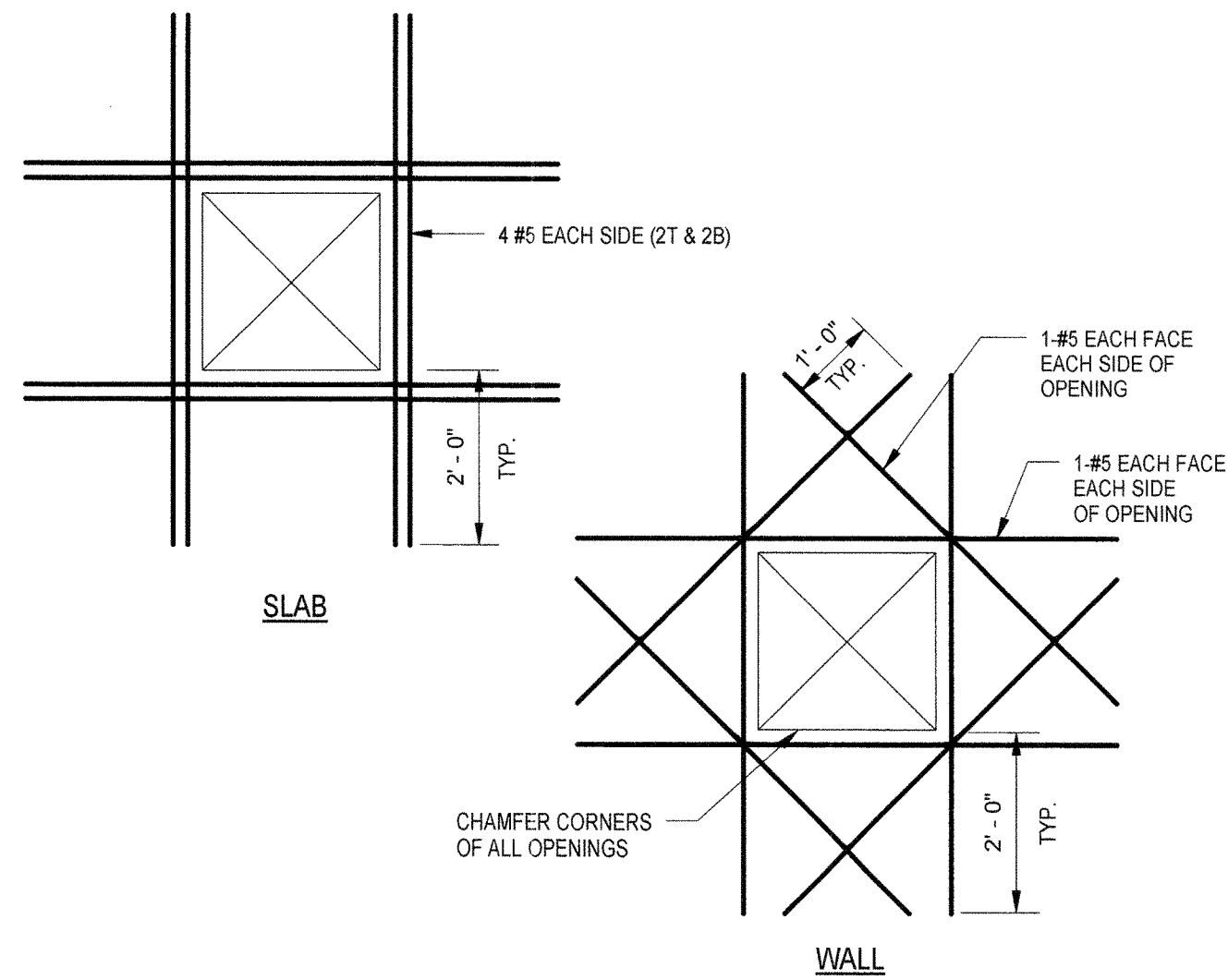
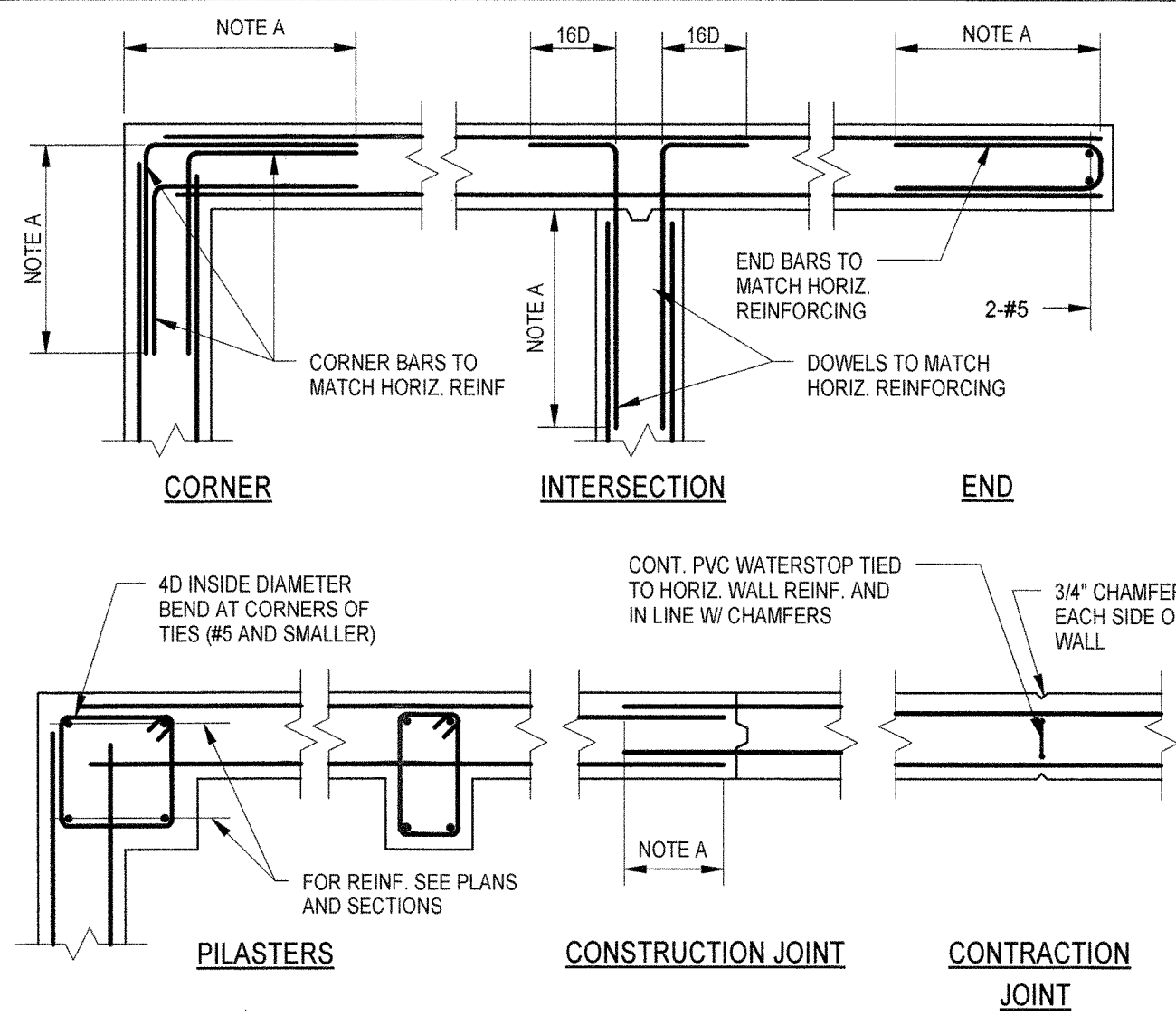


