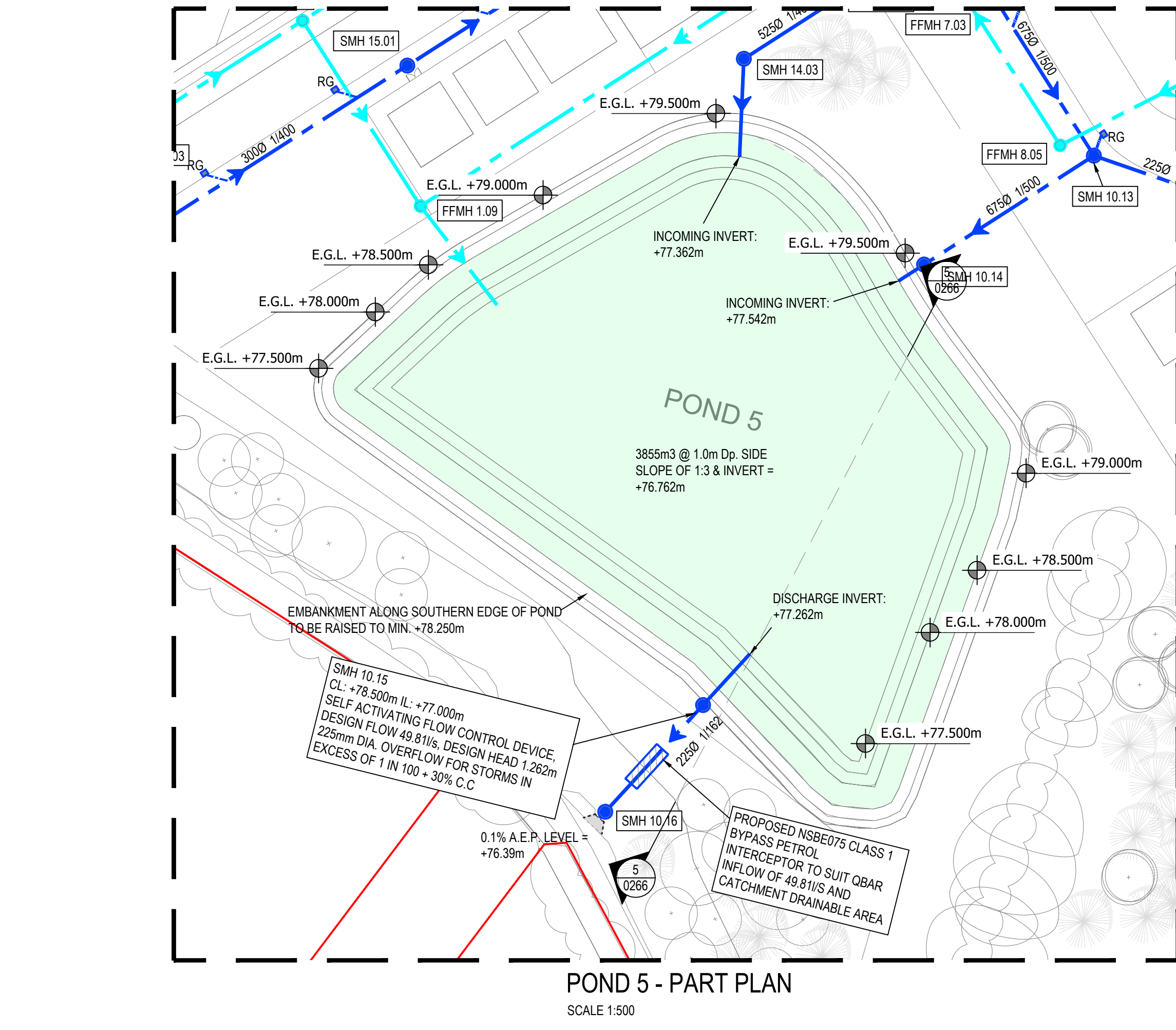
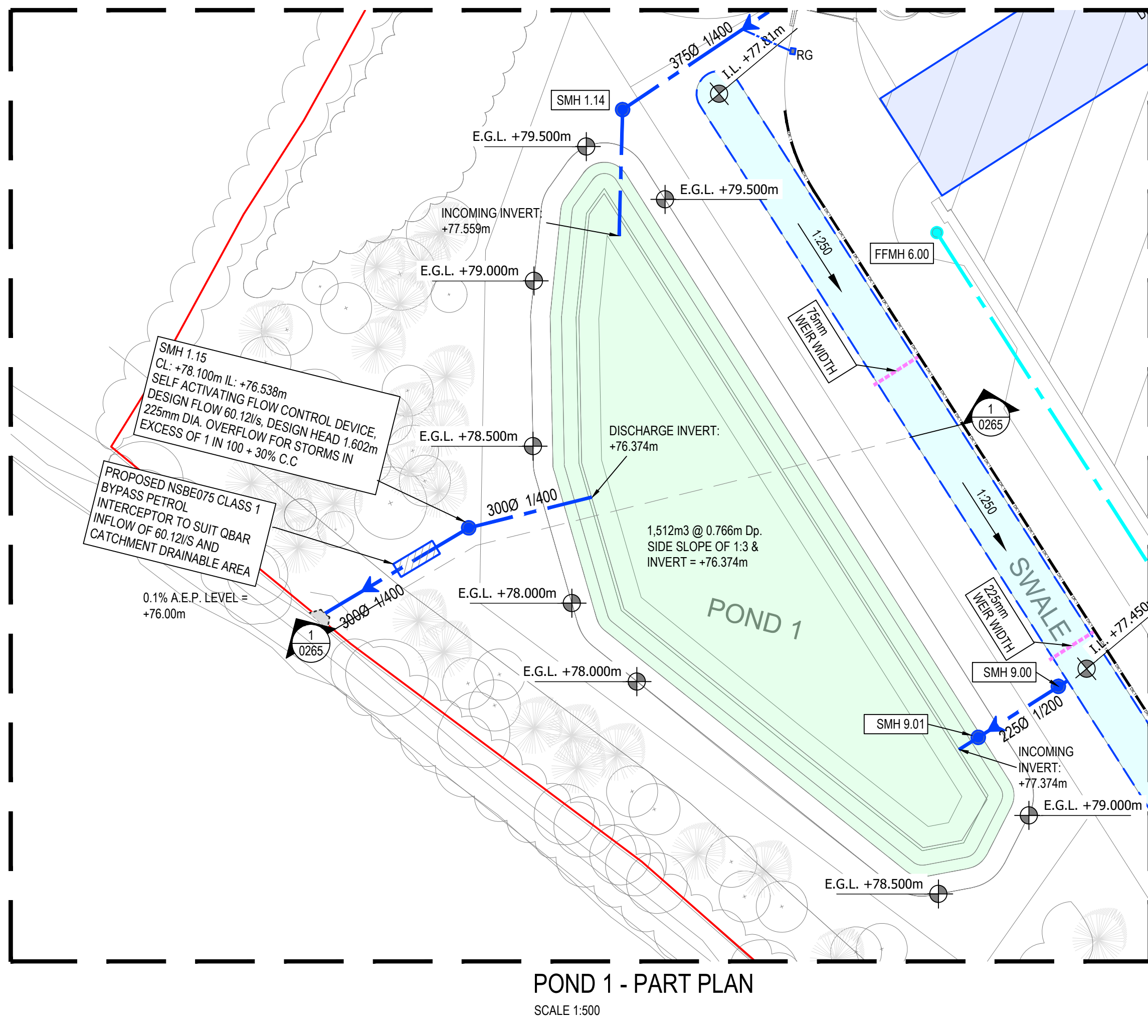
