

DESIGN STANDARD
2014 OREGON STRUCTURAL SPECIALTY CODE (OSSC).

DESIGN CRITERIA

- DESIGN LIVE AND SNOW LOADS FOR NEW CONSTRUCTION, U.N.O.:
 - LIVE LOADS: ROOF.....20 PSF MINIMUM ROOF
LIVE LOAD(REDUCIBLE ACCORDING TO IBC REQUIREMENTS)
 - SNOW LOADS: ROOF.....350 PSF MINIMUM ROOF SNOW
LOAD SNOW BUILD-UP: $1s = 1.20$ IBC, $C_e=1.2$
- DESIGN LATERAL LOADS FOR NEW CONSTRUCTION, U.N.O.:
 - WIND: IBC, 130 MPH (3-SECOND GUST), EXPOSURE B (STRENGTH LEVEL)
 - SEISMIC: IBC, SEISMIC SITE CLASS D
 $SDS = 0.58g$ $SD1=0.36g$
SEISMIC DESIGN CATEGORY D, $I=1.5$
 $R = 6.5$ FOR PLYWOOD SHEAR WALL

GENERAL

- THESE STRUCTURAL NOTES ARE A SUPPLEMENT TO THE SPECIFICATIONS.
- SPECIFICATIONS AND CODES REFERENCED IN THESE NOTES ARE THE VERSIONS MOST RECENTLY ADOPTED BY THE PERMITTING AUTHORITY.
- VERIFY DIMENSIONS AND CONDITIONS WITH THE ARCHITECTURAL DRAWINGS. VERIFY DIMENSIONS AND ELEVATIONS RELATIVE TO THE EXISTING STRUCTURE PRIOR TO FABRICATION OF MATERIALS.
- FOR FEATURES OF CONSTRUCTION NOT FULLY SHOWN, PROVIDE THE SAME TYPE AND CHARACTER AS SHOWN FOR SIMILAR CONDITIONS, SUBJECT TO REVIEW BY THE ARCHITECT AND STRUCTURAL ENGINEER OF RECORD.
- APPLY, PLACE, ERECT OR INSTALL ALL PRODUCTS AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- ADEQUATELY BRACE STRUCTURE AND ALL STRUCTURAL COMPONENTS AGAINST WIND, LATERAL EARTH AND SEISMIC FORCES UNTIL THE PERMANENT LATERAL-FORCE RESISTING SYSTEMS HAVE BEEN INSTALLED.
- PERMANENTLY ATTACH FIRST FLOOR TO WALLS OR SHORE WALLS PRIOR TO BACK-FILLING AGAINST STRUCTURE.
- TEMPORARY SHORING AND BRACING OF THE STRUCTURE AND PROVIDING A SAFE WORK ENVIRONMENT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- PROVIDE BLOCKING BETWEEN STUDS (OR OTHER MEANS OF BRACING) AT WOOD BEARING WALLS TO PREVENT STUD BUCKLING PRIOR TO INSTALLATION OF GYPSUM WALLBOARD.

SITE PREPARATION

- REMOVE VEGETATION, RUBBISH AND EXISTING FILL WITHIN BUILDING FOOTPRINT AND 5'-0" (MINIMUM) BEYOND THE FOOTPRINT.
- OVER-EXCAVATE AREA WITHIN BUILDING FOOTPRINT AND 2'-0" (MINIMUM) BEYOND THE FOOTPRINT AND COMPACT BACK PER THE GEO-TECHNICAL INVESTIGATION REPORT REQUIREMENTS.
- REMOVE AREAS OF SOIL, AS REQUIRED, THAT EXHIBIT EXCESSIVE HEAVING OR DEFLECTION.
- BACK-FILL EXCAVATED AREAS WITH STRUCTURAL FILL.

STRUCTURAL FILL OR BACK-FILL

- STRUCTURAL FILL MATERIAL:
 - SAND AND GRAVEL MIXTURE OR CRUSHED ROCK.
 - WELL GRADED FROM COARSE-TO-FINE WITH LESS THAN 10% BY WEIGHT OF THE MINUS 3/4" FRACTION PASSING THE NO. 200 SIEVE FREE OF ORGANICS, RUBBISH, CLAY BALLS AND ROCKS LARGER THAN 4".
- PLACE STRUCTURAL FILL IN LOOSE LIFTS, MAXIMUM OF 6" IN THICKNESS.
- COMPACT STRUCTURAL FILL TO A MINIMUM DENSITY OF 95% OF MAXIMUM DRY DENSITY, AS DETERMINED BY ASTM D 1557.
- VERIFY ADEQUACY OF STRUCTURAL FILL COMPACTION WITH RANDOM FIELD DENSITY TESTS.
- COMPACT STRUCTURAL FILL WITHIN 5'-0" OF RETAINING OR BASEMENT WALLS WITH LIGHT-WEIGHT, HAND-HELD EQUIPMENT. EXERCISE CARE TO AVOID DAMAGE TO WALLS.