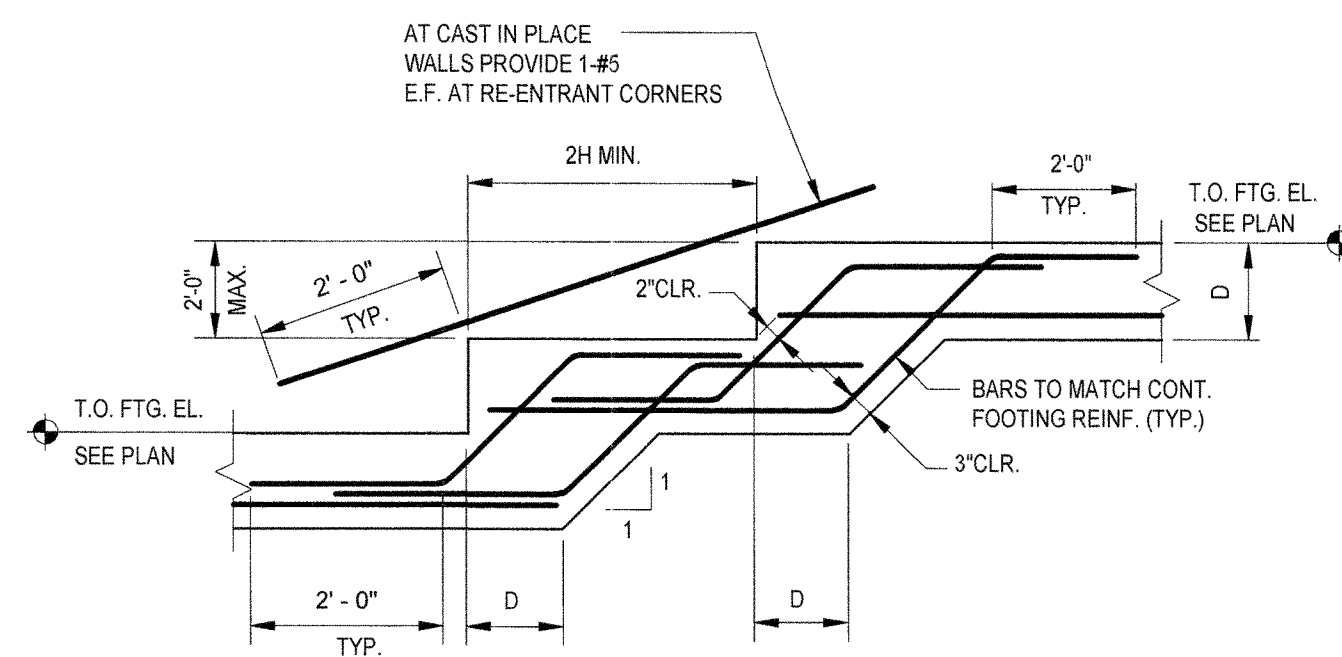
1 TYPICAL SLAB ON GRADE DETAILS
1/2" = 1'-0"



