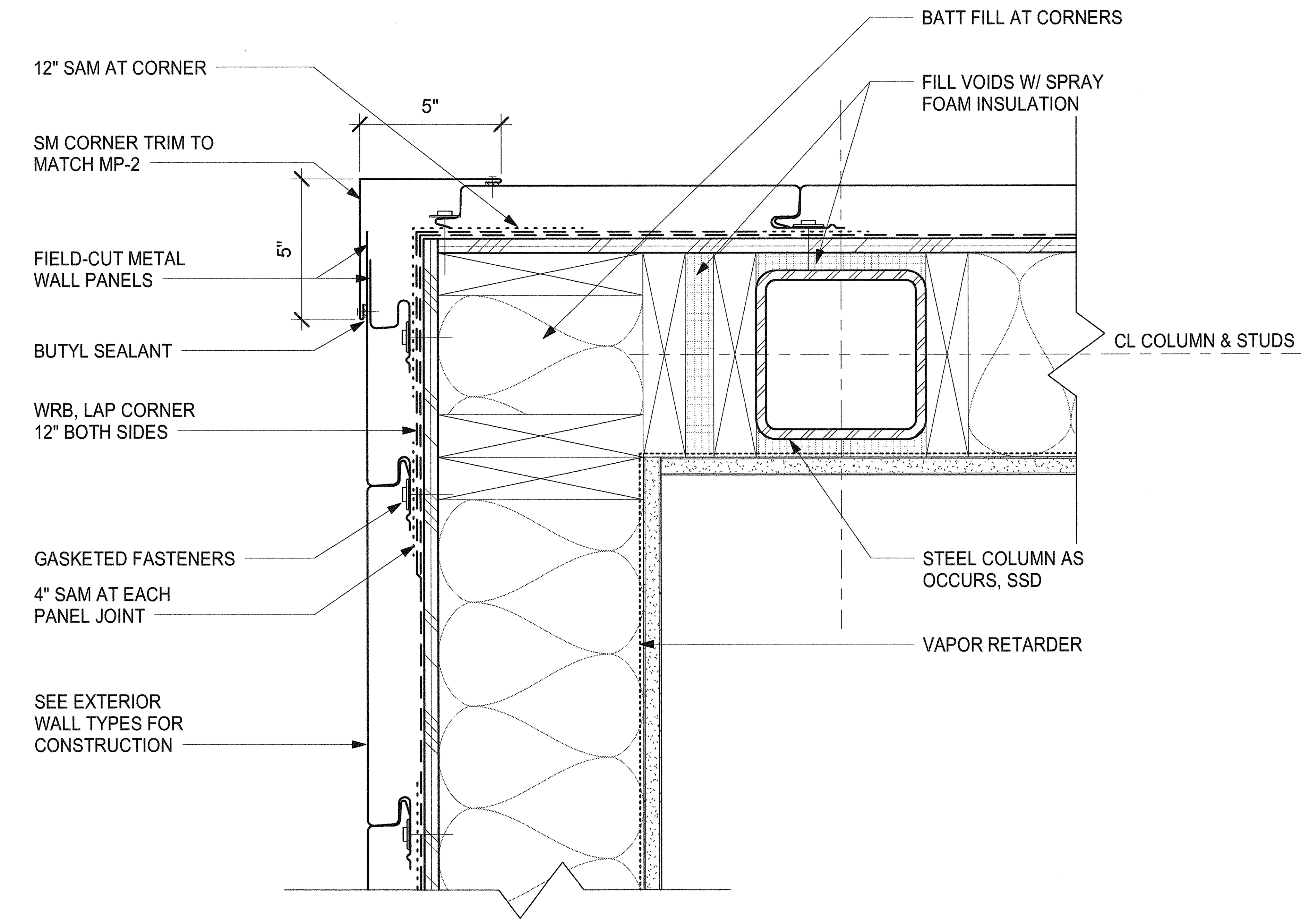
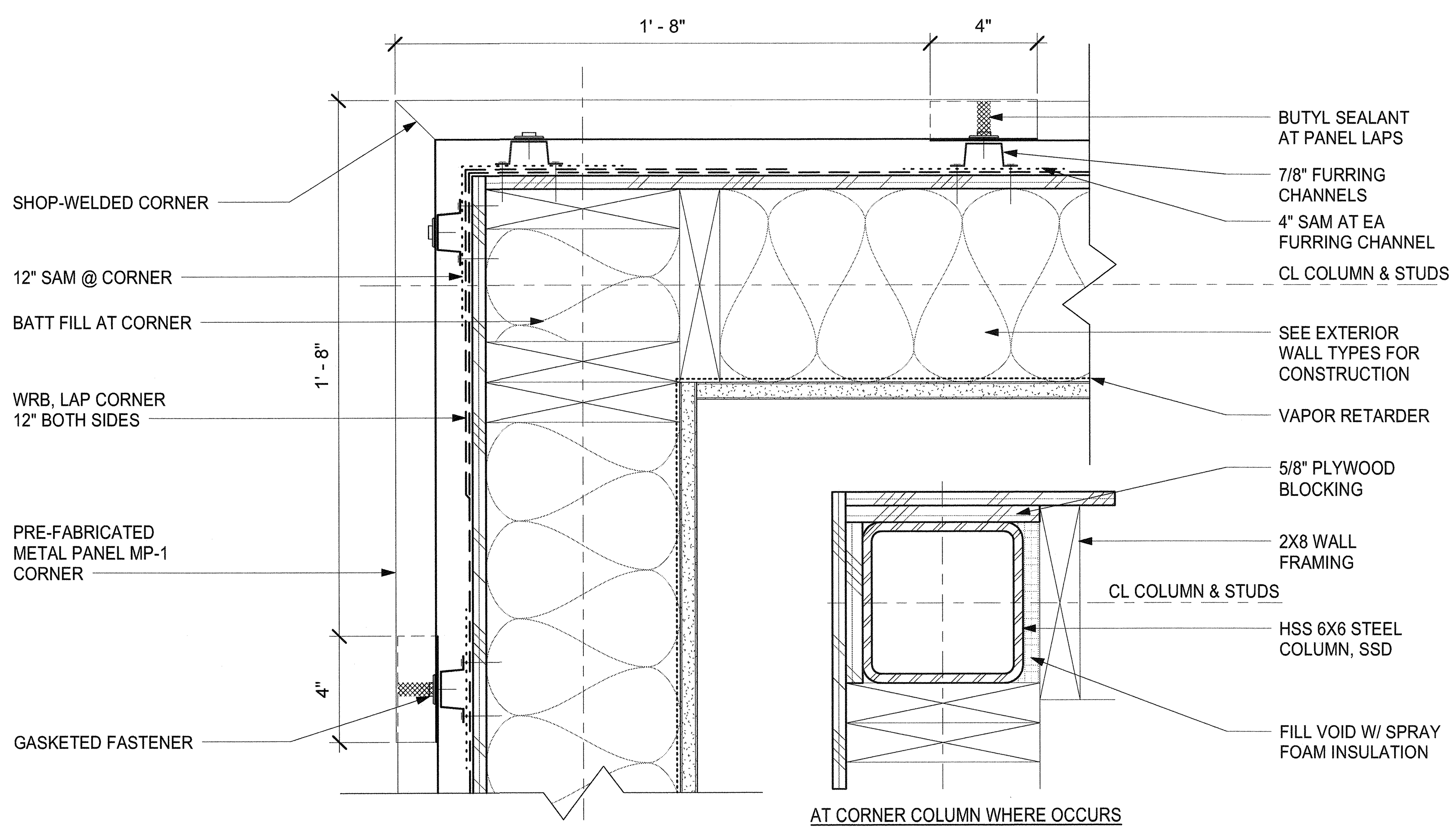


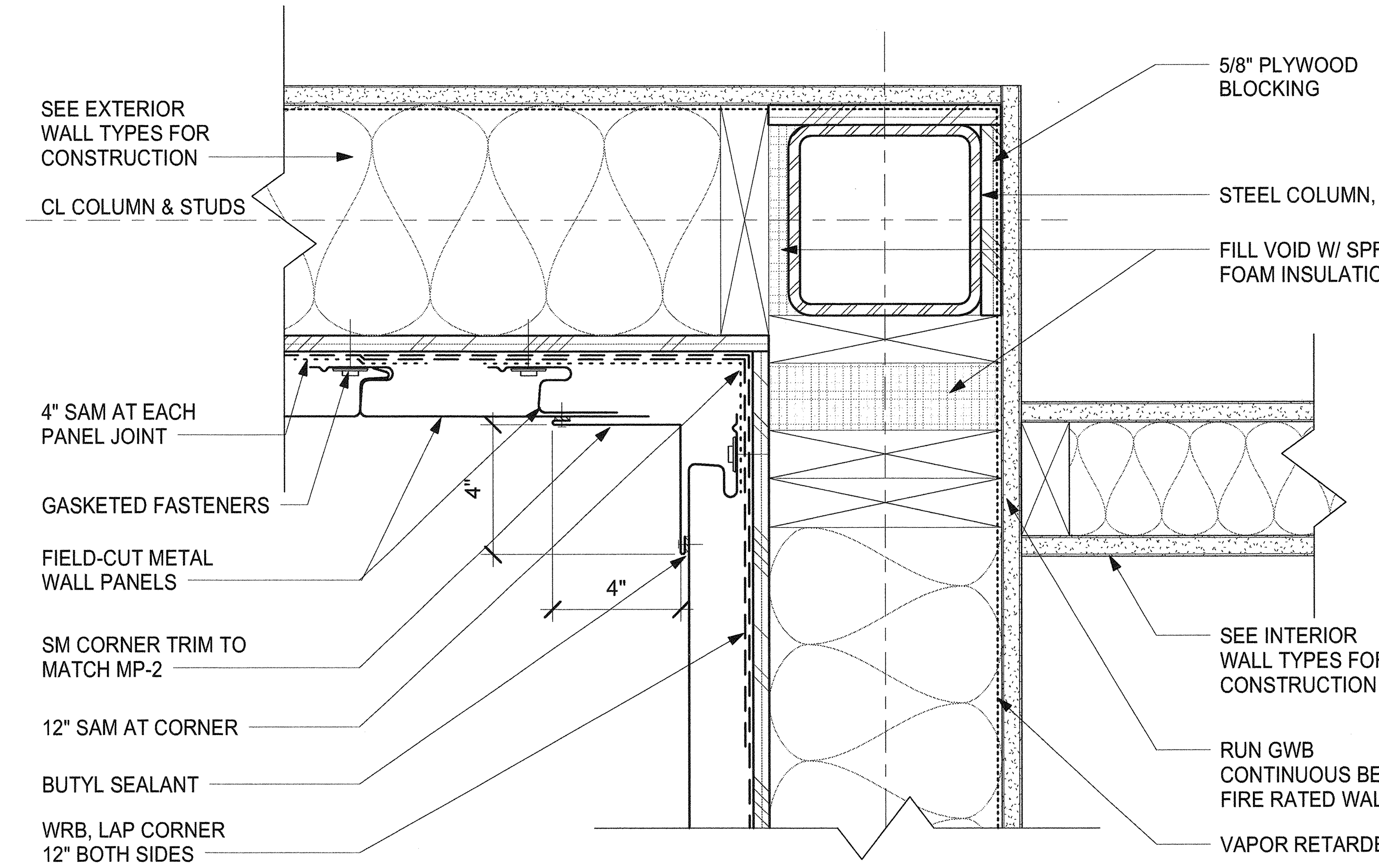
1 WALL AT FLOOR
3" = 1'-0"



2 OUTSIDE CORNER - VERT METAL PANELS
3" = 1'-0"



3 OUTSIDE CORNER - HORIZ METAL PANELS
3" = 1'-0"



4 INSIDE CORNER - VERT METAL PANELS
3" = 1'-0"

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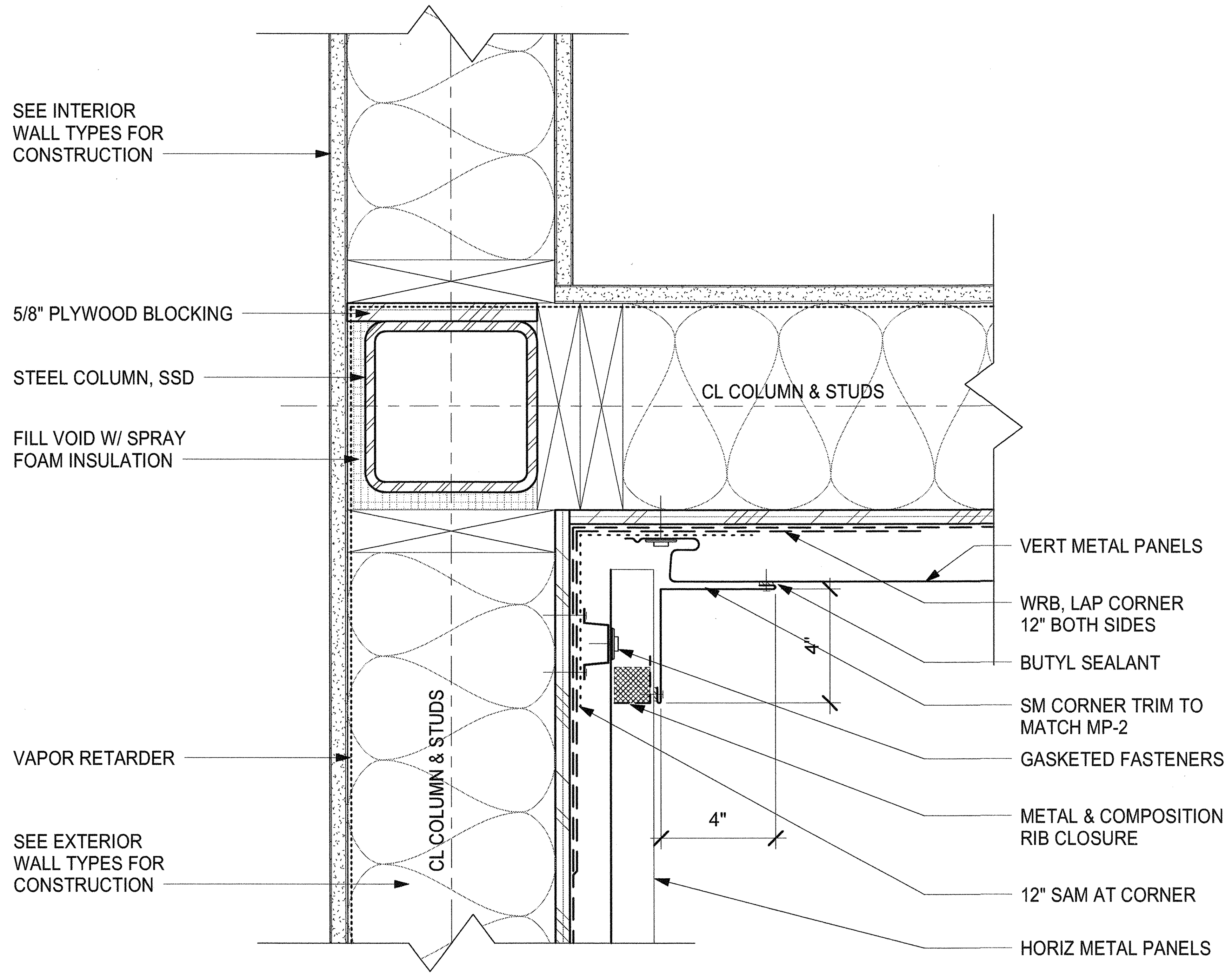
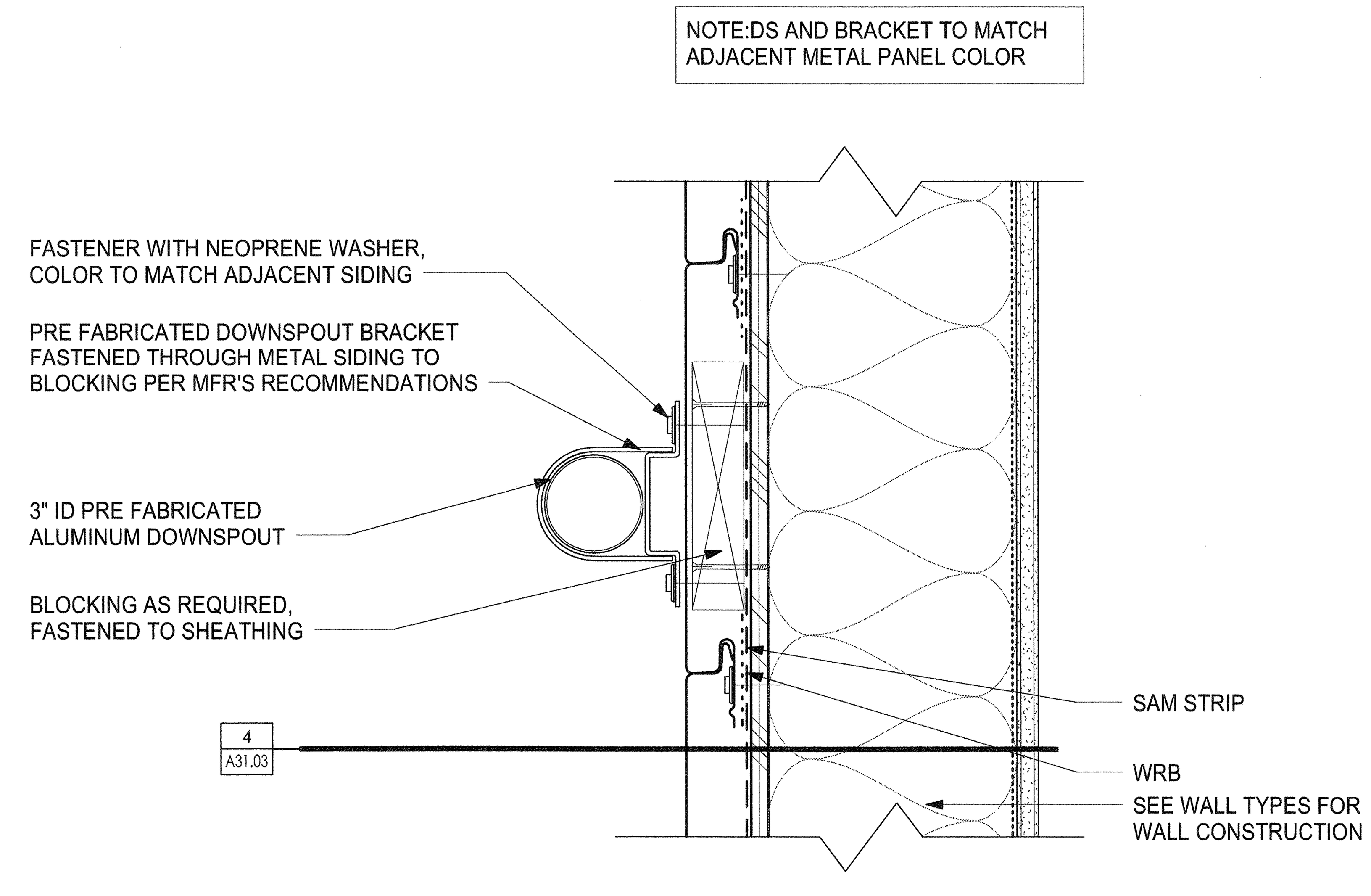
PIER 4 PHASE 2
MARINE BUILDING
EXTERIOR WALL DETAILS

TOWNSHIP: | RANGE: | SECTION:
DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: | DRAWING SCALE: AS NOTED

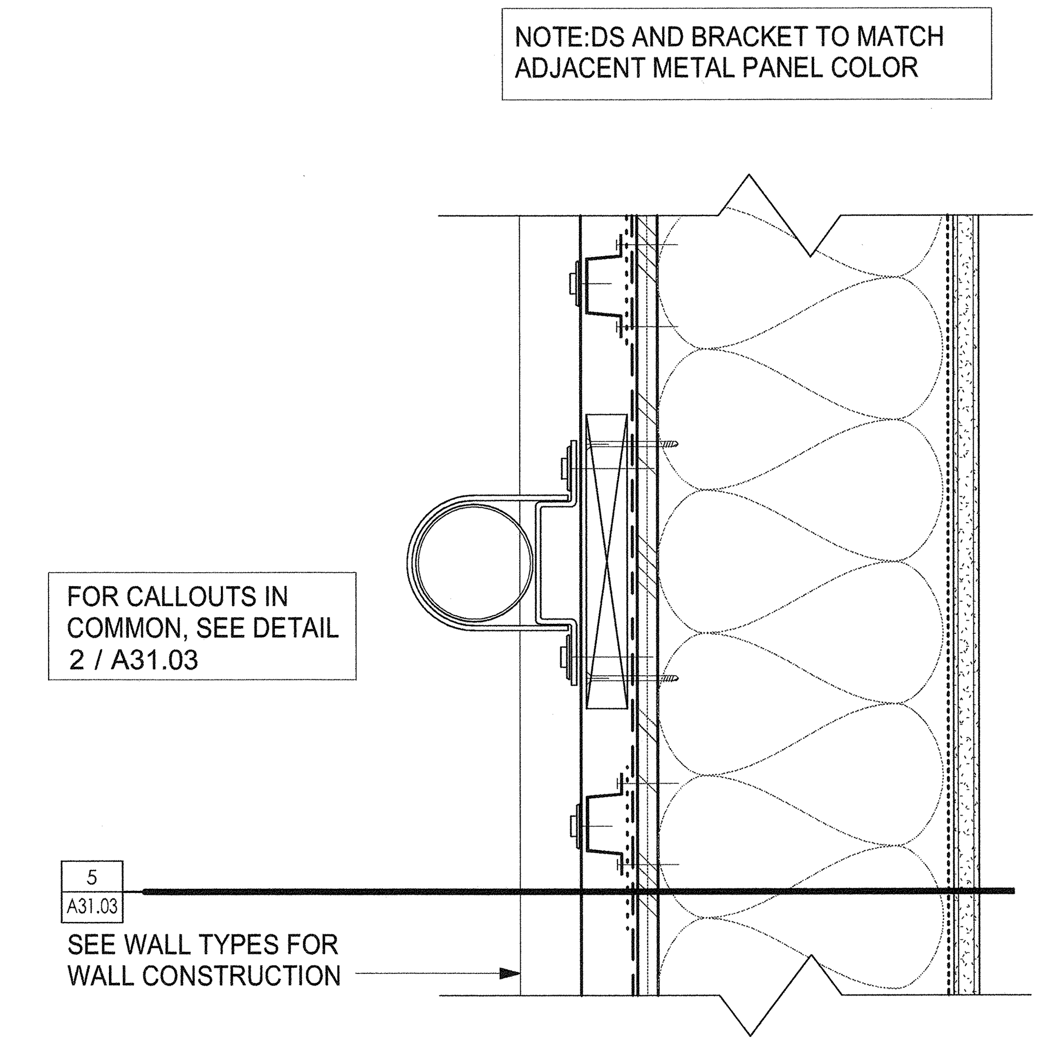
6552
A31.02
SH # 421 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID



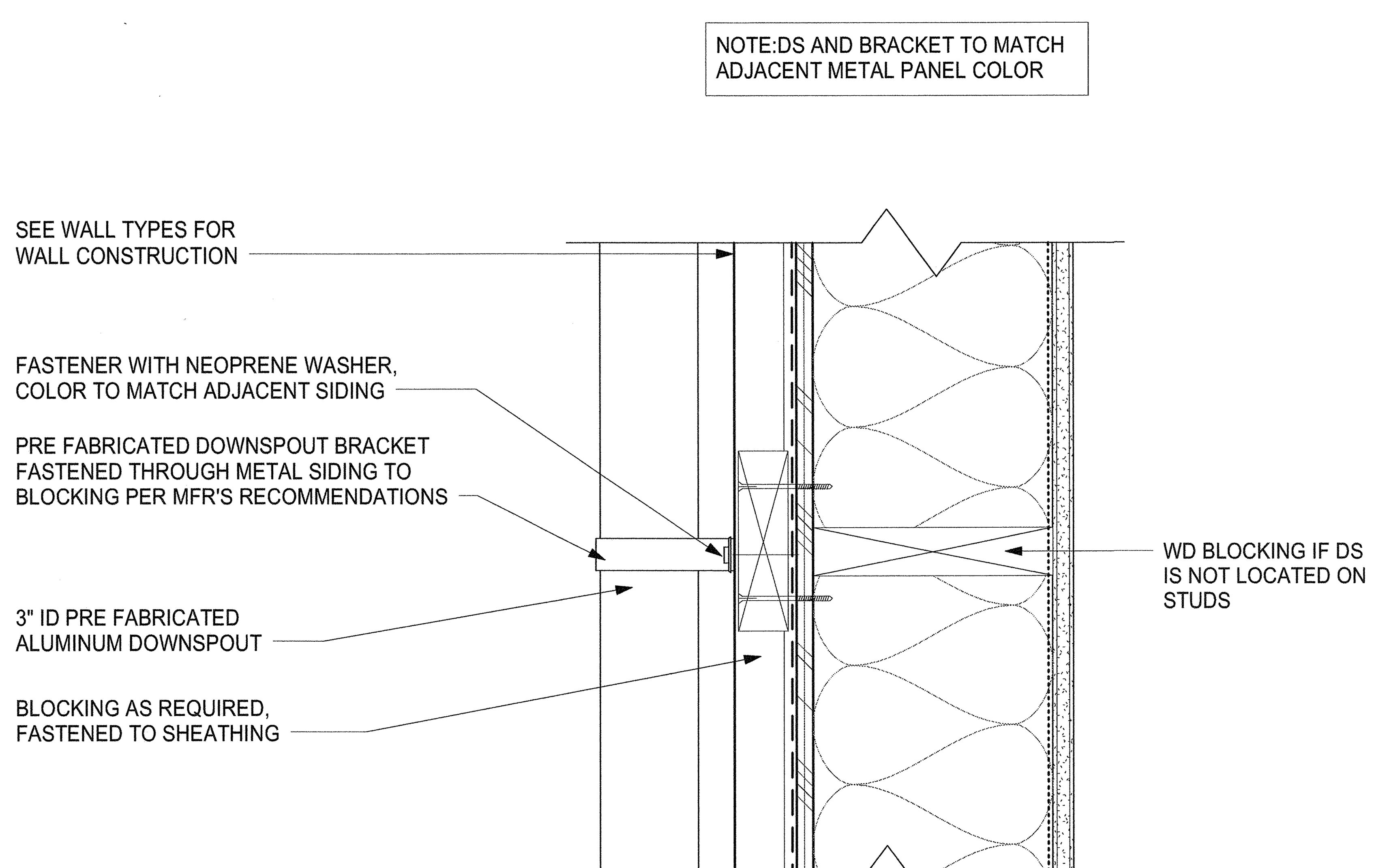
1 INSIDE CORNER - VERT AT HORIZ METAL PANELS
3" = 1'-0"



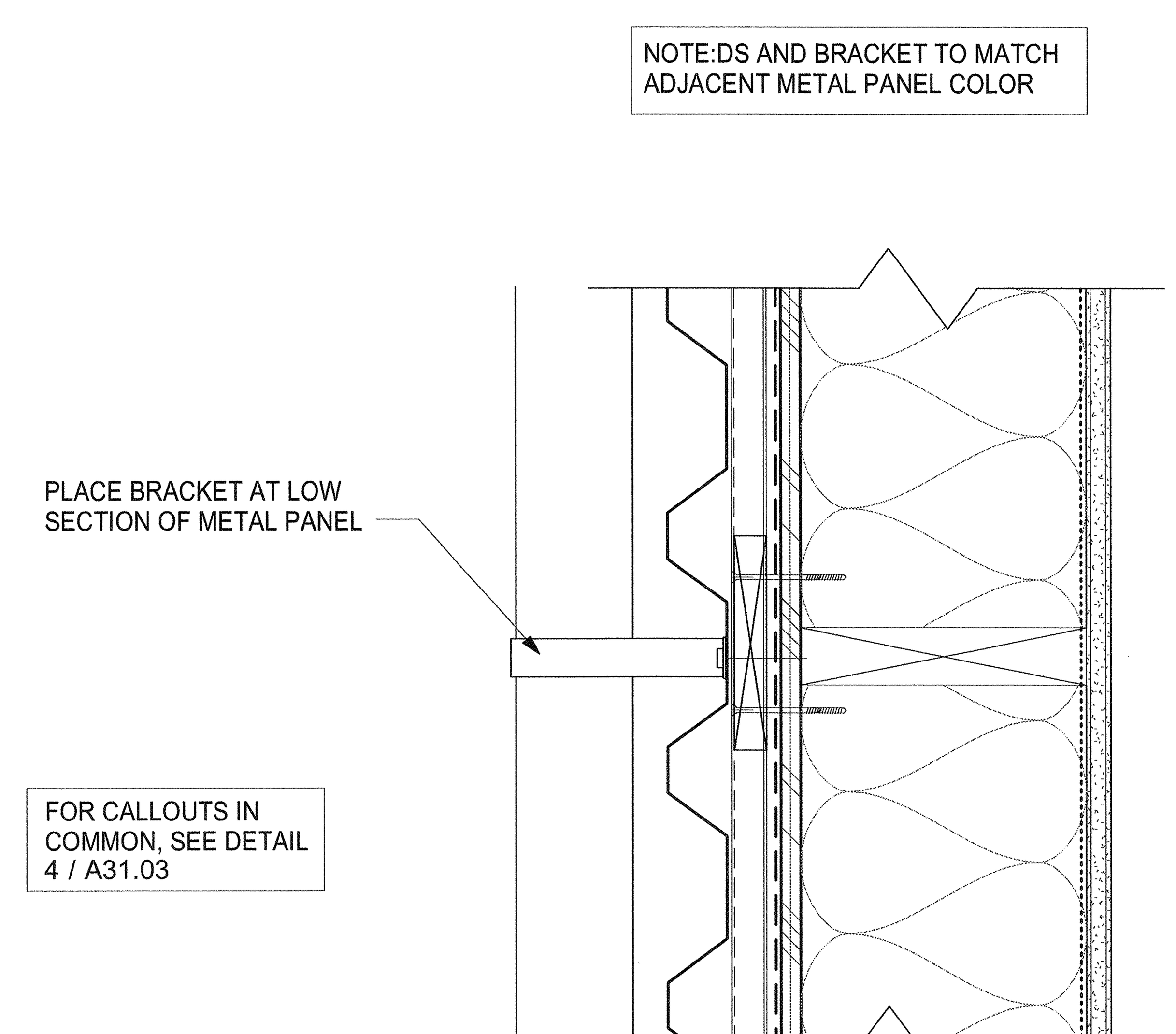
2 DOWNSPOUT PLAN AT MP-2
3" = 1'-0"



3 DOWNSPOUT AT MP-1
3" = 1'-0"



4 DOWNSPOUT SECTION AT MP-2
3" = 1'-0"



5 DOWNSPOUT SECTION AT MP-1
3" = 1'-0"

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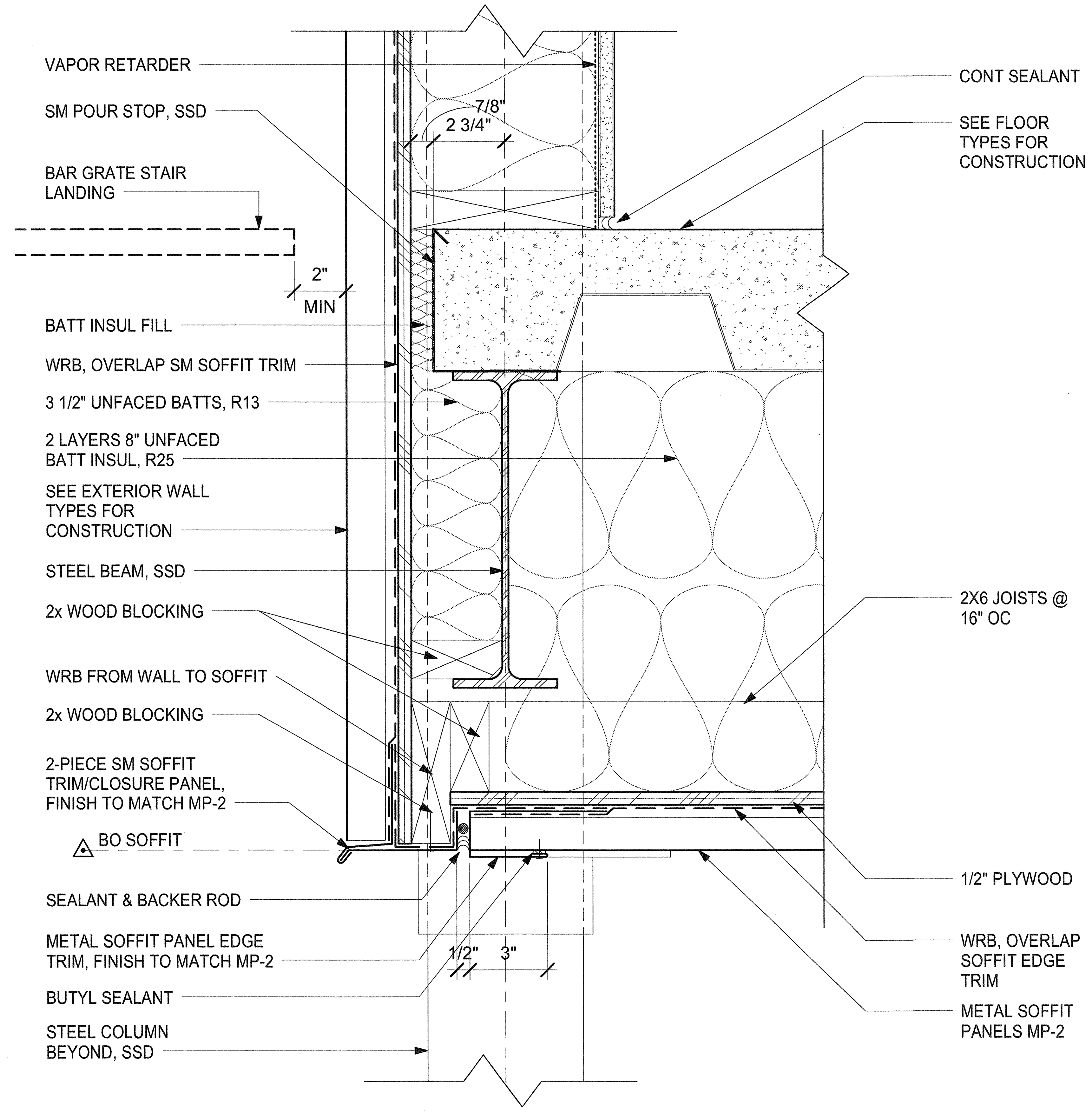
PIER 4 PHASE 2
MARINE BUILDING
EXTERIOR WALL DETAILS

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:	DRAWING SCALE: AS NOTED	

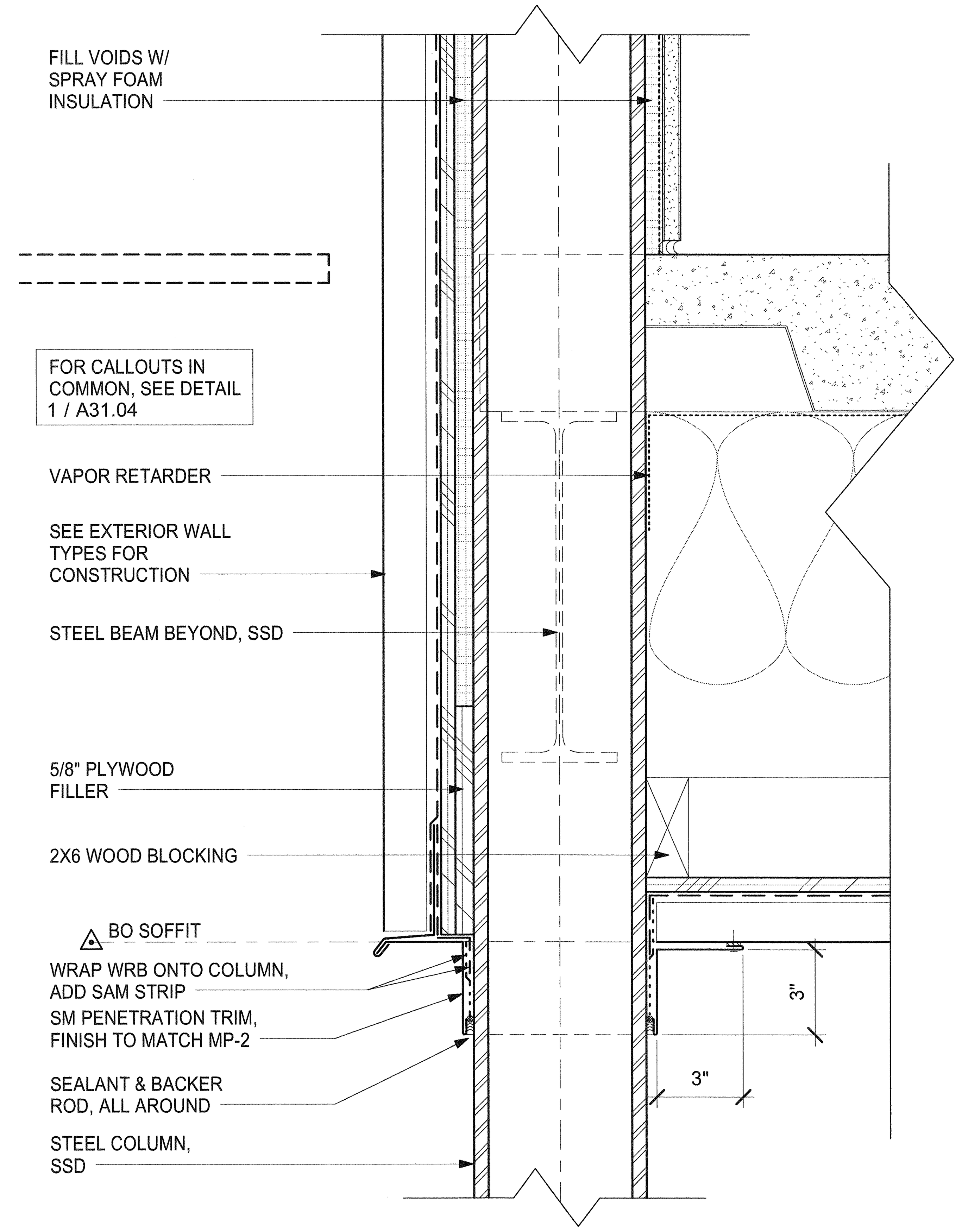
6552
A31.03
SH # 422 OF # 499

CONT/CONS:	070136
M. ID:	091251
PHASE:	BID

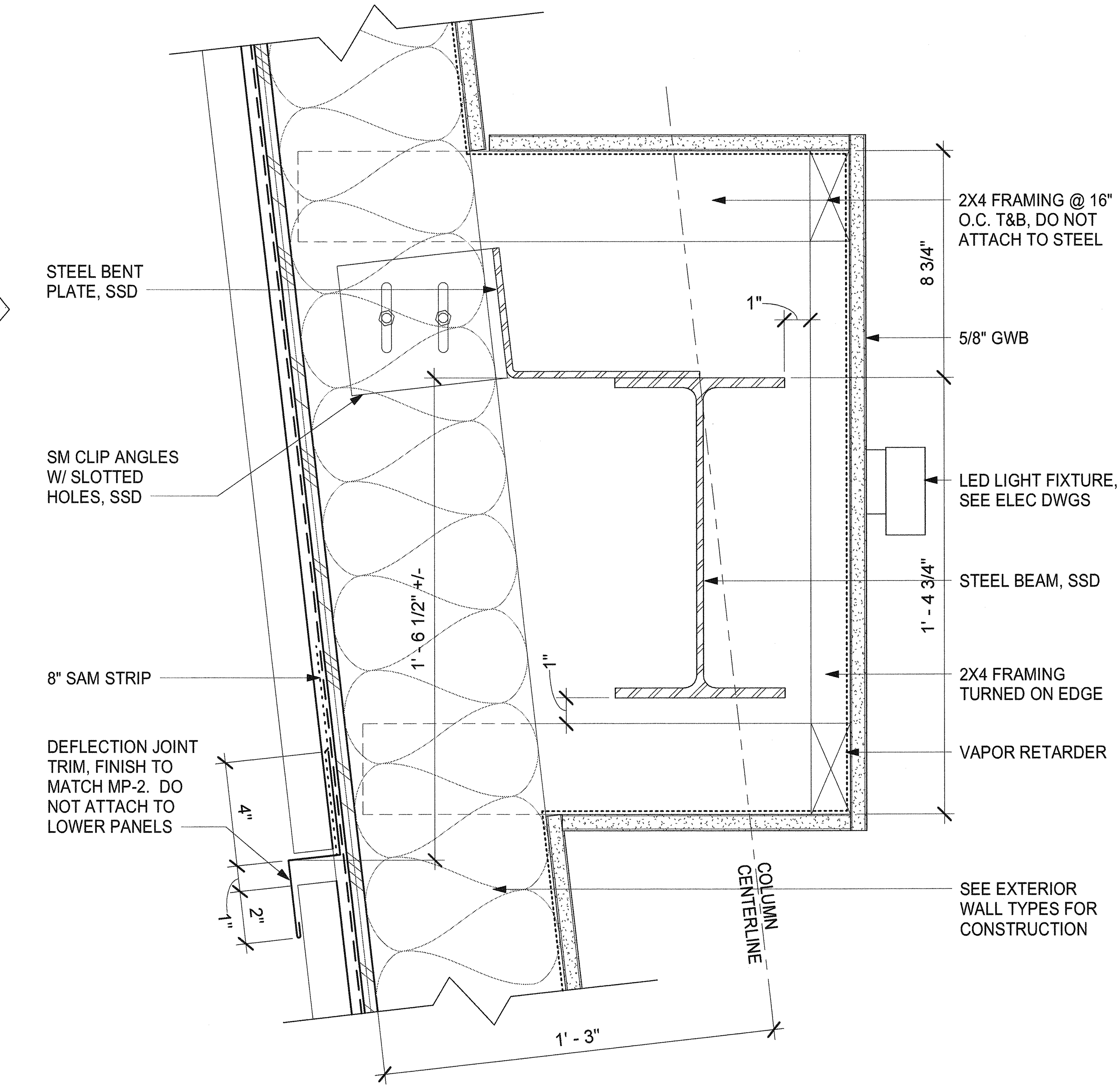
BINDING EDGE



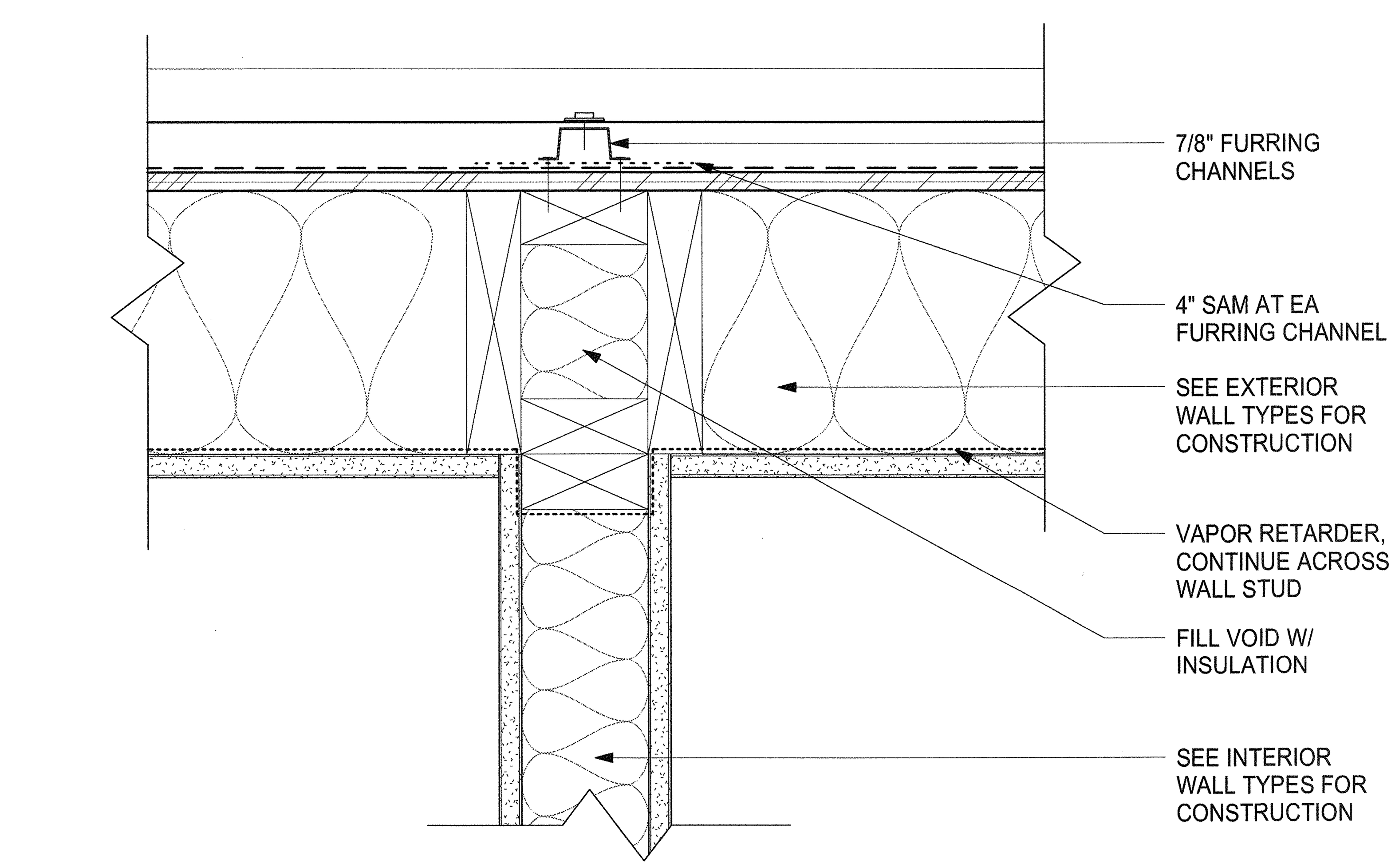
1 EXTERIOR WALL AT STAIR LANDING
3" = 1'-0"



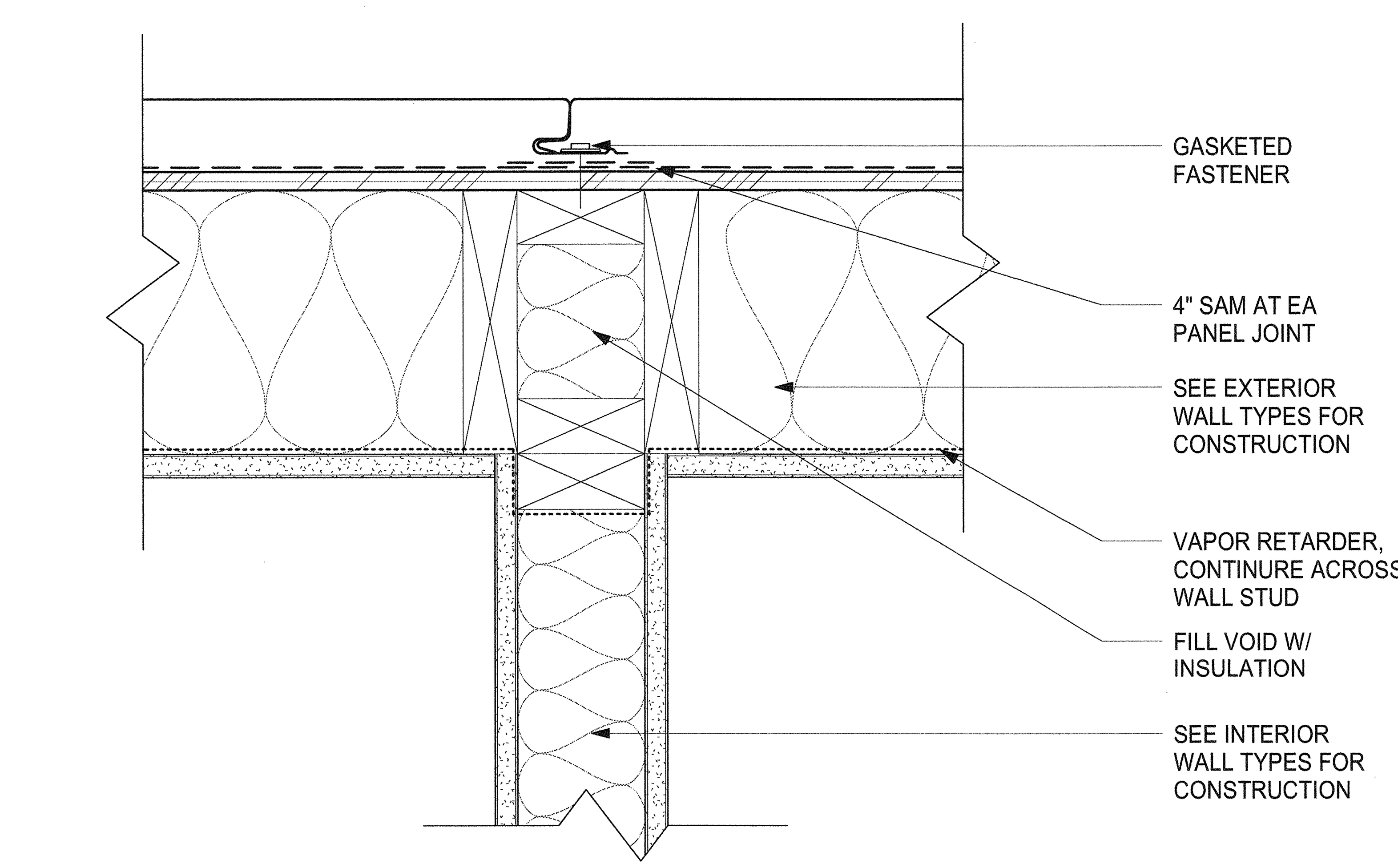
2 COLUMN AT STAIR LANDING
3" = 1'-0"



3 EXTERIOR SLOPED WALL AT BEAM
3" = 1'-0"



4 WOOD STUD WALL INTERSECTION AT MP-1
3" = 1'-0"



5 WOOD STUD WALL INTERSECTION AT MP-2
3" = 1'-0"

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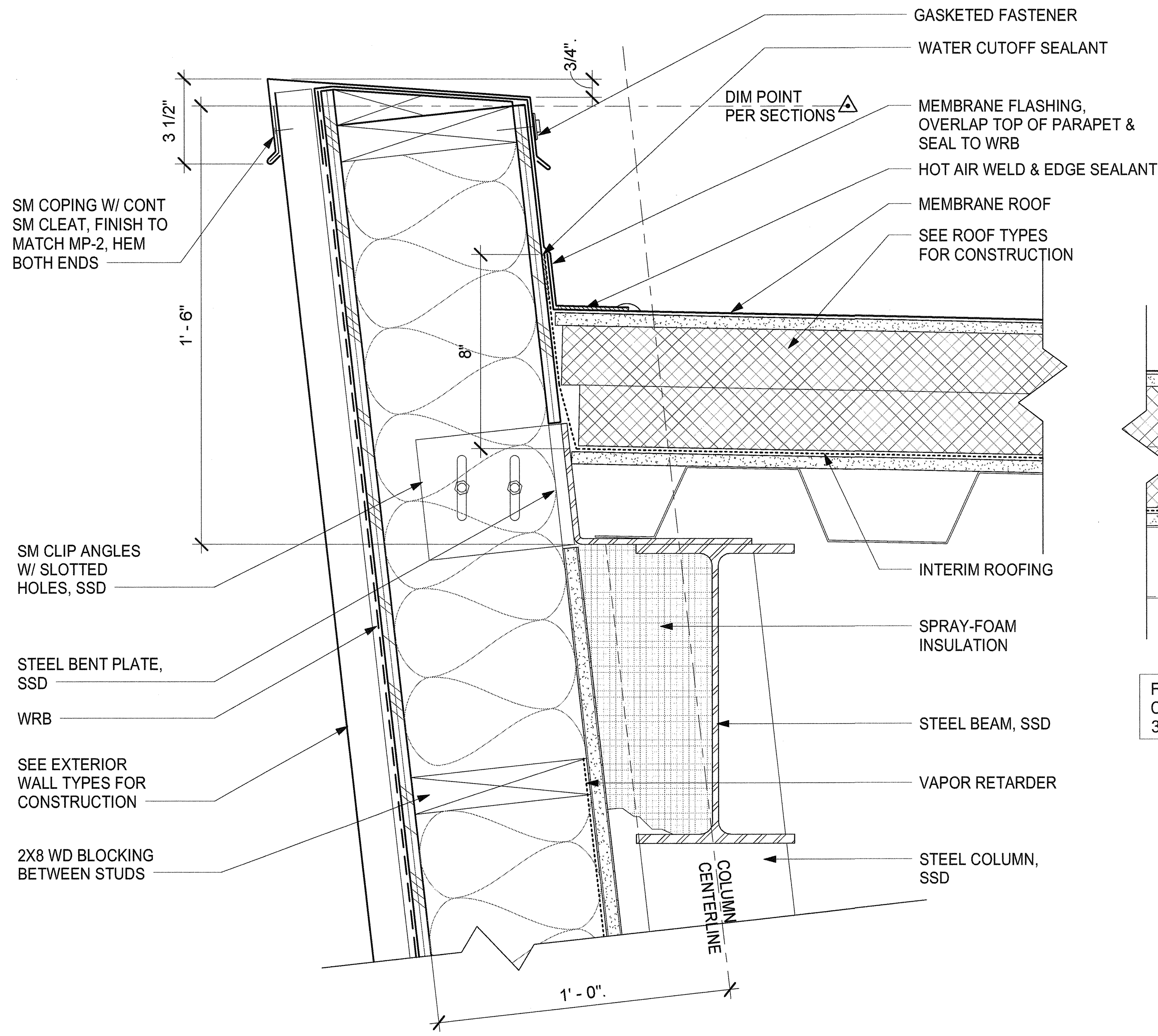
PIER 4 PHASE 2
MARINE BUILDING
EXTERIOR WALL DETAILS

TOWNSHIP:	RANGE:	SECTION:	
DAT-HRZ:	WA83-SF	VERT:	MLLW 19.39' @ TIDE 22 1933
PARCEL:		DRAWING SCALE:	AS NOTED

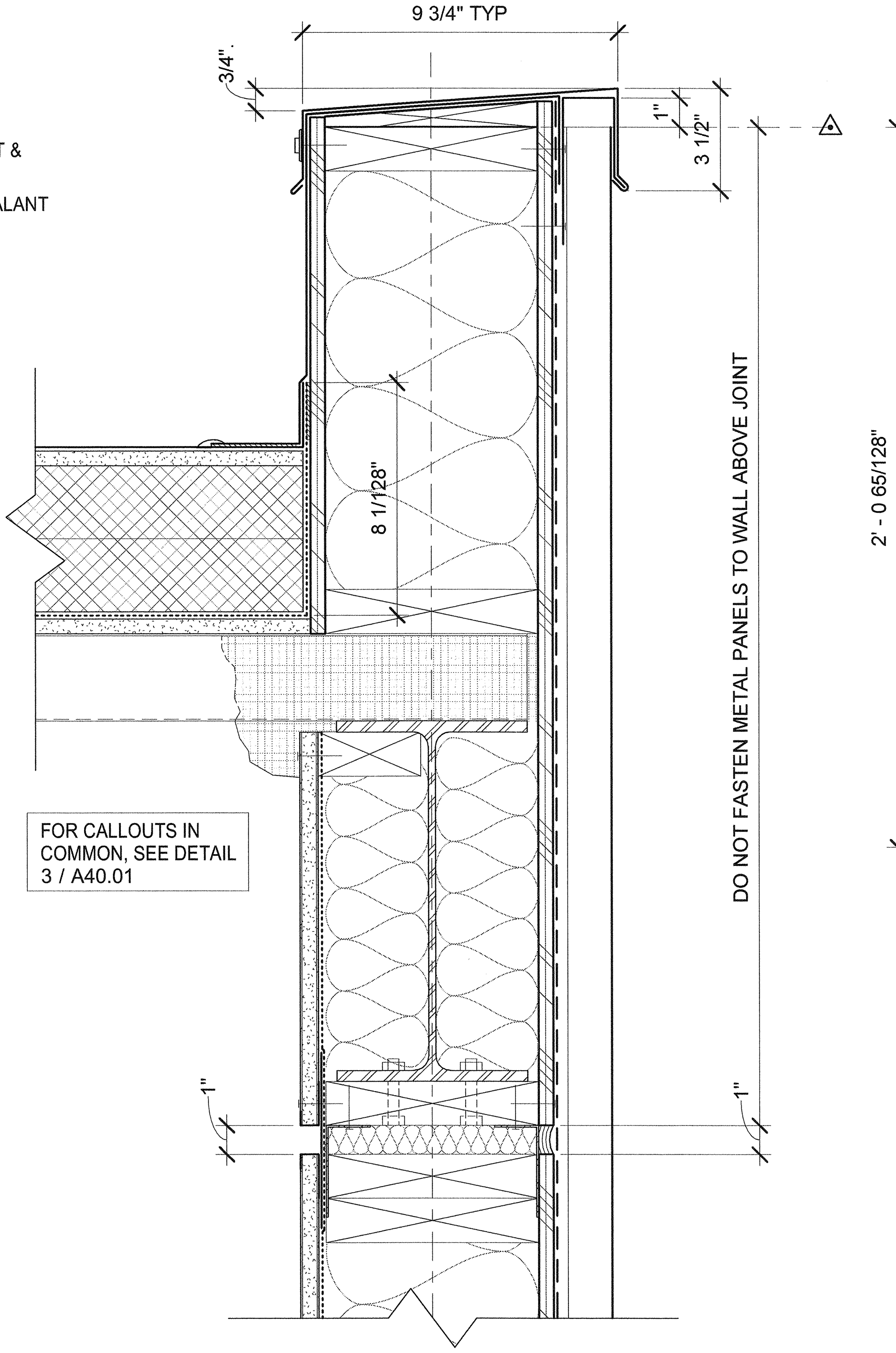
6552
A31.04
SH # 423 OF # 499

CONT/CONS:	070136
M. ID:	091251
PHASE:	BID

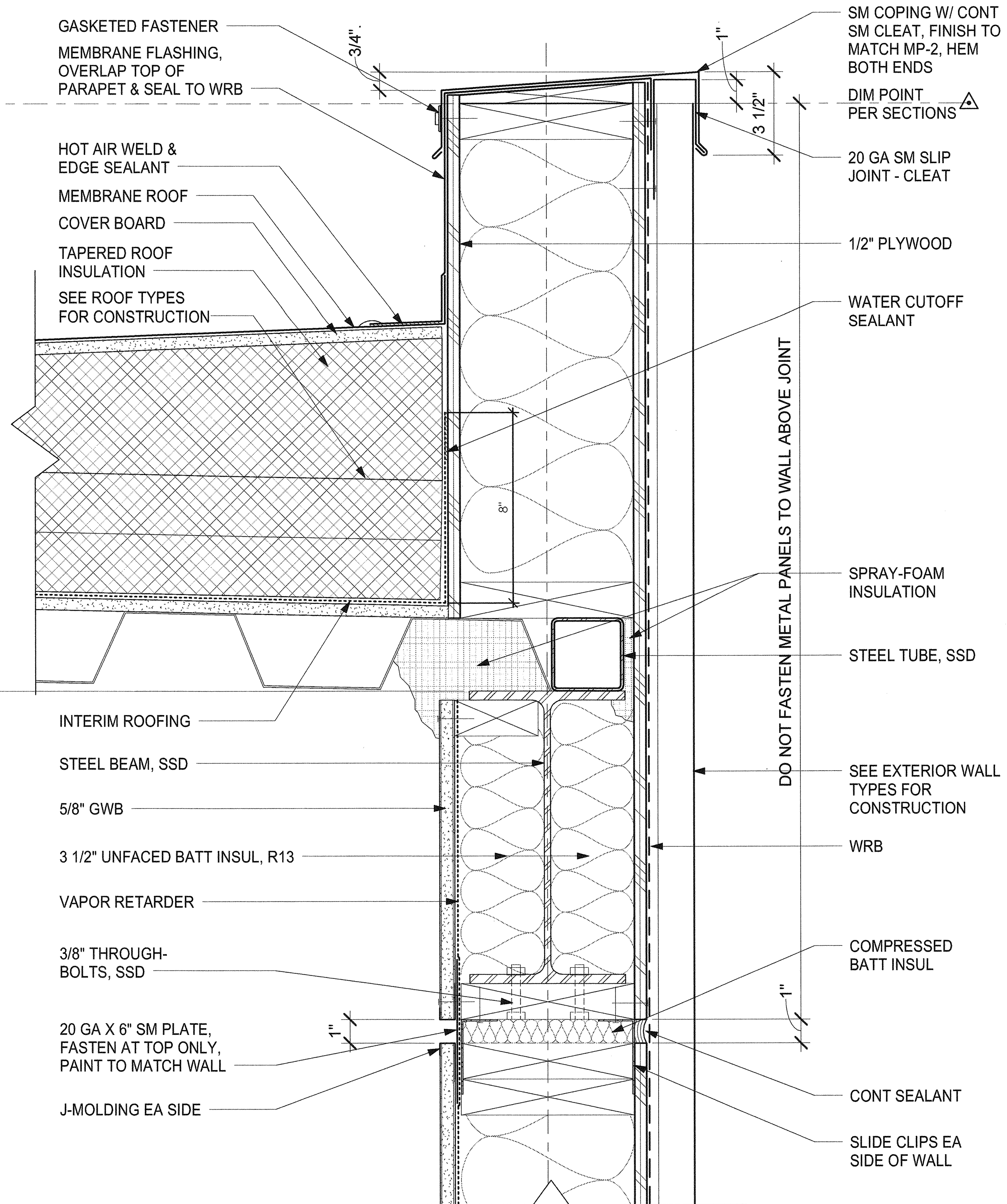
BINDING EDGE



1 ROOF TO SLOPED WALL
3" = 1'-0"

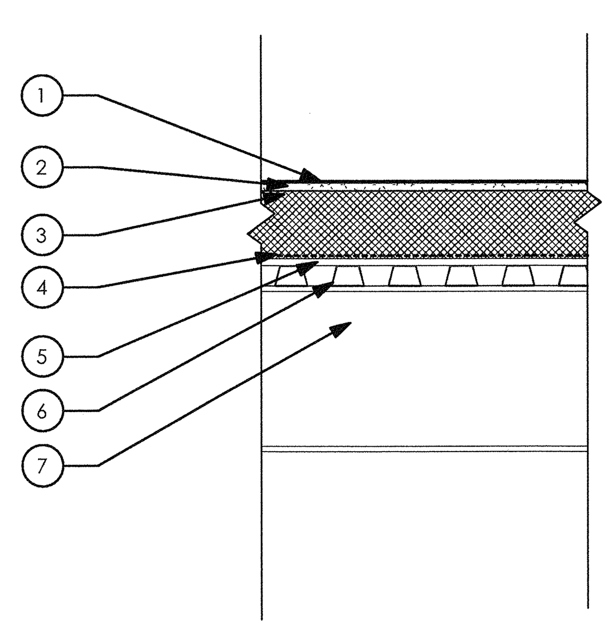


2 ROOF TO WALL
3" = 1'-0"



3 ROOF TO WALL
3" = 1'-0"

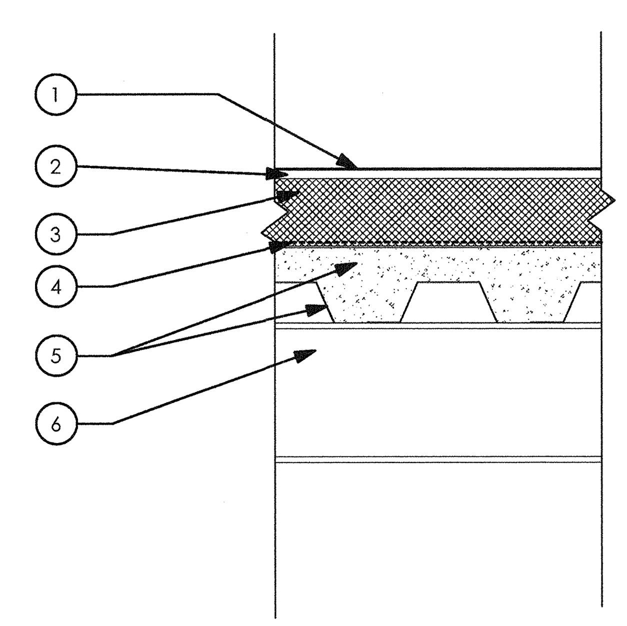
ROOF TYPE 'A'



ASSEMBLY

1. 60 MIL FULLY ADHERED PVC ROOFING SYSTEM
2. 5/8" COVERBOARD
3. RIGID INSULATION - 5" (R-30 MIN) TAPERED INSULATION AT CRICKETS OR WHERE STRUCTURE IS NOT SLOPED, SSD
4. VAPOR RETARDER, INTERIM ROOFING
5. 5/8" GYPSUM BASED SUBSTRATE BOARD
6. 3" METAL DECKING, SSD
7. STRUCTURE, SSD

ROOF TYPE 'B'



ASSEMBLY

1. 60 MIL FULLY ADHERED PVC ROOFING SYSTEM
2. 5/8" COVERBOARD
3. RIGID INSULATION - 5" (R-30 MIN) TAPERED INSULATION AT CRICKETS OR WHERE STRUCTURE IS NOT SLOPED, SSD
4. VAPOR RETARDER, INTERIM ROOFING
5. 2.5" CONCRETE SLAB ON 3" METAL DECK. FINISH W/ HPC WHERE EXPOSED TO VIEW
6. STRUCTURE, SSD

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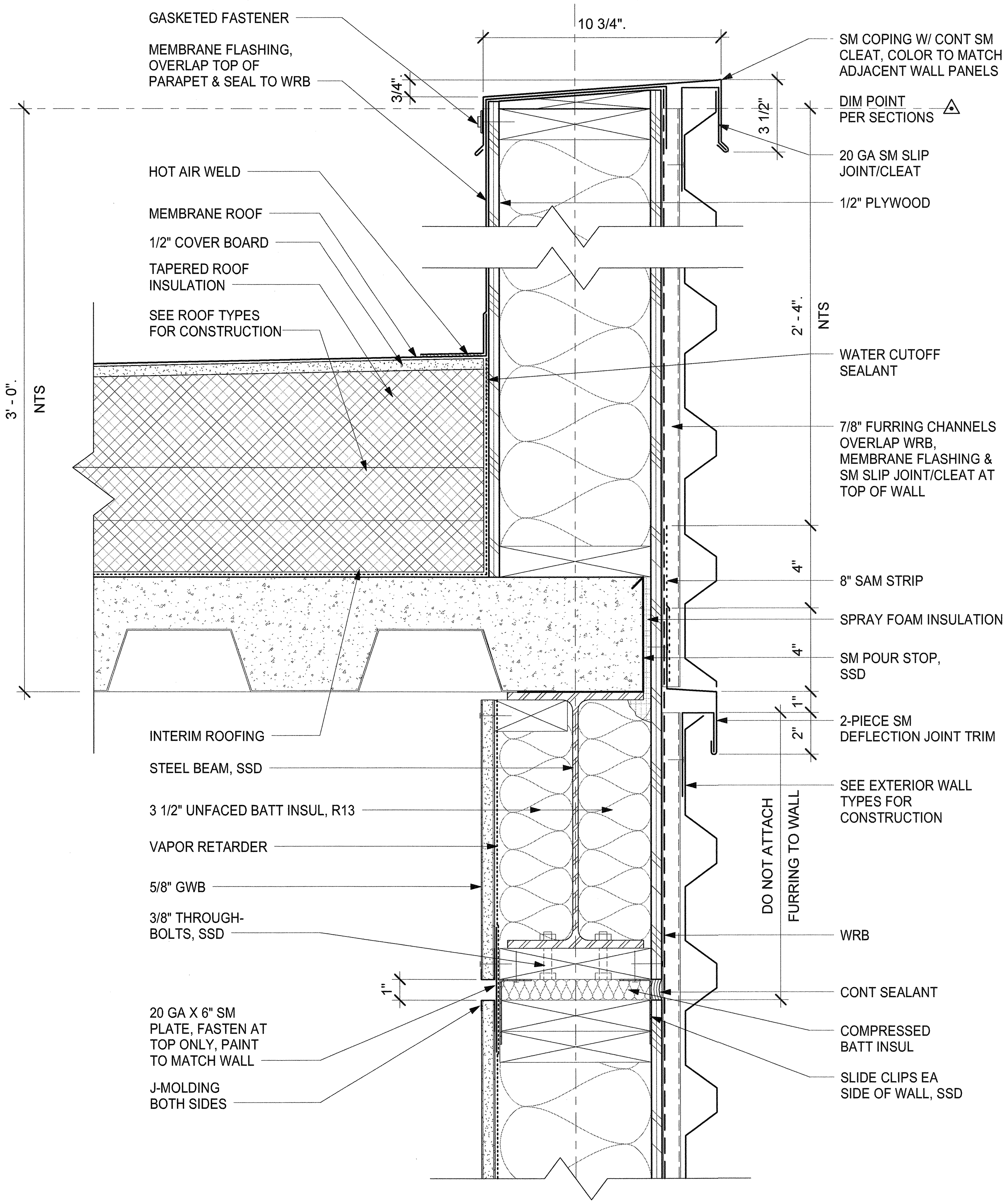
PIER 4 PHASE 2
MARINE BUILDING
ROOF DETAILS & ROOF TYPES

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:	DRAWING SCALE: AS NOTED	

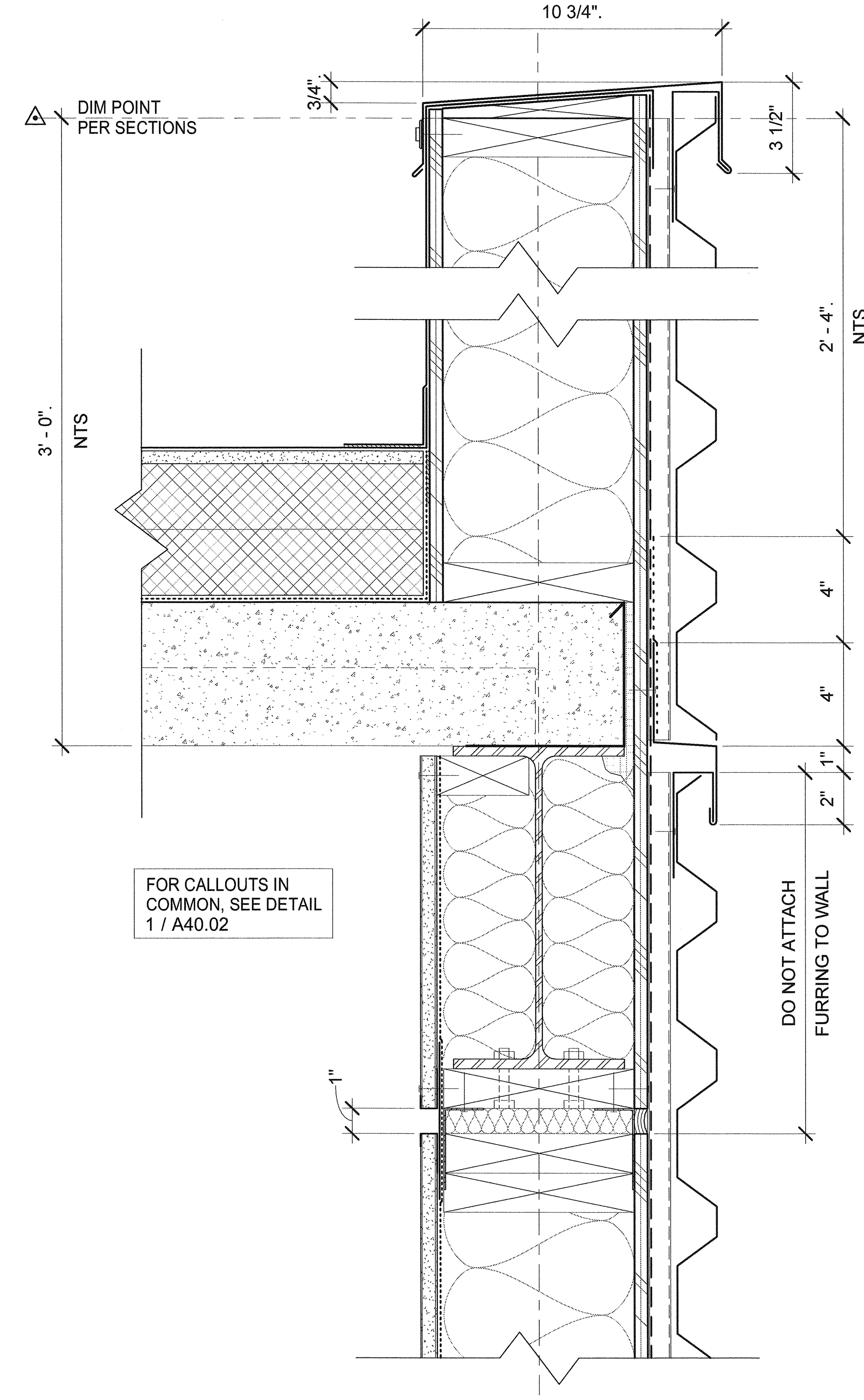
6552
A40.01
SH # 424 OF # 499

CONT/CONS:	070136
M. ID:	091251
PHASE:	BID

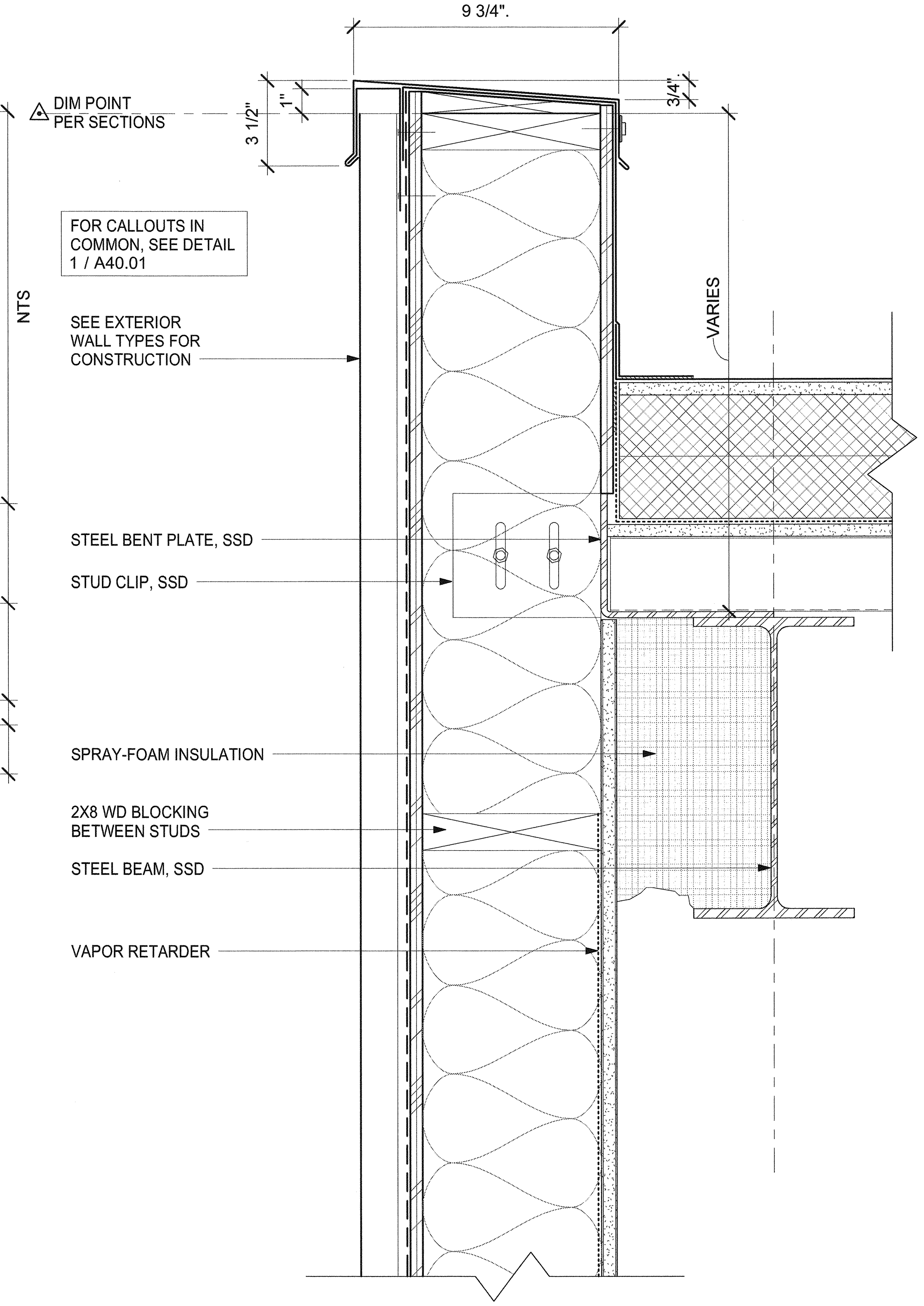
BINDING EDGE



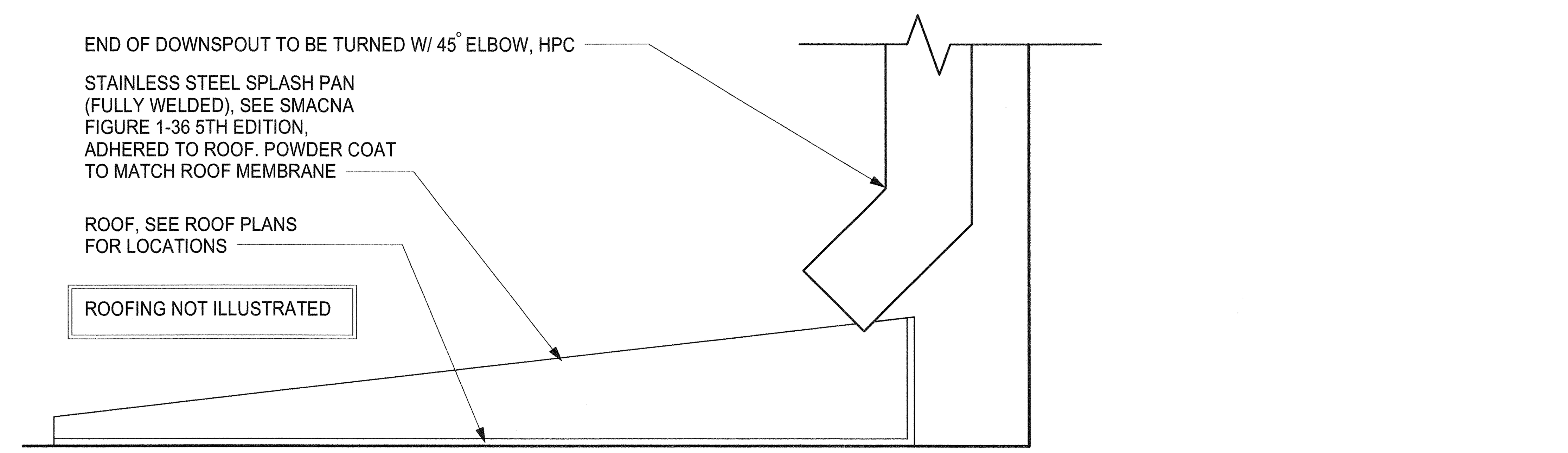
1 ROOF TO WALL
3" = 1'-0"



2 ROOF TO WALL
3" = 1'-0"



3 ROOF TO WALL
3" = 1'-0"



4 SPLASH BLOCK DETAIL
3" = 1'-0"

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PIER 4 PHASE 2
MARINE BUILDING
ROOF DETAILS

TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

6552
A40.02
SH # 425 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

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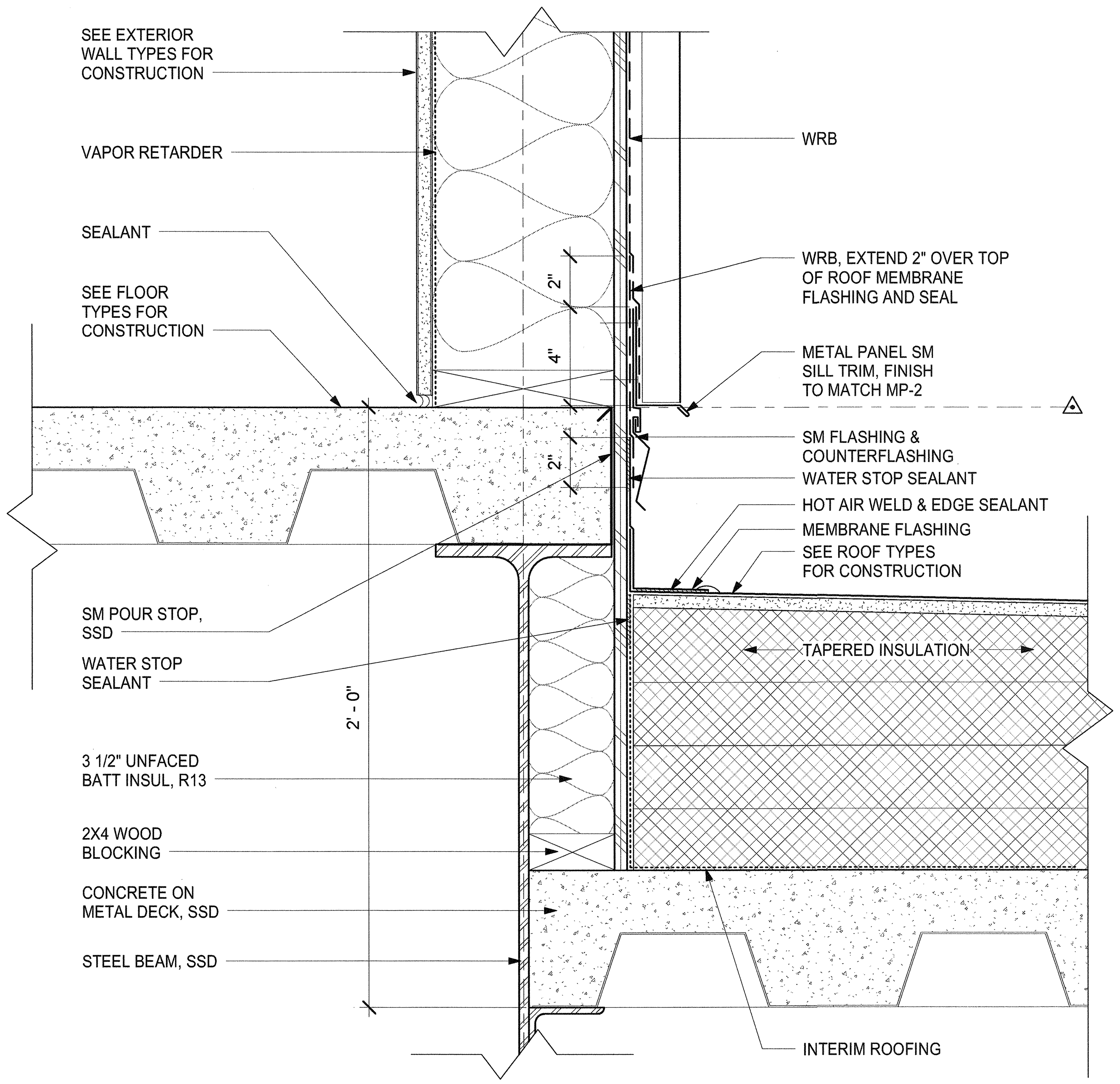
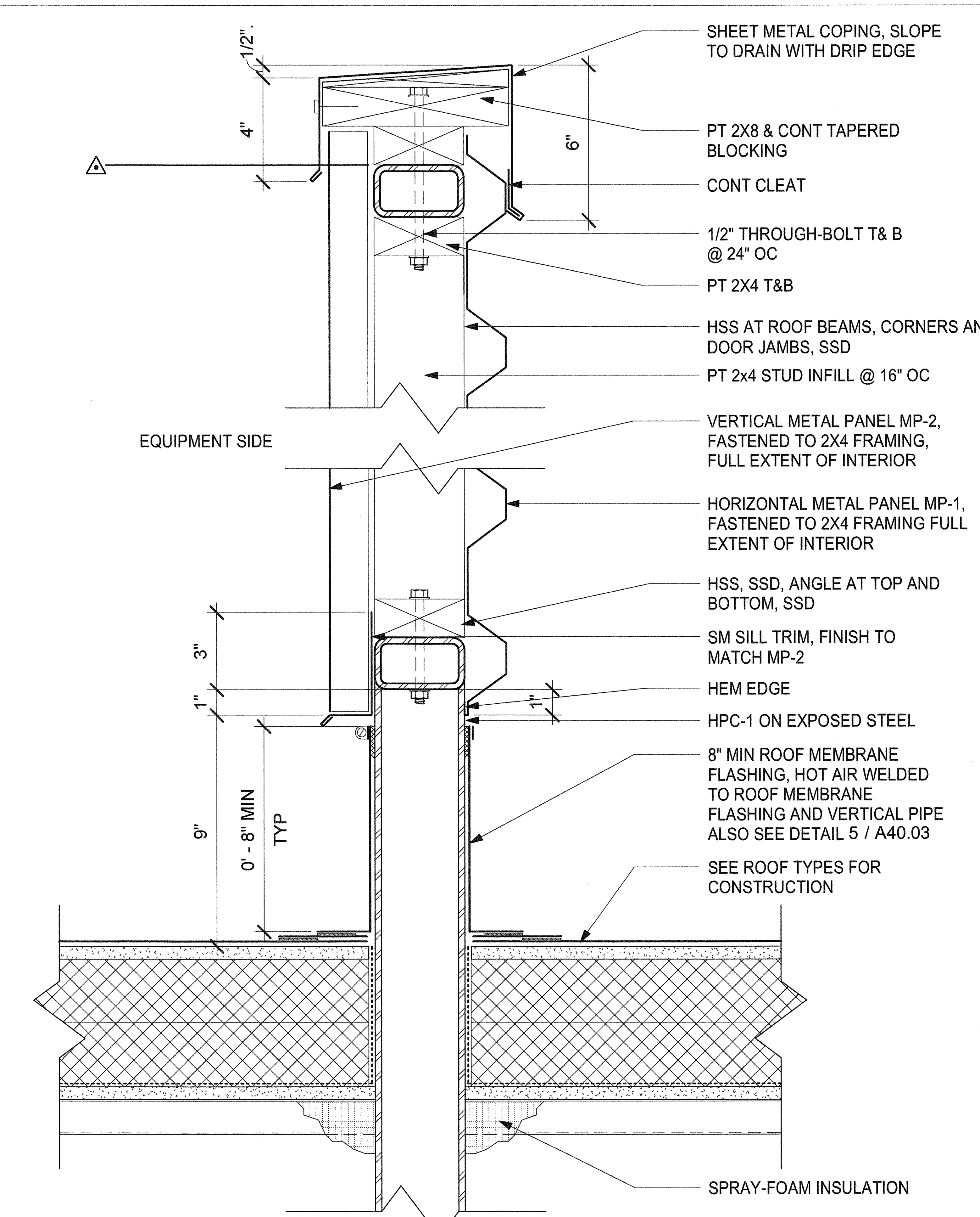
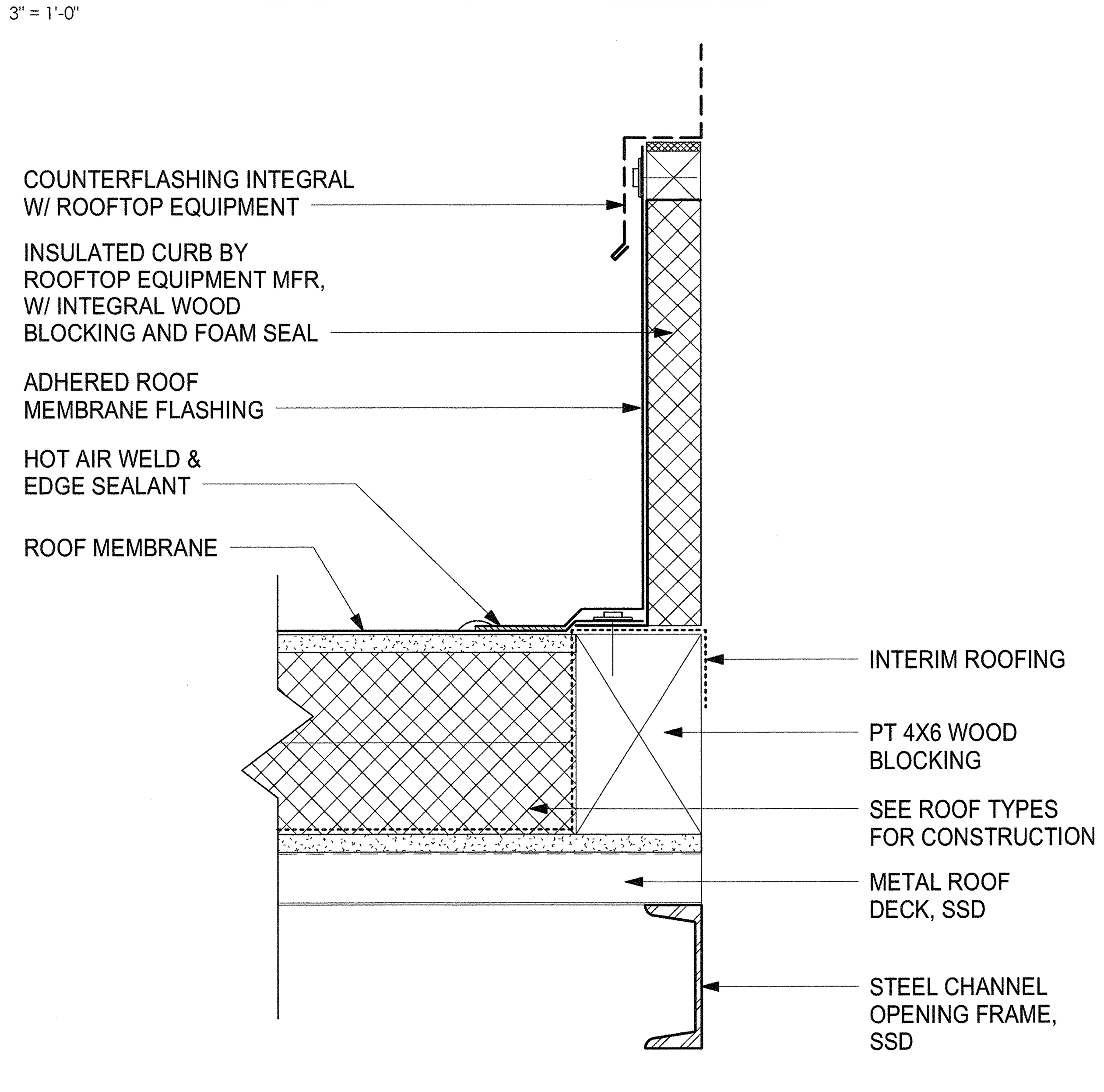


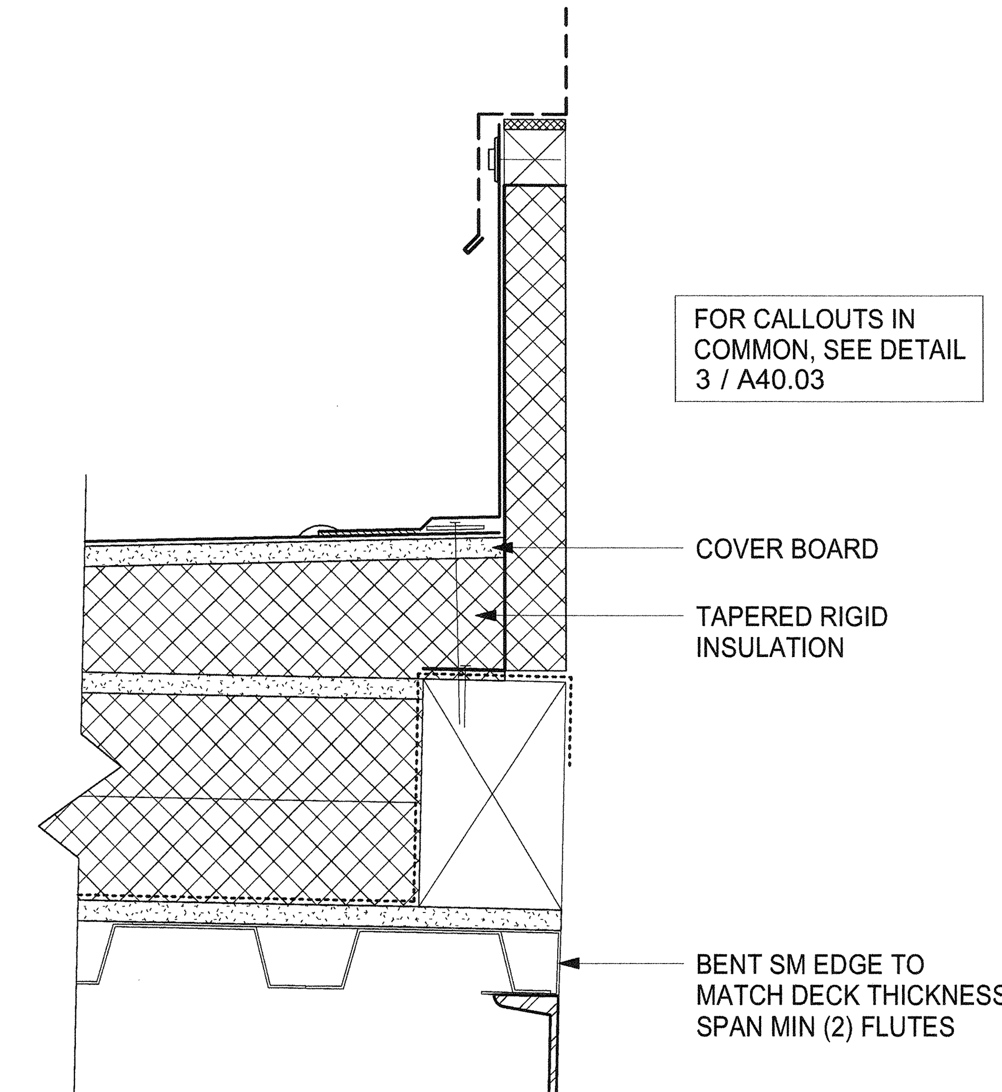
1 ROOF TO FLOOR
3" = 1'-0"



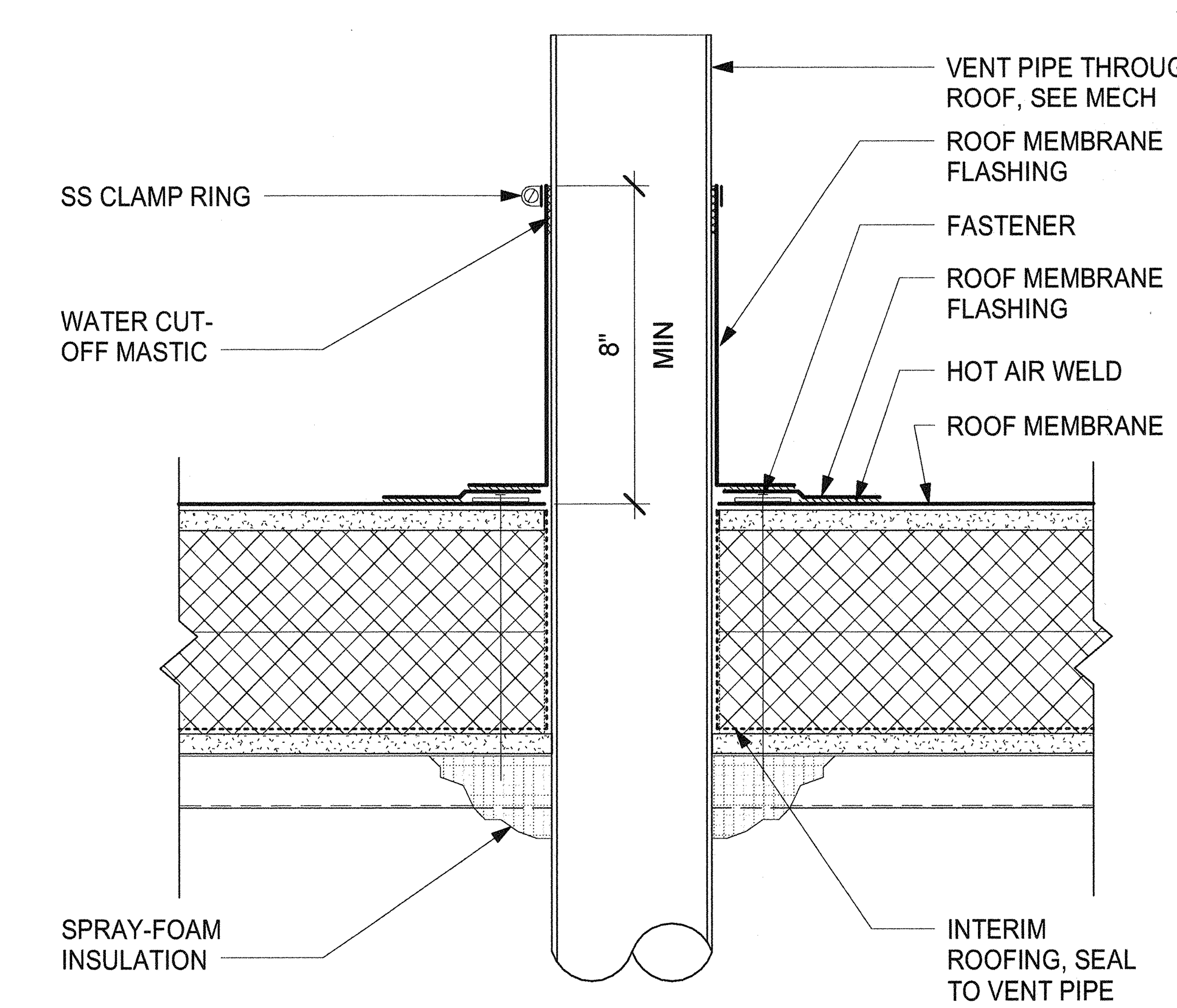
2 MECHANICAL SCREEN
3" = 1'-0"



3 ROOF CURB
3" = 1'-0"



4 ROOF CURB W/ CRICKET
3" = 1'-0"



5 VENT PIPE THROUGH ROOF
3" = 1'-0"

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PIER 4 PHASE 2
MARINE BUILDING
ROOF DETAILS

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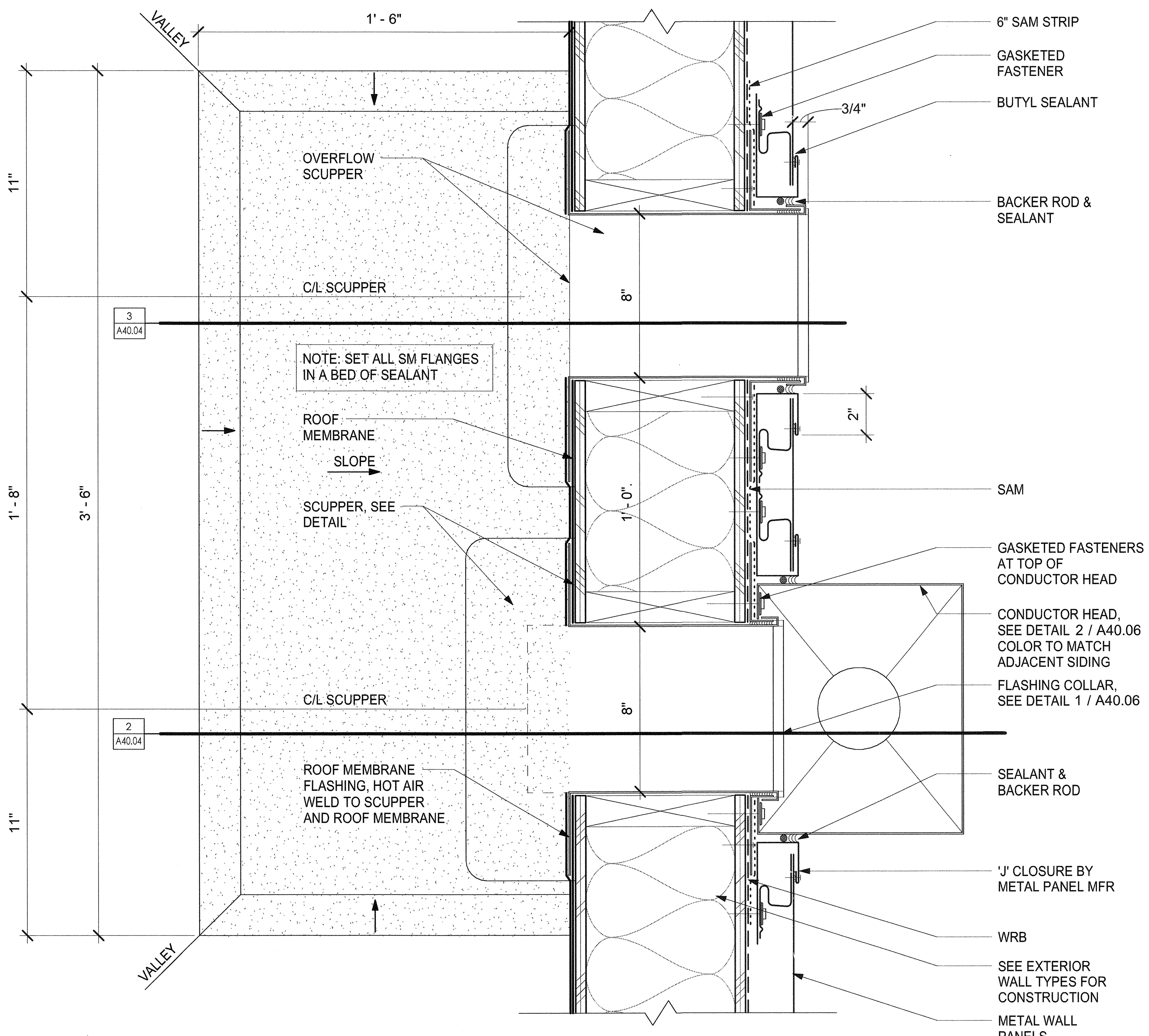
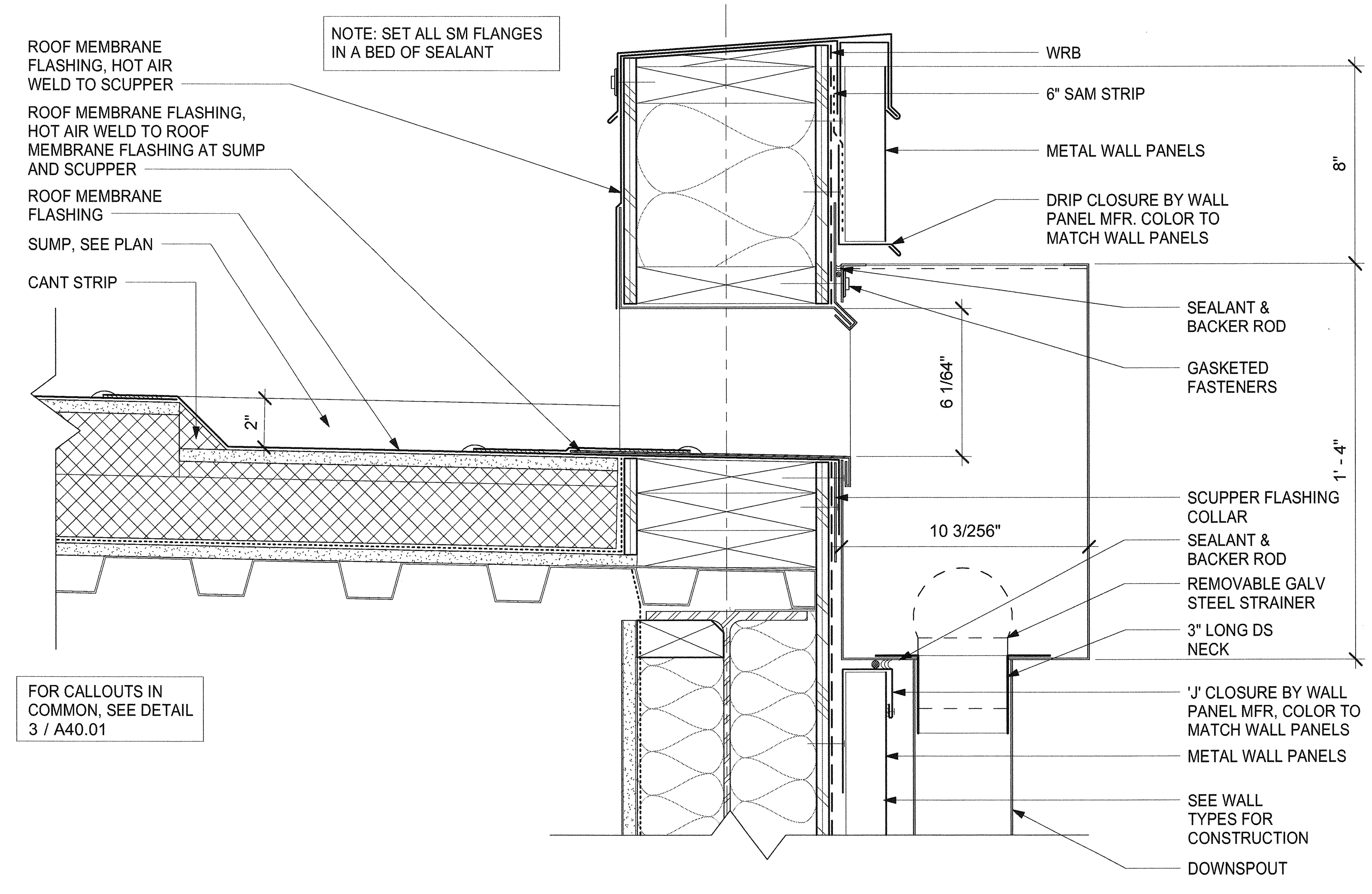
DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: | DRAWING SCALE: AS NOTED

6552
A40.03
SH # 426 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

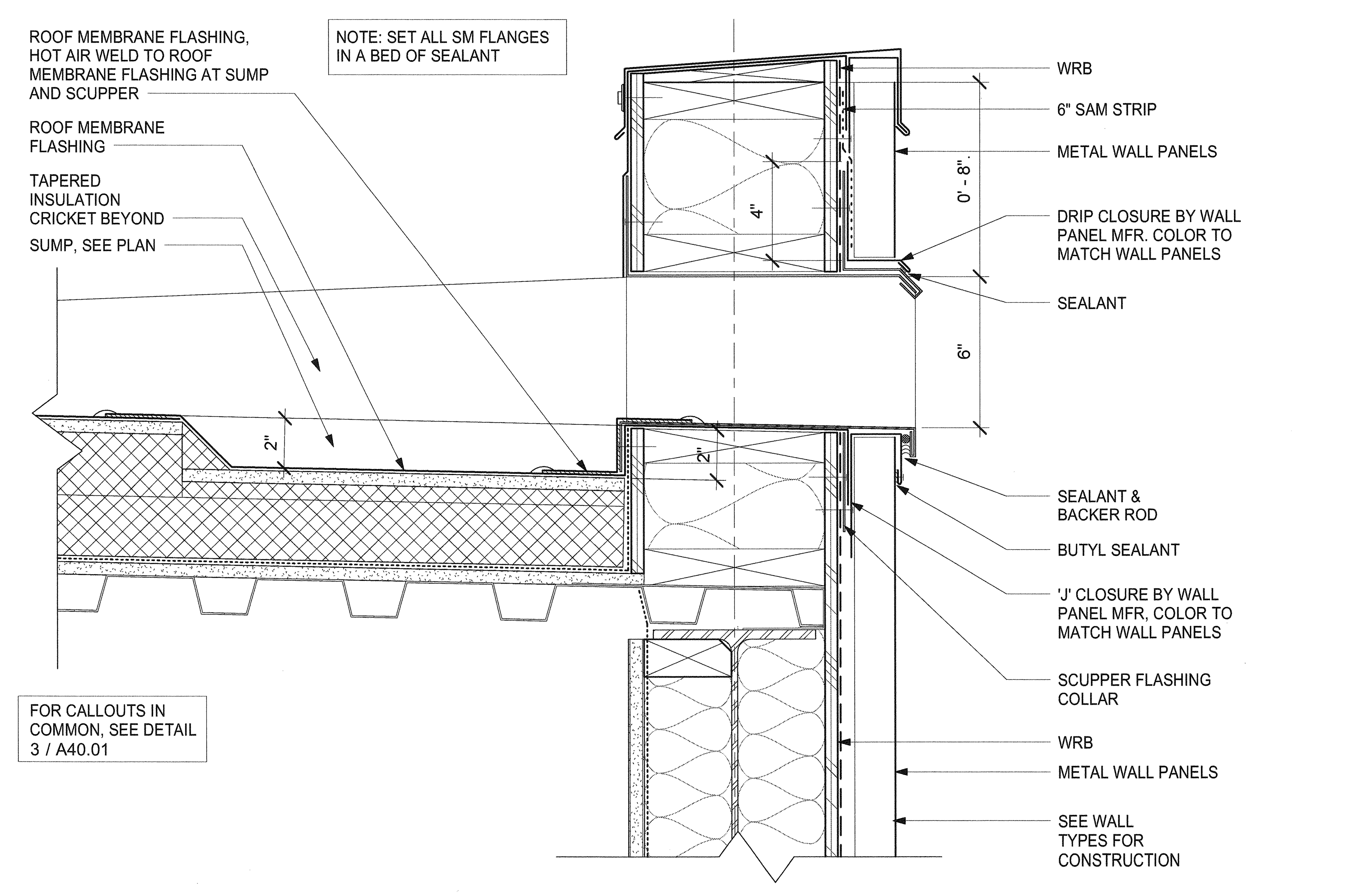
BINDING EDGE



1 SCUPPER PAN @ MP-2
3" = 1'-0"



2 SCUPPER AT DOWNSPOUT & CONDUCTOR @ MP-2
3" = 1'-0"



3 OVERFLOW SCUPPER @ MP-2
3" = 1'-0"

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PIER 4 PHASE 2 MARINE BUILDING
ROOF DETAILS

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DAT-HRZ: WA83-SF	VERT:	MLLW 19.39' @ TIDE 22 1933	
PARCEL:		DRAWING SCALE:	AS NOTED

6552
A40.04
SH # 427 OF # 499

CONT/CONS:	070136
M. ID:	091251
PHASE:	BID

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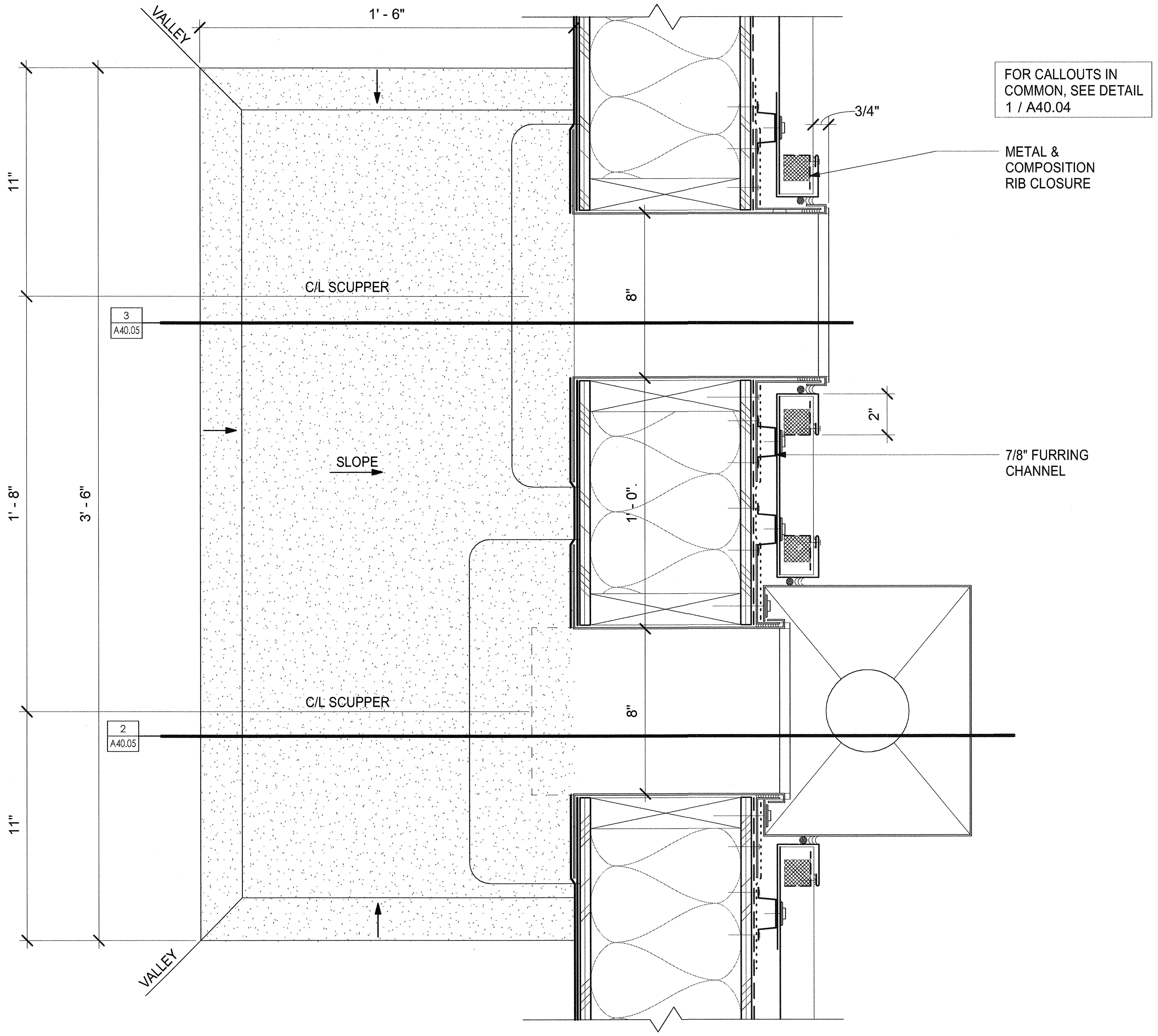
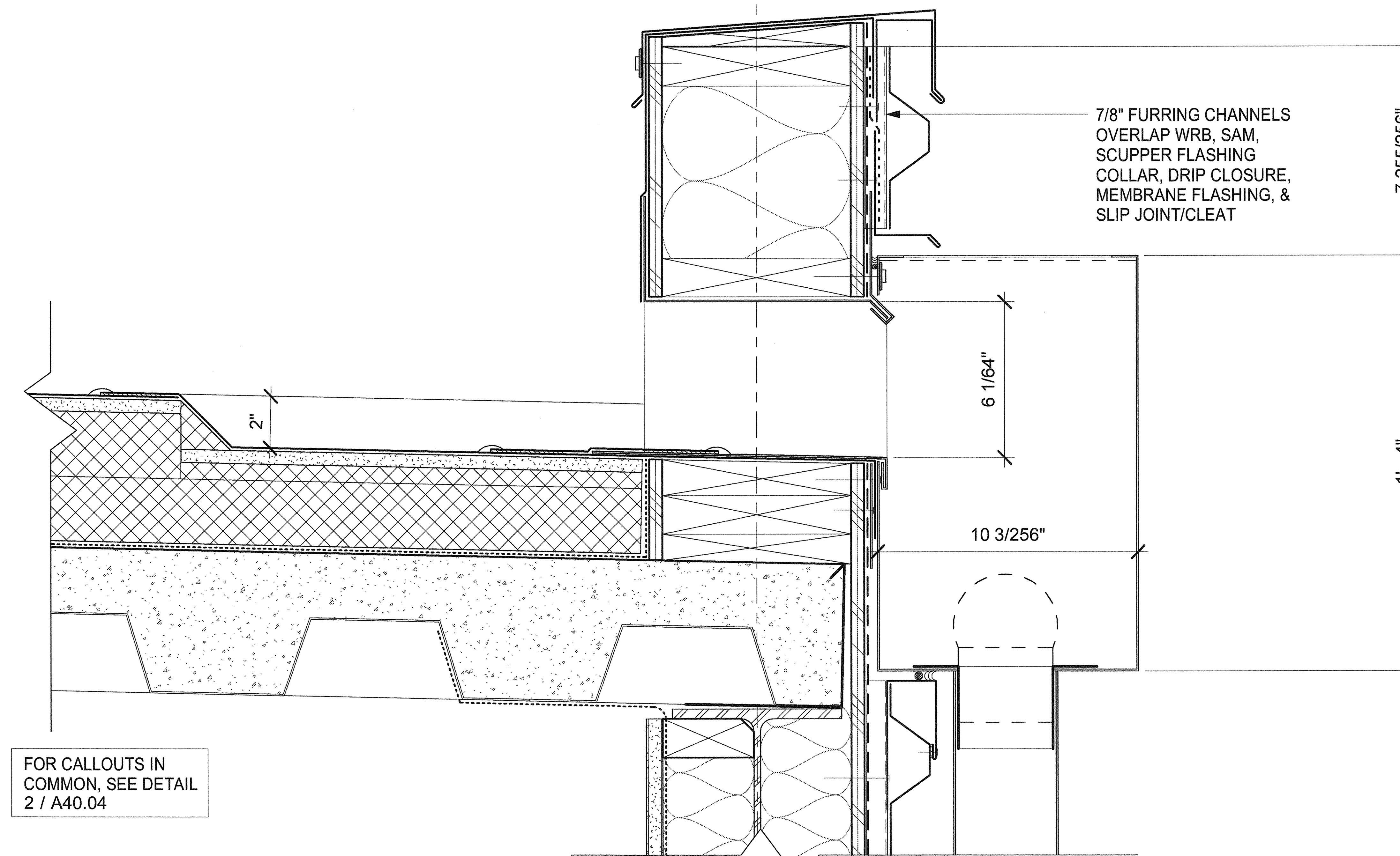


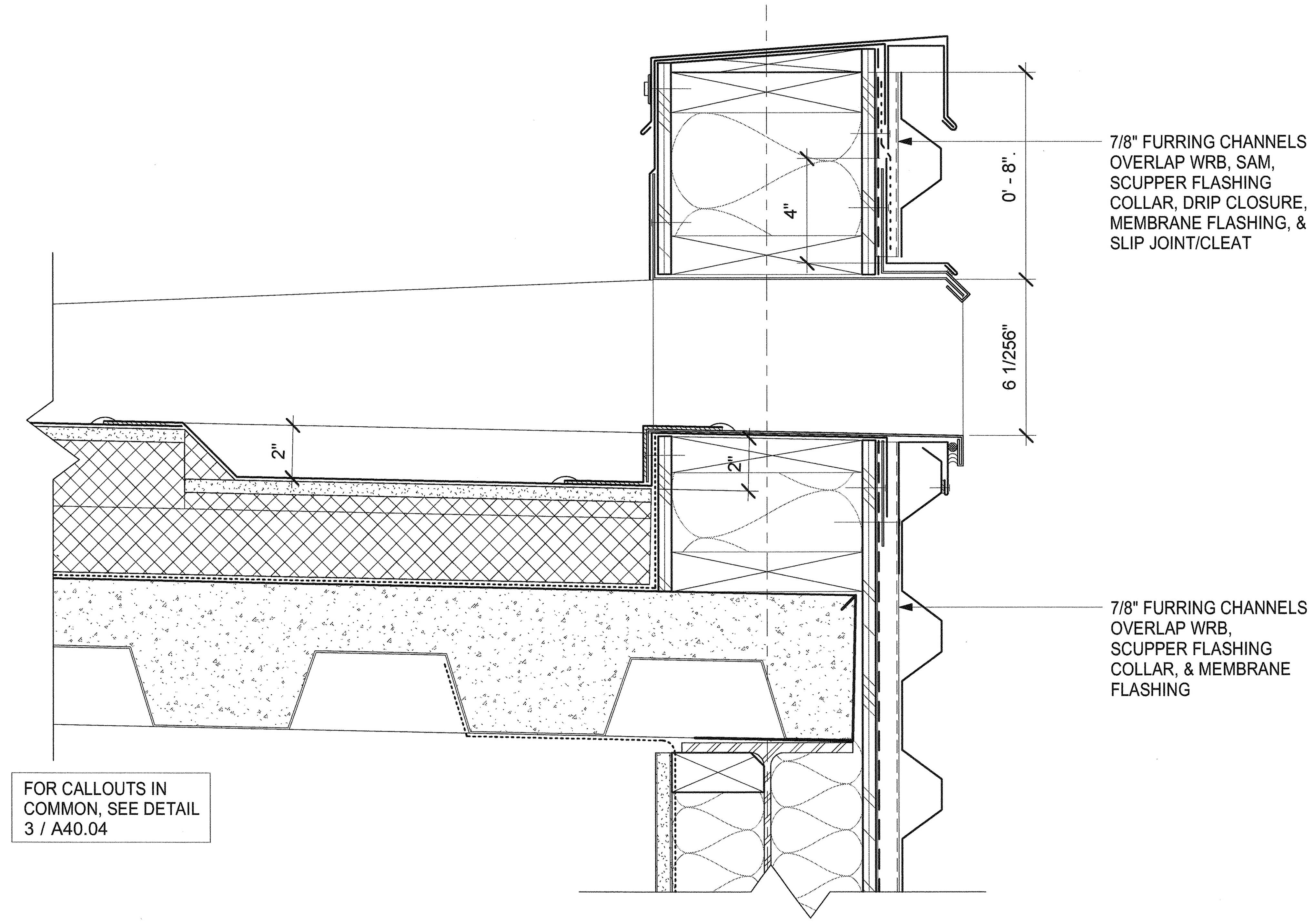
1 SCUPPER PAN @ MP-1

3" = 1'-0"



2 SCUPPER @ MP-1

3" = 1'-0"



3 OVERFLOW SCUPPER @ MP-1

3" = 1'-0"

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PIER 4 PHASE 2
MARINE BUILDING
ROOF DETAILS

TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

6552
A40.05
SH # 428 OF # 499

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

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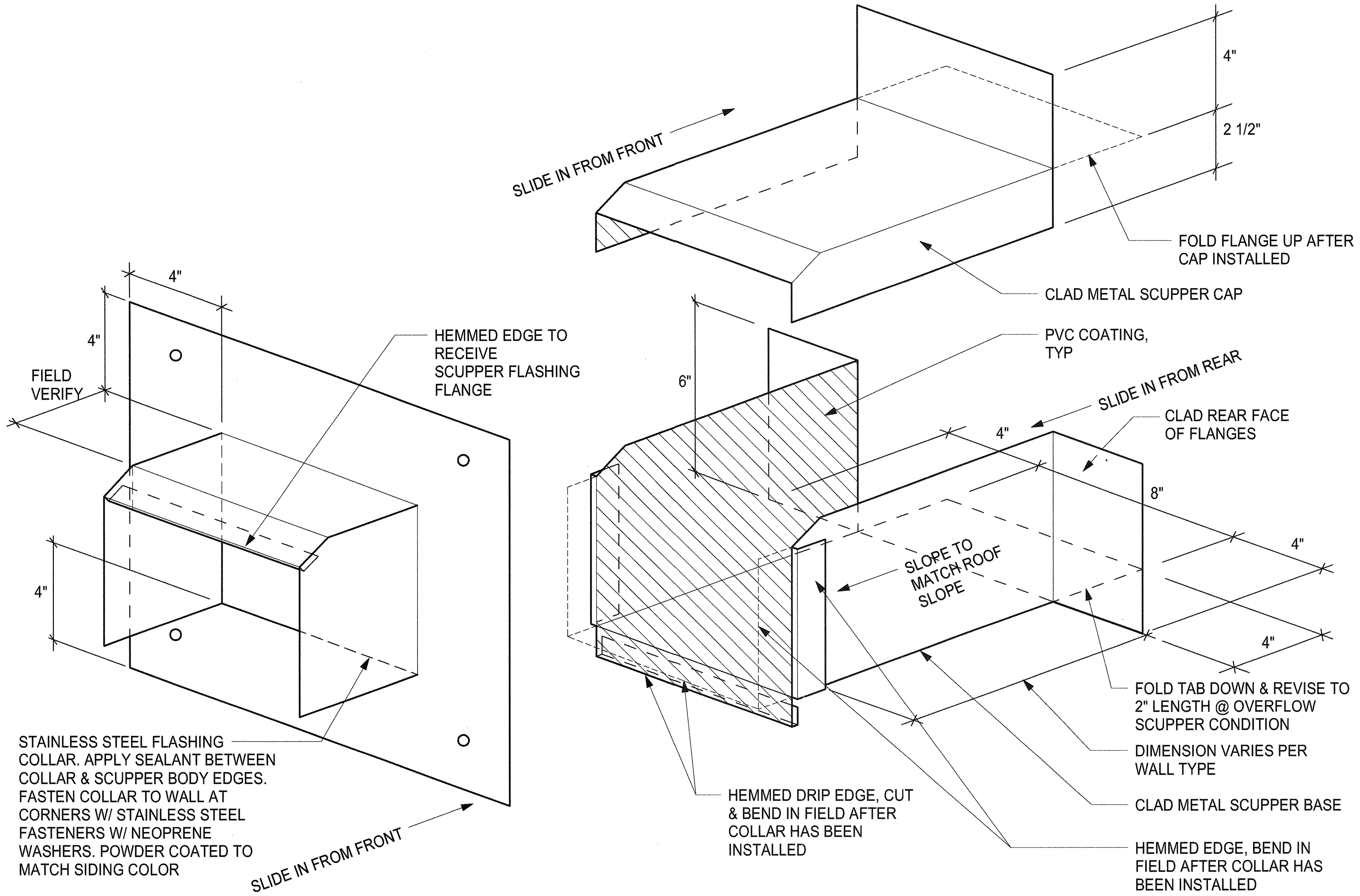
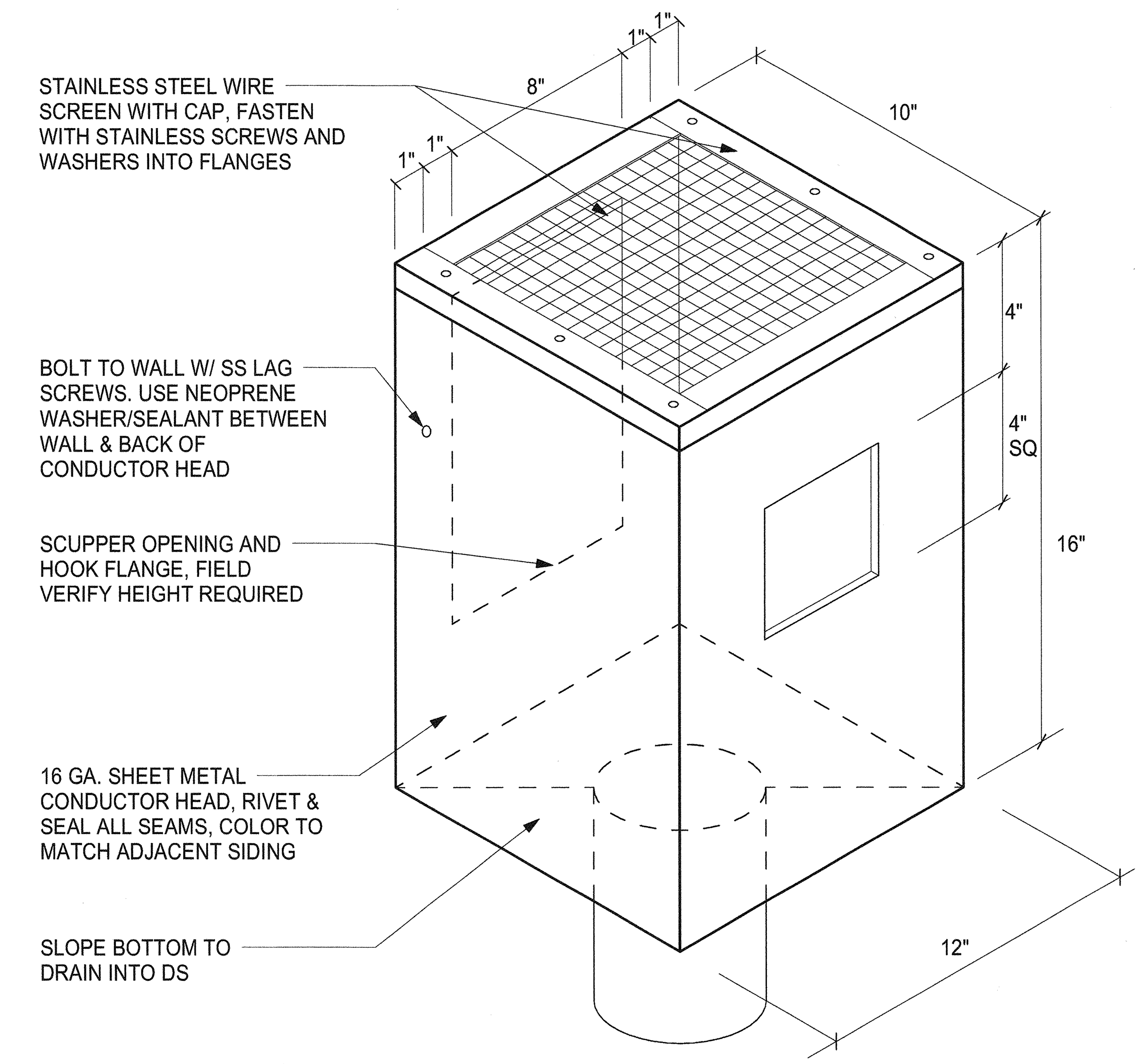


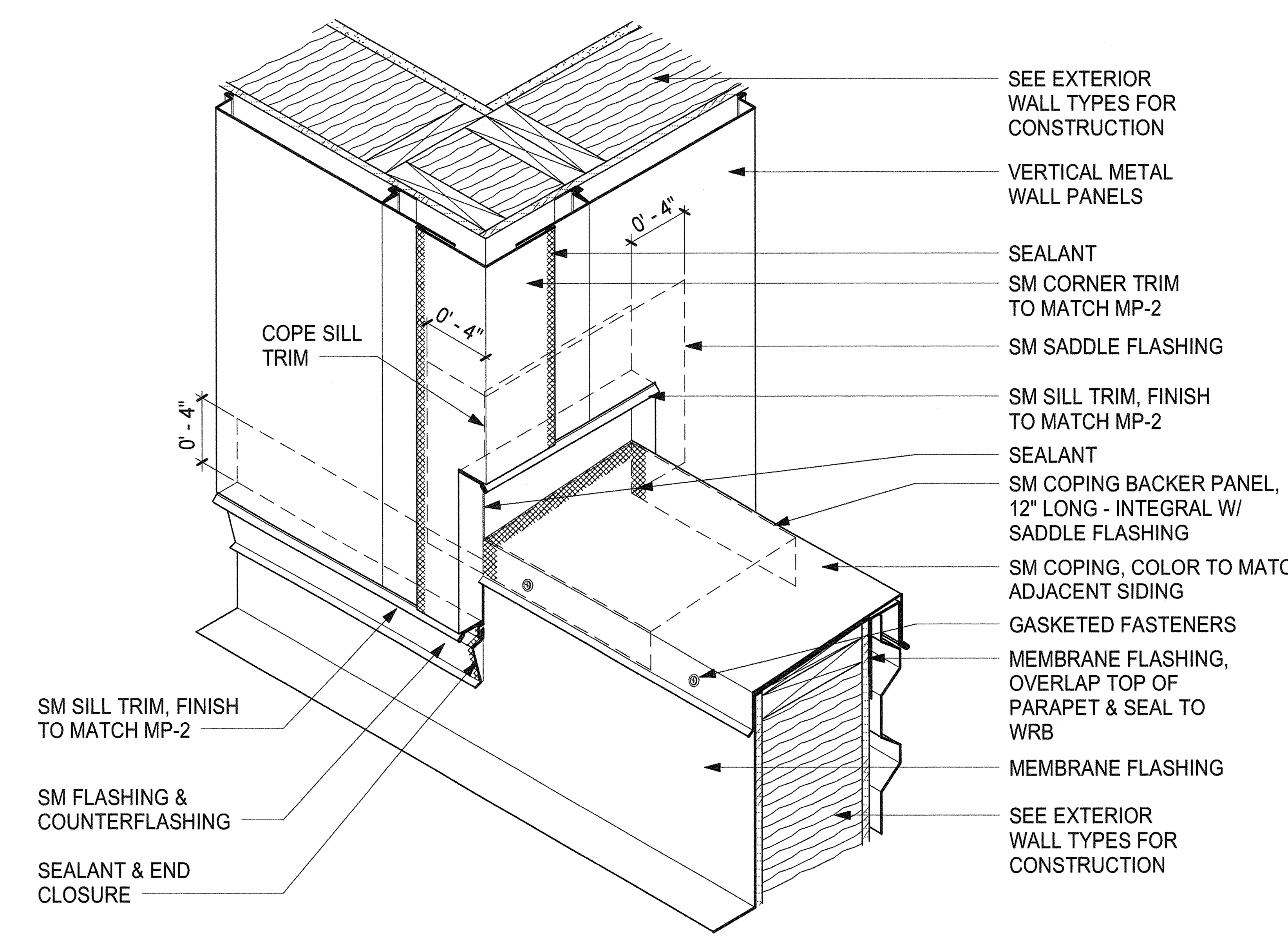
1 SCUPPER ISOMETRIC

3" = 1'-0"



2 CONDUCTOR HEAD ISOMETRIC

3" = 1'-0"



3 PARAPET AT CORNER

1 1/2" = 1'-0"

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PIER 4 PHASE 2
MARINE BUILDING
ROOF DETAILS

TOWNSHIP:	RANGE:	SECTION:	PRINTED BY:
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SH # 429 OF # 499

CONT/CONS: 070136
M. ID: 091251
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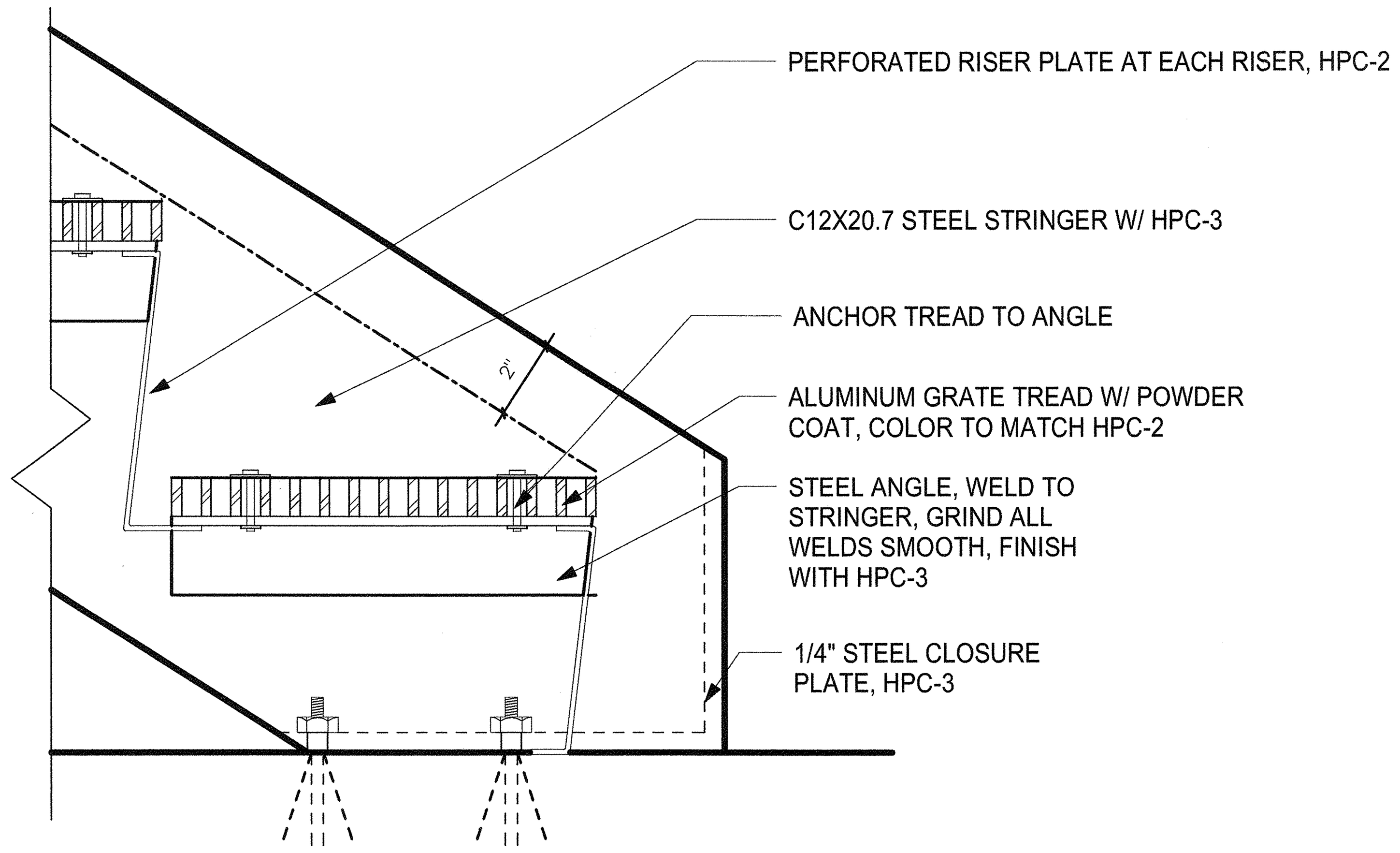
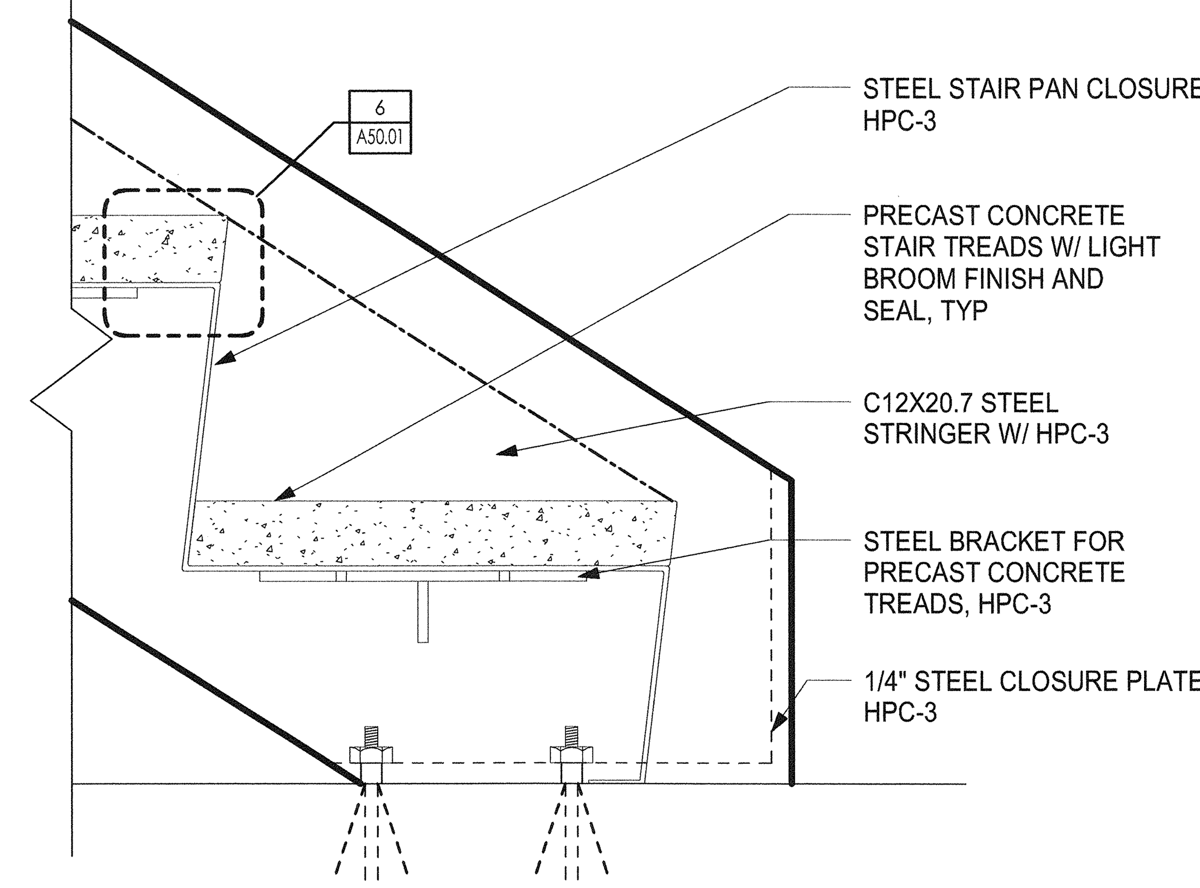
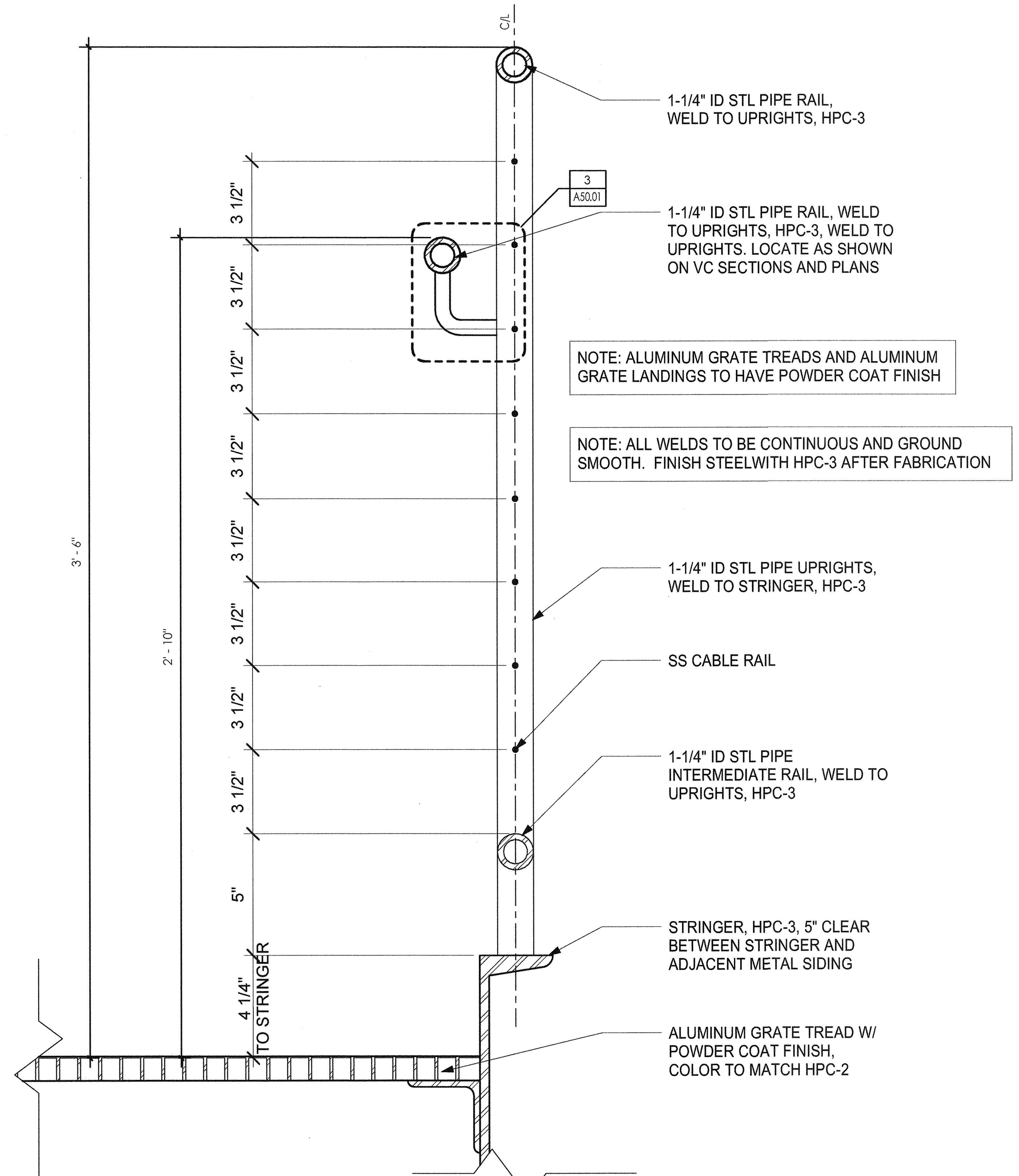
BINDING EDGE



