

DESIGN CRITERIA

- BUILDING CODE:
INTERNATIONAL BUILDING CODE (IBC), 2018 EDITION, INCLUDING LOCAL SUPPLEMENTS. THE STRUCTURE IS CLASSIFIED AS A RISK CATEGORY III FACILITY.
- DEAD AND LIVE LOADS:

LOCATION	UNIFORM LIVE LOAD	CONCENTRATED LIVE LOAD	TOTAL DEAD LOAD*
ROOF	20 PSF	2000 LB	12 PSF
SLAB ON GRADE	100 PSF		
BRIDGE	100 PSF		

ROOF LIVE LOADS ON SUPPORTING ELEMENTS SHALL NOT BE REDUCED.

* TOTAL DEAD LOAD INCLUDES WEIGHT OF STRUCTURAL ELEMENTS.
- SNOW LOADS:

GROUND SNOW LOAD:	15 PSF
FLAT ROOF SNOW LOAD:	15 PSF
SNOW EXPOSURE FACTOR:	1.0
SNOW IMPORTANCE FACTOR:	1.1
THERMAL FACTOR:	1.0

DRIFTING OF SNOW AND UNBALANCED SNOW SHALL BE IN ACCORDANCE WITH CODE.
- WIND:

ULTIMATE DESIGN WIND SPEED, V_{ult} :	115 MPH (3 SECOND GUST)
NOMINAL DESIGN WIND SPEED, V_{nom} :	90 MPH (3 SECOND GUST)
WIND EXPOSURE:	C
INTERNAL PRESSURE COEF:	± 0.18

COMPONENTS AND CLADDING PRESSURE SHALL BE USED FOR DESIGN OF EXTERIOR WALLS, WINDOWS, DOORS, AND MISCELLANEOUS MATERIALS NOT SPECIFICALLY SHOWN ON THE PLANS.
- SEISMIC:

SITE CLASS:	D
SEISMIC DESIGN CATEGORY:	B
SEISMIC IMPORTANCE FACTOR:	1.0
S_s :	0.140
S_1 :	0.056
S_{ds} :	0.150
S_{d1} :	0.090
LATERAL SYSTEM:	LIGHT FRAMED WOOD WITH WOOD STRUCTURAL PANELS (R=6.5)
METHOD OF ANALYSIS:	EQUIVALENT LATERAL FORCE
C_s :	0.023
BASE SHEAR:	6.9 KIPS
- SAFE ROOM/STORM SHELTER LOADING:

NO AREA WITHIN THIS BUILDING HAS BEEN DESIGNED TO MEET THE REQUIREMENTS OF FEMA P-361 OR ICC/NSSA-500. THE ARCHITECT MAY DESIGNATE AN AREA THAT, IN HIS/HER OPINION, HAS ENHANCED PROTECTION OVER THE REMAINDER OF THE BUILDING AS A PLACE OF REFUGE FROM HIGH WINDS. HOWEVER, IT SHOULD NOT BE CONSIDERED A SAFE ROOM/STORM SHELTER.

DELEGATED ENGINEERING OF STRUCTURAL COMPONENTS & SYSTEMS

- ALL STRUCTURAL COMPONENTS & SYSTEMS SPECIFIED TO BE DELEGATED SHALL BE DESIGNED AND SEALED BY A SPECIALTY STRUCTURAL ENGINEER (SSE) LICENSED IN THE STATE OF KANSAS AND SHALL MEET THE GUIDELINES PUBLISHED BY THE COUNCIL OF AMERICAN STRUCTURAL ENGINEERS (CASE) FOR DELEGATED SPECIALTY STRUCTURAL ENGINEERING.
- REFERENCE THE GENERAL NOTES & DRAWINGS FOR BUILDING CODE, SERVICE CRITERIA, AND DESIGN LOADS.
- SUBMITTALS FOR DELEGATED COMPONENTS & SYSTEMS SHALL INCLUDE THE FOLLOWING:

 - A FULL DESIGN ANALYSIS, INCLUDING CALCULATIONS FOR GRAVITY AND LATERAL LOADS, WITH A SEALED COVER SHEET IDENTIFYING THE PROJECT NAME AND ADDRESS.
 - THE SSE THAT SEALED THE CALCULATIONS SHALL ALSO SEAL THE FABRICATION, PLACING, AND ERECTION PLANS. EACH PLAN SHALL IDENTIFY THE PROJECT NAME AND ADDRESS.
 - IF THE SSE THAT SEALED THE CALCULATIONS AND PLANS IS AN EMPLOYEE OF A COMPANY, THE COMPANY'S CERTIFICATE OF AUTHORIZATION NUMBER SHALL BE INCLUDED ON THE SUBMITTALS. BOTH THE SSE SEAL AND THE CERTIFICATE OF AUTHORIZATION SHALL BE ISSUED BY THE STATE IN WHICH THE PROJECT IS LOCATED, INCLUDING PROJECTS ON FEDERAL LAND.
 - THE COMPANY THAT EMPLOYS THE SSE SHALL PROVIDE AN INSURANCE CERTIFICATE FOR PROFESSIONAL LIABILITY INSURANCE WITH AN AGGREGATE AMOUNT OF NO LESS THAN TWO MILLION DOLLARS (\$2,000,000). CONTRACTS OR SUB-CONTRACTS FOR THIS PROJECT SHALL NOT INCLUDE A LIMIT OF LIABILITY CLAUSE.
 - THE SSE THAT SEALED THE PLANS SHALL INCORPORATE A WRITTEN STATEMENT THAT THE CONTRACT DOCUMENT'S CRITERIA HAVE BEEN INCORPORATED INTO THE DESIGN.
- THE CONTRACTOR SHALL REVIEW THE SUBMITTAL FOR QUANTITIES AND DIMENSIONS AND VERIFY THAT THE ABOVE INFORMATION HAS BEEN INCLUDED IN THE SUBMITTAL.
- NO SUBMITTAL WILL BE REVIEWED UNLESS ALL OF THE ABOVE INFORMATION IS INCLUDED. THE ENGINEER OF RECORD SHALL NOT BE RESPONSIBLE FOR DELAYS CAUSED BY INCOMPLETE SUBMITTALS.

- PRE-FABRICATED WOOD TRUSS SYSTEMS

 - ALL TRUSS COMPONENTS SHALL BE SYMMETRICAL ABOUT THE VERTICAL AXIS AND BE CONNECTED CONCENTRICALLY AT EACH JOINT.
 - LIGHT GAUGE CONNECTOR PLATES SHALL BE GALVANIZED, A MINIMUM OF 20 GAUGE THICK (0.033"), AND A MINIMUM OF 15 SQUARE INCHES, WITH THE LEAST DIMENSION A MINIMUM OF 3".
 - CONNECTIONS SHALL HAVE AT LEAST 2 CONNECTORS (ONE EACH SIDE OF MEMBER).
 - DESIGN AND PROVIDE BOTH TEMPORARY AND PERMANENT BRACING REQUIRED FOR STABILITY.
 - PROVIDE ALL TRUSS TO TRUSS CONNECTIONS.
 - PROVIDE REACTIONS AND CONNECTIONS AT EACH SUPPORT.
 - THE BOTTOM CHORD OF ROOF TRUSSES SHALL BE THE DESIGNED FOR 10 PSF SUPERIMPOSED LOAD.
 - TOP AND BOTTOM CHORDS OF FLOOR TRUSSES SHALL BE 2X4 MINIMUM AND THE BOTTOM CHORD DESIGNED FOR 5 PSF SUPERIMPOSED LOAD.
 - SUBMITTED CALCULATIONS SHALL INDICATE ALL LOADS AND LOAD COMBINATIONS USED IN THE ANALYSIS.
- STRUCTURAL INSULATED PANELS

 - DESIGN AND PROVIDE BOTH TEMPORARY AND PERMANENT BRACING REQUIRED FOR STABILITY.
 - PROVIDE ALL CONNECTIONS BETWEEN ADJACENT PANELS.
 - PROVIDE DIAPHRAGM ANALYSIS.
 - PROVIDE ALL CONNECTIONS TO SUPPORTING ELEMENTS TO RESIST VERTICAL, UPLIFT AND SHEAR LOADS.
 - SUBMITTED CALCULATIONS SHALL INDICATE ALL LOADS AND LOAD COMBINATIONS USED IN THE ANALYSIS.

SOIL PREPARATION AND FOUNDATIONS

- THE FOUNDATION SYSTEM IS DESIGNED AS RECOMMENDED IN THE GEOTECHNICAL INVESTIGATION PREPARED BY TERRACON, JOB NO. 01195039. A COPY IS INCLUDED IN THE PROJECT MANUAL.
- REMOVE TOP SOIL CONTAINING ORGANIC MATERIAL AND PREPARE THE BUILDING PAD IN ACCORDANCE WITH THE CIVIL ENGINEERING PLANS, SPECIFICATIONS, AND GEOTECHNICAL INVESTIGATION.
- REMOVE SOIL AS REQUIRED TO ALLOW FOR A LOW VOLUME CHANGE ZONE 18" THICK UNDER THE FLOOR SLAB AND 4" THICK DRAINAGE MATERIAL. FILL TO SUBGRADE ELEVATION SHOWN ON THE DRAWINGS WITH NON-EXPANSIVE FILL OR STABILIZED SOIL PER SPECIFICATION.
- SOIL SUPPORTED FOUNDATIONS:

 - DESIGN BEARING PRESSURE (NET) IS 2,000 PSF FOR FOUNDATIONS BEARING ON UNDISTURBED SOIL OR APPROVED ENGINEERED FILL MATERIAL. BEARING MATERIALS SHALL BE VERIFIED BY A LICENSED GEOTECHNICAL ENGINEER.
 - ALL FOUNDATIONS ARE DESIGNED WITH EARTH FORMED SIDES; THE TOP 7 1/4" OF THE FOUNDATION SHALL BE FORMED TO THE DESIGN DIMENSION WHEN VISIBLE AFTER CONSTRUCTION IS COMPLETE. THE CONSTRUCTED FOUNDATION DIMENSION SHALL BE NO LESS THAN THE DESIGN DIMENSION, AND NO MORE THAN 6" GREATER THAN THE DESIGN DIMENSION.
- EXTERIOR SLABS SHALL SLOPE AWAY FROM THE STRUCTURE A MINIMUM OF 1/4" PER FOOT UNLESS NOTED OTHERWISE.

CONCRETE

- ALL CONCRETE HAS BEEN DESIGNED IN ACCORDANCE WITH ACI 318 AND THE BUILDING CODE, AND IN CONFORMANCE WITH THE CURRENT "ACI MANUAL OF CONCRETE PRACTICE."
- THE CONCRETE REQUIREMENTS ARE:

 - CEMENT SHALL BE TYPE I OR II CONFORMING TO ASTM C150. FLY ASH CONFORMING TO ASTM C618 TYPE C OR F MAY BE USED TO REPLACE A MAXIMUM OF 20% OF THE CEMENT BY WEIGHT.
 - FINE AGGREGATE FOR NORMAL WEIGHT CONCRETE SHALL MEET ASTM C33.
 - COARSE AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33, GRADE 67 OR LARGER. COARSE AGGREGATES SHALL BE NO LESS THAN 50% OF THE TOTAL AGGREGATE BY WEIGHT, UNLESS APPROVED BY THE ENGINEER PRIOR TO MIX DESIGN SUBMITTAL.
- MIX REQUIREMENTS ARE:

LOCATION	F'_c (PSI)	MIN. CEM. (PCY)	MAX. W/C RATIO	AIR CONTENT (%)	SLUMP (IN.) \pm
FOUNDATIONS	4000	470	0.45	5% \pm 1%	2-5
GRADE BEAMS	4000	470	0.45	5% \pm 1%	2-5
INTERIOR SLAB	4000	564	0.42	3% MAX.	2-5

PRIOR TO THE ADDITION OF WATER REDUCING ADMIXTURES, IF APPROVED BY ENGINEER, AFTER ADDITION THE SLUMP MAY NOT EXCEED 8".

F'C SPECIFIED IS BASED ON THE 28 DAY COMPRESSIVE STRENGTH IN ACCORDANCE WITH ACI 318 ACCEPTANCE CRITERIA.

- ADMIXTURES, HARDENERS, & CURING COMPOUNDS

 - ALL CONCRETE ADMIXTURES SHALL, WHEN MIXED INTO CONCRETE, BE NON-CHLORIDE AND NON-CHLORIDE FORMING.
 - ALL ADMIXTURES MUST CONFORM TO ASTM C-494 AND C-260.
 - CONCRETE CURING COMPOUND AND SEALERS SHALL MEET ASTM C-309 TYPE 1 OR 1D.
 - USE OF "SELF CONSOLIDATING" CONCRETE MUST BE SUBMITTED FOR APPROVAL WITH THE CONCRETE MIX DESIGN.
 - CONCRETE PENETRATING HARDENER SEALERS SHALL BE USED ON ALL EXPOSED CONCRETE FLOORS UNLESS OTHER COATINGS ARE REQUIRED BY THE ARCHITECT.
- MISCELLANEOUS CONCRETE DETAILS:

 - ALL EXPOSED EDGES OF STRUCTURAL CONCRETE SHALL BE CHAMFERED 3/4" INSIDE THE FORMS OR TOOLED TO 3/4" RADIUS UNLESS NOTED OTHERWISE.
 - SLABS ON GRADE SHALL HAVE CONSTRUCTION JOINTS AND/OR CONTROL JOINTS (SAWN JOINTS) TO DIVIDE THE SLAB INTO PANELS, NOT TO EXCEED 256 SQUARE FEET. THE LONG DIMENSION SHALL NOT EXCEED THE SHORT DIMENSION BY MORE THAN 20%. CONTRACTOR TO SUBMIT PROPOSED LOCATIONS FOR APPROVAL.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF ALL FORMING AND SHORING. SHORING FOR ELEVATED SLABS SHALL BE SET SO THAT ANY LOAD DUE TO THE CONCRETE OPERATIONS DOES NOT CAUSE THE FORMS TO SETTLE (SLACK, TAKE-UP, ETC.). ELEVATED SLABS THAT SPAN OVER TWENTY FIVE FEET SHALL HAVE AN ADDITIONAL SLIGHT CAMBER SET INTO THE FORMS FOR THE DEAD LOAD DEFLECTION OF THE SLAB (APPROXIMATELY L/480). SCREEDS SHALL ALSO INCORPORATE THIS CAMBER TO CREATE A FINISHED SLAB OF UNIFORM THICKNESS. ELEVATED SLABS SHALL NOT HAVE THE FORMS REMOVED WITHOUT PLACING RESHORES. IF ADDITIONAL ELEVATED SLABS WILL BE SHORED ON TOP OF PREVIOUSLY CAST ELEVATED SLABS, THE SLABS SHALL BE RESHORED IN ACCORDANCE WITH ACI.
 - NO ALUMINUM SHALL BE EMBEDDED IN CONCRETE. CONDUITS AND PIPING EMBEDDED IN CONCRETE SLABS SHALL BE SPACED A MINIMUM OF FOUR DIAMETERS AND THE OUTSIDE DIAMETER SHALL BE LESS THAN 30% OF THE MEMBER THICKNESS AND PLACED BETWEEN LAYERS OF REINFORCING.
 - RADIANT FLOOR TUBING EMBEDDED IN SLABS ON GRADE SHALL BE INSTALLED BELOW THE REINFORCING AS DETAILED.
 - WHEN THE CONCRETE WILL HAVE MOISTURE SENSITIVE FLOOR COVERING, THE CONTRACTOR SHALL COORDINATE THE CURING TIME TO ALLOW THE MOISTURE VAPOR TRANSMISSION TO REDUCE THE LEVEL THAT THE ADHESIVE MANUFACTURER WILL GUARANTEE THE INSTALLATION. THE CONTRACTOR SHALL HAVE THE FLOOR COVERING INSTALLER TEST THE MOISTURE VAPOR TRANSMISSION OR USE AN ADHESIVE DESIGNED FOR THE RATE OF VAPOR TRANSMISSION OCCURRING AT THE TIME OF INSTALLATION.

CONCRETE REINFORCING

- | MATERIALS | ASTM | GRADE |
|---------------------------|-------|-----------|
| REINFORCING STEEL: | A615 | 60 |
| WELDED WIRE FABRIC (WWF): | A185 | 60 (MIN.) |
| ANCHOR RODS (BOLTS): | F1554 | 36 |
- DETAILS:

 - WELDING OF REINFORCING STEEL IS PROHIBITED UNLESS NOTED OTHERWISE. WHEN WELDING IS APPROVED, WELDING SHALL BE IN ACCORDANCE WITH AWS D1.4 "WELDING REINFORCING STEEL, ETC."
 - WELDED WIRE FABRIC SHALL BE FURNISHED IN FLAT SHEETS.
 - SHOP DRAWINGS SHALL BE SUBMITTED WITH REINFORCING STEEL IN ACCORDANCE WITH ACI 315.
 - PLACEMENT:

 - ALL REINFORCING AND EMBEDMENTS SHALL BE SUPPORTED ON CHAIRS/BOLSTERS TO THE DESIGN DIMENSIONS. SPACING SHALL BE SUFFICIENTLY CLOSE TO PREVENT DISPLACEMENT OR PERMANENT DEFORMATION DUE TO CONCRETE PLACEMENT, FOOT TRAFFIC, OR VIBRATION. "PUDDLING IN" OR "PULLING UP" REINFORCING IS NOT AN ACCEPTABLE METHOD FOR PLACING REINFORCING. CHAIRS/BOLSTERS SHALL HAVE PLASTIC COATED FEET OR BE MADE OF STAINLESS STEEL. CHAIRS/BOLSTERS IN CONTACT WITH EARTH SHALL HAVE BOTTOM PLATES AND BE COATED TO PREVENT CORROSION. ANCHOR RODS SHALL BE HELD IN PLACE WITH TEMPLATES SUFFICIENTLY STRONG TO PREVENT DISPLACEMENT OR TILTING.
 - MAINTAIN ACI CLEAR COVER ON REINFORCING AS LISTED BELOW UNLESS NOTED OTHERWISE.

CAST AGAINST EARTH (BOTTOM OR SIDES):	3"
SLABS ON GRADE (FROM TOP OF SLAB):	1.5"

 - PROVIDE CORNER BARS OF THE SAME SIZE AND SPACING AS ADJACENT REINFORCING.
 - OPENINGS IN WALLS OR SLABS SHALL BE REINFORCED PER DETAIL. EXTEND REINFORCING BEYOND OPENING 24" MIN.
 - REINFORCING STEEL SHALL BE LAPPED PER LAP TABLE.
 - WELDED WIRE FABRIC SHALL BE LAPPED ONE FULL SQUARE PLUS 2".

3/27/2020 11:06:28 AM
BIM 360://198014-003 - Watson Park Events Center New Building/198014_MASTER
STRUCT_R19.rvt

PROFESSIONAL ENGINEERING CONSULTANTS P.A.
303 SOUTH LOPEKA WICHITA, KS 67202
316-267-2691 www.pec1.com

PEEC

CITY REV 30 MAR 20
Final 13 FEB 20

GENERAL NOTES

S-001

WATSON PARK
EVENT CENTER
3022 S MCLEAN BLVD, WICHITA, KS 67217



SPANGENBERG PHILLIPS TICE
ARCHITECTURE
121 N Mead Ste 201 Wichita KS 67202
T 316.267.4002 F 316.267.1509
www.sptarchitecture.com

STRUCTURAL STEEL

- STRUCTURAL STEEL SHALL MEET THE LATEST "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGE," AND HAS BEEN DESIGNED IN ACCORDANCE WITH THE BUILDING CODE AND THE LATEST EDITION OF AISC "MANUAL OF STEEL CONSTRUCTION".
- STRUCTURAL STEEL SHALL BE NEW AND MEET THE FOLLOWING REQUIREMENTS UNLESS NOTED OTHERWISE ON THE DRAWINGS:

TYPE	ASTM	GRADE
PLATE & ANGLES	A36	-----
RECTANGULAR HSS SECTIONS	A500	B (F _y =46 KSI)
STRUCTURAL BOLTS	A325	----- (ASTM F1852)
ERECTION BOLTS	A307	-----
- ALL WELDING SHALL BE IN ACCORDANCE WITH LATEST AWS CODE, SECTION D1.1. ALL WELD MATERIAL SHALL BE 70 KSI TENSILE STRENGTH.
- STEEL FRAMING MEMBERS SHALL NOT BE SPLICED.
- OPENINGS SHALL NOT BE FIELD-CUT IN THE FLANGE OR WEBS OF STEEL MEMBERS.
- GALVANIZED STRUCTURAL STEEL SHALL CONFORM TO ASTM A123 FOR MEMBERS AND ASTM A153 FOR CONNECTION ELEMENTS. REPAIR ANY DAMAGED GALVANIZING COATING IN ACCORDANCE WITH ASTM A780.

STRUCTURAL WOOD

- ALL WOOD STRUCTURES HAVE BEEN DESIGNED IN ACCORDANCE WITH THE BUILDING CODE AND THE LATEST EDITION OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS).
- THIS STRUCTURE IS DESIGNED AS CONVENTIONAL FIELD FRAMED CONSTRUCTION. SHOULD PANELIZED CONSTRUCTION BE USED, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL ENGINEERING, COORDINATION WITH ALL OTHER BUILDING SYSTEMS AND REVIEW OF SHOP DRAWINGS. COORDINATION AND REVIEW OF PANELIZED CONSTRUCTION SHOP DRAWINGS ARE NOT INCLUDED IN THE ENGINEER OF RECORD'S SCOPE OF SERVICES FOR THIS PROJECT. REQUESTS FOR INFORMATION PERTAINING TO, OR DIRECTLY ASSOCIATED WITH, PANELIZED CONSTRUCTION WILL NOT BE REVIEWED.
- MANUFACTURED WOOD PRODUCTS SHALL BE BY I-LEVEL UNLESS NOTED OTHERWISE.
- THE DESIGN OF THE STRUCTURE IS BASED UPON THE USE OF THE FOLLOWING WOOD PRODUCTS:

USE	WOOD TYPE	GRADE	F _b (PSI)	F _{cp} (PSI)	E (PSI)
JOISTS (2 X 8) (2 X 10) (2 X 12)	SOUTHERN PINE	#2	925	1,350	1,400,000
	SOUTHERN PINE	#2	800	1,300	1,400,000
	SOUTHERN PINE	#2	750	1,250	1,400,000
STUDS (2 X 4) (2 X 6)	SPRUCE-PINE-FIR	#1/#2	875	1,150	1,400,000
	SPRUCE-PINE-FIR	#1/#2	875	1,150	1,400,000
COLUMNS (4 X 4) (6 X 6)	SOUTHERN PINE	#1	1,500	1,650	1,600,000
	SOUTHERN PINE	#1	1,350	1,550	1,500,000
ANTHONY POWER BEAM	-----	----	3,000	740	2,100,000
LSL (TIMBERSTRAND)	-----	----	2,325	2,050	1,550,000
LVL (MICROLLAM)	-----	----	2,600	2,510	1,900,000
PSL (PARALLAM)	BEAM	----	2,900	2,900	2,000,000
	COLUMN	----	2,400	2,500	1,800,000
PILE	SOUTHERN PINE	----	1,950	1,250	1,500,000

ALL MEMBERS SHALL BE SURFACED DRY AND HAVE A MAXIMUM MOISTURE CONTENT OF 19%. STRESS INCREASE SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NDS.

- ROOF SHEATHING SHALL BE 1 1/2" APA RATED PLYWOOD OR ORIENTED STRAND BOARD, 40/20 SPAN RATING, EXPOSURE 1, LAID IN A CONTROLLED RANDOM STAGGERED PATTERN, WITH EDGE CLIPS BETWEEN SUPPORTS, LONG PANEL DIMENSION PERPENDICULAR TO THE FRAMING MEMBERS, AND CONTINUOUS OVER A MINIMUM OF THREE SUPPORTS. ALLOW FOR 1/8" GAP AT ALL PANEL EDGE AND END JOINTS UNLESS OTHERWISE RECOMMENDED BY MANUFACTURER.
- SHEAR WALL SHEATHING SHALL BE 1 1/2" APA RATED PLYWOOD OR ORIENTED STRAND BOARD, EXPOSURE 1. PROVIDE SOLID BLOCKING AT ALL PANEL EDGES IN SHEAR WALLS. ALLOW FOR 1/8" GAP AT ALL PANEL EDGE AND END JOINTS UNLESS OTHERWISE RECOMMENDED BY MANUFACTURER.
- ALL WOOD PRODUCTS IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED WITH CCA-C, ACQ, CBA-A, CA-B OR SBX AND SHALL NOT BE IN CONTACT WITH SOIL.
- CONNECTIONS SHALL MEET THE FOLLOWING REQUIREMENTS:
 - PROVIDE ANCHOR RODS AND HOLD-DOWNS FOR ANCHORAGE OF SHEAR WALL TO FOUNDATION AS INDICATED ON PLANS, DETAILS, AND SCHEDULES. ALL SHEAR WALL SILL PLATE ANCHOR RODS REQUIRE 0.229"x3"x3" SLOTTED PLATE WASHERS BE INSTALLED BETWEEN THE HEAD OR NUT AND THE WOOD MEMBER. THE PLATE WASHER SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDES WITH SHEATHING.
 - ALL SILL PLATE ANCHOR RODS REQUIRE 2"x2" SQUARE PLATE WASHERS BE INSTALLED BETWEEN THE HEAD AND THE WOOD MEMBER. ANCHORS TO FOUNDATION SHALL BE 3/8" DIAMETER, WITHIN 12" OF EACH END, AND 48" O.C., MAXIMUM.
 - ALL BOLTS SHALL BE ASTM A307. WASHERS WITH AN OUTSIDE DIAMETER EQUAL TO AT LEAST TWICE THE BOLT DIAMETER ARE REQUIRED BETWEEN THE BOLT HEAD OR NUT AND THE WOOD SURFACE.

- WOOD MEMBERS SHALL BE CONNECTED TOGETHER USING THE BUILDING CODE NAILING SCHEDULE, UNLESS NOTED OTHERWISE. ALL CONNECTIONS ARE BASED ON USING COMMON NAILS. ANY SUBSTITUTION OF BOX, SINKER, RING SHANK OR COOLER NAILS SHALL BE SUBMITTED WITH SEALED CALCULATIONS TO THE ENGINEER OF RECORD FOR APPROVAL. ALL OTHER FASTENERS, INCLUDING STAPLES, ARE PROHIBITED. ALL NAILS SHALL CONFORM TO THE FOLLOWING MINIMUM STANDARDS:

SIZE	LENGTH	DIAMETER	HEAD
6d	2"	0.113"	FULL ROUND HEAD
8d	2 1/2"	0.131"	FULL ROUND HEAD
10d	3"	0.148"	FULL ROUND HEAD
12d	3 1/2"	0.148"	FULL ROUND HEAD
16d	3 1/2"	0.162"	FULL ROUND HEAD
20d	4"	0.192"	FULL ROUND HEAD
30d	4 1/2"	0.207"	FULL ROUND HEAD

SIZE	LENGTH	DIAMETER	HEAD
6d	2"	0.113"	FULL ROUND HEAD
8d	2 1/2"	0.131"	FULL ROUND HEAD
10d	3"	0.148"	FULL ROUND HEAD
12d	3 1/2"	0.148"	FULL ROUND HEAD
16d	3 1/2"	0.162"	FULL ROUND HEAD
20d	4"	0.192"	FULL ROUND HEAD
30d	4 1/2"	0.207"	FULL ROUND HEAD

- ALL FASTENERS (SCREWS, NAILS, BOLTS, ETC.) AND CONNECTORS INSTALLED IN CONTACT WITH PRESSURE TREATED LUMBER SHALL MEET THE REQUIREMENTS OF THE "COMPATIBILITY OF FASTENERS AND CONNECTORS WITH PRESSURE TREATED LUMBER" TABLE.
- NAIL ROOF SHEATHING WITH 10d COMMON NAILS AT 6" O.C. ALONG PANEL EDGES AND AT 12" O.C. AT INTERMEDIATE SUPPORTS.
- NAIL WALL SHEATHING WITH 10d COMMON NAILS AT 6" O.C. ALONG PANEL EDGES AND AT 12" O.C. AT INTERMEDIATE SUPPORTS, UNLESS NOTED OTHERWISE AS A SHEAR WALL. NAIL SHEAR WALL SHEATHING PER SHEAR WALL SCHEDULE. REF. PLAN FOR SHEAR WALL LOCATIONS.
- ALL MANUFACTURED CONNECTORS SHALL BE BY SIMPSON STRONG-TIE COMPANY, INC., OR U.S.P., AND CONNECTED WITH THE FASTENERS SPECIFIED BY THE MANUFACTURER.
- FASTEN MULTIPLE LAYER MANUFACTURED WOOD MEMBERS TOGETHER IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE BRIDGING AT 8'-0" O.C. MAXIMUM FOR JOISTS AND RAFTERS USING SOLID BLOCKING UNLESS RIGID CEILING IS FASTENED DIRECTLY TO THE JOIST OR RAFTER.
- STAGGER SPLICES OF DOUBLE TOP PLATES 4'-0" MINIMUM.
- WOOD HEADERS AND LINTELS SHALL BEAR ON TOP OF A SINGLE STUD AT EACH END FOR OPENINGS LESS THAN 3'-8", BEAR ON TOP OF DOUBLE STUDS FOR OPENINGS GREATER THAN 3'-8" AND LESS THAN 8'-0", AND TRIPLE STUDS FOR OPENINGS GREATER THAN 8'-0", UNLESS NOTED OTHERWISE. SUPPORT STUDS SHALL BE CONNECTED TO AN ADJACENT FULL LENGTH STUD.
- MAINTAIN 1/4" GAP BETWEEN TRUSS BOTTOM CHORD AND DOUBLE TOP PLATE OF INTERIOR NON-LOAD BEARING PARTITION WALLS. PROVIDE SIMPSON STC CONNECTORS.
- HOLES SHALL BE PREDRILLED FOR ALL WOOD SCREW CONNECTIONS. PREDRILLED HOLE DIAMETERS SHALL BE:

SCREW DIAMETER	HOLE DIAMETER
NO. 8	3/32"
NO. 10	7/64"
NO. 12	1/8"

13. STRUCTURAL INSULATED PANELS SHALL BE R-CONTROL (OR APPROVED EQUAL). THE TOP SKIN SHALL BE A MINIMUM OF 7/16" THICKNESS. THE BOTTOM SKIN SHALL BE A MINIMUM OF 19/32" THICKNESS.

POST INSTALLED ANCHORING SYSTEMS

- SUBSTITUTION OF POST INSTALLED ANCHORS FOR EMBEDDED ANCHORS SHOWN ON THE DRAWINGS WILL NOT BE PERMITTED UNLESS APPROVED BY THE ENGINEER IN ADVANCE.
- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII) AND THE EVALUATION REPORT (ER/ESR) SPECIFIED INCLUDING HOLE PREPARATION, TEMPERATURE AND MOISTURE CONDITIONS.
- ADHESIVE ANCHORS:
 - THE CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL ANCHOR PRODUCTS SPECIFIED. THE CONTRACTOR MUST MAINTAIN TRAINING RECORDS OF ALL CONTRACTOR PERSONNEL INSTALLING ANCHORS AND SUBMIT TO THE ENGINEER OF RECORD PRIOR TO INSTALLING ANCHORS UPON REQUEST.
 - ADHESIVE ANCHORS SHALL BE USED IN CONJUNCTION WITH THE APPROPRIATE ADHESIVE SYSTEM. STANDARD REINFORCING STEEL ANCHORED IN CONCRETE SHALL BE IN ACCORDANCE WITH ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE.
 - APPROVED ADHESIVE ANCHORS FOR PREVIOUSLY CAST CONCRETE:

MANUFACTURER/PRODUCT	USE	REPORT NUMBER
HILTI HIT-HY200 SSS* WITH HIT-Z ROD	TREATED WOOD 2X TO CONCRETE	ICC-ES ESR-3187
HILTI HIT-HY200 SSS* WITH HOLLOW BIT & HAS-E ROD	TREATED WOOD 2X TO CONCRETE	ICC-ES ESR-3187
HILTI HIT-HY200 SSS* WITH HOLLOW BIT & STEEL REINFORCING *SAFE SET SYSTEM	TREATED WOOD 2X TO CONCRETE	ICC-ES ESR-3187
SIMPSON STRONG-TIE SET-XP WITH SPEED CLEAN DXS SYSTEM		ICC-ES ESR-2508
SIMPSON STRONG-TIE AT-XP WITH SPEED CLEAN DXS SYSTEM		IAPMO-UES ER-263
- POWDER ACTUATED FASTENERS
 - WHEN CALLED FOR ON THE PLANS, THE APPROVED ANCHORS ARE:

MANUFACTURER AND PRODUCT	USE	REPORT NUMBER
HILTI X-CP-72	TREATED WOOD 2X TO CONCRETE	ICC-ES ESR-2379
SIMPSON STRONG-TIE PDPAW	TREATED WOOD 2X TO CONCRETE	ICC-ES ESR-2138

CONTRACT/CONSTRUCTION DOCUMENTS

- THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN A FULL SET OF THE MOST RECENT REVISIONS OF EACH DOCUMENT INCLUDING ALL PLANS, SPECIFICATIONS, ADDENDA, AND SUPPLEMENTAL INSTRUCTIONS.
- THE CONTRACTOR SHALL REVIEW THE DOCUMENTS PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY MATERIALS FOR CONFLICTS. IF CONFLICTS OCCUR THE CONTRACTOR SHALL USE THE MOST STRINGENT REQUIREMENT OR REQUEST A CLARIFICATION THROUGH A REQUEST FOR INFORMATION (RFI).
- THE DOCUMENTS MAY NOT BE REPRODUCED IN WHOLE OR IN PART FOR USE ON PROJECTS OTHER THAN IDENTIFIED IN THE TITLE BLOCK. SHOULD THE CONTRACTOR USE THE DOCUMENTS AS A PORTION OF A SHOP DRAWING SUBMITTAL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CONSEQUENCES RESULTING FROM ERRORS IN THE REPRODUCED DOCUMENTS.
- DETAILS LABELED TYPICAL ARE INTENDED TO REPRESENT A CONDITION THAT OCCURS AT SEVERAL LOCATIONS IN THE PLANS WHETHER OR NOT THE DETAIL IS REFERENCED.
- DO NOT SCALE THE PLANS AND DETAILS FOR THE PURPOSE OF ESTABLISHING DIMENSIONS.