FOUNDATIONS

- FOUNDATION SIZES BASED ON AN ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF ASSUMED.
- FOUNDATION ELEVATIONS SHOWN ARE TO TOP OF FOOTINGS.
- PLACE FOOTINGS ON FIRM, UNDISTURBED ORIGINAL SOIL, OR ON STRUCTURAL FILL. SEE "STRUCTURAL FILL OR BACK-FILL" NOTES FOR STRUCTURAL FILL INFORMATION.
- LOCATE BOTTOM OF FOOTINGS AT A MINIMUM OF 2'-0" BELOW FINAL GRADE OR 1'-0" BELOW EXISTING GRADE, WHICHEVER IS LOWER.
- PRIOR TO PLACEMENT OF CONCRETE, REMOVE ALL DISTURBED SOIL FROM FOOTING EXCAVATION TO NEAT LINES.
- STEP BOTTOM OF FOOTINGS FROM ELEVATION TO ELEVATION AT A RATIO OF 1 VERTICAL TO 2 HORIZONTAL, WITH A MAXIMUM VERTICAL STEP OF 2'-0".

CONCRETE REINFORCING STEEL

- REINFORCING STEEL (TYPICAL, U.N.O.): ASTM A 615, GRADE 60
- WELDED REINFORCEMENT: ASTM A 706, GRADE 60
- WELDED WIRE FABRIC: ASTM A 185, FLAT SHEETS WELDED METAL INSERTS,
- WELDED CONNECTIONS: AWS D1.4.
- REINFORCEMENT MECHANICAL COUPLERS: DEVELOP 125% OF REINFORCEMENT SPECIFIED YIELD STRENGTH.
- DETAIL, FABRICATE AND PLACE REINFORCING ACCORDING TO ACI 318, "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT".
- TYPICAL REINFORCING (MINIMUM, U.N.O. ON DRAWINGS):
 - CORNERS AND INTERSECTIONS OF WALLS, FOUNDATIONS, AND PRE-CAST PANEL CORNERS: CORNER BARS EQUAL IN SIZE AND NUMBER TO HORIZONTAL REINFORCING. LEG LENGTH: 48 BAR DIAMETER (2'-0" MINIMUM).
- DO NOT FIELD BEND, DISPLACE, WELD, HEAT OR CUT REINFORCING UNLESS INDICATED ON THE DRAWINGS, OR APPROVED BY STRUCTURAL ENGINEER OF RECORD.
- CHAIR WELDED WIRE FABRIC TO PROPER POSITION. LAP ONE (1) FULL MESH PLUS 2" ON SIDES AND ENDS.
- SPLAY REINFORCING AROUND SLAB OPENINGS WITH 1" IN 10" SPLAY, U.N.O.
- MINIMUM COVER FROM CONCRETE SURFACES TO REINFORCING:
 - 3" + 1/2" TO BOTTOM OF FOOTING
 - 2" + 1/4" TO EARTH FACE OF WALL
 - 1" + 1/4" TO INSIDE FACE OF WALL
 - 2" + 1/4" MAIN STEEL BEAMS AND COLUMNS
 - 3/4" + SLAB TO TOP AND BOTTOM SURFACES
- REINFORCING LAP SPLICES: CONFORM WITH ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE."

CAST-IN-PLACE CONCRETE

- PROVIDE CONCRETE MATERIALS, FORM WORK, MIXING, PLACING AND CURING ACCORDING TO ACI 301, "STANDARD SPECIFICATION FOR STRUCTURAL CONCRETE".
- MIX DESIGN REQUIREMENTS:

CONCRETE CLASS	CONCRETE TYPE	FOOTINGS
MIX DESIGN (PSI)	F _c	MAX AIR FLY ASH TARGET COARSE NOTES
	W/C (%)	SLUMP
	RATIO	AGG. SIZE
A	2500	0.58 -- 80 4 1"
- CONCRETE MIX PROPORTIONS:
 - PROPORTION ACCORDING TO ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".
 - PROVIDE TARGET SLUMP AT POINT OF PLACEMENT, +/- 1%.
 - SUBMIT MIX DESIGNS, WITH COMPLETE STATISTICAL BACKUP, FOR REVIEW.
- DO NOT PLACE CONCRETE ON FROZEN GROUND.
- CHAMFER EXPOSED CORNERS 3/4", U.N.O.

