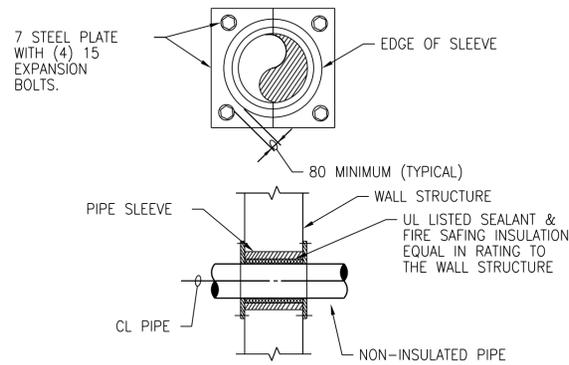


NOTE: SEE SPECIFICATION FOR NON-RATED WALLS

**PIPE PENETRATION NON-RATED WALL**  
NTS

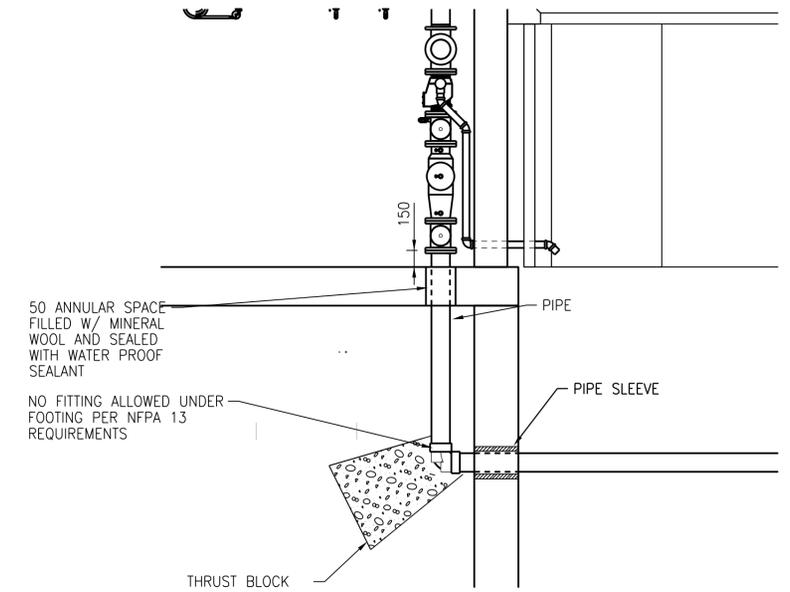
2113-553



NOTE: SEE SPECIFICATION FOR RATED WALL

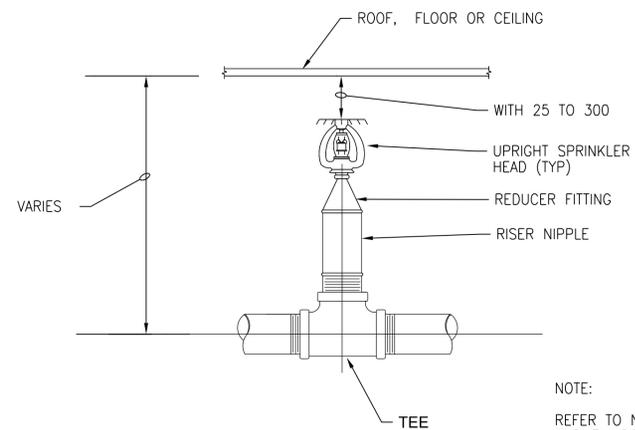
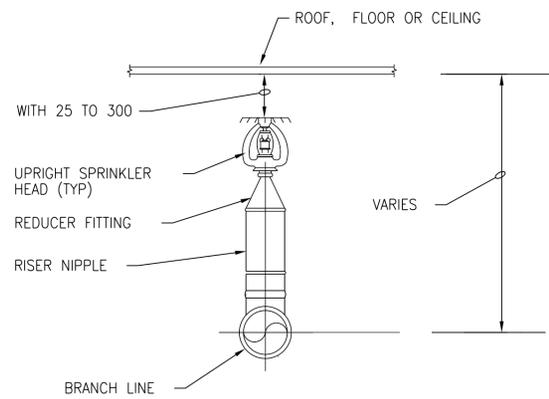
**PIPE PENETRATION RATED WALL**  
NTS

