GENERAL NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BRACING DURING CONSTRUCTION FOUNDATION WALLS WHICH ARE SHOWN TIED INTO SLAB-ON-GRADE OR FLOOR/ROOF FRAMING SHALL BE BRACED AGAINST BACKFILL MOVEMENT UNTIL SLAB/FRAMING (INCLUDING DECK) IS COMPLETED. THOUGH DETAILS DO NOT INDICATE, ADEQUATE DRAINAGE MUST BE PROVIDED BEHIND WALLS TO ELIMINATE UNANTICIPATED HYDROSTATIC LOADING. PROVIDE ADEQUATE SHORING OR BRACING DURING CONSTRUCTION TO RESIST ALL REQUIRED FORCES SUCH AS (BUT NOT LIMITED TO) DEAD LOADS, LIVE LOADS, SOIL PRESSURES, CONSTRUCTION LOADS, WIND AND UNBALANCED LOADING. PROVIDE TEMPORARY SAFETY ENCLOSURES AS NECESSARY TO PROTECT ALL PERSONNEL INVOLVED WITH THIS PROJECT. 1

2. THE 2018 EDITION OF THE INTERNATIONAL BUILDING CODE WITH 2020 AND 2022 GEORGIA AMENDMENTS SHALL APPLY.

3. CONTRACTOR SHALL VERIFY LOCATION OF ALL ROOF OPENINGS. ROOF OPENINGS GREATER THAN 12" DIAMETER SHALL BE FRAMED WITH L3x3x1/4" (MINIMUM). SEE NOTE ON ROOF FRAMING PLAN FOR MORE INFORMATION. JOIST/JOIST GIRDER MANUFACTURER SHALL COMPENSATE FOR LOADS IMPOSED BY ROOF-TOP UNITS (R.T.U.'s) BY PROVIDING DOUBLE JOISTS OR SINGLE SPECIAL JOISTS AT THESE LOCATIONS, UNLESS KCS JOISTS ALREADY SHOWN ON PLAN. IF R.T.U. LOADS ARE NOT STATED ON THE ROOF FRAMING PLANS, THEY SHALL BE PROVIDED BY THE ARCHITECT OR THE MECHANICAL ENGINEER. SEE SHEET S5.1 FOR TYPICAL R.T.U. SUPPORT FRAME, REQUIRED AS SUPPORT FOR ROOF-TOP UNITS.

4. DETAILS NOT SHOWN SHALL BE ACCORDING TO:

AMERICAN INSTITUTE OF STEEL CONSTRUCTION	A.I.S.C.	SPECS FOR STRUCTURAL STEEL
AMERICAN CONCRETE INSTITUTE	A.C.I.	SPECS FOR CONCRETE
AMERICAN WELDING SOCIETY	A.W.S.	SPECS FOR WELDING
NATIONAL CONCRETE MASONRY ASSOCIATION	N.C.M.A.	SPECS FOR CONCRETE MASONRY
STEEL JOIST INSTITUTE	S.J.I.	SPECS FOR STEEL JOISTS
AMERICAN IRON & STEEL INSTITUTE	A.I.S.I.	SPECS FOR COLD FORMED STEEL

5. BUILDING DESIGNED AS FULLY ENCLOSED STRUCTURE

6. DESIGN LOADS:

ROOF:

DEAD	14 P.S.F. (WAREHOUSE)
	17 P.S.F. (OFFICE)
LIVE	20 P.S.F. (REDUCIBLE)
SNOW, Pg	5 P.S.F.

1

WIND:

DESIGN WIND SPEED, V_{ult}	106 M.P.H. (ULTIMATE)
V_{asd}	82 M.P.H. (ASD)
INTERNAL PRESSURE COEFFICIENT (GCpi)	+/-0.18
RISK CATEGORY	II
EXPOSURE	C

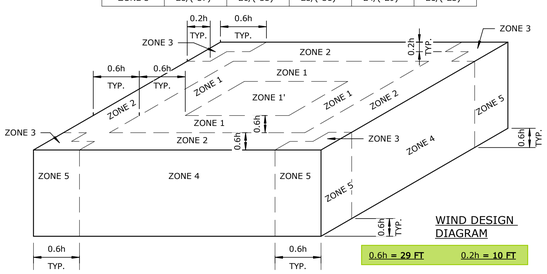
COMPONENT & CLADDING SUCTION/PRESSURES (PER ASCE 7-16)

NOTE: ROOF/WALL PRESSURES SHOWN AREA BASED ON Vult.
MULTIPLY PRESSURES BY 0.6 TO OBTAIN SERVICE/ASD DESIGN PRESSURES.
TO DETERMINE NET UPLIFT, USE ROOF DEAD LOAD = 6 PSF (=0.6x10 PSF).

1

ROOF PRESSURE (TA >= 100 SQFT)	
ZONES 1',1-3	16 PSF
ROOF SUCTION PRESSURES (TA >= 100 SQFT)	
ZONE 1'	-28 PSF
ZONE 1	-38 PSF
ZONE 2	-50 PSF
ZONE 3	-60 PSF

WALL PRESSURES/(SUCTION) PSF					
TRIB. AREA	10 SQFT	20 SQFT	50 SQFT	100 SQFT	500 SQFT
ZONE 4	28/(-30)	26/(-29)	25/(-27)	24/(-26)	21/(-23)
ZONE 5	28/(-37)	26/(-35)	25/(-31)	24/(-29)	21/(-23)



WIND DESIGN DIAGRAM

0.6h = 29 FT 0.2h = 10 FT

SEISMIC:

SEISMIC RISK CATEGORY	II
SPECTRAL RESPONSE ACCEL. Ss	0.193
SPECTRAL RESPONSE ACCEL. S1	0.087
SPECTRAL RESPONSE COEFF. Sds	0.206
SPECTRAL RESPONSE COEFF. Sd1	0.139
SEISMIC IMPORTANCE FACTOR	1.0
SITE SOIL CLASS	D (ASSUMED)
SEISMIC DESIGN CATEGORY	C

1

SEISMIC-FORCE-RESISTING SYSTEM:

NORTH/SOUTH:
STEEL SYSTEM NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
R = 3 Ω = 3 Cd = 3
SEISMIC RESPONSE COEFFICIENT Cs - 0.069

BEARING WALL SYSTEM W/ ORDINARY PRECAST SHEAR WALLS
R = 3 Ω = 2.5 Cd = 3
SEISMIC RESPONSE COEFFICIENT Cs - 0.069

EAST/WEST:
BEARING WALL SYSTEM W/ ORDINARY PRECAST SHEAR WALLS
R = 3 Ω = 2.5 Cd = 3
SEISMIC RESPONSE COEFFICIENT Cs - 0.069

SEISMIC BASE SHEAR	V = 1906K (NORTH-SOUTH)
SEISMIC BASE SHEAR	V = 1906K (EAST-WEST)

2

ANALYSIS PROCEDURE
EQUIVALENT LATERAL FORCE RESISTING SYSTEM

7. SPREAD FOOTINGS ARE DESIGNED FOR AN ALLOWABLE SOIL BEARING CAPACITY OF 3,000 P.S.F. (ASSUMED).
ALL FOOTING EXCAVATIONS SHALL BE EVALUATED BY THE GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF CONCRETE. CONTRACTOR SHALL EXERCISE CAUTION TO INSURE THAT ALL RECOMMENDATIONS OF THE CIVIL AND GEOTECHNICAL ENGINEERS ARE FOLLOWED. FOR DETAILS OF FILL AND COMPACTION REQUIREMENTS, REFER TO CIVIL DRAWINGS AND SPECIFICATIONS.

8. CONTRACTOR SHALL REVIEW SHOP DRAWINGS AND VERIFY ALL DIMENSIONS PRIOR TO SUBMITTING SAME TO ARCHITECT AND/OR ENGINEER FOR REVIEW. ARCHITECT AND ENGINEER'S REVIEW OF SHOP DRAWINGS TO BE FOR CONFORMANCE WITH THE DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE CONTRACT DOCUMENTS.

9. ALL SHOP DRAWINGS SHALL BE PREPARED UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF PROJECT.

10. EXPANSION BOLTS AND/OR SLEEVE ANCHORS ARE NEVER TO BE PERMITTED AS A SUBSTITUTE FOR CAST-IN-PLACE ANCHOR BOLTS WHERE CAST-IN-PLACE BOLTS HAVE BEEN SHOWN ON THE DRAWINGS.

11. THE DESIGN OF SPECIAL CONNECTIONS BETWEEN STEEL FRAMING COMPONENTS BY OTHER THAN THE PROJECTS STRUCTURAL ENGINEER-OF-RECORD SHALL BE PERFORMED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF PROJECT INCLUDING BUT NOT LIMITED TO BRACE END CONNECTIONS, MOMENT-RESISTING CONNECTIONS, MODIFIED BEAM SEAT CONNECTIONS, AND MEMBER SPLICE CONNECTIONS. FORCES FOR SUCH CONNECTIONS ARE SHOWN IN THE STRUCTURAL DRAWINGS.

12. SPECIAL INSPECTION REPORTS AND A FINAL BUILDING REPORT SHALL BE AVAILABLE AT THE TIME THE BUILDING IS APPROVED FOR OCCUPANCY.

13. MIN. RACK POST BASE PLATE = 1/4" THICK x 4" SQUARE

14. MIN. SUBGRADE MODULUS = 100 PCI

STEEL NOTES:

1. ALL STRUCTURAL STEEL SHALL BE PROVIDED AS FOLLOWS:

RECTANGULAR/SQUARE HSS SHAPES (ASTM A500 Gr. B)	46 K.S.I. YIELD
ROUND HSS SHAPES (ASTM A500 Gr. B)	42 K.S.I. YIELD
STEEL PIPES (ASTM A53 Gr. B)	35 K.S.I. YIELD
W SHAPES (ASTM A992)	50 K.S.I. YIELD
STRUCTURAL STEEL U.N.O. (ASTM A36)	36 K.S.I. YIELD

U.N.O. COLUMN BASE PLATES SHALL BE 6" LARGER IN EACH DIRECTION THAN THE NOMINAL DIMENSION OF THE SUPPORTED COLUMN (i.e. 12" SQUARE BASE PLATE FOR 6" DIAMETER OR 6" SQUARE COLUMN AND 10" SQUARE BASE PLATE FOR 4" DIAMETER OR 4" SQUARE COLUMN). ALL BASE PLATES SHALL BE ANCHORED TO FOOTING BELOW WITH (4)- 3/4" DIA. x 1'-1" HEADED ANCHOR RODS (9" EMBEDMENT + 4" PROJECTION) UNLESS SPECIFICALLY NOTED OTHERWISE. BASE PLATES SHALL BE 3/4" THICK UNLESS NOTED OTHERWISE.

2. ALL STRUCTURAL STEEL FASTENERS SHALL BE PROVIDED AS FOLLOWS: 1
BOLTED CONNECTIONS IN STEEL FRAMEWORK U.N.O. (ASTM A325-N)
CARBON AND ALLOY NUTS (ASTM A563)
HARDENED STEEL WASHERS (ASTM F-436)
COMPRESSIBLE-WASHER-TYPE DIRECT TENSION INDICATORS (ASTM F-959)
THREADED RODS (ASTM A36)
ANCHOR RODS U.N.O. (ASTM F1554 Gr. 36)

3. AT ALL BAR JOIST EXPANSION BEARING CONDITIONS, PROVIDE CON-SLIDE TYPE CSA (7/16" OVERALL THICKNESS) BEARING ASSEMBLIES, OR EQUAL ALTERNATE.

4. STRUCTURAL STEEL MEMBERS TO RECEIVE SPRAYED-ON FIREPROOFING SHALL NOT BE PRIMED OR PAINTED.

5. UNLESS NOTED OTHERWISE IN THE DRAWINGS, ALL FILLET WELDS SHALL BE 3/16". ALL WELDS SHALL BE MADE WITH E-70 ELECTRODES. MIN. LENGTH OF INTERMITTENT WELDS SHALL BE 1 1/2".

6. UNLESS OTHERWISE SHOWN, ALL BEAM CONNECTIONS SHALL BE STANDARD FRAMED OR SEATED CONNECTIONS AS SHOWN IN PART 9&10 OF THE AISC MANUAL OF STEEL CONSTRUCTION. UNLESS GREATER REACTIONS ARE INDICATED ON THE PLANS, CONNECTIONS SHALL DEVELOP AT LEAST ONE-HALF OF THE TOTAL UNIFORM LOAD CAPACITY TABULATED IN THE TABLES OF THE MANUAL FOR THE GIVEN SHAPE AND SPAN OF BEAM IN QUESTION, AND 70% OF THE TOTAL UNIFORM LOAD CAPACITY FOR COMPOSITE BEAMS. IN NO CASE, HOWEVER, SHALL THE LENGTH OF THE FRAMED CONNECTION BE LESS THAN ONE-HALF OF THE "T" DISTANCE OF THE BEAM WEB.

7. GRIND EXPOSED WELDS SMOOTH AND FLUSH, TO MATCH AND BLEND WITH ADJOINING SURFACES.

8. COAT ALL COLUMN BASES EXPOSED TO EARTH W/ BITUMASTIC COATING.

9. BOLTED CONNECTIONS SHALL BE ASSEMBLED AND INSPECTED ACCORDING TO "SPECIFICATIONS FOR STRUCTURAL JOINTING USING ASTM A325 OR ASTM A490 BOLTS." WELDED CONNECTIONS SHALL CONFORM TO THE PROVISIONS OF ASW D1.1, STRUCTURAL WELDING CODE BY AMERICAN WELDING SOCIETY (SECTION 2207).

10. WHERE PRACTICAL, UNLESS SHOWN DIFFERENTLY ON DRAWINGS, ALL BRACING CONNECTIONS SHALL BE DESIGNED AND DETAILED SO THAT ALL FORCE COMPONENTS CAN BE DELIVERED DIRECTLY TO THE CENTERLINE OF INTERSECTING MEMBERS. WHERE THIS IS NOT PRACTICAL, CONNECTIONS SHALL BE DESIGNED TO ACCOUNT FOR RESULTING ECCENTRICITIES.

11. GROUT SHALL BE NON-SHRINK WITH A MINIMUM 7 DAY COMPRESSIVE STRENGTH OF 3000 P.S.I. EXPOSED GROUT SHALL BE NON-STAINING.

12. PROVIDE ONE SHOP COAT OF A RUST INHIBITIVE PRIMER (GREY) TO ALL STRUCTURAL MEMBERS.
DO NOT PAINT SURFACES TO BE WELDED, EMBEDDED IN CONCRETE OR MASONRY, OR CONTACT SURFACES OF FRICTION CONNECTIONS.

13. STRUCTURAL STEEL ENCASED IN CONCRETE SHALL BE GALVANIZED.

CONCRETE NOTES:

1. ALL CONCRETE SHALL HAVE A SLUMP OF 4" TO 6" AND MINIMUM 28 DAY COMPRESSIVE STRENGTHS AS FOLLOWS:

FOOTINGS	3000 P.S.I. (U.N.O.)
FOUNDATION WALLS & PIERS	3000 P.S.I.
SITE WALLS	3000 P.S.I.
SLAB ON GRADE	4000 P.S.I.
ELEVATED SLAB	3000 P.S.I.
TILT WALL PANELS	SEE TILT WALL PANEL NOTES

2. CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR REVIEW WELL IN ADVANCE OF CONCRETE PLACEMENT. CONCRETE MIX DESIGNS SHALL INCLUDE ALL STRENGTH DATA NECESSARY TO SHOW COMPLIANCE WITH THE PROJECT SPECS BY EITHER THE TRIAL BATCH OR FIELD EXPERIENCE METHOD AND SHALL BE CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER.

3. AIR ENTRAINING AGENTS SHALL BE USED TO PRODUCE 3% TO 6% AIR BY VOLUME IN ALL CONCRETE EXCEPT INTERIOR SLABS ON GRADE (3% MAX.) AND TILT PANELS.

4. UNLESS OTHERWISE SHOWN ON PLANS; MAINTAIN A MAXIMUM AREA BOUNDED BY THE SLAB CONTROL/CONSTRUCTION JOINTS OF 200 SQUARE FEET. THE MAXIMUM SIDE RATIO OF WHICH SHALL BE 1.5:1. SEE SLAB DETAILS FOR ADD'L. INFO.

5. SLAB-ON-GRADE SHALL BE SAWCUT PER SLAB DETAILS.

6. THE FLATNESS AND LEVELNESS OF THE SLAB-ON-GRADE SHALL BE DETERMINED ACCORDING TO ASTM E-1155 OR ACI 117, SLAB CLASS 5 (ACI 302) STANDARD TEST METHOD. SEE PLANS FOR FLATNESS AND LEVELNESS REQUIREMENTS.

7. ALL STEEL BAR REINFORCEMENT SHALL BE A.S.T.M. A-615, GRADE 60. TIES AND STIRRUPS MAY BE GRADE 40 AT CONTRACTOR'S OPTION. ALL BARS USED IN WELDED CAPACITIES SHALL BE A.S.T.M. A-706.

8. MAINTAIN MINIMUM CONCRETE COVERAGE FOR REINFORCING STEEL AS INDICATED UNLESS OTHERWISE NOTED IN THE DRAWINGS.

A. 3" CLEAR WHERE CONCRETE IS DEPOSITED DIRECTLY AGAINST EARTH.

B. 2" CLEAR WHERE CONCRETE IS EXPOSED TO EARTH OR WEATHER BUT CAST AGAINST FORMS FOR BARS #6 OR LARGER.

C. 1 1/2" CLEAR WHERE CONCRETE IS EXPOSED TO EARTH OR WEATHER BUT CAST AGAINST FORMS FOR BARS #5 OR SMALLER.

D. 3/4" CLEAR FOR SLABS AND WALLS FORMED ABOVE GRADE AND NOT EXPOSED TO WEATHER.

E. 1 1/2" CLEAR FOR BEAMS AND COLUMNS FORMED ABOVE GRADE AND NOT EXPOSED TO WEATHER.

9. CONCRETE MIX DESIGN USED FOR SLAB-ON-GRADE SHALL MEET THE FOLLOWING REQUIREMENTS:

A. MAXIMUM WATER TO CEMENT RATIO (w/c) SUCH THAT COMPRESSIVE STRENGTH IS ATTAINED.

B. MAXIMUM AGGREGATE SIZE = 1 1/2"

C. PROVIDE A CONCRETE MIX DESIGN WITH A MAXIMUM UNRESTRAINED SHRINKAGE STRAIN LESS THAN OR EQUAL TO 0.04% AT 28 DAYS PER ASTM C157 (MODIFIED).

D. PROVIDE EITHER A MINIMUM OF 30 CONSECUTIVE TEST DATA OR TRIAL MIX DATA FOR THREE DIFFERENT WATER TO CEMENT RATIOS FOR APPROVAL PER ACI 318. APPROVAL PER MIX PROPORTIONS WILL NOT BE ACCEPTED.

