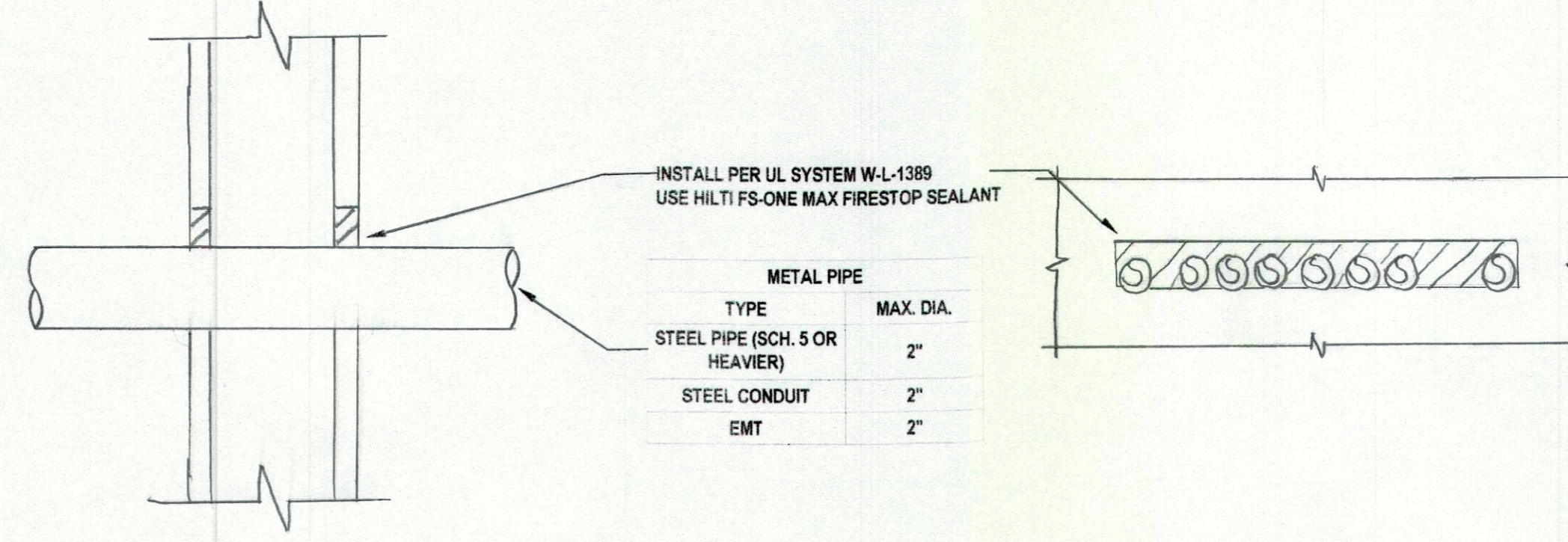
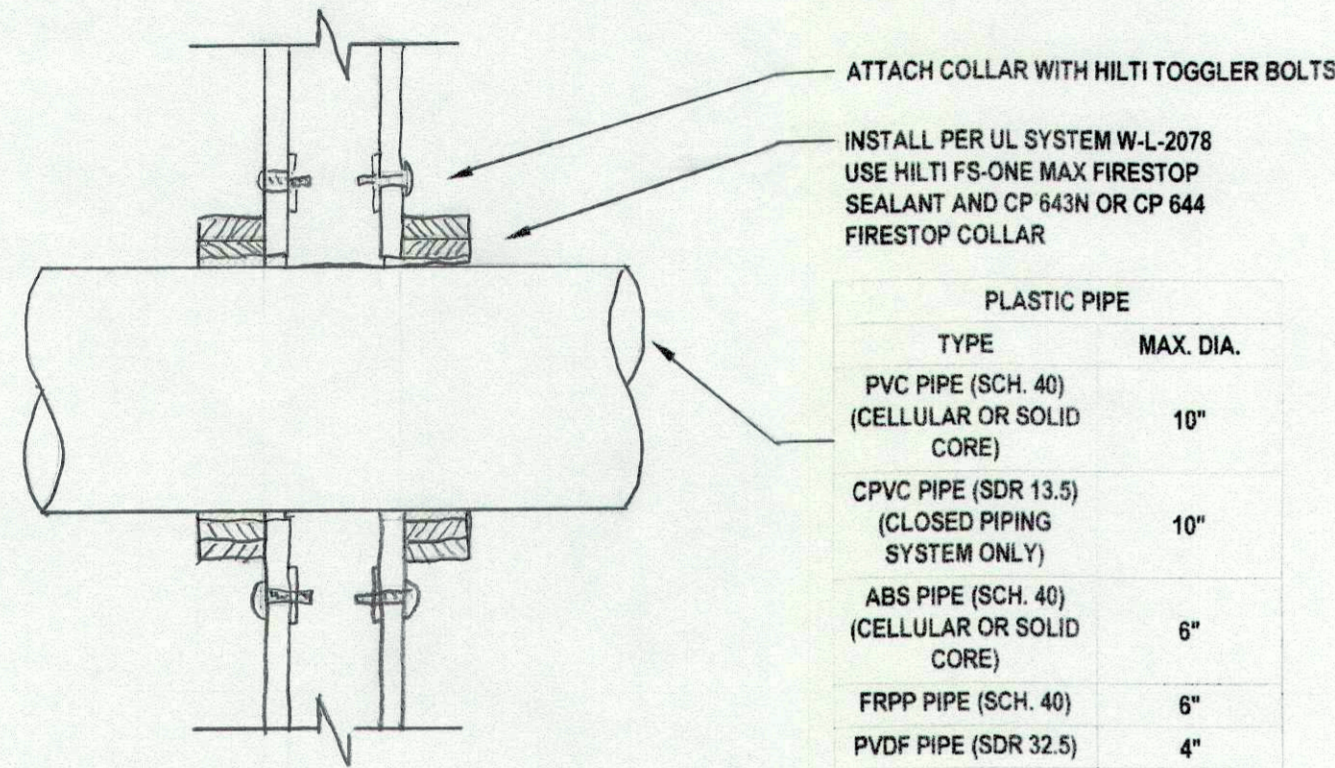


