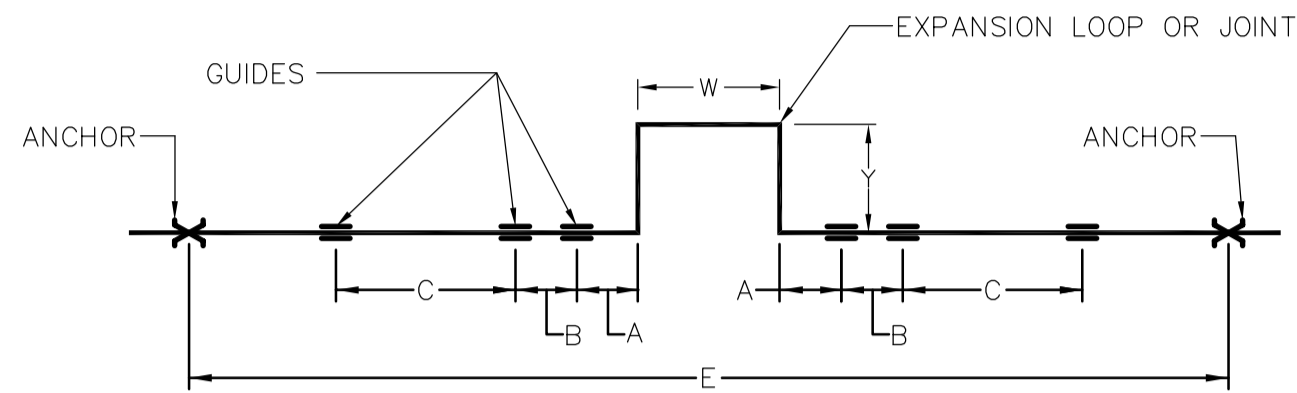


LOOP SIZING DATA

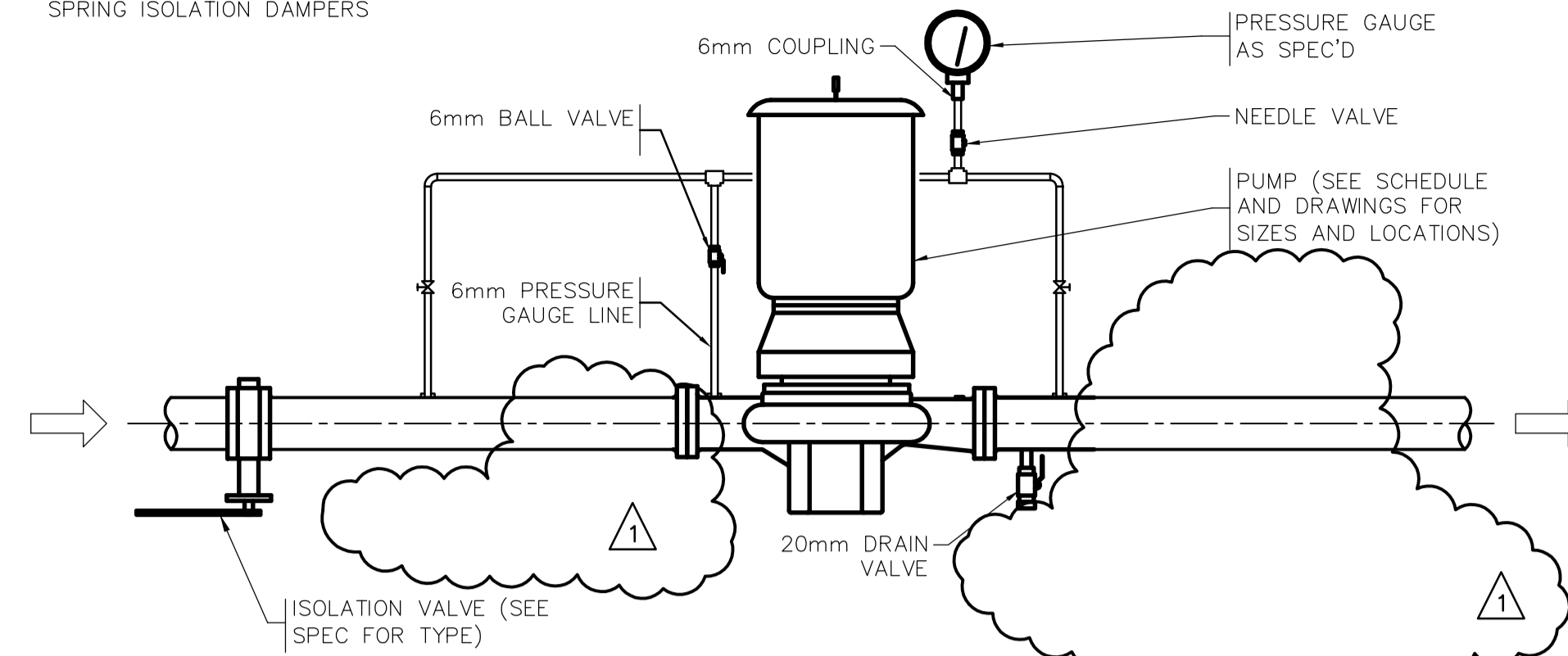
- USE THESE FORMULAS FOR TEMPERATURE DIFFERENCES NOT EXCEEDING 110°C. FOR OTHER CONDITIONS USE THE ASHRAE GUIDE DATA BOOK.
- LENGTH OF PIPE IN LOOP $L_{mm} = 2Y+W$
- FOR LENGTH "L" USE FOLLOWING FORMULAS:
 (A) STEEL PIPE $L=2.67 \sqrt{D \times E}$
 (B) COPPER PIPE $L=3.15 \sqrt{D \times E}$
- D=DIAMETER IN mm
- E=DISTANCE BETWEEN ANCHORS IN mm
- W=0.25 OF L