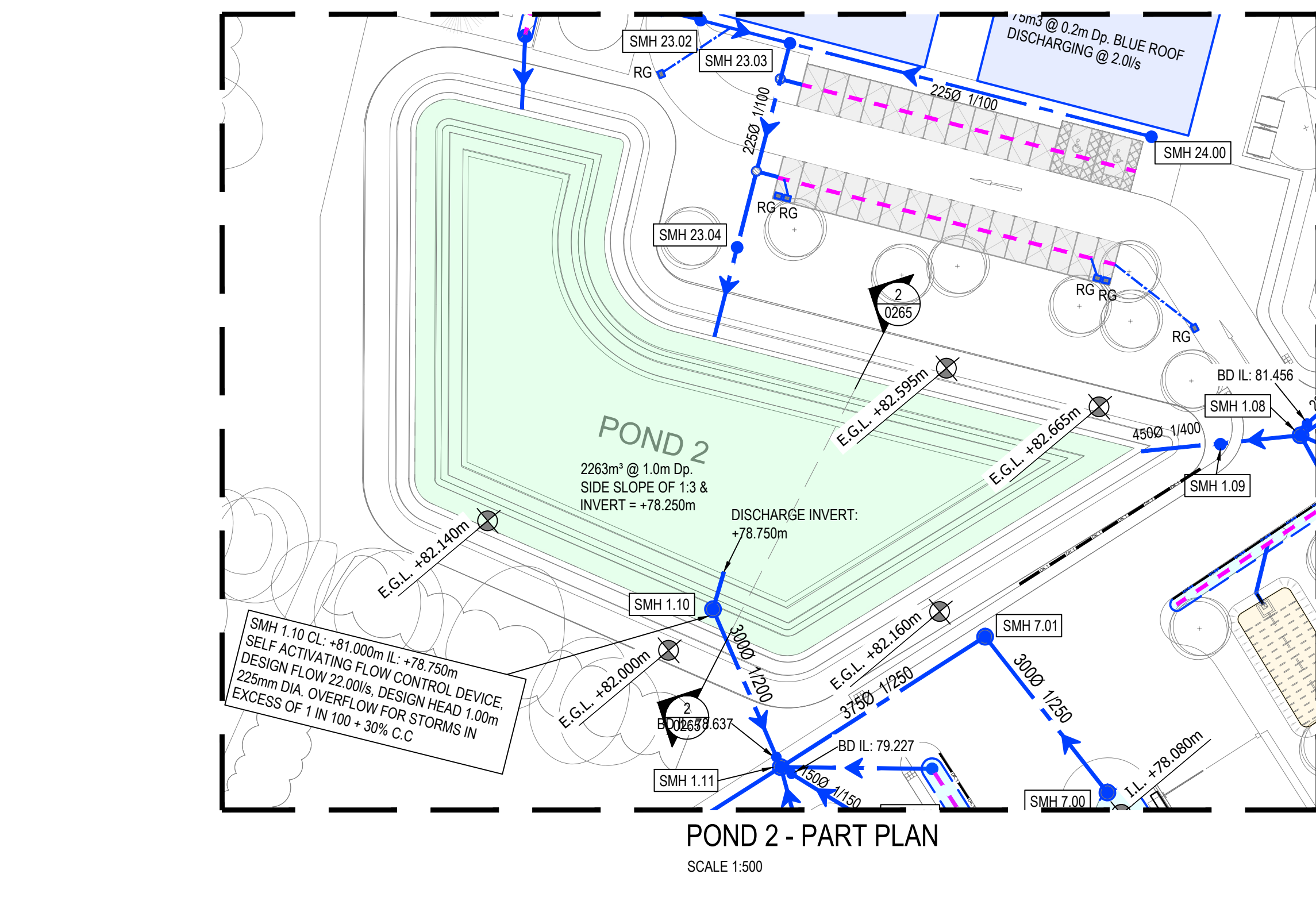
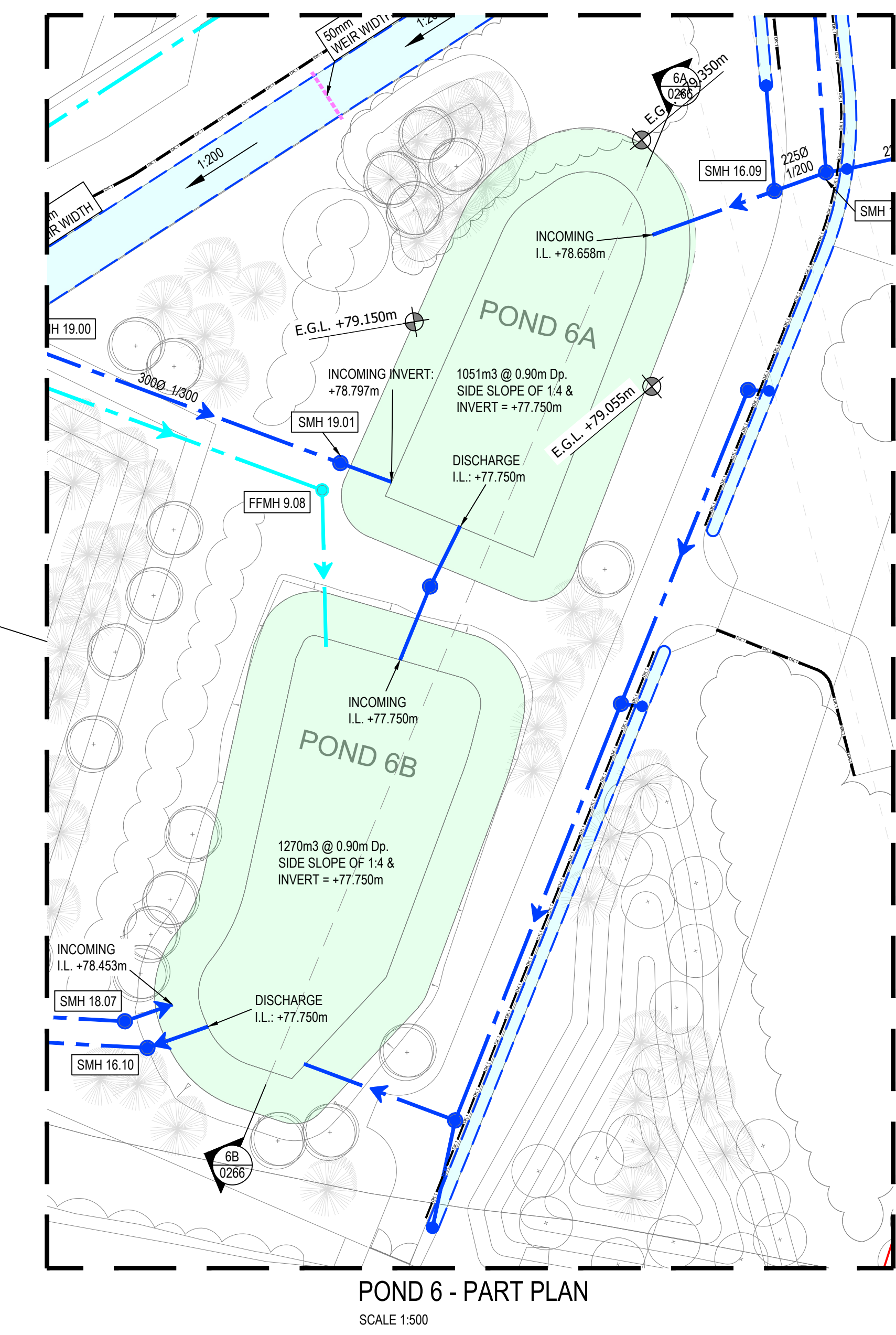
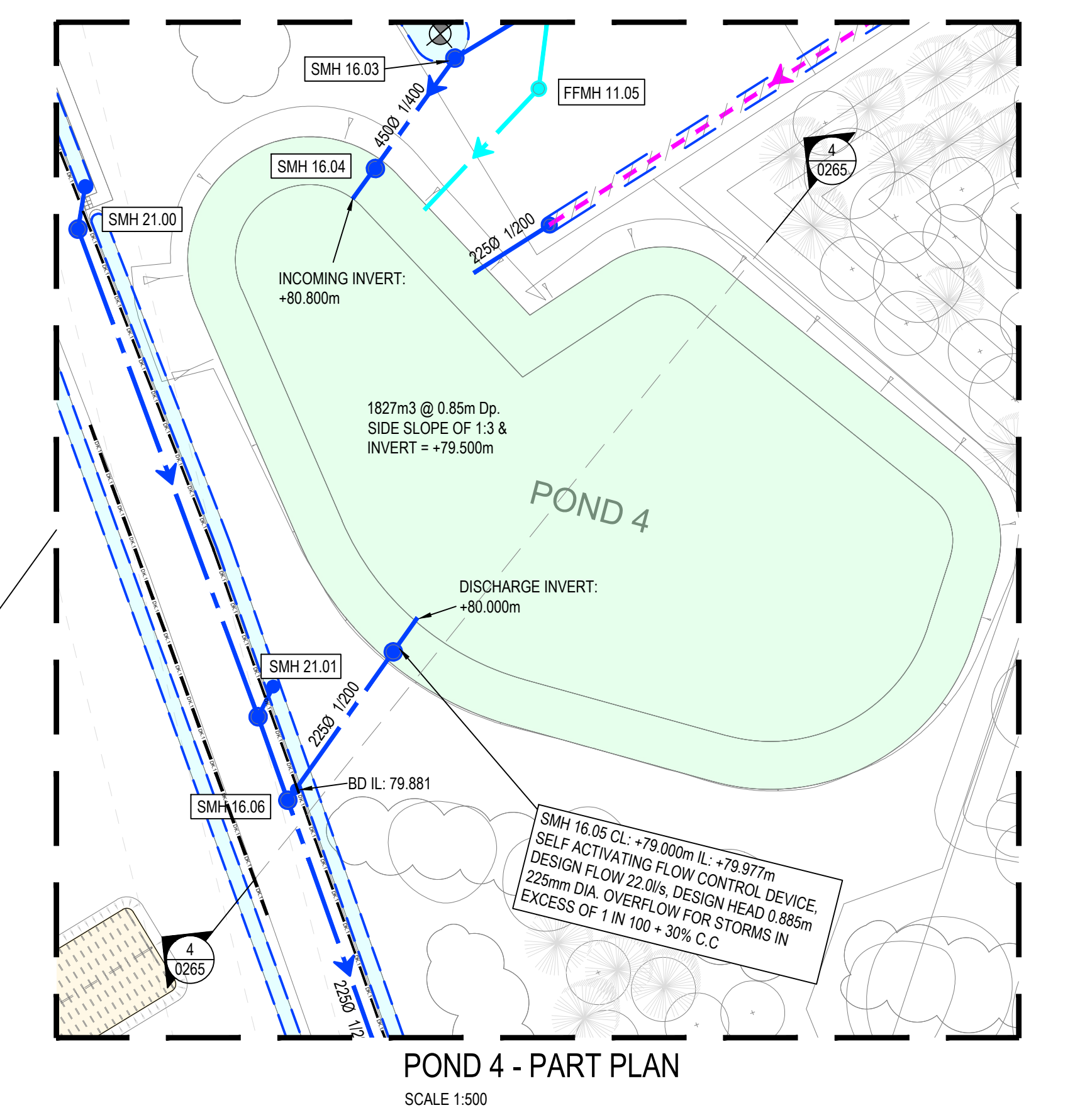