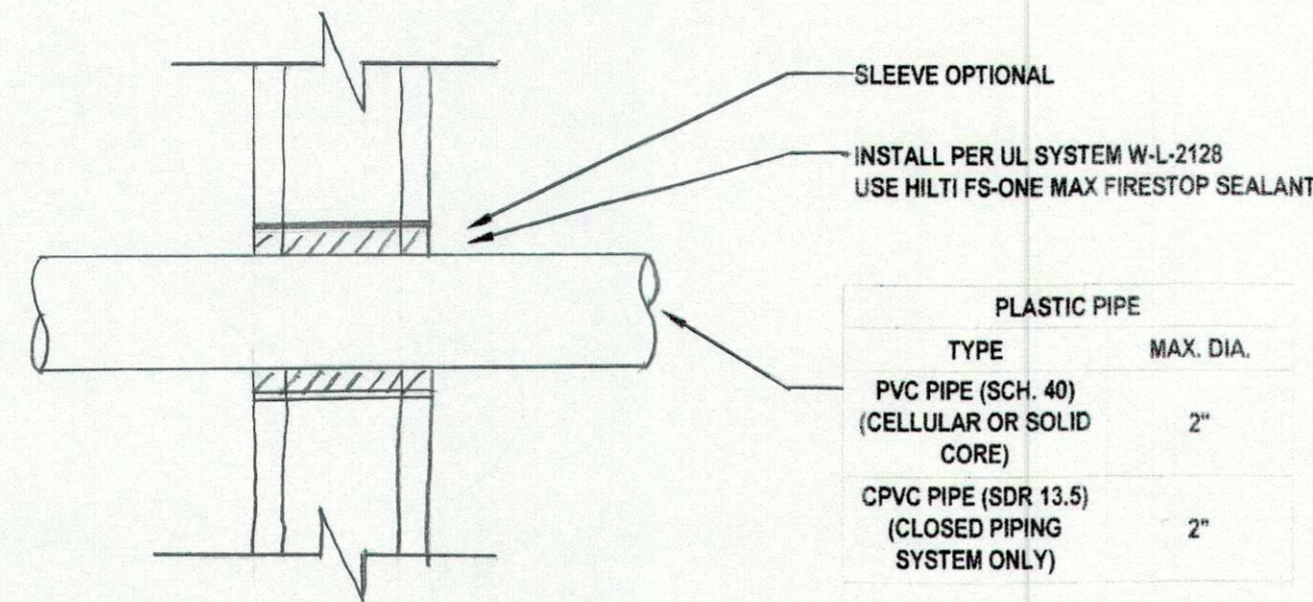
1 METAL PIPE THROUGH GYPSUM WALL ASSEMBLY (1-HR.)
M.4.1 NOT TO SCALE



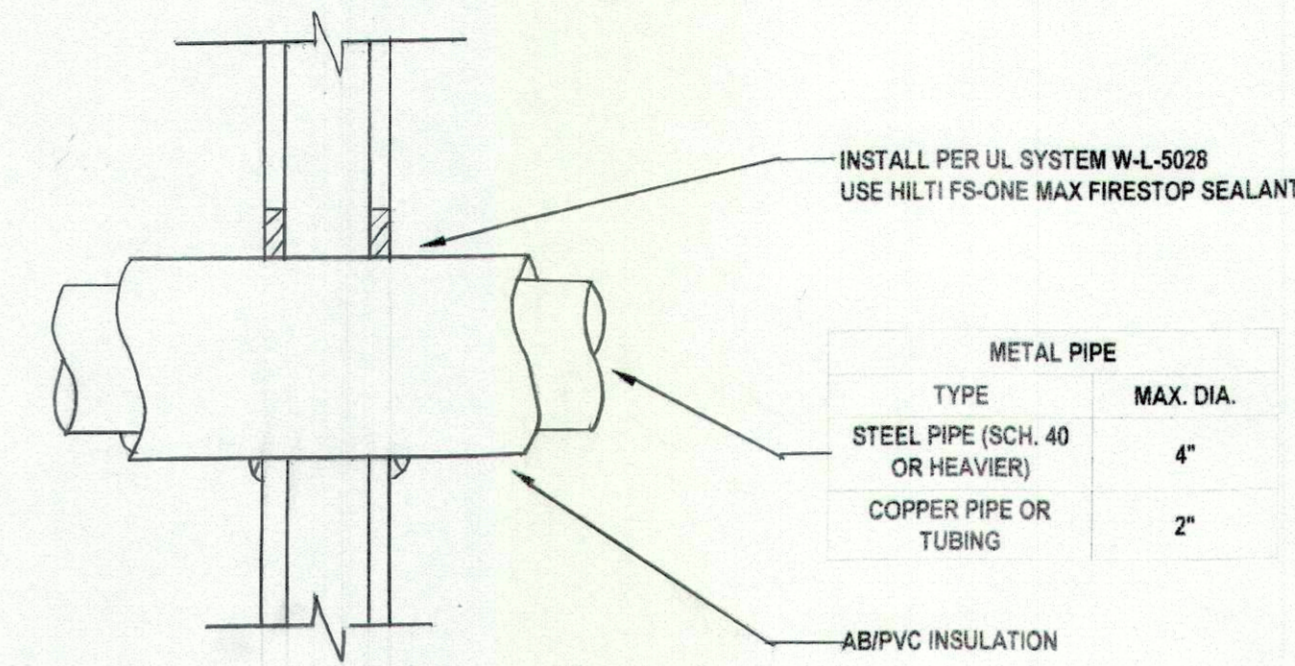
