GENERAL NOTES

GENERAL

THESE NOTES ARE GENERAL AND APPLY TO THE ENTIRE PROJECT EXCEPT WHERE SPECIFICALLY INDICATED OTHERWISE.

STRUCTURAL DIMENSIONS CONTROLLED BY OR RELATED TO MECHANICAL OR ELECTRICAL EQUIPMENT SHALL BE COORDINATED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. BOLT SIZES, TYPES, AND PATTERNS SHALL BE VERIFIED WITH THE MANUFACTURER. ALL BOLT PATTERNS SHALL BE TEMPLATED TO ENSURE ACCURACY OF PLACEMENT.

MECHANICAL AND ELECTRICAL EQUIPMENT SUPPORTS, ANCHORAGES, OPENINGS, RECESSES AND REVEALS NOT SHOWN ON THE STRUCTURAL DRAWINGS BUT REQUIRED BY OTHER CONTRACT DRAWINGS, SHALL BE PROVIDED FOR PRIOR TO PLACING CONCRETE.

STRUCTURAL DRAWINGS SHALL BE USED IN COORDINATION WITH MECHANICAL, ELECTRICAL, ARCHITECTURAL, CIVIL DRAWINGS AND SHOP DRAWINGS PROVIDED BY MANUFACTURERS OF EQUIPMENT.

STRUCTURES HAVE BEEN DESIGNED FOR OPERATIONAL, HYDROSTATIC, AND BACKFILL LOADS ON THE COMPLETED STRUCTURES. THE STRUCTURES HAVE NOT BEEN DESIGNED TO RESIST THESE LOADS WHILE ONLY PARTIALLY CONSTRUCTED. DURING CONSTRUCTION, THE STRUCTURES SHALL BE PROTECTED FROM ALL CONSTRUCTION LOADS BY BRACING AND BALANCING UNTIL ALL STRUCTURAL ELEMENTS ARE IN PLACE, AND ALL CONCRETE HAS REACHED THE SPECIFIED 28 DAY COMPRESSIVE STRENGTH. OVERLOADING OF ANY STRUCTURAL ELEMENT IS PROHIBITED.

UNLESS OTHERWISE SHOWN, ON ALL STRUCTURAL DRAWINGS THE FINISHED GRADE AROUND STRUCTURES IS SHOWN THUS, ▨ INDICATING EITHER GROUND SURFACE, TOP OF CONCRETE SLAB, OR AC PAVEMENT. FOR DETAILS OF FINISH SURFACES, SEE CIVIL AND ARCHITECTURAL DRAWINGS.

STRUCTURAL STEEL

STEEL CONSTRUCTION SHALL CONFORM TO THE SPECIFICATIONS AND STANDARDS AS CONTAINED IN THE FOURTEENTH EDITION OF THE AISC STEEL CONSTRUCTION MANUAL.

STRUCTURAL WIDE FLANGE SHAPES SHALL BE STEEL MEETING ASTM A-992 SPECIFICATIONS.

OTHER SHAPES, BARS, PLATES AND SHEETS SHALL BE OF STEEL MEETING ASTM A-36 SPECIFICATIONS.

PIPE, PIPE COLUMNS, AND BOLLARDS SHALL BE OF STEEL MEETING ASTM A-53, TYPE E OR S, GRADE B STANDARD WEIGHT, UNO

HSS SHALL BE OF STEEL MEETING ASTM A-500 GRADE B.

STEEL JOISTS, BEAMS, AND GIRDERS SHALL NOT BE RELOCATED WITHOUT APPROVAL BY THE ENGINEER.

ALL WELDING SHALL BE BY THE SHIELDED ARC METHOD AND SHALL CONFORM TO AWS CODE FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION. QUALIFICATIONS OF WELDERS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS FOR STANDARD QUALIFICATION PROCEDURE OF THE AWS.

CONCRETE (EXCEPT PRECAST CONCRETE)

UNLESS OTHERWISE NOTED OR SPECIFIED, ALL STRUCTURAL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 4500 PSI IN 28 DAYS.

REINFORCEMENT STEEL SHALL BE DEFORMED BARS CONFORMING IN QUALITY TO THE REQUIREMENTS OF ASTM A-615, "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT", GRADE 60

COLUMN SPIRALS SHALL CONFORM TO ASTM A-615, "DEFORMED AND PLAIN BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT, GRADE 60 OR ASTM A-82 "STEEL WIRE, PLAIN, FOR CONCRETE REINFORCEMENT".

ALL DETAILING, FABRICATION AND PLACING OF REINFORCING BARS, UNLESS OTHERWISE INDICATED, SHALL BE IN ACCORDANCE WITH ACI-315, "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", LATEST EDITION.

TOLERANCES IN PLACING REINFORCEMENT SHALL BE:
+/- 3/8 INCH FOR MEMBERS WITH DEPTH D </= 8 INCHES
+/- 1/2 INCH FOR MEMBERS WITH DEPTH D > 8 INCHES

ALL CONSTRUCTION JOINTS, SHALL BE ROUGH AND THOROUGHLY CLEANED FOR BOND.

LOCATION OF ALL CONSTRUCTION JOINTS SHALL BE AS SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER. ALL CONSTRUCTION JOINTS LOCATED ON THE DRAWINGS, OR REQUIRED FOR CONSTRUCTION BUT NOT SHOWN ON THE DRAWINGS, SHALL HAVE A 6" FLATSTRIP WATERSTOP IF IN CONTACT WITH WATER. IN ADDITION, JOINTS IN ALL SLABS COVERED WITH WATER SHALL HAVE BOTH A 6" FLATSTRIP WATERSTOP AND A SEALANT GROOVE.

DOWELS, PIPE, WATERSTOPS AND OTHER INSTALLED MATERIALS AND ACCESSORIES SHALL BE HELD SECURELY IN POSITION WHILE CONCRETE IS BEING PLACED.

UNLESS OTHERWISE INDICATED, ASIDE FROM NORMAL ACCESSORIES USED TO HOLD REINFORCING BARS FIRMLY IN POSITION, THE FOLLOWING SHALL BE ADDED:

A) IN SLABS #5 RISER BARS AT 36 INCHES OC MAXIMUM TO SUPPORT TOP REINFORCING BARS.

B) IN WALLS WITH 2 CURTAINS #3 U OR Z SHAPE SPACERS AT 6 FEET OC EACH WAY.

VERTICAL REINFORCEMENT FOR CONCRETE OR MASONRY SHALL BE SPLICED WITH DOWEL BARS OF THE SAME SIZE AND SPACING FROM THE FOUNDATION USING A STANDARD SPLICE LENGTH UNLESS INDICATED OTHERWISE.

SEALANT SHALL BE PLACED AT THE TOP OF ALL JOINTS RECEIVING EXPANSION JOINT FILLER. SEALANT DEPTH SHALL BE THE JOINT FILL THICKNESS OR 1/2", WHICHEVER IS LESS.

ALL GROUT SHALL BE NON-SHRINK GROUT, UNLESS INDICATED OTHERWISE.

UNLESS OTHERWISE SHOWN CONCRETE WALLS AND SLABS SHALL BE REINFORCED AS FOLLOWS: #4@12" EW , CENTER OF 6" SECTIONS; #5@12" EW, CENTER OF 8" SECTIONS; #4 @ 12" EW EF OF 10" SECTIONS; #5@12" EW EF OF 12" AND THICKER SECTIONS.

METAL CLIPS OR SUPPORTS SHALL NOT BE PLACED IN CONTACT WITH THE FORMS OR THE SUBGRADE. CONCRETE BLOCKS (OR DOBIES) SUPPORTING BARS ON SUBGRADE SHALL BE IN SUFFICIENT NUMBERS TO SUPPORT THE BARS WITHOUT SETTLEMENT, BUT IN NO CASE SHALL SUCH SUPPORT BE CONTINUOUS.

DOWELS SHALL BE WIRED OR OTHERWISE HELD IN POSITION. THEY SHALL NOT BE SHOVED INTO FRESHLY PLACED CONCRETE.

UNLESS OTHERWISE INDICATED ON THE DRAWINGS, LAPS OF REINFORCEMENT SHALL BE AS SHOWN ON DETAIL S-143.

LOCATE TWO 3/4 INCH GALVANIZED RICHMOND ROCKET INSERTS, HOHMANN & BARNARD OR EQUAL, STRADDLING CENTERLINE OF EQUIPMENT OVER ALL PUMPS, METERS OR OTHER MECHANICAL UNITS OF MORE THAN 100 LBS, FOR INSERTING LIFTING EYES IF NOT OTHERWISE INDICATED.

REINFORCING BARS AND ACCESSORIES SHALL NOT BE IN CONTACT WITH ANY PIPE, PIPE FLANGE OR METAL PARTS EMBEDDED IN CONCRETE, A MINIMUM OF 2 INCHES CLEARANCE SHALL BE PROVIDED AT ALL TIMES.

ALL ITEMS EMBEDDED IN CONCRETE SHALL BE SPACED ON CENTER AT LEAST 3 TIMES THEIR OUTSIDE DIMENSION. THE OUTSIDE DIMENSION SHALL NOT EXCEED ONE THIRD OF THE MEMBER THICKNESS

UNLESS OTHERWISE SHOWN ON THE DRAWINGS CONCRETE COVER FOR REINFORCING BARS SHALL BE AS FOLLOWS:

FOR CONCRETE PLACED AGAINST EARTH (SEE CONSTRUCTION JOINT DETAILS FOR THIN SLABS-ON-GRADE, BOTTOM COVER MAY BE LESS THAN 3" IF SO INDICATED)	3"
FOR SURFACES IN CONTACT WITH WATER OR WEATHER AND FORMED SURFACES IN CONTACT WITH EARTH	2"
FOR CONCRETE NOT EXPOSED TO WEATHER, OR IN CONTACT WITH WATER OR EARTH	1 1/2"

UNLESS OTHERWISE NOTED, WALLS AND SLABS SHOWN WITH A SINGLE LAYER OF REINFORCEMENT SHALL HAVE THAT REINFORCEMENT CENTERED

SLABS WITH SLOPING SURFACES SHALL HAVE THE INDICATED SLAB THICKNESS MAINTAINED AS THE MINIMUM. SLAB-ON-GRADE BOTTOMS MAY EITHER SLOPE WITH THE TOP SURFACE OR BE LEVEL. REINFORCING IN SLABS WITH SLOPING SURFACES SHALL BE PLACED AT THE REQUIRED CLEARANCE FROM THE SLAB SURFACES.

CONDUIT COORDINATION NOTES

REFER TO THE NOTES BELOW, AND ELECTRICAL AND STRUCTURAL DRAWINGS AND SPECIFICATIONS, FOR CONDUIT PLACEMENT REQUIREMENTS. CONDUIT NOT IN CONFORMANCE WITH THESE REQUIREMENTS SHALL NOT BE INSTALLED WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER OF RECORD.

FOR CONDUIT RUNNING IN THE PLANE OF CONCRETE SLABS OR WALLS:

THE OUTSIDE DIAMETER OF THE CONDUIT SHALL NOT EXCEED ONE-THIRD OF MEMBER THICKNESS;

CONDUIT SHALL NOT BE SPACED CLOSER THAN 3 OUTSIDE DIAMETERS ON CENTER;

CONDUIT SHALL BE LOCATED ONLY WITHIN THE MIDDLE THIRD OF THE MEMBER ;

CONDUIT SHALL NOT BE SUPPORTED DIRECTLY ON REBAR.

FOR CONDUIT RUNNING THROUGH THE PLANE OF CONCRETE SLABS OR WALLS:

COORDINATE CONDUIT PLACEMENT TO AVOID OR MINIMIZE IMPACT TO REBAR PLACEMENT.

CONDUIT SHALL BE 2 INCHES MINIMUM CLEAR OF REBAR.

REBAR MAY BE SHIFTED 2 INCHES MAXIMUM TO AVOID CONDUIT.

WHERE REBAR MUST BE CUT TO ACCOMMODATE CONDUIT PLACEMENT, PROVIDE ADDITIONAL REINFORCEMENT PER DETAIL S-144 OR S-148, CONSIDERING THE CONDUIT PENETRATION(S) AS AN EQUIVALENT CIRCULAR OR RECTANGULAR OPENING, RESPECTIVELY.

CONDUIT SHALL NOT BE RUN IN OR THROUGH GRADE BEAMS.

STRUCTURAL STANDARD DETAILS

DETAILS ON GS SHEETS ARE PART OF STANTEC'S STRUCTURAL STANDARD DETAILS.

THESE DETAILS ARE TO BE USED WHEN REFERRED TO OR WHEN NO OTHER MORE RESTRICTIVE OR DIFFERENT DETAILS ARE INDICATED ON THE DRAWINGS.

DETAILS NOT PERTAINING TO THE PROJECT ARE MARKED THUS ▨

MASONRY

CONCRETE BLOCK MASONRY SHALL BE NORMAL WEIGHT, HOLLOW UNITS CONFORMING TO ASTM C 90. SIZE OF UNITS, COLOR AND TEXTURE SHALL BE PER THE SPECIFICATIONS.

GROUT ALL CELLS CONTAINING REINFORCING OF CONCRETE BLOCK MASONRY UNLESS OTHERWISE NOTED ON DRAWINGS.

UNLESS OTHERWISE INDICATED, LAPS OF REINFORCEMENT IN CMU SHALL BE AS SHOWN ON DETAIL S-415.

MORTAR SHALL BE IN ACCORDANCE WITH ASTM C 270, TYPE M OR S.

GROUT SHALL BE IN ACCORDANCE WITH ASTM C 476 , AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.

SPECIAL INSPECTION SHALL BE PROVIDED PER THE STATEMENT OF SPECIAL INSPECTIONS FOR ALL MASONRY WORK

THE COMBINED MASONRY ASSEMBLAGE COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE A MINIMUM OF f'm = 2000 PSI.

REINFORCEMENT SHALL BE TIED OR OTHERWISE SECURED IN POSITION PRIOR TO GROUTING.

ALL HORIZONTAL AND VERTICAL REINFORCEMENT SHALL BE CONTINUOUS OVER THE FULL EXTENT OF THE WALL WITH STANDARD SPLICES LOCATED AS NEEDED. WHERE IT IS NECESSARY TO INTERRUPT AN INDIVIDUAL BAR, AN EQUAL SIZED BAR SHALL BE LOCATED AS CLOSE AS POSSIBLE AND SHALL EXTEND A MINIMUM OF ONE SPLICE LENGTH BEYOND EACH SIDE OF THE INTERRUPTION.

ALUMINUM

ALUMINUM CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALUMINUM ASSOCIATION ADM-1, ALUMINUM DESIGN MANUAL. ALUMINUM SURFACES SHALL BE PREVENTED FROM COMING IN DIRECT CONTACT WITH CONCRETE OR WITH METALS NOT COMPATIBLE WITH ALUMINUM, USING METHODS DESCRIBED IN THE SPECIFICATIONS.

STAINLESS STEEL

REFER TO SPECIFICATIONS FOR STAINLESS STEEL GRADES REQUIRED.

METAL DECK AND ROOFS

THE CONTRACTOR SHALL COORDINATE THE LOCATION AND SIZES OF ROOF OPENINGS WITH THE MECHANICAL, HVAC AND ARCHITECTURAL DRAWINGS. STANDARD DETAIL S-551 SHALL BE USED AT ALL OPENINGS.

OPEN WEB STEEL JOISTS

THE CONTRACTOR SHALL SUPPLY REQUIRED EQUIPMENT WEIGHTS TO THE STEEL JOIST MANUFACTURER.

STEEL JOISTS SHALL BE DESIGNED FOR REQUIRED LOADING DEPICTED ON DRAWING S-601, AT A MINIMUM.

JOIST LOADING ON S-601 DOES NOT ACCOUNT FOR CONCENTRATED EQUIPMENT LOADS. THE JOIST MANUFACTURER SHALL COORDINATE WITH THE CONTRACTOR FOR REQUIRED EQUIPMENT LOADS. THE JOIST MANUFACTURER IS RESPONSIBLE FOR VERIFYING THE JOISTS ARE ADEQUATE FOR THE CONCENTRATED EQUIPMENT LOADS.

REV 070119

GENERAL DESIGN CRITERIA

DESIGN IN ACCORDANCE WITH THE 2022 EDITION OF THE OREGON STRUCTURAL SPECIALTY CODE (OSSC), EXCEPT WHERE OTHER APPLICABLE CODES OR THE FOLLOWING NOTES ARE MORE RESTRICTIVE.

LOADINGS:

SOIL LOADS:

ALLOWABLE BEARING PRESSURE	
DEAD PLUS LIVE (PSF):	2000
ALL LOADS (W/WIND & SEISMIC) (PSF)	2666
FROST DEPTH (INCHES):	18

FLOOR LIVE LOADS:

PROCESS AREA LIVE LOAD (PSF):	250
PROCESS CONCENTRATED LIVE LOAD (LBS):	2000
STORAGE (PSF):	125
STAIRS/WALKWAY AREA LIVE LOAD (PSF):	100
STAIRS/WALKWAY CONCENTRATED LIVE LOAD (LBS):	1000

ROOF LIVE LOADS (INCLUDING ELECTRICAL ROOM ROOF):

ROOF LIVE LOAD (PSF):	20

WIND LOADS:

BASIC WIND SPEED (3 SEC - MPH):	105
RISK CATEGORY:	III
INTERNAL PRESSURE COEFFICIENT:	0.55
COMPONENTS AND CLADDING (PSF):	PER ASCE 7-16

SEISMIC LOADS:

RISK CATEGORY:	III
SEISMIC IMPORTANCE FACTOR (Ie)	1.25
SPECTRAL RESPONSE COEFFICIENT (Sds):	0.647
SPECTRAL RESPONSE COEFFICIENT (Sd1):	0.478
SITE CLASS:	D
SEISMIC DESIGN CATEGORY:	D
BASIC SEISMIC-FORCE-RESISTING SYSTEM:	SPECIAL REINFORCED MASONRY SHEAR WALLS
DESIGN BASE SHEAR:	132 KIPS
SEISMIC RESPONSE COEFFICIENT (Cs):	0.162
RESPONSE MODIFICATION COEFFICIENT (R):	5
ANALYSIS PROCEDURE:	EQUIVALENT LATERAL FORCE PROCEDURE

SNOW LOADS:

GROUND SNOW LOAD (Pg) (PSF):	10
FLAT ROOF SNOW LOAD (Pf) (PSF):	22
SNOW EXPOSURE FACTOR(Ce):	B
SNOW IMPORTANCE FACTOR (Is):	1.10
THERMAL FACTOR (Ct):	1.0

FLOOD LOADS:

ELEVATION OF LOWEST FLOOR;	N/A
ELEVATION OF DRY FLOOD PROOFING:	N/A
ELEVATION OF LOWEST HORIZONTAL STRUCTURAL ELEMENT	N/A

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SW DESIGNED
TN DRAWN
MP CHECKED

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER
82642PE
DIGITALLY SIGNED
OREGON
JULY 08, 2014
MATTHEW ERICH PERKINS
EXPIRES: 12/31/2026

BID SET

consor
Stantec

South Fork WATER
PURE WATER SINCE 1915

WATER QUALITY SYSTEMS BUILDING

STRUCTURAL

GENERAL NOTES - I

PROJECT NO.: 21-3045 | SCALE: AS SHOWN | DATE: AUGUST 2026

SHEET
GS-1

STATEMENT OF SPECIAL INSPECTIONS

1. SPECIAL INSPECTIONS ARE REQUIRED IN ACCORDANCE WITH THE 2022 OSSC CHAPTER 17. THE OWNER WILL ENGAGE THE SERVICES OF A QUALIFIED SPECIAL INSPECTOR, WHO WILL PROVIDE ALL SERVICES NECESSARY TO MEET THE OSSC SPECIAL INSPECTION REQUIREMENTS.

2. SPECIAL INSPECTIONS WILL BE PROVIDED DURING ALL FABRICATION AND CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH THE NOTES AND SCHEDULES ON THIS DRAWING.

3. SPECIAL INSPECTION FOR THE MAIN WIND-FORCE-RESISTING SYSTEM AND EXTERIOR CLADDING WILL BE PROVIDED AS INDICATED BELOW:

   A. WIND FORCE RESISTING SYSTEM:

      1. STEEL FRAME: SPECIAL INSPECTION IS REQUIRED IN ACCORDANCE WITH TABLE 1704.3.

      2. STEEL ROOF DIAPHRAGM: PERIODIC SPECIAL INSPECTION IS REQUIRED DURING WELDING, SCREW ATTACHMENT, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS.

      3. EXTERIOR WALLS: PERIODIC SPECIAL INSPECTION IS REQUIRED FOR NAILING, SCREW ATTACHMENT, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS.

      4. WALL CONNECTIONS TO STEEL FRAMES: PERIODIC SPECIAL INSPECTION IS REQUIRED FOR BOLTING, WELDING, ANCHORING AND OTHER FASTENING OF WALLS TO STEEL FRAMES.