CONTRACTOR'S RESPONSIBILITY

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL SUB-CONTRACTOR SUBMITTALS AND NOTING ALL DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS PRIOR TO SUBMITTING TO THE ENGINEER FOR REVIEW.
- SUBSTITUTION REQUESTS SHALL BE SUBMITTED IN WRITING WITH THE COST REDUCTION AMOUNT AND THE SCHEDULE IMPACT FOR THE OWNER (SUBMITTALS WITHOUT THE COST AND SCHEDULE IMPACT WILL NOT BE REVIEWED). A COMPARISON OF THE DATA WITH THE MATERIAL SPECIFIED INCLUDING CODE APPROVALS SHALL BE PROVIDED.
- REQUESTS FOR INFORMATION (RFI) SHALL BE SUBMITTED IN WRITING WITH COST, SCHEDULE IMPACT, AND SUGGESTED SOLUTION INCLUDED. AN RFI THAT DOES NOT INCLUDE THE COST AND SCHEDULE IMPACT WILL NOT BE REVIEWED.
- DEFECTIVE WORK REPORT (DWR) SHALL BE SUBMITTED TO THE ENGINEER WITHIN (2) WORKING DAYS OF THE OCCURRENCE. THE DWR SHALL REPORT THE DEFECT AND PROPOSE A REMEDIATION OF THE DEFECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE REMEDIATION OF THE DEFECT INCLUDING ENGINEERING COSTS, IF ANY.
- WHEN THE CONTRACTOR BECOMES AWARE OF WHAT MAY BE AN UNFORESEEN CONDITION THAT COULD AFFECT COST OR SCHEDULE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING WITHIN (2) WORKING DAYS. AFTER REVIEW AND ENGINEER'S DETERMINATION THAT AN UNFORESEEN CONDITION EXISTS; THE CONTRACTOR SHALL SUBMIT A CHANGE ORDER REQUEST FOR APPROVAL WITH BOTH COST AND SCHEDULE IMPACT ATTACHED.
- THE CONTRACTOR'S SCHEDULE MUST PROVIDE A REASONABLE TIME ALLOWANCE FOR THE ENGINEERING REVIEW AND APPROVAL.
- THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR SITE SAFETY. THE ENGINEER IS RESPONSIBLE FOR FOLLOWING THE CONTRACTOR'S CONSTRUCTION SITE SAFETY INSTRUCTIONS PROVIDED IN WRITING. ALTERNATELY, THE CONTRACTOR SHALL ASSIGN AN ESCORT TO ADVISE THE ENGINEER OF SITE SAFETY ISSUES DURING SITE VISITS. THE ENGINEER'S PURPOSE OF A SITE VISIT IS SOLELY TO BECOME FAMILIAR WITH THE GENERAL PROGRESS AND QUALITY OF THE PROJECT. THE ENGINEER'S SITE VISIT IS NOT A QUALITY CONTROL FUNCTION.

CONSTRUCTION MEANS AND METHODS ISSUES

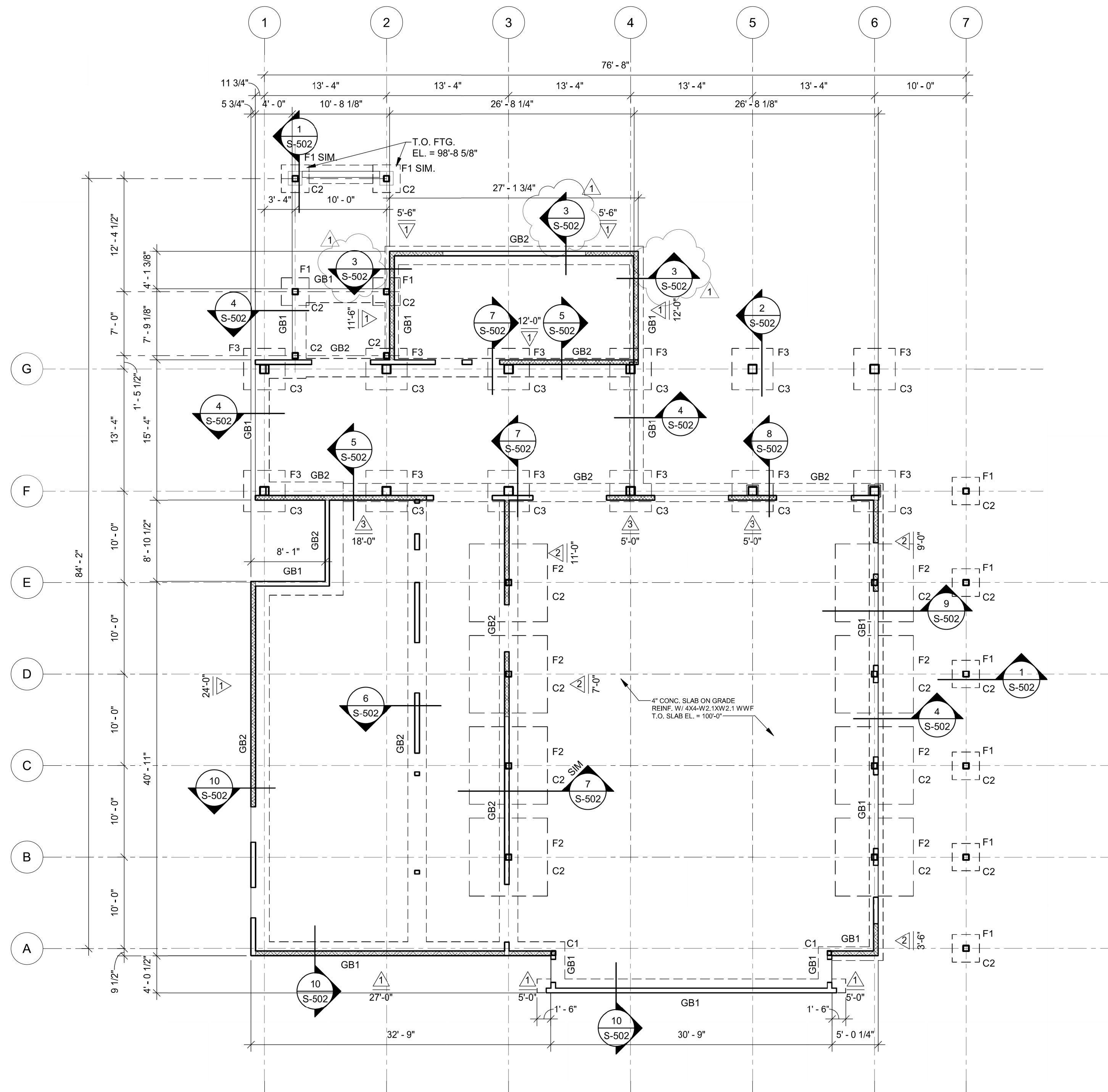
- SLAB ON GRADE AND ELEVATED SLABS ARE NOT DESIGNED TO SUPPORT CRANES, FORKLIFTS, TRUCKS, MANLIFTS, OR OTHER CONSTRUCTION RELATED EQUIPMENT UNLESS NOTED AS SUCH. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE IF CONSTRUCTION EQUIPMENT CAN BE SAFELY OPERATED ON THESE SLABS AND TO REPAIR ANY DAMAGE THE EQUIPMENT MAY CAUSE.
- THE CONSTRUCTION DOCUMENTS REPRESENT A STABLE STRUCTURE IN THE COMPLETED FORM. THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY BRACING AND/OR SHORES TO SAFELY CONSTRUCT THE BUILDING AND PREVENT DAMAGE DURING CONSTRUCTION.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION THAT MAY AFFECT THE PROJECT AND REPORT DISCREPANCIES TO THE ENGINEER. ANY DIMENSIONS FOR ELEVATIONS THAT IMPACT NEW WORK SHALL BE VERIFIED PRIOR TO FABRICATION OF ANY MATERIAL. EXISTING BUILDING ELEMENTS THAT ARE TO BE ABANDONED THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED.
- WHEN A PIECE OF EQUIPMENT (HVAC, ELECTRICAL, KITCHEN, ETC.) IS PROVIDED THAT IS DIFFERENT THAN THE EQUIPMENT THAT THE STRUCTURE WAS DESIGNED FOR EITHER BY SIZE, WEIGHT OR CONFIGURATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE REMEDY OF THE SITUATION. THOSE COSTS SHALL INCLUDE THE ENGINEERING COSTS TO REDESIGN PORTIONS OF THE STRUCTURE TO ACCOMMODATE THE SUBSTITUTED EQUIPMENT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRUCTURAL DESIGN AND MATERIALS FOR ATTACHING NON-STRUCTURAL ELEMENTS TO ANY PORTION OF THE STRUCTURE TO RESIST ALL LOADS, INCLUDING SEISMIC, IN A WAY THAT DOES NOT OVERSTRESS STRUCTURAL MEMBERS. NON-STRUCTURAL ELEMENTS CAN BE FOUND IN EACH OF THE OTHER DISCIPLINES (ARCHITECTURAL, MECHANICAL, ELECTRICAL, ETC.).

STRUCTURAL TESTS, INSPECTIONS, AND QUALITY ASSURANCE

ALL STRUCTURAL TESTS AND INSPECTIONS SHALL BE PERFORMED PER CHAPTER 17 OF THE BUILDING CODE WITH LOCAL SUPPLEMENTS, UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED.

REQUIRED VERIFICATION & INSPECTION OF SOILS	
VERIFICATION AND INSPECTION	FREQUENCY
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	Periodic
2. Verify excavations are extended to proper depth and have reached proper material.	Periodic
3. Perform classification and testing of compacted fill materials.	Periodic
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	Continuous
5. Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.	Periodic

REQUIRED SPECIAL INSPECTION AND TESTS OF CONCRETE CONSTRUCTION			
VERIFICATION AND INSPECTION	FREQUENCY	REFERENCED STANDARD	IBC REFERENCE
1. Inspect reinforcement, including prestressing tendons, and verify placement.	Periodic	ACI 318 Ch. 20, 25.2, 25.3, 26.5.1-26.5.3	1908.4
2. Reinforcing bar welding: a. Verify weldability of reinforcing bars other than ASTM A 706 b. Inspect single-pass fillet welds, maximum 5/16" c. Inspect all other welds.	Periodic	AWS D1.4 ACI 318: 26.5.4	
	Periodic		
	Continuous		
3. Inspect anchors cast in concrete.	Periodic	ACI 318: 17.8.2	
4. Inspection of anchors post installed in hardened concrete members. a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads. b. Mechanical anchors and adhesive anchors not defined in 4.a.	Continuous	ACI 318: 17.8.2.4	
	Periodic	ACI 318: 17.8.2	
5. Verifying use of required mix design.	Periodic	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
6. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	Continuous	ASTM C172, ASTM C31, ACI 318: 26.4.5, 26.12	1908.10
7. Inspection of concrete and shotcrete placement for proper application techniques.	Continuous	ACI 318: 26.4.5	1908.6, 1908.7, 1908.8
8. Verify maintenance of specified curing temperature and techniques.	Periodic	ACI 318: 26.4.7-26.4.9	1908.9
9. Inspection of prestressed concrete for: a. Application of prestressing forces; and b. Grouting of bonded prestressing tendons.	Continuous	ACI 318: 26.9.2.1	
	Continuous	ACI 318: 26.9.2.3	
10. Inspect erection of precast concrete members.	Periodic	ACI 318: Ch. 26.8	
11. Verification of in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.	Periodic	ACI 318: 26.10.2	
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.	Periodic	ACI 318: 26.10.1(b)	



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

FOUNDATION PLAN NOTES:

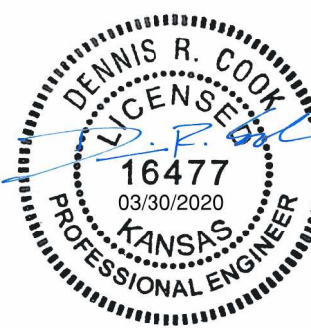
- TOP OF FOUNDATION 99'-4" UNLESS NOTED OR DETAILED OTHERWISE.
- SEE SHEET S0.1, S0.2 AND S0.3 FOR GENERAL STRUCTURAL NOTES AND SHEET S0.4 FOR SPECIAL INSPECTION REQUIREMENTS.
- CENTER ALL COLUMN FOOTINGS BELOW GRID LINE INTERSECTIONS UNLESS SHOWN OR NOTED OTHERWISE.
- SEE DETAILS 1/SS.1 FOR TYPICAL SLAB JOINT DETAILS AND 2/SS.1 FOR CORNER BAR DETAIL.
- SEE DETAIL 3/SS.1 FOR THICKENED FOOTING DETAIL WHEN SUBGRADE PLUMBING FLOWLINE IS LESS THAN 2'-0" BELOW BOTTOM OF THE GRADE BEAM, TYP.
- PROVIDE 1/2" E.J. MATERIAL BETWEEN EXTERIOR CONCRETE AND THE BUILDING, TYPICAL.
- SEE DETAIL 6/SS.1 FOR TYPICAL SLAB OPENINGS.
- SEE DETAIL 5/SS.1 FOR TYPICAL ISOLATION JOINT AT EACH STEEL COLUMN.
- REFERENCE MECHANICAL FOR MISCELLANEOUS FLOOR DRAINS AND OTHER SLAB PENETRATIONS.
- REFERENCE ARCHITECTURAL DRAWINGS FOR NON-LOAD-BEARING WALLS.
- PROVIDE (2) #4X4'-0" @ ALL RE-ENTRANT CORNERS WHERE SLAB JOINTS DO NOT TERMINATE AT CORNER.

FOUNDATION PLAN NOTES:

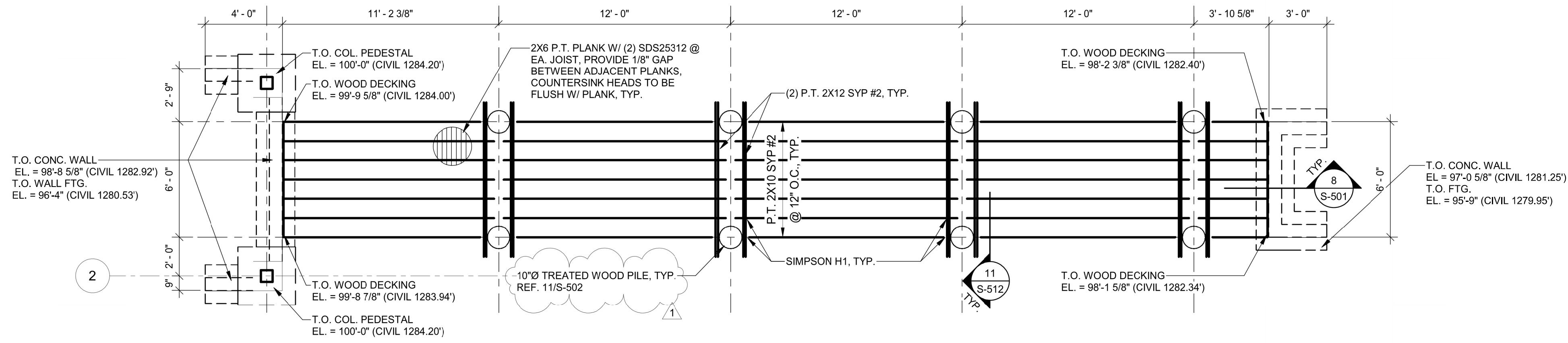
- TOP OF FOUNDATION 99'-4" UNLESS NOTED OR DETAILED OTHERWISE.
- REFERENCE SHEET S-001 AND S-002 FOR GENERAL STRUCTURAL NOTES AND S-003 FOR SPECIAL INSPECTION REQUIREMENTS.
- CENTER ALL COLUMN FOOTINGS BELOW GRID LINE INTERSECTIONS UNLESS SHOWN OR NOTED OTHERWISE.
- REFERENCE 1 AND 2/S-501 FOR TYPICAL SLAB JOINT DETAILS AND CORNER BAR DETAILS.
- REFERENCE 3/S-501 FOR THICKENED FOOTING DETAIL WHEN SUBGRADE PLUMBING FLOWLINE IS LESS THAN 2'-0" BELOW BOTTOM OF THE GRADE BEAM, TYP.
- PROVIDE 1/2" E.J. MATERIAL BETWEEN EXTERIOR CONCRETE AND THE BUILDING, TYPICAL.
- REFERENCE 4/S-501 FOR TYPICAL SLAB OPENINGS.
- REFERENCE ARCHITECTURAL DRAWINGS FOR NON-LOAD-BEARING WALLS.
- PROVIDE (2) #4X4'-0" @ ALL RE-ENTRANT CORNERS WHERE SLAB JOINTS DO NOT TERMINATE AT CORNER.

PLAN MARKS:

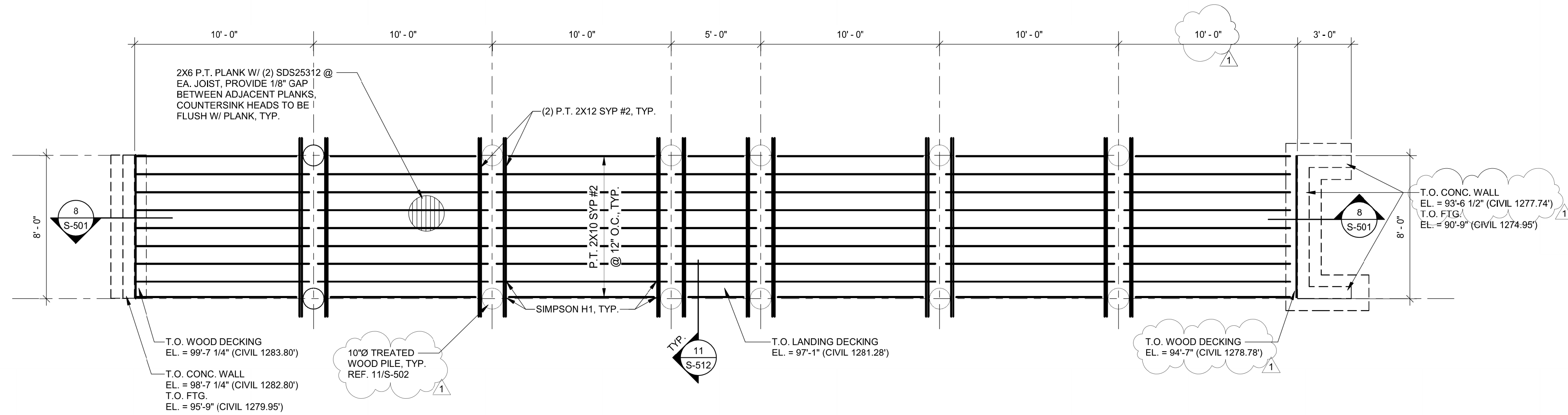
- C#** COLUMN MARK, REFERENCE SHEET S-601
- F#** FOOTING MARK, REFERENCE SHEET S-601
- LENGTH** SHEAR WALLS, REFERENCE SHEAR WALL SCHEDULE ON SHEET S-601



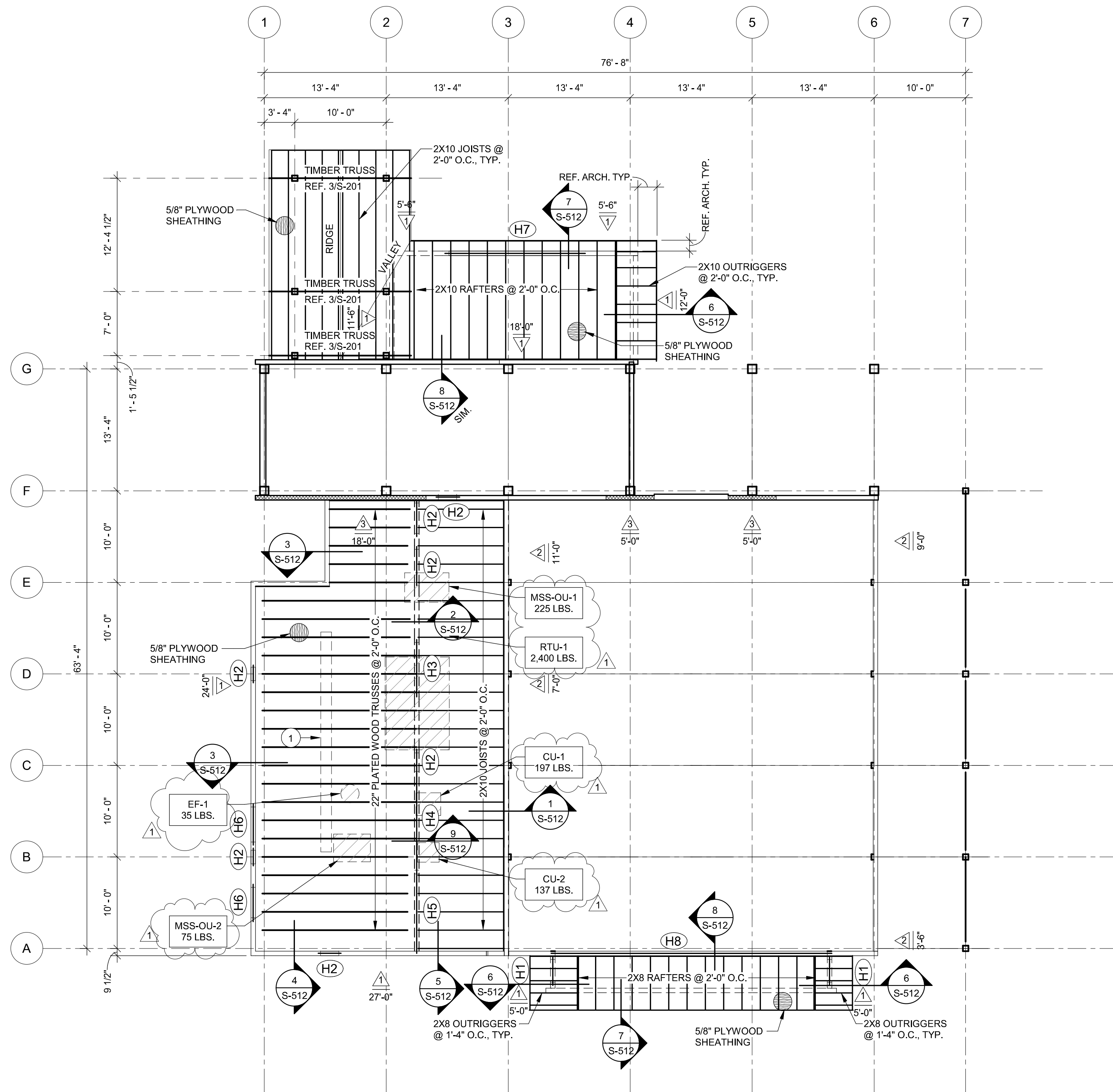
3/27/2020 11:06:45 AM
 BIM 360://198014-003 - Watson Park Events Center New Building/198014_MASTER
 STRUCT_R19.rvt



1 EAST BRIDGE FRAMING PLAN
 1/4" = 1'-0"



2 SOUTH BRIDGE FRAMING PLAN
 1/4" = 1'-0"



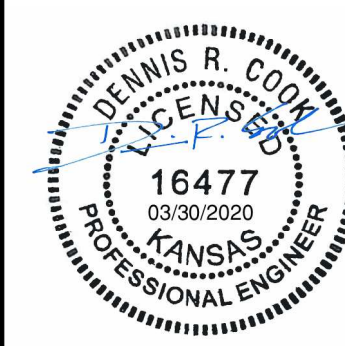
1 LOW ROOF FRAMING PLAN
 1/8" = 1'-0"

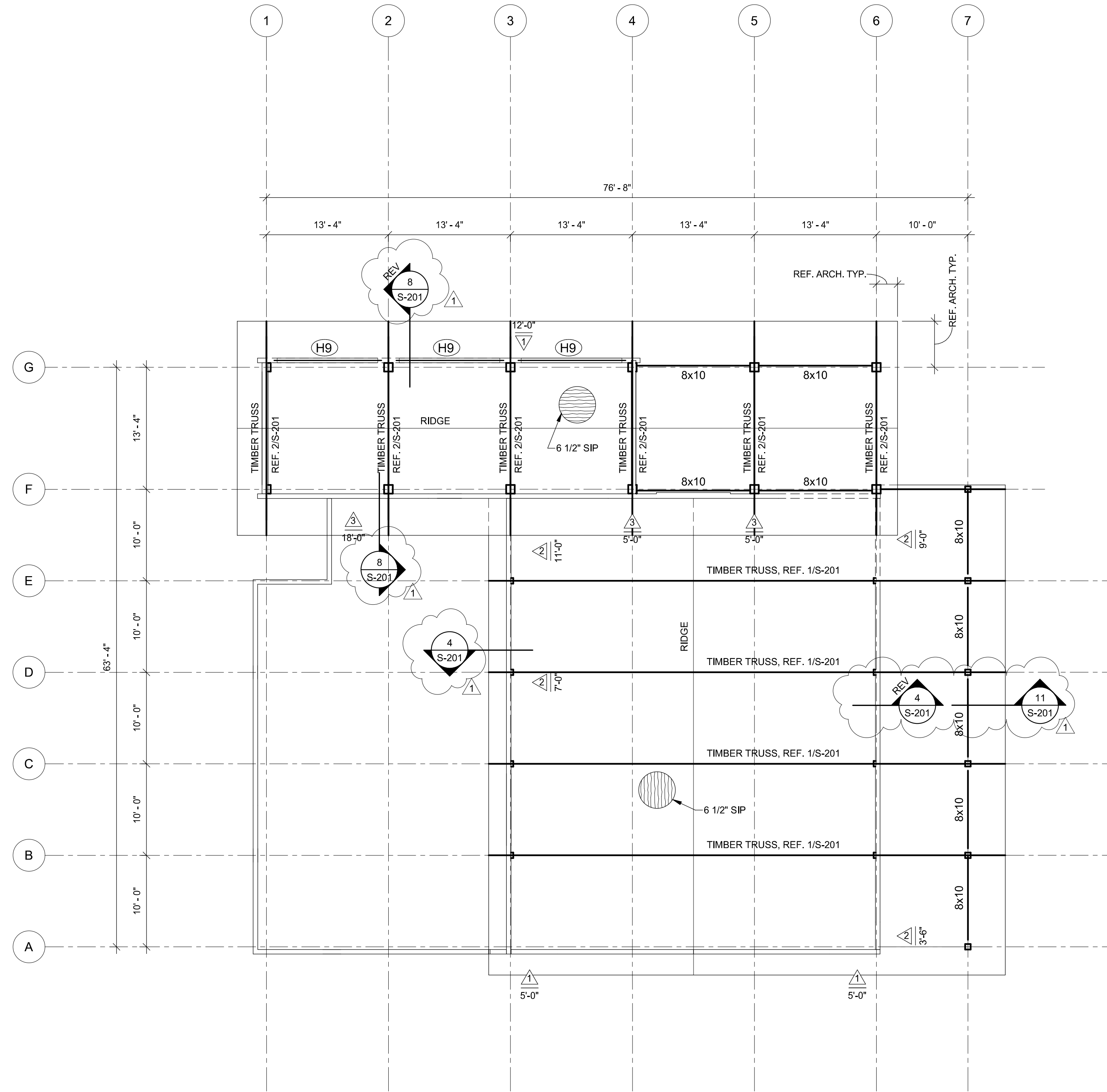
ROOF FRAMING NOTES:

- REFERENCE SHEET S-001 AND S-002 FOR GENERAL STRUCTURAL NOTES AND S-003 FOR SPECIAL INSPECTION REQUIREMENTS.

PLAN MARKS:

- LENGTH** SHEAR WALLS, REFERENCE SHEAR WALL SCHEDULE ON SHEET S-602
- H#** HEADER MARK, REFERENCE HEADER SCHEDULE ON S-602
- 1** PROVIDE RECTANGULAR OPENING IN TRUSS WEB CONFIGURATION FOR MECHANICAL, REF. 10/S-512





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

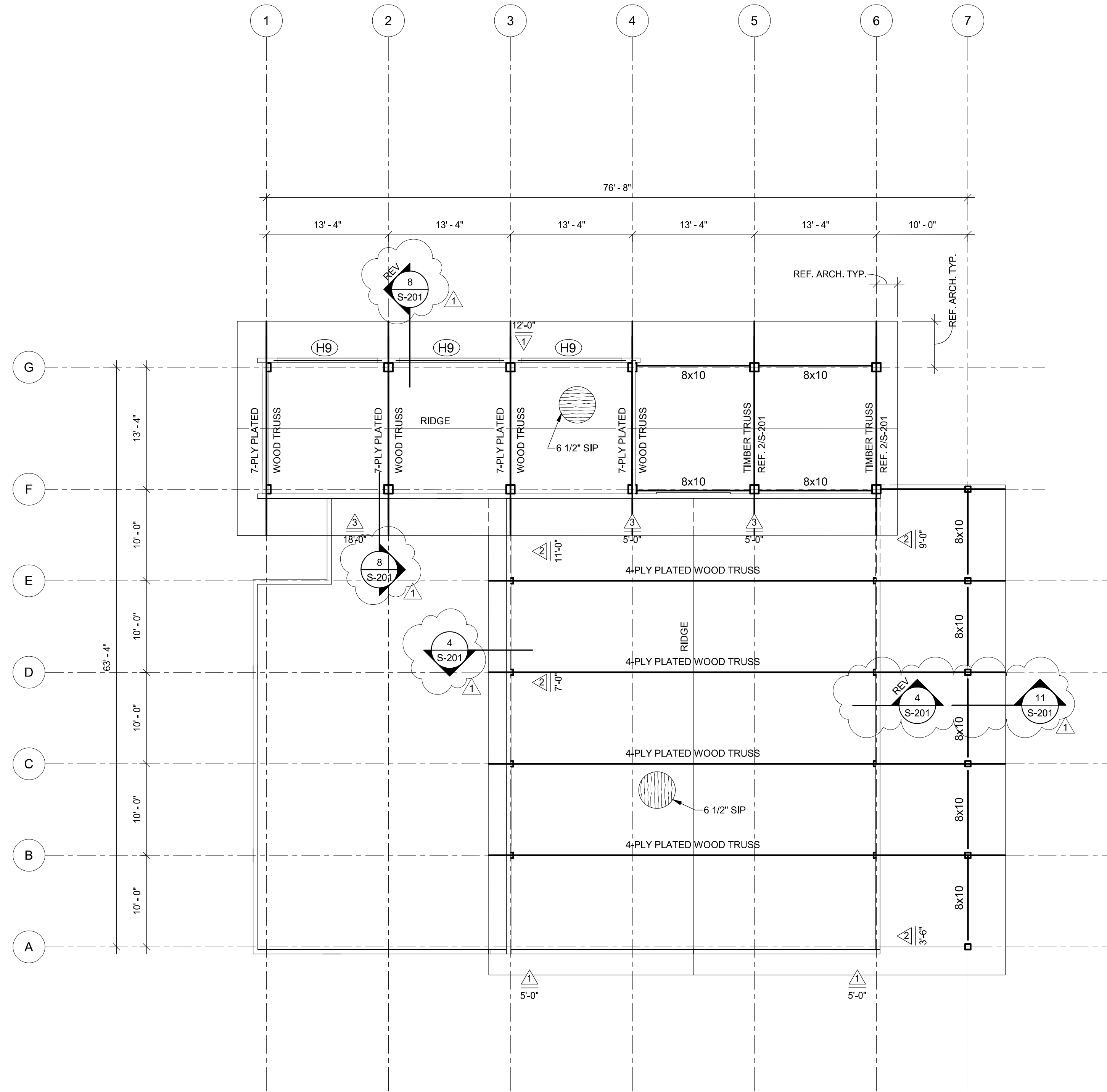
ROOF FRAMING NOTES:

- REFERENCE SHEET S-001 AND S-002 FOR GENERAL STRUCTURAL NOTES AND S-003 FOR SPECIAL INSPECTION REQUIREMENTS.

