

**A. MAJOR CODES AND STANDARDS**

- 1. FLORIDA BUILDING CODE 2020
2. ASCE 7-16 (Formerly ANSI A58.1) CURRENT EDITION
3. ACI 318-14
4. AISC ASD 15th Edition.
5. SJI Specifications Current Edition
6. AWS Current Edition
7. ASTM Current Edition.
8. UL Current Edition.

**B. DESIGN LOADS**

Table with 2 columns: Load Type and Value. Includes LIVE LOADS (100 psf), STORAGE (125 psf), MECHANICAL ROOMS (150 psf), SNOW LOADS (20 psf), and LATERAL LOADS (Wind loads).

WIND CONTROLS IN LATERAL DESIGN VBASE = 140 K

Table with 2 columns: Load Type and Value. Includes EXISTING SHOW ROOM WIND BASE SHEAR (V = 189.6 KIPS), SEISMIC LOADS (Ss = 0.049, Sds = 0.053), and DEFLECTION LIMITS (H/600).

**C. GENERAL**

- 1. ALL DETAILS, SECTIONS, AND NOTES SHOWN ON DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE UNLESS OTHERWISE SHOWN.
2. NO CHANGE IN SIZE, DIMENSION, OR POSITION OF STRUCTURAL ELEMENTS SHALL BE MADE...
3. CONSULT ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR LOCATIONS AND DIMENSIONS OF CHASES, INSERTS, OPENINGS, SLEEVES, DRIPS, REVEALS, FINISHES, DEPRESSIONS, DOORS, AND OTHER SUCH PROJECT REQUIREMENTS NOT SHOWN ON STRUCTURAL DRAWINGS...
4. PROVIDE ANY ALTERATIONS AND/OR ADDITIONAL COMPONENTS NEEDED TO ACCOMMODATE THE INSTALLATION OF EQUIPMENT OF ANY NATURE...
5. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AS REQUIRED TO PROPERLY CONSTRUCT THE BUILDING.
6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE STARTING CONSTRUCTION AND/OR SUBMITTING SHOP DRAWINGS FOR APPROVAL...
7. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PROTECT EXISTING AND NEW UTILITIES AND SHALL ASSUME FULL RESPONSIBILITY FOR ANY DAMAGE DURING CONSTRUCTION.
8. PROVIDE MINIMUM 4" CONCRETE PADS REINFORCED WITH #3@12" E.W. @ MID DEPTH AT ALL EQUIPMENT SUPPORTED ON SLABS ON GRADE OR ON FRAMED FLOORS (U.O.N.).
9. DO NOT SCALE DRAWINGS.
10. PIPES OF 2" DIAMETER OR LESS AND AIR DUCTS MAY BE SUSPENDED DIRECTLY FROM THE COMPOSITE DECK SLAB...
11. THE WEB AND BOTTOM FLANGE OF STEEL BEAMS SHALL NOT BE USED FOR THE LATERAL SUPPORT OF CLADDING SYSTEMS UNLESS KICKER IS PROVIDED AT THE POINT OF BRACING...
12. ALL CMU WALLS ON ELEVATED FRAMED FLOORS ARE INDICATED ON THE STRUCTURAL DWGS. NO CMU WALLS ON ELEVATED FRAMED FLOORS SHOULD BE ADDED OR RELOCATED W/O PRIOR APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD.

**D. EARTHWORK/ FOUNDATION UNDERPINNING**

- 1. ALL EARTH WORK MUST BE OBSERVED BY A GEOTECHNICAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT LOCATION.
2. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR SHORING AND BRACING OF THE BUILDING EXCAVATION EMBANKMENT INCLUDING THE EXCAVATION FOR UTILITIES AND UNDERPINNING OF EXISTING BUILDING FOUNDATIONS...
3. CONTRACTOR SHALL SUBMIT SHEETING AND SHORING/ UNDERPINNING SHOP DRAWINGS AND CERTIFICATIONS, SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF THE PROJECT LOCATION...
4. CONTRACTOR SHALL COORDINATE THE EXTENT OF THE EXCAVATION, SHORING AND BRACING WITH CIVIL DRAWINGS. CONTRACTOR SHALL ALSO REFER TO CIVIL DRAWINGS AND SPECIFICATIONS AND GEOTECHNICAL REPORT FOR DETAILING AND RELATED INFORMATION NOT COVERED IN THE STRUCTURAL DRAWINGS.

**F. FOUNDATION**

- 1. STRUCTURAL DRAWINGS WERE PREPARED BASED ON THE FINAL GEOTECHNICAL REPORT DATED SEPTEMBER 8, 2021 PROVIDED BY KSM ENGINEERING AND TESTING
2. ANCHORAGE FOOTINGS SHALL BEAR ON 3,000 P.S.F. SOIL. NO FOOTING SHALL BE PLACED PRIOR TO THE APPROVAL OF THE SOIL BEARING CAPACITY...
3. FILL UNDER SLABS ON GRADE SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT RECOMMENDATIONS AND NOTES ON THE DRAWINGS...
4. BACKFILL BEHIND MASONRY/CONCRETE WALLS SHALL NOT COMMENCE UNTIL THE WALL HAS ATTAINED 75% OF ITS DESIGN STRENGTH...
5. IF EXISTING FILL OR OTHER UNSUITABLE MATERIAL IS ENCOUNTERED IT SHALL BE REMOVED AND REPLACED WITH COMPACTED STRUCTURAL FILL OR LEAN CONCRETE
6. EARTH RETAINING STRUCTURES HAVE BEEN DESIGNED FOR THE FOLLOWING LATERAL EARTH PRESSURE.
ACTIVE PRESSURE 40H PSF (NON-HYDROSTATIC PRESSURE)
PASSIVE PRESSURE 3500 PSF
FRICTION FACTOR 0.4

**F. CONCRETE**

- 1. ALL CONCRETE SHALL BE CONTROLLED CONCRETE, NORMAL WEIGHT (UNLESS OTHERWISE NOTED) WITH COMPRESSIVE STRENGTH AT 28 DAYS AS FOLLOWS:
SLAB ON GRADE f'c= 4,000 psi
TYPICAL (UNLESS OTHERWISE NOTED) f'c= 4,000 psi
CONCRETE OVER COMPOSITE METAL DECK
Light Weight (110 pcf ± 5 pcf) f'c= 4,000 psi
GROUT FOR CMU WALLS f'c= 2,000 psi
EXPOSED TO WEATHER f'c= 4,500 psi W/C=0.5 MAX
2. CONCRETE SHALL NOT BE DROPPED THROUGH REINFORCING STEEL SO AS TO CAUSE SEGREGATION OF AGGREGATES...
3. ALL CONCRETE WORK SHALL CONFORM TO THE LATEST APPROVED EDITIONS OF THE APPLICABLE A.C.I. DOCUMENTS.
4. CONCRETE MIX DESIGNS SHALL BE MADE BY AN APPROVED LABORATORY FOR ALL CONCRETE AND SHALL BE SUBMITTED TO THE ARCHITECT AND ENGINEER FOR APPROVAL BEFORE USE.
5. ALL CALCIUM CHLORIDE SHALL NOT BE PERMITTED IN CONCRETE IN ANY FORM.
6. ALL CONCRETE EXPOSED TO WEATHER AND WITHIN 4'-0" OF FINISHED GRADE SHALL BE AIR ENTRAINED 4% - 6%.
7. IT IS NOT PERMISSIBLE TO DELAY THE APPLICATION OF CURING COMPOUND UNTIL THE MORNING AFTER THE CONCRETE IS CAST.
8. BEFORE FRESH CONCRETE IS PLACED AGAINST CONCRETE IN PLACE, THE CONTACT SURFACES OF CONCRETE IN-PLACE SHALL BE THOROUGHLY CLEANED...
9. ALL KEYS SHALL BE 1-1/2" DEEP UNLESS OTHERWISE NOTED ON THE DRAWINGS.
10. FOR SLABS ON GRADE, PROVIDE CONTROL OR CONSTRUCTION JOINTS AT A SPACING NOT TO EXCEED 20 FT, OR AS INDICATED ON STRUCTURAL DWGS...
11. CONCRETE CAST ON SLOPED SURFACES SHALL BEGIN AT THE LOWEST ELEVATION AND CONTINUE MONOTONICALLY TOWARD THE HIGHER ELEVATION UNTIL THE INTENDED POOR IS COMPLETED.
12. PROVIDE 3/4" CHAMFER ON ALL EXPOSED CONCRETE EDGES UNLESS OTHERWISE NOTED.
13. CONDUITS IN CONCRETE SLABS SHALL BE SPACED SUCH THAT THE CENTER TO CENTER DISTANCE BETWEEN CONDUITS IS A MINIMUM OF THREE TIMES THE OUTSIDE DIAMETER OF THE LARGEST CONDUIT.
14. CONDUITS IN CONCRETE SLAB HAVING OUTSIDE DIAMETER LARGER THAN ONE THIRD OF THE SLAB THICKNESS SHALL NOT BE PERMITTED...
15. ALUMINUM CONDUITS WILL NOT BE PERMITTED IN CONCRETE ELEMENTS.
16. LIGHTWEIGHT CONCRETE FILL OF SLAB DEPRESSIONS SHALL BE REINFORCED WITH FIBER REINFORCING.
17. PROVIDE 2 # 4 x 4'-0" AT SLAB MID DEPTH AT ALL RE-ENTRANT CORNERS OF FLOOR SLAB (BOTH ELEVATED & S.O.G.)

**G. REINFORCING STEEL**

- 1. ALL REINFORCING STEEL, INCLUDING STIRRUPS AND TIES, SHALL BE HIGH STRENGTH, NEW BILLET STEEL CONFORMING TO ASTM DESIGNATION A-615 GRADE 60 (fy = 60,000 PSI), ALL REINFORCING TO BE WELDED SHALL CONFORM TO ASTM A-706 GRADE 60.
2. ALL REINFORCING SHALL BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE WITH ACI-315 "MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES" (LATEST EDITION).

**U.O.N. ON STRUCTURAL DRAWINGS, PROVIDE MINIMUM CONCRETE PROTECTION FOR REINFORCING, AS FOLLOWS:**

Table with 2 columns: Location and Protection Value. Includes CAST AGAINST EARTH (3"), EXPOSED TO EARTH OR WEATHER (1-1/2" #6 and larger bars), NOT EXPOSED TO EARTH OR WEATHER (3/4" #11 and smaller bars and W.W.F. #14 and larger bars).

- 4. WHERE CONSTRUCTION JOINTS ARE PROVIDED, THE REINFORCEMENT SHALL PASS CONTINUOUSLY THROUGH THE JOINT AND ADEQUATE SHEAR TRANSFER REINFORCEMENT SHALL BE PROVIDED.
5. W.W.F. SHALL HAVE ENDS LAPPED ONE FULL PANEL AND SPLICE LACED WITH WIRE.
6. ALL WELDING OF REINFORCING SHALL BE DONE WITH E90XX ELECTRODES IN ACCORDANCE WITH A.W.S. SPECIFICATIONS D.1.4 (LATEST EDITION).
7. ANY MECHANICAL SPLICES USED, MUST BE "TENSION-COMPRESSION" TYPE AND SHALL COMPLY WITH ACI 318-99 SECT. 12.14.3, UNLESS OTHERWISE SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER...
8. ALL FORMWORK AND SHORING DESIGN IS THE RESPONSIBILITY OF THE CONTRACTOR.
9. FORMWORK AND SHORING DRAWINGS, TOGETHER WITH CERTIFICATION OF THE DESIGN FROM A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT, SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER.

**H. MASONRY**

- 1. ALL CONCRETE MASONRY UNITS SHALL BE HOLLOW LIGHT WEIGHT CONFORMING TO ASTM C90, WITH fm = 2000 PSI MINIMUM STRENGTH U.O.N. AND MORTAR TYPE "S" OR "M". WEIGHT OF UNITS SHALL BE 30 PSF FOR 6" UNITS, 38 PSF FOR 8" UNITS, 47 PSF FOR 10" UNITS AND 55 PSF FOR 12" UNITS...
2. PROVIDE GALVANIZED HORIZONTAL JOINT REINFORCEMENT IN FIRST AND SECOND BED JOINTS ABOVE AND BELOW OPENINGS AND IN EVERY OTHER BED JOINT ELSEWHERE...
3. FILL CMU VOIDS SOLID WITH GROUT AROUND ANCHORS, VERTICAL REBARS AND BOND BEAMS.
4. ALL TOP CONNECTIONS OF MASONRY WALLS TO STRUCTURE MUST BE DETAILED TO PROVIDE A 1" SOFT JOINT FOR INDEPENDENT VERTICAL MOVEMENT OF THE PRIMARY STRUCTURAL MEMBER ABOVE (U.O.N.).
5. ALL HOLLOW MASONRY UNITS BELOW GRADE SHALL BE FILLED SOLID W/ GROUT OR MORTAR.
6. PROVIDE 2-#6 VERTICAL REINFORCEMENT FULL HEIGHT OF WALL AT ALL JAMB LOCATIONS, U.O.N.
7. AT COLUMN LOCATIONS, ANCHOR MASONRY WALLS TO STEEL COLUMNS WITH FLEXIBLE WELD-ON TIES AT A SPACING OF 16"(MAX) ALONG THE HEIGHT OF COLUMN.
8. ALL DOUBLE-WYTHE CMU WALLS SHALL BE TIED TOGETHER WITH LADDER-TYPE HORIZ. JOINT REINFORCING ENGAGING BOTH WYTHES AT 16" O.C. VERT. U.O.N.
9. ALL BEARING MASONRY WALLS AND ALL EXTERIOR MASONRY WALLS SHALL BE REINFORCED WITH #5 BARS AT 32" O.C. ON CENTER LOCATED IN THE CENTER OF THE CMU BACKUP UNLESS NOTED OTHERWISE.
10. ALL CMU BEARING WALL CONSTRUCTION SHALL HAVE FULLY BEDDED MORTAR JOINTS, INCLUDING FACE SHELLS, HEADS AND WEBS.
11. ALL CMU REINFORCING SPLICE MUST BE 48 DIAMETERS LONG.

**I. STRUCTURAL STEEL**

- 1. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS:
ALL W SHAPES: ASTM A-992 GRADE 50 (fy=50 KSI).
ALL CHANNELS, ANGLES & PLATES: ASTM A-36.
ALL STEEL HSS: ASTM A-500 GRADE C.
ALL PLATES: A-500 GRADE B.
MILL TEST REPORTS FOR ALL ELEMENTS MUST BE SUBMITTED TO THE ARCHITECT AND ENGINEER FOR THE RECORD.
2. HIGH STRENGTH STEEL BOLTS SHALL CONFORM TO ASTM A-325 OR A-490. ANCHOR BOLTS SHALL CONFORM TO F-1554 GR. 36.
3. STEEL CONNECTIONS:
a. ALL CONNECTIONS SHALL BE DESIGNED USING ALLOWABLE STRESS DESIGN.
b. THE CONNECTIONS SHALL BE DESIGNED FOR THE REACTIONS INDICATED ON THE PLANS PLUS 10%.
c. IN CASE WHERE REACTIONS ARE NOT INDICATED, THE REACTIONS SHALL BE CALCULATED AS FOLLOWS:
(g) FOR NON-COMPOSITE BEAMS/ORDERS THE REACTIONS SHALL BE HALF THE TOTAL UNIFORM LOAD CAPACITY SHOWN ON AISC MANUAL "TABLES FOR ALLOWABLE LOADS ON BEAMS" FOR THE GIVEN STEEL SECTIONS AND SPAN.
(h) FOR COMPOSITE BEAMS/ORDERS THE REACTIONS SHALL BE HALF THE TOTAL UNIFORM LOAD CAPACITY SHOWN ON AISC MANUAL "TABLES FOR ALLOWABLE FOR ALLOWABLE LOADS ON BEAMS" FOR THE STEEL SECTIONS AND SPAN PLUS 20%.
d. NO CONNECTION SHALL BE DESIGNED FOR LESS THAN 2 KIPS OF REACTION.
e. BOLTS USED SHALL NOT BE SMALLER THAN 3/4" IN DIAMETER.
f. ANY "SLIP CRITICAL" CONNECTIONS REQUIRED SHALL BE MADE BY THE USE OF "TIGHT FIT TENSION CONTROL TYPE BOLTS" CONFORMING TO ASTM F 1552.
g. THE MINIMUM NUMBER OF BOLT ROWS PER CONNECTION SHALL BE PER THE FOLLOWING TABLE:
NOMINAL BEAM DEPTH MINIMUM # OF ROWS
6, 8, 10, 12 2
14, 16, 18 3
21, 24 4
27, 30 5
33, 36 6
40, 44 7
g. UN-STIFFENED SEATED CONNECTIONS ARE NOT ALLOWED.
h. SINGLE PLATE SHEAR CONNECTIONS, ARE PERMITTED ONLY IN ACCORDANCE WITH THE FOLLOWING RESTRICTIONS:
(a) FOR BEARING TYPE BOLTS ONLY STANDARD HOLES SHALL BE USED FOR THE CONNECTION TO THE BEAM, SHORT OR LONG SLOTTED HOLES ARE NOT PERMITTED...
(b) THE WELD SHALL BE CONSIDERED TO CARRY ONLY SHEAR. ALL MOMENT RESULTING FROM THE ECCENTRICITY SHALL BE RESISTED BY THE BOLT GROUP.
(c) THE EFFECT OF THE WELDING ON BOTH SIDES OF A GIRDER OR COLUMN WEB MUST BE ENGINEERED.

**J. SINGLE ANGLE CONNECTIONS ARE PERMITTED ONLY IN ACCORDANCE WITH THE FOLLOWING RESTRICTIONS:**

- (a) CONNECTION OF BOTH LEGS OF THE ANGLE SHALL BE BY BOLTS (SHOP & FIELD BOLTED). WELDING OF THE ANGLE TO THE SUPPORTING MEMBER IS NOT ALLOWED.
(b) THE SAME LENGTH, GAGE, NUMBER AND TYPE OF BOLTS MUST BE USED FOR BOTH LEGS OF THE ANGLE.
(c) FOR BEARING TYPE BOLTS ONLY STANDARD HOLES SHALL BE USED FOR THE CONNECTION, SHORT OR LONG SLOTTED HOLES ARE NOT PERMITTED...
k. DOUBLE ANGLE CASE I TYPE CONNECTION (WELDED TO BEAM, BOLTED TO GIRDER/ COLUMN) ARE PERMITTED WITH NO RESTRICTION.
l. DOUBLE ANGLE CASE II TYPE CONNECTION (BOLTED TO BEAM, WELDED TO GIRDER/ COLUMN) ARE PERMITTED ONLY IN ACCORDANCE WITH THE FOLLOWING RESTRICTIONS:
(a) FOR BEARING TYPE BOLTS ONLY STANDARD HOLES SHALL BE USED FOR CONNECTION TO THE BEAM, SHORT OR LONG SLOTTED HOLES ARE NOT PERMITTED...
(b) THE WELD SHALL BE CONSIDERED TO CARRY ONLY SHEAR AND MOMENT RESULTING FROM ECCENTRICITY SHALL BE RESISTED BY THE BOLT GROUP.
(c) THE EFFECT OF THE WELDING ON BOTH SIDES OF A GIRDER OR COLUMN WEB MUST BE ENGINEERED.
m. END PLATE SHEAR CONNECTIONS ARE PERMITTED WITH NO RESTRICTIONS.
n. MOMENT, TRUSS & BRACING CONNECTIONS SHALL UTILIZE SLIP CRITICAL BOLTS FOR ALL CONNECTIONS.
p. ALL STEEL TUBES CONNECTIONS TO BEAMS & COLUMNS SHALL BE END PLATE CONNECTIONS.
4. THE MINIMUM BEARING PLATE THICKNESS SHALL BE 1/2" (U.O.N.).
THE MINIMUM BOLT DIAMETER SHALL BE 3/4" (U.O.N.).
THE MINIMUM WELD THROAT SHALL BE 3/16" (U.O.N.).
5. WELDING ELECTRODES SHALL CONFORM TO ASTM SPECIFICATIONS E-70XX.
6. ALL STRUCTURAL STEEL NOT RECEIVING SPRAY-ON FIREPROOFING, INCLUDING ALL MEMBERS AND CONNECTIONS SHOWN AND NOTED ON THE DRAWINGS AS ARCHITECTUREALLY EXPOSED STRUCTURAL STEEL (AESS), SHALL BE SHOP PAINTED WITH A RUST INHIBITIVE GRAY PRIMER...
7. ALL EXPOSED TO WEATHER STEEL, INCLUDING BUT NOT LIMITED TO; ALL MASONRY SHELF ANGLES, ROOF MOUNTED MECH. EQUIP. AND SCREEN SHALL BE HOT DIP GALVANIZED.
8. BASE PLATES, BEAMS, COLUMNS, AND HARDWARE EXPOSED TO SOIL SHALL BE COVERED WITH A MINIMUM OF 3" OF CONCRETE PRIOR TO BACKFILL.
9. FABRICATE AND ERECT BEAMS WITH THE NATURAL AND MILL CAMBER UP.
10. SPLICING OF STRUCTURAL STEEL MEMBERS WHERE NOT DETAILED IS PROHIBITED.
11. NO FINAL BOLTING OR WELDING SHALL BE DONE UNTIL AS MUCH OF THE STRUCTURAL FRAMING AS WILL BE STIFFENED THEREBY HAS BEEN PROPERLY ALIGNED.
12. ALL TEMPORARY ERECTION BRACING AND THE RODS SHALL REMAIN IN PLACE UNTIL ALL STRUCTURAL MEMBERS ARE PROPERLY ALIGNED AND CONNECTED AND SHALL NOT BE REMOVED WITHOUT WRITTEN APPROVAL OF ARCHITECT, ENGINEER AND OWNER.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF ALL ERECTION PROCEDURES AND SEQUENCES.
14. REFER TO MASONRY NOTES FOR ANY ACCESSORIES REQUIRED TO BE ATTACHED TO STEEL MEMBERS FOR ANCHORING MASONRY.

**J. LINTELS**

- 1. ALL OPENINGS IN WALLS AND PARTITIONS ARE TO BE PROVIDED WITH LINTELS. LINTELS SHALL BE STRUCTURAL STEEL OR PRECAST CONCRETE AS DIRECTED.
2. ALL LINTELS SHALL HAVE A 8" MINIMUM BEARING UNLESS OTHERWISE NOTED ON DRAWINGS AND SHALL BE SET IN FULL BED OF MORTAR.
3. CONTRACTOR SHALL SHORE ALL LINTELS AS REQUIRED TO PREVENT ROTATION DURING CONSTRUCTION AND SHALL PAY PARTICULAR ATTENTION TO ECCENTRICALLY LOADED LINTELS.
4. CONTRACTOR SHALL COORDINATE SIZE, TYPE AND LOCATION OF LINTEL WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
5. ALL BEAM LINTELS LARGER THAN W 8 BEAMS TO HAVE ADJUST MASONRY ANCHORS ON EACH FACE OF WEBS SPACED AT 16" o/c.

**K. STEEL DECK**

- 1. ALL STEEL DECK CONSTRUCTION SHALL CONFORM TO SDI REQUIREMENTS AND STANDARD SPECIFICATIONS.
2. ALL STEEL DECK SHALL BE CONTINUOUS OVER A MINIMUM OF THREE SPANS U.O.N.
3. ROOF STEEL DECK
a. 3" ROOF DECK SHALL BE G90 GALVANIZED STEEL DECK WITH MINIMUM PROPERTIES AS FOLLOWS: 3"x20 Gd. TYPE N, I = 0.964 in4, Sp = 0.501 in3, Sn = 0.552 in3.
b. 3" ROOF DECK CONNECTIONS TO SUPPORTS TO BE 3/4" PUDDLE WELD ON 36/7 PATTERN.
c. ROOF DECK SIDELAP CONNECTIONS TO BE #12 TEK @ 12" O.C. MAX.