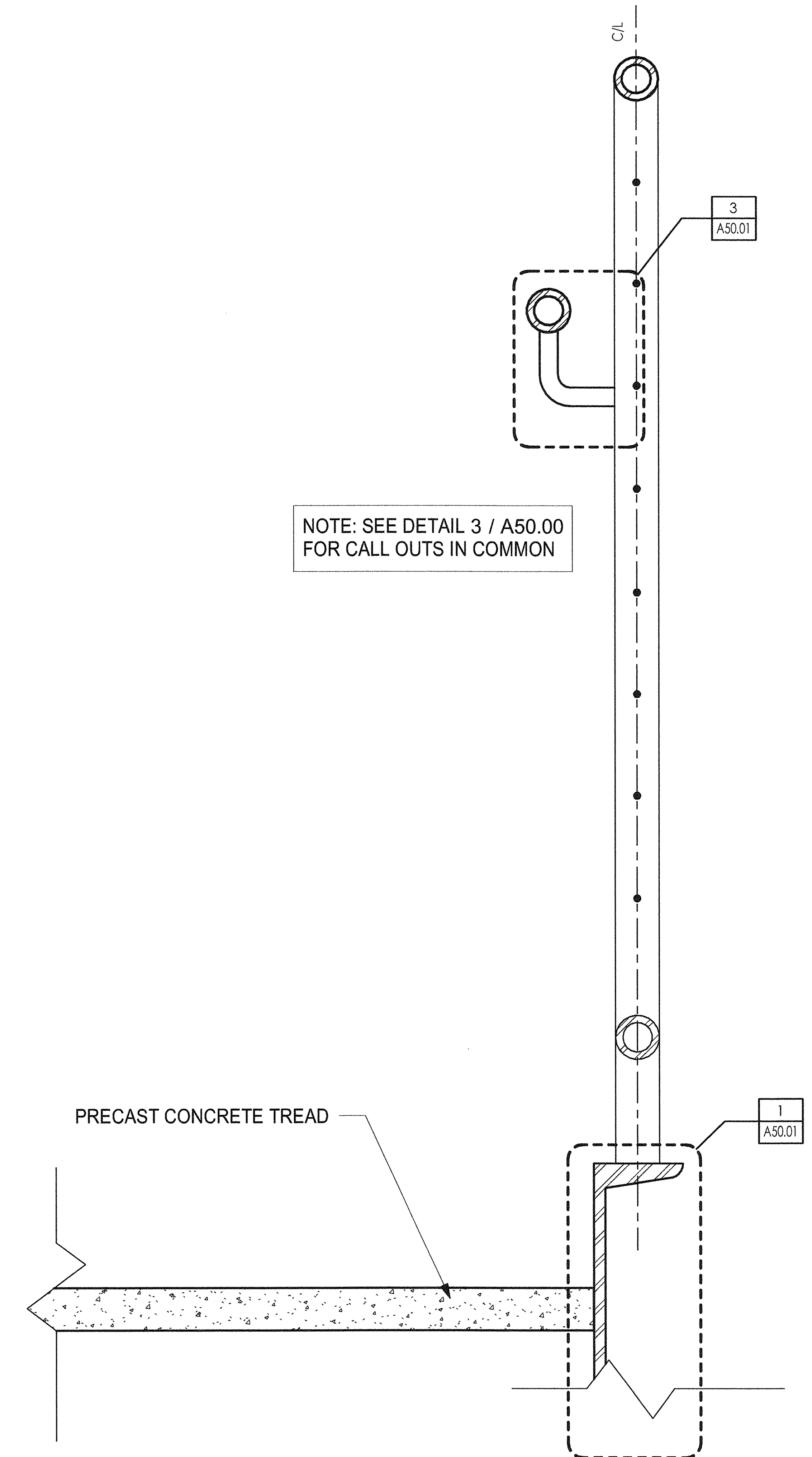
1 TREAD DETAIL - EXTERIOR STAIR
3" = 1'-0"



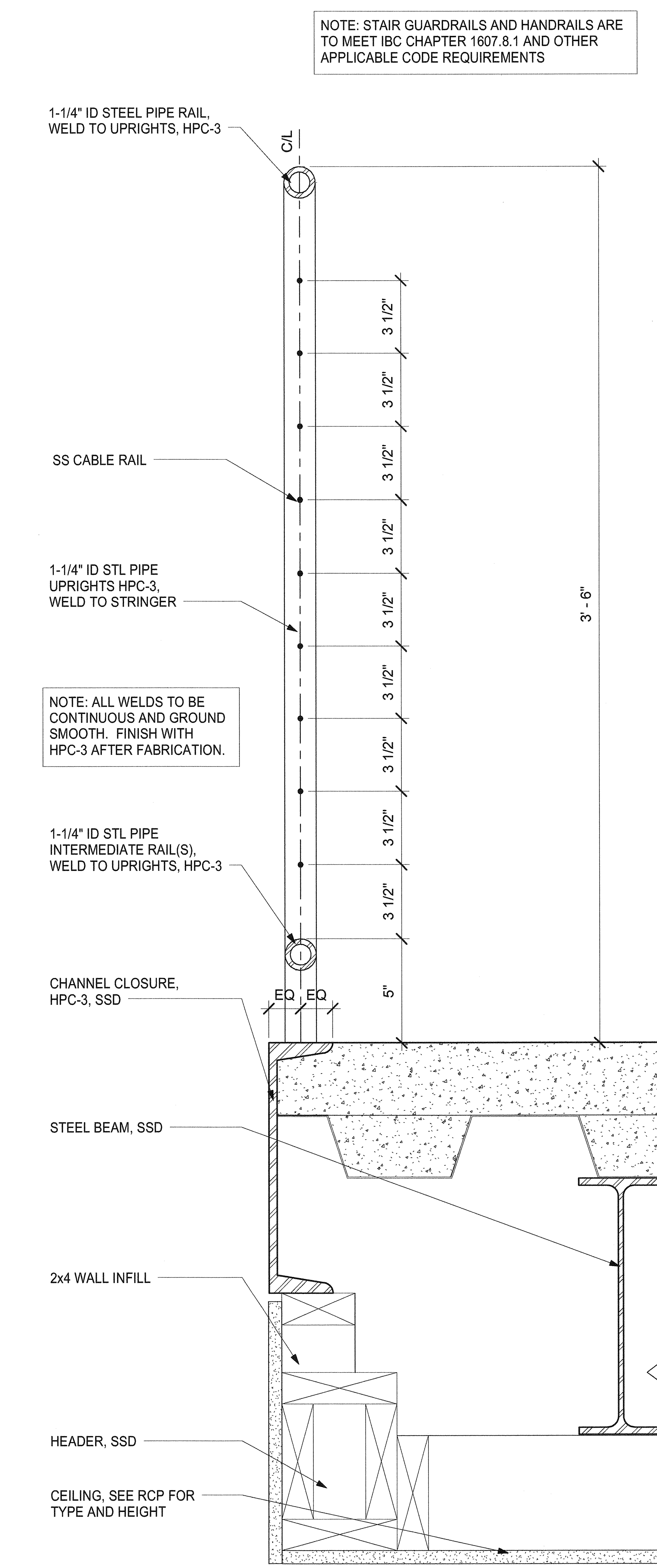
2 TREAD DETAIL - INTERIOR STAIR
3" = 1'-0"



3 GUARDRAIL W/ HANDRAIL - EXTERIOR STAIR
3" = 1'-0"



4 GUARDRAIL W/ HANDRAIL - INTERIOR STAIR
3" = 1'-0"



5 GUARDRAIL W/O HANDRAIL - INTERIOR STAIR
3" = 1'-0"

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PIER 4 PHASE 2
MARINE BUILDING
VERTICAL CIRCULATION DETAILS

TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

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SH# 430 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

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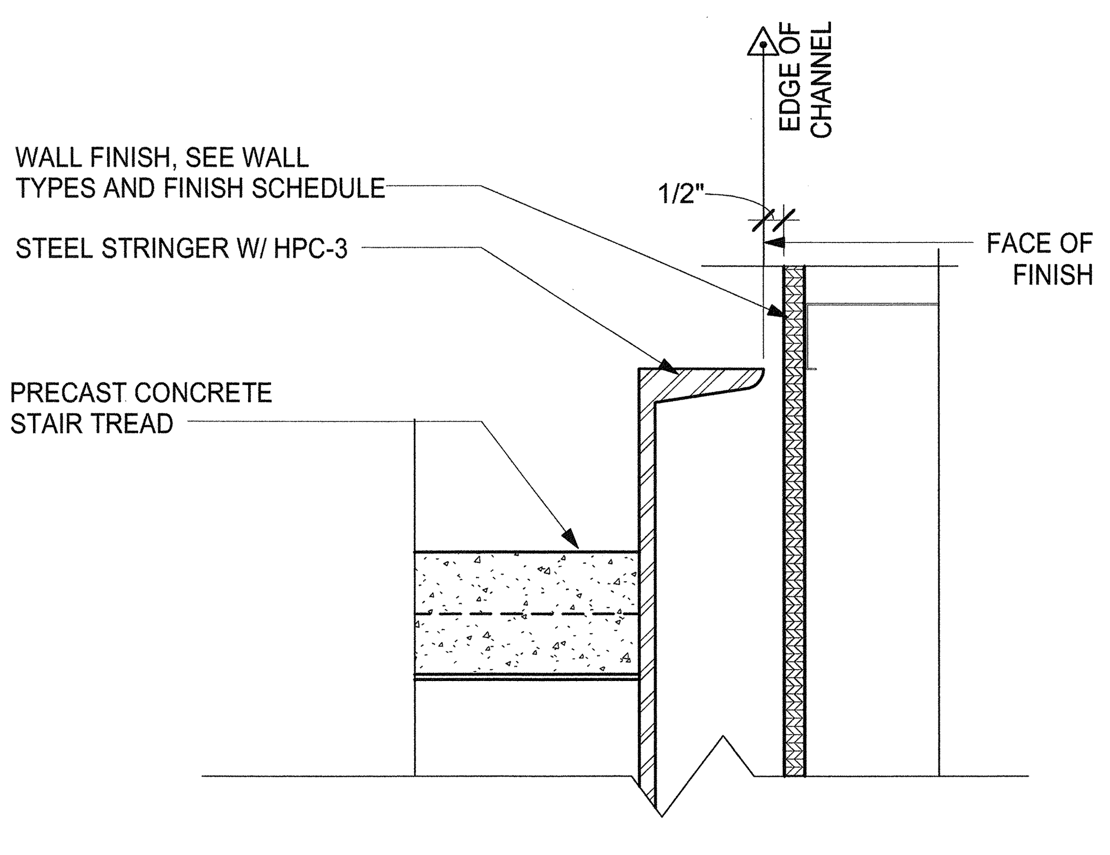
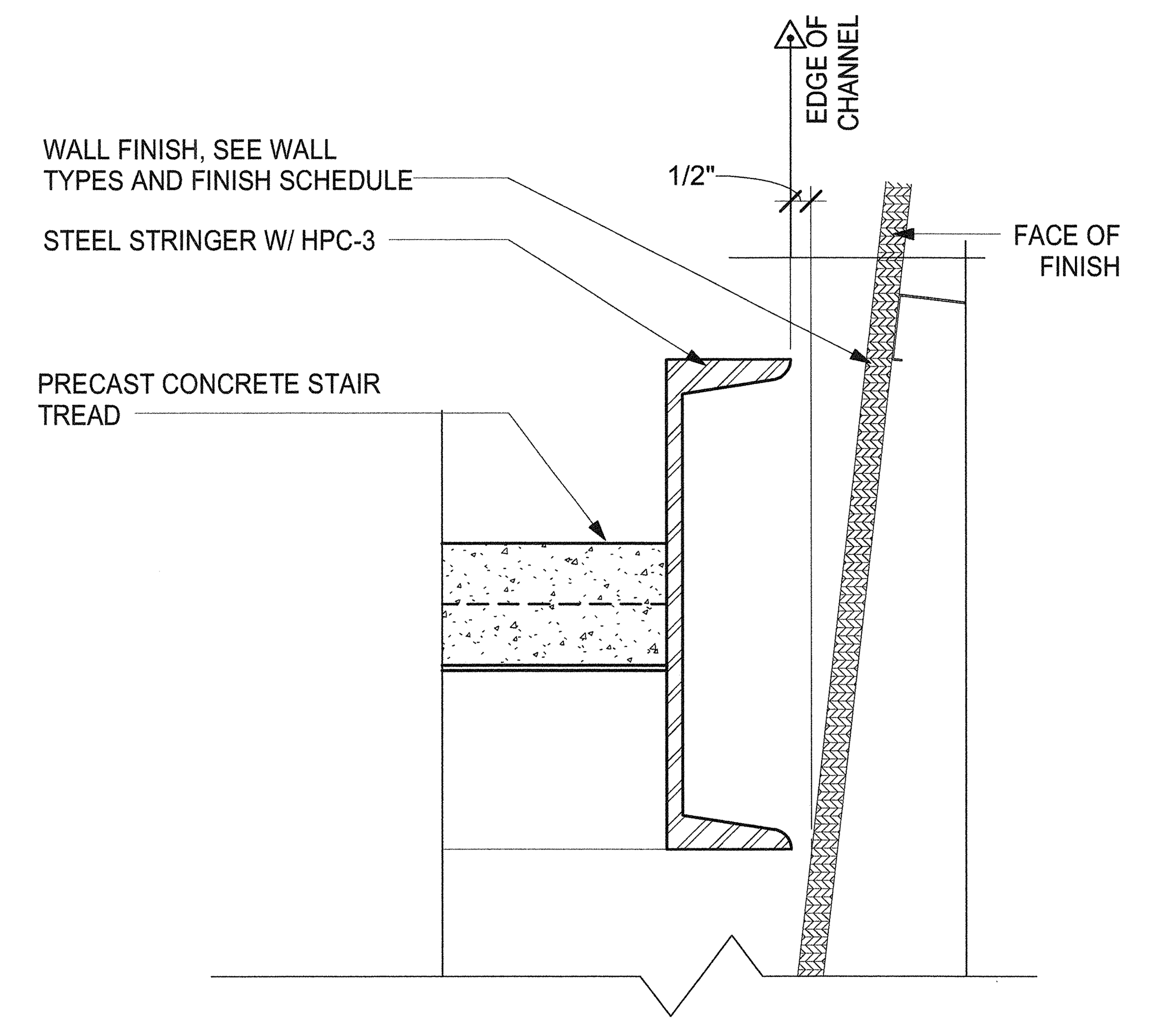
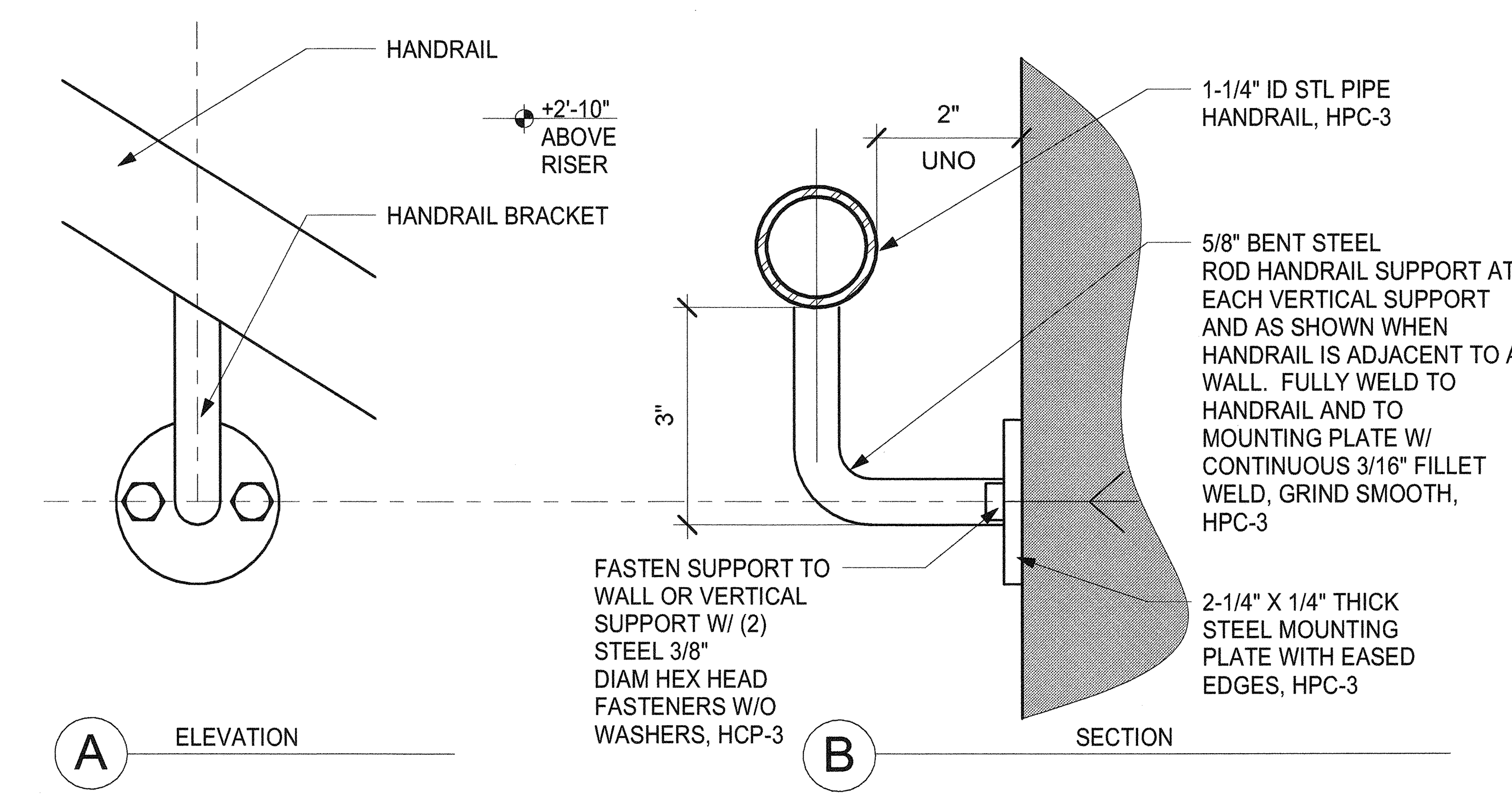


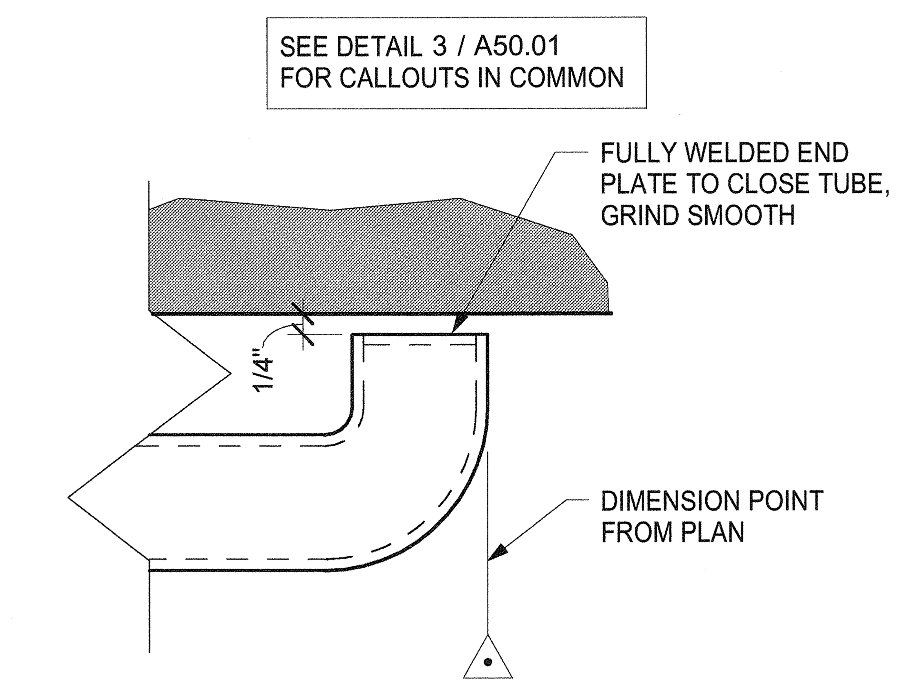
1 STAIR LANDING/STRINGER
3" = 1'-0"



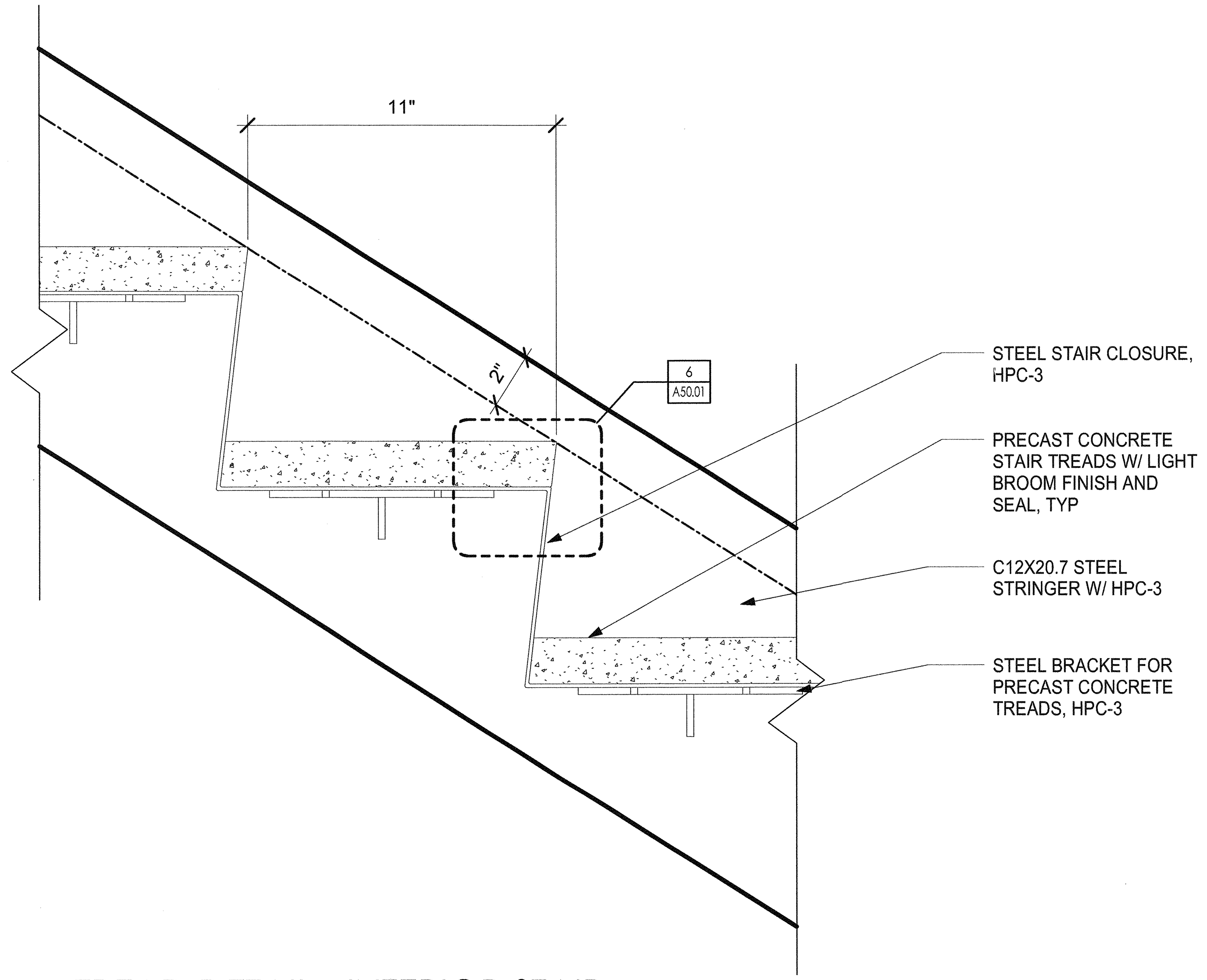
2 STAIR LANDING/STRINGER
3" = 1'-0"



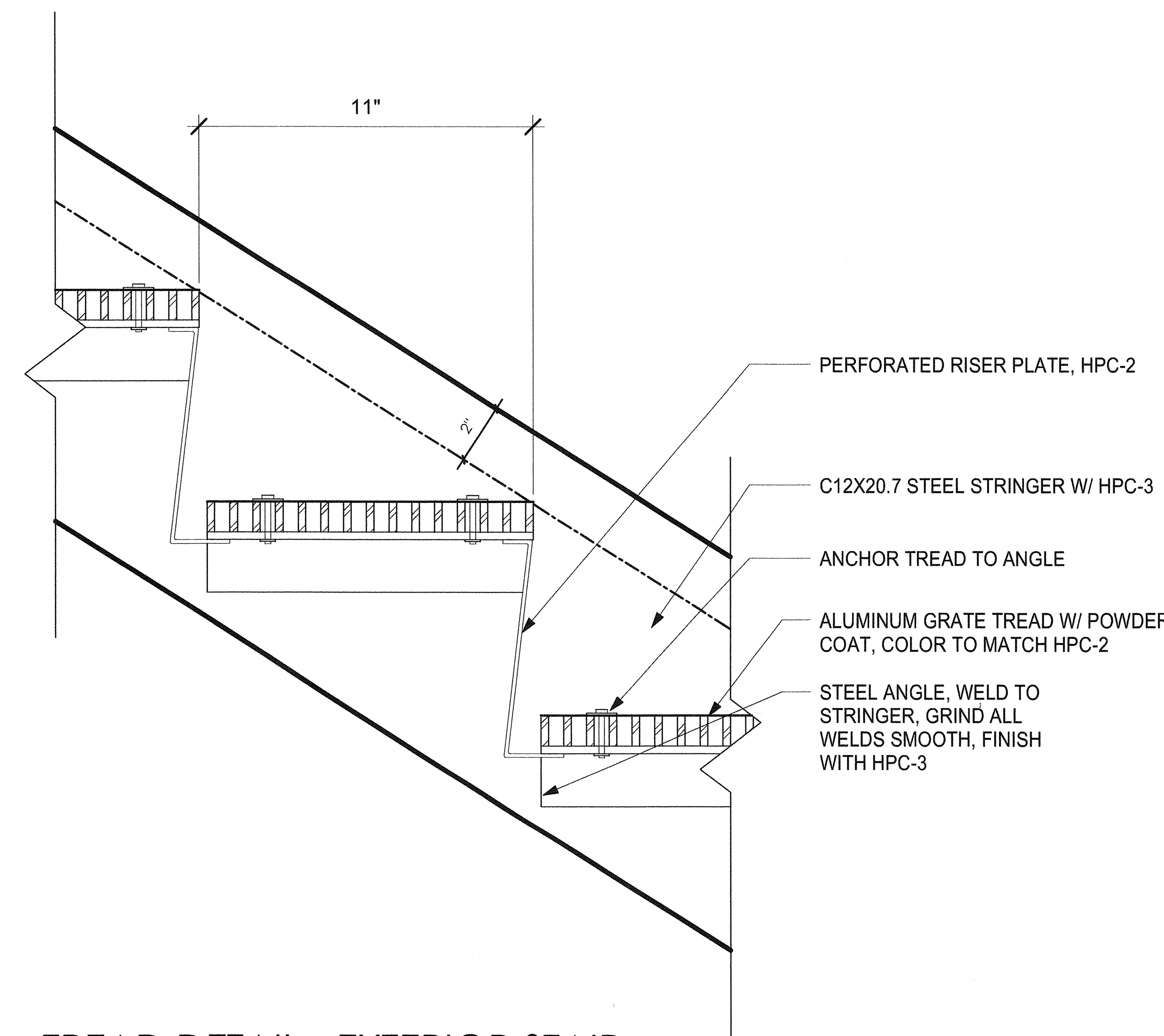
3 RAIL DETAIL
6" = 1'-0"



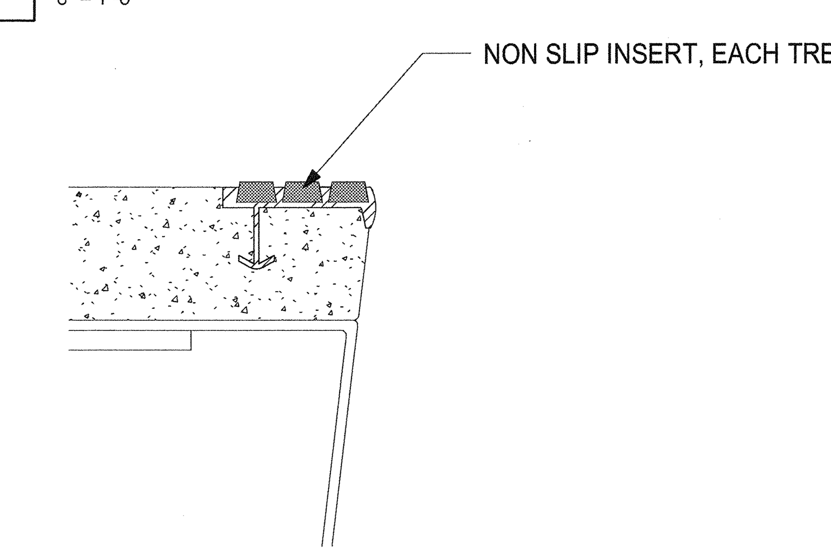
4 RAIL DETAIL
6" = 1'-0"



5 TREAD DETAIL - INTERIOR STAIR
3" = 1'-0"



7 TREAD DETAIL - EXTERIOR STAIR
3" = 1'-0"



6 TREAD NOSING
6" = 1'-0"

NOTE: STAIR GUARDRAILS AND HANDRAILS ARE TO MEET IBC CHAPTER 1607.8.1 AND OTHER APPLICABLE CODE REQUIREMENTS

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PIER 4 PHASE 2
MARINE BUILDING
VERTICAL CIRCULATION DETAILS

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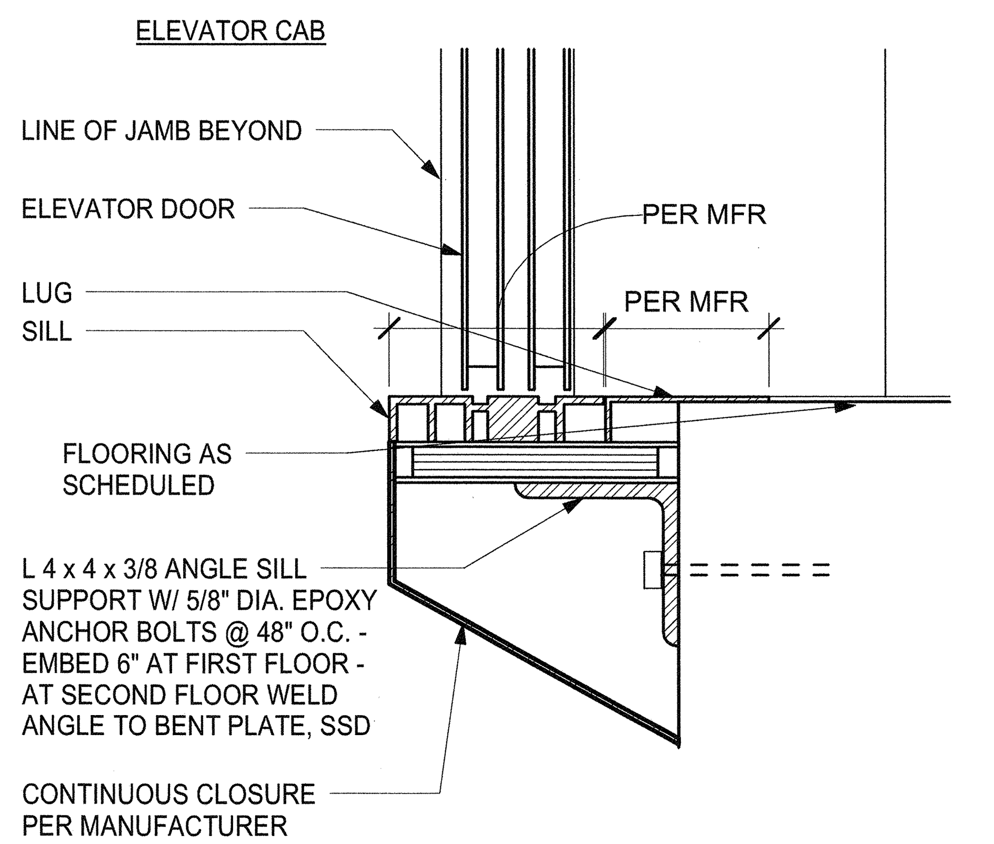
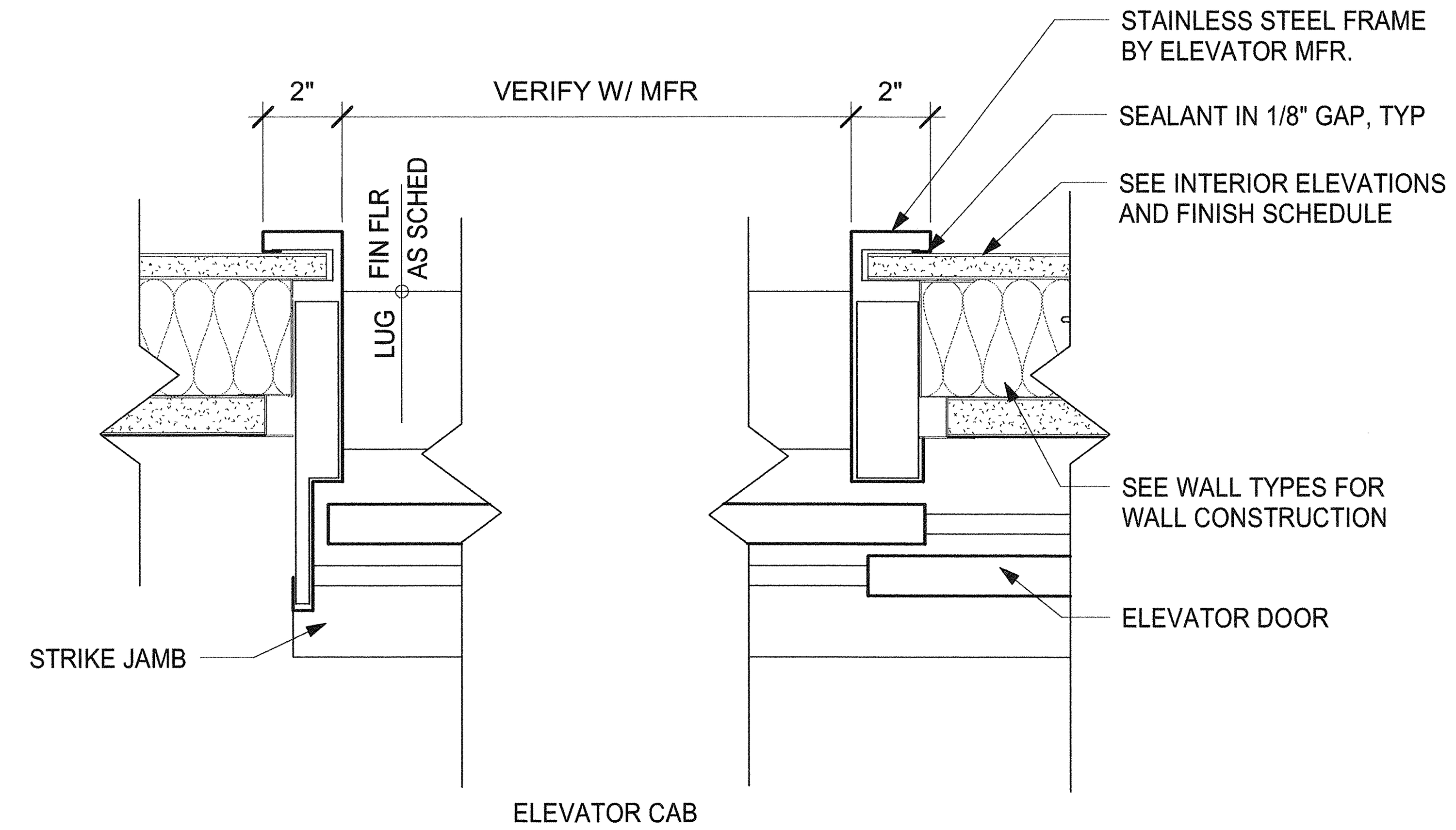
DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: | DRAWING SCALE: AS NOTED

6552
A50.01
SH # 431 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

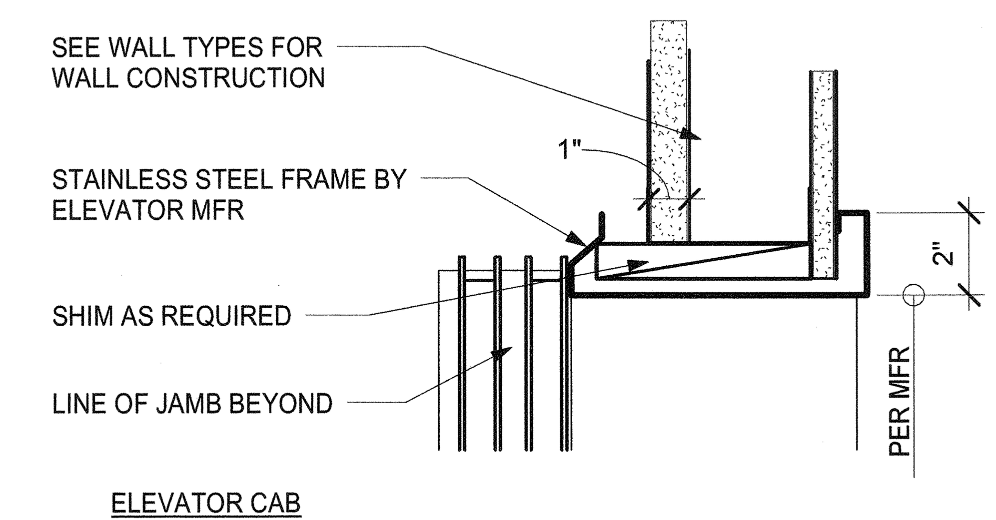
BINDING EDGE



1 ELEVATOR - SILL
3" = 1'-0"

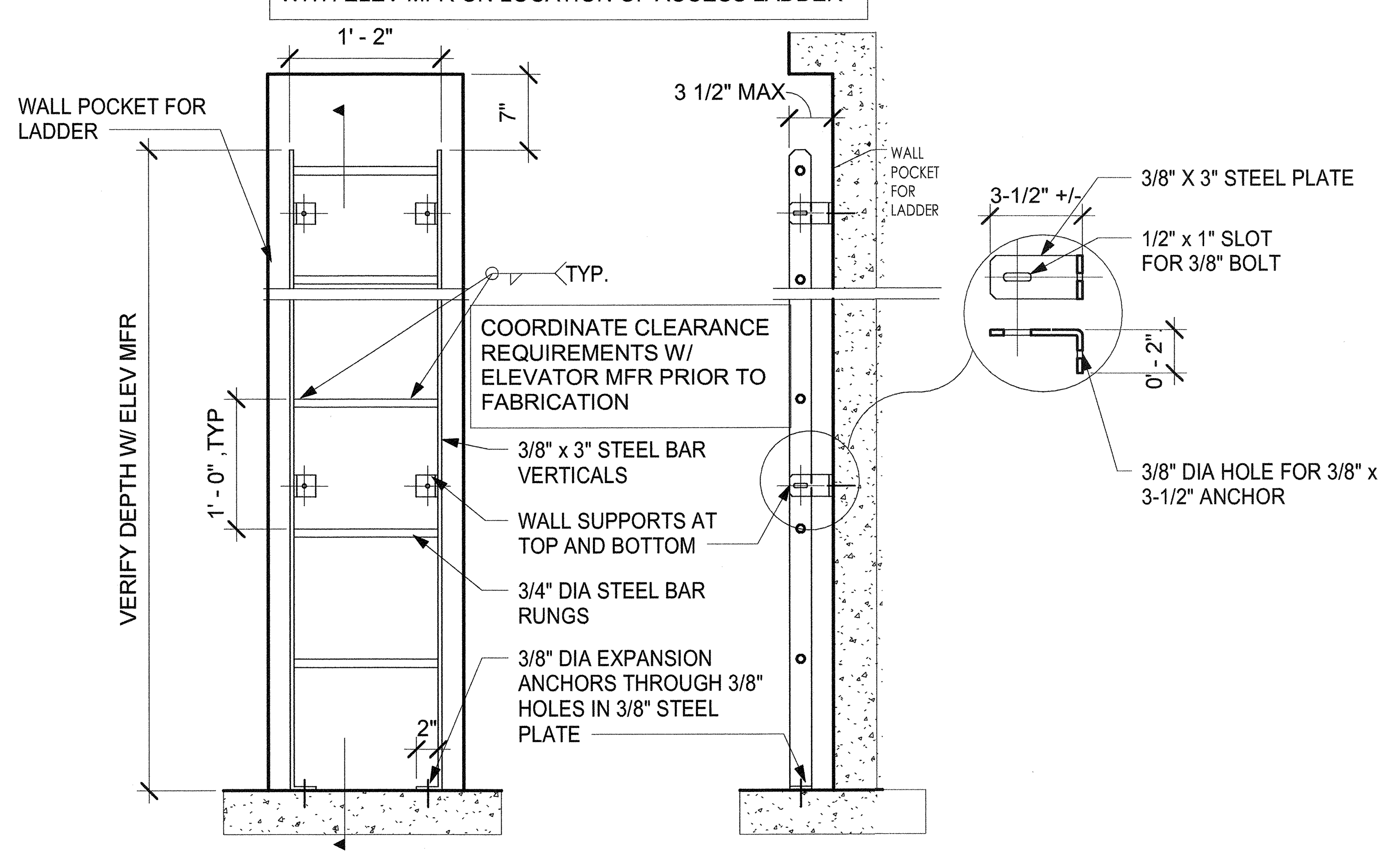


2 ELEVATOR - JAMB
3" = 1'-0"

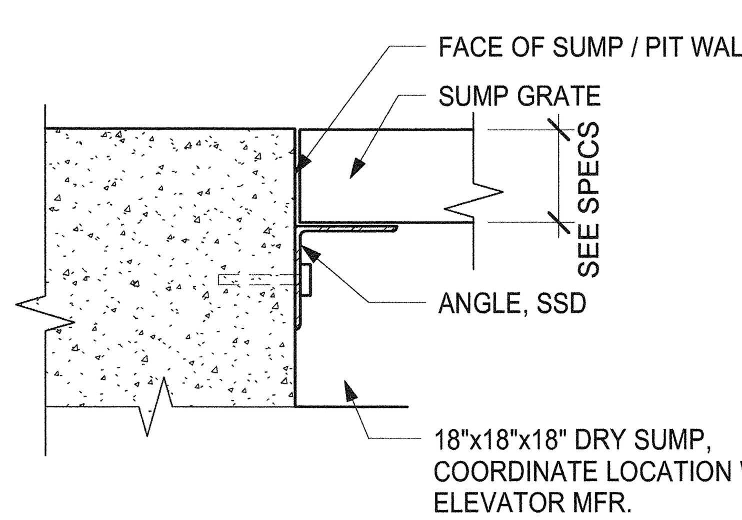


3 ELEVATOR - HEAD
3" = 1'-0"

NOTE: WALL & FLOOR CONSTRUCTION VARY, SEE PLANS FOR WALL TYPES & CALLOUTS IN COMMON AND SECTIONS FOR FLOOR TYPES. COORDINATE WITH ELEV MFR ON LOCATION OF ACCESS LADDER



4 ELEVATOR - PIT LADDER
1" = 1'-0"



5 ELEVATOR - SUMP GRATE & SUPPORT
3" = 1'-0"

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STATE OF WASHINGTON

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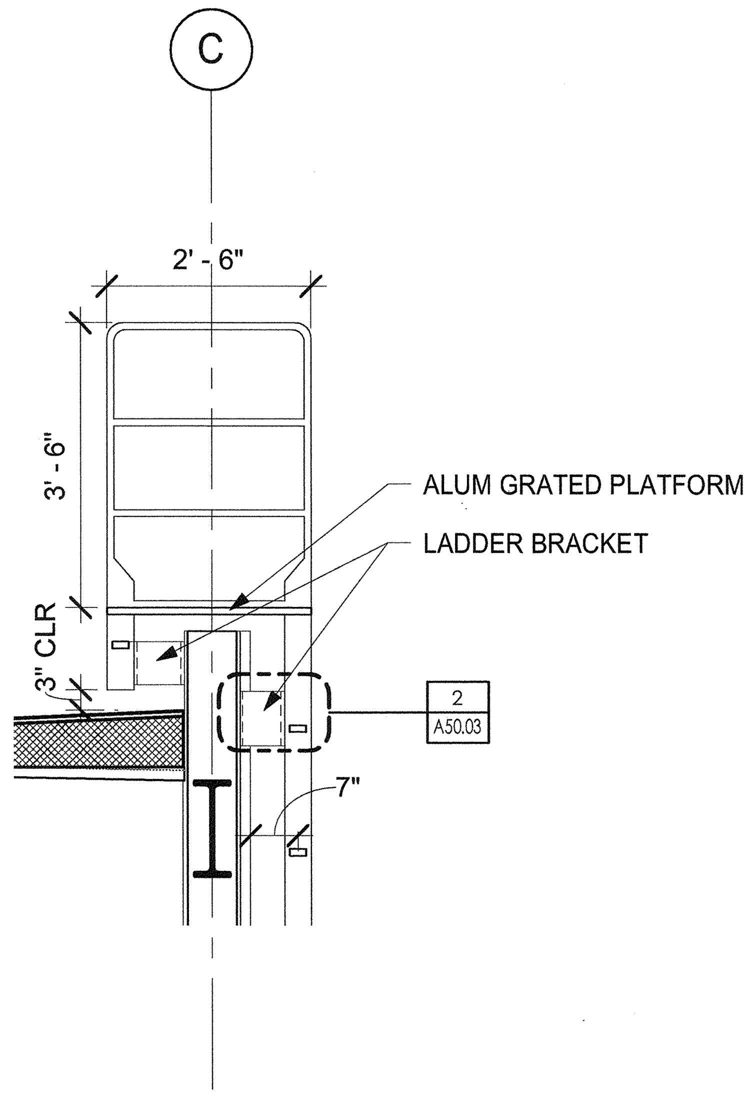
PIER 4 PHASE 2
MARINE BUILDING
VERTICAL CIRCULATION DETAILS

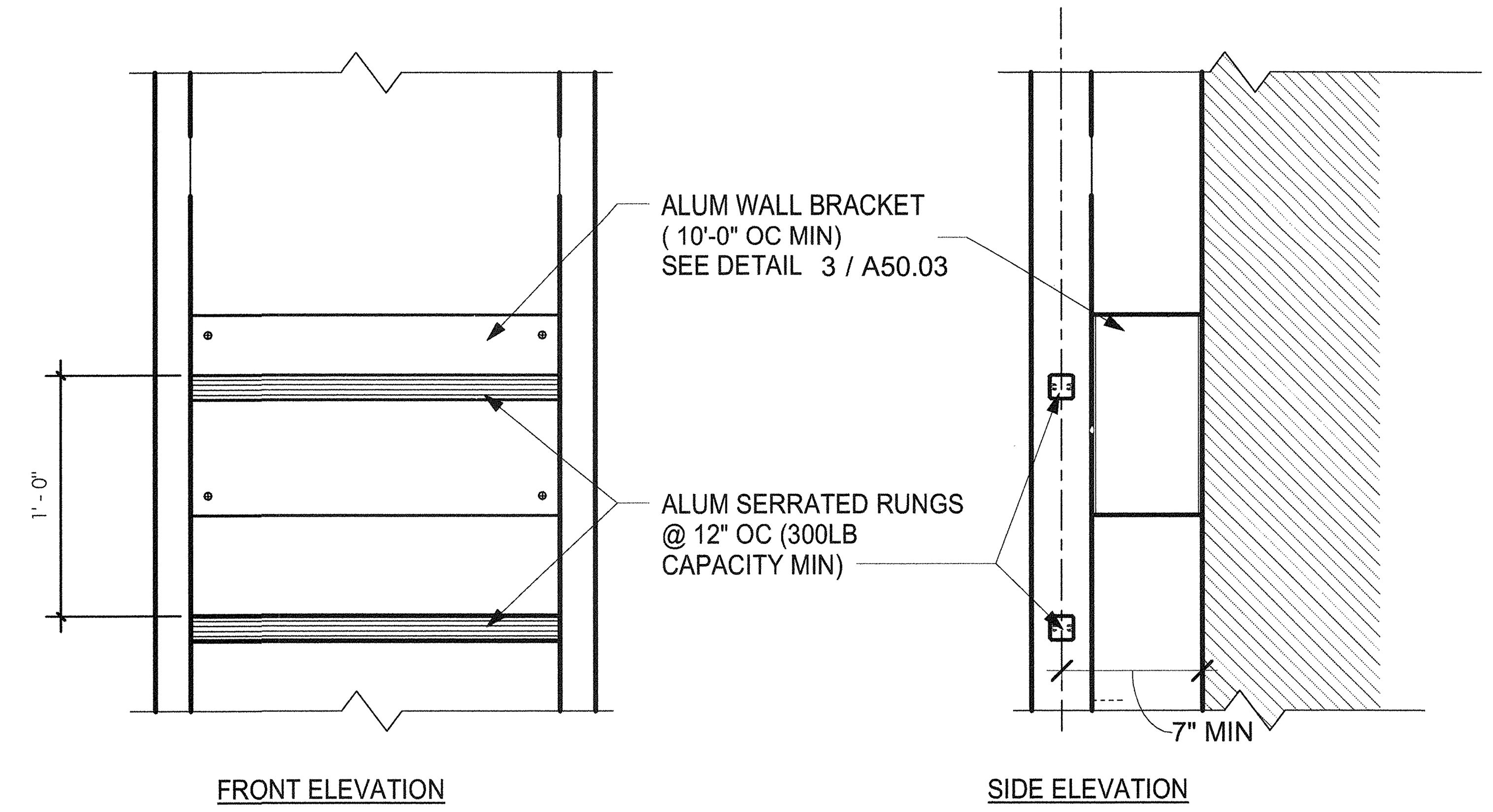
PRINTED BY:
PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837
TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

6552
A50.02
SH # 432 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

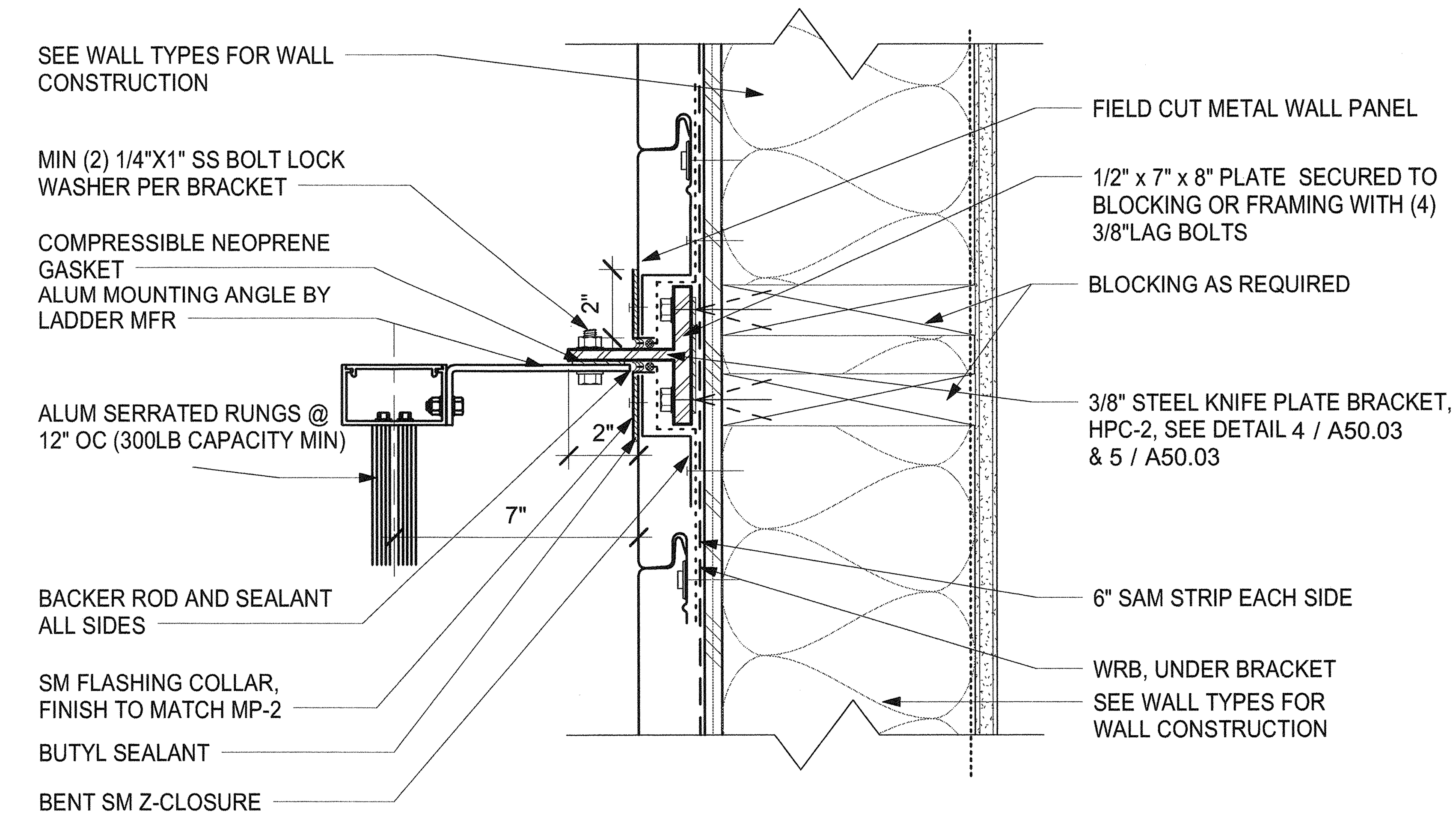
BINDING EDGE



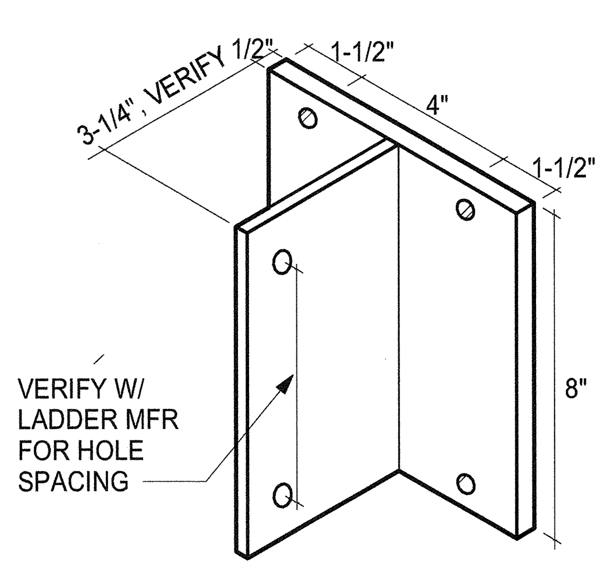
1 LADDER SECTION
1/2" = 1'-0"



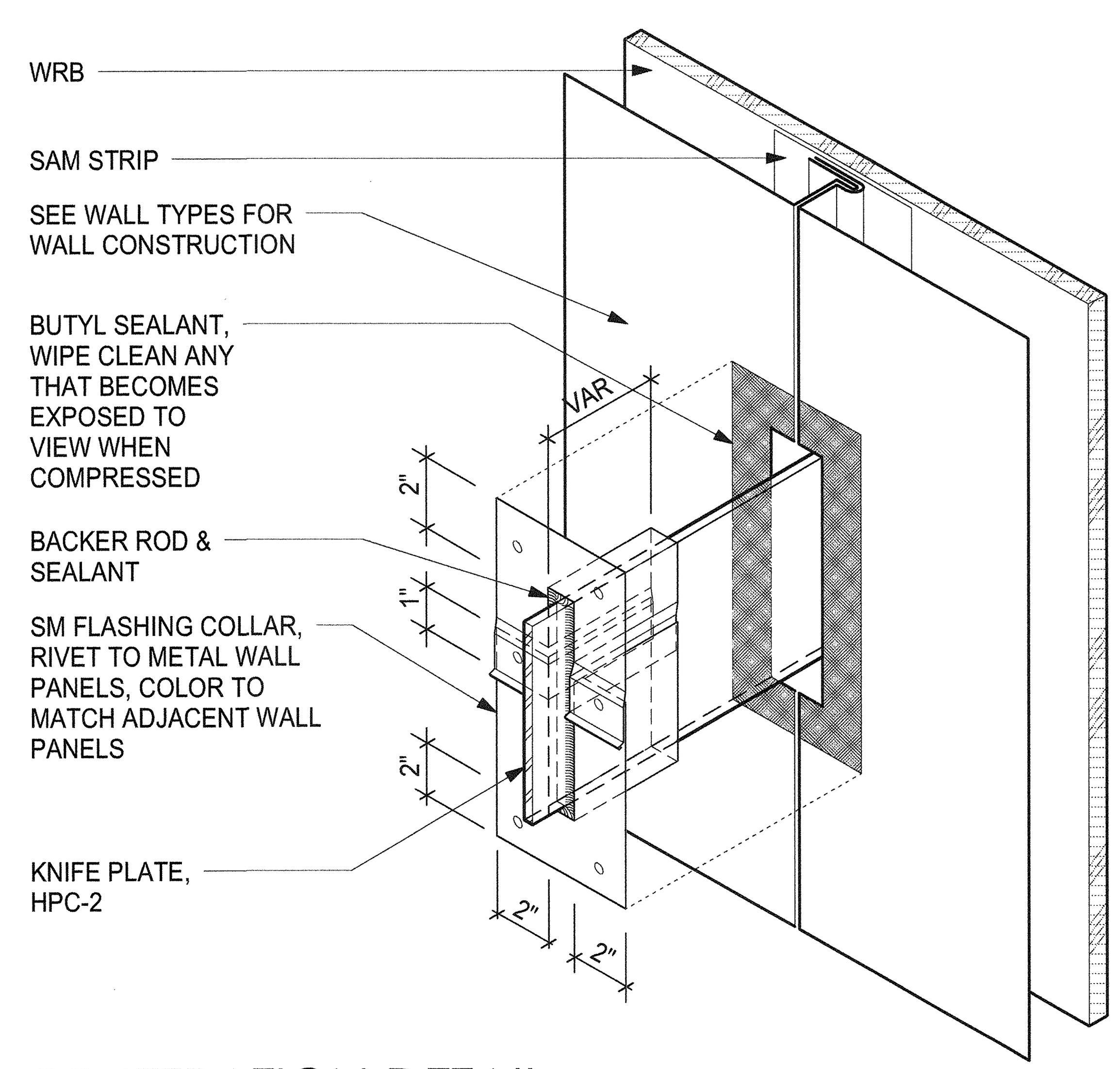
2 LADDER ELEVATION
1 1/2" = 1'-0"



3 LADDER BRACKET DETAIL PLAN
3" = 1'-0"



4 LADDER KNIFE PLATE
3" = 1'-0"



5 PENETRATION DETAIL
3" = 1'-0"

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PIER 4 PHASE 2
MARINE BUILDING
VERTICAL CIRCULATION

TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

6552
A50.03
SH # 433 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

WINDOW, LOUVER, FRAME & DOOR SCHEDULE ABBREVIATIONS

CONSTRUCTION
AL ALUMINUM
FC FACTORY CONSTRUCTION
HM HOLLOW METAL
SS STAINLESS STEEL
STL STEEL

FINISH
PN PAINT (SEE SPECIFICATIONS)
FF FACTORY FINISH

GLASS / PANEL TYPES
F FLOAT
IFF INSULATED - FLOAT / AIRSPACE / FLOAT
ITT INSULATED - TEMPERED / AIRSPACE / TEMPERED
T TEMPERED
SPP INSULATED COMPOSITE SPANDREL PANEL

NOTE: DEGREE OF DOOR OPENING ON PLANS IS GRAPHICALLY ILLUSTRATED AS NINETY DEGREES, TYPICALLY. ACTUAL DEGREE OF DOOR OPENING TO BE MAXIMUM ALLOWED WITHIN BUILDING CONSTRAINTS, ALSO SEE SPECIFICATIONS SECTION 087100.

LOUVER, WINDOW, FRAME & DOOR TYPES, SCHEDULES AND DETAILS GENERAL NOTES

A. FENESTRATION PRODUCTS SHALL BE LABELED WITH RATED U-FACTOR, SHGC, VT, AND LEAKAGE RATING.

B. SEE SHEET G2.01 AND G2.02 FOR GENERAL NOTES, ABBREVIATIONS AND TYPICAL MOUNTING HEIGHTS. ALSO SEE THIS SHEET FOR ADDITIONAL ABBREVIATIONS SPECIFIC TO THESE SCHEDULES.

C. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

D. SEE LOUVER, WINDOW, FRAME, AND DOOR DETAILS ON A60-A64 SERIES SHEETS. DETAILS MAY BE GENERIC NATURE, REFER TO SECTIONS AND WALL TYPES FOR WALL CONSTRUCTION AT SPECIFIC LOCATIONS. ADDITIONAL LAYERS OF GWB AND/OR FINISHES WILL BE REQUIRED AS SCHEDULED AND DETAILED. ALSO SEE INTERIOR ELEVATIONS AND ROOM FINISH SCHEDULE FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

E. WALL LOUVERS, FRAMES, WINDOWS AND DOORS ARE REFERENCED ON THE FLOOR PLANS AND/OR EXTERIOR ELEVATIONS.

F. FINISHES: REFER TO APPLICABLE SECTIONS IN SPECIFICATIONS.

G. FRAMES SHALL NOT BE FASTENED AT HEAD CONDITIONS UNLESS SPECIFICALLY RECOMMENDED BY THE MANUFACTURER AND DETAILED TO ACCOMMODATE DEFLECTION OF THE WALL ABOVE.

H. ALL METAL AND GLASS WORK SHALL ALLOW FOR HORIZONTAL AND VERTICAL THERMAL EXPANSION AND CONTRACTION.

I. DIMENSIONS
1. DIMENSIONS CALLED OUT ON DRAWINGS ARE ROUGH OPENING DIMENSIONS AT LOUVERS, AND ALUMINUM VINYL WINDOWS, UNO. HOLLOW METAL DIMENSIONS ARE GIVEN AS ACTUAL FRAME DIMENSIONS.
2. DIMENSIONS SHOWN ON FRAME SCHEDULE AND TYPES ARE GENERALLY ROUGH OPENING DIMENSIONS EXCEPT AT HOLLOW METAL FRAMES AND SCHEDULES. ACTUAL FRAME DIMENSIONS SHALL BE ADJUSTED TO PROVIDE REQUIRED CLEARANCES FOR INSTALLATION, ALIGNMENT WITH WALL REVEALS AND TRIM, SHIMMING AND PERIMETER CAULKING, ALL AS SHOWN ON DETAILS AND AS NOTED.
3. ALL OPENINGS THAT OCCUR IN METAL WALL PANELS ARE TO ALIGN WITH PANEL JOINTS, UNO. FIELD VERIFY EXACT SIZE AND CONFIGURATION AND INDICATE ON SHOP DRAWINGS.
4. DIMENSIONS FOR GLAZING ON DOOR TYPES INDICATE CLEAR OPENING GLASS SIZE.
5. WHERE SCHEDULE SHOWS DIMENSIONS, BOTH VERTICAL AND HORIZONTAL, AS EQ. & EQ. THIS INDICATES THE FRAME/WINDOW SHALL BE FABRICATED SUCH THAT THESE DIMENSIONS ARE EQUAL, AND STANDARD SIZES OF GLAZING UNITS SHALL BE PROVIDED FOR EASE OF MAINTENANCE.

J. WHERE THERE ARE ANY VISIBLE CLEARANCES BETWEEN FRAME AND WALL, THEY SHALL BE CAULKED FOR A TIGHT FIT.

K. WHEREVER METALS OF DIFFERENT GALVANIC RANGE ARE TO BE IN CONTACT, SUCH AS ALUMINUM THRESHOLDS AND HOLLOW METAL DOOR FRAMES, ETC., PROVIDE INDUSTRY-APPROVED SEPARATION BY BITUMINOUS PAINT COATS OR OTHER APPROVED METHOD AS APPROVED BY ENGINEER.

L. SEE STRUCTURAL DRAWINGS FOR STRUCTURAL FRAMING OF OPENINGS, STRUCTURAL DRAWINGS SHALL SUPERSEDE FRAMING SHOWN ON ARCHITECTURAL DETAILS.

M. ALL ELEVATIONS ARE SHOWN AS VIEWED FROM EXTERIOR; DETAILS SHOWN MAY BE OPPOSITE HAND OF ACTUAL DETAIL CONDITION.

N. VERIFY MOUNTING LOCATION FOR ALL BLINDS AND SHADES WITH THE ENGINEER PRIOR TO INSTALLATION.

O. LOUVERS - NONE

P. HOLLOW METAL FRAMES
1. DOOR FRAME (HINGE SIDE) SHALL BE 4 1/2" FROM ADJACENT PERPENDICULAR WALL, UNO. SMALLEST ALLOWABLE DIMENSION FROM JAMB (AT HINGE) TO PERPENDICULAR WALL TO BE 2 1/2", UNO.
2. ALL STUD WALL THICKNESS (INCLUDING GWB) SHALL BE VERIFIED FOR FRAME THROAT DIMENSION.
3. ALL HOLLOW METAL JAMBS SHALL FILLED WITH MINERAL WOOL OR SPRAY FOAM INSULATION AT EXTERIOR WALL OR WHERE NOTED ON DETAILS.
4. FRAMES WITHOUT RELITES ARE REFERENCED ON THE DOOR SCHEDULE ONLY. FRAMES WITH ATTACHED RELITES ARE REFERENCED ON THE DOOR SCHEDULE. RELITES WITHOUT ASSOCIATED DOORS ARE REFERENCED ON THE FLOOR PLANS ONLY.
5. HOLLOW METAL FRAME ASSEMBLIES WITH GLAZING SHALL HAVE U-FACTOR NOT GREATER THAN 0.38, A SHGC NOT GREATER THAN 0.40, AND A VT NOT LESS THAN 0.46.
6. HOLLOW METAL FRAME ASSEMBLIES WITH GLAZING SHALL HAVE A MAXIMUM AIR INFILTRATION RATE OF 0.20 CRM/SF.
7. SEE A61 AND A67 SERIES DRAWINGS FOR SCHEDULES, DETAILS AND ADDITIONAL INFORMATION

Q. ALUMINUM FRAMES & WINDOWS
1. SEE A63 AND A67 SERIES DRAWINGS FOR SCHEDULES, FRAME TYPES, DETAILS AND ADDITIONAL INFORMATION
2. THE TYPES & SCHEDULE ARE FOR SIZE AND LOCATION. ANY WINDOWS NOT INCLUDED HEREIN BUT ARE SHOWN ON THE EXTERIOR ELEVATIONS SHALL BE CONSIDERED A PART OF THE PROJECT. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.
3. EXTERIOR ELEVATIONS SHOW THE RELATIONSHIP OF WINDOWS TO CONTROL JOINTS AND SIDING.
4. SEE DIVISION 8 SPECIFICATION SECTIONS FOR BASIS OF DESIGN PRODUCTS. DETAILS ILLUSTRATE ABSTRACTIONS OF THESE SYSTEMS TO COMMUNICATE ALIGNMENT, APPROXIMATE SIZE AND OTHER REQUIREMENTS. SEE SPECIFICATIONS FOR MANUFACTURER REQUIREMENTS AND OPTIONS AND COORDINATE ACTUAL SIZE AND DETAILING WITH MANUFACTURER USED.
5. DETAILS GENERALLY ILLUSTRATE FIXED UNITS. LOCATIONS WITH OPERABLE UNITS SHALL BE ADJUSTED ACCORDINGLY
6. ALL WINDOW ASSEMBLIES SHALL HAVE A U-FACTOR NOT GREATER THAN 0.30, A SHGC GREATER THAN 0.40, AND A VT NOT LESS THAN 0.46.
7. ALL WINDOW ASSEMBLIES SHALL HAVE A MAXIMUM AIR INFILTRATION RATE OF 0.20 CFM/SF.

R. GLAZING
1. PROVIDE TEMPERED GLASS (FOR INTERIOR LOCATIONS) AND INSULATED TEMPERED GLASS AT ALL LOCATIONS REQUIRED BY CODE, WHETHER SO NOTED IN THIS SECTION OR NOT. ADDITIONALLY, PROVIDE TEMPERED AND INSULATED TEMPERED GLASS IN ALL LOCATIONS SHOWN IN THIS SCHEDULE, WHETHER REQUIRED BY CODE OR NOT.
2. PROVIDE ISOLATION TAPE, SHIMS, ETC. AS INDICATED IN SECTION 088000 OF PROJECT MANUAL. THESE ITEMS ARE NOT NECESSARILY SHOWN ON DETAILS.
3. FOR GLASS TYPES AND LOCATIONS SEE FRAME TYPES AND SCHEDULES ON A63 & A64 SERIES SHEETS. FOR GLASS AND GLAZING SPECIFICATIONS SEE SECTION 088000.
4. ALL EXTERIOR GLAZING TO BE ARGON FILLED AND HAVE LOW-E COATING. SEE NOTES P AND Q FOR ASSEMBLY U-FACTORS, SHGC'S, VT, AND AIT INFILTRATION REQUIREMENTS.

S. DOORS
1. SEE DOOR AND FRAME SCHEDULES FOR DOOR WIDTH, HEIGHT, DETAIL REFERENCES AND TYPE OF GLAZING.
2. SEE DOOR SCHEDULE, HARDWARE SCHEDULE, FLOOR PLANS & ELEVATIONS FOR MULLION LOCATIONS AND REQUIREMENTS. PROVIDE WHEREVER SCHEDULED OR SHOWN. COORDINATE REQUIREMENTS.
3. ALL EXTERIOR DOORS SHALL HAVE A THRESHOLD AND WEATHER STRIPPING AT JAMBS, HEAD AND SILL.
4. ALL DOORS SHALL HAVE DOOR SILENCERS AT STRIKE SIDE OF JAMB PER THE MANUFACTURER'S STANDARDS. ALL DOORS WITH HOLLOW METAL FRAMES SHALL HAVE THREE DOOR SILENCERS AT STRIKE SIDE OF JAMB AND TWO ADDITIONAL DOOR SILENCERS AT HEAD OF DOUBLE DOORS WITH HOLLOW METAL FRAMES.
5. PROVIDE BLOCKING IN WALLS BEHIND ALL WALL STOPS.
6. ALL THRESHOLDS SHALL BE GROUTED SOLID, AND ATTACHED TO CONCRETE WITH EXPANSION ANCHORS, UNLESS NOTED OTHERWISE.
7. OPAQUE DOORS (DOORS HAVING LESS THAN 50 PERCENT GLASS AREA) SHALL HAVE A U-FACTOR NOT GREATER THAN 0.37.
8. EXTERIOR DOOR AND FRAME ASSEMBLIES SHOULD HAVE A MAXIMUM AIR INFILTRATION RATE OF 1.00 CFM/SF
9. HM AND WOOD DOORS SHALL BE 1 3/4" THICK UNO. OTHER DOOR TYPES SHALL BE MANUFACTURER'S STANDARD THICKNESS UNO.

T. MECHANICAL ACCESS DOORS
1. SEE REFLECTED CEILING PLANS AND INTERIOR ELEVATIONS FOR APPROXIMATE LOCATIONS. SEE MECHANICAL DRAWINGS & SPECIFICATIONS FOR ADDITIONAL INFORMATION AND LOCATIONS.

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PIER 4 PHASE 2
MARINE BUILDING
LOUVER, DOOR, FRAME, & GLAZING NOTES

TOWNSHIP: | RANGE: | SECTION:
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PARCEL: | DRAWING SCALE: AS NOTED

6552
A60.00
SH # 434 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

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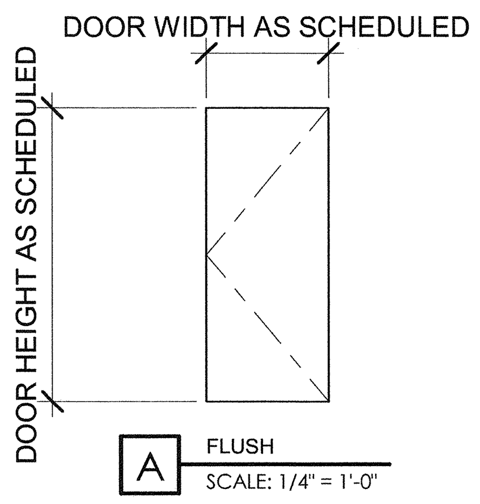
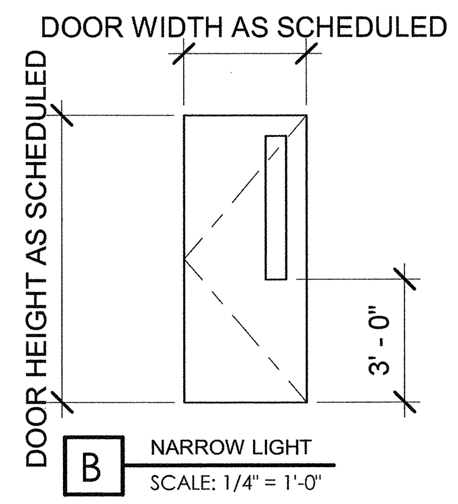
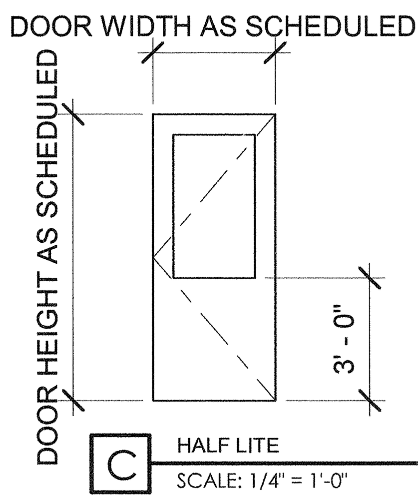
DOOR TYPES



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

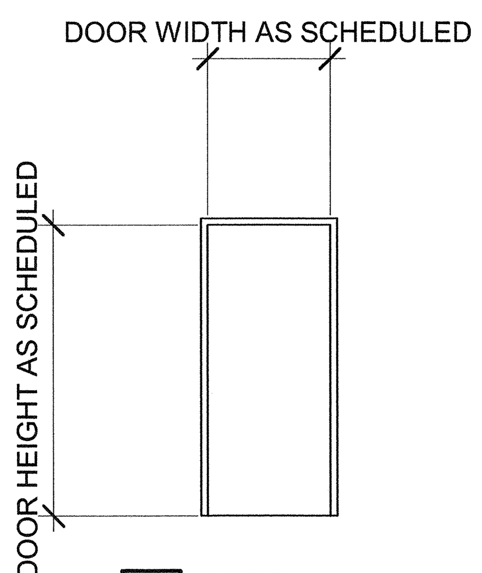


B NARROW LIGHT
SCALE: 1/4" = 1'-0"



C HALF LITE
SCALE: 1/4" = 1'-0"

COMMON FRAME TYPES



AA SINGLE
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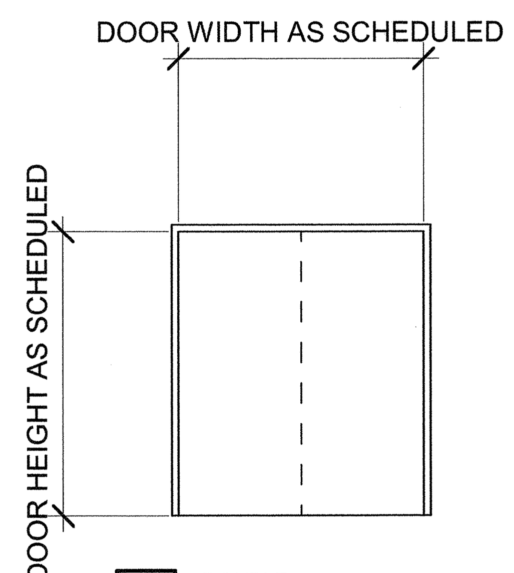

BB DOUBLE
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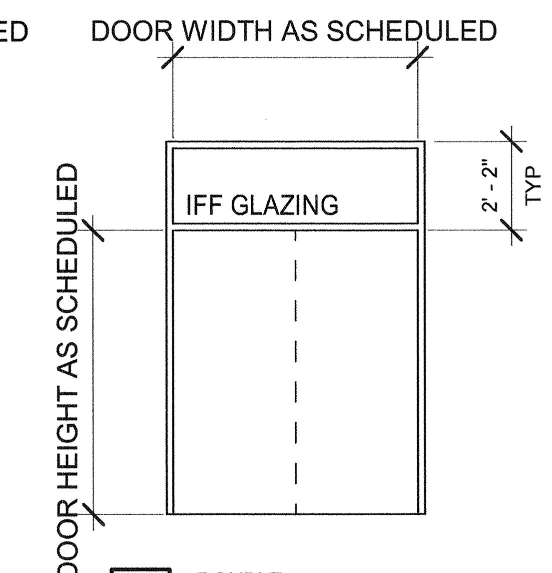

CC DOUBLE
SCALE: 1/4" = 1'-0"

DOOR SCHEDULE

ROOM NUMBER	DOOR TYPE	DOOR					FRAME		DETAILS				REMARKS
		WIDTH	HEIGHT	GLASS	FINISH	FIRE RATING	TYPE	FINISH	HEAD	JAMB 1	JAMB 2	THRESHOLD	
100A	C	3' - 0"	7' - 0"	ITT	HM/PN	NR	CC	HM/PN	2 / A61.01	6 / A61.01	6 / A61.01	8 / A61.01	
100B	C	3' - 0"	7' - 0"	ITT	HM/PN	NR	CC	HM/PN	2 / A61.01	6 / A61.01	6 / A61.01	8 / A61.01	
100C	C	3' - 0"	7' - 0"	ITT	HM/PN	NR	CC	HM/PN	2 / A61.01	6 / A61.01	6 / A61.01	9 / A61.01	
100D	C	3' - 0"	7' - 0"	ITT	HM/PN	NR	CC	HM/PN	2 / A61.01	6 / A61.01	6 / A61.01	9 / A61.01	
101A	A	3' - 0"	7' - 2"	-	HM/PN	NR	AA	HM/PN	1 / A61.01	5 / A61.01	5 / A61.01		
102A	A	3' - 0"	7' - 2"	-	HM/PN	NR	BB	HM/PN	2 / A61.01	6 / A61.01	6 / A61.01	9 / A61.01	
103A	A	3' - 0"	7' - 2"	-	HM/PN	NR	AA	HM/PN	1 / A61.01	5 / A61.01	5 / A61.01		
104A	A	3' - 0"	7' - 2"	-	HM/PN	NR	AA	HM/PN	1 / A61.01	5 / A61.01	5 / A61.01		
106A	B	3' - 0"	7' - 2"	T	HM/PN	NR	AA	HM/PN	1 / A61.01	5 / A61.01	5 / A61.01		
107A	B	3' - 0"	7' - 2"	T	HM/PN	NR	AA	HM/PN	1 / A61.01	5 / A61.01	5 / A61.01		
108A	A	3' - 0"	7' - 2"	-	HM/PN	NR	AA	HM/PN	3 / A61.01	7 / A61.01	7 / A61.01	9 / A61.01	
110A	A	3' - 0"	7' - 2"	-	HM/PN	NR	AA	HM/PN	1 / A61.01	5 / A61.01	5 / A61.01		
200A	A	3' - 0"	7' - 2"	-	HM/PN	NR	BB	HM/PN	1 / A61.01	5 / A61.01	5 / A61.01		
202A	A	3' - 0"	7' - 2"	-	HM/PN	NR	AA	HM/PN	1 / A61.01	5 / A61.01	5 / A61.01		
203A	A	3' - 0"	7' - 2"	-	HM/PN	NR	AA	HM/PN	1 / A61.01	5 / A61.01	5 / A61.01		
205A	B	3' - 0"	7' - 2"	T	HM/PN	NR	AA	HM/PN	1 / A61.01	5 / A61.01	5 / A61.01		
206A	B	3' - 0"	7' - 2"	T	HM/PN	NR	AA	HM/PN	1 / A61.01	5 / A61.01	5 / A61.01		
207A	B	3' - 0"	7' - 2"	T	HM/PN	NR	AA	HM/PN	1 / A61.01	5 / A61.01	5 / A61.01		
208A	A	3' - 0"	7' - 2"	-	HM/PN	NR	AA	HM/PN	1 / A61.01	5 / A61.01	5 / A61.01		
209A	B	3' - 0"	7' - 2"	T	HM/PN	NR	AA	HM/PN	1 / A61.01	5 / A61.01	5 / A61.01		
210A	B	3' - 0"	7' - 2"	T	HM/PN	NR	AA	HM/PN	1 / A61.01	5 / A61.01	5 / A61.01		
211A	A	3' - 0"	7' - 0"	-	HM/PN	NR	AA	HM/PN	3 / A61.01	7 / A61.01	7 / A61.01	10 / A61.01	
212A	A	3' - 6"	7' - 2"	-	HM/PN	NR	AA	HM/PN	1 / A61.01	5 / A61.01	5 / A61.01		

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SH # 435 OF # 499

PIER 4 PHASE 2
MARINE BUILDING
DOOR TYPES AND SCHEDULES

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M. ID: 091251 | DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933
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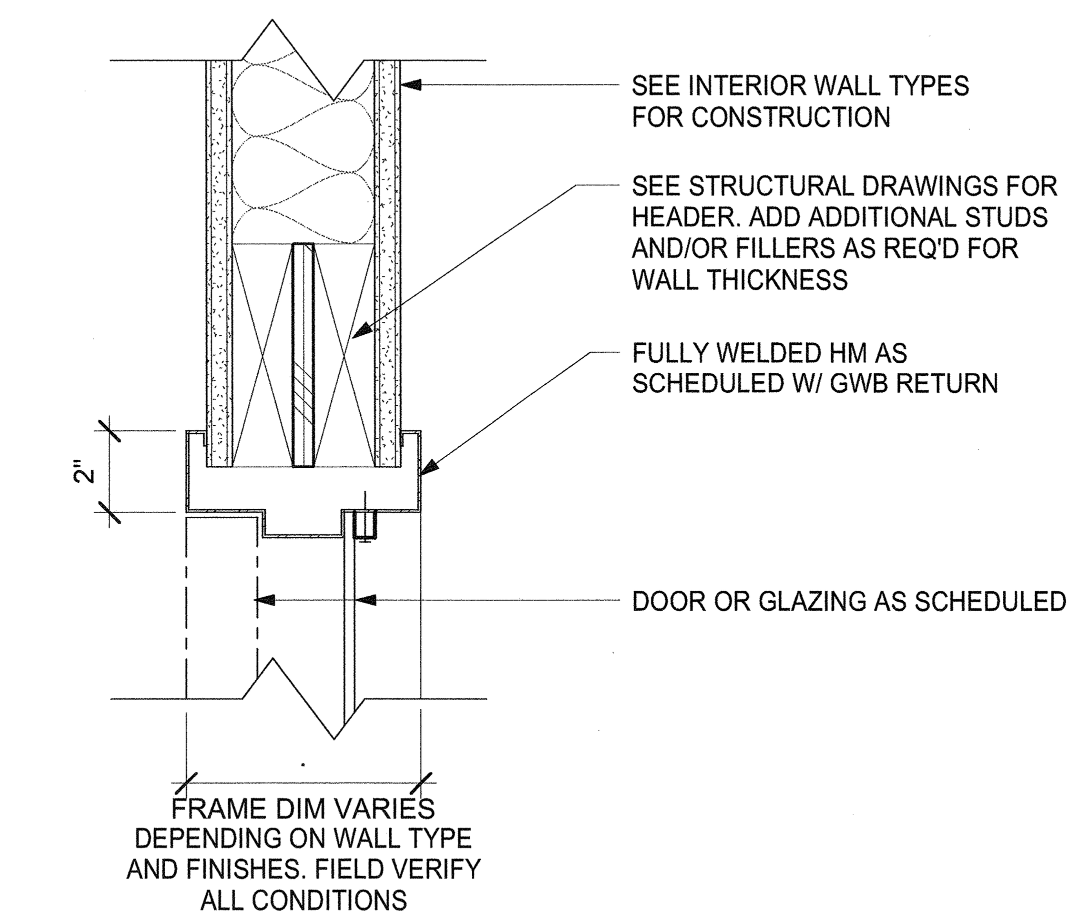
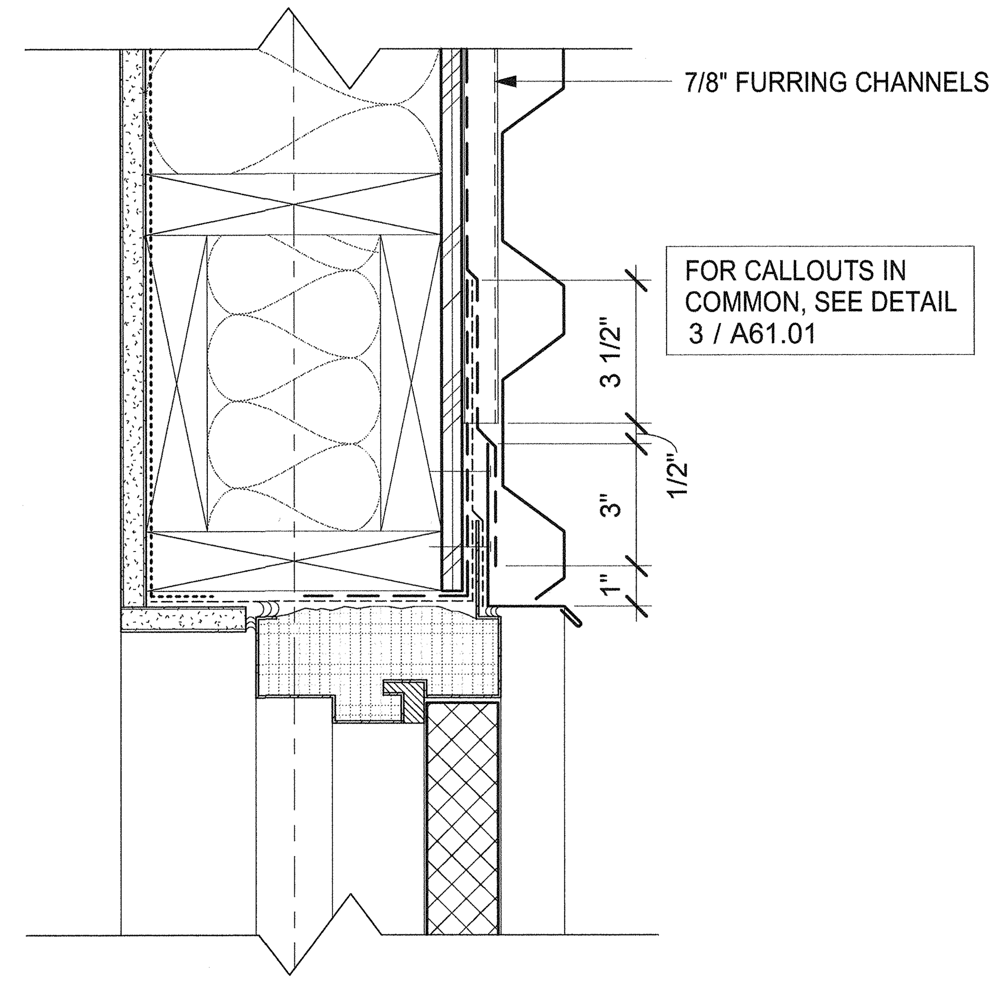
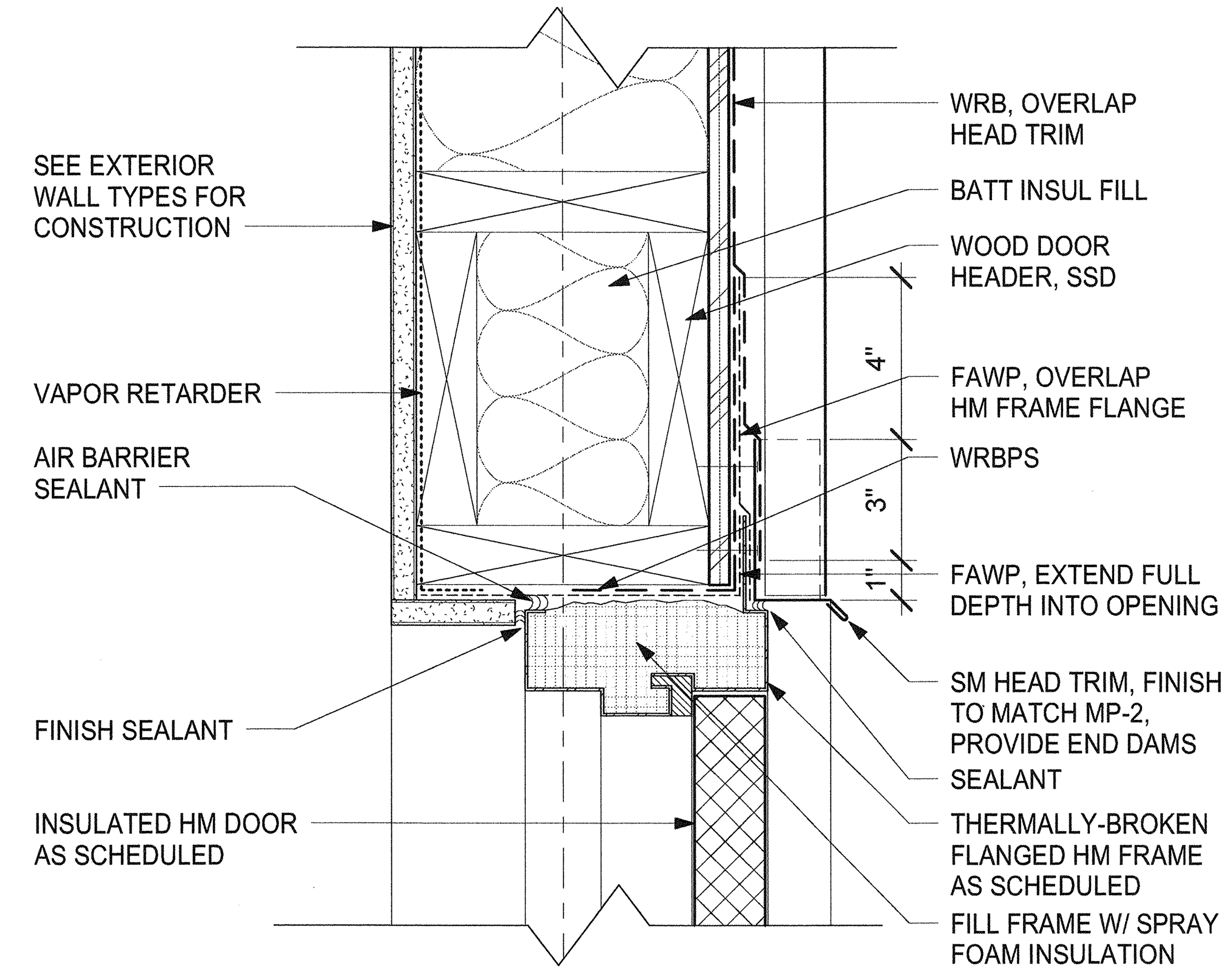


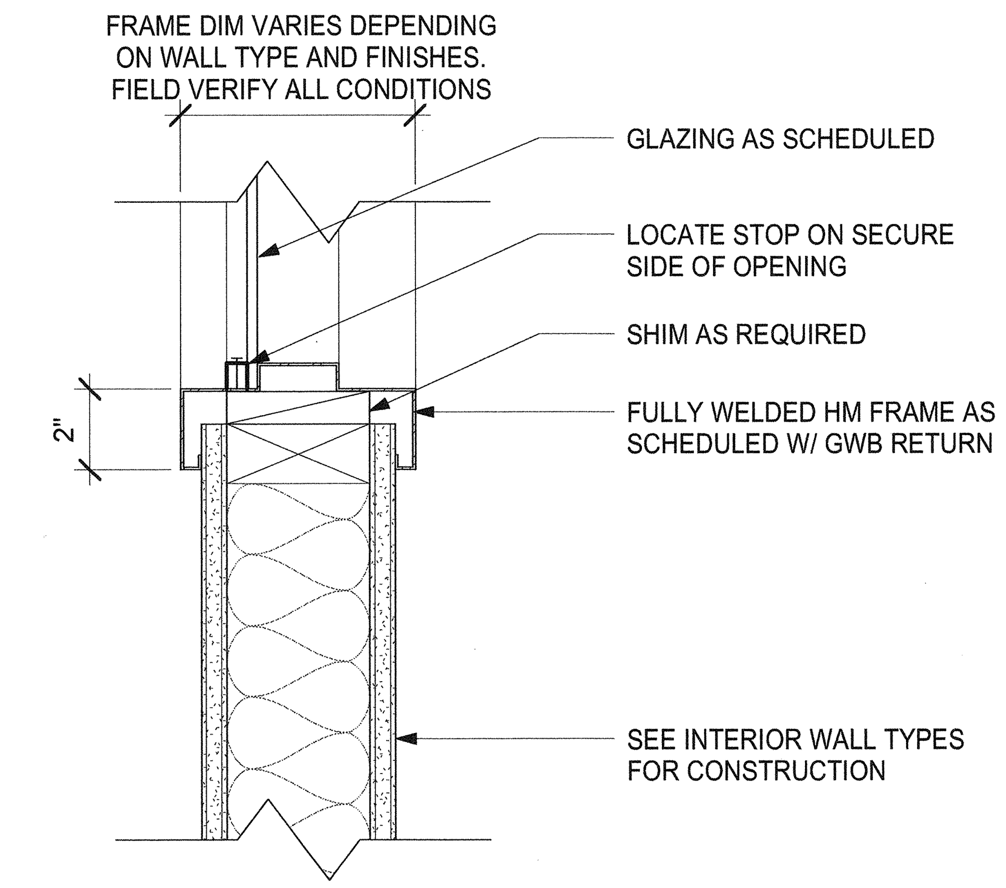
1 HM HEAD - INTERIOR
3" = 1'-0"



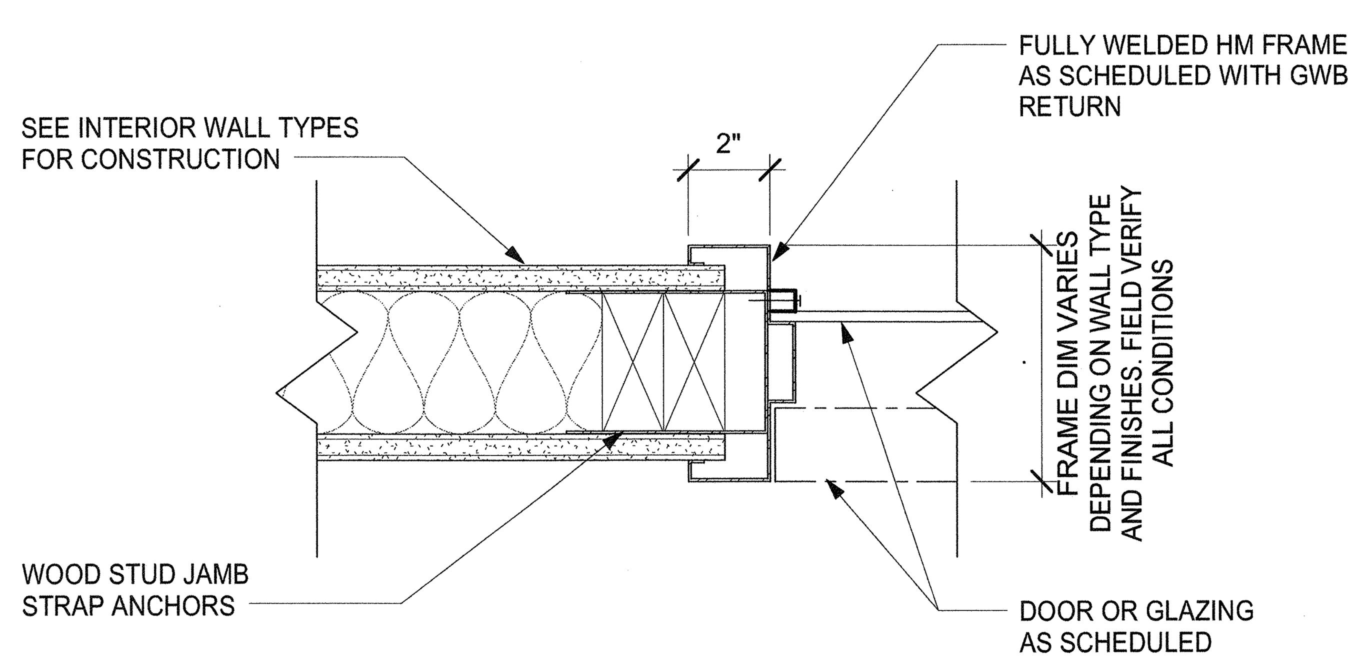
2 HM HEAD - EXTERIOR MP-1
3" = 1'-0"



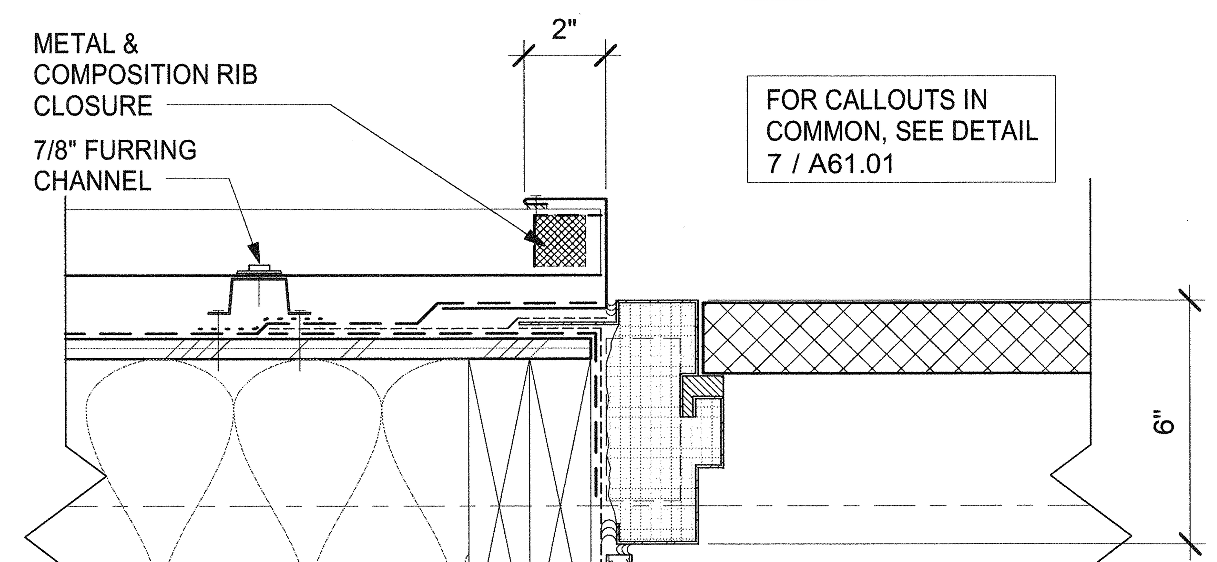
3 HM HEAD - EXTERIOR MP-2
3" = 1'-0"



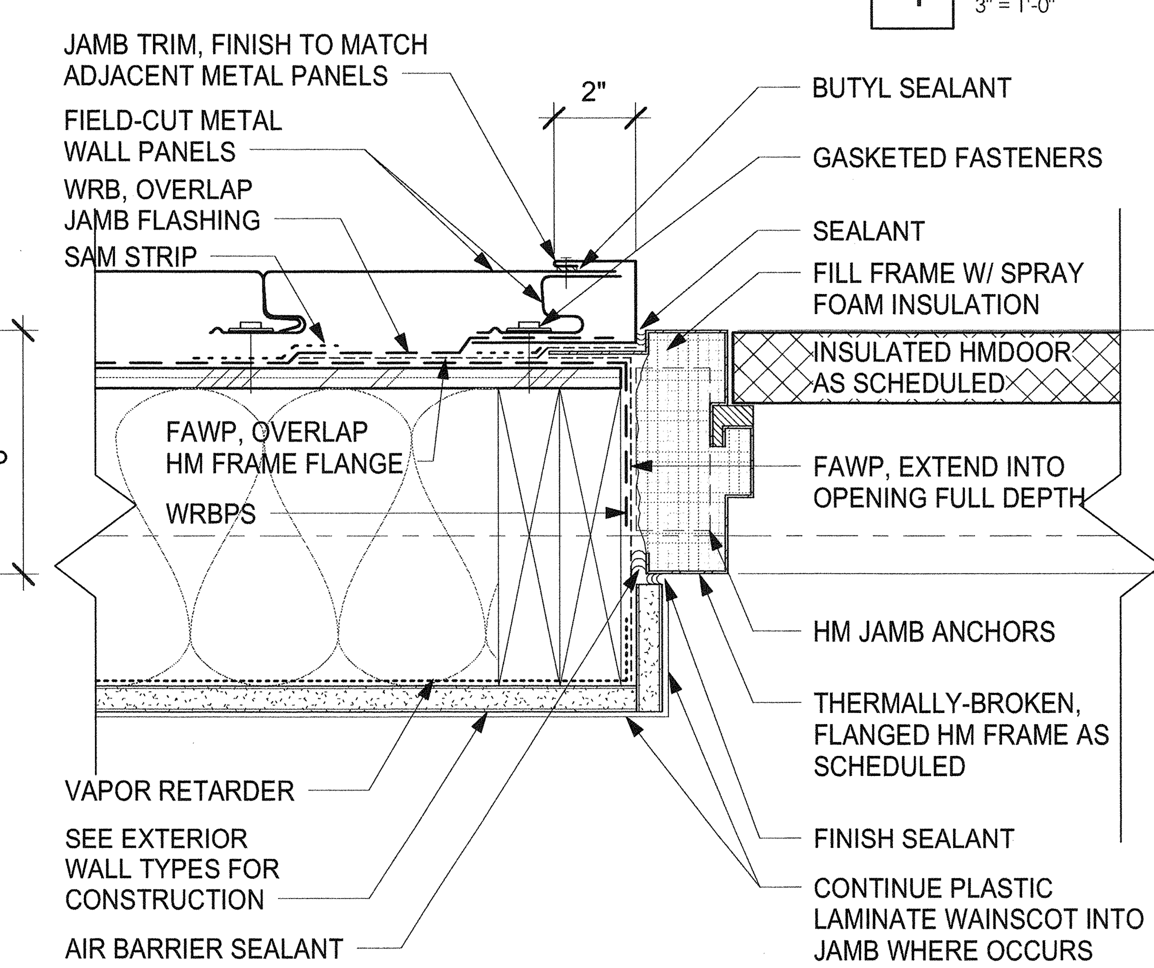
4 HM RELIGHT SILL - INTERIOR
3" = 1'-0"



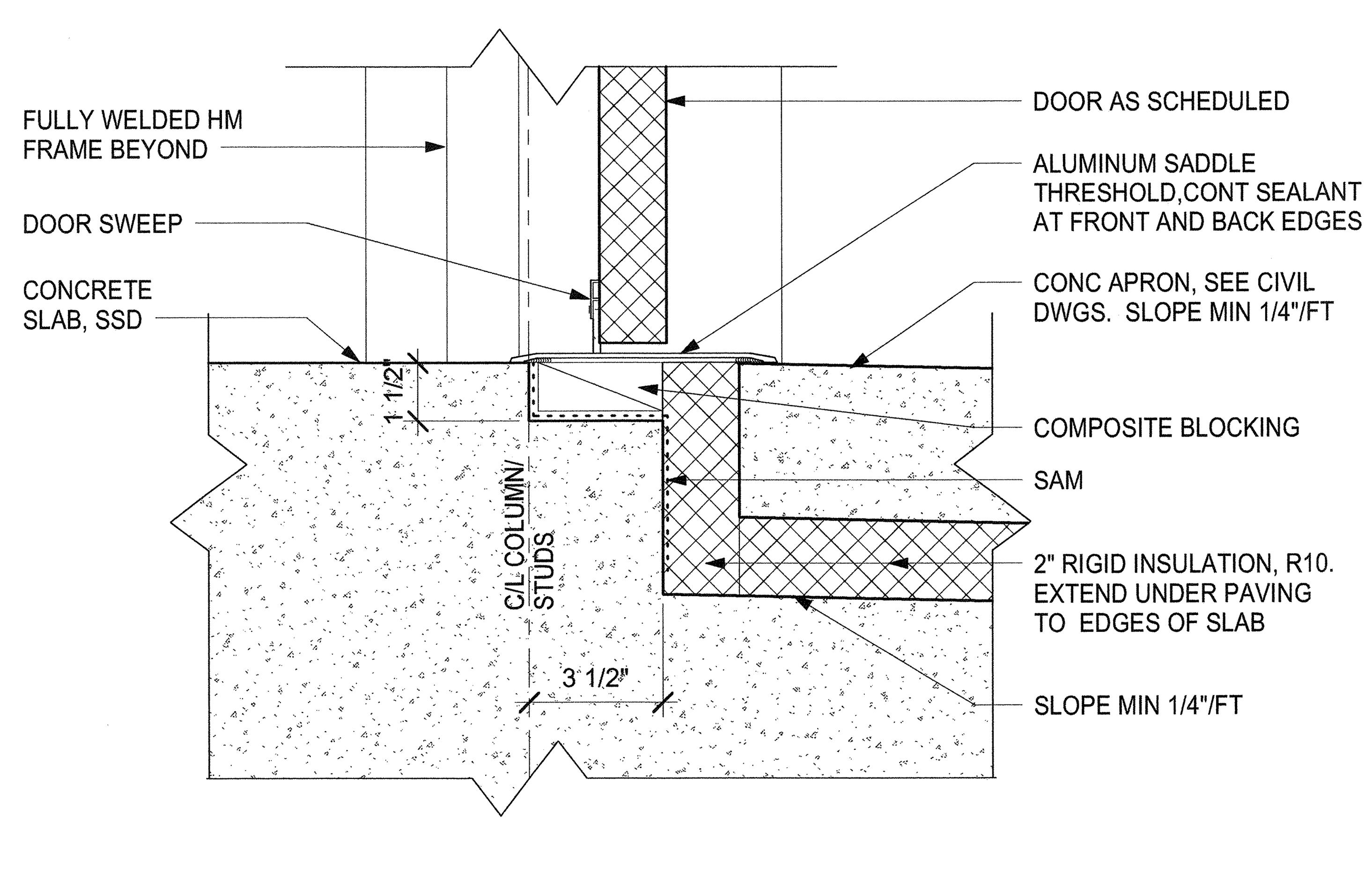
5 HM JAMB - INTERIOR
3" = 1'-0"



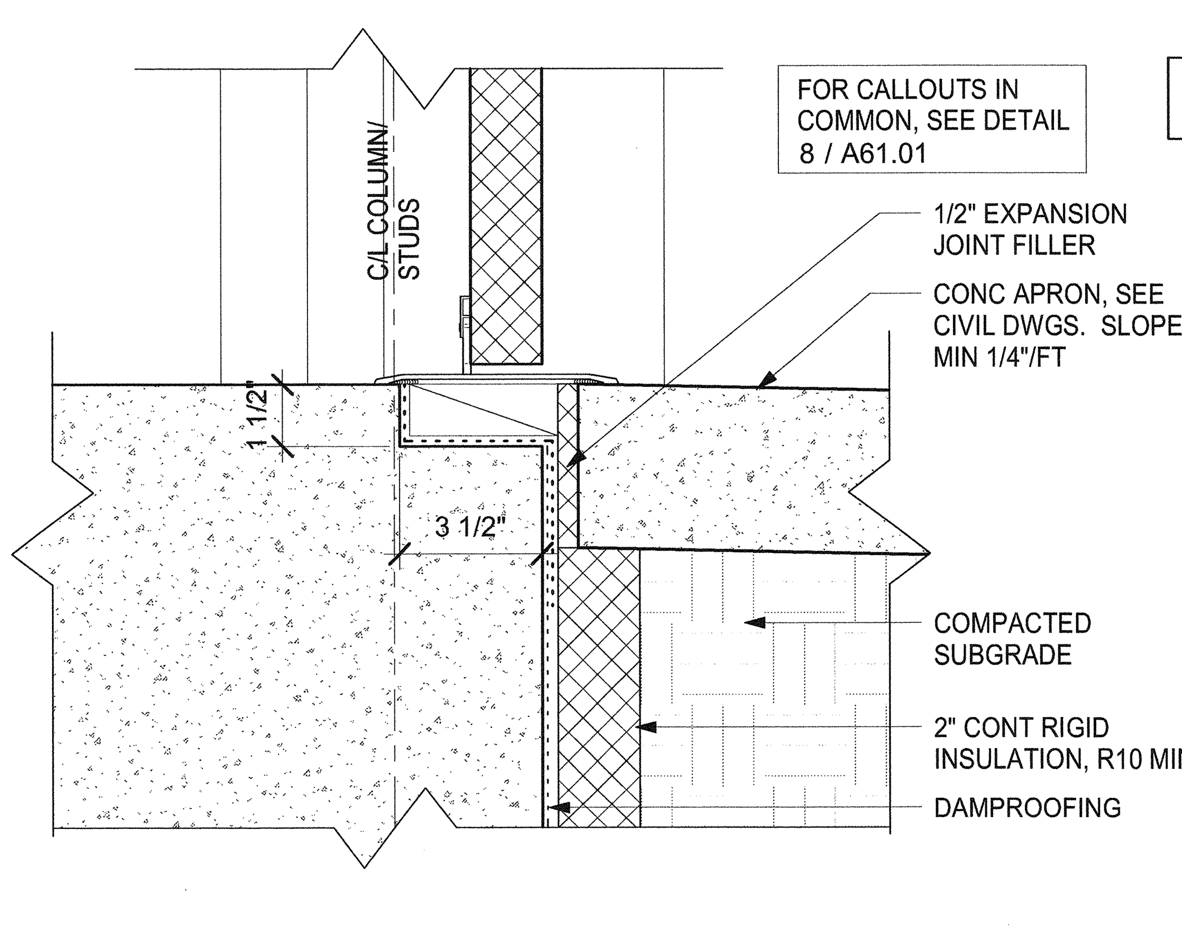
6 HM JAMB - EXTERIOR MP-1
3" = 1'-0"



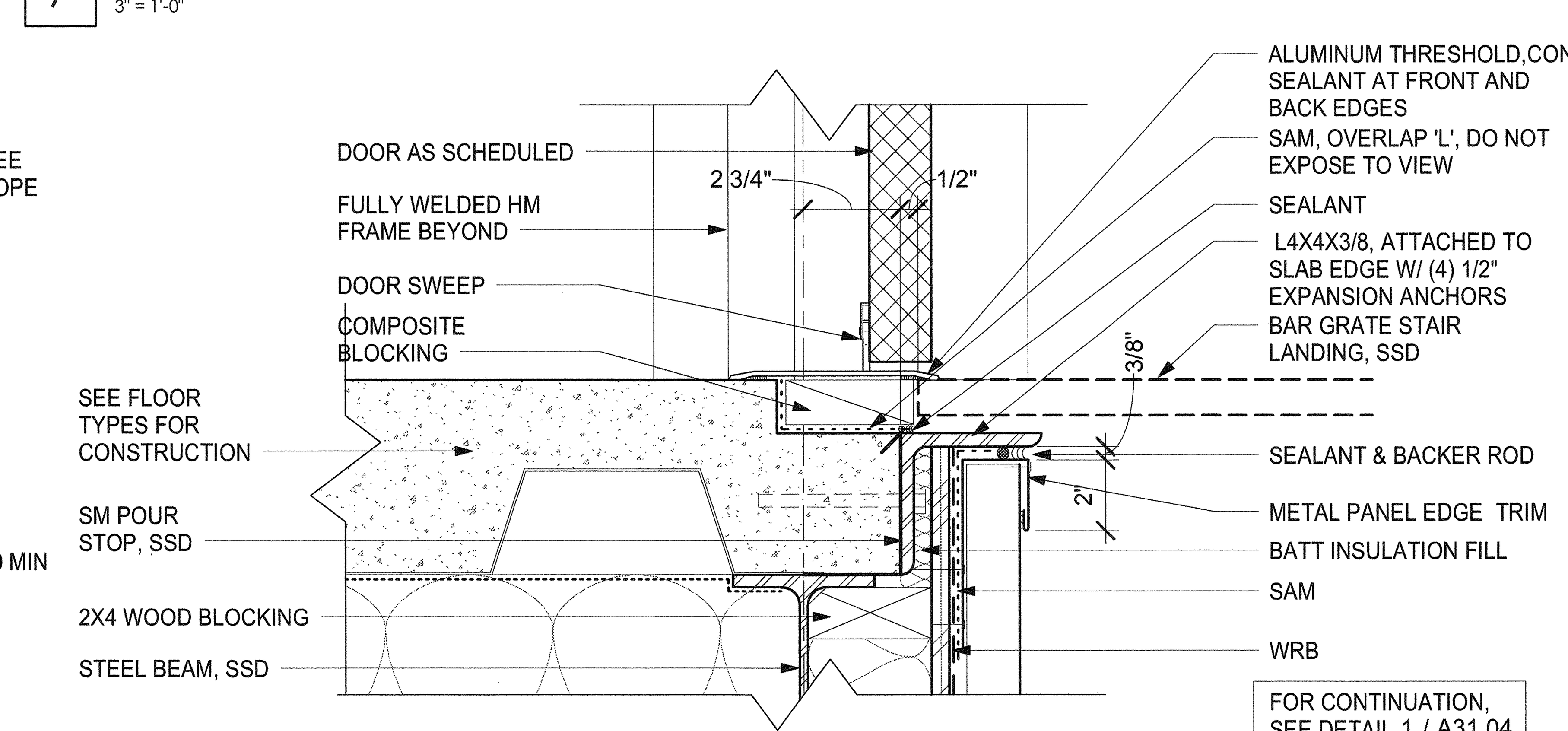
7 HM JAMB - EXTERIOR MP-2
3" = 1'-0"



8 HM THRESHOLD - FLOATING SLAB
3" = 1'-0"



9 HM THRESHOLD - SLAB-ON-GRADE
3" = 1'-0"



10 HM THRESHOLD - STAIR LANDING
3" = 1'-0"

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PIER 4 PHASE 2
MARINE BUILDING
HOLLOW METAL DETAILS

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:	DRAWING SCALE:	AS NOTED

6552
A61.01
SH # 436 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

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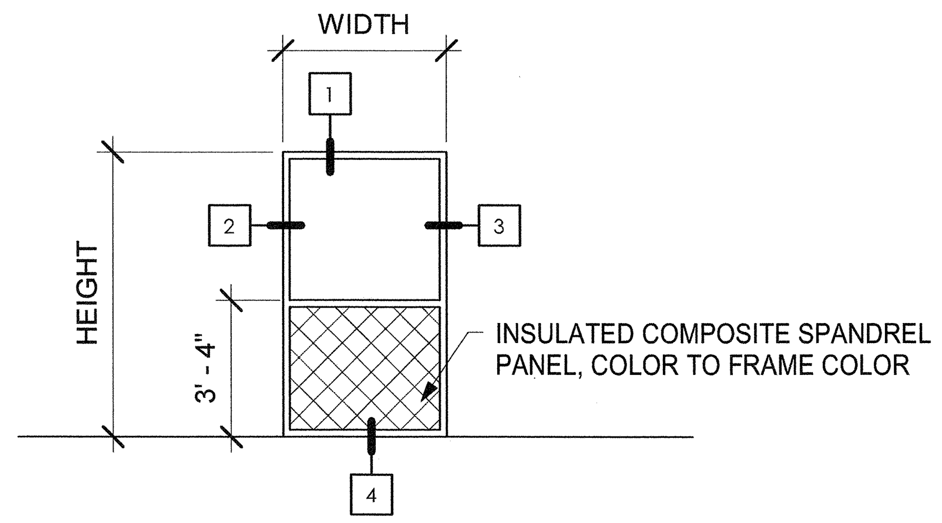
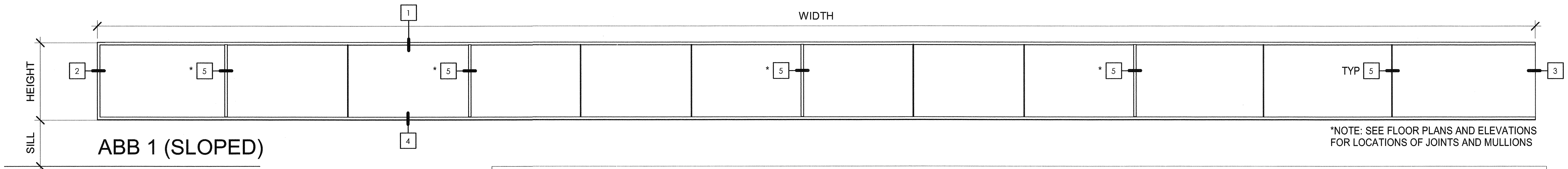
BINDING EDGE

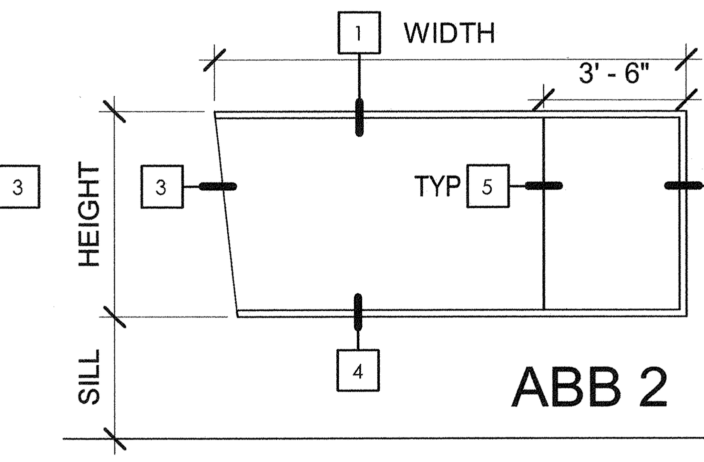


WINDOW SCHEDULE — ALUMINUM STOREFRONT

FRAME TYPE	FRAME NUMBER	ROOM NUMBER	DIMENSIONS WIDTH	HEIGHT	SILL	FIRE RATING	GLASS	DETAILS 1	2	3	4	5	REMARKS
AAA	1	100	2' - 6"	9' - 2"	0"	NR	ITT, SPP	2 / A63.02	4 / A63.02	4 / A63.02	6 / A63.01		
AAA	2	100	2' - 6"	9' - 2"	0"	NR	ITT, SPP	2 / A63.02	4 / A63.02	4 / A63.02	6 / A63.01		
AAA	3	100	2' - 6"	9' - 2"	0"	NR	ITT, SPP	2 / A63.02	4 / A63.02	4 / A63.02	6 / A63.01		
AAA	4	100	2' - 6"	9' - 2"	0"	NR	ITT, SPP	2 / A63.02	4 / A63.02	4 / A63.02	6 / A63.01		
AAA	5	100	2' - 6"	9' - 2"	0"	NR	ITT, SPP	2 / A63.02	4 / A63.02	4 / A63.02	6 / A63.01		
AAA	6	100	2' - 6"	9' - 2"	0"	NR	ITT, SPP	2 / A63.02	4 / A63.02	4 / A63.02	8 / A63.02		
AAA	7	100	2' - 6"	9' - 2"	0"	NR	ITT, SPP	2 / A63.02	4 / A63.02	4 / A63.02	8 / A63.02		
AAA	8	100	2' - 6"	9' - 2"	0"	NR	ITT, SPP	2 / A63.02	4 / A63.02	4 / A63.02	8 / A63.02		
AAA	9	100	2' - 6"	9' - 2"	0"	NR	ITT, SPP	2 / A63.02	4 / A63.02	4 / A63.02	8 / A63.02		
AAA	10	100	2' - 6"	9' - 2"	0"	NR	ITT, SPP	2 / A63.02	4 / A63.02	4 / A63.02	8 / A63.02		

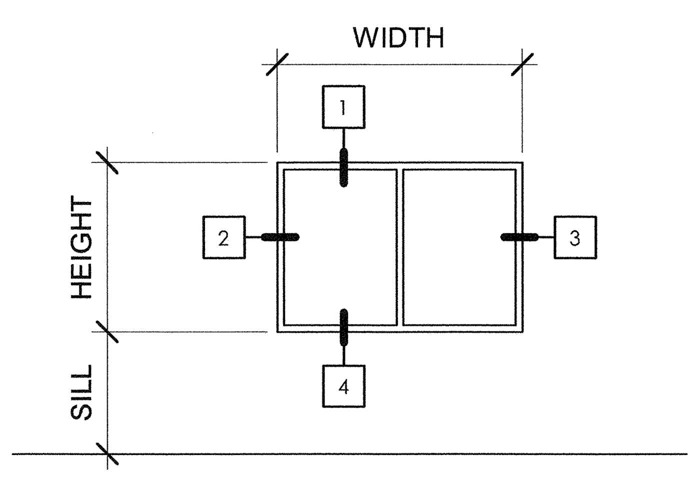


*NOTE: SEE FLOOR PLANS AND ELEVATIONS FOR LOCATIONS OF JOINTS AND MULLIONS



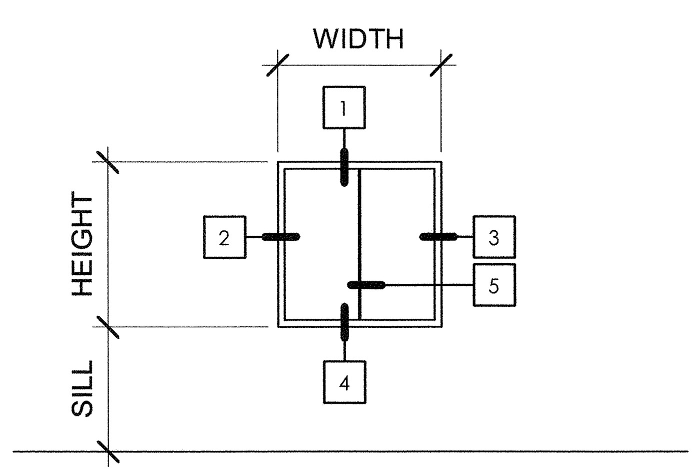
WINDOW SCHEDULE — ALUMINUM STOREFRONT

FRAME TYPE	FRAME NUMBER	ROOM NUMBER	DIMENSIONS WIDTH	HEIGHT	SILL	FIRE RATING	GLASS	DETAILS 1	2	3	4	5	REMARKS
ABB	1	205	88' - 0"	5' - 0"	3' - 0"	NR	ITT	1 / A63.01	3 / A63.01	5 / A63.01	4 / A63.01	2 / A63.01 SIM*	*AT WALL INTERSECTION ADD WALL CLOSURE
ABB	2	209	10' - 0"	5' - 0"	3' - 0"	NR	ITT	1 / A63.02	3 / A63.02	5 / A63.01	5 / A63.02	2 / A63.01 SIM*	*AT WALL INTERSECTION ADD WALL CLOSURE



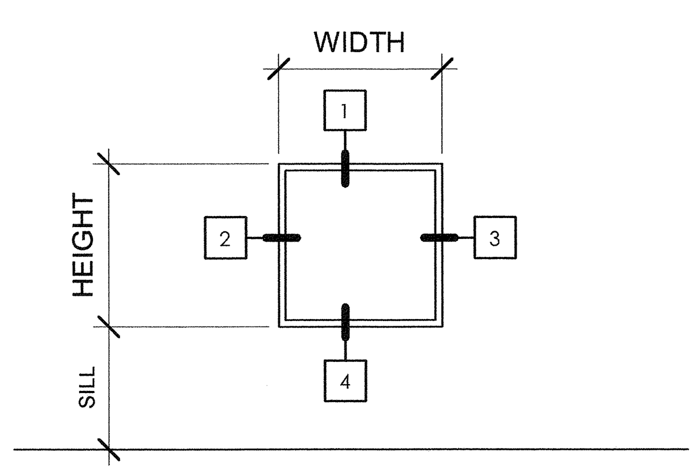
WINDOW SCHEDULE — INTERIOR HOLLOW METAL

FRAME TYPE	FRAME NUMBER	ROOM NUMBER	DIMENSIONS WIDTH	HEIGHT	SILL	FIRE RATING	GLASS	DETAILS 1	2	3	4	5	REMARKS
AA	1	210	5' - 6"	4' - 2"	3' - 0"	NR	T	1 / A61.01	5 / A61.01	5 / A61.01	4 / A61.01		HM
AA	2	206	5' - 6"	4' - 2"	3' - 0"	NR	T	1 / A61.01	5 / A61.01	5 / A61.01	4 / A61.01		HM



WINDOW SCHEDULE — ALUMINUM STOREFRONT

FRAME TYPE	FRAME NUMBER	ROOM NUMBER	DIMENSIONS WIDTH	HEIGHT	SILL	FIRE RATING	GLASS	DETAILS 1	2	3	4	5	REMARKS
ADD	1	211	11' - 3"	2' - 2"	5' - 0"	NR	ITT	1 / A63.02	3 / A63.02	3 / A63.02	5 / A63.02	2 / A63.01 SIM	
ADD	2	211	10' - 0"	2' - 2"	5' - 0"	NR	ITT	1 / A63.02	3 / A63.02	3 / A63.02	5 / A63.02	2 / A63.01 SIM	
ADD	3	211	9' - 2"	2' - 2"	5' - 0"	NR	ITT	1 / A63.02	3 / A63.02	3 / A63.02	5 / A63.02	2 / A63.01 SIM	



WINDOW SCHEDULE — ALUMINUM STOREFRONT

FRAME TYPE	FRAME NUMBER	ROOM NUMBER	DIMENSIONS WIDTH	HEIGHT	SILL	FIRE RATING	GLASS	DETAILS 1	2	3	4	5	REMARKS
AAC	1	107	4' - 0"	4' - 0"	3' - 2"	NR	ITT	2 / A63.02	4 / A63.02	4 / A63.02	6 / A63.02		
AAC	2	107	4' - 0"	4' - 0"	3' - 2"	NR	ITT	2 / A63.02	4 / A63.02	4 / A63.02	6 / A63.02		
AAC	3	106	4' - 0"	4' - 0"	3' - 2"	NR	ITT	2 / A63.02	4 / A63.02	4 / A63.02	6 / A63.02		
AAC	4	108	2' - 0"	12' - 0"	0"	NR	ITT	9 / A63.02	3 / A63.02	3 / A63.02	8 / A63.02		
AAC	5	108	2' - 0"	8' - 0"	14' - 0"	NR	ITT	1 / A63.02	3 / A63.02	3 / A63.02	9 / A63.02		

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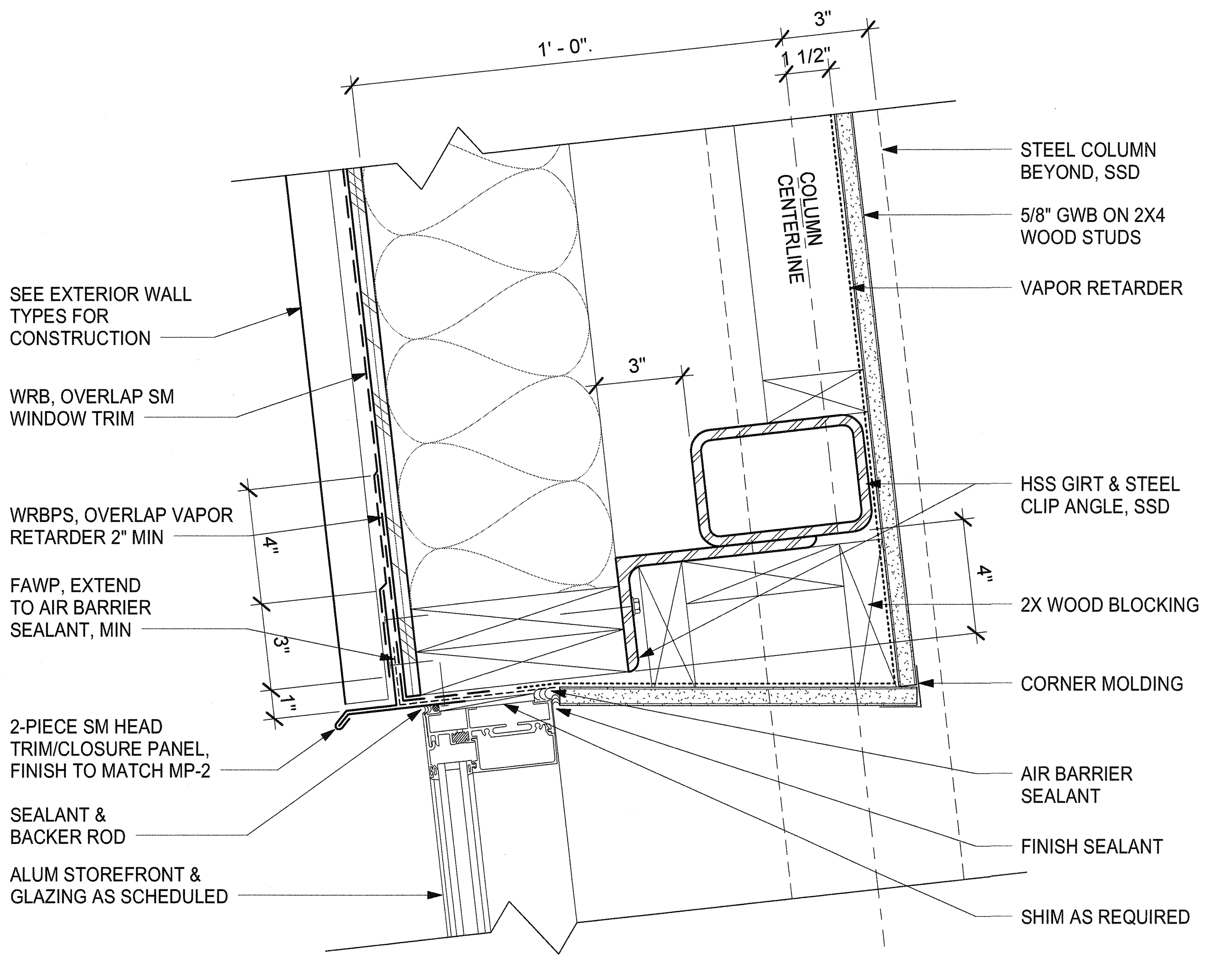
PIER 4 PHASE 2
MARINE BUILDING
FRAME TYPES AND SCHEDULES

TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

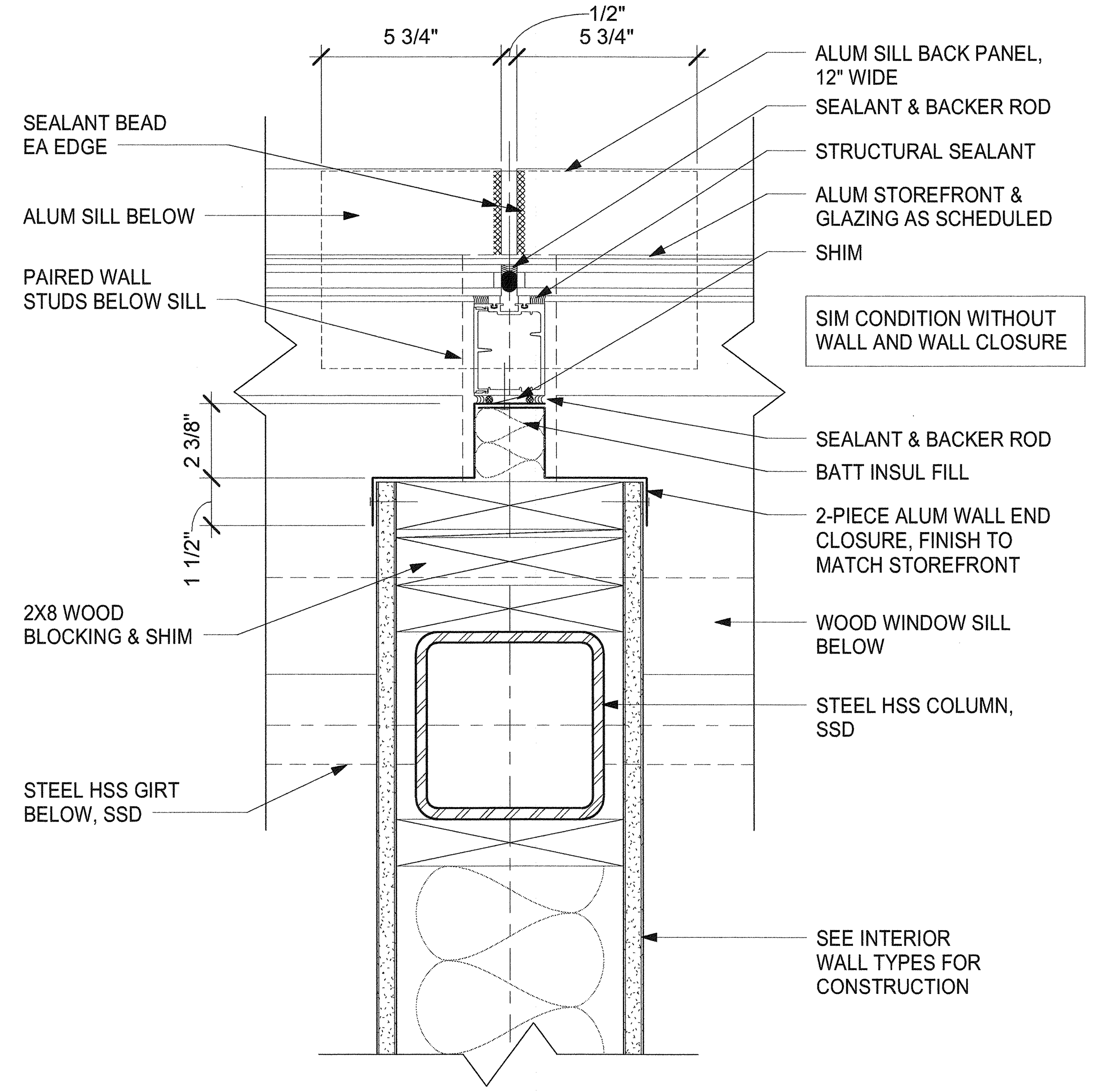
6552
A63.00
SH # 437 OF # 499

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

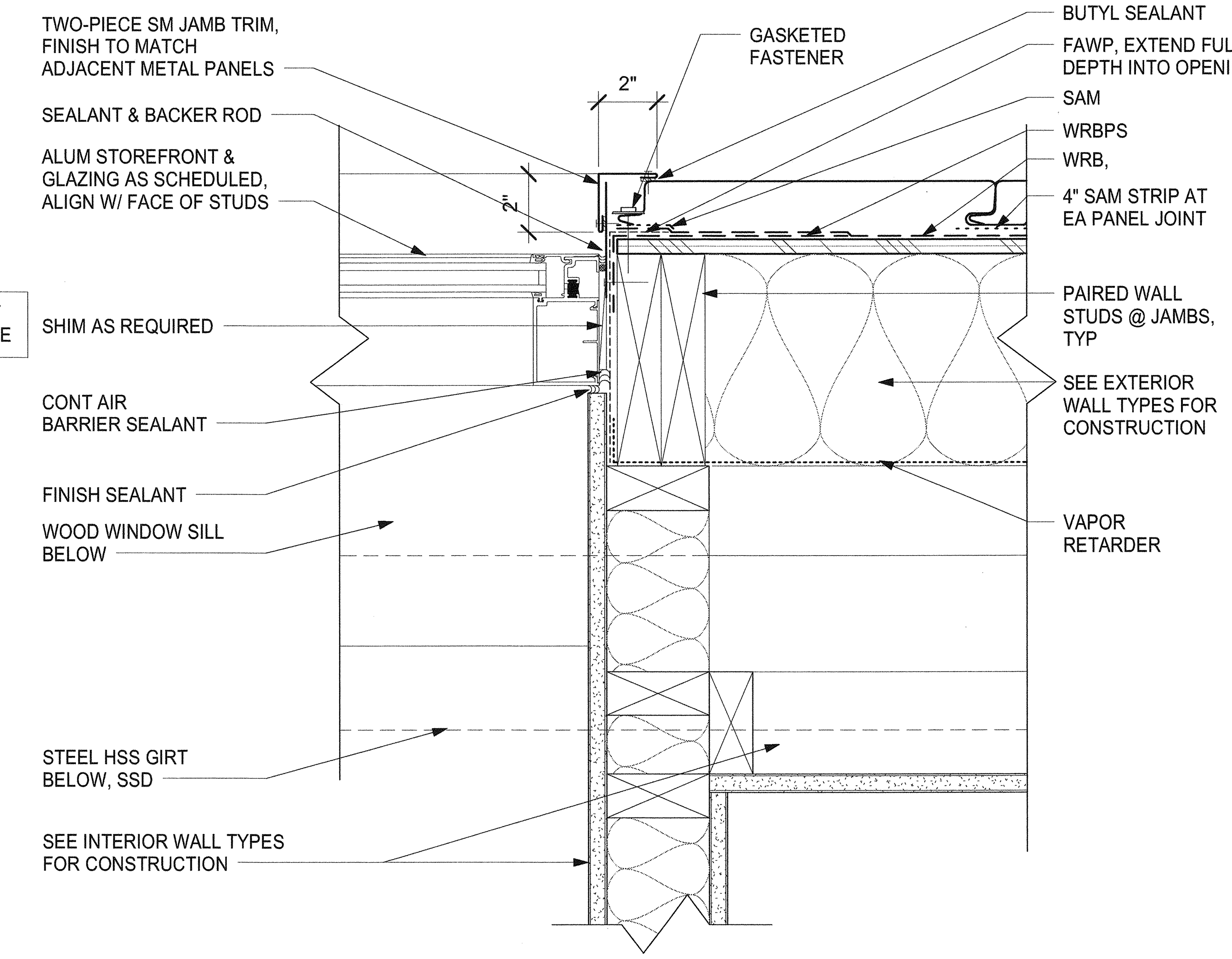
BINDING EDGE



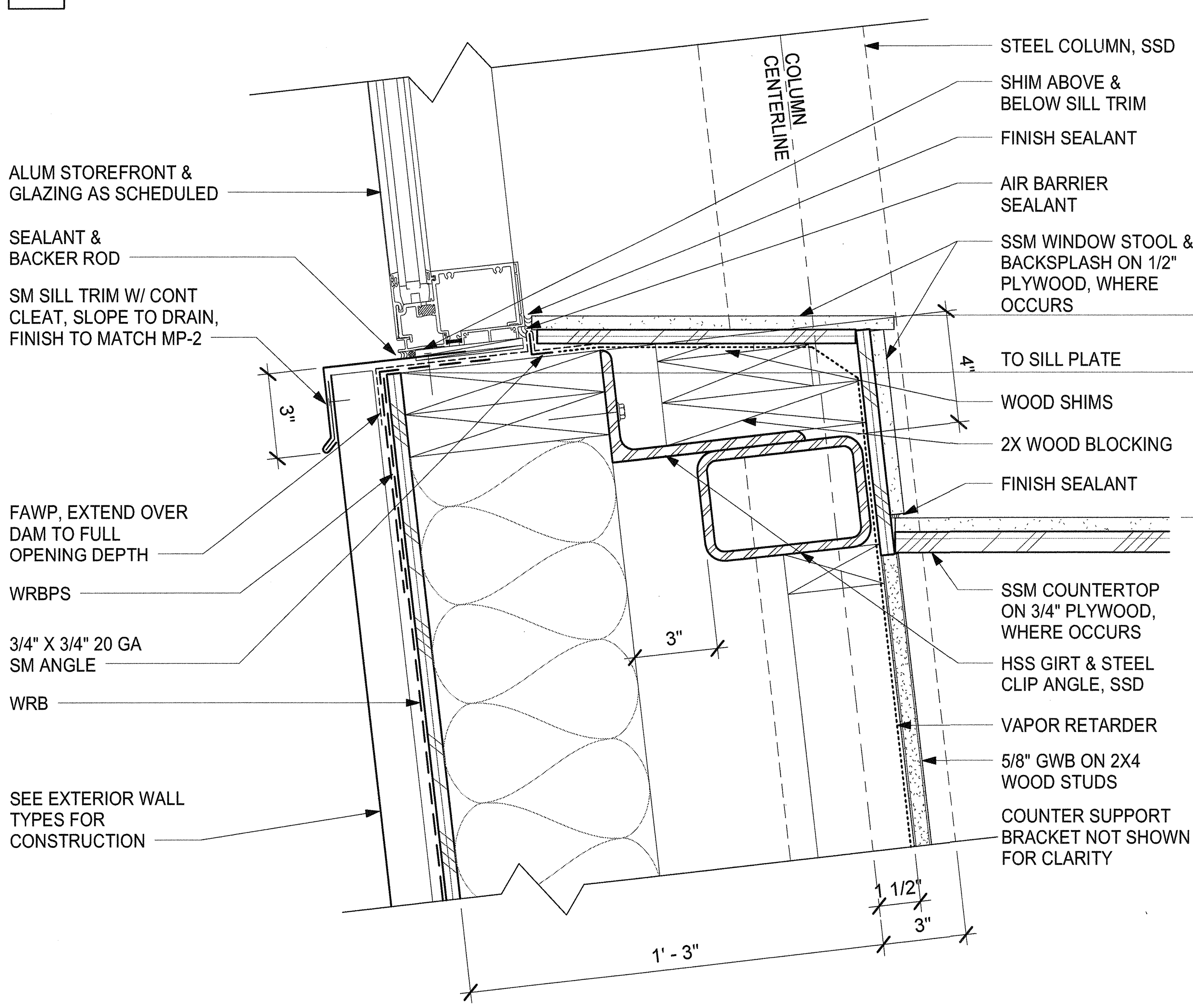
1 WINDOW HEAD - SLOPED
3" = 1'-0"