2 MULTIPLE METAL PIPES THROUGH GYPSUM WALL ASSEMBLY (1-HR.)
M.4.1 NOT TO SCALE



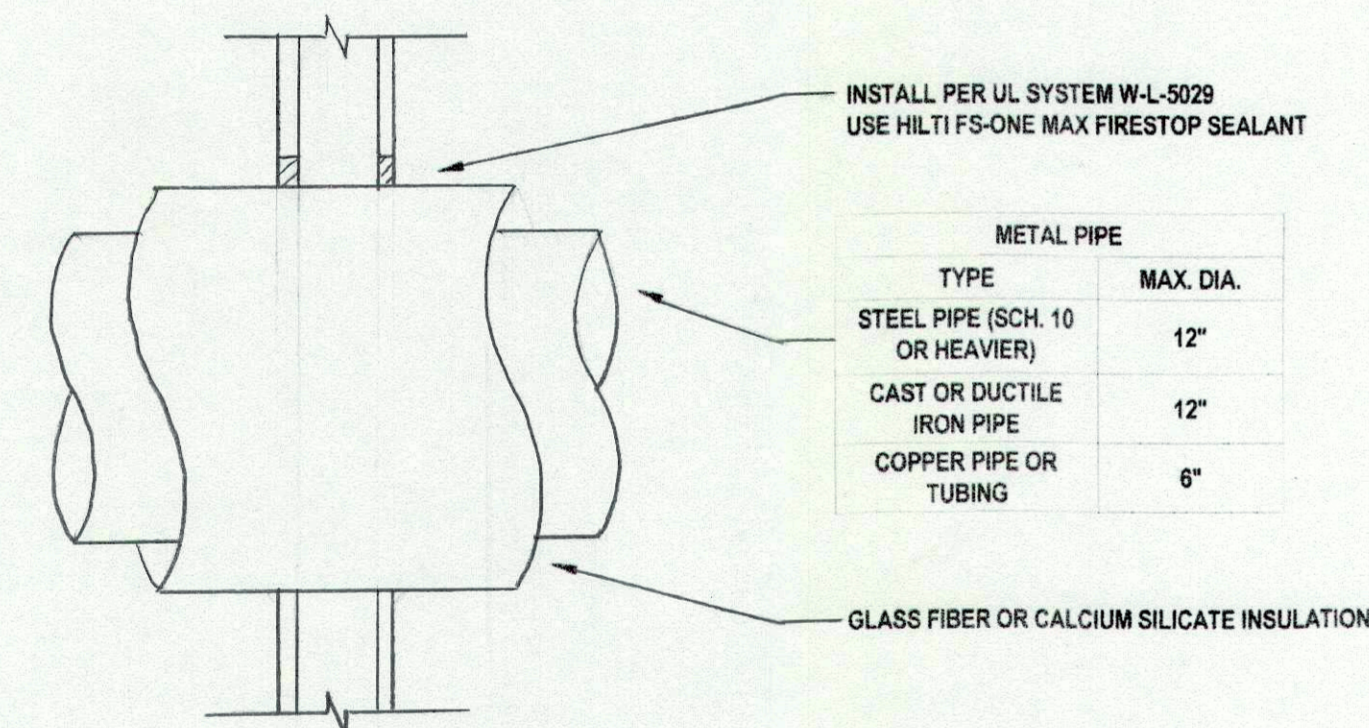
3 PLASTIC PIPE THROUGH