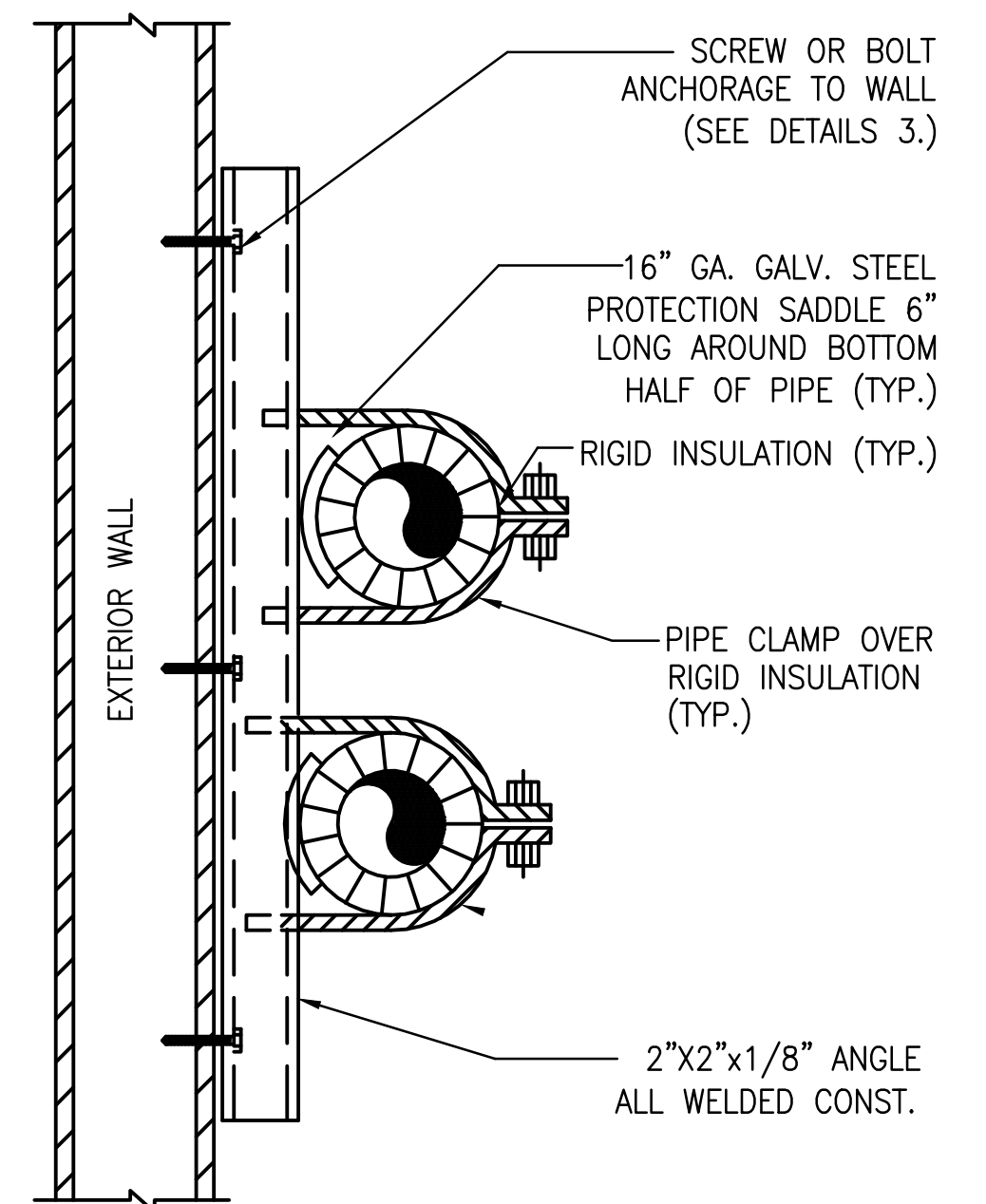
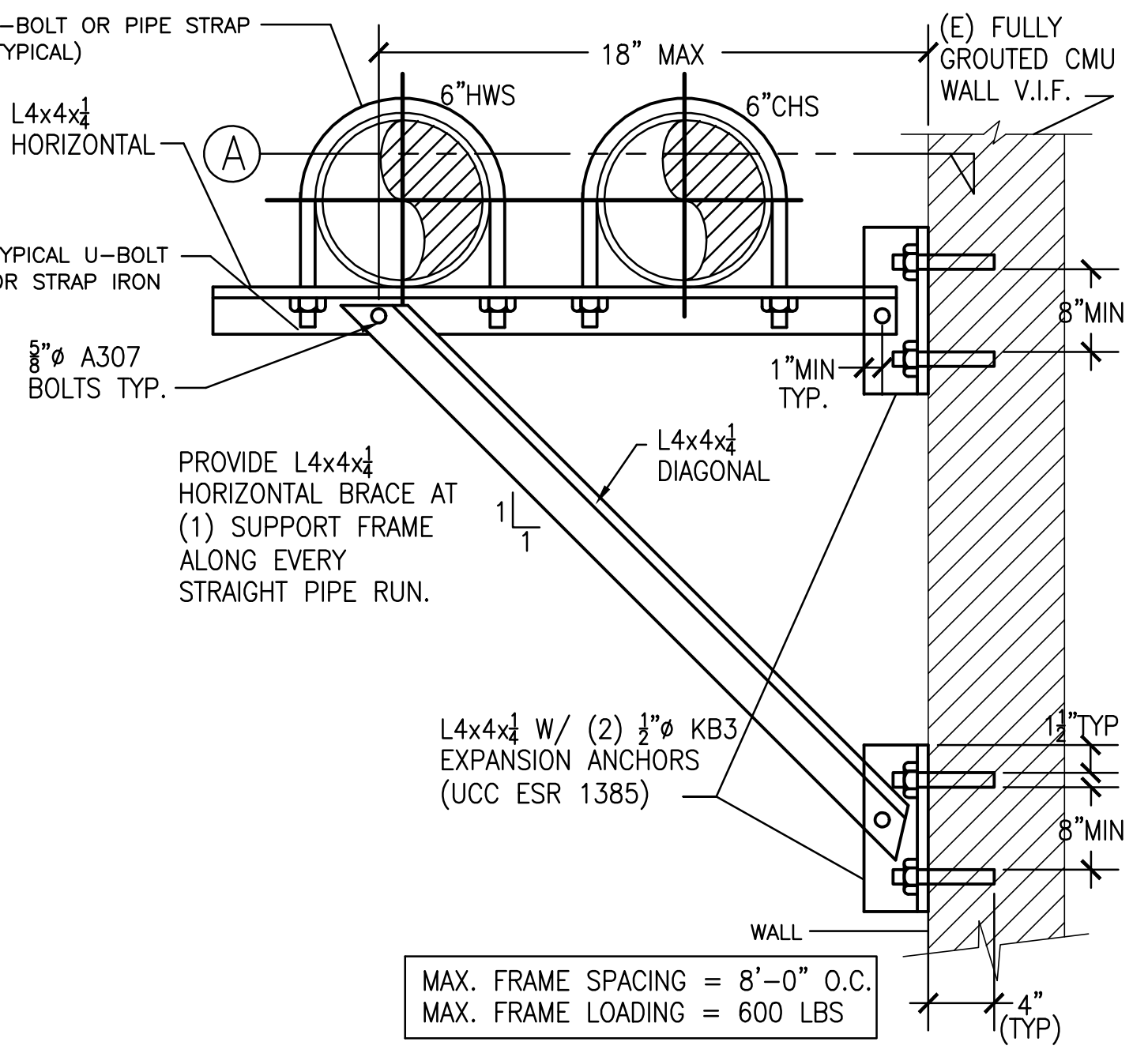