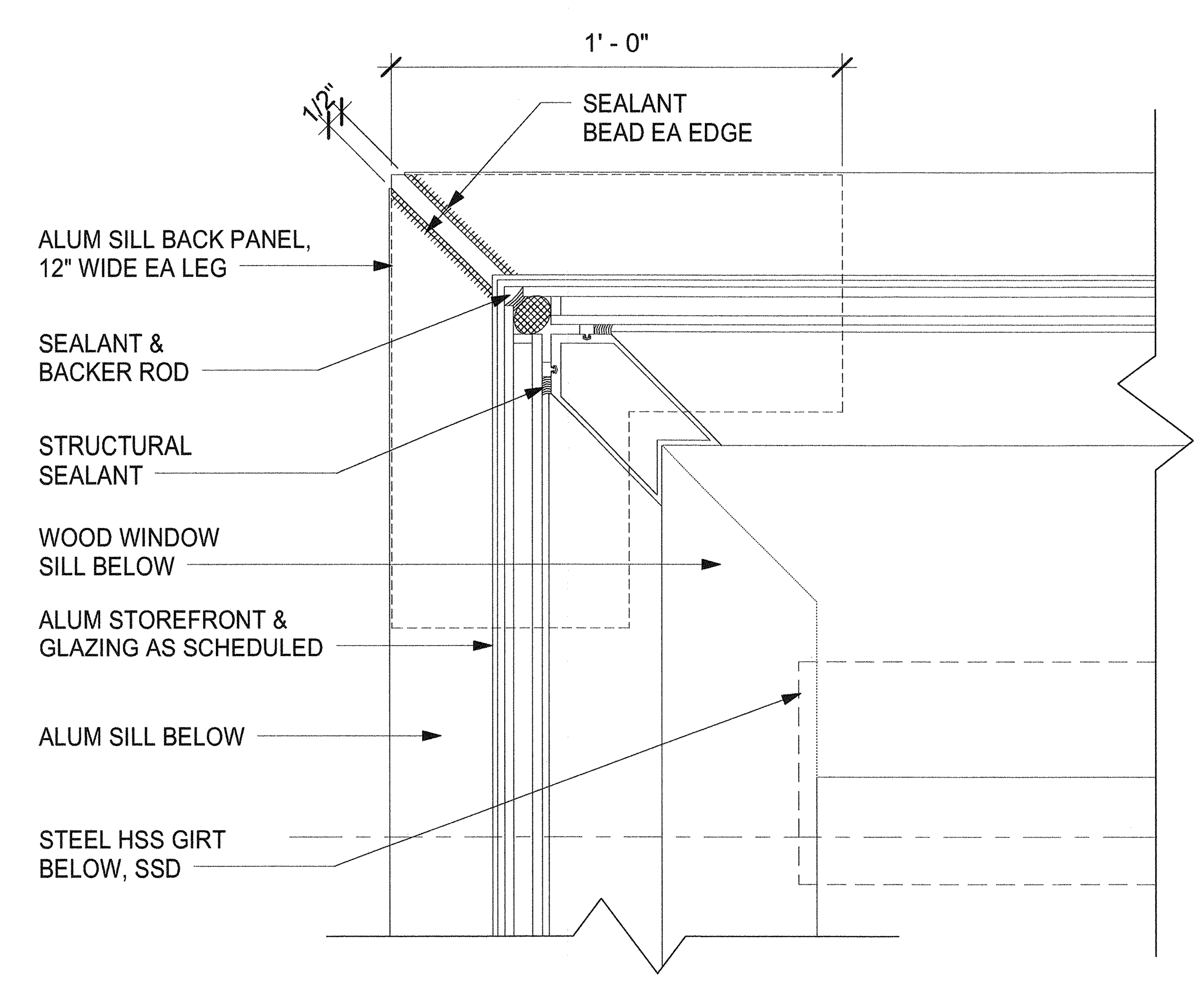
2 WINDOW MULLION
3" = 1'-0"



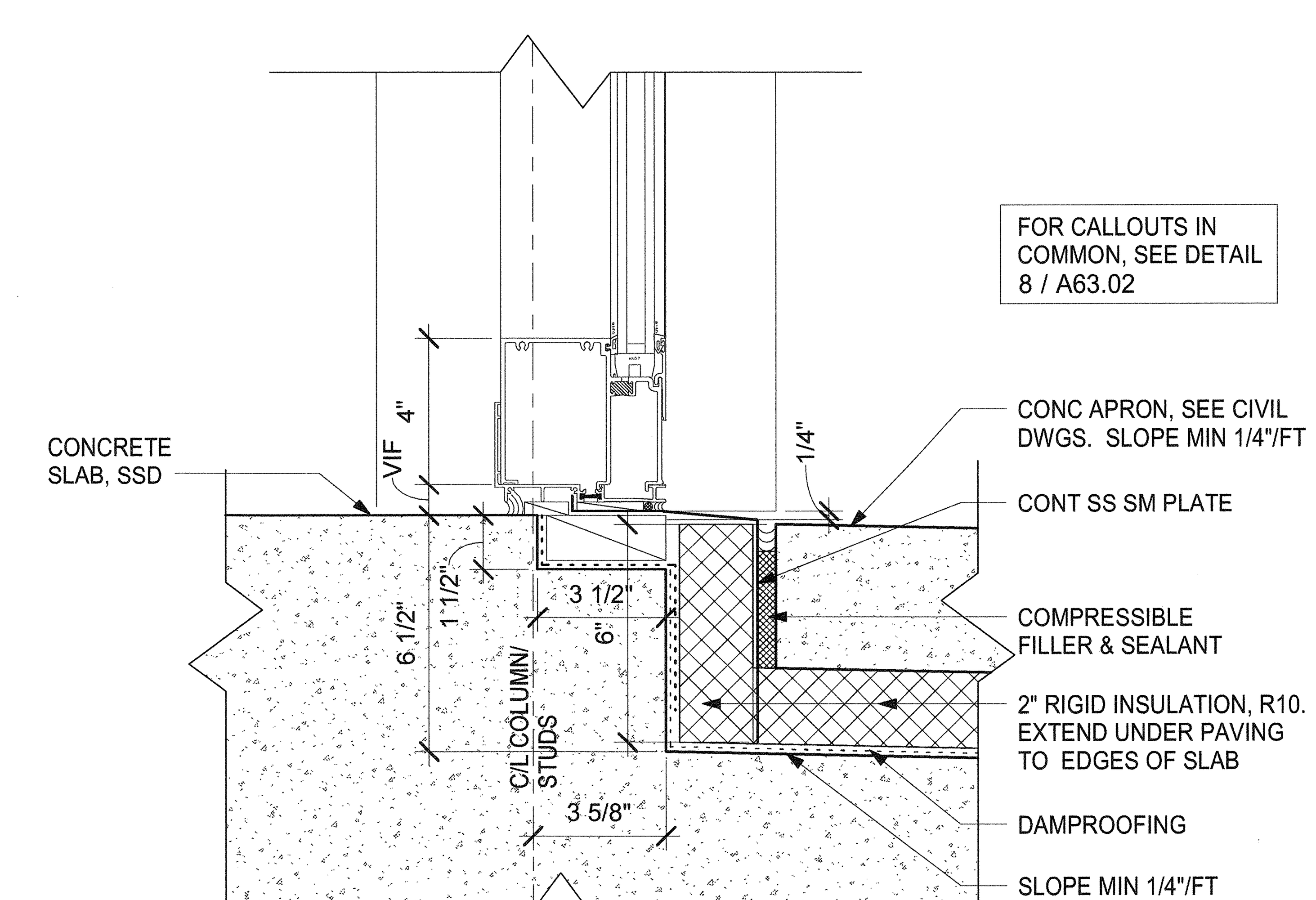
3 WINDOW JAMB - SLOPED
3" = 1'-0"



4 WINDOW SILL - SLOPED
3" = 1'-0"



5 WINDOW JAMB - CORNER
3" = 1'-0"



6 WINDOW SILL AT DEPRESSED SLAB
3" = 1'-0"

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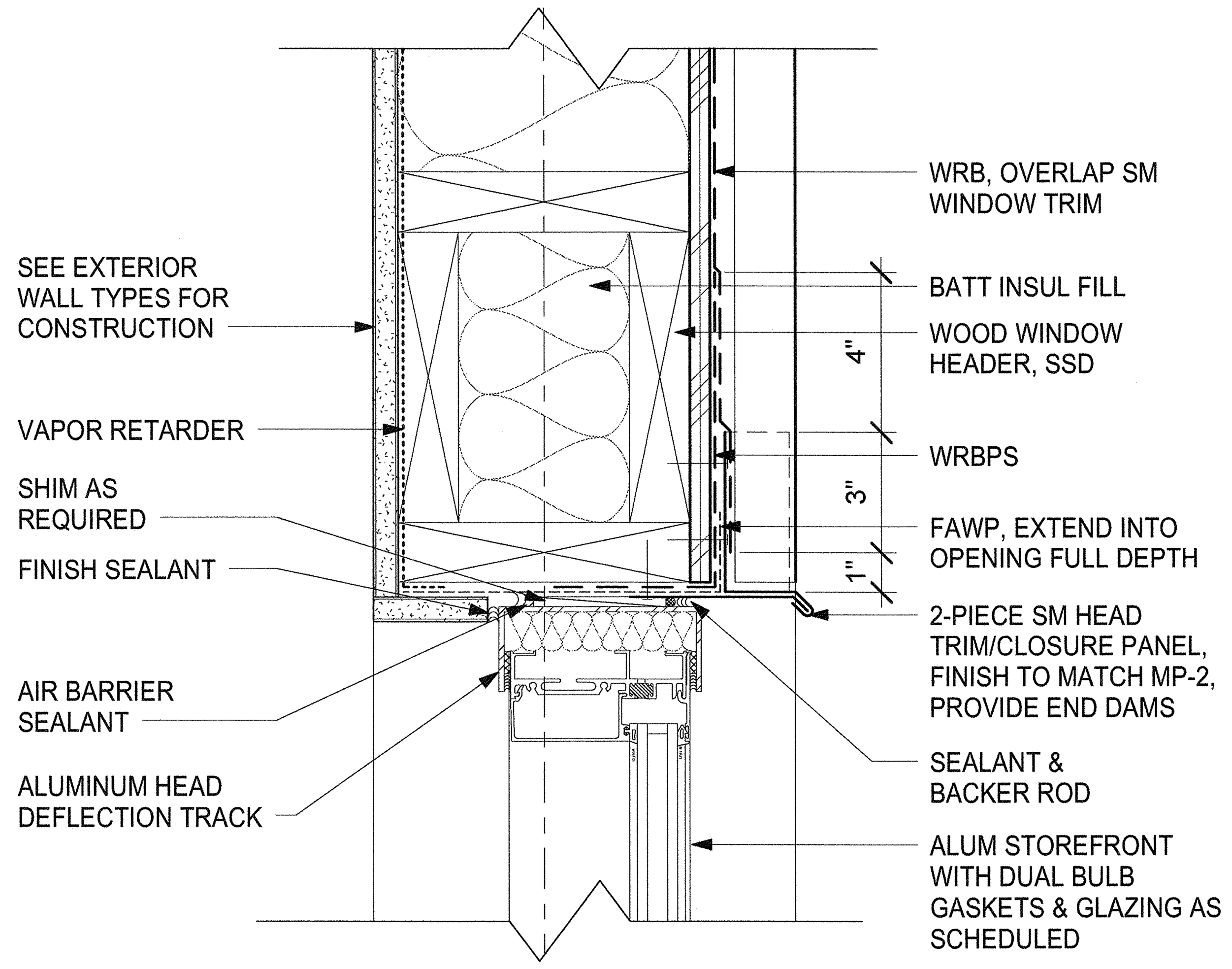
PIER 4 PHASE 2
MARINE BUILDING
ALUMINUM FRAME DETAILS

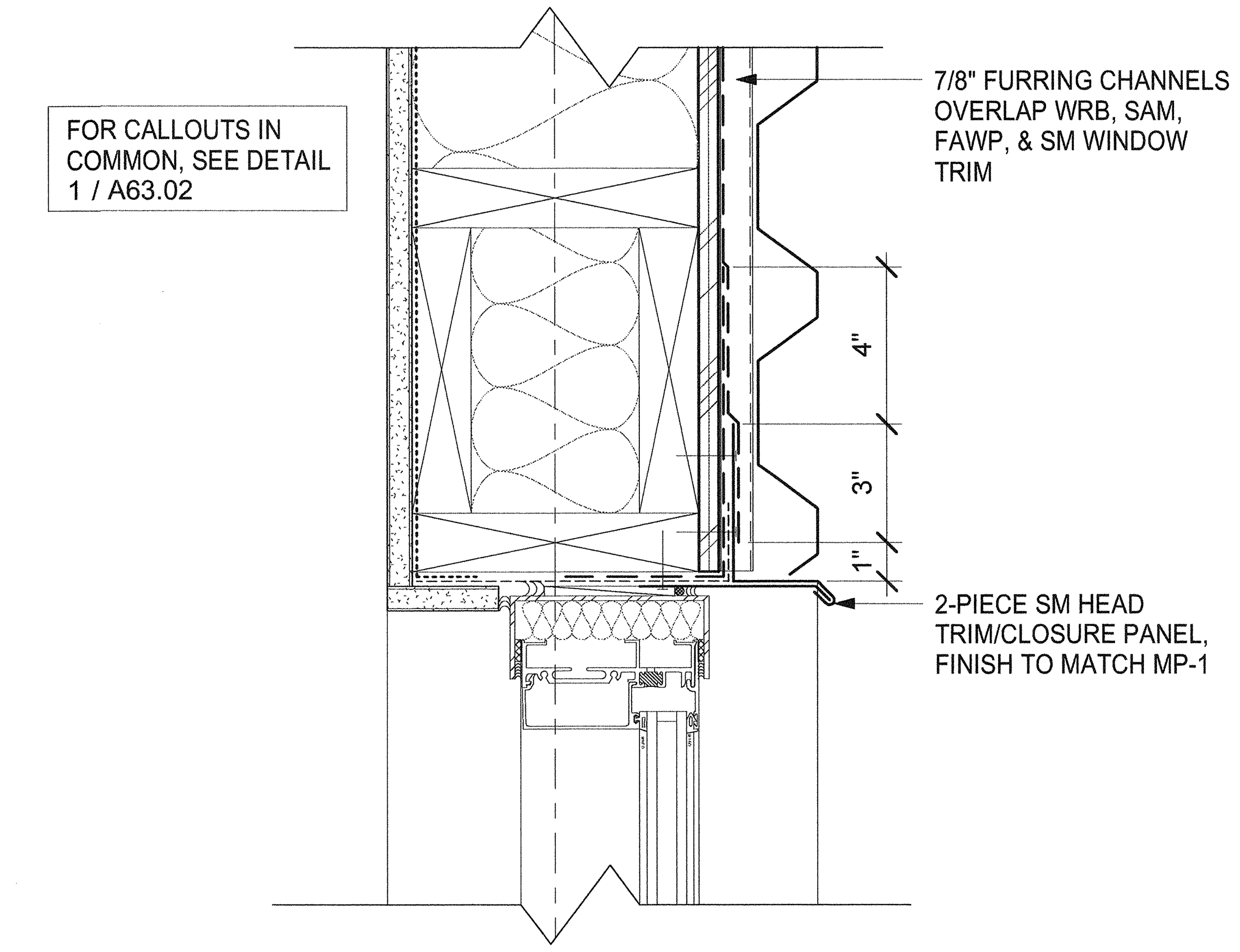
TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:	DRAWING SCALE: AS NOTED	

6552
A63.01
SH # 438 OF # 499

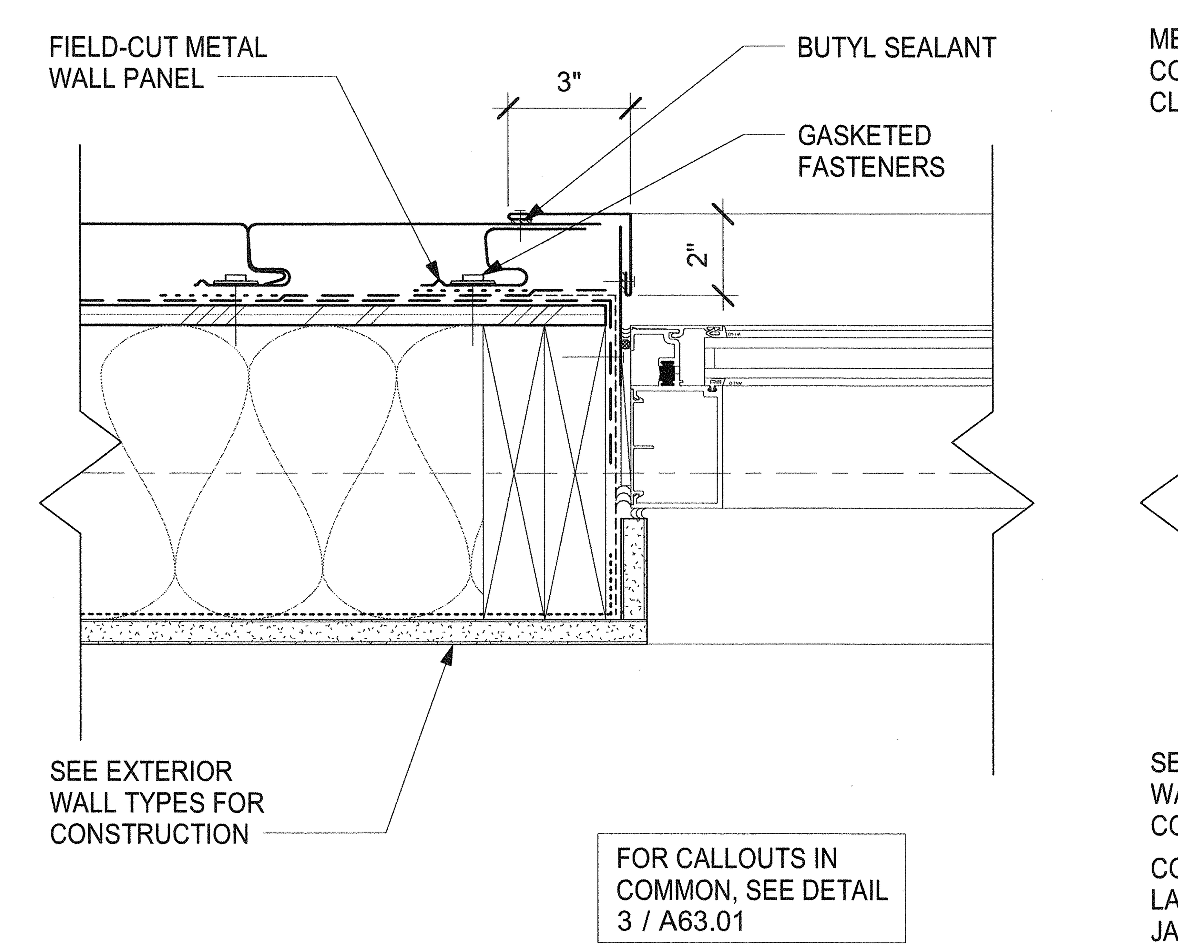
CONT/CONS: 070136
M. ID: 091251
PHASE: BID



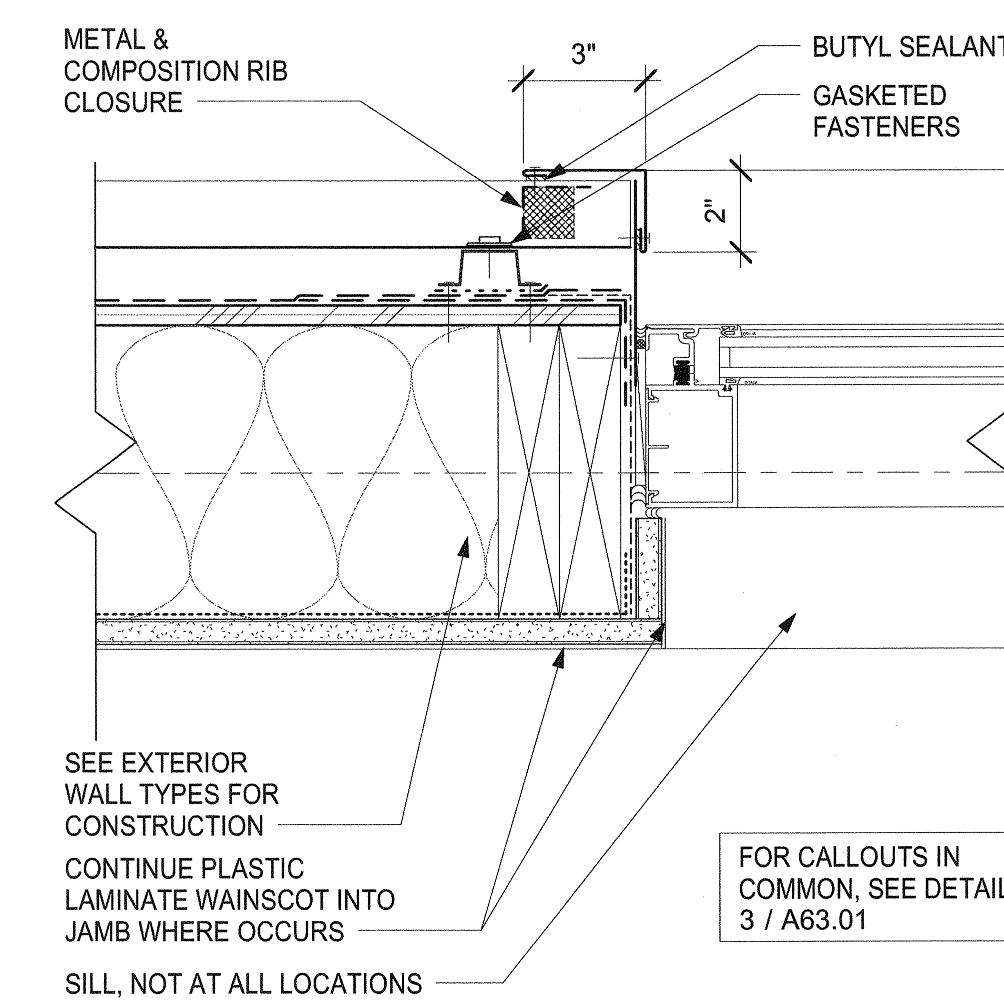
1 WINDOW HEAD AT MP-2
3" = 1'-0"



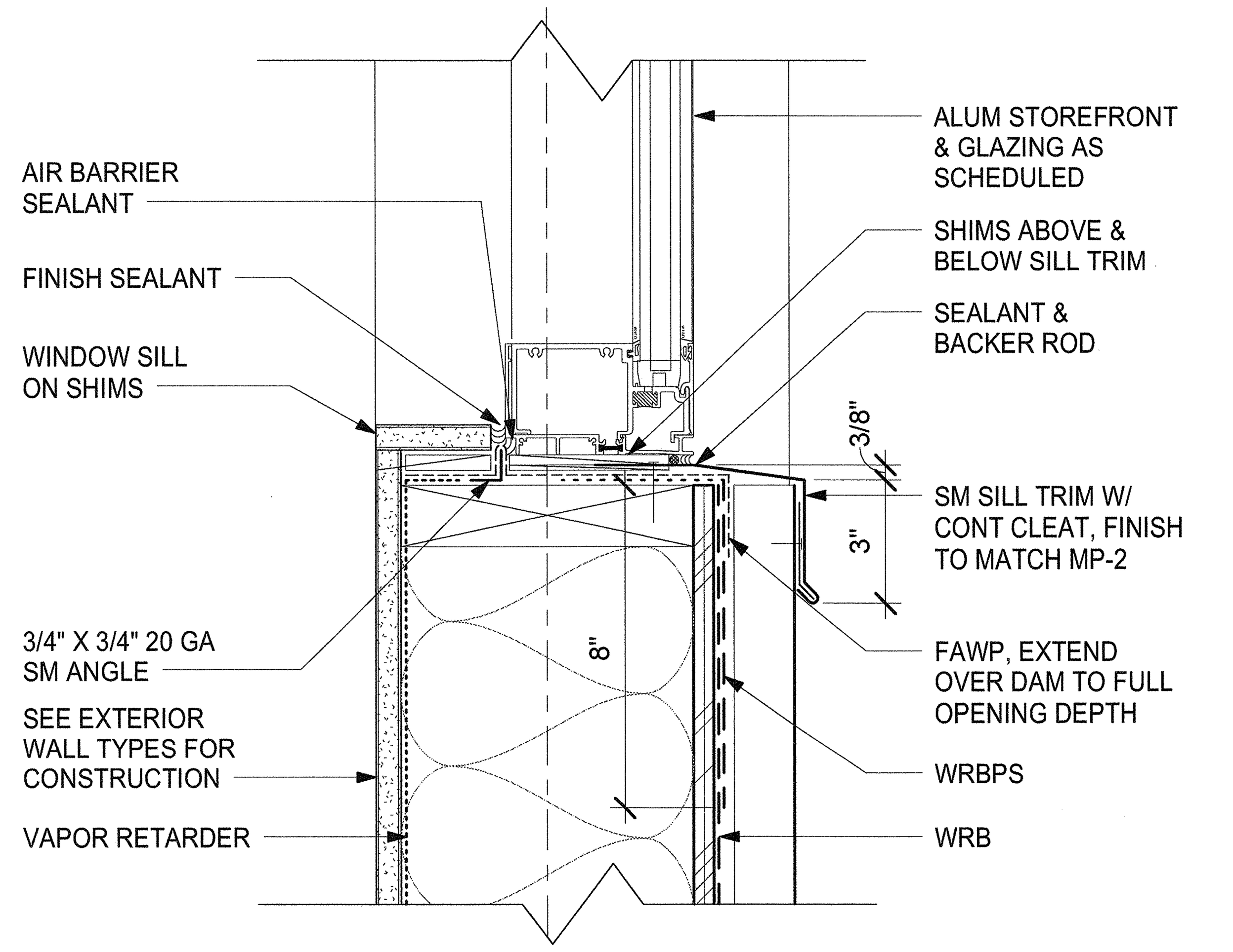
2 WINDOW HEAD AT MP-1
3" = 1'-0"



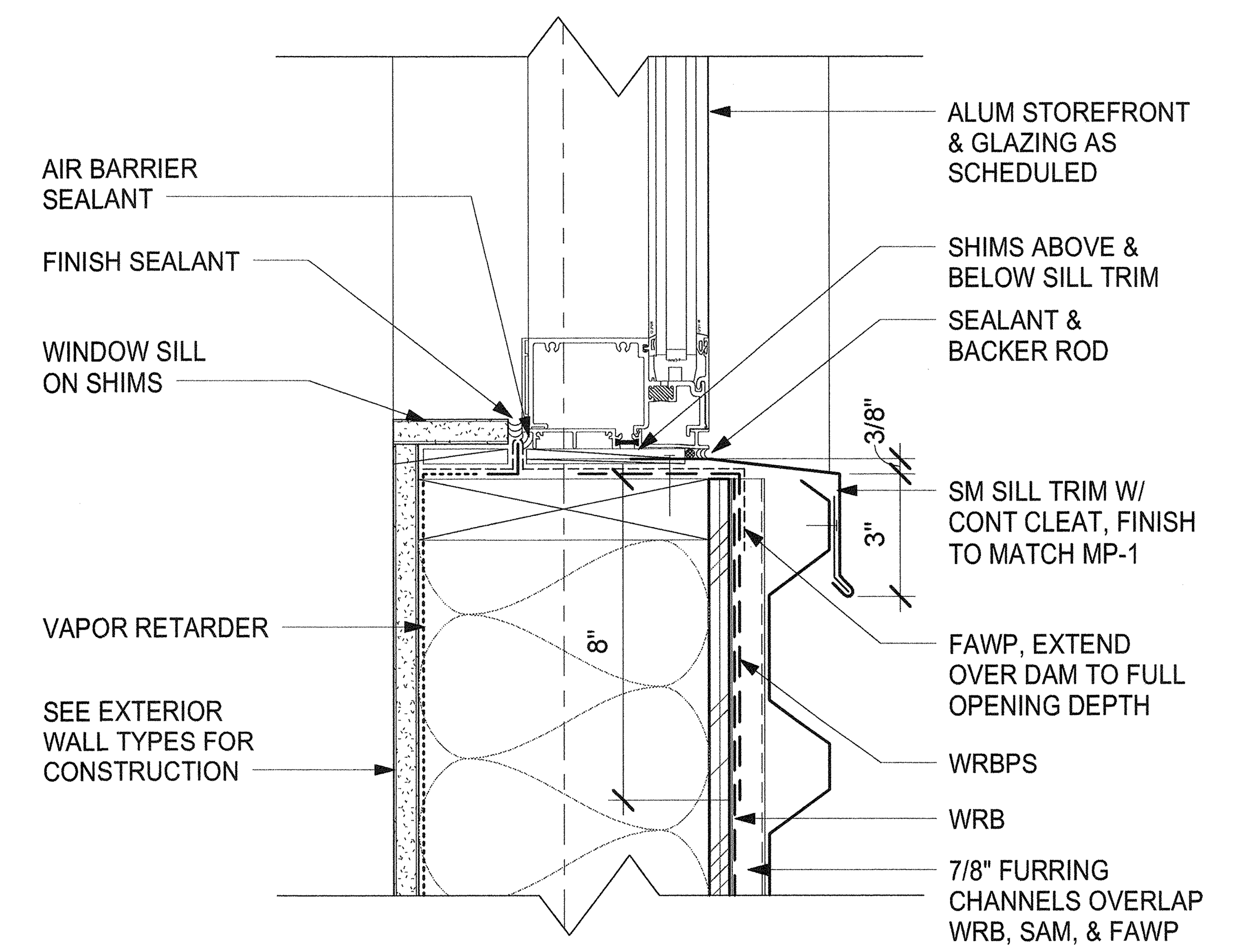
3 WINDOW JAMB AT MP-2
3" = 1'-0"



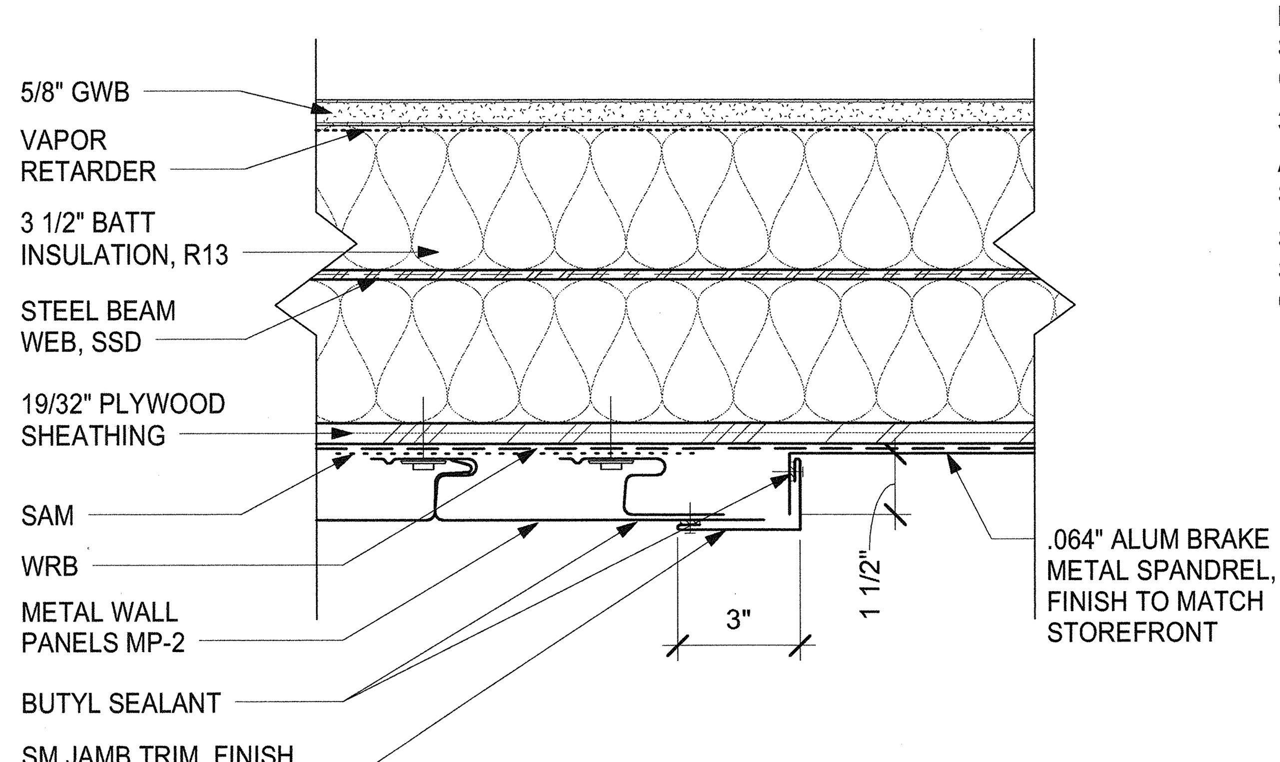
4 WINDOW JAMB AT MP-1
3" = 1'-0"



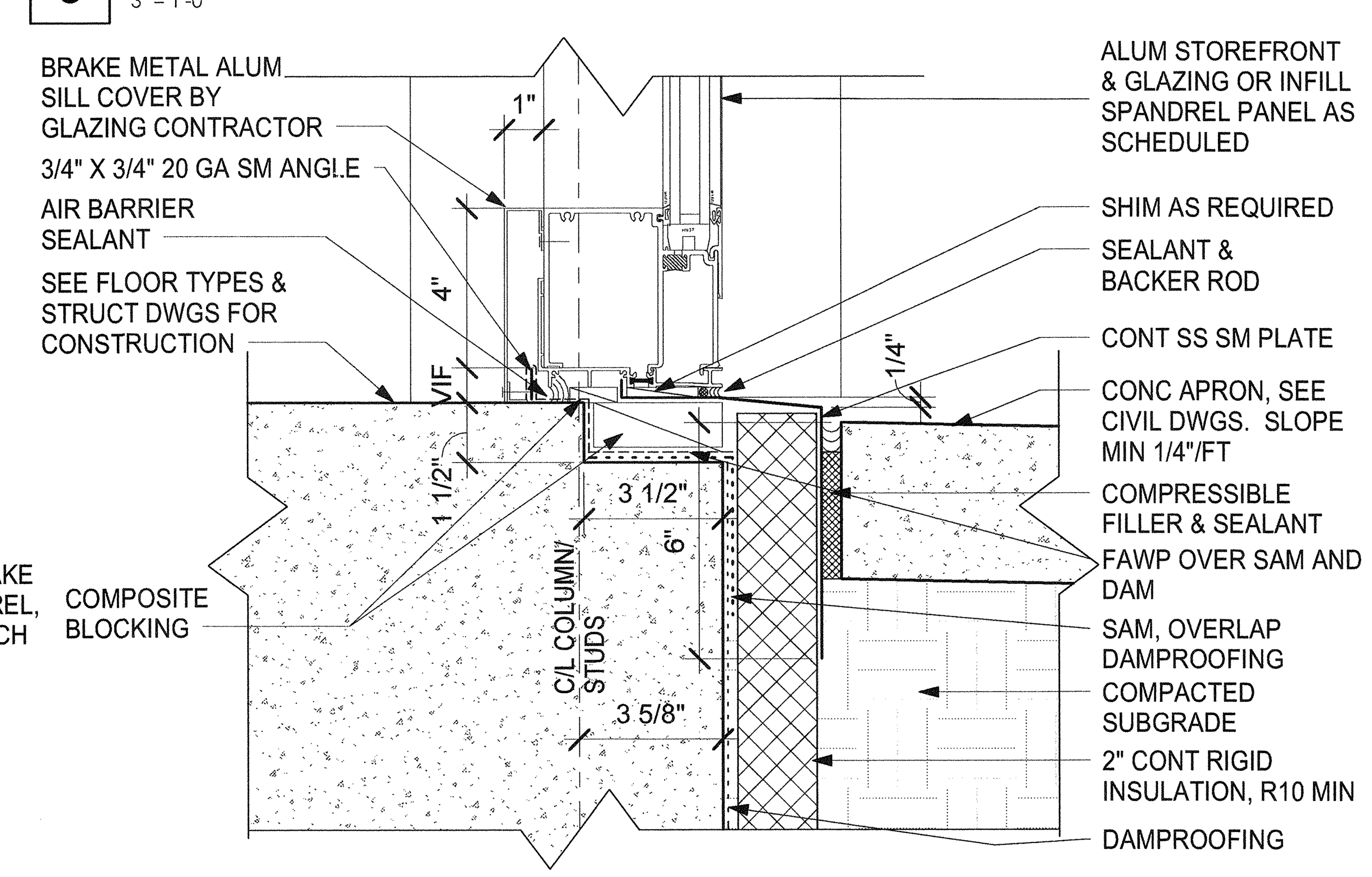
5 WINDOW SILL AT MP-2
3" = 1'-0"



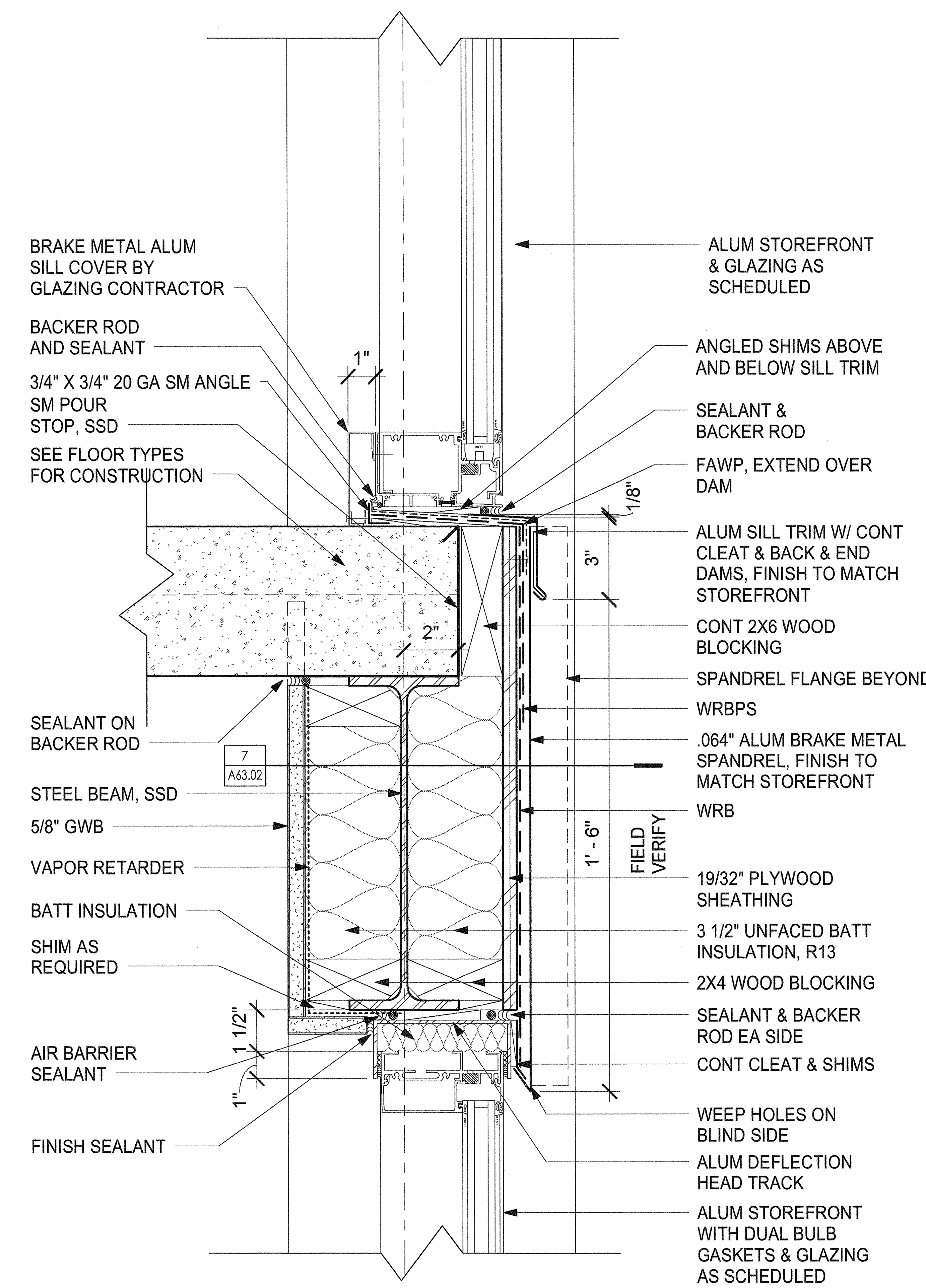
6 WINDOW SILL AT MP-1
3" = 1'-0"



7 SPANDREL - PLAN
3" = 1'-0"



8 WINDOW SILL AT APRON
3" = 1'-0"



9 SPANDREL - SECTION
3" = 1'-0"

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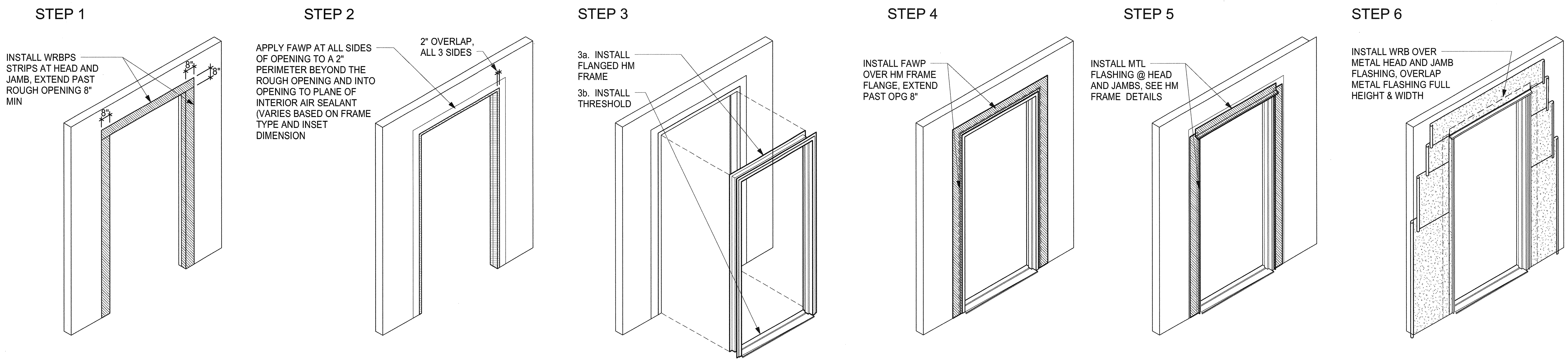
PIER 4 PHASE 2
MARINE BUILDING
ALUMINUM FRAME DETAILS

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:	DRAWING SCALE: AS NOTED	

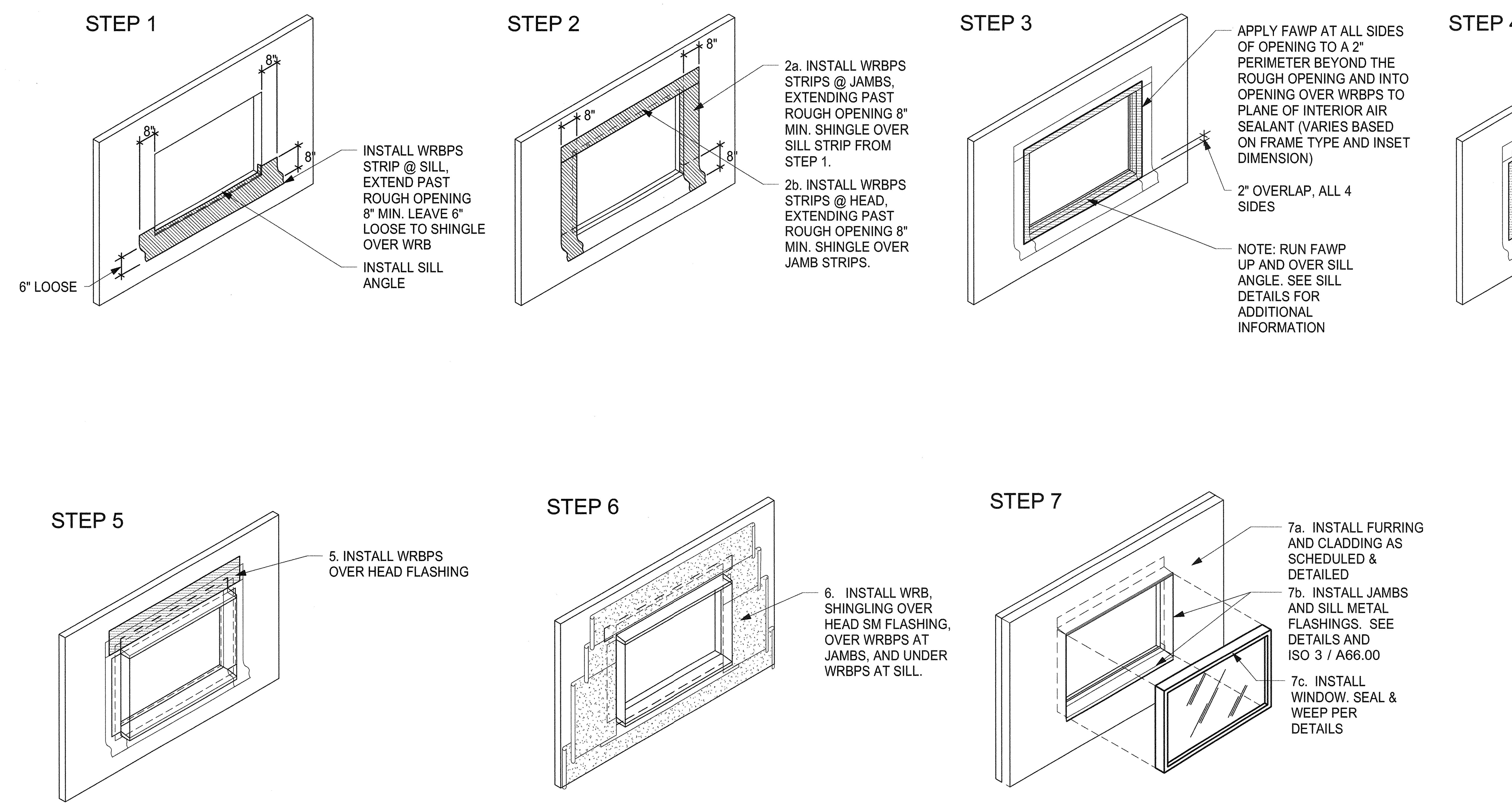
6552
A63.02
SH # 439 OF # 499

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

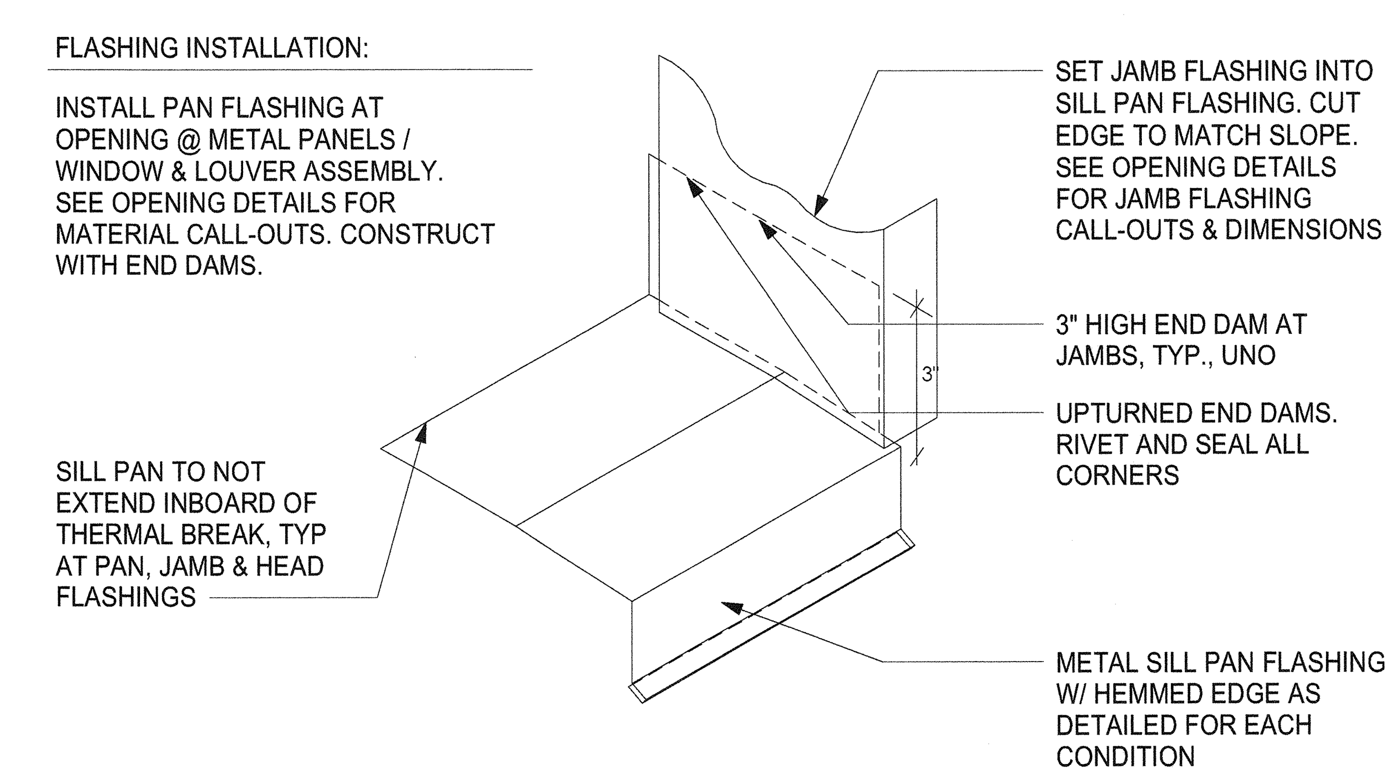
BINDING EDGE



1 OPENING PREPARATION DIAGRAM AT HM FRAME
1/4" = 1'-0"



2 OPENING PREPARATION DIAGRAM AT ALUM FRAME
1/4" = 1'-0"



3 SILL PAN ISO OF FLASHING
3" = 1'-0"

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PIER 4 PHASE 2
MARINE BUILDING
OPENING PREPARATION

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:	DRAWING SCALE: AS NOTED	

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A66.00
SH # 440 OF # 499

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

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BINDING EDGE

FINISH SCHEDULE LEGEND

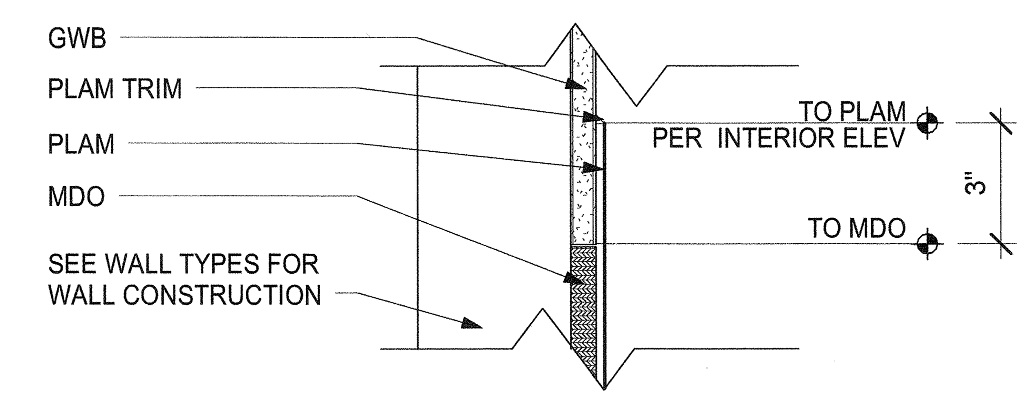
CK	CORK, OVER MEDIUM DENSITY OVERLAY (MDO)
CPT	CARPET
CT	CERAMIC TILE WAINSCOT, W/BACKER BOARD
GWB	GYPSUM WALL BOARD, PAINT. SEE SPECIFICATIONS FOR GLOSS LEVEL
PLAMW	PLASTIC LAMINATE WAINSCOT OVER MEDIUM DENSITY OVERLAY (MDO)
RB	4" RUBBER BASE
SC	SEALED CONCRETE
PC	POLISHED CONCRETE
PLY	PLYWOOD, PAINT UNO
PT	PORCELAIN TILE
RBBT	RESILIENT BIO BASED TILE

FINISH SCHEDULE GENERAL NOTES

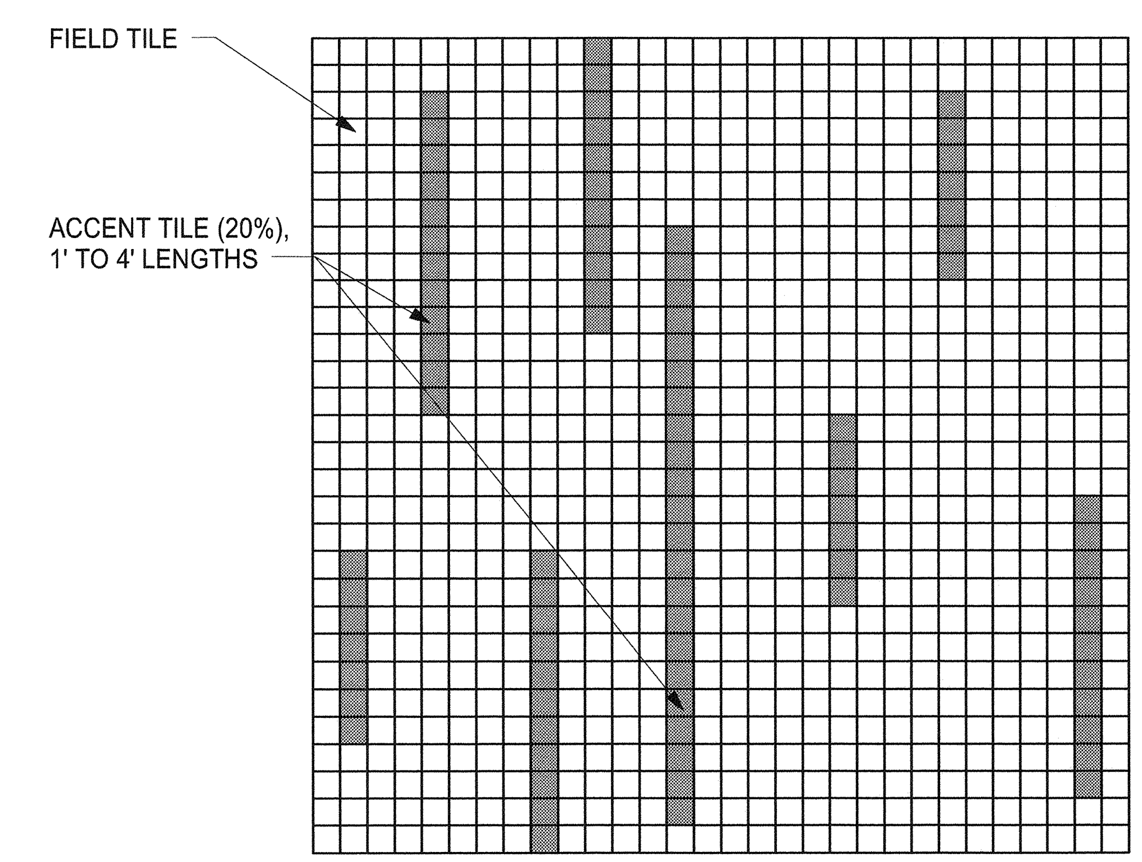
A. OTHER NOTES: SEE GENERAL NOTES ON G2 SERIES SHEETS FOR ADDITIONAL INFORMATION.
B. WALL TYPES: SEE FLOOR PLANS ON A2 SERIES SHEETS FOR WALL TYPE CALLOUTS
C. GENERAL NOTES: SEE FLOOR PLAN GENERAL NOTES ON A2 SERIES SHEETS AND WALL & BUILDING SECTION AND WALL TYPE NOTES ON A31 AND SHEETS FOR ADDITIONAL INFORMATION.
D. CEILINGS: SEE REFLECTED CEILING PLANS ON A4 SERIES SHEETS FOR CEILING HEIGHTS AND FINISHES
E. FLOOR AND BASE DETAILS: SEE A22 SERIES SHEETS FOR DETAILS.
F. COLOR AND MATERIAL SCHEDULE: SEE A71 SERIES SHEETS.
G. VARYING FINISH MATERIALS: SEE PLANS AND INTERIOR ELEVATIONS FOR LOCATION AND EXTENT OF MATERIALS AND FINISHES WHERE MORE THAN ONE MATERIAL OR FINISH IS SCHEDULED. ALIGN FACE OF FINISH SURFACES UNLESS NOTED OTHERWISE.
H. BACKING PANELS: PROVIDE PLYWOOD BACKING PANELS FOR TELEPHONE AND ELECTRICAL PANELS AND EQUIPMENT; PAINT WHITE. COORDINATE WITH ELECTRICAL & TELECOMMUNICATION DRAWINGS AND SPECIFICATIONS.
I. HOLLOW METAL FRAMES: THESE ASSEMBLIES ARE NOT NOTED ON THE ROOM FINISH SCHEDULE. SEE OPENING SCHEDULES FOR SPECIFIC REQUIREMENTS. IF A WALL IS FULLY ONE OF THESE ASSEMBLIES, NO MATERIAL OR FINISH IS NOTED ON THE FINISH SCHEDULE.
J. EXPOSED STRUCTURE AND MISCELLANEOUS STEEL FINISH: ALL EXPOSED STEEL STRUCTURE SHALL BE FINISHED WITH HIGH PERFORMANCE COATING(HPC) WHERE EXPOSED, UNLESS SPECIFICALLY NOTED OTHERWISE. GENERALLY, EXPOSED STEEL STRUCTURE AND MISCELLANEOUS STEEL ARE NOT SCHEDULED ON THE FINISH SCHEDULE.
K. GYPSUM WALL BOARD (GWB):
   1. ALL GWB SHALL BE TYPE 'X', UNLESS NOTED OTHERWISE. REFERENCE FINISH SCHEDULE AND SPECIFICATIONS FOR SPECIFIC TYPES OF GWB TO BE USED (i.e. WATER RESISTANT).
   2. WATER RESISTANT GWB TO BE USED AT RESTROOMS, TOILET ROOMS, SHOWERS, KITCHEN AND WALLS BEHIND OR ADJACENT TO MOP/SERVICE SINKS, AND AS SCHEDULED.
   3. PROVIDE CASING BEADS AT GWB EDGES WHEREVER EDGES TERMINATE AGAINST A DIFFERENT MATERIAL OR AT A REVEAL. PROVIDE CORNER BEADS AT ALL GWB CORNERS, TYPICAL TO ALL SECTIONS OF THIS DRAWING SET.

ROOM FINISH SCHEDULE

NUMBER	ROOM NAME	FLOOR MAT	BASE MAT	WALL FINISH N	WALL FINISH E	WALL FINISH S	WALL FINISH W	NOTES / REMARKS
100	BREAK ROOM	PC	RB	GWB, PLAMW	GWB, PLAMW	GWB, PLAMW	GWB, PLAMW, CK	WRAP PLAM INTO WINDOW JAMB TIGHT TO FRAME
101	MENS RESTROOM	CT, PT	CT	GWB, CT	GWB, CT	GWB, CT	GWB, CT	
102	FIRE RISER ROOM	SC	RB	GWB	GWB	GWB	GWB	
103	WOMENS RESTROOM	CT, PT	CT	GWB, CT	GWB, CT	GWB, CT	GWB, CT	
104	JAN	SC	RB	GWB	GWB	GWB	GWB	
105	KITCHENETTE	PC	RB	PLAMW	GWB	GWB	GWB, CK	
106	FORMAN OFFICE	PC	RB	GWB	GWB	GWB	GWB	
107	FORMAN OFFICE	PC	RB	GWB	GWB	GWB	GWB	
108	STAIR	PC/CPT	RB	GWB	GWB	GWB	GWB	PC 1st FLOOR, CPT SECOND FLOOR
109	ELEVATOR	-	-	GWB	GWB	GWB	GWB	
110	WOMEN'S LOUNGE	CT, PT	CT	GWB, CT	GWB, CT	GWB, CT	GWB, CT	
200	ELEC CLOSET	SC	RB	PLY	PLY	PLY	PLY	
201	COPY / WORK	RBBT	RB	GWB, CT	GWB	GWB	GWB	
202	TLT	CT, PT	CT	GWB, CT	GWB, CT	GWB, CT	GWB, CT	
203	TLT	CT, PT	CT	GWB, CT	GWB, CT	GWB, CT	GWB, CT	
204	KITCHENETTE	RBBT	RB	GWB	PLAMW	GWB	GWB	
205	CLERKS 2	CPT	RB	GWB	GWB	GWB	GWB	
206	SUPER CARGO	CPT	RB	GWB	GWB	GWB	GWB	
207	SUPERINTENDENTS	CPT	RB	GWB	GWB	GWB	GWB	
208	IT	SC	RB	PLY	PLY	PLY	PLY	
209	CLERKS 1	CPT	RB	GWB	GWB	GWB	GWB	
210	SUPER CARGO	CPT	RB	GWB	GWB	GWB	GWB	
211	CORRIDOR	CPT	RB	GWB	GWB	GWB	GWB	
212	ELEVATOR CONTROL CLOSET	SC	RB	PLY	PLY	PLY	PLY	



1 MDO TO GWB TRANSITION AT PLAM
3" = 1'-0"



2 FLOOR TILE LAYOUT
1" = 1'-0"

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APPROVED:
3-28-16
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PIER 4 PHASE 2
MARINE BUILDING
ROOM FINISH SCHEDULE

TOWNSHIP: | RANGE: | SECTION:
DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: | DRAWING SCALE: AS NOTED

6552
A70.00
SH # 441 OF # 499

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

BINDING EDGE

COLOR & MATERIAL SCHEDULE

DIVISION/SECTION	ITEM	MANUFACTURER	PRODUCT, COLOR	REMARKS
051200 Structural Steel				
051200 Structural Steel	Exterior Structural Steel, Connectors, Bolts, Angles, etc	-	HPC-1	See 099600 High Performance Coatings
051200 Structural Steel	Interior Structural Steel, Connectors, Bolts, Angles, etc	-	HPC-2	See 099600 High Performance Coatings
055000 Metal Fabrications				
055000 Metal Fabrications	Aluminum Ladders	O'Keeffe's, Inc.	Mill Finish Aluminum	
055000 Metal Fabrications	Metal Bollards	-	HPC-1	See 099600 High Performance Coatings
055000 Metal Fabrications	Steel Supports For Countertops	-	PTI-1	See 099000 Interior Painting
055100 Metal Stairs				
055100 Metal Stairs	Steel Stringers, Miscellaneous steel and bolts	-	HPC-3	See 099600 High Performance Coatings
055213 Pipe and Tube Railings				
055213 Pipe and Tube Railings	Guardrail and Handrails	-	HPC-3	
055300 Stair Gratings				
055300 Stair Gratings	Aluminum	-	Powder Coat, Color to Match HPC-2	
057300 Decorative Metal Railings				
057300 Decorative Metal Railings	Handrails	-	HPC-3	See 099600 High Performance Coatings
062023 Interior Finish Carpentry				
062023 Interior Finish Carpentry	Plywood Wainscot (PLW)	-	See Interior Elevations or Room Finish Schedule	See 099000 Interior Painting
074213 Metal Wall Panels				
074213 Metal Wall Panels	Metal Soffit Panels	AEP Span - Prestige Panel	Matte Black	
074213 Metal Wall Panels	Metal Wall Panels (MP-1)	AEP Span - Mini 'V' Beam	Cool Regal White	See Exterior Elevations & Details for locations of profiles and colors
074213 Metal Wall Panels	Metal Wall Panels (MP-2)	AEP Span - Prestige Panel	Matte Black	See Exterior Elevations & Details for locations of profiles and colors
075400 Thermoplastic Membrane Roofing				
075400 Thermoplastic Membrane Roofing	Polyvinyl-Chloride (PVC) Roofing		White	
076200 Sheet Metal Flashings & Trim				
076200 Sheet Metal Flashings & Trim	Fascia, Metal Copings, Roof Trim, Conductor Boxes	AEP Span (Color Ref)	To Match Adjacent Wall Panel, UNO	As indicated on drawings and details
076200 Sheet Metal Flashings & Trim	Flashings and Trim	AEP Span (Color Ref)	To Match Adjacent Wall Panel, UNO	As indicated on drawings and details
076200 Sheet Metal Flashings & Trim	Flashings and Trim	AEP Span (Color Ref)	To Match Adjacent Wall Panel, UNO	As indicated on drawings and details
077200 Roof Accessories				
077200 Roof Accessories	Roof Hatches	The Bilco Company	To Match PVC Roof Membrane	
079200 Sealants				
079200 Sealants	Exposed Sealants			As Selected By Architect During Construction
081113 Hollow Metal Doors				
081113 Hollow Metal Doors	Hollow Metal Doors & Frames, Exterior		HPC-2	See 099600 High Performance Coatings
081113 Hollow Metal Doors	Hollow Metal Doors & Frames, Interior		HPC-4	See 099600 High Performance Coatings
083113 Access Doors & Frames				
083113 Access Doors & Frames	Access Doors & Frames		To Match Adjacent Wall & Ceiling Color, U.N.O.	See 099000 Interior Painting
084113 Aluminum Framed Entances and Storefronts				
084113 Aluminum Framed Entances and Storefronts	Frames/ Mullions	EFCO	Black	Interior and Exterior Surfaces
087100 Finish Hardware				
087100 Finish Hardware	Finish Hardware	-	-	See Specifications For Hardware Finishes
088000 Glazing				
088000 Glazing	Composite Spandrel Panel	Mapes Architectural Panels	Color to match aluminum frame	
088000 Glazing	Glazing	-	-	See Specifications
093000 Tiling				
093000 Tiling	Floor Tile (Accent)	Daltile	Eco-Body Natural Hues, Aegean QH41	
093000 Tiling	Floor Tile (Field)	Daltile	Colorbody, Fabrique, Gris Linen P690	
093000 Tiling	Grout At Floor Tile	Laticrete		As Selected By Architect During Construction
093000 Tiling	Grout At Wall Tile	Laticrete		As Selected By Architect During Construction
093000 Tiling	Wall Tile	Daltile	Wall and Counter Glazed, Semi-Gloss, Arctic White	
096513 Resilient Base & Accessories				
096513 Resilient Base & Accessories	Reducer Strips	Johnsonite	48 Grey	
096513 Resilient Base & Accessories	Rubber Base	Johnsonite	38 Pewter	
096519 Resilient Tile Flooring				
096519 Resilient Tile Flooring	Resilient Biobased Tile	Armstrong Striations BBT	T3602 Steel, 12X24	Staggered Monolithic Pattern
096813 Tile Carpeting				
096813 Tile Carpeting	Carpet	Milliken	Scattegraph, SCA-108 Half Space	Run Carpet Tiles Parallel Down Length of Corridors, Monolithic Installation
099000 Painting				
099000 Painting	PTI-1 (Field Color)	Sherwin Williams	SW7007 Ceiling Bright White	Typ. Wall/Ceiling Color UNO Below or on Interior Elevations, Reflected Ceiling Plans, Or Details
099000 Painting	PTI-2	Sherwin Williams	SW6789 Blue Mosque	See Interior Elevations, Reflected Ceiling Plans, and Details For Locations
099600 High Performance Coatings				
099600 High Performance Coatings	HPC-1	Tnemec	078WH Winter Mist	Exterior Exposed Structural Steel, and Interior Steel Column in Rm 209. Downspouts and Brackets at Horizontal metal Panels.
099600 High Performance Coatings	HPC-2	Tnemec	35GR Black	Interior Structural Steel, Connectors, Bolts, Angles, etc. in Break Rm on First Floor Exposed Steel Decking, Conduit, Fire Sprinkler Pipe, and Other Items Attached to Decking and Steel. Exterior Hollow Metal Frames and Doors. Downspouts and Brackets at Vertical Metal Panels.

COLOR & MATERIAL SCHEDULE

DIVISION/SECTION	ITEM	MANUFACTURER	PRODUCT, COLOR	REMARKS
099600 High Performance Coatings	HPC-3	Tnemec (Color Match)	To Match Sherwin Williams 6789 Blue Mosque	Pre Engineered Stairs, Pipe Railing and Stringer, see Details and Other Drawings
099600 High Performance Coatings	HPC-4	Tnemec	45GR Captain Hook	Interior HM Frames and Doors
101400 Signage				
101400 Signage	Dimensional Lettering - Exterior	-	Color to match HPC-3	
101400 Signage	Panel Sign: Accent Bands @ Sides	APCO	A54 - Graphite	
101400 Signage	Panel Sign: Dimensional Characters	APCO	A54 - Graphite	
101400 Signage	Panel Sign: Solid Backing Layer	APCO	A72 - Bone White	
102113 Toilet Compartments				
102113 Toilet Compartments	Toilet Partitions and Doors	Hiny Hiders	Grey, Orange Peel Texture	
104413 Fire Protection Specialties				
104413 Fire Protection Specialties	Fire Extinguisher Cabinets	-	Clear Anodized Aluminum, White Letters	
123200 Manufactured Wood Casework				
123200 Manufactured Wood Casework	Backsplash		Match Top	
123200 Manufactured Wood Casework	Cork	Forbo	2205	
123200 Manufactured Wood Casework	Door & Drawer Pulls		See specifications	
123200 Manufactured Wood Casework	Edgebanding		Match Plastic Laminate	
123200 Manufactured Wood Casework	Grommets		Grey	
123200 Manufactured Wood Casework	Plastic Laminate	Wilsonart	7967K-12 Park Elm	All Exposed Cabinet Surfaces and P-lam Wainscot (with MDO backing)
123200 Manufactured Wood Casework	Solid Surface	DuPont	Corian, Silverite	
142100 Electric Traction Elevator				
142100 Electric Traction Elevator	Cab Finish	Kone	Floor and walls as indicated in specifications	
211300 Sprinkler Systems				
211300 Sprinkler Systems	Exposed Piping, Brackets, etc.		HPC-2	See 099600 High Performance Coatings
230000 Mechanical				
230000 Mechanical	Diffusers & Grilles - A		Mfr. Standard White	All locations, UNO below
230000 Mechanical	Diffusers & Grilles - B		Painted to Match Adj. Wall or Ceiling Color	Where located in painted Accent Walls, See Interior Elevations
230000 Mechanical	Exposed Ductwork		Aluminum, UNO	
260000 Electrical				
260000 Electrical	Light Fixtures - A		Mfr. Standard White	All locations, UNO below, where fixture finish options are available
260000 Electrical	Light Fixtures - B		Mfr. Standard Black	At Building Exteriors, where fixture finish options are available
260000 Electrical	Outlets, Coverplates & Switchplates		See Electrical Drawings & Specifications	

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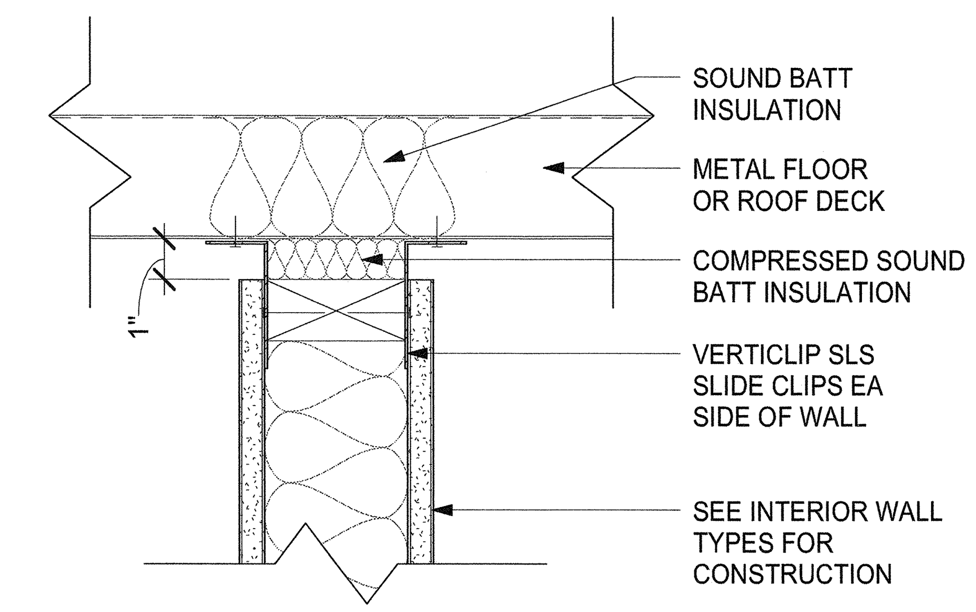
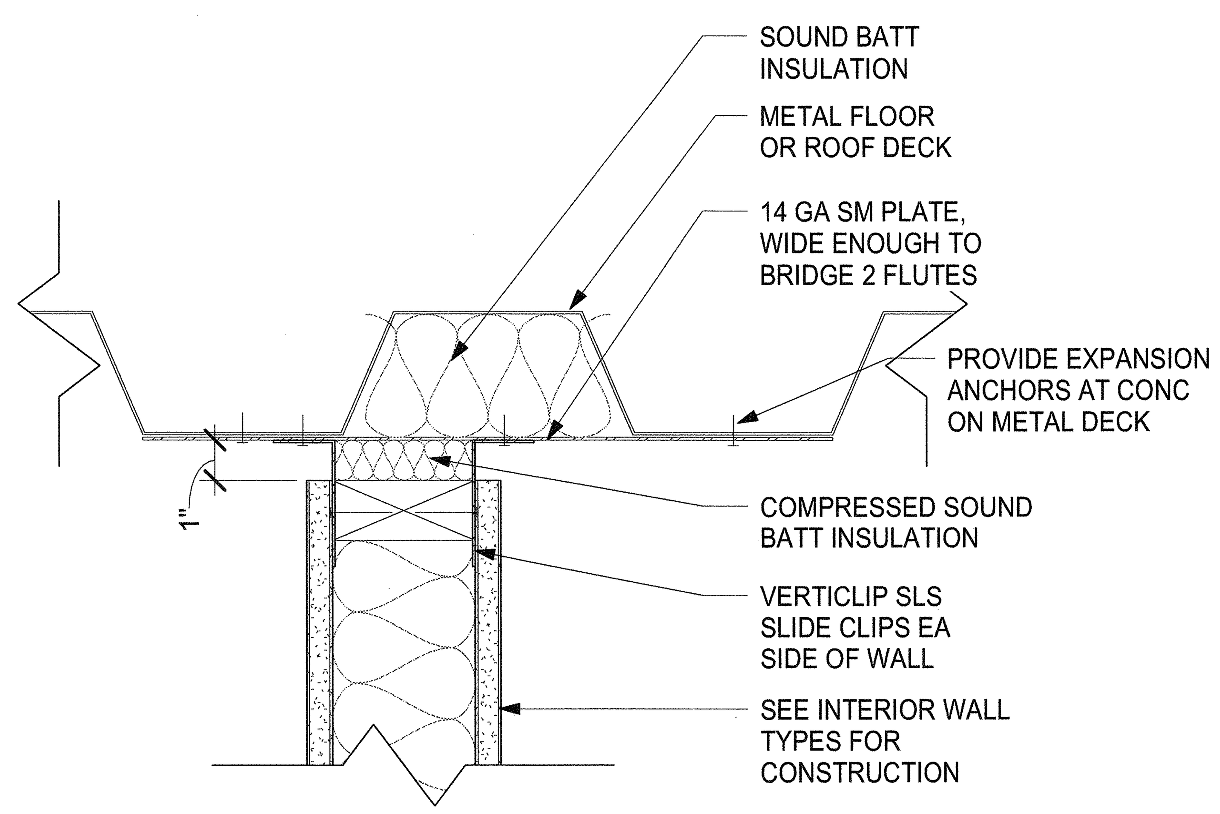
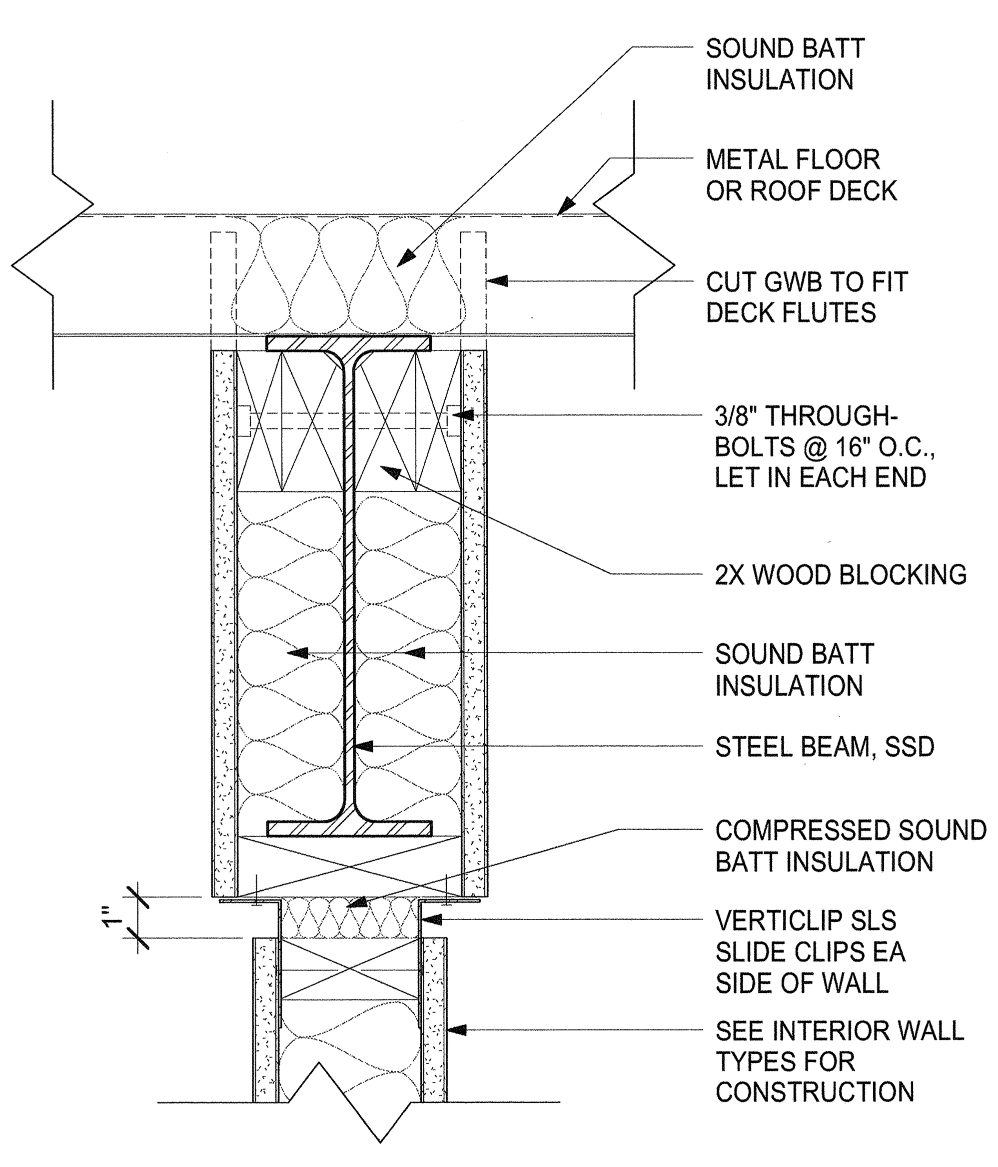
BINDING EDGE



1 TOP OF WALL AT DECK
3" = 1'-0"



2 TOP OF WALL AT DECK
3" = 1'-0"

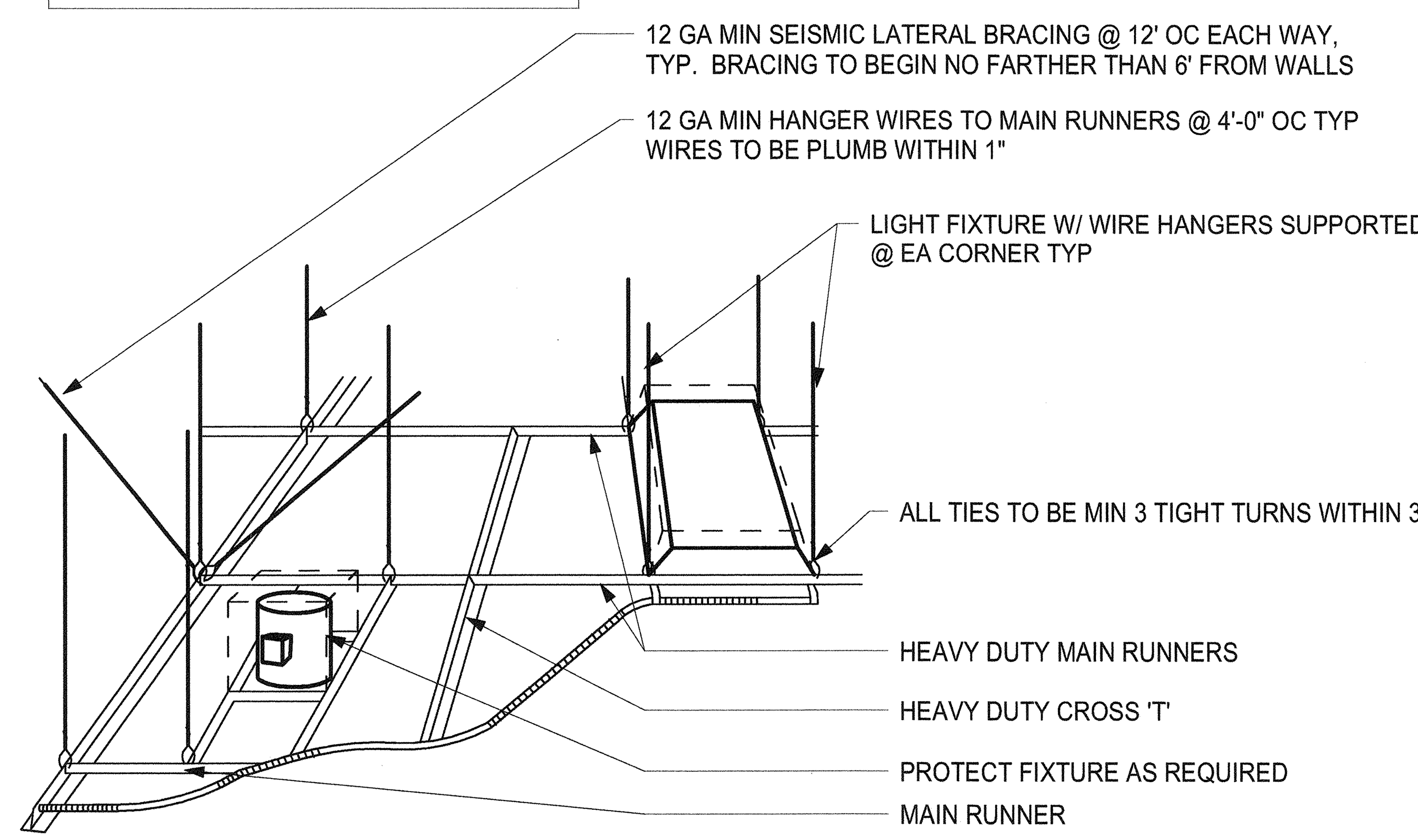


3 TOP OF WALL AT BEAM
3" = 1'-0"

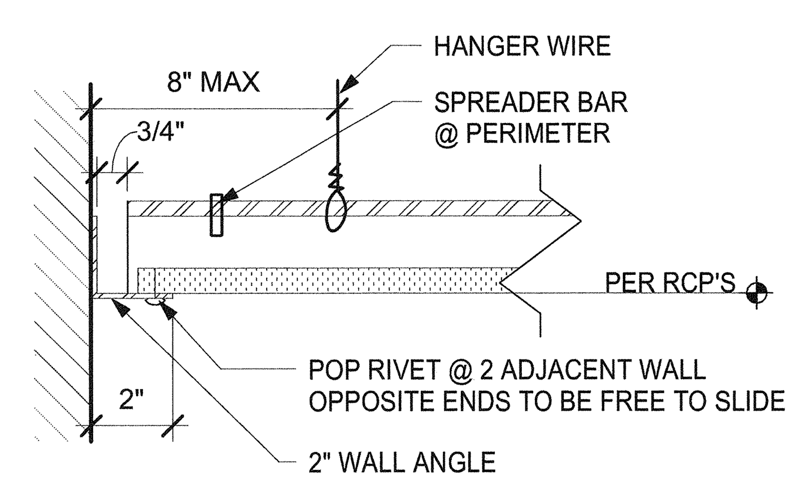
NOTE: THESE DRAWINGS DO NOT REPRESENT ALL CONDITIONS. COMPLY WITH NWCB TECHNICAL DOCUMENT 401, ASCE 7-10 AND ALL APPLICABLE CODES.

FOR TYPICAL CROSS 'T' SEE 6 / A72.00

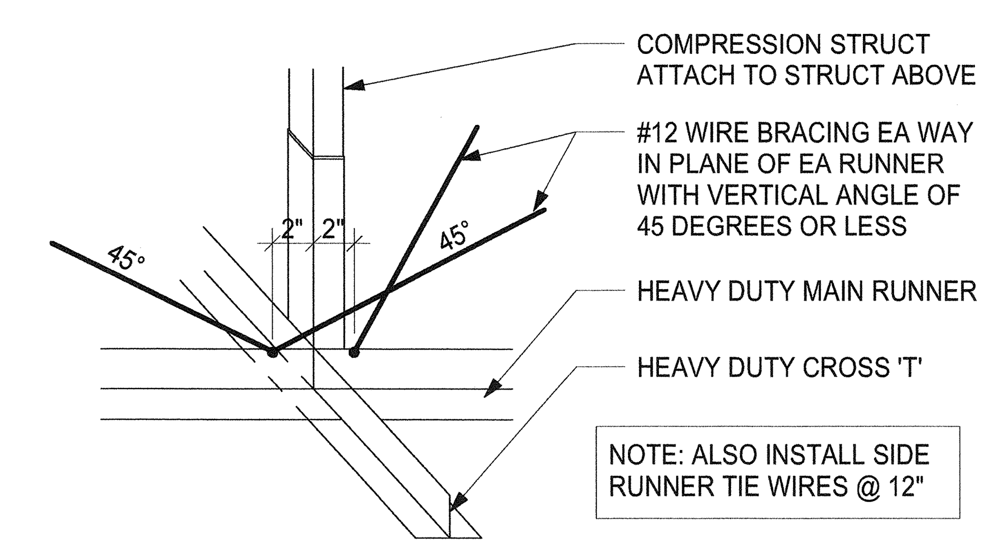
FOR TYPICAL PERIMETER ANGLE, SEE 5 / A72.00



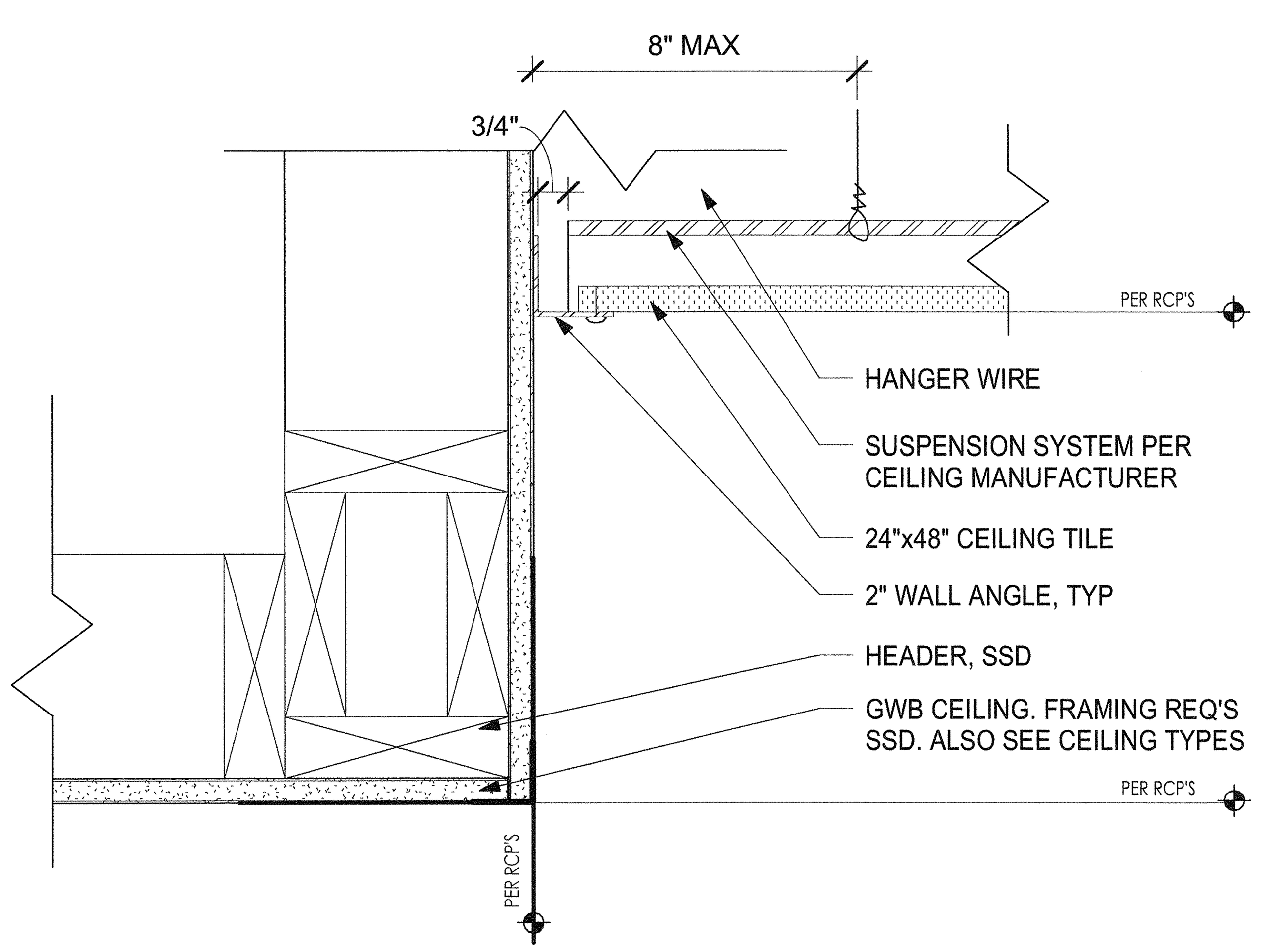
4 CEILING TRANSITION
1/2" = 1'-0"



5 TYP ACP WALL MOLDING
3" = 1'-0"

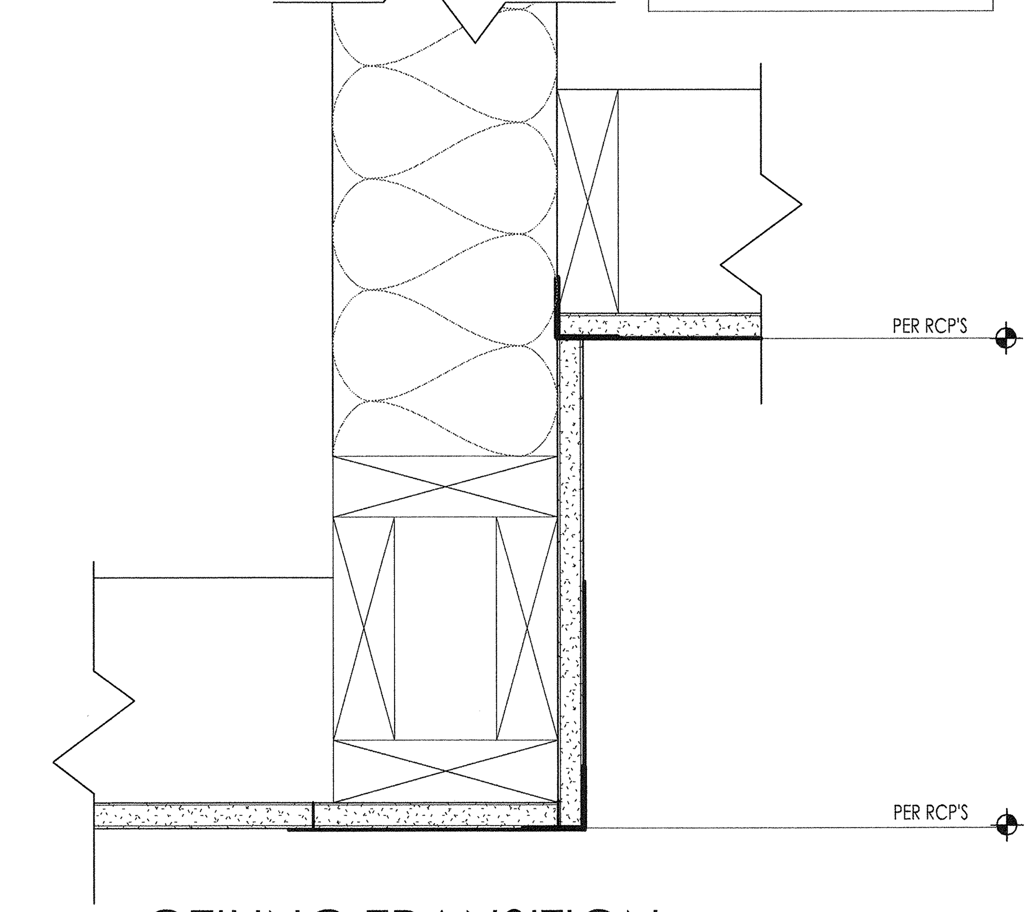


6 TYP ACP WALL MOLDING
1 1/2" = 1'-0"



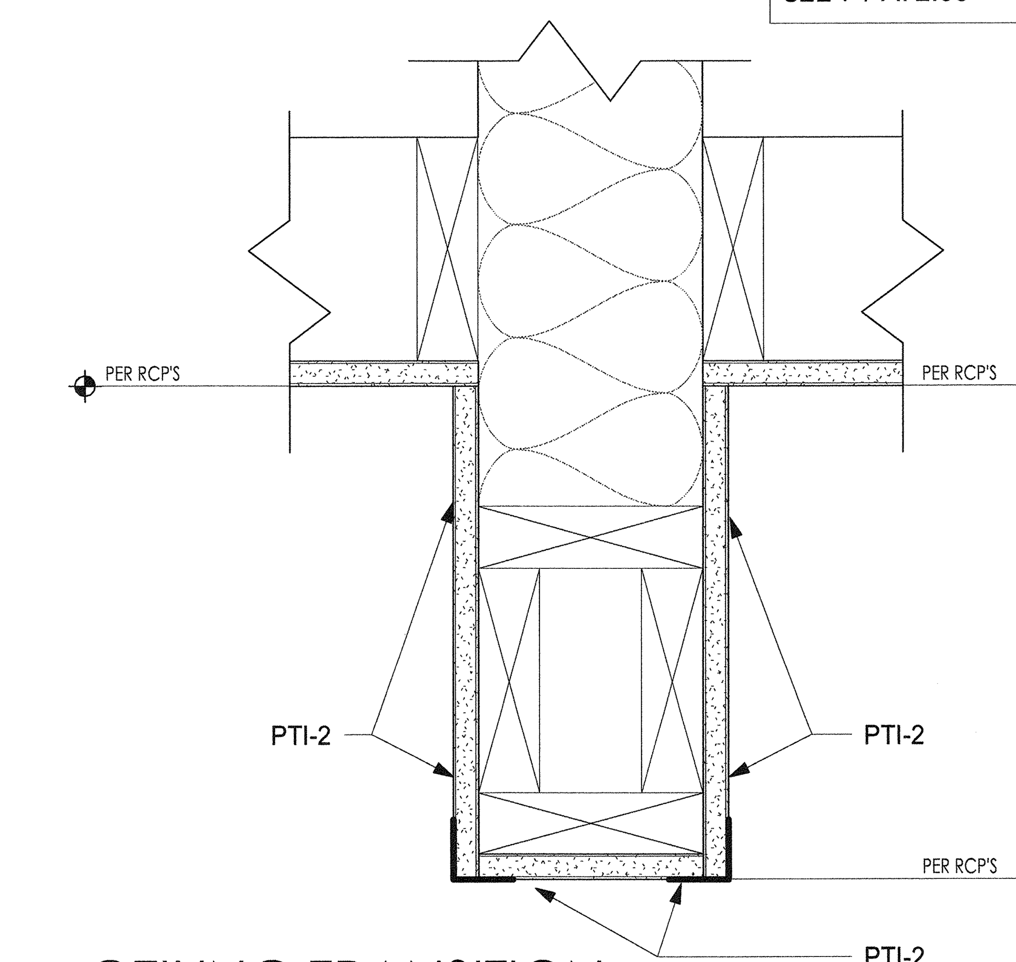
7 CEILING TRANSITION
3" = 1'-0"

FOR COMMON CALLOUTS, SEE 7 / A72.00



8 CEILING TRANSITION
3" = 1'-0"

FOR COMMON CALLOUTS, SEE 7 / A72.00



9 CEILING TRANSITION
3" = 1'-0"

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PIER 4 PHASE 2
MARINE BUILDING
INTERIOR DETAILS

TOWNSHIP: | RANGE: | SECTION:
DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: | DRAWING SCALE: AS NOTED

6552
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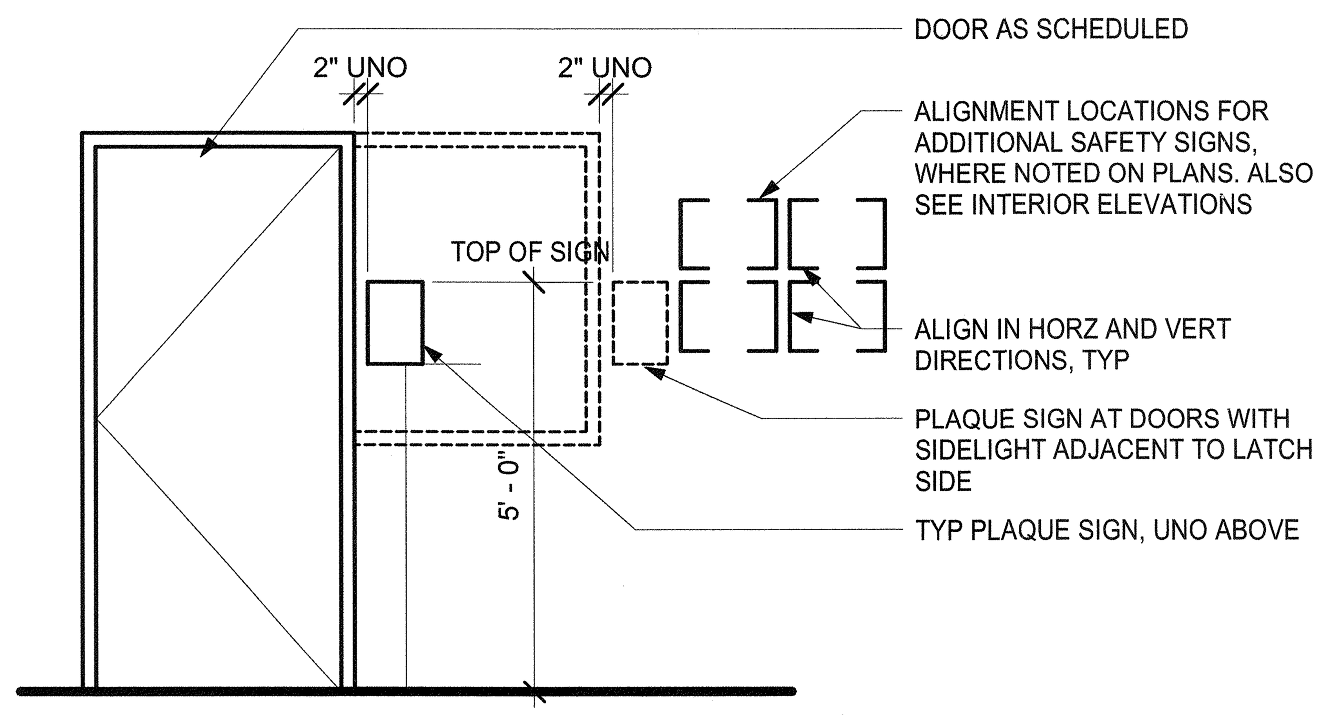
BINDING EDGE



1 SIGNAGE PLACEMENT DETAIL

1/2" = 1'-0"

ROOM NUMBER	SIGN TYPE	SIGN NUMBER	1 SIGN CONTENT	2 SIGN CONTENT	3 SIGN CONTENT	REMARKS
100	B		"139"			SEE INTERIOR ELEVATIONS
101	C		P1, P2	"MENS"	"101"	SEE INTERIOR ELEVATIONS
102	A		"FIRE RISER"			
103	C		P1, P3	"WOMENS"	"103"	SEE INTERIOR ELEVATIONS
104	A		"CUSTODIAN"		"104"	SEE INTERIOR ELEVATIONS
106	A		"FORMAN OFFICE"		"106"	SEE INTERIOR ELEVATIONS
107	A		"FORMAN OFFICE"		"107"	SEE INTERIOR ELEVATIONS
108	A		"STAIR"		"108"	
110	A		"LOUNGE"		"110"	SEE INTERIOR ELEVATIONS
200	A		"ELEVATOR CLOSET"		"200"	SEE INTERIOR ELEVATIONS
201	A		WORK ROOM"		"201"	SEE INTERIOR ELEVATIONS
202	C		P1, P2, P3	"RESTROOM"	"202"	SEE INTERIOR ELEVATIONS
203	C		P1, P2, P3	"RESTROOM"	"203"	SEE INTERIOR ELEVATIONS
204	A		"KITCHENETTE"		"204"	SEE INTERIOR ELEVATIONS
205	A		"CLERKS 2"		"205"	SEE INTERIOR ELEVATIONS
206	A		"SUPER CARGO 2"		"206"	SEE INTERIOR ELEVATIONS
207	A		"SUPERINTENDENTS"		"207"	SEE INTERIOR ELEVATIONS
208	A		"IT"		"208"	SEE INTERIOR ELEVATIONS
209	A		"CLERKS 1"		"209"	SEE INTERIOR ELEVATIONS
210	A		"SUPER CARGO 1"		"210"	SEE INTERIOR ELEVATIONS
212	A		"ELECTRICAL CLOSET"		"212"	SEE INTERIOR ELEVATIONS
EXTERIOR	D		"4"			SEE EXTERIOR ELEVATIONS

SIGNAGE SCHEDULE GENERAL NOTES

A. OTHER NOTES: SEE GENERAL NOTES SHEET G2 SERIES SHEETS FOR ADDITIONAL INFORMATION.

B. SIGNAGE LOCATIONS: ALL LOCATIONS FOR SIGNAGE SHALL BE VERIFIED WITH THE ENGINEER PRIOR TO INSTALLATION. COORDINATE MOUNTING HEIGHTS OF SIGNS WITH INTERIOR ELEVATIONS AND DETAILS.

C. SIGNS BY DOORS: AT SIGNS BY DOORS, PLACE ON THE ENTRY SIDE (SIDE VIEWED AS YOU ENTER THE ROOM) UNLESS NOTED OTHERWISE. SHOW PROPOSED LOCATIONS ON SHOP DRAWINGS FOR ENGINEER'S REVIEW. FIELD VERIFY WITH ENGINEER WHERE LOCATION SEEMS IMPROPER OR IS IN CONFLICT.

D. SIGN WORDING AND SPELLING: CONTRACTOR SHALL REVIEW AND VERIFY SPELLING OF EACH SCHEDULED SIGN BEFORE FABRICATION.

E. SITE SIGNAGE: SEE CIVIL DRAWINGS

F. SPACE FOR SIGNAGE: CONTRACTOR TO VERIFY THAT SIGNAGE, AS SCHEDULED, WILL FIT PROPERLY IN SPACE PROVIDED. CONTRACTOR SHALL NOTIFY ENGINEER AND COORDINATE ANY CHANGES PRIOR TO INSTALLATION.

G. HANDICAPPED ACCESSIBILITY REQUIREMENTS: ALL SIGNAGE SHALL FULLY COMPLY WITH ALL CURRENT HANDICAPPED CODE REQUIREMENTS INCLUDING, BUT NOT LIMITED TO, RAISED LETTERS/SYMBOLS, RAISED PICTOGRAMS AND BRAILLE. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY CODE ISSUES DURING THE SUBMITTAL PROCESS FOR CLARIFICATION.

H. SIGN SIZES: SIGN SIZES ARE APPROXIMATE. PROVIDE CONSISTENT SIZE AS REQUIRED TO ACCOMMODATE SYMBOLS, NUMBERS, LETTERS, ETC., AND TO MEET CODE. NOTE ANY PROPOSED CHANGES IN SHOP DRAWINGS AND REQUEST ENGINEERS REVIEW.

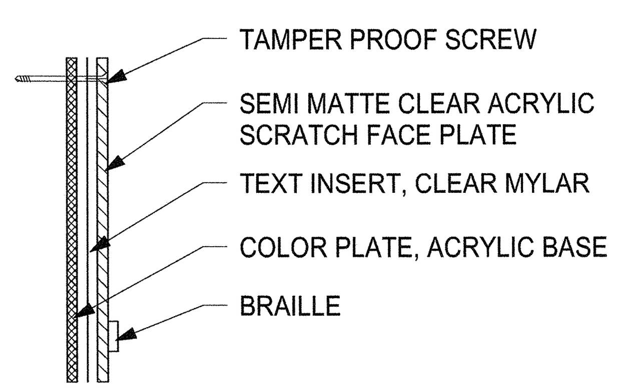
I. INTERIOR ELEVATIONS: SEE INTERIOR AND EXTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION ON SIGNAGE PLACEMENT.

J. EXIT SIGNS: EXIT SIGNS ARE SHOWN ON ELECTRICAL DRAWINGS.

K. VERIFY W/ ENGINEER ALL TEXT AND WORDING W/ SHOP DRAWINGS. SIGN CONTENT MAY CHANGE.

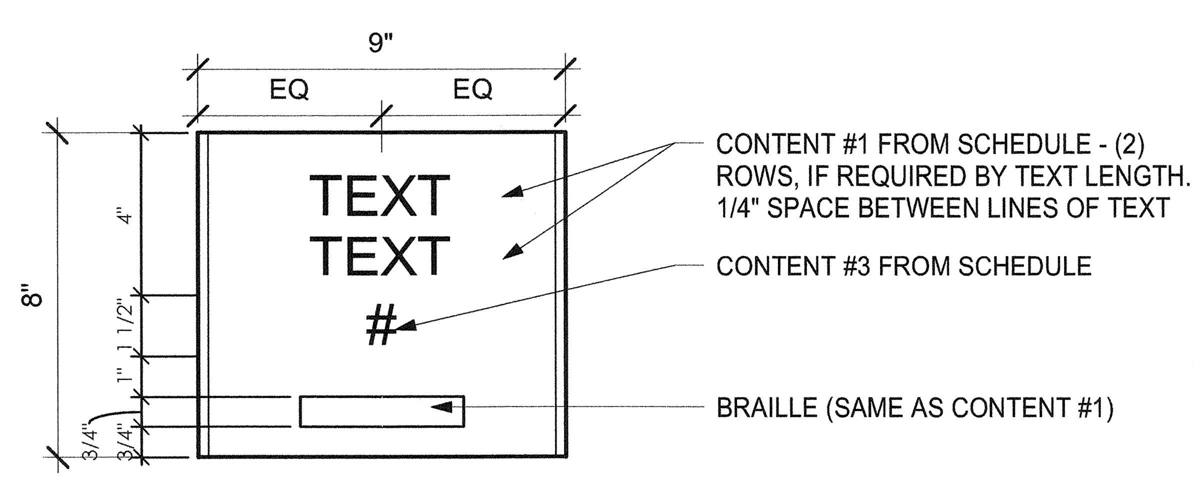
PICTOGRAM LEGEND

P1 INTERNATIONAL SYMBOL OF ACCESSIBILITY
P2 INTERNATIONAL SYMBOL FOR MEN
P3 INTERNATIONAL SYMBOL FOR WOMEN
P4 INTERNATIONAL SYMBOL FOR FIRE EXTINGUISHER



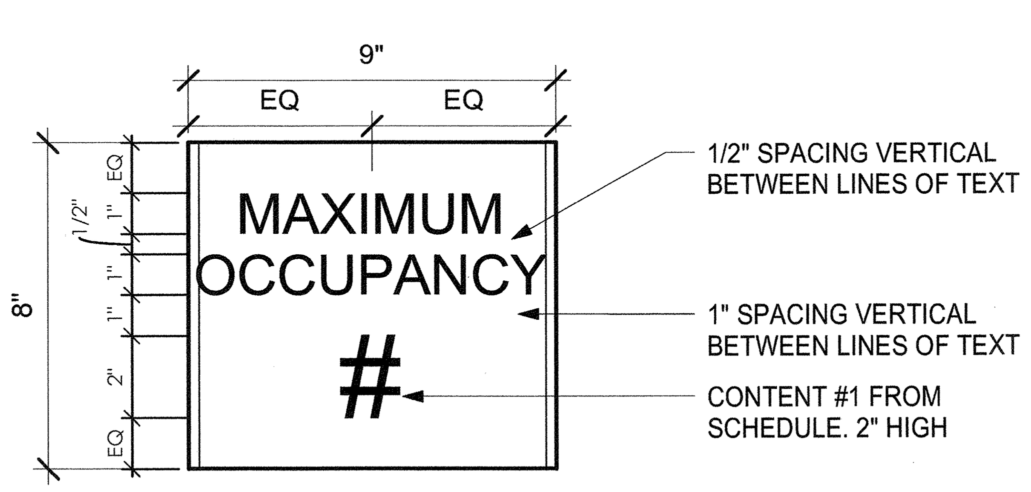
2 SIGN SECTION

3" = 1'-0"



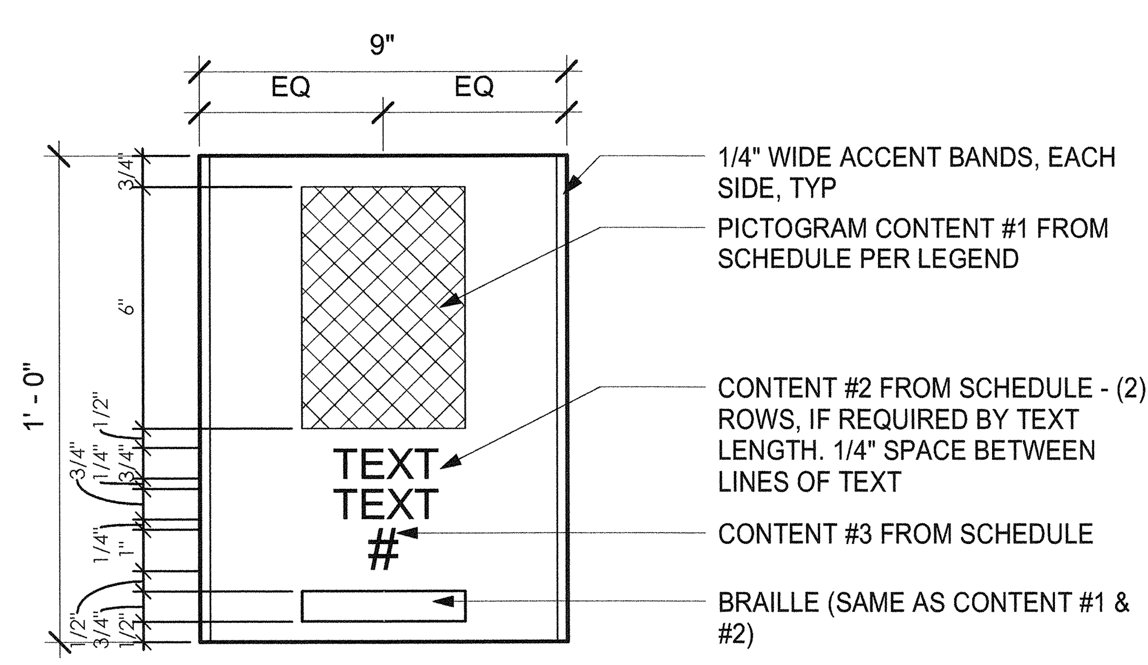
3 SIGN TYPE A

3" = 1'-0"



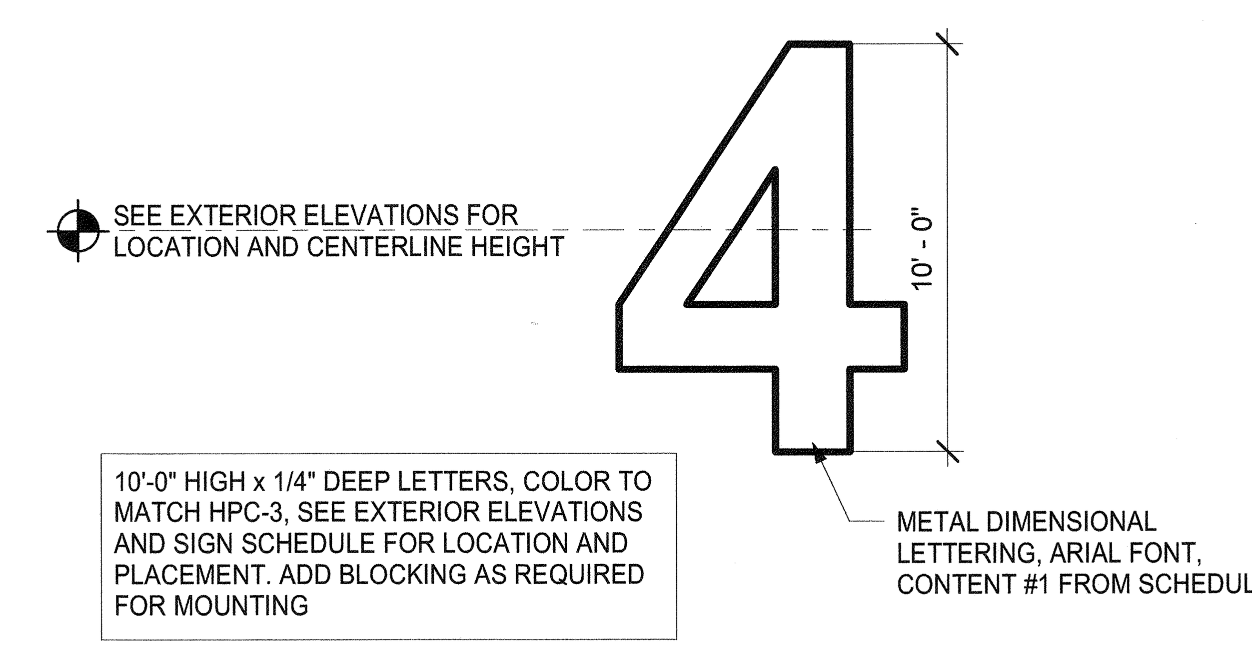
4 SIGN TYPE B

3" = 1'-0"



5 SIGN TYPE C

3" = 1'-0"



6 SIGN TYPE D - PAINTED ALUMINUM LETTER

1/4" = 1'-0"

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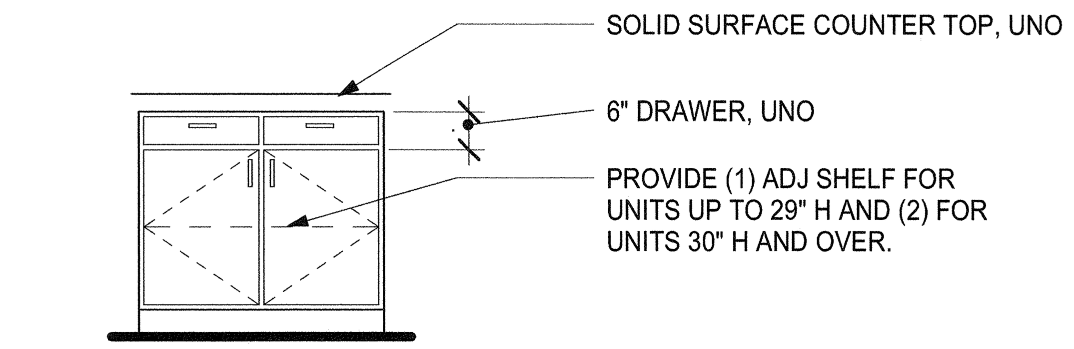
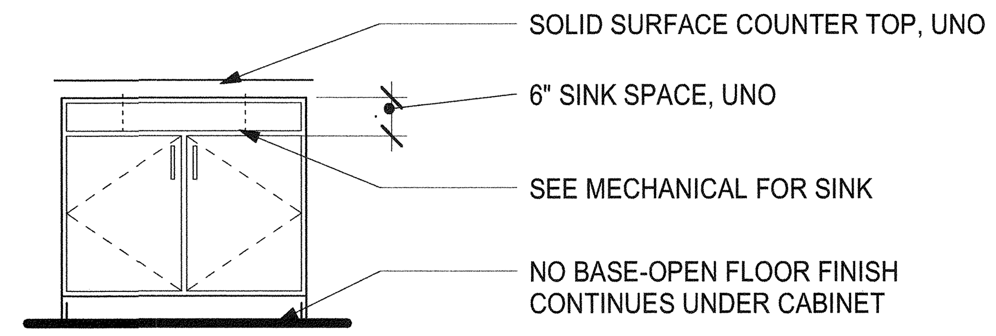
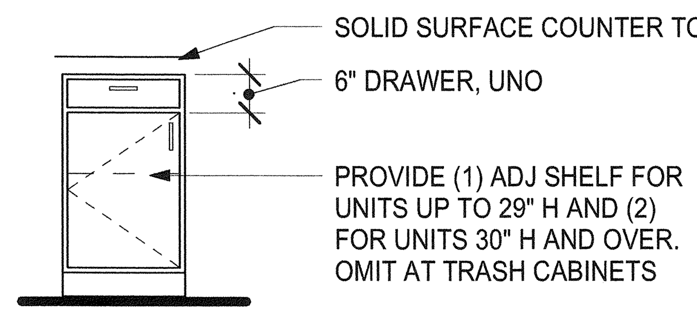


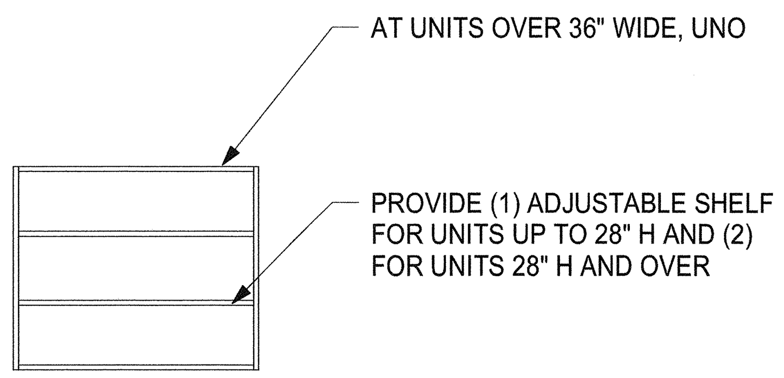
B1 BASE CABINET DOUBLE DOOR
SCALE: 1/2" = 1' - 0"



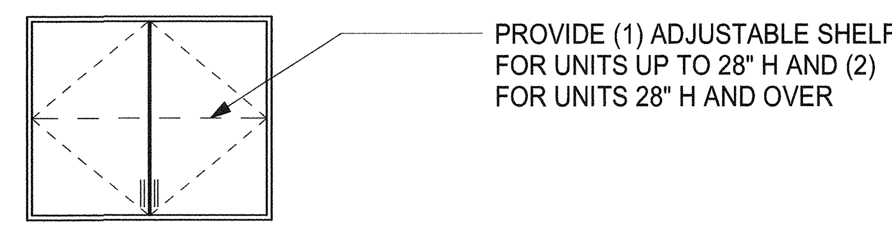
B2 BASE CABINET AT SINK
SCALE: 1/2" = 1' - 0"



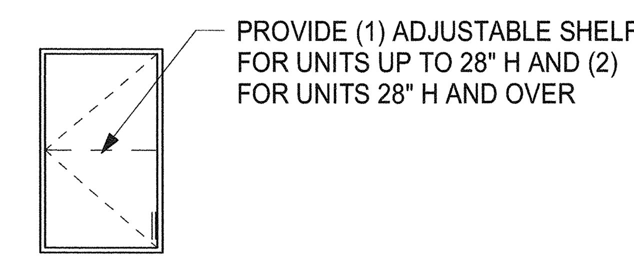
B3 BASE CABINET SINGLE DOOR
SCALE: 1/2" = 1' - 0"



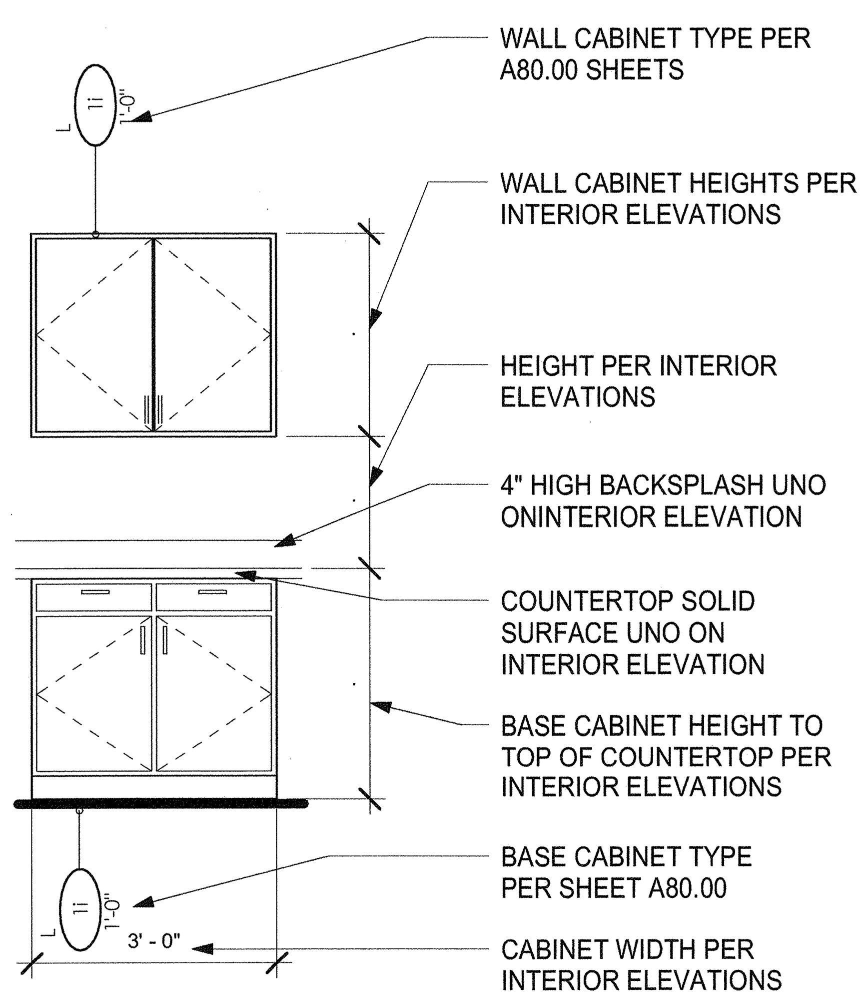
W1 WALL OPEN SHELVING
SCALE: 1/2" = 1' - 0"

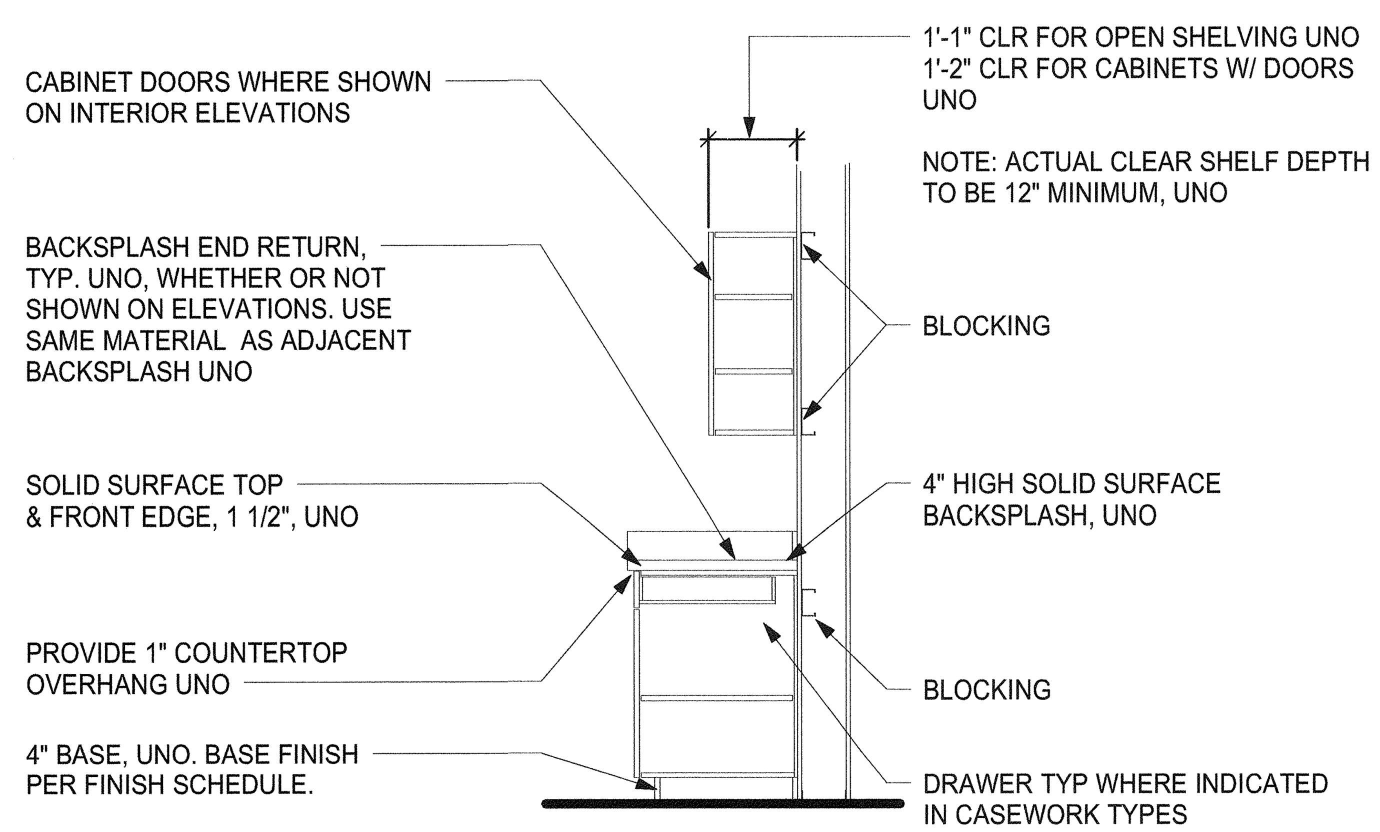


W2 WALL CABINET DOUBLE DOOR
SCALE: 1/2" = 1' - 0"

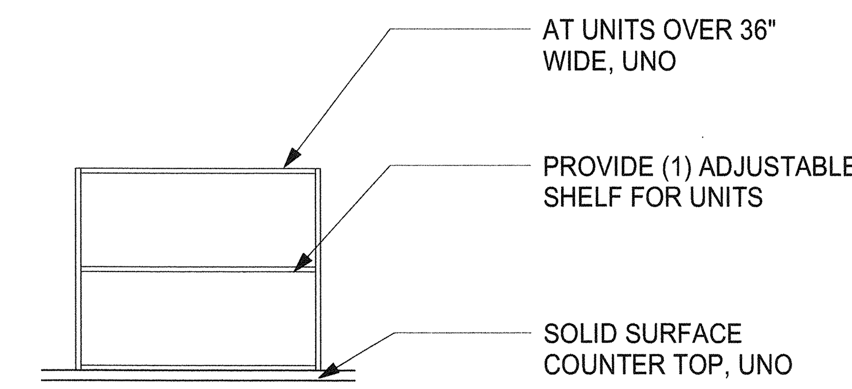


W3 WALL CABINET SINGLE DOOR
SCALE: 1/2" = 1' - 0"



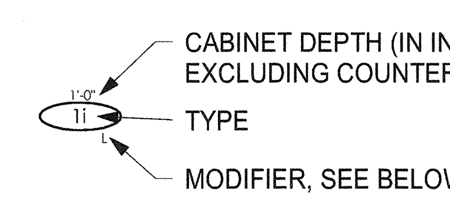


DEPTH PER INTERIOR ELEVATIONS ASSUME 24" UNO ON INT ELEVATIONS 25" IS ACCEPTABLE IF IT IS THE MFR'S STANDARD



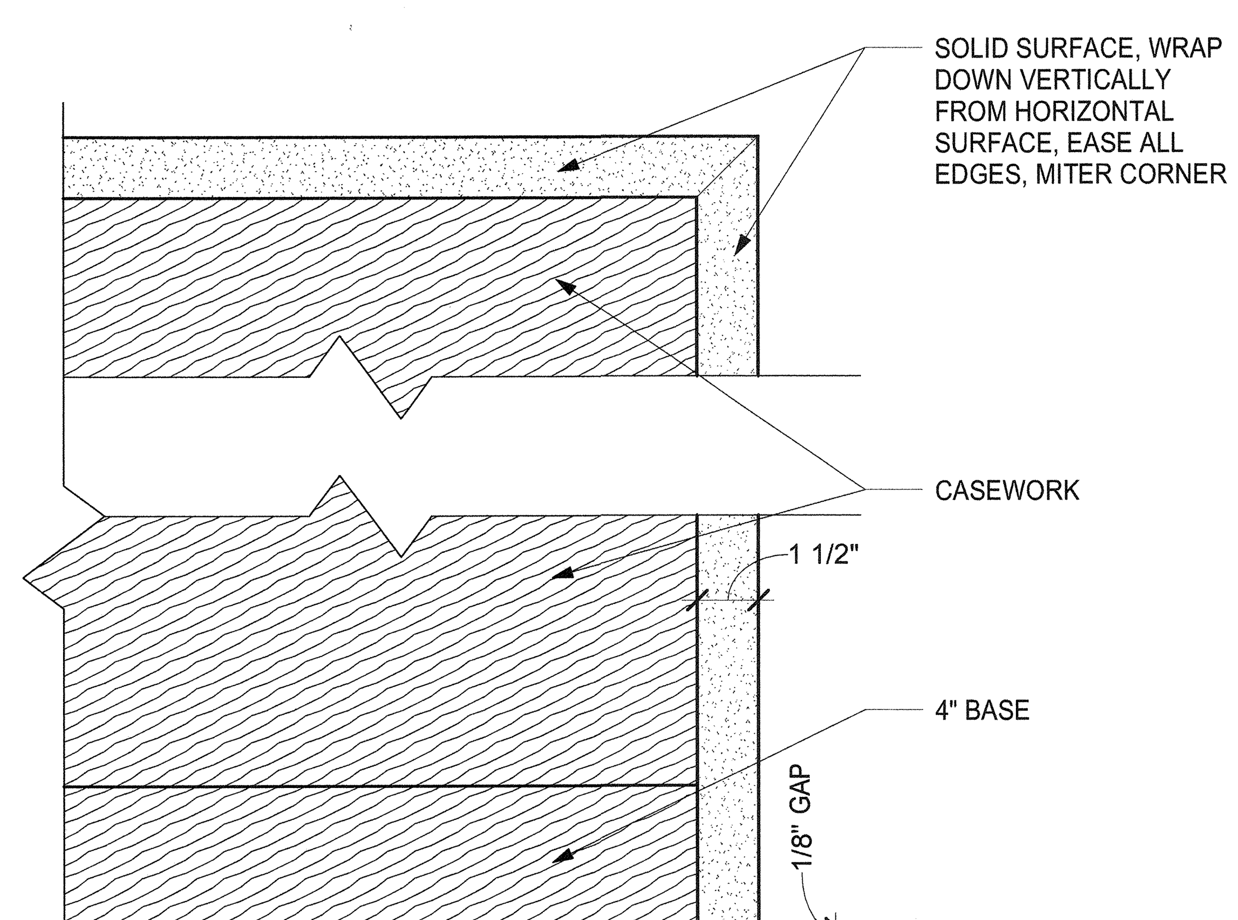
C1 COUNTER TOP OPEN SHELVING
SCALE: 1/2" = 1' - 0"

NOTE: SEE INTERIOR ELEVATIONS FOR CALLOUTS AND NOTATIONS NOT SHOWN OR LISTED HERE

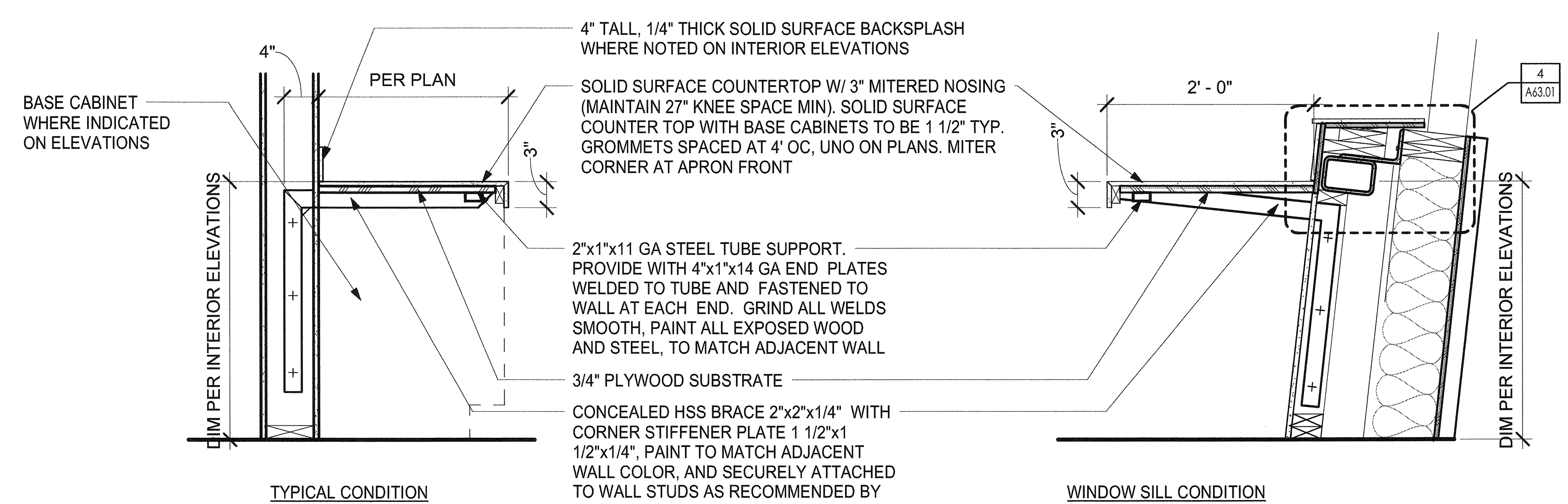


CASEWORK SCHEDULE LEGEND & CASEWORK GENERAL NOTES

1. SEE G2 SEIRES SHEETS FOR LEGEND & GENERAL NOTESSEE INTERIOR ELEVATIONS FOR CASEWORK SCHEDULED AND USED FOR THE PROJECT
3. ALL CABINETS SHALL BE FROM A SINGLE MANUFACTURER
4. FINISH ALL EXPOSED PORTIONS OF CASEWORK AND COUNTERTOPS
6. "DEPTH" OF CASEWORK SHOWN ON INTERIOR ELEVATIONS OR IN SCHEDULE INDICATES THE NOMINAL DEPTH OF THE CABINET AND NOT THE COUNTERTOP
7. PROVIDE FILLER PANELS BETWEEN ENDS OF CABINETS AND ADJACENT WALLS AT GAPS OVER 1/4" WIDE, INCLUDING SIDES AND BACKS
8. IN CASE OF CABINET INSTALLATIONS BETWEEN WALLS, VERIFY DIMENSIONS IN FIELD AND PROVIDE FILLER PANEL STRIPS NOT TO EXCEED 2" AT ENDS AND TOPS OR REDUCE END CABINET WIDTH AS REQUIRED TO FIT SPACE AS SHOWN. THIS SHALL BE REFLECTED IN THE SHOP DRAWINGS FOR THE ENGINEERS REVIEW
9. UPPER AND LOWER CABINET DOORS AND FULL HEIGHT CABINETS SHALL HAVE PULLS MOUNTED VERTICALLY (UNO). DRAWERS SHALL HAVE HORIZONTAL PULLS.
10. COORDINATE HEIGHT AND LOCATION OF BACKING PLATES FOR CASEWORK AS PER MANUFACTURER'S RECOMMENDATIONS. SEE GENERAL NOTES TO THE INTERIOR WALL TYPES CASEWORK DETAILS AND STRUCTURAL FRAMING DETAILS FOR ADDITIONAL BACKING PLATE AND BLOCKING DETAILS AND REQUIREMENTS
11. ALL SHELVING SHALL BE ADJUSTABLE INCLUDING OPEN SHELVING, UNLESS OTHERWISE NOTED
13. UNLESS OTHERWISE NOTED OR SHOWN ON DRAWINGS, ALL FIXED BASE CABINETS SHALL HAVE A BACKSPLASH AS INDICATED ON INTERIOR ELEVATIONS, AND ALSO HAVE A SAME HEIGHT SIDESPLASH WHERE ENDS OF CABINETS MEET WITH WALLS, AND OTHER CASEWORK AND WHERE CALLED OUT. BACKSPLASHES SHALL BE SAME MATERIAL AS TOPS.
14. ALL SHELVES, VERTICAL DIVIDERS, AND CABINET INTERIORS SHALL BE FINISHED PER THE SPECIFICATIONS, EXCEPT FINISHED WITH PLASTIC LAMINATE TO MATCH EXTERIOR FINISH AT OPEN OR GLAZED DOOR CASEWORK, AND WHERE CALLED OUT.
15. ALL SHELVES SHALL HAVE ALL EDGES AND ENDS FINISHED AS PER THE SPECIFICATIONS FOR FRONT EDGE FINISH REQUIREMENTS. ALL SHELVES FINISHED WITH PLASTIC LAMINATE TO MATCH EXTERIOR FINISH AT OPEN OR GLAZED DOOR CASEWORK SHALL HAVE EDGES FINISHED WITH SPECIFIED EDGE-BANDING OR P-LAM.
16. ALL CABINETS AND MILLWORK SHALL BE SECURELY ANCHORED TO WALLS AND FLOORS TO CONFORM TO SEISMIC SUPPORT REQUIREMENTS OF THE STATE OF WASHINGTON.
17. CABINET SHOP DRAWINGS SHALL SHOW ACTUAL LOCATIONS OF ELECTRICAL ITEMS ANPLUMBING FIXTURES AND TRIM TO BE INSTALLED. GENERAL CONTRACTOR SHALL COORDINATE THE INSTALLATION OF CABINETS AND MILLWORK ITEMS WITH ELECTRICAL SWITCHES, OUTLET LOCATIONS, AND PLUMBING FIXTURES. ANY CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE START OF ANY WORK.
19. PROVIDE FILLER PANELS AT ALL GAPS AND VOIDS AT TOPS OF TALL UNITS AND AT TOP AND BOTTOM OF WALL UNITS (UPPER CASEWORK) NOT OTHERWISE CLOSED (I.E. WHERE CONTINUOUS COUNTERTOPS ARE REQUIRED) TO PREVENT PAPER, ETC., FROM COLLECTING BEHIND OR BETWEEN UNITS.
20. EXACT HEIGHT OF INDIVIDUAL DRAWERS IN DRAWER UNITS OR DRAWER/DOOR COMBINATION UNITS IS NOT GIVEN AND IS SUBJECT TO ADJUSTMENT DURING SHOP DRAWING REVIEW AND MAY VARY, DEPENDING ON LOCATION OF UNIT (IE TO LINE UP WITH ADJACENT CASEWORK, TRIM, ETC.).
21. CASEWORK SCHEDULE LISTS CABINETS BY TYPE, BUT DOES NOT GIVE QUANTITIES. SEE INTERIOR ELEVATIONS AND FLOOR PLANS TO DETERMINE QUANTITIES.
22. HEIGHTS LISTED FOR BASE CABINETS ARE TO TOP OF COUNTERTOP, UNLESS NOTED OTHERWISE.
23. FLOOR FINISHES SHALL RUN UNDER ALL OPEN CASEWORK IN ALL ROOMS



1 SOLID SURFACE END DETAIL
3" = 1'-0"



2 SOLID SURFACE COUNTER DETAIL
1" = 1'-0"

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TCF Architecture
TCF Architecture, PLLC
902 North SecondStreet Tacoma, WA 98403
www.tcfarchitecture.com P.253.572.3993

MARK:	REVISION:	BY:	APPR:	DATE:

REGISTERED ARCHITECT 5617 MANUAL J. COOK STATE OF WASHINGTON

APPROVED:
3-28-16
DIRECTOR ENG. DATE | CHECKED BY DATE | PROJ. ENGR DATE

PRINTED BY:
PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837

PIER 4 PHASE 2
MARINE BUILDING
CASEWORK SCHEDULE

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:	DRAWING SCALE: AS NOTED	

6552
A80.00
SH # 445 OF # 499

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

C:\Autodesk\Revit\410 Arch_mark@tcfarchitecture.com.rvt

STRUCTURAL NOTES

DESIGN LOADS

All design and construction shall conform to the requirements of the International Building Code (IBC), 2012 Edition, as amended by the City of Tacoma.

