STRUCTURAL NOTES

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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

**IT IS ASSUMED FUTURE SOLAR PANELS WITH LOW PROFILES THAT DO NOT INDUCE SNOW DRIFT OR ADDITIONAL WIND FORCES ON THE BUILDING. IT IS ASSUMED THAT THE WEIGHT OF THE SOLAR PANELS WILL BE DISTRIBUTED UNIFORMLY TO EACH ROOF TRUSS BELOW THE SOLAR PANELS AND THAT SOLAR PANEL SUPPORT LEGS WILL NOT ALTER TRUSS SPACINGS.

2. WOOD TRUSS FRAMED FLOOR DEAD 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 (LEVEL 2)

A. CONCRETE PODIUM	150	PCF
B. PRIVATE ROOMS SUPERIMPOSED DEAD LOAD ALLOWANCE	15	PSF
C. OFFICE SUPERIMPOSED DEAD LOAD ALLOWANCE	30	PSF
LIVE LOAD		
D. PRIVATE ROOMS AND CORRIDORS SERVING THEM	40	PSF***
E. PRIVATE BALCONIES	60	PSF***
F. PUBLIC ROOMS AND CORRIDORS SERVING THEM	100	PSF***
G. STAIR LIVE LOAD	100	PSF
H. OFFICES	80	PSF***

4. FLOOR LOAD (PODIUM BELOW RESIDENTIAL)

A. CONCRETE PODIUM	150	PCF
B. SUPERIMPOSED DEAD LOAD ALLOWANCE	15	PSF
LIVE LOAD		
C. PRIVATE ROOMS AND CORRIDORS SERVING THEM	40	PSF***
D. PRIVATE BALCONIES	60	PSF***
E. PUBLIC ROOMS AND CORRIDORS SERVING THEM	100	PSF***
F. STAIR LIVE LOAD	100	PSF

5. 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.

6. 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	= ORDINARY REINFORCED CONCRETE SHEAR WALLS
O. RESPONSE MODIFICATION COEFFICIENT, R	= 5
P. SEISMIC RESPONSE COEFFICIENT, CS	= 0.031
Q. DESIGN BASE SHEAR	= 278 KIP
R. ANALYSIS PROCEDURE USED	= ELFP

7. CONCENTRATED LOADS: 2000 POUNDS OVER 2.5 FEET SQUARE

8. 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 (NOT UNDOCUMENTED FILL). FOUNDATIONS HAVE BEEN DESIGNED FOR A MAXIMUM ALLOWABLE SOIL BEARING PRESSURE OF 6000 PSF BELOW STRIP FOOTINGS AND 6000 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 +/- 2% 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 ON S003.
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. CURING MATERIALS
   A. BONDING AGENT: ASTM C1059/C1059M, TYPE II, NONREPDISPERSIBLE, ACRYLIC EMULSION OR STYRENE BUTADIENE.
4. 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.
5. 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.
6. 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
7. 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.
8. 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.
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.

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STAMP:
STATE OF OHIO
CHRISTOPHER HAHNEL
PE.86230
REGISTERED
PROFESSIONAL ENGINEER
02/26/2024

PARAMOUNT WORKS

2505 KEMPER LN
CINCINNAT OH, 45206

ENGINEER: AJS
MODELER: WCM
CHECKED BY: MMO

ISSUE/REVISION/SUBMISSION

NO	DATE	DESCRIPTION
	02.26.24	Pricing / Permit Issuance

PROJECT NUMBER:
2312.95

SHEET NAME:
GENERAL NOTES

DATE:
02/26/2024

SHEET:
S001

5. SUBMITTALS

A. SHOP DRAWINGS FOR REINFORCING STEEL (COMPLY WITH ACI SP-066):

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 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	3/8"
4TH FLOOR	5/8"
6TH FLOOR	7/8"
ROOF	1 1/8"

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 15 PSF (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 SDWC15600 SCREW AT EACH MEMBER AT EACH BEARING LOCATION 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. ROOF SHEATHING (TYPICAL): 19/32" APA SPAN RATING 40/20 ROOF SHEATHING, EXPOSURE 1 CLASSIFICATION.

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

D. FIRE-RETARDANT-TREATED (FRT) WALL SHEATHING: 5/8" ARCH "DRICON" SPAN RATING 24/16 WALL SHEATHING, EXPOSURE 1. SEE SHEAR WALL SCHEDULE FOR SHEATHING AT SHEAR WALLS.

E. WALL SHEATHING AT DECK LEDGERS: 5/8" APA SPAN RATING 24/16, PRESERVATIVE TREATED, EXTERIOR CLASSIFICATION.

F. 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:
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.

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02/26/2024

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CINCINNAT OH, 45206

ENGINEER: AJS
MODELER: WCM
CHECKED BY: MMO

ISSUE/REVISION/SUBMISSION

NO	DATE	DESCRIPTION
	02.26.24	Pricing / Permit Issuance

PROJECT NUMBER:
2312.95

SHEET NAME:
GENERAL NOTES

DATE:
02/26/2024

SHEET:
S002

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.

SCHEDULE OF TENSION & COMPRESSION DEVELOPMENT AND LAP SPLICE LENGTHS

FOOTINGS (f'c = 4000PSI)						FOUNDATION WALLS (f'c = 4500PSI)						COLUMNS, WALLS, AND SUSPENDED SLABS (f'c = 5000PSI)							
BAR SIZE	Ld		Ls		Ldh	BAR SIZE	Ld		Ls		Ldh	BAR SIZE	Ld		Ls		Ldh	Ldc	Lsc
	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS			OTHER BARS	TOP BARS	OTHER BARS	TOP BARS			OTHER BARS	TOP BARS	OTHER BARS	TOP BARS			
	(in)	(in)	(in)	(in)	(in)		(in)	(in)	(in)	(in)	(in)		(in)	(in)	(in)	(in)	(in)	(in)	(in)
#3	15	19	19	25	8	#3	12	12	16	16	7	#3	13	17	17	22	7	7	12
#4	19	25	25	33	10	#4	12	14	16	19	9	#4	17	23	23	29	9	9	15
#5	24	31	31	41	12	#5	14	18	18	23	12	#5	22	28	28	36	11	12	19
#6	29	37	37	49	15	#6	17	21	21	28	14	#6	26	34	34	44	13	14	23
#7	42	54	54	71	17	#7	24	31	31	40	16	#7	38	49	49	63	15	16	27
#8	48	62	62	81	19	#8	27	35	35	46	18	#8	43	56	56	72	17	18	30
#9	54	70	70	91	22	#9	34	44	44	57	21	#9	48	63	63	81	20	21	34
#10	61	79	79	102	25	#10	42	54	54	70	23	#10	54	71	71	92	22	23	39
#11	67	87	87	114	27	#11	50	65	65	84	26	#11	60	78	78	102	24	26	--
#14	81	105	105	136	33	#14	68	88	88	115	31	#14	72	94	94	122	29	31	--
LAP AND DEVELOPMENT TABLE CRITERIA: A. GRADE 60 UNCOATED REINFORCING STEEL i. FOR EPOXY COATED: MULTIPLY Ld, Ls BY 1.5; Ldh BY 1.2 B. NORMAL WEIGHT CONCRETE i. FOR LIGHTWEIGHT CONCRETE: MULTIPLY Ld, Ls, Ldh BY 1.33 C. CLEAR COVER GREATER THAN db D. MIN 2*db CLEAR SPACING BETWEEN BARS						**LAP AND DEVELOPMENT TABLE CRITERIA:** A. GRADE 60 UNCOATED REINFORCING STEEL i. FOR EPOXY COATED: MULTIPLY Ld, Ls BY 1.5; Ldh BY 1.2 B. NORMAL WEIGHT CONCRETE i. FOR LIGHTWEIGHT CONCRETE: MULTIPLY Ld, Ls, Ldh BY 1.33 C. 2" MIN CLEAR COVER D. 4" MIN CLEAR SPACING BETWEEN BARS						**LAP AND DEVELOPMENT TABLE CRITERIA:** A. GRADE 60 UNCOATED REINFORCING STEEL i. FOR EPOXY COATED: MULTIPLY Ld, Ls BY 1.5; Ldh BY 1.2 B. NORMAL WEIGHT CONCRETE i. FOR LIGHTWEIGHT CONCRETE: MULTIPLY Ld, Ls, Ldh BY 1.33 C. CLEAR COVER GREATER THAN db D. MIN 2*db CLEAR SPACING BETWEEN BARS							
FOR BARS THAT DO NOT MEET THE CLEAR COVER OR CLEAR SPACING INDICATED: #6 AND SMALLER: Ld = 57 BAR DIAMETERS; Ls = 74 BAR DIAMETERS #7 AND LARGER: Ld = 72 BAR DIAMETERS; Ls = 93 BAR DIAMETERS FOR TOP BARS MULTIPLY BY 1.3 MINIMUM Ld AND Ls = 12"						**FOR BARS THAT DO NOT MEET THE CLEAR COVER OR CLEAR SPACING INDICATED:** #6 AND SMALLER: Ld = 54 BAR DIAMETERS; Ls = 70 BAR DIAMETERS #7 AND LARGER: Ld = 68 BAR DIAMETERS; Ls = 88 BAR DIAMETERS FOR TOP BARS MULTIPLY BY 1.3 MINIMUM Ld AND Ls = 12"						**FOR BARS THAT DO NOT MEET THE CLEAR COVER OR CLEAR SPACING INDICATED:** #6 AND SMALLER: Ld = 51 BAR DIAMETERS; Ls = 67 BAR DIAMETERS #7 AND LARGER: Ld = 64 BAR DIAMETERS; Ls = 83 BAR DIAMETERS FOR TOP BARS MULTIPLY BY 1.3 MINIMUM Ld AND Ls = 12"							

LAP AND DEVELOPMENT TABLE NOTES & DEFINITIONS:

A. TOP BARS = HORIZ BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS
B. db = BAR DIAMETER
C. s = CENTER-TO-CENTER BAR SPACING
D. Ath = TOTAL AREA OF TIES OR STIRRUPS CONFINING HOOKED BARS
E. Ahs = TOTAL AREA OF HOOKED BARS BEING DEVELOPED
F. WHERE BARS OF DIFFERENT SIZES ARE SPLICED, Ls FOR THE LARGER BAR SHALL BE USED
G. ALL TENSION SPLICES SHALL BE CLASS B, UNLESS NOTED OTHERWISE
H. Ldh VALUES FOR #11 BARS AND SMALLER MAY BE REDUCED AS FOLLOWS (PER ACI 318-14)
   i. MULTIPLY BY 0.70 FOR (1) OR (2)
      (1) SIDE COVER ≥ 2 1/2"
      (2) 90° HOOKS WITH COVER ON BAR EXTENSION BEYOND HOOK ≥ 2"
   ii. MULTIPLY BY 0.80 FOR (3), (4), or (5)
      (3) 90° HOOKS ENCLOSED ALONG Ldh WITHIN TIES OR STIRRUPS AT s ≤ 3db
      (4) 90° HOOKS ENCLOSED ALONG THE BAR EXTENSION WITHIN TIES OR STIRRUPS AT s ≤ 3db
      (5) 180° HOOKS ENCLOSED ALONG Ldh WITHIN TIES OR STIRRUPS AT s ≤ 3db
   iii. Ldh SHALL NOT BE LESS THAN THE LARGER OF 8db OR 6" WITH REDUCTIONS APPLIED

CONCRETE MIXTURE REQUIREMENTS

CONCRETE CLASS	DESCRIPTION	EXPOSURE CLASS				MINIMUM f'c AT 28 DAYS (PSI)	MAXIMUM w/c RATIO	AIR CONTENT	MINIMUM CEMENTITIOUS MATERIAL (LB/CY)	REMARKS
		F	S	W	C					
A	FOOTINGS AND GRADE BEAMS	F0	S0	W0	C0	4000	--	--	--	--
B	FOUNDATION WALLS	F2	S0	W0	C1	4500	0.45	6% ±1.5%	--	--
C1	INTERIOR SLABS-ON-GROUND	F0	S0	W0	C0	4000	--	3% MAX	540	--
D1	INTERIOR SUSPENDED SLABS	F0	S0	W0	C0	5000	--	3% MAX	540	--
G	BUILDING FRAME MEMBERS	F0	S0	W0	C0	5000	--	--	--	--
H	BUILDING WALLS	F0	S0	W0	C0	5000	--	--	--	--
I	INTERIOR METAL PAN STAIRS AND LANDINGS	F0	S0	W0	C0	4000	--	--	--	NOMINAL MAX AGGREGATE SIZE: 3/8"

CONCRETE MIXTURE NOTES:
A. PROVIDE MIX DESIGNS IN ACCORDANCE WITH ACI 301-16 FOR SPECIFIED EXPOSURE CLASS AND AGGREGATE.
B. NOMINAL MAX AGGREGATE SIZE = 3/4" UNLESS OTHERWISE NOTED
C. ALL CONCRETE SHALL BE NORMAL WEIGHT UNLESS OTHERWISE NOTED

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NO	DATE	DESCRIPTION
	02.26.24	Pricing / Permit Issuance

PROJECT NUMBER:
2312.95

SHEET NAME:
GENERAL NOTES

DATE:
02/26/2024

SHEET:
S003

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SCHEDULE OF SPECIAL INSPECTION SERVICES - 1705.3 CONCRETE CONSTRUCTION

Item	Sub Item / Scope	Extent: Cont.	Extent: Periodic	Extent: N/A	Agency Qualifications	Comments
In-Plant Special Inspections (Precast Concrete)	**Fabrication and implementation procedures:** In addition to special inspections provided on site, provide special inspections indicated below on the premises of fabricator's shop. Verify that the fabricator maintains detailed fabrication and quality control procedures.			X	**As Noted Below**	Special inspections on the premises of the fabricator's shop are not required provided the fabricator is an ***Approved Fabricator*** in accordance with section 1704.2.5.1. Fabricator is required to submit documentation/certification that they are an ***Approved Fabricator***.
1. Reinforcing steel	**a. Mild Reinforcing Steel:** Inspect size, spacing, cover, positioning and grade of reinforcing steel: Verify that reinforcing bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters. Verify welded wire fabric is supported per construction documents. Reference ACI 318: 20, 25.2, 25.3, 26.6.3, 26.6.4, and IBC 1908.4		X		**Testing Agency**	
	b. Prestress Steel: Inspect size, spacing, cover, and position of prestressing tendons:			X	**Testing Agency**	
2. Welding of Reinforcing Steel	a. Verify weldability of reinforcing bars other than ASTM A706. Reference ACI 318: 26.6.4 and AWS D1.4			X	**Testing Agency**	
	b. Inspect single pass fillet welds, maximum 5/16"			X	**Testing Agency** AWS - Certified Welding Inspector	
	c. Inspect all other welds			X	**Testing Agency** AWS - Certified Welding Inspector	
3. Cast in Place Anchor Rods	Inspect size, position and embedment of cast in place bolts and anchor rods. Inspect concrete placement and consolidation around anchors. Reference ACI 318: 17.8.2		X		**Testing Agency**	
4. Post Installed Anchors (Anchors Installed in Hardened Concrete)	a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads. Inspect type and size of anchor, concrete type and compressive strength, hole cleaning procedures, anchor embedment, anchor spacing and edge distances, and tightening torque (where applicable). Reference ACI 318: 17.8.2.4	X			**Testing Agency**	Reference evaluation report (identified in project general notes) for additional inspection scope required by manufacturer.
	b. Mechanical anchors and adhesive anchors not defined in 4.a. Inspect type and size of anchor, concrete type and compressive strength, hole cleaning procedures, anchor embedment, anchor spacing and edge distances, and tightening torque (where applicable). Reference ACI 318: 17.8.2		X		**Testing Agency**	
5. Mix Design	Review concrete batch tickets and verify compliance with approved mix design. Verify that water added at site, if permitted by construction documents, does not exceed that allowed by mix design.		X		**Testing Agency**	
6. Sampling and Testing of Concrete	At the time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests as required by construction documents, and determine the temperature of concrete. Reference ASTM C 172, ASTM C31, ACI 318 19, 26.4.3, 26.4.4, and IBC 1904.1, 1904.2, 1908.2, 1908.3	X			**Testing Agency**	
7. Concrete and Shotcrete Placement	Inspect concrete and shotcrete placement for proper application techniques. Reference ACI 318: 26.5 and IBC 1908.6, 1908.7, and 1908.8. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.	X			**Testing Agency**	
8. Curing and Protection	Inspect for maintenance of specified curing temperature and techniques. Inspect cold weather and hot weather protection procedures as applicable. Reference ACI 318: 26.5.3-26.5.5 and IBC 1908.9		X		**Testing Agency**	
9. Prestressed (Post-tensioned) Concrete	**a. Application of Prestressing Forces:** Inspect placement, stressing, grouting and protection of post-tensioning tendons. Verify that tendons are correctly positioned, supported, tied and wrapped. Record tendon elongations. Reference ACI 318: 26.10.2			X	**Testing Agency**	
	b. Grouting of Bonded Prestressing Tendons in the Seismic-Force Resisting System: Reference ACI 318: 26.10.1			X	**Testing Agency**	
10. Precast Concrete Erection	Inspect erection of precast concrete including member configuration, connections, welding and grouting. Reference ACI 318: 26.9.4			X	**Testing Agency**	
11. Verification of In-Situ Concrete Strength	Verify concrete strength prior to the removal of shores and forms from beams and structural slabs and prior to the stressing of tendons in post-tensioned concrete. Reference ACI 318: 26.10.2 & 26.11.1.2		X		**Testing Agency**	
12. Formwork Geometry	Inspect formwork for shape, location and dimensions of the concrete member being formed. Reference ACI 318: 26.11		X		**Testing Agency**	

SCHEDULE OF SPECIAL INSPECTION SERVICES - 1705.4 MASONRY CONSTRUCTION (LEVEL B)

Item	Sub Item / Scope	Extent: Cont.	Extent: Periodic	Extent: N/A	Agency Qualifications	Comments
T1. Self Consolidating Grout	Verification of slump flow and VSI as delivered to the site for self-consolidating grout. Reference TMS 602: Art 1.5B.1.b.3			X	**Schaefer Submittal Review**	Not Required
T2. Masonry Strength	Verify f'm and f'aac in accordance with Specification Art. 1.4B prior to construction, except where specifically exempted by TMS 602.			X	**Schaefer Submittal Review**	Required
1. Compliance with Inspection Provisions and Submittals	Verify compliance with required inspection provisions of the construction documents and approved submittals		X		**Testing Agency**	
2. Start of Masonry Construction	**a. Proportions of Site-Prepared Mortar:** Inspect proportioning, mixing, and retempering of site prepared mortar, grout, and prestressing grout for bonded tendons (where applicable). Reference TMS 602: Art. 2.1 and 2.6A		X		**Testing Agency**	
	b. Construction of Mortar Joints: Inspect construction of mortar joints including tooling and filling of head joints. Reference TMS 602: Art 3.3B		X		**Testing Agency**	
	c. Prestressing Tendons: Verify grade and size of prestressing tendons and anchorage. Reference TMS 602: Art 2.4B and 2.4H			X		
	d1. Location of Mild Reinforcement: Inspect placement, positioning and lapping of reinforcing steel. Reference TMS 602: Art 3.4		X		**Testing Agency**	
	d2. Location of Prestressing Tendons and Anchorage: Inspect placement and positioning prestressing tendons and anchorage. Reference TMS 602: Art 3.6A			X	**Testing Agency**	
	e. Prestressing Technique: Verify prestressing technique. Reference TMS 602: Art 3.6B			X	**Testing Agency**	
	f. Properties of Thin-bed mortar for AAC masonry: Reference TMS 602: Art 2.4D			X	**Testing Agency**	
3. Prior to Grouting	**a. Grout Space:** Verify grout space is clean. Reference TMS 602: Art 3.2D and 3.2F		X		**Testing Agency**	
	b1. Reinforcement and Anchor Bolts: Inspect Size, grade, and type of reinforcement and anchor bolts. Reference TMS 602: Art 2.4 and 3.4; and TMS 402, Sec. 1.16		X		**Testing Agency**	
	b2. Prestressing tendons: Inspect size and grade of prestressing tendons and anchorages. Reference TMS 602: Art. 3.6.A			X	**Testing Agency**	
	c1. Mild Reinforcement Placement: Inspect placement, positioning and lapping of reinforcing steel. Reference TMS 602: Art 3.2 and 3.4; and TMS 402: Sec. 1.16		X		**Testing Agency**	
	c2. Prestressing Tendon and Anchorage Placement: Inspect placement and positioning prestressing tendons and anchorage. Reference TMS 602: Art 3.6; and TMS 402: Section 1.16			X	**Testing Agency**	
	d. Site-Prepared Grout: Verify proportions of site-prepared grout and prestressing grout for bonded tendons (where applicable). Reference TMS 602 Art 2.6B and 2.4G.1.b		X		**Testing Agency**	
	e. Construction of Mortar Joints: Inspect construction of mortar joints including tooling and filling of head joints. Reference TMS 602: Art 3.3B		X		**Testing Agency**	
4. During Masonry Construction	**a. Structural Elements:** Inspect size, location, layout, bonding, and placement of masonry units. Reference TMS 602: Art 3.3F		X		**Testing Agency**	
	b. Anchors and Ties: Verify type, size, and location of anchors, including details of anchorage of masonry to structural members, frames, or other construction. Reference TMS 402; Sections 1.2.1E, 9.3.3.4(c), and 11.3.3.4(b)		X		**Testing Agency**	
	c. Welding of reinforcing bars. Inspect welding of reinforcing bars. Reference TMS 402: Section 8.1.6.7.2, 9.3.3.4(c), and 11.3.3.4(b)			X	**Testing Agency**	
	d. Weather Protection: Verify protection of masonry during cold weather (temperature below 40 degrees F) and hot weather (temperature above 90 degrees). Verify wall cavities are protected against precipitation. Reference TMS 602 Art 1.8C and 1.8D		X		**Testing Agency**	
	e. Application and Measurement of Prestressing Force: Reference TMS 602 Art 3.6B			X	**Testing Agency**	
	f1. Placement of Prestressing Grout: Inspect placement of prestressing grout. Reference TMS 602: Art 3.6G			X	**Testing Agency**	
	f2. Placement of Grout: Inspect placement and consolidation of grout. Inspect masonry clean-outs for high-lift grouting. Verify grout placement is in compliance with construction document provisions, including grout at all bond beams and below bearing plates. Reference TMS 602: Art 3.5	X			**Testing Agency**	P
	g. Placement of AAC masonry units and construction of thin-bed mortar joints: Reference TMS 602: Art 3.3B.9, 3.3 F.1.b			X	**Testing Agency**	Continuous for 1st 5000 square feet. Periodic after 1st 5000 square feet.
5. Preparation of specimens or prisms	Observe preparation of grout specimens, mortar specimens, and/or prisms. Reference TMS 602: Art 1.4			X	**Testing Agency** (compliance with ASTM C1093)	