      5. WALL CONNECTIONS TO THE FOUNDATION: SPECIAL INSPECTION FOR ALL CONCRETE ANCHOR INSTALLATION IS REQUIRED IN ACCORDANCE WITH THE APPLICABLE ICC OR IAPMO EVALUATION REPORT. PERIODIC SPECIAL INSPECTION IS REQUIRED FOR SCREW ATTACHMENT, BOLTING, ANCHORING AND OTHER FASTENING OF THE HOLD-DOWNS TO THE ANCHOR BOLTS AND TO THE WALL STUDS.

   B. ROOF, WALL, AND SOFFIT CLADDING:

      1. PERIODIC SPECIAL INSPECTION IS REQUIRED DURING WELDING, NAILING, SCREW ATTACHMENT, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS.

4. SPECIAL INSPECTION FOR THE SEISMIC FORCE RESISTING SYSTEM AND MECHANICAL AND ELECTRICAL EQUIPMENT WILL BE PROVIDED AS INDICATED BELOW:

   A. SEISMIC FORCE RESISTING SYSTEM:

      1. WALL CONNECTIONS TO THE FOUNDATION: SPECIAL INSPECTION OF WALL DOWELS INTO THE FOUNDATION. SPECIAL INSPECTION FOR ALL CONCRETE ANCHOR INSTALLATION WHERE REQUIRED IN ACCORDANCE WITH IBC TABLE 1705.3.

      2. WALL: SPECIAL INSPECTION OF REINFORCED MASONRY WALLS IS REQUIRED IN ACCORDANCE WITH TMS 602 LEVEL 2.

      3. WALL CONNECTION TO ROOF TRUSS & RAFTERS: SPECIAL INSPECTION AS REQUIRED FOR BOLTING, WELDING, ANCHORING AND OTHER FASTENING OF WALLS TO STEEL FRAMES. SPECIAL INSPECTION REQUIRED FOR WELDING, AND ANCHORAGE AT COLLECTOR PER AISC 360.

      4. STEEL ROOF DIAPHRAGM: PERIODIC SPECIAL INSPECTION IS REQUIRED FOR SCREW ATTACHMENT, BOLTING, ANCHORING, WELDING AND OTHER FASTENING OF COMPONENTS.

   B. MECHANICAL AND ELECTRICAL COMPONENTS AS NOTED BELOW:

      1. PERIODIC SPECIAL INSPECTION IS REQUIRED DURING THE ANCHORAGE OF ELECTRICAL EQUIPMENT FOR EMERGENCY OR STANDBY POWER SYSTEMS

      2. PERIODIC SPECIAL INSPECTION IS REQUIRED DURING THE INSTALLATION OF ANCHORAGE OF OTHER ELECTRICAL EQUIPMENT.

      3. PERIODIC SPECIAL INSPECTION IS REQUIRED DURING THE INSTALLATION OF VIBRATION ISOLATION SYSTEMS.

5. ADDITIONAL SPECIAL INSPECTIONS WILL BE PROVIDED WHERE REQUIRED BY OSSC CHAPTER 17.

DEFINITIONS

1. REFER TO SECTION 1702 AND CHAPTER 2 OF THE 2022 OSSC FOR DEFINITION OF TERMS APPLICABLE TO SPECIAL INSPECTIONS AND STRUCTURAL OBSERVATIONS.

   A. SPECIFIC DEFINITIONS

      HIGH STRENGTH BOLT: AN ASTM A325 OR A490 BOLT, AN ASTM F1852 TWIST-OFF-TYPE TENSION-CONTROL BOLT OF AN ALTERNATIVE-DESIGN FASTENER THAT MEETS THE REQUIREMENTS IN AISC 360 SECTION 2.8.

CONTRACTOR RESPONSIBILITY

1. EACH CONTRACTOR RESPONSIBLE FOR THE FABRICATION OR CONSTRUCTION OF A MAIN WIND-FORCE-RESISTING SYSTEM OR MAIN SEISMIC-FORCE RESISTING SYSTEM OR COMPONENT LISTED ABOVE SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS.

STRUCTURAL OBSERVATIONS:

1. STRUCTURAL OBSERVATIONS SHALL BE PROVIDED IN ACCORDANCE WITH THE 2022 OSSC. THE OWNER SHALL EMPLOY THE ENGINEER OF RECORD, HIS/HER DESIGNEE, OR A OREGON REGISTERED DESIGN PROFESSIONAL TO PERFORM STRUCTURAL OBSERVATIONS, AND WHO SHALL PROVIDE ALL SERVICES NECESSARY TO MEET THE IBC STRUCTURAL OBSERVATIONS REQUIREMENTS.

2. STRUCTURAL OBSERVATIONS SHALL BE PROVIDED DURING ALL FABRICATION AND CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH THE NOTES AND SCHEDULES ON THIS DRAWING.

   THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE STRUCTURAL OBSERVER AT LEAST 3
3. BUSINESS DAYS PRIOR TO EACH REQUIRED STRUCTURAL OBSERVATION.

SCHEDULE OF STRUCTURAL OBSERVATIONS

CONCRETE CONSTRUCTION	WHAT TO OBSERVE
FOUNDATIONS - PRIOR TO THE FIRST CONCRETE POUR, BUT AFTER SUBSTANTIAL PLACEMENT OF REINFORCING STEEL, WATERSTOPS, ANCHORS, AND OTHER EMBEDDED ITEMS	REVIEW FOUNDATION REINFORCEMENT, INCLUDING ADDITIONAL REINFORCEMENT AT PENETRATIONS REVIEW WALL DOWELS; ENSURE ADDITIONAL DOWELS ASSOCIATED WITH OPENINGS IN WALL AND JAMB STEEL ARE IN PLACE REVIEW WATERSTOP INSTALLATION, TIE-OFFS, AND JOINTS REVIEW ANCHOR BOLT PLACEMENT, HOLD-DOWN ANCHORS, AND OTHER STEEL EMBEDS. REVIEW PIPING AND CONDUIT PLACEMENT
WALLS - PRIOR TO THE FIRST CONCRETE POUR, BUT AFTER SUBSTANTIAL PLACEMENT OF REINFORCING STEEL, WATERSTOPS, ANCHORS, AND OTHER EMBEDDED ITEMS	REVIEW WALL REINFORCEMENT, INCLUDING ADDITIONAL REINFORCEMENT AT PENETRATIONS REVIEW JAMB STEEL, CHORD STEEL, AND WALL-TO-DIAPHRAGM CONNECTION DETAILS REVIEW WATERSTOP INSTALLATION, TIE-OFFS, AND JOINTS REVIEW ANCHOR BOLT PLACEMENT, HOLD-DOWN ANCHORS, AND OTHER STEEL EMBEDS. REVIEW PIPING AND CONDUIT PLACEMENT
ELEVATED SLABS - PRIOR TO THE FIRST CONCRETE POUR, BUT AFTER SUBSTANTIAL PLACEMENT OF REINFORCING STEEL, WATERSTOPS, ANCHORS, AND OTHER EMBEDDED ITEMS	REVIEW SLAB REINFORCEMENT, INCLUDING ADDITIONAL REINFORCEMENT AT PENETRATIONS REVIEW WALL DOWELS; ENSURE ADDITIONAL DOWELS ASSOCIATED WITH OPENINGS IN WALL AND JAMB STEEL ARE IN PLACE REVIEW CHORD STEEL AND WALL-TO-DIAPHRAGM CONNECTION DETAILS REVIEW WATERSTOP INSTALLATION, TIE-OFFS, AND JOINTS REVIEW ANCHOR BOLT PLACEMENT, HOLD-DOWN ANCHORS, AND OTHER STEEL EMBEDS. REVIEW PIPING AND CONDUIT PLACEMENT

MASONRY CONSTRUCTION	WHAT TO OBSERVE
FOUNDATIONS - PRIOR TO THE FIRST CONCRETE POUR, BUT AFTER SUBSTANTIAL PLACEMENT OF REINFORCING STEEL, ANCHORS, AND OTHER EMBEDDED ITEMS	REVIEW FOUNDATION REINFORCEMENT, INCLUDING ADDITIONAL REINFORCEMENT AT PENETRATIONS REVIEW WALL DOWELS; ENSURE ADDITIONAL DOWELS ASSOCIATED WITH OPENINGS IN WALL AND JAMB STEEL ARE IN PLACE REVIEW ANCHOR BOLT PLACEMENT, HOLD-DOWN ANCHORS, AND OTHER STEEL EMBEDS. REVIEW PIPING AND CONDUIT PLACEMENT
WALLS - PRIOR TO THE FIRST WALL POUR, BUT AFTER SUBSTANTIAL PLACEMENT OF REINFORCING STEEL, ANCHORS, AND OTHER EMBEDDED ITEMS	REVIEW WALL REINFORCEMENT, INCLUDING ADDITIONAL REINFORCEMENT AT PENETRATIONS REVIEW JAMB STEEL, CHORD STEEL, AND WALL-TO-DIAPHRAGM CONNECTION DETAILS REVIEW ANCHOR BOLT PLACEMENT, HOLD-DOWN ANCHORS, AND OTHER STEEL EMBEDS. REVIEW PIPING AND CONDUIT PLACEMENT
ROOFS - PRIOR TO APPLICATION OF NON-STRUCTURAL COVERINGS, BUT AFTER PLACEMENT OF STRUCTURAL FRAMING AND SHEATHING/DECKING	REVIEW ROOF FRAMING REVIEW DIAPHRAGM-TO-WALL CONNECTIONS REVIEW DIAPHRAGM NAILING/WELDING REVIEW FRAMING AROUND OPENINGS

DEFERRED SUBMITTALS:

DEFERRED SUBMITTALS ARE THOSE PORTIONS OF THE DESIGN WHICH ARE PROVIDED BY THE CONTRACTOR AND THEREFORE WERE NOT SUBMITTED AT THE TIME OF THE PERMIT APPLICATION, AND WHICH ARE TO BE SUBMITTED TO THE PERMITTING AGENCY PRIOR TO FABRICATION OR INSTALLATION OF THAT PORTION OF THE WORK.

NO WORK SHALL BE PERFORMED FOR DEFERRED SUBMITTAL ITEMS UNTIL THE PLANS FOR SUCH WORK HAVE BEEN REVIEWED AND FOUND ACCEPTABLE BY THE STRUCTURAL ENGINEER OF RECORD AND APPROVED BY THE BUILDING OFFICIAL.

DRAWINGS AND CALCULATIONS FOR THESE ITEMS SHALL BE SIGNED AND SEALED BY A LICENSED OREGON PROFESSIONAL ENGINEER. NO FABRICATION SHALL COMMENCE UNTIL THE FINAL APPROVAL HAS BEEN ISSUED BY THE BUILDING OFFICIAL AND THE STRUCTURAL ENGINEER OF RECORD.

THE DEFERRED SUBMITTALS SHALL INCLUDE AS A MINIMUM, BUT NOT BE LIMITED TO, THE FOLLOWING ITEMS:

SPECIFICATION SECTION	ITEM
013317	EQUIPMENT AND TANK ANCHORAGE
013317	PIPE AND DUCT SUPPORTS AND BRACING
052119	STEEL OPEN WEB JOISTS
055000	METAL STAIR SYSTEM
055000	METAL GRATINGS
055000	HANDRAILING AND GUARDRAILING SYSTEMS
068000	RAISED FLOOR GRATING SYSTEM
068000	FRP GRATING
434002	FRP & OTHER PREFABRICATED STORAGE TANKS
434117	HYDROPNEUMATIC TANKS
434143	POLYETHYLENE TANKS
463633	SODA ASH BULK BAG UNLOADER SYSTEM

NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SW DESIGNED

TN DRAWN

MP CHECKED

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER
82642PE
DIGITALLY SIGNED
OREGON
JULY 09, 2004
MATTHEW ERICH PERVAIS
EXPIRES: 12/31/2026

BID SET

consor

Stantec

South Fork WATER
PURE WATER SINCE 1915

WATER QUALITY SYSTEMS BUILDING

STRUCTURAL

GENERAL NOTES - II

PROJECT NO.: 21-3045 | SCALE: AS SHOWN | DATE: AUGUST 2026

SHEET

GS-2

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INSPECTION OF STRUCTURAL STEEL CONSTRUCTION

1. SPECIAL INSPECTION FOR STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE AND QUALITY CONTROL INSPECTION REQUIREMENTS OF AISC 360 AND AISC 341.

2. THE CONTRACTOR IS RESPONSIBLE FOR QUALITY CONTROL PROCEDURES IN ACCORDANCE WITH THE REQUIREMENTS OF AISC 360 CHAPTER N AND AISC 341 CHAPTER J.

3. THE OWNER IS RESPONSIBLE FOR QUALITY ASSURANCE PROCEDURES IN ACCORDANCE WITH THE REQUIREMENTS OF AISC 360 CHAPTER N AND AISC 341 CHAPTER J.

4. THE INSPECTION TABLES AND NOTES PROVIDED ON THIS SHEET ARE INTENDED ONLY TO ASSIST THE CONSTRUCTION PERSONNEL IN IDENTIFYING QUALITY CONTROL AND QUALITY ASSURANCE INSPECTION REQUIREMENTS. THE REQUIREMENTS OF AISC 360 CHAPTER N AND AISC 341 CHAPTER J ARE MINIMUM REQUIREMENTS, AND THE QUALITY CONTROL INSPECTOR(S) AND QUALITY ASSURANCE INSPECTOR(S) ARE RESPONSIBLE FOR MEETING ALL REQUIREMENTS OF AISC 360 CHAPTER N AND AISC 341 CHAPTER J, WHETHER INDICATED ON THIS SHEET OR NOT. IF ANY INSPECTIONS ARE REQUIRED IN ADDITION TO THE AISC 360 CHAPTER N AND AISC 341 CHAPTER J INSPECTIONS, SUCH INSPECTIONS ARE INDICATED ON THIS SHEET. IF A DISCREPANCY EXISTS BETWEEN THE REQUIREMENTS OF AISC 360 CHAPTER N AND AISC 341 CHAPTER J AND THE REQUIREMENTS OF THIS DRAWING, THE MORE STRINGENT REQUIREMENT SHALL APPLY, UNLESS OTHERWISE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD.

INSPECTION OF WELDING PER AISC 360

AS A MINIMUM WELDING INSPECTION TASKS SHALL BE IN ACCORDANCE WITH TABLES N5.4-1, N5.4-2 AND N5.4-3. INSPECTION TASKS ARE AS FOLLOWS:

O- OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.

P- PERFORM THESE TASKS FOR EACH WELDED JOINT OR MEMBER.

INSPECTION TASKS PRIOR TO WELDING (AISC 360 TABLE N5.4-1)

INSPECTION TASK PRIOR TO WELDING	INSPECTION		AWS D1.1/D1.1M REFERENCES
	QUALITY CONTROL	QUALITY ASSURANCE	
WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	P	P	6.3
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	P	P	6.2
MATERIAL IDENTIFICATION (TYPE/GRADE)	O	O	6.2
WELDER IDENTIFICATION SYSTEM (1)	O	O	6.4
FIT-UP GROOVE WELDS (INCLUDING JOINT GEOMETRY) -JOINT PREPARATION -DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) -CLEANLINESS (CONDITION OF SURFACES) -TACKING (QUALITY AND LOCATION) -BACKING TYPE AND FIT (IF APPLICABLE)	O	O	6.5.2 5.22 5.15 5.18 5.10, 5.22.1.1
CONFIGURATION AND FINISH OF ACCESS HOLES	O	O	6.5.2, 5.17, AISC J1.6
FIT-UP OF FILLET WELDS -DIMENSIONS (ALIGNMENT, GAPS AT ROOT) -CLEANLINESS (CONDITION OF SURFACES) -TACKING (QUALITY AND LOCATION)	O	O	5.22.1 5.15 5.18
CHECK WELDING EQUIPMENT	O	-	6.2, 5.11
THE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED, SHALL BE THE LOW-STRESS TYPE.			

INSPECTION TASKS DURING WELDING (AISC 360 TABLE N5.4-2)

INSPECTION TASK DURING WELDING	INSPECTION		AWS D1.1/D1.1M REFERENCES
	QUALITY CONTROL	QUALITY ASSURANCE	
USE OF QUALIFIED WELDERS	O	O	6.4
CONTROL AND HANDLING OF WELDING CONSUMABLES -PACKAGING -EXPOSURE CONTROL	O	O	6.2 5.3.1 5.3.2 (FOR SMAW), 5.3.3 (FOR SAW)
NO WELDING OVER CRACKED TACK WELDS	O	O	5.18
ENVIRONMENTAL CONDITIONS -WIND SPEED WITHIN LIMITS -PRECIPITATION AND TEMP	O	O	5.12.1 5.12.2
WPS FOLLOWED: -SETTINGS ON WELDING EQUIP. -TRAVEL SPEED -SELECTED WELDING MATERIALS -SHIELDED GAS TYPE/FLOW RATE -PREHEAT APPLIED -INTERPASS TEMPERATURE (MIN/MAX) -PROPER POSITION (F, V, H, OH)	O	O	6.3.3, 6.5.2, 5.5, 5.21 5.6, 5.7
WELDING TECHNIQUES -INTERPASS AND FINAL CLEANING -EACH PASS WITHIN PROFILE LIMITATIONS -EACH PASS MEETS QUALITY REQUIREMENTS	O	O	6.5.2, 6.5.3, 5.24 5.30.1

INSPECTION TASKS AFTER WELDING (AISC 360 TABLE N5.4-3)

INSPECTION TASKS AFTER WELDING	INSPECTION		AWS D1.1/D1.1M REFERENCES
	QUALITY CONTROL	QUALITY ASSURANCE	
WELDS CLEANED	O	O	5.30.1
SIZE, LENGTH AND LOCATION OF WELDS	P	P	6.5.1
WELDS MEET VISUAL ACCEPTANCE CRITERIA -CRACK PROHIBITION -WELD/BASE METAL FUSION -CRATER CROSS SECTION -WELD PROFILES -WELD SIZE -UNDERCUT -POROSITY	P	P	6.5.3 TABLE 6.1(1) TABLE 6.1(2) TABLE 6.1(3) TABLE 6.1(4), 5.24 TABLE 6.1(6) TABLE 6.1(7) TABLE 6.1(8)
ARC STRIKES	P	P	5.29
K-AREA (1)	P	P	-
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	P	P	5.10, 5.31
REPAIR ACTIVITIES	P	P	6.5.3, 5.26
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	P	P	6.5.4, 6.5.5
WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PREFORMED IN THE K-AREA, VISUALLY INPSECT THE WED K-AREA FOR CRACKS WITHIN 3 INCHES OF THE WELD.			

INSPECTION OF WELDING PER AISC 341

AS A MINIMUM WELDING INSPECTION TASKS SHALL BE IN ACCORDANCE WITH TABLES J6-1, J6-2 AND J6-3. INSPECTION TASKS ARE AS FOLLOWS:

OBSERVE (O) - THE INSPECTOR SHALL OBSERVE THESE FUNCTIONS ON A RANDOM, DAILY BASIS. OPERATIONS NEED NOT BE DELAYED PENDING OBSERVATIONS.

PERFORM (P) - THESE INSPECTIONS SHALL BE PERFORMED PRIOR TO THE FINAL ACCEPTANCE OF THE ITEM.

DOCUMENT (D) - THE INSPECTOR SHALL PREPARE REPORTS INDICATING THAT THE WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE REPORT NEED NOT PROVIDE DETAILED MEASUREMENT FOR JOINT FIT-UP, WPS SETTINGS, COMPLETED WELDS, OR INDIVIDUAL ITEMS LISTED IN THE TABLES. FOR SHOP FABRICATION, THE REPORT SHALL INDICATE THE PIECE MARK OF THE PIECE INSPECTED. FOR FIELD WORK, THE REPORT SHALL INDICATE THE REFERENCE GRID LINES AND FLOOR OR ELEVATION INSPECTED. WORK NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS AND WHETHER THE NON-COMPLIANCE HAS BEEN SATISFACTORILY REPAIRED SHALL BE NOTED IN THE INSPECTION REPORT.

VISUAL INSPECTION TASKS PRIOR TO WELDING (AISC 341 TABLE J6-1)

VISUAL INSPECTION TASK PRIOR TO WELDING	QUALITY CONTROL		QUALITY ASSURANCE	
	TASK	DOC.	TASK	DOC.
MATERIAL IDENTIFICATION (TYPE/GRADE)	O	-	O	-
WELDER IDENTIFICATION SYSTEM	O	-	O	-
FIT-UP GROOVE WELDS (INCLUDING JOINT GEOMETRY) -JOINT PREPARATION -DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) -CLEANLINESS (CONDITION OF SURFACES) -TACKING (QUALITY AND LOCATION) -BACKING TYPE AND FIT (IF APPLICABLE)	P/O**	-	O	-
CONFIGURATION AND FINISH OF ACCESS HOLES	O	-	O	-
FIT-UP OF FILLET WELDS -DIMENSIONS (ALIGNMENT, GAPS AT ROOT) -CLEANLINESS (CONDITION OF SURFACES) -TACKING (QUALITY AND LOCATION)	P/O**	-	O	-
**FOLLOWING PERFORMANCE OF THIS INSPECTION TASK FOR TEN WELDS TO BE MADE BY A GIVEN WELDER, WITH THE WELDER DEMONSTRATING UNDERSTANDING OF REQUIREMENTS AND POSSESSION OF SKILLS AND TOOLS TO VERIFY THESE ITEMS, THE "PERFORM" DESIGNATION OF THIS TASK SHALL BE REDUCED TO "OBSERVE", AND THE WELDER SHALL PERFORM THIS TASK. SHOULD THE INSPECTOR DETERMINE THAT THE WELDER HAS DISCONTINUED PERFORMANCE OF THIS TASK, THE TASK SHALL BE RETURNED TO "PERFORM" UNTIL SUCH TIME AS THE INSPECTOR HAS RE-ESTABLISHED ADEQUATELY ASSURANCE THAT THE WELDER WILL PERFORM THE INSPECTION TASKS LISTED.				

