SPECIAL INSPECTION REQUIREMENTS

REQ'D?	INSPECTION AND TESTING	BC NJ 2021 REFERENCE	REFERENCE STANDARD
Y	HIGH STRENGTH BOLTING	1705.2	AISC 360
Y	WELDING OF STRUCTURAL STEEL	1705.2	AISC 360, AWS D1.1
Y	STRUCTURAL STEEL MEMBERS	1705.2	AISC 360
Y	COLD-FORMED STEEL DECKING	1705.2	SDI
Y	OPEN-WEB STEEL JOISTS AND JOIST-GIRDERS	1705.2; TABLE 1705.2.3	SJI
Y	COLD FORMED STEEL TRUSSES	1705.2	-
Y	INSPECTION OF STEEL FRAME JOINT DETAILS	1705.2	AISC 360
Y	CONCRETE CONSTRUCTION	1705.3; TABLE 1705.3	ACI 318
Y	MASONRY CONSTRUCTION: TYPE A	1705.4	TMS 402/ACI 530/ASCE 7 & TMS 602/ACI 530.1/ASCE
Y	MASONRY CONSTRUCTION: TYPE B	1705.4	TMS 402/ACI 530/ASCE 7 & TMS 602/ACI 530.1/ASCE
Y	MASONRY CONSTRUCTION: TYPE C	1705.4	TMS 402/ACI 530/ASCE 7 & TMS 602/ACI 530.1/ASCE
N	WOOD CONSTRUCTED SITE-BUILT ASSEMBLIES	1705.5; 1704.2.5	-
N	METAL-PLATE-CONNECTED WOOD TRUSSES	1705.5	-
Y	SOIL TESTING AND INSPECTION	1705.6; TABLE 1705.6	-
N	DRIVEN DEEP FOUNDATIONS	1705.7; TABLE 1705.7	-
N	CAST-IN-PLACE DEEP FOUNDATIONS	1705.3, 1705.8; TABLE 1705.8	-
N	HELICAL PILE FOUNDATIONS	1705.9	-

NOTE:
1. THE ABOVE TABLE IS INTENDED TO SUMMARIZE THE REQUIRED STRUCTURAL SPECIAL INSPECTIONS AND ALERT THE OWNER AND CONTRACTOR OF THEIR INCLUSION IN THE SCOPE. THE CONTRACTOR IS RESPONSIBLE FOR BEING FAMILIAR WITH THE BUILDING CODE AND COMPLYING WITH ALL OF THE SPECIFIC REQUIREMENTS OF THE SECTIONS LISTED ABOVE. IT IS NOT INTENDED TO BE AN EXHAUSTIVE OR COMPLETE LIST OF REQUIRED SPECIAL INSPECTIONS, THERE MAY BE OTHER, OR MORE SPECIFIC, REQUIREMENTS SHOWN ELSEWHERE ON THE DRAWINGS OR IN THE SPECIFICATIONS THAT ARE REQUIRED BY THE SCOPE OF WORK.
2. THE REFERENCE STANDARD COLUMN ABOVE IS FOR GENERAL USE, THE CONTRACTOR IS RESPONSIBLE FOR BEING IN COMPLIANCE WITH ALL STANDARDS REFERENCED IN THE GOVERNING BUILDING CODE.

GENERAL NOTES:

1. SPECIFICATIONS ARE PART OF THE CONSTRUCTION DOCUMENTS AND MUST BE USED IN CONJUNCTION WITH THE DRAWINGS.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BY MEASUREMENTS AT THE JOB SITE AND SHALL TAKE ANY AND ALL OTHER MEASUREMENTS NECESSARY TO VERIFY THE DRAWINGS AND TO PERFORM THE WORK PROPERLY. NO WORK SHALL PROCEED UNTIL SUCH DISCREPANCIES HAS BEEN RECTIFIED INCLUDING BUT NOT LIMITED TO FABRICATION OF MATERIALS. SUCH DISCREPANCIES BETWEEN THE DRAWINGS AND THE MEASURED DIMENSIONS SHALL NOT BE THE REASONS FOR ANY EXTRA COST OR DELAY IN THE EXECUTION OF THE WORK AND THE WORK SHALL BE PERFORMED AT NO EXTRA COST TO THE OWNER.
2. ALL CONTRACTORS ARE REQUIRED TO VISIT THE SITE AND FULLY INFORM THEMSELVES AS TO THE EXISTING CONDITIONS AND LIMITATIONS PRIOR TO SUBMITTING THEIR PROPOSAL/BID. FAILURE TO VISIT THE SITE AND NOT FAMILIARIZING THEMSELVES WITH THE CONDITIONS AND LIMITATIONS WILL IN NO WAY RELIEVE THE SUCCESSFUL BIDDER FROM FURNISHING ANY MATERIALS OR PERFORMING ANY WORK THAT MAY BE REQUIRED TO COMPLETE THE WORK IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACT STRUCTURAL DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THE CONTRACTOR ALONE IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND SAFETY OF STRUCTURE AND WORKMEN DURING THE ENTIRE CONSTRUCTION PERIOD, WHICH SHALL INCLUDE BUT NOT LIMITED TO DESIGN AND INSTALLATION OF BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR THE BUILDING, FORMS AND SCAFFOLDING, SHORING OF RETAINING WALLS AND OTHER TEMPORARY SUPPORTS AS REQUIRED. ANY DAMAGE TO THE STRUCTURE IF OCCURRED SHALL BE RECTIFIED TO THE ENTIRE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL SCHEDULE THE WORK IN CONSULTATION WITH THE OWNER AND IN SUCH A WAY AS TO MINIMIZE THE CONFLICT OF THE OPERATION OF THE BUILDING. COMPLY WITH APPLICABLE REQUIREMENTS OF OSHA AND OTHER GOVERNING BODIES HAVING JURISDICTION AT THE SITE.
4. IN CASE OF ANY DAMAGE TO THE CONSTRUCTION, THE CONTRACTOR SHALL REPAIR THE SAME TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.
5. TYPICAL DETAILS ON THE DRAWINGS APPLY TO SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. SUCH DETAILS APPLY WHETHER OR NOT DETAILS ARE REFERENCED AT EACH LOCATION. NOTIFY ENGINEER OF CONFLICTS REGARDING APPLICABILITY OF TYPICAL DETAILS.
6. DO NOT LOAD THE FINISHED SLAB ON GRADE OR ELEVATED SLABS WITH ERECTION EQUIPMENT. DO NOT STACK CONSTRUCTION MATERIALS ON DECKS/SLABS. DO NOT CAUSE IMPACT LOADS TO DECK/SLAB DURING CONSTRUCTION.
7. VERIFY THE LOCATION OF CHASES, INSERTS, OPENINGS, SLEEVES, FINISHES, DEPRESSIONS, PADS, AND WALL OPENINGS.
8. PRINCIPAL OPENING THROUGH THE FRAMING AND SLABS ARE SHOWN ON DRAWINGS. COORDINATE WITH THE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ALL THE REQUIRED OPENINGS AND PROVIDE FOR REQUIRED OPENINGS WHETHER SHOWN ON THE STRUCTURAL DRAWING OR NOT. VERIFY SIZE AND LOCATION OF OPENINGS WITH THE MECHANICAL CONTRACTOR. DEVIATIONS FROM THE OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS MUST BE APPROVED PRIOR TO CONSTRUCTION/FABRICATION OF THE REQUIRED OPENINGS.
9. LOADING FOR MECHANICAL EQUIPMENT ARE BASED ON THE UNITS SHOWN ON THE MECHANICAL DRAWINGS. ANY CHANGED IN TYPE, SIZE OR NUMBER OF PIECES OF EQUIPMENT SHALL BE REPORTED TO THE ARCHITECT FOR VERIFICATION OF THE ADEQUACY OF SUPPORTING MEMBERS PRIOR TO THE PLACEMENT OF SUCH EQUIPMENT.
10. SEE ARCHITECTURAL DRAWINGS FOR ELEVATIONS NOT SHOWN AND FOR EXACT LOCATION OF ALL SLAB DEPRESSIONS AND HOUSEKEEPING PADS. THE CONTRACTOR SHALL COMPARE THE STRUCTURAL SECTIONS WITH ARCHITECTURAL SECTIONS AND REPORT ANY DISCREPANCY TO THE ARCHITECT PRIOR TO FABRICATING OR INSTALLING STRUCTURAL MEMBERS.

EXCAVATION NOTES:

1. PROTECT ABOVE AND BELOW GRADE UTILITIES WHICH ARE TO REMAIN.
2. PROTECT PLANT LIFE, LAWNS AND OTHER FEATURES REMAINING AS A PORTION OF FINAL LANDSCAPING.
3. PROTECT BENCH MARKS, EXISTING STRUCTURES, FENCES, SIDEWALKS, PAVING AND CURBS FROM EXCAVATION EQUIPMENT AND VEHICULAR TRAFFIC.
4. GRADE TOP PERIMETER OF EXCAVATION TO PREVENT SURFACE WATER FROM DRAINING INTO EXCAVATION.
5. HAND TRIM EXCAVATION. REMOVE LOOSE MATTER.
6. REMOVE LUMPED SUB-SOIL, BOULDERS AND ROCK.
7. NOTIFY ENGINEER OF UNEXPECTED SUBSURFACE CONDITIONS AND DISCONTINUE AFFECTED WORK AREA UNTIL NOTIFIED TO RESUME WORK.
8. CORRECT UNAUTHORIZED EXCAVATION AT NO EXTRA COST TO OWNER IN ACCORDANCE WITH BACKFILLING NOTES.
9. STOCKPILE EXCAVATED MATERIAL IN AREA DESIGNATED ON SITE AND REMOVE EXCESS MATERIAL NOT BEING REUSED FROM SITE.
10. PROTECT EXCAVATIONS BY METHODS REQUIRED TO PREVENT CAVE-IN OR LOOSE SOIL FROM FALLING INTO EXCAVATION.
11. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING STRUCTURES AND UTILITIES PRIOR TO EXCAVATION. CONTRACTOR SHALL ENSURE ALL SURROUNDING STRUCTURES ARE PROTECTED FROM THE EFFECTS OF ALL EXCAVATION.
12. DEWATERING SHALL BE PERFORMED BY THE CONTRACTOR. A DEWATERING PLAN SHALL BE SUBMITTED TO THE E.O.R. FOR APPROVAL.

CONCRETE NOTES:

1. PROVIDE BATCH MIXING, TRANSPORTATION, PLACING AND CURING OF CONCRETE IN ACCORDANCE WITH RECOMMENDATIONS OF ACI 301 AND ACI 318. USE TYPE I PORTLAND CEMENT UNLESS NOTED OTHERWISE. PROVIDE ADMIXTURES AND SPECIAL REQUIREMENTS AS SPECIFIED.
   A. ALL CONCRETE SHALL BE NORMAL WEIGHT (145 PCF) CONCRETE f'c = 4000 PSI AT 28 DAYS.
2. PROVIDE CONCRETE MIXES DESIGNED BY A QUALIFIED TESTING LABORATORY FOR REVIEW AND APPROVAL BY THE STRUCTURAL ENGINEER.
3. PROVIDE CONSTRUCTION AND CONTROL JOINTS AS REQUIRED BY A.C.I CODE AND AS INDICATED ON DRAWINGS. HORIZONTAL CONSTRUCTION JOINTS ARE NOT ALLOWED UNLESS SPECIFICALLY NOTED OR APPROVED BY STRUCTURAL ENGINEER. SUBMIT PLAN TO ENGINEER INDICATING PROPOSED CONTROL AND EXPANSION JOINT LOCATIONS IN CONCRETE SLABS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
4. CHAMFER EXPOSED CONCRETE EDGES 3/4 INCH UNLESS NOTED OTHERWISE.
5. WIRE BRUSH AND CLEAN CONSTRUCTION JOINTS PRIOR TO POURING NEW CONCRETE.
6. PROVIDE ADEQUATE STRUCTURAL FRAMING AS APPROVED BY STRUCTURAL ENGINEER FOR MECHANICAL OPENING THROUGH THE SLABS, WALLS AND FLOOR DECK.

BACKFILLING NOTES:

1. FILL: NATURAL RIVER OR BANK SAND, WASHED FREE OF SILT, CLAY, LOAM, FRIABLE OR SOLUBLE MATERIALS, OR ORGANIC MATTER, GRADED IN ACCORDANCE WITH ANSI/ASTM C136 WITHIN THE FOLLOWING LIMITS:

SIEVE SIZE:	PERCENT PASSING
2"	100
1"	80-100
3/8"	70-100
NO. 10	50-100
NO. 30	30-85
NO. 60	15-65
NO. 200	5-15

2. VERIFY EXISTING CONDITIONS AND SUBSTRATE.
3. VERIFY FILL MATERIALS TO BE REUSED ARE ACCEPTABLE.
4. COMPACT SUBGRADE TO 95 PERCENT MAXIMUM DRY DENSITY IN ACCORDANCE WITH ANSI/ASTMD1557.
5. CUT OUT SOFT AREAS OF SUBGRADE NOT CAPABLE OF IN-SITU COMPACTION. BACKFILL WITH FILL AND COMPACT TO DENSITY EQUAL TO OR GREATER THAN REQUIREMENTS FOR SUBSEQUENT BACKFILL MATERIAL.
6. BACKFILL AREAS TO CONTOURS AND ELEVATIONS WITH UNFROZEN MATERIALS.
7. SYSTEMATICALLY BACKFILL TO ALLOW MAXIMUM TIME FOR NATURAL SETTLEMENT. DO NOT BACKFILL OVER POROUS, WET, FROZEN OR SPONGY MATERIALS.
8. PLACE AND COMPACT MATERIALS IN CONTINUOUS LAYERS NOT EXCEEDING 6 INCHES COMPACTED DENSITY.
9. ALL BACKFILL MATERIALS SHALL BE COMPACTED TO 95 PERCENT MAXIMUM DRY DENSITY IN ACCORDANCE WITH ANSI/ASTM D1557. MAINTAIN OPTIMUM MOISTURE CONTENT TO ATTAIN REQUIRED DENSITY.
10. AT COMPLETION OF WALL CONSTRUCTION, BACKFILL SHALL BE PLACED LEVEL WITH FINAL TOP OF WALL ELEVATION OR AS SHOWN ON GRADING PLAN. IF FINAL GRADING, PAVING, LANDSCAPING AND/OR STORM DRAINAGE INSTALLATION ADJACENT TO THE WALL IS NOT PLACED IMMEDIATELY AFTER COMPLETION, TEMPORARY GRADING AND DRAINAGE SHALL BE PROVIDED TO ENSURE WATER RUNOFF IS NOT DIRECTED AT THE WALL OR ALLOWED TO COLLECT OR POND BEHIND THE WALL UNTIL FINAL CONSTRUCTION ADJACENT TO THE WALL IS COMPLETED.

FOUNDATION NOTES:

1. FOUNDATION DESIGN IS BASED UPON THE GEOTECHNICAL ENGINEERING REPORT DATED 02/02/2024 BY COLLIERS ENGINEERING & DESIGN. COORDINATE STRUCTURAL PLANS AND DETAILS WITH REQUIREMENTS OF GEOTECHNICAL REPORT AND ADDENDUM. FOOTING DESIGN IS BASED ON 2,000 PSF NET ALLOWABLE SOIL PRESSURE.
2. REFER TO THE GEOTECHNICAL REPORT AND SPECIFICATIONS FOR GENERAL REQUIREMENTS OF EARTHWORK, OVER EXCAVATION, SUBGRADE PREPARATION, FILL AND COMPACTION, WATERPROOFING AND OTHER PERTINENT REQUIREMENTS AND INFORMATION. IF THERE IS A CONFLICT BETWEEN GEOTECHNICAL REPORT AND STRUCTURAL PLANS OR SPECIFICATIONS THEN THE MORE STRINGENT CRITERIA SHALL APPLY UNLESS OTHERWISE DIRECTED BY AN RFI.
3. PROTECT PIPES AND CONDUITS RUNNING THROUGH WALLS AND SLABS WITH 1/2 INCH EXPANSION JOINT MATERIAL. LOWER CONTINUOUS FOOTING PERPENDICULAR TO PIPE RUNS TO ALLOW PIPES TO PASS ABOVE THE FOOTING. LOWER FOOTING PARALLEL TO PIPE RUNS TO AVOID DISCHARGE ONTO ADJACENT TRENCH EXCAVATIONS.
4. MAINTAIN SPECIFIED SUBGRADE AND FILL MOISTURE CONTENT UNTIL FOUNDATIONS ARE PLACED.
5. ARRANGE FOR OWNER'S INDEPENDENT TESTING AGENCY TO MONITOR CUT AND FILL OPERATIONS AND PERFORM FIELD DENSITY AND MOISTURE CONTENT TESTS TO VERIFY COMPACTION AND APPROVE FOOTING SUBGRADES PRIOR TO PLACING CONCRETE.
6. DO NOT PLACE FOOTING OR SLABS AGAINST SUBGRADE CONTAINING FREE WATER, FROST OR ICE.
7. MAINTAIN PROPER SITE DRAINAGE DURING CONSTRUCTION TO ENSURE SURFACE RUNOFF AWAY FROM STRUCTURES AND TO PREVENT PONDING OF SURFACE RUNOFF NEAR THE STRUCTURES.

CONCRETE REINFORCING NOTES:

1. PROVIDE NEW BILLET STEEL REINFORCEMENT BARS IN ACCORDANCE WITH ASTM A 615 GRADE 60.
2. COORDINATE PLACEMENT OF CAST-IN-PLACE EMBEDS AND ANCHORS RODS. SET ANCHOR RODS WITH A TEMPLATE. SECURELY ATTACH EMBEDDED ITEMS TO FORMWORK OR REINFORCING.
3. PROVIDE CLASS "B" REINFORCEMENT SPLICES FOR CONTINUOUS REINFORCEMENT. PROVIDE STANDARD 90-DEGREE HOOKS IN ACCORDANCE WITH ACI 318, UNLESS NOTED OTHERWISE.
4. MAINTAIN THE FOLLOWING CONCRETE COVERAGE FOR REINFORCING STEEL UNLESS NOTED OTHERWISE:
   A. CONCRETE CAST AGAINST EARTH: 3 INCHES
   B. CONCRETE EXPOSED TO WEATHER
      No. 6 AND LARGER: 2 INCHES
      No. 5 AND SMALLER: 1 1/2 INCHES
   C. CONCRETE NOT EXPOSED TO WEATHER OR CONCRETE NOT IN CONTACT WITH THE GROUND:
      SLAB AND WALLS
      No. 11 AND SMALLER: 3/4 INCHES
5. DO NOT WELD OR BEND REINFORCEMENT IN THE FIELD UNLESS SPECIFICALLY SHOWN OR APPROVED BY STRUCTURAL ENGINEER.
6. WHEN SPECIFICALLY APPROVED, PROVIDE WELDED REINFORCEMENT IN ACCORDANCE WITH ASTM A 706 GRADE 60. USE LOW HYDROGEN ELECTRODES FOR WELDING OF REINFORCEMENT IN CONFORMANCE WITH "RECOMMENDED PRACTICES FOR WELDING REINFORCING STEEL," AMERICAN WELDING SOCIETY, AWS D12.1. PROVIDE ASTM GRADE 60 REINFORCING BARS WHERE DETAILED BARS ARE TO BE WELDED TO A STEEL SECTION.
7. WHERE REQUIRED, PROVIDE DOWELS TO MATCH SIZE AND SPACING OF MAIN REINFORCING.
8. PROVIDE CONTINUOUS HORIZONTAL WALL REINFORCEMENT WITH 90-DEGREE BENDS AND EXTENSIONS AT CORNERS AND INTERSECTIONS AS SHOWN ON TYPICAL BAR PLACING DETAILS.

OPEN WEB STEEL BAR JOIST NOTES:

1. JOISTS SLOPE UNIFORMLY BETWEEN ELEVATIONS NOTED. ADJUST BEARING SEAT TO ACCOMODATE ROOF PITCH.
2. BEAMS PARALLEL TO JOISTS SHALL BE SET ABOVE BEAMS PERPENDICULAR TO JOISTS DUE TO JOIST BEARING SEAT, UNLESS NOTED OTHERWISE.
3. ALL DIMENSIONS SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS.
4. COORDINATE SIZE AND PLACING OF OPENING FOR ROOF TOP UNITS (RTU) WITH MECHANICAL DRAWINGS.
5. JOIST BRIDGING SHALL BE DESIGNED AND INSTALLED PER SJI SPECIFICATIONS. BRIDGING INDICATED ON DRAWINGS IS IN ADDITION TO THAT REQUIRED BY THE SJI SPECIFICATIONS. JOIST BRIDGING SHALL BE DESIGNED TO RESIST A NET UPLIFT LOAD AS INDICATED IN THE 'WIND NET UPLIFT TABLE' OR WITHIN ROOF PLAN NOTES.
6. PROVIDE OPEN WEB, UNDERSLUNG, PARALLEL CHORD JOISTS AND JOIST GIRDERS UNLESS NOTED OTHERWISE ON DRAWINGS.
7. DESIGN, FABRICATE AND ERECT OPEN WEB JOISTS GIRDERS TO THE SPECIFICATIONS OF THE STEEL JOIST INSTITUTE, LATEST EDITION.
8. SHOP DRAWINGS FOR JOISTS, JOIST ACCESSORIES AND JOIST GIRDERS TO BE PREPARED BY THE JOIST MANUFACTURER'S DETAILERS.
9. PROVIDE 2-1/2 INCH MINIMUM BEARING ON STRUCTURAL STEEL FOR K-SERIES JOISTS OR PROVIDE BEARING LENGTHS PER STEEL JOIST INSTITUTE REQUIREMENTS UNLESS GREATER LENGTHS ARE SHOWN ON DRAWINGS.
10. ALL HANGERS SUPPORTING MECHANICAL EQUIPMENT, SPRINKLER LINES, ETC., FROM THE CHORD OF THE STEEL JOISTS SHALL BE LOCATED AT THE PANEL POINTS OF THE JOISTS OR THE JOIST CHORD SHALL BE REINFORCED TO SUPPORT THE ADDITIONAL LOAD. HANGERS SHALL NOT BE ATTACHED TO THE EDGE OF THE CHORD ANGLES. HANGERS SHALL BE CENTERED ON THE JOIST CHORD.
11. ALL K-SERIES JOISTS SHALL HAVE 2-1/2 INCH DEEP BEARING SEATS. ALL LH-SERIES JOISTS SHALL HAVE 5" DEEP BEARING SEAT. FOR SLOPED JOISTS,, SEAT DEPTH MAY VARY AS PER MANUFACTURER.
12. PROVIDE CHAMBER FOR ALL JOISTS. DEPTH OF CHAMBER TO BE IN ACCORDANCE WITH STEEL JOIST INSTITUTE SPECIFICATIONS.
13. JOIST-GIRDERS SUPPLIER SHALL PROVIDE BOTTOM CHORD BRACING AS REQUIRED PER STEEL JOIST INSTITUTE FOR STABILITY AND AS REQUIRED BY DESIGN.
14. ALL JOISTS TO BEAR AT TOP CHORD PANEL POINTS OF THE JOIST GIRDER UNLESS NOTED OTHERWISE.
15. PROVIDE CAMBER FOR ALL JOIST GIRDERS. DEPTHS OF CHAMBER TO BE IN ACCORDANCE WITH STEEL JOIST INSTITUTE SPECIFICATIONS.