SCHEDULE OF SPECIAL INSPECTION SERVICES - 1705.2.1 STRUCTURAL STEEL

Item	Sub Item / Scope	Extent: Observe	Extent: Perform	Extent: N/A	Agency Qualifications	Comments
In-Plant Special Inspections	**Fabrication and implementation procedures:** In addition to special inspections provided on site, provide special inspections indicated below on the premises of fabricator's shop. Verify that the fabricator maintains detailed fabrication and quality control procedures.	X		X	**As Noted Below**	Special inspections on the premises of the fabricators shop are not required provided the fabricator is an ***Approved Fabricator*** in accordance with section 1704.2. Fabricator is required to submit documentation/certification that they are an ***Approved Fabricator***.
1. Fabricator and erector documents	Verify reports and certificates as listed in AISC 360, chapter N, paragraph 3.2 for compliance with construction documents		X		**Schaefer Submittal Review**	
2. Material verification of structural steel	Verify material in shop and field inspection		X		**Testing Agency**	
3. Embedments	Verify diameter, grade, type, length, embedment. See Table 1705.3 for anchors		X		**Testing Agency**	
4. Verify compliance with construction documents	Verify member locations, braces, stiffeners, and application of joint details at each connection comply with construction documents		X		**Testing Agency**	
5.4-1. Visual Welding Inspection - Inspection Tasks Before Welding:	1. Welding procedure specifications (WPS) available		X		**Testing Agency** AWS - Certified Welding Inspector	
	2. Manufacturer certifications for welding consumables available.		X			
	3. Material Identification:	X				
	4. Fit up of Groove Welds (including Joint Geometry): Inspection shall include Joint preparation, Dimensions (alignment, root opening, root face, and bevel), Cleanliness (condition of steel surfaces), Tacking (tack weld quality and location), Backing type and fit (if applicable)	X				
	4. Configuration and Finish of Access Holes:	X				
	5. Fit-up of Fillet Welds	X				
5.4-2. Visual Welding Inspection - Inspection Tasks During Welding:	1. Use of Qualified Welders:	X			**Testing Agency** AWS - Certified Welding Inspector	
	2. Control and Handling of Welding Consumables: Packaging and Exposure control)	X				
	3. No welding over cracked tack welds.	X				
	4. Environmental Conditions: Wind speed within limits, and Precipitation and temperature.	X				
	WPS Followed: Observe Settings on welding equipment, Travel speed, Selected welding materials, Shielding gas type/flow rate, Preheat applied, Interpass temperature maintained (min and max), and Proper position (F,V,O,H)	X				
	Welding Techniques: Interpass and final cleaning, Each pass within profile limitations, Each pass meets quality requirements	X				
5.4-3. Visual Welding Inspection - Inspection Tasks After Welding	1. Welds Cleaned:	X			**Testing Agency** AWS - Certified Welding Inspector	
	2. Size, Length, and Location of Welds:		X			
	3. Welds meet visual acceptance criteria: Crack prohibition, Weld/base-metal fusion, Crater cross section, Weld profiles, Weld size, Undercut, Porosity.		X			
	4. Arc strikes:		X			
	5. k-area		X			
	6. Backing Bar Removal and weld tabs removal (if required):		X			
	7. Repair Activities:		X			
	8. Document acceptance or rejection of welded joint or member					
5.5 Non-destructive Testing of Welds	**1. CJP Groove Welds:** Ultrasonic testing shall be performed on 100 percent of CJP groove welds subject to transversely applied tension loading in butt, T- and corner joints, in materials 5/16 in thick or greater. Ultrasonic testing in materials less than 5/16 in thick is not required. Reduction of Rate of Ultrasonic Testing is permitted if the conditions of AISC 360-10 Appendix N.5.4 are met.		X		**Testing Agency** AWS - Certified Welding Inspector	Perform NDT for both in field and shop welds.
	2. Access Holes: Thermally cut surfaces of access holes shall be tested using Magnetic Particle Testing or Penetration Testing, when the flange thickness exceeds 2 inches for rolled shapes or when the web thickness exceeds 2 inches for built up shapes.		X			Perform NDT for both in field and shop welds.
	3. Weld Joints Subjected to Fatigue: Welded joints requiring weld soundness to be established by Radiographic or Ultrasonic Inspections. Reduction rate is prohibited.		X			Perform NDT for both in field and shop welds.
5.6-1. Inspection of Bolting: Inspection Tasks Prior to Bolting	1. Manufacturer's certifications available for fastener materials			X	**Testing Agency**	
	2. Fasteners marked in accordance with ASTM requirements			X	**Testing Agency**	
	3. Proper fasteners selected for the joint detail (grade, type, and bolt length if threads are excluded from shear plane).			X	**Testing Agency**	
	4. Proper bolting procedure selected for joint detail			X	**Testing Agency**	
	5. Connecting elements: Verify elements are fabricated properly, including the appropriate faying surface condition and hole preparation, if specified, meets the applicable requirements			X	**Testing Agency**	
	6. Pre-installation verification testing conducted for fastener assemblies and methods used			X	**Testing Agency**	
	7. Proper storage provided for bolts, nuts, washers, and other fastener components			X	**Testing Agency**	
5.6-2. Inspection of Bolting: Inspection Tasks During Bolting	1. Fastener assemblies, of suitable condition, placed in all holes and washers (if required) are properly positioned			X	**Testing Agency**	
	2. Joint brought to the snug tight condition prior to the pretensioning operation			X	**Testing Agency**	
	3. Fastener component not turned by the wrench prevented from rotating			X	**Testing Agency**	
	4. Bolts are pretensioned in accordance with the RCSC specification, progressing systematically from most rigid point toward free edges			X	**Testing Agency**	
5.6-3. Inspection of Bolting: Inspection Tasks After Bolting	1. Document accepted and rejected connections.			X	**Testing Agency**	
6.1 Inspection of Steel Elements of Composite Construction Prior to Concrete Placement	1. Placement and installation of steel deck.			X	**Testing Agency**	
	2. Placement and installation of steel headed stud anchors.			X	**Testing Agency**	
	3. Document acceptance or rejection of steel elements.			X	**Testing Agency**	
7. Inspection of Steel Frame	1. Inspect fabricated steel or erected steel frame to verify compliance with details shown on construction documents including bracing, stiffeners, member locations, and proper application of joint details at each connection	X			**Testing Agency**	

SCHEDULE OF SPECIAL INSPECTION SERVICES - 1705.6 SOILS

Item	Sub Item / Scope	Extent: Cont.	Extent: Periodic	Extent: N/A	Agency Qualifications	Comments
1. Bearing Materials	Verify materials below shallow foundations are adequate to achieve the design bearing capacity.		X		**Testing Agency** Under supervision of Licensed Geotechnical Engineer	
2. Excavations	Verify excavations are extended to proper depth and have reached proper material		X		**Testing Agency** Under supervision of Licensed Geotechnical Engineer	
3. Fill Classification	Perform classification and testing of compacted fill materials		X		**Testing Agency** Under supervision of Licensed Geotechnical Engineer	
4. Placement and Fill Compaction	Verify use of proper materials, densities, and lift thicknesses during placement and compaction of compacted fill	X			**Testing Agency** Under supervision of Licensed Geotechnical Engineer	
5. Subgrade	Prior to placement of compacted fill, inspect subgrade and verify that the site has been prepared properly		X		**Testing Agency** Under supervision of Licensed Geotechnical Engineer	

SCHEDULE OF SPECIAL INSPECTION SERVICES - 1705.5 WOOD CONSTRUCTION

Item	Sub Item / Scope	Extent: Cont.	Extent: Periodic	Extent: N/A	Agency Qualifications	Comments
Prefabricated Wood Structural Elements and Assemblies	Fabrication and implementation procedures: In addition to special inspections provided on site, provide special inspections indicated below on the premises of fabricator's shop. Verify that the fabricator maintains detailed fabrication and quality control procedures.			X	As Noted Below	Special inspections on the premises of the fabricator's shop are not required provided the fabricator is an Approved Fabricator in accordance with section 1704.2.5.1. Fabricator is required to submit documentation/certification that they are an Approved Fabricator.
5.1 High-Load Diaphragms	Inspect wood structural panel sheathing to ascertain wither it is of the grade and thickness shown on the approved building plans. Verify nominal size of framing members at adjoining panel edges, nail or staple diameter and length, the number of fastener lines and that the spacing between fasteners in each line and at the edge margins.		X		Testing Agency	
5.2 Metal-Plate-Connected Wood Trusses Spanning 60 feet or Greater	Inspect temporary installation restrain/bracing and permanent truss member restraint/bracing.			X	Testing Agency	

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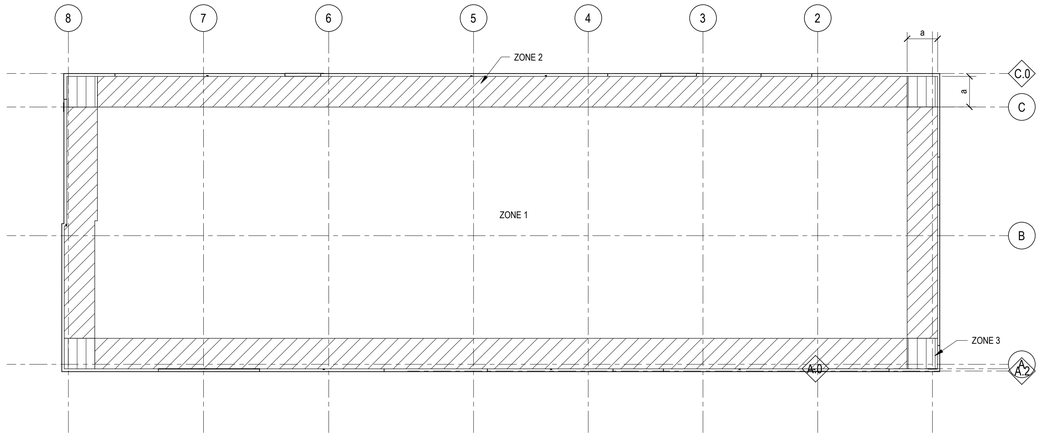
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WIND LOAD PLAN
1/16" = 1'-0"

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).

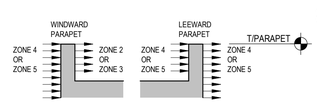


FIGURE 1: PARAPET

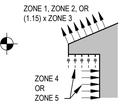
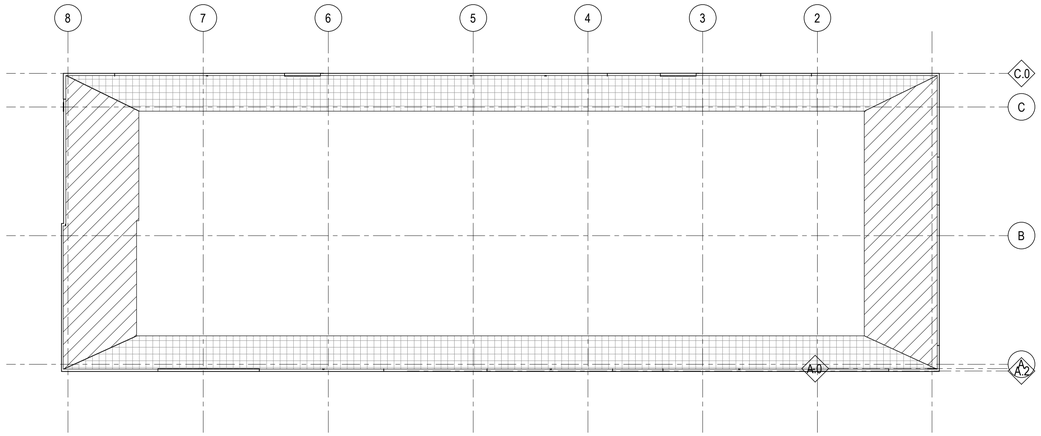


FIGURE 2: OVERHANG

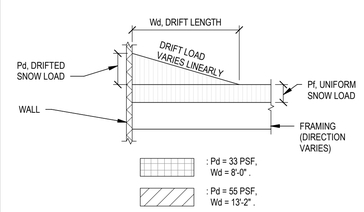


SNOW DRIFT PLAN
1/16" = 1'-0"

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)

MARK	SIZE			REINFORCING	REMARKS
	LENGTH (L)	WIDTH (B)	THICKNESS (H)		
65	5'-6"	6'-6"	1'-3"	(7) #5 EA WAY, BOTTOM	
66	5'-6"	6'-0"	2'-0"	(5) #8 EA WAY	TOP & BOTTOM
80	8'-0"	8'-0"	1'-9"	(7) #8 EA WAY	BOTTOM
90	9'-0"	9'-0"	1'-9"	(9) #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"	(9) #8 EA WAY	BOTTOM
110	11'-0"	11'-0"	2'-3"	(11) #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'-6"	(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"	(10) #8 EA WAY	TOP & BOTTOM
158	8'-0"	15'-0"	2'-0"	(10) #8 EA WAY	TOP & BOTTOM

FOOTING SCHEDULE (CONTINUOUS)

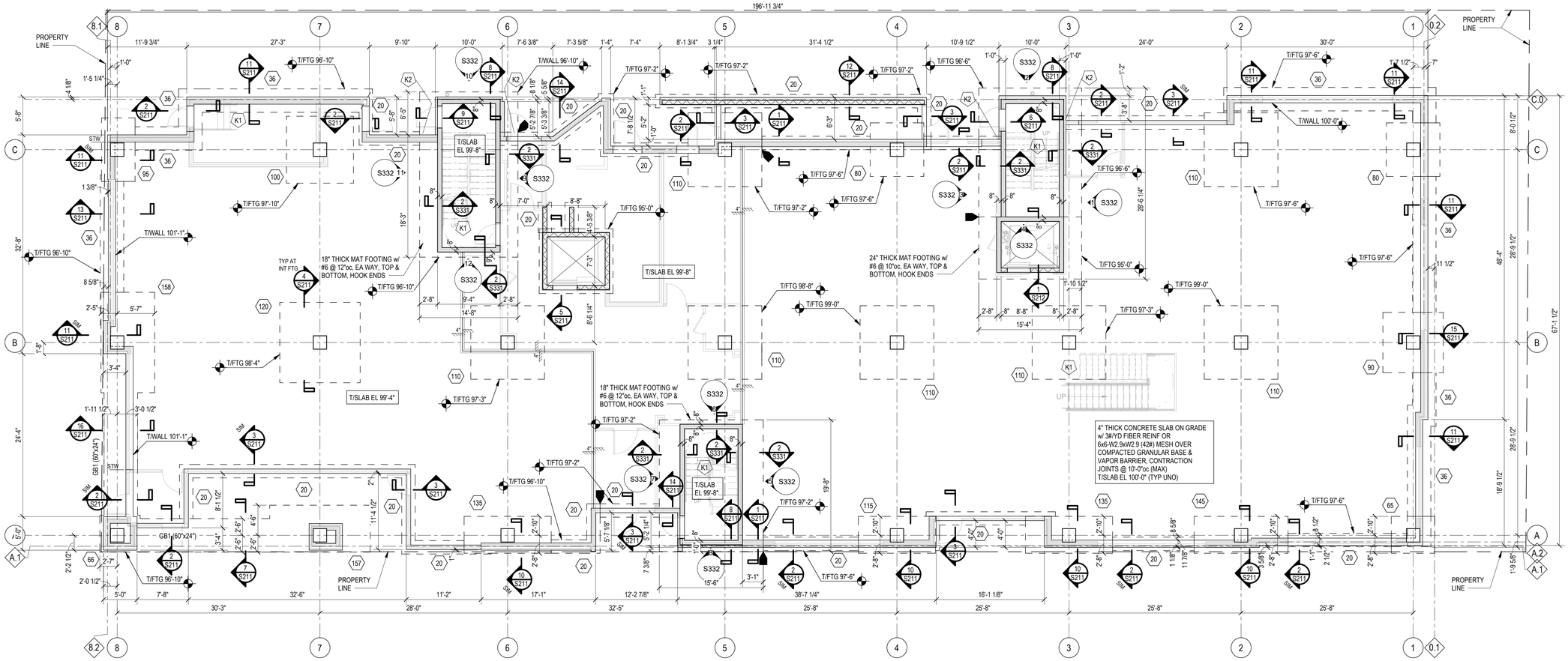
MARK	SIZE		REINFORCING	REMARKS
	WIDTH (B)	THICKNESS (H)		
20	2'-0"	1'-0"	(2) #5 CONT BOT	
36	3'-6"	1'-3"	(5) #5 CONT TOP & BOT	

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 NOTES:
1. REFERENCE PLAN ELEVATION 100'-0" = 826.17 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.
6. AT SLAB STEP, SEE "TYPICAL SLAB ON GRADE DEPRESSION" ON S201.
7. FOR SITE WALLS OUTSIDE BUILDING ENVELOPE, SEE CIVIL DRAWINGS.
8. T/WALL EL 100'-8", TYP UNLESS NOTED OTHERWISE.

FOUNDATION KEYNOTES

K#	DESCRIPTION
K1	CONTRACTOR TO COORDINATE LOCATION OF THICKENED SLAB PER "TYPICAL THICKENED SLAB BELOW STAIR STRINGER" ON S201.
K2	DOWEL FOOTING AND STEM WALL HORIZONTAL BARS 4" INTO CONCRETE SHEAR WALL.



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

NORTH

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SHEET NAME:
FOUNDATION PLAN

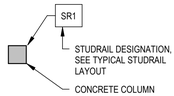
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02/26/2024

SHEET:
S101

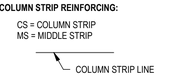
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Owner 2312.95

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:



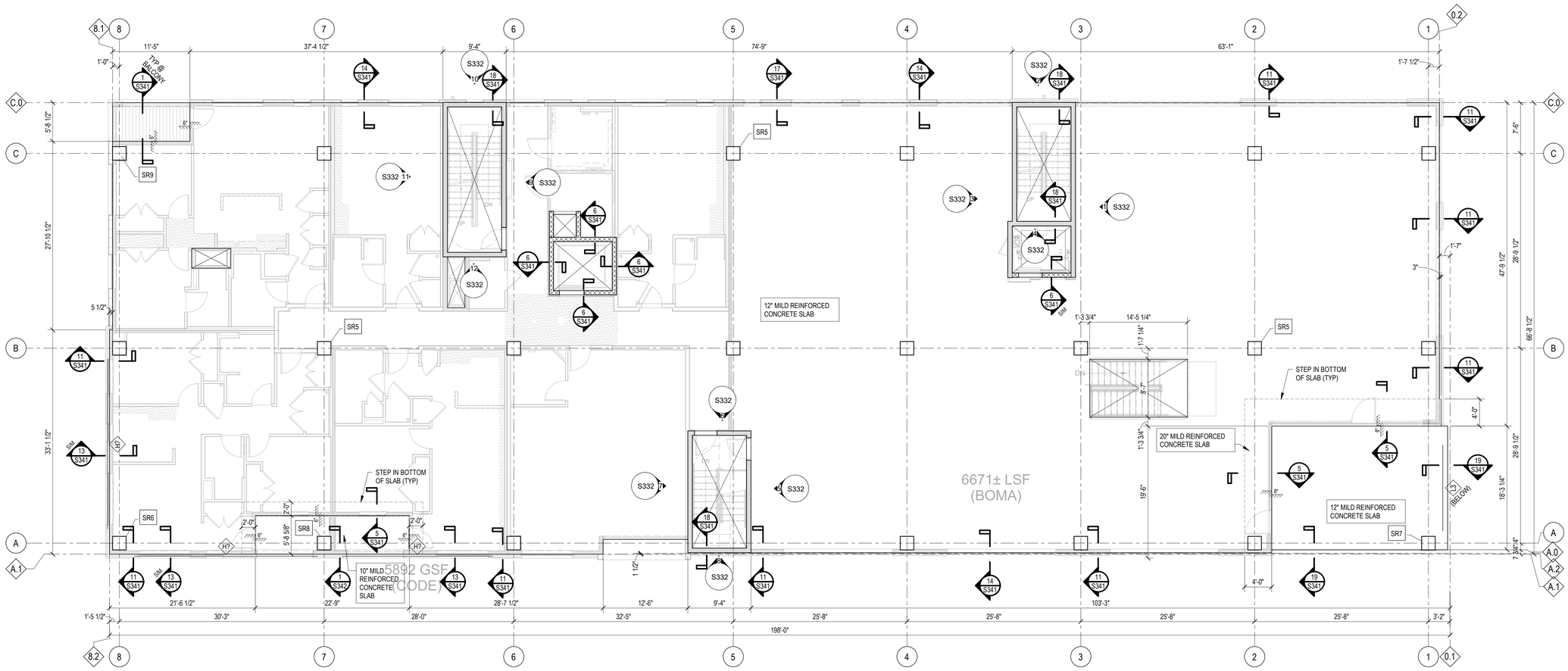
COLUMN STRIP REINFORCING:



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STAMP:





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

NORTH

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Owner 2312.95

PARAMOUNT WORKS

2505 KEMPER LN
CINCINNAT OH, 45206

ENGINEER:	AJS
MODELER:	WCM
CHECKED BY:	MMO

ISSUE/REVISION/SUBMISSION

NO	DATE	DESCRIPTION
	02.26.24	Pricing / Permit Issuance

PROJECT NUMBER:
2312.95

SHEET NAME:
SECOND FLOOR FRAMING PLAN

DATE:
02/26/2024

SHEET:
S102

FRAMING PLAN LEGEND:

PLACING SEQUENCE:

INNER LAYER

OUTER LAYER

DISCONTINUOUS TOP REINFORCING BARS:

TOP BAR LOCATION
BAR LENGTH (SEE TYP DETAIL IF NOT SHOWN)

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

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

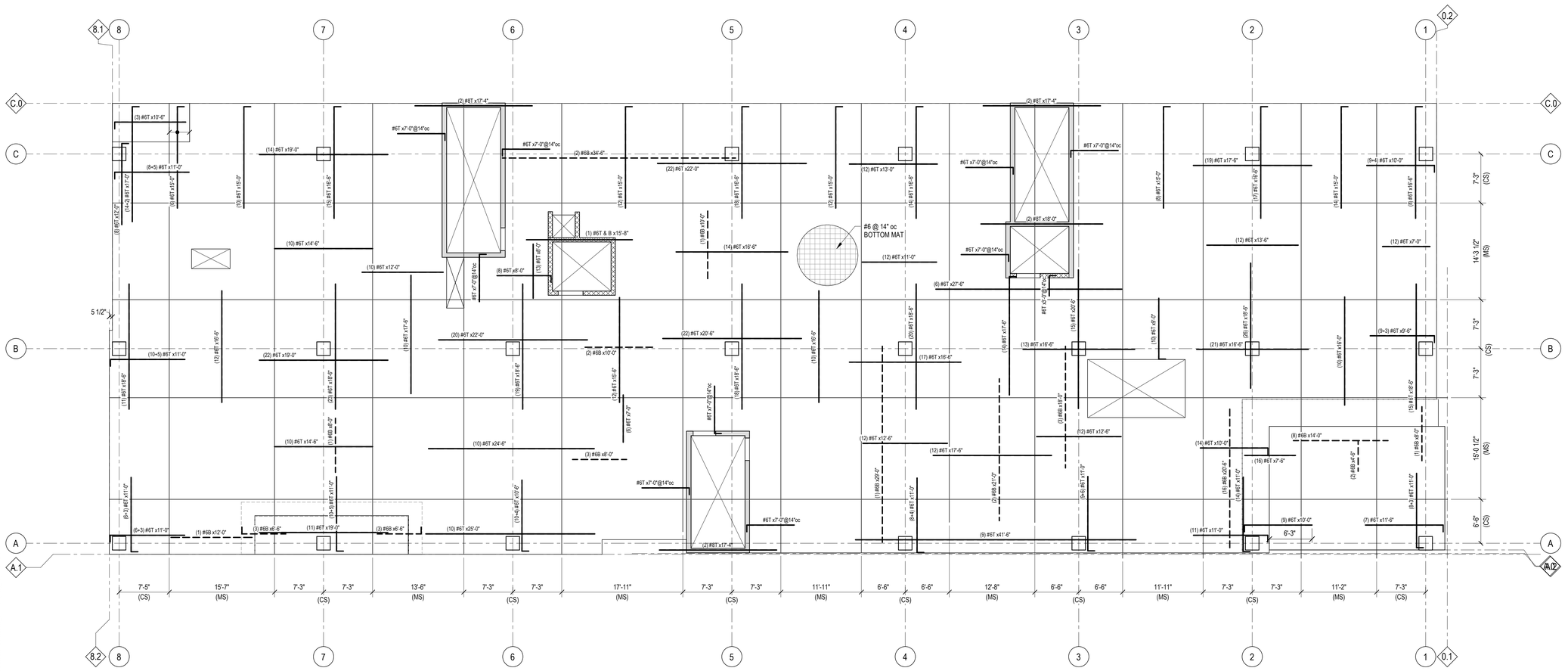
DISCONTINUOUS BOTTOM REINFORCING BARS:

BOTTOM BAR LOCATION
BAR LENGTH (SEE TYP DETAIL IF NOT SHOWN)

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

BAR SIZE

QUANTITY OF BARS



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

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schaefer-inc.com

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STAMP:

STATE OF OHIO
CHRISTOPHER HAHNEL
PE.86230
REGISTERED PROFESSIONAL ENGINEER
02/26/2024

PARAMOUNT WORKS

2505 KEMPER LN
CINCINNAT OH, 45206

ENGINEER: AJS
MODELER: WCM
CHECKED BY: MMO

ISSUE/REVISION/SUBMISSION

NO	DATE	DESCRIPTION
	02.26.24	Pricing / Permit Issuance

PROJECT NUMBER:
2312.95

SHEET NAME:
SECOND FLOOR REINFORCING PLAN

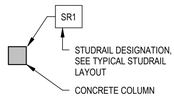
DATE:
02/26/2024

SHEET:
S102-R

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Owner 2312.95

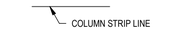
PLAN NOTES:
1. T/STRUCTURAL SLAB EL 128'-6", UNO.
2. TYPICAL PODIUM SLAB TO BE FLAT TWO-WAY SLAB w/ SSR WHERE INDICATED, UNO.
3. DOORS ARE SHOWN IN APPROXIMATE LOCATIONS. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.
4. SEE SHEET S004 FOR ABBREVIATIONS & LEGEND (SYMBOLS).