VISUAL INSPECTION TASKS DURING WELDING (AISC 341 TABLE J6-2)

VISUAL INSPECTION TASK DURING WELDING	QUALITY CONTROL		QUALITY ASSURANCE	
	TASK	DOC.	TASK	DOC.
WPS FOLLOWED: -SETTINGS ON WELDING EQUIP. -TRAVEL SPEED -SELECTED WELDING MATERIALS -SHIELDED GAS TYPE/FLOW RATE -PREHEAT APPLIED -INTERPASS TEMPERATURE (MIN/MAX) -PROPER POSITION (F, V, H, OH) -INTERMIX OF FILLER METALS AVOIDED UNLESS APPROVED	O	-	O	-
USE OF QUALIFIED WELDERS	O	-	O	-
CONTROL AND HANDLING OF WELDING CONSUMABLES -PACKAGING -EXPOSURE CONTROL	O	-	O	-
ENVIRONMENTAL CONDITIONS -WIND SPEED WITHIN LIMITS -PRECIPITATION AND TEMP	O	-	O	-
WELDING TECHNIQUES -INTERPASS AND FINAL CLEANING -EACH PASS WITHIN PROFILE LIMITATIONS -EACH PASS MEETS QUALITY REQUIREMENTS	O	-	O	-
NO WELDING OVER CRACKED TACK WELDS	O	-	O	-

VISUAL INSPECTION TASKS AFTER WELDING (AISC 341 TABLE J6-3)

VISUAL INSPECTION TASKS AFTER WELDING	QUALITY CONTROL		QUALITY ASSURANCE	
	TASK	DOC.	TASK	DOC.
WELDS CLEANED	O	-	O	-
SIZE, LENGTH AND LOCATION OF WELDS	P	-	P	-
WELDS MEET VISUAL ACCEPTANCE CRITERIA -CRACK PROHIBITION -WELD/BASE METAL FUSION -CRATER CROSS SECTION -WELD PROFILES -WELD SIZE -UNDERCUT -POROSITY	P	D	P	D
PLACEMENT OF REINFORCING OR CONTOURING FILLET WELDS (IF REQUIRED)	P	D	P	D
BACKING REMOVED, WELD TABS REMOVED AND FINISHED, AND FILLET WELDS ADDED (IF REQUIRED)	P	D	P	D
REPAIR ACTIVITIES	P	-	P	D

INSPECTION OF HIGH STRENGTH BOLTS PER AISC 360

AS A MINIMUM BOLTING INSPECTION TASKS SHALL BE IN ACCORDANCE WITH TABLES N5.6-1, N5.6-2 AND N5.6-3. INSPECTION TASKS ARE AS FOLLOWS:

O- OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.

P- PERFORM THESE TASKS FOR EACH BOLTED CONNECTION.

INSPECTION TASKS PRIOR TO BOLTING (AISC 360 TABLE N5.6-1)

INSPECTING TASKS PRIOR TO BOLTING	INSPECTION	
	QUALITY CONTROL	QUALITY ASSURANCE
MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	O	P
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	O	O
PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	O	O
PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	O	O
CONNECTED ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	O	O
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	P	O
PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	O	O

INSPECTION TASKS DURING BOLTING (AISC 360 TABLE N5.6-2)

INSPECTION TASKS DURING BOLTING	INSPECTION	
	QUALITY CONTROL	QUALITY ASSURANCE
FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	O	O
JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	O	O
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	O	O
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	O	O

INSPECTION TASKS AFTER BOLTING (AISC 360 TABLE N5.6-3)

VERIFICATION AND INSPECTION	INSPECTION	
	QUALITY CONTROL	QUALITY ASSURANCE
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	P	P

INSPECTION OF HIGH STRENGTH BOLTS AISC 341

AS A MINIMUM BOLTING INSPECTION TASKS SHALL BE IN ACCORDANCE WITH TABLES J7-1, J7-2 AND J7-3. INSPECTION TASKS ARE AS FOLLOWS:

OBSERVE (O) - THE INSPECTOR SHALL OBSERVE THESE FUNCTIONS ON A RANDOM, DAILY BASIS. OPERATIONS NEED NOT BE DELAYED PENDING OBSERVATIONS.

PERFORM (P) - THESE INSPECTIONS SHALL BE PERFORMED PRIOR TO THE FINAL ACCEPTANCE OF THE ITEM.

DOCUMENT (D) - THE INSPECTOR SHALL PREPARE REPORTS INDICATING THAT THE WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

INSPECTION TASKS PRIOR TO BOLTING (AISC 341 TABLE J7-1)

INSPECTION TASKS PRIOR TO BOLTING	QUALITY CONTROL		QUALITY ASSURANCE	
	TASK	DOC.	TASK	DOC.
PROPER FASTENERS SELECTED FOR THE JOINT DETAIL	O	-	O	-
PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	O	-	O	-
CONNECTED ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	O	-	O	-
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	P	D	O	D
PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	O	-	O	-

INSPECTION TASKS DURING BOLTING (AISC 341 TABLE J7-2)

INSPECTION TASKS DURING BOLTING	QUALITY CONTROL		QUALITY ASSURANCE	
	TASK	DOC.	TASK	DOC.
FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	O	-	O	-
JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	O	-	O	-
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	O	-	O	-
BOLTS ARE PRETENSIONED PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES.	O	-	O	-

INSPECTION TASKS AFTER BOLTING (AISC 341 TABLE J7-3)

INSPECTION TASKS AFTER BOLTING	QUALITY CONTROL		QUALITY ASSURANCE	
	TASK	DOC.	TASK	DOC.
DOCUMENT ACCEPTED OR REJECTED CONNECTIONS	P	D	P	D

OTHER STRUCTURAL STEEL INSPECTION TASKS (AISC 360)

ADDITIONAL INSPECTION REQUIREMENTS OF THE QUALITY ASSURANCE PROCEDURES ARE AS FOLLOWS:

A) INSPECTION SHALL BE PERFORMED DURING THE PLACEMENT OF THE ANCHOR RODS AND OTHER EMBEDMENTS SUPPORTING STRUCTURAL STEEL FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS. AS A MINIMUM, THE DIAMETER, GRADE, TYPE AND LENGTH OF THE ANCHOR ROD OR EMBEDDED ITEM, AND THE EXTENT OF THE EMBEDMENT INTO THE CONCRETE, SHALL BE VERIFIED PRIOR TO THE PLACEMENT OF CONCRETE.

B) INSPECT THE FABRICATED STEEL OR ERECTED STEEL FRAME, AS APPROPRIATE, TO VERIFY COMPLIANCE WITH THE DETAILS SHOWN ON THE CONSTRUCTION DOCUMENTS, SUCH AS BRACES, STIFFENERS, MEMBER LOCATIONS AND PROPER APPLICATION OF JOINT DETAILS AT EACH CONNECTION.

C) MATERIAL VERIFICATION OF STRUCTURAL STEEL:

I) IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.

II) MANUFACTURERS' VERTIFIED MILL TEST REPORTS.

D) INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS:

I) DETAILS SUCH AS BRACING AND STIFFENING.

II) MEMBERS LOCATIONS

III) APPLICATION OF JOINT DETAILS AT EACH CONNECTION.

OTHER INSPECTION TASKS (AISC 341 TABLE J8-1)

OTHER INSPECTION TASKS	QUALITY CONTROL		QUALITY ASSURANCE	
	TASK	DOC.	TASK	DOC.
RBS REQUIREMENTS, IF APPLICABLE -CONTOUR AND FINISH -DIMENSIONAL TOLERANCES	P	D	P	D
PROTECTED ZONE - NO HOLES AND UNAPPROVED ATTACHMENTS MADE BY FABRICATOR OR ERECTOR, AS APPLICABLE.	P	D	P	D

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SW DESIGNED
TN DRAWN
MP CHECKED

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER 82642PE DIGITALLY SIGNED OREGON JULY 09, 2021 MATTHEW ERICH PERKINS
EXPIRES: 12/31/2026

BID SET

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Stantec

South Fork WATER
PURE WATER SINCE 1915
WATER QUALITY SYSTEMS BUILDING

STRUCTURAL

GENERAL NOTES - III

PROJECT NO.: 21-3045 | SCALE: AS SHOWN | DATE: AUGUST 2026

SHEET
GS-3

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INSPECTION OF CONCRETE CONSTRUCTION

1. SPECIAL INSPECTION FOR CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH 2022 OSSC SECTION 1705.3 AND THE FOLLOWING TABLE.

VERIFICATION AND INSPECTION	INSPECTION		REFERENCED STANDARD (A)	IBC REFERENCE
	CONTINUOUS	PERIODIC		
INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING STEEL, AND PLACEMENT.	-	X	ACI 318: 3.5, 7.1 - 7.7	1910.4
INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1705.2.2 ITEM 2b.	-	-	AWS D1.4 ACI 318: 3.5.2	-
INSPECTION OF ANCHORS CAST IN CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED.	-	X	ACI 318 - 8.1.3, 21.2.8	1908.5, 1909.1
INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS (B).	-	X	ACI 318- 3.8.6, 8.1.3, 21.2.8	1909.1
VERIFYING USE OF REQUIRED DESIGN MIX.	-	X	ACI 318: CH. 4, 5.2 - 5.4	1904.2, 1910.2, 1910.3
AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	-	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	1910.10
INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	-	ACI 318: 5.9, 5.10	1910.6, 1910.7, 1910.8
INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	X	ACI 318: 5.11 - 5.13	1910.9
ERECTION OF PRECAST CONCRETE MEMBERS	-	X	ACI 318: CH. 16	-
INSPECTION OF PRESTRESSED CONCRETE: A. APPLICATION OF PRESTRESSING FORCES. B. GROUTING OF BONDED PRESTRESSING TENDONS IN THE SEISMIC FORECE-RESISTING SYSTEM.	 X X	 -	 ACI 318: 18.20 ACI 318: 18.18.4	-
VERIFICATION OF IN-SITU CONCRETE STRENGTH PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	-	X	ACI 318: 6.2	-
INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	-	X	ACI 318: 6.1.1	-

(A) WHERE APPLICABLE, SEE ALSO IBC SECTION 1705.11, SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE.

(B) SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH ACI 355.2 OR OTHER QUALIFICATION PROCEDURES. WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, SPECIAL INSPECTION REQUIREMENTS SHALL BE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO COMMENCEMENT OF THE WORK.

INSPECTION OF SOILS

1. SPECIAL INSPECTION FOR SOIL SHALL BE IN ACCORDANCE WITH IBC SECTION 1705.6 AND THE FOLLOWING TABLE.

VERIFICATION AND INSPECTION	INSPECTION	
	CONTINUOUS	PERIODIC
VERIFY MATERIALS BELOW FOOTINGS AND SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	X
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	-	X
PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS.	-	X
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL.	X	-
PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-	X

INSPECTION OF MASONRY CONSTRUCTION

SPECIAL INSPECTION FOR MASONRY CONSTRUCTION WILL BE PERFORMED AND VERIFIED IN ACCORDANCE WITH TMS 402 AND TMS 602 (LEVEL 2) QUALITY ASSURANCE PROGRAM REQUIREMENTS AND THE FOLLOWING TABLE.

INSPECTION TASK	FREQUENCY (A)		REFERENCE FOR CRITERIA	
	CONTINUOUS	PERIODIC	TMS 402	TMS 602
PRIOR TO CONSTRUCTION:				
VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS	REQUIRED			ART. 1.5
VERIFY $f'm$ AND f'_{AAC}, EXCEPT WHERE SPECIFICALLY EXEMPTED BY THE CODE	REQUIRED			ART. 1.4 B
AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:				
PROPORTIONS OF SITE-PREPARED MORTAR	-	X		ART. 2.1, 2.6 A, 2.6 C
GRADE, TYPE AND SIZE OF REINFORCEMENT, CONNECTORS, AND ANCHOR BOLTS	-	X	Sect 6.1	ART. 3.4, 3.6 A
PROPERTIES OF THIN-BED MORTAR FOR AAC MASONRY	X	-		ART. 2.1C
PRIOR TO GROUTING THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:				
GROUT SPACE	-	X		ART. 3.2 D, 3.2 F
PLACEMENT OF REINFORCEMENT, CONNECTIONS, AND ANCHORAGES	-	X	Sect 6.1, 6.3.1, 6.3.6, 6.3.7	ART. 3.2 E, 3.4
PROPORTIONS OF SITE-PREPARED GROUT	-	X		ART. 2.6 B
CONSTRUCTION OF MORTAR JOINTS	-	X		ART. 3.3 B
VERIFY DURING CONSTRUCTION:				
VERIFY f'_m AND f'_{AAC} FOR EVERY 5000 SQ FT (465 SQ M)	REQUIRED			ART. 1.4 B
VERIFY PROPORTIONS OF MATERIALS AS DELIVERED TO THE PROJECT SITE FOR PREMIXED OR PREBLENDED MORTAR, PRESTRESSING GROUT, AND GROUT OTHER THAN SELF-CONSOLIDATING GROUT	REQUIRED			ART. 1.4 B
MATERIALS AND PROCEDURES WITH THE APPROVED SUBMITTALS	-	X		ART. 1.5
PLACEMENT OF MASONRY UNITS AND MORTAR JOINT CONSTRUCTION	-	X		ART. 3.3 B
SIZE AND LOCATION OF STRUCTURAL ELEMENTS	-	X		ART. 3.3 F
TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION	-	X	Sect 1.2.1(e), 6.2.1, 6.3.1	
WELDING OF REINFORCEMENT	X	-	Sect 6.1.6.1.2	
PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMP BELOW 40° F) OR HOT WEATHER (TEMP ABOVE 90 ° F)	-	X		ART. 1.8C, 1.8D
PLACEMENT OF AAC MASONRY UNITS AND CONSTRUCTION OF THIN-BED MORTAR JOINTS	X	-		ART. 3.3 B.9, 3.3 F.1.b
OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS	-	X		ART. 1.4 B.2.a.3, 1.4 B.2.b.3, 1.4 B.2.c.3, 1.4 B.3, 1.4 B.4

(A) FREQUENCY REFERS TO THE FREQUENCY OF INSPECTION, WHICH MAY BE CONTINUOUS DURING THE TASK LISTED OR PERIODICALLY DURING THE LISTED TASK, AS DEFINED IN THE TABLE.

(B) FOR PRESTRESSED MASONRY CONSTRUCTION, COMPLY WITH TMS 602 SPECIAL INSPECTION REQUIREMENTS.

NO.	DATE	BY	REVISION

NOTICE
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IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SW DESIGNED
TN DRAWN
MP CHECKED

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER
82642PE
DIGITALLY SIGNED
OREGON
JULY 09, 2004
MATTHEW ERICH PERVAIS
EXPIRES: 12/31/2026

BID SET

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Stantec

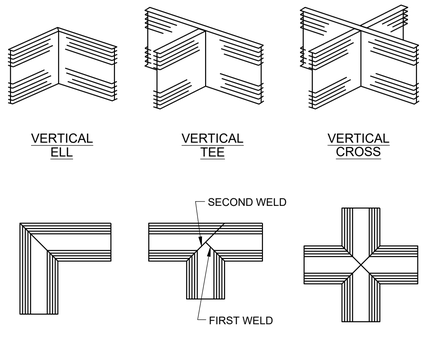
South Fork WATER
PURE WATER SINCE 1915
WATER QUALITY SYSTEMS BUILDING

STRUCTURAL

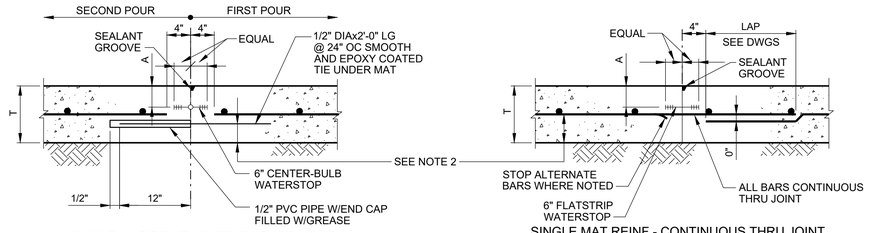
GENERAL NOTES - IV

PROJECT NO.: 21-3045 | SCALE: AS SHOWN | DATE: AUGUST 2026

SHEET
GS-4



S-108 PREFABRICATED WATERSTOP JOINTS
REV 010119



SINGLE MAT REINF - SLEEVE - TYPE JOINT
(TYP CONSTRUCTION JOINT UNLESS OTHERWISE NOTED)

S-110 WITH WATERSTOP AND SEALANT GROOVE
REV 010119

S-111 NO WATERSTOP OR SEALANT GROOVE
REV 010119

SINGLE MAT REINF - CONTINUOUS THRU JOINT
(ONLY WHEN SPECIFIED ON DRAWINGS)

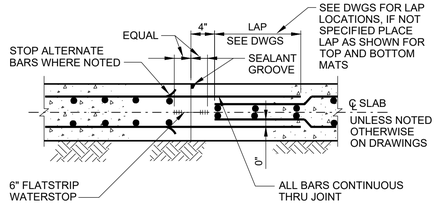
S-112 WITH WATERSTOP AND SEALANT GROOVE
REV 010119

S-113 NO WATERSTOP OR SEALANT GROOVE
REV 010119

T	A
6"	2"
7"	2 1/2"
8"	2 1/2"

NOTES:

1. WATERSTOPS AND SEALANT GROOVES TO BE PROVIDED IN ALL WATER RETAINING SLABS, SEE DRAWINGS, FOR OTHER LOCATIONS WHERE THEY MAY BE REQUIRED.
2. DIMENSIONS INDICATED ON DETAIL CONTROL MINIMUM COVER. FOR THIN SLABS, THE BOTTOM COVER MAY BE LESS THAN 3".
3. STAGGER SPLICES UNLESS NOTED OTHERWISE.

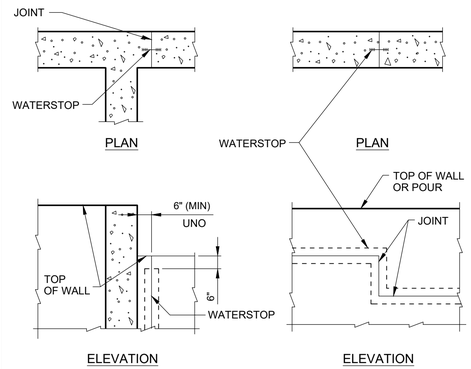


DOUBLE MAT REINF

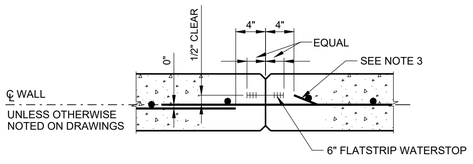
S-114 WITH WATERSTOP AND SEALANT GROOVE
REV 010119

S-115 NO WATERSTOP OR SEALANT GROOVE
REV 010119

SLAB-ON-GRADE CONSTRUCTION JOINTS



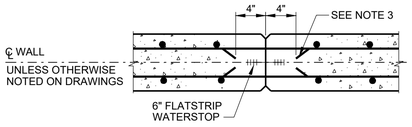
S-120 WATERSTOP DETAILS FOR WALL JOINTS
REV 010119



SINGLE CURTAIN REINF

S-121 WITH WATERSTOP
REV 010119

S-122 NO WATERSTOP
REV 010119



DOUBLE CURTAIN REINF

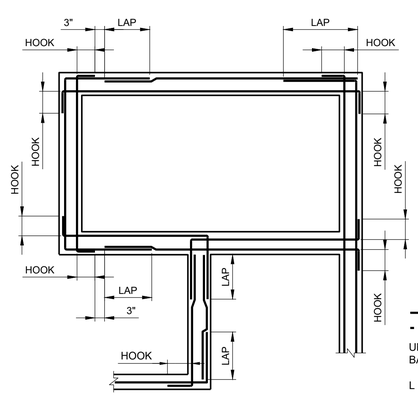
S-123 WITH WATERSTOP
REV 010119

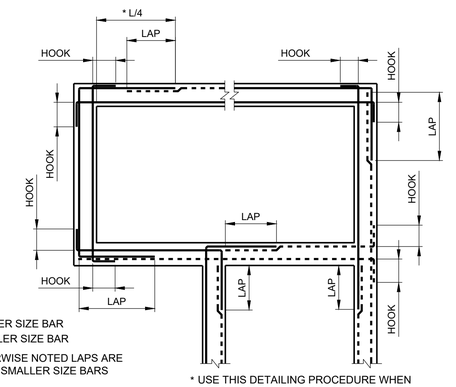
S-124 NO WATERSTOP
REV 010119

NOTES:

1. WHERE WATERSTOP IS REQUIRED IN SINGLE CURTAIN WALL REINFORCEMENT, PLACE WATERSTOP ON WATER SIDE OF WALL.
2. UNLESS OTHERWISE NOTED 3/4" CHAMFERS SHALL BE OMITTED IN SURFACES TO RECEIVE ARCHITECTURAL TREATMENT.
3. UNLESS SPECIFICALLY NOTED OTHERWISE #5 AND LARGER BARS SHALL BE CONTINUOUS THRU JOINT. #4 AND SMALLER BARS SHALL STOP ALTERNATE BARS AT JOINT.
4. STAGGER SPLICES UNLESS NOTED OTHERWISE.