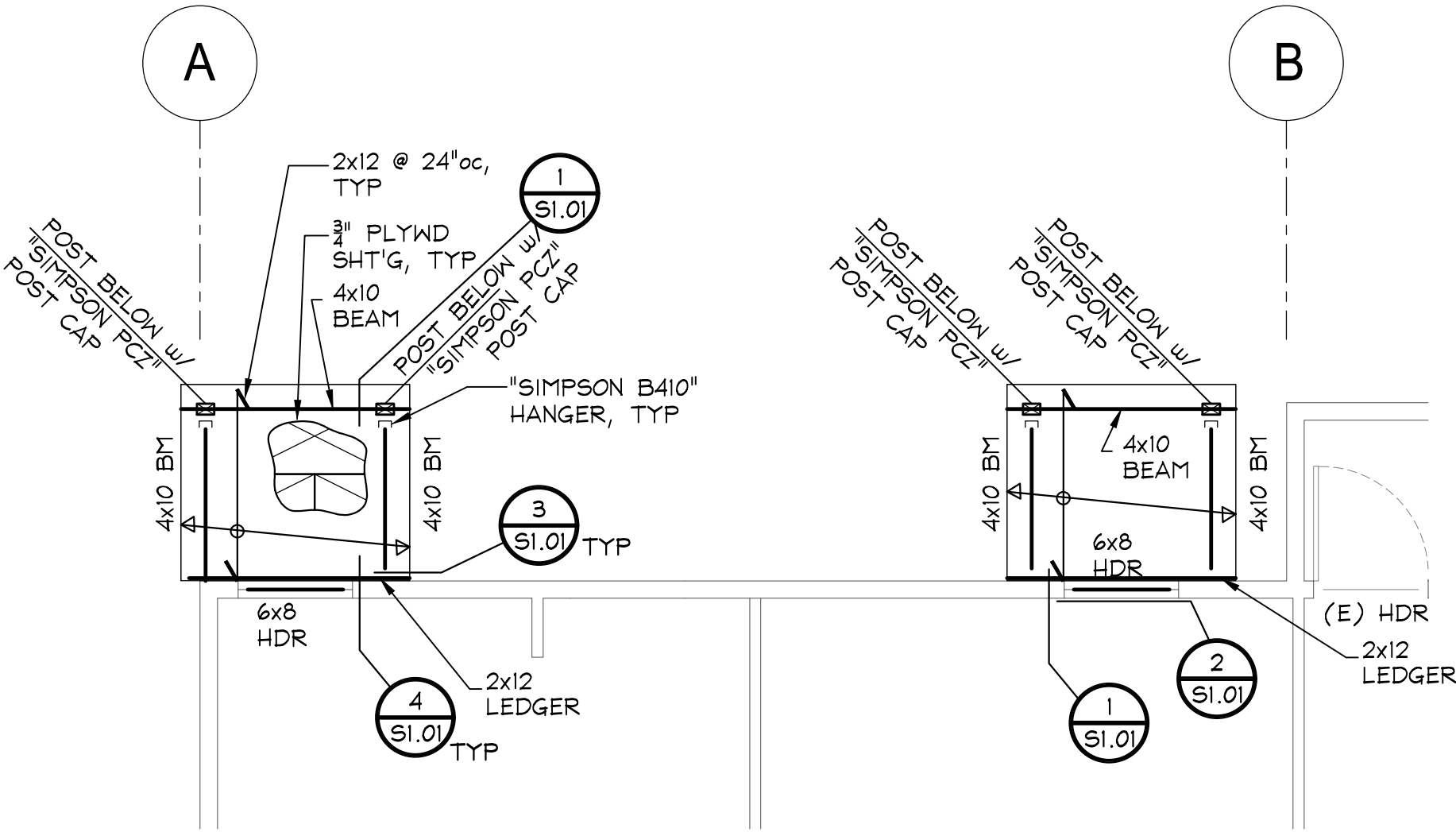
ANCHORS IN CONCRETE AND MASONRY

- INSTALL ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- INSTALL WITH IBC SPECIAL INSPECTION ACCORDING TO SPECIAL INSPECTION PROGRAM.
- EXPANSION ANCHORS (CONCRETE):
 - ICBO-APPROVED; CONFORM WITH FF-S-325, GROUP II, TYPE 4, CLASS I.
 - MATERIAL: ZINC PLATED ACCORDING TO ASTM B 633
HOT-DIPPED GALVANIZED ACCORDING TO ASTM A 153
 - ACCEPTABLE ANCHORS:
 - "KWIK-BOLT TZ", BY HILTI FASTENING SYSTEMS, INC.
- ADHESIVE ANCHORS (CONCRETE OR GROUTED MASONRY):
 - ICBO-APPROVED
 - ANCHOR COMPONENTS: ALL-THREAD ROD, NUT, WASHER AND ADHESIVE INJECTION GEL SYSTEM.
 - ANCHOR RODS:
 - RODS WITH ROLLED THREADS.
 - ANCHOR ROD NUTS: CONFORM WITH ASTM A 194.
 - ROD MATERIAL:
HOT-DIPPED GALVANIZED ACCORDING TO ASTM A 153.
A-36 MATERIAL, ZINC PLATED ACCORDING TO ASTM B-633,
 - ACCEPTABLE ADHESIVE INJECTION GEL SYSTEMS:
 - "HIT RES00V3", BY HILTI FASTENING SYSTEMS, INC.
 - "SET-XP", BY SIMPSON STRONG-TIE COMPANY, INC.
- SCREW ANCHORS (CONCRETE OR GROUTED MASONRY):
 - ICBO-APPROVED
 - ACCEPTABLE SCREW ANCHOR:
 - "POWER TAPPER + SCREW" BY POWER FASTENERS, INC.