PLAN MARKS:

LENGTH
 SHEAR WALLS, REFERENCE SHEAR WALL SCHEDULE ON SHEET S-602

3/27/2020 11:06:48 AM
 BIM 360://198014-003 - Watson Park Events Center New Building/198014_MASTER
 STRUCT_R19.rvt



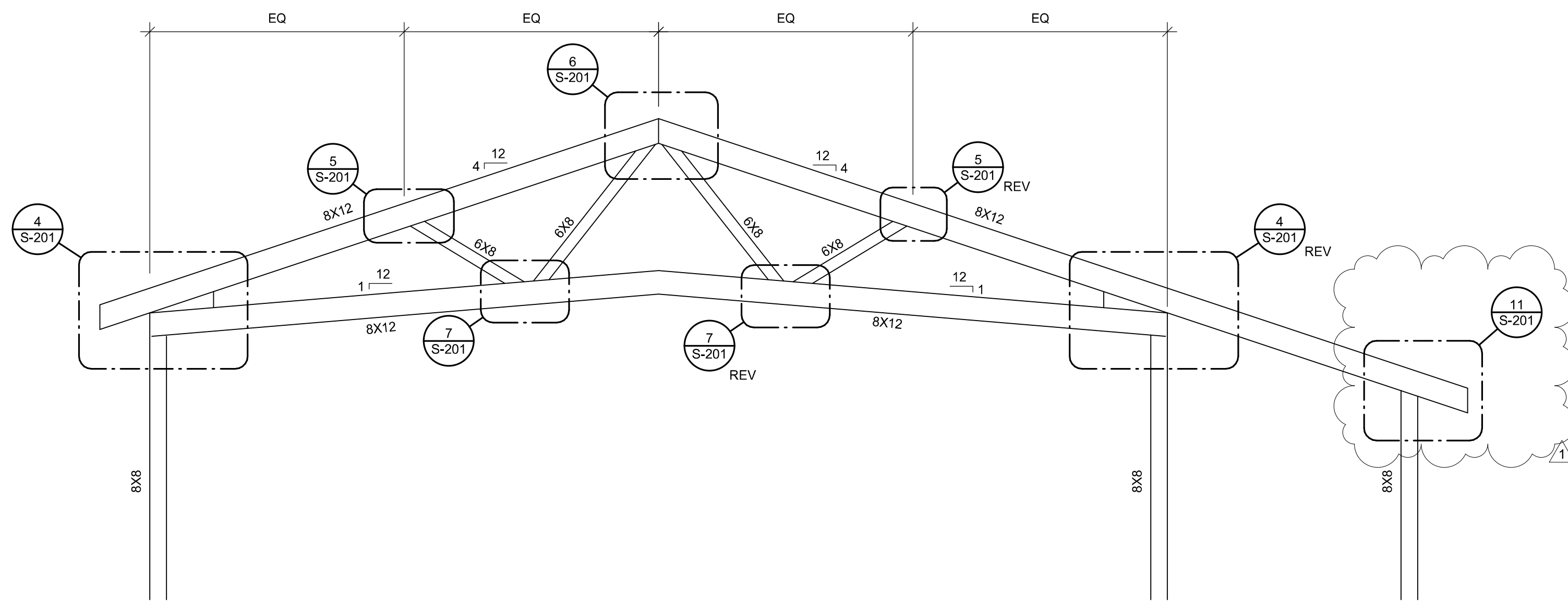
ROOF FRAMING NOTES:

- REFERENCE SHEET S-001 AND S-002 FOR GENERAL STRUCTURAL NOTES AND S-003 FOR SPECIAL INSPECTION REQUIREMENTS.

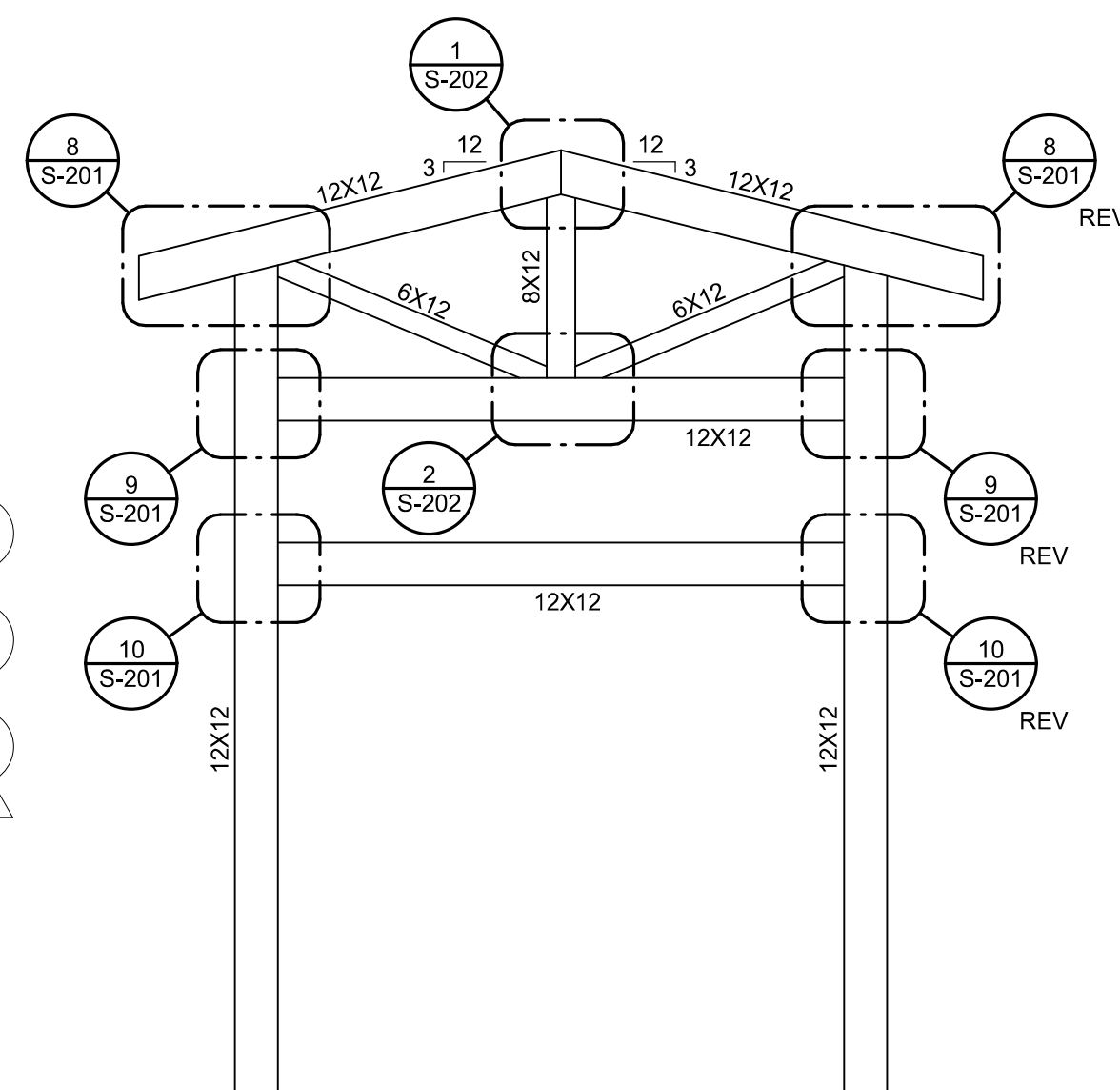
PLAN MARKS:

LENGTH
 SHEAR WALLS, REFERENCE SHEAR WALL SCHEDULE ON SHEET S-602

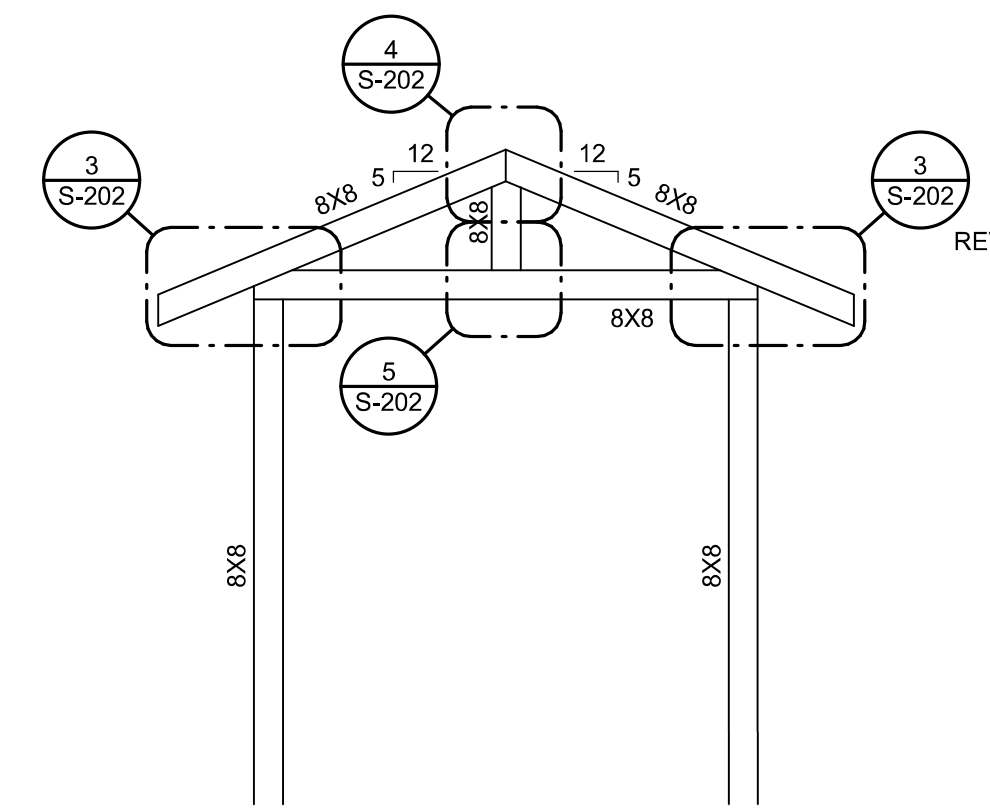
1 HIGH ROOF FRAMING PLAN - ADD./ALT. #2
 1/8" = 1'-0"



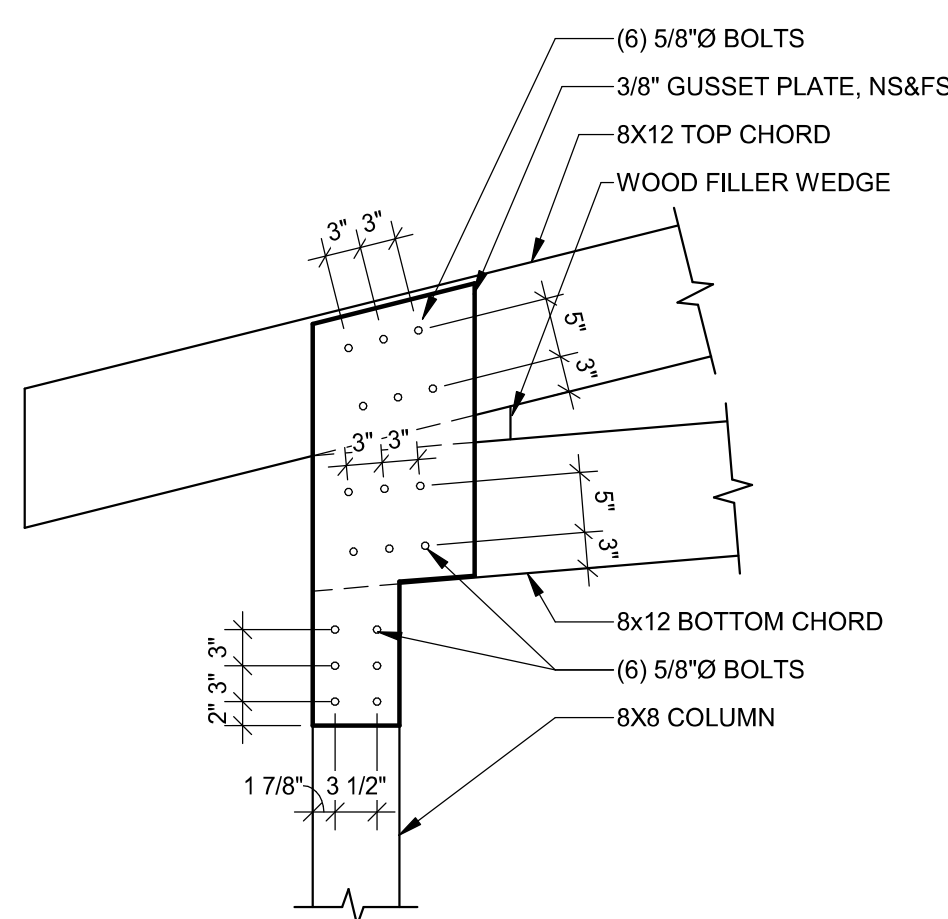
1 **TIMBER TRUSS**
1/4" = 1'-0"



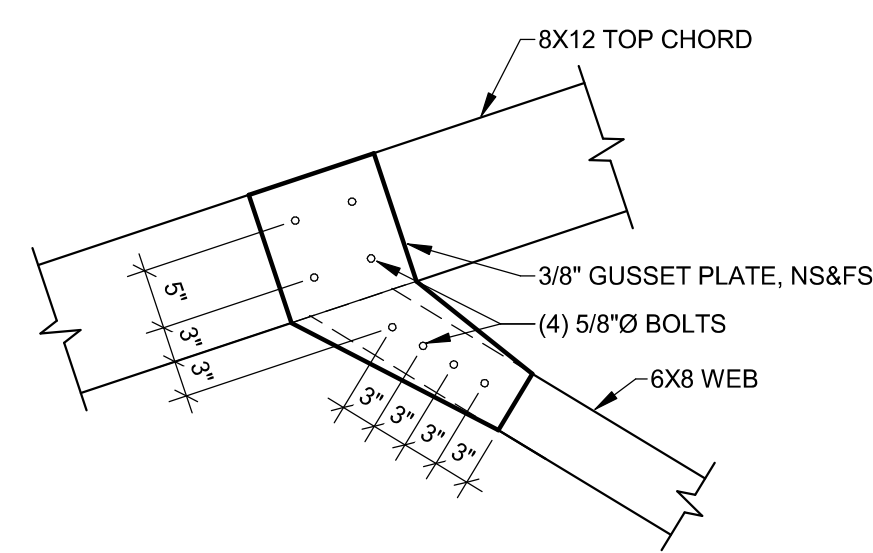
2 **TIMBER TRUSS**
1/4" = 1'-0"



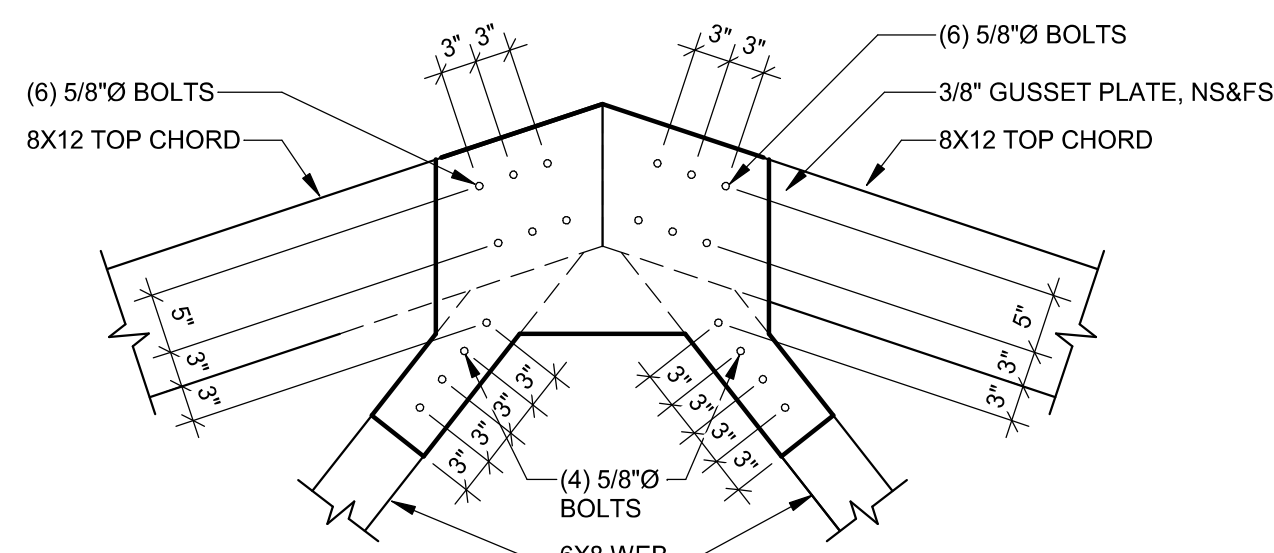
3 **ENTRY CANOPY TRUSS**
1/4" = 1'-0"



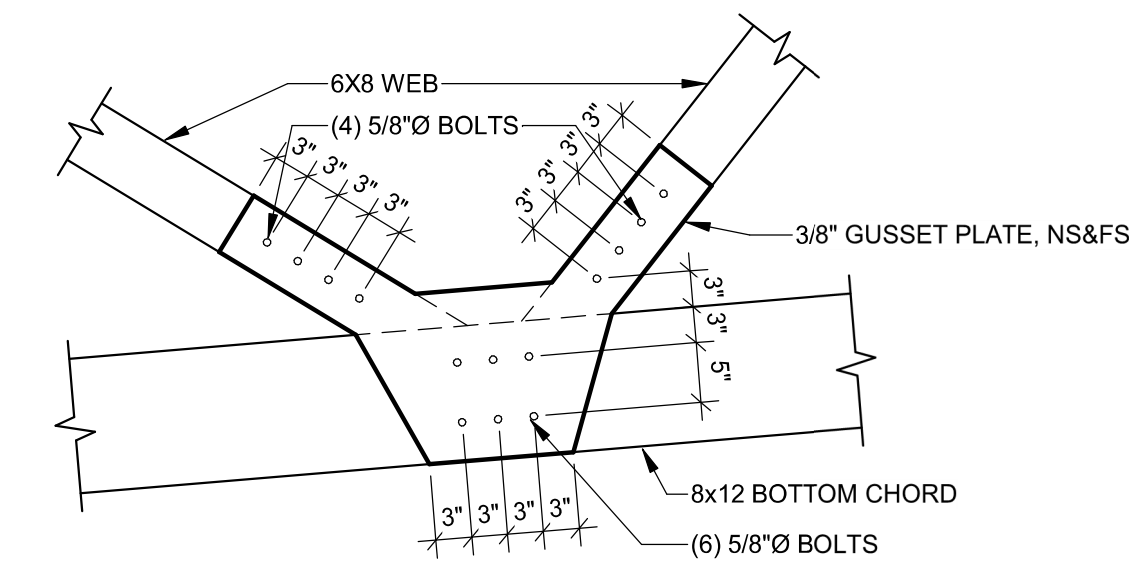
4 **DETAIL**
3/4" = 1'-0"



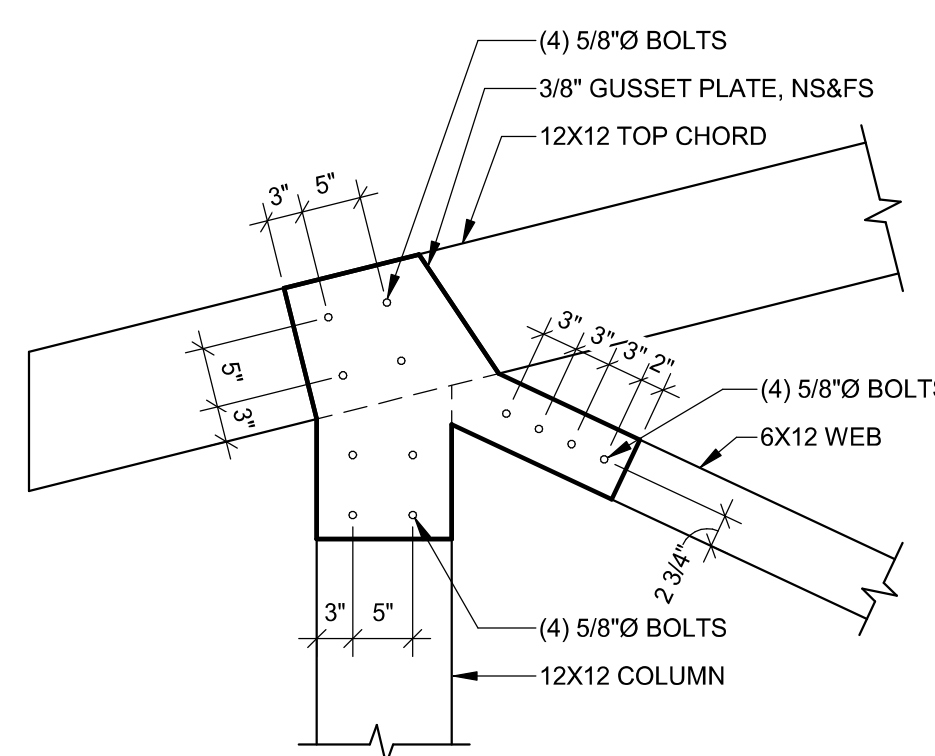
5 **DETAIL**
3/4" = 1'-0"



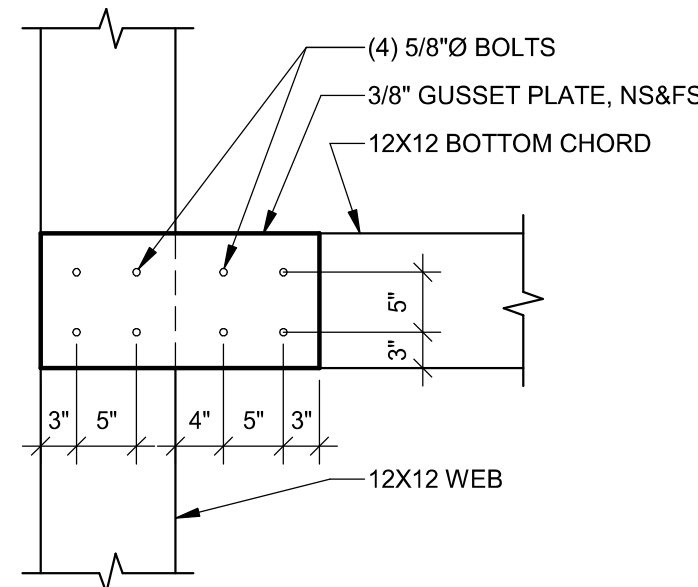
6 **DETAIL**
3/4" = 1'-0"



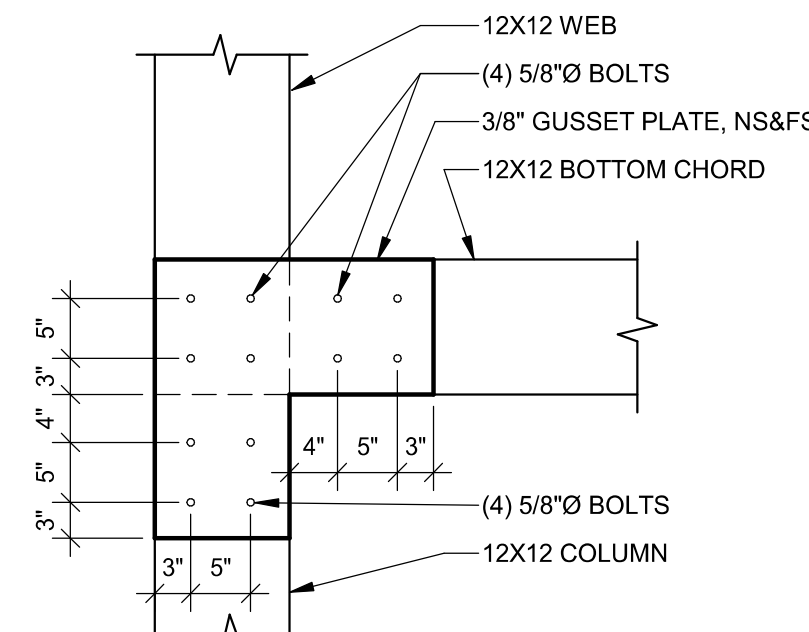
7 **DETAIL**
3/4" = 1'-0"



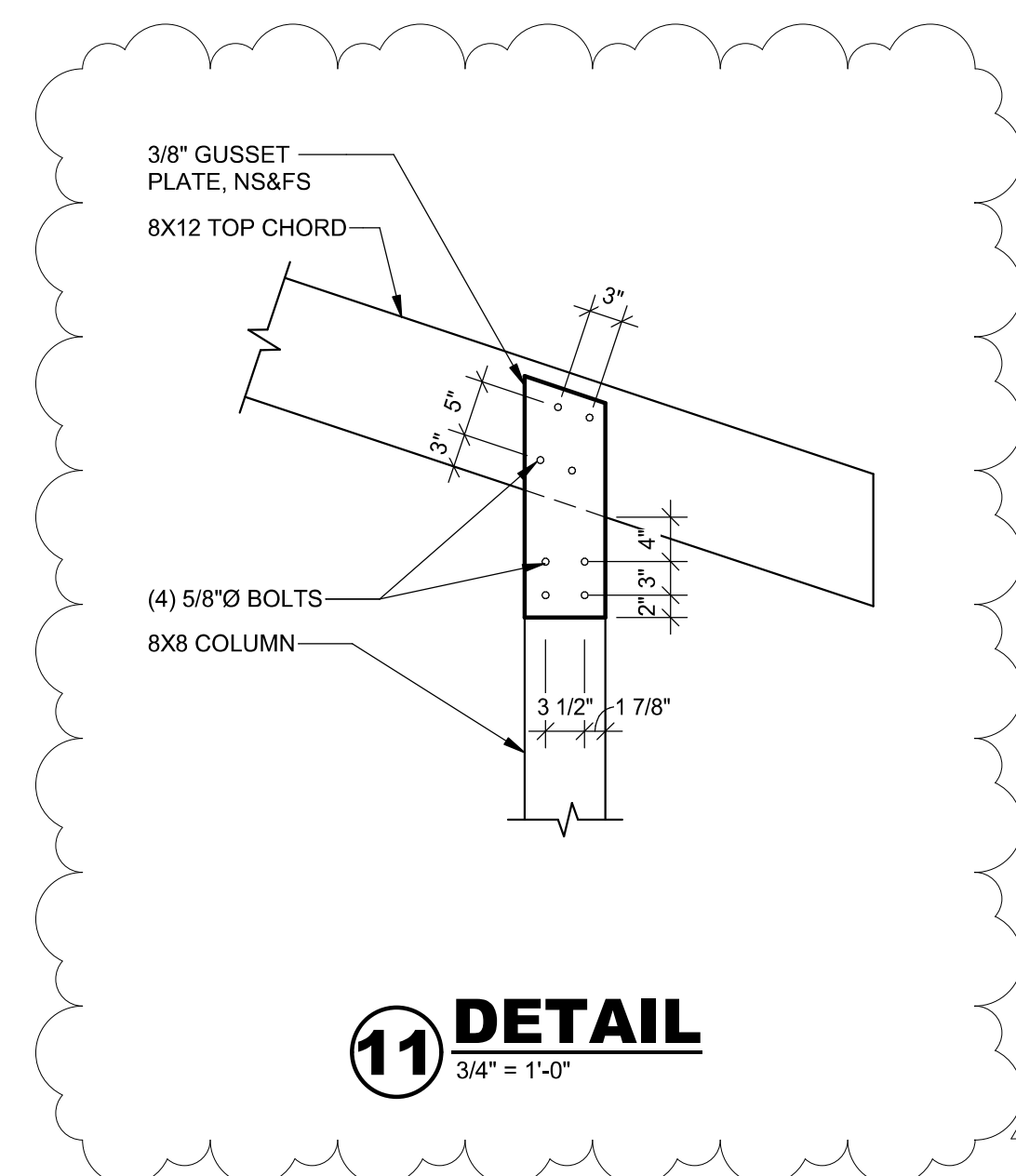
8 **DETAIL**
3/4" = 1'-0"



9 **DETAIL**
3/4" = 1'-0"



10 **DETAIL**
3/4" = 1'-0"



11 **DETAIL**
3/4" = 1'-0"

TIMBER TRUSS NOTES

- G.C. TO COORDINATE GUSSET PLATE DIMENSIONS WITH FINAL TRUSS PROFILES. G.C. TO SUPPLY TRUSS PROFILE AND GUSSET PLATE SHOP DRAWINGS BEFORE INSTALLATION.
- SCHEMATIC PLATE ORIENTATIONS ARE SHOWN ON THE DETAILS.
- MINIMUM EDGE DISTANCES, IF NOT NOTED ON DETAILS, ARE AS FOLLOWS:

A. PLATE EDGE TO BOLT CENTER	1"
B. WOOD EDGE TO BOLT CENTER	2 1/2"
C. WOOD END TO BOLT CENTER	2 1/2"
D. BOLT CENTER TO BOLT CENTER (IN THE SAME ROW)	3 1/2"
E. BOLT ROW CENTERLINE SPACING	3 1/2"

3/27/2020 11:06:49 AM
BIM 360://198014-003 - Watson Park Events Center New Building/198014_MASTER
STRUCT_R19.rvt

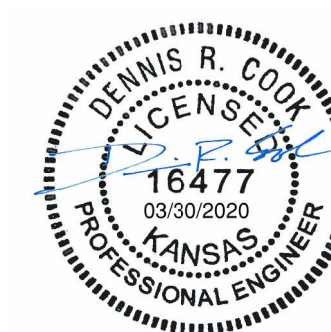
PECC
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
303 SOUTH TOPEKA WICHITA, KS 67202
316-262-2891 www.pec1.com