VERTICAL WALL CONSTRUCTION JOINT





UNLESS OTHERWISE NOTED LAPS ARE BASED ON THE SMALLER SIZE BARS

L = CLEAR SPAN

* USE THIS DETAILING PROCEDURE WHEN LARGER OR CLOSER SPACED BARS ARE CALLED OUT FOR CORNERS

S-141 HORIZONTAL REINFORCEMENT AT WALL INTERSECTIONS
REV 010119

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SW DESIGNED
TN DRAWN
MP CHECKED

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER
82642PE
DIGITALLY SIGNED
OREGON
JULY 28, 2023
MATTHEW ERICH PERKINS
EXPIRES: 12/31/2026

BID SET

consor
Stantec

South Fork WATER
PURE WATER SINCE 1915

WATER QUALITY SYSTEMS BUILDING

STRUCTURAL

STANDARD DETAILS - I

PROJECT NO.: 21-3045 | SCALE: AS SHOWN | DATE: AUGUST 2026

SHEET
GS-5

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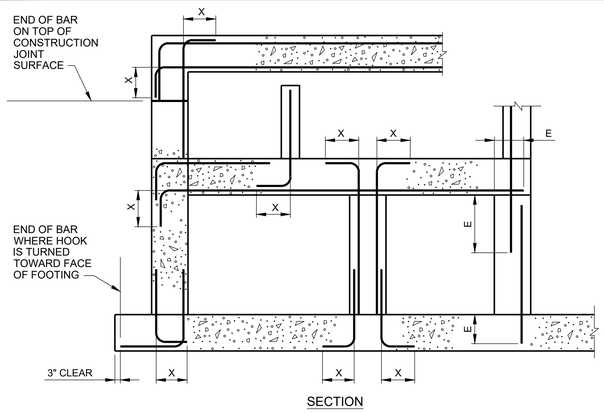


SECTION

LENGTH (*)			
BAR SIZE	HOOK X	LAP	EMBEDMENT E
#3	6"	16" (21")	12" (16")
#4	8"	16" (21")	12" (16")
#5	10"	20" (26")	15" (20")
#6	12"	28" (37")	22" (28")
#7	14"	48" (62")	37" (48")
#8	16"	62" (81")	48" (62")
#9	19"	79" (102")	61" (79")
#10	22"	100" (130")	77" (100")
#11	24"	123" (160")	95" (123")

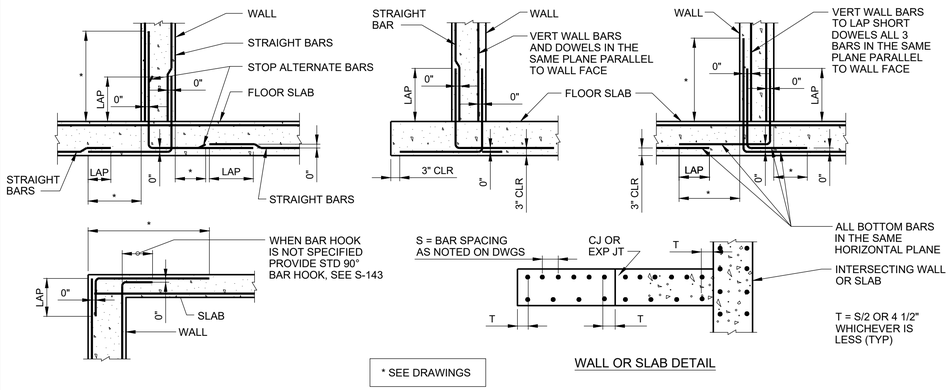
* USE LENGTH IN PARENTHESIS FOR WALL HORIZONTAL REBARS AND SLAB BARS WITH 12" OR MORE OF FRESH CONCRETE UNDERNEATH

NOTES:

1. USE LAP LENGTHS AS DETERMINED FROM THESE TABLES UNLESS SHOWN OTHERWISE.
2. THE TABLES SHOWN ARE FOR f'c=4000psi, fy=60,000psi, 1.5" MIN CONCRETE COVER AND 3" MIN BAR SPACING.
3. MULTIPLY THE LAP AND E SHOWN IN THESE TABLES BY 1.5 FOR EPOXY COATED REINFORCING.
4. WHEN BARS OF DIFFERENT SIZES ARE LAP SPLICED, LAP LENGTH SHALL BE THE LARGER OF: EMBEDMENT LENGTH OF LARGER BAR OR LAP LENGTH OF SMALLER BAR
5. USE REINFORCING BAR COUPLERS FOR SPLICES OF #11 AND LARGER BARS UNLESS DRAWINGS INDICATE LAP SPLICES SHOWN IN TABLE ARE ACCEPTABLE.
6. ALL DOWEL BARS SHALL EXTEND AN EMBEDMENT LENGTH E INTO ANOTHER MEMBER OR ACROSS A CONSTRUCTION JOINT UNLESS SHOWN TO SPLICE WITH OTHER BARS OR TO EXTEND TO THE FAR FACE OF THE MEMBER AND END WITH A STANDARD HOOK.

S-143 STANDARD 90° BAR HOOKS, EMBEDMENT LENGTHS AND LAP LENGTHS

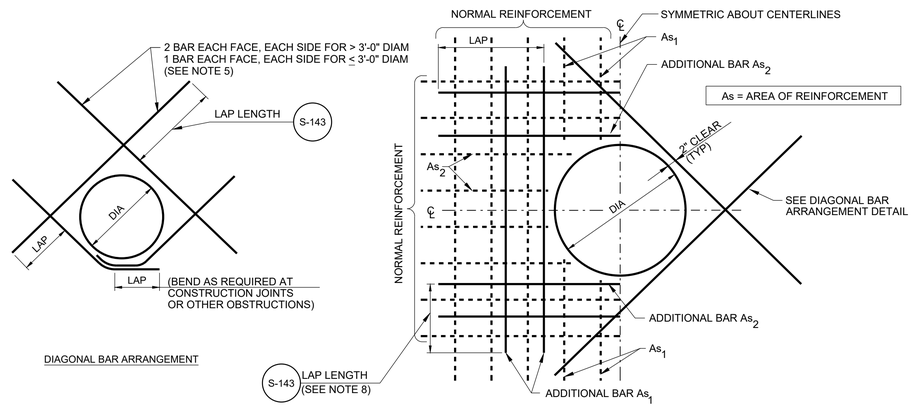
REV 010119



WALL OR SLAB DETAIL

S-149 STANDARD FOR REINFORCING BAR DETAILING

REV 010119

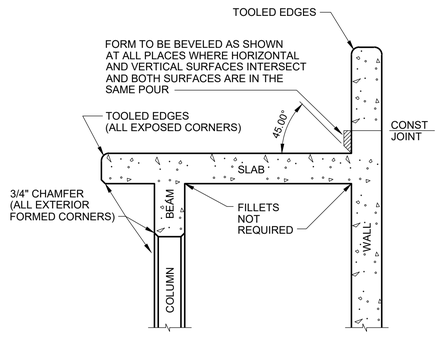


NOTES:

1. THIS DETAIL TO BE USED AT ALL CIRCULAR OPENINGS EXCEPT WHEN OTHER DETAILING IS INDICATED ON THE DRAWINGS.
2. CUT NORMAL REINFORCEMENT 2" CLEAR OF OPENING.
3. CUT NORMAL REINFORCEMENT AT OPENINGS:
   A. AS_1 AND AS_2= 1/2 AREA OF TOTAL CUT BARS TO BE ADDED ON EACH SIDE OF OPENING.
4. DIAGONAL AND ADDITIONAL BARS AS_1 AND AS_2 TO BE PLACED.
   A. AT CENTERLINE OF WALLS OR SLABS WHERE ONE LAYER OF REINFORCEMENT IS PROVIDED.
   B. AT EACH FACE OF WALLS OR SLABS WHERE TWO LAYERS OF REINFORCEMENT ARE PROVIDED.
5. UNLESS OTHERWISE NOTED, SIZE OF DIAGONAL BARS SHALL BE THE SIZE OF THE LARGEST NORMAL REINFORCING BAR CUT.
6. INCREASE SIZE OF ADDITIONAL BARS AS NEEDED TO FIT WITHIN A DISTANCE OF 2X WALL/ SLAB THICKNESS FROM OPENING, PROVIDE 2" MIN CLEAR BETWEEN BARS.
7. WHERE A SLAB OR INTERSECTING WALL CONNECTS WITHIN ONE WALL THICKNESS OF THE OPENING, ADDITIONAL BARS ON THAT SIDE OF THE OPENING MAY BE OMITTED.
8. WHEN THE LAP LENGTH OF THE ADDITIONAL BARS CANNOT BE ACHIEVED DUE TO AN ADJACENT WALL OR SLAB, ADDITIONAL CORNER BARS OR SLAB DOWELS, REPECTIVELY, MATCHING THE CUT BARS, ARE TO BE INCLUDED IN THE ADJACENT WALL OR SLAB TO LAP WITH THE ADDITIONAL BARS.

S-144 ADDITIONAL REINFORCEMENT AT CIRCULAR OPENINGS

REV 010119



S-152 FORMING DETAILS

REV 010119

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NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SW DESIGNED

TN DRAWN

MP CHECKED

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER
82642PE
DIGITALLY SIGNED
OREGON
JULY 09, 2024
MATTHEW ERICH PERKINS
EXPIRES: 12/31/2026

BID SET

consor

Stantec

South Fork WATER
PURE WATER SINCE 1915

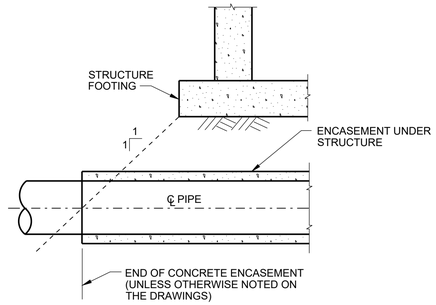
WATER QUALITY SYSTEMS BUILDING

STRUCTURAL

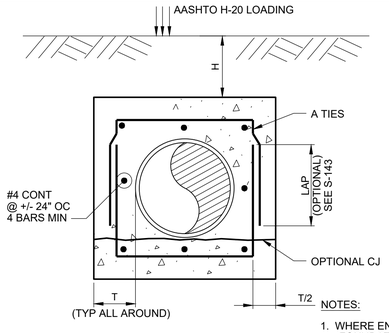
STANDARD DETAILS - II

PROJECT NO.: 21-3045 | SCALE: AS SHOWN | DATE: AUGUST 2026

SHEET GS-6



END OF ENCASEMENT BEYOND STRUCTURE

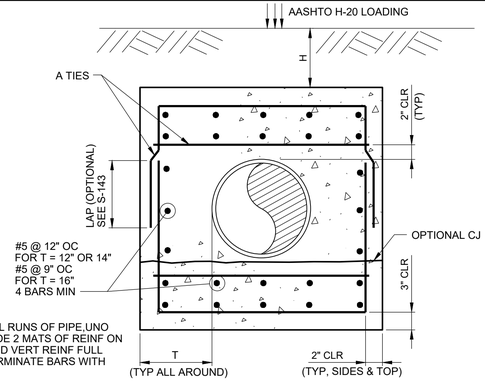


T= 6" OR 8" ENCASEMENT

COVER H	PIPE OUTSIDE DIAMETER ≤24" A	≤24" T	30"-32" A	30"-32" T	36" A	36" T	42"-54" A	42"-54" T	60"-72" A	60"-72" T
2' MIN	#4@12"	6"	#4@12"	6"	#4@9"	6"	#5@12"	8"	#4@9"	12"
3'					#4@12"		#4@9"		#5@12"	8"
4'							#4@12"		#5@10"	
5'							#4@12"		#5@10"	
6'							#4@9"		#5@10"	
7'					#4@12"		#4@9"		#6@12"	
8'			#4@12"		#4@9"		#5@12"		#6@10"	8"
9'			#4@9"	6"	#4@9"	6"	#5@10"		#4@9"	12"
10'		6"	#4@12"	8"	#4@9"	8"	#5@10"	8"	#5@12"	
12'		8"		12"	#4@12"	12"	#4@9"	12"	#5@10"	
14'		12"			#4@12"		#4@9"		#6@12"	
16'					#4@12"		#5@12"		#6@10"	12"
18'			#4@12"		#4@9"	12"	#5@10"	12"	#6@10"	14"
20'	#4@12"	12"	#4@9"	12"	#4@9"	14"	#6@12"	14"	#6@10"	16"

NOTES:

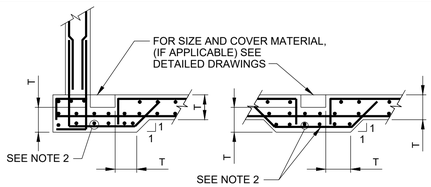
1. WHERE ENCASEMENT PASSES UNDER SPREAD FOOTING OR MAT FOUNDATION, USE H=20' UNO
2. ALL ENCASEMENTS UNDER STRUCTURES SHALL BE SEPARATED FROM THE STRUCTURE FOUNDATIONS BY BACKFILL OR 2 LAYERS OF 40# FELT UNO
3. WHEN ENCASEMENTS TERMINATE @ STRUCTURE, ENCASEMENT REINFORCING SHALL BE DOWELED INTO THE STRUCTURE
4. CONTINUE ENCASEMENT ALONG VERTICAL RUNS OF PIPE,UNO FOR T = 12" TO 16" ENCASEMENTS, PROVIDE 2 MATS OF REINF ON ALL FOUR SIDES OF ENCASEMENT. EXTEND VERT REINF FULL DEPTH INTO HORIZ ENCASEMENT AND TERMINATE BARS WITH STD HOOKS.



T= 12" - 16" ENCASEMENT

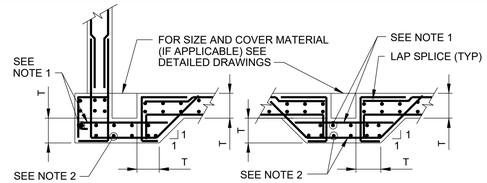
S-171 PIPE ENCASEMENT

REV 010119



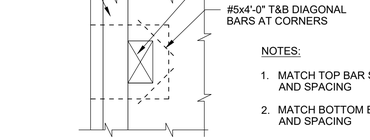
TYPE A

(USE WHERE TYP BOTTOM REINF CAN CONTINUE BELOW SUMP/TRENCH W/ REQUIRED CONC COVER)



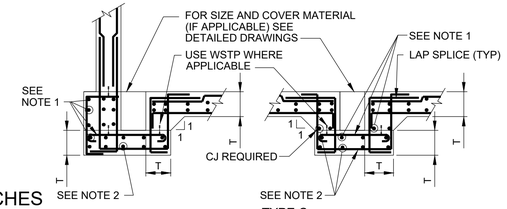
TYPE B

(USE WHERE SUMP/TRENCH IS LESS THAN T AND TYP BOTTOM REINF CANNOT CONTINUE BELOW SUMP/TRENCH W/ REQUIRED CONC COVER)



NOTES:

1. MATCH TOP BAR SIZE AND SPACING
2. MATCH BOTTOM BAR SIZE AND SPACING

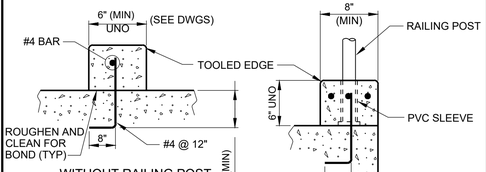


TYPE C

(USE WHERE SUMP/TRENCH DEPTH IS GREATER THAN OR EQUAL TO T)

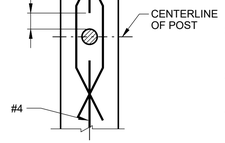
S-177 REINFORCING AT SUMPS AND TRENCHES

REV 101719



WITHOUT RAILING POST

WITH RAILING POST

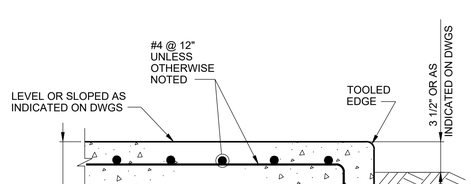


NOTES:

1. CURBS SHALL BE OF EQUAL WIDTH IN THEIR ENTIRE LENGTH.
2. DETAIL ALSO APPLIES TO TOPS OF WALLS REINFORCED WITH ONE CURTAIN OF STEEL.
3. POST INSERTS NOT ALLOWED IN APPLICATIONS SUBJECT TO FREEZING.
4. IN EXISTING SLABS USE #4@12" W/ 4" EMBED, DRILL AND GROUT INTO SLAB.

S-180 CONCRETE CURB

REV 010119

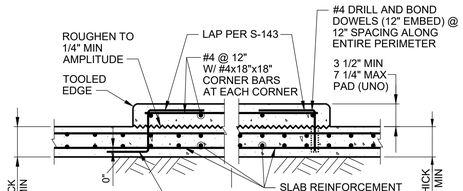


NOTE:

USE 2 MATS OF #5 @ 12" EW EF FOR SLABS 10" AND THICKER

S-190 SLAB-ON-GRADE

REV 010119



NOTES:

1. WHERE SLAB THICKNESS IS LESS THAN REQUIRED FOR POST-INSTALLED ANCHOR EMBEDMENT, USE CAST-IN-PLACE OPTION.
2. LOCATE AND AVOID ALL REINFORCEMENT PRIOR TO DRILLING INTO CONCRETE.
3. THIS DETAIL APPLIES TO REINFORCEMENT WITH fy = 60KSI AND CONCRETE WITH A COMPRESSIVE STRENGTH f'c = 4000 PSI AT 28 DAYS.
4. THE DETAIL APPLIES WHERE EQUIPMENT PADS OR HOUSEKEEPING PADS ARE CALLED OUT ON THE CONSTRUCTION DOCUMENTS.

S-191 EQUIPMENT PAD

REV 021219

NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SW DESIGNED

TN DRAWN

MP CHECKED

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER 82642PE DIGITALLY SIGNED OREGON JULY 08, 2024 MATTHEW ERICH PERKINS

EXPIRES: 12/31/2026

BID SET

consor

Stantec

South Fork WATER PURE WATER SINCE 1915

WATER QUALITY SYSTEMS BUILDING

STRUCTURAL

STANDARD DETAILS - III

PROJECT NO.: 21-3045 | SCALE: AS SHOWN | DATE: AUGUST 2026

SHEET GS-7

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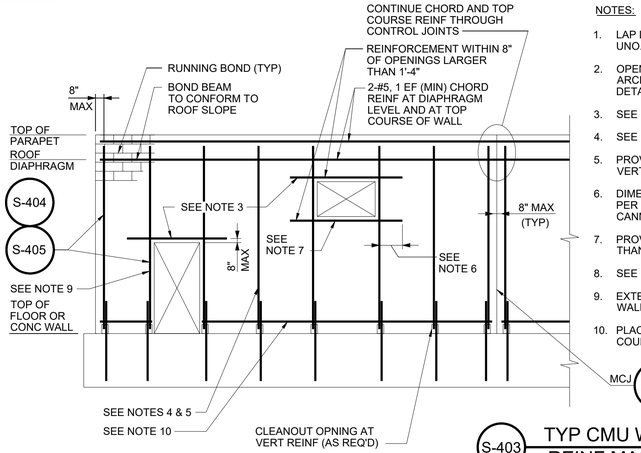
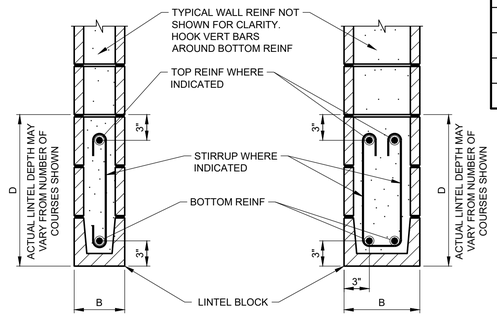


NOTES:

1. LAP LENGTHS AND EMBEDMENTS SHALL COMPLY WITH S-415 UNO.
2. OPENING LOCATIONS SHALL BE COORDINATED WITH ARCHITECTURAL AND MECHANICAL PLANS, ELEVATIONS & DETAILS.
3. SEE DETAIL S-407 - CMU LINTELS FOR REINF OVER OPENINGS.
4. SEE PLANS AND SECTIONS FOR TYPICAL VERT REINF.
5. PROVIDE MATCHING DOWELS INTO FOUNDATION FOR ALL VERT REINF, UNO.
6. DIMENSION SHALL BE THE LARGER OF THE EMBED LENGTH PER S-415, 40 db, OR 24". HOOK BARS WHERE FULL EXTENSION CANNOT BE OBTAINED.
7. PROVIDE 1 BAR AT 8" WALL AND 2 BARS FOR WALLS THICKER THAN 8". MATCH SIZE OF TYPICAL VERTICAL BAR.
8. SEE DETAILS S-404 OR S-405 FOR TYPICAL HORIZONTAL REINF.
9. EXTEND JAMB REINFORCEMENT AT OPENINGS OVER FULL WALL HEIGHT.
10. PLACE FIRST HORIZONTAL REINFORCEMENT IN THE BOTTOM COURSE.