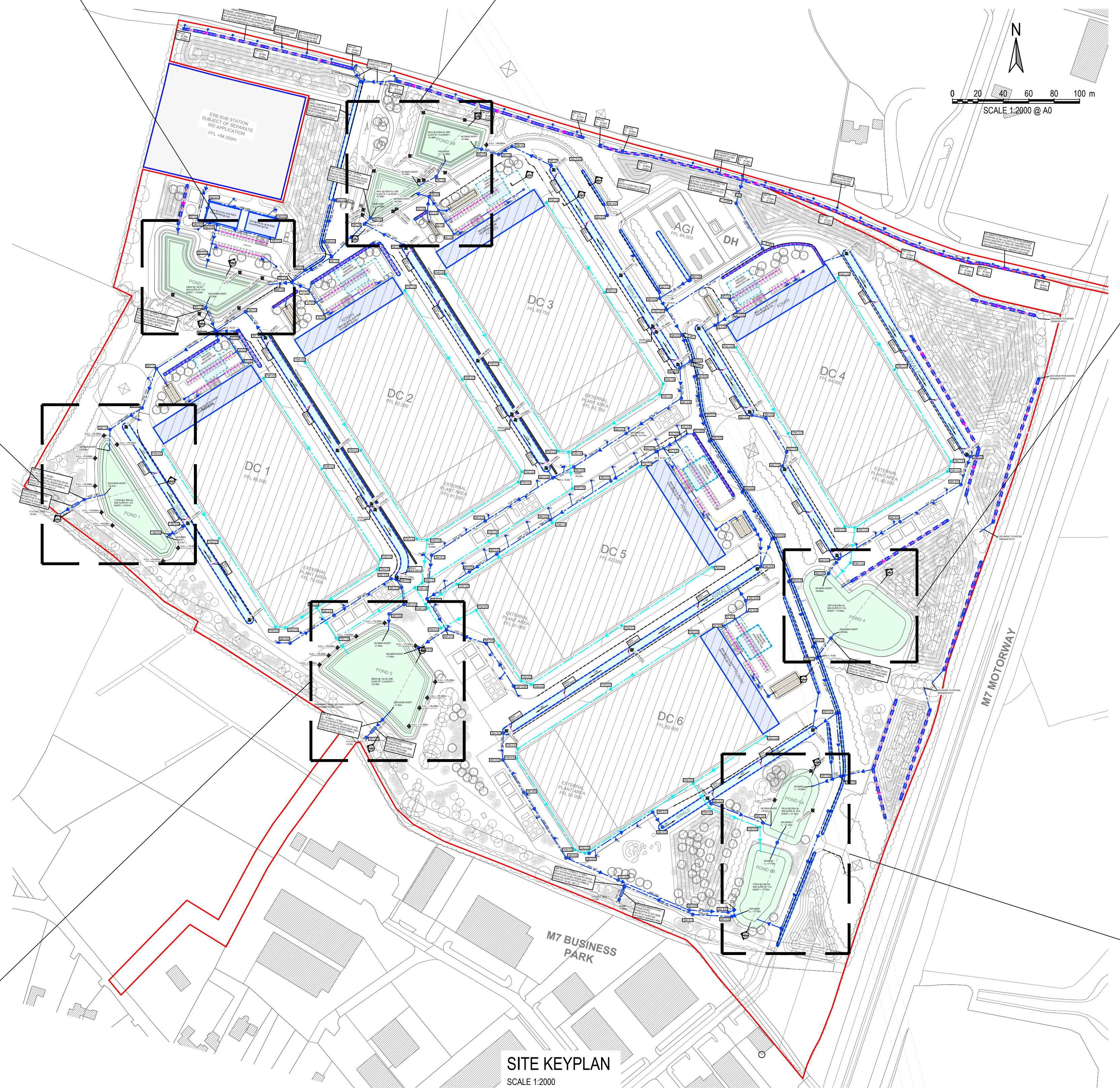
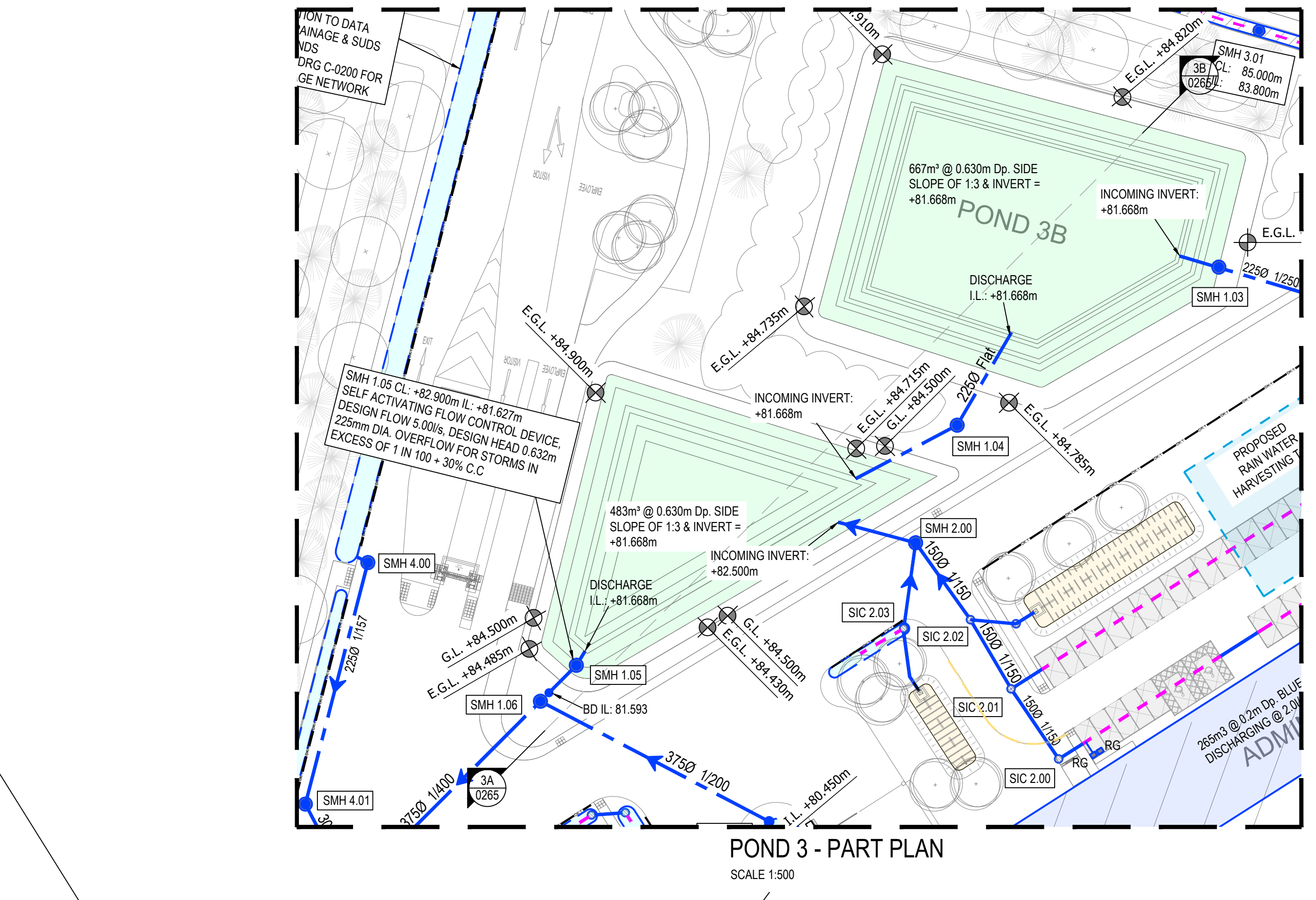