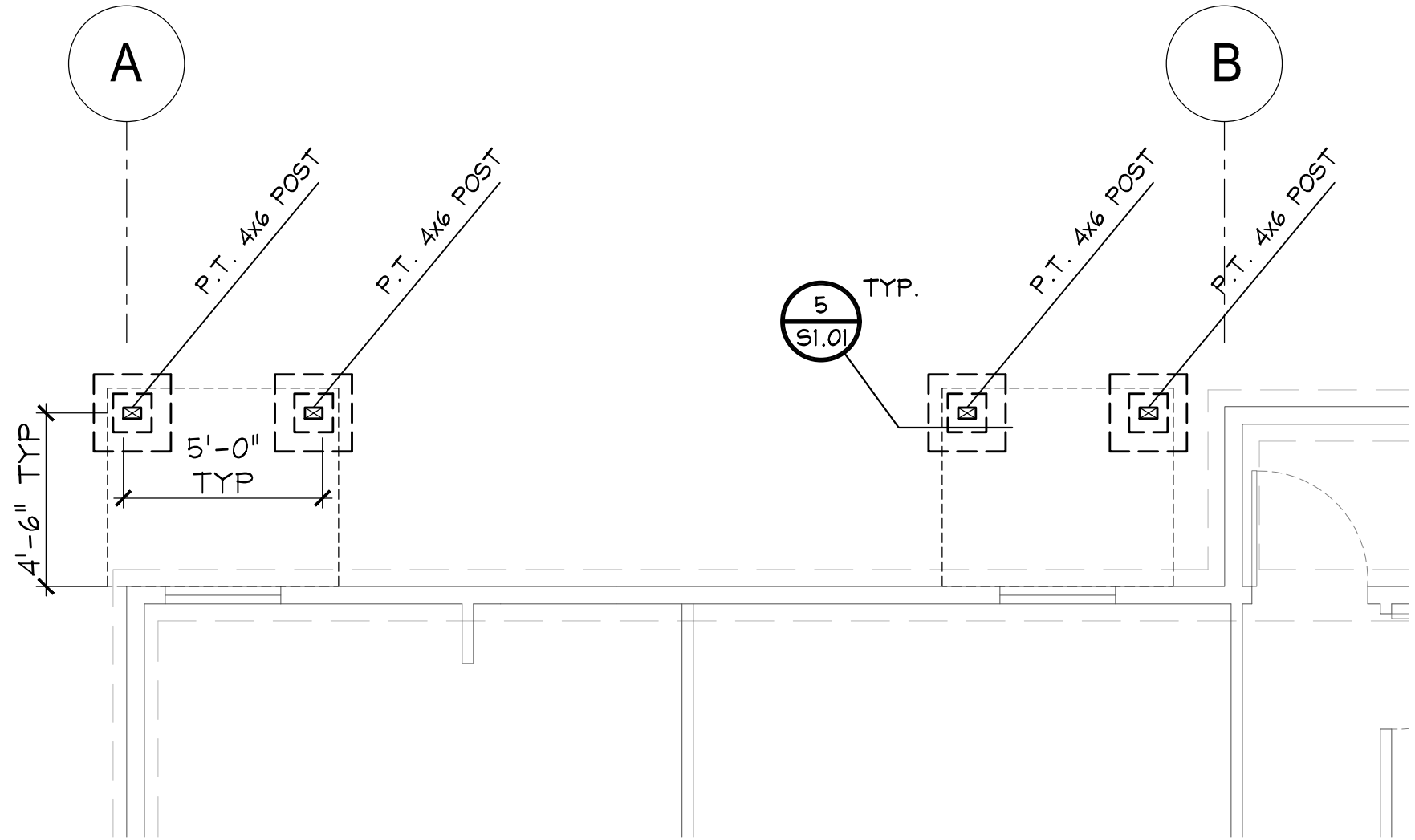
FRAMING LUMBER

- LUMBER SPECIES: DOUGLAS FIR-LARCH, GRADE LUMBER ACCORDING TO RULES OF WEST COAST LUMBER INSPECTION BUREAU (WCLIB).
- LUMBER GRADES:

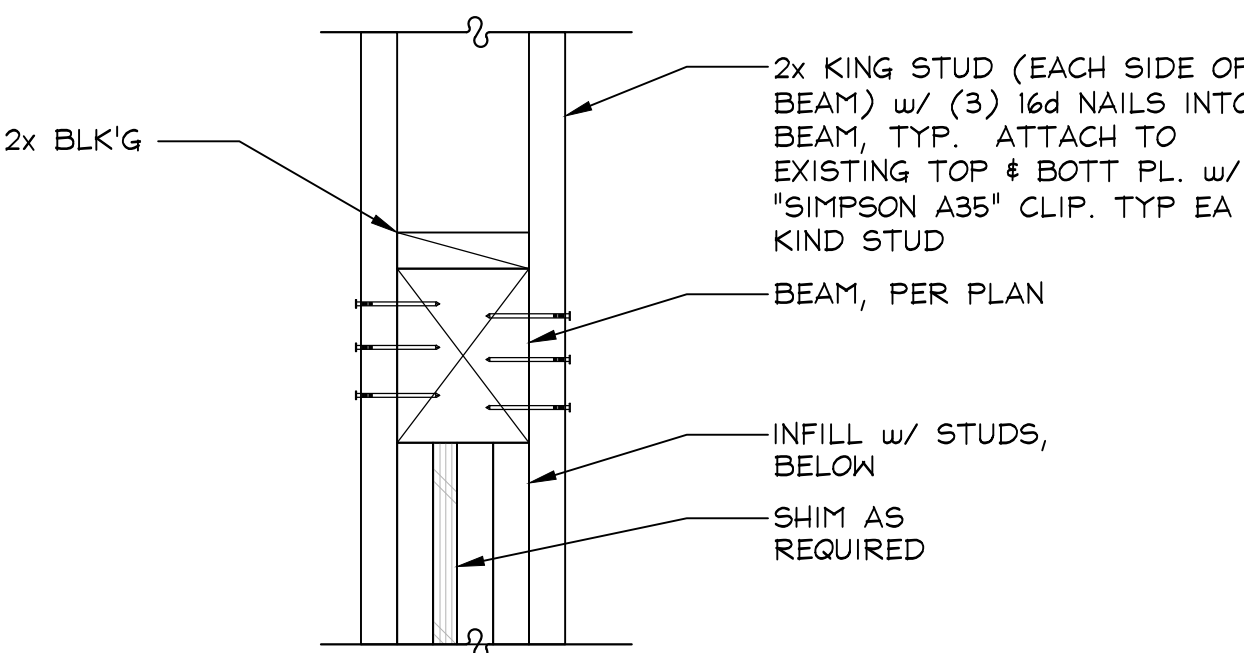
SIZE CLASSIFICATION	GRADE
A. EXTERIOR & INTERIOR WALL STUDS:	NO. 1/N.O. 2
B. BLOCKING, PLATES, BRIDGING:	NO. 1/N.O. 2
C. JOISTS:	NO. 1/N.O. 2
D. BEAMS & POSTS:	NO. 1
- MAXIMUM MOISTURE CONTENT: 19% AT 3X OR LESS (LEAST DIMENSIONS MEMBERS).
- PROVIDE SOLID BLOCKING (SAME DEPTH OF MEMBER) AT ALL POINTS OF BEARING (MAXIMUM SPACING OF 8'-0"oc) AT JOISTS WITH A 5:1 OR GREATER DEPTH-TO-THICKNESS RATIO OR WHERE 1 EDGE OF JOIST IS NOT ATTACHED TO SHEATHING, WALLBOARD, BRACING, ETC.
- PRESSURE TREAT PLATES AND LEDGERS IN CONTACT WITH CONCRETE OR MASONRY ACCORDING TO AWWA STANDARD C-2. LABEL PRESSURE-TREATED LUMBER WITH THE AWPB (AMERICAN WOOD PRESERVERS BUREAU) QUALITY MARK.
- ALL FASTENERS DRIVEN INTO PRESSURE TREATED WOOD SHALL BE CORROSION RESISTANT IN ACCORDANCE WITH IBC.
- DOUBLE ALL JOISTS UNDER ALL PARALLEL PARTITIONS.
- SEE SCHEDULE AND DRAWINGS FOR NAILING.



