

GENERAL STRUCTURAL NOTES

GENERAL NOTES:

- ALL CONSTRUCTION AND DESIGN SHALL CONFORM TO THE 2009 INTERNATIONAL BUILDING CODE AS AMENDED BY THE STATE OF OREGON.
- THE STRUCTURAL DRAWINGS SHALL BE UTILIZED IN CONJUNCTION WITH OTHER DESIGN CONSULTANT'S DRAWINGS (ARCHITECTURAL, MECHANICAL, ETC.). IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE REQUIREMENTS OF THE DRAWINGS INTO THEIR SHOP DRAWINGS AND CONSTRUCTION.
- THE GENERAL STRUCTURAL NOTES ARE INTENDED FOR USE IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS. IN THE EVENT OF A CONFLICT BETWEEN THE TWO, THE GENERAL STRUCTURAL NOTES SHALL SUPERSEDE THE PROJECT SPECIFICATIONS. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER.
- CONSTRUCTION SEQUENCE AND METHODS:**
 - THE STRUCTURAL DRAWINGS ARE INTENDED FOR THE STRUCTURE TO ACT AS A WHOLE ONCE CONSTRUCTION IS COMPLETE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE SAFETY AND STABILITY (I.E. TEMPORARY BRACING IF REQUIRED) DURING CONSTRUCTION AS A RESULT OF CONSTRUCTION METHODS AND SEQUENCES.
 - THE CONTRACTOR SHALL TAKE INTO ACCOUNT COLD WEATHER CONSTRUCTION AND THE EFFECTS OF THERMAL MOVEMENT DURING THE CONSTRUCTION SCHEDULE.
 - NON-CANTILEVERED OR RESTRAINED RETAINING WALLS SHALL NOT BE BACKFILLED UNTIL THE WALL HAS BEEN TIED INTO THE LOWER AND UPPER SLAB SUPPORTS UNLESS ADEQUATE ENGINEERED BRACING HAS BEEN PROVIDED.
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS. THE ARCHITECT AND/OR ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY BETWEEN THE EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS.
- SUBMITTALS:**
 - SHOP DRAWINGS FOR ALL STRUCTURAL STEEL (INCLUDING MILL CERTS) SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO FABRICATION AND CONSTRUCTION.

SHOP DRAWINGS OR CONTRACTOR ENGINEERED DETAILS SHALL BEAR THE SEAL AND SIGNATURE OF A REGISTERED STRUCTURAL ENGINEER IN THE STATE OF OREGON IF IT DIFFERS FROM THE DESIGN OF THE STRUCTURAL DRAWINGS. ANY REVISION FROM THE STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW AND IS SUBJECT TO THE REVIEW AND ACCEPTANCE BY THE ENGINEER.
 - SEISMIC BRACING AND RESTRAINT TO THE STRUCTURE OF ANY MEP EQUIPMENT, MACHINERY, AND ASSOCIATED PIPING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONNECTIONS NOT IN COMPLIANCE WITH SMACNA (SHEET METAL AND AIR CONDITIONING CONTRACTOR'S NATIONAL ASSOCIATION) OR THE MEP DESIGN DRAWINGS, SHALL BEAR THE SEAL OF REGISTERED ENGINEER IN THE STATE OF OREGON AND SHALL BE SUBMITTED ALONG WITH CALCULATIONS TO THE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION.
- DESIGN CRITERIA:**
 - CODE:** 2009 INTERNATIONAL BUILDING CODE AS AMENDED BY THE STATE OF OREGON (2010 OSSC).
 - LOADS AND DESIGN CRITERIA:** THE FOLLOWING LIVE LOADS AND CRITERIA WERE USED IN ADDITION TO THE DEAD LOAD OF THE STRUCTURE.

LIVE LOADS:

ROOF 25 PSF (SNOW+RAIN SURCHARGE)

LATERAL CRITERIA:

SEISMIC $I_e = 1.0$
 $S_s = 0.990g$ $S_1 = 0.426g$
 SITE CLASS D (PER IBC 1615.1.1 DEFAULT)
 $S_{ds} = 0.729g$ $S_{d1} = 0.447g$
 SEISMIC DESIGN CATEGORY D

STRUCTURAL STEEL:

- STEEL DESIGN, FABRICATION, AND ERECTION SHALL CONFORM WITH "AISC SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" AND THE "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
- THE GRADE AND SPECIFICATION OF THE STEEL MEMBERS SHALL BE AS FOLLOWS:

PLATES AND ANGLES ASTM A36
 HOLLOW STRUCTURAL SECTIONS (TUBES) ASTM A500 GRADE B (Fy=46 KSI)

- BOLTS SHALL CONFORM TO ASTM SPECIFICATIONS FOR HIGH STRENGTH A325 AND A490 BOLTS.
- WELDING SHALL CONFORM TO THE AWS CODES FOR BUILDING CONSTRUCTION. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH A WELDING PROCEDURE SPECIFICATION (WPS) AS REQUIRED IN AWS D1.1 AND APPROVED BY THE ENGINEER OF RECORD. THE WPS VARIABLES SHALL BE WITHIN THE PARAMETERS ESTABLISHED BY THE FILLER-METAL MANUFACTURER.
- WELDS SHALL UTILIZE E70XX ELECTRODES AND SHALL BE A MINIMUM OF 3/16" IN SIZE UNLESS NOTED OTHERWISE.

COLD-FORMED STEEL

- STEEL STUDS SHALL BE OF THE SIZE, GAGE, AND SPACING SHOWN ON THE DRAWINGS. MINIMUM STUD AND TRACK SIZES ARE INDICATED USING THE INDUSTRY STANDARD STEEL STUD MANUFACTURERS ASSOCIATION (SSMA) DESIGNATION.
- STEEL STUDS AND TRACKS SHALL BE OF THE SIZE SHOWN AND HAVE A MINIMUM YIELD OF 33,000 PSI FOR 18 AND 20 GAGE, AND 50,000 PSI FOR 12, 14, AND 16 GAGE. ALL STEEL STUDS SHALL HAVE A MINIMUM 1-5/8" FLANGE WIDTH UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- SCREWS SHALL BE ELCO DRIL-FLEX, HILTI KWIK-FLEX, OR APPROVED EQUAL.
- WELDING SHALL CONFORM WITH AWS D1.3, CURRENT EDITION.

DRAWING INDEX

- S1.1 GENERAL STRUCTURAL NOTES AND SPECIAL INSPECTION PROGRAM
- S2.1 SHAFT PLANS AND PARTIAL ROOF PLAN AT NEW MECHANICAL WORK
- S5.1 SECTIONS AND DETAILS

