GENERAL NOTES:

1. THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS, AND THE SPECIFICATIONS. THE CONTRACTOR SHALL VERIFY THE REQUIREMENTS OF OTHER TRADES AS TO SLEEVES, CHASES, HANGERS, INSERTS, ANCHORS, HOLES, AND ADDITIONAL ITEMS TO BE PLACED OR SET IN THE STRUCTURAL WORK.

2. THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE PROVISIONS OF THE VIRGINIA CONSTRUCTION CODE, 2009 EDITION.

3. THE WORK OUTLINED IN SPECIFICATION SECTION 014100 IS SUBJECT TO SPECIAL INSPECTIONS AS DESCRIBED IN THE TECHNICAL SPECIFICATIONS.

4. THE CONTRACTOR SHALL PROVIDE TEMPORARY SHORING AND BRACING REQUIRED TO ERECT AND HOLD THE STRUCTURE IN PROPER ALIGNMENT UNTIL PERMANENT SUPPORTS AND LATERAL BRACING ARE IN PLACE.

5. DESIGN CRITERIA:

CLASSIFICATION OF BUILDING
CATEGORY II

LIVE LOADS - UNIFORM:
SLAB ON GRADE . . . . . 100 PSF
ROOF . . . . . 20 PSF

LIVE LOADS - CONCENTRATED:
ROOFS . . . . . 300#

SNOW LOADS:
GROUND SNOW LOAD . . . . . 10 PSF
FLAT-ROOF LOAD . . . . . 10 PSF
IMPORTANCE FACTOR (Is) 1.0
THERMAL FACTOR (Ct) 1.0
EXPOSURE FACTOR (Ce) 1.0

WIND LOADS:
BASIC SPEED 105MPH
EXPOSURE CATEGORY . . . . . B
IMPORTANCE FACTOR (Iw) 1.0
INTERNAL PRESSURE COEFFICIENT . . . . . ±0.18
COMPONENT AND CLADDING PRESSURES:
WALLS, ZONE 5 (10 SF) . . . . . +18/-24 PSF
ROOF, ZONE 3 (10 SF) . . . . . +8/-50 PSF
PARAPET, END/CORNER (10 SF) . . . . +62/-23 PSF
WIND BASE SHEARS (FOR MWFRS):
Vx 27KIPS
Vy 82KIPS

SEISMIC LOADS:
SEISMIC DESIGN CATEGORY . . . . . B
IMPORTANCE FACTOR (I_E) 1.0
SPECTRAL RESPONSE ACCELERATIONS:
S_S . . . . . 0.121 S_1 . . . . . 0.049
S_{DS} . . . . . 0.202 S_{D1} 0.114
SITE CLASSIFICATION . . . . . E
ANALYSIS PROCEDURE: . . . . . EQUIVALENT LATERAL FORCE
BASIC STRUCTURAL SYSTEM: . . . . . ORDINARY REINFORCED MASONRY SHEAR WALLS
RESPONSE MODIFICATION COEFFICIENT (R) 2.0
SEISMIC RESPONSE COEFFICIENT (Cs) 0.101
SEISMIC BASE SHEAR (V) . . . . . 35 KIPS

LATERAL DESIGN CONTROL
CONTROLLING LATERAL LOADS . . . . . WIND

FOUNDATION NOTES:

1. FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING REPORT PREPARED BY ECS MID-ATLANTIC, DATED MAY 12, 2008.

2. FOUNDATIONS HAVE BEEN DESIGNED FOR A NET ALLOWABLE SOIL BEARING PRESSURE OF 2,000 PSF.

3. PRIOR TO PLACING FOUNDATION CONCRETE, ALL FOUNDATION EXCAVATIONS SHALL BE INSPECTED BY THE SPECIAL INSPECTOR TO EXPLORE THE EXTENT OF LOOSE, SOFT, EXPANSIVE, OR OTHERWISE UNSATISFACTORY SOIL MATERIAL AND TO VERIFY DESIGN BEARING PRESSURE. DIRECTION FOR CORRECTIVE ACTION WILL BE PROVIDED WHERE REQUIRED.

4. NO UNBALANCED BACKFILLING SHALL BE DONE AGAINST MASONRY OR CONCRETE WALLS UNLESS WALLS ARE SECURELY BRACED AGAINST OVERTURNING, EITHER BY TEMPORARY CONSTRUCTION BRACING OR BY PERMANENT CONSTRUCTION.

5. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONTROL OF GROUNDWATER AND SURFACE RUNOFF THROUGHOUT THE CONSTRUCTION PROCESS. INUNDATION AND LONG TERM EXPOSURE OF BEARING SURFACES WHICH RESULT IN DETERIORATION OF BEARING SHALL BE PREVENTED.

CAST-IN-PLACE CONCRETE NOTES:

1. CONCRETE SHALL BE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301 AND 318.

2. CONCRETE SHALL BE NORMAL WEIGHT AND SHALL OBTAIN 28 DAY COMPRESSIVE STRENGTHS AS FOLLOWS:

   A. SLAB-ON-GRADE .....3,500 PSI

   B. FOOTINGS.....3,000 PSI

3. REINFORCING MATERIALS SHALL BE AS FOLLOWS:

   A. REINFORCING BARS - ASTM A 615, GRADE 60, DEFORMED.

   B. WELDED REINFORCING BARS - ASTM A 706, GRADE 60.

   C. WELDED WIRE REINFORCEMENT - ASTM A 185, WELDED STEEL WIRE REINFORCEMENT; PROVIDE SHEET TYPE, ROLL TYPE IS NOT ACCEPTABLE.

5. ALL REINFORCING BARS AND EMBEDDED ITEMS SUCH AS ANCHOR RODS AND WELD PLATES SHALL BE ACCURATELY PLACED AND ADEQUATELY TIED AND SUPPORTED BEFORE CONCRETE IS PLACED TO PREVENT DISPLACEMENT BEYOND PERMITTED TOLERANCES.

6. CONCRETE COVER TO REINFORCING BARS SHALL CONFORM TO THE MINIMUM COVER RECOMMENDATIONS IN ACI 318, UNLESS THE DRAWINGS SHOW GREATER COVER REQUIREMENTS.

7. LAP CONTINUOUS REINFORCING BARS 57 X BAR DIAMETER, TYPICAL UNLESS OTHERWISE NOTED.

CONCRETE MASONRY NOTES:

1. CONCRETE MASONRY MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE (ACI) 530.

2. CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C 90 AND SHALL BE MADE WITH LIGHTWEIGHT AGGREGATE. MINIMUM NET AREA COMPRESSIVE STRENGTH OF MASONRY UNITS SHALL BE 1,900 PSI AT 28 DAYS.

3. COMPRESSIVE STRENGTH OF MASONRY SHALL BE DETERMINED BY THE UNIT STRENGTH METHOD AS SET FORTH IN ACI 530.1. THE NET AREA COMPRESSIVE STRENGTH OF MASONRY, f'm, SHALL BE 1,500 PSI AT 28 DAYS.

4. MORTAR SHALL BE TYPE M OR S AND SHALL COMPLY WITH ASTM C270, PROPORTIONS OR PROPERTIES SPECIFICATION.

5. GROUT SHALL COMPLY WITH ASTM C 476 PROPERTIES SPECIFICATION, OR SHALL BE PROPORTIONED TO OBTAIN A DOCUMENTED 28 DAY COMPRESSIVE STRENGTH OF 2,000 PSI.

6. REINFORCING STEEL SHALL COMPLY WITH ASTM A 615, GRADE 60. SHOP FABRICATE REINFORCING BARS WHICH ARE SHOWN TO BE BENT OR HOOKED.

7. ALL BOND BEAMS, REINFORCED CELLS AND CELLS WITH EXPANSION BOLTS, EMBED PLATES OR OTHER ANCHORS AND ALL CELLS BELOW GRADE SHALL BE GROUTED SOLID. GROUT PROCEDURE SHALL COMPLY WITH ACI 530.1.

8. PROVIDE REINFORCING BARS OF THE GIVEN SIZE AND SPACING SHOWN. LAP CONTINUOUS REINFORCING STEEL 40 BAR DIAMETERS UNLESS OTHERWISE NOTED. PROVIDE MECHANICAL SPLICES FOR ALL BARS AT CONTRACTOR'S OPTION.