CITY REV Δ 30 MAR 20
Final 13 FEB 20

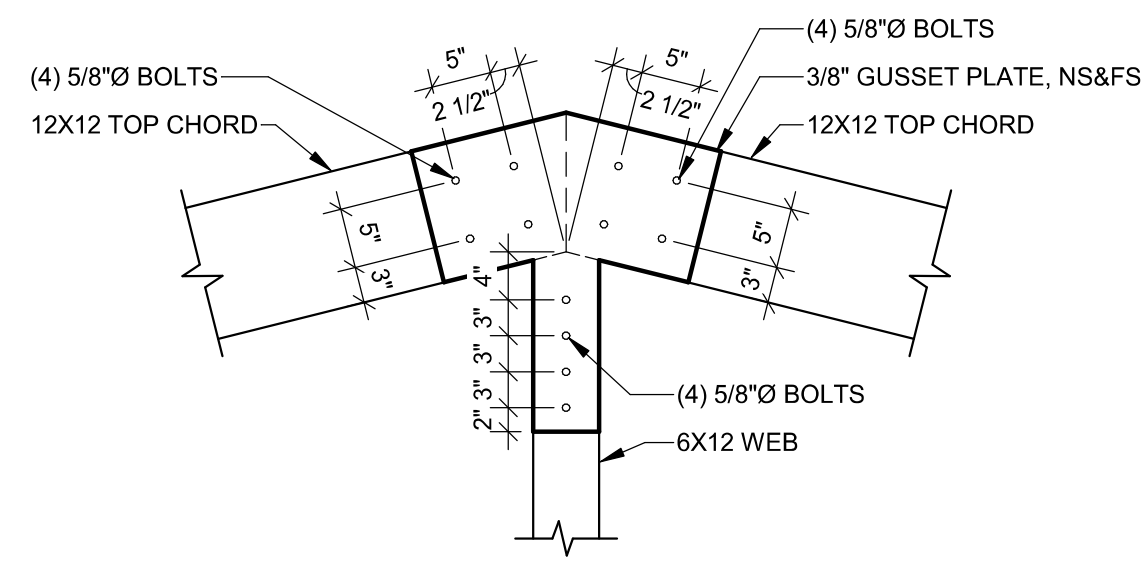
FRAMING
ELEVATIONS
AND DETAILS

S-201

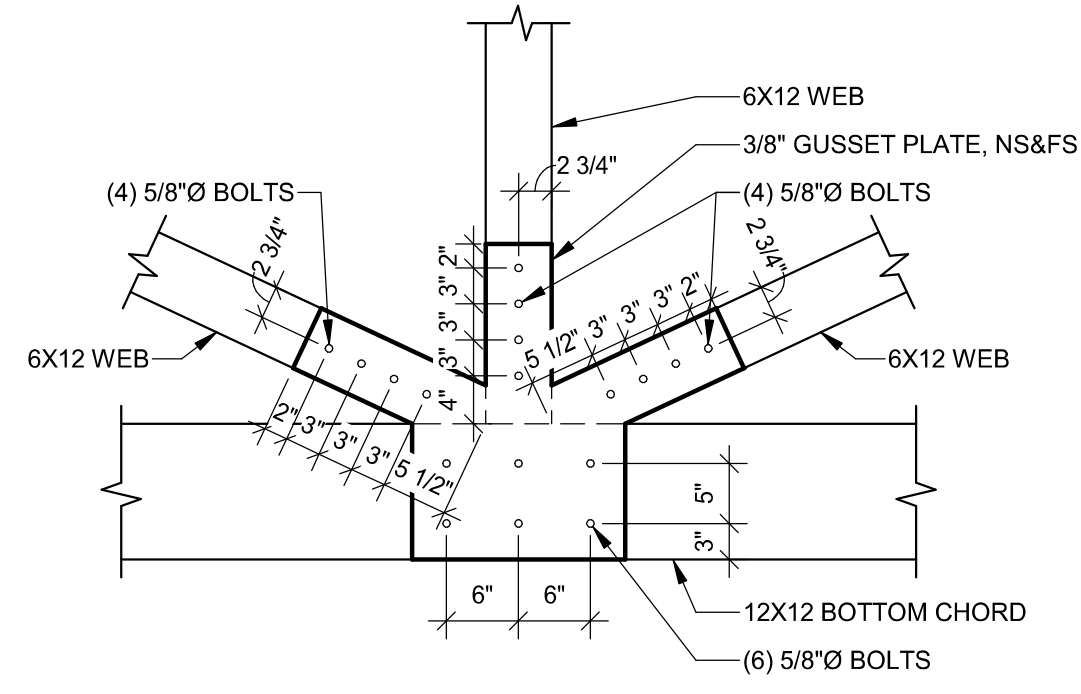
**WATSON PARK
EVENT CENTER**
3022 S MCLEAN BLVD, WICHITA, KS 67217



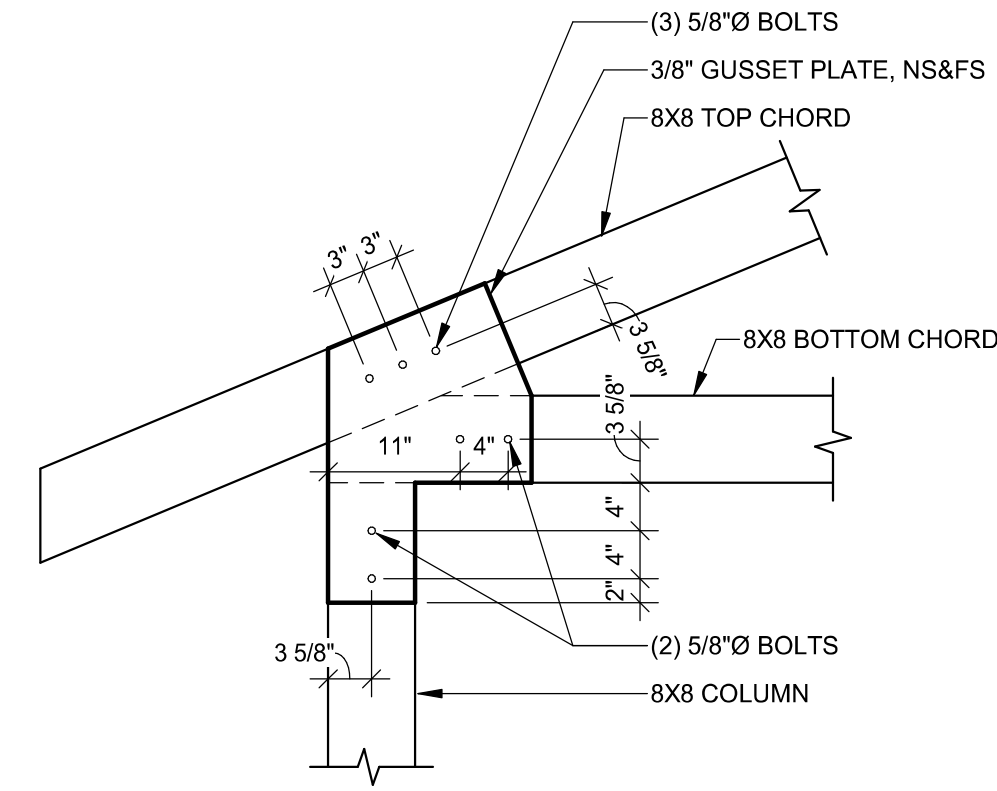
SPANGENBERG PHILLIPS TICE
ARCHITECTURE
121 N Mead Ste 201 Wichita KS 67202
T 316.267.4002 F 316.267.1509
www.sptarchitecture.com



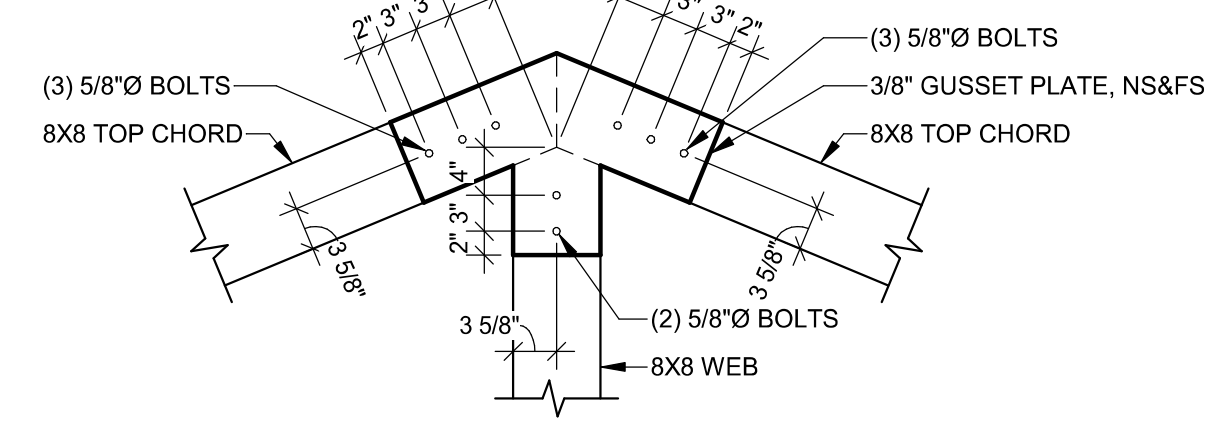
1 **DETAIL**
 3/4" = 1'-0"



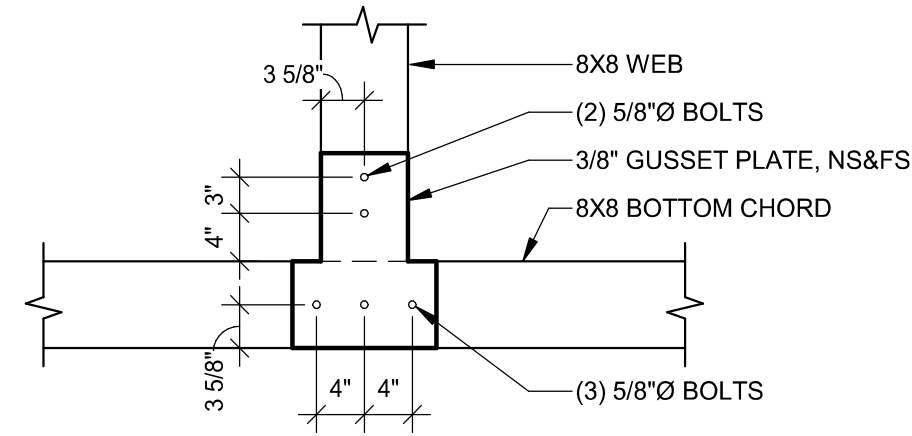
2 **DETAIL**
 3/4" = 1'-0"



3 **DETAIL**
 3/4" = 1'-0"



4 **DETAIL**
 3/4" = 1'-0"

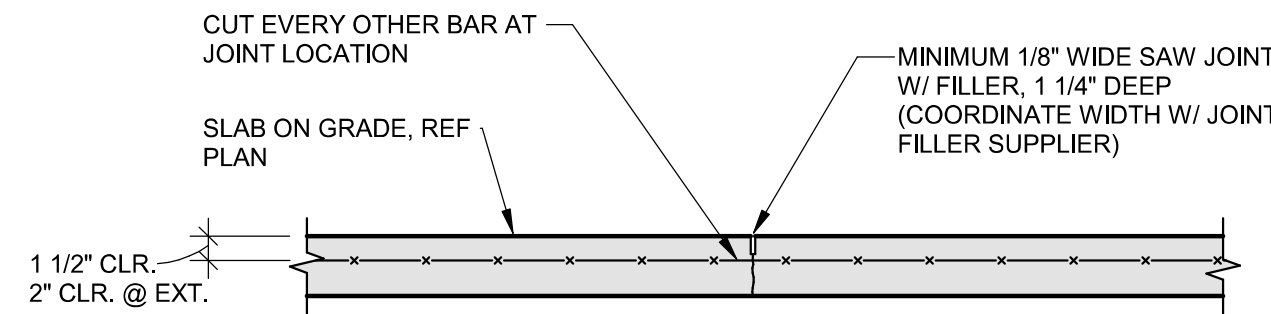


5 **DETAIL**
 3/4" = 1'-0"

TIMBER TRUSS NOTES

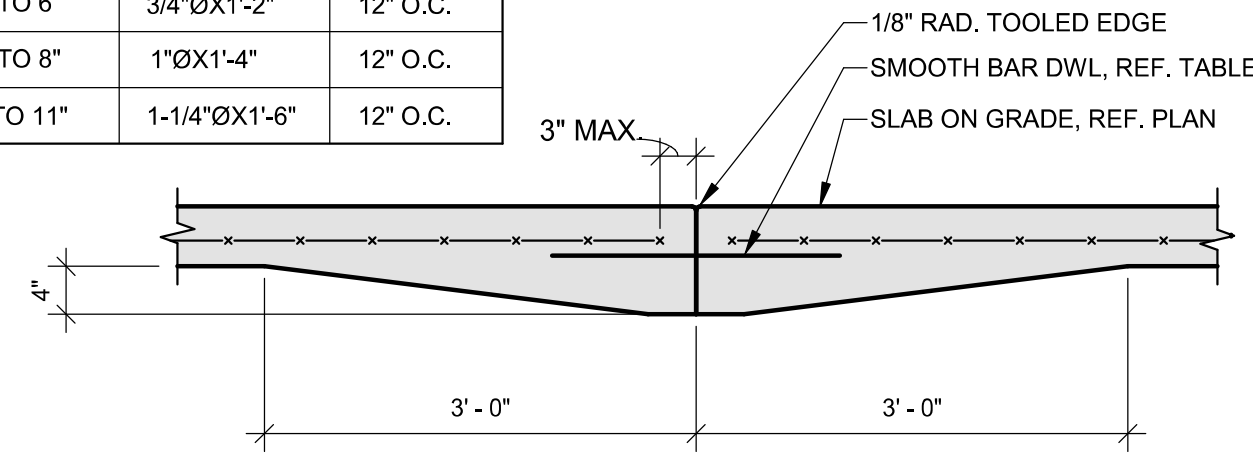
1. G.C. TO COORDINATE GUSSET PLATE DIMENSIONS WITH FINAL TRUSS PROFILES. G.C. TO SUPPLY TRUSS PROFILE AND GUSSET PLATE SHOP DRAWINGS BEFORE INSTALLATION.
2. SCHEMATIC GUSSET PLATE ORIENTATIONS ARE SHOWN ON THE DETAILS.
3. MINIMUM EDGE DISTANCES, IF NOT NOTED ON DETAILS, ARE AS FOLLOWS:

A. PLATE EDGE TO BOLT CENTER	1"
B. WOOD EDGE TO BOLT CENTER	2"
C. WOOD END TO BOLT CENTER	2 1/2"
D. BOLT CENTER TO BOLT CENTER (IN THE SAME ROW)	2 1/2"
E. BOLT ROW CENTERLINE SPACING	3 1/2"



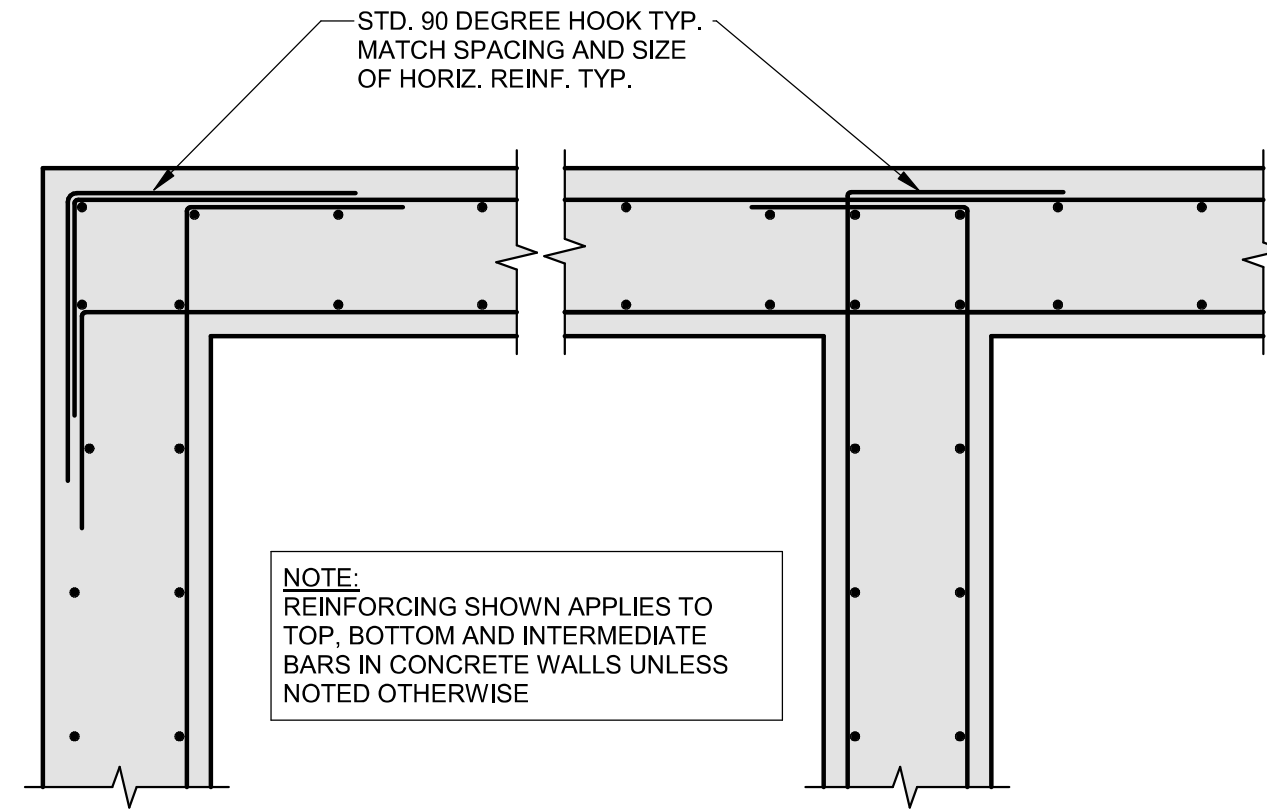
WWF SAWN JOINT (SJ) DETAIL

SMOOTH BAR DOWELS		
SLAB DEPTH	DOWEL DIMENSIONS	DOWEL SPACING
4" TO 6"	3/4"ØX1'-2"	12" O.C.
7" TO 8"	1"ØX1'-4"	12" O.C.
9" TO 11"	1-1/4"ØX1'-6"	12" O.C.

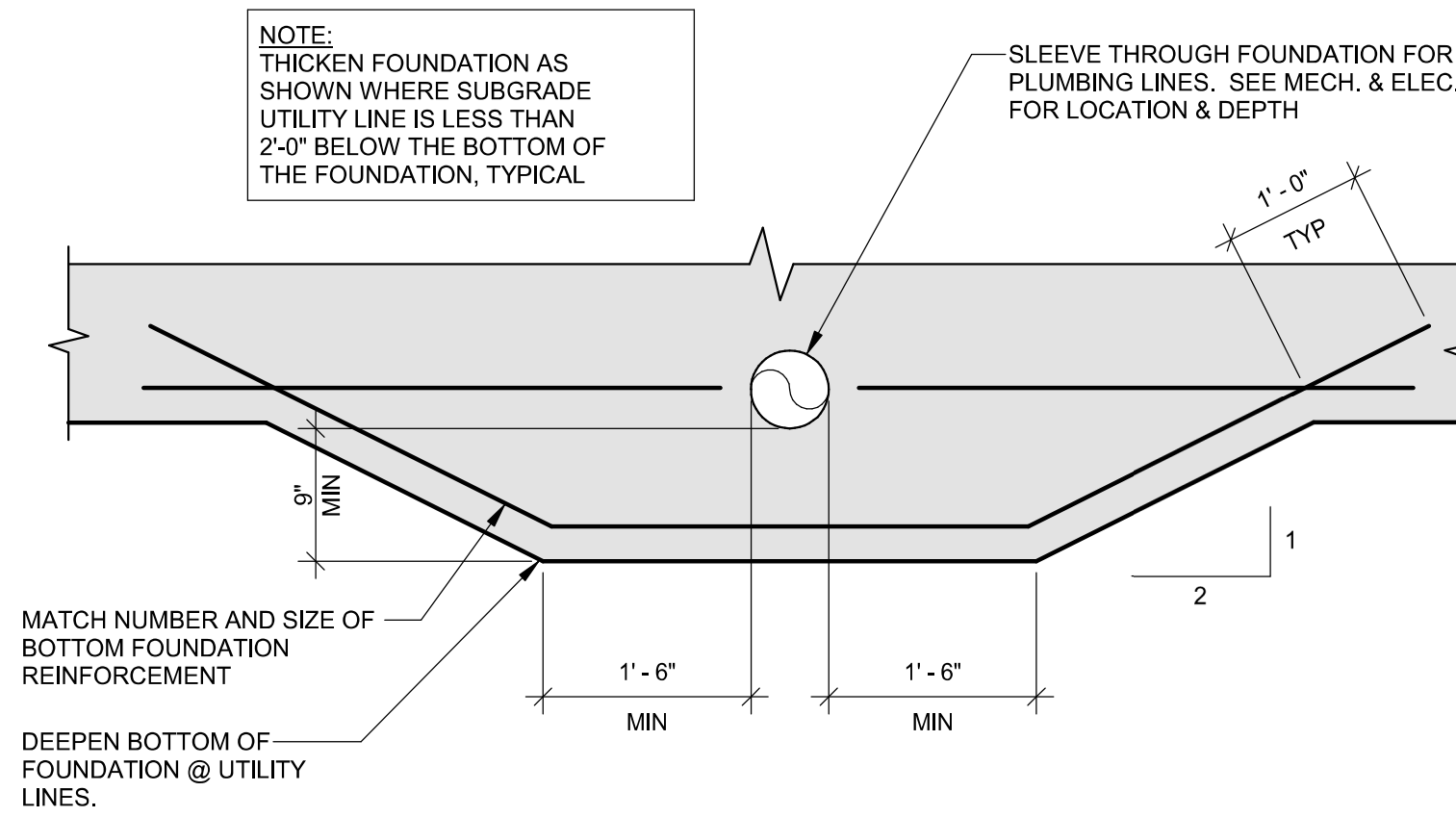


WWF CONSTRUCTION JOINT (CJ) DETAIL

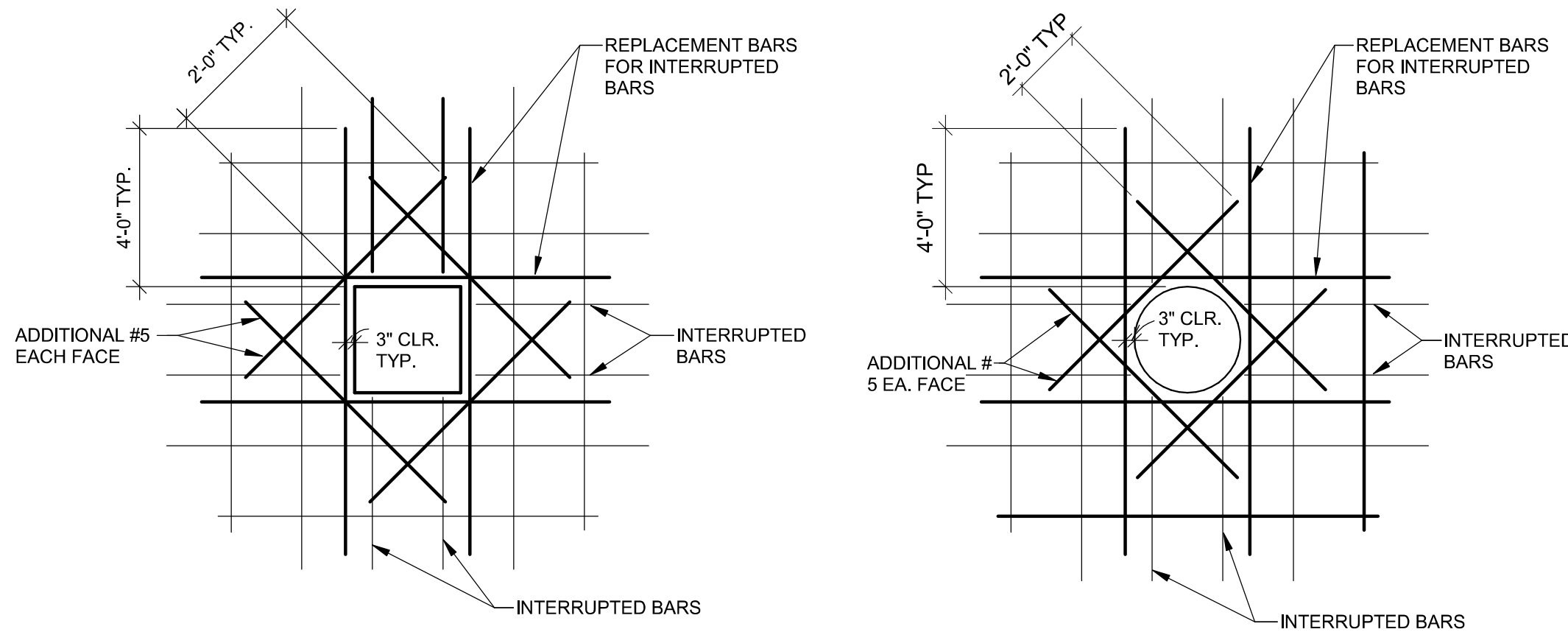
1 TYPICAL SLAB ON GRADE JOINT DETAIL
NO SCALE



2 TYPICAL CORNER AND INTERSECT. REINF.
NO SCALE

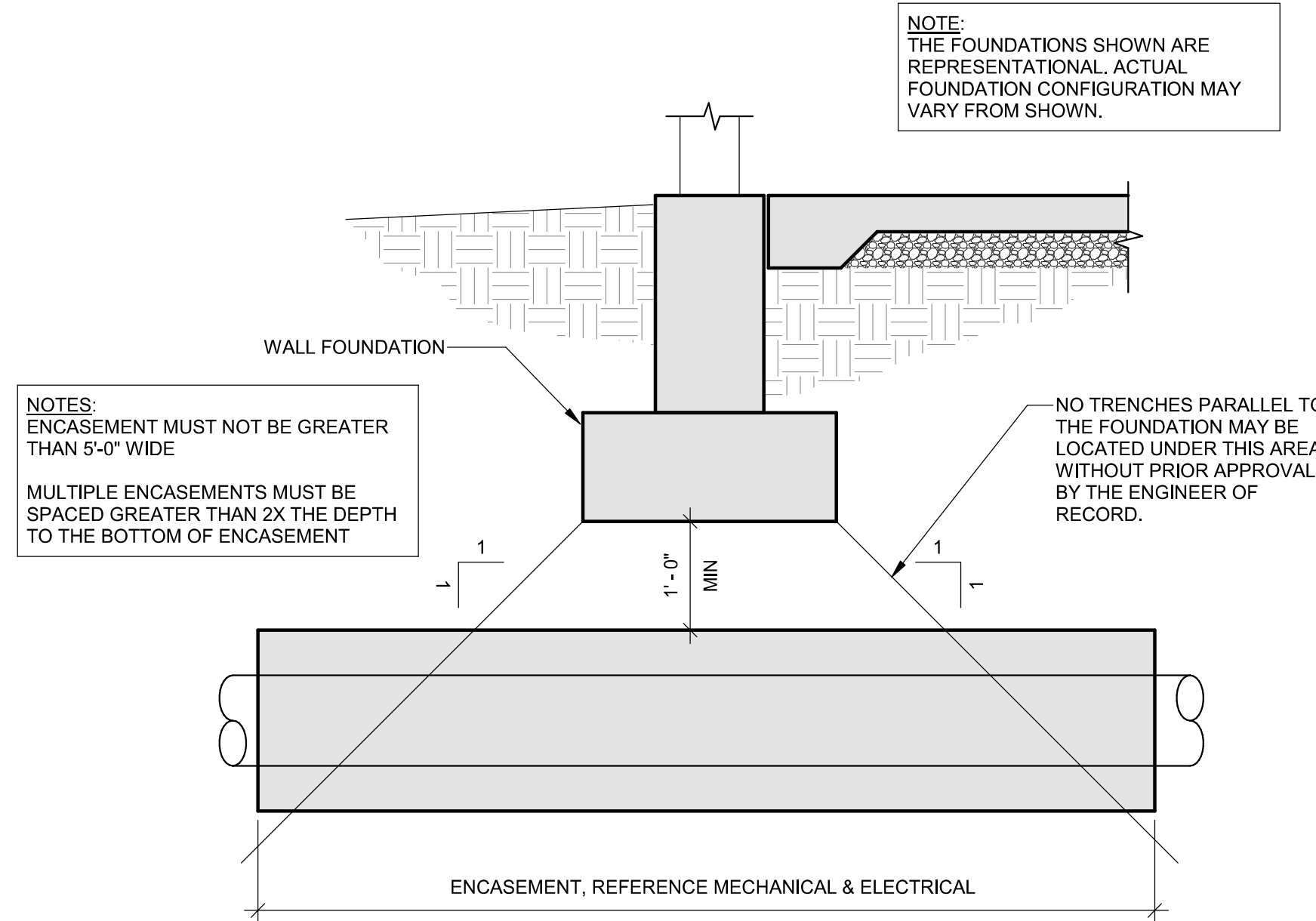


3 TYPICAL THICKENED FOUNDATION DETAIL
NO SCALE



- NOTES:
- USE THIS DETAIL FOR ALL OPENINGS GREATER THAN 8" IN CONCRETE WALLS AND SLABS, PROVIDE (2) #5 ON DIAGONAL AT EACH CORNER AS SHOWN. EXTEND BARS 2'-0" PAST OPENING. REPLACE ALL VERTICAL AND HORIZONTAL BARS INTERRUPTED BY THE OPENING WITH AN EQUAL NUMBER AND SIZE BARS EVENLY DIVIDED ON EACH SIDE OF THE OPENING UNLESS NOTED OTHERWISE.
 - REFER TO PLANS FOR ALL OPENING LOCATIONS.

4 TYPICAL SLAB/WALL OPENINGS
NO SCALE



5 TYPICAL ENCASEMENT OF UTILITIES UNDER FOUNDATION
NO SCALE

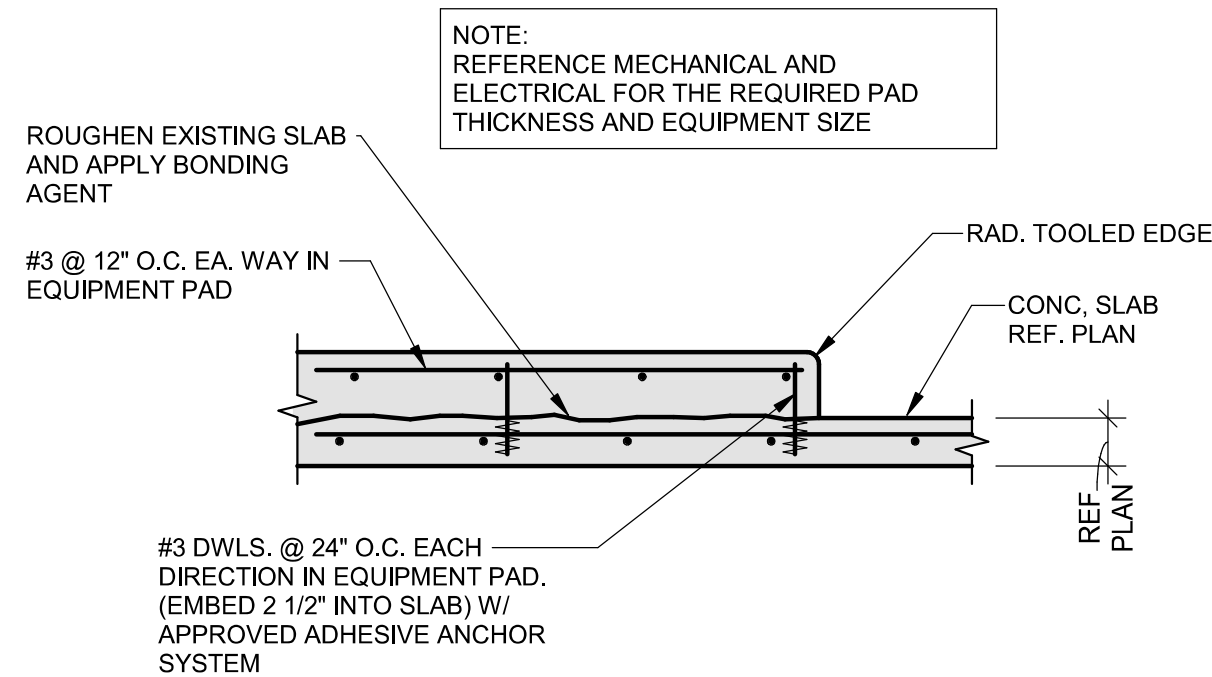
NOTE: IF THESE CONDITIONS CANNOT BE MET, THE CONTRACTOR SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING

CONCRETE REINFORCEMENT LAPS AND EMBEDMENT LENGTHS

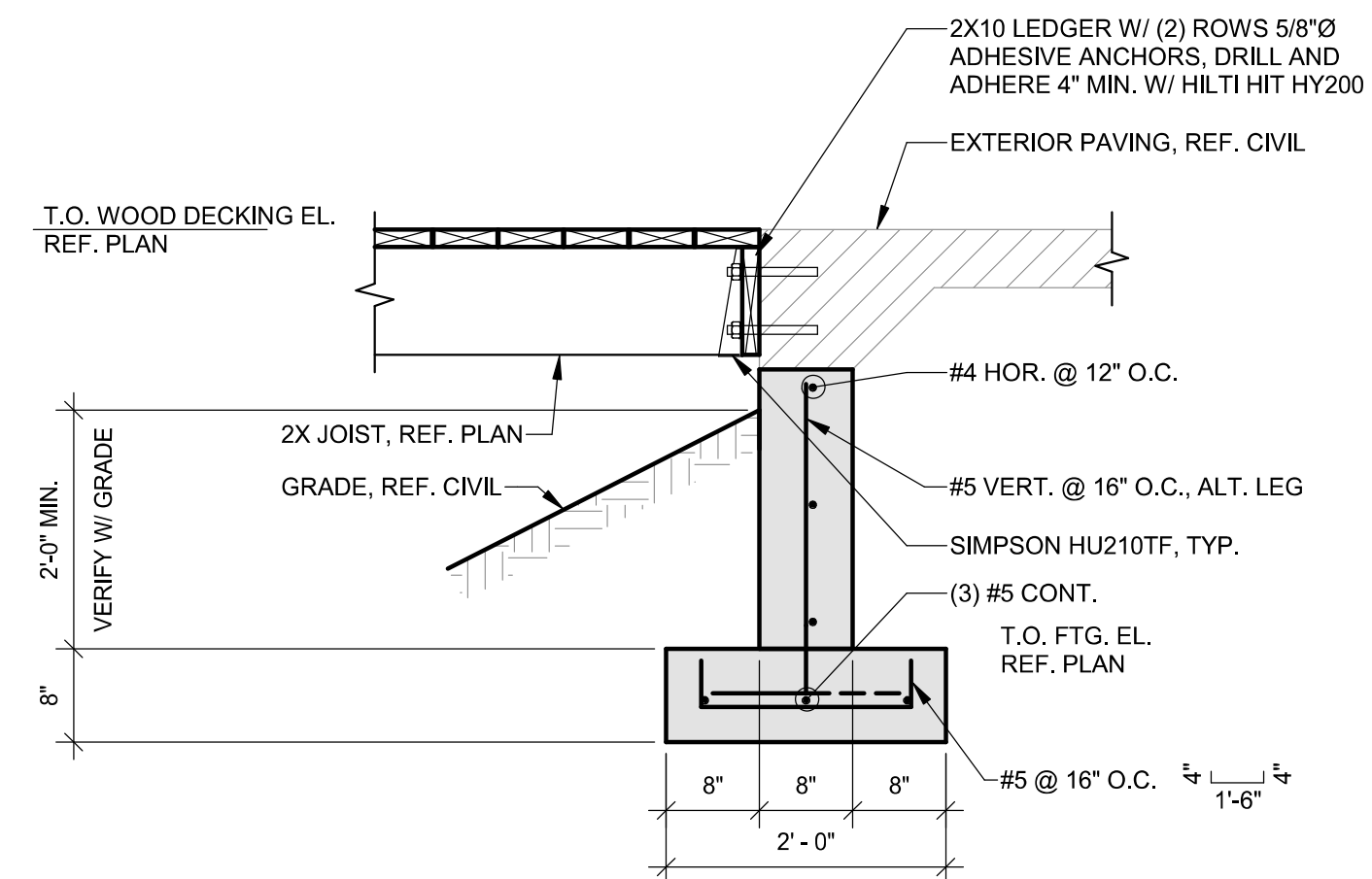
BAR SIZE (Ø)	CLEAR SPACING (S) (in.)			EMBEDMENT & CLASS A LAP (in.)				CLASS B LAP (in.)				HOOK EMBED (in.)				
				TOP BAR		OTHER BARS		TOP BAR		OTHER BARS						
	2d	3d	5d	2d < S < 3d	S < 5d	2d < S < 3d	S < 5d	2d < S < 3d	S < 5d	2d < S < 3d	S < 5d					
3	3/4	1 1/8	1 7/8	28	18	12	21	14	12	36	24	14	28	18	12	8
4	1	1 1/2	2 1/2	37	25	15	28	19	12	48	32	19	37	25	15	10
5	1 1/4	1 7/8	3 1/8	46	31	18	36	24	14	60	40	24	46	31	18	12
6	1 1/2	2 1/4	3 3/4	55	37	22	43	28	17	72	48	29	55	37	22	15
7	1 3/4	2 5/8	4 3/8	81	54	32	62	42	25	105	70	42	81	54	32	18
8	2	3	5	92	62	37	71	47	28	120	80	48	92	62	37	20
9	2 1/4	3 3/8	5 5/8	104	70	42	80	54	32	136	90	54	104	70	42	22
10	2 1/2	3 3/4	6 3/8	117	78	47	90	60	36	153	102	61	117	78	47	25
11	2 7/8	4 1/4	7	130	87	52	100	67	40	170	113	68	130	87	52	27

- NOTES:
- LENGTHS SHOWN CONFORM WITH NON-SEISMIC PROVISIONS OF ACI 318 FOR UNCOATED BARS.
 - BAR CLEAR SPACING IS THE CENTER TO CENTER BAR SPACING MINUS ONE BAR DIAMETER.
 - CLASS A LAP LENGTHS APPLY WHEN BAR LAPS ARE STAGGERED TO LAP HALF THE BARS AT THE SAME LOCATION. USE CLASS B LAP FOR ALL OTHER CASES.
 - TOP BARS ARE HORIZONTAL REINFORCEMENT PLACED SO THAT MORE THAN 12 INCHES OF CONCRETE IS CAST BELOW THE REINFORCEMENT.
 - MULTIPLY LAP AND EMBEDMENT LENGTHS GIVEN BY 2.0 FOR BARS WITH CLEAR SPACING OF TWO BAR DIAMETERS OR LESS, OR CONCRETE COVER OF ONE BAR DIAMETER OR LESS.