LIVE LOADS: In addition to the dead loads, the following floor live loads were used for design. Live load reduction is per IBC Section 1607.10.

		Reducible	Unreducible
Corridors, Stairs	100 psf	X	
Offices	50 psf + 15 psf partition load		X
Mechanical/Electrical Rms	65 psf or actual equipment weight		X

Refer to Table 1607.1 in the IBC for relevant concentrated live loads.

ROOF SNOW LOAD: The roof snow load is determined using Chapter 7 of ASCE 7 in accordance with IBC Section 1608 and with the following factors:

Minimum design load 25 psf without drift

P_g = 20 psf	C_e = 0.9
I_s = 1.0	C_t = 1.0
P_f = 20 psf	

SEISMIC LOADS: The Seismic Force Resisting System (SFRS) used to resist earthquake and wind loads is comprised of Special Steel Concentrically Braced Frames designed in accordance with the provisions of AISC 341 "Seismic Provisions for Structural Steel Buildings". Earthquake design is based on the equivalent lateral force procedure in ASCE 7 Section 12.8 with the following factors:

Site Class E
Risk Category II
Seismic Design Category D

S_s = 1.30 g	h_n = 29 ft
S_1 = 0.50 g	T = 0.25 seconds
S_{DS} = 0.78 g	T_L = 6 seconds
S_{D1} = 0.80 g	I_E = 1.0
R = 6	C_s = 0.130
V = Base Shear = 75 kips	

The Seismic Force Resisting System is comprised of the structural steel members and connections identified in plan and on the Braced Frame elevations.

WIND LOADS: Wind load is determined using Chapters 26-31 of ASCE 7 in accordance with IBC Section 1609 with the following factors:

Risk Category II	K_{zt} = 1.0
Exposure Category D	GC_{pi} = ±0.18
V = 110 mph	

Design wind pressures for determining forces on components and cladding shall be determined using Chapter 30 of ASCE 7 in accordance with IBC Section 1609 by the Washington State Registered Professional Engineer who is responsible for the design of such elements, unless noted otherwise on the drawings.

STORY DRIFTS: The maximum lateral displacements with respect to the level below (story drifts) are as follows:

Seismic:

Inelastic Story Drift = 1.0% of story height

Elastic Story Drift = Inelastic Story Drift divided by Cd/I_E where Cd/I_E = 5.0

Wind:

Story Drift = 1.0% of story height

SOIL LOADS:

Allowable Soil-Bearing Pressure 2000 psf DL + LL
2667 psf DL + LL + seismic/wind

GENERAL NOTES

SUBMITTALS: Shop drawings shall be submitted to the Engineer prior to any fabrication or construction for all structural items, including the following:

Concrete Mixes	Embedded Steel Items
Concrete Reinforcement	Metal Grating
Structural Steel Framing	Steel Stairs
Steel Deck	Equipment Anchorage
Shear Stud Layout	
Seismic Design of Nonstructural Components	

If the shop drawings differ from or add to the design of the structural drawings, they shall bear the seal and signature of the Washington State Registered Professional Engineer who is responsible for the design.

DEFERRED SUBMITTALS: Per IBC Section 107.3.4.1, drawings and calculations for the design and fabrication of items that are designed by others shall bear the seal and signature of the Washington State Registered Professional Engineer who is responsible for the design and shall be submitted to the Architect and the building department for review prior to fabrication. Submitted calculations are for cursory review only and will generally not be returned. Deferred submittals include but are not limited to the following:

Equipment Anchorage
Seismic Design of Nonstructural Components
Pre-engineered Steel Stairs

NONSTRUCTURAL COMPONENTS: Design, detailing and anchorage of all nonstructural components shall be in accordance with IBC Section 1613, ASCE 7 Chapter 13, and the project specifications. Nonstructural components designed by others shall not induce torsional loading into supporting steel structural members without additional bracing of those members to eliminate torsional forces. Torsional bracing shall be designed by the nonstructural component designer and approved by the Engineer.

PRE-ENGINEERED STAIRS: Stairs designed by others shall not induce torsional loading into supporting steel structural members without additional bracing of those members. Torsional bracing shall be designed by the stair designer and approved by the Engineer.

CLADDING: Cladding designed by others shall be supported at each story to be consistent with the design of the building structure. Cladding designed by others shall not induce torsional loading into supporting steel structural members without additional bracing of those members to eliminate torsional forces, unless otherwise approved by the Engineer. Torsional bracing shall be designed by the cladding designer and approved by the Engineer.

INSPECTION: Special inspection per IBC Chapter 17 shall be performed by an approved testing agency as indicated in the Statement of Special Inspections and Testing. All prepared soil-bearing surfaces shall be inspected by the Geotechnical Engineer prior to placement of reinforcing steel. Soils compaction shall be supervised by an approved testing agency or Geotechnical Engineer.

SPECIAL CONDITIONS: Contractor shall verify all levels, dimensions, and existing conditions in the field before proceeding. Contractor shall notify the Engineer of any discrepancies or field changes prior to installation or fabrication. In case of discrepancies between the existing conditions and the drawings, the Contractor shall obtain direction from the Engineer before proceeding. Dimensions noted as plus or minus (±) indicate unverified dimensions and are approximate. Notify Engineer immediately of conflicts or excessive variations from indicated dimensions. Noted dimensions take precedence over scaled dimensions--DO NOT SCALE DRAWINGS. Dimensions of existing conditions may be based on record drawings and are to be field-verified by the Contractor.

Contractor shall verify all existing conditions before commencing any demolition. Contractor shall provide adequate shoring and bracing of all structural members, existing construction and soil excavations, as required, and in a manner suitable to the work sequence. Temporary shoring and bracing shall not be removed until all final connections have been completed in accordance with the drawings and materials have achieved design strength. No reinforcing bars in existing construction shall be cut unless directed to by the Engineer or as shown on the drawings.

Contractor shall be responsible for all safety precautions and the methods, techniques, sequences or procedures required to perform the work.

SOILS: See the Geotechnical Report No. 17916-01 by Hart Crowser, dated July 21, 2015, for more complete information. Earthwork material, backfill and compaction shall be in accordance with the recommendations of the Geotechnical Report. Backfill behind walls shall not be placed before the wall is properly supported by the floor slab or temporary bracing. All topsoil organics and loose surface soil shall be removed from beneath fill supporting concrete slabs or paving.

CONCRETE

Concrete work shall conform to all requirements of IBC Chapter 19.

CONCRETE MIXES: Concrete mixes shall conform to the following requirements:

Concrete strength at 28 days:

	f'c	w/c ratio
Concrete on Metal Deck, Curbs and Pads	3,000 psi	0.50
Mat Foundations/Footings	4,000 psi	0.45

The Contractor shall submit concrete mix designs for approval 2 weeks prior to placing any concrete. The mix design shall be in conformance with ACI 318, Chapter 5. The submittal shall indicate where each concrete mix is to be used on the project, as well as the maximum aggregate size of each mix. Maximum aggregate size shall conform to the project specifications.

ADMIXTURES: Water-reducing admixtures may be incorporated in concrete mix designs, but shall conform to ASTM C 494, and be used in strict accordance with the manufacturer's recommendations. $CaCl_2$ or other water-soluble chloride admixtures shall not be used.

WATER/CEMENT RATIO: Water/cement ratio shall be measured by weight and shall be based on the total cementitious material. Water/cement ratio and water content shall be determined by the supplier based on strength requirements and shall not exceed the maximum water/cement ratio and/or water content if shown above or in the project specifications. For topping slabs, limit maximum water to 34 gallons per cubic yard of concrete.

SLUMP: Field-measured slump shall conform to the submitted concrete mix design. Tolerance of slump shall conform to ASTM C 94.

AIR CONTENT: An air-entraining agent conforming to ASTM C 260 shall be used in all concrete mixes for flatwork which is exposed to weather. The amount of entrained air shall be 5 percent $\underline{+}$1 1/2 percent by volume. The amount of entrained air shall be measured in the field at the discharge from the truck.

CURING: A moist cure shall be applied to the concrete for a period of 36 hours after finishing concrete surfaces. Refer to the project specifications for curing requirements.

REINFORCING STEEL MATERIAL

Deformed Bars	ASTM A 615, Grade 60
Smooth Welded Wire Fabric (WWF)	ASTM A 185 (fy = 65,000 psi)
Deformed Welded Wire Fabric (DWF)	ASTM A 497 (fy = 70,000 psi)
Deformed Bar Anchors (DBA)	ASTM A 496

REINFORCING STEEL: Reinforcing shall be supported as specified by the project specifications and the CRSI Manual of Standard Practice. Reinforcing steel shall be detailed in accordance with ACI Standard of practice as outlined in "Details and Detailing of Concrete Reinforcement, ACI 315.

Lap all reinforcing bars as noted on the drawings. Where splice length is not shown, use Type Lb (Lbt for top bars) splice per development and splice length schedule. Mechanical or welded butt splices shall be used subject to Engineer's approval. Mechanical splices called out on the plans shall be Type 1, unless otherwise noted. Type 1 splices shall develop 125 percent of the yield capacity of the spliced bars in both tension and compression. Type 2 splices shall develop the specified tensile strength of the spliced bars in tension in addition to meeting Type 1 splice requirements.

Reinforcing steel shall have protection as follows, unless noted otherwise:

Use	Cover	
Interior Slab Bars	____	
Footing, Bottom Bars	3"	(cast against earth)
Top Bars	1 1/2"	
	2"	(#6 and larger where exposed to earth or weather)
Side Bars	2"	

Welding of reinforcing, when approved by the Engineer, shall be performed using low hydrogen electrodes and preheated in accordance with AWS D1.4, Reinforcing Steel Welding Code. Welders and welding procedures shall be qualified in accordance with AWS D1.4. Materials shall conform to the following:

Reinforcing Bars to be Welded	ASTM A 706, Grade 60, low alloy
Welding Electrodes	E80XX

NONSHRINK GROUT: Base plate grout shall be nonshrink type with minimum f'c = 8,000 psi. All other nonshrink grout shall have minimum f'c = 5,000 psi.

STRUCTURAL STEEL

REFERENCE SPECIFICATIONS

Structural Steel	AISC 360 - Specification for Structural Steel Buildings
High Strength Bolts	RCSC Specification for Structural Joints using High-Strength Bolts
Welding	AWS D1.1 , typical AWS D1.3 for metal deck and cold-formed framing AWS D1.8 for supplemental seismic provisions AWS prequalified joint details
Welder Certification	American Welding Society (AWS) Washington Association of Building Officials (WABO)
Steel Decking	Steel Deck Institute Publication No. 31 AISI S100 - North American Specification for the Design of Cold-Formed Steel Structural Members

STEEL MATERIALS

Structural Steel	ASTM A 992
Connection material, embedded items, channels, angles, base plates, and misc. steel	ASTM A 36, unless noted otherwise
Structural Tubes	ASTM A 500, Grade B
Steel Pipe	ASTM A 53, Grade B
Structural Bolts	ASTM A 325
Anchor Rods	ASTM F 1554, Grade 55 uno
Threaded Rods	ASTM A 36
Welding Electrodes	70 ksi, low hydrogen, typical 60 ksi, minimum, metal deck and cold-formed framing

Structural steel design, fabrication and erection shall conform to the requirements of IBC Chapter 22. All members are to be erected with natural mill camber or induced camber up, unless otherwise noted on the plans. Substitution of member sizes or steel grade will not be allowed without prior approval of the Engineer. Bolted connections are to be of high strength ASTM A 325 bolts as shown, unless noted otherwise. A minimum of two bolts is required for all beam connections. Alternative connections to those shown on these drawings will require prior approval of the Engineer.

Beam camber indicated on drawings is the upward camber required in the beam as delivered to the job site. Contractor to consider camber loss, if any, due to shipping and handling.

The Contractor shall be responsible for all erection aids and joint preparations that include, but are not limited to, erection angles, lift holes and other aids, welding procedures, required root openings, root face dimensions, groove angles, backing bars, copes, surface roughness values, and unequal parts.

DRAWING LIST

Port of Tacoma
P.O. BOX 1837 TACOMA, WA 98401 (253)383-5841

kpff
1601 5th Avenue, Suite 1600
Seattle, Washington 98101
(206) 622-5822 Fax (206) 622-8130

LOVING RODRIGUES, STATE OF WASHINGTON, 38838, STRUCTURAL ENGINEER, PROFESSIONAL ENGINEER
9/11/15

MARK:	REVISION:	BY:	APPR:	DATE:

APPROVED: 3-28-16
DIRECTOR ENG. DATE | PROJ. ENGR DATE | CHECKED BY Checker DATE | Checker DATE

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PIER 4 PHASE 2
MARINE BUILDING
Structural Notes and Drawing List

TOWNSHIP:	RANGE:	SECTION:	
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933		
PARCEL:		DRAWING SCALE: AS NOTED	

6552
S1.01
SH # 446 OF # 499

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

STRUCTURAL NOTES

PROTECTED ZONES: Portions of the seismic force resisting system members, as defined in detail L/S3.12, are defined as protected zones and are subject to the following limitations:

1. Within the protected zones, holes, tack welds, erection aides, air-arc gouging, and unspecified thermal cutting from fabrication or erection operations shall be repaired as required by the Engineer.
2. Welded headed stud anchors and decking attachments that penetrate the beam flange shall not be placed on beam flanges within the protected zones. Arc spot welds as required to secure decking shall be permitted.
3. Welded, bolted, screwed or shot-in attachments for perimeter edge angles, exterior facades, partitions, duct work, piping or other construction shall not be placed within the protected zones.

GALVANIZING: Structural steel and connections, including plates and other steel items embedded in concrete, which are exposed to weather and not to be painted shall be hot-dipped galvanized after fabrication in compliance with ASTM A 123. All field welds on galvanized material shall be coated with brush applied zinc-rich paint complying with the specifications.

WELDING: All welding shall be in conformance with AISC and AWS Standards, and shall be performed by AWS-WABO-certified welders using 70 ksi electrodes and low hydrogen processes. Only welds that are prequalified, as defined by AWS, or qualified by testing shall be used. Shop drawings shall show all welding with AWS A2.4 symbols. Welds shown on the drawings are minimum sizes. Increase weld size to AWS minimum sizes based on thickness. Minimum weld size shall be 3/16-inch, unless noted otherwise. The welds shown are for the final connections. Field weld symbols are shown where field welds are required by the structural design. Where field weld is not indicated, the Contractor is responsible for determining if a weld should be shop- or field-welded in order to facilitate the structural steel erection.

Welding of the Seismic Force Resisting System shall be executed in accordance with the provisions of AWS D1.8 "Structural Welding Code - Seismic Supplement". Welds associated with the seismic force resisting system are identified within these drawings as follows:

D1.8	Indicates welds subject to the requirements of D1.8
D1.8 - DCW	Indicates Demand Critical Welds subject to additional specific requirements within D1.8

The Lowest lAnticipated Service Temperature is 50 degrees F.

METAL DECK

Steel deck shall conform to ASTM A 653, Grade 33, minimum. Minimum fy = 38,000 psi. Where the deck is left permanently exposed, galvanized coating shall conform to ASTM A 924, G90. In other areas, galvanized coating shall conform to ASTM A 924, G60.

Minimum deck gages are shown on plans and are based on 3-span, unshored conditions. Heavier deck gages may be required for conditions other than these, depending on Manufacturer's and Contractor's layout. Deck Supplier shall verify deck gages and capacities based on actual deck layout and span conditions including a 3 psf superimposed dead load allowance for the roof deck. See load maps for live loads & superimposed dead loads. Deviations in deck gages from those shown shall be submitted to the Engineer, along with a valid ICC report for approval prior to shop detailing.

Deck welding shall be in accordance with AWS D1.3, "Structural Welding Code - Sheet Steel." Welders shall be qualified by WABO Sheet Steel Welder Certification Program. Arc spot weld sizes noted are based on the nominal (visible) diameter.

Contractor shall provide closure plates, flashing, and all miscellaneous light gage metal shapes necessary to complete the work. The minimum bearing shall be 2 inches.

COMPOSITE FLOOR/ROOF SLAB DECK: Steel floor deck shall be a composite type deck with ribs at 12 inches on center of the size and gage shown on the plans and details, or an approved equal.

Floor deck fastening shall be as follows, unless noted otherwise, and except as indicated in typical composite beam details.

min 5/8-inch diameter arc-spot welds at 12 inches on center at transverse and perimeter supports

min 5/8-inch diameter arc-spot welds at 12 inches on center at longitudinal supports

Button punch or 1 1/2-inch top or side seam weld at 18 inches on center at side lap connections

NONCOMPOSITE ROOF DECK: Steel roof deck shall be of the size and gage shown on the plans or an approved equal. Roof deck fastening shall be as shown on the plans. The minimum end lap shall be 2 inches centered over supports.

Suspended ceilings, light fixtures, pipes, ducts, mechanical or electrical equipment, or other utilities shall not be supported by the noncomposite steel roof deck without approval of the Engineer.

Holes or combinations of holes in noncomposite roof deck, which cut two webs which are closer than 24 inches on center in any deck span, may require deck reinforcement and require direction from the Engineer.

ANCHORS

POST-INSTALLED ANCHORS: Provide post-installed anchors as specified in these drawings.

Use of alternate products, or of post-installed anchors at locations not shown in these drawings, is subject to the approval of the Engineer. Submit proposed anchors to the Engineer with an ICC-ES report valid for the 2012 IBC. Submitted ICC-ES reports shall demonstrate that the anchors are suitable for use in cracked concrete. Where anchors resist seismic loads, submitted ICC-ES reports shall demonstrate that the anchors are suitable for the resistance of seismic loads.

HEADED SHEAR STUDS AND DEFORMED BAR ANCHORS: All headed shear studs shall conform to ASTM A 108 and shall be 3/4-inch diameter headed studs, unless noted otherwise. Stud lengths after weld shall be as shown on the drawings. Deformed bar anchors (DBA) shall conform to ASTM A 496 and shall be of the size and length shown on the drawings. All studs and deformed bar anchors shall be automatically end welded in shop or field with equipment recommended by manufacturer.

CONCRETE ON METAL DECK

Concrete thickness over metal decking indicated on the plans is to be a nominal minimum thickness at points of framing support, such as columns and concrete walls (thickness control locations). To maintain a level slab surface, the slab thickness may vary depending on the actual deflection of the framing members. Contractor shall allow for some deflection due to wet weight of concrete when determining concrete quantities. Do not cast the slab at a constant thickness over the decking.

See framing plans for steel beam camber requirements. Listed cambers are intended to compensate for anticipated deflections of steel floor beams and girders under weight of wet concrete. Actual deflections may vary depending on rate of concrete placement, sequence, construction joint layout, fabrication and erection tolerances, and other factors. Set screeds to compensate for the deflections and any construction deviations so that the finished floor is level, within specified tolerances, between thickness control locations at the supports. Localized deviations may be corrected with floor leveling material subject to the Engineer's approval. Costs for leveling concrete, if used, shall be included in the contractor's GMP.

Prior to placing concrete, the contractor shall survey the framing support locations to determine areas that may require additional concrete. Where the survey indicates the beams are over-cambered (too high), the minimum slab thickness must be maintained.

The concrete surface shall conform to the flatness requirements of the project specifications. The overall levelness of the concrete surface shall be controlled to comply with the maximum slope tolerance as indicated in the concrete placement section of the project specifications.

STRUCTURAL DRAWING SYMBOLS - GENERAL

10	GRID BUBBLE
	SURFACE - SLOPE UP
	SURFACE - STEPPED
	SURFACE - SLOPE DOWN
	SURFACE - SLOPE TWO WAYS
OR	UNDISTURBED SOIL, COMPACTED SOIL, BACKFILL. OR ANY PREPARED SUBGRADE. SEE SPECIFICATIONS FOR TYPE OF MATERIAL AND PREPARATION METHOD.
N	NORTH ARROW
A S3.01	STANDARD SECTION CUTS
A S3.01 / A S3.01	BUILDING SECTION CUTS
A S3.01	ELEVATION OF WALL OR FRAME
99'-0"	SPOT ELEVATION (TOP OF PLYW00D, TOP OF CONCRETE, TOP OF STEEL)
100'-0"	TOP OF CONCRETE ELEVATION
100'-0"	TOP OF STEEL ELEVATION
100'-0"	TOP OF MEMBER ELEVATION
WP WP	WORKPOINT
	SLOPE
	STRUCTURAL ARROW (DIRECTION OF SPAN)
	COLUMN PASSING THRU THIS LEVEL
	COLUMN BELOW THIS LEVEL
	COLUMN STARTING AT THIS LEVEL

STRUCTURAL DRAWING SYMBOLS - STEEL

	ORDINARY MOMENT CONNECTION SEE TYPICAL DETAIL
	INDICATES FULL HEIGHT STIFFENER CONN.
(+3")	TOP OF STEEL + ELEVATION
[X]	NUMBER OF EVENLY SPACED SHEAR STUDS
[X,Y,Z]	SPECIAL STUD SPACING SEE DETAIL
C 7/8"	THE AMOUNT OF MID-SPAN DEAD LOAD CAMBER
	STEEL IN CROSS SECTION

STRUCTURAL DRAWING SYMBOLS - CONCRETE

——x——x——	WELDED WIRE FABRIC
AA	REBAR TYPE
F1 (99'-0")	FOOTING TYPE & BOTTOM EL

STRUCTURAL ABBREVIATIONS

AB	Anchor Bolt	IE	Invert Elevation
ADD'L	Additional	IF	Inside Face
ADJ	Adjustable	IN	Inch
AFF	Above Finish Floor	INFO	Information
AGG	Aggregate	INT	Interior
ANCH	Anchor	JST	Joist
ARCH	Architectural	JT	Joint
B/	Bottom of	K	Kip (1,000 lbs.)
BLDG	Building	KSF	Kips per Square Foot
BLKG	Blocking	LF	Lineal Foot
BM	Beam	LLH	Long Leg Horizontal
BN	Boundary Nailing	LLV	Long Leg Vertical
BOT	Bottom	LP	Low Point
BRG	Bearing	LVL	Laminated Veneer Lumber
BSMT	Basement	MAX	Maximum
BTWN	Between	MECH	Mechanical
BUR	Built-Up Roof	MFR	Manufacturer
C	Camber	MIN	Minimum
CAP	Capacity	MISC	Miscellaneous
CC	Center to Center	MOM	Moment
CIP	Cast in Place	NIC	Not in Contract
CJ	Construction or Control Joint	NOM	Nominal
CL	Centerline	NO	Number
CLG	Ceiling	NS	Near Side
CLR	Clear	NS	Nonshrink
CMU	Concrete Masonry Unit	NTS	Not to Scale
COL	Column	OC	On Center
CONC	Concrete	OD	Outside Diameter
CONN	Connection	OF	Outside Face
CONST	Construction	OPNG	Opening
CONT	Continuous	OPP	Opposite
CONTR	Contractor	P	Post
COORD	Coordinate	PC	Piece
CP	Complete Penetration	PEN	Penetration
CTR	Center	PL	Plate
CY	Cubic Yard	PL	Property Line
DB	Divider Beam	PLWD	Plywood
DBA	Deformed Bar Anchor	PNL	Panel
DBL	Double	PP	Partial Penetration
DEMO	Demolish	PSI	Pounds Per Square Inch
DET	Detail	PSF	Pounds Per Square Foot
DF	Douglas Fir	PT	Point
DIA	Diameter	PWT	Prefabricated Wood Truss
DIAG	Diagonal	R	Radius
DKG	Decking	RD	Roof Drain
DN	Down	REINF	Reinforcing
DO	Ditto	REM	Remain(der)
DWF	Deformed Wire Fabric	REQ'D	Required
DWG	Drawing	RND	Round
DWL	Dowel	RO	Rough Opening
EA	Each	RTN	Return
EF	Each Face	SC	Slip Critical
EL	Elevation	SCHED	Schedule
ELECT	Electrical	SECT	Section
ELEV	Elevator	SHT	Sheet
EN	Edge Nailing	SIM	Similar
EQ	Equal	SOG	Slab-on-Grade
EQUIP	Equipment	SP	Space
ES	Each Side	SPEC	Specification
EW	Each Way	SQ	Square
EX	Existing	SS	Stainless Steel
EXP	Expansion	ST	Sustained Tension Anchor
EXT	Exterior	STD	Standard
FD	Floor Drain	STIFF	Stiffener
FDN	Foundation	STIRR	Stirrup
FF	Finish Floor	STL	Steel
FIN	Finish	STRUCT	Structural
FLG	Flange	SUPP	Support
FLR	Floor	SYM	Symmetrical
FOB	Face of Building	T/	Top of
FS	Far Side	T&B	Top and Bottom
FT	Feet	T&G	Tongue and Groove
FTG	Footing	THK	Thick(ness)
GA	Gauge	THRU	Through
GALV	Galvanized	TRANS	Transverse
GEN	General	TYP	Typical
GL	Glue Laminated Beam	UNO	Unless Noted Otherwise
GOVT	Government	VERT	Vertical
GR	Grade	W/	With
GWB	Gypsum Wall Board	WD	Wood
HF	Hem-Fir	WF	Wide Flange
HGR	Hanger	WHS	Welded Headed Stud
HK	Hook	WL	Water Line
HORIZ	Horizontal	W/O	Without
HP	High Point	WP	Work Point
HSS	Hollow Structural Section	WWF	Welded Wire Fabric
IBC	International Building Code		
ID	Inside Diameter		

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PIER 4 PHASE 2
MARINE BUILDING
Structural Notes, Drawing Symbols and Abbreviations

TOWNSHIP: | RANGE: | SECTION:
DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: | DRAWING SCALE: AS NOTED

6552
S1.02
SH # 447 OF # 499

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

BINDING EDGE
Path: U:\115000-115350\115206 (POT Pier 4 Marine Building)\01 GenlNotes\P4MB_S1.02.dwg Plot date: Feb 18, 2016-09:59:01am CAD User: dianel.
Xref Filename: | 3422 | P4MBxTB | P4MBxBoxA | P4MB_S1.01 |

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STATEMENT OF STRUCTURAL SPECIAL INSPECTIONS AND TESTING

TABLE 1 - REQUIRED GEOTECHNICAL SPECIAL INSPECTIONS

SYSTEM or MATERIAL	INSPECTION				REMARKS
	IBC CODE REFERENCE	CODE or STANDARD REFERENCE	FREQUENCY (NOTE 6) CONTINUOUS	FREQUENCY (NOTE 6) PERIODIC	
SOILS					
VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	TB 1705.6 1705.6	GEOTECHNICAL REPORT		X	BY THE GEOTECHNICAL ENGINEER
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.				X	
PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.				X	
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.			X		
PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.				X	

TABLE 2 - REQUIRED STRUCTURAL SPECIAL INSPECTIONS

SYSTEM or MATERIAL	INSPECTION				REMARKS
	IBC CODE REFERENCE	CODE or STANDARD REFERENCE	FREQUENCY (NOTE 6) CONTINUOUS	FREQUENCY (NOTE 6) PERIODIC	
FABRICATION					
INSPECTION IN FABRICATION SHOP	1704.2.5				WHERE FABRICATION OF STRUCTURAL LOAD-BEARING MEMBERS AND ASSEMBLIES IS BEING PERFORMED ON THE PREMISES OF A FABRICATOR'S SHOP, SPECIAL INSPECTION OF THE FABRICATED ITEMS SHALL BE AS REQUIRED BY TABLE 2 AND AS REQUIRED ELSEWHERE IN THE STATEMENT OF SPECIAL INSPECTIONS. REFERENCE SECTION 1704.2.5.2 FOR APPROVED FABRICATOR EXCEPTION.
CONCRETE					
INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT.	TB 1705.3(1) 1705.3 1910.4	ACI 318 1.3.2 ACI 318 3.5 ACI 318 7.1-7.7		X	TOLERANCE AND REINFORCING PLACEMENT PER ACI 318 7.5
INSPECTION OF REINFORCING STEEL WELDING	TB 1705.3(2) 1705.2.2.1.2	ACI 318 3.5.2 AWS D1.4, SECTION 7			EXCEPT AS NOTED OTHERWISE
MATERIAL VERIFICATION OF WELD FILLER METALS	1705.2.2.1.2	ACI 318 3.5.2 AWS D1.4 SECTION 7		X	MANUFACTURER'S CERTIFIED TEST REPORTS
VERIFYING USE OF PROPER WPS'S				X	COPY OF WELDING PROCEDURE SPECIFICATIONS
VERIFYING WELDER QUALIFICATIONS				X	COPY OF QUALIFICATION CARDS
VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706.	TB 1705.2.2 (2.b.1)	AWS D1.4 ACI 318 3.5.2		X	CERTIFIED MILL TEST REPORTS
REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR REINFORCEMENT.	TB 1705.2.2 (2.b.2)	AWS D1.4 ACI 318 3.5.2	X		ALL WELDS VISUALLY INSPECTED PER AWS D1.4 7.5
SHEAR REINFORCEMENT	TB 1705.2.2 (2.b.3)	AWS D1.4 ACI 318 3.5.2	X		
OTHER REINFORCING STEEL	TB 1705.2.2 (2.b.4)	AWS D1.4 ACI 318 3.5.2		X	
INSPECTION OF ANCHORS CAST IN CONCRETE	WAC 51-50-1705	ACI 318 D.9.2		X	ALL ANCHORS SHALL BE VISUALLY INSPECTED
INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS:					
ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	WAC 51-50-1705	ICC EVALUATION RPT ACI 318 D.9.2.4	X		REFER TO ANCHOR CALLOUTS FOR SUSTAINED TENSION (ST) DESIGNATION
MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED ABOVE.	WAC 51-50-1705	ICC EVALUATION RPT ACI 318 D.9.2		X (NOTE 7)	ALL ANCHORS SHALL BE VISUALLY INSPECTED
VERIFYING USE OF REQUIRED DESIGN MIX.	TB 1705.3(5) 1705.3 1904 1910.2 1910.3	ACI 318 1.3.2 ACI 318 4 ACI 318 5.2-5.4		X	
AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TEST, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	TB 1705.3(6) 1910.10	ASTM C 172 ASTM C 31 ACI 318 5.6,5.8	X		
INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	TB 1705.3(7) 1705.3 1910.6-8	ACI 318 5.9-5.10	X		
INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	TB 1705.3(8) 1705.3 1910.9	ACI 318 1.3.2 ACI 318 5.11-5.13		X	
INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	TB 1705.3(12) 1705.3	ACI 318 6.1.1, 6.2		X	
REINFORCING STEEL MECHANICAL COUPLERS, TERMINATORS AND FORMSAVERS		ICC EVALUATION REPORTS		X	VISUALLY INSPECT FOR CORRECT ASSEMBLY AND LOCATION

SYSTEM or MATERIAL	INSPECTION				REMARKS
	IBC CODE REFERENCE	CODE or STANDARD REFERENCE	FREQUENCY (NOTE 8) OBSERVE	FREQUENCY (NOTE 8) PERFORM	
STEEL					
INSPECTION TASKS PRIOR TO WELDING:					
WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	1705.2	AISC 360: TB N5.4-1		X	
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE		AISC 360: TB N5.4-1		X	
MATERIAL IDENTIFICATION (TYPE/GRADE)		AISC 360: TB N5.4-1	X		
WELDER IDENTIFICATION SYSTEM		AISC 360: TB N5.4-1	X		
FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY): JOINT PREPARATION, DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL), CLEANLINESS (CONDITION OF STEEL SURFACES), TACKING (TACK WELD QUALITY AND LOCATION), BACKING TYPE AND FIT (IF APPLICABLE)		AISC 360: TB N5.4-1	X		
CONFIGURATION AND FINISH OF ACCESS HOLES		AISC 360: TB N5.4-1	X		
FIT-UP OF FILLET WELDS: DIMENSIONS (ALIGNMENT, GAPS AT ROOT), CLEANLINESS (CONDITION OF STEEL SURFACES), TACKING (TACK WELD QUALITY AND LOCATION), BACKING TYPE AND FIT (IF APPLICABLE)		AISC 360: TB N5.4-1	X		
CHECK WELDING EQUIPMENT		AISC 360: TB N5.4-1			
INSPECTION TASKS DURING WELDING:					
USE OF QUALIFIED WELDERS	1705.2	AISC 360: TB N5.4-2	X		
CONTROL AND HANDLING OF WELDING CONSUMABLES: PACKAGING, EXPOSURE CONTROL		AISC 360: TB N5.4-2	X		
NO WELDING OVER CRACKED TACK WELDS		AISC 360: TB N5.4-2	X		
ENVIRONMENTAL CONDITIONS: WIND SPEED WITHIN LIMITS, PRECIPITATION AND TEMPERATURE		AISC 360: TB N5.4-2	X		
WPS FOLLOWED: SETTINGS ON WELDING EQUIPMENT, TRAVEL SPEED, SELECTED WELDING MATERIALS, SHIELDING GAS TYPE/FLOW RATE, PREHEAT APPLIED, INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.), PROPER POSITION (F, V, H, OH)		AISC 360: TB N5.4-2	X		
WELDING TECHNIQUES: INTERPASS AND FINAL CLEANING, EACH PASS WITHIN PROFILE LIMITATIONS, EACH PASS MEETS QUALITY REQUIREMENTS		AISC 360: TB N5.4-2	X		
INSPECTION TASKS AFTER WELDING:					
WELDS CLEANED	1705.2	AISC 360: TB N5.4-3	X		
SIZE, LENGTH AND LOCATION OF WELDS		AISC 360: TB N5.4-3		X	
WELDS MEET VISUAL ACCEPTANCE CRITERIA: CRACK PROHIBITION, WELD/BASE-METAL FUSION, CRATER CROSS SECTION, WELD PROFILES, WELD SIZE, UNDERCUT, POROSITY		AISC 360: TB N5.4-3		X	
ARC STRIKES		AISC 360: TB N5.4-3		X	
K-AREA		AISC 360: TB N5.4-3		X	
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)		AISC 360: TB N5.4-3		X	
REPAIR ACTIVITIES		AISC 360: TB N5.4-3		X	
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER		AISC 360: TB N5.4-3		X	

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PIER 4 PHASE 2
MARINE BUILDING
Statement of Structural Special Inspections and Testing

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PARCEL: | DRAWING SCALE: AS NOTED

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CONT/CONS: 070136
M. ID: 091251
PHASE: BID

Path: U:\115000-115350\115206 (POT Pier 4 Marine Building)\01 GenNotes\P4MB_S1.03.dwg Plot date: Feb 18, 2016-09:59:14am CAD User: dianel.
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TABLE 2 CONTINUED - REQUIRED STRUCTURAL SPECIAL INSPECTIONS

SYSTEM or MATERIAL	INSPECTION				REMARKS
	IBC CODE REFERENCE	CODE or STANDARD REFERENCE	FREQUENCY (NOTE 8)		
			OBSERVE	PERFORM	
INSPECTION TASKS PRIOR TO BOLTING:					
MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	1705.2	AISC 360: TB N5.6-1		X	
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS		AISC 360: TB N5.6-1	X		
PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)		AISC 360: TB N5.6-1	X		
PROPER BOLTING PROCEDURE FOR JOINT DETAIL		AISC 360: TB N5.6-1	X		
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS		AISC 360: TB N5.6-1	X		
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED		AISC 360: TB N5.6-1	X		
PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS		AISC 360: TB N5.6-1	X		
INSPECTION TASKS DURING BOLTING:					
FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	1705.2	AISC 360: TB N5.6-2	X		
JOINT BROUGHT TO SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION		AISC 360: TB N5.6-2	X		
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING		AISC 360: TB N5.6-2	X		
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES		AISC 360: TB N5.6-2	X		
INSPECTION TASKS AFTER BOLTING:					
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	1705.2	AISC 360: TB N5.6-3		X	
INSPECTION OF STEEL ELEMENTS OF COMPOSITE CONSTRUCTION PRIOR TO CONCRETE PLACEMENT					
PLACEMENT AND INSTALLATION OF STEEL DECK	1705.2	AISC 360: TB N6.1		X	
PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS		AISC 360: TB N6.1		X	
DOCUMENT ACCEPTANCE OR REJECTION OF STEEL ELEMENTS		AISC 360: TB N6.1		X	

TABLE 2A - REQUIRED STRUCTURAL SPECIAL INSPECTIONS for SEISMIC RESISTANCE

SYSTEM or MATERIAL	INSPECTION				REMARKS
	IBC CODE REFERENCE	CODE or STANDARD REFERENCE	FREQUENCY (NOTE 6)		
			CONTINUOUS	PERIODIC	
GENERAL					
SEISMIC FORCE-RESISTING SYSTEMS (SFRS) IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E OR F	1704.3.2 1705.11		X		REFERENCE GENERAL STRUCTURAL NOTES FOR OUTLINE OF SFRS SYSTEM. REFERENCE TABLE 2A FOR MATERIAL SPECIFIC INSPECTION REQUIREMENTS.
DESIGNATED SEISMIC SYSTEMS (SECONDARY) IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E OR F			X		REFERENCE TABLE N1 AND N2 FOR INSPECTION REQUIREMENTS

SYSTEM or MATERIAL	INSPECTION				
	IBC CODE REFERENCE	CODE or STANDARD REFERENCE	FREQUENCY (NOTE 8)		
			OBSERVE	PERFORM	
STEEL					
VISUAL INSPECTION TASKS AFTER WELDING:					
PLACEMENT OF REINFORCING OR CONTOURING FILLET WELDS (IF REQUIRED)	1705.11.1	AISC 341: TB J6-3		X	
OTHER INSPECTION TASKS:					
RBS REQUIREMENTS IF APPLICABLE, CONTOUR AND FINISH, DIMENSIONAL TOLERANCES	1705.11.1	AISC 341: TB J8-1		X	
PROTECTED ZONE, NO HOLES AND UNAPPROVED ATTACHMENTS MADE BY FABRICATOR OR ERECTOR, AS APPLICABLE	1705.11.1	AISC 341: TB J8-1		X	
INSPECTION OF COMPOSITE STRUCTURES PRIOR TO CONCRETE PLACEMENT:					
MATERIAL IDENTIFICATION OF REINFORCING STEEL (TYPE/GRADE)	1705.11.1	AISC 341: TB J9-1	X		
DETERMINATION OF CARBON EQUIVALENT FOR REINFORCING STEEL OTHER THAN ASTM A706		AISC 341: TB J9-1	X		
PROPER REINFORCING STEEL SIZE, SPACING AND ORIENTATION		AISC 341: TB J9-1	X		
REINFORCING STEEL HAS NOT BEEN REBENT IN THE FIELD		AISC 341: TB J9-1	X		
REINFORCING STEEL HAS BEEN TIED AND SUPPORTED AS REQUIRED		AISC 341: TB J9-1	X		
REQUIRED REINFORCING STEEL CLEARANCES HAVE BEEN PROVIDED		AISC 341: TB J9-1	X		
COMPOSITE MEMBER HAS REQUIRED SIZE		AISC 341: TB J9-1	X		
INSPECTION OF COMPOSITE STRUCTURES DURING CONCRETE PLACEMENT:					
CONCRETE: MATERIAL IDENTIFICATION (MIX DESIGN, COMPRESSIVE STRENGTH, MAXIMUM LARGE AGGREGATE SIZE, MAXIMUM SLUMP)	1705.11.1	AISC 341: TB J9-2	X		
LIMITS ON WATER ADDED AT THE TRUCK OR PUMP		AISC 341: TB J9-2	X		
PROPER PLACEMENT TECHNIQUES TO LIMIT SEGREGATION		AISC 341: TB J9-2	X		
INSPECTION OF COMPOSITE STRUCTURES AFTER CONCRETE PLACEMENT:					
ACHIEVEMENT OF MINIMUM SPECIFIED CONCRETE COMPRESSIVE STRENGTH AT SPECIFIED AGE	1705.11.1	AISC 341: TB J9-1			

TABLE 2B - REQUIRED STRUCTURAL SPECIAL INSPECTIONS for WIND RESISTANCE

SYSTEM or MATERIAL	INSPECTION				REMARKS
	IBC CODE REFERENCE	CODE or STANDARD REFERENCE	FREQUENCY (NOTE 6)		
			CONTINUOUS	PERIODIC	
ROOF CLADDING AND ROOF FRAMING CONNECTIONS	1705.10.1 1705.10.3			X	INSPECT NAILING, BOLTING, ANCHORING AND OTHER FASTENERS. REFER TO TABLE 2 MATERIALS RELATED SPECIAL INSPECTIONS.
WALL CLADDING AND WALL CONNECTIONS TO ROOF AND FLOOR DIAPHRAGMS AND FRAMING	1705.10.1			X	
ROOF AND FLOOR DIAPHRAGM SYSTEMS, INCLUDING COLLECTORS AND BOUNDARY ELEMENTS				X	
VERTICAL WINDFORCE-RESISTING SYSTEMS, INCLUDING BRACED FRAMES, MOMENT FRAMES AND SHEAR WALLS	1705.10			X	

TABLE 2C - REQUIRED STRUCTURAL INSPECTIONS for SPECIAL CASES

SYSTEM or MATERIAL	INSPECTION				REMARKS
	IBC CODE REFERENCE	CODE or STANDARD REFERENCE	FREQUENCY (NOTE 6)		
			CONTINUOUS	PERIODIC	
PRE-ENGINEERED STRUCTURES					
FABRICATION AND ERECTION	1705.1.1	MBMA			REFER TO TABLE 2 FOR FABRICATOR, WELDING, AND HIGH STRENGTH BOLTING SPECIAL INSPECTION REQUIREMENTS AND TABLES 3 AND 4 FOR MATERIAL SPECIFIC TESTING REQUIREMENTS. REFER TO DEFERRED SUBMITTAL FOR ADDITIONAL INFORMATION.

TESTING

TABLE 3 - REQUIRED STRUCTURAL TESTING

SYSTEM or MATERIAL	TESTING				REMARKS
	IBC CODE REFERENCE	CODE or STANDARD REFERENCE	FREQUENCY		
			CONTINUOUS	PERIODIC	
GEOTECHNICAL					
FILL IN-PLACE DENSITY OR PREPARED SUBGRADE DENSITY	1705.6	VARIES; MINIMUM PER IBC APPENDIX J107.5		X	BY THE GEOTECHNICAL ENGINEER
MATERIAL VERIFICATION		VARIES; CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS		X	BY THE GEOTECHNICAL ENGINEER
CONCRETE					
COMPOSITE SAMPLES	1903 1705.3	ASTM C172 ACI 318 5.6	EA 150 CY ONE SET PER DAY MIN		OBTAIN WHEN FRESH CONCRETE IS PLACED FOR EACH MIX DESIGN USED
CONCRETE STRENGTH		ASTM C39	2 CYL - 7 DAYS 2 CYL - 28 DAYS		
CONCRETE SLUMP		ASTM C143	ONE TEST PER COMPOSITE SAMPLE		AT POINT OF PLACEMENT
CONCRETE AIR CONTENT		ASTM C231	ONE TEST PER COMPOSITE SAMPLE		MIN ONE PER DAY
CONCRETE TEMPERATURE		ASTM C1064	ONE TEST PER COMPOSITE SAMPLE		ONE TEST PER HOUR WHEN AIR TEMP IS BELOW 40 DEG F OR ABOVE 80 DEG F
STEEL					
RADIOGRAPHIC (RT) MAGNETIC PARTICLE (MT) AND ULTRASONIC (UT) TESTING OF WELDS	AISC 360 5.0	RT- AWS D1.1 6.16 MT- AWS D1.1 6.14.4 UT- AWS D1.1 6.13 & 6.14.3	PER DRAWINGS		ALL CJP WELDS REQUIRE UT TESTING
PRE-CONSTRUCTION TESTING OF WELDED STUDS	1705.2.2.1	AWS D1.1 7.7.1	EACH SIZE AND TYPE OF STUD EACH SHIFT		
PRE-INSTALLATION TESTING OF WELDED STUDS WELDED THROUGH DECKING	1705.2.2.1	AWS D1.1 7.6	EACH STUD SIZE AND DECK GAUGE COMBINATION		
PRE-INSTALLATION VERIFICATION OF PRETENSIONED HIGH STRENGTH BOLTS	1705.2.1 AISC 360: TB N5.6-1	RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS, SECTION 7	EACH COMBINATION OF DIAMETER, LENGTH, GRADE, AND LOT TO BE USED IN THE WORK		

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LOVING ROBERTS
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38538
PROFESSIONAL ENGINEER
STRUCTURAL
9/11/15

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PIER 4 PHASE 2
MARINE BUILDING
Statement of Structural Special Inspections and Testing

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:	DRAWING SCALE: AS NOTED	

6552
S1.04
SH # 449 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

Path: U:\115000-115350\115206 (POT Pier 4 Marine Building)\01 GenNotes\P4MB_S1.04.dwg Plot date: Feb 18, 2016-09:59:25am CAD User: dlorel.
Xref Filename: | 3422 | P4MBxTB | P4MBxBoxA |

TABLE 4 - REQUIRED STRUCTURALTESTING for SEISMIC RESISTANCE

SYSTEM or MATERIAL	TESTING			REMARKS
	IBC CODE REFERENCE	CODE or STANDARD REFERENCE	FREQUENCY	
STEEL				
MT OF K-AREA OF ROLLED WIDE FLANGE COLUMN WEBS ADJACENT TO DOUBLER/CONTINUITY PLATE WELDS	1705.12.2	AISC 341 J6.2a AWS D1.1 6.14.4	EACH PLATE LOCATION	
MAGNETIC PARTICLE (MT) AND ULTRASONIC (UT) TESTING OF COMPLETE JOINT PENETRATION GROOVE (CJP) WELDS IN MATERIALS 5/16" THICK AND GREATER		AISC 341 J6.2b MT - AWS D1.1 6.14.4 UT - AWS D1.1 6.13 & 6.14.3	UT 100% OF WELDS MT 25% OF WELDS	REFER TO DRAWINGS FOR LOCATIONS
UT OF BASE METAL THICKER THAN 1-1/2" SUBJECT TO THROUGH-THICKNESS WELD SHRINKAGE STRAINS		AISC 341 J6.2c AWS D1.1 6.13 & 6.14.3	BEHIND AND ADJACENT TO EACH WELD	
MT OF THERMALLY CUT SURFACES OF BEAM COPES AND ACCESS HOLES AT WELDED SPLICES AND CONNECTIONS WHEN THE FLANGE THICKNESS EXCEEDS 1-1/2" FOR ROLLED SHAPES OR THE WEB THICKNESS EXCEEDS 1-1/2" FOR BUILT-UP SHAPES		AISC 341 J6.2d AWS D1.1 6.14.4	EACH LOCATION	
MT OF THE WELD AND ADJACENT AREA IN A REDUCED BEAM SECTION (RBS) PLASTIC HINGE REGION REPAIRED BY WELDING		AISC 341 J6.2e AWS D1.1 6.14.4	EACH LOCATION	
MT OF THE ENDS OF FLANGE WELDS FROM WHICH WELD TABS HAVE BEEN REMOVED		AISC 341 J6.2f AWS D1.1 6.14.4	EACH LOCATION	

STATEMENT OF SPECIAL INSPECTIONS FOR NON-STRUCTURAL SPECIAL INSPECTIONS AND TESTING

TABLE N1 - REQUIRED ARCHITECTURAL SPECIAL INSPECTIONS

SYSTEM or MATERIAL	INSPECTION				REMARKS
	IBC CODE REFERENCE	CODE or STANDARD REFERENCE	FREQUENCY		
			CONTINUOUS	PERIODIC	
SPRAYED FIRE-RESISTANT MATERIALS AND INTUMESCENT FIRE-RESISTANT COATINGS					
SURFACE CONDITIONS	1705.13 1705.14	ICC EVALUATION REPORT		X	SPECIAL INSPECTIONS APPLY TO CLEANLINESS OF STEEL, PRODUCT NAME AND TYPE, MATERIAL EXPIRATION DATE, AMBIENT CONDITIONS, APPLICATION PROCEDURES, AND MATERIAL THICKNESS, DENSITY AND BOND STRENGTH
APPLICATION				X	
EXTERIOR INSULATION AND FINISH SYSTEMS					
INSTALLATION	1705.15		X		
FIRE-RESISTANT PENETRATIONS AND JOINTS					
INSTALLATION	1705.16			X	
SMOKE CONTROL SYSTEMS					
INSTALLATION	1705.17			X	RECORD DEVICE LOCATION(S)

TABLE N2 - REQUIRED NON-STRUCTURAL SPECIAL INSPECTIONS for SEISMIC RESISTANCE

SYSTEM or MATERIAL	INSPECTION				REMARKS
	IBC CODE REFERENCE	CODE or STANDARD REFERENCE	FREQUENCY		
			CONTINUOUS	PERIODIC	
ARCHITECTURAL					
INSTALLATION AND ANCHORAGE OF ACCESS FLOORS	1704.3.2 1705.11.5.1			X	REFERENCE ARCHITECTURAL FOR INFORMATION
INSTALLATION AND ANCHORAGE OF CLADDING AND INTERIOR/EXTERIOR VENEER WEIGHING MORE THAN 5 PSF IN BUILDINGS MORE THAN 30 FEET IN HEIGHT	1704.3.2 1705.11.5			X	
ERECTION AND FASTENING OF INTERIOR NONBEARING WALLS WEIGHING MORE THAN 15 PSF IN BUILDINGS MORE THAN 30 FEET IN HEIGHT	1704.3.2 1705.11.5			X	
ERECTION AND FASTENING OF EXTERIOR NON-BEARING WALLS IN BUILDINGS MORE THAN 30 FEET IN HEIGHT	1704.3.2 1705.11.5			X	
INSTALLATION AND ANCHORAGE OF STORAGE RACKS	1704.3.2 1705.11.7	ASCE 7 SECTION 15.5.3		X	FOR RACKS OVER 8 FEET IN HEIGHT
INSTALLATION OF OTHER SEISMIC SUPPORTS FOR DESIGNATED ARCHITECTURAL SYSTEMS AND THEIR COMPONENTS	1704.3.2 1705.11.5			X	REFERENCE ARCHITECTURAL FOR INFORMATION
ELECTRICAL					
ANCHORAGE OF ELECTRICAL EQUIPMENT FOR EMERGENCY OR STANDBY POWER SYSTEMS	1704.3.2 1705.11.6			X	SEISMIC RESTRAINT OF ELECTRICAL COMPONENTS IS A CONTRACTOR RESPONSIBILITY AND IS LISTED HERE FOR INFORMATION ONLY. REFERENCE ELECTRICAL FOR FURTHER INFORMATION.
ANCHORAGE OF ALL ELECTRICAL EQUIPMENT IN SDC E OR F ONLY				X	
INSTALLATION OF VIBRATION ISOLATION SYSTEMS IN STRUCTURES ASSIGNED TO SDC C, D, E OR F WHERE THE CONSTRUCTION DOCUMENTS REQUIRE A NOMINAL CLEARANCE OF 0.25 INCHES OR LESS BETWEEN THE EQUIPMENT SUPPORT FRAME AND RESTRAINT	1705.11.6 1705.11.8			X	
INSTALLATION OF OTHER SEISMIC SUPPORTS FOR DESIGNATED ELECTRICAL SYSTEMS AND THEIR COMPONENTS	1705.11.6			X	
PROCESS MECHANICAL					
INSTALLATION AND ANCHORAGE OF PIPING SYSTEMS DESIGNED TO CARRY HAZARDOUS MATERIALS AND ASSOCIATED MECHANICAL UNITS	1704.3.2 1705.11.6			X	SEISMIC RESTRAINT OF PROCESS MECHANICAL COMPONENTS IS A CONTRACTOR RESPONSIBILITY AND IS LISTED HERE FOR INFORMATION ONLY. REFERENCE MECHANICAL FOR FURTHER INFORMATION.
INSTALLATION OF EQUIPMENT USING COMBUSTIBLE ENERGY SOURCES	1705.11.4			X	
INSTALLATION OF OTHER SEISMIC SUPPORTS FOR DESIGNATED MECHANICAL SYSTEMS AND THEIR COMPONENTS	1705.11.4			X	
BUILDING MECHANICAL					
INSTALLATION AND ANCHORAGE OF HVAC DUCTWORK DESIGNED TO CARRY HAZARDOUS MATERIALS	1704.3.2 1705.11.6			X	SEISMIC RESTRAINT OF BUILDING MECHANICAL COMPONENTS IS A CONTRACTOR RESPONSIBILITY AND IS LISTED HERE FOR INFORMATION ONLY. REFERENCE MECHANICAL FOR FURTHER INFORMATION.
INSTALLATION OF FIRE PROTECTION SPRINKLER SYSTEM	1705.11			X	
INSTALLATION OF EQUIPMENT USING COMBUSTIBLE ENERGY SOURCES	1705.11.4			X	
INSTALLATION OF OTHER SEISMIC SUPPORTS FOR DESIGNATED MECHANICAL SYSTEMS AND THEIR COMPONENTS	1705.11.4			X	
INSTALLATION OF VIBRATION ISOLATION SYSTEMS IN STRUCTURES ASSIGNED TO SDC C, D, E OR F WHERE THE CONSTRUCTION DOCUMENTS REQUIRE A NOMINAL CLEARANCE OF 0.25 INCHES OR LESS BETWEEN THE EQUIPMENT SUPPORT FRAME AND RESTRAINT	1705.11.6			X	

TABLE N3 - NON-STRUCTURAL TESTING

SYSTEM or MATERIAL	TESTING			REMARKS
	IBC CODE REFERENCE	CODE or STANDARD REFERENCE	FREQUENCY	
SPRAYED FIRE-RESISTANT MATERIALS				
THICKNESS AT FLOOR, ROOF, AND WALL ASSEMBLIES	1705.13.4	ASTM E605	NOT LESS THAN (4) MEASUREMENTS FOR EACH 1000 SF OF SPRAYED AREA EACH FLOOR LEVEL	REFERENCE ARCHITECTURAL FOR ADDITIONAL INFORMATION
THICKNESS AT STRUCTURAL FRAMING MEMBERS	1705.13.4		TEST A MINIMUM OF 25% OF THE STRUCTURAL MEMBERS AT EACH LEVEL	
DENSITY	1705.13.5			
BOND STRENGTH AT FLOOR, ROOF, AND WALL ASSEMBLIES	1705.13.6.1	ASTM E736	EACH 2500 SF OF SPRAYED AREA EACH FLOOR LEVEL	
BOND STRENGTH AT STRUCTURAL FRAMING MEMBERS	1705.13.6.2		EACH TYPE OF STRUCTURAL MEMBER FOR EACH 2500 SF OF FLOOR AREA EACH FLOOR LEVEL	
INTUMESCENT FIRE-RESISTANT COATINGS				
THICKNESS	1705.14	AWCI TECHNICAL MANUAL 12-B ASTM D1182		REFERENCE ARCHITECTURAL FOR ADDITIONAL INFORMATION
SMOKE CONTROL SYSTEMS				
LEAKAGE, PRESSURE DIFFERENTIAL, FLOW MEASUREMENT AND DETECTION AND CONTROL VERIFICATION	1704.17		DETERMINED BY JURISDICTION	

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SARA LOVING ROBERTS
STATE OF WASHINGTON
38538
PROFESSIONAL STRUCTURAL ENGINEER
9/11/15

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3-28-16
DIRECTOR ENG. DATE
CHECKED BY DATE Checker
PROJ. ENGR DATE Checker
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PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837

PIER 4 PHASE 2
MARINE BUILDING
Statement of Structural Special Inspections and Testing

TOWNSHIP:	RANGE:	SECTION:	
DAT-HRZ: WA83-SF	VERT:	MLLW 19.39' @ TIDE 22 1933	
PARCEL:		DRAWING SCALE:	AS NOTED

6552
S1.05
SH # 450 OF # 499

CONT/CONS:	070136
M. ID:	091251
PHASE:	BID

BINDING EDGE

TABLE N4 - REQUIRED NON-STRUCTURAL TESTING for SEISMIC RESISTANCE

SYSTEM or MATERIAL	TESTING: IBC CODE REFERENCE	TESTING: CODE or STANDARD REFERENCE	TESTING: FREQUENCY		REMARKS
MECHANICAL AND ELECTRICAL					
COMPONENT TESTING INCLUDING MOUNTING SYSTEMS OR ANCHORAGE IF CERTIFICATES OF COMPLIANCE ARE NOT AVAILABLE	1705.12.3 1705.12	ASCE 7: 13.2		X	SEISMIC RESTRAINT OF MECHANICAL AND ELECTRICAL COMPONENTS IS A CONTRACTOR RESPONSIBILITY AND IS LISTED HERE FOR INFORMATION ONLY. REFERENCE MECHANICAL AND ELECTRICAL FOR FURTHER INFORMATION.

STATEMENT OF SPECIAL INSPECTION AND TESTING NOTES:

1. SPECIAL INSPECTIONS SHALL CONFORM TO CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE (IBC). REFER TO TABLES 1 AND 2 FOR SPECIAL INSPECTION AND TABLES 3 AND 4 FOR TESTING REQUIREMENTS.

2. REFERENCE CODES AND STANDARDS ARE AS FOLLOWS:

   IBC - 2012
   ACI - 318-11
   AWS - CURRENT EDITION
   ASTM - CURRENT EDITION
   AISC - 360-10
   - 341-10
   RCSC - 2009
   TMS - 402-11, 602-11

3. SPECIAL INSPECTIONS AND ASSOCIATED TESTING SHALL BE PERFORMED BY AN APPROVED ACCREDITED INDEPENDENT AGENCY MEETING THE REQUIREMENTS OF ASTM E329 (MATERIALS), ASTM D3740 (SOILS), ASTM C1077 (CONCRETE), ASTM A880 (STEEL), AND ASTM E543 (NON-DESTRUCTIVE). THE INSPECTION AND TESTING AGENCY SHALL FURNISH TO THE [STRUCTURAL] [ENGINEER] [ARCHITECT] A COPY OF THEIR SCOPE OF ACCREDITATION. SPECIAL INSPECTORS SHALL BE CERTIFIED BY THE BUILDING OFFICIAL. WELDING INSPECTORS SHALL BE QUALIFIED PER SECTION 6.1.4.1.1 OF AWS D1.1. [WABO]

4. THE SPECIAL INSPECTOR SHALL OBSERVE THE INDICATED WORK FOR COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION AND NOTED IN THE INSPECTION REPORTS. ISSUES REQUIRING IMMEDIATE CORRECTIVE ACTIONS OR ENGINEERING INPUT ARE TO BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY UPON DISCOVERY.

5. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS FOR EACH INSPECTION TO THE BUILDING OFFICIAL, [STRUCTURAL] [ENGINEER] [ARCHITECT], CONTRACTOR, AND OWNER. THE SPECIAL INSPECTION AGENCY SHALL SUBMIT A FINAL REPORT STATING THAT THE WORK REQUIRING SPECIAL INSPECTION WAS INSPECTED AND IS IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THAT ALL DISCREPANCIES NOTED IN THE INSPECTION REPORTS HAVE BEEN CORRECTED.

6. CONTINUOUS SPECIAL INSPECTION: SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS PRESENT WHEN AND WHERE THE WORK TO BE INSPECTED IS BEING PERFORMED. PERIODIC SPECIAL INSPECTION: SPECIAL INSPECTION BY THE SPECIAL INSPECTOR WHO IS INTERMITTENTLY PRESENT WHERE THE WORK TO BE INSPECTED HAS BEEN OR IS BEING PERFORMED.

7. WHERE PERIODIC INSPECTION IS ALLOWED IN ACCORDANCE WITH THE ANCHOR ICC EVALUATION REPORT, INSPECTIONS SHALL BE AS FOLLOWS:
   - FOR ALL ANCHORS, PRIOR TO CONCEALMENT, VERIFY: ANCHOR TYPE, ANCHOR DIMENSIONS, ANCHOR SPACING AND EDGE DISTANCE.
   - FOR EACH ANCHOR TYPE AND SIZE, INSPECTOR SHALL BE ONSITE TO CONTINUOUSLY INSPECT A MINIMUM OF THE FIRST 10 ANCHORS INSTALLED BY EACH INSTALLER FOR CONFORMANCE WITH ICC EVALUATION REPORT. PROVIDED ALL ANCHORS ARE INSTALLED CORRECTLY PER MANUFACTURER'S INSTRUCTIONS, PROVIDE PERIODIC INSPECTION ON A MINIMUM OF 10% OF THE NEXT 1000 ANCHORS BY EACH INSTALLER AND A MINIMUM OF 5% OF THE REMAINING ANCHORS BY EACH INSTALLER INSPECTIONS SHALL OCCUR A MINIMUM OF ONCE PER WEEK AT A RANDOM TIME WHILE ANCHOR INSTALLATION IS ONGOING. ANY NON-COMPLIANCE ISSUES SHALL RESET THE INSPECTION REQUIREMENTS TO TEN (10) CONTINUOUS INSPECTIONS. NON-COMPLIANT ANCHORS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD FOR REVIEW AND SHALL BE BROUGHT INTO COMPLIANCE BY EITHER TESTING OR RE-INSTALLATION.
   - INSPECTION REPORTS SHALL IDENTIFY NAMES OF INSTALLERS.
     SPECIAL INSPECTOR SHALL PROVIDE DOCUMENTATION AT THE END OF ANCHOR INSTALLATIONS STATING THAT THE MINIMUM NUMBER OF ANCHORS WERE INSPECTED.

8. OBSERVE: OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.
   PERFORM: PERFORM THESE TASKS FOR EACH ELEMENT.

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6552
S1.06
SH # 451 OF # 499

PIER 4 PHASE 2
MARINE BUILDING
Statement of Structural Special Inspections and Testing

APPROVED: [signature]
3-28-16
DIRECTOR ENG. DATE

CHECKED BY: Checker DATE
PROJ. ENGR: Checker DATE

CONT/CONS: 070136 | TOWNSHIP: | RANGE: | SECTION:
M. ID: 091251 | DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933
PHASE: BID | PARCEL: | DRAWING SCALE: AS NOTED

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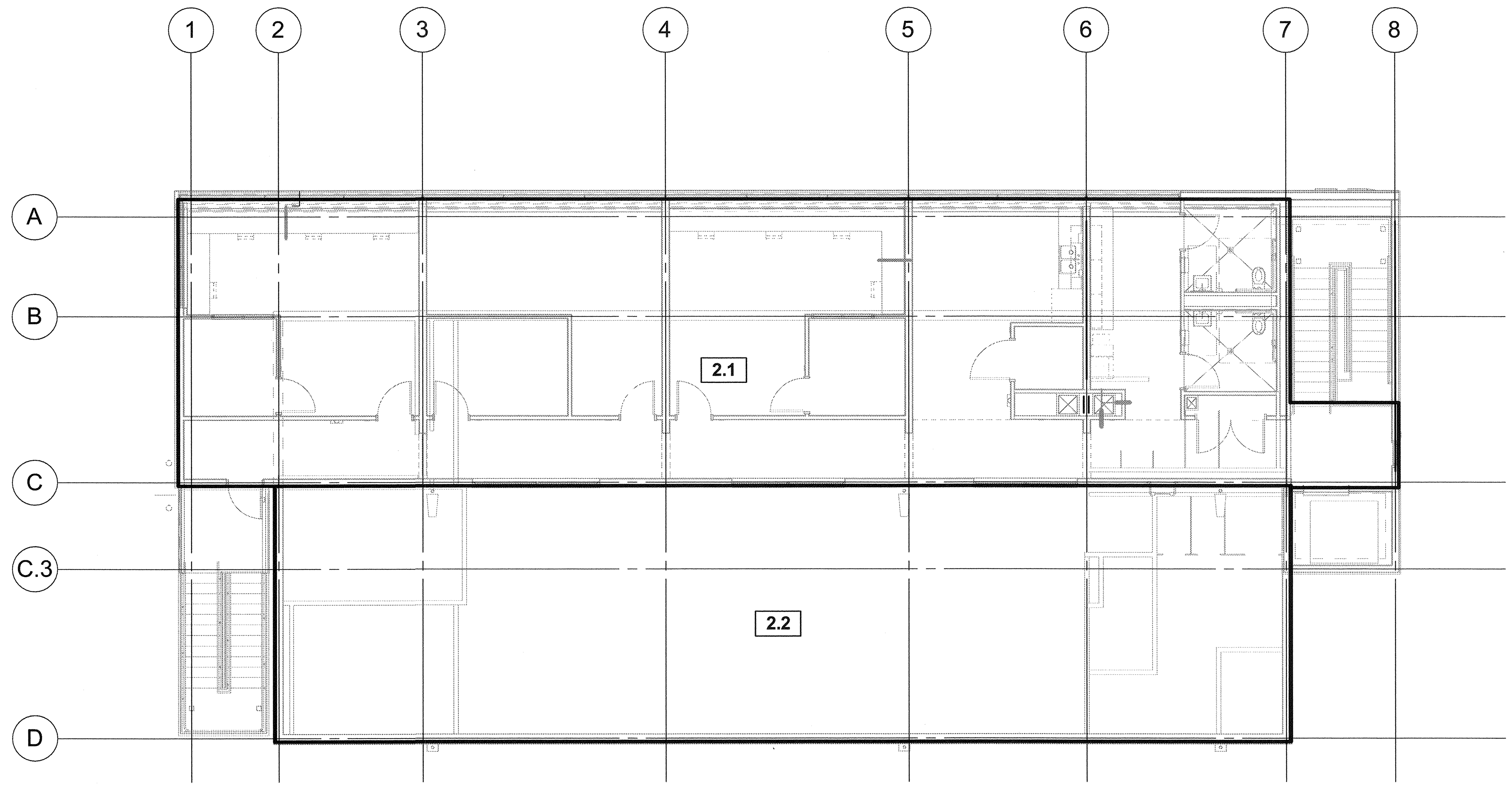

LOAD MAP LEGEND (L2)			
DESIGNATION	DESCRIPTION	LIVE LOAD	SUPERIMPOSED DEAD LOAD
2.1	OFFICE	50 PSF + 15 PSF	10 PSF
2.2	OFFICE (FUTURE) + OVERBUILD	50 PSF + 15 PSF	10 PSF

1 LOAD MAP
1/8" = 1'-0"

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STATE OF WASHINGTON
38538
PROFESSIONAL STRUCTURAL ENGINEER
9/11/15

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PIER 4 PHASE 2
MARINE BUILDING
LOAD MAP

TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

6552
S1.07
#452 OF #499
CONT/CONS: 070136
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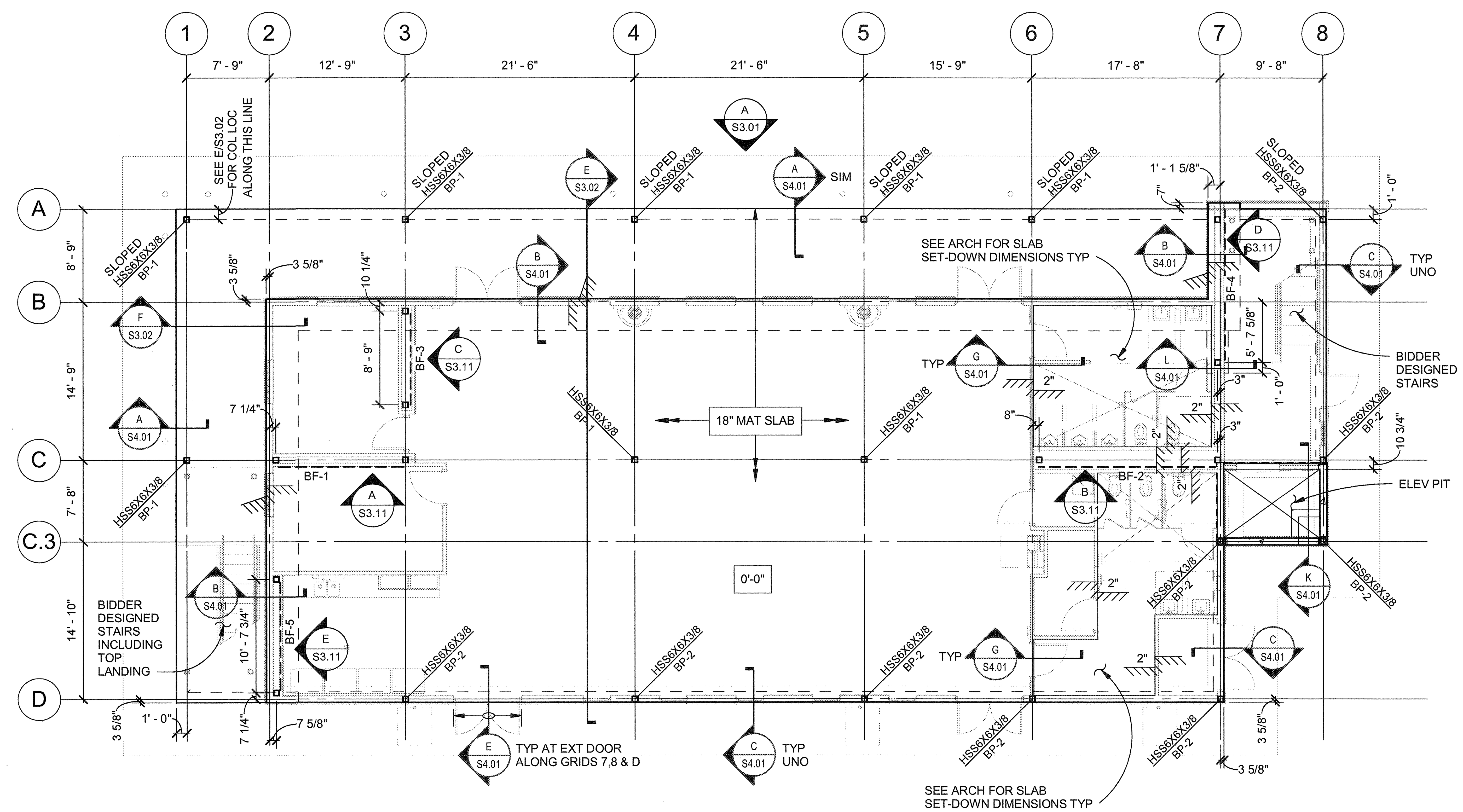

1 FOUNDATION & LEVEL 1 FLOOR PLAN

1/8" = 1'-0"

N

GENERAL PLAN NOTES:

G1. SEE S1.01 TO S1.06 FOR STRUCTURAL NOTES, INSPECTION SCHEDULE, SYMBOLS AND ABBREVIATIONS.

G2. REFERENCE DRAWINGS:
S3.0X - BUILDING ELEVATIONS & SECTIONS
S3.1X - BRACED FRAME ELEVATIONS & DETAILS
S4.XX - CONCRETE DETAIL
S5.XX - STEEL DETAILS
S6.XX - WOOD DETAILS

G3. XX'-X" INDICATES TYPICAL TOP OF SLAB ELEVATION.

G4. CONTRACTOR SHALL COORDINATE SIZE AND LOCATION OF ALL HOUSEKEEPING PADS AND CURBS WITH THE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS. SEE DETAIL M/S4.01.

G5. CONTRACTOR SHALL COORDINATE ALL OPENING DIMENSIONS, SLAB PENETRATIONS, BLOCKOUTS, DEPRESSIONS AND EMBEDS WITH THE ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS PRIOR TO SUBMITTING SHOP DRAWINGS. ENGINEER SHALL BE NOTIFIED OF ALL OPENING/PENETRATIONS THAT ARE ADDED OR CHANGED FROM WHAT IS SHOWN ON THIS PLAN.

G6. (-X) INDICATES TOP OF CONCRETE SLAB RELATIVE TO TYPICAL TOP OF SLAB ELEVATION.

G7. 2x8 HF #2 OR DF #2 @ 16" OC STUD FRAMING AROUND PERIMETER. SEE A/S6.01 FOR TYPICAL WALL FRAMING DETAIL.

FOUNDATION PLAN NOTES:

F1. MAT SLAB THIS LEVEL TO BE REINFORCED W/ #6 @ 12" OC EW, TOP & BOTTOM.

F2. HSS DENOTES STEEL COLUMN ON LEVEL WHERE THEY ORIGINATE.

F3. BP-X DENOTES BASEPLATE. SEE S5.06.

F4. BF INDICATES BRACED FRAME. SEE ELEVATIONS ON SHEET S3.11.

THE GRAVITY & LATERAL - RESTRAINT SYSTEMS OF THIS BUILDING HAVE BEEN DESIGNED TO SUPPORT THE FOLLOWING FUTURE ADDITION BETWEEN GRIDS 2-7 & C-E:

LEVEL 2: OFFICE SPACE W/ LOADING PER S1.07
ROOF: DEAD LOAD = 20 PSF, SNOW LOAD = 25 PSF

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LOVING ROBERTS STATE OF WASHINGTON 38538 PROFESSIONAL STRUCTURAL ENGINEER 3/11/16

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PIER 4 PHASE 2
MARINE BUILDING
FOUNDATION & LEVEL 1 FLOOR PLAN

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:	DRAWING SCALE: AS NOTED	

6552
S2.01
#453 OF #499

CONT/CONS: 070136
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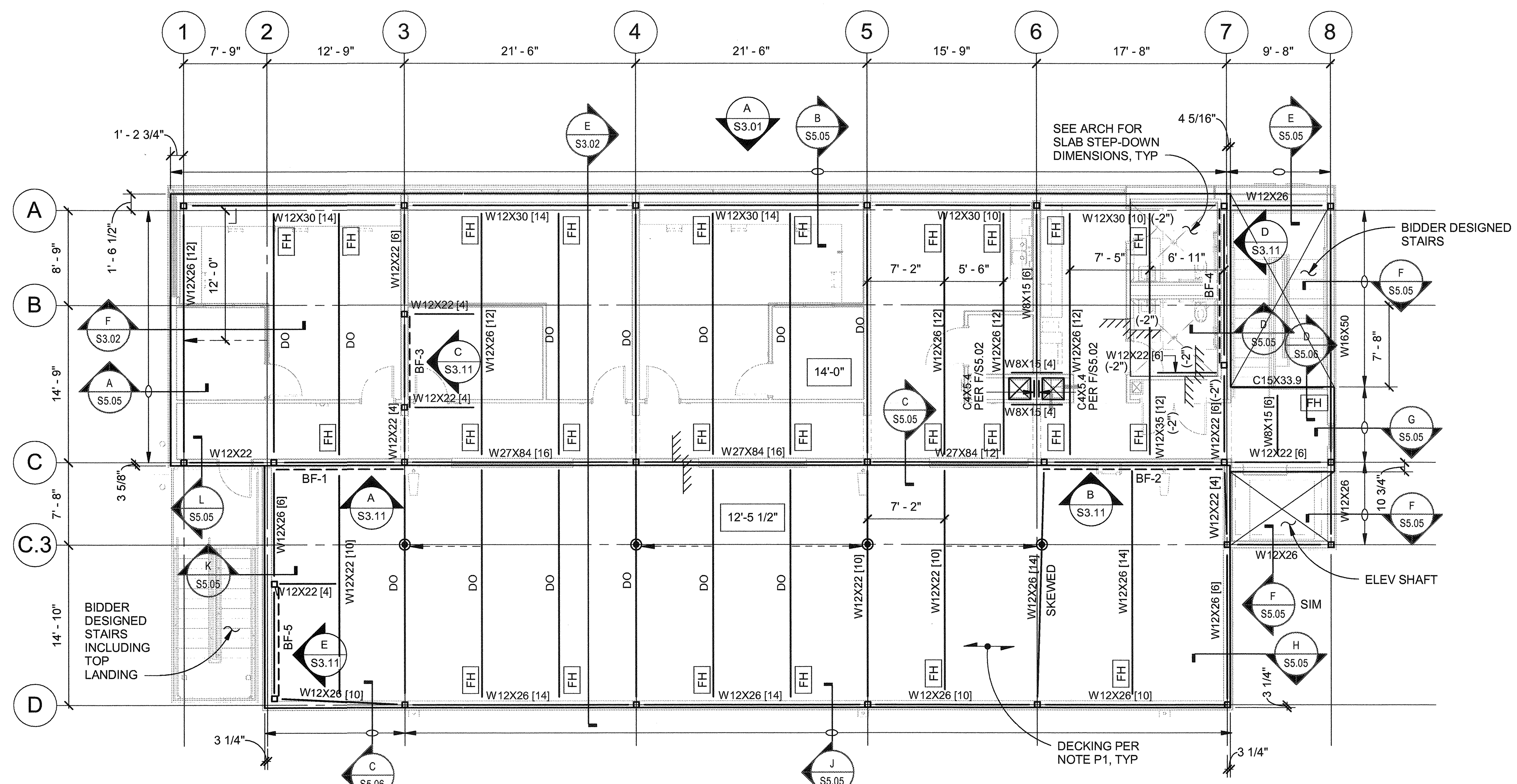

1 LEVEL 2 FLOOR PLAN
1/8" = 1'-0"

GENERAL PLAN NOTES:

G1. SEE S1.01 TO S1.06 FOR STRUCTURAL NOTES, INSPECTION SCHEDULE, SYMBOLS AND ABBREVIATIONS.

G2. REFERENCE DRAWINGS:
S3.0X - BUILDING ELEVATIONS & SECTIONS
S3.1X - BRACED FRAME ELEVATIONS & DETAILS
S4.XX - CONCRETE DETAIL
S5.XX - STEEL DETAILS
S6.XX - WOOD DETAILS

G3. XX'-X" INDICATES TYPICAL TOP OF SLAB ELEVATION.

G4. CONTRACTOR SHALL COORDINATE SIZE AND LOCATION OF ALL HOUSEKEEPING PADS AND CURBS WITH THE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS. SEE DETAIL M/S4.01.

G5. CONTRACTOR SHALL COORDINATE ALL OPENING DIMENSIONS, SLAB PENETRATIONS, BLOCKOUTS, DEPRESSIONS AND EMBEDS WITH THE ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS PRIOR TO SUBMITTING SHOP DRAWINGS. ENGINEER SHALL BE NOTIFIED OF ALL OPENING/PENETRATIONS THAT ARE ADDED OR CHANGED FROM WHAT IS SHOWN ON THIS PLAN.

G6. (-X) INDICATES TOP OF CONCRETE SLAB RELATIVE TO TYPICAL TOP OF SLAB ELEVATION.

G7. 2x8 HF #2 OR DF #2 @ 16" OC STUD FRAMING AROUND PERIMETER. SEE A/S6.01 FOR TYPICAL WALL FRAMING DETAIL.

STEEL FRAMING PLAN NOTES:

P1. FLOOR SLAB THIS LEVEL TO BE 2 1/2" NORMAL WT. CONCRETE OVER 3" – 20 GA TYPE W STEEL DECK. REINFORCE WITH #4 @15" EW, MID-DEPTH OF CONC. LAP REINF BARS 36" MIN. WELD DECK PER J/S5.03.

P2. TOP OF STEEL ELEVATION TO BE 5 1/2" BELOW TOP OF SLAB, UNO.

P3. (XX'-X") INDICATES TOP OF STEEL ELEVATION AT SPECIFIC LOCATIONS. PROVIDE STRAIGHT LINE SLOPE BETWEEN DESIGNATED SPOT ELEVATIONS, TYP UNO.

P4. TOP OF FRAMING MEMBERS TO MATCH THAT OF SUPPORTING MEMBER, UNO.

P5. WORK POINT FOR SLOPING MEMBERS TO BE THE TOP OF STEEL AT CENTER OF BEAM OR GRID AT START OF SLOPE.

P6. BF INDICATES BRACED FRAME. SEE ELEVATIONS ON SHEET S3.11.

P7. BRACED FRAME BRACES SHALL BE INSTALLED PRIOR TO PLACEMENT OF SLAB CONCRETE AT LEVEL ABOVE.

P8. FOR SLAB OPENING LOCATIONS SEE ARCHITECTURAL SLAB PLANS.

P9. WHERE BEAMS ARE NOT LOCATED BY DIMENSION, THEY ARE TO BE EVENLY SPACED BETWEEN GRIDS OR ADJACENT BEAMS.

P10. INDICATES BOTTOM FLANGE BRACE. SEE DETAIL C/S5.04.

P11. INDICATES FALL ARREST ANCHOR POINT PER J/S50.07.

THE GRAVITY & LATERAL - RESTRAINT SYSTEMS OF THIS BUILDING HAVE BEEN DESIGNED TO SUPPORT THE FOLLOWING FUTURE ADDITION BETWEEN GRIDS 2-7 & C-E:

LEVEL 2: OFFICE SPACE W/ LOADING PER S1.07
ROOF: DEAD LOAD = 20 PSF, SNOW LOAD = 25 PSF

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PIER 4 PHASE 2
MARINE BUILDING
LEVEL 2 FLOOR PLAN

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DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933
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6552
S2.02
454 OF # 499
CONT/CONS: 070136
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PHASE: BID

BINDING EDGE

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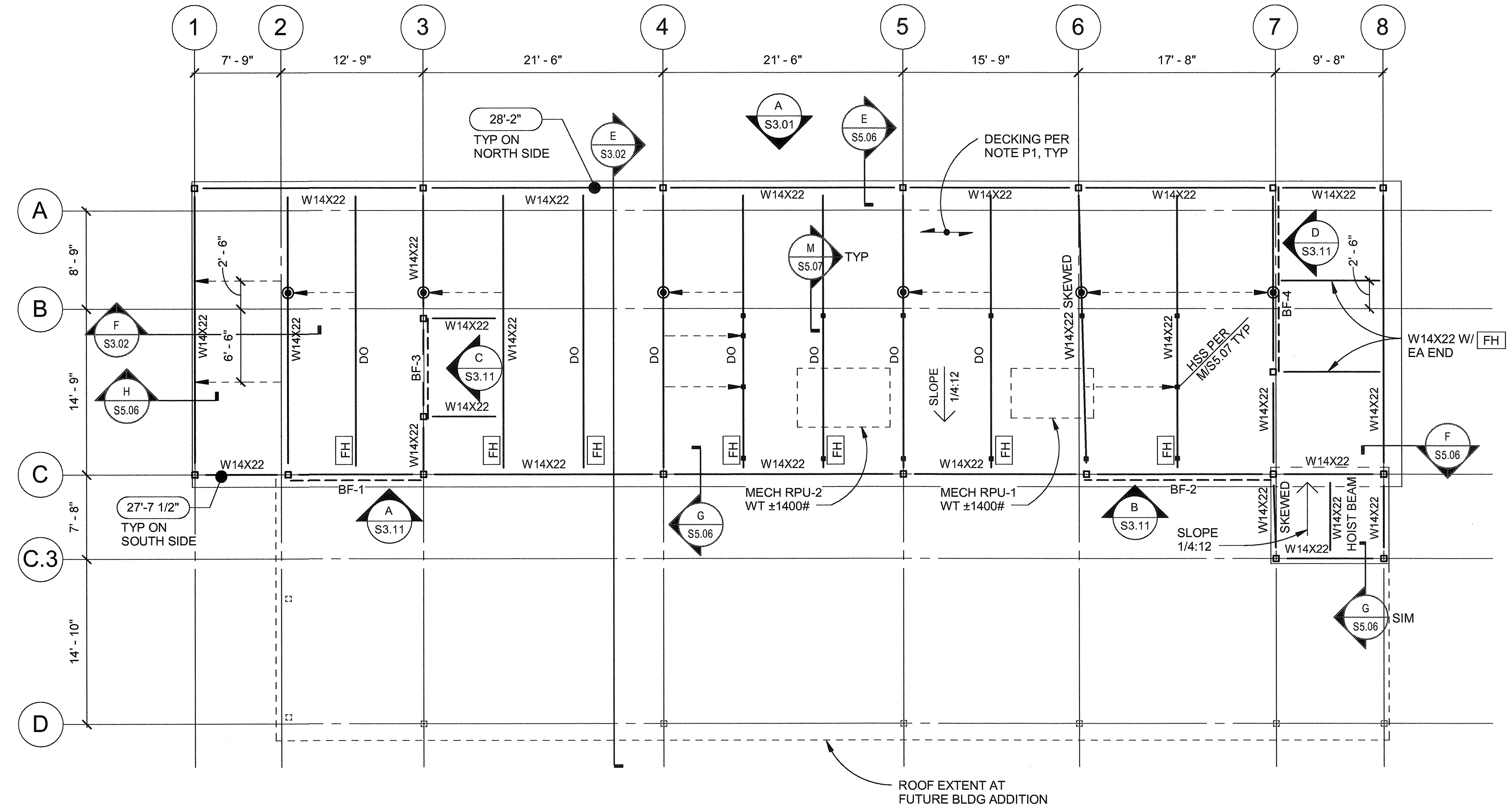
BINDING EDGE



1 ROOF PLAN

1/8" = 1'-0"

GENERAL PLAN NOTES:

G1. SEE S1.01 TO S1.06 FOR STRUCTURAL NOTES, INSPECTION SCHEDULE, SYMBOLS AND ABBREVIATIONS.

G2. REFERENCE DRAWINGS:
S3.0X - BUILDING ELEVATIONS & SECTIONS
S3.1X - BRACED FRAME ELEVATIONS & DETAILS
S4.XX - CONCRETE DETAIL
S5.XX - STEEL DETAILS
S6.XX - WOOD DETAILS

G3. CONTRACTOR SHALL COORDINATE ALL OPENING DIMENSIONS, SLAB PENETRATIONS, BLOCKOUTS, DEPRESSIONS AND EMBEDS WITH THE ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS PRIOR TO SUBMITTING SHOP DRAWINGS. ENGINEER SHALL BE NOTIFIED OF ALL OPENING/PENETRATIONS THAT ARE ADDED OR CHANGED FROM WHAT IS SHOWN ON THIS PLAN.

STEEL FRAMING PLAN NOTES:

P1. ROOF DECK AT THIS LEVEL TO BE 3" - 20 GA TYPE B STEEL DECK. WELD DECK PER J/S5.04.

P2. XX'-X" INDICATES TOP OF STEEL ELEVATION AT SPECIFIC LOCATIONS. PROVIDE STRAIGHT LINE SLOPE BETWEEN DESIGNATED SPOT ELEVATIONS, TYP UNO.

P3. TOP OF FRAMING MEMBERS TO MATCH THAT OF SUPPORTING MEMBER, UNO.

P4. WORK POINT FOR SLOPING MEMBERS TO BE THE TOP OF STEEL AT CENTER OF BEAM OR GRID AT START OF SLOPE.

P5. WHERE BEAMS ARE NOT LOCATED BY DIMENSION, THEY ARE TO BE EVENLY SPACED BETWEEN GRIDS OR ADJACENT BEAMS.

P6. BF INDICATES BRACED FRAME. SEE ELEVATIONS ON SHEET S3.11.

P7. INDICATES BOTTOM FLANGE BRACE. SEE DETAIL C/S5.04.

P8. INDICATES FALL ARREST ANCHOR POINT PER K/S50.07.

THE GRAVITY & LATERAL - RESTRAINT SYSTEMS OF THIS BUILDING HAVE BEEN DESIGNED TO SUPPORT THE FOLLOWING FUTURE ADDITION BETWEEN GRIDS 2-7 & C-E:

LEVEL 2: OFFICE SPACE W/ LOADING PER S1.07
ROOF: DEAD LOAD = 20 PSF, SNOW LOAD = 25 PSF

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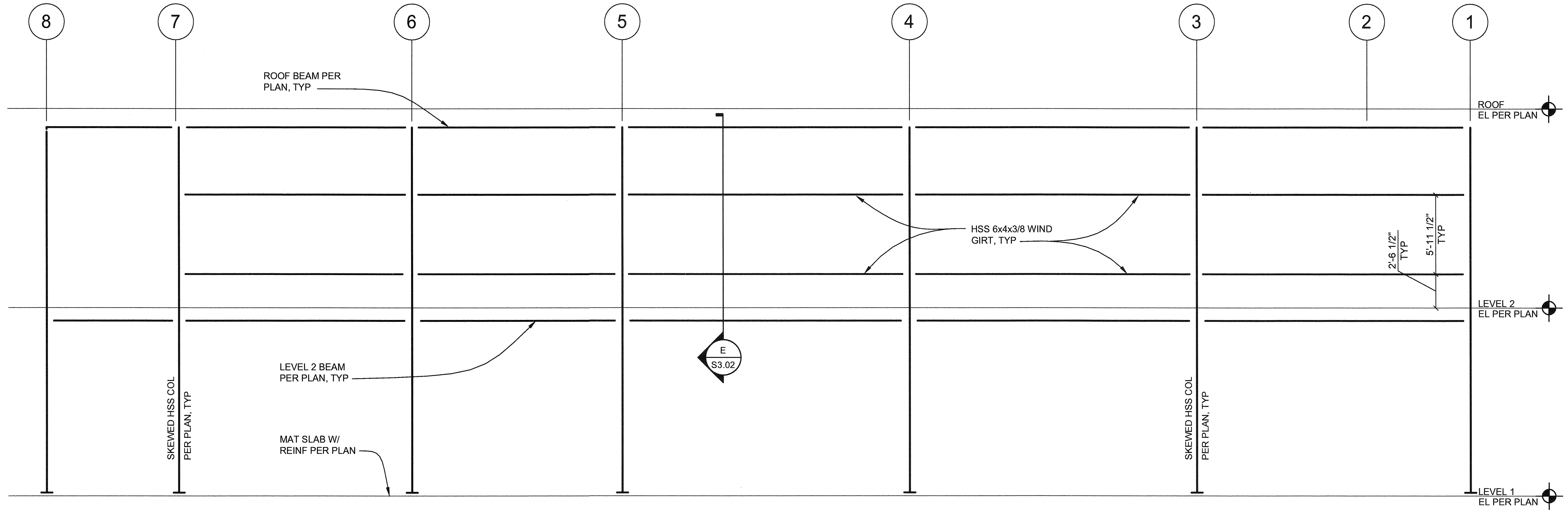
PIER 4 PHASE 2
MARINE BUILDING
ROOF PLAN

TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

6552
S2.03
#455 OF #499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

C:\Revit Models\2015\410 Structural_minam.rvt

BINDING EDGE



A ELEVATION
3/16=1'-0"

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6552
S3.01
SH # 456 OF # 499

PIER 4 PHASE 2
MARINE BUILDING
Building Elevations

APPROVED
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CONT/CONS: 070136	TOWNSHIP:	RANGE:	SECTION:
M. ID: 091251	DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PHASE: BID	PARCEL:	DRAWING SCALE: AS NOTED	

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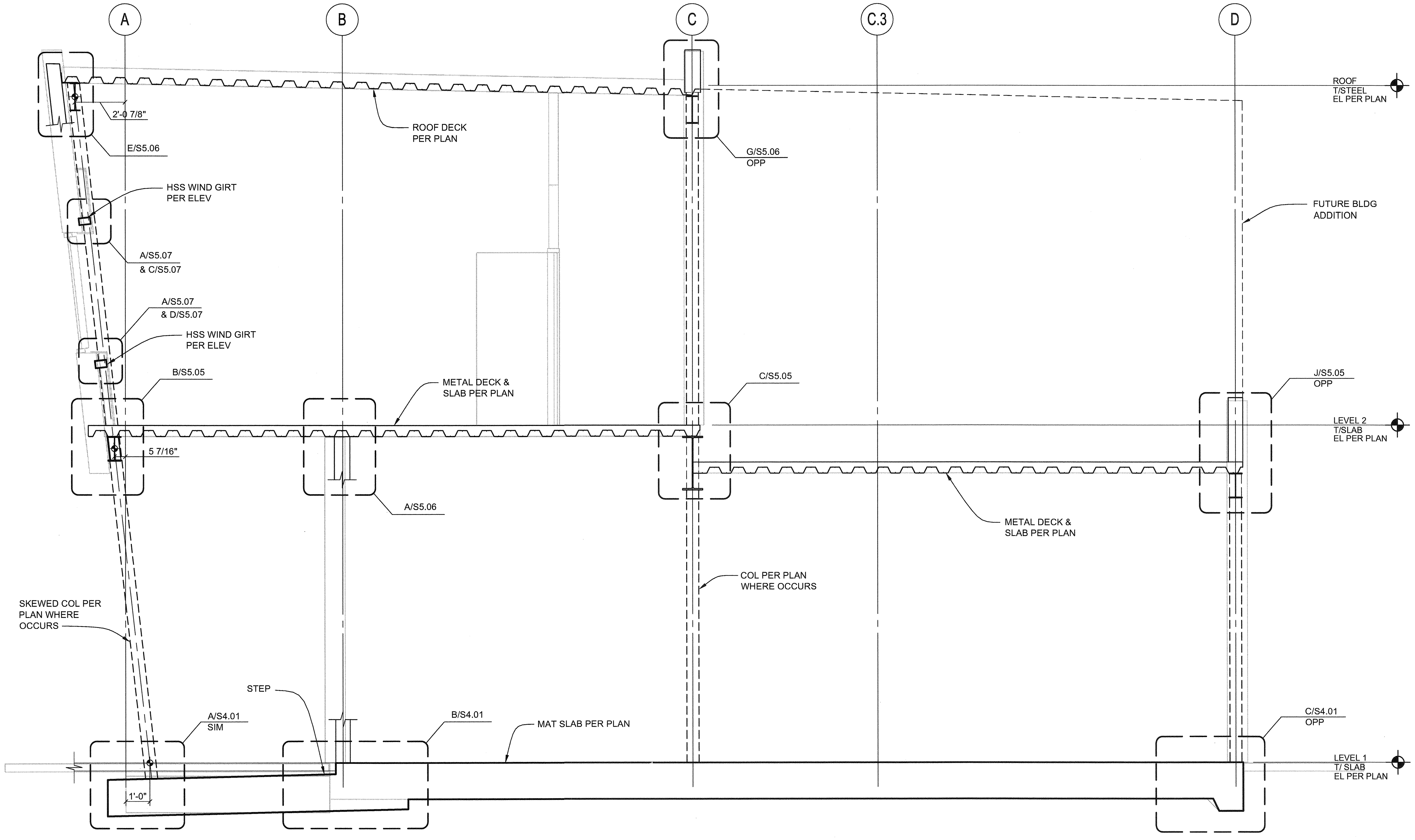
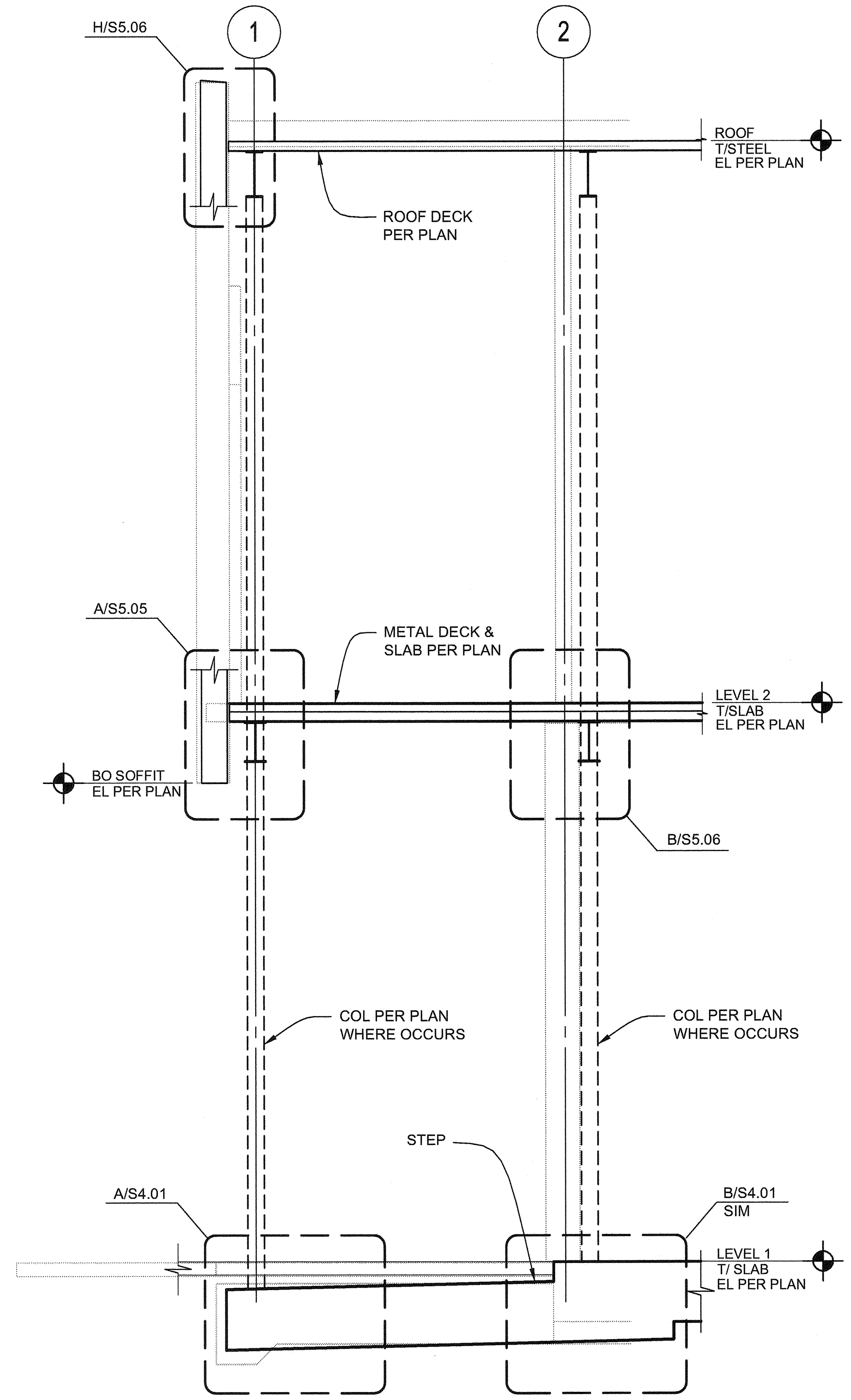
BINDING EDGE



E SECTION
3/8"=1'-0"



F SECTION
3/8"=1'-0"

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PIER 4 PHASE 2
MARINE BUILDING
Building Sections

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:	DRAWING SCALE: AS NOTED	

6552
S3.02
SH # 457 OF # 499

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

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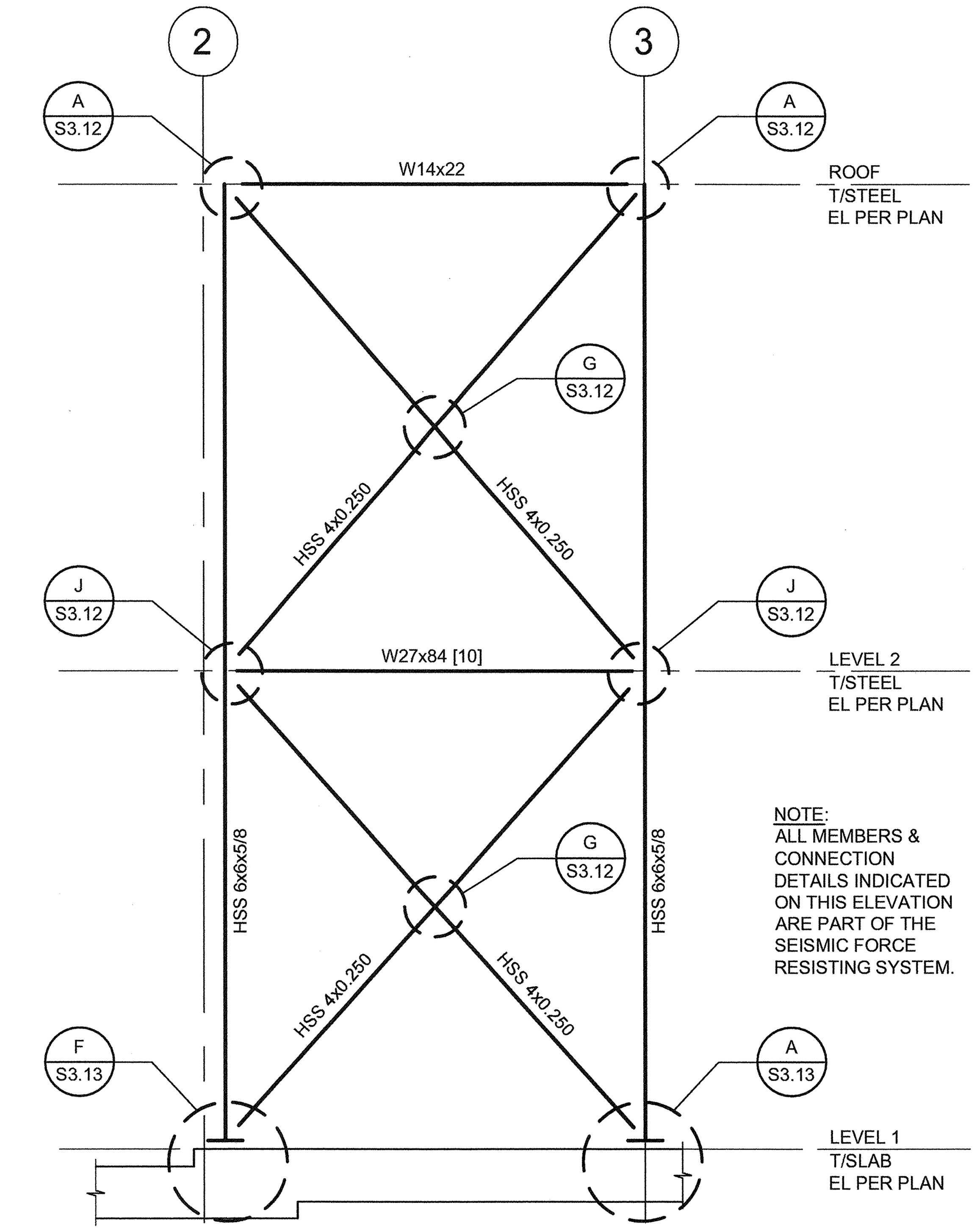
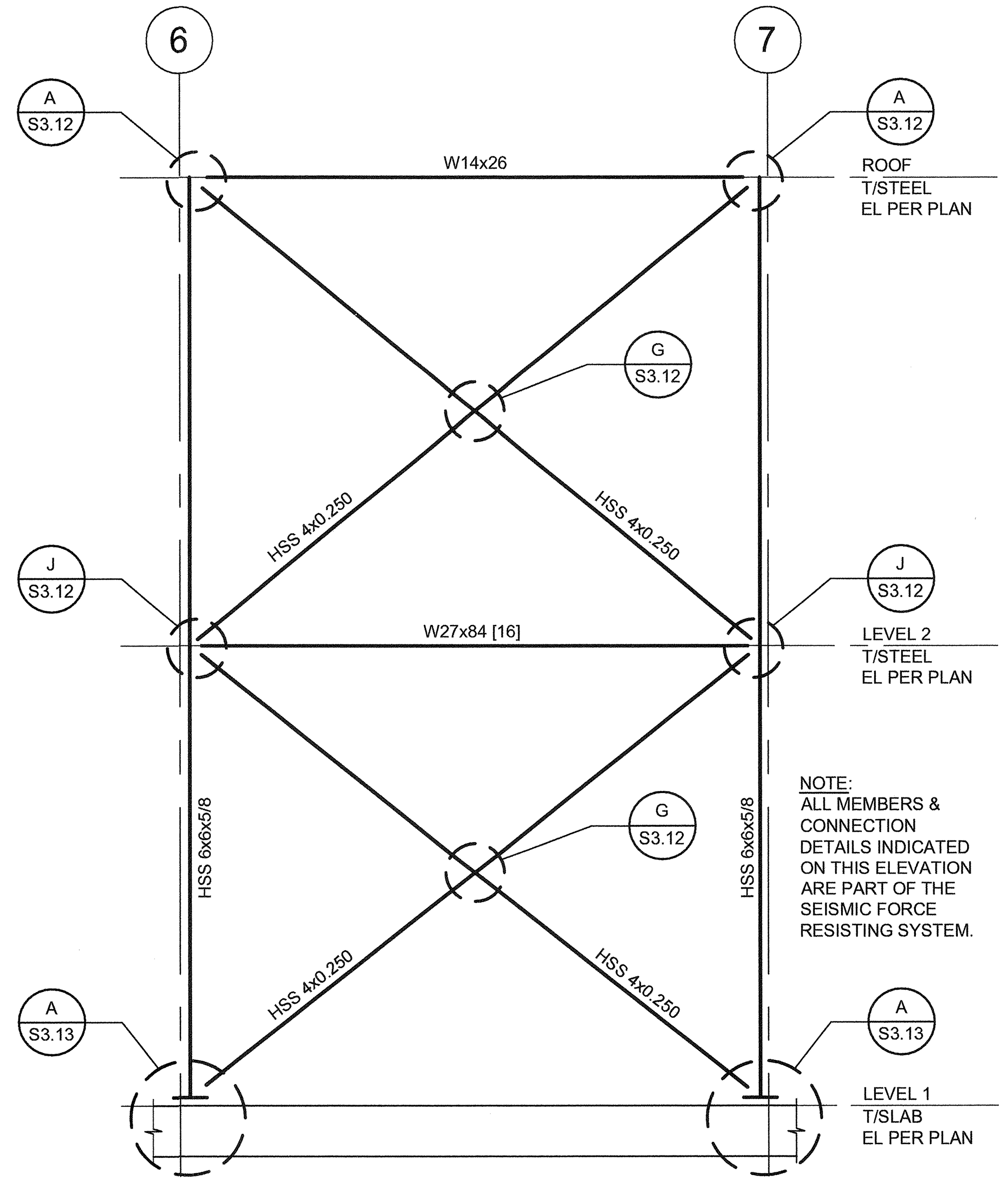
Xref Filename: | 3422 | P4MBxTB | P4MBxBoxA |

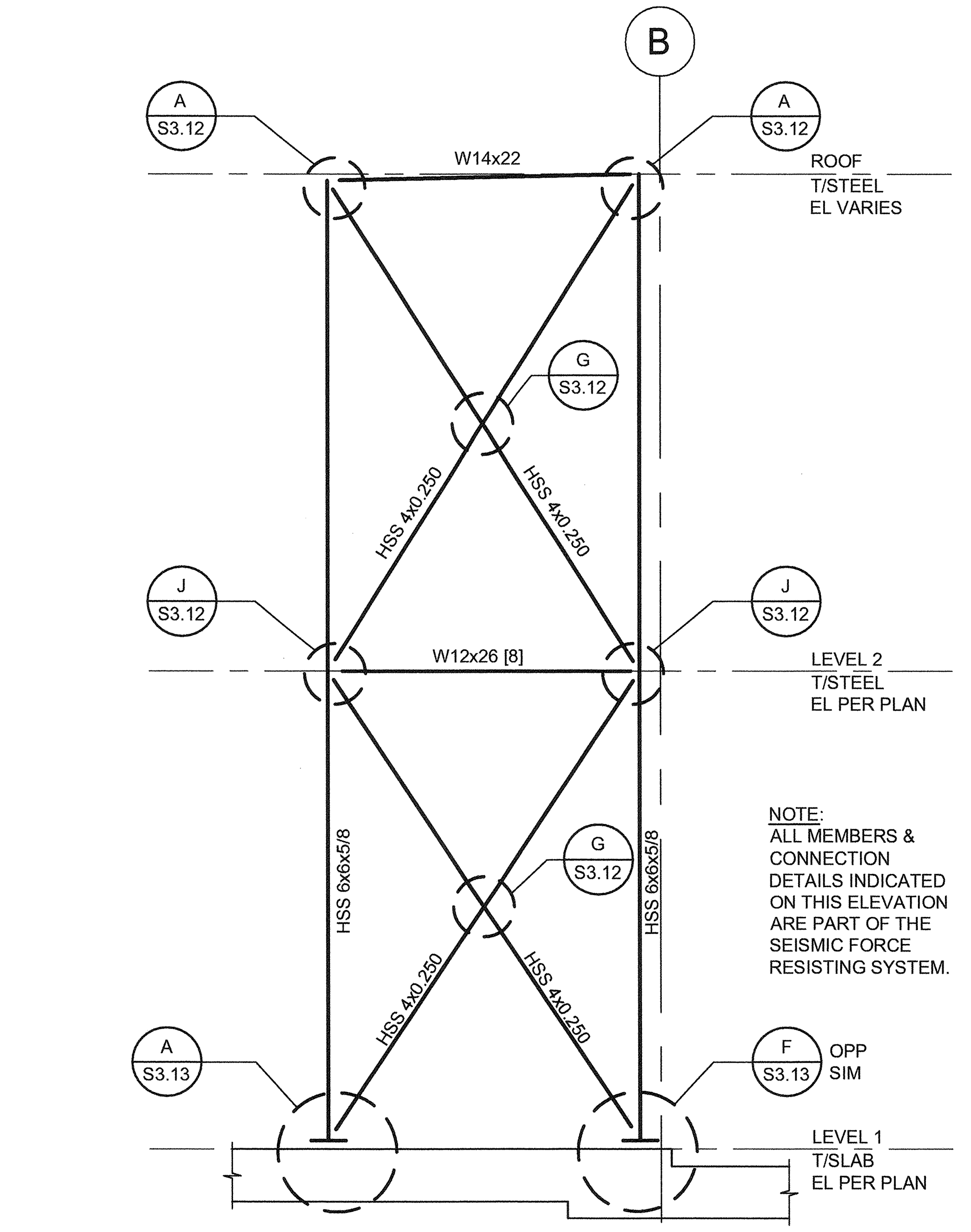
BINDING EDGE



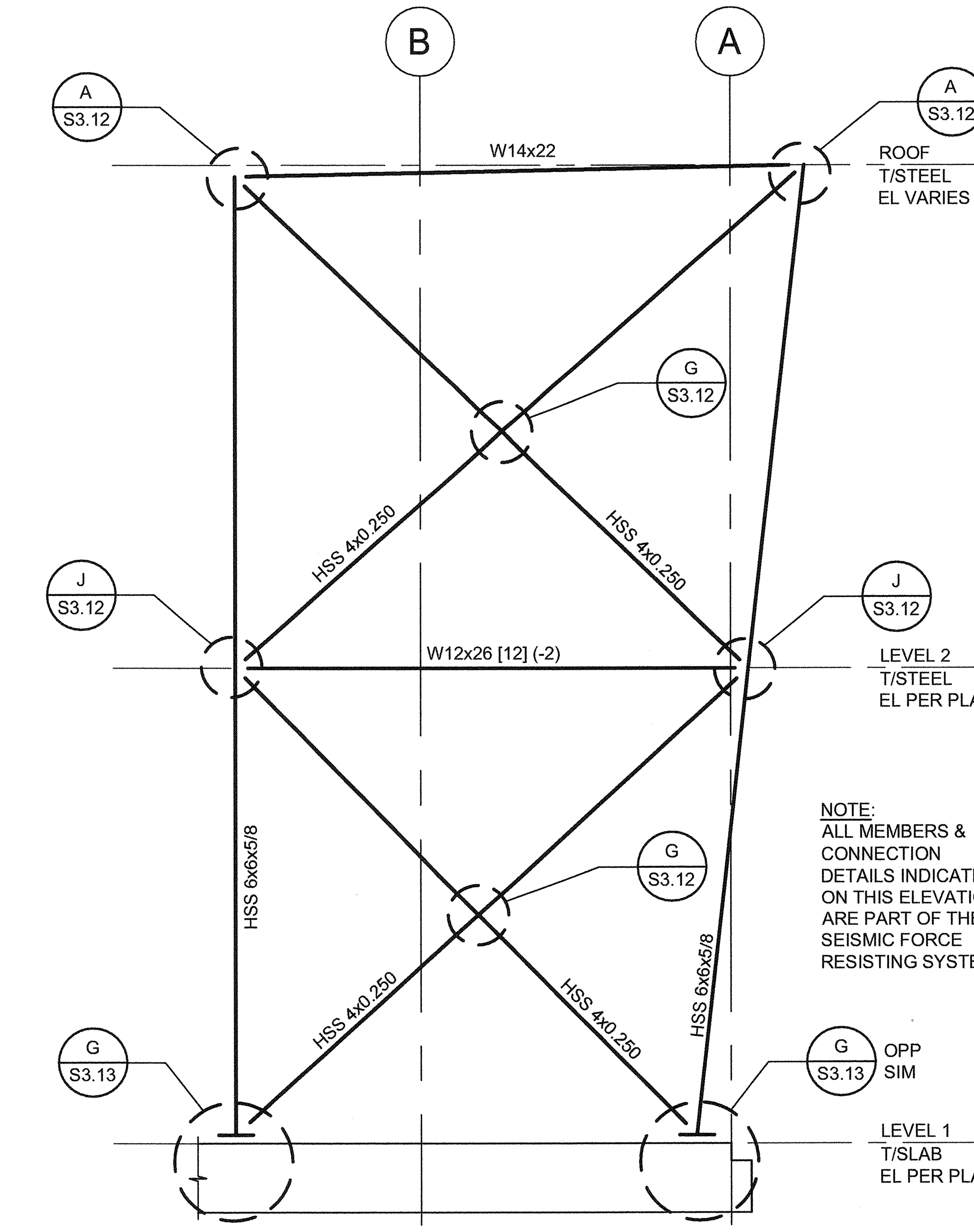
A BRACED FRAME (BF-1) ELEVATION
1/4"=1'-0"



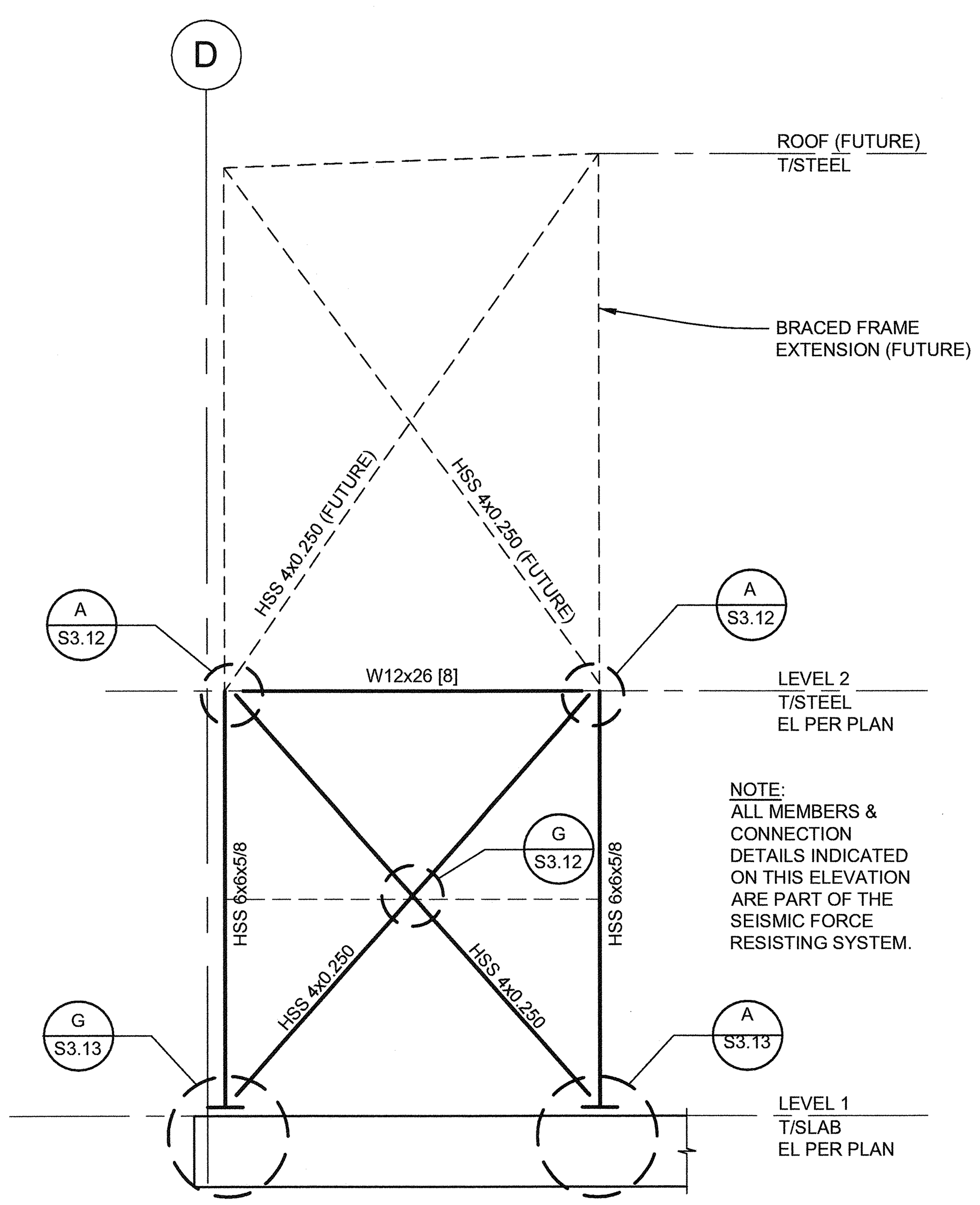
B BRACED FRAME (BF-2) ELEVATION
1/4"=1'-0"



C BRACED FRAME (BF-3) ELEVATION
1/4"=1'-0"



D BRACED FRAME (BF-4) ELEVATION
1/4"=1'-0"



E BRACED FRAME (BF-5) ELEVATION
1/4"=1'-0"

Path: U:\115000-115350\115206 (POT Pier 4 Marine Building)\03 Elevs\P4MB_S3.11.dwg Plot date: Feb 18, 2016-10:00:09am CAD User: dianel.
Xref Filename: | 3422 | P4MBxTB | P4MBxBoxA |

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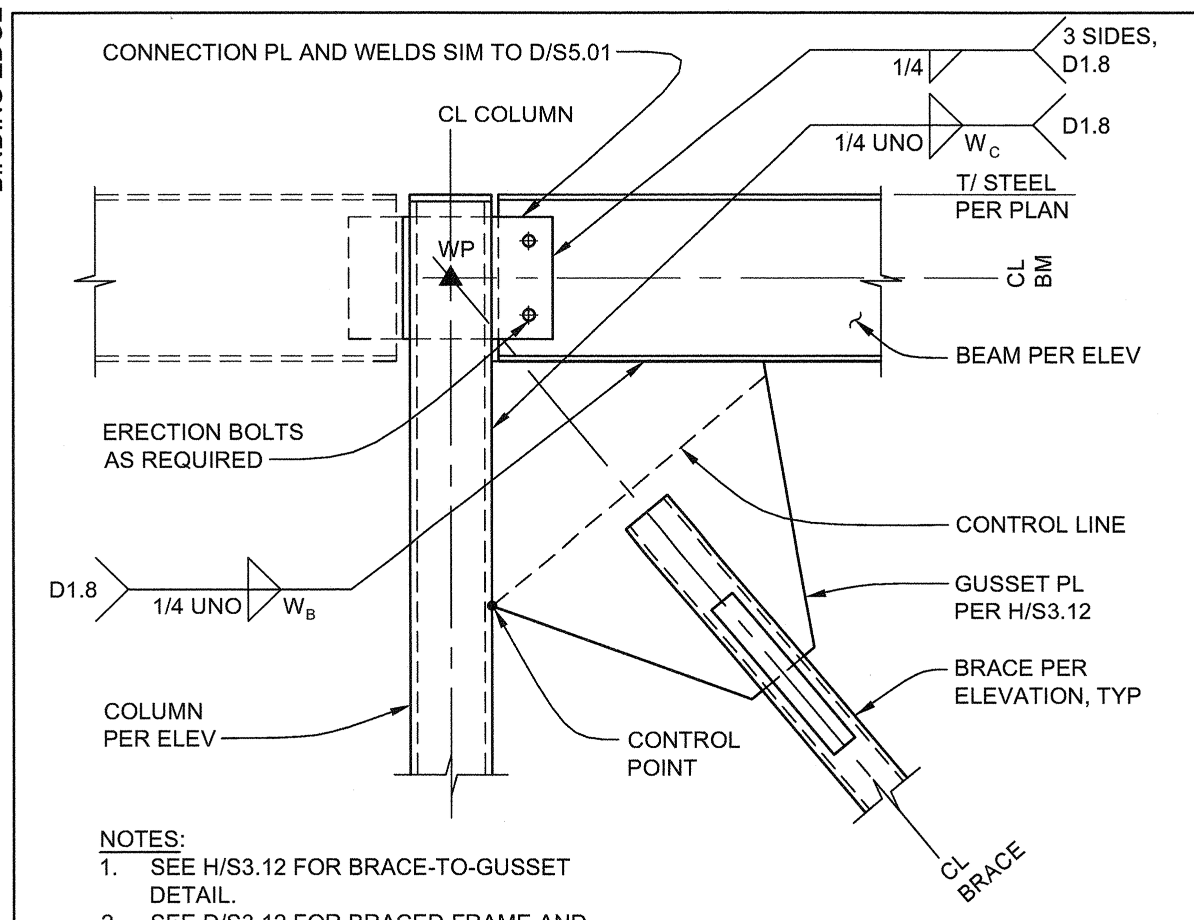
PIER 4 PHASE 2
MARINE BUILDING
Braced Frame Elevations

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:	DRAWING SCALE: AS NOTED	

6552
S3.11
SH # 458 OF # 499

CONT/CONS:	070136
M. ID:	091251
PHASE:	BID



NOTES:
1. SEE H/S3.12 FOR BRACE-TO-GUSSET DETAIL.
2. SEE D/S3.12 FOR BRACED FRAME AND GUSSET PLATE NOTES.

A DETAIL
NO SCALE

GUSSET CONNECTION SCHEDULE

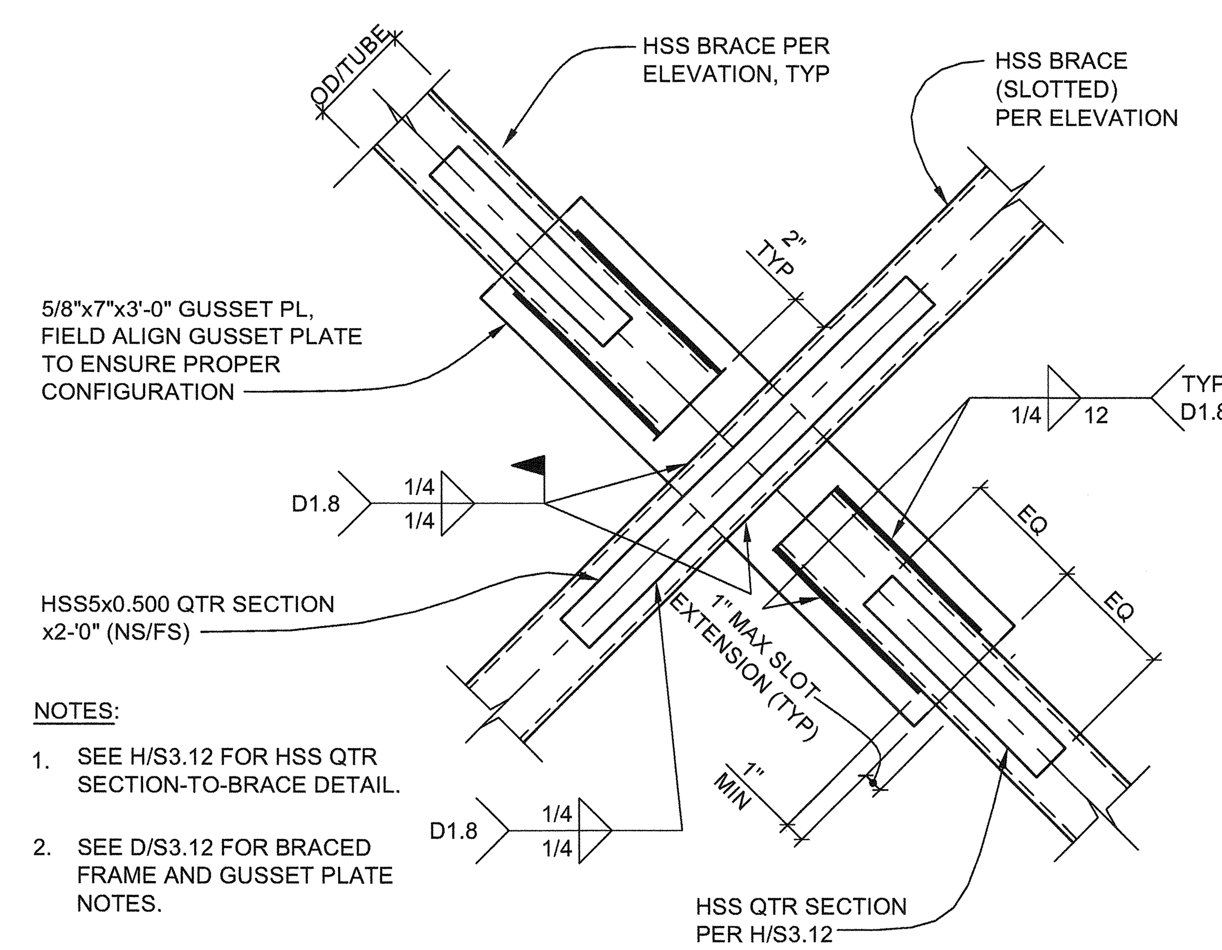
BRACE	WELD TO COLUMN W_C (IN)	WELD TO BEAM W_B (IN)	NOTES
BF-1	16	19	USE 5 / 16" FILLET WELDS
BF-2	17	23	
BF-3	21	20	
BF-4	17	23	
BF-5	16	19	

NOTES:
1. AT SLOTTED CONNECTIONS, PROVIDE SLOT WITH RADIUSED END. SLOT WIDTH SHALL BE THICKNESS OF GUSSET PLATE + 1/8". PROVIDE COVER PLATE AND BRACE SLOT EXTENSION PER H/S3.12 AT ALL LOCATIONS, UNLESS NOTED OTHERWISE.
2. PROVIDE 1" THICK COMPRESSIBLE JOINT FILLER AROUND BOTH SIDES OF GUSSET WHERE FLOOR SLAB OR SOIL IS PRESENT.
3. ALL GUSSET PLATES SHALL BE A572 GRADE 36 STEEL, UNLESS NOTED OTHERWISE.

GUSSET PLATE GEOMETRY NOTES:
1. GEOMETRY OF THE TRAPEZOID AT THE BRACE CONNECTION IS DEFINED BY THE GUSSET PLATE END WIDTH, FLARE ANGLES, AND DIMENSIONS TO YIELD LINE PER DETAILS ON SHEETS S3.12.
2. GUSSET PLATE GEOMETRY SHALL BE FURTHER DETERMINED BY THE BRACE ANGLE AND BRACE CENTERLINE, AS SHOWN BY THE BRACE ELEVATIONS PER SHEET S3.11 AND THE BRACE WORKPOINTS IN THE CONNECTION DETAILS. THESE DETERMINE THE LOCATION OF THE CONTROL POINT INTERSECTION WITH A COLUMN, BEAM OR ADJACENT CONTROL POINT.
3. GUSSET PLATE SHALL BE COMPLETED BY EXTENDING AND CONNECTING LINES AS SHOWN IN DETAILS.
4. YIELD LINES SHALL NOT EXTEND INTO ANY CONNECTED MEMBER INCLUDING: BEAMS, COLUMNS, AND SLABS.
5. SEE H/S3.12 FOR BRACE-TO-GUSSET DETAIL.

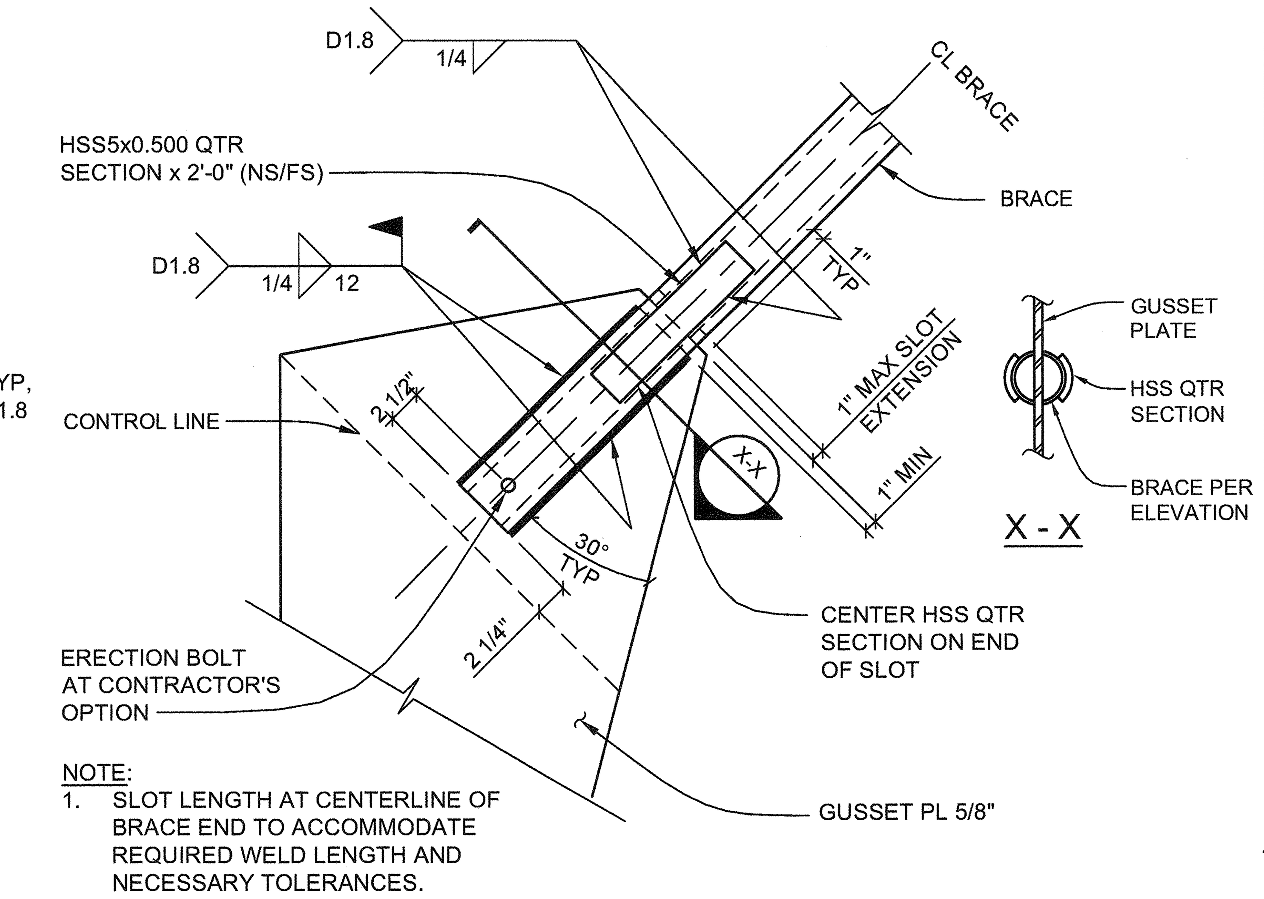
BRACED FRAME NOTES:
1. ALL WELDS ARE PART OF THE LATERAL FORCE RESISTING SYSTEM.
2. SEE L/S3.12 FOR BRACED FRAME PROTECTION ZONE REQUIREMENTS.

D BRACED FRAME & GUSSET PLATE NOTES
NO SCALE



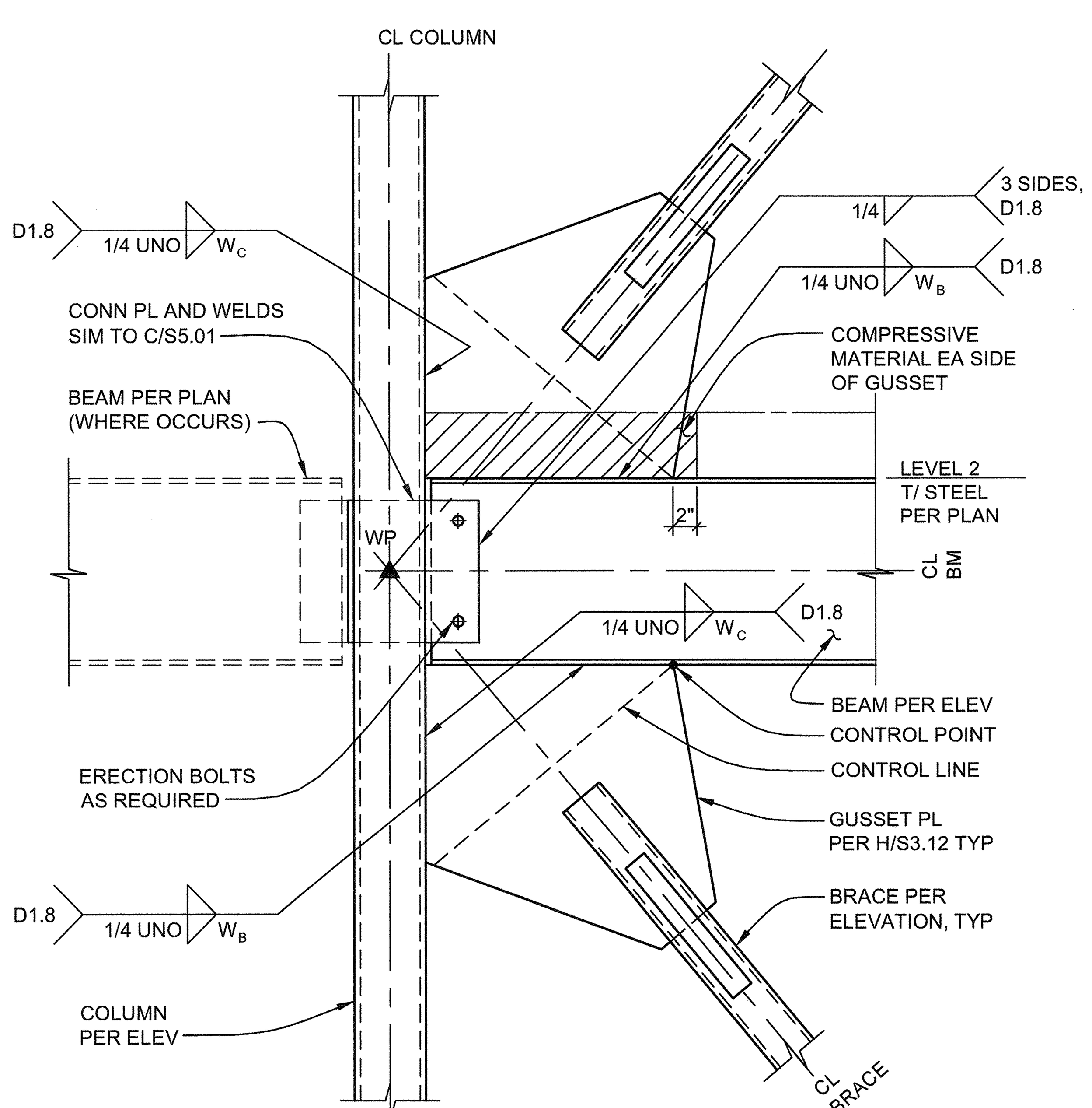
NOTES:
1. SEE H/S3.12 FOR HSS QTR SECTION-TO-BRACE DETAIL.
2. SEE D/S3.12 FOR BRACED FRAME AND GUSSET PLATE NOTES.

G DETAIL
NO SCALE



NOTE:
1. SLOT LENGTH AT CENTERLINE OF BRACE END TO ACCOMMODATE REQUIRED WELD LENGTH AND NECESSARY TOLERANCES.

H BRACE-TO-GUSSET CONN DETAIL
NO SCALE



NOTES:
1. SEE H/S3.12 FOR BRACE-TO-GUSSET DETAIL.
2. SEE D/S3.12 FOR BRACED FRAME AND GUSSET PLATE NOTES.

GUSSET CONNECTION SCHEDULE ABOVE LEV 2

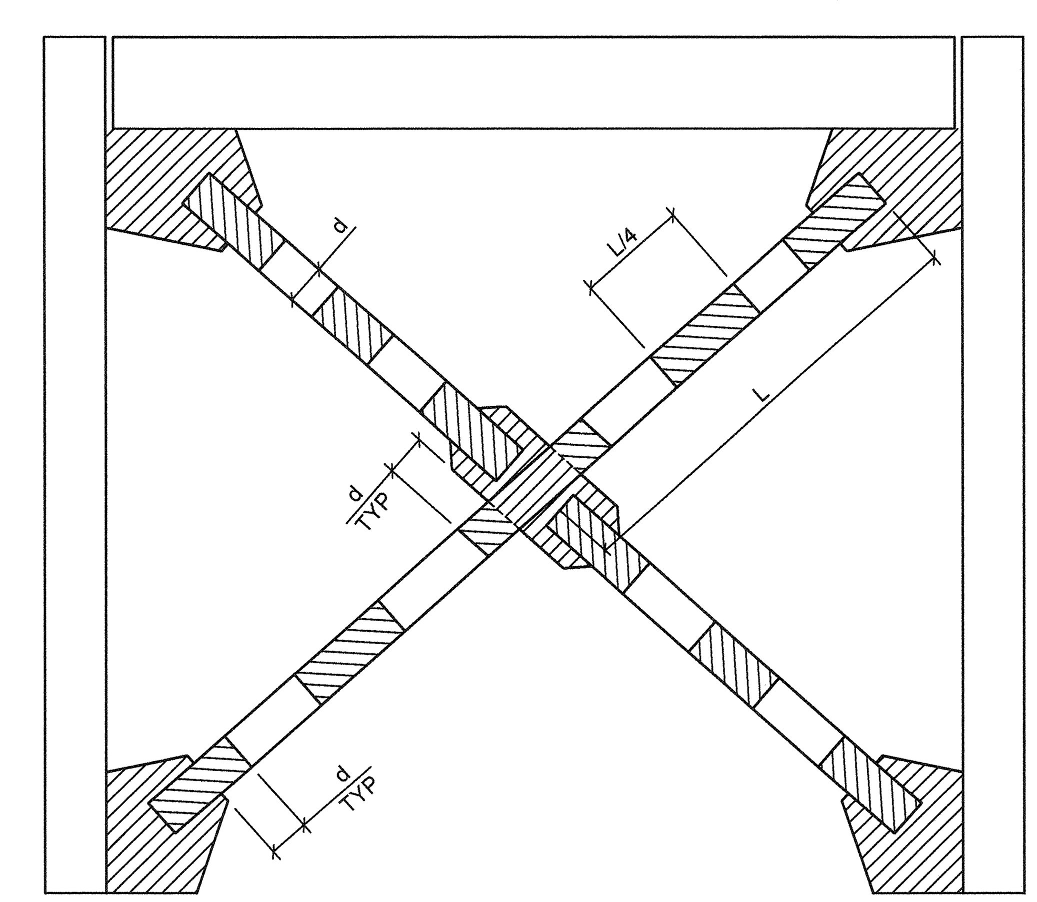
BRACE	WELD TO COLUMN W_C (IN)	WELD TO BEAM W_B (IN)	NOTES
BF-1	14	24	USE 5 / 16" FILLET WELDS
BF-2	15	31	
BF-3	22	20	
BF-4	17	22	
BF-5	N/A	N/A	

GUSSET CONNECTION SCHEDULE BELOW LEV 2

BRACE	WELD TO COLUMN W_C (IN)	WELD TO BEAM W_B (IN)	NOTES
BF-1	14	27	USE 5 / 16" FILLET WELDS
BF-2	17	35	
BF-3	20	20	
BF-4	17	22	
BF-5	N/A	N/A	

NOTES:
1. AT SLOTTED CONNECTIONS, PROVIDE SLOT WITH RADIUSED END. SLOT WIDTH SHALL BE THICKNESS OF GUSSET PLATE + 1/8". PROVIDE COVER PLATE AND BRACE SLOT EXTENSION PER H/S3.12 AT ALL LOCATIONS, UNLESS NOTED OTHERWISE.
2. PROVIDE 1" THICK COMPRESSIBLE JOINT FILLER AROUND BOTH SIDES OF GUSSET WHERE FLOOR SLAB OR SOIL IS PRESENT.
3. ALL GUSSET PLATES SHALL BE A572 GRADE 36 STEEL, UNLESS NOTED OTHERWISE.