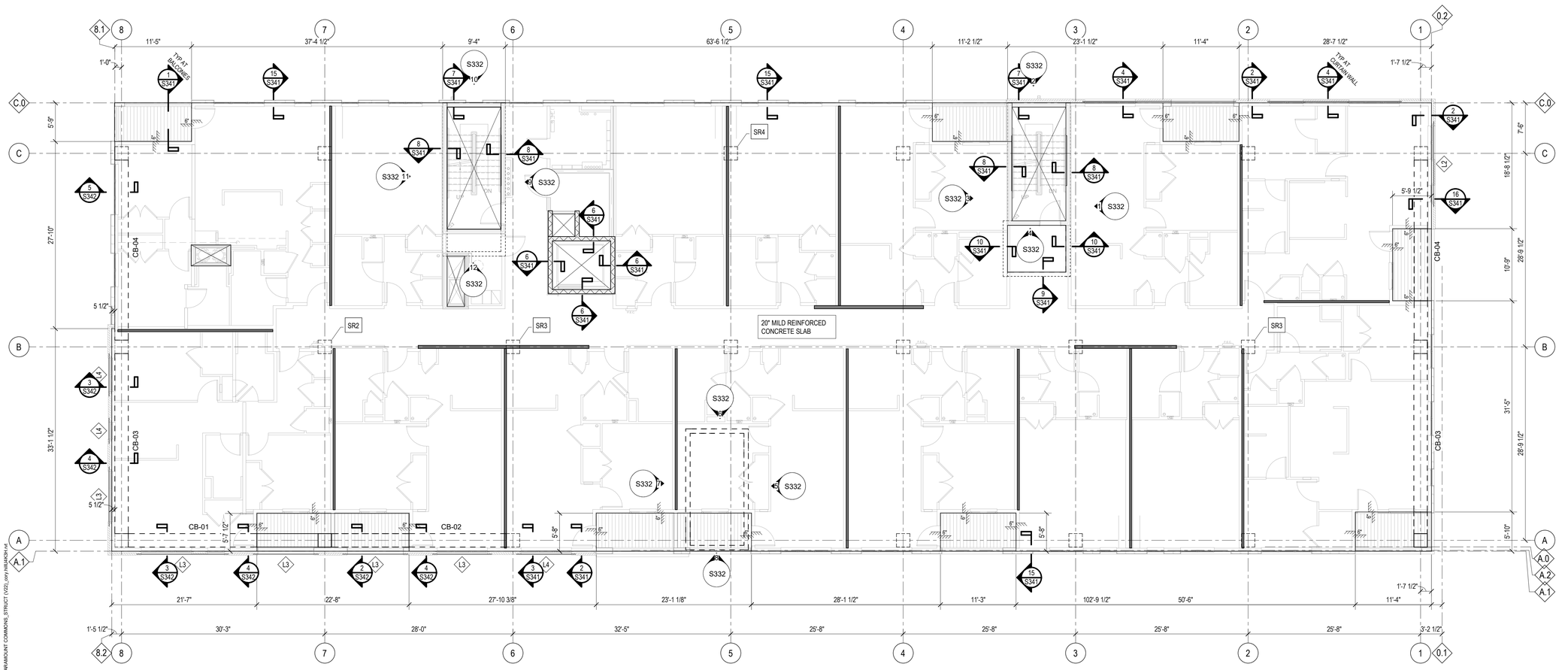
STUDRAIL SHEAR REINFORCEMENT:



COLUMN STRIP REINFORCING:

CS = COLUMN STRIP
MS = MIDDLE STRIP





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

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PARAMOUNT WORKS

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MODELER:	WCM
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NO	DATE	DESCRIPTION
	02.26.24	Pricing / Permit Issuance

PROJECT NUMBER:
2312.95

SHEET NAME:
THIRD FLOOR FRAMING PLAN

DATE:
02/26/2024

SHEET:
S103

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2/26/2024 1:27:43 PM
Owner 2312.95

FRAMING PLAN LEGEND:

PLACING SEQUENCE:

INNER LAYER

OUTER LAYER

DISCONTINUOUS TOP REINFORCING BARS:

TOP BAR LOCATION
BAR LENGTH (SEE TYP DETAIL IF NOT SHOWN)

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

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

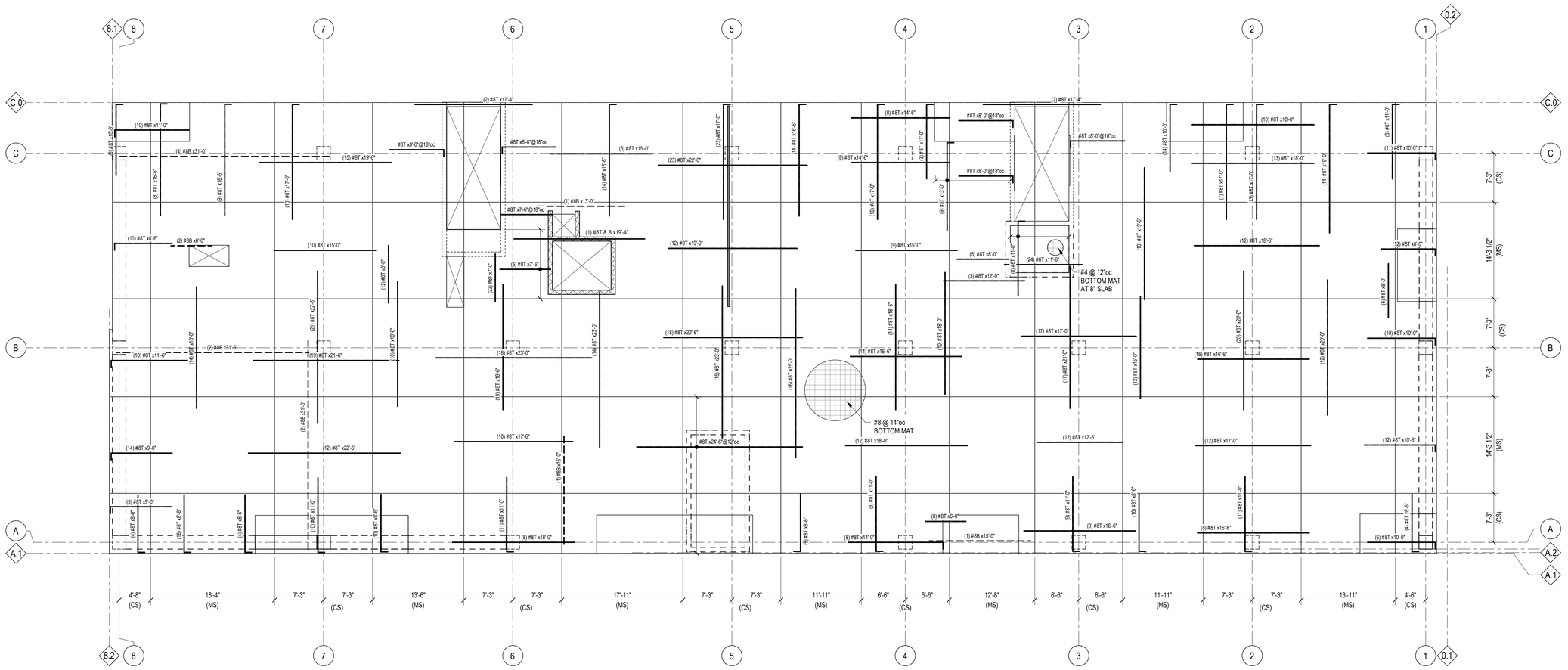
DISCONTINUOUS BOTTOM REINFORCING BARS:

BOTTOM BAR LOCATION
BAR LENGTH (SEE TYP DETAIL IF NOT SHOWN)

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

BAR SIZE

QUANTITY OF BARS



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

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STATE OF OHIO
CHRISTOPHER HAHNEL
PE.86230
REGISTERED
PROFESSIONAL ENGINEER
02/26/2024

PARAMOUNT WORKS

2505 KEMPER LN
CINCINNAT OH, 45206

ENGINEER:	AJS
MODELER:	WCM
CHECKED BY:	MMO

ISSUE/REVISION/SUBMISSION

NO	DATE	DESCRIPTION
	02.26.24	Pricing / Permit Issuance

PROJECT NUMBER:
2312.95

SHEET NAME:
THIRD FLOOR REINFORCING PLAN

DATE:
02/26/2024

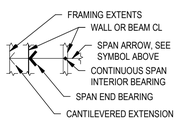
SHEET:
S103-R

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2/26/2024 1:27:43 PM
Owner 2312.95

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. SEE ARCHITECT FOR SHEAR WALL SHEATHING SIDE.
▬	SHEAR WALL EXTENTS. SEE PLAN FOR TYPE MARK.

SPAN ARROW VISUAL DESCRIPTION:

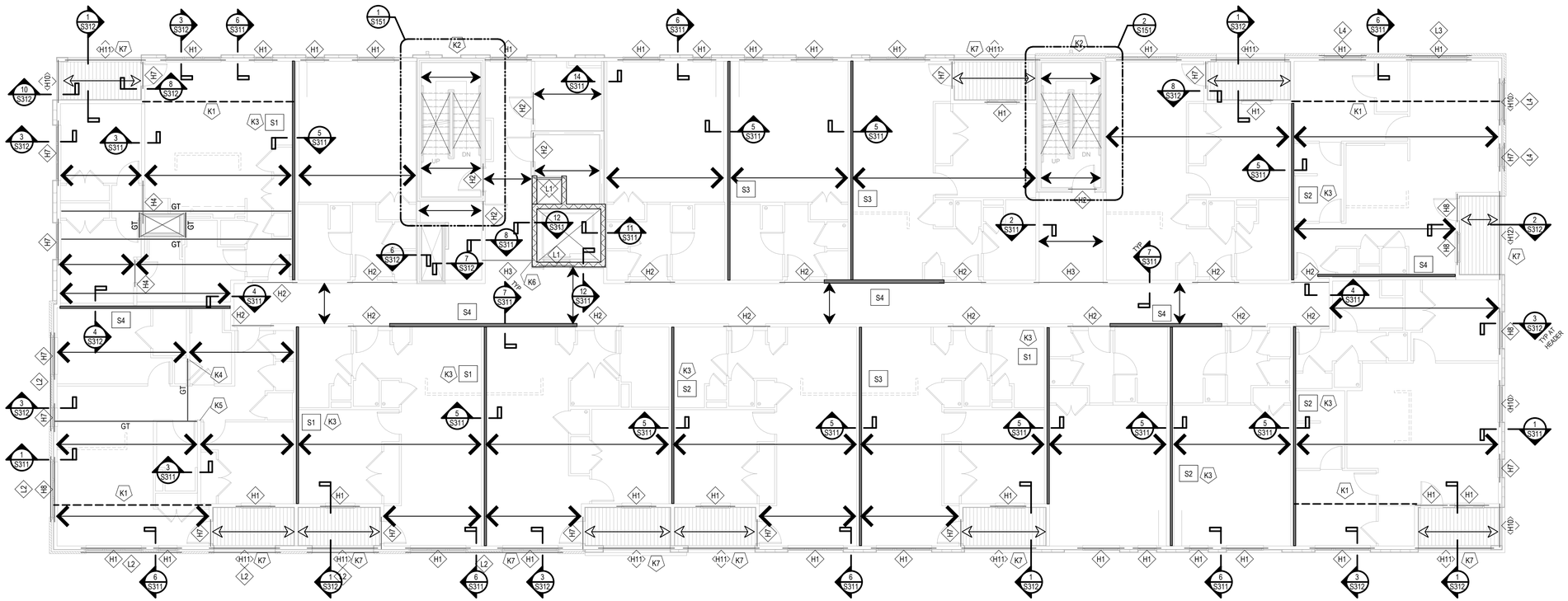


FLOOR FRAMING KEYNOTES

K#	DESCRIPTION
K1	CHORD TRUSS, ALIGN TRUSS WITH EXTERIOR WALL & FASTEN FLOOR SHEATHING TO TRUSS TOP CHORD WITH 0.131"ø x3" NAILS @ 6"oc. TRUSS DESIGNER TO DESIGN ROOF TRUSS FOR AN AXIAL TOP CHORD LOAD OF 2.75 KIPS (0.6W), AND FLOOR TRUSSES FOR AN AXIAL TOP CHORD LOAD OF 2 KIPS (0.6W). STRAP WALL TO TOP PLATES WITH A 5'-0" SIMPSON CMSTC16 STRAP w/ 0.148"ø NAILS @ 6" oc.
K2	DO NOT SPLICE PLATES WITHIN STAIR SHAFT.
K3	2x12 WALL END STUD EA END OF SHEAR WALL, SEE "HIGH LOAD SHEAR WALL END REINFORCEMENT" DETAIL ON S316.
K4	PROVIDE BEARING STUD QUANTITY BELOW GIRDER TRUSS BEARING PER THE FOLLOWING SCHEDULE: 5TH FLOOR FRAMING: (3) 2x6 4TH FLOOR FRAMING: (4) 2x6 3RD FLOOR FRAMING: (6) 2x6
K5	PROVIDE BEARING STUD QUANTITY BELOW GIRDER TRUSS BEARING PER THE FOLLOWING SCHEDULE: 6TH FLOOR FRAMING: (3) 2x6 5TH FLOOR FRAMING: (4) 2x6 4TH FLOOR FRAMING: (6) 2x6 3RD FLOOR FRAMING: (7) 2x6
K6	FASTEN HEADER WITH SIMPSON HUC26-3 EA END. STOP LEDGER SHORT AND BOLT DIRECTLY TO CMU.
K7	FASTEN HEADER WITH SIMPSON HUC26-3 EA END.

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 S001- S004 STRUCTURAL NOTES, ABBREVIATIONS & LEGENDS (SYMBOLS).
   B. SHEET S002 WOOD SHEATHING & WOOD STRUCTURE NOTES.
   C. SHEET S315 WOOD STUD WALL SCHEDULE & TYPICAL FRAMING DETAILS.
   D. SHEET S316 WOOD SHEAR WALL SCHEDULE & TYPICAL SHEAR WALL DETAILS.
   E. SHEET S400 MASONRY SCHEDULES & TYPICAL MASONRY DETAILS.
   F. SHEET S400 LOOSE-LAID VENEER LINTEL SCHEDULE.
6. ALL MASONRY TO BE "W1" (UNO).
7. AT EACH GIRDER TRUSS BEARING LOCATION SEE STUD SCHEDULE. PROVIDE MINIMUM (2) 2x4 OR (2) 2x6 BEARING STUD(S) UNLESS NOTED OTHERWISE. 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.



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

NORTH

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PARAMOUNT WORKS

2505 KEMPER LN
CINCINNAT OH, 45206

ENGINEER:	AJS
MODELER:	WCM
CHECKED BY:	MMO

ISSUE/REVISION/SUBMISSION

NO	DATE	DESCRIPTION
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PROJECT NUMBER:
2312.95

SHEET NAME:
FOURTH FLOOR FRAMING PLAN

DATE:
02/26/2024

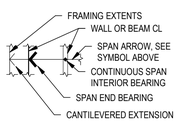
SHEET:
S104

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Owner 2312.95

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. SEE ARCHITECT FOR SHEAR WALL SHEATHING SIDE.
▬	SHEAR WALL EXTENTS. SEE PLAN FOR TYPE MARK.

SPAN ARROW VISUAL DESCRIPTION:

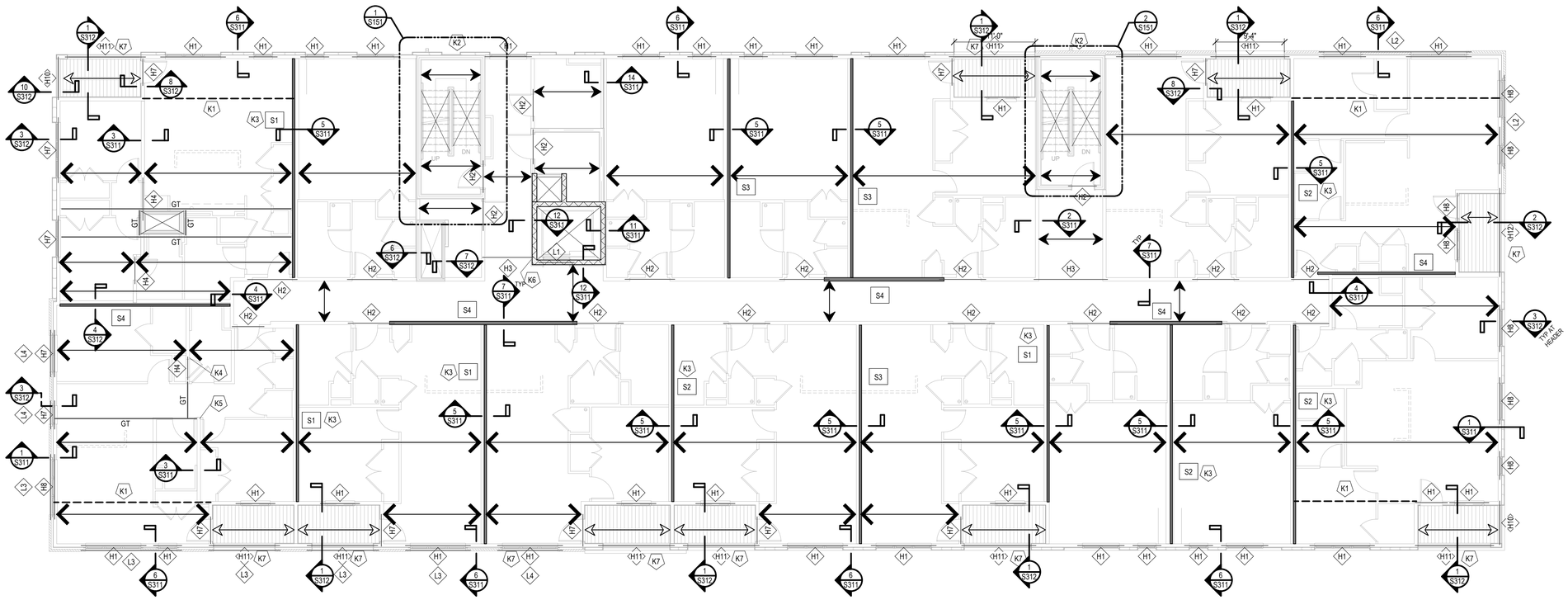


FLOOR FRAMING KEYNOTES

K#	DESCRIPTION
K1	CHORD TRUSS, ALIGN TRUSS WITH EXTERIOR WALL & FASTEN FLOOR SHEATHING TO TRUSS TOP CHORD WITH 0.131"ø x3" NAILS @ 6"oc. TRUSS DESIGNER TO DESIGN ROOF TRUSS FOR AN AXIAL TOP CHORD LOAD OF 2.75 KIPS (0.6W), AND FLOOR TRUSSES FOR AN AXIAL TOP CHORD LOAD OF 2 KIPS (0.6W). STRAP WALL TO TOP PLATES WITH A 5'-0" SIMPSON CMSTC16 STRAP w/ 0.148"ø NAILS @ 6" oc.
K2	DO NOT SPLICE PLATES WITHIN STAIR SHAFT.
K3	2x12 WALL END STUD EA END OF SHEAR WALL, SEE "HIGH LOAD SHEAR WALL END REINFORCEMENT" DETAIL ON S316.
K4	PROVIDE BEARING STUD QUANTITY BELOW GIRDER TRUSS BEARING PER THE FOLLOWING SCHEDULE: 5TH FLOOR FRAMING: (3) 2x6 4TH FLOOR FRAMING: (4) 2x6 3RD FLOOR FRAMING: (6) 2x6
K5	PROVIDE BEARING STUD QUANTITY BELOW GIRDER TRUSS BEARING PER THE FOLLOWING SCHEDULE: 6TH FLOOR FRAMING: (3) 2x6 5TH FLOOR FRAMING: (4) 2x6 4TH FLOOR FRAMING: (6) 2x6 3RD FLOOR FRAMING: (7) 2x6
K6	FASTEN HEADER WITH SIMPSON HUC26-3 EA END. STOP LEDGER SHORT AND BOLT DIRECTLY TO CMU.
K7	FASTEN HEADER WITH SIMPSON HUC26-3 EA END.

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 S001- S004 STRUCTURAL NOTES, ABBREVIATIONS & LEGENDS (SYMBOLS).
   B. SHEET S002 WOOD SHEATHING & WOOD STRUCTURE NOTES.
   C. SHEET S315 WOOD STUD WALL SCHEDULE & TYPICAL FRAMING DETAILS.
   D. SHEET S316 WOOD SHEAR WALL SCHEDULE & TYPICAL SHEAR WALL DETAILS.
   E. SHEET S400 MASONRY SCHEDULES & TYPICAL MASONRY DETAILS.
   F. SHEET S400 LOOSE-LAID VENEER LINTEL SCHEDULE.
6. ALL MASONRY TO BE "W1" (UNO).
7. AT EACH GIRDER TRUSS BEARING LOCATION SEE STUD SCHEDULE. PROVIDE MINIMUM (2) 2x4 OR (2) 2x6 BEARING STUD(S) UNLESS NOTED OTHERWISE. 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.



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

NORTH

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PARAMOUNT WORKS

2505 KEMPER LN
CINCINNAT OH, 45206

ENGINEER: AJS
MODELER: WCM
CHECKED BY: MMO

ISSUE/REVISION/SUBMISSION

NO	DATE	DESCRIPTION
	02.26.24	Pricing / Permit Issuance

PROJECT NUMBER:
2312.95

SHEET NAME:
FIFTH FLOOR FRAMING PLAN

DATE:
02/26/2024

SHEET:
S105

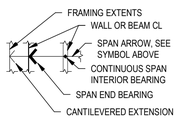
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Owner 2312.95

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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. SEE ARCHITECT FOR SHEAR WALL SHEATHING SIDE.
▬	SHEAR WALL EXTENTS. SEE PLAN FOR TYPE MARK.