9. PROVIDE REINFORCING STEEL DOWELS OF THE SAME SIZE AND SPACING AS VERTICAL REINFORCING FROM THE SUPPORTING STRUCTURE. DOWELS SHALL HAVE STANDARD ACI HOOKS. LAP LENGTH FOR DOWELS FROM FOUNDATION NOT OTHERWISE NOTED MAY BE 36 X BAR DIAMETER.

10. PROVIDE STANDARD 9 GAGE LADDER TYPE HORIZONTAL JOINT REINFORCING IN CMU WALLS AT 16 INCHES ON CENTER AND IN TWO JOINTS IMMEDIATELY ABOVE AND BELOW ALL OPENINGS, EXTENDING A MINIMUM OF 2 FEET BEYOND THE JAMB ON EACH SIDE OF THE OPENING, EXCEPT AT CONTROL JOINTS.

11. PROVIDE HORIZONTAL BOND BEAMS WITH CONTINUOUS REINFORCING AS SHOWN IN THE SECTIONS AND DETAILS. DISCONTINUE ALL HORIZONTAL REINFORCING AT CONTROL JOINTS EXCEPT FOR THE BOND BEAMS AT JOIST BEARING ELEVATIONS.

12. DO NOT LOCATE CONTROL JOINTS WITHIN TWO FEET OF STEEL BEAM BEARING LOCATIONS.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) 360.

2. STRUCTURAL STEEL SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS:

   A. STRUCTURAL STEEL SHAPES, PLATES AND BARS (UNLESS OTHERWISE NOTED) - ASTM A 36, Fy = 36 KSI

   B. STRUCTURAL STEEL W-SHAPES - ASTM A 992, Fy = 50 KSI

   C. HOLLOW STRUCTURAL SECTIONS (HSS):
   SQUARE AND RECTANGULAR - ASTM A 500, GRADE B, Fy = 46 KSI

   D. ANCHOR RODS - ASTM F 1554, GRADE 36

   E. HIGH STRENGTH BOLTS - ASTM A325 (TYPICAL UON)

   F. WASHERS - ASTM F 436

   G. NUTS - ASTM A 563

3. UNLESS OTHERWISE NOTED, BEAM CONNECTIONS SHALL BE AISC "SIMPLE SHEAR CONNECTIONS" WITH ASTM A325 BOLTS DESIGNED FOR ONE HALF THE MAXIMUM TOTAL UNIFORM LOAD FOR LATERALLY SUPPORTED BEAMS GIVEN IN TABLE 3-6 OF OF THE "STEEL CONSTRUCTION MANUAL."

4. HIGH STRENGTH BOLTS MAY BE TIGHTENED TO THE "SNUG TIGHT" CONDITION IN LIEU OF FULL PRETENSIONING EXCEPT FOR THE FOLLOWING CONNECTIONS WHICH SHALL BE FULLY PRETENSIONED:

   A. BOLTED CONNECTIONS USING NON-STANDARD HOLES.

5. PROVIDE L4x4x¼ ANGLE FRAMING AROUND OPENINGS LARGER THAN 12 INCHES IN ANY DIMENSION TO SUPPORT STEEL DECK, TYPICAL UNLESS OTHERWISE NOTED OR DETAILED.

6. WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1, "STRUCTURAL WELDING CODE - STEEL." WELD ELECTRODES SHALL BE E70XX LOW HYDROGEN. UNLESS OTHERWISE NOTED, PROVIDE CONTINUOUS FILLET WELDS WITH MINIMUM SIZE REQUIRED BY TABLE J2.4 AISC 360.

7. HOT DIP GALVANIZE AFTER FABRICATION THE FOLLOWING:

   A. ALL STEEL EXPOSED TO WEATHER IN THE FINAL CONSTRUCTION.

   B. ITEMS IDENTIFIED AS GALVANIZED ON ARCHITECTURAL OR STRUCTURAL DRAWINGS.

8. STEEL MEMBERS SHALL BE SPLICED ONLY WHERE INDICATED. CONTINUOUS MEMBERS SHALL BE SPLICED OVER SUPPORTS, UNLESS OTHERWISE NOTED. MEMBERS INDICATED AS DIAPHRAGM CHORDS (DC) SHALL HAVE FULL PENETRATION BUTT WELD SPLICES, UNLESS OTHERWISE NOTED.

STEEL JOIST NOTES:

1. STEEL JOISTS SHALL BE IN ACCORDANCE WITH THE STEEL JOIST INSTITUTE (SJI) STANDARD SPECIFICATIONS.

2. STEEL JOISTS DESIGNATED "SP" ON PLANS ARE SPECIAL JOISTS WHICH SHALL BE DESIGNED FOR THE SPECIAL CRITERIA INDICATED.

3. JOIST BRIDGING SHALL CONFORM TO SJI SPECIFICATIONS, INCLUDING BRIDGING REQUIRED FOR JOISTS SUBJECTED TO UPLIFT LOADS. PROVIDE CROSS-BRIDGING AT ENDS OF BRIDGING LINES AND CHANGES IN JOIST DEPTHS AND AT ROLLED STEEL SHAPES RUNNING PARALLEL TO JOISTS. BRIDGING SHOWN SHALL BE PROVIDED, IN ADDITION TO THE REQUIRED STANDARD BRIDGING. ENDS OF ALL BRIDGING LINES SHALL BE ANCHORED TO WALLS OR BEAMS.

4. ROOF JOISTS SHALL BE DESIGNED FOR A NET UPLIFT LOADS (ASD) OF 12 PSF.

5. ALL JOISTS SHALL BE DESIGNED FOR A MINIMUM CONCENTRATED LOAD OF 300 LBS. HUNG FROM THE JOIST TOP OR BOTTOM CHORD AT ANY POINT ALONG THE SPAN (NON-CONCURRENT WITH UNIFORM ROOF LIVE LOAD).

6. PERMANENT SUSPENDED LOADS SHALL NOT BE SUPPORTED BY JOIST BRIDGING.

7. SUBMIT SPRINKLER SHOP DRAWINGS INCLUDING LOADS AND LOCATIONS PRIOR TO FABRICATION OF JOISTS.

8. COMPLY WITH OSHA SAFETY STANDARDS FOR THE ERECTION OF STEEL JOISTS.

STEEL DECK NOTES:

1. STEEL DECK SHALL BE IN ACCORDANCE WITH THE AMERICAN IRON AND STEEL INSTITUTE (AISI), "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" AND THE STEEL DECK INSTITUTE (SDI), "DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS, AND ROOF DECKS."

2. STEEL DECK INSTALLATION SHALL COMPLY WITH THE FOLLOWING:

   A. ROOF DECK: 1½" X 20 GAGE TYPE B PAINTED. UNLESS OTHERWISE NOTED, ATTACH DECK TO SUPPORTS WITH ⅝ INCH DIAMETER PUDDLE WELDS IN ALL RIBS WHERE END LAPS OCCUR AND ALONG SUPPORTS WITH A 36/5 PATTERN. FASTEN SIDE LAPS WITH #10 SELF-TAPPING HEX HEAD SCREWS AT ¼ POINTS BETWEEN SUPPORTS. FASTEN EDGEMOST DECK PANEL TO STEEL FRAMING WITH ⅝ INCH DIAMETER PUDDLE WELDS AT SAME SPACING AS SIDELAP FASTENERS.

3. STEEL DECK SHALL BE INSTALLED PERPENDICULAR TO SUPPORTS AND SHALL HAVE A MINIMUM OF THREE CONTINUOUS SPANS. END LAPS SHALL ONLY OCCUR AT SUPPORTS.

4. WELDING SHALL BE IN ACCORDANCE WITH AWS D1.3 "STRUCTURAL WELDING CODE - SHEET STEEL".

5. PERMANENT SUSPENDED LOADS SHALL NOT BE SUPPORTED BY STEEL ROOF DECK.

COLD-FORMED METAL FRAMING AND PREFABRICATED COLD-FORMED METAL TRUSS NOTES:

1. COLD-FORMED METAL FRAMING AND PREFABRICATED COLD-FORMED METAL TRUSSES SHALL BE IN ACCORDANCE WITH THE AMERICAN IRON AND STEEL INSTITUTE (AISI) "NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL FRAMING - GENERAL PROVISIONS" AND "NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL FRAMING - TRUSS DESIGN", WITH SUPPLEMENT 2, DATED 2008.