COLD FORMED STEEL NOTES:

1. PROVIDE ALL STUDS AND/OR JOISTS AND ACCESSORIES OF THE TYPE. SIZE, GAUGE AND SPACING SHOWN ON DRAWINGS.
2. DESIGN ALL STRUCTURAL MEMBERS IN ACCORDANCE WITH AMERICAN IRON AND STEEL INSTITUTE (AISI) "SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", LATEST EDITION.
3. FORM ALL FRAMING MEMBERS FROM CORROSION RESISTANT STEEL, CORRESPONDING TO REQUIREMENTS OF ASTM A653 AND THE FOLLOWING STRENGTH REQUIREMENTS:

FRAMING MEMBER	GA. THICKNESS	(ML)	MINIMUM YIELD
STUDS, JOISTS	18	43	33 KSI
STUDS, JOISTS	16,14	54,68	50 KSI
TRACKS, SOLID BLOCKING	16 MIN.	54	50 KSI

4. PLACE ALL COLD-FORMED STEEL STUD WALL BRIDGING HORIZONTALLY WITH A MAXIMUM VERTICAL SPACING OF FOUR FEET UNLESS NOTED OTHERWISE. AS AN OPTION, CONTINUOUS COLD-FORMED CHANNELS MAY BE POSITIONED THROUGH THE STUD PUNCH OUTS AS BRIDGING PROVIDED THE CHANNEL IS PROPERLY FASTENED TO EACH STUD.
5. INSTALL AXIALLY LOADED STUDS IN A MANNER WHICH WILL ASSURE THAT THEIR ENDS ARE POSITIONED AGAINST THE INSIDE OF THE RUNNER WEB PRIOR TO FASTENING.
6. FASTEN COMPONENTS WITH SELF-DRILLING SCREWS OR WELDING. PROVIDE SCREWS OF SUFFICIENT SIZE TO ENSURE THE STRENGTH OF THE CONNECTION. WIRE TYING OF COMPONENTS IS NOT PERMITTED. TOUCH UP ALL WELDS WITH A ZINC-RICH PAINT.
7. WELDED OF COLD-FORMED STUDS MAY BE PERFORMED USING A MINIMUM ONE-EIGHTH INCH AWS TYPE 6013 WELDING ROD.
8. SECURELY ANCHOR RUNNERS TO THE SUPPORTING STRUCTURE. PROVIDE COMPLETE, UNIFORM, AND LEVEL BEARING SUPPORT FOR THE BOTTOM RUNNER.
9. SECURELY ANCHOR ABUTTING LENGTHS OF RUNNER TO A COMMON STRUCTURAL ELEMENT, BUTT-WELDED OR SPLICED.
10. PLUMB, ALIGN, AND SECURELY ATTACH STUDS TO THE FLANGES OF BOTH UPPER AND LOWER RUNNERS, SPLICE IN STUDS ARE NOT PERMITTED.
11. PROVIDE HEADERS AND SUPPORTING STUDS FOR FRAMING OF WALL OPENINGS.

METAL DECK:

1. PROVIDE DESIGN, FABRICATIONS, AND ERECTION OF METAL DECK CONFORMING TO THE STEEL DECK "CODE OF RECOMMENDED STANDARD PRACTICE AND BASIC DESIGN SPECIFICATIONS"
2. FORM ROOF AND FLOOR DECK FROM STEEL SHEETS CONFORMING TO ASTM A 611 GRADE C AND D OR A 653 OR HIGHER SPECIFICATIONS WITH A MINIMUM YIELD STRENGTH OF 33 KSI.
3. ATTACH SHEETS OF STEEL SUPPORT MEMBERS AS INDICATED AND IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION. WHEN DECK IS SCHEDULED TO BE EXPOSED, DE-SLAG, CLEAN AND TOUCHED UP WELDS WITH ZINC-RICH PRIMER.
4. LAP ROOF AND FLOOR DECK ENDS MINIMUM OF 2 INCHES. WHEN FASTENING DECK TO SUPPORT MEMBERS PROVIDE WELDING MATERIALS INSTALLATION PROCEDURES TO PREVENT BURNING OF HOLES IN DECK.
5. PROVIDE SIX INCH CLOSURE STRIP WHERE CHANGES IN DECK DIRECTION OCCUR. CLOSURE TO BE SAME GAUGE AS DECK.
6. AT ENDS OF DECKS OR WHERE CHANGES OF DECK DIRECTION OCCUR, FASTEN TO SUPPORTS AT EACH FLUTE. PROVIDE ADEQUATE CLOSURES AND FASTENERS TO SIDES AT 18 INCHES ON CENTER.
7. WHERE PARTIAL PANELS MAY BE REQUIRED TO COMPLETE DECK INSTALLATION AT PERIMETER OF STRUCTURE, PROVIDE WELDS IN EACH FLUTE TO STRUCTURAL MEMBERS. INSTALL DECK IN THREE CONTINUOUS SPAN LENGTHS.
8. AT PERIMETER OF DECK, SECURE DECK TO STRUCTURAL MEMBERS WITH SAME ATTACHMENT AND SPACING SUPPORT ATTACHMENT AS INDICATED ON PLANS.

STRUCTURAL STEEL NOTES:

1. DETAIL AND ERECT STRUCTURAL STEEL ELEMENTS IN ACCORDANCE WITH THE FOLLOWING:
   A. AISC SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
   B. AISC MANUAL OF STEEL CONSTRUCTION.
   C. AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.
   D. AWS STRUCTURAL WELDING CODE, D1.1.
2. PROVIDE STRUCTURAL STEEL OF THE FOLLOWING ASTM DESIGNATIONS UNLESS NOTED OTHERWISE:
   A. STRUCTURAL STEEL WIDE FLANGE SHAPES: ASTM A 992
   B. EDGE ANGLES, BENT PLATES, HANGERS AND BRACES:ASTM A 36
   C. STRUCTURAL PIPE: ASTM A 53, GRADE B, TYPE E OR S
   D. RECT. HOLLOW STRUCTURAL SHAPES: ASTM A 500, GRADE C, FY = 50 KSI
   E. ROUND HOLLOW STRUCTURAL SHAPES: ASTM A 500, GRADE C, FY = 46 KSI
   F. BASE PLATES AND MISCELLANEOUS STEEL PLATES: ASTM A 36
   G. ANCHOR RODS: ASTM F 1554, GRADE 36 U.N.O.
3. CONNECTION MATERIALS:
   A. BEAM-COLUMN STIFFENER PLATES AND DOUBLER PLATES TO MATCH THE GRADE STEEL OF STRUCTURAL ELEMENT:
   B. HIGH STRENGTH BOLTS: ASTM A 325
   C. HARDENED STEEL WASHERS: ASTM F 436
4. WELD MINIMUM SIZE AND STRENGTH:
   A. PROVIDE MINIMUM SIZE OF FILLET WELDS AS SPECIFIED IN TABLE J2.4 OF THE AISC MANUAL.
   B. PROVIDE MINIMUM EFFECTIVE THROAT THICKNESS OF PARTIAL PENETRATION GROOVE WELDS AS SPECIFIED IN TABLE J2.3 OF THE AISC MANUAL
   C. DEVELOP THE FULL TENSILE STRENGTH OF THE MEMBER ELEMENT JOINED, ON ALL SHOP AND FIELD WELDS, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
   D. PROVIDE ELECTRODES FOR FIELD OR SHOP WELDING THAT CONFORM TO ASTM A 233(CLASS 70).
   E. ALL WELDS ARE CONTINUOUS FOR THE FULL LENGTH OF THE CONNECTION UNLESS NOTED OTHERWISE ON DRAWINGS.
5. PROVIDE MINIMUM OF TWO BOLTS PER CONNECTION. PROVIDE MINIMUM BOLT DIAMETER OF 3/4 INCH.
6. PROVIDE BOLTS, NUTS AND WASHERS THAT ARE HOT DIP GALVANIZED ACCORDING TO ASTM A 153, CLASS C WHEN USED TO CONNECT STEEL ELEMENTS THAT ARE HOT DIP GALVANIZED AFTER FABRICATION.
7. SUBMIT CALCULATIONS FOR CONNECTIONS DESIGNS NOT FULLY DETAILED ON DRAWINGS. DESIGN CONNECTIONS UNDER SUPERVISION OF REGISTERED PROFESSIONAL ENGINEER. REGISTERED IN THE STATE WHERE PROJECT IS BEING CONSTRUCTED, EMPLOYED BY THE STEEL FABRICATOR. DESIGN CALCULATIONS TO BE SEALED BY FABRICATOR'S REGISTERED PROFESSIONAL ENGINEER. SHOP DRAWINGS SUBMITTED WITHOUT COMPLETE DESIGN CALCULATIONS WILL NOT BE REVIEWED.
8. PROVIDE SIMPLE SHEAR CONNECTIONS FOR STEEL CONNECTIONS NOT FULLY DETAILED BY UTILIZING HIGH STRENGTH BEARING BOLTS IN SINGLE OR DOUBLE SHEAR. PROVIDE DOUBLE ANGLE BOLTED CONNECTIONS WHERE POSSIBLE. UNLESS LARGER REACTION IS SHOWN ON DRAWINGS, CONNECTION DESIGNER SHALL DESIGN EACH CONNECTION FOR MAXIMUM END REACTION RESULTING FROM THE APPLICATION OF THE ALLOWABLE UNIFORM LOADS LISTED IN TABLES OF PART 2 OF THE AISC MANUAL OF STEEL CONSTRUCTION.
   8.1 ADD TO REACTIONS LISTED ABOVE, LOADS OR REACTIONS OF MEMBERS SUPPORTED BY BEAM WITHIN THREE FEET OF BEAM END AND VERTICAL COMPONENTS OF FORCES IN BRACE MEMBERS FRAMING INTO BEAM.
9. STEEL FABRICATION:
   A. FABRICATE AND ASSEMBLE STRUCTURAL MEMBER/ ASSEMBLIES IN SHOP TO GREATEST EXTENT POSSIBLE.
   B. SPLICING OF STRUCTURAL STEEL MEMBERS IS PROHIBITED WITHOUT PRIOR APPROVAL BY THE A/E.
   C. FABRICATOR SHALL BE RESPONSIBLE FOR ALL ERRORS OF DETAILING ON THE SHOP DRAWINGS, ERRORS IN FABRICATION, AND THE CORRECT FITTING OF STRUCTURAL STEEL MEMBERS.
   D. CONFORM TO THE AISC CODE OF STANDARD PRACTICE, FOR ERECTION TOLERANCES. FIELD MODIFICATION TO STRUCTURAL STEEL IS PROHIBITED WITHOUT PRIOR APPROVAL BY THE A/E.
   E. CLEAN STEEL OR RUST, LOOSE MILL SCALE AND OTHER FOREIGN MATERIALS WHERE REQUIRED FOR FABRICATION, FITTING UP, OR WELDING.
   F. DO NOT CUT STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES WITHOUT PRIOR REVIEW AND APPROVAL OF THE A/E.
10. HOT DIP GALVANIZE AFTER FABRICATION ALL STRUCTURAL STEEL AND THEIR CONNECTIONS PERMANENTLY EXPOSED TO THE OUTSIDE. ITEMS INCLUDED BUT NOT LIMITED TO:
   A. SHELF ANGLES.
   B. EMBEDDED PLATES IN CONCRETE

DESIGN CODES/REFERENCE FOR DESIGN AND DELEGATED DESIGN

1. AISI 2017 EDITION OF COLD-FORMED STEEL DESIGN MANUAL.
2. AWS D1.1-2020 - STRUCTURAL WELDING CODE - STEEL
3. ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, 2019 EDITION.
4. STRUCTURAL WELDED WIRE REINFORCEMENT MANUAL OF STANDARD PRACTICE, WIRE REINFORCEMENT INSTITUTE.
5. ACI 530 BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES. 2019 EDITION.
6. SJI RECOMMENDED CODE OF STANDARD PRACTICE FOR STEEL JOISTS AND JOIST GIRDERS, 2014 EDITION
7. LIVE LOAD REDUCTION ON SUPPORTING ELEMENTS IN ACCORDANCE WITH IBC 2021.
8. ADDITIONAL DESIGN LOADS INDICATED ON STRUCTURAL DRAWINGS SHALL BE IDENTIFIED AS FOLLOWS:

   DL = DEAD LOAD
   LL = LIVE LOAD
   WL = WIND LOAD
   EQ = SEISMIC LOAD
   Lr = ROOF LIVE LOAD
   SL = SNOW LOAD

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862.207.5900 ▪ www.h2m.com
NJ Architecture Certificate of Authorization No.: 21AC00040200
NJ Engineering Certificate of Authorization No.: 24GA28025500

CONSULTANTS:

MARK	DATE	DESCRIPTION
00	NOV 7, 2023	90% NFC

KATIA D. DUQUE, P.E.
NJ PROFESSIONAL ENGINEER Lic. No. 24GE04291300

Date

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
JES	JES	KDD	Approver

PROJECT No:	DATE:	SCALE:
BOME2201	FEBRUARY 2024	AS SHOWN

CLIENT

Borough of Metuchen

EMERGENCY SERVICES CENTER

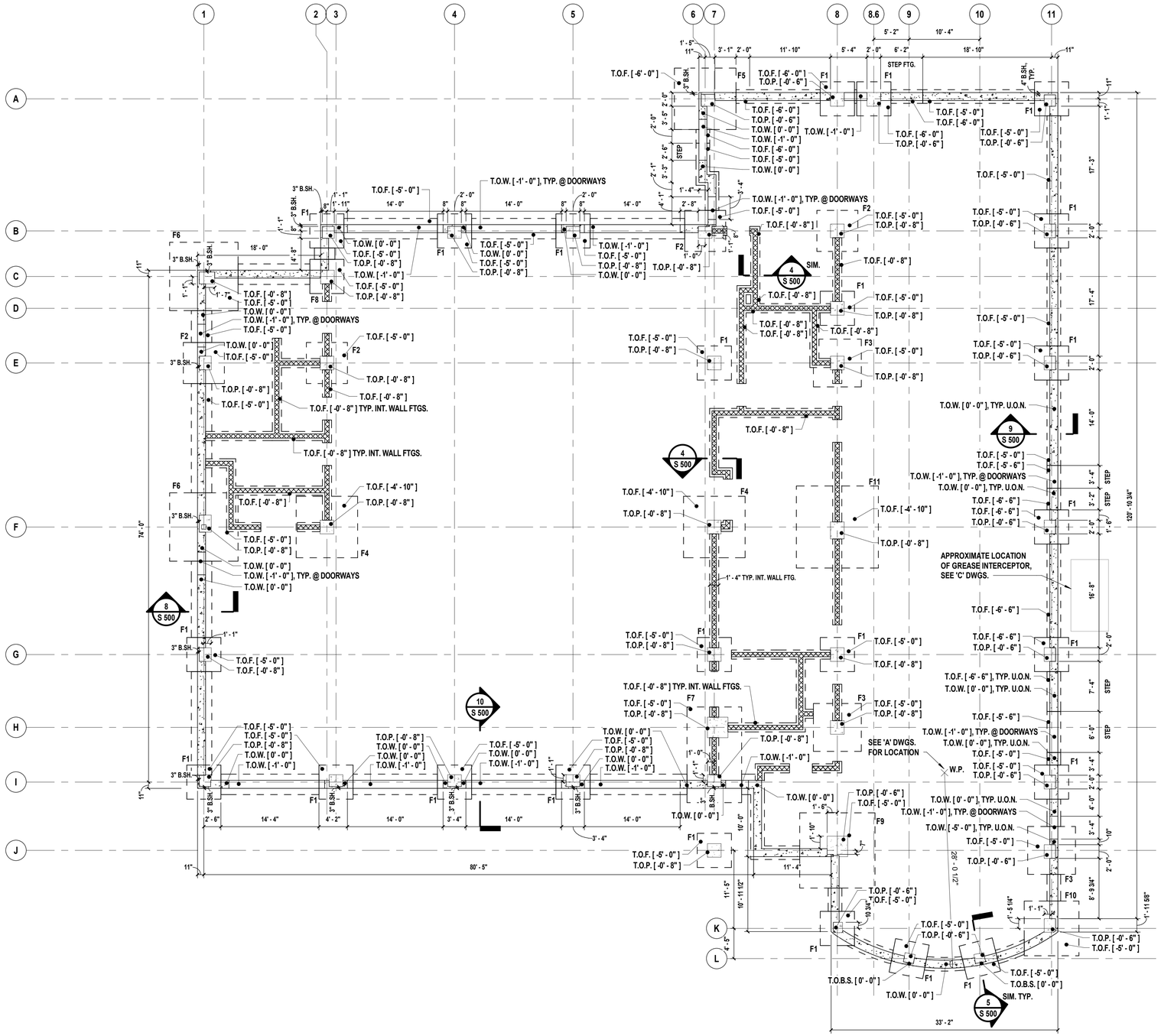
**1 SAFETY PLACE
METUCHEN, NJ 08840
BOROUGH OF METUCHEN
COUNTY OF MIDDLESEX
NEW JERSEY**

STATUS **90% Submission NFC**

SHEET TITLE

GENERAL NOTES & SPECIAL INSPECTIONS

DRAWING No. **S 001.00**



1 **Foundation Plan**
SCALE: 1/8" = 1'-0"

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LEGEND:

U.O.N. =	UNLESS OTHERWISE NOTED
F# =	FOOTING DESIGNATION - SEE FOOTING SCHEDULE, SHEET S600
T.O.F. =	TOP OF FOOTING
T.O.W. =	TOP OF WALL
T.O.B.S. =	TOP OF BRICK SHELF
T.O.P. =	TOP OF PEDESTAL
T.O.Sh. =	TOP OF METAL DECK, STEEL JOIST, OR EXTERIOR SLAB BEARING SHELF
W.P. =	WORKING POINT
B.SH. =	BRICK SHELF

FOUNDATION PLAN NOTES:

1. ELEVATIONS SHOWN THUS [ ] ARE RELATIVE TO FINISHED FIRST FLOOR ELEVATION [0'-0"].
2. ALL EXCAVATED EARTH SHALL BE REPLACED WITH CONTROLLED FILL AS PER GEOTECHNICAL REPORT AND SPECIFICATION SECTION 312323.13.
3. CONCRETE PEDESTALS AND COLUMN FOOTINGS ARE NOT ALWAYS CENTERED ON THE COLUMN, PLEASE NOTE DIMENSION TO COLUMN GRID ON PLAN.
4. CONTRACTOR SHALL COORDINATE SIZE AND LOCATIONS OF ALL REQUIRED PIPING AND CONDUIT PENETRATIONS THROUGH FOUNDATION WALL WITH ALL OTHER CONTRACTS. PROVIDE PIPE SLEEVES AND REINFORCEMENT AROUND PENETRATIONS AS PER DETAIL 3 ON SHEET S-500.
5. COORDINATE LOCATIONS OF REINFORCEMENT DOWELS INTO BUILDING WALLS WITH MASONRY TRADE.
6. DEWATERING SHALL BE PERFORMED BY THE CONTRACTOR. A DEWATERING PLAN SHALL BE SUBMITTED TO THE E.O.R. FOR APPROVAL.

DESIGN LOADS:

ALL DESIGN LOADS ARE IN ACCORDANCE WITH 2021 BC-NJ AND ASCE 7-16 STRUCTURAL OCCUPANCY (RISK) CATEGORY IV

1. BUILDING DESIGN LOADS:
   - FIRST FLOOR LIVE LOAD = 100 PSF
   - FIRST FLOOR COLLATERAL DEAD LOAD = 10 PSF
   - MEZZANINE LIVE LOAD = 125 PSF
   - MEZZANINE DEAD LOAD = 58 PSF
   - APPARATUS ROOF LIVE LOAD = 20 PSF
   - APPARATUS ROOF DEAD LOAD = 30 PSF
   - ADMN. ROOF LIVE LOAD = 20 PSF
   - ADMN. ROOF DEAD LOAD = 23 PSF
   - TOWER ROOF TC DEAD LOAD = 20 PSF
   - TOWER ROOF BC DEAD LOAD = 15 PSF
   - TOWER ROOF TC LIVE LOAD = 20 PSF
   - TOWER ROOF BC LIVE LOAD = 10 PSF
   - ADD'L APPARATUS ROOF ALLOWABLE SOLAR PANEL LOAD = 7.5 PSF
2. SNOW LOADS:
   - GROUND SNOW LOAD, Pg = 25 PSF
   - (EXPOSURE) Ce = 1.0
   - (THERMAL) Ct = 1.0
   - (IMPORTANCE) Is = 1.2
   - FLAT ROOF SNOW LOAD Pf = Is x 20 = 24 PSF
3. WIND LOADS:
   - BASIC WIND SPEED: 127 MPH
   - EXPOSURE: B
   - EXPOSURE ADJUSTMENT FACTOR: 1.0
   - INTERNAL PRESSURE COEFFICIENT: Gcpi = ±0.18

LOW-SLOPE ROOF CONDITION	EXPOSURE B WIND LOADS		EXPOSURE ADJUSTMENT COEFFICIENT		DESIGN WIND LOADS
MWFRS WALL (END ZONE)	25.6 PSF	x	1.0	=	25.6 PSF
MWFRS WALL (INT. ZONE)	16.96 PSF	x	1.0	=	16.96 PSF
MWFRS ROOF (END ZONE)	-13.3 PSF	x	1.0	=	-13.3 PSF
MWFRS ROOF (INT. ZONE)	-7.84 PSF	x	1.0	=	-7.84 PSF
MWFRS ROOF (UPLIFT)	-30.76 PSF	x	1.0	=	-30.76 PSF
C&C (END WALL PRESSURE)	29.05 PSF	x	1.0	=	29.05 PSF
C&C (END WALL SUCTION)	-38.9 PSF	x	1.0	=	-39.9 PSF
C&C (INT. WALL PRESSURE)	29.05 PSF	x	1.0	=	29.05 PSF
C&C (INT. WALL SUCTION)	-31.53 PSF	x	1.0	=	-31.53 PSF
C&C (END ROOF PRESSURE)	11.83 PSF	x	1.0	=	11.83 PSF
C&C (END ROOF SUCTION)	-83.23 PSF	x	1.0	=	-83.23 PSF
C&C (INT. ROOF PRESSURE)	11.83 PSF	x	1.0	=	11.83 PSF
C&C (INT. ROOF SUCTION)	-46.27 PSF	x	1.0	=	-46.27 PSF

20:12 ROOF CONDITION	EXPOSURE B WIND LOADS		EXPOSURE ADJUSTMENT COEFFICIENT		DESIGN WIND LOADS
MWFRS WALL (END ZONE)	33.7 PSF	x	1.09	=	36.7 PSF
MWFRS WALL (INT. ZONE)	22.4 PSF	x	1.09	=	24.4 PSF
MWFRS ROOF (END ZONE)	-11.2 PSF	x	1.09	=	-12.2 PSF
MWFRS ROOF (INT. ZONE)	-6.4 PSF	x	1.09	=	-7.0 PSF
MWFRS ROOF (UPLIFT)	-32.2 PSF	x	1.09	=	-35.1 PSF
C&C (END WALL PRESSURE)	30.4 PSF	x	1.09	=	33.1 PSF
C&C (END WALL SUCTION)	-40.7 PSF	x	1.09	=	-44.4 PSF
C&C (INT. WALL PRESSURE)	30.4 PSF	x	1.09	=	33.1 PSF
C&C (INT. WALL SUCTION)	-33.0 PSF	x	1.09	=	-36.0 PSF
C&C (END ROOF PRESSURE)	18.4 PSF	x	1.09	=	20.1 PSF
C&C (END ROOF SUCTION)	-97.4 PSF	x	1.09	=	-106.2 PSF
C&C (INT. ROOF PRESSURE)	18.4 PSF	x	1.09	=	20.1 PSF
C&C (INT. ROOF SUCTION)	-81.9 PSF	x	1.09	=	-89.3 PSF

4. SEISMIC CRITERIA:
   - SITE CLASS: D
   - (IMPORTANCE) Ie = 1.50
   - Fa = 1.587 FV = 2.4
   - Ss = 0.266%g S1 = 0.057%g
   - Sms = 0.423 Sm1 = 0.137
   - Sds = 0.282 Sd1 = 0.091
   - SEISMIC DESIGN CATEGORY: C
   - EQUIVALENT LATERAL FORCE PROCEDURE
   - NOT SPECIFICALLY DETAILED FOR SEISMIC PERFORMANCE
   - R = 3
5. SOIL BEARING CAPACITY: 1.0 TONS/S.F.
   AS REFERENCED BY SUB-SURFACE SOILS INVESTIGATION PERFORMED BY COLLIERS ENGINEERING & DESIGN (02.02.2024).

