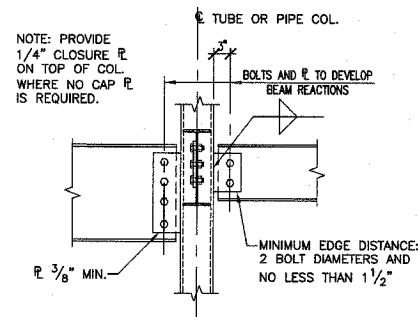


TYPE A **TYPE B**
TYPICAL BEAM TO WIDE FLANGE COLUMN CONNECTION
 BEAM TO BEAM CONNECTION SIMILAR

- NOTES:
 1. EITHER TYPE "A" OR "B" CONNECTION IS ACCEPTABLE.
 2. BOLTS TO BE A325 (TYPE N) 3/4" DIAMETER MIN.
 3. WELDS TO BE A.W.S. E70 ELECTRODE.
 4. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
 5. CONNECTIONS SHALL BE SIZED PER A.I.S.C. (9TH EDITION) "UNIFORM LOAD TABLES" FOR END REACTIONS OR REACTIONS SHOWN ON PLAN, WHICHEVER IS HIGHER.
 6. ONE SIDED CONNECTIONS WILL NOT BE PERMITTED.
 7. MIN. CONNECTION ANGLE THICKNESS 5/16".
 8. SEE SCHEDULE "A" FOR MIN. NUMBER OF BOLTS IN A ROW FOR EACH BM. SIZE.

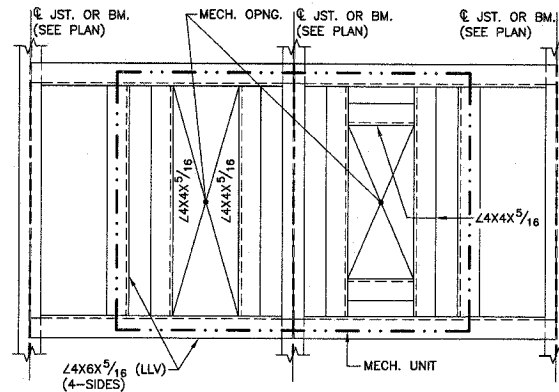
SCHEDULE A							
BEAM DEPTH	6"	8",10"	12",14"	16",18"	21",24"	27",30"	33",36"
MINIMUM NO. OF BOLTS	2	2	3	4	5	6	7



TYPICAL BEAM TO TUBE OR PIPE COLUMN CONNECTION
 TUBE COLUMN SHOWN, PIPE COLUMN SIMILAR.
 USE STD. SHEAR CONNECTION.

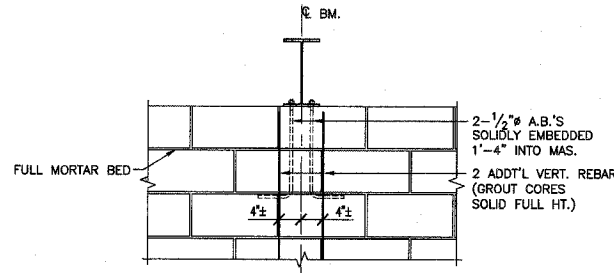
- NOTES:
 1. MUST COMPLY WITH TABLE "X", 9TH EDITION, NO EXCEPTIONS.
 2. BOLTS TO BE A325 (TYPE N) 3/4" MIN.
 3. WELDS TO BE A.W.S. E70 ELECTRODE.
 4. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
 5. CONNECTIONS SHALL BE SIZED PER A.I.S.C. "UNIFORM LOAD CONSTANT" (9th Ed.) TABLE FOR END REACTIONS OR REACTIONS SHOWN ON PLAN, WHICHEVER IS HIGHER.
 6. SEE SCHEDULE "A" FOR MIN. NUMBER OF BOLTS IN A ROW FOR EACH BEAM SIZE.

