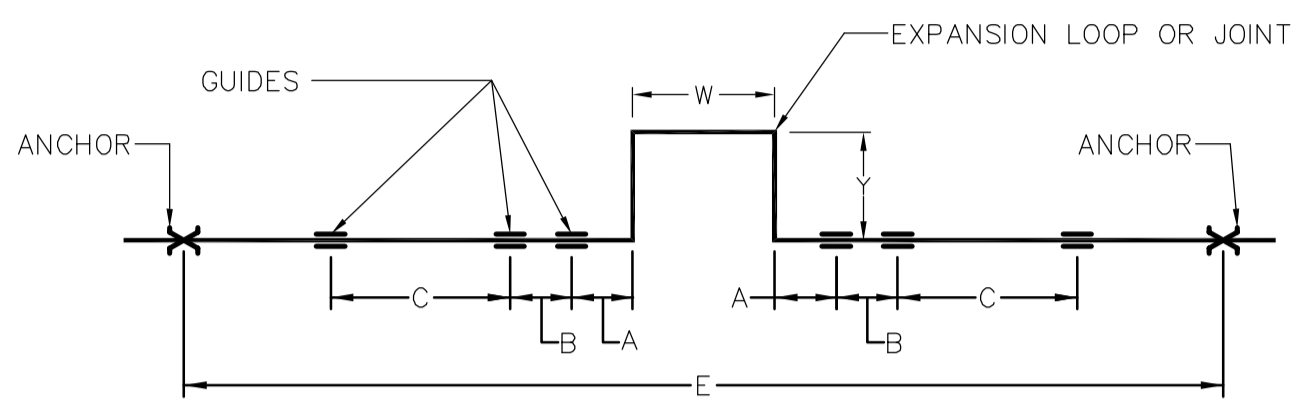


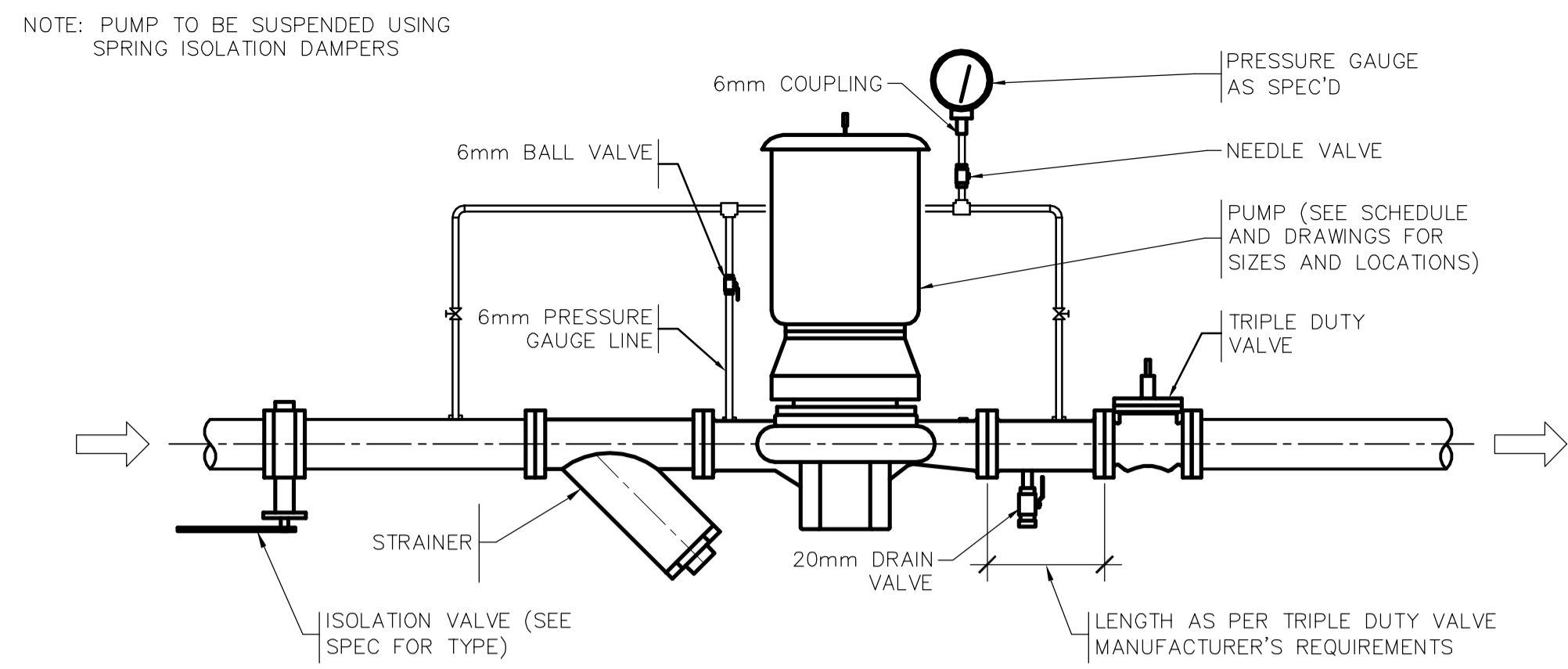
LOOP SIZING DATA

- 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

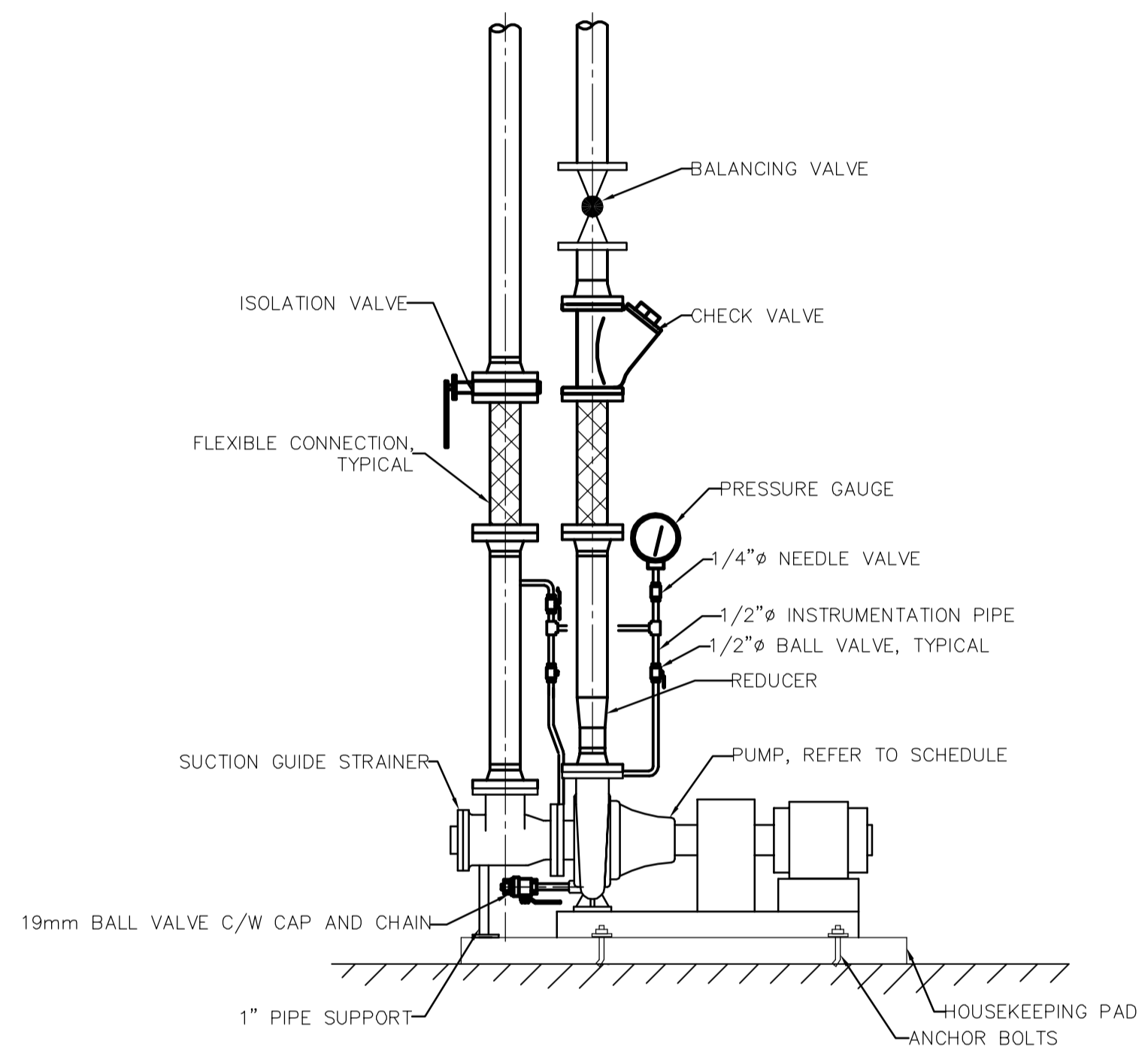


