STRUCTURAL NOTES

COPIES OF PUBLICATIONS REFERENCED IN THESE GENERAL STRUCTURAL NOTES ARE AVAILABLE FOR REVIEW AT SCHAEFER. CONTRACTORS UNFAMILIAR WITH THESE PUBLICATIONS MUST REVIEW THEM PRIOR TO CONSTRUCTION.

GOVERNING CODE

2017 OHIO BUILDING CODE (REFERENCES IBC 2015 & ASCE-7 10).

DESIGN LOADS

1. WOOD FRAMED ROOF LOAD.

A. MINIMUM COMBINATION OF WIND LOAD, LIVE LOAD RAIN LOAD, OR SNOW LOAD (P_f OR P_m)	20	PSF*
B. ASPHALT/FIBERGLASS SHINGLES (2 LAYERS)	6	PSF
C. ROOF SHEATHING	3	PSF
D. TRUSS FRAMING LOAD	3	PSF
E. CEILING, INSULATION	3	PSF
F. SPRINKLERS	3	PSF
G. SOLAR PANELS	5	PSF
H. DUCTS, LIGHTS, MISC. MECHANICAL	2	PSF
TOTAL LOAD ON TRUSSES	45	PSF MIN

*FLAT ROOF SNOW LOAD, P_F = 14 PSF
GROUND SNOW, P_g = 20 PSF
SNOW LOAD IMPORTANCE FACTOR, I_S = 1.0
SNOW EXPOSURE FACTOR, C_e = 1.0
SNOW LOAD THERMAL FACTOR, C_t = 1.0
MINIMUM SNOW LOAD, P_m = 20 PSF

SEE SNOW DRIFT PLAN FOR DRIFT LOADS (P_d). SPECIFIED DRIFT LOADS (P_d) SHALL BE COMBINED WITH FLAT ROOF SNOW LOAD (P_f) OR SLOPED ROOF SNOW LOAD (P_s) FOR TOTAL SNOW LOADING AT DRIFT CONDITIONS

2. WOOD TRUSS FRAMED FLOOR LOAD.

A. FLOOR FINISH ALLOWANCE	3	PSF
B. 1 1/2" GYPCRETE TOPPING	14	PSF
C. MISC PARTITION WALLS	5	PSF
D. FLOOR SHEATHING	3	PSF
E. TRUSS FRAMING	3	PSF
F. CEILING	3	PSF
G. SPRINKLERS	3	PSF
H. DUCTS, LIGHTS, MISC. MECHANICAL	3	PSF
TOTAL LOAD ON FLOOR FRAMING	37	PSF
I. PRIVATE ROOMS AND CORRIDORS SERVING THEM	40	PSF***
J. PUBLIC ROOMS AND CORRIDORS SERVING THEM	100	PSF***
K. STAIR LIVE LOAD	100	PSF

*** LIVE LOAD REDUCTIONS USED WHERE APPLICABLE

3. FLOOR LOAD (PODIUM BELOW RESIDENTIAL)

A. CONCRETE PODIUM	150	PCF
B. SUPERIMPOSED DEAD LOAD ALLOWANCE	20	PSF
LIVE LOAD		
C. PRIVATE ROOMS AND CORRIDORS SERVING THEM	40	PSF***
D. PUBLIC ROOMS AND CORRIDORS SERVING THEM	100	PSF***
E. STAIR LIVE LOAD	100	PSF

4. WIND LOAD (PER ASCE 7):
   A. BASIC DESIGN WIND SPEED, V= 115 MPH
   B. ALLOWABLE STRESS DESIGN WIND SPEED, V_{ASD} = 90 MPH
   C. RISK CATEGORY = II
   D. WIND EXPOSURE = B (ALL WIND DIRECTIONS)
   E. INTERNAL PRESSURE COEFFICIENT, GCpi = +0.18, -0.18
   F. DESIGN PRESSURES FOR EXTERIOR COMPONENT AND CLADDING ITEMS NOT SPECIFICALLY DESIGNED BY THE ENGINEER OF RECORD: SEE TYPICAL COMPONENT AND CLADDING WIND PRESSURE TABLE.

5. SEISMIC LOAD

A. SEISMIC RISK CATEGORY	= II
B. SEISMIC IMPORTANCE FACTOR, I_e	= 1.0
C. MAPPED SPECTRAL RESPONSE ACCELERATION FACTOR AT SHORT PERIOD, S_S	= 0.144
D. MAPPED SPECTRAL RESPONSE ACCELERATION FACTOR AT 1 SECOND PERIOD, S_1	= 0.078
E. SITE CLASS	= D
F. DESIGN SPECTRAL RESPONSE ACCELERATION FACTOR AT SHORT PERIODS, S_{DS}	= 0.154
G. DESIGN SPECTRAL RESPONSE ACCELERATION FACTOR AT 1 SECOND PERIOD, S_{D1}	= 0.125
H. SEISMIC DESIGN CATEGORY	= B
RESIDENTIAL STRUCTURE	
I. BASIC SEISMIC FORCE RESISTING SYSTEM	= LIGHT FRAME WOOD WALLS SHEATHED
J. RESPONSE MODIFICATION COEFFICIENT, R	= 6.5
K. SEISMIC RESPONSE COEFFICIENT, CS	= 0.024
L. DESIGN BASE SHEAR	= 64 KIP
M. ANALYSIS PROCEDURE USED	= ELFP
PODIUM STRUCTURE	
N. BASIC SEISMIC FORCE RESISTING SYSTEM SHEAR WALLS	= ORDINARY REINFORCED CONCRETE
O. RESPONSE MODIFICATION COEFFICIENT, R	= 5
P. SEISMIC RESPONSE COEFFICIENT, CS	= 0.031
Q. DESIGN BASE SHEAR	= 278 KIP
R. ANALYSIS PROCEDURE USED	= ELFP

6. CONCENTRATED LOADS: 2000 POUNDS OVER 2.5 FEET SQUARE

7. SPECIAL LOADS:
   A. INTERIOR WALLS AND PARTITIONS THAT EXCEED 6 FEET IN HEIGHT: 5 PSF HORIZONTAL LIVE LOAD.
   B. HANDRAILS AND GUARDRAILS:
      i. TOP RAIL: 200 POUND CONCENTRATED LOAD AT ANY POINT IN ANY DIRECTION OR 5O PLF UNIFORM LOAD APPLIED IN ANY DIRECTION.
      ii. INTERMEDIATE RAILS, BALUSTERS, AND PANEL FILLERS: HORIZONTALLY APPLIED NORMAL LOAD OF 50 POUNDS ON AN AREA NOT TO EXCEED 1 SQUARE FT., INCLUDING OPENINGS AND SPACE BETWEEN RAILS.
   C. IMPACT:
      i. ELEVATORS: SECTION 1607.9.1

CONSTRUCTION AND SAFETY

1. CONTRACTOR SHALL BRACE ENTIRE STRUCTURE AS REQUIRED TO MAINTAIN STABILITY UNTIL COMPLETE AND FUNCTIONING AS THE DESIGNED UNIT.
2. ENGINEER SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION SELECTED BY CONTRACTOR.
3. THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND IS NOT LIMITED TO NORMAL WORKING HOURS. WHEN ON SITE, THE ENGINEER IS RESPONSIBLE FOR HIS/HER OWN SAFETY BUT HAS NO RESPONSIBILITY FOR THE SAFETY OF OTHER PERSONNEL OR SAFETY CONDITIONS AT THE SITE.
4. PRIOR TO COMMENCEMENT OF STEEL ERECTION, CONTRACTOR MUST PROVIDE THE STEEL ERECTOR WRITTEN NOTIFICATION THAT THE CONCRETE IN THE FOOTINGS, PIERS AND WALLS OR THE MORTAR IN THE MASONRY PIERS AND WALLS HAS ATTAINED EITHER 75 PERCENT OF THE INTENDED MINIMUM COMPRESSIVE DESIGN STRENGTH OR SUFFICIENT STRENGTH TO SUPPORT THE LOADS IMPOSED DURING STEEL ERECTION.
5. ANCHOR RODS AND FOUNDATION DOWELS SHALL NOT BE REPAIRED, REPLACED OR FIELD-MODIFIED WITHOUT THE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD.

LATERAL LOAD RESISTING SYSTEM

1. THE LATERAL LOAD RESISTING SYSTEM CONSISTS OF THE FOLLOWING ELEMENTS:
   A. WOOD FRAMING
      i. WOOD SHEATHING DIAPHRAGM THROUGHOUT
      ii. WOOD SHEATHED SHEAR WALLS AT LOCATIONS INDICATED ON PLAN
   B. CONCRETE FRAMING
      i. CONCRETE DIAPHRAGM THROUGHOUT
      ii. CONCRETE SHEAR WALLS AT LOCATIONS INDICATED ON PLAN

FOUNDATIONS

1. FOUNDATION DESIGN IS BASED UPON RECOMMENDATIONS DESCRIBED IN THE GEOTECHNICAL ENGINEER'S REPORT BY CONSULTING SERVICES INCORPORATED (CSI), DATED MAY 24, 2022. THE GEOTECHNICAL ENGINEER'S REPORT IS AVAILABLE UPON REQUEST.
   A. ALL FOOTINGS SHALL BEAR ON LEVEL (WITHIN 1 IN 12) UNDISTURBED SOIL OR APPROVED ENGINEERED FILL. FOUNDATIONS HAVE BEEN DESIGNED FOR A MAXIMUM ALLOWABLE SOIL BEARING PRESSURE OF 4000 PSF BELOW STRIP FOOTINGS AND 4000 PSF BELOW ISOLATED COLUMN FOOTINGS.
2. ALL AREAS WITHIN THE FOOTPRINT OF THE BUILDING, INCLUDING UTILITY TRENCHES, MUST BE FREE OF ANY WET AND/OR SOFT AREAS PRIOR TO PLACEMENT OF FILL MATERIAL OR SLAB.
3. CONTRACTOR SHALL CONTACT UTILITY COMPANIES FOR LOCATING UNDERGROUND SERVICES AND IS RESPONSIBLE FOR THEIR PROTECTION AND SUPPORT.
4. FILL MATERIALS: ALL FILL MATERIALS SHALL BE APPROVED BY A GEOTECHNICAL ENGINEER, INCLUDING THE SUITABILITY OF ALL EXCAVATED ON-SITE SOILS FOR RE-USE. MATERIAL SHALL NOT BE PLACED ON FROZEN GROUND.
   A. CONTROLLED LOW STRENGTH MATERIAL (CLSM): SELF LEVELING AND SELF COMPACTING CEMENTITIOUS MATERIAL WITH AN UNCONFINED COMPRESSIVE STRENGTH BETWEEN 50 PSI AND 150 PSI.
   B. WELL GRADED GRANULAR MATERIAL: WELL GRADED MIXTURE OF CRUSHED GRAVEL, CRUSHED STONE, AND SAND PER ASTM D294 WITH AT LEAST 95 PERCENT PASSING A 1 ½" SIEVE AND NOT MORE THAN 8 PERCENT PASSING A NO. 200 SIEVE.
   C. FREE DRAINING GRANULAR FILL: NARROWLY GRADED MIXTURE OF CRUSHED STONE PER ASTM D448 WITH COARSE AGGREGATE GRADING SIZE 67 WITH 100 PERCENT PASSING A 1 INCH SIEVE AND NO MORE THAN 5 PERCENT PASSING A NO. 4 SIEVE.
   D. IMPERVIOUS FILL: LEAN CLAYEY GRAVEL AND SAND MIXTURE CAPABLE OF COMPACTING TO A DENSE STATE.
5. FOUNDATION ELEVATIONS SHOWN ARE FOR BIDDING PURPOSES AND MAY VARY TO SUIT SUB-SURFACE SOIL CONDITION. ELEVATION AND BEARING STRATA SHALL BE APPROVED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE. PROVIDE ENGINEERED FILL OR CLSM UNDER FOUNDATIONS AT SOFT SPOTS AND FOR EXTENDING EXCAVATION TO ADEQUATE BEARING MATERIAL. INSTALL FOUNDATIONS AT DESIGNED ELEVATIONS
6. FROST DEPTH IS 30 INCHES BELOW GRADE. BOTTOM OF FOOTINGS, MAT FOUNDATIONS AND GRADE BEAMS THAT ARE NOT PART OF AN INSULATED FROST PROTECTED FOUNDATION SYSTEM AND ARE NOT WITHIN CONDITIONED SPACE MUST BE BELOW SPECIFIED MINIMUM FROST DEPTH AS MEASURED FROM EXTERIOR GRADE. MAINTAIN SPECIFIED T/FDN ELEVATIONS AND THICKEN FOOTING OR PLACE ON CLSM AS REQUIRED.
7. FOUNDATIONS MAY BE PLACED WITHOUT SIDE FORMS IF EXCAVATED WALLS STAND APPROXIMATELY VERTICAL
8. ENGINEERED FILL BENEATH FOOTINGS: MINIMUM COMPACTION 98% STANDARD PROCTOR MAXIMUM DRY DENSITY WITHIN +/- 3% OPTIMUM MOISTURE CONTENT.
9. FILL BELOW FLOOR SLABS:
   A. SUBGRADE: PROOF ROLL TOP 24" OF SUBGRADE BELOW INTERIOR SLAB TO 98% STANDARD PROCTOR MAXIMUM DRY DENSITY WITHIN +/- 3% OPTIMUM MOISTURE CONTENT PRIOR TO PLACEMENT OF BASE COURSE.
   B. BASE COURSE: 4" OF WELL GRADED GRANULAR MATERIAL BELOW FLOOR SLAB COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY WITHIN +/- 2% OPTIMUM MOISTURE CONTENT.
10. FILL AT UTILITY TRENCHES BELOW FOOTINGS, EXCAVATED PRIOR TO FOOTING CONSTRUCTION.
   A. BACKFILL TRENCHES UNDER FOOTINGS AND WITHIN 18 INCHES OF BOTTOM OF FOOTINGS WITH CLSM TO THE BOTTOM OF FOOTING ELEVATION.
   B. BACKFILL TRENCHES EXCAVATED UNDER FOOTINGS AND MORE THAN 18 INCHES BELOW BOTTOM OF FOOTINGS WITH CLSM OR OTHER FILL MATERIAL APPROVED BY GEOTECHNICAL ENGINEER.
11. FILL AT UTILITY TRENCHES BELOW FOOTINGS, EXCAVATED AFTER FOOTING CONSTRUCTION.
   A. BACKFILL TRENCHES EXCAVATED UNDER EXISTING FOOTINGS WITH CLSM TO THE BOTTOM OF FOOTING ELEVATION.
12. SEAL UTILITY TRENCH AT THE EXTERIOR FOUNDATION WALL BY USING A COMPACTED IMPERVIOUS FILL OR CLSM TO CREATE A DAM TO PREVENT ENTRY OF WATER.
13. FINISHED GRADE SHALL SLOPE AWAY FROM THE PERIMETER FOUNDATION
14. EXCAVATIONS:
   A. EXCAVATIONS IN THE VICINITY OF EXISTING FOUNDATIONS SHALL BE PERMITTED WITHOUT ANY SPECIAL MEASURES AS LONG AS THE BOTTOM NEAR EDGE OF THE EXCAVATION IS ABOVE A LINE WITH SLOPE OF 2 HORIZONTAL TO 1 VERTICAL EXTENDING OUTWARD AND DOWNWARD FROM THE NEAREST BOTTOM CORNER OF THE EXISTING FOUNDATION.
   B. EXCAVATIONS IN THE VICINITY OF EXISTING FOUNDATIONS WITH THE BOTTOM NEAR EDGE OF THE EXCAVATION BELOW A LINE WITH SLOPE OF 2 HORIZONTAL TO 1 VERTICAL EXTENDING OUTWARD AND DOWNWARD FROM THE NEAREST BOTTOM CORNER OF THE EXISTING FOUNDATION SHALL BE MADE ONLY WITH THE APPROVAL OF THE STRUCTURAL ENGINEER AND THE PROJECT GEOTECHNICAL ENGINEER. SUCH EXCAVATIONS MAY REQUIRE SPECIAL TEMPORARY EXCAVATION BRACING OR UNDERPINNING OF EXISTING FOUNDATIONS, WHICH IS THE RESPONSIBILITY OF THE CONTRACTOR AS PART OF ITS SELECTED MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES. CONTRACTOR SHALL SUBMIT TEMPORARY EXCAVATION BRACING AND UNDERPINNING DETAILS PRIOR TO EXCAVATION. CONTRACTOR SHALL PERFORM THESE EXCAVATIONS WITH CAUTION SO AS NOT TO UNDERMINE ANY EXISTING STRUCTURE FOUNDATIONS, AND EXCAVATIONS SHALL BE MADE IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
15. UTILITY TRENCHES PARALLEL TO FOOTINGS AND WITH PIPES BELOW THE BOTTOM OF FOOTING ELEVATION MUST BE LOCATED SO THAT THE SLOPE BETWEEN THE PIPE INVERT ELEVATION AND THE NEAREST BOTTOM CORNER OF THE FOOTING IS A MINIMUM OF 2 HORIZONTAL TO 1 VERTICAL.

GROUND IMPROVEMENT WITH AGGREGATE PIERS

1. DESIGN AND INSTALL AGGREGATE PIERS IN A TURN-KEY FASHION TO MEET THE FOLLOWING DESIGN CRITERIA.
   A. PROVIDE UNIFORM ALLOWABLE BEARING CAPACITIES MEETING OR EXCEEDING SPECIFIED DESIGN BEARING PRESSURES. UNLESS OTHERWISE INDICATED ON PLAN, DESIGN BEARING PRESSURES SHALL BE THE MAXIMUM ALLOWABLE SOIL BEARING PRESSURES" INDICATED IN "FOUNDATIONS" GENERAL NOTES.
   B. LIMIT LONG-TERM MAXIMUM OVERALL SETTLEMENTS TO 1", AND LONG-TERM MAXIMUM DIFFERENTIAL SETTLEMENTS (AS MEASURED BETWEEN TYPICAL COLUMN BAYS, NO LESS THAN 30'-0") TO 1/2".
   C. MINIMUM COEFFICIENT OF FRICTION AS INDICATED IN "FOUNDATIONS" GENERAL NOTES, BUT NO LESS THAN 0.4.
2. SUBMITTALS:
   A. SUBMIT GROUND IMPROVEMENT CONSTRUCTION DOCUMENTS, INCLUDING DESIGN CALCULATIONS SIGNED AND SEALED BY A REGISTERED DESIGN PROFESSIONAL LICENSED IN THE STATE OF THE PROJECT. SUBMITTAL SHALL INCLUDE:
      i. ALL DESIGN REQUIREMENTS INCLUDING TEMPORARY AND PERMANENT SOIL STABILITY REQUIREMENTS.
      ii. DESIGN PARAMETERS FOR SETTLEMENT CALCULATIONS CONSIDERING STRESS OVERLAP.
      iii. NUMBER, DEPTH, DIAMETER, AND LOCATION OF AGGREGATE PIERS.
      iv. QUALITY ASSURANCE AND QUALITY CONTROL REQUIREMENTS.
   B. INSTALLER SHALL SUBMIT INSTALLATION RECORD, FIELD MODULUS LOAD TEST DATA, AND ANALYSIS OF THE TEST DATA FOR VERIFICATION OF THE DESIGN PARAMETER VALUES. THE REPORT SHALL BE PREPARED UNDER THE DIRECTION OF REGISTERED DESIGN PROFESSIONAL LICENSED IN THE STATE OF THE PROJECT
3. QUALITY CONTROL:
   A. AGGREGATE PIER INSTALLER SHALL HAVE A MINIMUM OF 5 YEARS EXPERIENCE AND COMPLETED AT LEAST 15 PROJECTS OF SIMILAR SIZE.
   B. PERFORM FIELD MODULUS LOAD TEST (ASTM D1143) TO VALIDATE COMPLIANCE WITH REQUIRED BEARING CAPACITIES AND SETTLEMENT CRITERIA. MODULUS TEST SHALL BE PERFORMED TO A MINIMUM OF 150% OF THE DESIGN OR LIMIT STATE TOP OF PIER STRESS OF AN INDIVIDUAL PIER LOCATED WHERE SOIL CONDITIONS ARE THE POOREST AS DOCUMENTED BY THE BORING LOADS CONTAINED IN THE GEOTECHNICAL REPORT. TEST PIERS SHALL NOT BECOME PART OF THE PERMANENT FOUNDATION SYSTEM.
   C. CONTINUOUS INSPECTIONS ARE REQUIRED TO BE PERFORMED BY THE GEOTECHNICAL ENGINEER OF RECORD, OR THE OWNER'S CONTRACTED SPECIAL INSPECTOR TO MONITOR ADHERENCE TO ALL TESTING AND INSTALLATION PROCEDURES. THE INSTALLER SHALL IMMEDIATELY REPORT ANY UNUSUAL CONDITIONS ENCOUNTERED DURING THE FIELD MODULUS TEST OR PIER INSTALLATION TO THE GROUND IMPROVEMENT REGISTERED DESIGN PROFESSIONAL FOR THE PROJECT, THE OWNER, AND THE ENGINEER.

CAST-IN-PLACE CONCRETE (03-30-00)

1. CONCRETE MIXTURES: REFER TO CONCRETE MIXTURE REQUIREMENTS TABLE FOR CONCRETE MIX INFORMATION.
2. CONCRETE MATERIALS:
   A. CEMENTITIOUS MATERIALS
      i. PORTLAND CEMENT: ASTM C150, TYPE I.
      ii. BLENDED HYDRAULIC CEMENT: ASTM C595, TYPE IL, PORTLAND LIMESTONE CEMENT
      iii. FLY ASH: ASTM C618, CLASS F OR C. FLY ASH SHALL NOT EXCEED 25% OF TOTAL CEMENTITIOUS CONTENT BY MASS.
      iv. GROUND GRANULATED BLAST FURNACE SLAG: ASTM C989, GRADE 100 OR 120. COMBINATION SLAG, SILICA FUME, AND FLY ASH SHALL NOT EXCEED 50% OF TOTAL CEMENTITIOUS CONTENT BY MASS.
      v. SILICA FUME: ASTM C1240 AMORPHOUS SILICA. SILICA FUME SHALL NOT EXCEED 10% OF TOTAL CEMENTITIOUS
   B. AGGREGATES:
      i. NORMAL WEIGHT AGGREGATES: ASTM C33, COARSE GRADED.
      ii. LIGHTWEIGHT AGGREGATES: ASTM C330.
   C. ADMIXTURES: ADMIXTURES CONTAINING CHLORIDE ARE NOT PERMITTED IN REINFORCED CONCRETE OR CONCRETE CONTAINING METALS.
      i. WATER REDUCING ADMIXTURE: ASTM C494.
      ii. PLASTICIZING ADMIXTURE: ASTM C1017.
      iii. AIR ENTRAINING ADMIXTURE: ASTM C260.
      iv. CORROSION INHIBITOR: NON-SET-ACCELERATING - CORTEC MCI 2005NS
   D. WATER: ASTM C94 AND POTABLE
3. DETAILING REQUIREMENTS
   A. CAST IN CONTINUOUS DOVETAIL ANCHOR SLOTS ON VERTICAL SURFACES WHERE MASONRY ABUTS: 24" O.C. FOR PARALLEL SURFACES AND AT CENTERLINE OF MASONRY FOR PERPENDICULAR WALLS. USE DUR-O-WAL OR WIREBOND DOVETAIL SLOTS.
   B. FINISH OF CONCRETE HANDICAP RAMPS TO CONFORM WITH THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA).
   C. CONTRACTION JOINTS IN SLABS ON GROUND SHALL NOT EXCEED A LENGTH TO WIDTH RATIO OF 1.5:1. SEE PLAN FOR MAXIMUM JOINT SPACING.
   D. CONSTRUCTION JOINTS IN SLABS ON GROUND MAY BE LOCATED AT ANY CONTRACTION JOINT LOCATION. SEE DRAWINGS FOR TYPICAL DETAILS.
   E. PROVIDE 3/4" CHAMFER AT CORNERS OF EXPOSED CONCRETE.
   F. WHERE BRITTLE FLOOR FINISHES ARE TO BE APPLIED TO FLOOR SLABS, COORDINATE CONTRACTION JOINT LOCATIONS WITH FLOOR FINISH JOINT LOCATIONS AND ARCHITECT.
   G. PROVIDE CONTRACTION/CONSTRUCTION JOINTS IN CONCRETE WALLS AT A MAXIMUM SPACING OF TWICE THE HEIGHT OF THE WALL ABOVE THE TOP OF FOOTING. MAXIMUM JOINT SPACING SHALL NOT EXCEED 24 FT. CONTRACTION JOINTS SHALL HAVE A 1-1/2" DEEP BY 3/4" WIDE TAPERED REVEAL EACH SIDE OF THE WALL. AT CONTRACTION JOINTS, EVERY OTHER HORIZONTAL BAR SHALL BE CUT BACK 1-1/2" FROM THE CONTRACTION JOINT. CONSTRUCTION JOINTS SHALL BE FORMED SIMILAR TO CONTRACTION JOINTS. AT CONSTRUCTION JOINTS, ALL HORIZONTAL STEEL SHALL BE DISCONTINUOUS AND A DOWEL BAR OF SIZE AND SPACING TO MATCH THE HORIZONTAL REINFORCING SHALL BE EMBEDDED A MINIMUM OF 40 BAR DIAMETERS EACH SIDE OF THE CONSTRUCTION JOINT. SEE ARCHITECTURAL DRAWINGS FOR ARCHITECTURAL JOINT TREATMENT.
   H. CONDUITS AND PIPES OF ALUMINUM SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE UNLESS EFFECTIVELY COATED TO PREVENT ALUMINUM-CONCRETE REACTION OR ELECTROLYTIC ACTION BETWEEN ALUMINUM AND STEEL.
   I. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR VAPOR BARRIER REQUIREMENTS. VAPOR BARRIER, WHERE REQUIRED, SHALL BE PLACED OVER GRANULAR BASE.
4. CONCRETE PLACEMENT
   A. DO NOT BACKFILL AGAINST BASEMENT FOUNDATION WALLS UNTIL ADJACENT FLOOR STRUCTURE AND CONCRETE/DECKING IS IN PLACE TO BRACE THE TOP OF THE WALL.
   B. DO NOT BACKFILL AGAINST RETAINING WALLS UNTIL CONCRETE STRENGTH HAS REACHED 0.75 f'c AND A MINIMUM OF 7 DAYS.
   C. ROUGHENED SURFACES, WHERE INDICATED, SHALL EITHER BE:
      i. ROUGHENED TO A FULL AMPLITUDE OF APPROXIMATELY 1/4" AND BE CLEAN AND FREE OF LAITANCE.;
      ii. FORMED BY EXPANDED METAL LEAVE-IN-PLACE MESH. SUBMIT PRODUCT INFORMATION FOR APPROVAL.
5. PERFORMANCE
   A. CONCRETE WORK IN COLD WEATHER SHALL CONFORM TO ALL REQUIREMENTS OF ACI 306.1-90 "STANDARD SPECIFICATION FOR COLD WEATHER CONCRETING" AND ACI 306R-16 "GUIDE TO COLD WEATHER CONCRETING".
   B. CONCRETE WORK IN HOT WEATHER SHALL CONFORM TO ALL REQUIREMENTS OF ACI 305.1-14 "SPECIFICATION FOR HOT WEATHER CONCRETING" AND ACI 305R-10 "GUIDE TO HOT WEATHER CONCRETING". THE AIR TEMPERATURE, RELATIVE HUMIDITY, CONCRETE TEMPERATURE, AND WIND SPEED SHALL BE ENTERED INTO NOMOGRAPH FIGURE 4.2 IN ACI 305R-10 TO DETERMINE IF PRECAUTIONS AGAINST PLASTIC SHRINKAGE ARE REQUIRED.
   C. TOLERANCES: CONFORM TO ACI 117-10
   D. IF CONCRETE ARRIVES AT THE POINT OF DELIVERY WITH A SLUMP BELOW THAT WHICH WILL RESULT IN THE SPECIFIED SLUMP AT THE POINT OF PLACEMENT AND IS UNSUITABLE FOR PLACING AT THAT SLUMP, THE SLUMP MAY BE ADJUSTED ONCE ONLY TO THE REQUIRED VALUE BY ADDING WATER UP TO THE AMOUNT ALLOWED IN THE ACCEPTED MIXTURE PROPORTIONS. ADDITION OF WATER SHALL BE IN ACCORDANCE WITH ASTM C94. DO NOT EXCEED THE SPECIFIED WATER-CEMENTITIOUS MATERIAL RATIO OR SLUMP IN THE APPROVED MIX DESIGN. DO NOT ADD WATER TO CONCRETE DELIVERED IN EQUIPMENT NOT ACCEPTABLE FOR MIXING. AFTER PLASTICIZING OR WATER REDUCING ADMIXTURES ARE ADDED TO THE CONCRETE AT THE SITE TO ACHIEVE FLOWABLE CONCRETE, DO NOT ADD WATER TO THE CONCRETE. MEASURE SLUMP (AND AIR CONTENT OF AIR ENTRAINED CONCRETE), AFTER SLUMP ADJUSTMENT, TO VERIFY COMPLIANCE WITH SPECIFIED REQUIREMENTS.
   E. SLUMP SHALL BE MEASURED PRIOR TO THE ADDITION OF ADMIXTURES AND AFTER THE ADDITION OF ADMIXTURES.
   F. INTERIOR SLAB FINISHING AND CURING
      i. FINISH: MACHINE TROWEL FINISH FLOOR SLAB UNLESS NOTED OTHERWISE.
      ii. CURING: "CURE AND SEAL" LIQUID MEMBRANE FORMING CURING COMPOUND (ASTM C1315, TYPE 1, CLASS A, VOC COMPLIANT).
   G. EXTERIOR SLAB FINISHING AND CURING:
      i. FINISH: LIGHT BROOM FINISH
      ii. CURING: UV RESISTANT ACRYLIC "CURE AND SEAL" LIQUID MEMBRANE FORMING CURING COMPOUND (ASTM C1315, TYPE 1, CLASS A).
   H. FLOOR SLAB-ON-GRADE SHALL CONFORM TO THE FOLLOWING SURFACE PROFILE TOLERANCES PER ASTM E-1155 AND ACI 117-10 (Ff = FLOOR FLATNESS, Fl = FLOOR LEVELNESS):
      i. SPECIFIED OVERALL VALUE Ff = 25, Fl = 20
      ii. MINIMUM LOCAL VALUE Ff = 17, Fl = 15
   I. SUSPENDED SLABS SHALL CONFORM TO THE FOLLOWING SURFACE PROFILE TOLERANCES PER ASTM E-1155 AND ACI 117-10 (Ff = FLOOR FLATNESS, Fl = FLOOR LEVELNESS):
      i. SPECIFIED OVERALL VALUE Ff = 25, Fl = 20
      ii. MINIMUM LOCAL VALUE Ff = 17, Fl = 15
6. SUBMITTALS:
   A. CONSTRUCTION JOINT LAYOUT
   B. CONCRETE MIX DESIGNS: CONCRETE MIX DESIGNS INCLUDING PRODUCT DATA FOR ALL CONSTITUENTS AND ADMIXTURES SHALL BE SUBMITTED FOR EACH TYPE OF CONCRETE TO THE STRUCTURAL ENGINEER FOR APPROVAL IN ACCORDANCE WITH ACI 301-16 FIELD TEST DATA OR TRIAL MIXTURES. SUBMITTAL DATA MUST INCLUDE FIELD TEST DATA FROM AT LEAST 10 TESTS OR A THREE POINT CURVE GENERATED USING TRIAL MIXTURES.
   C. PRODUCT DATA FOR CURING MATERIALS
   D. PRODUCT DATA FOR FIBER REINFORCEMENT
   E. FLOOR FLATNESS AND LEVELNESS MEASUREMENT REPORTS INDICATING COMPLIANCE WITH SPECIFIED TOLERANCES. PROVIDE LEVELNESS MEASUREMENT REPORTS FOR ELEVATED SLABS FOR RECORD EVEN WHERE SPECIFIC LEVELNESS CRITERIA IS NOT REQUIRED.
7. QUALITY ASSURANCE
   A. CONCRETE WORK AND TESTING, AS PERFORMED BY "QUALIFIED FIELD TESTING TECHNICIANS" AND "QUALIFIED LABORATORY TECHNICIANS", SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301-16, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", EXCEPT AS MODIFIED BY THE SUPPLEMENTAL REQUIREMENTS ABOVE. REPORTS FROM TESTS REQUIRED BY SECTION 1.6 OF ACI 301-16 SHALL BE SUBMITTED TO STRUCTURAL ENGINEER, ARCHITECT, OWNER, CONTRACTOR, CONCRETE SUPPLIER, AND BUILDING OFFICIAL.

CONCRETE REINFORCING (03-20-00)

1. MATERIALS
   A. DEFORMED BARS: ASTM A615, ASTM A706, OR GRADE 60.
      i. ASTM A706 DEFORMED BARS ARE REQUIRED FOR ALL WELDED REINFORCING BARS.
   B. WELDED WIRE REINFORCEMENT: ASTM A1064, FLAT SHEETS ONLY.
2. REINFORCING DEVELOPMENT AND LAP SPLICES (UNLESS OTHERWISE NOTED)
   A. WELDED WIRE REINFORCEMENT: LAP WELDED WIRE REINFORCEMENT MINIMUM 1 FULL SPACE PLUS 2".
   B. SEE REINFORCING BAR DEVELOPMENT TABLES FOR REQUIRED DEVELOPMENT AND LAP SPLICE LENGTHS.
3. DETAILING REQUIREMENTS
   A. AT SLAB AND WALL OPENING CORNERS AND REENTRANT CORNERS, PROVIDE (1) #5 BAR IN EACH FACE PARALLEL TO EACH EDGE EXTENDING A MINIMUM OF 2'-0" PAST EDGE OF OPENING. THIS STEEL MAY BE OMITTED IF TYPICAL WALL STEEL EXCEEDS THIS MINIMUM REQUIREMENT.
   B. SEE PLAN FOR INTERIOR SLAB ON GROUND REINFORCEMENT. LOCATE REINFORCEMENT 2" CLEAR BELOW TOP OF SLAB.
   C. REINFORCE ALL SLABS SUPPORTED ON METAL DECK WITH [6 X 6 - W1.4 X W1.4 (21#)] WELDED WIRE REINFORCEMENT. LOCATE WELDED WIRE REINFORCEMENT AT CENTER OF DEPTH OF CONCRETE THICKNESS ABOVE METAL DECK UNLESS NOTED OTHERWISE.
4. PERFORMANCE
   A. COMPLY WITH CRSI'S "MANUAL OF STANDARD PRACTICE" FOR PLACING AND SUPPORTING REINFORCEMENT.
   B. REINFORCING BARS SHALL HAVE CLEAR COVER AS INDICATED ON THE DRAWINGS. WHERE NOT INDICATED, PROVIDE MINIMUM CLEAR COVER PER ACI-318.
   C. REINFORCING BARS SHALL BE FREE OF DIRT AND FORM RELEASE AGENTS.
5. SUBMITTALS
   A. SHOP DRAWINGS FOR REINFORCING STEEL (COMPLY WITH ACI SP-066):

STRUCTURAL ENGINEERS
800.542.3302
schaefer-inc.com
schaefer

STAMP:

PROGRESS REVIEW ONLY
NOT FOR CONSTRUCTION

PARAMOUNT WORKS

2505 KEMPER LN
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ISSUE/REVISION/SUBMISSION

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PROJECT NUMBER:
2312.95

SHEET NAME:
GENERAL NOTES

DATE:
Issue Date

SHEET:
S001

MASONRY

1. MASONRY CONSTRUCTION AND MATERIALS SHALL CONFORM TO ALL REQUIREMENTS OF "SPECIFICATIONS FOR MASONRY STRUCTURES" (TMS 602-13), EXCEPT AS MODIFIED BY THE REQUIREMENTS OF THESE CONTRACT DOCUMENTS.

2. COMPRESSIVE STRENGTH SHALL BE DETERMINED FOR EACH TYPE OF MASONRY BY THE UNIT STRENGTH METHOD.

   A. CONCRETE MASONRY: f'm = 2000 PSI AT 28 DAYS.

3. SUBMITTALS SHALL BE MADE FOR THE FOLLOWING:

   A. COLD WEATHER CONSTRUCTION PROCEDURE.

   B. HOT WEATHER CONSTRUCTION PROCEDURE.

   C. MANUFACTURERS LITERATURE FOR:
      i. HORIZONTAL JOINT REINFORCING.
      ii. REINFORCING STEEL POSITIONERS.
      iii. MOVEMENT JOINT MATERIALS.
      iv. TIES & ANCHORS.

   D. SHOP DRAWINGS SHOWING:
      i. DETAILS OF STEEL REINFORCING.
      ii. LINTELS.

   E. MANUFACTURERS CERTIFICATE OF COMPLIANCE FOR SPECIFIED:
      i. MASONRY UNIT.
      ii. REINFORCING STEEL.

   F. PROPORTIONS OF MATERIAL IN ACCORDANCE WITH REFERENCED SPECIFICATIONS OF:
      i. MORTAR.
      ii. GROUT.

4. MATERIALS

   A. CONCRETE MASONRY UNITS: ASTM C90 TYPE I.
      i. BELOW GRADE: NORMAL WEIGHT AGGREGATE PER ASTM C33.
      ii. ABOVE GRADE: NORAMAL WEIGHT AGGREGATE PER ASTM C331.

   B. FACING BRICK: ASTM C216 GRADE SW. COLOR AND SIZE AS NOTED ON THE ARCHITECTURAL DRAWINGS.

   C. MORTAR: ASTM C270
      i. ALL MASONRY UNLESS NOTED OTHERWISE: TYPE S
      ii. NON-LOAD BEARING INTERIOR PARTITION WALLS: TYPE N
      iii. ABOVE GRADE VENEER: TYPE N

   D. PORTLAND CEMENT-LIME MORTAR:
      i. PORTLAND CEMENT: TYPE I.
      ii. HYDRATED LIME: TYPE S.

   E. MASONRY CEMENT MORTAR IS PERMITTED.

   F. GROUT: ASTM C476. SLUMP 8" TO 11". MINIMUM COMPRESSIVE STRENGTH = 2000 PSI AT 28 DAYS.

   G. REINFORCING STEEL: ASTM A615, ASTM A706, OR ASTM A996, 60 KSI YIELD.

   H. HORIZONTAL JOINT REINFORCING FOR SINGLE WYTHE CONCRETE MASONRY: ASTM A951 9 GAGE LADDER TYPE. HOT DIPPED GALVANIZED PER ASTM A153 CLASS B. PLACE HORIZONTAL JOINT REINFORCING AT 16" CENTERS VERTICALLY FOR CONCRETE MASONRY. LAP HORIZONTAL JOINT REINFORCING 6" MINIMUM. HORIZONTAL JOINT REINFORCING SHALL BE DISCONTINUOUS ACROSS MOVEMENT JOINTS.

   I. HORIZONTAL JOINT REINFORCING FOR SINGLE WYTHE CONCRETE MASONRY: ASTM A951 9 GAGE LADDER TYPE. HOT DIPPED GALVANIZED PER ASTM A153 CLASS B. PLACE HORIZONTAL JOINT REINFORCING AT 16" CENTERS VERTICALLY FOR CONCRETE MASONRY. LAP HORIZONTAL JOINT REINFORCING 6" MINIMUM. HORIZONTAL JOINT REINFORCING SHALL BE DISCONTINUOUS ACROSS MOVEMENT JOINTS.

   J. BRICK VENEER ANCHORS FOR METAL STUD AND WOOD STUD BACKUP: HOHMANN & BARNARD HB-200 OR WIRE-BOND RJ-711 WITH 3/16" DIAMETER PINTLE. HOT-DIPPED GALVANIZED PER ASTM A153 CLASS B. VERTICAL DISTANCE BETWEEN HORIZONTAL PINTLE WIRE AND CLIP PLATE SHALL NOT EXCEED 1 1/4 INCH. (FLAT CORRUGATED TIES ARE NOT PERMITTED.) PROVIDE BRICK VENEER ANCHORS WITH MAXIMUM HORIZONTAL SPACING OF 24" AND MAXIMUM VERTICAL SPACING OF 16". BRICK VENEER ANCHORS SHALL BE EMBEDDED 2" MINIMUM INTO BRICK.
      i. SCREWS FOR METAL STUD ANCHORAGE SHALL BE HEX HEAD SELF-DRILLING SELF TAPPING WITH MILD SHANK AND HARDENED TIP WITH ORGANIC-POLYMER COATING AND NEOPRENE OR EPDM WASHER, MINIMUM #10 SIZE. ACCEPTABLE PRODUCTS ARE ELCO DRIL-FLEX WITH STALGARD FINISH AND ITW BUILDEX TEKS SELECT WITH CLIMASEAL FINISH. (STAINLESS STEEL AND COPPER-COATED SCREWS ARE NOT PERMITTED.) SUBSTITUTES COMPLYING WITH AC118 MAY BE CONSIDERED.
      ii. SCREWS FOR WOOD STUDS ANCHORAGE SHALL BE HEX HEAD WITH NEOPRENE OR EPDM WASHER, MINIMUM #10 SIZE BY 1.5" LONG AND SHALL COMPLY WITH ASME B18.6.1 WITH POLYMER-COATED FINISH.

   K. VENEER ANCHORS FOR CONCRETE WALL BACKUP: DOVETAIL SLOTS AT MAXIMUM HORIZONTAL SPACING OF 24", WITH HOHMANN & BARNARD #315 OR WIREBOND 2102 WITH 3/16" DIAMETER PINTLE. HOT-DIPPED GALVANIZED PER ASTM A153 CLASS B. PROVIDE ANCHORS WITH MAXIMUM VERTICAL SPACING OF 16". VENEER ANCHORS SHALL BE EMBEDDED 2" MINIMUM INTO MASONRY.

5. MORTAR PROPORTIONS MUST BE ACCURATELY MEASURED PRIOR TO MIXING. ADD CEMENT TO MIX IN FULL BAG QUANTITIES. MEASURE SAND IN BOX WITH VOLUME OF ONE CUBIC FOOT AS OFTEN AS NECESSARY TO MAINTAIN CONSISTENT PROPORTIONS AND AT LEAST ONCE DAILY AND EVERY 4 HOURS OF MIXING.

6. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS AND SPECIFICATIONS OF FIRE RATED MASONRY.

7. PROVIDE PREFABRICATED "L" AND "T" SHAPED HORIZONTAL JOINT REINFORCING AT WALL INTERSECTIONS.

8. KEEP AIR SPACE BEHIND VENEER FREE OF MORTAR DROPPINGS.

9. RUNNING BOND PATTERN SHALL BE USED FOR ALL MASONRY WORK UNLESS OTHERWISE NOTED.

10. PROVIDE MOVEMENT (CONTROL AND EXPANSION) JOINTS IN WALLS WHERE INDICATED ON ARCHITECTURAL DRAWINGS. BOND BEAMS SHALL BE DISCONTINUOUS ACROSS MOVEMENT JOINTS UNLESS NOTED OTHERWISE:

    A. MOVEMENT JOINTS IN CONCRETE BLOCK: SASH BLOCK UNIT WITH PREFORMED SHEAR KEY. CAULK BOTH FACES. ALTERNATE DETAILS FOR CONTROL JOINTS MAY BE ACCEPTABLE -- SUBMIT DETAILS FOR APPROVAL.

    B. MOVEMENT JOINTS IN BRICK: 3/8" WIDE CLEAN JOINT FILLED WITH EXPANSION JOINT MATERIAL PER ASTM D1056, CLASS RE 41. CAULK EXTERIOR FACE.

    C. PROVIDE BUILDING PAPER BOND BREAK BELOW LINTEL BEARING ADJACENT TO CONTROL JOINTS.

11. UNLESS NOTED OTHERWISE ON PLANS, UNDER LINTELS, BEARING PLATES, BEAMS, ETC.; FILL CELLS WITH GROUT, 3 COURSES MINIMUM BELOW BEARING.

12. UNLESS NOTED OTHERWISE ON PLANS, LINTELS SHALL HAVE 8" MINIMUM END BEARING.

13. ALL REINFORCING STEEL SHALL BE SUPPORTED AND FASTENED TO APPROVED POSITIONERS LOCATED AT 192 BAR DIAMETERS MAXIMUM SPACING AND WITH A MINIMUM OF TWO POSITIONERS PER GROUT POUR (ONE NEAR THE BOTTOM AND ONE NEAR THE TOP) TO PREVENT DISPLACEMENT DURING THE PLACEMENT OF GROUT.

14. GROUT ALL CELLS BELOW GRADE SOLID.

15. PROVIDE REINFORCING BAR SPLICES AS SPECIFIED IN THE FOLLOWING TABLE. BAR SPLICE COUPLERS MAY BE CONSIDERED AS A SUBSTITUTE, SUBMIT MANUFACTURER'S DATA PRIOR TO INSTALLATION.

BAR SIZE	LAP SPLICE
#4	36"
#5	45

COLD-FORMED METAL FRAMING

1. MATERIALS:

   A. STRUCTURAL FRAMING MEMBERS 54 MILS (16 GAGE) & HEAVIER: ASTM A1003 & C955, Fy MINIMUM = 50 KSI, G60 GALVANIZED COATING (TYPICAL UNO).

   B. STRUCTURAL FRAMING MEMBERS 43 MILS (18 GAGE) & LIGHTER: ASTM A1003 & C955, Fy MINIMUM = 33 KSI, G60 GALVANIZED COATING (TYPICAL UNO).

   C. COLD-FORMED STEEL STUDS FOR BRICK VENEER BACKUP: 43 MILS (18 GAGE) MINIMUM THICKNESS. G90 GALVANIZED COATING.

   D. ALL TRACK & BRIDGING: Fy = 33 KSI MINIMUM, ASTM A1003 & C955, G60 GALVANIZED COATING.

   E. SELF DRILLING SCREWS (SDS):
      i. HEX OR PHILLIPS WASHER HEAD SELF-DRILLING TAPPING SCREWS (ASTM C1513) MANUFACTURED FROM CARBON STEEL (ASTM A 510, MIN GRADE 1018). ZINC PLATING SHALL MEET MINIMUM CORROSION RESISTANCE REQUIREMENTS OF ASTM F1941. SIZE AND SPACING TO BE DETERMINED BY SPECIALTY ENGINEER.

   F. WELDING ELECTRODES: E60XX

2. DESIGN SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS:

   A. AMERICAN IRON AND STEEL INSTITUTE (A.I.S.I.) S100-12 "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS".

   B. AMERICAN IRON AND STEEL INSTITUTE (A.I.S.I.) S200-12 "STANDARD FOR COLD-FORMED STEEL FRAMING – GENERAL PROVISIONS"

   C. AMERICAN IRON AND STEEL INSTITUTE (A.I.S.I.) AISI S212-07 "STANDARD FOR COLD-FORMED STEEL FRAMING – HEADER DESIGN", LATEST EDITION.

   D. AMERICAN IRON AND STEEL INSTITUTE (A.I.S.I.) S211-07 / S1-12 "STANDARD FOR COLD-FORMED STEEL FRAMING – WALL STUD DESIGN", LATEST EDITION.

   E. AMERICAN WELDING SOCIETY (A.W.S.) D.1.3, 2011 "STRUCTURAL WELDING CODE-SHEET STEEL."

3. WORK SHALL MEET THE REQUIREMENTS OF THE FOLLOWING STANDARDS:

   A. AMERICAN IRON AND STEEL INSTITUTE (A.I.S.I.) "STANDARD FOR COLD-FORMED STEEL FRAMING – GENERAL PROVISIONS", LATEST EDITION.

   B. AMERICAN WELDING SOCIETY (A.W.S.) D.1.3, 2011 "STRUCTURAL WELDING CODE-SHEET STEEL."

4. DEFLECTION LIMITS. DESIGN FRAMING SYSTEMS TO WITHSTAND SPECIFIED DESIGN LOADS WITHOUT DEFLECTIONS GREATER THAN THE FOLLOWING:

   A. EXTERIOR NON-LOAD-BEARING FRAMING: HORIZONTAL DEFLECTION OF H/240 OF THE WALL HEIGHT.

   B. INTERIOR NON-LOAD-BEARING FRAMING: HORIZONTAL DEFLECTION OF H/240 OF THE WALL HEIGHT UNDER A HORIZONTAL LOAD OF 5 LBF/SQ. FT.

5. DESIGN FRAMING SYSTEMS TO PROVIDE FOR MOVEMENT OF FRAMING MEMBERS LOCATED OUTSIDE THE INSULATED BUILDING ENVELOPE WITHOUT DAMAGE OR OVERSTRESSING, SHEATHING FAILURE, CONNECTION FAILURE, UNDUE STRAIN ON FASTENERS AND ANCHORS, OR OTHER DETRIMENTAL EFFECTS WHEN SUBJECT TO A MAXIMUM AMBIENT TEMPERATURE CHANGE OF 120 DEG F.

6. DESIGN FRAMING SYSTEM TO MAINTAIN CLEARANCES AT OPENINGS, TO ALLOW FOR CONSTRUCTION TOLERANCES, AND TO ACCOMMODATE DISPLACEMENT OF PRIMARY BUILDING STRUCTURE AS FOLLOWS:

   A. UPWARD AND DOWNWARD MOVEMENT OF 1-1/2 INCHES.

7. DESIGN EXTERIOR NON-LOAD-BEARING WALL FRAMING TO ACCOMMODATE HORIZONTAL DEFLECTION WITHOUT REGARD FOR CONTRIBUTION OF SHEATHING MATERIALS.

8. SUBMITTALS:

   A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT

   B. DELEGATED DESIGN SUBMITTAL SIGNED AND SEALED BY THE QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE STATE THE PROJECT IS LOCATED IN AND RESPONSIBLE FOR THEIR PREPARATION INCLUDING COMPREHENSIVE ANALYSIS DATA AND SHOP DRAWINGS INCLUDING THE FOLLOWING:
      i. CROSS-SECTIONS, PLANS AND/OR ELEVATIONS DEPICTING COMPONENT LAYOUT, SIZE AND LOCATION.
      ii. CONNECTION DETAILS SHOWING FASTENER TYPES AND LOCATIONS, WELD SIZE, LENGTHS AND LOCATIONS INCLUDING ATTACHMENTS TO ADJOINING WORK.
      iii. SIZE AND LOCATION OF ALL BRIDGING AND BRACING.