7 LAP TABLE
NO SCALE

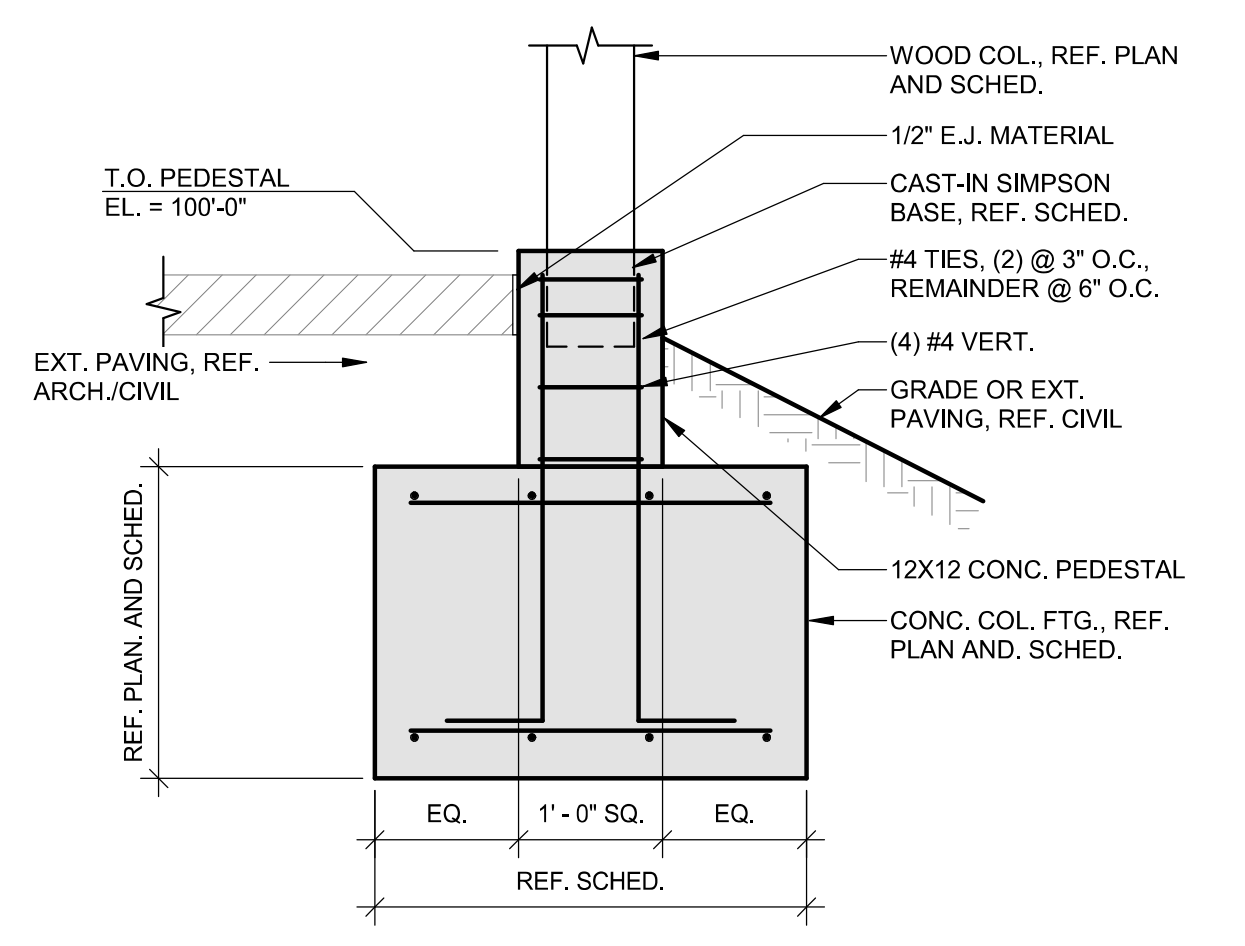


6 TYP INTERIOR EQUIPMENT PAD SECTION
NO SCALE

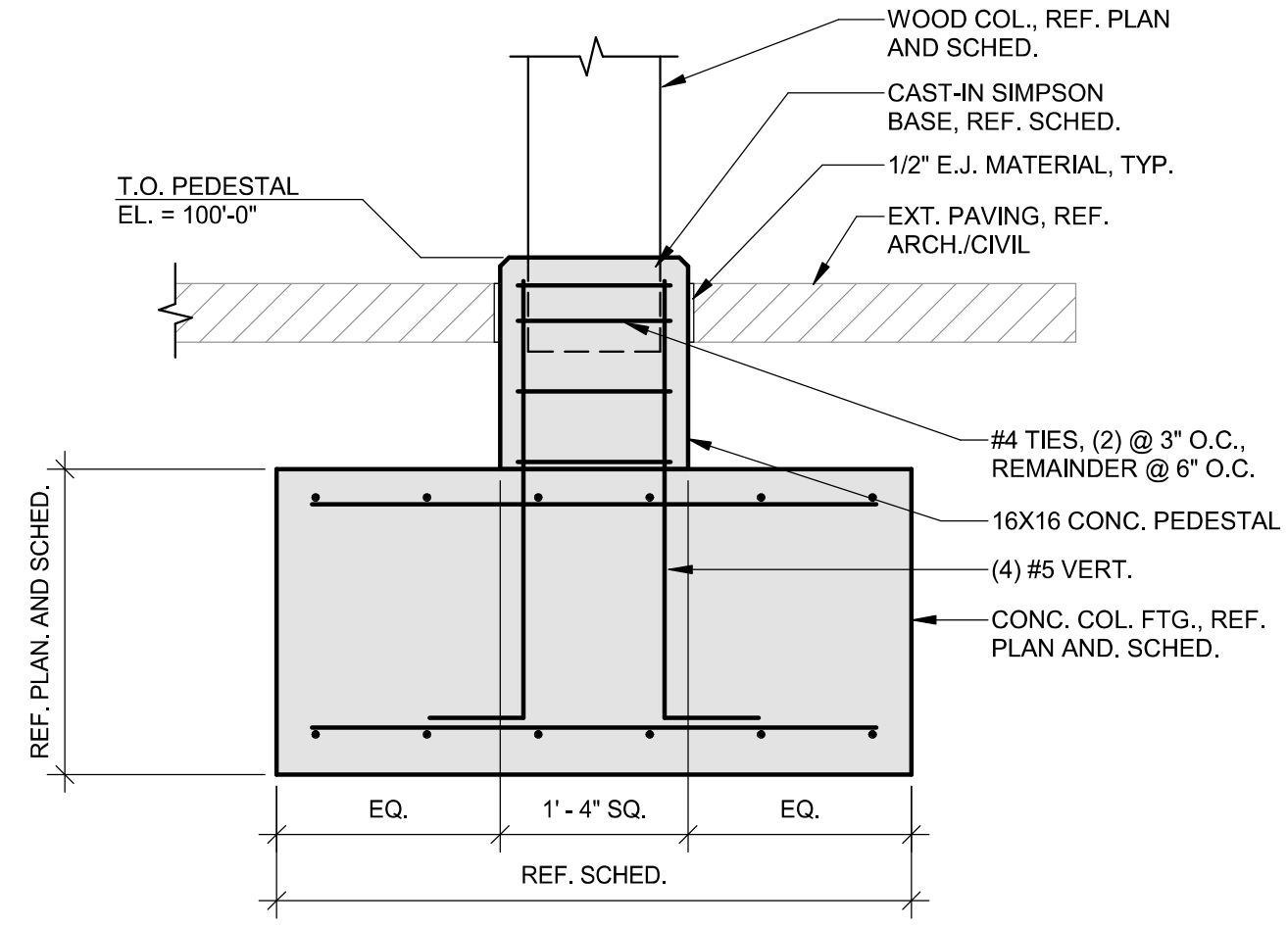


8 BRIDGE END WALL FOUNDATION
3/4" = 1'-0"

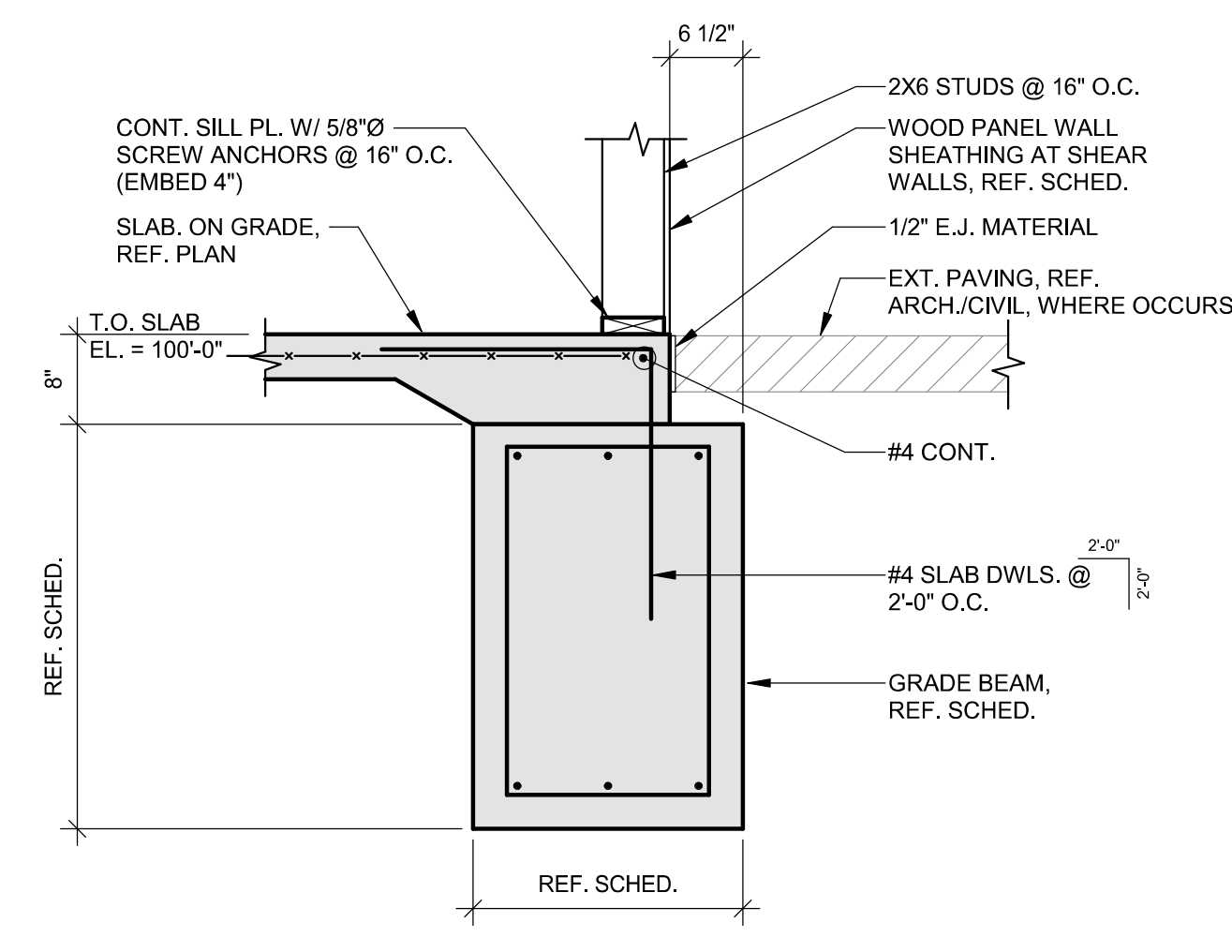
2/14/2020 9:39:14 AM
BIM 360/198014-003 - Watson Park Events Center New Building/198014_MASTER
STRUCT_R19.rvt



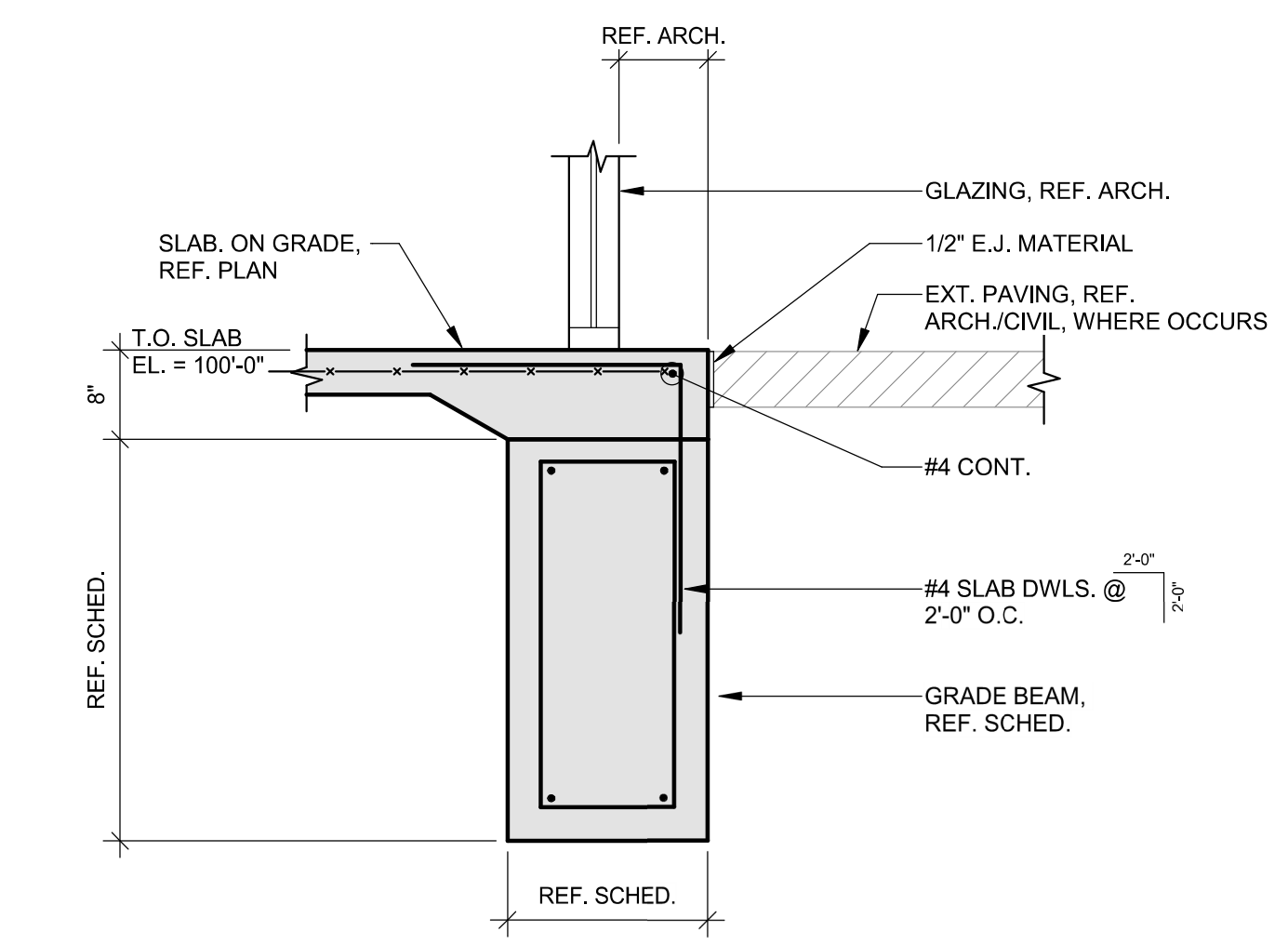
1 FOUNDATION AT WOOD COLUMN
 3/4" = 1'-0"



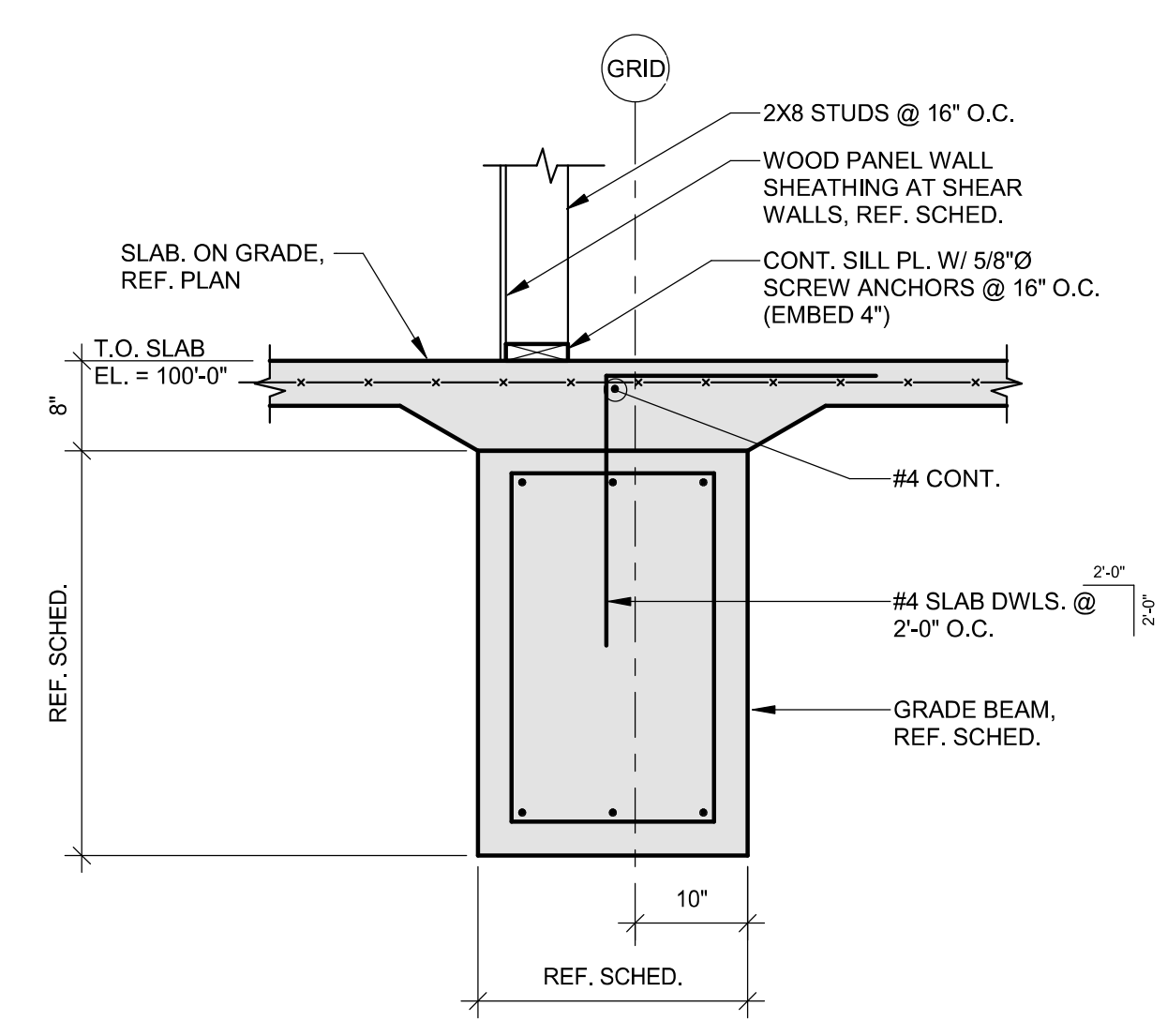
2 FOUNDATION AT WOOD COLUMN
 3/4" = 1'-0"



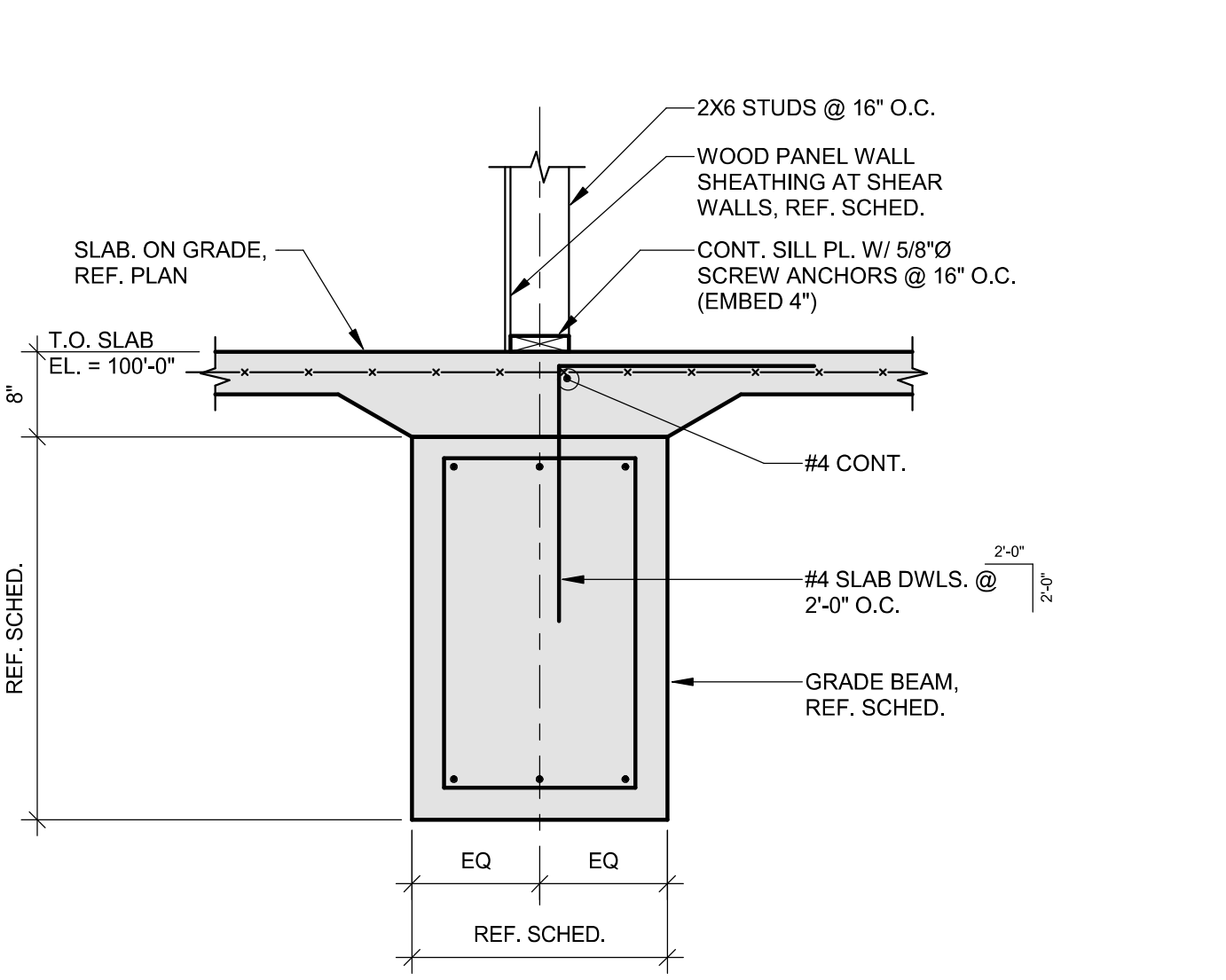
3 FOUNDATION AT EXT. WALL
 3/4" = 1'-0"



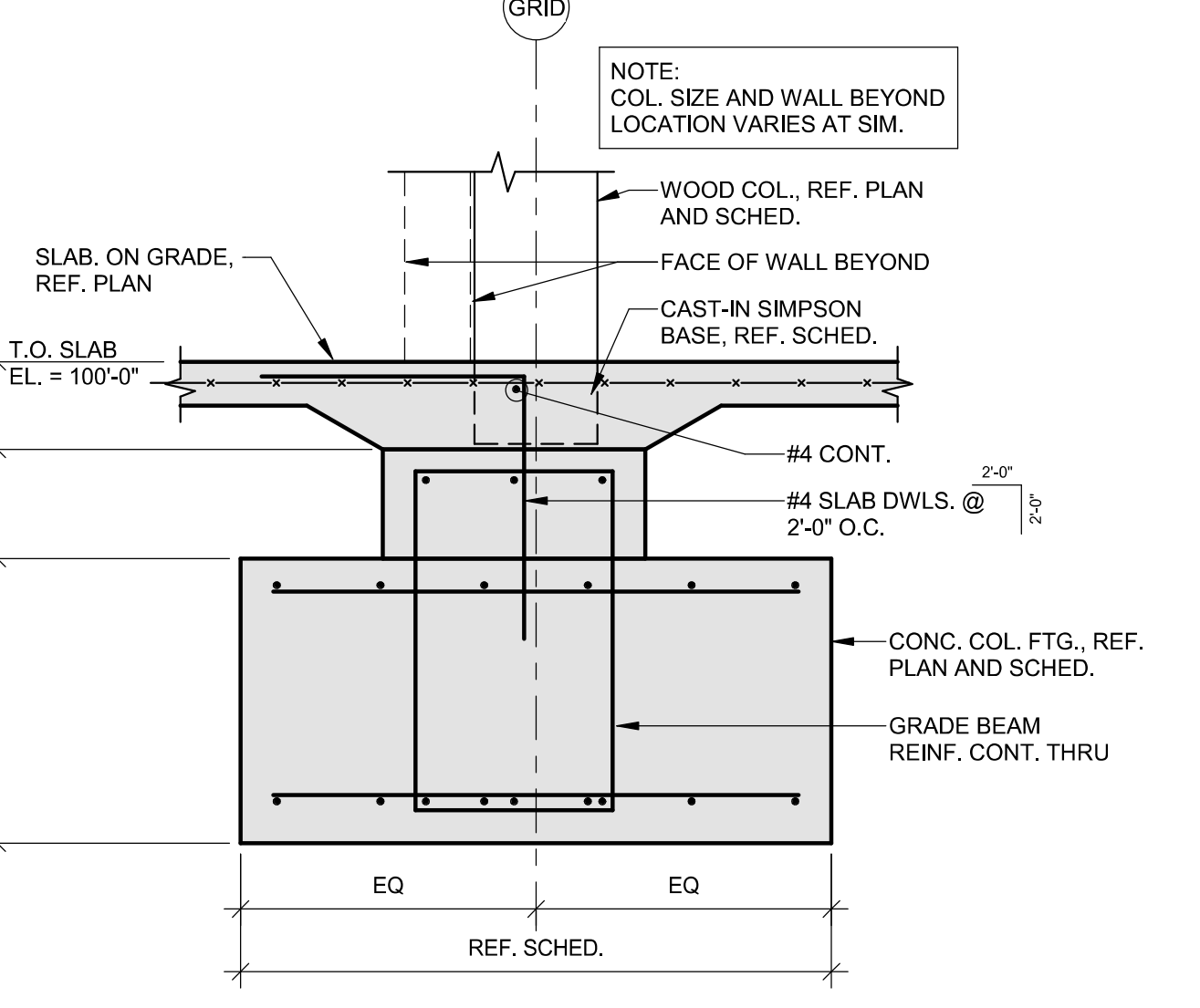
4 FOUNDATION AT EXT. GLAZING
 3/4" = 1'-0"



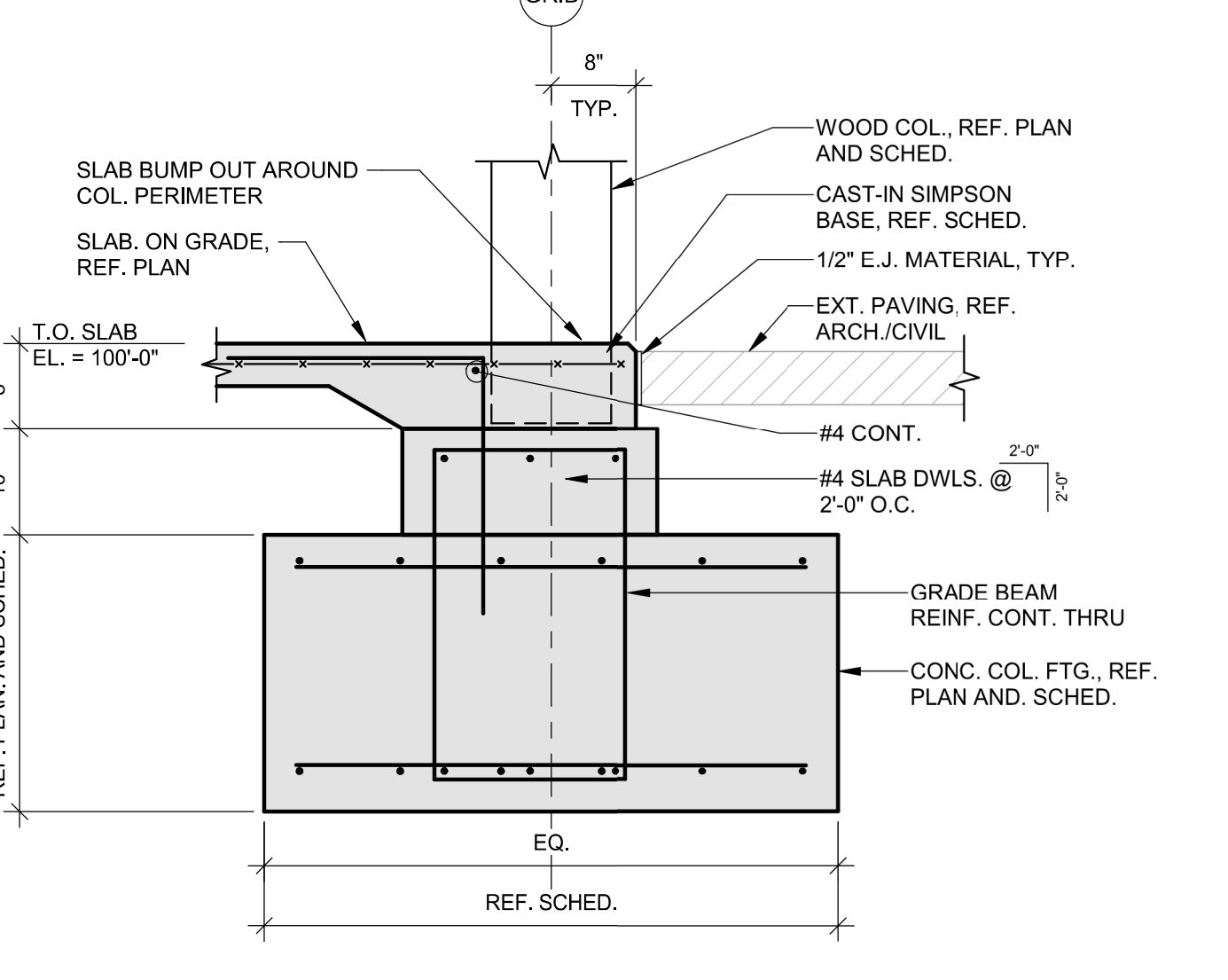
5 FOUNDATION AT INT. WALL
 3/4" = 1'-0"



