

8. CONSTRUCTION JOINTS NOT SHOWN ON THE PLANS SHALL BE MADE AND LOCATED SO AS TO NOT IMPAIR THE STRENGTH OF THE STRUCTURE AND AS APPROVED BY THE STRUCTURAL ENGINEER. PROVIDE 2 X 4 (SHAPED) KEYWAY IN ALL VERTICAL AND HORIZONTAL JOINTS UNLESS NOTED OR DETAILED OTHERWISE. ALL STEEL REINFORCING SHALL BE CONTINUOUS THROUGH COLD JOINTS UNLESS NOTED OTHERWISE. SEE TYPICAL DETAILS FOR COLD/CONSTRUCTION JOINTS FOR SLABS ON GRADE.

### F. ANCHOR BOLTS/EMBEDDED BOLTS

1. ALL ANCHOR BOLTS SHALL HAVE ASTM A-563 HEAVY HEX NUT AND ASTM F-436 WASHERS AT STANDARD OR OVERSIZED HOLES PER AISC SPECIFICATION TABLE J3.3. WHERE HOLE SIZES DO NOT COMPLY WITH THE LIMITATIONS FOR OVERSIZED HOLES THE STRUCTURAL ENGINEER SHALL BE NOTIFIED TO DETERMINE STEEL PLATE WASHER REQUIREMENTS. ANCHOR BOLTS SHALL COMPLY WITH THE FOLLOWING: a. AT BRACED FRAMES & MOMENT RESISTING FRAMES - ASTM F1554 GRADE 55 HEADED BOLTS. (ASTM A449 THREADED ROD MAY BE USED WITH DOUBLE NUT AND WASHER.) b. AT WOOD STUD WALLS - ASTM A-307 GRADE HEADED BOLTS. ANCHOR BOLTS IN TREATED LUMBER SHALL BE GALVANIZED OR STAINLESS STEEL. SEE TIMBER NOTES FOR MORE INFORMATION. c. AT ALL OTHER ANCHOR BOLTS (UNLESS NOTED OTHERWISE) - ASTM F1554 GRADE 36 HEADED BOLTS. (ASTM A36 THREADED ROD MAY BE USED WITH DOUBLE NUT AND WASHER.)

2. SEE TYPICAL ANCHOR BOLT DETAIL FOR DEFINITIONS OF EMBEDMENT LENGTH, ETC. 3. FURNISH TEMPLATES AND OTHER DEVICES AS NECESSARY FOR PRESETTING ALL BOLTS PRIOR TO PLACING CONCRETE AND/OR GROUT

4. IF THREADED RODS ARE USED AS PERMITTED ABOVE, THEY SHALL BE CLEAR OF SOIL AND DIRT. 5. WHERE REQUIRED FOR ERECTION, HOLES LARGER THAN OVERSIZED MAY BE PERMITTED WITH THE USE OF STEEL PLATE WASHERS AT THE DISCRETION OF THE STRUCTURAL ENGINEER.

### G. ADHESIVE/MECHANICAL ANCHORS

1. ALL ADHESIVE/MECHANICAL ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH AN APPROVED INDEPENDENT EVALUATION REPORT (ICC, IAPMO, OR APPROVED EQUAL), AS INDICATED BELOW, AND IN ACCORDANCE WITH ALL MANUFACTURER'S REQUIREMENTS. 2. ADHESIVE ANCHORS SHALL BE INSTALLED IN CONCRETE HAVING A MINIMUM AGE OF 21 DAYS AT TIME OF ANCHOR

3. UNLESS NOTED OTHERWISE, ALL ADHESIVE ANCHORS INTO CONCRETE SHALL BE:

a. HILTI HIT-RE 500-SD (ESR-2322), OR HILTI HIT-HY 200 (ESR-3187). b. SIMPSON SET XP EPOXY (ESR-2508). 4. UNLESS NOTED OTHERWISE, ALL ADHESIVE ANCHORS INTO MASONRY SHALL BE:

a. HILTI HIT HY-150 MAX (ESR-1967). OR HILTI HIT-HY-70 (ESR-2682). b. SIMPSON SET ADHESIVE (IAPMO ER-0265).

5. UNLESS NOTED OTHER WISE, ALL MECHANICAL ANCHORS INTO CONCRETE SHALL BE: a. HILTI KWIK BOLT TZ (ESR-1917).

#### b. POWERS WEDGE BOLT (ESR-2526). c. SIMPSON STRONG-BOLT 2 (ESR-3037).

6. UNLESS NOTED OTHERWISE, ALL MECHANICAL ANCHORS INTO MASONRY SHALL BE:

b. SIMPSON STRONG BOLT 2 WEDGE ANCHOR (IAPMO ER-0240). 7. ALL MASONRY CELLS WITHIN 8" OF THE ANCHOR SHALL BE SOLID GROUTED.

8. THE TESTING LABORATORY WILL PERFORM VISUAL INSPECTION OF ANCHORS AND DOWELS AS SPECIFIED IN THE SPECIAL INSPECTION SCHEDULE AND THE APPROVED INDEPENDENT EVALUATION REPORT. TENSION TESTING CAN BE REQUIRED AT THE DIRECTION OF THE STRUCTURAL ENGINEER OF RECORD OR THE SPECIAL INSPECTOR. 9. IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON THAT HOLE AND SHIFT THE ANCHOR LOCATION TO AVOID THE REINFORCEMENT. PROVIDE A MINIMUM SPACE OF (2) ANCHOR HOLE DIAMETERS OR 1 INCH, WHICH EVER IS LARGER, OF SOUND CONCRETE/MASONRY BETWEEN THE ANCHOR AND THE ABANDONED HOLE. FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT. AT CONTRACTORS OPTION, LOCATE EXISTING REINFORCMENT PRIOR TO DRILLING/CORING. IF THE ANCHOR OR DOWEL CANNOT BE SHIFTED AS NOTED ABOVE, THE ENGINEER WILL

DETERMINE A NEW LOCATION. 10. LOCATE REINFORCEMENT AND CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES, MEMBERS, OR OTHER STEEL ASSEMBLIES ATTACHED WITH MECHANICAL ANCHORS

1. REINFORCING BAR STRENGTH REQUIREMENTS: a. ALL REINFORCING BARS EXCEPT AS INDICATED IN NOTE b, SHALL CONFORM TO ASTM STANDARD A-615 GRADE 60 AND ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM STANDARD A-185 AND SHALL BE SUPPLIED IN FLAT

REQUIRED POSITION b. ALL REINFORCING BARS FOR SPECIAL REINFORCED CONCRETE SHEARWALLS SHALL COMFORM TO ASTM A706 GR. 60. ASTM A615 GR. 60 IS PERMITTED IF THE ACTUAL YIELD STRENGTH BASED ON MILL TESTS DOES NOT EXCEED THE ACTUAL Fy BY MORE THAN 18,000 PSI AND THE RATIO OF THE ACTUAL TENSILE STRENGTH TO THE ACTUAL YIELD STRENGTH IS NOT LESS THAN 1.25. MILL TESTS REPORTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.

2. HEADED SHEAR STUD ASSEMBLIES SHALL CONFORM TO ASTM A1044. 3. STEEL DISCONTINUOUS FIBER REINFORCEMENT SHALL BE DEFORMED AND CONFORM TO ASTM A820 AND SHALL HAVE A LENGTH TO DIAMETER RATIO NOT SMALLER THAN 50 AND NOT GREATER THAN 100. 4. HEADED DEFORMED BARS SHALL CONFORM TO ASTM A970. OBSTRUCTIONS OR INTERRUPTIONS OF THE BAR DEFORMATIONS, IF ANY, SHALL NOT EXTEND MORE THAN 2 BAR DIAMETERS FROM THE BEARING FACE OF THE HEAD. . ALL FIELD BENT DOWELS SHALL BE GRADE 40 WITH SPACING INDICATED REDUCED BY 1/3. 6. UNLESS NOTED OTHERWISE, REINFORCEMENT SHALL HAVE THE FOLLOWING CONCRETE COVERAGE:

a. CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH ..... 3" b. EXPOSED TO EARTH OR WEATHER: 1) #6 & LARGER ..... 2" 2) #5 & SMALLER .....1-1/2"

c. NOT EXPOSED TO WEATHER OR EARTH: 1) SLABS, WALLS, JOISTS, #11 & SMALLER ..... 3/4"

2) BEAMS, COLUMNS: MAIN REINFORCING OR TIES ..... 1-1/2" d. SLAB ON GRADE:

1) PLACE REINFORCING AT CENTER OF SLAB UNLESS INDICATED OTHERWISE. 7. EXCEPT WHERE NOTED ON PLANS OR DETAILS CONTINUOUS REINFORCEMENT SHALL BE SPLICED AT POINTS OF MINIMUM STRESS BY LAPPING PER THE REBAR LAP SCHEDULE. 8. REINFORCING STEEL MAY BE SPLICED WITH MECHANICAL COUPLERS THAT HAVE A TENSION CAPACITY OF AT LEAST

125% OF THE STRENGTH OF THE BAR. MECHANICAL COUPLERS SHALL BE A POSITIVE CONNECTING TYPE COUPLER, AND SHALL BE INSTALLED IN ACCORDANCE WITH AN APPROVED ICC RESEARCH REPORT. WHERE THESE ARE USED, SPLICES ON ADJACENT BARS SHALL BE STAGGERED AT LEAST 24 INCHES ALONG THE LENGTH OF THE BARS. 9. ALL VERTICAL REINFORCING IN STRUCTURAL ELEMENTS ABOVE SHALL BE SPLICED WITH MATCHING DOWELS EMBEDDED WITHIN THE FOOTINGS OR STRUCTURE BELOW. SPLICE LENGTHS SHALL COMPLY WITH REBAR LAP SCHEDULE. DOWELS INTO FOOTINGS SHALL TERMINATE WITH A STANDARD HOOK, AND SHALL EXTEND TO WITHIN 4" OF THE BOTTOM OF THE FOOTING, BUT NEED NOT EXTEND MORE THAN 20" INTO FOOTING. 10. DO NOT WELD REINFORCING EXCEPT AS NOTED ON PLANS, WHERE REINFORCING IS WELDED, USE ASTM A-706

11. REINFORCING BARS, TIES, AND TENDONS SHALL BE SUPPORTED BY NYLON CONES, PLASTIC-COATED TIE-WIRES, OR PLASTIC-COATED CHAIRS. REINFORCING IN FOOTINGS IS PERMITTED TO BE SUPPORTED ON CONCRETE DOBIES. 12. UNLESS NOTED OTHERWISE, HOOKS, STIRRUPS, TIES, AND OTHER BENDS IN REINFORCING STEEL SHALL MEET THE STANDARDS SET FORTH IN ACI 318/318R-11. UNLESS OTHERWISE PERMITTED BY THE ENGINEER, ALL REINFORCEMENT SHALL BE BENT COLD. REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT, EXCEPT AS SHOWN ON THESE DRAWINGS OR OTHERWISE PERMITTED BY THE ENGINEER. 13. UNLESS SPECIFICALLY NOTED AND/OR DETAILED IN THE STRUCTURAL DRAWINGS CONDUIT SHALL NOT BE IN CONTACT WITH REINFORCING STEEL

1. STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING<sup>1</sup>

a. ANSI/AISC 360-10 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS", WITH "COMMENTARY" AND "SUPPLEMENTS" AS REQUIRED BY BUILDING CODE. b. AISC 303-10 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" EXCLUDING THE FOLLOWING

SECTIONS: 4.4. 4.4.1. AND 4.4.2. c. AISI "SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS".

d. AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS". e. AWS D1.1 AND 1.3, "STRUCTURAL WELDING CODE" (EXCEPT SPECIFIC ITEMS DO NOT APPLY IF THEY CONFLICT WITH f. ANSI/AISC 341-10 "SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS".

2. STRUCTURAL STEEL SHALL COMPLY WITH THE FOLLOWING: a. WIDE FLANGE SHAPES AND WT SHAPES - ASTM A992

b. OTHER SHAPES AND PLATES - ASTM A-36 (UNO) c. TUBES (TS) AND HOLLOW STRUCTURAL SECTIONS (HSS) - ASTM A-500, GRADE B (SQUARE AND RECTANGULAR

SHAPES FY = 46 KSI AND ROUND SHAPES FY = 42 KSI) d. PIPE COLUMNS - ASTM A-53, GRADE B TYPE E OR S

e. STAINLESS STEEL SHAPES, PLATES, AND FASTENERS - ASTM 304

f. DEFORMED BAR ANCHORS (DBA) - ASTM A-496, WELDED IN ACCORDANCE WITH AWS D1.1 g. HEADED STUD ANCHORS (HSA) - ASTM A-108, GRADE 1015 STEEL AND WELDED IN ACCORDANCE WITH AWS D1.1 FOR TYPE "B". USE 3/4" DIAMETER STUDS, UNLESS NOTED OTHERWISE. h. THREADED ROD - ASTM A-449.

3. CONNECTIONS SHALL COMPLY WITH THE STRUCTURAL DRAWINGS UNLESS WRITTEN APPROVAL TO CHANGE IS GIVEN BY THE STRUCTURAL ENGINEER. 4. ALL SHOP FABRICATIONS SHALL BE PERFORMED BY AN APPROVED FABRICATOR IN ACCORDANCE WITH SECTIONS 1702 AND 1704 OF THE IBC OR WITH SHOP INSPECTION BY AN INDEPENDENT AGENCY IN ACCORDANCE WITH SECTION 1704 2.5 OF THE IBC.

a. ALL WELDING AND CUTTING SHALL BE PERFORMED BY AWS QUALIFIED WELDERS IN ACCORDANCE WITH ANSI/AWS D1.1 (LATEST EDITION)

b. USE E-70XX ELECTRODES UNLESS NOTED OTHERWISE. E-60XX MAY BE USED FOR WELDING STEEL DECKS. c. ALL INTERSECTING STEEL SHAPES WHICH ARE NOT CONNECTED WITH BOLTS SHALL BE WELDED TOGETHER WITH A FILLET WELD ALL AROUND UNLESS NOTED OTHERWISE. WHERE WELD SIZES ARE NOT SHOWN USE THE FOLLOWING: 1) WHERE ALL CONNECTED PARTS ARE THICKER THAN 1/4", WELD IS 1/16" LESS THAN THE THICKNESS OF THE THINNEST PART 2) WHERE ANY OF THE CONNECTED PARTS IS LESS THAN 1/4" THICK, WELD IS SAME AS THICKNESS OF THE

THINNEST PART d. WELDING OF HSA'S AND DBA'S SHALL CONFORM TO THE MANUFACTURER'S SPECIFICATIONS. e. WHEREVER POSSIBLE, WELDS SHALL BE SHOP WELDS. SPECIAL CONSIDERATIONS, SUCH AS ITEMS WHICH MAY NEED ADJUSTMENT AT THE SITE, REQUIRE THAT SOME WELDS BE FIELD WELDS. WHERE QUESTIONS OR

DISCREPANCIES OCCUR THE CONTRACTOR SHALL COORDINATE THE WORK BETWEEN THE SHOP FABRICATOR AND THE STEEL ERECTOR a. UNLESS NOTED OTHERWISE, ALL STRUCTURAL STEEL TO STEEL CONNECTIONS SHALL USE HIGH STRENGTH BOLTS CONFORMING TO ASTM A-325

b. UNLESS NOTED OTHERWISE, ALL BOLTING IS CLASSIFIED AS NON-SLIP CRITICAL BEARING TYPE CONNECTIONS WITH THREADS INCLUDED IN SHEAR PLANE. TIGHTEN BOLTS TO A SNUG TIGHT CONDITION, WITH ALL PLIES OF THE JOINT IN FIRM CONTACT. c. AT OVERSIZED AND SLOTTED HOLES, WASHERS SHALL CONFORM TO ASTM F-436 AND COMPLETELY COVER THE

d. WHERE A STEEL BEAM TO BEAM CONNECTION IS NOT SHOWN. PROVIDE AN AISC STANDARD FRAMED CONNECTION SIZED FOR 1/2 OF THE TOTAL LOAD CAPACITY OF THE BEAM FOR THE SPAN AND STEEL SPECIFIED. 7. UNLESS NOTED OTHERWISE, WHERE STEEL BEAMS SUPPORT WOOD FRAMING OR WOOD SHEATHING, PROVIDE A CONTINUOUS DOUBLE 2x OR SINGLE 3x NAILER PLATE ON THE TOP OF THE BEAM THAT EXTENDS AT LEAST THE FULL WIDTH OF THE BEAM FLANGE. ATTACH NAILER PLATES TO WIDE-FLANGE BEAMS WITH 1/2" DIAMETER THRU BOLTS AT 24"O.C. - STAGGERED. COUNTER-SINK HEAD OF BOLTS INTO TOP OF NAILER PLATE TO PROVIDE A FLUSH BEARING

8. ALL COLUMNS ADJACENT TO OR EMBEDDED IN WOOD STUD WALLS SHALL HAVE (1) 1/2" DIAMETER X 3-1/2" THREADED STEEL ROD SHOP-WELDED TO THE FACE OF THE COLUMN AT 24"O.C. AND EXTENDING EACH WAY INTO THE ADJACENT STUD WALLS. ATTACH ADJACENT WOOD WALL STUDS TO STEEL COLUMN WITH STANDARD NUT AND WASHER AS REQUIRED.