- NOTES:**
- DO NOT SCALE OFF THIS DRAWING. ALWAYS WORK TO NOTED DIMENSIONS.
 - ALL DIMENSIONS MUST BE VERIFIED ON SITE BEFORE COMMENCING WORK. DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DISCIPLINE'S DRAWINGS, REPORTS AND SPECIFICATIONS.
 - REFER TO ARCHITECT'S DRAWINGS FOR ALL SITE & APPLICATION REQUIREMENTS.
 - REFER TO SURVEY DRAWINGS FOR EXISTING SERVICES LAYOUTS AND MANHOLE INFORMATION.
 - REFER TO SURVEY DRAWINGS FOR EXISTING CONSTRUCTION OF NEW SERVICES.
 - THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LEVELS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES TO BE NOTIFIED TO THE ENGINEER & ARCHITECT FOR RESOLUTION.
 - CONTRACTOR TO ENSURE ALL WATER & WASTEWATER RELATED WORKING ARE IN ACCORDANCE WITH THE RISH WATER WASTEWATER INFRASTRUCTURE CODE OF PRACTICE & STANDARD DETAIL DOCUMENTS.
 - TESTING OF ALL GRAVITY SERVICES AND MANHOLES TO BE IN ACCORDANCE WITH RISH WATER CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE SECTION 4.11 TESTING OF GRAVITY SERVICES & MANHOLES.