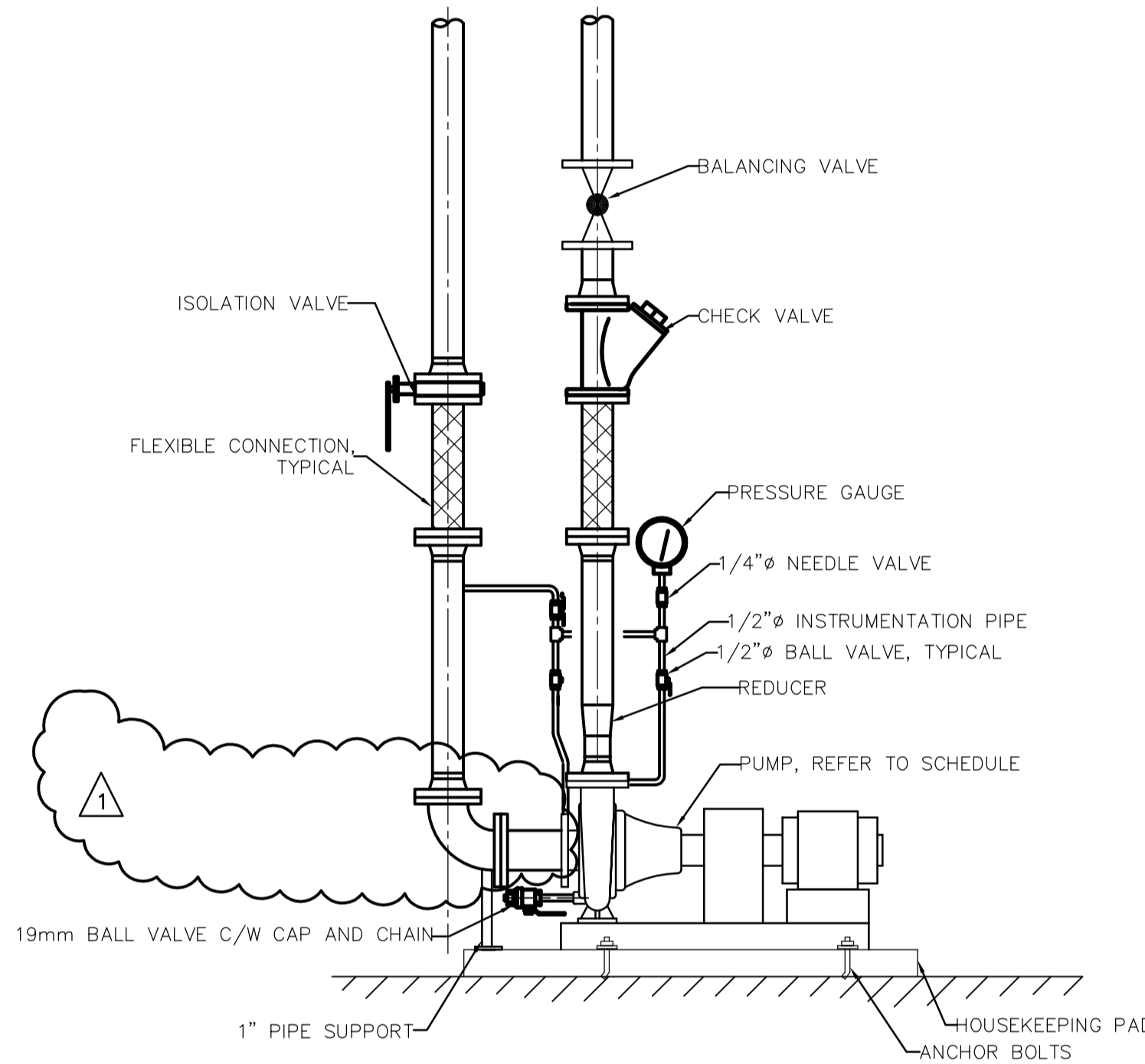
ACTUAL DIA. mm D	PIPE SIZE mm NOMINAL	MAXIMUM DISTANCE mm			MAX. SPACING BETWEEN GUIDES
		A	B	C	
33	25	200	600	3000	
42	30	200	600	3000	
48	40	200	900	4500	
60	50	200	900	4500	
73	65	250	1200	6000	
89	80	300	1200	6000	
114	100	400	1500	9000	
168	150	600	3000	10500	
219	200	750	3000	13500	
273	250	1000	3600	18000	
324	300	1200	3600	21000	
356	350	1400	3600	21000	
406	400	1600	4500	24000	
457	450	1800	4500	25500	
508	500	2000	6000	27000	
610	600	2400	6000	31500	