9. PROVIDE FULL DEPTH WEB STIFFENER PLATES AT EACH SIDE OF STEEL BEAMS AT ALL BEARING (EXCEPT SECONDARY FRAMING) POINTS. STIFFENER PLATES SHALL BE THICKNESS SHOWN UNLESS NOTED OTHERWISE AND SHALL BE WELDED BOTH SIDES WITH FILLET WELDS ALL AROUND. FLANGE WIDTH STIFFENER THICKNESS WELD THICKNESS

FLANGE WIDTH	STIFFENER THICKNESS	WELD THICKNES
< 8 1/4"	1/4"	3/16"
4" < BF < 12 1/2"	3/8"	1/4"
1/2" < BF < 18"	1/2"	5/16"

10. FABRICATORS AND SUPPLIERS SHALL COORDINATE PAINT/FINISHES WITH REQUIREMENTS FOR DIRECT APPLIED INSULATION, FIREPROOFING, ETC. AS NOTED IN THE PROJECT SPECIFICATIONS. 11. WHEN DETERMINING THE FIRE RESISTANCE OF ASSEMBLIES, USE THE FOLLOWING: STEEL ROOF MEMBERS ARE CONSIDERED UN-RESTRAINED AND STEEL FLOOR FRAMING MEMBERS ARE CONSIDERED RESTRAINED. 12. UNLESS NOTED OTHERWISE, ALL HORIZONTAL FRAMING MEMBERS SHALL BE ERECTED WITH THE NATURAL CROWN 13. UNLESS OTHERWISE SHOWN OR DETAILED IN THE PLANS , ALL STEEL COLUMNS, BEAMS, BRACES, STRUTS, ETC. SHALL BE CONTINUOUS BETWEEN CONNECTIONS OR SUPPORTS. SPLICES IN MEMBERS SHALL NOT BE PERMITTED

WITHOUT WRITTEN APPROVAL BY THE ENGINEER OF RECORD. J. MOMENT FRAMES

- 1. STRUCTURAL STEEL IN MOMENT FRAMES SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC SPECIFICATIONS NOTED IN THE STRUCTURAL STEEL NOTES ABOVE IN ADDITION TO THE FOLLOWING:
- a. AISC 341 RECOMMENDED SPECIFICATIONS AND QUALITY ASSURANCE GUIDELINES FOR STEEL MOMENT-FRAME CONSTRUCTION FOR SEISMIC APPLICATIONS. 2. STRUCTURAL STEEL IN MOMENT FRAMES SHALL COMPLY WITH THE REQUIREMENTS NOTED IN THE STRUCTURAL STEEL NOTES ABOVE TO INCLUDE THE FOLLOWING: a. ALL SHAPES OF GROUP 3 (WITH FLANGES THICKER THAN 1-1/2"), GROUP 4 AND GROUP 5, AS WELL AS ALL PLATES 2"
- AND THICKER. THAT ARE PART OF THE SEISMIC FORCE RESISTING SYSTEM SHALL HAVE CHARPY V-NOTCH ABSORBED ENERGY OF AT LEAST 20 FT-LBS. AT 70 DEGREES F. 3. BOLTED CONNECTIONS IN MOMENT FRAMES SHALL CONFORM TO AISC 358 FASTENER AND TIGHTENING REQUIREMENTS. ALL BOLTS IN MOMENT FRAMES SHALL BE INSPECTED AND TESTED. 4. WELDED CONNECTIONS BETWEEN THE PRIMARY MEMBERS OF MOMENT FRAMES SHALL BE TESTED FOR
- COMPLIANCE ACCORDING TO IBC TABLE 1704.3 AND THE CONTRACT SPECIFICATIONS AND PLANS. INSPECTION SHALL BE DONE BY A QUALIFIED TESTING INSPECTOR. AS A MINIMUM, THE TESTING SHALL INCLUDE THE FOLLOWING: a. ALL COMPLETE-JOINT-PENETRATION GROOVE WELDS CONTAINED IN JOINTS AND SPLICES SHALL BE TESTED 100%
- EITHER BY ULTRASONIC TESTING OR BY RADIOGRAPHY. b PARTIAL PENETRATION GROOVE WELDS WHEN USED IN COLUMN SPLICES SHALL BE TESTED FITHER BY ULTRASONIC TESTING OR BY RADIOGRAPHY. A MINIMUM OF 50% OF THESE WELDS SHALL BE TESTED. c. BASE METAL THICKER THAN 1-1/2". WHEN SUBJECTED TO THROUGH THICKNESS WELD SHRINKAGE STRAINS SHALL
- BE ULTRASONICALLY INSPECTED FOR DISCONTINUITIES DIRECTLY BEHIND SUCH WELDS AND THREE INCHES ABOVE AND BELOW THE WELD AFTER JOINT ASSEMBLY COMPLETION. d. ANY MATERIAL DISCONTINUITIES SHALL BE ACCEPTED OR REJECTED ON THE BASIS OF THE DEFECT RATING IN ACCORDANCE WITH THE UBC STANDARDS AS IT REFERS TO THE TESTING IN AWS D1.1 CHAPTER 6, EXCLUDING SECTIONS 6.1 THROUGH AND INCLUDING 6.6. ALL DEFICIENT WELDS SHALL BE CORRECTED AND TESTED AT NO
- ADDITIONAL COST TO THE OWNER. 5. ALL COMPLETE-JOINT-PENETRATION WELDS USED IN MOMENT FRAMES ARE CONSIDERED DEMAND CRITICAL AND THE FOLLOWING SPECIAL PROVISIONS APPLY: WELDING METHODS, PROCEDURES AND QUALITY CONTROL SHALL COMPLY WITH AWS D1.1 AND THE FOLLOWING:
- a. TACK WELD QUALITY SHALL COMPLY WITH SECTION 5.18. b. ARC STRIKES, GOUGES AND OTHER IMPERFECTIONS WITHIN OR ADJACENT TO THE JOINT, SHALL BE REPAIRED OR REMOVED
- c. PREHEAT AND INTER-PASS REQUIREMENTS AS OUTLINES IN SECTION 3.5. d. USE WELD TABS AT BEAM FLANGE CONNECTION; AFTER WELDING, REMOVE THE WELD TABS AND FINISH TO A SMOOTH CONTOUR PER SECTION 5.31.3.
- e. BACKER BARS SHALL BE REMOVED FROM BEAM BOTTOM FLANGE CONNECTIONS TO COLUMNS. THE ROOT OF THE WELD SHALL BE BACK GOUGED TO SOUND METAL TO REMOVE ALL SLAG AND CRACKS. WELD THE BACK-GOUGED REGION AND FINISH WELDING USING A REINFORCING FILLET WELD, ACCORDING TO SECTION 5.10.4.
- f. BACKER BARS NEED NOT BE REMOVED FROM THE BEAM TOP FLANGE CONNECTIONS TO COLUMNS PROVIDED THAT THE BACKER BARS ARE WELDED TO THE COLUMN FLANGE WITH A CONTINUOUS FILLET WELD FOR THE ENTIRE LENGTH OF THE BACKER BAR.
- g. UNREPAIRED CRACKS, GOUGES, AND NOTCHES WILL NOT BE PERMITTED IN THE JOINT AREA. h. USE ELECTRODES WITH CHARPY V-NOTCH ABSORBED ENERGY EQUAL TO OR GREATER THAN 20 FT-LBS AT -20 DEGREES FAHRENHEIT UNDER AWS A5 CLASSIFICATION TEST METHODS, AND 40 FT-LBS AT 70 DEGREES FAHRENHEIT USING TEST PROCEDURES PRESCRIBED IN APPENDIX X OF AISC 358. ACCEPTABLE ELECTRODES INCLUDE E70TG-K2. E71T-8. AND E71T-1.
- 6. ALL NON-COMPLETE-JOINT-PENETRATION WELDS USED IN MOMENT FRAMES SHALL BE MADE WITH A FILLER METAL THAT CAN PRODUCE WELDS THAT HAVE A MINIMUM CHARPY V-NOTCH TOUGHNESS OF 20 FT-LB AT 0 DEGREES F, AS DETERMINED AS DETERMINED BY THE APPROPRIATE AWS A5 CLASSIFICATION TEST METHOD OR MANUFACTURER CERTIFICATION 7. IN SPECIAL AND INTERMEDIATE MOMENT FRAMES THE REGION AT THE END OF THE BEAM AS SHOWN IN DETAIL
- 2/S301 IS DESIGNATED AS A PROTECTED ZONE. WELDED, SCREWED, OR SHOT-IN ATTACHMENTS FOR WELDED SHEAR STUDS, PERIMETER EDGE ANGLES, EXTERIOR FACADES, PARTITIONS, DUCT WORK, PIPING OR OTHER CONSTRUCTION SHALL NOT BE PLACED WITHIN THE PROTECTED ZONES. DECKING ARC SPOT WELDS AS REQUIRED TO SECURE DECKING SHALL BE PERMITTED. WHERE DISCONTINUITIES, OR ATTACHMENTS HAVE BEEN MADE WITHIN THE PROTECTED ZONE, THEY SHALL BE REPAIRED AS REQUIRED BY THE ENGINEER OF RECORD.
- K. <u>TIMBER</u>
- 1. WOOD GRADES (UNLESS NOTED OTHERWISE) a. ALL FRAMING LUMBER SHALL BE DOUGLAS FIR/LARCH CLEARLY MARKED WITH A STAMP BY WWPA APPROVED AGENCY AND SHALL BE GRADED AS FOLLOWS
- 1) HORIZONTAL MEMBERS: JOISTS & RAFTERS: NO. 2, BEAMS & STRINGERS: NO. 2. 2) VERTICAL MEMBERS: POST & TRIMMERS: NO. 1, STUDS: NO. 2. b ALL FRAMING IN CONTACT WITH FOOTINGS. FOUNDATIONS OR SLABS ON GRADE SHALL BE PRESSURE TREATED OR
- TIMBERSTRAND LSL TREATED LUMBER WITH EQUIVALENT STRESS GRADES TO TYPICAL FRAMING MEMBERS. c. UNLESS NOTED OTHERWISE, ALL ENGINEERED LUMBER SHALL BE FURNISHED BY TRUS-JOIST CORPORATION OR
- APPROVED EQUAL AND SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: MODULUS OF ELASTICITY FLEXURAL STRESS RATING LVL: 1,900,000 PSI 2,600 PSI
- PSL: 2,000,000 PSI 2,900 PSI LSL: 1,500,000 PSI 2,250 PSI d. ALL WOOD "I" JOISTS AND BRIDGING SHALL BE FURNISHED BY TRUS-JOIST CORPORATION OR APPROVED EQUAL
- 2. SHEATHING SHALL BE APA RATED SHEATHING, EXPOSURE I, EXTERIOR GLUE AND PANEL INDEX RATING AS NOTED BELOW UNLESS NOTED OTHERWISE: LOCATION THICKNESS PANEL INDEX 15/32" WALLS: 24/0
- FLOORS: 1-1/8" 48/24 ROOFS: 23/32" 48/24
- 3. INDIVIDUAL PIECES OF SHEATHING AT ROOF, FLOOR, AND SHEAR WALLS SHALL NOT BE SMALLER THAN 24" IN EITHER DIRECTION AND SHALL SPAN A MINIMUM OF TWO FRAMING SPACES, UNO. 4. ALL 23/32" FLOOR SHEATHING SHALL BE TONGUE AND GROOVE UNLESS NOTED OTHERWISE
- 5. CONNECTIONS, FASTENERS, AND ADHESIVE a. ALL BOLTS THRU WOOD SHALL BE ASTM A307 AND SHALL HAVE HARDENED WASHERS UNDER ASTM A563 HEAVY HEX NUT AND BOLT HEADS.
- b. UNLESS NOTED OTHERWISE, 10d COMMON NAILS SHALL BE USED TO FASTEN ALL PLYWOOD SHEATHING TO SUPPORTING TRUSSES, JOISTS, LEDGERS OR BLOCKING AS FOLLOWS: 1) BOUNDARY NAILING "BN": 4"O.C. AT ALL ROOF AND FLOOR SHEATHING INTO BEARING WALLS, SHEAR WALLS, AND BI OCKING
- 2) PANEL EDGE NAILING "EN": 6"O.C. AT ALL OTHER PLYWOOD PANEL EDGES 3) PANEL FIELD NAILING "FN": 12"O.C. AT INTERIOR SUPPORTS IN FIELD OF PANEL. NAILS SHALL BE GALVANIZED OR STAINLESS STEEL AT EXPOSED LOCATIONS OR IN TREATED WOOD (SEE NOTE BELOW FOR FASTENERS CONNECTED TO OR IN CONTACT WITH TREATED WOOD). THE HEAD OF ALL NAILS SHALL BE DRIVEN FLUSH WITH THE SURFACE OF THE SHEATHING.

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4) ALL WALL SHE	EATHING SHALL BE FA	STENED TO THE WALL FRAM
SHEET S302.		
c. ALL NAILS SHAL	L HAVE THE FOLLOWI	NG MINIMUM PROPERTIES:
		MIN. PENETRATION
NAIL SIZE	SHANK DIAMETER	INTO SUPPORT MEMBER
6d	0 113"	1.25"

NAIL SIZE	SHANK DIAMETER	INTO SUPPORT MEMBER	
6d	0.113"	1.25"	
8d	0.131"	1.50"	
10d	0.148"	1.63"	
12d	0.148"	1.63"	
16d	0.162"	1.75"	
d. A CONTINUOUS	<b>BEAD OF PERMANENT</b>	BOND TIMBER/WOOD ADHES	SIVE COMPOUND SHALL BE USED TO FASTEN ALL

- PLYWOOD FLOOR SHEATHING TO FLOOR JOISTS IN ACCORDANCE WITH MANUFACTURERS' SPECIFICATIONS. e. ALL FRAMING ANCHORS, POST CAPS, HOLD DOWNS, COLUMN BASES ETC. TO BE PROVIDED BY SIMPSON OR APPROVED EQUAL. f. UNLESS NOTED OTHERWISE, ALL WALL BOTTOM PLATES TO BE ANCHORED TO FOUNDATIONS OR FOOTINGS WITH
- 3/4" DIAMETER ANCHOR BOLTS AT 32"O.C. WITH 8" MINIMUM EMBEDMENT. THERE SHALL BE A MINIMUM OF (2) ANCHOR BOLTS PER PLATE WITH ONE BOLT LOCATED NOT MORE THAN 12" AND NOT LESS THAN 4" FROM EACH END OF EACH PIECE. ADDITIONALLY, WALL BOTTOM PLATES AT SHEAR WALLS SHALL INCLUDE 1/4" x 3" x 3" STEEL PLATE
- WASHERS BETWEEN THE SILL PLATE AND NUT OF THE ANCHOR BOLT. THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH UP TO 3/16" LARGER THAN THE BOLT DIAMETER AND SLOT LENGTH NOT TO EXCEED 1-3/4", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT g. FASTENERS CONNECTED TO OR IN CONTACT WITH PRESERVATIVE-TREATED AND/OR FIRE-RETARDANT-TREATED
- WOOD (EXCEPT FOR TIMBERSTRAND LSL TREATED LUMBER AND BORATE BASED TREATMENTS) SHALL BE OF G-185 HOT-DIP GALVANIZED STEEL OR 304 OR 316 STAINLESS STEEL. STAINLESS STEEL AND GALVANIZED STEEL SHALL NEVER BE USED IN CONTACT WITH EACH OTHER. 6. ALL WOOD TRUSSED RAFTERS SHALL BE FABRICATED IN COMPLIANCE WITH THE RESEARCH COMMITTEE
- RECOMMENDATIONS OF THE ICC FOR THE CONNECTOR PLATES USED. SUBMIT DESIGN CALCULATIONS WITH ENGINEERS SEAL FOR REVIEW WITH SHOP DRAWINGS, PROVIDE CALCULATIONS AND DETAILS FOR ALL TRUSS TO TRUSS CONNECTIONS INCLUDING CONNECTION HARDWARE. ALL NECESSARY TRUSS BRIDGING AND CONNECTION
- DESIGN OF TRUSS BRIDGING SHALL BE PROVIDED BY THE TRUSS DESIGNER AND SHALL BE INCLUDED IN THE DESIGN CALCULATIONS FOR REVIEW. 7. INSTALLATION OF ALL METAL-PLATE-CONNECTED WOOD TRUSSES SHALL COMPLY WITH THE FOLLOWING
- STANDARDS: a. ANSI/TPI 1 "NATIONAL DESIGN STANDARD FOR METAL-PLATE-CONNECTED WOOD TRUSSES".
- b. TPI HIB "COMMMENTARY AND RECOMMENDATIONS FOR HANDLING INSTALLING & BRACING METAL-PLATE-CONNECTED WOOD TRUSSES". c. TPI DSB "RECOMMENDED DESIGN SPECIFICATION FOR TEMPORARY BRACING OF METAL-PLATE-CONNECTED WOOD
- TRUSSES" 8. UNLESS NOTED OTHERWISE, ALL ROOF AND FLOOR SHEATHING AND WALL SHEATHING AT SHEAR WALLS SHALL HAVE
- SOLID BLOCKING AT ALL PANEL EDGES. 9. PROVIDE DOUBLE JOIST UNDER PARALLEL NONBEARING WALLS AND SOLID BLOCKING UNDER PERPENDICULAR NONBEARING WALLS
- 10. AT ALL OVERBUILD LOCATIONS, ROOF SHEATHING SHALL BE COMPLETE BELOW OVERBUILDS PRIOR TO OVERBUILD CONSTRUCTION
- 11. PROVIDE SOLID 2" (NOMINAL) FULL DEPTH BLOCKING AT ENDS AND SUPPORT LOCATIONS FOR ALL JOISTS AND
- RAFTERS. BLOCKING SHALL BE ATTACHED TO SUPPORT FRAMING WITH A MINIMUM OF (1) SIMPSON A35 FRAMING ANCHOR BETWEEN JOISTS UNLESS NOTED OTHERWISE. 12. UNLESS NOTED OTHERWISE, ALL BEARING WALLS SHALL BE 2x6 SPACED AT 16"O.C. BLOCK ALL NON-SHEATHED BEARING WALLS AT 4'-0"O.C.
- 13. VERIFY THE STUD SPACING WITH THE ANCHOR BOLT LAY-OUT. WHERE STUDS INTERFERE WITH ANCHOR BOLTS. PROVIDE AN ADDITIONAL FULL-HEIGHT STUD TO ENSURE THAT THE FULL CROSS-SECTIONAL AREA OF THE STUD IS
- IN CONTACT WITH THE SILL PLATE.
- 14. EXTERIOR WALLS SHALL HAVE DOUBLE 2x TOP PLATES SPLICED WITH A MINIMUM OF 48" OF OVERLAP AND SHALL BE CONNECTED WITH A MINIMUM OF (12) 16d NAILS. 15. EXCEPT WHERE NOTED OTHERWISE, THE NUMBER AND SIZE OF NAILS CONNECTING WOOD MEMBERS SHALL NOT BE
- LESS THAN THAT SET FORTH IN IBC TABLE 2304.9.1. CONNECTIONS FOR MULTIPLE PIECES OF ENGINEERED LUMBER PIECES SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.
- 16. UNLESS NOTED OTHERWISE, ALL HORIZONTAL FRAMING MEMBERS SHALL BE INSTALLED WITH THE NATURAL CROWN UP.
- T. DEFERRED SUBMITTALS

**b. PERMANENT WALL SHORING** 

- 1. DEFERRED SUBMITTALS ARE COMPLETE PACKAGES TO BE SUBMITTED FOR REVIEW THAT INCLUDE DRAWINGS AND
- CALCULATIONS FOR ALL ELEMENTS AND CONNECTIONS OF ITEMS LISTED BELOW. DEFERRED SUBMITTALS SHALL BEAR THE STAMP AND SIGNATURE OF THE DESIGN PROFESSIONAL RESPONSIBLE FOR THE DESIGN.
- 2. DEFERRED SUBMITTAL COMPONENTS SHALL NOT BE INSTALLED UNTIL APPROVED BY THE BUILDING OFFICIAL. 3. DEFERRED SUBMITTALS SHALL INCLUDE, BUT ARE NOT LIMITED TO:

ASCE 7-10 AND THE PROJECT CONTRACT DOCUMENTS.