GYPSUM WALL ASSEMBLY (1-HR.)
M.4.1 NOT TO SCALE



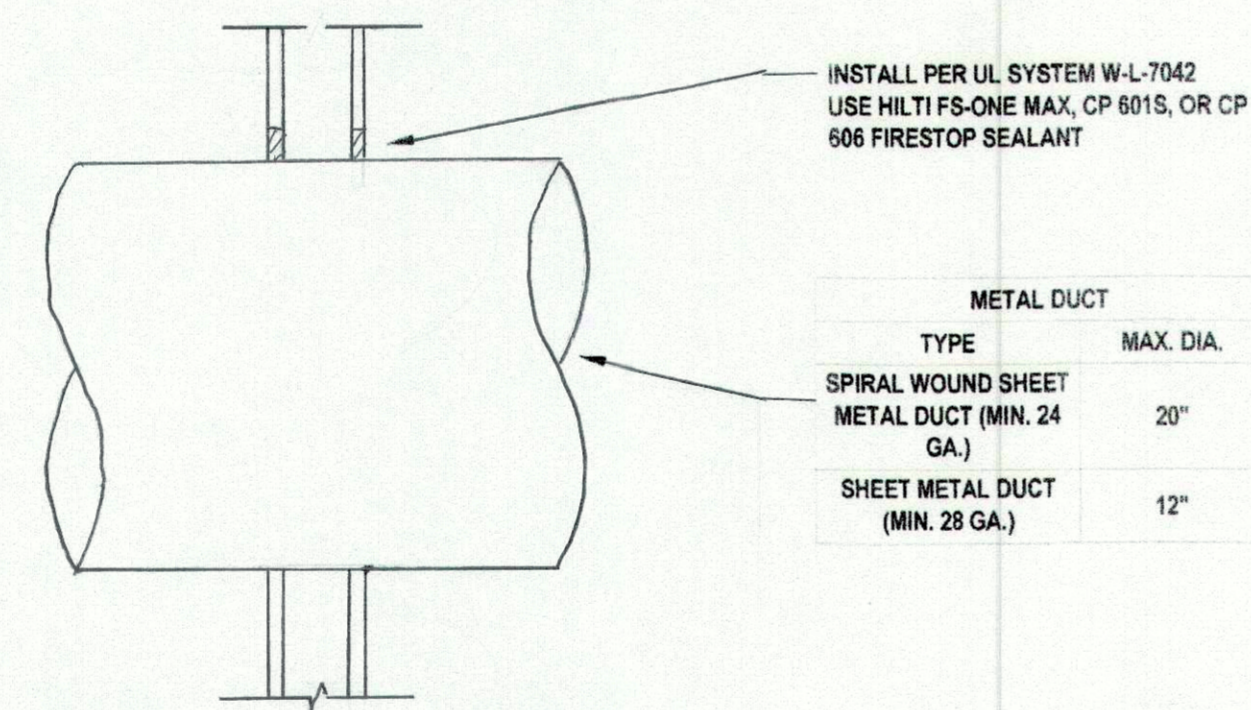
4 PLASTIC PIPE THROUGH GYPSUM WALL ASSEMBLY (1-HR.)