1 EXPANSION COMPENSATION DETAIL
LM2.01 SCALE N.T.S.

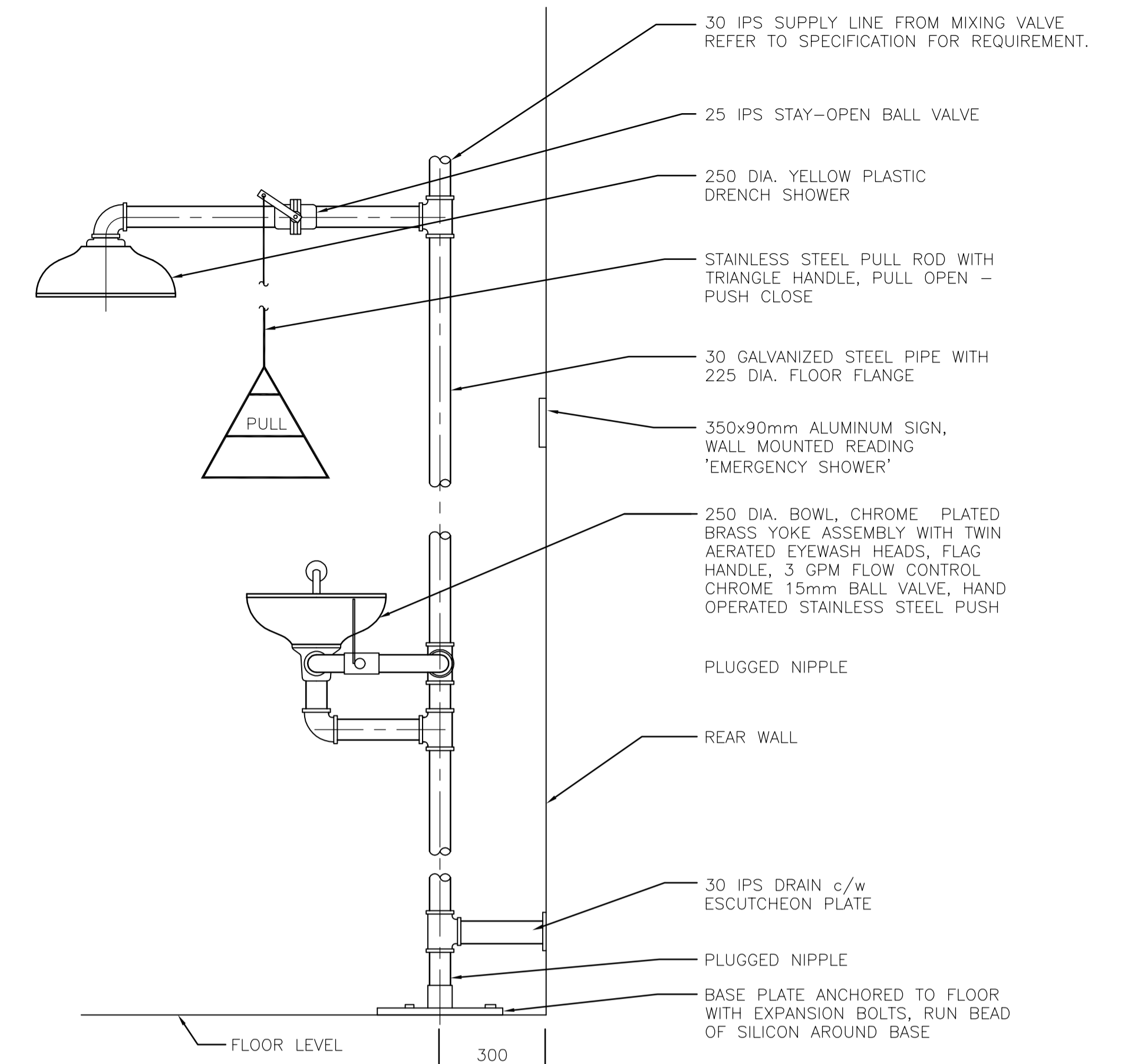
NOTE: PUMP TO BE SUSPENDED USING