E. PROVIDE FIBER REINFORCEMENT PER MANUFACTURER INSTRUCTIONS (IF APPLICABLE).

F. IF TEST DATA CANNOT BE PROVIDED TO SHOW MIX DESIGN MEETS OR EXCEEDS ASTM C157 REQUIREMENTS IN ITEM C, PROVIDE A MIX DESIGN TO MEET THE FOLLOWING REQUIREMENTS:

i. NORMAL WEIGHT AGGREGATE SHALL BE UNIFORMLY GRADED FROM COARSEST TO FINEST WITH NOT MORE THAN 18% AND NOT LESS THAN 8% RETAINED ON AN INDIVIDUAL SIEVE, EXCEPT LESS THAN 8% MAY BE RETAINED ON COARSEST SIEVE AND ON NO. 50 SIEVE, AND LESS THAN 8% MAY BE RETAINED ON SIEVES FINER THAN NO. 50 SIEVE. A UNIFORMLY GRADED #467 COARSE AGGREGATE DISTRIBUTION WILL TYPICALLY CLOSELY ALIGN WITH THESE RECOMMENDATIONS.

10. FLY ASH MAY BE USED AS A DIRECT SUBSTITUTE FOR PORTLAND CEMENT. FLY ASH MUST CONFORM TO ALL ASPECTS OF ASTM C618 STANDARD SPECIFICATION FOR FLY ASH. CLASS F OR CLASS C FLY ASH MAY USED, HOWEVER, TOTAL LOSS OF IGNITION OF FLY ASH MUST BE 3% OR LESS. FLY ASH MAY BE SUBSTITUTED ON A 1:1 RATIO BY WEIGHT AND ONLY UP TO A 25% REDUCTION IN THE ORIGINAL CEMENT CONTENT. CONCRETE PROPORTIONS SHALL BE SELECTED ON THE BASIS OF TRIAL MIXES CONFORMING TO ACI 211.1.

11. CONCRETE TEST REPORTS SHALL BE AVAILABLE AT THE JOBSITE.

12. THE DESIGN OF CONCRETE STRUCTURAL ELEMENTS INCLUDING WALLS, FORMED SLABS, BEAMS AND COLUMNS SHALL BE IN ACCORDANCE WITH ACI 318-14.

13. WHERE FOOTINGS, WALLS, OR OTHER STRUCTURAL ELEMENTS INTERSECT, CORNER OR TEE, PROVIDE CORNER BARS WITH REQUIRED LAP LENGTHS TO PROVIDE CONTINUITY OF HORIZONTAL STEEL REINFORCING, U.N.O.

14. CHAMFER ALL CORNERS 3/4" TYP. U.N.O.

JOIST NOTES:

1. DIAGONAL BRIDGING FOR JOISTS AND LONG SPAN JOISTS SHALL NOT BE ALLOWED IN BAYS UTILIZED BY MECHANICAL DUCTWORK RUNS. SEE MECHANICAL PLANS FOR LOCATIONS. GENERAL CONTRACTOR/JOIST SUPPLIER TO COORDINATE.

2. JOIST SPACINGS MAY BE ADJUSTED BY 6" MAX. TO ACCOMMODATE FAN UNIT CLEARANCE REQUIREMENTS. GENERAL CONTRACTOR TO COORDINATE.

3. MECHANICAL EQUIPMENT LOCATIONS SHOWN ON THE ROOF FRAMING PLANS ARE BASED ON INFORMATION THAT WAS SUPPLIED BY THE MECHANICAL ENGINEER. SEE THE MECHANICAL DRAWINGS OF THE CONSTRUCTION DOCUMENTS FOR EXACT EQUIPMENT LOCATIONS.

4. JOIST DETAILER SHALL LOCATE JOIST BRIDGING IN SUCH A WAY AS TO PREVENT INTERFERENCE WITH MECHANICAL/ELECTRICAL EQUIPMENT. THIS MAY CAUSE THE JOIST BRIDGING TO BE "TIGHTENED" OR "SPREAD-OUT" TO A NON-TYPICAL SPACING FOR A GIVEN BAY. 1

MASONRY NOTES:

1. MASONRY WALL CONTROL JOINTS SHALL BE LOCATED IN THE MASONRY UNIT HEAD JOINT CLOSEST TO LOCATION SHOWN ON ARCHITECTURAL ELEVATIONS. MAXIMUM SPACING IF NOT SHOWN ON PLANS SHALL BE 25'-0" O.C.

2. UNLESS SHOWN OTHERWISE ON PLAN, AT EACH SIDE OF MASONRY OPENINGS IN C.M.U. WALLS PROVIDE 1-FILLED CELL WITH (1)-#5 BAR VERTICAL. PROVIDE DOWEL INTO FOOTING OR SLAB & LINTEL OVER OPENING. PROVIDE 2'-0" OF BEARING (EA. END) FOR LINTELS OVER MASONRY OPENINGS.

3. REINFORCED MASONRY GROUT (R.M.G.) FOR FILLING CELLS IN C.M.U. WALLS SHALL CONFORM TO: "STANDARD SPECS. FOR MORTAR AND GROUT REINFORCED MASONRY", A.S.T.M. C-476, WITH A SLUMP OF BETWEEN 9" AND 11" AND PLACED NOT MORE THAN 2-1/2 HOURS AFTER WATER HAS FIRST BEEN ADDED (ONE PART CEMENT TO 2-1/2 PARTS FINE AGGREGATE BY VOLUME, DEVELOPING 3000 P.S.I. AT 28 DAYS). PLACE IN 4'-8" LIFTS, MAXIMUM.

4. TYPE "S" MORTAR SHALL BE USED FOR ALL C.M.U. WALLS MIN.

5. FILLED CELLS IN CONCRETE MASONRY UNITS (C.M.U.) SHALL BE LOCATED AS NOTED ON THE FOUNDATION PLAN SHEET OR TYPICAL DETAILS. ALL C.M.U. WALLS WHICH CONTAIN FILLED CELLS SHALL BE LAID-UP IN A RUNNING BOND PATTERN. SEE SHEET S4.5 FOR FILLED CELL DETAILS.

6. FILLED CELLS SHALL BE CONTINUOUS FROM FOOTING TO TOP BOND BEAM COURSE OR UNDERSIDE OF BEAMS IN ANY GIVEN WALL SEGMENT. AT THE TOP OF BEAM BEARING FILLED CELLS, PROVIDE NON-SHRINK GROUT AND BEARING PLATE AS DETAILED WITH ANCHOR BOLTS OR CAST-IN-PLACE STUD ANCHORS. SEE MASONRY DETAILS SHEET.

7. ALL VERTICAL REINFORCEMENT IN FILLED CELLS SHALL BE DOWELED INTO FOOTING AT BOTTOM AND BOND BEAM COURSE AT TOP. THESE DOWELS SHALL BE OF EQUAL SIZE AND QUANTITY AS VERTICAL BAR REINFORCEMENT AND SHALL HAVE A 1'-0" BEND INTO EITHER FOOTING OR BOND BEAM EXCEPT WHERE FILLED CELL REINFORCEMENT IS WELDED TO UNDERSIDE OF BEAMS AT TOP. SEE WALL SECTIONS FOR MORE INFORMATION.

8. CONTRACTOR SHALL PROVIDE STANDARD GAUGE "DUR-O-WALL" OR EQUIVALENT (JOINT REINFORCEMENT) AT 16" O.C. IN ALL C.M.U. WALLS UNLESS SPECIFICALLY NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS. "DUR-O-WALL" (OR EQUIVALENT) SHALL BE PROVIDED IN A WIDTH APPROPRIATE FOR THE OVERALL TOTAL THICKNESS OF THE FINISHED WALL. IN MANY CASES, BRICK VENEER WILL BE REQUIRED, BUT NOT SHOWN ON THE STRUCTURAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING LOCATIONS OF VARIOUS WALL THICKNESS WITH ALL OF THE CONTRACT DOCUMENTS. IN THE CASE OF NON-COMPOSITE WALLS (1- C.M.U. WYTHE ONLY) PROVIDE "TRUSS-TYPE" HORIZONTAL REINFORCING. IN THE CASE OF COMPOSITE WALLS (C.M.U. + BRICK VENEER) PROVIDE ADJUSTABLE ASSEMBLIES.

9. REINFORCING BARS FOR VERTICAL FILLED CELLS SHALL BE LAPPED AS FOLLOWS:

BAR SIZE	LENGTH OF LAP (MIN. 2" COVER)
#4	2'-6"
#5	3'-9"
#6	4'-6"
#7	5'-3"
#8	6'-0"

10. BARS SHALL BE A.S.T.M. A-615, GRADE 60: EXCEPT TIES AND STIRRUPS, WHICH MAY BE GRADE 40. ALL OTHER BARS USED IN WELDED CAPACITIES SHALL BE A.S.T.M. A-706.

11. BOND BEAMS SHALL BE PROVIDED AT THE TOP OF WALL OPENINGS AND SHALL EXTEND NOT LESS THAN 24" NOR LESS THAN 40 BAR DIAMETERS PAST THE OPENING. AT LOCATIONS WHERE FULL EXTENSION OF THE REINFORCING CANNOT BE ACHIEVED, PROVIDE 180 DEG. HOOKS AROUND VERTICAL REBAR IN THE LAST FILLED CELL WHERE THE WALL TERMINATES. (BOTH SIDES OF OPENING IF NECESSARY).

12. A MINIMUM NET AREA COMPRESSIVE STRENGTH OF MASONRY (f'm) OF 2,000 P.S.I. IS REQUIRED FOR ALL REINFORCED MASONRY CONSTRUCTION.

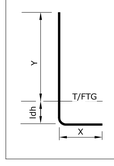
13. ALL ANCHORS BUILT INTO MASONRY SHALL BE GALVANIZED. 1

14. MASONRY CONSTRUCTION SHALL CONFORM TO TMS 402, CURRENT EDITION. PROVIDE MASONRY INSPECTIONS PER TMS 402. CAVITIES SHALL BE KEPT FREE OF MORTAR.

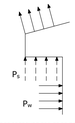
CONCRETE LAP SPLICE SCHEDULE

BAR SIZE	LAP SPLICE DIMENSION (IN)				COMPRESSION SPLICE
	f'c = 3000 psi		f'c = 4000 psi		
	OTHER	TOP BARS	OTHER	TOP BARS	
#3	22"	29"	19"	25"	12"
#4	29"	38"	25"	32"	15"
#5	36"	46"	31"	40"	19"
#6	43"	56"	38"	49"	23"
#7	63"	81"	55"	71"	27"
#8	72"	94"	63"	81"	30"
#9	81"	105"	70"	91"	34"

HOOKED BAR SCHEDULE



BAR SIZE	X	ldh	Y
#3	0'-6"	0'-6"	LAP SPLICE
#4	0'-8"	0'-8"	LAP SPLICE
#5	0'-10"	0'-10"	LAP SPLICE
#6	1'-0"	1'-0"	LAP SPLICE
#7	1'-2"	1'-2"	LAP SPLICE
#8	1'-4"	1'-4"	LAP SPLICE

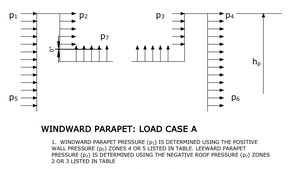


P_{roof} = 1.0 x ROOF PRESSURE FOR EDGE ZONES 1, 2

P_{roof} = 1.15 x ROOF PRESSURE FOR EDGE ZONES 3

P_n = P_w AT WALL ZONES 4, 5

C+C ROOF OVERHANG WIND LOADS



WINDWARD PARAPET: LOAD CASE A

1. WINDWARD PARAPET PRESSURE (p_3) IS DETERMINED USING THE POSITIVE WALL PRESSURE (p_1) ZONES 4 OR 5 LISTED IN TABLE. LEEWARD PARAPET PRESSURE (p_4) IS DETERMINED USING THE NEGATIVE ROOF PRESSURE (p_2) ZONES 2 OR 3 LISTED IN TABLE

LEEWARD PARAPET: LOAD CASE B

1. WINDWARD PARAPET PRESSURE (p_3) IS DETERMINED USING THE POSITIVE WALL PRESSURE (p_1) ZONES 4 OR 5 LISTED IN TABLE

2. LEEWARD PARAPET PRESSURE (p_4) IS DETERMINED USING THE NEGATIVE WALL PRESSURE (p_5) ZONES 4 OR 5 LISTED IN TABLE

C+C PARAPET WIND LOADS

POST INSTALLED ANCHOR NOTES:

POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER-OF-RECORD PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN PLACE OF MISSING OR MISPLACED CAST-IN-PLACE ANCHORS. THE BELOW PRODUCTS ARE THE DESIGN BASIS FOR THIS PROJECT. PRODUCT DIAMETER AND EMBEDMENT SHALL BE AS SHOWN IN THE DETAILS. INSTALL PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII) CONTRACTOR SHALL CONTACT MANUFACTURER'S REPRESENTATIVE FOR PRODUCT INSTALLATION TRAINING AND A LETTER SHALL BE SUBMITTED TO THE EOR INDICATING TRAINING HAS TAKEN PLACE. REFER TO THE PROJECT BUILDING CODE AND/OR EVALUATION REPORT FOR SPECIAL INSPECTIONS AND PROOF LOAD REQUIREMENTS. SUBSTITUTION REQUESTS FOR PRODUCTS OTHER THAN THOSE LISTED BELOW MAY BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER-OF-RECORD (EOR) FOR REVIEW. SUBSTITUTIONS WILL ONLY BE CONSIDERED FOR PRODUCTS HAVING A RESEARCH REPORT RECOGNIZING THE PRODUCT FOR THE APPROPRIATE APPLICATION UNDER THE PROJECT BUILDING CODE. SUBSTITUTION REQUESTS SHALL INCLUDE CALCULATIONS THAT DEMONSTRATE THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE EQUIVALENT PERFORMANCE VALUES OF THE DESIGN BASIS PRODUCT.

A. FOR ANCHORING TO CONCRETE
1.) MECHANICAL ANCHORS FOR USE IN CRACKED AND UNCRACKED CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. PRE-APPROVED MECHANICAL ANCHORS INCLUDE:
(a.) SIMPSON STRONG-TIE "STRONG-BOLT 2" (ICC-ES ESR-3037)
(b.) SIMPSON STRONG-TIE "TITEN-HD" (ICC-ES ESR-2713)

2.) ADHESIVE ANCHORS FOR USE IN CRACKED AND UNCRACKED CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC308. PRE-APPROVED ADHESIVE ANCHORS INCLUDE:
(a.) SIMPSON STRONG-TIE "SET-XP" (ICC-ES ESR-2508)

3.) POWER ACTUATED FASTENERS FOR USE IN CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC70. PRE-APPROVED PRODUCTS INCLUDE:
(b.) SIMPSON STRONG-TIE "POWDER ACTUATED PINS" (ICC-ES ESR-2138)

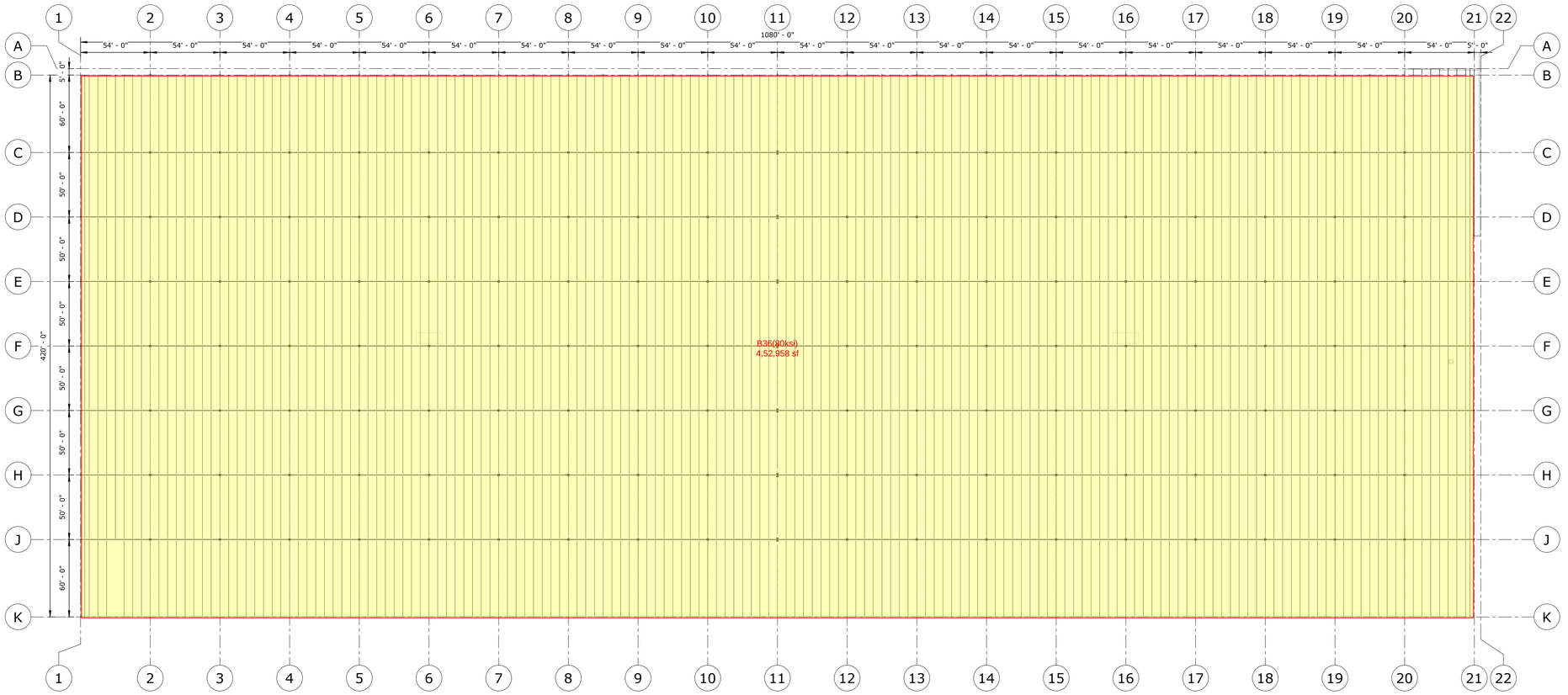
B. FOR ANCHORING TO MASONRY
1.) ANCHORAGE TO SOLID-GROUTED CONCRETE MASONRY
(a.) MECHANICAL ANCHORS SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC01 OR AC106. PRE-APPROVED MECHANICAL PRODUCTS INCLUDE:
(i.) SIMPSON STRONG-TIE "TITEN-HD" (ICC-ES ESR-1056)

(b.) ADHESIVE ANCHORS FOR USE IN SOLID-GROUTED MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC58. PRE-APPROVED ADHESIVE ANCHORS INCLUDE:
(i.) SIMPSON STRONG-TIE "SET-XP" (IAMPO-UES ER-265)

(c.) POWER ACTUATED FASTENERS FOR USE IN MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC70. PRE-APPROVED ADHESIVE ANCHORS INCLUDE:
(i.) SIMPSON STRONG-TIE "GAS ACTUATED PINS" (ICC-ES ESR-2811)
(ii.) SIMPSON STRONG-TIE "POWDER ACTUATED PINS" (ICC-ES ESR-2138)

2.) ANCHORAGE TO HOLLOW CONCRETE MASONRY/UNREINFORCED CLAY BRICK MASONRY
(a.) SCREW ANCHORS FOR USE IN HOLLOW CONCRETE MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED IN ACCORDANCE WITH ICC-ES AC106. PRE-APPROVED SCREW ANCHORS INCLUDE:
(i.) SIMPSON STRONG-TIE "TITEN-HD" (ICC-ES ESR-1056)

(b.) ADHESIVE ANCHORS WITH SCREEN TUBES SHALL BE TESTED AND QUALIFIED IN ACCORDANCE WITH ICC-ES AC58 OR AC60, AS APPROPRIATE. THE APPROPRIATE SCREEN TUBE SHALL BE USED AS RECOMMENDED BY THE ADHESIVE MANUFACTURER. PRE-APPROVED ADHESIVE ANCHORS WITH SCREEN TUBES INCLUDE:
(



1 S3.0 OVERALL ROOF FRAMING PLAN
SCALE: 1" = 40'-0"

TOTAL DECK:

1.5B, 22Ga, PTD = 4622 SQ
1.5 COMP, 20Ga, G60 = 7 SQ
1.5 COMP 18Ga, G60 = 140 SQ

ACCESSORIES

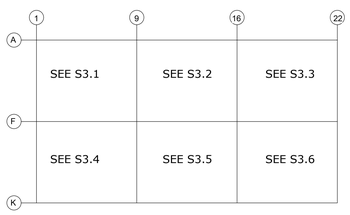
#10TEK SCREW = 234 BOX
CC1 = 360 FT.