9. CUT ALL FRAMING COMPONENTS SO THEY FIT SQUARELY TOGETHER. STUDS MUST BEAR TIGHT AGAINST TRACK WEB. MEMBERS SHALL BE HELD POSITIVELY IN PLACE UNTIL PROPERLY FASTENED. BRACE WALL COMPONENTS AS REQUIRED DURING ERECTION TO PREVENT RACKING AND DISTORTION.

10. PRIOR TO THE START OF INSTALLATION OF COLD-FORMED STEEL FRAMING SYSTEMS, MEET AT THE PROJECT SITE WITH THE INSTALLERS OF OTHER WORK INCLUDING DOOR AND WINDOW FRAMES, MECHANICAL, STRUCTURAL AND ELECTRICAL WORK. REVIEW AREAS OF POTENTIAL INTERFERENCE AND CONFLICTS AND COORDINATE LAYOUT AND SUPPORT PROVISIONS FOR INTERACTING WORK.

11. FASTEN EACH STUD AT EACH FLOOR LEVEL, HORIZONTAL GIRT AND ROOF LEVEL, UNLESS NOTED OTHERWISE ON DRAWINGS.

12. ALL WELDED CONNECTIONS SHALL BE MADE BY WELDERS CERTIFIED FOR WELDING MEMBERS OF GAGE BEING USED PER AWS D.1.3-11.

13. ERECTION TOLERANCES. FABRICATE AN ERECT ASSEMBLIES LEVEL, PLUMB, AND TRUE TO LINE TO A MAXIMUM ALLOWABLE VARIATION OF 1/8 INCH IN 10 FEET AND AS FOLLOWS:

    A. SPACING: SPACE INDIVIDUAL FRAMING MEMBERS NO MORE THAN PLUS OR MINUS 1/8 INCH FROM PLAN LOCATION. CUMULATIVE ERROR SHALL NOT EXCEED MINIMUM FASTENING REQUIREMENTS OF SHEATHING OR OTHER FINISHING MATERIALS.

    B. SQUARENESS: FABRICATE EACH COLD-FORMED STEEL FRAMING ASSEMBLY TO A MAXIMUM OUT-OF-SQUARE TOLERANCE OF 1/8 INCH.

WOOD - ROUGH CARPENTRY

1. WOOD FRAMING MATERIALS:

   A. DIMENSION LUMBER FRAMING - INTERIOR APPLICATIONS:
      i. 2x4 AND 2x6 (TYPICAL): STUD GRADE OR BETTER SPRUCE PINE FIR KILN DRIED.
      ii. 2x8 AND DEEPER (TYPICAL): NO. 1 GRADE OR BETTER SOUTHERN PINE KILN DRIED.
      iii. 2x4 AND DEEPER (PRESERVATIVE TREATED LUMBER): NO. 1 GRADE OR BETTER PRESERVATIVE TREATED SOUTHERN PINE, AWPA USE CATEGORY UC2, TREATED WITH WATERBORN PRESERVATIVES ONLY.
      iv. 2x4 AND DEEPER (FIRE-RETARDANT-TREATED (FRT) LUMBER): PYRO-GUARD HOOVER WOOD PRODUCTS, INC (ICC-ES ESR-1791) NO.2 GRADE OR BETTER SOUTHERN PINE
      v. 4x4: NO. 1 GRADE OR BETTER SOUTHERN PINE.
      vi. 6x6: NO. 2 GRADE OR BETTER SOUTHERN PINE.

   B. DIMENSION FRAMING LUMBER (EXTERIOR APPLICATIONS): AWPA USE CATEGORY UC3B FOR ABOVE GROUND EXTERIOR FRAMING, AWPA USE CATEGORY UC4A FOR GROUND CONTACT:
      i. 2x4 AND DEEPER: NO. 1 GRADE OR BETTER PRESERVATIVE TREATED SOUTHERN PINE.
      ii. 4x4: NO. 1 GRADE OR BETTER PRESERVATIVE TREATED SOUTHERN PINE.
      iii. 6x6: NO. 2 GRADE OR BETTER PRESERVATIVE TREATED SOUTHERN PINE.

   C. LVL (LAMINATED VENEER LUMBER): WEYERHAUSER "MICROLLAM". SUBSTITUTES MEETING THE FOLLOWING MINIMUM PROPERTIES MAY BE CONSIDERED:
      i. BEAMS:
         Fb = 2600 PSI BENDING
         Fv = 285 PSI HORIZONTAL SHEAR
         Fc = 2510 PSI COMPRESSION PARALLEL TO GRAIN
         Fc⊥ = 750 PSI COMPRESSION PERPENDICULAR TO GRAIN
         E = 2,000,000 PSI MODULUS OF ELASTICITY

   D. LSL (LAMINATED STRAND BOARD): WEYERHAUSER "TIMBERSTRAND". SUBSTITUTES MEETING THE FOLLOWING MINIMUM PROPERTIES MAY BE CONSIDERED
      i. RIM BOARDS:
         Fb = 1700 PSI BENDING
         Fv = 400 PSI HORIZONTAL SHEAR
         Fc = 1400 PSI COMPRESSION PARALLEL TO GRAIN
         Fc⊥ = 680 PSI COMPRESSION PERPENDICULAR TO GRAIN
         E = 1,300,000 PSI MODULUS OF ELASTICITY

2. ANCHORS AND FASTENERS:

   A. ANCHOR RODS: ASTM F594 STAINLESS STEEL THREADED RODS w/ ASTM F594 STAINLESS STEEL NUTS, AND ASTM A240 STAINLESS STEEL WASHERS, TYPE 304 OR 316 (TYPICAL). STAINLESS STEEL OR HOT DIP GALVANIZED ANCHORS ARE NOT REQUIRED FOR INTERIOR APPLICATIONS USING BORATE PRESERAVTIVE TREATMENT ONLY.

   B. BOLTS: ASTM A307, GRADE A (TYPICAL). FOR EXTERIOR APPLICATIONS, PRESERVATIVE TREATED OR FIRE RETARDANT TREATED MATERIALS, HOT DIP GALVANIZE PER ASTM F2329 OR ASTM A 153.
      i. PROVIDE STANDARD CUT WASHER BETWEEN BOTH HEAD AND NUT TO WOOD CONNECTION.

   C. NAILS: ASTM F1667. FOR EXTERIOR APPLICATIONS, PRESERVATIVE TREATED OR FIRE RETARDANT TREATED MATERIALS, HOT DIP GALVANIZE PER ASTM F2329 OR ASTM A 153. WHERE PENNYWEIGHTS ARE INDICATED, CONTRACTOR SHALL CONFIRM NAIL SIZES INDICATED ON DRAWINGS AND NOTES MEET THE FOLLOWING DIAMETER AND LENGTH REQUIREMENTS. PNEUMATIC GUN NAILS SHALL MEET THESE DIAMETER AND LENGTH REGARDLESS OF THE NAIL SIZE INDICATED BY THE MANUFACTURER:
      i. 8d = 0.131" DIA, 2 ½" LG.
      ii. 10d = 0.148" DIA, 3" LG.
      iii. 16d = 0.162" DIA, 3 ½" LG.

   D. WOOD SCREWS:
      i. #8= 0.164" DIA.
      ii. #10= 0.19" DIA.
      iii. #12= 0.216" DIA.

   E. LAG SCREWS:
      i. PROVIDE STANDARD WASHER BETWEEN HEAD TO WOOD CONNECTION.
      ii. PREBORE HOLES PRIOR TO INSTALLATION.

3. UNLESS NOTED OTHERWISE, CONNECTIONS SHALL BE MADE PER TABLE 2304.10.1 "FASTENING SCHEDULE", IN REFERENCED BUILDING CODE.

4. ALL CONNECTION HARDWARE SPECIFIED ON THE STRUCTURAL DRAWINGS SHALL BE MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY, SHALL BE FASTENED AS SPECIFIED IN THE SIMPSON PRODUCT AND INSTRUCTION MANUAL, AND ARE BASED ON THEIR CATALOG PUBLISHED CAPACITIES. ALL CONNECTORS SHALL BE INSTALLED USING THE MAXIMUM NAILING SPECIFIED AND PROPER NAIL SIZE UNLESS NOTED OTHERWISE.

   A. EXTERIOR APPLICATIONS, PRESERVATIVE TREATED, OR FIRE RETARDANT TREATED MATERIALS: ZMAX (G185), OR HOT DIPPED GALVANIZED. G60 AND G90 COATED PRODUCTS ARE NOT PERMITTED. ONLY USE GALVANIZED FASTENERS WITH ZMAX AND HOT DIP GALVANIZED CONNECTORS.

   B. INTERIOR DRY APPLICATIONS WITH BORATE PRESERVATIVE TREATED MATERIALS: G90 COATED MINIMUM.

5. FOR ROOF FRAMING, INSTALL ONE SIMPSON [**H2.5T**] HURRICANE TIE AT EACH MEMBER AT EACH BEARING LOCATION IN ADDITION TO THE TYPICAL NAILING REQUIREMENT IN THE "FASTENING SCHEDULE".

6. BRIDGING IN ALL FLOOR AND CEILING JOISTS: 1"X3" CROSS BRIDGING (DOUBLE NAILED) AT 8'-0" ON CENTER MAXIMUM.

7. ALL BEARING POINTS FROM CONCENTRATED LOADS SHALL BE CONTINUOUSLY BLOCKED THRU FLOOR FRAMING DOWN TO SOLID BEARING ON FOUNDATION WALL SILL PLATE OR INTERIOR STEEL BEAM.

8. PROVIDE DOUBLE JOISTS BELOW ALL INTERIOR PARTITIONS THAT RUN PARALLEL WITH THE JOISTS (SPREAD JOISTS AS NECESSARY TO ACCOMMODATE PLUMBING).

9. PROVIDE A STUD AT ALL TOP PLATE SPLICE LOCATIONS.

10. NOTCHES IN EXTERIOR WALL OR INTERIOR BEARING WALL STUDS ARE NOT TO EXCEED ONE-FOURTH OF THE STUD WIDTH, AND NO HOLES ARE TO BE BORED GREATER THAN 40% OF THE STUD WIDTH OR WITHIN 5/8" OF STUD EDGE.

11. NOTCHES IN FLOOR JOISTS AND ROOF RAFTERS SHALL NOT BE LOCATED IN THE MIDDLE ONE-THIRD OF THE SPAN. DEPTH OF NOTCHES IN THE TOP OR BOTTOM OF THE MEMBER ARE NOT TO EXCEED ONE-SIXTH OF THE MEMBER DEPTH, AND LENGTH SHALL NOT EXCEED ONE-THIRD OF MEMBER DEPTH. HOLES SHALL NOT BE BORED LARGER THAN ONE-THIRD OF THE MEMBER DEPTH, OR WITHIN TWO INCHES OF THE TOP OR BOTTOM OF THE MEMBER, OR WITHIN TWO FEET OF BEARING. NO HOLES OR NOTCHES ARE ALLOWED IN BEAMS UNLESS APPROVED BY ENGINEER.

12. ALL MULTIPLE HEADERS AND BEAMS WITH DEPTH LESS THAN 14 INCHES SHALL BE FASTENED TOGETHER WITH MINIMUM (3) ROWS OF 0.148"Ø x3" LONG NAILS AT 12" O.C., STAGGERED ON OPPOSITE SIDES. FOR DEPTHS EQUAL TO OR GREATER THAN 14 INCHES, FASTEN TOGETHER WITH (4) ROWS OF 0.148"Ø x3" LONG NAILS AT 12"O.C. FOR FOUR OR MORE PLY BEAMS, THRU-BOLT WITH 1/2" DIAMETER BOLTS AT 12" O.C. STAGGERED TOP AND BOTTOM. ALL SIDE LOADED BEAMS SHALL BE THRU-BOLTED.

13. THE FOLLOWING IS THE ANTICIPATED CUMULATIVE SHRINKAGE IN THE WOOD STRUCTURE AT EACH FINISHED FLOOR LEVEL:

FLOOR LEVEL	ESTIMATED CUMULATIVE SHRINKAGE
3RD FLOOR	1/4"
4TH FLOOR	1/2"
6TH FLOOR	3/4"
ROOF	1"

    BUILDING TRADES SHALL INSTALL EQUIPMENT (PLUMBING, MECH, ELEC..., etc) SUCH THAT BUILDING SHRINKAGE WILL NOT ADVERSELY AFFECT EQUIPMENT.

WOOD - SHOP FABRICATED TRUSSES

1. ENGAGE A QUALIFIED PROFESSIONAL ENGINEER, REGISTERED IN THE STATE THAT THE PROJECT IS LOCATED IN, TO SERVE AS THE SPECIALTY ENGINEER FOR THE DESIGN OF METAL-PLATE-CONNECTED WOOD TRUSSES.

2. DESIGN LOADS (SEE DESIGN LOAD SECTION OF GENERAL NOTES):

   A. SPECIFIED LOADS ARE UNFACTORED AND SHALL BE FACTORED ACCORDING TO THE ALLOWABLE STRESS DESIGN LOAD COMBINATIONS IN SECTION 1605 OF THE IBC.

   B. ROOF TRUSSES SHALL BE DESIGNED FOR A MINIMUM NET UPLIFT OF 10PSF (ALLOWABLE STRESS DESIGN) APPLIED TO THE TOP CHORD AS AN ADDITIONAL SEPARATE LOAD COMBINATION.

   C. SNOW LOADS SHALL BE CONSIDERED UNBALANCED PER ASCE 7, SECTION 1605

3. PERFORMANCE REQUIREMENTS. DESIGN TRUSSES TO WITHSTAND SPECIFIED DESIGN LOADS WITHOUT DEFLECTIONS GREATER THAN THE FOLLOWING.

   A. FLOOR TRUSSES: VERTICAL DEFLECTION OF THE LESSER OF 3/4" AND L/480 OF THE SPAN FOR LIVE LOADS, AND L/240 OF THE SPAN FOR TOTAL LOADS.

   B. ROOF TRUSSES: VERTICAL DEFLECTION OF L/360 OF THE SPAN FOR ROOF LIVE, SNOW, OR WIND LOADS, AND L/240 OF THE SPAN FOR TOTAL LOADS.

   C. HORIZONTAL DEFLECTIONS: LIMIT HORIZONTAL DEFLECTION AT SUPPORTS TO 1/2"

4. DESIGN SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS:

   A. TRUSS PLATE INSTITUTE (TPI) ANSI/TPI 1-2014, "NATIONAL DESIGN STANDARDS FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION"

   B. AF&PA "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION AND ITS SUPPLEMENT"

5. TRUSS BRACING: ALL BRACES (TEMPORARY AND PERMANENT) SHALL BE SUPPLIED BY THE TRUSS MANUFACTURER.

   A. TEMPORARY BRACING: TEMPORARY TRUSS BRACING SHALL BE DESIGNED BY THE SPECIALTY ENGINEER. TRUSSES UNDER 60 FEET LONG MAY HAVE TEMPORARY BRACING IN ACCORDANCE WITH "BCSI—B1 – GUIDE FOR HANDLING, INSTALLING, AND BRACING OF TRUSSES" BY THE STRUCTURAL BUILDING COMPONENTS ASSOCIATION UNLESS MORE STRINGENT BRACING IS REQUIRED BY THE TRUSS MANUFACTURER.
      i. BRACING SHALL REMAIN IN PLACE TO SERVE AS PART OF THE PERMANENT BRACING SYSTEM DESIGNED BY THE SPECIALTY ENGINEER.
      ii. TEMPORARY BRACING IN THE PLANE OF THE TOP CHORD MAY ONLY BE REMOVED WHEN THE TOP CHORD IS LATERALLY BRACED BY THE ROOF SHEATHING.

   B. PERMANENT BRACING:
      i. BOTTOM CHORD SHALL BE DESIGNED AS UNBRACED FOR A LENGTH EQUAL TO THE SPACING BETWEEN BOTTOM CHORD BRACES.
      ii. LAP SPLICE PERMANENT TRUSS BRACING A MINIMUM OF ONE TRUSS SPACE

6. CONNECTIONS AND HARDWARE:

   A. SPECIALTY ENGINEER SHALL DESIGN ALL TRUSS TO TRUSS AND TRUSS TO BEAM CONNECTIONS AND SHALL SPECIFY ALL HANGERS.

   B. FOR ROOF TRUSSES: INSTALL ONE SIMPSON H2.5T HURRICANE TIE AT EACH TRUSS AT EACH BEARING CONDITION IN ADDITION TO THE TYPICAL NAILING REQUIREMENT IN THE FASTENING SCHEDULE.

   C. FOR ROOF TRUSSES: TO ACCOMMODATE TRUSS UPLIFT CONDITIONS, INSTALL SIMPSON DTC ROOF TRUSS CLIPS TO BOTTOM CHORD OF ALL ROOF TRUSSES, AND NAILED TO THE TOP PLATE OF ALL PERPENDICULAR NON-LOADBEARING STUD WALLS BELOW. DO NOT PLACE CEILING DRYWALL FASTENERS INTO TRUSSES WITHIN 16 INCHES OF STUD WALLS.

7. AT HIP ROOFS WHERE STEP DOWN TRUSSES ARE USED TO FRAME THE HIP, A MANUFACTURED HIP FILLER TRUSS OR 2X4 BLOCKING SHALL BE INSTALLED BETWEEN THE STEP DOWN TRUSSES ALONG THE HIP LINES TO SUPPORT THE FREE EDGES OF THE ROOF SHEATHING.

8. AT FLOOR TRUSSES, PROVIDE 2x8 STRONGBACKS @ 10'-0" oc (MAX) APPLIED VERTICALLY TO TRUSS WEBS w/ (4) 0.148" DIA, 3" LONG NAILS. LAP STRONGBACKS (1) TRUSS SPACE (MIN).

9. SUBMITTALS:

   A. PRODUCT DATA FOR EACH TYPE OF PRODUCT.

   B. DELEGATED DESIGN SUBMITTAL, SIGNED AND SEALED BY THE SPECIALTY ENGINEER RESPONSIBLE FOR THEIR PREPARATION, INCLUDING COMPREHENSIVE ANALYSIS DATA AND SHOP DRAWINGS INCLUDING THE FOLLOWING.
      i. ANALYSIS DATA SHOWING SPECIFIED DESIGN LOADS AND PERMANENT BRACING DESIGN ASSUMPTIONS. INCLUDE ALL IMPOSED FORCES ON THE PRIMARY STRUCTURE.
      ii. ERECTION PLAN SHOWING LAYOUT, SPACING, AND SIZES OF ALL WOOD TRUSSES.
      iii. TRUSS ELEVATIONS SHOWING FABRICATION DATA FOR ALL TRUSS FRAMING ELEMENTS AND CLEARLY INDICATING PERMANENT BRACING REQUIREMENTS FOR WEB COMPRESSION AND BOTTOM CHORD MEMBERS.
      iv. FABRICATION, FASTENING AND ANCHORAGE DETAILS
      v. TEMPORARY ERECTION BRACING REQUIREMENTS AND HANDLING AND ERECTION INSTRUCTIONS.

WOOD - SHEATHING

1. MATERIALS:

   A. FLOOR SHEATHING (TYPICAL): 23/32" APA SPAN RATING 48/24 TONGUE & GROOVE, EXPOSURE 1 CLASSIFICATION.

   B. FIRE-RETARDANT-TREATED (FRT) FLOOR SHEATHING: 23/32" ARCH TREATMENT TECHNOLOGIES FRX "DRICON" (FRT) SPAN RATING 48/24 TONGUE & GROOVE, EXTERIOR CLASSIFICATION.

   C. FLOOR SHEATHING AT DECKS: 23/32" APA SPAN RATING 48/24 TONGUE & GROOVE, PRESERVATIVE TREATED, EXTERIOR CLASSIFICATION.

   D. ROOF SHEATHING (TYPICAL): 19/32" APA SPAN RATING 40/20 ROOF SHEATHING, EXPOSURE 1 CLASSIFICATION.

   E. FIRE-RETARDANT-TREATED (FRT) ROOF SHEATHING: 19/32" ARCH FRX "DRICON" SPAN RATING 32/16, EXTERIOR CLASSIFICATION

   F. WALL SHEATHING (TYPICAL): 7/16" APA SPAN RATING 24/16 WALL SHEATHING, EXPOSURE 1. SEE SHEAR WALL SCHEDULE FOR SHEATHING AT SHEAR WALLS.

   G. FIRE-RETARDANT-TREATED (FRT) WALL SHEATHING: 7/16" ARCH "DRICON" SPAN RATING 24/16 WALL SHEATHING, EXPOSURE 1. SEE SHEAR WALL SCHEDULE FOR SHEATHING AT SHEAR WALLS.

   H. WALL SHEATHING AT DECK LEDGERS: 7/16" APA SPAN RATING 24/16, PRESERVATIVE TREATED, EXTERIOR CLASSIFICATION.

   I. DECK BOARDS: PRESERVATIVE TREATED 5/4" x 6 SOUTHERN PINE DECK BOARDS, AWPA USE CATEGORY UC3B.

2. SHEATHING INSTALLATION:

   A. NAIL SHEATHING TO WOOD FRAMING WITH 0.131" DIA, 3" LG NAILS AT 6 INCHES ON CENTER AT PANEL EDGES AND 12 INCHES ON CENTER AT INTERMEDIATE SUPPORTS UNLESS NOTED OTHERWISE.] SEE SHEAR WALL SCHEDULE FOR SHEAR WALL FASTENING. STAPLES NOT PERMITTED FOR FASTENING APA RATED SHEATHING.

   B. SHEATHING AT ROOF FRAMING: INSTALL PANEL CLIP THAT CREATES AN 1/8" SPACE BETWEEN SHEATHING PANELS AT MIDSPAN OF EACH TRUSS/RAFTER SPACE ALONG UNSUPPORTED SHEATHING EDGES.

   C. SHEATHING AT WOOD FLOOR FRAMING:

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i. GLUE SHEATHING TO FLOOR FRAMING PRIOR TO NAILING. ADHESIVE SHALL COMPLY WITH APA AFG-01 OR ASTM D3498 AND BE APPROVED FOR USE WITH THE SPECIFIED SHEATHING PANEL. APPLY ADHESIVE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND COMPLETE NAILING BEFORE ADHESIVES SETS.
ii. SEAL EDGE OF ALL CUT FLOOR SHEATHING WITH PAINT PRIMER.
iii. SEAL ALL FLOOR SHEATHING WITH A WATER SEALER IMMEDIATELY AFTER FLOOR SHEATHING HAS BEEN INSTALLED AND PRIOR TO EXPOSURE OF RAIN.

D. DECK BOARDS: BOARDS SHALL SPAN OVER A MINIMUM OF THREE SUPPORTS. BUTT ENDS OF ADJACENT PIECES SHALL BE STAGGERED. FASTEN TO EACH SUPPORTING FRAMING MEMBER WITH (2) #8 x 2.5" WOOD SCREWS.

POST INSTALLED ANCHORS

1. INSTALLATION: INSTALL ANCHORS PER EVALUATION REPORT AND MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII).

2. CONNECTIONS TO EXISTING REINFORCED CONCRETE OR MASONRY: PRIOR TO DRILLING, VERIFY LOCATIONS OF EXISTING REINFORCING BARS USING A REBAR DETECTOR. NOTIFY ENGINEER PRIOR TO INSTALLATION IF ANCHOR LOCATIONS CONFLICT WITH EXISTING REINFORCING BARS. DO NOT DRILL THROUGH REINFORCING BARS.

3. TESTING AND INSPECTION: REFER TO EVALUATION REPORTS FOR ADDITIONAL TESTING AND INSPECTION REQUIREMENTS.

4. SUBSTITUTIONS: SUBSTITUTIONS COMPLYING WITH SPECIFIED ACCEPTANCE CRITERIA MAY BE CONSIDERED. SUBMIT EVALUATION REPORT DEMONSTRATING COMPLIANCE WITH GOVERNING CODE AND SPECIFIED ACCEPTANCE CRITERIA PRIOR TO INSTALLATION.

5. ADHESIVE ANCHORS:

A. ANCHOR RODS: ASTM F1554, GRADE 36 UNLESS NOTED OTHERWISE. SIZE AND EMBEDMENT AS INDICATED ON DRAWINGS.

B. ADHESIVE IN CONCRETE: SIMPSON STRONG-TIE "SET-3G" EPOXY (EVALUATION REPORT: ICC ESR-4057. SUBSTITUTES COMPLYING WITH ACCEPTANCE CRITERIA ICC-ES AC308 AND ACI 355.4 FOR USE IN CRACKED CONCRETE MAY BE CONSIDERED.

C. ADHESIVE IN GROUT FILLED CONCRETE MASONRY: SIMPSON STRONG-TIE "AT-XP" (EVALUATION REPORT: IAPMO UES ER-281). SUBSTITUTES COMPLYING WITH ACCEPTANCE CRITERIA ICC-ES AC58 FOR USE IN GROUT FILLED CONCRETE MASONRY WALLS MAY BE CONSIDERED.

D. VERIFY THAT THE SHELF LIFE OF THE ADHESIVE HAS NOT BEEN EXCEEDED ON THE DATE OF INSTALLATION.

6. EXPANSION ANCHORS:

A. ANCHORAGE TO CONCRETE: SIMPSON STRONG-TIE "STRONG-BOLT 2" CARBON STEEL, ZINC PLATED (EVALUATION REPORT: ICC-ES ESR-3037). SUBSTITUTES COMPLYING WITH ACCEPTANCE CRITERIA ICC-ES AC193 AND ACI 355.2 FOR USE IN CRACKED CONCRETE MAY BE CONSIDERED.

B. ANCHORAGE TO GROUT FILLED CONCRETE MASONRY: SIMPSON STRONG-TIE "STRONG-BOLT 2" (EVALUATION REPORT: IAPMO UES ER-240). SUBSTITUTES COMPLYING WITH ACCEPTANCE CRITERIA ICC-ES AC01 FOR EXPANSION ANCHORS IN MASONRY ELEMENTS MAY BE CONSIDERED.

7. SCREW ANCHORS

A. ANCHORAGE TO CONCRETE: SIMPSON STRONG-TIE "TITEN HD" (EVALUATION REPORT: ICC-ES ESR-2713). SUBSTITUTES COMPLYING WITH ACCEPTANCE CRITERIA ICC-ES AC193 AND ACI 355.2 FOR USE IN CRACKED CONCRETE MAY BE CONSIDERED.

B. ANCHORAGE TO GROUT FILLED CONCRETE MASONRY: SIMPSON STRONG-TIE "TITEN HD" (EVALUATION REPORT: ICC-ES ESR-1056). SUBSTITUTES COMPLYING WITH ACCEPTANCE CRITERIA ICC-ES AC106 (INCLUDING SEISMIC TESTS) FOR SCREW ANCHORS IN MASONRY ELEMENTS MAY BE CONSIDERED.

POWER-ACTUATED FASTENERS (PAF)

1. INSTALLATION: INSTALL FASTENERS PER EVALUATION REPORT AND MANUFACTURER'S PRINTED INSTRUCTIONS (MPII)

2. SUBSTITUTIONS: SUBSTITUTIONS COMPLYING WITH ICC-ES ACCEPTANCE CRITERIA AC 70, INCLUDING ANNEX A FOR SEISMIC LOADING MAY BE CONSIDERED. SUBMIT EVALUATION REPORT DEMONSTRATING GREATER OR EQUAL CAPACITY, AND COMPLIANCE WITH GOVERNING CODE AND SPECIFIED ACCEPTANCE CRITERIA PRIOR TO INSTALLATION.

3. FASTENING WOOD FRAMING AND COLD FORMED METAL FRAMING TRACKS AND CHANNELS:

A. FASTENING TO CONCRETE (CONCRETE MUST ACHIEVE SPECIFIED DESIGN STRENGTH PRIOR TO FASTENER INSTALLATION):
i. 0.157" DIAMETER NAIL: HILTI "X-U" NAIL (ICC-ESR-2269). DETERMINE FASTENER LENGTH IN ACCORDANCE WITH ICC REPORT TO PROVIDE A MINIMUM 1 1/4" EMBEDMENT.
ii. 0.177" DIAMETER NAIL: HILTI "X-EDS" NAIL (ICC-ESR-1663). DETERMINE FASTENER LENGTH IN ACCORDANCE WITH ICC REPORT TO PROVIDE A MINIMUM 1 1/4" EMBEDMENT.

SPECIAL INSPECTIONS

1. SPECIAL INSPECTIONS ARE REQUIRED BY SECTION 1704 OF THE REFERENCED BUILDING CODE. THE INTENT OF SPECIAL INSPECTIONS IS TO VERIFY THE COMPLIANCE OF MATERIALS, INSTALLATION, FABRICATION, ERECTION AND/OR PLACEMENT OF COMPONENTS WITH THE COMPLETED SET OF CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. IT IS THE RESPONSIBILITY OF ALL PARTIES INVOLVED TO BECOME FAMILIAR WITH THE SPECIAL INSPECTION REQUIREMENTS SET FORTH IN CHAPTER 17 OF THE REFERENCED BUILDING CODE. SPECIAL INSPECTIONS SHALL BE PROVIDED BY THE OWNER OR THE OWNER'S AGENT AND SHALL NOT BE CONSIDERED IN THE SCOPE OF WORK OF THE CONTRACTOR.

A. THE FOLLOWING SCHEDULE OF SPECIAL INSPECTIONS FOR STRUCTURAL WORK HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 106.1 AND 1704 OF THE REFERENCED BUILDING CODE. SEE OTHERS FOR SPECIAL INSPECTION REQUIREMENTS FOR NON-STRUCTURAL WORK. THE SPECIAL INSPECTOR(S) SHALL COORDINATE WITH THE OWNER, CONTRACTORS, AND DESIGN PROFESSIONALS AND SCHEDULE ALL INSPECTIONS ACCORDINGLY.

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LEGEND

SYMBOL	DESCRIPTION	REFERENCE
n	COLUMN LINE DESIGNATION	
n	FACE OF BUILDING	
Ln	LINTEL MARK	
Hn	HEADER MARK	
n	FOOTING MARK	
Pn	PIER MARK	
Gn	GRADE BEAM MARK	
BPn	BASE PL MARK	
Pn	PEDESTAL MARK	
SWn	SHEAR WALL MARK	
Wn	CMU VERTICAL WALL REINFORCING MARK	
Sn	CMU VERTICAL SHEAR WALL REINFORCING MARK	
Kn	KEYNOTE MARK	
	STEP T/FTG	
	SLAB STEP	
	ELEVATION INDICATION	
Dn	DECK MARK	

ABBREVIATIONS

Key Name	Comments
AFF =	ABOVE FINISHED FLOOR ELEVATION
ARCH =	ARCHITECT
B/ =	BOTTOM OF
BLDG =	BUILDING
BOT =	BOTTOM
BRG =	BEARING
CFS =	COLD-FORMED STEEL
CJ =	CONTRACTION JOINT
CJP =	COMPLETE JOINT PENETRATION
CL =	CENTER LINE
CLR =	CLEAR
CLSM =	CONTROLLED LOW STRENGTH MATERIAL
CMU =	CONCRETE MASONRY UNIT
COL =	COLUMN
CONC =	CONCRETE
CONT =	CONTINUOUS
DEG or ° =	DEGREE
DIA or ø =	DIAMETER
EA =	EACH
EF =	EACH FACE
EL =	ELEVATION
EMB =	EMBEDMENT
EQ =	EQUAL
EXIST =	EXISTING
EXP =	EXPANSION
FDN =	FOUNDATION
FS =	FAR SIDE
FTG =	FOOTING
GA =	GAGE
GALV =	GALVANIZED
GT =	GIRDER TRUSS
HORIZ =	HORIZONTAL
JST BRG =	JOIST BEARING
Ld =	TENSION DEVELOPMENT LENGTH OF REINFORCING BAR IN CONCRETE
Ld-CMU =	TENSION DEVELOPMENT LENGTH OF REINFORCING BAR IN GROUTED CMU
Ldc =	COMPRESSION DEVELOPMENT LENGTH OF REINFORCING BAR IN CONCRETE
LDH =	LONG DIMENSION HORIZONTAL
Ldh =	HOOKED BAR TENSION DEVELOPMENT LENGTH OF REINFORCING BAR IN CONCRETE
LDV =	LONG DIMENSION VERTICAL
LLH =	LONG LEG HORIZONTAL
LLV =	LONG LEG VERTICAL
Ls =	LAP SPLICE LENGTH OF REINFORCING BAR IN CONCRETE
Ls-CMU =	LAP SPLICE LENGTH OF REINFORCING BAR IN GROUTED CMU
Lsc =	COMPRESSION LAP SPLICE LENGTH OF REINFORCING BAR IN CONCRETE
LSL =	LAMINATED STRAND LUMBER
LVL =	LAMINATED VENEER LUMBER
MCJ =	MASONRY CONTROL JOINT
MFR =	MANUFACTURER
NS =	NEAR SIDE
oc =	ON CENTER
OPNG =	OPENING
P/T =	POST-TENSION
PAF =	POWER-ACTUATED FASTENER
PE =	PRE-ENGINEERED
PEMB =	PRE-ENGINEERED METAL BUILDING
PJP =	PARTIAL JOINT PENETRATION
PL =	PLATE
PSL =	PARALLEL STRAND LUMBER
PT =	PRESSURE TREATED
RD =	ROOF DRAIN
REINF =	REINFORCING
RTU =	ROOF TOP UNIT
SDS =	SELF DRILLING SCREWS
SIM =	SIMILAR
SL =	STEP LEDGE
SPA =	SPACE or SPACES
SRD =	SECONDARY ROOF DRAIN
STIFF =	STIFFENER
STL =	STEEL
STW =	STEP TOP OF WALL
T/ =	TOP OF
UNO =	UNLESS NOTED OTHERWISE
VB =	VERTICAL BRACING
VERT =	VERTICAL
VIF =	VERIFY IN FIELD
w/ =	WITH
WP =	WORK POINT

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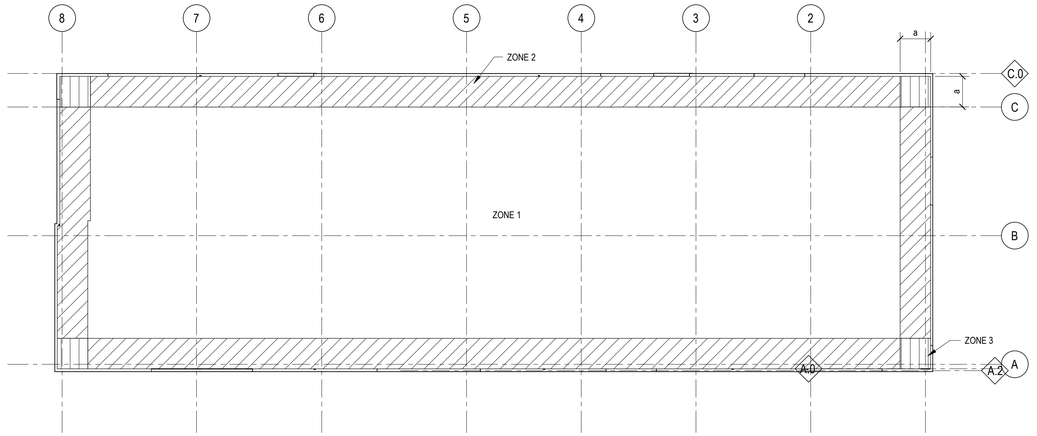


WIND LOAD PLAN
1/16" = 1'-0"

COMPONENT AND CLADDING DESIGN PRESSURE INCLUDING EXTERNAL + INTERNAL EFFECTS (H = 74', V = 115 MPH, EXPOSURE B)										
EFFECTIVE AREA	10 SF OR LESS		50 SF		100 SF		200 SF		500-1000 SF	
	PRESSURE	SUCTION	PRESSURE	SUCTION	PRESSURE	SUCTION	PRESSURE	SUCTION	PRESSURE	SUCTION
ZONE 1	16	-41.1	16	-35.8	16	-33.5	16	-31.2	16	-28.1
ZONE 2	16	-64.6	16	-57.1	16	-53.9	16	-50.6	16	-46.4
ZONE 3	16	-88.0	16	-78.4	16	-74.2	16	-70.1	16	-64.6
EDGE ZONE DIMENSION "a" SHALL NOT BE TAKEN LESS THAN 6'-10" FROM OUTSIDE CORNER OF BUILDING										

COMPONENT & CLADDING WIND PRESSURE NOTES:

1. SEE GENERAL NOTES FOR WIND LOAD DESIGN CRITERIA.
2. POSITIVE LOADS ACT IN A PERPENDICULAR DIRECTION **TOWARDS** THE SURFACE. NEGATIVE LOADS ACT IN A PERPENDICULAR DIRECTION **AWAY** FROM THE SURFACE.
3. LINEAR INTERPOLATION IS PERMITTED FOR TRIBUTARY AREAS VALUES BETWEEN VALUES GIVEN.
4. PARAPETS SHALL BE DETERMINED FROM FIGURE 1 & OVERHANGS FROM FIGURE 2.
5. PRESSURES SHOWN ARE ULTIMATE (1.0W).

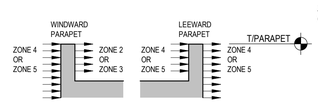


FIGURE 1: PARAPET

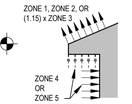
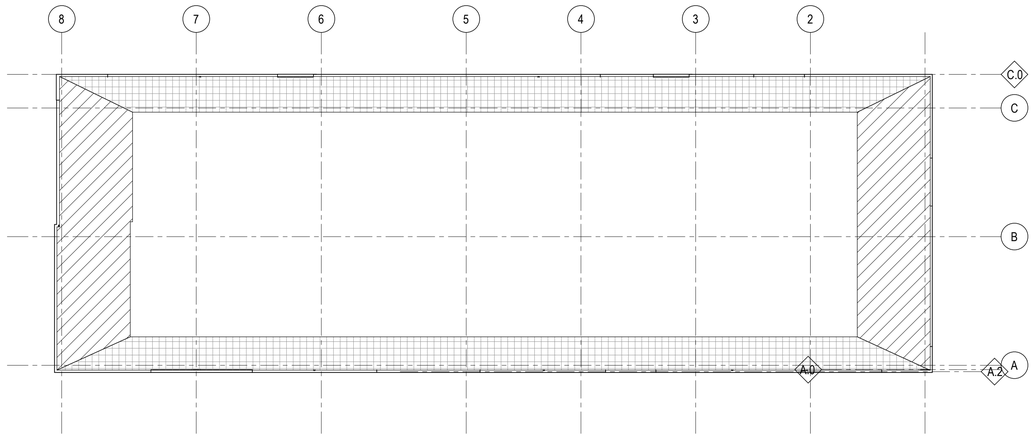


FIGURE 2: OVERHANG

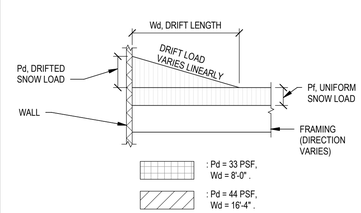


SNOW DRIFT PLAN
1/16" = 1'-0"

ROOF SNOW DRIFT PLAN NOTES:

1. DESIGN ROOF TRUSSES FOR ROOF DEAD, LIVE, & SNOW LOADS IN ACCORDANCE w/ THE GENERAL STRUCTURAL NOTES & THE LOAD COMBINATIONS SET FORTH IN THE REFERENCED BUILDING CODE.
2. DESIGN ROOF TRUSSES FOR TWO SNOW LOAD CASES:
   A. UNIFORM ROOF SNOW LOAD Pm OF 20 PSF APPLIED OVER THE ENTIRE ROOF (CONSIDER UNBALANCED SNOW CASE WHERE APPLICABLE PER THE CODE).
   B. UNIFORM ROOF SNOW LOAD Pf OF 14 PSF APPLIED OVER THE ENTIRE ROOF, w/ SNOW DRIFT LOADS Pd AS NOTED APPLIED IN ADDITION TO THE BASE LOAD. DRIFTS VARY LINEARLY FROM ZERO AT THE INNER EDGE TO THE MAXIMUM LOAD INDICATED AT THE EXTERIOR WALL.
3. WHERE DRIFTED SNOW REGIONS OVERLAP ENVELOPE THE TOTAL SNOW LOAD APPLIED FROM OVERLAP BUT NEED NOT BE SUPERIMPOSED.

DRIFTED SNOW LOADING LEGEND:



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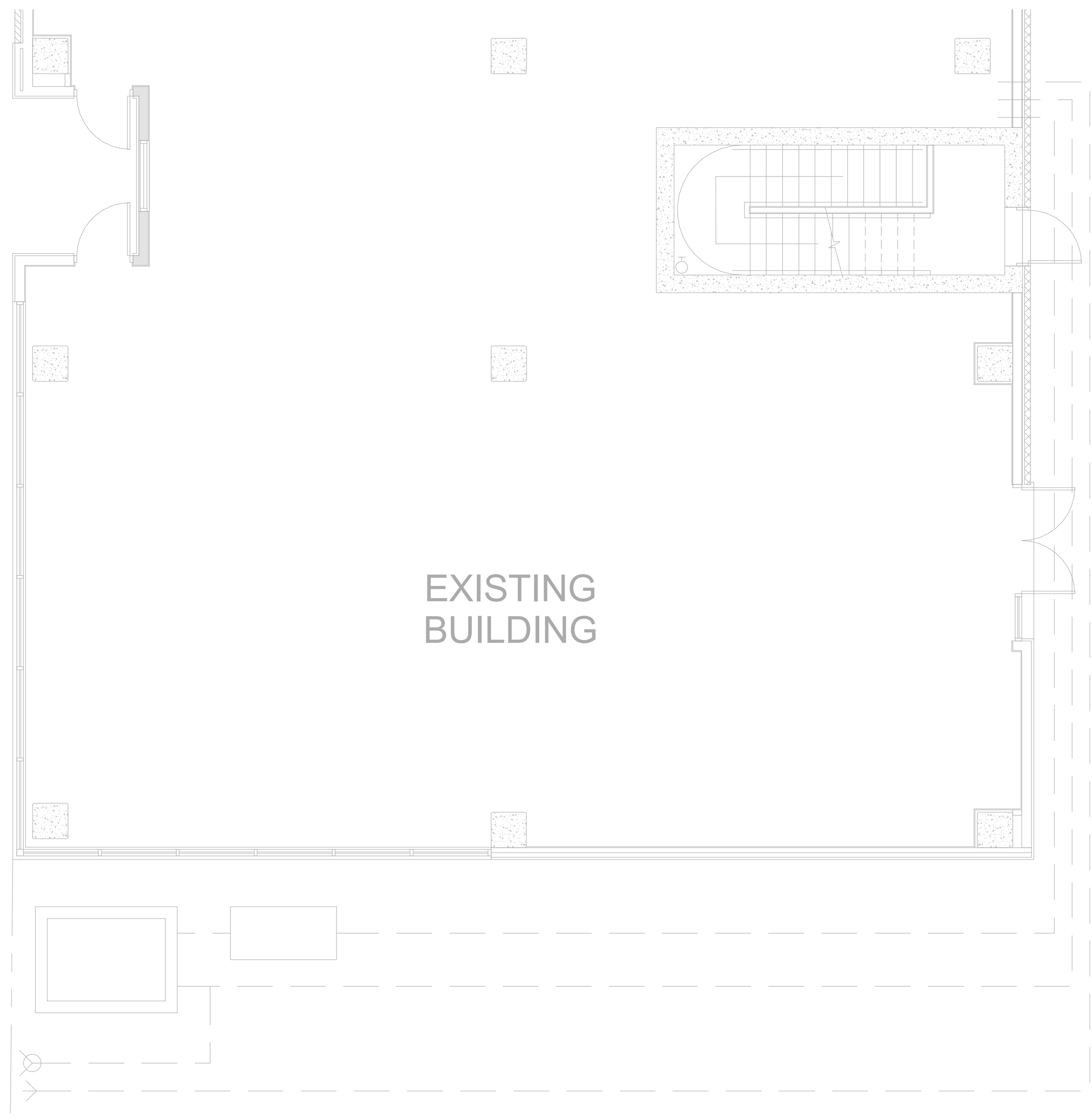


FOOTING SCHEDULE (ISOLATED)					
	SIZE				
MARK	LENGTH (L)	WIDTH (B)	THICKNESS (H)	REINFORCING	REMARKS
65	5'-6"	6'-6"	1'-3"	(7) #5 EA WAY, BOTTOM	
66	5'-6"	6'-0"	2'-0"		
80	8'-0"	8'-0"	1'-9"	(12) #5 EA WAY	BOTTOM
90	9'-0"	9'-0"	2'-0"	(11) #8 EA WAY	BOTTOM
95	5'-0"	9'-6"	1'-9"	(6) #8 SHORT DIRECTION & (4) #8 LONG DIRECTION	BOTTOM
100	10'-0"	10'-0"	2'-0"	(14) #8 EA WAY	BOTTOM
110	11'-0"	11'-0"	2'-6"	(12) #8 EA WAY	BOTTOM
115	5'-6"	11'-6"	2'-0"	(8) #8 SHORT DIRECTION & (5) #8 LONG DIRECTION	BOTTOM
120	12'-0"	12'-0"	2'-9"	(12) #8 EA WAY	BOTTOM
135	5'-6"	13'-0"	2'-3"	(10) #8 SHORT DIRECTION & (5) #8 LONG DIRECTION	BOTTOM
145	5'-6"	14'-0"	2'-6"	(12) #8 SHORT DIRECTION & (5) #8 LONG DIRECTION	BOTTOM
157	7'-0"	15'-0"	2'-0"		
158	8'-0"	15'-0"	2'-0"		

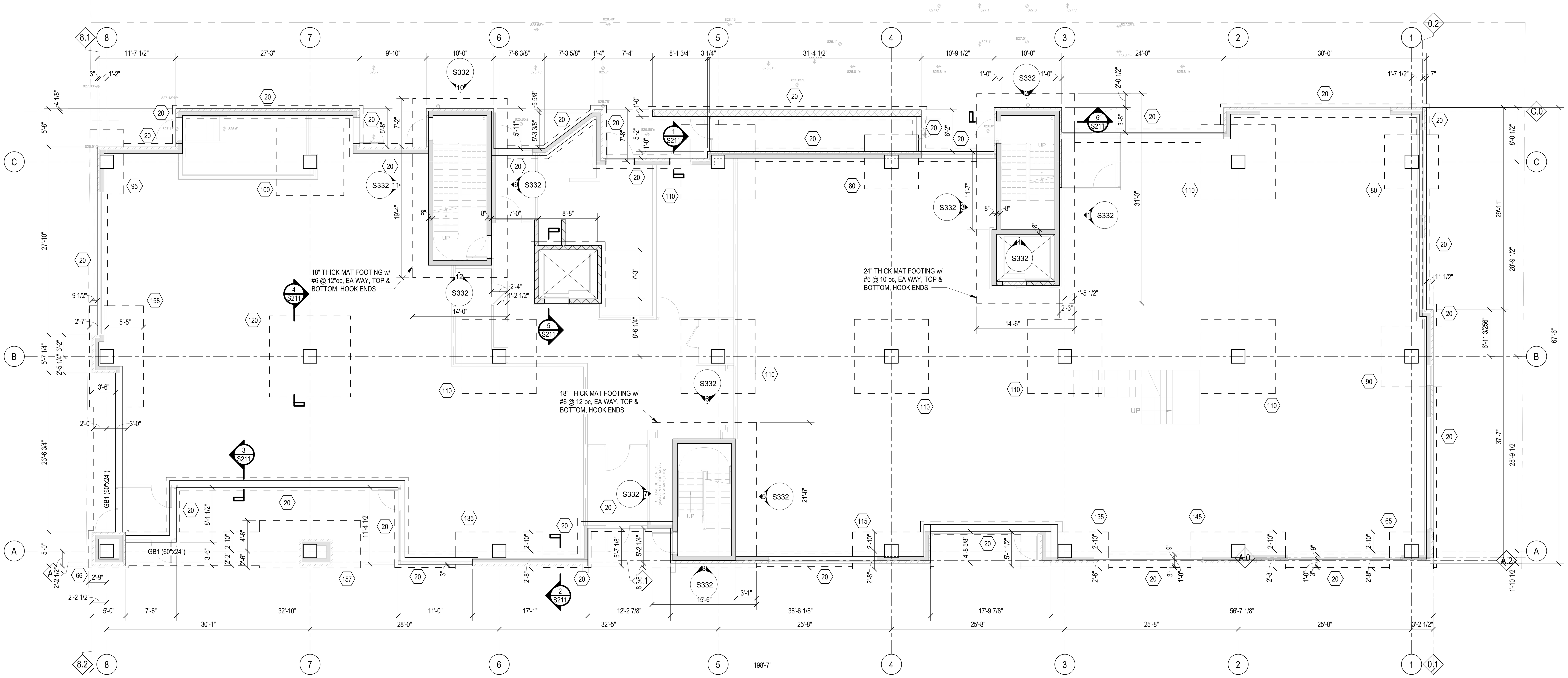
FOOTING SCHEDULE (CONTINUOUS)				
	SIZE			
MARK	WIDTH (B)	THICKNESS (H)	REINFORCING	REMARKS
20	2'-0"	1'-0"	(2) #5 CONT BOT	

NOTES:

1. REFERENCE PLAN ELEVATION 100'-0" = xxx MEAN SEA LEVEL.
2. DOORS ARE SHOWN IN APPROXIMATE LOCATIONS, SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.
3. SEE SHEET S004 FOR ABBREVIATIONS & LEGEND (SYMBOLS).
4. VERIFY ALL EXISTING BUILDING DIMENSIONS.
5. SLOPE SLAB TO FLOOR DRAINS, COORDINATE WITH ARCHITECTURAL & PLUMBING DRAWINGS.