M.4.1 NOT TO SCALE



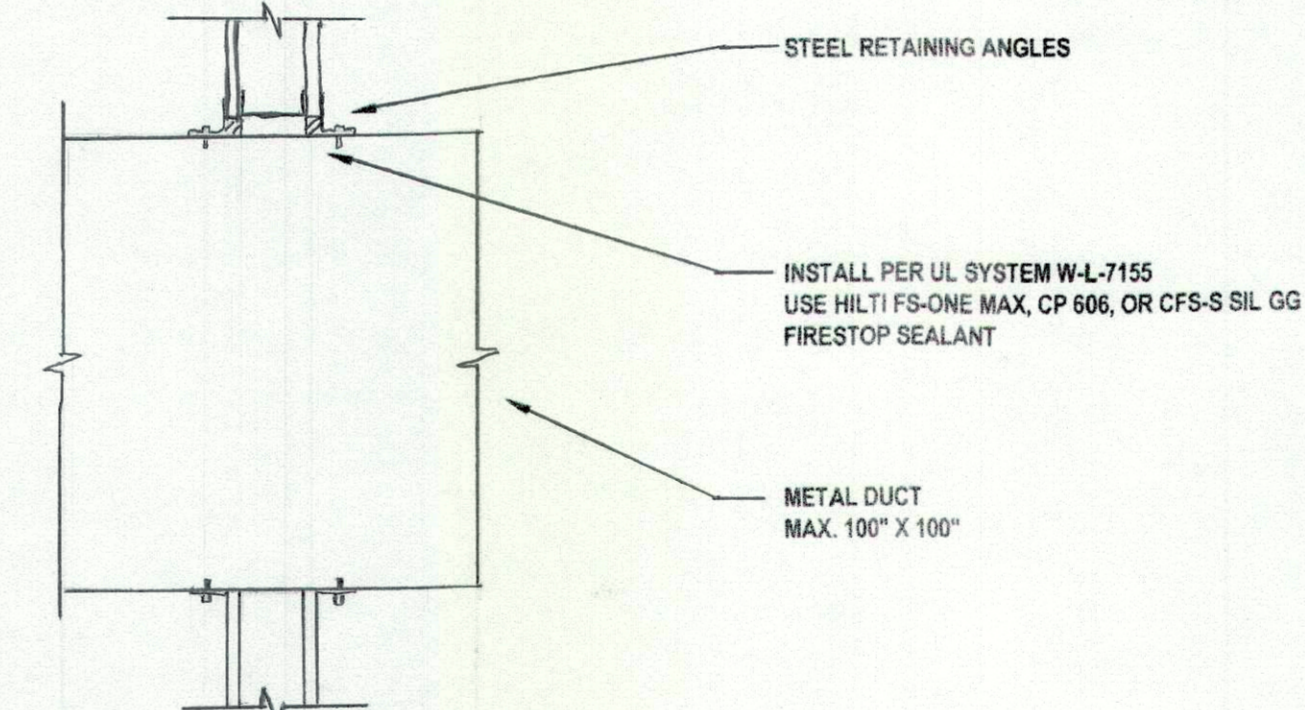
5 METAL PIPE WITH AB/PVC INSULATION THROUGH GYPSUM WALL ASSEMBLY (1-HR.)
M.4.1 NOT TO SCALE