SPAN ARROW VISUAL DESCRIPTION:

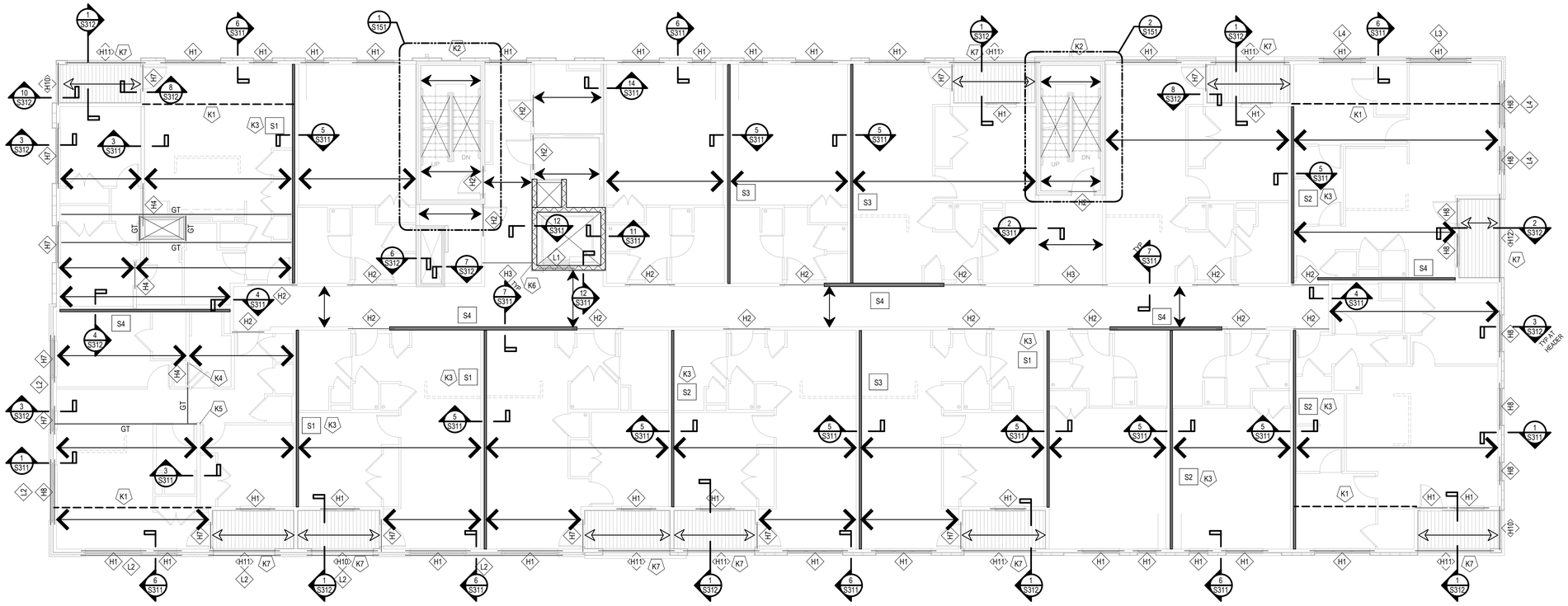


FLOOR FRAMING KEYNOTES

K#	DESCRIPTION
K1	CHORD TRUSS. ALIGN TRUSS WITH EXTERIOR WALL & FASTEN FLOOR SHEATHING TO TRUSS TOP CHORD WITH 0.131"ø x3" NAILS @ 6"oc. TRUSS DESIGNER TO DESIGN ROOF TRUSS FOR AN AXIAL TOP CHORD LOAD OF 2.75 KIPS (0.6W), AND FLOOR TRUSSES FOR AN AXIAL TOP CHORD LOAD OF 2 KIPS (0.6W). STRAP WALL TO TOP PLATES WITH A 5'-0" SIMPSON CMSTC16 STRAP w/ 0.148"ø NAILS @ 6" oc.
K2	DO NOT SPLICE PLATES WITHIN STAIR SHAFT.
K3	2x12 WALL END STUD EA END OF SHEAR WALL, SEE "HIGH LOAD SHEAR WALL END REINFORCEMENT" DETAIL ON S316.
K4	PROVIDE BEARING STUD QUANTITY BELOW GIRDER TRUSS BEARING PER THE FOLLOWING SCHEDULE: 5TH FLOOR FRAMING: (3) 2x6 4TH FLOOR FRAMING: (4) 2x6 3RD FLOOR FRAMING: (6) 2x6
K5	PROVIDE BEARING STUD QUANTITY BELOW GIRDER TRUSS BEARING PER THE FOLLOWING SCHEDULE: 6TH FLOOR FRAMING: (3) 2x6 5TH FLOOR FRAMING: (4) 2x6 4TH FLOOR FRAMING: (6) 2x6 3RD FLOOR FRAMING: (7) 2x6
K6	FASTEN HEADER WITH SIMPSON HUC26-3 EA END. STOP LEDGER SHORT AND BOLT DIRECTLY TO CMU.
K7	FASTEN HEADER WITH SIMPSON HUC26-3 EA END.

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 S001- S004 STRUCTURAL NOTES, ABBREVIATIONS & LEGENDS (SYMBOLS).
   B. SHEET S002 WOOD SHEATHING & WOOD STRUCTURE NOTES.
   C. SHEET S315 WOOD STUD WALL SCHEDULE & TYPICAL FRAMING DETAILS.
   D. SHEET S316 WOOD SHEAR WALL SCHEDULE & TYPICAL SHEAR WALL DETAILS.
   E. SHEET S400 MASONRY SCHEDULES & TYPICAL MASONRY DETAILS.
   F. SHEET S400 LOOSE-LAID VENEER LINTEL SCHEDULE.
6. ALL MASONRY TO BE "W1" (UNO).
7. AT EACH GIRDER TRUSS BEARING LOCATION SEE STUD SCHEDULE. PROVIDE MINIMUM (2) 2x4 OR (2) 2x6 BEARING STUD(S) UNLESS NOTED OTHERWISE. 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.



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

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MODELER: WCM
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SHEET NAME:
SIXTH FLOOR FRAMING PLAN

DATE:
02/26/2024

SHEET:
S106

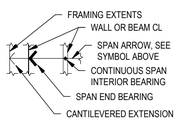
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WOOD FRAMING LEGEND:

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. SEE ARCHITECT FOR SHEAR WALL SHEATHING SIDE.
▬	SHEAR WALL EXTENTS. SEE PLAN FOR TYPE MARK.

SPAN ARROW VISUAL DESCRIPTION:

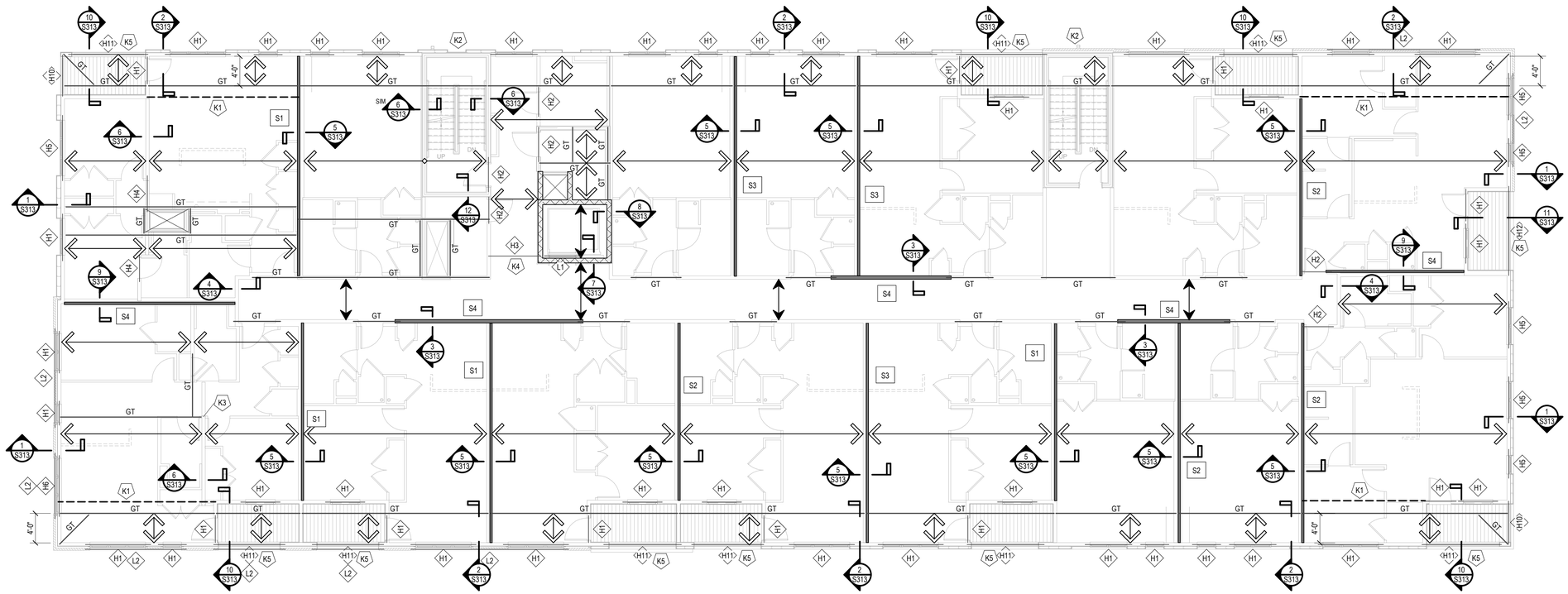


ROOF FRAMING KEYNOTES

K#	DESCRIPTION
K1	CHORD TRUSS, ALIGN TRUSS WITH EXTERIOR WALL & FASTEN FLOOR SHEATHING TO TRUSS TOP CHORD WITH 0.131"ø x3" NAILS @ 6"oc. TRUSS DESIGNER TO DESIGN ROOF TRUSS FOR AN AXIAL TOP CHORD LOAD OF 2.75 KIPS (0.6W), AND FLOOR TRUSSES FOR AN AXIAL TOP CHORD LOAD OF 2 KIPS (0.6W). STRAP WALL TO TOP PLATES WITH A 5'-0" SIMPSON CMSTC16 STRAP w/ 0.148"ø NAILS @ 6" oc.
K2	DO NOT SPLICE PLATES WITHIN STAIR SHAFT.
K3	PROVIDE BEARING STUD QUANTITY BELOW GIRDER TRUSS BEARING PER THE FOLLOWING SCHEDULE: 6TH FLOOR FRAMING: (3) 2x6 5TH FLOOR FRAMING: (4) 2x6 4TH FLOOR FRAMING: (6) 2x6 3RD FLOOR FRAMING: (7) 2x6
K4	FASTEN HEADER WITH SIMPSON HUC26-3 EA END. STOP LEDGER SHORT AND BOLT DIRECTLY TO CMU.
K5	FASTEN HEADER WITH SIMPSON HUC26-3 EA END.

WOOD ROOF FRAMING PLAN NOTES:

1. TRUSS BEARING EL: 170'-0 3/4"
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. 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.
4. TRUSS DESIGNER:
   A. SHEET S001 STRUCTURAL NOTES & DESIGN CRITERIA.
   B. SHEET S005 COMPONENTS & CLADDING WIND LOADS.
   C. SHEET S005 DRIFTED SNOW LOADING PLANS.
   D. SHEET S002 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.
5. REFER TO THE FOLLOWING:
   A. SHEET S001 - S004 STRUCTURAL NOTES, ABBREVIATIONS & LEGENDS (SYMBOLS).
   B. SHEET S002 WOOD SHEATHING & WOOD STRUCTURAL NOTES.
   C. SHEET S315 WOOD STUD WALL SCHEDULE & TYPICAL FRAMING DETAILS.
   D. SHEET S316 WOOD SHEAR WALL SCHEDULE & TYPICAL SHEAR WALL DETAILS.
   E. SHEET S315 WOOD TRUSS PERMANENT BRACING.
   F. SHEET S400 MASONRY SCHEDULES & TYPICAL MASONRY DETAILS.
   G. SHEET S400 LOOSE-LAID VENEER LINTEL SCHEDULE.
6. PROVIDE (1) 2x6 OR (2) 2x4 BEARING STUDS AT EACH GIRDER TRUSS BEARING LOCATION UNLESS NOTED OTHERWISE. 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.



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

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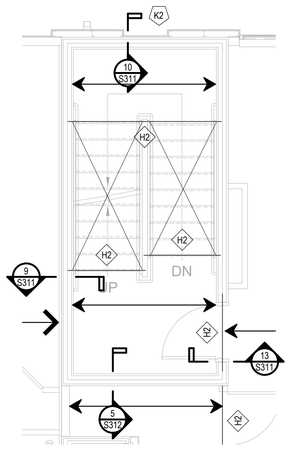
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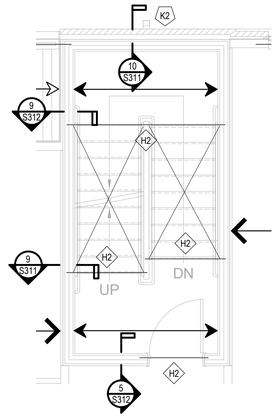
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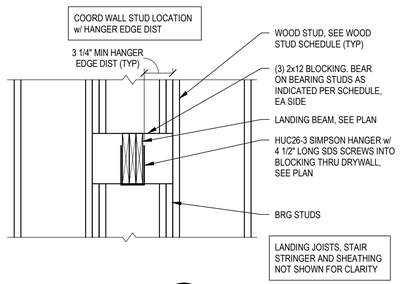
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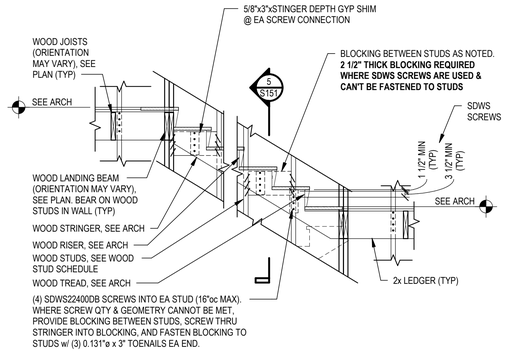
ENLARGED STAIR FRAMING PLAN 1 / S151
1/4" = 1'-0"



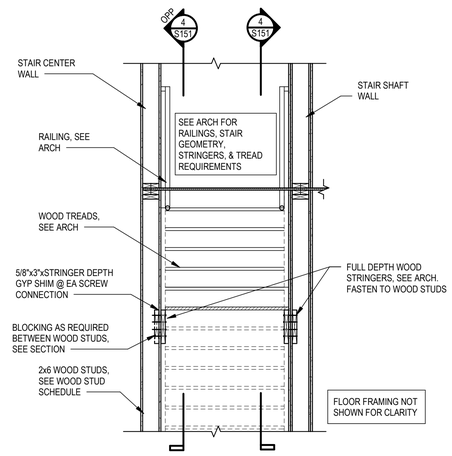
ENLARGED STAIR FRAMING PLAN 2 / S151
1/4" = 1'-0"



SECTION 3 / S151
3/4" = 1'-0"



TYP STAIR SECTION SIDE VIEW 4 / S151
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TYPICAL STAIR SECTION 5 / S151
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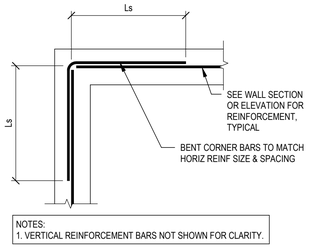
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ENLARGED STAIR FRAMING PLANS & DETAILS

DATE:
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SHEET:
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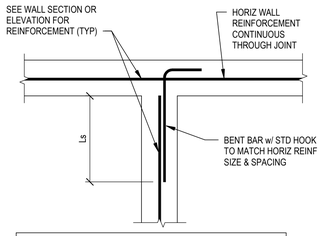
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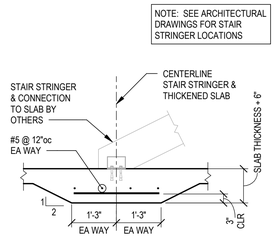
NOTES:
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TYPICAL CONCRETE WALL CORNER REINFORCEMENT DETAIL AT SINGLE CURTAIN OF STEEL
NTS

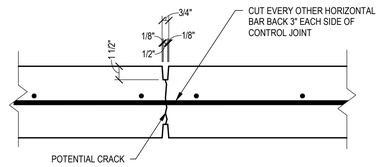


NOTES:
1. VERTICAL REINFORCEMENT BARS NOT SHOWN FOR CLARITY.

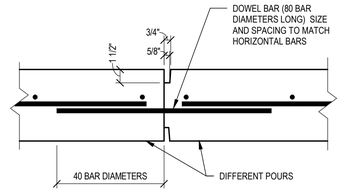
TYPICAL CONCRETE WALL INTERSECTION REINFORCEMENT DETAIL AT SINGLE CURTAIN OF STEEL
3/4" = 1'-0"



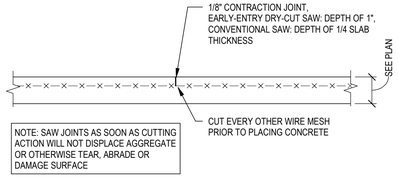
TYPICAL THICKENED SLAB BELOW STAIR STRINGER
1/2" = 1'-0"



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

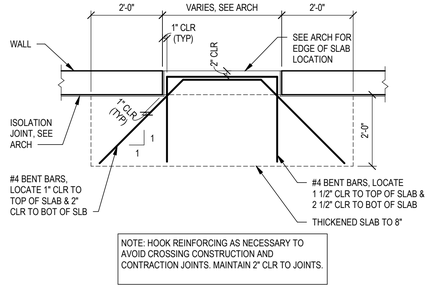


CONCRETE WALL TYPICAL VERTICAL CONSTRUCTION JOINT @ SINGLE LAYER OF STEEL
1 1/2" = 1'-0"



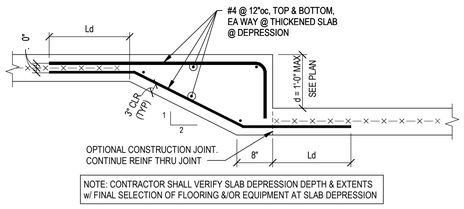
NOTE: SAW JOINTS AS SOON AS CUTTING ACTION WILL NOT DISPLACE AGGREGATE OR OTHERWISE TEAR, ABRADE OR DAMAGE SURFACE

SLAB ON GRADE TYPICAL CONTRACTION JOINT
NTS



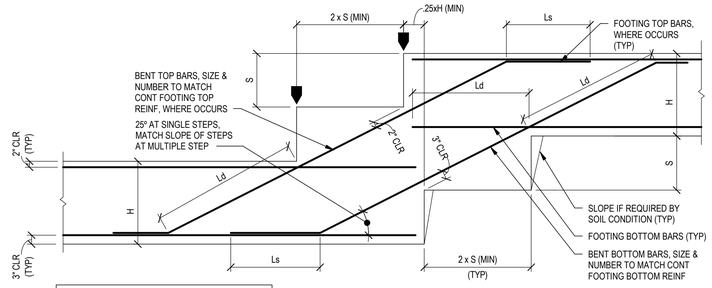
NOTE: HOOK REINFORCING AS NECESSARY TO AVOID CROSSING CONSTRUCTION AND CONTRACTION JOINTS. MAINTAIN 2" CLR TO JOINTS.

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



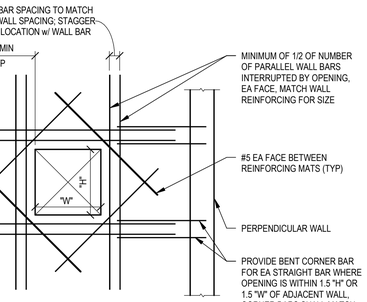
NOTE: CONTRACTOR SHALL VERIFY SLAB DEPRESSION DEPTH & EXTENTS w/ FINAL SELECTION OF FLOORING &/OR EQUIPMENT AT SLAB DEPRESSION

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

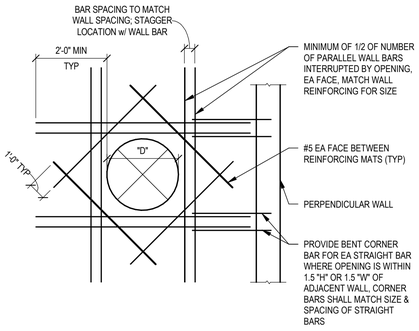


NOTES:
1. SEE PLAN FOR FTG SIZE & REINF
2. S = STEP IN FOOTING (TOP & BOTTOM), 2'-0" MAX
   H = DEPTH OF FOOTING

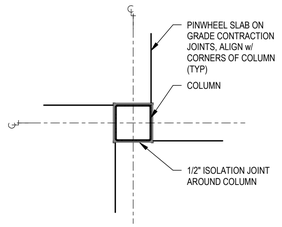
TYPICAL STEP IN FOOTING
NTS



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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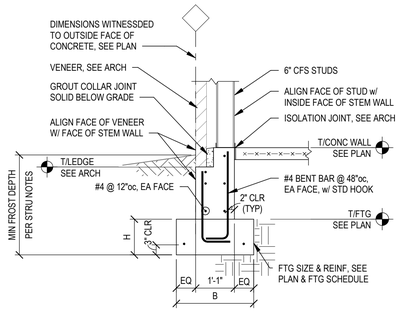
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TYPICAL FOUNDATION DETAILS & SECTIONS

DATE:
02/26/2024

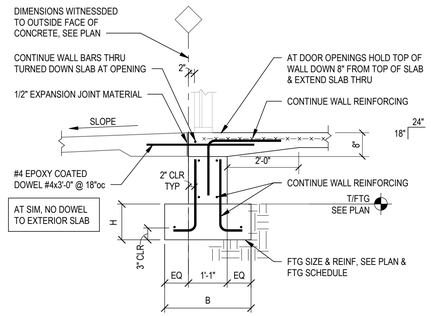
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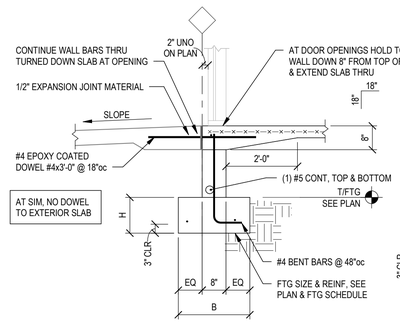
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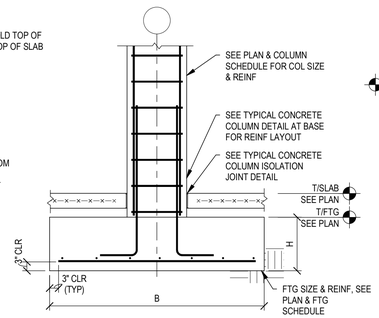
SECTION 1 — 1/2" = 1'-0" — S211



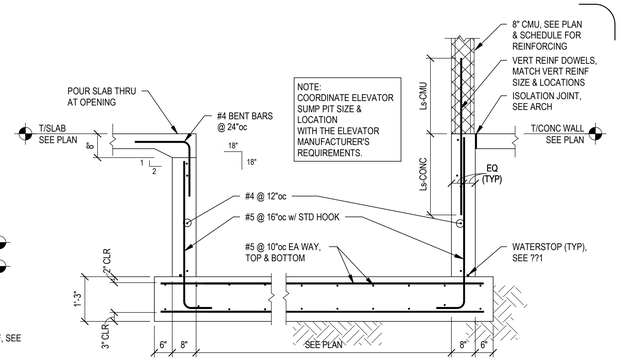
SECTION 2 — 1/2" = 1'-0" — S211



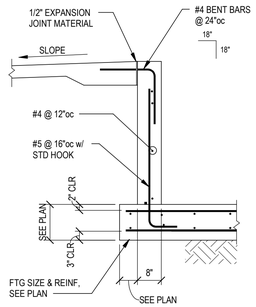
SECTION 3 — 1/2" = 1'-0" — S211



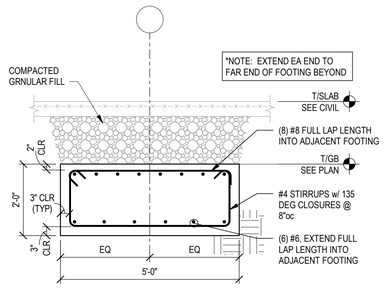
SECTION 4 — 1/2" = 1'-0" — S211



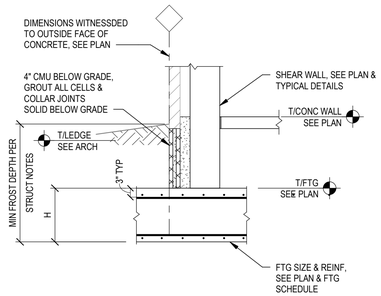
SECTION 5 — 1/2" = 1'-0" — S211



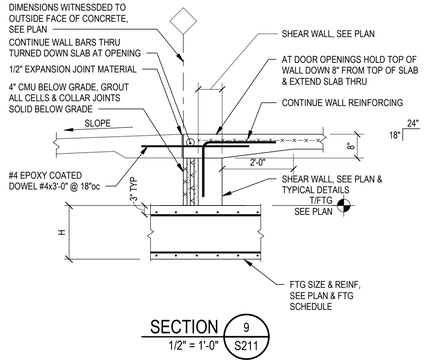
SECTION 6 — 1/2" = 1'-0" — S211



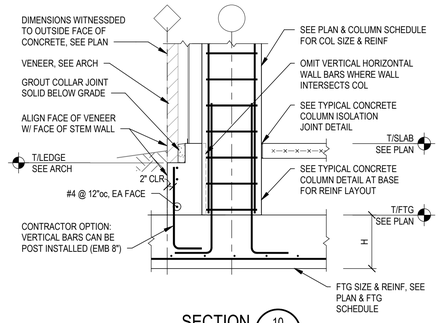
SECTION 7 — 1/2" = 1'-0" — S211



SECTION 8 — 1/2" = 1'-0" — S211

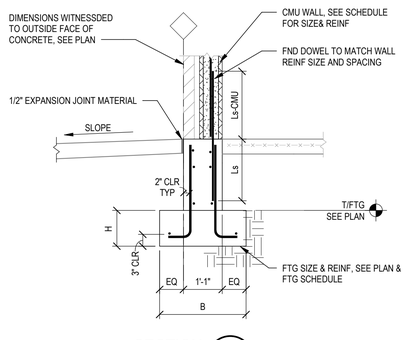


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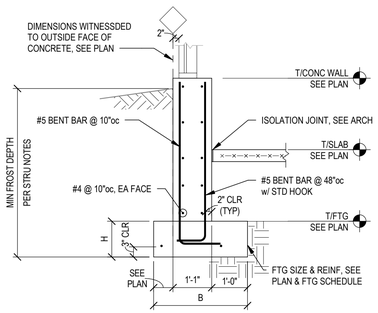