SCHEDULE A							
BEAM DEPTH	6"	8",10"	12",14"	16",18"	21",24"	27",30"	33",36"
MINIMUM NO. OF BOLTS	2	2	3	4	5	6	7

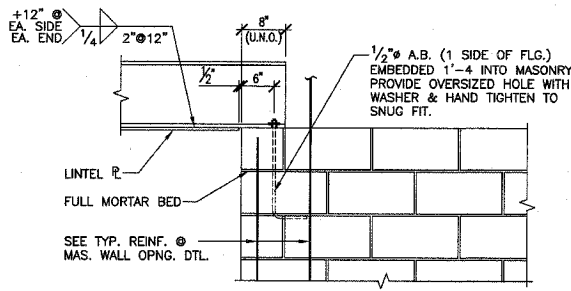


TYPICAL ANGLE FRAME AROUND MECHANICAL OPENINGS IN ROOF

- NOTE: 1. COPE VERTICAL LEG OF ANGLE AND FIELD WELD TO TOP OF JOIST OR BEAM; OR FIELD WELD INTO SIDE OF JOIST TOP CHORD OR BEAM WEB.
 2. COORDINATE LOCATION, SIZE AND OPNGS. OF MECH. UNIT WITH MECH. DWGS.



TYP. BEAM BEARING PERPENDICULAR TO MASONRY WALL WITHOUT BEARING PLATE



TYP. BEAM BEARING PARALLEL TO MASONRY WALL WITHOUT BEARING PLATE
 (SEE TYP. REINFORCING AT MASONRY WALL OPENING FOR BALANCE OF INFO.)

GENERAL STEEL NOTES

- ALL STRUCTURAL STEEL AND DETAILS SHALL COMPLY WITH THE LATEST AISC "SPECIFICATION FOR DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS". ALL STRUCTURAL STEEL SHALL COMPLY WITH THE FOLLOWING UNLESS NOTED OTHERWISE IN THE SPECIFICATIONS:
 A. CHANNEL SHAPES, PLATES, ANGLES & BARS - ASTM A36.
 B. WIDE FLANGE SHAPES - ASTM A992, GRADE 50.
 C. STEEL TUBE (RECTANGULAR OR SQUARE) - ASTM A500, GRADE B.
 D. STEEL PIPE (ROUND) - ASTM A53, TYPE E OR S.
- THE FRAME OF STEEL SKELETON BUILDINGS SHALL BE ERECTED IN ACCORDANCE WITH THE AISC "CODE OF STANDARD PRACTICE". SUCH BRACING SHALL BE LEFT IN PLACE AS LONG AS MAY BE REQUIRED FOR SAFETY.
- SHOP AND FIELD CONNECTIONS ARE TO BE BOLTED WITH HIGH STRENGTH BOLTS OR WELDED, UNLESS NOTED OTHERWISE. ALL END CONNECTIONS SHALL BE DESIGNED ON BASIS OF AISC LOAD SPAN TABLES WITH SPECIAL CONSIDERATION GIVEN TO CONCENTRATED LOADS NEAR ENDS OF BEAMS. MINIMUM DESIGN LOAD TO BE 10,000 LBS. BOLTS TO BE 3/4" DIAMETER ASTM A325 (TYPE N) WITH MINIMUM 2 BOLTS PER CONNECTION. SLIP CRITICAL BOLTS ARE TO BE USED FOR CROSSBRACE CONNECTIONS TO BEAMS & COLUMNS & FOR BEAM END CONNECTIONS THAT TRANSFER BRACE LOADS TO COLUMNS.
- SHEAR TAB CONNECTIONS (EXCEPT THOSE EXACTLY THE SAME AS IN THE AISC NINTH EDITION TABLE X) WILL NOT BE PERMITTED. THERE WILL BE NO EXCEPTIONS.
- SHOP AND FIELD WELDING SHALL CONFORM TO THE A.W.S. D1.1 "STRUCTURAL WELDING CODE".
- ALL COLUMN BASE PLATES SHALL BE SET ON SHIMS TRUE AND LEVEL. BASE PLATES SHALL BE SOLIDLY GROUDED WITH EMBECO GROUT UNDER THE ENTIRE BASE PLATE AREA.
- ANCHOR BOLTS SHALL BE 3/4" HEADED BOLTS (A307) OR ASTM F1554 A36 THREADED RODS W/ WELDED NUTS. EXTEND 1'-0" INTO CONCRETE WHERE POSSIBLE, & BE HELD 2 1/2" MINIMUM FROM OUTSIDE FACE OF CONCRETE. ALL ANCHOR BOLTS SHALL BE HELD 1 1/2" MINIMUM FROM EDGE OF BASE PLATE WHERE POSSIBLE. PROVIDE A MINIMUM OF 4-3/4" DIAMETER ANCHOR BOLTS AT EACH COLUMN, UNLESS NOTED OTHERWISE.
- WHERE EPOXY ANCHORS ARE INDICATED, INSTALL PER MANUFACTURERS RECOMMENDATIONS WITH ITW RAMSET/REDHEAD EPOXY SYSTEM, SIMPSON EPOXY-TIE ADHESIVE OR U S ANCHOR HS 200 EPOXY SYSTEM.
- PROVIDE 8" SOLID MASONRY UNDER MASONRY BEARING ENDS OF ALL STRUCTURAL STEEL. SOLID BEARING IS TO EXTEND A MINIMUM OF 8" PAST EACH SIDE OF FLANGE OR BEARING PLATE. BEAMS AND LINTELS TO BEAR A MINIMUM OF 8" ON MASONRY.
- PROVIDE 2-1/2" DIAMETER ANCHOR BOLTS EMBEDDED 1'-4" INTO MASONRY AND GROUDED SOLID AT BEARING ENDS OF ALL BEAMS SPANNING PERPENDICULAR TO SUPPORTING WALL.
- MASONRY WALLS, UNLESS NOTED OTHERWISE, SHALL HAVE A WBX10 + 1/4" PLATE LINTEL OVER ALL OPENINGS GREATER THAN 1'-4" IN LENGTH.
- SUPPORT OF STAIR STRINGERS ON MASONRY WALLS IS TO BE IN DIRECT BEARING ON SOLID OR GROUDED MASONRY (U.N.O.).