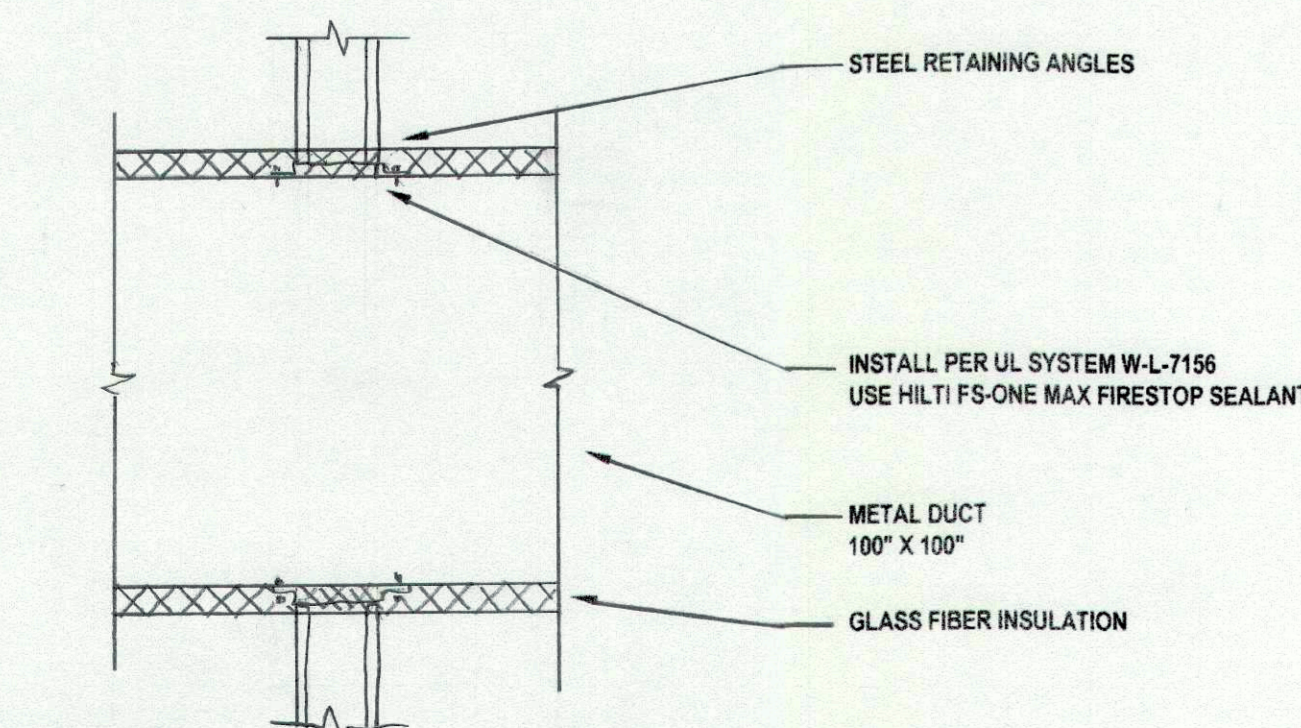
6 METAL PIPE WITH GLASS FIBER OR CALCIUM SILICATE INSULATION THROUGH GYPSUM WALL ASSEMBLY (1-HR.)
M.4.1 NOT TO SCALE