**L. OPEN WEB STEEL JOISTS -- IF USED**

- 1. FABRICATION AND ERECTION OF ALL STEEL JOISTS SHALL CONFORM TO STEEL JOIST INSTITUTE STANDARD SPECIFICATIONS IN ALL RESPECTS.
2. STEEL JOIST SUPPLIER SHALL BE A MEMBER OF THE STEEL JOIST INSTITUTE.
3. PROVIDE AND INSTALL BRIDGING IN ACCORDANCE WITH STEEL JOIST INSTITUTE STANDARDS, WHERE BRIDGING IS INTERRUPTED BY DUCTS, LIGHT FIXTURES, ETC., PROVIDE THE BRIDGING ON EACH SIDE OF THE INTERRUPTION.
4. PROVIDE BOT. CHORD EXTENSIONS FOR CEILING WHERE REQUIRED.
5. ALL ROOF JOISTS SHALL BE DESIGNED FOR A NET UPLIFT OF 15 PSF. ADD ADDITIONAL ROWS OF BRIDGING AS REQUIRED.

**M. LIGHT GAGE STEEL**

- 1. MINIMUM YIELD STRENGTH OF THE LIGHT GAGE FRAMING COMPONENTS SHALL BE 33KSI FOR 18 GA OR LIGHTER AND 50KSI FOR 16 GA AND HEAVIER.
2. MAXIMUM DEFLECTION OF WALL STUDS BACKUP FOR BRICK/MASONRY VENEER SHALL BE L/600, ALL OTHERS SHALL BE L/360. L IS THE STUD LENGTH BETWEEN ITS SUPPORTS.
3. STUD BACKUP SYSTEM SHALL BE DESIGNED AS A FLOOR TO FLOOR SYSTEM WITHOUT KICKERS.
4. LIGHT GAGE STEEL FRAMING AND THEIR CONNECTIONS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT OCCURS TO CONFORM WITH THE APPLICABLE BUILDING CODES AND GOOD DESIGN PRACTICES...

**N. SHOP DRAWINGS**

- 1. SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOWN ON THE CONTRACT DOCUMENTS MUST BE SUBMITTED BY THE CONTRACTOR AND REVIEWED BY THE ENGINEER...
2. SHOP DRAWINGS SHALL BE SUBMITTED IN PDF FORMAT ALONG WITH (1) PAPER SET PRINTED AT THE CONTRACTORS EXPENSE.
3. AT THE TIME OF SHOP DRAWING SUBMISSION, THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING OF ANY DEVIATIONS OR OMISSIONS FROM THE CONTRACT DOCUMENTS.
4. THE GENERAL CONTRACTOR / CONSTRUCTION MANAGER SHALL REVIEW ALL SHOP DRAWINGS BEFORE SUBMITTING TO ENGINEER, MAKE ALL CORRECTIONS AS HE DEEMS NECESSARY AND SHALL CERTIFY ON EACH DRAWING AS FOLLOWS:
I CERTIFY THAT THE CONTRACT DOCUMENT REQUIREMENTS HAVE BEEN MET AND ALL DIMENSIONS, CONDITIONS, AND QUANTITIES ARE VERIFIED AS SHOWN AND/OR AS CORRECTED ON THIS DRAWING.
SIGNED.....(FOR CONTRACTOR).....

- 5. REPRODUCTION OF STRUCTURAL DRAWINGS FOR USE AS SHOP DRAWINGS SHALL NOT BE PERMITTED.
6. CONTRACTOR SHALL ALLOW A MINIMUM PERIOD OF 10 WORKING DAYS REVIEW OF STRUCTURAL SHOP DRAWINGS BY THE STRUCTURAL ENGINEER.

**O. TESTING AND INSPECTION**

- 1. INSPECTION FOR ALL STRUCTURAL PORTIONS OF THE PROJECT SHALL BE PROVIDED AS REQUIRED BY THE APPLICABLE BUILDING CODE.
2. THE OWNER'S TESTING AGENCY SHALL PERFORM ALL INSPECTIONS AND TESTING.
3. THE ENGINEER MAY VISIT THE SITE TO PROVIDE CONSTRUCTION ASSISTANCE OR TO GENERALLY OBSERVE THE PROGRESS OF CONSTRUCTION...
4. ALL CONCRETE WORK SHOWN ON THESE DRAWINGS AND SPECIFIED IN THE SPECIFICATIONS SHALL BE INSPECTED IN ACCORDANCE WITH ACI-318 (LATEST EDITION), COPIES OF FIELD REPORTS, CONCRETE MIXES, CYLINDER TESTS, AND OTHER DATA SHALL BE SENT TO THE ARCHITECT, ENGINEER, AND OWNER.

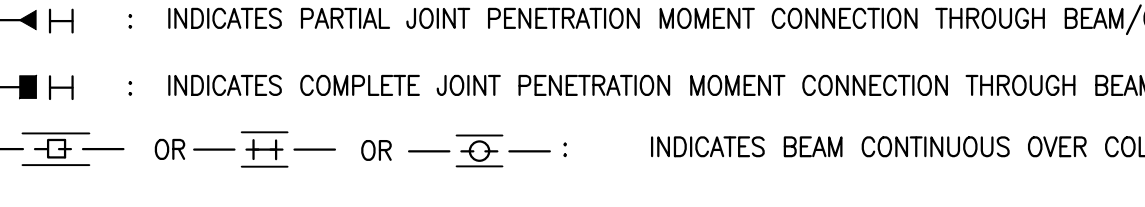
**P. STEEL STAIRS**

- 1. ALL STAIR SHOP DRAWINGS AND THEIR CERTIFICATIONS MUST BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT OCCURS.
2. ALL STAIR STRINGERS TO BE CONTINUOUS AS REQUIRED BY THE STRUCTURAL DESIGN BUT NOT LESS THAN M10x8x4. AND SHALL BE WELDED AND MITERED WHERE SPLICED OR CRIPPLED, ETC.
3. FOR TREADS AND PLATFORMS USE MINIMUM 12 GAGE STEEL SHEET, CONCRETE PAN (SEE ARCHITECTURAL DRAWINGS), FOR RISERS USE MINIMUM 12 GAGE STEEL SHEET EXPOSED (U.O.N. ON ARCHITECTURAL DRAWINGS).
4. STAIR SUPPORTS SHALL BE CONSIDERED ONLY AT THE FLOOR LANDING AND AT THE BACK OF INTERMEDIATE LANDINGS...
5. SEE ARCHITECTURAL DRAWINGS FOR STAIR LOCATIONS, DIMENSIONS AND DETAILS.

**Q. ABBREVIATIONS**

Table with 2 columns: Abbreviation and Meaning. Includes A.B. = Anchor Bolt, ADD'L = Additional, ARCH. = Architectural, AESS = Architecturally exposed structural steel, BAL. = Balance, BM. = Beam, BOT. = Bottom, B.O.D. = Bottom of Deck, C.J. = Control Joint, C.L. = Centerline, CA = Column above, C.C. = Center to Center, CL. = Clear, COL. = Column, CONC. = Concrete, CONT. = Continuous, DET. = Detail, DIA. = Diameter, DW. = Dowel, DWLS = Dowsing, EA. = Each, E.F. = Each Face, E.J. = Expansion Joint, E.L. = Elevation, E.W. = Each Way, E.O.S. = Edge Of structural Slab, EXP. = Expansion, FIN. = Finished, FL. = Floor, HORIZ. = Horizontal, H.D.S. = Hot Dip Galvanized, I.F. = Inside Face, J.T. = Joint, L.L.H. = Long Leg Horizontal, L.L.V. = Long Leg Vertical, L.W. = Long Way, MAX. = Maximum, MECH. = Mechanical, MIL. = Millimeter, MIN. = Minimum, No. = Number, NTS = Not to Scale, O.C. or O/C = On Center, O.F. = Over Face, OPNG. = Opening, P.C. = Precast Concrete, P.J.F. = Premolded Joint Filler, PL. = Plate, R = Radius, REIN.F. = Reinforce(ment), REQ'D. = Required, SCHED. = Schedule, SECT. = Section, SIM. = Similar, S.O.G. = Slab On Grade, S.S. = Stainless Steel, ST. = Steel, STD. = Standard, STIFF. = Stiffener, S.W. = Short Way, SYM. = Symmetrical, T&B = Top & Bottom, T.O.F. = Top of Footing, T.O.S.L. = Top of Structural Slab, T.O.ST. = Top of Steel Beam, T.O.W. = Top of Structural Wall, TYP. = Typical, U.O.N. = Unless Otherwise Noted, VERT. = Vertical, V.I.F. = Verify in Field, W.P. = Working Point, W.W.F. = Welded Wire Fabric

**R. SYMBOLS**



**S. POST INSTALLED ADHESIVE ANCHORS IN CONCRETE OR MASONRY**

- 1. HILTI HIT-RE 500 V3 ICC-ES-ESR-3814 (CONCRETE)
2. HILTI HIT-RE 100 ICC-ES-ESR-3829 (CONCRETE)
3. HILTI HIT-HY 200-A ICC-ES-ESR-3187 & 3963 (CONCRETE & MASONRY)
4. HILTI HIT-HY 270 ICC-ES-ESR-4143 & 4144 (CONCRETE & MASONRY)

**T. POST INSTALLED MECHANICAL ANCHORS IN CONCRETE OR MASONRY**

- 1. HILTI KWIK BOLT 3 ICC-ES-ESR-1385 (MASONRY)
2. HILTI KWIK BOLT 3 ICC-ES-ESR-2302 (CONCRETE)
3. HILTI KWIK BOLT T2 ICC-ES-ESR-1917 (CONCRETE)



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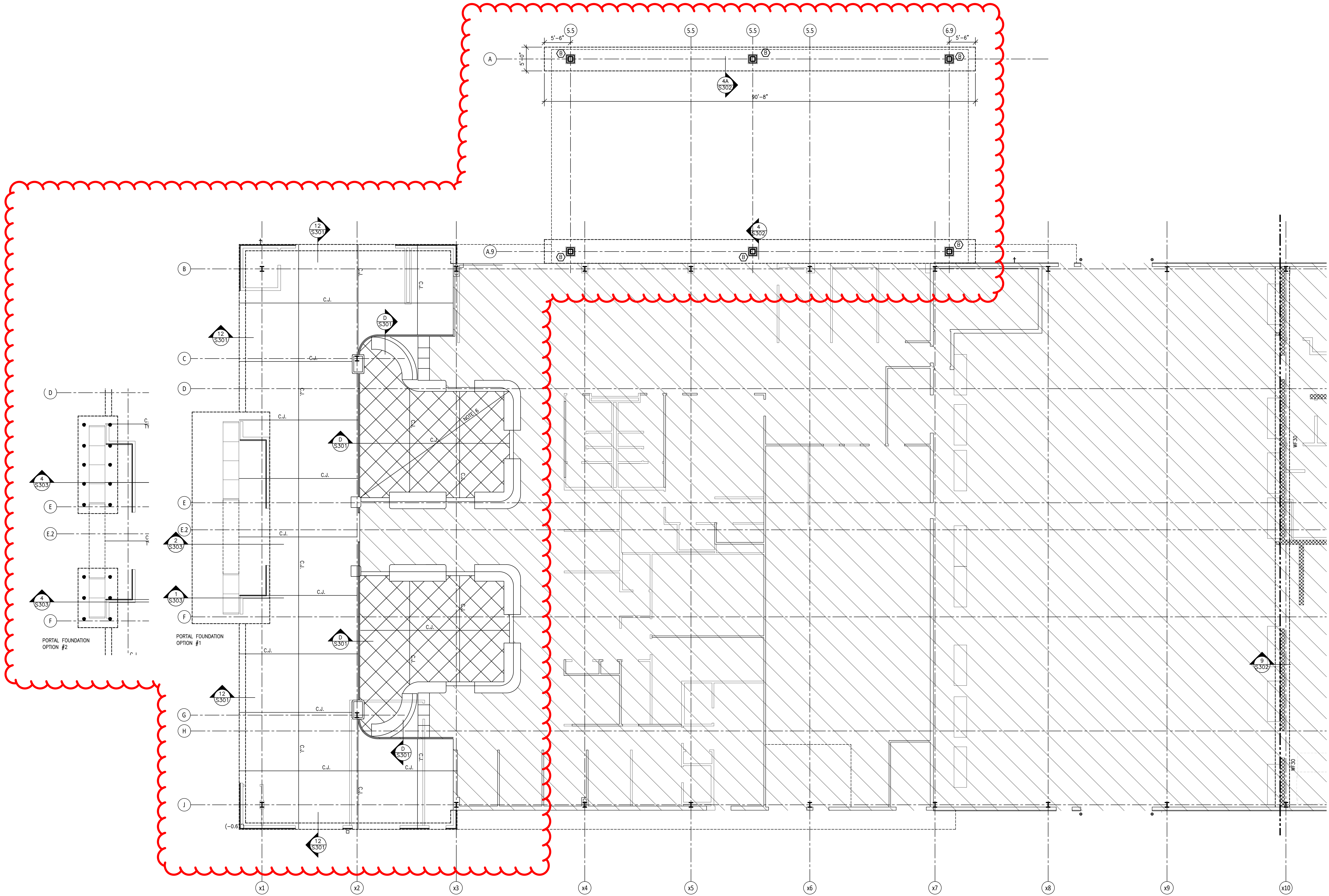
I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Florida, license number: 12488, expiration date: 01-28-2023.

Table with 2 columns: Description and Date. Includes Permit/Bid Set (09/24/2021), 90 % Progress (07/30/2021), Progress (06/24/2021), No. Issue / Revision, Date, Drawn By: NRD, Checked By: MWD, Plot Date: September 30, 2021

Table with 2 columns: Description and Date. Includes Sheet Number, Sheet Title: GENERAL NOTES, Project Number: DEI 221018, File Name

Sheet Number
GENERAL NOTES

Permit/Bid Set	09/24/2021
90 % Progress	07/30/2021
Progress	06/24/2021
No. Issue / Revision	Date
Drawn By:	NRD
Checked By:	MWD
Plot Date:	September 30, 2021



**PART. FOUNDATION PLAN** SCALE : 1/8" = 1'-0"

1. SLAB ON GRADE TO BE 5" THICK CONCRETE REINF W/ 6 X 6 X W2.9 X W2.9 WWM, OVER 10 MIL VAPOR BARRIER.
2. TOP OF SLAB ELEVATION = 100.00' NAVD (DATUM), U.N.O.
3. ELEVATION TOP OF FOOTING ON GRADE BEAM NOTED (XXX.XX') IN PLAN.
4. SLAB CONTROL JOINTS NOTED C.J. IN PLAN. SEE DETAIL A/S301
5. AREA NOTED W/ [diagonal hatching] IS EXISTING SLAB ON GRADE.
6. AREA NOTED W/ [cross-hatching] IS FILLED IN #57 STONE AND TOPPED WITH SLAB PER NOTE 1





I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Florida, license number PCB148, expiration date 02-28-2023.

Permit/Bid Set	09/24/2021
90 % Progress	07/30/2021
Progress	06/24/2021
No.	Date
Drawn By:	MWD
Checked By:	MWD
Plot Date:	September 30, 2021

Sheet Number  
**S103**  
Sheet Title  
**SCHEDULES**

COLUMN SCHEDULE		(A)	(E)
PARAPET			
GARAGE EXTENSION			
ELEV. = 23.00'			
SERVICE DRIVE LANE			
ELEV. = 17.00'			
SHOWROOM FLOOR			
ELEV. = 0.00'			
BASE PL. ANCHOR BOLTS			

MILL ALL COLUMN ENDS.

LINTEL SCHEDULE		
MARK	SIZE	REMARKS
L-1	L4 x 3/2" x 3/4" FOR EACH 4" THICKNESS OF WALL	FOR OPENINGS UP TO 5'-0"
L-2	L6 x 3/2" x 3/4" FOR EACH 4" THICKNESS OF WALL	FOR OPENINGS 5'-1" TO 10'-0"
L-3	W 8 x 13 + 3/4" SUS. PLATE W/ 1/4" HANGERS AT 24" o/c	AS SHOWN
L-4	W 12 x 14 + 3/4" SUS. PLATE W/ 1/4" HANGERS AT 24" o/c	AS SHOWN
L-5	W 14 x 22 + 3/4" SUS. PLATE W/ 1/4" HANGERS AT 24" o/c	AS SHOWN
L-6	W 16 x 26 + 3/4" SUS. PLATE W/ 1/4" HANGERS AT 24" o/c	AS SHOWN
L-7	W 21 x 48 + 3/4" SUS. PLATE W/ 1/4" HANGERS AT 24" o/c	AS SHOWN
P	8" PRECAST CONC. WITH #5 T + B FOR EACH 4" WYTHE OF MAS.	AS SHOWN

ALL OPENINGS IN WALLS AND PARTITIONS ARE TO BE PROVIDED WITH LINTELS. LINTELS SHALL BE STRUCTURAL STEEL OR PRECAST CONCRETE AS DIRECTED. ALL LINTELS SHALL HAVE A 8" MINIMUM BEARING UNLESS OTHERWISE NOTED ON DRAWINGS AND SHALL BE SET IN FULL BED OF MORTAR. CONTRACTOR SHALL SHORE ALL LINTELS AS REQUIRED TO PREVENT ROTATION DURING CONSTRUCTION AND SHALL PAY PARTICULAR ATTENTION TO ECCENTRICALLY LOADED LINTELS. CONTRACTOR SHALL COORDINATE SIZE, TYPE AND LOCATION OF LINTEL WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.

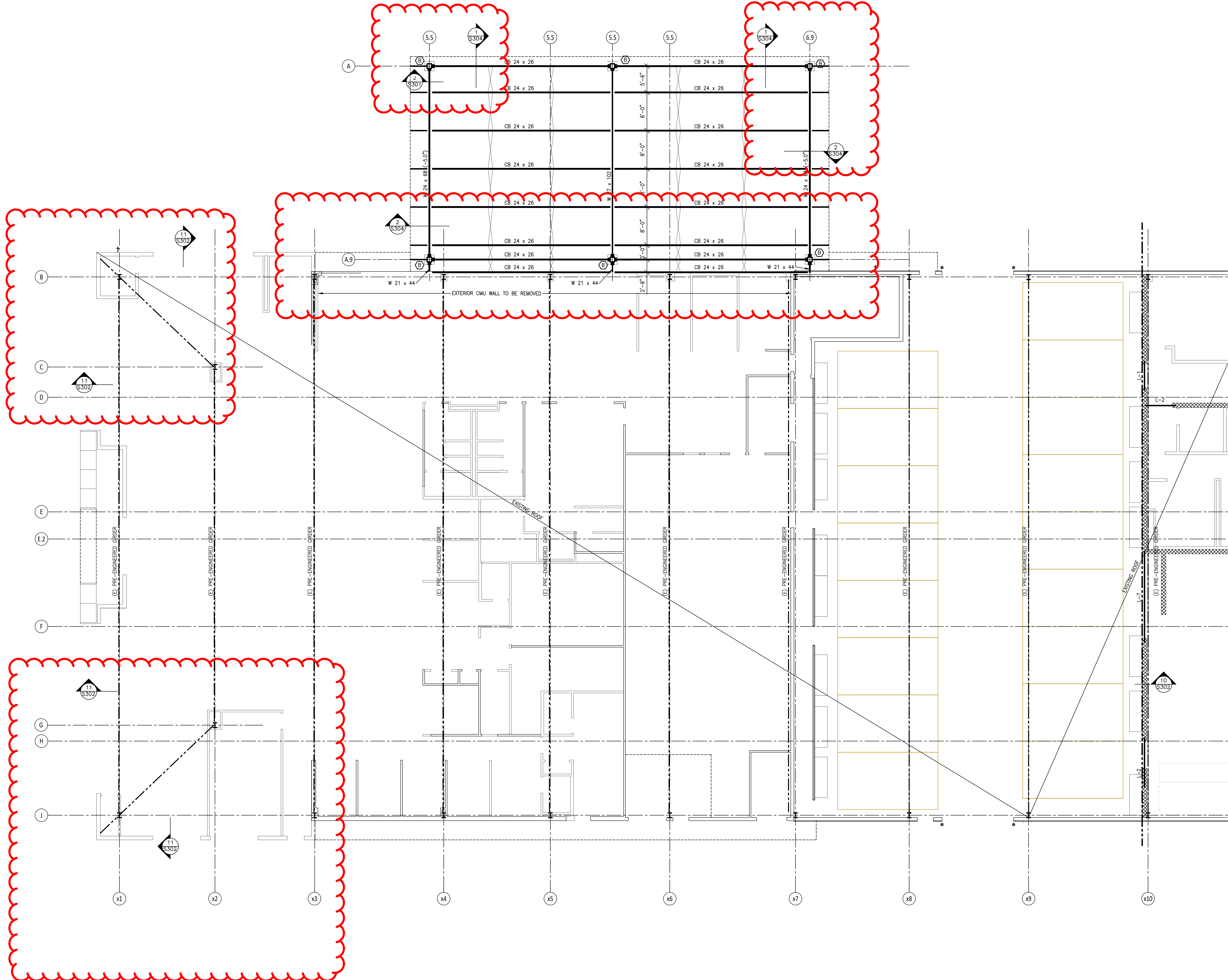
ALL BEAM LINTELS LARGER THAN W 8 BEAMS TO HAVE ADJUST MASONRY ANCHORS ON EACH FACE OF WEBS SPACED AT 16" o/c.

ALL EXTERIOR LINTEL TO BE HOT DIPPED GALVANIZED STEEL

WALL FOOTING SCHEDULE				
TYPE	SIZE		TRANSVERSE	HORIZONTAL
	W	D		
WF30	3'-0"	18"	#6 @ 12" O/C	(4) #6 CONT

USE WF30 U.N.O.

COLUMN FOOTING SCHEDULE			
TYPE	SIZE		BOTT. BARS EW
	W X L	D	
F66	6'-6" x 6'-6"	12"	(8) #6



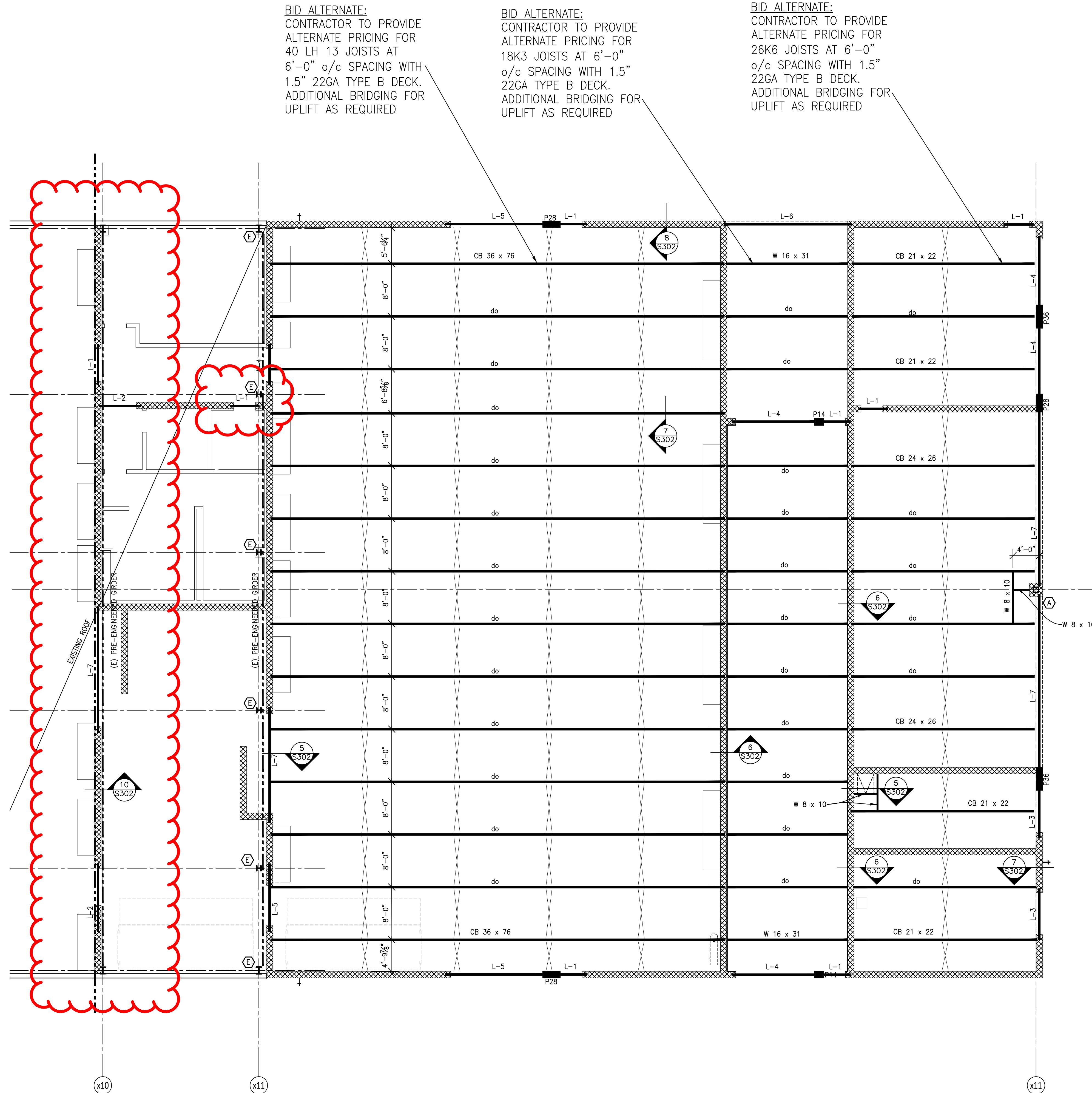
**ROOF FRAMING PLAN**

SCALE : 1/8" = 1'-0"

1. ROOF DECK TO BE 3", 20GA, TYPE NL, GALV. METAL DECK W/ MIN. PROPERTIES: Smin=0.448 in3, Imin=0.806 in4. U.N.O. USE DECK WELD PATTERN 36/7 AT ALL BOUNDARY EDGES.
2. BOTTOM OF DECK (B.O.D) BEARING NOTED IN PLAN ARE TAKEN FROM DATUM ELEVATION.
3. CB BMS ARE BY STEEL FAB OR APPROVED EQUAL.

