



# SUDS Validation

**EVO Industrial  
Sallow Road,  
Weldon North Industrial Estate,  
Corby**

Revision Ø

2021070

December 2023

## Revision Log

Revision	Description	By	Date
Ø	Initial issue	MA	18 <sup>th</sup> December 2023

## **CONTENTS**

- 1. Introduction**
- 2. Description of Works**
- 3. Validation Report**
- 4. Conclusions**

## **APPENDICES**

- 1 Unit 1 Drawings
- 2 Unit 2 Drawings

## 1 Introduction

### 1.1 Background

Portland Consulting Engineers has previously undertaken a Flood Risk and Drainage Impact Assessment on the site as part of the planning process. Permission reference NC/22/00044/DPA then imposed a condition pertaining to the validation of the drainage installation.

Condition 17 reads:

*The development (or any phase of the development) shall not be occupied until a Verification Report for the installed surface water drainage system for the site has been submitted to and approved by the Local Planning Authority. The Verification Report must be prepared by a suitably qualified drainage engineer.*

### 1.2 Scope of Report

This report details the observations during the construction period and the final inspection. The works were periodically observed by Mark Grant BEng (hons), CEng, MICE, MIStructE.

## 2 Description of works

2.1 The site is situated Sallow Road and Hunters Road in the Weldon North Industrial, Corby with an approximate National Grid reference of SP916903.

2.2 The general principles of the drainage design are shown on drawing 01-005 and 02-005.

2.3 Main carpark area.

The hardstanding drains (away from the building) to the edge of the hardstanding where run-off takes it to a linear drain and then into attenuation crates.

2.4 Service Yard

The hardstanding drains away from the building into a linear drain and then into the attenuation crates.

2.5 Roof

The roof discharges into the attenuation via an underground system.

2.6 The discharge rate from the site is restricted at 90l/sec for unit 1 and 45l/sec for unit 2.

2.6 All of the drainage to this plot will remain the ownership of PBBE Corby BV and maintenance will be the responsibility of maintenance company employed by them.

### 3 Validation Report

#### 3.1 Attenuation for Unit 1

The following photos show the attenuation for Unit 1 being installed.





### 3.2 Attenuation for Unit 2

The following photos show the attenuation for Unit 2 being installed







#### 4 Conclusion

Portland Consulting Engineers visited the site during the works and observed the installation of the drainage features. To the best of our knowledge the installation is in accordance with the drawings.

Matthew Alexander

Portland Consulting Engineers, December 2023

## Appendix 1

Portland Drawing Unit 1 01-005 and 01-008

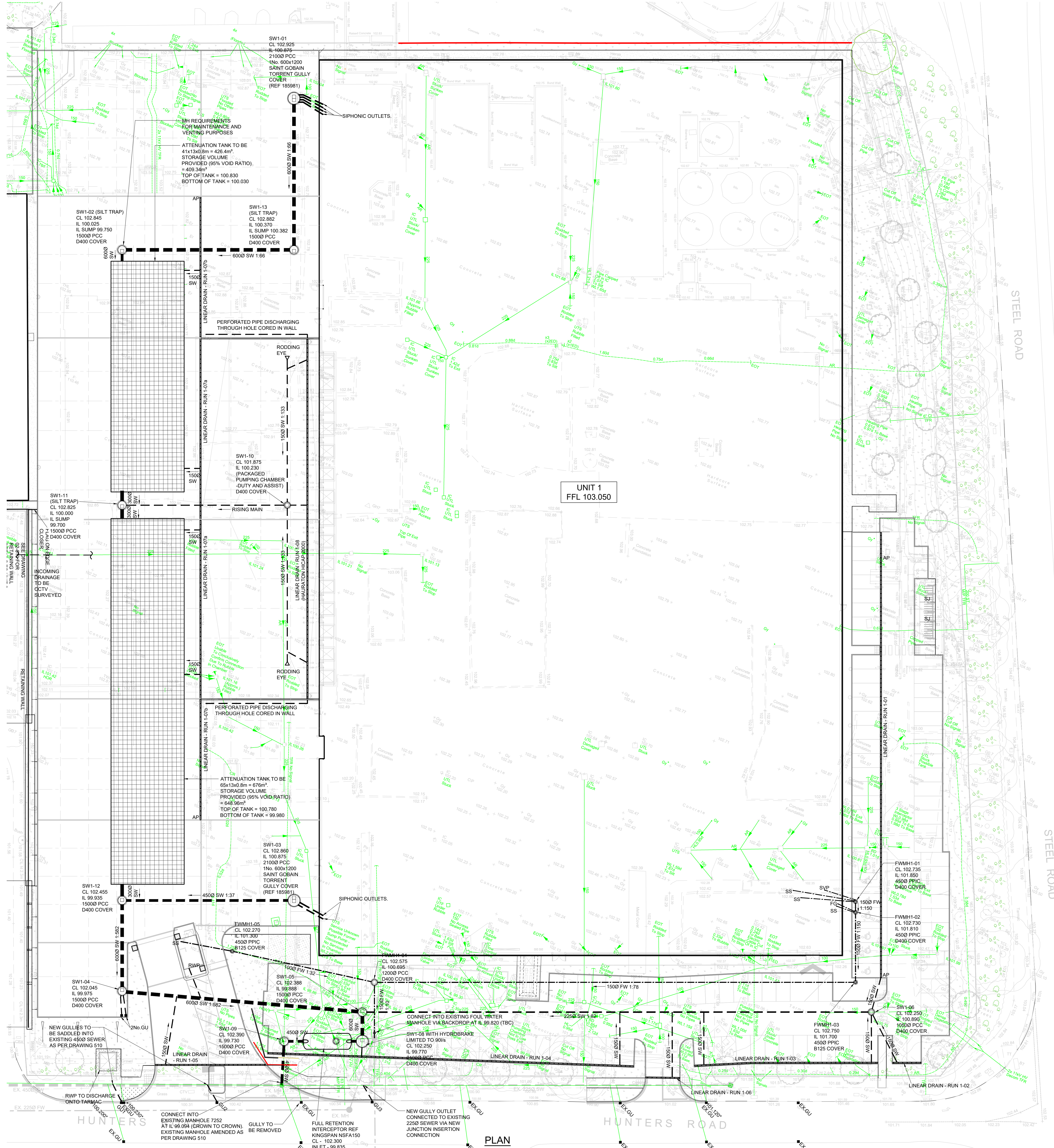
**SEE DRAWING 01-006 FOR EXTERNAL WORKS AND DRAINAGE DETAILS**

**Health and Safety Notes:**  
 The following key residual health and safety risks have not been eliminated by design and are identified below:  
 - Refer to Design Risk Assessment, Ref 2021070-DRA  
 Safe methods and systems of work remain the responsibility of the contractor.  
 This drawing shall be read in conjunction with the following specification: 2021070-SP-01-005 Drainage  
 ALL FOUL WATER BRANCHES TO BE 1000 UNO.  
 ALL PIPES WITH LESS THAN 1.2m COVER FROM FINISHED ROAD LEVEL TO TOP OF PIPE TO BE CONCRETE ENCASED.  
 ALL BRANCHES FROM ROAD GULLIES TO BE 1500.  
 AP = ACCESS POINT FOR LINEAR DRAINAGE

SURFACE WATER MANHOLE SCHEDULE							
REF	C.L.	I.L.	DEPTH (m)	RING DIA (m)	COVER DIMS (mm)	COVER GRADE	REMARKS
SW1-01	102.875	100.875	2.000	2.100	185981	185981	PRE CAST CONCRETE CHAMBER
SW1-02	102.850	100.850	2.000	1.500	600	D400	PRE CAST CONCRETE CHAMBER WITH SILT TRAP
SW1-03	102.875	100.875	2.000	2.000	185981	185981	PRE CAST CONCRETE CHAMBER
SW1-04	102.100	99.935	2.165	1.500	600	D400	PRE CAST CONCRETE CHAMBER
SW1-05	102.355	99.655	2.500	1.500	600	D400	PRE CAST CONCRETE CHAMBER
SW1-06	102.440	100.940	1.500	1.050	600	D400	PRE CAST CONCRETE CHAMBER
SW1-07							NOT USED
SW1-08	102.225	99.845	2.380	2.100	600	D400	PRECAST CHAMBER WITH HYDROBRAKE
SW1-09	102.465	99.745	2.720	1.500	600	D400	PRE CAST CONCRETE CHAMBER
SW1-10	101.895	100.250	1.645	-	600	D400	PACKAGED PUMPING CHAMBER (DUTY AND ASSIST)
SW1-11	102.850	100.850	2.000	1.500	600	D400	PRE CAST CONCRETE CHAMBER WITH SILT TRAP
SW1-12	102.485	99.970	2.515	1.500	600	D400	PRE CAST CONCRETE CHAMBER
SW1-13	102.825	100.825	2.000	1.500	600	D400	PRE CAST CONCRETE CHAMBER WITH SILT TRAP

FOUL WATER MANHOLE SCHEDULE							
REF	C.L.	I.L.	DEPTH (m)	RING DIA (m)	COVER DIMS (mm)	COVER GRADE	REMARKS
FW1-01	102.730	101.830	0.900	0.450	600	D400	PPIC CHAMBER
FW1-02	102.730	101.820	0.910	0.450	600	D400	PPIC CHAMBER
FW1-03	102.780	101.740	1.040	0.450	600	B125	PPIC CHAMBER
FW1-04	102.570	100.655	1.915	1.200	600	D400	PPIC CHAMBER
FW1-05	102.420	101.420	1.000	0.450	600	B125	PPIC CHAMBER



**NOTE: DRAINAGE AND INVERT LEVELS HAVE BEEN UPDATED TO SUIT THE PRE AS-BUILT MARKED UP DRAWING RECEIVED FROM CONTRACTOR DATED 27/11/23.**

**NOTE:** THIS DRAWING SHOWS THE AS BUILT SITUATION. ONLY THOSE CHANGES TO THE CONSTRUCTION ISSUE DRAWINGS PASSED ON TO PCE BY THE CONTRACTOR ARE INDICATED. INFORMATION SHOWN ON THIS DRAWING SHOULD BE CHECKED ON SITE PRIOR TO ANY FUTURE USE OR RELIANCE.