SPECIAL INSPECTION PROGRAM

TABLE 1						
REQUIRED STRUCTURAL SPECIAL INSPECTIONS						
SYSTEM or MATERIAL	IBC CODE REFERENCE	INSPECTION		REMARKS		
		CODE or STANDARD REFERENCE	FREQUENCY			
			Continuous			Periodic
FABRICATORS						
FABRICATORS	1704.2			X	SPECIAL INSPECTIONS APPLY TO VERIFICATION OF DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES INCLUDING REVIEW FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS	
STEEL						
FABRICATION OF STRUCTURAL ELEMENTS	1704.2			X	REFER TO INSPECTION OF FABRICATOR REQUIREMENTS	
MATERIAL VERIFICATION OF STRUCTURAL STEEL	1704.3 2203.1	ASTM A6 ASTM STANDARDS SPECIFIED IN CONSTRUCTION DOCUMENTS AISC 360 A3.1 AISC 360 M5.5		X	CERTIFIED MILL TEST REPORTS	
MATERIAL VERIFICATION OF HIGH STRENGTH BOLTS, NUTS, AND WASHERS	1704.3.3	ASTM STANDARDS SPECIFIED IN CONSTRUCTION DOCUMENTS RCSC 2.1		X	MANUFACTURER'S CERTIFIED TEST REPORTS	
MATERIAL VERIFICATION OF WELD FILLER METALS	1704.3.1	AISC 360 A3.5 APPLICABLE AWS A5 DOCUMENTS		X	MANUFACTURER'S CERTIFIED TEST REPORTS	
VERIFYING USE OF PROPER WPS'S				X	COPY OF WELDING PROCEDURE SPECIFICATIONS	
VERIFYING WELDER QUALIFICATIONS				X	COPY OF QUALIFICATION CARDS	
PARTIAL JOINT PENETRATION GROOVE WELDS	1704.3.1	AWS D1.1 SECTION 6	X			
SINGLE PASS FILLET WELDS LESS THAN OR EQUAL TO 5/16"	1704.3.1 TABLE 1704.4	AWS D1.1, SECTION 6		X	ALL WELDS VISUALLY INSPECTED PER AWS D1.1 6.9	
SNUG-TIGHT HIGH STRENGTH BOLT INSTALLATION	TABLE 1704.3	RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS SECTION 9 AISC 360, SECTION M2.5		X	ALL CONNECTIONS INSPECTED AND VERIFIED SNUG	
VERIFICATION OF FRAME JOINT DETAILS INCLUDING MEMBER AND COMPONENT LOCATIONS, BRACING, AND STIFFENERS	1704.3.2			X		
POST INSTALLED CONCRETE ANCHORS						
INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE	1912.1	ICC EVALUATION REPORT ACI 318: 3.8.6, 8.1.3, 21.1.8		X	SPECIAL INSPECTIONS APPLY TO ANCHOR PRODUCT NAME, TYPE, AND DIMENSIONS, HOLE DIMENSIONS, COMPLIANCE WITH DRILL BIT REQUIREMENTS, CLEANLINESS OF THE HOLE AND ANCHOR, ADHESIVE EXPIRATION DATE, ANCHOR/ADHESIVE INSTALLATION, ANCHOR EMBEDMENT, AND TIGHTENING TORQUE	

SPECIAL INSPECTION FOOTNOTES

SPECIAL INSPECTIONS SHALL CONFORM TO CHAPTER 17 OF THE 2009 "INTERNATIONAL BUILDING CODE" AND OREGON AMENDMENTS. REFER TO TABLE 1 FOR SPECIAL INSPECTION AND TESTING REQUIREMENTS.

SPECIAL INSPECTIONS AND ASSOCIATED TESTING SHALL BE PERFORMED BY AN APPROVED ACCREDITED INDEPENDENT AGENCY MEETING THE REQUIREMENTS OF ASTM E329 (MATERIALS), ASTM D3740 (SOILS), ASTM C1077 (CONCRETE), ASTM A980 (STEEL), AND ASTM E543 (NON-DESTRUCTIVE). THE INSPECTION AND TESTING AGENCY SHALL FURNISH TO THE STRUCTURAL ENGINEER A COPY OF THEIR SCOPE OF ACCREDITATION. SPECIAL INSPECTORS SHALL BE CERTIFIED BY THE BUILDING OFFICIAL. WELDING INSPECTORS SHALL BE QUALIFIED PER SECTION 6.1.4.1.1 OF AWS D1.1. THE OWNER SHALL SECURE AND PAY FOR SERVICES OF THE INSPECTION AND TESTING AGENCY TO PERFORM ALL SPECIAL INSPECTIONS AND TESTS.

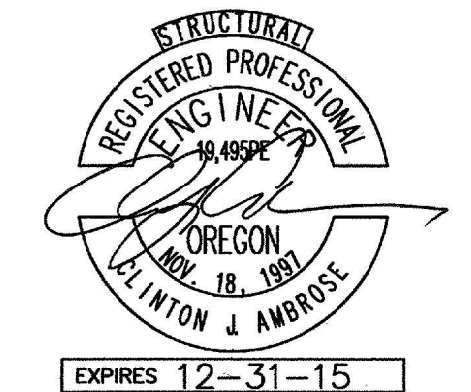
THE SPECIAL INSPECTOR SHALL OBSERVE THE INDICATED WORK FOR COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, NOTED IN THE INSPECTION REPORTS, AND IF NOT CORRECTED, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER AND THE BUILDING OFFICIAL.

THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS FOR EACH INSPECTION TO THE BUILDING OFFICIAL, STRUCTURAL ENGINEER, CONTRACTOR, AND OWNER. THE SPECIAL INSPECTION AGENCY SHALL SUBMIT A FINAL REPORT INDICATING THE WORK REQUIRING SPECIAL INSPECTION WAS INSPECTED AND IS IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THAT ALL DISCREPANCIES NOTED IN THE INSPECTION REPORTS HAVE BEEN CORRECTED.

SMSU KITCHEN HOOD REPLACEMENT

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4/03/2014

FOR ALL STRUCTURAL, MECHANICAL, ELECTRICAL, TELCO, AV, AND FIRE SPRINKLER /ALARM INFORMATION SEE ENGINEER'S DRAWINGS AND SPECIFICATIONS.

GENERAL STRUCTURAL NOTES & SPECIAL INSPECTION PROGRAM

Revisions :

Date :