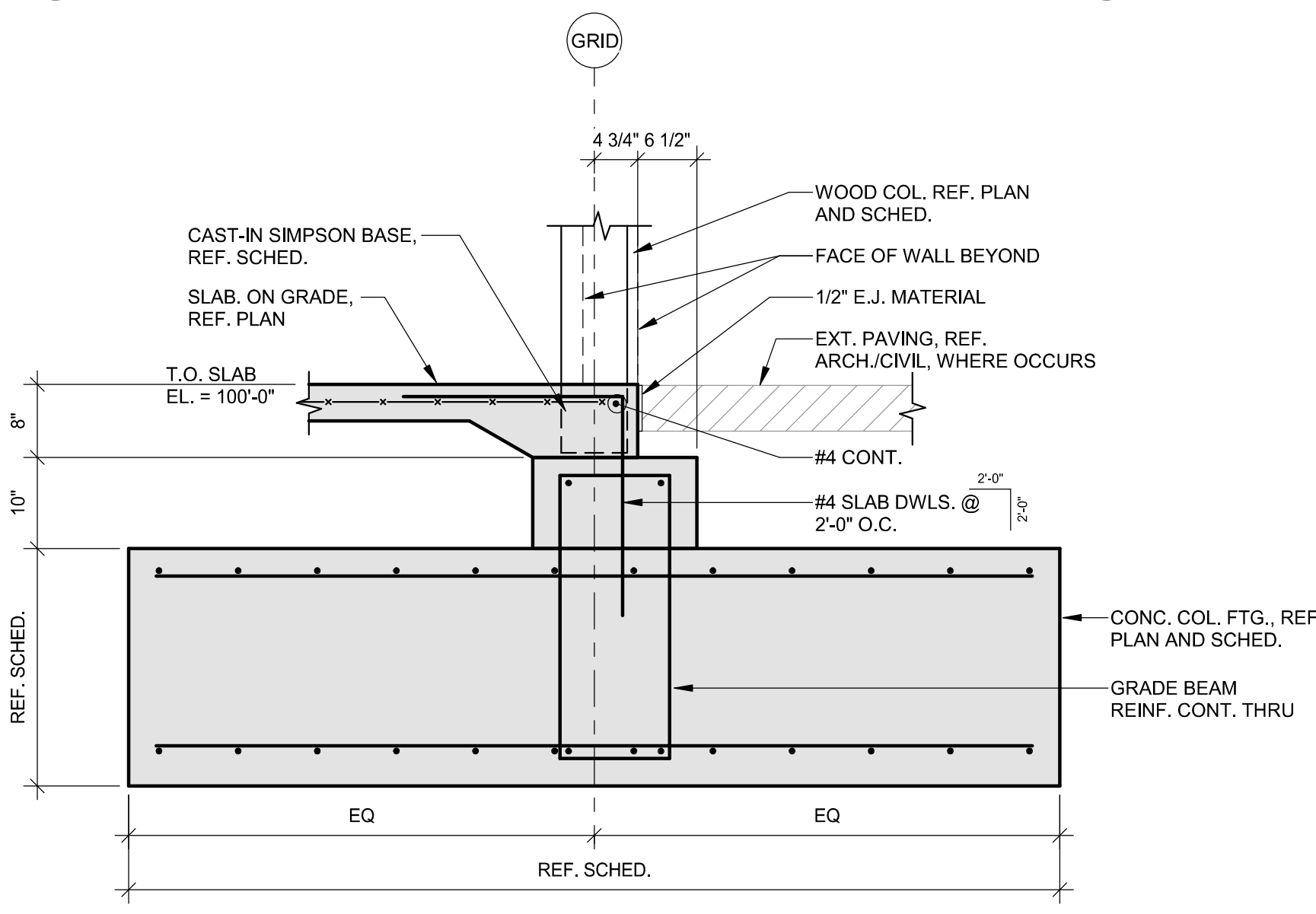
6 FOUNDATION AT INT. WALL
 3/4" = 1'-0"



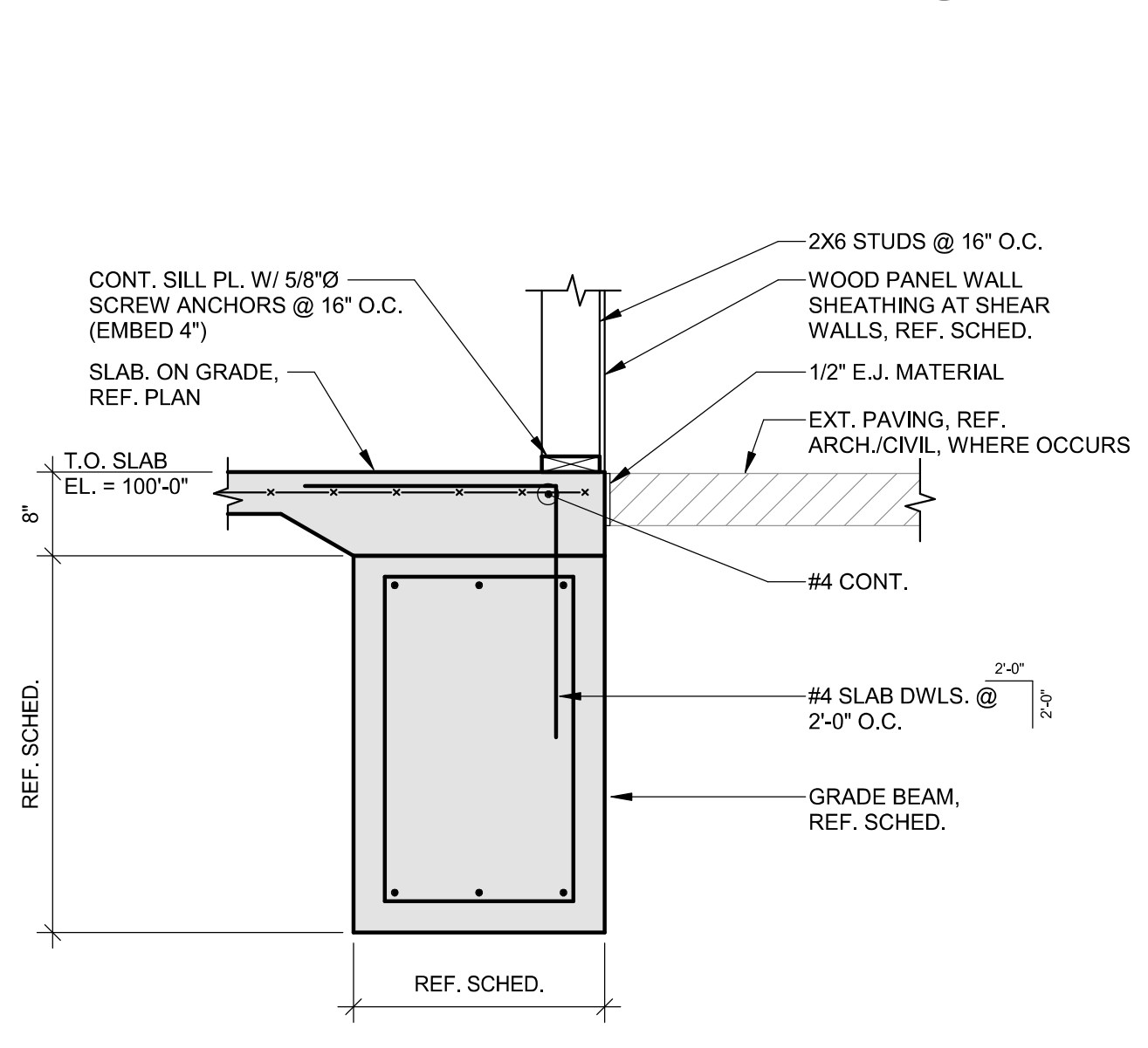
7 FOUNDATION AT INT. COL.
 3/4" = 1'-0"



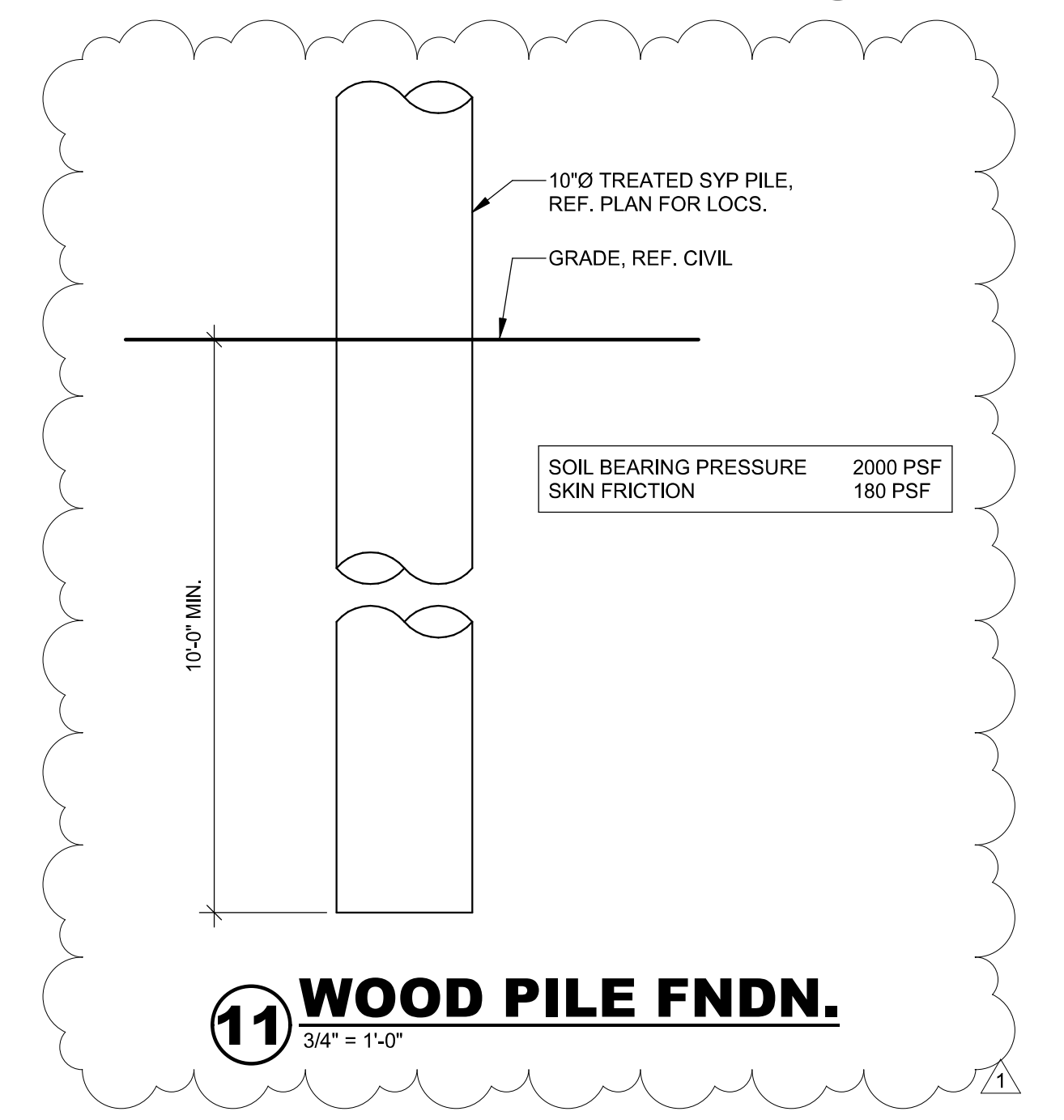
8 FOUNDATION AT EXT. WALL COL.
 3/4" = 1'-0"



9 FOUNDATION AT EXT. WALL COL.
 3/4" = 1'-0"

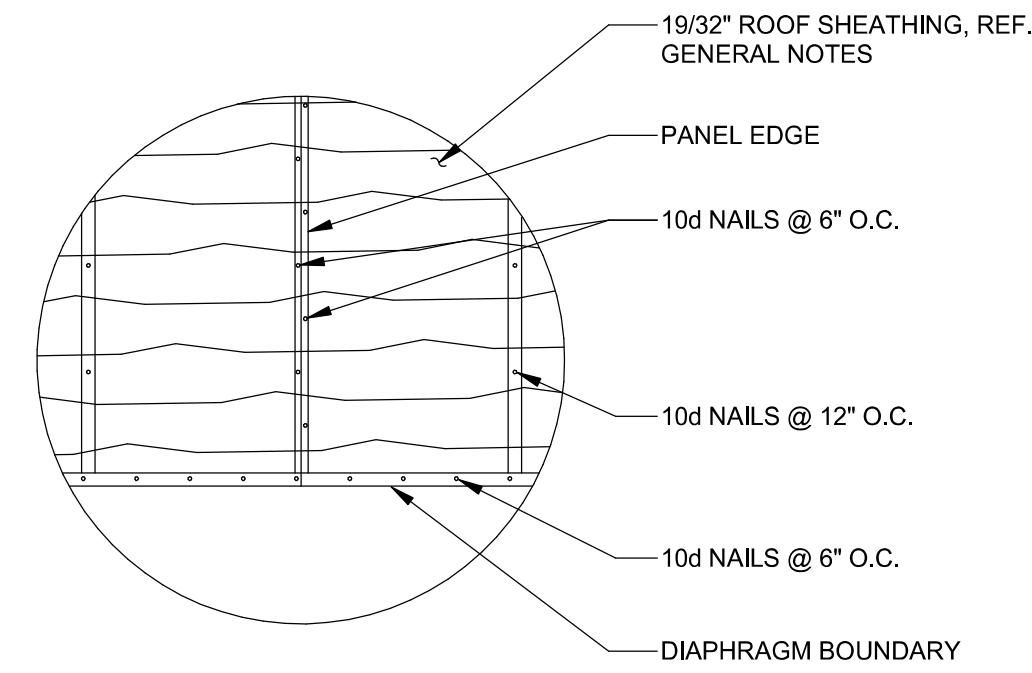


10 FOUNDATION AT EXT. WALL
 3/4" = 1'-0"

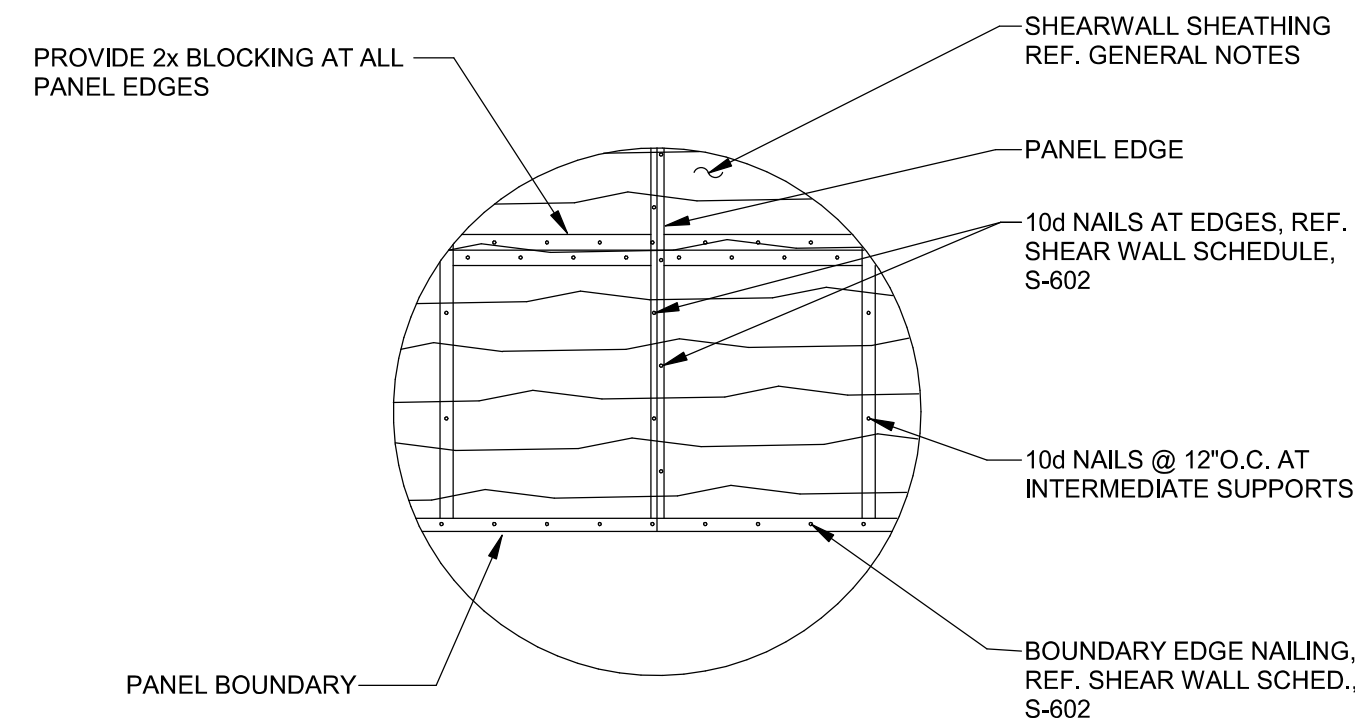


11 WOOD PILE FNDN.
 3/4" = 1'-0"

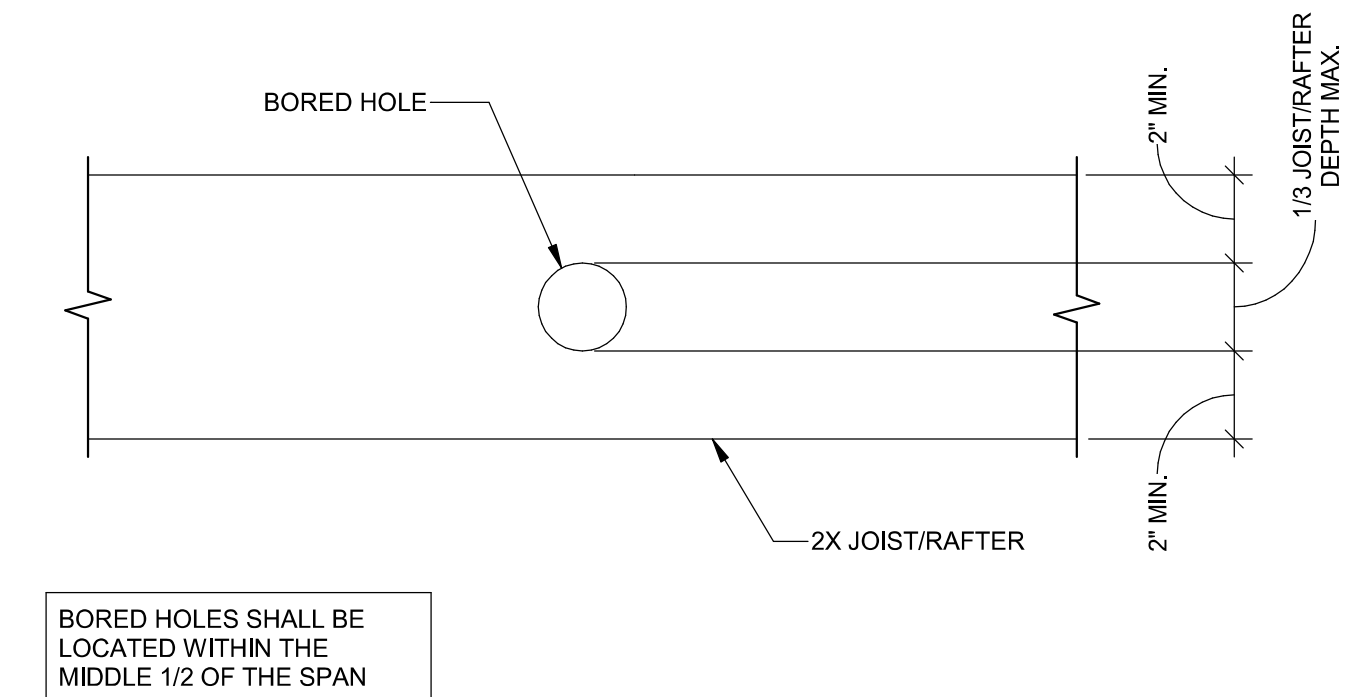
3/27/2020 11:06:50 AM
 BIM 360://198014-003 - Watson Park Events Center New Building/198014_MASTER
 STRUCT_R19.rvt