Qualifications:

Floor deck quoted with G60 finish & Roof deck quoted with Painted Gray/White finish.
OMD assumes EOR has accounted for all applicable loads.

Exclusions:

Pourstop, 9/16" Form deck @ Stair per section 1/S9.3 (location not found).
Sump pans.
Load from L3 x 3 per section 2/S5.3.
Loading & Special web geometry for Sprinkler line.
Load from Ladder support.
Reinforcement of Existing Joists.



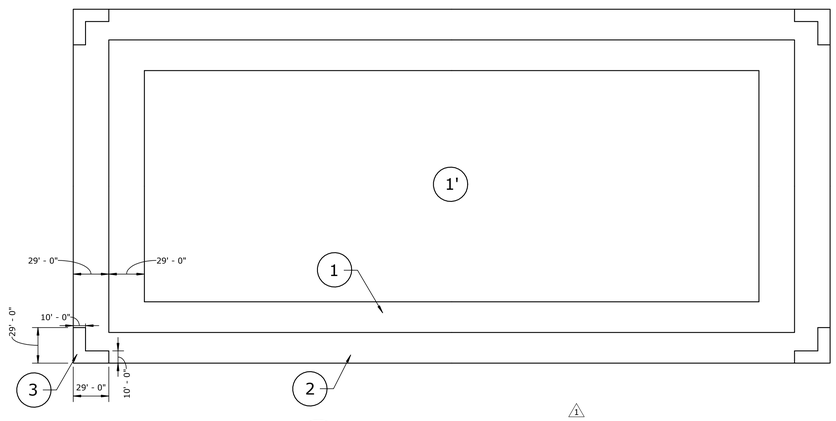
C&C ROOF PRESSURES

ROOF SUCTION (T.A. = 100 SQ-FT)

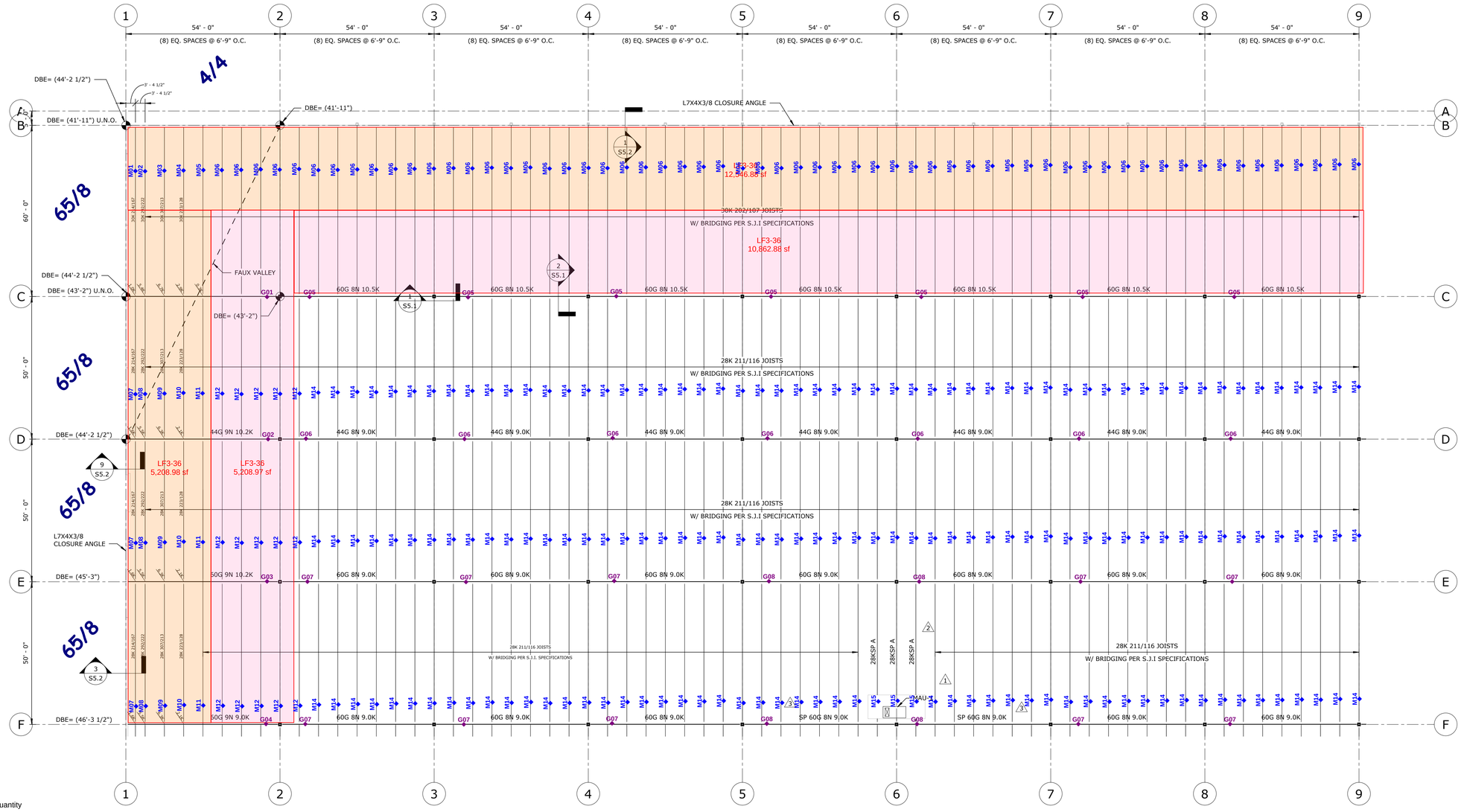
ZONE 1'=(-28 PSF)
ZONE 1=(-38 PSF)
ZONE 2=(-50 PSF)
ZONE 3=(-59 PSF)

NOTES:

PRESSURES SHOWN ARE BASED ON Vult. MULTIPLY PRESSURES BY 0.6 TO OBTAIN NOMINAL DESIGN PRESSURES. TO DETERMINE NET UPLIFT AT ROOF USE 0.6*ROOF DEAD LOAD



2 S3.0 WIND UPLIFT DIAGRAM
SCALE: N.T.S.



Joist Description	Quantity
G01	1
G02	1
G03	1
G04	1
G05	7
G06	7
G07	10
G08	4
M01	1
M02	1
M03	1
M04	1
M05	1
M06	60
M07	3
M08	3
M09	3
M10	3
M11	3
M12	15
M14	162
M15	3

1 S3.1 PARTIAL ROOF FRAMING PLAN

SCALE: 1/16" = 1'-0"

NOTES & LEGEND

1. ATTACH 22 GAUGE ROOF DECK PER VULCRAFT ATTACHMENT PATTERN 36/7 W/ (7) SIDELAP FASTENERS PER SPAN. UTILIZE 5/8" DIA. PUDDLE WELDS AT SUPPORTS AND PERIMETER AND #10 TEK SIDELAP FASTENERS.

   PROVIDE 1 1/2" DEEP, 22GA. WIDE RIB (TYPE B) STEEL ROOF DECKING, GRADE 80 KSI.

2. JOIST SEATS BEARING AT THE PERIMETER TILT WALL PANELS SHALL BE DESIGNED FOR A MINIMUM ALLOWABLE LATERAL "ROLL OVER" CAPACITY OF 1.1 KIPS. PROVIDE STIFFENED JOIST SEATS IF NECESSARY.

3. JOIST SEATS BEARING AT THE JOIST GIRDERS SHALL BE DESIGNED FOR A MINIMUM ALLOWABLE LATERAL "ROLL OVER" CAPACITY OF 1.0 KIPS. PROVIDE STIFFENED JOIST SEATS IF NECESSARY.

4. PROVIDE BRIDGING FOR ALL JOISTS PER S.J.I. SPECIFICATIONS.

5. SEE DETAIL 14/S4.1 FOR ROOF CHORD ANGLE SPLICE. ALL ROOF CHORD ANGLES ARE TO BE CONTINUOUS AROUND PERIMETER OF DECK.

6. AT SLOPING JOIST GIRDERS, PROVIDE BEARING SEATS THAT CONSIDER THE ROOF SLOPE AND PROVIDE A LEVEL BEARING AT THE ENDS.

8. G.C./SPRINKLER SUB. TO COORDINATE JOIST BRIDGING LOCATIONS WITH SPRINKLER PIPE LOCATIONS.

10. SEE S4.1 FOR SUPPLEMENTAL FRAMING REQUIRED AT OPENING FOR ROOF TOP EQUIPMENT SUPPORT. OPENINGS IN ROOF GREATER THAN 12" IN DIAMETER SHALL HAVE SUPPLEMENTAL FRAMING.

11. SEE S1.0 FOR UPLIFT PRESSURES FOR BAR JOIST & JOIST GIRDER DESIGN

12. L1 - INDICATES L3x3x1/4" KICKER FROM BOTTOM FLANGE OF BEAM TO TOP OF ADJACENT JOIST AT ROOF W/ MAX. SPACING @12'-6" O.C.

13. INDICATES OFFICE AREA

14. LOCATION AND WEIGHT OF RTU'S IS BASED ON MECH. DRAWINGS. G.C. TO VERIFY.

15. INDICATES MECHANICAL ZONE. DESIGN JOISTS TO SUPPORT ADD'L LOAD OF (1) 2500# ROOF TOP UNIT ANYWHERE ALONG JOIST TOP CHORDS WITHIN ZONE. GIRDERS HAVED ADDITIONAL LOAD SHOWN AT LOCATIONS

16. MAU- INDICATES 1500# MAU ROOF TOP UNIT. VERIFY WITH MECH. DRAWINGS

17. 28KSP A- INDICATES 28K 211/116 JOIST DESIGNED TO SUPPORT ADDITIONAL LOAD OF MAU

    28KSP B- INDICATES 28K 232/117 JOIST DESIGNED TO SUPPORT ADDITIONAL LOAD OF MECHANICAL ZONE

    36LHSP- INDICATES 36LH 223/108 JOIST DESIGNED TO SUPPORT ADDITIONAL LOAD OF MECHANICAL ZONE

    SP XXG X9 XXK- INDICATES JOIST GIRDER DESIGNED TO SUPPORT ADDITIONAL LOAD OF MAU

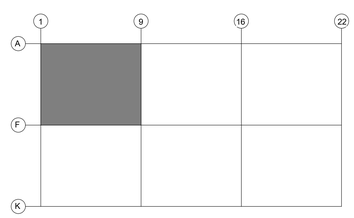
18. X.XK INDICATES ADDITIONAL POINT LOAD DUE TO SNOW DRIFT IN KIPS

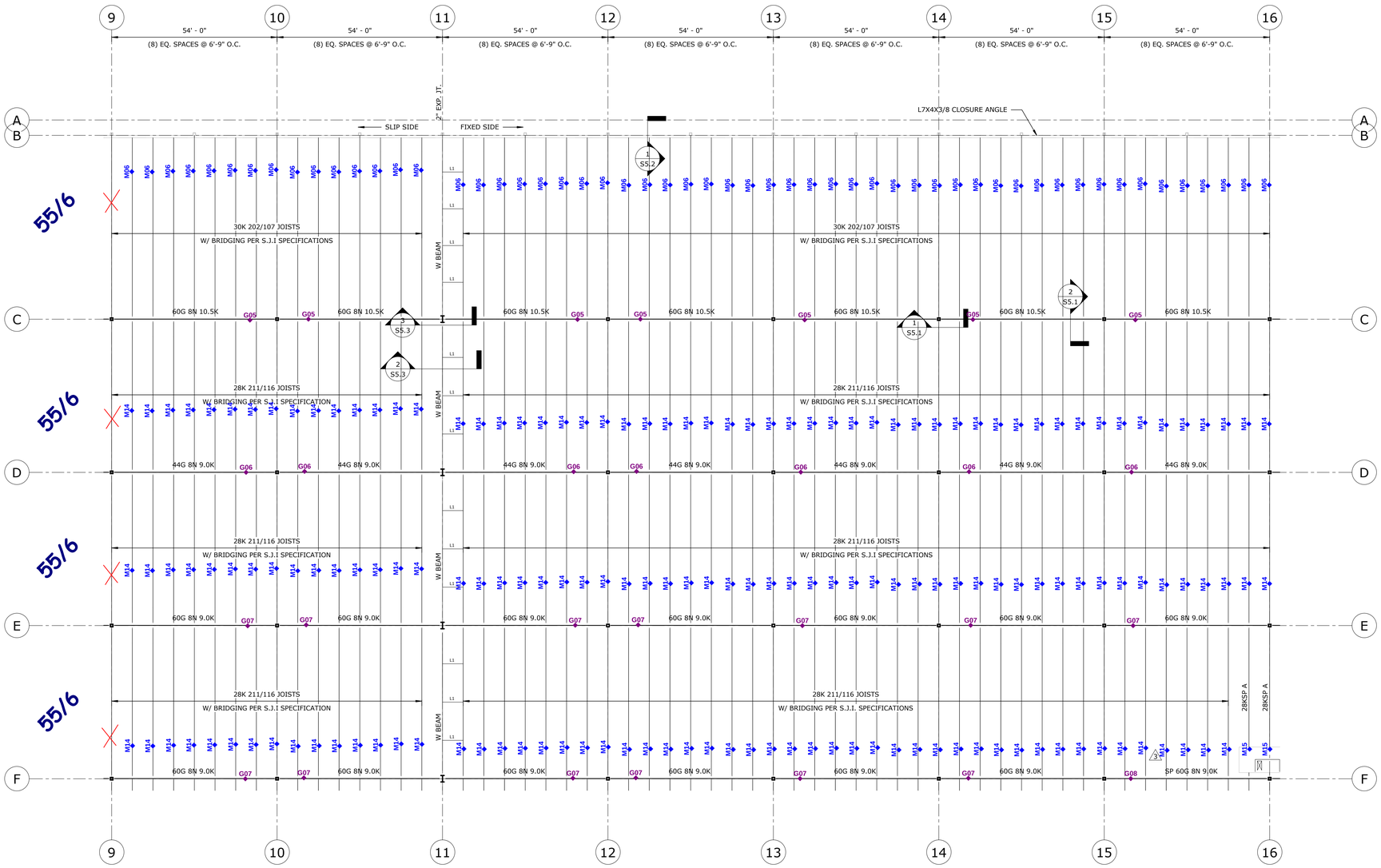
JOIST LOAD DESIGNATIONS

28K 211/116

JOIST DEPTH (in.) — DIST. TOTAL LOAD/ DIST. LIVE LOAD (ASD, PLF)

J=260/32
G=32/32





Joist

Description	Quantity
G05	7
G06	7
G07	13
G08	1
M06	55
M14	163
M15	2

1 S3.2 PARTIAL ROOF FRAMING PLAN

SCALE: 1/16" = 1'-0"

NOTES & LEGEND

1. ATTACH 22 GAUGE ROOF DECK PER VULCRAFT ATTACHMENT PATTERN 36/7 W/ (7) SIDELAP FASTENERS PER SPAN. UTILIZE 5/8" DIA. PUDDLE WELDS AT SUPPORTS AND PERIMETER AND #10 TEK SIDELAP FASTENERS.

PROVIDE 1 1/2" DEEP, 22GA. WIDE RIB (TYPE B) STEEL ROOF DECKING, GRADE 80 KSI.