J DETAIL
NO SCALE



NOTES:
1. PROTECTED ZONE
2. ALL BRACES SHOWN ON ELEVATIONS SHALL HAVE PROTECTED ZONES AS SHOWN ON THIS DETAIL.
3. PROTECTED ZONES SHALL BE PAINTED YELLOW IN THE SHOP EXCEPT WHERE WELDING IS REQUIRED. PAINT WELDED AREAS AFTER WELD HAS BEEN INSPECTED. STENCIL ALL PROTECTED ZONES WITH "PROTECTED ZONE" IN RED ON BOTH SIDES OF THE FRAME IN THE SHOP.
4. FOR RECTANGULAR HSS BRACES, "d" SHALL BE THE DEPTH OF THE LARGER OF THE TWO FACES.
5. LIMITATIONS TO USE AND FABRICATION OF PROTECTED ZONES ARE STATED IN THE GENERAL NOTES.

L BRACED FRAME PROTECTED ZONE
NO SCALE

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STATE OF WASHINGTON — LOVING ROBERTS — 38538 — PROFESSIONAL ENGINEER — STRUCTURAL — 9/11/15

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PIER 4 PHASE 2 MARINE BUILDING
Braced Frame Details

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:		DRAWING SCALE: AS NOTED

6552
S3.12
SH # 459 OF # 499

CONT/CONS:	070136
M. ID:	091251
PHASE:	BID

BINDING EDGE
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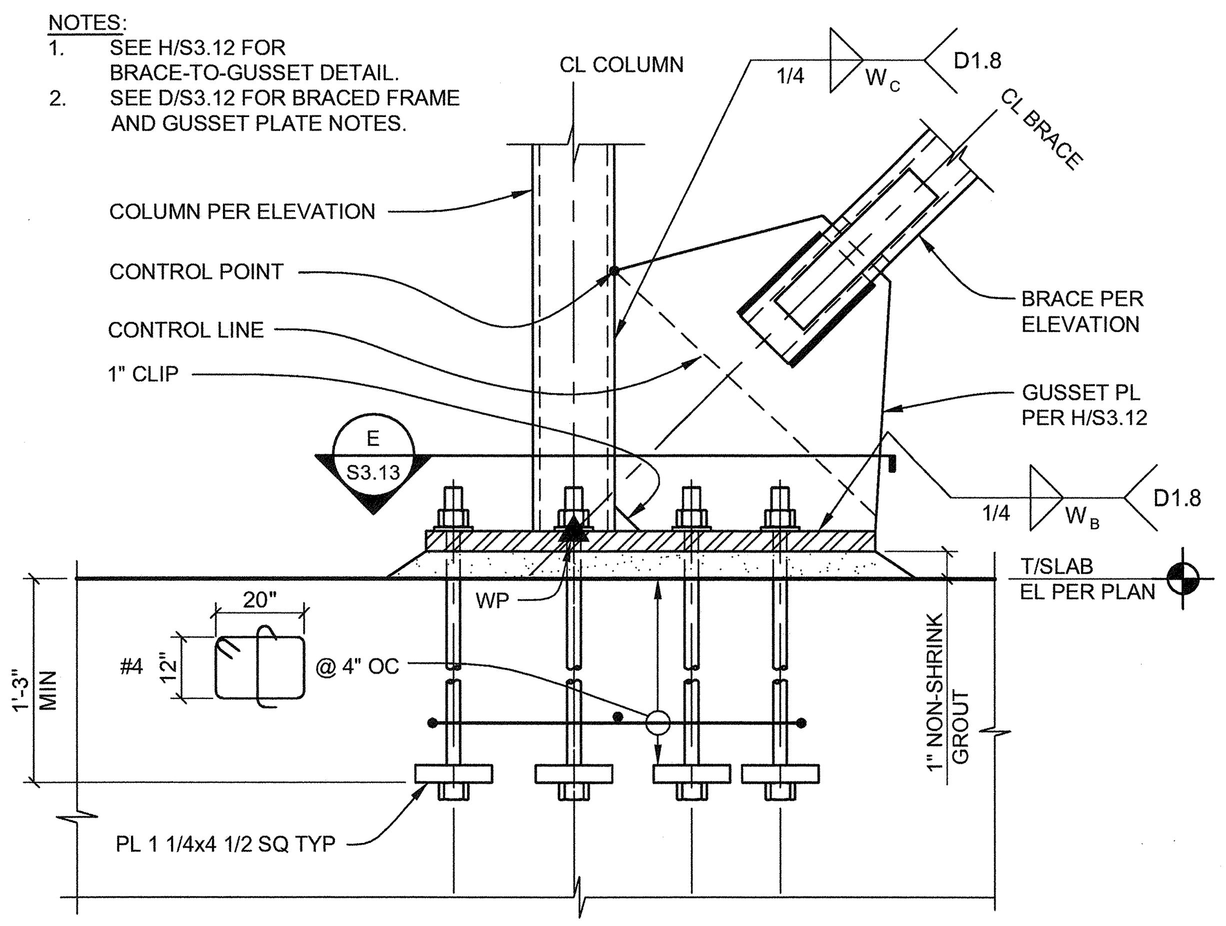
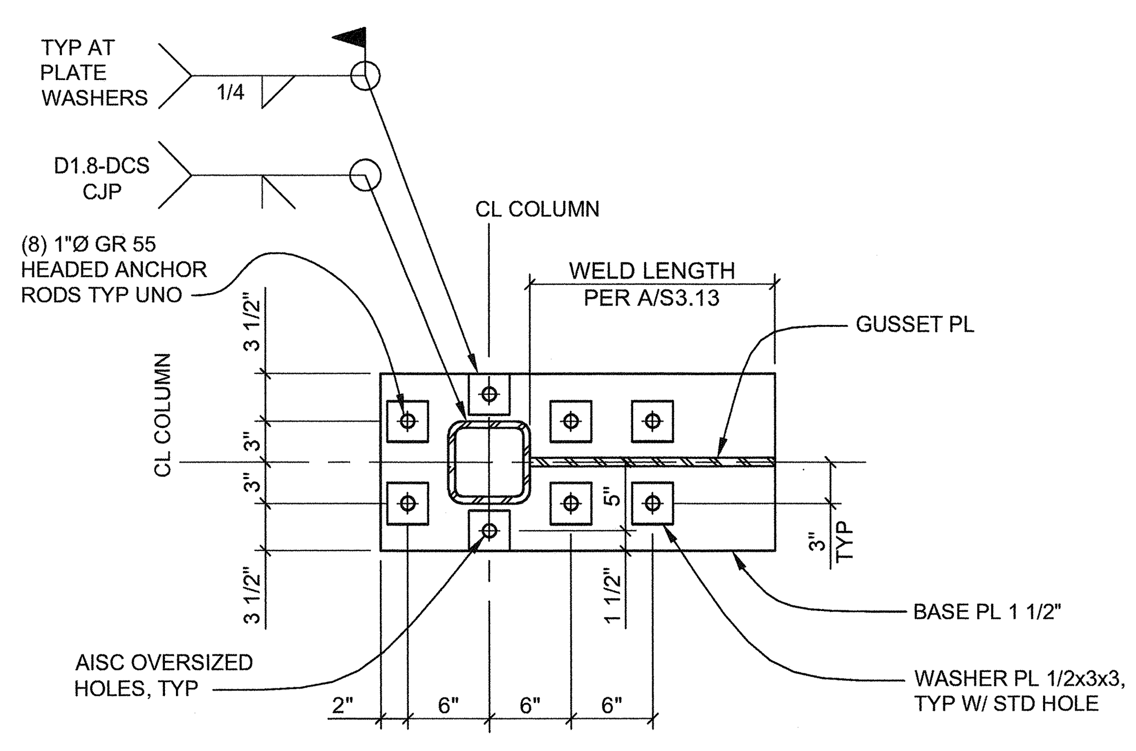
Xref Filename: | 3422 | P4MBxTB | P4MBxBoxA |



A DETAIL
NO SCALE

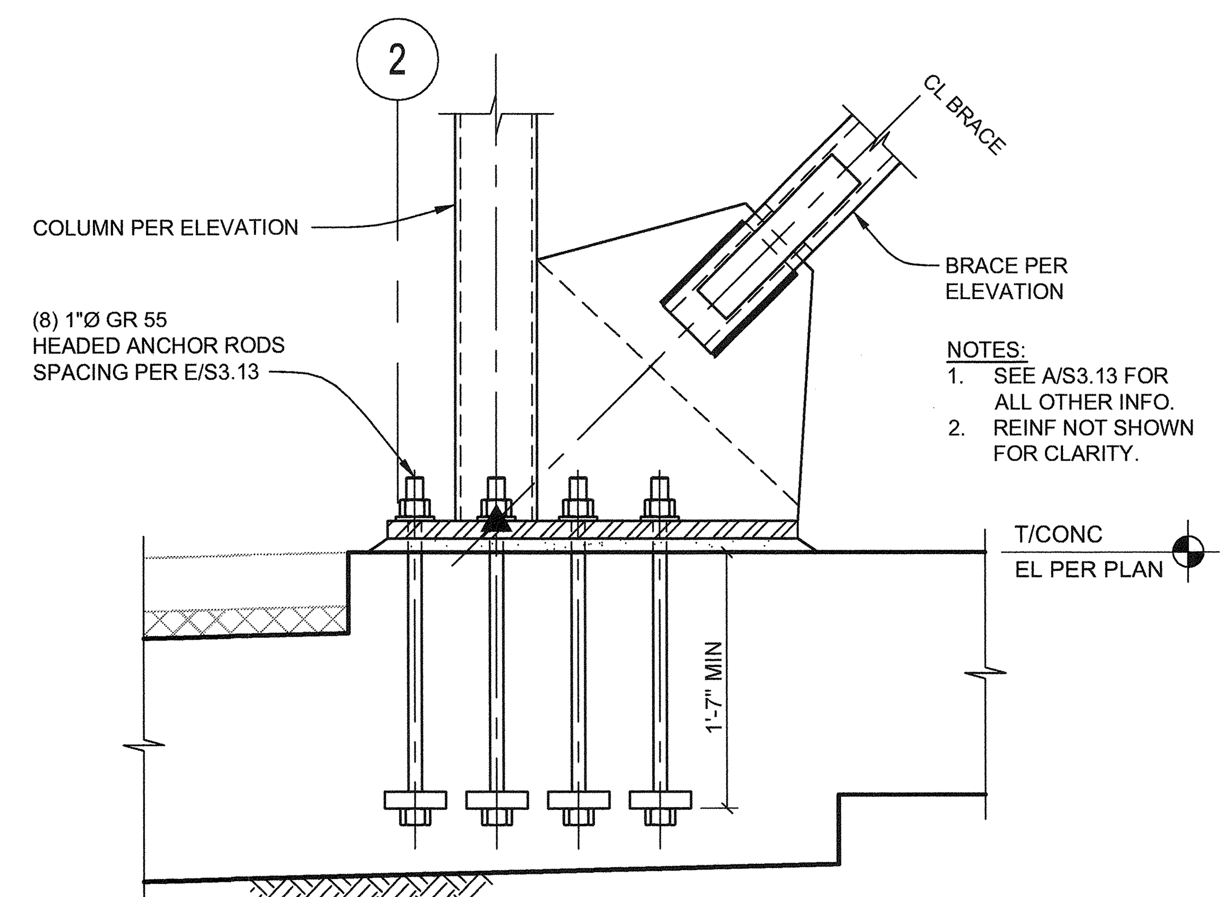
GUSSET CONNECTION SCHEDULE			
BRACE	WELD TO COLUMN W_C (IN)	WELD TO BEAM W_B (IN)	NOTES
BF-1	17	17	
BF-2	19	20	
BF-3	22	19	
BF-4	18	18	
BF-5	18	17	

NOTES:
1. AT SLOTTED CONNECTIONS, PROVIDE SLOT WITH RADIUSED END. SLOT WIDTH SHALL BE THICKNESS OF GUSSET PLATE + 1/8". PROVIDE COVER PLATE AND BRACE SLOT EXTENSION PER H/S3.12 AT ALL LOCATIONS, UNLESS NOTED OTHERWISE.
2. PROVIDE 1" THICK COMPRESSIBLE JOINT FILLER AROUND BOTH SIDES OF GUSSET WHERE FLOOR SLAB OR SOIL IS PRESENT.
3. ALL GUSSET PLATES SHALL BE A572 GRADE 36 STEEL, UNLESS NOTED OTHERWISE.

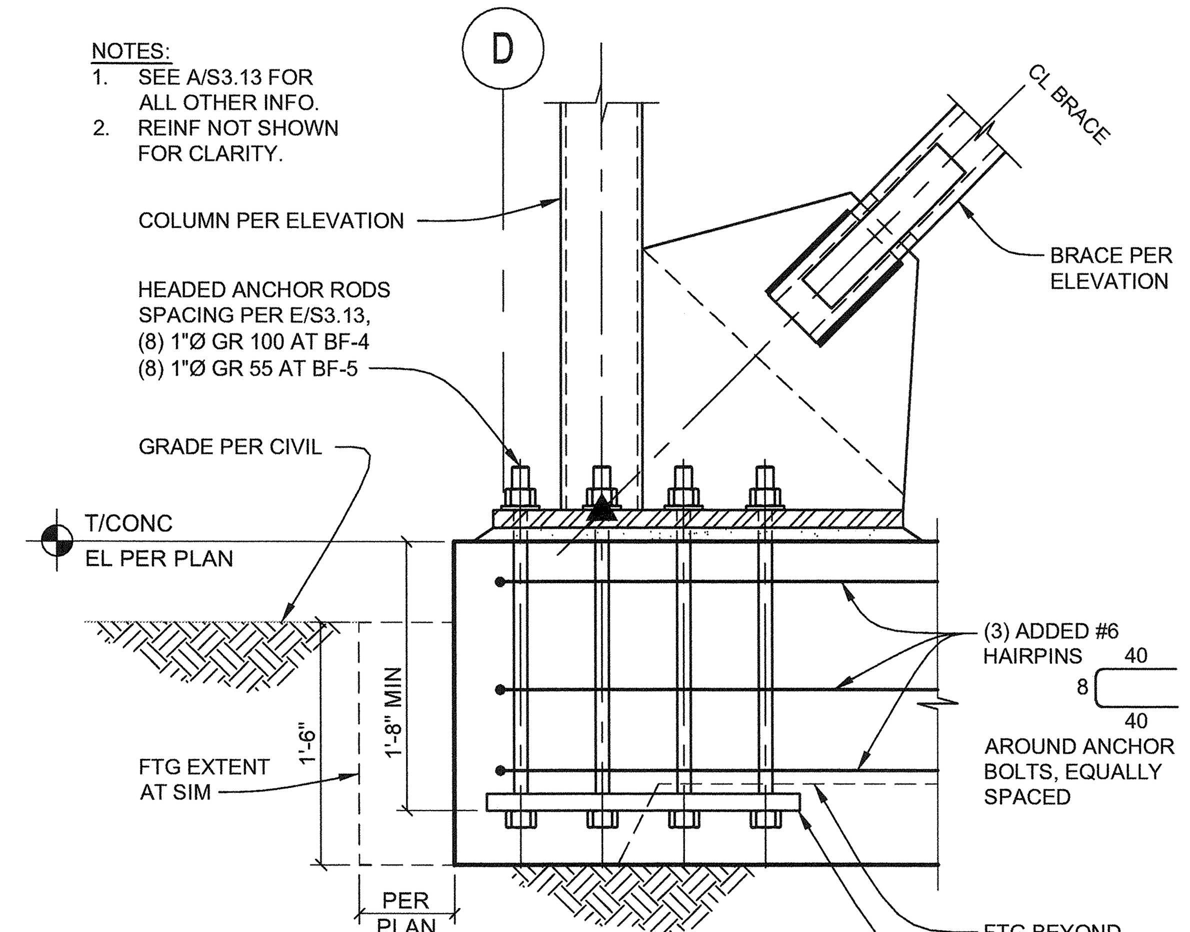


NOTE:
1. SEE D/S3.12 FOR BRACED FRAME AND GUSSET PLATE NOTES.

F DETAIL
NO SCALE



G DETAIL
1"=1'-0"



H DETAIL
1"=1'-0"

BINDING EDGE

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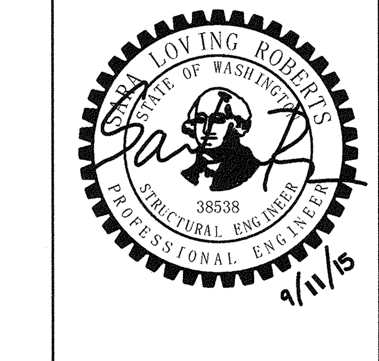

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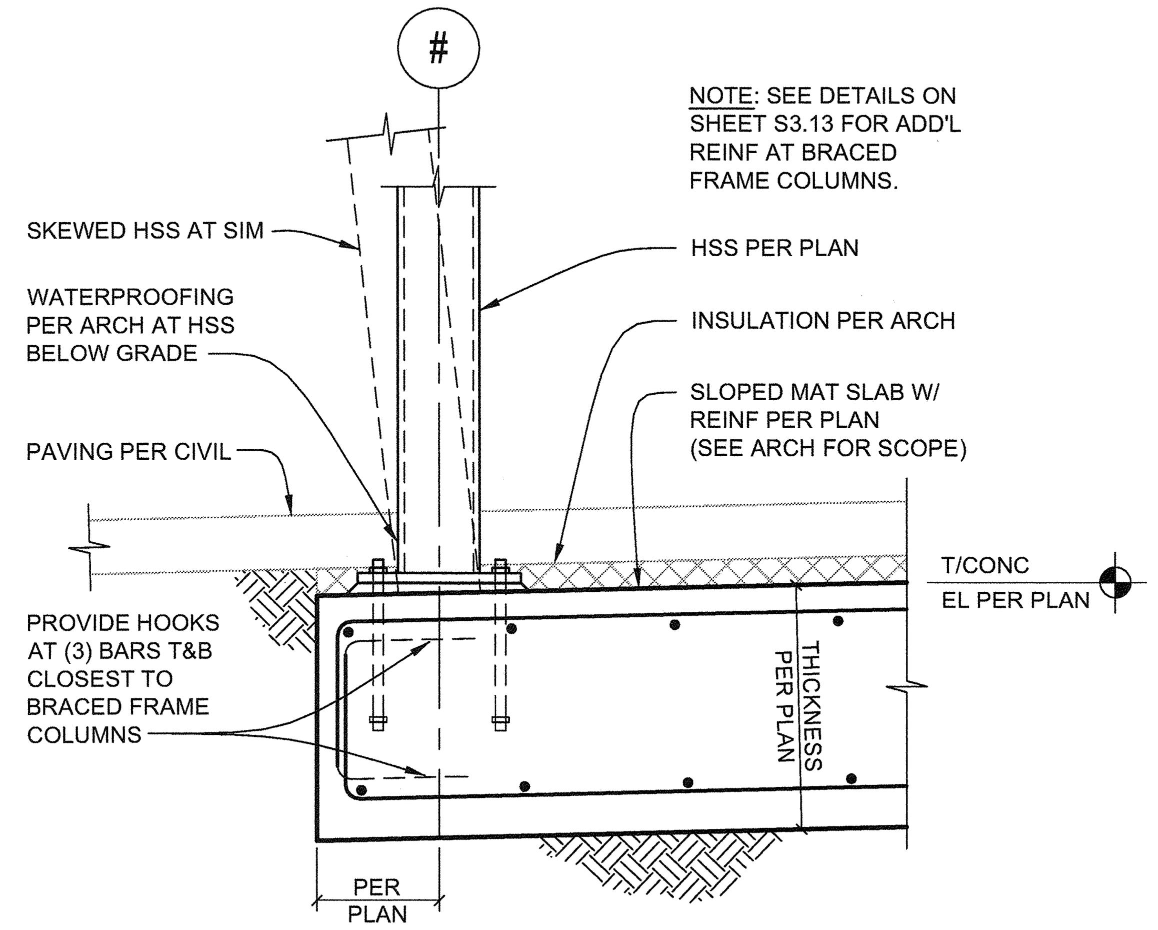
PIER 4 PHASE 2
MARINE BUILDING
Braced Frame Details

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:	DRAWING SCALE: AS NOTED	

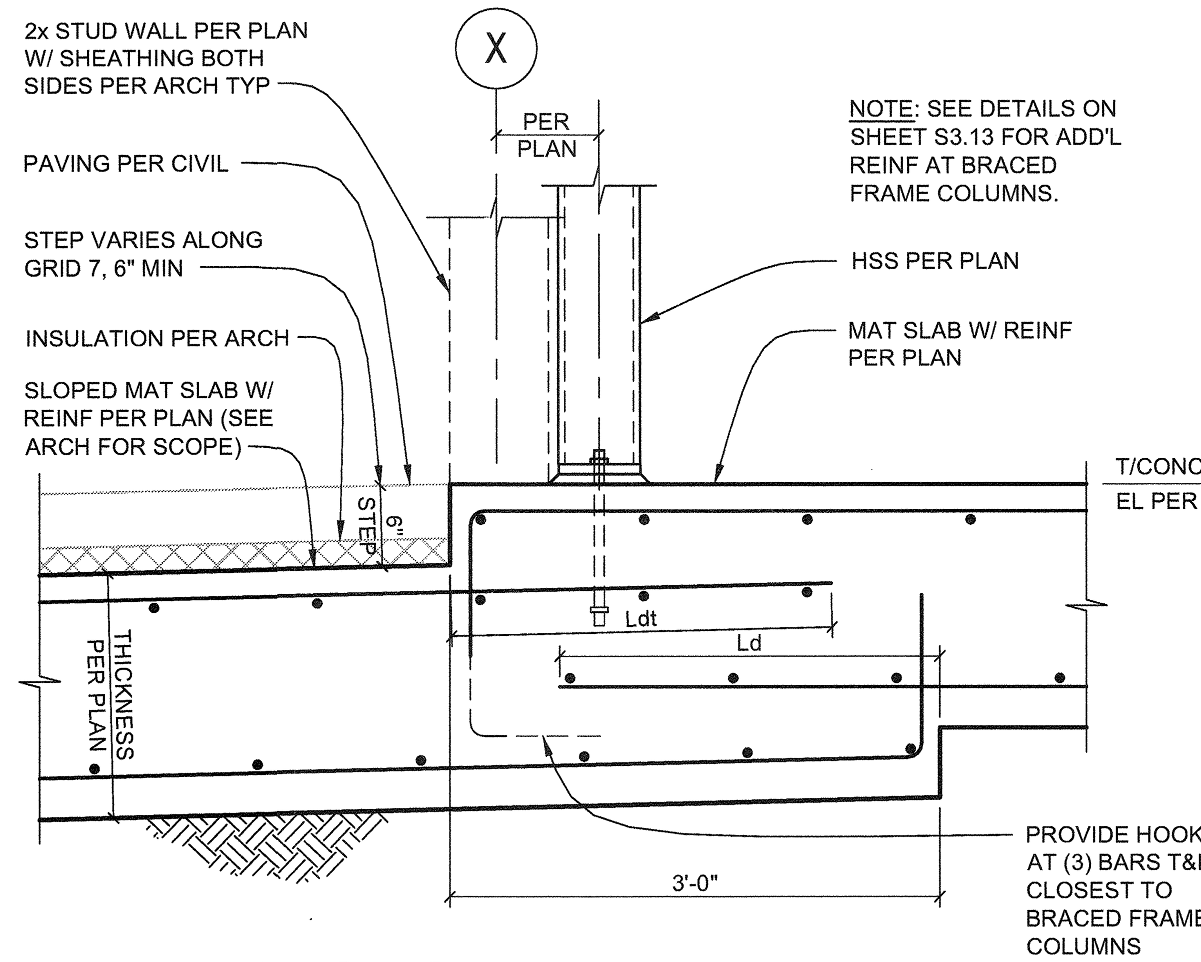
6552
S3.13
SH # 460 OF # 499

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

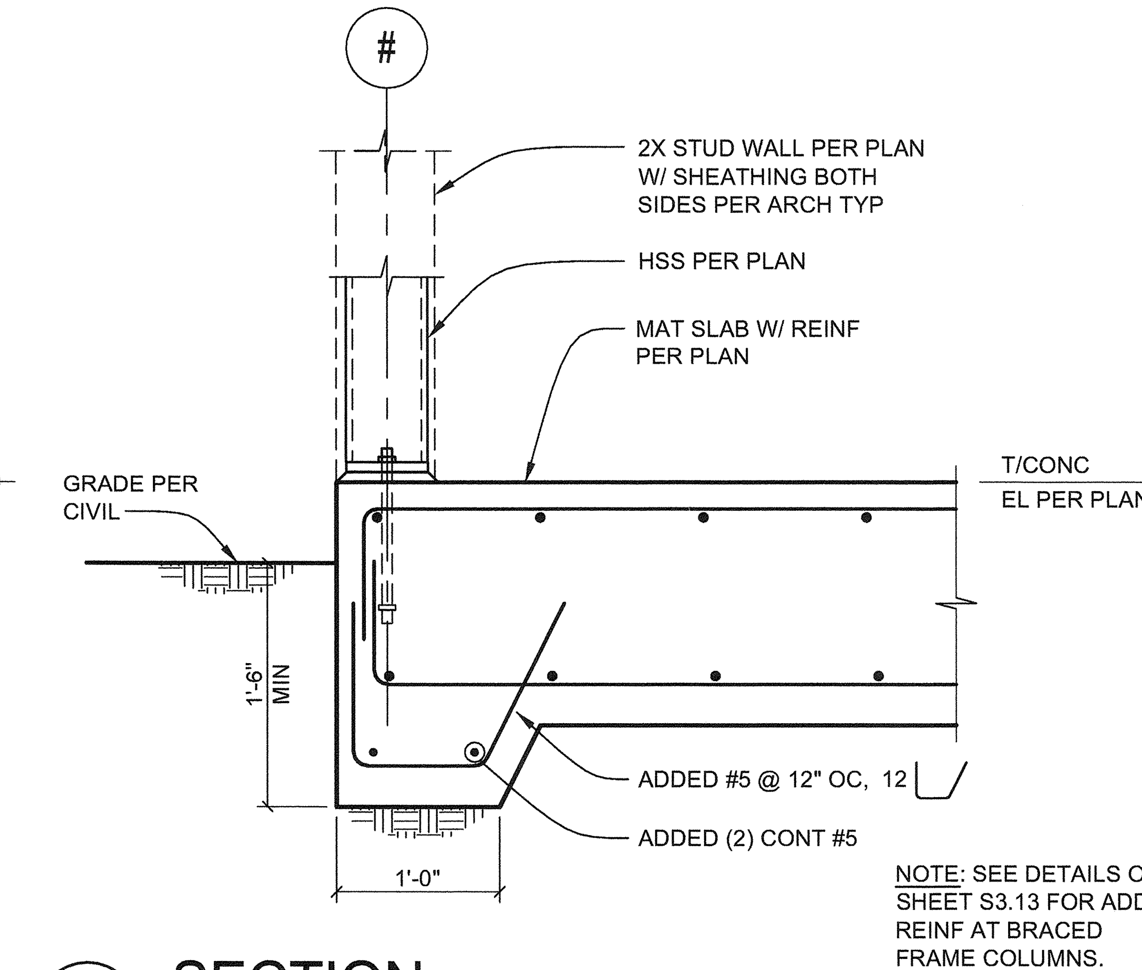
BINDING EDGE



A SECTION
1"=1'-0"



B SECTION
1"=1'-0"



C SECTION
1"=1'-0"

f'c= 4,000 psi
fy =60,000 psi

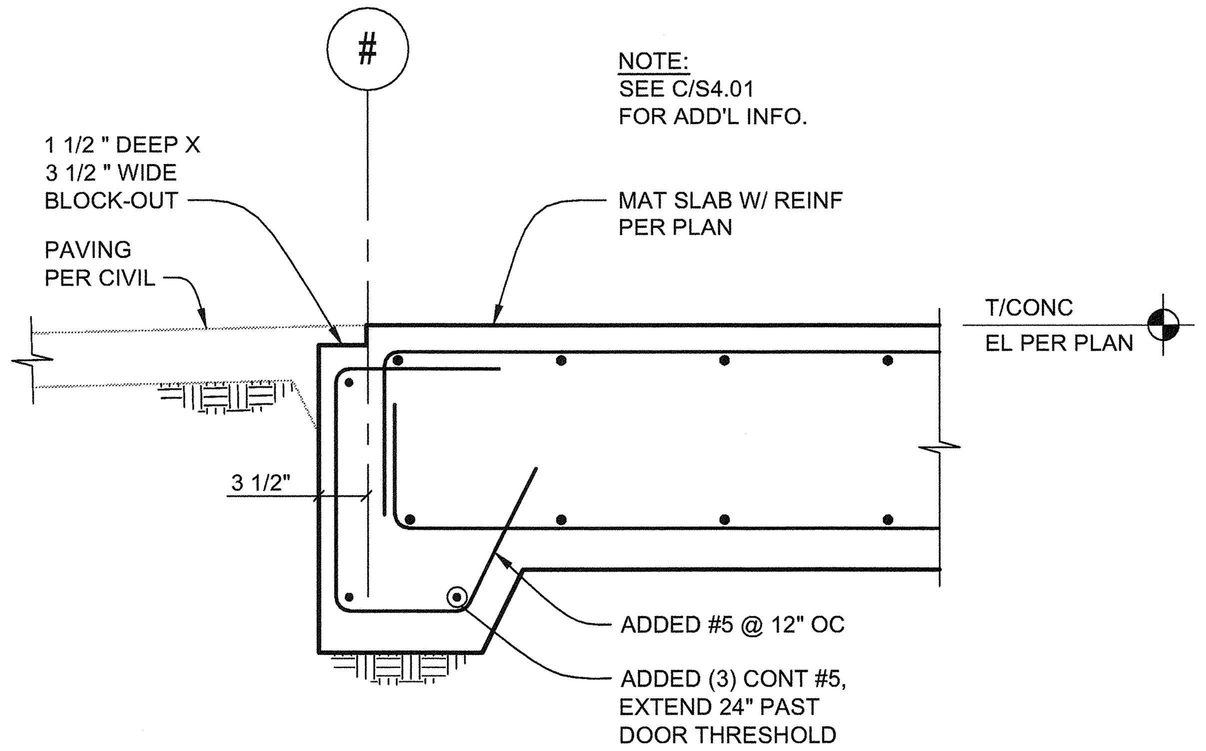
Size	Ld	Ldt	Lb	Lbt	Ldh
#4	19 (28)	25 (37)	25 (37)	32 (48)	9
#5	24 (36)	31 (46)	31 (46)	40 (60)	12
#6	28 (43)	37 (55)	37 (55)	48 (72)	14
#7	42 (62)	54 (81)	54 (81)	70 (105)	17
#8	47 (71)	62 (92)	62 (92)	80 (120)	19
#9	54 (80)	70 (104)	70 (104)	90 (136)	21
#10	60 (90)	78 (117)	78 (117)	102 (153)	24
#11	67 (100)	87 (130)	87 (130)	113 (170)	27

NOTES:
1. USE THE LENGTHS IN THIS SCHEDULE, UNLESS NOTED OTHERWISE.
2. USE LENGTH IN ( ) WHEN BAR COVER IS db OR LESS OR BAR CLEAR SPACING IS 2db OR LESS.
3. A TOP BAR IS A HORIZONTAL BAR WITH MORE THAN 12" OF FRESH CONCRETE CAST BELOW IT.

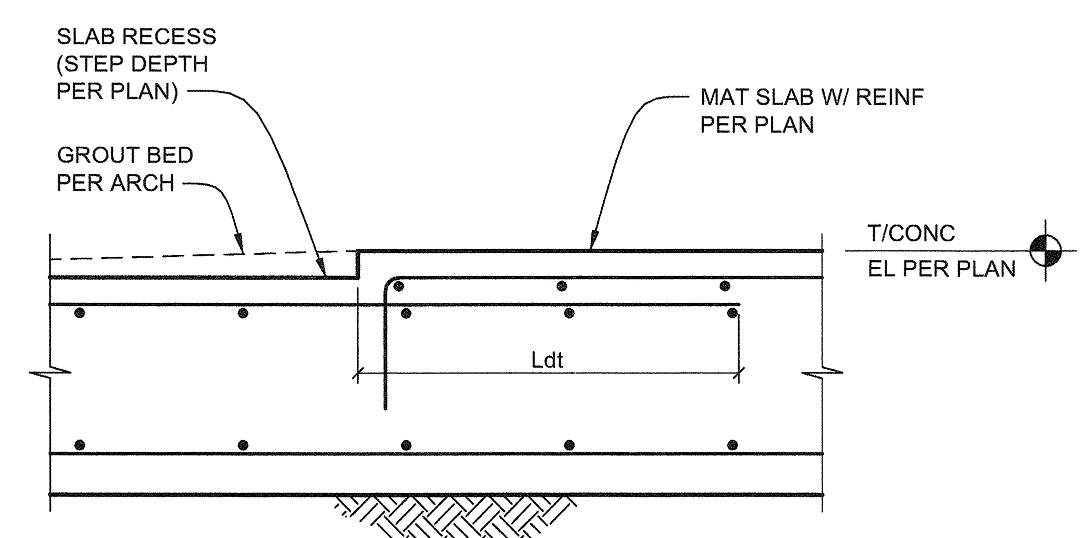
ABBREVIATIONS

db = BAR DIAMETER
Ld = TENSION DEVELOPMENT LENGTH
Ldt = TENSION DEVELOPMENT LENGTH FOR A TOP BAR
Lb = CLASS B LAP SPLICE LENGTH, 1.3 Ld
Lbt = CLASS B LAP SPLICE LENGTH FOR A TOP BAR, 1.3 Ldt
Ldh = TENSION DEVELOPMENT LENGTH FOR A STANDARD HOOK

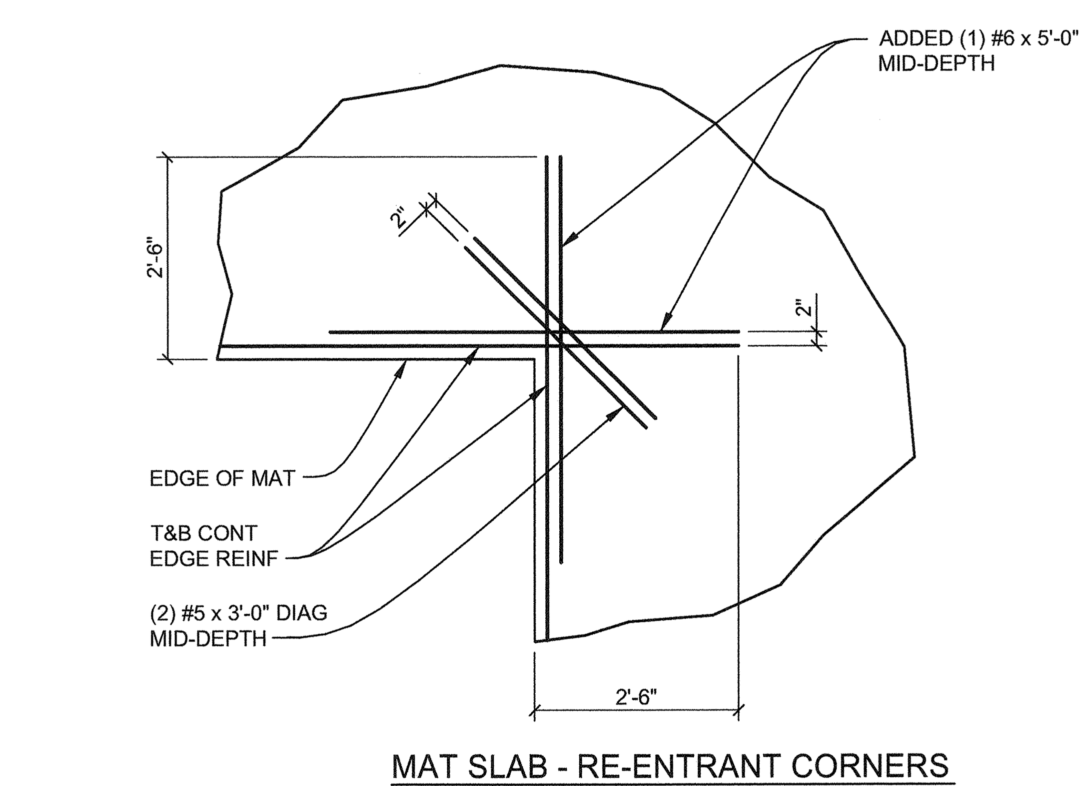
D DEVELOPMENT AND SPLICE LENGTH SCHEDULE
NO SCALE



E SECTION AT DOOR
1"=1'-0"

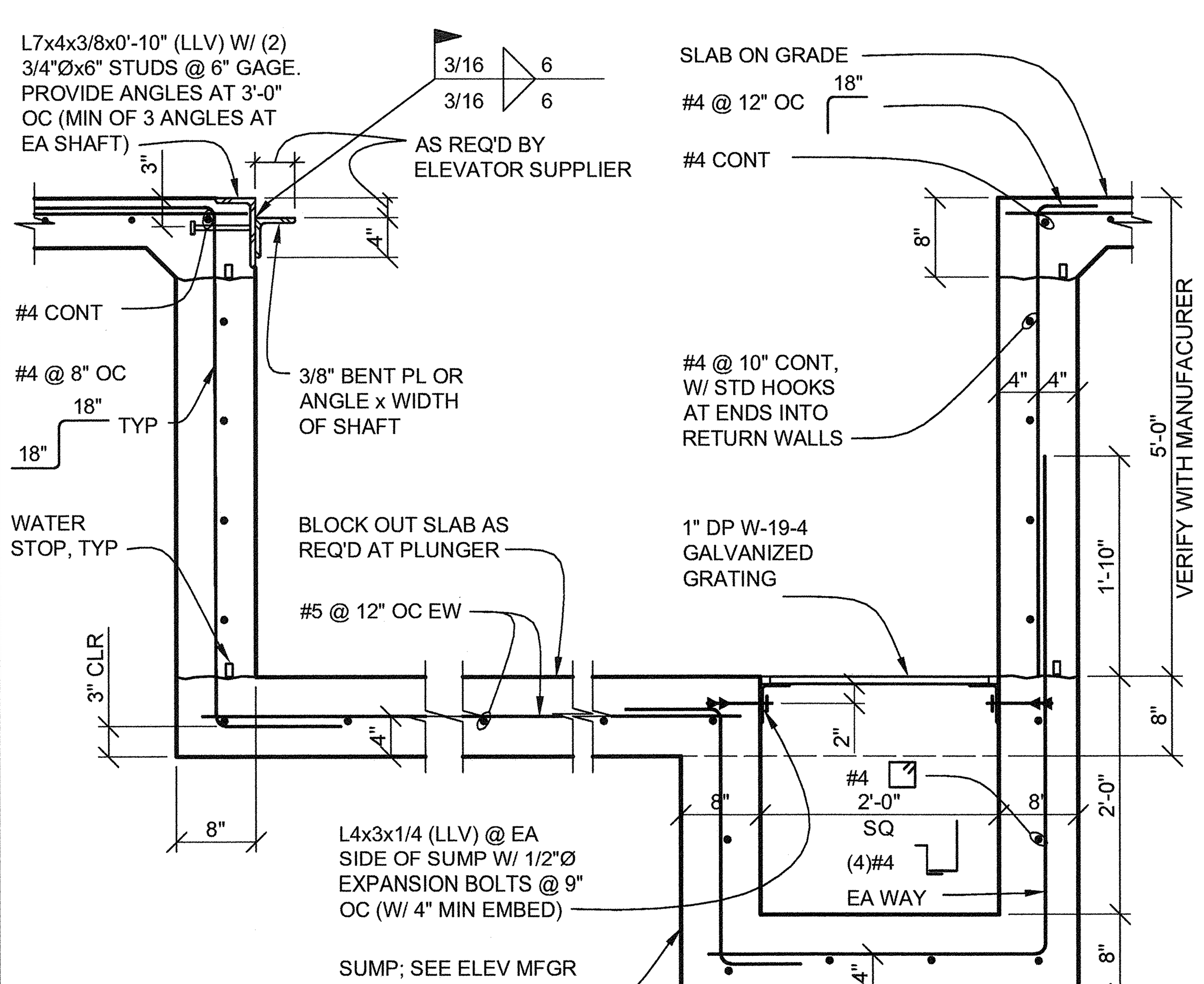


G TYP MAT SLAB RECESS SECTION
1 1/2"=1'-0"

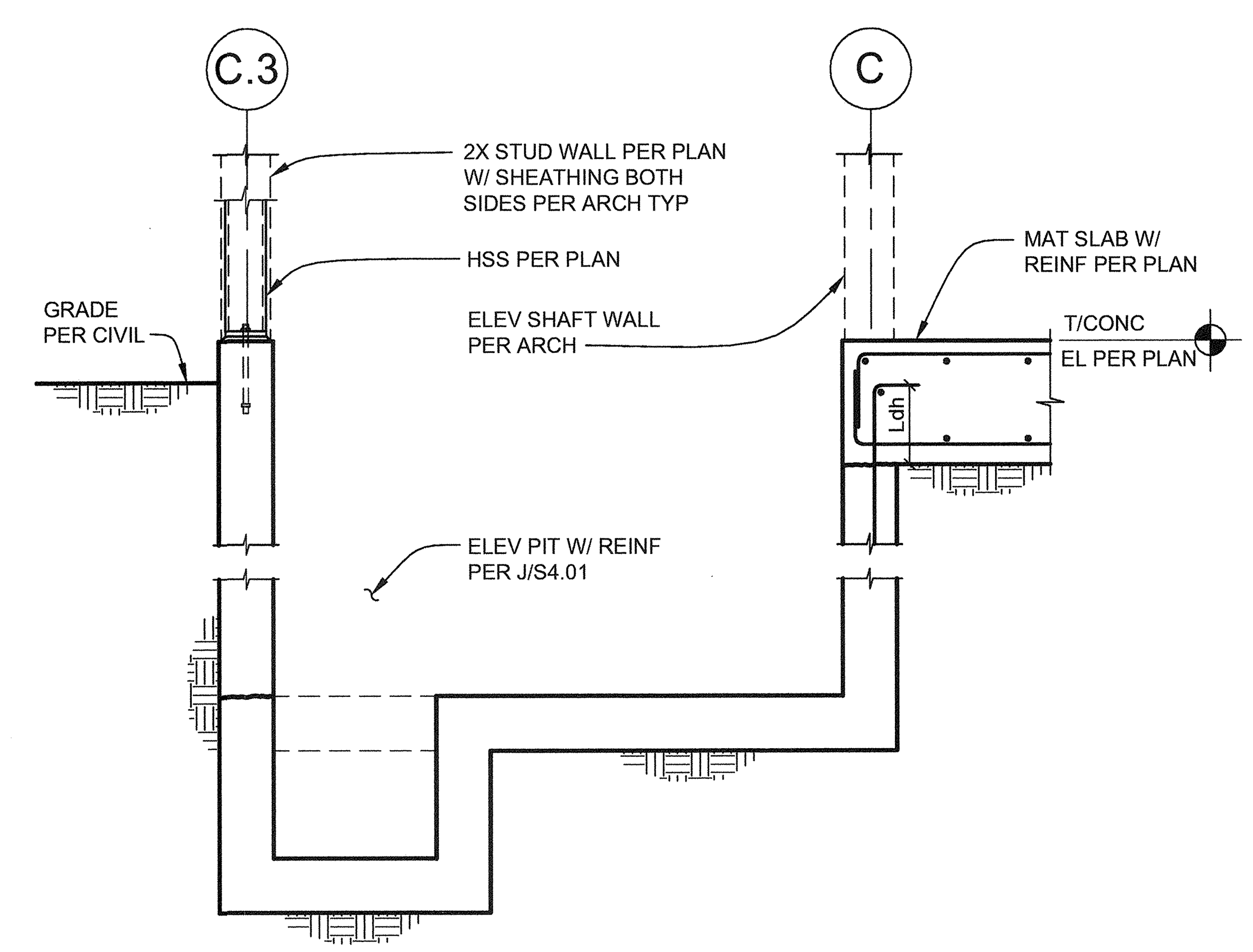


NOTES:
1. REINFORCING SHALL BE ADDED AT FULL DEPTH RE-ENTRANT CORNERS AND 6" STEP AT CORNERS OF MAT SLAB.

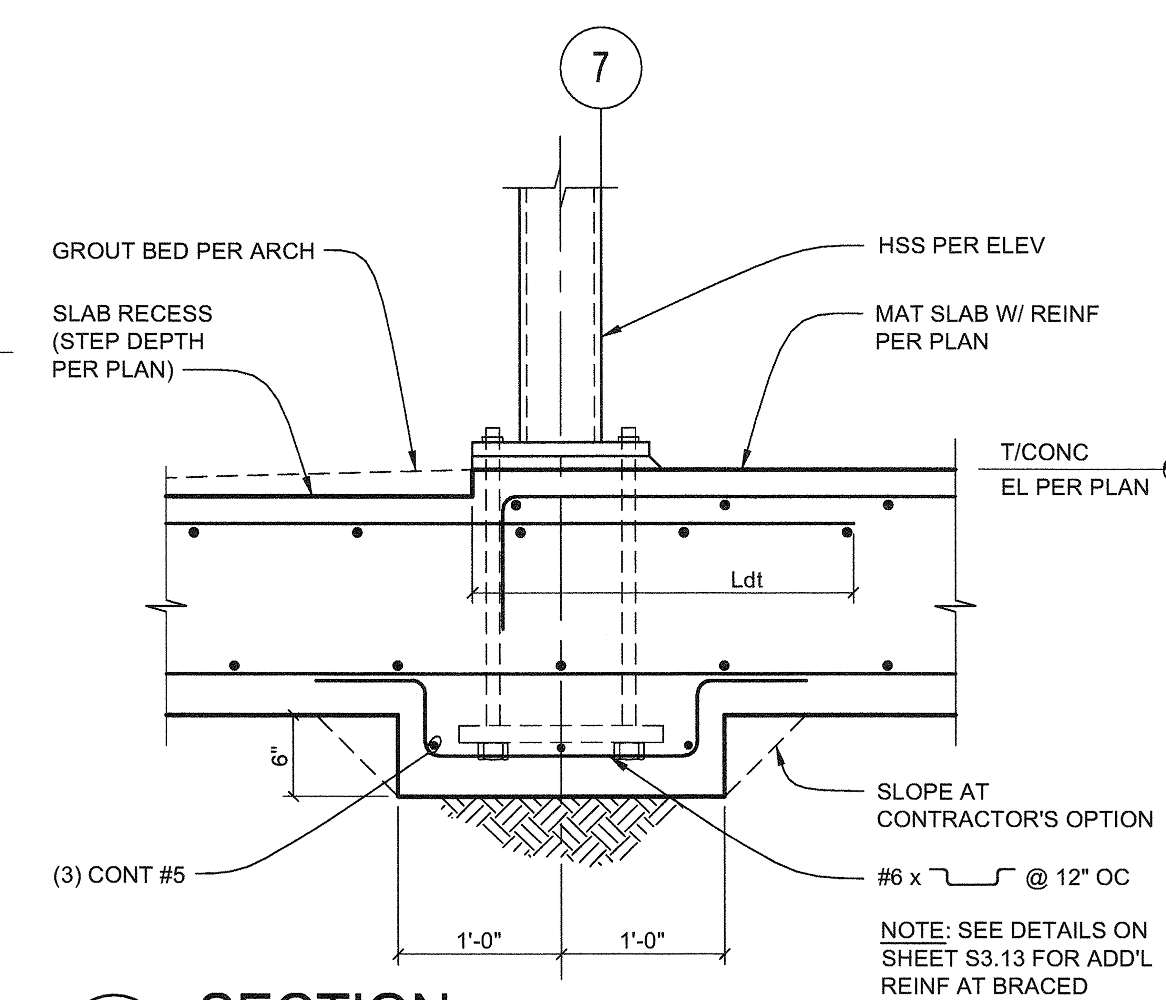
H TYP MAT SLAB TRIM REINFORCING
NO SCALE



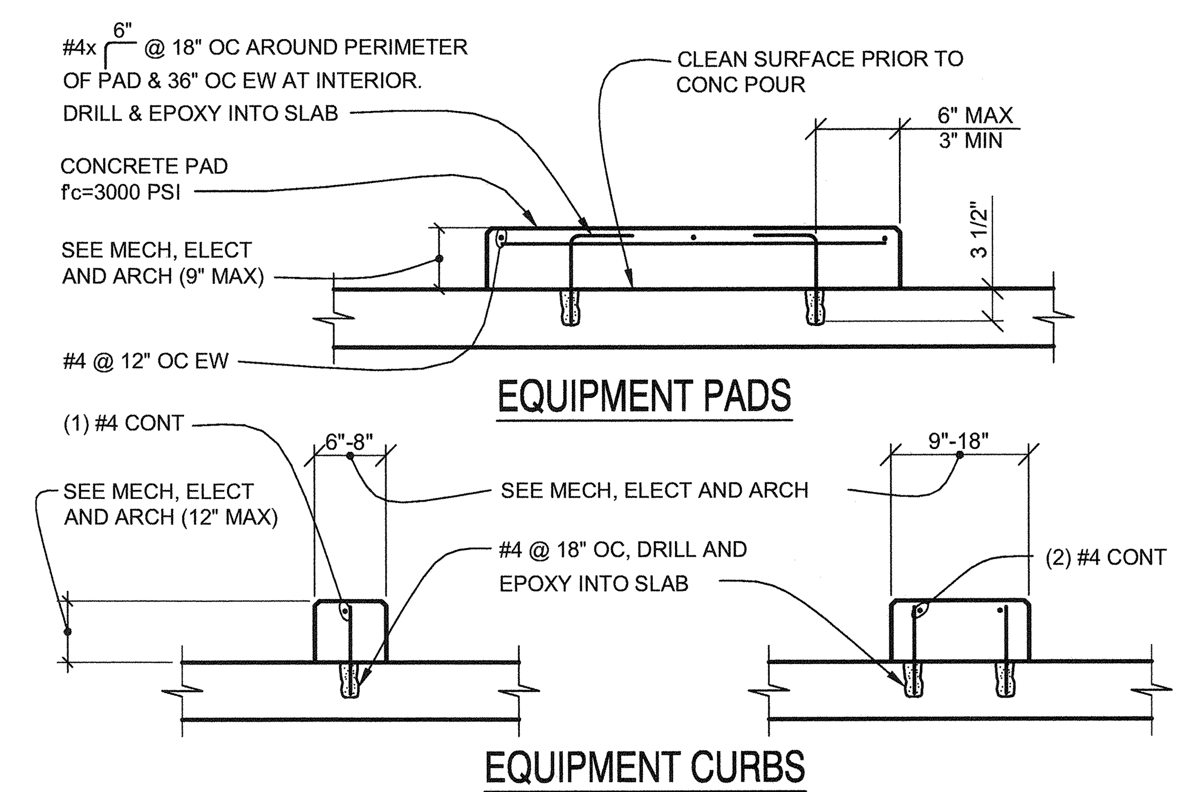
J ELEVATOR PIT DETAIL
NO SCALE



K SECTION
1/2"=1'-0"



L SECTION
1"=1'-0"



NOTES:
1. EQUIPMENT PAD SIZE TO BE 6" LARGER THAN EQUIPMENT IN EACH DIRECTION, UNO. COORDINATE EXACT SIZE AND LOCATION OF CURB AND PADS WITH EQUIPMENT PROVIDED.
2. DO NOT DRILL PT SLABS. SEE F/S4.62 FOR DETAIL @ PT SLABS.

M TYP EQUIPMENT CURBS & PADS ON NON PT SLABS
NO SCALE

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MARK:	REVISION:	BY:	APPR:	DATE:

SARA LOVING ROBERTS
STATE OF WASHINGTON
38538
PROFESSIONAL ENGINEER
STRUCTURAL ENGINEER
9/11/15

APPROVED: 3-28-16	CHECKED BY Checker	DATE
DIRECTOR ENG. DATE	PROJ. ENGR Checker	DATE
PRINTED BY:		
PORT ADDRESS:	ONE SITCUM PLAZA TACOMA, WA 98401-1837	

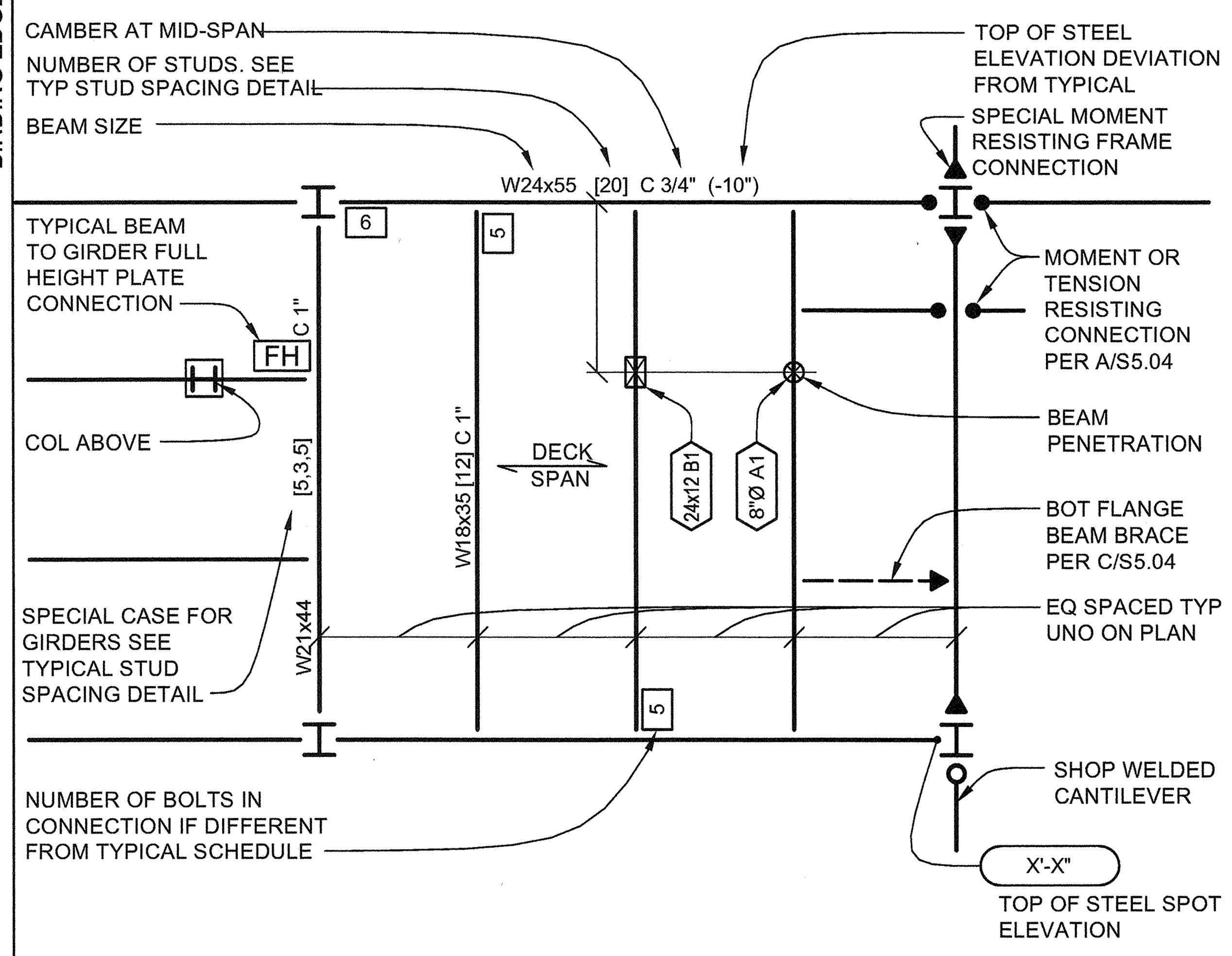
PIER 4 PHASE 2
MARINE BUILDING
Concrete Details

TOWNSHIP:		RANGE:		SECTION:	
DAT-HRZ:	WA83-SF	VERT:	MLLW 19.39' @ TIDE 22 1933		
PARCEL:		DRAWING SCALE:	AS NOTED		

6552
S4.01
SH # 461 OF # 499

CONT/CONS:	070136
M. ID:	091251
PHASE:	BID

Path: U:\115000-115350\115206 (POT Pier 4 Marine Building)\04 Details\P4MB_S4.01.dwg Plot date: Feb 18, 2016-10:00:40am CAD User: dianel.
Xref Filename: | 3422 | P4MBxTB | P4MBxBoxA |

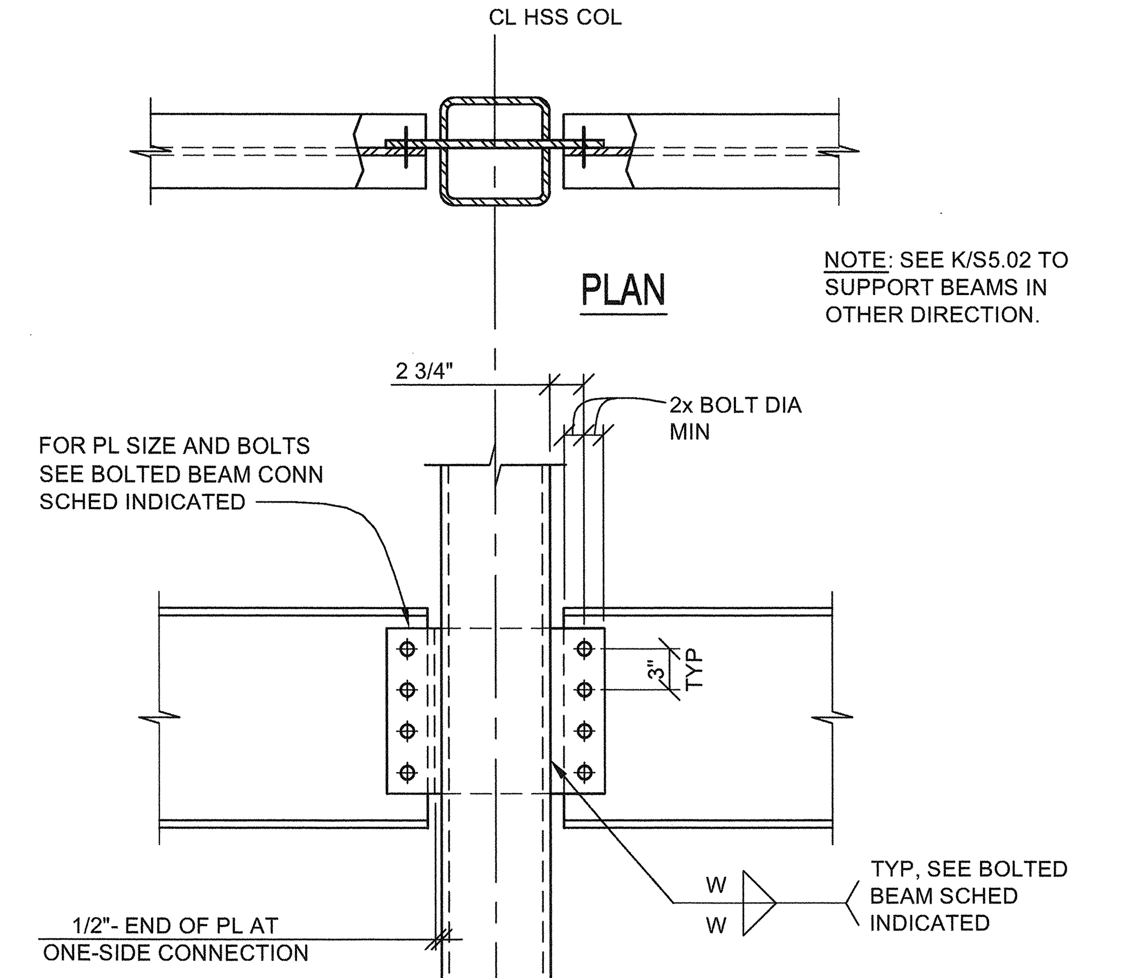


A TYPICAL STEEL FRAMING SYMBOLS
NO SCALE

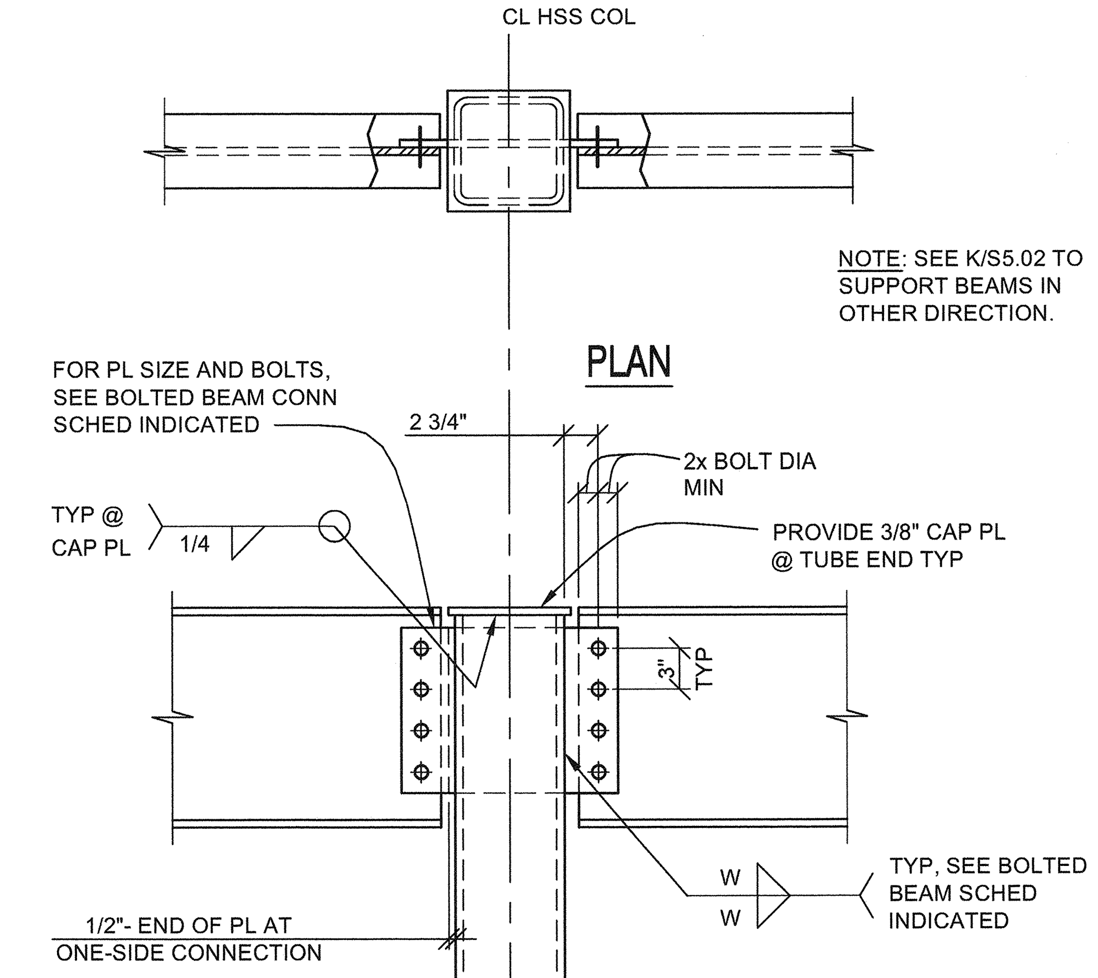
CONNECTION NOTES:

1. ALL BOLTED CONNECTIONS TO BE TYPE N WITH FULLY PRETENSIONED ASTM A325-N BOLTS PER AISC STANDARDS EXCEPT WHERE SNUG TIGHT OR SLIP CRITICAL CONNECTIONS ARE INDICATED.
2. BOLTS IN BEAM TO BEAM CONNECTIONS MAY BE TIGHTENED TO AISC "SNUG TIGHT" CONDITION UPON APPROVAL OF ENGINEER.
3. CONNECTIONS TO HAVE AISC STANDARD ROUND HOLES EXCEPT AS NOTED OTHERWISE.
4. ALL CONNECTION PLATE MATERIAL TO BE ASTM A36 UNLESS NOTED OTHERWISE.
5. BEAM CONNECTIONS TO BE PER THE STANDARD BOLTED BEAM CONNECTION DETAIL UNLESS NOTED OTHERWISE.
6. 5 SHOWN ON PLANS INDICATES NUMBER OF BOLTS REQUIRED IF DIFFERENT FROM NUMBER OF BOLTS REQUIRED USING THE STANDARD BOLTED BEAM CONNECTION DETAIL.
7. ALTERNATE CONNECTION DETAILS MAY BE SUBMITTED TO THE ENGINEER FOR REVIEW AND SHALL BE ACCOMPANIED BY CALCULATIONS BEARING THE SEAL AND SIGNATURE OF THE WASHINGTON STATE STRUCTURAL ENGINEER WHO IS RESPONSIBLE FOR THE DESIGN. ALTERNATE CONNECTIONS SHALL HAVE EQUAL OR GREATER CAPACITY THAN THE CONNECTIONS SHOWN ON THE DRAWINGS.

B CONNECTION NOTES
NO SCALE



C THROUGH-PLATE TO HSS COLUMN
NO SCALE



D THROUGH-PLATE TO HSS COLUMN TOP
NO SCALE

STANDARD BOLTED CONNECTION SCHEDULE			
BEAM SIZE	NUMBER & SIZE OF BOLTS REQ'D	PLATE THICKNESS	WELD SIZE (W)
W6, C6, C7	(2) 3/4"Ø @ 2" GA	1/4"	3/16"
W8, C8, C9	(2) 7/8"Ø	1/4"	3/16"
W10, C10	(2) 7/8"Ø	1/4"	3/16"
W12, C12	(3) 7/8"Ø	1/4"	3/16"
W14, C15	(3) 7/8"Ø	1/4"	3/16"
W16	(4) 7/8"Ø	1/4"	3/16"
W18	(4) 7/8"Ø	5/16"	1/4"
W21	(5) 7/8"Ø	5/16"	1/4"
W24	(6) 7/8"Ø	5/16"	1/4"
W27	(7) 7/8"Ø	3/8"	1/4"

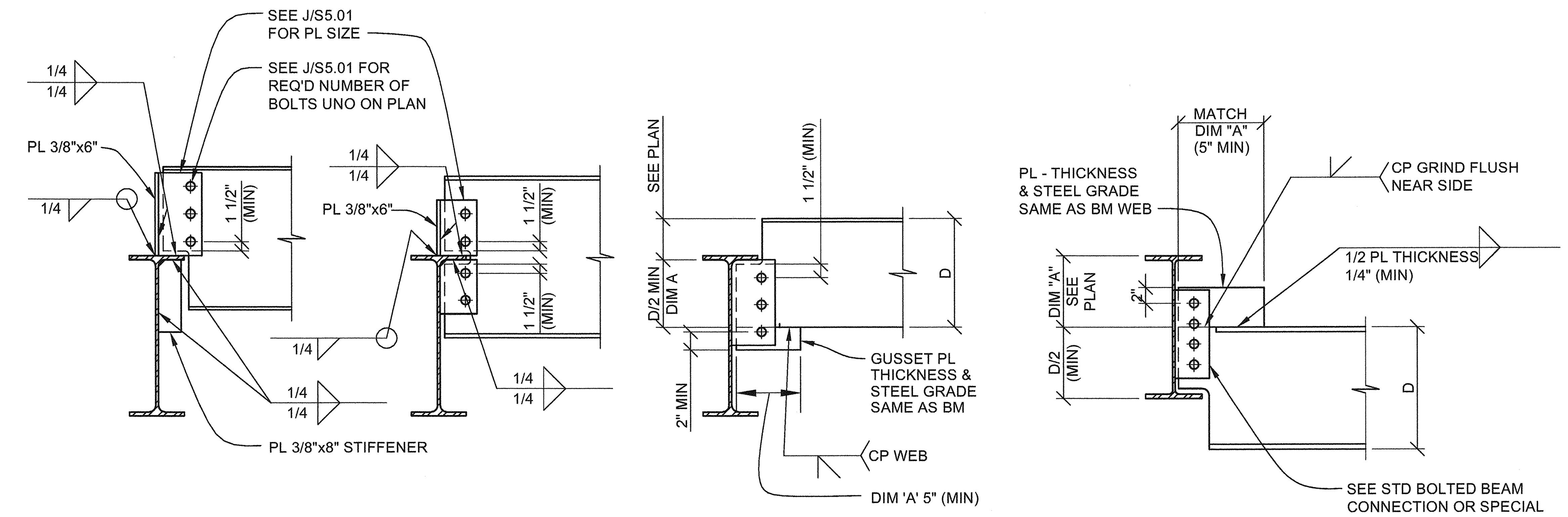
NOTES:

1. SHORT SLOTTED HOLES MAY BE USED AT ALL COLUMN CONNECTIONS AS AN OPTION.
2. FOR BEAM TO COLUMN WEB CONNECTION AT W14 & SMALLER COLUMNS, USE EXTENDED PLATE DETAIL.

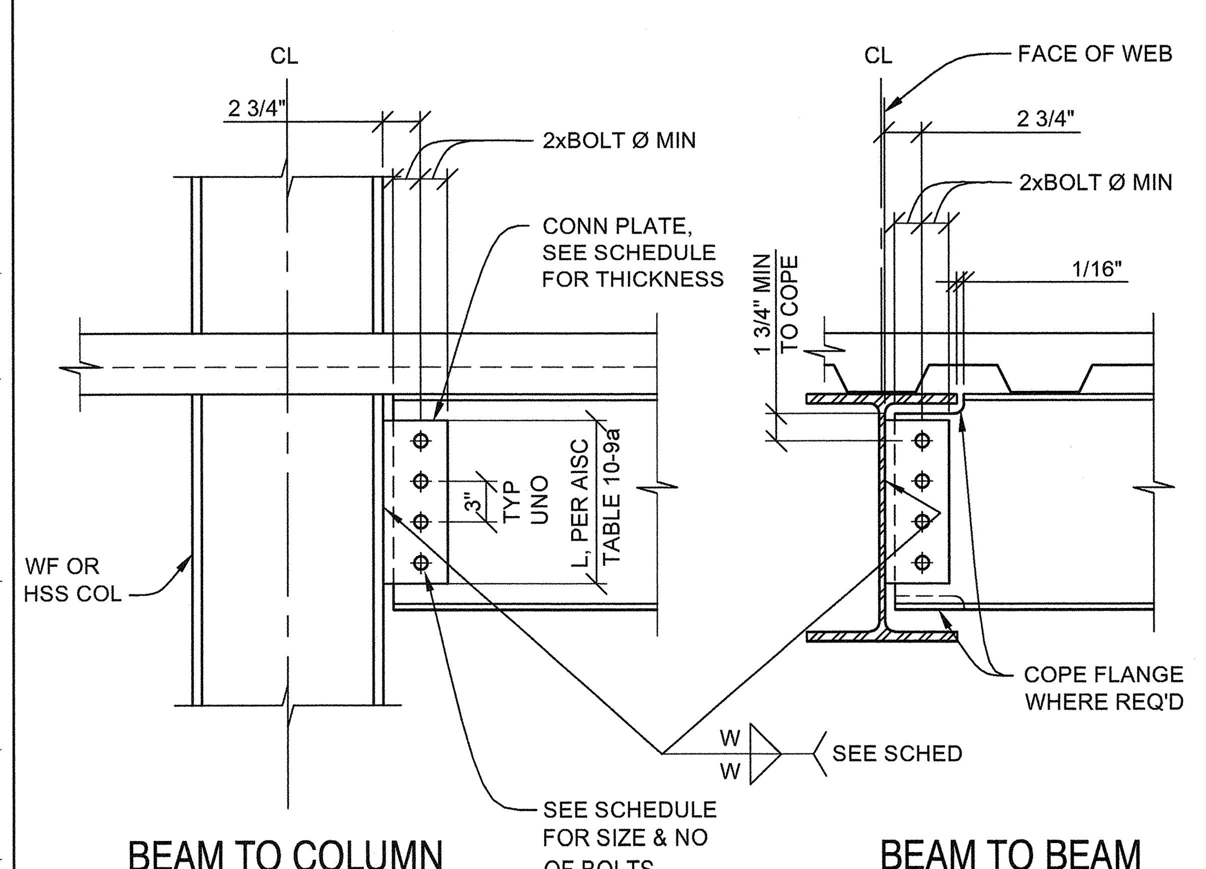
SKEWED BEAM CONNECTION SCHEDULE				
BEAM SIZE	NUMBER & SIZE OF BOLTS REQ'D	PLATE THICKNESS	WELD FOR 0°<β<10°	WELD FOR 10°<β<30°
W6, C6, C7	(2) 3/4"Ø @ 2" GA	1/4"	S S+1/16"	S S+1/8"
W8, C8, C9	(2) 7/8"Ø	1/4"		
W10, C10	(2) 7/8"Ø	1/4"		
W12, C12	(3) 7/8"Ø	1/4"		
W14, C15	(3) 7/8"Ø	1/4"		
W16	(4) 7/8"Ø	1/4"		
W18	(4) 7/8"Ø	5/16"		
W21	(5) 7/8"Ø	5/16"		
W24	(6) 7/8"Ø	5/16"		
W27	(7) 7/8"Ø	3/8"		
W30	N/A	N/A		45°

NOTES:

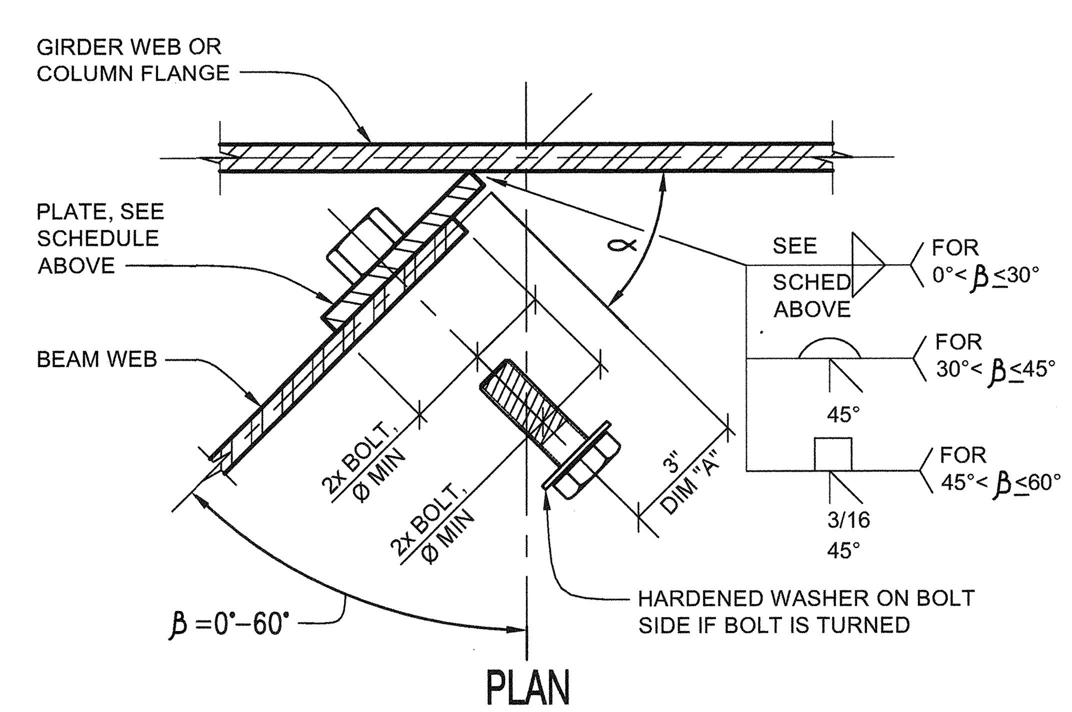
1. SHORT SLOTTED HOLES MAY BE USED AT ALL COLUMN CONNECTIONS AS AN OPTION. * FOR 10, 11 & 12 BOLT GROUPS, USE SHORT SLOTTED HOLES AT CONNECTIONS TO COLUMNS.
2. FOR BEAM TO COLUMN WEB CONNECTION AT W14 & SMALLER COLUMNS, SEE SEE "SC-7A".
3. FILLET WELD SIZE S = PLATE THICKNESS.
4. FOR BEVEL WELDS, BEVEL END OF CONNECTION PLATE TO MAINTAIN ∝ AT 45°.
5. DO NOT INCREASE DIMENSION "A" WITHOUT ENGINEER'S APPROVAL.



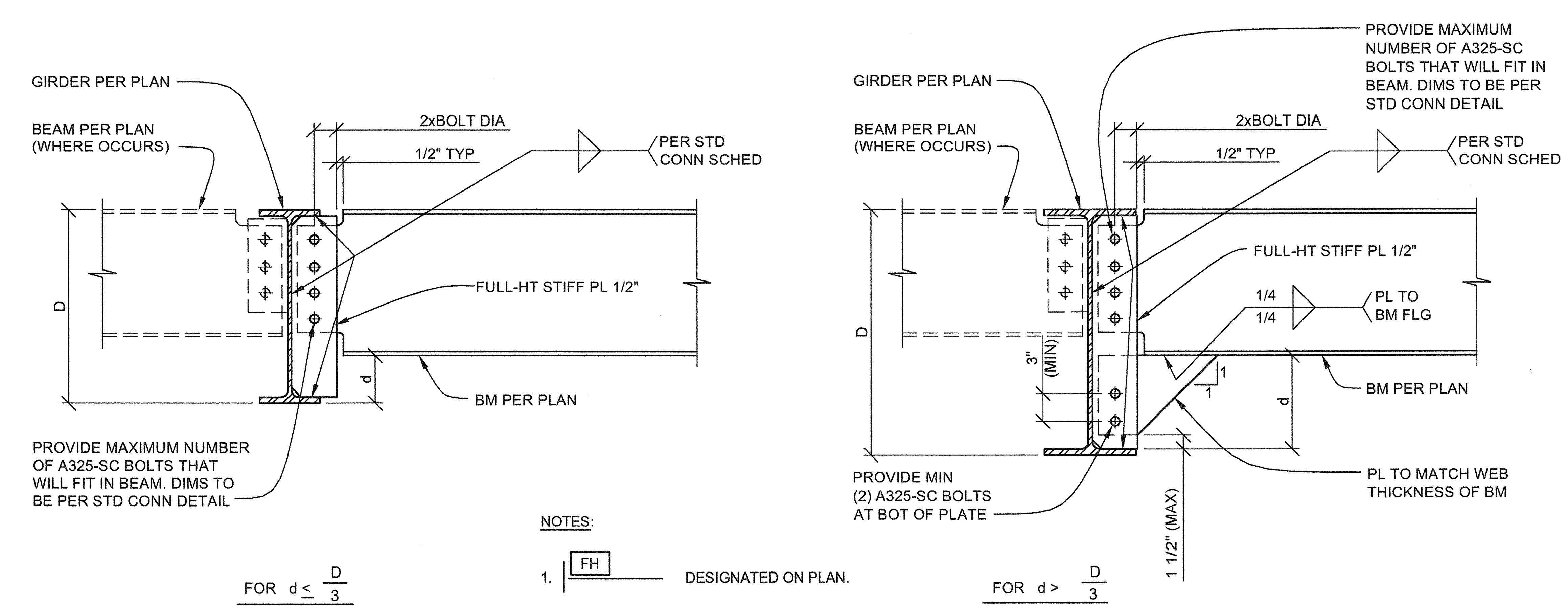
G TYPICAL CONNECTIONS FOR BEAMS AT DIFFERENT ELEVATIONS
NO SCALE



J STANDARD BOLTED BEAM CONNECTIONS
NO SCALE



K SKEWED BEAM CONNECTION
(FOR SKEW ANGLES: 0°< β< 60°)
NO SCALE



NOTES:

1. FH DESIGNATED ON PLAN.
2. BOLT SIZE TO MATCH TYPICAL CONNS.

L BEAM-TO-GIRDER FULL HEIGHT PLATE CONNECTION
NO SCALE

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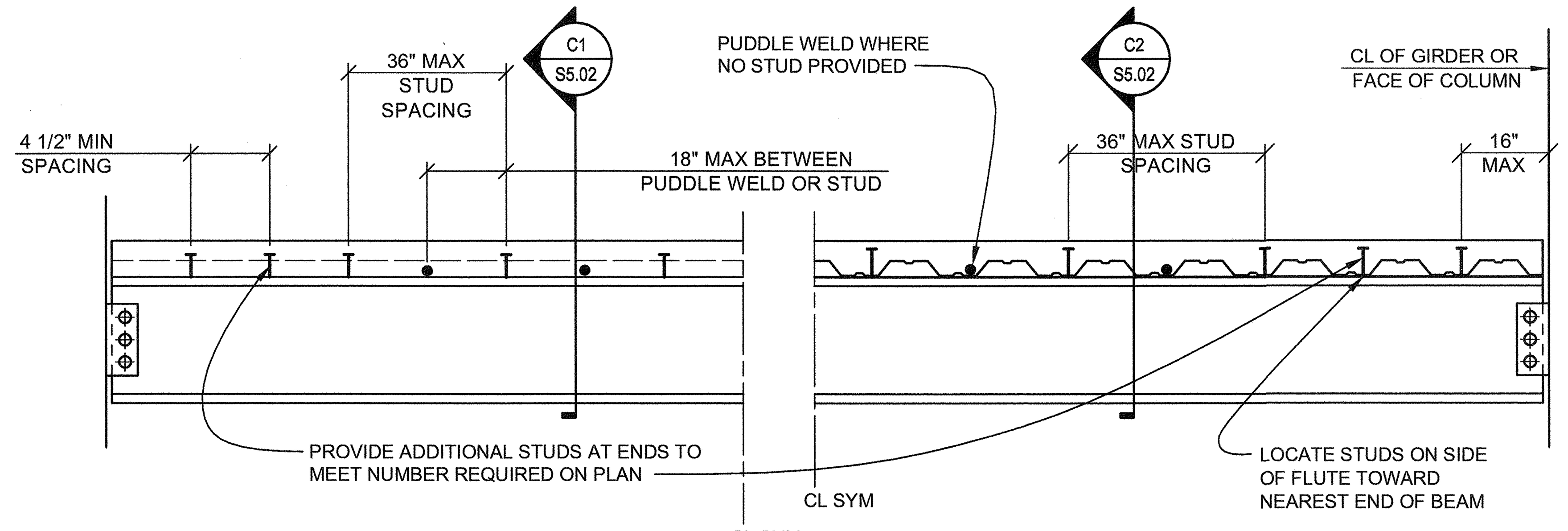
PIER 4 PHASE 2
MARINE BUILDING
Typical Steel Details

6552
S5.01
SH # 462 OF # 499

CONT/CONS: 070136 | M. ID: 091251 | PHASE: BID
DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933 | DRAWING SCALE: AS NOTED
PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837

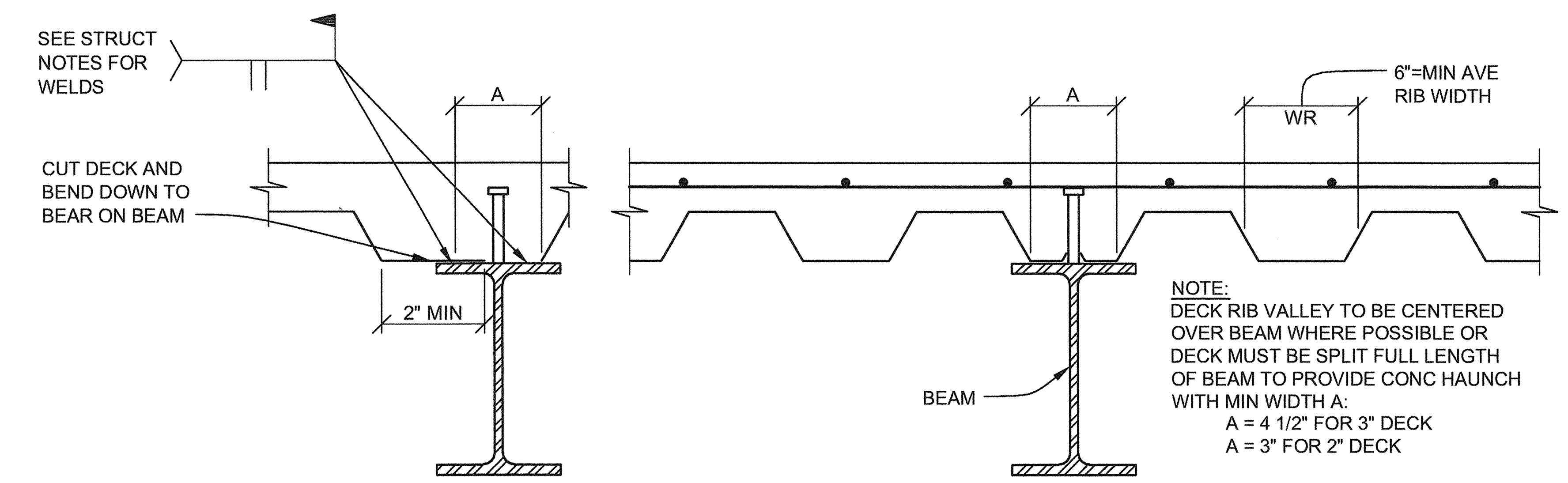


DECK PARALLEL TO BEAM

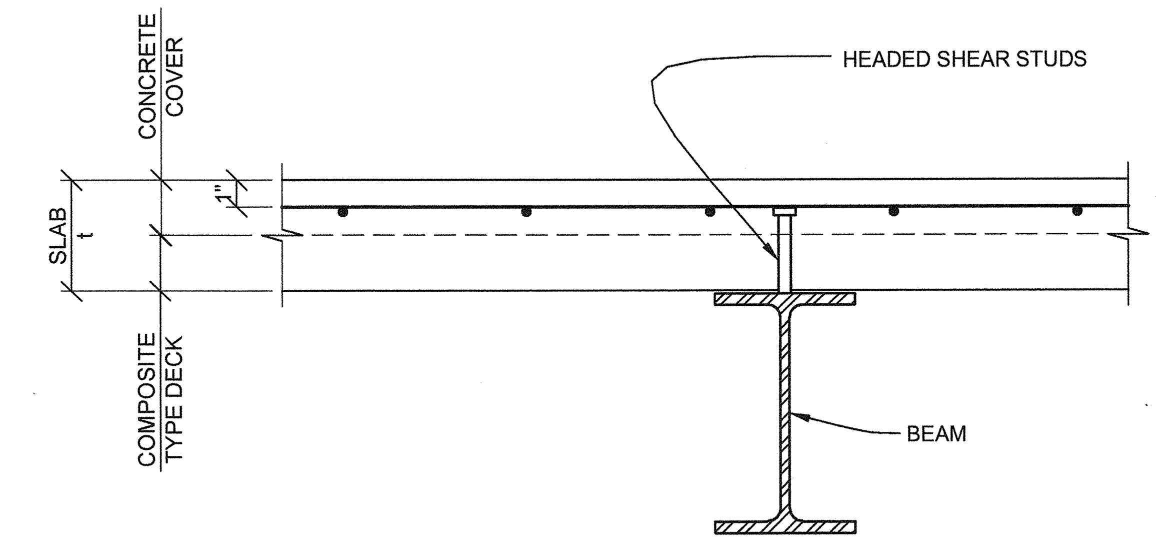
DECK PERPENDICULAR OR SKEWED TO BEAM

NOTES:
1. HEADED SHEAR STUDS TO BE 3/4"ØX4 1/2" LONG AFTER WELDING.
2. THE MINIMUM NUMBER OF STUDS REQUIRED IS SHOWN AS [X] ON FRAMING PLANS. NO STUDS ARE REQUIRED WHERE [O] APPEARS OR WHERE NO DESIGNATION IS GIVEN. ADDITIONAL STUDS MAY BE REQUIRED TO MEET THE ABOVE MAXIMUM SPACING REQUIREMENTS.
3. IF TWO STUDS ARE REQUIRED IN ONE FLUTE THE TRANSVERSE SPACING SHALL BE 3" MINIMUM.

A TYPICAL COMPOSITE BEAM DETAIL
NO SCALE

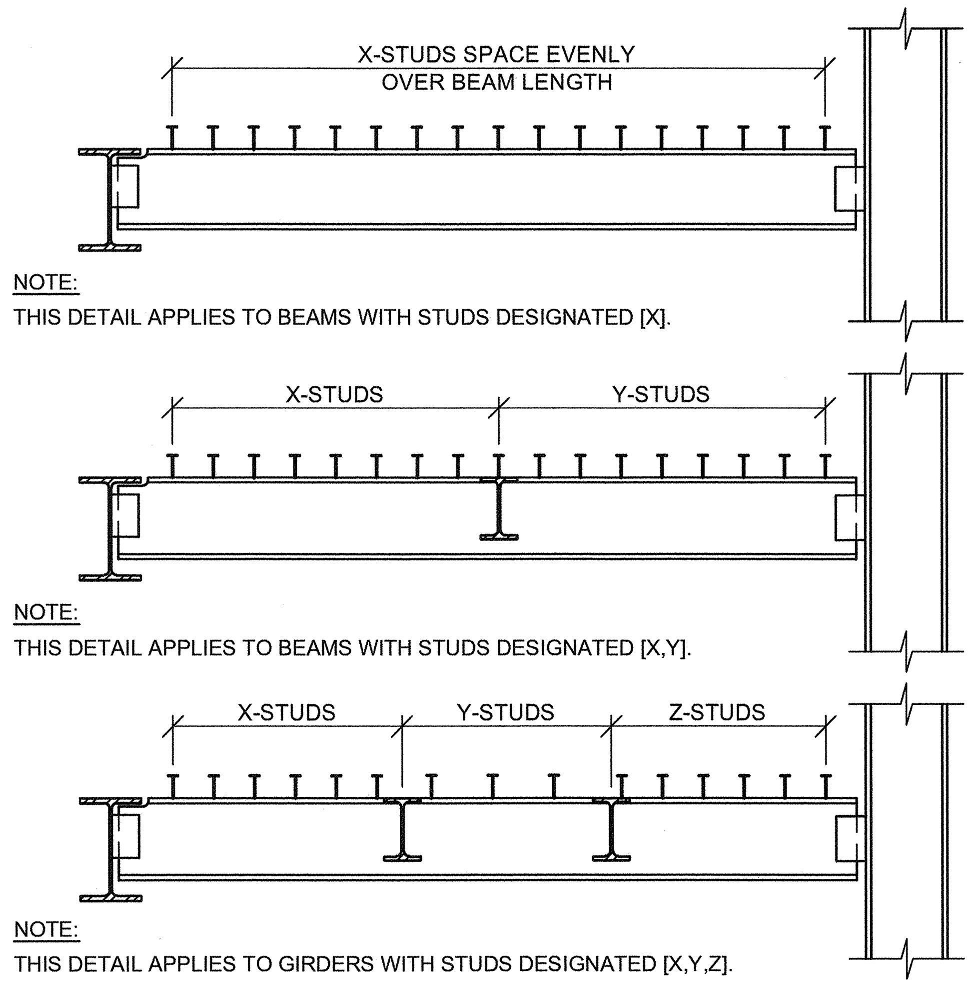


COMPOSITE BEAM OR GIRDER PARALLEL TO COMPOSITE SLAB



COMPOSITE BEAM PERPENDICULAR TO COMPOSITE SLAB

C COMPOSITE BEAM TO COMPOSITE SLAB
NO SCALE

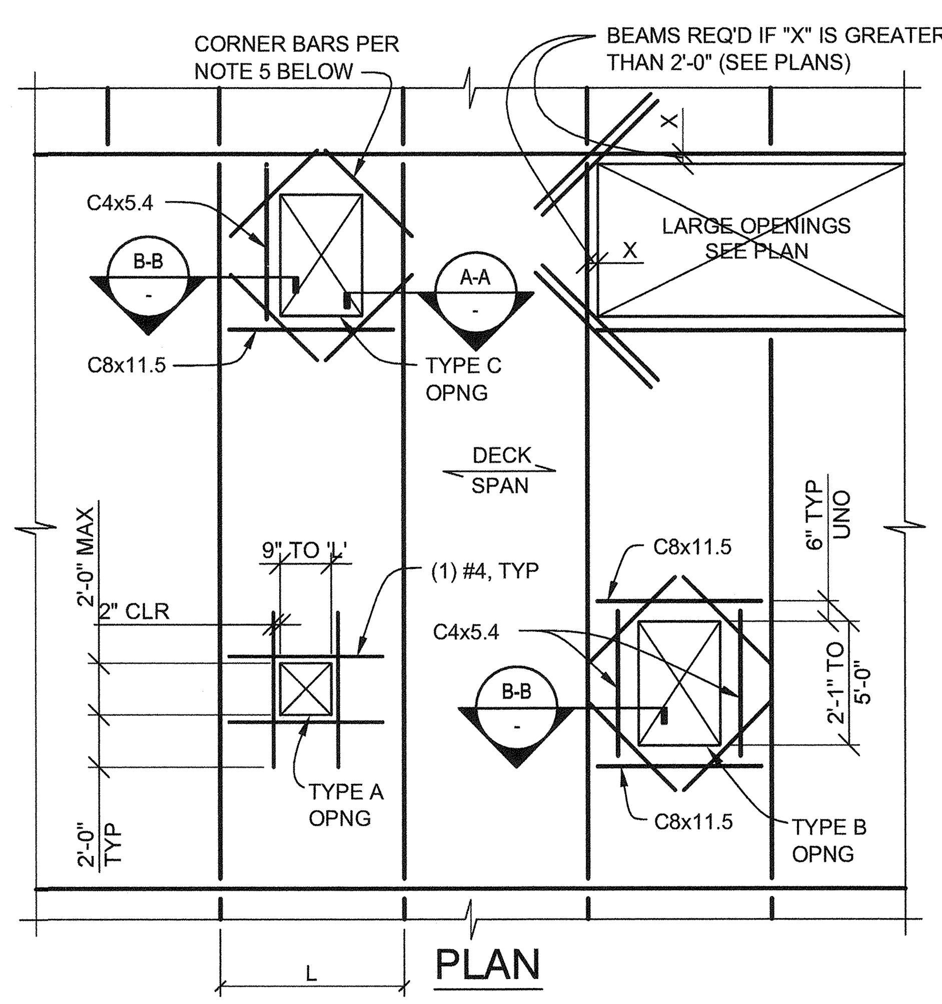


NOTE:
THIS DETAIL APPLIES TO BEAMS WITH STUDS DESIGNATED [X].

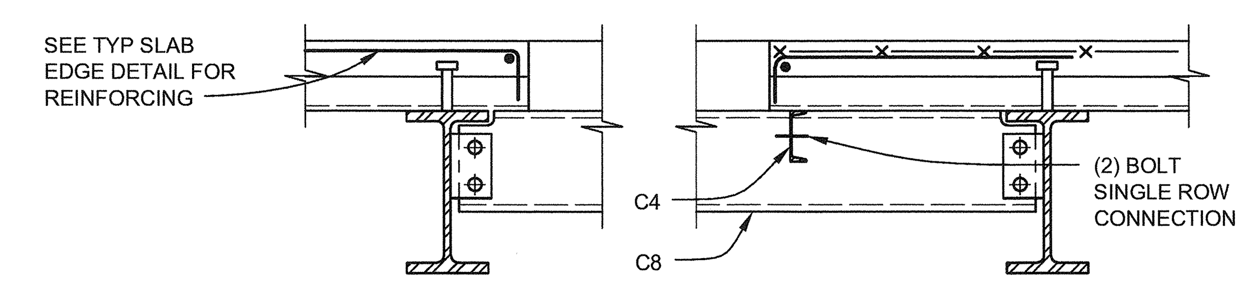
NOTE:
THIS DETAIL APPLIES TO BEAMS WITH STUDS DESIGNATED [X,Y].

NOTE:
THIS DETAIL APPLIES TO GIRDERS WITH STUDS DESIGNATED [X,Y,Z].

E TYPICAL STUD SPACING
NO SCALE



PLAN

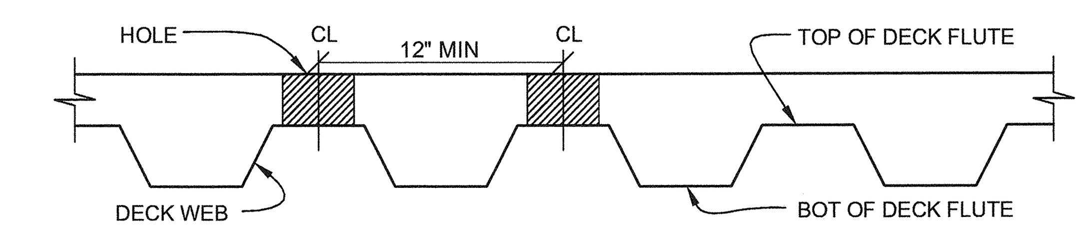


SECTION A-A

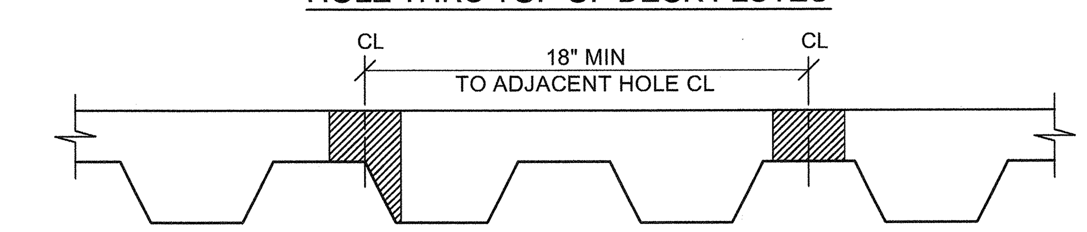
SECTION B-B

NOTES:
1. OPENINGS SMALLER THAN 9" DO NOT NEED REINFORCING.
2. OPENINGS BETWEEN 9" AND 2'-0", WITHOUT EDGE FRAMING, SHALL HAVE REINFORCING PER OPENING TYPE A.
3. BARS PARALLEL TO DECK FLUTES TO BE IN NEAREST LOWER FLUTE, 3/4" CLEAR FROM BOTTOM. BARS PERPENDICULAR TO FLUTES TO BE 3/4" CLEAR ABOVE DECKING.
4. OPENINGS LARGER THAN 2'-0" WILL REQUIRE EDGE FRAMING PER OPENING TYPES B OR C.
5. CORNER BARS TO BE PROVIDED AT ALL INSIDE CORNERS AS FOLLOWS:
   (1)#4x3'-0" FOR 6'-0" AND SMALLER OPENINGS
   (2)#4x4'-0" FOR OPENINGS LARGER THAN 6'-0".
6. BLOCK OUT UNSUPPORTED OPENINGS PRIOR TO PLACING CONCRETE. REMOVE BLOCKOUT AND CUT DECK AFTER CONCRETE HAS CURED.
7. CONTRACTOR TO COORDINATE OPENING SIZE AND LOCATION WITH ARCHITECTURAL DRAWINGS AND MECHANICAL AND ELECTRICAL CONTRACTORS.
8. EDGE FRAMING FOR OPENINGS LARGER THAN 5'-0" TO BE AS SHOWN ON FRAMING PLANS.

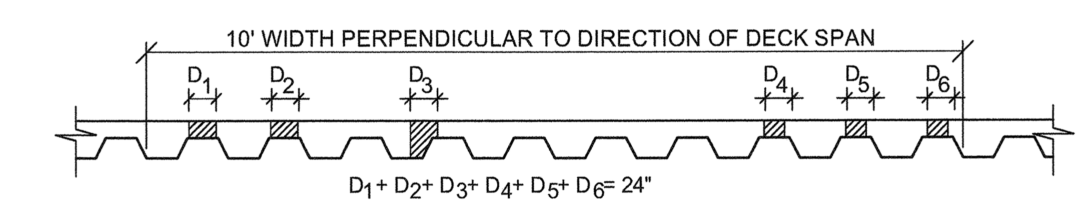
F TYPICAL SLAB OPENING DETAIL
NO SCALE



HOLE THRU TOP OF DECK FLUTES



HOLE THRU DECK WEB AND/OR BOTTOM OF DECK FLUTE

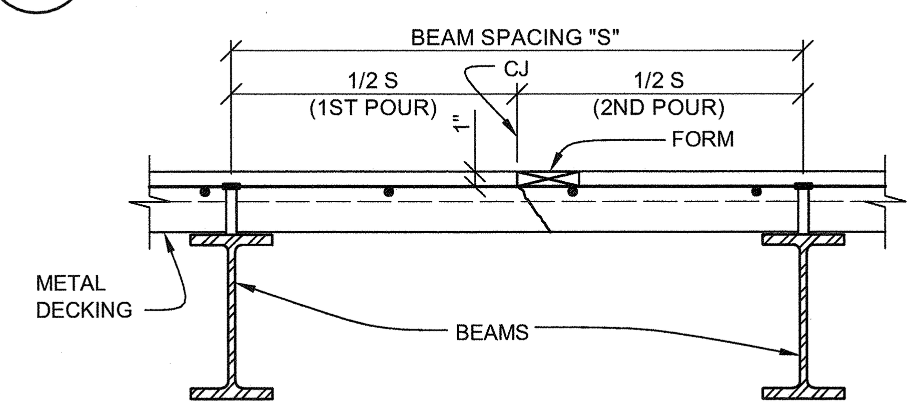


24" MAXIMUM TOTAL WIDTH OF HOLES IN 10' WIDTH

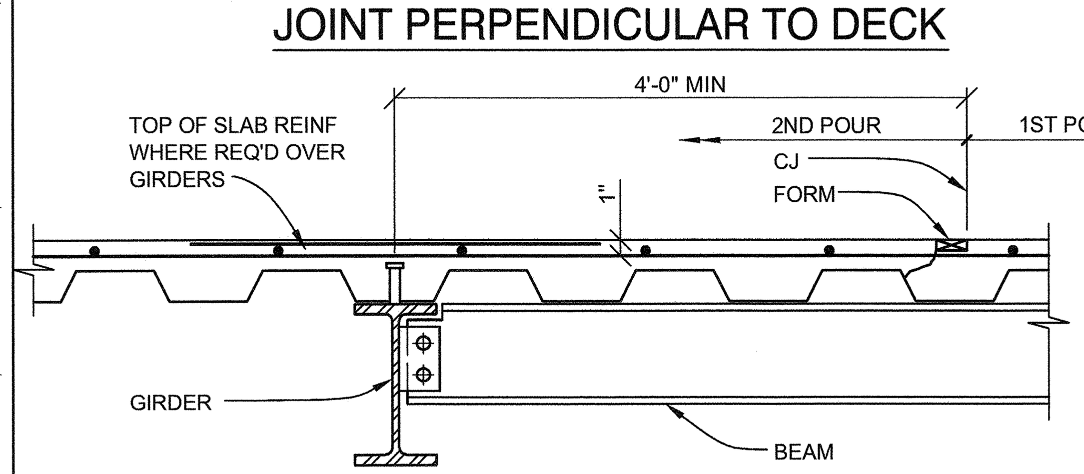
NOTES:
1. NO HOLE SHALL CUT THROUGH MORE THAN ONE DECK WEB.
2. WHERE HOLES ARE CUT AFTER CONCRETE IS PLACED, NO REBAR OTHER THAN WELDED WIRE FABRIC SHALL BE CUT.

CRITERIA FOR CUTTING ROUND HOLES < 6"Ø IN SLAB ON METAL DECK W/O DECK REINFORCEMENT

H HOLES IN SLAB DECK
NO SCALE

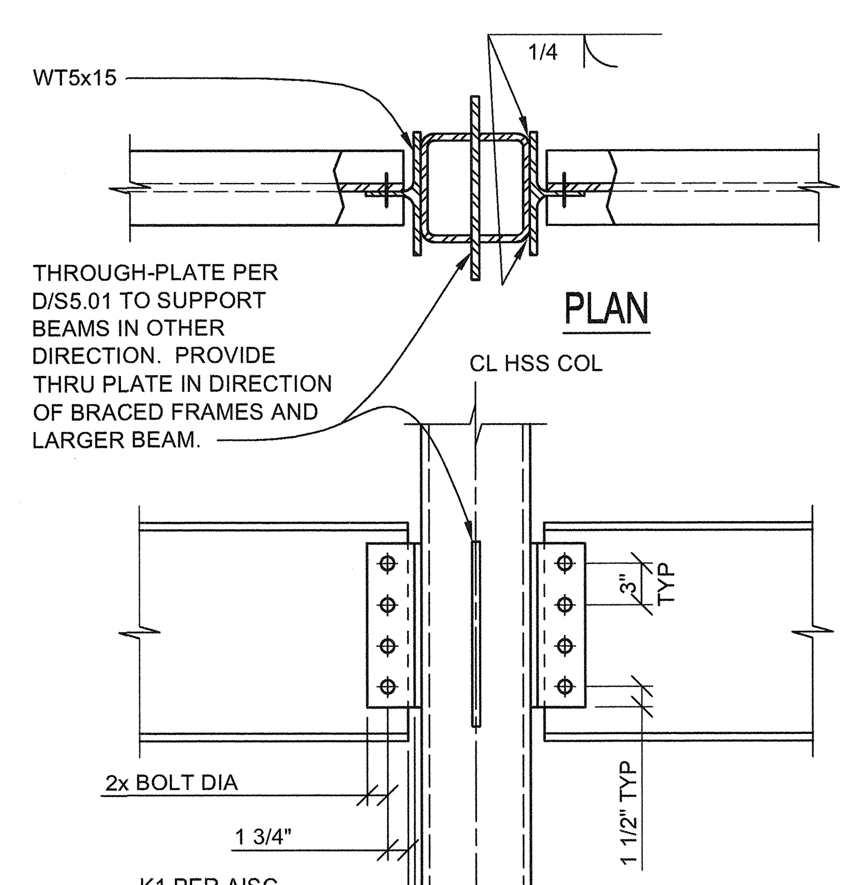


JOINT PERPENDICULAR TO DECK



JOINT PARALLEL TO DECK

J CONST JOINT FOR SLAB ON METAL DECK W/COMPOSITE BMS
NO SCALE



K BEAM-TO-HSS CONNECTION, BEAMS IN BOTH DIRECTIONS
NO SCALE

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Seattle, Washington 98101
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MARK:	REVISION:	BY:	APPR:	DATE:

STATE OF WASHINGTON — LOVING ROBERTS — 38538 — PROFESSIONAL STRUCTURAL ENGINEER — 9/11/15

APPROVED: 3-28-16
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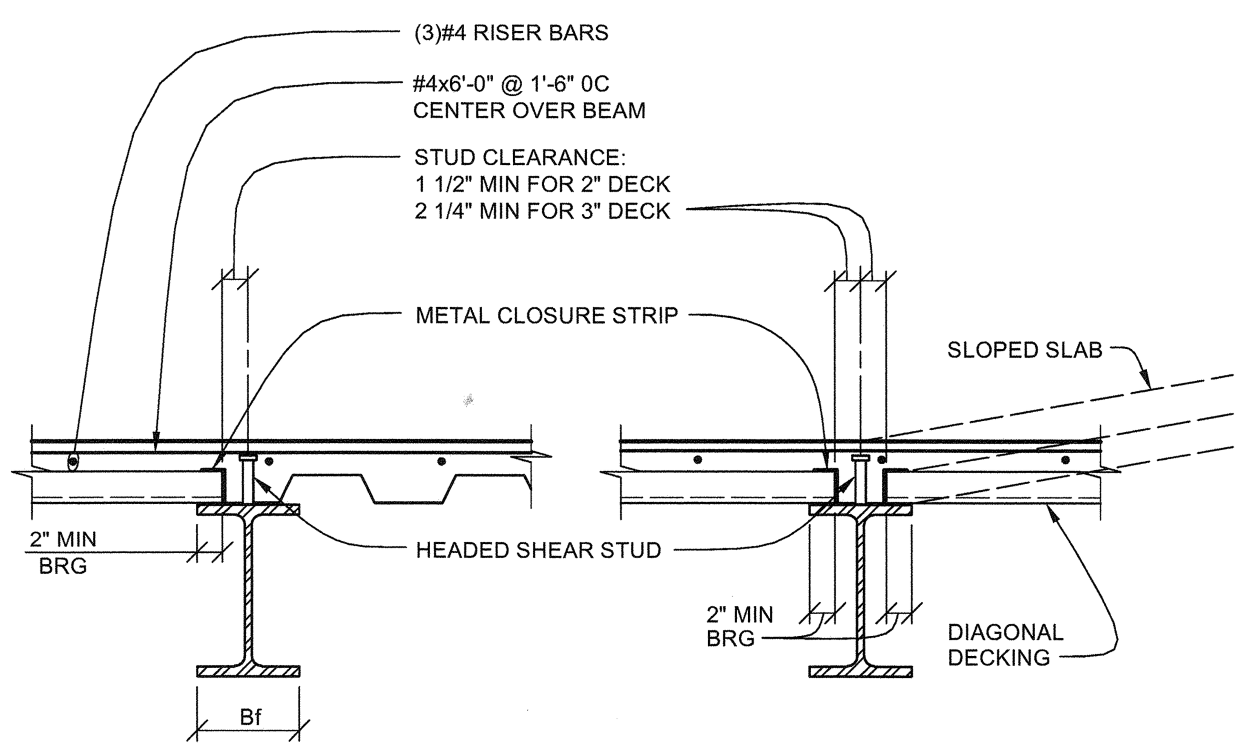
PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837

PIER 4 PHASE 2
MARINE BUILDING
Typical Steel Details

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:		DRAWING SCALE: AS NOTED

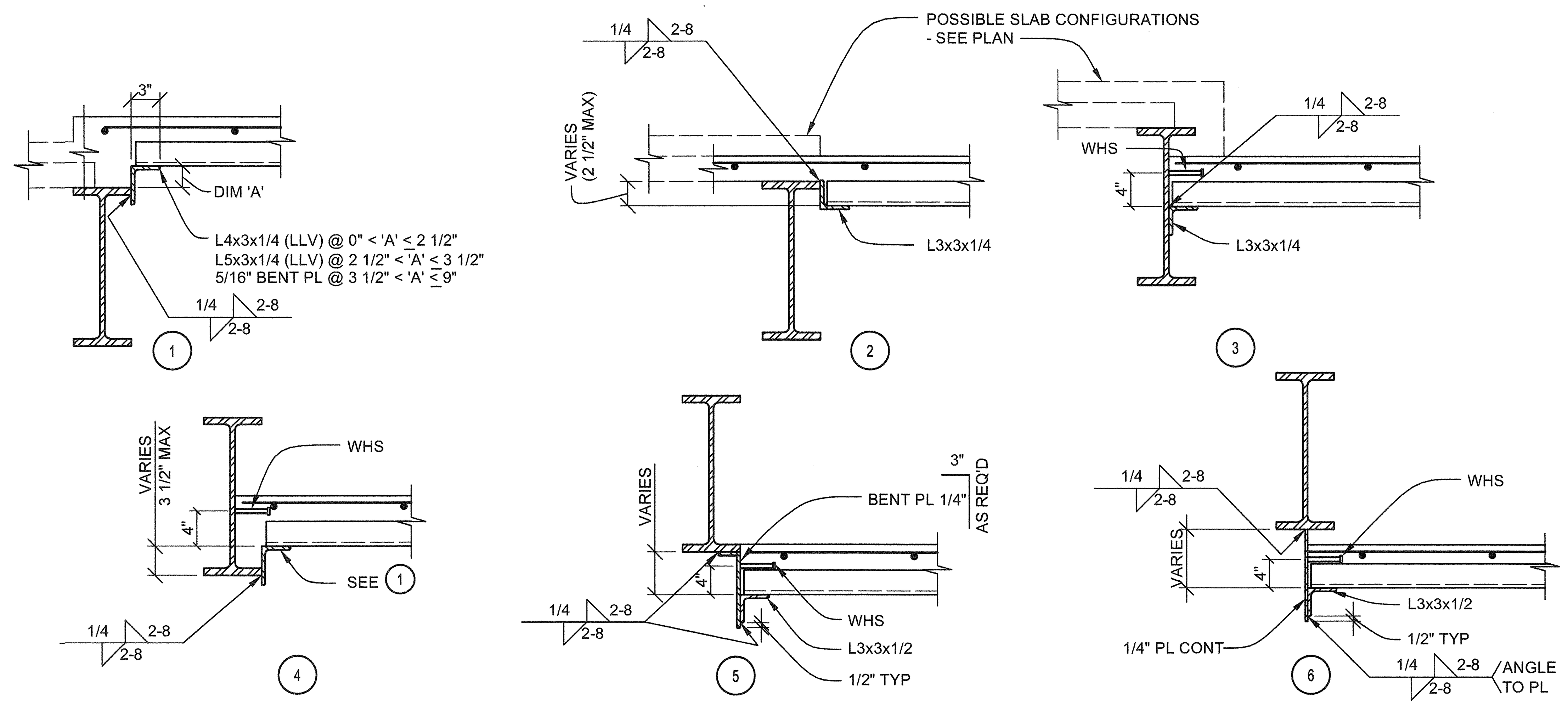
6552
S5.02
SH # 463 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

BINDING EDGE



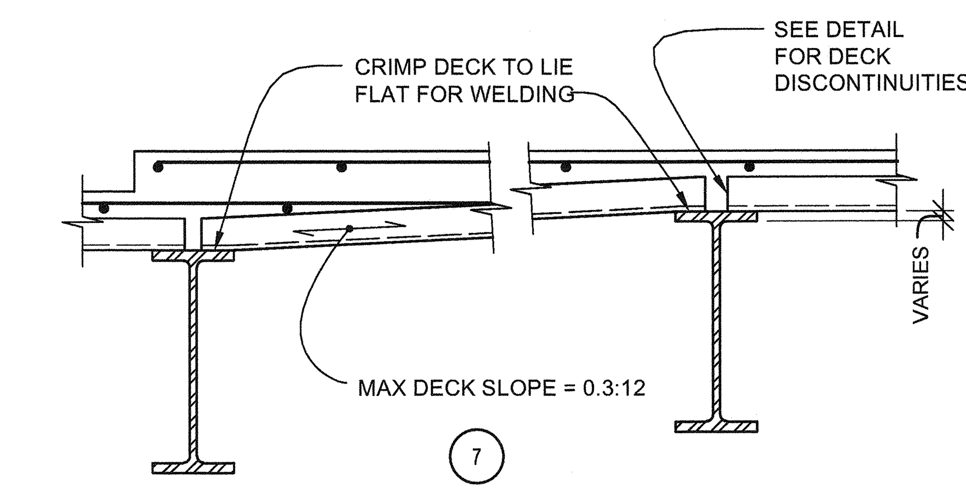
NOTE:
FOR CONTINUOUS METAL CLOSURE STRIPS - MINIMUM BEAM WIDTH b_f= 7" FOR 2" DECK AND 8 1/2" FOR 3" DECK. FOR NARROWER BEAMS USE INDIVIDUAL CLOSURES AT EACH HIGH DECK FLUTE. 2" MINIMUM BEARING CONTROLS.

A TYPICAL DETAILS AT DECK DISCONTINUITIES
NO SCALE

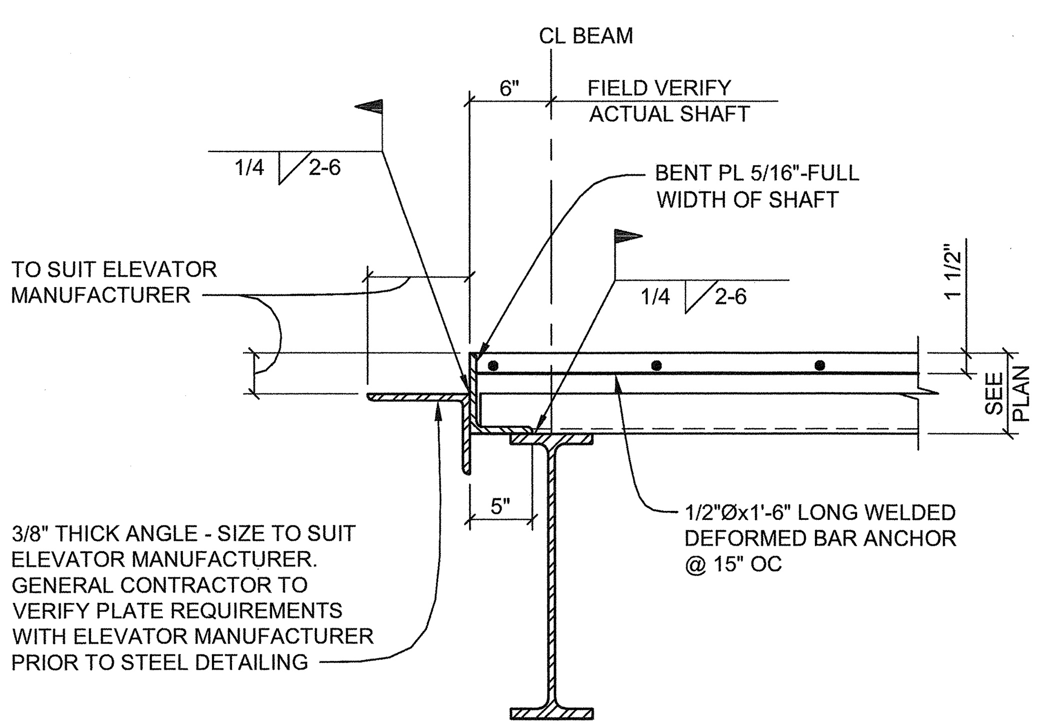


B VARIOUS TYPICAL SLAB SUPPORT CONDITIONS
NO SCALE

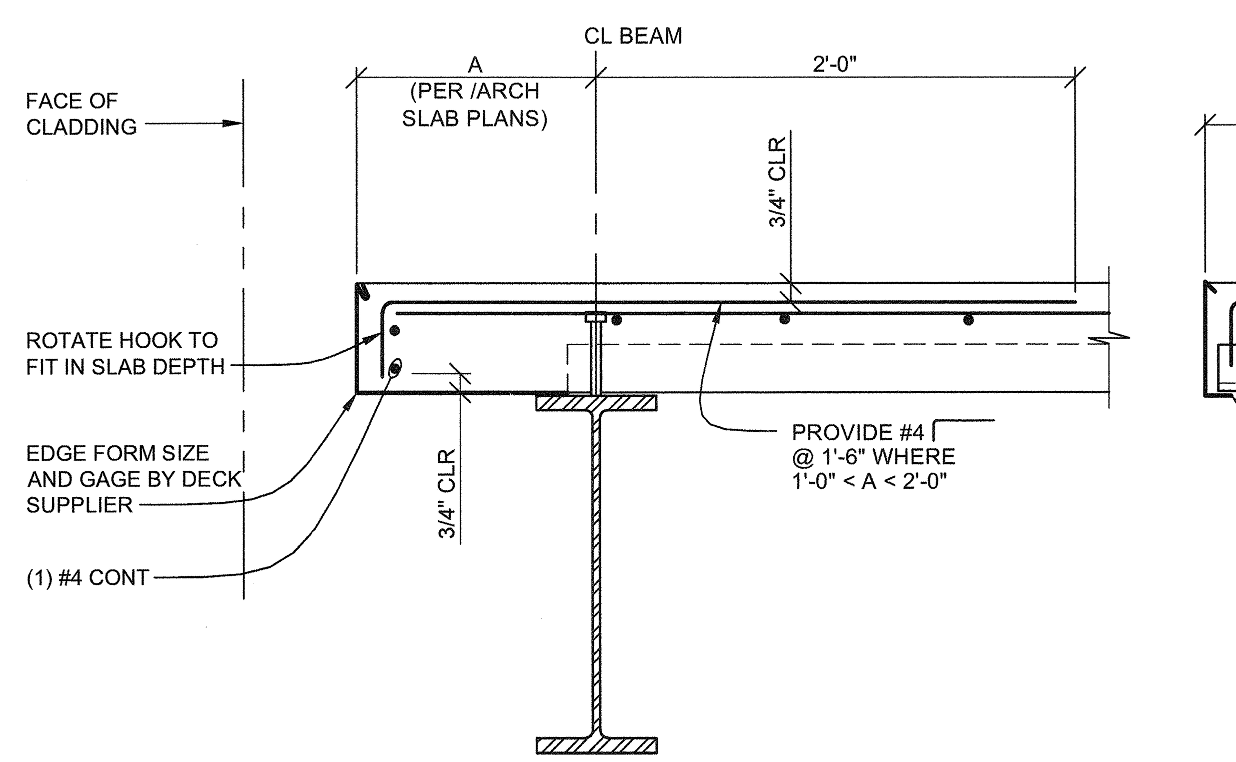
NOTES:
1. DECK WELDING TO BE PER STRUCTURAL NOTES, UNO.
2. DECK MAY SPAN IN DIRECTIONS OTHER THAN SHOWN.
3. HEADED STUDS (WHS) TO BE 3/4"Ø x4" @ 12" OC, UNO. ALIGNED WITH DEEP DECK FLUTES.



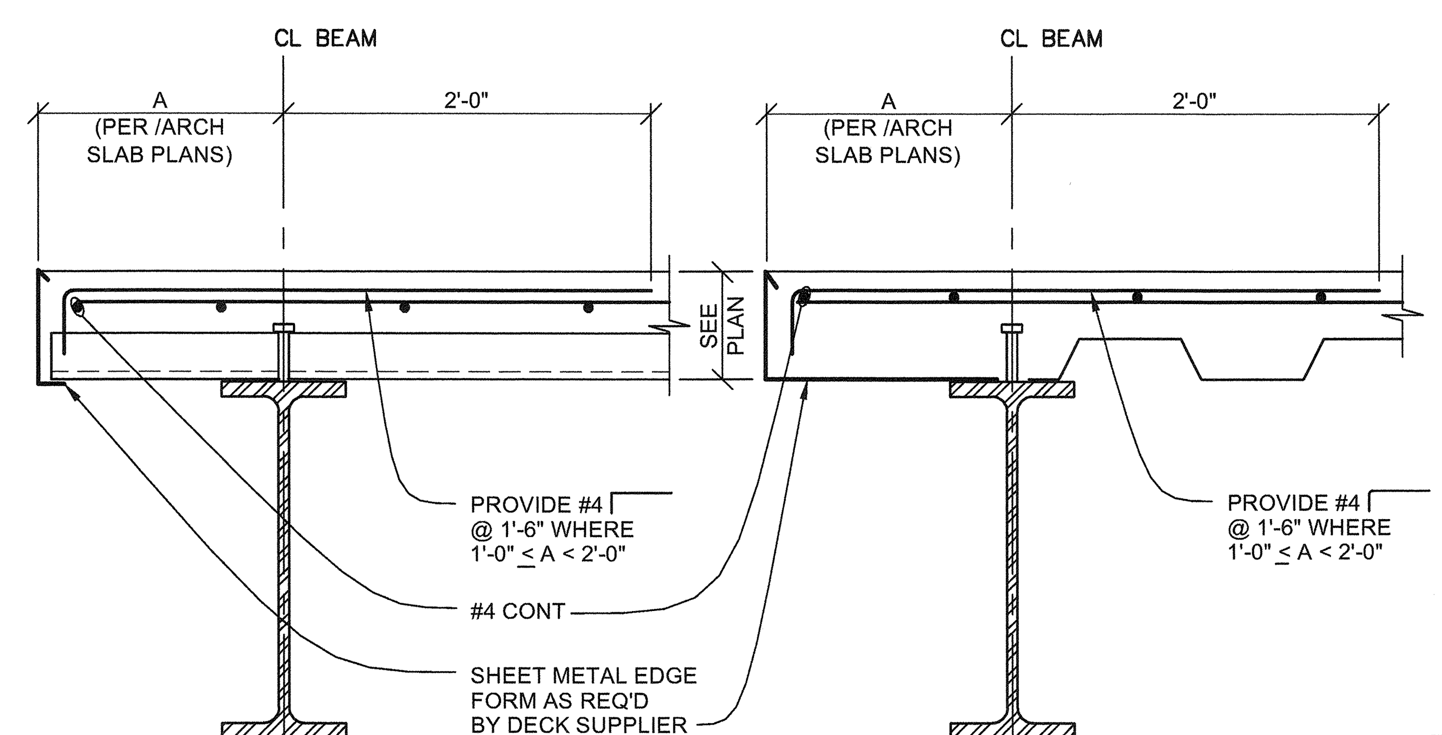
ALTERNATE SLOPED DECK CONDITION AT SLAB STEP



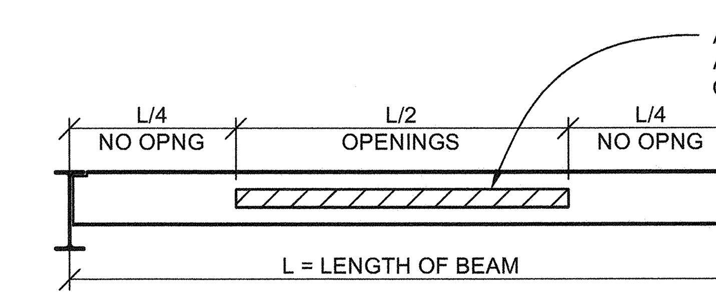
E SLAB EDGE AT ELEVATOR INDOOR SILLS
NO SCALE



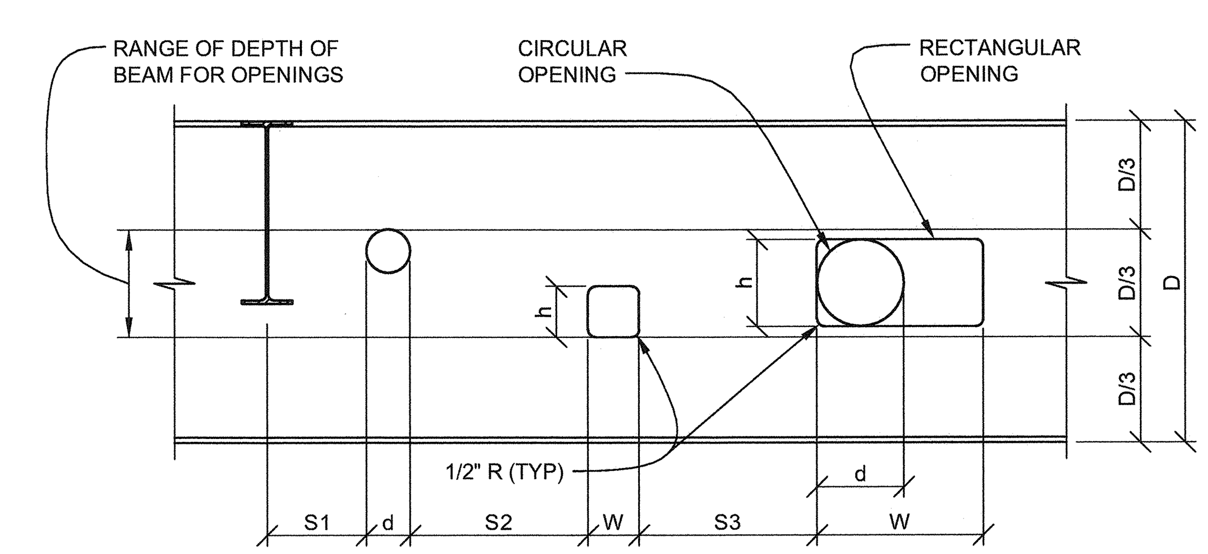
F TYPICAL SLAB EDGE AT PERIMETER
NO SCALE



G TYPICAL SLAB EDGE AT OPENING
NO SCALE



RANGE OF WEB OPENINGS ALONG LENGTH OF BEAM



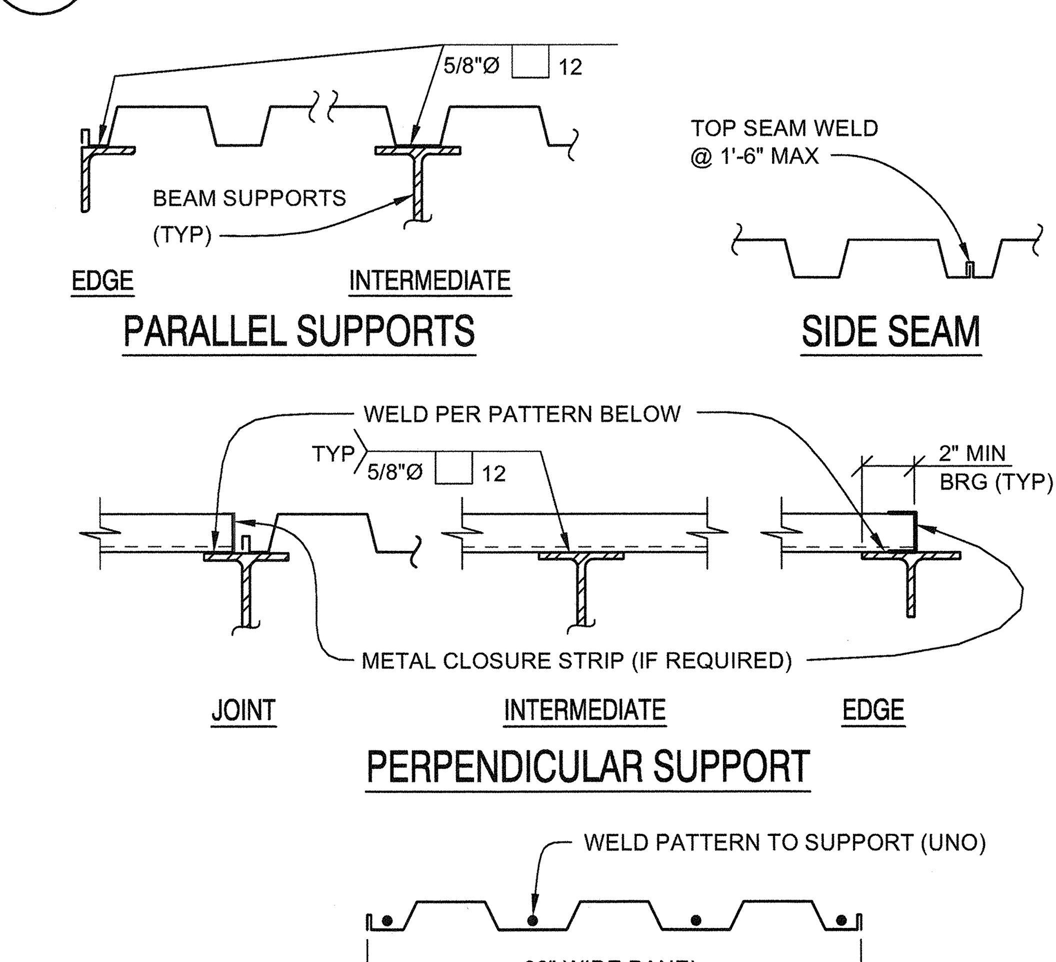
d = DIA CIRCULAR OPENING ≤ D/3
h = HEIGHT RECTANGULAR OPENING ≤ D/4
W = WIDTH RECTANGULAR OPENING ≤ D/4

S1 = MIN DISTANCE TO CL TRANSVERSE MEMBER = D OR 12", WHICHEVER IS LARGER.
S2 OR S3 = MIN DISTANCE BETWEEN OPENINGS BASED ON LARGER OPENING = 3xd OR 3xh OR 3xW, WHICHEVER IS LARGER

OPENING SIZE AND SPACING

NOTES:
1. THIS DETAIL MAY BE USED FOR SHOP OR FIELD CUT OPENINGS WITHOUT CONSULTING THE STRUCTURAL ENGINEER. ANY OPENING OUTSIDE THESE CONSTRAINTS MUST BE APPROVED BY THE STRUCTURAL ENGINEER.
2. ALL FIELD CUT OPENINGS MUST MEET THERMAL CUTTING REQUIREMENTS IN CHAPTER M OF AISC 360.

M RANGE OF ALLOWABLE BEAM WEB PENETRATIONS ALONG LENGTH OF BEAM
NO SCALE



J TYPICAL FLOOR DECK WELDING
NO SCALE

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3-28-16
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PIER 4 PHASE 2
MARINE BUILDING
Typical Steel Details

TOWNSHIP: | RANGE: | SECTION:
DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: | DRAWING SCALE: AS NOTED

6552
S5.03
SH # 464 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

Path: U:\115000-115350\115206 (POT Pier 4 Marine Building)\04 Details\P4MB_S5.03.dwg Plot date: Feb 18, 2016-10:01:09am CAD User: dianel.
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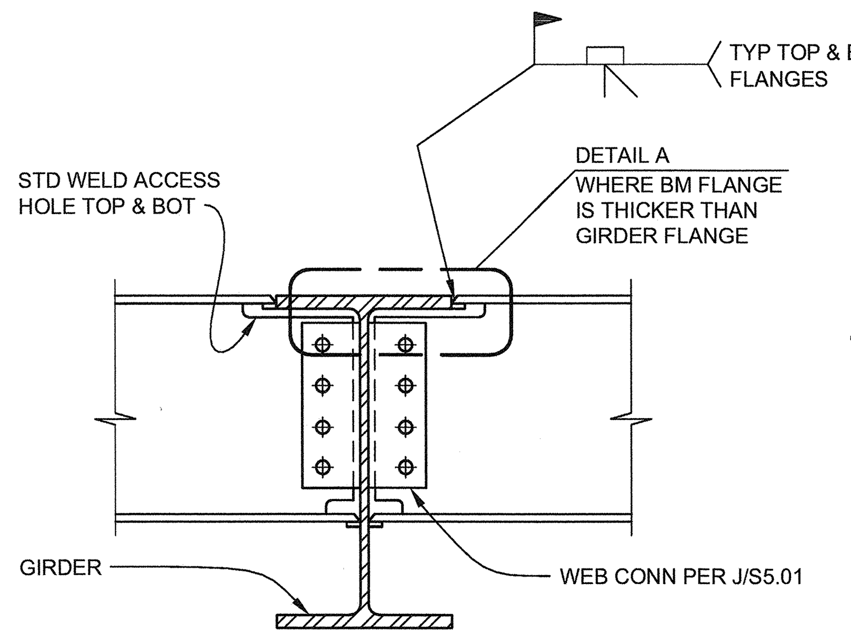
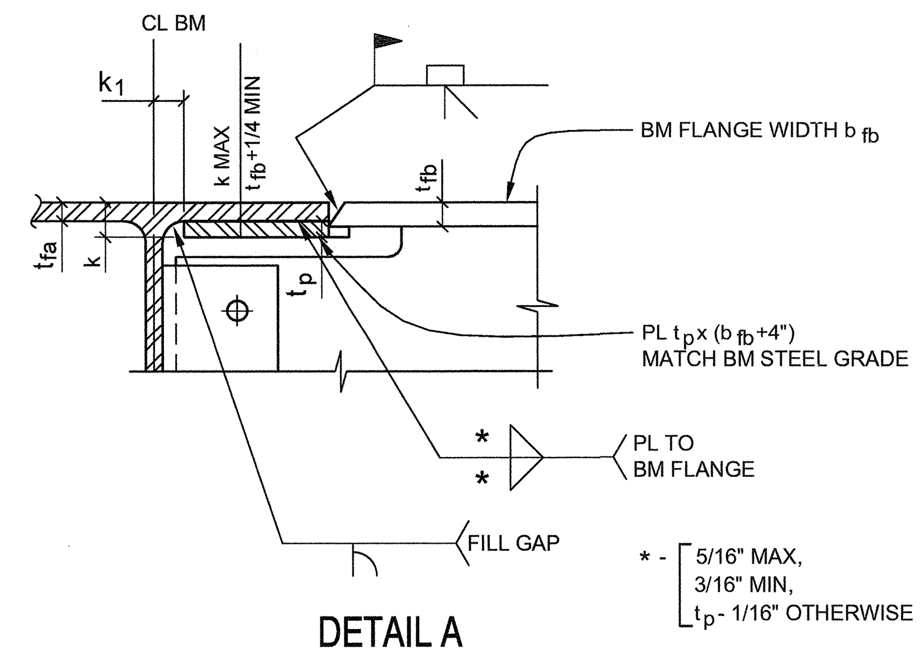
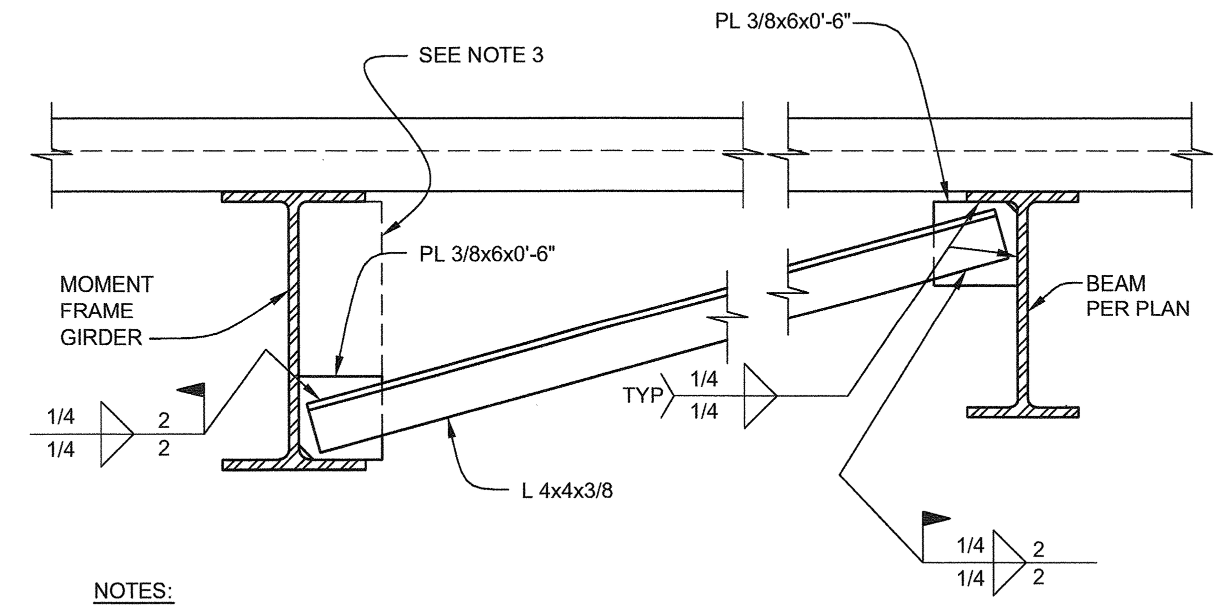




DETAIL A

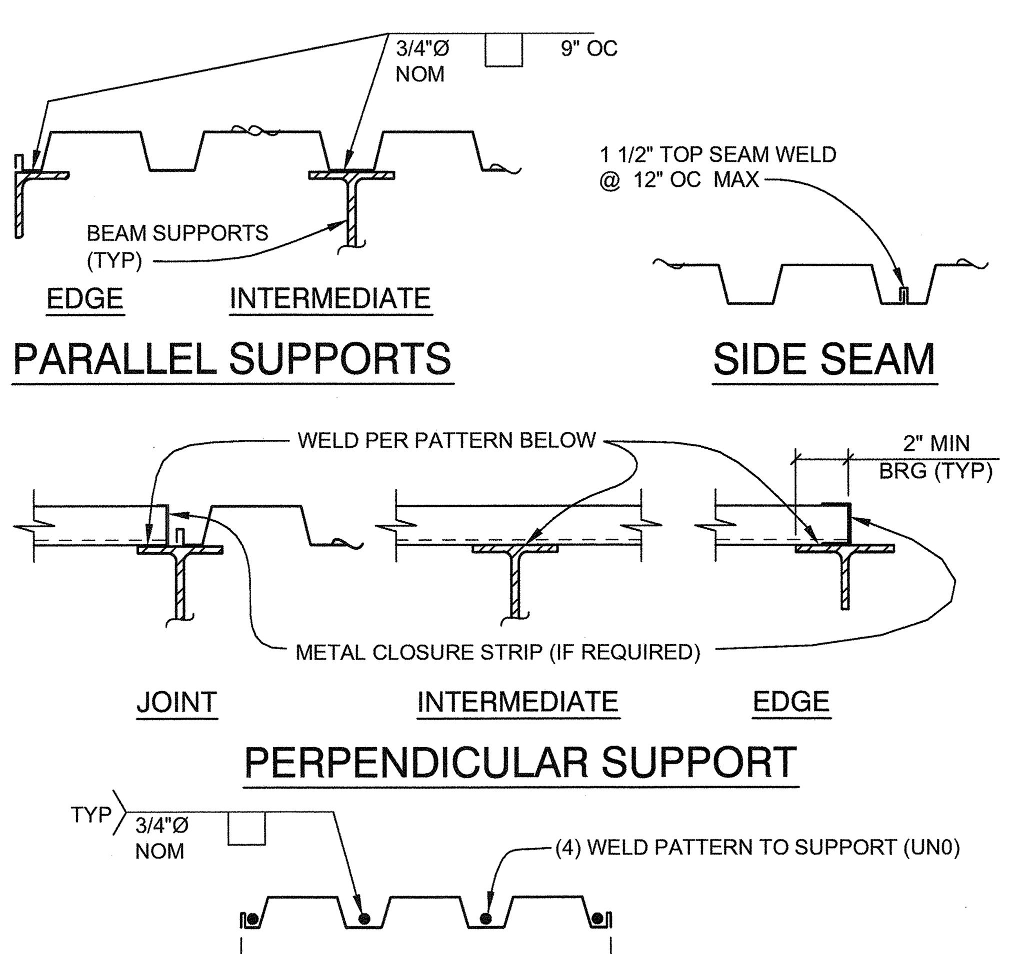
NOTES:
1. USE WHERE INDICATED BY ON PLAN.
2. PLATE THICKNESS "tp" DEFINED BY REQ'D TOTAL BUILT-UP BM FLANGE THICKNESS, (TO THE NEAREST 1/16 INCH) BUT NOT LESS THAN 1/4".