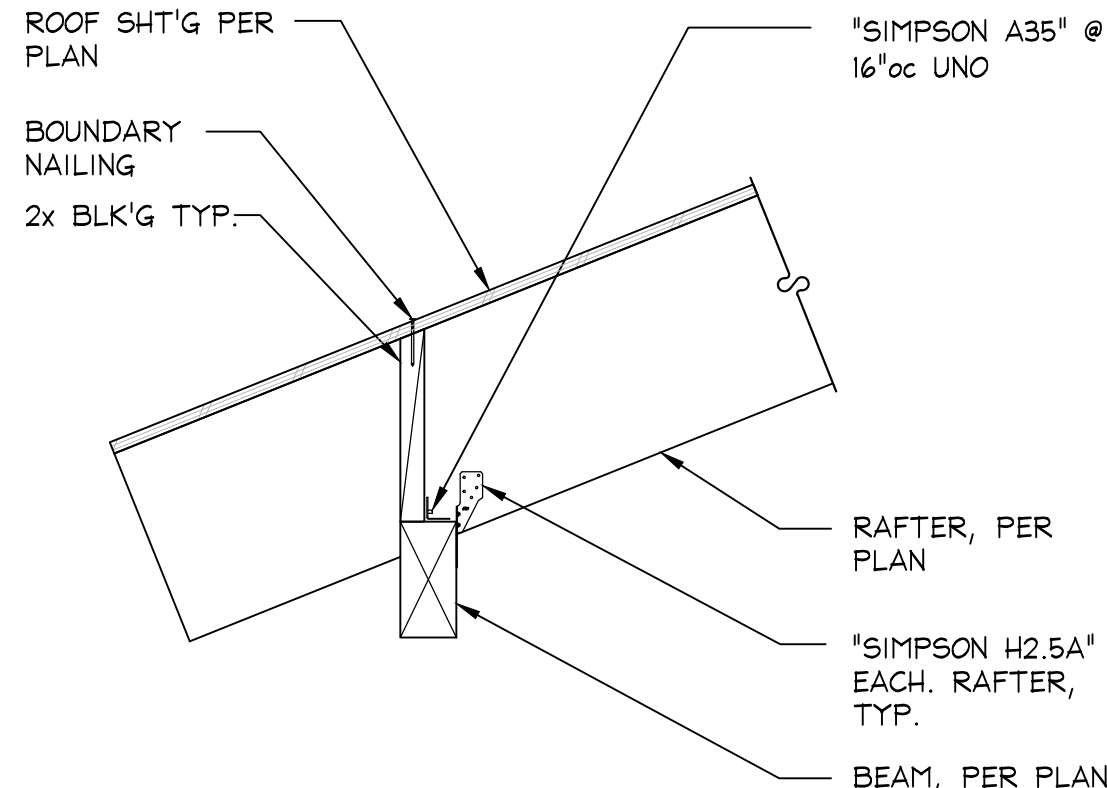
3 PARTIAL CANOPY PLAN
1/4" = 1'-0"



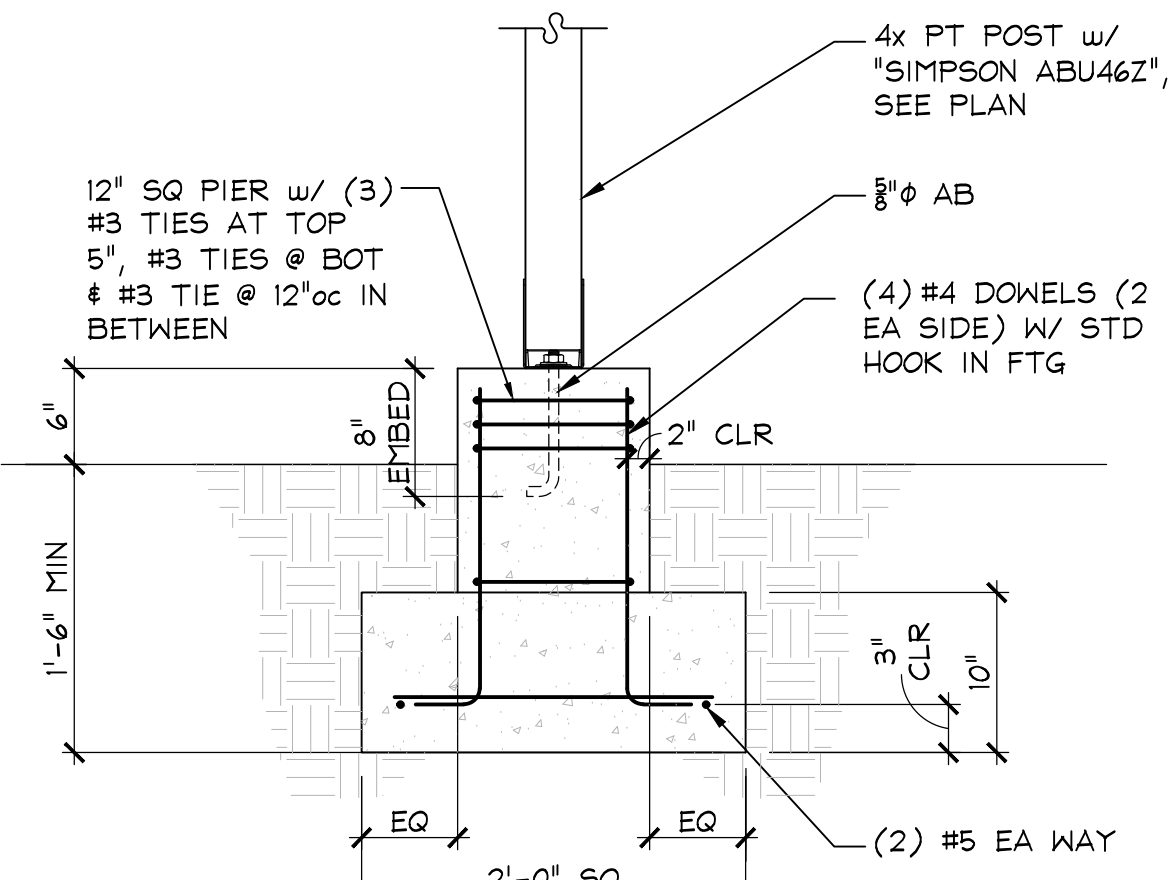
A PARTIAL FOUNDATION PLAN
1/4" = 1'-0"