RECEIVED: 13/08/2024

NOTE!
REFER TO DOBA DRG C-0200 FOR PROPOSED SURFACE WATER DRAINAGE LAYOUT
REFER TO DOBA DRG C-0300 FOR PROPOSED FOUL WATER DRAINAGE LAYOUT



KEY PLAN

TRUE NORTH

Rev.	Date	Description
P08	26/04/2024	ISSUED FOR PLANNING
P07	19/11/2023	ISSUED FOR PLANNING
P06	07/09/2023	ISSUED FOR PLANNING
P05	06/08/2023	ISSUED FOR PLANNING
P04	12/07/2023	ISSUED FOR INFORMATION
P03	10/07/2023	PROGRESS ISSUE
P02	30/06/2023	PROGRESS ISSUE
P01	06/06/2023	PROGRESS ISSUE

PLANNING

PROJECT: HERBATA DATA CENTRE CAMPUS

PROJECT ADDRESS: NAAS, CO. KILDARE

DWG TITLE: PROPOSED SUOS DETAILS - MASTERPLAN

DWG NO: 2232-DOB-ZZ-ZZ-DR-C-0260

REV: P08 S3 SCALE: As Shown @ A0

DATE: 28/04/2023 DWG: MF LDR: RK

RKD

Donnan O'Brien & Associates Consulting Engineers

BSM

Donnan O'Brien & Associates Consulting Engineers

- DO NOT SCALE OFF THIS DRAWING. ALWAYS REFER TO NOTED DIMENSIONS.
- ALL DIMENSIONS MUST BE VERIFIED ON SITE BEFORE COMMENCEMENT OF CONSTRUCTION. ANY DISCREPANCIES TO BE NOTIFIED TO THE ENGINEER & ARCHITECT FOR RESOLUTION.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DISCIPLINE'S DRAWINGS, REPORTS AND SPECIFICATIONS.
- REFER TO ARCHITECT'S DRAWINGS FOR ALL SITE & APPLICATION REQUIREMENTS.
- REFER TO SURVEY DRAWINGS FOR EXISTING SERVICES LAYOUTS AND MANHOLE INFORMATION.
- ALL EXISTING SURFACES TO BE REINSTATED CONSTRUCTION OF NEW SERVICES.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LEVELS WITH ARCHITECTURAL DRAWINGS AND SURVEY DATA. ANY DISCREPANCIES TO BE NOTIFIED TO THE ENGINEER & ARCHITECT FOR RESOLUTION.
- CONTRACTOR TO ENSURE ALL WATER & SEWERAGE SERVICES ARE INSTALLED IN ACCORDANCE WITH THE IRISH WATER INFRASTRUCTURE CODE OF PRACTICE & STANDARD DETAIL DOCUMENTS.
- TESTING OF ALL GRAVITY SEWERS AND MANHOLES TO BE IN ACCORDANCE WITH IRISH WATER CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE SECTION 3.3 OF WIS 4-36-01 (2008) (SEWER DIAMETERS 150mm UP TO 450mm, SERVICE CONNECTIONS OF 100mm DIAMETER).

FOUL WATER LEGEND:

- EXISTING FOUL SEWER
- PR. FOUL DRAINAGE
- PR. PUMPED FOUL RISING MAIN
- FMH
- PROPOSED FOUL WATER MH
- FAJ / FIC
- PROPOSED FOUL WATER AJ / IC
- PROPOSED BACKDROP IN MH
- EXISTING WATERCOURSE

- NOTE 1:** MANHOLE COVER LEVELS ARE APPROXIMATE. ACTUAL COVER LEVELS SHOULD MATCH SURROUNDING FINISHED GROUND LEVELS U.N.O.
- NOTE 2:** PIPES WITH LESS COVER THAN
- 600mm FOR GRASSSED AREAS
 - 900mm FOR FOOTPATHS
 - 1200mm FOR ROADS
- TO BE SURROUNDED IN 150mm CONCRETE PROTECTION IN ACCORDANCE WITH IRISH WATER STANDARD DETAIL STD-WW-07
- NOTE 3:** ALL MANHOLE COVERS LOCATED IN GRASS AREAS TO BE SURROUNDED (M: 200mm SURROUND) IN 100mm THK C20/25 CONCRETE APRON

FOUL PIPE MATERIAL TO BE IN ACCORDANCE WITH IW-CDS-5030-03 SECTION 3.13.2

3.13.2 THERMOPLASTIC STRUCTURAL WALL PIPES: THERMOPLASTIC STRUCTURED WALL PIPES SHALL COMPLY WITH THE PROVISIONS OF IS EN 13476 (2007/2008). PIPES TO BE OF STIFFNESS CLASS B_{SN}1' & TO BE CAPABLE OF DEMONSTRATING A JETTING RESISTANCE OF 2,000 PSI (180 BAR) WITHOUT DAMAGE WHEN TESTED IN ACCORDANCE WITH SECTION 3.3 OF WIS 4-36-01 (2008) (SEWER DIAMETERS 150mm UP TO 450mm, SERVICE CONNECTIONS OF 100mm DIAMETER).

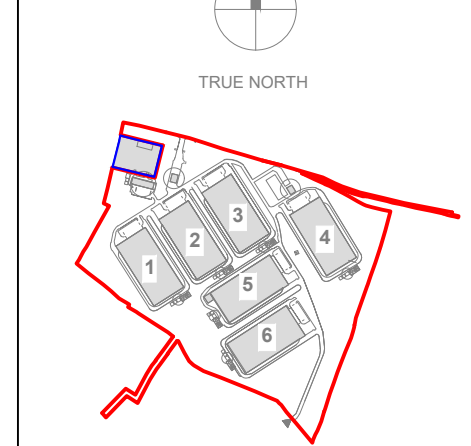
FOUL WATER DRAINAGE MANHOLE SCHEDULE (LINE 1)