S-403 TYP CMU WALL - SPECIAL REINF MASONRY SHEAR WALL

REV xxxxxx



TYPICAL LINTEL DETAILS FOR 8" WALL

TYPICAL LINTEL DETAILS FOR 12" WALL

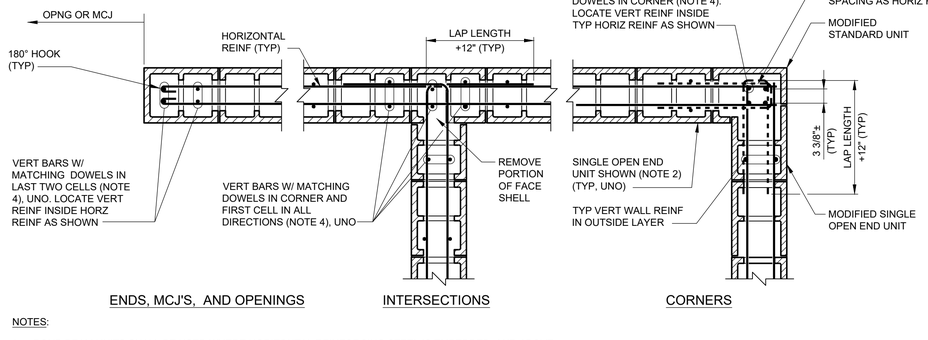
MARK	SPAN	B	D	BOTTOM REINF	TOP REINF	STIRRUPS	REMARKS
L1	0' TO 4'-0"	8"	8"	1 - #5	-	-	-
		12"	8"	2 - #4	-	-	-
L2	4'-1" TO 8'-0"	8"	16"	1 - #5	1 - #5	#3 @ 8"	-
		12"	16"	2 - #4	2 - #4	#3 @ 8"	-
L3	8'-1" TO 12'-0"	8"	24"	1 - #6	1 - #6	#3 @ 8"	-
		12"	24"	2 - #5	2 - #5	#3 @ 8"	-

MASONRY LINTEL NOTES

1. PROVIDE 8" MIN BEARING AT EACH SIDE OF CLEAR SPAN, UNO.
2. BEARING CELLS SHALL BE FULLY GROUTED FROM FOUNDATION TO LINTEL.
3. ALL REINFORCING SHALL BE CONTINUOUS AND EXTEND A FULL LAP LENGTH PAST THE OPENING. WHERE WALLS STOP SHORT OF THE FULL LAP LENGTH OR AT AN MCJ, THE REINFORCING BARS SHALL BE TERMINATED IN THE LAST CELL WITH A STANDARD HOOK.
4. MCJ LOCATION SHALL BE A MINIMUM OF 1'-4" FROM EACH SIDE OF OPENING.
5. USE MARKS L1, L2 AND L3 FOR INDICATED SPANS, UNO.

S-407 CMU LINTEL REINFORCING

REV 022423



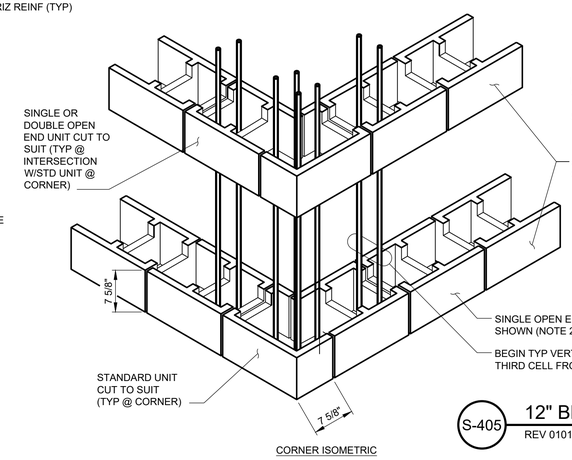
ENDS, MCJ'S, AND OPENINGS

INTERSECTIONS

CORNERS

NOTES:

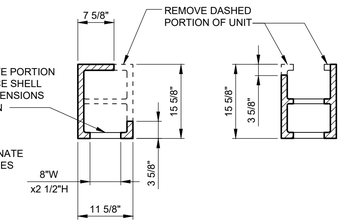
1. BOND BEAM UNITS SHALL BE USED WHERE HORIZONTAL REINFORCING STEEL IS EMBEDDED, AND ABOVE ALL OPENINGS.
2. SINGLE OPEN END, DOUBLE OPEN END, OR H-BLOCK UNITS MAY BE USED AT LOCATIONS OTHER THAN OPENINGS.
3. HOOK HORIZONTAL BARS AROUND VERTICAL BARS AT WALL ENDS, INTERSECTIONS, AND CORNERS.
4. BAR SIZE TO MATCH WALL VERTICAL REINFORCEMENT SIZE, #5 MIN.
5. PROVIDE MINIMUM 2" MASONRY COVER FOR VERTICAL AND HORIZONTAL REINFORCEMENT.
6. CORNER BLOCKS SHALL BE CONSTRUCTED AS SHOWN, UNLESS ALTERNATE DETAILING IS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD.



CORNER ISOMETRIC

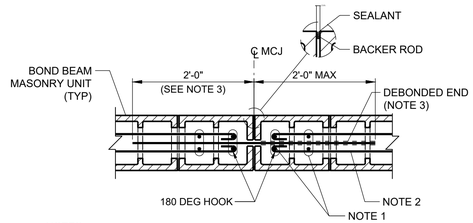
S-405 12" BLOCK WALL SECTIONS

REV 010119



STANDARD 12" UNIT MODIFICATIONS @ WALL CORNER

SINGLE OPEN END UNIT MODIFICATIONS @ WALL CORNER



NOTES:

1. VERTICAL BARS W/ DOWELS IN LAST TWO CELLS. LOCATE VERT REINF INSIDE HORIZ REINF AS SHOWN. SEE S-145 FOR LAP LENGTH.
2. TERMINATE HORIZ REINFORCING W/ 180° HOOK TWO INCHES FROM CONTROL JOINTS. UNO.
3. PROVIDE 5/8" DIA SMOOTH DOWELS @24" OC ACROSS THE JOINT. PREVENT BOND BETWEEN BAR AND GROUT ON ONE SIDE OF JOINT WITH GREASE OR A PLASTIC SLEEVE. CAP ALL DOWELS TO ALLOW ONE INCH OF MOVEMENT. PROVIDE 180° HOOK ON SIDE WITH BOND IF 2'-0" LENGTH IS NOT POSSIBLE.
4. CONTINUE CHORD, LINTEL, AND SILL REINF THROUGH MCJ.

S-432 SPECIAL REINFORCED MASONRY SHEAR WALL CONTROL JOINTS - 12" BLOCK

REV xxxxxx

NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SW DESIGNED

TN DRAWN

MP CHECKED

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER 82642PE DIGITALLY SIGNED OREGON JULY 28, 2023 MATTHEW ERICH PERKINS

EXPIRES: 12/31/2026

BID SET

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Stantec

South Fork WATER PURE WATER SINCE 1915

WATER QUALITY SYSTEMS BUILDING

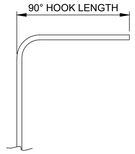
STRUCTURAL

STANDARD DETAILS - IV

PROJECT NO.: 21-3045 | SCALE: AS SHOWN | DATE: AUGUST 2026

SHEET GS-8

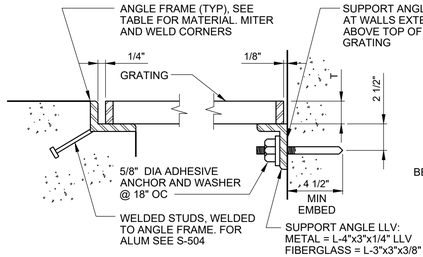
BAR SIZE	8" CMU LAP AND EMBEDMENT LENGTHS (CENTERED)	12" CMU LAP AND EMBEDMENT LENGTHS (CENTERED)	8" OR 12" CMU LAP AND EMBEDMENT LENGTHS (OFF-CENTER) (NOTE 4)	8" OR 12" CMU LAP AND EMBEDMENT LENGTHS FOR DWLS IN CONCRETE (OFF-CENTER) (NOTE 4)	90° HOOK LENGTH (SEE BELOW)	ALLOWABLE HOOK EMBEDMENT LENGTH REDUCTION
#3	12"	12"	13"	17"	6"	4"
#4	13"	12"	22"	30"	8"	6"
#5	20"	13"	35"	46"	10"	8"
#6	38"	25"	64"	72"	12"	9"
#7	52"	33"	84"	84"	14"	11"
#8	80"	50"	96"	96"	16"	13"



NOTES:

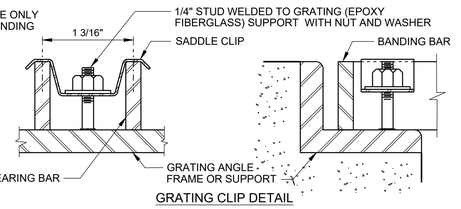
1. THE TABLES SHOWN ARE PER IBC 2015 AND TMS 402-16 WITH f'm=2000 PSI AND fy=60,000 PSI.
2. USE HOOK, EMBEDMENT AND LAP SPLICE LENGTHS AS DETERMINED FROM THESE TABLES UNLESS INDICATED OTHERWISE.
3. WHEN BARS OF DIFFERENT SIZES ARE LAP SPLICED, LAP LENGTHS SHALL BE THE LARGER OF THE EMBEDMENT LENGTH OF THE LARGER BAR, OR THE LAP LENGTH OF THE SMALLER BAR.
4. LAP AND EMBEDMENT LENGTHS FOR OFF-CENTER HORIZONTAL AND VERTICAL BARS ARE BASED ON A MINIMUM OF 2" CLEAR COVER AND 2" CLEAR SPACING BETWEEN BARS,UNO. THE LENGTHS REQUIRED FOR BARS EMBEDDED IN CONCRETE HAVE BEEN INCREASED TO ACCOUNT FOR THE POTENTIAL OF SUCH DOWELS BEING MISPLACED DURING THE CONCRETE WORK.
5. MINIMUM REQUIRED HOOK EMBEDMENT LENGTH EQUALS STRAIGHT BAR EMBEDMENT LENGTH MINUS ALLOWABLE HOOK EMBEDMENT LENGTH REDUCTION.
6. MECHANICAL COUPLERS MAY BE SUBSTITUTED FOR LAP SPLICES FOR ANY BAR SIZE. SUBMIT TO ENGINEER FOR APPROVAL.

S-415 LAPS, HOOKS AND EMBEDMENTS
FOR 8", 12" CMU
REV 010119

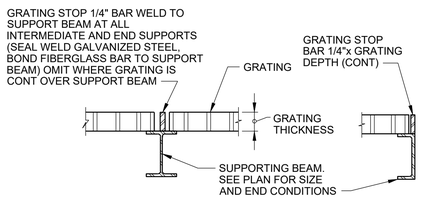


GRATING FRAME TABLE SIZED TO MATCH GRATING (FOR FIBERGLASS USE CONTINUOUS PULTRUDED FIBERGLASS SEAT AND ANCHOR)			
GRATING DEPTH T	ANGLE FRAME	GRATING DEPTH T	ANGLE FRAME
1"	1 3/4"x1 1/4"x1/4" (1 1/4"x1 1/4"x1/4")	2"	*2 1/2"x2 1/2"x1/2"
1 1/4"	2"x1 1/2"x1/4" (1 1/2"x1 1/2"x1/4")	2 1/4"	2 1/2"x2 1/2"x1/4"
1 1/2"	1 3/4"x1 3/4"x1/4"	2 1/2"	3"x3"x1/2"
1 3/4"	2"x2"x1/4"		

* OR USE 2 1/2"x2 1/2"x1/4" W/ 1/4" SHIM PLATE WELDED TO BOTTOM



GRATING CLIP DETAIL



GRATING STOP DETAIL

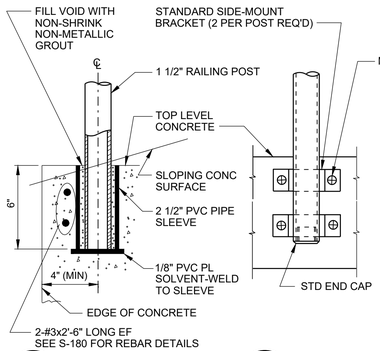
NOTES:

1. UNLESS INDICATED OTHERWISE, ALL GRATING SHALL BE ALUMINUM.
2. GRATING DEPTH TO BE DETERMINED BY MANUFACTURER AND APPROVED BY ENGINEER (UNO).
3. ALL ENDS AND OPENINGS SHALL BE BANDED.
4. WEIGHT OF GRATING SECTION SHALL NOT EXCEED 80 LBS.
5. METAL BEARING BARS SHALL BE DEPTH Tx3/16" @1 3/16" OC CROSS BARS SHALL BE @ 4" OC.
6. PROVIDE A MINIMUM OF 4 CLIPS PER GRATING PANEL, APPROX 4" FROM PANEL CORNERS. MAXIMUM CLIP SPACING AT 36" OC.
7. MATERIALS:

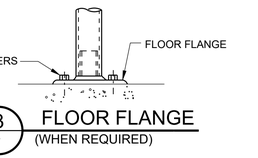
GRATING MATERIAL	SUPPORT ANGLE	ANGLE FRAME	WELDED STUDS	GRATING CLIPS AND STUDS	ADHESIVE ANCHORS
ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM PER S-504	ALUMINUM	TYPE 316 SS
GALV STEEL	GALV STEEL	GALV STEEL	GALV STEEL, 1/2" DIAx4" @12" OC MAX	GALV STEEL	ASTM F1554 GR 36, GALV
STAINLESS STEEL	TYPE 316L SS	TYPE 316L SS	TYPE 316L SS, 1/2" DIAx4" @12" OC MAX	TYPE 316 SS	TYPE 316 SS
FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	TYPE 316 SS

8. ALL GALVANIZED MATERIAL TO BE GALVANIZED AFTER FABRICATION.
9. SEE S-504 FOR ALUMINUM WELDED STUD DETAIL.
10. ALUMINUM IN CONTACT WITH CONCRETE SHALL BE COATED PER THE PROTECTIVE COATING SPECIFICATIONS.
11. FIBERGLASS GRATING - ALL CUT EDGES SHALL BE SEALED WITH RESIN. FOR BONDING, USE AN EPOXY ADHESIVE BONDING AGENT.
12. NOT ALL MATERIAL TYPES MAY BE USED ON A SINGLE PROJECT.
13. PROVIDE ANGLE FRAME OR SUPPORT ANGLES AT ALL SIDES OF OPENINGS (UNO).

S-501 GRATING
REV 010119



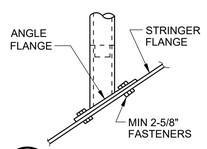
1 - POST INSERT IN CONCRETE (SEE NOTE 2)



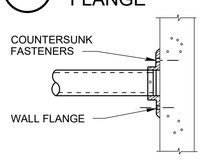
3 - FLOOR FLANGE (WHEN REQUIRED)

NOTES:

1. IF FASTENING INTO CONCRETE, FASTENERS SHALL BE ADHESIVE ANCHORS.
2. POST INSERTS NOT ALLOWED IN APPLICATIONS SUBJECT TO FREQUENT FREEZING.
3. USE POST INSERT UNLESS INDICATED OTHERWISE.
4. USE DETAIL C IN LUE OF POST INSERT WHERE WALL/CURB THICKNESS IS LESS THAN 8"
5. CONTRACTOR REQUIRED TO DESIGN RAILING SYSTEM PER SPECIFICATIONS.



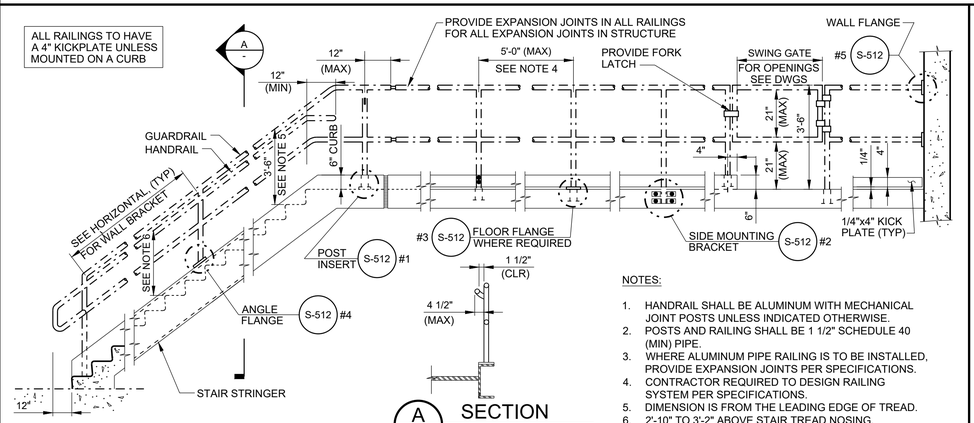
4 - ANGLED FLANGE



5 - WALL FLANGE

2 - SIDE-MOUNTING BRACKET

S-512 RAILING, GUARDRAIL AND HANDRAIL SUPPORT
REV 010119

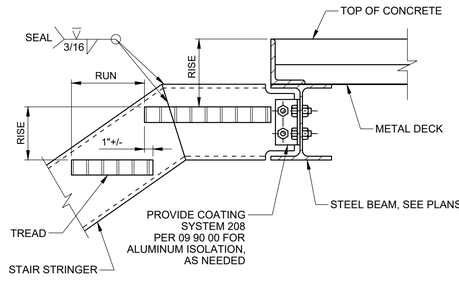


S-515 TWO-RAIL RAILING
REV 010119

A - SECTION

NOTES:

1. HANDRAIL SHALL BE ALUMINUM WITH MECHANICAL JOINT POSTS UNLESS INDICATED OTHERWISE.
2. POSTS AND RAILING SHALL BE 1 1/2" SCHEDULE 40 (MIN) PIPE.
3. WHERE ALUMINUM PIPE RAILING IS TO BE INSTALLED, PROVIDE EXPANSION JOINTS PER SPECIFICATIONS.
4. CONTRACTOR REQUIRED TO DESIGN RAILING SYSTEM PER SPECIFICATIONS.
5. DIMENSION IS FROM THE LEADING EDGE OF TREAD.
6. 2'-10" TO 3'-2" ABOVE STAIR TREAD NOSING.



NOTE:

1. HANDRAIL NOT SHOWN
2. STAIRS TO BE DESIGNED, DETAILED, FURNISHED AND INSTALLED BY CONTRACTOR. DETAIL IS CONCEPTUAL.

S-541 STAIR TOP CONNECTION TO CONCRETE OVER METAL DECK

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SW DESIGNED
TN DRAWN
MP CHECKED

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER 82642PE DIGITALLY SIGNED OREGON JULY 06, 2021 MATTHEW ERICH PERKINS
EXPIRES: 12/31/2026

BID SET

consor
Stantec

South Fork WATER PURE WATER SINCE 1915
WATER QUALITY SYSTEMS BUILDING

STRUCTURAL
STANDARD DETAILS - V

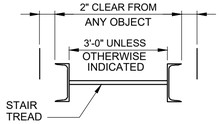
PROJECT NO.: 21-3045 | SCALE: AS SHOWN | DATE: AUGUST 2026

SHEET GS-9

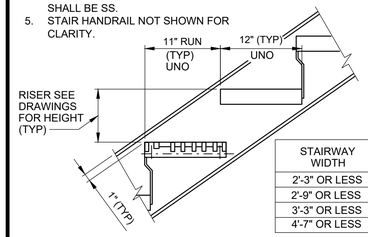
C:\pwworkdir\d0513056\06096005-009.dwg MS 7/27/2026 11:40 AM RDHOKARE 24.2s (LMS Tech)

NOTES:

1. STAIRS TO BE DESIGNED, DETAILED, FURNISHED AND INSTALLED BY CONTRACTOR. SIZES SHOWN ARE MINIMUM SIZES.
2. UNLESS OTHERWISE INDICATED, STAIRS SHALL CONSIST OF ALUMINUM C10x6.136 STRINGERS (MIN) AND SERRATED ALUM GRATING TREADS.
3. FRP STAIRS SHALL CONSIST OF ALUM C10x6.136 STRINGERS (MIN) WITH FRP GRATING TREADS.
4. ALL BOLTS AND CONCRETE ANCHORS SHALL BE SS.
5. STAIR HANDRAIL NOT SHOWN FOR CLARITY.



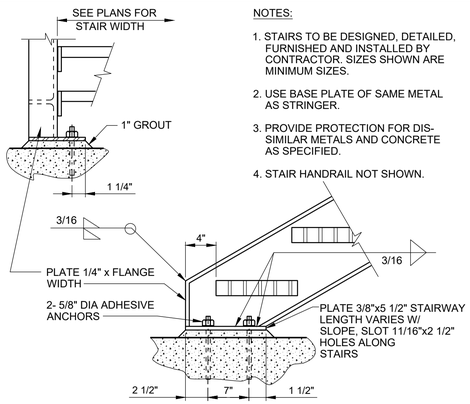
CROSS SECTION



STAIRWAY WIDTH	BEARING BARS ALUMINUM TREAD
2'-3" OR LESS	1 1/4"x3/16"
2'-9" OR LESS	1 1/2"x3/16"
3'-3" OR LESS	1 3/4"x3/16"
4'-7" OR LESS	2"x3/16"

S-544 METAL STAIR OPEN RISER

REV 010119

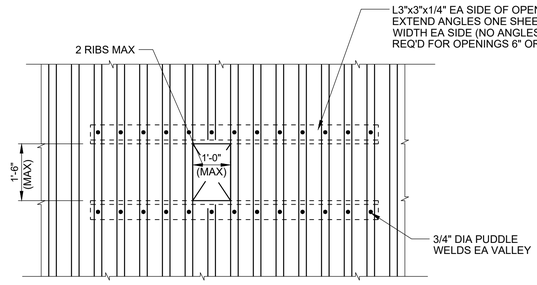


NOTES:

1. STAIRS TO BE DESIGNED, DETAILED, FURNISHED AND INSTALLED BY CONTRACTOR. SIZES SHOWN ARE MINIMUM SIZES.
2. USE BASE PLATE OF SAME METAL AS STRINGER.
3. PROVIDE PROTECTION FOR DIS-SIMILAR METALS AND CONCRETE AS SPECIFIED.
4. STAIR HANDRAIL NOT SHOWN.

S-545 STAIR BOTTOM TO CONCRETE CONNECTION

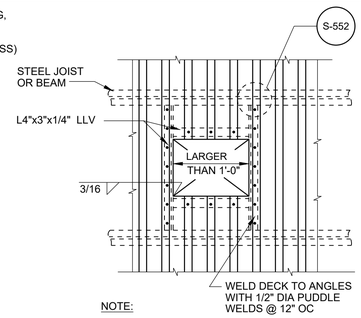
S-545 REV 010118



NOTE:

FRAMING TO BE FURNISHED AND INSTALLED BY MISC METALS CONTRACTOR.

FRAMING FOR OPENINGS 6" TO 12"



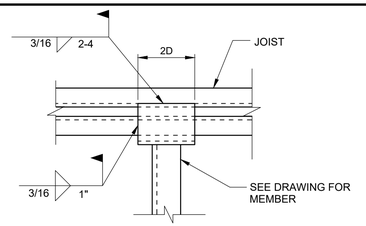
NOTE:

FRAMING TO BE FURNISHED AND INSTALLED BY STRUCTURAL STEEL CONTRACTOR.

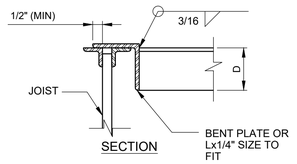
FRAMING FOR OPENINGS LARGER THAN 12" AND SMALLER THAN 48"

S-551 FRAMING AT METAL DECK OPENINGS

REV 010119



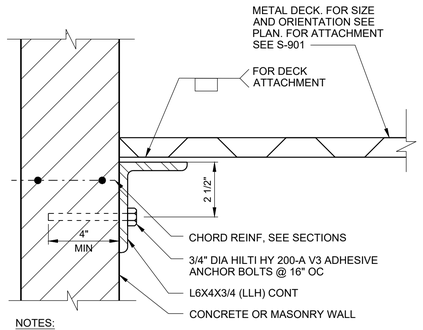
PLAN



SECTION

S-552 FRAMING TO JOIST

REV 010119

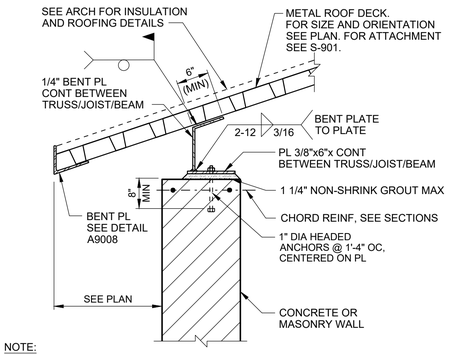


NOTES:

1. ANCHOR BOLTS AT END OF ANGLE SHALL BE 6" OR LESS FROM END OF ANGLE.
2. ANGLE SHALL STOP AT EACH SIDE OF CONTROL AND EXPANSION JOINTS. GAP BETWEEN ANGLES SHALL BE EQUAL TO WIDTH OF JOINT.

S-555 DECK ANGLE TO WALL

REV 010119

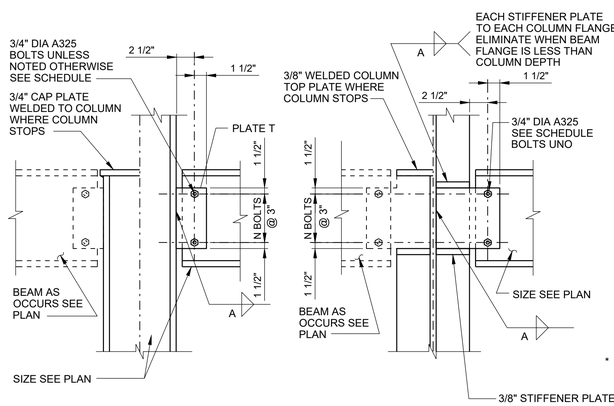


NOTE:

1. ARCHITECTURAL FASCIA NOT SHOW FOR CLARITY.
2. COORDINATE BENT PLATE HEIGHT TO PROVIDE SAME TOP OF STEEL ELEVATION AS JOIST TOP CHORDS. SEE DETAIL S-584.

S-557 DECK CONNECTION BETWEEN TRUSS/JOIST/BEAMS

REV 010119



BEAM TO BEAM CONNECTION SCHEDULE				
TYPICAL BEAM	NO OF BOLTS N	PLATE THICKNESS T	WELD SIZE A	COMMENTS
W8/C8	2	3/8	3/16	
W10	2	3/8	3/16	
W12				
W14				
W16				
W18				
W21				
W24				
W27				
W36				

* USE A DOUBLE ROW OF BOLTS - 5 PER ROW 3" BETWEEN ROWS AND 1 1/2" EDGE DISTANCE

S-561 BEAM TO COLUMN CONNECTION

REV 010119

NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SW DESIGNED

TN DRAWN

MP CHECKED

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER 82642PE DIGITALLY SIGNED OREGON JULY 09, 2021 MATTHEW ERICH PERKINS

EXPIRES: 12/31/2026

BID SET

consor

Stantec

South Fork WATER PURE WATER SINCE 1915

WATER QUALITY SYSTEMS BUILDING

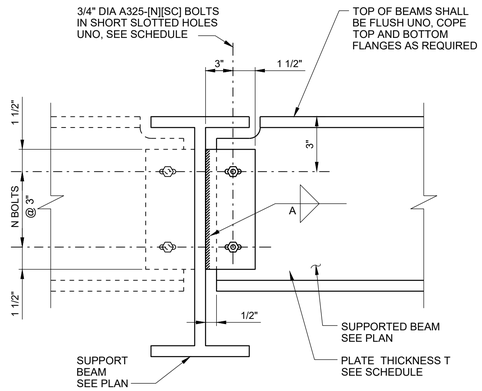
STRUCTURAL

STANDARD DETAILS - VI

PROJECT NO.: 21-3045 | SCALE: AS SHOWN | DATE: AUGUST 2026

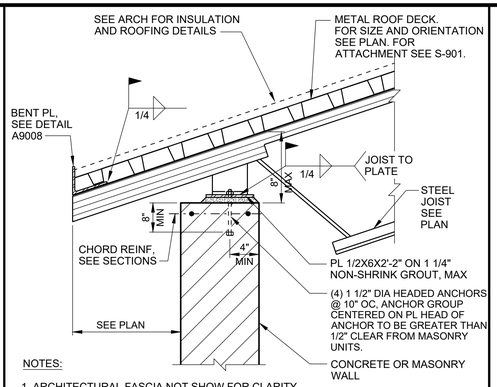
SHEET GS-10

C:\pwworkdir\d0513056\0609600S-010.dwg MS 7/27/2026 11:44 AM RDHOKARE 24.2s (LMS Tech)



BEAM TO BEAM CONNECTION SCHEDULE				
SUPPORTED BEAM SIZE	NO OF BOLTS N	PLATE THICKNESS T	WELD SIZE A	COMMENTS
W8 OR C8	2	1/4	3/16	-
W10 OR C10	2	1/4	3/16	-
W12 OR C12	3	1/4	3/16	-
W14 OR C15	3	1/4	3/16	-
W16	4	1/4	3/16	-
W18	4	1/4	3/16	-
W21	5	1/4	3/16	-
W24	6	5/16	1/4	-
W27	7	5/16	1/4	-
W30	8	3/8	5/16	-
W36	2	7/16	3/8	-

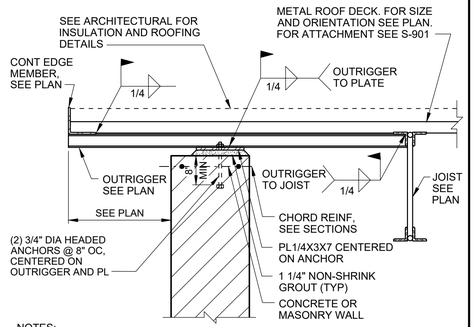
S-562 BEAM TO BEAM CONNECTION
(PLATE CONNECTION)
REV 010119



NOTES:

1. ARCHITECTURAL FASCIA NOT SHOW FOR CLARITY.
2. SEE DETAIL S-557 FOR ATTACHMENT BETWEEN JOISTS.

S-584 JOIST CONNECTION
REV 010119



NOTES:

1. ARCHITECTURAL FASCIA NOT SHOW FOR CLARITY.
2. SEE DETAIL S-557 FOR ATTACHMENT BETWEEN OUTRIGGERS.

S-587 OUTRIGGER CONNECTION
REV 010119

NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SW DESIGNED
TN DRAWN
MP CHECKED

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER
82642PE
DIGITALLY SIGNED
OREGON
JULY 09, 2024
MATTHEW ERICH PERKINS
EXPIRES: 12/31/2026

BID SET

consor
Stantec

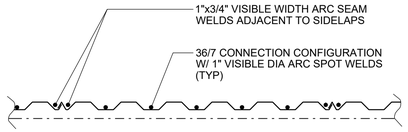
South Fork WATER
PURE WATER SINCE 1915
WATER QUALITY SYSTEMS BUILDING

STRUCTURAL

STANDARD DETAILS - VII

PROJECT NO.: 21-3045 | SCALE: AS SHOWN | DATE: AUGUST 2026

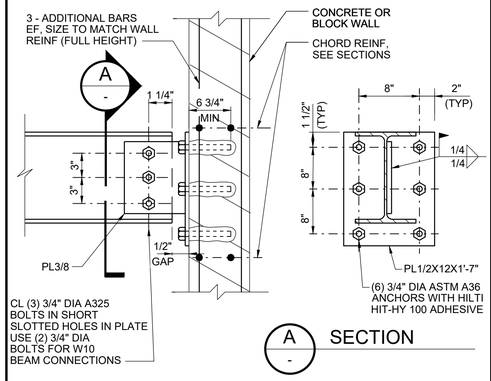
SHEET
GS-11



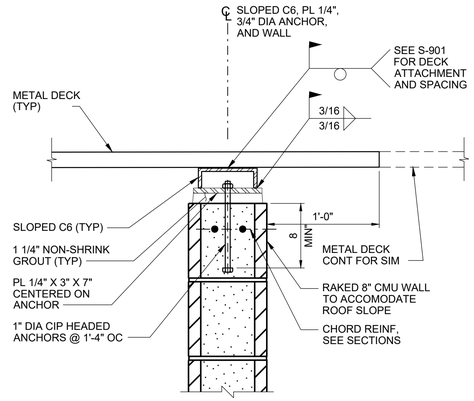
NOTES:

1. SIDE LAP CONNECTION TO BE 1/2" TOP SEAM WELD, SPACED AT 1'-6" MAX.

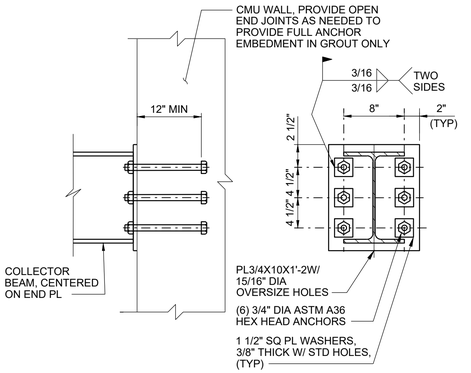
S-901 METAL DECK FASTENING



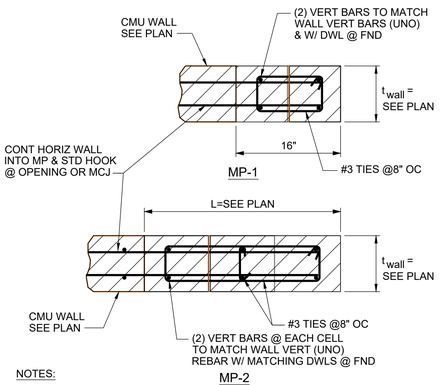
S-902 BEAM TO WALL CONNECTION



S-903 METAL DECK TO WALL ATTACHMENT



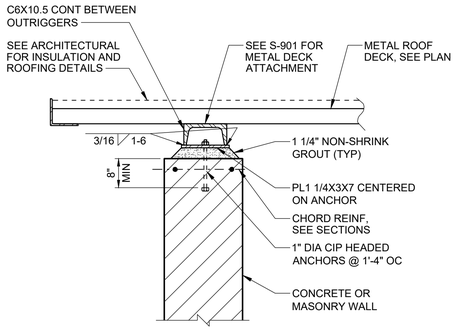
S-904 SEISMIC COLLECTOR BEAM WALL CONNECTION



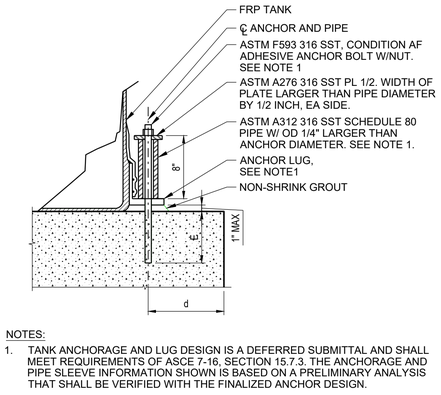
NOTES:

1. EXTEND TIES TO TOP OF ADJACENT WALL OPENING AND 12" INTO FOUNDATION.

S-905 MASONRY PIER



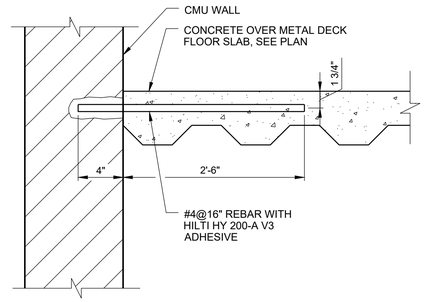
S-906 DECK CONNECTION BETWEEN OUTRIGGERS



NOTES:

1. TANK ANCHORAGE AND LUG DESIGN IS A DEFERRED SUBMITTAL AND SHALL MEET REQUIREMENTS OF ASCE 7-16, SECTION 15.7.3. THE ANCHORAGE AND PIPE SLEEVE INFORMATION SHOWN IS BASED ON A PRELIMINARY ANALYSIS THAT SHALL BE VERIFIED WITH THE FINALIZED ANCHOR DESIGN.

S-907 FRP TANK ANCHORAGE



S-908 CONCRETE OVER METAL DECK CONNECTION TO WALL

NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SW DESIGNED

TN DRAWN

MP CHECKED

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER 82642PE DIGITALLY SIGNED OREGON JULY 08, 2026 MATTHEW ERICH PERKINS

EXPIRES: 12/31/2026

BID SET

consor

Stantec

South Fork WATER PURE WATER SINCE 1915

WATER QUALITY SYSTEMS BUILDING

STRUCTURAL

STANDARD DETAILS - VIII

PROJECT NO.: 21-3045 | SCALE: AS SHOWN | DATE: AUGUST 2026

SHEET GS-12

DATE : 7/27/2026 12:50:30 PM

USER : TN

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ELEVATION NOTES

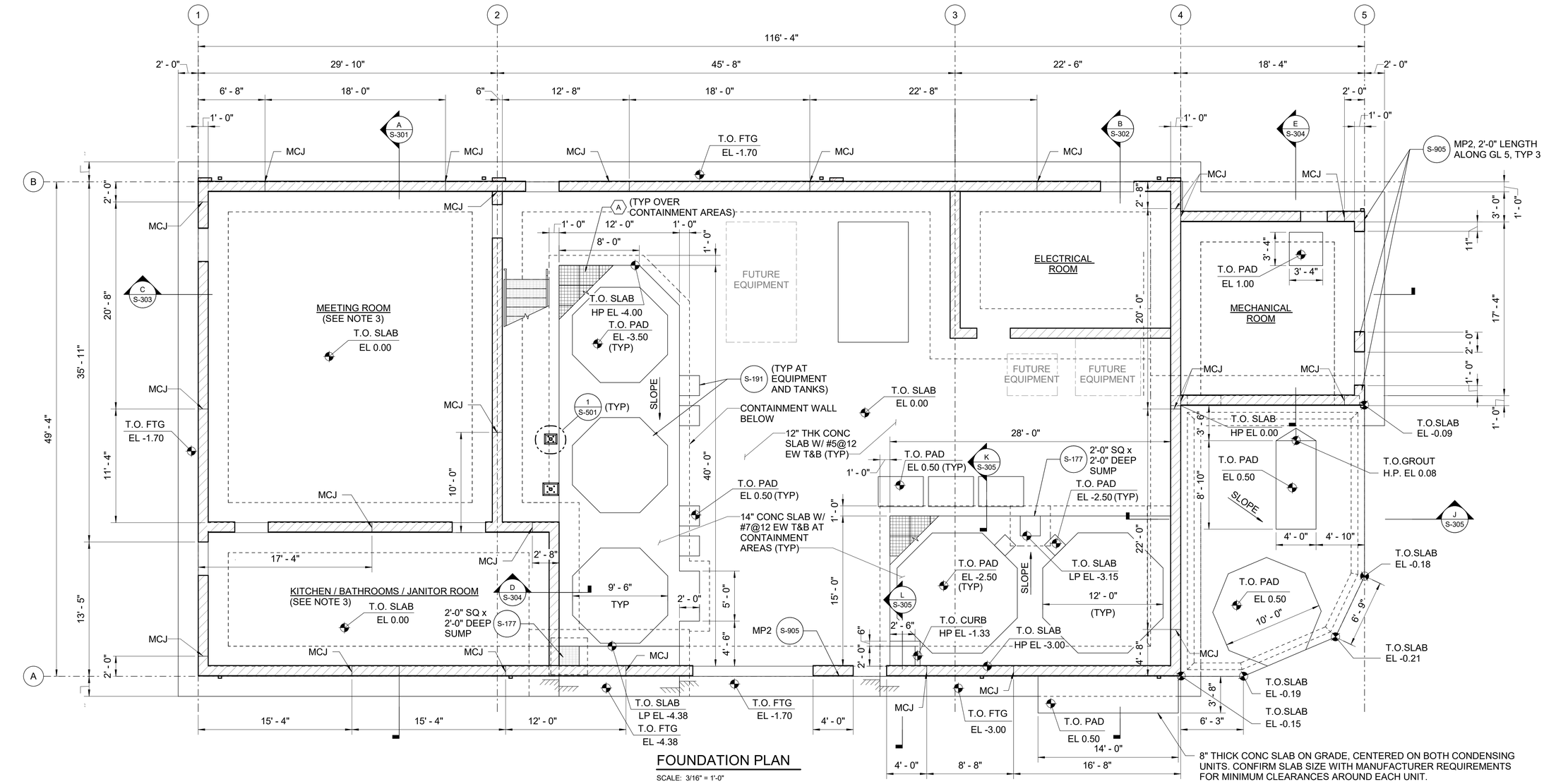
1. ELEVATIONS SHOWN ARE RELATIVE TO FINISH FLOOR ELEVATION.
2. EL 0.00 = FINISHED FLOOR EL 324.20

GENERAL SHEET NOTES

1. PROVIDE #5@32" VERTICAL REINFORCEMENT AT ALL CMU WALLS, UNLESS NOTED OTHERWISE.
2. SEE SECTIONS A/S-301, B/S-302, C/S-303 FOR CMU WALL HORIZONTAL REINFORCEMENT.
3. PROVIDE VAPOR BARRIER UNDERNEATH SLAB AND WALL FOOTINGS OF MEETING ROOM, KITCHEN, BATHROOMS, AND JANITOR ROOM. SEE SPECIFICATION SECTION 03 31 00 AND SHEETS S-301 AND S-303 FOR MORE INFORMATION. DO NOT PROVIDE VAPOR BARRIER AT OTHER AREAS OF THE BUILDING.