A TYPICAL MOMENT/DRAG STRUT CONN AT BEAM
NO SCALE

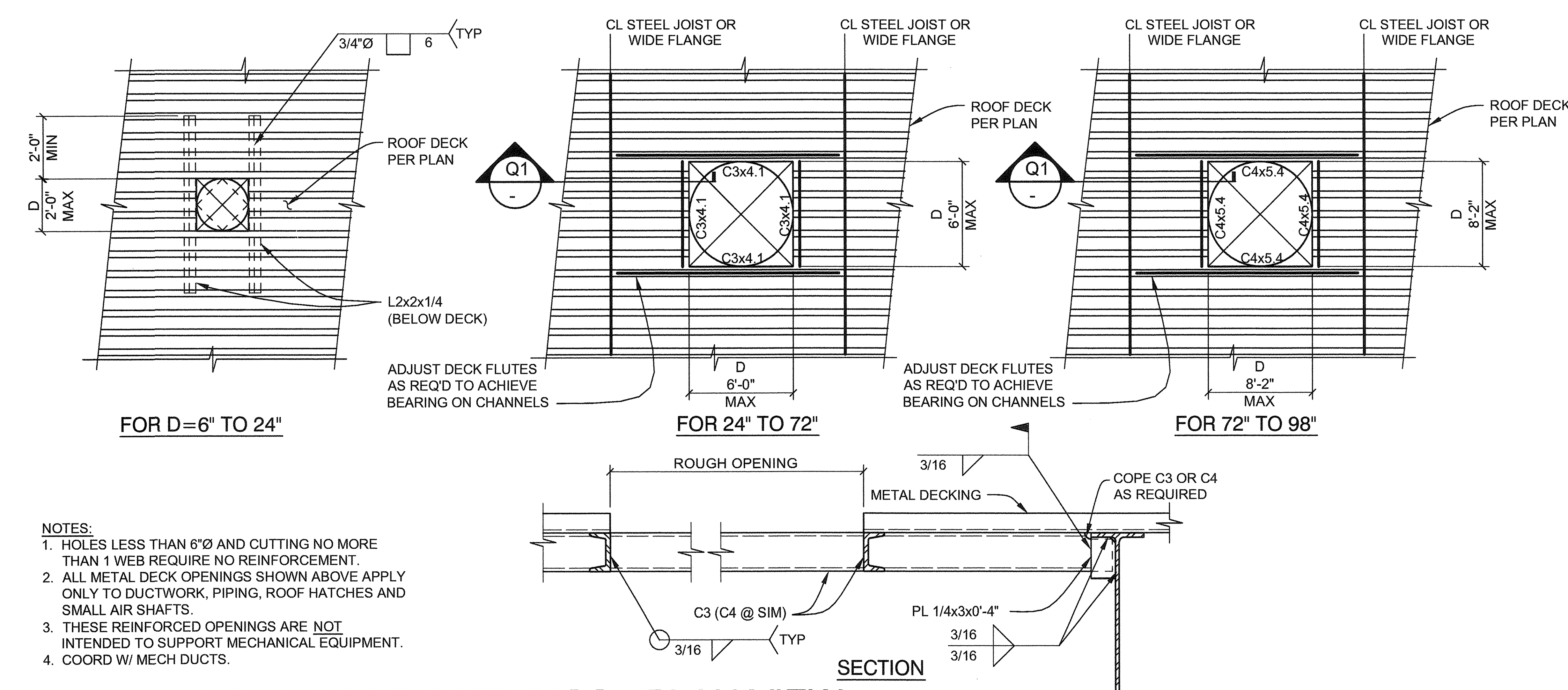


NOTES:
1. LOCATE BRACING AT MID-SPAN OF GIRDERS, UNO.
2. DESIGNATION ON PLAN. ARROW POINTS TO BEAM WITH BOTTOM FLANGE BRACE CONNECTION.
3. SEE M/S5.07 FOR WHERE FULL-HT STIFFENER IS REQUIRED.

C TYPICAL BEAM BOTTOM FLANGE BRACING
NO SCALE



J TYPICAL ROOF DECK WELDING
NO SCALE



NOTES:
1. HOLES LESS THAN 6"Ø AND CUTTING NO MORE THAN 1 WEB REQUIRE NO REINFORCEMENT.
2. ALL METAL DECK OPENINGS SHOWN ABOVE APPLY ONLY TO DUCTWORK, PIPING, ROOF HATCHES AND SMALL AIR SHAFTS.
3. THESE REINFORCED OPENINGS ARE NOT INTENDED TO SUPPORT MECHANICAL EQUIPMENT.
4. COORD W/ MECH DUCTS.

K TYPICAL ROOF OPENINGS - PLAN VIEW
NO SCALE

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PROFESSIONAL ENGINEER
9/11/15

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TACOMA, WA 98401-1837

PIER 4 PHASE 2
MARINE BUILDING
Typical Steel Details

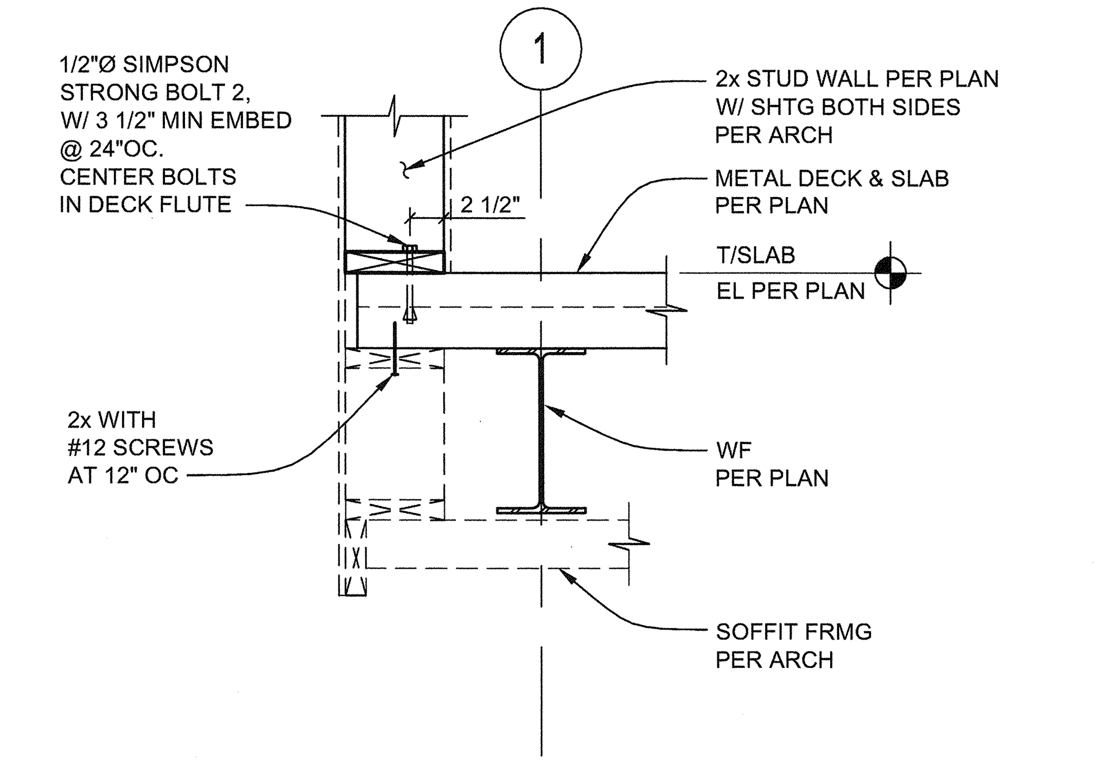
TOWNSHIP:	RANGE:	SECTION:	
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933		
PARCEL:	DRAWING SCALE: AS NOTED		

6552
S5.04
SH # 465 OF # 499

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

Path: U:\115000-115350\115206 (POT Pier 4 Marine Building)\04 Details\P4MB_S5.04.dwg Plot date: Feb 18, 2016-10:01:18am CAD User: dianel.
Xref Filename: | 3422 | P4MBxTB | P4MBxBoxA |

BINDING EDGE



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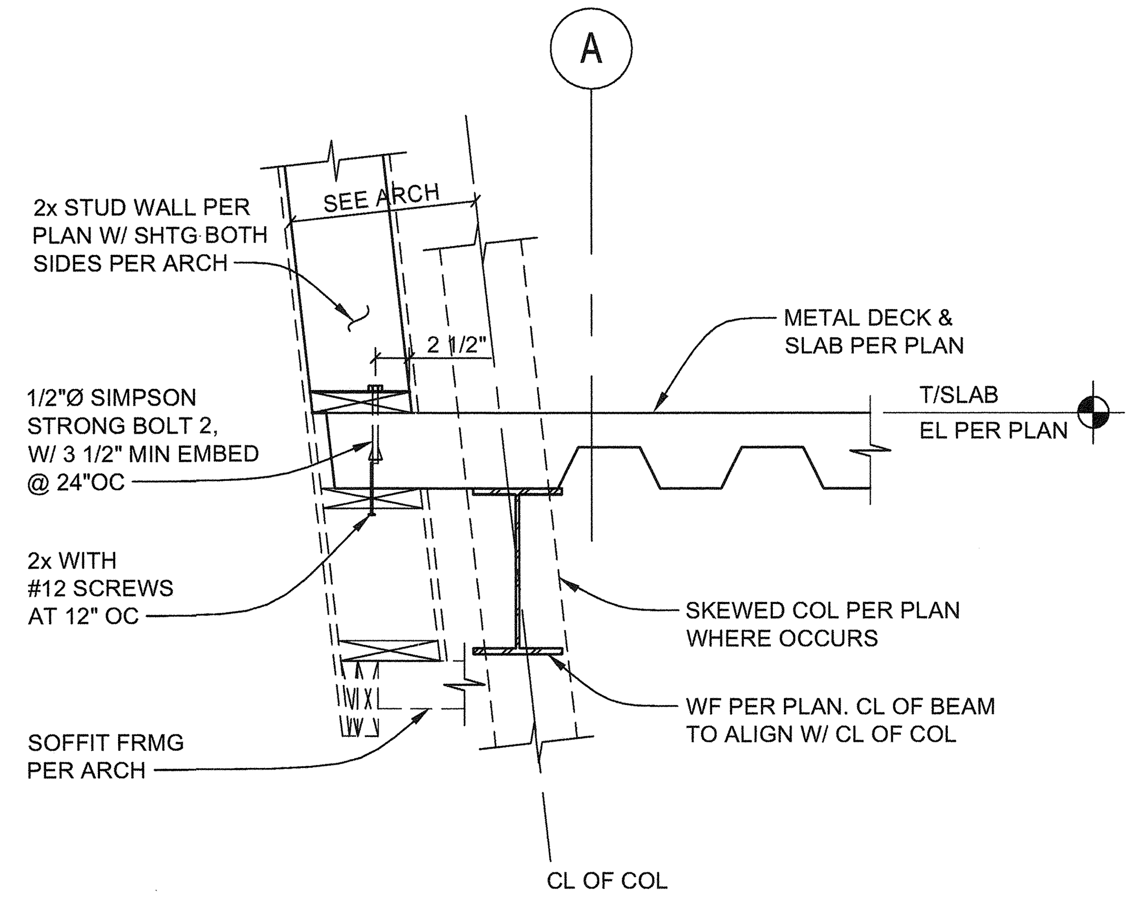

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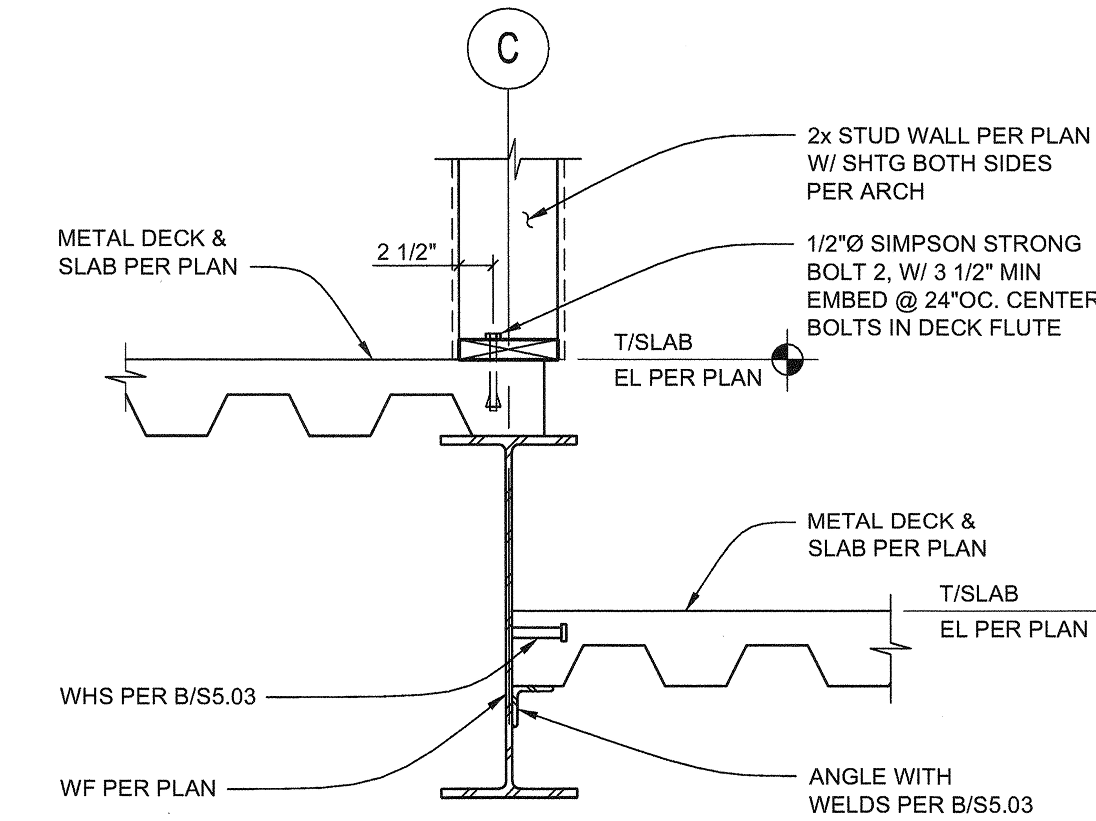

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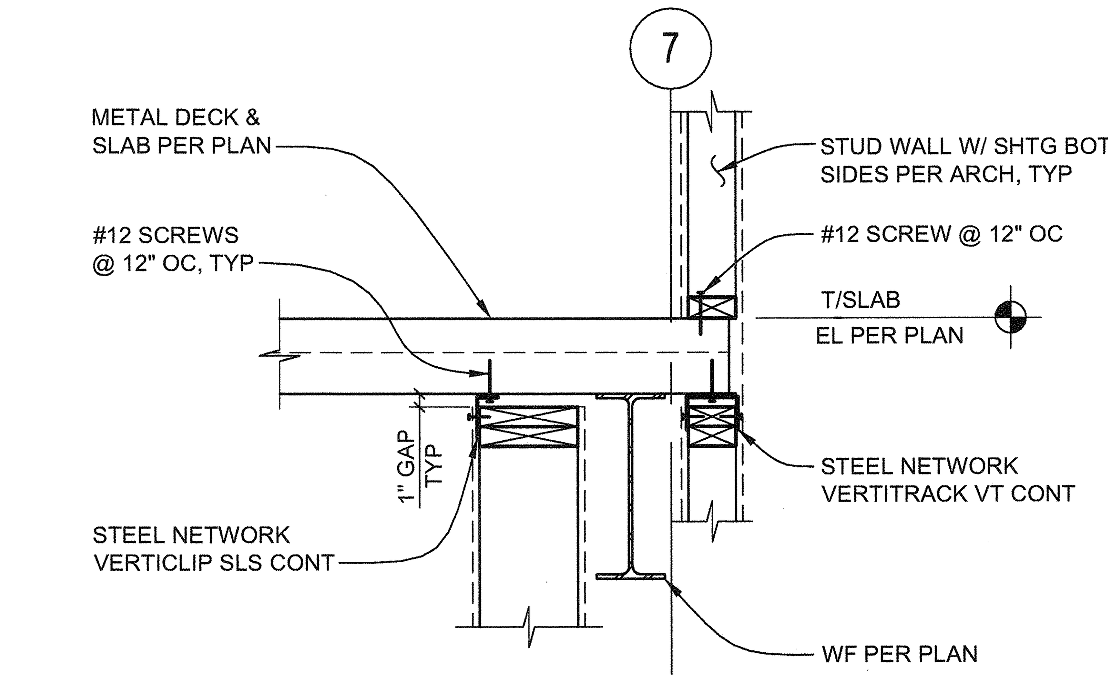

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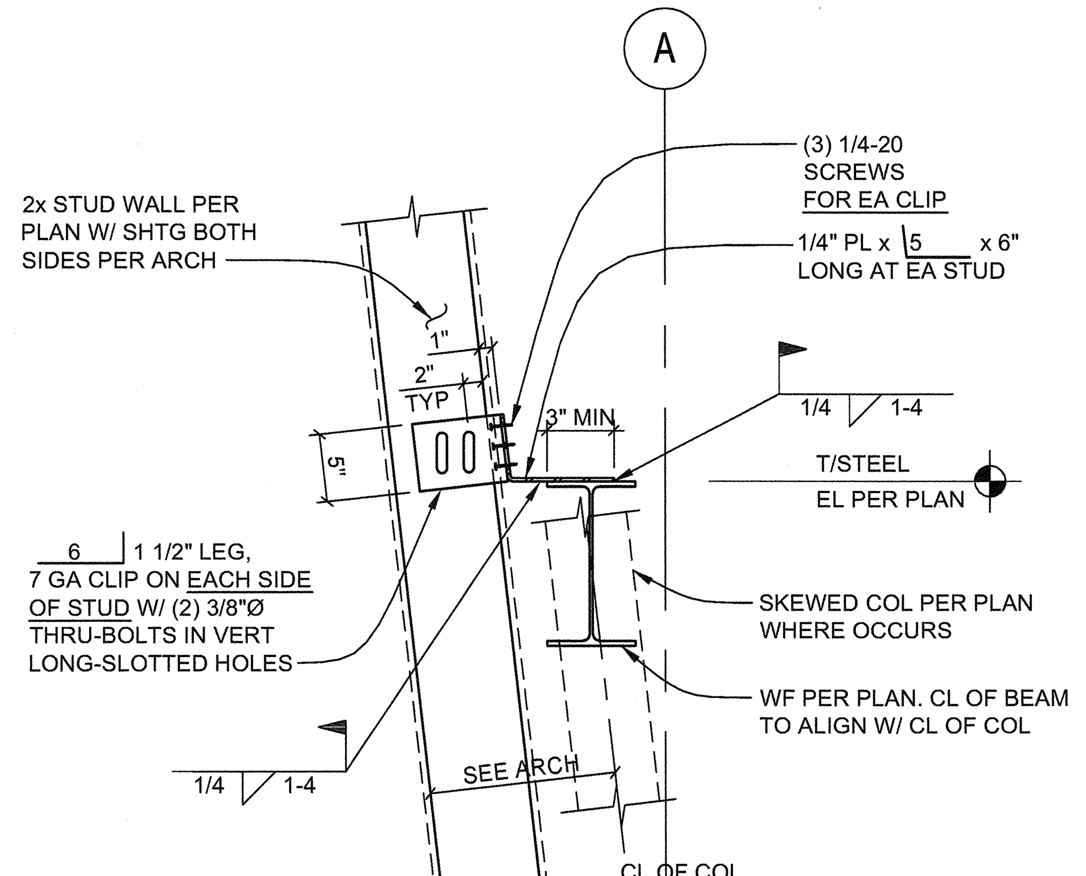

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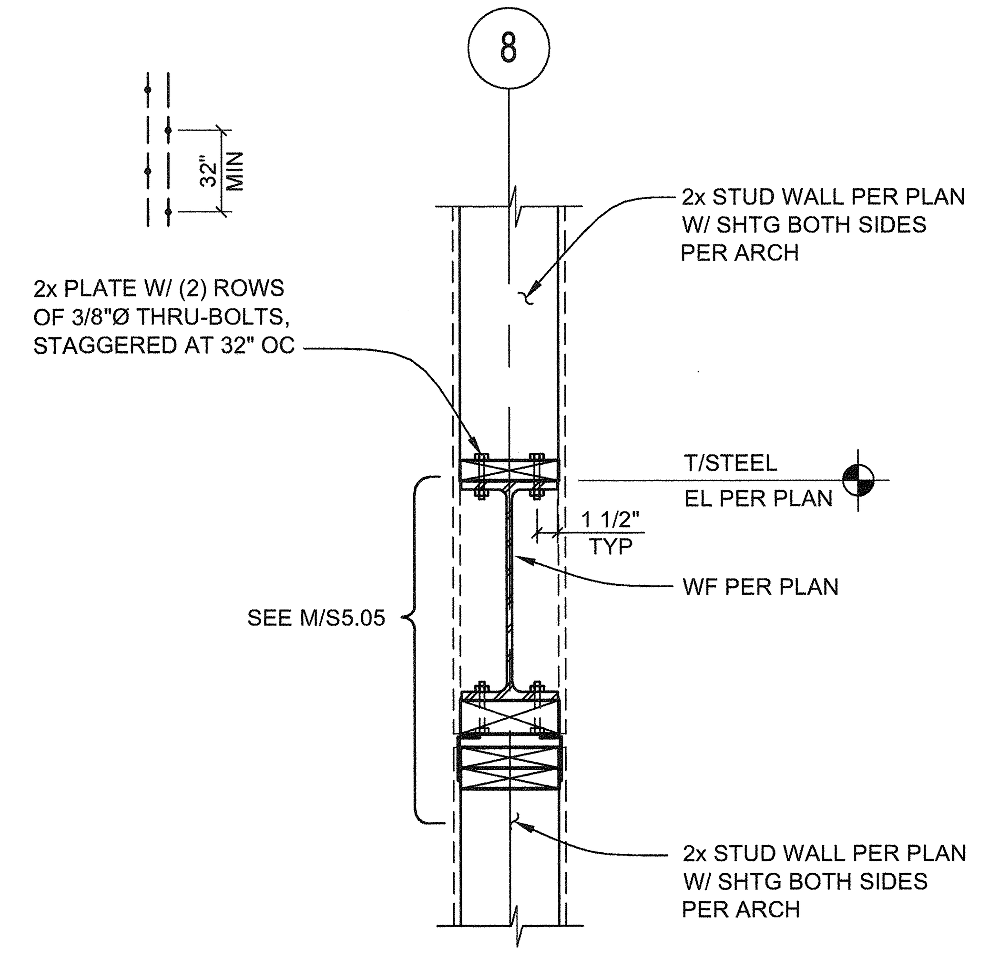

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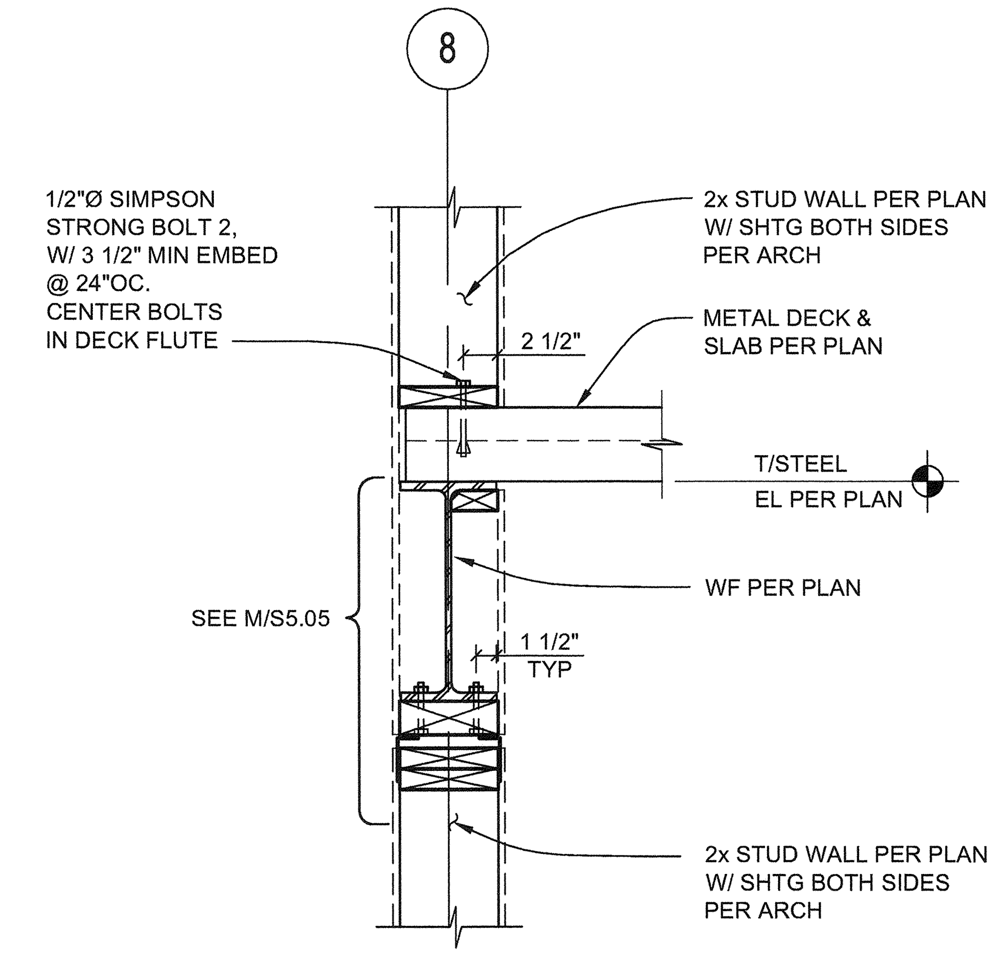

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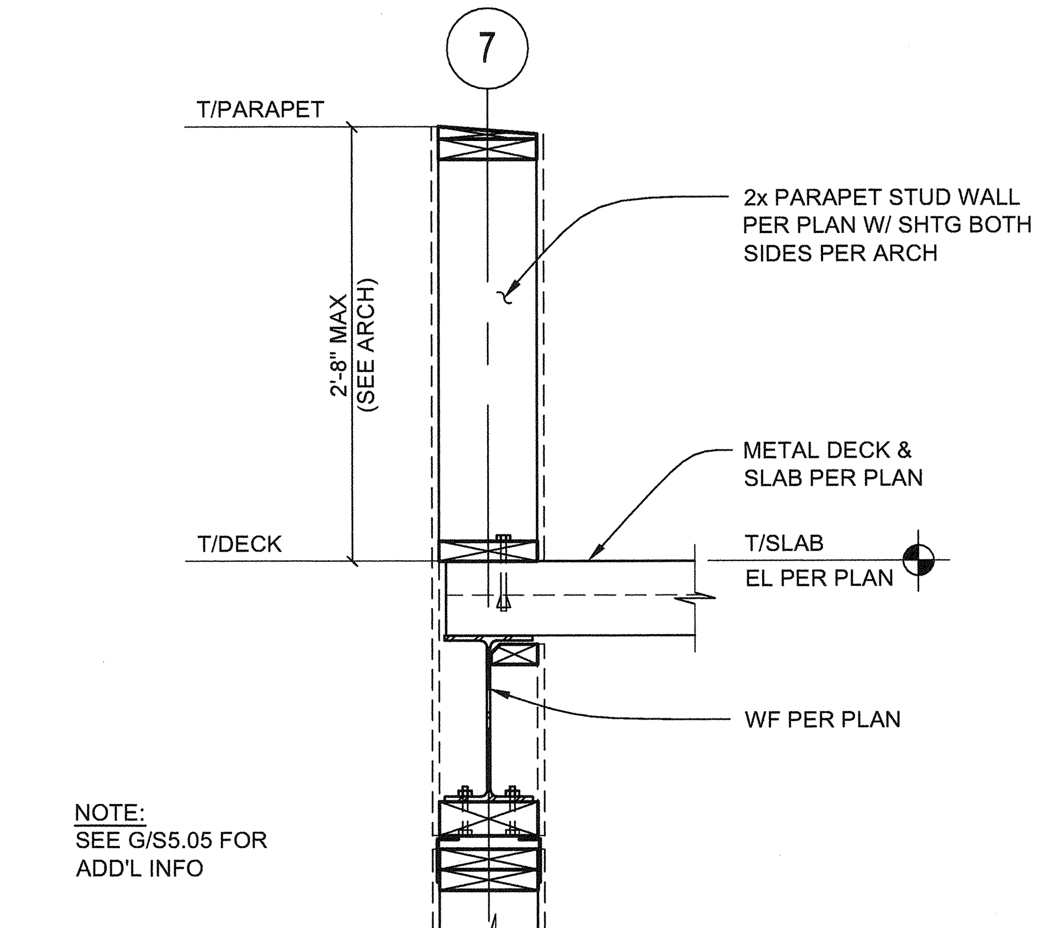

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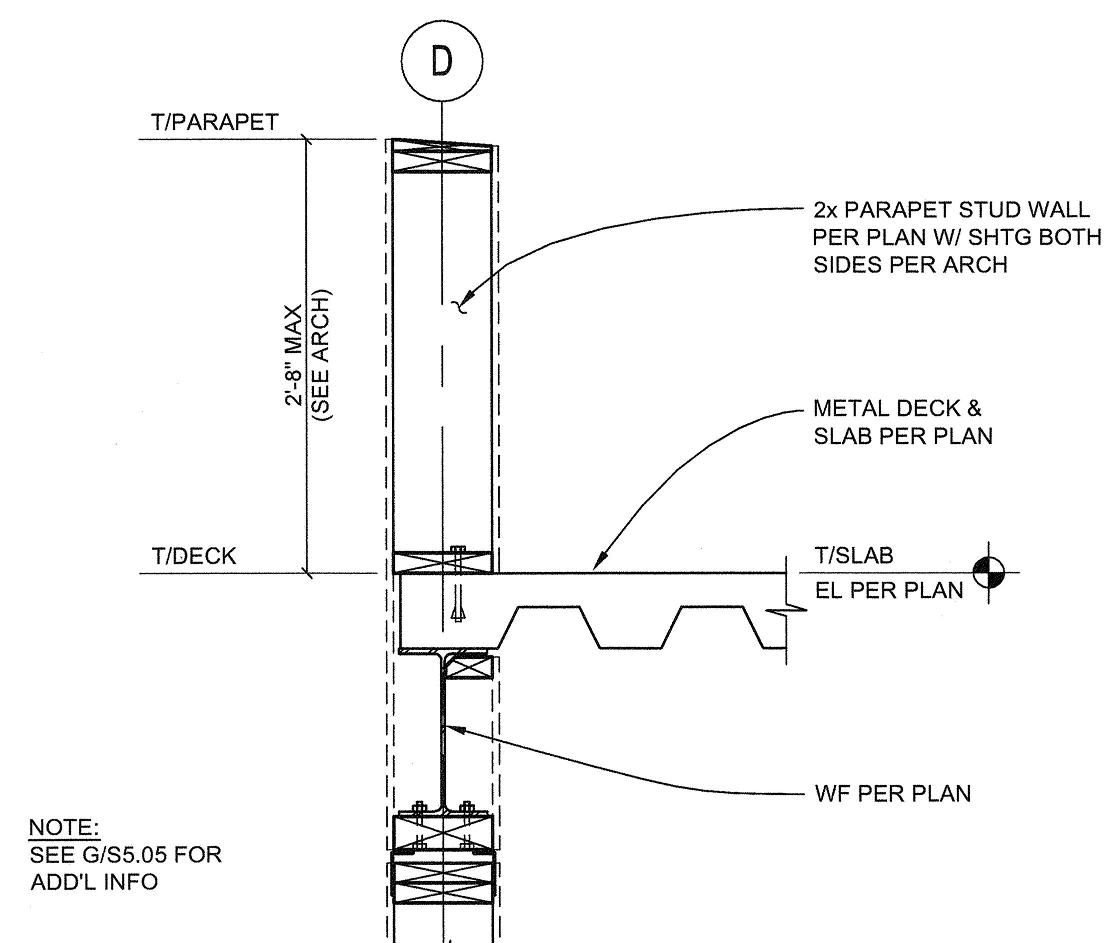

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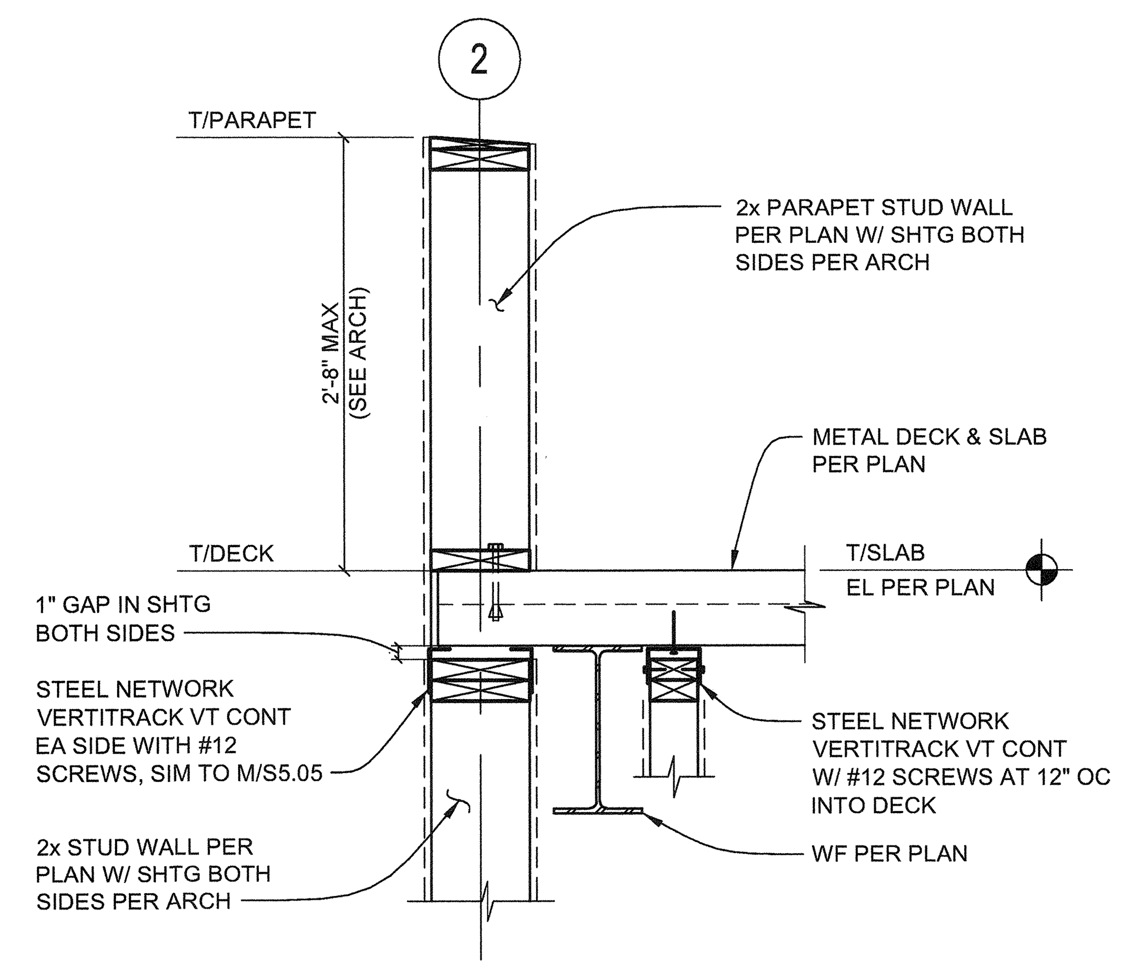

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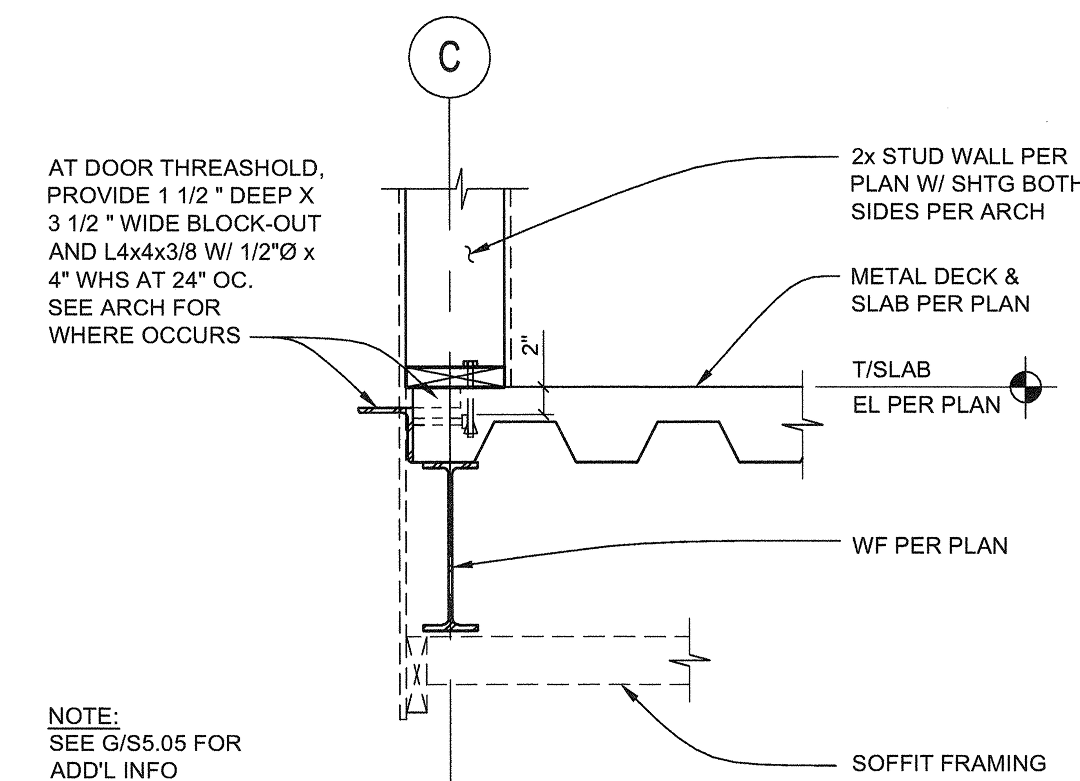

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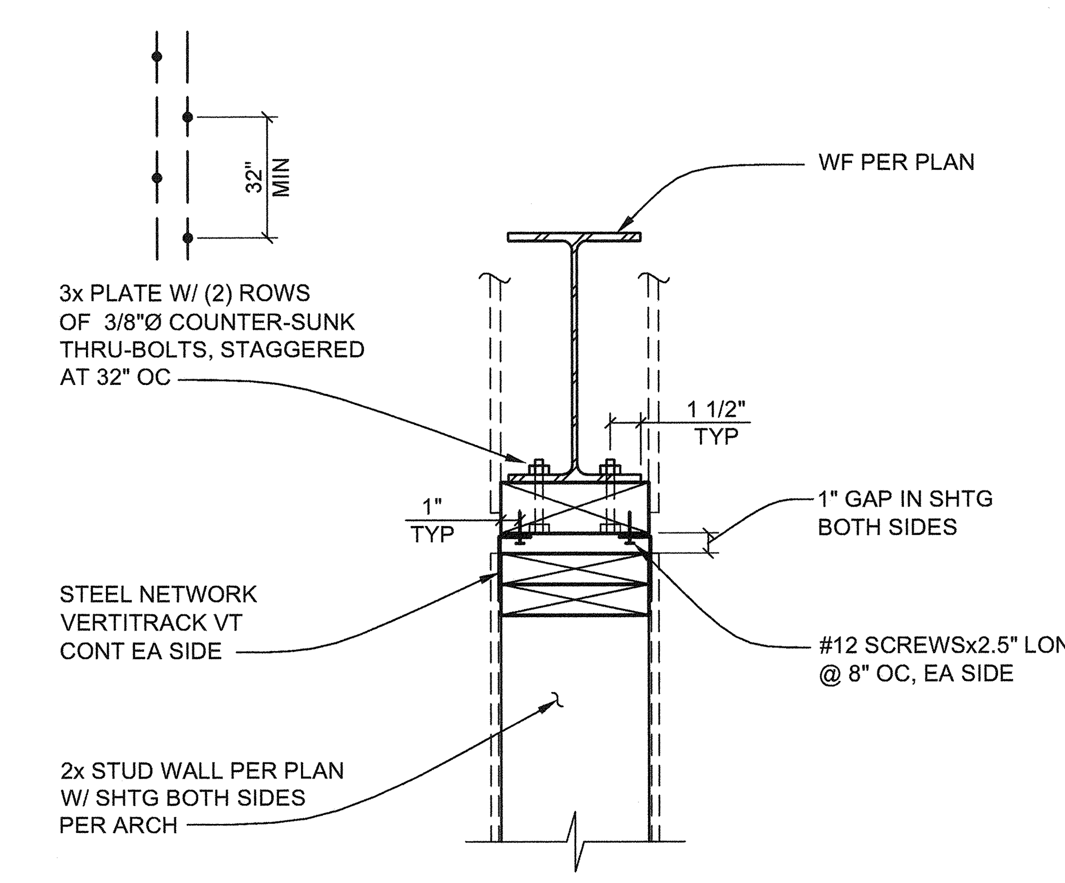

M SECTION
1 1/2"=1'-0"

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PIER 4 PHASE 2
MARINE BUILDING
Steel Details

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:	DRAWING SCALE: AS NOTED	

6552
S5.05
SH # 466 OF # 499

CONT/CONS:	070136
M. ID:	091251
PHASE:	BID

Path: U:\115000-115350\115206 (POT Pier 4 Marine Building)\04 Details\P4MB_S5.05.dwg Plot date: Feb 18, 2016-10:01:28am CAD User: dlanel.
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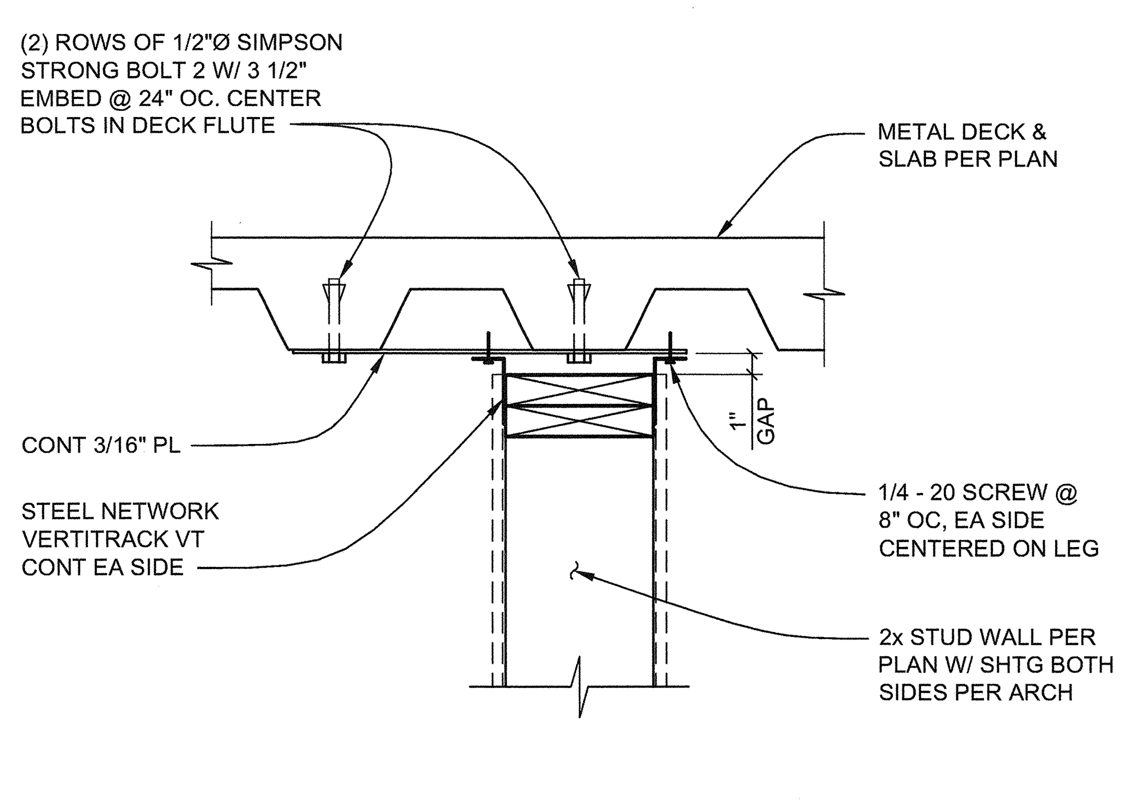

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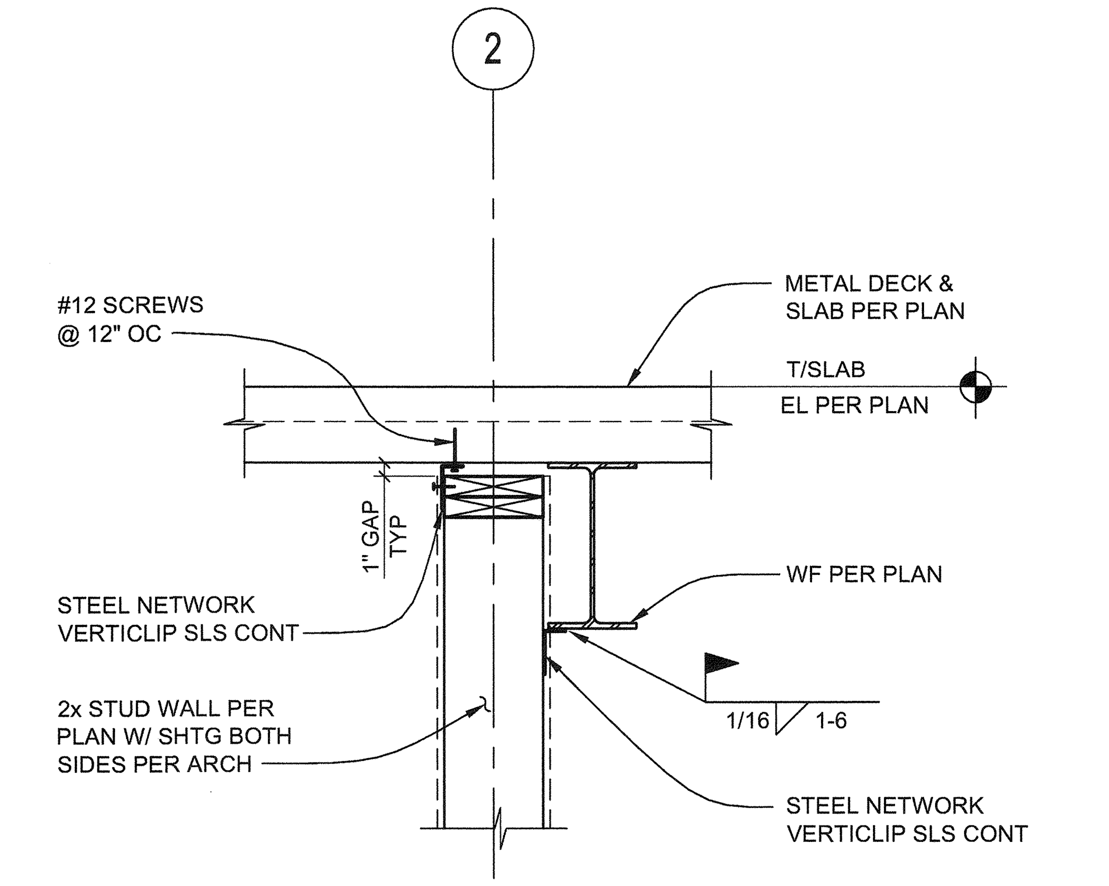

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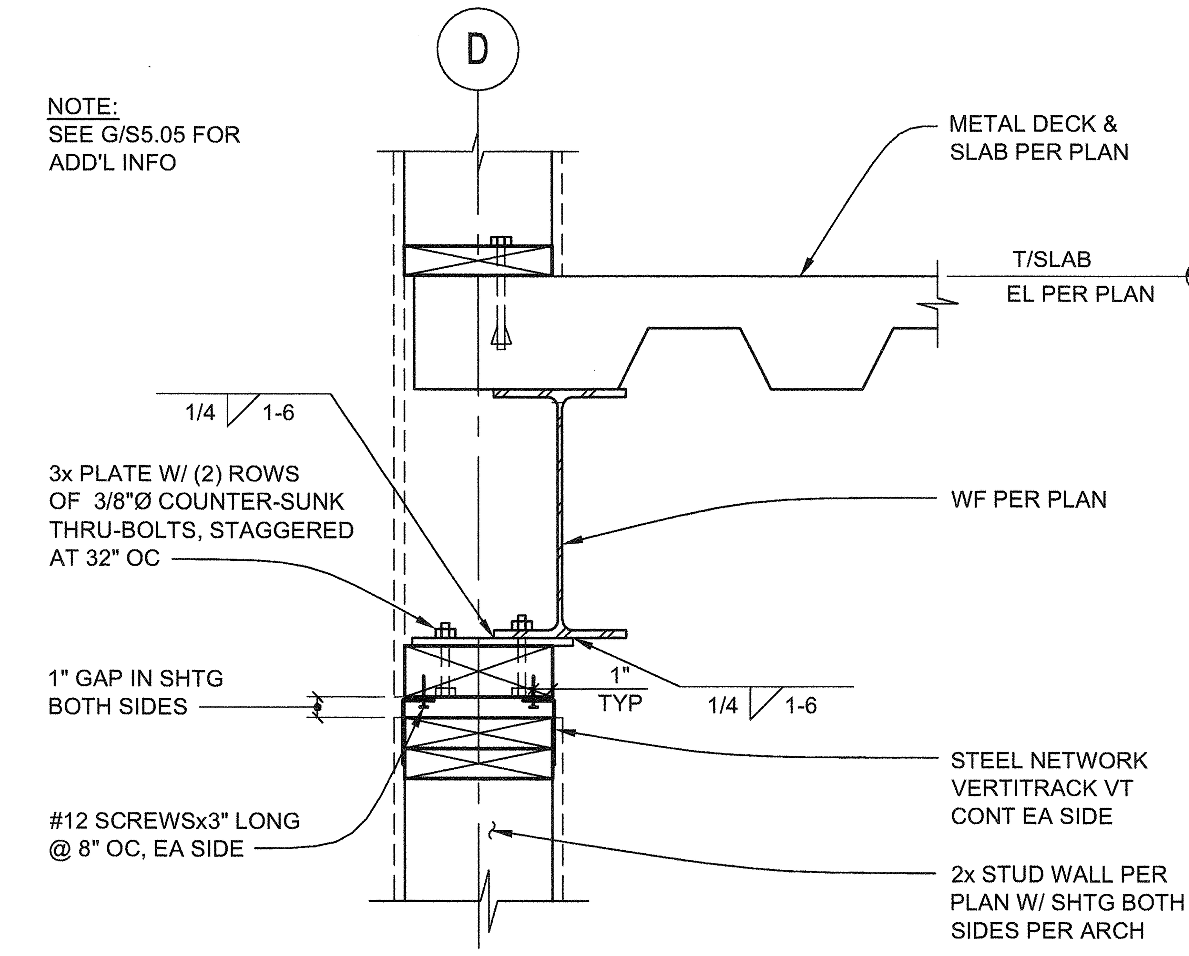

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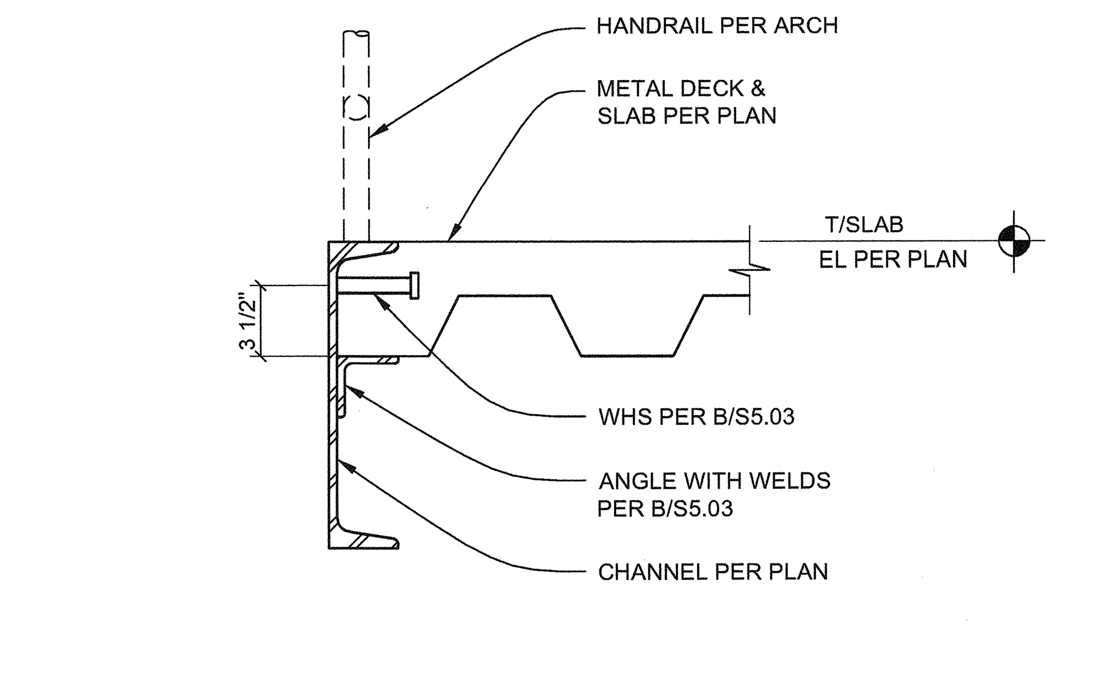

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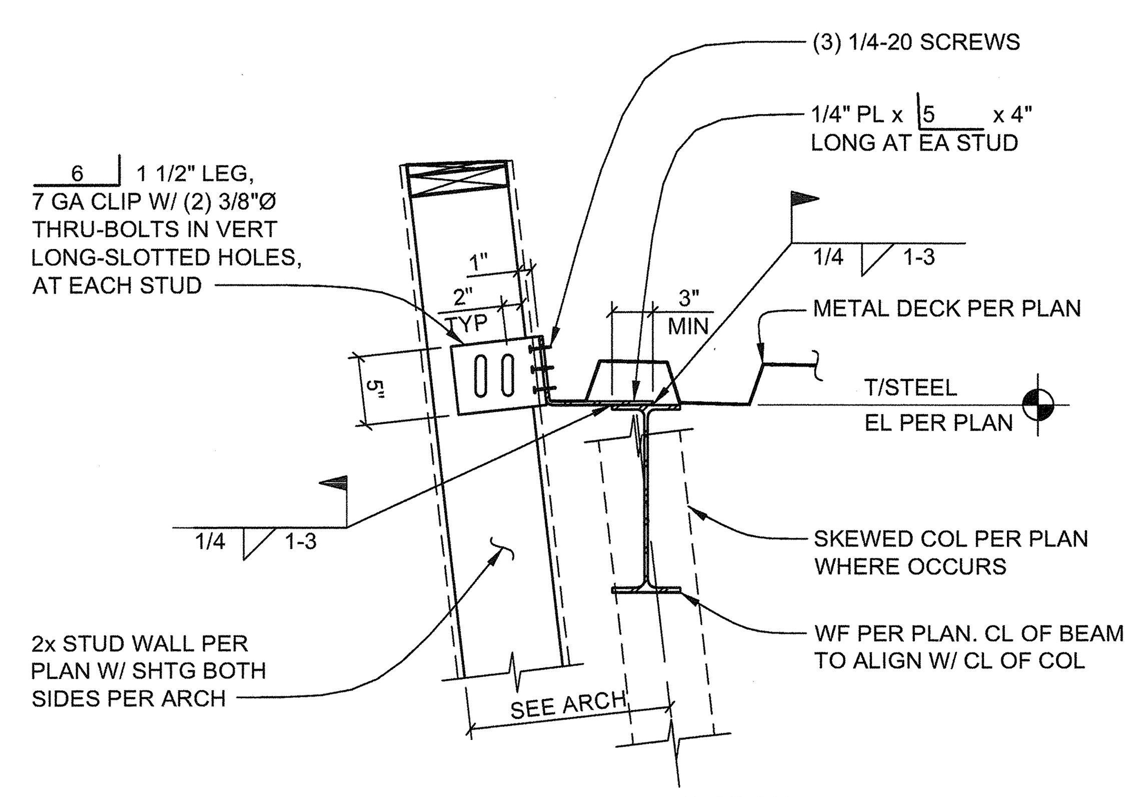
1 1/2"=1'-0"



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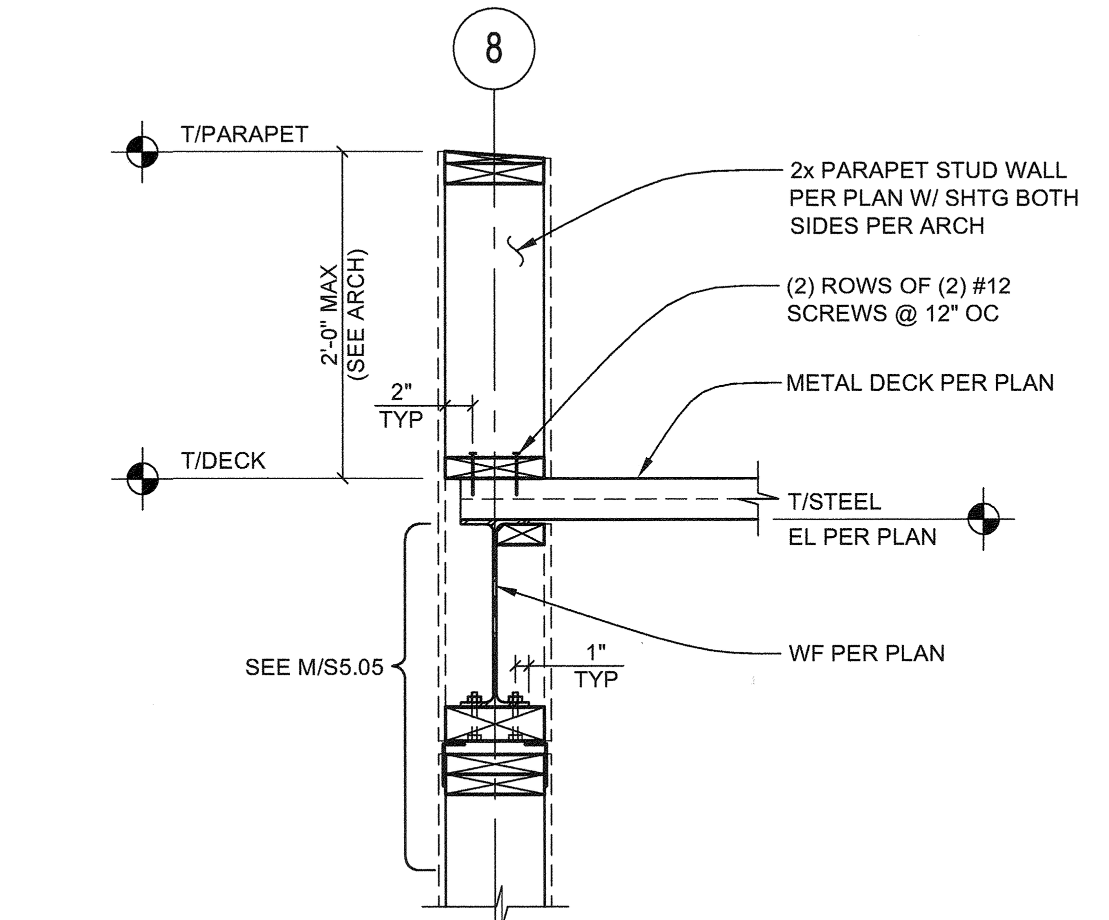

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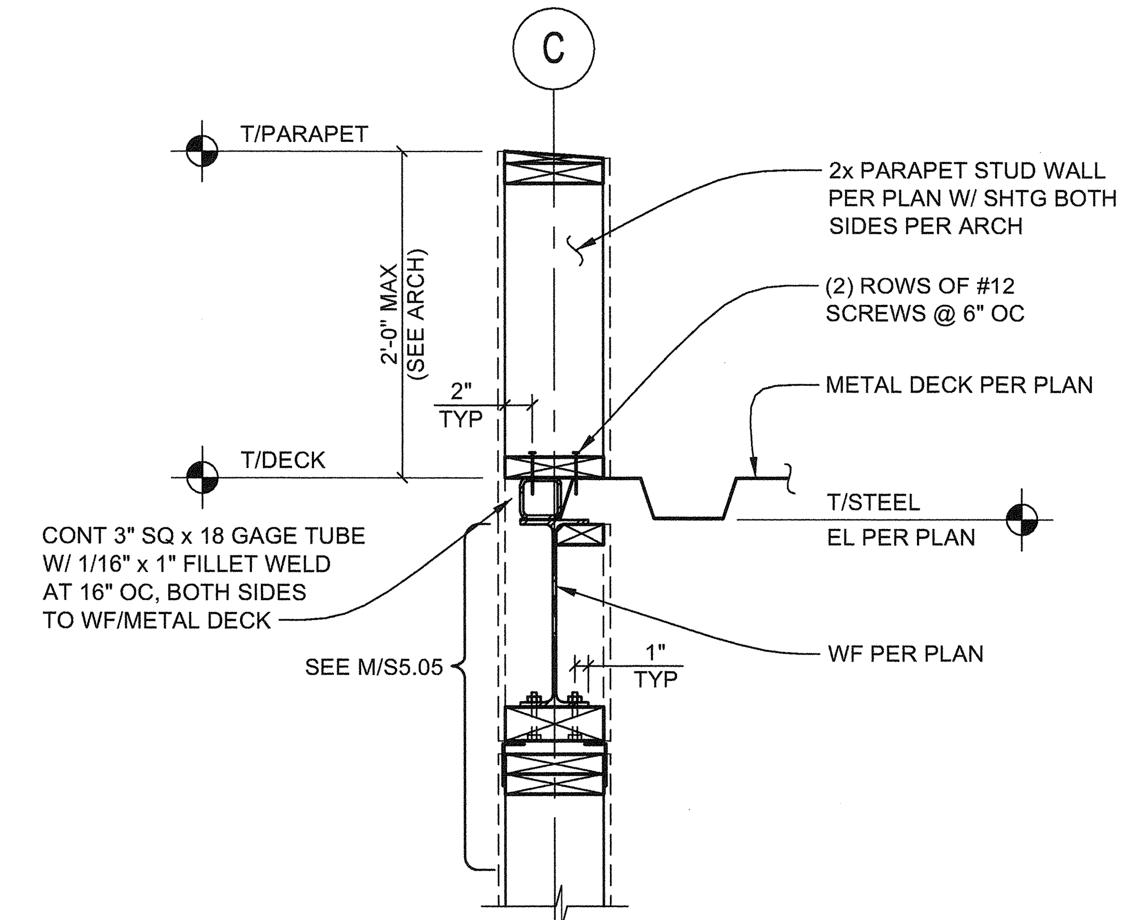

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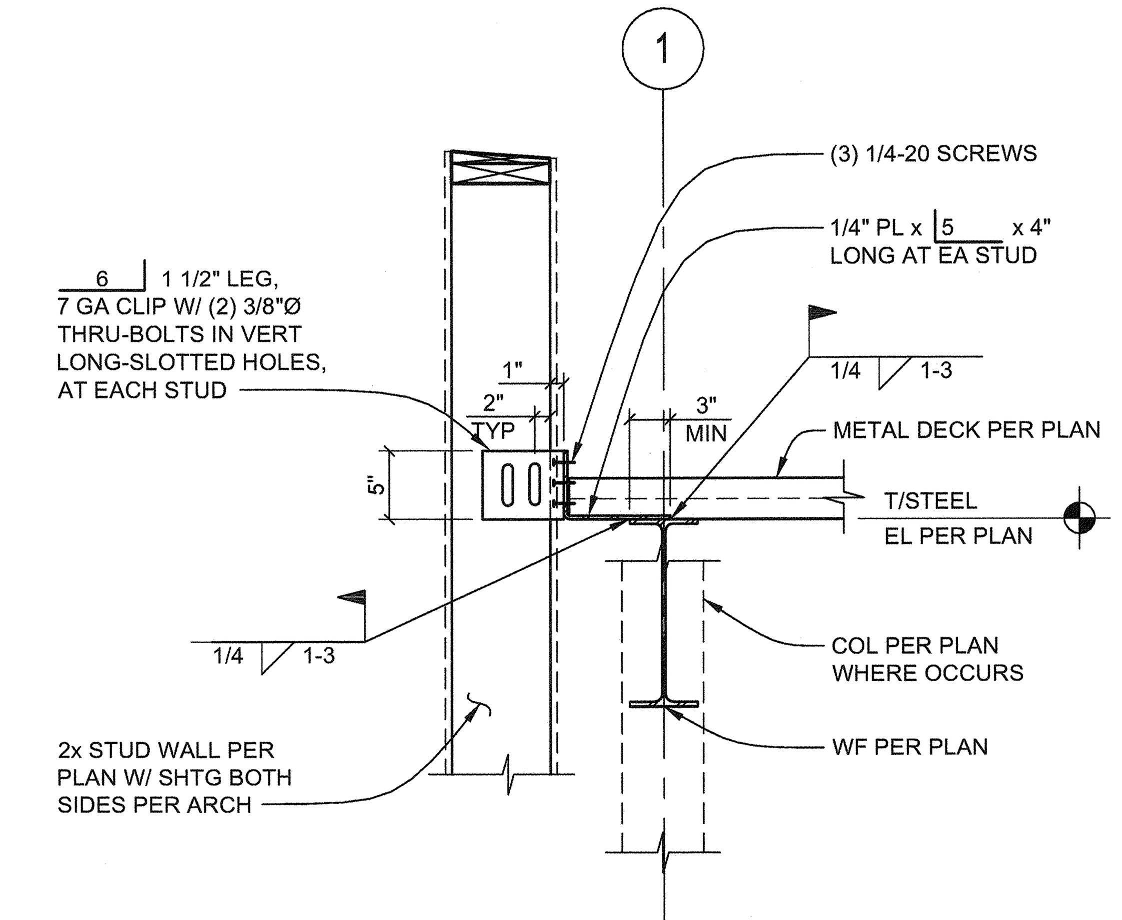

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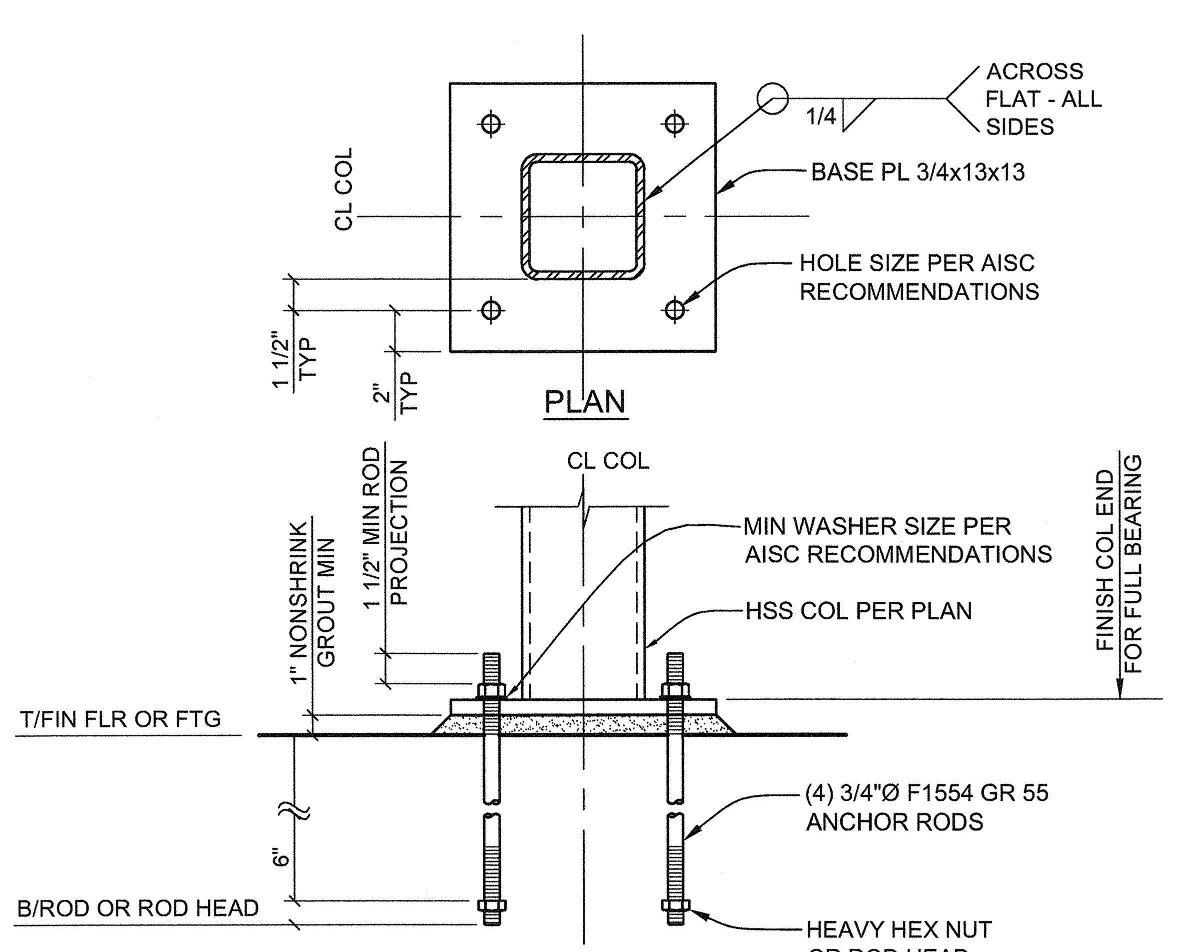
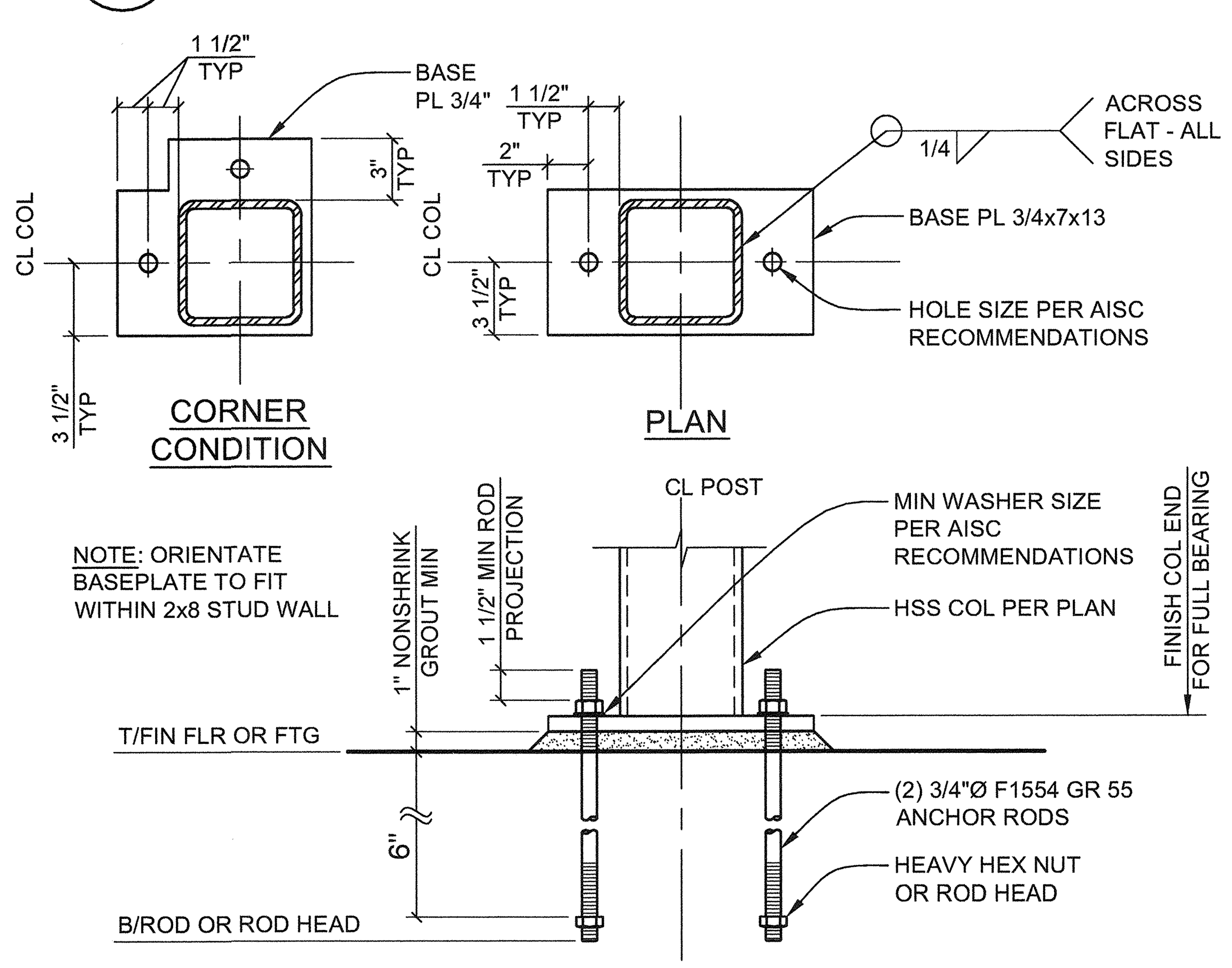


J HSS COLUMN BASE PLATE TYPE BP-1
1 1/2"=1'-0"



K HSS COLUMN BASE PLATE TYPE BP-2
1 1/2"=1'-0"

BINDING EDGE

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PROFESSIONAL ENGINEER
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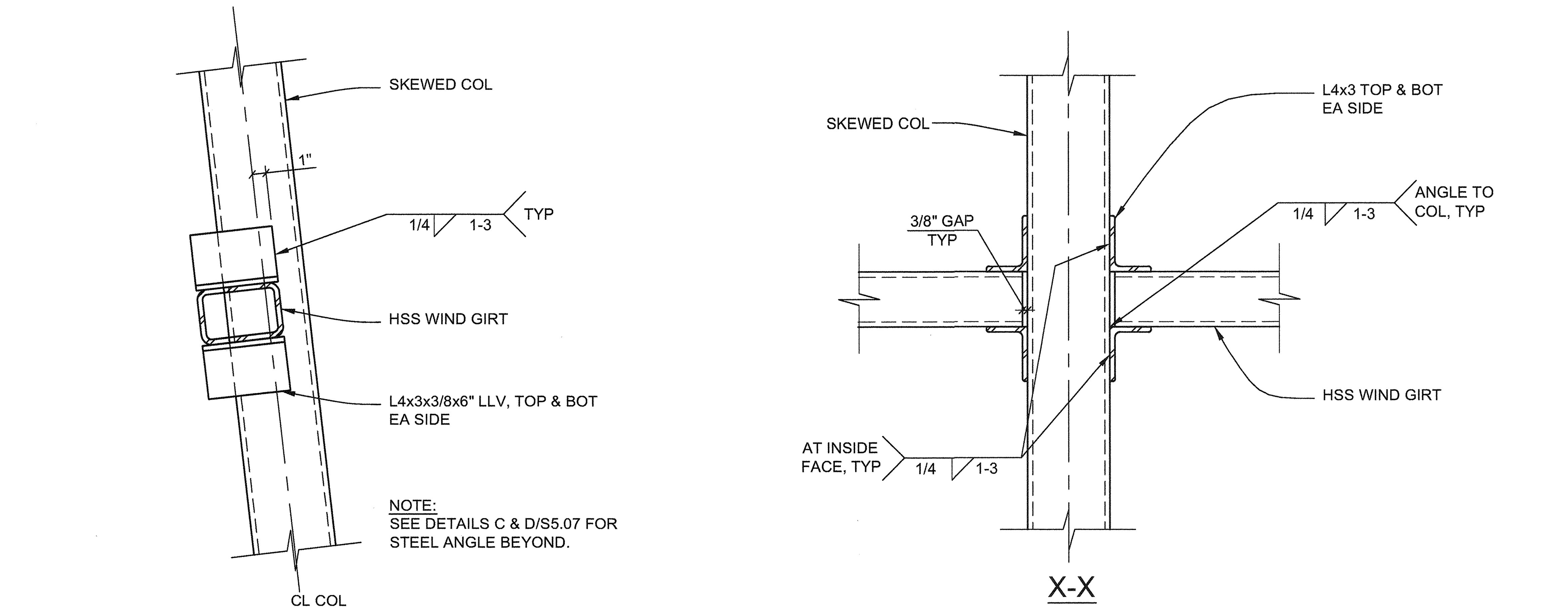
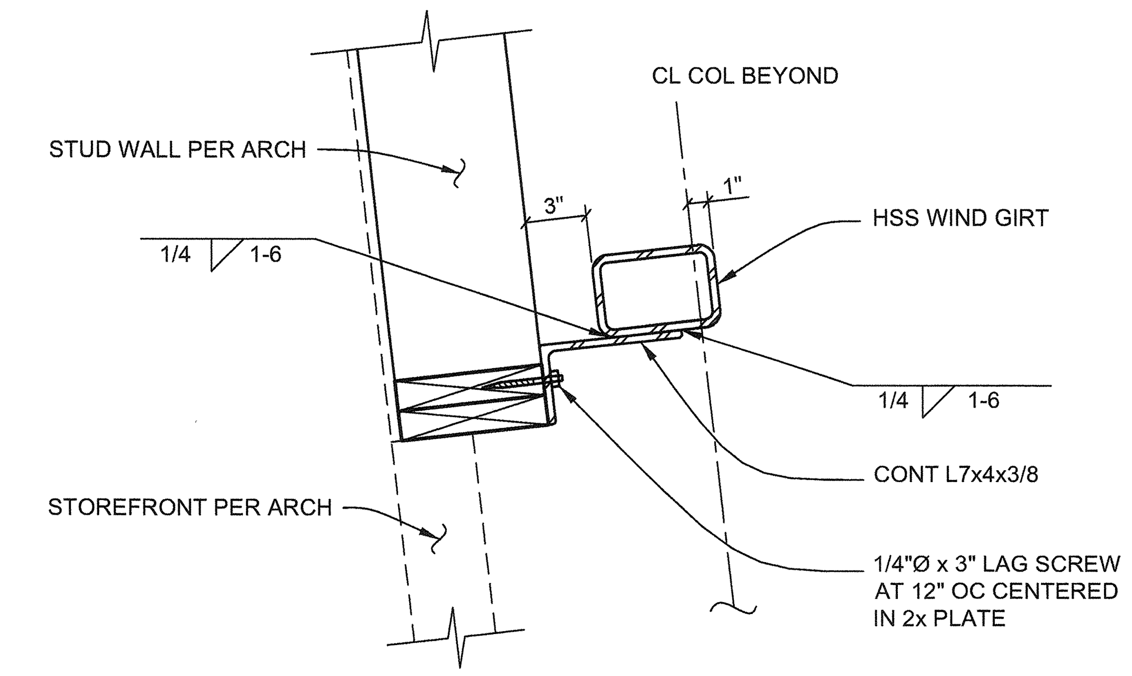
PIER 4 PHASE 2
MARINE BUILDING
Steel Details

TOWNSHIP: | RANGE: | SECTION:
DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: | DRAWING SCALE: AS NOTED

6552
S5.06
SH # 467 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID



A SECTION
1 1/2"=1'-0"



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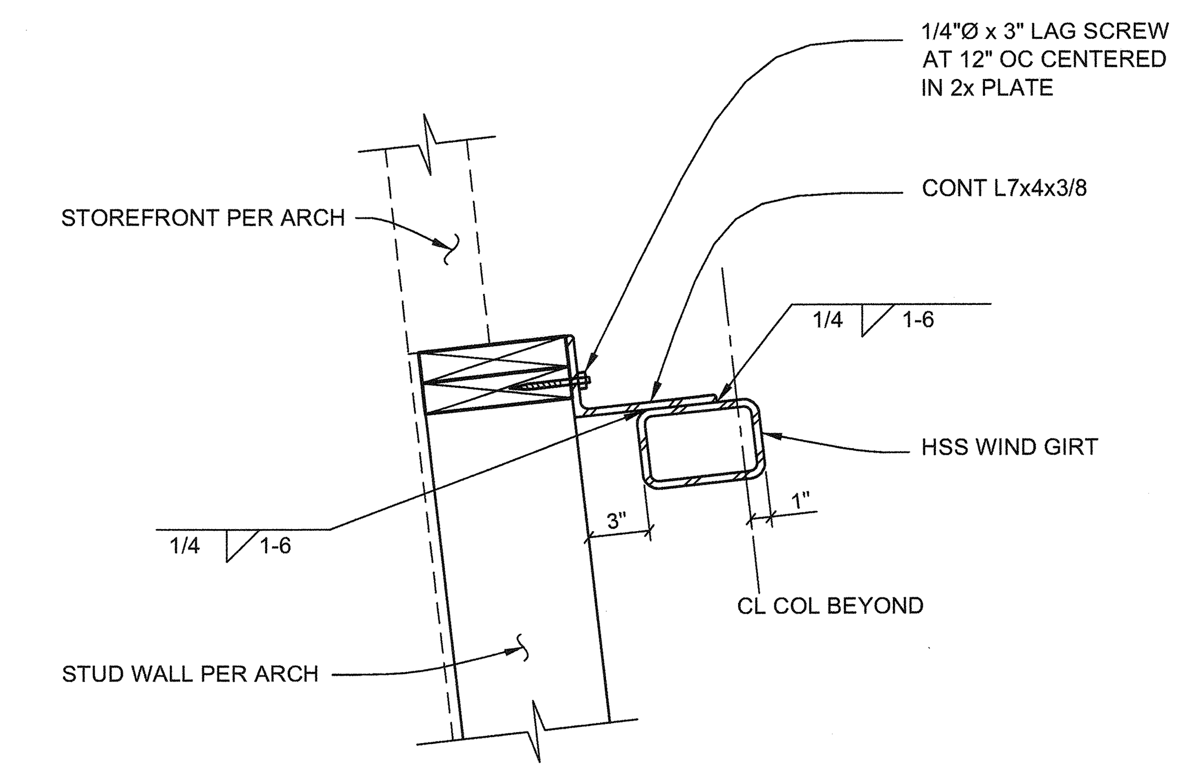

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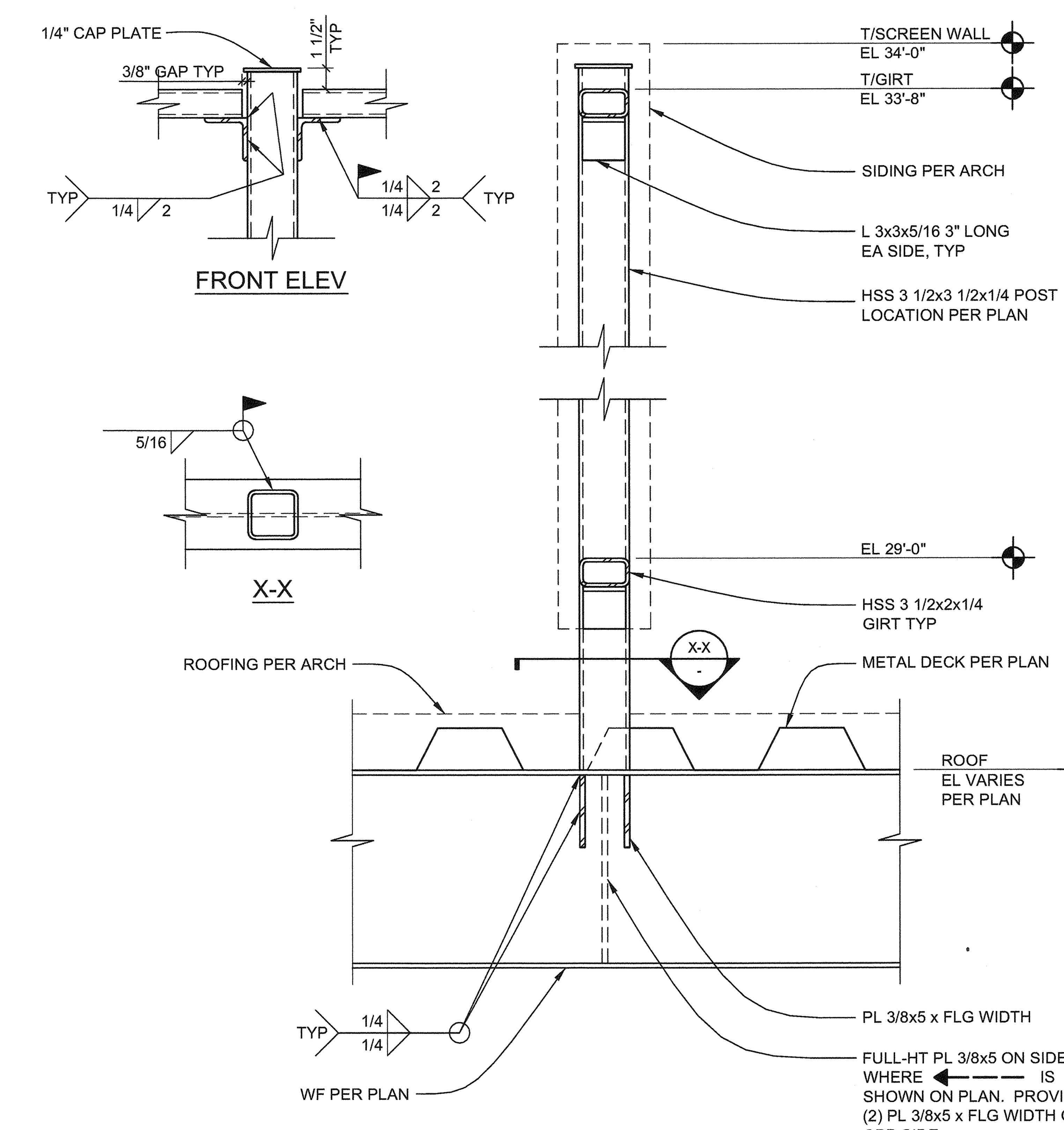
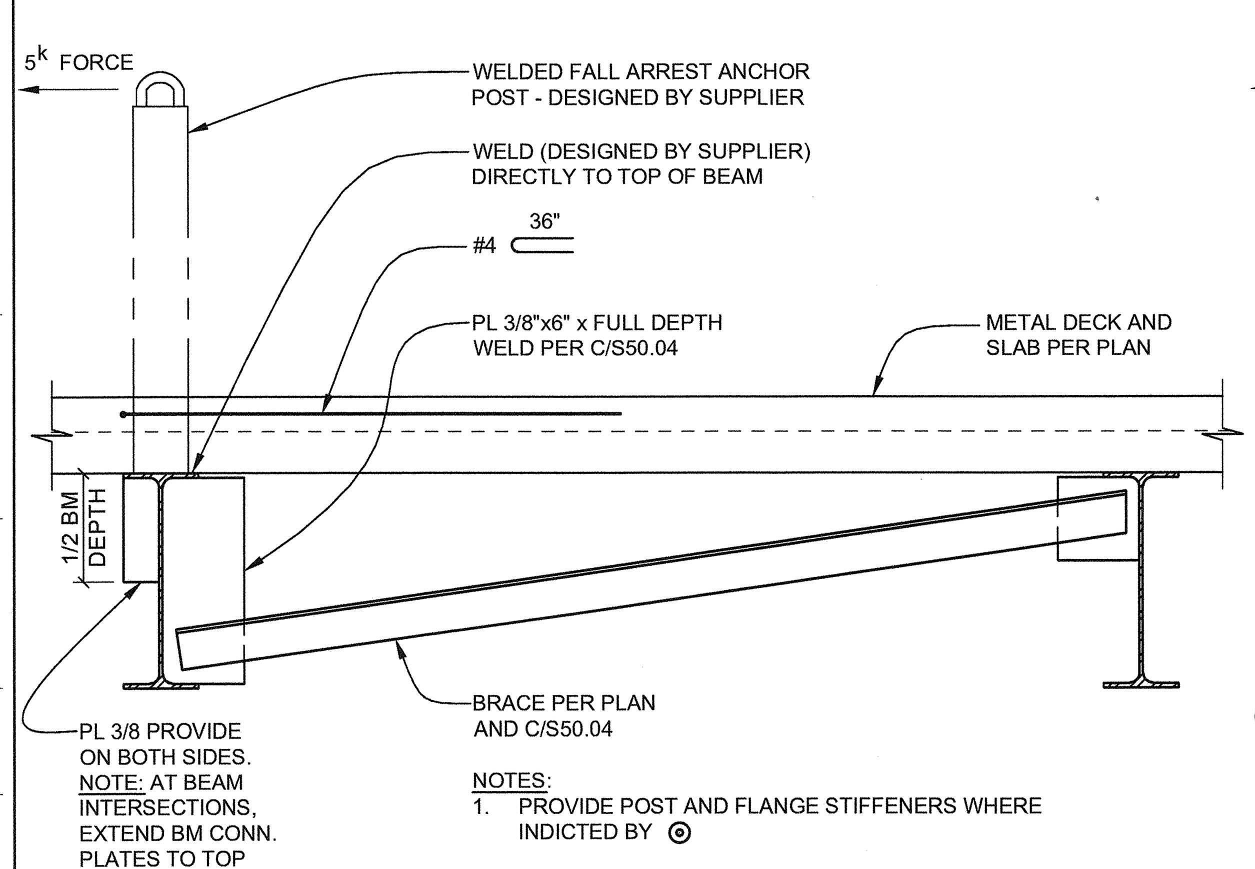
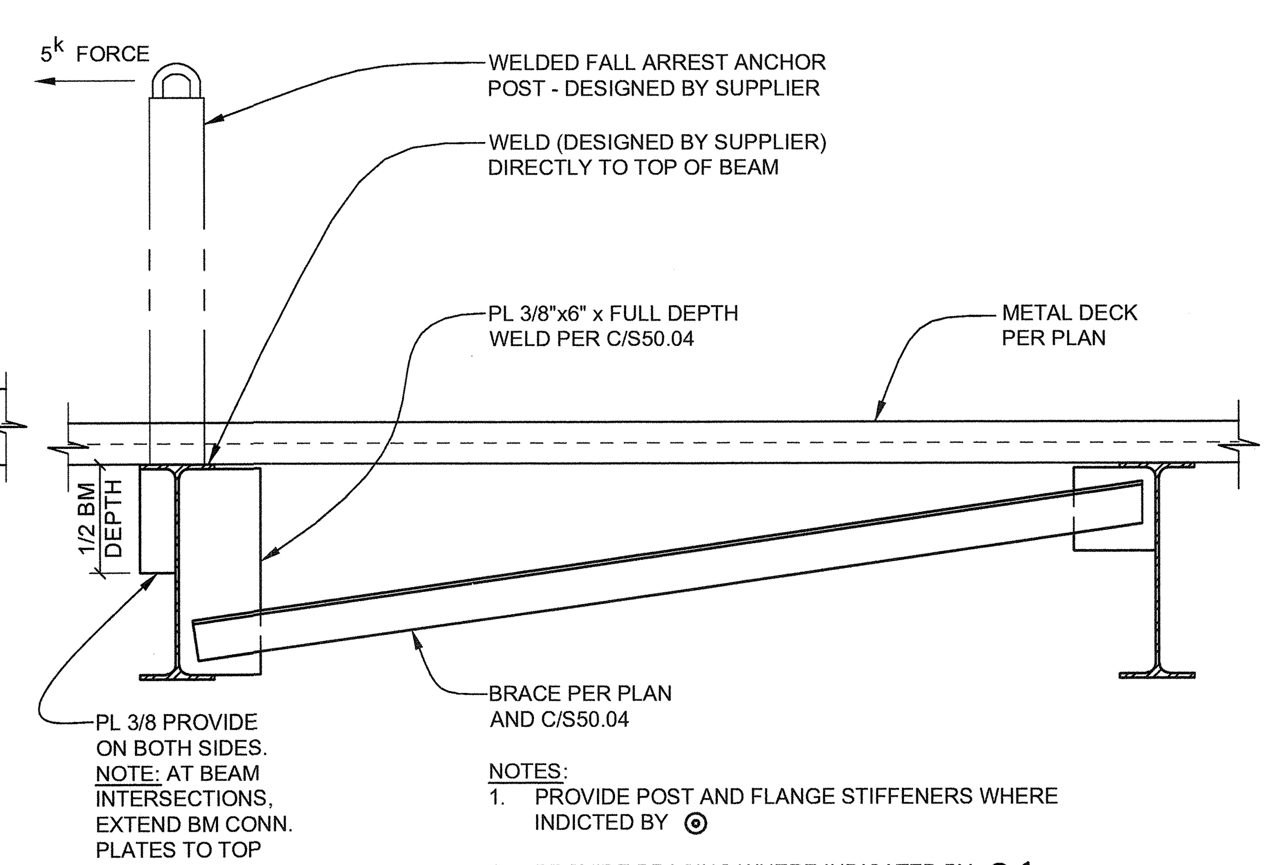


M SECTION - SCREEN WALL
1 1/2"=1'-0"



J FALL ARREST ANCHOR BRACING
1"=1'-0"



K FALL ARREST ANCHOR BRACING
1"=1'-0"

BINDING EDGE

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Xref Filename: | 3422 | P4MBxTB | P4MBxBoxA |

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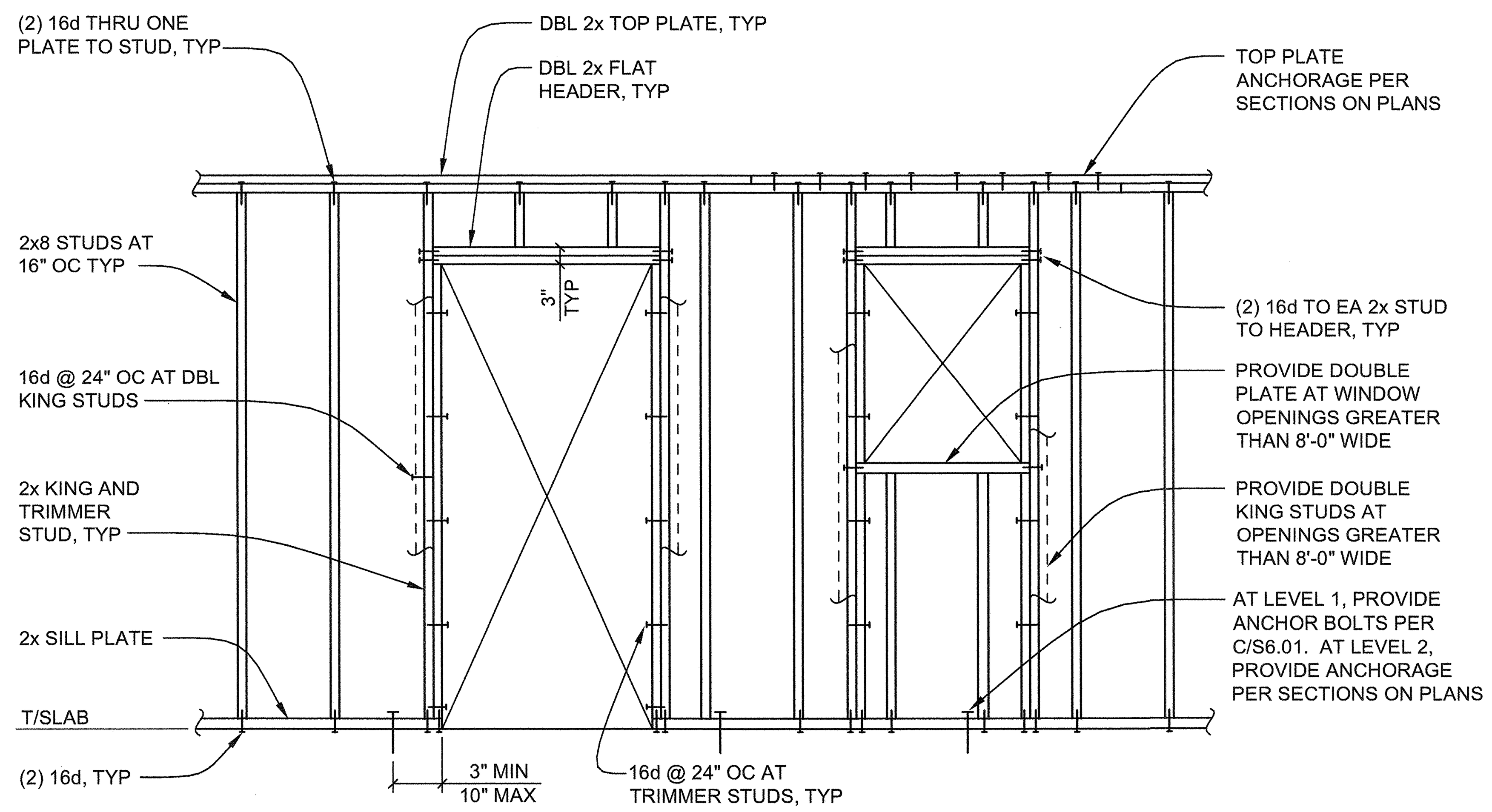
PIER 4 PHASE 2 MARINE BUILDING
Steel Details

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:	DRAWING SCALE: AS NOTED	

6552
S5.07
SH # 468 OF # 499

CONT/CONS:	070136
M. ID:	091251
PHASE:	BID

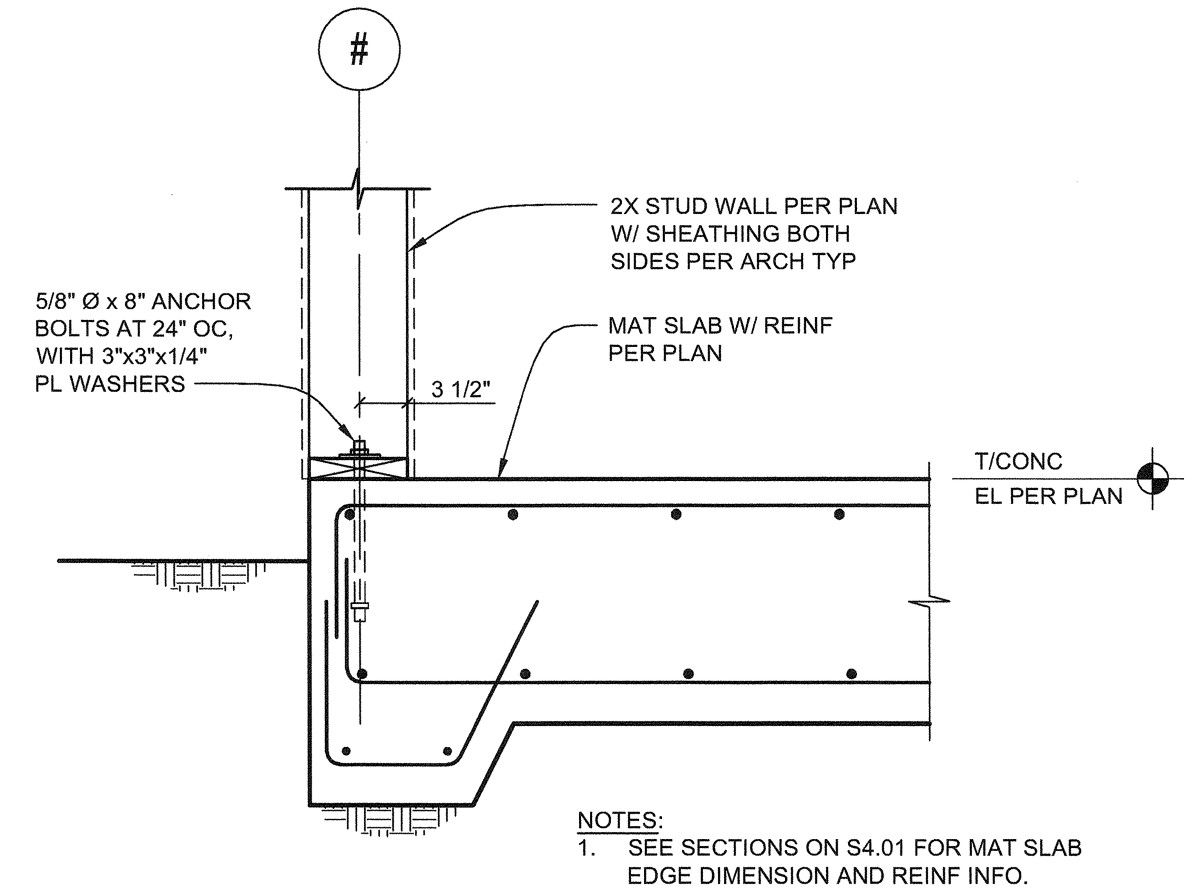
BINDING EDGE



NOTES:
1. NAILING NOT SHOWN SHALL BE AS INDICATED IN TABLE 2304.9.1.
2. SILL PLATES TO BE PRESSURE-TREATED WHERE IN CONTACT WITH CONCRETE.

A TYP EXTERIOR NON-BEARING WALL FRAMING DETAIL

1 1/2"=1'-0"



NOTES:
1. SEE SECTIONS ON S4.01 FOR MAT SLAB EDGE DIMENSION AND REINF INFO.

C TYPICAL ANCHORAGE AT MUDSILL

1 1/2"=1'-0"

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PIER 4 PHASE 2
MARINE BUILDING
Typical Wood Details

TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

6552
S6.01
SH # 469 OF # 499

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

Path: U:\115000-115350\115206 (POT Pier 4 Marine Building)\04 Details\P4MB_S6.01.dwg Plot date: Feb 18, 2016-10:01:54am CAD User: dianel.
Xref Filename: | 3422 | P4MBxTB | P4MBxBoxA |

BINDING EDGE

PLUMBING FIXTURE SCHEDULE

UNIT NO	FIXTURE	MOUNTING	MANUFACTURER AND MODEL NUMBERS	W	V	HW	CW	REMARKS
P-1	WATER CLOSET	WALL	TOILET: AMERICAN STANDARD AFWALL 3351.128 SEAT: CHURCH 9500CT OPEN FRONT FLUSH VALVE: SLOAN 111-1.28	4"	2"	–	1"	PROVIDE BOLT CAPS.
P-1A	WATER CLOSET-ADA	WALL	TOILET: AMERICAN STANDARD AFWALL 3351.128 SEAT: CHURCH 9500CT OPEN FRONT FLUSH VALVE: SLOAN 111-1.28	4"	2"	–	1"	ADA COMPLIANT, SEAT MUST BE 17" HIGH MINIMUM, PROVIDE BOLT CAPS. *ACTUATOR TO BE ON OPEN SIDE OF STALL
P-2	URINAL	WALL	URINAL: AMERICAN STANDARD WASHBROOK 6590.001 FLUSH VALVE: SLOAN ROYAL 186-005	2"	1½"	–	¾"	ADA COMPLIANT URINAL RIM TO BE 17" ABOVE FINISHED FLOOR
P-3	LAVATORY	WALL	SINK: AMERICAN STANDARD LUCERNE 0355.012 FITTINGS: CHICAGO FAUCETS 3300-ABCP SUPPLIES: EBC LAH16-KC TRAP: DEARBORN BRASS 17GA W/ GROUND JOINT	2"	1½"	½"	½"	ADA COMPLIANT, PROVIDE WITH EBC INSTITUTIONAL ADA INSULATOR KIT. SET MAXIMUM HOT WATER DELIVERY TEMPERATURE AT 105°.
P-3A	MULTI-STATION LAVATORY ADA	WALL	BRADLEY QUADRA-FOUNT #MF2949-BIR3	2"	1½"	½"	½"	ADA COMPLIANT, PROVIDE MIXING VALVE AND SUPPLY STOPS, STRAINER AND P-TRAP. SET MAXIMUM HOT WATER DELIVERY TEMPERATURE AT 105°F. MOUNTING HEIGHT PER ARCHITECTURAL ELEVATIONS. COLOR TO BE LONDON GRAY. LESS SOAP DISPENSER
P-4	KITCHEN SINK DOUBLE COMPARTMENT ADA	COUNTER	SINK: JUST DL-ADA-1933-A-GR FITTINGS: CHICAGO FAUCETS 1201-ACP SUPPLIES: EBC LAH16-KC WASTE: JUST J-35 (2 REQUIRED) TRAP: EBC TS150	2"	1½"	½"	½"	PROVIDE W/OFFSET TRAPS, ADA INSULATOR KIT & EBC WE150, LENGTH AS REQUIRED.
P-5	JANITOR SINK	FLOOR	FIXTURE: FLORESTONE #MSR-2424 FITTINGS: CHICAGO FAUCETS #897VB WASTE: FLORESTONE #MR-375 TRAP: CAST IRON	3"	2"	¾"	¾"	MOUNT FITTINGS AT 42"A.F.F., PROVIDE 48" HOSE AND CLAMP. PROVIDE WITH WEDGE-LOK SEAL.
P-6	TWO-LEVEL ADA WATER COOLER	WALL	MFR: ELKAY LVRCGNL8WSK	2"	1½"	–	½"	BARRIER FREE, DUAL HEIGHT, FURNISH WITH TRAP, SERVICE SUPPLY STOP AND SUPPORT SYSTEM. 115V, 3.8 FLA, 260W WITH BOTTLE FILLER.
P-7	HOSE BIB	WALL	MFR: ZURN Z1321				¾"	FREEZE PROOF TYPE

GRILLES-REGISTERS-DIFFUSERS SCHEDULE

UNIT NO	DESCRIPTION	MFR.	MODEL	CFM	AIR PATTERN	MOUNTING	FACE SIZE	NECK SIZE	COLOR	REMARKS
SDS	SIDEWALL SUPPLY DIFFUSER	TITUS	300 RL	PER PLANS	DBL.DEFLECTION	SURFACE	NECK SIZE +1¾ TOTAL	PER PLANS	3	1 2
EGH	EXHAUST GRILLE	TITUS	50F-A	PER PLANS	PER PLANS	SURFACE	NECK SIZE +1¾ TOTAL	PER PLANS	4	1
RGH	RETURN GRILLE	TITUS	50F-A	PER PLANS	PER PLANS	SURFACE	NECK SIZE +1¾ TOTAL	PER PLANS	WHITE	1
CDH	SUPPLY GRILLE	TITUS	50F-A	PER PLANS	PER PLANS	SURFACE	NECK SIZE +1¾ TOTAL	PER PLANS	WHITE	1
RGS	RETURN GRILLE	TITUS	350-RL	PER PLANS	PER PLANS	SURFACE	NECK SIZE +1" TOTAL	PER PLANS	WHITE	1
CD	SUPPLY GRILLE	TITUS	TDC-4	PER PLANS	PER PLANS	T-BAR	23¾X23¾	PER PLANS	WHITE	1

NOTES FOR GRILLES, REGISTERS, DIFFUSERS SCHEDULE:

1. FURNISH WITH "OPPOSED BLADE DAMPER"(OBD).
2. FURNISH WITH HORIZONTAL FRONT BLADES.
3. COLOR TO BE MILL #04 ALUMINUM.
4. GRILLE TO BE FIELD PAINTED TO MATCH ADJACENT CEILING COLOR.

ELECTRIC WATER HEATER SCHEDULE

UNIT NO	MFR.	MODEL	LOCATION	EFFICIENCY	RECOVERY (GPH) @100°F TEMP RISE	WET WEIGHT (LB)	ELECTRICAL KW	ELECTRICAL VOLTS	ELECTRICAL ø	ELECTRICAL FLA	STARTER FURN. BY	DISCONNECT FURN. BY	REMARKS
HWT-1	AO SMITH	DRE-120	JANITOR ROOM	100%	25	1331	6	480	3	12.5	MFR	EC	1 2 3

NOTES FOR WATER HEATER SCHEDULE

1. PROVIDE WITH SINGLE POINT POWER CONNECTION. EC TO PROVIDE DISCONNECT.
2. HEATING ELEMENTS SHALL BE NON-SIMULTANEOUS OPERATION ONLY.
3. PROVIDE WITH AMTROL EXPANSION TANK MODEL ST-12

ELECTRIC WALL HEATER SCHEDULE

UNIT NO	MFR	MODEL	LOCATION	ELECTRICAL FLA	ELECTRICAL WATTS	ELECTRICAL VOLTS	ELECTRICAL ø	REMARKS
EWH-1	KING	LPWA2740	STAIRWELL	14.4	4000	277	1	1
EWH-2	KING	PAW1215	FIRE RISER ROOM	–	500	120	1	1

NOTES FOR ELECTRIC WALL HEATER SCHEDULE:

1. PROVIDE WITH SINGLE POLE THERMOSTAT KIT.

MECHANICAL LEGEND

HVAC

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	SUPPLY DUCT UP		FLEXIBLE DUCT
	SUPPLY DUCT DOWN		VOLUME DAMPER (VD)
	RETURN, RELIEF, TRANSFER, OSA DUCT UP	M	MOTORIZED DAMPER
	RETURN, RELIEF, TRANSFER, OSA DUCT DOWN		FLEXIBLE CONNECTION (DUCT)
	EXHAUST DUCT UP		TURNING VANES (TV)
	EXHAUST DUCT DOWN		BACKDRAFT DAMPER (BD)
	RECTANGULAR DUCT SQUARE ELBOW UP	T	THERMOSTAT (T'STAT)
	RECTANGULAR DUCT, RADIUS ELBOW UP	PS	SPACE PRESSURE SENSOR
	RECTANGULAR DUCT, SQUARE ELBOW DOWN	Xø	ROUND DUCT
	RECTANGULAR DUCT, RADIUS ELBOW DOWN	12 X 12 CD 300 CFM	AIR TERMINAL SIZE, TYPE & CFM
	ROUND DUCT ELBOW UP	X/X	SQUARE DUCT
	ROUND DUCT ELBOW DOWN		CEILING AIR TERMINAL – SQUARE

PLUMBING

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	CHECK VALVE (CV)		DOMESTIC COLD WATER (CW)
	TEMP./PRESS. RELIEF VALVE (T&PRV)		DOMESTIC HOT WATER (HW)
	BALL VALVE		SOIL, WASTE (S, W)
	PIPE DOWN		VENT (V), OR HIDDEN BELOW WASTE
	PIPE UP	COND	CONDENSATE PIPING
	BRANCH-TOP CONNECTION		DOMESTIC HOT WATER CIRCULATION (HWC)
	BRANCH-BOTTOM CONNECTION		WASTE OR VENT UP
	BRANCH-SIDE CONNECTION		WALL CLEANOUT
	FLOW DIRECTION		FLUSH CLEANOUT (FCO/SCO)
	STRAINER		IN LINE WASTE CONNECTION
	UNION		P-TRAP
	DRAIN VALVE		BRANCH PIPE DOWN
T	THERMOMETER		BRANCH PIPE UP
P	PRESSURE GAGE		TEE & UP
	FLOOR DRAIN		TEE
	CROSSING LINES, NON CONNECTING		ELBOWS, 90° & 45°
	PIPE CONTINUATION		CAP
MC	MECHANICAL CONTRACTOR		PUMP
EC	ELECTRICAL CONTRACTOR	AFF	ABOVE FINISHED FLOOR
VTR	VENT THROUGH ROOF	GC	GENERAL CONTRACTOR
FD	FLOOR DRAIN	WCO	WALL CLEANOUT

CIRCULATION PUMP SCHEDULE

UNIT NO	MFR.	MODEL	LOCATION	MOTOR WATTS	MOTOR RPM	HEAD (FT)	FLOW (GPM)	ELECTRICAL FLA	ELECTRICAL VOLTS	ELECTRICAL ø	STARTER FURN. BY	DISCONNECT FURN. BY	REMARKS
CP-1	ARMSTRONG	E7.2B	JANITOR CLOSET	125	3400	15	7	1.5	120	1	2	2	1

NOTES FOR CIRCULATION PUMP SCHEDULE

1. E.C. TO CONNECT AQUASTAT. AQUASTAT SET POINT IS 100°F
2. EC TO PROVIDE A MANUAL STARTER (INCLUDING DISCONNECT). MC TO PROVIDE AND INSTALL A MOTOR RATED RELAY FOR CONTROLS INTERLOCK.

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2/19/2016

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PIER 4 PHASE 2
MARINE BUILDING
SCHEDULES

TOWNSHIP: | RANGE: | SECTION:
DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: | DRAWING SCALE: AS NOTED

6552
M1.01
SH # 470 OF # 499

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

BINDING EDGE

HEAT PUMP ROOFTOP PACKAGED UNIT SCHEDULE

UNIT NO	MFR.	MODEL	LOCATION	AREA SERVED	EER (SEER)	COOLING CAPACITY EWB	EAT	TOTAL MBH	SENS. @ 80°F	ECONOMIZER	HEATING TOTAL MBH	EAT	BLOWER CFM	MIN. OSA	EX. S.P. (IN. WC)	WEIGHT (lbs)	ELECTRICAL MCA	MOP	VOLTS	ø	AUX. HEAT(KW)	STARTER FURN. BY	DISCONNECT FURN. BY	DUCT SMOKE DETECTOR FURN. BY	REMARKS
RPU-1	TRANE	WSC120E4RNA	ROOF	LEVEL 1	11.2	67	80	126	94.66	100%	107	70	4000	1640	0.5	1407	80.2	90	480	3	36	MFR	EC	4	1 2 3 5
RPU-2	TRANE	WSC120E4RNA	ROOF	LEVEL 2	11.2	67	80	126	94.66	100%	107	70	4000	350	0.5	1407	53.2	60	480	3	18	MFR	EC	4	1 2 3 5

NOTES FOR ROOFTOP PACKAGED UNIT SCHEDULE

1 PROVIDE WITH SINGLE POINT ELECTRICAL CONNECTION KIT.

2 UNITS OVER 2000 CFM INCLUDE DUCT SMOKE DETECTOR IN BOTH SUPPLY AND RETURN DUCTS. MC TO VERIFY CURRENT SMOKE DETECTOR LOCATION CONFORMS TO ALL LOCAL CODES.

3 UNITS MUST BE PROVIDED WITH FACTORY MULTI-SPEED FANS PER WSEC.

4 MC TO PROVIDE EC TO INSTALL.

5 PROVIDE WITH 7-DAY PROGRAMABLE THERMOSTAT COMPLYING WITH WSEC C403.2.4.3.2

EXHAUST FAN SCHEDULE

UNIT NO.	MFR.	MODEL	CONFIGURATION	AREA SERVED	MOTOR DATA HP	PERFORMANCE CFM	EX. S.P.	RPM	BACKDRAFT DAMPER	SPEED CONTROL	DRIVE TYPE	CONTROLLED BY OR INTERLOCKED WITH	ELECTRICAL VOLTS	Ø	STARTER FURN. BY	DISCONNECT FURN. BY	NOTES
EF 1	GREENHECK	G-065-VG	DOWNBLAST	KITCHEN	1/6	180	0.25	1663	Y	ECM	DIRECT	2	120	1	EC	EC	1
EF 2	GREENHECK	G-095-VG	DOWNBLAST	RESTROOMS	1/6	690	0.50	1577	Y	ECM	DIRECT	2	120	1	EC	EC	1

NOTES FOR EXHAUST FAN SCHEDULE

1 PROVIDE SINGLE POINT POWER CONNECTION.

2 TO BE INTERLOCKED W/ ASSOCIATED MOTORIZED DAMPER SUCH THAT DAMPER OPENS W/ FAN IS ON; DAMPER CLOSED ALL OTHER TIMES.

3 INTERLOCK WITH RPU-1 OCCUPIED MODE.

RELIEF ROOF HOOD SCHEDULE

UNIT NO	MFR.	MODEL	LOCATION	CURB SIZE WIDTH	CURB SIZE LENGTH	HOOD SIZE WIDTH	HOOD SIZE LENGTH	THROAT SIZE WIDTH	THROAT SIZE LENGTH	HEIGHT	REMARKS
RH-1	GREENHECK	WRH	ROOF	24"	22"	30	28	16	14	12.25"	

NOTES FOR RELIEF HOOD SCHEDULE

1 PROVIDE WITH MOTORIZED DAMPER CONFORMING TO WSEC.

SPLIT SYSTEM OUTDOOR UNIT SCHEDULE

UNIT NO	MFR.	MODEL	LOCATION	WEIGHT (LBS)	ELECTRICAL MCA	MOP	VOLTS	ø	DISCONNECT FURN. BY	REMARKS
OCU-1	MITSUBISHI	PUY-A24NHA6-BS	ROOF	163	19	30	208	1	EC.	1

NOTES FOR SPLIT SYSTEM OUTDOOR UNIT SCHEDULE:

1 PROVIDE SINGLE POINT POWER CONNECTION.

SPLIT SYSTEM INDOOR UNIT SCHEDULE

UNIT NO	MFR.	MODEL	AREA SERVED	COOLING TOTAL MBH	SEER	WEIGHT (LBS)	ELECTRICAL MCA	FLA	VOLTS	ø	REMARKS
ICU-1	MITSUBISHI	PKA-A24KA6	IT RM.	24	17	46	1	.36	208	1	1 2 3

NOTES FOR SPLIT SYSTEM INDOOR UNIT SCHEDULE:

1 COOLING TEMPERATURE SETPOINT TO BE 75°F.

2 FURNISH WITH MFR. SUPPLIED CONDENSATE PUMP.

3 INDOOR UNIT POWER CIRCUIT IS SUPPLIED FROM OUTDOOR UNIT.

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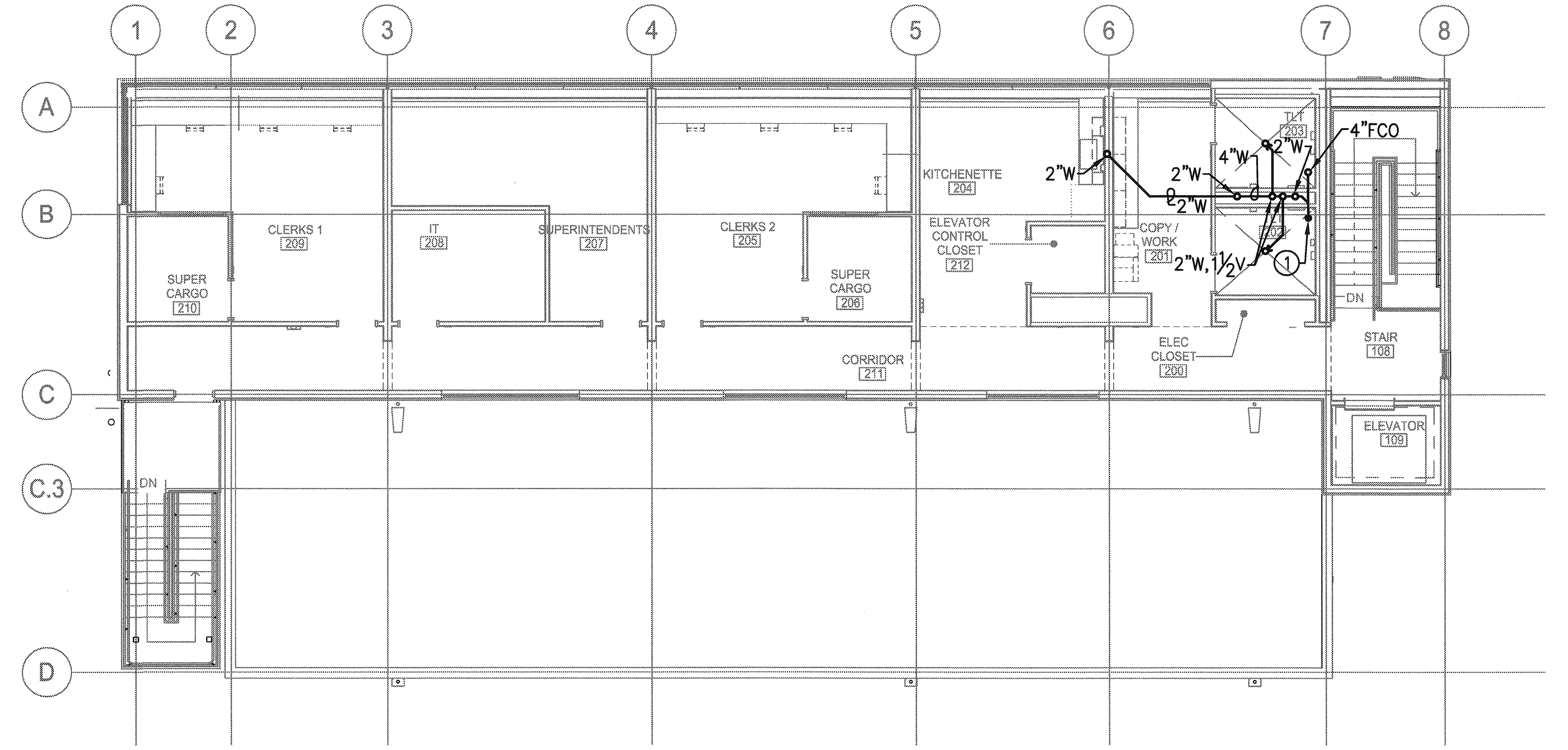
PIER 4 PHASE 2
MARINE BUILDING
SCHEDULES

TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

6552
M1.02
SH # 471 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

BINDING EDGE



2 LEVEL 2 SANITARY WASTE PLAN

1/8" = 1'-0"

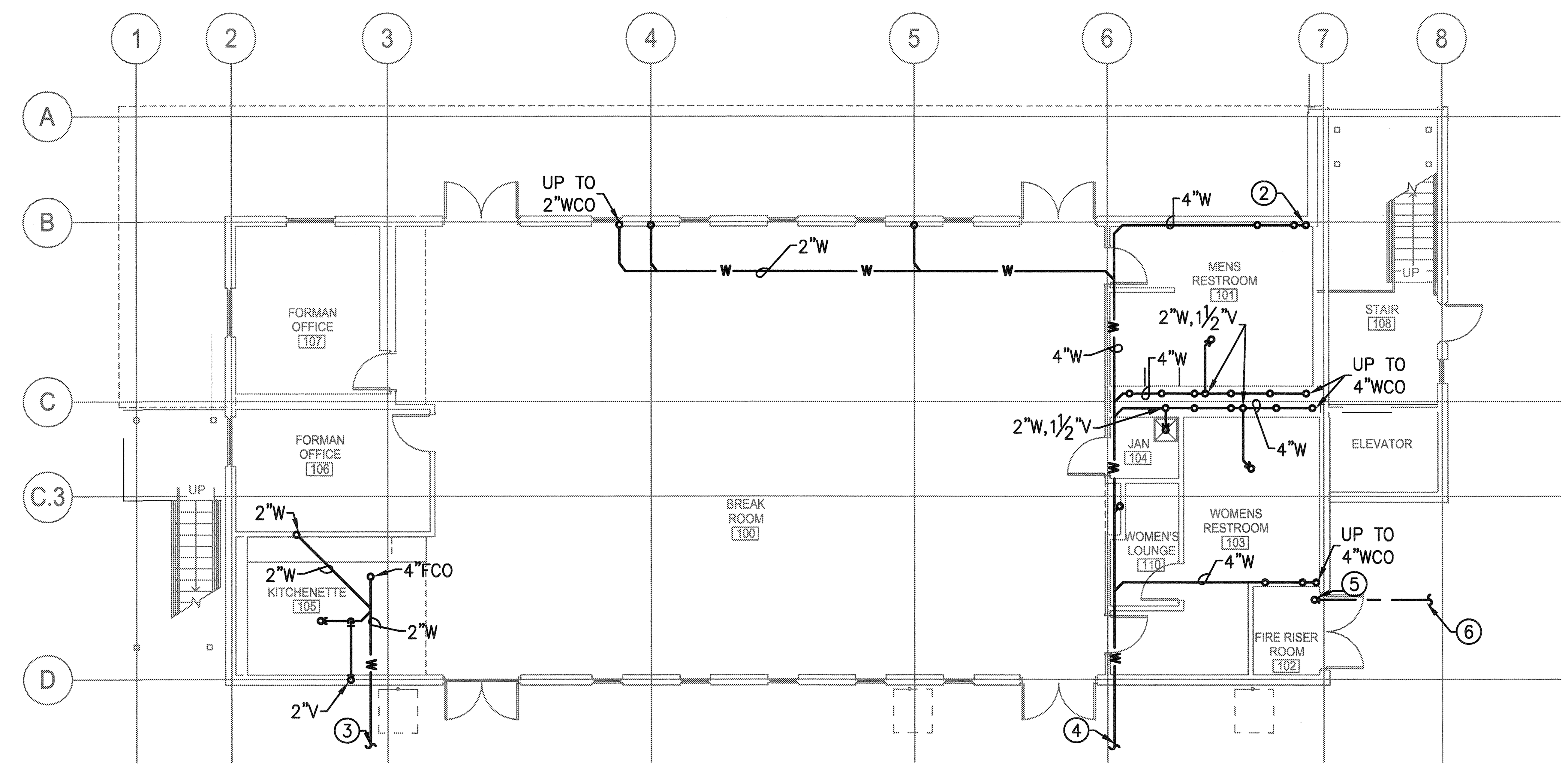
NORTH

GENERAL NOTES

1. ALL PIPING HAS BEEN SHOWN OFFSET FOR CLARITY. ROUTE PIPING AS CLOSE TO PLANS AS BUILDING CONDITIONS PERMIT.
2. ALL WASTE PIPING TO BE SLOPED AT ¼" PER FOOT. ALL CONDENSATE AND VENT PIPING TO BE SLOPED AT ⅛" PER FOOT.
3. ALL PIPING TO BE RUN CONCEALED, WHERE WALLS AND CEILING ARE AVAILABLE.

CONSTRUCTION NOTES

1. 4"W DOWN TO FIRST FLOOR. SEE LEVEL 1 UNDERGROUND PLUMBING PLAN FOR CONTINUATION.
2. 4"W RISER FROM SECOND FLOOR FIXTURES. PROVIDE WITH WALL CLEANOUT IN MENS ROOM 101.
3. 2"W TO MAIN (I.E.=24.75" BFF). SEE CIVIL PLANS FOR CONTINUATION.
4. 4"W TO MAIN (I.E.=44.75" BFF). SEE CIVIL PLANS FOR CONTINUATION.
5. 2" CW UP TO RISER. SEE SHEET M3.01 FOR CONTINUATION.
6. SEE CIVIL PLANS FOR CONTINUATION.



1 LEVEL 1 UNDERGROUND PLUMBING PLAN

1/8" = 1'-0"

NORTH

NOTE: DRAWING MAY BE REDUCED

0 4' 8' 16'

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PIER 4 PHASE 2 MARINE BUILDING

LEVEL 1 UNDERGROUND PLUMBING PLAN

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:	DRAWING SCALE: AS NOTED	

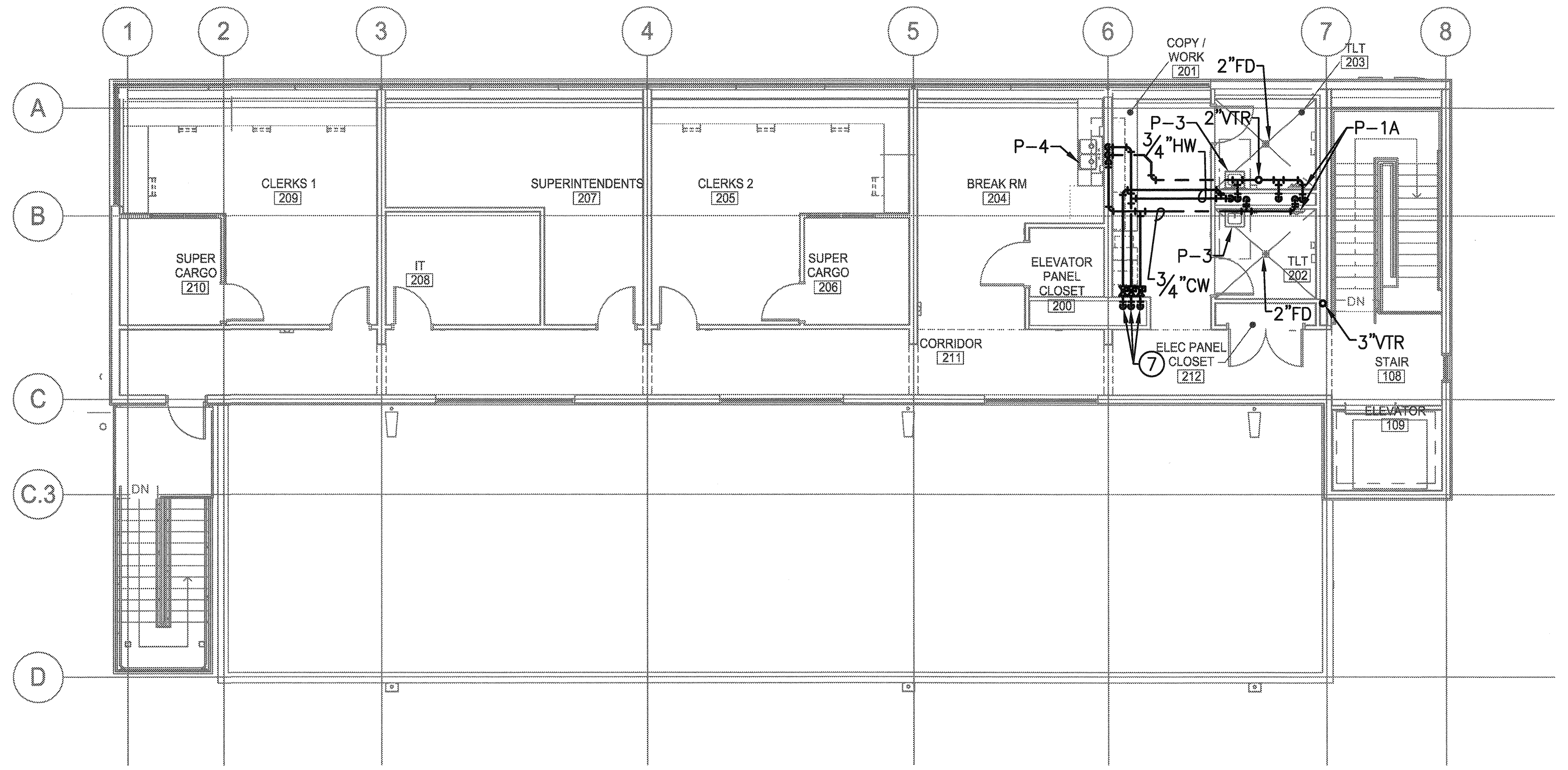
6552

M2.01

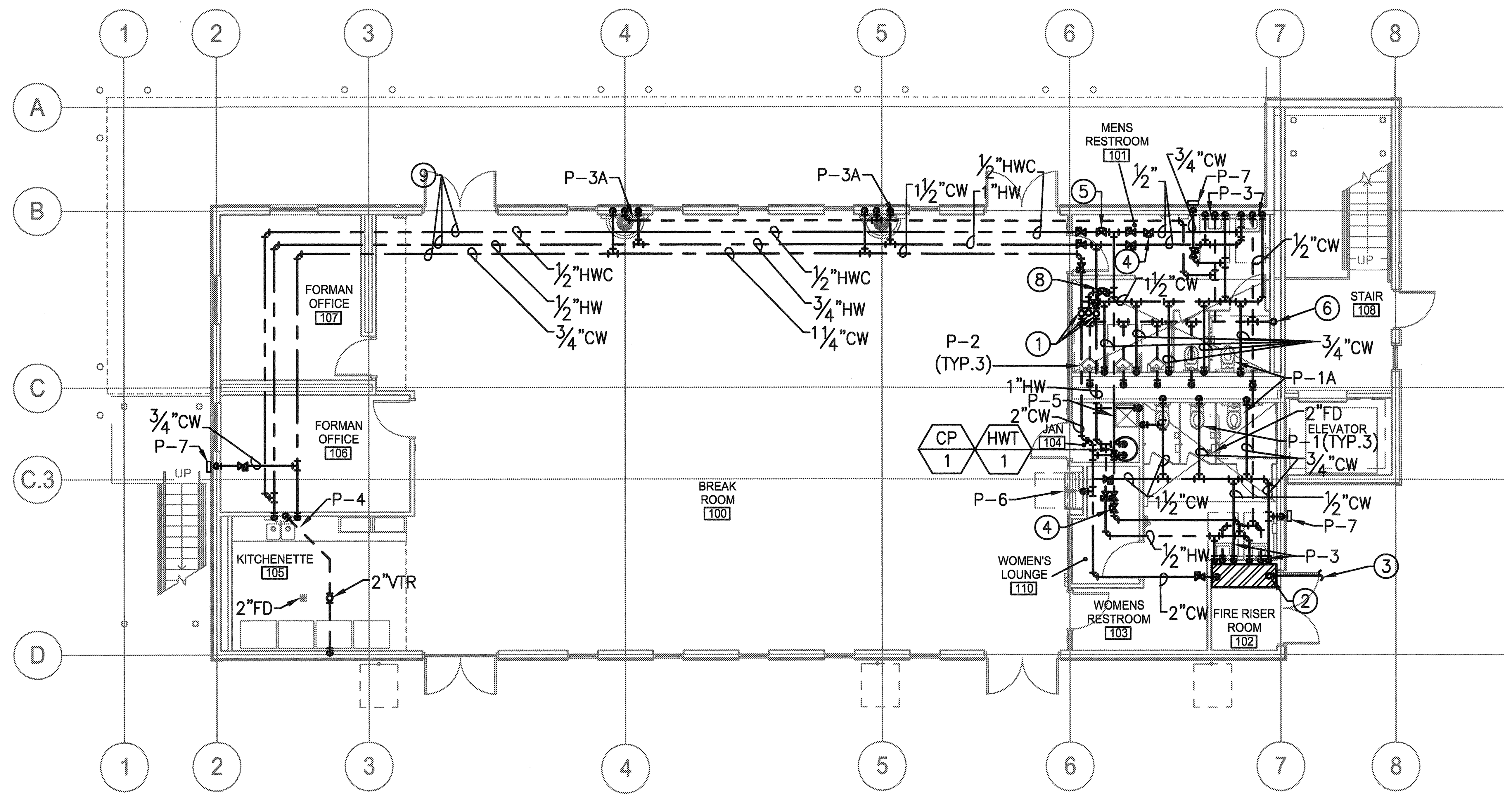
SH # 472 OF # 499

CONT/CONS:	070136
M. ID:	091251
PHASE:	BID

BINDING EDGE



② LEVEL 2 PLUMBING PLAN
1/8" = 1'-0"



① LEVEL 1 PLUMBING PLAN
1/8" = 1'-0"

GENERAL NOTES

1. ALL PIPING HAS BEEN SHOWN OFFSET FOR CLARITY. ROUTE PIPING AS CLOSE TO PLANS AS BUILDING CONDITIONS PERMIT.
2. ALL WASTE PIPING TO BE SLOPED AT 1/4" PER FOOT. ALL CONDENSATE AND VENT PIPING TO BE SLOPED AT 1/8" PER FOOT.
3. ALL PIPING TO BE RUN CONCEALED, WHERE WALLS AND CEILINGS ARE AVAILABLE.

CONSTRUCTION NOTES

1. 1"HW, 1"CW, AND 3/4" HWC UP TO SECOND LEVEL. SEE LEVEL 2 PLUMBING PLAN FOR CONTINUATION.
2. 2" DOMESTIC COLD WATER DOWN THROUGH SLAB. SEE M2.01 FOR CONTINUATION.RISER.
3. SEE CIVIL DRAWINGS FOR CONTINUATION.
4. MANUAL BALANCING VALVE. SET TO 1.5 GPM.
5. MANUAL BALANCING VALVE. SET TO 3.5 GPM.
6. 3" VENT UP.
7. 1"HW, 1"CW, AND 3/4" HWC FROM BELOW. SEE LEVEL 1 PLUMBING PLAN FOR CONTINUATION.
8. MANUAL BALANCING VALVE. SET TO 2 GPM.
9. EXPOSED PIPING TO BE ROUTED AS HIGH AS SPACE PERMITS BETWEEN WALL AND EXPOSED ROUND DUCT. EXPOSED PIPE TO BE FINISHED PER ARCHITECT.