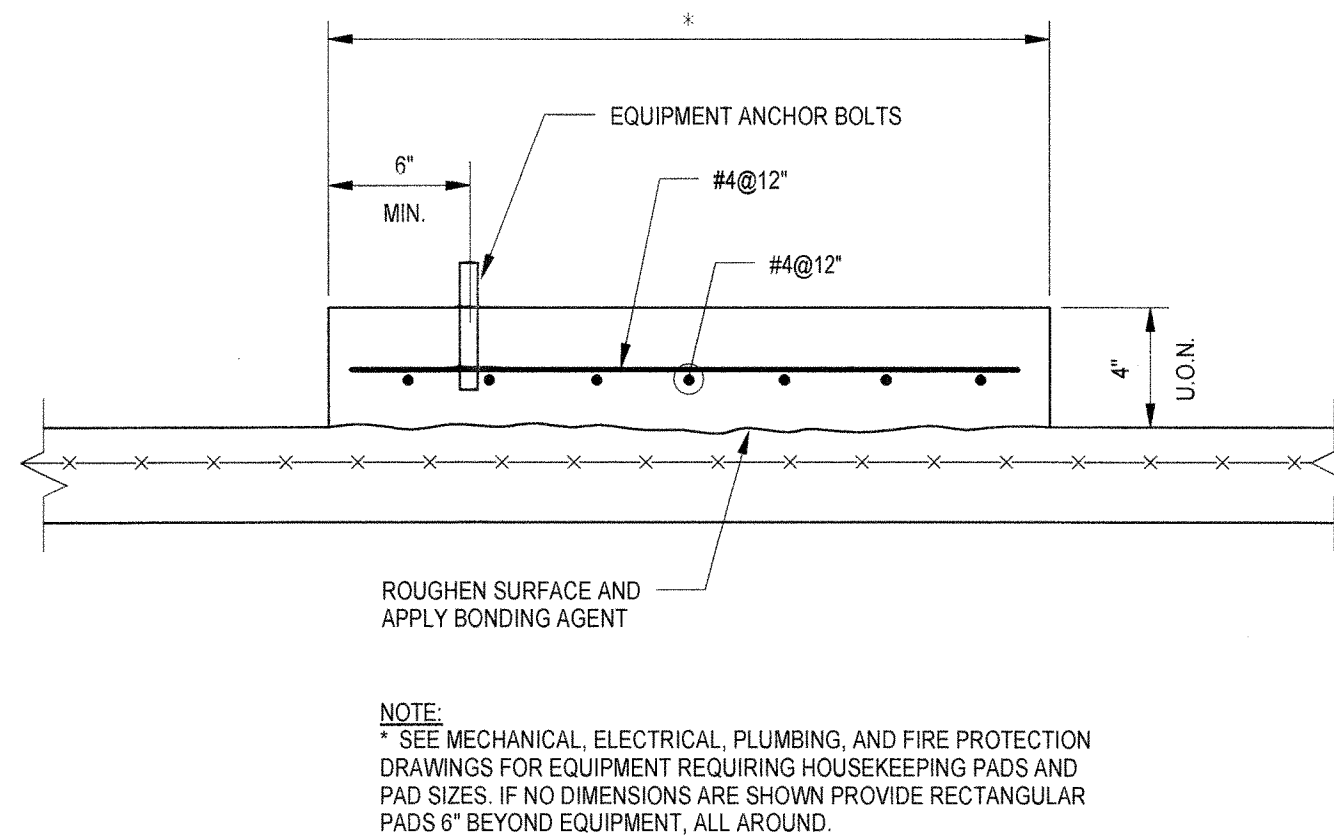
2 TYPICAL ADDED REINF. AT OPENINGS
1/2" = 1'-0"