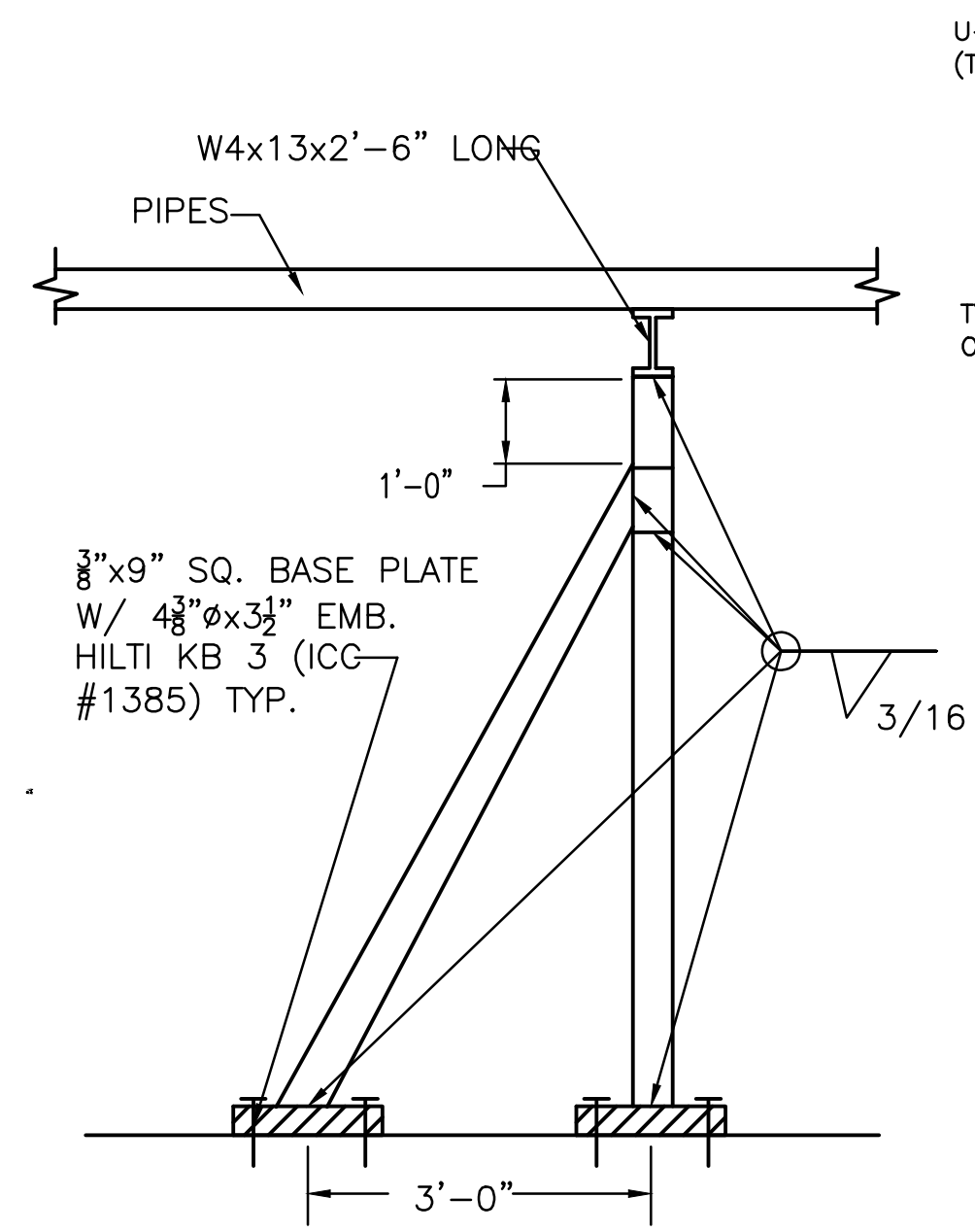