2. SUBMIT SHOP DRAWINGS SIGNED AND SEALED BY A VIRGINIA LICENSED PROFESSIONAL ENGINEER RESPONSIBLE FOR THE DESIGN OF COLD-FORMED METAL FRAMING AND PREFABRICATED COLD FORMED METAL TRUSSES. SHOP DRAWINGS SHALL INCLUDE DESIGN LOADINGS AND REACTIONS APPLIED TO THE SUPPORTING STRUCTURE. INCLUDE PLACING DRAWINGS FOR FRAMING MEMBERS SHOWING SIZE AND GAGE DESIGNATIONS, NUMBER, TYPE, LOCATION AND SPACING. INDICATE CONNECTIONS, SUPPLEMENTAL STRAPPING, BRACING, SPLICES, BRIDGING, ACCESSORIES AND DETAILS AND CONSTRUCTION SEQUENCE REQUIRED FOR PROPER AND SAFE INSTALLATION. INCLUDE ALL TRUSS SPLICE DETAILS AND TRUSS TO TRUSS CONNECTION DETAILS. SECONDARY BENDING STRESSES IN TRUSS TOP AND BOTTOM CHORDS DUE TO MEMBER LOADS SHALL BE CONSIDERED IN THE DESIGN.

3. WELDING SHALL BE IN ACCORDANCE WITH AWS D1.3, "STRUCTURAL WELDING CODE - SHEET STEEL". TOUCH UP ALL WELDS WITH SPECIFIED COATING SYSTEMS.

4. COLD-FORMED METAL FRAMING MEMBERS SHALL CONFORM TO ASTM C 955, AND BE FORMED OF CORROSION-RESISTANT STEEL CONFORMING TO ASTM A 653 AND ASTM C 955 WITH A MINIMUM YIELD STRENGTH OF 33 KSI FOR 43 MIL AND THINNER MEMBERS AND 50 KSI FOR ALL OTHER MEMBERS.

5. MEMBER SECTION PROPERTIES SHALL CONFORM TO PART "V" OF THE "COLD-FORMED STEEL DESIGN MANUAL."

6. COLD-FORMED METAL FRAMING MEMBERS, HEADERS AND CONNECTIONS SHOWN ON STRUCTURAL AND ARCHITECTURAL DRAWINGS ARE SCHEMATIC ONLY AND SHALL BE DESIGNED TO MEET PERFORMANCE SPECIFICATION REQUIREMENTS. ANY MEMBER SIZES OR SPACINGS SHOWN SHALL BE CONSIDERED AS MINIMUMS.

7. PROVIDE BRIDGING LINES AT 4'-0" MAXIMUM ON CENTER IN ALL WALLS UNLESS OTHERWISE INDICATED. BRIDGING SHALL BE FULLY INSTALLED AND ANCHORED AT ENDS BEFORE SUPERIMPOSING LOADS ONTO THE STUDS.

8. PROVIDE TRUSS HOLD DOWN ANCHORS CAPABLE OF RESISTING CALCULATED REACTIONS. PROVIDE ENGINEERING DATA AND CONNECTION DETAILS FOR HOLD-DOWN ANCHORS WITH SHOP DRAWING SUBMITTAL.

9. COLD-FORMED METAL FRAMING AND DESIGN LOADS SHALL BE AS INDICATED IN THE "GENERAL NOTES" AND AS FOLLOWS:

   A. TOP CHORD DEAD LOAD: 10 PSF (PLUS ADDITIONAL 5 PSF AT SUPERIMPOSED ROOF FRAMING AREAS)

   B. WIND LOAD: WHEN CALCULATING NET UPLIFT REACTIONS, USE MAXIMUM RESISTING DEAD LOAD = 7 PSF ON TOP CHORD AND 0 PSF ON BOTTOM CHORD.

   C. BOTTOM CHORD DEAD LOAD: 10 PSF

10. PROVIDE ALL TEMPORARY AND PERMANENT BRACING AS REQUIRED FOR SAFE ERECTION AND PERFORMANCE OF THE TRUSSES. THE GUIDELINES SET FORTH IN LGSEA TECHNICAL NOTE 551d, "DESIGN GUIDE FOR CONSTRUCTION BRACING OF COLD-FORMED STEEL TRUSSES" AND LGSEA TECHNICAL NOTE 551e, "DESIGN GUIDE FOR PERMANENT BRACING OF COLD-FORMED STEEL TRUSSES" SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS.

11. WHERE MULTIPLE TRUSSES ARE INDICATED, SCAB CONTINGENT TRUSS MEMBERS TOGETHER WITH #10 SELF-TAPPING HEX HEAD SCREWS AT 12 INCHES ON CENTER ALONG TOP AND BOTTOM CHORDS.

12. ALL CONNECTION HARDWARE FOR TRUSS-TO-TRUSS CONNECTIONS AND TRUSS TO SUPPORTING STRUCTURE CONNECTIONS SHALL BE SUPPLIED BY THE TRUSS MANUFACTURER.

13. FOR ADJACENT TRUSSES WHERE THE WEB CONFIGURATION IS CAPABLE OF CONTAINING A RECTANGLE 42 INCHES HIGH BY 24 INCHES WIDE OR GREATER BETWEEN THE TOP OF THE BOTTOM CHORD AND THE BOTTOM OF ANY OTHER TRUSS MEMBER, SUCH AREAS SHALL HAVE THE BOTTOM CHORD DESIGNED FOR A LIVE LOAD OF 20 PSF IN ADDITION TO ANY OTHER LOADS SHOWN.

PLAN LEGEND:

(-X'-X") = TOP OF FOOTING ELEVATION
JBE = +X'-XX" = JOIST BEARING ELEVATION
X = COLUMN GRID MARK
= CMU (CONCRETE MASONRY UNIT)
CJ = CONSTRUCTION JOINT
SL = SLOPE
TOS = TOP OF STEEL / BOTTOM OF DECK
CFX.X = COLUMN FOOTING MARK
WFX.X = WALL FOOTING MARK
= WP (WORKING POINT)
= ARCHITECTURAL FINISH LINE
= JOIST CROSS BRIDGING
= MECHANICAL UNIT
= ROOF OPENING
X / SX = SECTION NUMBER / SECTION MARKS / SHEET NUMBER WHERE SECTION IS DRAWN
= BRACING PARALLEL TO JOISTS PER "TYPICAL JOIST TO BEAM CONNECTION / BRACING DETAILS" ON SHEET S5.3
= PIPE SLEEVE LOCATIONS - REF PLUMBING DRAWINGS
A = EMBED PLATE MARK - REFER TO SCHEDULE ON SHEET S5.2
Rx = PLAN KEYED NOTE

STRUCTURAL ABBREVIATIONS:

ABBREV.	DEFINITION	ABBREV.	DEFINITION
AFF	ABOVE FINISHED FLOOR	HT	HEIGHT
ARCH	ARCHITECT	HVY	HEAVY
BEJ	BUILDING EXPANSION JOINT	INT	INTERIOR
BTWN	BETWEEN	JBE	JOIST BEARING ELEVATION
BLDG	BUILDING	JT	JOINT
BM	BEAM	KCJ	KEYED CONSTRUCTION JOINT
BOD	BOTTOM OF DECK	L	LOW
BOT	BOTTOM	LLH	LONG LEG HORIZONTAL
BRG	BEARING	LLV	LONG LEG VERTICAL
C TO C	CENTER TO CENTER	LSH	LONG SIDE HORIZONTAL
CJ	CONTROL JOINT	LSV	LONG SIDE VERTICAL
CL	CENTERLINE	LTWT	LIGHTWEIGHT
CLR	CLEAR	LWC	LIGHTWEIGHT CONCRETE
CMU	CONCRETE MASONRY UNIT	MAS	MASONRY
CONC	CONCRETE	MAT'L	MATERIAL
CONT	CONTINUOUS	MAX	MAXIMUM
COL	COLUMN	MD	METAL DECK
DBL	DOUBLE	MECH	MECHANICAL
DCJ	DOWELED CONSTRUCTION JOINT	MFR	MANUFACTURER
		MID	MIDDLE
DJ	DOUBLE JOIST	MIN	MINIMUM
DWGS	DRAWINGS	MOD	MODIFY
EA	EACH	MOS	MIDDEPTH OF SLAB
EF	EACH FACE	NOM	NOMINAL
EJ	EXPANSION JOINT	NTS	NOT TO SCALE
EL	ELEVATION	OC	ON CENTER
ELEV	ELEVATOR	OPH	OPPOSITE HAND
EOD	EDGE OF DECK	OPNG	OPENING
EOS	EDGE OF SLAB	PAF	POWDER ACTUATED FASTENER
EQ	EQUAL		
EW	EACH WAY	PL	PLATE
EXIST	EXISTING	R	RADIUS
EXT	EXTERIOR	REF	REFERENCED
FD	FLOOR DRAIN	REINF	REINFORCE, REINFORCED, REINFORCING
FDN	FOUNDATION		
FO	FACE OF	REQD	REQUIRED
FF EL	FINISHED FLOOR ELEVATION	SF	STEPPED FOOTING
FIN	FINISH	SIM	SIMILAR
FIN FLR	FINISHED FLOOR	SJ	SAWED JOINT
FOB	FACE OF BUILDING	SL	SLOPE
FOC	FACE OF CONCRETE	T&B	TOP AND BOTTOM
FOM	FACE OF MASONRY	T&G	TONGUE AND GROOVE
FOS	FACE OF SLAB/ STUD	THK	THICKNESS
FRMG	FRAMING	TOF	TOP OF FOOTING
FTG	FOOTING	TOM	TOP OF MASONRY
GALV	GALVANIZED	TOS	TOP OF STEEL
GEN	GENERAL	TS	THICKENED SLAB
GR BM	GRADE BEAM	TYP	TYPICAL
HIGH	HIGH	UON	UNLESS OTHERWISE NOTED
HORIZ	HORIZONTAL	VERT	VERTICAL
HSS	HOLLOW STRUCTURAL SHAPES	WWF	WELDED WIRE FABRIC