FOOTING NOTES:

1. WHERE FOOTINGS INTERSECT, PROVIDE REINFORCING STEEL PER SCHEDULE & FOOTING SIZE SUCH THAT DIMENSIONS SHOWN IN SCHEDULE ARE MET OR EXCEEDED.
2. CENTER ALL COLUMN FOOTINGS UNDER COLUMN CENTERLINES, UNO IN PLAN OR SECTION.



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

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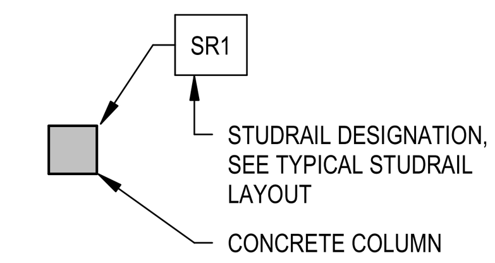
PLAN NOTES:

1. T/STRUCTURAL SLAB EL 115'-0", UNO.
2. TYPICAL FLAT SLAB TO BE TWO-WAY SLAB w/ SSR WHERE INDICATED, UNO.
3. DOORS ARE SHOWN IN APPROXIMATE LOCATIONS. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.
4. SEE SHEET S004 FOR ABBREVIATIONS & LEGEND (SYMBOLS).

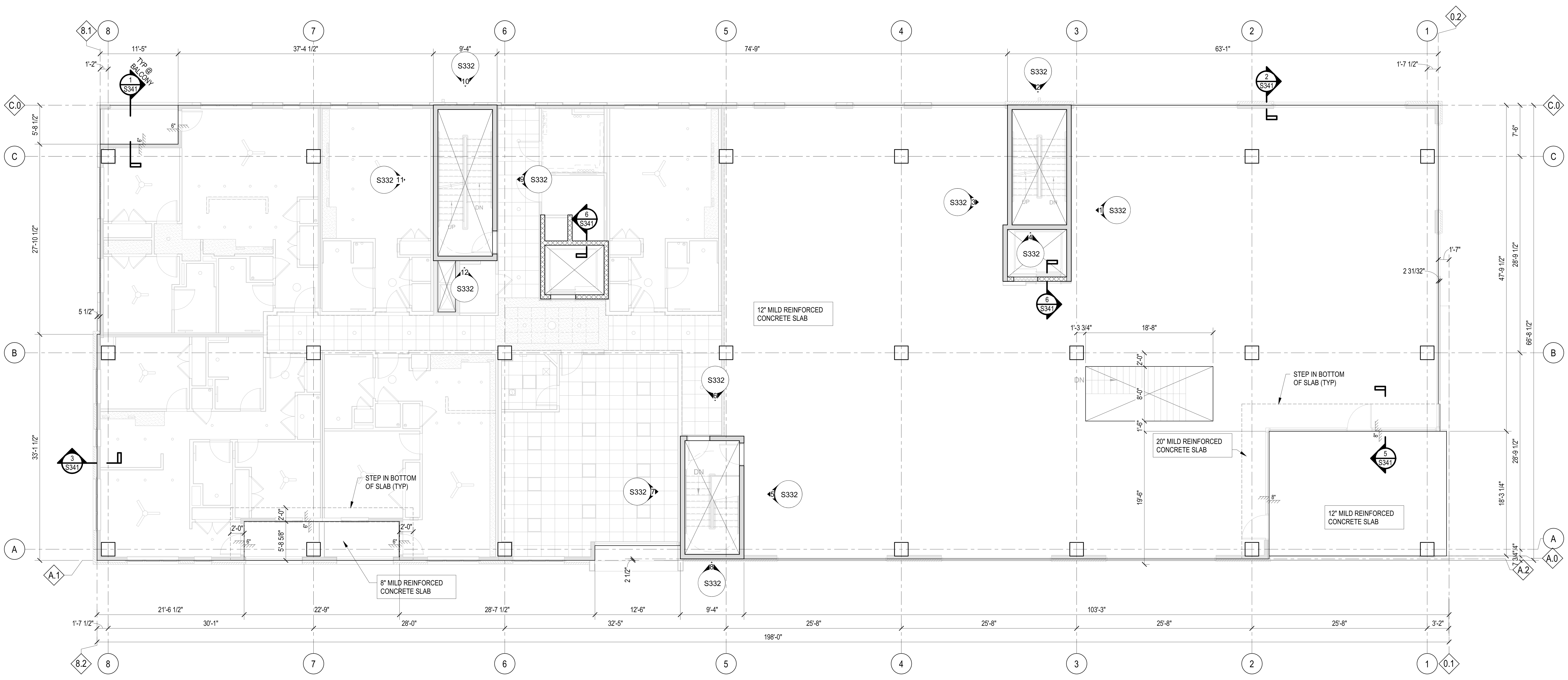
STUDRAIL SHEAR REINFORCEMENT:



COLUMN STRIP REINFORCING:

CS = COLUMN STRIP
MS = MIDDLE STRIP

COLUMN STRIP LINE



SECOND FLOOR FRAMING PLAN
1/8" = 1'-0"

NORTH

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PARAMOUNT WORKS

2505 KEMPER LN
CINCINNAT OH, 45206

ENGINEER: Designer
MODELER: Author
CHECKED BY: Checker

ISSUE/REVISION/SUBMISSION

NO	DATE	DESCRIPTION

PROJECT NUMBER:
2312.95

SHEET NAME:
SECOND FLOOR FRAMING PLAN

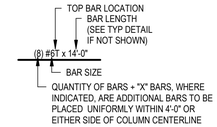
DATE:
Issue Date

SHEET:
S102

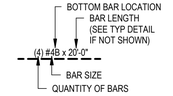
FRAMING PLAN LEGEND:

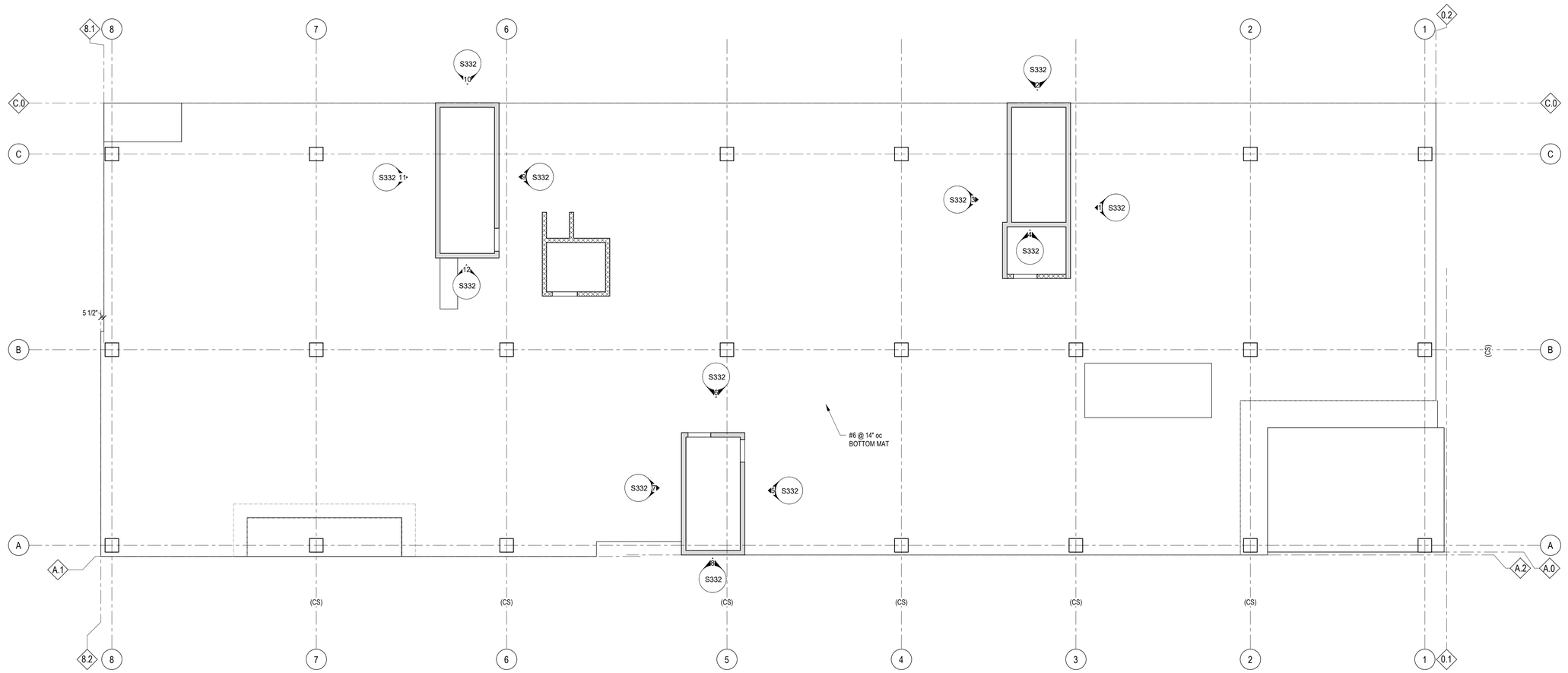
PLACING SEQUENCE:

DISCONTINUOUS TOP REINFORCING BARS:



DISCONTINUOUS BOTTOM REINFORCING BARS:





SECOND FLOOR REINFORCING PLAN

1/8" = 1'-0"

NORTH

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PARAMOUNT WORKS

2505 KEMPER LN
CINCINNAT OH, 45206

ENGINEER: Designer
MODELER: Author
CHECKED BY: Checker

ISSUE/REVISION/SUBMISSION

NO	DATE	DESCRIPTION

PROJECT NUMBER:
2312.95

SHEET NAME:
SECOND FLOOR REINFORCING PLAN

DATE:
Issue Date

SHEET:
S102-R

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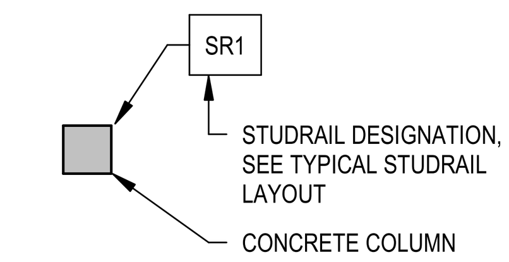
Revit 2312.95

PLAN NOTES:
1. T/STRUCTURAL SLAB EL 128'-6", UNO.
2. TYPICAL PODIUM SLAB TO BE FLAT TWO-WAY SLAB w/ SSR WHERE INDICATED, UNO.
3. DOORS ARE SHOWN IN APPROXIMATE LOCATIONS. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.
4. SEE SHEET S004 FOR ABBREVIATIONS & LEGEND (SYMBOLS).

STUDRAIL SHEAR REINFORCEMENT:



COLUMN STRIP REINFORCING:

CS = COLUMN STRIP
MS = MIDDLE STRIP

COLUMN STRIP LINE

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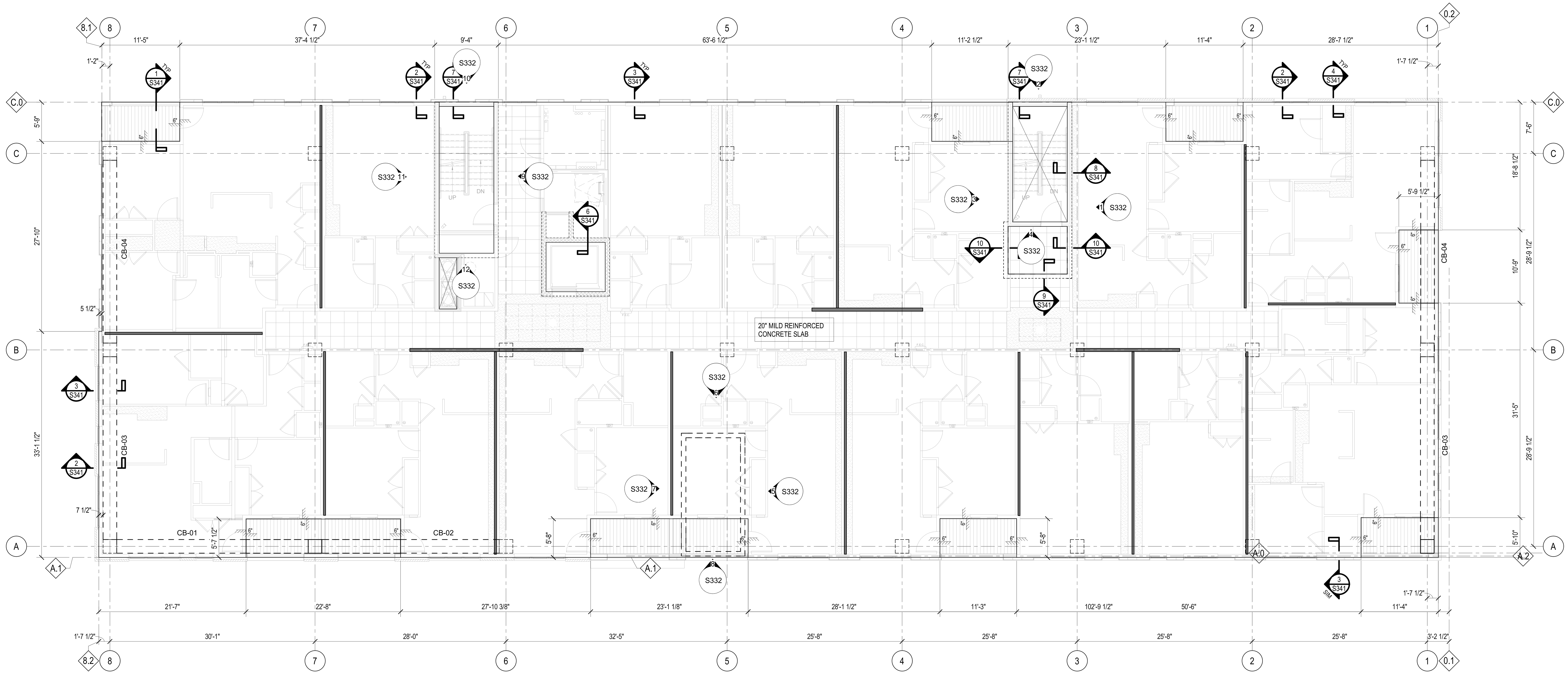

THIRD FLOOR FRAMING PLAN
1/8" = 1'-0"

NORTH

PARAMOUNT WORKS

2505 KEMPER LN
CINCINNAT OH, 45206

ENGINEER: Designer
MODELER: Author
CHECKED BY: Checker

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NO	DATE	DESCRIPTION

PROJECT NUMBER:
2312.95

SHEET NAME:
THIRD FLOOR FRAMING PLAN

DATE:
Issue Date

SHEET:
S103

FRAMING PLAN LEGEND:

PLACING SEQUENCE:

INNER LAYER

OUTER LAYER

DISCONTINUOUS TOP REINFORCING BARS:

(8) #6T x 14'-0"

- TOP BAR LOCATION
- BAR LENGTH (SEE TYP DETAIL IF NOT SHOWN)
- BAR SIZE
- QUANTITY OF BARS + "X" BARS, WHERE INDICATED, ARE ADDITIONAL BARS TO BE PLACED UNIFORMLY WITHIN 4'-0" OR EITHER SIDE OF COLUMN CENTERLINE

DISCONTINUOUS BOTTOM REINFORCING BARS:

(4) #4B x 20'-0"

- BOTTOM BAR LOCATION
- BAR LENGTH (SEE TYP DETAIL IF NOT SHOWN)
- BAR SIZE
- QUANTITY OF BARS

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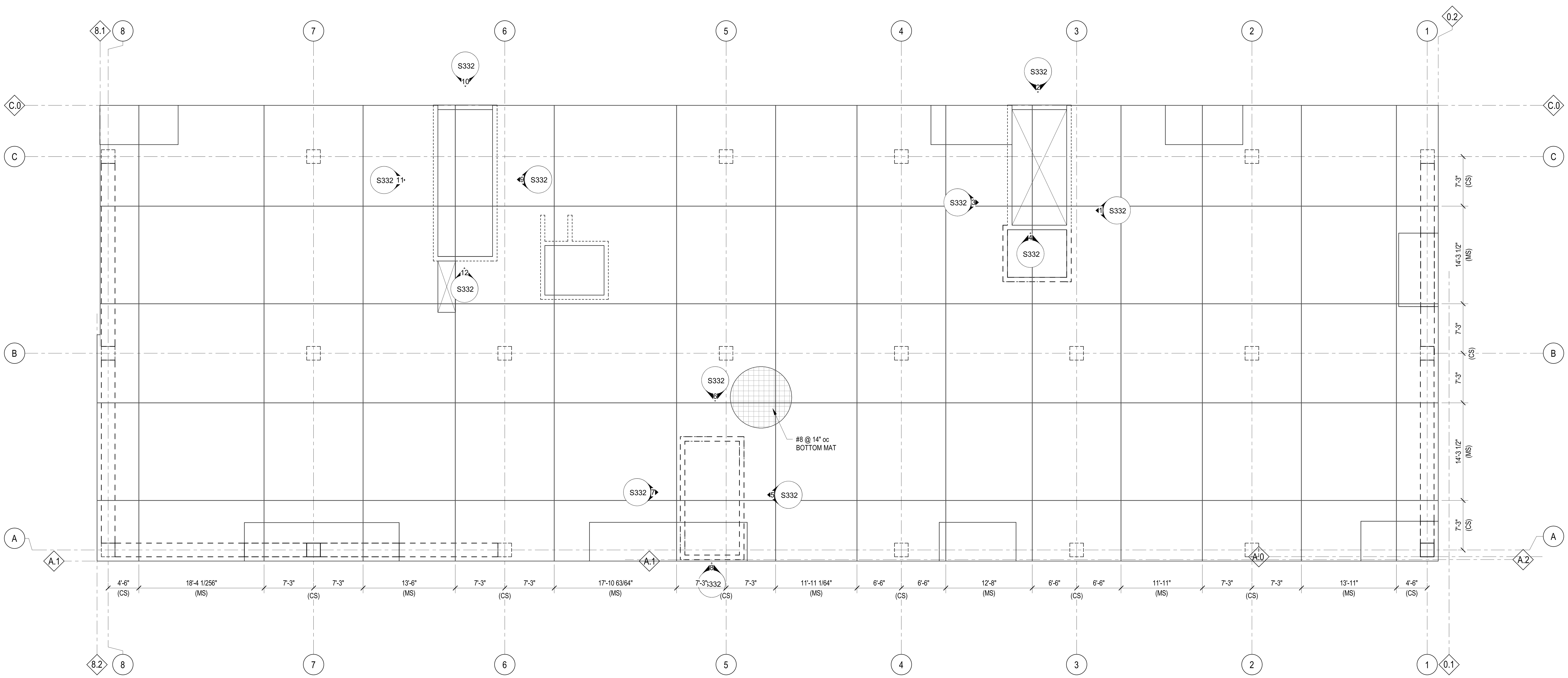


THIRD FLOOR REINFORCING PLAN

1/8" = 1'-0"

NORTH

PARAMOUNT WORKS

2505 KEMPER LN
CINCINNAT OH, 45206

ENGINEER: Designer
MODELER: Author
CHECKED BY: Checker

ISSUE/REVISION/SUBMISSION

NO	DATE	DESCRIPTION

PROJECT NUMBER:
2312.95

SHEET NAME:
THIRD FLOOR REINFORCING PLAN

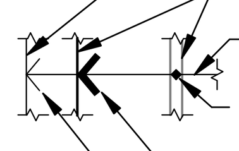
DATE:
Issue Date

SHEET:
S103-R

WOOD FRAMING LEGEND:

SYMBOL	DESCRIPTION
⟷ (bold)	20" DEEP WOOD FLOOR TRUSSES @ 24"oc MAX. TYPICAL UNLESS NOTED OTHERWISE.
⟷ (open)	WOOD ROOF TRUSSES @ 24"oc MAX. TYPICAL UNLESS NOTED OTHERWISE.
⟷ (solid)	2x10 @ 16"oc w/ LUS210 EA END, TYPICAL UNLESS NOTED OTHERWISE.
⟷ (open)	PT 2x10 @ 16"oc w/ LUS210Z EA END, TYPICAL UNLESS NOTED OTHERWISE.
Hn	HEADER MARK.
SWn	SHEAR WALL TYPE MARK. ??3 SEE ARCHITECT FOR SHEAR WALL SHEATHING SIDE.
▬	SHEAR WALL EXTENTS. SEE PLAN FOR TYPE MARK.

SPAN ARROW VISUAL DESCRIPTION:



FLOOR FRAMING KEYNOTES

K#	DESCRIPTION
K1	PT (3) 2x10 BEAM

WOOD FLOOR FRAMING PLAN NOTES:

1. T/FLOOR SHEATHING:
   A. FOURTH FLOOR EL: 139'-3 7/8"
   B. FIFTH FLOOR EL: 150'-1 3/4"
   C. SIXTH FLOOR EL: 160'-11 5/8"
2. BACKGROUND ARCHITECTURAL LAYOUT:
   A. LAYOUT SHOWN IS FLOOR BELOW.
   B. DOORS & WINDOWS ARE SHOWN IN APPROXIMATE LOCATIONS, SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS & ELEVATIONS.
   C. DIMENSIONS ARE TO FACE OF STUD OR MASONRY, UNO.
3. REFERENCE UPPER LEVEL FLOOR & ROOF FRAMING PLANS & PLAN NOTES FOR ADDITIONAL LOCATIONS OF BEARING STUDS FROM ABOVE. PROVIDE WOOD STUDS & BLOCKING EQUAL TO OR WIDER THAN BEAM/GIRDER, CONTINUOUS TO BEAM/FOUNDATION.
4. TRUSS DESIGNER:
   A. SHEET S001 STRUCTURAL NOTES & DESIGN CRITERIA.
   B. COORDINATE w/ ARCHITECTURAL & MEP DRAWINGS FOR LIGHTING, VERTICAL PLUMBING, DUCTWORK, & SHAFT LOCATIONS. PROVIDE GIRDER TRUSSES AS REQUIRED TO FRAME AROUND SHAFT OPENINGS.
5. REFER TO THE FOLLOWING:
   A. SHEET S002 STRUCTURAL NOTES, ABBREVIATIONS & LEGENDS (SYMBOLS).
   B. SHEET S002 WOOD SHEATHING & WOOD STRUCTURE NOTES.
   C. SHEET S314 WOOD STUD WALL SCHEDULE & TYPICAL FRAMING DETAILS.
   D. SHEET S315 WOOD SHEAR WALL SCHEDULE & TYPICAL SHEAR WALL DETAILS.
   E. SHEET S400 MASONRY SCHEDULES & TYPICAL MASONRY DETAILS.
   F. SHEET S400 LOOSE-LAID VENEER LINTEL SCHEDULE.

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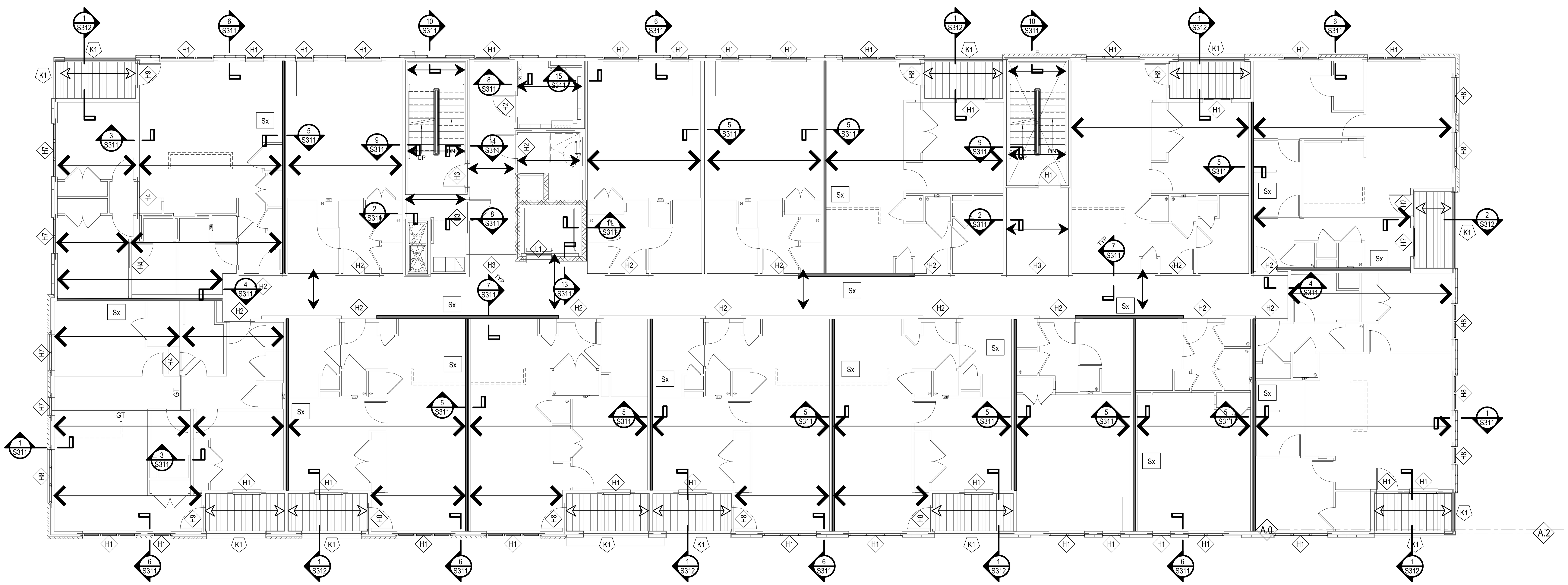

FOURTH FLOOR FRAMING PLAN
1/8" = 1'-0"

NORTH

PARAMOUNT WORKS

2505 KEMPER LN
CINCINNAT OH, 45206

ENGINEER: Designer
MODELER: Author
CHECKED BY: Checker

ISSUE/REVISION/SUBMISSION

NO	DATE	DESCRIPTION

PROJECT NUMBER:
2312.95

SHEET NAME:
FOURTH FLOOR FRAMING PLAN

DATE:
Issue Date

SHEET:
S104

11/3/2023 12:23:14 PM
Owner 2312.95
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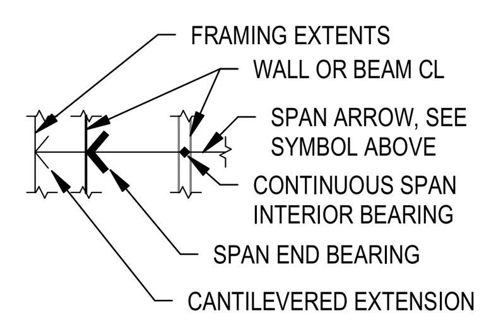
WOOD FRAMING LEGEND:

SYMBOL	DESCRIPTION
	20" DEEP WOOD FLOOR TRUSSES @ 24"oc MAX. TYPICAL UNLESS NOTED OTHERWISE.
	WOOD ROOF TRUSSES @ 24"oc MAX. TYPICAL UNLESS NOTED OTHERWISE.
	2x10 @ 16"oc w/ LUS210 EA END, TYPICAL UNLESS NOTED OTHERWISE.
	PT 2x10 @ 16"oc w/ LUS210Z EA END, TYPICAL UNLESS NOTED OTHERWISE.
Hn	HEADER MARK.
SWn	SHEAR WALL TYPE MARK. ??3 SEE ARCHITECT FOR SHEAR WALL SHEATHING SIDE.
	SHEAR WALL EXTENTS. SEE PLAN FOR TYPE MARK.

SPAN ARROW VISUAL DESCRIPTION:



FLOOR FRAMING KEYNOTES

K#	DESCRIPTION
K1	PT (3) 2x10 BEAM

WOOD FLOOR FRAMING PLAN NOTES:

1. T/FLOOR SHEATHING:
   A. FOURTH FLOOR EL: 139'-3 7/8"
   B. FIFTH FLOOR EL: 150'-1 3/4"
   C. SIXTH FLOOR EL: 160'-11 5/8"
2. BACKGROUND ARCHITECTURAL LAYOUT:
   A. LAYOUT SHOWN IS FLOOR BELOW.
   B. DOORS & WINDOWS ARE SHOWN IN APPROXIMATE LOCATIONS, SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS & ELEVATIONS.
   C. DIMENSIONS ARE TO FACE OF STUD OR MASONRY, UNO.
3. REFERENCE UPPER LEVEL FLOOR & ROOF FRAMING PLANS & PLAN NOTES FOR ADDITIONAL LOCATIONS OF BEARING STUDS FROM ABOVE. PROVIDE WOOD STUDS & BLOCKING EQUAL TO OR WIDER THAN BEAM/GIRDER, CONTINUOUS TO BEAM/FOUNDATION.
4. TRUSS DESIGNER:
   A. SHEET S001 STRUCTURAL NOTES & DESIGN CRITERIA.
   B. COORDINATE w/ ARCHITECTURAL & MEP DRAWINGS FOR LIGHTING, VERTICAL PLUMBING, DUCTWORK, & SHAFT LOCATIONS. PROVIDE GIRDER TRUSSES AS REQUIRED TO FRAME AROUND SHAFT OPENINGS.
5. REFER TO THE FOLLOWING:
   A. SHEET S002 STRUCTURAL NOTES, ABBREVIATIONS & LEGENDS (SYMBOLS).
   B. SHEET S002 WOOD SHEATHING & WOOD STRUCTURE NOTES.
   C. SHEET S314 WOOD STUD WALL SCHEDULE & TYPICAL FRAMING DETAILS.
   D. SHEET S315 WOOD SHEAR WALL SCHEDULE & TYPICAL SHEAR WALL DETAILS.
   E. SHEET S400 MASONRY SCHEDULES & TYPICAL MASONRY DETAILS.
   F. SHEET S400 LOOSE-LAID VENEER LINTEL SCHEDULE.

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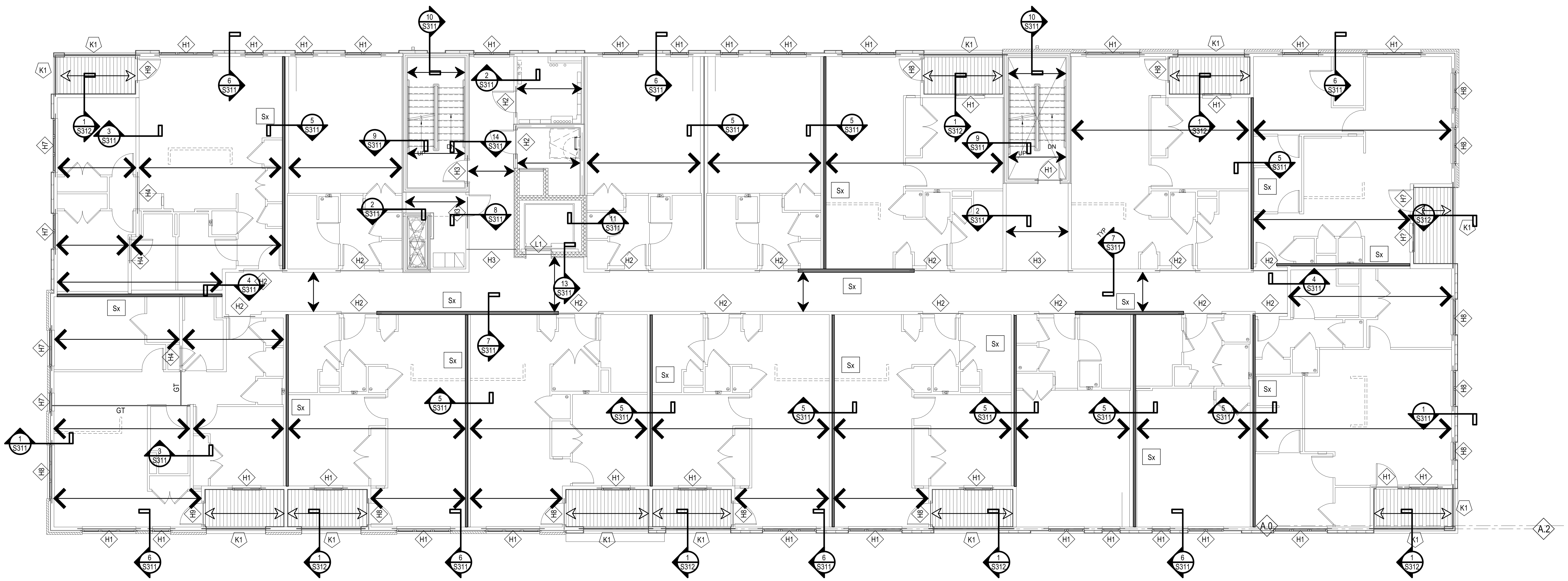

FIFTH FLOOR FRAMING PLAN
1/8" = 1'-0"

NORTH

PARAMOUNT WORKS

2505 KEMPER LN
CINCINNAT OH, 45206

ENGINEER: Designer
MODELER: Author
CHECKED BY: Checker

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NO	DATE	DESCRIPTION

PROJECT NUMBER:
2312.95

SHEET NAME:
FIFTH FLOOR FRAMING PLAN

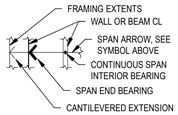
DATE:
Issue Date

SHEET:
S105

WOOD FRAMING LEGEND:

SYMBOL	DESCRIPTION
⟷	20" DEEP WOOD FLOOR TRUSSES @ 24"oc MAX. TYPICAL UNLESS NOTED OTHERWISE.
⟷	WOOD ROOF TRUSSES @ 24"oc MAX. TYPICAL UNLESS NOTED OTHERWISE.
⟷	2x10 @ 16"oc w/ LUS210 EA END, TYPICAL UNLESS NOTED OTHERWISE.
⟷	PT 2x10 @ 16"oc w/ LUS210Z EA END, TYPICAL UNLESS NOTED OTHERWISE.
Hn	HEADER MARK.
SWn	SHEAR WALL TYPE MARK. ??3 SEE ARCHITECT FOR SHEAR WALL SHEATHING SIDE.
▬	SHEAR WALL EXTENTS. SEE PLAN FOR TYPE MARK.

SPAN ARROW VISUAL DESCRIPTION:

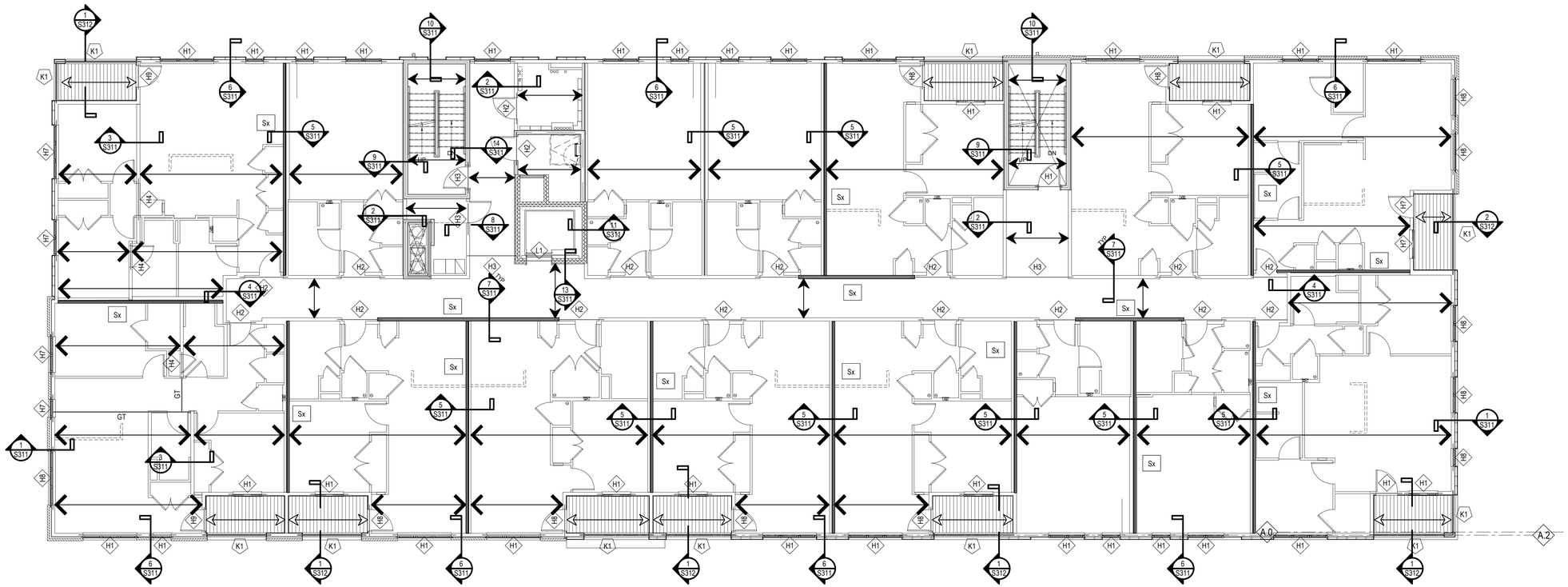


FLOOR FRAMING KEYNOTES

K#	DESCRIPTION
K1	PT (3) 2x10 BEAM

WOOD FLOOR FRAMING PLAN NOTES:

1. T/FLOOR SHEATHING:
   A. FOURTH FLOOR EL: 139'-3 7/8"
   B. FIFTH FLOOR EL: 150'-1 3/4"
   C. SIXTH FLOOR EL: 160'-11 5/8"
2. BACKGROUND ARCHITECTURAL LAYOUT:
   A. LAYOUT SHOWN IS FLOOR BELOW.
   B. DOORS & WINDOWS ARE SHOWN IN APPROXIMATE LOCATIONS, SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS & ELEVATIONS.
   C. DIMENSIONS ARE TO FACE OF STUD OR MASONRY, UNO.
3. REFERENCE UPPER LEVEL FLOOR & ROOF FRAMING PLANS & PLAN NOTES FOR ADDITIONAL LOCATIONS OF BEARING STUDS FROM ABOVE. PROVIDE WOOD STUDS & BLOCKING EQUAL TO OR WIDER THAN BEAM/GIRDER, CONTINUOUS TO BEAM/FOUNDATION.
4. TRUSS DESIGNER:
   A. SHEET S001 STRUCTURAL NOTES & DESIGN CRITERIA.
   B. COORDINATE w/ ARCHITECTURAL & MEP DRAWINGS FOR LIGHTING, VERTICAL PLUMBING, DUCTWORK, & SHAFT LOCATIONS. PROVIDE GIRDER TRUSSES AS REQUIRED TO FRAME AROUND SHAFT OPENINGS.
5. REFER TO THE FOLLOWING:
   A. SHEET S002 STRUCTURAL NOTES, ABBREVIATIONS & LEGENDS (SYMBOLS).
   B. SHEET S002 WOOD SHEATHING & WOOD STRUCTURE NOTES.
   C. SHEET S314 WOOD STUD WALL SCHEDULE & TYPICAL FRAMING DETAILS.
   D. SHEET S315 WOOD SHEAR WALL SCHEDULE & TYPICAL SHEAR WALL DETAILS.
   E. SHEET S400 MASONRY SCHEDULES & TYPICAL MASONRY DETAILS.
   F. SHEET S400 LOOSE-LAID VENEER LINTEL SCHEDULE.



SIXTH FLOOR FRAMING PLAN
1/8" = 1'-0"

NORTH

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PARAMOUNT WORKS

2505 KEMPER LN
CINCINNAT OH, 45206

ENGINEER: Designer
MODELER: Author
CHECKED BY: Checker

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NO	DATE	DESCRIPTION

PROJECT NUMBER:
2312.95

SHEET NAME:
SIXTH FLOOR FRAMING PLAN

DATE:
Issue Date

SHEET:
S106

11/3/2023 12:23:14 PM
2312.95

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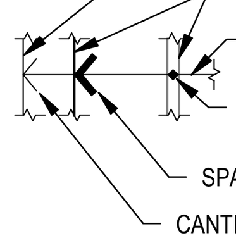
WOOD FRAMING LEGEND:

SYMBOL	DESCRIPTION
(bold span arrow)	20" DEEP WOOD FLOOR TRUSSES @ 24"oc MAX. TYPICAL UNLESS NOTED OTHERWISE.
(open span arrow)	WOOD ROOF TRUSSES @ 24"oc MAX. TYPICAL UNLESS NOTED OTHERWISE.
(solid arrow)	2x10 @ 16"oc w/ LUS210 EA END, TYPICAL UNLESS NOTED OTHERWISE.
(open arrow)	PT 2x10 @ 16"oc w/ LUS210Z EA END, TYPICAL UNLESS NOTED OTHERWISE.
Hn	HEADER MARK.
SWn	SHEAR WALL TYPE MARK. ??3 SEE ARCHITECT FOR SHEAR WALL SHEATHING SIDE.
(grey bar)	SHEAR WALL EXTENTS. SEE PLAN FOR TYPE MARK.

SPAN ARROW VISUAL DESCRIPTION:



ROOF FRAMING KEYNOTES

K#	DESCRIPTION
K1	PT (3) 2x8 BEAM

WOOD ROOF FRAMING PLAN NOTES:

1. TRUSS BEARING EL: ???'-??"
2. T/STEEL EL ???'-??", UNLESS NOTED (±X'-XX") ON PLAN.
   A. STEEL FABRICATOR SHALL DESIGN BEAM END CONNECTIONS FOR UNFACTORED LOADS WHERE INDICATED ON PLAN.
3. BACKGROUND ARCHITECTURAL LAYOUT:
   A. LAYOUT SHOWN IS FLOOR BELOW.
   B. DOORS & WINDOWS ARE SHOWN IN APPROXIMATE LOCATIONS, SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS & ELEVATIONS.
   C. DIMENSIONS ARE TO FACE OF STUD OR MASONRY, UNO.
4. PROVIDE (3) 2x6 BEARING STUDS UNLESS NOTED OTHERWISE AT EACH GIRDER TRUSS BEARING LOCATION. PROVIDE SOLID BLOCKING IN FLOOR SPACE, SEE "TYPICAL HOLDOWN AT GIRDER TRUSS" DETAIL ON TYPICAL FRAMING DETAILS SHEET. CONTINUE STUDS DOWN TO FOUNDATION OR BEAM.
5. ADD (2) 2x6 STUDS IN WALL AT EACH GUARDRAIL (DECK OR JULIET) CONNECTION TO WALL LOCATION, SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS. ADDITIONAL STUDS NOT REQUIRED IF CONNECTING TO WINDOW/DOOR OPENING JAMB.
6. TRUSS DESIGNER:
   A. SHEET S??? STRUCTURAL NOTES & DESIGN CRITERIA.
   B. SHEET S??? COMPONENTS & CLADDING WIND LOADS.
   C. SHEET S??? DRIFTED SNOW LOADING PLANS.
   D. SHEET S??? HORIZONTAL DEFLECTION LIMITS.
   E. COORDINATE FINAL SIZE, LOCATION & WEIGHT OF RTU'S & ROOF OPENINGS w/ ARCHITECTURAL & MEP DRAWINGS PRIOR TO WOOD TRUSS SHOP DRAWING REVIEW.
   F. COORDINATE w/ ARCHITECTURAL & MEP DRAWINGS FOR LIGHTING, VERTICAL PLUMBING, DUCTWORK, & SHAFT LOCATIONS. PROVIDE GIRDER TRUSSES AS REQUIRED TO FRAME AROUND SHAFT OPENINGS.
7. REFER TO THE FOLLOWING:
   A. SHEET S??? STRUCTURAL NOTES, ABBREVIATIONS & LEGENDS (SYMBOLS).
   B. SHEET S??? WOOD SHEATHING & WOOD STRUCTURAL NOTES.
   C. SHEET S??? WOOD STUD WALL SCHEDULE & TYPICAL FRAMING DETAILS.
   D. SHEET S??? WOOD SHEAR WALL SCHEDULE & TYPICAL SHEAR WALL DETAILS.
   E. SHEET S??? WOOD TRUSS PERMANENT BRACING.
   F. SHEET S??? MASONRY SCHEDULES & TYPICAL MASONRY DETAILS.
   G. SHEET S??? LOOSE-LAID VENEER LINTEL SCHEDULE.

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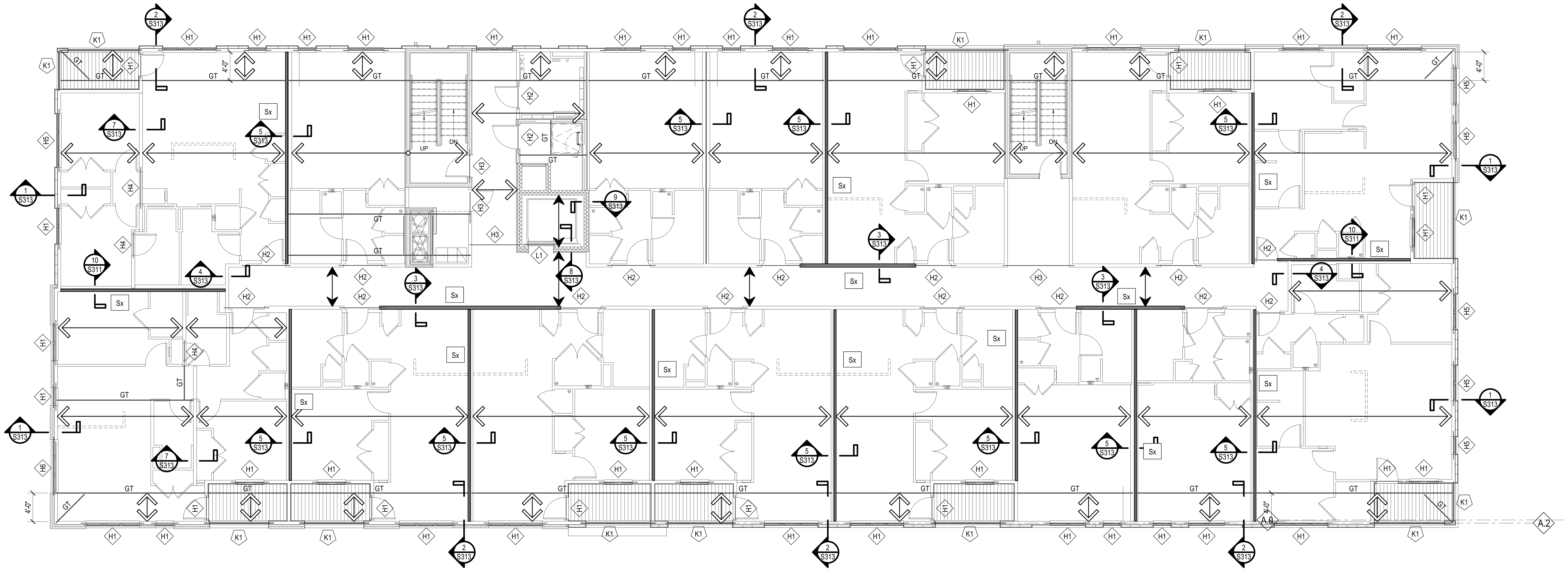

ROOF FRAMING PLAN
1/8" = 1'-0"

NORTH

PARAMOUNT WORKS

2505 KEMPER LN
CINCINNAT OH, 45206

ENGINEER: Designer
MODELER: Author
CHECKED BY: Checker

ISSUE/REVISION/SUBMISSION

NO	DATE	DESCRIPTION

PROJECT NUMBER:
2312.95

SHEET NAME:
ROOF FRAMING PLAN

DATE:
Issue Date

SHEET:
S107

11/3/2023 12:23:15 PM
Owner 2312.95
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PARAMOUNT WORKS

2505 KEMPER LN
CINCINNAT OH, 45206

ENGINEER: Designer
MODELER: Author
CHECKED BY: Checker

ISSUE/REVISION/SUBMISSION

NO	DATE	DESCRIPTION

PROJECT NUMBER:
2312.95

SHEET NAME:

ENLARGED PLANS

DATE:
Issue Date

SHEET:

S151

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Revit 2312.66
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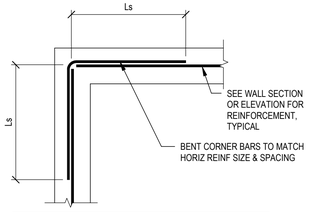
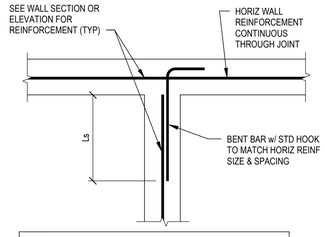


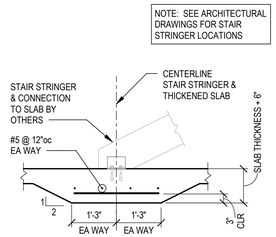
NOTES:
1. VERTICAL REINFORCEMENT BARS NOT SHOWN FOR CLARITY.

TYPICAL CONCRETE WALL CORNER REINFORCEMENT DETAIL AT SINGLE CURTAIN OF STEEL
NTS

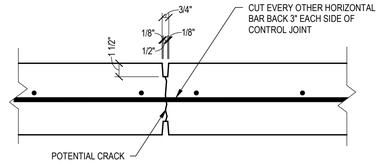


NOTES:
1. VERTICAL REINFORCEMENT BARS NOT SHOWN FOR CLARITY.