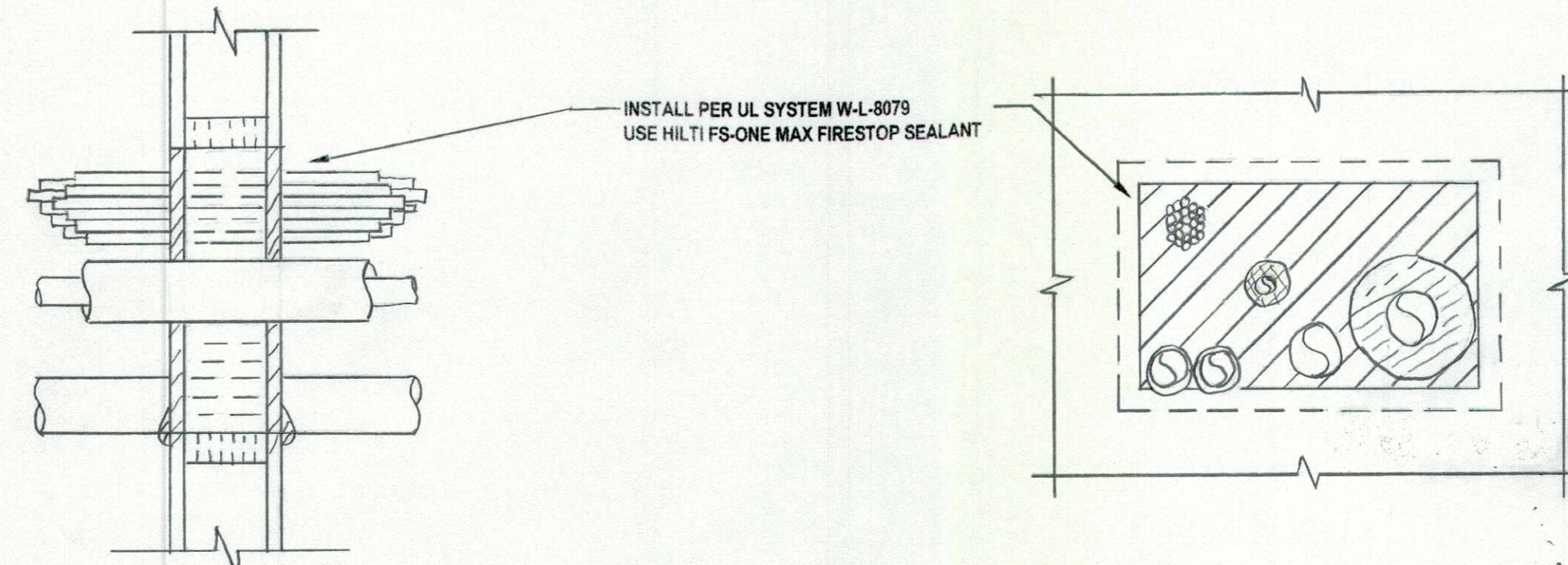
7 METAL DUCT (WITHOUT DAMPER) THROUGH GYPSUM WALL ASSEMBLY (1-HR.)
M.4.1 NOT TO SCALE



8 METAL DUCT THROUGH GYPSUM WALL ASSEMBLY (1-HR.)
M.4.1 NOT TO SCALE



9 METAL DUCT WITH GLASS FIBER INSULATION THROUGH GYPSUM WALL ASSEMBLY (1-HR.)
M.4.1 NOT TO SCALE



10 MULTIPLE PENETRATIONS THROUGH GYPSUM WALL ASSEMBLY (1-HR.)
M.4.1 NOT TO SCALE

Penetrations in or through fire resistance rated assemblies shall be protected by an approved penetration firestop system.

Penetrations of ducts in fire resistant assemblies without dampers shall be Protected per IBC Sec. 713. Ducts that are protected with dampers shall Also comply with Sec. 716.

Through penetrations and membrane penetrations in fire walls, fire Barrier Walls, and fire resistance rated horizontal assemblies shall be protected by Firestop systems.

1) 716.5.2 All penetrations through 1 hour assemblies shall be solid ducting of a min of 26 gauge duct and do not require fire dampers per IBC sec 216.5.2 exception 3 with fully automatic sprinkled building. We have avoided any penetrations with any fire rated assemblies greater than 1 hour

2) 716.5.4.1 Corridors, again we will be installing solid duct not less than 26 gauge. 716.6.2.1 Ceiling radiation dampers ASTM E 119 with solid duct not less than 26 gauge.

3) If Conditions prevent us from ducting them with 26 gauge pipe we will need to install per ASTM E 119. Our intent is to hard duct all terminations for 1 hour rated assemblies.

JOB NUMBER:

DRAWN:

CHECKED:

ISSUE DATE:

REVISIONS:

CONTENTS:

MECHANICAL PENETRATIONS
GYPSUM WALL
1 HR.

SHEET NAME:

M.4.1

SHEET NUMBER: