

1. ALL DIMENSIONS IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. CONCRETE THRUST BLOCKS (ANCHORAGE) SHALL BE POSITIONED SYMMETRICALLY WITH RESPECT TO THE CONNECTING PIPE & BENDS.
3. TRENCH DIMENSIONS : REFER TO DRAWING No. STD-W-13.
4. THRUST BLOCKS SHALL BEAR ON UNDISTURBED SOIL. IF FOR ANY REASON THEY CANNOT THEN THE DEVELOPER SHALL NOTIFY IRISH WATER IMMEDIATELY WITH A PROPOSED SOLUTION.
5. THRUST BLOCK REINFORCEMENT REQUIRES SPECIFIC DESIGN.
6. FOR TEST PRESSURES GREATER THAN 18 BAR, THRUST BLOCK DESIGN IS TO BE SUBMITTED TO IRISH WATER FOR REVIEW.
7. THRUST BLOCKS ARE DESIGNED FOR AN AVERAGE BEARING PRESSURE OF 100 KN/m<sup>2</sup> (TYPICAL FOR SOFT CLAY) FOR OTHER CONDITIONS, ACTUAL DIMENSIONS MAY BE ALTERED ON INSTRUCTIONS FROM IRISH WATER.
8. CONCRETE IN THRUST BLOCKS SHALL BE GRADE C20/25.
9. COMPRESSIBLE FILLER FOR CONCRETE PROTECTION TO BE IN ACCORDANCE WITH BS EN 622-1 AND BS EN 622-4. BITUMINOUS MATERIAL SHALL NOT BE PUT IN CONTACT WITH PLASTIC PIPES. THE THICKNESS OF COMPRESSIBLE FILLER FOR MAINS < 450mm IN DIAMETER IS TO BE 18mm.
10. CONCRETE THRUST BLOCKS FOR POLYETHYLENE PIPE TO COMPLY WITH THE MANUFACTURERS REQUIREMENTS.
11. POLYETHYLENE PIPES SHALL BE WRAPPED IN PLASTIC SHEETING HAVING A COMPOSITION IN ACCORDANCE WITH BS 6076 BEFORE BEING CAST INTO CONCRETE.
12. ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206.

**TABLE OF DIMENSIONS FOR STEEPLY INCLINED PIPELINES**

GRADIENT	SPACING
1 IN 2 & STEEPER	5.5m
BELOW 1 IN 2 TO 1 IN 4	11.0m
1 IN 4 TO 1 IN 5	16.6m
1 IN 5 TO 1 IN 6	22.0m

**< 12 BAR TEST PRESSURE**

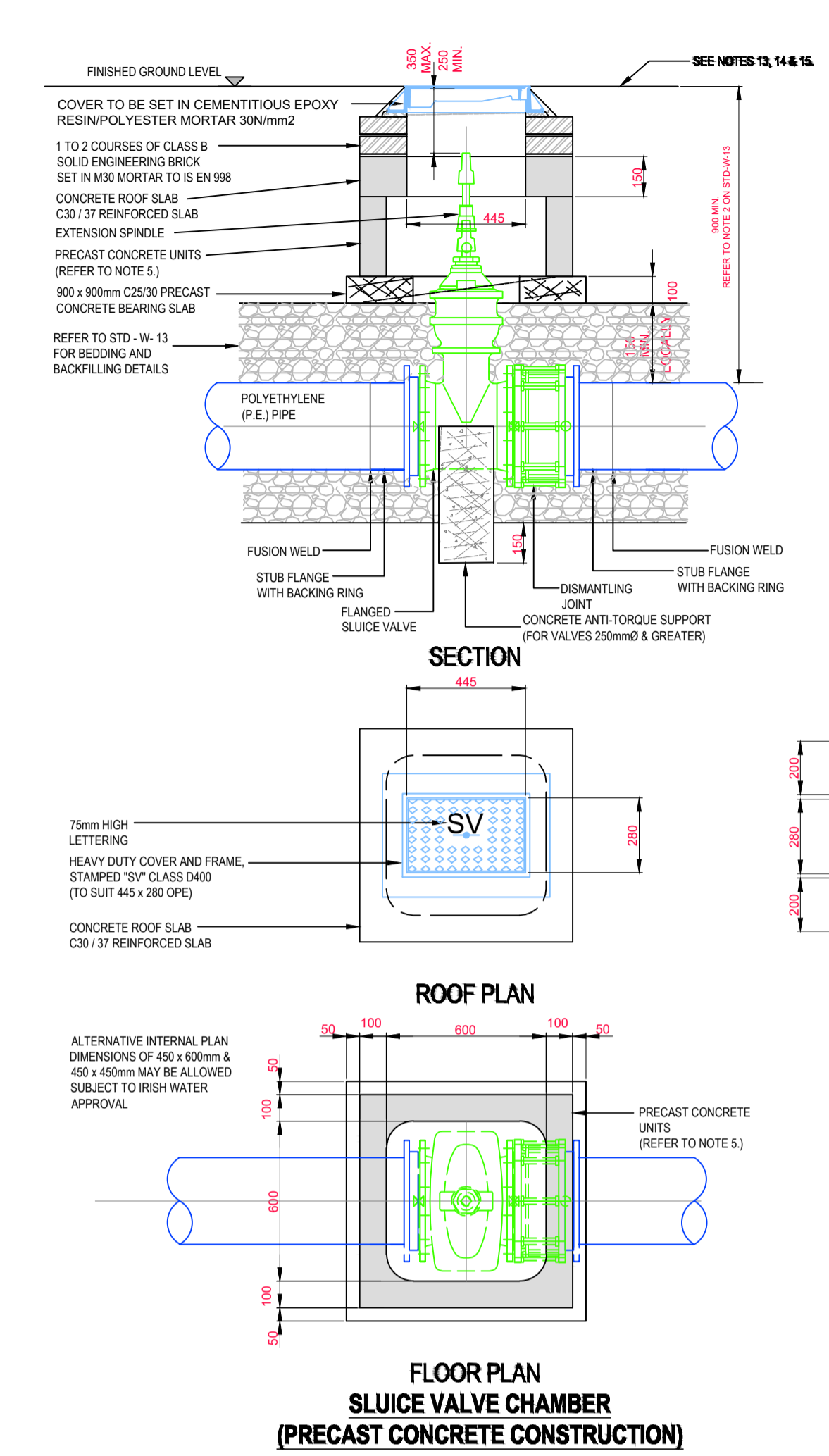
NOM. DIA. (mm)	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	
100	600	330	160	80	200	350	300	700	600	400	
150	950	510	260	130	225	450	680	900	750	600	

**12 BAR TO 15 BAR TEST PRESSURE**

NOM. DIA. (mm)	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	
100	700	380	190	100	200	350	510	750	600	400	
150	1135	620	320	160	225	450	760	950	750	600	

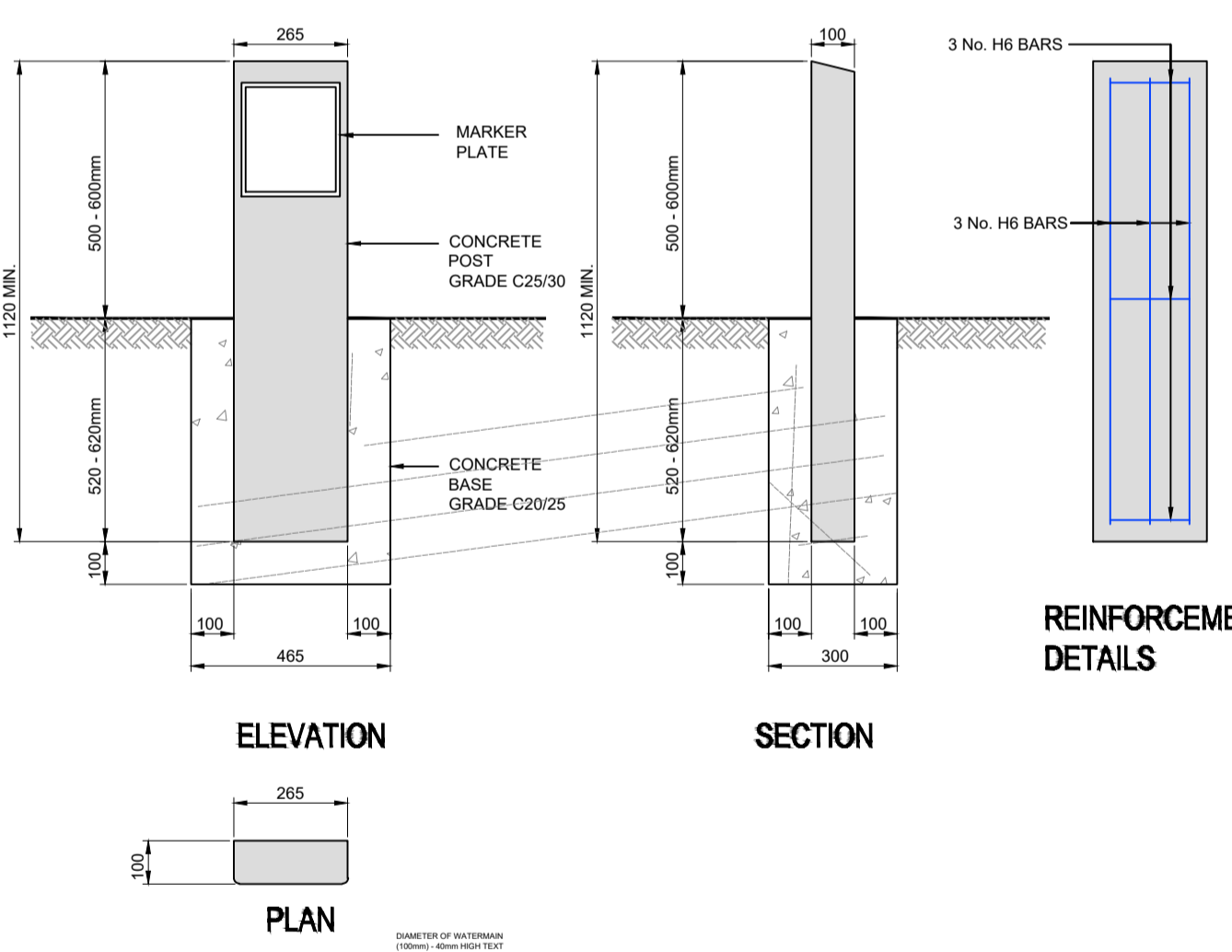
**15 BAR TO 18 BAR TEST PRESSURE**

NOM. DIA. (mm)	DIMENSIONS										
	A	B	C	D	E	F	G	H	J	K	
100	750	400	205	100	220	400	530	800	650	400	
150	1250	700	350	180	250	500	890	1000	850	650	

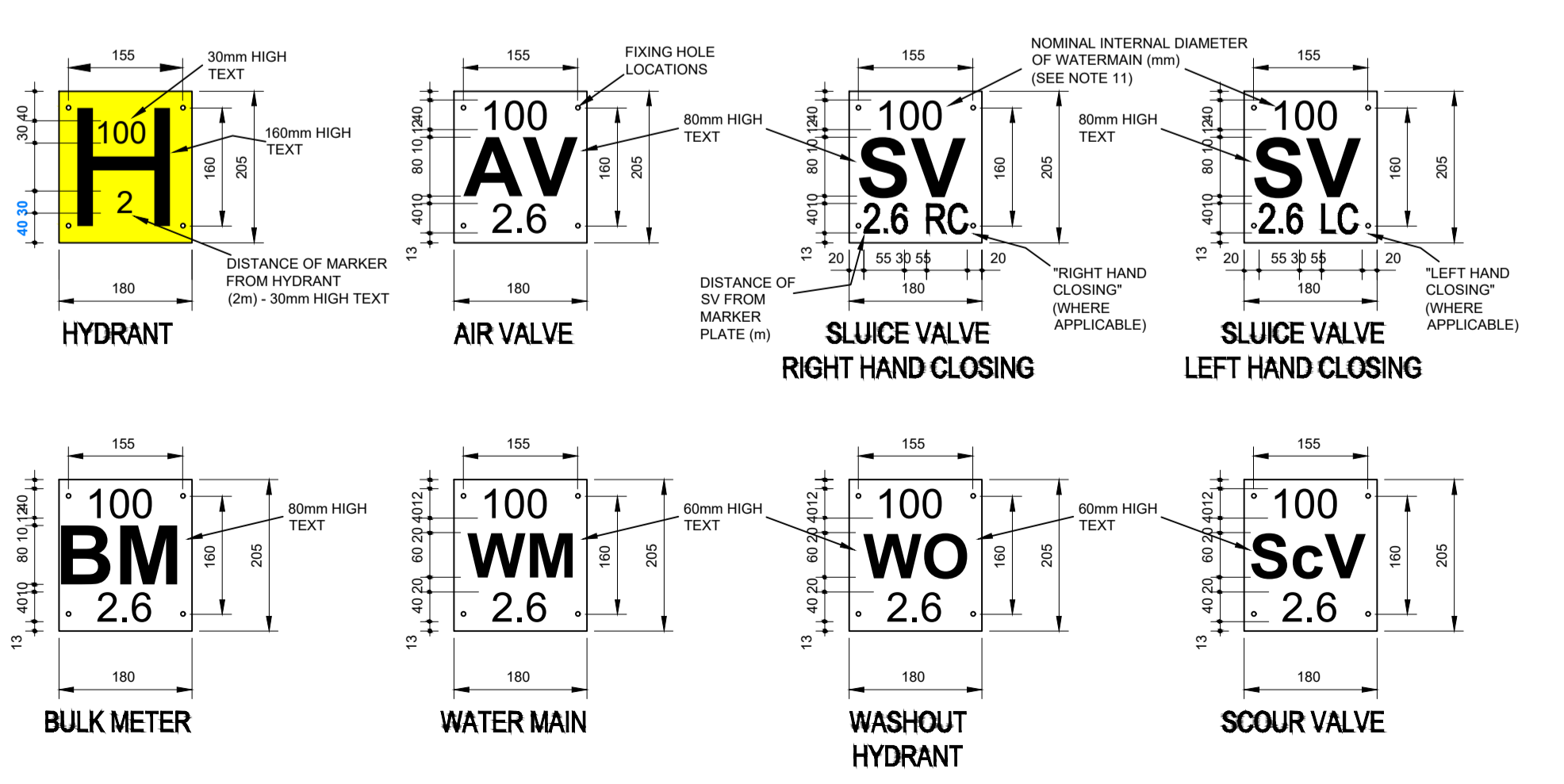


**Health and Safety:**  
THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS, THE SPECIFICATION AND THE SAFETY AND HEALTH PLAN.  
THE APPOINTMENT OF THE PROJECT SUPERVISOR DESIGN PROCESS IS THE CLIENT'S RESPONSIBILITY.  
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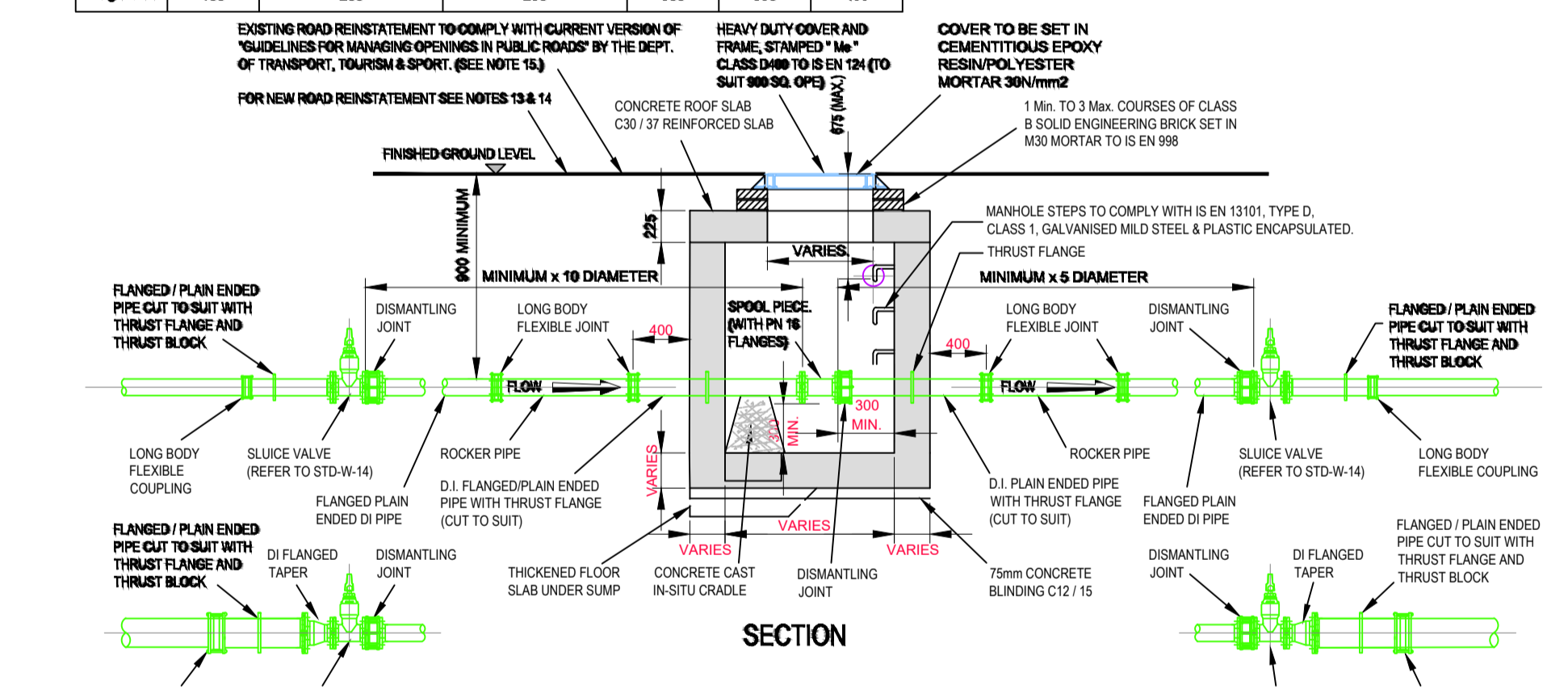
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1. NO PART OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR STORED IN ANY RETRIEVAL SYSTEM OF ANY NATURE WITHOUT THE WRITTEN PERMISSION OF MALONE O'REGAN CONSULTING ENGINEERS AS COPYRIGHT HOLDER EXCEPT AS AGREED FOR USE ON THE PROJECT FOR WHICH THE DRAWING WAS ORIGINALLY ISSUED.  
2. THE APPOINTMENT OF THE PROJECT SUPERVISOR DESIGN PROCESS IS THE CLIENT'S RESPONSIBILITY.  
3. ALL DIMENSIONS IN mm UNLESS NOTED OTHERWISE.  
4. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. DISCREPANCIES SHALL BE REPORTED TO THIS OFFICE IN WRITING.  
5. THIS DRAWING TO BE READ IN ACCORDANCE WITH ALL RELEVANT ENGINEERS' DRAWINGS AND SPECIFICATIONS.



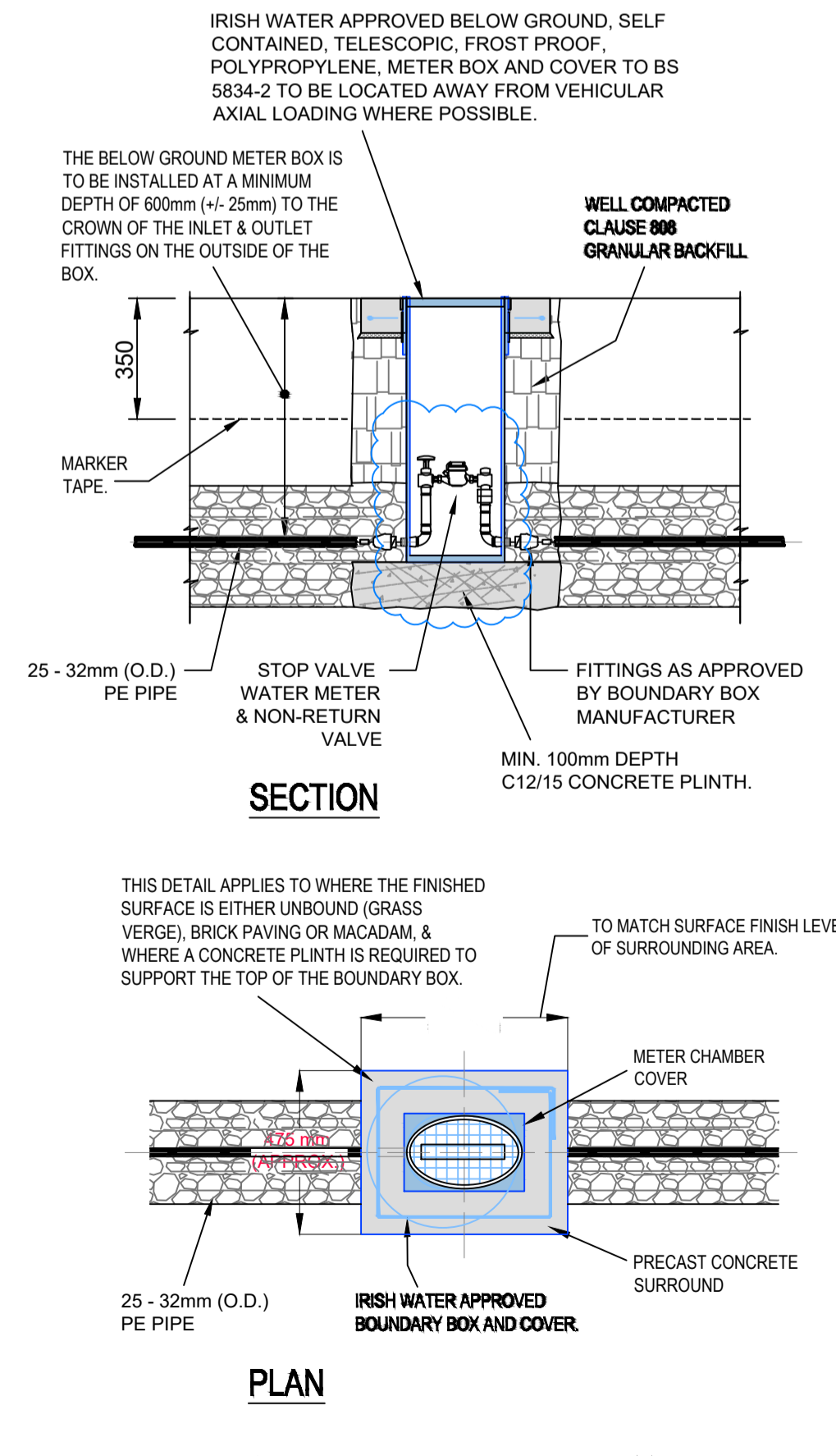
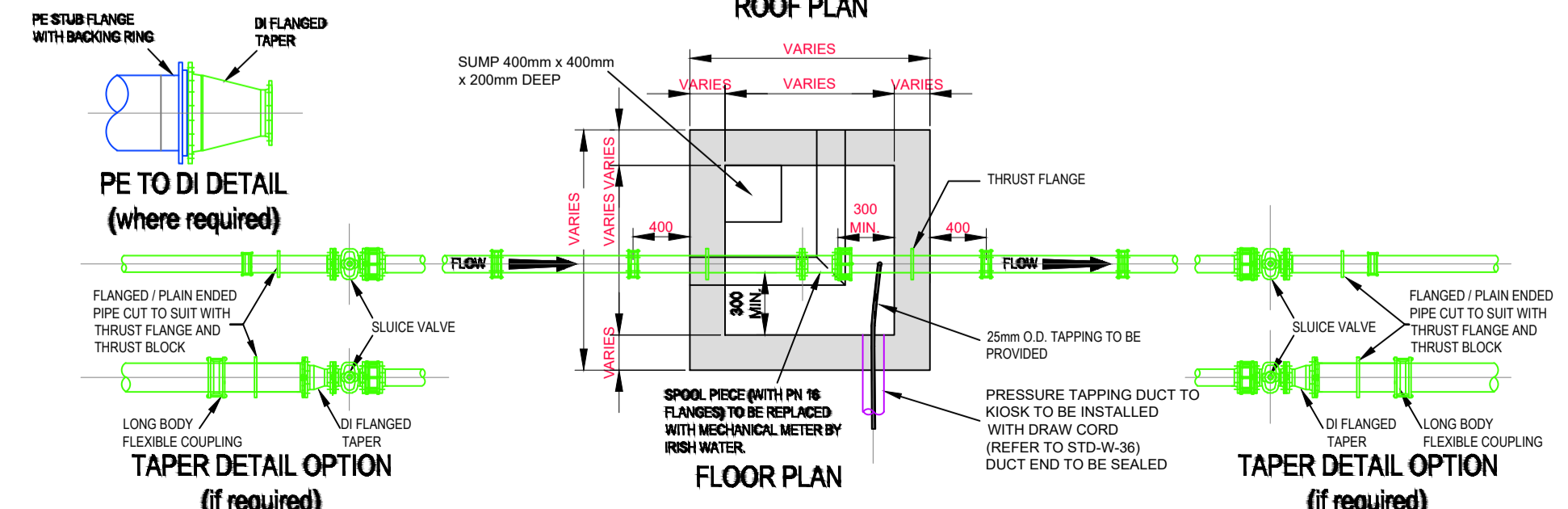
1. WHERE PRACTICAL MARKER PLATES SHALL BE FIXED TO ADJACENT WALLS OR ALTERNATIVELY ATTACHED TO MARKER POSTS.
2. PLATES TO BE FIXED IN POSITION USING WALL PLUGS AND STAINLESS STEEL SCREWS.
3. MARKER PLATES TO BE MANUFACTURED IN ACCORDANCE WITH BS 889.
4. FOR HYDRANT PLATE ALL CHARACTERS SHALL BE BLACK AND THE REMAINDER OF THE FRONT FACE SHALL BE YELLOW FOR CLEAR REFERENCE FOR ALL.
5. PIPE DIMENSIONS FOR HYDRANT PLATE TO REFER TO WATER MAIN NOT BRAND.
6. SLUISE VALVE, AIR VALVE, STOP VALVE AND NON-RETURN VALVE, ETC. SHALL BE CAST ALUMINIUM. ALL CHARACTERS SHALL BE BLACK ON WHITE PAINT BACKGROUND. ALTERNATIVE MATERIAL MAY BE USED SUBJECT TO ACCEPTANCE BY IRISH WATER.
7. CONCRETE MARKER POST TO BE DIMENSIONS 100 AND IN ACCORDANCE WITH BS 889/89.
8. CONCRETE BASE TO BE GRADE C20/25.
9. PLASTIC MARKER POSTS ARE NOT ACCEPTABLE.
10. PAINTING SPECIFICATION: 2 PACK EPOXY PRIMER @ 40 MICRONS FOLLOWED BY 2 PACK HIGH GLOSS POLYURETHANE TOPCOAT APPLIED AT 40 MICRONS.
11. REFERENCES TO PIPE DIMENSIONS ON MARKER PLATES REFER SPECIFICALLY TO THE NOMINAL INTERNAL DIAMETER OF THE PIPE. INDIVIDUALS OF PIPE WATER.



Ø mm	DN40	DN50	DN80	DN100	DN125	DN150	DN200	DN250
Length mm	150	200	250	300	350	400	450	500



METER DIAMETER 'A' (mm)	INTERNAL CHAMBER DIMENSIONS	COVER DIMENSIONS	FLOOR SLAB DEPTH	WALL THICKNESS
40 - 65	450 x 600 (up to 750mm deep)	280 x 445	100mm	100mm
80 - 100	1200 x 1200 (> 750mm deep)	750 x 750	200mm	200mm
125 - 200	1500 x 1500	900 x 900	250mm	250mm



25-32mm O.D. Ø INLINE WATER METER CHAMBER DETAILS

Rev.	Description	Date	Drawn	Chkd	Appr
P1	PLANNING APPLICATION	19.02/'24	GL	CC	COB
P1	PLANNING APPLICATION	20.09/'23	GL	JK	COB

THIS DRAWING TO BE USED FOR PLANNING PURPOSES ONLY

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Client: **NOEL FRISBY CONSTRUCTION LTD.**

Job: **STUDENT ACCOMODATION AT CORK ROAD, WATERFORD**

Drawing: **SITE DEVELOPMENT DETAILS SHEET 1**

Job No	Drw No	Stage	Revision	Scale
W22076	P860	PL	P1	A1 1:25 A3 1:50