VERTICAL DUCTS SUPPORT			
MAXIMUM SIDE OF RECTANGULAR DUCT	METAL STRAP OR ANGLE BRACKET	MAXIMUM DIAMETER OF ROUND DUCTS	STRAP
24"	1"x $\frac{1}{8}$ " STRAP \odot	10"	0.047" (NO. 18 GAGE) GALVANIZED STEEL 2" WIDE \odot
36"	1"x1"x $\frac{1}{8}$ " ANGLE \odot	20"	0.058" (NO. 16 GAGE) GALVANIZED STEEL 2" SIDE \odot
48"	1 $\frac{1}{8}$ "x1 $\frac{1}{8}$ "x $\frac{1}{8}$ " ANGLE \odot	40"	$\frac{1}{8}$ " STEELx1 $\frac{1}{2}$ " \odot
60"	1 $\frac{1}{2}$ "x1 $\frac{1}{2}$ "x $\frac{1}{8}$ " ANGLE \odot	60"	$\frac{1}{8}$ " STEELx2" \odot
OVER 60"	2"x2"x $\frac{1}{8}$ " STRAP \odot	OVER 60"	$\frac{3}{16}$ " STEELx2" \odot

NOTE:
 ① SPACED VERTICALLY NOT MORE THAN 12 FEET ON CENTERS.