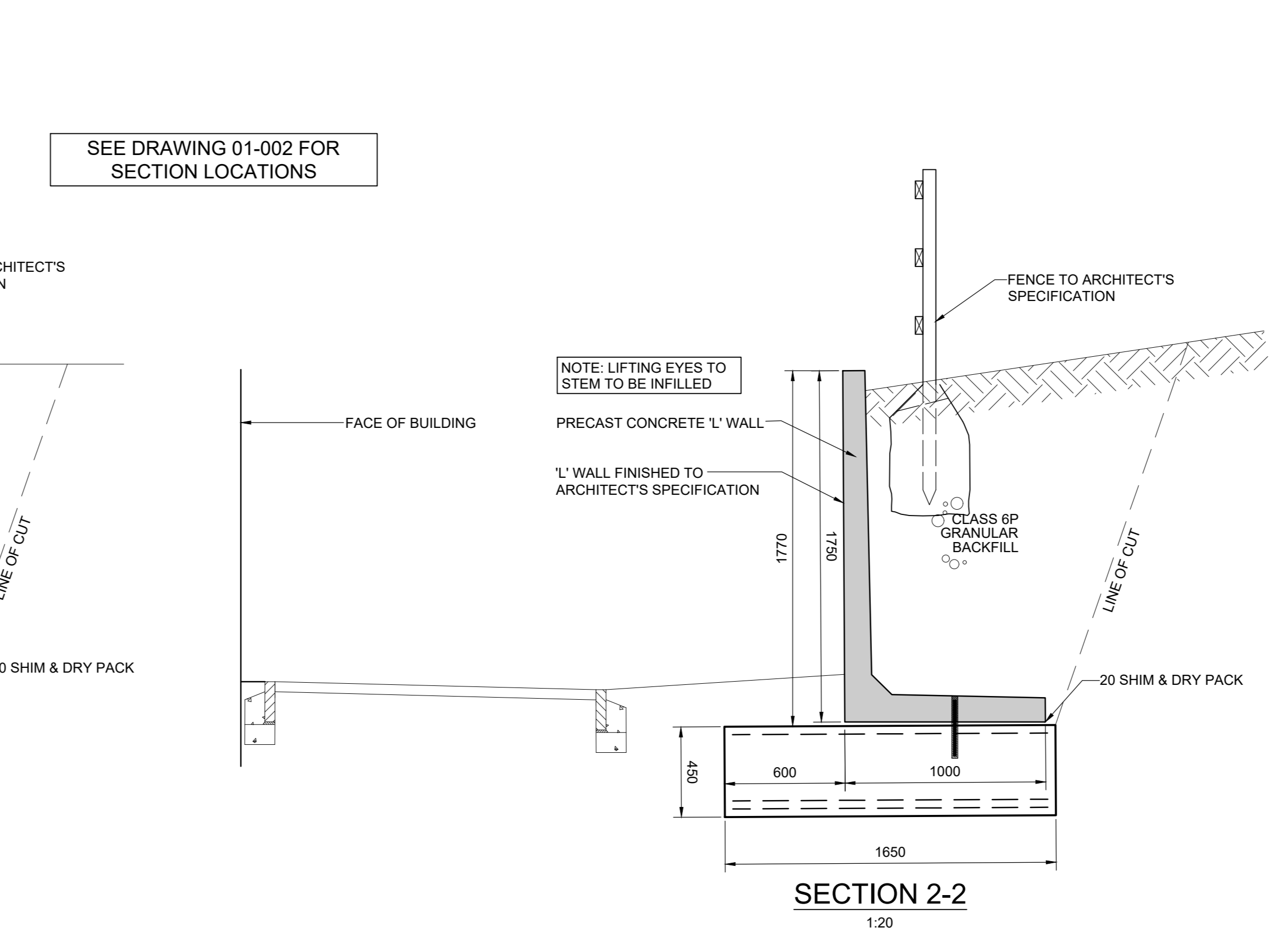
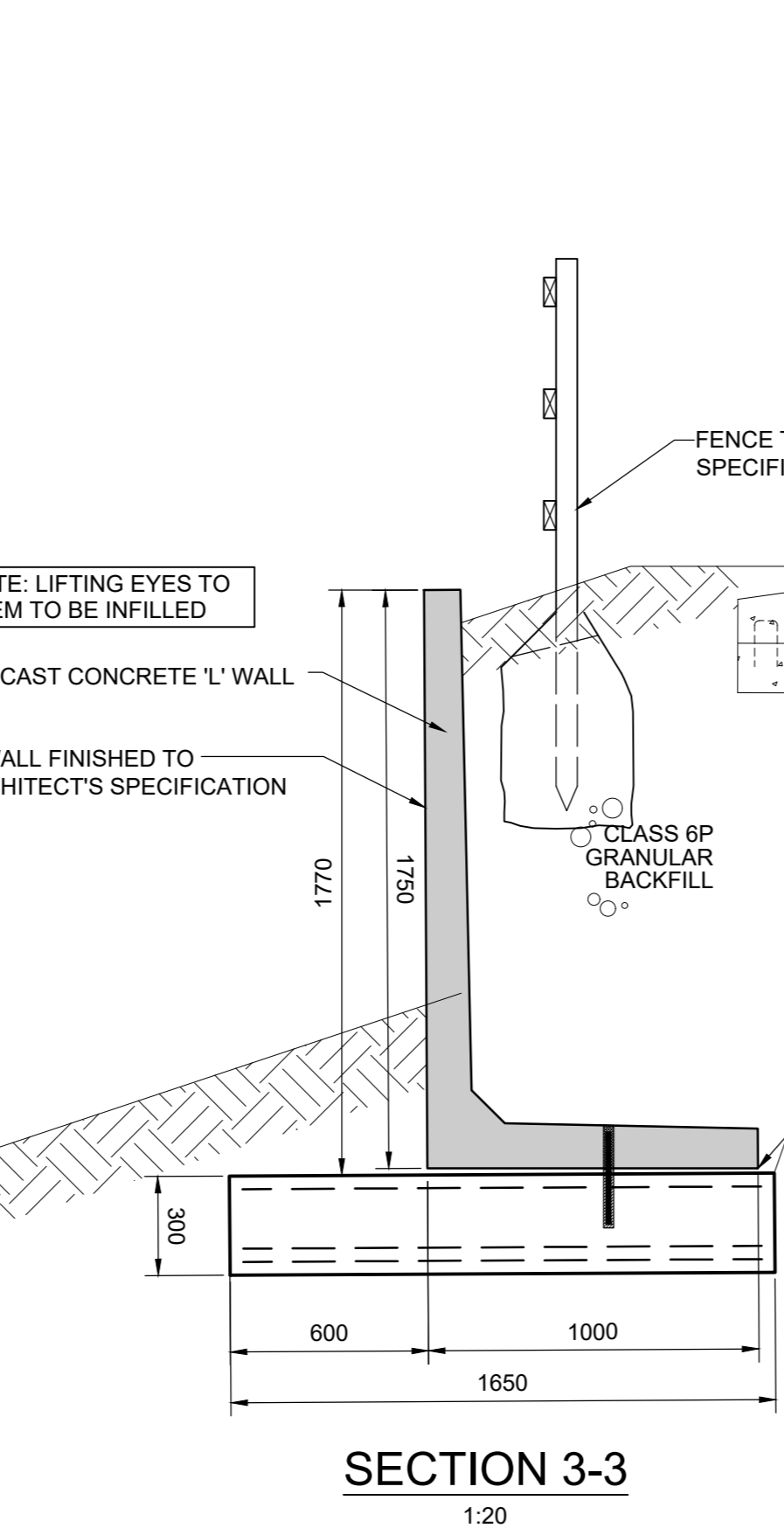
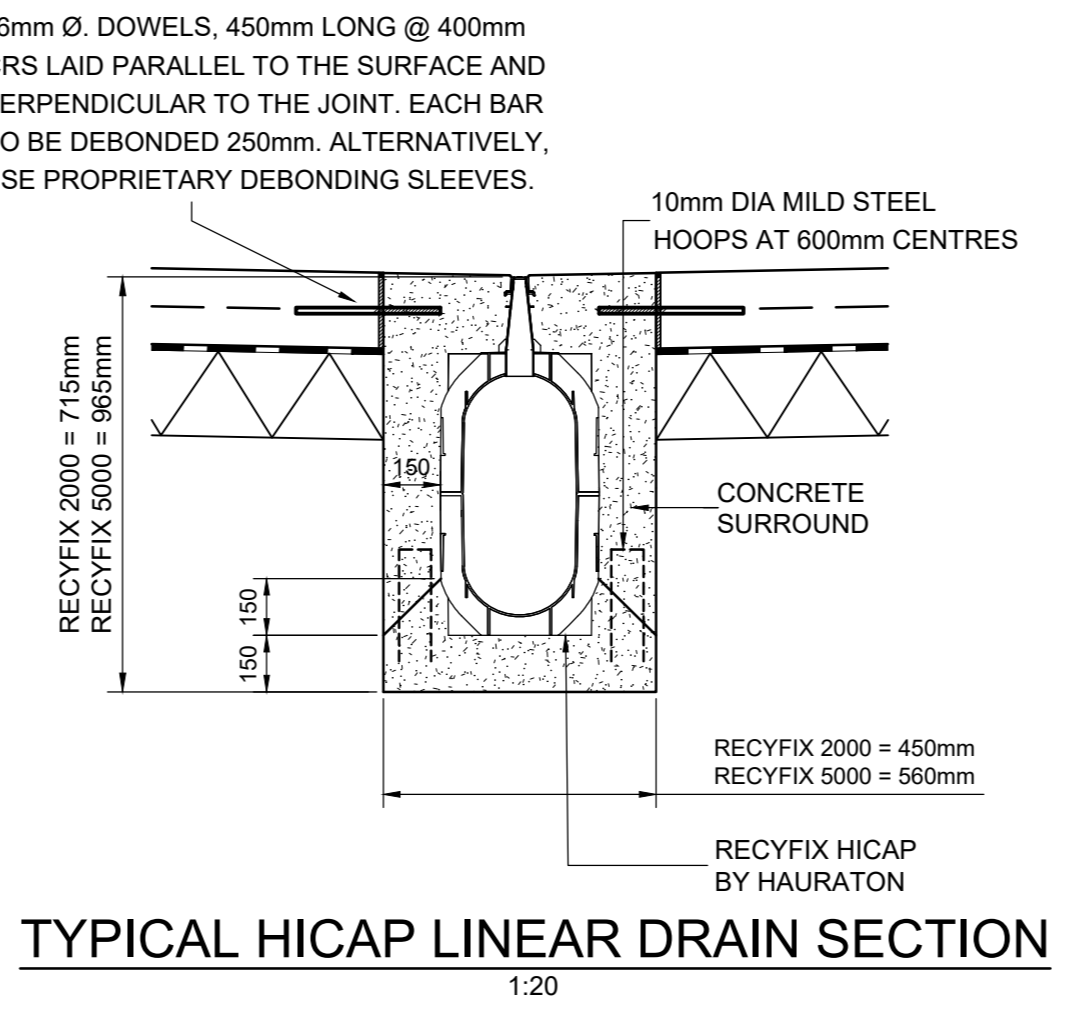
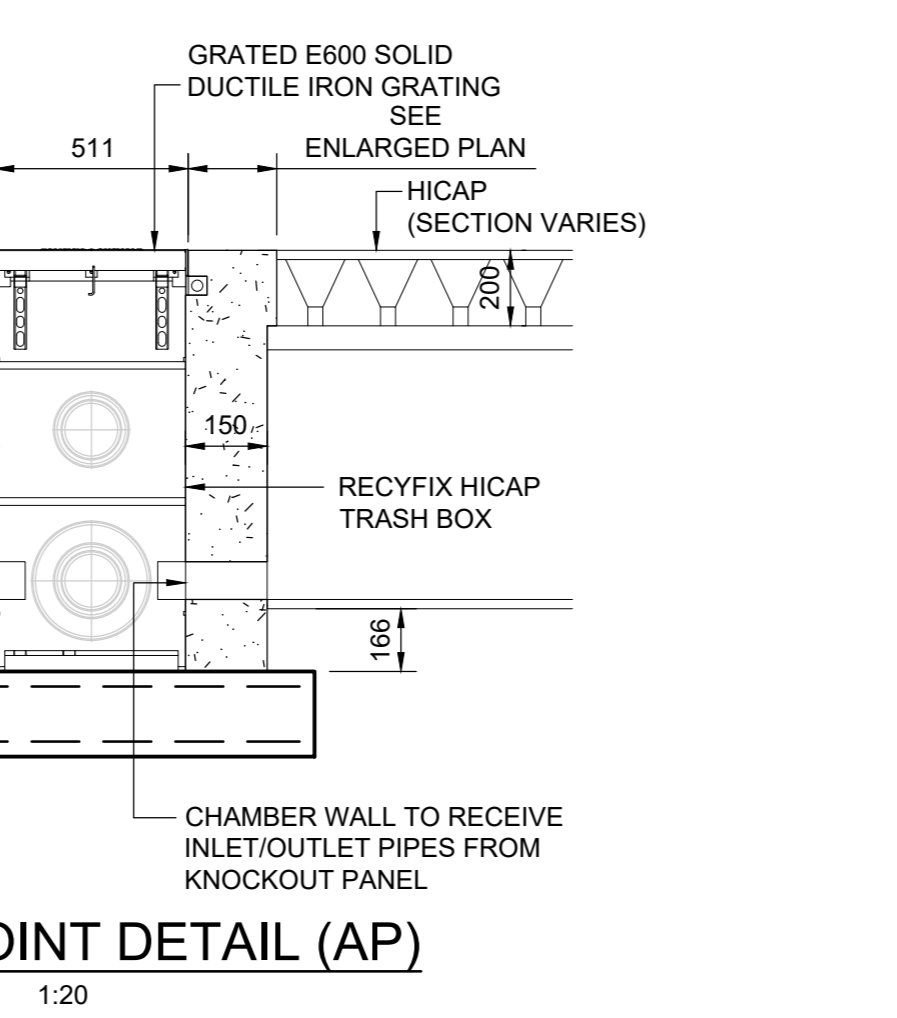
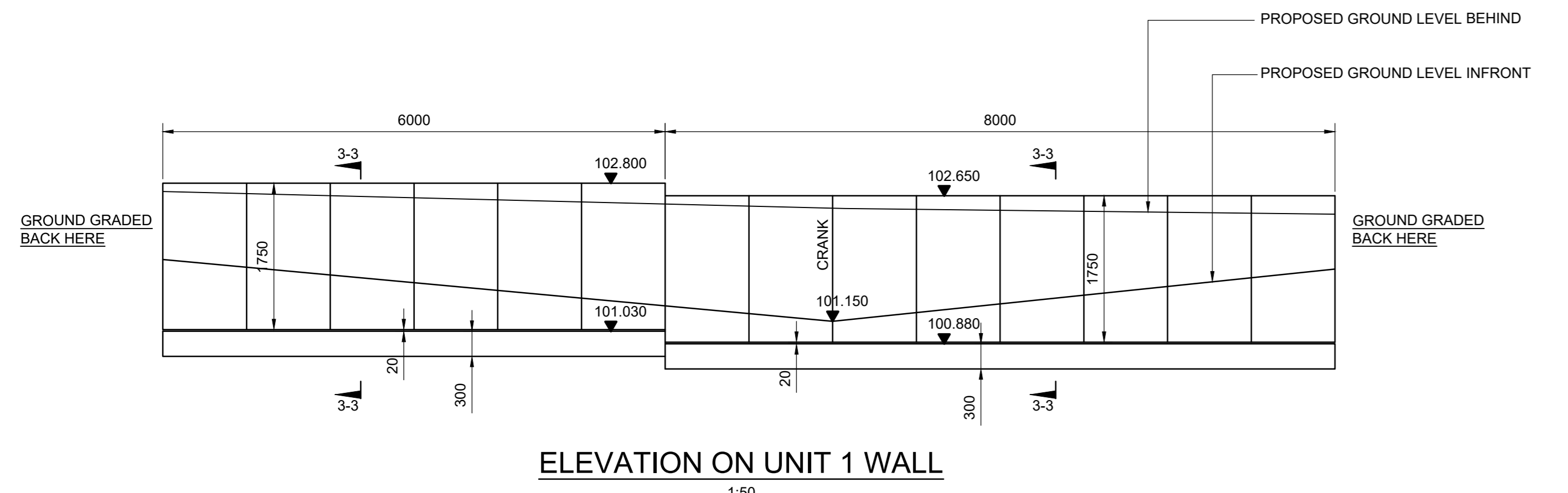
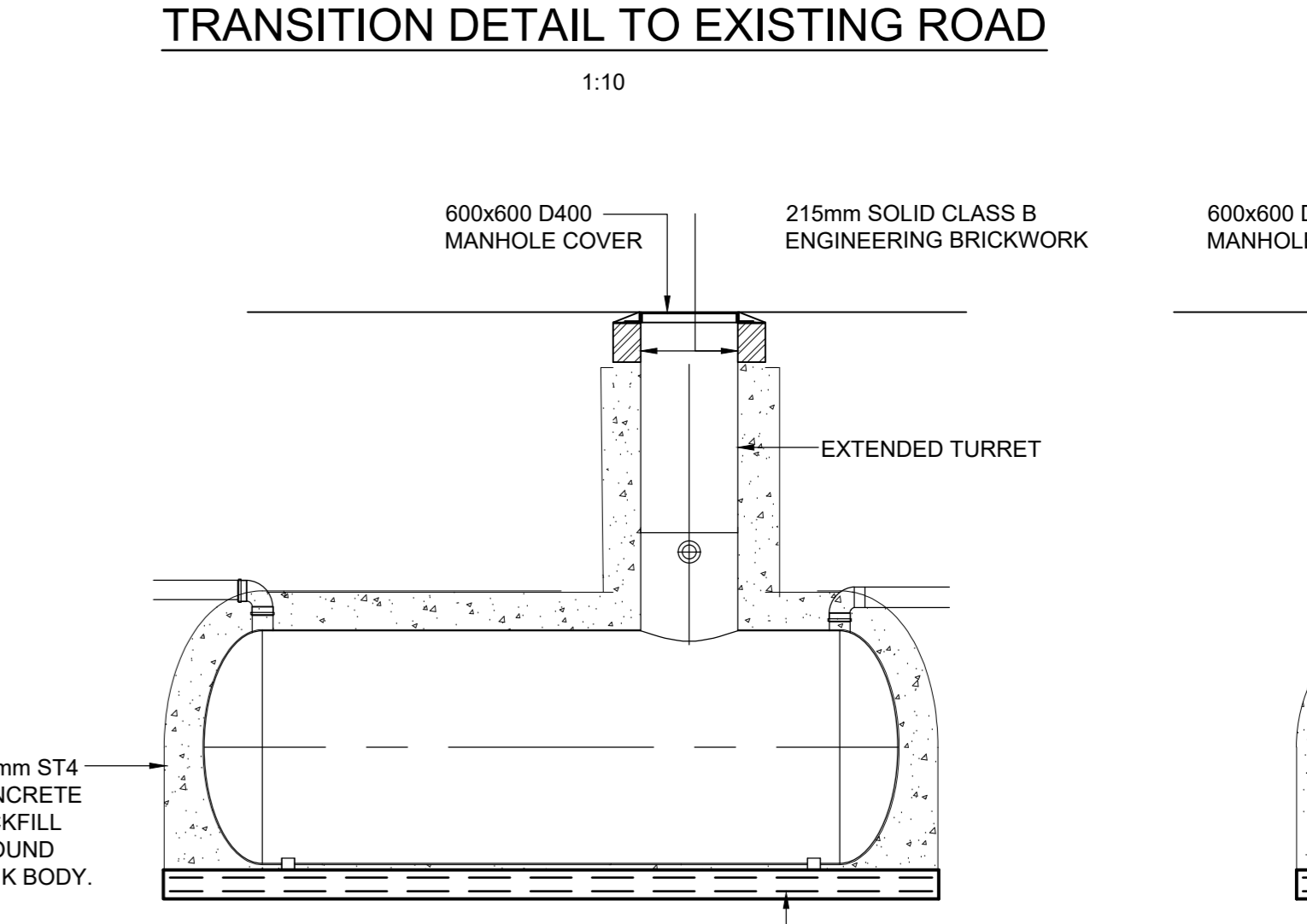
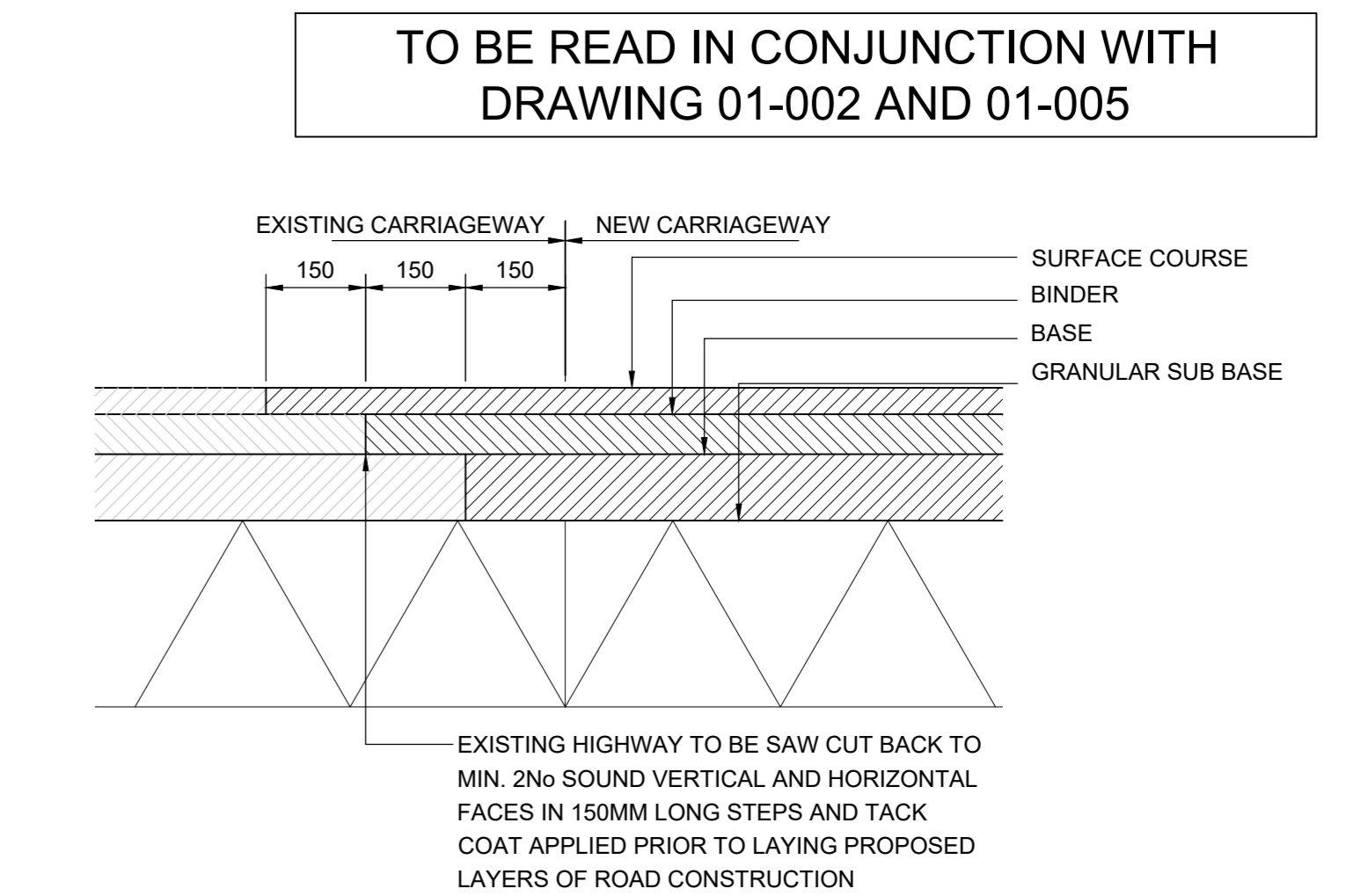
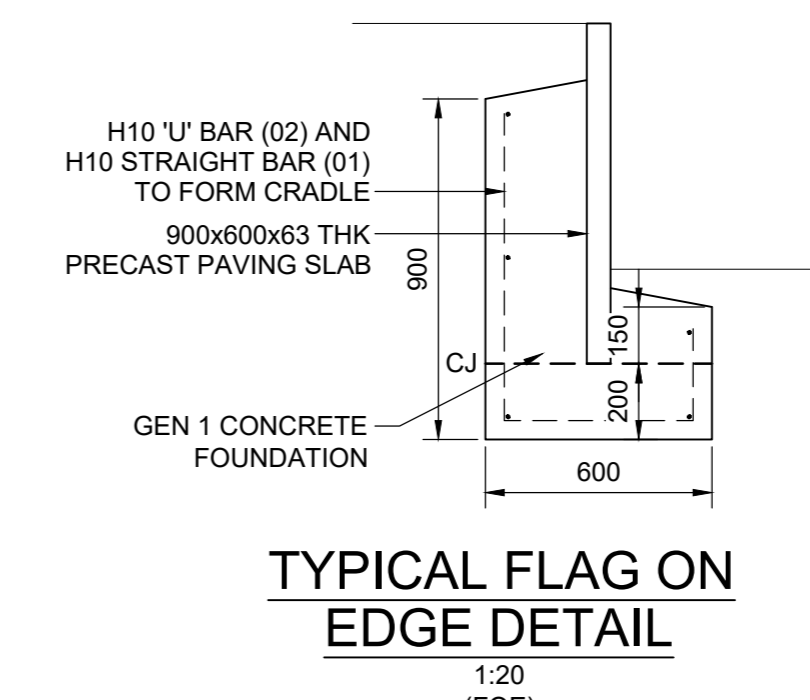
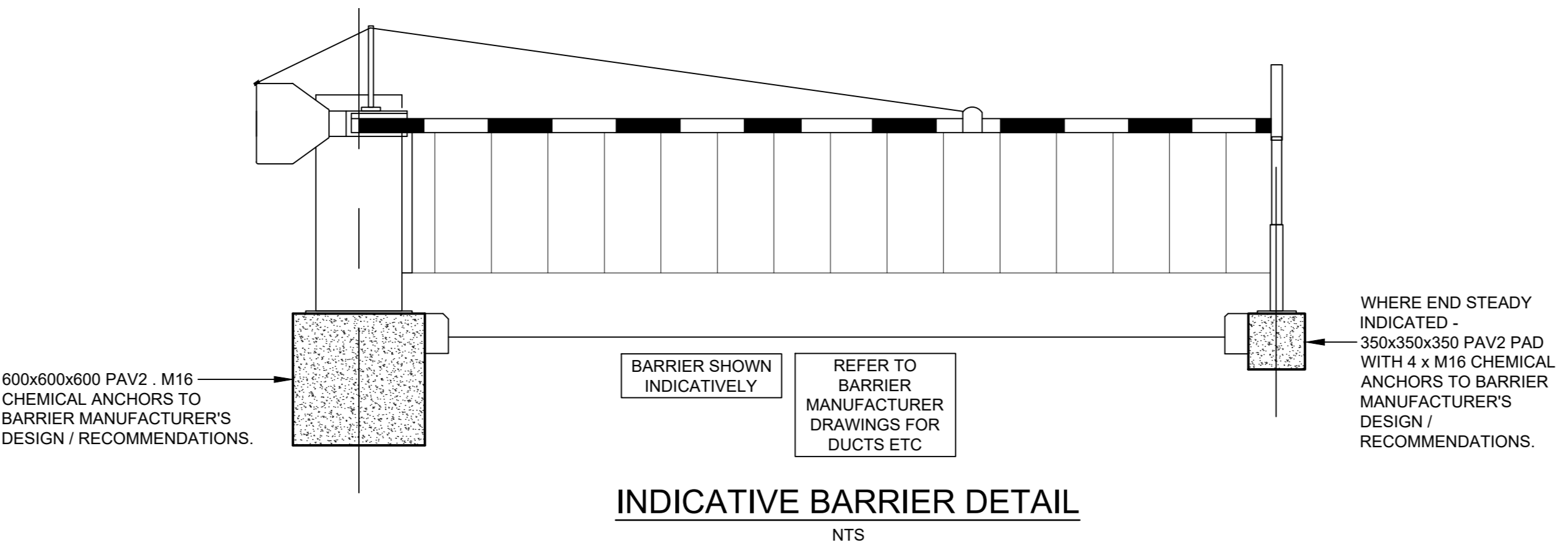
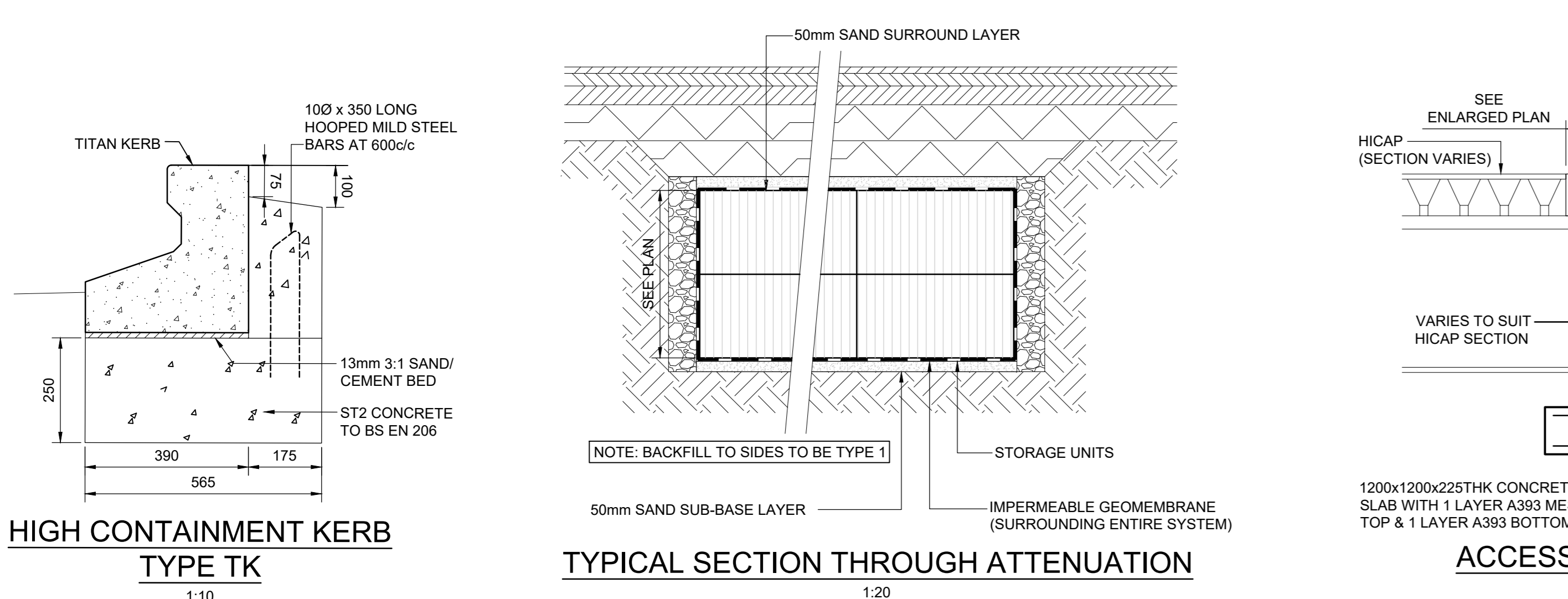
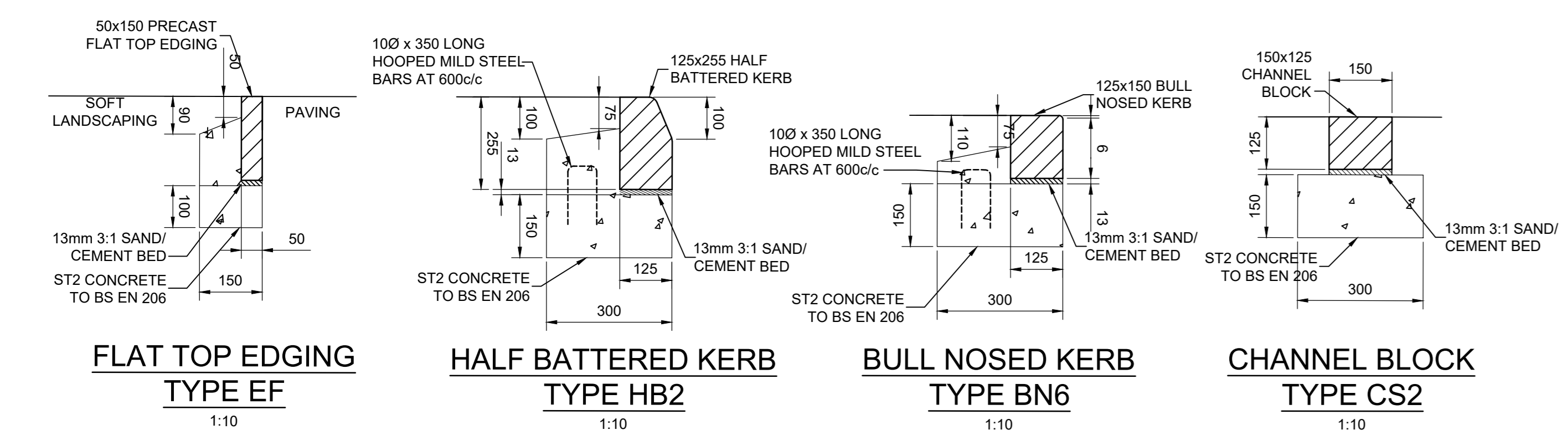
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L	As-Built Issue	MG	MG	MG	08/12/23
K	Issue for As-Built Mark-Up	MG	MG	MG	08/11/23
J	S278 drainage added for AW approval	MG	MG	MG	21/02/23
H	Manhole schedule added	MG	MG	MG	12/09/22
G	Cloned revisions	MG	MG	MG	18/08/22
F	Contract Issue	MG	MG	MG	28/04/22
E	Attenuation position moved towards Unit 1 at Contractor request	MG	MG	MG	14/04/22
D	Construction Issue	MG	MG	MG	01/04/22
C	Cloned revisions	MG	MG	MG	23/03/22
B	Pump added to dock manhole, hydrobrake discharge rate amended	MG	MG	MG	18/03/22
A	Revised to suit Contractors comments	MG	MG	MG	07/03/22
Q	Issued for Comment	MG	MG	MG	04/02/22

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Client: **PBBE Corby BV**  
 Project: **Evo Industrial Sallow Road Corby**

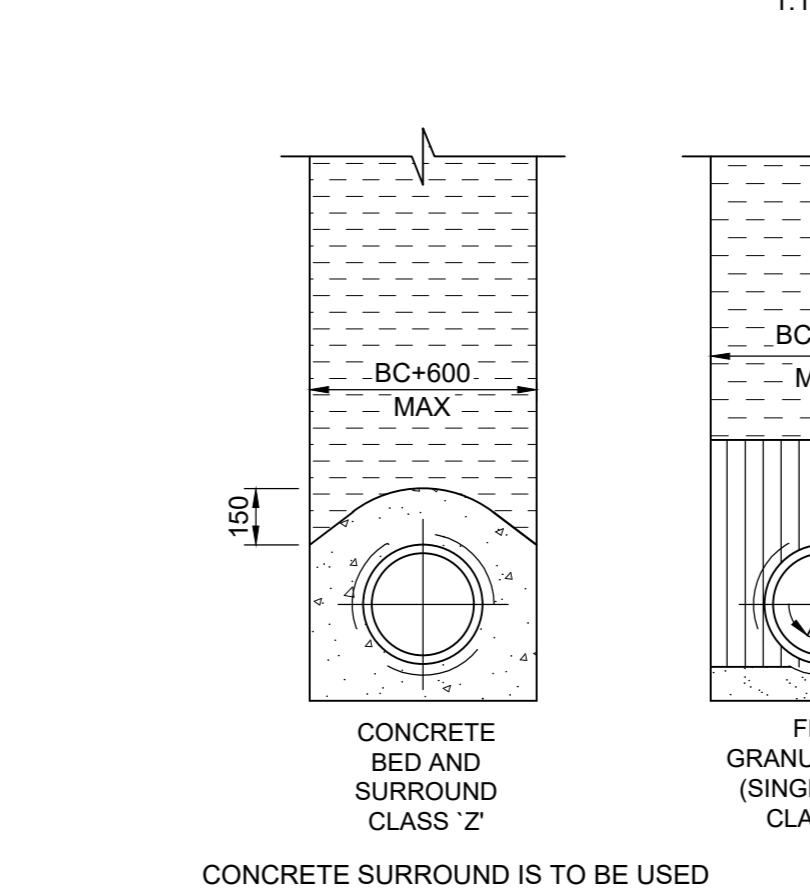
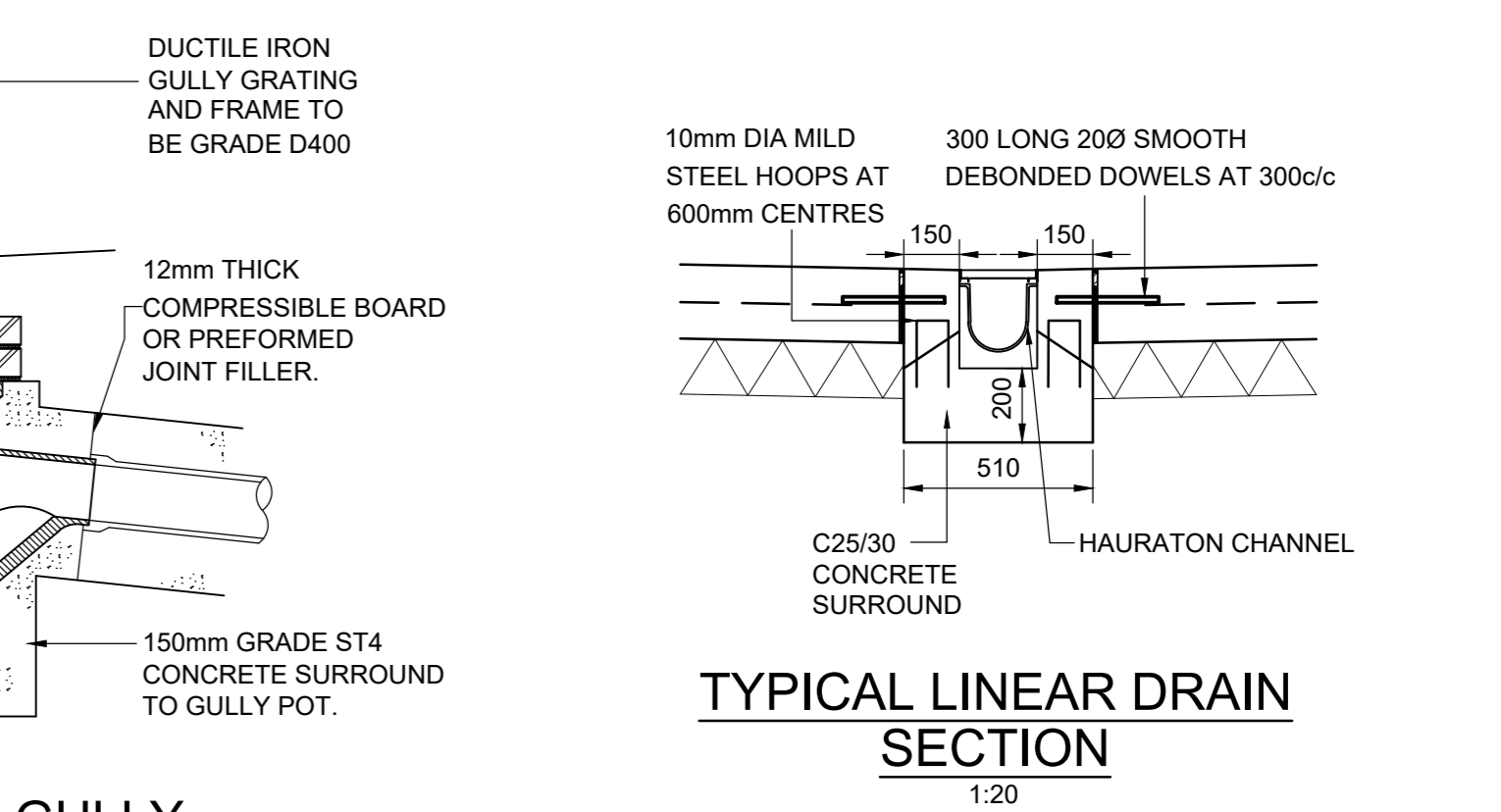
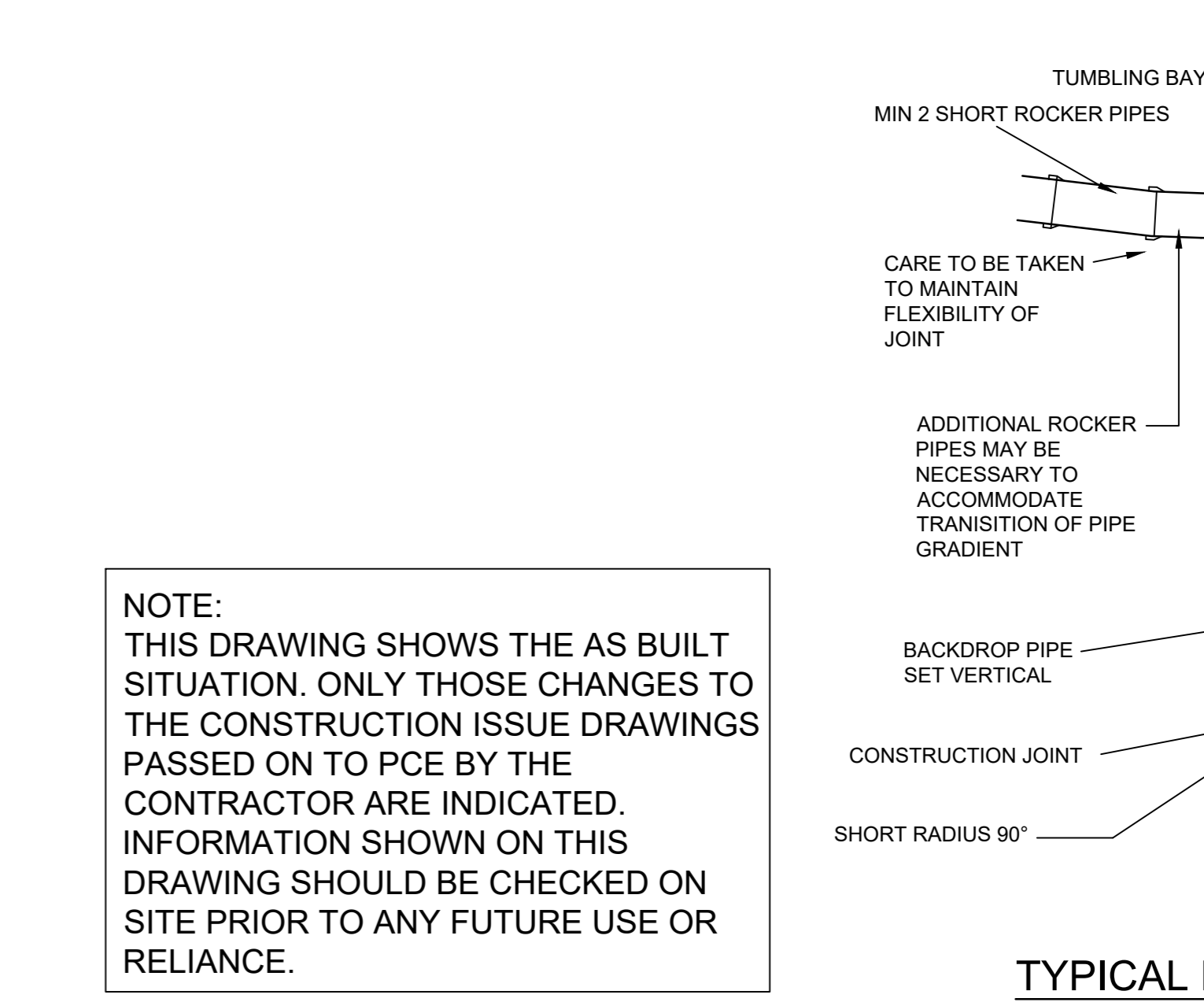
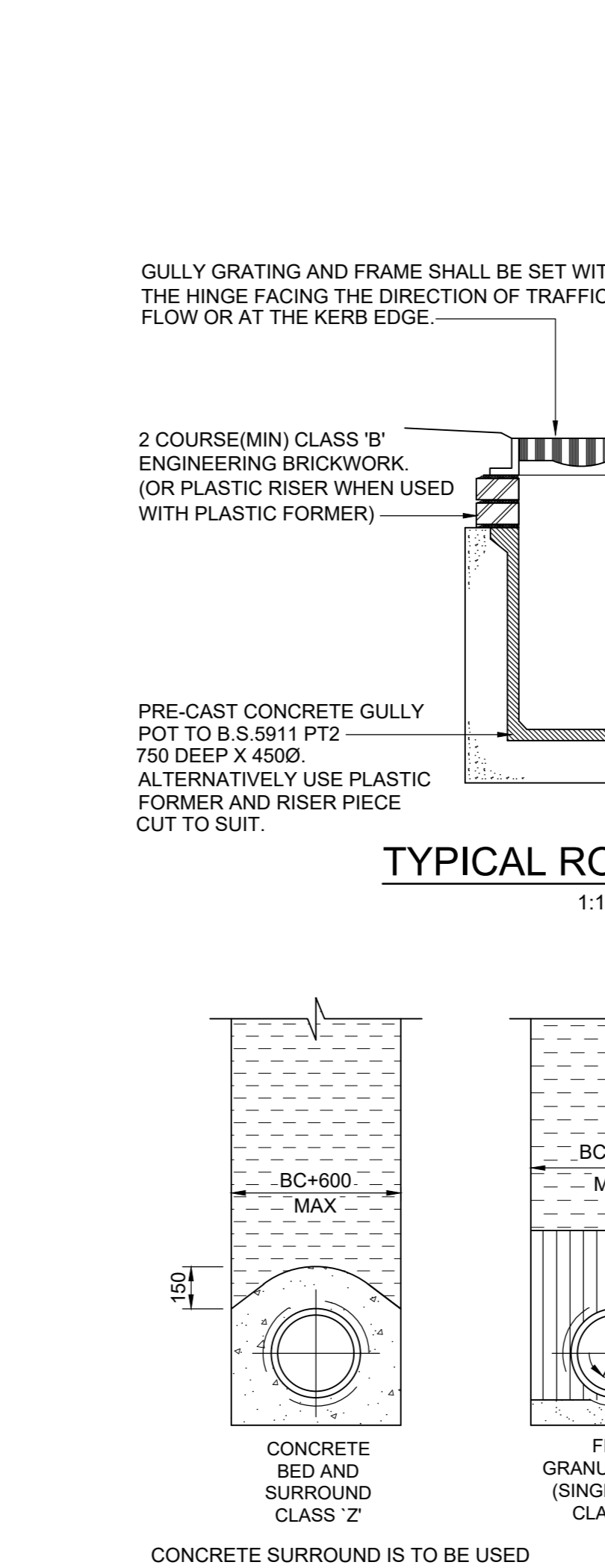
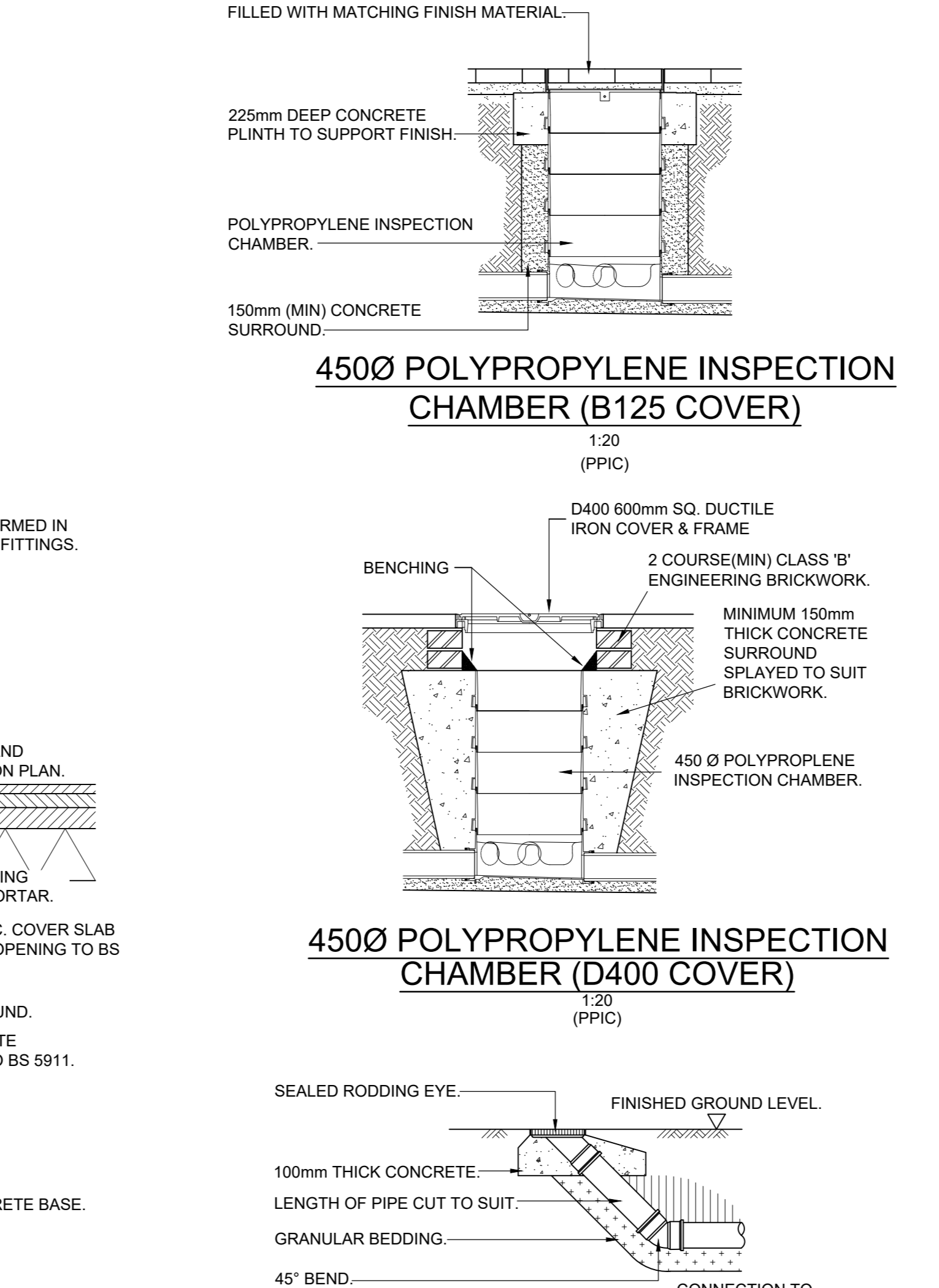
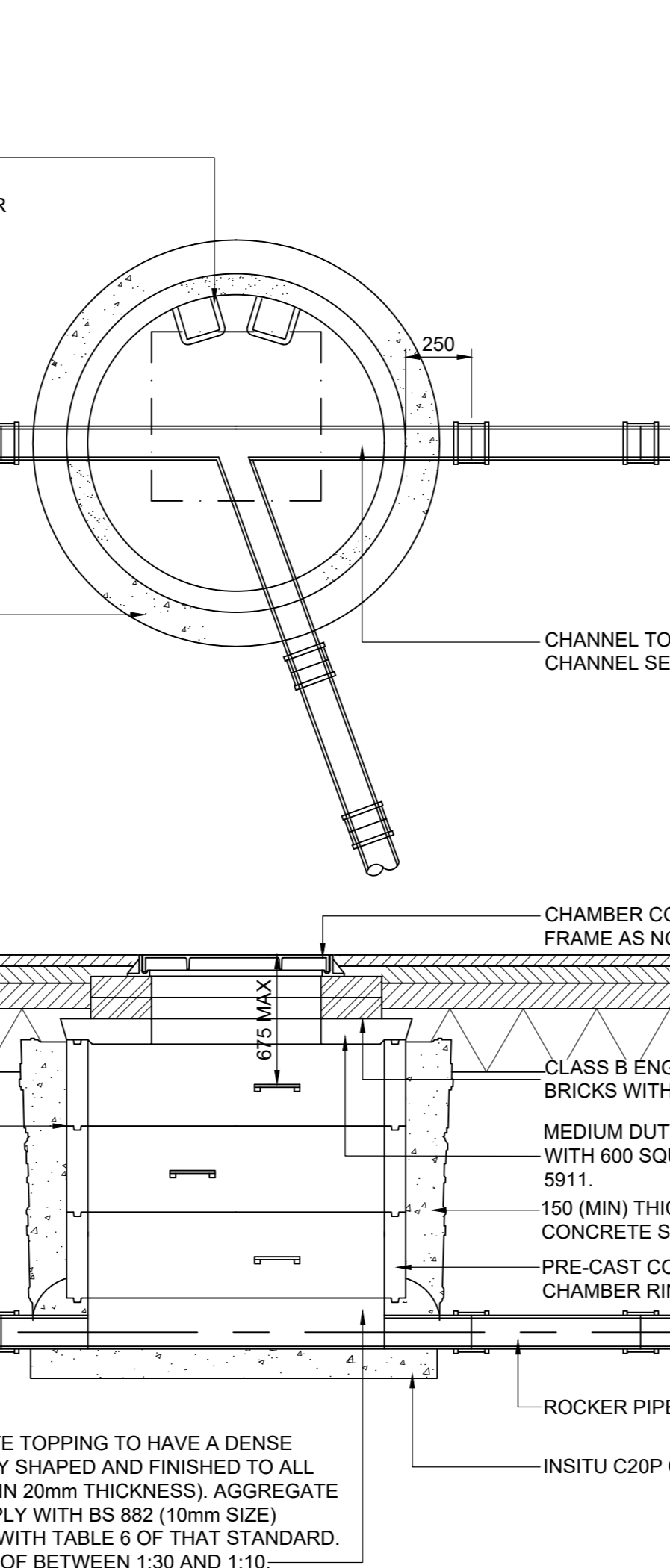
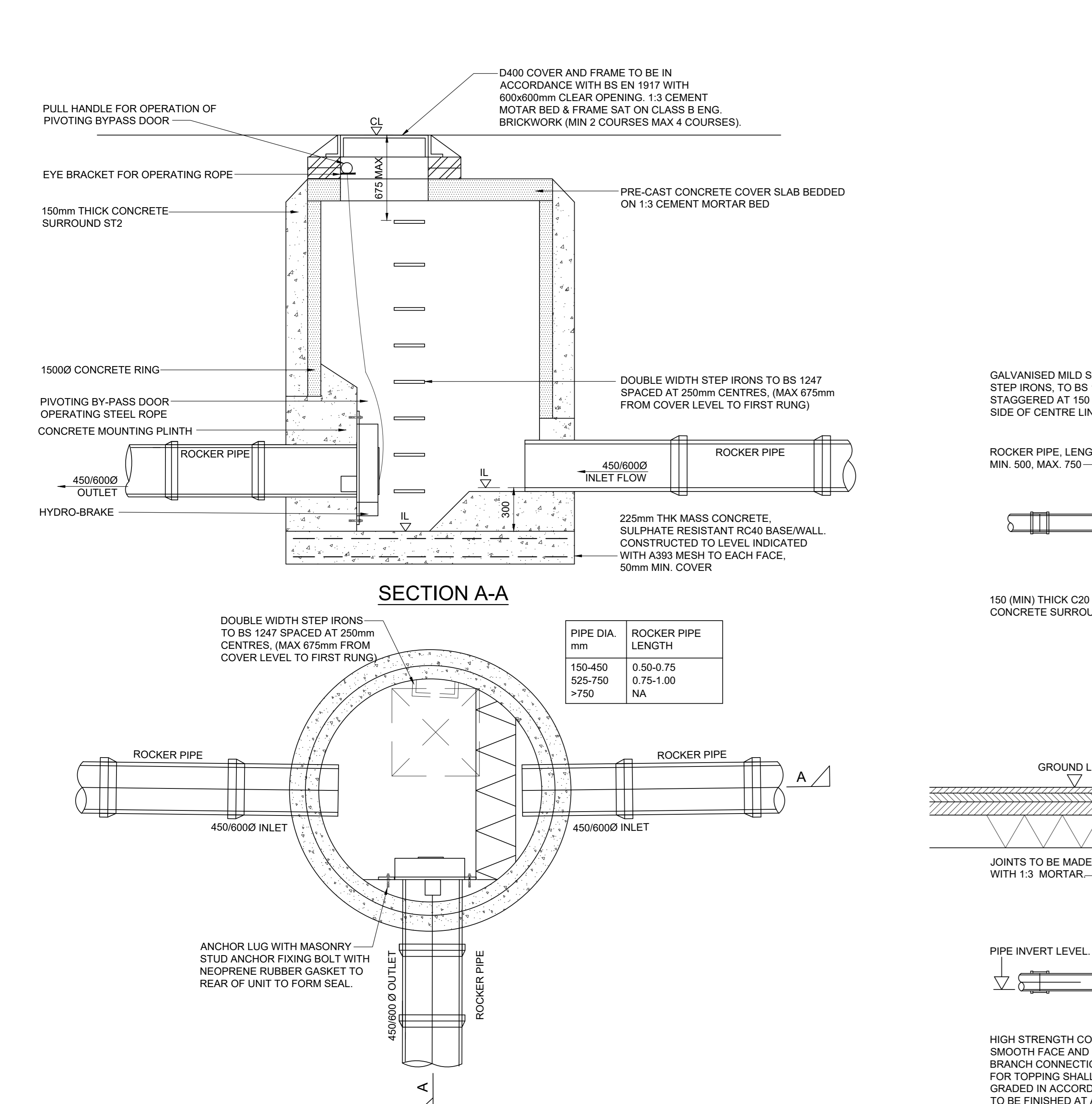
LINEAR DRAINS	
LINEAR RUN 1-01	HAURATON RECYFIX MONOTEC 100, 380mm DEEP
LINEAR RUN 1-02	HAURATON RECYFIX PRO 100 PART 020 WITH C250 GRATING
LINEAR RUN 1-03	HAURATON RECYFIX PRO 100 PART 020 WITH C250 GRATING
LINEAR RUN 1-04	HAURATON RECYFIX PRO 100 PART 020 WITH C250 GRATING
LINEAR RUN 1-05	HAURATON FASERFIX SUPER 100 PART 020 WITH F900 GRATING
LINEAR RUN 1-06	HAURATON MONOTEC 100, 230mm DEEP
LINEAR RUN 1-07a	HAURATON HICAP 5000
LINEAR RUN 1-07b	HAURATON HICAP 2000
LINEAR RUN 1-08	HAURATON HICAP 2000