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CONSULTANTS:

MARK	DATE	DESCRIPTION
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KATIA D. DUQUE, P.E. Date
NJ PROFESSIONAL ENGINEER Lic. No. 24GE04281100

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
JES	JES	KDD	Approver

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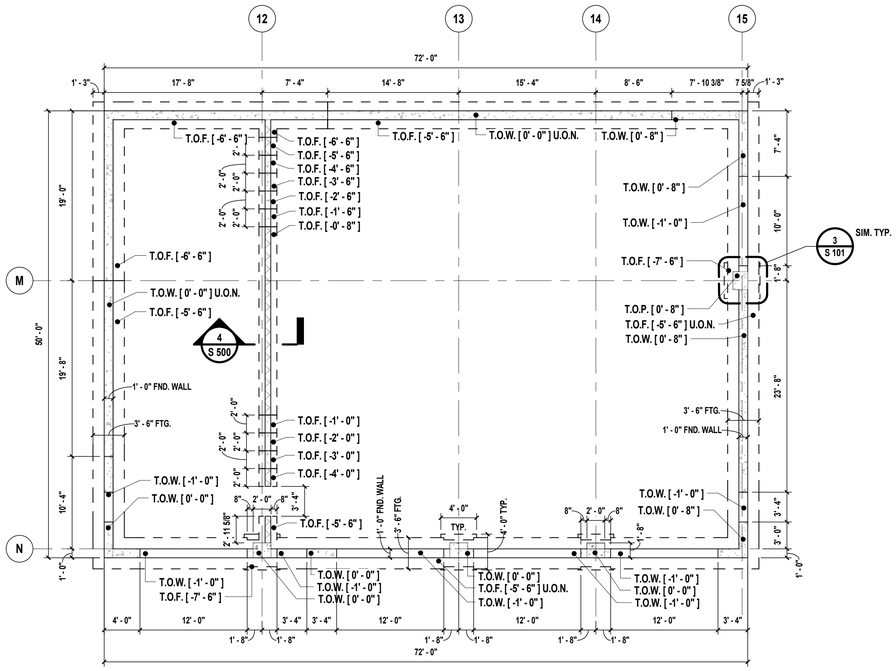
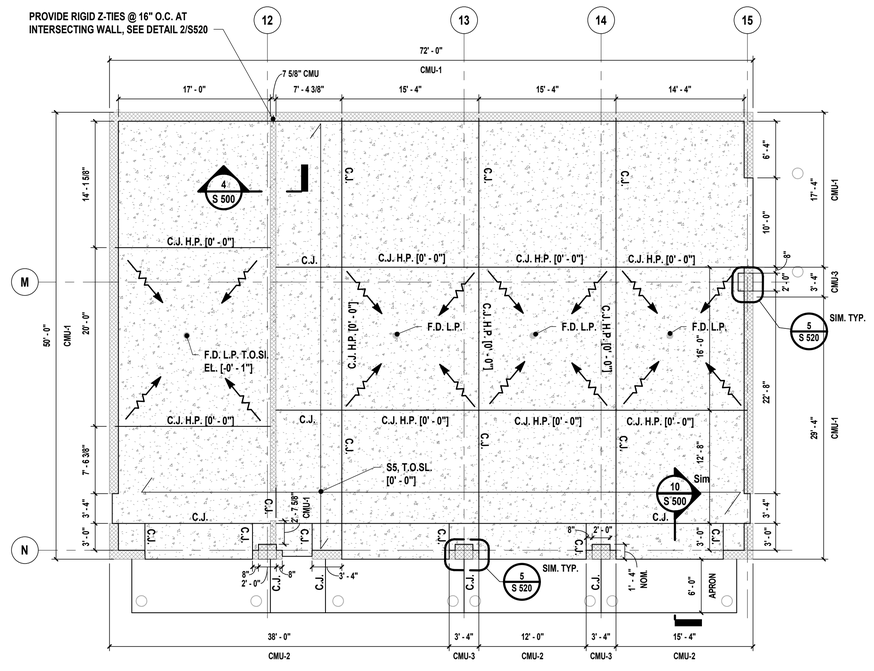
SHEET TITLE
FOUNDATION PLAN & DESIGN CRITERIA

DRAWING No.
S 100.00





1 Outbuilding Foundation Plan

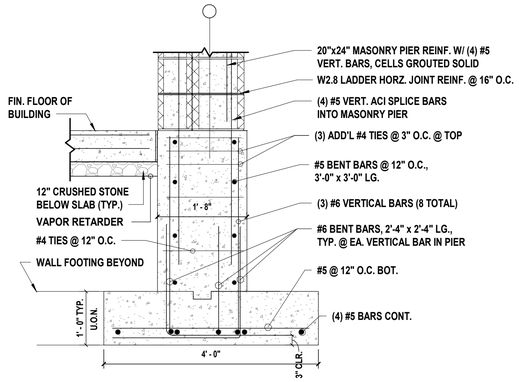
SCALE: 1/8" = 1'-0"

LEGEND:

U.O.N. =	UNLESS OTHERWISE NOTED
F# =	FOOTING DESIGNATION
T.O.F. =	TOP OF FOOTING
T.O.W. =	TOP OF WALL

FOUNDATION PLAN NOTES:

1. ELEVATIONS SHOWN THUS [ ] ARE RELATIVE TO FINISHED FIRST FLOOR ELEVATION [0'-0"].
2. ALL EXCAVATED EARTH SHALL BE REPLACED WITH CONTROLLED FILL AS PER GEOTECHNICAL REPORT & SPECIFICATION SECTION 312323.13. PROVIDE 12" CRUSHED STONE SUBBASE UNDER S.O.G., MAN DOOR SLABS & APRONS.
3. ALL CONCRETE PEDESTALS SHALL BE 1'-4" x 1'-4" AND CONSTRUCTED AS PER DETAIL 5/S520 & 3/S101 UNLESS OTHERWISE NOTED.
4. CONTRACTOR SHALL COORDINATE SIZE AND LOCATIONS OF ALL REQUIRED PIPING AND CONDUIT PENETRATIONS THROUGH FOUNDATION WALL WITH ALL OTHER CONTRACTS. PROVIDE PIPE SLEEVES AND REINFORCEMENT AROUND PENETRATIONS AS PER DETAIL 3 ON SHEET S-500.
5. COORDINATE LOCATIONS OF REINFORCEMENT DOWELS INTO BUILDING WALLS WITH MASONRY TRADE.
6. DEWATERING SHALL BE PERFORMED BY THE CONTRACTOR. A DEWATERING PLAN SHALL BE SUBMITTED TO THE E.O.R. FOR APPROVAL.



3 Typical Masonry Pier Footing

SCALEN T S

2 Outbuilding Slab Plan

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

LEGEND:

C.J. =	CONTROL JOINT
E.J. =	1/2" PREMOLDED EXPANSION JOINT
E.O.S. =	EDGE OF SLAB
T.O.SL. =	TOP OF SLAB
T.O.G. =	TOP OF GRATING
U.O.N. =	UNLESS OTHERWISE NOTED
H.P. =	HIGH POINT OF PITCHED SLAB
L.P. =	LOW POINT OF PITCHED SLAB
	INDICATES 1/16"-ON-12" PITCH DIRECTION OF SLAB
	INDICATES CHANGE IN SLAB ELEVATION

SLAB NOTES:

1. ELEVATIONS SHOWN THUS [ ] ARE RELATIVE TO FINISHED FIRST FLOOR ELEVATION [0'-0"].
2. S5 INDICATES SPAN OF 8" CONCRETE SLAB ON GRADE, REINFORCED WITH #4 @ 12" O.C. E.W. TOP & BOTTOM.
3. PROVIDE 1/2" PRE-MOLDED EXPANSION JOINT AROUND PERIMETER OF CONCRETE SLAB ON GRADE WHERE IT ABUTS THE FOUNDATION WALL OF THE BUILDING.
4. COORDINATE LOCATIONS OF INTERIOR MASONRY WALLS WITH 'A' DWGS. PROVIDE #5 DOWELS, 1'-4" x 6" LG. @ 48" O.C. HOOKED INTO CONCRETE FOOTING.

MASONRY NOTES:

1. VERTICAL MASONRY WALL REINFORCEMENT SHALL BE AS FOLLOWS:
   - CMU-1 #5 @ 32" O.C.
   - CMU-2 #5 @ 16" O.C.
   - CMU-3 #5 @ 8" O.C.
2. THE FIRST CELL ADJACENT TO MASONRY OPENINGS, AS WELL AS ALL CORNERS, SHALL CONTAIN (1) CONT. #5 VERT. BAR, TYP. AT EACH SIDE OF OPENING.
3. FILL ALL MASONRY CELLS CONTAINING REINFORCEMENT SOLID WITH GROUT, TYP. REMOVE INSULATION INSERTS FROM CELLS TO BE GROUTED.
4. REFER TO 'A' DWGS. AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS NOT OUTLINED HERE, INCLUDING HORIZONTAL REINFORCEMENT.
5. ALL VERTICAL REINFORCEMENT INTERRUPTED BY STRUCTURAL STEEL SHALL BE WELDED TO TOP OF STEEL MEMBERS, TYP.
6. COORDINATE PLACEMENT OF VERTICAL WALL DOWELS EMBEDDED INTO FOUNDATION WALL WITH CELLS OF MASONRY WALL. DOWEL SPACING TO MATCH SPACING OF VERTICAL REINFORCEMENT IN WALLS, TYP.

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NJ Engineering Certificate of Authorization No.: 24GA28025500

CONSULTANTS:

MARK	DATE	DESCRIPTION
00	NOV 7, 2023	90% NFC

KATIA D. DUQUE, P.E. Date
NJ PROFESSIONAL ENGINEER Lic. No. 24GE04281300

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
JES	JES	Checker	Approver

PROJECT No:	DATE:	SCALE:
BOME2201	FEBRUARY 2024	AS SHOWN

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NEW JERSEY

STATUS
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SHEET TITLE
OUTBUILDING FOUNDATION & SLAB PLAN

DRAWING No.
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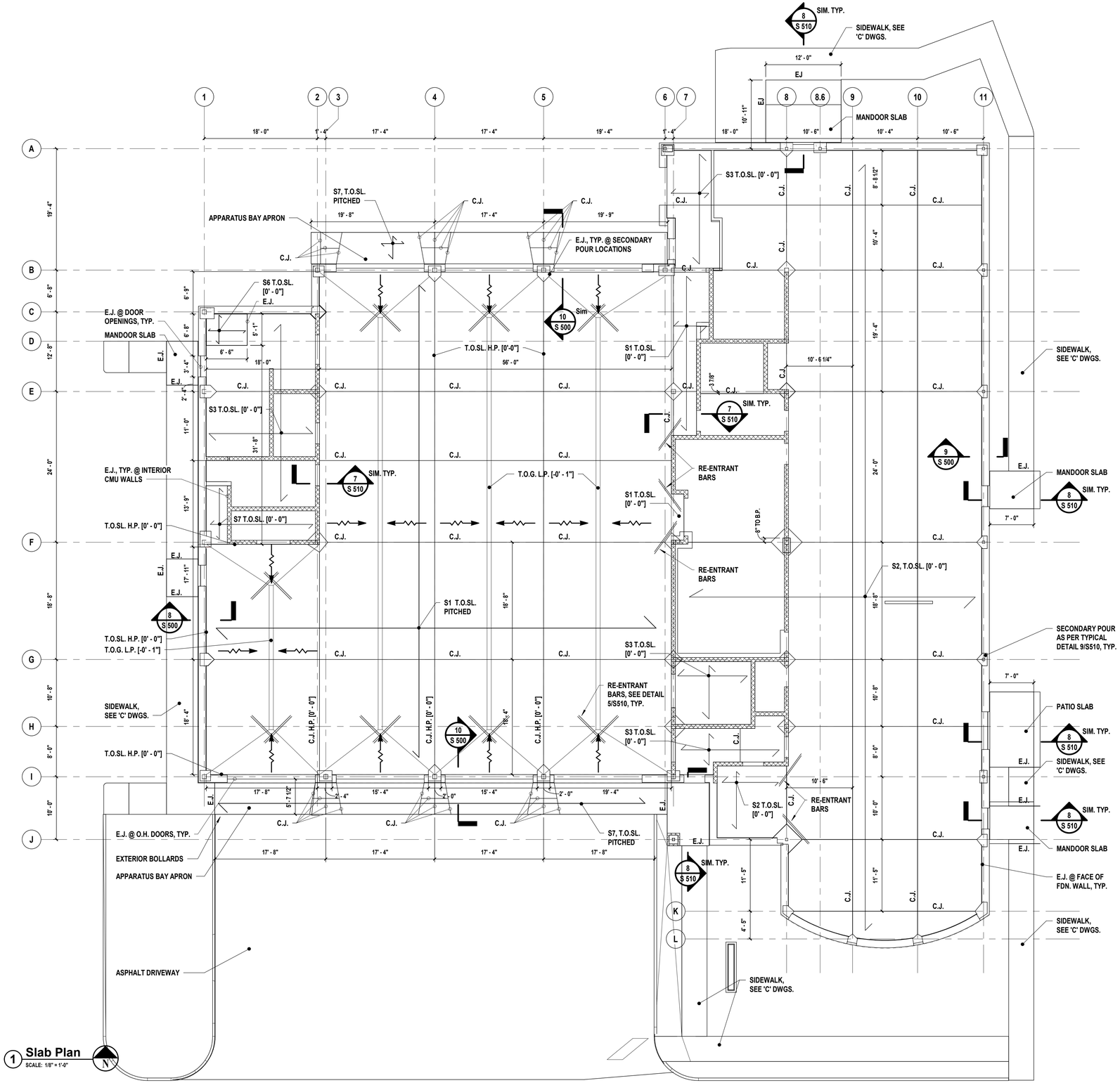

LEGEND:

C.J. = CONTROL JOINT
E.J. = 1/2" PREMOLDED EXPANSION JOINT
E.O.S. = EDGE OF SLAB
T.O.SL. = TOP OF SLAB
T.O.G. = TOP OF GRATING
U.O.N. = UNLESS OTHERWISE NOTED
H.P. = HIGH POINT OF PITCHED SLAB
L.P. = LOW POINT OF PITCHED SLAB
INDICATES PITCH DIRECTION OF SLAB
INDICATES CHANGE IN SLAB ELEVATION

NOTES:

1. ELEVATIONS SHOWN THUS [ ] ARE RELATIVE TO FINISHED FIRST FLOOR ELEVATION [0'-0"].
2. S1 — INDICATES 8" CONCRETE SLAB ON GRADE REINFORCED WITH #4 @ 12" O.C. E.W. TOP & BOTTOM W/ RADIANT HEAT TUBES
3. S2 — INDICATES SPAN OF 6" CONCRETE SLAB ON GRADE, REINFORCED WITH (1) LAYER OF 6x6 - W4.0xW4.0 W.W.F.
4. S3 — INDICATES SPAN OF 6" CONCRETE SLAB ON GRADE, REINFORCED WITH (1) LAYER OF 6x6 - W4.0xW4.0 W.W.F. W/ RADIANT HEAT TUBES
5. PROVIDE 1/2" PRE-MOLDED EXPANSION JOINT AROUND PERIMETER OF CONCRETE SLAB ON GRADE WHERE IT ABUTS THE FOUNDATION WALL OF THE BUILDING AND BETWEEN DIFFERENT SLAB TYPES & POURS.
6. COORDINATE LOCATIONS OF INTERIOR MASONRY WALLS WITH 'A' DWGS. PROVIDE #5 DOWELS, 1'-4" x 6" LG. @ 32" O.C. TO BE EMBEDDED INTO CONCRETE FLOOR SLAB.
7. S6 — INDICATES SPAN OF 12" CONCRETE SLAB ON GRADE, REINFORCED WITH (2) LAYER OF 6x6 - W4.0xW4.0 W.W.F. TOP & BOTTOM
8. S7 — INDICATES SPAN OF 8" CONCRETE SLAB ON GRADE REINFORCED WITH #4 @ 12" O.C. E.W. TOP & BOTTOM
9. COORDINATE WITH MECHANICAL DRAWINGS SLEEVE REQUIREMENTS AT EXPANSION JOINTS TO ACCOMODATE RADIANT FLOOR TUBING.
10. REFER TO ELECTRICAL DRAWINGS FOR FLOOR BOX LOCATIONS.

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JES	JES	KDD	Approver

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NEW JERSEY

STATUS: **90% Submission NFC**

SHEET TITLE: **SLAB PLAN**

DRAWING No.: **S 110.00**

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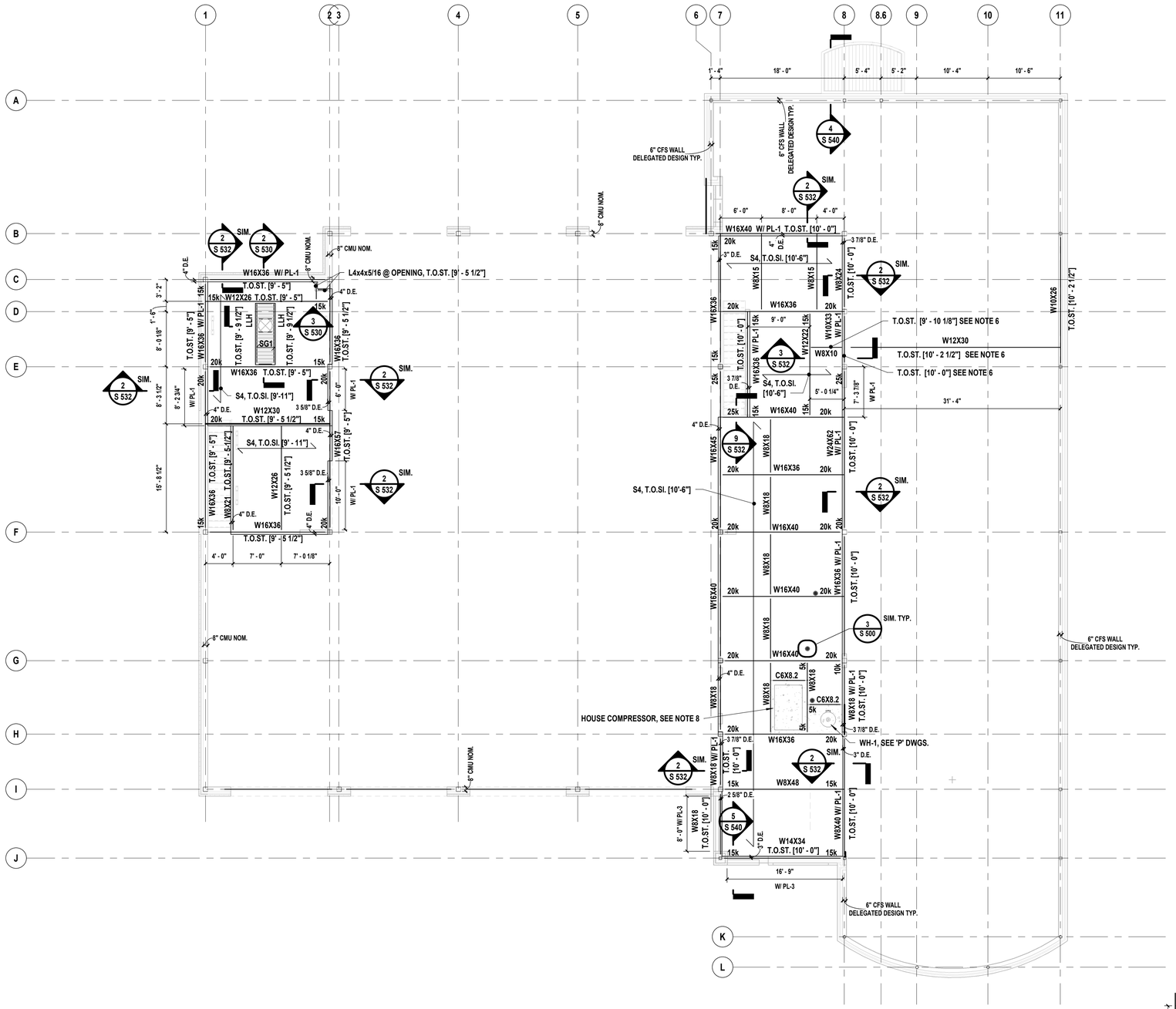
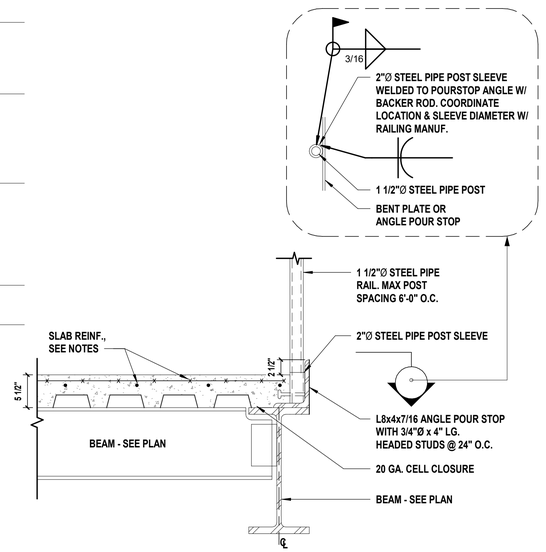


1 Mezzanine Framing Plan

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



2 Guardrail Attachment at Mezzanine Slab

SCALE N T S

LEGEND:

PL-1 = 1/2" x 10-1/4" x BEAM LENGTH A36 PLATE WELDED TO TOP FLANGE OF BEAM
PL-3 = 1/2" x 8 5/8" x SEE PLAN A36 PLATE WELDED TO TOP FLANGE OF STEEL BEAM
T.O.ST. = TOP OF STEEL
D.E. = DECK EDGE
T.O.Sl. = TOP OF SLAB

NOTES:

1. TOP OF STEEL SHALL BE SET AT [10' - 0 1/2"] ABOVE FINISHED FIRST FLOOR ELEVATION UNLESS OTHERWISE NOTED AS THUS [ ].
2. S4 INDICATES SPAN OF 5-1/2" CONCRETE SLAB, REINFORCED WITH 6x6 - W2.9xW2.9 W.W.F. 1" CLR. FROM TOP AND #4 BARS @ 12" O.C. 1.5" FROM THE TOP OF SLAB ON 3VLI-36 20GA. METAL FORM DECK AS MANUFACTURED BY VULCRAFT NUCOR OR APPROVED EQUAL.
3. STEEL CONNECTION PIECE DETAILS SHALL BE SUBMITTED WITH CALCULATIONS SIGNED AND SEALED BY A NEW JERSEY STATE LICENSED PROFESSIONAL ENGINEER. CONNECTION DESIGNER SHALL DESIGN ALL SIMPLE SHEAR CONNECTIONS. WHERE DESIGN SHEAR REACTION IS NOT LISTED ON DRAWINGS, IT SHALL BE DETERMINED BY THE CONNECTION DESIGNER AS THE MAXIMUM REACTION RESULTING FROM THE INDICATED BEAM SECTION BEING FULLY LOADED WITH MAXIMUM ALLOWABLE UNIFORM LOADS AS SPECIFIED IN AISC SPECIFICATION. WHERE AXIAL FORCE IN BEAMS IN NOT LISTED IN DRAWINGS, IT SHALL BE TAKEN AS 10 KIPS ASD. ALL CONNECTIONS SHALL BE DESIGNED CONSIDERING AXIAL, SHEAR AND MOMENT FORCES SIMULTANEOUSLY AS REQUIRED BY BUILDING CODE. SEE STRUCTURAL STEEL SPECIFICATIONS FOR ADDITIONAL DESIGN LOADING REQUIREMENTS.
4. COORDINATE DIMENSIONS OF STAIR LANDING FRAMING WITH STAIR MANUFACTURER. SEE 'A' DWGS. FOR ADDITIONAL INFORMATION.
5. ## KIPS, SHEAR CAPACITY REQUIRED @ CONNECTION
6. SHOP PREPARE BEAM FOR FOLDING WALL PARTITION HANGERS SUPPORT SYSTEM.
7. SG1 INDICATES SPAN OF 1-1/2"x1/8" BAR GRATING, TYPE GW-150 BY McNICHOLS Co. OR APPROVED EQUAL
8. CONTRACTOR TO SUBMIT CUT SHEET FOR HOUSE COMPRESSOR UNIT FOR EOR TO REVIEW & APPROVE. THE STEEL FRAMING BELOW THIS UNIT IS SUBJECT TO CHANGE BASED ON FINAL UNIT SELECTION WEIGHT & SIZE. THE SIZE AND WEIGHT CURRENTLY SHOWN ARE FOR CLARITY PURPOSES ONLY.