Permit/Bid Set	09/24/2021
90 % Progress	07/30/2021
Progress	06/24/2021
No. Issue / Revision	Date
Drawn By: NRO	
Checked By: MWD	
Plot Date:	September 30, 2021

Sheet Number  
**S201**  
Sheet Title  
**PART. ROOF FRAMING PLAN**



**ROOF FRAMING PLAN**

SCALE : 1/8" = 1'-0"

1. ROOF DECK TO BE 3", 20GA, TYPE NL, GALV. METAL DECK W/ MIN. PROPERTIES: Smin=0.448 in<sup>3</sup>, lmin=0.806 in<sup>4</sup>. U.N.O. USE DECK WELD PATTERN 36/7 AT ALL BOUNDARY EDGES.
2. BOTTOM OF DECK (B.O.D) BEARING NOTED IN PLAN ARE TAKEN FROM DATUM ELEVATION.
3. CB BMS ARE BY STEEL FAB OR APPROVED EQUAL.

Permit/Bid Set	09/24/2021
90% Progress	07/30/2021
Progress	06/24/2021
No. Issue / Revision	Date
Drawn By: NRO	
Checked By: MWD	
Plot Date:	September 30, 2021

Sheet Number  
**S202**  
Sheet Title  
**PART. ROOF FRAMING PLAN**

ASCE-7 DESIGN WIND ROOF PRESSURE *		
ZONE	PRESSURE (PSF)	
	POSITIVE (+)	NEGATIVE (-)
1 / (FIELD)	+20.7	-80.2
1'	+20.7	-58.9
2	+20.7	-106.5
3	+20.7	-126.8

\* BASED ON ALLOWABLE V-ULT SPEED OF 160 M.P.H.  
\* ALL DESIGN VALUES SHALL BE MULTIPLIED BY 1.40 PER ASCE7-16 SECTION 28.5.3  
\* ALL DELEGATED DESIGN SHALL USE THE APPLICABLE COMPONENTS AND CLADDING WIND PRESSURES AS SHOWN ABOVE.

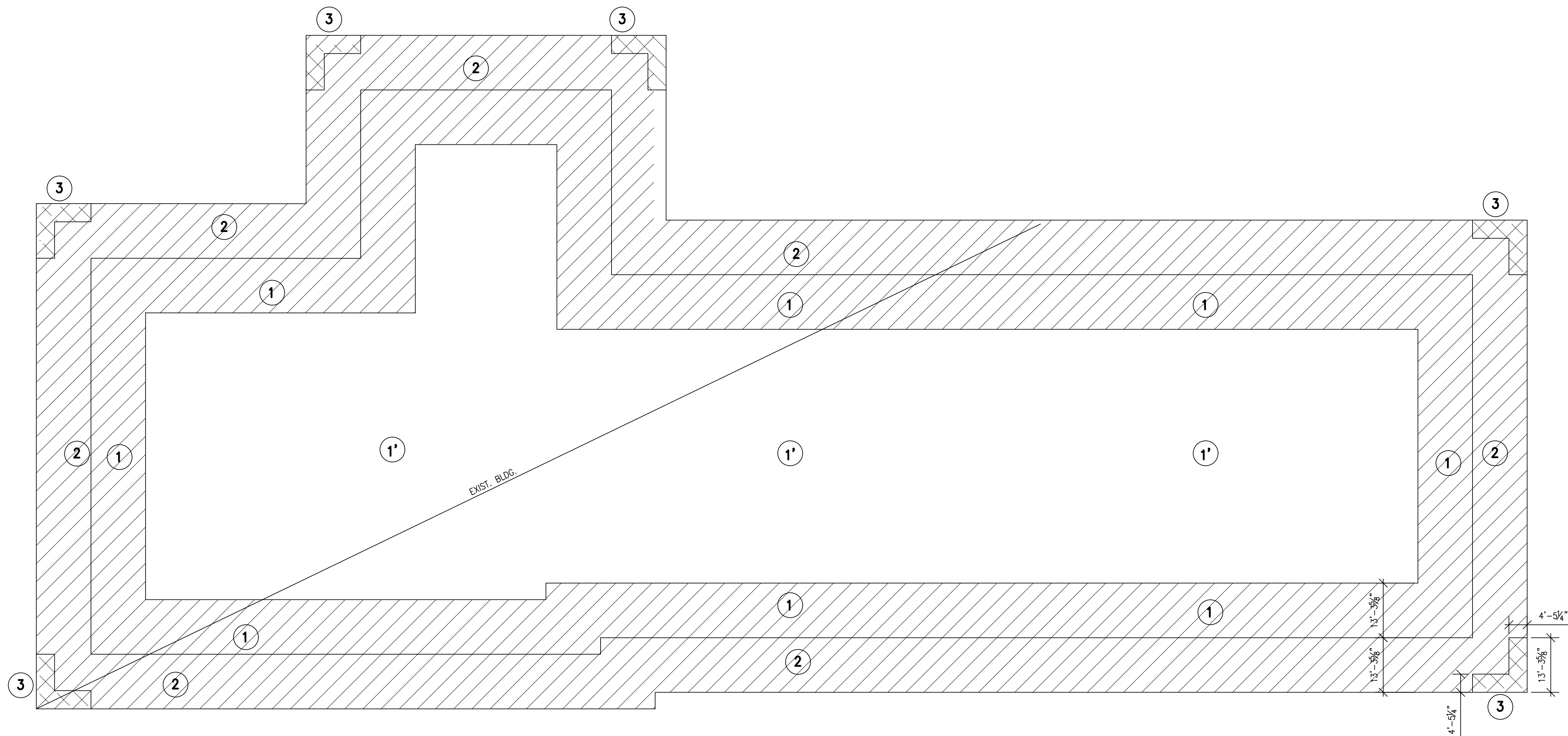
ROOF OVERHANG NET DESIGN PRESSURE *		
ZONE	EFF. WINDED AREA (SF.)	PRESSURE (PSF)
		NEGATIVE (-)
2	10	-66
2	20	-64
2	50	-63
2	100	-62
3	10	-108
3	20	-85
3	50	-54
3	100	-31

\* BASED ON ALLOWABLE V-ULT SPEED OF 160 M.P.H.  
\* ALL DESIGN VALUES SHALL BE MULTIPLIED BY 1.40 PER ASCE7-16 SECTION 28.5.3  
\* ALL DELEGATED DESIGN SHALL USE THE APPLICABLE COMPONENTS AND CLADDING WIND PRESSURES AS SHOWN ABOVE.

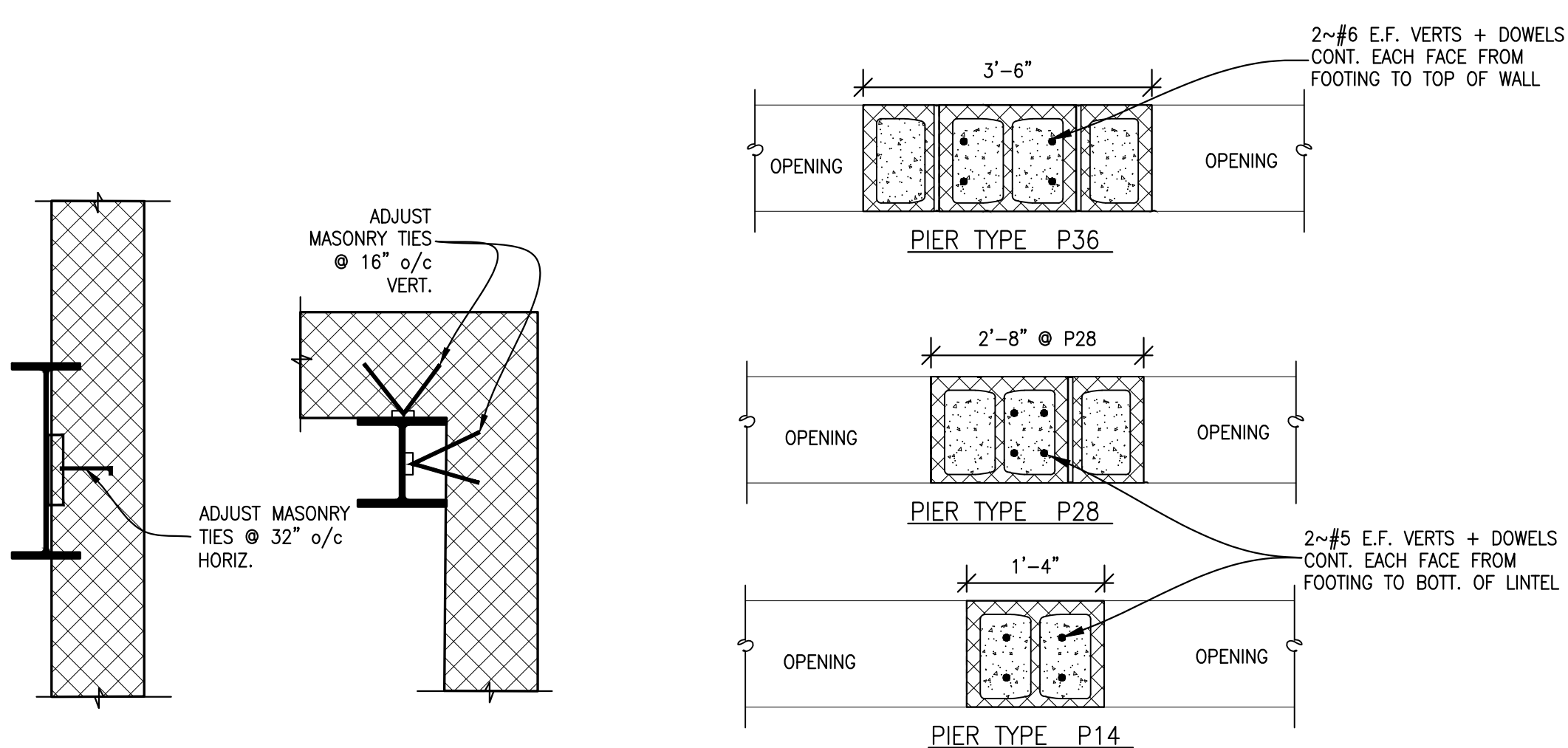
**COMPONENTS & CLADDING PRESSURES \***

ZONE	EFF. WINDED AREA (SF.)	PRESSURE (PSF)	
		POSITIVE (+)	NEGATIVE (-)
WALLS	4	+46.1	-50.0
	4	+44.0	-47.9
	4	+41.2	-45.1
	4	+39.2	-43.1
	5	+46.1	-61.7
	5	+44.0	-57.5
	5	+41.2	-52.0
	5	+39.2	-47.9
	1	+18.7	-73.4
	1	+17.6	-68.5
ROOF	1	+16.0	-62.1
	1	+14.8	-57.3
	1	+18.7	-42.1
	1	+17.6	-42.1
	1	+16.0	-42.1
	1	+14.8	-42.1
	2	+18.7	-96.8
	2	+17.6	-90.6
	2	+16.0	-82.3
	2	+14.8	-76.1
3	+18.7	-131.9	
3	+17.6	-119.5	
3	+16.0	-103.0	
3	+14.8	-90.6	

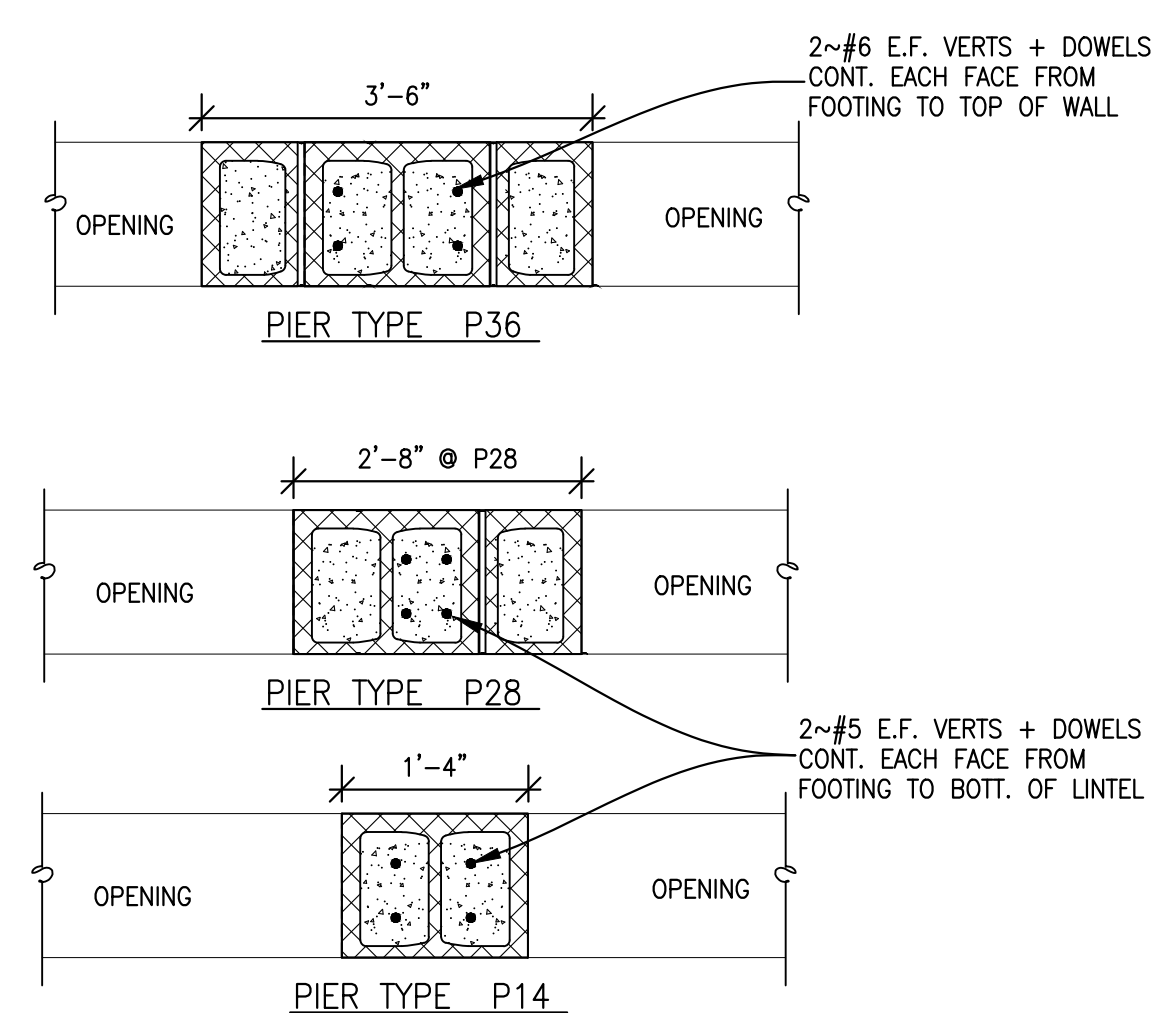
\* BASED ON ALLOWABLE V-ULT SPEED OF 160 M.P.H.  
\* ALL DESIGN VALUES SHALL BE MULTIPLIED BY 1.40 PER ASCE7-16 SECTION 30.4.2  
\* ALL DELEGATED DESIGN SHALL USE THE APPLICABLE COMPONENTS AND CLADDING WIND PRESSURES AS SHOWN ABOVE.



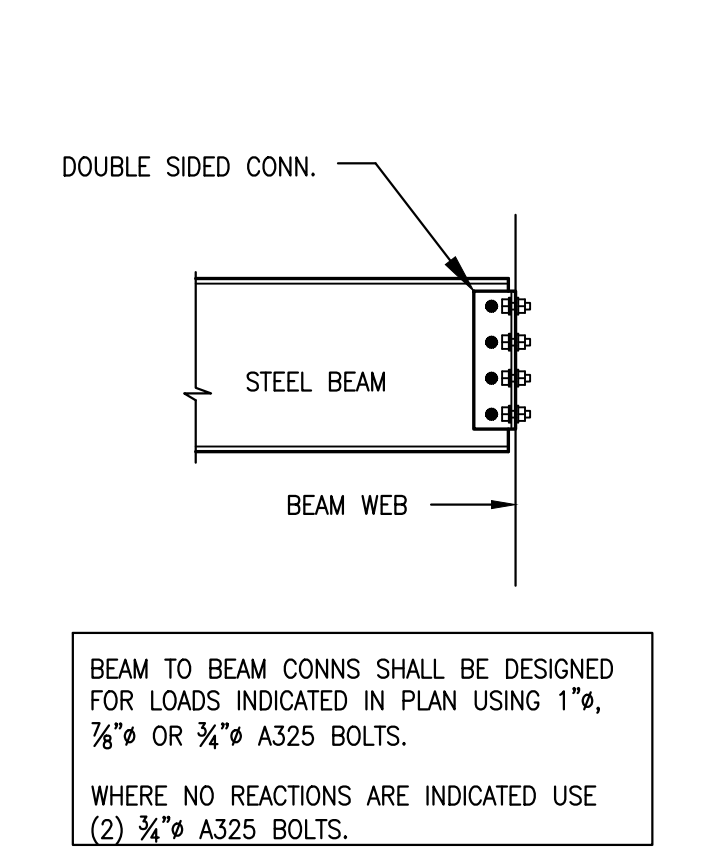
**ASCE-7 ROOF LOADS/ZONES** SCALE : 1/8" = 1'-0"  
NORTH