Scale: 1:250 Sheet Size: A0  
 Drawn By: MG Check By: MG Approved By: MG Date: 04/02/22  
 Drawing Title: **Drainage Layout Unit 1**  
 Project No: 2021070 Drawing No: 01-005 Revision: L  
 This drawing and design for use shall be in accordance with the above project. This drawing is the copyright of Portland Consulting Engineers and shall not be reproduced or used without written consent. All dimensions and setting out shall be checked on site before construction commences. Do not scale the drawing. This drawing is to be read in conjunction with all other information relevant to the project. Any apparent discrepancy shall be brought to the attention of Portland Consulting Engineers.



**SIZE OF SEPARATOR BASE TABLE**

SEPARATOR REF.	LENGTH(m)	DIAMETER(m)	EXCAVATION LENGTH(m)	EXCAVATION WIDTH(m)
NSFA150	8.675	2.820	9.275	3.420



**TYPICAL HYDROBRAKE MANHOLE DETAIL PLAN**  
1:20

**PRE-CAST CONCRETE CHAMBER**  
1:20 (PCC)

**EXTERNAL RODDING EYE**  
1:20

**PIPE BEDDING DETAILS**  
1:20

**NOTE:**  
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This drawing shall be read in conjunction with the following specification: 2021070-SP-01-005 Drainage

**Client:** PBBE Corby BV

**Project:** Evo Industrial Sallow Road Corby

**Drawing Title:** External Works and Drainage Details Unit 1

**Scale:** As Shown **Sheet Size:** A0

**Drawn By:** MJO **Checked By:** MJO **Approved By:** MJO **Date:** 04/02/22

**Project No:** 2021070 **Drawing No:** 01-006 **Revision:** G

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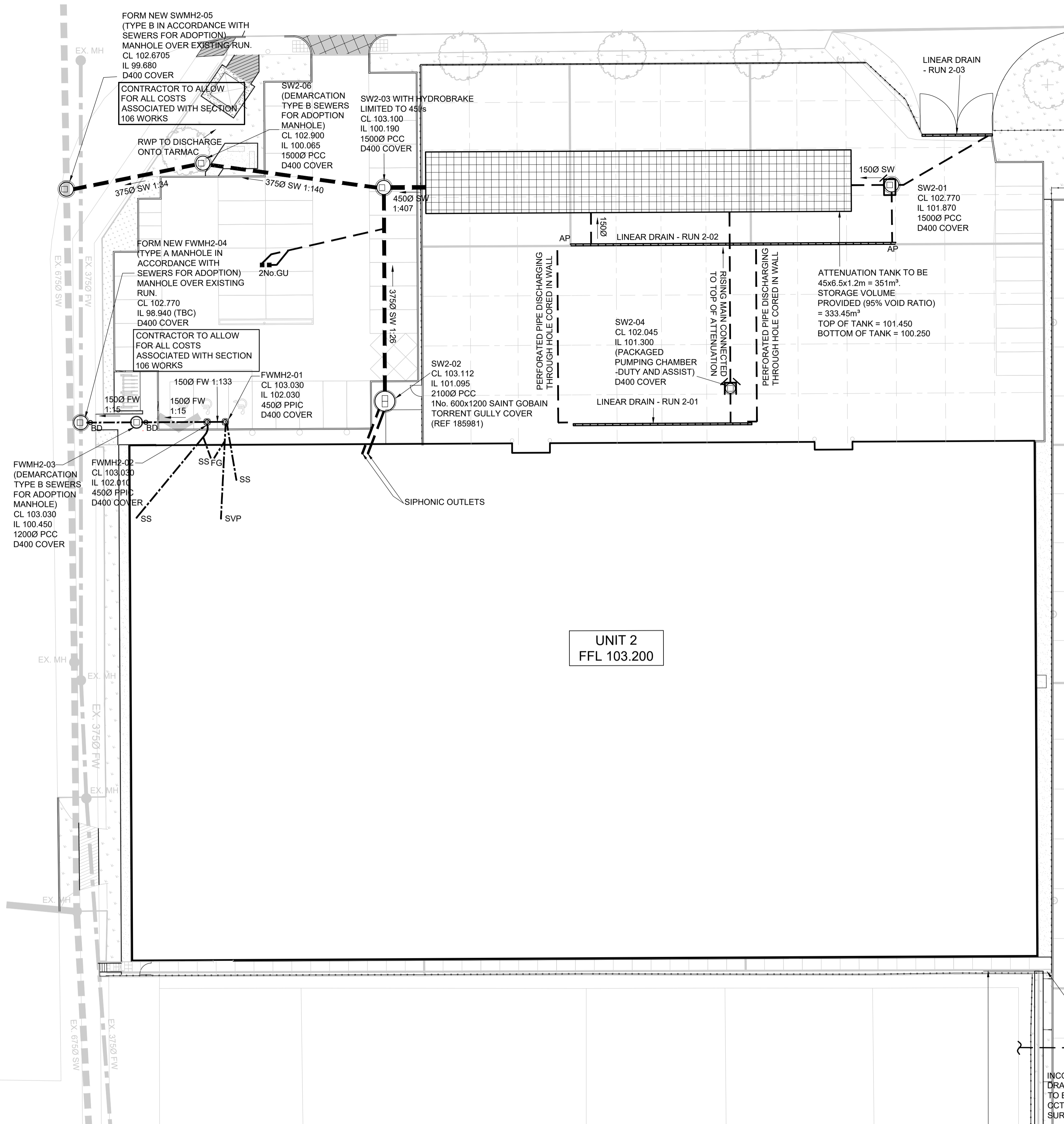
**KEY:**  
SUITABLE BACKFILL MATERIAL.  
SELECTED SIDEFILL AND SURROUND TO BE SELECTED SITE WON FILL, FREE FROM STONES LARGER THAN 40mm, LUMPS OF CLAY OVER 100mm AND ALL DELETERIOUS MATTER.  
SINGLE SIZE GRANULAR MATERIAL.

**DN = NOMINAL INTERNAL DIAMETER OF PIPE.**  
**BC = OUTSIDE DIAMETER OF PIPE.**  
1+ = 80% OR 100mm UNDER BARRELS AND 50mm MIN UNDER SOCKETS WHICH EVER IS GREATER (400 MAX), OR IN ROCK ETC. 80% AND 150mm MIN UNDER SOCKETS (400 MAX).

**ISO 9001**  
REGISTERED FIRM

## Appendix 2

Portland Drawing Unit 2 02-005 and 02-008



**PLAN**  
1:250

**SEE DRAWING 02-006 FOR EXTERNAL WORKS AND DRAINAGE DETAILS**

LINEAR DRAINS	
LINEAR RUN 2-01	HAURATON HICAP 2000
LINEAR RUN 2-02	HAURATON HICAP 2000
LINEAR RUN 2-03	HAURATON RECYFIX SUPER 100 PART 010 WITH F900 COVER

SURFACE WATER MANHOLE SCHEDULE							
REF	C.L.	I.L.	DEPTH (m)	RING DIA (m)	COVER DIMS (mm)	COVER GRADE	REMARKS
SW2-01	102.835	100.270	2.565	1.500	600	D400	PRE CAST CONCRETE CHAMBER
SW2-02	103.020	101.095	1.925	2.100	185981	185981	PRE CAST CONCRETE CHAMBER
SW2-03	103.060	100.235	2.825	1.500	600	D400	PRECAST CHAMBER WITH HYDROBRAKE
SW2-04	102.045	101.300	0.745	-	600	D400	PACKAGED PUMPING CHAMBER (DUTY AND ASSIST)
SW2-05	102.595	99.700	2.895	-	675	D400	TYPE A SEWERS FOR ADOPTION MANHOLE
SW2-06	103.080	99.860	3.220	1.500	600	D400	PRE CAST CONCRETE CHAMBER

FOUL WATER MANHOLE SCHEDULE							
REF	C.L.	I.L.	DEPTH (m)	RING DIA (m)	COVER DIMS (mm)	COVER GRADE	REMARKS
FW2-01	103.030	102.030	0.990	0.450	600	D400	PPIC CHAMBER
FW2-02	103.030	102.020	1.010	0.450	600	D400	PPIC CHAMBER
FW2-03	103.030	100.450	1.200	1.200	600	D400	PRE CAST CONCRETE CHAMBER
FW2-04	102.770	98.940 (TBC)	3.830	-	675	D400	TYPE A SEWERS FOR ADOPTION MANHOLE

**Health and Safety Notes:**  
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Safe methods and systems of work remain the responsibility of the contractor.  
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ALL FOUL WATER BRANCHES TO BE 100Ø UNO. ALL PIPES WITH LESS THAN 1.2m COVER FROM FINISHED ROAD LEVEL TO TOP OF PIPE TO BE CONCRETE ENCASED. ALL BRANCHES FROM ROAD GULLIES TO BE 150Ø. AP = ACCESS POINT FOR LINEAR DRAINAGE