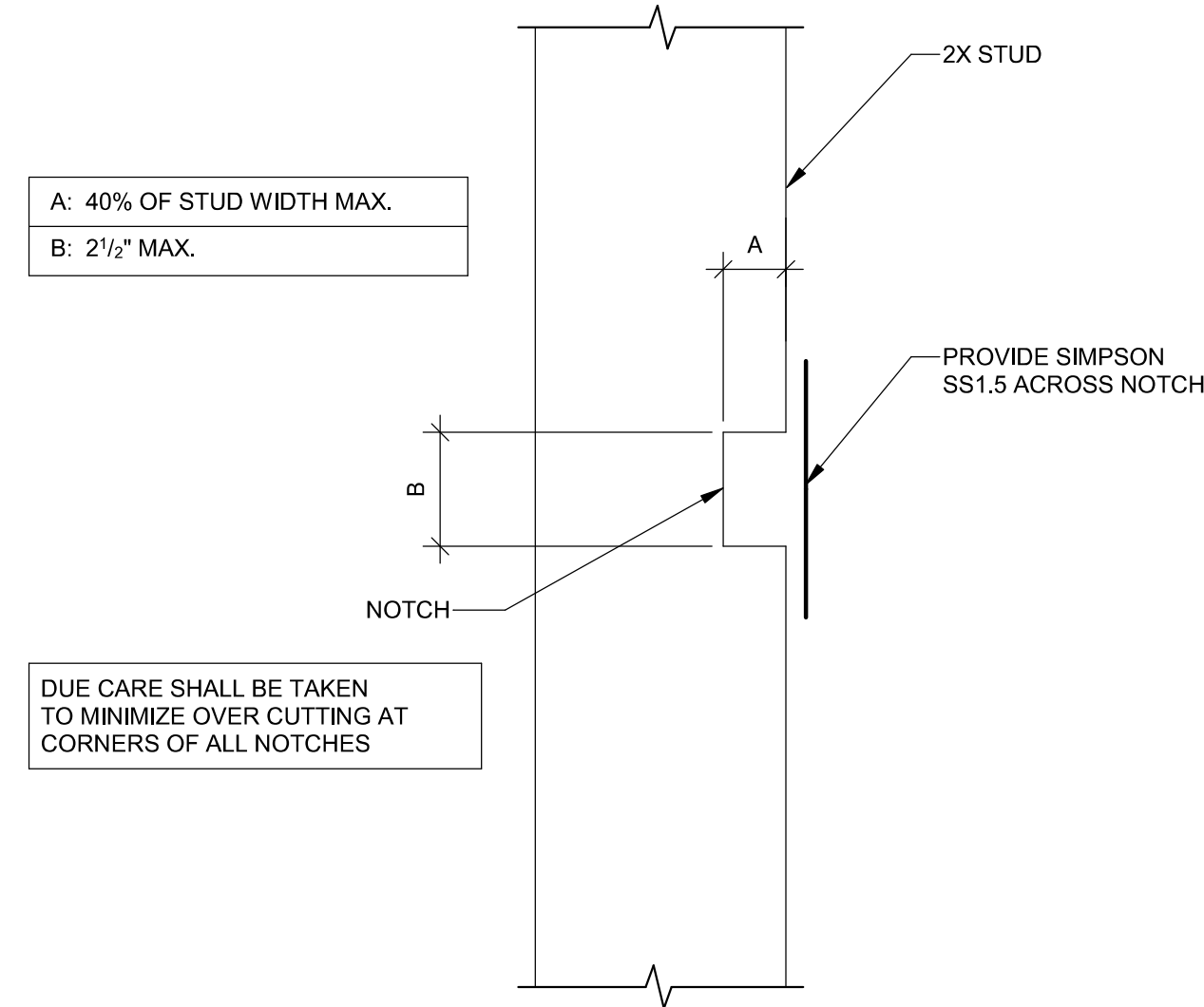
1 ROOF SHEATHING FASTENING DETAIL
NO SCALE



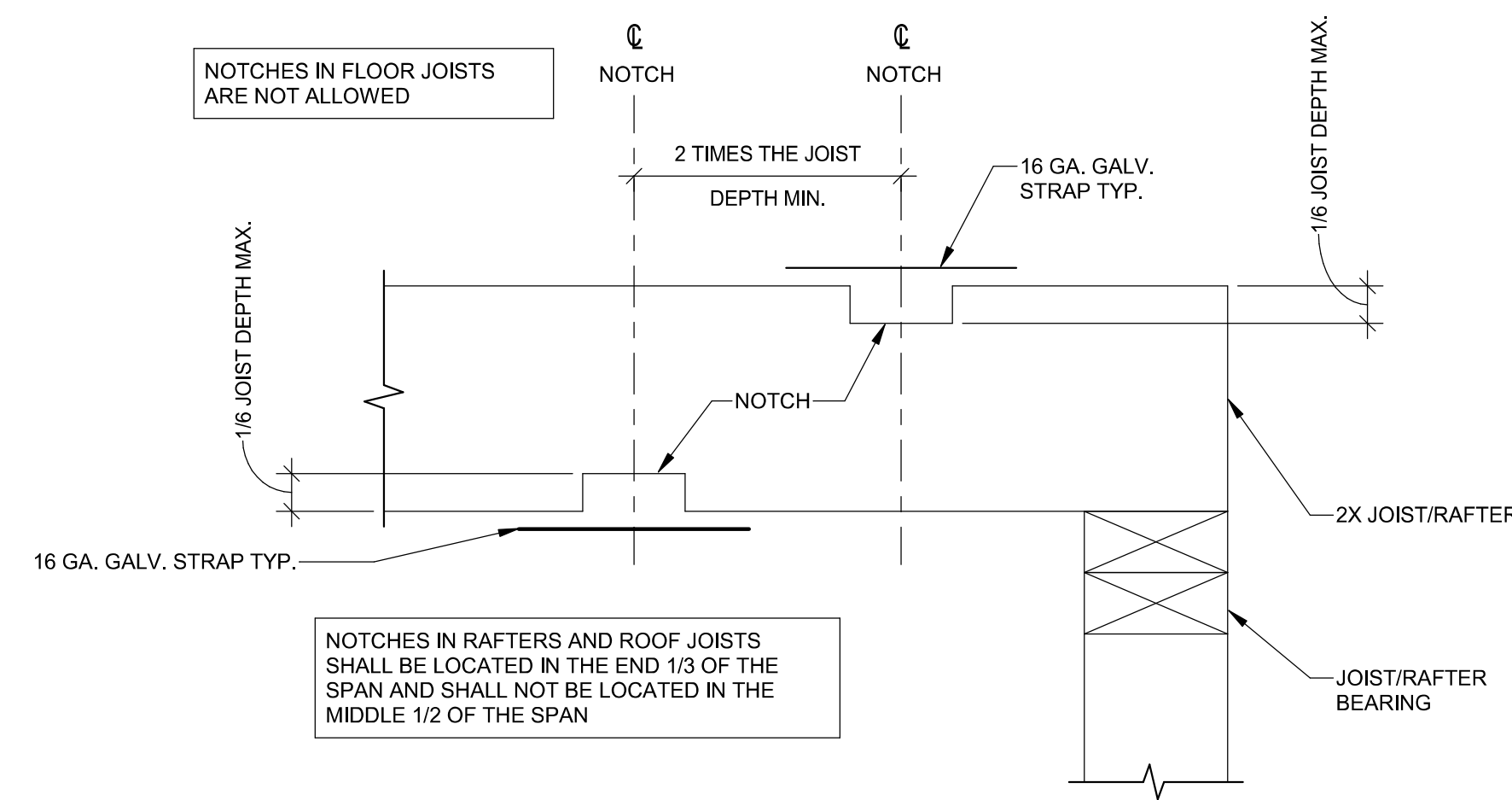
2 SHEARWALL BLOCKING ATTACHMENT
NO SCALE



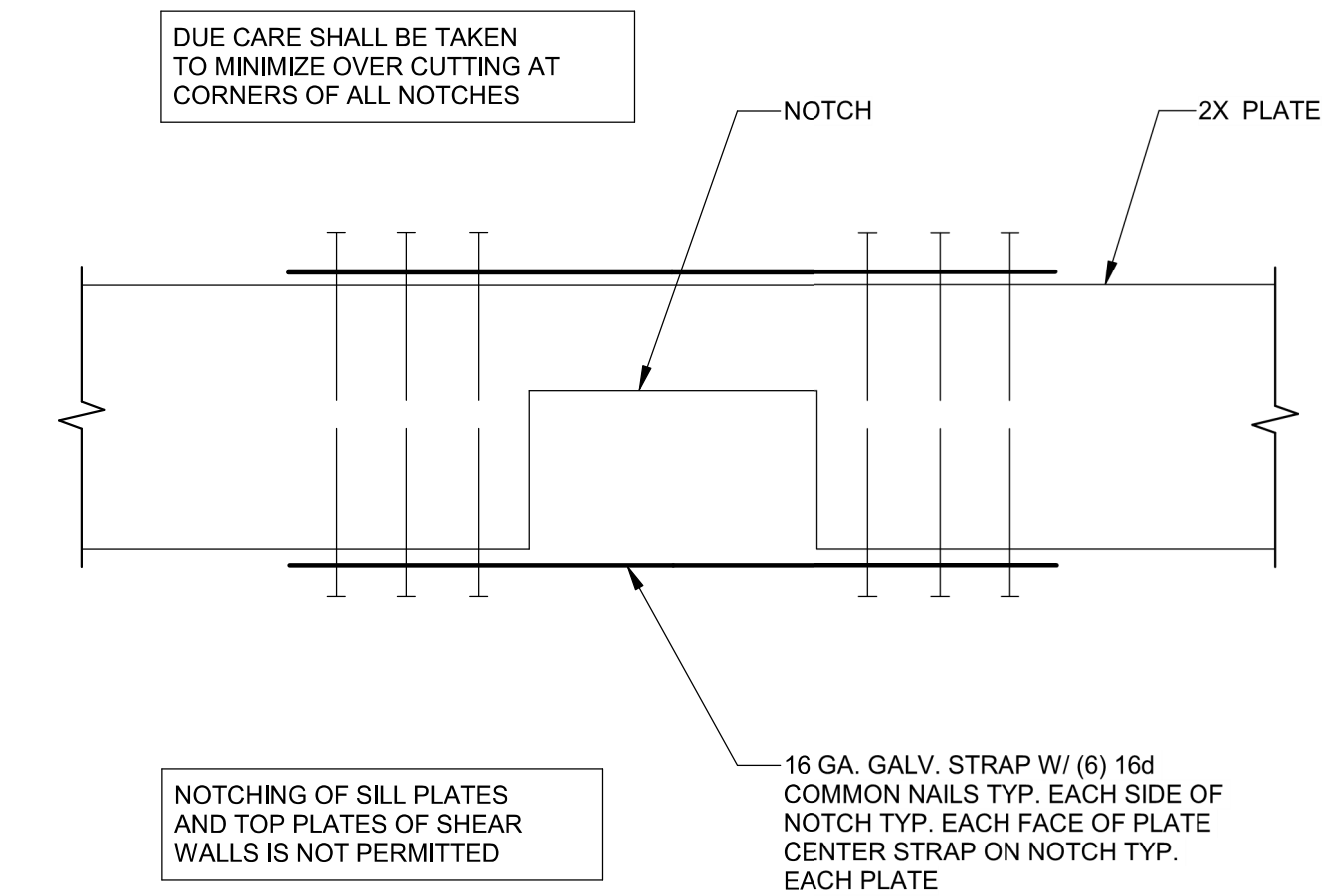
3 BORED HOLE IN JOIST/RAFTER
NO SCALE



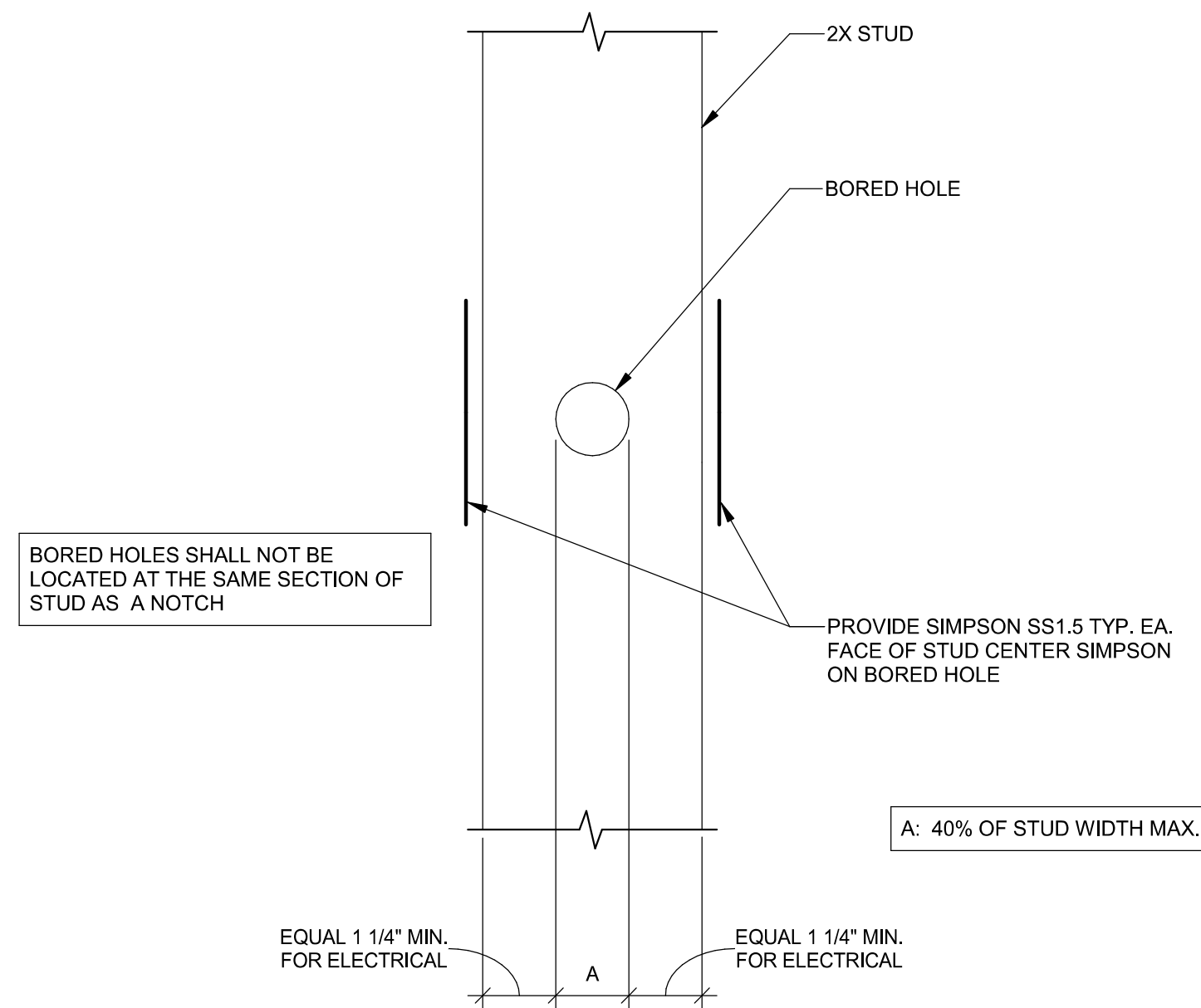
4 NON-LOAD BEARING WALL STUD
NO SCALE



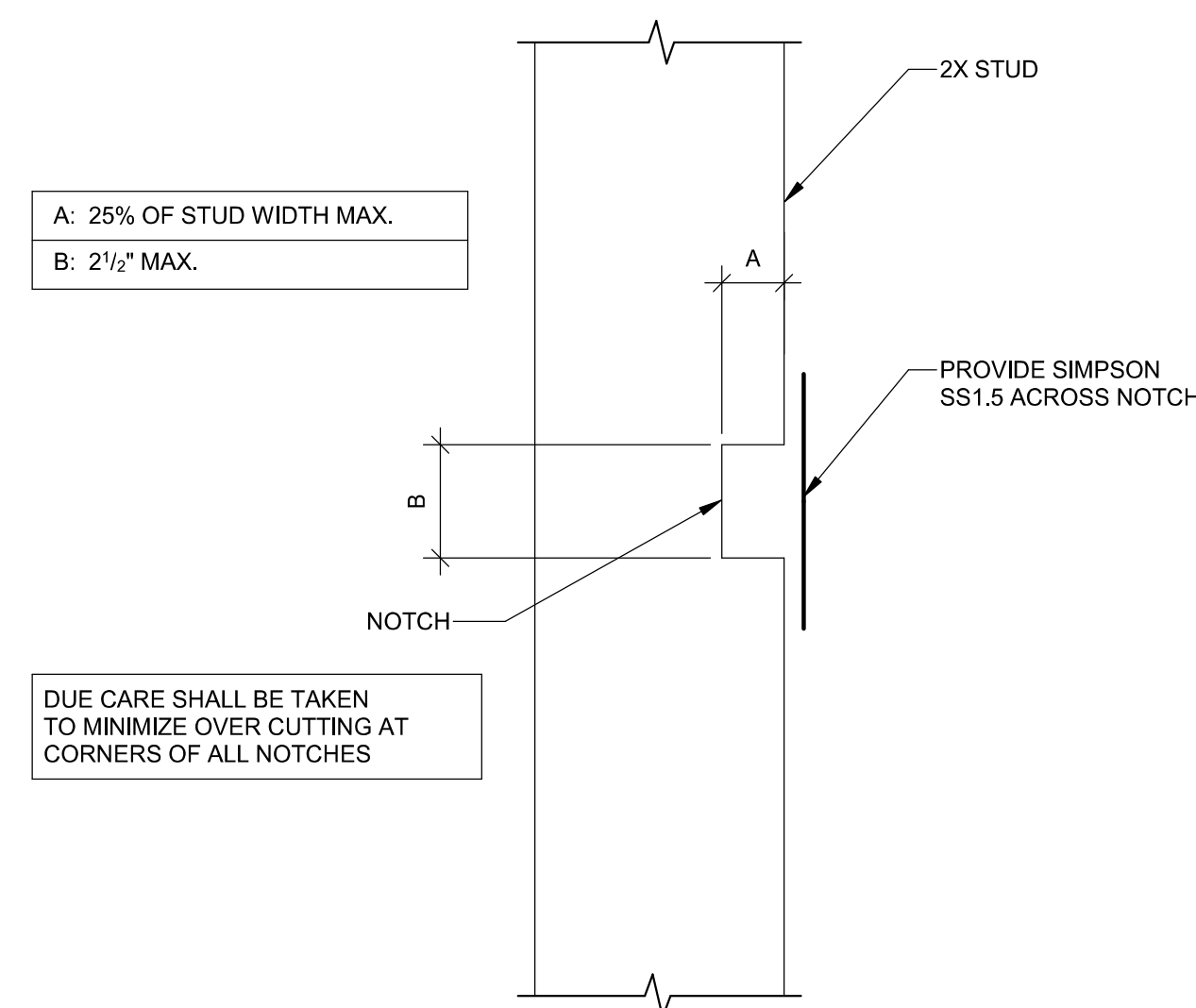
5 NOTCHES IN THE JOIST/RAFTER
NO SCALE



6 NOTCH IN SILL OR TOP PLATE
NO SCALE



7 BORED HOLES IN ANY STUD
NO SCALE



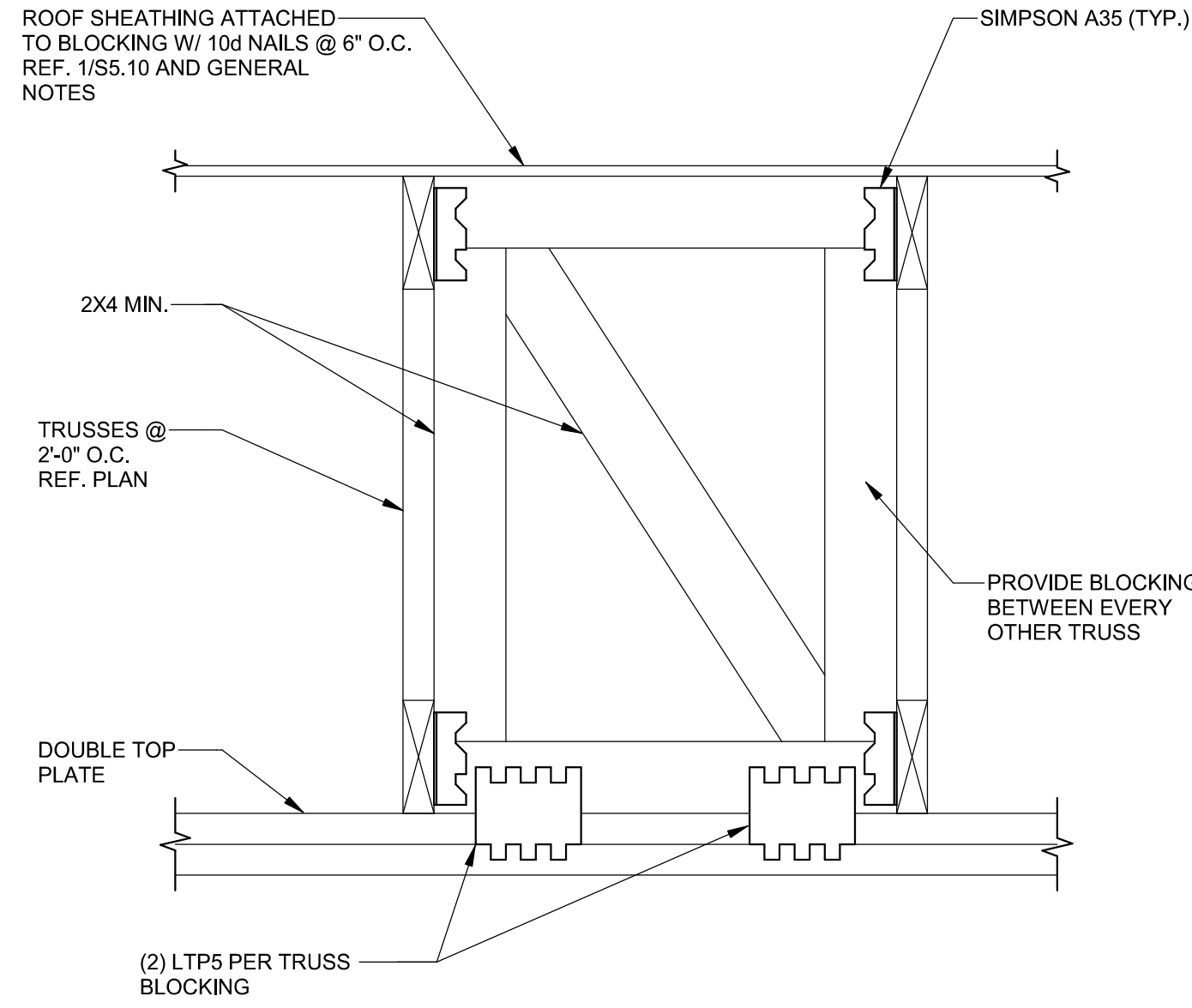
8 LOAD BEARING WALL STUD
NO SCALE

2/14/2020 9:39:15 AM
BIM 360//198014-003 - Watson Park Events Center New Building/198014_MASTER
STRUCT_R19.rvt

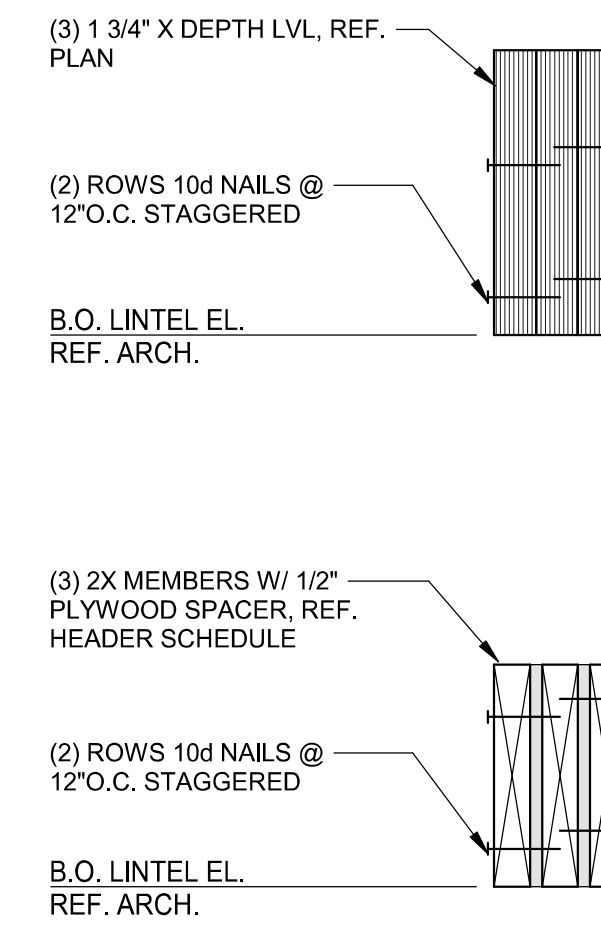
TRUSS NOTES:

1. TRUSS DRAWINGS ARE PROVIDED FOR CONCEPTUAL DESIGN ONLY. ENGINEERED DRAWINGS & CALCULATIONS SHALL BE SUBMITTED TO THE OWNER AND THE ENGINEER OF RECORD, PRIOR TO INSTALLATION. DRAWINGS AND CALCULATIONS SHALL BE SEALED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED PRIOR TO SUBMITTAL.
2. ROOF CONNECTORS SHALL BE SIMPSON STRONG-TIE.
3. TRUSSES ON SITE PRIOR TO INSTALLATION SHALL BE STORED IN A VERTICAL POSITION WITH SUPPORT POINTS PROVIDED AT FINAL BEARING POINTS AND BRACED TO AVOID TIPPING.
4. INSTALLATION OF ALL TRUSSES SHALL BE DONE USING A SPREADER BAR WITH A THREE POINT VERTICAL PICK AND CARE IS TO BE USED IN LIFTING TO MINIMIZE HORIZONTAL BENDING.
5. IMPROPER HANDLING OF THE TRUSSES AS NOTED ABOVE AND IN THE SPECIFICATIONS SHALL MEAN REMOVAL OF THE TRUSSES FROM THE JOB SITE.
6. DOUBLE TRUSSES TO BE NAILED TOGETHER W/ 10d @ 12" O.C. EACH SIDE, TOP & BOTTOM CHORDS & WEBS.
7. SEE DIVISION SIX OF THE SPECIFICATIONS FOR DETAILS ON TRUSS MANUFACTURING AND NAILING.
8. TRUSS TO TRUSS CONNECTIONS SHALL BE VERIFIED BY THE TRUSS DESIGNER.