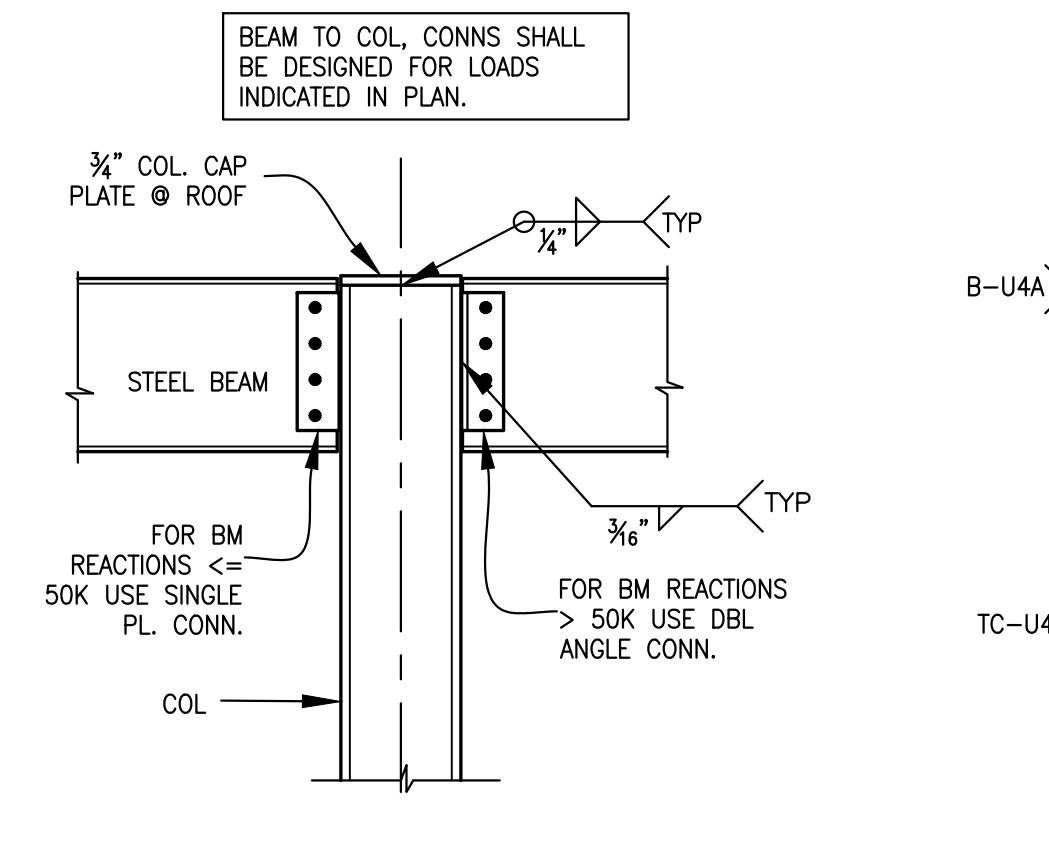
**DETAIL L** ~N.T.S.  
S301 TYP. STEEL TIES AT MASONRY



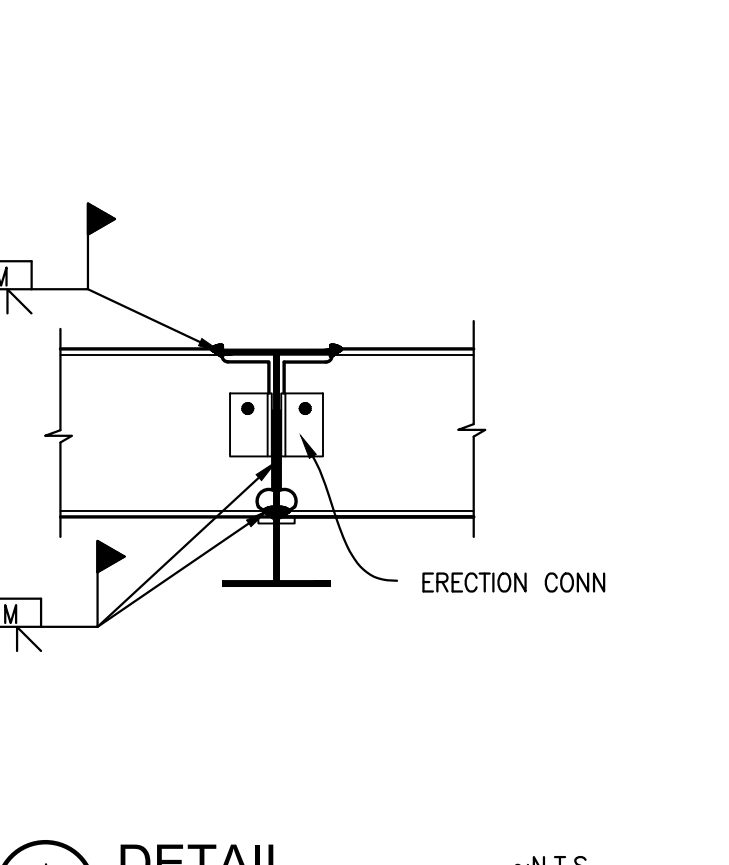
**DETAIL M** ~N.T.S.  
S301 MASONRY REINFORCING AT PIERS



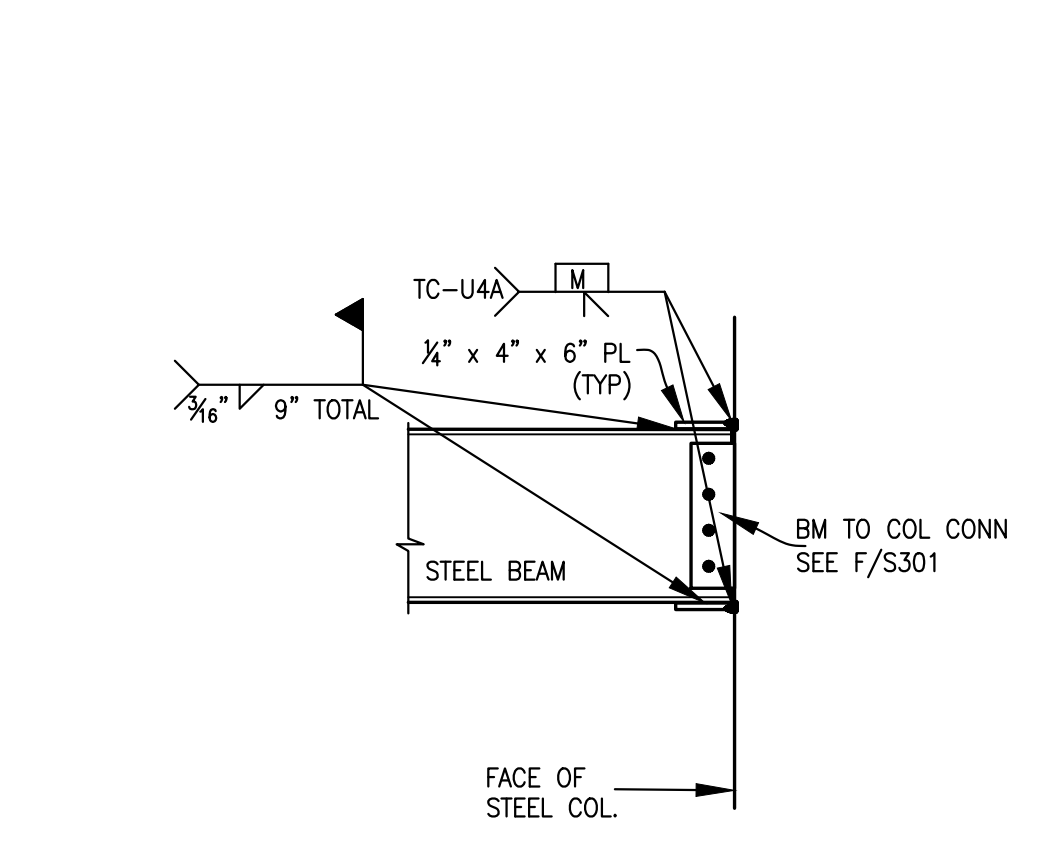
**DETAIL G** ~N.T.S.  
S301 BEAM TO BEAM CONNECTIONS



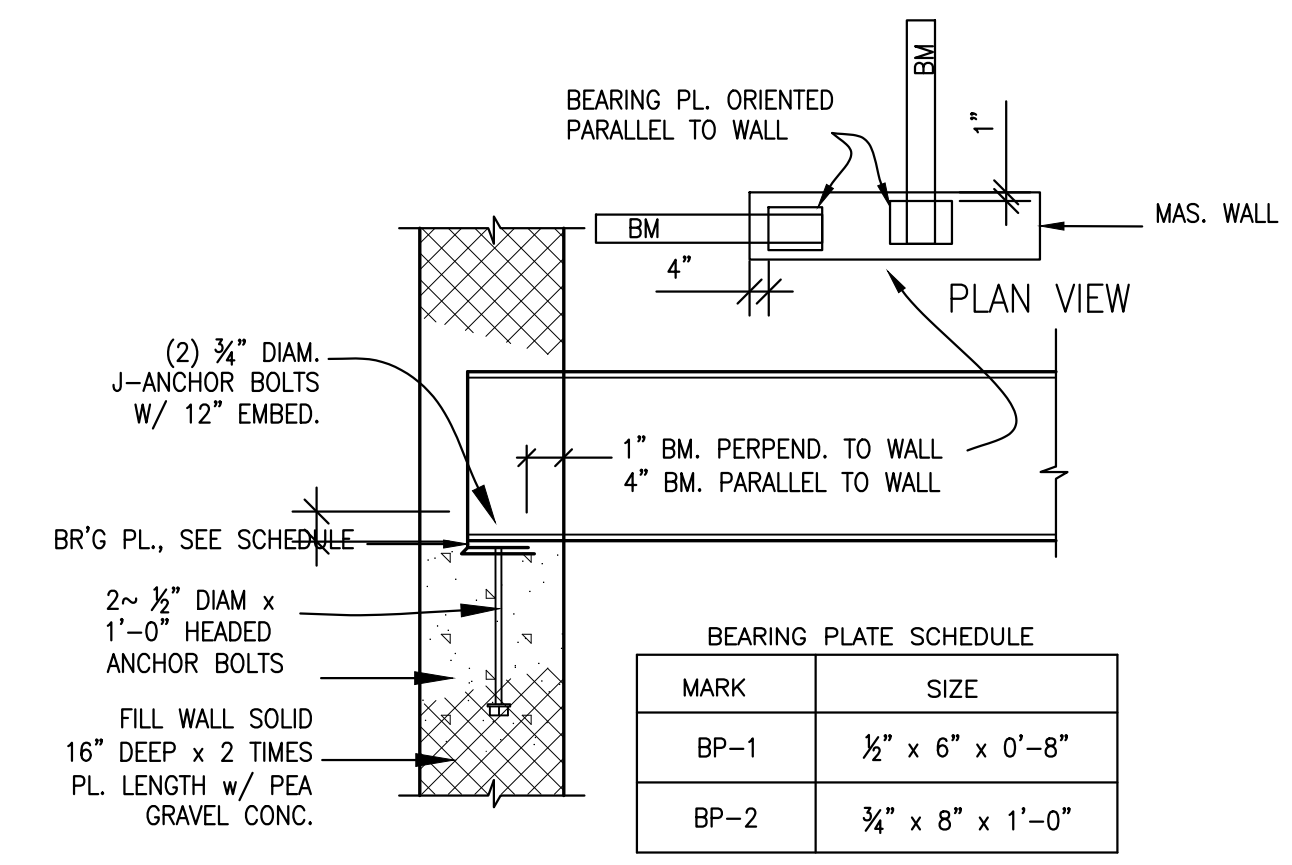
**DETAIL H** ~N.T.S.  
S301 TYP. BEAM TO COL. CONN.



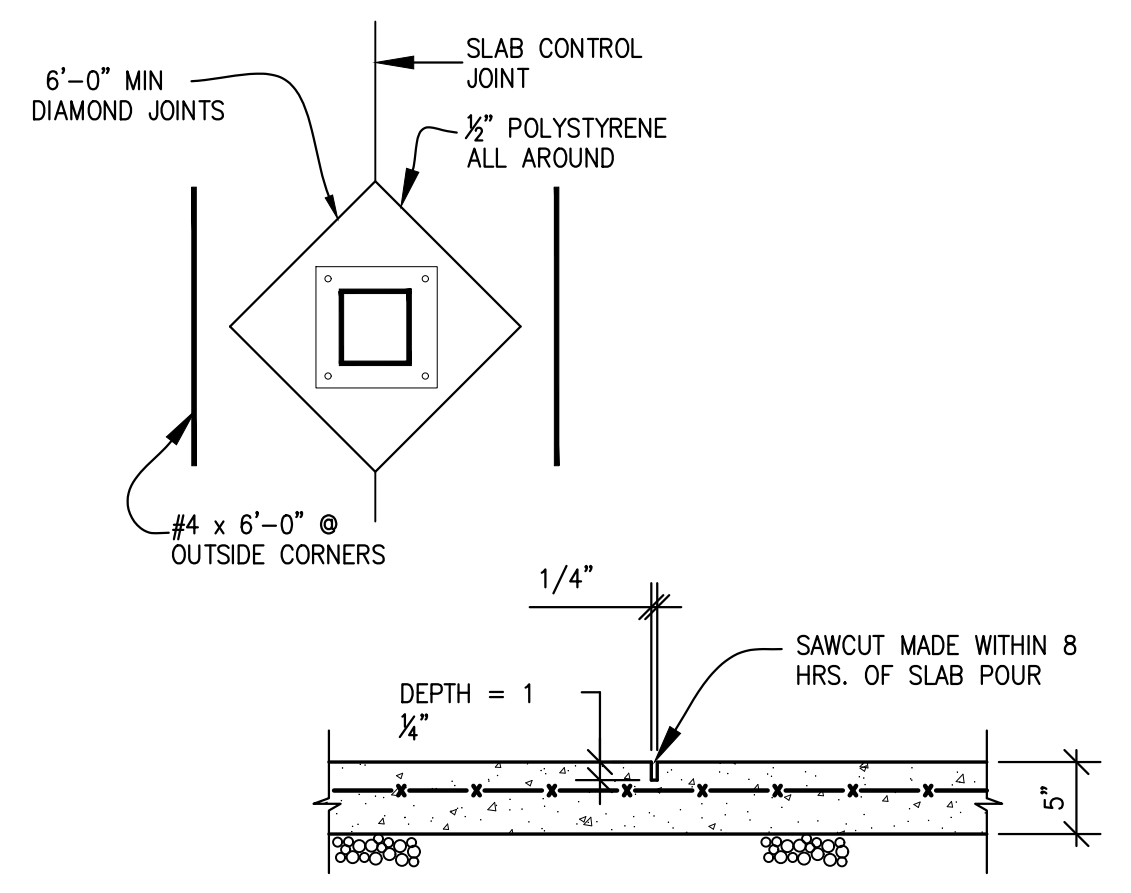
**DETAIL I** ~N.T.S.  
S301 TYP. C.J.P. MOMENT CONNECTION @ BEAMS  
NOTE: ALL CJP WELDS TO BE 100% INSPECTED.



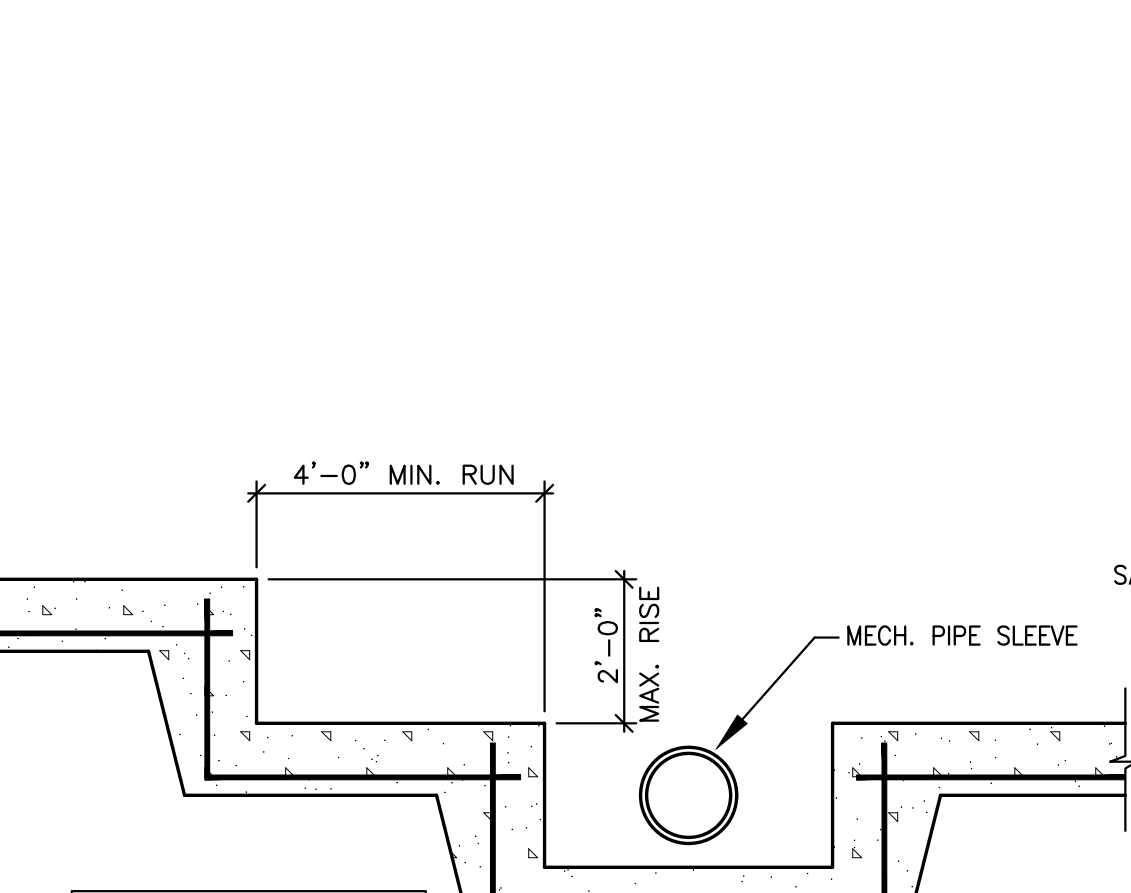
**DETAIL J** ~N.T.S.  
S301 TYP. MOMENT CONNECTIONS