REF.	CL.	IL.	NOTES
FMH 1.00	83.300	82.500	DISCHARGE TO FMH 3.05
FMH 1.01	83.550	81.990	BD IL 80.032
FMH 1.02	83.550	81.491	
FMH 1.03	83.550	80.978	
FMH 1.04	83.550	80.840	BD FROM FMH 2.02 @ IL 81.474
FMH 1.05	83.272	80.000	BD FROM FMH 1.04 @ IL 80.600
FMH 1.06	82.939	79.358	BD FROM FMH SID 1.06 @ IL 81.000
FMH 1.07	81.924	79.153	
FMH 1.08	81.127	76.952	BD FROM FMH 1.07 @ IL 78.900
FMH 1.09	80.645	76.681	
FMH 1.10	81.000	76.608	TYPE 3 PUMPING STATION
FMH 1.00	83.300	82.500	
FMH 1.01	83.550	81.990	
FMH 1.02	83.550	81.542	BD TO FMH 1.04 @ IL 81.474
FMH 3.00	81.800	81.000	
FMH 3.01	82.000	80.554	
FMH 3.02	82.000	80.099	
FMH 3.03	82.000	79.950	
FMH 3.04	82.000	79.620	
FMH 3.05	82.000	79.385	BD FROM FMH 4.01 @ IL 80.039 DISCHARGE TO FMH 1.07
FMH 4.00	81.800	81.000	
FMH 4.01	82.000	80.548	DISCHARGE TO FMH 3.05 BD IL 80.039
FMH 5.00	79.550	78.750	
FMH 5.01	79.750	78.304	
FMH 5.02	79.750	77.833	DISCHARGE TO FMH 5.03 BD IL 77.758
FMH 5.03	79.800	77.174	DISCHARGE TO FMH 1.08
FMH 6.00	79.550	78.750	
FMH 6.01	79.650	78.286	
FMH 6.02	79.800	77.813	
FMH 6.03	79.800	77.757	
FMH 6.04	79.800	77.611	DISCHARGE TO FMH 5.03
FMH SID 1.03	83.720	81.810	
FMH SID 1.04	83.700	81.763	
FMH SID 1.05	83.650	81.631	
FMH SID 1.06	83.650	81.242	DISCHARGE TO FMH 1.06 BD IL 81.000

FOUL WATER DRAINAGE MANHOLE SCHEDULE (LINE 2)

REF.	CL.	IL.	NOTES
FMH 7.00	81.500	80.750	
FMH 7.01	81.650	80.484	
FMH 7.02	81.800	79.820	
FMH 7.03	81.800	79.770	
FMH 7.04	81.800	79.188	
FMH 7.05	81.800	78.128	BD FROM FMH 8.01 @ IL 79.754
FMH 7.06	81.694	78.860	BD FROM FMH 11.04 @ IL 79.895
FMH 7.07	81.468	78.161	BD FROM FMH 9.05 @ IL 78.886
FMH 7.08	81.800	78.085	TYPE 3 PUMPING STATION
FMH 8.00	81.500	80.750	
FMH 8.01	81.650	80.274	DISCHARGE TO FMH 7.05 BD IL 79.754
FMH 9.00	81.500	80.750	
FMH 9.01	81.650	80.299	
FMH 9.02	81.800	79.821	
FMH 9.03	81.800	79.762	
FMH 9.04	81.800	79.179	
FMH 9.05	81.200	79.116	BD FROM FMH 10.01 @ IL 79.748 BD IL 78.886
FMH 10.00	81.500	80.750	
FMH 10.01	81.650	80.264	DISCHARGE TO FMH 9.05 BD IL 79.748
FMH 11.00	83.800	83.000	
FMH 11.01	83.800	81.529	BD FROM FMH 11.00 @ IL 82.392 BD FROM FMH 12.02 @ IL 81.886
FMH 11.02	83.600	80.929	
FMH 11.03	82.800	80.315	
FMH 11.04	83.000	80.215	BD FROM FMH 13.03 @ IL 81.200 BD IL 79.886
FMH 12.00	83.800	82.800	
FMH 12.01	83.800	82.367	
FMH 12.02	83.800	82.145	DISCHARGE TO FMH 11.01 BD IL 81.886
FMH 13.00	83.750	82.950	
FMH 13.01	83.500	82.454	
FMH 13.02	82.950	81.969	
FMH 13.03	82.950	81.887	DISCHARGE TO FMH 11.04 BD IL 81.200

KEY PLAN



STATUS

Rev.	Date	Description
P11	26/04/2024	ISSUED FOR PLANNING
P10	03/11/2023	ISSUED FOR PLANNING
P09	07/09/2023	ISSUED FOR PLANNING
P08	06/08/2023	ISSUED FOR PLANNING
P07	06/07/2023	ISSUED FOR INFORMATION
P06	10/07/2023	PROGRESS ISSUE
P05	30/06/2023	PROGRESS ISSUE
P04	30/06/2023	STIP. AMPLIFIED
P03	29/05/2023	MH TAGS & PIPE INFO ADDED
P02	24/05/2023	PROGRESS ISSUE
P01	26/04/2023	STAGE 1 ISSUE

PROJECT

HERBATA DATA CENTRE
CAMPUS

PROPOSED FOUL WATER DRAINAGE - OVERALL

UNION ID

2232-DOB-ZZ-ZR-C-0300

REV.