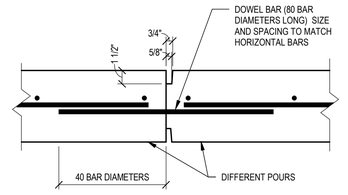
TYPICAL CONCRETE WALL INTERSECTION REINFORCEMENT DETAIL AT SINGLE CURTAIN OF STEEL
3/4" = 1'-0"



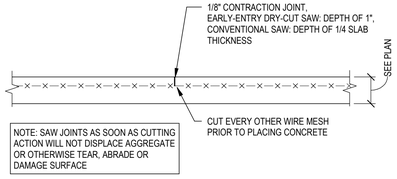
TYPICAL THICKENED SLAB BELOW STAIR STRINGER
1/2" = 1'-0"



CONCRETE WALL TYPICAL VERTICAL CONTROL JOINT @ SINGLE LAYER OF STEEL
1 1/2" = 1'-0"

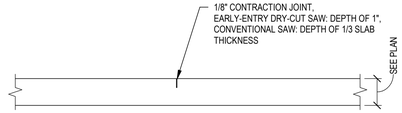


CONCRETE WALL TYPICAL VERTICAL CONSTRUCTION JOINT @ SINGLE LAYER OF STEEL
1 1/2" = 1'-0"



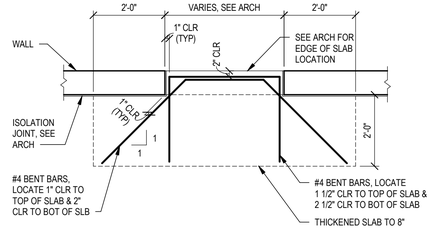
NOTE: SAW JOINTS AS SOON AS CUTTING ACTION WILL NOT DISPLACE AGGREGATE OR OTHERWISE TEAR, ABRADE OR DAMAGE SURFACE

SLAB ON GRADE TYPICAL CONTRACTION JOINT
NTS



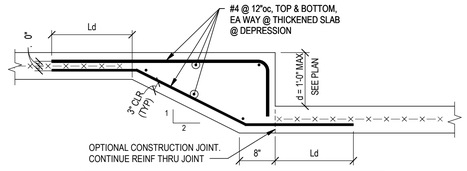
NOTE: SAW JOINTS AS SOON AS CUTTING ACTION WILL NOT DISPLACE AGGREGATE OR OTHERWISE TEAR, ABRADE OR DAMAGE SURFACE

SLAB ON GRADE TYPICAL CONTRACTION JOINT
NTS



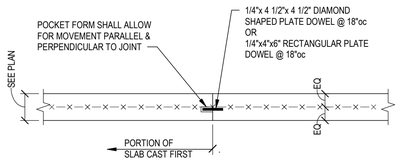
NOTE: HOOK REINFORCING AS NECESSARY TO AVOID CROSSING CONSTRUCTION AND CONTRACTION JOINTS. MAINTAIN 2" CLR TO JOINTS.

TYPICAL SLAB ON GRADE AT DOOR THRESHOLD
1/2" = 1'-0"



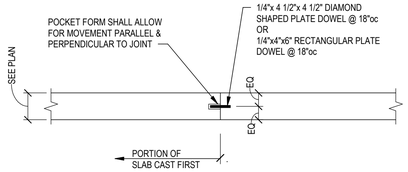
NOTE: CONTRACTOR SHALL VERIFY SLAB DEPRESSION DEPTH & EXTENTS w/ FINAL SELECTION OF FLOORING &/OR EQUIPMENT AT SLAB DEPRESSION

TYPICAL SLAB ON GRADE DEPRESSION 3"< d ≤ 12"
NTS



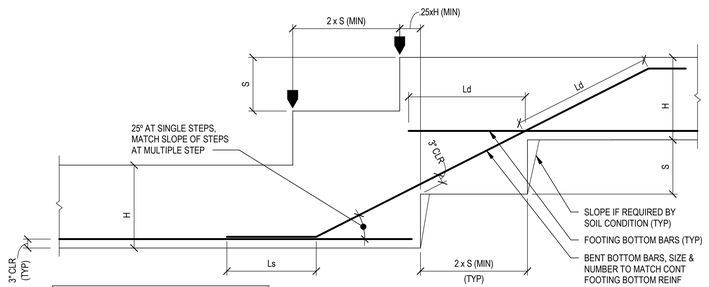
Note to Engineer/Detailer:
- *Doweled joints are recommended for slabs subject to hard-wheeled traffic or other heavy loads. Review dowel type with client. Edit as required.*
- *Basis for detail is PNA "Diamond Dowel" & Greenstreak "Speed Plate".*

SLAB ON GRADE TYPICAL CONSTRUCTION JOINT
NTS



Note to Engineer/Detailer:
- *Doweled joints are recommended for slabs subject to hard-wheeled traffic or other heavy loads. Review dowel type with client. Edit as required.*
- *Basis for detail is PNA "Diamond Dowel" & Greenstreak "Speed Plate".*

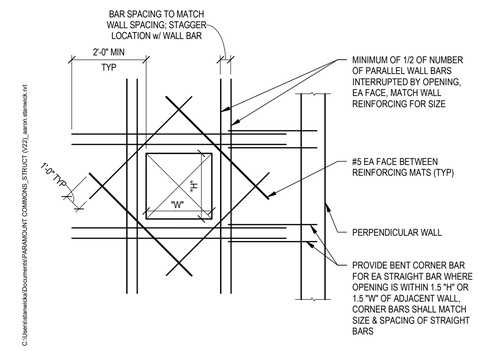
SLAB ON GRADE TYPICAL CONSTRUCTION JOINT
NTS



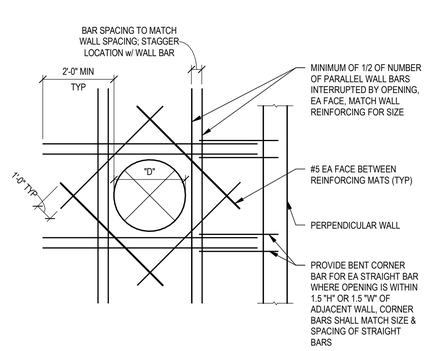
NOTES:
1. SEE PLAN FOR FTG SIZE & REINF
2. S = STEP IN FOOTING (TOP & BOTTOM), 2'-0" MAX
   H = DEPTH OF FOOTING

Note to Engineer/Detailer:
- For use when strip footing is not expected to resist bending & the reinforcement is primarily for shrinkage crack control.

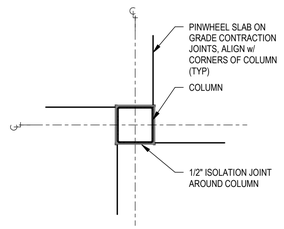
TYPICAL STEP IN FOOTING
1/2" = 1'-0"



ADDITIONAL REINFORCING AT RECTANGULAR OPENINGS
1/4" = 1'-0"



ADDITIONAL REINFORCING AT ROUND OPENINGS
1/4" = 1'-0"



TYPICAL PINWHEEL ISOLATION JOINT
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PARAMOUNT WORKS

2505 KEMPER LN
CINCINNAT OH, 45206

ENGINEER:	Designer
MODELER:	Author
CHECKED BY:	Checker

ISSUE/REVISION/SUBMISSION

NO	DATE	DESCRIPTION

PROJECT NUMBER:
2312.95

SHEET NAME:
TYPICAL FOUNDATION DETAILS & SECTIONS

DATE:
Issue Date

SHEET:
S201

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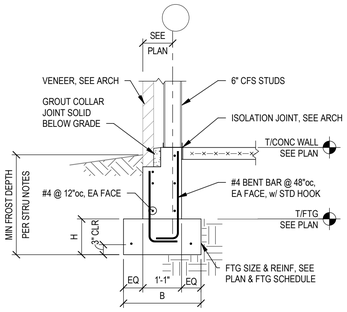
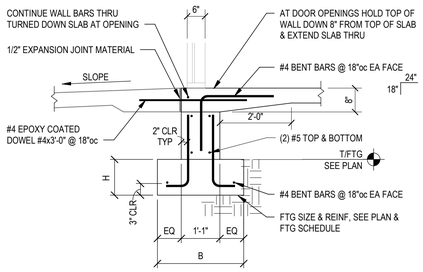
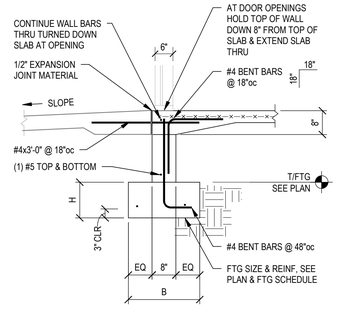


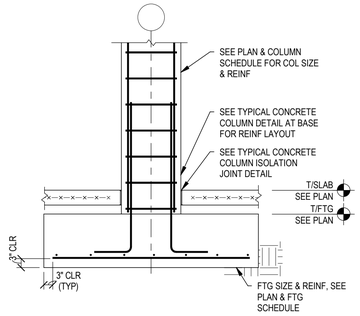
SECTION 1 S211
1/2" = 1'-0"



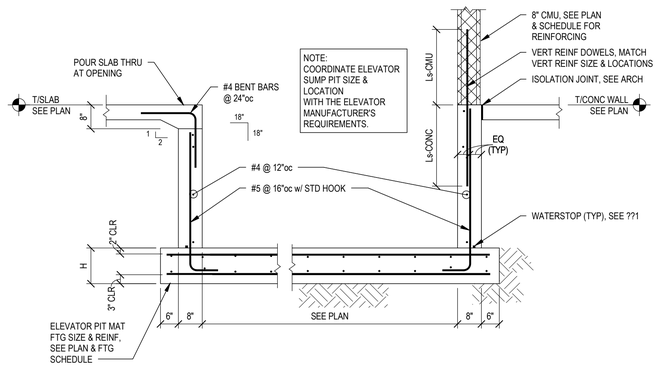
SECTION 2 S211
1/2" = 1'-0"



SECTION 3 S211
1/2" = 1'-0"



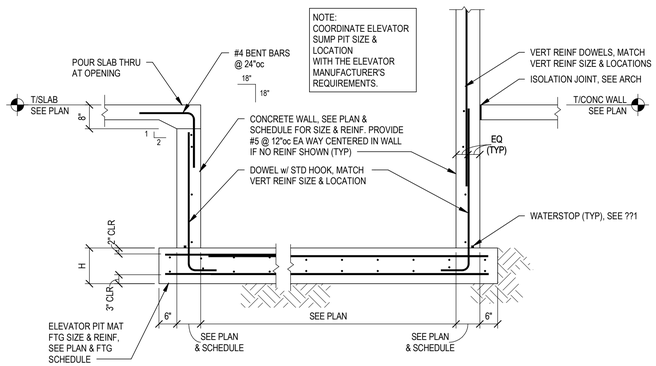
SECTION 4 S211
1/2" = 1'-0"



Notes to Engineer/Detailer:

- Dimension mat on foundation plan and call out reinforcement in schedule. Typical mat thickness = 12". Typical mat size = 6" wider than shaft. Typical reinforcement = #5 @ 12" ea way, top and bot, however one layer of reinf, centered may be sufficient for a more economical design.
- ??1: Coordinate where waterstop specs are located on project (specifications, general notes, arch, etc. User could also leave out the "see..." but expect an RFI from the contractor.
- The stem wall reinforcement as shown is adequate for pit depths up to 6 feet.

SECTION 5 S211
1/2" = 1'-0"



Notes to Engineer/Detailer:

- Dimension mat on foundation plan and call out reinforcement in schedule. Typical mat thickness = 12". Typical mat size = 6" wider than shaft. Typical reinforcement = #5 @ 12" ea way, top and bot, however one layer of reinf, centered may be sufficient for a more economical design.
- ??1: Coordinate where waterstop specs are located on project (specifications, general notes, arch, etc. User could also leave out the "see..." but expect an RFI from the contractor.
- The stem wall reinforcement as shown is adequate for pit depths up to 6 feet.

SECTION 6 S211
1/2" = 1'-0"

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CINCINNAT OH, 45206

ENGINEER:	Designer
MODELER:	Author
CHECKED BY:	Checker

ISSUE/REVISION/SUBMISSION

NO	DATE	DESCRIPTION

PROJECT NUMBER:
2312.95

SHEET NAME:
FOUNDATION DETAILS & SECTIONS

DATE:
Issue Date

SHEET:
S211

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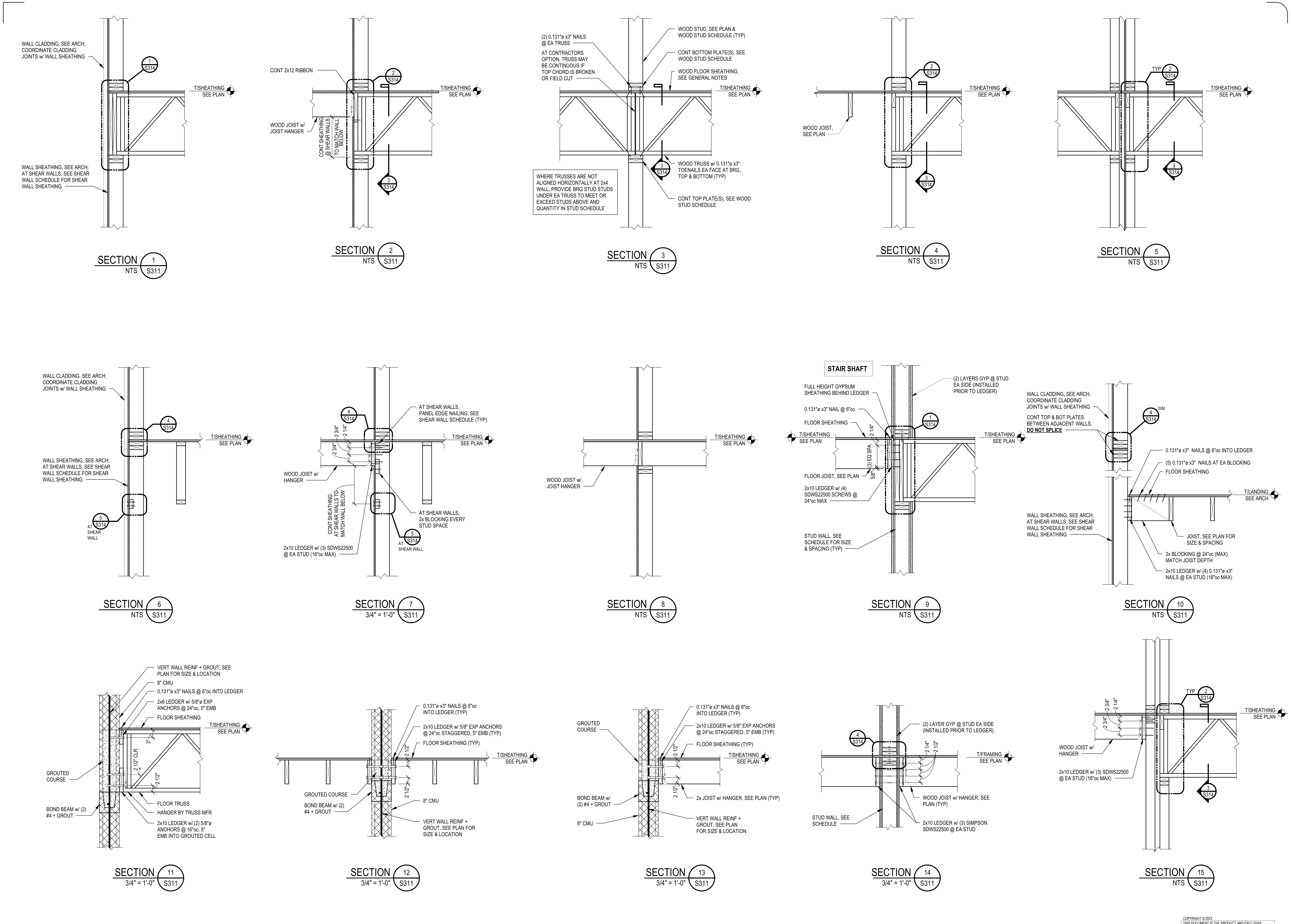

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CINCINNAT OH, 45206

ENGINEER: Designer
MODELER: Author
CHECKED BY: Checker

ISSUE/REVISION/SUBMISSION

NO	DATE	DESCRIPTION

PROJECT NUMBER:
2312.95

SHEET NAME:
WOOD FRAMING DETAILS & SECTIONS

DATE:
Issue Date

SHEET:
S311

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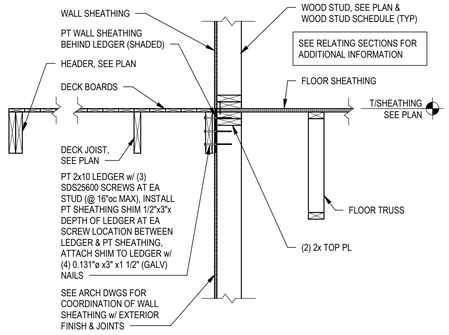
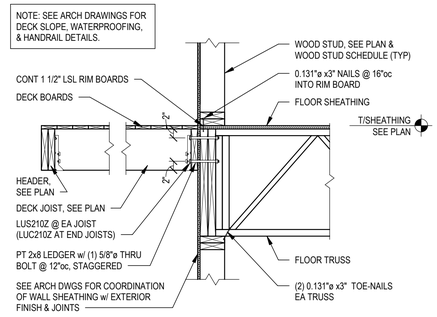
Owner 2312.95



SECTION 1 / 3/4" = 1'-0" / S312



SECTION 2 / 3/4" = 1'-0" / S312

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CINCINNAT OH, 45206

ENGINEER: Designer
MODELER: Author
CHECKED BY: Checker

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NO	DATE	DESCRIPTION

PROJECT NUMBER:
2312.95

SHEET NAME:
WOOD FRAMING DETAILS & SECTIONS

DATE:
Issue Date

SHEET:
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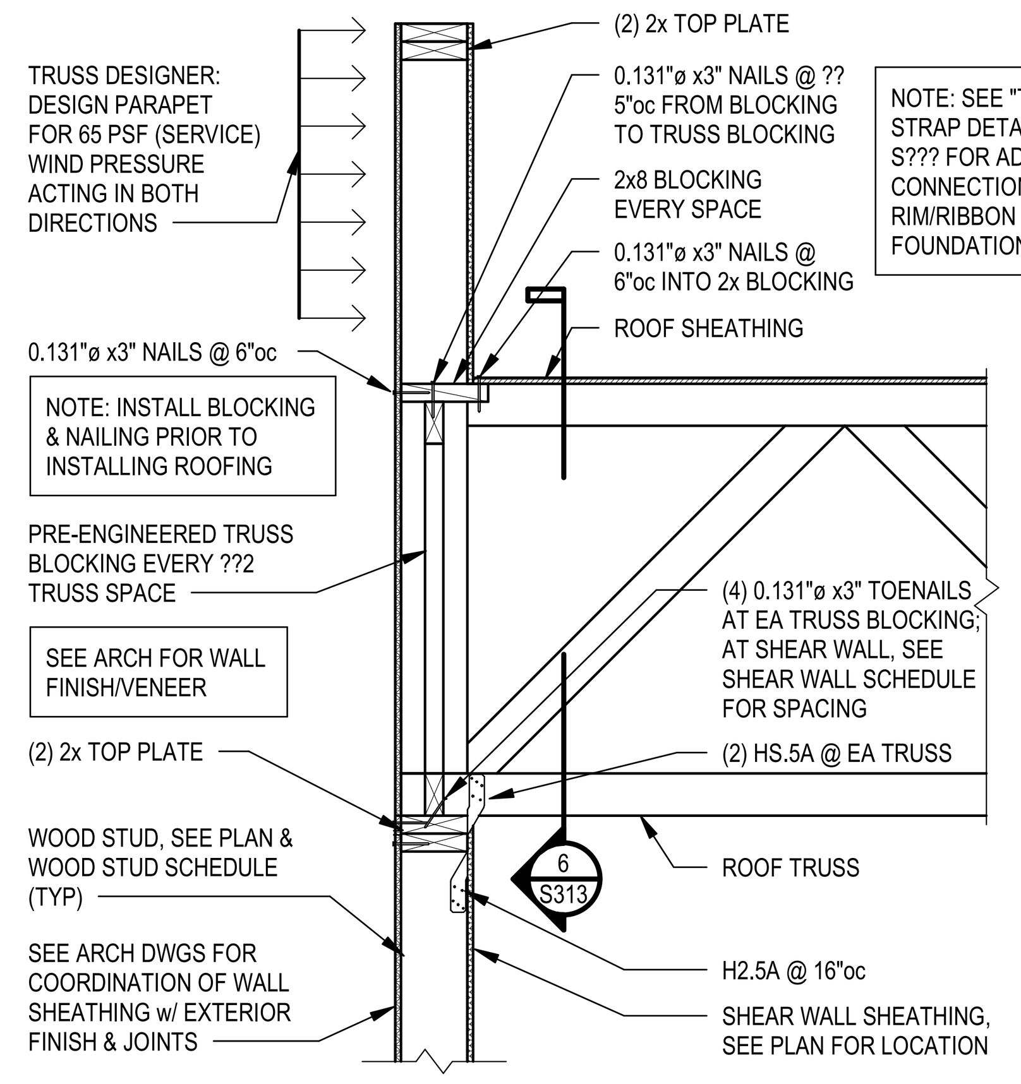
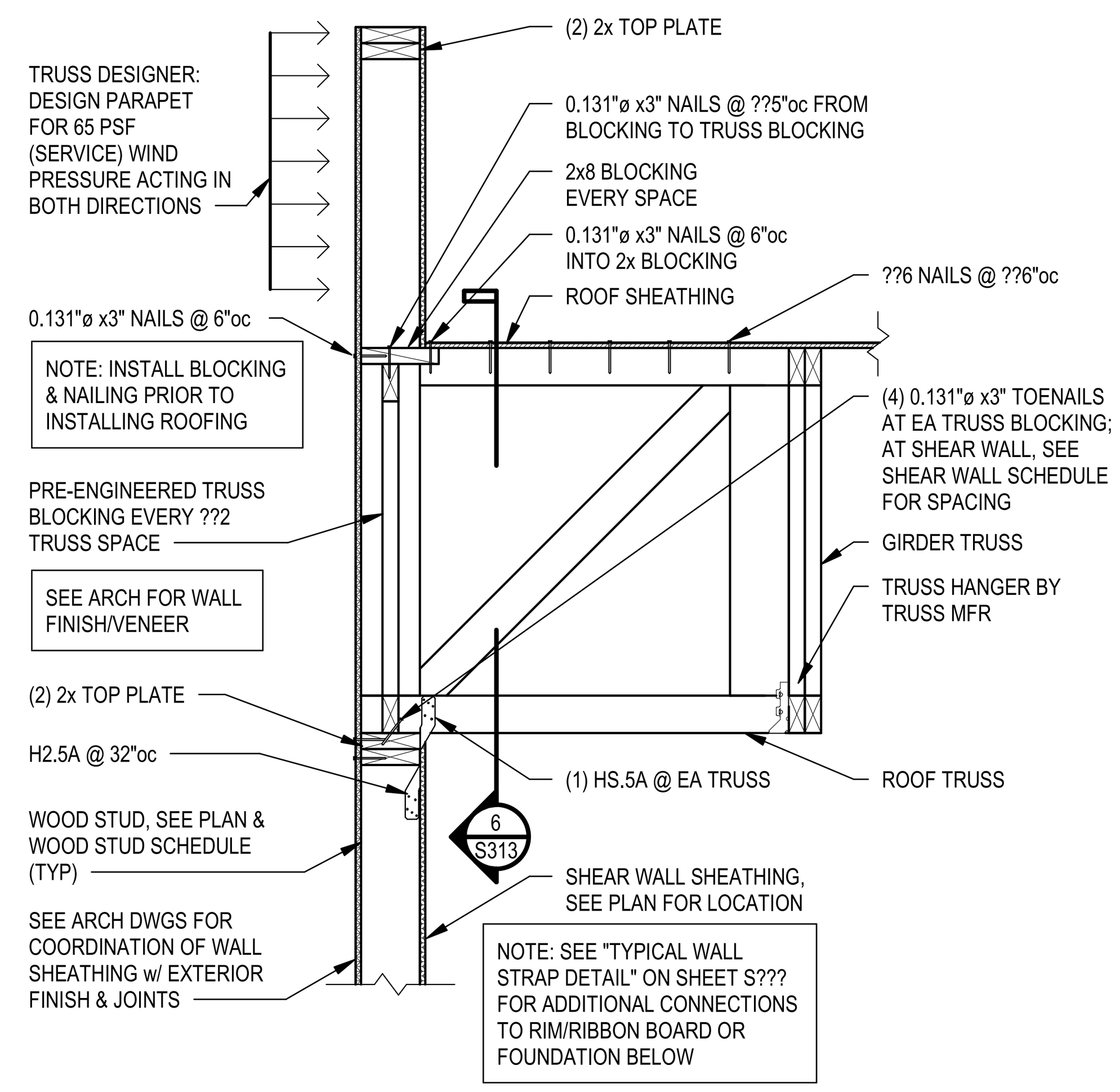


SECTION 1
3/4" = 1'-0" S313



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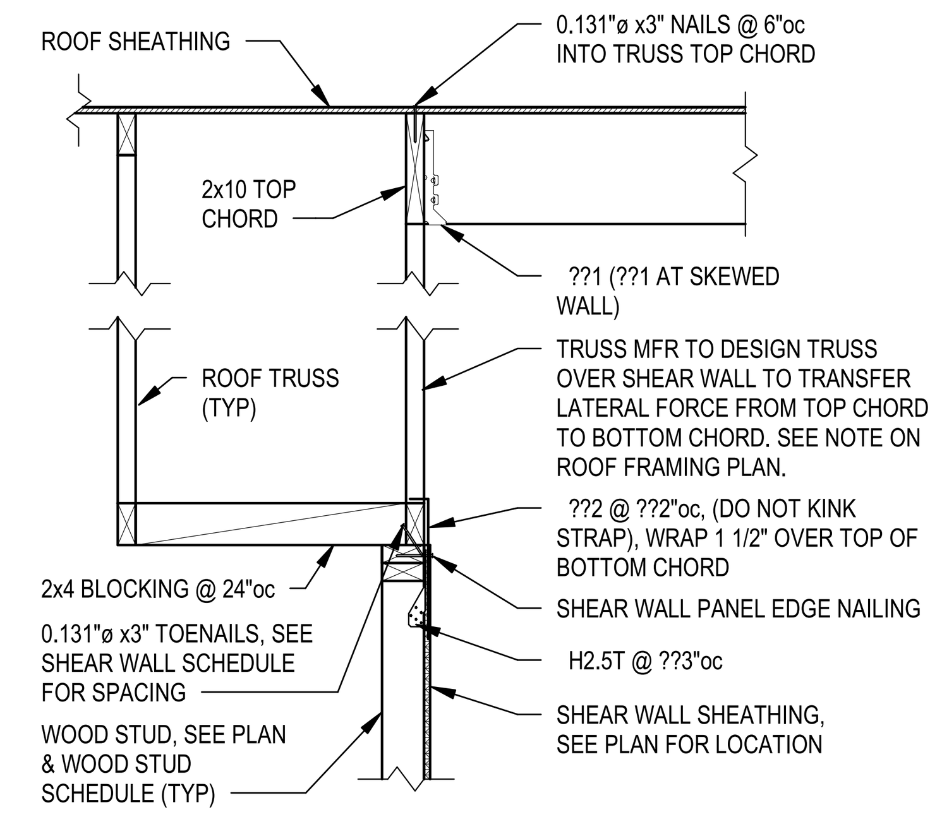
3/4" = 1'-0" S313



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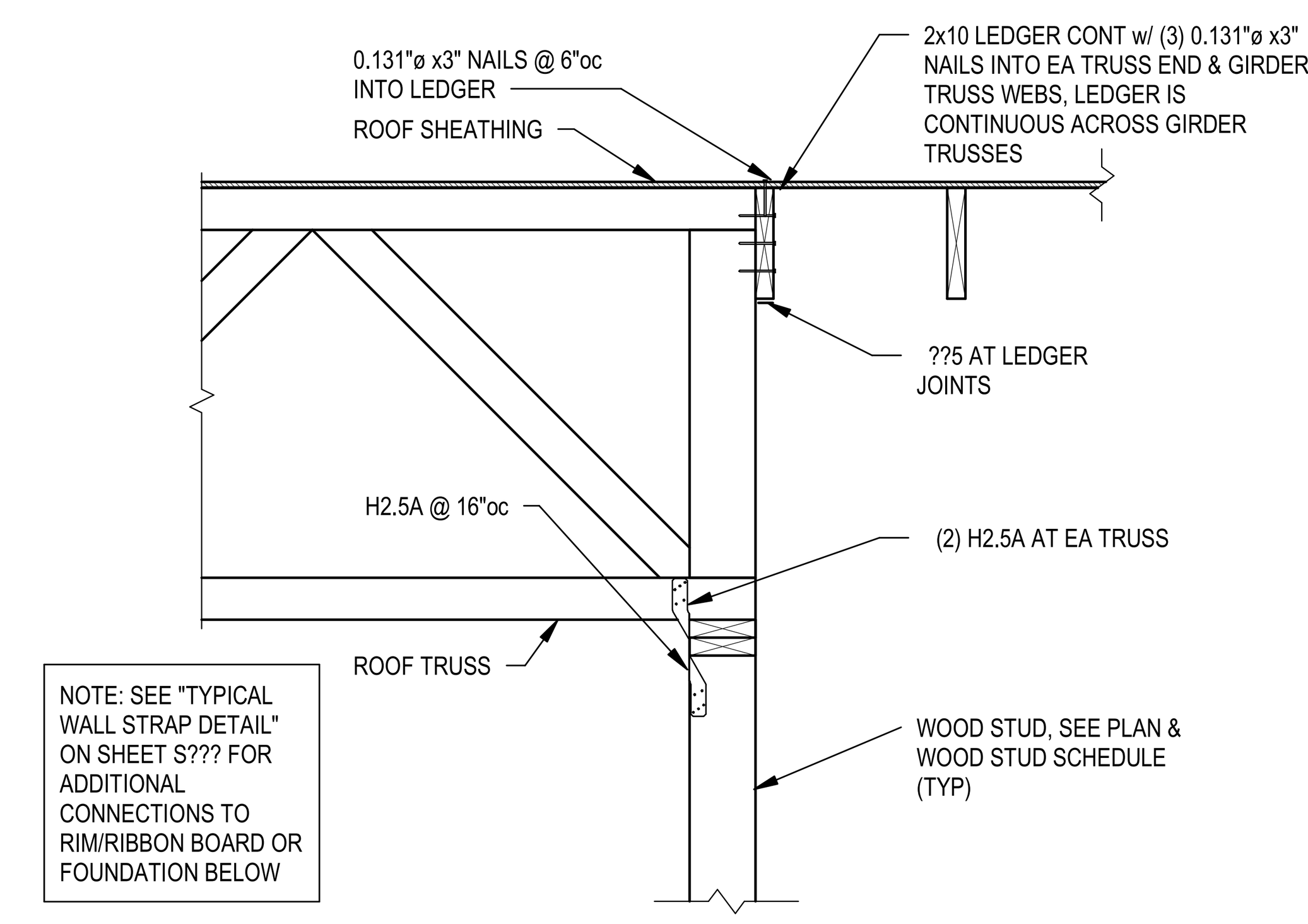
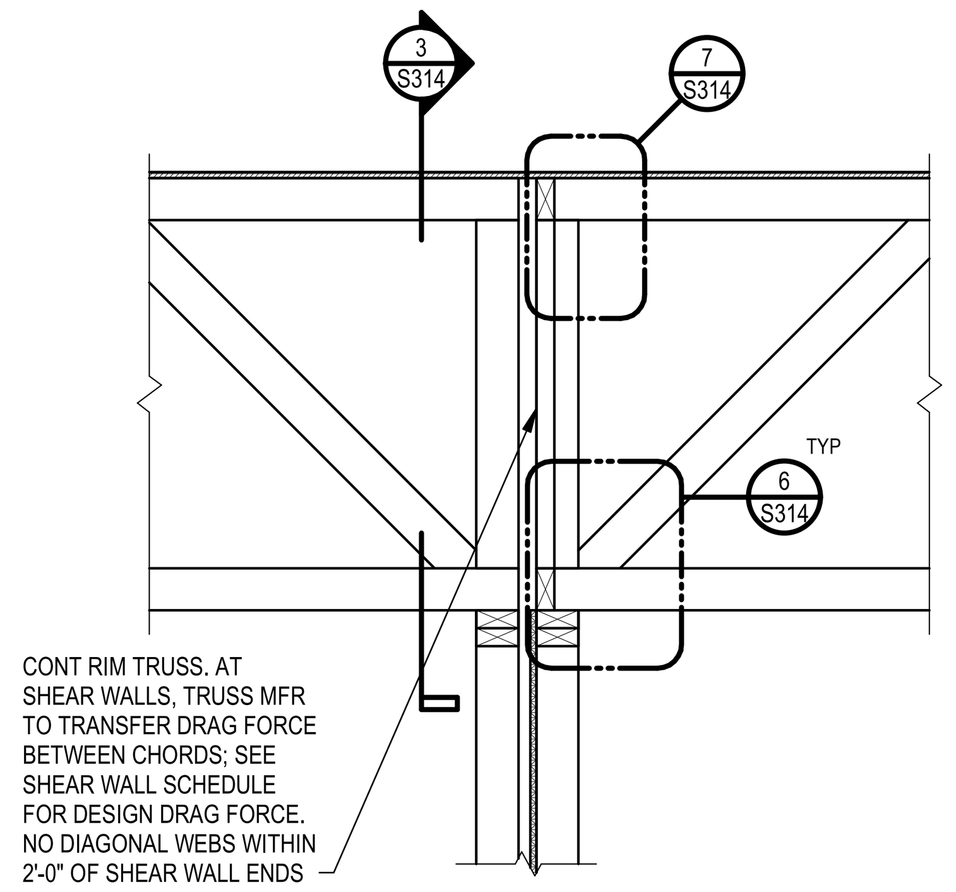
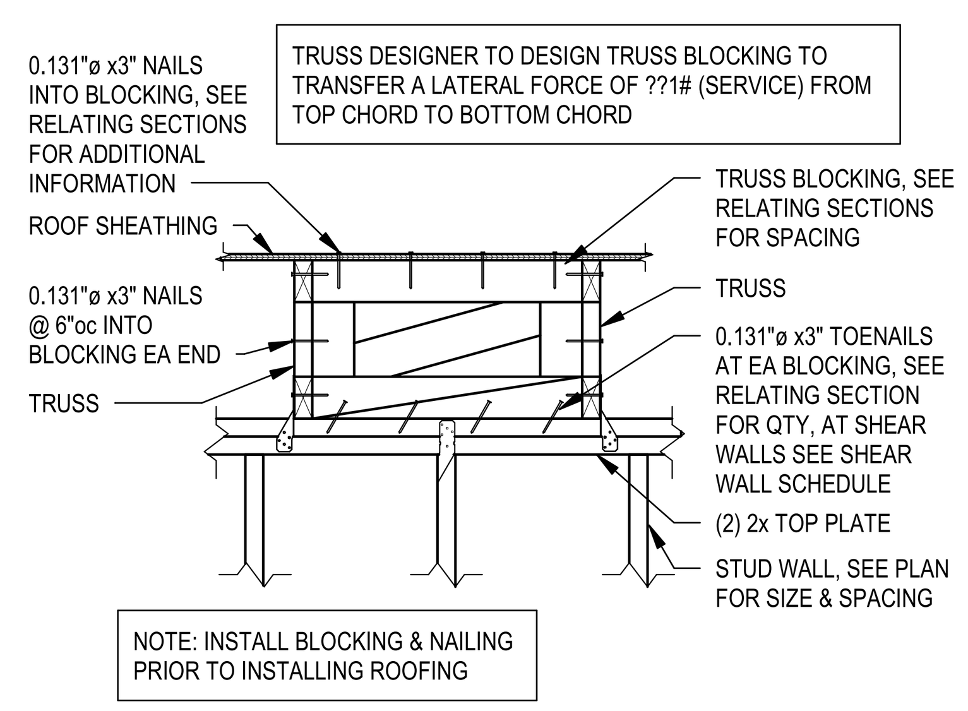
3/4" = 1'-0" S313



SECTION 4
3/4" = 1'-0" S313



SECTION 5
NTS S313



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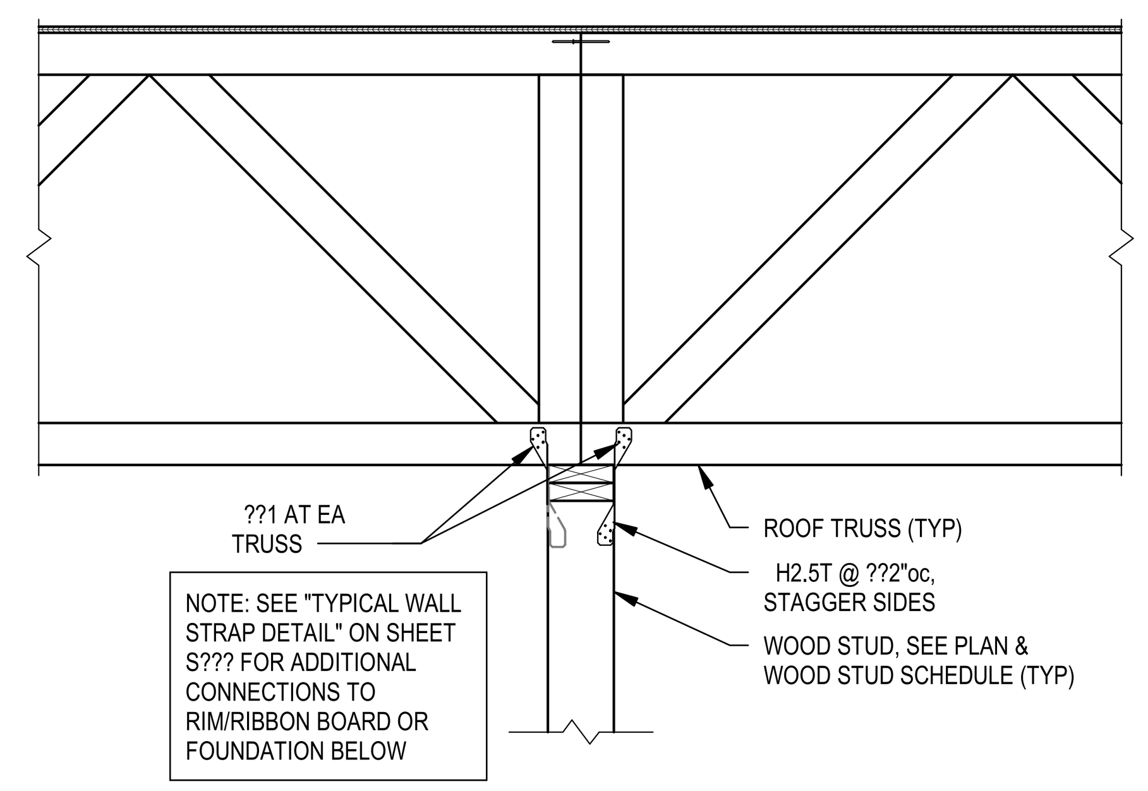

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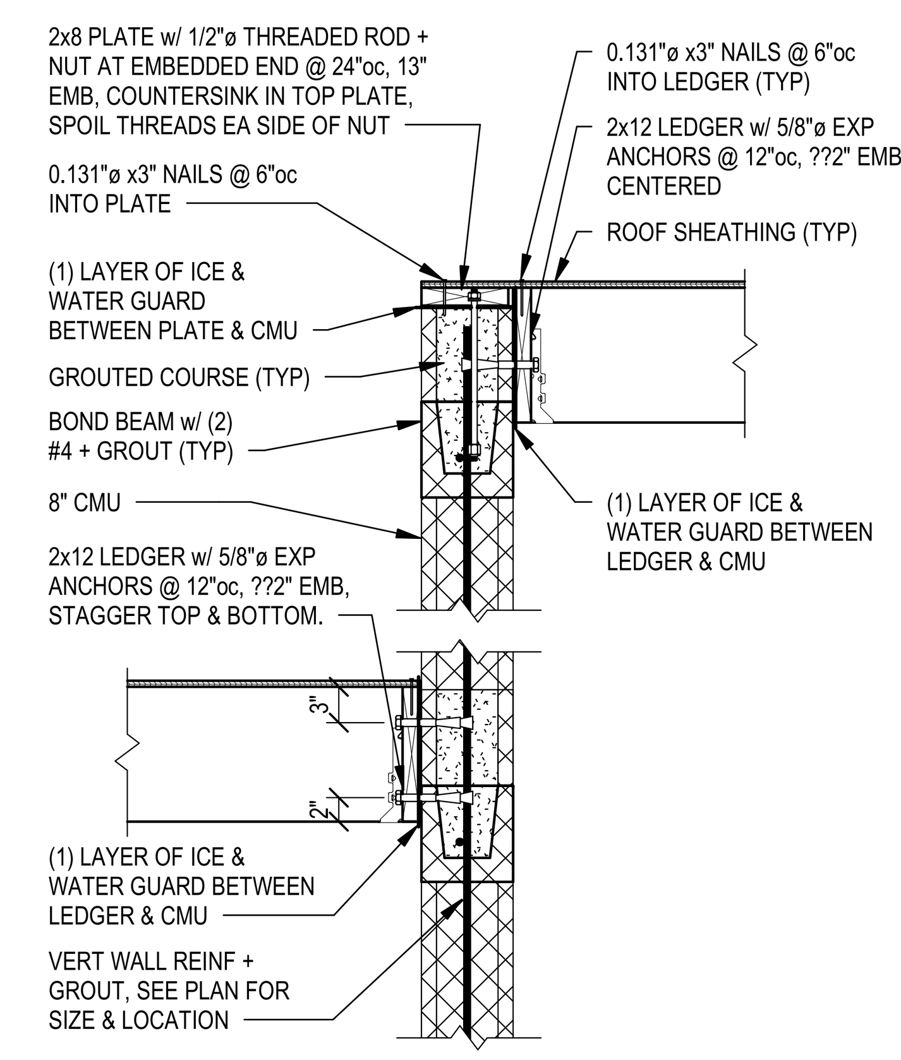
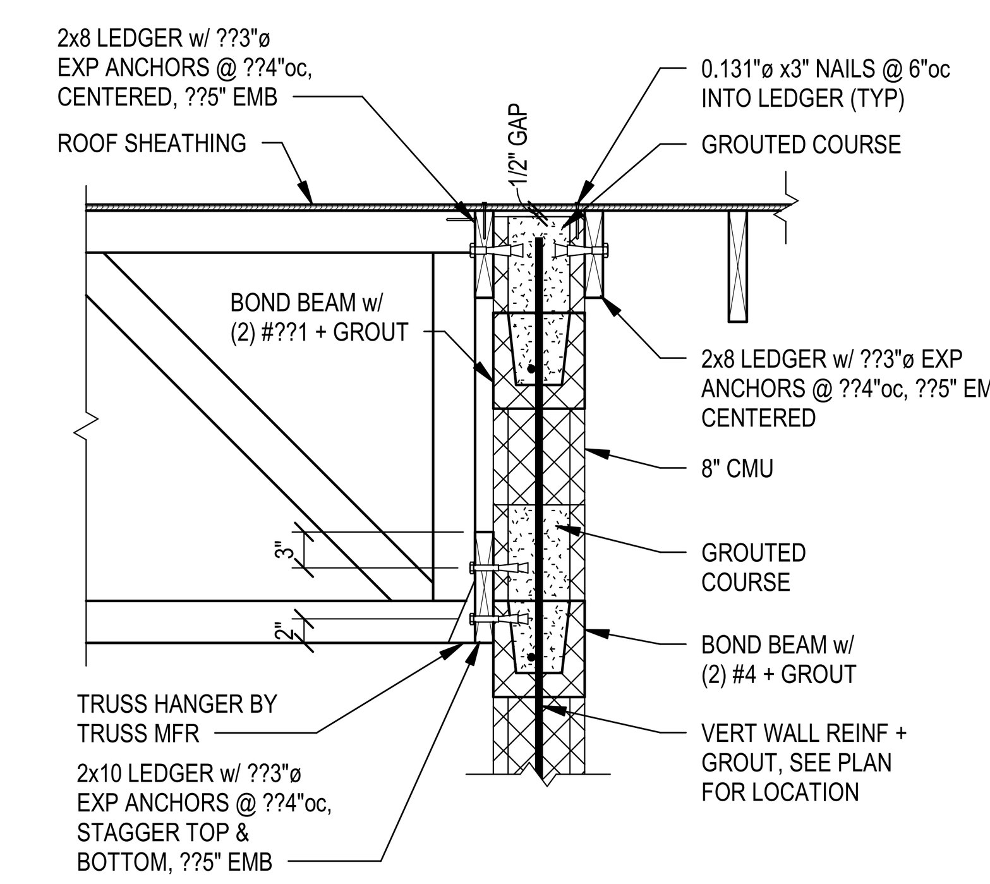
3/4" = 1'-0" S313



SECTION 8
3/4" = 1'-0" S313



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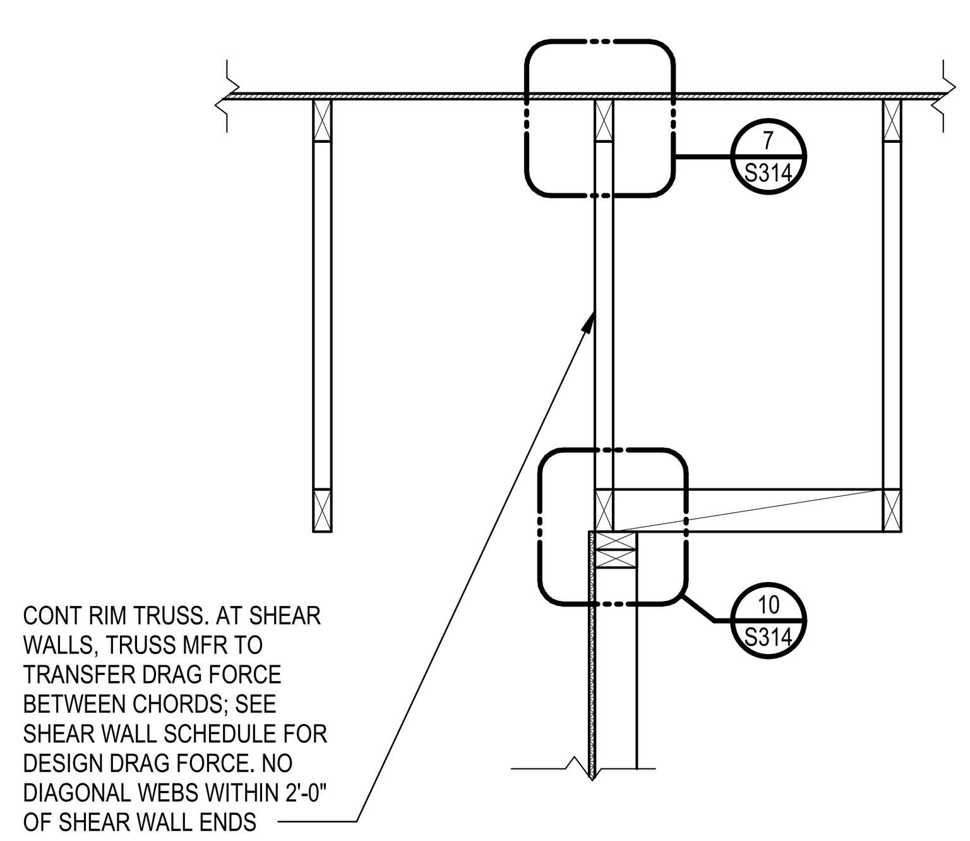
3/4" = 1'-0" S313



SECTION 10
NTS S313

PARAMOUNT WORKS

2505 KEMPER LN
CINCINNAT OH, 45206

ENGINEER: Designer
MODELER: Author
CHECKED BY: Checker

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PROJECT NUMBER:
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WOOD ROOF FRAMING DETAILS & SECTIONS

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Issue Date

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S313

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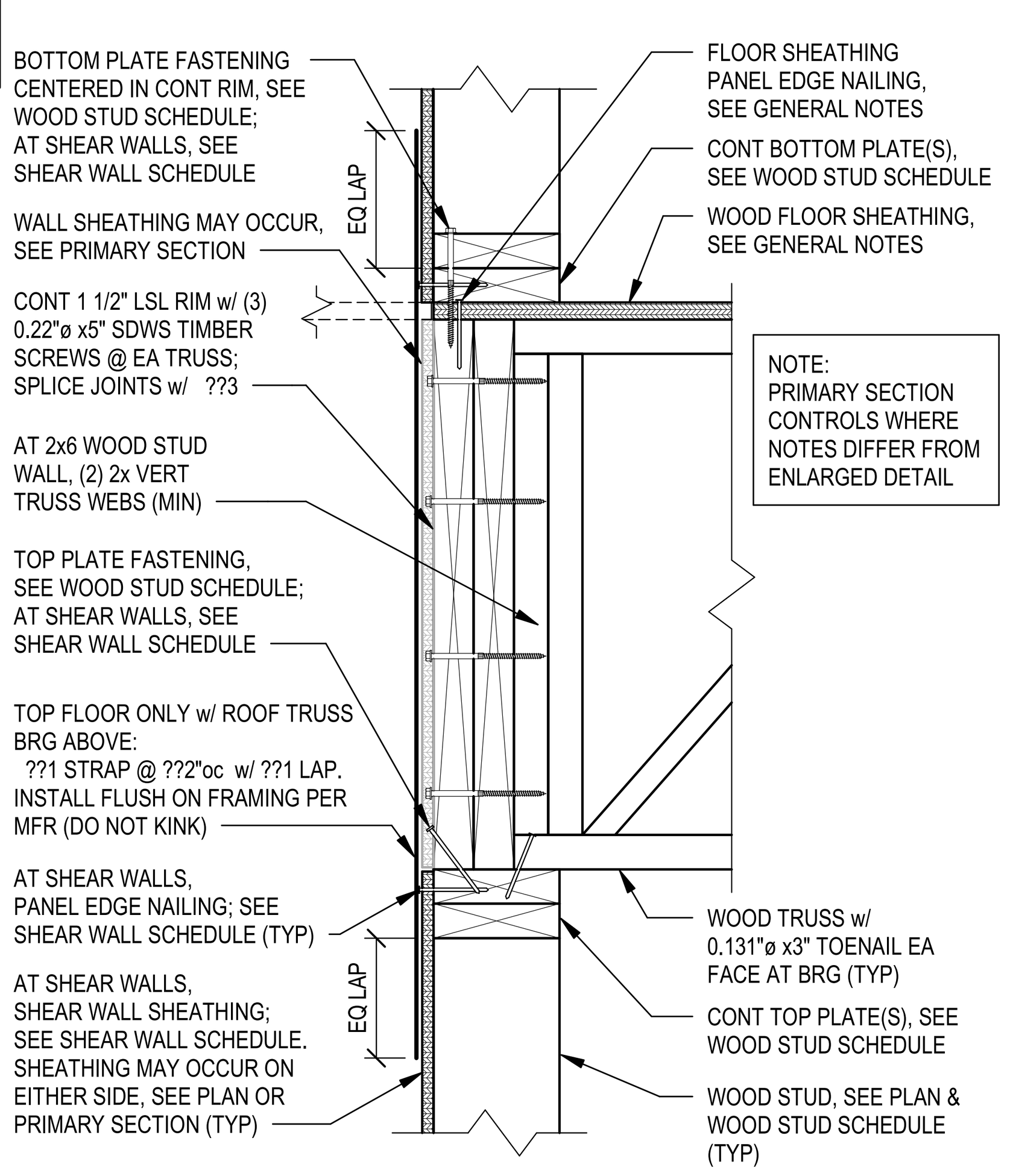
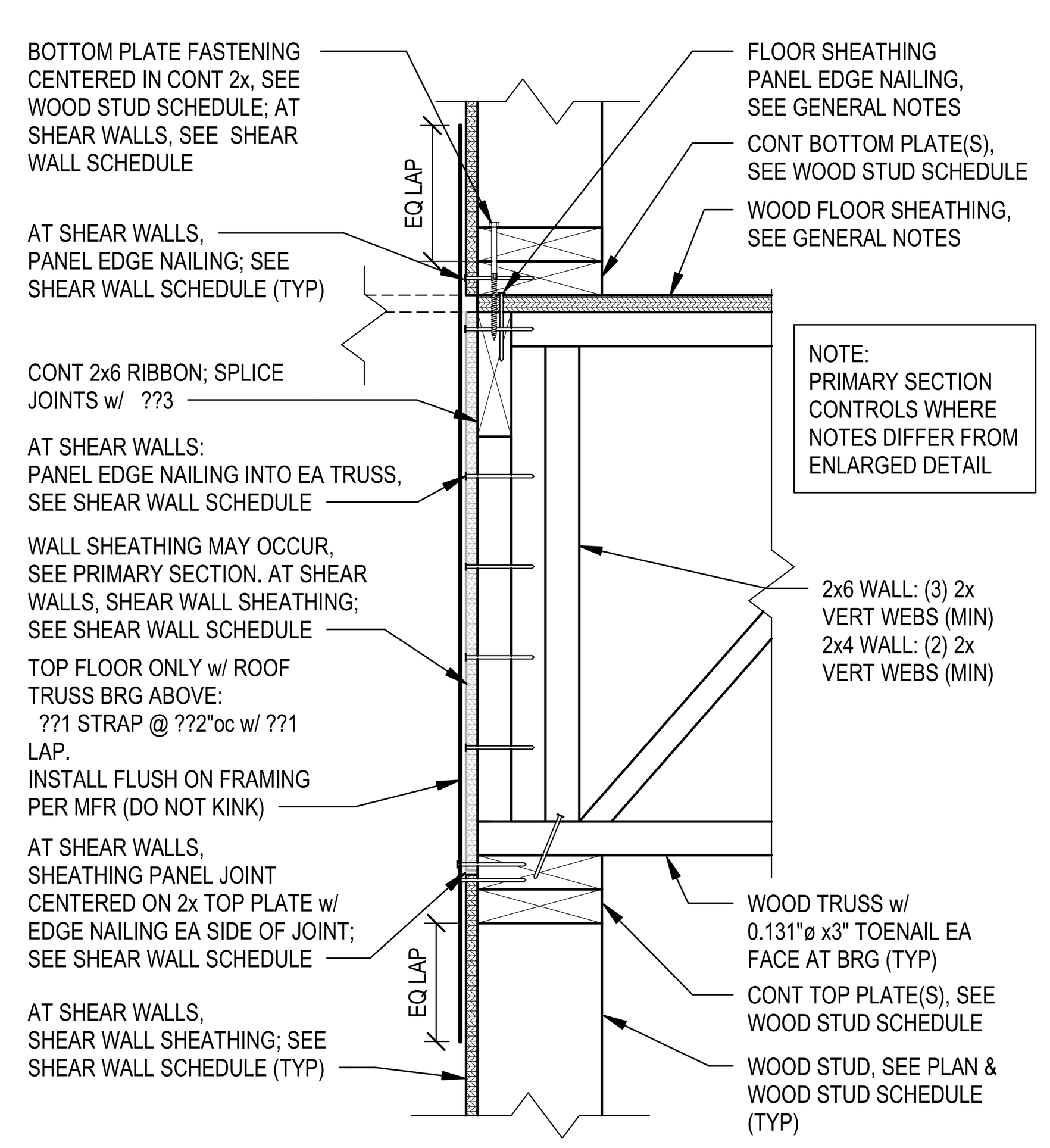
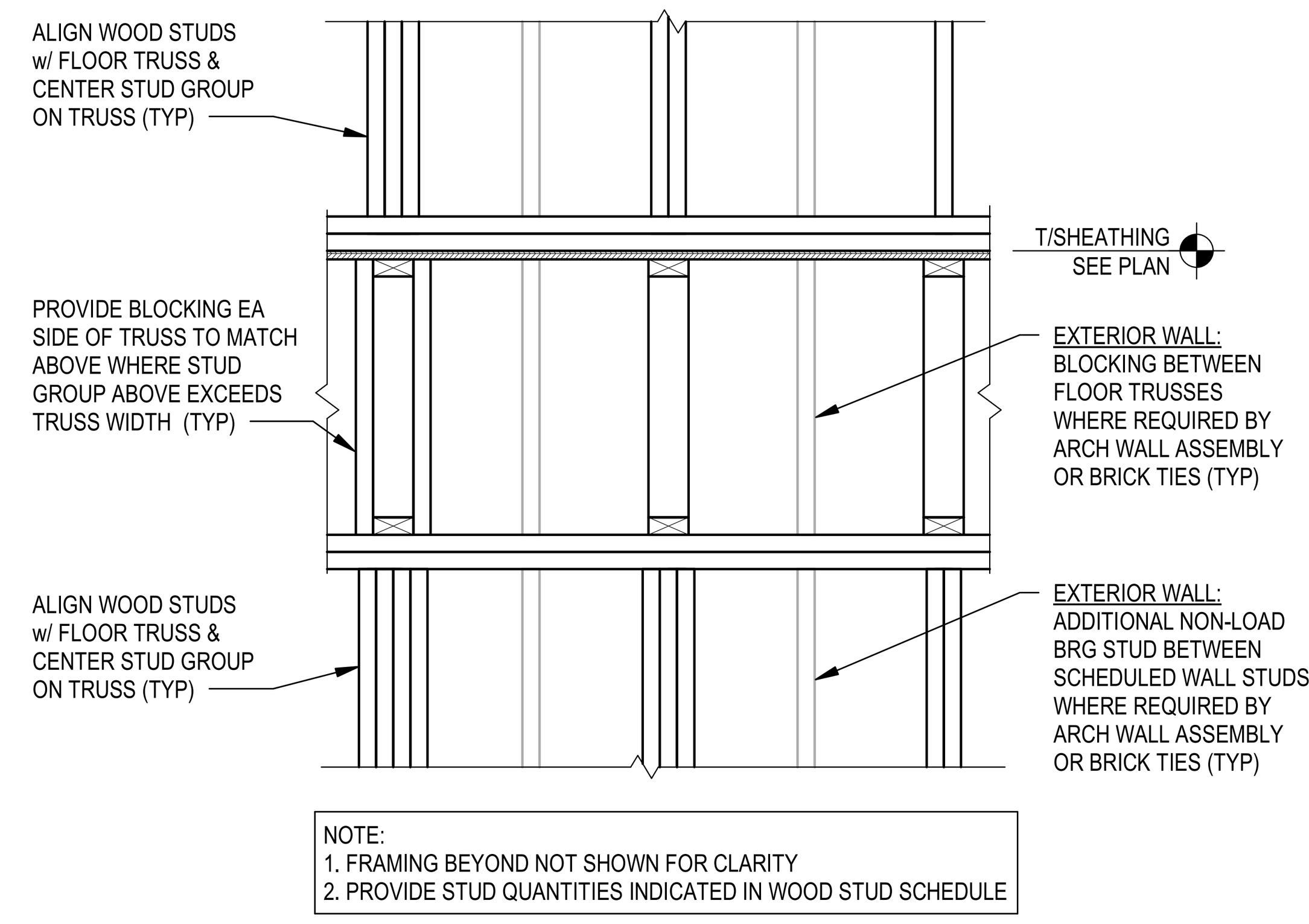
Owner 2312.95



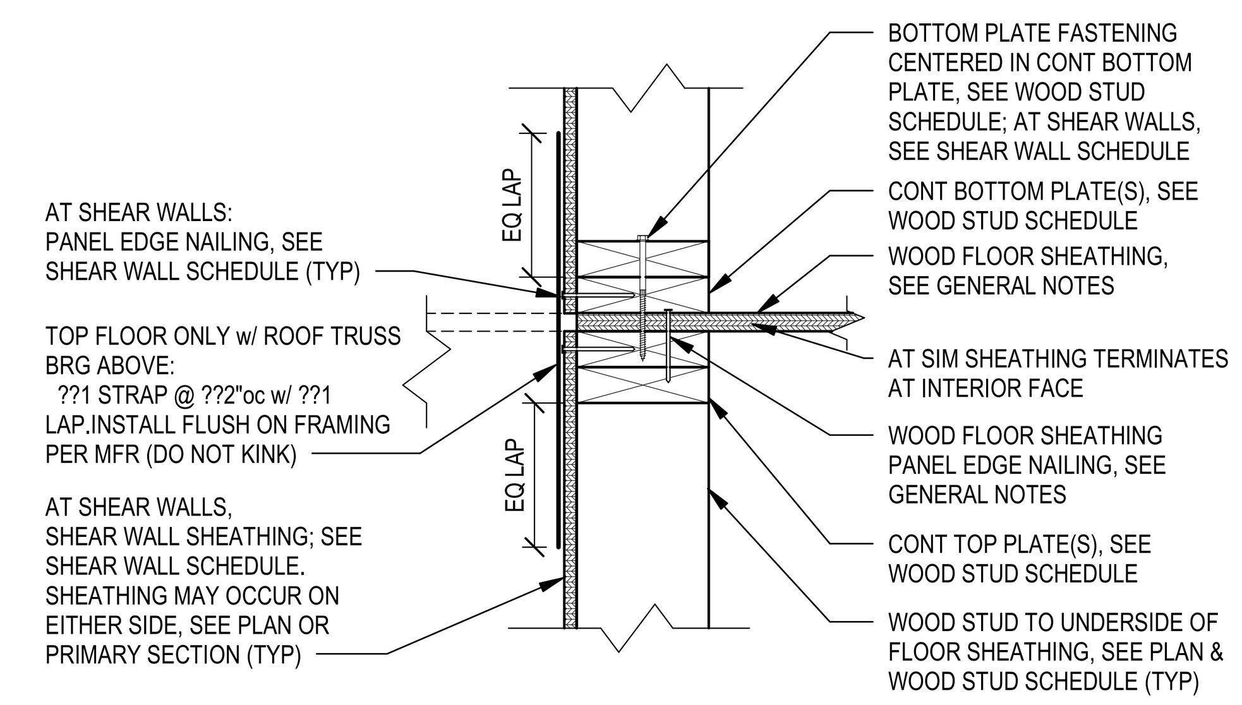
DETAIL 1 NTS S314



DETAIL 2 NTS S314



SECTION 3 NTS S314



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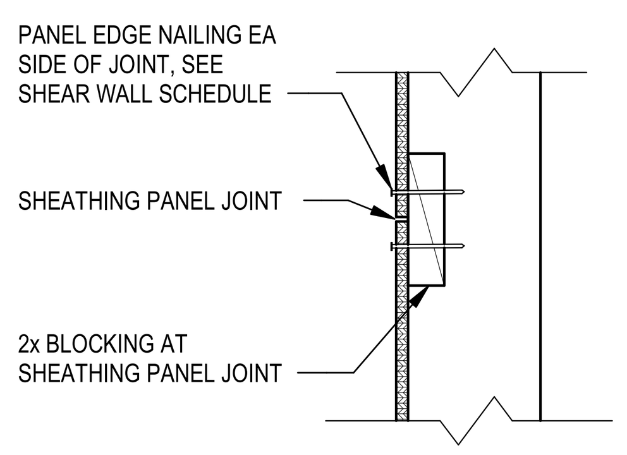

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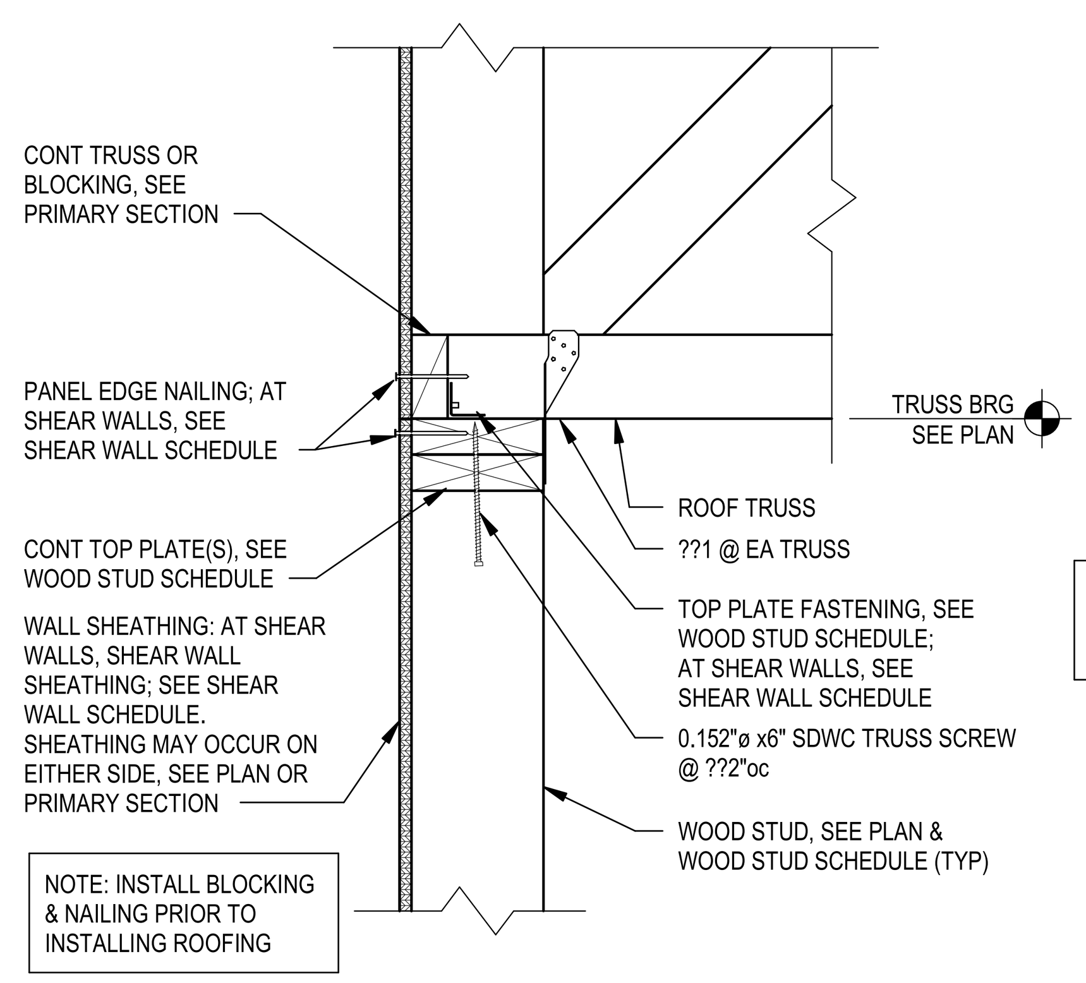
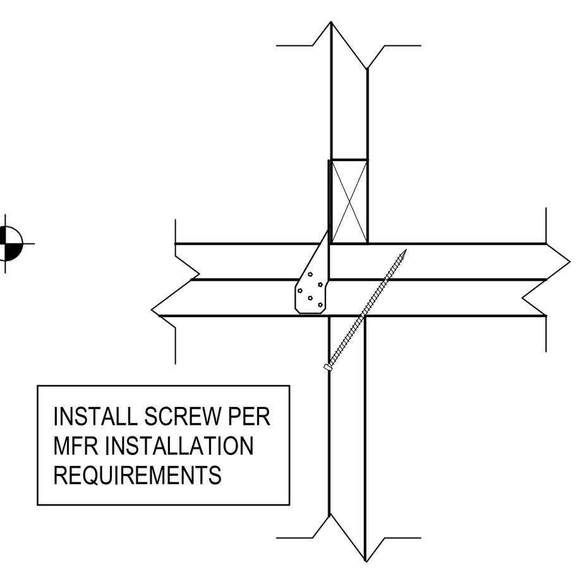
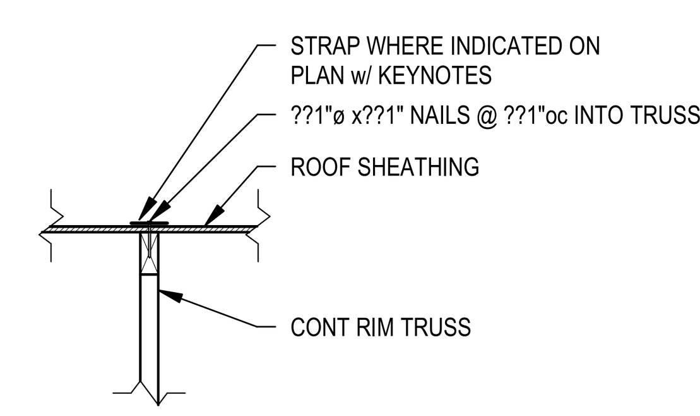


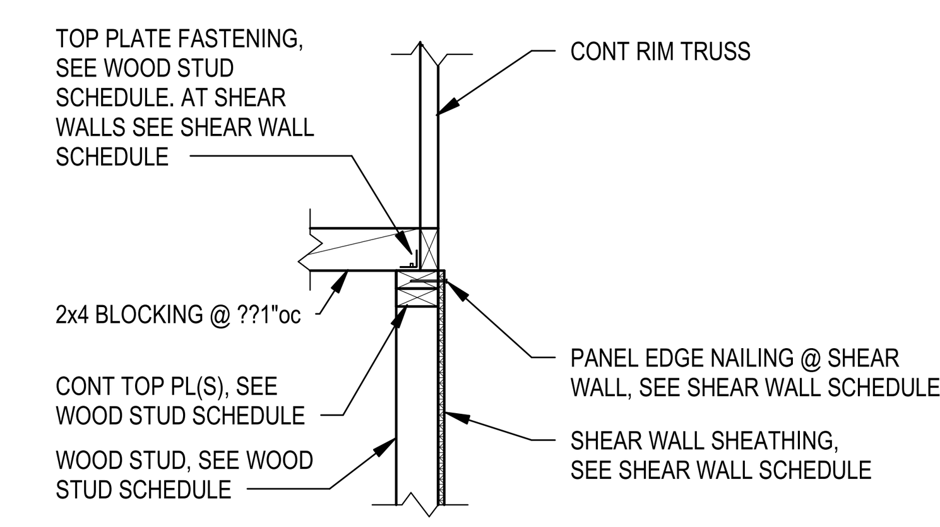


ELEVATION

SECTION 6 NTS S314



SECTION 7 NTS S314



SECTION 10 NTS S314

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CINCINNAT OH, 45206

ENGINEER: Designer
MODELER: Author
CHECKED BY: Checker

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PROJECT NUMBER:
2312.95

SHEET NAME:
TYPICAL FRAMING DETAILS & SECTIONS

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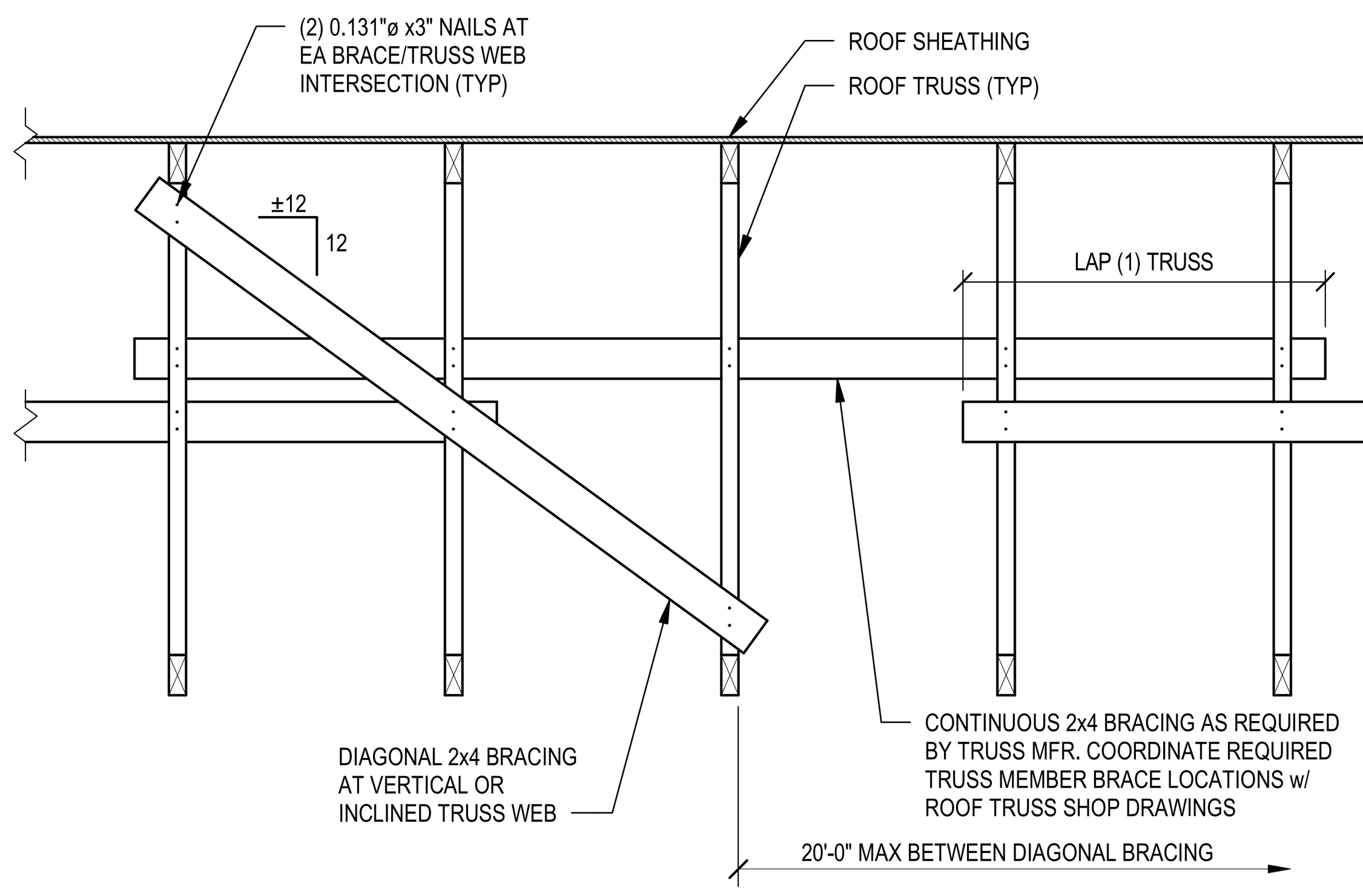
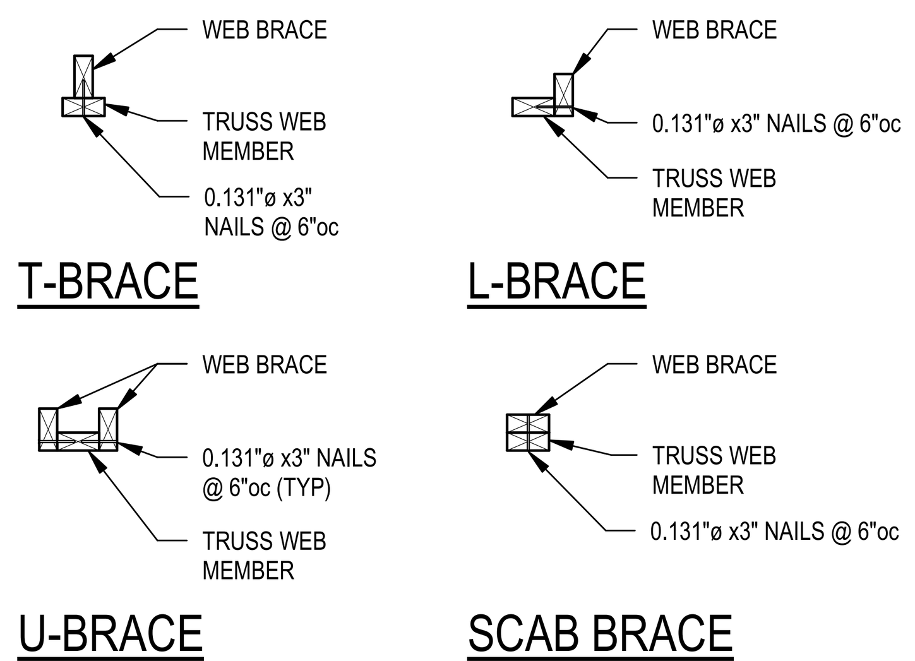
Issue Date

SHEET:
S314



WOOD ROOF TRUSS WEB PERMANENT BRACING DETAIL

NTS



NOTES:

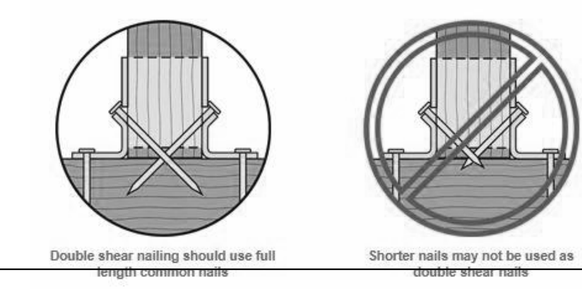
1. ALTERNATE PERMANENT WEB BRACING CONFIGURATIONS TO BE USED WHEN WEBS OF ADJACENT ROOF TRUSSES DO NOT ALIGN & CONTINUOUS LATERAL WEB BRACING CANNOT BE USED. COORDINATE TRUSS WEB MEMBERS WHICH REQUIRE PERMANENT BRACING w/ ROOF TRUSS SHOP DRAWINGS.
2. WEB BRACING SHALL BE (MINIMUM) SAME SIZE AS TRUSS WEB MEMBER.
3. WEB BRACING SHALL EXTEND FOR LENGTH OF TRUSS WEB MEMBER.

ALTERNATE PERMANENT WEB BRACING CONFIGURATIONS

NTS

THE FOLLOWING NOTES ARE IN ADDITION TO THE INFORMATION STATED IN THE WOOD SECTION OF THE GENERAL NOTES.

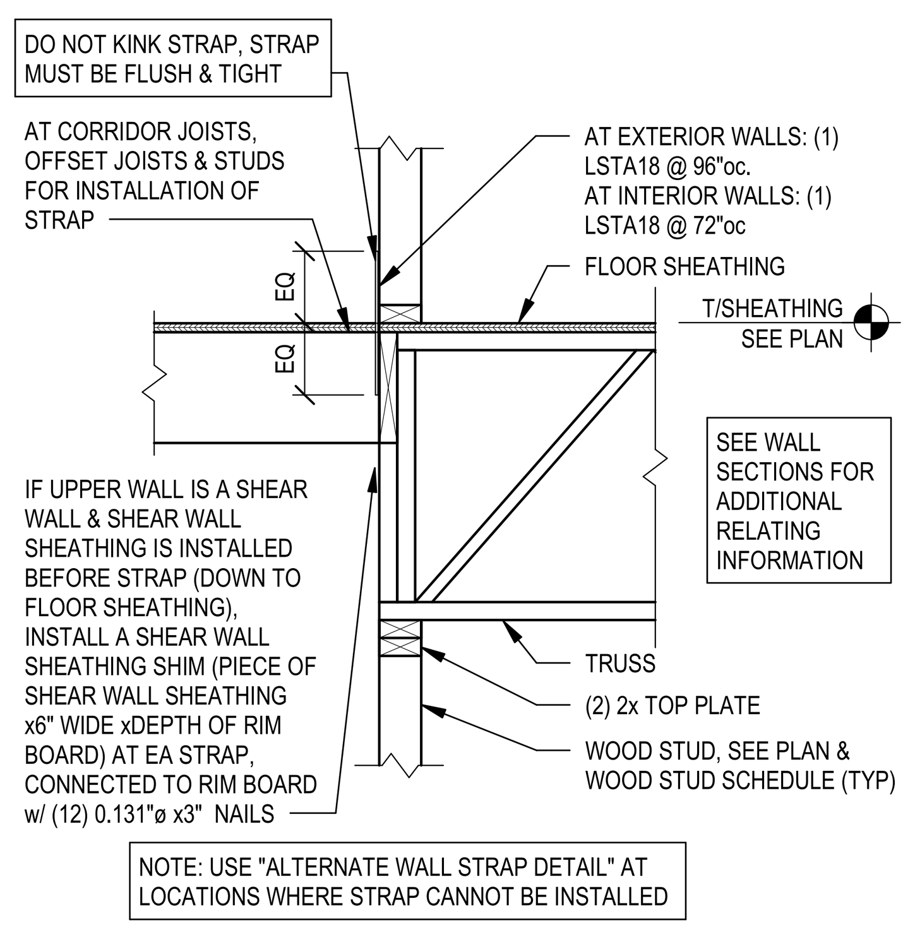
1. NAIL SIZES AS CALLED OUT IN THE STRUCTURAL DRAWINGS & FOR CONNECTIONS ARE AS FOLLOWS:
   - A. 6d NAILS ARE 0.120"ø x1 3/4" LONG (MIN 3/8"ø HEAD)
   - B. 8d NAILS ARE 0.131"ø x2 1/2" LONG.
   - C. 10d NAILS ARE 0.148"ø x3" LONG.
   - D. 16d NAILS ARE 0.162"ø x3 1/2" LONG.
2. PNEUMATIC GUN NAILS SHALL MEET THE DIAMETER & LENGTH AS SHOWN ABOVE REGARDLESS OF THE NAIL SIZE INDICATED BY THE PNEUMATIC GUN NAIL MANUFACTURER.
3. NAILS WITH EXTERIOR EXPOSURE OR FASTENED TO PRESSURE TREATED LUMBER MUST BE GALVANIZED.
4. FOR STRAPS:
   - A. ALWAYS USE THE DIAMETER OF NAIL AS SPECIFIED BY . 1 1/2" LONG NAILS, INSTEAD OF FULL LENGTH NAILS, CAN BE USED IF STRAP IS FASTENED DIRECTLY TO THE FRAMING MEMBER WITHOUT SHEATHING IN BETWEEN. OTHERWISE FULL LENGTH NAILS AS SPECIFIED BY MUST BE USED.
5. FOR HANGERS:
   - A. ALWAYS USE THE DIAMETER OF NAIL & MAXIMUM NAILING AS SPECIFIED BY .
     - a. IF FASTENING TO A MULTIPLE PLY BEAM/HEADER, FULL LENGTH NAILS AS SPECIFIED BY MUST BE USED FOR FASTENING FROM THE HANGER FLANGE TO THE BEAM/HEADER.
     - b. IF FASTENING TO A SINGLE PLY BEAM/HEADER, 1 1/2" LONG NAILS FASTENING FROM THE HANGER FLANGE TO THE BEAM/HEADER CAN BE USED INSTEAD OF FULL LENGTH NAILS AS SPECIFIED BY .
     - c. IF HANGER IS A DOUBLE SHEAR HANGER, DIAGONAL NAILS MUST BE FULL LENGTH AS SPECIFIED BY REGARDLESS OF WHETHER OR NOT THE BEAM/HEADER IS SINGLE PLY OR MULTIPLE PLY, SEE IMAGE BELOW.



NAILING LENGTH NOTES

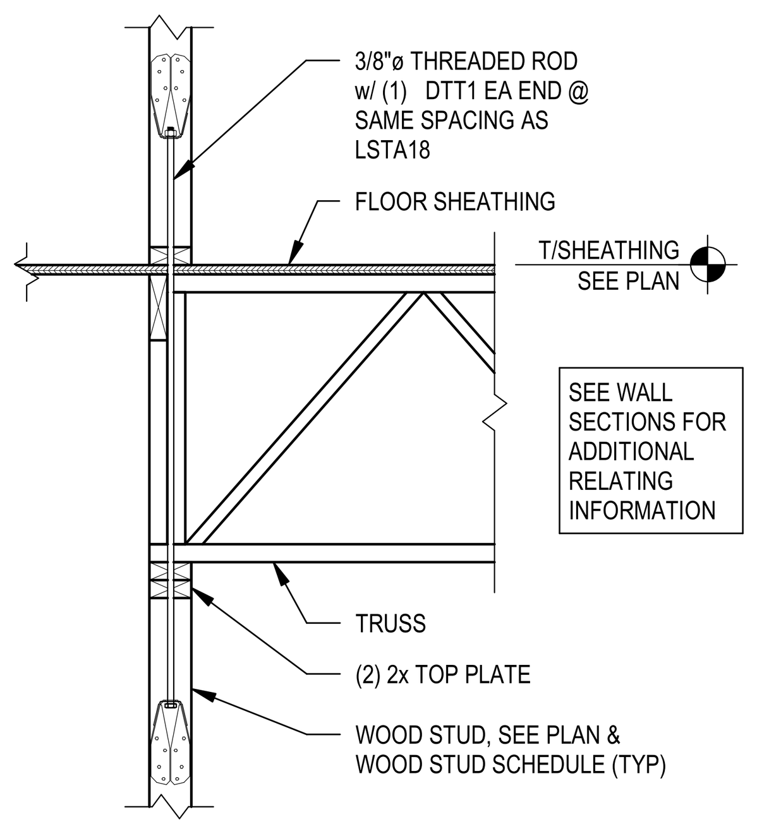
WOOD HEADER SCHEDULE										
MARK	HEADER SIZE	BRG STUDS, BOTH ENDS								NOTES
		3RD FLR		4TH FLR		5TH FLR		6TH FLR		
		2x4	2x6	2x4	2x6	2x4	2x6	2x4	2x6	
H1	(3) 2x6 FRT	-	1	-	1	-	1	-	1	LSTA15 EA END @ ROOF ONLY
H2	(3) 2x6	-	2	-	1	-	1	-	1	LSTA9 EA END @ ROOF ONLY
H3	(3) 2x8	-	2	-	2	-	1	-	1	LSTA12 EA END @ ROOF ONLY
H4	(3) 2x8	-	4	-	3	-	2	-	1	LSTA12 EA END @ ROOF ONLY
H5	(3) 2x8 FRT	-	-	-	-	-	-	-	1	(2) LSTA12 EA END @ ROOF ONLY
H6	(3) 2x10 FRT	-	-	-	-	-	-	-	1	(2) LSTA12 EA END @ ROOF ONLY
H7	(2) 1 1/2"x20" LSL	-	2	-	2	-	1	-	-	
H8	(2) 1 1/2"x20" LSL	-	3	-	2	-	2	-	-	
H9	(2) 1 1/2"x20" LSL	-	4	-	3	-	2	-	-	

HEADER END STUD SCHEDULE				
OPENING WIDTH UP TO	END STUD QTY, BOTH ENDS			
	EXTERIOR (FRT)		INTERIOR	
	2x4	2x6	2x4	2x6
7'-6"	-	1	1	1



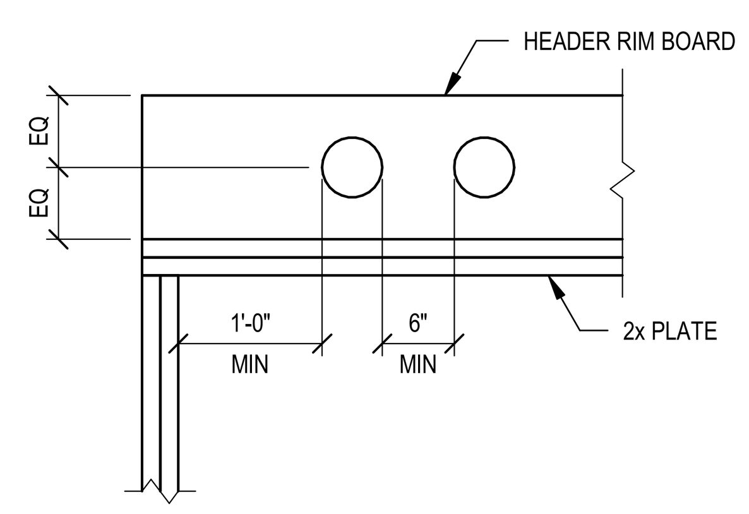
TYPICAL WALL STRAP DETAIL AT HIGHEST LEVEL WALLS ONLY

NTS



ALTERNATE WALL STRAP DETAIL AT HIGHEST LEVEL WALLS ONLY

NTS

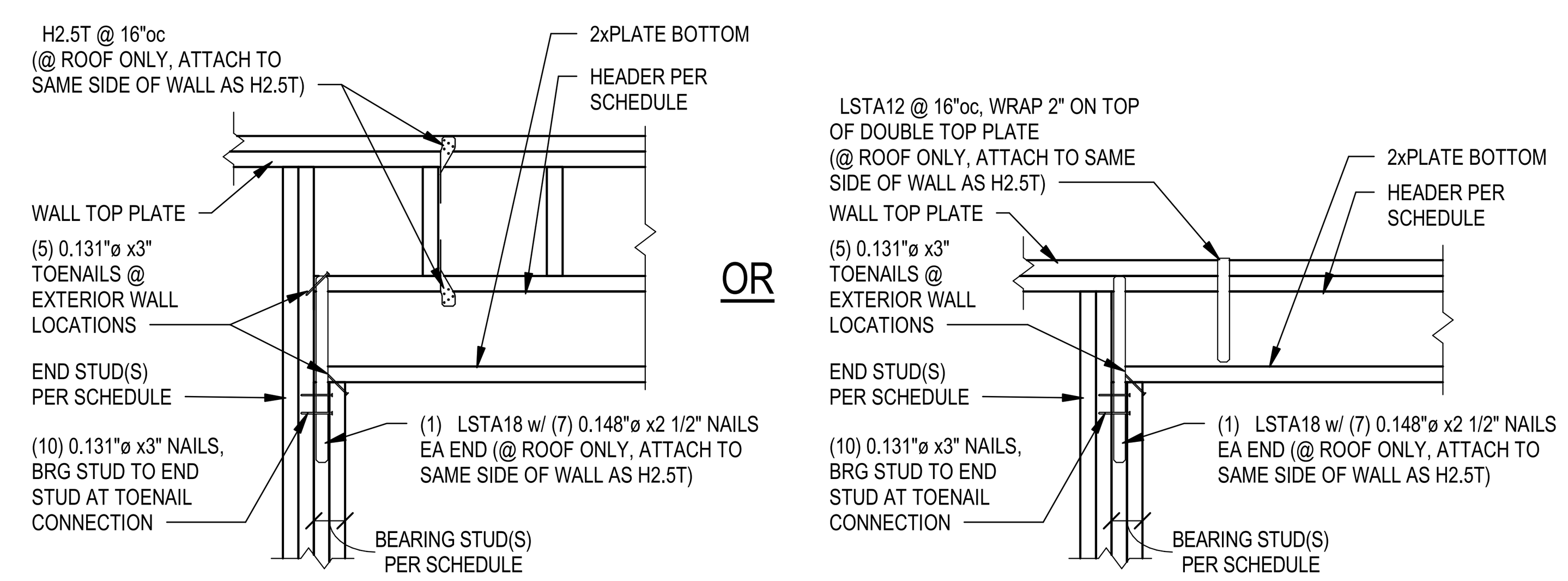


NOTES:

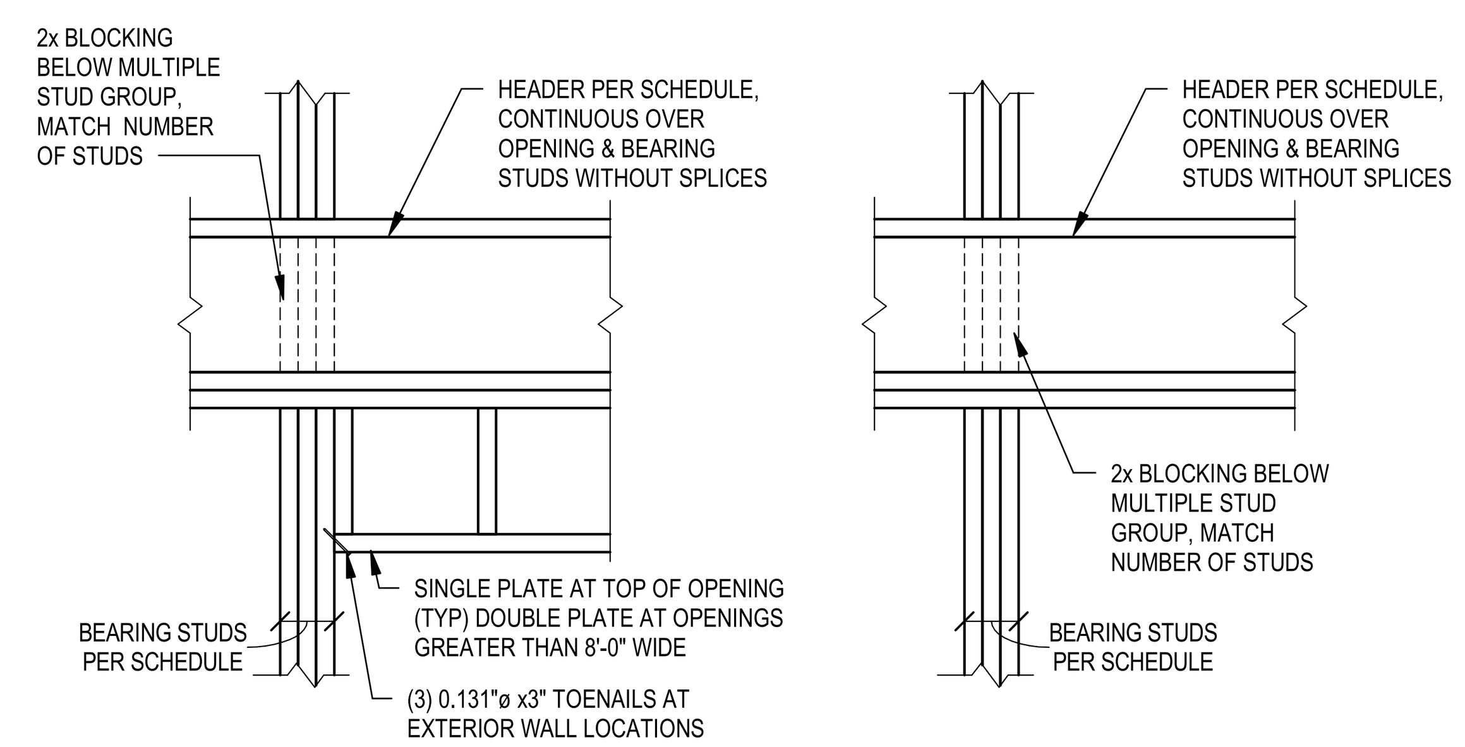
1. ALL PENETRATIONS ARE ROUND.
2. SEE MEP DRAWINGS FOR SIZE AND LOCATION OF PENETRATION.
3. CONTRACTOR TO SUBMIT FINAL SIZE & LOCATION OF ALL PENETRATIONS TO STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO CUTTING HOLES.

TYPICAL FLUSH HEADER PENETRATION DETAIL

NTS



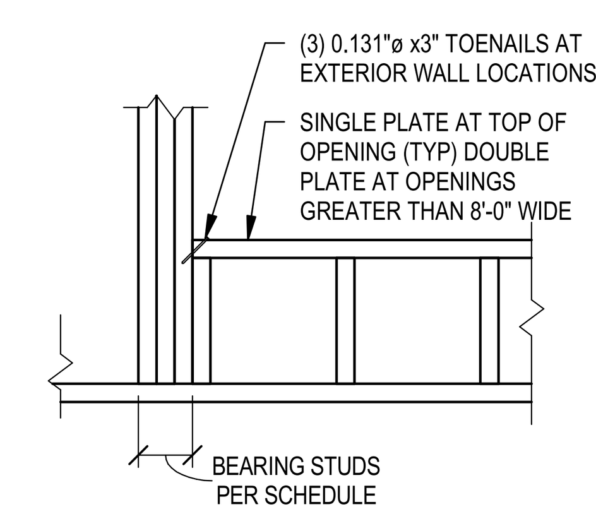
DROPPED HEADER (INTERIOR & EXTERIOR)



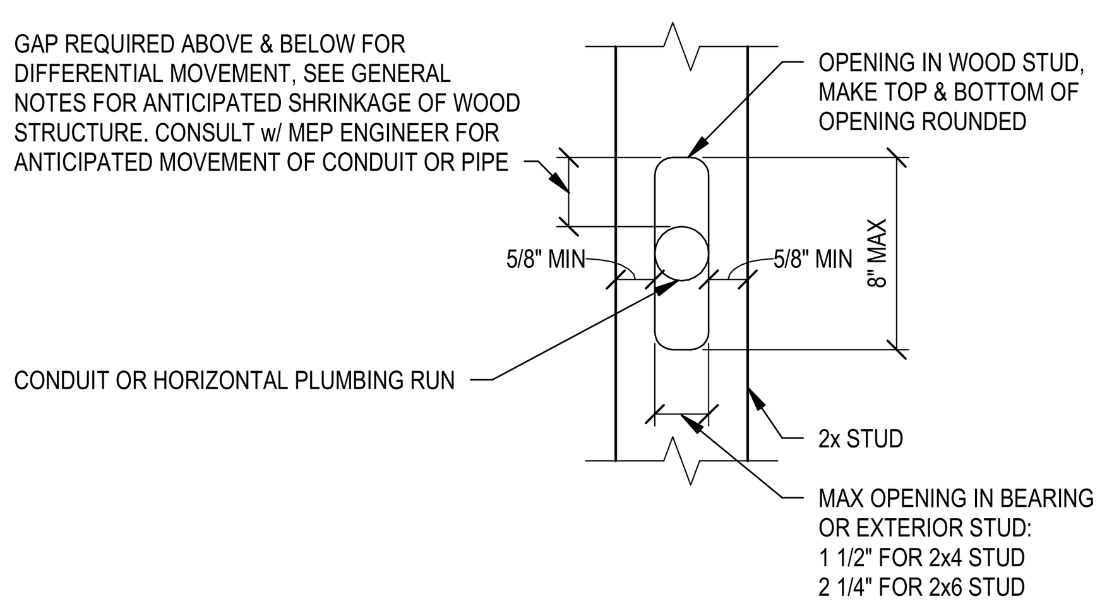
FLUSH HEADER DETAIL 1

FLUSH HEADER DETAIL 2

FLUSH HEADER

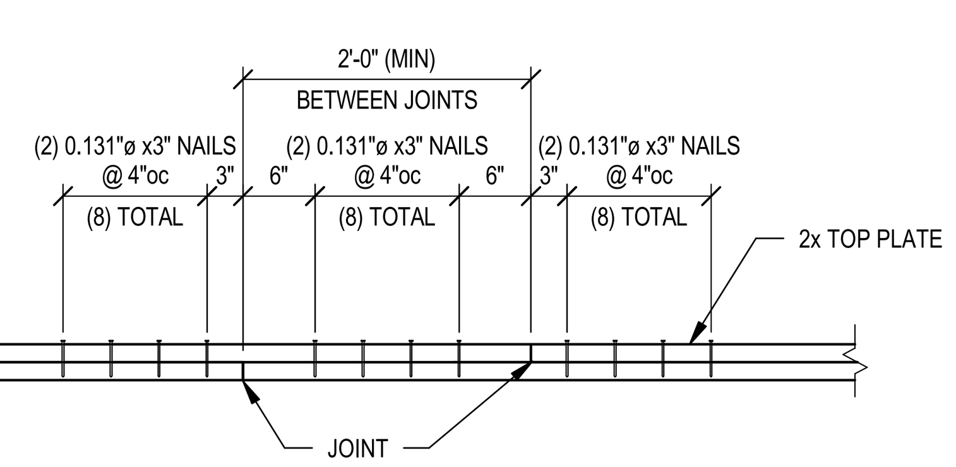


WINDOW SILL DETAIL



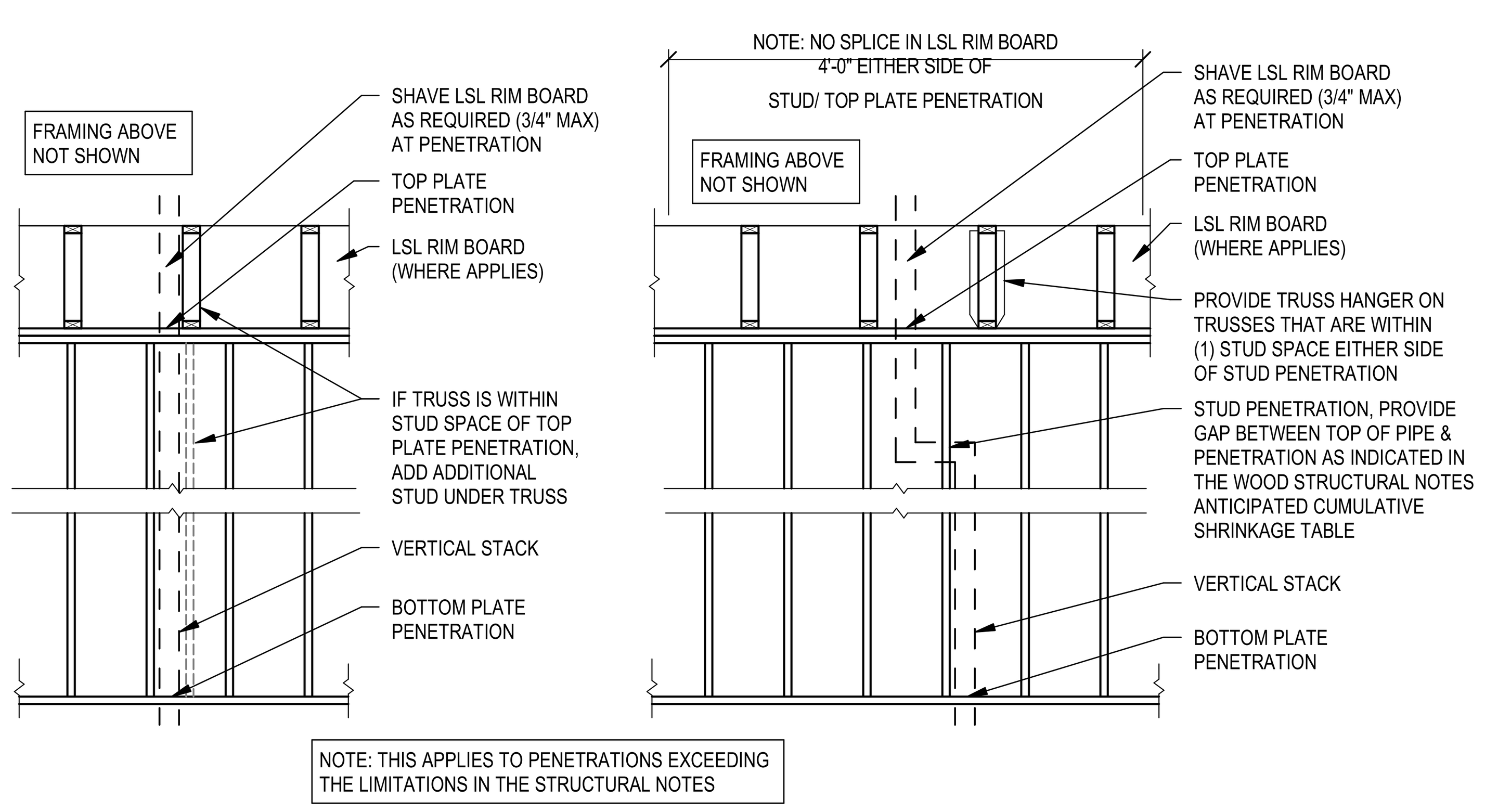
TYPICAL HORIZONTAL PENETRATION THRU WOOD STUDS

NTS



TYPICAL TOP PLATE SPLICE DETAIL

NTS



VERTICAL STACK

90º BEND IN VERTICAL STACK

PLUMBING STACK TOP PLATE/STUD PENETRATION DETAIL IN LOAD BEARING WALL

NTS

WOOD STUD SCHEDULE								
TYPE/ LOCATION	EXTERIOR	INTERIOR CORRIDOR	INTERIOR DEMISING (TRUSS BEARING ON WALLS)[5]		INTERIOR LOAD BEARING WITHIN UNIT[5]	INTERIOR NON-LOAD BEARING	EAST STAIR SHAFT (TRUSS OR JOIST BEARING ON WALL)	WEST STAIR SHAFT (TRUSS OR JOIST BEARING ON WALL)
			TRUSS SPAN ≤ 16'-0"	TRUSS SPAN > 16'-0"				
6TH FLR	(1) FRT 2x6 @ 16"oc	(1) 2x4 @ 16"oc	(1) 2x4 @ 24"oc	(1) 2x4 @ 24"oc	(1) 2x6 @ 24"oc	(1) 2x6 @ 16"oc	(1) 2x6 @ 16"oc	(1) 2x6 @ 16"oc
4TH FLR	(1) FRT 2x6 @ 16"oc	(1) 2x4 @ 16"oc	(1) 2x4 @ 24"oc	(2) 2x4 @ 24"oc	(1) 2x6 @ 24"oc	(1) 2x6 @ 16"oc	(1) 2x6 @ 16"oc	(1) 2x6 @ 16"oc
3RD FLR	(1) FRT 2x6 @ 16"oc	(1) 2x4 @ 16"oc	(2) 2x4 @ 24"oc	(3) 2x4 @ 24"oc	(2) 2x6 @ 24"oc	(1) 2x6 @ 16"oc	(2) 2x6 @ 16"oc	(1) 2x6 @ 16"oc
2ND FLR	(1) FRT 2x6 @ 16"oc	(1) 2x4 @ 16"oc	(2) 2x4 @ 24"oc	(4) 2x4 @ 24"oc	(3) 2x6 @ 24"oc	(1) 2x6 @ 16"oc	(2) 2x6 @ 16"oc	(2) 2x6 @ 16"oc
BOTTOM PLATE FASTENING[2,3]	SDWS22500DB @ 32"oc	SDWS22500DB @ 48"oc	SDWS22500DB @ 48"oc	SDWS22500DB @ 48"oc	SDWS22500DB @ 48"oc	SDWS22500DB @ 48"oc	SDWS22500DB @ 48"oc	SDWS22500DB @ 48"oc
TOP PLATE FASTENING[2,3]	SEE BOTTOM PLATE FASTENING	SEE BOTTOM PLATE FASTENING	SEE BOTTOM PLATE FASTENING	SEE BOTTOM PLATE FASTENING	SEE BOTTOM PLATE FASTENING	SEE BOTTOM PLATE FASTENING	SEE BOTTOM PLATE FASTENING	SEE BOTTOM PLATE FASTENING
WALL BASE ANCHORAGE TO CONCRETE SLAB[3]	5/8"ø x 6" TITEN HD @ 48"oc	(2) PAF @ 24"oc	(2) PAF @ 24"oc	(2) PAF @ 24"oc	(2) PAF @ 24"oc	(2) PAF @ 24"oc	(2) PAF @ 24"oc	(2) PAF @ 24"oc

NOTES:

1. SEE GENERAL NOTES FOR STUD MATERIAL.
2. SEE REFERENCED SECTIONS ON PLAN FOR BOTTOM AND TOP PLATE FASTENING REQUIREMENTS.
3. AT SHEAR WALLS SEE SHEAR WALL SCHEDULE FOR REQUIREMENTS.
4. PROVIDE (2) 2x BOTTOM PLATE(S) & (2) 2x TOP PLATES. PLATE MATERIAL SHALL MATCH STUD MATERIAL.
5. PROVIDE SPECIFIED STUDS AT TRUSS BEARING LOCATION AND PROVIDE ADDITIONAL STUDS @ 12"oc AS REQUIRED BY ARCHITECTURAL. SEE SECTIONS.
6. REFER TO ARCHITECTURAL FLOOR PLANS AND STRUCTURAL FRAMING PLANS FOR WALL TYPES AND EXTENTS.
7. FOR SCREW SPACING TIGHTER THAN 6"oc, PRE-DRILL AS REQUIRED TO PREVENT SPLITTING OF THE WOOD MEMBER.

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ENGINEER: Designer
MODELER: Author
CHECKED BY: Checker

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NO	DATE	DESCRIPTION

PROJECT NUMBER:
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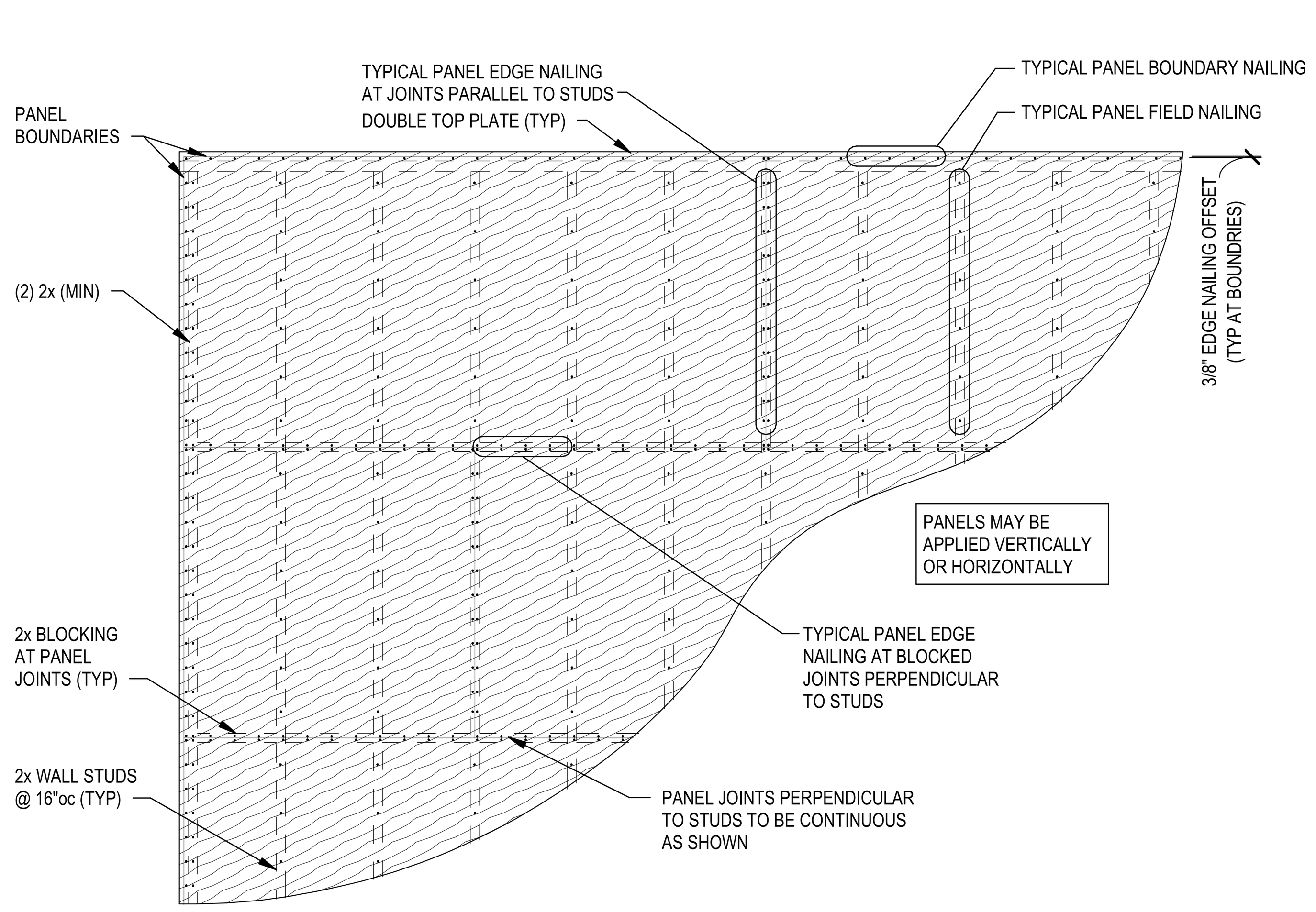
TYPICAL WOOD FRAMING SCHEDULES & DETAILS

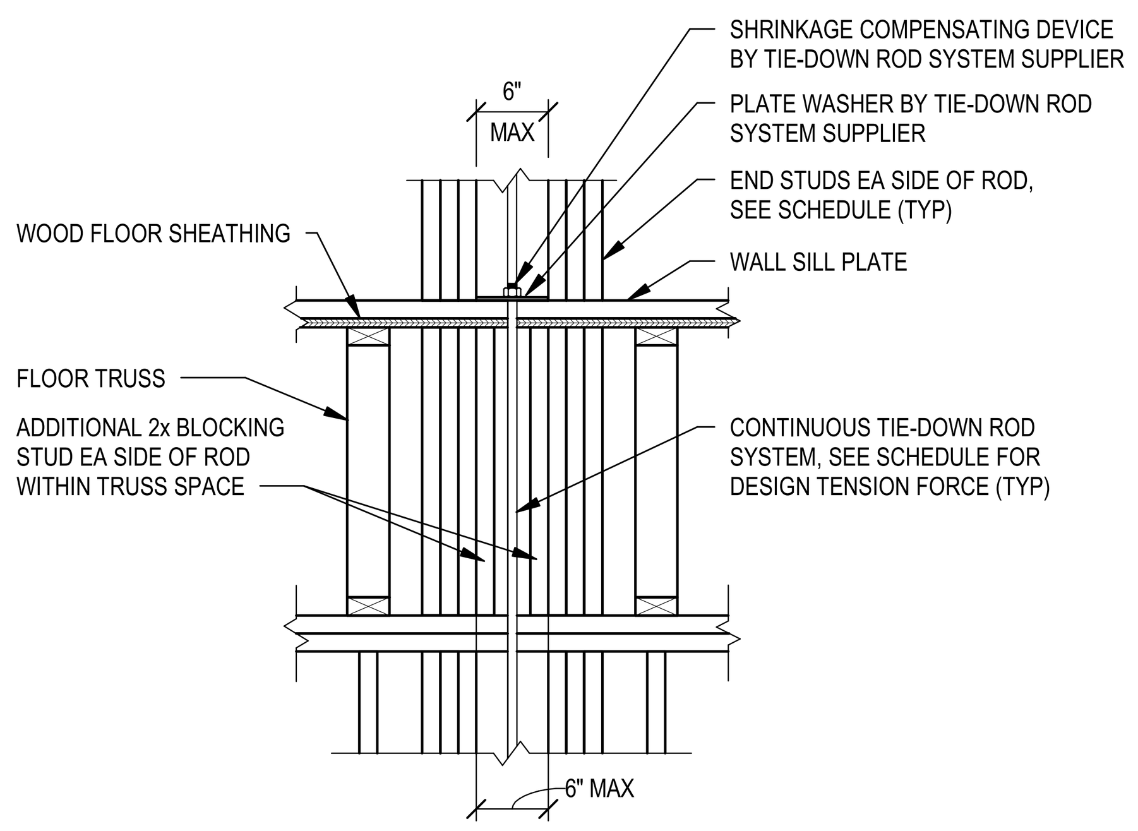
DATE:
Issue Date

SHEET:
S315



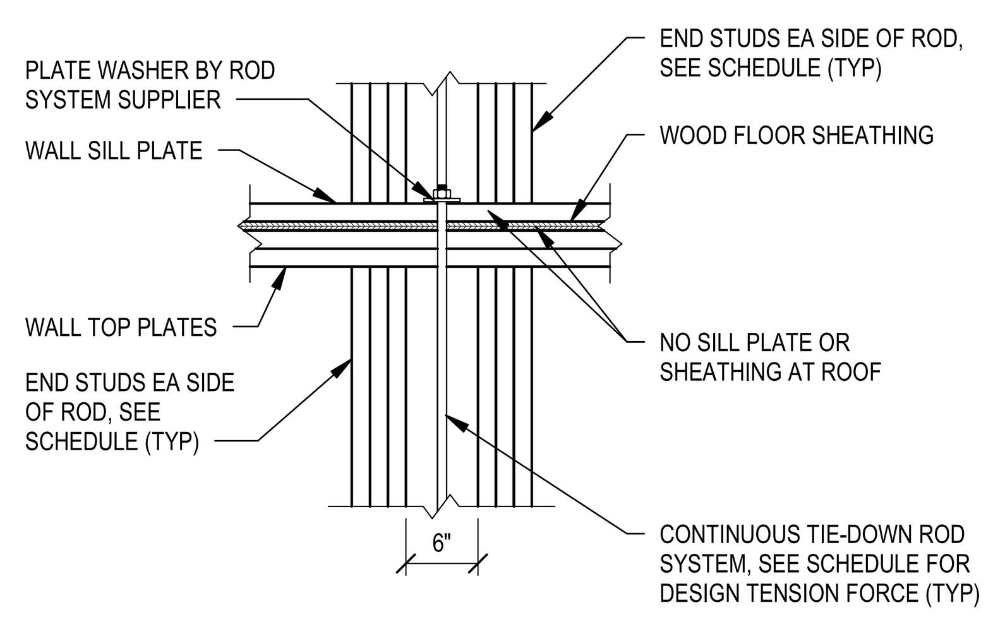
SHEAR WALL SHEATHING NAILING DETAIL

NTS



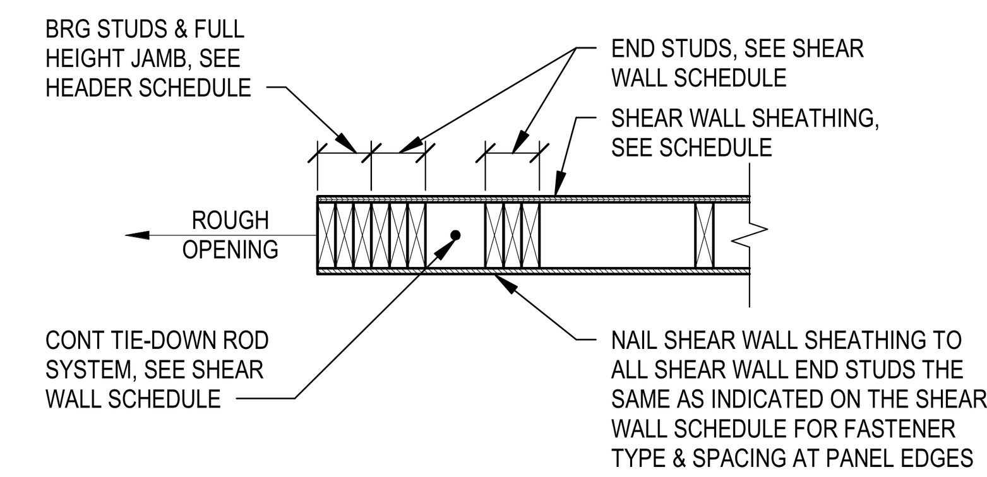
DETAIL 1 S316

3/4" = 1'-0"



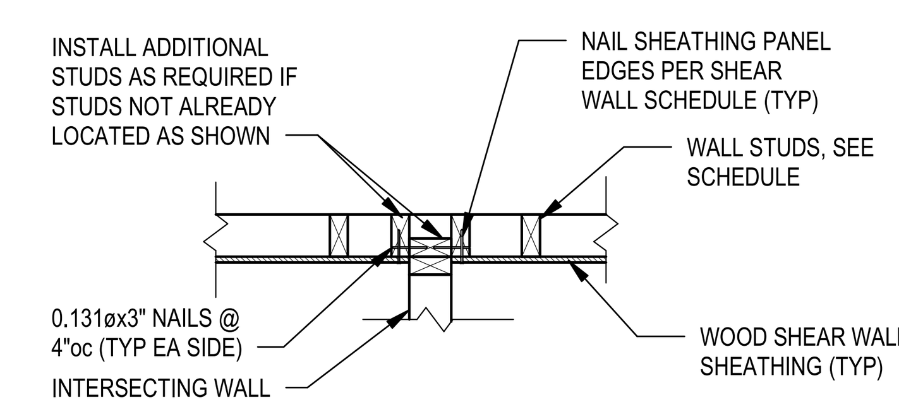
TYPICAL BEARING BLOCK DETAIL 2 S316

3/4" = 1'-0"



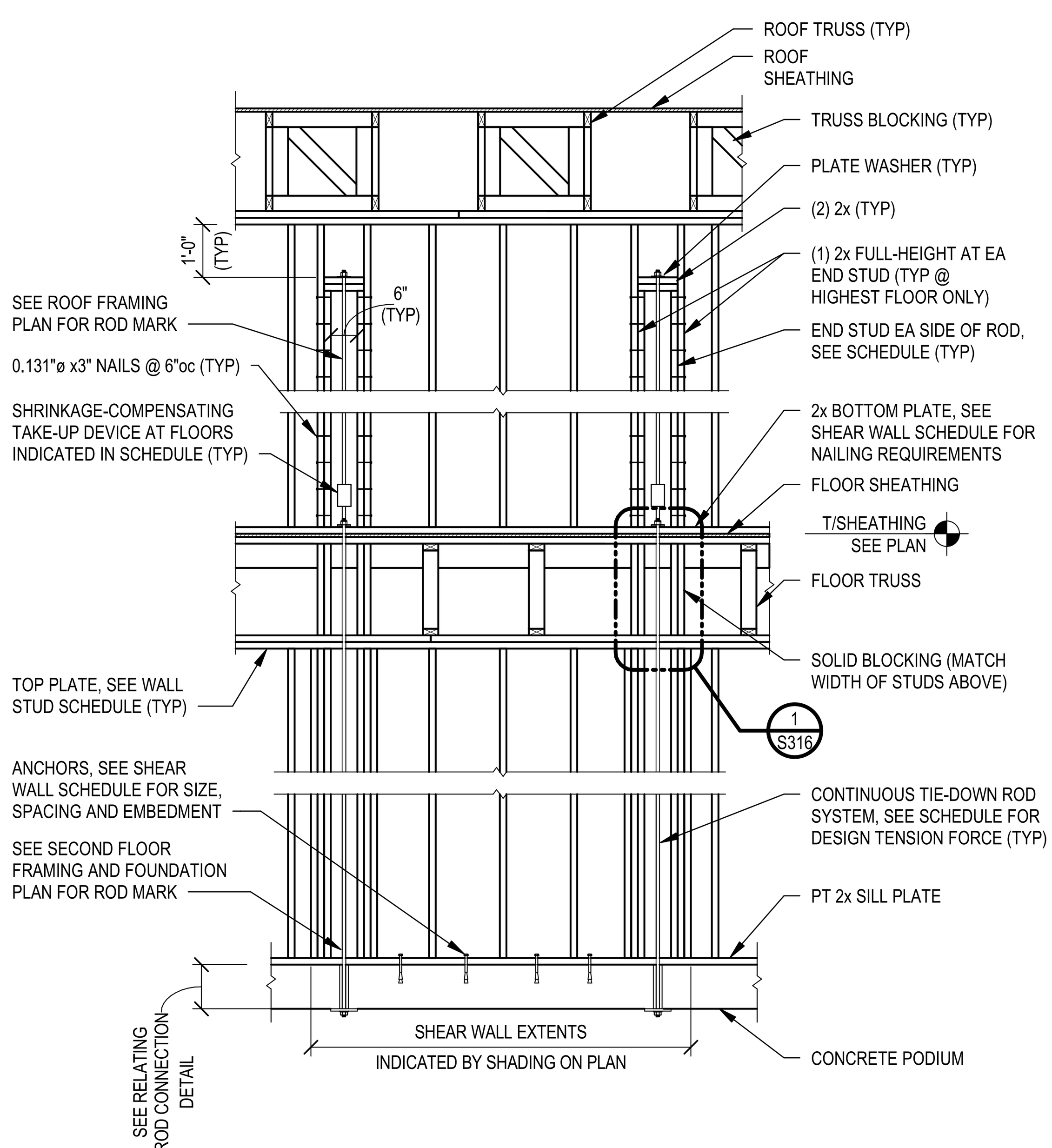
TYPICAL PLAN DETAIL FOR SHEAR WALL CONTINUOUS TIE-DOWN ROD SYSTEM ADJACENT TO ROUGH OPENING

NTS



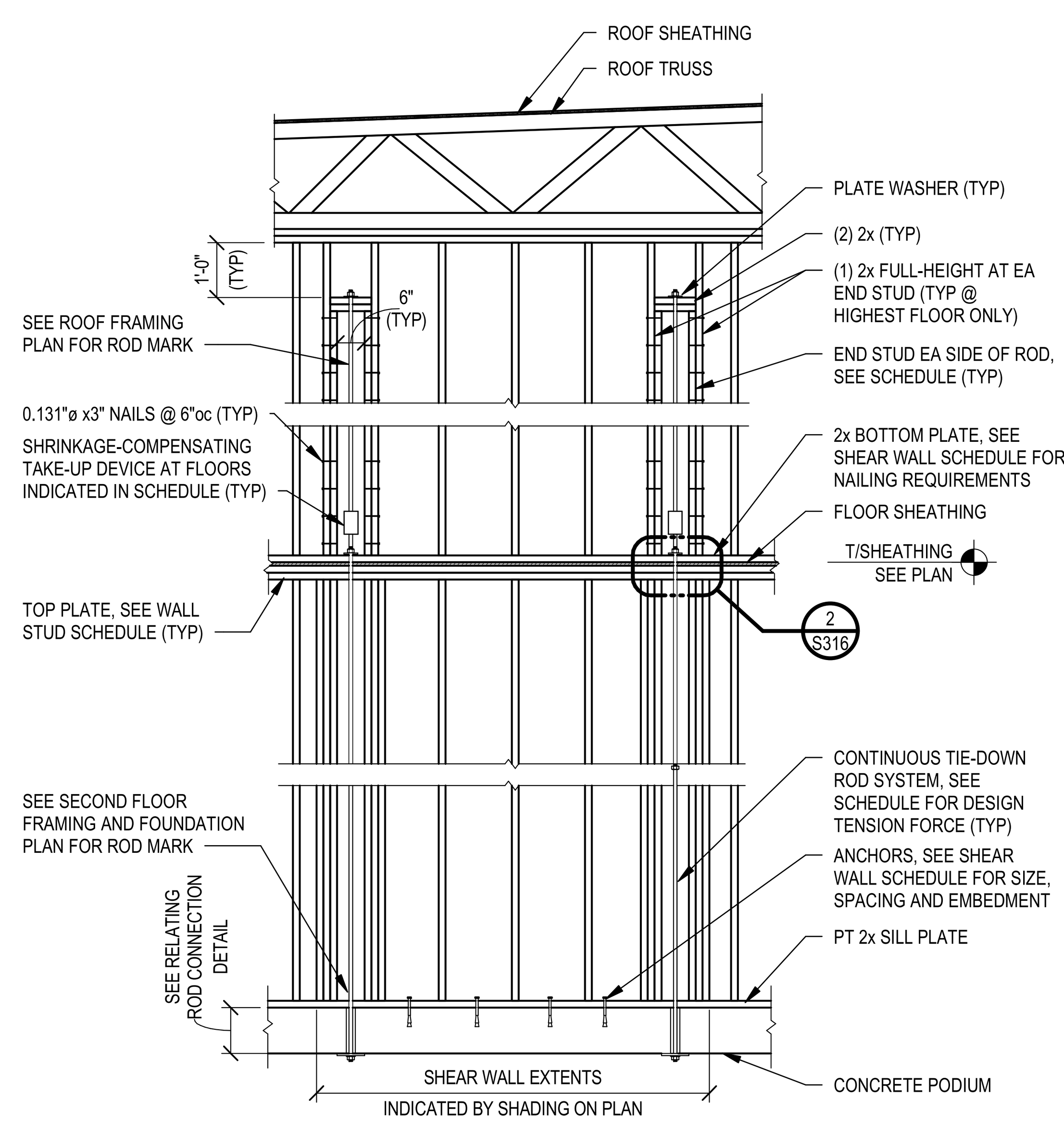
TYPICAL SHEAR WALL SHEATHING INTERRUPTION

3/4" = 1'-0"



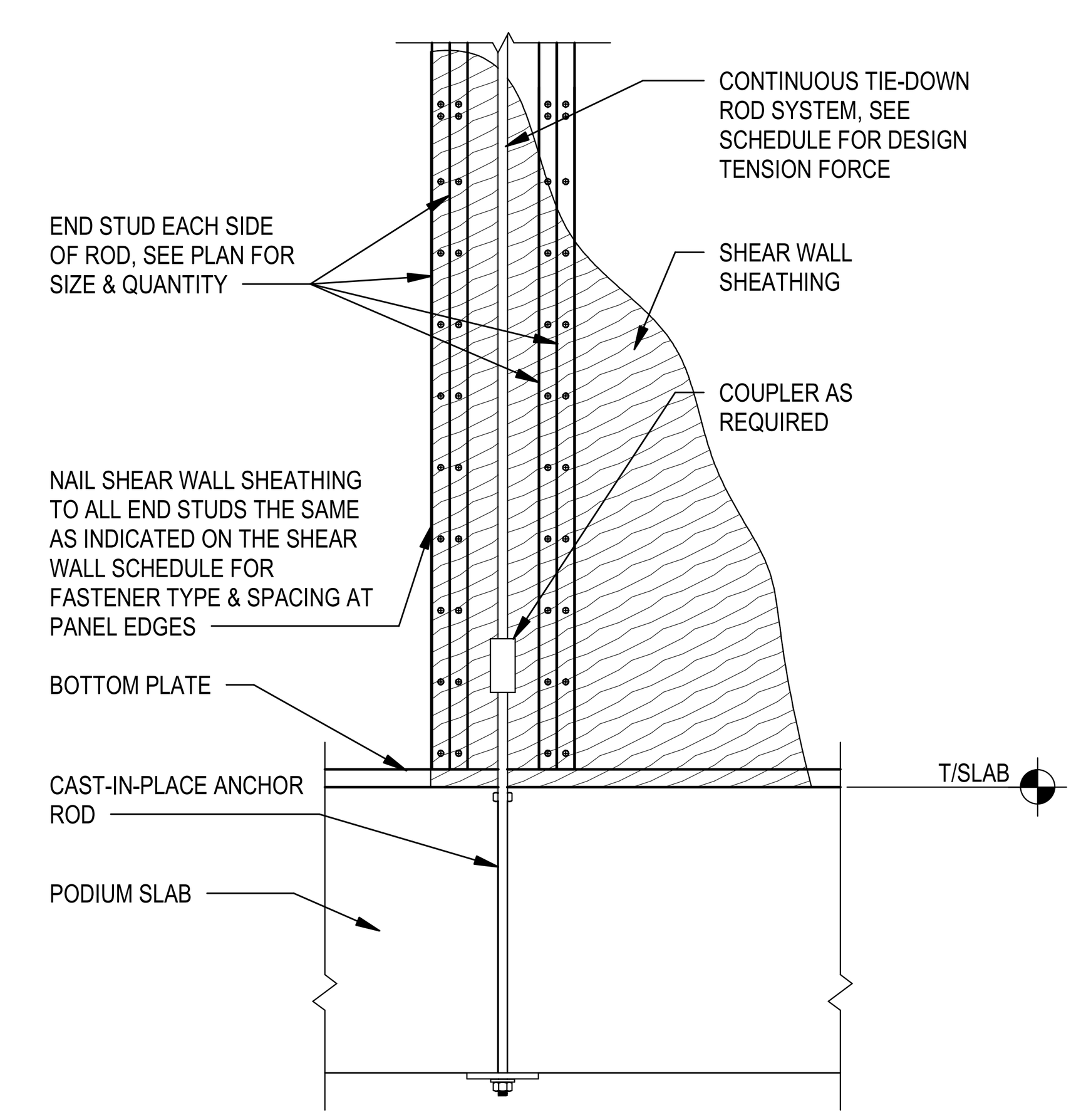
SHEAR WALL DETAIL WITH CONTINUOUS TIE-DOWN ROD SYSTEM PERPENDICULAR TO FLOOR FRAMING

NTS



SHEAR WALL DETAIL WITH CONTINUOUS TIE-DOWN ROD SYSTEM PARALLEL TO FLOOR FRAMING

NTS



TYPICAL ROD AT SHEAR WALL END STUD CONNECTION TO PODIUM

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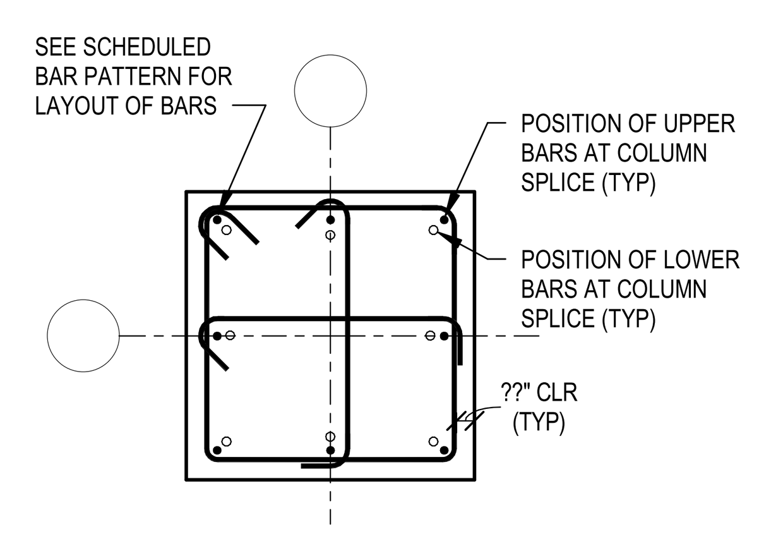
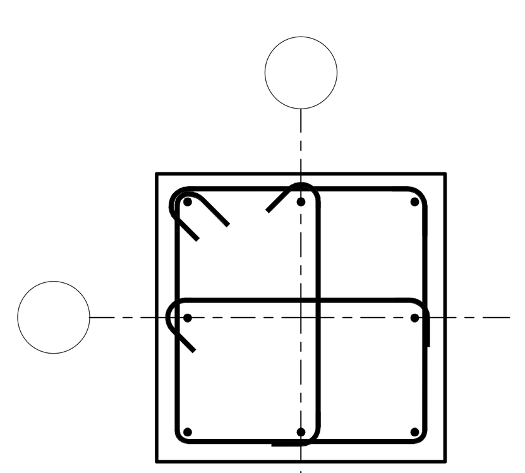
S316

CONCRETE COLUMN SCHEDULE							
	CONCRETE STRENGTH, f'c	SIZE	VERTICAL BARS	TIES	BAR PATTERN	SPLICE TYPE	REMARKS
2nd FLOOR	5000 PSI	24" x 24"	(8) # 8	#4 @ 16"	A	C	
FOUNDATION	5000 PSI	24" x 24"	(8) # 8	#4 @ 16"	A	C	
DOWELS		(4) #8					

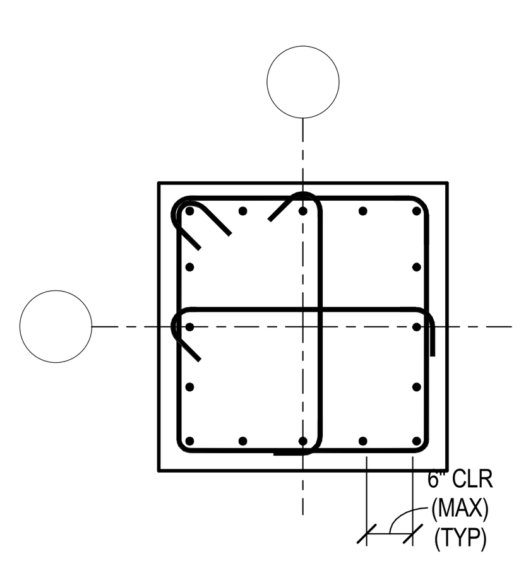
NOTES:
1. REFER TO TYPICAL COLUMN DETAILS FOR DETAILING REQUIREMENTS.
2. SEE PLANS FOR FLOOR AND FOUNDATION ELEVATIONS.
3. COLUMNS ARE CENTERED ON GRID INTERSECTIONS UNLESS OTHERWISE NOTED ON PLAN.
4. PROVIDE TENSION LAP Ls FOR SPLICE TYPE "T" AND COMPRESSION LAP Lsc FOR SPLICE TYPE "C".



TYPICAL RECTANGULAR COLUMN SECTION

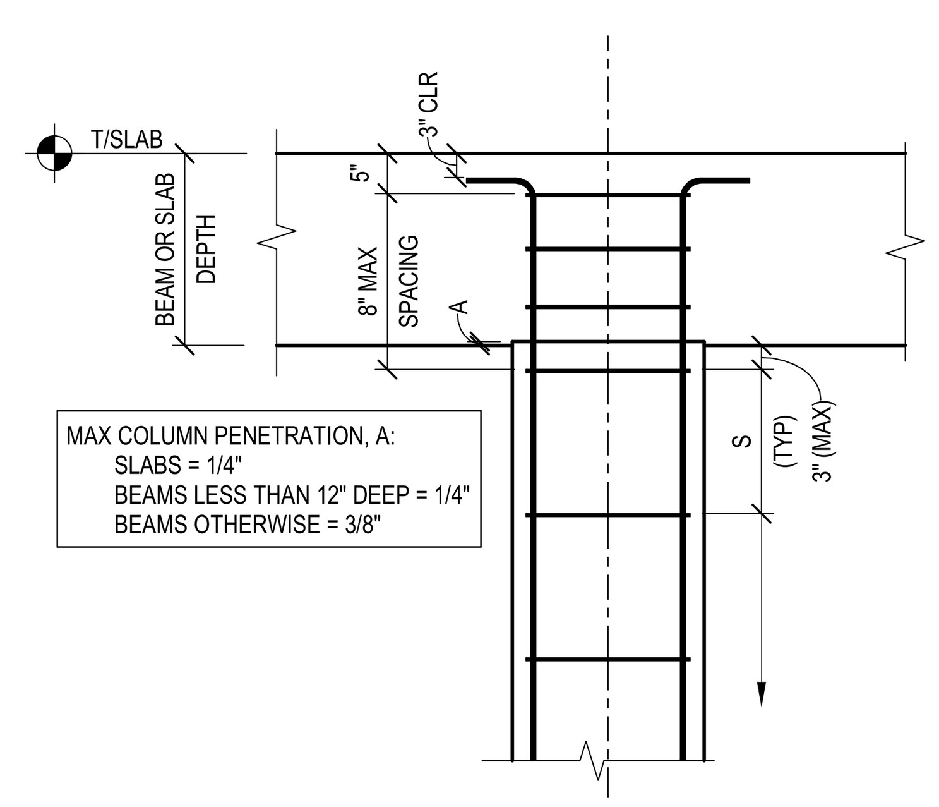


PATTERN "A" - 8 BAR



PATTERN "D" - 16 BAR

NOTES:
1. ALTERNATE POSITION OF HOOKS WHEN PLACING SUCCESIVE SETS OF TIES.
2. SPACE VERTICAL BARS EQUALLY ALONG EACH COLUMN FACE.
3. CONTRACTOR MAY PROPOSE CLOSED TIES IN LIEU OF THE DOGLEG TIES INDICATED. NO INTERIOR (INCLUDED) ANGLE FORMED AT THE CORNERS OF THE CLOSED TIES SHALL BE LARGER THAN 135 DEGREES.



NOTES:
1. SEE COLUMN SCHEDULE FOR SIZE, REINFORCING, & TIE SPACING "S".
2. BEAM AND/OR SLAB REINFORCING NOT SHOWN FOR CLARITY

Notes to Engineer/Detailer:
- *ACI 318-14 added minimum transverse column reinforcement requirements thru beam/column and slab/column joints in section 15.4.2.*
- *ACI 318-19 adjusted the requirement in Chapter 15 for a prescriptive spacing of 8" thru a beam/column joint and not to exceed the typical column tie spacing thru a slab/column joint.*
- *8" spacing of #4 ties will meet the requirements of both codes for fc' = 5ksi, fy=60ksi, and column width <= 56 in.*
- *Slab/column joints for gravity columns require ties unless there is slab on all four sides of the column capable of laterally supporting the joint per ACI 318 Ch. 15.*
- *Refer to ACI 117-10 section 4.5 for max deviation from cross sectional dimensions. ACI 117-10 does not specifically limit the max column penetration but instead limits deviation from beam/slab cross-section dimensions. Note that beams greater than 36" max allow up to 3/4" of penetration into the beam but that has not been added here to simplify the restrictions.*

TYPICAL TOP OF COLUMN DETAIL

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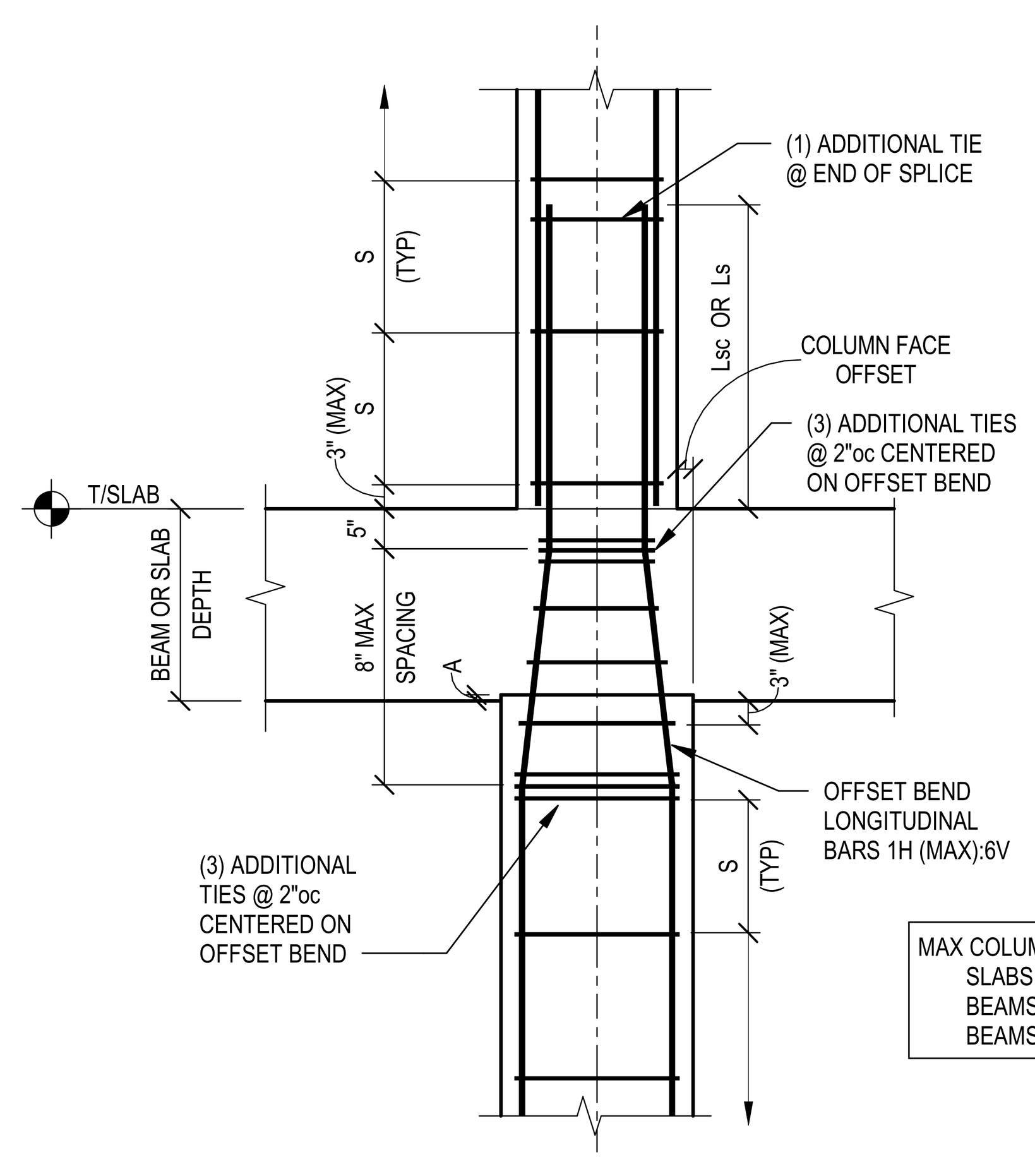
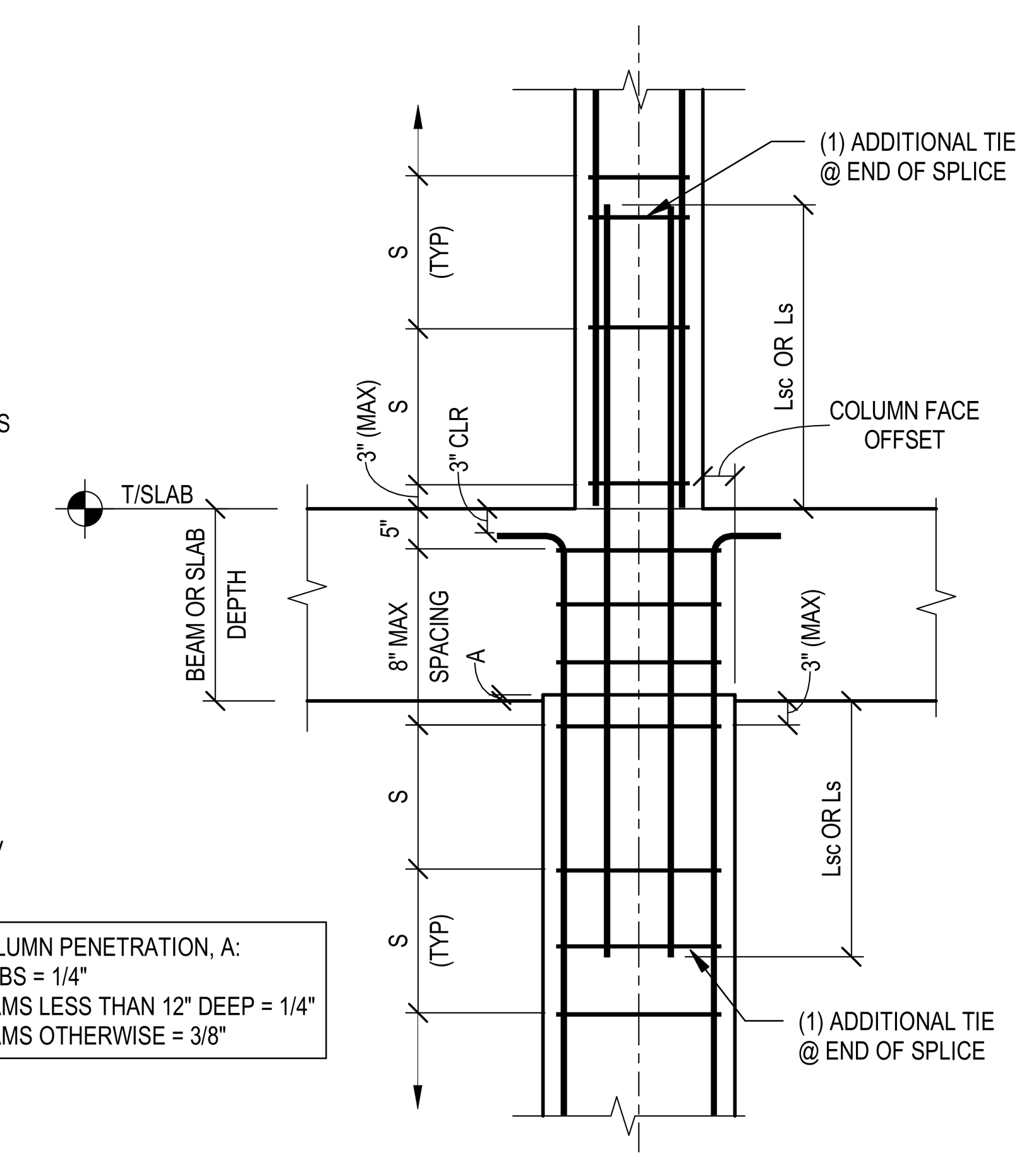


CASE A: COLUMN FACE OFFSET < 3" (ALL FACES)



CASE B: COLUMN FACE OFFSET ≥ 3" (ANY FACE)

NOTES:
1. SEE COLUMN SCHEDULE FOR SIZE, REINFORCING, & TIE SPACING "S".
2. SEE COLUMN SCHEDULE FOR SPLICE TYPE (COMPRESSION OR TENSION).
3. BEAM AND/OR SLAB REINFORCING NOT SHOWN FOR CLARITY
4. PROVIDE 8" MAX TIE SPACING THROUGHOUT BEAM OR SLAB DEPTH

Notes to Engineer/Detailer:
- *ACI 318-14 added minimum transverse column reinforcement requirements thru beam/column and slab/column joints in section 15.4.2.*
- *ACI 318-19 adjusted the requirement in Chapter 15 for a prescriptive spacing of 8" thru a beam/column joint and not to exceed the typical column tie spacing thru a slab/column joint.*
- *8" spacing of #4 ties will meet the requirements of both codes for fc' = 5ksi, fy=60ksi, and column width <= 56 in.*
- *Slab/column joints for gravity columns require ties unless there is slab on all four sides of the column capable of laterally supporting the joint per ACI 318 Ch. 15.*
- *Refer to ACI 117-10 section 4.5 for max deviation from cross sectional dimensions. ACI 117-10 does not specifically limit the max column penetration but instead limits deviation from beam/slab cross-section dimensions. Note that beams greater than 36" max allow up to 3/4" of penetration into the beam but that has not been added here to simplify the restrictions.*

TYPICAL COLUMN SPLICE DETAIL

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PROJECT NUMBER:
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SHEET NAME:
CONCRETE COLUMN SCHEDULE & TYPICAL DETAILS

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S321

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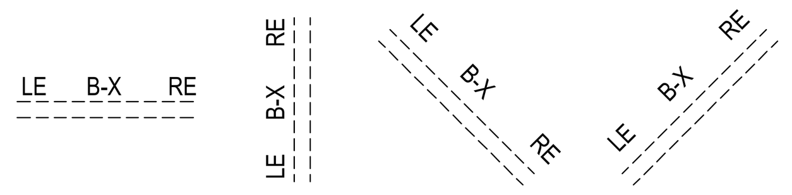
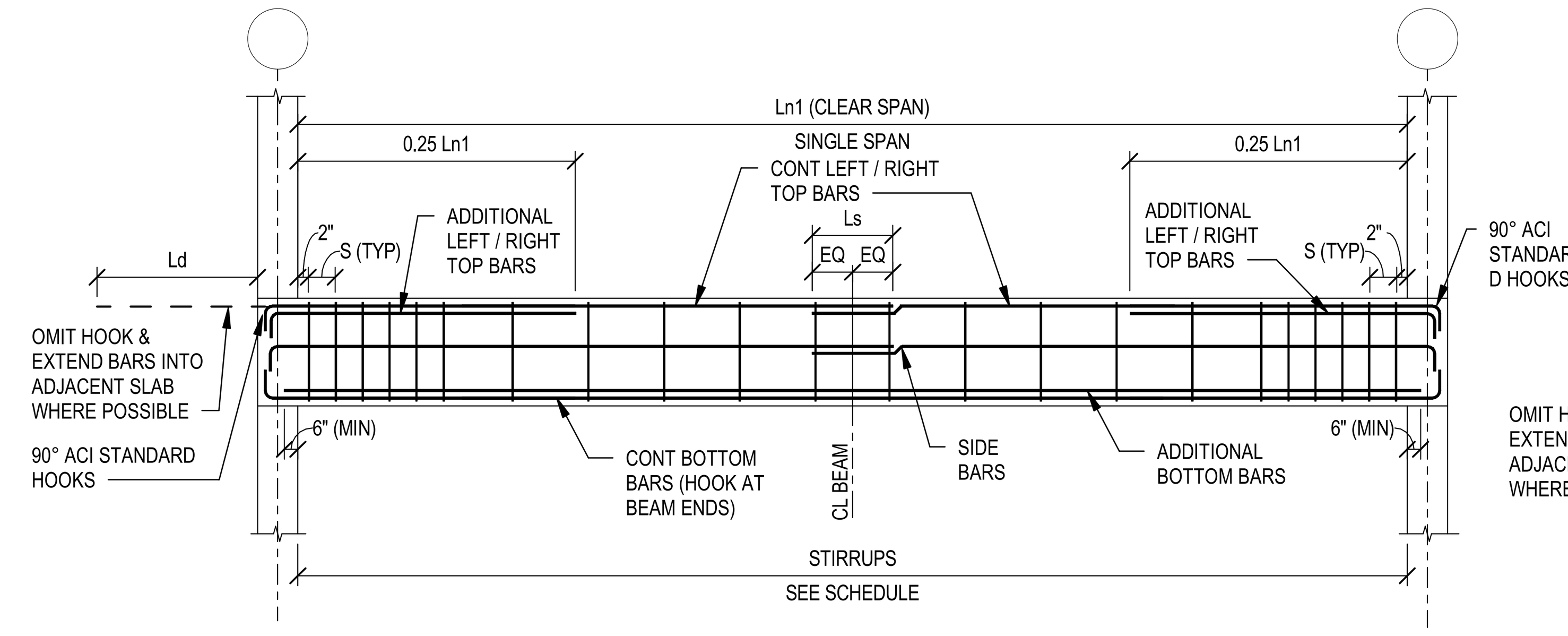
TYPICAL CONCRETE BEAM REINFORCEMENT NOTES:

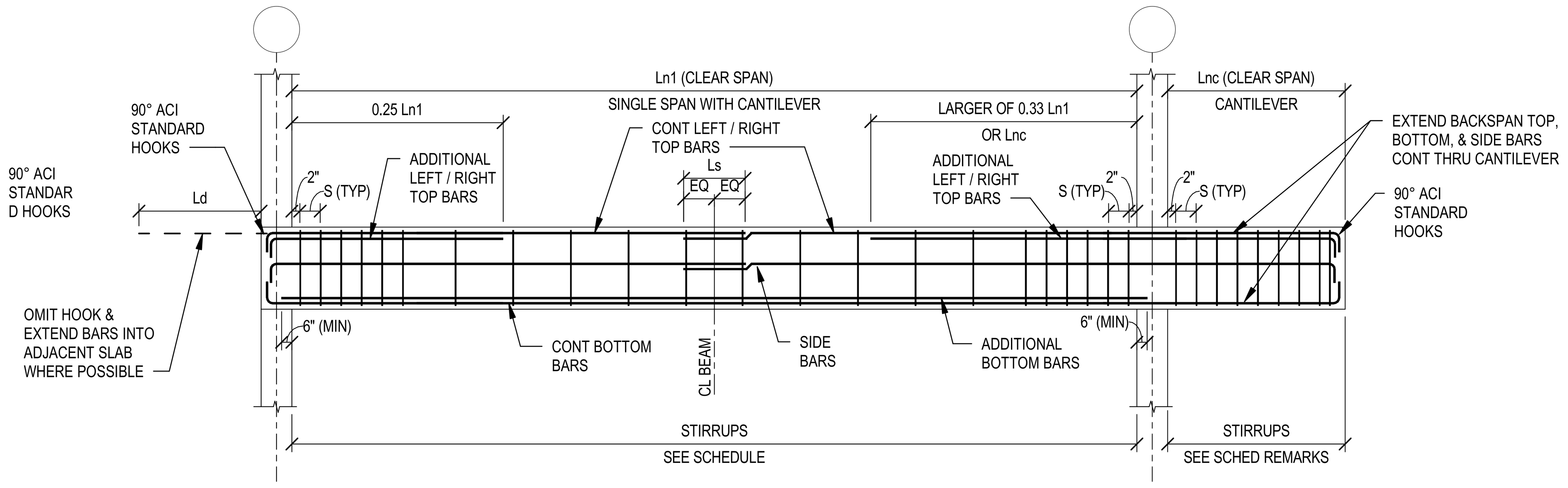
1. THE LEFT & RIGHT ENDS OF THE BEAM SHALL BE ESTABLISHED ACCORDING TO THE ORIENTATION OF THE BEAM ON PLAN BASED ON THE FOLLOWING CONDITIONS:



2. SEE BEAM SCHEDULE FOR TOP BARS, BOTTOM BARS, SIDE BARS, & STIRRUPS.
3. BEAM BARS THAT EXTEND INTO AN ADJACENT BEAM ARE NOT ADDITIVE. WHERE ADJACENT BEAM BARS DO NOT MATCH, USE THE REINFORCEMENT WITH THE GREATER TOTAL AREA.
4. HOOK TOP, BOTTOM, AND SIDE BARS WHERE SHOWN OR NOTED. PROVIDE STANDARD 90° HOOK OR 180° HOOK WHERE REQUIRED FOR CLEARANCE.
5. WHERE A BEAM FRAMES INTO A COLUMN, A MINIMUM OF TWO TOP AND BOTTOM BARS SHALL BE PLACED THROUGH THE COLUMN CORE.



TYPE 1



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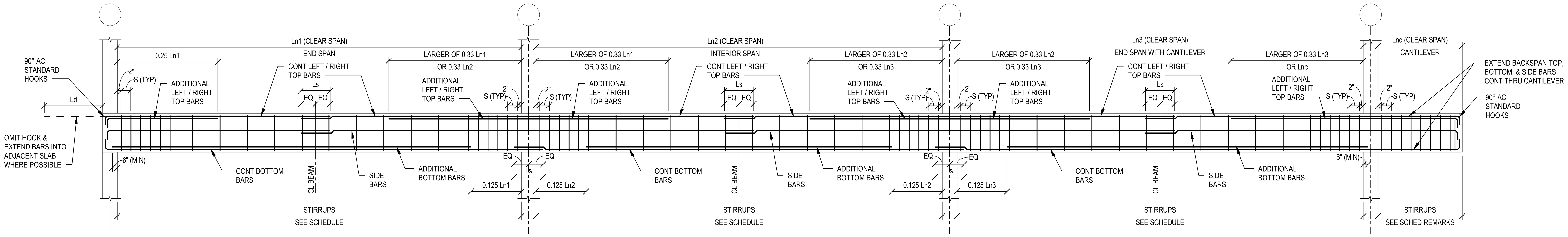
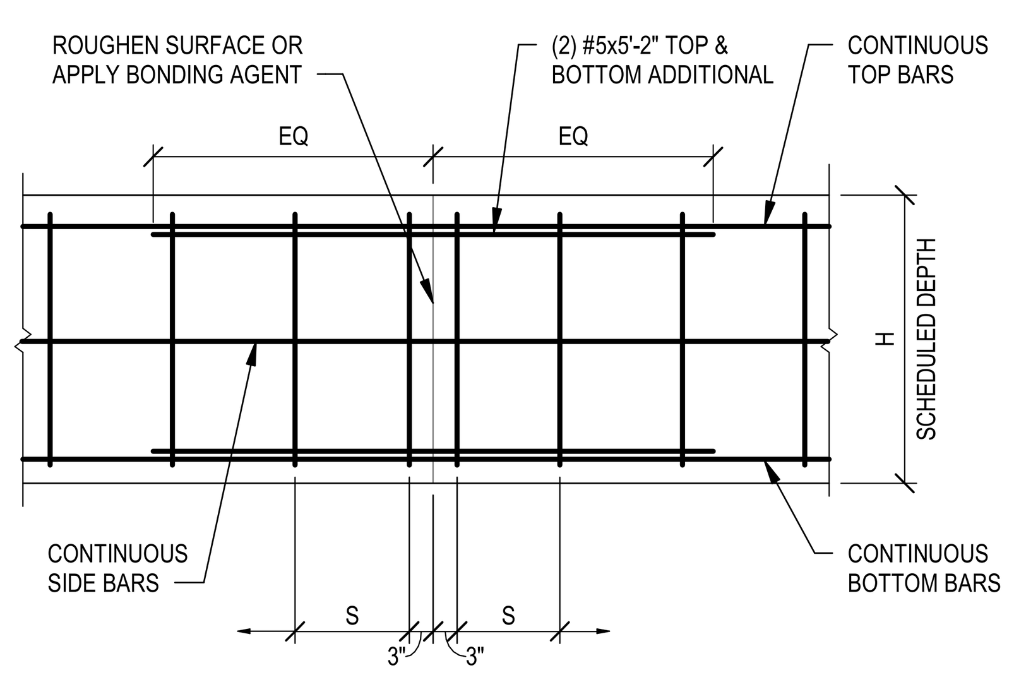


TYPE 3 TYPE 4 TYPE 5

TYPICAL CONCRETE BEAM ELEVATIONS

NTS



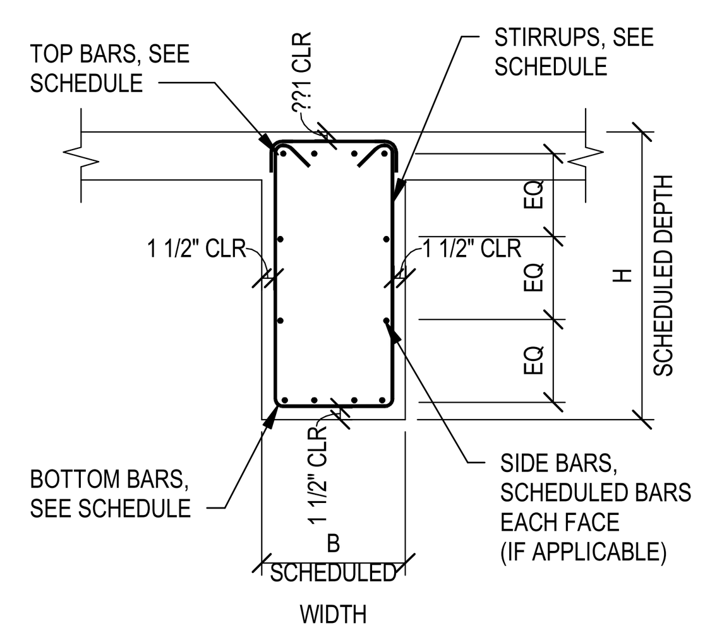
NOTE:
LOCATE CONSTRUCTION JOINT WITHIN MIDDLE THIRD OF BEAM CLEAR SPAN. CONSTRUCTION JOINTS ARE NOT PERMITTED IN BEAMS THAT SUPPORT OTHER BEAMS UNLESS APPROVED BY THE ENGINEER OF RECORD.

Note to Engineer/Detailer:

- *Bonding agent is specified in the specification; however, if only general notes are provided for the project, copy the bonding agent product information from the concrete master spec into the general notes.*

TYPICAL BEAM CONSTRUCTION JOINT

NTS



Notes to Engineer/Detailer:

- *??1: Review top bar cover requirements. Typical interior condition is 1 1/2" CLR minimum. For weather exposure, provide 2" CLR minimum.*
- *Coordinate beam top bar cover with slab top bars.*
  For one-way slabs, the slab top bars should sit on top of the beam top bars. For example, if #4 slab top bars have 2" top cover, the #4 beam stirrups should have 2" top cover so that the slab top bars sit on the beam top bars.

  For two-way slabs, it is best practice to allow the inner layer top bars to sit on the beam top bars. For example, for #6 top bars with 1" clear cover to the outer layer, the beam top bars should have 2 1/2" clear cover and the stirrups should have 2" top cover to allow the inner layer top bars to sit on the beam top bars.
- *Provide separate top bar cover for girders if desired.*

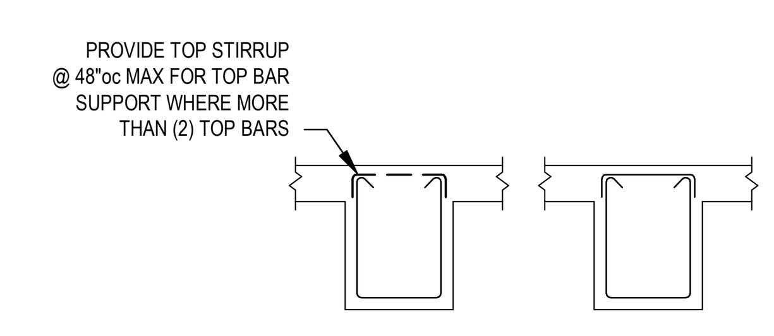
TYPICAL CONCRETE BEAM SECTION

NTS

CONCRETE BEAM SCHEDULE																
					REINFORCEMENT											
		SIZE (INCHES)			TOP BARS - LEFT		TOP BARS - RIGHT		BOTTOM BARS		SIDE BARS	STIRRUPS				
BEAM MARK	BEAM TYPE	B	H	H2	CONT	ADD'L	CONT	ADD'L	CONT	ADD'L	EA FACE	SIZE	TYPE	SPACING (S)		REMARKS
CB-01	3	24	42	36		--		--		--		#4	ST-2			DEPTH OF BEAM VARIES, SEE PLAN
CB-02	4	24	42	36		--		--		--		#4	ST-2			DEPTH OF BEAM VARIES, SEE PLAN
CB-03	3	24	36	36		--		--		--		#4	ST-2			DEPTH OF BEAM VARIES, SEE PLAN
CB-04	4	24	36	36		--		--		--		#4	ST-2			DEPTH OF BEAM VARIES, SEE PLAN

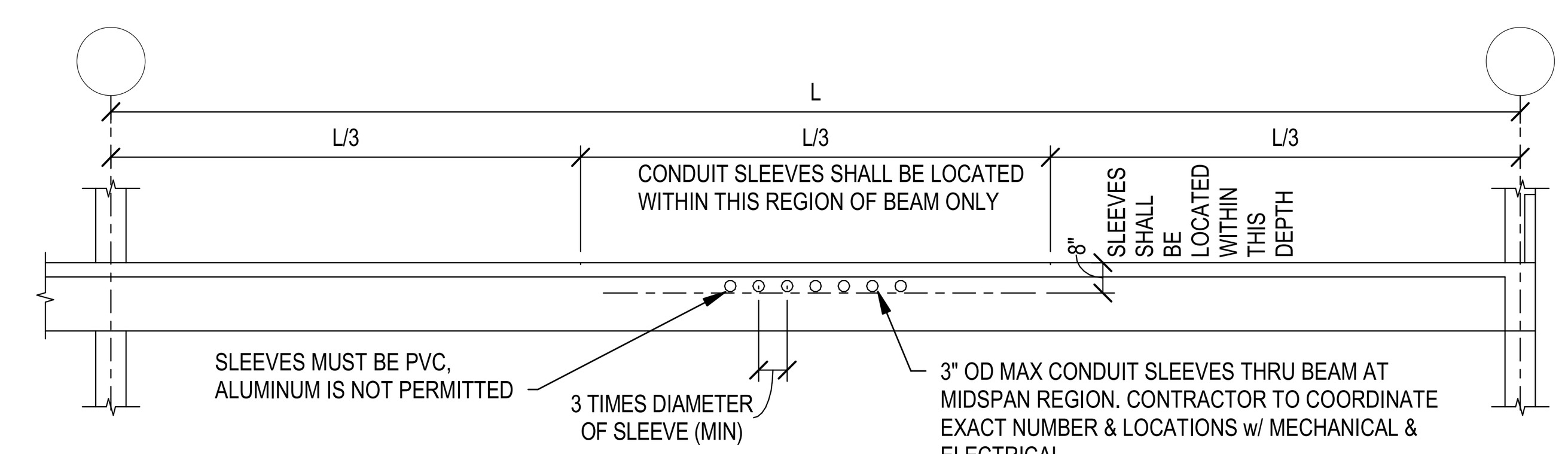
NOTES:
1. REFER TO TYPICAL CONCRETE BEAM ELEVATIONS FOR BEAM TYPES AND ASSOCIATED DETAILING REQUIREMENTS.
2. BARS INDICATED WITH AN ASTERISK (*) IN BEAM SCHEDULE ARE TO BE PLACED IN TWO LAYERS.
3. REFER TO BEAM REMARKS FOR CANTILEVER STIRRUP REQUIREMENTS AND UPTURNED BEAM CONDITIONS.

ABBREVIATIONS:
LE = LEFT END
RE = RIGHT END
EE = EACH END
FAB = FROM ADJACENT BEAM
BAL = BALANCE OF STIRRUPS OVER REMAINING BEAM LENGTH



TYPICAL STIRRUP TYPES

NTS



TYPICAL CONDUIT SLEEVE DETAIL

NTS

PARAMOUNT WORKS

2505 KEMPER LN
CINCINNAT OH, 45206

ENGINEER: Designer
MODELER: Author
CHECKED BY: Checker

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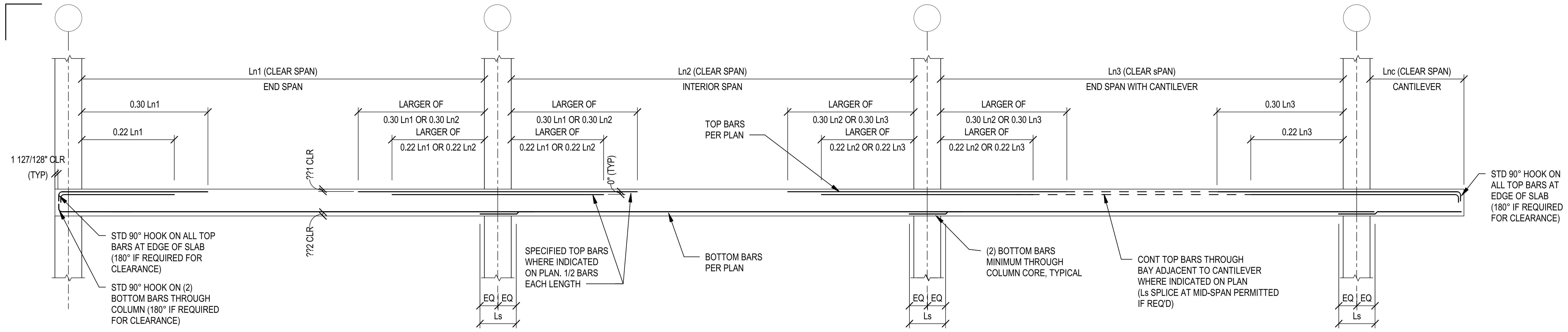
NO	DATE	DESCRIPTION

PROJECT NUMBER:
2312.95

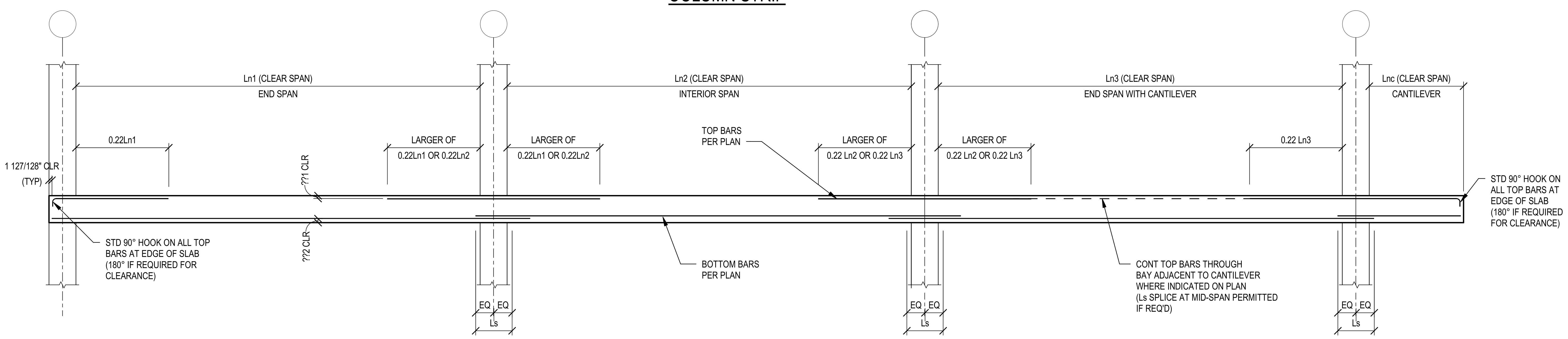
SHEET NAME:
CONCRETE SLAB & TYPICAL DETAILS

DATE:
Issue Date

SHEET:
S322



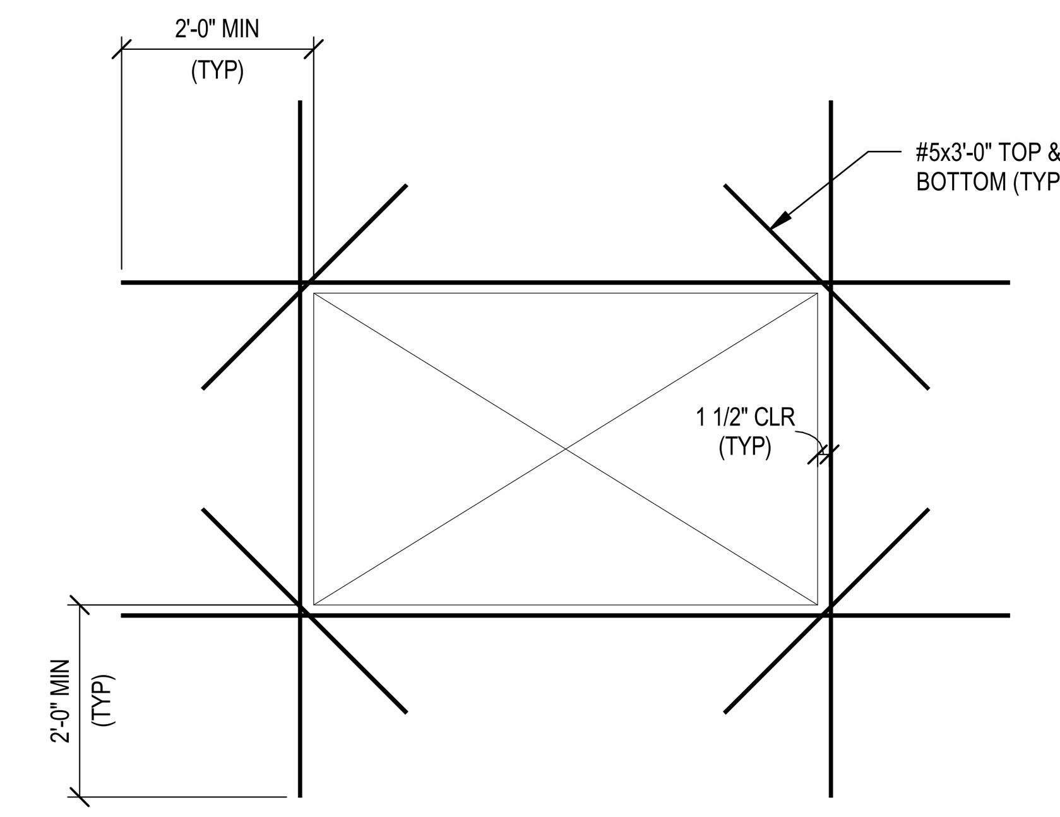
COLUMN STRIP



MIDDLE STRIP

TWO-WAY SLAB REINFORCEMENT NOTES:

1. ALL SLAB REINFORCEMENT SHALL HAVE THE MINIMUM LENGTHS NOTED ON ELEVATIONS UNLESS SPECIFIC LENGTHS ARE INDICATED ON PLAN. DO NOT SCALE BARS SHOWN ON PLAN.
2. ALTERNATE PLACEMENT OF LONG & SHORT BARS. IF THERE ARE AN UNEVEN NUMBER OF BARS IN A STRIP, PROVIDE MORE LONG BARS THAN SHORT BARS.
3. SEE PLAN FOR INNER & OUTER LAYER BAR ORIENTATION.
4. ADDITIONAL COLUMN & MIDDLE STRIP BOTTOM BARS TO BE DISTRIBUTED & SPACED EQUALLY WITHIN THE RESPECTIVE STRIPS SHOWN ON THE PLANS, UNLESS NOTED OTHERWISE.
5. PROVIDE STANDARD 90° HOOK ON ALL BARS WHERE INTERRUPTED BY AN OPENING (180° HOOK IF REQUIRED FOR CLEARANCE). SEE TYPICAL SLAB OPENING DETAIL FOR ADDITIONAL REQUIREMENTS.
6. A MINIMUM OF (2) BOTTOM BARS IN EACH DIRECTION SHALL BE LOCATED OVER COLUMNS.



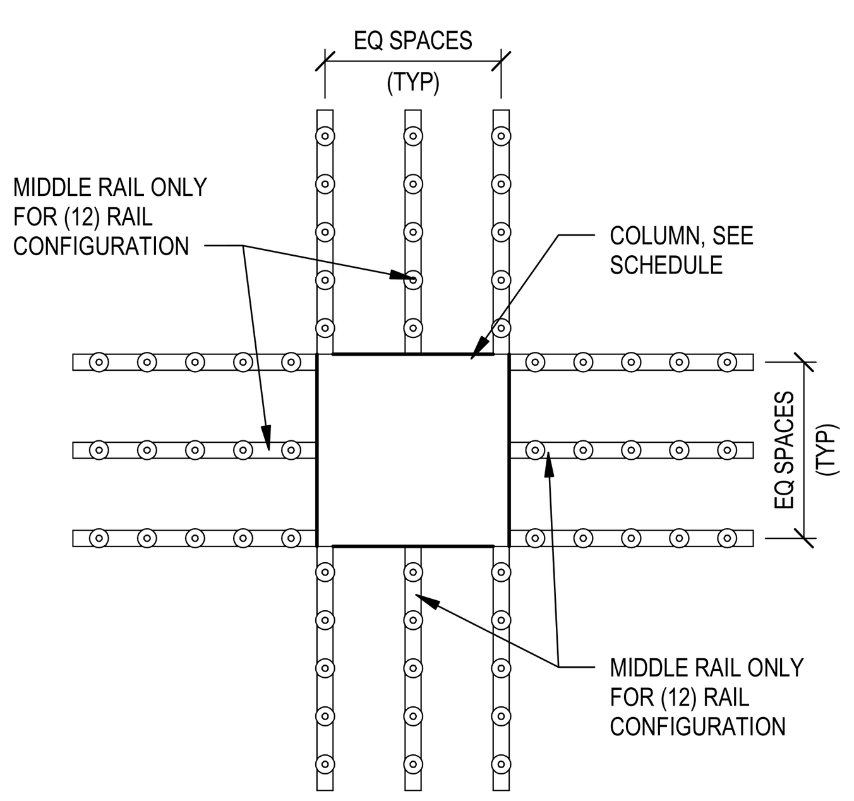
MAX DIMENSION	REINFORCING
12" TO 18"	(1) #5 EA SIDE
18" TO 2'-6"	(1) #5 TOP & BOTTOM, EA SIDE
2'-6" & LARGER	(2) #5 TOP & BOTTOM, EA SIDE

NOTES

1. ALL OPENINGS LARGER THAN 12" SHALL BE TRIMMED AS SHOWN.
2. THESE BARS ARE IN ADDITION TO REBAR SHOWN ON PLANS.

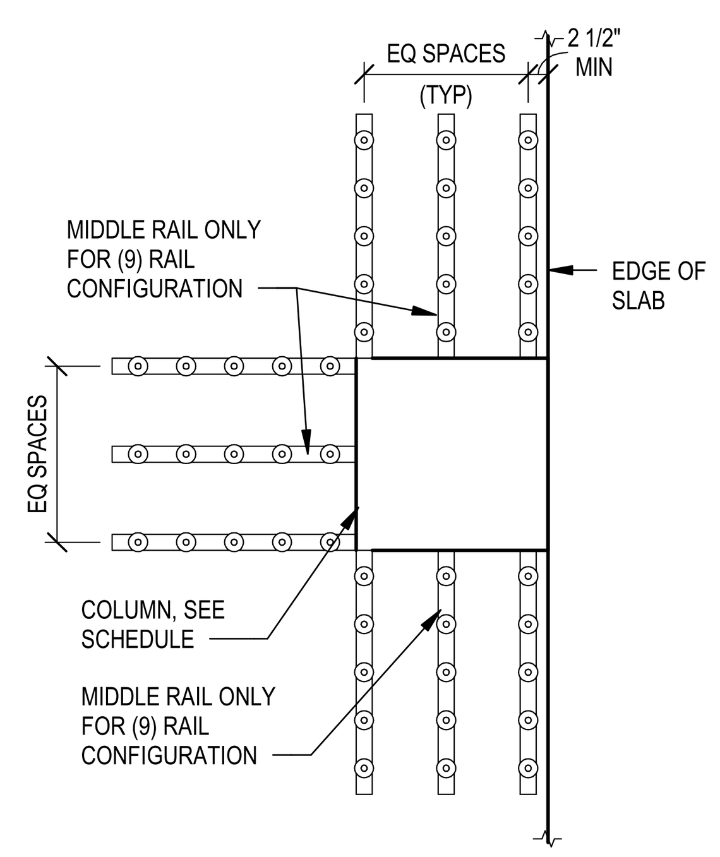
TYPICAL TRIM BARS FOR INTERIOR OPENINGS IN SLAB

NTS



STUDRAIL TYPE A

NTS



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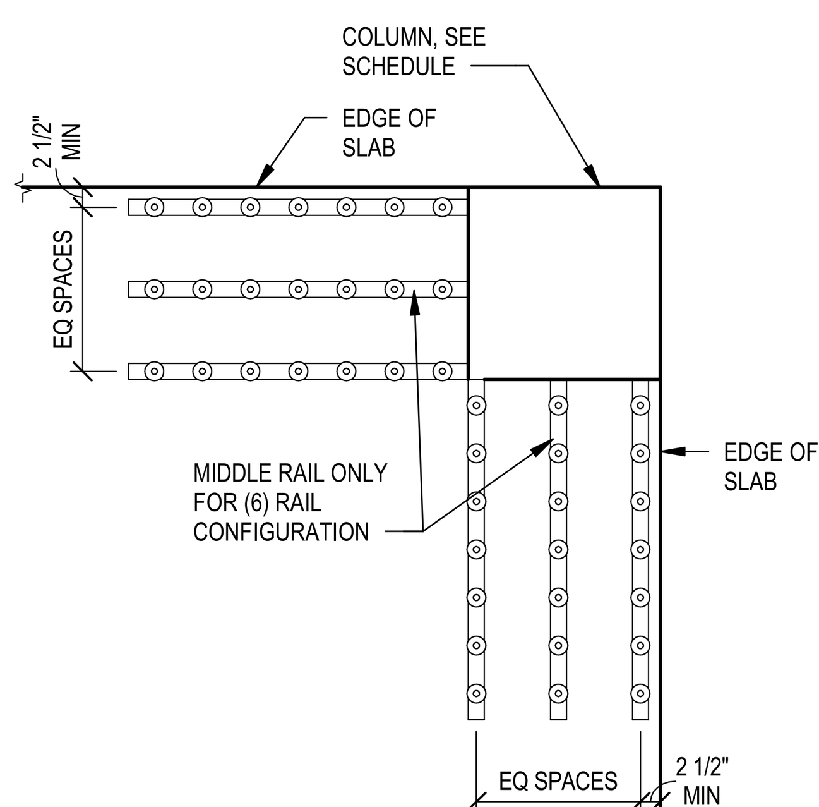
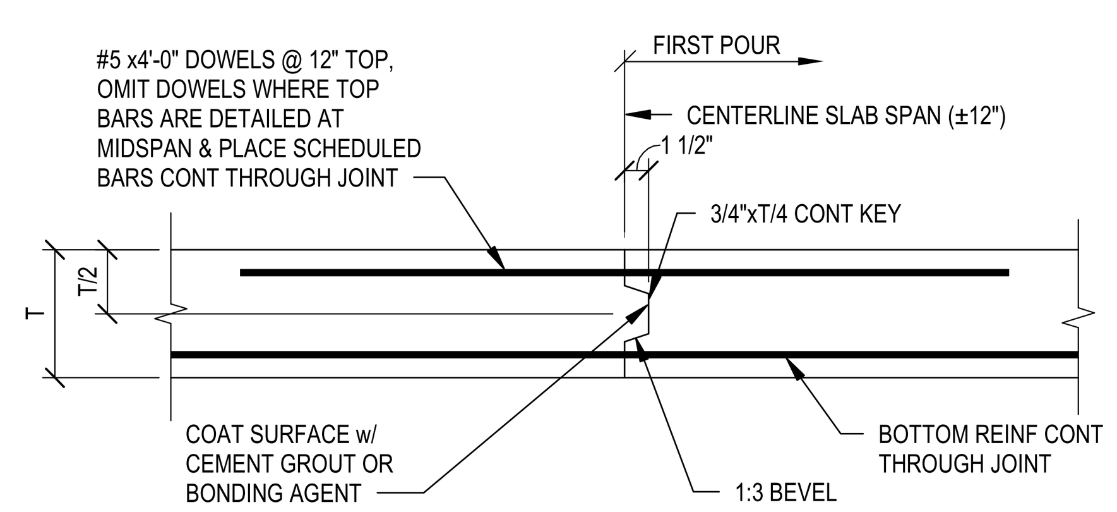


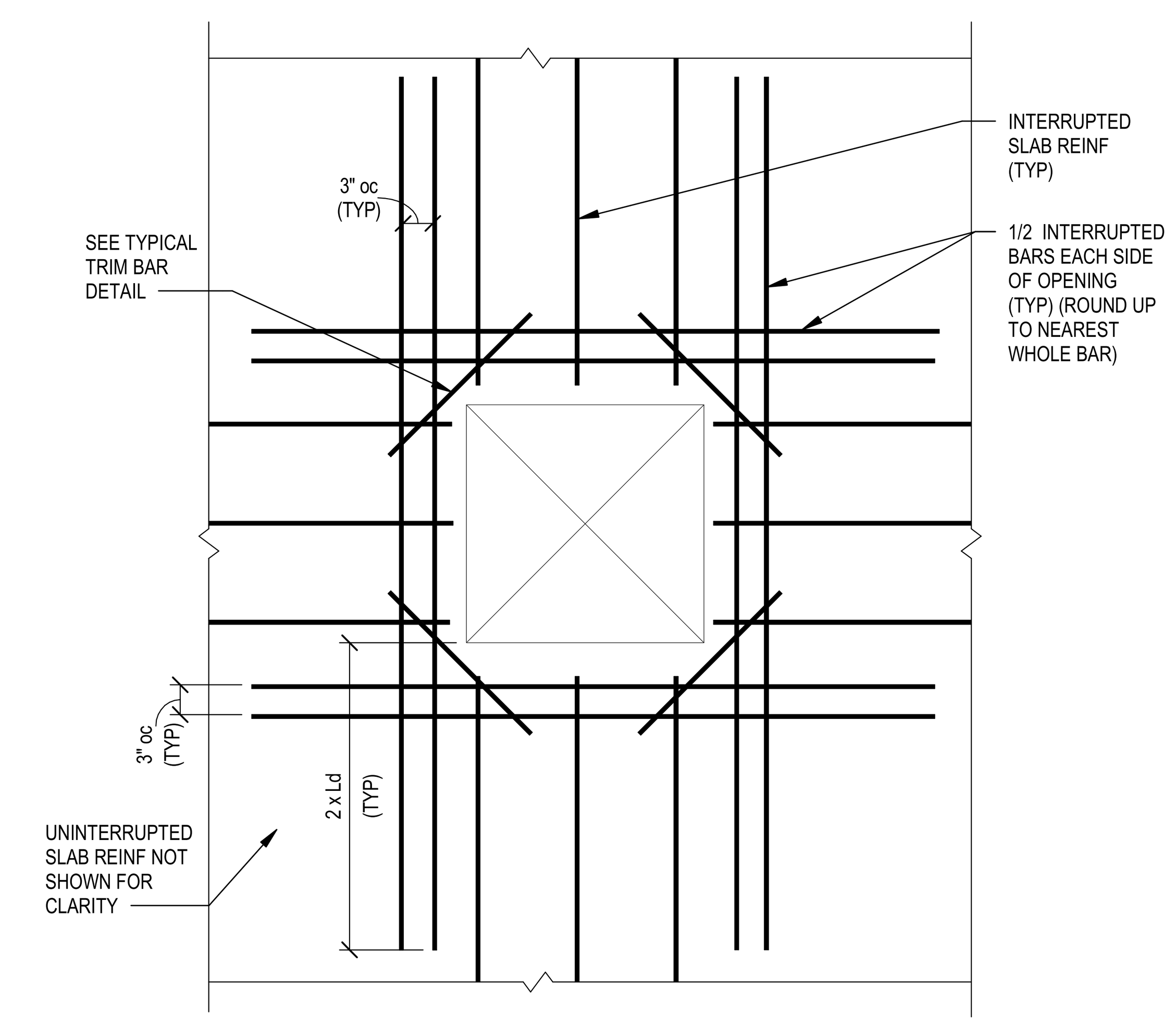
STUDRAIL TYPE C

NTS



TYPICAL CONSTRUCTION JOINTS IN SOLID SLABS

NTS



NOTES:

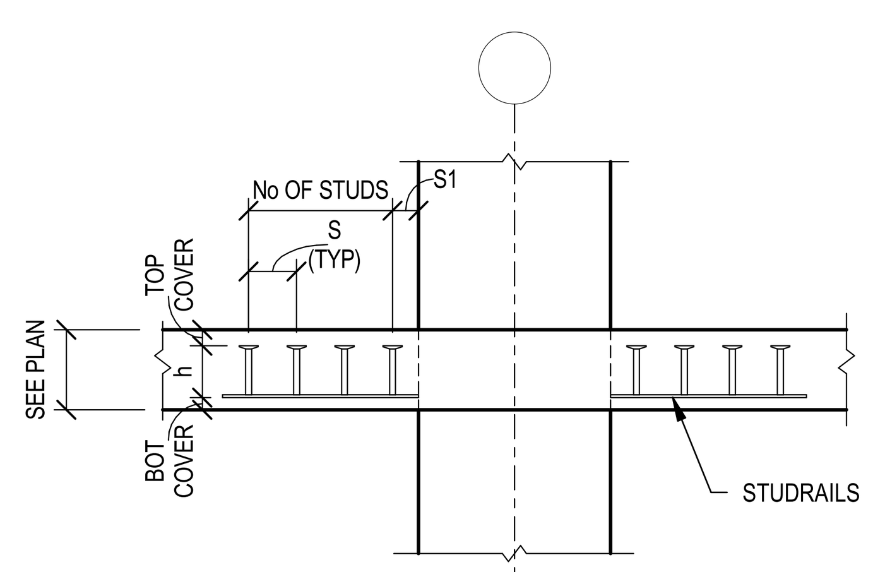
1. ALL SLAB OPENINGS WITH WIDTH OR LENGTH GREATER THAN 12" THAT ARE NOT INDICATED ON THE STRUCTURAL DRAWINGS MUST BE SUBMITTED TO & APPROVED BY ENGINEER OF RECORD.
2. SLAB OPENINGS WITH WIDTH OR LENGTH LESS THAN 12" DO NOT REQUIRE SPECIAL REINFORCING.
3. HOOK ENDS OF ADDITIONAL REINFORCING BARS AT SLAB EDGE IF SLAB EDGE IS LESS THAN 2 x Ld FROM OPENING.
4. ALL SLAB OPENINGS, INCLUDING ALL RISERS PENETRATIONS SHALL BE FORMED OR SLEEVED PRIOR TO SLAB POUR.

TYPICAL SLAB OPENING DETAIL

NTS

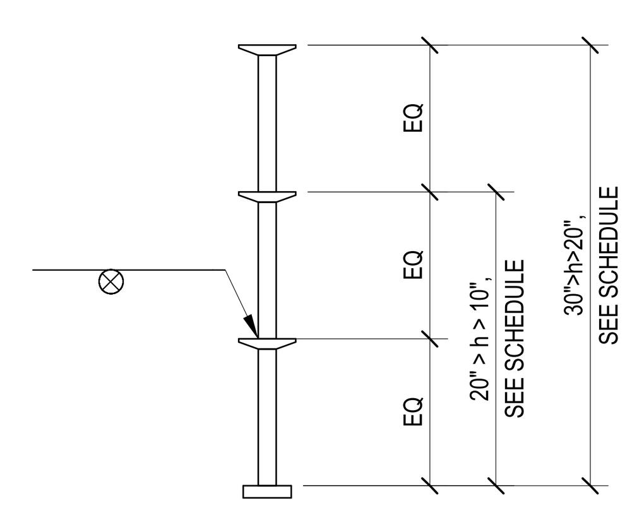
STUDRAIL SHEAR REINFORCING NOTES:

1. STUDRAILS SHALL CONFORM TO ACI 318 & ACI-ASCE COMMITTEE 421 REQUIREMENTS.
2. SHEAR STUDS USED IN THE MANUFACTURE OF STUDRAILS SHALL CONFORM TO LOW CARBON STEEL IN ACCORDANCE WITH ASTM A108 HAVING PROPERTIES AS FOLLOWS:
   A. YIELD STRENGTH = 50,000 PSI MINIMUM
   B. TENSILE STRENGTH = 60,000 PSI MINIMUM
   C. ELONGATION IN 2" = 20% MINIMUM
   D. REDUCTION IN AREA = 50% MINIMUM
   E. HEAD/SHANK AREA = 10
3. THE STUDS SHALL BE WELDED IN ACCORDANCE WITH AWS D1.1
4. ALL STUDRAILS SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
5. INSTALLATION INSTRUCTIONS:
   A. SEE PLANS FOR COLUMNS THAT REQUIRE STUDRAIL REINFORCEMENT. REFER TO LEGEND ON PLAN FOR NOTATION.
   B. SEE PLANS FOR STUDRAIL MARK & SEE SCHEDULE FOR NUMBER OF STUDS, SIZE, & PLACEMENT PATTERN.
   C. STUDRAILS BEGIN AT COLUMN FACES.
   D. STUDRAILS SHALL BE SPACED EVENLY ALONG COLUMN FACES.
   E. STUDRAILS SHALL BE PLACED MINIMUM 2 1/2" FROM EDGES OF SLAB.
   F. STUDRAILS MUST BE INSTALLED WITH STUDS VERTICAL.



TYPICAL STUDRAIL LAYOUT DETAIL

NTS



TYPICAL PIGGYBACKING OF STUDS FOR HEIGHTS OVER 10"

NTS

STUDRAIL SCHEDULE

MARK	STUD ø x HEIGHT (h)	No OF RAILS PER COLUMN	No OF STUDS PER RAIL	FIRST STUD SPACING (S1)	TYP STUD SPACING (S)	STUDRAIL TYPE
1	??"ø x ?"	??	?	??"	?"	?
2						
3						
4						

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MODELER: Author
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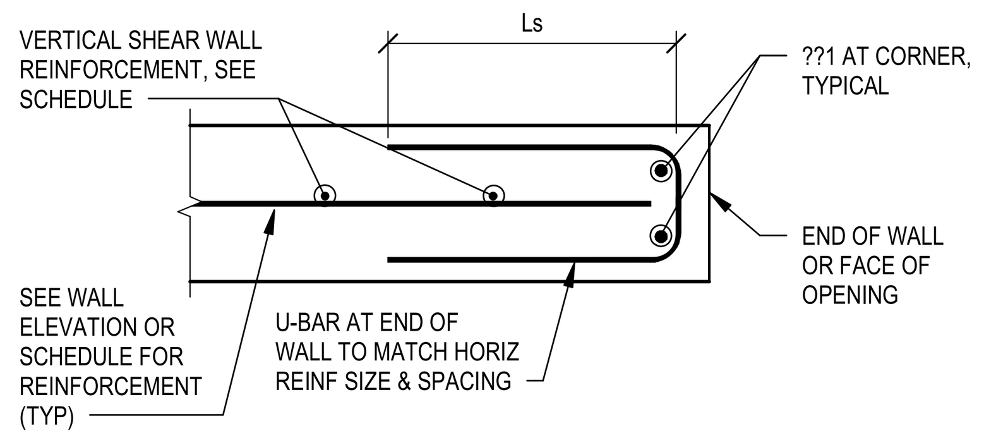
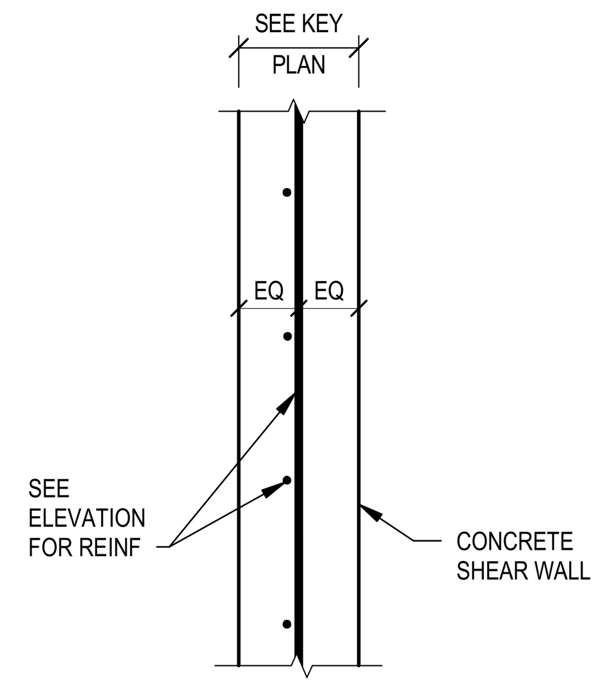


TYPICAL SHEAR WALL END REINFORCEMENT DETAIL
NTS



TYPICAL SHEAR WALL DETAIL
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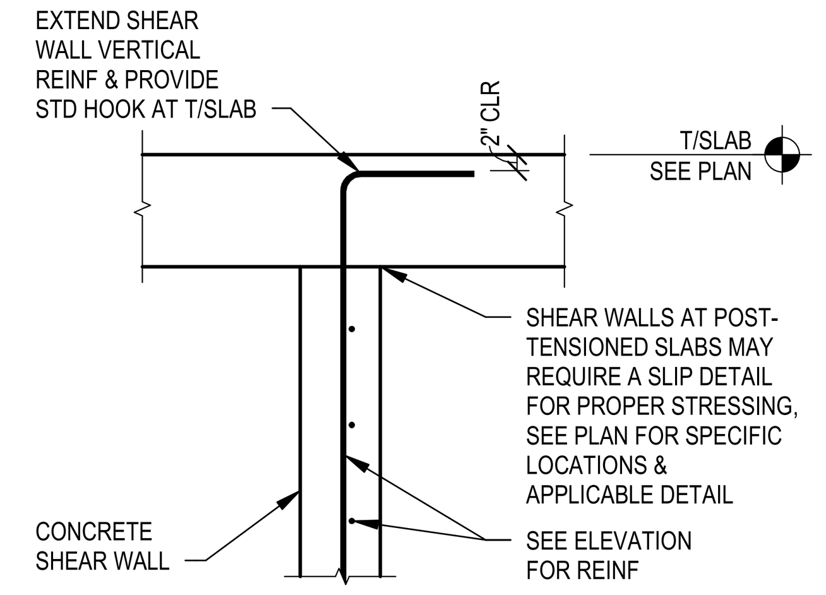
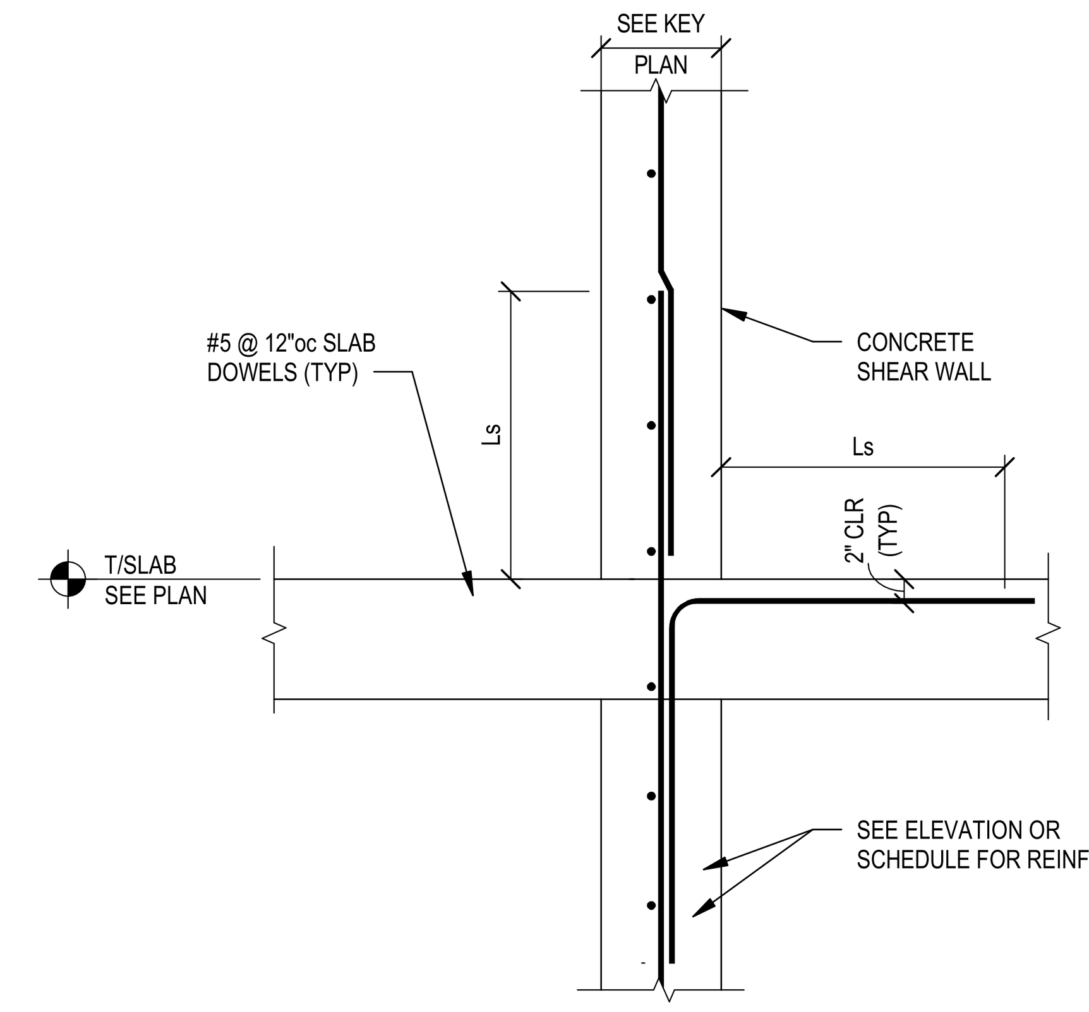


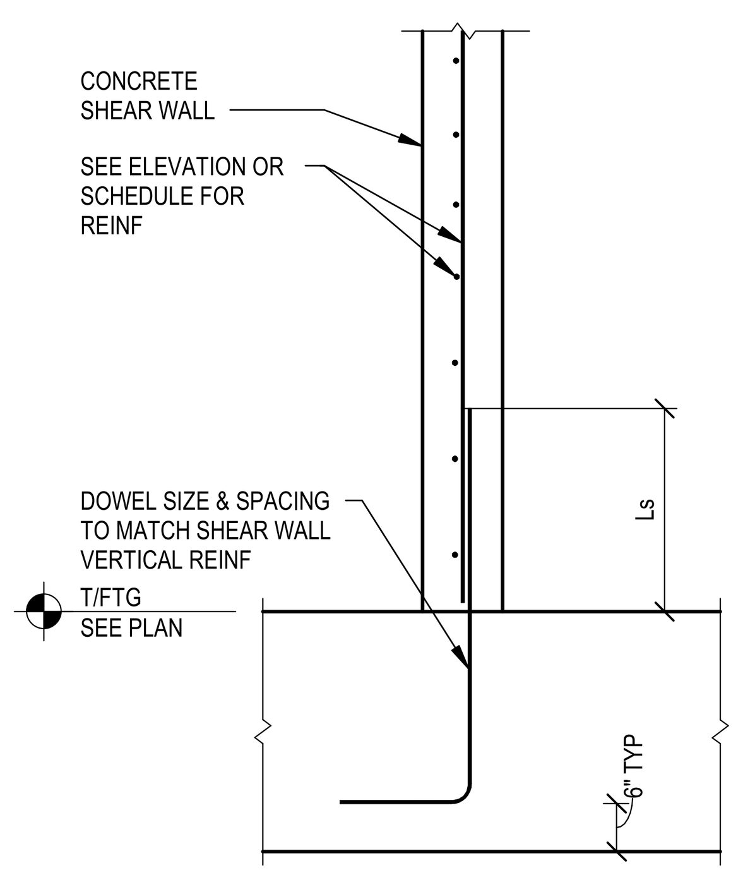
NOTES:
1. SLAB REINF NOT SHOWN FOR CLARITY.
2. SEE TYPICAL SHEAR WALL DETAIL FOR ADDITIONAL INFORMATION.