SPRING ISOLATION DAMPERS



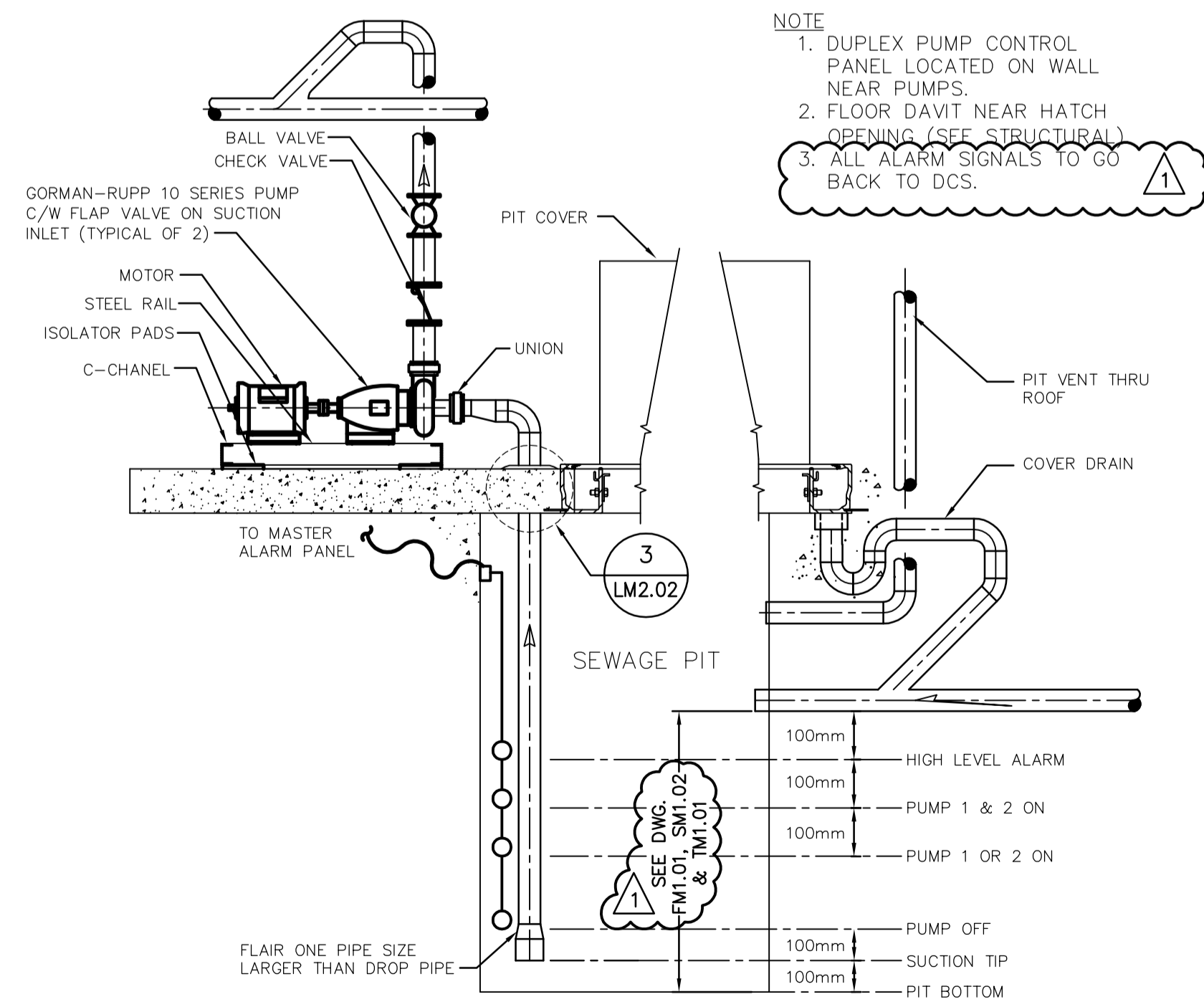
2 VERTICAL INLINE PUMP DETAIL
LM2.01 SCALE N.T.S.