2113-552



**BUILDING PIPE ENTRY**  
NTS

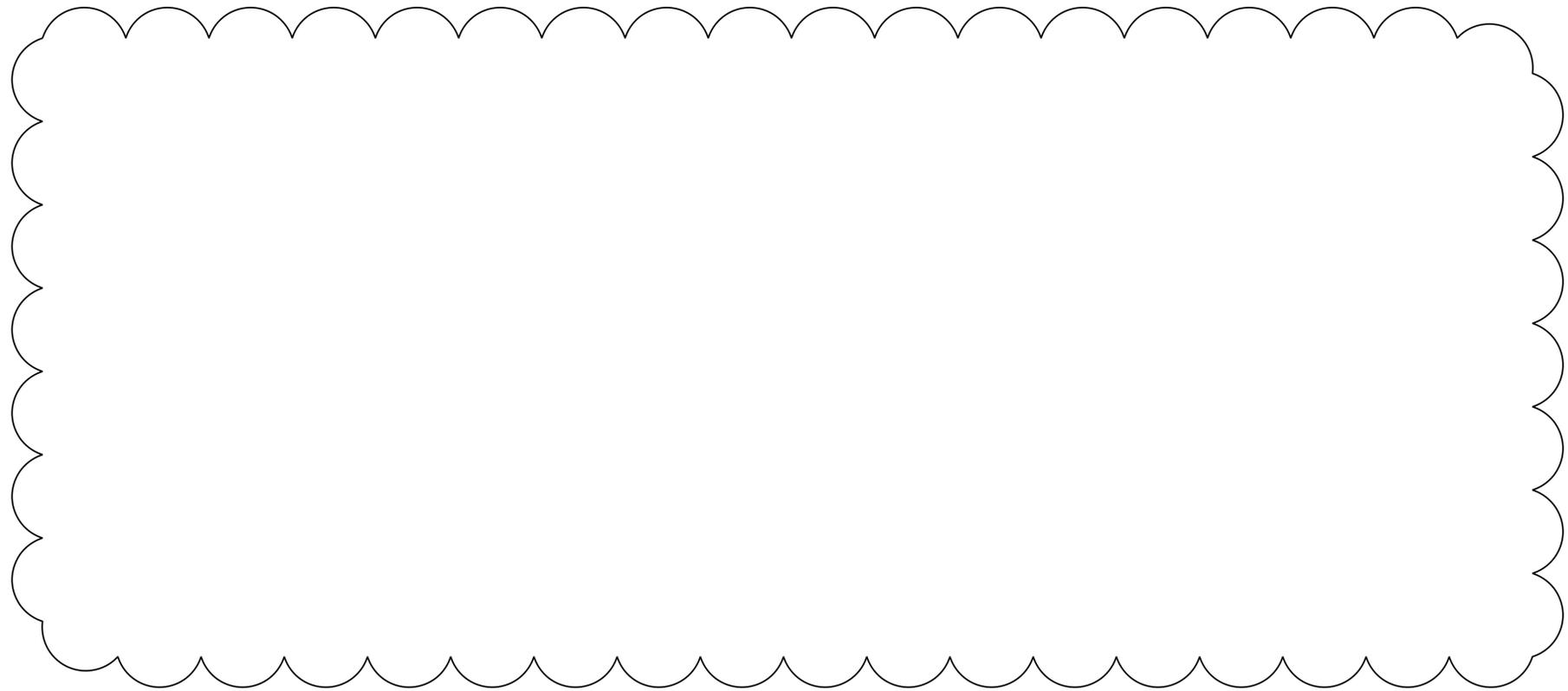
2111-111



NOTE:  
REFER TO NFPA 13, 8.6.4.1.2 (1)  
AND EXHIBIT 8.15 FOR ADDITIONAL  
REQUIREMENTS FOR OBSTRUCTED  
CONSTRUCTION.

**UPRIGHT PENDANT SPRINKLER HEAD**  
NTS

2113-100



**APEGM**  
Certificate of Authorization  
CH2M HILL Canada Ltd.  
No. 1441

NO.	REVISIONS	DATE	DESIGN	CHECK
01	ISSUED FOR ADDENDUM 5 - 976-2016	2017/07/14	K.F.	J.C.
00	ISSUED FOR CONSTRUCTION - 976-2016	2017/04/05	B.S.	J.C.

<b>CH2MHILL</b>		<b>KCS GROUP</b>	
DESIGNED BY: C. OSBERG	CHECKED BY: T. TRAN	ENGINEER'S SEAL	
DRAWN BY: W. SHANNON	APPROVED BY: H.T. FREIHAMMER		
SCALE: NTS	ISSUED FOR CONSTRUCTION BY: J. SHUMKA		
DATE: 2017/04/05	DATE: 2017/04/05	CONSULTANT NO.: 474248	

July 14, 2017  
T.T. TRAN  
Member  
40578  
PROVINCE OF MANITOBA  
REGISTERED PROFESSIONAL ENGINEER

<b>THE CITY OF WINNIPEG</b> WATER AND WASTE DEPARTMENT		
SOUTH END WATER POLLUTION CONTROL CENTRE SEWPPCC UPGRADING/EXPANSION PROJECT MECHANICAL FIRE PROTECTION STANDARD DETAILS (2)		
CITY DRAWING NUMBER 1-0102-MDTL-A012	SHEET 01	REV. SIZE A1