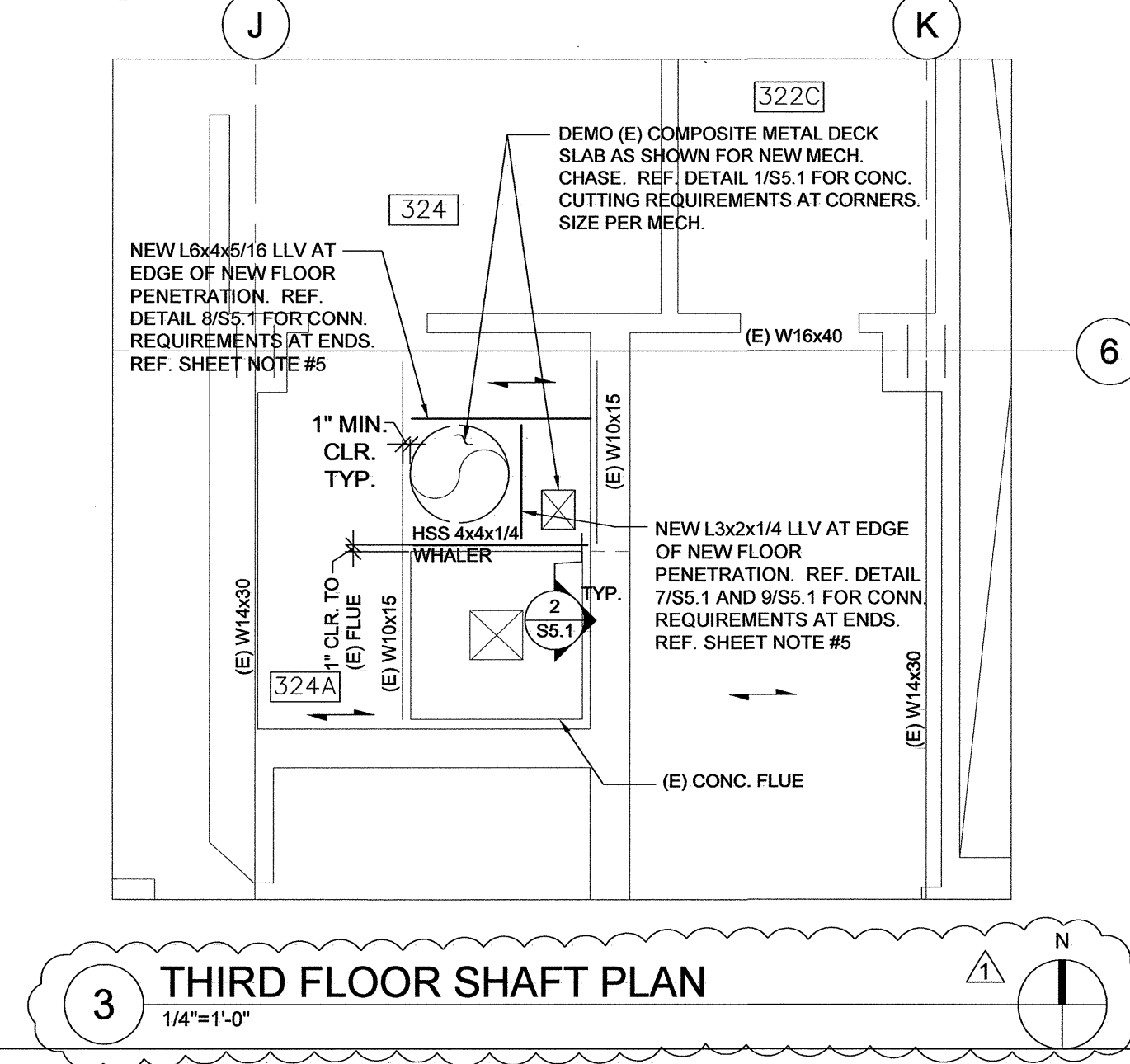
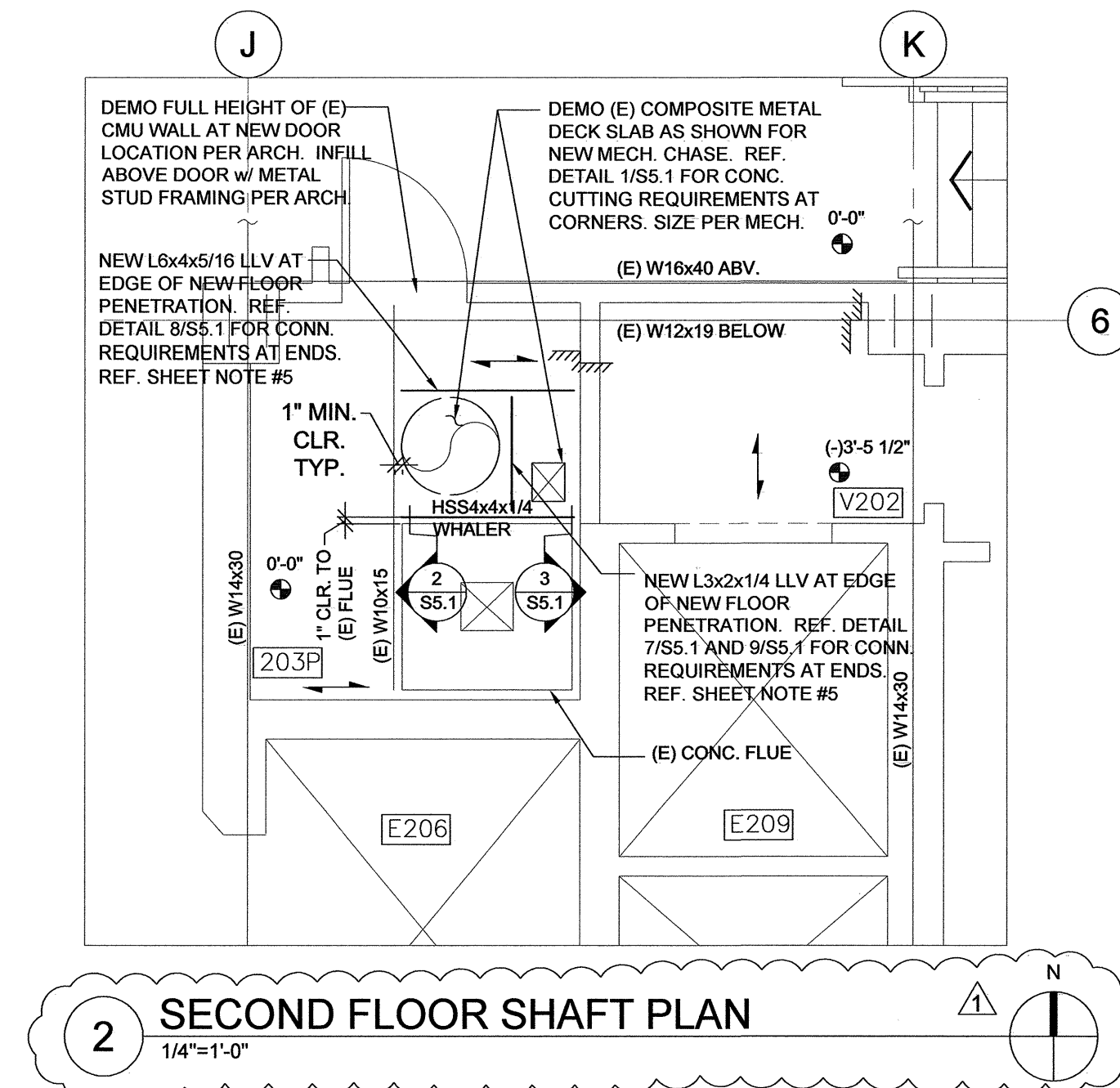
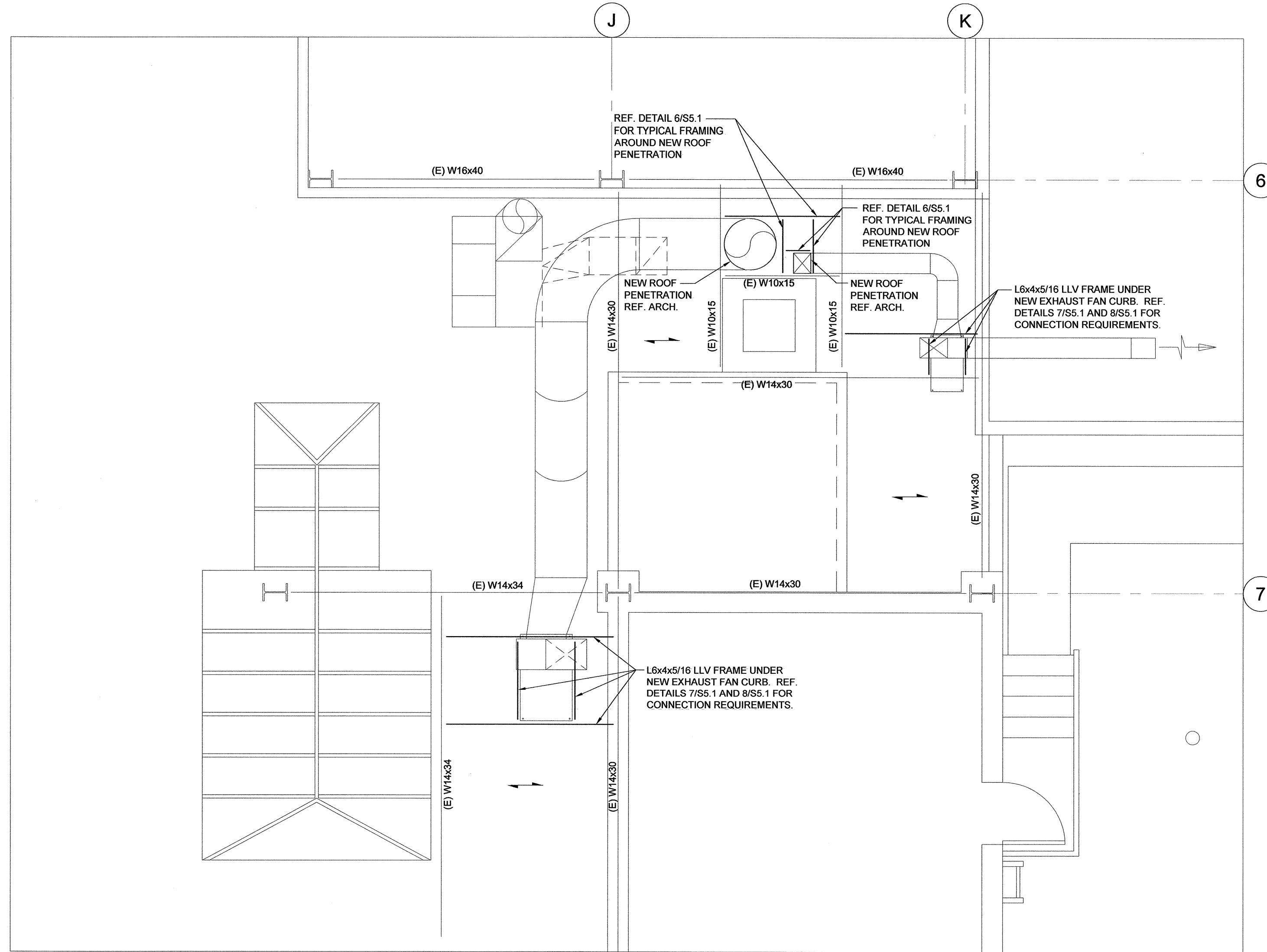
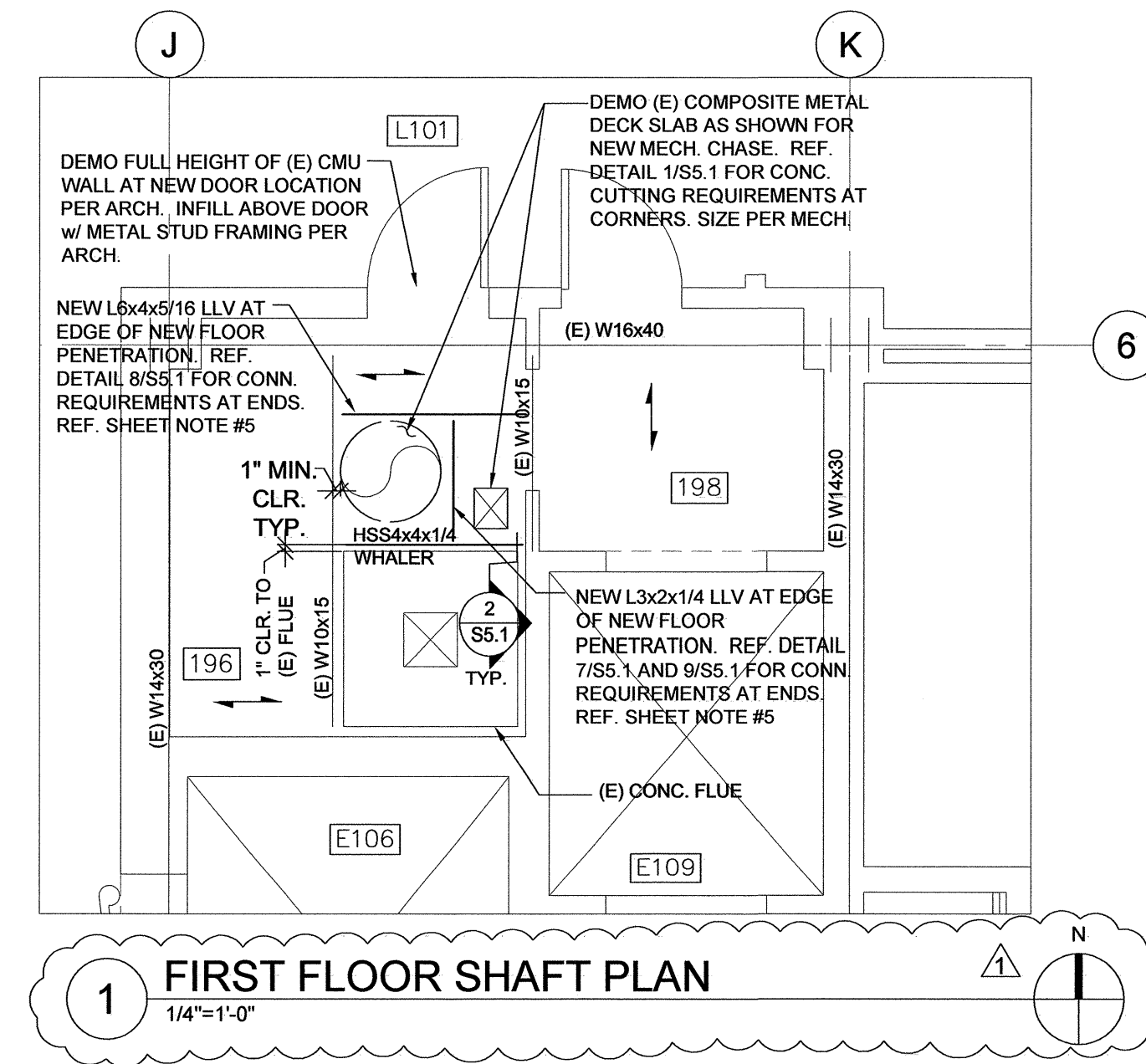
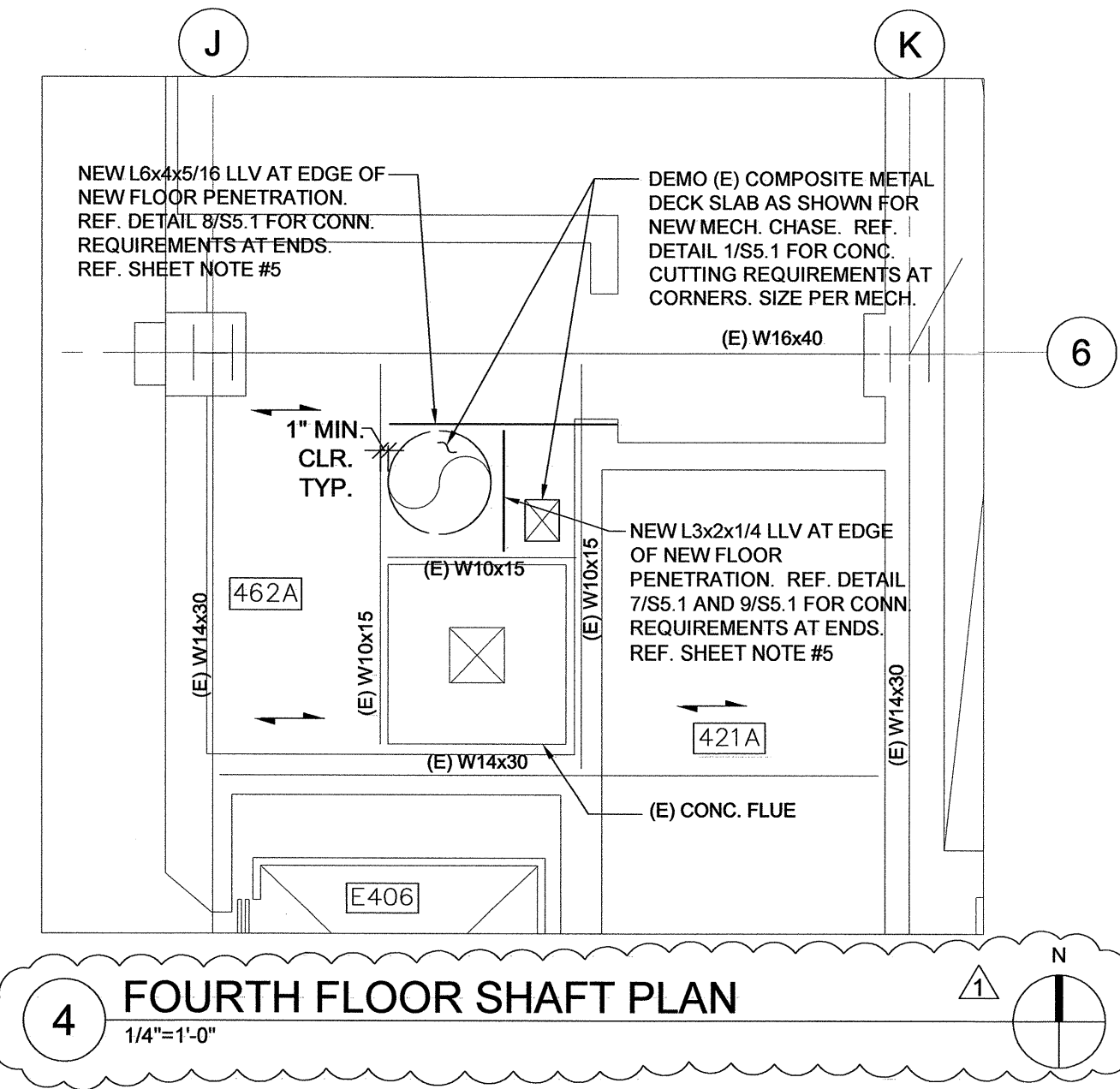
Drawn : JA