MASONRY NOTES:

1. ALL VERTICAL MASONRY WALL REINFORCEMENT SHALL BE #5 BARS SPACED AT A MAXIMUM OF 32" O.C., TYP. UNLESS OTHERWISE NOTED.
2. THE FIRST CELL ADJACENT TO MASONRY OPENINGS, AS WELL AS ALL CORNERS, SHALL CONTAIN (1) CONT. #5 BAR, TYP. AT EACH SIDE OF OPENING.
3. FILL ALL MASONRY CELLS CONTAINING REINFORCEMENT SOLID WITH GROUT, TYP.
4. REFER TO 'A' DWGS. AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS NOT OUTLINED HERE, INCLUDING HORIZONTAL REINFORCEMENT AND BRICK TIES.
5. ALL VERTICAL REINFORCEMENT INTERRUPTED BY STRUCTURAL STEEL SHALL BE WELDED TO TOP OF STEEL MEMBERS, TYP.
6. COORDINATE PLACEMENT OF VERTICAL WALL DOWELS EMBEDDED INTO FOUNDATION WALL WITH CELLS OF MASONRY WALL. DOWEL SPACING TO MATCH SPACING OF VERTICAL REINFORCEMENT IN WALLS, TYP.

MECHANICAL UNIT WEIGHTS:

WH-1	1848 LBS
HOUSE COMPRESSOR	500 LBS

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SHEET TITLE
MEZZANINE FRAMING PLAN

DRAWING No.
S 120.

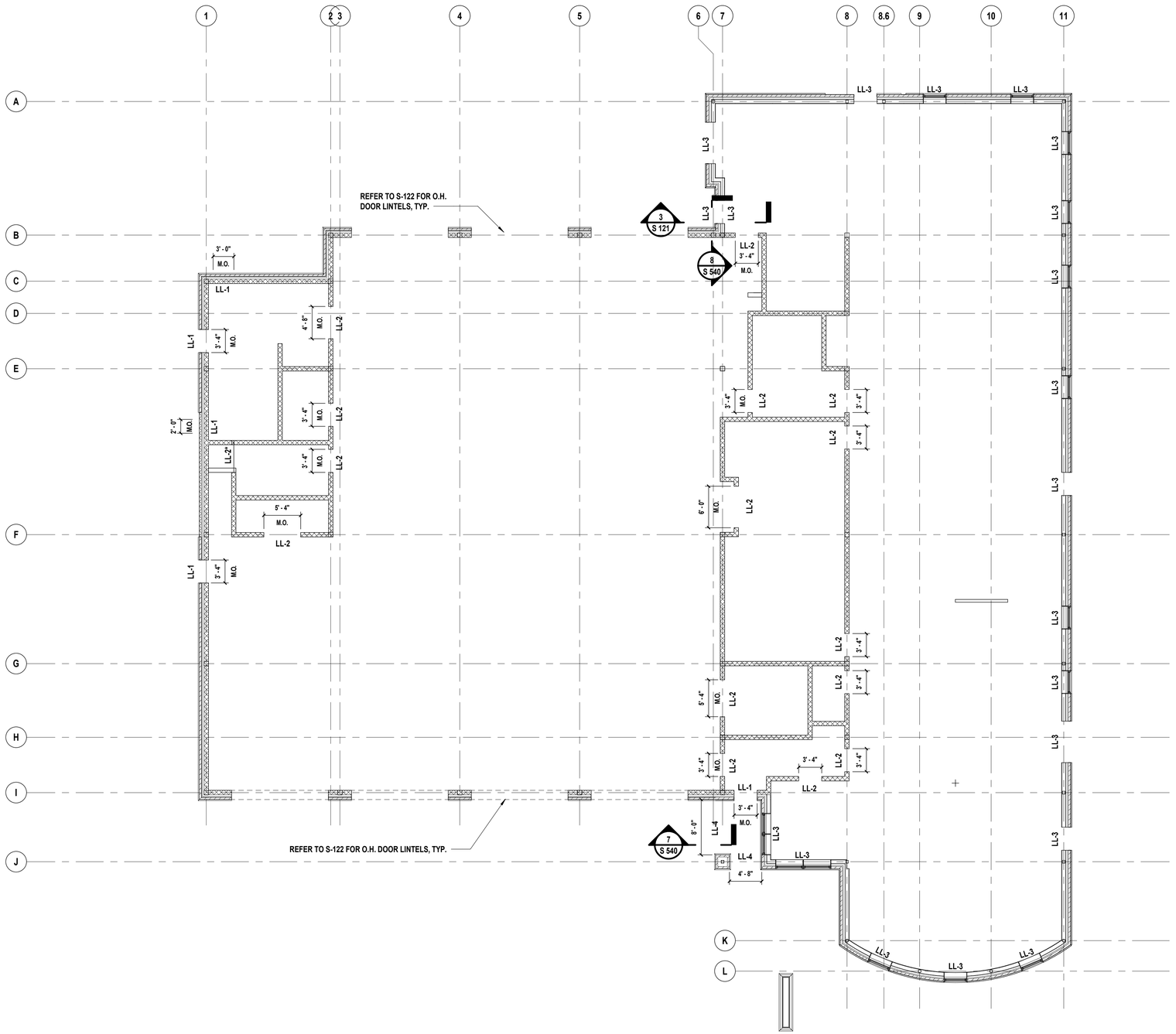
LEGEND:
* INDICATES SLOPED LINTEL TO SUPPORT MASONRY BELOW STAIRS

LINTEL SCHEDULE

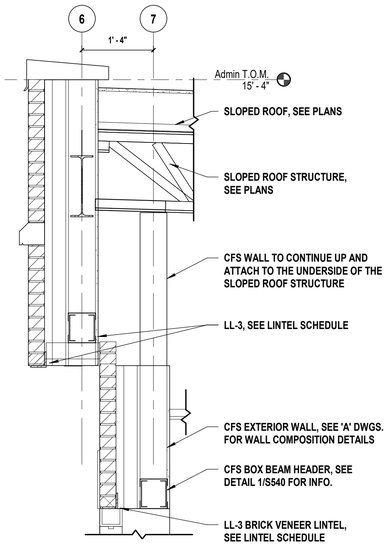
MARK	SIZE	DETAILS	COMMENTS
LL-1	(3) L3-1/2 x 3-1/2 x 5/16"		NOTES 1-5
LL-2	(2) L3-1/2 x 3-1/2 x 5/16"		NOTES 1, 3-6
LL-3	CFS BOX BEAM HEADER (2) L3-1/2 x 3-1/2 x 5/16"		NOTES 1-2, 4, 7
LL-4	WT6x20		NOTES 1-2, 4

NOTES:

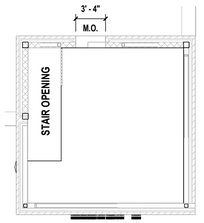
1. LINTEL LENGTH SHALL BE M.O. + 1'-4" TO PROVIDE MIN. BEARING OF 8" ONTO SOLID MASONRY ON EACH SIDE.
2. ALL EXTERIOR LINTELS TO BE SHOP APPLIED HOT DIPPED GALVANIZED.
3. WELD VERTICAL REINFORCEMENT INTERRUPTED BY MASONRY OPENINGS TO TOP OF THE STEEL LINTELS, TYPICAL.
4. REFER TO ARCHITECTURAL ELEVATIONS FOR LINTEL LOCATIONS.
5. VERTICAL LEGS OF DOUBLE ANGLES SHALL BE WELDED TOGETHER.
6. APPLICABLE FOR ALL HVAC DUCT PENETRATIONS THROUGH INTERIOR MASONRY WALLS (MAX. MASONRY OPENING SIZE = 3'-0"). CONTRACTOR TO COORDINATE DUCT WORK ROUTING & LOCATIONS WITH DUCT SHOP DWGS.
7. CFS HEADER TO BE DELEGATED DESIGN BY CFS MANUF., TYP.



1 **First Floor Lintel Plan**
SCALE: 1/8" = 1'-0"



3 **LL-3 Detail**
SCALE: 3/4" = 1'-0"



2 **Tower Roof Lintel Plan**
SCALE: 1/8" = 1'-0"

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CONSULTANTS:

MARK	DATE	DESCRIPTION
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KATIA D. DUQUE, P.E.
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DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
JES	JES	KDD	Approver

PROJECT No:	DATE:	SCALE:
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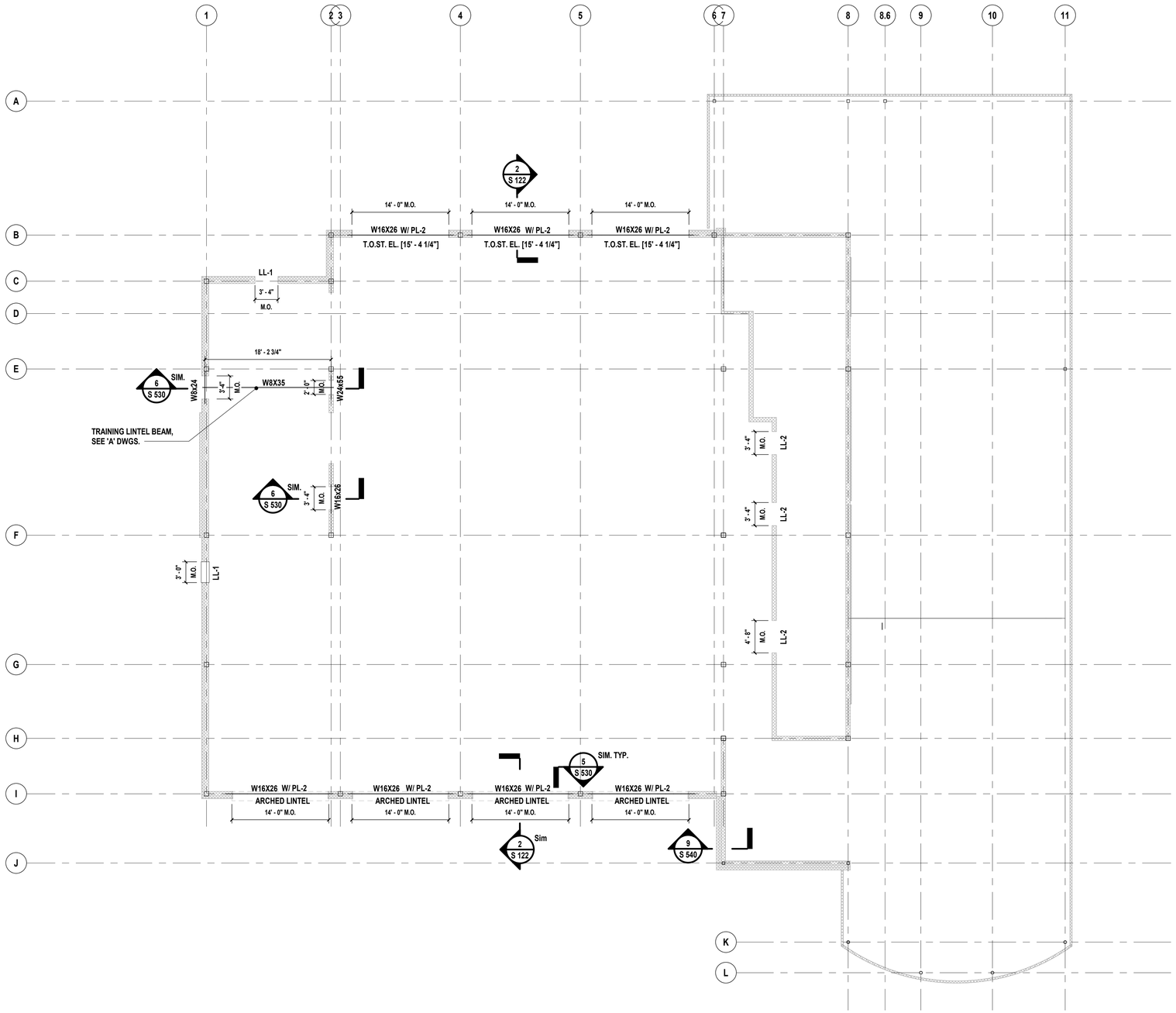
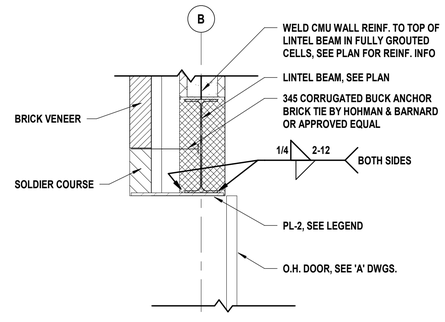
SHEET TITLE
LINTEL PLAN & DETAILS

DRAWING No.
S 121.00

LEGEND:

PL-2 = 1/2" x 1'-3 1/2" x BEAM LENGTH A36 PLATE SHOP WELDED TO BOTTOM FLANGE OF BEAM
T.O.ST. = TOP OF STEEL





NOTE: SEE 'A' DWGS. FOR RADIUS OF OPENING FOR CURVED LINTEL

2 **Lintel Detail @ O.H. Door**
SCALE: 1" = 1'-0"

1 **Mezzanine Floor Lintel Plan**
SCALE: 1/8" = 1'-0"

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JES	JES	KDD	Approver

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SHEET TITLE
MEZZANINE LINTEL PLAN

DRAWING No.
S 122.00

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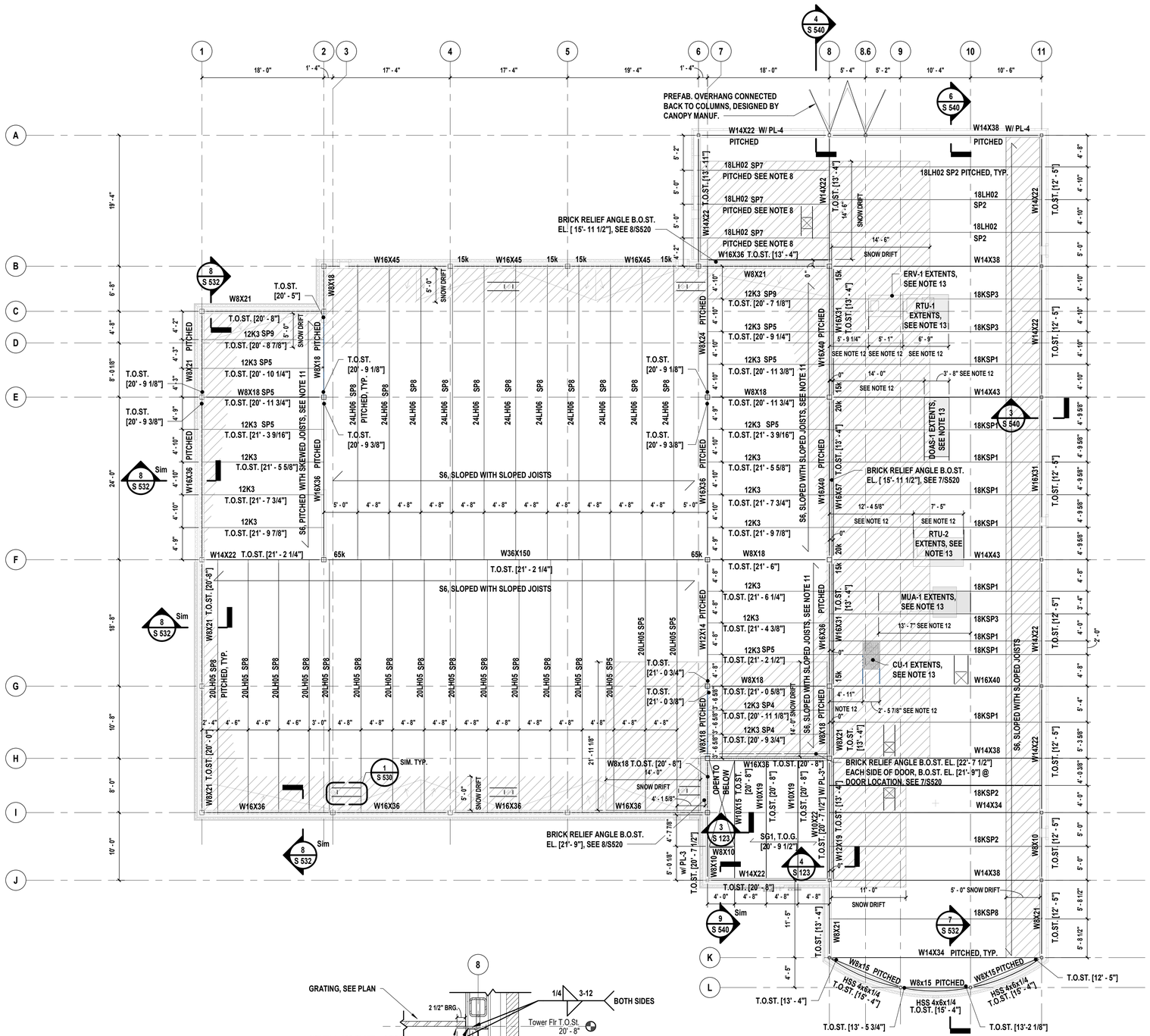
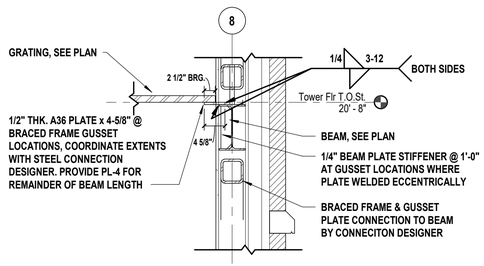


1 Roof Framing Plan
SCALE: 1/8" = 1'-0"



4 Section at Tower Grating
SCALE: 3/4" = 1'-0"

ROOFTOP UNIT WEIGHTS:

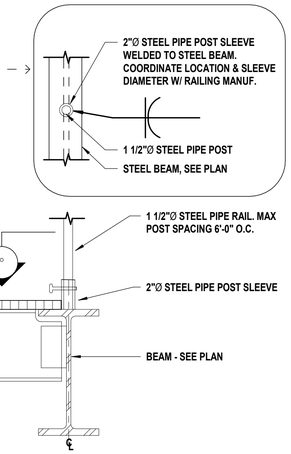
CU-1	507 LBS
RTU-1	1095 LBS
RTU-2	1060 LBS
DOAS-1	1086 LBS
ERV-1	463 LBS
MUA-1	1050 LBS

LEGEND:

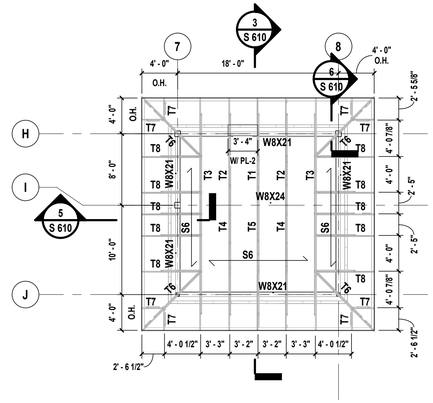
T.O.G = TOP OF GRATING
T.O.ST. = TOP OF STEEL
PL-2 = 1/2" x 1'-3 1/2" x BEAM LENGTH A36 PLATE SHOP WELDED TO BOTTOM FLANGE OF BEAM
PL-3 = 1/2" x 8 5/8" x SEE PLAN A36 PLATE WELDED TO TOP FLANGE OF STEEL BEAM. * INDICATES PLATE DOES NOT EXTEND FOR FULL LENGTH OF BEAM
B.O.ST. = BOTTOM OF STEEL ANGLE LEG

NOTES:

1. TOP OF STEEL SHALL BE SET AT [20' - 0"] ABOVE FINISHED FIRST FLOOR ELEVATION UNLESS OTHERWISE NOTED AS THUS [ ].
2. S6 INDICATES SPAN OF 22GA. 1.5B-36 GRADE 50 METAL ROOF DECK AS MANUFACTURED BY VULCRAFT NUCOR OR APPROVED EQUAL. CONNECTION PATTERN TO BE 36/4 TO SUPPORTS W/ #12 SCREWS.
3. INSTALL BRIDGING FOR BAR JOISTS AS PER S.J.I. REQUIREMENTS.
4. SEE SHEET -- FOR EDGE OF SLAB DIMENSIONS.
5. STEEL CONNECTION PIECE DETAILS SHALL BE SUBMITTED WITH CALCULATIONS SIGNED AND SEALED BY A NEW JERSEY STATE LICENSED PROFESSIONAL ENGINEER. CONNECTION DESIGNER SHALL DESIGN ALL SIMPLE SHEAR CONNECTIONS. WHERE DESIGN SHEAR REACTION IS NOT LISTED ON DRAWINGS, IT SHALL BE DETERMINED BY THE CONNECTION DESIGNER AS THE MAXIMUM REACTION RESULTING FROM THE INDICATED BEAM SECTION BEING FULLY LOADED WITH MAXIMUM ALLOWABLE UNIFORM LOADS AS SPECIFIED IN AISC SPECIFICATION. WHERE AXIAL FORCE IN BEAMS IN NOT LISTED IN DRAWINGS, IT SHALL BE TAKEN AS 10 KIPS ASD. ALL CONNECTIONS SHALL BE DESIGNED CONSIDERING AXIAL, SHEAR AND MOMENT FORCES SIMULTANEOUSLY AS REQUIRED BY BUILDING CODE. SEE STRUCTURAL STEEL SPECIFICATIONS FOR ADDITIONAL DESIGN LOADING REQUIREMENTS.
6. COORDINATE DIMENSIONS OF STAIR LANDING FRAMING WITH STAIR MANUFACTURER. SEE 'A' DWGS. FOR ADDITIONAL INFORMATION.
7. BEAM SEAT @ LOW END OF JOIST TO BE 6" DEEP TO MATCH HIGH END OF ADJACENT JOISTS. SEE 'A' DWGS. FOR ROOF PITCH.
8. SEE DETAIL 1/S532 FOR DECK REINFORCEMENT @ ROOF DRAIN LOCATIONS AND ALL OTHER SMALL PENETRATIONS.
9. SG1 INDICATES SPAN OF 1-1/2"x1/8" GALV. STEEL SMOOTH BAR GRATING, TYPE GW-150 BY McNICHOLS Co. OR APPROVED EQUAL
10. SKEWED JOISTS TO FOLLOW SLOPE OF STRUCTURAL STEEL BEAM.
11. COORDINATE DIMENSIONS & LOCATION OF ALL ROOFTOP HVAC UNITS FRAMING WITH HVAC SHOP DWGS & 'M' DWGS.
12. PROVIDE L4x4x5/16 TYP. @ HVAC CURB EXTENTS FOR MECHANICAL ROOFTOP UNITS, SEE DETAIL 1/S530.
13. SEE OWSJ SPECIAL LOADING DIAGRAM ON S620 FOR SNOW DRIFT LOADING AND NON-UNIFORM LOADING CONDITIONS.
14. SEE PLAN ON S301 FOR BRACED FRAME PLAN VIEW.