K	As-Built Issue	MQ	MG	MG	08/12/23
J	Issued for As-Built Mark-Up	MQ	MG	MG	06/11/23
H	Clouded revisions	MQ	MG	MG	18/11/22
G	Manhole schedule added	MQ	MG	MG	12/09/22
F	Clouded revisions, attenuation position revised	MQ	MG	MG	18/08/22
E	Contract Issue	MQ	MG	MG	28/04/22
D	Interceptor removed	MQ	MG	MG	14/04/22
C	Construction Issue	MQ	MG	MG	01/04/22
B	Pump added to dock manhole, hydrobrake discharge rate amended	MQ	MG	MG	18/03/22
A	Revised to suit Contractors comments	MQ	MG	MG	07/03/22
Ø	Issued for Comment	MQ	MG	MG	04/02/22
Rev.	Description	By	Chk	App	Date

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Client: **PBBE Corby BV**  
Project: **Evo Industrial Sallow Road Corby**  
Drawing Title: **Drainage Layout Unit 2**

Scale	1:250	Sheet Size	A1
Drawn By	MQ	Checked By	MG
Approved By	MG	Date	04/02/22

Drawing Status		
Project No.	Drawing No.	Revision
2021070	02-005	K

**NOTE: DRAINAGE AND INVERT LEVELS HAVE BEEN UPDATED TO SUIT THE PRE AS-BUILT MARKED UP DRAWING RECEIVED FROM CONTRACTOR DATED 27/11/23.**