2. JOIST SEATS BEARING AT THE PERIMETER TILT WALL PANELS SHALL BE DESIGNED FOR A MINIMUM ALLOWABLE LATERAL "ROLL OVER" CAPACITY OF 1.1 KIPS. PROVIDE STIFFENED JOIST SEATS IF NECESSARY.
3. JOIST SEATS BEARING AT THE JOIST GIRDERS SHALL BE DESIGNED FOR A MINIMUM ALLOWABLE LATERAL "ROLL OVER' CAPACITY OF 1.0 KIPS. PROVIDE STIFFENED JOIST SEATS IF NECESSARY.
4. PROVIDE BRIDGING FOR ALL JOISTS PER S.J.I. SPECIFICATIONS.
5. SEE DETAIL 14/S4.1 FOR ROOF CHORD ANGLE SPLICE. ALL ROOF CHORD ANGLES ARE TO BE CONTINUOUS AROUND PERIMETER OF DECK.
6. AT SLOPING JOIST GIRDERS, PROVIDE BEARING SEATS THAT CONSIDER THE ROOF SLOPE AND PROVIDE A LEVEL BEARING AT THE ENDS.
8. G.C./SPRINKLER SUB. TO COORDINATE JOIST BRIDGING LOCATIONS WITH SPRINKLER PIPE LOCATIONS.
10. SEE S4.1 FOR SUPPLEMENTAL FRAMING REQUIRED AT OPENING FOR ROOF TOP EQUIPMENT SUPPORT. OPENINGS IN ROOF GREATER THAN 12" IN DIAMETER SHALL HAVE SUPPLEMENTAL FRAMING.
11. SEE S1.0 FOR UPLIFT PRESSURES FOR BAR JOIST & JOIST GIRDER DESIGN
12. L1 - INDICATES L3x3x1/4" KICKER FROM BOTTOM FLANGE OF BEAM TO TOP OF ADJACENT JOIST AT ROOF W/ MAX. SPACING @12'-6" O.C.
13. INDICATES OFFICE AREA
14. LOCATION AND WEIGHT OF RTU'S IS BASED ON MECH. DRAWINGS. G.C. TO VERIFY.
15. INDICATES MECHANICAL ZONE. DESIGN JOISTS TO SUPPORT ADD'L LOAD OF (1) 2500# ROOF TOP UNIT ANYWHERE ALONG JOIST TOP CHORDS WITHIN ZONE. GIRDERS HAVED ADDITIONAL LOAD SHOWN AT LOCATIONS
16. MAU- INDICATES 1500# MAU ROOF TOP UNIT. VERIFY WITH MECH. DRAWINGS
17. 28KSP A- INDICATES 28K 211/116 JOIST DESIGNED TO SUPPORT ADDITIONAL LOAD OF MAU

    28KSP B- INDICATES 28K 232/117 JOIST DESIGNED TO SUPPORT ADDITIONAL LOAD OF MECHANICAL ZONE

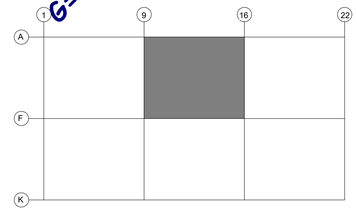
    36LHSP- INDICATES 36LH 223/108 JOIST DESIGNED TO SUPPORT ADDITIONAL LOAD OF MECHANICAL ZONE

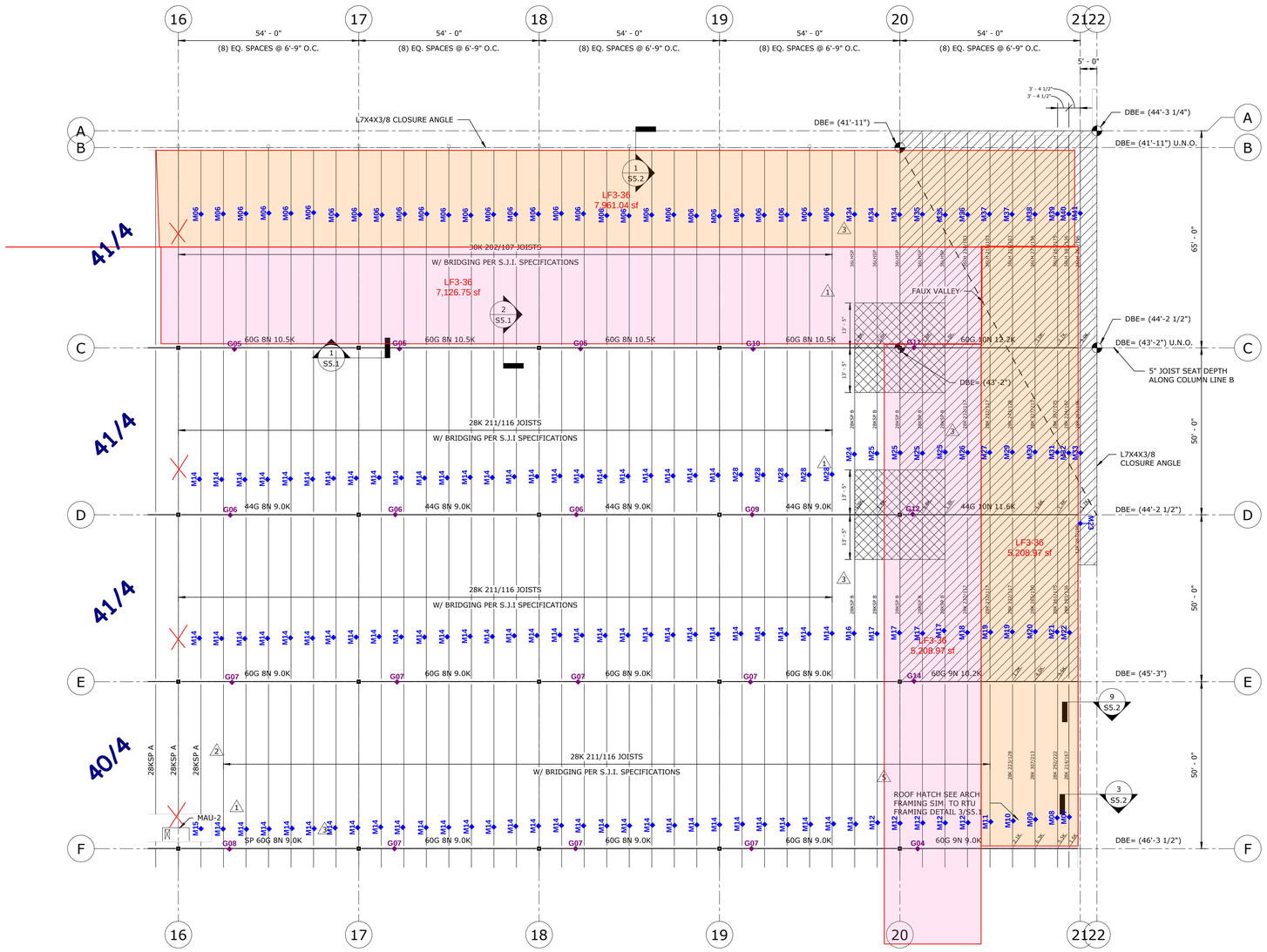
    SP XXG X9 XXK- INDICATES JOIST GIRDER DESIGNED TO SUPPORT ADDITIONAL LOAD OF MAU
18. XXK INDICATES ADDITIONAL POINT LOAD DUE TO SNOW DRIFT IN KIPS

JOIST LOAD DESIGNATIONS

28K 211/116
JOIST DEPTH (in.) — DIST. TOTAL LOAD/ DIST. LIVE LOAD (ASD, PLF)

J=220/24
G=28/28





Joist Description	Quantity
G04	1
G05	3
G06	3
G07	7
G08	1
G09	1
G10	1
G11	1
G12	1
G14	1
M06	29
M07	1
M08	1
M09	1
M10	1
M11	1
M12	5
M14	82
M15	1
M16	1
M17	4
M18	1
M19	2
M20	1
M21	1
M22	1
M23	1
M24	1
M25	4
M26	1
M27	1
M28	5
M29	1
M30	1
M31	1
M32	1
M33	1
M34	3
M35	2
M36	1
M37	2
M38	1
M39	1
M40	1

1 S3.3 PARTIAL ROOF FRAMING PLAN

SCALE: 1/16" = 1'-0"

NOTES & LEGEND

1. ATTACH 22 GAUGE ROOF DECK PER VULCRAFT ATTACHMENT PATTERN 36/7 W/ (7) SIDELAP FASTENERS PER SPAN. UTILIZE 5/8" DIA. PUDDLE WELDS AT SUPPORTS AND PERIMETER AND #10 TEK SIDELAP FASTENERS.

   PROVIDE 1 1/2" DEEP, 22GA. WIDE RIB (TYPE B) STEEL ROOF DECKING, GRADE 80 KSI.

2. JOIST SEATS BEARING AT THE PERIMETER TILT WALL PANELS SHALL BE DESIGNED FOR A MINIMUM ALLOWABLE LATERAL "ROLL OVER" CAPACITY OF 1.1 KIPS. PROVIDE STIFFENED JOIST SEATS IF NECESSARY.

3. JOIST SEATS BEARING AT THE JOIST GIRDERS SHALL BE DESIGNED FOR A MINIMUM ALLOWABLE LATERAL "ROLL OVER" CAPACITY OF 1.0 KIPS. PROVIDE STIFFENED JOIST SEATS IF NECESSARY.

4. PROVIDE BRIDGING FOR ALL JOISTS PER S.J.I. SPECIFICATIONS.

5. SEE DETAIL 14/S4.1 FOR ROOF CHORD ANGLE SPLICE. ALL ROOF CHORD ANGLES ARE TO BE CONTINUOUS AROUND PERIMETER OF DECK.

6. AT SLOPING JOIST GIRDERS, PROVIDE BEARING SEATS THAT CONSIDER THE ROOF SLOPE AND PROVIDE A LEVEL BEARING AT THE ENDS.

8. G.C./SPRINKLER SUB. TO COORDINATE JOIST BRIDGING LOCATIONS WITH SPRINKLER PIPE LOCATIONS.

10. SEE S4.1 FOR SUPPLEMENTAL FRAMING REQUIRED AT OPENING FOR ROOF TOP EQUIPMENT SUPPORT. OPENINGS IN ROOF GREATER THAN 12" IN DIAMETER SHALL HAVE SUPPLEMENTAL FRAMING.

11. SEE S1.0 FOR UPLIFT PRESSURES FOR BAR JOIST & JOIST GIRDER DESIGN

12. L1 - INDICATES L3x3x1/4" KICKER FROM BOTTOM FLANGE OF BEAM TO TOP OF ADJACENT JOIST AT ROOF W/ MAX. SPACING @12'-6" O.C.

13. INDICATES OFFICE AREA

14. LOCATION AND WEIGHT OF RTU'S IS BASED ON MECH. DRAWINGS. G.C. TO VERIFY.

15. INDICATES MECHANICAL ZONE. DESIGN JOISTS TO SUPPORT ADD'L LOAD OF (1) 2500# ROOF TOP UNIT ANYWHERE ALONG JOIST TOP CHORDS WITHIN ZONE. GIRDERS HAVED ADDITIONAL LOAD SHOWN AT LOCATIONS

16. MAU- INDICATES 1500# MAU ROOF TOP UNIT. VERIFY WITH MECH. DRAWINGS

17. 28KSP A- INDICATES 28K 211/116 JOIST DESIGNED TO SUPPORT ADDITIONAL LOAD OF MAU

    28KSP B- INDICATES 28K 232/117 JOIST DESIGNED TO SUPPORT ADDITIONAL LOAD OF MECHANICAL ZONE

    36LHSP- INDICATES 36LH 223/108 JOIST DESIGNED TO SUPPORT ADDITIONAL LOAD OF MECHANICAL ZONE

    SP XXG X9 XXK- INDICATES JOIST GIRDER DESIGNED TO SUPPORT ADDITIONAL LOAD OF MAU

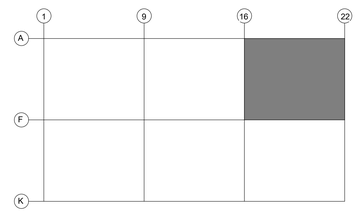
18. X.XK INDICATES ADDITIONAL POINT LOAD DUE TO SNOW DRIFT IN KIPS

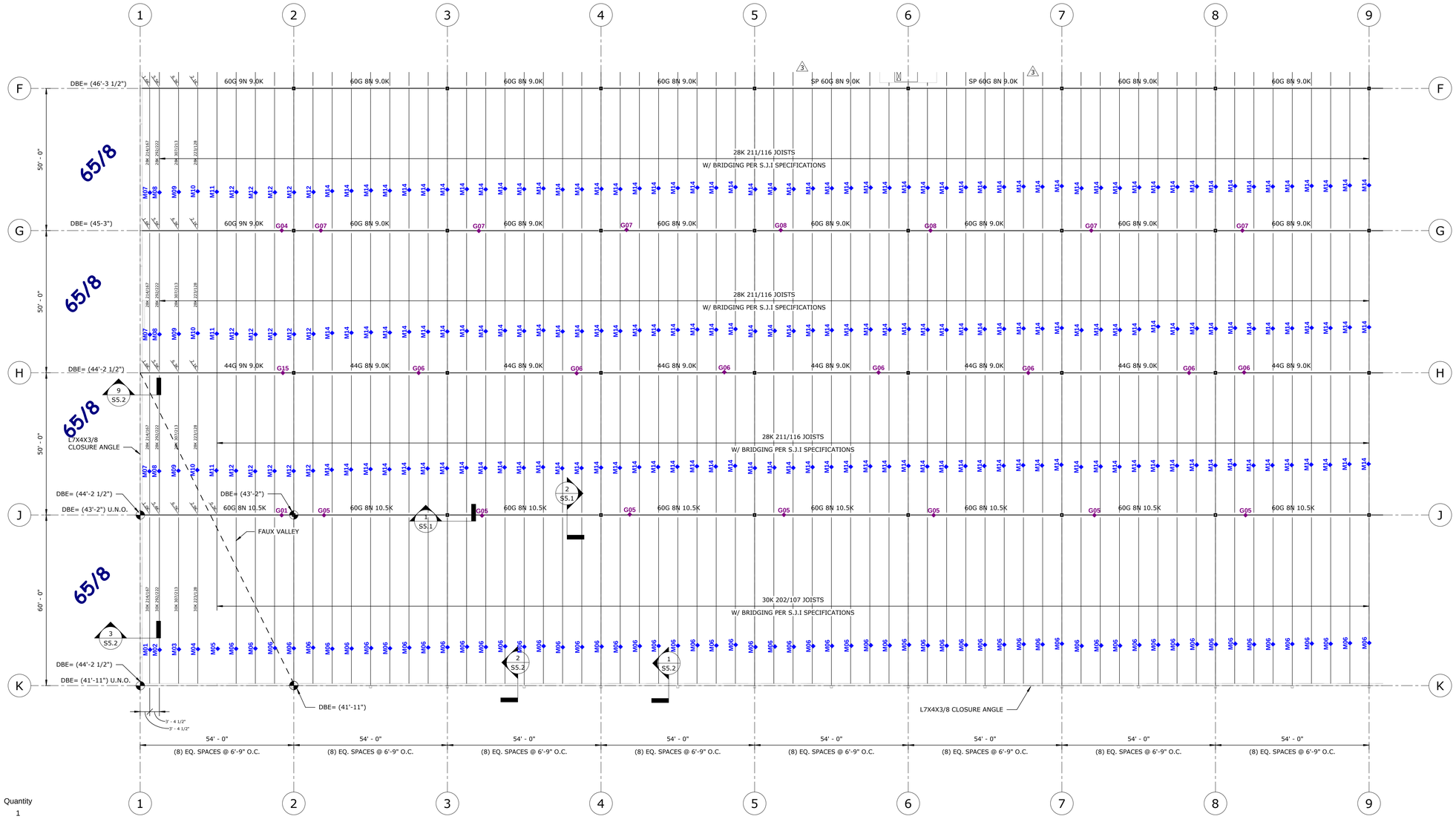
JOIST LOAD DESIGNATIONS

28K 211/116

JOIST DEPTH (in.) — DIST. TOTAL LOAD/ DIST. LIVE LOAD (ASD, PLF)

J=163/16
G=20/20





Joist Description	Quantity
G01	1
G04	1
G05	7
G06	7
G07	5
G08	2
G15	1
M01	1
M02	1
M03	1
M04	1
M05	1
M06	60
M07	3
M08	3
M09	3
M10	3
M11	3
M12	15
M14	165

1 S3.4 PARTIAL ROOF FRAMING PLAN

SCALE: 1/16" = 1'-0"

NOTES & LEGEND

1. ATTACH 22 GAUGE ROOF DECK PER VULCRAFT ATTACHMENT PATTERN 36/7 W/ (7) SIDELAP FASTENERS PER SPAN. UTILIZE 5/8" DIA. PUDDLE WELDS AT SUPPORTS AND PERIMETER AND #10 TEK SIDELAP FASTENERS.

PROVIDE 1 1/2" DEEP, 22GA. WIDE RIB (TYPE B) STEEL ROOF DECKING, GRADE 80 KSI.

2. JOIST SEATS BEARING AT THE PERIMETER TILT WALL PANELS SHALL BE DESIGNED FOR A MINIMUM ALLOWABLE LATERAL "ROLL OVER" CAPACITY OF 1.1 KIPS. PROVIDE STIFFENED JOIST SEATS IF NECESSARY.
3. JOIST SEATS BEARING AT THE JOIST GIRDERS SHALL BE DESIGNED FOR A MINIMUM ALLOWABLE LATERAL "ROLL OVER" CAPACITY OF 1.0 KIPS. PROVIDE STIFFENED JOIST SEATS IF NECESSARY.
4. PROVIDE BRIDGING FOR ALL JOISTS PER S.J.I. SPECIFICATIONS.
5. SEE DETAIL 14/S4.1 FOR ROOF CHORD ANGLE SPLICE. ALL ROOF CHORD ANGLES ARE TO BE CONTINUOUS AROUND PERIMETER OF DECK.
6. AT SLOPING JOIST GIRDERS, PROVIDE BEARING SEATS THAT CONSIDER THE ROOF SLOPE AND PROVIDE A LEVEL BEARING AT THE ENDS.
8. G.C./SPRINKLER SUB. TO COORDINATE JOIST BRIDGING LOCATIONS WITH SPRINKLER PIPE LOCATIONS.
10. SEE S4.1 FOR SUPPLEMENTAL FRAMING REQUIRED AT OPENING FOR ROOF TOP EQUIPMENT SUPPORT. OPENINGS IN ROOF GREATER THAN 12" IN DIAMETER SHALL HAVE SUPPLEMENTAL FRAMING.
11. SEE S1.0 FOR UPLIFT PRESSURES FOR BAR JOIST & JOIST GIRDER DESIGN
12. L1 - INDICATES L3x3x1/4" KICKER FROM BOTTOM FLANGE OF BEAM TO TOP OF ADJACENT JOIST AT ROOF W/ MAX. SPACING @12'-6" O.C.
13. INDICATES OFFICE AREA
14. LOCATION AND WEIGHT OF RTU'S IS BASED ON MECH. DRAWINGS. G.C. TO VERIFY.
15. INDICATES MECHANICAL ZONE. DESIGN JOISTS TO SUPPORT ADD'L LOAD OF (1) 2500# ROOF TOP UNIT ANYWHERE ALONG JOIST TOP CHORDS WITHIN ZONE. GIRDERS HAVED ADDITIONAL LOAD SHOWN AT LOCATIONS
16. MAU- INDICATES 1500# MAU ROOF TOP UNIT. VERIFY WITH MECH. DRAWINGS