Checked : JML

S1.1

SHEET NOTES

1. REFERENCE ARCHITECTURAL DRAWINGS FOR ALL ELEVATIONS, WALL OPENINGS, AND OVERALL DIMENSIONS.
2. ALL EXISTING FLOOR AND ROOF FRAMING INDICATED IN DRAWINGS SHALL BE VERIFIED IN THE FIELD PRIOR TO ANY WORK. NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER OF ALL DISCREPANCIES IN EXISTING CONDITIONS.
3. COORDINATE LOCATIONS OF NEW OPENINGS IN EXISTING FLOOR WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. VERIFY OPENING DIMENSIONS MEET REQUIREMENTS FOR NEW MECHANICAL CHASE WITH ARCHITECT AND MECHANICAL ENGINEER PRIOR TO CUTTING NEW OPENINGS.
4. INDICATES SPAN DIRECTION OF EXISTING 4 1/2" THICK COMPOSITE METAL FLOOR / ROOF DECK. FIELD VERIFY SPAN DIRECTION PRIOR TO WORK FOR NEW OPENINGS.
5. PRIOR TO FABRICATION AND WORK CONTRACTOR SHALL FIELD VERIFY NEW PENETRATIONS AND ANGLE FRAMING WILL FIT WITHIN CONFINES INDICATED WITHOUT ALTERATION TO (E) STEEL BEAM FRAMING. NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER OF ANY CONFLICTS.



5 PARTIAL ROOF PLAN AT NEW MECHANICAL WORK
1/4"=1'-0"

3 THIRD FLOOR SHAFT PLAN
1/4"=1'-0"



PSU Capital Projects & Construction

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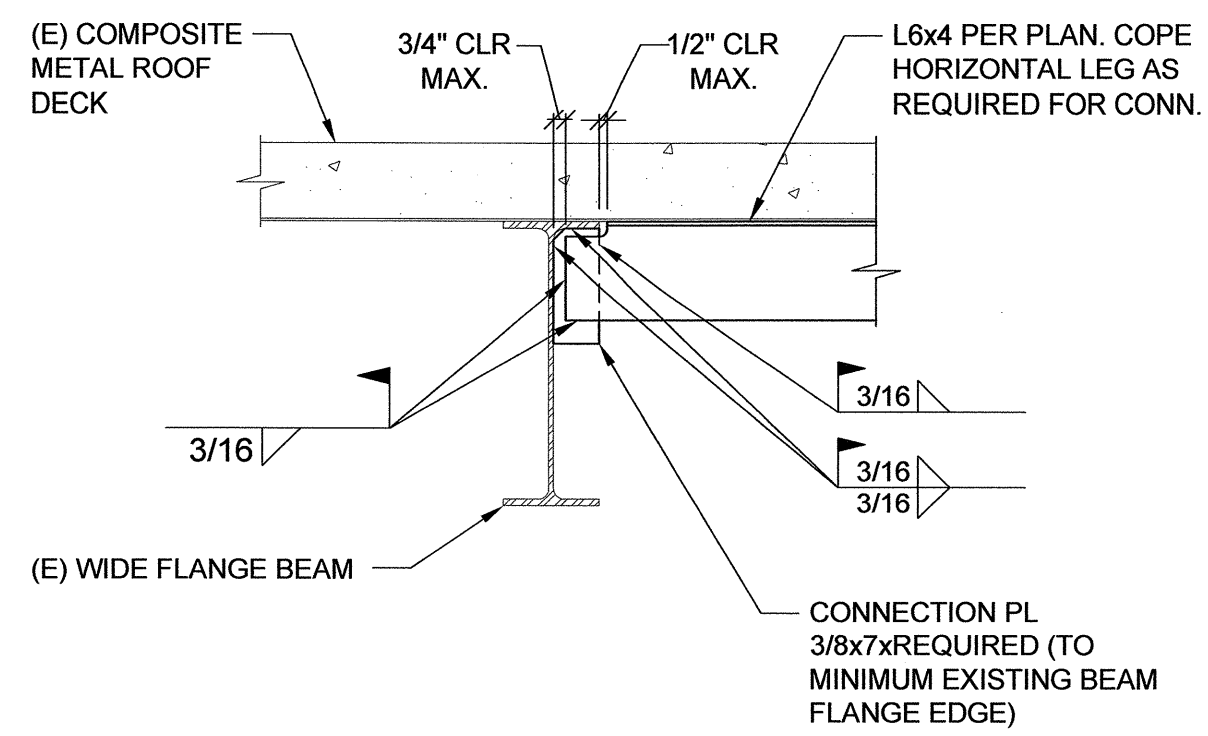
**SHAFT PLANS AND
PARTIAL ROOF
PLAN AT NEW
MECHANICAL
WORK**

Revisions :	Date :
REVISION #1	04/11/2014

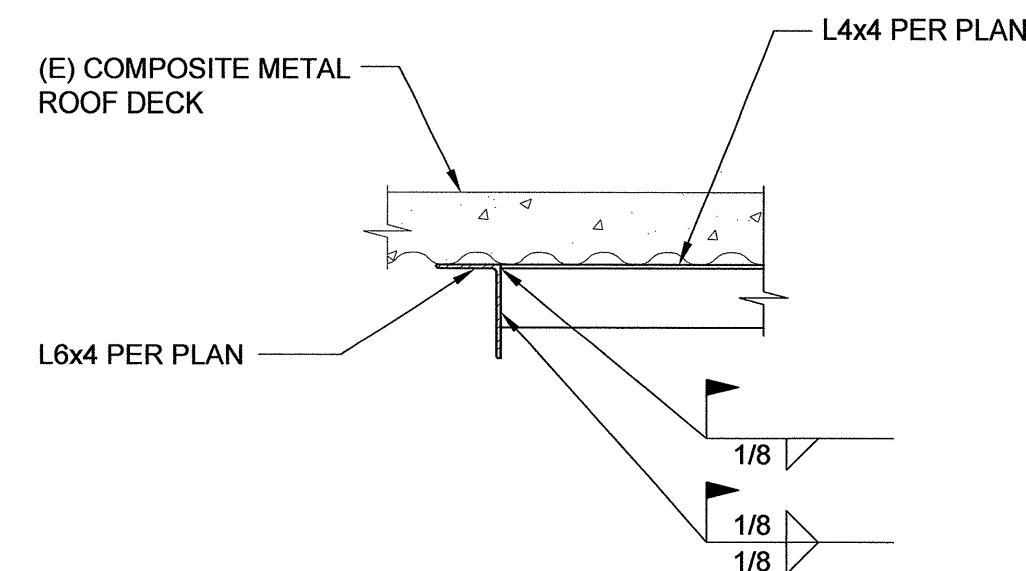
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Checked : JML