SHEET KEYNOTES

A. RAISED FLOOR GRATING SYSTEM. T.O. GRATING TO MATCH FINISHED FLOOR ELEVATION. SEE 06 80 00.



FOUNDATION PLAN

SCALE: 3/16" = 1'-0"

NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SW DESIGNED
TN DRAWN
MP CHECKED

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER
8264PE
DIGITALLY SIGNED
OREGON
JULY 09, 2024
MATTHEW ERICH PERKINS
EXPIRES: 12/31/2026

BID SET

consor

Stantec

South Fork WATER
PURE WATER SINCE 1915

WATER QUALITY SYSTEMS BUILDING

STRUCTURAL

FOUNDATION PLAN

PROJECT NO.: 21-3045 | SCALE: 3/16" = 1'-0" | DATE: AUGUST 2026

SHEET

S-101

DATE : 7/27/2026 12:51:27 PM

USER : TN

NORTH

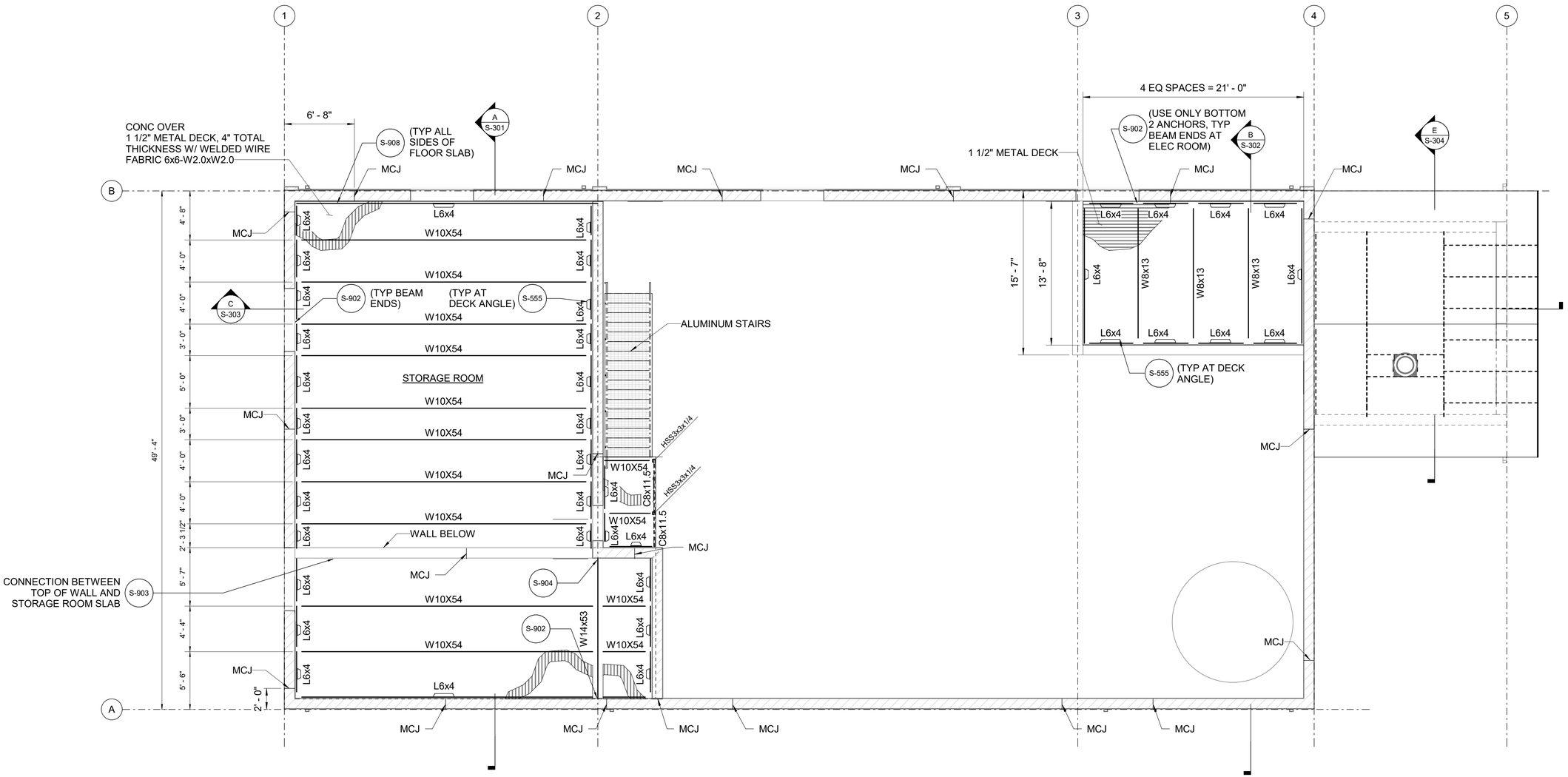
NORTH

TRUE

PLANT

METAL DECK NOTES

1. MINIMUM THICKNESS OF STEEL BEFORE COATING 0.036 INCHES.
2. DEPTH OF DECK: 1 1/2 INCHES
3. MINIMUM MOMENT OF INERTIA: 0.240 IN^4/FT
4. MINIMUM SECTION MODULUS
   0.228 IN^3/FT (POSITIVE)
   0.236 IN^3/FT (NEGATIVE)
5. PROVIDE DECK CONNECTIONS PER DETAIL S-901.
6. MAXIMUM SHEAR FLEXIBILITY FACTOR FOR THREE-SPAN CONDITION:
   5.3×10^6 INCHES/LB
7. SEE SPECIFICATION SECTION 05 30 00 FOR ADDITIONAL METAL DECK REQUIREMENTS.



INTERMEDIATE PLAN

SCALE: 3/16" = 1'-0"

NO.	DATE	BY	REVISION

NOTICE
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SW
DESIGNED
TN
DRAWN
MP
CHECKED

STRUCTURAL
REGISTERED PROFESSIONAL ENGINEER
82642PE
DIGITALLY SIGNED
OREGON
JULY 05, 2016
MATTHEW ERICH PERKINS
EXPIRES: 12/31/2026

BID SET

consor
Stantec

South Fork WATER
PURE WATER SINCE 1915

WATER QUALITY SYSTEMS BUILDING

STRUCTURAL

INTERMEDIATE PLAN

PROJECT NO.: 21-3045 | SCALE: 3/16" = 1'-0" | DATE: AUGUST 2026

SHEET
S-102

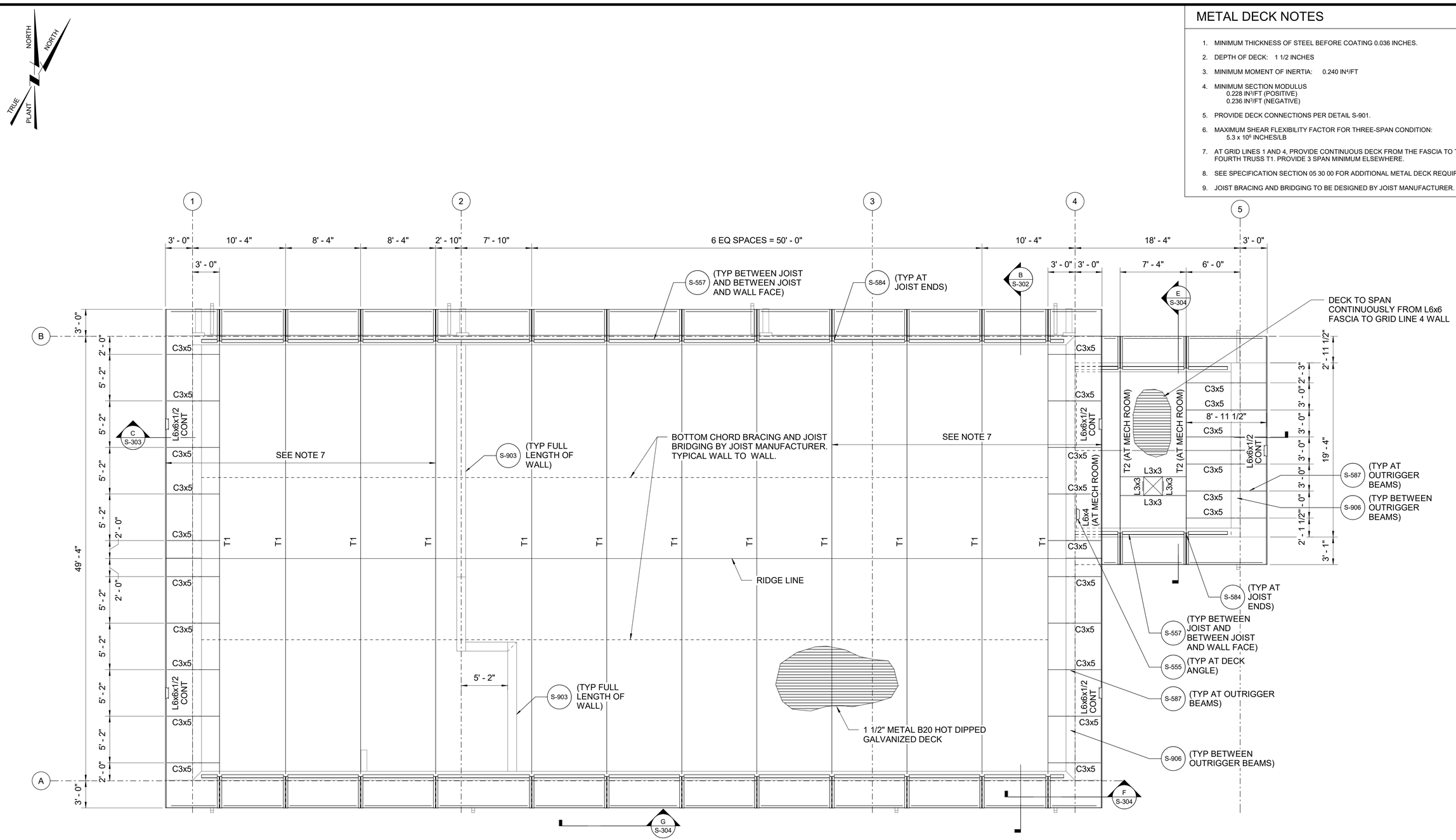
B:\05130580606986S-MD.rvt

DATE : 1/27/2026 12:52:02 PM

USER : TN

METAL DECK NOTES

1. MINIMUM THICKNESS OF STEEL BEFORE COATING 0.036 INCHES.
2. DEPTH OF DECK: 1 1/2 INCHES
3. MINIMUM MOMENT OF INERTIA: 0.240 IN^4/FT
4. MINIMUM SECTION MODULUS
   0.228 IN^3/FT (POSITIVE)
   0.236 IN^3/FT (NEGATIVE)
5. PROVIDE DECK CONNECTIONS PER DETAIL S-901.
6. MAXIMUM SHEAR FLEXIBILITY FACTOR FOR THREE-SPAN CONDITION:
   5.3×10^6 INCHES/LB
7. AT GRID LINES 1 AND 4, PROVIDE CONTINUOUS DECK FROM THE FASCIA TO THE FOURTH TRUSS T1. PROVIDE 3 SPAN MINIMUM ELSEWHERE.
8. SEE SPECIFICATION SECTION 05 30 00 FOR ADDITIONAL METAL DECK REQUIREMENTS.
9. JOIST BRACING AND BRIDGING TO BE DESIGNED BY JOIST MANUFACTURER.



ROOF FRAMING PLAN

SCALE: 3/16" = 1'-0"

NO.	DATE	BY	REVISION

NOTICE
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SW
DESIGNED TN
DRAWN MP
CHECKED

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER
82642PE
DIGITALLY SIGNED
OREGON
JULY 09, 2021
MATTHEW ERICH PERKINS
EXPIRES: 12/31/2026

BID SET

consor
Stantec

South Fork WATER
PURE WATER SINCE 1915

WATER QUALITY SYSTEMS BUILDING

STRUCTURAL

ROOF FRAMING PLAN

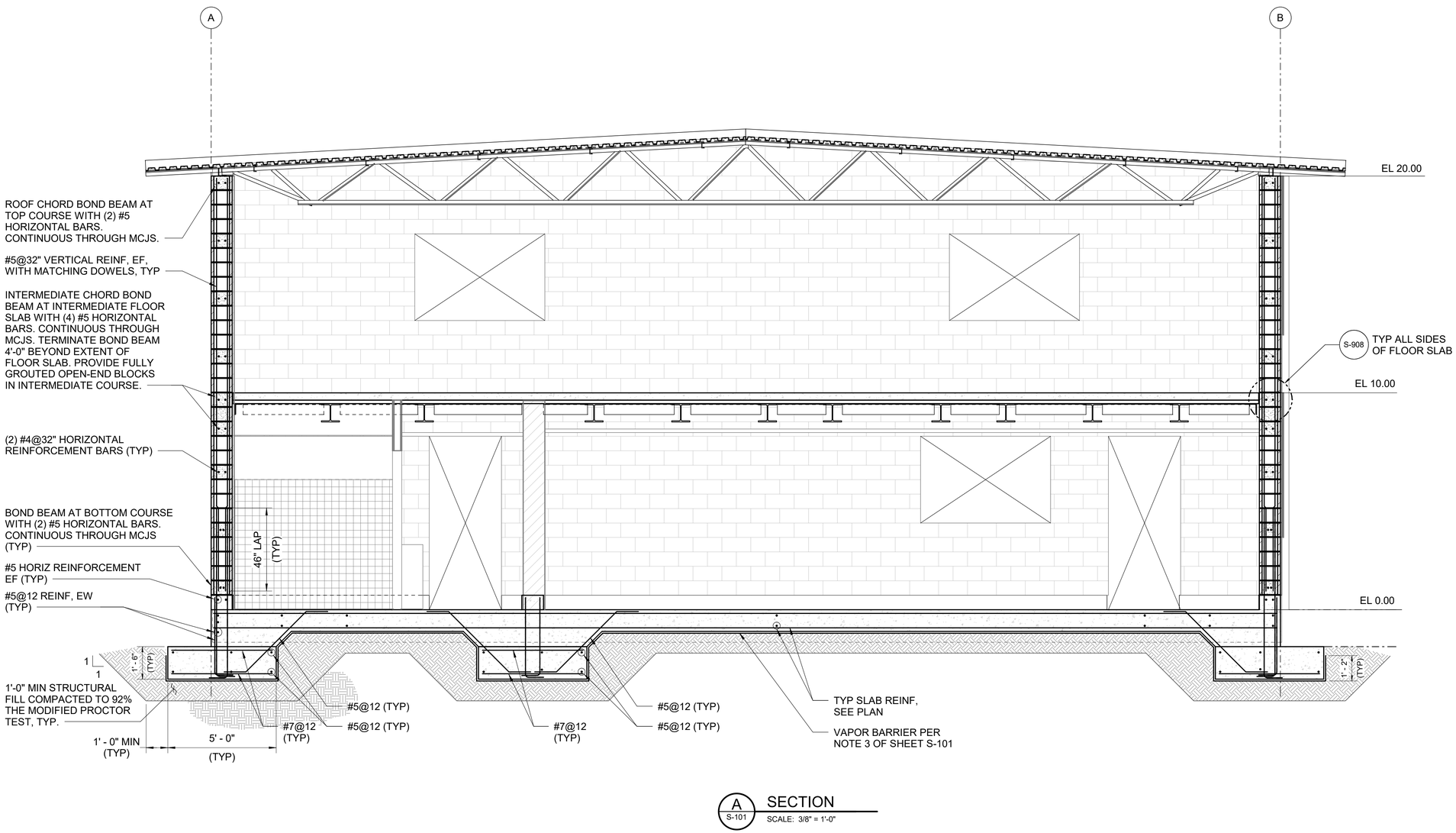
PROJECT NO.: 21-3045 | SCALE: 3/16" = 1'-0" | DATE: AUGUST 2026

SHEET
S-103

B:\ds\21305810609\S-MD.rvt

ELEVATION NOTES

1. ELEVATIONS SHOWN ARE RELATIVE TO FINISH FLOOR ELEVATION.
2. EL 0.00 = FINISHED FLOOR EL 324.20



A / S-101 SECTION

SCALE: 3/8" = 1'-0"

NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SW DESIGNED
TN DRAWN
MP CHECKED

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER
82642PE
DIGITALLY SIGNED
OREGON
JULY 05, 2026
MATTHEW ERICH PERKINS
EXPIRES: 12/31/2026

BID SET

consor
Stantec

South Fork WATER
PURE WATER SINCE 1915

WATER QUALITY SYSTEMS BUILDING

STRUCTURAL

SECTIONS - I

PROJECT NO.: 21-3045 | SCALE: 3/8" = 1'-0" | DATE: AUGUST 2026

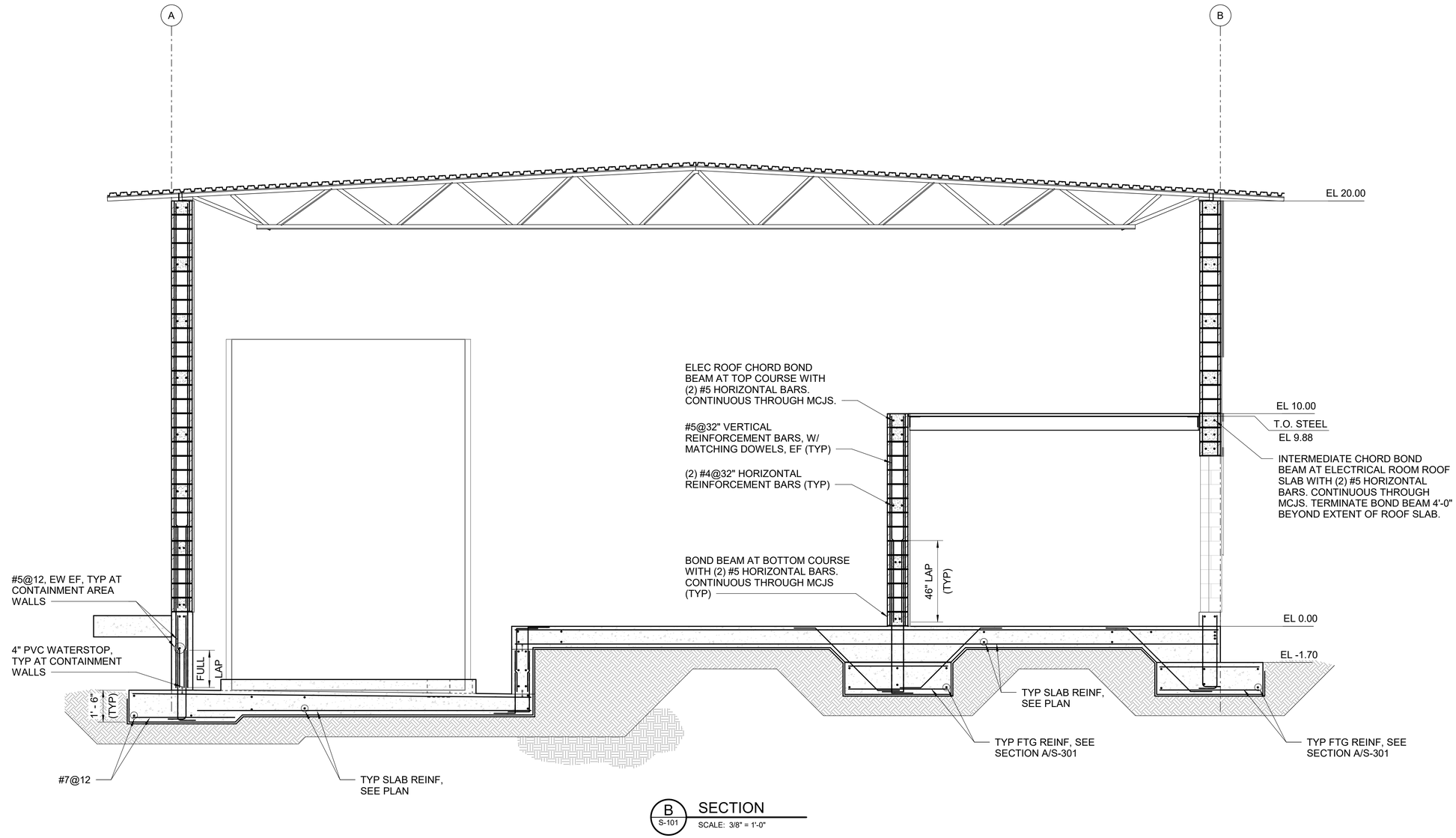
SHEET
S-301

DATE : 7/27/2026 12:53:33 PM

USER : TN

ELEVATION NOTES

1. ELEVATIONS SHOWN ARE RELATIVE TO FINISH FLOOR ELEVATION.
2. EL 0.00 = FINISHED FLOOR EL 324.20



B S-101 SECTION

SCALE: 3/8" = 1'-0"

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NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SW
DESIGNED
TN
DRAWN
MP
CHECKED

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER
8264PE
DIGITALLY SIGNED
OREGON
JULY 09, 2024
MATTHEW ERICH PERKINS
EXPIRES: 12/31/2026