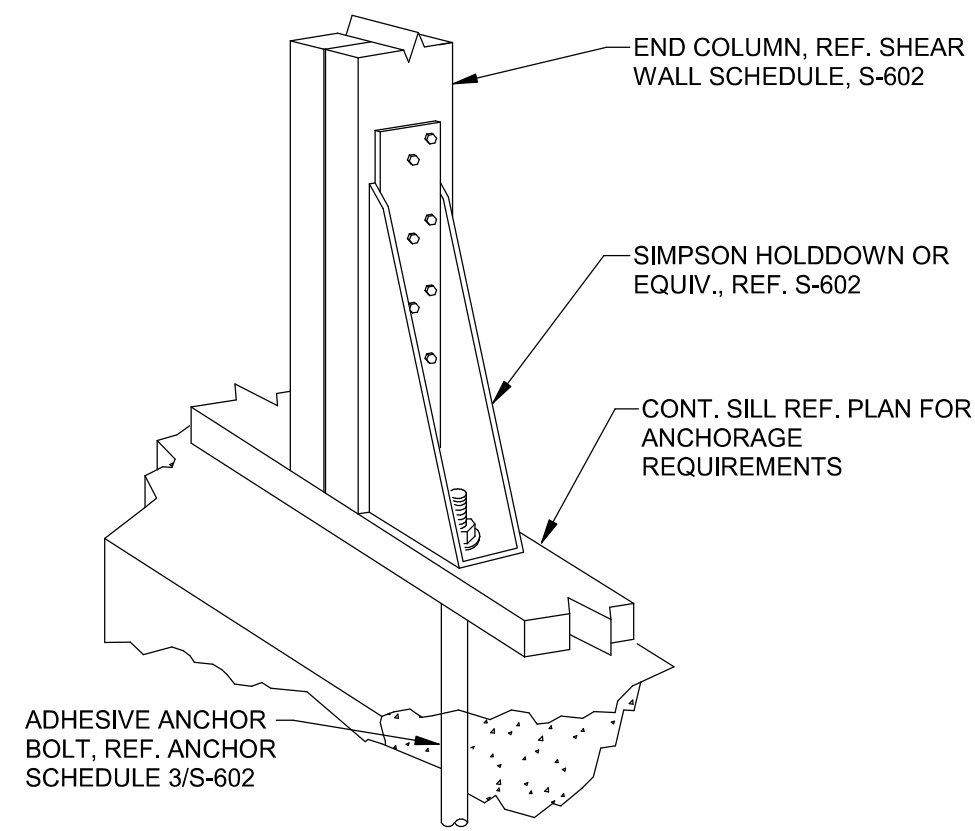
1 TRUSS NOTES
NO SCALE



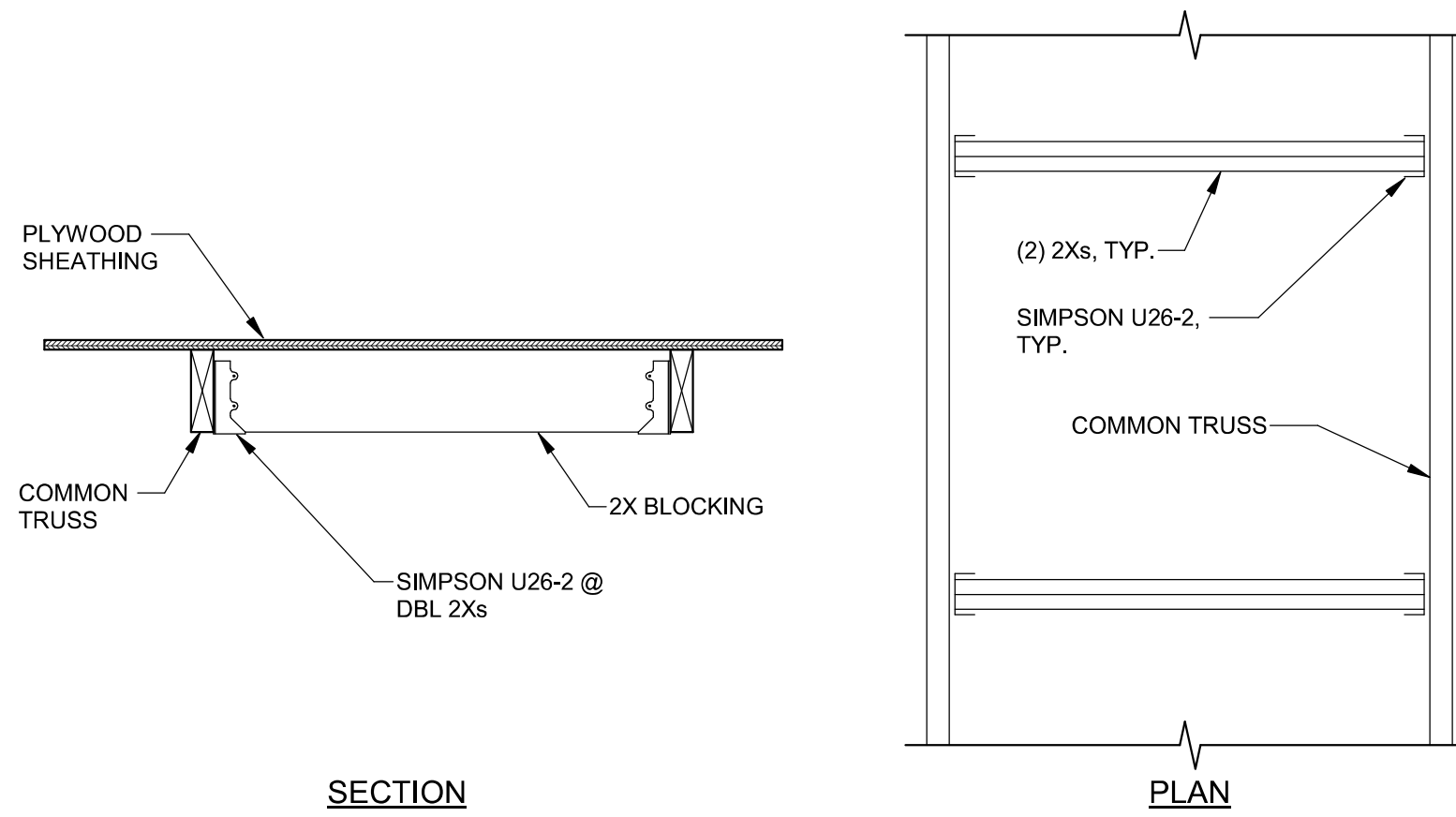
2 TYP. BLOCKING TRUSS ELEVATION
NO SCALE



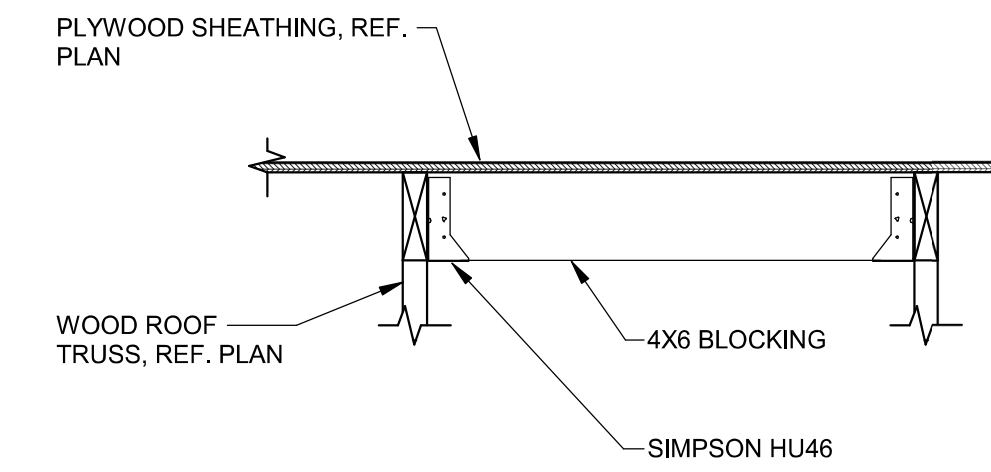
3 TYPICAL BUILT-UP HEADER DETAIL
NO SCALE



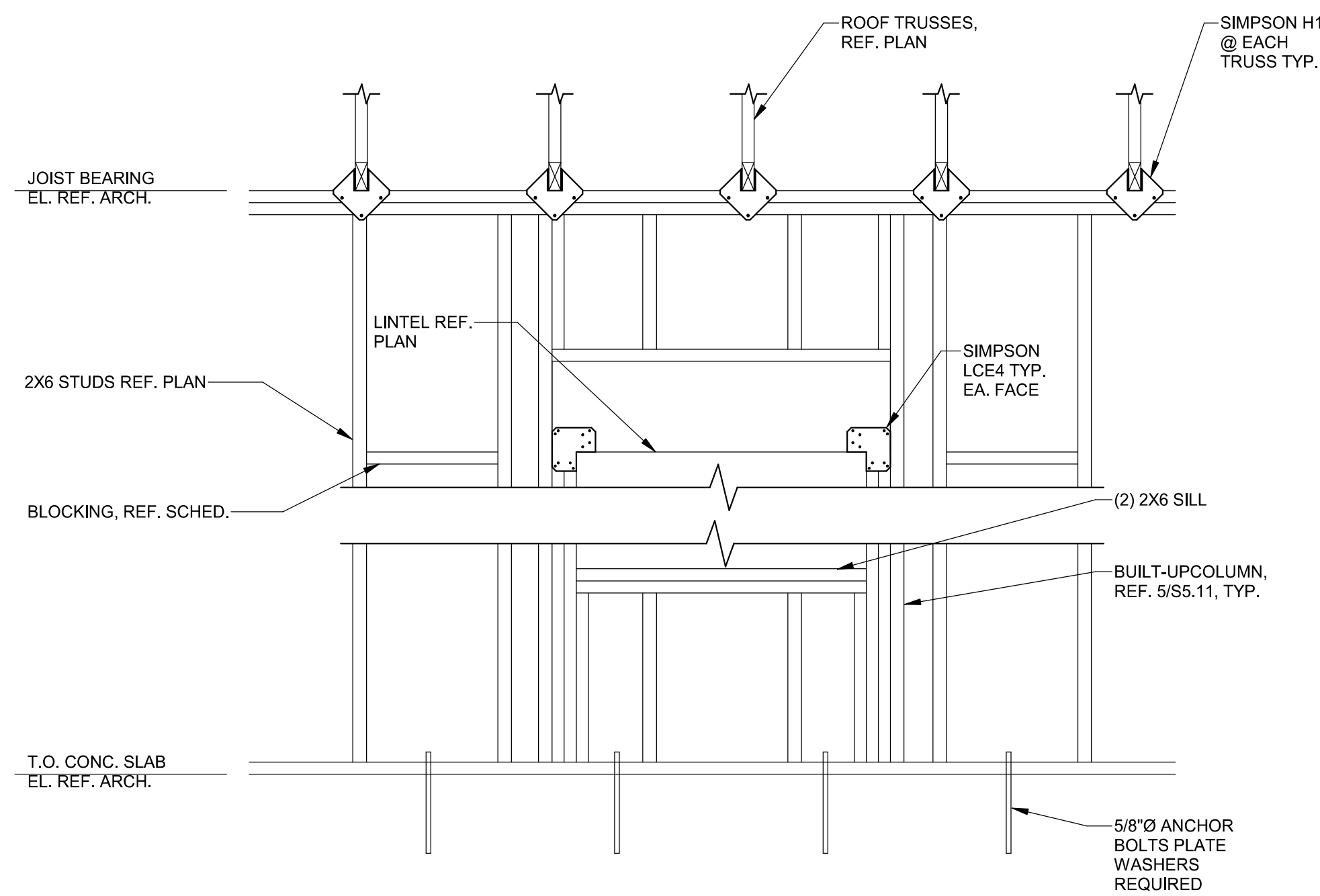
4 SHEARWALL HOLD DOWN DETAIL
NO SCALE



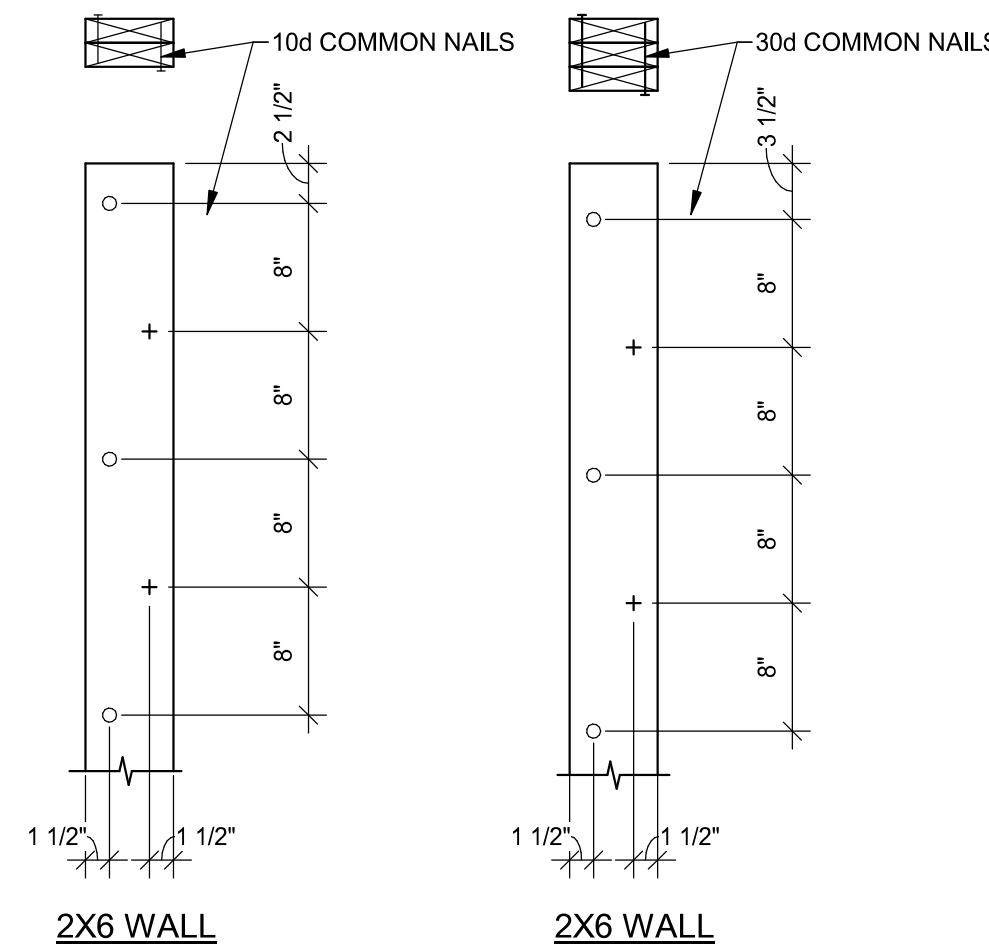
5 TYPICAL ROOF OPENING DETAIL
NO SCALE



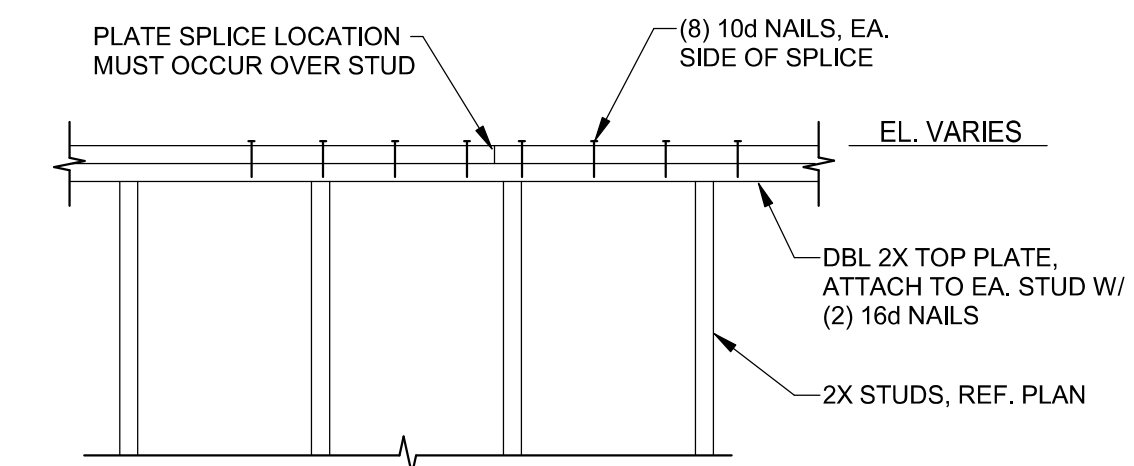
6 TYP. BRIDGING DETAIL
NO SCALE



7 TYP. EXT. WALL FRAMING DETAIL
NO SCALE

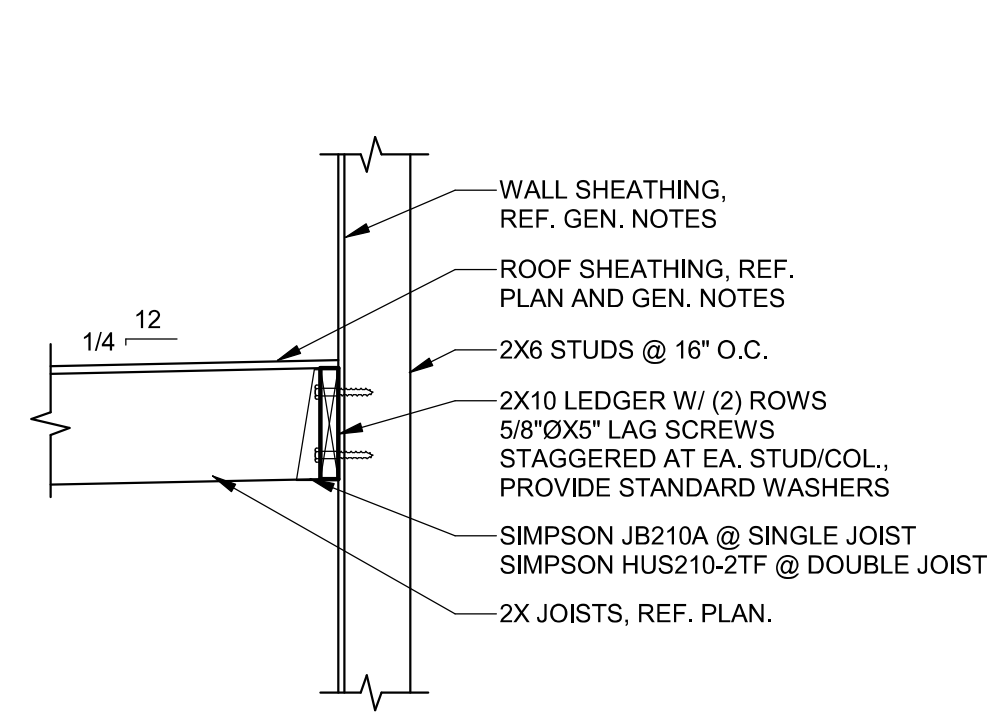


8 BUILT-UP DIM. LUMBER COL. DETAIL
NO SCALE

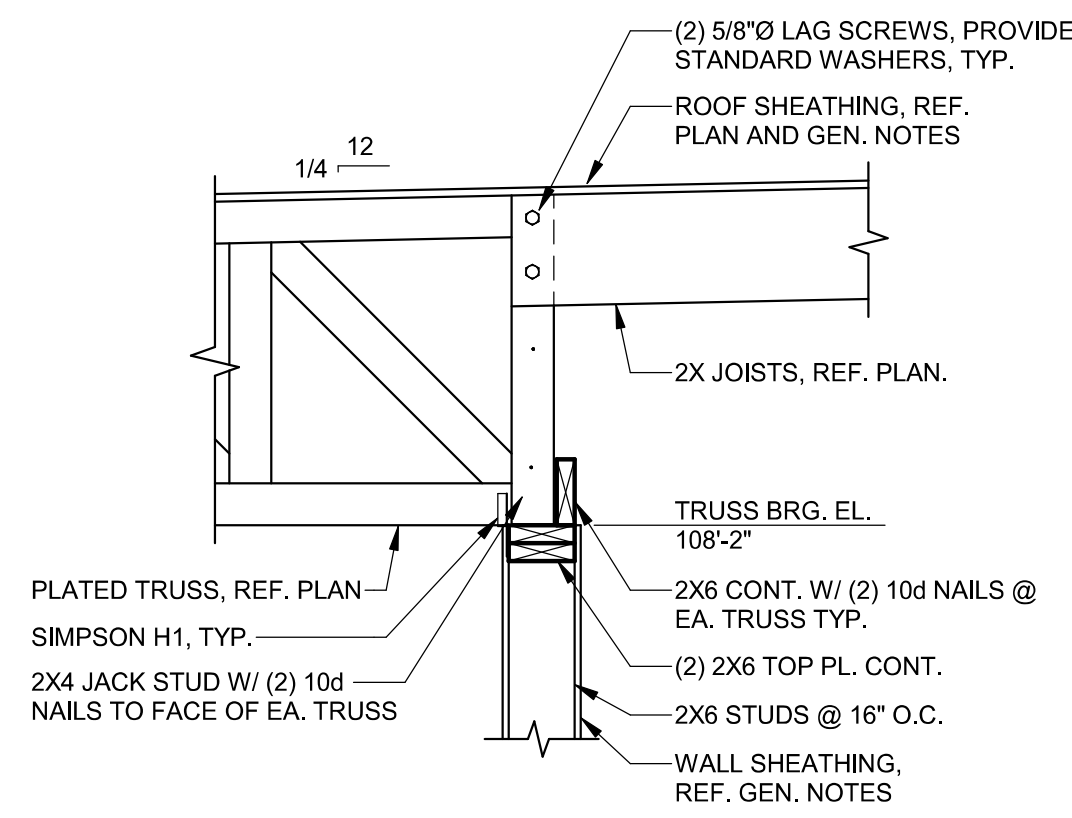


9 WALL TOP PLATE SPLICE DETAIL
NO SCALE

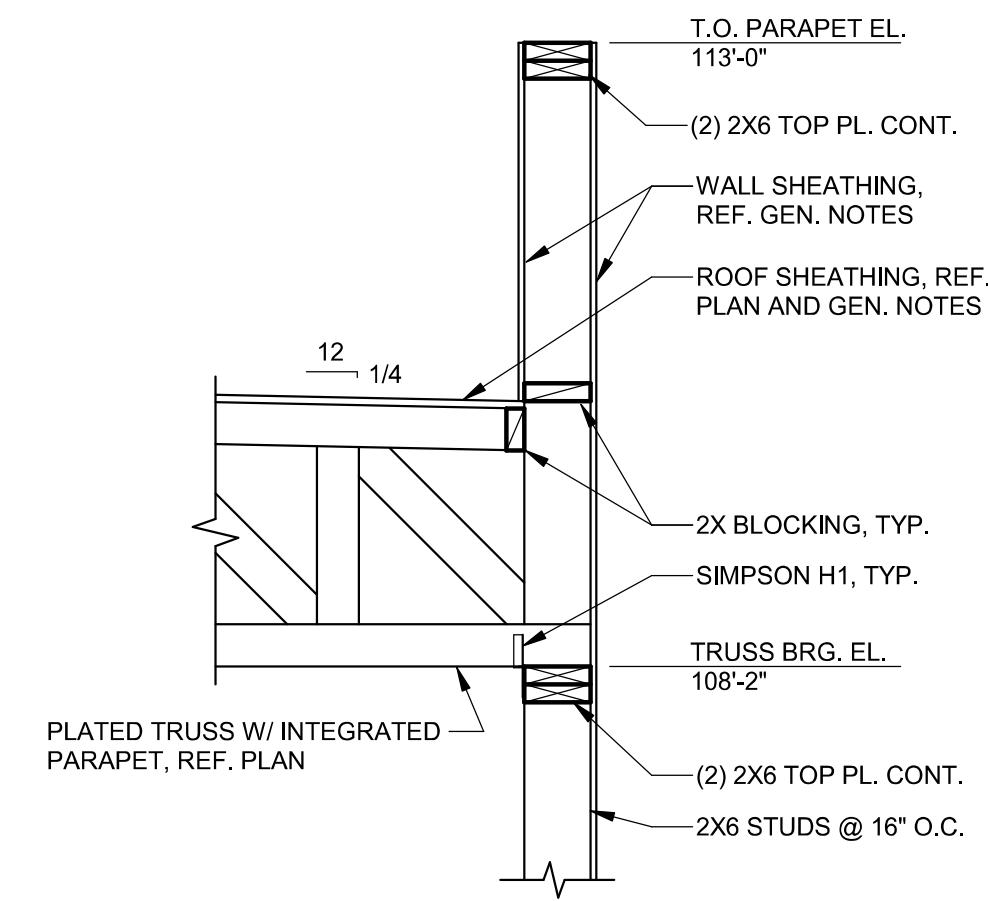
2/14/2020 9:39:15 AM
BIM 360//198014-003 - Watson Park Events Center New Building/198014_MASTER
STRUCT_R19.rvt



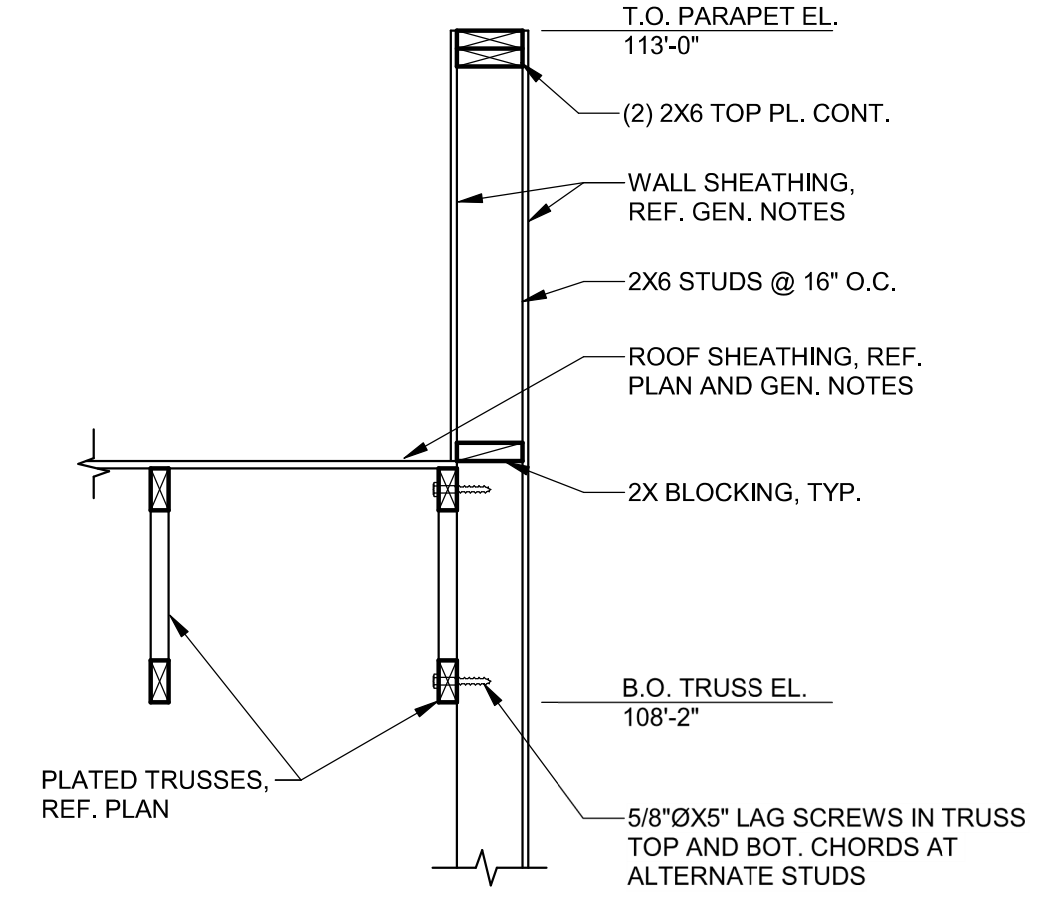
1 ROOF FRAMING DETAIL
3/4" = 1'-0"



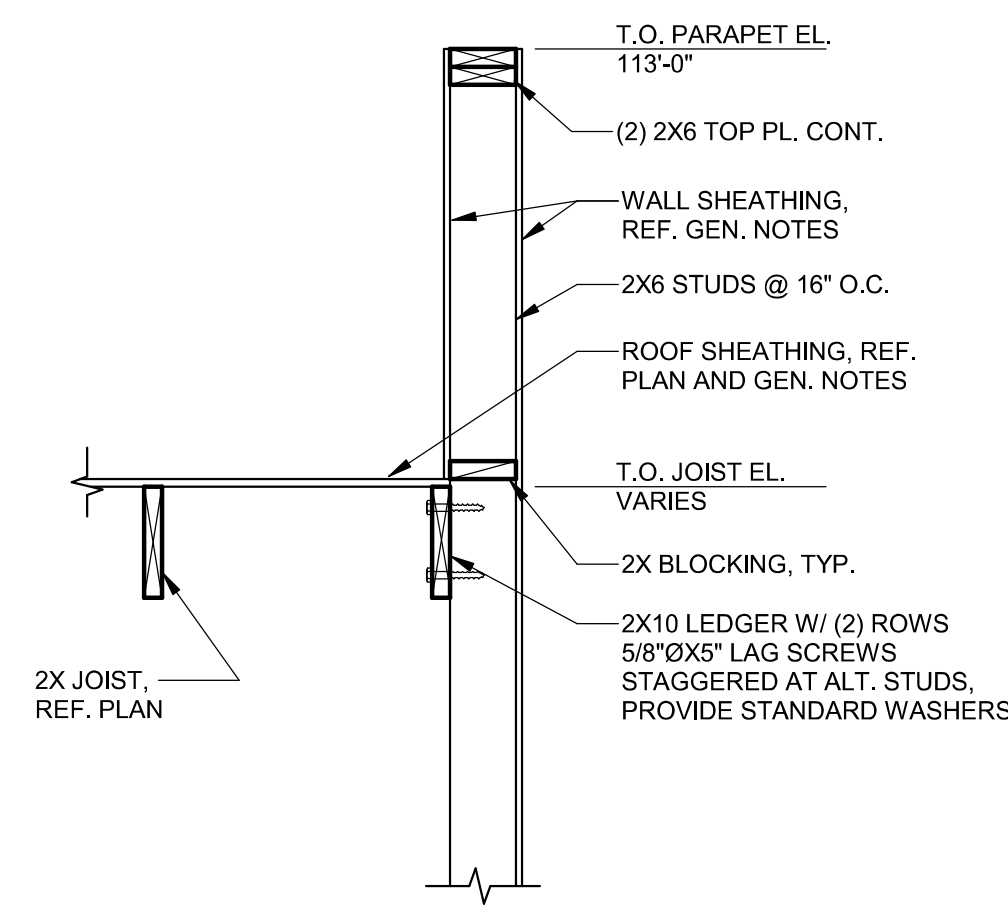
2 ROOF FRAMING DETAIL
3/4" = 1'-0"



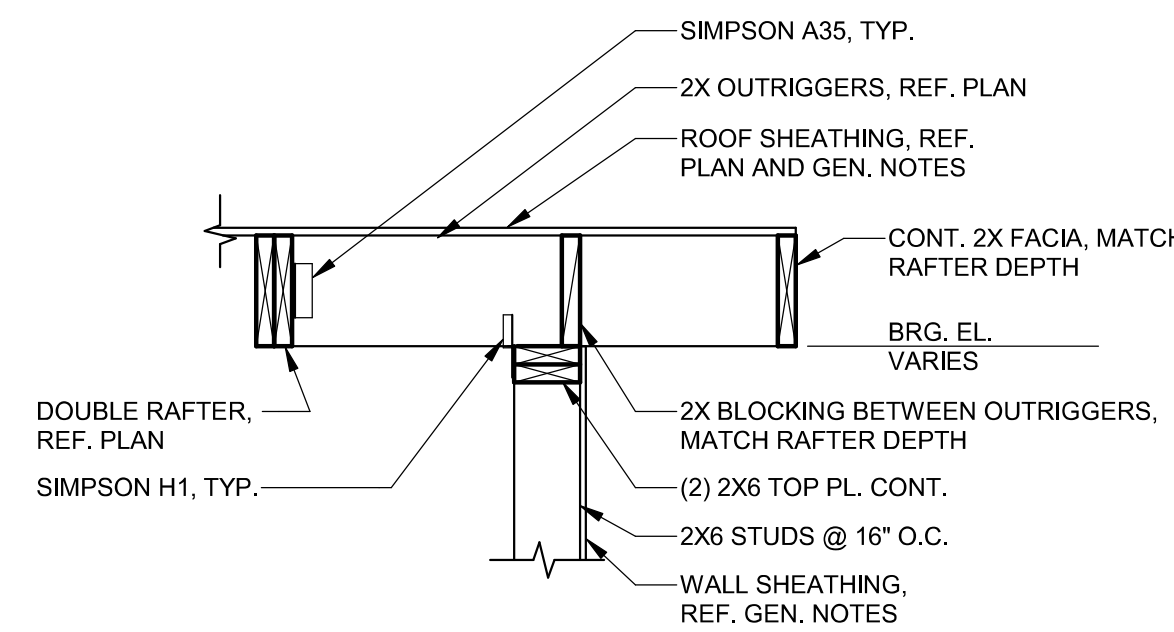
3 ROOF FRAMING DETAIL
3/4" = 1'-0"



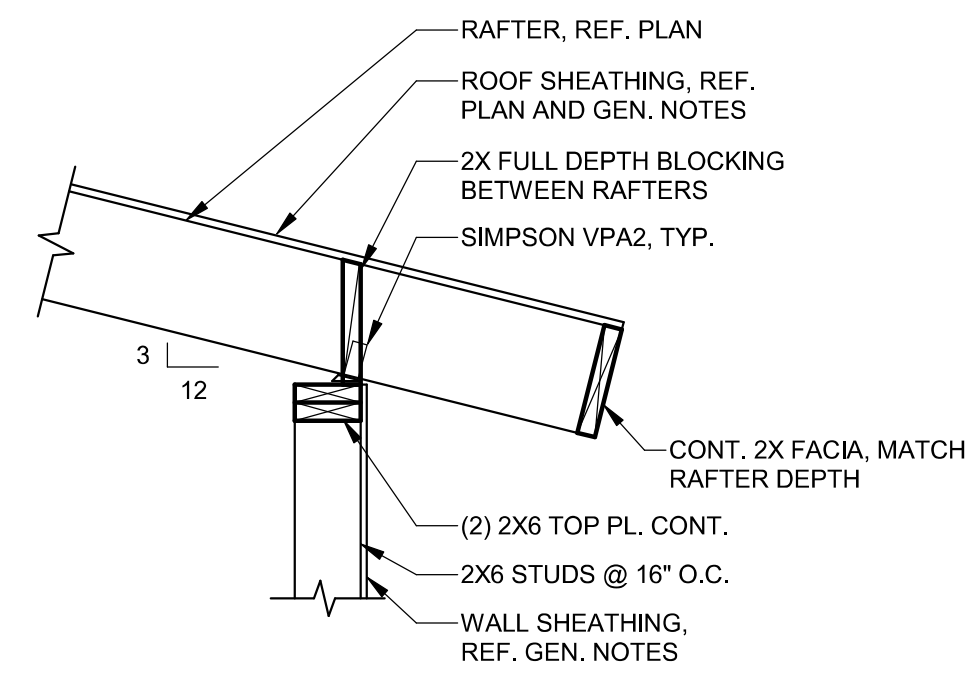
4 ROOF FRAMING DETAIL
3/4" = 1'-0"



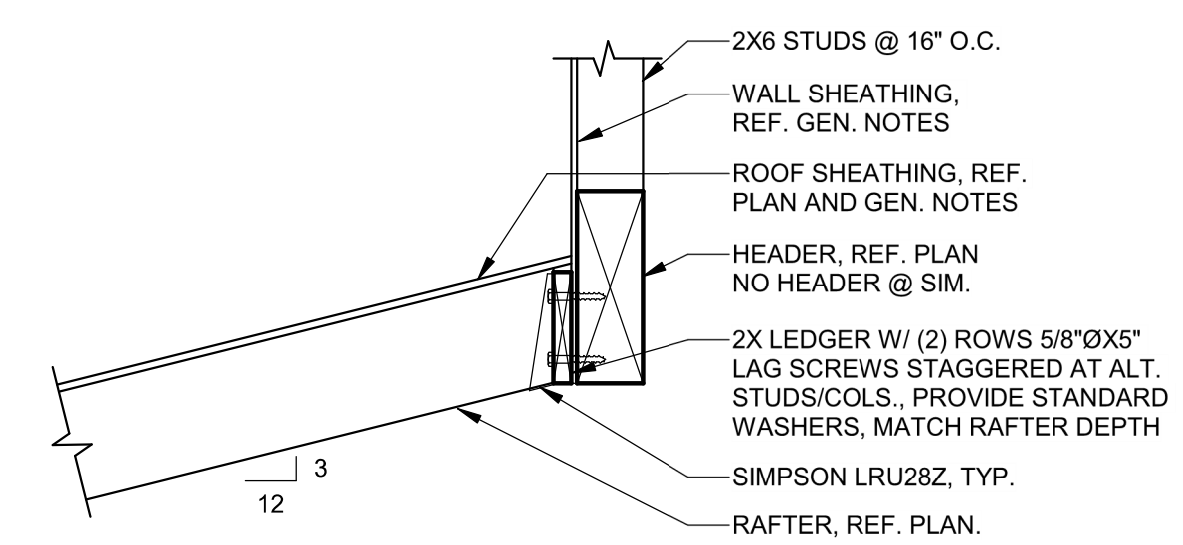
5 ROOF FRAMING DETAIL
3/4" = 1'-0"



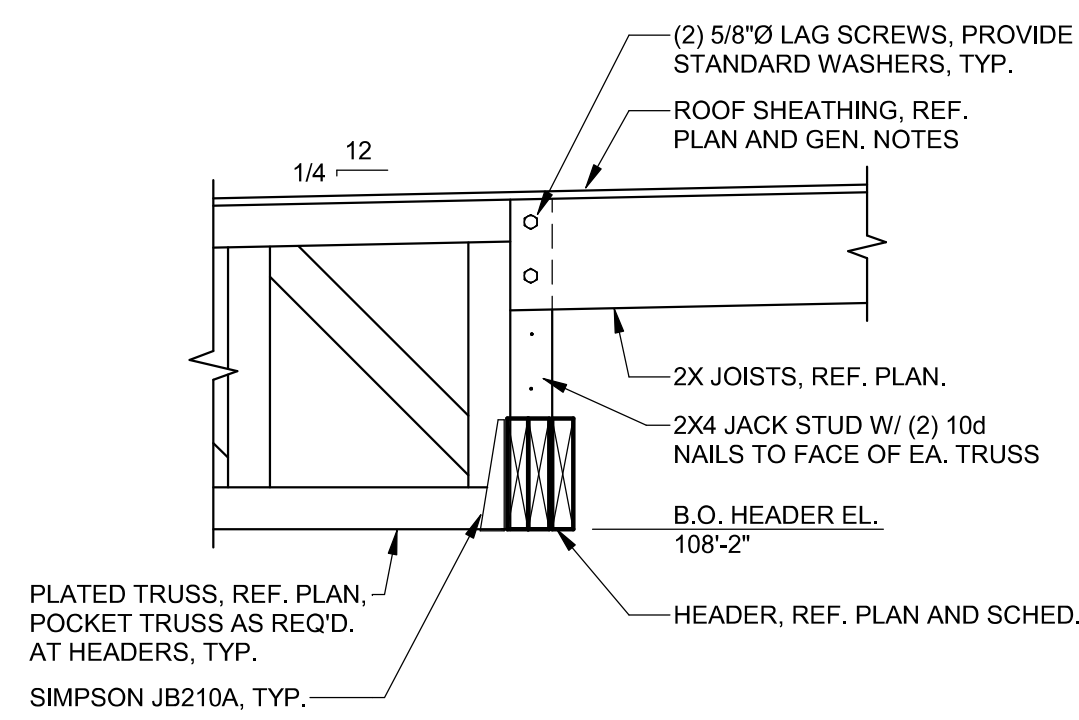
6 ROOF FRAMING DETAIL
3/4" = 1'-0"



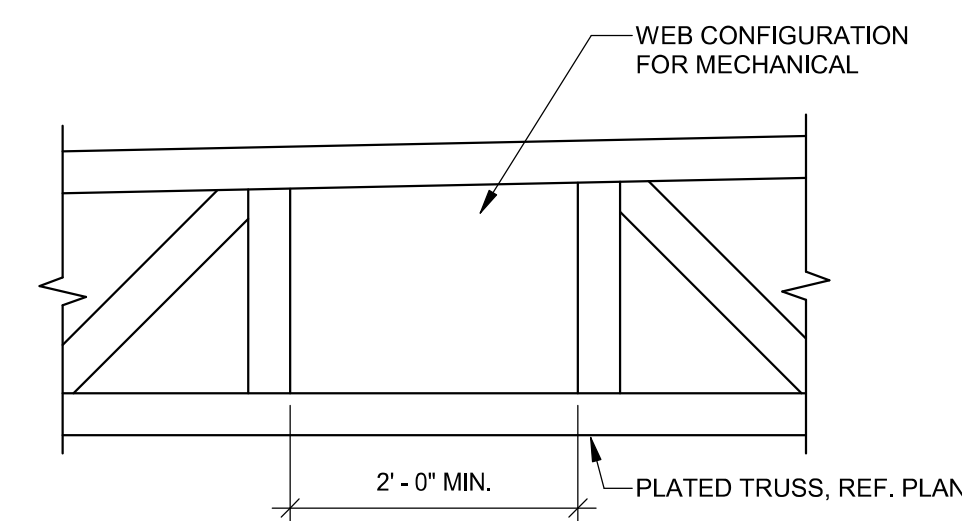
7 ROOF FRAMING DETAIL
3/4" = 1'-0"



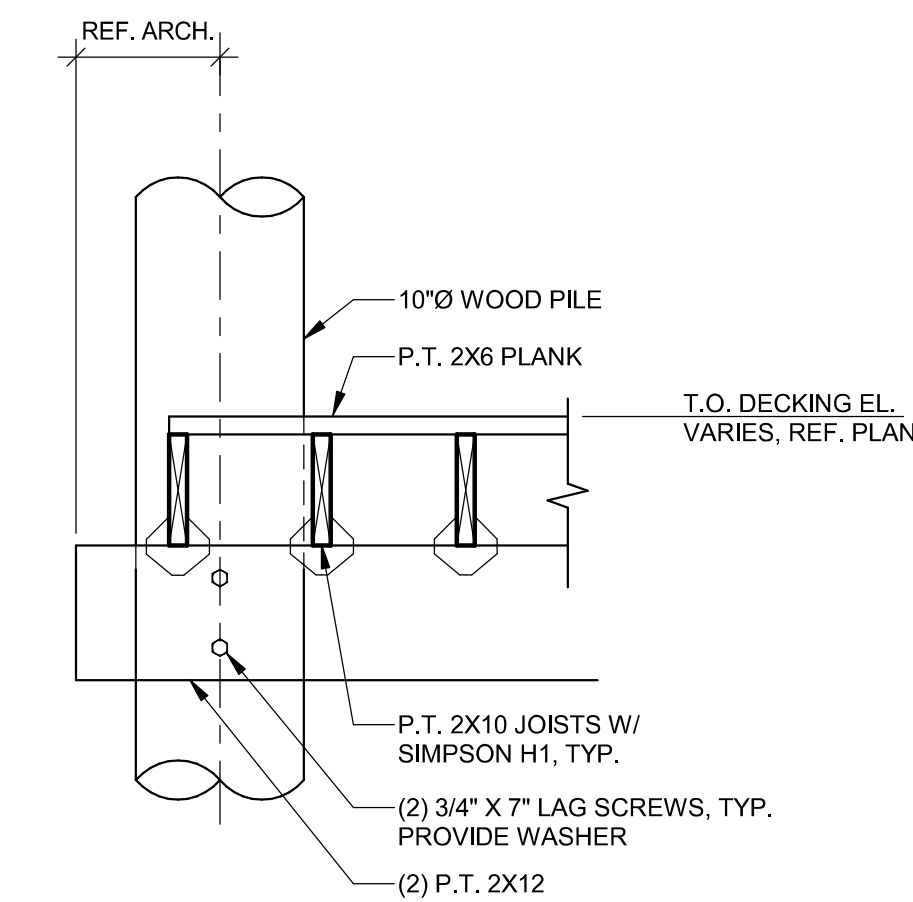
8 ROOF FRAMING DETAIL
3/4" = 1'-0"



9 ROOF FRAMING DETAIL
3/4" = 1'-0"



10 ROOF FRAMING DETAIL
3/4" = 1'-0"



11 BRIDGE FRAMING
3/4" = 1'-0"

2/14/2020 9:39:15 AM
BIM 360://198014-003 - Watson Park Events Center New Building/198014_MASTER
STRUCT_R19.rvt

SHEARWALL SCHEDULE					
SHEARWALL MARK	SHEATHING	PANEL EDGE NAILING	FIELD NAILING	ANCHOR BOLTS	HOLD-DOWN
1	15/32" APA RATED	10d @ 4" O.C.	10d @ 12" O.C.	5/8" @ 12" O.C.	HD5B
2	15/32" APA RATED	10d @ 4" O.C.	10d @ 12" O.C.	5/8" @ 32" O.C.	HD7B
3	15/32" APA RATED	10d @ 3" O.C.	10d @ 12" O.C.	5/8" @ 32" O.C.	HD12

SHEARWALL NOTES:

1. SHEARWALLS SHALL HAVE A 2" NOMINAL SILL PLATE. ALL FRAMING MEMBERS RECEIVING PANEL EDGE NAILING FROM ABUTTING PANELS SHALL HAVE STAGGERED NAILS.
2. ALL EXTERIOR WALLS SHALL HAVE 5/8" ANCHOR BOLTS @ 48" OC MAXIMUM SPACING WITH ONE ANCHOR BOLT WITHIN 12" OF EACH END OF EACH PIECE. SEE SHEARWALL SCHEDULE FOR REQUIRED SPACING OF ANCHOR BOLTS.
3. REFERENCE 4/S-511 FOR HOLD DOWN ANCHORS.
4. REFERENCE GEN. NOTES FOR APA RATED SHEATHING.

WOOD SHEATHED SHEAR WALL:

WOOD NAILING SHALL MEET THE FOLLOWING:

- 10d COMMON NAIL
- 1. 0.148" SHANK DIAMETER
- 2. 3" LENGTH

WOOD HEADER SCHEDULE				
MARK	HEADER	JAMB	MAX. OPENING	HEADER TO JAMB CONN.
H1	(3) 2x8 SYP #2	(1) 2X6 TRIMMER (1) 2X6 KING	3'-8"	(2) SIMPSON LCE4
H2	(3) 2x10 SYP #2	(1) 2X6 TRIMMER (1) 2X6 KING	3'-8"	(2) SIMPSON LCE4
H3	(3) 2x10 SYP #2	(2) 2X6 TRIMMER (1) 2X6 KING	5'-6"	(2) SIMPSON LCE4
H4	(3) 1 3/4x9 1/4 LVL	(3) 2X6 TRIMMER (1) 2X6 KING	10'-6"	(2) SIMPSON LCE4
H5	(3) 1 3/4x9 1/4 LVL	(3) 2X6 TRIMMER (1) 2X6 KING	8'-6"	(2) SIMPSON LCE4
H6	(3) 2x10 SYP #2	(2) 2X6 TRIMMER (1) 2X6 KING	4'-0"	(2) SIMPSON LCE4
H7	(3) 1 3/4x11 1/4 LVL	(3) 2X6 TRIMMER (1) 2X6 KING	15'-10"	(2) SIMPSON LCE4
H8	5 1/4 X 16 PSL	5 1/4 X 5 1/4 PSL	30'-0"	SIMPSON ECCQ66SDS2.5
H9	(3) 2x12 SYP #2	(2) 2X6 TRIMMER (1) 2X6 KING	12'-0"	(2) SIMPSON LCE4

NOTES:

1. REFERENCE 3/S-511 FOR BUILT-UP HEADER
2. REFERENCE 8/S-511 FOR BUILT-UP JAMB
3. REFERENCE 7/S-511 FOR TYPICAL WALL ELEVATION DETAIL

SHEAR WALL ANCHOR SCHEDULE		
HOLD DOWN	ADHESIVE ANCHOR BOLT DIAMETER	MINIMUM EMBED
SIMPSON HD5B	5/8"Ø	8"
SIMPSON HD7B	7/8"Ø	11"
SIMPSON HD12	1"Ø	12"

1. USE HILTI HIT HY200 MAX ADHESIVE, REFERENCE GENERAL NOTES
2. EMBEDMENT DEPTH SHOWN IS FOR EMBEDMENT INTO CONCRETE ONLY.
3. REFERENCE 4/S-511 FOR SHEARWALL HOLD DOWN DETAIL

1 SHEARWALL SCHEDULE
NO SCALE

2 WOOD HEADER SCHEDULE
NO SCALE

3 SHEARWALL HOLD DOWN ANCHOR SCHEDULE

FASTENER COMPATIBILITY WITH CHEMICAL FORMULATIONS FOR TREATED WOOD				
FASTENER TYPE	ASTM	SODIUM BORATE (SBX)	SODIUM BORATE WITH SODIUM-SILICATE	ALKALINE COPPER QUATERNARY (ACQ-C & ACQ-D) CARBONATE
STANDARD ZINC ELECTROPLATED	ASTM B633	X		
MECHANICALLY GALVANIZED	ASTM B695, CLASS 65, TYPE 1	X	X	X
MECHANICALLY GALVANIZED	ASTM B695, CLASS 55, TYPE 1	X	X	X
HOT DIPPED GALVANIZED	ASTM A123, G185	X	X	X
TYPE 304 STAINLESS STEEL	ASTM F593	X	X	X
TYPE 316 STAINLESS STEEL	ASTM F593	X	X	X

NOTES:

- 1) ALL NUTS, WASHERS, ETC. SHALL BE OF THE SAME MATERIAL AS THE FASTENERS.
- 2) ALL FASTENERS SHALL BE OF THE SAME MATERIAL AS THE MANUFACTURED CONNECTOR.
- 3) STAINLESS STEEL FASTENERS AND CONNECTORS SHALL BE A304 OR A316.
- 4) GALVANIZED AND STAINLESS STEEL FASTENERS AND CONNECTORS SHALL NOT BE IN DIRECT CONTACT.

4 FASTENER COMPATABILITY SCHEDULE
NO SCALE

COLUMN SCHEDULE			
MARK	SPECIES/GRADE	COLUMN	POST BASE
C1	-	5 1/4 X 5 1/4 PSL	SIMPSON CB66
C2	DFL #1	8 X 8	SIMPSON CB88
C3	DFL #1	12 X 12	SIMPSON CB1212

5 COLUMN SCHEDULE
NO SCALE

FOOTING SCHEDULE		
MARK	DIMENSIONS	REINFORCING
F1	3'-0" X 3'-0" X 2'-2"	(4) #5 E.W.
F2	8'-6" X 8'-6" X 2'-2"	(10) #5 E.W.
F3	4'-6" X 4'-6" X 2'-2"	(6) #5 E.W.

SCHEDULE NOTES:

1. MATCH BOTTOM OF ADJACENT WALL FOOTING AT SIM.

6 FOOTING SCHEDULE
NO SCALE

GRADE BEAM SCHEDULE				
MARK	WIDTH	HEIGHT	REINFORCING	TIES
GB1	1'-6"	3'-0"	(2) #5 T&B	#4 @ 32" O.C.
GB2	2'-0"	3'-0"	(3) #5 T&B	#4 @ 18" O.C.

7 GRADE BEAM SCHEDULE
NO SCALE

2/14/2020 9:39:15 AM
BIM 360://198014-003 - Watson Park Events Center New Building/198014_MASTER
STRUCT_R19.rvt