TYPICAL TOP OF CONCRETE SHEAR WALL AT CONCRETE SLAB
NTS



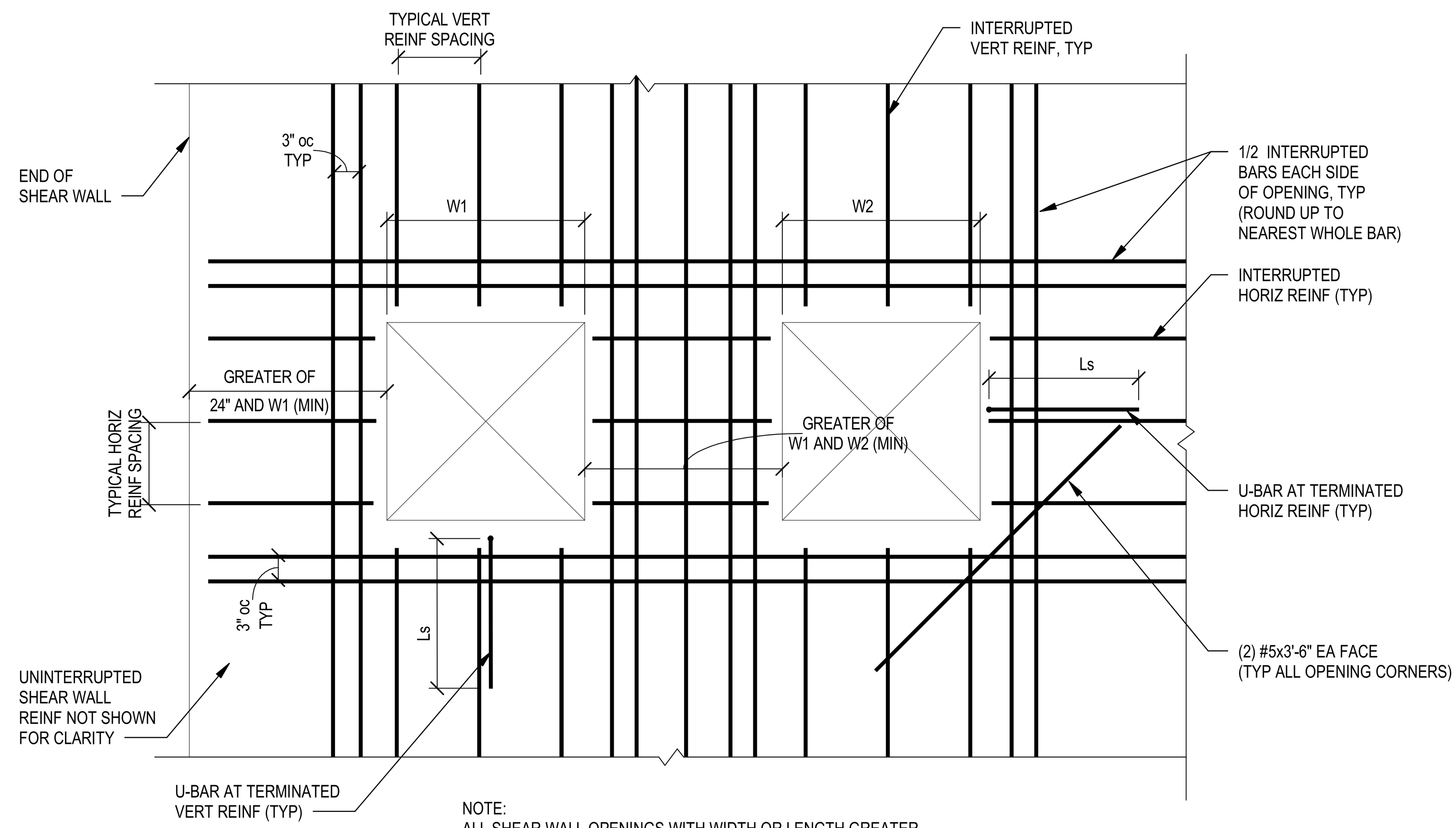
NOTES:
1. SLAB REINF NOT SHOWN FOR CLARITY.
2. SEE TYPICAL SHEAR WALL DETAIL FOR ADDITIONAL INFORMATION.

TYPICAL CONCRETE SHEAR WALL CONSTRUCTION JOINT AT CONCRETE SLAB DETAIL
NTS



NOTES:
1. SEE TYPICAL SHEAR WALL DETAIL FOR ADDITIONAL INFORMATION.
2. FOUNDATION REINFORCING NOT SHOWN FOR CLARITY.

TYPICAL BASE OF CONCRETE SHEAR WALL
NTS



NOTE:
ALL SHEAR WALL OPENINGS WITH WIDTH OR LENGTH GREATER THAN 12" MUST BE SUBMITTED TO AND APPROVED BY EOR.

TYPICAL SHEAR WALL OPENING DETAIL
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CONCRETE SHEAR WALL TYPICAL DETAILS

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Issue Date

SHEET:
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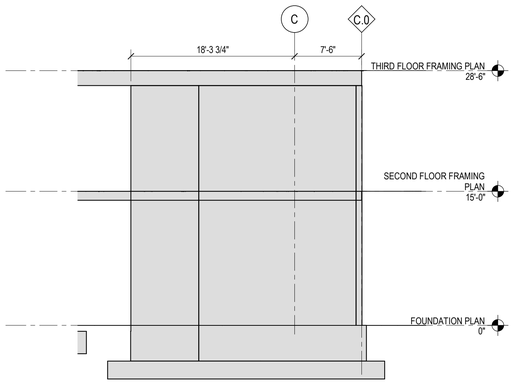
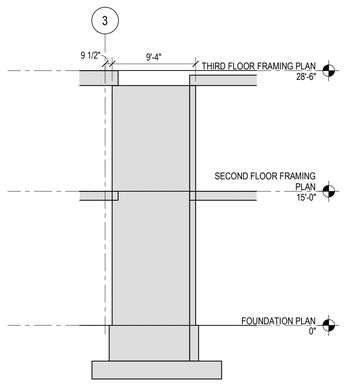


SN STAIR NORTH SHEAR WALL ELEVATION 1 S332
1/8" = 1'-0"



SN STAIR WEST SHEAR WALL ELEVATION 2 S332
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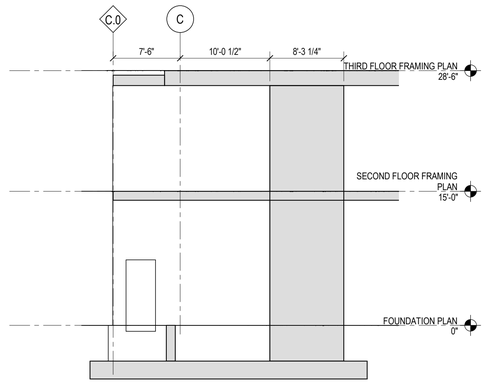

SN STAIR SOUTH SHEAR WALL ELEVATION 3 S332
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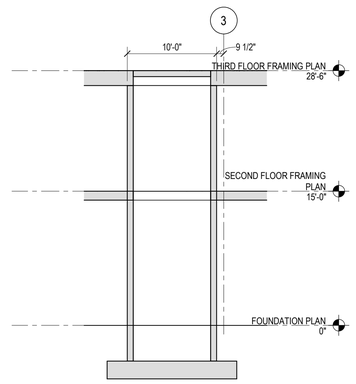

SN STAIR EAST SHEAR WALL ELEVATION 4 S332
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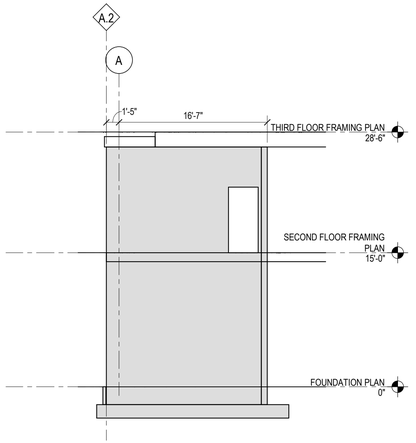

SE STAIR NORTH SHEAR WALL ELEVATION 5 S332
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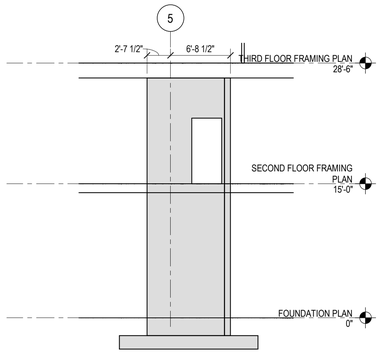

SE STAIR WEST SHEAR WALL ELEVATION 6 S332
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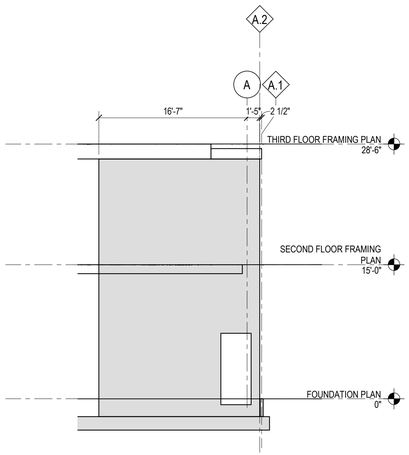

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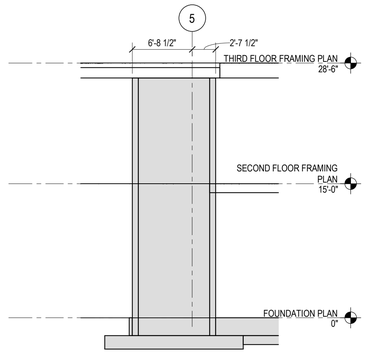
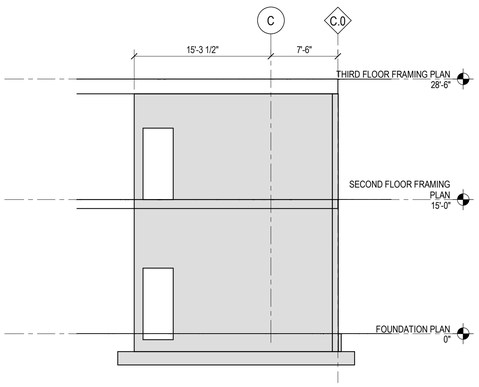


SE STAIR EAST SHEAR WALL ELEVATION 8 S332
1/8" = 1'-0"



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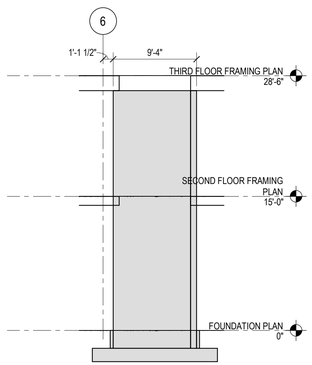
1/8" = 1'-0"



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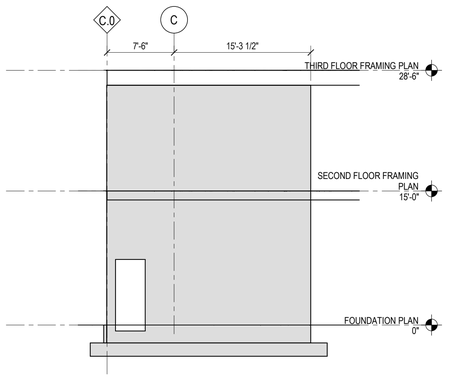

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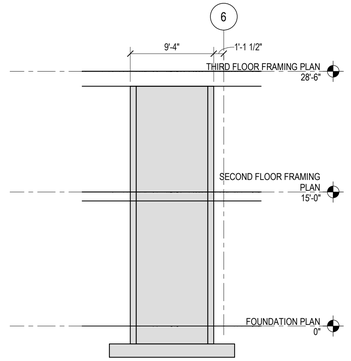

SS STAIR EAST SHEAR WALL ELEVATION 12 S332
1/8" = 1'-0"

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CONCRETE SHEAR WALL ELEVATIONS

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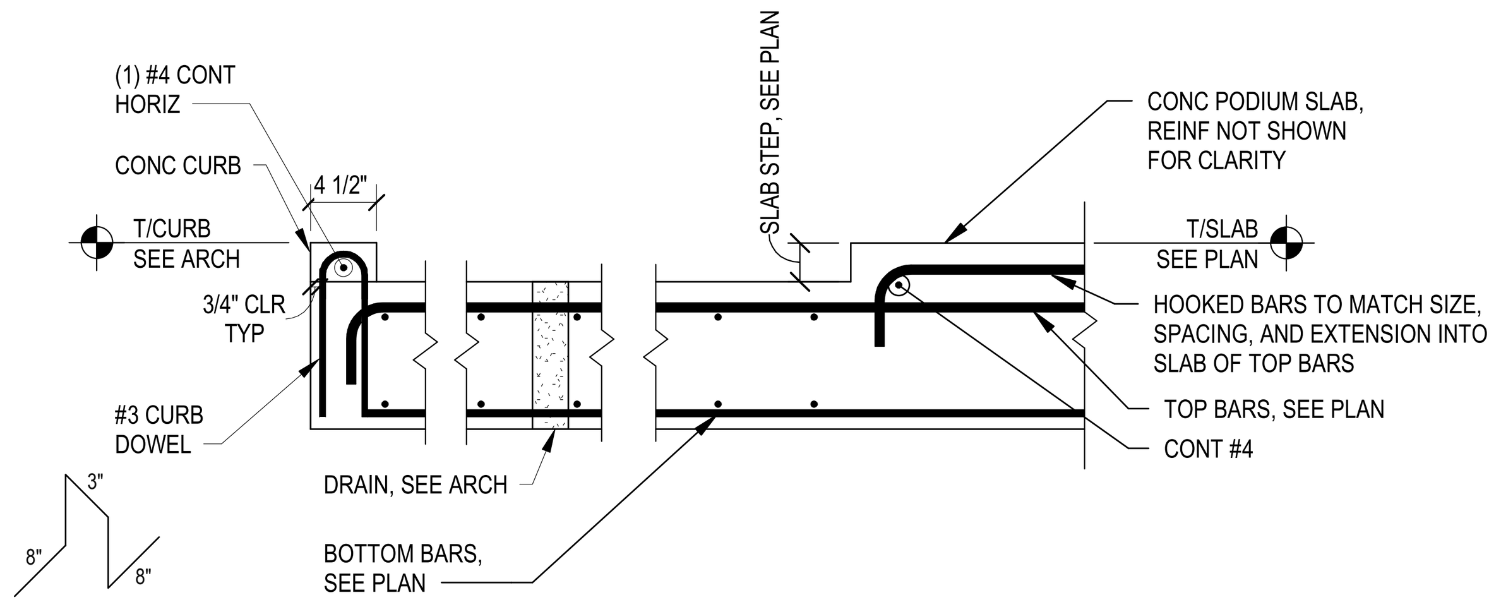
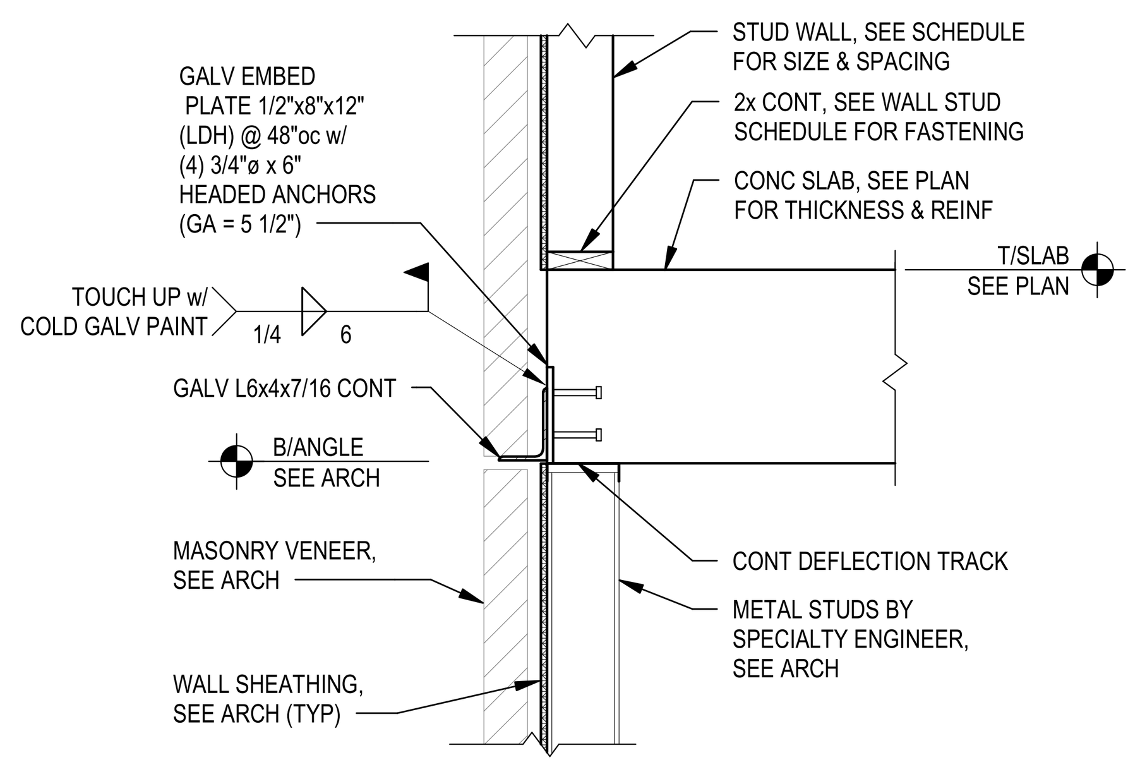
S332



SECTION 1
3/4" = 1'-0" S341



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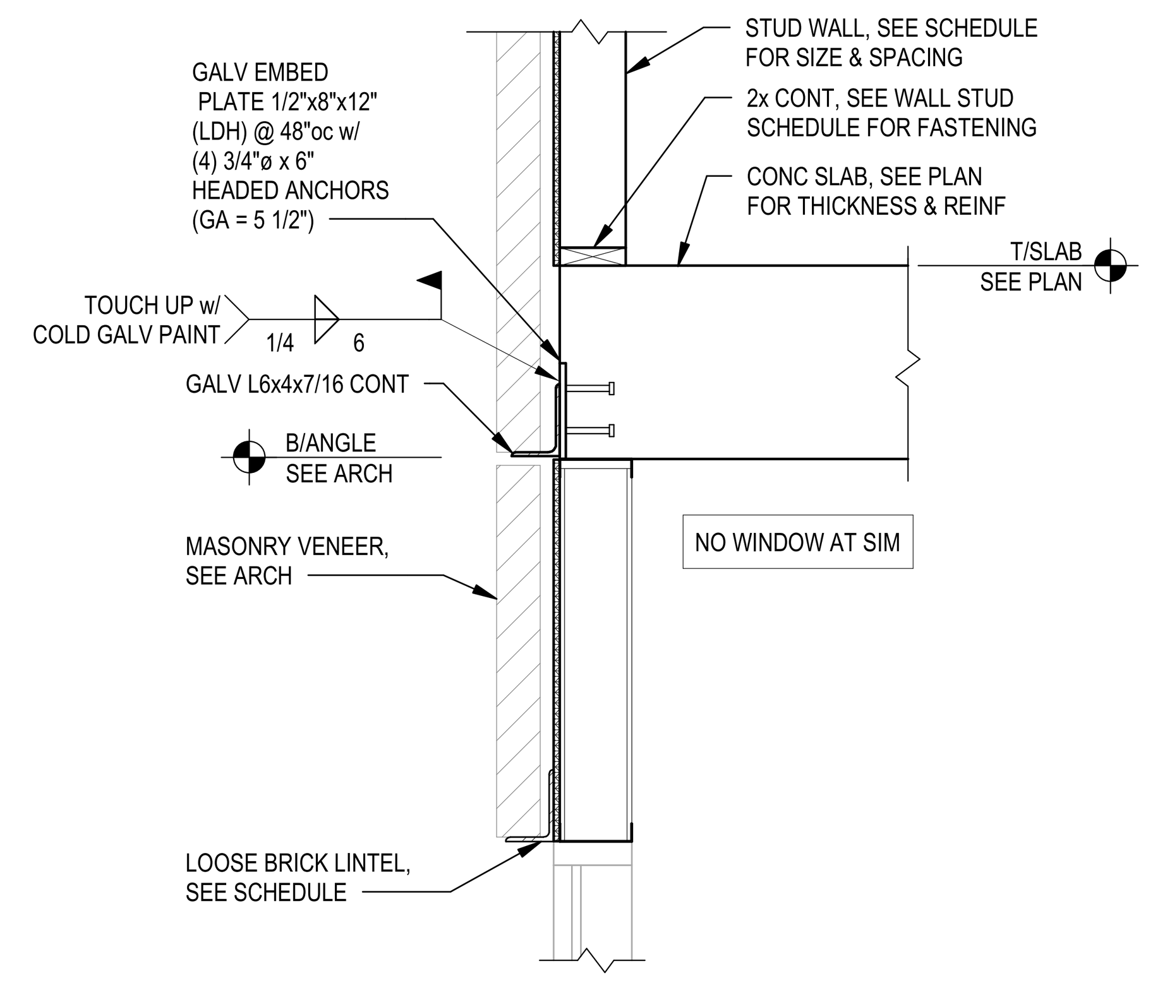
3/4" = 1'-0" S341



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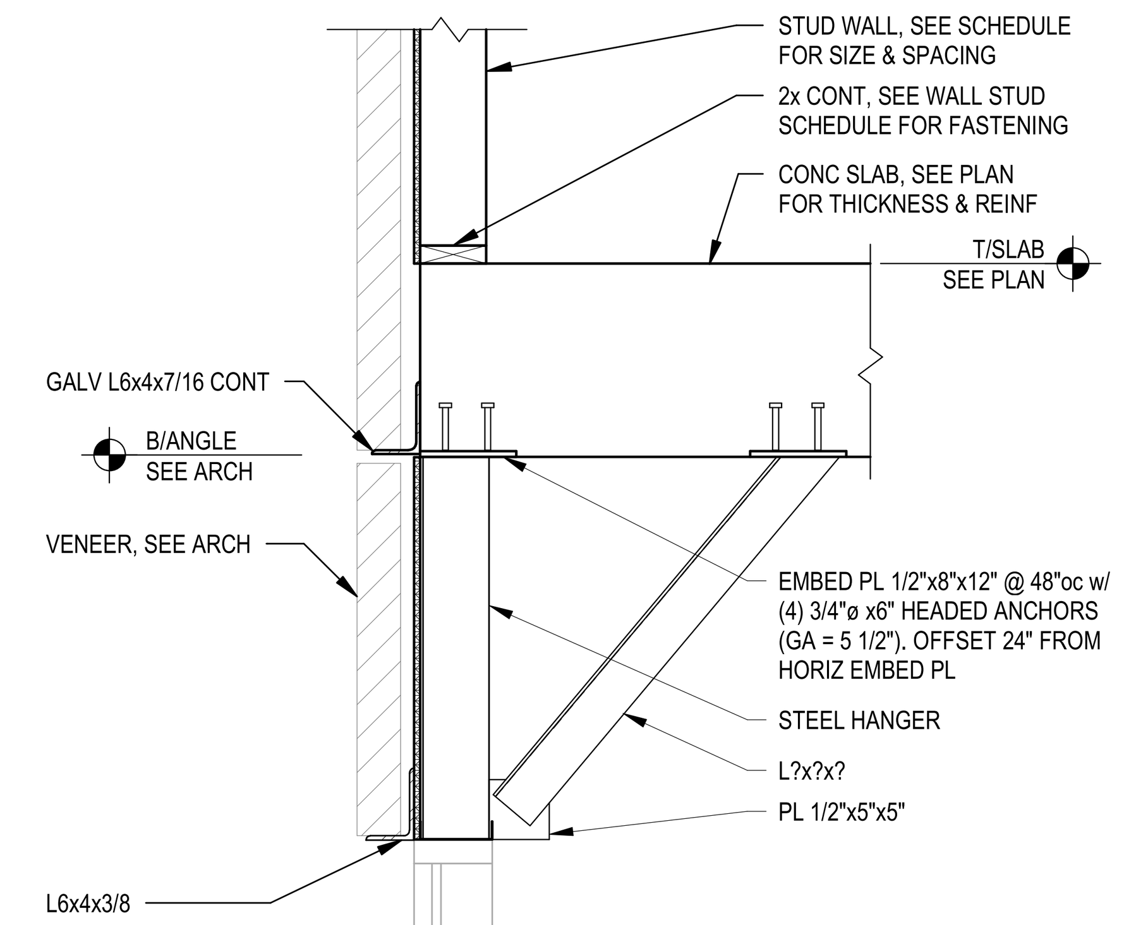

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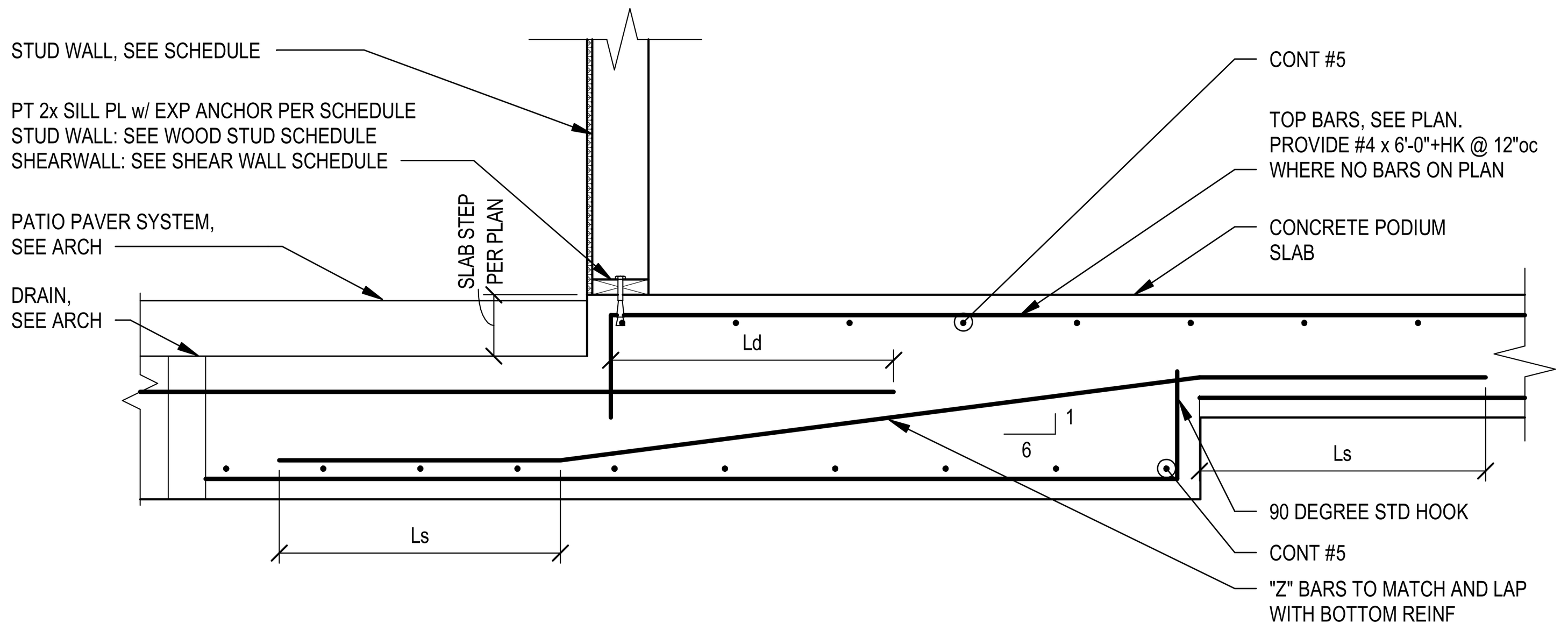

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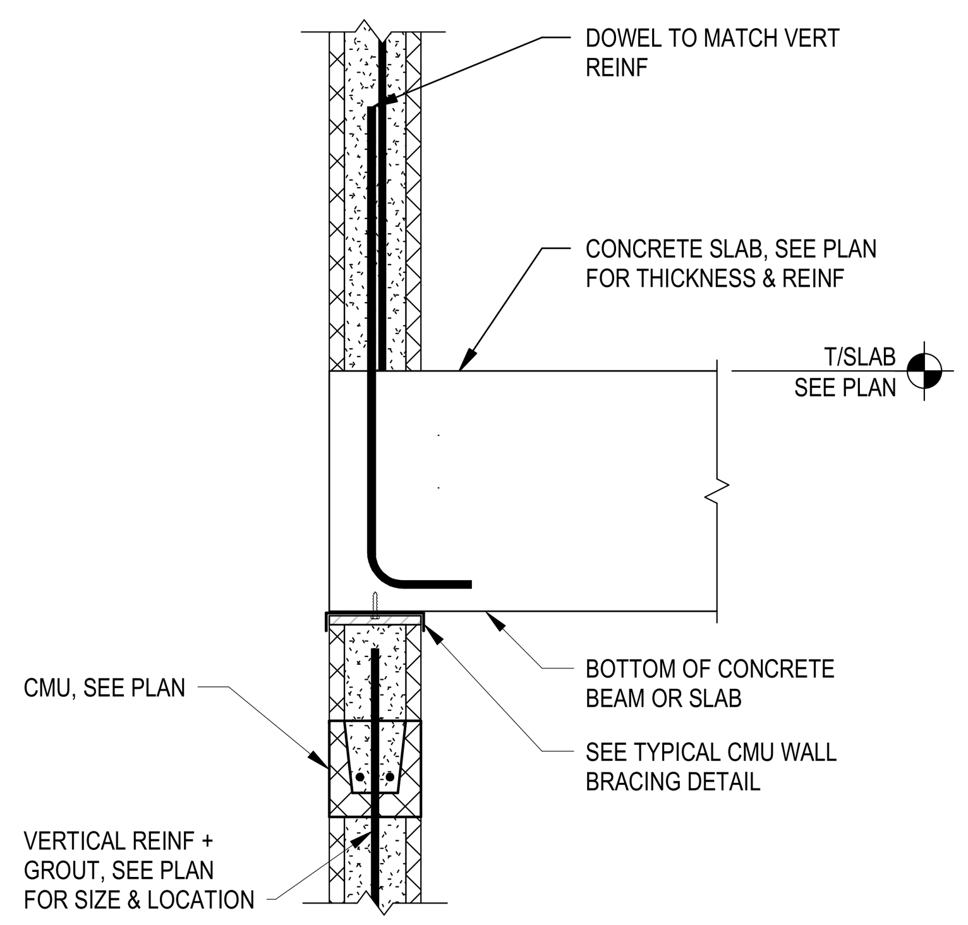

SECTION 6
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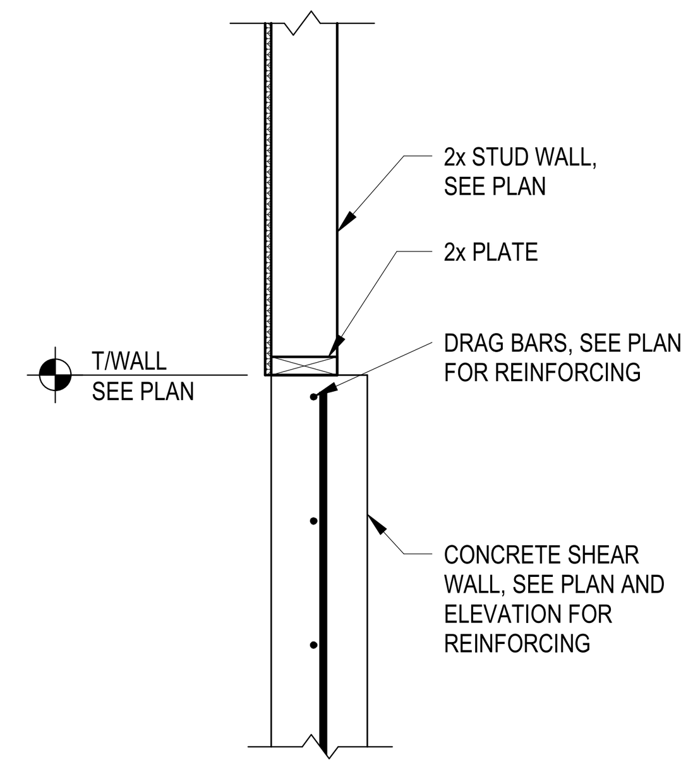

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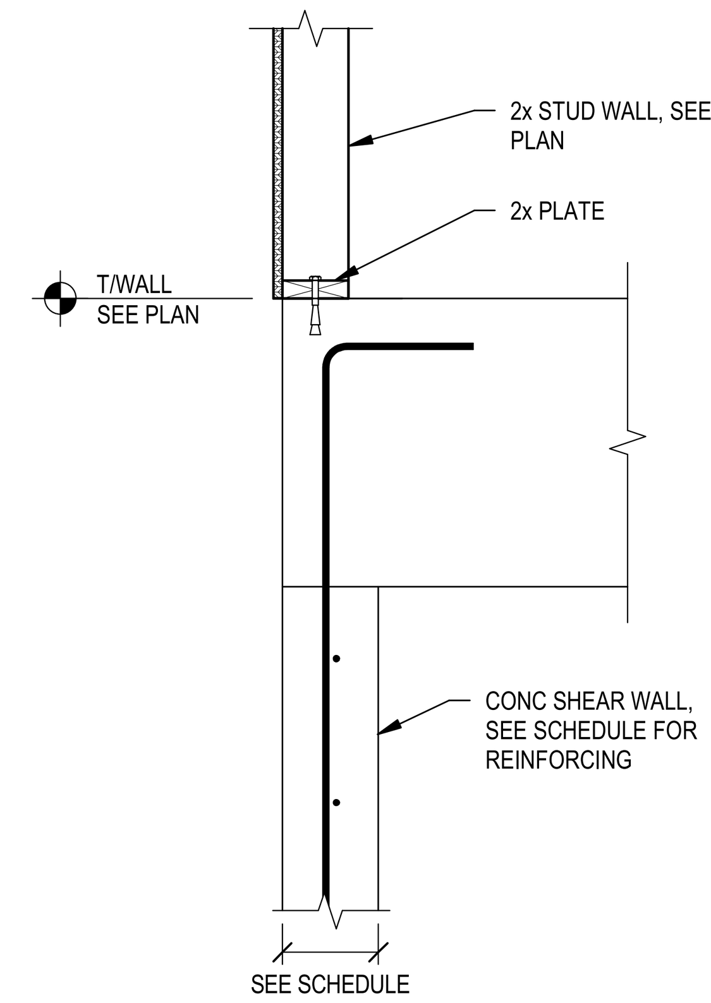

SECTION 8
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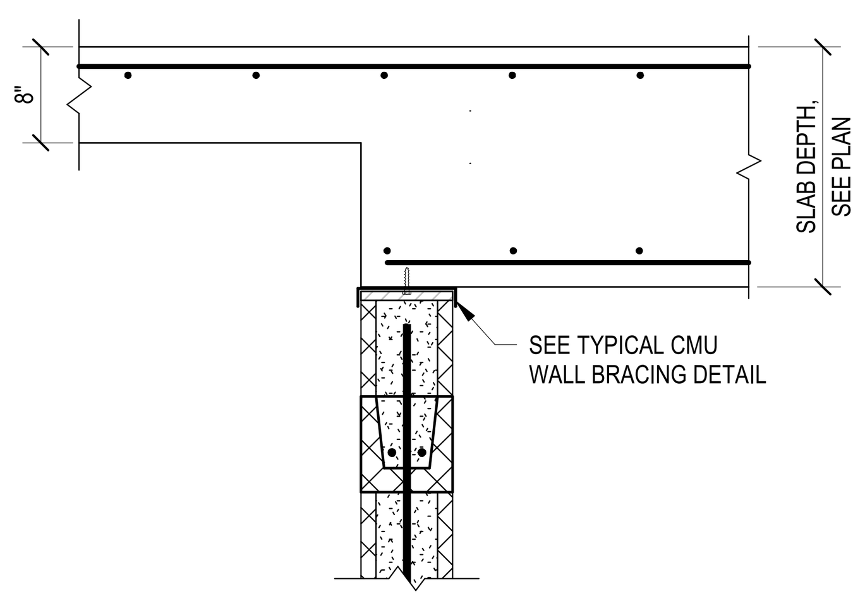

SECTION 9
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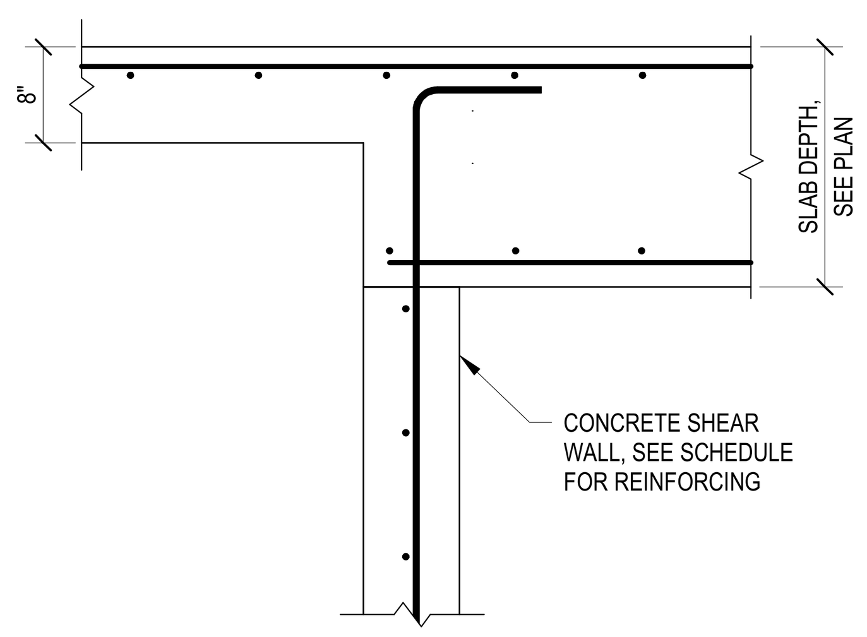

SECTION 10
3/4" = 1'-0" S341

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ENGINEER: Designer
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CHECKED BY: Checker

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CONCRETE FRAMING DETAILS & SECTIONS

DATE:
Issue Date

SHEET:
S341

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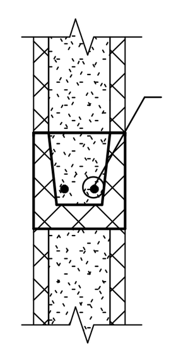
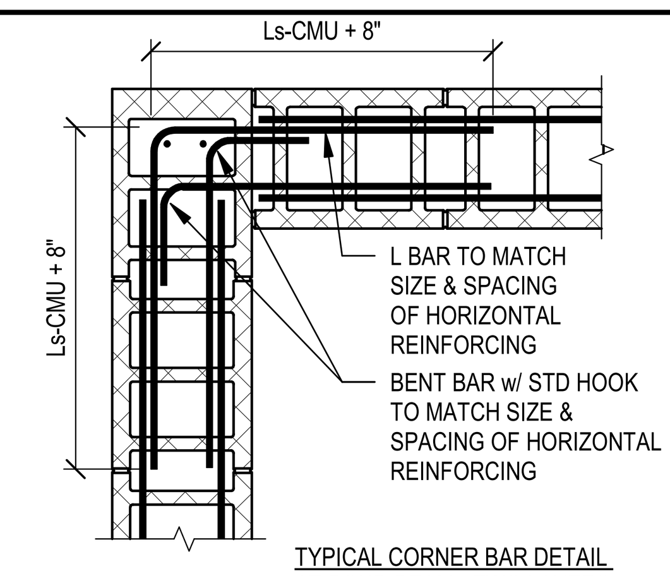
Owner 2312.95

TYPICAL BOND BEAM DETAILS



8" CMU



TYPICAL CORNER BAR DETAIL AT BOND BEAM - TWO LAYERS (PLAN VIEW)

CMU WALL REINFORCING SCHEDULE

TYPICAL VERTICAL REINFORCING			
MARK	REINFORCING BAR SIZE & SPACING	CMU SIZE	DETAIL
W1	#5 @ 36"oc	8	A/S400

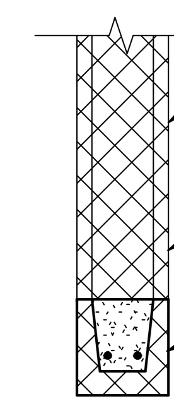
NOTES:
1. "Wn" - INDICATES VERTICAL WALL REINFORCING.
2. GROUT ALL CELLS CONTAINING REINFORCING SOLID.
3. "Sn" - INDICATES REINFORCING EACH END OF SHEAR WALLS OR AT SPECIFIC JAMB CONDITIONS, ETC.
4. REINFORCING TO BE PLACED IN CENTER OF GROUTED CELL UNLESS NOTED OTHERWISE.
5. EXTEND REINFORCING FROM PLAN LEVEL SHOWN DOWN TO LEVEL BELOW AND LAP PER SCHEDULE IN MASONRY SECTION OF GENERAL STRUCTURAL NOTES. EXTEND DOWEL OR BENT BAR OUT OF CONCRETE WALL OR FOOTING TO PROVIDE LAP WITH EACH CMU VERTICAL REINFORCING BAR. SEE RELATING SECTIONS FOR EXACT DETAIL.
6. ALL WALLS NOT NOTED WITH "Wn" OR "Sn" ON PLAN, REINFORCE WITH #?? VERT @ ??"oc, CENTERED.

BRICK LINTEL SCHEDULE

MAX CLEAR OPENING	LINTEL SIZE
4'-0"	L3 1/2x3 1/2x5/16
6'-0"	L5x3 1/2x5/16 (LLV)
8'-0"	L6x3 1/2x3/8 (LLV)
10'-0"	L8x4x7/16 (LLV)

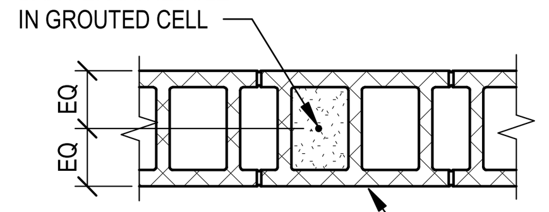
NOTES:
1. PROVIDE 8" BEARING EACH END OF LINTEL, UNO.

Ln LINTEL SCHEDULE

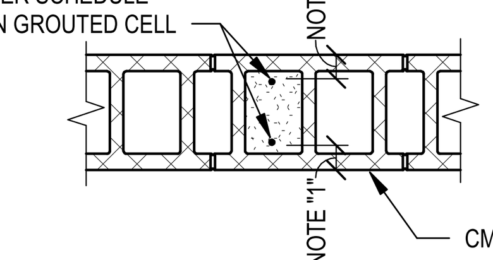
MARK	DETAIL
L1	

NOTES:
1. PROVIDE 8" BEARING EACH END OF LINTEL, UNO.

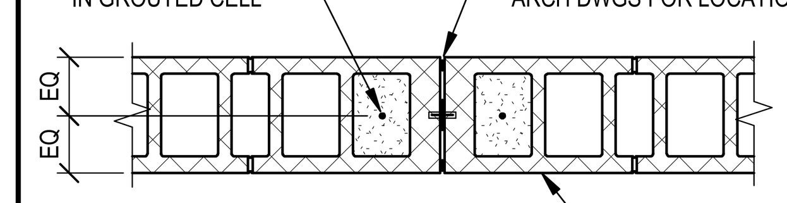
TYPICAL CMU REINFORCING PLAN DETAILS



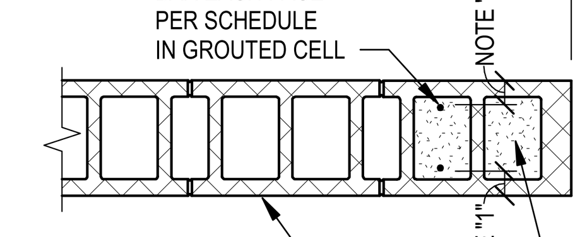
TYPICAL VERTICAL BAR CENTERED DETAIL A/S400



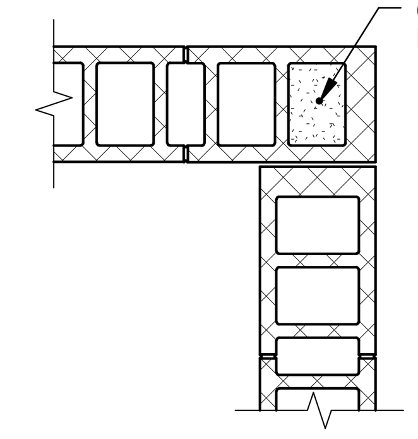
TYPICAL VERTICAL BAR EACH FACE DETAIL B/S400



TYPICAL VERTICAL BARS @ CONTROL JOINTS (MIN, UNO)

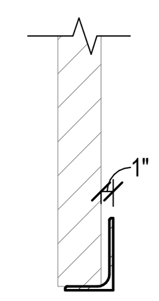


TYPICAL VERTICAL BARS ON EACH SIDE OF OPENINGS (MIN, UNO)



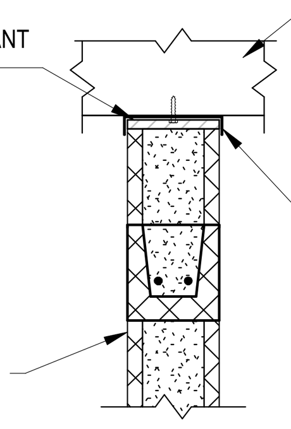
TYPICAL VERTICAL BARS @ CORNERS (MIN, UNO)

NOTES:
1. 8" CMU : 2 3/8" MAX (BUT MAINTAIN MIN 1/2" CLEAR BETWEEN BAR & FACE SHELL).
12" CMU : 2 5/8" MAX (BUT MAINTAIN MIN 1/2" CLEAR BETWEEN BAR & FACE SHELL).



NOTE: PROVIDE 8" BEARING EA END OF LINTEL, UNO

TYPICAL LOOSE LINTEL DETAIL
3/4" = 1'-0"



TYPICAL CMU WALL BRACING DETAIL
3/4" = 1'-0"

STRUCTURAL ENGINEERS
800.542.3302
schaefer-inc.com
schaefer

STAMP:

PROGRESS REVIEW ONLY
NOT FOR CONSTRUCTION

PARAMOUNT WORKS

2505 KEMPER LN
CINCINNAT OH, 45206

ENGINEER: Designer
MODELER: Author
CHECKED BY: Checker

ISSUE/REVISION/SUBMISSION

NO	DATE	DESCRIPTION

PROJECT NUMBER:
2312.95

SHEET NAME:
MASONRY SCHEDULES AND TYPICAL DETAILS

DATE:
Issue Date

SHEET:
S400

11/3/2023 12:23:25 PM
Owner 2312.95
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