3 TYPICAL CONCRETE WALL DETAILS
1/2" = 1'-0"



4 TYPICAL STEP IN WALL FOOTING
1/2" = 1'-0"



5 TYPICAL HOUSEKEEPING PAD DET
3/4" = 1'-0"

MINIMUM WALL REINFORCEMENT (M.W.R.) (UNLESS OTHERWISE NOTED ON PLANS & SECTIONS)			
WALL THICKNESS	NO. OF ROWS EACH WAY	HORIZONTAL REINFORCING	VERTICAL REINFORCING
6", 7", 8"	1	#4 @ 12	#4 @ 18
9", 10", 11"	2	#4 @ 18	#4 @ 18
12", 13", 14"	2	#4 @ 12	#4 @ 18
15", 16", 17"	2	#4 @ 12	#4 @ 18
18", 19", 20", 24"	2	#5 @ 12	#4 @ 12
26" TO 32"	2	#5 @ 12	#6 @ 12

NOTES:
1. WALLS OF FRACTIONAL THICKNESS SHALL BE REINFORCED AS A WALL OF THE NEXT HIGHEST THICKNESS.
2. WALL THICKNESS NOT SHOWN SHALL BE A MULTIPLE OF THOSE INDICATED.

6 SCHEDULE
1 : 1

GENERAL NOTES

Structural drawings shall be used in conjunction with the architectural, mechanical, electrical, plumbing and shop drawings, and specifications.
All dimensions and conditions must be verified in the field, and any discrepancies shall be brought to the attention of the architect before proceeding with the affected portion of the work.
Shop drawings (including accessories), for pressure-injected footings, reinforcing steel, structural steel and pre-engineered wood trusses, shall be submitted to the architect, and a stamped approval received before fabrication can proceed. Erection shall be executed from approved shop drawings only.

A complete concrete placement schedule shall be submitted to the architect and a stamped acceptance received before any concrete placement can be made. Unless otherwise noted, details shown on any drawings are to be considered typical for all similar conditions.

CODE

INTERNATIONAL BUILDING CODE 2003
DESIGN LOADS
GROUND SNOW LOAD: 50 PSF
ROOF SNOW LOAD: 60 PSF adjusted for drifting snow at parapet.
LIVE LOADS:
Slab-on-Grade 100 PSF (MIN.)
WIND: Reference Wind Speed 100 MPH
Pressure: 21 PSF
Pressure distribution factors: In accordance with Code.