MING PER THE WOOD SHEAR WALL SCHEDULE ON

a. SEISMIC BRACING OF ALL ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL ITEMS WHERE REQUIRED BY

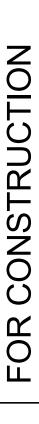
		BOLS AND ABE	BREVIATIONS
AB = ABV =	ANCHOR BOLT ABOVE		- FOOTING MARK
ARCH = BLW =	ARCHITECT BELOW	•	- TOP OF FOOTING ELEV.
BN =	BOUNDARY NAILING		- SECTION MARK
BRB = BRBF =	BUCKLING RESTRAINED BRACE BUCKLING RESTRAINED BRACE FRAME	•	- SHEET NUMBER
CJP = CL = CMU = COL =	COMPLETE JOINT PENETRATION CENTER LINE CONCRETE MASONRY UNIT COLUMN	$\bigcirc$	- TOP OF FOUNDATION WA OR COLUMN PIER ELEV.
CONC = CP = DC =	CONCRETE CONCRETE PIER DEMAND CRITICAL	•	<ul> <li>SHEAR WALL - SEE SCHE</li> <li>MIN. LENGTH OF SHEAR \</li> </ul>
DIA / Ø = DBA =	DIAMETER DEFORMED BAR ANCHOR	ss	- FOOTING STEP
DBE =	DECK BEARING ELEVATION		- MASONRY WALL
ELEV = EN = EOD =	ELEVATION EDGE NAILING EDGE OF DECK		- MASONRY WALL W/ CONC FOUNDATION BELOW
FDN = FTG = FFE =	FOUNDATION FOOTING FINISHED FLOOR ELEVATION		- DEPRESS FDN./WALL ANI OVER AT MASONRY FOUR
GB = HSA = IBE =	CONCRETE GRADE BEAM HEADED STUD ANCHOR JOIST BEARING ELEVATION		- DEPRESS FDN./WALL ANI OVER AT CONCRETE FOU
KB = MAX =	KICKER BRACE MAXIMUM		- MASONRY BEAM
/IAX = /IB =	MASONRY BEAM		- CONCRETE BEAM
IC = IECH = IEZZ = IIN =	MASONRY COLUMN MECHANICAL MEZZANINE MINIMUM	10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	HD - SIMPSON HOLD DOV SIZE OF END POST CONN
1J = 1W = IS, FS =	MASONRY JAMB MASONRY WALL NEAR SIDE, FARSIDE	$\bigotimes 2^{Q_{Q_2}}$	DOWN "A" - PLAN CONFIGURATI DOWN AT FOUNDATION
0AE = 0PP = PAF = PL =	OR APPROVED EQUAL OPPOSITE POWDER ACTUATED FASTENER PLATE		- FRAMING ANGLE SEE TYP
REINF =	REINFORCING	C	- FRAMING CHANNEL SEE
REQ = SIM = SSH = SSJ =	REQUIRED SIMILAR STEEL STUD HEADER STEEL STUD JAMB	(L) —	ITEMS, DETAILS, & SYSTE – PART OF THE LATERAL F SYSTEM.
SSS = SSW =	STEEL STUD SILL STEEL STUD WALL TOP OF FOOTING		_ MOMENT RESISTING CON SEE DETAIL
TOB = TOM =	TOP OF BEAM ELEVATION TOP OF MASONRY ELEVATION	$- \downarrow \triangleright$	MOMENT RESISTING CAN CONNECTIONS - SEE DE
TOC = TOG = TOS =	TOP OF CONCRETE SLAB TOP OF GIRDER ELEVATION TOP OF STEEL ELEVATION	KB	- KICKER BRACE
TYP = UNO =	TYPICAL UNLESS NOTED OTHERWISE		

ÿ	Structural Sheet Index
SHEET NUMBER	SHEET NA
S001	STRUCTURAL NOTES
S002	SCHEDULES
S003	SCHEDULES
S101	FOOTING AND FOUNDATION PLAN
S102	FLOOR FRAMING PLAN
S103	ROOF FRAMING PLAN
S104	HIGH ROOF FRAMING PLAN
S201	DETAILS
S202	DETAILS
S203	DETAILS
S204	DETAILS
S205	DETAILS
S301	DETAILS
S302	DETAILS
S401	SCHEMATIC REFERENCE

VALL ′.
IEDULE R WALL
NCRETE
ND POUR FLOOR SLAB UNDATION WALL ND POUR FLOOR SLAB DUNDATION WALL
OWN SIZE POST - INECTED TO HOLD
TION AT HOLD I
YPICAL DETAIL
E TYPICAL DETAIL IEMS WHICH ARE
FORCE RESISTING
ANTILEVER ETAIL

A R R R R R R R R R R R R R R R R R R R
<b>39 SUMMIT, LLC</b> Summit at Powder Mountain Lot 39 8365 E. SUMMIT PASS
SIGNAL NOTES
June 27, 2017 2 September 22, 2017 3 October 25, 2017
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ME



## INSPECTION TASKS PRIOR TO WELDING

WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMA MATERIAL IDENTIFICATION (TYPE / GRADE) WELDER IDENTIFICATION SYSTEM 1 FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY)

\* JOINT PREPARATION \* DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE

\* CLEANLINESS (CONDITION OF STEEL SURFACES) \* TACKING (TACK WELD QUALITY AND LOCATION)

\* BACKING TYPE AND FIT (IF APPLICABLE) CONFIGURATION AND FINISH OF ACCESS HOLES

FIT-UP OF FILLET WELDS

\* DIMENSIONS (ALIGNMENT, GAPS AT ROOT) \* CLEANLINESS (CONDITION OF STEEL SURFACES)

\* TACKING (TACK WELD QUALITY AND LOCATION) CHECK WELDING EQUIPMENT

<sup>1</sup> THE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MA WELDED A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS

INSPECTION TASKS DURING WELDING

USE OF QUALIFIED WELDERS CONTROL AND HANDLING OF WELDING CONSUMABLES

\* PACKAGING \* EXPOSURE CONTROL

NO WELDING OVER CRACKED TACK WELDS

ENVIRONMENTAL CONDITIONS

\* WIND SPEED WITHIN LIMITS

\* PRECIPITATION AND TEMPERATURE WPS FOLLOWED

\* SETTINGS ON WELDING EQUIPMENT

\* TRAVEL SPEED

\* SELECTED WELDING MATERIALS

\* SHIELDING GAS TYPE / FLOW RATE

\* PREHEAT APPLIED \* INTERPASS TEMPERATURE MAINTAINED (MIN. / MAX)

\* PROPER POSITION (F, V, H, OH)

WELDING TECHNIQUES

\* INTERPASS AND FINAL CLEANING \* EACH PASS WITHIN PROFILE LIMITATIONS

\* EACH PASS MEETS QUALITY REQUIREMENTS

INSPECTION TASKS AFTER WELDING

WELDS CLEANED

SIZE, LENGTH AND LOCATION OF WELDS WELDS MEET VISUAL ACCEPTANCE CRITERIA

\* CRACK PROHIBITION

\* WELD / BASE-METAL FUSION

\* CRATER CROSS SECTION

\* WELD PROFILES \* WELD SIZE

\* UNDERCUT

\* POROSITY

ARC STRIKES K-AREA <sup>1</sup>

BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRE

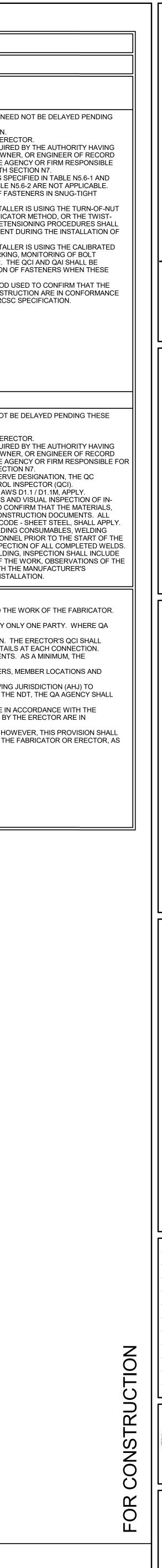
REPAIR ACTIVITIES

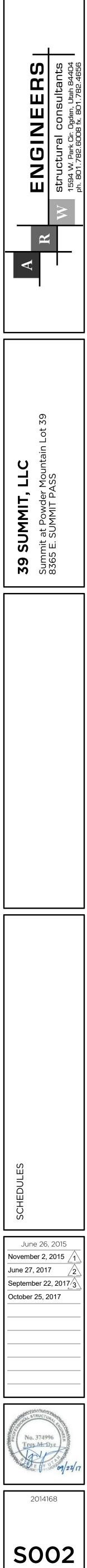
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOIN

<sup>1</sup> WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATE AREA, VISUALLY INSPECT THE WEB K-AREA FOR CRACKS WITHIN 3 IN. (75mm) OF THE WELD)