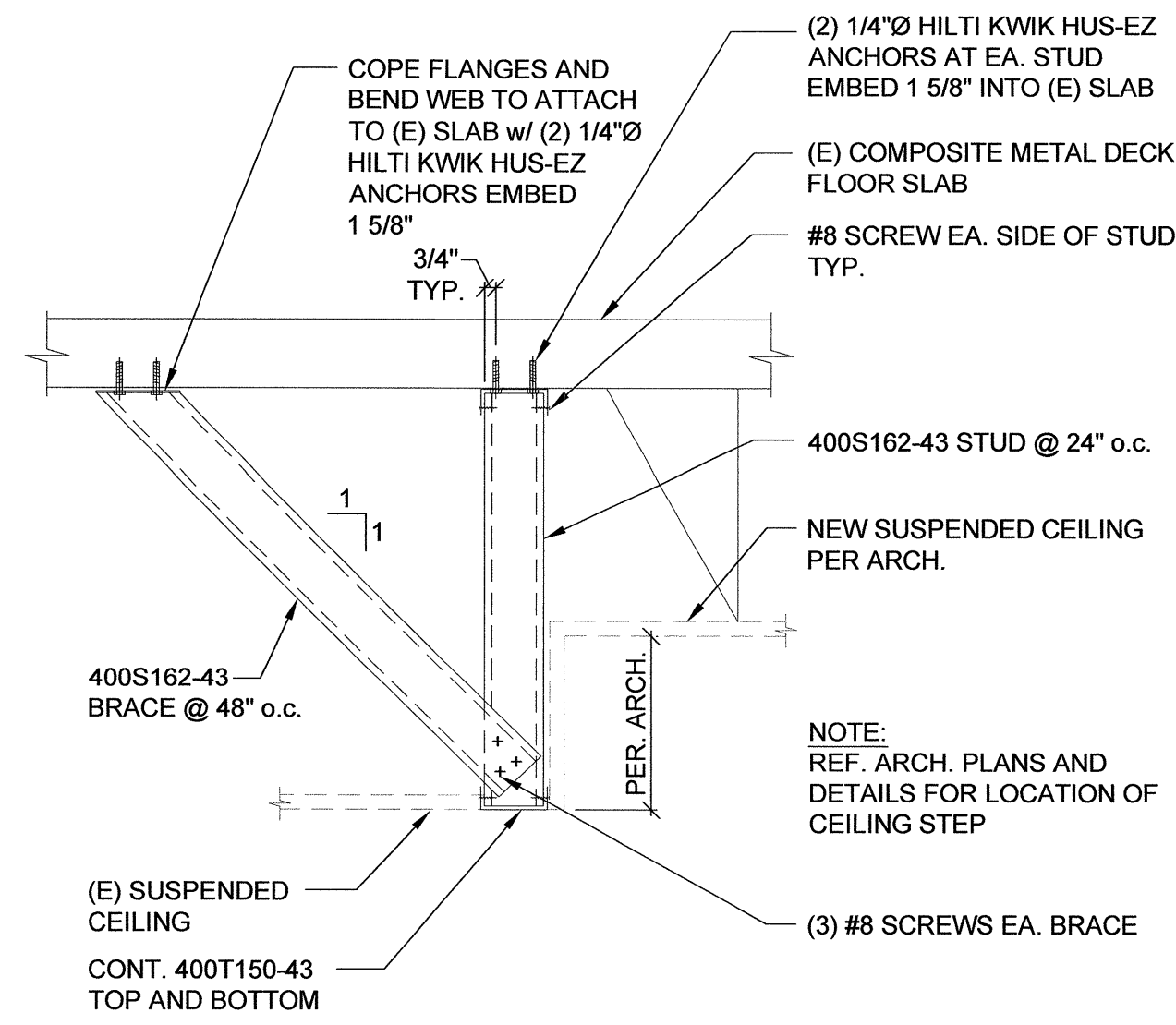
S2.1



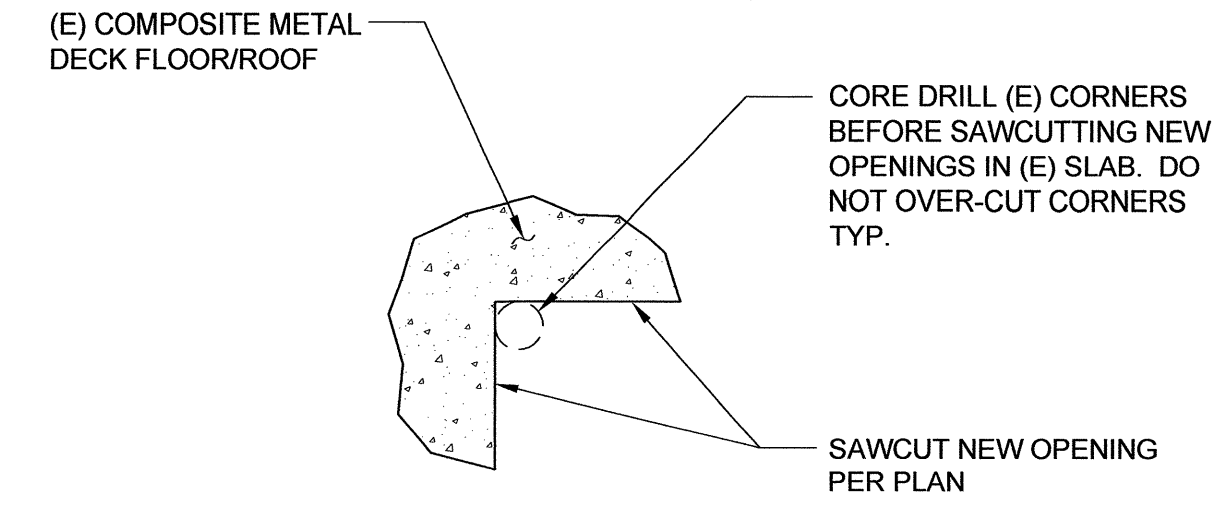
8 ROOF ANGLE TO EXISTING BEAM
1"=1'-0"



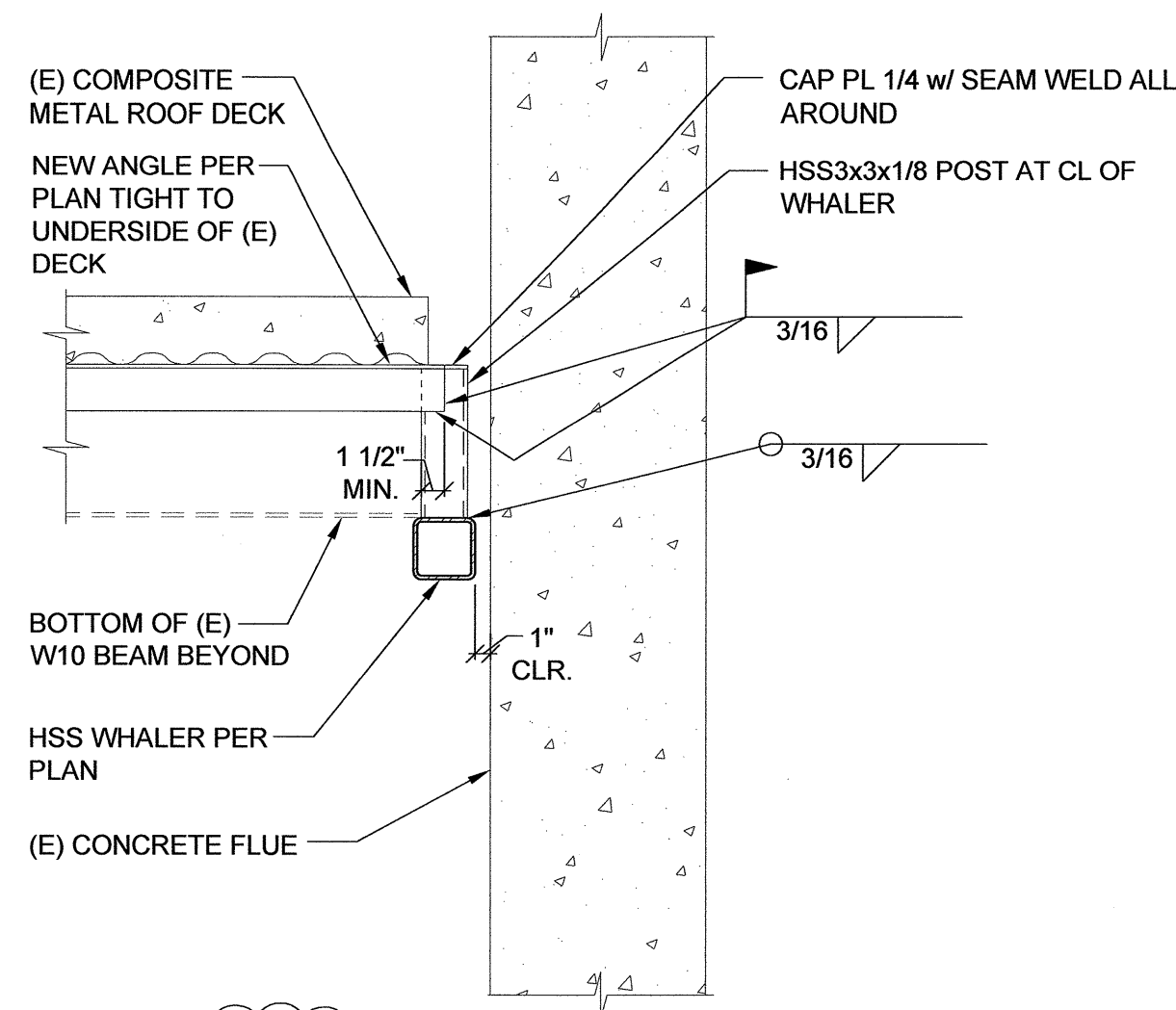
7 ROOF ANGLE TO ANGLE CONNECTION
1"=1'-0"