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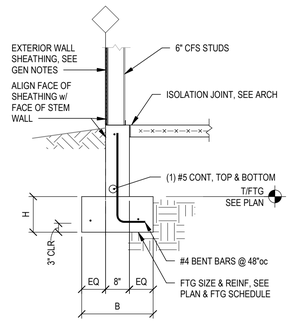
SECTION 11 — 1/2" = 1'-0" — S211



SECTION 12 — 1/2" = 1'-0" — S211

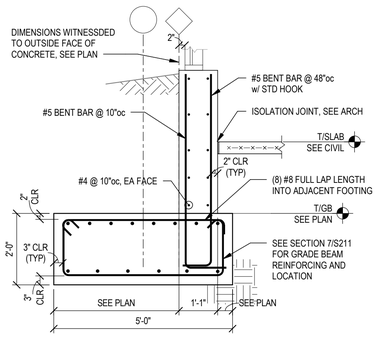


SECTION 13 — 1/2" = 1'-0" — S211



SECTION 14 — 1/2" = 1'-0" — S211

SECTION 15 — 1/2" = 1'-0" — S211



SECTION 16 — 1/2" = 1'-0" — S211

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PARAMOUNT WORKS

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MODELER:	WCM
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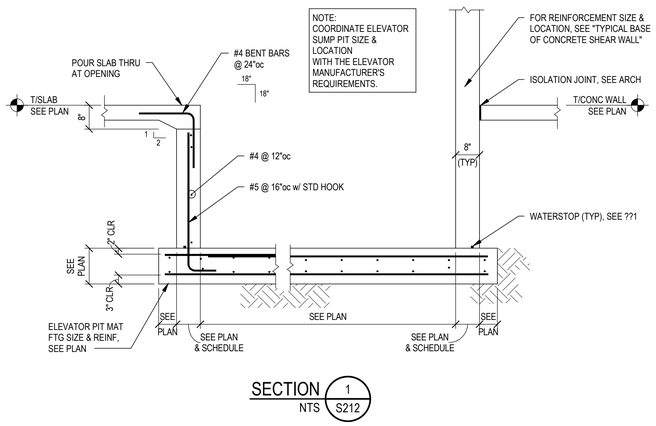
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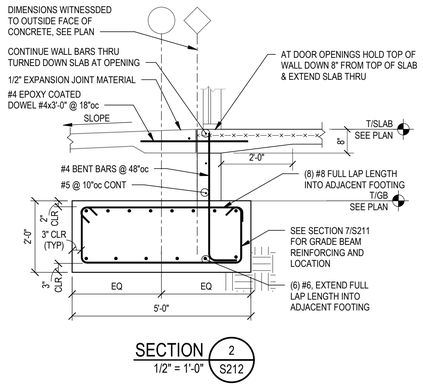
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S211

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SECTION 1 / S212
NTS



SECTION 2 / S212
1/2" = 1'-0"

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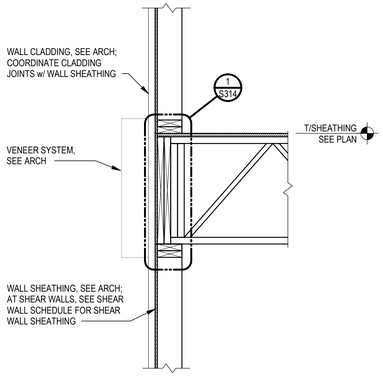
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FOUNDATION DETAILS & SECTIONS

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02/26/2024

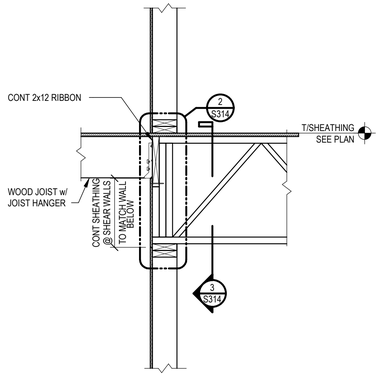
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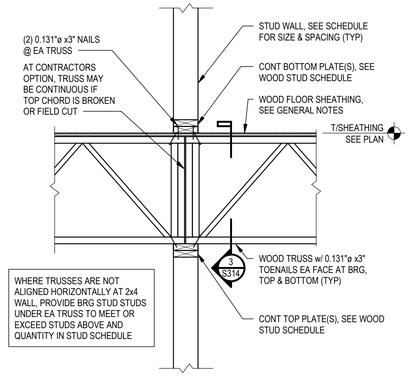
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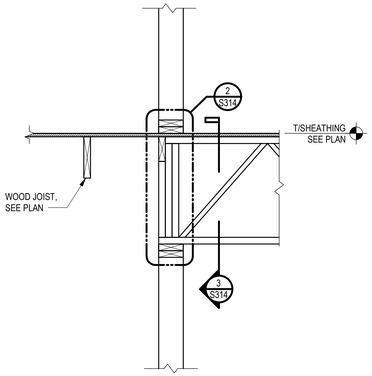
SECTION 1 / NTS / S311



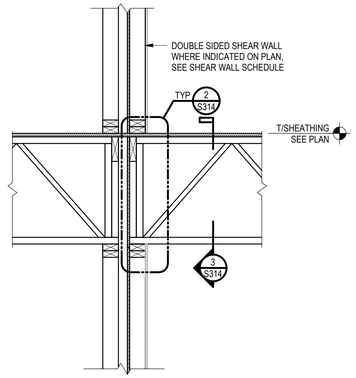
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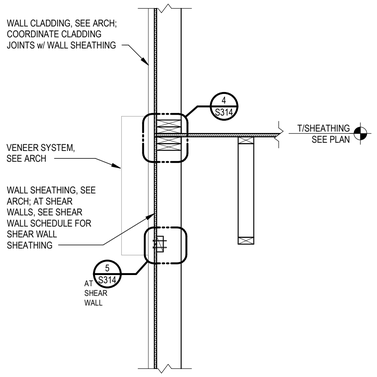
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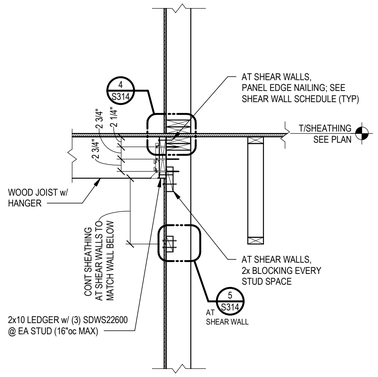
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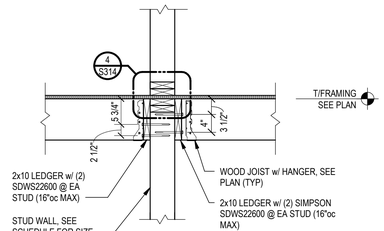
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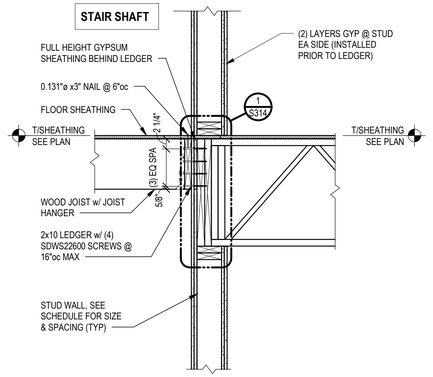
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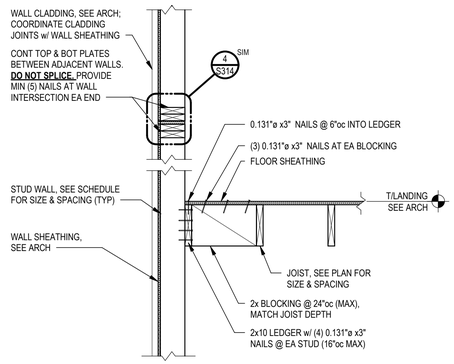
SECTION 7 / 3/4" = 1'-0" / S311



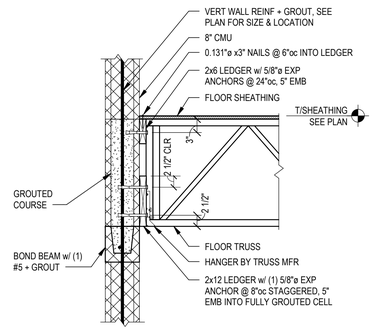
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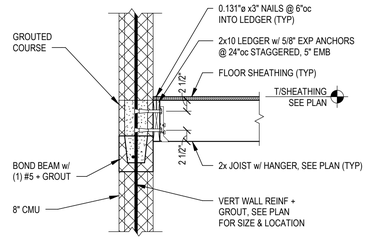
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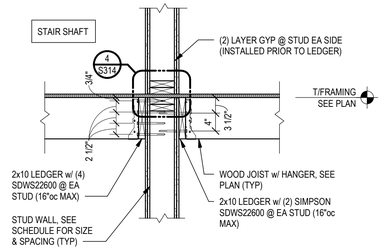
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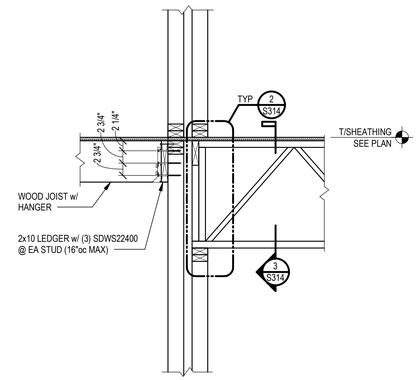
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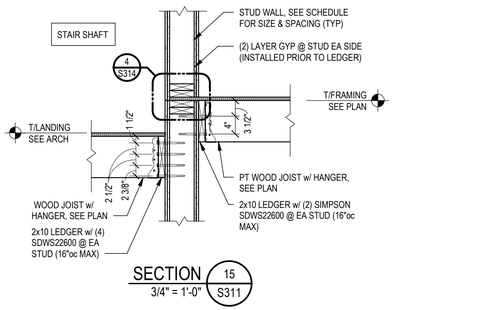
SECTION 12 / 3/4" = 1'-0" / S311



SECTION 13 / 3/4" = 1'-0" / S311



SECTION 14 / NTS / S311



SECTION 15 / 3/4" = 1'-0" / S311

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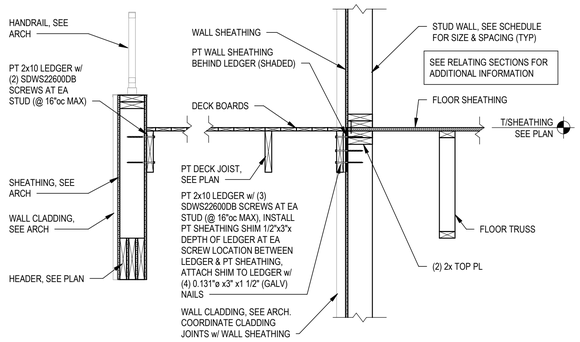
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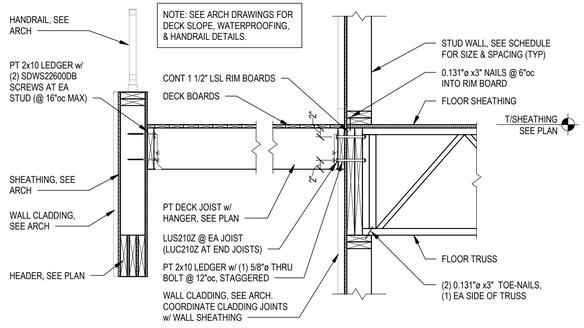
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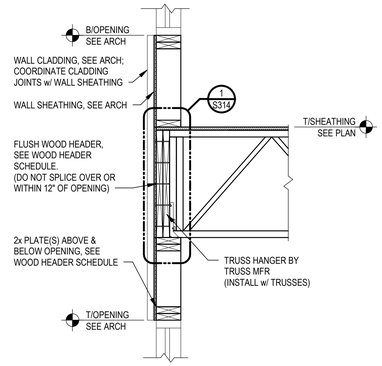
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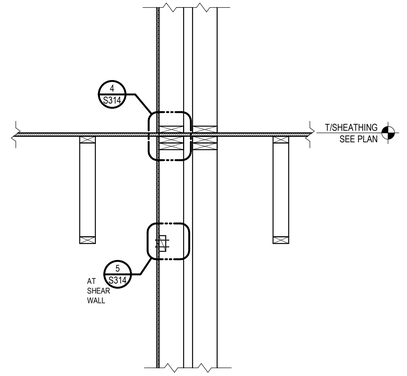
SECTION 1 / 3/4" = 1'-0" / S312



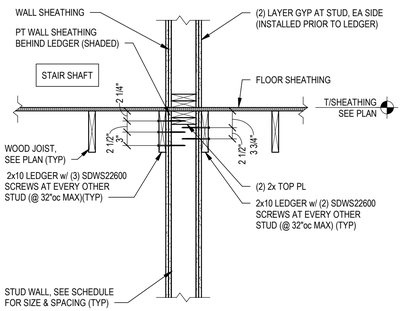
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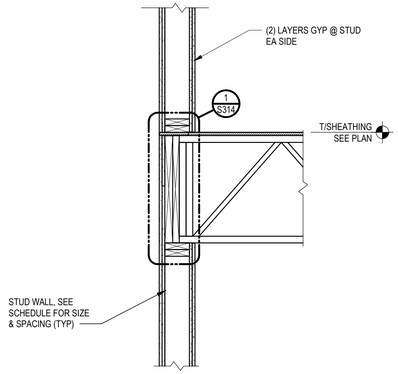
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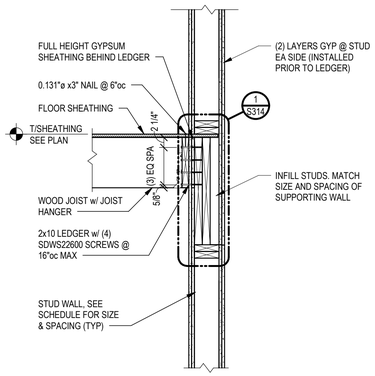
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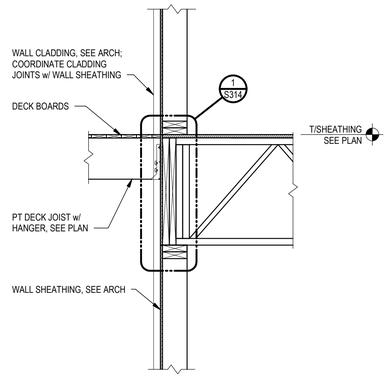
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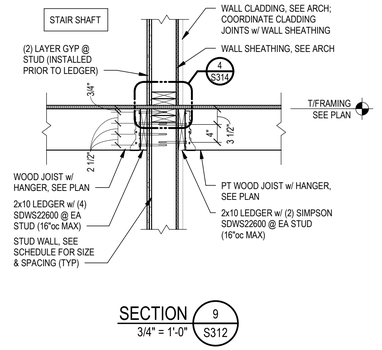
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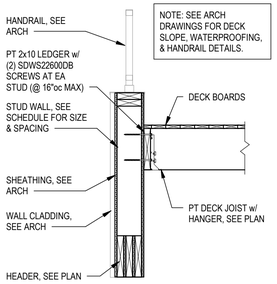
SECTION 7 / NTS / S312



SECTION 8 / NTS / S312



SECTION 9 / 3/4" = 1'-0" / S312



SECTION 10 / 3/4" = 1'-0" / S312

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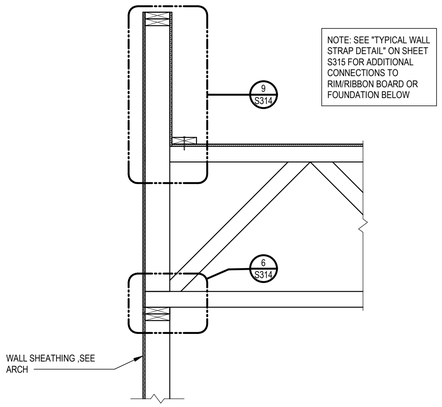
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02/26/2024

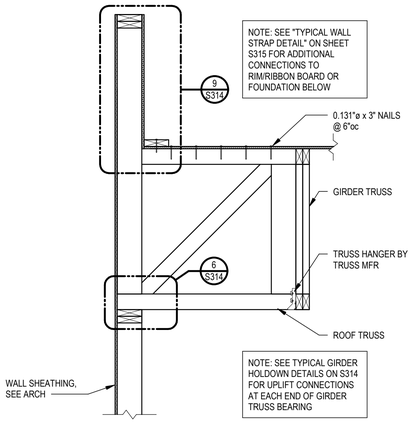
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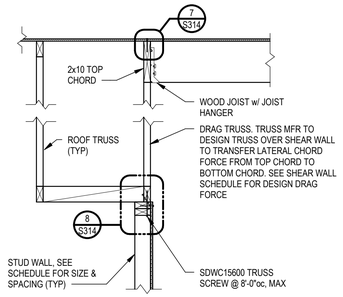
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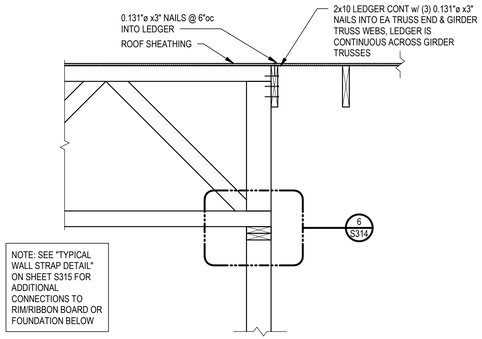
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SECTION 2 — 3/4" = 1'-0" — S313



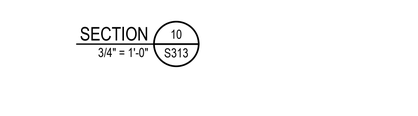
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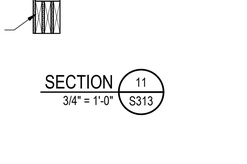
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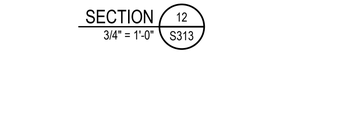
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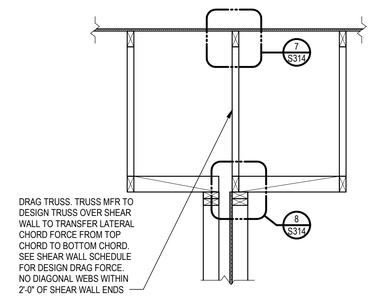
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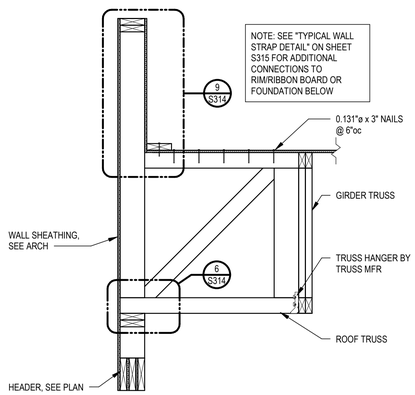
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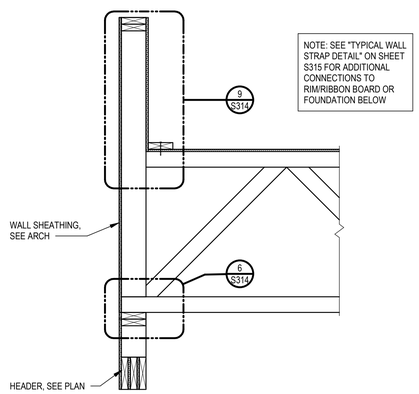
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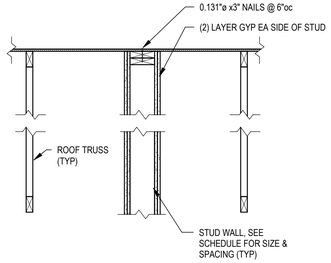
SECTION 9 — NTS — S313



SECTION 10 — 3/4" = 1'-0" — S313



SECTION 11 — 3/4" = 1'-0" — S313



SECTION 12 — 3/4" = 1'-0" — S313

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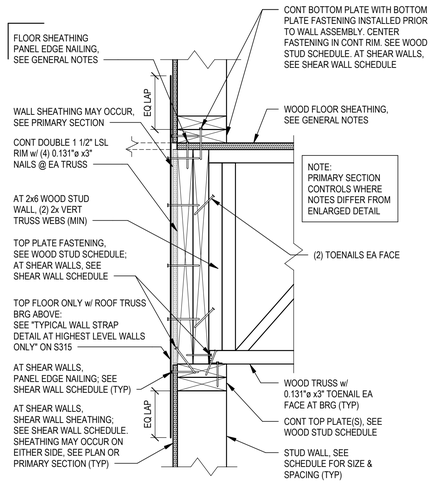
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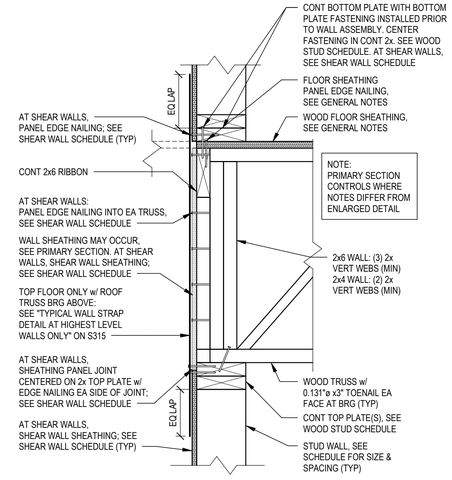
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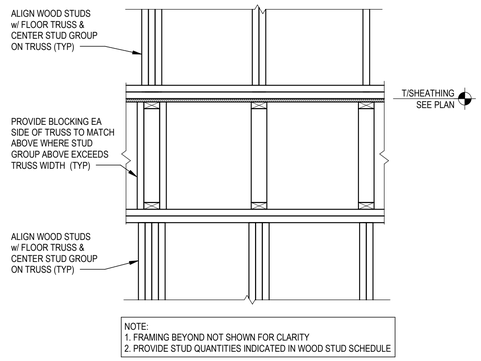
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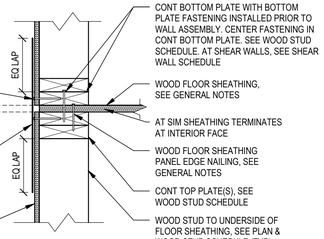
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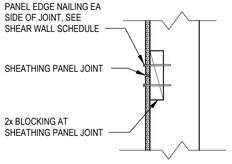
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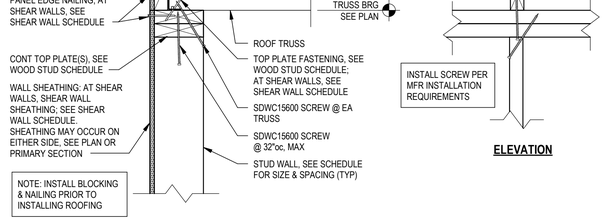
SECTION 3 — NTS — S314