BID SET

consor

Stantec

South Fork WATER
PURE WATER SINCE 1915

WATER QUALITY SYSTEMS BUILDING

STRUCTURAL

SECTIONS - II

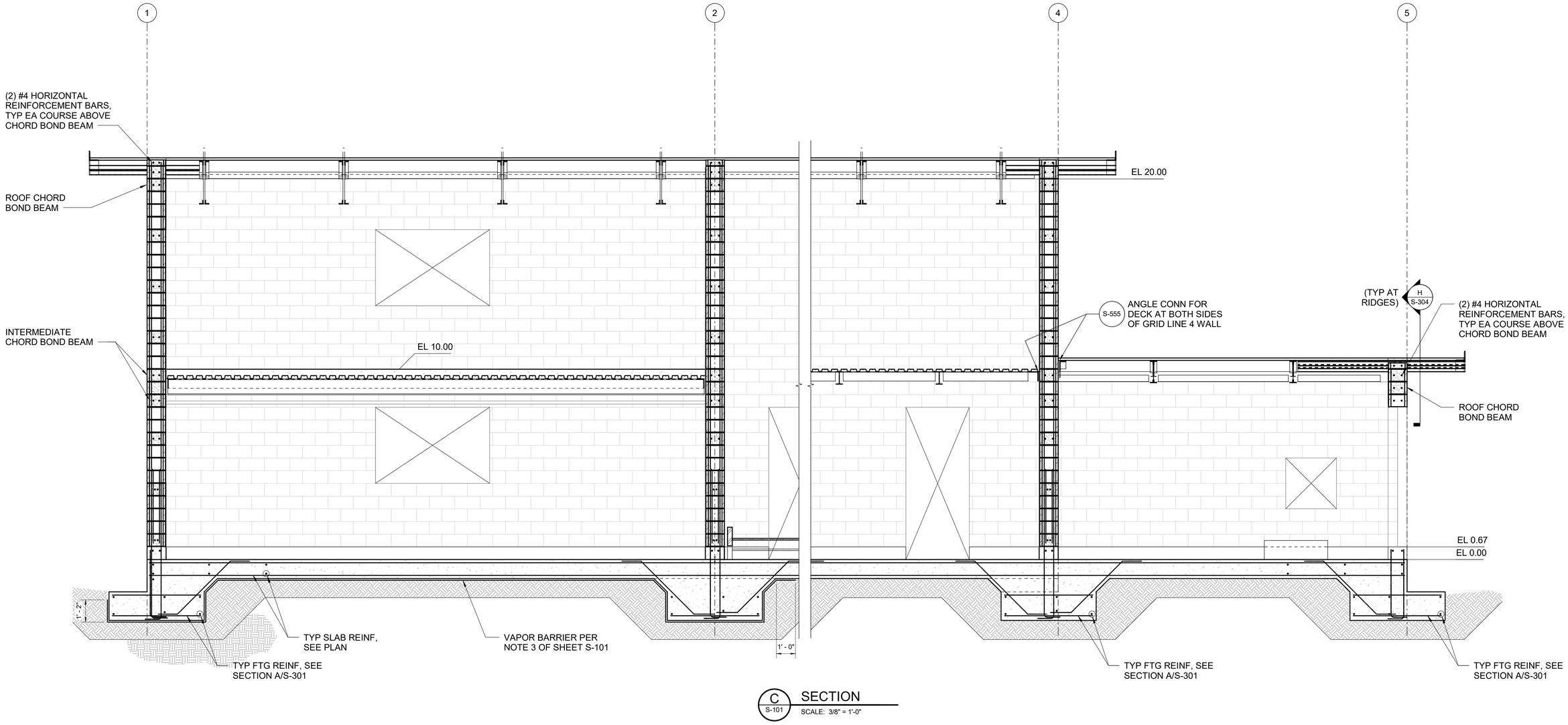
PROJECT NO.: 21-3045 | SCALE: 3/8" = 1'-0" | DATE: AUGUST 2026

SHEET

S-302

ELEVATION NOTES

1. ELEVATIONS SHOWN ARE RELATIVE TO FINISH FLOOR ELEVATION.
2. EL 0.00 = FINISHED FLOOR EL 324.20



C / S-101 SECTION
SCALE: 3/8" = 1'-0"

NO.	DATE	BY	REVISION

NOTICE
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SW
DESIGNED
TN
DRAWN
MP
CHECKED

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER
82642PE
DIGITALLY SIGNED
OREGON
JULY 09, 2026
MATTHEW ERICH PERKINS
EXPIRES: 12/31/2026

BID SET

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Stantec

South Fork WATER
PURE WATER SINCE 1915
WATER QUALITY SYSTEMS BUILDING

STRUCTURAL

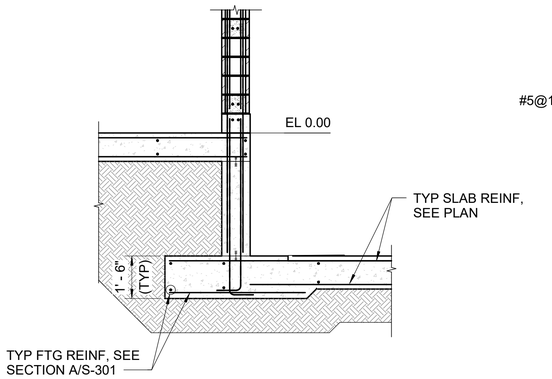
SECTIONS - III

PROJECT NO.: 21-3045 | SCALE: 3/8" = 1'-0" | DATE: AUGUST 2026

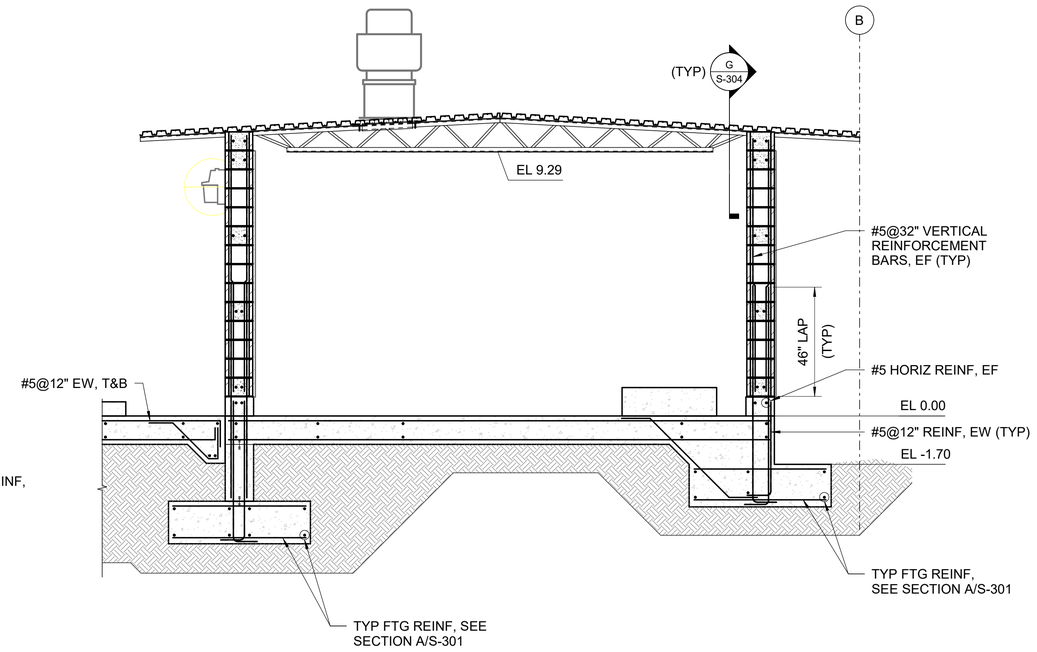
SHEET
S-303

ELEVATION NOTES

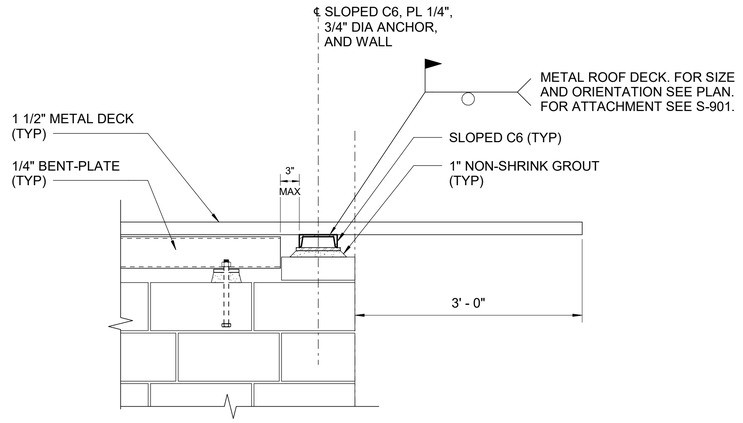
1. ELEVATIONS SHOWN ARE RELATIVE TO FINISH FLOOR ELEVATION.
2. EL 0.00 = FINISHED FLOOR EL 324.20



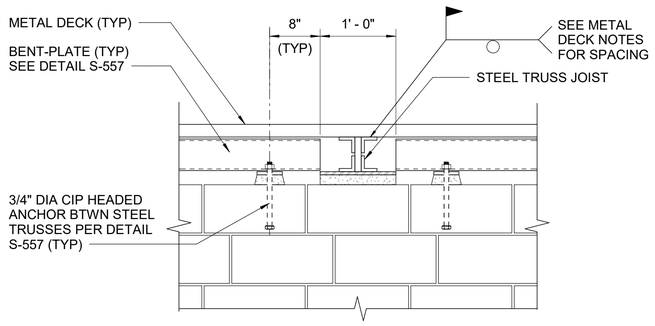
D S-101 SECTION
SCALE: 3/8" = 1'-0"



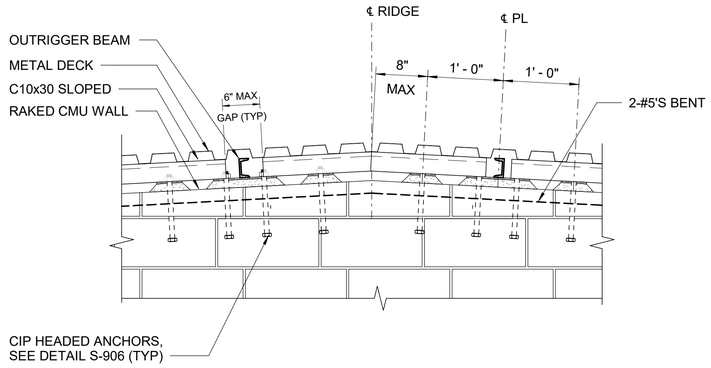
E S-101 SECTION
SCALE: 3/8" = 1'-0"



F S-103 SECTION
SCALE: 1" = 1'-0"



G S-103 SECTION
SCALE: 1" = 1'-0"



H S-303 SECTION
SCALE: 1" = 1'-0"

NO.	DATE	BY	REVISION

NOTICE
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SW
DESIGNED
TN
DRAWN
MP
CHECKED

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER
82642PE
DIGITALLY SIGNED
OREGON
JULY 09, 2024
MATTHEW ERICH PERKINS
EXPIRES: 12/31/2026

BID SET

consor
Stantec

South Fork WATER
PURE WATER SINCE 1915
WATER QUALITY SYSTEMS BUILDING

STRUCTURAL

SECTIONS - IV

PROJECT NO.: 21-3045 | SCALE: As indicated | DATE: AUGUST 2026

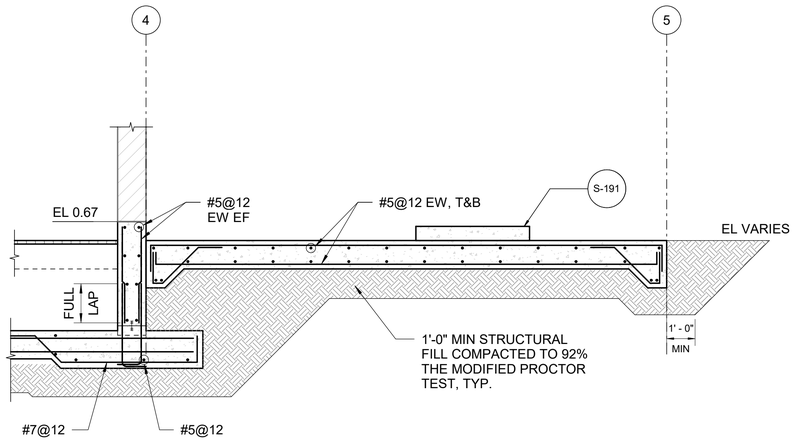
SHEET
S-304

DATE : 7/27/2026 12:55:09 PM

USER : TN

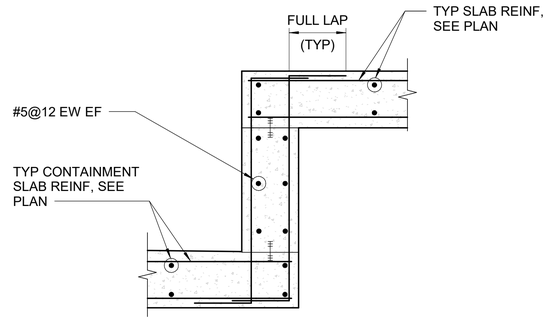
ELEVATION NOTES

1. ELEVATIONS SHOWN ARE RELATIVE TO FINISH FLOOR ELEVATION.
2. EL 0.00 = FINISHED FLOOR EL 324.20



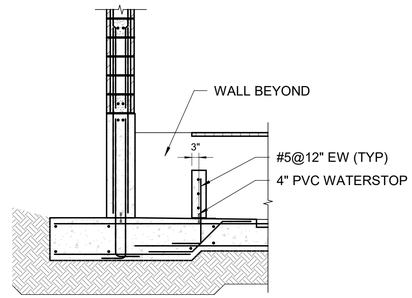
J S-101 SECTION

SCALE: 3/8" = 1'-0"



K S-101 SECTION

SCALE: 3/4" = 1'-0"



L S-101 SECTION

SCALE: 3/8" = 1'-0"

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NO.	DATE	BY	REVISION

NOTICE

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SW
DESIGNED
TN
DRAWN
MP
CHECKED

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER
82642PE
DIGITALLY SIGNED
OREGON
JULY 09, 2024
MATTHEW ERICH PERKINS
EXPIRES: 12/31/2026

BID SET

consor
Stantec

South Fork WATER
PURE WATER SINCE 1915

WATER QUALITY SYSTEMS BUILDING

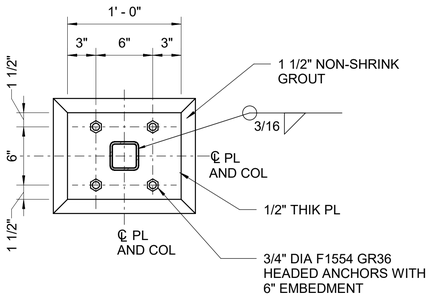
STRUCTURAL

SECTIONS - V

PROJECT NO.: 21-3045 | SCALE: As indicated | DATE: AUGUST 2026

SHEET

S-305



1 S-101 **DETAIL**

SCALE: 1 1/2" = 1'-0"

NO.	DATE	BY	REVISION

NOTICE

0 ½ 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SW DESIGNED
TN DRAWN
MP CHECKED

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER
82642PE
DIGITALLY SIGNED
OREGON
JULY 09, 2024
MATTHEW ERICH PERKINS
EXPIRES: 12/31/2026

BID SET

consor
Stantec

South Fork WATER
PURE WATER SINCE 1915

WATER QUALITY SYSTEMS BUILDING

STRUCTURAL

DETAILS

PROJECT NO.: 21-3045 | SCALE: 1 1/2" = 1'-0" | DATE: AUGUST 2026

SHEET
S-501

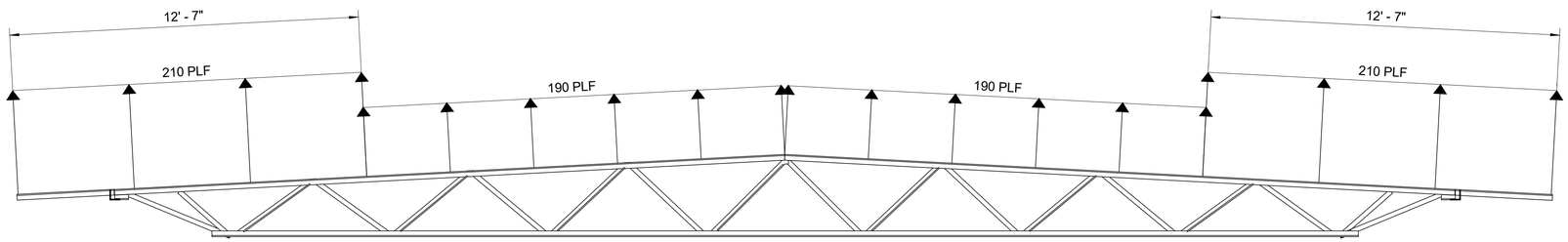
DATE : 7/27/2026 12:56:21 PM

USER : TN

JOIST SCHEDULE[2][4]										
JOIST MARK NUMBER	DESIGNATION[1] (TOTAL LOAD/LIVE LOAD)	SEISMIC AXIAL LOAD 1.0E (KIPS)[6]	WIND AXIAL LOAD 1.0W (KIPS)[6]	SNOW LOAD 1.0S (PLF)	DOWNWARD WIND LOAD 1.0W (PLF)	NET WIND UPLIFT LOAD (PLF)[3]	ADD-LOAD (KIPS)	BEND-CHECK LOAD[5]		COMMENTS
								TC (KIPS)	BC (KIPS)	
T1	20-36-20LH 310/200	7	2.3	260	110	SEE FIG	1	0.5	0.5	
T2	12-30-12LH 240/150	1.9	0.9	520	100	SEE FIG	1	0.5	0.5	

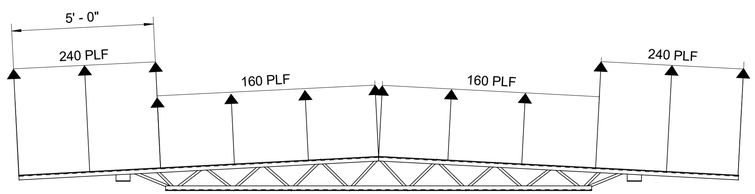
(1) 18-60-18LH 250/160 (VALUES NOTED AT LEFT ARE TO DEFINE CALLOUT)
- JOIST LIVE LOAD (PLF)
- JOIST TOTAL LOAD (PLF) (DEAD + LIVE)
- DEPTH AT END
- DEPTH AT RIDGE
- DEPTH AT END

(2) DEFLECTION CRITERIA: LIVE LOAD DEFLECTION ≤ L/240.
(3) NET WIND UPLIFT IS THE RESULT OF THE 0.6D+0.6W LOAD COMBINATION.
(4) SEE FRAMING PLAN FOR ADDITIONAL LOADS TO BE INCLUDED IN JOIST DESIGN, INCLUDING MECHANICAL LOADS.
(5) FOR BEND-CHECK: TC = TOP CHORD, BC = BOTTOM CHORD
(6) TOP CHORD AXIAL LOAD, TENSION OR COMPRESSION LOAD,



TRUSS JOIST T1 - NET WIND UPLIFT LOAD DIAGRAM

NO SCALE



TRUSS JOIST T2 - NET WIND UPLIFT LOAD DIAGRAM

SCALE: 3/8" = 1'-0"

ROOF JOIST NOTES

1. JOIST BRACING AND BRIDGING TO BE DESIGNED AND DETAILED BY JOIST MANUFACTURER.
2. SEE HVAC DRAWINGS FOR ROOF MOUNTED EQUIPMENT. LOADS FROM ROOF MOUNTED EQUIPMENT ARE NOT INCLUDED IN THE LOADS INDICATED ON THE SCHEDULE. JOIST DESIGN SHALL BE COORDINATED BASED ON THE ACTUAL EQUIPMENT WEIGHT AND FIELD LOCATION OF ROOF MOUNTED EQUIPMENT.
3. THE BEND-CHECK AND ADD LOADS INDICATED IN THE JOIST SCHEDULE ARE MINIMUM DESIGN LOADS. THE JOIST DESIGN SHALL INCLUDE LOADS FROM SPRINKLER MAINS AND SWAY BRACES AND ANY OTHER ROOF HUNG LOADS AND THE FINALIZED SEISMIC BRACING DESIGN FOR SUCH LOADS.
4. DEFLECTION CRITERIA:
   i. TOTAL LOAD: L/240
   ii. LIVE LOAD: L/360

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NO.	DATE	BY	REVISION

NOTICE
0 ½ 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

SW DESIGNED
TN DRAWN
MP CHECKED

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER
82642PE
DIGITALLY SIGNED
OREGON
JULY, 05, 2016
MATTHEW ERICH PERKINS
EXPIRES: 12/31/2026

BID SET

consor
Stantec

South Fork WATER
PURE WATER SINCE 1915

WATER QUALITY SYSTEMS BUILDING

STRUCTURAL

TRUSS JOIST SCHEDULE

PROJECT NO.: 21-3045 | SCALE: As indicated | DATE: AUGUST 2026

SHEET
S-601