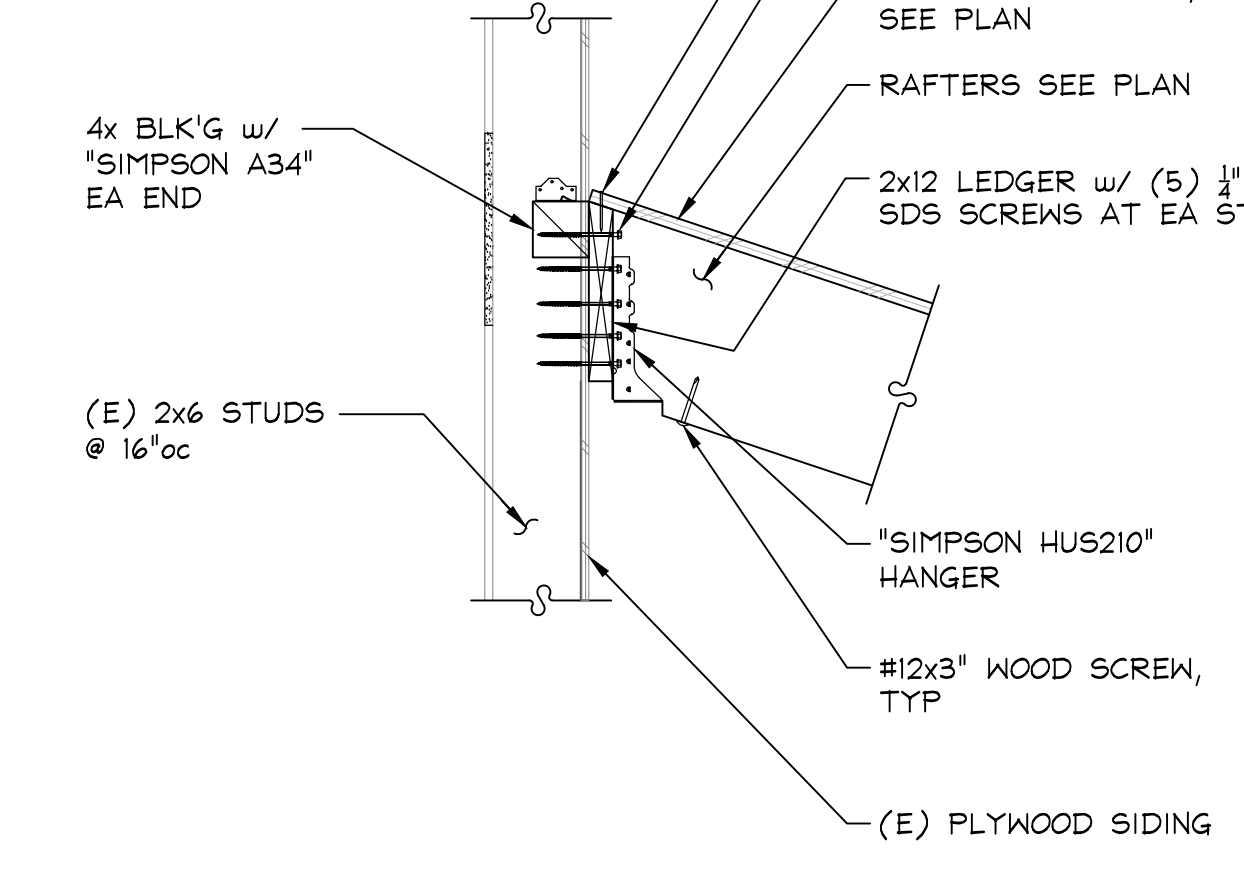
3 BEAM POCKET DETAIL
1 1/2" = 1'-0"