3 Guardrail Attachment at Tower Platform
SCALE:N T S



2 Tower Roof Framing Plan
SCALE: 1/8" = 1'-0"

NOTES:

1. TOP OF STEEL SHALL BE SET AT [29' - 0"] ABOVE FINISHED FIRST FLOOR ELEVATION UNLESS OTHERWISE NOTED AS THUS [ ].

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CONSULTANTS:

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KATIA D. DUQUE, P.E.
NJ PROFESSIONAL ENGINEER Lic. No. 24GE05061300
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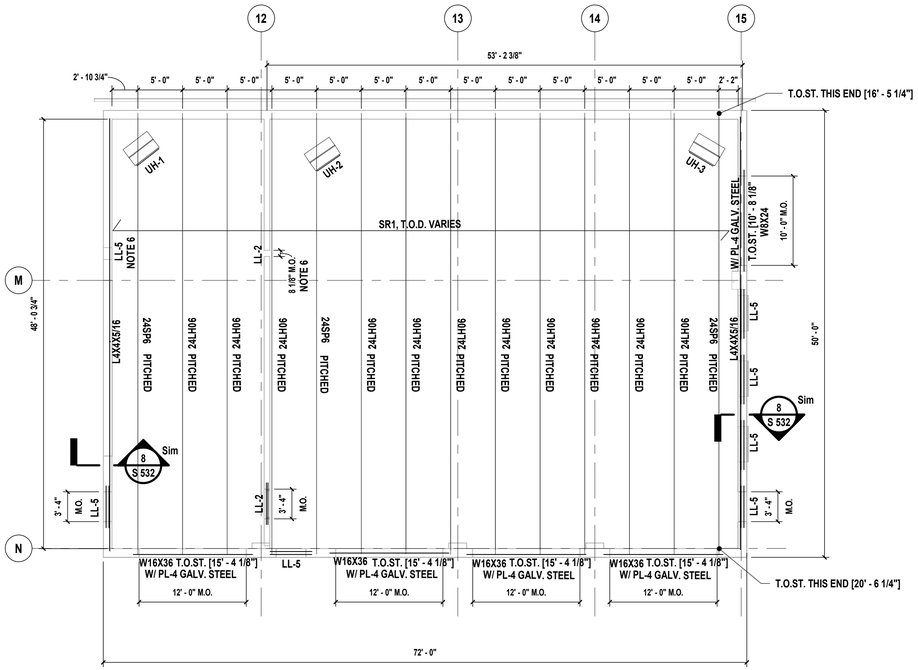
SHEET TITLE
ROOF FRAMING PLAN

DRAWING No.
S 123.00



1 Outbuilding Framing Plan

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

LINTEL SCHEDULE			
MARK	SIZE	DETAILS	COMMENTS
LL-2	(2) L3-1/2 x 3-1/2 x 5/16"	1	NOTES 1-5
LL-5	(2) L5 x 5 x 5/16" W/ 1/4" THK. x M.O. x 11-1/2" WIDE A36 PLATE	11	NOTES 1-7

NOTES:

1. LINTEL LENGTH SHALL BE M.O. + 1'-4" TO PROVIDE MIN. BEARING OF 8" ONTO SOLID MASONRY ON EACH SIDE.
2. ALL EXTERIOR LINTELS TO BE SHOP APPLIED HOT DIPPED GALVANIZED.
3. WELD VERTICAL REINFORCEMENT INTERRUPTED BY MASONRY OPENINGS TO TOP OF THE STEEL LINTELS, TYPICAL.
4. REFER TO ARCHITECTURAL ELEVATIONS FOR LINTEL LOCATIONS.
5. VERTICAL LEGS OF DOUBLE ANGLES SHALL BE WELDED TOGETHER.
6. COORDINATE ALL HVAC DUCT OPENINGS THROUGH MASONRY WITH 'M' DWGS.
7. FOR 12" MASONRY PROVIDE 1" SPACER BETWEEN LINTEL ANGLES.

LEGEND:

PL-4 = 5/16" x 11-1/2" x M.O. A36 PLATE WELDED TO BOTTOM FLANGE OF BEAM
E.O.D. = EDGE OF DECK
T.O.ST. = TOP OF STEEL
T.O.D. = TOP OF DECK

NOTES:

1. SR1 INDICATES SPAN OF 22GA. 1.5B-36 GRADE 50 METAL FORM DECK AS MANUFACTURED BY VULCRAFT NUCOR OR APPROVED EQUAL. CONNECTION PATTERN TO 36/4 TO SUPPORTS W/ #12 SCREWS.
2. INSTALL BRIDGING FOR BAR JOISTS AS PER S.J.I. REQUIREMENTS. THE ROW OF BRIDGING NEAREST THE MID SPAN SHALL BE DIAGONAL BRIDGING WITH BOLTED CONNECTIONS AT CHORDS AND INTERSECTIONS.
3. BEAM SEAT TO BE 5" DEEP @ LOW END OF JOIST & 6.5" DEEP @ HIGH END OF JOIST AS PER SJI SLOPED JOIST BEARING SEAT SPECS. SEE 'A' DWGS. FOR ROOF PITCH.

HANGING UNIT WEIGHTS:

UH-1 103 LBS
UH-2 103 LBS
UH-3 103 LBS

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KATIA D. DUQUE, P.E. Date
NJ PROFESSIONAL ENGINEER Lic. No. 24GE04291100

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Designer	Author	Checker	Approver

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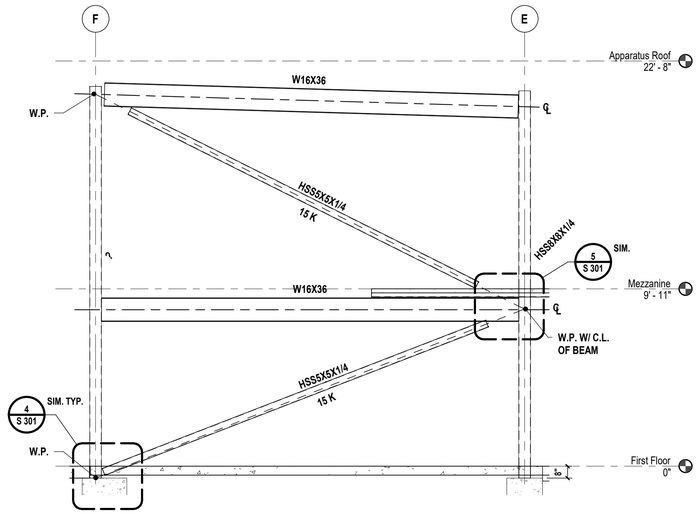
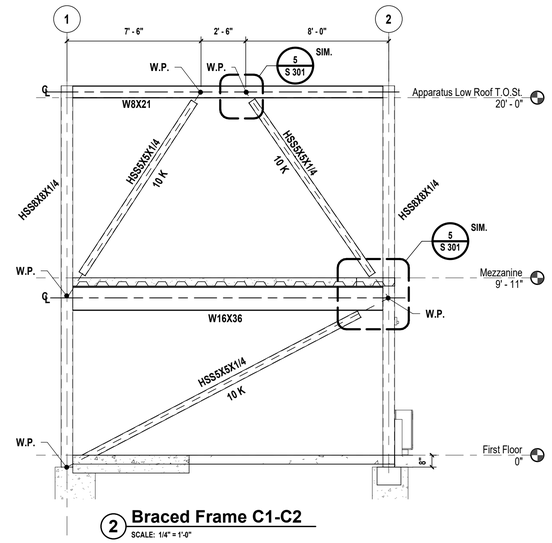
SHEET TITLE
OUTBUILDING ROOF FRAMING PLAN

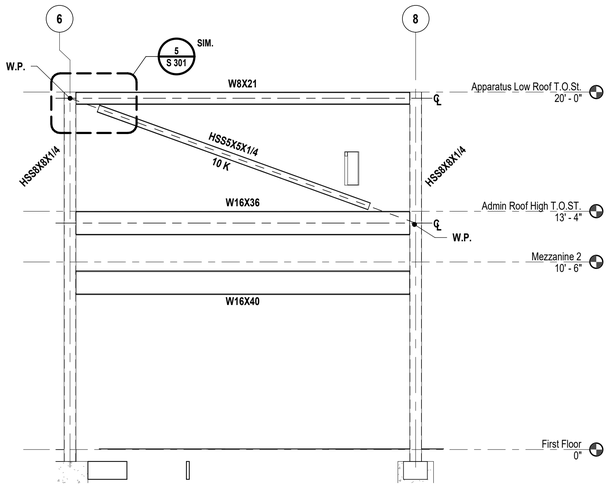
DRAWING No.
S 125.00



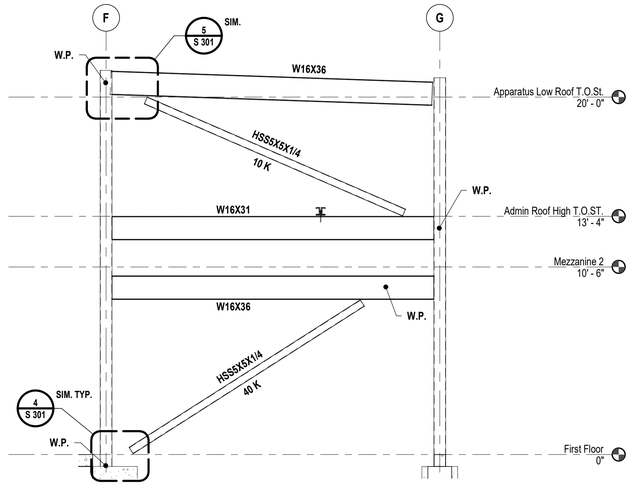
1 **Braced Frame E1-F1**
SCALE: 1/4" = 1'-0"



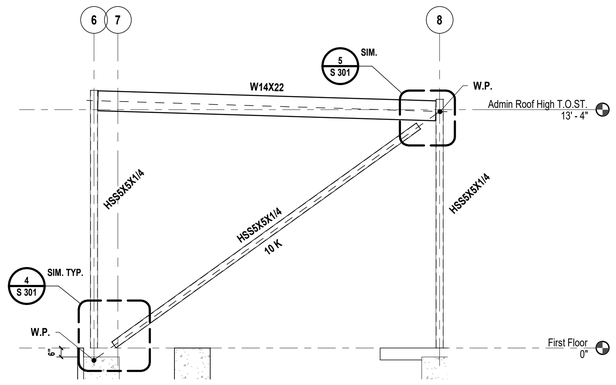
2 **Braced Frame C1-C2**
SCALE: 1/4" = 1'-0"



3 **Braced Frame B6-B8**
SCALE: 1/4" = 1'-0"



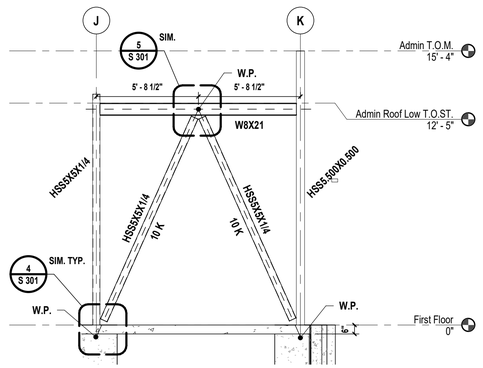
4 **Braced Frame F8-G8**
SCALE: 1/4" = 1'-0"



5 **Braced Frame A6-A8**
SCALE: 1/4" = 1'-0"

NOTES:

1. **STEEL CONNECTION PIECE DETAILS SHALL BE SUBMITTED WITH CALCULATIONS SIGNED AND SEALED BY A NEW JERSEY STATE LICENSED PROFESSIONAL ENGINEER. CONNECTION DESIGNER SHALL DESIGN ALL BRACED FRAME CONNECTIONS. WHERE DESIGN SHEAR REACTION IS NOT LISTED ON DRAWINGS, IT SHALL BE DETERMINED BY THE CONNECTION DESIGNER AS THE MAXIMUM REACTION RESULTING FROM THE INDICATED BEAM SECTION BEING FULLY LOADED WITH MAXIMUM ALLOWABLE UNIFORM LOADS AS SPECIFIED IN AISC SPECIFICATION. WHERE AXIAL FORCE IN BEAMS IN NOT LISTED IN DRAWINGS, IT SHALL BE TAKEN AS 10 KIPS ASD. ALL CONNECTIONS SHALL BE DESIGNED CONSIDERING AXIAL, SHEAR AND MOMENT FORCES SIMULTANEOUSLY AS REQUIRED BY BUILDING CODE. SEE STRUCTURAL STEEL SPECIFICATIONS FOR ADDITIONAL DESIGN LOADING REQUIREMENTS. PROVIDE BEAM & COLUMN LOCAL REINFORCEMENT (AND STIFFENERS) AS NEEDED.**



6 **Braced Frame J11-K11**
SCALE: 1/4" = 1'-0"

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CONSULTANTS:

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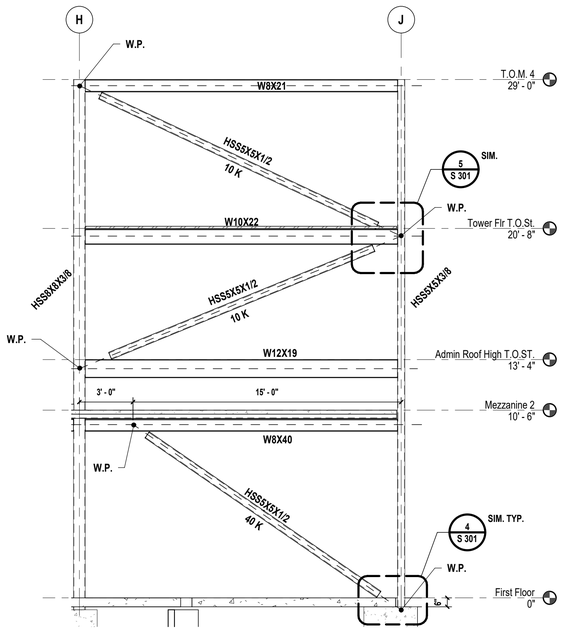
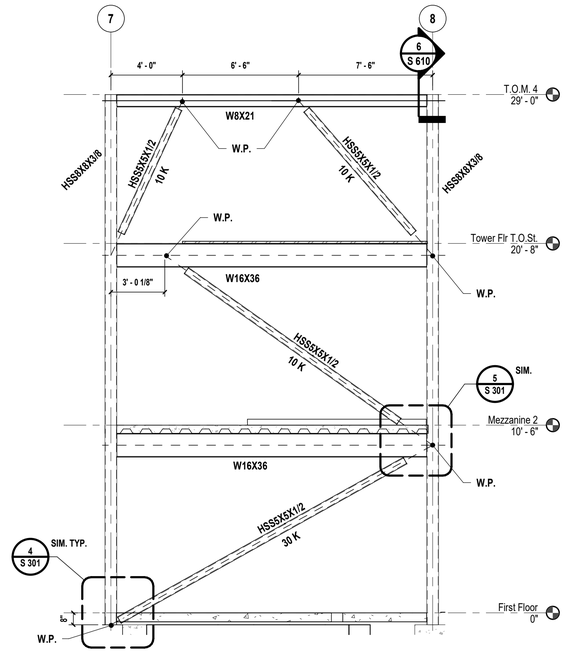
SHEET TITLE
BRACED FRAME ELEVATIONS

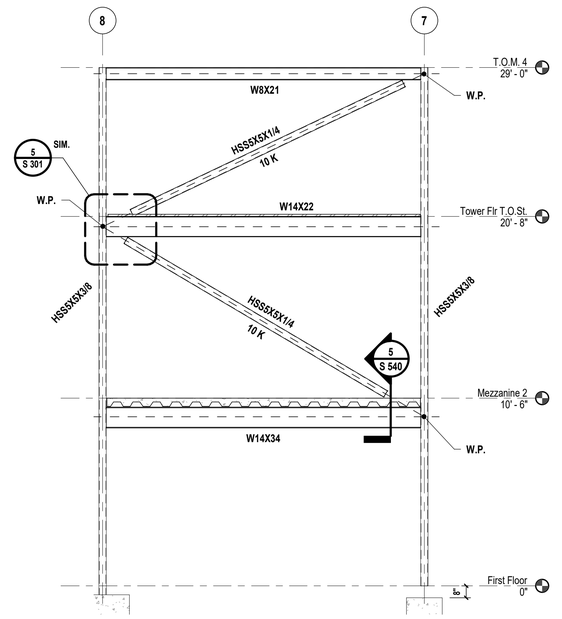
DRAWING No.
S 300.00



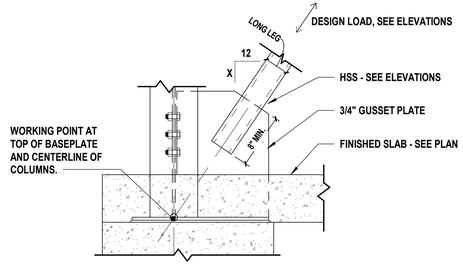
1 **Braced Frame H8-J8**
SCALE: 1/4" = 1'-0"



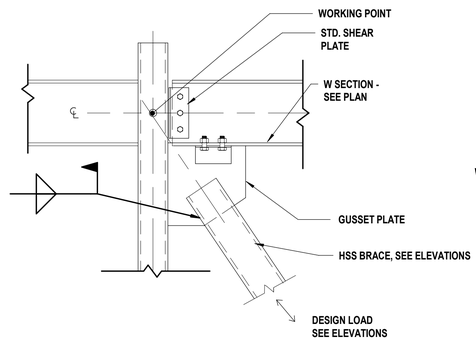
2 **Braced Frame H7-H8**
SCALE: 1/4" = 1'-0"

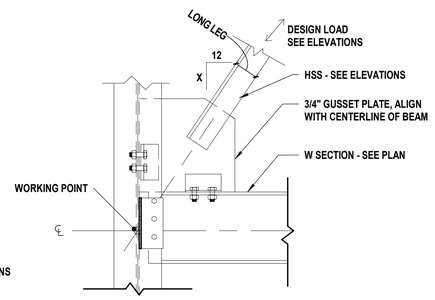


3 **Braced Frame J7-J8**
SCALE: 1/4" = 1'-0"

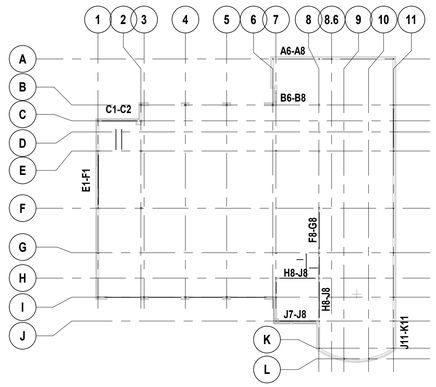


4 **Bracing Connection at Base of Column**
SCALE:1" = 1'-0"





5 **Bracing Connection at Beam**
SCALE:NTS



6 **Braced Frame Key Plan**
SCALE: 1" = 30'-0"

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JES	JES	KDD	Approver

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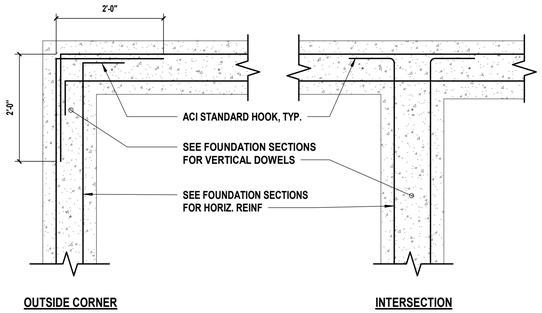
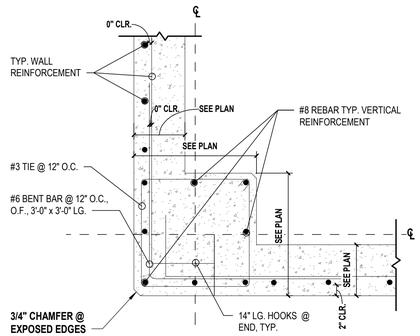
SHEET TITLE
BRACED FRAME ELEVATIONS

DRAWING No.
S 301.00

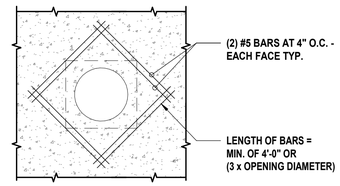


1 Typical Corner Horizontal Reinforcement at Foundation Wall or Footing
SCALENTS

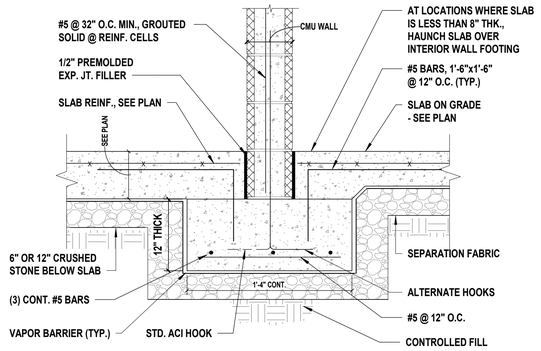


NOTE:
1. CONDITION AT SINGLE LAYER OF WALL REINFORCEMENT SHOWN. DOUBLE LAYER REINFORCEMENT CONDITION SIMILAR. 3'-0" x 3'-0" LONG BENT BARS REQUIRED AT OUTSIDE FACE ONLY.