P11 S3 SCALE 1:1000 @ A0

DATE

28/04/2023

BY

ME

CHK

RK

APPROVED FOR

28/04/2023

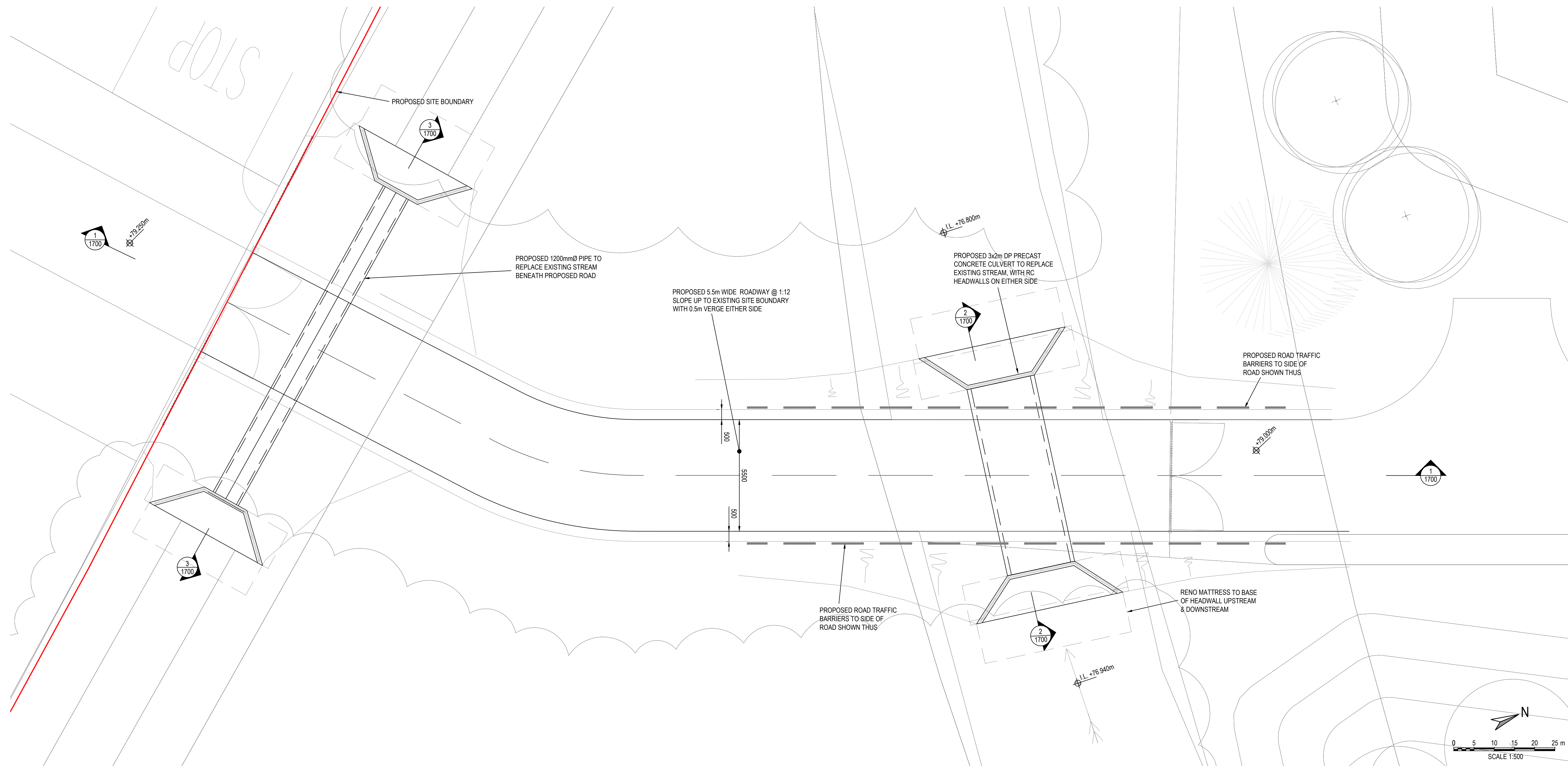
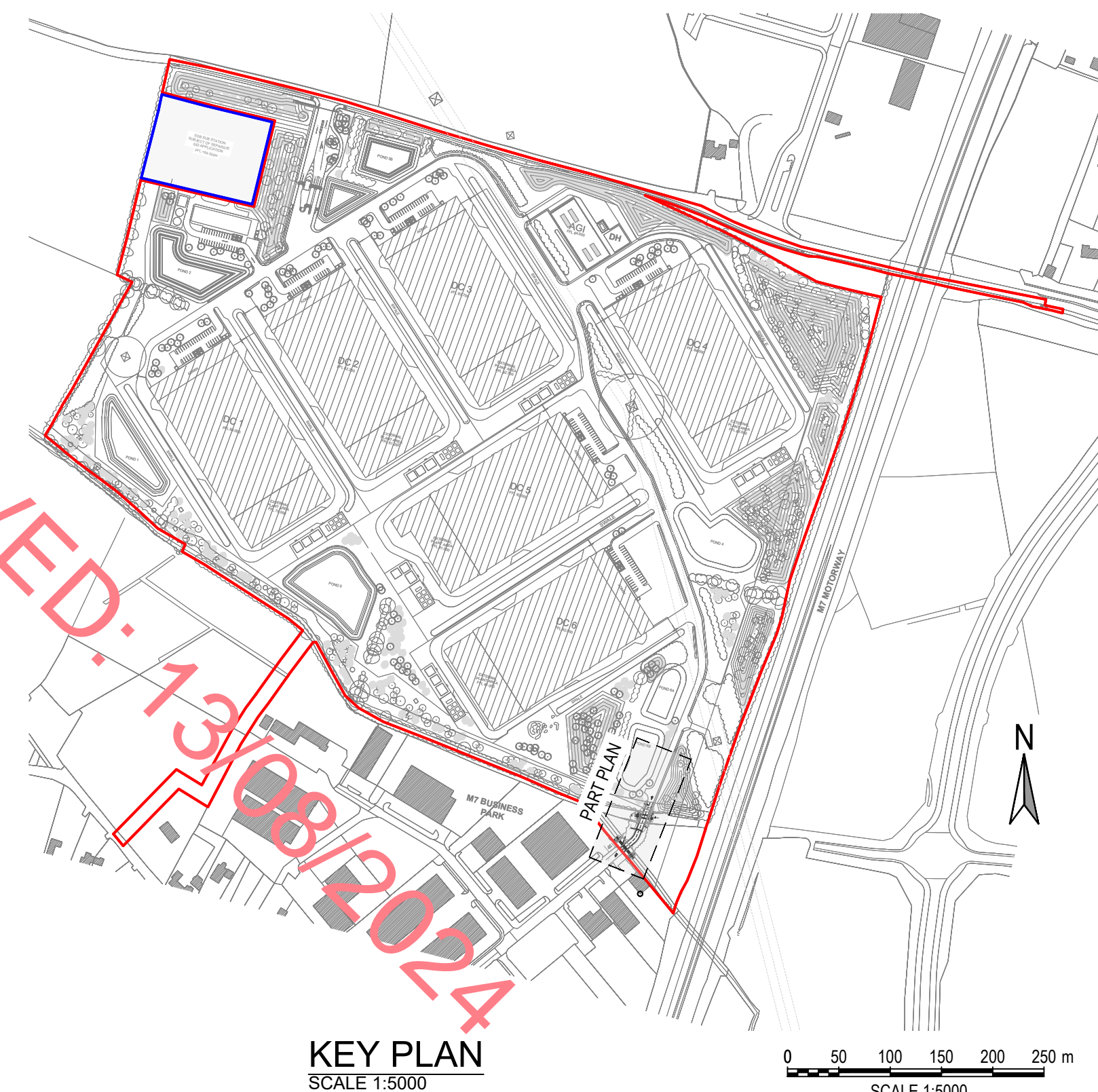
APPROVED FOR