△1

△4

17. 28KSP A- INDICATES 28K 211/116 JOIST DESIGNED TO SUPPORT ADDITIONAL LOAD OF MAU

28KSP B- INDICATES 28K 232/117 JOIST DESIGNED TO SUPPORT ADDITIONAL LOAD OF MECHANICAL ZONE

36LHSP- INDICATES 36LH 223/108 JOIST DESIGNED TO SUPPORT ADDITIONAL LOAD OF MECHANICAL ZONE

SP XXG X9 XXK- INDICATES JOIST GIRDER DESIGNED TO SUPPORT ADDITIONAL LOAD OF MAU

△3

18. X.XK INDICATES ADDITIONAL POINT LOAD DUE TO SNOW DRIFT IN KIPS

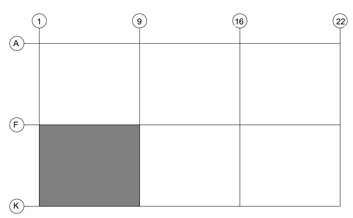
△1

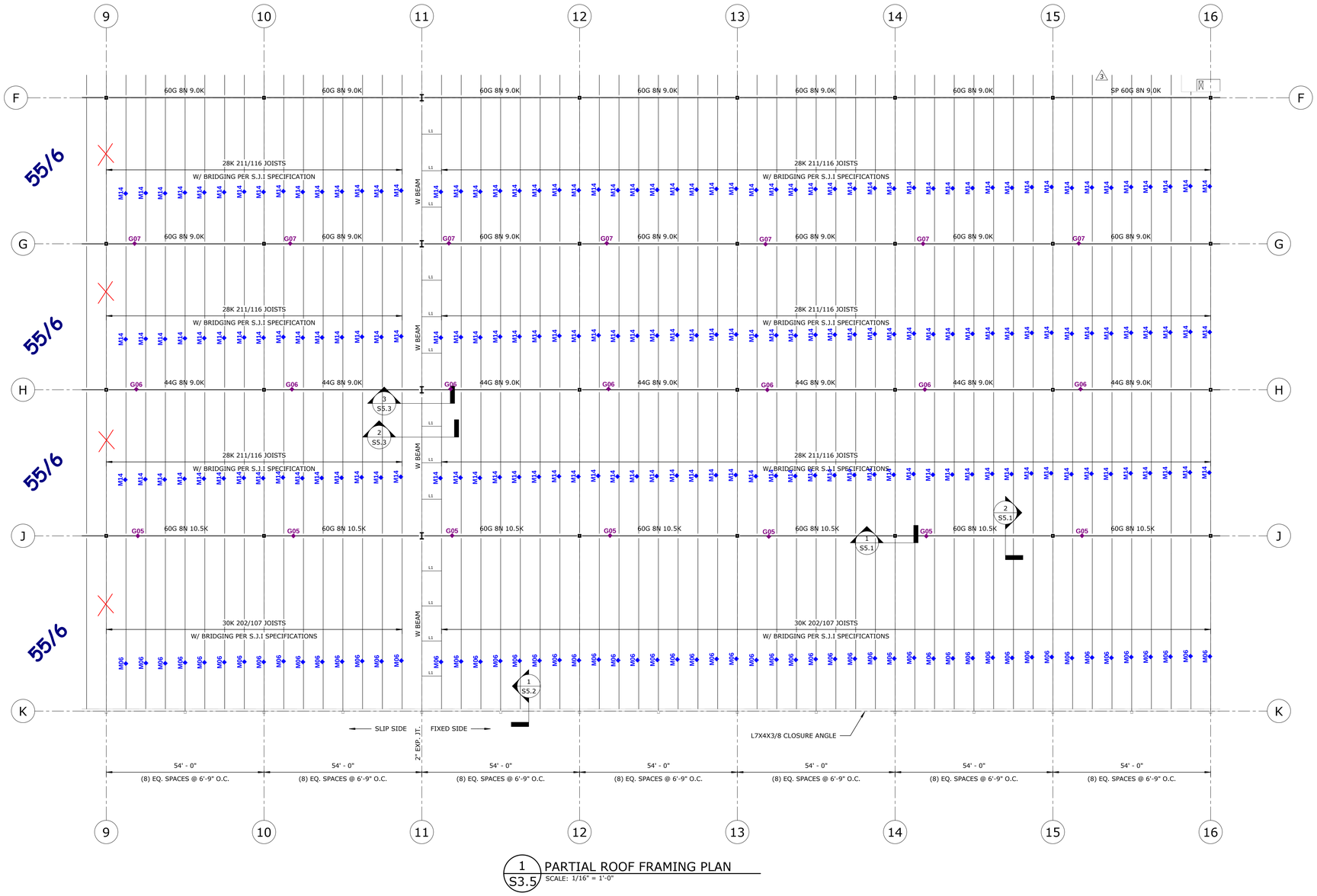
JOIST LOAD DESIGNATIONS

28K 211/116

JOIST DEPTH (in.) — DIST. TOTAL LOAD/ DIST. LIVE LOAD (ASD, PLF)

J=260/32
G=24/24





1 S3.5 PARTIAL ROOF FRAMING PLAN

SCALE: 1/16" = 1'-0"

Joist Description	Quantity
G05	7
G06	7
G07	7
M06	55
M14	165

NOTES & LEGEND

1. ATTACH 22 GAUGE ROOF DECK PER VULCRAFT ATTACHMENT PATTERN 36/7 W/ (7) SIDELAP FASTENERS PER SPAN. UTILIZE 5/8" DIA. PUDDLE WELDS AT SUPPORTS AND PERIMETER AND #10 TEK SIDELAP FASTENERS.

PROVIDE 1 1/2" DEEP, 22GA. WIDE RIB (TYPE B) STEEL ROOF DECKING, GRADE 80 KSI.

2. JOIST SEATS BEARING AT THE PERIMETER TILT WALL PANELS SHALL BE DESIGNED FOR A MINIMUM ALLOWABLE LATERAL "ROLL OVER" CAPACITY OF 1.1 KIPS. PROVIDE STIFFENED JOIST SEATS IF NECESSARY.

3. JOIST SEATS BEARING AT THE JOIST GIRDERS SHALL BE DESIGNED FOR A MINIMUM ALLOWABLE LATERAL "ROLL OVER" CAPACITY OF 1.0 KIPS. PROVIDE STIFFENED JOIST SEATS IF NECESSARY.

4. PROVIDE BRIDGING FOR ALL JOISTS PER S.J.I. SPECIFICATIONS.

5. SEE DETAIL 14/S4.1 FOR ROOF CHORD ANGLE SPLICE. ALL ROOF CHORD ANGLES ARE TO BE CONTINUOUS AROUND PERIMETER OF DECK.

6. AT SLOPING JOIST GIRDERS, PROVIDE BEARING SEATS THAT CONSIDER THE ROOF SLOPE AND PROVIDE A LEVEL BEARING AT THE ENDS.

8. G.C./SPRINKLER SUB. TO COORDINATE JOIST BRIDGING LOCATIONS WITH SPRINKLER PIPE LOCATIONS.

10. SEE S4.1 FOR SUPPLEMENTAL FRAMING REQUIRED AT OPENING FOR ROOF TOP EQUIPMENT SUPPORT. OPENINGS IN ROOF GREATER THAN 12" IN DIAMETER SHALL HAVE SUPPLEMENTAL FRAMING.

11. SEE S1.0 FOR UPLIFT PRESSURES FOR BAR JOIST & JOIST GIRDER DESIGN

12. L1 - INDICATES L3x3x1/4" KICKER FROM BOTTOM FLANGE OF BEAM TO TOP OF ADJACENT JOIST AT ROOF W/ MAX. SPACING @12'-6" O.C.

13. INDICATES OFFICE AREA

14. LOCATION AND WEIGHT OF RTU'S IS BASED ON MECH. DRAWINGS. G.C. TO VERIFY.

15. INDICATES MECHANICAL ZONE. DESIGN JOISTS TO SUPPORT ADD'L LOAD OF (1) 2500# ROOF TOP UNIT ANYWHERE ALONG JOIST TOP CHORDS WITHIN ZONE. GIRDERS HAVED ADDITIONAL LOAD SHOWN AT LOCATIONS

16. MAU- INDICATES 1500# MAU ROOF TOP UNIT. VERIFY WITH MECH. DRAWINGS

17. 28KSP A- INDICATES 28K 211/116 JOIST DESIGNED TO SUPPORT ADDITIONAL LOAD OF MAU

    28KSP B- INDICATES 28K 232/117 JOIST DESIGNED TO SUPPORT ADDITIONAL LOAD OF MECHANICAL ZONE

    36LHSP- INDICATES 36LH 223/108 JOIST DESIGNED TO SUPPORT ADDITIONAL LOAD OF MECHANICAL ZONE

    SP XXG X9 XXK- INDICATES JOIST GIRDER DESIGNED TO SUPPORT ADDITIONAL LOAD OF MAU

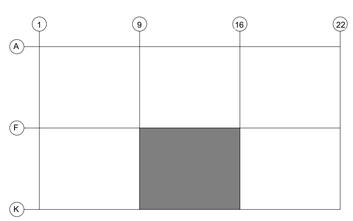
18. X.XK INDICATES ADDITIONAL POINT LOAD DUE TO SNOW DRIFT IN KIPS

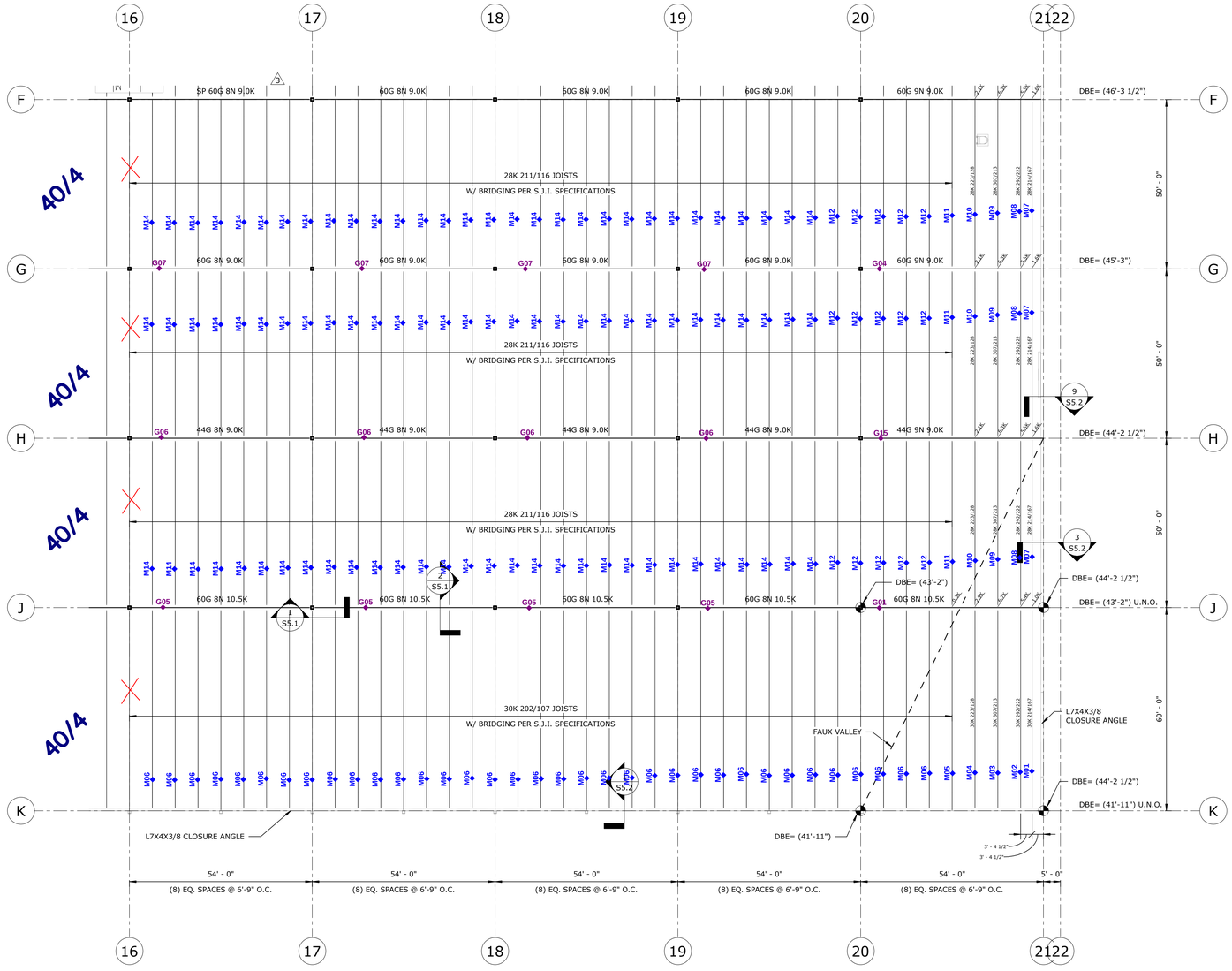
JOIST LOAD DESIGNATIONS

28K 211/116

JOIST DEPTH (in.) — DIST. TOTAL LOAD/ DIST. LIVE LOAD (ASD, PLF)

J=220/24
G=21/21





Joist Description	Quantity
G01	1
G04	1
G05	4
G06	4
G07	4
G15	1
M01	1
M02	1
M03	1
M04	1
M05	1
M06	35
M07	3
M08	3
M09	3
M10	3
M11	3
M12	15
M14	90

1 / S3.6 PARTIAL ROOF FRAMING PLAN

SCALE: 1/16" = 1'-0"

NOTES & LEGEND

1. ATTACH 22 GAUGE ROOF DECK PER VULCRAFT ATTACHMENT PATTERN 36/7 W/ (7) SIDELAP FASTENERS PER SPAN. UTILIZE 5/8" DIA. PUDDLE WELDS AT SUPPORTS AND PERIMETER AND #10 TEK SIDELAP FASTENERS.

   PROVIDE 1 1/2" DEEP, 22GA. WIDE RIB (TYPE B) STEEL ROOF DECKING, GRADE 80 KSI.

2. JOIST SEATS BEARING AT THE PERIMETER TILT WALL PANELS SHALL BE DESIGNED FOR A MINIMUM ALLOWABLE LATERAL "ROLL OVER" CAPACITY OF 1.1 KIPS. PROVIDE STIFFENED JOIST SEATS IF NECESSARY.

3. JOIST SEATS BEARING AT THE JOIST GIRDERS SHALL BE DESIGNED FOR A MINIMUM ALLOWABLE LATERAL "ROLL OVER" CAPACITY OF 1.0 KIPS. PROVIDE STIFFENED JOIST SEATS IF NECESSARY.

4. PROVIDE BRIDGING FOR ALL JOISTS PER S.J.I. SPECIFICATIONS.

5. SEE DETAIL 14/S4.1 FOR ROOF CHORD ANGLE SPLICE. ALL ROOF CHORD ANGLES ARE TO BE CONTINUOUS AROUND PERIMETER OF DECK.

6. AT SLOPING JOIST GIRDERS, PROVIDE BEARING SEATS THAT CONSIDER THE ROOF SLOPE AND PROVIDE A LEVEL BEARING AT THE ENDS.

8. G.C./SPRINKLER SUB. TO COORDINATE JOIST BRIDGING LOCATIONS WITH SPRINKLER PIPE LOCATIONS.

10. SEE S4.1 FOR SUPPLEMENTAL FRAMING REQUIRED AT OPENING FOR ROOF TOP EQUIPMENT SUPPORT. OPENINGS IN ROOF GREATER THAN 12" IN DIAMETER SHALL HAVE SUPPLEMENTAL FRAMING.

11. SEE S1.0 FOR UPLIFT PRESSURES FOR BAR JOIST & JOIST GIRDER DESIGN

12. L1 - INDICATES L3x3x1/4" KICKER FROM BOTTOM FLANGE OF BEAM TO TOP OF ADJACENT JOIST AT ROOF W/ MAX. SPACING @12'-6" O.C.

13. INDICATES OFFICE AREA

14. LOCATION AND WEIGHT OF RTU'S IS BASED ON MECH. DRAWINGS. G.C. TO VERIFY. 1

15. INDICATES MECHANICAL ZONE. DESIGN JOISTS TO SUPPORT ADD'L LOAD OF (1) 2500# ROOF TOP UNIT ANYWHERE ALONG JOIST TOP CHORDS WITHIN ZONE. GIRDERS HAVED ADDITIONAL LOAD SHOWN AT LOCATIONS

16. MAU- INDICATES 1500# MAU ROOF TOP UNIT. VERIFY WITH MECH. DRAWINGS

17. 28KSP A- INDICATES 28K 211/116 JOIST DESIGNED TO SUPPORT ADDITIONAL LOAD OF MAU 3

    28KSP B- INDICATES 28K 232/117 JOIST DESIGNED TO SUPPORT ADDITIONAL LOAD OF DIAMETER SHALL HAVE SUPPLEMENTAL FRAMING.

    36LHSP- INDICATES 36LH 223/108 JOIST DESIGNED TO SUPPORT ADDITIONAL LOAD OF MECHANICAL ZONE

    SP XXG X9 XXK- INDICATES JOIST GIRDER DESIGNED TO SUPPORT ADDITIONAL LOAD OF MAU

18. X.XK INDICATES ADDITIONAL POINT LOAD DUE TO SNOW DRIFT IN KIPS

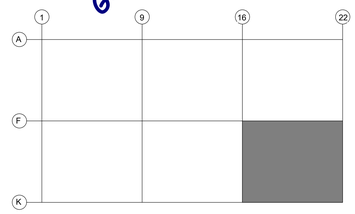
JOIST LOAD DESIGNATIONS 1

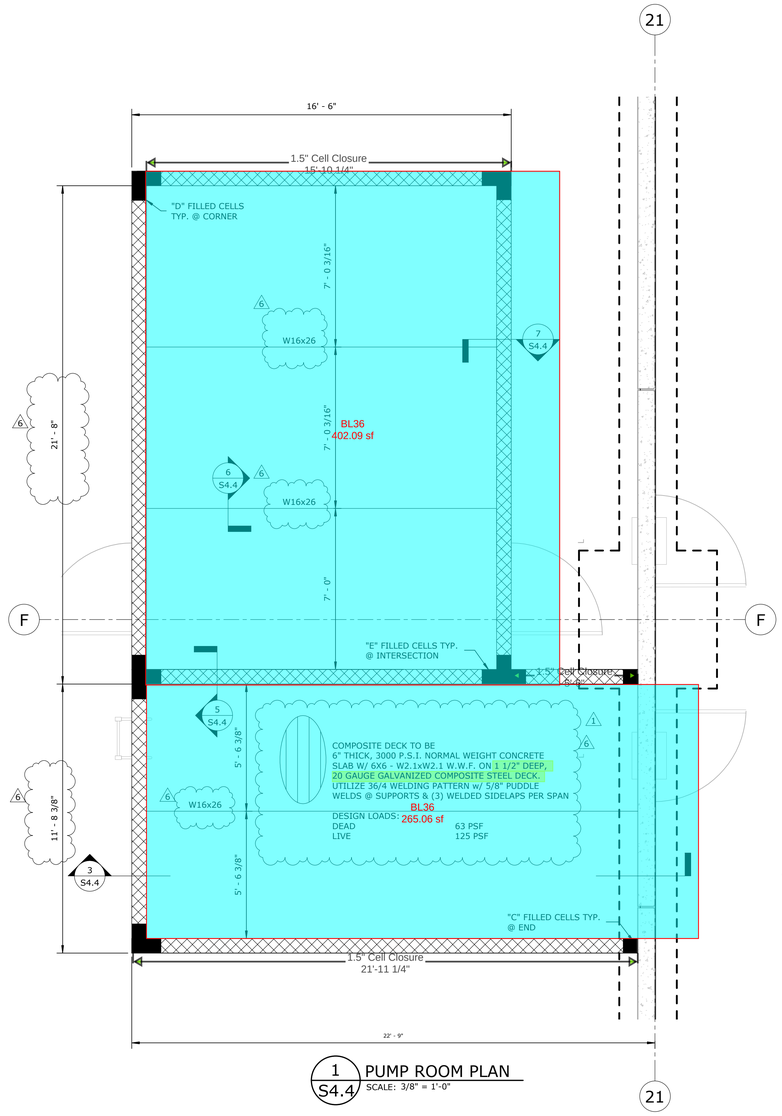
28K 211/116

JOIST DEPTH (in.) — DIST. TOTAL LOAD/ DIST. LIVE LOAD (ASD, PLF)

4

J=160/16
G=15/15



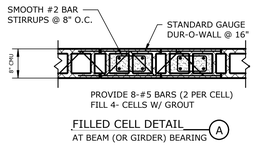


1 S4.4 PUMP ROOM PLAN
SCALE: 3/8" = 1'-0"

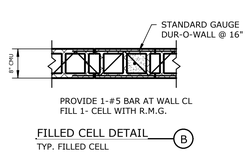
SCHEDULE OF 8" CMU FILLED CELLS
RUNNING BOND CONSTRUCTION TYP.

NOTE TO CONTRACTOR:
DO NOT PLACE CONDUIT
IN FILLED CELLS (TYP.)

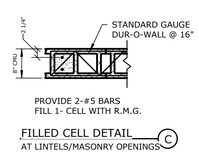
SEE MASONRY GENERAL NOTES
FOR REINFORCEMENT LAP
LENGTHS AT FILLED CELLS



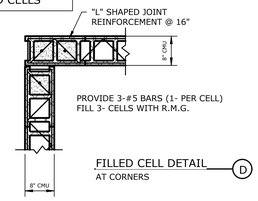
FILLED CELL DETAIL A
AT BEAM (OR GIRDER) BEARING



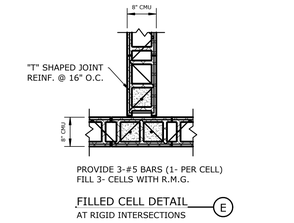
FILLED CELL DETAIL B
TYP. FILLED CELL



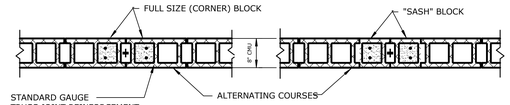
FILLED CELL DETAIL C
AT LINTELS/MASONRY OPENINGS



FILLED CELL DETAIL D
AT CORNERS

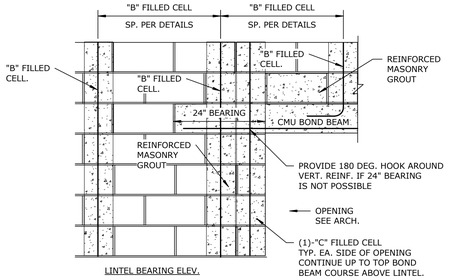


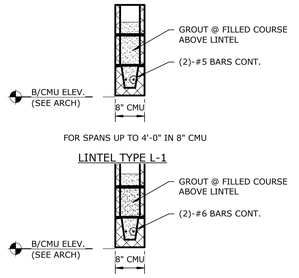
FILLED CELL DETAIL E
AT RIGID INTERSECTIONS



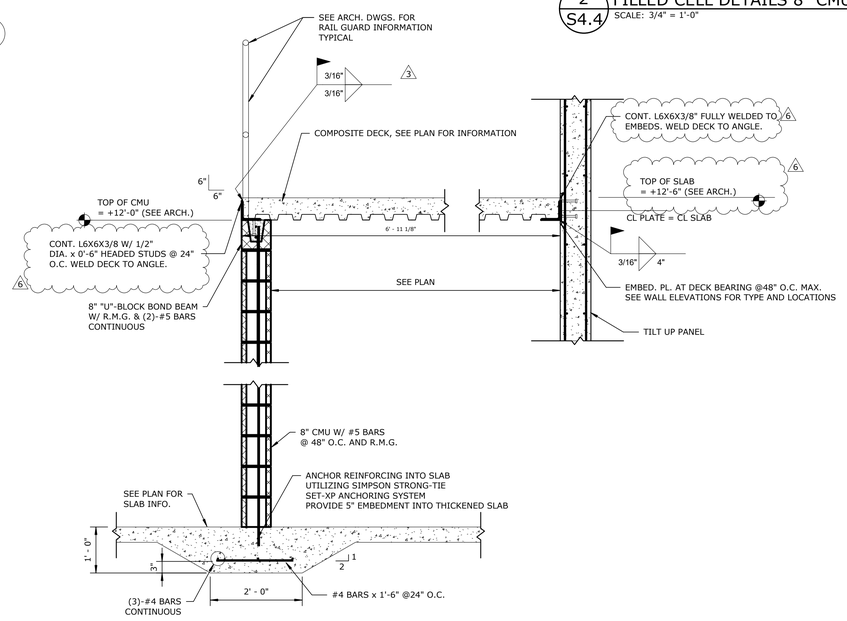
AT BOND BEAM COURSE(S) LAP REINFORCING BARS 2'-0" ON EACH SIDE OF WALL JOINT AND PREVENT BOND OF LAPPED BAR W/ R.M.G.

FILLED CELL DETAIL F
AT WALL CONTROL JOINT

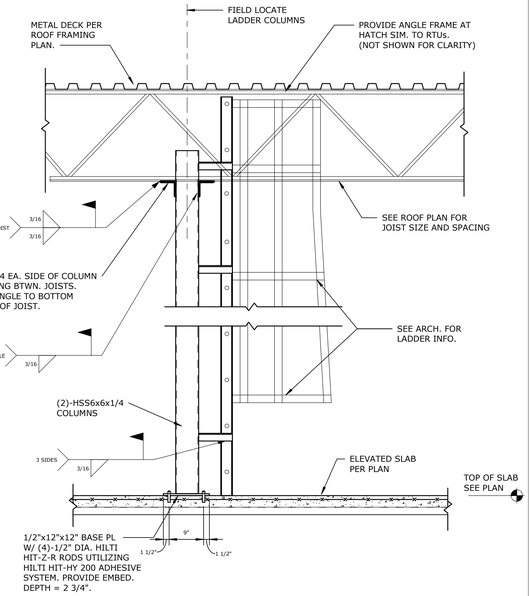




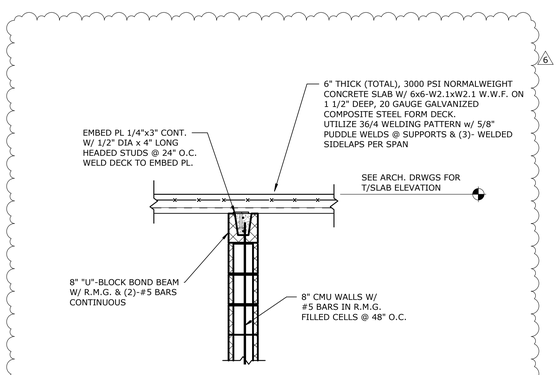
2 S4.4 FILLED CELL DETAILS 8" CMU
SCALE: 3/4" = 1'-0"



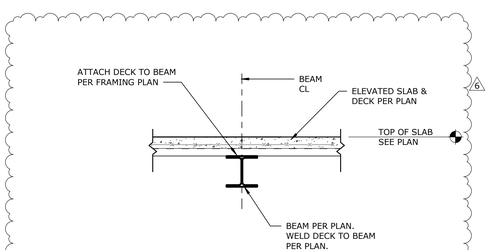
3 S4.4 SECTION @ ELECTRICAL/PUMP ROOM PERIMETER
SCALE: 3/4" = 1'-0"



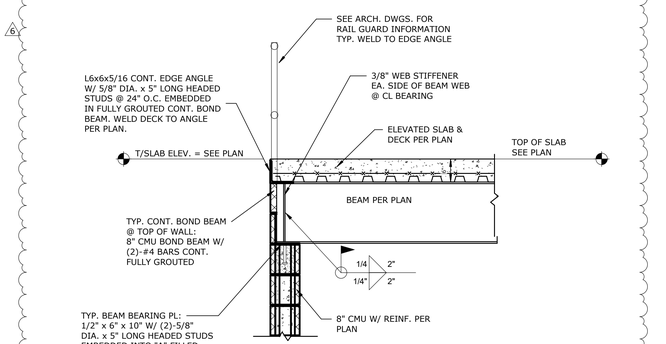
4 S4.4 LADDER ATOP LID DETAIL
SCALE: 3/4" = 1'-0"



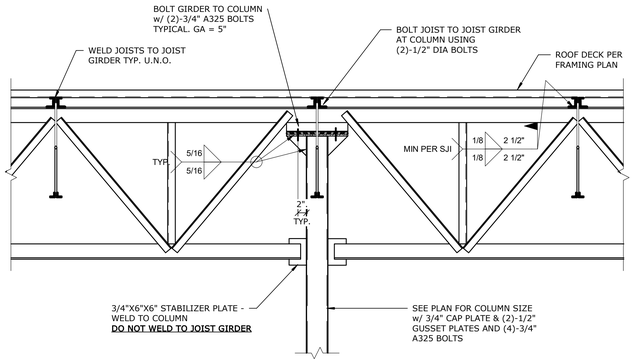
5 S4.4 SECTION @ ELECTRICAL/PUMP ROOM
SCALE: 3/4" = 1'-0"



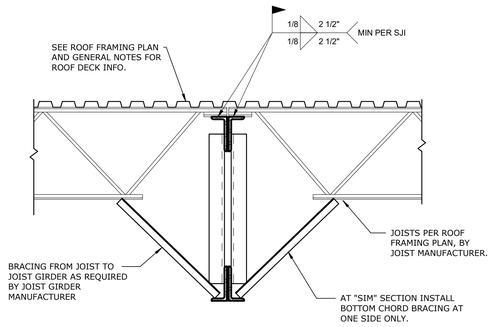
6 S4.4 PUMP ROOM BEAM SECTION
SCALE: 3/4" = 1'-0"



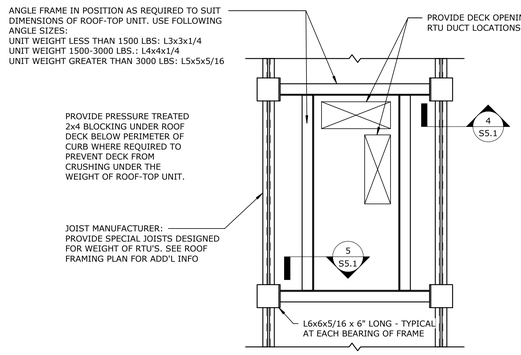
7 S4.4 PUMP ROOM BEAM BEARING SECTION 16" DEEP BEAM
SCALE: 3/4" = 1'-0"



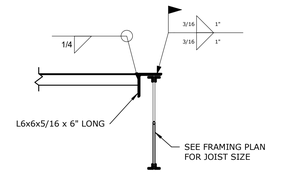
1 S5.1 TYPICAL JOIST GIRDER BEARING DETAIL
SCALE: 3/4" = 1'-0"



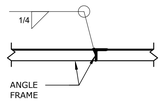
2 S5.1 TYPICAL JOIST BEARING @ GIRDER DETAIL
SCALE: 3/4" = 1'-0"



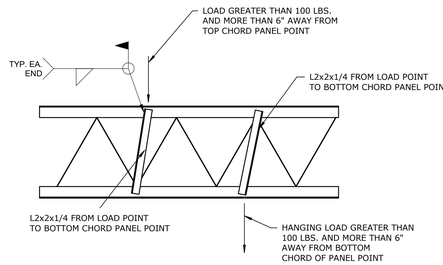
3 S5.1 TYPICAL R.T.U. SUPPORT FRAME
SCALE: 3/4" = 1'-0"



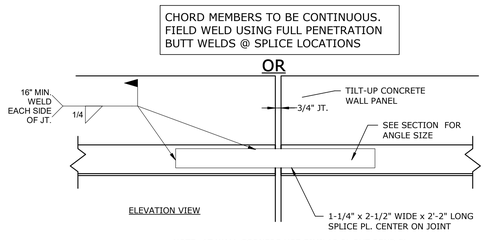
4 S5.1 RTU FRAMING SECTION 1
SCALE: 3/4" = 1'-0"



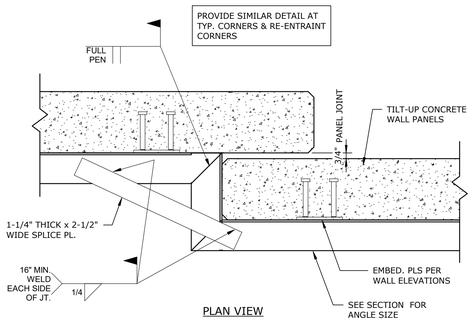
5 S5.1 RTU FRAMING SECTION 2
SCALE: 3/4" = 1'-0"



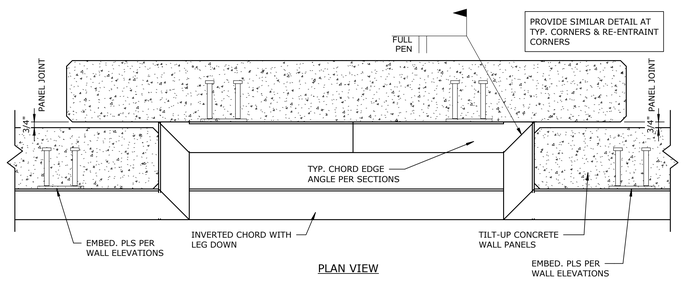
6 S5.1 JOIST WEB REINFORCEMENT DETAIL
SCALE: 3/4" = 1'-0"



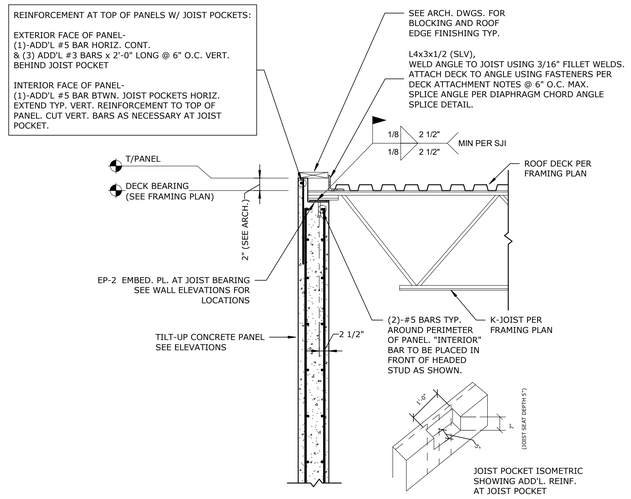
7 S5.1 TYPICAL CLOSURE ANGLE SPLICE
SCALE: 1 1/2" = 1'-0"



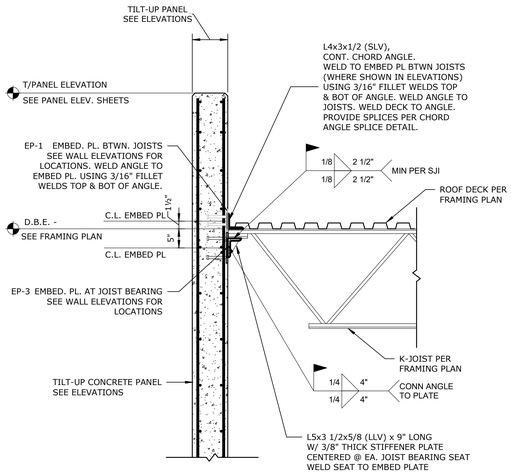
8 S5.1 DIAPHRAGM CHORD SPLICE AT SET-BACK PANEL
SCALE: 1 1/2" = 1'-0"



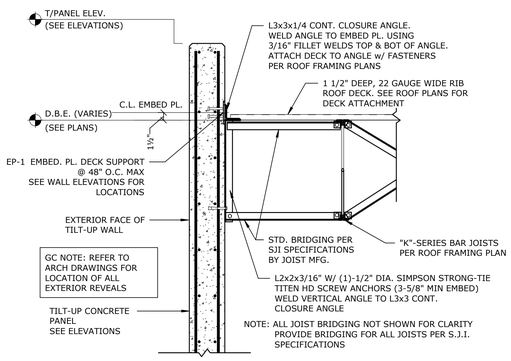
9 S5.1 DIAPHRAGM CHORD SPLICE AT NOTCHED PANEL
SCALE: 1 1/2" = 1'-0"



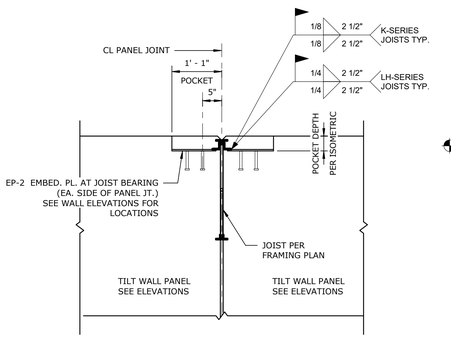
1 S5.2 JOIST BEARING ON PANEL
SCALE: 3/4" = 1'-0"



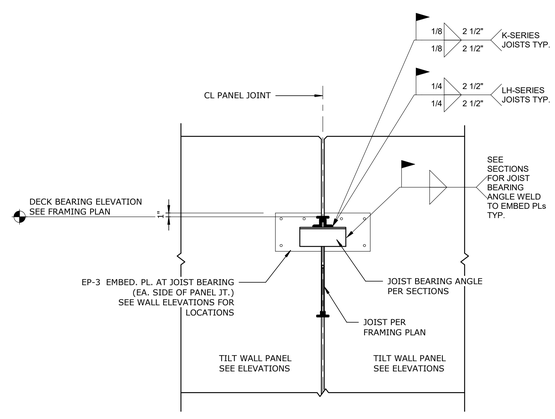
2 S5.2 JOIST BEARING AT PARAPET
SCALE: 3/4" = 1'-0"



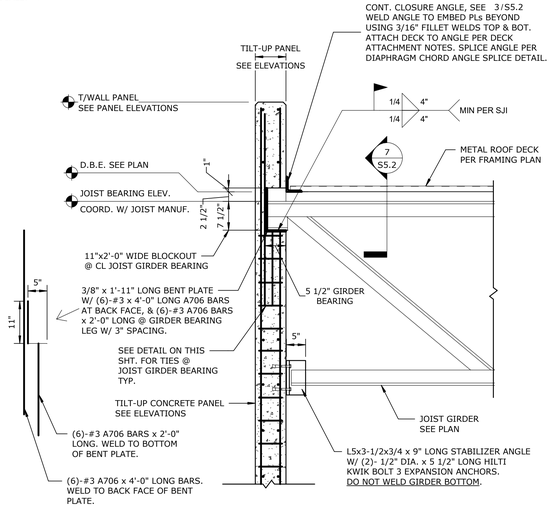
3 S5.2 SECTION @ DECK BEARING
SCALE: 3/4" = 1'-0"



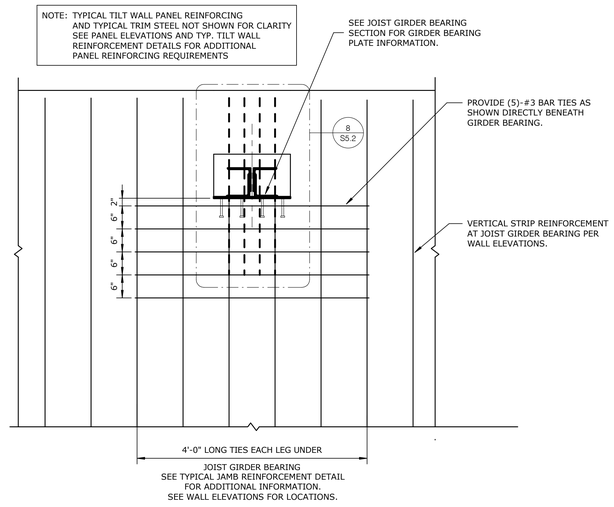
4 S5.2 JOIST BEARING AT PANEL JOINT - NO PARAPET
SCALE: 3/4" = 1'-0"



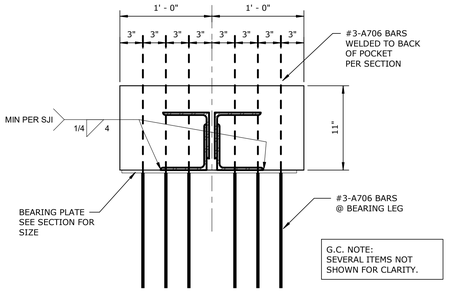
5 S5.2 JOIST BEARING AT PANEL JOINT - AT PARAPET
SCALE: 3/4" = 1'-0"



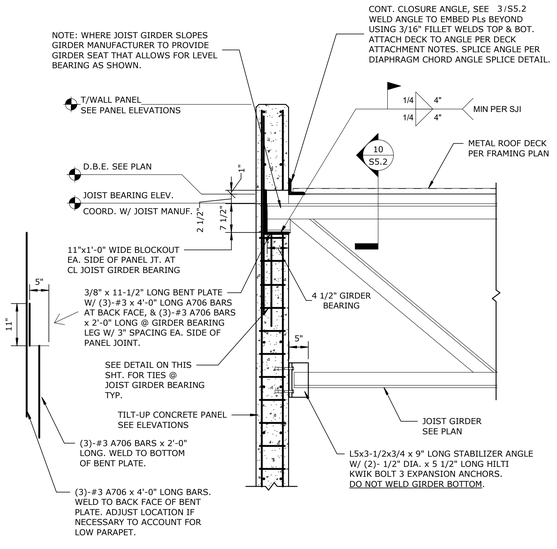
6 S5.2 SECTION @ GIRDER BEARING - NOT AT PANEL JT.
SCALE: 3/4" = 1'-0"



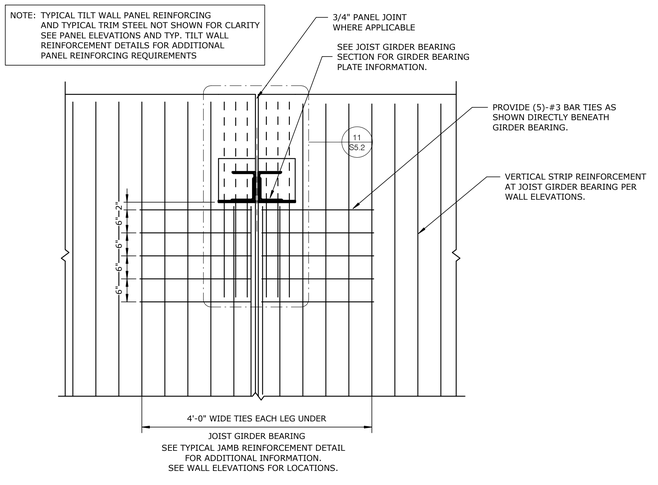
7 S5.2 GIRDER BEARING TIE REINFORCEMENT - NOT AT PANEL JT.
SCALE: 3/4" = 1'-0"



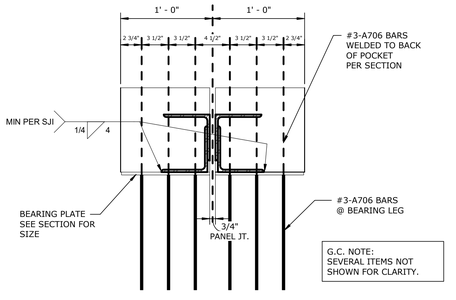
8 S5.2 GIRDER BLOCKOUT DETAIL - NOT AT PANEL JT.
SCALE: 1 1/2" = 1'-0"



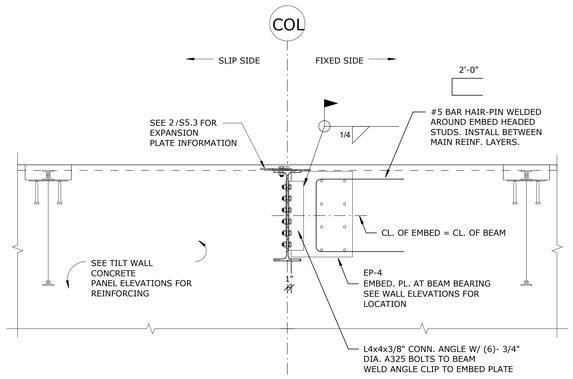
9 S5.2 SECTION @ GIRDER BEARING - AT PANEL JT.
SCALE: 3/4" = 1'-0"



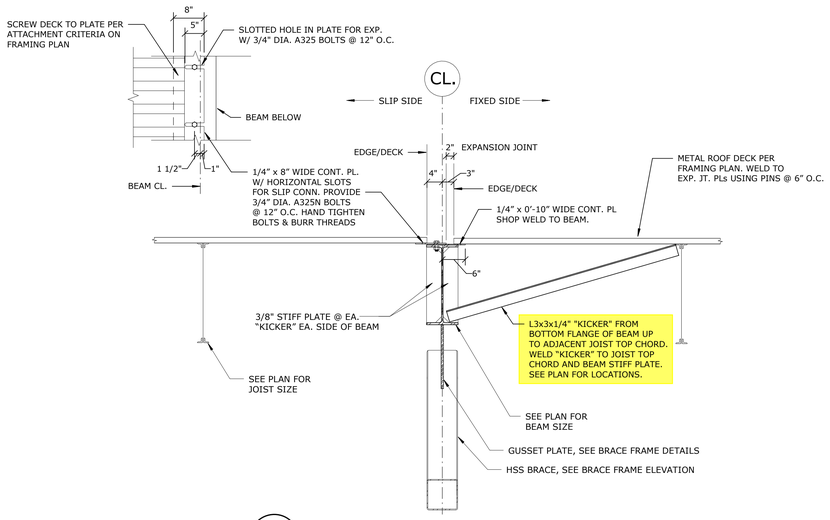
10 S5.2 GIRDER BEARING TIE REINFORCEMENT - AT PANEL JT.
SCALE: 3/4" = 1'-0"



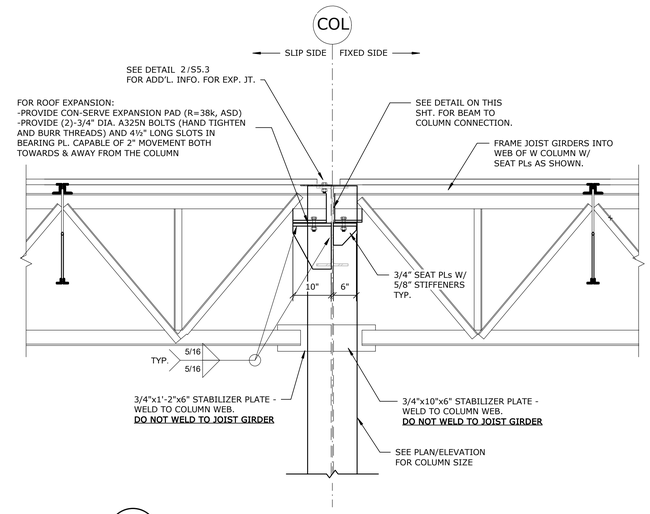
11 S5.2 GIRDER BLOCKOUT DETAIL - AT PANEL JT.
SCALE: 1 1/2" = 1'-0"



1 S5.3 SECTION @ BEAM BEARING @ PANEL JOINT
SCALE: 3/4" = 1'-0"

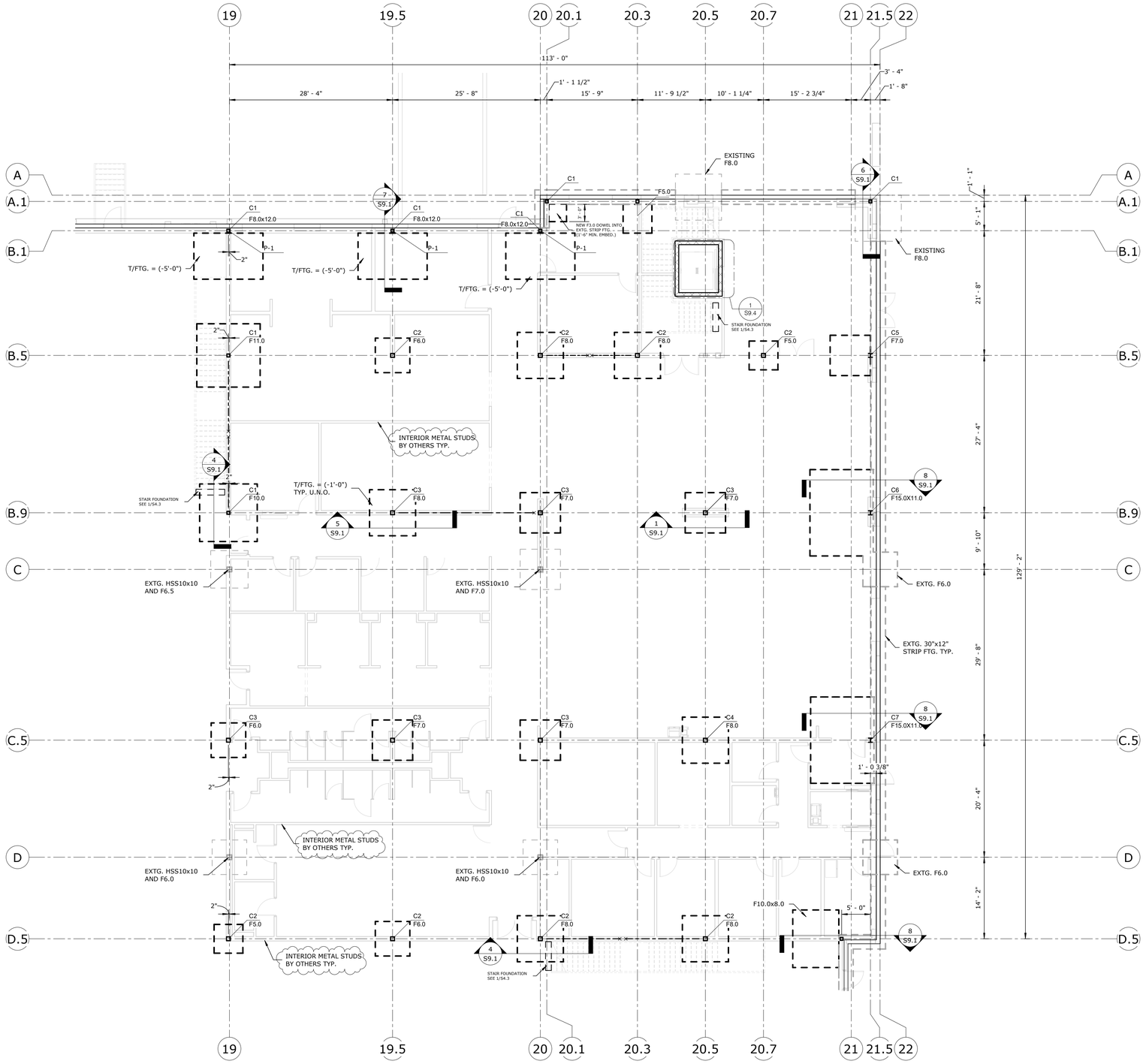


2 S5.3 SECTION @ ROOF EXPANSION
SCALE: 3/4" = 1'-0"



3 S5.3 SECTION @ GIRDER BEARING EXPANSION JOINT
SCALE: 3/4" = 1'-0"

4 S5.3 JOIST BEARING AT PANEL JOINT (AT PARAPET TRANSITION)
SCALE: 3/4" = 1'-0"



COLUMN FOOTING SCHEDULE		
3,000 P.S.F. SOIL BEARING CAPACITY (ASSUMED)		
MARK	DIMENSIONS	REINFORCEMENT
F3.0	3'-0" SQUARE X 1'-0" THICK	(4) #4 BARS @ 2'-6" E.W. BOTTOM
F5.0	5'-0" SQUARE X 1'-0" THICK	(5) #5 BARS @ 4'-6" E.W. BOTTOM
F6.0	6'-0" SQUARE X 1'-2" THICK	(7) #5 BARS @ 5'-6" E.W. BOTTOM
F7.0	7'-0" SQUARE X 1'-5" THICK	(6) #6 BARS @ 6'-6" E.W. BOTTOM
F8.0	8'-0" SQUARE X 1'-7" THICK	(6) #7 BARS @ 7'-6" E.W. TOP & BOTTOM
F8.0x10.0	8'-0" X 10'-0" X 2'-0" THICK	(7) #8 BARS @ 7'-6" & 9'-6" E.W. TOP & BOTTOM
F8.0x12.0	8'-0" X 12'-0" 1'-6" THICK	(8) #8 BARS @ 7'-6" & 11'-6" E.W. TOP & BOTTOM
F10.0	10'-0" SQUARE X 2'-0" THICK	(9) #7 BARS @ 9'-6" E.W. TOP & BOTTOM
F11.0	11'-0" SQUARE X 2'-2" THICK	(8) #8 BARS @ 10'-6" E.W. TOP & BOTTOM
F15.0X11.0	15'-0" X 11'-0" X 2'-0" THICK	(10) #8 BARS @ 14'-6" & 10'-6" E.W. TOP & BOTTOM

STRUCTURAL COLUMN SCHEDULE		
MARK	COLUMN SIZE	BASE PLATE DETAIL
C1	HSS6X6X1/4	3/4" x 12" x 12" & (4) 1/2" DIA. ASTM F1554 GR 36 THREADED ANCHOR RODS, EMBED. LENGTH (FTG. THICKNESS -3")
C2	HSS8X8X1/4	3/4" x 14" x 14" & (4) 3/4" DIA. ASTM F1554 GR 36 THREADED ANCHOR RODS, EMBED. LENGTH (FTG. THICKNESS -3")
C3	HSS8X8X3/8	3/4" x 14" x 14" & (4) 3/4" DIA. ASTM F1554 GR 36 THREADED ANCHOR RODS, EMBED. LENGTH (FTG. THICKNESS -3")
C4	HSS8X8X1/2	1" x 14" x 14" & (4) 3/4" DIA. ASTM F1554 GR 36 THREADED ANCHOR RODS, EMBED. LENGTH (FTG. THICKNESS -3")
C5	W8X31	3/4" x 12" x 14" & (4) 1/2" DIA. ASTM F1554 GR 36 THREADED ANCHOR RODS, EMBED. LENGTH (FTG. THICKNESS -3")
C6	W8X48	3/4" x 12" x 14" & (4) 1/2" DIA. ASTM F1554 GR 36 THREADED ANCHOR RODS, EMBED. LENGTH (FTG. THICKNESS -3"
C7	W8X58	3/4" x 12" x 14" & (4) 1/2" DIA. ASTM F1554 GR 36 THREADED ANCHOR RODS, EMBED. LENGTH (FTG. THICKNESS -3"

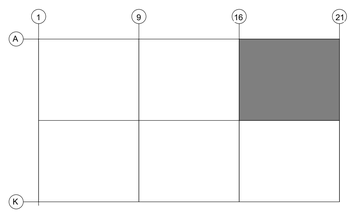
NOTES & LEGEND:

(XX'-XX") - INDICATES TOP OF FOOTING ELEVATION IN RELATION TO REFERENCE F.F.E. 0'-0" U.N.O.

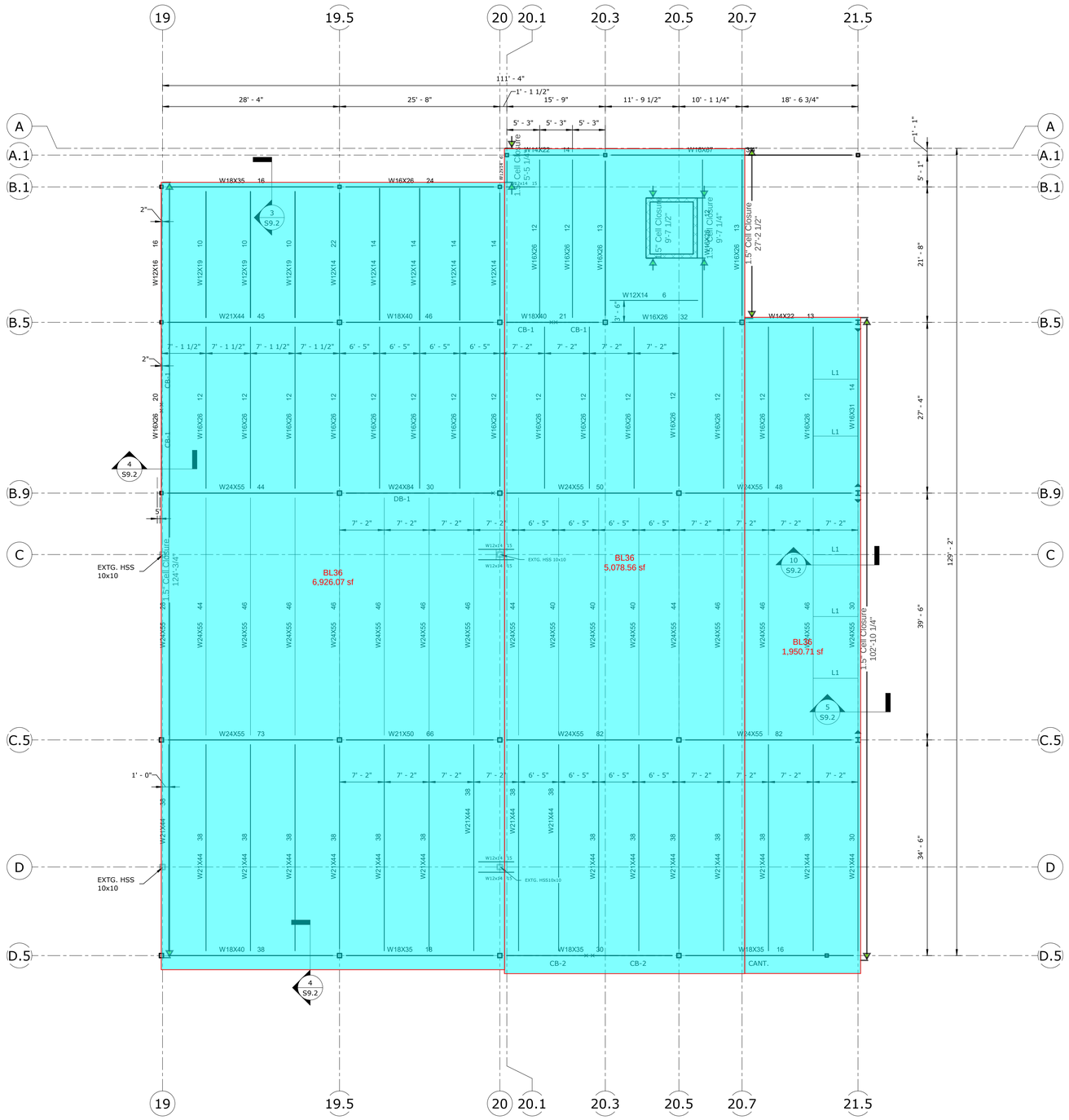
1. PLAN SCALE - 1/16" = 1'-0"
2. DIMENSIONS LINES ARE TO THE CENTERLINE OF COLUMN AND/OR FACE OR TILT-UP WALLS UNLESS NOTED OTHERWISE ON PLAN.
3. SEE ARCH. DWGS. FOR DIMENSIONS NOT SHOWN. VERIFY DIMENSIONS SHOWN W/ ARCH. DWGS.
4. FX.X - INDICATES SPREAD FOOTING. SEE SCHEDULE FOR SIZE.
5. FLOOR CAST SLAB AND FINISHING TOLERANCES:

   FLOOR FLATNESS Ff (SEE SPEC. FOR AVG. & LOCAL MIN.)
   FLOOR LEVELNESS Fl (SEE SPEC. FOR AVG. & LOCAL MIN.)

6. P-1 - INDICATES PIER PER 8/S4.1
   P-2 - INDICATES PIER PER 9/S4.1



1 / S7.1 MEZZANINE FOUNDATION PLAN
SCALE: 1/8" = 1'-0"



1 S7.2 MEZZANINE FRAMING PLAN
SCALE: 1/8" = 1'-0"

MEZZANINE FLOOR NOTES

DESIGN LOADS

DEAD LOAD - 85 PSF
LIVE LOAD - 100 PSF

FLOOR CONSTRUCTION: 5" THICK, 3000 PSI NORMAL WEIGHT CONCRETE SLAB ON 1 1/2", 18 GA. GALVANIZED COMPOSITE FLOOR DECK REINFORCED W/ #3 BARS @ 12" O.C. EA. WAY. PROVIDE 1" CLEARANCE FROM TOP OF SLAB TO TOP OF #3 BARS.

FINISHED FLOOR ELEVATION = +16'-0"

TOP OF STEEL ELEVATION = 15'-7" TYPICAL U.N.O.

W??x?? (##) (##")- INDICATES BEAM SIZE (NUMBER OF 3/4" DIA. x 3 1/2" LONG HEADED STUDS)

FLOOR DECK ATTACHMENT:
ATTACH FLOOR TO SUPPORTING MEMBERS AND CLOSURE ANGLES IN ACCORDANCE WITH VULCRAFT WELD ATTACHMENT PATTERN 36/4 WITH 3-SIDELAP FASTENERS PER SPAN (5/8" DIA. PUDDLE WELDS AT SUPPORTS AND PERIMETER & #10 TEK SCREWS AT SIDELAPS)

DETAILERS NOTE:
ALL FLOORS BEAMS TO COLUMN CONNECTIONS SHALL BE DOUBLE ANGLE CONNECTIONS. WT CAN BE USED IN LIEU OF DOUBLE ANGLE BUT THICKNESS AND WELDS MUST MATCH ANGLE TABLES. ROOF OR TOP OF COLUMN CONNECTION TO BEAM CAN BE THRU PLATE BUT NOT FACE MOUNTED.

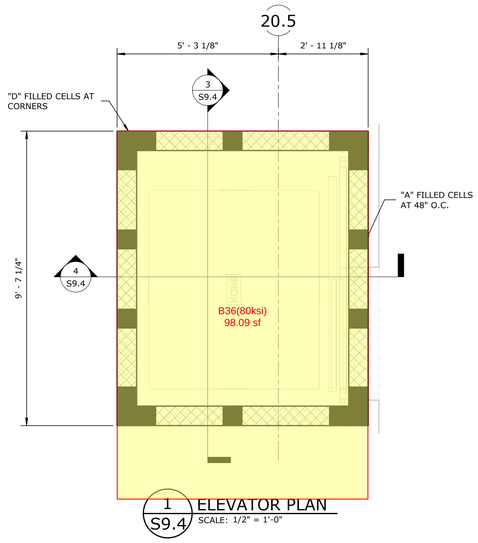
INDICATES MOMENT FRAME. SEE S4.2 FOR MOMENT CONNECTION DETAIL

CB-1 - INDICATES HSS 6x6x1/4 CHEVRON BRACE (SEE S4.1 & S4.2 FOR DETAILS)

CB-2 - INDICATES HSS 6x6x3/8 CHEVRON BRACE (SEE S4.1 & S4.2 FOR DETAILS)

DB-1 - INDICATES HSS 6x6x3/8 DIAGONAL BRACE (SEE S4.1 & S4.2 FOR DETAILS)

L1 - INDICATES L3x3x1/4" "KICKER". SEE 9/S4.2 FOR DETAIL

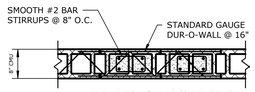


1 S9.4 ELEVATOR PLAN
SCALE: 1/2" = 1'-0"

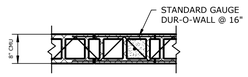
SCHEDULE OF 8" CMU FILLED CELLS
RUNNING BOND CONSTRUCTION TYP.

NOTE TO CONTRACTOR:
DO NOT PLACE CONDUIT
IN FILLED CELLS (TYP.)

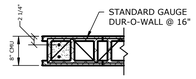
SEE MASONRY GENERAL NOTES
FOR REINFORCEMENT LAP
LENGTHS AT FILLED CELLS



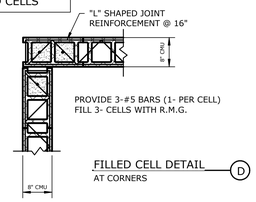
FILLED CELL DETAIL A
AT BEAM (OR GIRDER) BEARING



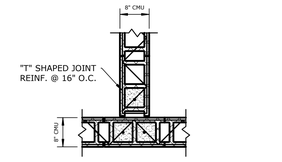
FILLED CELL DETAIL B
TYP. FILLED CELL



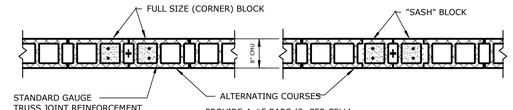
FILLED CELL DETAIL C
AT LINTELS/MASONRY OPENINGS



FILLED CELL DETAIL D
AT CORNERS

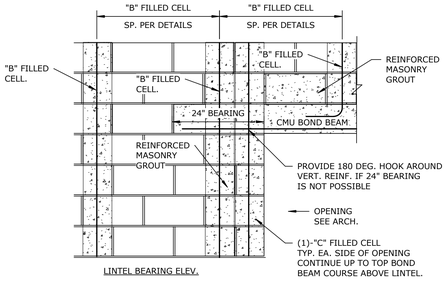


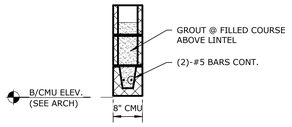
FILLED CELL DETAIL E
AT RIGID INTERSECTIONS



AT BOND BEAM COURSE(S) LAP REINFORCING BARS 2'-0" ON EACH SIDE OF WALL JOINT AND PREVENT BOND OF LAPPED BAR W/ R.M.G.

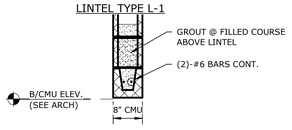
FILLED CELL DETAIL F
AT WALL CONTROL JOINT





FOR SPANS UP TO 4'-0" IN 8" CMU

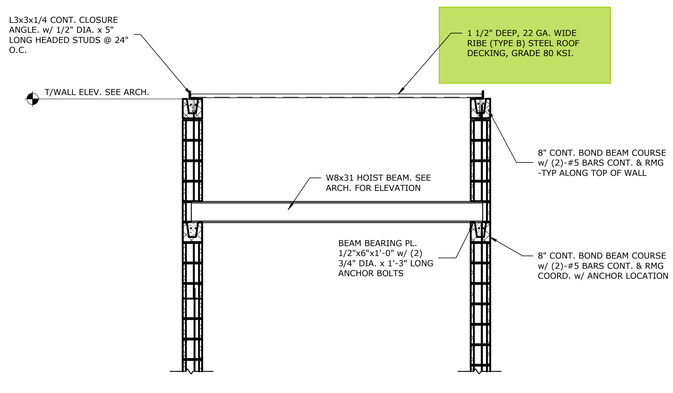
LINTEL TYPE L-1



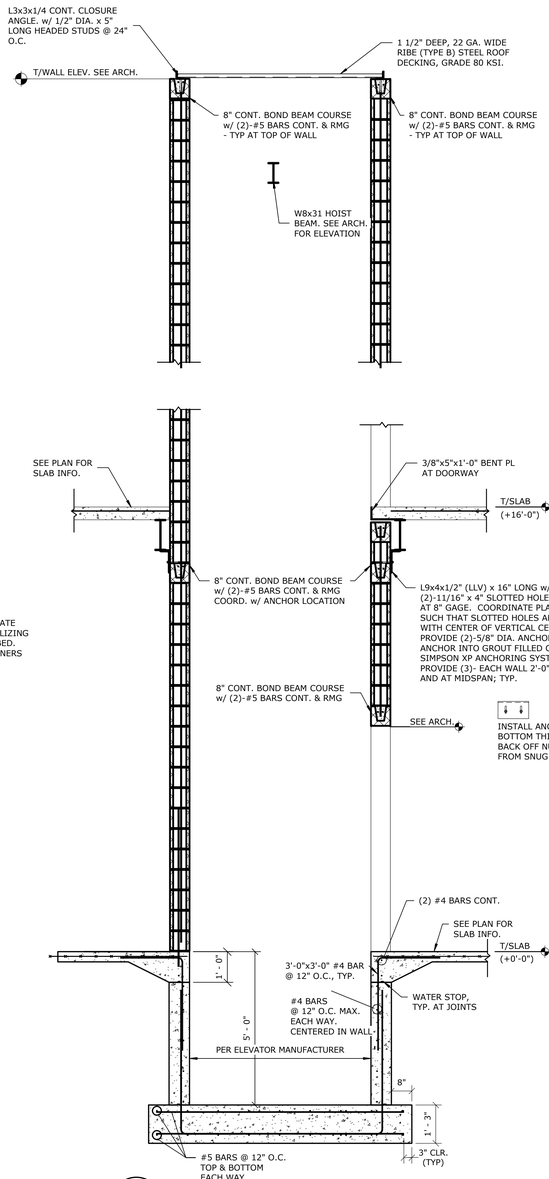
FOR SPANS 4'-0" TO 8'-0" IN 8" CMU

LINTEL TYPE L-2

2 S9.4 FILLED CELL DETAILS 8" CMU
SCALE: 3/4" = 1'-0"



3 S9.4 SECTION THRU ELEVATOR
SCALE: 1/2" = 1'-0"



4 S9.4 SECTION THRU ELEVATOR AT DOOR4
SCALE: 1/2" = 1'-0"

JOISTS

NOTES : **0**

LL DEFL **L/240** TL DEFL _____ JOIST SPACING **0**

DWG	MARK	QTY	BCX	DEPTH	LOAD	SPAN	SPACE	NU PSF	TCX L	TCX R	COMMENTS
	M01	3		30K	214/167	59'-3"	3.5	24	5"		1, 2, 11
	M02	3		30K	292/222	59'-3"	5.125	24	5"		1, 2, 12
	M03	3		30K	307/213	59'-3"	6.75	24	5"		1, 2, 13
	M04	3		30K	223/128	59'-3"	6.75	24	5"		1, 3, 14
	M05	3		30K	202/107	59'-3"	6.75	24	5"		1, 3, 15
	M06	294	35	30K	202/107	59'-3"	6.75	16.8	5"		1, 4, 15
	M07	10		28K	214/167	50'-0"	3.5	24			1, 11
	M08	10		28K	292/222	50'-0"	5.125	24			1, 12
	M09	10		28K	307/213	50'-0"	6.75	24			1, 13
	M10	10		28K	223/128	50'-0"	6.75	24			1, 14
	M11	10		28K	211/116	50'-0"	6.75	24			1, 16
	M12	50	10	28K	211/116	50'-0"	6.75	16.8			1, 16
	M14	827	95	28K	211/116	50'-0"	6.75	10.8			1, 16
	M15	6	1	28K	211/116	50'-0"	6.75	10.8			1, 5, 16
	M16	1		28K	232/117	50'-0"	6.75	10.8			1, 6, 17
	M17	4	1	28K	232/117	50'-0"	6.75	16.8			1, 6, 17
	M18	1		28K	232/117	50'-0"	6.75	16.8			1, 17
	M19	2		28K	232/117	50'-0"	6.75	24			1, 17
	M20	1		28K	265/150	50'-0"	6.75	24			1, 18
	M21	1		28K	261/175	50'-0"	5.125	24			1, 19
	M22	1		28K	293/136	50'-0"	3.5	24			1, 20
	M23	1		12K	267/196	14'-3"	3.875	24	5"		1, 21
	M24	1		28K	232/117	50'-0"	6.75	10.8			1, 7, 8, 17
	M25	4	1	28K	232/117	50'-0"	6.75	16.8			1, 7, 8, 17
	M26	1		28K	232/117	50'-0"	6.75	16.8			1, 8, 17
	M27	1		28K	232/117	50'-0"	6.75	24			1, 8, 17
	M28	5		28K	211/116	50'-0"	6.75	10.8			1, 8, 16
	TOTAL	1266	143								

JOISTS

NOTES : **0**

LL DEFL **L/240** TL DEFL _____ JOIST SPACING **0**

DWG	MARK	QTY	BCX	DEPTH	LOAD	SPAN	SPACE	NU PSF	TCX L	TCX R	COMMENTS
	M29	1		28K	243/128	50'-0"	6.75	24			1, 8, 22
	M30	1		28K	327/213	50'-0"	6.75	24			1, 8, 23
	M31	1		28K	307/175	50'-0"	5.125	24			1, 8, 24
	M32	1		28K	224/167	50'-0"	3.375	24			1, 8, 25
	M33	1		28K	267/196	50'-0"	3.875	24			1, 8, 21
	M34	3	1	36LH	223/108	59'-3"	6.75	16.8	5"		1, 4, 9, 26
	M35	2		36LH	223/108	64'-3"	6.75	16.8	5"		1, 4, 9, 26
	M36	1		36LH	218/103	64'-3"	6.75	16.8	5"		1, 10, 27
	M37	2		36LH	218/103	64'-3"	6.75	24	5"		1, 27
	M38	1		36LH	271/156	64'-3"	6.75	24	5"		1, 28
	M39	1		36LH	261/175	64'-3"	5.125	24	5"		1, 19
	M40	1		36LH	193/136	64'-3"	3.375	24	5"		1, 29
	M41	1		36LH	267/196	64'-3"	3.875	24	5"		1, 21
	TOTAL	17	1								

NOTES

1	PROVIDE EXTEA FOR ROLLOVER FORCE @ BOTH SHOE		
2	ADD'L NU: 5.4 PSF FROM TE TO 29'-0"		
3	ADD'L NU: 5.4 PSF FROM TE TO 10'-0"		
4	ADD'L NU: 5.4 PSF FROM TE TO 29'-0"		
5	ADD'L PL: 0.42K @ 1.25' TO 2.25' & 5.25' TO 7.25' FTE @ TC		
6	ADD'L PL: (1) 2.5K @ TE TO 13'-5" @ TC		
7	ADD'L PL: (1) 2.5K @ TE TO 13'-5" & NON TE TO 13'-5" @ TC		
8	SHOE DEPTH 5" @ TE		
9	ADD'L PL: (1) 2.5K @ NON TE TO 13'-5" @ TC		
10	ADD'L NU: 5.4 PSF FROM TE TO 34'-0"		
11	Design joist for 214/167PLF Load		
12	Design joist for 292/222PLF Load		
13	Design joist for 307/213PLF Load		
14	Design joist for 223/128PLF Load		
15	Design joist for 202/107PLF Load		
16	Design joist for 211/116PLF Load		
17	Design joist for 232/117PLF Load		
18	Design joist for 265/150PLF Load		
19	Design joist for 261/175PLF Load		
20	Design joist for 293/136PLF Load		
21	Design joist for 267/196PLF Load		
22	Design joist for 243/128PLF Load		
23	Design joist for 327/213PLF Load		
24	Design joist for 307/175PLF Load		
25	Design joist for 224/167PLF Load		
26	Design joist for 223/108PLF Load		
27	Design joist for 218/103PLF Load		
28	Design joist for 271/156PLF Load		
29	Design joist for 193/136PLF Load		

GIRDER

DWG	MARK	QTY	BCX	DESIGNATION	SPAN	NU	TCX L	TCX R	COMMENTS
	G01	3	3	60G8N10.5	54'-0"				30, 31, 40, 46
	G02	1	1	44G9N10.2	54'-0"				31, 32, 42, 47
	G03	1	1	60G9N10.2	54'-0"				31, 32 42, 48
	G04	4	4	60G9N9	54'-0"				31, 32 42, 49
	G05	35	35	60G8N10.5	54'-0"				33, 41, 46
	G06	35	35	44G8N9	54'-0"				33, 43, 50
	G07	46	46	60G8N9	54'-0"				33, 43, 51
	G08	8	8	60G8N9	54'-0"				33, 34, 43, 51
	G09	1	1	44G8N9	54'-0"				33, 35, 43, 50
	G10	1	1	60G8N10.5	54'-0"				33, 35, 41 46
	G11	1	1	60G10N12.2	59'-0"				36, 37, 45, 52
	G12	1	1	44G10N11.6	59'-0"				37, 38, 44, 53
	G14	1	1	60G9N10.2	54'-0"				31, 39, 42, 48
	G15	2	2	44G9N9	54'-0"				31, 32, 42, 54
TOTAL		140	140						

NOTES

30	ADD'L PL: 0.3K @ PP4, 2.9K @ PP5, 6.7K @ PP6, 5.4K @ PP7, 1K @ PP8 FTE		
31	JOIST SPACING: (7) 6'-9", (1) 3'-4 1/2" & (1) REST OF JOIST SPAN		
32	ADD'L PL: 2.1K @ PP5, 6.3K @ PP6, 5.5K @ PP7, 1.6K @ PP8 FTE		
33	JOIST ARE IN EQUAL SPACING		
34	ADD'L PL: 0.84K @ PP1 FTE		
35	ADD'L PL: 1.8K @ PP1 & PP2 FTE		
36	ADD'L PL: 1.8K @ PP & PP2, 3K @ PP6, 2.7K @ PP7, 3K @ PP8 FTE		
37	JOIST SPACING: (7) 6'-9", (2) 3'-4 1/2" & (1) 5'-0" FTE		
38	ADD'L PL: 1.8K @ PP & PP2, 1.6K @ PP6, 1.4K @ PP7, 1.7K @ PP8 FTE		
39	ADD'L PL: 1.2K @ PP5, 4K @ PP6, 3.5K @ PP7 FTE		
40	NU: 6.54K @ PP1 & PP2, 8.88K @ PP3 TO PP5, 9.11K @ PP6, 6.92K @ PP7 & 4.72K @ PP8 FTE		
41	NU: 6.54K @ EACH PP		
42	NU: 5.67K @ PP1 & PP2, 8.1K @ PP3 TO PP6, 6.15K @ PP7, 4.2K @ PP8 FTE		
43	NU: 3.65K @ EACH PP		
44	NU: 5.67K @ PP1 & PP2, 8.1K @ PP3 TO PP6, 6.15K @ PP7, 4.2K @ PP8, 4.65K @ PP9 FTE		
45	NU: 6.93K @ PP1 & PP2, 9.3K @ PP3 TO PP6, 7.29K @ PP7, 4.98K @ PP8 & PP9 FTE		
46	Girder designation 60G8N10.5		
47	Girder designation 44G9N10.2		
48	Girder designation 60G9N10.2		
49	Girder designation 60G9N9		
50	Girder designation 44G8N9		
51	Girder designation 60G8N9		
52	Girder designation 60G10N12.2		
53	Girder designation 44G10N11.6		
54	Girder designation 44G9N9		