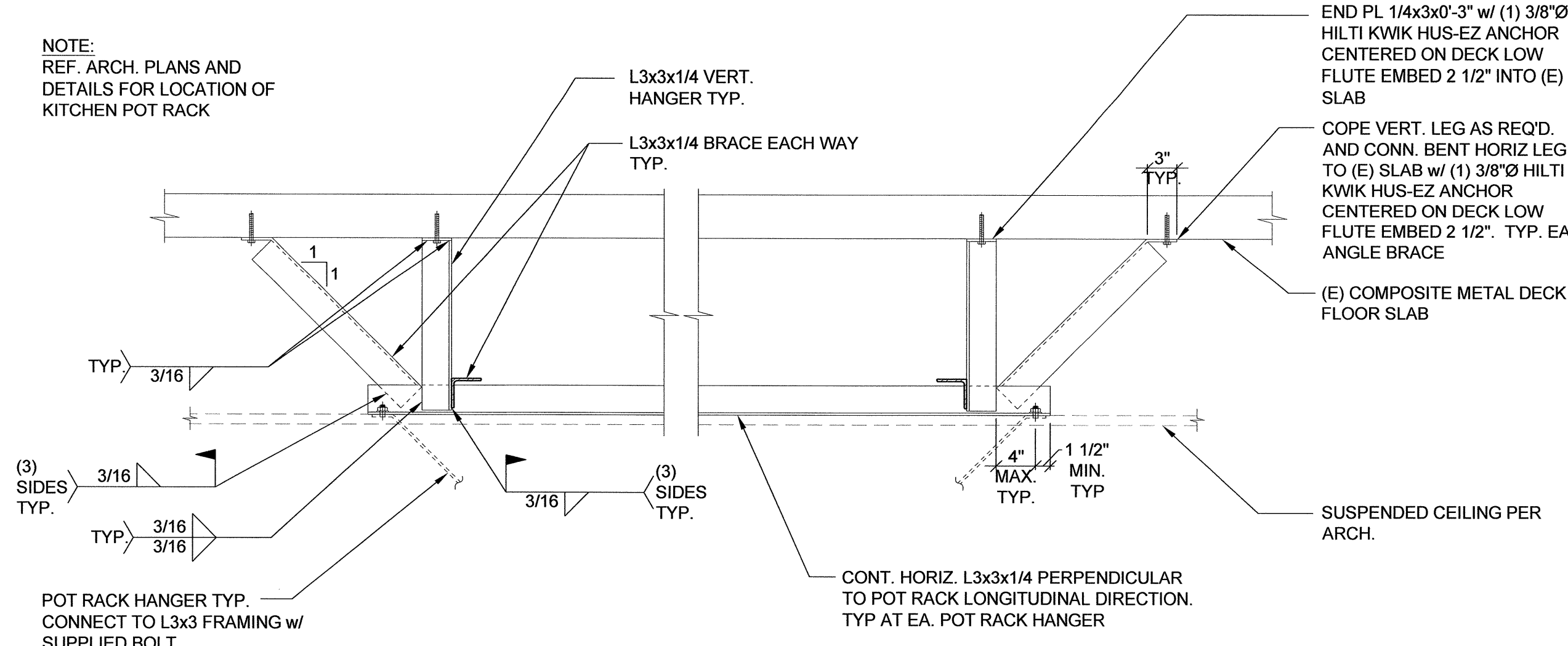
4 TYPICAL CEILING STEP DETAIL
1"=1'-0"



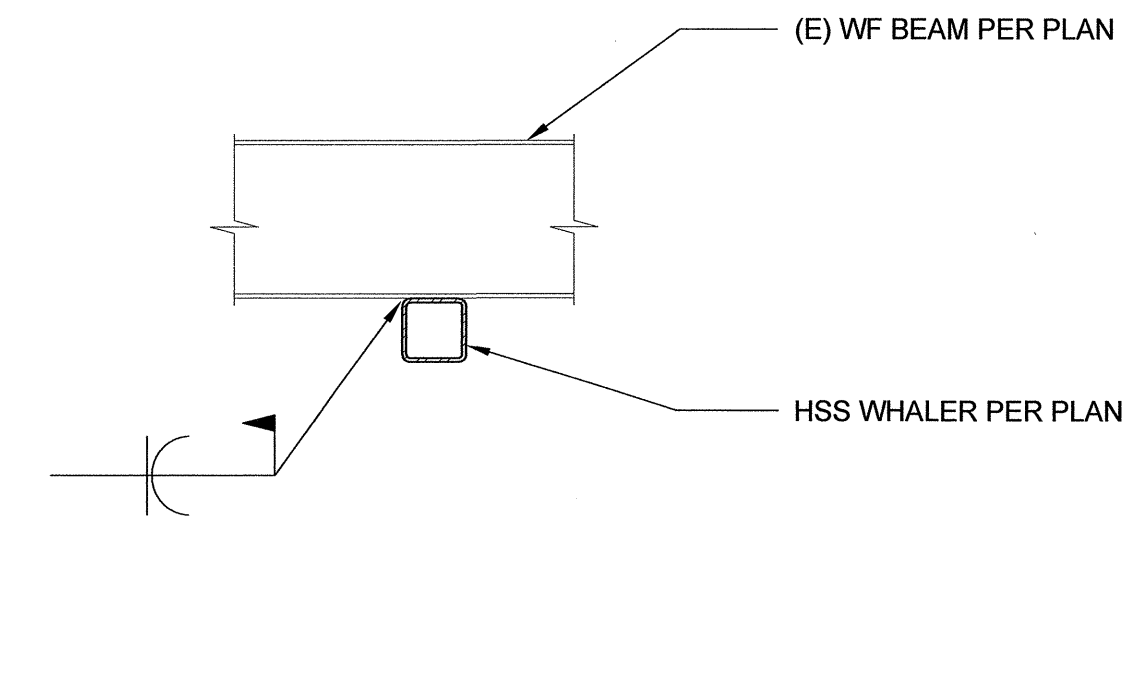
1 TYPICAL CORNER CONDITION AT NEW SAW CUT PENETRATION
1"=1'-0"