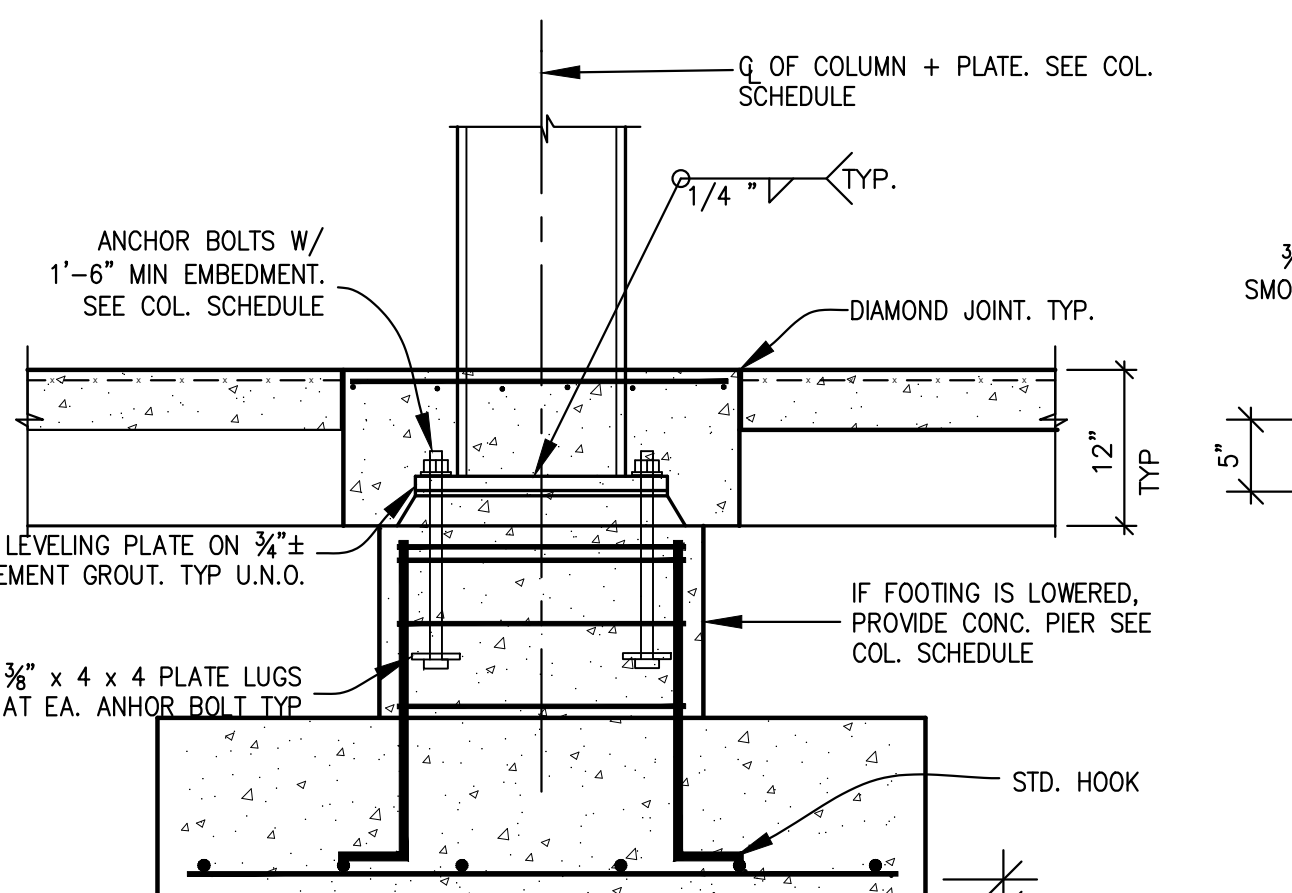
**DETAIL K** ~N.T.S.  
S301 TYP. BEAM BEARING ON MASONRY



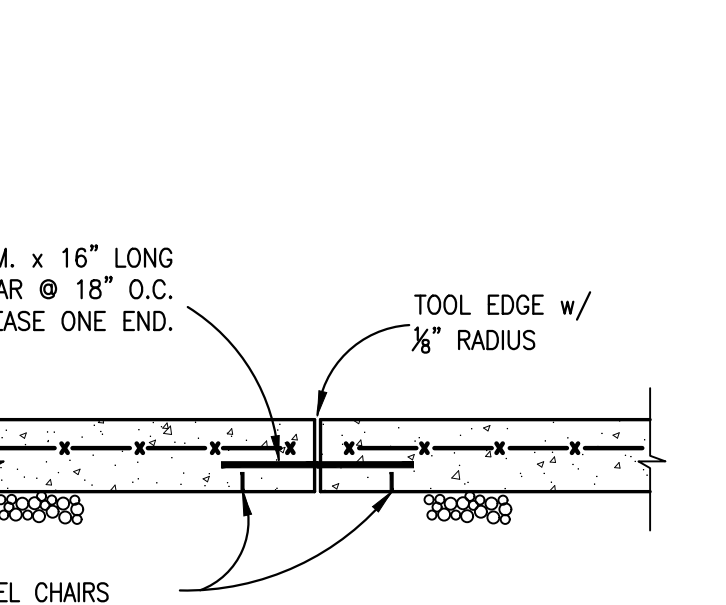
**DETAIL A** ~N.T.S.  
S301 TYP. SLAB CONTROL JOINTS



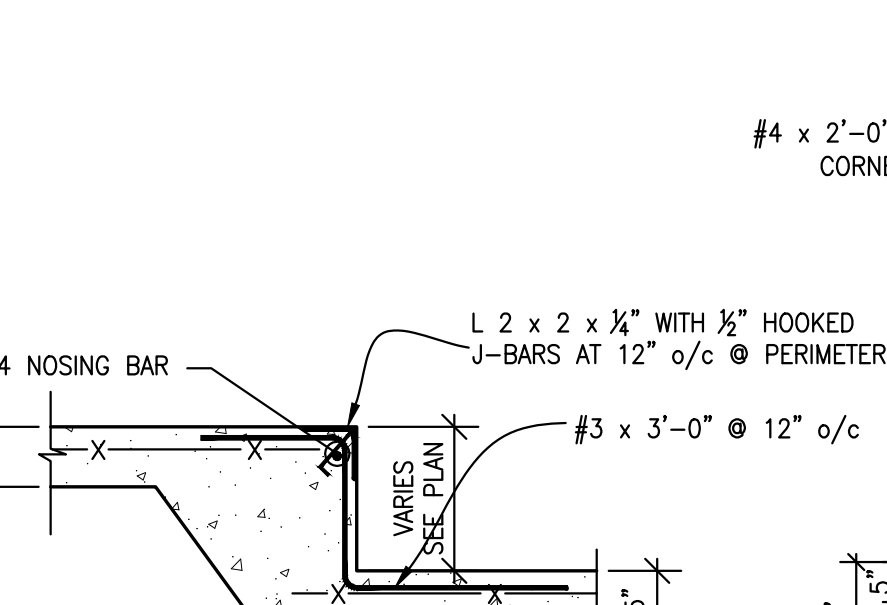
**DETAIL B** ~N.T.S.  
S301 TYP. EXTERIOR STEP FOOTING AS REQ'D TO PASS UNDER PIPES



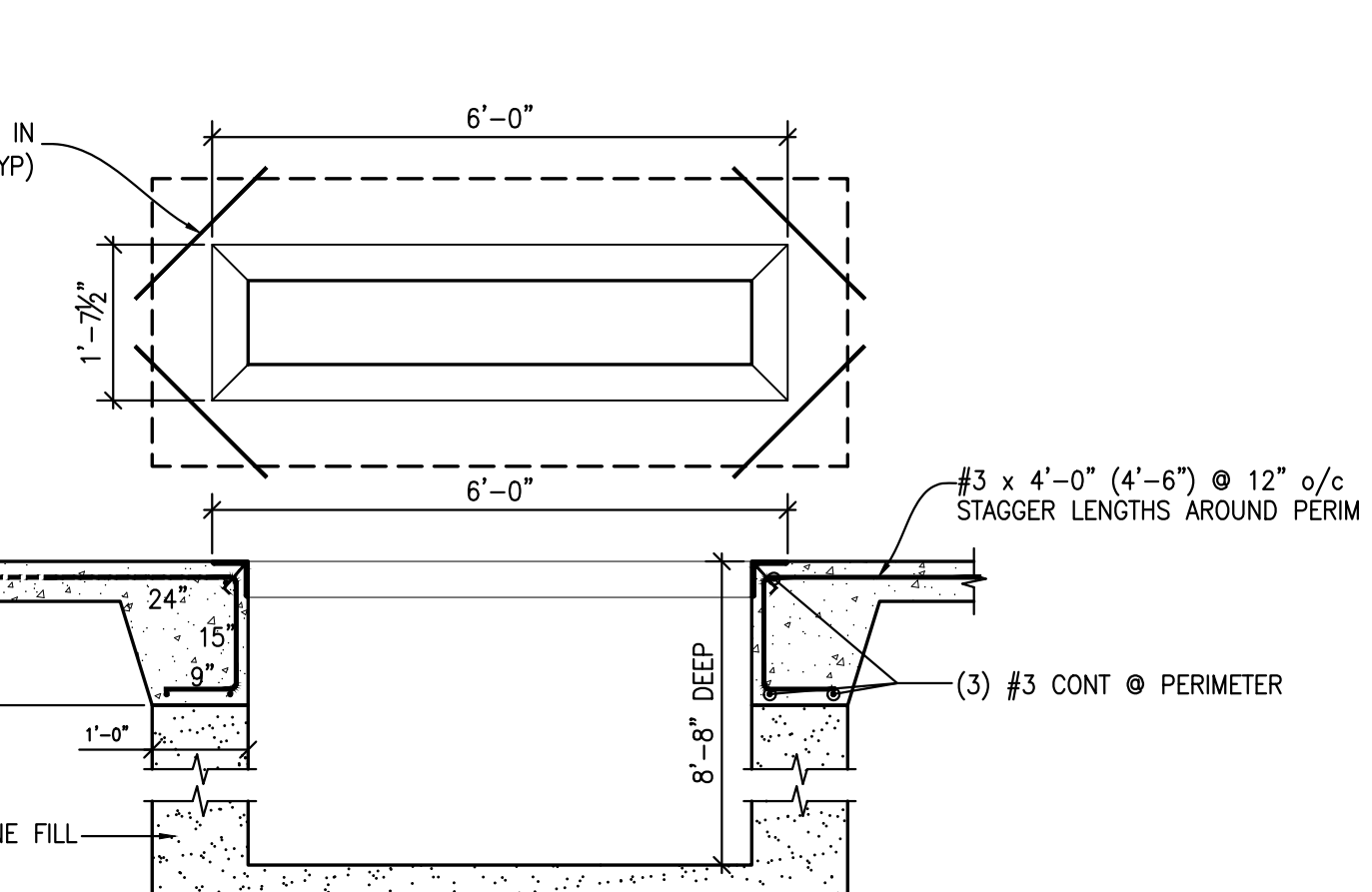
**DETAIL C** ~N.T.S.  
S301 TYP. COLUMN FOOTING



**DETAIL D** ~N.T.S.  
S301 NEW TO EXISTING SLAB DETAIL



**DETAIL E** ~N.T.S.  
S301 RECESSED SLAB



**DETAIL F** ~N.T.S.  
S301 LIFT PIT

Permit/Bid Set	09/24/2021
50% Progress	07/30/2021
Progress	06/24/2021
No. Issue / Revision	Date
Drawn By:	NRO
Checked By:	MWD
Plot Date:	September 30, 2021