2 Typical Corner Pier/Foundation Wall Intersection
SCALEN T S



3 Typical Pipe Penetration at Wall or Slab
SCALENTS



NOTE
VAPOR BARRIER TO BE CONTINUOUS UNDER THICKENED SLAB.

4 Typical Interior Footing at Non-Bearing CMU Walls
SCALENTS

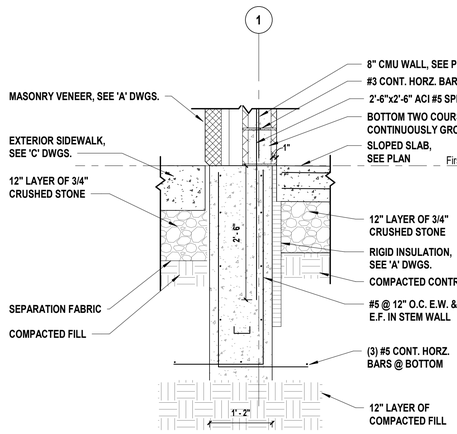
5 Typical Corner Pier Footing
SCALE: N T S

6 Typical Interior Column Footing
SCALENTS

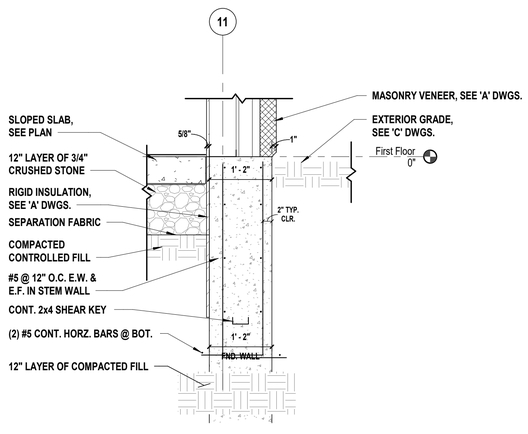
LEGEND:
"T"= THICKNESS OF FOOTING
"D" = DEPTH OF FOOTING CHANGE

NOTES:
1. TOP REINFORCEMENT FOR RETAINING WALL/ COLUMN SUPPORT FOOTINGS NOT SHOWN FOR CLARITY.

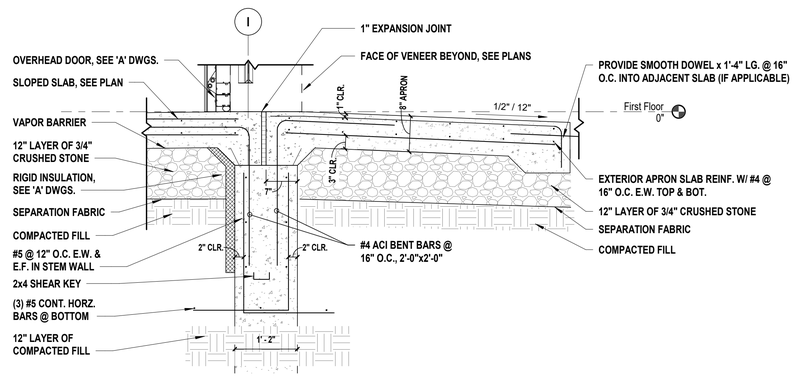
7 Typical Stepped Footing Detail
SCALE:N.T.S.



8 Typical CMU Foundation Wall Section
SCALE: 3/4" = 1'-0"



9 Typical CFS Foundation Wall Section
SCALE: 3/4" = 1'-0"



10 Overhead Door Apron Detail
SCALE: 3/4" = 1'-0"

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CONSULTANTS:

MARK	DATE	DESCRIPTION
00	NOV 7, 2023	90% NFC

KATIA D. DUQUE, P.E. Date
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JES	JES	KDD	Approver

PROJECT No:	DATE:	SCALE:
BOME2201	FEBRUARY 2024	AS SHOWN

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BOROUGH OF METUCHEN
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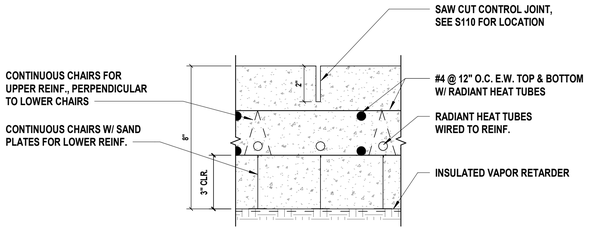
NEW JERSEY

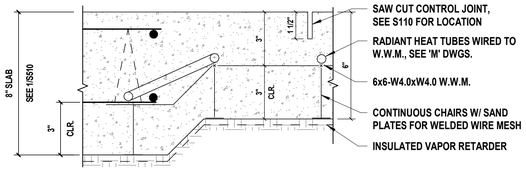
STATUS
90% Submission NFC

SHEET TITLE
FOUNDATION DETAILS

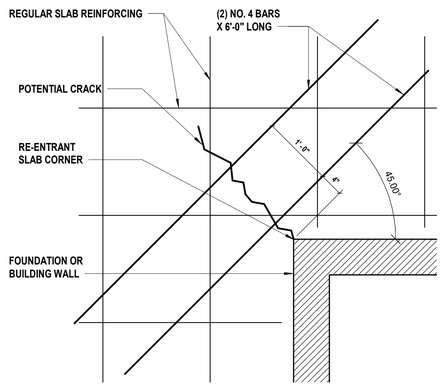
DRAWING No.
S 500.00



1 Slab On-grade w/ Radiant Heating - Apparatus Bay Slab
SCALE:N.T.S.

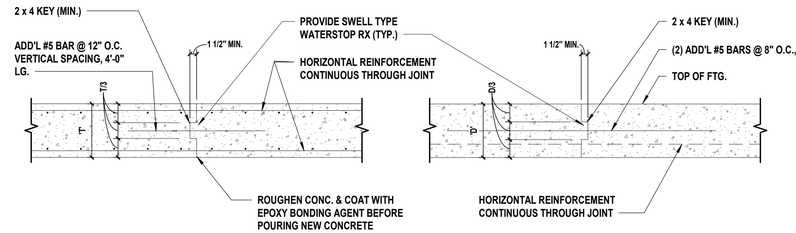


2 Slab On-grade w/ Radiant Heating - 6" Slab Transition
SCALE:N.T.S.



NOTE: THIS DETAIL IS APPLICABLE TO TRENCH DRAIN ENDS AND AS INDICATED ON PLAN

3 Typical Slab Re-Entrant Corner Reinforcement
SCALE:N.T.S.



NOTE:

KEY WIDTH NOT TO EXCEED 1/3 WIDTH OF WALL IN GRADE BEAM. VERTICAL CONSTRUCTION JOINT PERMITTED IN WALL OR GRADE AT ANY POINT 4'-0" MIN. AWAY FROM FACE OF SUPPORTING PIER, BUTTRESS AND/OR WALL OPENING. PROVIDE ONE VERTICAL CONSTRUCTION JOINT FOR EVERY 40'-0" OF STRAIGHT RUN OF WALL.

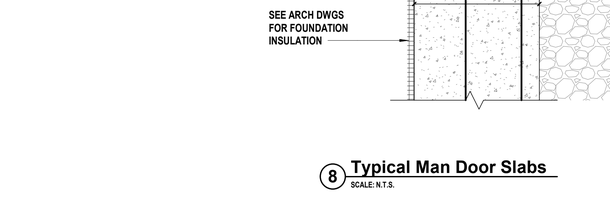
VERTICAL CONSTRUCTION JOINT IN WALL OR GRADE BEAM

VERTICAL CONSTRUCTION JOINT IN CONTINUOUS FOOTING

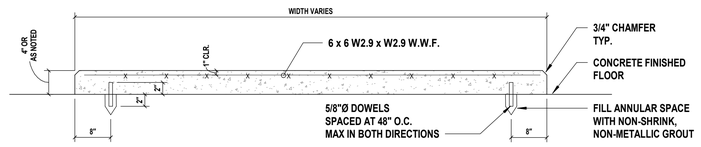
NOTE:

SUBMIT CONSTRUCTION JOINT LAYOUT FOR ALL CONCRETE STRUCTURES FOR ENGINEER'S REVIEW

4 Typical Wall Construction Joint Details
SCALE:N.T.S.

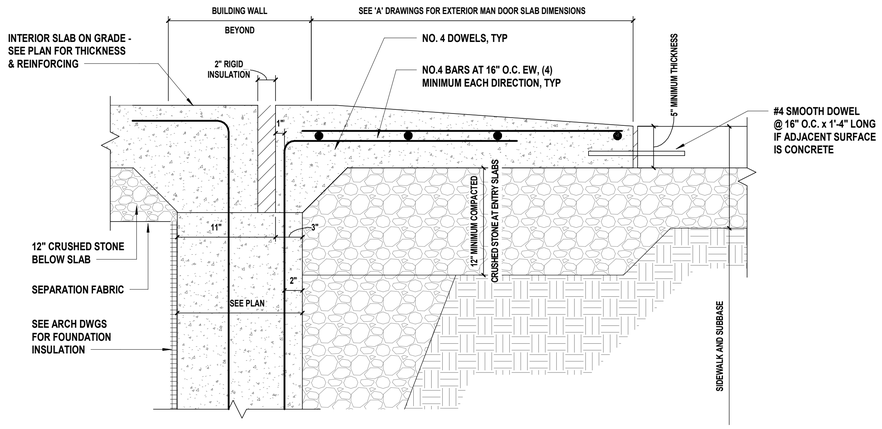


5 Typical Section at Trench Drain
SCALE:N.T.S.

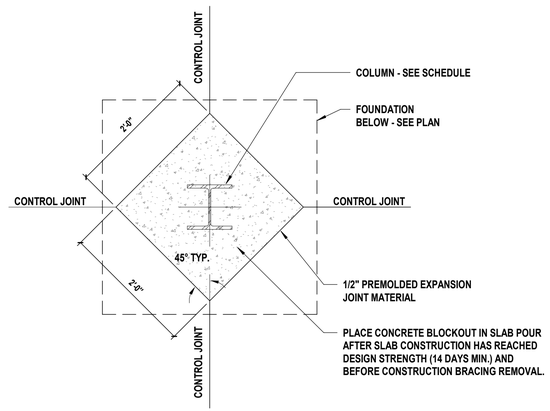


6 Typical Housekeeping Pad
SCALE: NTS

7 Interior Foundation at Door Opening
SCALENTS



8 Typical Man Door Slabs
SCALE: N.T.S.



DIAMOND BLOCKOUT AROUND COLUMN

9 Typical Column Expansion Joint Details
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Date

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JES	JES	KDD	Approver

PROJECT No:	DATE:	SCALE:
BOME2201	FEBRUARY 2024	AS SHOWN

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SHEET TITLE
SLAB DETAILS

DRAWING No.
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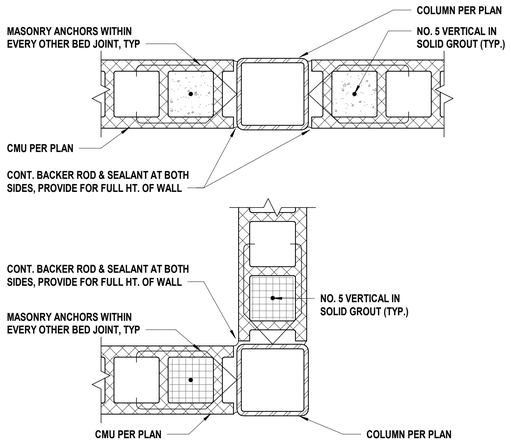
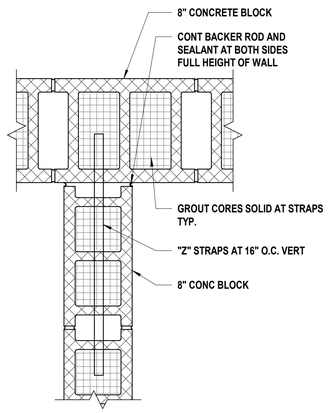
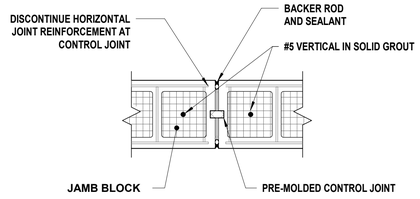


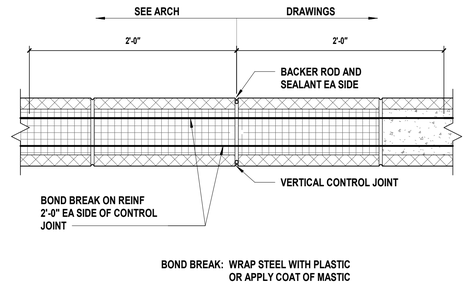
1 CMU Walls at HSS Columns
SCALE:N.T.S.



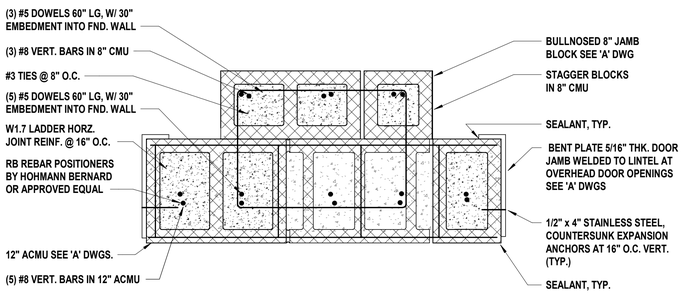
2 CMU Block Intersection
SCALE: N.T.S.



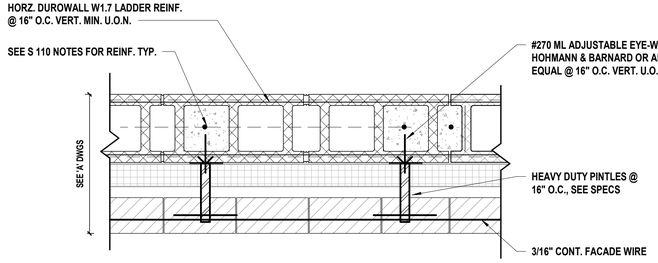
3 Typical CMU Wall Control Joint
SCALE:N.T.S.



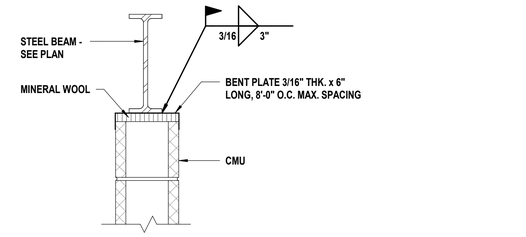
4 CMU Bond Beam at Vertical Control Joint
SCALE:N.T.S.



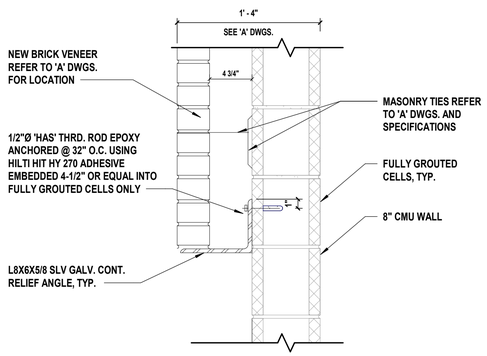
5 Outbuilding Pilaster Detail
SCALE:NTS



6 Typical CMU Wall/Veneer Reinforcing Detail
SCALE: 1 1/2" = 1'-0"

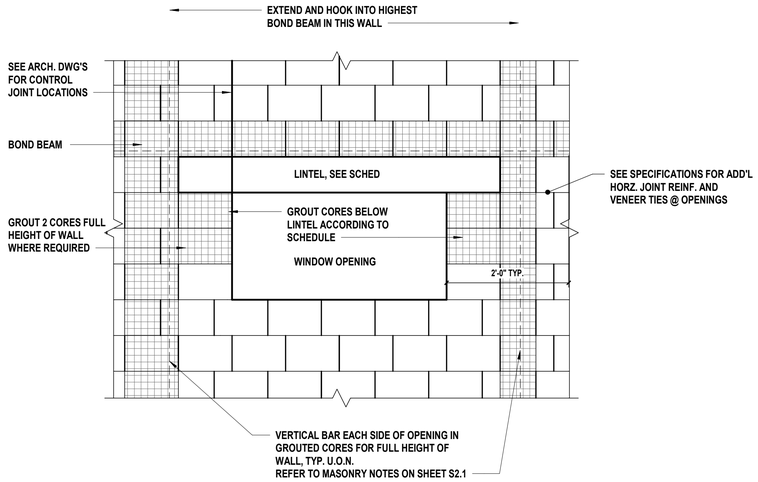


7 Typical Beam Bracing Top of CMU Wall
SCALE:N.T.S.

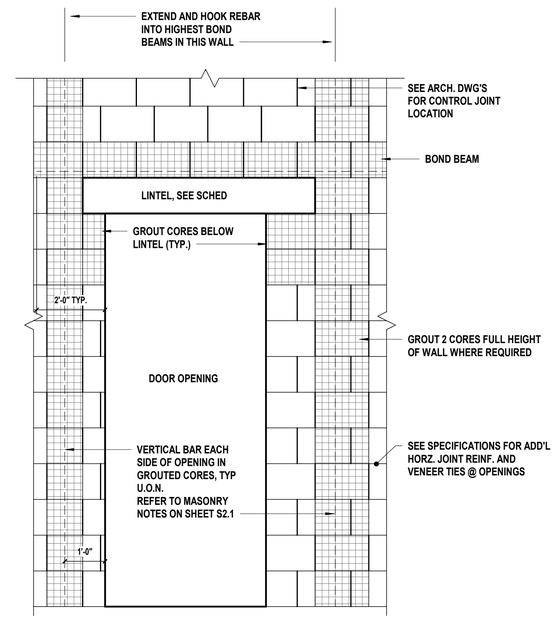


NOTE:
REFER TO 'A' DWGS. FOR INSULATION REQUIREMENTS AS WELL AS ADDITIONAL INFO FOR MASONRY NOT DEPICTED HERE.

8 Veneer Over Roof Line Relief Angle
SCALE: 1 1/2" = 1'-0"



9 CMU Reinforcing at Window or Louver Opening
SCALE:N.T.S.



10 CMU Reinforcing at Door Openings
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JES	JES	KDD	Approver

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SHEET TITLE
MASONRY DETAILS

DRAWING No.
S 520.00

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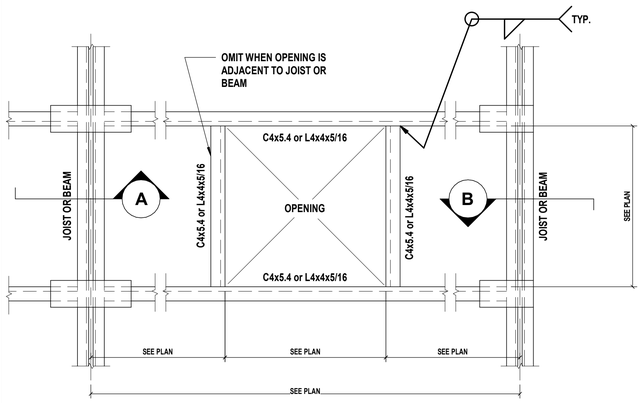
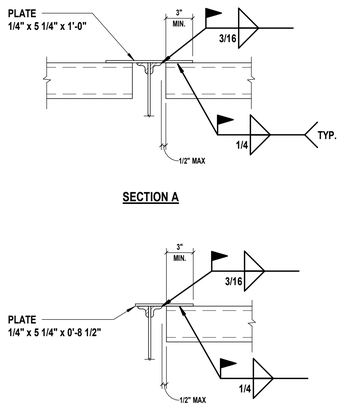
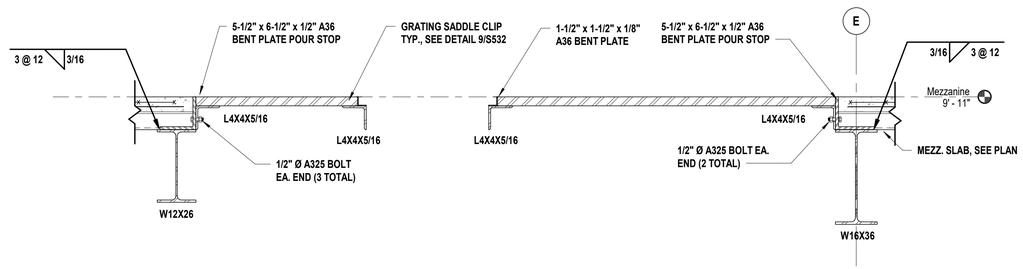
3/12/2024 6:20:32 PM

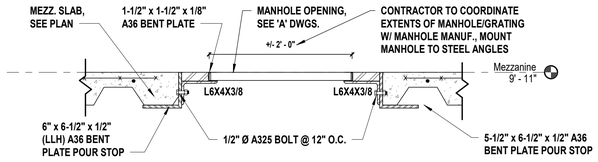




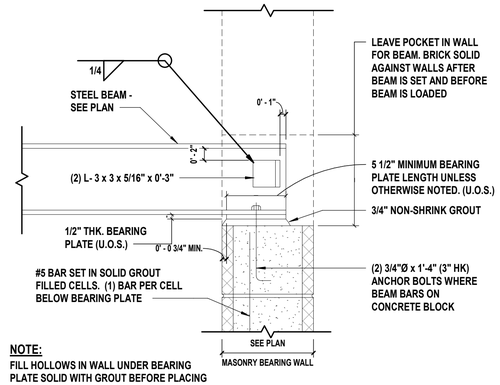
1 Typical Framing at Roof Openings
SCALENTS



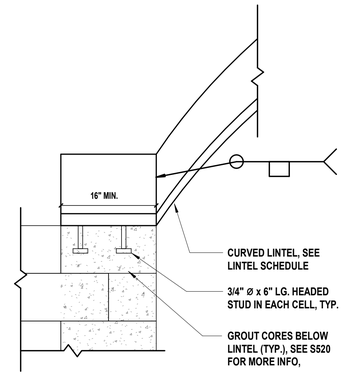
2 Section at Training Manhole
SCALE: 1" = 1'-0"



3 Cross Section at Training Manhole
SCALE:1" = 1'-0"

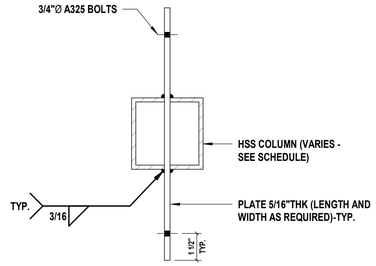


4 Beam Bearing on CMU Wall
SCALE: 1" = 1'-0"

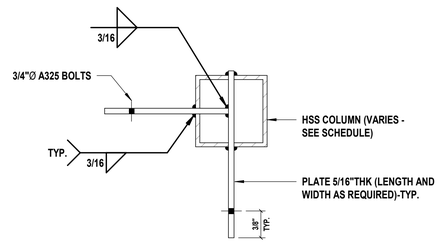


NOTE: MASONRY ABOVE LINTEL NOT SHOWN FOR CLARITY

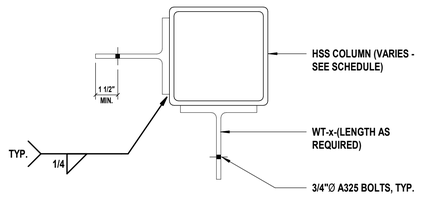
5 Curved Lintel Bearing
SCALE: 1" = 1'-0"



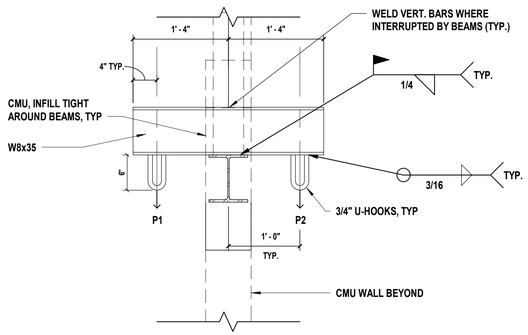
AT INTERMEDIATE OR TOP CONNECTION LEVELS



AT TOP CONNECTION LEVEL

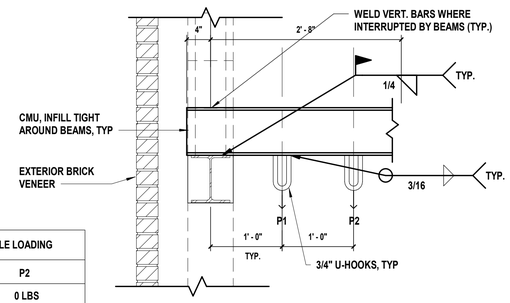


AT INTERMEDIATE CONNECTION LEVELS



TRAINING DEVICE ALLOWABLE LOADING		
P1		P2
6,000 LBS	&	0 LBS
0 LBS	&	6,000 LBS
3000 LBS	&	3,000 LBS

NOTE: 16" BEARING ON EACH SIDE OF OPENING



6 Training Device - Beams With U-Hooks
SCALE:N.T.S.

7 Shear Connections at HSS Steel Columns
SCALE:N.T.S.

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JES	JES	KDD	Approver

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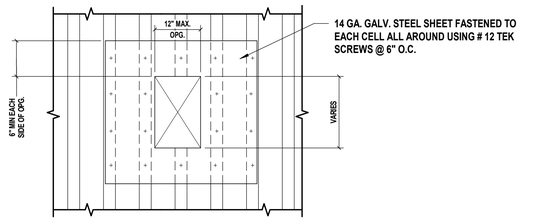
SHEET TITLE
STRUCTURAL STEEL DETAILS

DRAWING No.
S 530.00

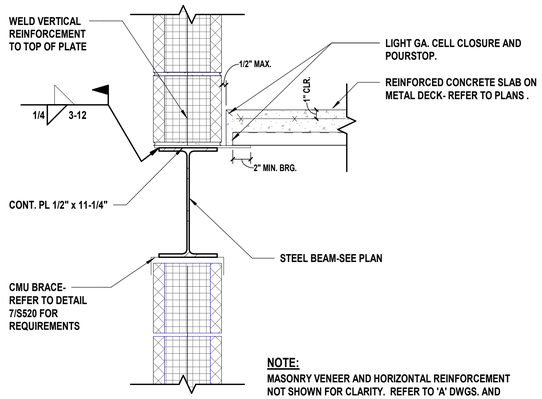


NOTE:

FOR HOLES 6"Ø OR LESS NO REINFORCING IS REQUIRED UNLESS OTHERWISE INDICATED.