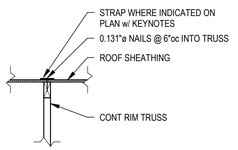
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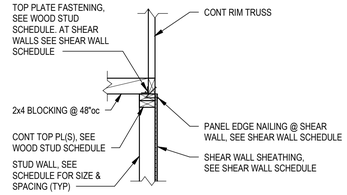
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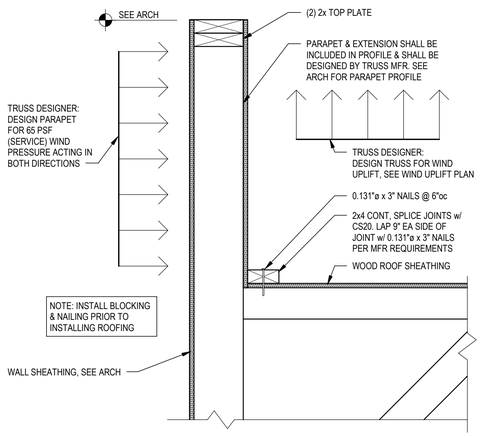
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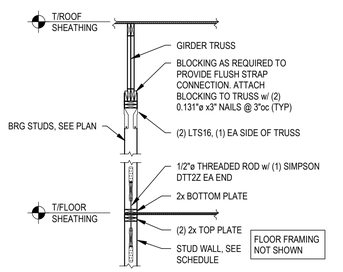
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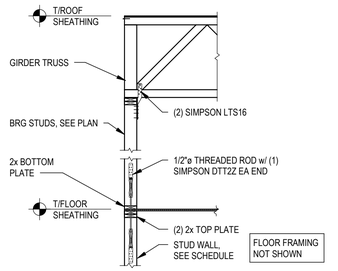
SECTION 8 — NTS — S314



SECTION 9 — NTS — S314



TYPICAL HOLDOWN AT PARALLEL GIRDER TRUSS
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TYPICAL HOLDOWN AT PERPENDICULAR GIRDER TRUSS
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PARAMOUNT WORKS

2505 KEMPER LN
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ENGINEER: AJS
MODELER: WCM
CHECKED BY: MMO

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NO	DATE	DESCRIPTION
	02.26.24	Pricing / Permit Issuance

PROJECT NUMBER:
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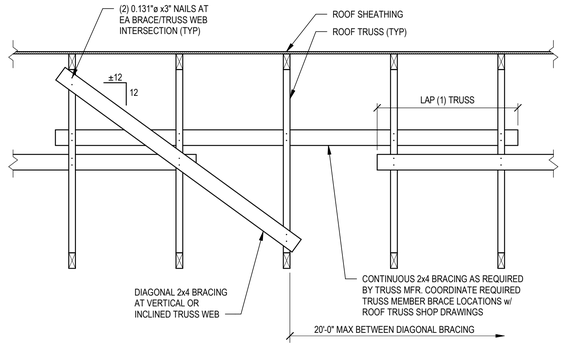
SHEET NAME:
TYPICAL FRAMING DETAILS & SECTIONS

DATE:
02/26/2024

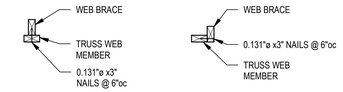
SHEET:
S314

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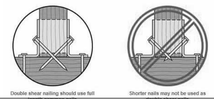
WOOD ROOF TRUSS WEB PERMANENT BRACING DETAIL
NTS



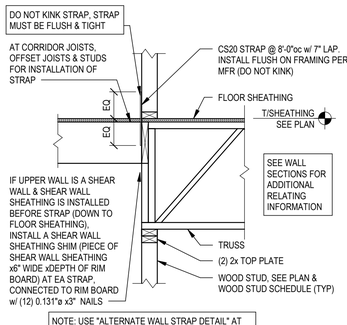
NOTES:
1. ALTERNATE PERMANENT WEB BRACING CONFIGURATIONS TO BE USED WHEN WEBS OF ADJACENT ROOF TRUSSES DO NOT ALIGN & CONTINUOUS LATERAL WEB BRACING CANNOT BE USED. COORDINATE TRUSS WEB MEMBERS WHICH REQUIRE PERMANENT BRACING w/ ROOF TRUSS SHOP DRAWINGS.
2. WEB BRACING SHALL BE (MINIMUM) SAME SIZE AS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

ALTERNATE PERMANENT WEB BRACING CONFIGURATIONS
NTS

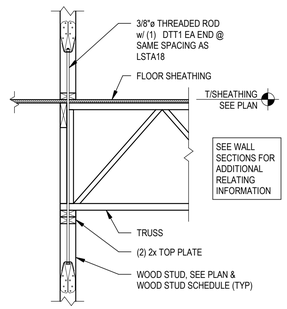
THE FOLLOWING NOTES ARE IN ADDITION TO THE INFORMATION STATED IN THE WOOD SECTION OF THE GENERAL NOTES.
1. NAIL SIZES AS CALLED OUT IN THE STRUCTURAL DRAWINGS & FOR CONNECTIONS ARE AS FOLLOWS:
   A. 6d NAILS ARE 0.120"ø x1 3/4" LONG (MIN 3/8"ø HEAD)
   B. 8d NAILS ARE 0.131"ø x2 1/2" LONG.
   C. 10d 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.



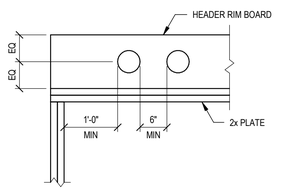
NAILING LENGTH NOTES



TYPICAL WALL STRAP DETAIL AT HIGHEST LEVEL WALLS ONLY
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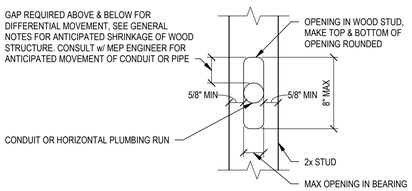


ALTERNATE WALL STRAP DETAIL AT HIGHEST LEVEL WALLS ONLY
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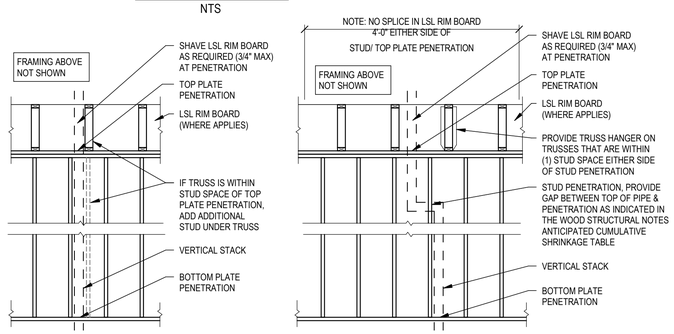


NOTES:
1. ALL PENETRATIONS ARE ROUND.
2. SEE MEP DRAWINGS FOR SIZE AND LOCATION OF PENETRATION.
3. CONTRACTOR TO SUBMIT FINAL SIZE & LOCATION OF ALL PENETRATIONS TO STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO CUTTING HOLES.

TYPICAL FLUSH HEADER PENETRATION DETAIL
NTS



TYPICAL HORIZONTAL PENETRATION THRU WOOD STUDS
NTS



VERTICAL STACK — 90° BEND IN VERTICAL STACK

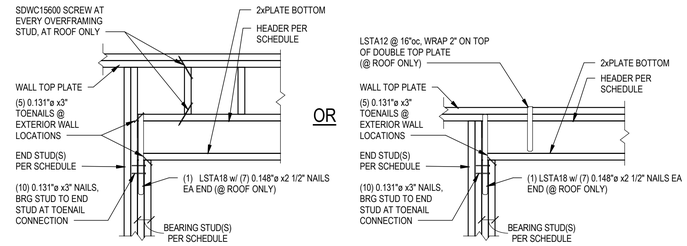
PLUMBING STACK TOP PLATE/STUD PENETRATION DETAIL IN LOAD BEARING WALL
NTS

WOOD HEADER SCHEDULE

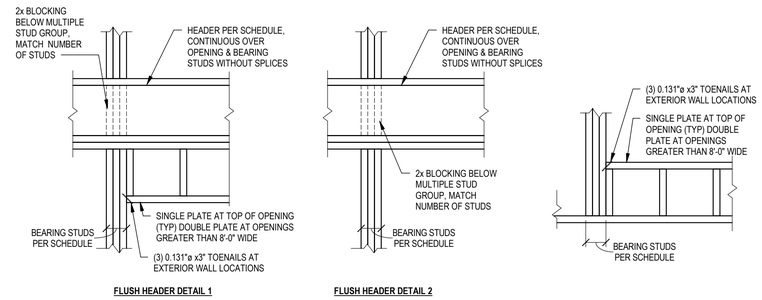
MARK	HEADER SIZE	BRG STUDS, BOTH ENDS								NOTES
		3RD FLR		4TH FLR		5TH FLR		6TH FLR		
		2x4	2x6	2x4	2x6	2x4	2x6	2x4	2x6	
H1	(3) 2x6 FRT	-	1	-	1	-	1	-	1	LSTA15 EA END @ ROOF ONLY
H2	(3) 2x6	-	2	-	1	-	1	-	1	LSTA9 EA END @ ROOF ONLY
H3	(3) 2x8	-	2	-	2	-	1	-	1	LSTA12 EA END @ ROOF ONLY
H4	(3) 2x8	-	4	-	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	-	-	
H10	(3) 1 1/2"x20" LSL	-	4	-	3	-	2	-	-	
H11	(3) 2x8 PT	-	1	-	1	-	1	-	1	LSTA9 EA END @ ROOF ONLY
H12	(3) 2x8 PT	-	2	-	1	-	1	-	1	LSTA9 EA END @ ROOF ONLY

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



DROPPED HEADER (INTERIOR & EXTERIOR)



FLUSH HEADER — WINDOW SILL DETAIL

WOOD STUD SCHEDULE

TYPE/ LOCATION	EXTERIOR LOAD BEARING AND NON-LOAD BEARING	CORRIDOR NON-LOAD BEARING	CORRIDOR LOAD BEARING	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[6] ≤ 16'-0"		TRUSS SPAN[6] > 16'-0"					
6TH FLR	(1) FRT 2x6 @ 16"oc	(1) 2x6 @ 16"oc	(1) 2x6 @ 16"oc	(1) 2x4 @ 16"oc	(1) 2x6 @ 16"oc	(1) 2x4 @ 16"oc	(1) 2x6 @ 16"oc	(1) 2x6 @ 24"oc	(1) 2x6 @ 16"oc	(1) 2x6 @ 16"oc	(1) 2x6 @ 16"oc
5TH FLR	(1) FRT 2x6 @ 16"oc	(1) 2x6 @ 16"oc	(1) 2x6 @ 16"oc	(1) 2x4 @ 24"oc	(1) 2x6 @ 24"oc	(2) 2x4 @ 24"oc	(1) 2x6 @ 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) 2x6 @ 16"oc	(2) 2x6 @ 16"oc	(2) 2x4 @ 24"oc	(1) 2x6 @ 24"oc	(3) 2x4 @ 24"oc	(2) 2x6 @ 24"oc	(2) 2x6 @ 24"oc	(1) 2x6 @ 16"oc	(2) 2x6 @ 16"oc	(1) 2x6 @ 16"oc
3RD FLR	(1) FRT 2x6 @ 16"oc	(1) 2x6 @ 16"oc	(2) 2x6 @ 16"oc	(2) 2x4 @ 24"oc	(2) 2x6 @ 24"oc	(3) 2x4 @ 24"oc	(2) 2x6 @ 24"oc	(3) 2x6 @ 24"oc	(1) 2x6 @ 16"oc	(2) 2x6 @ 16"oc	(2) 2x6 @ 16"oc
BOTTOM PLATE FASTENING [2,3]	0.131"x3" NAILS @ 6"oc	0.131"x3" NAILS @ 16"oc	0.131"x3" NAILS @ 16"oc	0.131"x3" NAILS @ 16"oc		0.131"x3" NAILS @ 16"oc		0.131"x3" NAILS @ 16"oc	0.131"x3" NAILS @ 16"oc	0.131"x3" NAILS @ 16"oc	0.131"x3" NAILS @ 16"oc
TOP PLATE FASTENING [2,3]	0.131"x3" TOENAILS @ 6"oc	0.131"x3" TOENAILS @ 16"oc	0.131"x3" TOENAILS @ 16"oc	0.131"x3" TOENAILS @ 16"oc		0.131"x3" TOENAILS @ 16"oc		0.131"x3" TOENAILS @ 16"oc	0.131"x3" TOENAILS @ 16"oc	0.131"x3" TOENAILS @ 16"oc	0.131"x3" TOENAILS @ 16"oc
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	(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 (1) 2x BOTTOM PLATE INSTALLED PRIOR TO WALL ASSEMBLY & (2) 2x TOP PLATES. PLATE MATERIAL SHALL MATCH STUD MATERIAL.
5. REFER TO ARCHITECTURAL FLOOR PLANS AND STRUCTURAL FRAMING PLANS FOR WALL TYPES AND EXTENTS.
6. SPAN IS DEFINED AS THE LENGTH BETWEEN BEARING POINT TO BEARING POINT NOT TOTAL TRUSS LENGTH.

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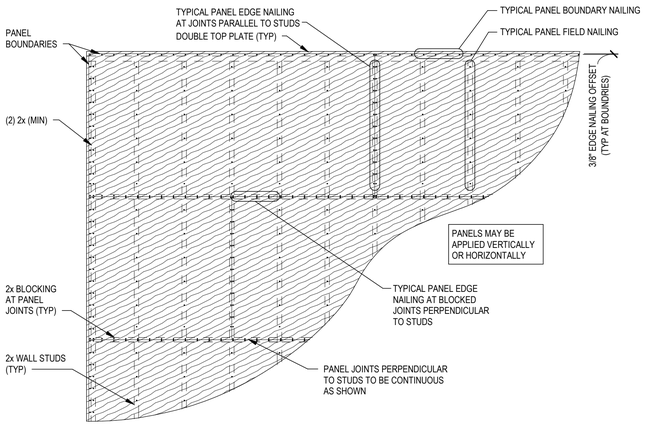
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SHEET NAME:
TYPICAL WOOD FRAMING SCHEDULES & DETAILS

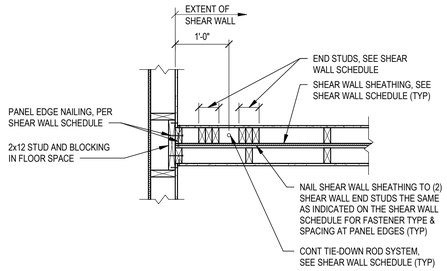
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SHEAR WALL SHEATHING NAILING DETAIL
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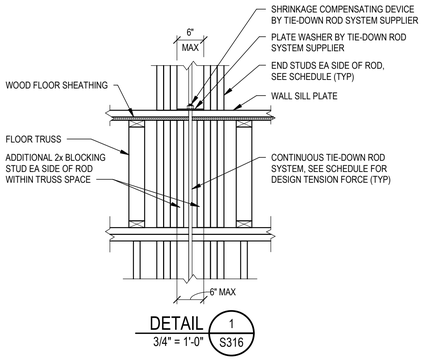
HIGH LOAD SHEAR WALL END REINFORCEMENT
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WOOD SHEAR WALL SCHEDULE

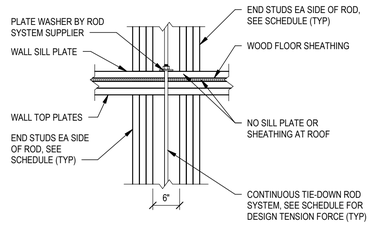
1	2	3	4	5	6	7	8	9	10	11	12	13	14
SHEAR WALL MARK	LEVEL	SHEATHING TYPE	BLOCKED PANEL EDGES	WALL PANEL EDGE FASTENING	WALL PANEL FIELD FASTENING	MAX WALL STUD SPACING	TOP PL FASTENING	BOTTOM PL FASTENING	ROOF/FLOOR SHEATHING FASTENING @ SHEAR WALL ELEMENT	HOLDOWN			TRUSS DRAG FORCE, PLF (ASD)
										CONTINUOUS ROD FORCE	HOLDOWN ANCHORAGE THROUGH PODIUM	TOTAL END STUDS (1/2 EA SIDE OF ROD)	
S1	4TH	7/16" OSB ONE SIDE	YES	0.131"ex3" @ 6"oc	0.131"ex3" @ 6"oc	24" oc	0.131"ex3" TOENAILS @ 4" oc	0.131"ex3"NAILS @ 4" oc	0.131"ex3"NAILS @ 6"oc	4200	-	(2) 2x4 OR (2) 2x6	308
	3RD	7/16" OSB ONE SIDE	YES	0.131"ex3" @ 4"oc	0.131"ex3" @ 6"oc	24" oc	0.131"ex3" TOENAILS @ 3" oc	0.131"ex3"NAILS @ 3" oc	0.131"ex3"NAILS @ 6"oc	6600	-	(4) 2x4 OR (2) 2x6	451
	2ND	7/16" OSB ONE SIDE	YES	0.131"ex3" @ 3"oc	0.131"ex3" @ 6"oc	24" oc	SIMPSON A34 @ 8" oc	SDWS22500DB @ 9" oc	0.131"ex3"NAILS @ 6"oc	13000	-	(5) 2x4 OR (2) 2x6^{12}	580
	1ST	7/16" OSB TWO SIDES	YES	0.131"ex3" @ 4"oc	0.131"ex3" @ 6"oc	24" oc	SIMPSON A34 @ 5" oc	5/8"ex6" EMB @ 8" oc	0.131"ex3"NAILS @ 6"oc	21600	1 1/8"ø ROD	(7) 2x4 OR (3) 2x6^{12}	902
S2	4TH	7/16" OSB ONE SIDE	YES	0.131"ex3" @ 6"oc	0.131"ex3" @ 6"oc	24" oc	0.131"ex3" TOENAILS @ 4" oc	0.131"ex3"NAILS @ 4" oc	0.131"ex3"NAILS @ 6"oc	4200	-	(3) 2x4 OR (2) 2x6	308
	5TH	7/16" OSB ONE SIDE	YES	0.131"ex3" @ 6"oc	0.131"ex3" @ 6"oc	24" oc	0.131"ex3" TOENAILS @ 4" oc	0.131"ex3"NAILS @ 4" oc	0.131"ex3"NAILS @ 6"oc	6600	-	(4) 2x4 OR (2) 2x6	308
	2ND	7/16" OSB ONE SIDE	YES	0.131"ex3" @ 4"oc	0.131"ex3" @ 6"oc	24" oc	0.131"ex3" TOENAILS @ 3" oc	0.131"ex3"NAILS @ 3" oc	0.131"ex3"NAILS @ 6"oc	9600	-	(6) 2x4 OR (2) 2x6	451
	1ST	7/16" OSB ONE SIDE	YES	0.131"ex3" @ 3"oc	0.131"ex3" @ 6"oc	24" oc	SIMPSON A34 @ 8" oc	5/8"ex6" EMB @ 13" oc	0.131"ex3"NAILS @ 6"oc	13000	7/8"ø ROD	(6) 2x4 OR (2) 2x6^{12}	580
S3	4TH	7/16" OSB ONE SIDE	YES	0.131"ex3" @ 6"oc	0.131"ex3" @ 6"oc	24" oc	0.131"ex3" TOENAILS @ 4" oc	0.131"ex3"NAILS @ 4" oc	0.131"ex3"NAILS @ 6"oc	4200	-	(2) 2x4 OR (2) 2x6	308
	3RD	7/16" OSB ONE SIDE	YES	0.131"ex3" @ 6"oc	0.131"ex3" @ 6"oc	24" oc	0.131"ex3" TOENAILS @ 4" oc	0.131"ex3"NAILS @ 4" oc	0.131"ex3"NAILS @ 6"oc	4200	-	(3) 2x4 OR (2) 2x6	308
	2ND	7/16" OSB ONE SIDE	YES	0.131"ex3" @ 6"oc	0.131"ex3" @ 6"oc	24" oc	0.131"ex3" TOENAILS @ 4" oc	0.131"ex3"NAILS @ 4" oc	0.131"ex3"NAILS @ 6"oc	4200	-	(4) 2x4 OR (2) 2x6	308
	1ST	7/16" OSB ONE SIDE	YES	0.131"ex3" @ 4"oc	0.131"ex3" @ 6"oc	24" oc	0.131"ex3" TOENAILS @ 3" oc	5/8"ex6" EMB @ 17" oc	0.131"ex3"NAILS @ 6"oc	4200	1/2"ø ROD	(6) 2x4 OR (2) 2x6	451
S4	4TH	7/16" OSB ONE SIDE	YES	0.131"ex3" @ 6"oc	0.131"ex3" @ 6"oc	24" oc	0.131"ex3" TOENAILS @ 4" oc	0.131"ex3"NAILS @ 4" oc	0.131"ex3"NAILS @ 6"oc	4200	-	(2) 2x4 OR (2) 2x6	308
	3RD	7/16" OSB ONE SIDE	YES	0.131"ex3" @ 6"oc	0.131"ex3" @ 6"oc	24" oc	0.131"ex3" TOENAILS @ 4" oc	0.131"ex3"NAILS @ 4" oc	0.131"ex3"NAILS @ 6"oc	6600	-	(3) 2x4 OR (2) 2x6	308
	2ND	7/16" OSB ONE SIDE	YES	0.131"ex3" @ 4"oc	0.131"ex3" @ 6"oc	24" oc	0.131"ex3" TOENAILS @ 3" oc	0.131"ex3"NAILS @ 3" oc	0.131"ex3"NAILS @ 6"oc	9600	-	(5) 2x4 OR (2) 2x6	451
	1ST	7/16" OSB ONE SIDE	YES	0.131"ex3" @ 3"oc	0.131"ex3" @ 6"oc	24" oc	SIMPSON A34 @ 8" oc	5/8"ex6" EMB @ 13" oc	0.131"ex3"NAILS @ 6"oc	17000	1"ø ROD	(7) 2x4 OR (3) 2x6	580

SHEAR WALL SCHEDULE NOTES:

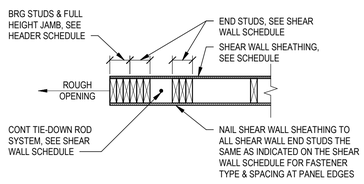
1. CONTINUOUS TIE-DOWN ROD SYSTEM BY SIMPSON OR CLP (OTHERS MAY BE CONSIDERED). SUPPLIER SHALL SELECT ALL COMPONENTS OF THE TIEDOWN SYSTEM TO RESIST THE DESIGN LOADS INDICATED IN THE SCHEDULE. SUPPLIER SHALL SUBMIT SHOP DRAWINGS AND EITHER PRODUCT DATA AND TESTING DATA, OR ENGINEERING CALCULATIONS INDICATING THE CAPACITY OF ALL OF THE SELECTED SYSTEM COMPONENTS. SHOP DRAWINGS SHALL BEAR THE SEAL OF A REGISTERED ENGINEER IN THE STATE OF THE PROJECT.
2. PROVIDE SHRINKAGE-COMPENSATING TAKE-UP DEVICES DESIGNED BY CONTINUOUS ROD SUPPLIER. TAKEUP DEVICE MUST BE CAPABLE OF ACCOMMODATING ESTIMATED SHRINKAGE SHOWN IN WOOD GENERAL NOTES.
3. PROVIDE PLATE WASHERS AT ALL FLOORS AND ROOF DESIGNED BY CONTINUOUS ROD SUPPLIER. REFER TO DETAILS THIS SHEET FOR BLOCKING/STUD SPACING AT PLATE WASHERS.
4. CONTRACTOR TO RE-TIGHTEN ALL PLATE WASHER NUTS (EXCLUDING AT TAKEUP DEVICES) LESS THAN ONE WEEK PRIOR TO DRYWALL BEING APPLIED.
5. REFER TO TYPICAL SHEAR WALL DETAILS AND ELEVATIONS ON THIS SHEET FOR ADDITIONAL INFORMATION.
6. REFER TO DETAILS THIS SHEET FOR END STUD CONFIGURATIONS AT SHEAR WALLS. @ ODD NUMBER OF STUDS, LOCATE ADDITIONAL STUD ON SIDE OF ROD TOWARDS MIDDLE OF THE WALL.
7. REFER TO DETAIL THIS SHEET FOR "TYPICAL SHEAR WALL SHEATHING INTERRUPTION DETAIL."
8. ANCHOR RODS FOR HOLDOWNS SHALL BE POST-INSTALLED THROUGH PODIUM SLAB. REFER TO DETAILS THIS SHEET.
9. BOTTOM PLATE ANCHORS AT PODIUM SHALL BE SIMPSON TITEN HD ANCHORS UNLESS NOTED OTHERWISE.
10. AT PODIUM, INSTALL SIMPSON BPS PLATE WASHER AT EACH SHEAR WALL BOTTOM PLATE ANCHOR LOCATION PER DETAIL THIS SHEET.
11. REFER TO FRAMING SECTIONS FOR WHERE TOP/BOTTOM PLATE FASTENING IS REQUIRED.
12. LOAD TRANSFER FOR END STUD REDUCTION USED AT THIS FLOOR, SEE "HIGH LOAD SHEAR WALL END REINFORCEMENT" DETAIL ON S316