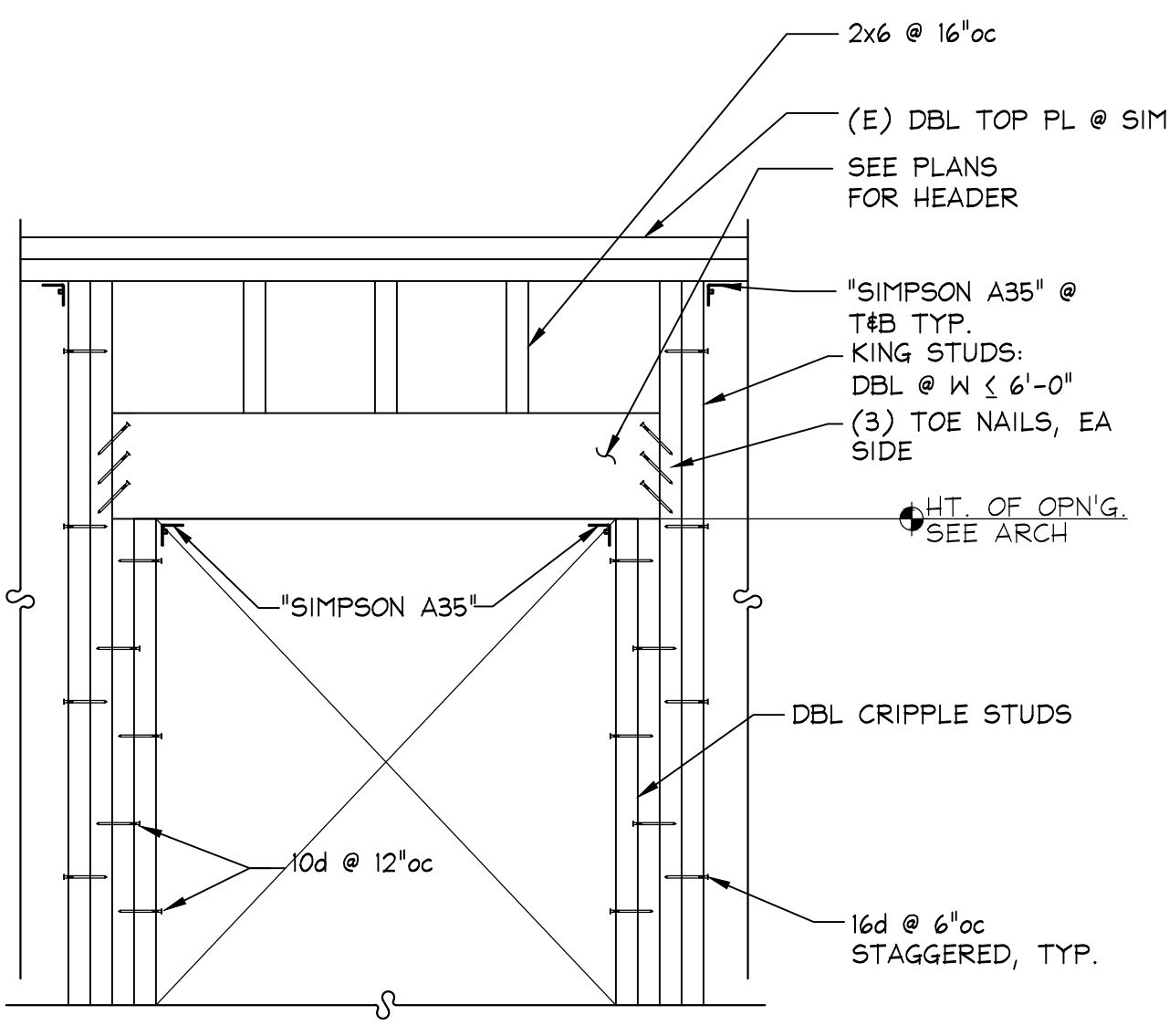
1 CANOPY DETAIL
1" = 1'-0"



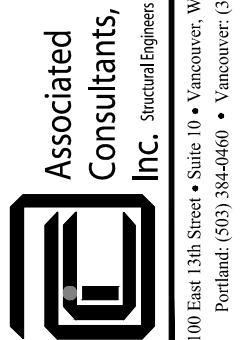
5 POST / FTG DETAIL
1" = 1'-0"



4 DETAIL
1" = 1'-0"



2 HEADER FRAMING
N.T.S



Government Camp Fire Station

Government Camp Loop Road

Government Camp, Oregon

PLAN CHECK RESPONSE	2/27/2018
REVISIONS	9/17/2018

REVISION	DATE
APPROVED: CP	
DRAWN BY: MLH	
SCALE: AS SHOWN	
DATE: 9/17/2017	
JOB: 15-348	
FILE:	