SEISMIC:

- A. Seismic Importance Factor, Ie 1.00
- B. Spectral Response Accelerations
 - 1.) Ss 0.35
 - 2.) S1 0.08
- C. Site Class D
- D. Spectral Response Coefficients
 - 1.) Sds 0.36
 - 2.) Sd1 0.90
- E. Seismic Design Category II
- F. Seismic Force Resisting System: Concentrically Braced Frames (R=5.0)
- G. Seismic Response Coefficient, Cs 0.08

FOUNDATIONS

The bottom surface of continuous and spread footings shall bear on compacted structural fill or undisturbed natural soil, having an allowable bearing pressure of 1.0 tons per square foot. Refer to geotechnical report prepared by JGI Eastern, Inc. dated October 30, 2007, Project No. J3075505. For additional subsurface information and recommendations.

Unless otherwise noted, foundations shall be centered under supported members. The bottom of perimeter foundations shall be at least 4'-6" below finished grade. Bottom of excavations shall be inspected by the Architect prior to the placement of concrete. For location of pipes and under slab conduit, see Site, Plumbing, Mechanical, and Electrical drawings.

Provide formwork for all foundations. Earth formed foundations are not allowed.

CONCRETE

Concrete shall be a mix designed for ultimate strength concrete in accordance with ACI 211.1 to achieve the following 28-day compressive strengths:

Foundation	3000 PSI, Normal Weight.
Slab-on-grade	3500 PSI, Normal Weight.
Housekeeping pads	4000 PSI, Normal Weight.
Site Structures	4000 PSI, Normal Weight.

Concrete shall not be cast in water or on frozen ground.

Top of foundation wall shall be smooth and level.

No pipe shall pass through concrete without permission of the Architect. Steel pipe sleeves shall be provided and spaced a minimum of three diameters apart.

Keys shall be 2" x 4", with beveled sides, unless otherwise noted.

Horizontal construction joints shall be as indicated on the drawings. Vertical construction joints shall be approved by the architect. Construction joints shall be formed with a key, and reinforcing shall be lapped to develop the full tension capacity of the (smaller) bar.

Provide contraction or construction joints spaces no more than 30'-0" on center.

Openings in concrete slabs shall be located, sized and reinforced as shown on respective details. Any alterations require approval of the structural engineer.

REINFORCING STEEL

Reinforcing steel shall be deformed bars, free from loose rust and scale, and conforming to ASTM A615, Grade 60.

Welded wire fabric (WWF) shall conform to ASTM A185. Lap two squares at joints and tie at 3'-0". Furnish WWF in flat sheets.

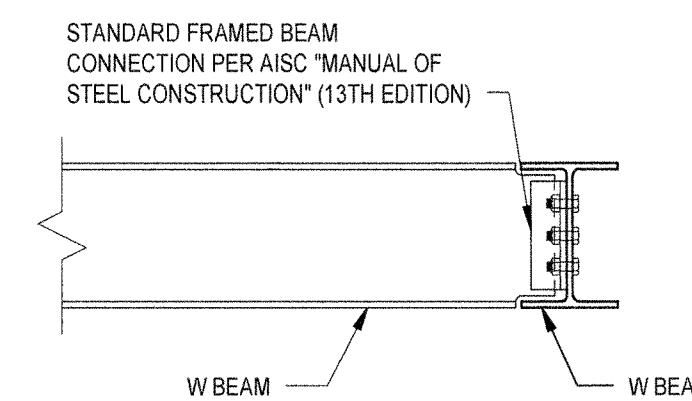
Clear concrete cover over bars shall be as follows (see ACI 318 for conditions not noted):

Ground floor slab	3 inches (bottom), 1 inch (top)
Footings	3 inches (bottom), 2 inches (top and side)
Walls and Piers	2 inches (side)

Accessories shall have upturned legs and be plastic-dipped after fabrication. Accessories for reinforcing shall be in accordance with ACI current edition.

Lap reinforcing to develop the full tension capacity of the (smaller) bar.

No bars shall be cut or omitted in the field because of sleeves, duct openings or recesses. Bars may be moved aside without change in level with the prior approval of the Architect.



7 TYPICAL BEAM TO BEAM CONNECTION
3/4" = 1'-0"

STRUCTURAL STEEL

Fabricate and erect structural steel in accordance with the "Specification for Structural Steel Buildings - Allowable Stress Design and Plastic Design," and the "Code of Standard Practice" of the AISC. Welding shall conform to the requirements of the "Structural Welding Code" of the American Welding Society.