1 Typical Deck Support Openings To 12" Perpendicular To Flutes

SCALE:NTS

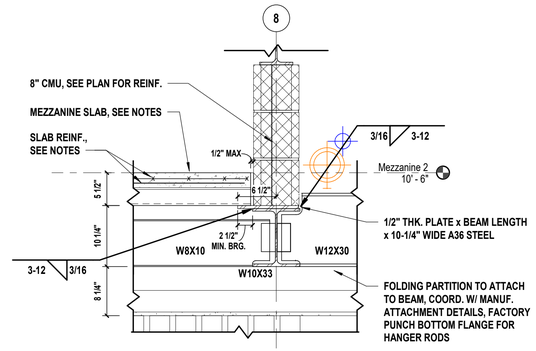


NOTE:

MASONRY VENEER AND HORIZONTAL REINFORCEMENT NOT SHOWN FOR CLARITY. REFER TO 'A' DWGS. AND SPECIFICATIONS FOR REQUIREMENTS.

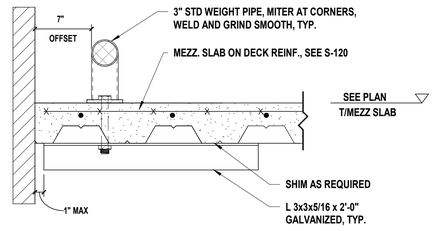
2 CMU and Deck Bearing at Beam

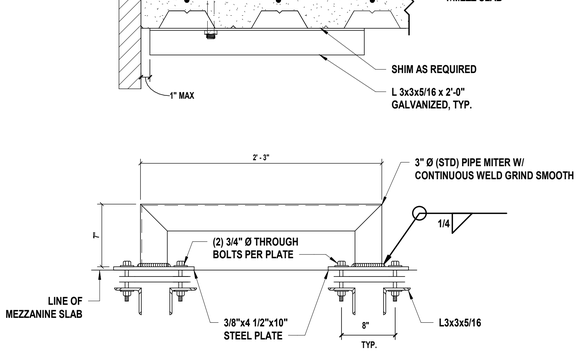
SCALE: 1 1/2" = 1'-0"



3 Mezzanine Deck-Beam Connection Detail

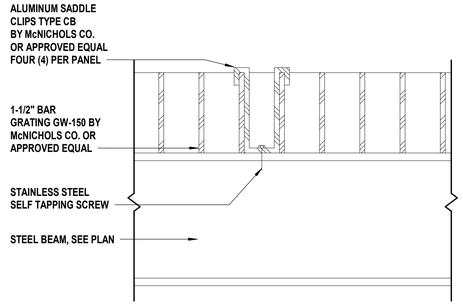
SCALE: 1" = 1'-0"





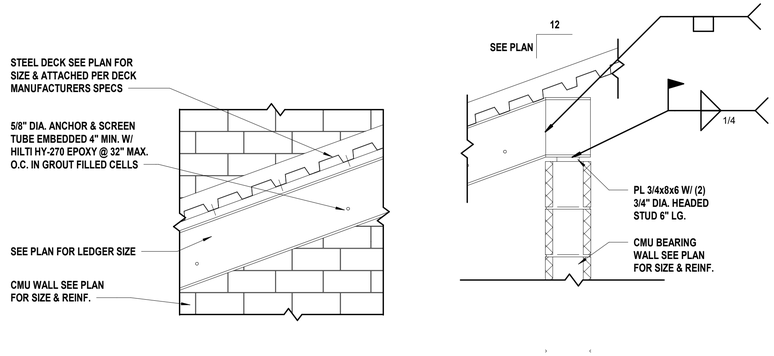
4 Tie Off Rail at Mezzanine Slab

SCALE:N.T.S.



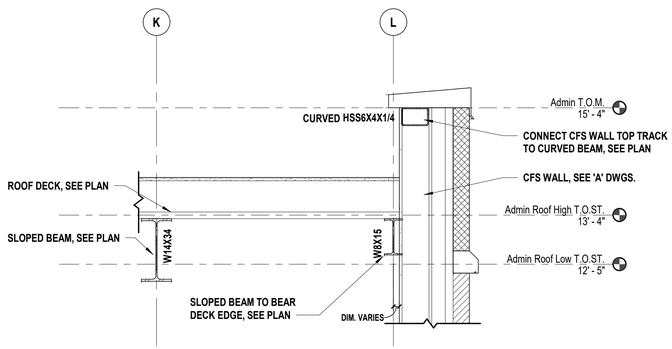
5 Grating Fastener to Structural Framing

SCALE:NTS



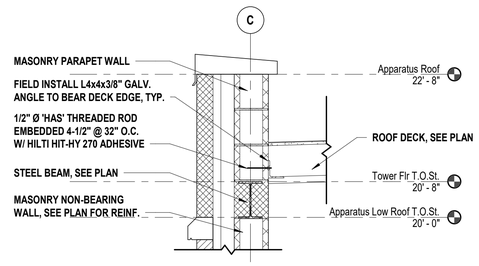
6 Typical Sloped Ledger Detail

SCALE: 1" = 1'-0"



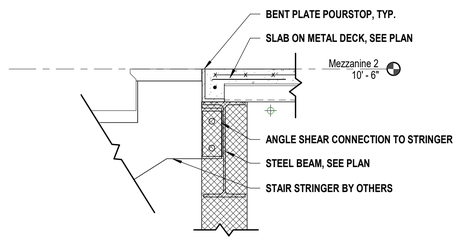
7 Section at Curved Front Wall

SCALE: 3/4" = 1'-0"



8 Typical Roof Deck Bearing End Detail - CMU Wall

SCALE: 3/4" = 1'-0"



9 Stair Stringer Typical Detail

SCALE: 1" = 1'-0"

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NJ Engineering Certificate of Authorization No.: 24GA28025500

CONSULTANTS:

MARK	DATE	DESCRIPTION
00	NOV 7, 2023	90% NFC

KATIA D. DUQUE, P.E. Date
NJ PROFESSIONAL ENGINEER Lic. No. 24GE04291300

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
JES	JES	KDD	Approver
PROJECT No:	DATE:	SCALE:	
BOME2201	FEBRUARY 2024	AS SHOWN	

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BOROUGH OF METUCHEN
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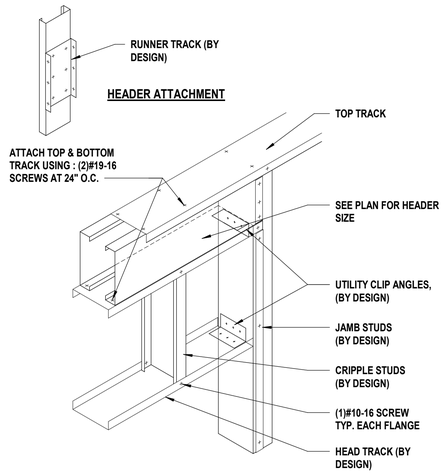
NEW JERSEY

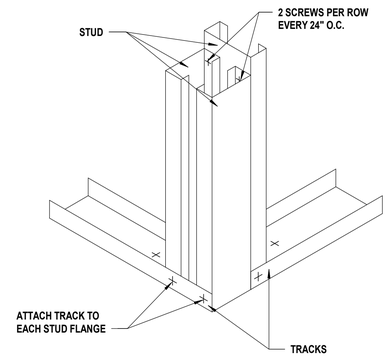
STATUS: **90% Submission NFC**

SHEET TITLE: **METAL DECK DETAILS**

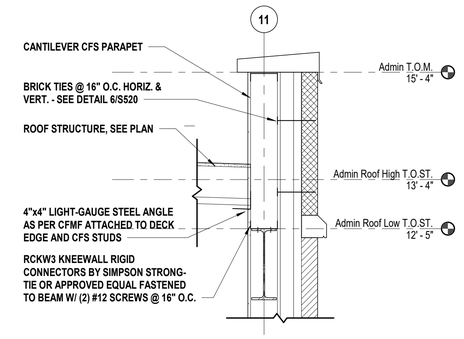
DRAWING No.: **S 532.00**



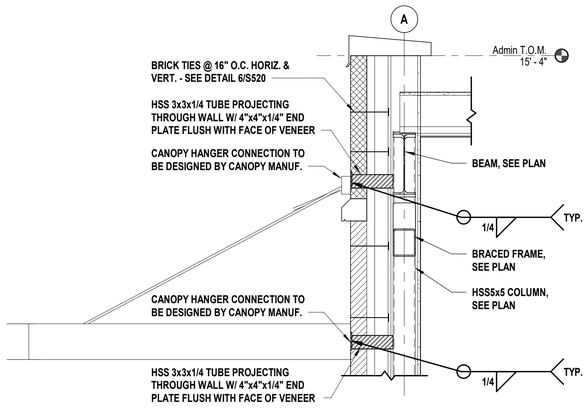
1 Boxed Header Connection
SCALE: 3/4" = 1'-0"



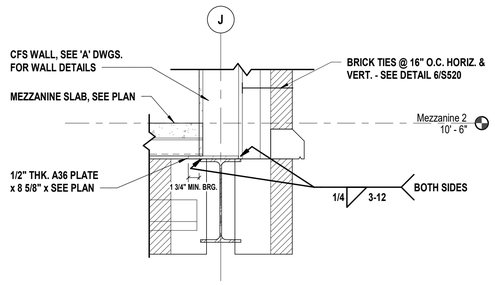
2 Three Stud Corner
SCALE: 3/4" = 1'-0"



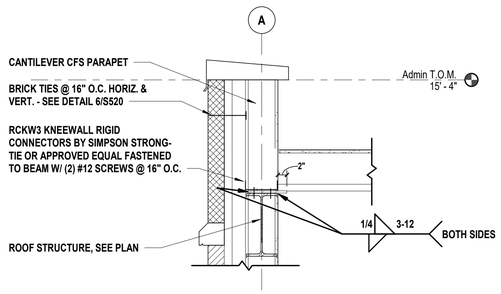
3 Cold-Formed Steel Parapet Detail
SCALE: 3/4" = 1'-0"



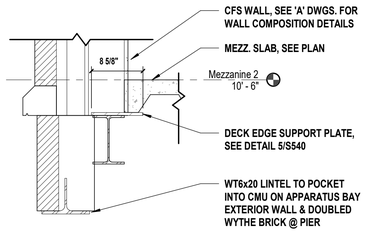
4 Section at Entrance Roof Overhang Connection
SCALE: 3/4" = 1'-0"



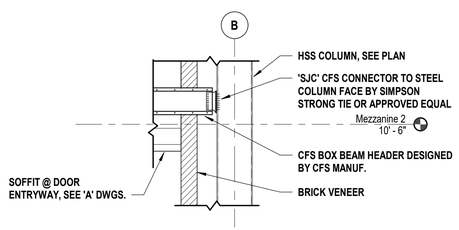
5 Section at Front Wall Venner Support
SCALE: 1" = 1'-0"



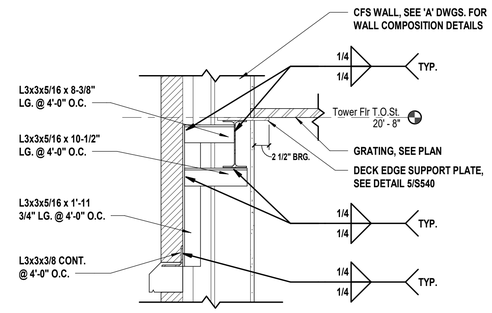
6 CFS Parapet w/ Deck Bearing End Detail
SCALE: 3/4" = 1'-0"



7 Section at Front Entry Way
SCALE: 1" = 1'-0"



8 CFS Box Beam Header to Steel Column Connection Detail
SCALE: 3/4" = 1'-0"



9 Front Wall Veneer Support Detail
SCALE: 1" = 1'-0"

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Date

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
JES	JES	KDD	Approver

PROJECT No:	DATE:	SCALE:
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NEW JERSEY

STATUS
90% Submission NFC

SHEET TITLE
COLD-FORMED STEEL DETAILS

DRAWING No.
S 540.00

C:\Users\jschelner\OneDrive - H2M architect + engineers\Documents\BOME2201_Central21_S2_jschelnerX2E5F.rvt
3/12/2024 6:20:37 PM

COLUMN SCHEDULE

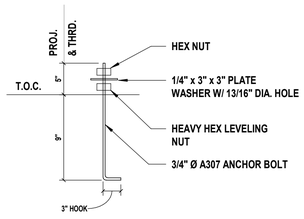
COLUMN DESIGNATION	A				B						C		D	E				F					G				H		I						J			K		L	
	6	8	8.6	11	2	4	5	6	8	11	1	2	8	1	2	7	8	11	1	2	7	8	11	1	7	8	11	7	8	1	3	4	5	7	11	7	8	11	8	11	9	10
TOWER T.O.M. [29'-0"]																												+29'-0"	+29'-0"					+29'-0"			+29'-0"	+29'-0"				
T.O.M. 3 [22'-8"]					+20'-0"	+20'-0"	+20'-0"	+20'-0"	+20'-0"		+20'-8"	+20'-8"		+21'-0"	+21'-0"	+21'-0"	+21'-0"		+21'-3"	+21'-3"	+21'-6"	+21'-6"		+21'-1"	+21'-1"	+21'-1"				+20'-0"	+20'-0"	+20'-0"	+20'-0"						+15'-4"	+15'-4"	+15'-4"	+15'-4"
T.O.M. 2 [15'-4"]	+14'-5"	+13'-11"	+13'-11"	+13'-11"						+12'-11"			+10'-6"					+12'-11"					+12'-11"				+12'-11"							+12'-11"			+12'-11"				
FIRST FLOOR [0'-0"]	HSS 5x5x1/4	HSS 5x5x1/4	HSS 5x5x1/4	HSS 5x5x1/4	HSS 8x8x1/4	HSS 8x8x1/4	HSS 8x8x1/4	HSS 8x8x1/4	HSS 8x8x1/4	HSS 5x5x1/4	HSS 8x8x1/4	HSS 8x8x1/4	HSS 8x8x1/4	HSS 8x8x1/4	HSS 8x8x1/4	HSS 8x8x1/4	HSS 8x8x1/4	HSS 5x5x1/4	HSS 8x8x1/4	HSS 8x8x1/4	HSS 8x8x1/4	HSS 8x8x1/4	HSS 5x5x1/4	HSS 8x8x1/4	HSS 8x8x1/4	HSS 8x8x1/4	HSS 5x5x1/4	HSS 8x8x3/8	HSS 8x8x3/8	HSS 8x8x1/4	HSS 8x8x1/4	HSS 8x8x1/4	HSS 8x8x1/4	HSS 8x8x3/8	HSS 5x5x1/4	HSS 5x5x3/8	HSS 5x5x3/8	HSS 5x5x1/4	ROUND HSS 5.5x0.5	ROUND HSS 5.5x0.5	ROUND HSS 5.5x0.5	ROUND HSS 5.5x0.5
	[-0'-5 1/4"]	[-0'-5 1/4"]	[-0'-5 1/4"]	[-0'-5 1/4"]	[-0'-7 1/4"]	[-0'-7 1/4"]	[-0'-7 1/4"]	[-0'-7 1/4"]	[-0'-7 1/4"]	[-0'-5 1/4"]	[-0'-7 1/4"]	[-0'-7 1/4"]	[-0'-7 1/4"]	[-0'-7 1/4"]	[-0'-7 1/4"]	[-0'-7 1/4"]	[-0'-7 1/4"]	[-0'-5 1/4"]	[-0'-7 1/4"]	[-0'-7 1/4"]	[-0'-7 1/4"]	[-0'-7 1/4"]	[-0'-5 1/4"]	[-0'-7 1/4"]	[-0'-7 1/4"]	[-0'-7 1/4"]	[-0'-5 1/4"]	[-0'-7 1/4"]	[-0'-7 1/4"]	[-0'-7 1/4"]	[-0'-7 1/4"]	[-0'-7 1/4"]	[-0'-7 1/4"]	[-0'-7 1/4"]	[-0'-5 1/4"]	[-0'-7 1/4"]	[-0'-7 1/4"]	[-0'-5 1/4"]	[-0'-5 1/4"]	[-0'-5 1/4"]	[-0'-5 1/4"]	[-0'-5 1/4"]
BASE PLATE	BP1	BP2	BP2	BP2	BP3	BP3	BP3	BP3	BP3	BP2	BP4	BP3	BP3	BP3	BP3	BP3	BP3	BP2	BP6	BP7	BP7	BP8	BP2	BP3	BP3	BP3	BP2	BP4	BP7	BP3	BP3	BP3	BP3	BP3	BP3	BP2	BP5	BP2*	BP10	BP9	BP10	BP10
COLUMN PIER	CP1	CP1	CP1	CP1	CP1	CP1	CP1	CP1	CP1	CP1	CP3	CP1	CP1	CP1	CP1	CP1	CP1	CP1	CP2	CP1	CP1	CP6	CP1	CP1	CP1	CP1	CP1	CP4	CP1	CP1	CP1	CP1	CP1	CP1	CP1	CP1	CP4	CP1	CP5	CP1	CP5	CP5
FOOTING	F5	F1	F1	F1	F1	F1	F1	F2	F2	F1	F6	F8	F1	F2	F2	F1	F3	F1	F6	F4	F4	F11	F1	F1	F1	F1	F1	F7*	F3	F1	F1	F1	F1	F7*	F1	F1	F9	F3	F1	F10	F1	F1

NOTES:

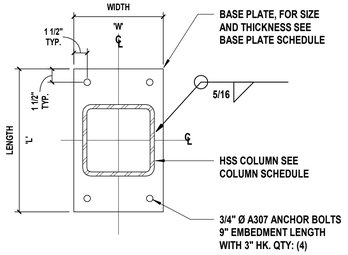
1. INDICATES TOP OF COLUMN/TOP PLATE
2. INDICATES BOTTOM OF BASE PLATE
3. SEE BASE PLATE DETAIL AND SCHEDULE TO DETERMINE BOTTOM OF COLUMN ELEVATION.
4. SEE "FOOTING SCHEDULE" FOR FOOTING SIZE AND REINFORCING.
5. ALL BASE PLATES TO BEAR ON CONCRETE SHALL BE SHIMMED USING 3/4" NON-METALLIC, NON-SHRINK GROUT.
6. ALL COLUMNS EXPOSED IN BAY & BAY SUPPORT AREAS & ENTRANCE CANOPY SHALL BE GALVANIZED.

COLUMN PIER SCHEDULE

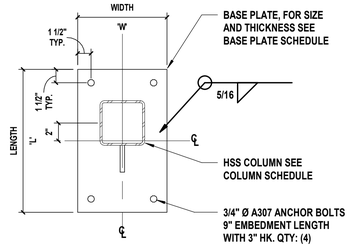
MARK	PIER SIZE	REINF. LAYOUT
CP1	24" x 24"	(3) #4 TIES @ TOP
CP2	24" x 30"	(4) #4 TIES @ TOP
CP3	30" x 24"	(3) #4 TIES @ TOP
CP4	36" x 36"	(6) #4 TIES @ TOP
CP5	18" x 18"	(3) #4 TIES @ TOP
CP6	24" x 30"	(5) #4 TIES @ TOP



1 **Typical Anchor Bolt Detail**
SCALE:N.T.S.



3 **Base Plate BP2, BP3, BP7**
SCALE:N.T.S.

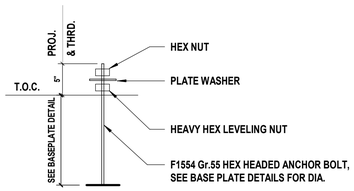


4 **Base Plate BP2* w/ Gusset Plate**
SCALE:N.T.S.

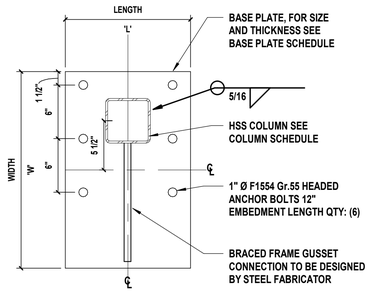
NOTE: BP2* OCCURS AT LOCATIONS WITH GUSSET PLATES FOR BRACED FRAME ATTACHMENTS. THIS SHALL HAVE THE COLUMN OFFSET 2" FROM THE CENTERLINE.