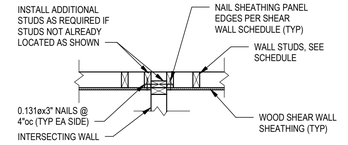
DETAIL 1 — 3/4" = 1'-0" — S316



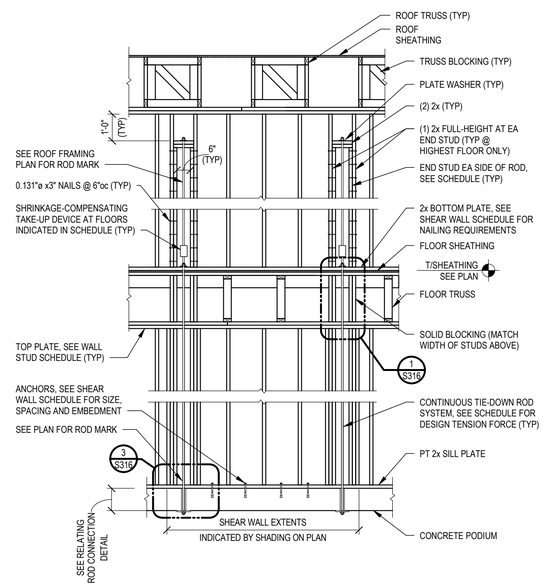
DETAIL 2 — 3/4" = 1'-0" — S316



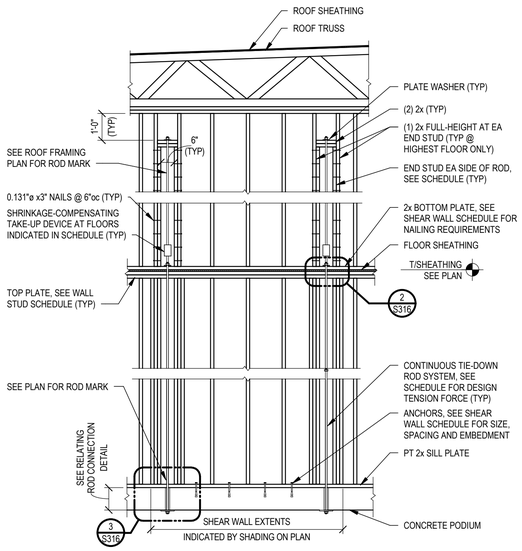
TYPICAL PLAN DETAIL FOR SHEAR WALL CONTINUOUS TIE-DOWN ROD SYSTEM ADJACENT TO ROUGH OPENING
NTS



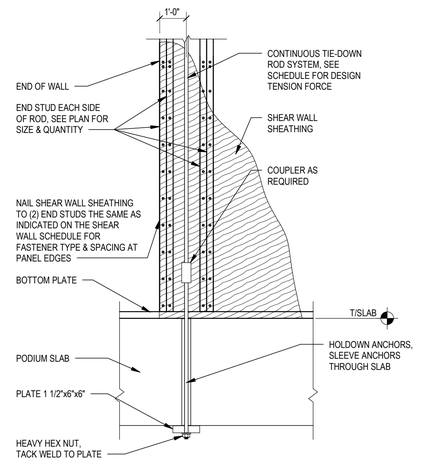
TYPICAL SHEAR WALL SHEATHING INTERRUPTION
3/4" = 1'-0"



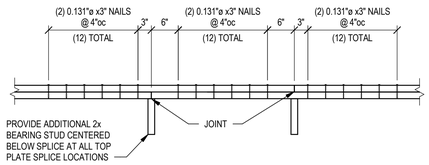
SHEAR WALL DETAIL WITH CONTINUOUS TIE-DOWN ROD SYSTEM PERPENDICULAR TO FLOOR FRAMING
NTS



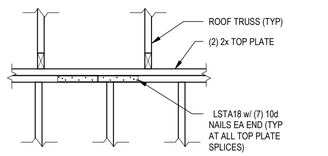
SHEAR WALL DETAIL WITH CONTINUOUS TIE-DOWN ROD SYSTEM PARALLEL TO FLOOR FRAMING
NTS



DETAIL 3 — NTS — S316



TYPICAL TOP PLATE SPLICE DETAIL
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TYPICAL ALTERNATE TOP PLATE SPLICE DETAIL
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	02.26.24	Pricing / Permit Issuance

PROJECT NUMBER: **2312.95**

SHEET NAME: **TYPICAL WOOD SHEAR WALL SCHEDULES AND DETAILS**

DATE: 02/26/2024

SHEET: **S316**

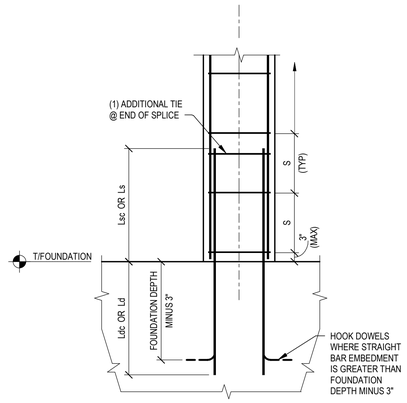
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CONCRETE COLUMN SCHEDULE

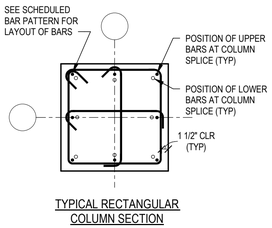
	CONCRETE STRENGTH, f'c	SIZE	VERTICAL BARS	TIES	BAR PATTERN	SPLICE TYPE	REMARKS
2nd FLOOR	5000 PSI	24" x 24"	(8) # 8	#4 @ 16"	A	T	
FOUNDATION	5000 PSI	24" x 24"	(8) # 8	#4 @ 16"	A	C	
DOWELS		(4) #8					

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".

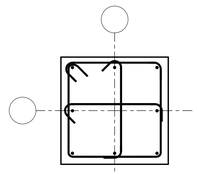


NOTES:
1. SEE COLUMN SCHEDULE FOR SIZE, REINFORCING, DOWELS, & TIE SPACING "S".
2. SEE COLUMN SCHEDULE FOR SPLICE TYPE (COMPRESSION OR TENSION). PROVIDE CORRESPONDING DOWEL EMBEDMENT TYPE INTO FOUNDATION.

TYPICAL BOTTOM OF COLUMN DETAIL
NTS

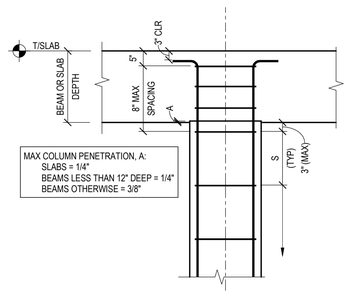


TYPICAL RECTANGULAR
COLUMN SECTION



PATTERN "A" - 8 BAR

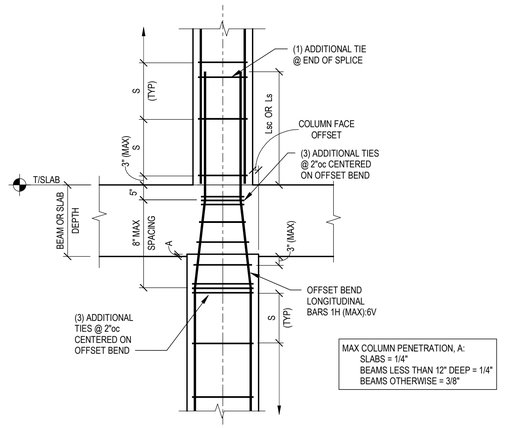
NOTES:
1. ALTERNATE POSITION OF HOOKS WHEN PLACING SUCCESIVE SETS OF TIES.
2. SPACE VERTICAL BARS EQUALLY ALONG EACH COLUMN FACE.
3. CONTRACTOR MAY PROPOSE CLOSED TIES IN LIEU OF THE DOGLEG TIES INDICATED. NO INTERIOR (INCLUDED) ANGLE FORMED AT THE CORNERS OF THE CLOSED TIES SHALL BE LARGER THAN 135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



MAX COLUMN PENETRATION, A:
SLABS = 1/4"
BEAMS LESS THAN 12" DEEP = 1/4"
BEAMS OTHERWISE = 3/8"

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

TYPICAL TOP OF COLUMN DETAIL
NTS



MAX COLUMN PENETRATION, A:
SLABS = 1/4"
BEAMS LESS THAN 12" DEEP = 1/4"
BEAMS OTHERWISE = 3/8"

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

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

TYPICAL COLUMN SPLICE DETAIL
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2312.95

SHEET NAME:
CONCRETE COLUMN SCHEDULE & TYPICAL DETAILS

DATE:
02/26/2024

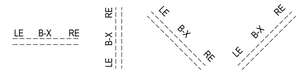
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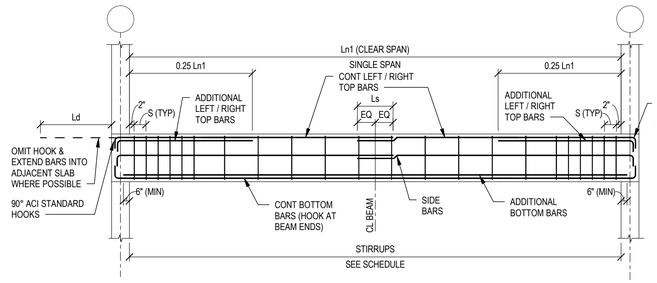
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TYPICAL CONCRETE BEAM REINFORCEMENT NOTES:

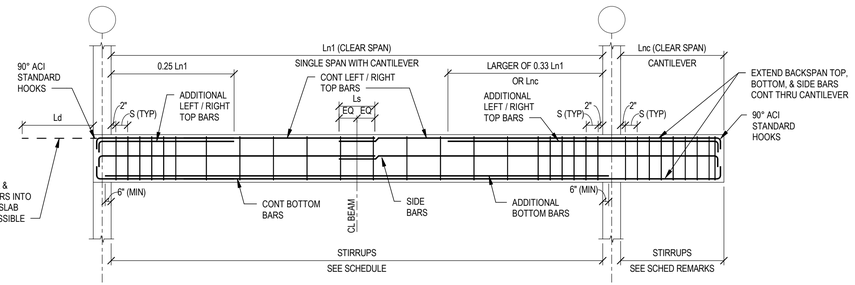
1. THE LEFT & RIGHT ENDS OF THE BEAM SHALL BE ESTABLISHED ACCORDING TO THE ORIENTATION OF THE BEAM ON PLAN BASED ON THE FOLLOWING CONDITIONS:



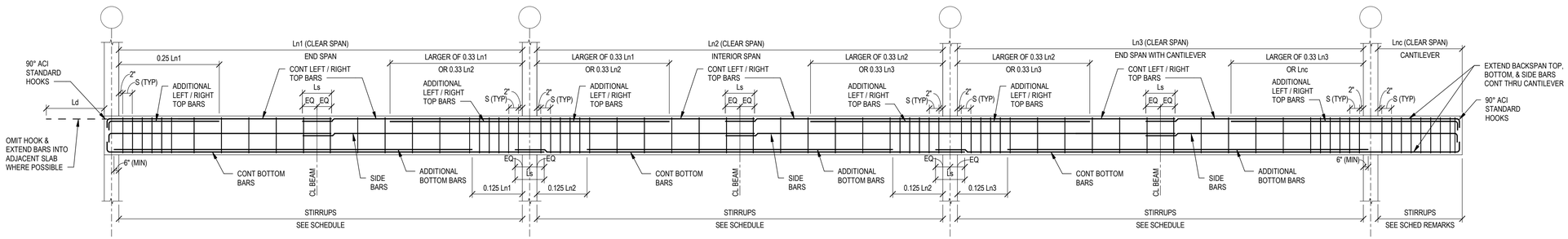
2. SEE BEAM SCHEDULE FOR TOP BARS, BOTTOM BARS, SIDE BARS, & STIRRUPS.
3. BEAM BARS THAT EXTEND INTO AN ADJACENT BEAM ARE NOT ADDITIVE. WHERE ADJACENT BEAM BARS DO NOT MATCH, USE THE REINFORCEMENT WITH THE GREATER TOTAL AREA.
4. HOOK TOP, BOTTOM, AND SIDE BARS WHERE SHOWN OR NOTED. PROVIDE STANDARD 90° 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

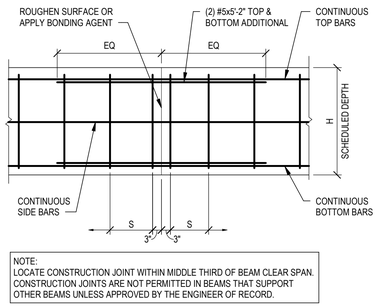


TYPE 2



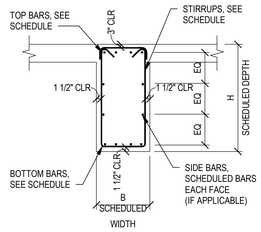
TYPE 3 TYPE 4 TYPE 5

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.

TYPICAL BEAM CONSTRUCTION JOINT
NTS



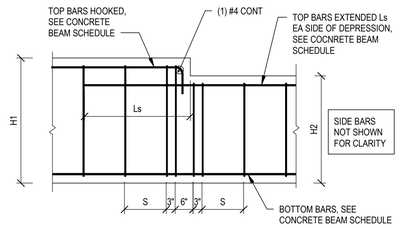
TYPICAL CONCRETE BEAM SECTION
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CONCRETE BEAM SCHEDULE

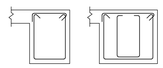
BEAM MARK	BEAM TYPE	SIZE (INCHES)			REINFORCEMENT										REMARKS
					TOP BARS - LEFT		TOP BARS - RIGHT		BOTTOM BARS		SIDE BARS	STIRRUPS			
		B	H	H_2	CONT	ADD'L	CONT	ADD'L	CONT	ADD'L	EA FACE	SIZE	TYPE	SPACING (S)	
CB-01	3	24	42	36	(5) #8	--	(7) #8	--	(5) #8	--	(6) #4	#4	ST-1	(7) @ 4" EE, (18) @ 6" EE, BAL @ 12"	DEPTH OF BEAM VARIES, SEE PLAN
CB-02	3	24	42	36	(7) #8	--	(8) #8	--	(5) #8	--	(6) #4	#4	ST-1	(7) @ 4" EE, BAL @ 12"	DEPTH OF BEAM VARIES, SEE PLAN
CB-03	3	24	36	30	(6) #8	--	(9) #8	--	(5) #8	--	(7) #4	#4	ST-2	(10) @ 7" EE, BAL @ 10"	DEPTH OF BEAM VARIES, SEE PLAN
CB-04	3	24	36	30	(9) #8	--	(6) #8	--	(5) #8	--	(7) #4	#4	ST-1	(13) @ 4" EE, BAL @ 12"	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.
4. SEE "TYPICAL CONCRETE BEAM AT SLAB DEPRESSION" FOR REINFORCING LAYOUT

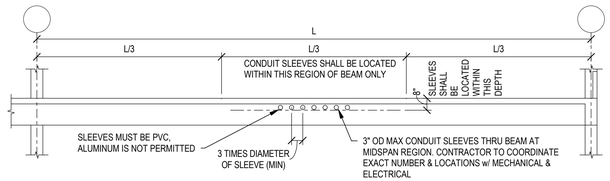
ABBREVIATIONS:
LE = LEFT END
RE = RIGHT END
EE = EACH END
FAB = FROM ADJACENT BEAM
BAL = BALANCE OF STIRRUPS OVER REMAINING BEAM LENGTH



TYPICAL CONCRETE BEAM AT SLAB DEPRESSION
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TYPICAL STIRRUP TYPES
NTS



TYPICAL CONDUIT SLEEVE DETAIL
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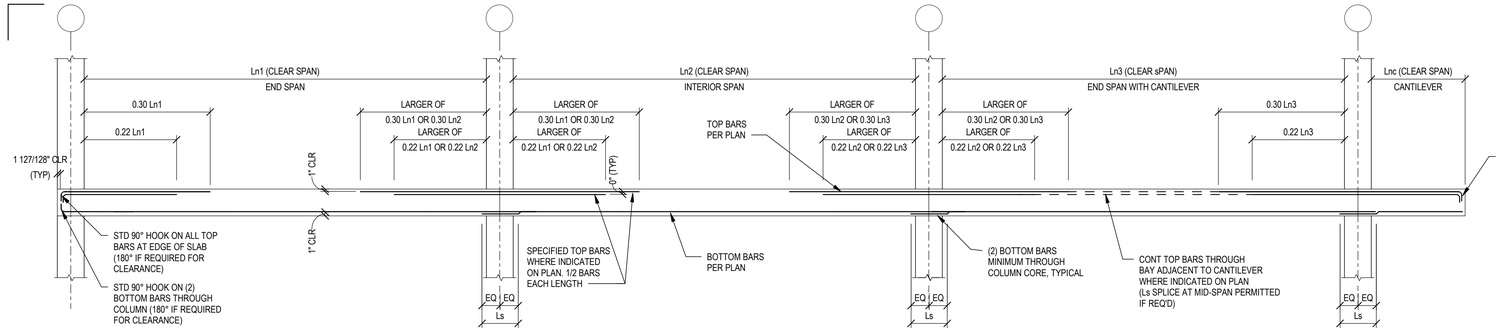
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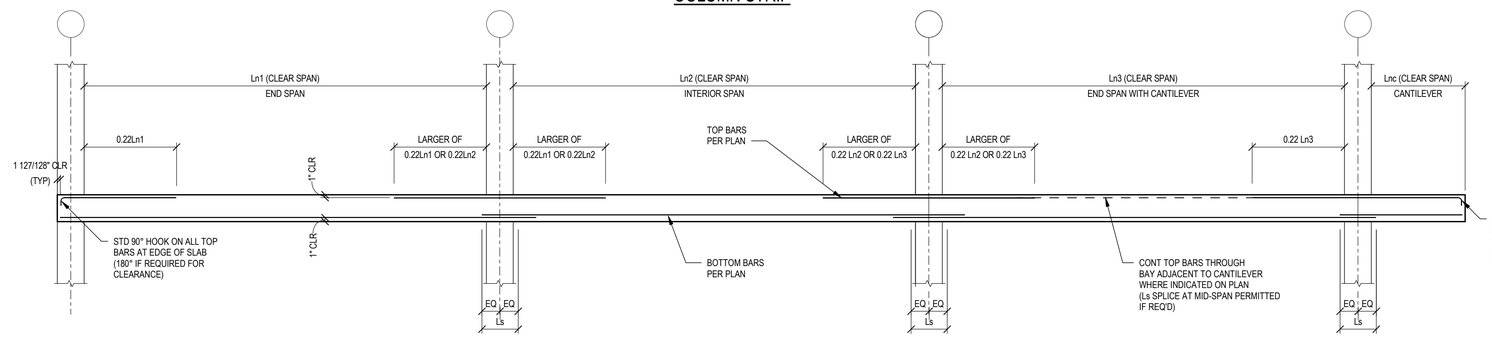
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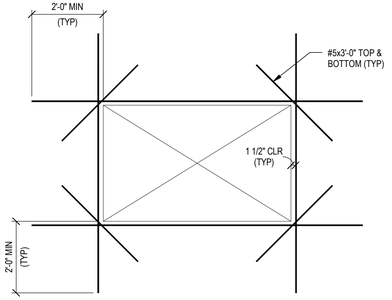
COLUMN STRIP



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

STUDRAIL TYPE B

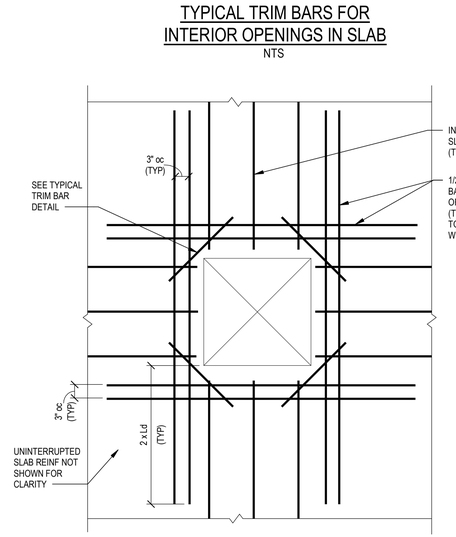
NTS

STUDRAIL TYPE C

NTS

LIMITATION OF SLAB PENETRATIONS AT STUDRAILS

NTS



NOTES:

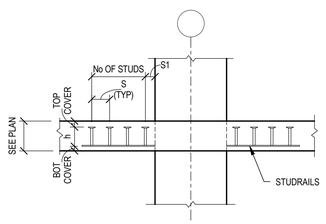
1. ALL SLAB OPENINGS WITH WIDTH OR LENGTH GREATER THAN 12" THAT ARE NOT INDICATED ON THE STRUCTURAL DRAWINGS MUST BE SUBMITTED TO & APPROVED BY ENGINEER OF RECORD.
2. SLAB OPENINGS WITH WIDTH OR LENGTH LESS THAN 12" DO NOT REQUIRE SPECIAL REINFORCING.
3. HOOK ENDS OF ADDITIONAL REINFORCING BARS AT SLAB 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

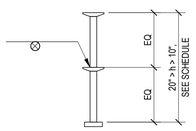
STUDRAIL SHEAR REINFORCING NOTES:

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. STUDRAILS AT EXTERIOR SLAB 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

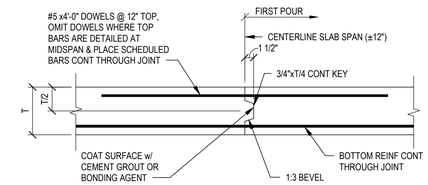


TYPICAL PIGGYBACKING OF STUDS FOR HEIGHTS OVER 10"

NTS

STUDRAIL SCHEDULE

MARK	STUD ø x HEIGHT (h)	No OF RAILS PER COLUMN	No OF STUDS PER RAIL	TYP STUD SPACING (S)	FIRST STUD SPACING (S1)	STUDRAIL TYPE
SR2	3/4"ø x 18"	8	9	6 1/4"	6 1/4"	A
SR3	3/4"ø x 18"	8	7	7 1/4"	7 1/4"	A
SR4	3/4"ø x 18"	8	15	3 1/2"	3 1/2"	A
SR5	3/4"ø x 10"	12	5	7 1/2"	5"	A
SR6	3/4"ø x 10"	12	5	7 1/2"	5"	C
SR7	3/4"ø x 10"	9	5	7 1/2"	7 1/2"	B
SR8	3/4"ø x 10"	9	5	6"	4"	B
SR9	3/4"ø x 10"/8"	9	7	2"	3"	B



TYPICAL CONSTRUCTION JOINTS IN SOLID SLABS

NTS

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MODELER: WCM
CHECKED BY: MMO

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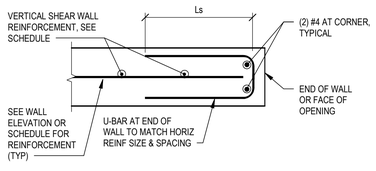
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2312.95