Structural steel wide flange shapes shall conform to ASTM A992. Structural steel channels shall conform to ASTM A572, Grade 50. Structural tubes shall be ASTM A500, Grade B. Structural steel pipes shall conform to ASTM A500, Grade C. Structural steel plates and angles shall conform to ASTM A36, unless otherwise noted.

Do not splice structural steel members without written approval of the Architect.

Bolted connections shall be made with three-quarters inch diameter high strength, ASTM A325-N bolts, unless otherwise noted. Connections at beam to column connections, at moment connections, braced frames, column splices and hangers shall be made with three-quarters inch diameter A325-SC (Slip critical) bolts, unless otherwise noted.

All beam to column connections shall be double angle connections, unless specifically noted on the drawings.

Shop connections, unless otherwise noted, shall be welded. Unless otherwise noted, beam connections shall provide shear capacity to support a reaction R equal to half the total uniform load capacity of beam for given shape, span and steel specification (AISC) with effect of concentrated loads accounted for.

Shop camber steel beams as shown on the drawings. Camber tolerance shall be -0" or ±1/8". Camber shall be measured with beam web vertical (erected condition) under its own dead load.

Anchor bolts shall be ASTM A307 headed bolts of the diameters and dimensions detailed, unless otherwise noted on the drawings. Anchor bolts shall be set by template.

Welding electrodes shall conform to AWS A5.1 E70XX series with proper rod to produce optimum weld (low hydrogen).

Unless otherwise noted, bolted connections with slotted holes shall be field-welded with one-quarter inch fillet welds after final field adjustment.

Provide 3/8" minimum stiffener plates each side at beams framing over columns and at beams supporting columns above.

Provide 1/4" thick leveling plate under all column base plates unless otherwise noted. Leveling plates shall be set and grouted prior to erecting columns.

Provide all angles, plates, anchors, bolts, etc., shown on architectural drawings.

Lintels for exterior masonry and structural steel exposed to weather shall be hot-dip galvanized according to ASTM A123.

OPEN WEB STEEL JOISTS

Design, detail, fabricate and erect steel joists in accordance with the latest edition of Standard Specifications of the Steel Joist Institute.

Provide bridging in accordance with SJI specifications. Provide "X" bridging in all spans adjacent to beams and where indicated on the drawings. Bridging design shall be by the joist supplier.

All longspan joists shall have welded connections. Welds to be 3/16" x 3" long fillets each side of joist seat. Use 2-3/4" diameter, A325 friction connections at joists on or nearest column lines.

Joists shall be designed for a basic net wind uplift of 11 psf. Around the perimeter of the building to 10 ft. from the exterior wall the uplift is 26 psf. Provide bridging as required.

Steel joists shall have bottom chord extensions at columns and beam cantilevers and where shown on plans.

Do not connect joist extensions to columns or beams until the building is plumb and all dead loads are applied.

Joist fabricator shall show on shop drawings distance from center line of support to first panel of joist.

Joist fabricator shall supply all angle bridging. Steel joist fabricator shall provide masonry anchors for bridging.

Joists shall be thoroughly inspected during fabrication to ensure compliance with codes and good workmanship.

Handling and erection shall be done with care.

Hangers for ducts, pipes, units, etc., must be attached to joists at panel points only.

METAL DECK

The metal roof deck shall be formed of steel sheets conforming to ASTM Standard A 446 and ASTM A 611.

Galvanized coating shall conform to ASTM Specification A 924-G60.

Metal roof deck shall be 1-1/2 inch deep, 20 gage, galvanized Type B metal deck.

See specifications for minimum section properties per foot.

See specifications for deck attachment criteria.

STRUCTURAL DRAWING LIST	
SHEET NUMBER	SHEET NAME

S1.01	FOUNDATION PLAN
S1.02	ROOF FRAMING PLAN
S2.01	BRACING ELEVATIONS AND DETAILS
S0.01	GENERAL NOTES AND TYPICAL DETAILS
S3.01	FOUNDATION SECTIONS AND DETAILS
S4.01	FRAMING SECTIONS AND DETAILS

OWNER REVIEW

NAME _____ Date _____

GENERAL NOTES AND TYPICAL DETAILS

SCALE _____ As indicated

DRAWN BY _____ TMM

CHECK BY _____

PROJ.ARCH/ENGR. _____

PROJ. MRG. _____

JOB NO. _____ 07133.00

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