BASE PLATE SCHEDULE

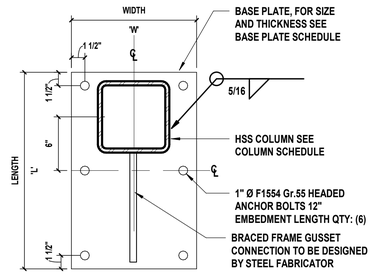
MARK	WIDTH 'W'	LENGTH 'L'	THICKNESS
BP1	18"	12"	3/4"
BP2, BP2*	12"	12"	5/8"
BP3	14"	14"	1/2"
BP4	24"	14"	1"
BP5	14"	24"	1"
BP6	16"	26"	1"
BP7	14"	14"	3/4"
BP8	14"	26"	1"
BP9	12"	12"	5/8"
BP10	9"	9"	1/2"



2 **Typical Headed Anchor Bolt Detail**
SCALE:N.T.S.



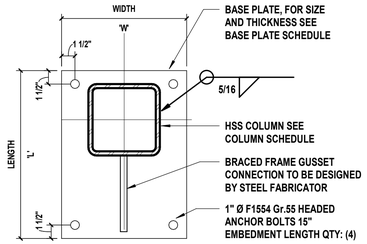
5 **Base Plate BP5**
SCALE:N.T.S.



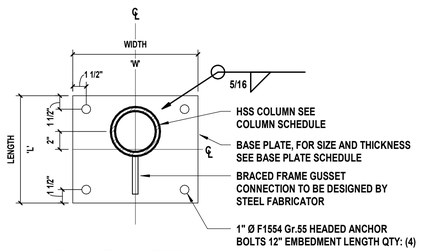
6 **Base Plate BP4, BP6**
SCALE:N.T.S.

FOOTING SCHEDULE

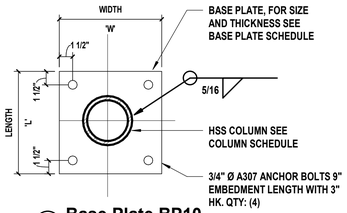
FOOTING TYPE	SIZE (LxW)	THICKNESS	REINFORCEMENT	COMMENTS
F1	5'-0" x 5'-0"	12"	(7) #5 BARS BOT. E.W.	-
F2	6'-0" x 6'-0"	12"	(6) #5 BARS BOT. E.W.	-
F3	7'-0" x 7'-0"	12"	(6) #5 BARS T & B, E.W.	-
F4	9'-0" x 9'-0"	14"	(10) #6 BARS T & B, E.W.	-
F5	9'-0" x 9'-0"	12"	(8) #5 BARS T & B, E.W.	-
F6	10'-0" x 10'-0"	12"	(9) #5 BARS T & B, E.W.	-
F7*	14'-0" x 8'-0"	12"	(18) #6 BARS T & B. LONG., (16) #6 BARS T & B. TRANS.	*COMBINED FTG.
F8	5'-0" x 5'-0"	12"	(6) #6 BARS T & B, E.W.	-
F9	11'-0" x 11'-0"	12"	(11) #6 BARS BOT. E.W.	-
F10	8'-0" x 8'-0"	12"	(8) #5 BARS T & B, E.W.	-
F11	12'-0" x 12'-0"	14"	(12) #6 BARS T & B, E.W.	-



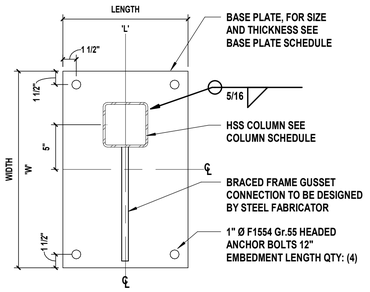
7 **Base Plate BP8**
SCALE:N.T.S.



8 **Base Plate BP9**
SCALE: N.T.S.



9 **Base Plate BP10**
SCALE: N.T.S.



10 **Base Plate BP1**
SCALE: N.T.S.

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KATIA D. DUQUE, P.E.
NJ PROFESSIONAL ENGINEER Lic. No. 24GE04281100 — Date

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
JES	JES	KDD	Approver

PROJECT No:	DATE:	SCALE:
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COUNTY OF MIDDLESEX
NEW JERSEY

STATUS
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SHEET TITLE
COLUMN SCHEDULE AND DETAILS

DRAWING No.
S 600.00

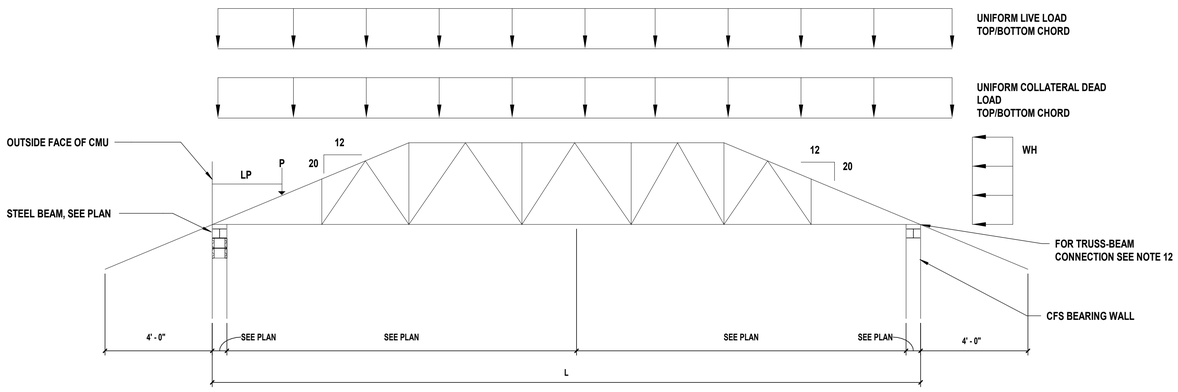
TRUSS SCHEDULE

TRUSS ASSEMBLY	UNIFORM LOADS				LATERAL LOADS	NET UPLIFT ASD (0.6D+0.6W)	LOAD LOCATION (LP)	
	TOP CHORD		BOTTOM CHORD		WIND WH (PSF)	PSF	TOP CHORD	BOTTOM CHORD
	DL (PLF)	SL (PLF)	DL (PLF)	LL (PLF)				
T1	65	78*	48.75	32.5	13.3	9.76	T5 RXN	-
T2	65	78*	48.75	32.5	13.3	9.76	T4 RXN	-
T3	33	33	25	33	13.3	9.76	T8 RXN, T6 RXN	T8 RXN, T6 RXN
T4	65	78	48.75	32.5	7.84	9.76	-	-
T5	65	78	48.75	32.5	7.84	9.76	-	-
T6	60	72	45	30	7.84	9.76	T7 RXN	T7 RXN
T7	65	78	48.75	32.5	7.84	9.76	-	-
T8	80	96	60	40	7.84	9.76	-	-

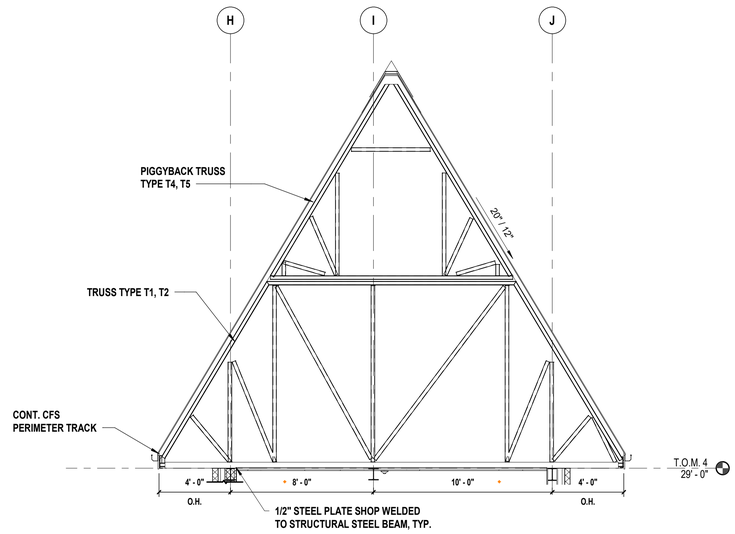
1 Truss Schedule and Diagram
SCALE: NTS

PRE-ENGINEERED TRUSS NOTES:

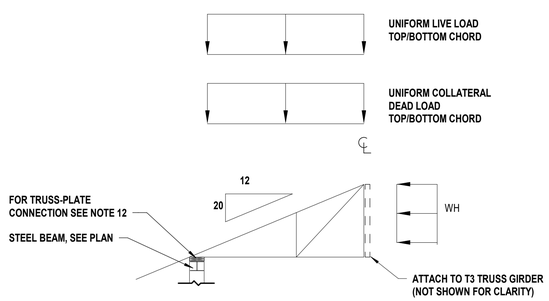
1. COLD FORMED STEEL ROOF TRUSSES SHALL BE DESIGNED AND FABRICATED BY A SHOP OR FABRICATOR SPECIALIZING IN THIS WORK, AND UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER LICENSED IN NJ.
2. TRUSSES SHALL BE DESIGNED AND MANUFACTURED IN CONFORMANCE WITH AISI & BCNJ. TRUSS DESIGNER TO SCCOUNT FOR UNBALANCED SNOW LOAD CONDITIONS AS PER BCNJ & ASCE 7.
3. THE TRUSS DESIGN SHALL INCLUDE TRUSS FRAMING CONFIGURATION AS SHOWN INCLUDING TRUSS ANCHORAGE, MISC. FRAMING, AND ALL TEMPORARY AND PERMANENT BRACING.
4. THE CONTRACTOR SHALL RETAIN A LICENSED PROFESSIONAL ENGINEER FOR THE DESIGN OF ALL PORTIONS AND COMPONENTS OF THE ROOF FRAMING EXCLUDED BY THE TRUSS SUPPLIER. A COMPLETE DESIGN PACKAGE SHALL BE SUBMITTED FOR REVIEW AND COMMENT BEFORE FABRICATION BEGINS. CONTRACTOR TO COORDINATE THE HEIGHTS OF TRUSSES W/ TRUSS MANUF. & ROOF SLOPES/ELEVATIONS (SEE 'A' DWGS.).
5. TRUSSES SHALL BE MANUFACTURED, HANDLED, AND ERECTED IN A MANNER TO PRECLUDE EXCESSIVE LATERAL BENDING STRESSES.
6. TRUSSES SHALL BE ANCHORED TO TOP OF STEEL PLATES WITH APPROVED CONNECTIONS.
7. FIELD CUTTING AND/OR MODIFICATION OF TRUSSES IS PROHIBITED.
8. ANY AND ALL DAMAGED TRUSSES SHALL BE REPLACED WITH NEW TRUSSES OR SHALL BE REPAIRED ONLY BY DETAILS PREPARED BY THE TRUSS MANUFACTURER. REPAIR DETAILS SHALL BE SEALED BY THE PROFESSIONAL ENGINEER RESPONSIBLE FOR THE ORIGINAL TRUSS DESIGN, AND SHALL BE SUBMITTED FOR REVIEW AND COMMENT BEFORE ANY REPAIRS ARE UNDERTAKEN.
9. TEMPORARY BRACING IS THE FULL RESPONSIBILITY OF THE CONTRACTOR.
10. PERMANENT TRUSS BRACING SHALL BE DESIGNED BY THE TRUSS MANUFACTURER OR ANOTHER LICENSED PROFESSIONAL ENGINEER. THE DESIGN SHALL INDICATE MEMBER SIZES, PLACEMENT, AND CONNECTIONS. THE PACKAGE SHALL COMPLETELY DETAIL ALL COMPRESSION WEB BRACING, AS WELL AS MINIMUM PERMANENT BRACING CONSISTING OF:
    - A. CONTINUOUS HORIZONTAL LONGITUDINAL BRACING ALONG BOTTOM CHORDS AT 10FT O.C. MAX.
    - B. W-BRACING ASSEMBLIES AT BOTTOM CHORDS LATERALLY ALONG LENGTH OF TRUSSES; W-DIAGONALS EXTENDING LONGITUDINALLY OVER (4) TRUSSES MINIMUM. W-BRACING ASSEMBLIES SPACED AT 20FT O.C. MAX.
    - C. LONGITUDINAL CROSS BRACING ASSEMBLIES ALONG TRUSS WEBS AT 10FT O.C. MAX LATERALLY, AND 20FT O.C. MAX LONGITUDINALLY.
11. REFER TO SPEC 054400 FOR MORE INFO.
12. PRE-ENGINEERED TRUSS MANUFACTURER TO PROVIDE CONNECTION FROM TRUSS TO STRUCTURAL STEEL BEAMS, REFER TO TRUSS LOADING DIAGRAM FOR MORE INFO.
13. * INDICATES THE LOAD APPLIES TO THE SLOPED CHORDS OF THE TRUSS ONLY. THE LOAD IS NOT APPLICABLE FOR THE FLAT TOP CHORD.



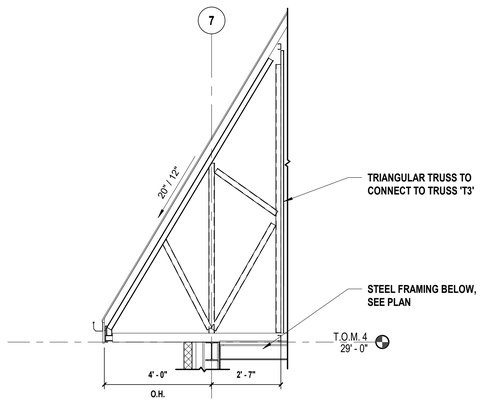
2 Truss Types "T1, T2, T3" Diagram
SCALE: N.T.S.



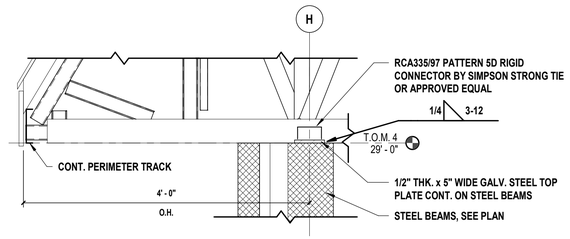
3 Section at Tower Piggy-Back Truss
SCALE: 1/4" = 1'-0"



4 Truss Types "T6, T7, T8" Diagram
SCALE: N.T.S.



5 Section at Triangular Truss Types T6, T7, T8
SCALE: 3/8" = 1'-0"



6 Truss-Steel Connection Detail
SCALE: 1" = 1'-0"

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CONSULTANTS:

MARK	DATE	DESCRIPTION
00	NOV 7, 2023	90% NFC

KATIA D. DUQUE, P.E.
NJ PROFESSIONAL ENGINEER Lic. No. 24GE04291100
Date

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
JES	JES	KDD	Approver

PROJECT No:	DATE:	SCALE:
BOME2201	FEBRUARY 2024	AS SHOWN

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COUNTY OF MIDDLESEX
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SHEET TITLE
TRUSS SCHEDULE & DETAILS

DRAWING No.
S 610.00

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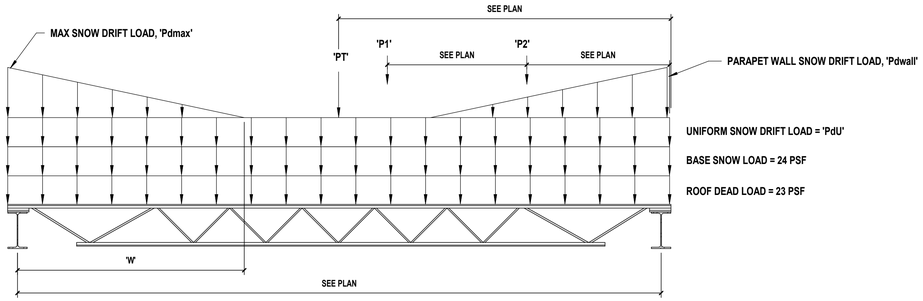


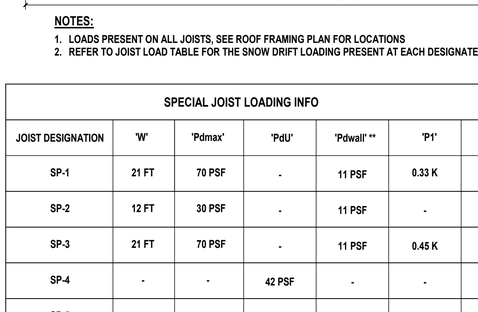
NOTES:

1. LOADS PRESENT ON ALL JOISTS, SEE ROOF FRAMING PLAN FOR LOCATIONS
2. REFER TO JOIST LOAD TABLE FOR THE SNOW DRIFT LOADING PRESENT AT EACH DESIGNATED JOIST.

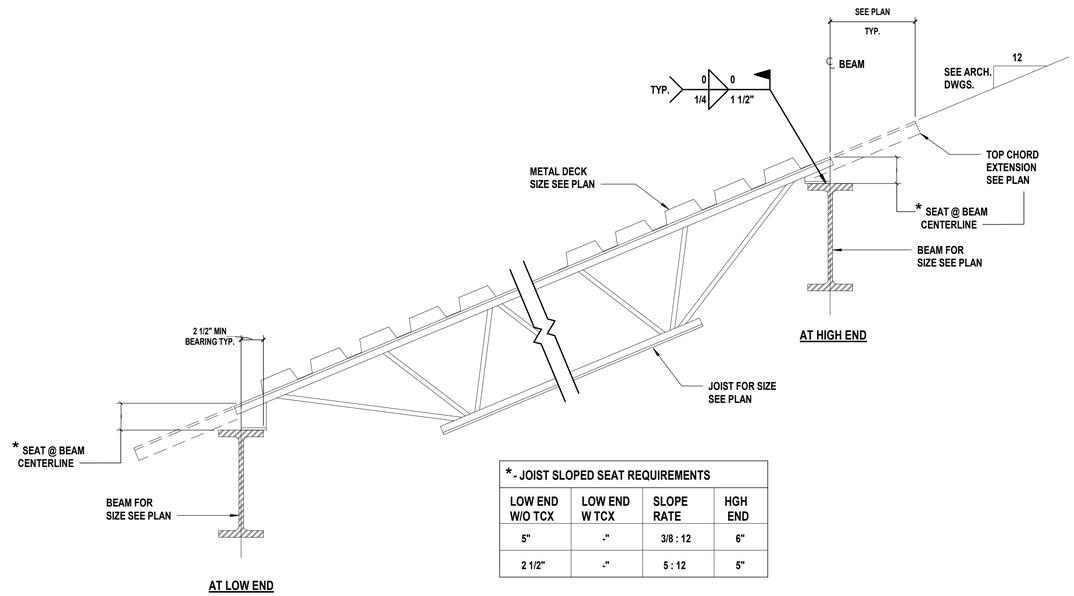
SPECIAL JOIST LOADING INFO									
JOIST DESIGNATION	'W'	'Pdmax'	'PdU'	'Pdwall' **	'P1'	'P2'	'PT'	'ADD' OR 'BEND' LOAD	NET UPLIFT (0.6D + 0.6W)
SP-1	21 FT	70 PSF	-	11 PSF	0.33 K	0.33 K	-	'BEND'	6 PSF
SP-2	12 FT	30 PSF	-	11 PSF	-	-	-	-	6 PSF
SP-3	21 FT	70 PSF	-	11 PSF	0.45 K	0.45 K	-	'BEND'	6 PSF
SP-4	-	-	42 PSF	-	-	-	-	-	6 PSF
SP-5	-	-	-	8 PSF	-	-	-	-	6 PSF
SP-6 (OUTBUILDING)	-	-	-	-	-	-	0.11	'ADD'	8 PSF
SP-7	-	-	70 PSF	-	-	-	-	-	6 PSF
SP-8	-	-	-	11 PSF	-	-	-	-	6 PSF
SP-9	-	-	8 PSF	8 PSF	-	-	-	-	6 PSF

NOTES:
1. THIS DRIFT LOAD IS NOT A FULL UNIFORM LOAD, BUT IS A PARTIAL UNIFORM LOAD. SEE PLAN FOR EXTENTS.
2. ** SEE PLAN FOR PARAPET SNOW DRIFT WIDTH LOADING.

1 Joist Loading Diagram
SCALE: N.T.S.

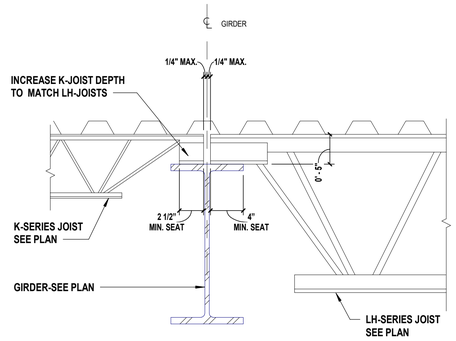


3 Joist Seat at Girder Web
SCALE: 1" = 1'-0"

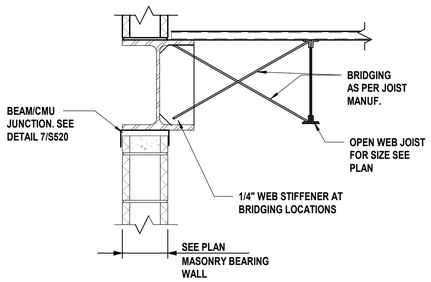


* - JOIST SLOPED SEAT REQUIREMENTS			
LOW END W/O TCX	LOW END W TCX	SLOPE RATE	HGH END
5"	-"	3/8 : 12	6"
2 1/2"	-"	5 : 12	5"

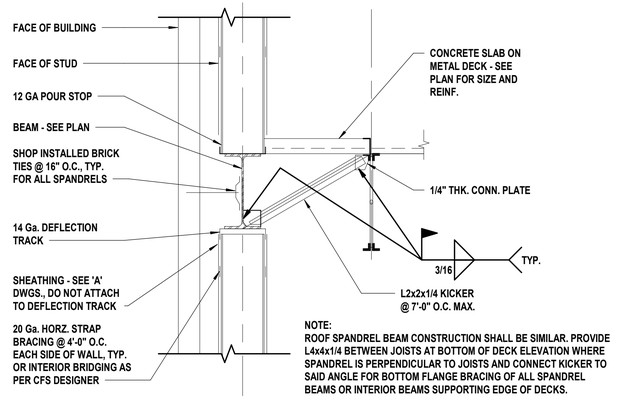
2 Sloped Roof Joist Bearing on Girders
SCALE:NTS



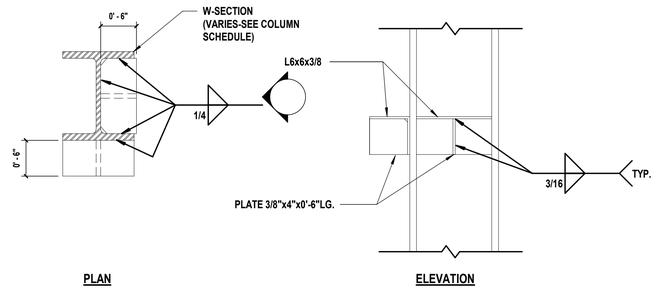
4 K-Series and LH-Series Joists Bearing On Steel Girder
SCALE:NTS



6 Joist Bridging at Spandrel Beam
SCALE:1 1/2" = 1'-0"



5 Bridging to Interior Joists
SCALE: 12" = 1'-0"



8 Joist Seat At Column Web or Flange
SCALE:NTS

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MARK	DATE	DESCRIPTION
00	NOV 7, 2023	90% NFC

KATIA D. DUQUE, P.E. — Date
NJ PROFESSIONAL ENGINEER Lic. No. 24GE04291100

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
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SHEET TITLE
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