NOTE: DRAWING MAY BE REDUCED
0 4' 8' 16'

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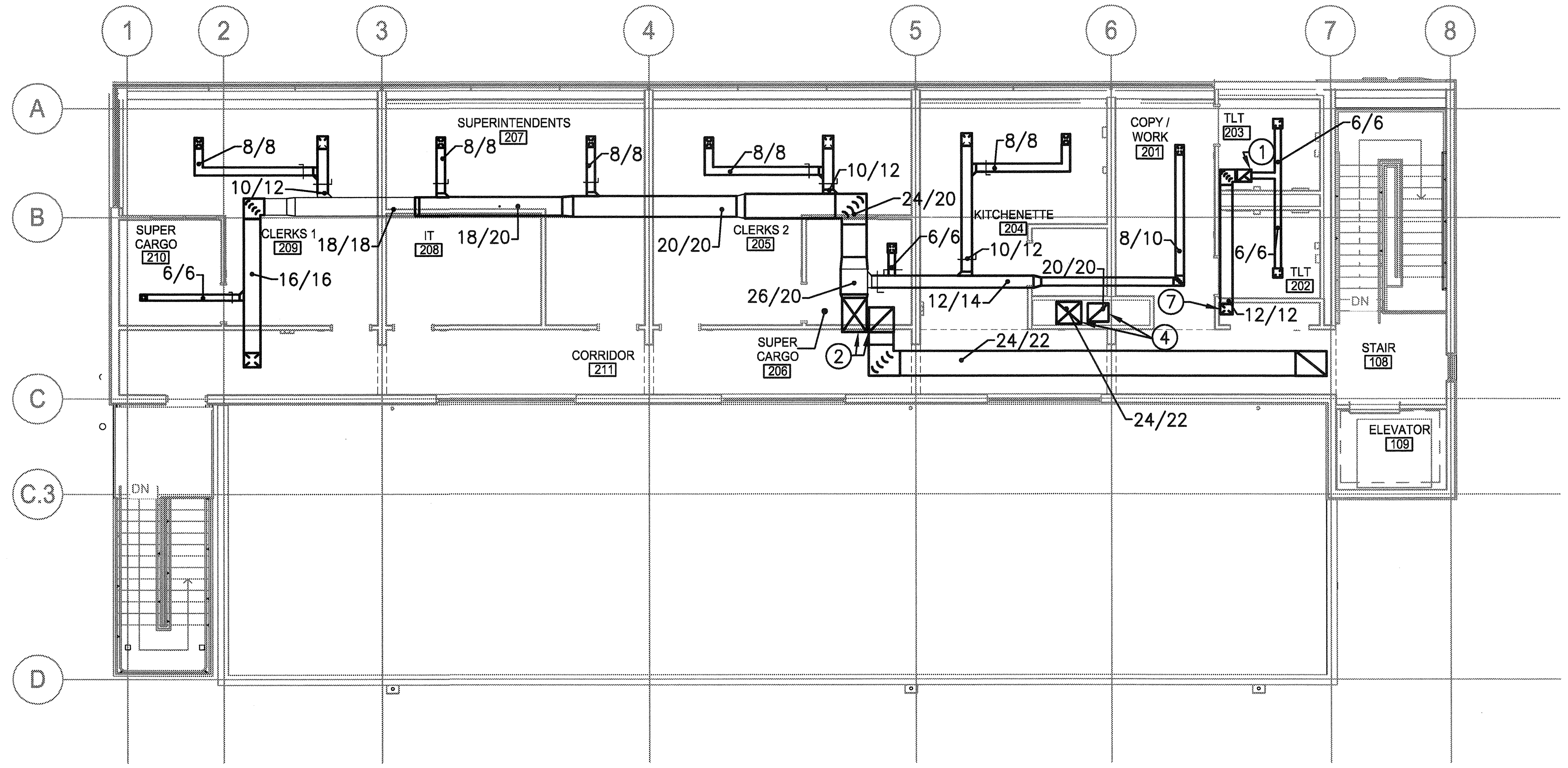
PIER 4 PHASE 2
MARINE BUILDING
LEVEL 1 & 2 PLUMBING PLAN

6552
M3.01
SH # 473 OF # 499

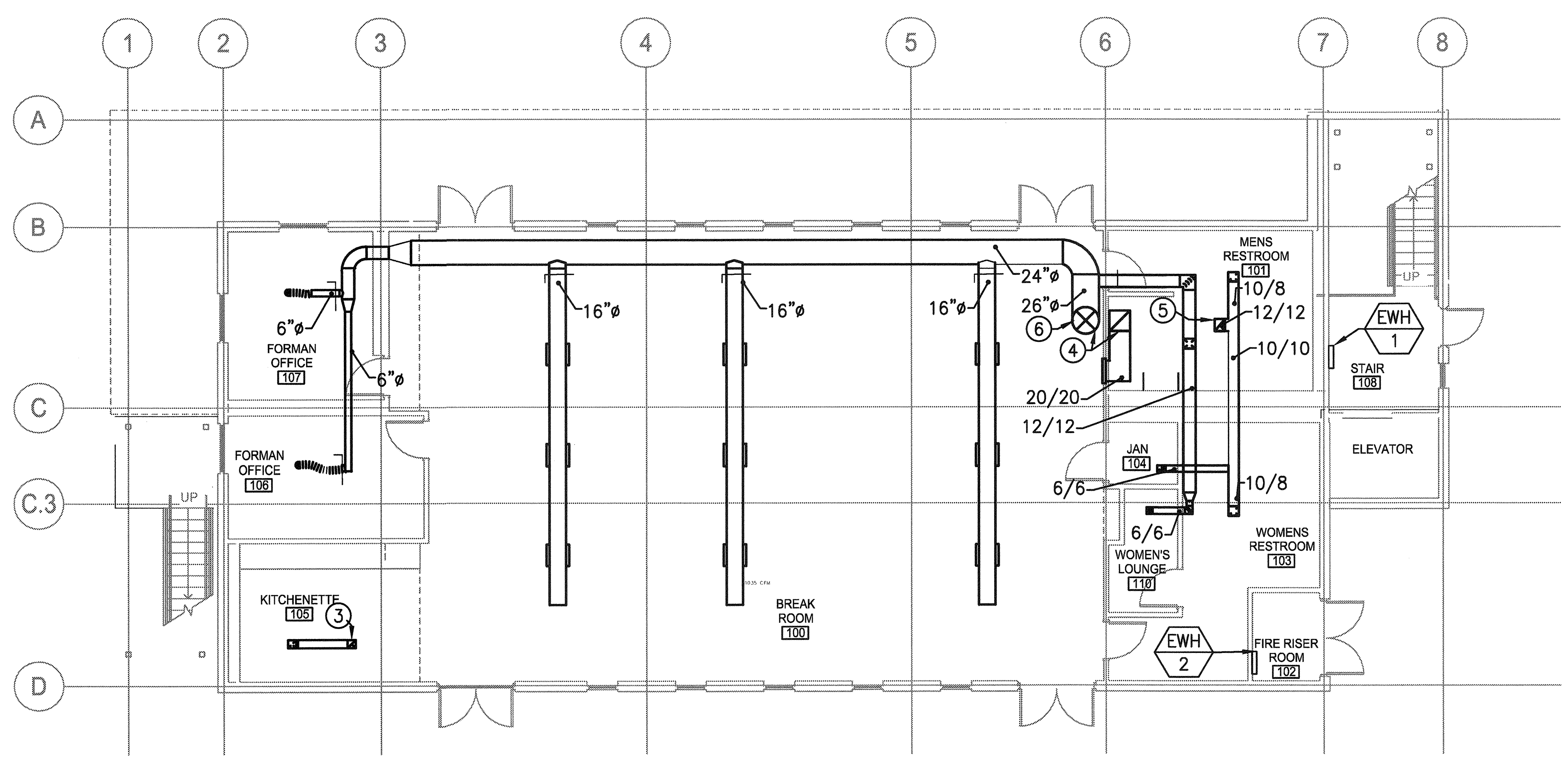
CONT/CONS: 070136	TOWNSHIP:	RANGE:	SECTION:		
M. ID: 091251	DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933			
PHASE: BID	PARCEL:	DRAWING SCALE: AS NOTED			

BINDING EDGE



2 LEVEL 2 MECHANICAL HVAC PLAN
1/8" = 1'-0"

NORTH



1 LEVEL 1 MECHANICAL HVAC PLAN
1/8" = 1'-0"

NORTH

GENERAL NOTES

1. ALL HVAC SYSTEMS SHALL BE EQUIPPED WITH CONTROLS CAPABLE OF SETBACK OR EQUIPMENT SHUTDOWN AND SHALL COMPLY WITH THE REQUIREMENTS OF W.S.E.C. C403.2.4.3.2.
2. ALL THERMOSTATS CONTROLLING ZONES WITH HEATING AND COOLING SHALL HAVE A MINIMUM 5°F DEADBAND CAPABILITY.
3. COMMISSIONING OF SYSTEMS TO COMPLY WITH W.S.E.C. SECTION C408.
4. ALL DAMPERS TO COMPLY WITH W.S.E.C. SECTIONS C402.4.5.2 AND C403.2.4.4.
5. DUCT WORK SHOWN OFFSET FOR CLARITY. ROUTE DUCT WORK AS CLOSE TO PLANS AS BUILDING CONDITIONS PERMIT. DUCT ROUTING MAY REQUIRE ADJUSTMENTS TO FACILITATE INSTALLATION. COORDINATE WITH ALL TRADES PRIOR TO INSTALLATION.
6. ALL EXPOSED DUCT TO BE ALUMINUM SPIRAL, WITH NO EXPOSED SEALANT. EXPOSED DUCT TO BE MOCKED UP ONSITE, SHOWING A JOINT FOR ARCHITECT'S APPROVAL.

CONSTRUCTION NOTES

1. 12/14 DUCT UP TO EF-2.
2. DUCT UP TO RPU-2.
3. DUCT UP TO EF-1.
4. DUCT RETURN AND SUPPLY UP MECH. CHASE TO RPU-1. PROVIDE WITH FIRE DAMPERS. OFFSET DUCT TO MATCH UNIT CONNETIONS.
5. DUCT EXHAUST UP THROUGH ELEC. CLOSET TO LEVEL 2 CEILING SPACE, SEE LEVEL 2 MECH. HVAC PLAN FOR CONTINUATION.
6. TRANSITION TO 24/22 SQUARE DUCT BETWEEN FIRST FLOOR AND SECOND FLOOR IN CHASE. PROVIDE PAINTABLE FINISH RING FROM FIRST LEVEL CEILING TO CHASE.
7. EXHAUST DUCT FROM LEVEL 1 HVAC PLAN.

NOTE: DRAWING MAY BE REDUCED
0 4' 8' 16'

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2/19/2016

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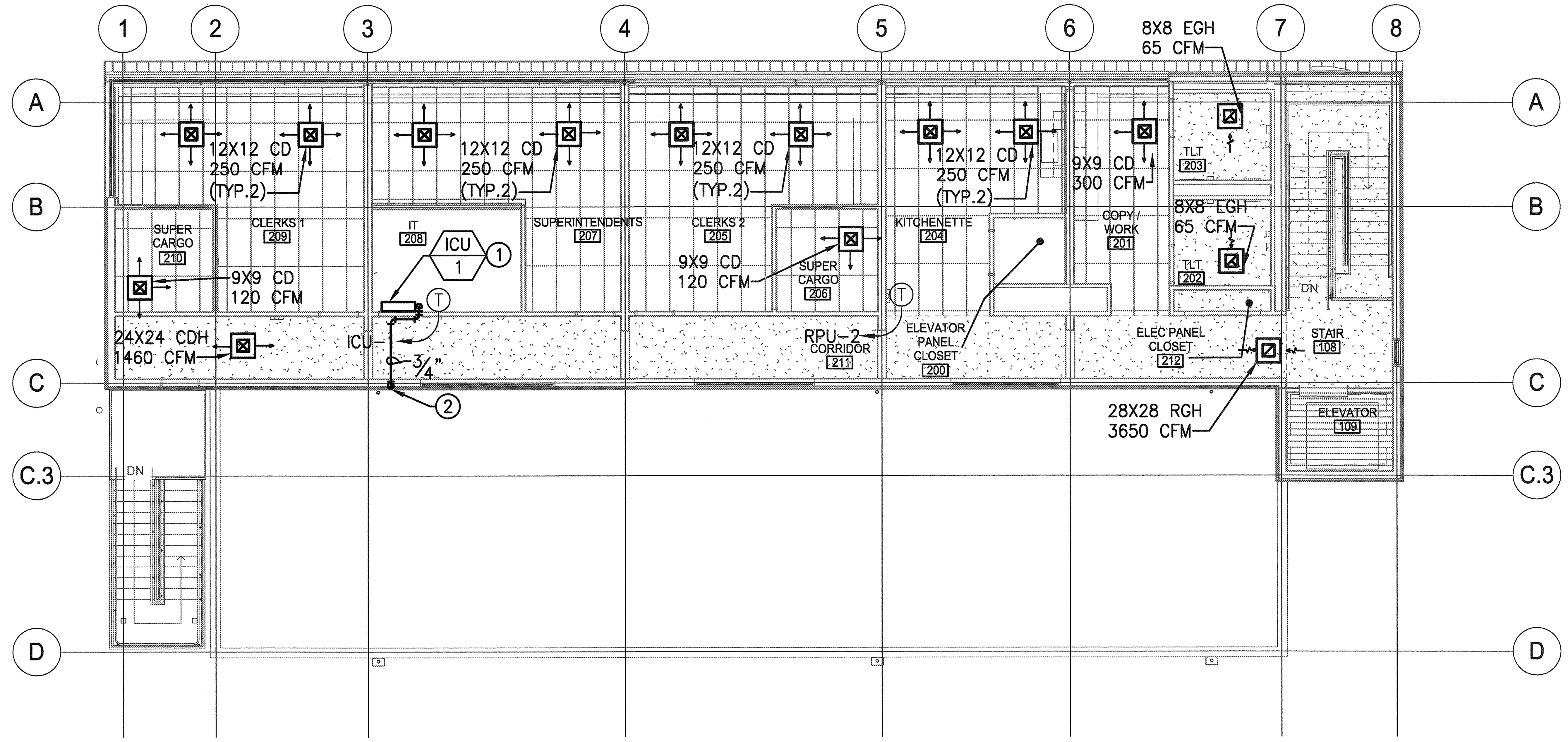
PIER 4 PHASE 2
MARINE BUILDING
MECHANICAL HVAC PLANS

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:	DRAWING SCALE: AS NOTED	

6552
M4.01
SH # 474 OF # 499

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

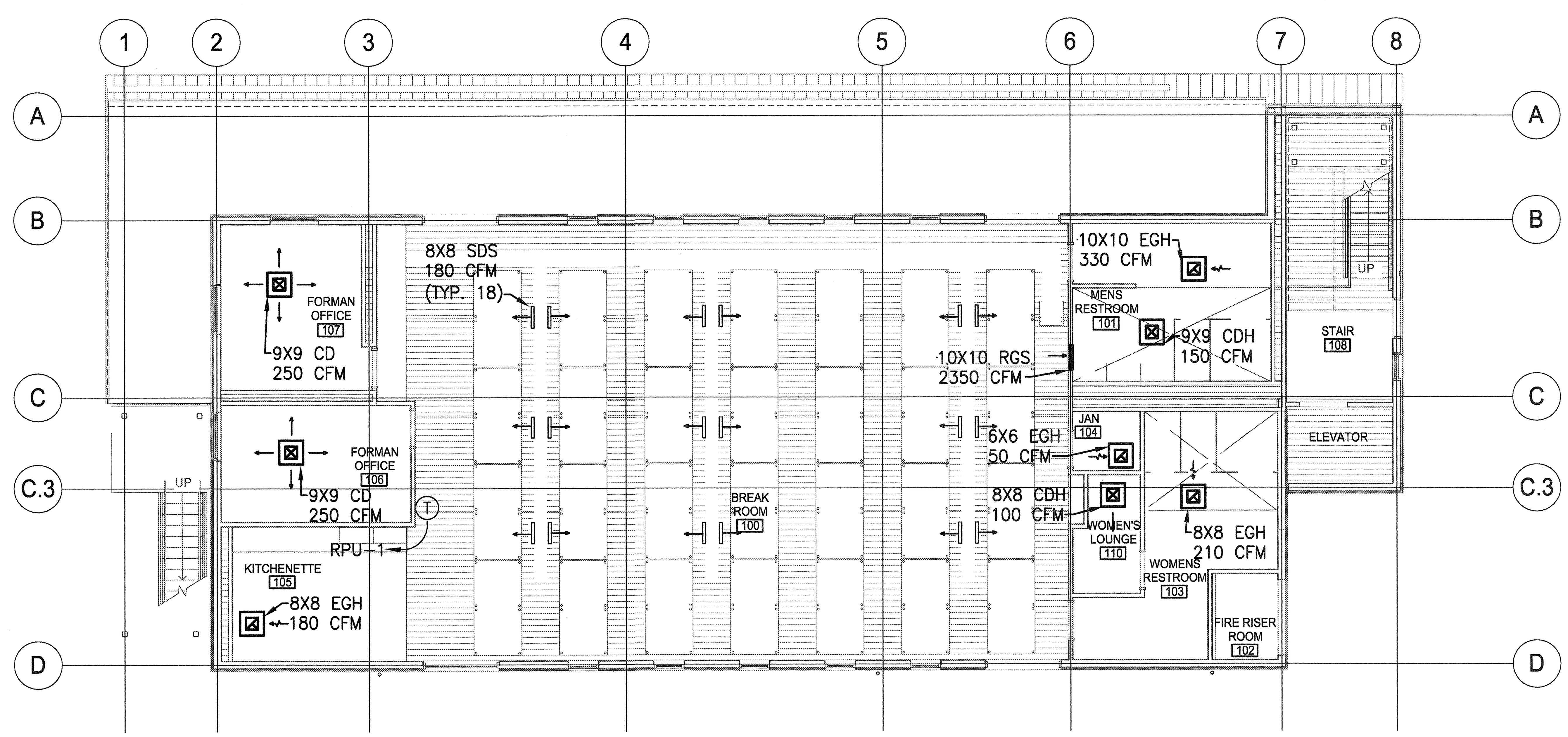
BINDING EDGE



2 LEVEL 2 REFLECTED CEILING PLAN

1/8" = 1'-0"

NORTH



1 LEVEL 1 REFLECTED CEILING PLAN

1/8" = 1'-0"

NORTH

GENERAL CONTROL NOTES

1. ALL HVAC SYSTEMS SHALL BE EQUIPPED WITH CONTROLS CAPABLE OF SETBACK OR EQUIPMENT SHUTDOWN AND SHALL COMPLY WITH THE REQUIREMENTS OF W.S.E.C. C403.2.4.3.2.
2. ALL THERMOSTATS CONTROLLING ZONES WITH HEATING AND COOLING SHALL HAVE A MINIMUM 5°F DEADBAND CAPABILITY.
3. COMMISSIONING OF SYSTEMS TO COMPLY WITH W.S.E.C. SECTION C408.
4. ALL DAMPERS TO COMPLY WITH W.S.E.C. SECTIONS C402.4.5.2 AND C403.2.4.4.

CONSTRUCTION NOTES

1 PROVIDE WITH MFR. RECOMMENDED CONDENSATE PUMP.

2 PIPE DOWN INSIDE WALL AND TERMINATE OUTSIDE WITH DOWN TURNED ELBOW 4" ABOVE ROOF.

NOTE: DRAWING MAY BE REDUCED

0 4' 8' 16'

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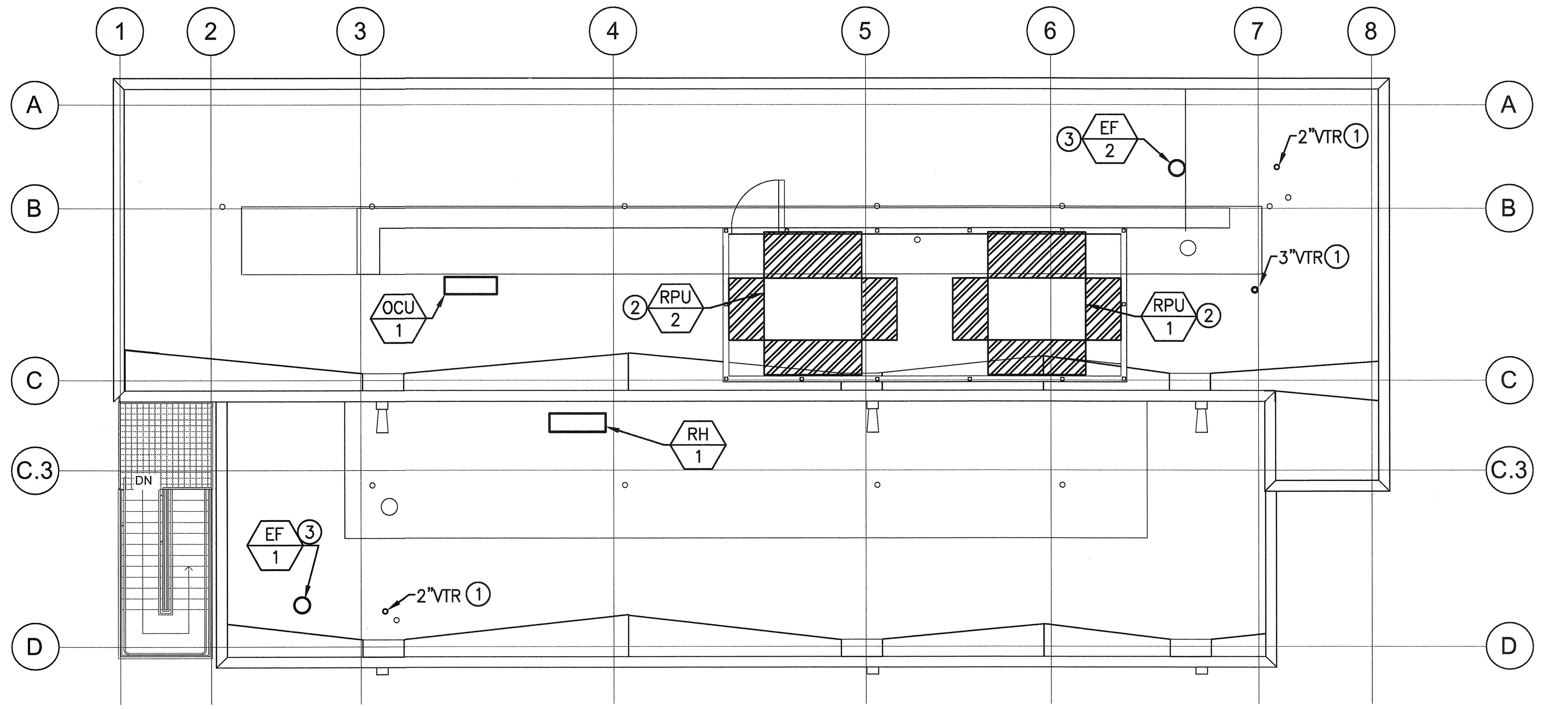
PIER 4 PHASE 2
MARINE BUILDING
REFLECTED CEILING AND HVAC PLANS

TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

6552
M4.02
SH # 475 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID



1 ROOFTOP MECHANICAL HVAC PLAN
1/8" = 1'-0"

CONSTRUCTION NOTES

1. SEE VENT THROUGH ROOF DETAIL ON SHEET M6.01.
2. SEE ROOFTOP UNIT INSTALLATION DETAIL ON SHEET M6.01.
3. SEE ROOFTOP EXHAUST FAN INSTALLATION DETAIL ON SHEET M6.01.

GENERAL NOTES

1. PROVIDE UNITS WITH MANUFACTURER REQUIRED MAINTENANCE CLEARANCES.
2. ALL EXHAUST OUTLETS TO BE MIN 10' 0" FROM BUILDING EQUIPMENT INTAKES/OPENINGS.

NOTE: DRAWING MAY BE REDUCED
0 4' 8' 16'

6552
M4.03
SH # 476 OF # 499

PIER 4 PHASE 2
MARINE BUILDING
ROOFTOP MECHANICAL HVAC PLAN

CONT/CONS: 070136	TOWNSHIP:	RANGE:	SECTION:
M. ID: 091251	DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PHASE: BID	PARCEL:	DRAWING SCALE: AS NOTED	

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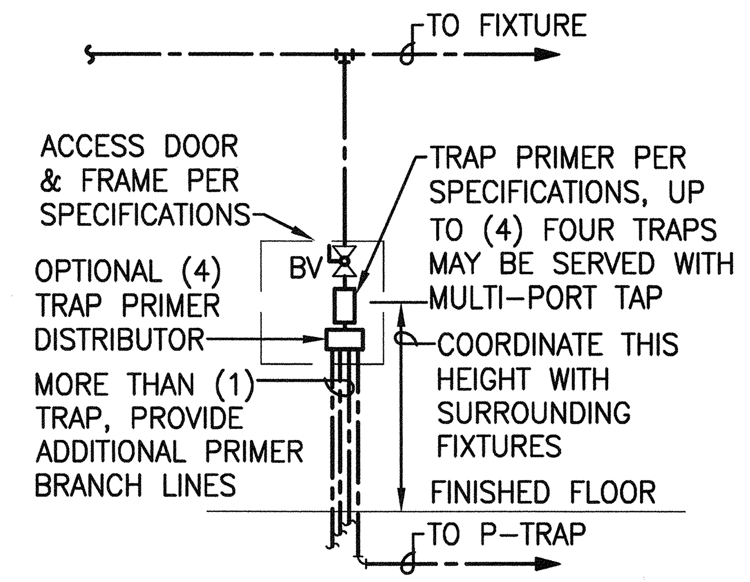
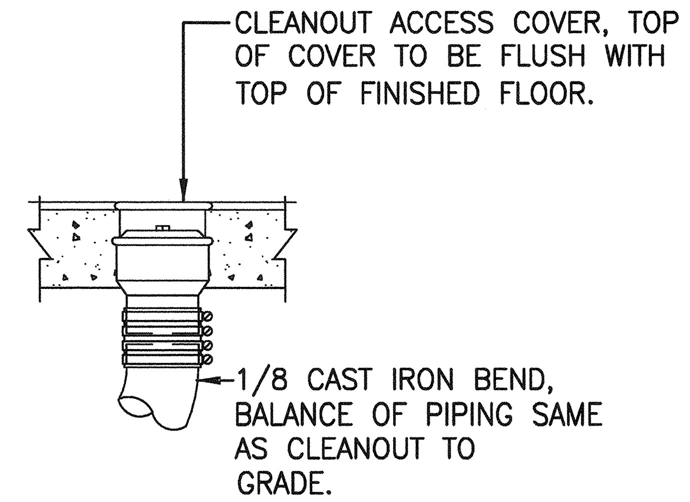


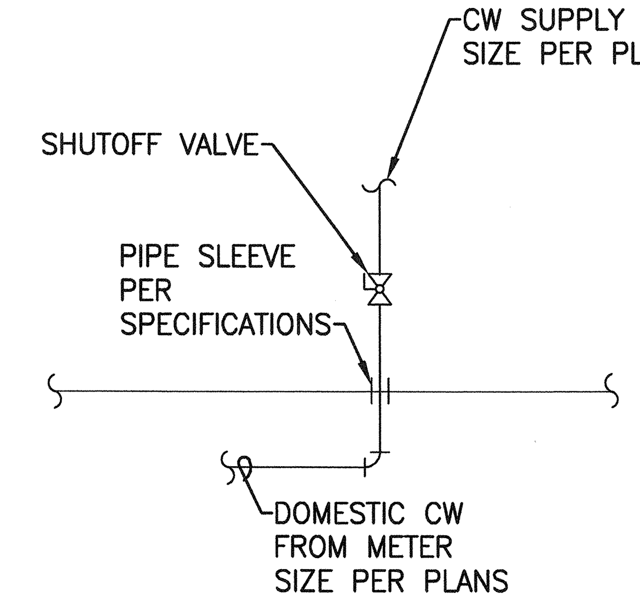
TRAP PRIMER PIPING DIAGRAM

DIAGRAMMATIC



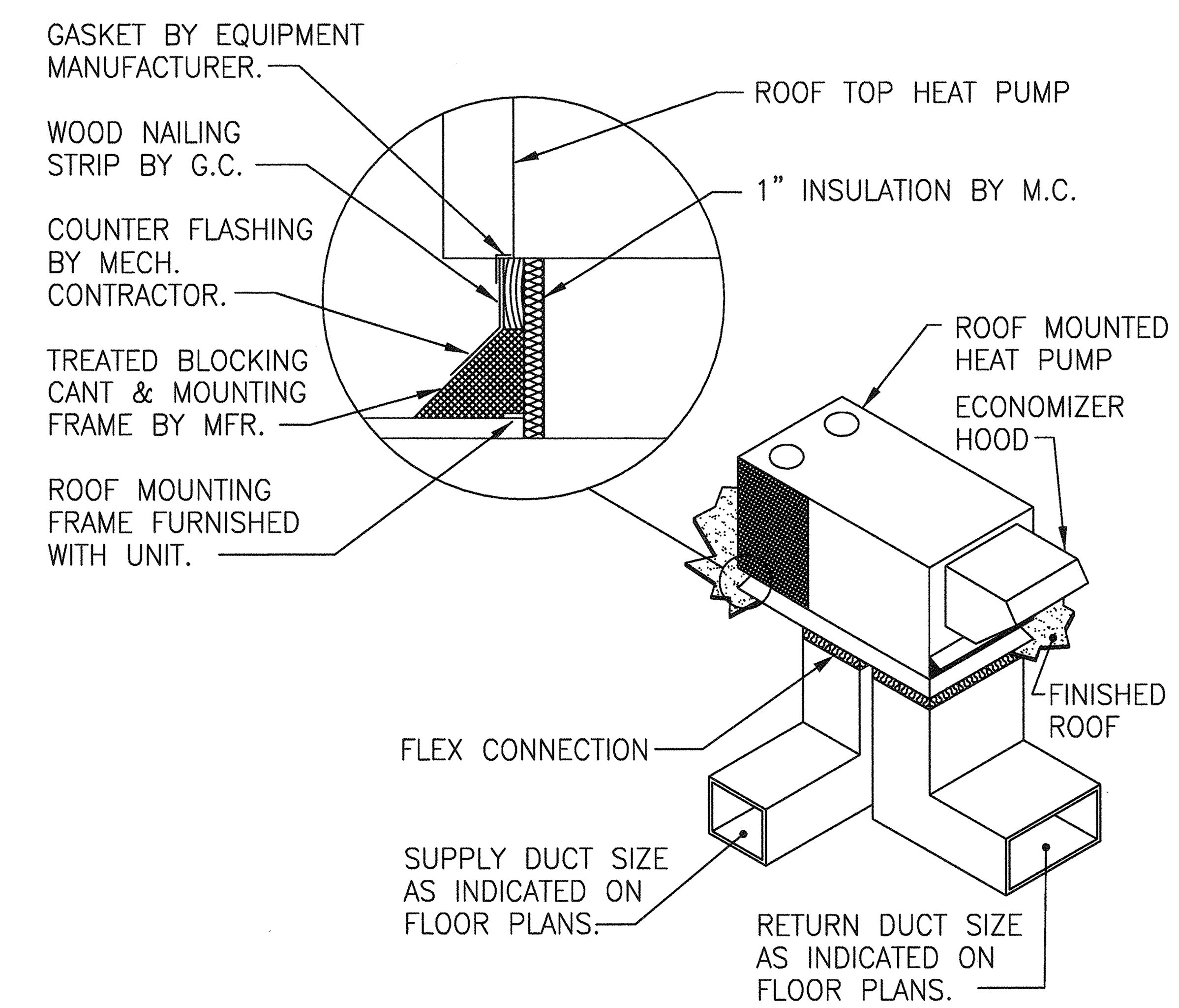
FLOOR CLEANOUT DETAILS

DIAGRAMMATIC



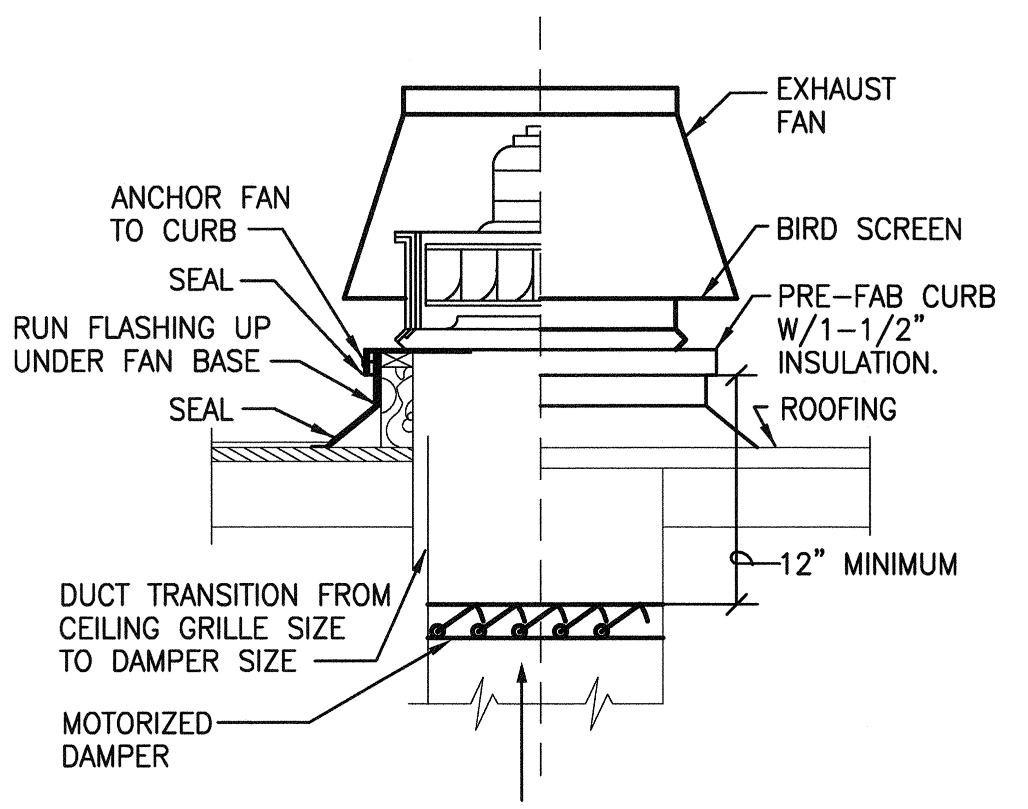
DOMESTIC WATER HEADER DETAIL

DIAGRAMMATIC
DIAGRAMMATIC REFER ARCH FOR CURB AND FLASHING DETAILS



TYPICAL ROOF MOUNTED HVAC UNIT INSTALLATION DETAIL

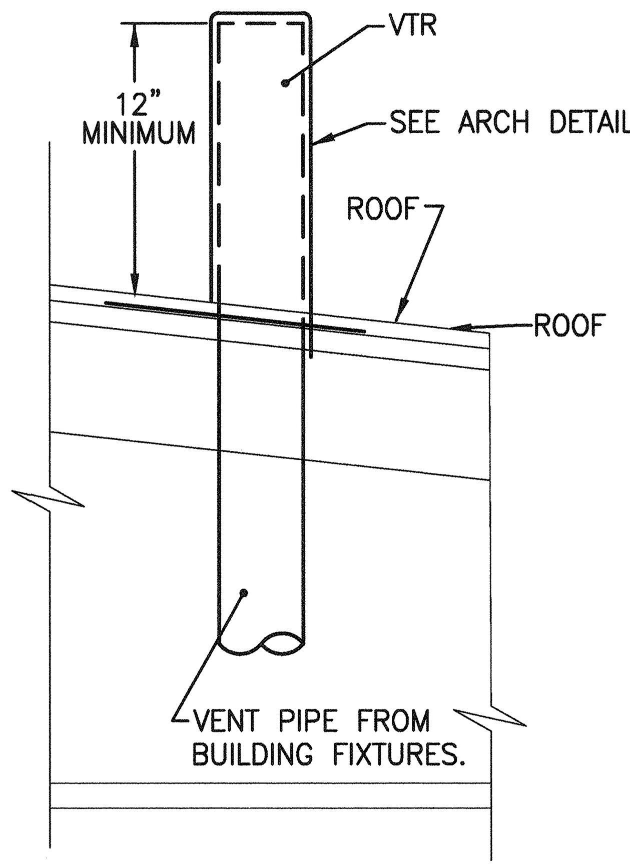
DIAGRAMMATIC



NOTE: FLASHING AND CURB TO BE SEAL WEATEHRTIGHT ALL AROUND.

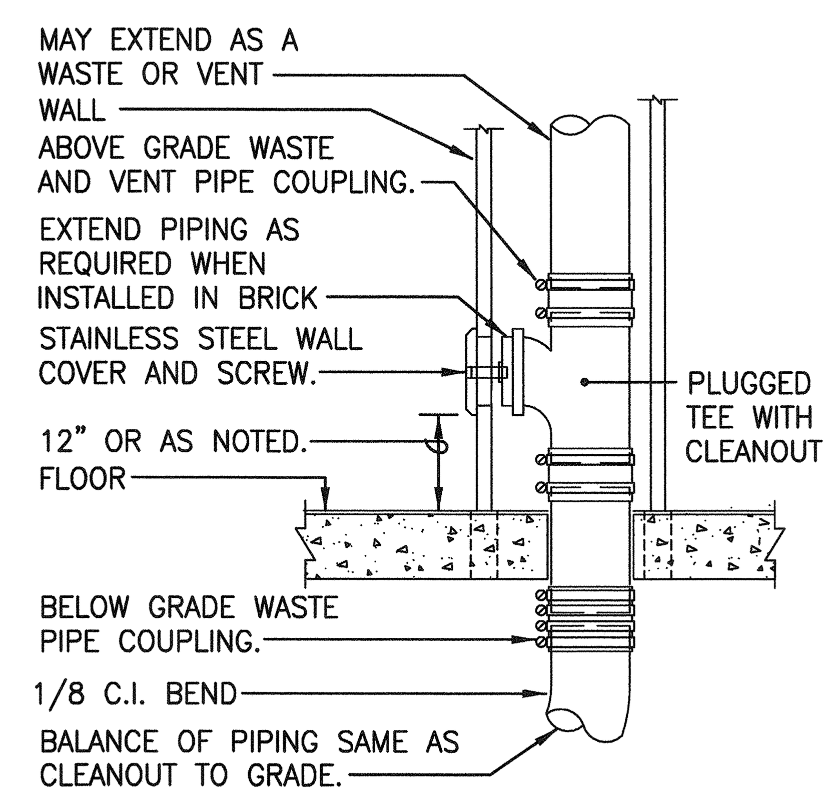
TYPICAL ROOF FAN INSTALLATION DETAIL

DIAGRAMMATIC
REFER ARCH FOR CURB AND FLASHING DETAILS



VENT THROUGH ROOF DETAIL

DIAGRAMMATIC
REFER ARCH FOR CURB AND FLASHING DETAILS

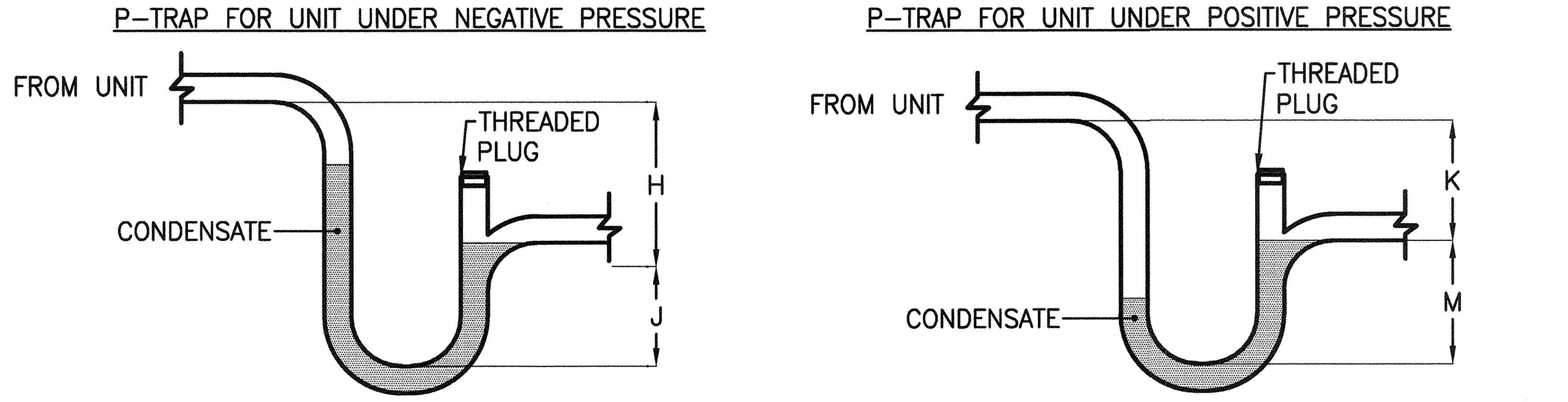


WALL CLEANOUT DETAIL

DIAGRAMMATIC

P-TRAP FOR UNIT UNDER NEGATIVE PRESSURE

P-TRAP FOR UNIT UNDER POSITIVE PRESSURE



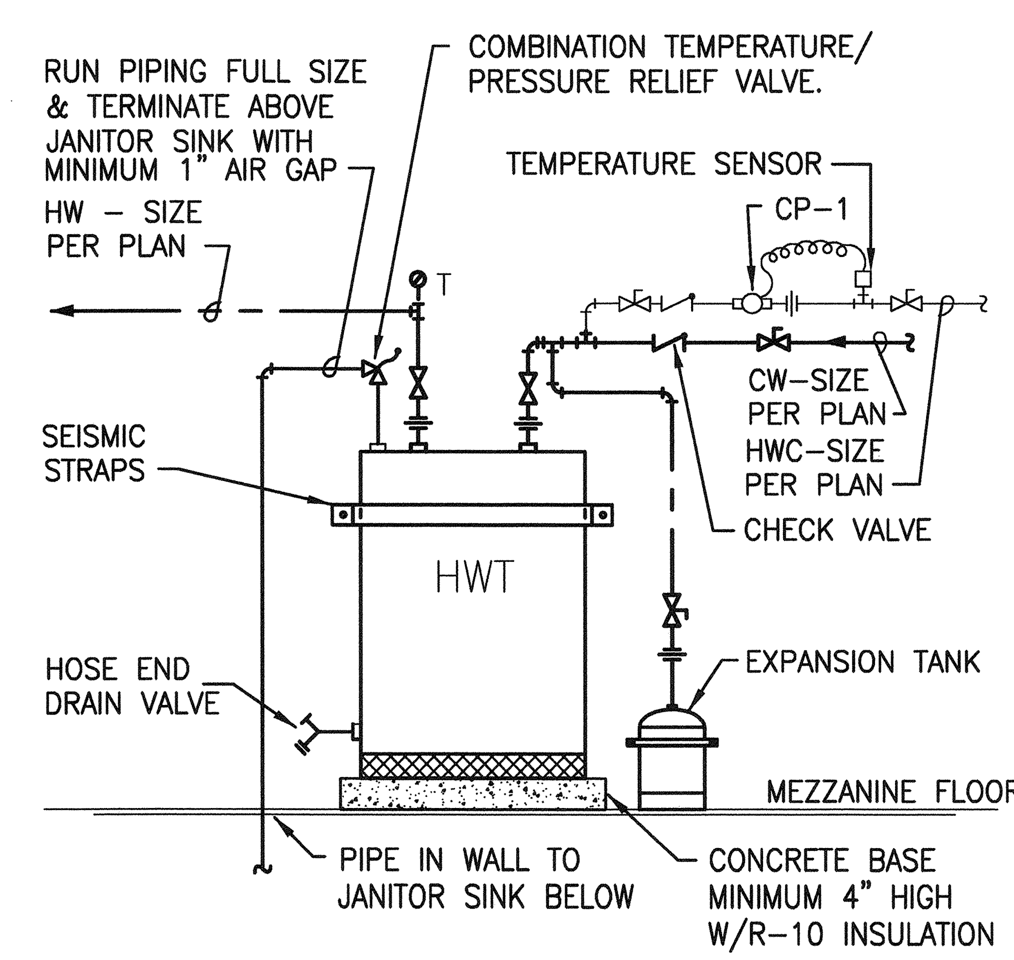
H = (1" FOR EACH 1" OF MAXIMUM NEGATIVE PRESSURE) + 1"
J = (1/2)H

K = 1/2" MINIMUM
M = 1/2" + MAXIMUM TOTAL STATIC PRESSURE

TOTAL PRESUURE	H	J	K	M
1" W.C.	2"	1"	1/2"	1-1/2"
2" W.C.	3"	1.5"	1/2"	2-1/2"
3" W.C.	4"	2"	1/2"	3-1/2"

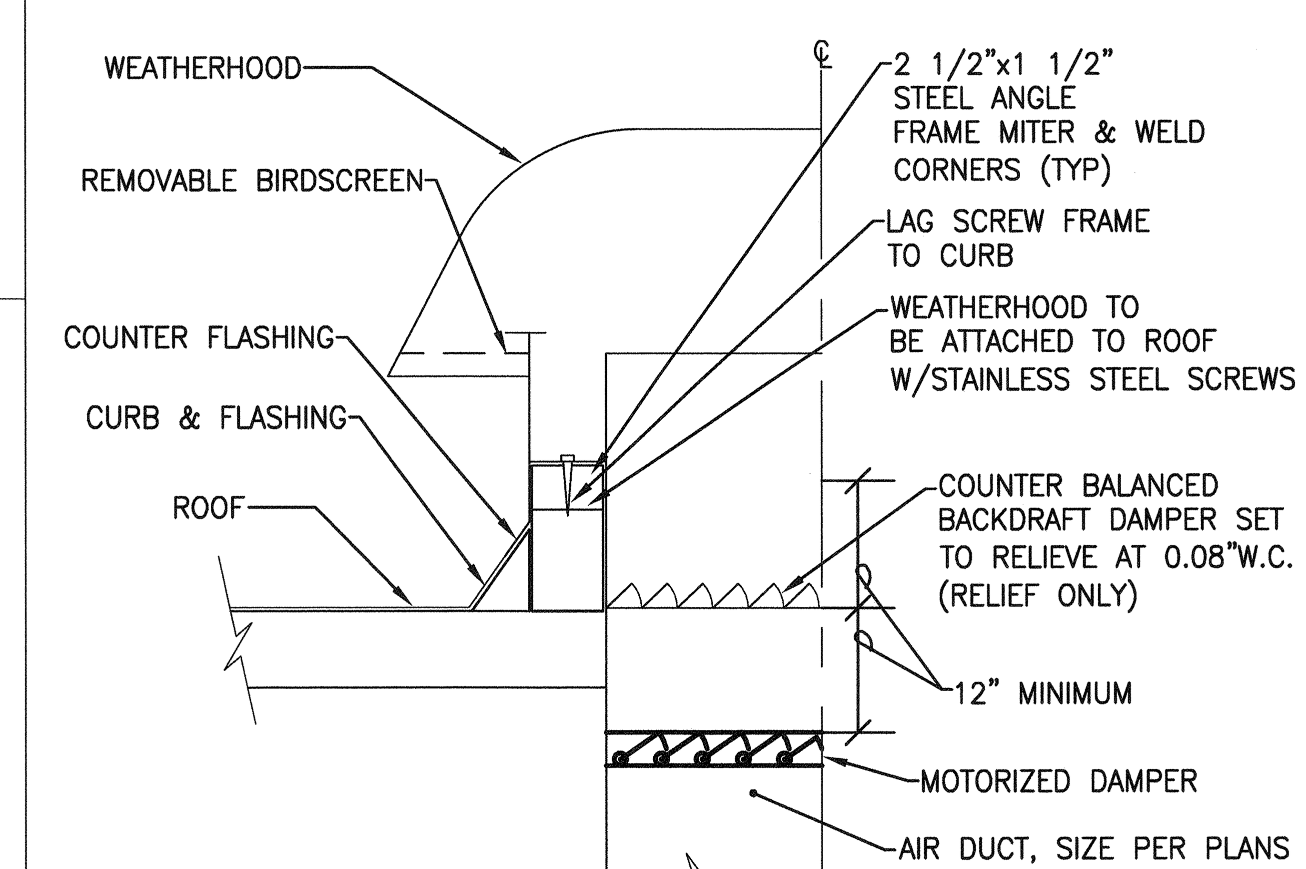
CONDENSATE P-TRAP DETAIL

DIAGRAMMATIC



HOT WATER TANK PIPING DIAGRAM

DIAGRAMMATIC



TYPICAL ROOF HOOD INSTALLATION DETAIL

DIAGRAMMATIC REFER ARCH FOR CURB AND FLASHING DETAILS

BINDING EDGE

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MARK:	REVISION:	BY:	APPR:	DATE:
				12/18/15

CHRISTOPHER ANDREW SEE, STATE OF WASHINGTON, REGISTERED PROFESSIONAL ENGINEER, 38634

2/19/2016

APPROVED:
3-28-16

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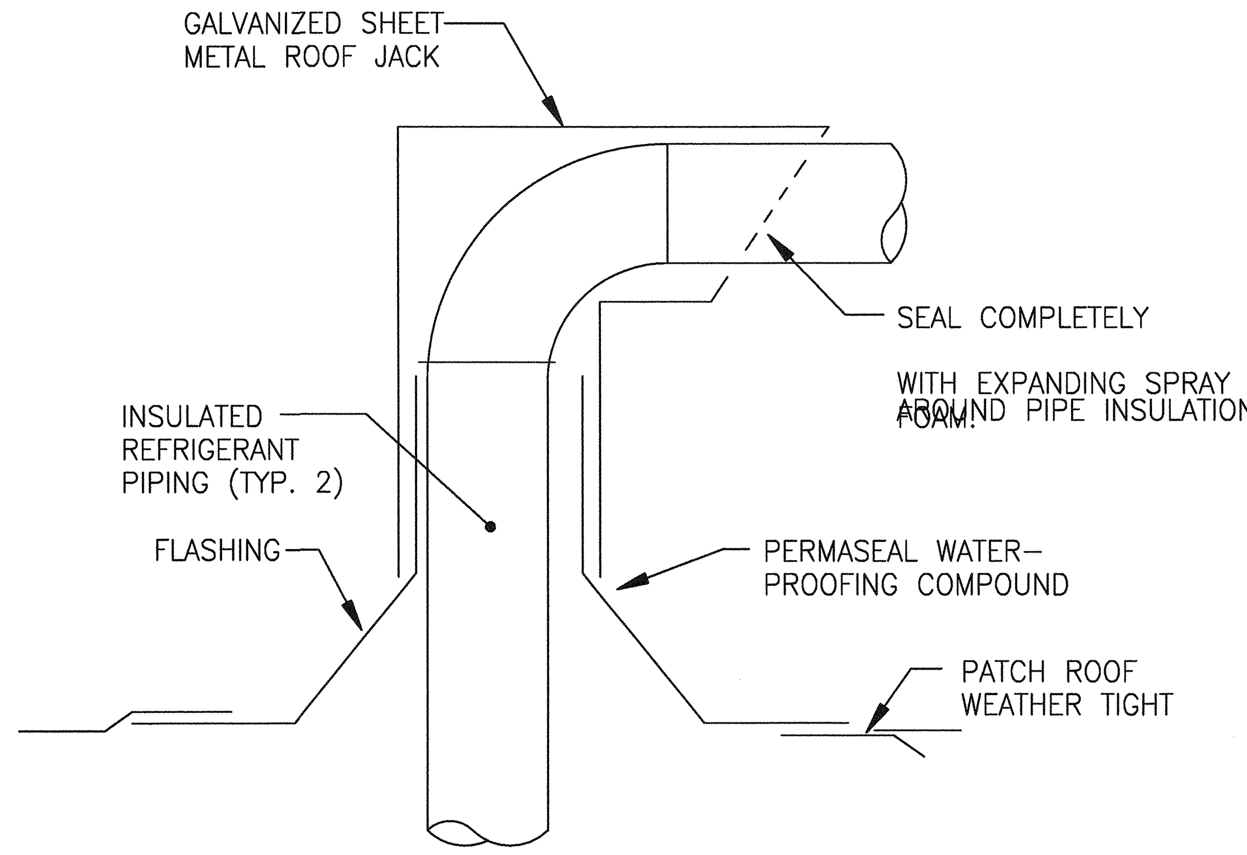
PIER 4 PHASE 2
MARINE BUILDING
MECHANICAL DETAILS

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:	DRAWING SCALE: AS NOTED	

6552
M6.01
SH # 477 OF # 499

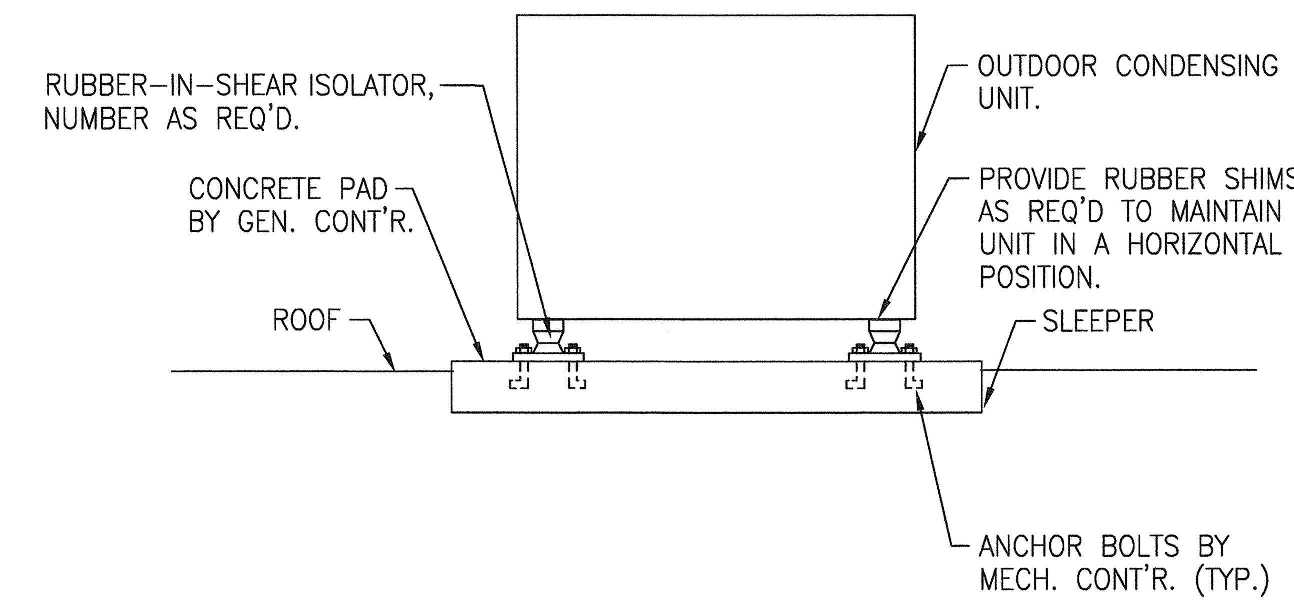
CONT/CONS:	070136
M. ID:	091251
PHASE:	BID

BINDING EDGE



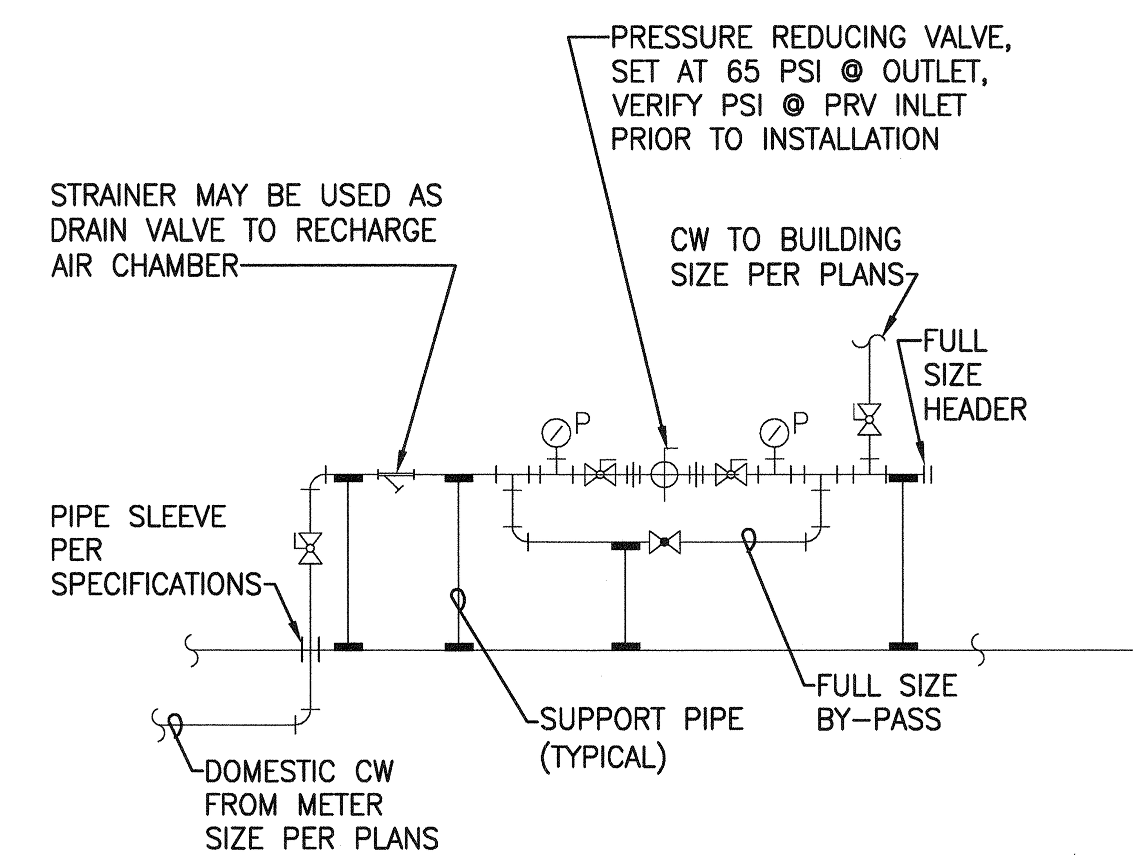
REFRIGERANT THRU ROOF PENETRATION DETAIL

DIAGRAMMATIC



OUTDOOR CONDENSOR MOUNTING DETAIL

DIAGRAMMATIC



DOMESTIC WATER HEADER DETAIL

DIAGRAMMATIC

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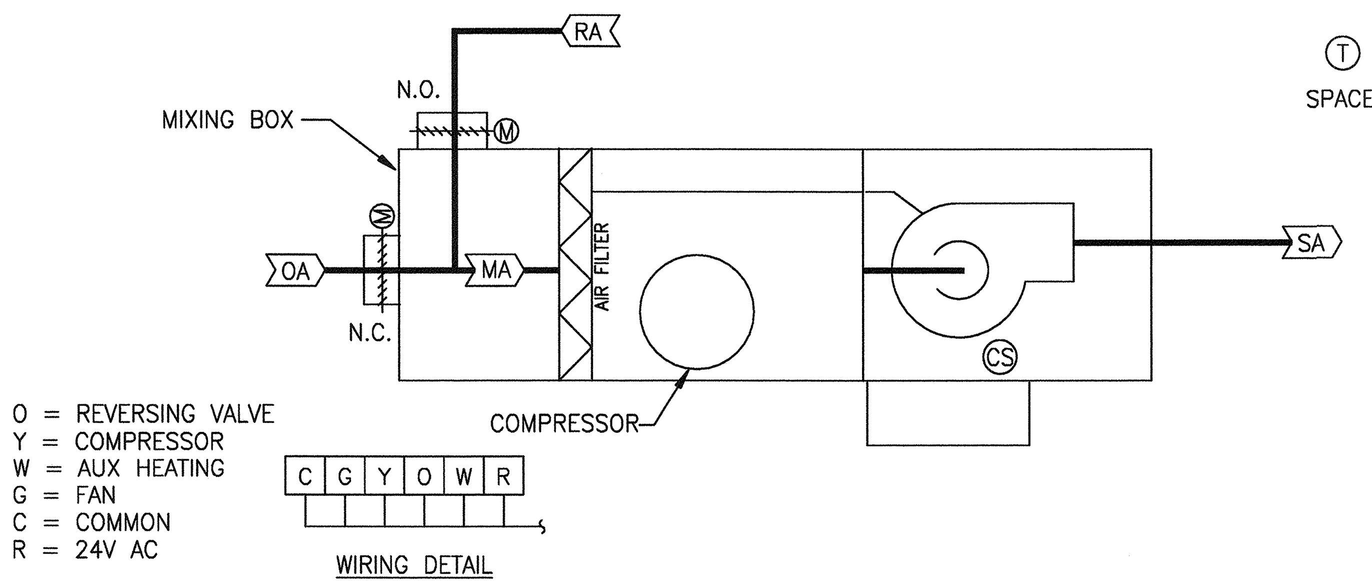


SINGLE ZONE AIR TO AIR HEAT PUMPS

GENERAL
1. (VAR) IS AN ABBREVIATION THAT INDICATES THE PROCEEDING NOUN IS AN THERMOSTAT VARIABLE VALUE.
2. EACH HEAT PUMP CONTROLLED BY A DEDICATED THERMOSTAT.
3. SPACE TEMPERATURE SENSORS EQUIPPED WITH PUSHBUTTONS TO PROVIDE UNOCCUPIED OVERRIDE REQUEST AND SPACE TEMPERATURE SETPOINT ADJUSTMENT AS REQUIRED.
4. DAMPER ACTUATORS SHALL 0–10VDC PROPORTIONAL CONTROL SIGNAL AND SPRING RETURN.
5. MULTIPLE COMPRESSORS REQUIRE INDIVIDUAL START/STOPS AND STATUSES.

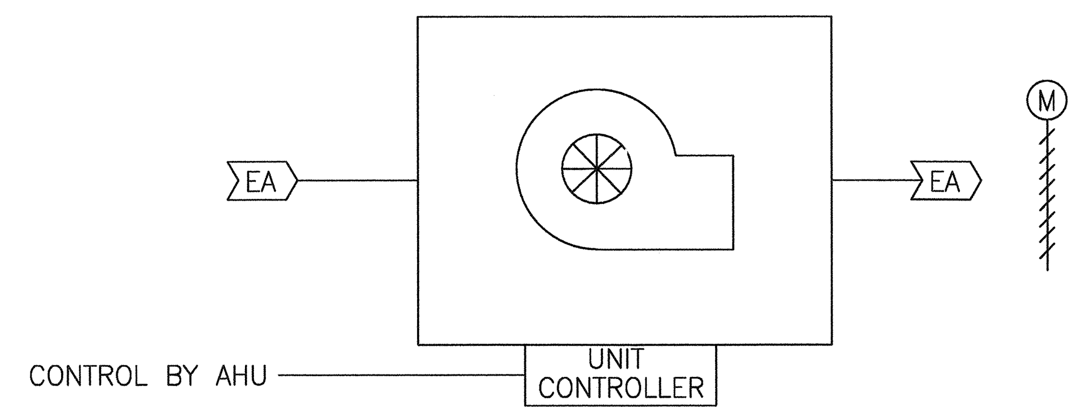
FAN
1. FAN STARTS VIA:
A. SCHEDULE (VAR),
B. WARM–UP MODE COMMAND (VAR). GENERATED BY THERMOSTAT OPTIMIZATION ROUTINE.
C. OVERRIDE COMMAND (VAR). TRIGGERED BY SPACE TEMPERATURE SENSOR UNOCCUPIED OVERRIDE REQUEST (TYPICAL 3 HOUR DURATION (VAR)), UNOCCUPIED HEATING OR COOLING MODE ACTIVATION, OR THERMOSTAT INTERFACE.
2. FAN ALARMS:
A. HARDWIRE FAN SHUTDOWN UPON ACTIVATION OF FIRE/SMOKE ALARM.

ECONOMIZER
1. ECONOMIZER CONSISTS OF THE MIXED AIR DAMPER AND OUTSIDE AIR DAMPER WORKING IN OPPOSITION. OUTSIDE AIR DAMPER SPRINGS NORMALLY CLOSED AND MIXED AIR DAMPER SPRINGS NORMALLY OPEN.
2. ECONOMIZER IS CLOSED WHEN FAN IS OFF OR WHEN SYSTEM IS IN WARM–UP MODE.
3. ECONOMIZER CLOSES TO A MINIMUM DAMPER POSITION AS DETERMINED BY AIR BALANCER (VAR) IN HEATING MODE. INITIAL CO2 SETPOINT IS 1000 PPM (VAR). ECONOMIZER CLOSES COMPLETELY VIA A MIXED AIR LOW LIMIT SETPOINT INITIALLY SET AT 40°F (VAR).
4. ECONOMIZER MODULATES AS FIRST STAGE OF COOLING TO MAINTAIN SPACE TEMPERATURE SETPOINT (VAR).
5. ECONOMIZER CLOSES TO MINIMUM DAMPER POSITION WHEN OSA TEMPERATURE EXCEEDS RETURN AIR TEMPERATURE.

MECHANICAL HEATING
1. COMPRESSOR IS OFF WHEN FAN STATUS IS OFF.
2. USE REVERSING VALVE AND COMPRESSOR FOR FIRST STAGE HEATING TO MAINTAIN SPACE TEMPERATURE SETPOINT.
3. USE AUXILIARY ELECTRIC HEAT AS SECOND STAGE IF AVAILABLE.
4. USE DELAY TIMERS TO PREVENT SHORT CYCLING.

MECHANICAL COOLING
1. COMPRESSOR IS OFF WHEN FAN STATUS IS OFF
2. USE REVERSING VALVE AND COMPRESSOR FOR SECOND STAGE COOLING TO MAINTAIN SPACE TEMPERATURE SETPOINT.
3. USE DELAY TIMERS TO PREVENT SHORT CYCLING.

TEMPERATURE SETPOINT
1. SET HEATING MODE ACTIVATION TEMPERATURE AT 69 DEGREES F. (VAR)
2. SET COOLING MODE ACTIVATION TEMPERATURE 4 DEGREES (VAR) ABOVE HEATING MODE ACTIVATION SETPOINT.
3. SUPPLY AIR TO REMAIN BETWEEN 55 (VAR) AND 85 (VAR) DEGREES F. LOW LIMIT FOR SUPPLY TEMPERATURE IN HEATING OR DEADBAND MODE IS 70°F (VAR)



INTERLOCKED EXHAUST FAN CONTROL SEQUENCE

1. DAMPER AND EXHAUST FAN SHALL BE INTERLOCKED WITH THE AHU SO THAT WHEN THE AHU IS IN OPERATION, SO IS THE EXHAUST FAN. DAMPERS SHALL BE FULLY OPEN BEFORE FANS START.

CONTROL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
T	THERMOSTAT (T'STAT)	AFF	ABOVE FINISHED FLOOR
TT	TEMPERATURE SENSOR	BFF	BELOW FINISHED FLOOR
RA	RETURN AIR	POC	POINT OF CONNECTION
SA	SUPPLY AIR	MC	MECHANICAL CONTRACTOR
OA	OUTSIDE AIR	EC	ELECTRICAL CONTRACTOR
EA	EXHAUST AIR	GC	GENERAL CONTRACTOR
M	MOTORIZED DAMPER	CR	CONTROL RELAY
CS	CURRENT SENSOR	OC	OCCUPANCY SENSOR
SD	SMOKE DETECTOR		

MISCELLANEOUS CONTROLS

A. GENERAL: PROVIDE AND INSTALL ALL NECESSARY DEVICES, RELAYS, SWITCHES, SENSORS, DAMPERS, CONDUIT, AND WIRING TO PROVIDE A COMPLETE AND OPERATING STAND ALONE CONTROL SYSTEM.

B. FIRE ALARM SYSTEM SHUTDOWN:

1. PROVIDE NECESSARY CONDUIT, WIRING, AND ACCESSORIES TO SHUTDOWN EACH UNIT UPON ACTIVATION OF THAT UNIT'S SMOKE DETECTORS (SMOKE DETECTORS WITH DPDT ARE BY DIVISION 16). CONNECTIONS SHALL BE HARDWIRED, INDEPENDENT OF ANY CONTROL SYSTEM LOGIC, SO THAT FAILURE OF CONTROL SYSTEM OR LOSS OF CONTROL SYSTEM WILL IN NO WAY PREVENT THE ALARMED SMOKE DETECTOR SHUTDOWN OF THE SYSTEM. IN ADDITION TO SHUTTING DOWN THE UNIT WITH THE ALARMED SMOKE DETECTOR.

C. INTERLOCKS: PROVIDE ALL NECESSARY EQUIPMENT, DEVICES, WIRING AND PROGRAMMING FOR INTERLOCK OF EQUIPMENT AS SHOWN ON THE EQUIPMENT SCHEDULES.

D. WATER HEATERS: WATER HEATERS SHALL BE CONTROLLED BY THERMOSTAT PROVIDED WITH UNIT. SET FOR 120 DEGREES.

E. DOMESTIC HW RECIRCULATION PUMPS: PUMP SHALL BE ENABLED TO OPERATE VIA A TIME CLOCK. WHEN ENABLED, PUMP SHALL BE CONTROLLED IN CONJUNCTION WITH A STAND ALONE SENSOR IN THE HOT WATER RECIRCULATION LINE. WHEN HWC FALLS TO 5 DEGREES F BELOW SETPOINT, THE PUMP SHALL RUN; WHEN TEMPERATURE RETURNS TO SETPOINT, PUMP SHALL BE OFF. SETPOINT AND DIFFERENTIAL SHALL BE ADJUSTABLE. INITIAL SETPOINT SHALL BE 5 DEGREES LESS THAN ASSOCIATED WATER HEATER.

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SH # 479 OF # 499
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FIRE PROTECTION LEGEND

SYMBOL	DESCRIPTION
	ELEVATION CHANGE IN PIPING WITH A 90° ELBOW GOING DOWN
	ELEVATION CHANGE IN PIPING WITH A 45° ELBOW GOING DOWN
	ELEVATION CHANGE IN PIPING WITH A 90° ELBOW GOING UP
	PIPING CONNECTION - TOP
	PIPING CONNECTION - BOTTOM
	PIPING CONNECTION - SIDE
	CAP ON END OF PIPE
	GROOVED RIGID COUPLING
	GROOVED FLEXIBLE COUPLING
	GROOVED CHECK VALVE
	GROOVED BUTTERFLY VALVE
	FLANGED OS&Y GATE VALVE
	THREADED BALL VALVE
	THREADED PRESSURE RELIEF VALVE
	THREADED UNION
	4-WAY SWAY BRACE LOCATION
	ANGLED HOSE VALVE
	HEAVY LINE INDICATES NEW MAIN PIPING
	THIN LINE INDICATES NEW BRANCH PIPING
▶	THRUST BLOCK
■	C.P.V.C. (SLIP) X STEEL (THREAD) ADAPTER
X	EQUIPMENT LIST ITEM CALL OUT
X	CONSTRUCTION NOTE CALL OUT

MINIMUM FIRE PROTECTION DESIGN CRITERIA

ROOM NAME	HAZARD CLASSIFICATION	DESIGN DENSITY (G.P.M. / SQ. FT.)	MINIMUM REMOTE AREA (SQ. FT.) UNMODIFIED	MAXIMUM HEAD SPACING (SQUARE FEET)	HOSE STREAMS (G.P.M.)	MINIMUM REMOTE AREA MODIFICATIONS THAT APPLY
FOREMAN OFFICES, BREAK ROOMS MEN'S RESTROOM, STAIRS WOMEN'S RESTROOM, TOILETS SUPER CARGO OFFICE, CLERKS I SUPERINTENDENTS, CLERKS II CORRIDOR, WOMEN'S LOUNGE	LIGHT HAZARD OCCUPANCY	0.10	1,500	225	100	1 & 2
KITCHENETTE JANITOR IT	ORDINARY HAZARD GROUP I OCCUPANCY	0.15	1,500	130	250	NONE
ELEVATOR SHAFT ELEVATOR PANEL CLOSET COPY / WORK FIRE RISER ROOM ELECTRICAL PANEL CLOSET	ORDINARY HAZARD GROUP II OCCUPANCY	0.20	1,500	130	250	NONE

SYSTEM MODIFICATIONS THAT ARE REQUIRED TO BE PERFORMED ON THE MINIMUM REMOTE AREA SIZE

MODIFICATION NUMBER	REASON FOR MODIFICATION	REMOTE AREA MODIFICATION
1	WET PIPE SYSTEM, Q.R. SPRINKLERS, 20' OR LESS CEILING, CEILING POCKETS PROTECTED	USE FIGURE 11.2.3.2.3.1 OF THE 2013 EDITION OF N.F.P.A. #13
2	EXTENDED COVERAGE SPRINKLER HEADS MAY EXCEED THE MAXIMUM HEAD SPACING LISTED	MINIMUM DESIGN AREA OR (5) SPRINKLERS, WHICHEVER IS GREATER

FLOW TEST INFORMATION

BASE HYDRAULIC CALCULATIONS FOR THE BID ON A FLOW TEST PERFORMED ON OCTOBER 2ND, 1995 BY THE CITY OF TACOMA WATER DEPARTMENT. AFTER AWARD OF THE PROJECT, THE CONTRACTOR SHALL VERIFY AVAILABLE WATER SUPPLY WITH A FLOW TEST PERFORMED WITHIN SIX MONTHS OF BID DATE. SEE PROJECT SPECIFICATIONS FOR MORE DETAIL.

TEST HYDRANT
STATIC PRESSURE: 98 P.S.I.
RESIDUAL PRESSURE: 87 P.S.I.
RESIDUAL FLOW: 4,378 G.P.M.

FLOWING HYDRANT #1
PORT #1 PITOT 43 P.S.I. FLOW: 1,101 G.P.M.
PORT #2 PITOT 42 P.S.I. FLOW: 1,088 G.P.M.

FLOWING HYDRANT #2
PORT #1 PITOT 43 P.S.I. FLOW: 1,101 G.P.M.
PORT #2 PITOT 42 P.S.I. FLOW: 1,088 G.P.M.

TOTAL FLOW: 4,378 G.P.M.
AVAILABLE AT 20 P.S.I.: 12,608 G.P.M.

STREAM STRAIGHTENERS WERE USED ON ALL PORTS WITH AN INTERNAL DIAMETER OF 2.5" AND A COEFFICIENT OF 0.90.

TEST HYDRANT ELEVATION: APPROXIMATELY 4.0 FEET AND OBTAINED FROM GOOGLE EARTH.

TEST HYDRANT IS LOCATED AT THE INTERSECTION OF VACATED ASHTON WAY AND PORT OF TACOMA ROAD.

FLOW HYDRANTS ARE LOCATED AT THE INTERSECTION OF 14TH STREET EAST AND PORT OF TACOMA ROAD.

TEST INFORMATION PROVIDED BY: THE CITY OF TACOMA WATER DEPARTMENT.

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STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
02/17/2016

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				12/18/15

6552
FX0.01
SH # 480 OF # 499

PIER 4 PHASE 2
MARINE BUILDING
FIRE PROTECTION LEGEND, DESIGN CRITERIA, AND FLOW TEST INFORMATION

APPROVED:
3-28-16
DIRECTOR ENG. DATE
CHECKED BY DATE
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CONT/CONS: 070136
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FLOOR PLAN CONSTRUCTION NOTES

1. THE FIRE PROTECTION SPRINKLER SYSTEM DESIGN SHALL BE BASED UPON N.F.P.A. #13 DESIGN CRITERIA FOR LIGHT HAZARD OCCUPANCY. SEE "MINIMUM DESIGN CRITERIA" TABLE ON SHEET FX0.01 AND PROJECT SPECIFICATIONS FOR MORE INFORMATION.
2. THE FIRE PROTECTION SPRINKLER SYSTEM DESIGN SHALL BE BASED UPON N.F.P.A. #13 DESIGN CRITERIA FOR ORDINARY HAZARD GROUP I OCCUPANCY. SEE "MINIMUM DESIGN CRITERIA" TABLE ON SHEET FX0.01 AND PROJECT SPECIFICATIONS FOR MORE INFORMATION.
3. THE FIRE PROTECTION SPRINKLER SYSTEM DESIGN SHALL BE BASED UPON N.F.P.A. #13 DESIGN CRITERIA FOR ORDINARY HAZARD GROUP II OCCUPANCY. SEE "MINIMUM DESIGN CRITERIA" TABLE ON SHEET FX0.01 AND PROJECT SPECIFICATIONS FOR MORE INFORMATION.
4. SEE ENLARGED FIRE PROTECTION RISER DETAIL ON SHEET FX0.03 FOR ADDITIONAL NOTES.
5. PROVIDE A 24 VOLT D.C. ELECTRIC BELL MOUNTED TO THE EXTERIOR OF THE BUILDING AND POWERED THROUGH THE FIRE ALARM PANEL ALLOWING THE ELECTRIC BELL TO BE ON A BATTERY BACK-UP POWER SUPPLY.
6. 4" UNDERGROUND FIRE PROTECTION SUPPLY PIPING. SEE CIVIL DRAWINGS FOR PIPING CONTINUATION AND DEVICES TO BE INSTALLED IN THE YARD.
7. 2½" HOSE VALVES FOR FULL FLOW BACKFLOW TESTING.
8. PROVIDE SPRINKLER PROTECTION BENEATH STAIRS OF COMBUSTIBLE CONSTRUCTION OR UNDER NON-COMBUSTIBLE STAIRS IN WHICH THE AREA IS USED FOR STORAGE.
9. IT, COMM, AND NEC ROOMS SHALL BE PROVIDED WITH HORIZONTAL SIDEWALL SPRINKLER HEADS ONLY. SPRINKLER PIPING SHALL NOT BE ROUTED IN OR THRU THESE SPACES. PROVIDE HORIZONTAL SIDEWALL SPRINKLER HEAD WITH A HEAD GUARD.
10. LOCATION FOR THE CONTROL VALVE LOOP TO SERVE THE SPRINKLER HEAD LOCATED IN THE ELEVATOR MACHINE ROOM.
11. LOCATION FOR THE CONTROL VALVE LOOP TO SERVE THE SPRINKLER HEAD LOCATED AT THE TOP OF THE ELEVATOR SHAFT.
12. APPROXIMATE LOCATION OF FLOOR TO FLOOR PIPE PENETRATION. COORDINATE WITH OTHER TRADES.
13. PROVIDE SPRINKLER PROTECTION BENEATH ALL EXTERIOR OVERHANGS AND CANOPIES THAT EXCEED 4'-0" IN DEPTH IN WHICH ANY MEMBER THAT COMPRISES THE EXTERIOR OVERHANG AND CANOPY IS OF COMBUSTIBLE CONSTRUCTION, NOT JUST THE EXPOSED SURFACE OR WHERE EXTERIOR OVERHANGS AND CANOPIES EXCEED 2'-0" IN DEPTH AND THE AREA UNDERNEATH IS USED FOR THE STORAGE OF COMBUSTIBLES REGARDLESS OF THE CONSTRUCTION TYPE.
14. SPRINKLER PROTECTION IS NOT REQUIRED BENEATH EXTERIOR OVERHANGS AND CANOPIES TOTALLY COMPRISED OF NONCOMBUSTIBLE OR LIMITED COMBUSTIBLE CONSTRUCTION AND THE AREA UNDERNEATH IS ESSENTIALLY RESTRICTED TO PEDESTRIAN USE.
15. CONCEPTUAL LOCATION FOR AN AUTOMATIC AIR VENT AND ISOLATION CONTROL VALVE. THE FIRE PROTECTION SPRINKLER SYSTEM CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF BOTH COMPONENTS BASED UPON THE PIPING LAYOUT INDICATED ON THE CONTRACTOR'S SHOP DRAWINGS.
16. THE FIRE PROTECTION SPRINKLER SYSTEM CONTRACTOR SHALL COORDINATE SPRINKLER DESIGN WITH ARCHITECTURAL CEILING PLAN.

FLOOR PLAN SPECIAL NOTES

1. THE CONTRACTOR SHALL REVIEW ALL ARCHITECTURAL DRAWINGS TO DETERMINE IF THE INSTALLED WORK IS TO BE "PHASED". THE CONTRACTOR SHALL MAKE THE NECESSARY ACCOMMODATIONS ON THE SUBMITTAL DRAWINGS TO CONFORM WITH THE ARCHITECT'S "PHASING PLAN".
2. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ALL ELEVATION AND HORIZONTAL ADJUSTMENTS IN THE PIPING REQUIRED TO FOLLOW THE BUILDING'S STRUCTURE, CEILING HEIGHTS, AND ARCHITECTURAL FEATURES. THE CONTRACT DOCUMENTS ARE CONCEPTUAL IN NATURE AND SHOW THE PROPOSED PIPE ROUTING, BUT DO NOT INCLUDE ALL REQUIRED FITTINGS OR OFFSETS THAT ALLOW THE PIPING TO BE INSTALLED AS IT IS SHOWN ON THE CONTRACT DOCUMENTS.
3. THE ONLY KWIK BOLT LISTED AND APPROVED FOR SUPPORT IN CRACKED CONCRETE AND FOR SEISMIC BRACING IN CONCRETE IS HILTI KWIK BOLT MODEL KB-TZ. ALL OTHER KWIK BOLTS WILL NOT BE ALLOWED.
4. SEE THE "GENERAL FIRE PROTECTION" SPECIFICATION SECTION FOR DEFINITION OF ABBREVIATIONS USED ON THE FIRE PROTECTION CONTRACT DOCUMENTS.

FLOOR PLAN GENERAL NOTES

1. CONTRACTOR SHALL COORDINATE ALL SHORT TERM SCHEDULES WITH ENGINEER PRIOR TO COMMENCING WORK.
2. THE CONTRACTOR SHALL TAKE INTO ACCOUNT THE CONFIGURATION OF THE AREA BEING PROTECTED AND SHALL LAYOUT THE SPRINKLER HEAD LOCATIONS TO BE SYMMETRICALLY SPACED.
3. COORDINATE SPRINKLER HEAD LOCATIONS IN ACOUSTICAL CEILING TILES AND GYPSUM WALLBOARD CEILINGS WITH THE ARCHITECTURAL DRAWINGS FOR CEILING LOCATIONS AND HEIGHTS, MECHANICAL DRAWINGS FOR H.V.A.C. DIFFUSER LOCATIONS, AND ELECTRICAL DRAWINGS FOR CEILING GRID LAYOUT, LIGHT LOCATIONS, AND FIRE ALARM DEVICES. ACOUSTICAL CEILING GRID LAYOUT AND DEVICES INDICATED ON THE ARCHITECTURAL DRAWINGS MAY NOT BE CORRECT.
4. ALL PIPING IN FINISHED AREAS SHALL BE INSTALLED CONCEALED ABOVE THE CEILING SPACE UNLESS SPECIFICALLY NOTED OTHERWISE. ANY PORTION OF THE SPRINKLER SYSTEM INSTALLED EXPOSED THAT IS NOT INDICATED ON THESE DOCUMENTS SHALL BE ADDRESSED IN WRITING WITH SKETCHES (PRIOR TO THE PIPING BEING FABRICATED OR INSTALLED) TO THE ENGINEER TO EVALUATE.
5. ALL SPRINKLER BRANCH LINES SHALL BE RESTRAINED AGAINST EXCESSIVE MOVEMENT PER PROJECT SPECIFICATIONS.
6. ALL DROPS TO PENDENT SPRINKLER HEADS THAT ALLOW THE SPRINKLER HEAD TO MOVE MORE THAN 3" FROM A STAGNANT POSITION OR TO CONTINUE TO OSCILLATE BACK AND FORTH WITHOUT READILY DAMPENING SHALL BE RESTRAINED AGAINST EXCESSIVE MOVEMENT PER PROJECT SPECIFICATIONS.
7. THE FIRE PROTECTION SPRINKLER SYSTEM PIPING SHALL BE INSTALLED TO MINIMIZE PIPING OFFSETS IN ROOMS OF EXPOSED STRUCTURE. PIPING SHALL BE INSTALLED AS TIGHT TO STRUCTURE AS POSSIBLE AND SHALL BE INSTALLED TO MINIMIZE VISUAL IMPACTS.
8. ALL AUXILIARY DRAINS AND INSPECTOR'S TEST VALVES PLACED AT THE REMOTE PART OF THE SPRINKLER SYSTEM SHALL TERMINATE ON THE EXTERIOR OF THE BUILDING UNLESS OTHERWISE NOTED. AUXILIARY DRAINS LOCATED IN FINISHED AREAS SHALL BE PLACED WITHIN A LOCKABLE ACCESS PANEL. SEE PROJECT SPECIFICATIONS FOR MORE INFORMATION.
9. N.F.P.A. #70 (NATIONAL ELECTRICAL CODE) REQUIRES A DEDICATED SPACE OF 6'-0" ABOVE ALL ELECTRICAL PANELS, TRANSFORMERS, SWITCHGEARS, ETC. NO PIPING, DUCTS, OR OTHER EQUIPMENT FOREIGN TO THE ELECTRICAL INSTALLATION SHALL BE LOCATED IN THIS ZONE PER SECTION 110.26(f)(1)(a). ALL SPRINKLER PIPING THAT IS NOT COORDINATED TO AVOID THESE AREAS SHALL BE MODIFIED AND RELOCATED AT THE FIRE PROTECTION SPRINKLER CONTRACTOR EXPENSE.
10. THE CONTRACTOR SHALL PROVIDE INTERMEDIATE TEMPERATURE SPRINKLER HEADS FOR ALL LOCATIONS REQUIRED BY PREVIOUS EDITIONS OF N.F.P.A. #13 TO BE OF ORDINARY TEMPERATURE RATING. THE 2013 EDITION OF N.F.P.A. #13 ALLOWS INTERMEDIATE TEMPERATURE AND ORDINARY TEMPERATURE SPRINKLER HEADS TO BE INSTALLED THROUGHOUT BUILDINGS, THEREBY REDUCING THE NECESSITY FOR MULTIPLE TEMPERATURE RATINGS OF SPRINKLER HEADS TO BE INSTALLED.
11. ALL SPRINKLER HEADS INSTALLED IN FINISHED OCCUPIED AND PUBLIC AREAS WITH ACOUSTICAL TILE OR GYPSUM WALLBOARD CEILINGS SHALL BE WHITE FINISHED SEMI-RECESSED STYLE WITH A WHITE FINISH ESCUTCHEON UNLESS NOTED OTHERWISE.
12. ALL SPRINKLER HEADS INSTALLED IN FINISHED OCCUPIED AND PUBLIC AREAS WITH SURFACE MOUNTED LIGHT FIXTURES UNDER GYPSUM WALLBOARD CEILINGS SHALL BE WHITE FINISHED PENDENT STYLE WITH A WHITE FINISH 2-PIECE ESCUTCHEON UNLESS NOTED OTHERWISE.
13. ALL HORIZONTAL SIDEWALL STYLE SPRINKLER HEADS INSTALLED IN FINISHED OCCUPIED AND PUBLIC AREAS SHALL BE WHITE FINISHED WITH WHITE FINISHED SEMI-RECESSED STYLE WITH A WHITE FINISHED ESCUTCHEON UNLESS NOTED OTHERWISE.
14. ALL SPRINKLER HEADS INSTALLED IN ROOMS WITH EXPOSED CEILINGS SHALL BE BRONZE FINISHED UPRIGHTS UNLESS NOTED OTHERWISE.
15. SPRINKLER HEADS LOCATED IN ACOUSTICAL CEILING TILES SHALL BE INSTALLED IN A CONSISTENT PATTERN, CENTERED BOTH DIRECTIONS WITHIN THE CEILING TILES (12" FROM A CEILING GRID), AND PLACED TO AVOID ALL LIGHTS AND AIR DIFFUSER GRILLES.
16. ALL PENDENT SPRINKLER HEADS INSTALLED IN CEILING SYSTEMS THAT ARE HARD PIPED SHALL HAVE A 1" ANNULAR CLEARANCE AROUND THE CEILING SYSTEM PENETRATION THAT WILL ALLOW FREE MOVEMENT OF AT LEAST 1" IN ALL DIRECTIONS. THE CEILING PENETRATION SHALL BE CONCEALED WITH AN OVERSIZED ESCUTCHEON OF THE SAME FINISH AS THE SPRINKLER HEAD AND WILL BE PROVIDED BY THE FIRE PROTECTION SPRINKLER SYSTEM CONTRACTOR.
17. THE CONTRACTOR IS ADVISED THERE WILL BE NO PAYMENTS FOR "ENGINEERING" UNTIL THE SUBMITTAL MATERIALS (SHOP DRAWINGS, SEISMIC BRACE CALCULATIONS, HYDRAULIC CALCULATIONS, AND EQUIPMENT SUBMITTALS) HAVE BEEN REVIEWED AND APPROVED BY THE ENGINEER.
18. ALL SPRINKLER SYSTEM COMPONENTS, DEVICES, AND MATERIALS INSTALLED AS PART OF THIS PROJECT SHALL BE NEW.
19. WHERE FIRE SPRINKLER PIPING PENETRATES A FIRE RESISTANCE RATED ASSEMBLY, THE FIRE PROTECTION SPRINKLER SYSTEM CONTRACTOR SHALL PROVIDE AN APPROVED MEANS OF SEALING THE PENETRATION TO MAINTAIN THE INTEGRITY OF THE FIRE RESISTANCE RATED ASSEMBLY.

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STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
02/17/2016

MARK:	REVISION:	BY:	APPR:	DATE:
				12/18/15

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PORT ADDRESS: ONE SITCUM PLAZA, TACOMA, WA 98401-1837

PIER 4 PHASE 2
MARINE BUILDING
FIRE PROTECTION FLOOR PLAN CONSTRUCTION, GENERAL, AND SPECIAL NOTES

TOWNSHIP:	RANGE:	SECTION:	
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933		
PARCEL:		DRAWING SCALE: AS NOTED	

6552
FX0.02
SH # 481 OF # 499

CONT/CONS:	070136
M. ID:	091251
PHASE:	BID

BINDING EDGE

RISER DETAIL CONSTRUCTION NOTES

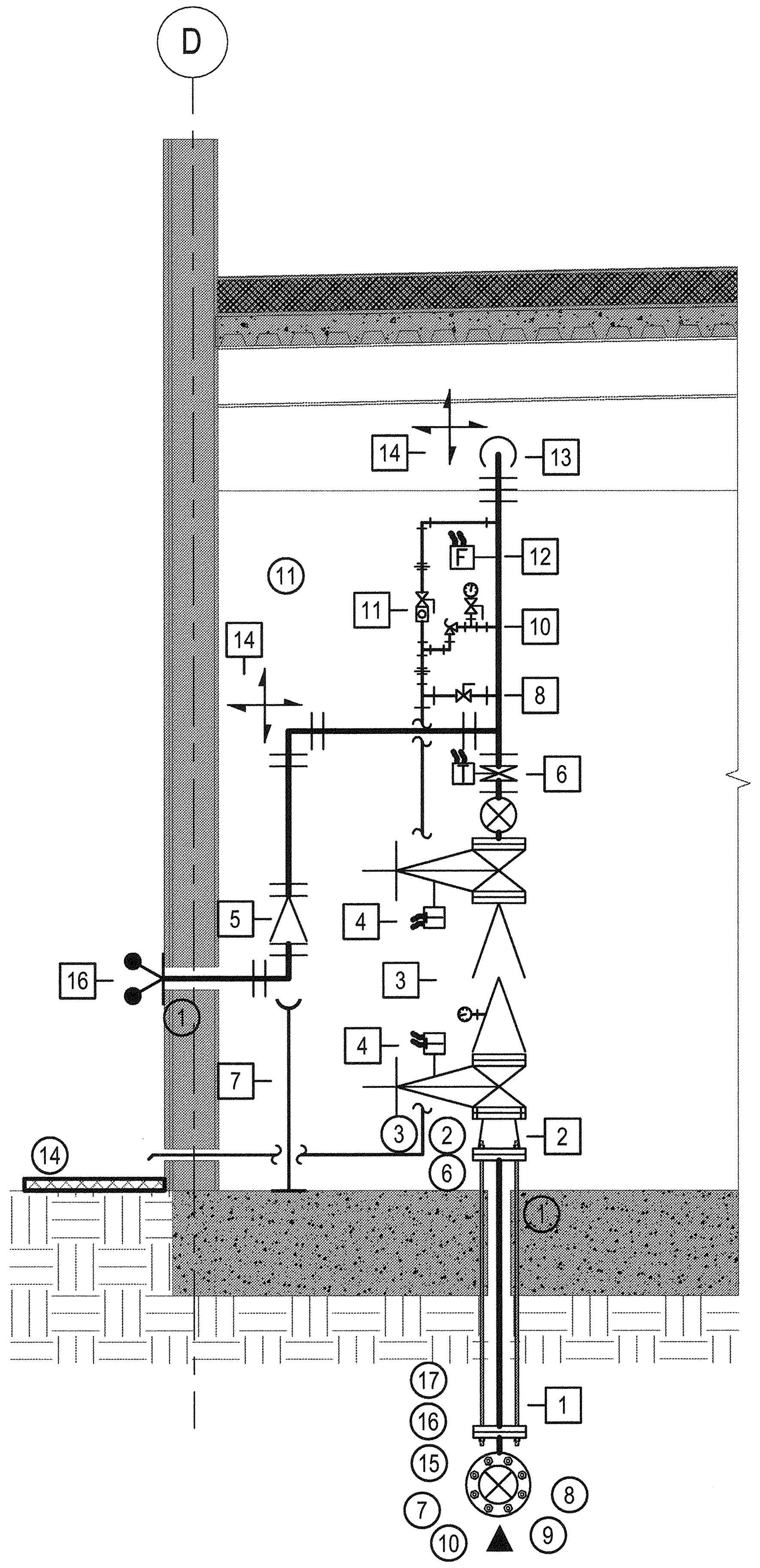
1. ALL RISER APPURTENANT PENETRATIONS OF THE FINISHED FLOOR, EXTERIOR WALL, AND NON-FRANGIBLE INTERIOR WALLS TO HAVE A 2" ANNULAR SPACE FOR PIPING 4" AND LARGER IN SIZE AND A 1" ANNULAR SPACE FOR PIPING LESS THAN 4" IN SIZE.
2. UNDERGROUND SUPPLY FLANGE TO BE TWO-HOLED WITH RESPECT TO THE EXTERIOR WALL TO ASSURE THAT THE BACKFLOW PREVENTER IS INSTALLED PARALLEL TO THE INTERIOR WALL.
3. THE CONTRACTOR SHALL COMBINE THE MAIN DRAIN DISCHARGE, PRESSURE RELIEF VALVE DISCHARGE, AND THE WET SYSTEM INSPECTORS TEST VALVE DISCHARGE TOGETHER TO MAKE A SINGLE PENETRATION THROUGH THE EXTERIOR WALL. TERMINATE DISCHARGE PIPING WITH A 45° DOWN TURNED ELBOW. ALL PIPING AND FITTINGS INSTALLED ON THE EXTERIOR OF THE BUILDING SHALL BE GALVANIZED SCHEDULE 40. COORDINATE EXACT TERMINATION LOCATION WITH THE ENGINEER.
4. SHADED AREA REPRESENTS THE CLEAR SPACE REQUIRED FOR THE FIRE PROTECTION SPRINKLER SYSTEM EQUIPMENT IN WHICH STORAGE OF COMMODITIES IS NOT ALLOWED.
5. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION LOCATION OF THE LOCAL ALARM DEVICE (ELECTRIC BELL) WITH THE LOCAL AUTHORITY HAVING JURISDICTION. THE AUTHORITY HAVING JURISDICTION MAY REQUIRE THE LOCAL ALARM DEVICE TO BE INSTALLED ON THE ADDRESS SIDE OF THE BUILDING. THE LOCAL ALARM DEVICE (ELECTRIC BELL) SHALL BE MOUNTED APPROXIMATELY 10'-0" ABOVE FINISHED EXTERIOR GRADE.
6. SUPPLY PIPE AND FITTINGS FROM THE FLANGE ABOVE FLOOR TO THE SUPPLY FLANGE OF THE BACKFLOW PREVENTER SHALL MAINTAIN A CLEAN AND RUST FREE POTABLE WATER SYSTEM AND SHALL BE CEMENT LINED DUCTILE IRON PIPING (DIP) CLASS 52 OR OF A TYPE CONTAINED IN THE PROJECT SPECIFICATIONS (BLACK AND GALVANIZED STEEL PIPE IS NOT ALLOWED).
7. UNDERGROUND PIPE TYPE SHALL MAINTAIN A CLEAN AND RUST FREE POTABLE WATER SYSTEM AND SHALL BE DUCTILE IRON PIPING (DIP) CLASS 52 OR OF A TYPE CONTAINED IN THE PROJECT SPECIFICATIONS (BLACK AND GALVANIZED STEEL PIPE IS NOT ALLOWED).
8. THE ONLY FITTING ALLOWED UNDER THE BUILDING CONCRETE SLAB IS THE 90° ELBOW THAT TRANSITIONS THE UNDERGROUND PIPING FROM A HORIZONTAL INSTALLATION TO A VERTICAL INSTALLATION, PRIOR TO PENETRATING THE CONCRETE SLAB.
9. PROVIDE A CONCRETE THRUST BLOCK AT THE ELBOW WHERE THE UNDERGROUND PIPING CHANGES FROM A HORIZONTAL INSTALLATION TO A VERTICAL INSTALLATION. THE ELBOW SHALL ALSO BE PROVIDED WITH RODDING AS A SECOND MEANS OF RESTRAINT. THE ELBOW SHALL BE RODDED TO THE FLANGE ABOVE THE FINISHED FLOOR IN THE VERTICAL DIRECTION AND RODDED TO THE FIRST JOINT OUTSIDE OF THE BUILDING FOOTING IN THE HORIZONTAL DIRECTION.
10. SEE CIVIL DRAWINGS FOR PIPING CONTINUATION AND DEVICES TO BE INSTALLED IN THE YARD.
11. THE RISER DETAIL IS CONCEPTUAL IN NATURE WITH THE MINIMUM QUANTITY AND TYPES OF SPRINKLER SYSTEM RISERS BEING REQUIRED FOR THIS PROJECT. ACTUAL QUANTITY AND TYPES OF SYSTEM RISERS REQUIRED FOR THIS PROJECT SHALL BE DETERMINED BY THE CONTRACTOR. IF ADDITIONAL SYSTEM RISERS ARE NECESSARY, THE FIRE PROTECTION SPRINKLER SYSTEM CONTRACTOR SHALL INCLUDE THEM IN THEIR SCOPE OF WORK, PRIOR TO BIDDING.
12. THE PIPING UTILIZED FOR FULL FORWARD FLOW TESTING OF THE BACKFLOW PREVENTER SHALL BE THE SAME SIZE OR LARGER THAN THE SIZE OF THE BACKFLOW PREVENTER.
13. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF (1) 2½" HOSE VALVE FOR EACH 250 G.P.M. OF SYSTEM DEMAND.
14. THE CONTRACTOR SHALL PROVIDE A 2'-0" X 2'-0" SPLASH BLOCK FOR ALL EXTERIOR FIRE PROTECTION DRAIN LOCATIONS.
15. THE FIRE PROTECTION UNDERGROUND SUPPLY PIPING SHALL:
    1. BE INSTALLED A MINIMUM OF 1'-0" BELOW THE BOTTOM OF THE FOUNDATION / FOOTING TO THE TOP OF PIPING PER SECTION 10.6.5 OF N.F.P.A. #13 AND N.F.P.A. #24.
    2. BE INSTALLED A MAXIMUM DISTANCE OF 10'-0" FROM THE OUTSIDE EDGE OF THE FOUNDATION / FOOTING TO THE CENTERLINE OF THE VERTICAL SUPPLY PIPING PENETRATING THE FLOOR SLAB PER SECTION 10.6.3.1 OF N.F.P.A. #13 AND N.F.P.A. #24.
16. SECTION 212.80.018(2)(a)(iii) OF THE "WASHINGTON ADMINISTRATIVE CODE" (WAC) REQUIRES A STATE OF WASHINGTON LEVEL 3 CERTIFICATE OF COMPETENCY HOLDER OR SECTION 212.80.015(2)(d) OF THE "WASHINGTON ADMINISTRATIVE CODE" (WAC) REQUIRES A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF WASHINGTON TO PREPARE THE LAYOUT DRAWINGS FOR THE FIRE PROTECTION WORK.
17. SECTION 212.80.018(2)(b)(i) OF THE "WASHINGTON ADMINISTRATIVE CODE" (WAC) REQUIRES A STATE OF WASHINGTON LEVEL "U" CERTIFICATE OF COMPETENCY HOLDER TO PERFORM THE FIRE PROTECTION UNDERGROUND PIPING INSTALLATION.

RISER EQUIPMENT LIST

ITEM	QTY.	SIZE	DESCRIPTION
1	1	4"	UNDERGROUND FIRE PROTECTION SUPPLY PIPING
2	1	4" X 3"	FLANGED REDUCER (IF REQUIRED)
3	1	--	DOUBLE DETECTOR VALVE ASSEMBLY
4	2	--	OS&Y CONTROL VALVE SUPERVISORY SWITCH
5	1	4"	GROOVED SWING CHECK VALVE
6	1	--	GROOVED BUTTERFLY VALVE WITH INTEGRAL TAMPER SWITCH (VALVE NORMALLY OPEN)
7	2	--	PIPE STAND (REFERENCE THE 2012 EDITION OF N.F.P.A. #15 TABLES 6.3.2.2.1 & 6.3.2.2.2 FOR SIZE, HEIGHT, AND SPACING)
8	1	2"	MAIN DRAIN VALVE
9	2	¼"	WATER PRESSURE GAUGE
10	1	½"	PRESSURE RELIEF VALVE
11	1	1"	INSPECTOR'S TEST ASSEMBLY WITH SIGHT GLASS
12	1	--	WATER FLOW INDICATOR
13	1	--	FIRE PROTECTION WET SYSTEM SUPPLY PIPING
14	4	1"	4-WAY SEISMIC BRACE ASSEMBLY LOCATED AT THE TOP OF THE SYSTEM RISER
15	1	10"	24 VOLT D.C. ELECTRIC BELL MOUNTED ON THE EXTERIOR OF THE BUILDING AND POWERED THROUGH THE FIRE ALARM PANEL ALLOWING THE ELECTRIC BELL TO BE ON A BATTERY BACK-UP POWER SUPPLY
16	1	2½"X2½"X4"	WALL MOUNTED FIRE DEPARTMENT CONNECTION
17	2	2½"	STRAIGHT OR ANGLED HOSE VALVE
18	1	--	GROOVED BUTTERFLY VALVE WITH INTEGRAL TAMPER SWITCH (VALVE NORMALLY CLOSED)
19	1	4"	PIPE FOR FULL FORWARD FLOW TESTING OF THE BACKFLOW PREVENTER THAT IS SIZED NO SMALLER THAN THE BACKFLOW PREVENTER
20	2	2½"	GALVANIZED SCHEDULE 40 PIPE FOR FULL FORWARD FLOW TESTING OF THE BACKFLOW PREVENTER
21	-	12 HEAD	SPARE HEAD CABINET (INCLUDING HEAD WRENCHES)

APPROXIMATE MOUNTING ELEVATION

MAIN DRAIN DISCHARGE:	0'-6" A.E.G.
ANGLE HOSE VALVES:	3'-6" A.E.G.
FIRE DEPARTMENT CONNECTION:	3'-6" A.E.G.
SPARE HEAD CABINET:	5'-0" A.F.F.
ELECTRIC BELL:	10'-0" A.E.G.

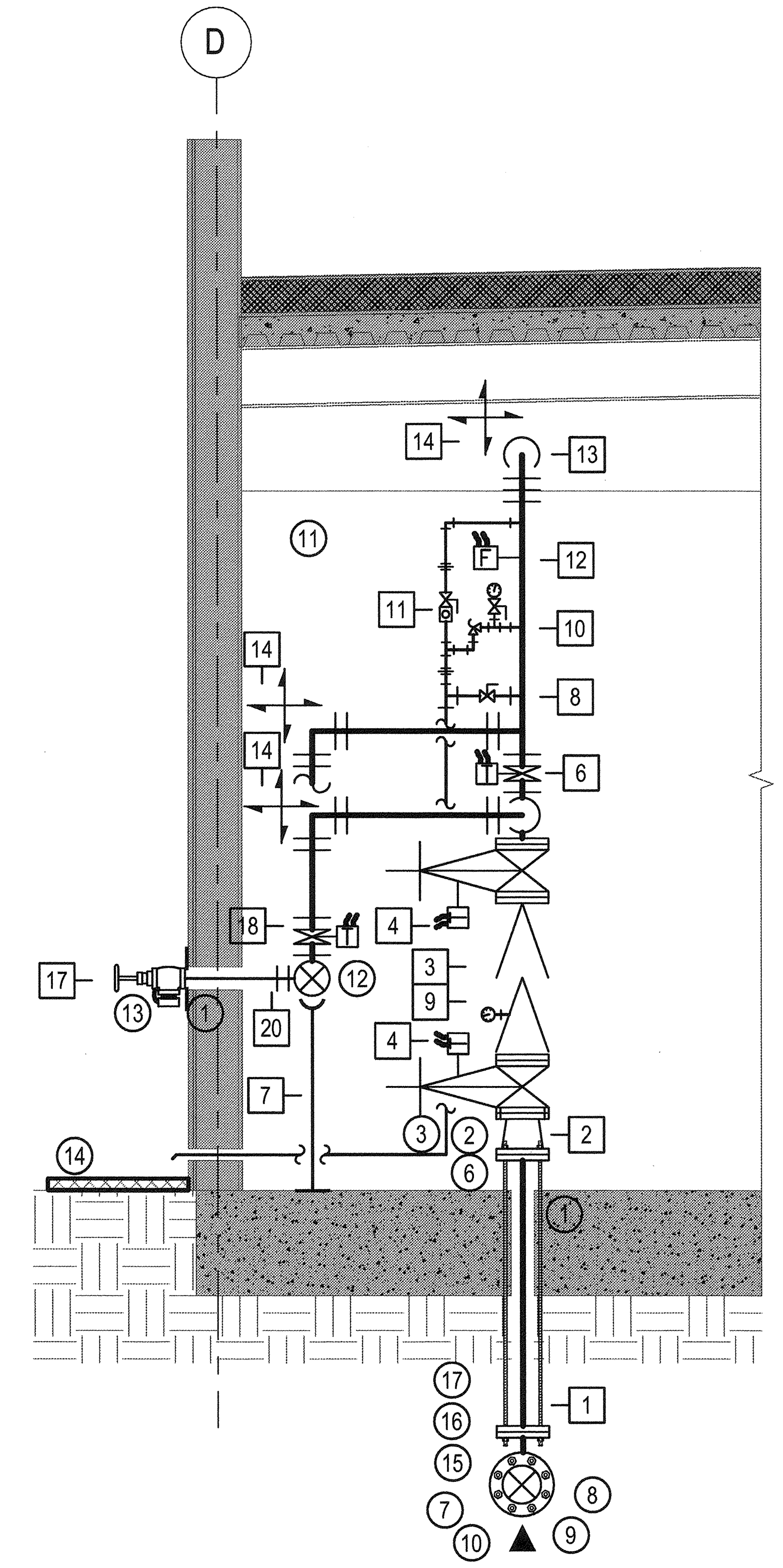


3 FIRE PROTECTION RISER DETAIL ELEVATION

1/2" = 1'-0"

0' 2' 4' 6' 8'

GRAPHIC SCALE 1/2" = 1'-0"

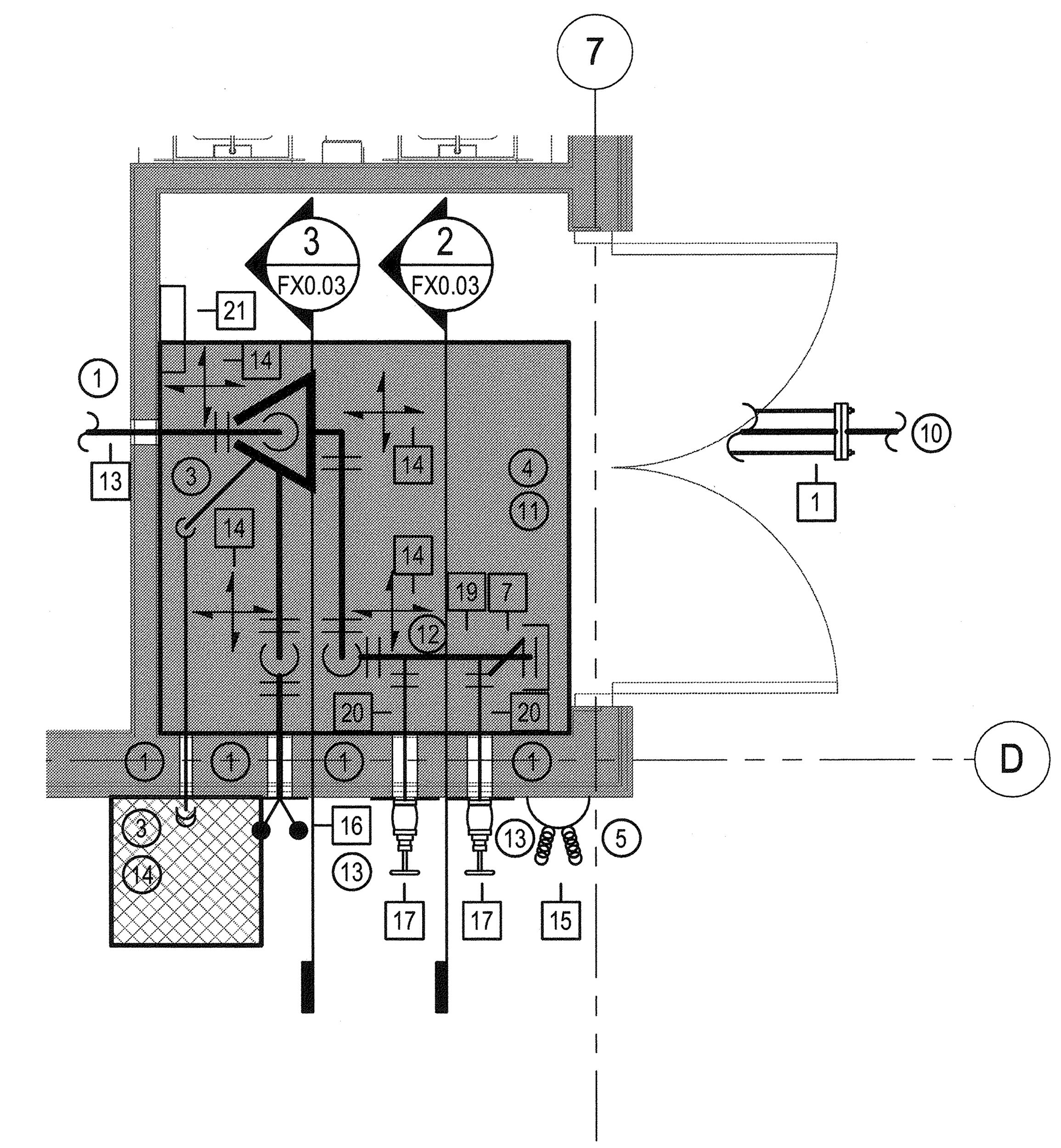


2 FIRE PROTECTION RISER DETAIL ELEVATION

1/2" = 1'-0"

0' 2' 4' 6' 8'

GRAPHIC SCALE 1/2" = 1'-0"



1 FIRE PROTECTION RISER DETAIL PLAN

1/2" = 1'-0"

0' 2' 4' 6' 8'

GRAPHIC SCALE 1/2" = 1'-0"

N

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STATE OF WASHINGTON

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PROFESSIONAL ENGINEER

02/17/2016

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PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837

PIER 4 PHASE 2
MARINE BUILDING

FIRE PROTECTION RISER DETAIL PLAN, ELEVATIONS, EQUIPMENT LIST, AND NOTES

TOWNSHIP:	RANGE:	SECTION:
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PARCEL:	DRAWING SCALE: AS NOTED	

6552

FX0.03

SH # 482 OF # 499

CONT/CONS:	070136
M. ID:	091251
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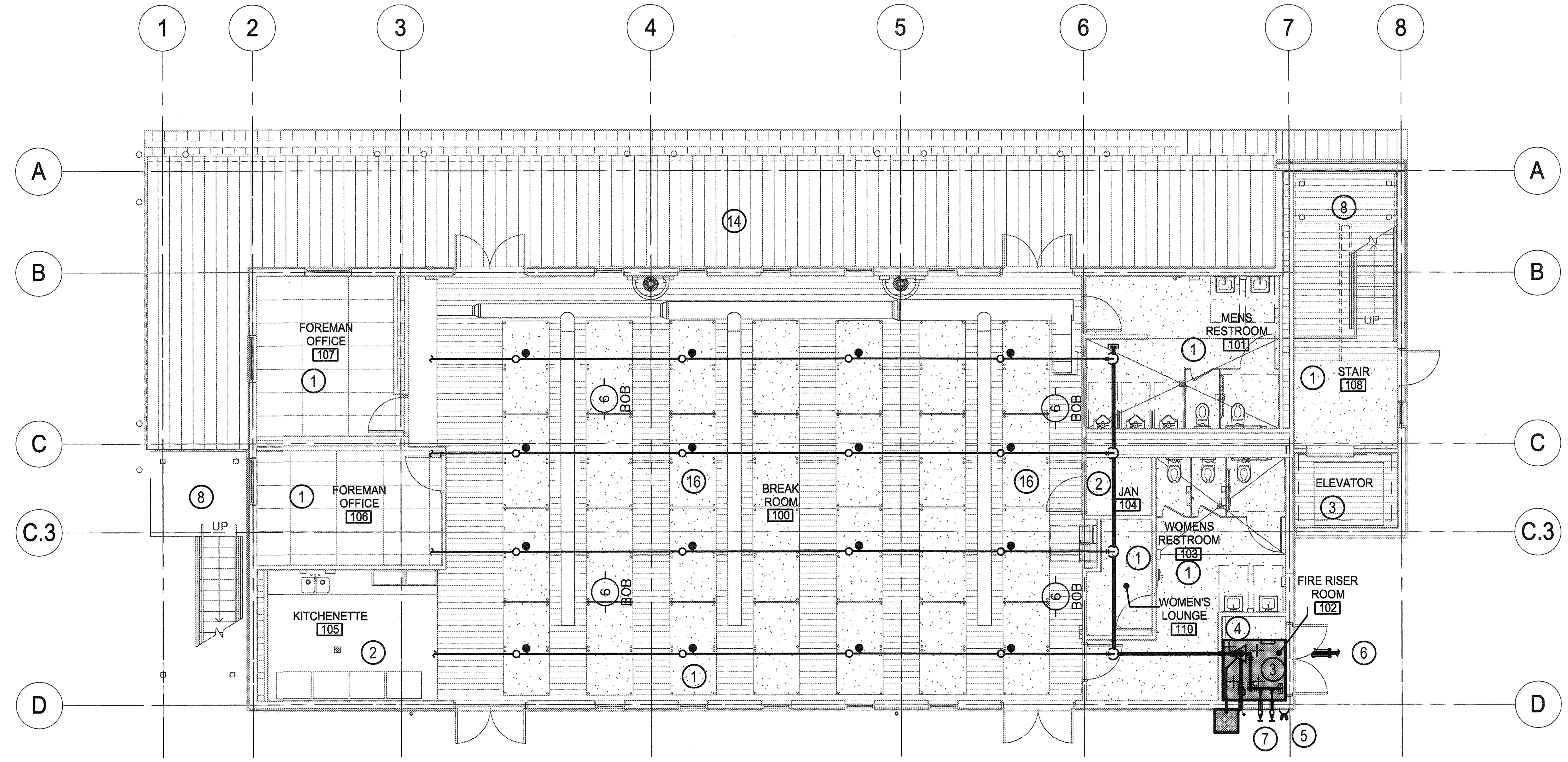
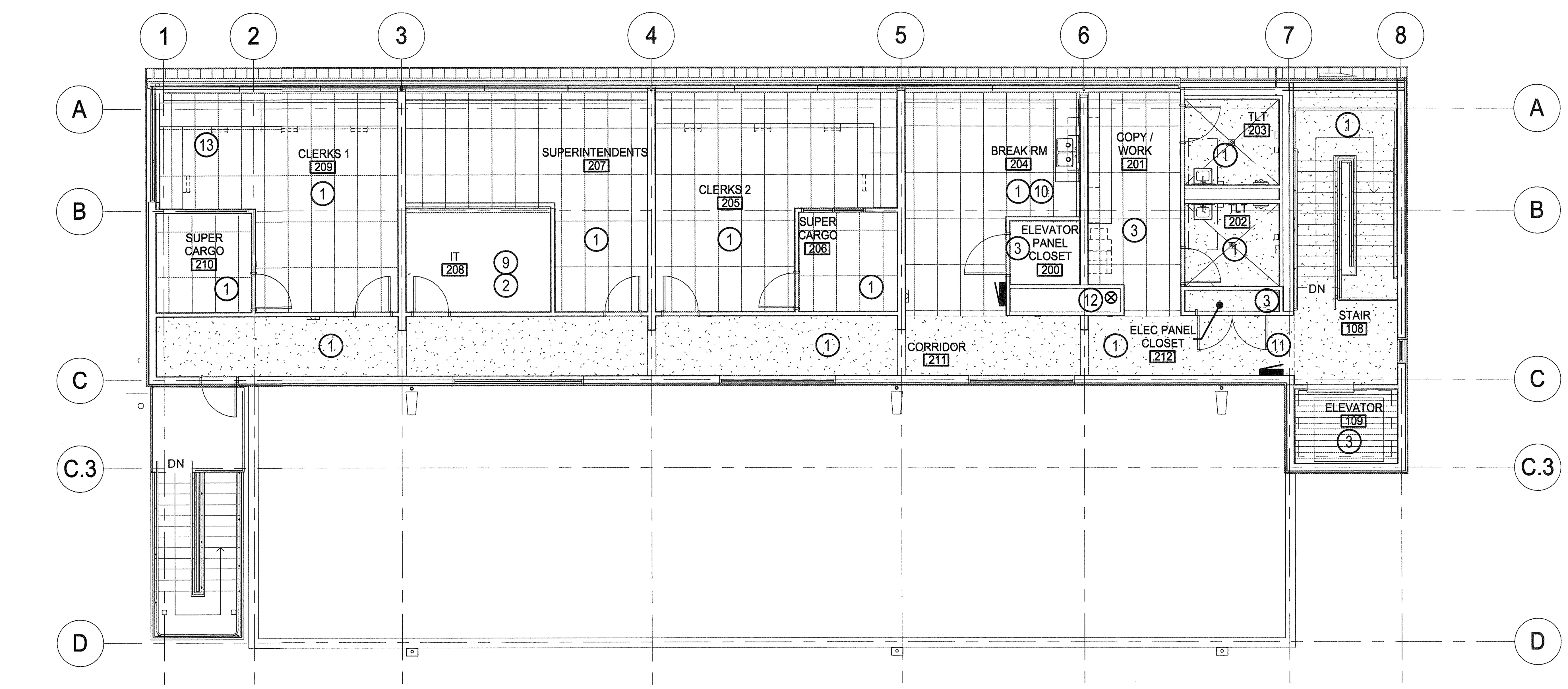


1 LEVEL 1 FIRE PROTECTION FLOOR PLAN

1/8" = 1'-0"

0' 8' 16' 24' 32'

GRAPHIC SCALE 1/8" = 1'-0"



2 LEVEL 2 FIRE PROTECTION FLOOR PLAN

1/8" = 1'-0"

0' 8' 16' 24' 32'

GRAPHIC SCALE 1/8" = 1'-0"

GENERAL NOTE

1. SEE SHEET FX0.02 FOR GENERAL, CONSTRUCTION, AND SPECIAL NOTES.

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PIER 4 PHASE 2
MARINE BUILDING
FIRE PROTECTION FIRST AND SECOND FLOOR PLANS

6552
FX2.01
SH # 483 OF # 499

CONT/CONS: 070136	TOWNSHIP:	RANGE:	SECTION:		
M. ID: 091251	DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933			
PHASE: BID	PARCEL:	DRAWING SCALE: AS NOTED			

BINDING EDGE

BINDING EDGE

FIRE ALARM LEGEND

SYMBOL	DESCRIPTION
P	MANUAL PULL STATION - WALL MOUNT OPERABLE PART BETWEEN 42" AND 48" ABOVE FINISH FLOOR
	SMOKE DETECTOR
	HEAT DETECTOR
	DUCT DETECTOR
TS	TAMPER SWITCH
FS	FLOW SWITCH
PIV	POST INDICATOR VALVE TAMPER SWITCH
	SPRINKLER SYSTEM ALARM BELL (24 VOLTS D.C.)
	FIRE ALARM CLEAR (WHITE) STROBE ONLY - WALL MOUNTED
	COMBINATION HORN/STROBE - WALL MOUNTED WITH THE ENTIRE STROBE LENS 80" ABOVE THE FINISHED FLOOR OR NOT LESS THAN 6" BELOW THE CEILING, WHICHEVER IS LOWER
	COMBINATION HORN/STROBE - CEILING MOUNTED
M	FIRE ALARM SYSTEM MONITOR MODULE
R	FIRE ALARM SYSTEM RELAY MODULE
FACP	FIRE ALARM SYSTEM CONTROL PANEL
FAPS	FIRE ALARM SYSTEM POWER SUPPLY FOR NOTIFICATION DEVICES
BAT	BATTERY CABINET
GMAP	GRAPHIC MAP
RT/RI	FIRE ALARM SYSTEM REMOTE ANNUNCIATOR PANEL
XMTR	TRANSMITTER CONTROL PANEL ENCLOSURE
▼	ANALOG VOICE PHONE LINE

MISCELLANEOUS

SYMBOL	DESCRIPTION
#	CONSTRUCTION NOTES
	ALL NEW DEVICES INDICATED WITH A DARK CONTINUOUS LINE TYPE
J	JUNCTION BOX
E	E INDICATES ELEVATOR RECALL CONTACT
F	F INDICATES FIXED TEMPERATURE TYPE
S	S INDICATES SURFACE MOUNT BACK BOX
W	W INDICATES WEATHERPROOF DEVICE
RD	RD INDICATES RETURN DUCT

FIRE ALARM SYSTEM FLOOR PLAN GENERAL NOTES

1. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, EQUIPMENT, INSTALLATION LABOR, DESIGN AND PROGRAMMING FOR A COMPLETE INTELLIGENT (ANALOG) AND ADDRESSABLE (DIGITAL) LOW VOLTAGE, 24 VOLT D.C., AND FULLY OPERATIONAL FIRE ALARM SYSTEM. ALL EQUIPMENT PROVIDED FOR THIS PROJECT SHALL BE NEW, CURRENTLY MANUFACTURED, AND SHALL BE DELIVERED TO THE PROJECT SITE WITH THE ORIGINAL FACTORY SEAL INTACT. MATERIALS AND WORKMANSHIP SHALL FULLY COMPLY WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (N.F.P.A. #70), NATIONAL FIRE ALARM AND SIGNALING CODE (N.F.P.A. #72), AND THE LAWS AND REGULATIONS OF WASHINGTON STATE AND THE LOCAL AUTHORITY HAVING JURISDICTION.
2. BIDS SHALL INCLUDE ALL CORE DRILLING REQUIRED TO FACILITATE ALL CONDUIT WORK. CORE DRILLED HOLES SHALL NOT PENETRATE THROUGH ANY STRUCTURAL BEAMS, REBAR AND / OR CONDUIT CONTAINED WITHIN THE CONCRETE SLABS AND / OR WALLS THAT MAY COMPROMISE THE STRUCTURAL INTEGRITY OF THE BUILDING. CORE DRILL LOCATIONS MAY NEED TO BE ADJUSTED TO ACCOMMODATE OBSTRUCTIONS.
3. THE FIRE ALARM SYSTEM SHALL BE REQUIRED TO PASS THE MINIMUM SOUND LEVEL TESTING REQUIREMENTS DETAILED IN THE PROJECT SPECIFICATIONS.THE CONTRACTOR SHALL PROVIDE ADDITIONAL AUDIBLE NOTIFICATION APPLIANCE (HORNS) OR ADJUST THE LOCATION, OR ADJUST THE "TAP"SETTING UNTIL THE MINIMUM LEVELS ARE OBTAINED.
4. EACH WATER FLOW SWITCH, OR TAMPER SWITCH SHALL HAVE A SEPARATE AND UNIQUE ADDRESS.
5. POST INDICATING VALVE (P.I.V.) TAMPER SWITCH MONITORING IS REQUIRED. SEE CIVIL DRAWINGS FOR LOCATIONS.
6. ALL MANUAL PULL STATIONS SHALL BE DUAL ACTION, KEY OPERABLE. THE USE OF BREAK GLASS FRONT STATIONS ARE NOT ALLOWED.
7. THE BASIS FOR THE VISUAL NOTIFICATION APPLIANCE (STROBE) PLACEMENT IS THE UTILIZATION OF (75) CANDELA (C.D.) AT A 44'-0" X 44'-0" SPACING FOR CEILING MOUNTED VISUAL APPLIANCES AND 45'-0" X 45'-0" SPACING FOR WALL MOUNTED VISUAL APPLIANCES. IF THE CONTRACTOR DECIDES TO INSTALL LOWER OUTPUT VISUAL APPLIANCES, IT BECOMES THE RESPONSIBILITY OF THE CONTRACTOR TO MEET THE MINIMUM CANDELA (C.D.) RATING AT THE LISTED MAXIMUM ROOM SIZE INDICATED IN TABLE 18.5.5.4.1(A) FOR WALL MOUNTED VISIBLE APPLIANCES OR TABLE 18.5.5.4.1(B) FOR CEILING MOUNTED VISIBLE APPLIANCES IN THE 2013 EDITION OF N.F.P.A. #72.
8. PROVIDE NEW CIRCUIT LABELS AND DIRECTORY CARDS FOR PANELS ALTERED AND / OR ADDED BY THIS CONTRACT.
9. ALL ADDRESSABLE DEVICES SHALL BE PERMANENTLY AND CLEARLY LABELED WITH THE DEVICE ADDRESS IN A READILY VISIBLE LOCATION DIRECTLY ON THE DEVICE AND ON THE DETECTOR BASE.
10. WHERE DUCT SMOKE DETECTOR LIGHT EMITTING DIODES (LED'S) ARE NOT VISIBLE FROM THE FLOOR, THE CONTRACTOR SHALL PROVIDE A COMBINATION REMOTE LIGHT EMITTING DIODE (LED) AND REMOTE TEST SWITCH THAT IS VISIBLE FROM THE FLOOR.
11. PROVIDE ALL NECESSARY EQUIPMENT, INTERFACES, OTHER APPURTENANCES, AND PROGRAMMING AS REQUIRED FOR COMMUNICATION TO THE EXISTING CENTRAL MONITORING COMPANY.

FIRE ALARM SYSTEM EQUIPMENT REQUIREMENTS

1. FIRE ALARM:
   - 1.1. THE FIRE ALARM SYSTEM SHALL BE FULLY FUNCTIONAL WITHOUT THE USE OF PRIMARY POWER. THE FIRE ALARM SYSTEM SHALL BE PROVIDED WITH A MINIMUM OF 24 HOURS OF STANDBY OPERATION FOLLOWED BY AN ADDITIONAL 5 MINUTES OF ALARM OPERATION. ALL BATTERIES SHALL BE SIZED TO PROVIDE AT LEAST 25% ADDITIONAL SPARE CAPACITY. SEE PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
   - 1.2. FIRE ALARM SYSTEM CONTROL PANEL (FACP) MAY INCLUDE INTERNAL POWER SUPPLIES. FIRE ALARM SYSTEM POWER SUPPLY (FAPS) IS SHOWN FOR REFERENCE ONLY. PROVIDE ADDITIONAL QUANTITIES OF POWER SUPPLIES AS REQUIRED FOR A COMPLETE AND FULLY FUNCTIONAL SYSTEM.
   - 1.3. PROVIDE 25% SPARE CAPACITY FOR NOTIFICATION POWER SUPPLIES, NOTIFICATION APPLIANCE CIRCUITS, AND INITIATING DEVICE CIRCUITS.
   - 1.4. PROVIDE SURGE PROTECTION ON ALL INCOMING PRIMARY POWER SUPPLIES SERVING FIRE ALARM SYSTEM PANELS.
   - 1.5. PROVIDE AUDIO AMPLIFIERS, SWITCHES, AND OTHER APPURTENANCES, AS REQUIRED.
   - 1.6. PROVIDE BATTERY CALCULATIONS FOR THE FIRE ALARM SYSTEM.

FIRE ALARM FLOOR PLAN CONSTRUCTION NOTES

1. THE 24 VOLTS D.C. SPRINKLER SYSTEM ALARM BELL (ELECTRIC BELL) SHALL BE ACTIVATED UPON THE FLOW OF WATER BY THE WATER FLOW SWITCH AND / OR PRESSURE SWITCH ALARM AND POWERED BY THE FIRE ALARM SYSTEM CONTROL PANEL ALLOWING THE ALARM BELL TO BE ON BATTERY BACKUP.
2. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION LOCATION OF THE SPRINKLER SYSTEM ALARM BELL (ELECTRIC BELL) WITH THE FIRE PROTECTION SPRINKLER SYSTEM CONTRACTOR.
3. REVIEW FIRE PROTECTION SPRINKLER SYSTEM DRAWINGS FOR EXACT QUANTITIES AND LOCATIONS OF FIRE ALARM CONNECTION POINTS.
4. THE CONTRACTOR SHALL PROVIDE PLYWOOD BACK BOARD(S) ON WALLS THAT SHALL BE USED TO MOUNT ENCLOSURES OF ANY KIND. PLYWOOD BACKING BOARD(S) SHALL BE SECURELY FASTENED TO THE WALL. THE SYSTEMS PLYWOOD BACKING BOARD SHALL BE A MINIMUM OF ¾", APA EXTERIOR GRADE ACX, VOID-FREE (MOUNTED WITH THE SMOOTH SIDE OUT), AND FIRE RETARDANT WITH A FLAME SPREAD RATING NOT MORE THAN 25 WHEN TESTED ACCORDING TO ASTM E-84. PROVIDE (3) COATS OF EGG SHELL WHITE FIRE RETARDANT PAINT. THE STAMP INDICATING THE FIRE RETARDANT RATING OF THE PLYWOOD SHALL NOT BE PAINTED OVER, AND SHALL BE LEFT EXPOSED.
5. PROVIDE ADDITIONAL SYSTEM RELATED EQUIPMENT AS REQUIRED.
6. PROVIDE SYSTEM SMOKE DETECTOR ABOVE FIRE ALARM CONTROL PANEL (FACP) AND ALL REMOTE POWER SUPPLIES.
7. PROVIDE JUNCTION BOX'S FOR INITIATING CIRCUIT AND NOTIFICATION CIRCUIT FOR FUTURE EXPANSION OF BUILDING. ROUT INITIATING CIRCUIT AND NOTIFICATION CIRCUIT THROUGH JUNCTION BOX'S.
8. PROVIDE SMOKE DETECTOR IN ELEVATOR LOBBY FOR ELEVATOR RECALL
9. PROVIDE SMOKE DETECTOR IN ELEVATOR PANEL CLOSET FOR ELEVATOR RECALL AND A 135°F FIXED TEMPERATURE HEAT DETECTOR FOR ACTUATION OF THE SHUNT TRIP BREAKER FEATURE. HEAT DETECTOR TO BE WITHIN 18" OF SPRINKLER HEAD.
10. PROVIDE SMOKE DETECTOR AT THE TOP OF THE ELEVATOR HOISTWAY FOR ELEVATOR RECALL AND IF A SPRINKLER IS INSTALLED AT THE TOP OF THE HOISTWAY, A 135°F FIXED TEMPERATURE HEAT DETECTOR FOR ACTIVATION OF THE SHUNT TRIP BREAKER FEATURE.
11. DUCT MOUNTED SMOKE DETECTORS LOCATED IN RETURN DUCTS, FOR H.V.A.C. UNITS 2,000 C.F.M. AND LARGER.
12. SEE SHEET FA0.02 FOR FIRE ALARM RISER DIAGRAM AND FIRE ALARM SYSTEM SEQUENCE OF OPERATIONS.

FIRE ALARM SYSTEM CABLING AND CONDUIT REQUIREMENTS

1. ALL INITIATING AND NOTIFICATION CIRCUITS SHALL BE "CLASS B" WIRING.
2. ALL SIGNALING LINE AND INITIATING DEVICE CIRCUITS SHALL BE A MINIMUM OF (16) GAUGE.
3. ALL WIRE RUN UNDERGROUND SHALL BE SUITABLE FOR "WET" INSTALLATIONS.
4. ALL WIRE TERMINATIONS SHALL BE BY USE OF WIRE NUTS OR AT SCREW TYPE TERMINAL BLOCKS.
5. THE USE OF CRIMPED CONNECTORS, TWISTING OF WIRES, ETC. SHALL NOT BE ALLOWED IN J-BOXES, TERMINAL CABINETS, OR ENCLOSURES.
6. ALL WIRES OUTSIDE OF J-BOXES, TERMINAL CABINETS, OR ENCLOSURES SHALL BE FREE OF SPLICES.
7. FIRE ALARM CABLING INSTALLED ABOVE ACCESSIBLE CEILINGS SHALL BE ALLOWED TO BE INSTALLED AS OPEN CABLING. PROVIDE "D" RING HANGER FOR ALL OPEN CABLING. AT A MAXIMUM OF 5'-0" ON CENTER.
8. CONDUITS SHALL NOT EXCEED FILL RATING OF 40% AS DEFINED BY THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (N.F.P.A. #70).
9. CABLING THAT IS INSTALLED IN WALLS, CABLING THAT IS INSTALLED BELOW 8'-0" IN ELEVATION THAT IS SUBJECT TO DAMAGE, CABLING THAT IS INSTALLED ABOVE INACCESSIBLE CEILINGS SHALL BE INSTALLED IN CONDUIT. CABLING INSTALLED EXPOSED TO VIEW SHALL BE INSTALLED IN WIREMOLD / SURFACE RACEWAY.
10. CONDUITS SHALL BE CONCEALED IN CEILING SPACES, WALLS, AND OTHER AREAS WHEREVER POSSIBLE.
11. ALL CONDUIT SHALL BE INSTALLED IN A PARALLEL OR PERPENDICULAR FASHION THAT IS TIGHT TO STRUCTURE. THE CONTRACTOR SHALL COORDINATE ALL CONDUIT ROUTING.
12. WHERE EXPOSED TO VIEW IN FINISHED SPACES, PAINT CONDUITS, MOUNTING HARDWARE, AND RACEWAYS TO MATCH THE ADJACENT SURFACES.
13. CONDUITS PASSING THROUGH BUILDING CONSTRUCTION EXPANSION JOINTS SHALL HAVE JUNCTION BOXES AT EACH SIDE OF THE WALL / EXPANSION JOINT. PROVIDE SECTION OF FLEXIBLE CONDUIT BETWEEN JUNCTION BOXES. PROVIDE GROUNDING BUSHINGS WITH #12 GROUNDING CABLE TO MAINTAIN CONTINUITY BETWEEN JUNCTION BOXES.
14. ALL SURFACE MOUNTED RACEWAYS SHALL BE WIREMOLD OR EQUAL, THE INSTALLATION ON ELECTRICAL METALLIC TUBING (EMT) WILL NOT BE ALLOWED.
15. ALL NEW FIRE ALARM SYSTEM JUNCTION BOXES SHALL BE PAINTED RED AND ANNOTATED "FA" ON THE COVER IN BLACK BOLD PRINT HAVING MINIMUM CHARACTER FONT SIZE 2" TAIL X 1" WIDE.

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REGISTERED PROFESSIONAL ENGINEER
02/17/2016

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PIER 4 PHASE 2
MARINE BUILDING
FIRE ALARM LEGEND & NOTES

TOWNSHIP: | RANGE: | SECTION:
DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: | DRAWING SCALE: AS NOTED

6552
FA0.01
SH # 484 OF # 499

CONT/CONS: 070136
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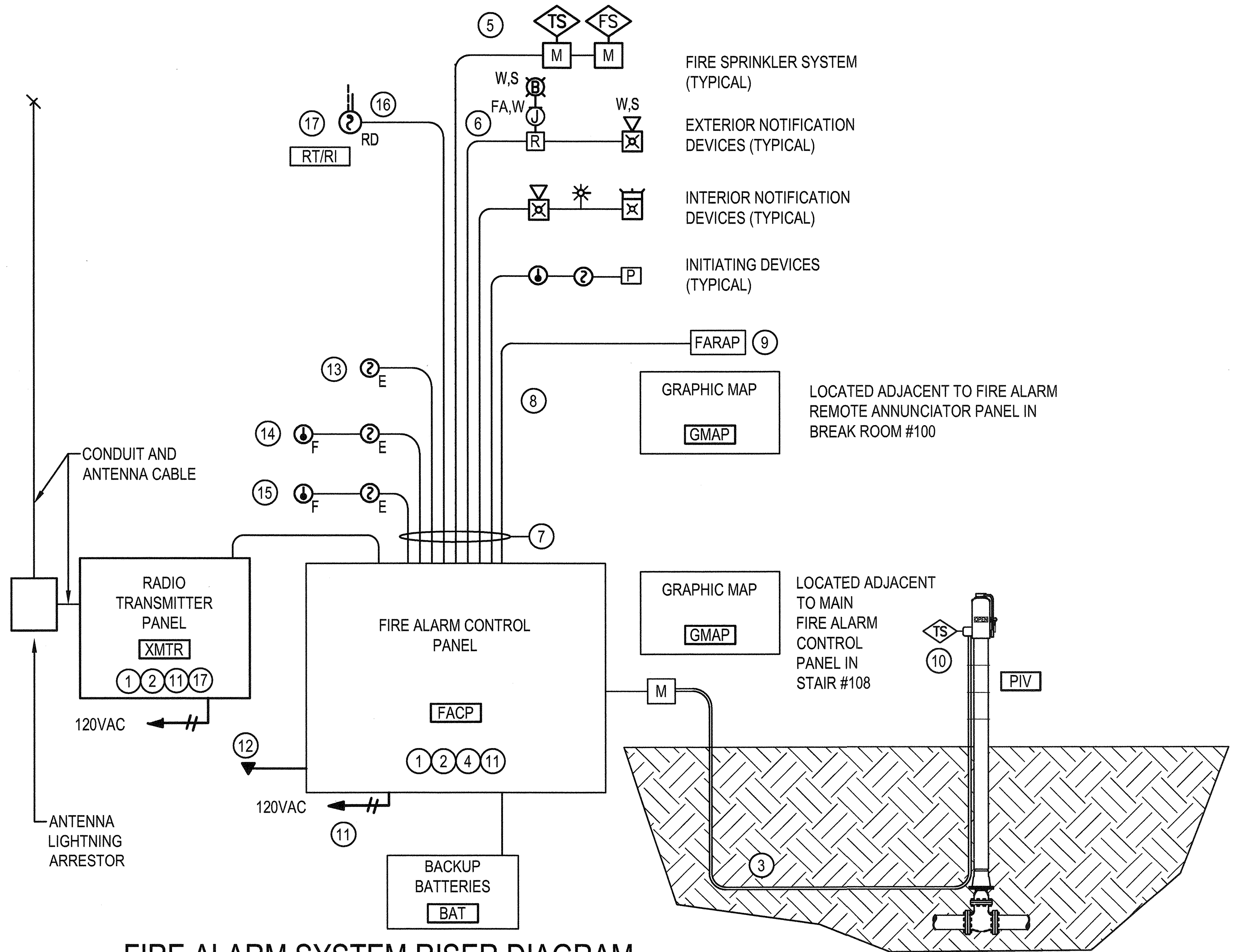
BINDING EDGE



FIRE ALARM SYSTEM RISER DIAGRAM

1

NOT TO SCALE

FIRE ALARM SYSTEM RISER DIAGRAM CONSTRUCTION NOTES

1. THE FIRE ALARM SYSTEM SHALL BE FULLY FUNCTIONAL WITHOUT THE USE OF PRIMARY POWER. THE FIRE ALARM SYSTEM SHALL BE PROVIDED WITH A MINIMUM OF 24 HOURS OF STANDBY OPERATION FOLLOWED BY AN ADDITIONAL 5 MINUTES OF ALARM OPERATION. ALL BATTERIES SHALL BE SIZED TO PROVIDE AT LEAST 25% ADDITIONAL SPARE CAPACITY. SEE THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. PROVIDE ALL NECESSARY EQUIPMENT, INTERFACES, OTHER APPURTENANCES, AND PROGRAMMING AS REQUIRED FOR COMMUNICATION TO THE MONITORING STATION.
3. ALL WIRE RUN UNDERGROUND SHALL BE SUITABLE FOR "WET" INSTALLATIONS.
4. PROVIDE SYSTEM POWER SUPPLIES, WHERE REQUIRED.
5. FIRE SPRINKLER SYSTEM SWITCHES. THE SWITCHES SHALL BE WIRED AND CONNECTED TO THE FIRE ALARM SYSTEM. SEE THE FIRE SPRINKLER SYSTEM DRAWINGS FOR EXACT QUANTITIES AND LOCATIONS OF ALL FIRE SPRINKLER SWITCHES, WHICH SHALL BE MONITORED BY THE FIRE ALARM SYSTEM.
6. THE 24 VOLTS D.C. SPRINKLER SYSTEM ALARM BELL (ELECTRIC BELL) SHALL BE ACTIVATED UPON THE FLOW OF WATER BY THE WATER FLOW SWITCH AND / OR PRESSURE SWITCH ALARM AND POWERED BY THE FIRE ALARM SYSTEM CONTROL PANEL ALLOWING THE ALARM BELL TO BE ON BATTERY BACKUP. PROVIDE SYSTEM CABLES FOR A FULLY FUNCTIONAL SYSTEM, AS REQUIRED.
7. PROVIDE SYSTEM CABLES FOR A FULLY FUNCTIONAL SYSTEM, AS REQUIRED.
8. THE RISER DIAGRAM IS DIAGRAMMATIC IN NATURE. IT DOES NOT SHOW ALL DEVICES AND DOES NOT REPRESENT ACTUAL CONDUIT OR CABLE ROUTING.
9. FIRE ALARM SYSTEM REMOTE ANNUNCIATOR PANEL INSTALLED AT BREAK ROOM 100 ENTRY.
10. THE FIRE ALARM SYSTEM CONTRACTOR SHALL INSTALL 1" METAL CONDUIT FROM TERMINATION OF 1" PVC CONDUIT UP TO THE POST INDICATING VALVE TAMPER SWITCH. METAL CONDUIT SHALL BE SECURED TO THE POST INDICATING VALVE HOUSING WITH (3) STAINLESS STEEL HOSE CLAMPS.
11. PROVIDE SURGE PROTECTION ON ALL INCOMING PRIMARY POWER SUPPLIES SERVING FIRE ALARM SYSTEM SYSTEM PANELS.
12. ANALOG VOICE PHONE LINE. SEE TELECOM DRAWING SHEET E4.01.
13. PROVIDE SMOKE DETECTOR IN ELEVATOR LOBBY FOR ELEVATOR RECALL.
14. PROVIDE SMOKE DETECTOR IN ELEVATOR EQUIPMENT ROOM FOR ELEVATOR RECALL AND A 135°F FIXED TEMPERATURE HEAT DETECTOR FOR ACTUATION OF THE SHUNT TRIP BREAKER FEATURE. SEE ELECTRICAL SHEET E-5.01 FOR SHUNT TRIP BREAKER DETAIL. HEAT DETECTOR SHALL BE WITHIN 18" OF SPRINKLER HEAD.
15. PROVIDE SMOKE DETECTOR AT THE TOP OF THE ELEVATOR HOISTWAY FOR ELEVATOR RECALL, AND IF A SPRINKLER IS INSTALLED AT THE TOP OF THE THE HOISTWAY , A 135°F FIXED TEMPERATURE HEAT DETECTOR FOR ACTUATION OF THE SHUNT TRIP BREAKER FEATURE. HEAT DETECTOR SHALL BE WITHIN 18" OF SPRINKLER HEAD.
16. DUCT MOUNTED SMOKE DETECTORS LOCATED IN RETURN DUCTS, FOR H.V.A.C. UNITS 2,000 C.F.M. AND LARGER. PROVIDE FIRE ALARM RELAYS TO SHUT H.V.A.C. UNIT DOWN UPON ACTIVATION OF THE FIRE ALARM SYSTEM.
17. PROVIDE A SECONDARY MEANS OF COMMUNICATION AS REQUIRED BY N.F.P.A. #72.