3 BASE MOUNTED PUMP DETAIL
LM2.01 SCALE N.T.S.

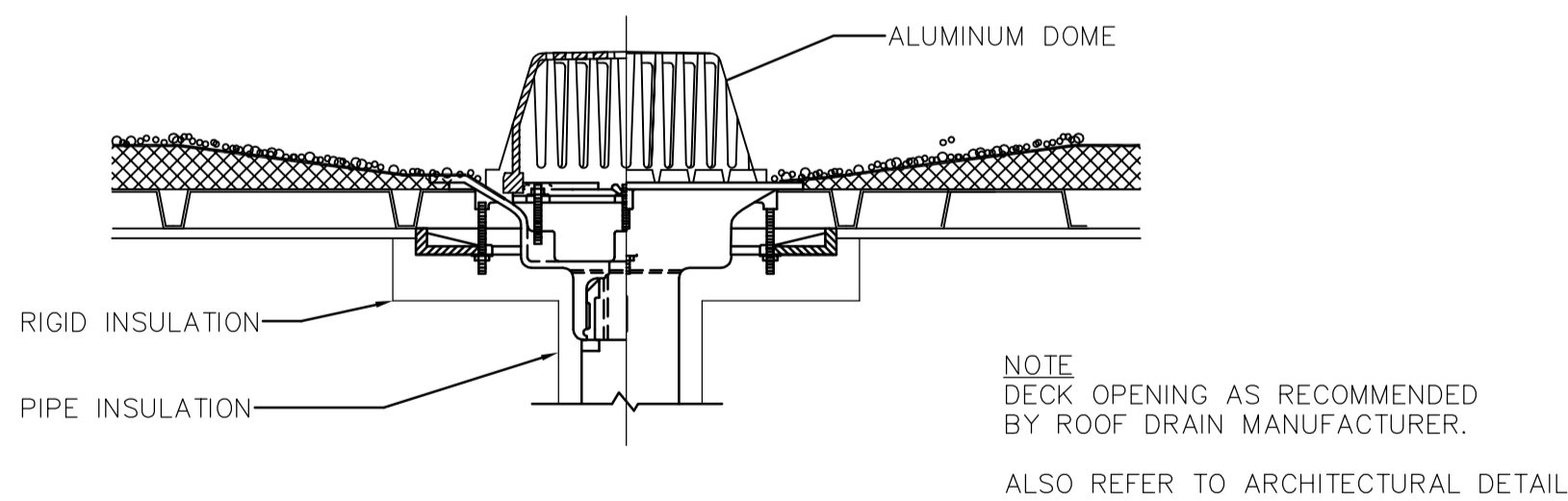


4 COMBINATION DRENCH SHOWER/EYE WASH STATION DETAIL
LM2.01 SCALE N.T.S.

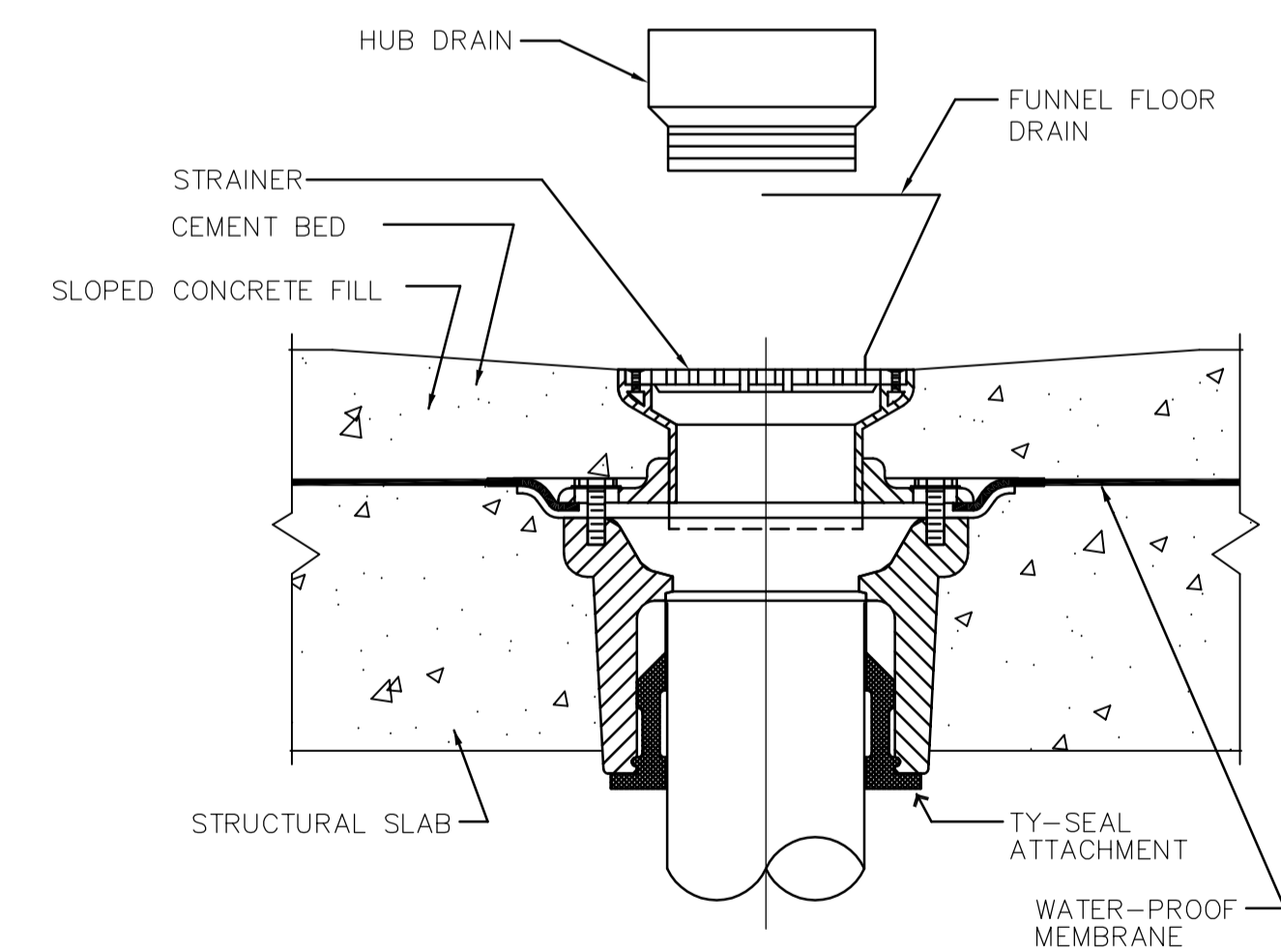


NOTE
 1. DUPLEX PUMP CONTROL PANEL LOCATED ON WALL NEAR PUMPS.
 2. FLOOR DAVIT NEAR HATCH OPENING (SEE STRUCTURAL).
 3. ALL ALARM SIGNALS TO GO BACK TO DCS.

5 SANITARY SUMP DETAIL
LM2.01 SCALE N.T.S.



6 ROOF DRAIN DETAIL
LM2.01 SCALE N.T.S.



7 FLOOR DRAIN DETAIL
LM2.01 SCALE N.T.S.

APEGM
 Certificate of Authorization
 Earth Tech Canada Inc.
 No. 730 Expiry: April 30, 2006

B.M. ELEV.	 A Tyco International Ltd. Company		ENGINEER'S SEAL	 THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT ENGINEERING DIVISION	CITY FILE NUMBER
			ORIGINAL SIGNED BY A. BURACHYNSKY		
DESIGNED BY PT/DC	CHECKED BY PVL	DATE 2006/04/26	CONSULTANT DRAWING NO. LM2.01	MECHANICAL AREA L - GENERAL AND SITEWORKS PLUMBING STANDARD DETAILS	CITY DRAWING NUMBER
DRAWN BY MAF/LJW	APPROVED BY JEH	DATE 2005/12/12	DATE 2006/04/26		