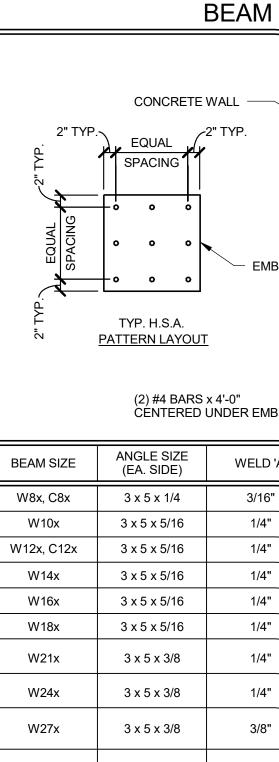
# STRUCTURAL STEEL SPECIAL INSPECTION SCHEDULE

			ESTABLISH	ED PER 2012 IBC SECTION 1705.2.1		
DING (TABLE N5.4-1)	FABRICATOR QUALITY CONTROL CONTINUOUS PERIODIC	SPECIAL INSPECTOR QUALITY ASSURANCE C CONTINUOUS PERIODIC	NOTES	INSPECTION TASKS PRIOR TO BOLTING (TABLE N5.6-1)		NOTES
ABLE	•		1. PERIODIC - OBSERVE THESE ITEMS ON A RANDOM BASIS.	MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	• •	1. PERIODIC - OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED
SUMABLES AVAILABLE	•		OPERATIONS NEED NOT BE DELAYED PENDING THESE	FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	• •	THESE INSPECTIONS.
	•	•	INSPECTIONS. 2. CONTINUOUS - PERFORM THESE TASKS FOR EACH WELDED JOINT OR MEMBER.	PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	• •	<ol> <li>CONTINUOUS - PERFORM THESE TASKS FOR EACH BOLTED CONNECTION.</li> <li>QUALITY CONTROL (QC) SHALL BE PROVIDED BY THE FABRICATOR AND ERECT</li> <li>QUALITY ASSURANCE (QA) SHALL BE PROVIDED BY OTHERS WHEN REQUIRED JURISDICTION (AHJ), APPLICABLE BUILDING CODE (ABC), PURCHASER, OWNER</li> </ol>
IRY)			3. QUALITY CONTROL (QC) SHALL BE PROVIDED BY THE FABRICATOR AND ERECTOR.	PROPER BOLTING PROCEDURES SELECTED FOR JOINT DETAIL	• •	(EOR). NONDESTRUCTIVE TESTING (NDT) SHALL BE PERFORMED BY THE AGEN FOR QUALITY ASSURANCE, EXCEPT AS PERMITTED IN ACCORDANCE WITH SEC
			4. QUALITY ASSURANCE (QA) SHALL BE PROVIDED BY OTHERS WHEN REQUIRED BY THE AUTHORITY HAVING JURISDICTION	CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION	• •	5. FOR SNUG-TIGHT JOINTS, PRE-INSTALLATION VERIFICATION TESTING AS SPEC MONITORING OF THE INSTALLATION PROCEDURES AS SPECIFIED IN TABLE N5.
FACE, BEVEL)	•	•	(AHJ), APPLICABLE BUILDING CODE (ABC), PURCHASER, OWNER, OR ENGINEER OF RECORD (EOR). NONDESTRUCTIVE TESTING (NDT) SHALL BE PERFORMED BY THE AGENCY OR FIRM RESPONSIBLE FOR QUALITY ASSURANCE, EXCEPT AS	AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	• • •	<ul> <li>THE QCI AND QAI NEED NOT BE PRESENT DURING THE INSTALLATION OF FAST JOINTS.</li> <li>FOR PRETENSIONED JOINTS AND SLIP-CRITICAL JOINTS, WHEN THE INSTALLEF</li> </ul>
			<ul> <li>PERMITTED IN ACCORDANCE WITH SECTION N7.</li> <li>5. QC AND QA INSPECTORS SHALL BE QUALIFIED IN ACCORDANCE WITH AISC 360-10 CHAPTER N4.</li> </ul>	PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	• •	METHOD WITH MATCHMARKING TECHNIQUES, THE DIRECT-TENSION-INDICATO OFF-TYPE TENSION CONTROL BOLT METHOD, MONITORING OF BOLT PRETENS BE AS SPECIFIED IN TABLE N5.6-2. THE QCI AND QAI NEED NOT BE PRESENT DI
	•		6. NONDESTRUCTIVE TESTING PERSONNEL SHALL BE QUALIFIED IN ACCORDANCE WITH AISC 360-10 CHAPTER N4.3.		CONTINUOUS PERIODIC CONTINUOUS PERIODIC	<ul> <li>FASTENERS WHEN THESE METHODS ARE USED BY THE INSTALLER.</li> <li>FOR PRETENSIONED JOINTS AND SLIP-CRITICAL JOINTS, WHEN THE INSTALLEF WRENCH METHOD OR THE TURN-OF-NUT METHOD WITHOUT MATCHMARKING,</li> </ul>
			7. NONDESTRUCTIVE TESTING OF WELDED JOINTS SHALL COMPLY WITH AISC 360-10 CHAPTER N5a AND b.			PRETENSIONING PROCEDURES SHALL BE AS SPECIFIED IN TABLE N5.6-2. THE ENGAGED IN THEIR ASSIGNED INSPECTION DUTIES DURING INSTALLATION OF
			8. OBSERVATION OF WELDING OPERATIONS AND VISUAL INSPECTION OF IN-PROCESS AND COMPLETED WELDS SHALL BE THE PRIMARY METHOD TO CONFIRM THAT THE MATERIALS, PROCEDURES AND WORKMANSHIP ARE IN CONFORMANCE	FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	•	8. OBSERVATION OF BOLTING OPERATIONS SHALL BE THE PRIMARY METHOD US MATERIALS, PROCEDURES AND WORKMANSHIP INCORPORATED IN CONSTRUCT
	•		WITH THE CONSTRUCTION DOCUMENTS. FOR STRUCTURAL STEEL, ALL PROVISIONS OF AWS D1.1 / D1.1M STRUCTURAL	JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	• •	WITH THE CONSTRUCTION DOCUMENTS AND THE PROVISIONS OF THE RCSC S
LL MAINTAIN A SYSTEM BY WHIC AMPS, IF USED, SHALL BE THE L			WELDING CODE - STEEL FOR STATICALLY LOADED STRUCTURES SHALL APPLY. 9. THERMALLY CUT SURFACES OF ACCESS HOLES SHALL BE	FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	• •	
ING (TABLE N5.4-2)		C CONTINUOUS PERIODIC	TESTED BY QA USING MT OR PT, WHEN THE FLANGE THICKNESS EXCEEDS 2 IN. (50mm) FOR ROLLED SHAPES, OR WHEN THE WEB THICKNESS EXCEEDS 2 IN. (50mm) FOR BUILT-	FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDG	ES • •	
3			UP SHAPES. ANY CRACK SHALL BE DEEMED UNACCEPTABLE REGARDLESS OF SIZE OR LOCATION.	INSPECTION TASKS AFTER BOLTING (TABLE N5.6-3)	CONTINUOUS PERIODIC CONTINUOUS PERIODIC	
	•	•	10. WHEN REQUIRED BY APPENDIX 3, TABLE A-3.1, WELDED JOINTS REQUIRING WELD SOUNDNESS TO BE ESTABLISHED BY	DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	• •	
	•	•	<ul> <li>RADIOGRAPHICS OR ULTRASONIC INSPECTION SHALL BE</li> <li>TESTED BY QA AS PRESCRIBED. REDUCTION IN THE RATE OF</li> <li>UT IS PROHIBITED.</li> <li>11. REDUCTION OF RATE OF ULTRASONIC TESTING - THE RATE OF</li> </ul>	INSPECTION OF STEEL ELEMENTS OF COMPOSITE CONSTRUCTION PRIOR TO CONCRETE PLACEMENT (TABLE N6.1)		NOTES         1.       0 - OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE
	•	•	UT IS ONLY PERMITTED TO BE REDUCED IF APPROVED BY THE EOR AND THE AHJ PER AISC 360-10 CHAPTER N5e.	PLACEMENT AND INSTALLATION OF STEEL DECK	• •	<ul> <li>INSPECTIONS.</li> <li>P - PERFORM THESE TASKS FOR EACH BOLTED CONNECTION.</li> </ul>
			12. FOR STRUCTURES IN RISK CATEGORY II, WHERE THE INITIAL RATE FOR UT IS 10%, THE NDT RATE FOR AN INDIVIDUAL	PLACEMENT AND INSTALLATION OF STEEL STUD ANCHORS	• •	3.       QUALITY CONTROL (QC) SHALL BE PROVIDED BY THE FABRICATOR AND ERECT         4.       QUALITY ASSURANCE (QA) SHALL BE PROVIDED BY OTHERS WHEN REQUIRED
AX)		•	WELDER OR WELDING OPERATOR SHALL BE INCREASED TO 100% SHOULD THE REJECT RATE, THE NUMBER OF WELDS CONTAINING UNACCEPTABLE DEFECTS DIVIDED BY THE NUMBER OF WELDS COMPLETED, EXCEEDS 5% OF THE WELDS TESTED FOR THE WELDER OR WELDING OPERATOR. A SAMPLING OF AT LEAST 20 COMPLETED WELDS FOR A JOB SHALL BE MADE PRIOR TO IMPLEMENTING SUCH AN INCREASE. WHEN THE REJECT RATE FOR THE WELDER OR WELDING OPERATOR, AFTER A SAMPLING OF AT LEAST 40 COMPLETED WELDS, HAS FALLEN TO 5% OR LESS, THE RATE OF UT SHALL BE RETURNED TO 10%. FOR EVALUATING THE REJECT RATE OF CONTINUOUS WELDS OVER 3 FT (1M) IN LENGTH WHERE THE EFFECTIVE THROAT IS 1 IN. (25mm) OR LESS, EACH 12 IN. (300mm) INCREMENT OR FRACTION THEREOF SHALL BE CONSIDERED AS ONE WELD. FOR EVALUATING THE REJECT RATE ON CONTINUOUS WELDS OVER 3 FT (1M) IN LENGTH WHERE THE EFFECTIVE THROAT IS GREATER THAN 1 IN. (25mm), EACH 6 IN. (150mm) OF LENGTH OR FRACTION THEREOF SHALL BE CONSIDERED ON WELD.			<ul> <li>JURISDICTION (AHJ), APPLICABLE BUILDING CODE (ABC), PURCHASER, OWNER (EOR). NONDESTRUCTIVE TESTING (NDT) SHALL BE PERFORMED BY THE AGEN QUALITY ASSURANCE, EXCEPT AS PERMITTED IN ACCORDANCE WITH SECTION FOR THOSE ITEMS FOR QUALITY CONTROL (QC) THAT CONTAIN AN OBSERVE D INSPECTION SHALL BE PERFORMED BY THE ERECTOR'S QUALITY CONTROL INS 6. FOR WELDING OF STEEL HEADED STUD ANCHORS, THE PROVISIONS OF AWS D 7. FOR WELDING OF STEEL DECK, OBSERVATION OF WELDING OPERATIONS AND PROCESS AND COMPLETED WELDS SHALL BE THE PRIMARY METHOD TO CONF PROCEDURES AND WORKMANSHIP ARE IN CONFORMANCE WITH THE CONSTR APPLICABLE PROVISIONS OF AWS D1.3 / D1.3M, STRUCTURAL WELDING CODE DECK WELDING INSPECTION SHALL INCLUDE VERIFICATION OF THE WELDING OF PROCEDURE SPECIFICATIONS AND QUALIFICATIONS OF WELDING PERSONNEL WORK, OBSERVATIONS OF THE WORK IN PROGRESS, AND A VISUAL INSPECTIO FOR STEEL DECK ATTACHED BY FASTENING SYSTEMS OTHER THAN WELDING, VERIFICATION OF THE FASTENERS TO BE USED PRIOR TO THE START OF THE WORK IN PROGRESS TO CONFIRM INSTALLATION IN CONFORMANCE WITH THE RECOMMENDATIONS, AND A VISUAL INSPECTION OF THE COMPLETED INSTALL</li> </ul>
		C CONTINUOUS PERIODIC	13. ALL NDT PERFORMED SHALL BE DOCUMENTED. FOR SHOP		ERAL STEEL SPECIAL INSPECTION N	
NG (TABLE N5.4-3)			FABRICATION, THE NDT REPORT SHALL IDENTIFY THE TESTED WELD BY PIECE MARK AND LOCATION IN THE PIECE. FOR	1. QUALITY ASSURANCE (QA) INSPECTION OF FABRICATED ITEMS SHALL BE MADE A 2. QA INSPECTION OF THE ERECTED STEEL SYSTEM SHALL BE MADE AT THE PROJE	T THE FABRICATOR'S PLANT. THE QUALITY ASSURAN CT SITE. THE QAI SHALL SCHEDUI F THIS WORK TO M	CE INSPECTOR (QAI) SHALL SCHEDULE THIS WORK TO MINIMIZE INTERRUPTION TO THE V INIMIZE INTERRUPTION TO THE WORK OF THE ERECTOR.
	•	•	FIELD WORK, THE NDT REPORT SHALL IDENTIFY THE TESTED WELD BY LOCATION IN THE STRUCTURE, PIECE MARK, AND		ED TO COORDINATE THE INSPECTION FUNCTION BET	WEEN THE QCI AND QAI SO THAT THE INSPECTION FUNCTIONS ARE PERFORMED BY ONL
		•	<ul> <li>LOCATION IN THE PIECE. WHEN A WELD IS REJECTED ON THE BASIS OF NDT, THE NDT RECORD SHALL INDICATE THE LOCATION OF THE DEFECT AND THE BASIS OF REJECTION</li> <li>14. DEMAND CRITICAL WELDS SHALL MEET THE PROVISION FOUND IN AISC 341-10 AND WELDING METHODS, PROCEDURES AND QUALITY CONTROL SHALL COMPLY WITH AWS D1.1 AND THE FOLLOWING:         <ul> <li>a. ARC STRIKES, GOUGES AND OTHER IMPERFECTIONS WITHIN OR ADJACENT TO THE JOINT, SHALL BE REPAIRED OR REMOVED.</li> <li>b. PREHEAT AND INTER-PASS REQUIREMENTS AS OUTLINED IN SECTION 3.5.</li> <li>c. UNREPAIRED CRACKS, GOUGES, AND NOTCHES WILL NOT</li> </ul> </li> </ul>	<ol> <li>THE FABRICATOR'S QCI SHALL INSPECT THE FABRICATED STEEL TO VERIFY COM INSPECT THE ERECTED STEEL FRAME TO VERIFY COMPLIANCE WITH THE DETAIL</li> <li>THE QAI SHALL BE ON THE PREMISES FOR INSPECTION DURING THE PLACEMENT DIAMETER, GRADE, TYPE AND LENGTH OF THE ANCHOR ROD OR EMBEDDED ITEM</li> <li>THE QAI SHALL INSPECT THE FABRICATED STEEL OR ERECTED STEEL FRAME, AS PROPER APPLICATION OF JOINT DETAILS AT EACH CONNECTION.</li> <li>QUALITY ASSURANCE (QA) INSPECTIONS, EXCEPT NONDESTRUCTIVE TESTING (N PERFORM THE WORK WITHOUT QA. NDT OF WELDS COMPLETED IN AN APPROVE REVIEW THE FABRICATOR'S NDT REPORTS.</li> <li>AT COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CONSTRUCTION DOCUMENTS. AT COMPLETION OF ERECTION, THE APPROVED E ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.</li> <li>IDENTIFICATION AND REJECTION OF MATERIAL OR WORKMANSHIP THAT IS NOT</li> </ol>	PLIANCE WITH THE DETAILS SHOWN ON THE SHOP DF S SHOWN ON THE ERECTION DRAWINGS, SUCH AS BR OF ANCHOR RODS AND OTHER EMBEDMENTS SUPPO A, AND THE EXTENT OR DEPTH OF EMBEDMENT INTO T APPROPRIATE, TO VERIFY COMPLIANCE WITH THE DE DT), MAY BE WAIVED WHEN THE WORK IS PERFORMED DT), CONFORMANCE WITH THE CONSTRUCTION DOCUM	RAWINGS, SUCH AS PROPER APPLICATION OF JOINT DETAILS AT EACH CONNECTION. THE RACES, STIFFENERS, MEMBER LOCATIONS AND PROPER APPLICATION OF JOINT DETAILS / INTING STRUCTURAL STEEL FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS. THE CONCRETE, SHALL BE VERIFIED PRIOR TO PLACEMENT OF THE CONCRETE. ETAILS SHOWN ON THE CONSTRUCTION DOCUMENTS, SUCH AS BRACES, STIFFENERS, MI D IN A FABRICATING SHOP OR BY AN ERECTOR APPROVED BY THE AUTHORITY HAVING JU FABRICATOR WHEN APPROVED BY THE AHJ. WHEN THE FABRICATOR PERFORMS THE N THAT THE MATERIALS SUPPLIED AND WORK PERFORMED BY THE FABRICATOR ARE IN AC ICE TO THE AHJ STATING THAT THE MATERIALS SUPPLIED AND WORK PERFORMED BY THE WORK. HOWE
	•		BE PERMITTED IN THE JOINT AREA. d. USE ELECTRODES WITH CHARPY V-NOTCH ABSORBED			ERIAL AND WORKMANSHIP SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE F.
			ENERGY EQUAL TO OR GREATER THAN 20 FT-LIAT -20 DEGREES FAHRENHEIT UNDER AWS A5 CLASSIFICATION	10. NONCONFORMING MATERIAL OR WORKMANSHIP SHALL BE BROUGHT INTO CONF		
QUIRED)	•		TEST METHODS, AND 40 FT-LBS AT 70 DEGREES	11. CONCURRENT WITH THE SUBMITTAL OF SUCH REPORTS TO THE AHJ, EOR OR O' (1) NONCONFORMANCE REPORTS		JATUK AND EKEUTUK:
· · ·	•		FAHRENHEIT USING TEST PROCEDURES PRESCRIBED IN APPENDIX X OF AISC 358. ACCEPTABLE ELECTRODES	(2) REPORTS OF REPAIR, REPLACEMENT OR ACCEPTANCE OF NONCONFORMING	ITEMS.	
JOINT OR MEMBER	•	•	INCLUDE E70TG-K2, E71 T-1.			
PLATES OR STIFFENERS HAS BEE CKS WITHIN 3 IN. (75mm) OF THE						





		ITEM	1
RE-FAB	CONSTR	RUCTION	I (IBC
REINFORG	CING STEEL	_ PLACEME	NT
	ITEM E-FAB CONSTRUCTION (IBC INCRETE CONSTRUCTION (IBC ENFORCING STEEL PLACEMENT ELDING OF REINFORCING STEEL MBEDDED BOLTS & PLATES ERIFYING REQUIRED DESIGN MIX DNCRETE PLACEMENT / SAMPLING JRING TEMPERATURE / TECHNIQUES ERIFICATION OF IN-SITU STRENGTH POXY / EXPANSION ANCHOR PLACEM DOD (IBC 1705.5) GH LOAD DIAPHRAGMS (ROOF / FLOO TE-BUILT ASSEMBLIES HEAR WALL & DIAPHRAGM NAILING RAG STRUTS RACES & SHEAR PANELS DUD-DOWNS LUING OPERATIONS ILS (IBC 1705.6) ERIFY ADEQUATE MATERIALS BELOW CAVATIONS EXTEND TO PROPER DE EACH PROPER MATERIAL ASSIFY & TEST CONTROLLED FILL M. ERFORM MATERIALS, DENSITIES, AND HICKNESSES DURING PLACEMENT AN DMPACTION OF CONTROLLED FILL M. ERFORM MATERIALS, DENSITIES, AND HICKNESSES DURING PLACEMENT AN DMPACTION OF CONTROLLED FILL M. ERFORM MATERIALS, DENSITIES, AND HICKNESSES DURING PLACEMENT AN DMPACTION OF CONTROLLED FILL M. ERFORM MATERIALS, DENSITIES, AND HICKNESSES DURING PLACEMENT AN DMPACTION OF CONTROLLED FILL ROPERLY PREPARED SITE AND SUB-GRADE 1. THE ITEMS MARKED WITH A " • THE MATERIAL SAMPLING AND CONTRACTOR, AND BUILDING CONTRACTOR 3. CONTINUOUS SPECIAL INSPECT 1. THE ITEMS MARKED WITH A " • FACE OF COLUMN / BEAN W BEAM - SEE F 1.127 LUING OR INTERMITTENT OBSER		
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SHEAR W	ALL & DIAPI		ILING
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THICKNES	SES DURIN	IG PLACEN	IENT AN
PROPERLY	PREPARED S	SITE AND SU	B-GRADE
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3 x 5 x 3/8

3/8"

W30x

			SPECIAL INSPEC	TION SC	HEDULE <sup>1,2</sup>
		E	STABLISHED PER 2012 IBC S	CTION 11	0 AND CHAPTER 17
		PERIODIC	REFERENCE		COMMENTS
C 1704.2)			REFERENCE NOTES P1 & P2	TO PER P2. INSPEC PLACE	LINSPECTION IS NOT REQUIRED WHERE THE WORK IS DONE ON THE PREMISES OF A FABRICATOR REGI FORM SUCH WORK WITHOUT SPECIAL INSPECTION, PROVIDED THE FABRICATOR COMPLIES WITH IBC. FION FOR PREFABRICATED CONSTRUCTION SHALL BE THE SAME AS IF THE MATERIAL USED IN THE CON ON SITE. SPECIAL INSPECTION WILL NOT BE REQUIRED DURING PREFABRICATION IF THE APPROVED A RUCTION AND FURNISHES EVIDENCE OF COMPLIANCE. (SEE NOTE 2).
IBC 1705.3)	•	•	SEE IBC TABLE 1705.3 - REF. NOTE C1 REFERENCE NOTE C2 REFERENCE NOTE C3 REFERENCE NOTE C4 REFERENCE NOTE C5	C2. FOUND. AND AX SHEAR REINFC C3. PERFOI C4. PERIOD PRIOR C5. EPOXY ENGINE	LINSPECTION IS NOT REQUIRED FOR CONC. ISOLATED SPREAD FOOTINGS, CONTINUOUS FOOTINGS, NO ATION WALLS, PATIOS, DRIVEWAYS, AND SIDEWALKS PROVIDED THE REQUIREMENTS OF IBC 1705.3 ARE IC SPECIAL INSPECTION IS ALLOWED FOR VERIFICATION OF THE WELDABILITY OF REINFORCING STEEL IAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, BOUNDARY ELEMENTS OF SPECIAL REIN WALLS, AND SHEAR REINFORCEMENT. PERIODIC SPECIAL INSPECTION IS ALLOWED FOR WELDING OF C RCING STEEL NOT INCLUDED IN THE CONTINOUS SPECIAL INSPECTION REQUIREMENTS NOTED ABOVE. RM AIR, SLUMP AND TEMP. TESTS WHEN CONCRETE SAMPLES ARE CAST. IC SPECIAL INSPECTION IS REQUIRED FOR VERIFICATION OF IN-SITU CONCRETE STRENGTH FOR POST- 'O TENSIONING TENDONS OR REMOVING SHORING OR FORMS. AND EXPANSION ANCHORS INTO MASONRY OR CONCRETE MAY BE USED ONLY WHEN APPROVED BY AR ER USING AN APPROVED PRODUCT WITH CURRENT PUBLISHED ICC RESEARCH REPORT NUMBERS. COO UOUS/PERIODIC SPECIAL INSPECTION REQUIREMENTS WITH ICC REPORT.
OOR)		•	REFERENCE NOTE W1	WITH A AND LE ALSO B W2. SPECIA	TRUCTURAL PANEL SHEATHING SHALL BE INSPECTED TO ASCERTAIN THAT GRADE AND THICKNESS AR PROVED BUILDING PLANS. NOMINAL SIZE OF FRAMING MEMBERS AT ADJOINING PANEL EDGES, THE NA NGTH, THE NUMBER OF FASTENER LINES, AND SPACING BETWEEN FASTENERS IN EACH LINE AND AT ED INSPECTED AND VERIFIED FOR COMPLIANCE WITH APPROVED BUILDING PLANS. INSPECTION IS NOT REQUIRED FOR WOOD SHEAR WALLS, WOOD DIAPHRAGMS, INCLUDING NAILING, & ING TO OTHER COMPONENTS WHERE THE SPACING OF THE SHEATHING FASTENERS IS GREATER THAN
W FOOTINGS DEPTH AND MATERIALS ND LIFT AND DE PRIOR TO FILL.	•	• • • • • • • • • • • • • • • • • • • •	REFERENCE NOTE F1         REFERENCE NOTE F1         REFERENCE NOTE F2         REFERENCE NOTE F2         REFERENCE NOTE F1         REFERENCE NOTE F1	F2. WHERE COMPA	L INSPECTION OF SOILS SHALL REFERENCE THE APPROVED SOILS REPORT TO DETERMINE COMPLIANC SOILS REPORT IS NOT PROVIDED SPECIAL INSPECTIONS ARE REQUIRED TO VERIFY THAT THE IN-PLACE CTED FILL IS NOT LESS THAN 90 PERCENT OF THE MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CON DANCE WITH ASTM D 1557.

## **GENERAL SPECIAL INSPECTION NOTES :**

" IN THE SPECIAL INSPECTION SCHEDULE SHALL BE INSPECTED IN ACCORDANCE WITH IBC CHAPTER 17 BY A CERTIFIED SPECIAL INSPECTOR FROM AN ESTABLISHED TESTING AGENCY. FOR MATERIAL SAMPLING AND TESTING REQUIREMENTS, REFER TO ) TESTING SECTION, THE PROJECT SPECIFICATIONS, AND THE SPECIFIC GENERAL NOTES SECTIONS. THE TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECTLY TO THE ARCHITECT, ENGINEER, OFFICIAL. ANY ITEMS WHICH FAIL TO COMPLY WITH THE APPROVED CONSTRUCTION DOCUMENTS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF DISCREPANCIES ARE NOT CORRECTED, THEY SHALL BE OF THE BUILDING OFFICIAL, ARCHITECT, AND ENGINEER PRIOR TO COMPLETION OF THAT PHASE OF WORK. SPECIAL INSPECTION TESTING REQUIREMENTS APPLY EQUALLY TO ALL BIDDER DESIGNED COMPONENTS. RIAL THAT HAS FAILED INSPECTION SHALL BE SUBJECT TO REMOVAL AND REPLACEMENT. TION MEANS THE FULL-TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED. PERIODIC SPECIAL INSPECTION MEANS THE PART-ATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN OR IS BEING PERFORMED AND AT THE COMPLETION OF THE WORK. (IBC SECTION 1702)

# BEAM CONNECTIONS SCHEDULE

		CONNEC	TION S	SCHEI	DUL	E		
ACE OF OLUMN / BEAM WEB		SHEAR PLATE	SHEAR PLATE INFORMATION					
' BEAM - SEE PLAN	BEAM DEPTH	PL. DIMENSIONS W/ SHORT- SLOTTED	Lev	Leh	BOLTS W/ STANDARD WASHERS OVER SLOTS		WELD 'A'	COMMENTS
Lev		HOLES			No.	SIZE		
Ĺ	W8 x, W10 x	PL. 1/4" x 4"	1 1/2"	2"	2	3/4" Ø	3/16"	
	W12 x	PL. 5/16" x 4"	1 1/2"	2"	3	3/4" Ø	1/4"	
Ŀ	W14 x 90 & LIGHTER	PL. 5/16" x 4"	1 1/2"	2"	3	3/4" Ø	1/4"	
	W16 x 77 & LIGHTER	PL. 5/16" x 4"	1 1/2"	2"	4	3/4" Ø	1/4"	
	W18 x 65 & LIGHTER	PL. 5/16" x 4"	1 1/2"	2"	5	3/4" Ø	1/4"	
	W21 x 73 & LIGHTER	PL. 5/16" x 4"	1 1/2"	2"	6	3/4" Ø	1/4"	
1	W24 x 94 & LIGHTER	PL. 3/8" x 4"	1 1/2"	2"	7	7/8" Ø	1/4"	
IORT-SLOTTED HOLES	W27 x 114 & LIGHTER	PL. 3/8" x 4"	1 1/2"	2"	7	7/8" Ø	1/4"	
SHEAR PLATE	W30 x 124 & LIGHTER	PL. 1/2" x 4"	1 3/4"	2"	8	1" Ø	5/16"	
IEAR PL	W33 x 130 & LIGHTER	PL. 1/2" x 4"	1 3/4"	2"	9	1" Ø	5/16"	
ESCHEDULE	W36 x 160 &	PL. 1/2" x 4 1/2"	2"	2 1/4"	10	1-1/8" Ø	5/16"	

STANDARD HOOK & BEND SC						
	DETAILIN DIMENSIC			DETA DIMEN		
 4 c	J		յ 180°	A OR G		
	AR DIAMETER			D = 6d <sub>b</sub> FOR #		
		END DIAMETER	र	$D = 8d_bFOR #$		
BAR	DIMENSIO HO	DIMEN 90-DEG				
SIZE	A or G	J	D	A or G		
#3	5"	3"	2 1/4"	6"		
#4	6"	4"	3"	8"		
#5	7"	5"	3 3/4"	10"		
#6	8"	6"	4 1/2"	1'-0"		
#7	10"	7"	5 1/4"	1'-2"		
#8	11"	8"	6"	1'-4"		
#9	1'-3"	11 3/4"	9 1/2"	1'-7"		
#10	1'-5"	1'-1 1/4"	10 3/4"	1'-10"		
	1'-7"	1'-2 3/4"	12"	2'-0"		

BEAM FRAMING SCHEDULE — (2) L 3 x 5 SEE PLAN Ŵ/ 1 1/2" SLOTTED HOLES - SEE SCHED. A325 BOLTS AS PER SCHEDULE — W BEAM - SEE PLAN - EMBED PL. ∕TYP. BOTH - ANGLES SEE ≣₹ ∖SCHED. a" / " EMBED PL. 3/4" x SEE SCHED. W/ 3/4" DIA. x 5" CÉNTERED UNDER EMBED — H.S.A. PATTERN WELD 'A' BOLTS EMBED PLATE # OF H.S.A. 3/16" (2) 3/4"Ø :: 8" x 8" 4 ••• (2) 3/4"Ø 12" x 1'-4" 1/4" 6 ••• 1/4" (3) 3/4"Ø 12" x 1'-4" 6 1/4" (3) 3/4"Ø 15" x 1'-4" ••• 9 1/4" (4) 3/4"Ø 15" x 2'-0" 12 • • • • • • • • 1/4" (5) 3/4"Ø 15" x 2'-0" 12 • • • • • • • • • 1/4" (6) 7/8"Ø 15" x 2'-0" 12 • • • • • • • • • • • 1/4" (7) 7/8"Ø 15" x 2'-0" 12

15" x 2'-6"

15" x 2'-6"

15

15

(8) 7/8"Ø

(9) 7/8"Ø

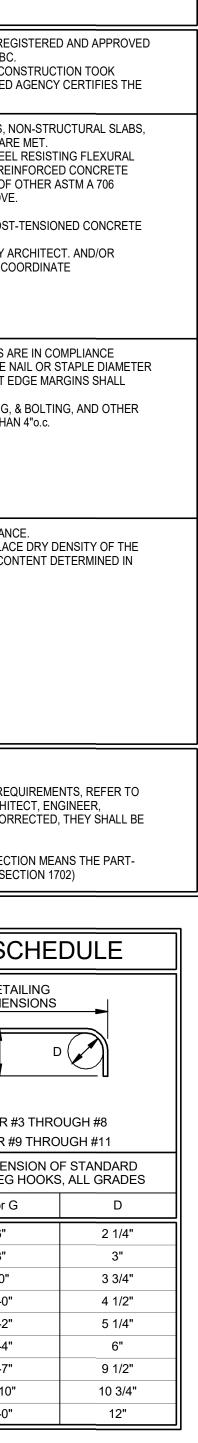
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							_	
FOOTING SC								
MARK			TUIOIC	LENGTHW	CROSS			
WARK	WIDTH	LENGTH	THICK	NO.	SIZE	NO.		
FT2	2'-0"	CONT.	12"	(2)	#5		Γ	
FC2	2'-0"	CONT.	12"	(2)	#5			
FC3	3'-0"	CONT.	12"	(3)	#5			
FC4	4'-0"	CONT.	12"	(4)	#5			
FC6.5	6'-6"	CONT.	16"	(7)	#5			
FC7.5	7'-6"	CONT.	16"	(7)	#6			
F3	3'-0"	3'-0"	12"	(3)	#5	(3)		
F4	4'-0"	4'-0"	12"	(3)	#5	(3)		
F5	5'-0"	5'-0"	12"	(5)	#5	(5)		
F5.5	5'-6"	5'-6"	12"	(5)	#5	(5)		
F6	6'-0"	6'-0"	12"	(6)	#5	(6)		
F6.5	6'-6"	6'-6"	14"	(7)	#5	(7)		
F7	7'-0"	7'-0"	14"	(7)	#5	(7)		
F7.5	7'-6"	7'-6"	14"	(7)	#6	(7)		
F8	8'-0"	8'-0"	16"	(8)	#6	(8)		
3" C		EQ		EQ	3" CLEAR		3	
TYPIC	CAL FOOT	ING /	, ,					

REINFORCING ------

TYP. FOOTING SECTION



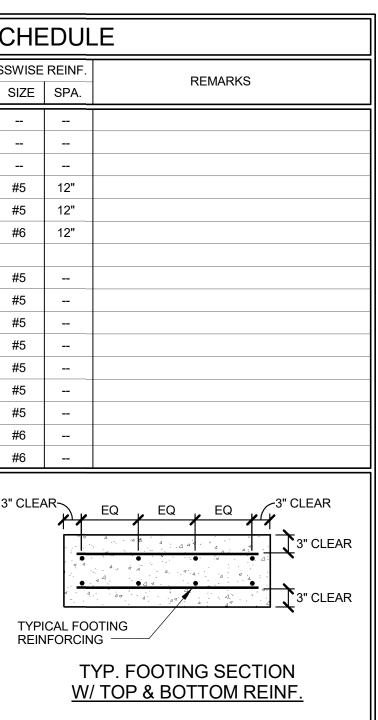
#### FOR CONCRETE APPLICATIONS (ACI 318 - 11) FACE OF JOINT FACE OF JOINT OR CRITICAL OR CRITICAL SECTION -SECTION -4, 4, 4 ls łdh 2' - 0" CLEAR HOOK DEVELOPMENT LENGTH DEVELOPMENT LENGTH LAP SPLICE LENGTH CONCRETE REINFORCING & SPLICE LENGTHS (IN) BAR SIZE CONCRETE BAR LOCATION #3 TYPE | STRENGTH | VERT. WALL BARS, NWC 3000 PSI 17 22 8 22 29 8 28 36 10 33 43 12 48 62 13 55 72 15 62 17 69 19 76 30 FILL ON METAL DECK HORIZ. WALL BARS, NWC 3000 PSI 17 22 8 22 29 8 28 36 10 33 43 12 48 62 13 55 72 15 62 17 69 19 76 30 FOOTING TOP BARS BEAM BOTTOM BARS, NWC 3000 PSI 17 22 8 22 29 11 28 36 14 33 43 16 48 62 19 55 72 22 62 25 69 27 76 30 FOOTING BOTTOM NWC 3000 PSI 12 16 8 14 18 8 17 22 10 20 26 12 29 38 13 33 43 15 37 17 42 19 46 30 BARS BEAM TOP BARS NWC 3000 PSI 22 29 8 29 38 11 36 47 14 43 56 16 63 82 19 72 94 22 81 25 90 27 98 30 SLAB ON GRADE NWC 3000 PSI 12 16 8 14 18 8 17 22 10 20 26 12 32 42 13 42 55 15 53 17 69 19 76 30 CONCRETE REINFORCING & SPLICE LENGTHS (IN) BAR SIZE CONCRETE BAR LOCATION TYPE STRENGTH VERT. WALL BARS, NWC 4000 PSI 15 20 7 19 25 7 24 31 8 29 38 10 42 55 12 48 62 13 54 15 60 17 66 26 FILL ON METAL DECK \_\_\_\_\_ HORIZ. WALL BARS, NWC 4000 PSI 15 20 7 19 25 7 24 31 8 29 38 10 42 55 12 48 62 13 54 15 60 17 66 26 FOOTING TOP BARS BEAM BOTTOM BARS, NWC 4000 PSI 15 20 7 19 25 9 24 31 12 29 38 14 42 55 17 48 62 19 54 21 60 24 66 26 FOOTING BOTTOM NWC 4000 PSI 12 16 7 15 20 8 18 23 10 25 33 12 29 38 13 33 15 36 17 40 26 BARS BEAM TOP BARS NWC 4000 PSI 19 25 7 25 33 9 31 40 12 37 48 14 54 70 17 62 81 19 70 21 78 24 85 26 SLAB ON GRADE NWC 4000 PSI 12 16 7 15 20 8 18 23 10 28 36 12 36 47 13 46 15 60 17 66 26 CONCRETE REINFORCING & SPLICE LENGTHS (IN) CONCRETE BAR SIZE BAR LOCATION TYPE STRENGTH VERT. WALL BARS, NWC 4500 PSI 14 18 7 18 23 6 23 30 8 27 35 9 40 52 11 45 59 13 51 14 56 16 62 25 FILL ON METAL DECK \_\_\_\_\_ HORIZ. WALL BARS, NWC 4500 PSI 14 18 7 18 23 6 23 30 8 27 35 9 40 52 11 45 59 13 51 14 56 16 62 25 FOOTING TOP BARS \_\_\_\_ BEAM BOTTOM BARS, NWC 4500 PSI 14 18 7 18 23 9 23 30 11 27 35 13 40 52 16 45 59 COLUMN BARS FOOTING BOTTOM NWC 4500 PSI 12 16 7 12 16 6 14 18 8 17 22 9 24 31 11 27 35 13 31 14 34 16 37 25 BARS \_\_\_\_\_ BEAM TOP BARS NWC 4500 PSI 18 23 7 24 31 9 30 39 11 35 46 13 51 66 16 59 77 18 66 20 73 22 80 25 \_\_\_\_\_ \_\_\_\_ \_\_\_\_ SLAB ON GRADE NWC 4500 PSI 12 16 7 12 16 6 14 18 8 17 22 9 27 35 11 34 44 13 44 14 56 16 62 2 CONCRETE REINFORCING & SPLICE LENGTHS (IN) CONCRETE BAR SIZE BAR LOCATION TYPETRENGTH#3#4#5#6#7#8#9#10#11 $\ell$ </t VERT. WALL BARS, EUL ON METAL DECK NWC 5000 PSI 13 17 6 17 22 6 22 29 7 26 34 9 38 49 10 43 56 12 48 13 54 15 59 23 FILL ON METAL DECK HORIZ. WALL BARS, NWC 5000 PSI 13 17 6 17 22 6 22 29 7 26 34 9 38 49 10 43 56 12 48 13 54 15 59 23 FOOTING TOP BARS BEAM BOTTOM BARS, NWC 5000 PSI 13 17 6 17 22 8 22 29 11 26 34 13 38 49 15 43 56 17 48 19 54 21 59 23 COLUMN BARS \_\_\_\_\_ FOOTING BOTTOM NWC 5000 PSI 12 16 6 12 16 6 13 17 7 16 21 9 23 30 10 26 34 12 29 13 32 15 36 23 BEAM TOP BARS NWC 5000 PSI 17 22 6 23 30 8 28 36 11 34 44 13 49 64 15 56 73 17 63 19 69 21 76 23 SLAB ON GRADE NWC 5000 PSI 12 16 6 12 16 6 13 17 7 16 21 9 25 33 10 32 42 12 41 13 54 15 59 23

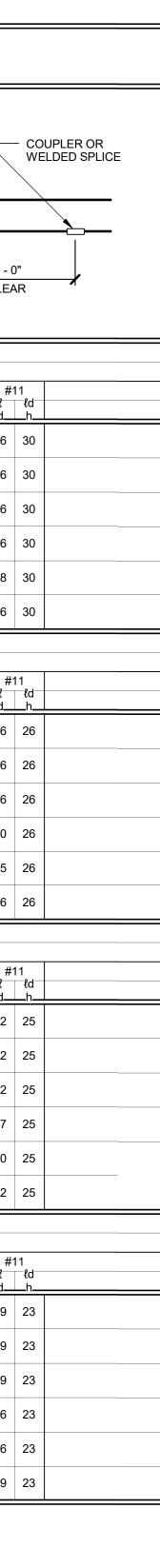
2012 IBC CONC. REBAR LAP SPLICE SCHEDULE

NOTES :

4.

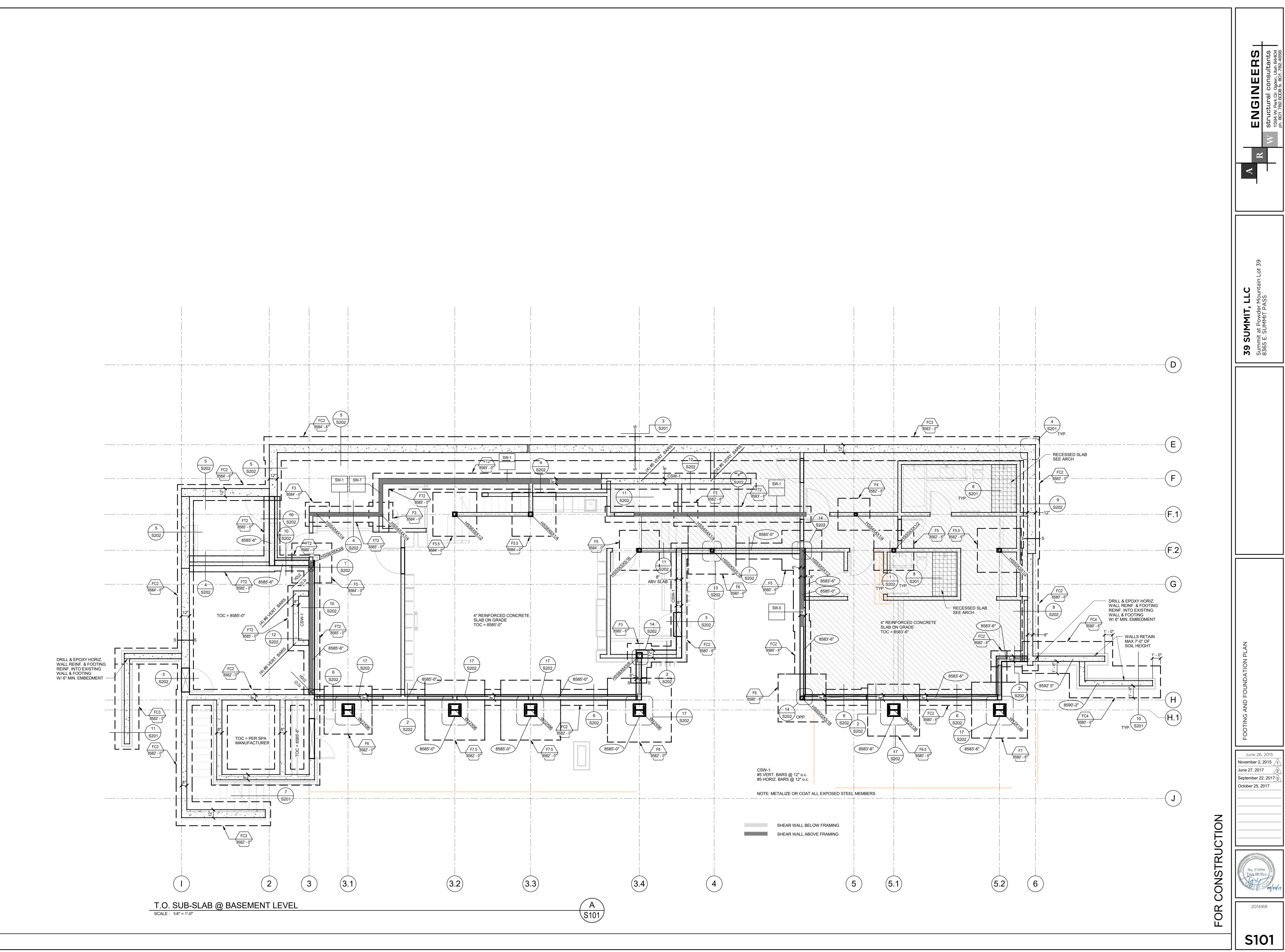
MECHANICAL COUPLERS MAY BE USED IN LIEU OF LAP SPLICES SHOWN. SEE STRUCTURAL NOTES FOR MINIMUM COUPLER CAPACITY. WHERE MECHANICAL COUPLERS ARE USED, STAGGER ADJACENT SPLICES A MINIMUM OF 24" AS INDICATED ABOVE. DEVELOPMENT LENGTHS SHALL BE INCREASED BY 50% FOR STRAIGHT BAR DEVELOPMENT AND 20% FOR HOOKED BARS WHERE EPOXY COATING IS USED. WHEN SPLICING BARS OF DIFFERENT SIZES, USE LAP SPLICE LENGTH OF LARGER BARS UNO. SPLICE BARS LARGER THAN #11 USING MECHANICAL COUPLERS.

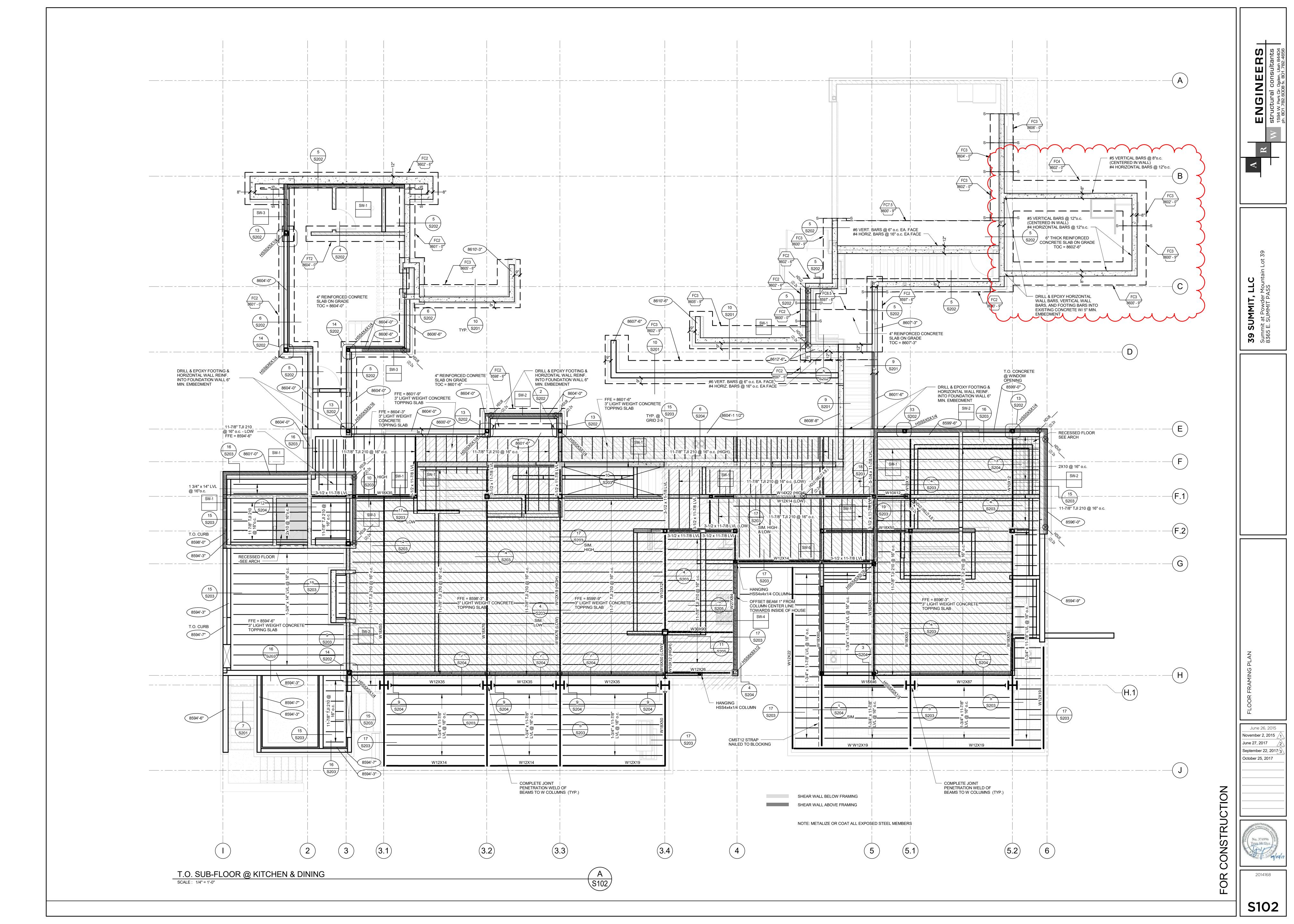


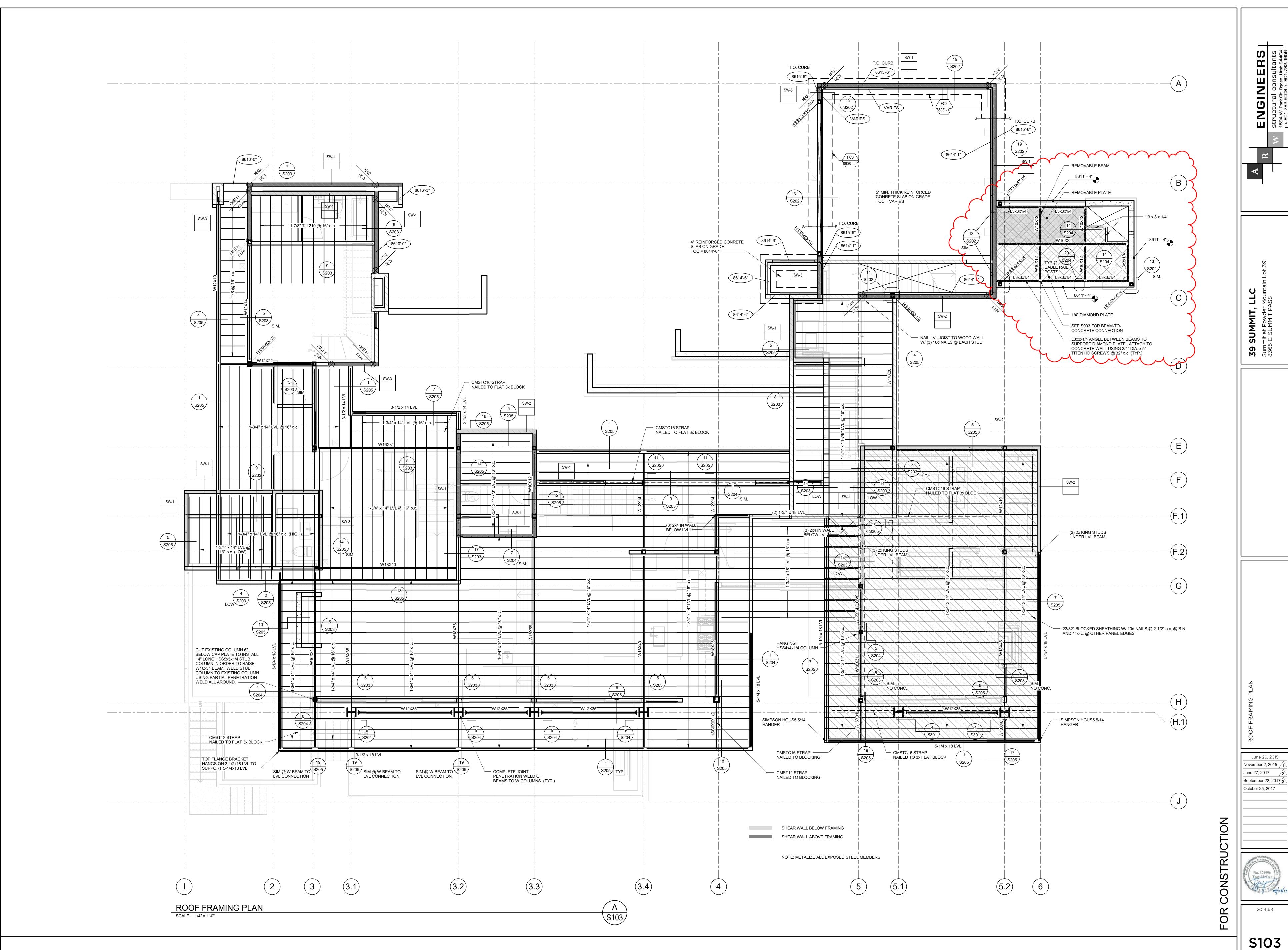


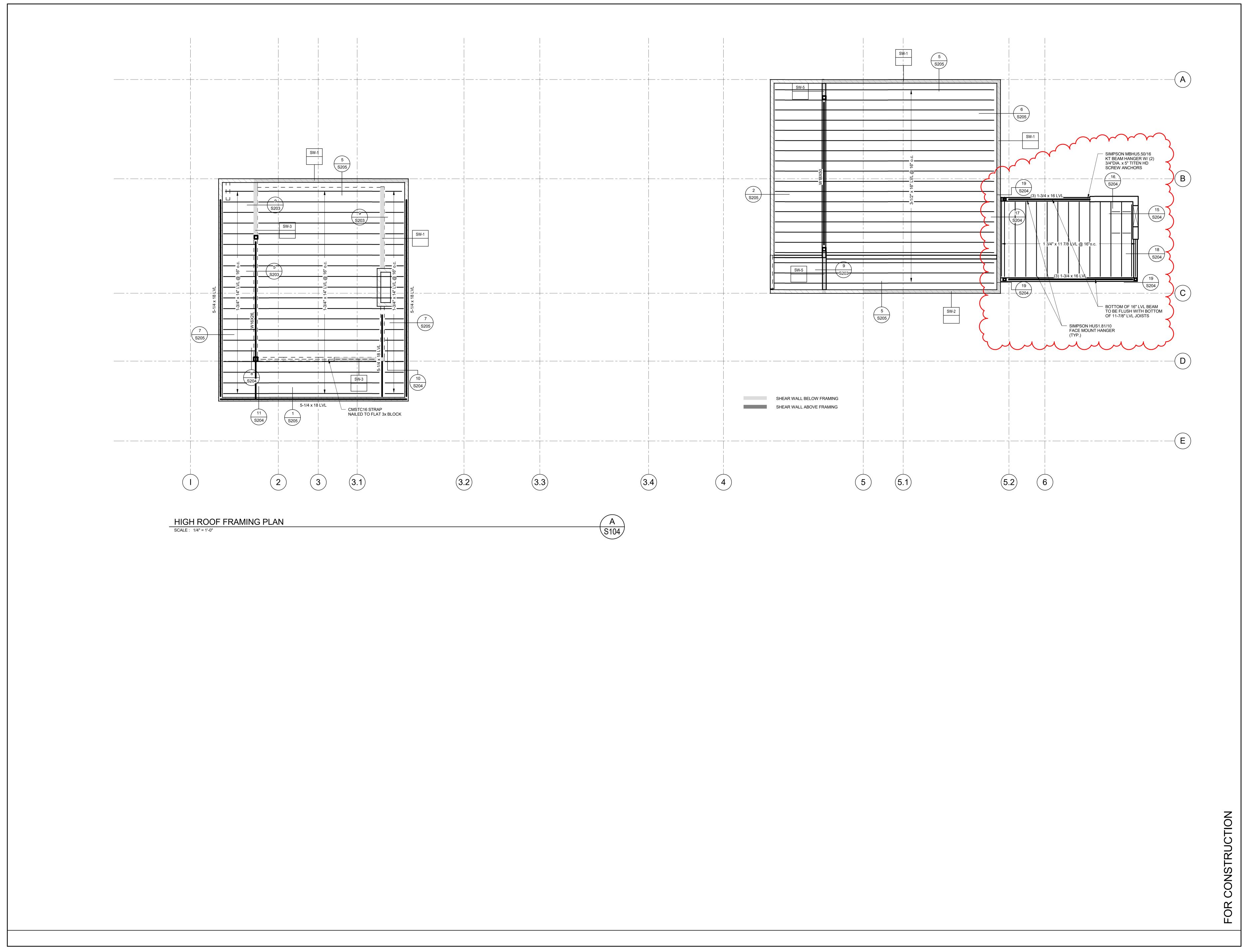
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<b>39 SUMMIT, LLC</b> Summit at Powder Mountain Lot 39 8365 E. SUMMIT PASS
SINCE 26, 2015 June 26, 2015 November 2, 2015 1 June 27, 2017 2
September 22, 2017/3 October 25, 2017
<sup>2014168</sup>

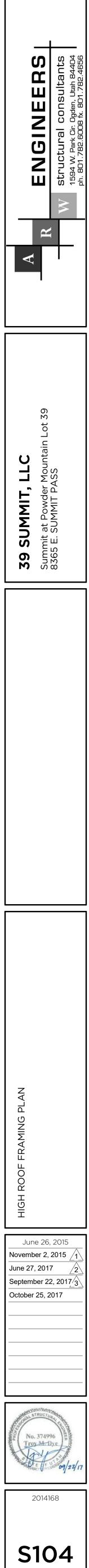
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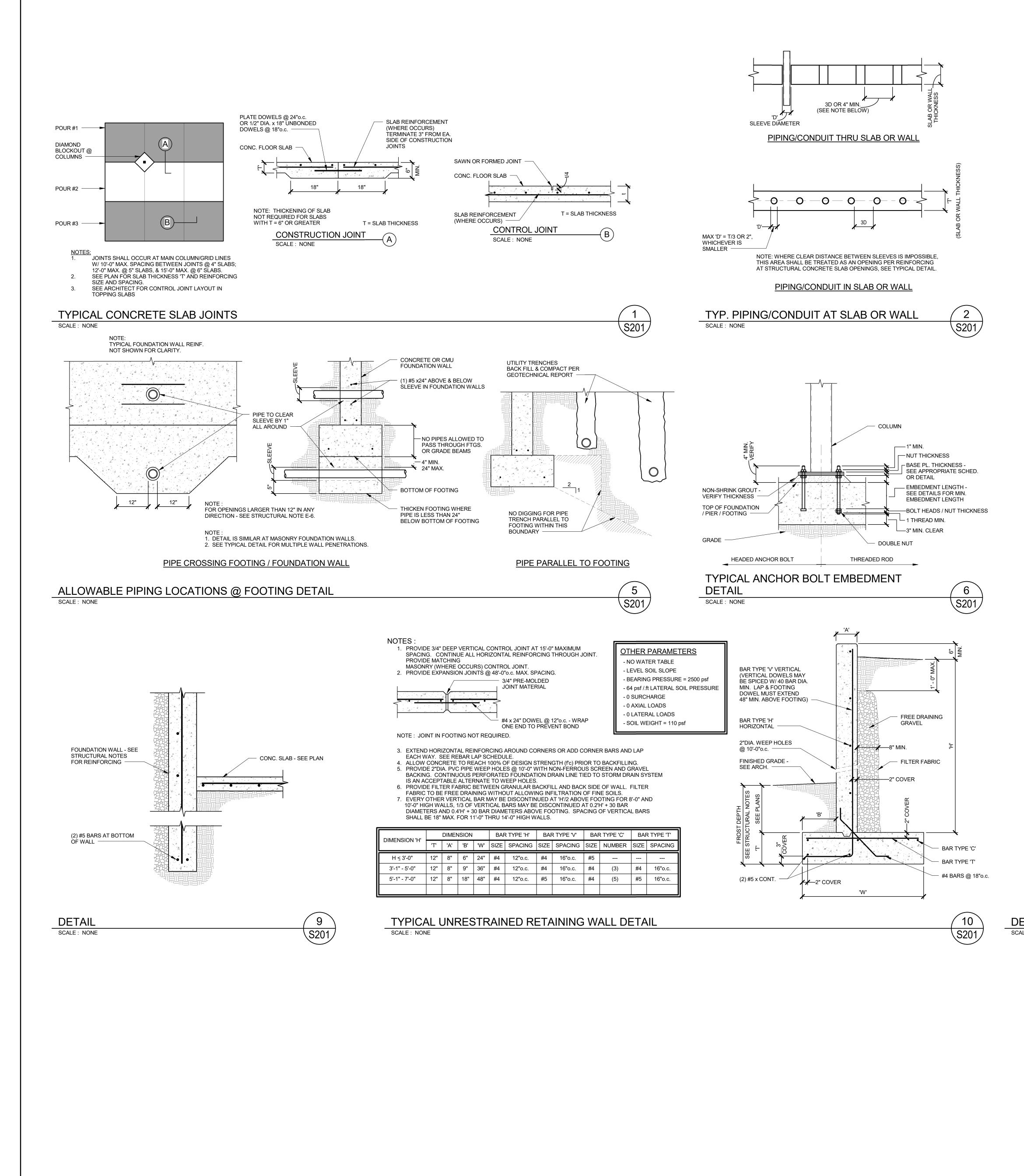


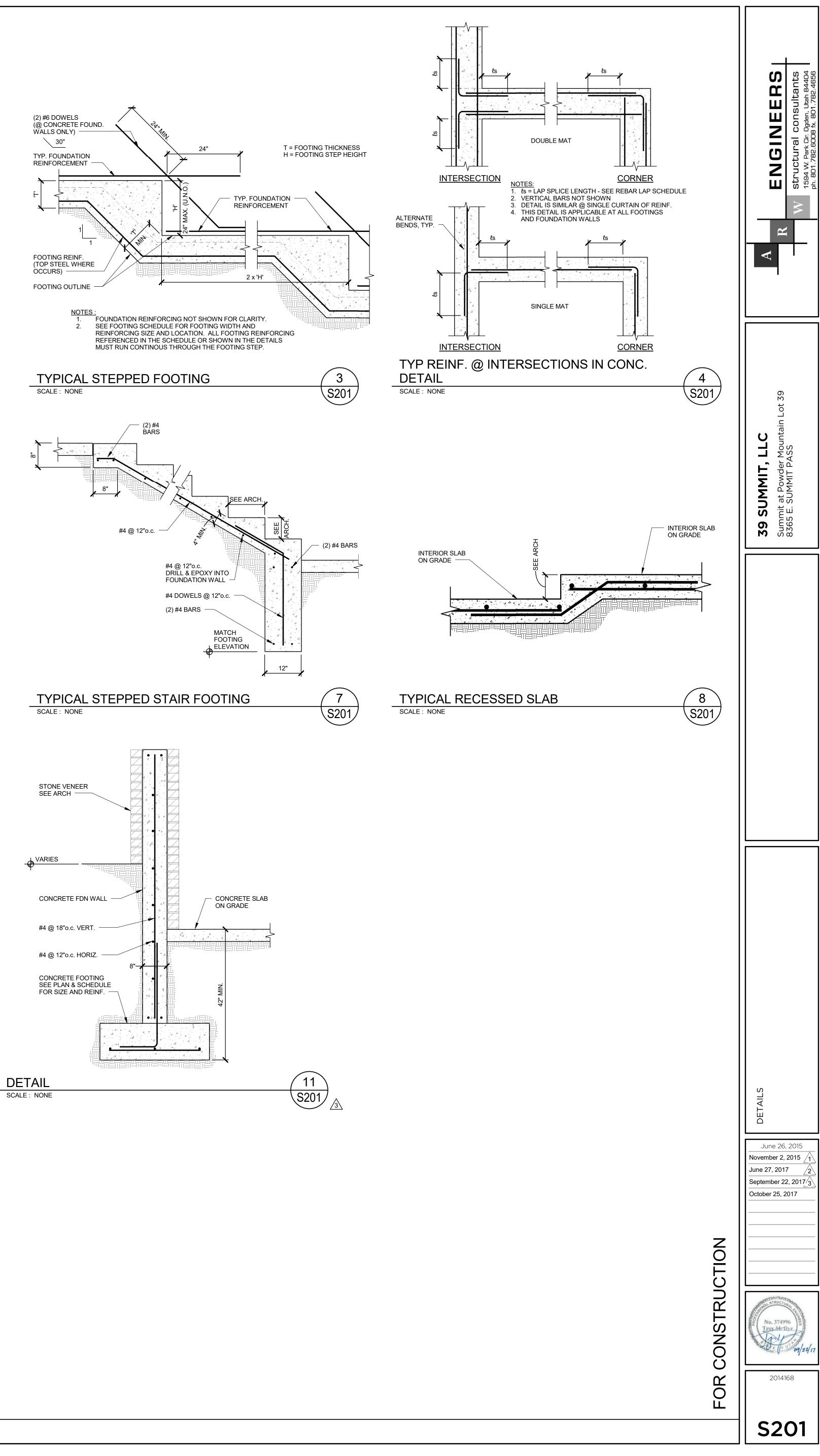


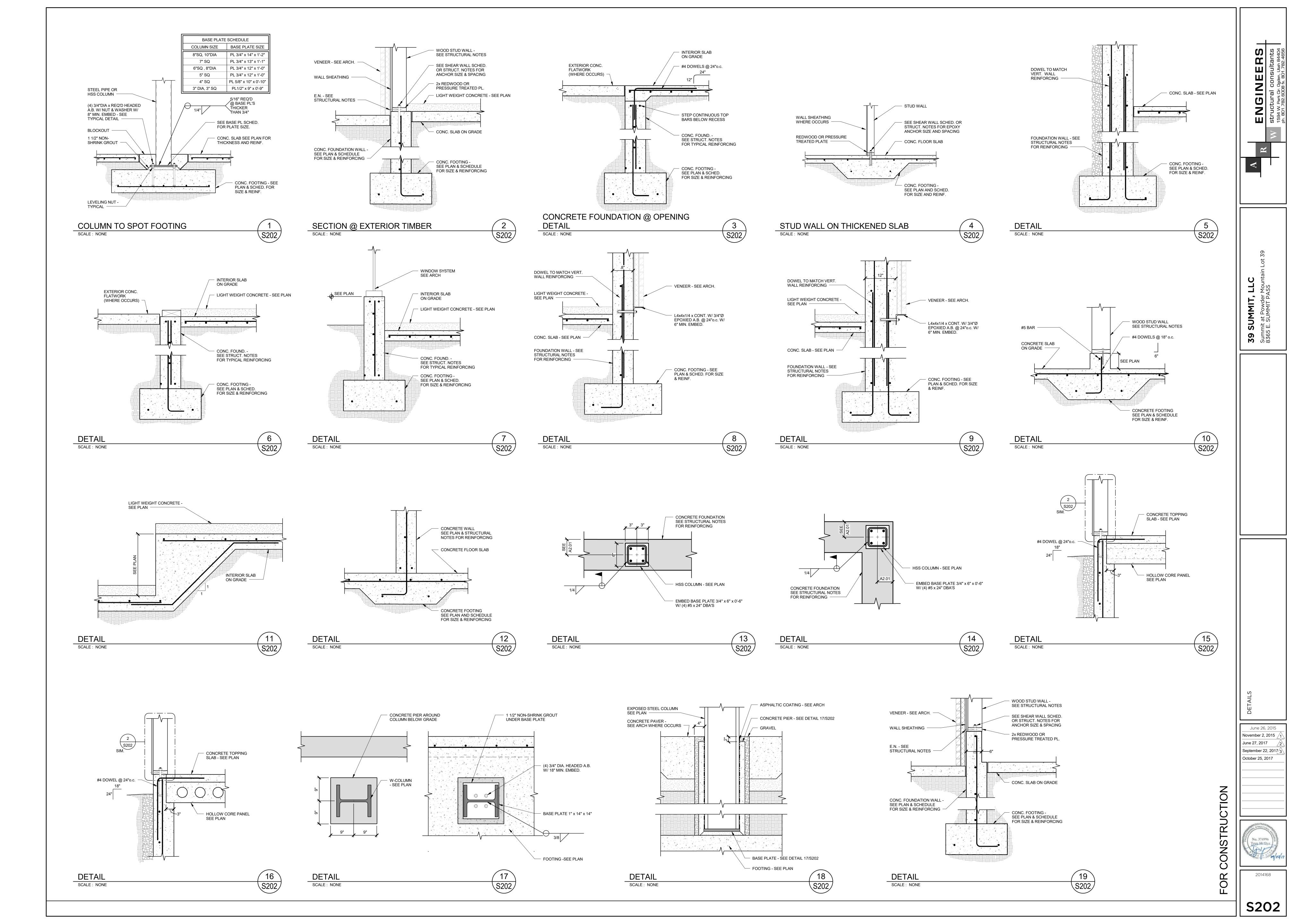


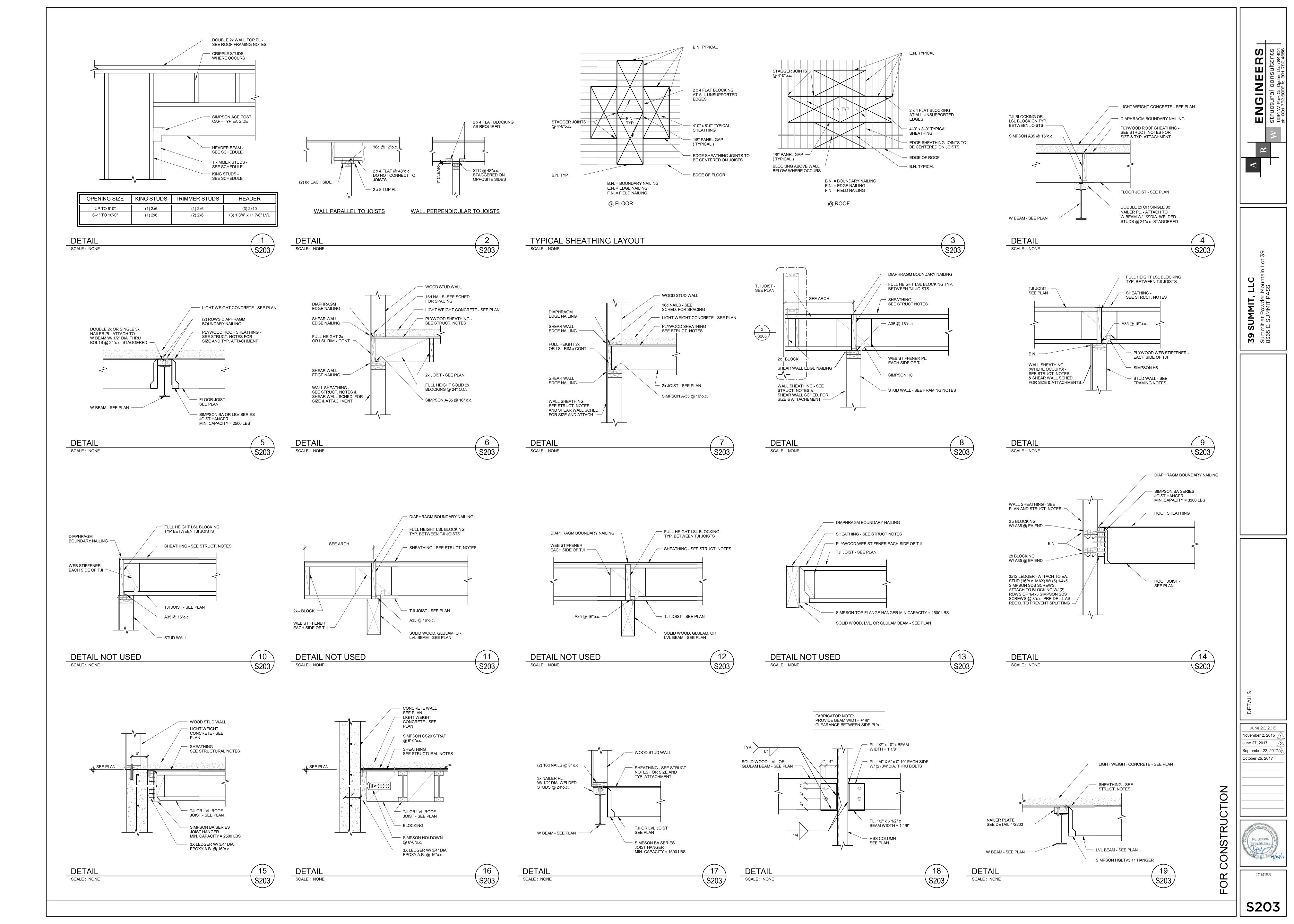


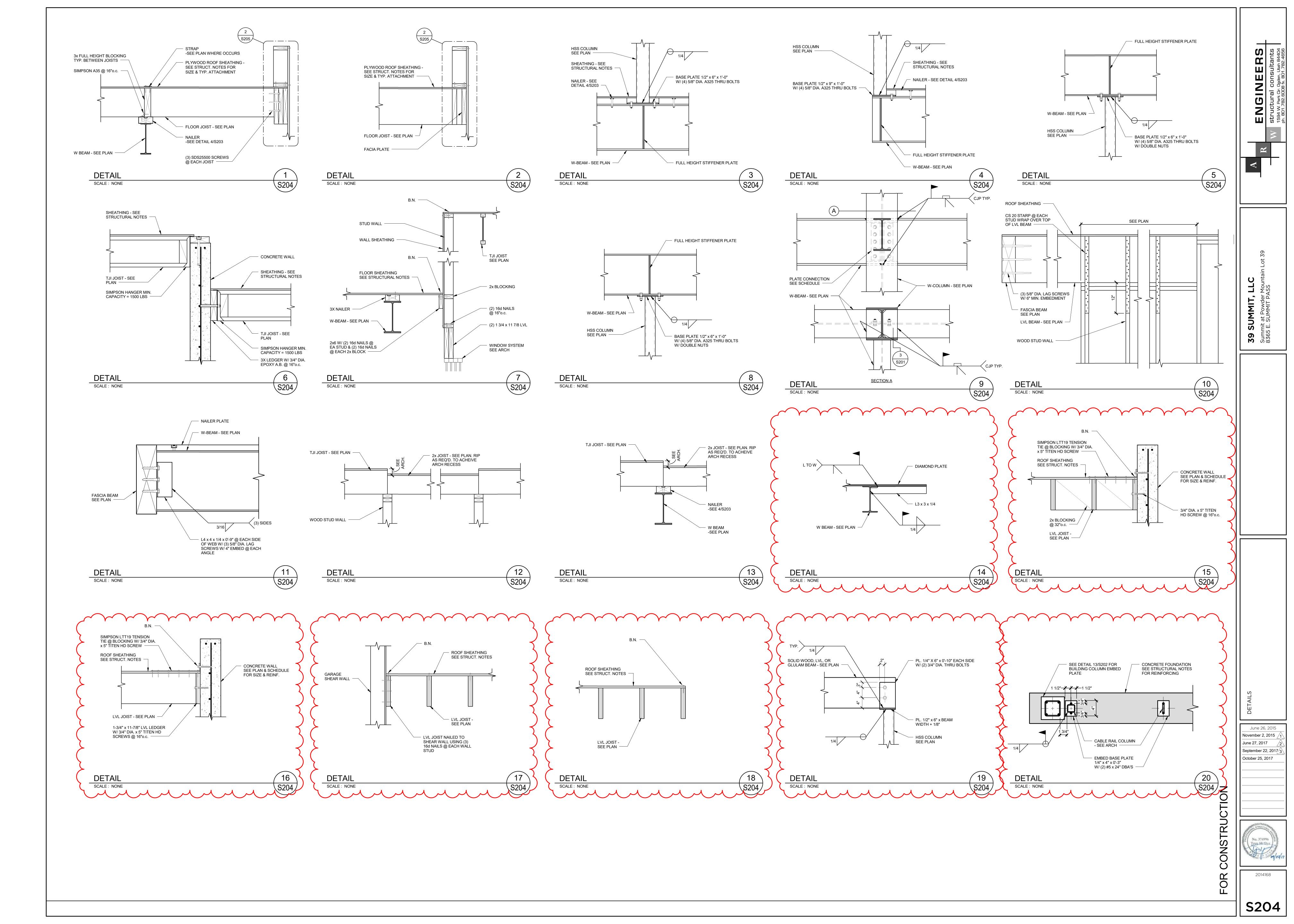


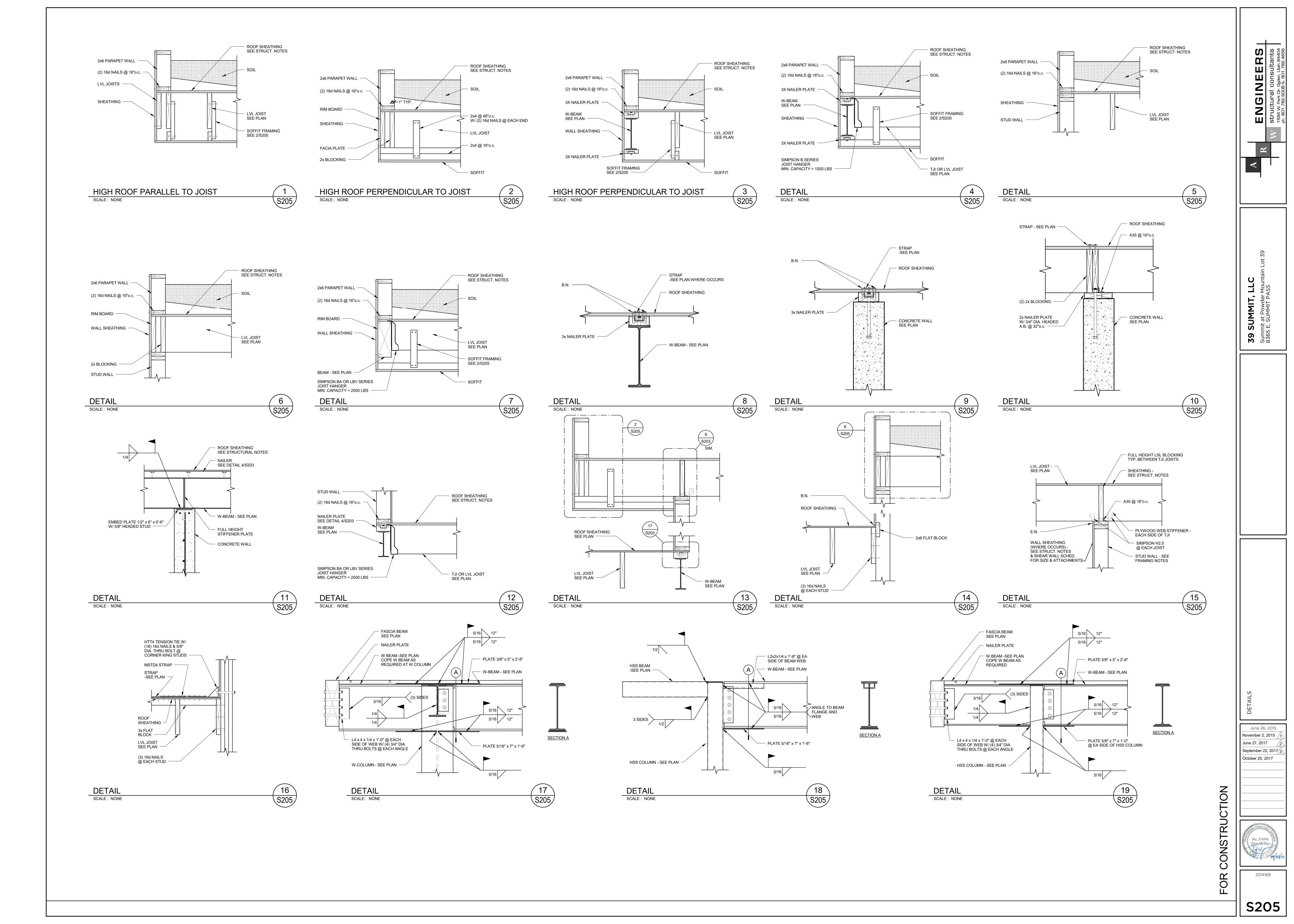


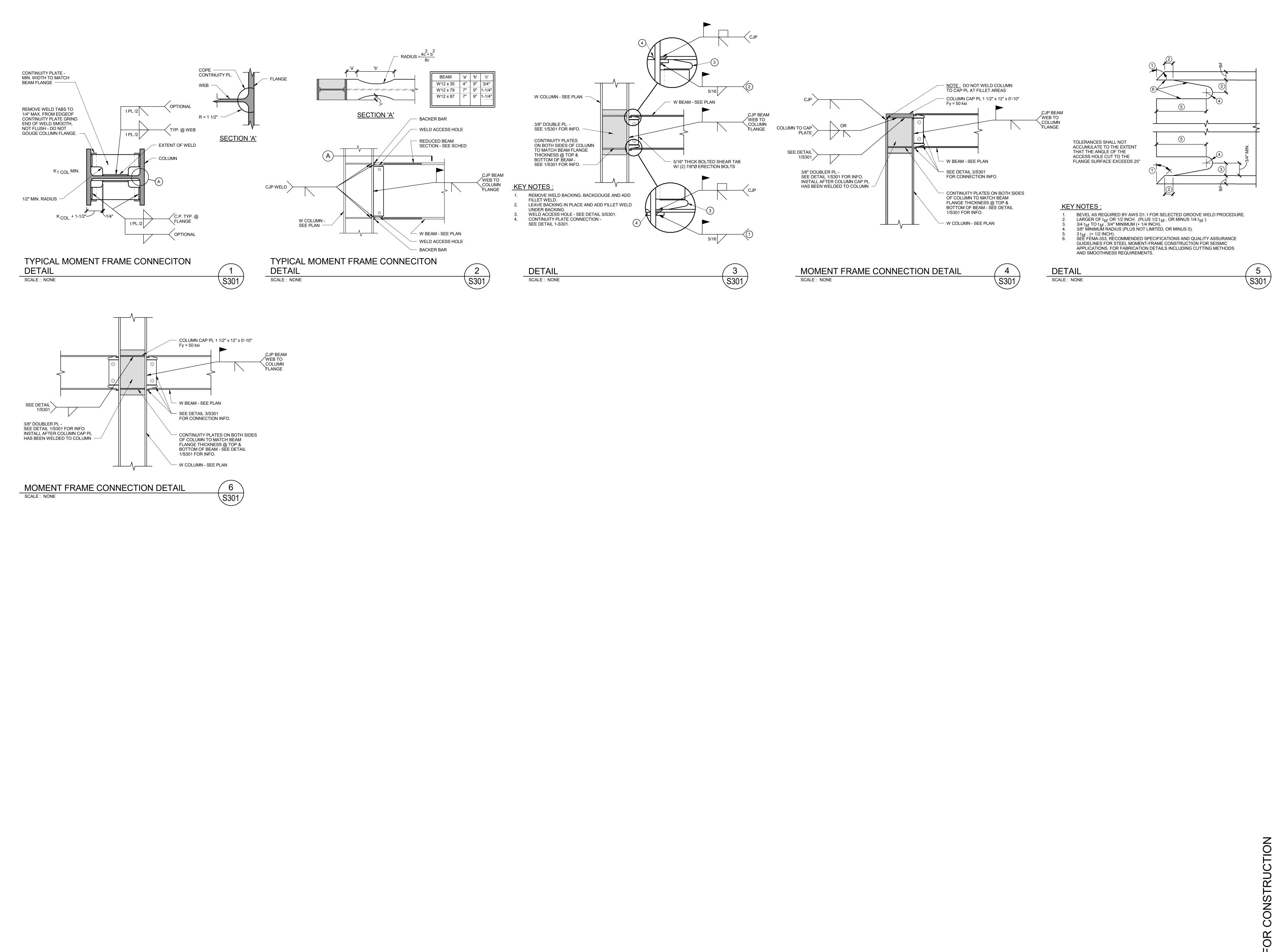






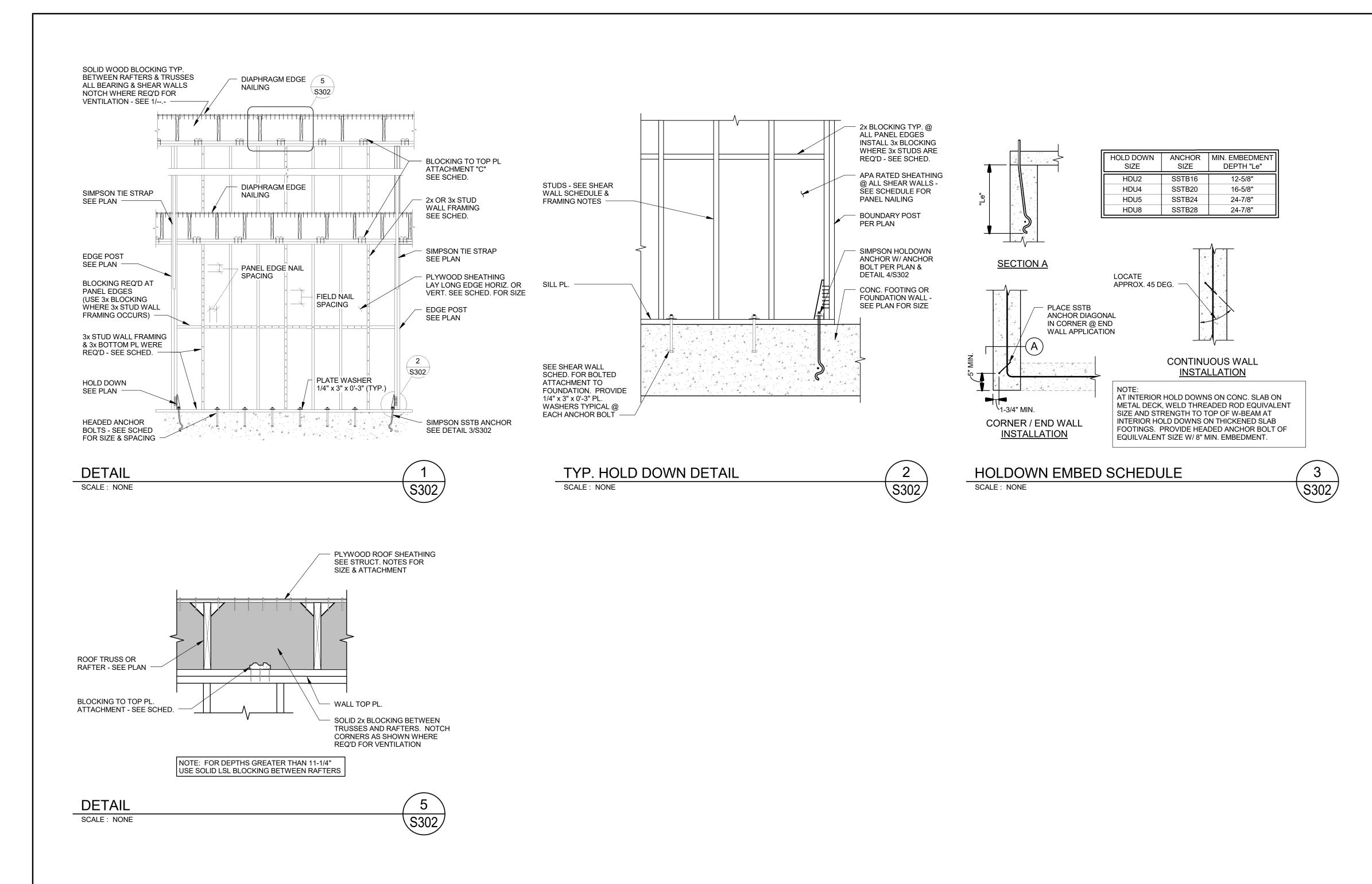






Reconstruction of the second s
<b>39 SUMMIT, LLC</b> Summit at Powder Mountain Lot 39 8365 E. SUMMIT PASS
STIPE Dune 26, 2015 November 2, 2015 1 June 27, 2017 2
September 22, 2017
2014168 <b>S301</b>

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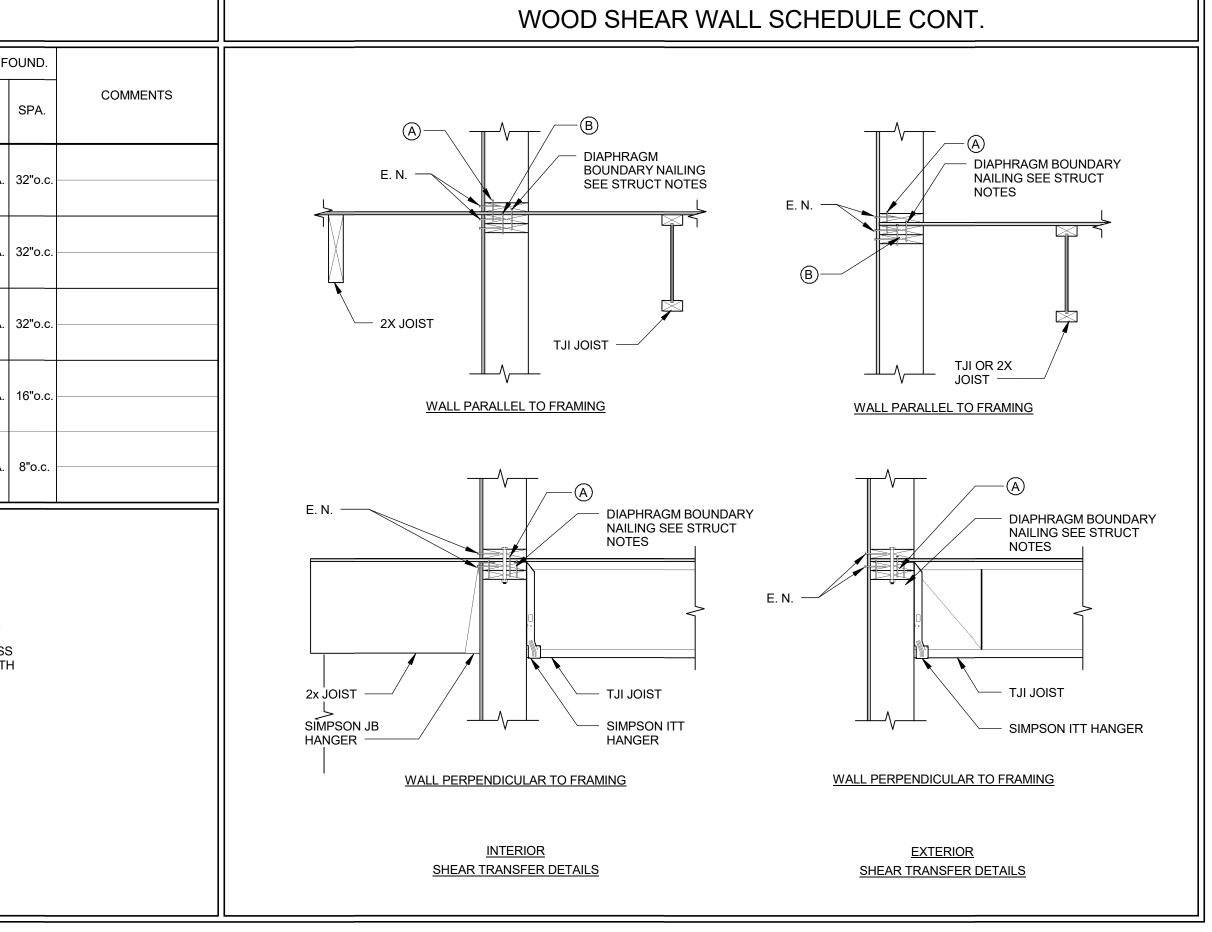
			١	NOOD SI	HEAR \	NALL SCH	EDULE		
		(NOTE 8)	EDGE	NOMINAL BOTTOM PLATE SIZE	(NOTE 7) NOM. STUD SIZE (MIN.)	CONNECTION NAILING			A.B. @ F
WALL MARK	LEVEL	PLYWOOD NAILIN SHEATHING (SEE	NAILING (E.N.) (SEE NOTES 2 & 3)			BOTTOM PL. (Å) (SEE NOTE 4) (L)-LAG (ST)- STAGGER	NAILING TOP PL. TOGETHER B	BLKG. TO TOP PL. ©	DIA.
SW-1	1ST TO 2ND	15/32"	6"	2x	2x		(2) 16d @ 6" o.c.	A35 @ 16" o.c.	- 5/8" DIA.
	2ND TO ROOF	15/32"	6"	2x	2x	(2) 16d @ 16" o.c.	(2) 16d @ 6" o.c.	A35 @ 16" o.c.	
SW-2	1ST TO 2ND	15/32"	4"	2x	2x		(2) 16d @ 6" o.c.	A35 @ 16" o.c.	5/8" DIA.
	2ND TO ROOF	15/32"	4"	2x	2x	(2) 16d @ 16" o.c.	(2) 16d @ 6" o.c.	A35 @ 16" o.c.	
SW-3	1ST TO 2ND	15/32"	3"	3x	3x		(2) 16d @ 6" o.c.	A35 @ 16" o.c.	
500-3	2ND TO ROOF	15/32"	3"	3x	3x	(2) 16d @ 8" o.c.	(2) 16d @ 6" o.c.	A35 @ 16" o.c.	– 5/8" DIA.
SW-4	1ST TO 2ND	15/32"	2"	3x	3x		(2) 16d @ 6" o.c.	A35 @ 16" o.c.	- 5/8" DIA.
	2ND TO ROOF	15/32"	2"	3x	3x	(2) 16d @ 8" o.c.	(2) 16d @ 6" o.c.	A35 @ 16" o.c.	
SW-5	1ST TO 2ND	15/32" BOTH FACES	2"	3x	3x		(2) 16d @ 6" o.c.	A35 @ 16" o.c.	5/8" DIA.
500-5	2ND TO ROOF	15/32" BOTH FACES	2"	3x	3x	(2) 16d @ 8" o.c.	(2) 16d @ 6" o.c.	A35 @ 16" o.c.	

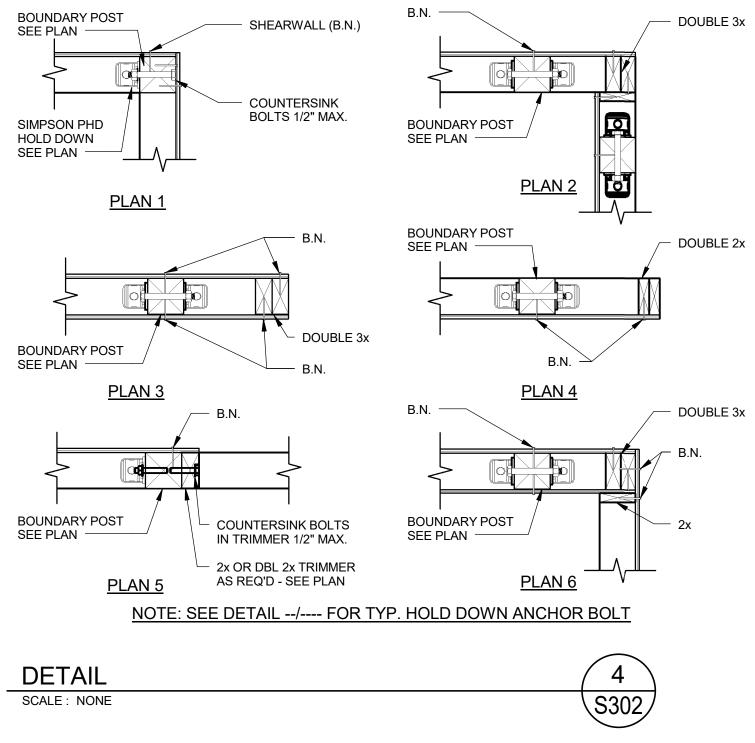
NOTES:

1. ALL SHEATHING PANEL EDGES TO BE BLOCKED. USE 3x BLOCKING WHERE 3x STUDS ARE REQ'D. 2. ALL NAILS TO BE COMMON OR GALV. BOX.

ALL MAILS TO BE COMMON ON ONCE U. DOWN
 FIELD NAILING TO BE SAME NAILS @ 12"o.c.
 A (A) CONNECTION IS FOR 2ND FLOOR AND ABOVE

4. (A) CONNECTION IS FOR 2ND FLOOR AND ABOVE.
5. AT SHEAR WALLS W/ SHEATHING ON BOTH SIDES, BOTH VERTICAL AND HORIZONTAL JOINTS ON OPPOSITE SIDES OF THE WALL SHALL BE STAGGERED.
6. STAGGER E.N. AT DOUBLE TOP PLATES.
7. 3x NOMINAL FRAMING MEMBERS TO OCCUR AT ABUTTING PANEL EDGES. 2x NOMINAL FRAMING MEMBERS MAY BE USED AT INTERIOR OF PANEL, UNLESS NOTED OTHERWISE IN FLOOR FRAMING NOTES. (2) 2x NAILED TOGETHER W/ (2) 16d NAILS @ 6"o.c. OR 4x NOMINAL FRAMING MEMBERS OF THE SAME DEPTH AND LUMBER GRADE MAY BE USED IN LIEU OF 3x MEMBERS AT CONTRACTOR OPTION.
8. SHEATHING SHALL BE STAMPED W/ APA STAMP. O.S.B. OF EQUIVALENT THICKNESS, GRADE, AND RATING MAY BE USED IN LIEU OF PLYWOOD.
9. SEE THIS SHEET FOR TYPICAL SHEAR TRANSFER DETAILS.





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