GENERAL NOTES

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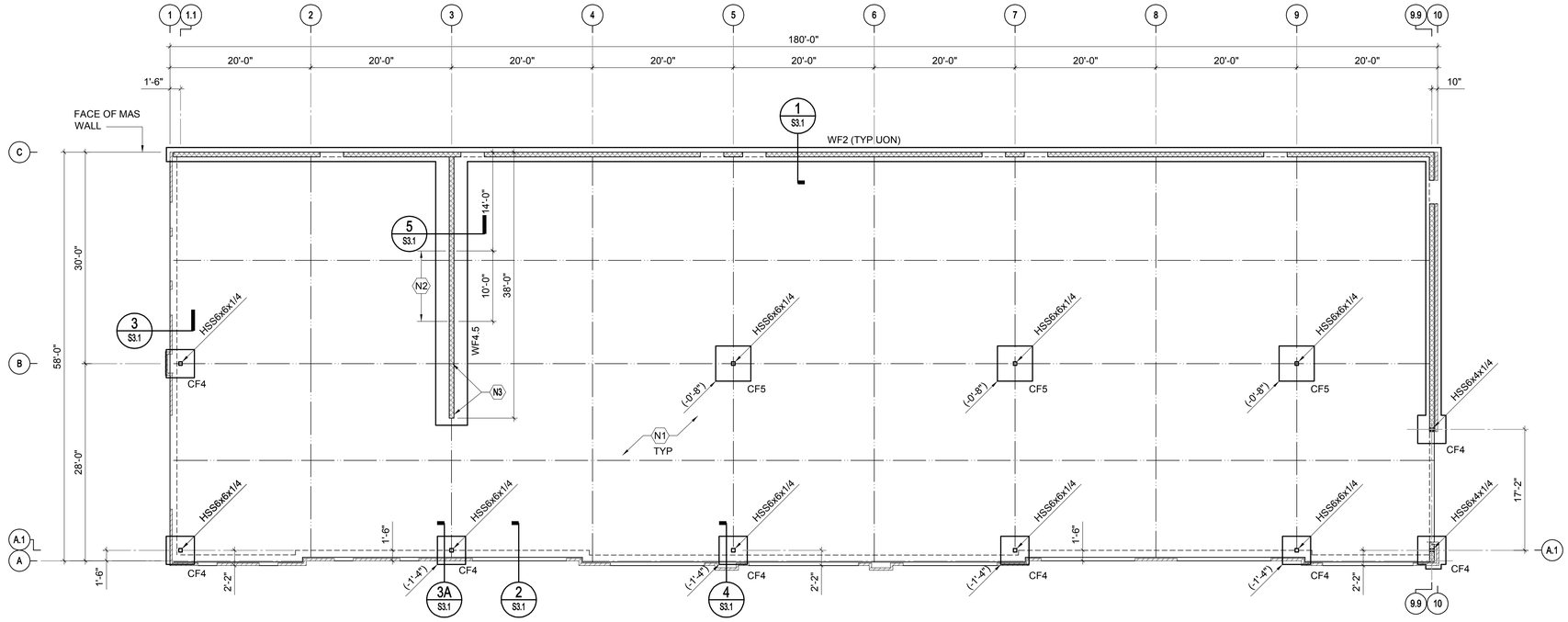

FOUNDATION PLAN

1/8" = 1'-0"

PLAN NORTH

FOUNDATION PLAN NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS TO NONBEARING WALLS, WALL CONTROL JOINTS, AND OPENINGS.
2. UNLESS OTHERWISE NOTED, ALL ELEVATIONS ARE BASED ON A FINISHED FIRST FLOOR REFERENCE OF 0'-0". ACTUAL FINISHED FIRST FLOOR ELEVATION IS 18.90' AS SHOWN ON CIVIL DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR FINISHED FLOOR MATERIAL.
3. TOP OF ALL FOOTINGS SHALL BE AT ELEVATION -1'-4" UNLESS OTHERWISE NOTED.
4. UTILITY LOCATIONS ARE NOT SHOWN ON PLAN. THE CONTRACTOR SHALL COORDINATE THE LOCATIONS, SIZES, AND INVERTS OF UTILITIES. AT LOCATIONS WHERE UTILITIES PASS BELOW THE TOP OF FOOTING ELEVATION, STEP THE TOP OF FOOTING DOWN ON EACH SIDE PER THE "STEPPED FOOTING DETAIL" AND SLEEVE THE UTILITY THROUGH THE FOUNDATION WALL. THE CONTRACTOR MAY, AT HIS OPTION, SLEEVE THE UTILITY THROUGH THE FOUNDATION PER THE "TYPICAL PIPE SLEEVE DETAIL." ALL PENETRATIONS IN MASONRY WALLS GREATER THAN 1'-4" REQUIRE A BOND BEAM LINTEL.
5. UNLESS OTHERWISE INDICATED, EXTEND WALL FOOTINGS A MINIMUM OF 1'-0" BEYOND ENDS OF WALLS.
6. SLAB ON GRADE JOINTS SHALL BE SAWED JOINTS, OR KEYED CONSTRUCTION JOINTS UNLESS SPECIFICALLY DENOTED TO BE KEYED CONSTRUCTION JOINTS. CONTRACTOR SHALL COORDINATE ALL SLAB JOINTS WITH JOINTS IN BONDED FLOOR FINISHES. REFER TO ARCHITECTURAL PLANS FOR FLOOR FINISH JOINT LOCATIONS
7. PLACE 1-#4 x 3'-0" IN MIDDLE OF SLAB AT REENTRANT CORNERS WHERE A SLAB CONTROL JOINT DOES NOT OCCUR.
8. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LIMITS OF SLAB DEPRESSIONS.
9. FLOOR DRAINS AND FLOOR SINKS ARE NOT SHOWN ON PLAN. REFER TO PLUMBING DRAWINGS FOR QUANTITY AND LOCATION.
10. REFER TO CIVIL DRAWINGS FOR EXTERIOR CONCRETE SLABS AND PAVING.

FOUNDATION KEYED NOTES:

N1. 4" CONCRETE SLAB-ON-GRADE OVER VAPOR RETARDER AND 4" DEPTH OF POROUS FILL UNLESS OTHERWISE INDICATED. REINFORCE SLAB WITH 6x6 W2.1xW2.1 WELDED WIRE REINFORCING PLACED 1" CLEAR BELOW TOP OF SLAB. MAINTAIN REINFORCEMENT IN POSITION ON BOLSTERS, CHAIRS OR SPACERS DURING CONCRETE PLACEMENT.

N2. KNOCK-OUT PANEL FOR FUTURE OPENING. REFER TO DETAIL ON SHEET S5.1.