Port of Tacoma

MARK: REVISION: BY: APPR: DATE: 12/18/15

FRED A. BLANCHARD STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER

02/17/2016

APPROVED: 3-28-16

DIRECTOR ENG. DATE

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PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837

PIER 4 PHASE 2 MARINE BUILDING

FIRE ALARM SEQUENCE OF OPERATIONS & RISER DIAGRAM

TOWNSHIP:	RANGE:	SECTION:	
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933		
PARCEL:		DRAWING SCALE:	AS NOTED

6552

FA0.02

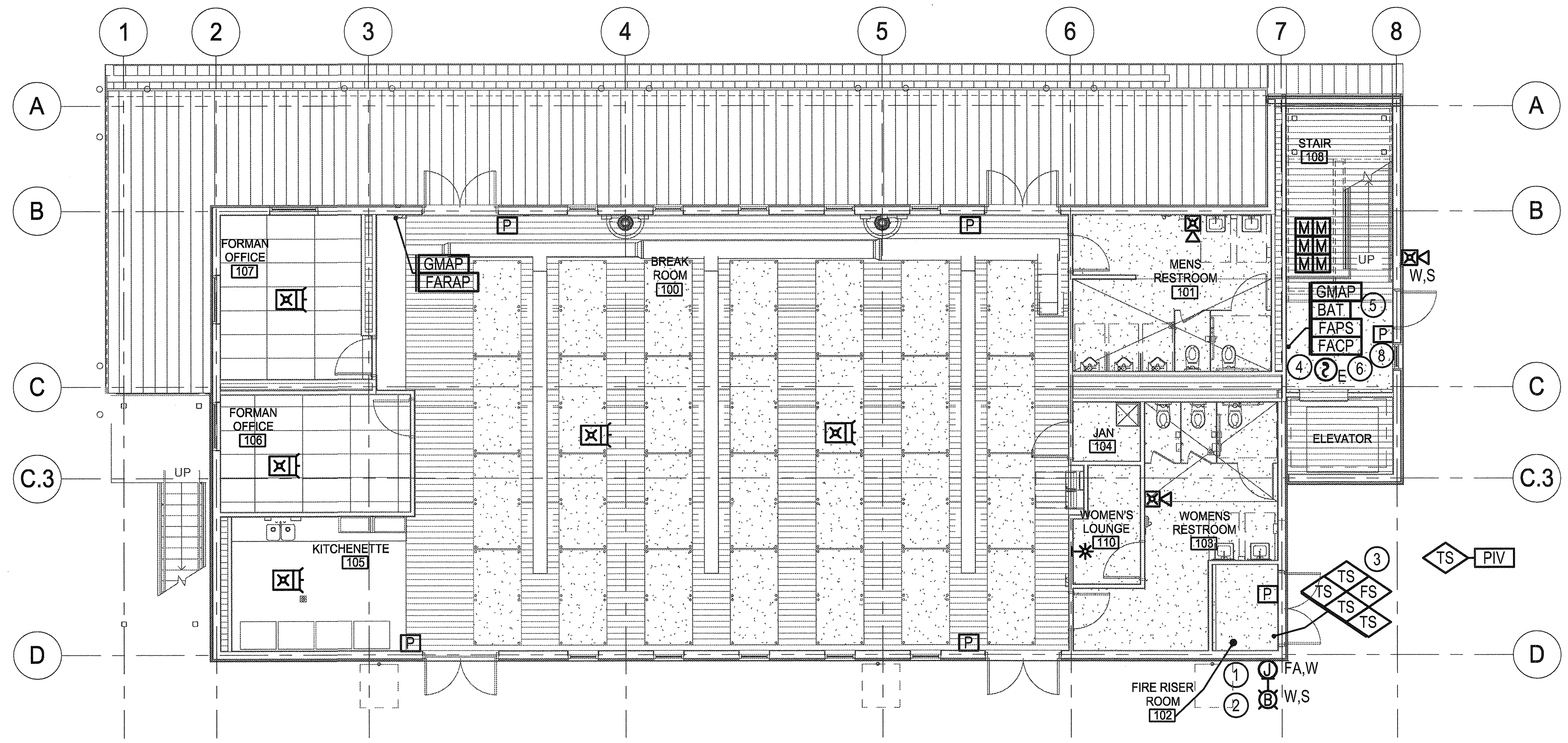
SH # 485 OF # 499

CONT/CONS: 070136

M. ID: 091251

PHASE: BID

BINDING EDGE

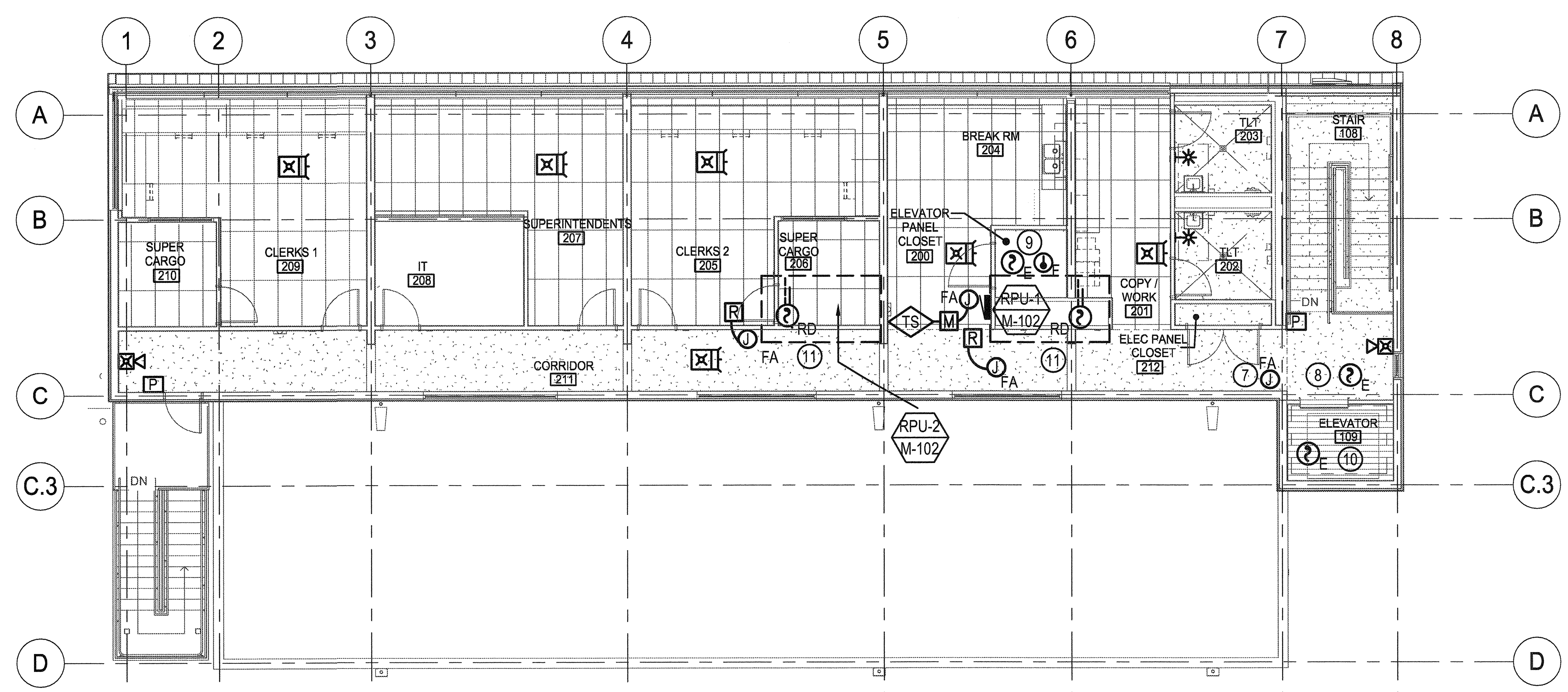


LEVEL 1 FIRE ALARM FLOOR PLAN

1/8" = 1'-0"

0' 8' 16' 24' 32'

GRAPHIC SCALE 1/8" = 1'-0"



LEVEL 2 FIRE ALARM FLOOR PLAN

1/8" = 1'-0"

0' 8' 16' 24' 32'

GRAPHIC SCALE 1/8" = 1'-0"

GENERAL NOTE

1. SEE SHEET FA0.01 FOR FIRE ALARMSYSTEM FLOOR PLAN GENERAL AND CONSTRUCTION NOTES.
2. SEE SHEET FA0.01 FOR CABLING AND CONDUIT REQUIREMENTS AND FIRE ALARM SYSTEM REQUIREMENTS.
3. CEILING TYPES ARE SHOWN FOR REFERENCE ONLY AND ARE NOT PROVIDED TO INDICATE EXACT LAYOUTS.
4. CEILING MOUNTED DEVICES SHALL BE INSTALLED AT THE QUARTER POINT OR CENTER POINT OF 4'X2' ACOUSTICAL CEILING TILES AND CENTER POINT OF 2'X2' OR 1'X1' ACOUSTICAL CEILING TILES. CONSTRUCTION DOCUMENT FA2.01 MAY NOT DEPICT THIS INSTALLATION DUE TO REFLECTED CEILING PLAN SHOWN BEING DIAGRAMMATICAL TO INDICATE CEILING TYPES, NOT EXACT ACOUSTICAL TILE LAYOUTS.
5. THE CONTRACTOR SHALL COORDINATE THE FIRE ALARM SYSTEM INSTALLATION WITH EXISTING ARCHITECTURAL FEATURES, H.V.A.C. GRILLES, ELECTRICAL LIGHTS, FIRE PROTECTION SPRINKLER HEADS.

Port of Tacoma

bce engineers, inc.

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FRED A. BLANCHARD — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

02/17/2016

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PIER 4 PHASE 2
MARINE BUILDING
LEVEL 1, AND LEVEL 2 FIRE ALARM FLOOR PLAN

TOWNSHIP: | RANGE: | SECTION:

DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933

PARCEL: | DRAWING SCALE: AS NOTED

6552
FA2.01
SH # 486 OF # 499

CONT/CONS: 070136

M. ID: 091251

PHASE: BID

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	LIGHTING
	SURFACE OR PENDANT MOUNT LIGHT FIXTURE (CIRCLE INDICATES RECESSED OR CONCEALED JUNCTION BOX)
	WALL MOUNT LIGHT FIXTURE
	SURFACE OR PENDANT MOUNT STRIP LIGHT (CIRCLE INDICATES RECESSED OR CONCEALED JUNCTION BOX)
	EGRESS FIXTURE WITH UL 924 90 MINUTES EMERGENCY BATTERY PACK. PROVIDE UNSWITCHED HOT LEG.
	WALL MOUNTED EXIT LIGHT FIXTURE (PROVIDE DIRECTION ARROWS AS INDICATED) PROVIDE UNSWITCHED HOT LEG.
	RECEPTACLES
	DUPLEX RECEPTACLE (E INDICATES EXISTING TO BE REPLACED)
G	DUPLEX RECEPTACLE (G INDICATES GROUND FAULT CIRCUIT INTERRUPTER)
C	DUPLEX RECEPTACLE (C INDICATES ABOVE COUNTER)
	FOURPLEX RECEPTACLE
	SPECIAL PURPOSE OUTLET FOR BUILDING EMERGENCY POWER – 3Ø, VOLTAGE AND AMPERES AS INDICATED
	EQUIPMENT AND WIRING
	CONDUIT STUB OUT (PROVIDE CONCRETE MARKER ON EXTERIOR)
	DEDICATED CONDUIT HOMERUN TO PANEL & CIRCUIT NUMBERS AS INDICATED ON PLANS
	RACEWAY CONCEALED IN WALL OR CEILING
	RACEWAY CONCEALED UNDERGROUND OR UNDER FLOOR SLAB
	MARKS INDICATE NUMBER OF #12 AWG UNLESS NOTED OTHERWISE
	GROUNDING CONDUCTOR
	FLEXIBLE CONDUIT
	GROUNDING SYSTEM PER CODE
	JUNCTION BOX – SIZE PER CODE
	MOTOR CONNECTION
	DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	208Y/120 VOLT PANELBOARD
	480Y/277 VOLT PANELBOARD
T	TRANSFORMER
$M	MANUAL STARTER

SYMBOL	DESCRIPTION
	SWITCHES
$	SINGLE POLE SWITCH
$VS	COMBINATION SWITCH / DUAL TECHNOLOGY VACANCY SENSOR
$OS	COMBINATION SWITCH / DUAL TECHNOLOGY OCCUPANCY SENSOR
$3	THREE WAY SWITCH
$4	FOUR WAY SWITCH
a$$b	MULTI-GANGED SWITCH (LOWER CASE LETTERS INDICATES SWITCHING)
	MOMENTARY CONTACT SWITCH FOR LOW VOLTAGE CONTROL PANEL
VS	MOMENTARY CONTACT SWITCH FOR CEILING MOUNTED VACANCY SENSOR
$LV3	ROOM CONTROLLER LOW VOLTAGE CONTROL SWITCH (NUMBER INDICATES QUANTITY OF SWITCH BUTTONS). SEE SHEET E5.01 FOR LIGHTING CONTROL DETAIL.
VS	ROOM CONTROLLER VACANCY SENSOR CONTROL. SEE SHEET E5.01 FOR LIGHTING CONTROL DETAIL.
PS	ROOM CONTROLLER PHOTOSENSOR CONTROL. SEE SHEET E5.01 FOR LIGHTING CONTROL DETAIL.
OS	CEILING MOUNTED OCCUPANCY SENSOR
VS	CEILING MOUNTED VACANCY SENSOR
PS	STANDALONE DAYLIGHT HARVESTING PHOTO SENSOR. SEE SHEET E5.01 FOR LIGHTING CONTROL DETAIL.
	MISCELLANEOUS
1	CONSTRUCTION NOTES
W	W INDICATES WEATHERPROOF FOR ALL DEVICES, PROVIDE LOCKING COVER ON RECEPTACLES.
AH1 1	MECHANICAL EQUIPMENT CONNECTION
	TELECOMMUNICATIONS
C	COMMUNICATION / DATA OUTLET – WALL MOUNT WITH (4) DATA PORTS AND (4) CAT6 CABLES (4/S BOX WITH SINGLE GANG MUDRING AND COVER PLATE) 1"C. TO ACCESSIBLE CEILING SPACE, MOUNT AT +18" AFF UNLESS NOTED OTHERWISE. (C INDICATES MOUNTED ABOVE COUNTER)
	TELECOMMUNICATIONS TELEPHONE OUTLET – WALL MOUNT WITH (1) DATA PORT AND (1) CAT6 CABLE(4/S BOX WITH SINGLE-GANG MUDRING AND COVERPLATE) WITH ONE (1) 1" CONDUIT TO ACCESSIBLE CEILING SPACE. MOUNT AT +44" AFF UNLESS NOTED OTHERWISE.
	CEILING MOUNTED, DATA OUTLET – PROVIDE (2) DATA PORTS AND (2) CAT6 CABLES (1) TWO PORT BISCUIT BLOCK WITH 25' SERVICE LOOP ABOVE ACCESSIBLE CEILING SPACE. COORDINATE EXACT LOCATION WITH OWNER'S IT DEPARTMENT.
CCTV	EXTERIOR WALL MOUNTED, CCTV CAMERA (ROUGH-IN ONLY) – (1) 1" CONDUIT TO ACCESSIBLE CEILING SPACE, (2) DATA PORTS AND (2) CAT6 CABLES (1) TWO PORT BISCUIT BLOCK WITH 25' SERVICE LOOP. COORDINATE EXACT LOCATION WITH OWNER'S IT DEPARTMENT.
C	INTERIOR CEILING MOUNTED, CCTV CAMERA (ROUGH-IN ONLY) – PROVIDE (2) DATA PORTS AND (2) CAT6 CABLES (1) TWO PORT BISCUIT BLOCK WITH 25' SERVICE LOOP ABOVE ACCESSIBLE CEILING SPACE. COORDINATE EXACT LOCATION WITH OWNER'S IT DEPARTMENT.
A	RADIO ANTENNA – ROUGH-IN ONLY (4/S BOX WITH SINGLE-GANG MUDRING AND COVER PLATE) WITH ONE (1) 1" CONDUIT WITH PULL STRING TO IT ROOM 208. MOUNT AT +18" AFF UNLESS NOTED OTHERWISE.
	CABLE TRAY

BINDING EDGE

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CHARLES A. HEATON, STATE OF WASHINGTON, REGISTERED PROFESSIONAL ENGINEER, 33969
2/17/2016

MARK:	REVISION:	BY:	APPR:	DATE:
				12/18/15

HS 2/17/16 — CHECKED BY: CH, DATE 2/17/16 — PROJ. ENGR, DATE

APPROVED: 3-28-16 — DIRECTOR ENG. DATE

PRINTED BY:
PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837

PIER 4 PHASE 2
MARINE BUILDING
ELECTRICAL LEGEND

TOWNSHIP: | RANGE: | SECTION:
DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: | DRAWING SCALE: AS NOTED

6552
E0.01
SH # 487 OF # 499
CONT/CONS: 070136
M. ID: 091251
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BINDING EDGE

ELECTRIC WATER HEATER SCHEDULE

UNIT NO	ELECTRICAL KW	ELECTRICAL VOLTS	ELECTRICAL Ø	ELECTRICAL FLA	CIRCUIT PANEL	CIRCUIT BKR	CONDUIT/WIRE SIZE	MANUAL STARTER	COMBINATION/DISC. MAGNETIC STARTER	FUSED DISC.	DUCT DETECTOR	REMARKS
HWT-1	6	480	3	12.5	H1	1,3,5	(1) 3/4" C. W/ (4) #12 CU.		MFR	EC		

ELECTRIC WALL HEATER SCHEDULE

UNIT	ELECTRICAL FLA	ELECTRICAL KW	ELECTRICAL VOLTS	ELECTRICAL Ø	CIRCUIT PANEL	CIRCUIT BKR	CONDUIT/WIRE SIZE	MANUAL STARTER	COMBINATION/DISC. MAGNETIC STARTER	FUSED DISC.	DUCT DETECTOR	REMARKS
EWH-1	14.4	4	277	1	H1	7	(1) 3/4" C. W/ (2) #12 CU.	MFR				
EWH-2		.5	120	1	P1	3	(1) 3/4" C. W/ (2) #12 CU.	MFR				

CIRCULATION PUMP SCHEDULE

UNIT NO	ELECTRICAL WATTS	ELECTRICAL VOLTS	ELECTRICAL Ø	ELECTRICAL FLA	CIRCUIT PANEL	CIRCUIT BKR	CONDUIT/WIRE SIZE	MANUAL STARTER	COMBINATION/DISC. MAGNETIC STARTER	FUSED DISC.	DUCT DETECTOR	REMARKS
CP-1	125	120	1	1.5	P1	1	(1) 3/4" C. W/ (2) #12 CU.	EC				

SPLIT SYSTEM OUTDOOR UNIT SCHEDULE

UNIT NO	ELECTRICAL MCA	ELECTRICAL MOP	ELECTRICAL VOLTS	ELECTRICAL Ø	CIRCUIT PANEL	CIRCUIT BKR	CONDUIT/WIRE SIZE	MANUAL STARTER	COMBINATION/DISC. MAGNETIC STARTER	FUSED DISC.	DUCT DETECTOR	REMARKS
OCU-1	19	30	208	1	C	1,3	(1) 3/4' C. W/ (3) #10 CU.			EC		

SPLIT SYSTEM INDOOR UNIT SCHEDULE

UNIT NO	ELECTRICAL MCA	ELECTRICAL FLA	ELECTRICAL VOLTS	ELECTRICAL Ø	CIRCUIT PANEL	CIRCUIT BKR	CONDUIT/WIRE SIZE	MANUAL STARTER	COMBINATION/DISC. MAGNETIC STARTER	FUSED DISC.	DUCT DETECTOR	REMARKS
ICU-1	1	.36	208	1	1	1	(1) 3/4" C. W/ (3) #12 CU.	EC				1

HEAT PUMP ROOFTOP PACKAGED UNIT SCHEDULE

UNIT NO	ELECTRICAL MCA	ELECTRICAL MOP	ELECTRICAL VOLTS	ELECTRICAL Ø	CIRCUIT PANEL	CIRCUIT BKR	CONDUIT/WIRE SIZE	MANUAL STARTER	COMBINATION/DISC. MAGNETIC STARTER	FUSED DISC.	DUCT DETECTOR	REMARKS
RPU-1	80.2	90	480	3	H1	9,11,13	(1) 1-1/2" C. W/ (4) #2 CU.		MFR	EC	EC	
RPU-2	53.2	60	480	3	H1	15,17,19	(1) 1-1/4" C. W/ (4) #4 CU.		MFR	EC	EC	

EXHAUST FAN SCHEDULE

UNIT NO	ELECTRICAL HP	ELECTRICAL VOLTS	ELECTRICAL Ø	CIRCUIT PANEL	CIRCUIT BKR	CONDUIT/WIRE SIZE	MANUAL STARTER	COMBINATION/DISC. MAGNETIC STARTER	FUSED DISC.	DUCT DETECTOR	REMARKS
EF-1	1/6	120	1	P2	1	(1) 3/4" C. W/ (2) #12 CU.	EC				
EF-2	1/6	120	1	P2	3	(1) 3/4" C. W/ (2) #12 CU.	EC				

CONSTRUCTION NOTES

1 INDOOR UNIT ICU-1 POWER FED FROM OUTDOOR UNIT OCU-1.

LIGHTING FIXTURE SCHEDULE

SYMBOL	DESCRIPTION	LAMP INFORMATION LAMP TYPE	LAMP INFORMATION LAMP INFO	LAMP INFORMATION LUMEN(LED)	VOLTS WATTS	MOUNTING & REMARKS
RL1*	LITECONTROL G-D-LHFL-2-2-SOF-40K-3500LM-CWM-D10-277	LED	4000K	3500LM	277V 38W	2'X2' RECESSED LED FIXTURE.
RL2*	PRESCOLITE LF6SQLEDG4-6SQLED5G4-40K	LED	4000K	1100LM	277V 14.4W	6" SQUARE OPEN RECESSED LED DOWNLIGHT FIXTURE.
RL2E*	PRESCOLITE LF6SQLEDG4-EM-6SQLED5G4-40K-EM	LED	4000K	1100LM	277V 14.4W	6" SQUARE OPEN RECESSED LED DOWNLIGHT FIXTURE. PROVIDE WITH EMERGENCY BATTERY PACK AND INTEGRAL EMERGENCY TEST SWITCH.
RL3	KENALL 26L40K-DV-SCC-FW-CSS-8	LED	4000K	1400LM	277V 26W	6" ROUND, LENSED, RECESSED LED DOWNLIGHT FIXTURE. IC RATED.
RL3E**	KENALL 26L40K-DV-SCC-FW-CSS-8-EL	LED	4000K	1400LM	277V 26W	6" ROUND, LENSED, RECESSED LED DOWNLIGHT FIXTURE. IC RATED. PROVIDE WITH INTEGRAL EMERGENCY BATTERY - 500LU MIN.
RL4	ZUMTOBEL BS6DLED2-F-37W-840-W5-D	LED	4000K	2800LM	277V 37W	6" SQUARE OPEN RECESSED LED FLANGLESS/TRIMLESS DOWNLIGHT FIXTURE. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
PL1*	ALERA LP7-OA-8-40-HL-CM-48	LED	4000K	80%UP/20%DN 10580LM @8'	277V 106W	DIRECT/INDIRECT 7"WIDE X 8' LINEAR DIRECT/INDIRECT PENDANT LED FIXTURE. SUSPEND FIXTURE WITH BOTTOM OF FIXTURE AT 9'-6" AFF.
PL1E*	ALERA LP7-OA-8-40-HL-CM-48-ELL10	LED	4000K	80%UP/20%DN 10580LM @8'	277V 106W	DIRECT/INDIRECT 7"WIDE X 8' LINEAR DIRECT/INDIRECT PENDANT LED FIXTURE. PROVIDE WITH EMERGENCY BATTERY PACK. SUSPEND FIXTURE WITH BOTTOM AT 9'-6" AFF.
PL2E*	ZUMTOBEL SLDI-1-PD-3-4-7-840-04-P-W-U-W-E	LED	4000K	UP-1800LM DN-3000LM	277V 48W	DIRECT/INDIRECT 1-1/2" X 4' SLOTLIGHT PENDANT LED FIXTURE. PROVIDE WITH EMERGENCY BATTERY PACK.
PL3	COLUMBIA LCL-4-40-ML-E-U	LED	4000K	5000LU	277V 48W	4' INDUSTRIAL TYPE LED FIXTURE. SUSPEND FIXTURE WITH BOTTOM OF FIXTURE AT 8'-0" AFF.
EX1	DUAL LITE SE-S-G-BN-E	LED	N/A	N/A	277V <5W	SINGLE FACE UNIVERSAL MOUNT LED EXIT SIGN FIXTURE.
EX2	DUAL LITE SE-D-G-BN-E	LED	N/A	N/A	277V <5W	DOUBLE SIDED UNIVERSAL MOUNT LED EXIT SIGN FIXTURE.
WL1	ARCHITECTURAL LIGHTING WORKS TRPSMB-2'-HP900-RLED-277-WH	LED	4000K	1800LM	277V 14W	2' WALL MOUNTED LED FIXTURE ABOVE MIRROR.
WL2	ARCHITECTURAL LIGHTING WORKS TRPSMB-4'-HP900-RLED-277-WH	LED	4000K	3600LM	277V 28W	4' WALL MOUNTED LED FIXTURE ABOVE MIRROR.
WL3E	SPAULDING LIGHTING LMC-30LU-4K-3-035-1-BBU	LED	4000K	3448LU	277V 35W	EXTERIOR WALL MOUNTED LED FIXTURE WITH EMERGENCY BATTERY PACK. MOUNT BOTTOM OF FIXTURE AT +9'-0"AFF.
WL4E*	ZUMTOBEL SLDI-1-WM-3-4-7-840-04-P-W-U-XX-E	LED	4000K	UP-1800LM DN-3000LM	277V 48W	DIRECT/INDIRECT 1-1/2" X 4' SLOTLIGHT WALL MOUNTED LED FIXTURE. PROVIDE WITH EMERGENCY BATTERY PACK. COORDINATE FEED OPTION.
WL5	COLUMBIA LCL-4-40-ML-E-U	LED	4000K	5000LU	120V 48W	4' INDUSTRIAL TYPE LED FIXTURE.
SL1	COLUMBIA LWC-4-40-ML-E-U	LED	4000K	4700LU	277V 48W	4' SURFACE MOUNTED WRAPAROUND LED FIXTURE.

FIXTURE SCHEDULE NOTES

1. * PROVIDE FIXTURE WITH 0-10V DIMMING DRIVER.
2. ** FOR REMOTE BATTERY OPTION, PROVIDE A NEMA 1 ENCLOSURE. REMOTE WALL MOUNT IN BREAK ROOM 100 ABOVE CEILING CLOUD. PAINT ENCLOSURE TO MATCH WALL.
3. FOR ALL LIGHTING CONTROLS WHICH INCLUDE DAYLIGHT OR OCCUPANT SENSING AUTOMATIC CONTROLS, AUTOMATIC SHUT-OFF CONTROLS, OCCUPANCY SENSORS, OR AUTOMATIC TIME SWITCHES, AND THE LIGHT CONTROLS SHALL COMPLY WITH WASHINGTON STATE ENERGY CODE TESTING AND COMMISSIONING DOCUMENTATION REQUIREMENTS PER C405.12 & C408.3 OF WASHINGTON STATE ENERGY CODE. A COMPLETE REPORT OF TEST PROCEDURES AND RESULTS SHALL BE PREPARED BY THE CONTRACTOR AND FILED WITH THE ENGINEER.
4. ALL EXTERIOR LIGHT FIXTURES SHALL BE ROUTED THROUGH AND CONTROLLED BY THE EXTERIOR LIGHTING CONTROL PANEL WITH TIMECLOCK AND PHOTO SENSOR. COORDINATE TIME SCHEDULE WITH THE ENGINEER.

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MARK:	REVISION:	BY:	APPR:	DATE: 12/18/15

CHARLES A. HEATON
STATE OF WASHINGTON
33990
REGISTERED
PROFESSIONAL ENGINEER
2/17/2016

APPROVED:
3-28-16
DIRECTOR ENG. DATE
HS 2/17/16
CHECKED BY CH DATE 2/17/16
PROJ. ENGR DATE
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PIER 4 PHASE 2
MARINE BUILDING
ELECTRICAL FIXTURE SCHEDULE AND MECHANICAL CONNECTION SCHEDULE

TOWNSHIP:	RANGE:	SECTION:	
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933		
PARCEL:	DRAWING SCALE: AS NOTED		

6552
E1.00
SH # 488 OF # 499
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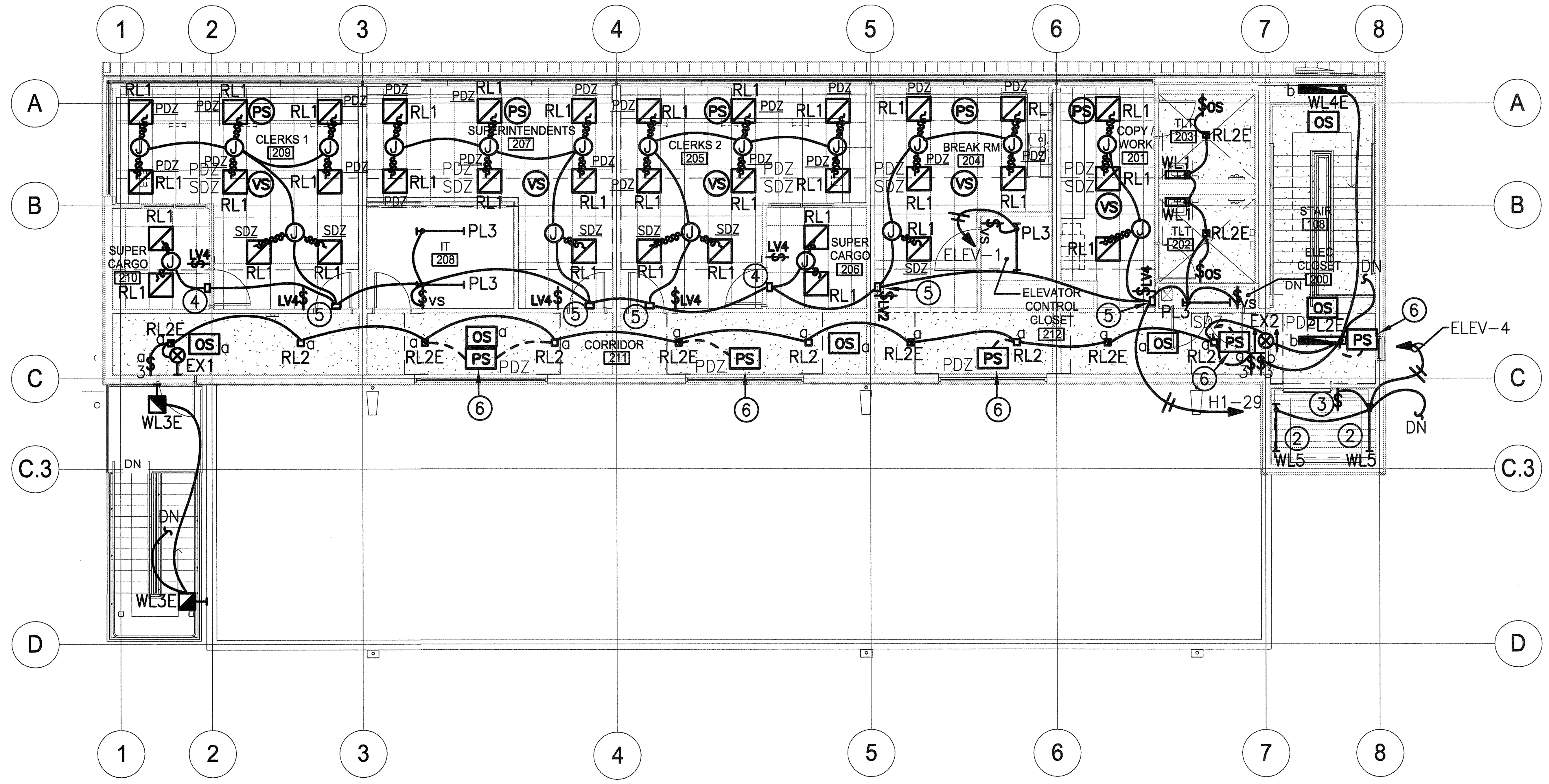
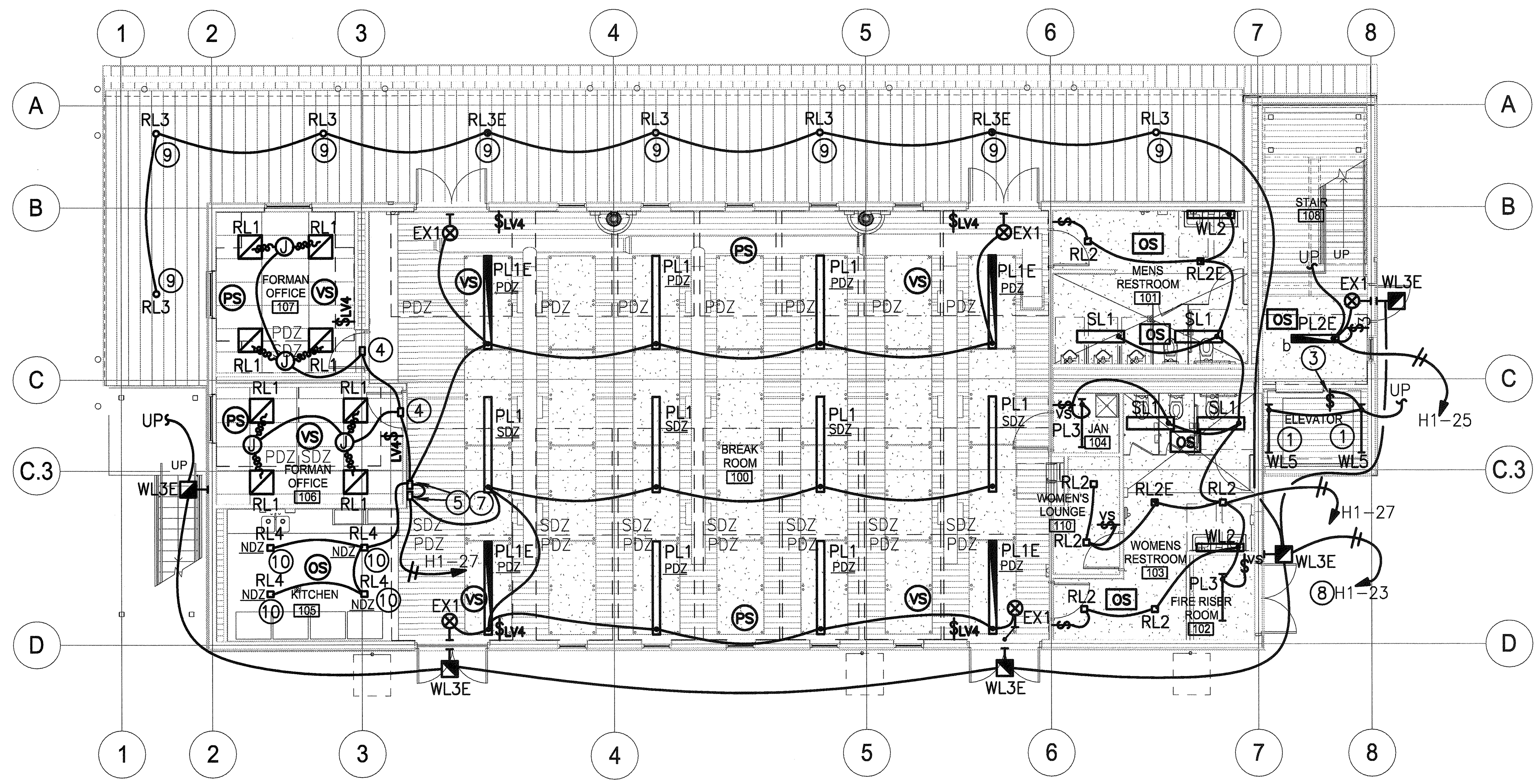


LEVEL 2 LIGHTING PLAN
1/8" = 1'-0"



LEVEL 1 LIGHTING PLAN
1/8" = 1'-0"

GENERAL NOTES

1. CIRCUITS, WIRE SIZE AND WIRE HASH MARKS ARE SHOWN FOR CIRCUIT CLARITY BUT MAY NOT NECESSARILY REPRESENT THE COMPLETE WIRING COUNT OR SIZES FOR CONNECTING CIRCUITS SHOWN. INCLUDE IN THE BID ALL REQUIRED WIRING SIZES AND NUMBER TO INSTALL ALL CIRCUITS SHOWN. FOR ALL CIRCUIT HOMERUNS, CONTRACTOR CAN CHOOSE TO UPSIZE FEEDER SIZE OR PROVIDE SEPARATE CONDUITS. SEE NEC TABLE 310.15.b.3.a.
2. 120V CIRCUITS OVER 120 FEET IN LENGTH AND 277V CIRCUITS OVER 230 FEET IN LENGTH SHALL BE #10 CONDUCTORS.
3. PROVIDE UNSWITCHED LIGHTING CIRCUIT TO ALL EGRESS AND EXIT SIGN FIXTURES FOR EMERGENCY BATTERY PACK.
4. SEE SHEET E3.01 FOR PANELBOARD LOCATION.
5. COORDINATE FIXTURE LOCATION AND HEIGHT WITH HVAC, STRUCTURAL, AND FIRE SPRINKLER SYSTEMS.

CONSTRUCTION NOTES

1. WALL MOUNT WL5 FIXTURE AT ELEVATOR PIT. COORDINATE MOUNTING AND CLEARANCE REQUIREMENTS WITH THE ELEVATOR INSTALLER.
2. WALL MOUNT WL5 FIXTURE ABOVE THE ELEVATOR CHASE. COORDINATE MOUNTING AND CLEARANCE REQUIREMENTS WITH THE ELEVATOR INSTALLER.
3. INSTALL LIGHT SWITCH TO BE READILY ACCESSIBLE FROM THE OPENING.
4. DIGITAL LIGHTING ROOM CONTROLLER, 1–RELAY, 0–10V DIMMING WITH DAYLIGHT HARVESTING. SEE DETAIL ON SHEET E5.01. WALL MOUNT CONTROLLER ABOVE T–BAR CEILING TO BE READILY ACCESSIBLE.
5. DIGITAL LIGHTING ROOM CONTROLLER, 2–RELAY, 0–10 DIMMING WITH DAYLIGHT HARVESTING. SEE DETAIL ON SHEET E5.01. WALL MOUNT CONTROLLER ABOVE T–BAR CEILING TO BE READILY ACCESSIBLE.
6. STANDALONE, SINGLE ZONE, DAYLIGHT HARVESTING 0–10 DIMMING CONTROLLER. SEE DETAIL ON SHEET E5.01.
7. PARALLEL TIE (2) DIGITAL ROOM CONTROLLERS TO SHARE COMMON OCCUPANCY SENSORS AND LOW VOLTAGE SWITCHES.
8. ROUTE EXTERIOR LIGHTING CIRCUIT THROUGH THE LIGHTING CONTROL PANEL. SEE SHEET E3.01 FOR LOCATION OF PANEL.
9. COORDINATE FIXTURE INSTALLATION WITH CONDUITS FROM THE SECOND FLOOR. SEE SHEET E4.01.
10. TRIMLESS DOWNLIGHT CAN FIXTURE. INSTALL PER MANUFACTURER'S DIRECTION.

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2/17/2016

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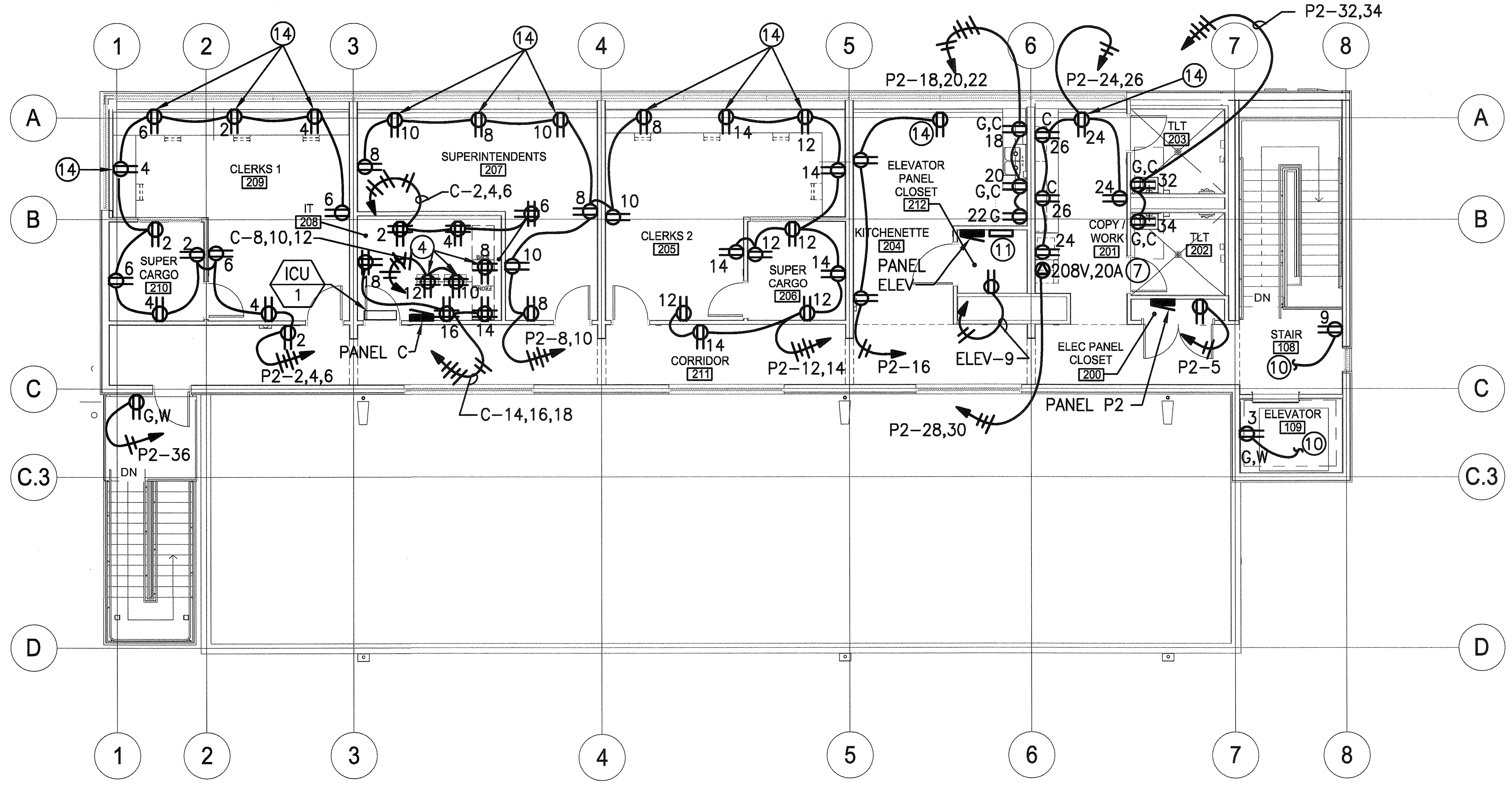
PIER 4 PHASE 2
MARINE BUILDING
LEVEL 1, AND LEVEL 2 LIGHTING PLAN

TOWNSHIP:		RANGE:		SECTION:	
DAT-HRZ:	WA83-SF	VERT:	MLLW 19.39' @ TIDE 22 1933		
PARCEL:		DRAWING SCALE:	AS NOTED		

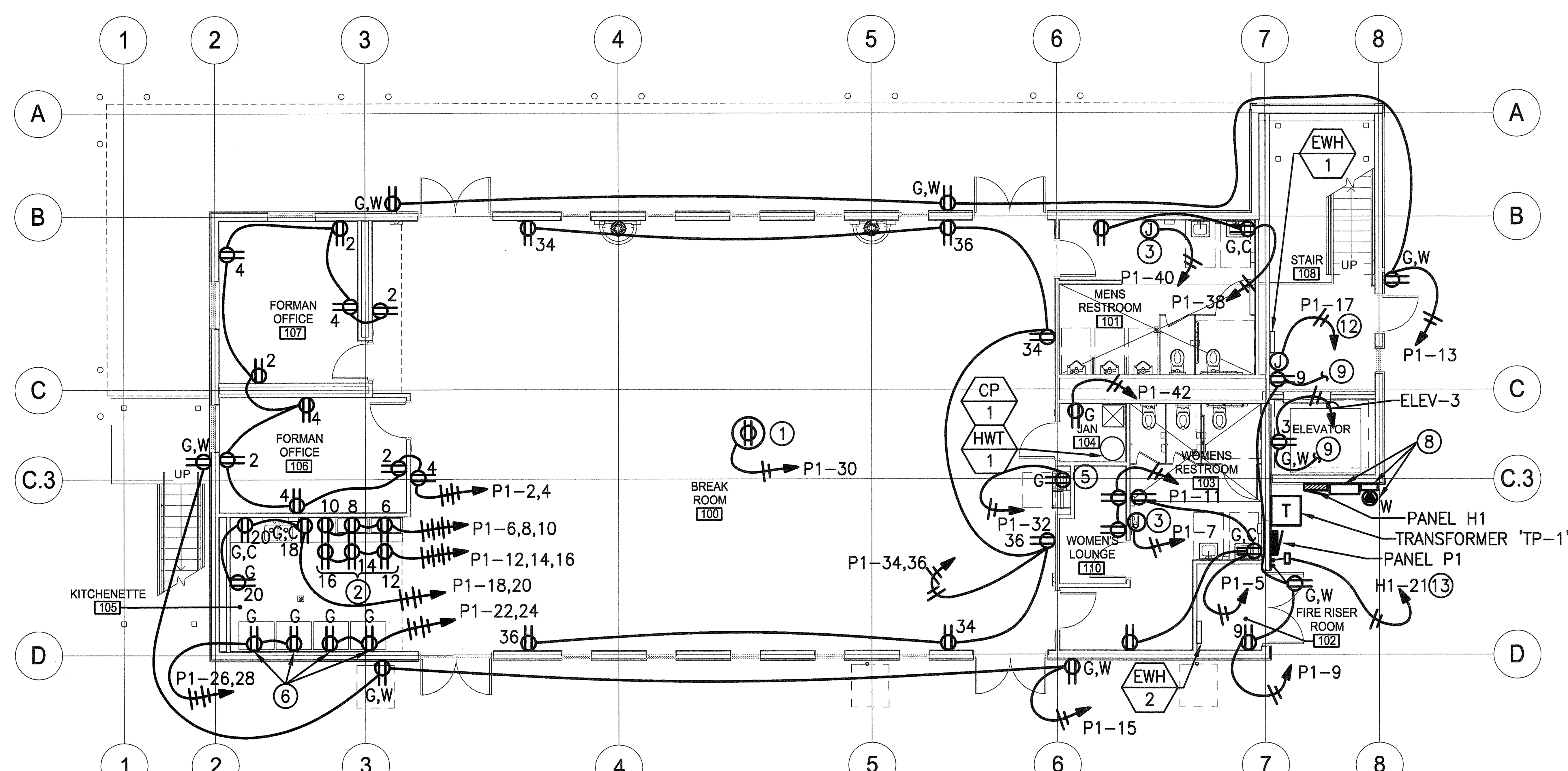
6552
E2.01
SH # 489 OF # 499

CONT/CONS:	070136	M. ID:	091251
PHASE:	BID		

BINDING EDGE



LEVEL 2 POWER PLAN
1/8" = 1'-0"



LEVEL 1 POWER PLAN
1/8" = 1'-0"

GENERAL NOTES

1. CIRCUITS, WIRE SIZE AND WIRE HASH MARKS ARE SHOWN FOR CIRCUIT CLARITY BUT MAY NOT REPRESENT THE COMPLETE WIRING COUNT OR SIZES FOR CONNECTING CIRCUITS SHOWN. INCLUDE IN THE BID ALL REQUIRED WIRING SIZES AND NUMBER TO INSTALL ALL CIRCUITS SHOWN. FOR ALL CIRCUIT HOMERUNS, CONTRACTOR CAN CHOOSE TO UPSIZE FEEDER SIZE OR PROVIDE SEPARATE CONDUITS. SEE NEC TABLE 310.15.b.3.a.
2. CONTRACTOR TO VERIFY EXACT EQUIPMENT LOCATIONS, MOUNTING HEIGHTS AND DISCONNECT FUSE SIZE WITH MECHANICAL DRAWINGS BEFORE ROUGH-IN.
3. 120V CIRCUITS OVER 120 FEET IN LENGTH AND 277V CIRCUITS OVER 230 FEET IN LENGTH SHALL BE #10 CONDUCTORS.
4. PROVIDE CONDUITS AND CONDUCTORS AS REQUIRED. ELECTRICAL CONTRACTOR TO HAVE RESPONSIBILITY FOR SIZING CONDUITS AND CONDUCTORS.
5. CONTRACTOR SHALL PROVIDE ANY NECESSARY EQUIPMENT AND DEVICES FOR A COMPLETE AND OPERATIONAL ALL ELECTRICAL SYSTEMS.

CONSTRUCTION NOTES

1. PROVIDE CEILING MOUNTED DEDICATED RECEPTACLE FOR FUTURE PROJECTOR. COORDINATE EXACT LOCATION WITH THE ENGINEER.
2. (6) MICROWAVES BUILT-IN TO CASEWORK. PROVIDE DEDICATED GFCI RECEPTACLES. COORDINATE MOUNTING AND EXACT LOCATION WITH CASEWORK INSTALLER AND THE ENGINEER.
3. PROVIDE 120V, 20A CONNECTION TO HAND DRYERS.
4. PROVIDE RECEPTACLE AT BOTTOM LEFT ON REAR SIDE. COORDINATE EXACT LOCATION WITH DATA RACK.
5. PROVIDE RECEPTACLE FOR WATER COOLER. COORDINATE EXACT RECEPTACLE LOCATION WITH MECHANICAL CONTRACTOR.
6. PROVIDE DEDICATED RECEPTACLE FOR VENDING MACHINE.
7. PROVIDE DEDICATED RECEPTACLE FOR COPY MACHINE.
8. MANUAL TRANSFER SWITCH, DISCONNECT SWITCH, AND EMERGENCY POWER RECEPTACLE LOCATION. SEE ONE LINE DIAGRAM ON SHEET E6.01 FOR ADDITIONAL INFORMATION.
9. CIRCUIT CONTINUES ON 2ND FLOOR.
10. CIRCUIT CONTINUES ON 1ST FLOOR.
11. ELEVATOR SHUNT TRIP CONTROLS. COORDINATE EXACT LOCATION WITH ELEVATOR PROVIDER.
12. PROVIDE CONNECTION TO FIRE ALARM CONTROL PANEL. COORDINATE EXACT LOCATION AND REQUIREMENT WITH FIRE ALARM CONTRACTOR.
13. PROVIDE INTERMATIC #ET2825CR, ASTRONOMIC TIMECLOCK LIGHTING CONTROL PANEL. PROVIDE WITH NEMA-3R ENCLOSURE. SEE SHEET E2.01 FOR LIGHTING PLAN.
14. FIELD VERIFY AND COORDINATE EXACT CONDUIT ROUTING BELOW WINDOW WITH STRUCTURE.

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STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
2/17/2016

APPROVED:
3-28-16
DIRECTOR ENG. DATE
HS 2/17/16
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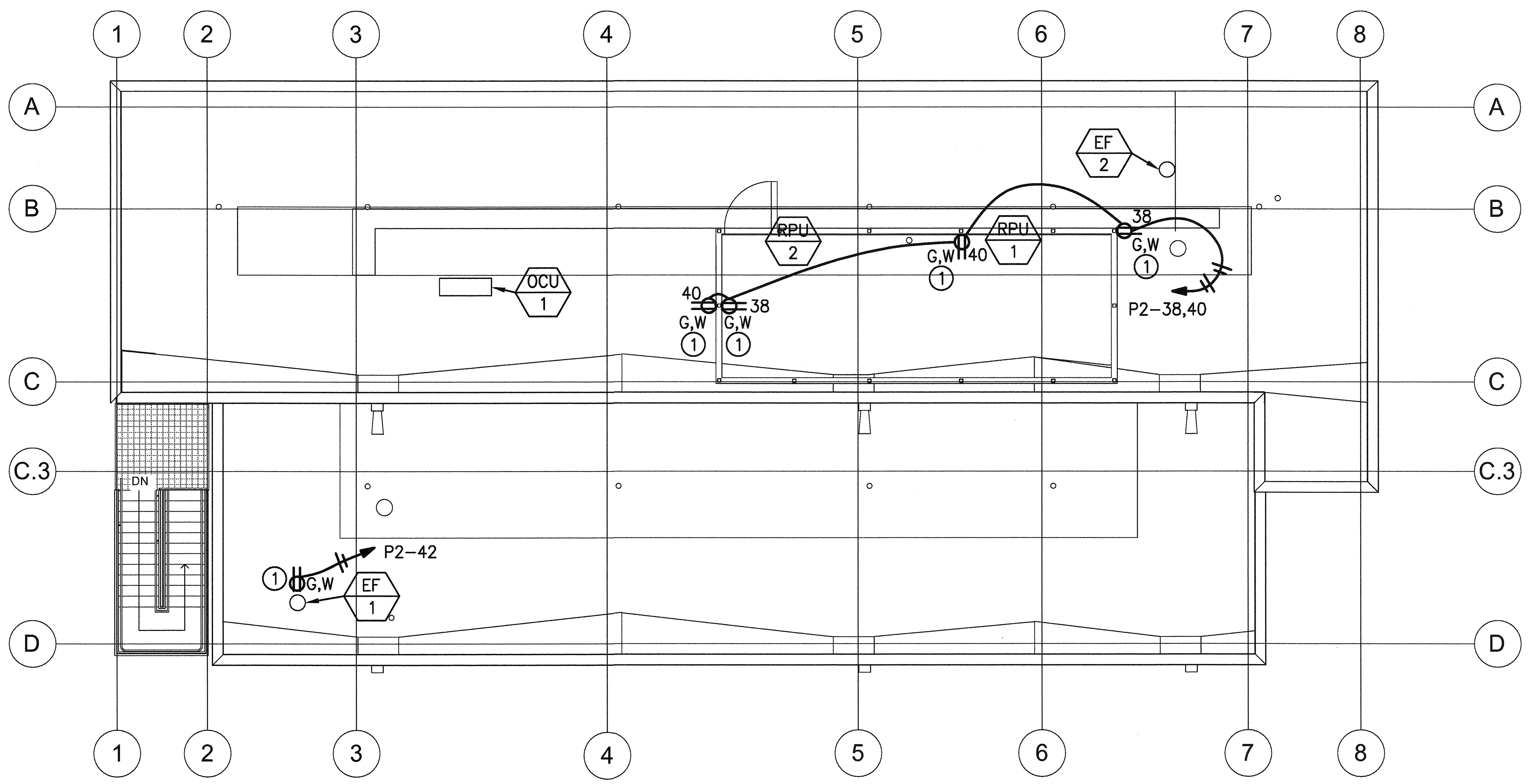
PIER 4 PHASE 2
MARINE BUILDING
LEVEL 1, AND LEVEL 2
POWER PLAN

TOWNSHIP:	RANGE:	SECTION:
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933	
PARCEL:	DRAWING SCALE: AS NOTED	

6552
E3.01
SH # 490 OF # 499

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

BINDING EDGE



1 ROOF POWER PLAN
1/8" = 1'-0"

GENERAL NOTES

1. CIRCUITS, WIRE SIZE AND WIRE HASH MARKS ARE SHOWN FOR CIRCUIT CLARITY BUT MAY NOT NECESSARILY REPRESENT THE COMPLETE WIRING COUNT OR SIZES FOR CONNECTING CIRCUITS SHOWN. INCLUDE IN THE BID ALL REQUIRED WIRING SIZES AND NUMBER TO INSTALL ALL CIRCUITS SHOWN. FOR ALL CIRCUIT HOMERUNS, CONTRACTOR CAN CHOOSE TO UPSIZE FEEDER SIZE OR PROVIDE SEPARATE CONDUITS. SEE NEC TABLE 310.15.b.3.a.
2. CONTRACTOR TO VERIFY EXACT EQUIPMENT LOCATIONS, MOUNTING HEIGHTS AND DISCONNECT FUSE SIZE WITH MECHANICAL DRAWINGS BEFORE ROUGH-IN.
3. 120V CIRCUITS OVER 120 FEET IN LENGTH AND 277V CIRCUITS OVER 230 FEET IN LENGTH SHALL BE #10 CONDUCTORS.
4. PROVIDE CONDUITS AND CONDUCTORS AS REQUIRED. CONTRACTOR TO HAVE RESPONSIBILITY FOR SIZING CONDUITS AND CONDUCTORS.
5. CONTRACTOR SHALL PROVIDE ANY NECESSARY EQUIPMENT AND DEVICES FOR A COMPLETE AND OPERATIONAL ALL ELECTRICAL SYSTEMS.

CONSTRUCTION NOTES

1. MOUNT EQUIPMENT RECEPTACLE ADJACENT TO THE MECHANICAL EQUIPMENT. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR. SURFACE MOUNT AND PROVIDE WATERTIGHT CONDUIT AND FITTINGS.

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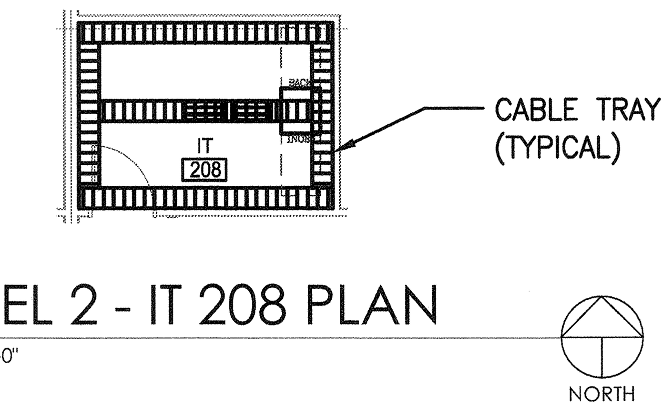
PIER 4 PHASE 2
MARINE BUILDING
ROOF POWER PLAN

TOWNSHIP:	RANGE:	SECTION:	
DAT-HRZ:	WA83-SF	VERT:	MLLW 19.39' @ TIDE 22 1933
PARCEL:		DRAWING SCALE:	AS NOTED

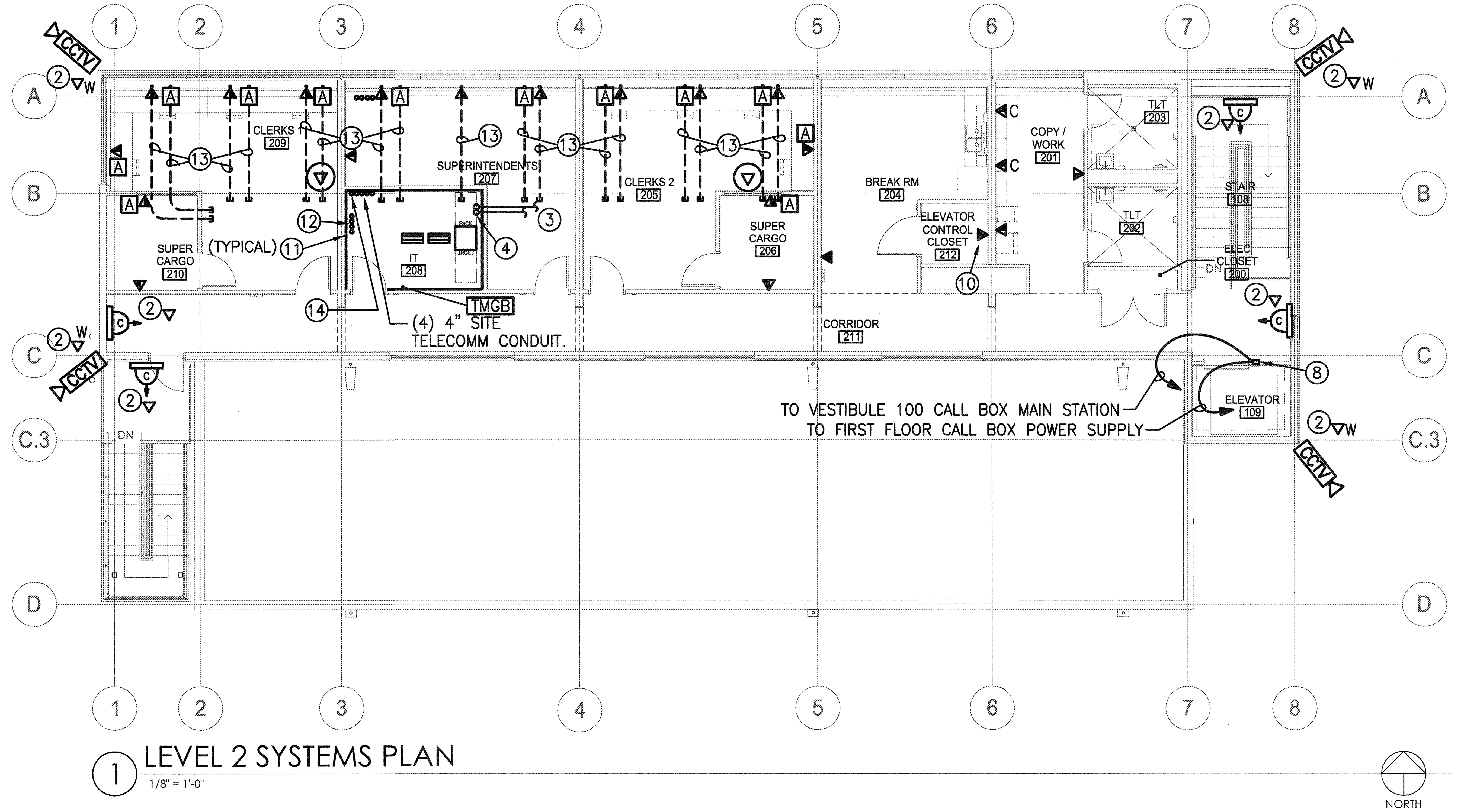
6552
E3.02
SH # 491 OF # 499

CONT/CONS:	070136
M. ID:	091251
PHASE:	BID

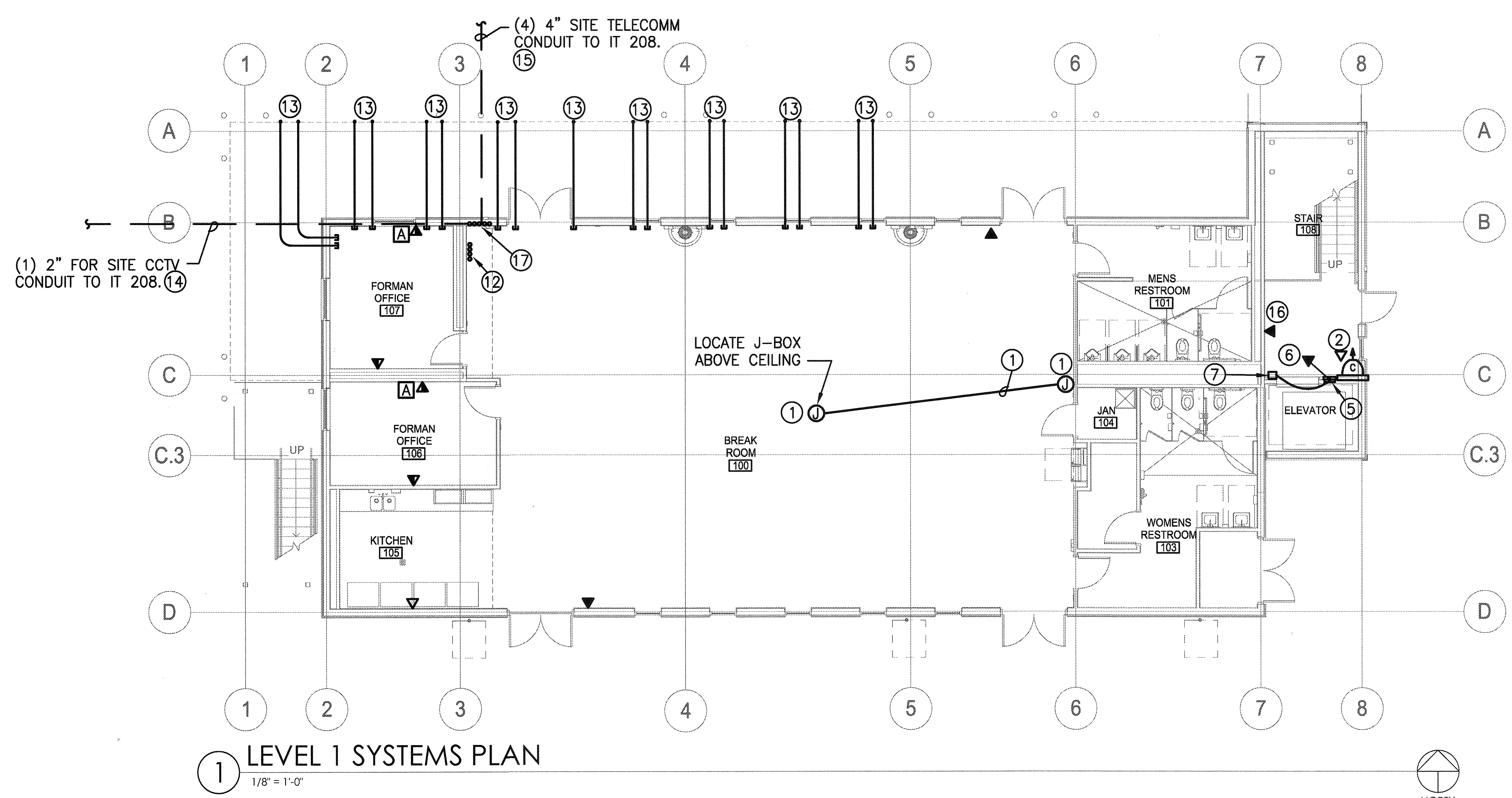
BINDING EDGE



1 LEVEL 2 - IT 208 PLAN
1/8" = 1'-0"



1 LEVEL 2 SYSTEMS PLAN
1/8" = 1'-0"



1 LEVEL 1 SYSTEMS PLAN
1/8" = 1'-0"

CONSTRUCTION NOTES

1. PROVIDE JUNCTION BOX AT 18" ON WALL AND (1)1" CONDUIT FOR FUTURE PROJECTOR. COORDINATE EXACT JUNCTION BOX LOCATION WITH THE ENGINEER.
2. PROVIDE (2) CAT6 JACKS AND CABLES FOR CCTV CAMERA BACK TO DESIGNATED PATCH PANEL IN MDF.
3. TO RADIO ANTENNA NEMA 4X ENCLOSURE ABOVE THE ROOF, SEE SHEET E4.02.
4. PROVIDE (2) 4" CONDUIT FOR ANTENNA CABLING. PROVIDE WEATHER SEAL AS REQUIRED.
5. TWO-WAY ELEVATOR CALL BOX MAIN STATION – RATH PART #2500-205FM. CALL BOX STATION SHALL HAVE A BUILT-IN 90-MINUTE BACK-UP BATTERY. COORDINATE EXACT LOCATION WITH THE FIRE ALARM REMOTE ANNUNCIATOR. FLUSH MOUNT ENCLOSURE WITH THE OPERABLE BUTTONS AT NO MORE THAN +48" AFF OR FACTORY RECOMMENDED MOUNTING HEIGHT. PROVIDE 1/2" CONDUIT WITH TWISTED SHIELDED PAIR TO POWER SUPPLY.
6. PER IBC 1007.8.1, THE TWO-WAY ELEVATOR CALL STATION SHALL HAVE A PHONE LINE TO AUTOMATIC DIAL-OUT TO A MONITORING LOCATION. COORDINATE WITH ENGINEER TO WHERE TO CONNECT THE AUTO-DIAL (NORMALLY OCCUPIED AREA). PROVIDE 1" CONDUIT TO ACCESSIBLE CEILING WITH (1) CAT6 CABLE TO THE IT ROOM 208.
7. TWO-WAY ELEVATOR CALL STATION POWER SUPPLY – RATH PART #2500-PWR24. LOCATE POWER SUPPLY WALL MOUNTED ABOVE THE T-BAR CEILING.
8. TWO-WAY ELEVATOR REMOTE CALL BOX – RATH PART #2100-958NSR. REMOTE CALL BOX HAVE A BUILT-IN 90-MINUTE BACK-UP BATTERY. FLUSH MOUNT ENCLOSURE WITH THE OPERABLE BUTTONS AT NO MORE THAN +48" AFF OR FACTORY RECOMMENDED MOUNTING HEIGHT. PROVIDE 1/2" CONDUIT WITH TWISTED SHIELDED PAIR TO POWER SUPPLY AND 1/2" CONDUIT WITH (2) TWISTED SHIELDED PAIR TO FIRST FLOOR CALL BOX MAIN STATION.
9. PROVIDE DEDICATED TELEPHONE LINE FOR THE FIRE ALARM CONTROL PANEL.
10. PROVIDE DEDICATED TELEPHONE LINE FOR THE ELEVATOR CAB.
11. THE SYSTEMS PLYWOOD BACKBOARD SHALL BE SECURELY FASTENED TO THE WALLS TO ACCOMMODATE NO LESS THAN TEN TIMES THE TOTAL WEIGHT OF THE EQUIPMENT TO BE MOUNTED. THE SYSTEMS PLYWOOD BACKBOARD SHALL BE A MINIMUM OF 3/4", APA EXTERIOR GRADE A/C, VOID-FREE, HAVE THE GRADE A SURFACE EXPOSED (MOUNTED WITH THE SMOOTH SIDE OUT), AND BE FIRE RETARDANT WITH A FLAME SPREAD RATING NOT MORE THAN 25 WHEN TESTED ACCORDING TO ASTM E-84. PROVIDE THE SYSTEMS PLYWOOD BACKBOARD FROM +6" ABOVE THE FINISHED FLOOR (AFF) UP TO +8'-6" AFF ON ALL WALLS SHOWN, UNLESS OTHERWISE NOTED.
12. PROVIDE (4) 4" CONDUIT SLEEVES FROM FIRST FLOOR CEILING SPACE FOR TELECOMM AND RADIO ANTENNA CABLES BY PORT (HUSKY). ALL TELECOMM CABLING SHALL BE SEPARATELY ROUTED FROM THE ANTENNA CABLING.
13. ROUTE 1" CONDUIT CONCEALED EXTERIOR SOFFIT CEILING SPACE. CONTRACTOR SHALL COORDINATE CONDUIT ROUTING WITH BUILDING STRUCTURAL STEEL BEAMS AND INSULATION. SEE CONDUIT ROUTING DETAIL ON SHEET E5.04.
14. PROVIDE (1) 2" CONDUIT FOR SITE CCTV. COORDINATE TERMINATION WITH SITE ELECTRICAL.
15. COORDINATE ALL WORK WITH SITE DRAWINGS AND SITE ELECTRICAL.
16. PHONE OUTLET FOR FIRE ALARM CONTROL PANEL. COORDINATE EXACT LOCATION WITH FIRE ALARM CONTRACTOR.
17. CONCEAL ALL CONDUITS IN WALL.

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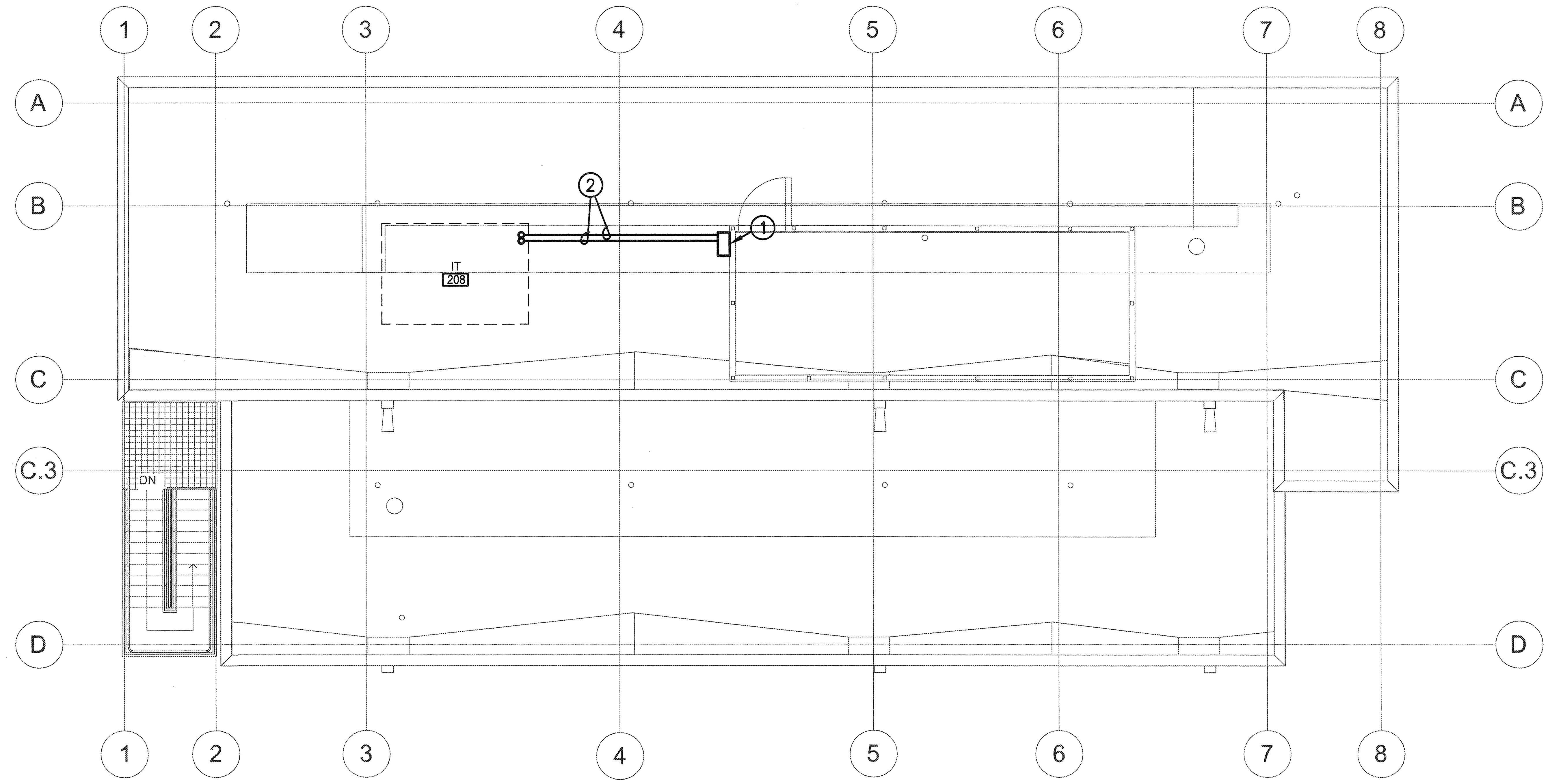
PIER 4 PHASE 2 MARINE BUILDING

LEVEL 1 AND LEVEL 2 SYSTEMS PLAN

TOWNSHIP:	RANGE:	SECTION:	
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933		
PARCEL:	DRAWING SCALE: AS NOTED		

6552
E4.01
SH # 492 OF # 499

CONT/CONS:	070136
M. ID:	091251
PHASE:	BID



1 ROOF SYSTEMS PLAN

1/8" = 1'-0"

NORTH

CONSTRUCTION NOTES

1. PROVIDE 2'X2'X12" NEMA 4X ENCLOSURE ABOVE ROOF FOR RADIO ANTENNA CABLING. WALL MOUNT ON MECHANICAL EQUIPMENT SCREEN WALL.
2. PROVIDE (2) 4" CONDUIT FOR ANTENNA CABLING.

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PIER 4 PHASE 2
MARINE BUILDING
ROOF SYSTEMS PLAN

TOWNSHIP:	RANGE:	SECTION:	
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933		
PARCEL:		DRAWING SCALE: AS NOTED	

6552
E4.02
SH # 493 OF # 499

CONT/CONS:	070136
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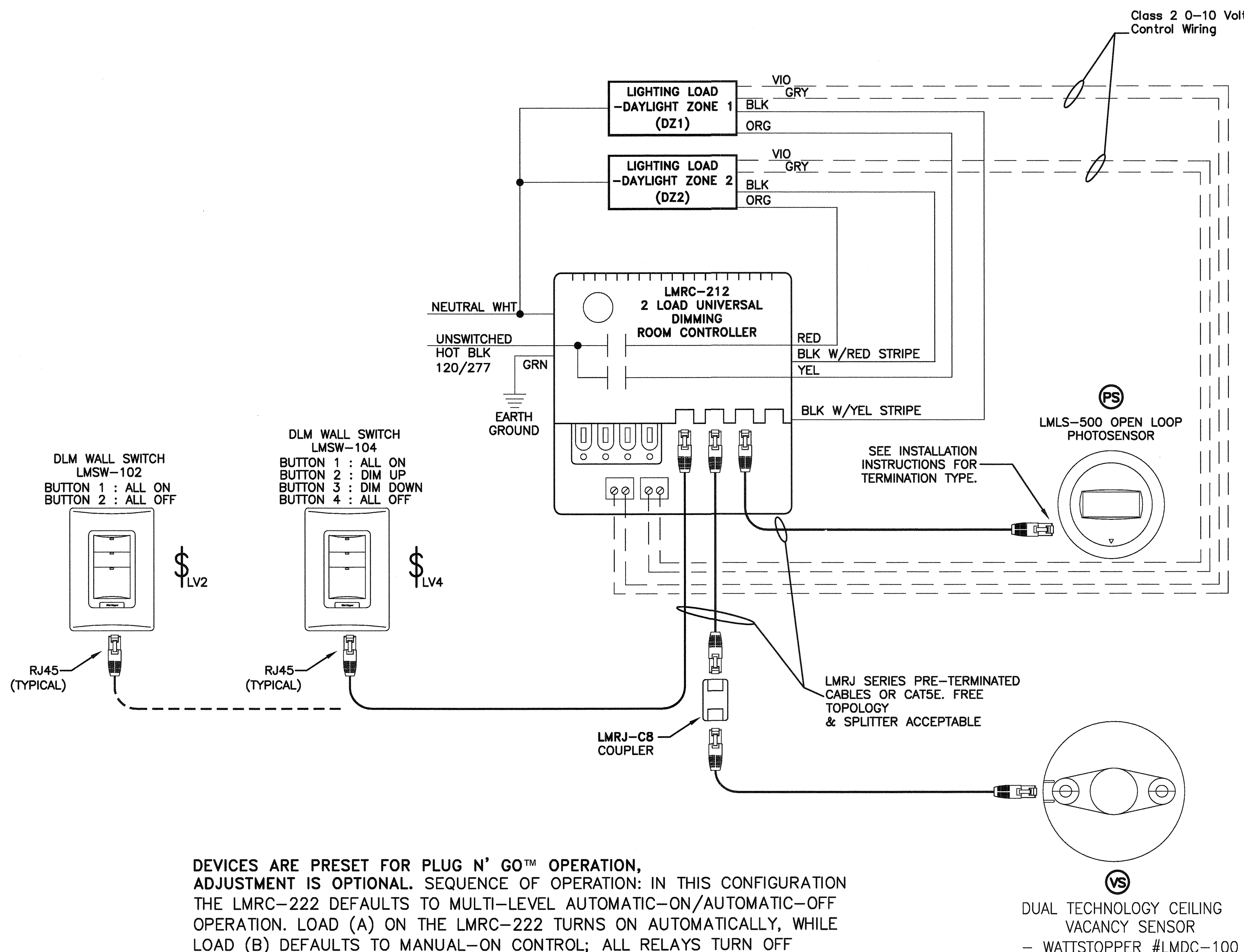
BINDING EDGE



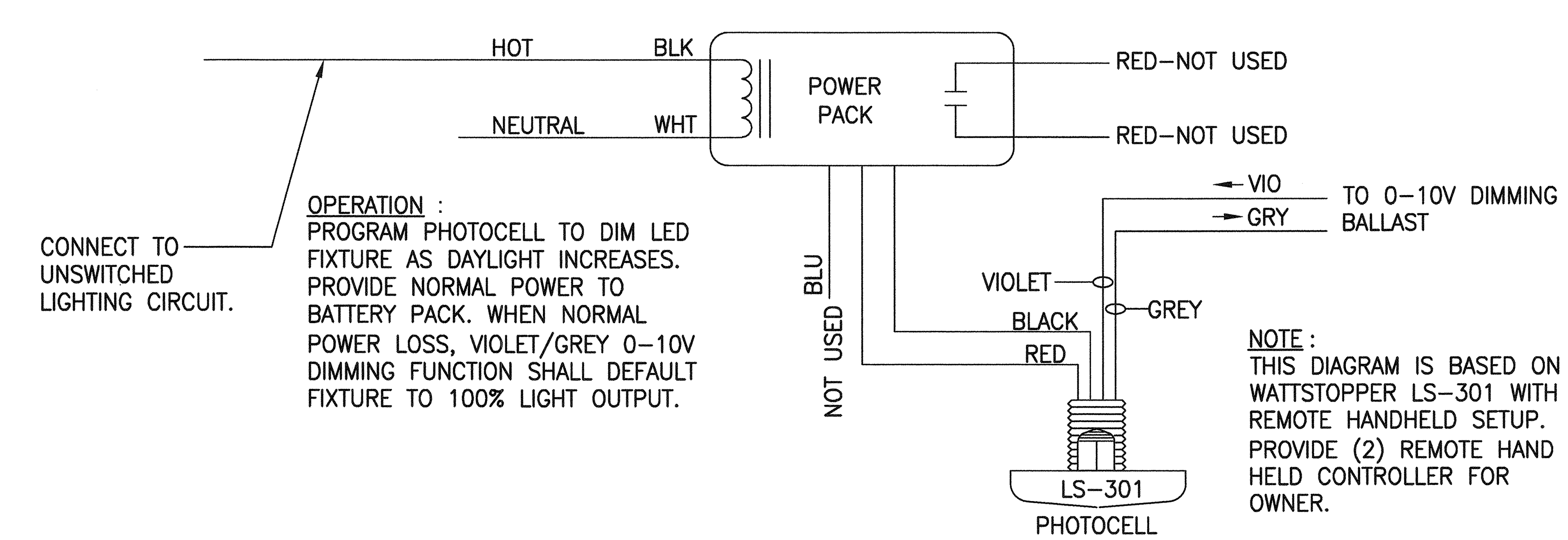
DEVICES ARE PRESET FOR PLUG N' GO™ OPERATION, ADJUSTMENT IS OPTIONAL. SEQUENCE OF OPERATION: IN THIS CONFIGURATION THE LMRC–222 DEFAULTS TO MULTI–LEVEL AUTOMATIC–ON/AUTOMATIC–OFF OPERATION. LOAD (A) ON THE LMRC–222 TURNS ON AUTOMATICALLY, WHILE LOAD (B) DEFAULTS TO MANUAL–ON CONTROL; ALL RELAYS TURN OFF AUTOMATICALLY. ENHANCED ROOM CONTROLLERS SUPPORT UP TO 64 LOADS AND 48 DEVICES PER DLM LOCAL NETWORK. AT SYSTEM STARTUP, DEFAULT DIMMING PARAMETERS ARE ESTABLISHED INCLUDING: LEVELS FOR PRESETS 1–4; FADE TIMES; AND FADE AND RAMP RATES. DIMMING AND SYSTEM PARAMETERS MAY BE CUSTOMIZED. FOR FULL OPERATIONAL DETAILS, ADJUSTMENTS AND MORE FEATURES OF THE PRODUCT, SEE THE DLM SYSTEM INSTALLATION GUIDE AT WWW.WATTSTOPPER.COM

TYPICAL DAYLIGHT HARVESTING 1 OR 2 RELAY ROOM CONTROLLER WIRING DETAIL - ENCLOSED OFFICE WITH DAYLIGHT

NOT TO SCALE

LIGHTING CONTROLS NOTES

1. FOR ALL LIGHTING CONTROLS WHICH INCLUDE DAYLIGHT OR OCCUPANT SENSING AUTOMATIC CONTROLS, AUTOMATIC SHUT–OFF CONTROLS, OCCUPANCY SENSORS, OR AUTOMATIC TIME SWITCHES, AND THE LIGHT CONTROLS SHALL COMPLY WITH WASHINGTON STATE ENERGY CODE TESTING AND COMMISSIONING DOCUMENTATION REQUIREMENTS PER C405.12 & C408.3 OF WASHINGTON STATE ENERGY CODE. A COMPLETE REPORT OF TEST PROCEDURES AND RESULTS SHALL BE PREPARED BY THE PROJECT COMMISSIONING AGENT OR ELECTRICAL CONTRACTOR AND FILED WITH THE ENGINEER.



OPERATION : PROGRAM PHOTOCELL TO DIM LED FIXTURE AS DAYLIGHT INCREASES. PROVIDE NORMAL POWER TO BATTERY PACK. WHEN NORMAL POWER LOSS, VIOLET/GREY 0–10V DIMMING FUNCTION SHALL DEFAULT FIXTURE TO 100% LIGHT OUTPUT.

NOTE : THIS DIAGRAM IS BASED ON A WATTSTOPPER LS–301 WITH REMOTE HANDHELD SETUP. PROVIDE (2) REMOTE HAND HELD CONTROLLER FOR OWNER.

TYPICAL STAND-ALONE SINGLE ZONE DAYLIGHT HARVESTING CONTROLLER WIRING DETAIL

NOT TO SCALE

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PIER 4 PHASE 2
MARINE BUILDING
ELECTRICAL DETAILS

TOWNSHIP: | RANGE: | SECTION:
DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: | DRAWING SCALE: AS NOTED

6552
E5.01
SH # 494 OF # 499

CONT/CONS: 070136
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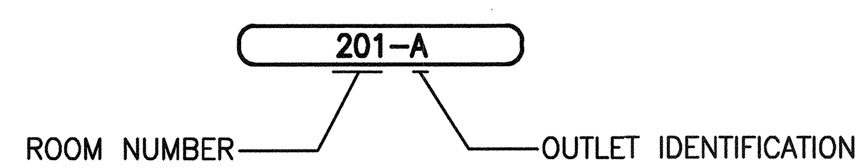
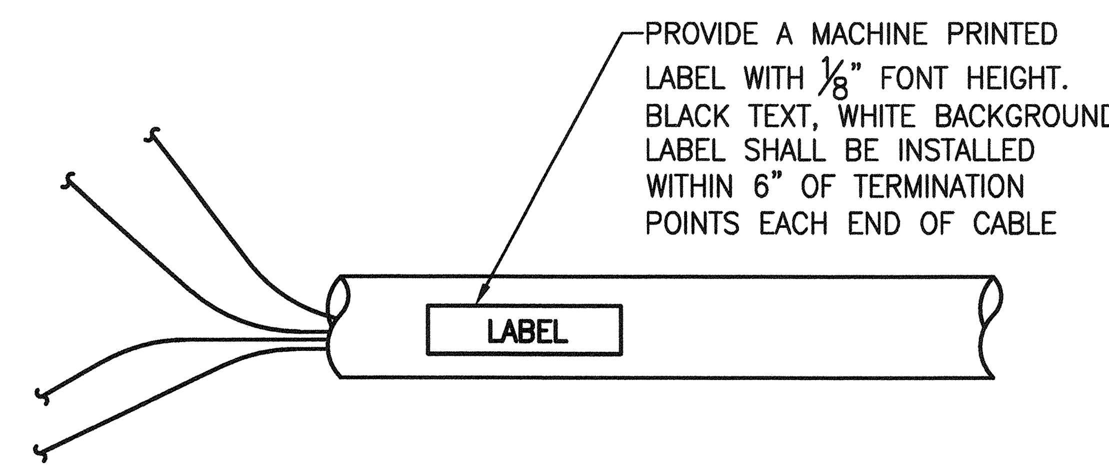


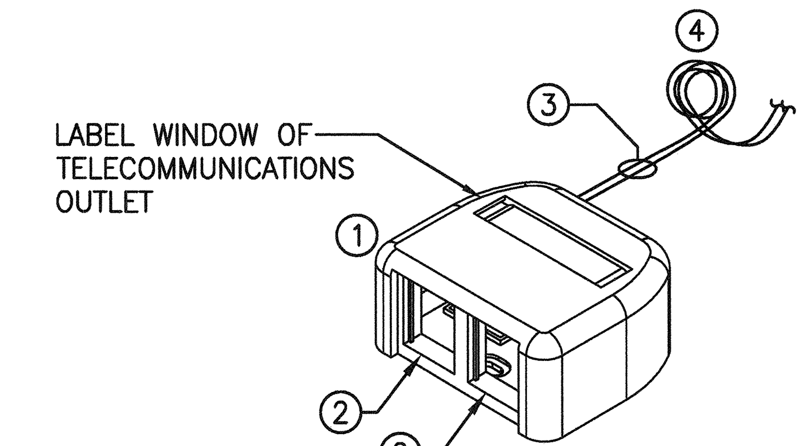
TELECOMMUNICATIONS OUTLET LABEL IDENTIFICATION FORMAT

DIAGRAMMATIC (1)



TYPICAL CAT6 HORIZONTAL CABLE LABELING

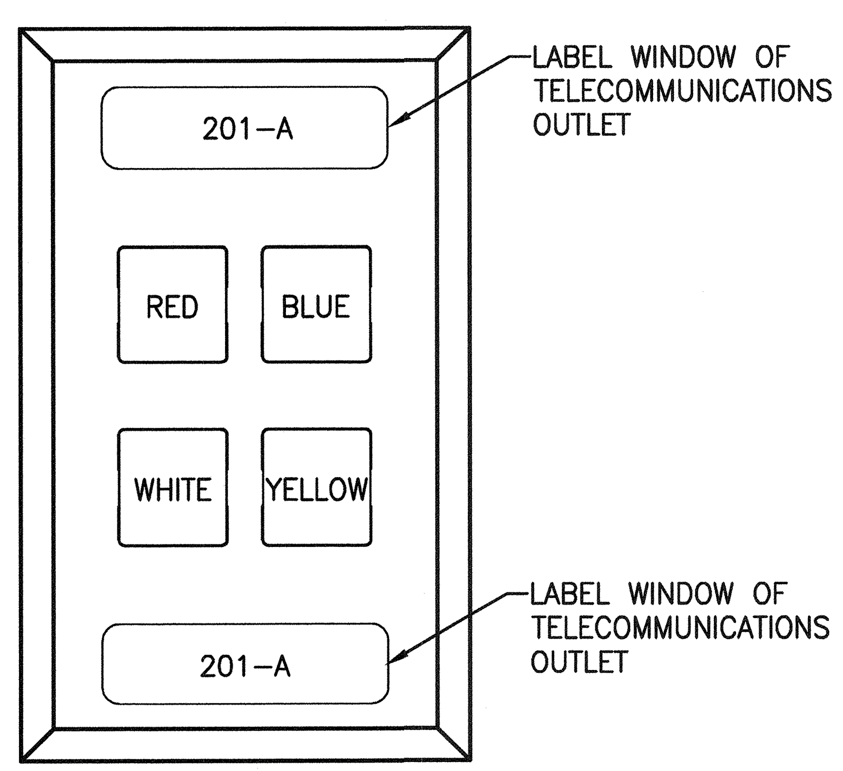
DIAGRAMMATIC (2)



PLEASE NOTE: ONLY INSTALL THIS OUTLET TYPE IN THE FOLLOWING LOCATIONS:
1. IN AN ACCESSIBLE CEILING SPACE.
2. IN A JUNCTION BOX.
3. IN THE MDF ROOM OR DESIGNATED IDF LOCATION.

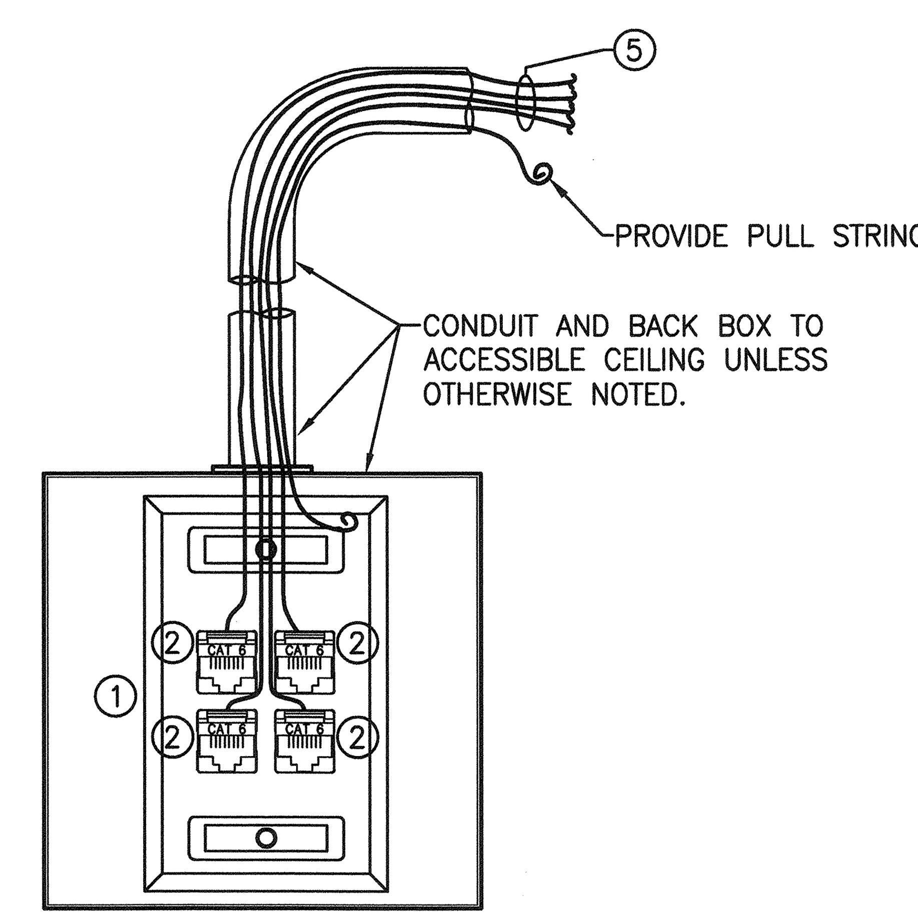
TYPICAL TELECOMMUNICATION OUTLET (ACCESSIBLE CEILING SPACE APPLICATIONS)

DIAGRAMMATIC (3)



TYPICAL TELECOMMUNICATIONS OUTLET LABELING

DIAGRAMMATIC (4)



TYPICAL TELECOMMUNICATION FOUR PORT DATA OUTLET

DIAGRAMMATIC (5)

TELECOMMUNICATIONS OUTLET – CONSTRUCTION NOTES (DETAILS #1 THROUGH #5)

1. SEE SECTION 27 2000 FOR TELECOMMUNICATIONS OUTLET TYPE, STYLE, AND COLOR.
2. THE CAT6 DATA PORT COMPUTER SYMBOL PORT ICON COLOR SHALL BE THE SAME COLOR AS THE JACK. SEE SECTION 27 2000 FOR THE MODULAR PORT COLOR.
3. PROVIDE (2) CAT6 CABLE FROM THE TELECOMMUNICATION OUTLET TO THE NEAREST TELECOMMUNICATIONS ROOM, UNLESS OTHERWISE NOTED. PROVIDE THE CAT6 CABLE COLOR AS SPECIFIED IN SECTION 27 2000.
4. PROVIDE A 25 FOOT SERVICE LOOP IN THE ACCESSIBLE CEILING SPACE, UNLESS OTHERWISE NOTED.
5. PROVIDE (4) CAT6 CABLES FROM THE TELECOMMUNICATION OUTLET TO THE NEAREST TELECOMMUNICATIONS ROOM. PROVIDE THE CAT6 CABLE COLOR AS SPECIFIED IN SECTION 27 2000.

6552
E5.02
SH # 495 OF # 499

PIER 4 PHASE 2
MARINE BUILDING
ELECTRICAL DETAILS

CONT/CONS: 070136	TOWNSHIP:	RANGE:
M. ID: 091251	DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933
PHASE: BID	PARCEL:	DRAWING SCALE: AS NOTED

SECTION:

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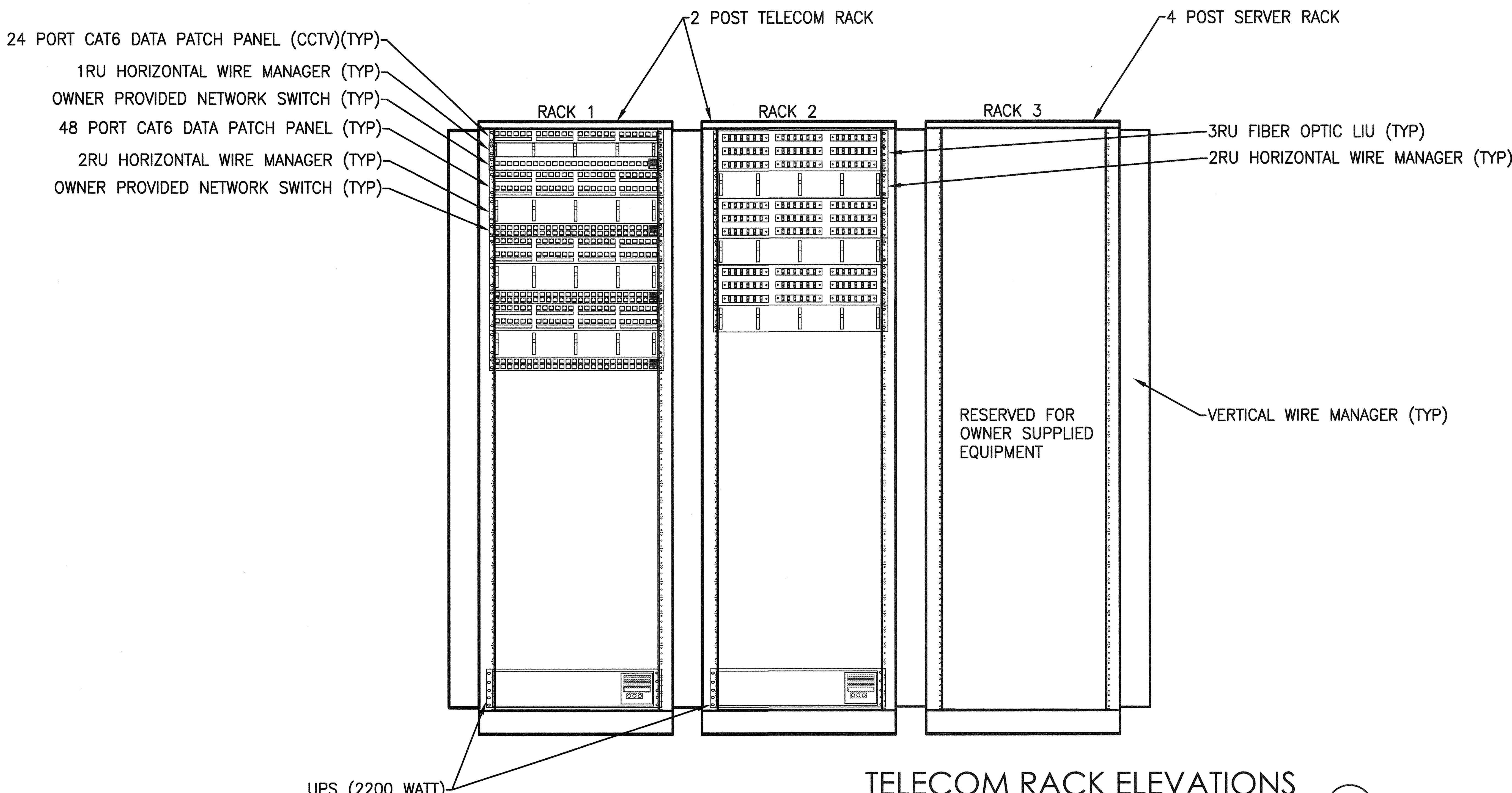
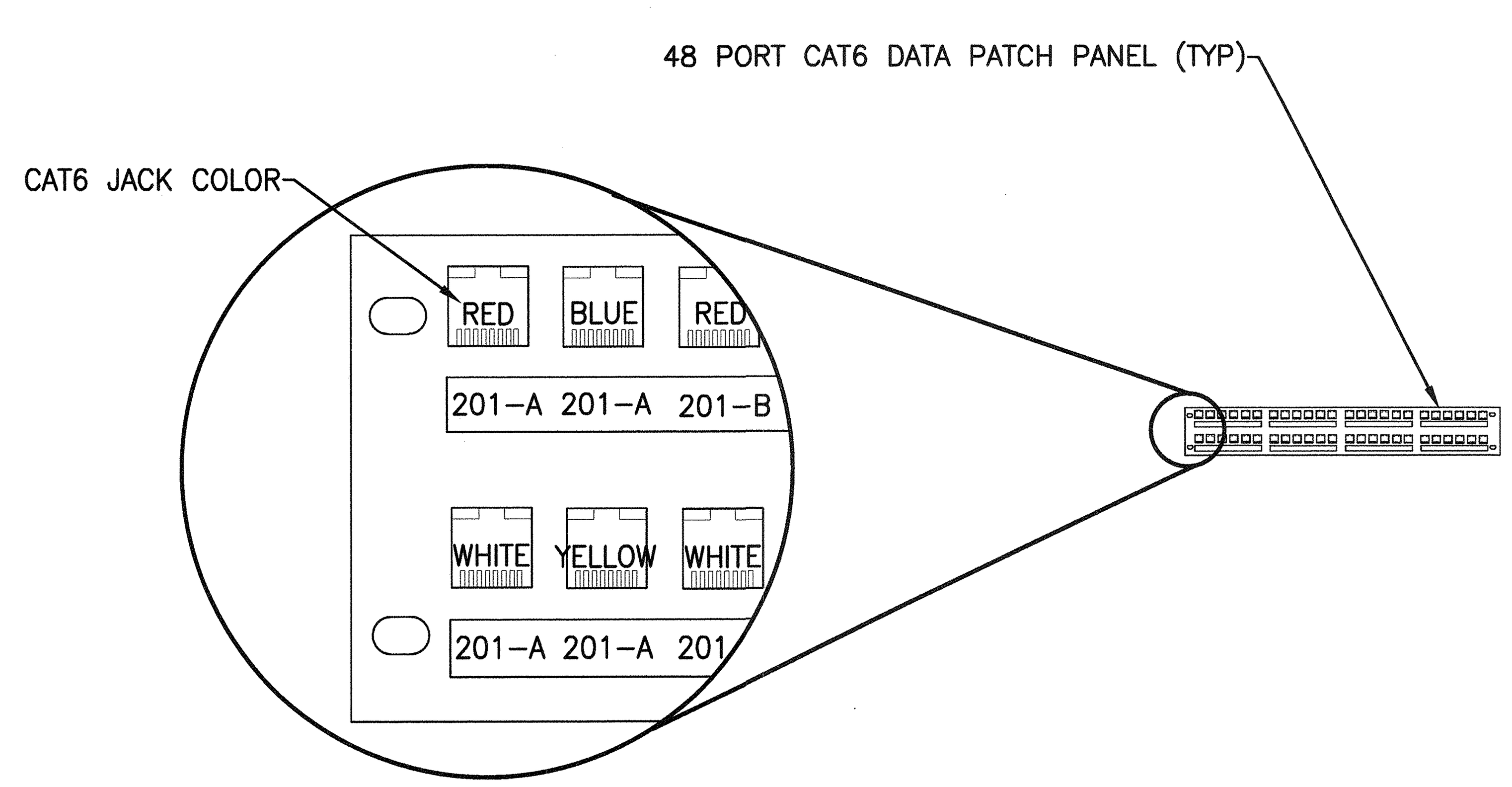
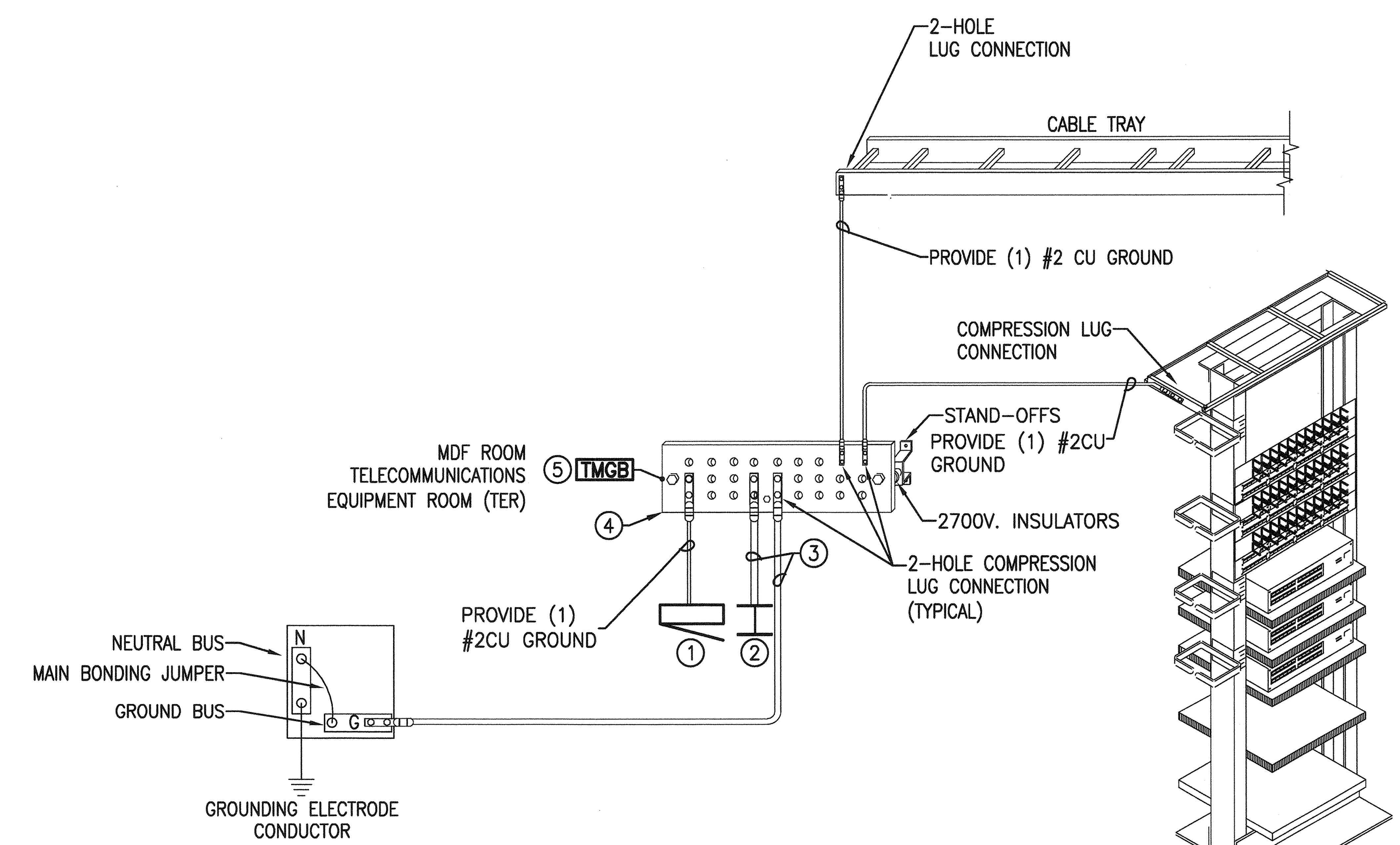


TELECOM RACK ELEVATIONS (1)
DIAGRAMMATIC



TELECOM PATCH PANEL LABELING (2)
DIAGRAMMATIC



RACK (TYPICAL)
SEE SECTION 27 2000 FOR SPECIFIC RACK TYPE, STYLE, WIRE MANAGEMENT AND OTHER APPURTENANCES

TELECOMMUNICATIONS GROUNDING RISER DIAGRAM – CONSTRUCTION NOTES (DETAIL #3)

1. PROVIDE CONNECTION TO PANEL BOARD IN THE TELECOM ROOM.
2. PROVIDE BOND CONNECTION TO BUILDING STEEL, SIZED PER FIGURE 5.4.4.1 (SIZING OF THE TBB) OF ANSI J–STD–607–A.
3. PROVIDE (1) #3/0 COPPER GROUND CONDUCTOR WITH GREEN OUTER JACKET.
4. MOUNT PLATE ON PLYWOOD BACKBOARD
5. TELECOMMUNICATION MAIN GROUND BUSBAR 20"x4"x1/4"

TELECOMMUNICATIONS GROUNDING RISER DIAGRAM (3)
DIAGRAMMATIC

BINDING EDGE

Port of Tacoma
P.O. BOX 1837 TACOMA, WA 98401 (253)383-5841

BCE bce engineers, inc.
6021 12th street east, suite 200 Fife, WA 98424
p:(253) 922-0446
f:(253) 922-0896

MARK:	REVISION:	BY:	APPR:	DATE:
				12/18/15

CHARLES A. HEATON, STATE OF WASHINGTON, REGISTERED PROFESSIONAL ENGINEER
2/17/2016

APPROVED: 3-28-16
DIRECTOR ENG. DATE

HS 2/17/16
CHECKED BY DATE
CH 2/17/16
PROJ. ENGR DATE

PRINTED BY:
PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837

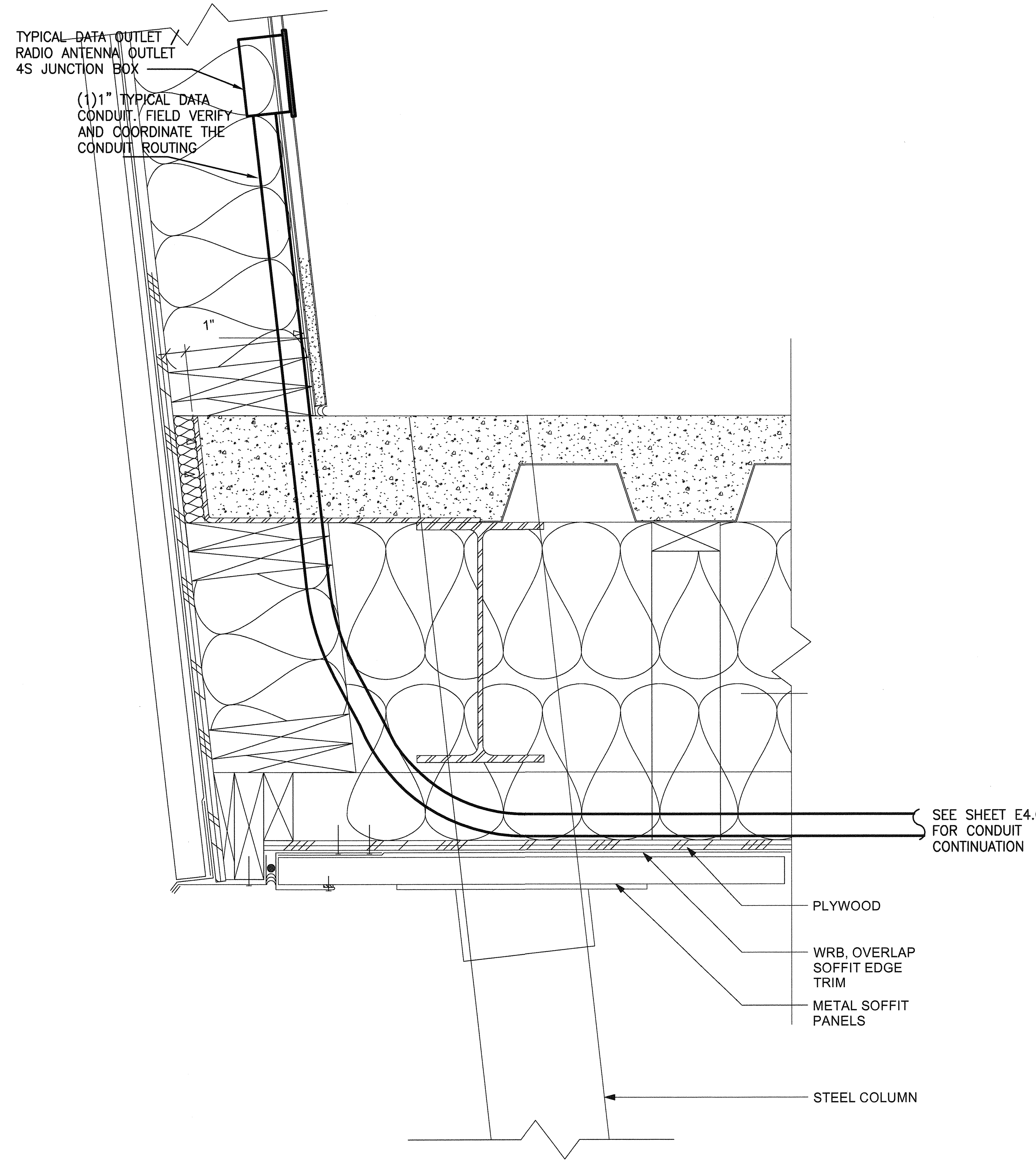
PIER 4 PHASE 2
MARINE BUILDING
ELECTRICAL DETAILS

TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

6552
E5.03
SH # 496 OF # 499

CONT/CONS: 070136
M. ID: 091251
PHASE: BID

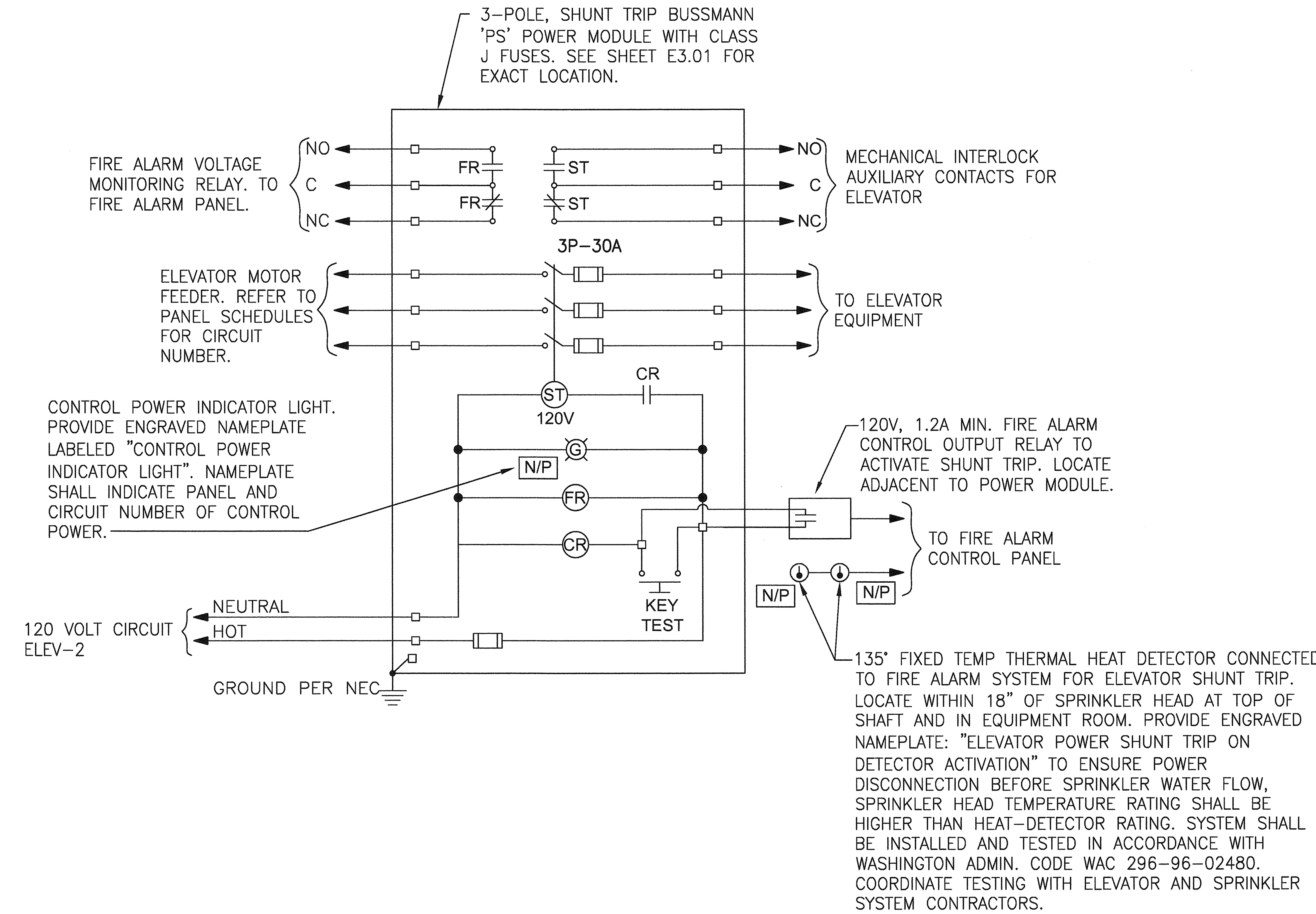
BINDING EDGE



NOTE : SEE ARCHITECTURAL DETAIL #1 ON SHEET A31.01 FOR ADDITIONAL INFORMATION

SYSTEM CONDUIT ROUTING DETAIL

SCALE : N.T.S.



ELEVATOR SHUNT TRIP SYSTEM - CONNECTION DETAIL

NOT TO SCALE

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CHARLES A. HEATON · STATE OF WASHINGTON · REGISTERED PROFESSIONAL ENGINEER

2/17/2016

APPROVED: 3-28-16	HS	2/17/16
	CHECKED BY CH	DATE 2/17/16
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PORT ADDRESS:	ONE SITCUM PLAZA TACOMA, WA 98401-1837	

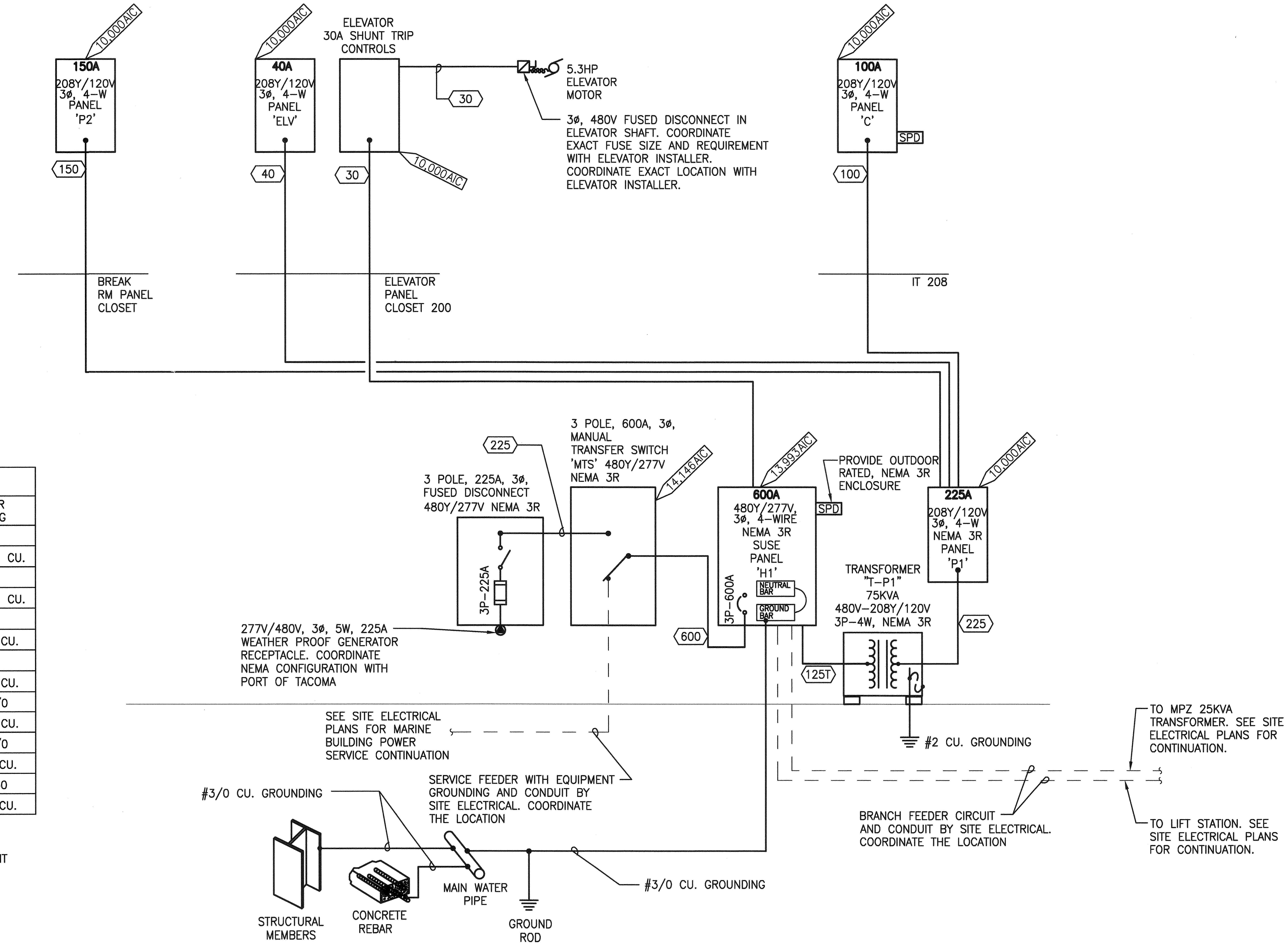
PIER 4 PHASE 2
MARINE BUILDING

ELECTRICAL DETAILS

TOWNSHIP:	RANGE:	SECTION:	
DAT-HRZ: WA83-SF	VERT: MLLW 19.39' @ TIDE 22 1933		
PARCEL:		DRAWING SCALE: AS NOTED	

6552
E5.04
SH # 497 OF # 499

CONT/CONS:	070136
M. ID:	091251
PHASE:	BID



FEEDER LEGEND

AMPS SYMBOL	NUMBER OF RUNS	CONDUIT SIZE	NUMBER OF WIRES	CONDUCTOR SIZE - AWG
30	(1)	3/4"	(4)	COPPER: #10
			(1)	GRD: #10 CU.
40	(1)	1-1/4"	(4)	COPPER: #8
			(1)	GRD: #10 CU.
100	(1)	1-1/2"	(4)	COPPER: #1
			(1)	GRD: #8 CU.
125T	(1)	1-1/2"	(3)	COPPER: #1
			(1)	GRD: #8 CU.
150	(1)	2"	(4)	COPPER: #1/0
			(1)	GRD: #8 CU.
225	(1)	2-1/2"	(4)	COPPER: #4/0
			(1)	GRD: #4 CU.
600	(2)	4"	(4)	COPPER: #350
			(1)	GRD: #1 CU.

NOTE:
UNLESS OTHERWISE NOTED, SIZES OF ALL PANEL FEEDER CONDUITS SHOWN ON THIS PLAN ARE FOR METALLIC CONDUIT RUN.

POWER RISER DIAGRAM

DIAGRAMMATIC

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				12/18/15

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HS 2/17/16
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PIER 4 PHASE 2
MARINE BUILDING
POWER RISER DIAGRAM

PRINTED BY:
PORT ADDRESS: ONE SITCUM PLAZA
TACOMA, WA 98401-1837
TOWNSHIP: RANGE: SECTION:
DAT-HRZ: WA83-SF VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: DRAWING SCALE: AS NOTED

6552
E6.01
SH # 498 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID

BINDING EDGE

PANEL: H1 — 3 PH 4 WIRE — VOLTAGE: 480Y/277V — 600A MCB
LOC: EXTERIOR WALL — MOUNT: SURFACE — FEED: BOTTOM
TYPE: NEMA 3R, SUSE — POLES: 42 — SF MAINS: NO — 14,000AIC MINIMUM

LOAD TYPE	LOAD	CIRCUIT DIRECTORY	CIR. NO.	CIR BRKR P	AMP	A	B	C	CIR BRKR P	AMP	CIR. NO.	CIRCUIT DIRECTORY	LOAD	LOAD TYPE
H	3463		1	3		5679			3		2		2216	ML
H	3463	HWT-1	3				5679				4	ELEV MOTOR	2216	ML
H	3463		5		20			5679		30	6		2216	ML
H	4000	EWH-1	7	1	20	21192			3		8		17192	SF
H	22215		9	3			41211				10	PANEL 'P1' VIA XFMR 'T-P1'	18996	SF
H	22215	RPU-1	11					35135		125	12		12920	SF
H	22216		13		90	30549			3		14		8333	D
H	14737		15	3			23070				16	MPZ	8333	D
H	14737	RPU-2	17					23070		40	18		8333	D
H	14737		19		60	17397			3		20		2660	ML
D	200	EXTERIOR LIGHTING CONTRO PANEL	21	1	20		2860				22	LIFT STATION	2660	ML
L	325	LIGHTING - EXTERIOR	23	1	20			2985		20	24		2660	ML
L	288	LIGHTING-STAIRWELL AND CORR 211	25	1	20	288					26	SPACE ONLY		
L	2093	LIGHTING-FIRST FLOOR	27	1	20		2093				28	SPACE ONLY		
L	1530	LIGHTING-SECOND FLOOR	29	1	20			1530			30	SPACE ONLY		
		SPARE	31	1	20						32	SPACE ONLY		
		SPARE	33	1	20						34	SPACE ONLY		
		SPARE	35	1	20						36	SPACE ONLY		
		SPARE	37	1	20				3		38			
		SPARE	39	1	20						40	SPD		
		SPARE	41	1	20					60	42			
	129682	TOTAL			THIS PANEL->	75105	74913	68399				TOTAL	88735	
						75105	74913	68399						

LIGHTING(125%) = 6095.00
RECEPTS<=10000(100%) = 10000.00
RECEPTS>10000(50%) = 3100.00
RECEPTS TOTAL = 13100.00
ELECTRIC HEAT(100%) = 125746.00
LARGEST MOTOR(125%) = 9975.00
OTHER MOTORS(100%) = 11836.00
MOTOR TOTAL = 21811.00
WATER HEATERS(100%) = 0.00
KITCHEN LOADS(65%) = 0.00
APPLIANCES(100%) = 0.00
DEDICATED(100%) = 51779.00
MISC(100%) = 0.00

TOTAL CONNECTED LOAD (VA): 218,417.00
TOTAL CONNECTED CURRENT (A): 262.71
TOTAL DEMAND LOAD (VA): 218,531.00
TOTAL DEMAND CURRENT (A) 262.85

NOTES: L=LIGHTING, R=RECEPTACLES, H=ELECTRIC HEAT, ML=LARGEST MOTOR, MO=OTHER MOTORS, WH=WATER HEATERS, K=KITCHEN LOADS, A=APPLIANCES, D=DEDICATED, X=MISC, SF=SUB FEED

PANEL: P2 — 3 PH 4 WIRE — VOLTAGE: 208Y/120V — 150A MCB
LOC: ELEC CLOSET 212 — MOUNT: SURFACE — FEED: BOTTOM
TYPE: NEMA 1 — POLES: 42 — SF MAINS: NO — 10,000AIC MINIMUM

LOAD TYPE	LOAD	CIRCUIT DIRECTORY	CIR. NO.	CIR BRKR P	AMP	A	B	C	CIR BRKR P	AMP	CIR. NO.	CIRCUIT DIRECTORY	LOAD	LOAD TYPE
ML	528	EF-1	1	1	20	1248			1	20	2	RECPTS - RM 210,209	720	R
MO	528	EF-2	3	1	20		1248		1	20	4	RECPTS - RM 210,209	720	R
R	180	RECPTS - RM 200	5	1	20			900	1	20	6	RECPTS - RM 210,209	720	R
		SPACE ONLY	7			900			1	20	8	RECPTS - RM 205,207	900	R
		SPACE ONLY	9				720		1	20	10	RECPTS - RM 205,207	720	R
		SPACE ONLY	11					900	1	20	12	RECPTS - RM 205,206	900	R
		SPACE ONLY	13			900			1	20	14	RECPTS - RM 205,206	900	R
		SPACE ONLY	15				540		1	20	16	RECPTS - RM 204,212	540	R
		SPACE ONLY	17					180	1	20	18	RECPTS - RM 204	180	R
		SPACE ONLY	19			180			1	20	20	RECPTS - RM 204	180	R
		SPACE ONLY	21				1000		1	20	22	RECPTS - RM 204 (REF.)	1000	D
		SPACE ONLY	23					540	1	20	24	RECPTS - RM 201	540	R
		SPACE ONLY	25			360			1	20	26	RECPTS - RM 201	360	R
		SPACE ONLY	27				1040		2		28	RECPTS - RM (COPIER)	1040	D
		SPACE ONLY	29					1040		20	30		1040	D
		SPARE	31	1	20	180			1	20	32	RECPTS - RM 203	180	R
		SPARE	33	1	20		180		1	20	34	RECPTS - RM 202	180	R
		SPARE	35	1	20			180	1	20	36	RECPTS - EXTERIOR	180	R
		SPARE	37	1	20	360			1	20	38	RECPTS - EXTERIOR ROOF	360	R
		SPARE	39	1	20		360		1	20	40	RECPTS - EXTERIOR ROOF	360	R
		SPARE	41	1	20			180	1	20	42	RECPTS - EXTERIOR ROOF	180	R
	1236	TOTAL			THIS PANEL->	4128	5088	3920				TOTAL	11900	
						4128	5088	3920						

LIGHTING(125%) = 0.00
RECEPTS<=10000(100%) = 9000.00
RECEPTS>10000(50%) = 0.00
RECEPTS TOTAL = 9000.00
ELECTRIC HEAT(100%) = 0.00
LARGEST MOTOR(125%) = 660.00
OTHER MOTORS(100%) = 528.00
MOTOR TOTAL = 1188.00
WATER HEATERS(100%) = 0.00
KITCHEN LOADS(65%) = 0.00
APPLIANCES(100%) = 0.00
DEDICATED(100%) = 3080.00
MISC(100%) = 0.00

TOTAL CONNECTED LOAD (VA): 13,136.00
TOTAL CONNECTED CURRENT (A): 36.46
TOTAL DEMAND LOAD (VA): 13,268.00
TOTAL DEMAND CURRENT (A) 36.83

NOTES: L=LIGHTING, R=RECEPTACLES, H=ELECTRIC HEAT, ML=LARGEST MOTOR, MO=OTHER MOTORS, WH=WATER HEATERS, K=KITCHEN LOADS, A=APPLIANCES, D=DEDICATED, X=MISC, SF=SUB FEED

PANEL: ELEV — 3 PH 4 WIRE — VOLTAGE: 208Y/120V — 40A MCB
LOC: ELEV ROOM — MOUNT: SURFACE — FEED: BOTTOM
TYPE: NEMA 1 — POLES: 18 — SF MAINS: — 10,000AIC MINIMUM

	LOAD TYPE	LOAD	CIRCUIT DIRECTORY	CIR. NO.	CIR BRKR P	AMP	A	B	C	CIR BRKR P	AMP	CIR. NO.	CIRCUIT DIRECTORY	LOAD	LOAD TYPE	
	L	48	LTG - ELEV ROOM	1	1	20	548			1	20	2	ELEV SHUNT TRIP	500	D	1
1	R	360	ELEV SHAFT RECPTS	3	1	20		552		1	20	4	ELEVATOR SHAFT LIGHTING	192	L	1
1	L	200	ELEV LTGS	5	1	20			200			6	SPACE ONLY			
1	L	200	ELEV CAB LTGS	7	1	20	200					8	SPACE ONLY			
	R	180	RECPTS - ELEV ROOM	9	1	20		180				10	SPACE ONLY			
			SPARE	11	1	20						12	SPACE ONLY			
			SPARE	13	1	20						14	SPACE ONLY			
			SPARE	15	1	20						16	SPACE ONLY			
			SPARE	17	1	20						18	SPACE ONLY			
		988	TOTAL			THIS PANEL->	748	732	200				TOTAL	692		
							748	732	200							

LIGHTING(125%) = 800.00
RECEPTS<=10000(100%) = 540.00
RECEPTS>10000(50%) = 0.00
RECEPTS TOTAL = 540.00
ELECTRIC HEAT(100%) = 0.00
LARGEST MOTOR(125%) = 0.00
OTHER MOTORS(100%) = 0.00
MOTOR TOTAL = 0.00
WATER HEATERS(100%) = 0.00
KITCHEN LOADS(65%) = 0.00
APPLIANCES(100%) = 0.00
DEDICATED(100%) = 500.00
MISC(100%) = 0.00

TOTAL CONNECTED LOAD (VA): 1,680.00
TOTAL CONNECTED CURRENT (A): 4.66
TOTAL DEMAND LOAD (VA): 1,840.00
TOTAL DEMAND CURRENT (A) 5.11

NOTES: L=LIGHTING, R=RECEPTACLES, H=ELECTRIC HEAT, ML=LARGEST MOTOR, MO=OTHER MOTORS, WH=WATER HEATERS, K=KITCHEN LOADS, A=APPLIANCES, D=DEDICATED, X=MISC, SF=SUB FEED

PANEL: P1 — 3 PH 4 WIRE — VOLTAGE: 208Y/120V — 225A MCB
LOC: EXTERIOR WALL — MOUNT: SURFACE — FEED: BOTTOM
TYPE: NEMA 3R — POLES: 54 — SF MAINS: NO — 10,000AIC MINIMUM

LOAD TYPE	LOAD	CIRCUIT DIRECTORY	CIR. NO.	CIR BRKR P	AMP	A	B	C	CIR BRKR P	AMP	CIR. NO.	CIRCUIT DIRECTORY	LOAD	LOAD TYPE
MO	180	CP-1	1	1	20	1080			1	20	2	RECPTS - RM 100,106,107	900	R
H	500	EWH-2	3	1	20		1400		1	20	4	RECPTS - RM 100,106,107	900	R
R	540	RECPTS - RM 103	5	1	20			2040	1	20	6	RECPTS - RM 105 (MICROWAVE)	1500	D
D	1500	RECPTS - RM 103 (HAND DRYER)	7	1	20	3000			1	20	8	RECPTS - RM 105 (MICROWAVE)	1500	D
R	720	RECPTS - RM 102,108	9	1	20		2220		1	20	10	RECPTS - RM 105 (MICROWAVE)	1500	D
R	360	RECPTS - RM 110	11	1	20			1860	1	20	12	RECPTS - RM 105 (MICROWAVE)	1500	D
R	540	RECPTS - EXTERIOR	13	1	20	2040			1	20	14	RECPTS - RM 105 (MICROWAVE)	1500	D
R	540	RECPTS - EXTERIOR	15	1	20		2040		1	20	16	RECPTS - RM 105 (MICROWAVE)	1500	D
D	1000	FACP	17	1	20			1180	1	20	18	RECPTS - RM 105	180	R
		SPARE	19	1	20	360			1	20	20	RECPTS - RM 105	360	R
		SPARE	21	1	20		1000		1	20	22	RECPTS - RM 105 (VENDING)	1000	D
		SPARE	23	1	20			1000	1	20	24	RECPTS - RM 105 (VENDING)	1000	D
SF	3476		25	3		4476			1	20	26	RECPTS - RM 105 (VENDING)	1000	D
SF	3476	PANEL 'C'	27				4476		1	20	28	RECPTS - RM 105 (VENDING)	1000	D
SF	1500		29		100			2000	1	20	30	RECPTS - RM 100 (PROJECTOR)	500	D
SF	748		31	3		1748			1	20	32	RECPTS - RM 100 (WATER COOL)	1000	D
SF	732	PANEL 'ELEV'	33				1272		1	20	34	RECPTS - RM 100,103	540	R
SF	200		35		40			740	1	20	36	RECPTS - RM 100	540	R
SF	4128		37	3		4488			1	20	38	RECPTS - RM 101	360	R
SF	5088	PANEL 'P2'	39				6588		1	20	40	RECPTS - RM 101 (HAND DRYER)	1500	D
SF	3920		41		150			4100	1	20	42	RECPTS - RM 104	180	R
		SPARE	43	1	20						44	SPACE ONLY		
		SPARE	45	1	20						46	SPACE ONLY		
		SPARE	47	1	20						48	SPACE ONLY		
		SPACE ONLY	49								50	SPACE ONLY		
		SPACE ONLY	51								52	SPACE ONLY		
		SPACE ONLY	53								54	SPACE ONLY		
	29148	TOTAL			THIS PANEL->	17192	18996	12920				TOTAL	19960	
						17192	18996	12920						

LIGHTING(125%) = 800.00
RECEPTS<=10000(100%) = 10000.00
RECEPTS>10000(50%) = 3100.00
RECEPTS TOTAL = 13100.00
ELECTRIC HEAT(100%) = 500.00
LARGEST MOTOR(125%) = 4940.00
OTHER MOTORS(100%) = 1236.00
MOTOR TOTAL = 6176.00
WATER HEATERS(100%) = 0.00
KITCHEN LOADS(65%) = 0.00
APPLIANCES(100%) = 0.00
DEDICATED(100%) = 26580.00
MISC(100%) = 0.00

TOTAL CONNECTED LOAD (VA): 49,108.00
TOTAL CONNECTED CURRENT (A): 136.31
TOTAL DEMAND LOAD (VA): 47,156.00
TOTAL DEMAND CURRENT (A) 130.89

NOTES: L=LIGHTING, R=RECEPTACLES, H=ELECTRIC HEAT, ML=LARGEST MOTOR, MO=OTHER MOTORS, WH=WATER HEATERS, K=KITCHEN LOADS, A=APPLIANCES, D=DEDICATED, X=MISC, SF=SUB FEED

PANEL: C — 3 PH 4 WIRE — VOLTAGE: 208Y/120V — 100A MCB
LOC: IT 208 — MOUNT: SURFACE — FEED: BOTTOM
TYPE: NEMA 1 — POLES: 42 — SF MAINS: NO — 10,000AIC MINIMUM

LOAD TYPE	LOAD	CIRCUIT DIRECTORY	CIR. NO.	CIR BRKR P	AMP	A	B	C	CIR BRKR P	AMP	CIR. NO.	CIRCUIT DIRECTORY	LOAD	LOAD TYPE
ML	1976	OCU-1	1	2		2476			1	20	2	RECPTS - IT 208	500	D
ML	1976		3		30		2476		1	20	4	RECPTS - IT 208	500	D
		SPACE ONLY	5					500	1	20	6	RECPTS - IT 208	500	D
		SPACE ONLY	7			500			1	20	8	RECPTS - IT 208	500	D
		SPACE ONLY	9				500		1	20	10	RECPTS - IT 208	500	D
		SPACE ONLY	11					500	1	20	12	RECPTS - IT 208	500	D
		SPACE ONLY	13			500			1	20	14	RECPTS - IT 208	500	D
		SPACE ONLY	15				500		1	20	16	RECPTS - IT 208	500	D
		SPACE ONLY	17					500	1	20	18	RECPTS - IT 208	500	D
		SPACE ONLY	19								20	SPACE ONLY		
		SPACE ONLY	21								22	SPACE ONLY		
		SPACE ONLY	23								24	SPACE ONLY		
		SPACE ONLY	25								26	SPACE ONLY		
		SPACE ONLY	27								28	SPACE ONLY		
		SPACE ONLY	29								30	SPACE ONLY		
		SPACE ONLY	31						1	20	32	SPARE		
		SPACE ONLY	33						1	20	34	SPARE		
		SPACE ONLY	35						1	20	36	SPARE		
		SPACE ONLY	37						3		38			
		SPACE ONLY	39								40	SPD		
		SPACE ONLY	41							30	42			
	3952	TOTAL			THIS PANEL->	3476	3476	1500				TOTAL	4500	
						3476	3476	1500						

LIGHTING(125%) = 0.00
RECEPTS<=10000(100%) = 0.00
RECEPTS>10000(50%) = 0.00
RECEPTS TOTAL = 0.00
ELECTRIC HEAT(100%) = 0.00
LARGEST MOTOR(125%) = 4940.00
OTHER MOTORS(100%) = 0.00
MOTOR TOTAL = 4940.00
WATER HEATERS(100%) = 0.00
KITCHEN LOADS(65%) = 0.00
APPLIANCES(100%) = 0.00
DEDICATED(100%) = 4500.00
MISC(100%) = 0.00

TOTAL CONNECTED LOAD (VA): 8,452.00
TOTAL CONNECTED CURRENT (A): 23.46
TOTAL DEMAND LOAD (VA): 9,440.00
TOTAL DEMAND CURRENT (A) 26.20

NOTES: L=LIGHTING, R=RECEPTACLES, H=ELECTRIC HEAT, ML=LARGEST MOTOR, MO=OTHER MOTORS, WH=WATER HEATERS, K=KITCHEN LOADS, A=APPLIANCES, D=DEDICATED, X=MISC, SF=SUB FEED

CONSTRUCTION NOTES – PANELS ELEV

1. PROVIDE FACTORY LOCKABLE CIRCUIT BREAKER PER NEC REQUIREMENTS. EACH CIRCUIT BREAKER MAY OCCUPY A 2-POLE CIRCUIT BREAKER SPACE. ADJUST CIRCUIT NUMBERING AS REQUIRED.

Port of Tacoma
P.O. BOX 1837 TACOMA, WA 98401 (253)383-5841

MARK: | REVISION: | BY: | APPR: | DATE: 12/18/15

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CHARLES A. HEATON — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER
2/17/2016

HS 2/17/16
CHECKED BY CH — DATE 2/17/16
PROJ. ENGR — DATE
APPROVED:
DIRECTOR ENG. — DATE 3-28-16
PRINTED BY:
PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837

PIER 4 PHASE 2
MARINE BUILDING
PANEL SCHEDULES

TOWNSHIP: | RANGE: | SECTION:
DAT-HRZ: WA83-SF | VERT: MLLW 19.39' @ TIDE 22 1933
PARCEL: | DRAWING SCALE: AS NOTED

6552
E6.02
SH # 499 OF # 499
CONT/CONS: 070136
M. ID: 091251
PHASE: BID