GENERAL STEEL JOIST NOTES

- ALL STEEL JOISTS, BRIDGING AND DETAILS SHALL COMPLY WITH THE LATEST STEEL JOIST INSTITUTE "STANDARD SPECIFICATIONS AND LOAD TABLES" FOR DESIGN, FABRICATION, AND ERECTION.
- LOCATE ONE ADDITIONAL ROW OF BOTTOM CHORD BRIDGING ADJACENT TO FIRST BOTTOM CHORD PANEL POINTS AT ALL ROOF JOISTS.
- JOISTS SHALL BE ERECTED WITHIN A MAXIMUM HORIZONTAL ALIGNMENT TOLERANCE OF 1" IN 25'-0".
- ALL STEEL ROOF JOISTS SHALL BE DESIGNED FOR A MINIMUM NET UPLIFT OF 10 PSF.
- PROVIDE SPECIAL DEPTH ENDS, EXTENDED ENDS, OUTRIGGERS, HEADERS, CEILING EXTENSIONS, ANCHORS, ETC. AS REQUIRED BY DRAWING AND SPECIFICATIONS.
- PROVIDE 8" OF SOLID MASONRY UNDER MASONRY BEARING ENDS OF STEEL JOISTS. SOLID MASONRY TO RUN CONTINUOUSLY AT BEARING ELEVATION.
- EXTRA WEBS MUST BE FIELD APPLIED AT ALL CONCENTRATED LOADS NOT OCCURRING AT JOIST PANEL POINTS.

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SSE PROJECT NO: 02111

211 N. Broadway
 Suite 1900
 St. Louis, MO 63102
 (314) 241-8188
 (314) 241-0125
 FAX

KAI

LEWIS AND CLARK MEMORIAL TOWER
VILLAGE OF HARTFORD, ILLINOIS
HARTFORD, ILLINOIS 62049

SHEET TITLE:
TYPICAL DETAILS & GENERAL NOTES

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KENNEDY PROJECT NO
KAI# 10-02048

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11-APRIL-08

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