ACTUAL DIA. mm D	PIPE SIZE mm NOMINAL	MAXIMUM DISTANCE mm		MAX. SPACING BETWEEN GUIDES C
		A	B	
33	25	200	600	3000
42	30	200	600	3000
48	40	200	900	4500
60	50	200	900	4500
73	65	250	1200	6000
89	80	300	1200	6000
114	100	400	1500	9000
168	150	600	3000	10500
219	200	750	3000	13500
273	250	1000	3600	18000
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

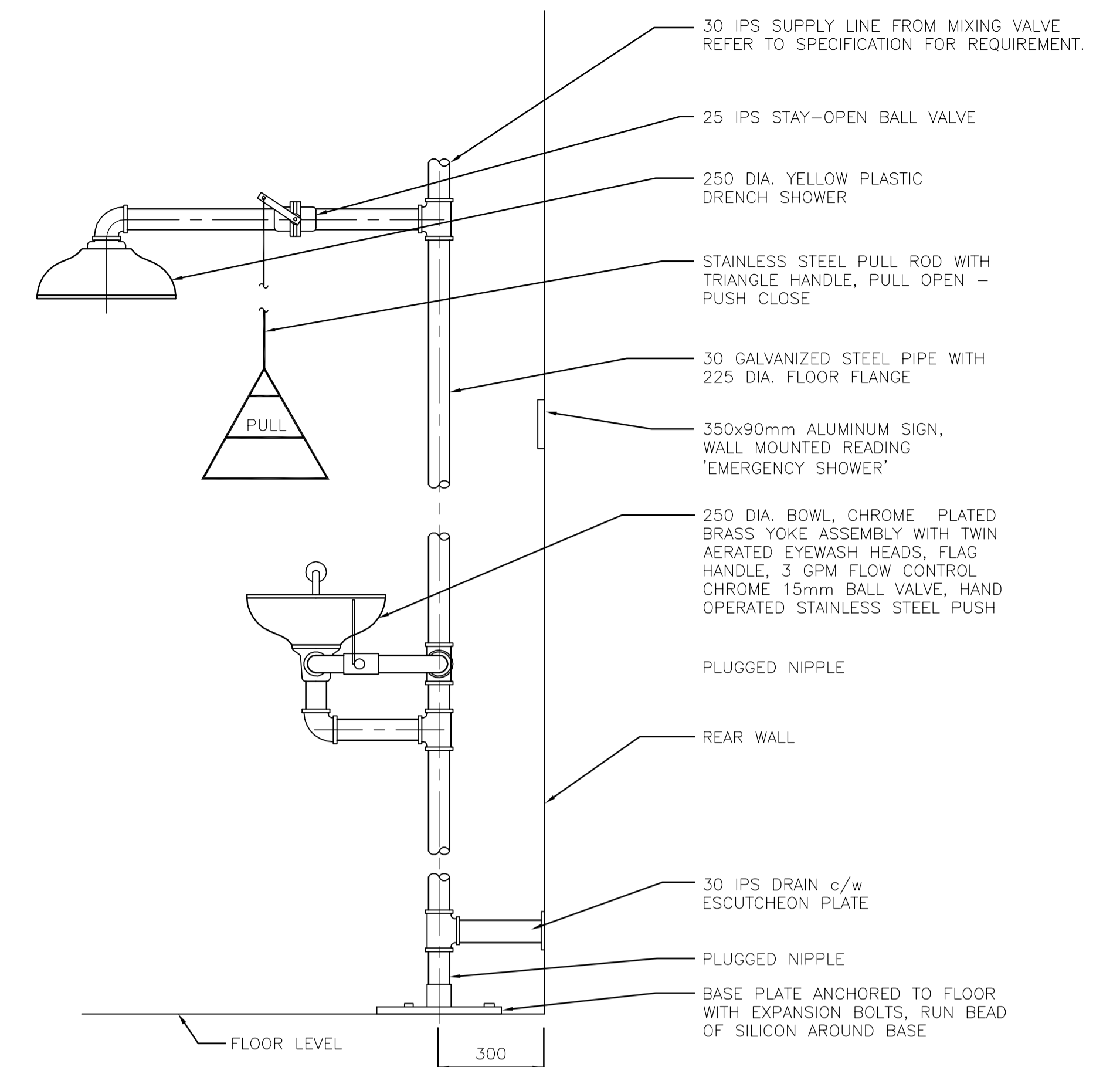
1 EXPANSION COMPENSATION DETAIL
LM2.01 SCALE N.T.S.



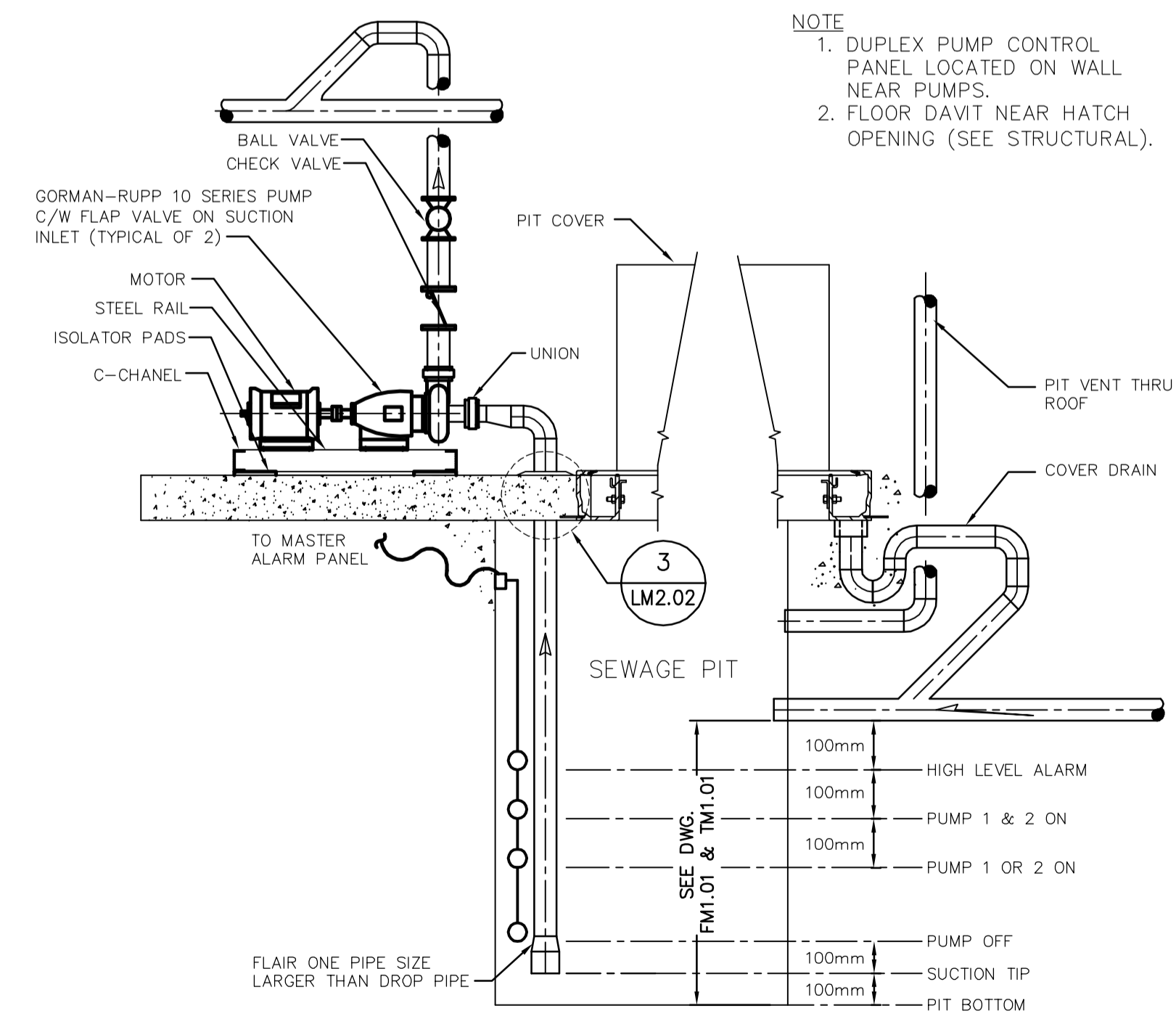
2 VERTICAL INLINE PUMP DETAIL
LM2.01 SCALE N.T.S.



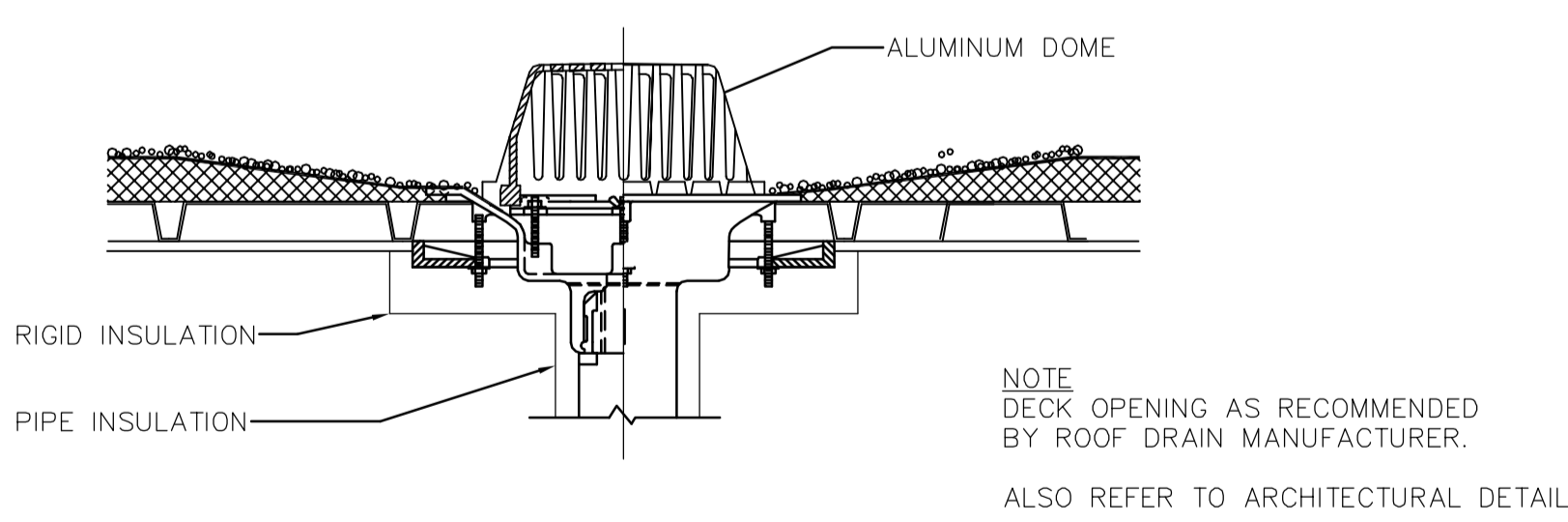
3 BASE MOUNTED PUMP DETAIL
LM2.01 SCALE N.T.S.



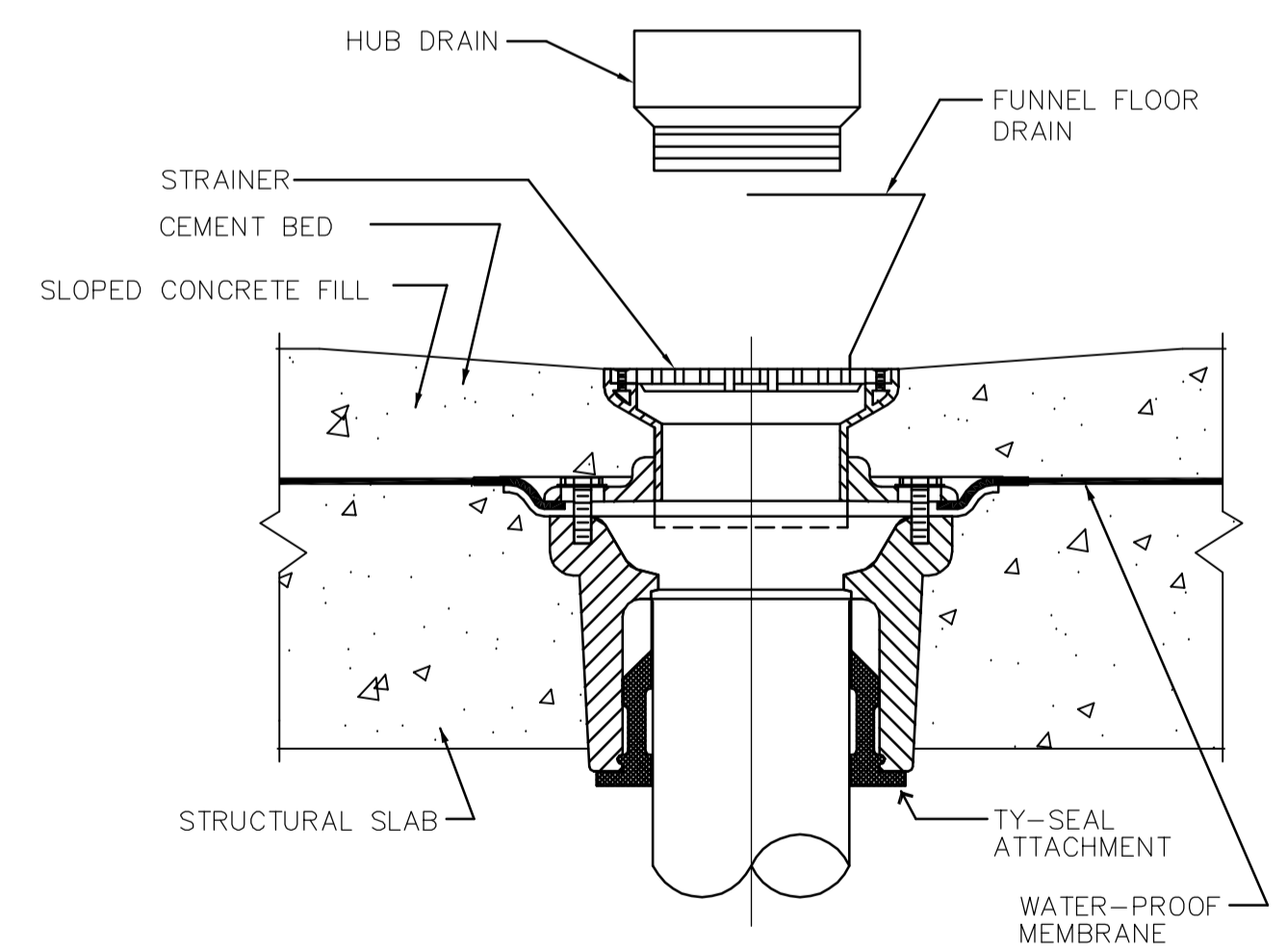
4 COMBINATION DRENCH SHOWER/EYE WASH STATION DETAIL
LM2.01 SCALE N.T.S.



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.					
DESIGNED BY	PT/DC	CHECKED BY	PVL		
DRAWN BY	MAF/LJW	APPROVED BY	JEH		
HOR. SCALE:	AS NOTED	RELEASED FOR CONSTRUCTION BY:	J. VEILLEUX		
VERTICAL SCALE:					
NO. REVISIONS	DATE	BY	DATE	2005/12/12	DATE 2006/04/26
00	ISSUED FOR TENDER	06/04/26	DC		

ENGINEER'S SEAL
ORIGINAL SIGNED BY
A. BURACHYNSKY
2006/04/26
CONSULTANT DRAWING NO.
LM2.01

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION
WEWPCC
BIOLOGICAL NUTRIENT REMOVAL UPGRADE
CONTRACT 3
MECHANICAL
AREA L - GENERAL AND SITWORKS
PLUMBING STANDARD DETAILS
CITY FILE NUMBER
SHEET OF
CITY DRAWING NUMBER