N3. REFER TO "TYPICAL CMU DETAILS FOR SPECIAL REINFORCING PATTERNS AT WALL END AND UNDER BEAM ABOVE.

COLUMN FOOTING SCHEDULE			
MARK	SIZE	DEPTH	REINFORCING
CF4	4'-0" SQ	1'-0"	4-#5 EA WAY BOT
CF5	5'-0" SQ	1'-0"	5-#5 EA WAY BOT

WALL FOOTING SCHEDULE			
MARK	WIDTH	DEPTH	REINFORCING
WF2	2'-0"	1'-0"	2-#5 CONT BOTTOM
WF4.5	4'-6"	2'-0"	5-#6 CONT BOTTOM AND #4 TRANSVERSE BARS AT 2'-0" OC

FOUNDATION PLAN

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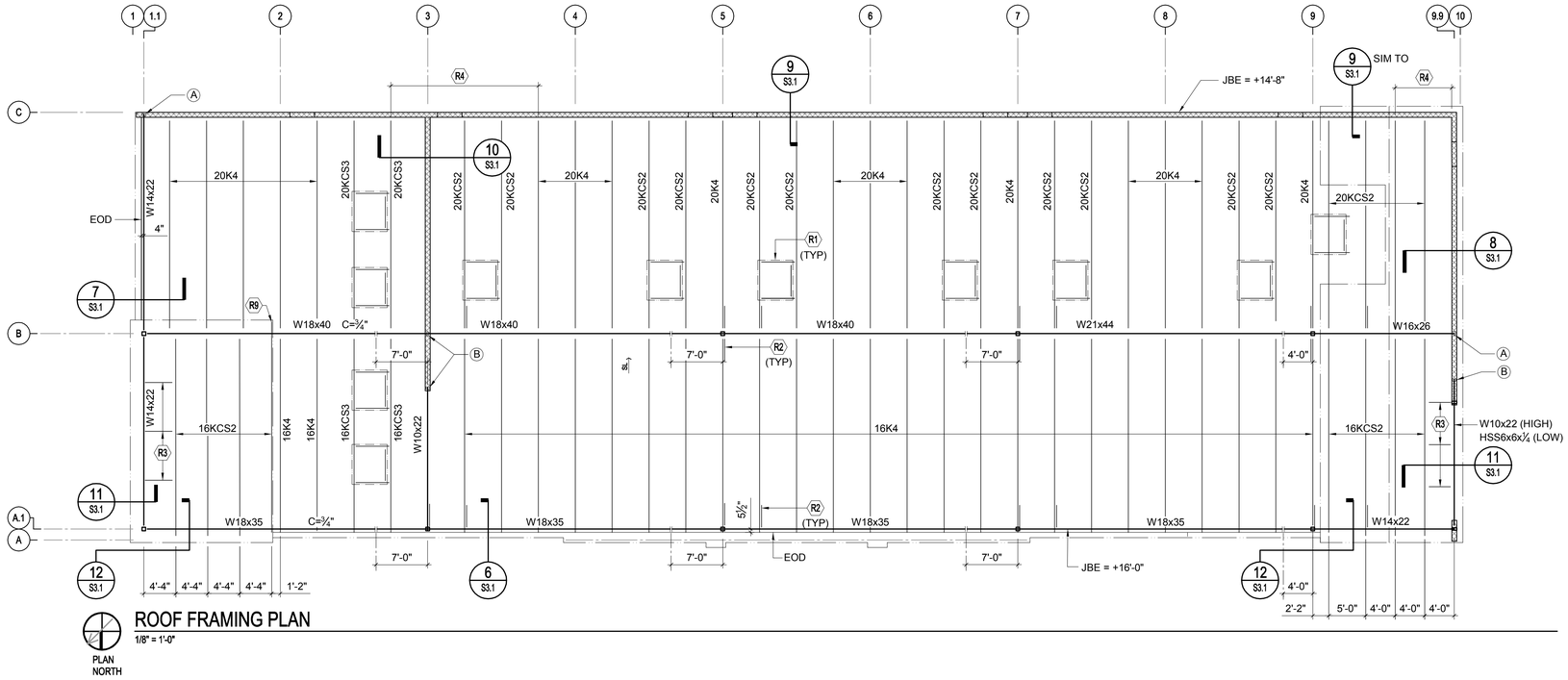
S1.1



ROOF FRAMING PLAN

1/8" = 1'-0"

PLAN NORTH

HIGH ROOF FRAMING PLAN

1/8" = 1'-0"

PLAN NORTH

ROOF FRAMING PLAN NOTES:

1. REFER TO FOUNDATION PLAN AND ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.
2. JOIST BEARING ELEVATIONS ARE SHOWN ON PLAN. INTERMEDIATE ELEVATIONS SHALL BE STRAIGHT LINES BETWEEN GIVEN ELEVATIONS. INTERPOLATE AS REQUIRED FOR INTERMEDIATE BEARING ELEVATIONS, UNLESS OTHERWISE NOTED.
3. COORDINATE AND VERIFY ALL MEMBER LOCATIONS, DIMENSIONS, WEIGHTS, OPENING SIZES, AND CURB DIMENSIONS FOR ALL MECHANICAL EQUIPMENT WITH THE ACTUAL EQUIPMENT FURNISHED. INCLUDE THIS INFORMATION ON THE JOIST AND STRUCTURAL STEEL SHOP DRAWINGS.
4. PROVIDE BOTTOM CHORD EXTENSIONS AT ALL JOISTS ON COLUMN CENTERLINES.

⬡ ROOF FRAMING PLAN KEY NOTES:

R1. MECHANICAL UNIT. MAXIMUM WEIGHT OF 1,200 POUNDS. COORDINATE EXACT LOCATION WITH MECHANICAL DRAWINGS. REFER TO "TYPICAL ROOF TOP MECHANICAL UNIT SUPPORT DETAILS" ON SHEET S5.3.

R2. BEAM BOTTOM FLANGE BRACE. REFER TO "TYPICAL JOIST TO BEAM CONNECTION DETAIL" ON SHEET S5.3.

R3. DIAGONAL BRACE. REFER TO SECTIONS ON SHEET S3.1.

R4. PROVIDE 36/7 DECK PATTERN WITH 4-#10 SCREWS PER SIDE LAP THIS AREA.

R5. PREFABRICATED COLD-FORMED METAL TRUSSES AT 48" OC MAXIMUM SPACING.

R6. HALF-TRUSSES AT ALCOVE..

R7. 'X'-BRACING BY COLD-FORMED METAL TRUSS SUPPLIER.

R8. 14 GAGE RIDGE PLATE.

R9. EXTEND KCS JOIST TAIL TO SUPPORT END OF TRUSS ABOVE.

ROOF FRAMING PLAN

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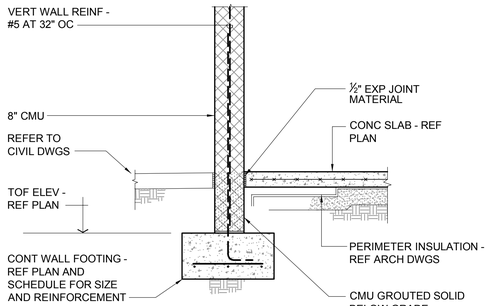
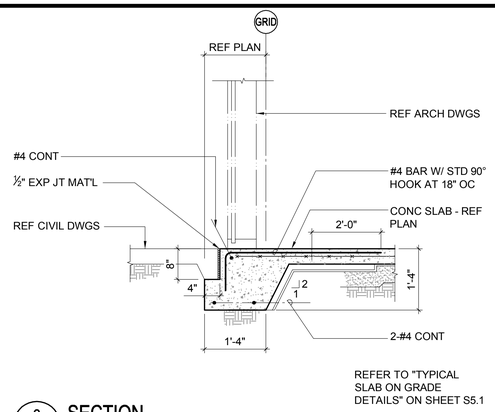
S1.2



1 S3.1 **SECTION** 3/4" = 1'-0"



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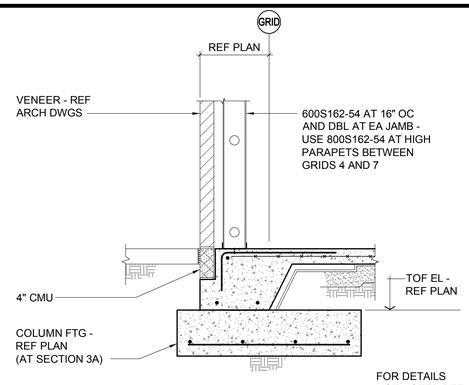
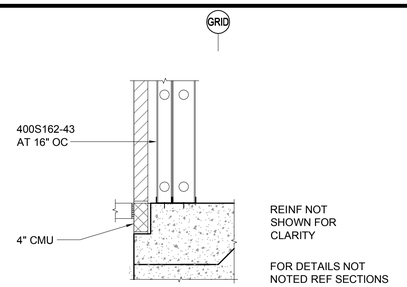
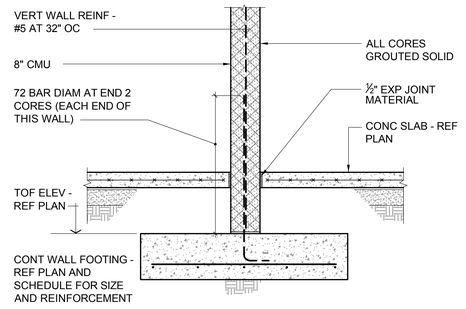


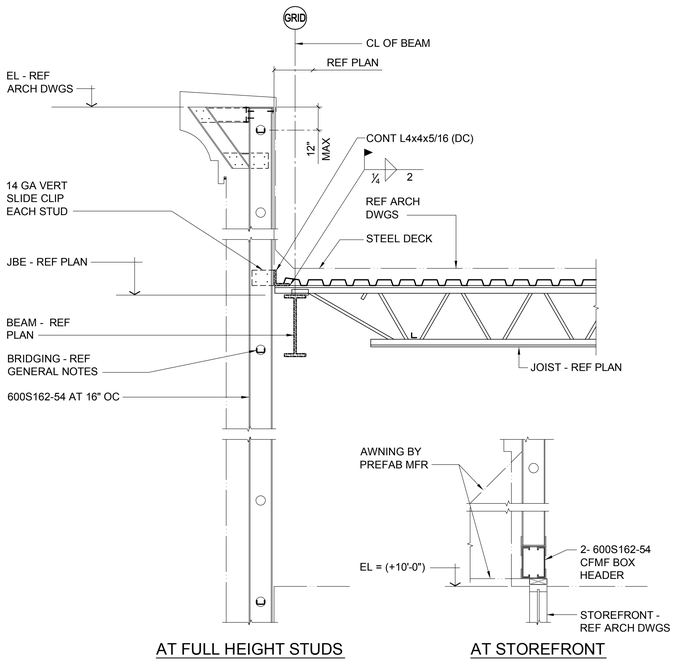
3 S3.1 3A S3.1 **SECTION** 3/4" = 1'-0"



4 S3.1 **DETAIL AT DOUBLE STUD WALL** 3/4" = 1'-0"



5 S3.1 **SECTION AT SHEARWALL** 3/4" = 1'-0"



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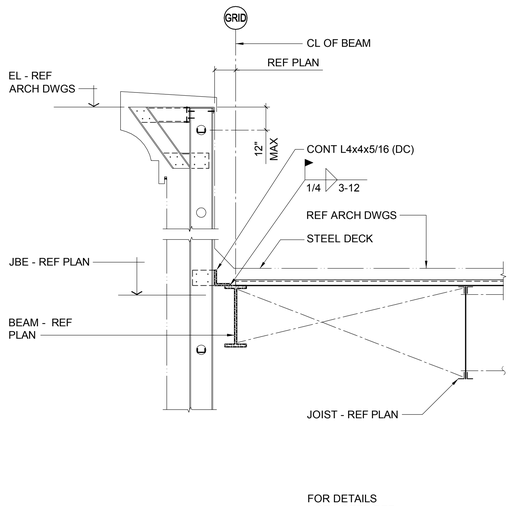

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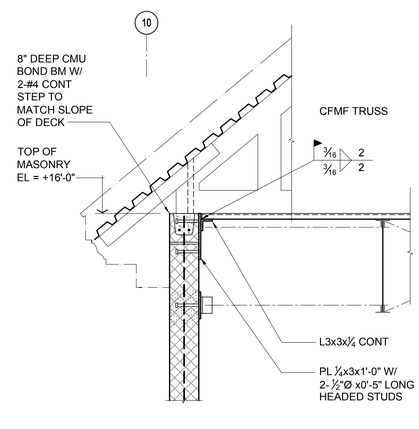

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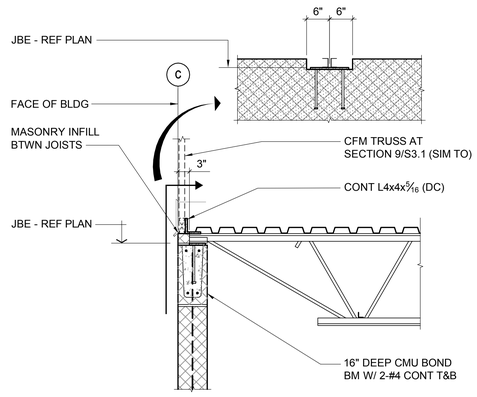

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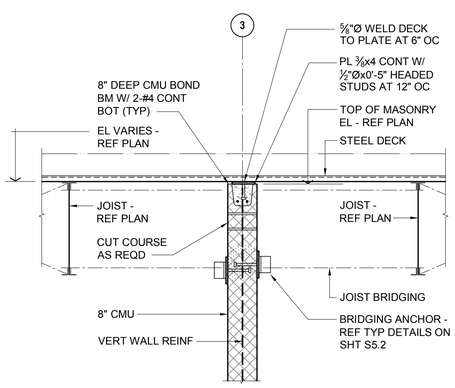

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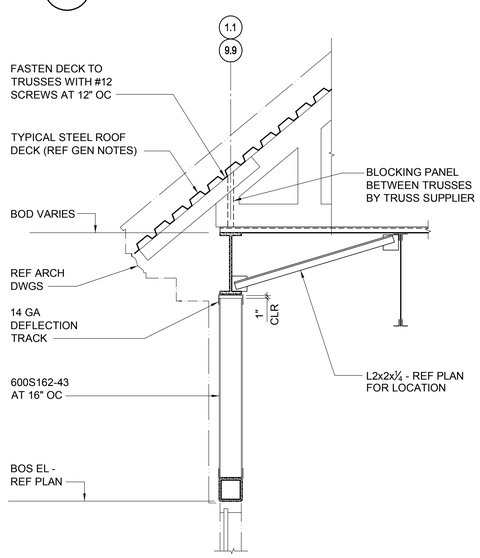

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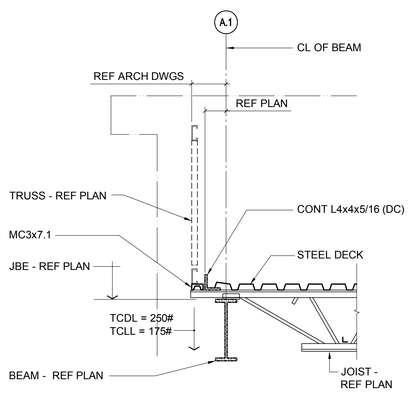

12 S3.1 **SECTION** 3/4" = 1'-0"

TYPICAL DETAILS

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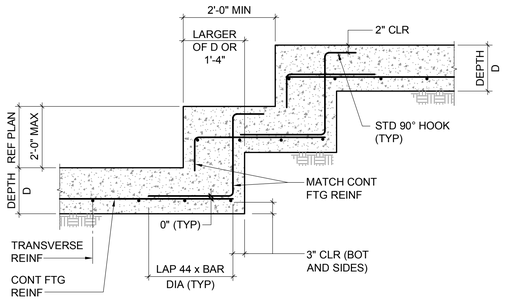
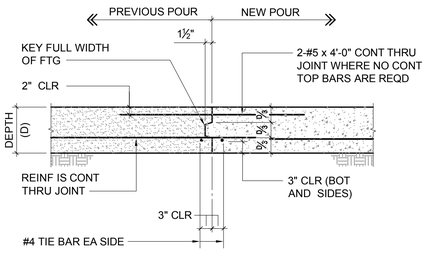
S3.1



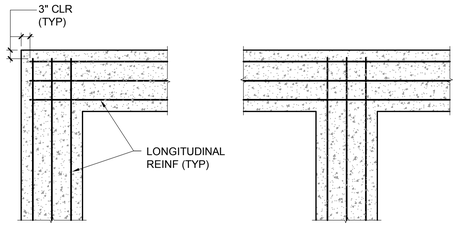
TYPICAL STEPPED FOOTING DETAIL

NTS (DENOTED SF ON PLAN)



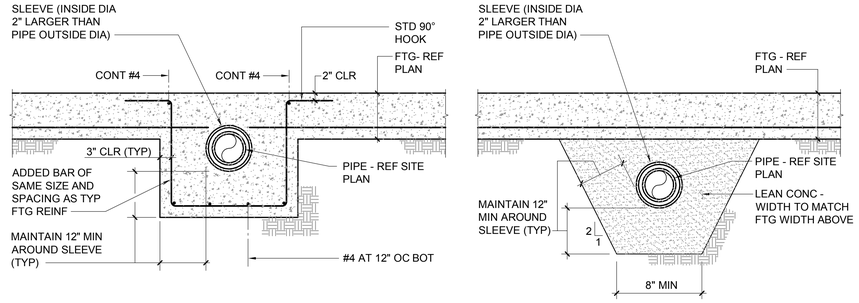
TYPICAL FOOTING CONSTRUCTION JOINT DETAIL

NTS



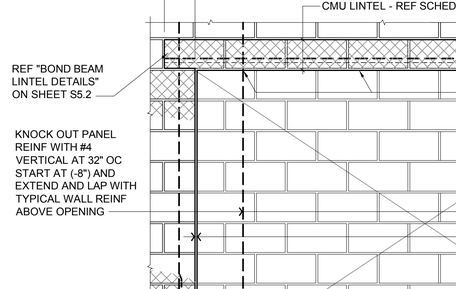
TYPICAL CORNER AND INTERSECTION DETAILS

NTS



TYPICAL PIPE SLEEVE DETAILS

NTS



TYPICAL COLUMN AND FOOTING DETAIL

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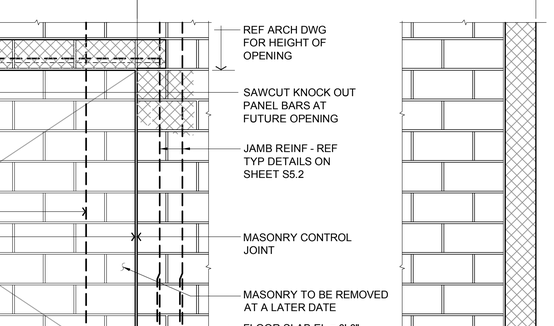
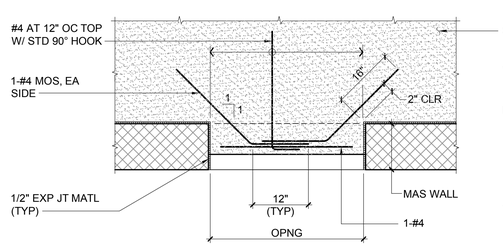


BASE PLATE AND ANCHOR ROD DETAILS

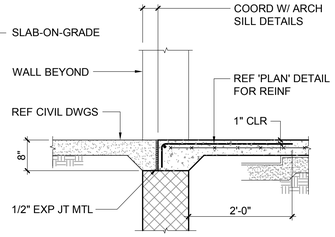
NTS

TYPICAL WALL FOOTING DETAIL

NTS



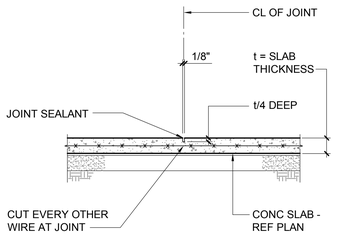
PLAN



SECTION

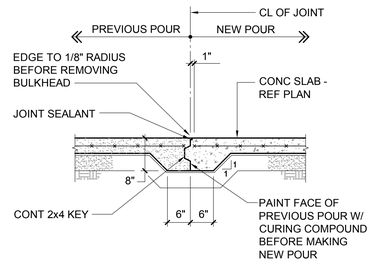
TYPICAL EXTERIOR DOORS / OPENINGS DETAIL

NTS



TYPICAL SAWED JOINT DETAIL

NTS (DENOTED SJ ON PLAN)



TYPICAL KEYED CONSTRUCTION JOINT DETAIL

NTS (DENOTED KCJ ON PLAN)

TYPICAL KNOCK OUT MASONRY PANEL DETAIL

NTS

TYPICAL DETAILS

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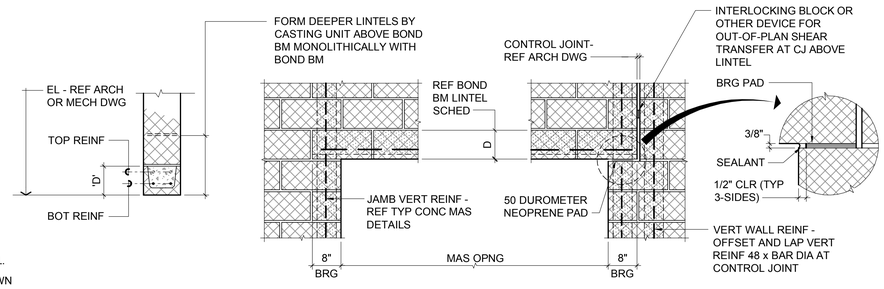
S5.1

BOND BEAM LINTEL SCHEDULE		
CLEAR SPAN	DEPTH 'D'	REINFORCING
		8" WIDE
1'-4" TO 3'-4"	8"	2-#4 BOTTOM
3'-5" TO 5'-4"	8"	2-#5 BOTTOM
5'-5" TO 6'-8"	16"	2-#5 BOTTOM
6'-9" TO 10'-0"	24"	2-#5 TOP & BOTTOM

NOTES:

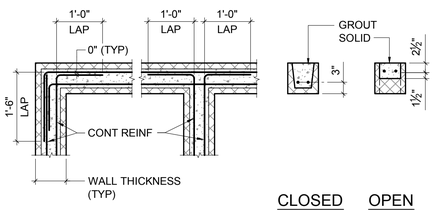
1. REFER TO ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF OPENINGS; FOR DUCT OPENINGS REFER TO MECHANICAL DRAWINGS.
2. REFER TO ARCHITECTURAL DRAWINGS FOR WIDTH OF LINTEL.
3. SCHEDULE APPLIES ONLY TO LINTELS NOT OTHERWISE SHOWN ON THE DRAWINGS.



TYPICAL SECTION | TYPICAL JAMB | JAMB AT CONTROL JOINT

BOND BEAM LINTEL DETAILS

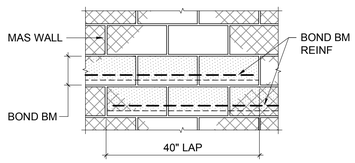
NTS



CORNER | INTERSECTION | CLOSED BOTTOM | OPEN BOTTOM

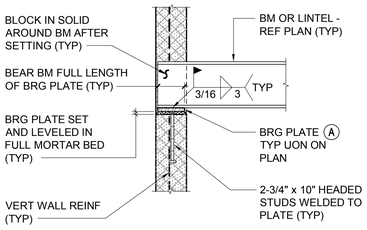
TYPICAL BOND BEAM REINFORCING DETAILS

NTS

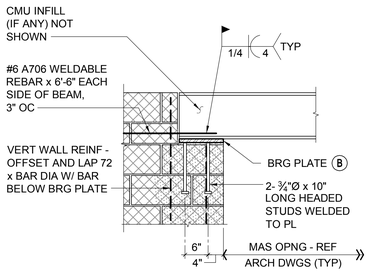


STEPPED BOND BEAM DETAIL

NTS

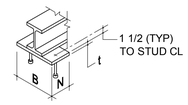


PERPENDICULAR TO WALL



PARALLEL TO WALL

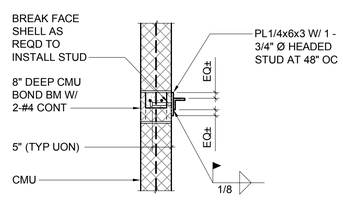
STEEL BEAM BEARING PLATE SCHEDULE			
TYPE	t	N	B
(A)	1/2	7	7
(B)	1 1/4	7.5	15



ISOMETRIC VIEW BEARING PLATES

TYPICAL STEEL BEAM BEARING ON MASONRY DETAILS

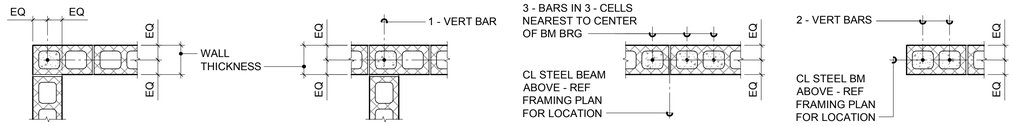
NTS



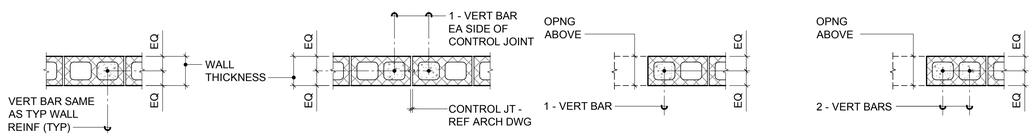
CONT ANGLE | BRIDGING ANCHORAGE

TYPICAL MASONRY ANCHORAGE DETAILS

NTS



CORNER | INTERSECTION | BEAM BEARING PERPENDICULAR | WALL END



TYPICAL | AT VERT CONTROL JOINT | OPENING < 48" | OPENING > 48"

TYPICAL CONCRETE MASONRY REINFORCING DETAILS

NTS

TYPICAL DETAILS

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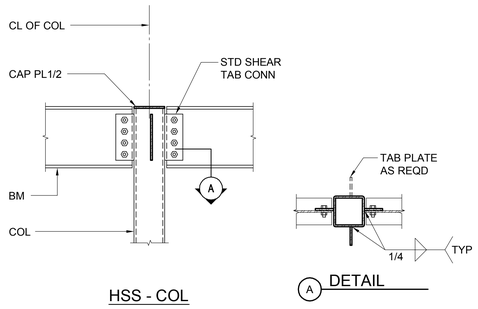
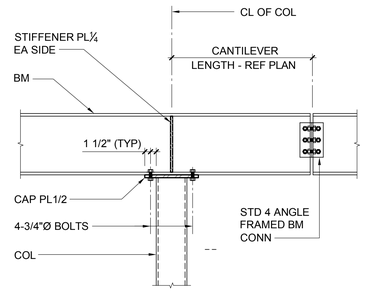
S5.2



HSS - COL

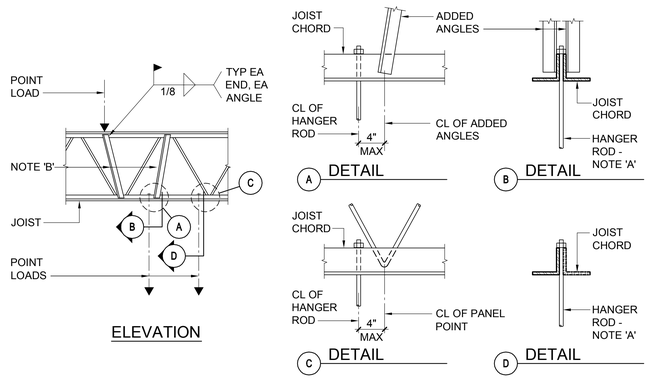
TYPICAL BEAM TO COLUMN CONNECTION DETAILS

NTS



TYPICAL CANTILEVER BEAM DETAIL

NTS



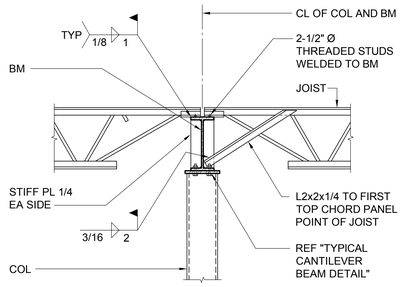
NOTES :

A. POSITION HANGER RODS ON JOIST CENTERLINES BETWEEN CHORD JOIST MEMBERS. DO NOT USE C-CLAMPS TO CHORD ANGLE LEGS.

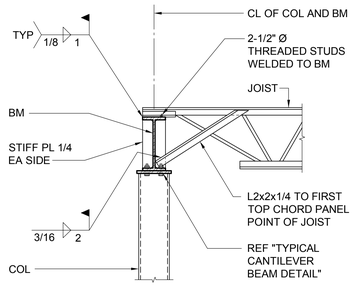
B. WHERE CONCENTRATED LOADS EXCEEDING 300 LBS ARE APPLIED TO TOP CHORDS OR HUNG FROM BOTTOM CHORDS BETWEEN PANEL POINTS, ADD 2-L1x1x1/8 TO PANEL POINT AS SHOWN FOR K SERIES JOISTS.

TYPICAL DETAIL AT CONCENTRATED LOADS ON JOISTS

NTS



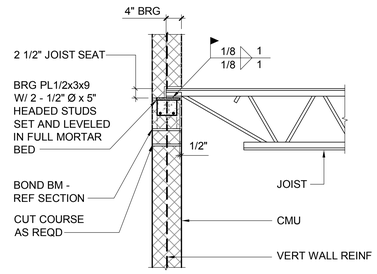
INTERIOR ROOF AT BEAM CANTILEVER



EXTERIOR ROOF

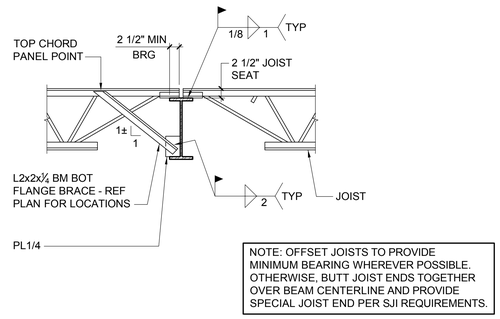
TYPICAL JOIST ON COLUMN CENTERLINE DETAILS

NTS



TYPICAL JOIST BEARING ON MASONRY WALL DETAILS

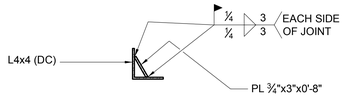
NTS



NOTE: OFFSET JOISTS TO PROVIDE MINIMUM BEARING WHEREVER POSSIBLE. OTHERWISE, BUTT JOIST ENDS TOGETHER OVER BEAM CENTERLINE AND PROVIDE SPECIAL JOIST END PER SJI REQUIREMENTS.

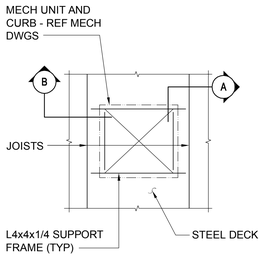
TYPICAL JOIST TO BEAM CONNECTION DETAIL

NTS

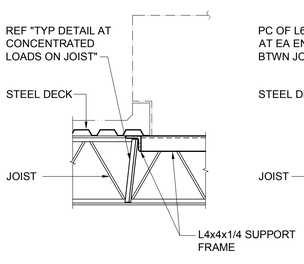


TYPICAL DC ANGLE SPLICE DETAIL

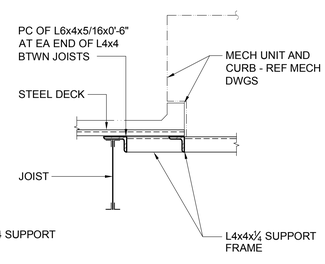
NTS



PART PLAN



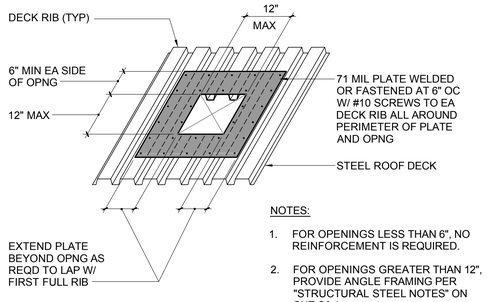
A SECTION



B SECTION

TYPICAL ROOF TOP MECHANICAL UNIT SUPPORT DETAILS

NTS



NOTES:

1. FOR OPENINGS LESS THAN 6", NO REINFORCEMENT IS REQUIRED.
2. FOR OPENINGS GREATER THAN 12", PROVIDE ANGLE FRAMING PER "STRUCTURAL STEEL NOTES" ON SHT S0.1.

TYPICAL STEEL DECK OPENING DETAILS

NTS

TYPICAL DETAILS

PROGRESS PRINT
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OWNER REVIEW	4/4/14

S5.3