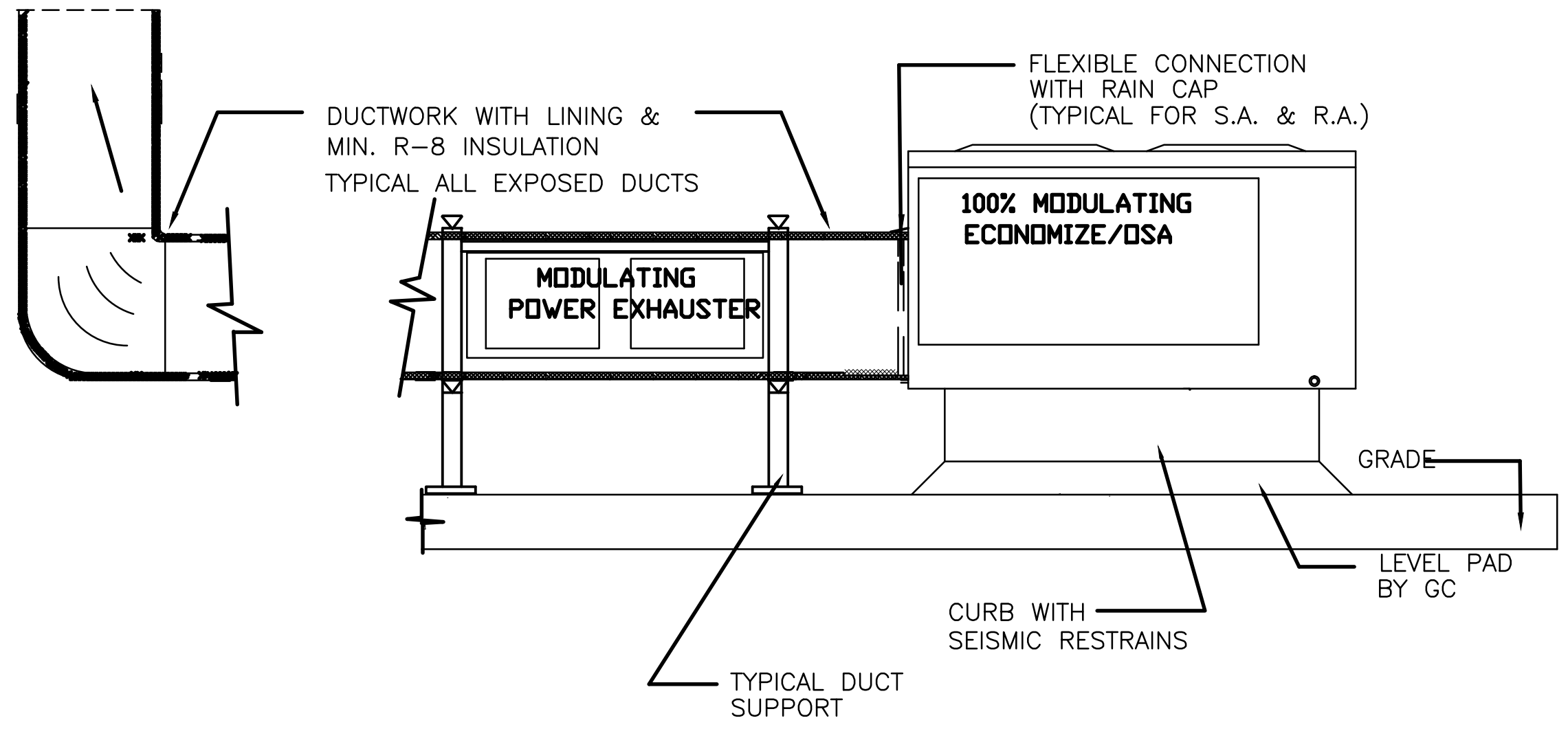


DUCT SUPPORT FROM WALL DETAIL

SCALE NONE 4

PIPE MOUNTING DETAIL

SCALE NONE 1

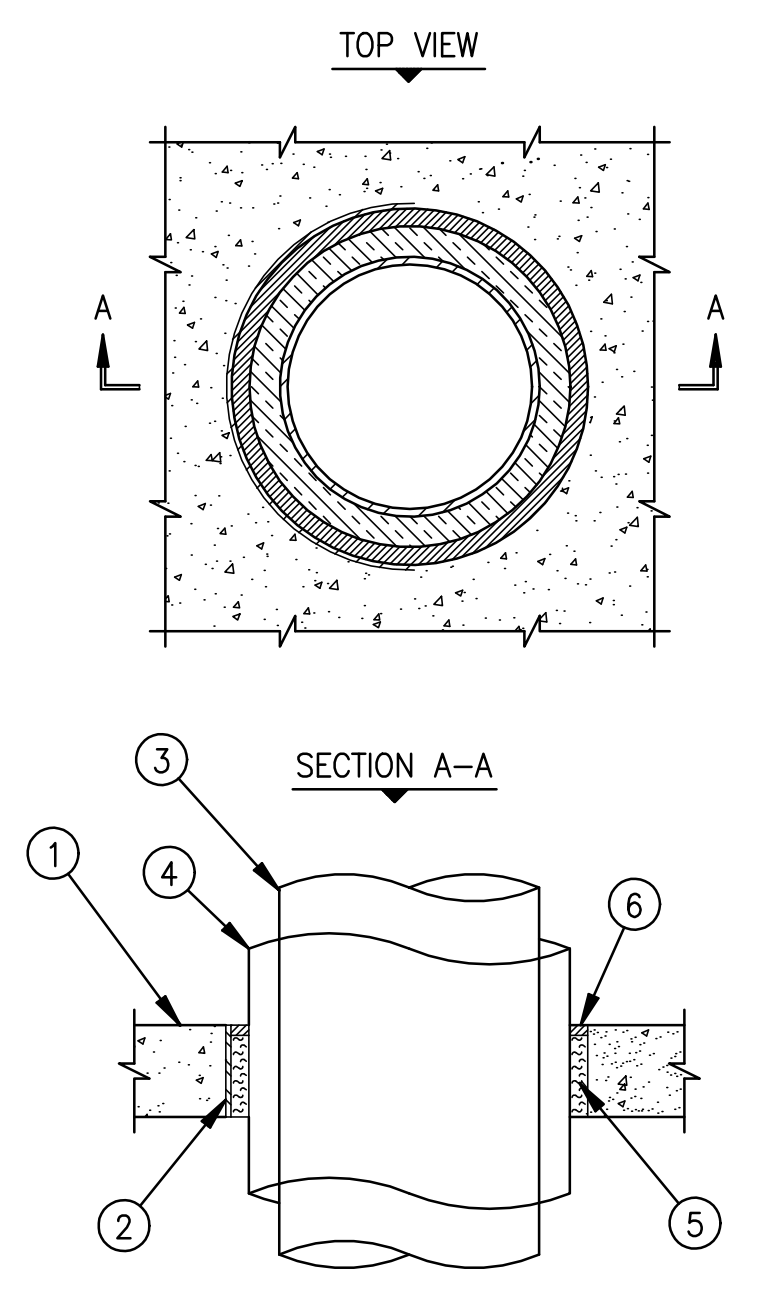


TYPICAL FOR AC-1

SCALE NONE 5

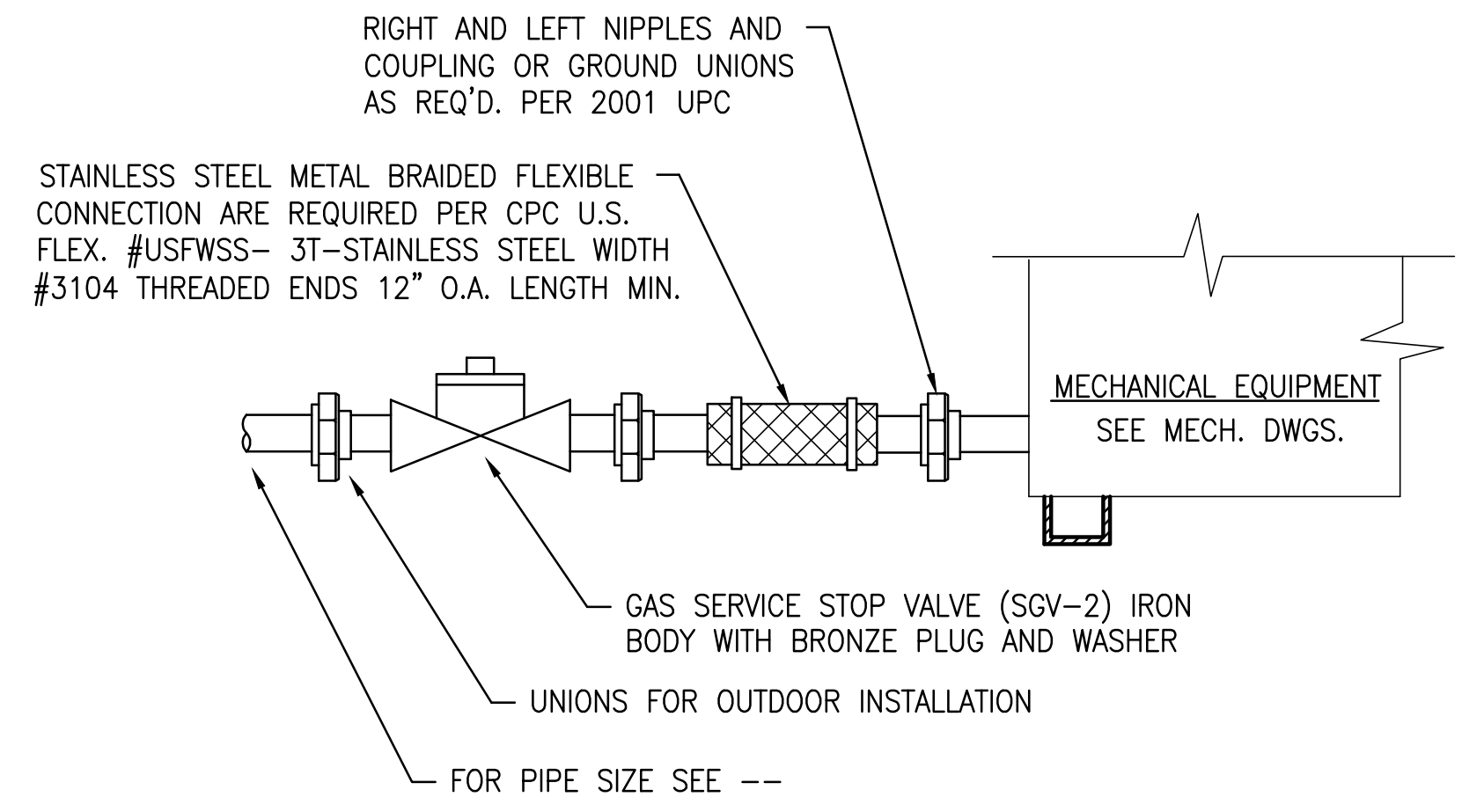
- CONCRETE FLOOR OR WALL ASSEMBLY (2-HR FIRE-RATING):
 - LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MINIMUM 4-1/2" THICK).
 - ANY UL/ULC CLASSIFIED CONCRETE BLOCK WALL.
- OPTIONAL: MAXIMUM 20" NOMINAL DIAMETER STEEL PIPE SLEEVE (SCHEDULE 10 OR HEAVIER).
- PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
 - MAXIMUM 12" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
 - MAXIMUM 6" NOMINAL DIAMETER COPPER PIPE.
- MAXIMUM 2" THICK GLASS FIBER INSULATION.
- MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED.
- MINIMUM 1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 20".
 2. ANNULAR SPACE = MINIMUM 1/2", MAXIMUM 2-1/4".
 3. MINIMUM 1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT IS REQUIRED ON BOTH SIDES OF A WALL.