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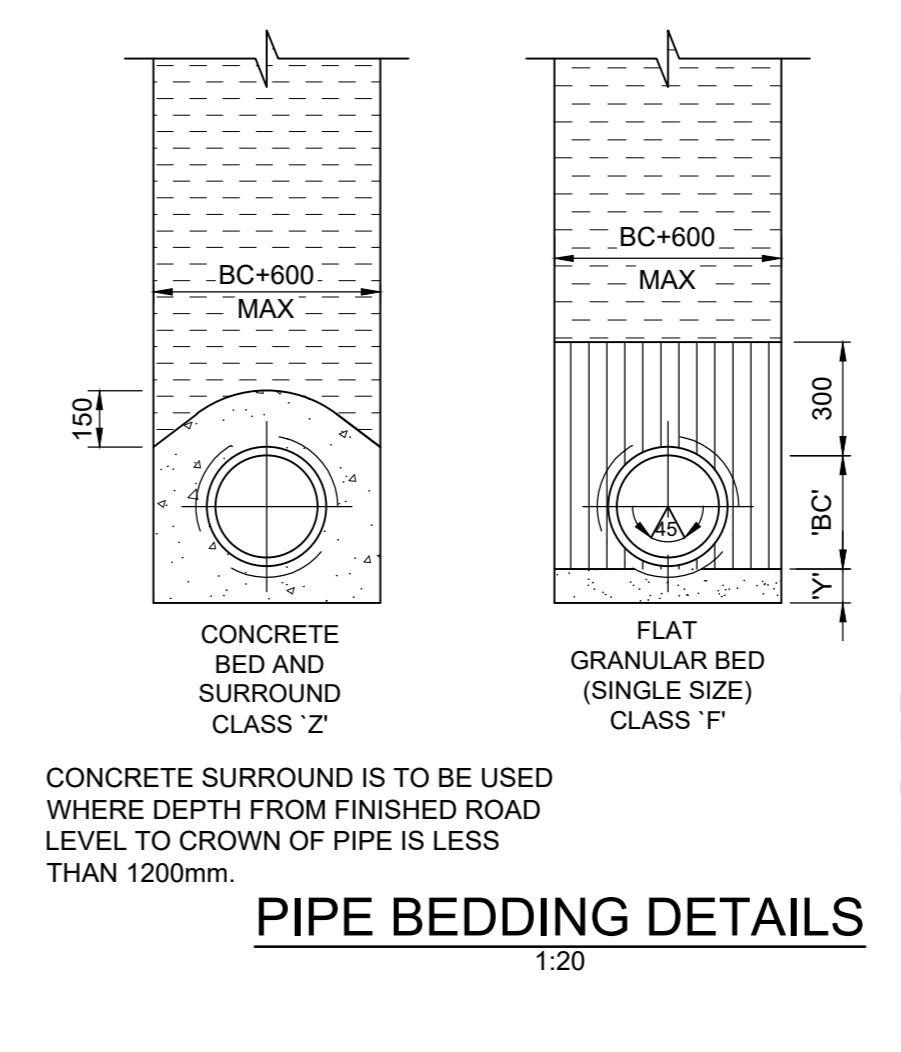
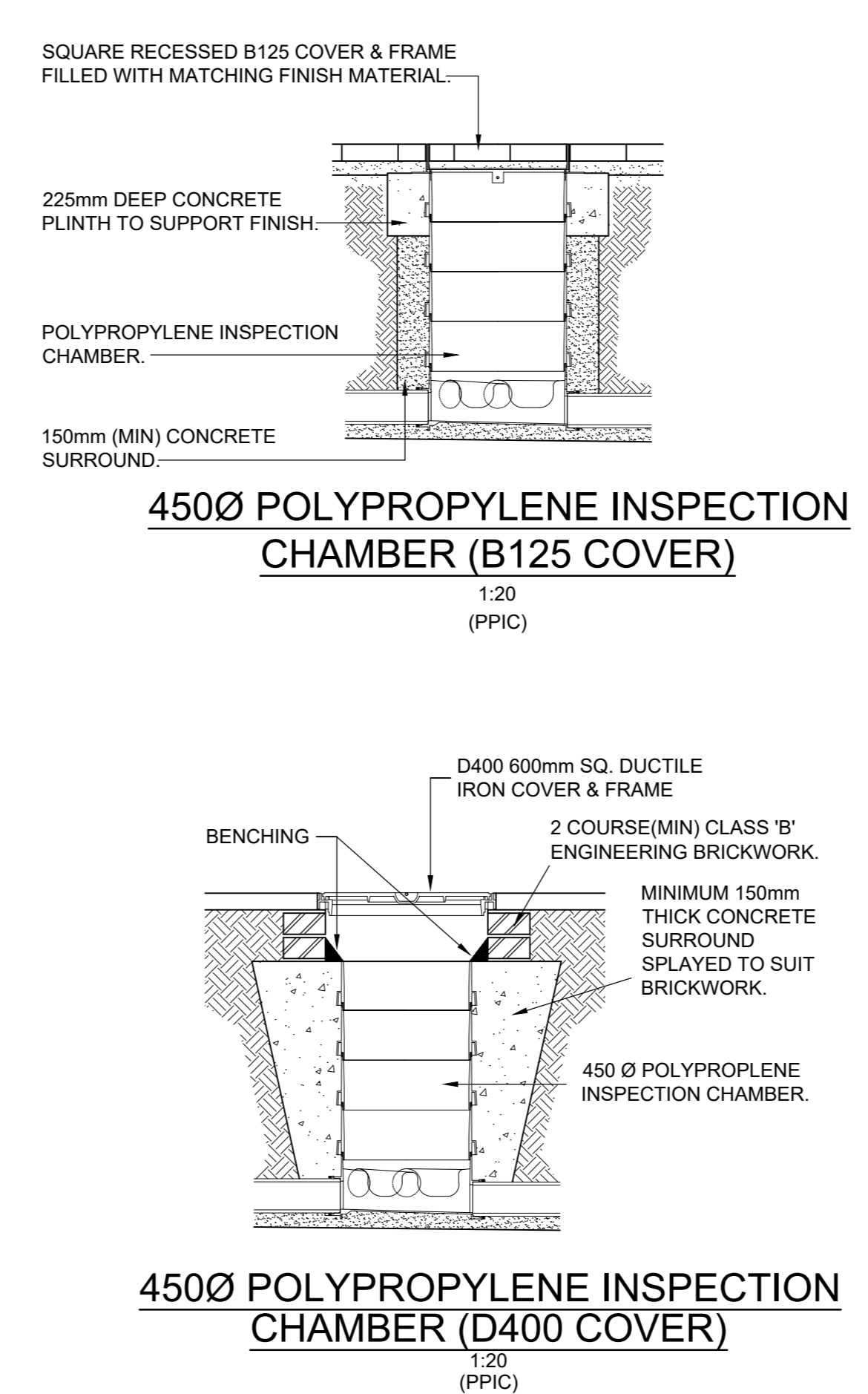
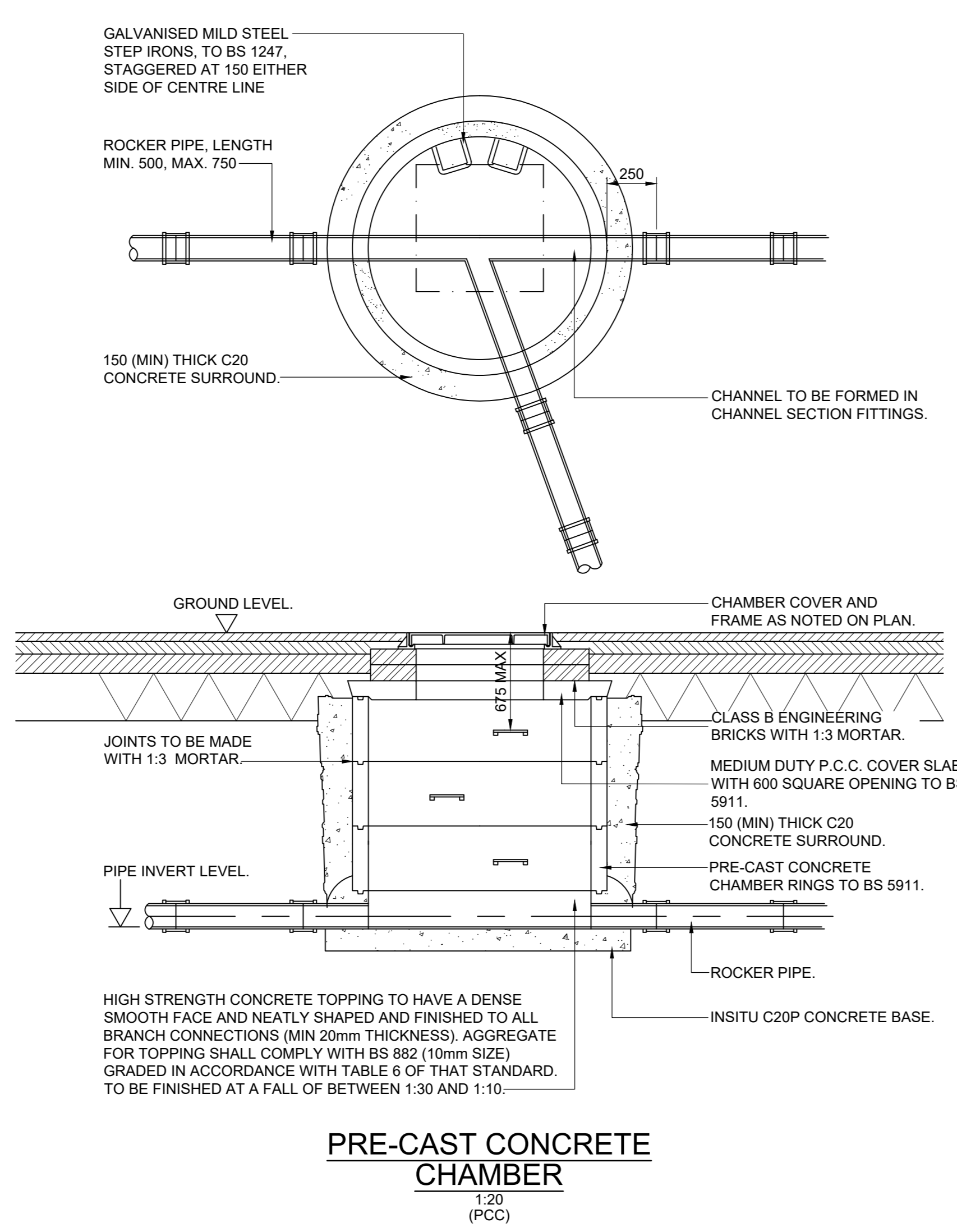
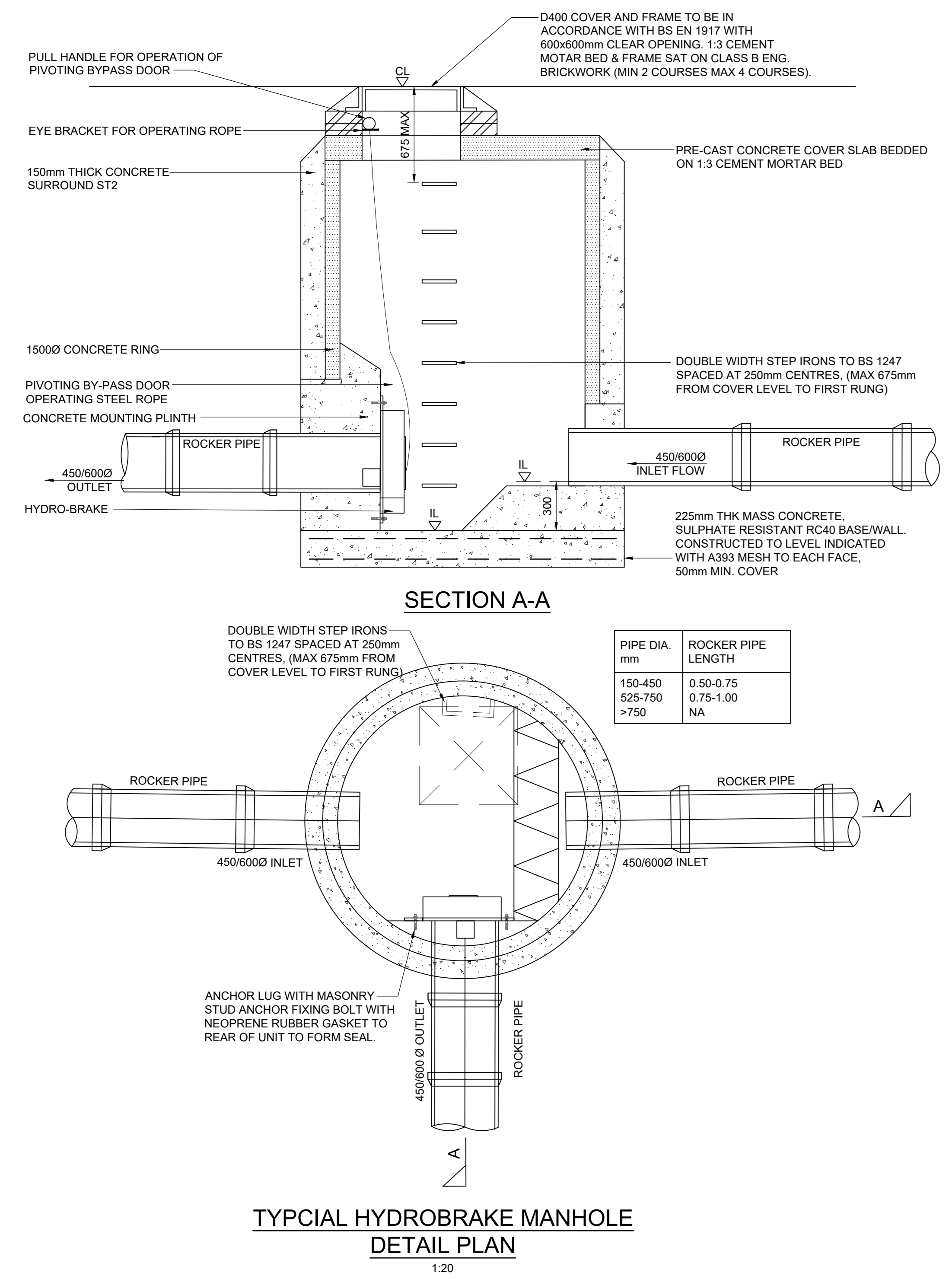
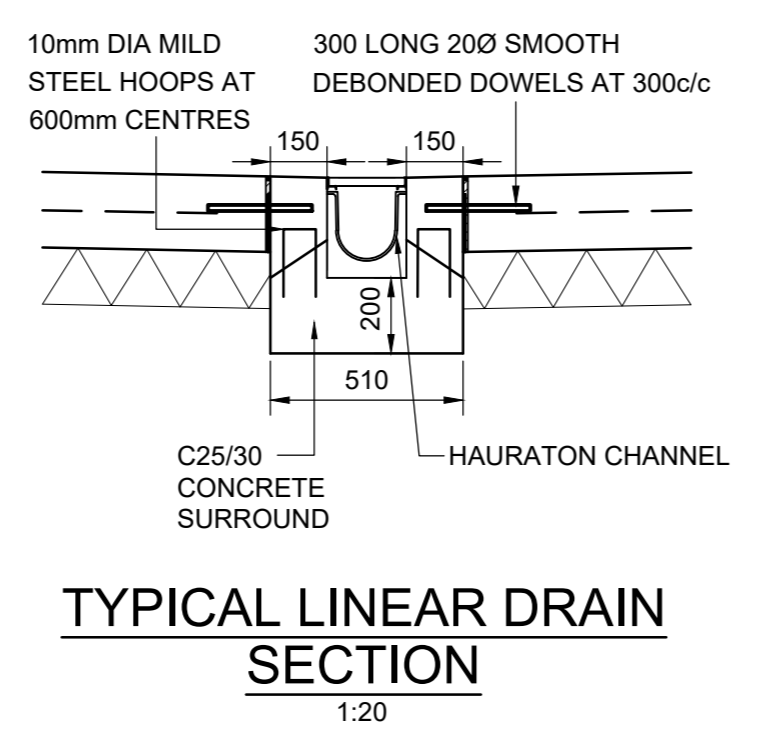
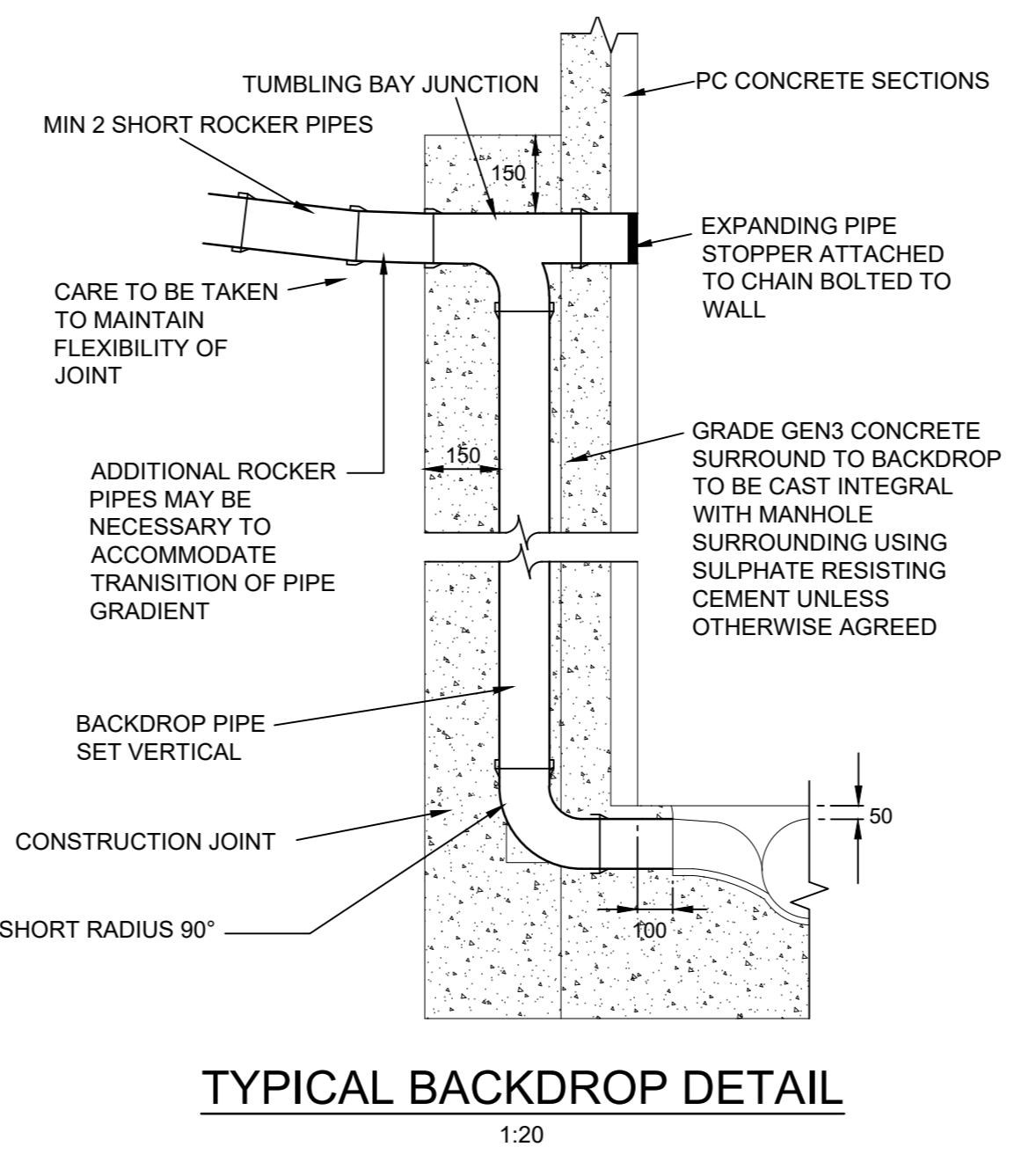
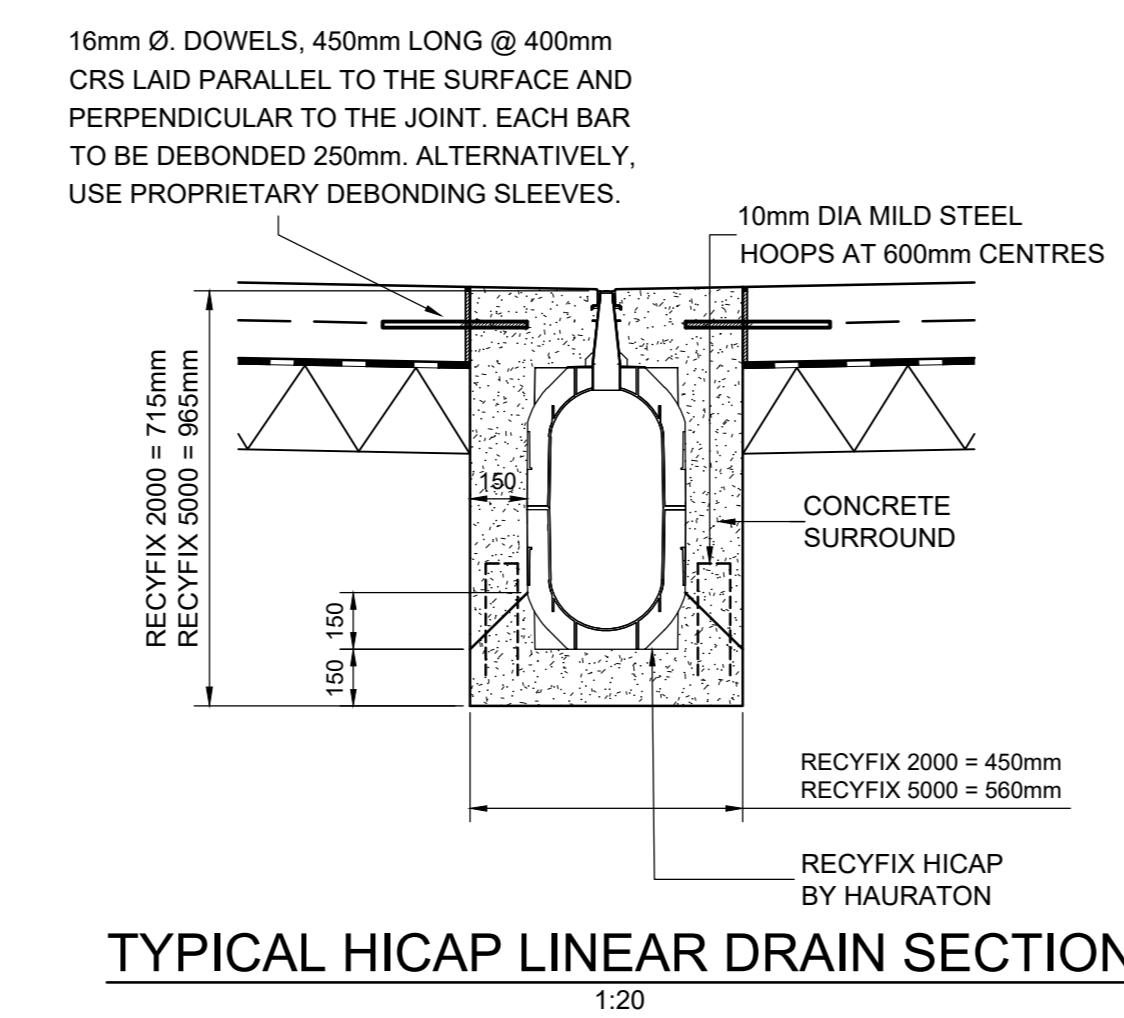
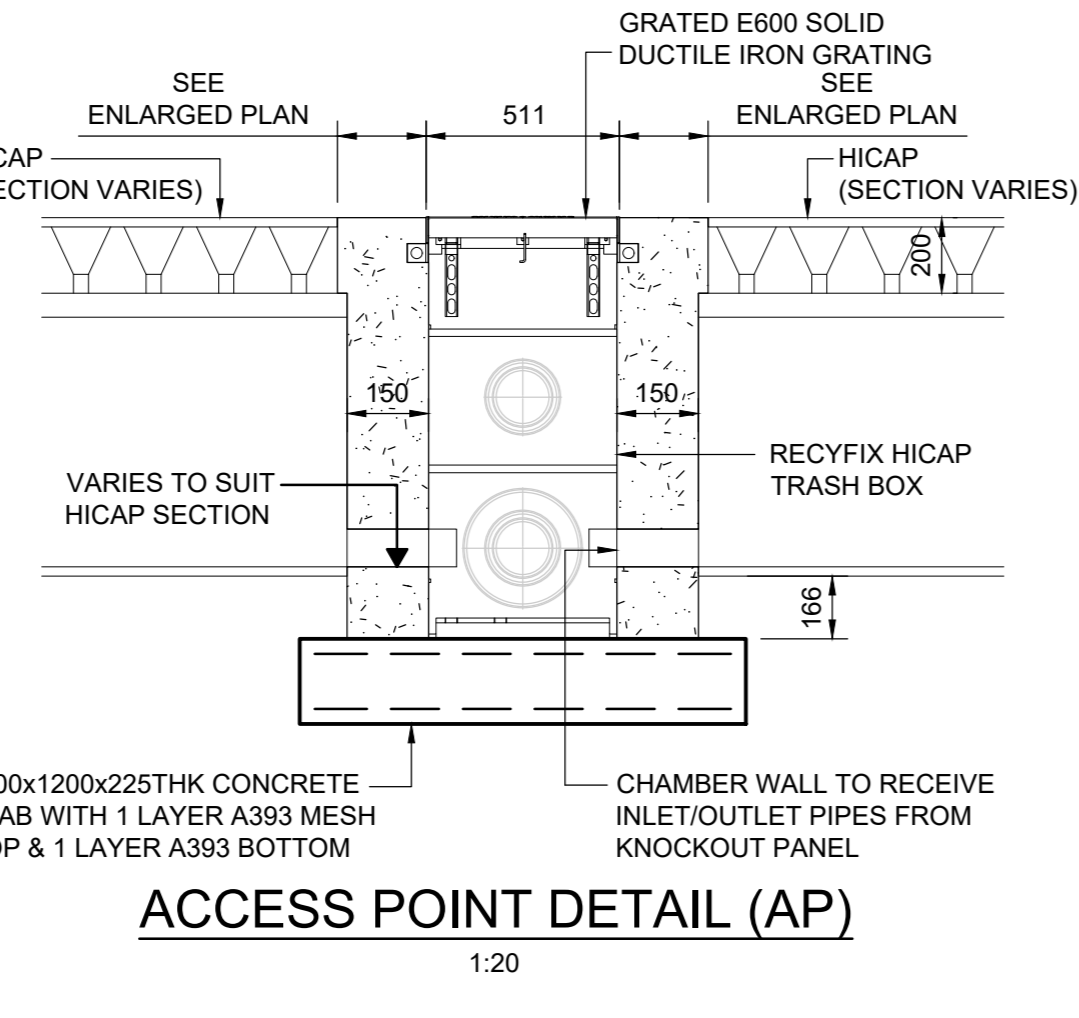
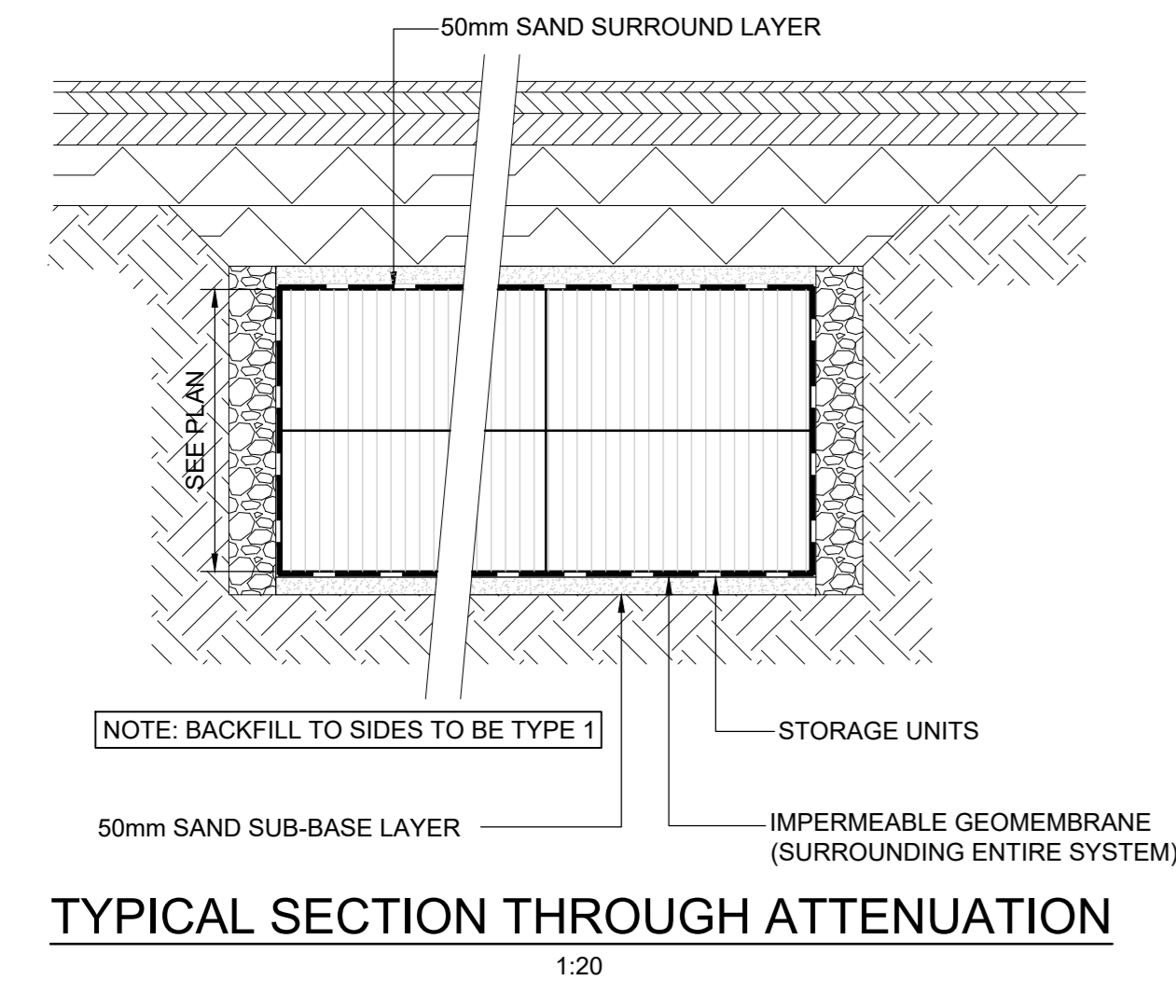
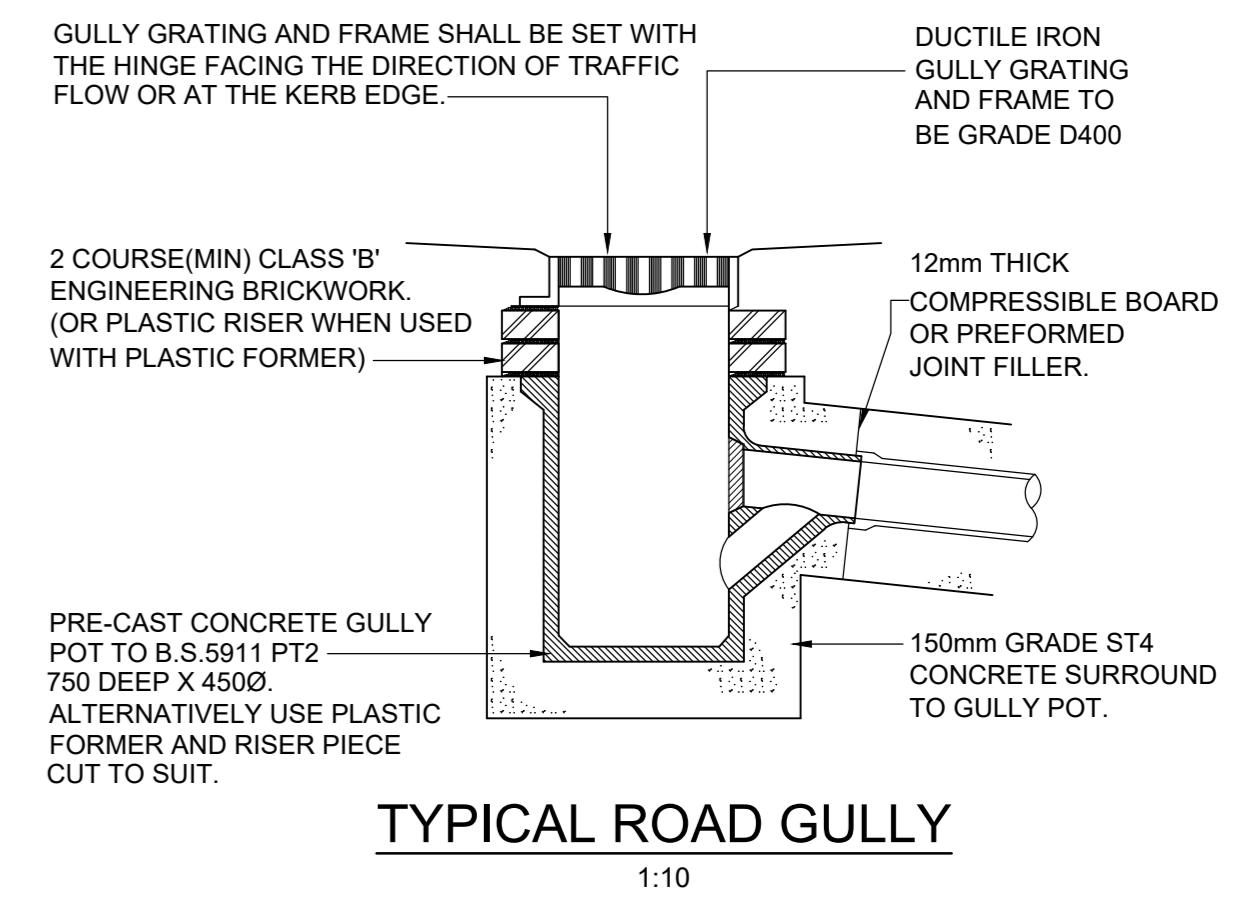
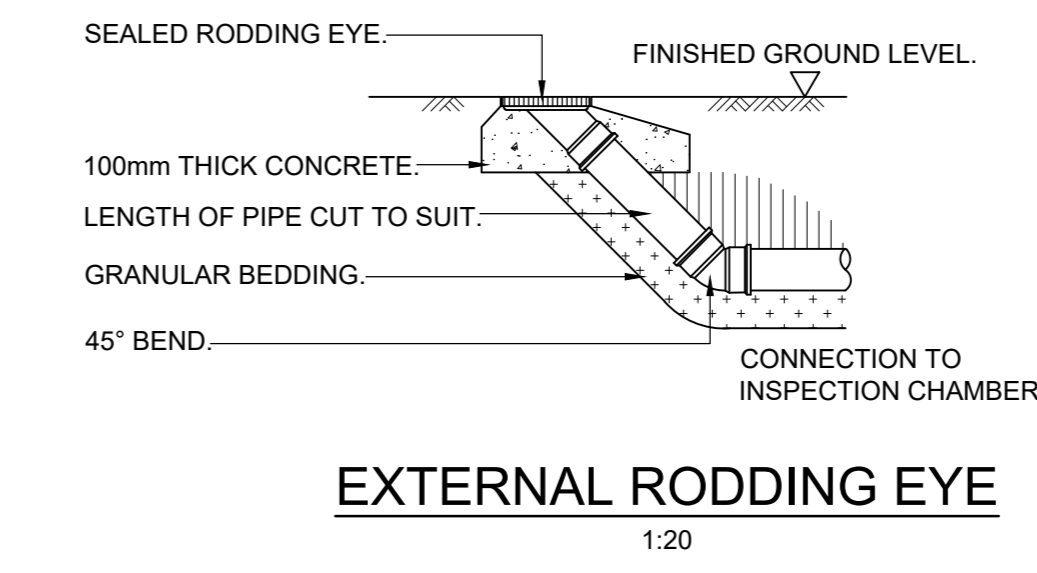
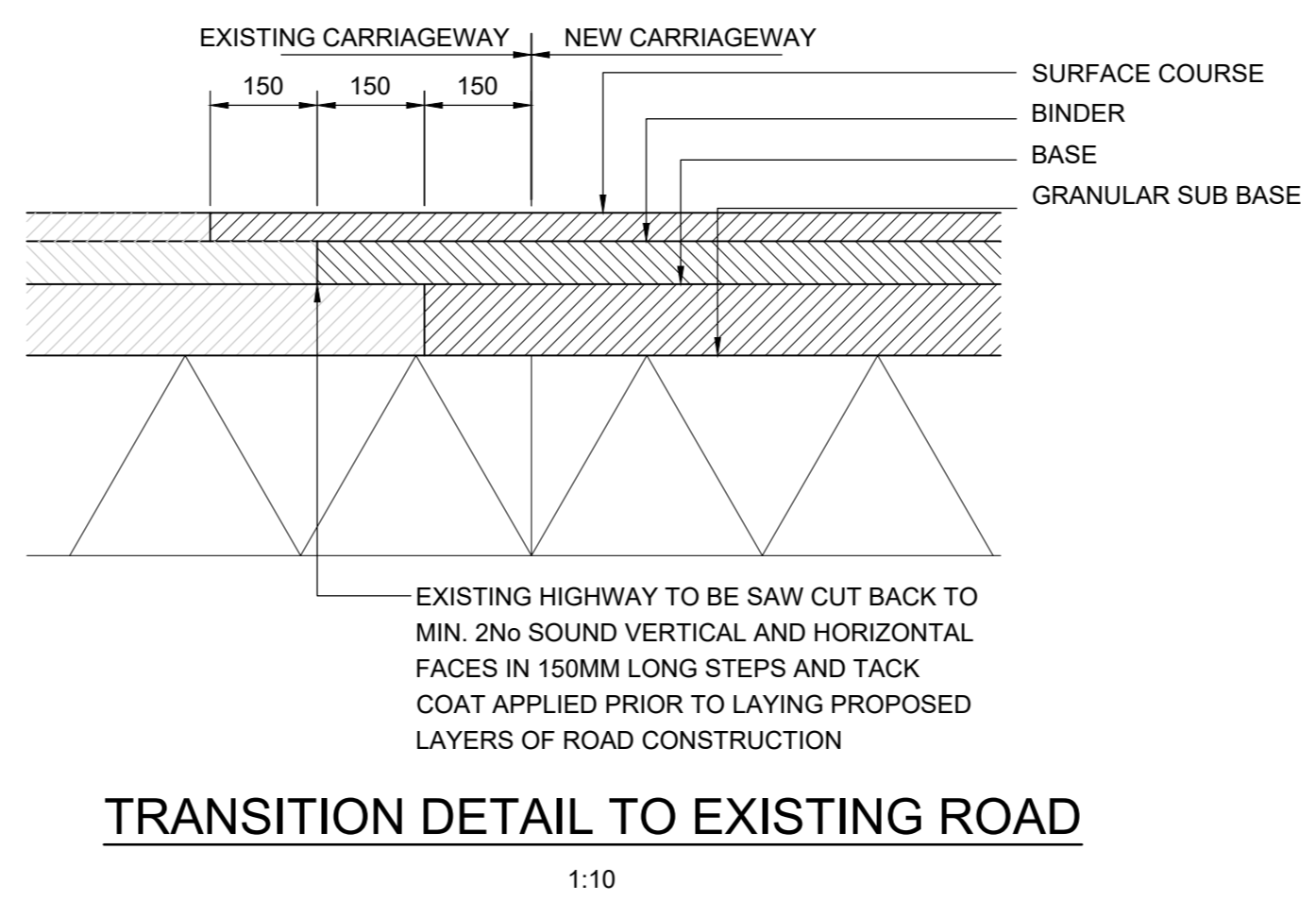
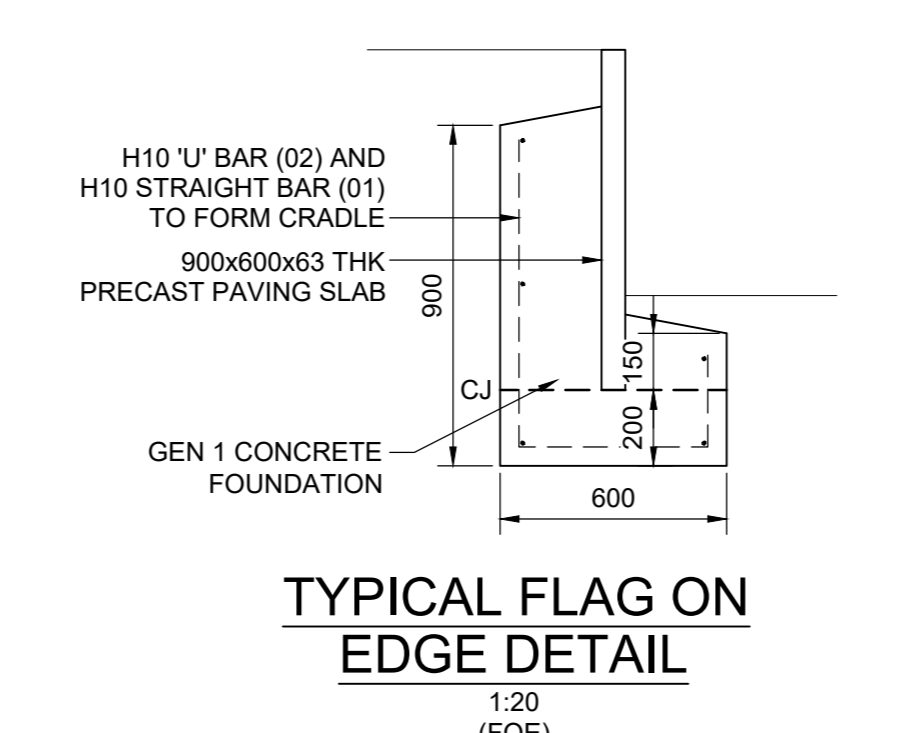
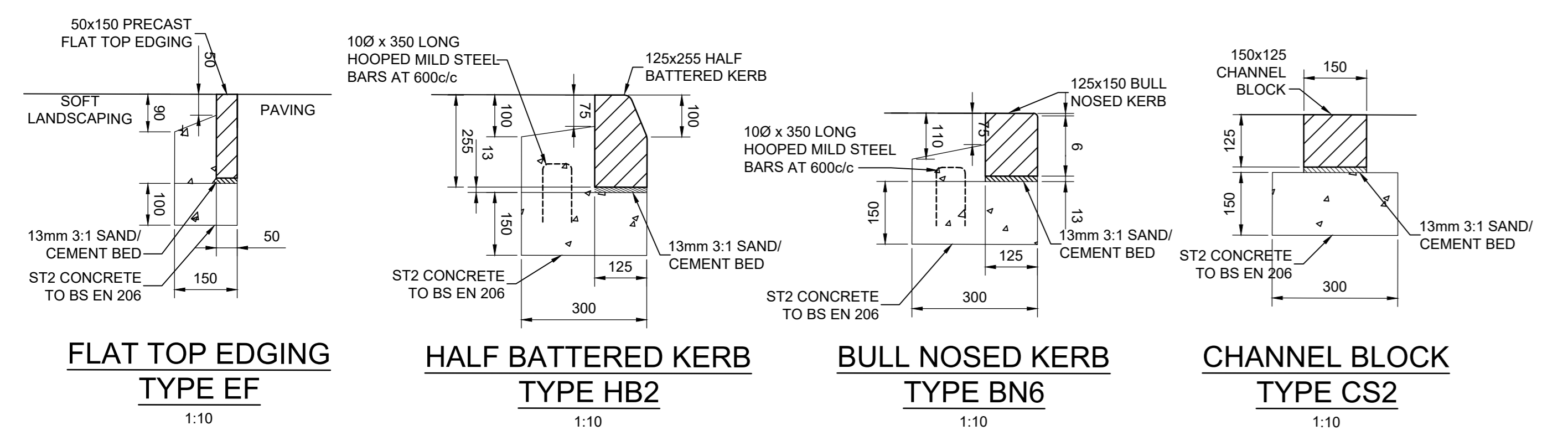
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**TO BE READ IN CONJUNCTION WITH  
DRAWING 02-002 AND 02-005**

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This drawing shall be read in conjunction with the following specification: 2021070-SP-02-005 Drainage



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G	As-Built Issue	MG	MG	MG	08/12/23
F	Issued for As-Built Mark-Up	MG	MG	MG	06/11/23
E	Contract Issue	MG	MG	MG	28/04/22
D	Inspector detail removed	MG	MG	MG	14/04/22
C	Construction Issue	MG	MG	MG	01/04/22
B	Revised to suit Contractors comments	MG	MG	MG	18/03/22
A	Revised to suit Contractors comments	MG	MG	MG	07/03/22
Q	Issued for Comment	MG	MG	MG	04/02/22

**Rev. Description** By Chk. App. Date

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Client	PBBE Corby BV		
Project	Evo Industrial Sallow Road Corby		
Drawing Title	External Works and Drainage Details Unit 2		
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Drawn By	MG	Checked By	MG
Approved By	MG	Date	04/02/22
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