SHEET NAME:
CONCRETE SLAB & TYPICAL DETAILS

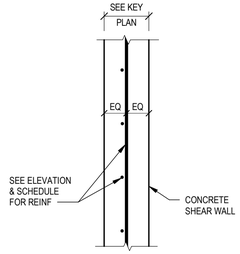
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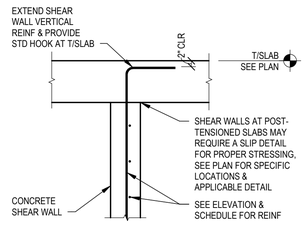
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TYPICAL SHEAR WALL END REINFORCEMENT DETAIL
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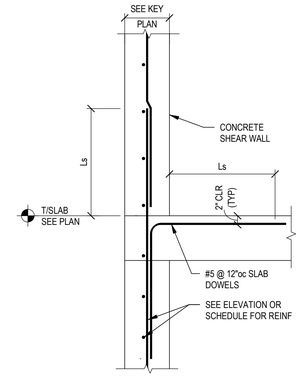


TYPICAL SHEAR WALL DETAIL
NTS



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
3/4" = 1'-0"

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

TYPICAL BASE OF CONCRETE SHEAR WALL
NTS (2 / S331)

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
NTS

TYPICAL SPANDREL BEAM IN SHEAR WALL
NTS (1 / S331)

SHEAR WALL REINFORCEMENT SCHEDULE

	f'c (PSI)	SW1A		SW1B		SW1C		SW1D		SW2A		SW2B		SW2C		SW2D		SW3A		SW3B		SW3C		SW3D		SW4A		SW4B		SW4C		SW4D	
		VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.
		CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED	CENTERED
PODIUM	5000	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc
LEVEL 2	5000	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc	#4@9"oc	#4@12"oc

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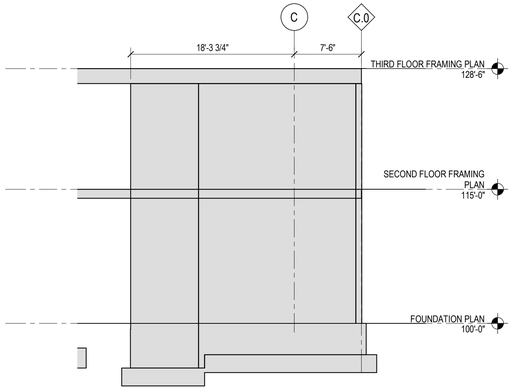
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CONCRETE SHEAR WALL TYPICAL DETAILS & SCHEDULE

DATE:
02/26/2024

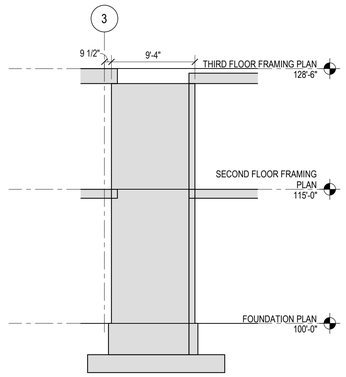
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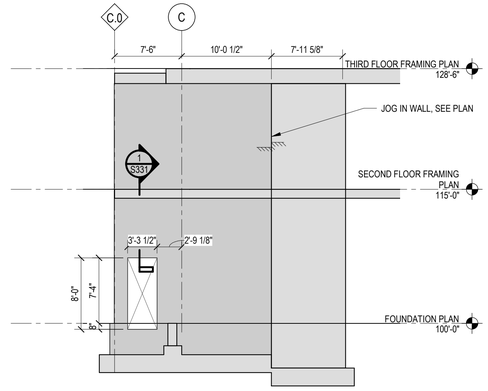
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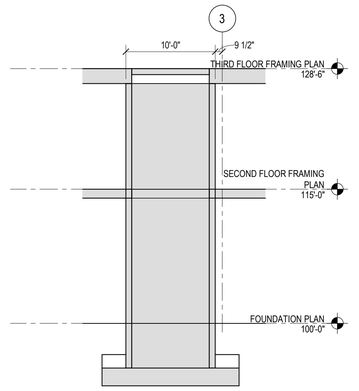
SW1A, SN STAIR NORTH SHEAR WALL ELEVATION 1 / S332
1/8" = 1'-0"



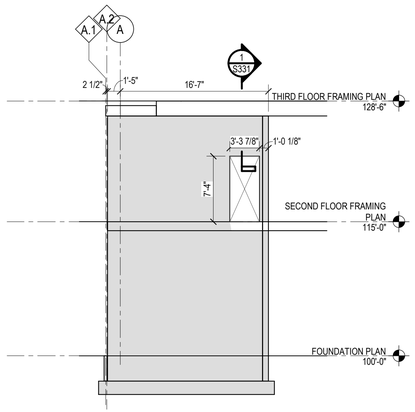
SW1B, SN STAIR WEST SHEAR WALL ELEVATION 2 / S332
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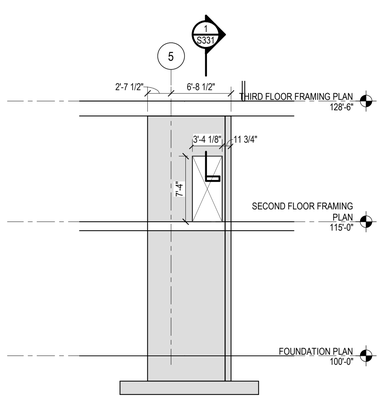
SW1C, SN STAIR SOUTH SHEAR WALL ELEVATION 3 / S332
1/8" = 1'-0"



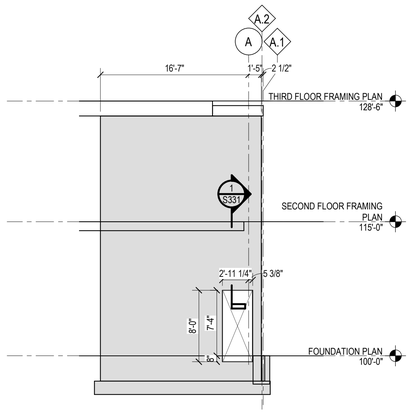
SW1D, SN STAIR EAST SHEAR WALL ELEVATION 4 / S332
1/8" = 1'-0"



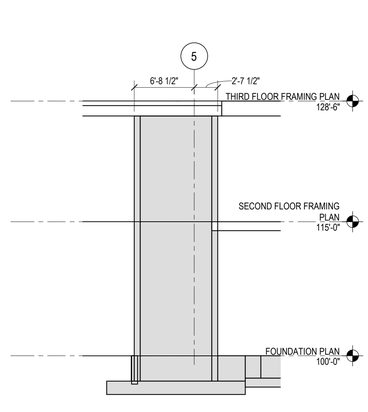
SW2A, SE STAIR NORTH SHEAR WALL ELEVATION 5 / S332
1/8" = 1'-0"



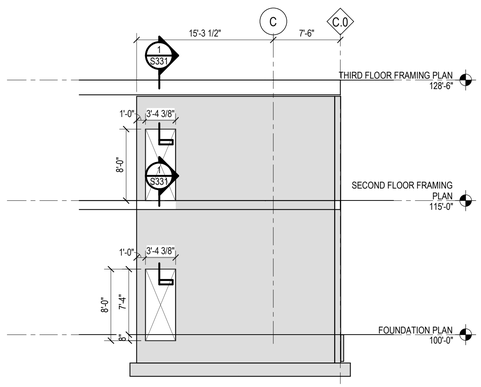
SW2B, SE STAIR WEST SHEAR WALL ELEVATION 6 / S332
1/8" = 1'-0"



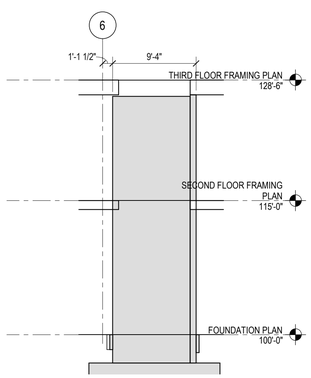
SW2C, SE STAIR SOUTH SHEAR WALL ELEVATION 7 / S332
1/8" = 1'-0"



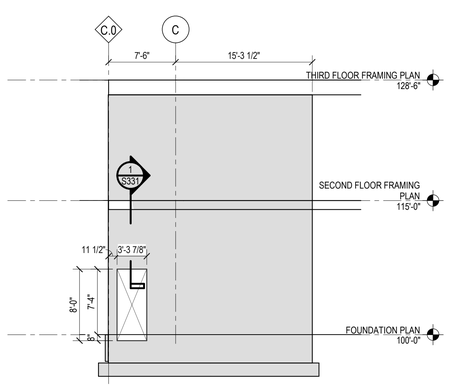
SW2D, SE STAIR EAST SHEAR WALL ELEVATION 8 / S332
1/8" = 1'-0"



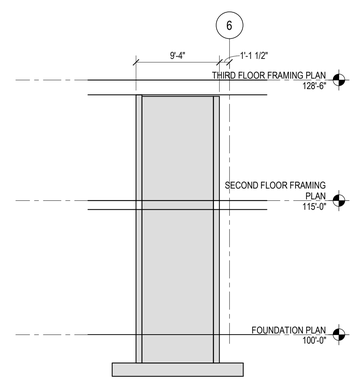
SW3A, SS STAIR NORTH SHEAR WALL ELEVATION 9 / S332
1/8" = 1'-0"



SW3B, SS STAIR WEST SHEAR WALL ELEVATION 10 / S332
1/8" = 1'-0"



SW3C, SS STAIR SOUTH SHEAR WALL ELEVATION 11 / S332
1/8" = 1'-0"



SW3D, SS STAIR EAST SHEAR WALL ELEVATION 12 / S332
1/8" = 1'-0"

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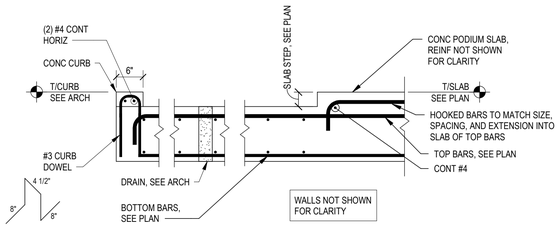
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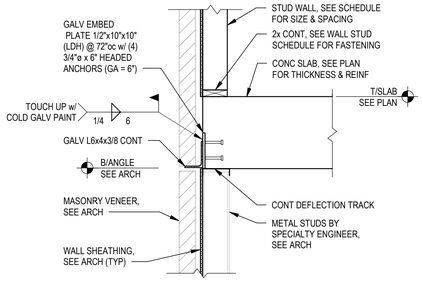
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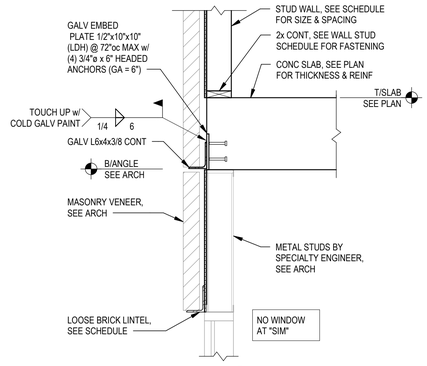
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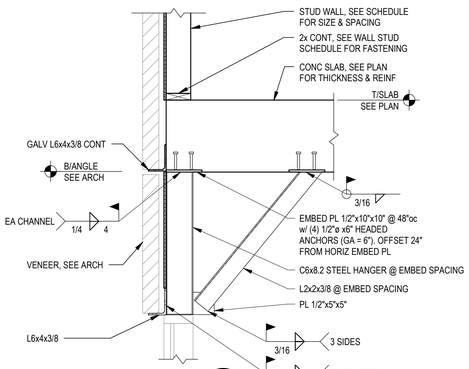
SECTION 1 / 3/4" = 1'-0" / S341



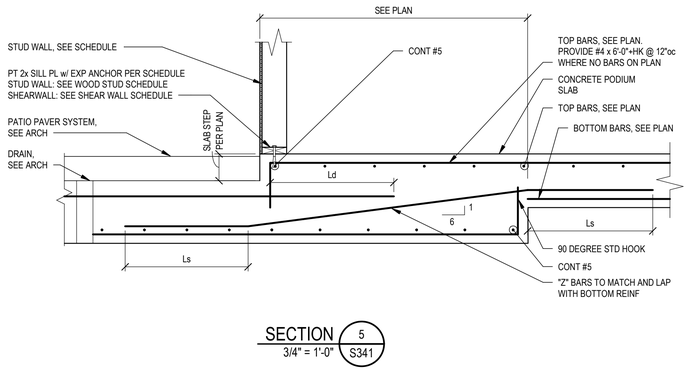
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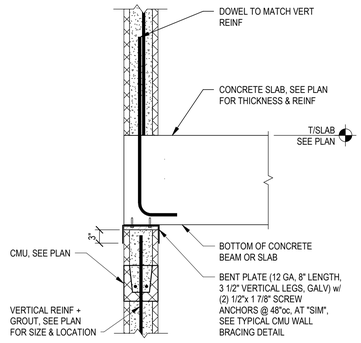
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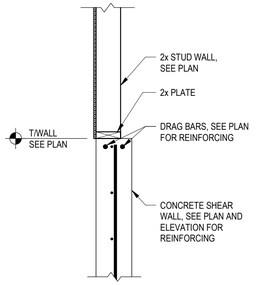
SECTION 4 / 3/4" = 1'-0" / S341



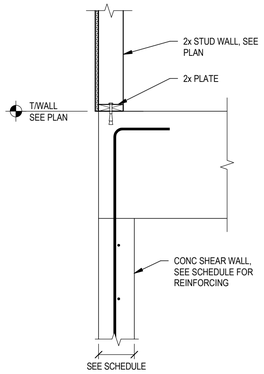
SECTION 5 / 3/4" = 1'-0" / S341



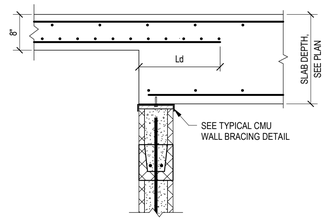
SECTION 6 / 3/4" = 1'-0" / S341



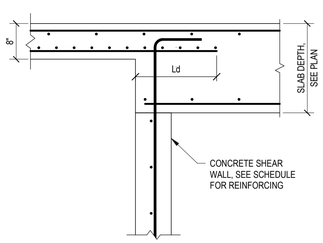
SECTION 7 / 3/4" = 1'-0" / S341



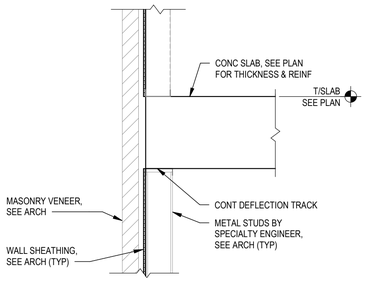
SECTION 8 / 3/4" = 1'-0" / S341



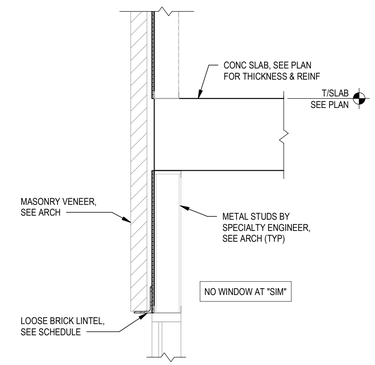
SECTION 9 / 3/4" = 1'-0" / S341



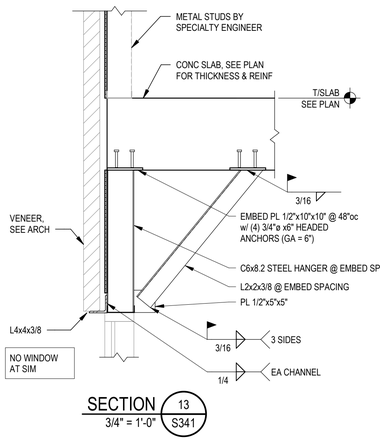
SECTION 10 / 3/4" = 1'-0" / S341



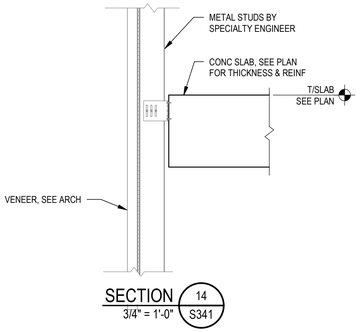
SECTION 11 / 3/4" = 1'-0" / S341



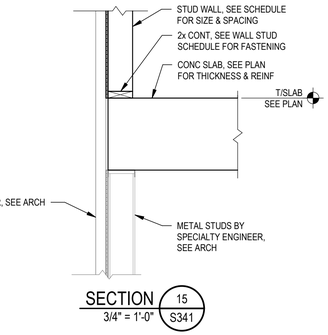
SECTION 12 / 3/4" = 1'-0" / S341



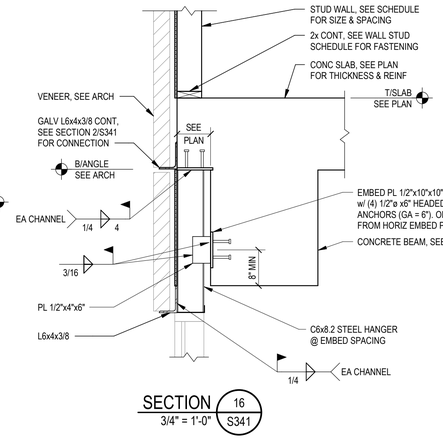
SECTION 13 / 3/4" = 1'-0" / S341



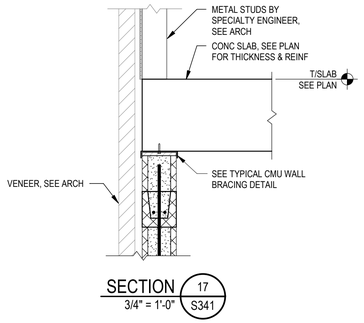
SECTION 14 / 3/4" = 1'-0" / S341



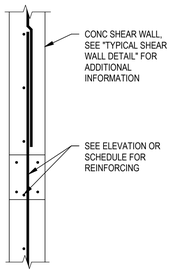
SECTION 15 / 3/4" = 1'-0" / S341



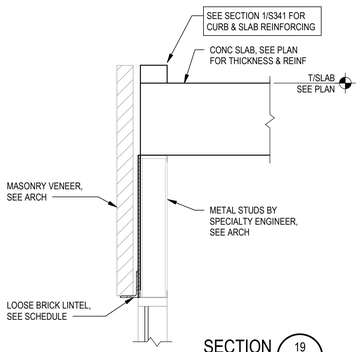
SECTION 16 / 3/4" = 1'-0" / S341



SECTION 17 / 3/4" = 1'-0" / S341



SECTION 18 / 3/4" = 1'-0" / S341



SECTION 19 / 3/4" = 1'-0" / S341

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MODELER: WCM
CHECKED BY: MMO

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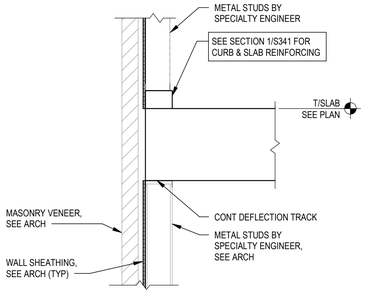
SHEET NAME:
CONCRETE FRAMING DETAILS & SECTIONS

DATE:
02/26/2024

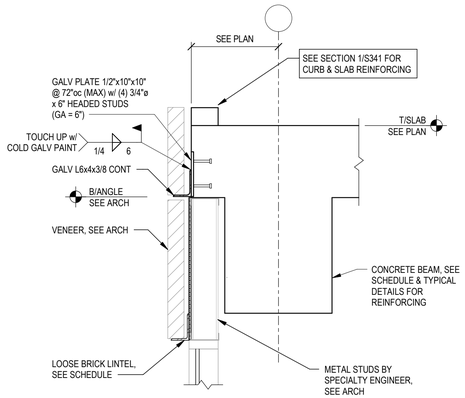
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S341

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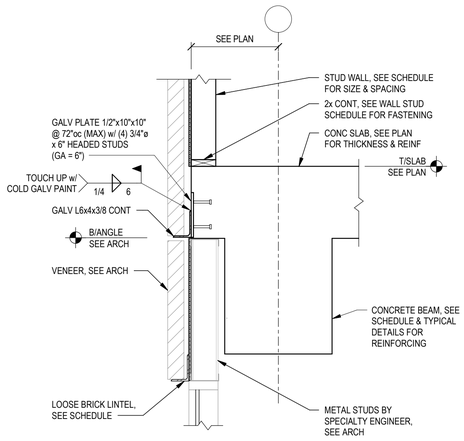
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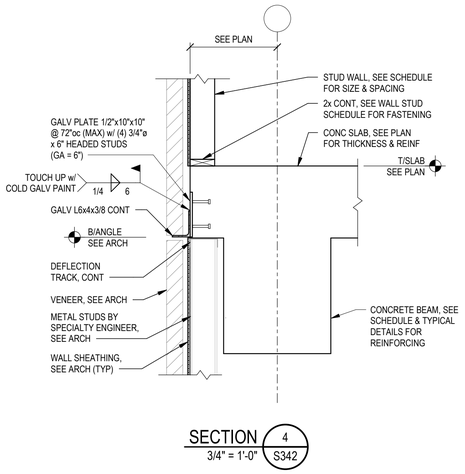
SECTION 1 / S342
3/4" = 1'-0"



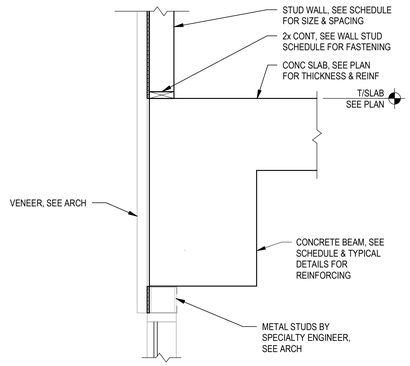
SECTION 2 / S342
3/4" = 1'-0"



SECTION 3 / S342
3/4" = 1'-0"



SECTION 4 / S342
3/4" = 1'-0"



SECTION 5 / S342
3/4" = 1'-0"

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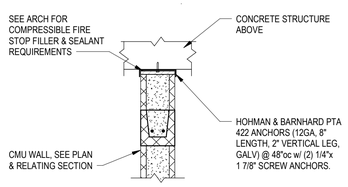
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CONCRETE FRAMING DETAILS & SECTIONS

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S342

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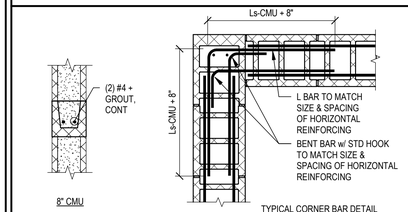
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TYPICAL CMU WALL BRACING DETAIL

3/4" = 1'-0"

TYPICAL BOND BEAM DETAILS



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 @ 32"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 #5 VERT @ 32"oc, CENTERED.

TYPICAL LOOSE LINTEL DETAIL

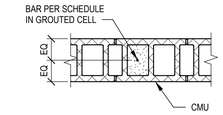
3/4" = 1'-0"

LINTEL SCHEDULE

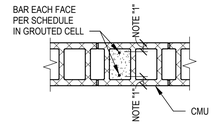
Ln	MARK	DETAIL
	L1	
	L2	L6x6x5/16
	L3	L5x5x5/16
	L4	L5x3x5/16 (LLH)

NOTES:
1. PROVIDE 8" BEARING EACH END OF LINTEL, UNO.
2. SEE TYPICAL LOOSE LINTEL DETIAL THIS SHEET.

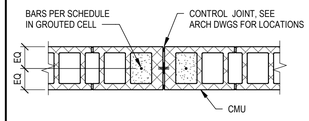
TYPICAL CMU REINFORCING PLAN DETAILS



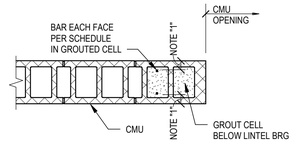
TYPICAL VERTICAL BAR CENTERED
DETAIL A/S400



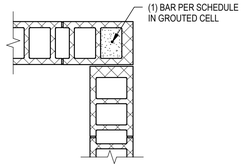
TYPICAL VERTICAL BAR EACH FACE
DETAIL B/S400



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).

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SHEET NAME:
MASONRY SCHEDULES AND TYPICAL DETAILS

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