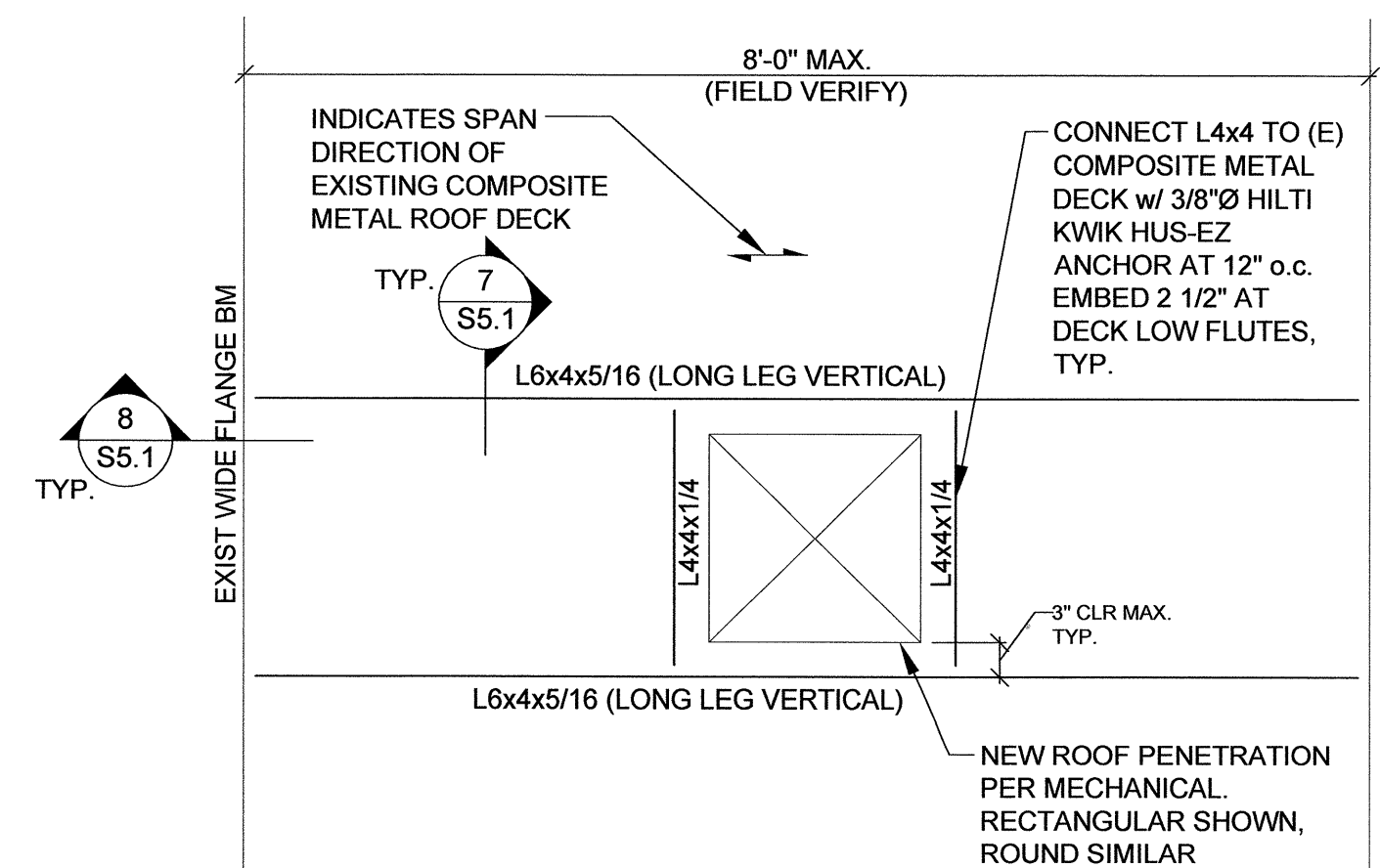
8 ANGLE SUPPORT AT WHALER
1"=1'-0"



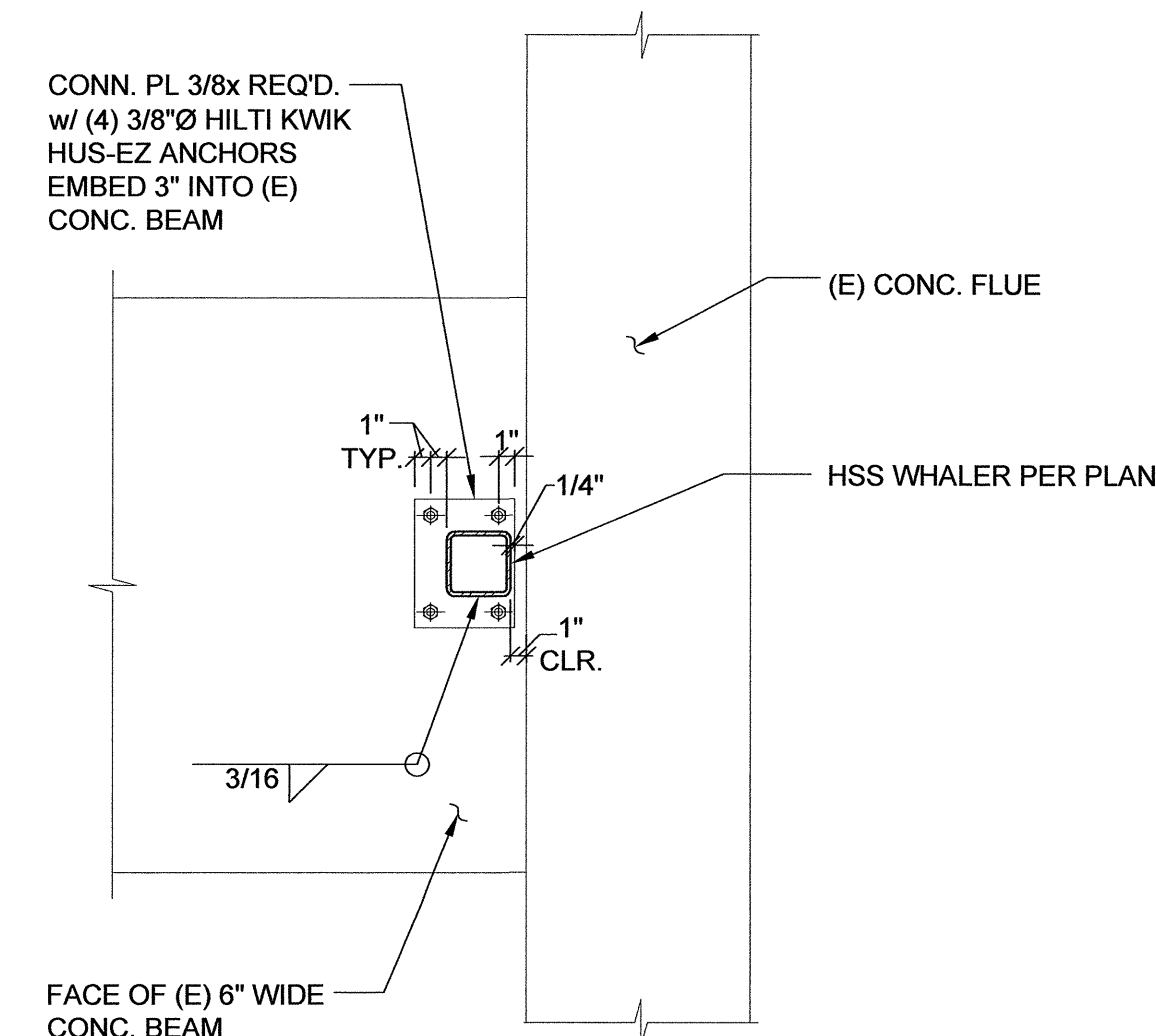
5 TYPICAL POT RACK SUPPORT FRAME
1"=1'-0"



2 HSS WHALER CONN. TO (E) WF BEAM
1"=1'-0"



6 TYP. FRAMING AROUND NEW ROOF PENETRATION
3/4"=1'-0"



3 WHALER CONN. TO (E) CONCRETE BEAM
1"=1'-0"

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SECTIONS AND DETAILS

Revisions:
REVISION #1

Date:
04/11/2014

Drawn: JA

Checked: JML