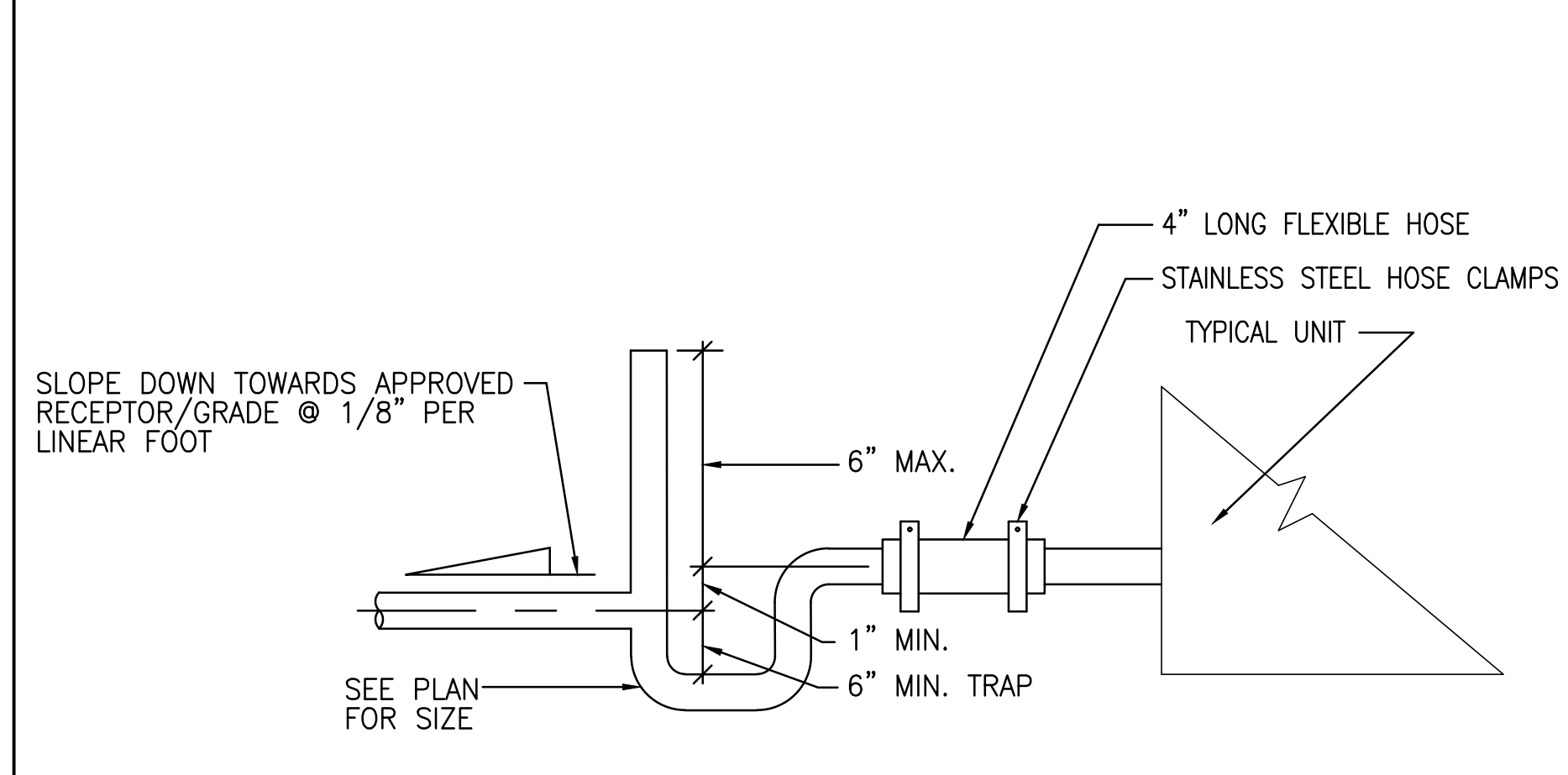
INSULATED PIPE THUR CONCRETE FLOOR/WALL OR BLOCK WALL DIAGRAM

SCALE NONE 2



GAS CONNECTION DIAGRAM

SCALE NONE 6



CONDENSATE DRAIN CONNECTION

SCALE NONE 3

RECORD DRAWINGS
 SUBMITTED 11/21/2008



CAMARILLO OFFICE: 805/987-4001
 GLENDALE OFFICE: 818/948-9780
 BUDLONG & ASSOCIATES, INC.
 CONSULTING ENGINEERS
 JOB NO. 08-038

DESIGN FOR:
BUILDING 1408
REPLACE CHILLER, BOILER AND AHU'S
 EDWARDS AIR FORCE BASE, CALIFORNIA 93523-8450

QUOTE/DWG #:

DRAWN BY: TS

CHECKED BY:

DATE: 12/05/2008

SCALE: AS NOTED

REVISION HISTORY

1	
2	
3	
4	
5	

PROJECT: FA9301-06-D-0010

M3.1

J:\08-038 - EMB Building 1408 - Chiller, Boiler, AHU's - Western\08-038 - M3.1.dwg, 11/22/2009 9:22:30 AM