28/04/2023

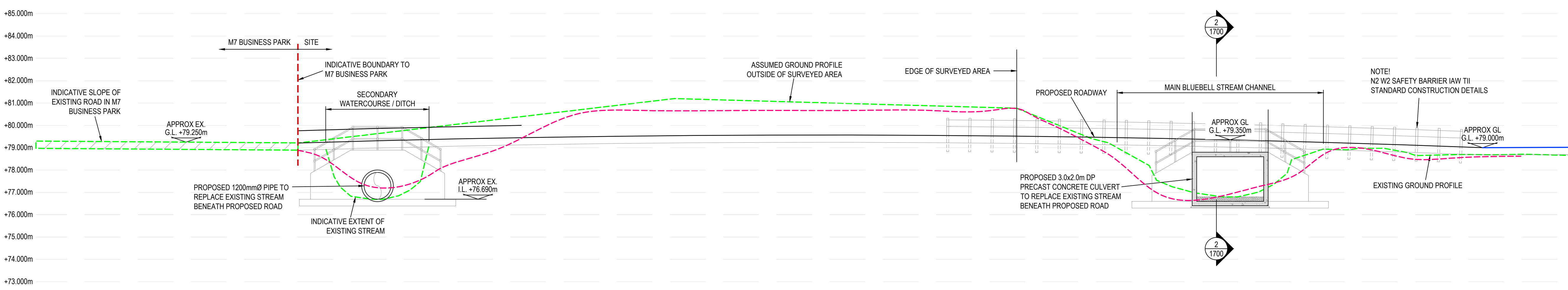


DONNACHADH O'BRIEN
& ASSOCIATES CONSULTING ENGINEERS

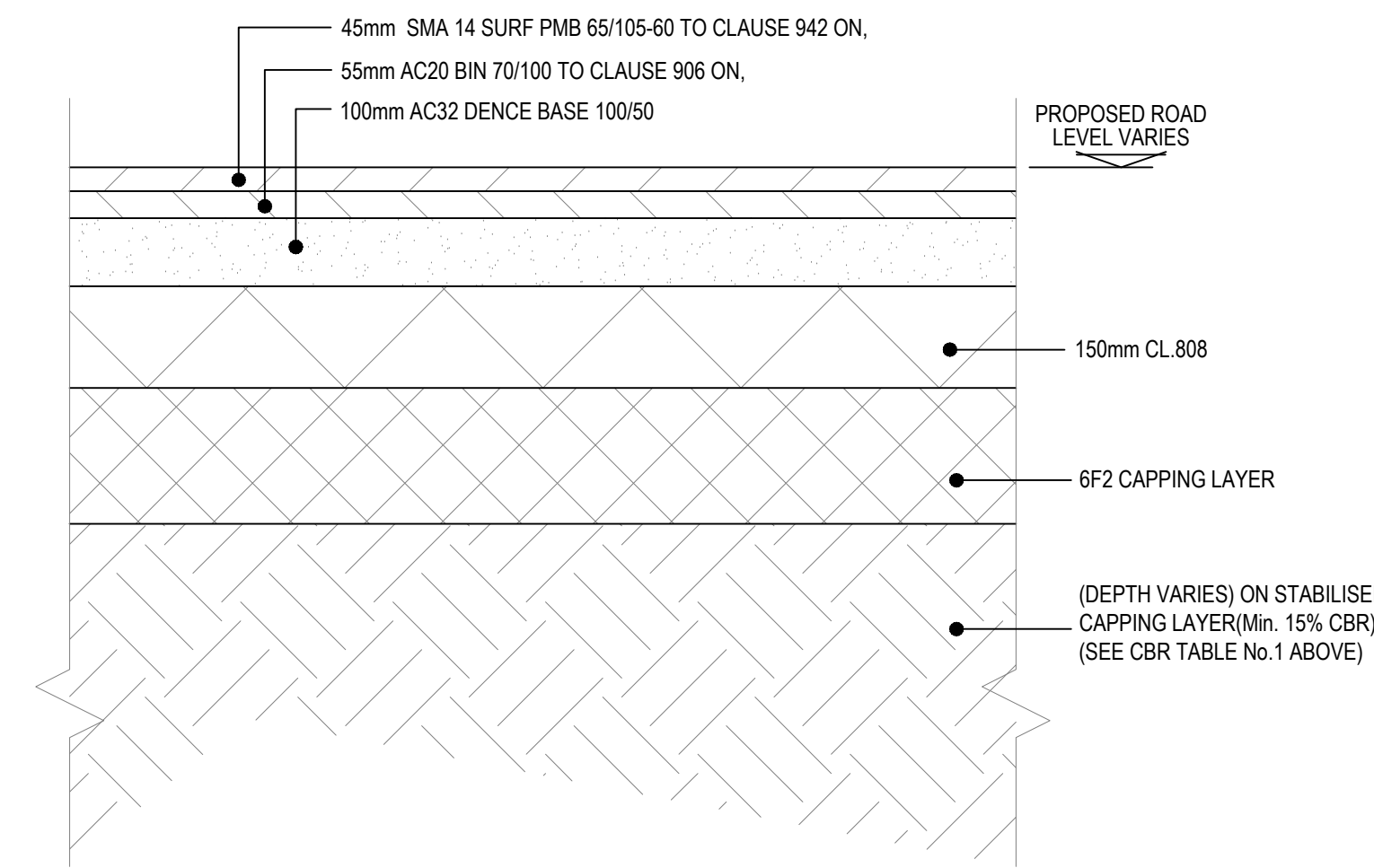
- Notes:**
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 - TESTING OF ALL GRAVITY SERVICES AND MANHOLES TO BE IN ACCORDANCE WITH NEW WATER CODE OF PRACTICE FOR WASTEWATER INFRASTRUCTURE. SECTION 4.11 TESTING OF GRAVITY SERVICES & MANHOLES.



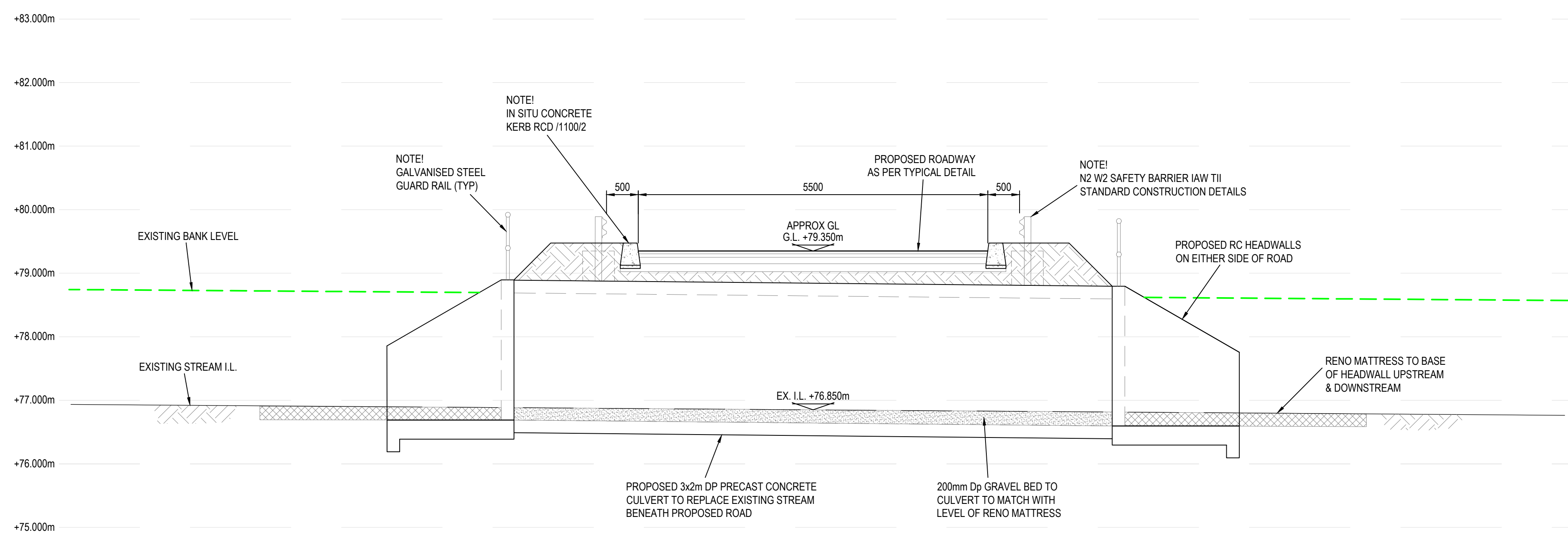
PART PLAN - PROPOSED ROAD CONNECTION TO EXISTING M7 BUSINESS PARK
SCALE 1:500



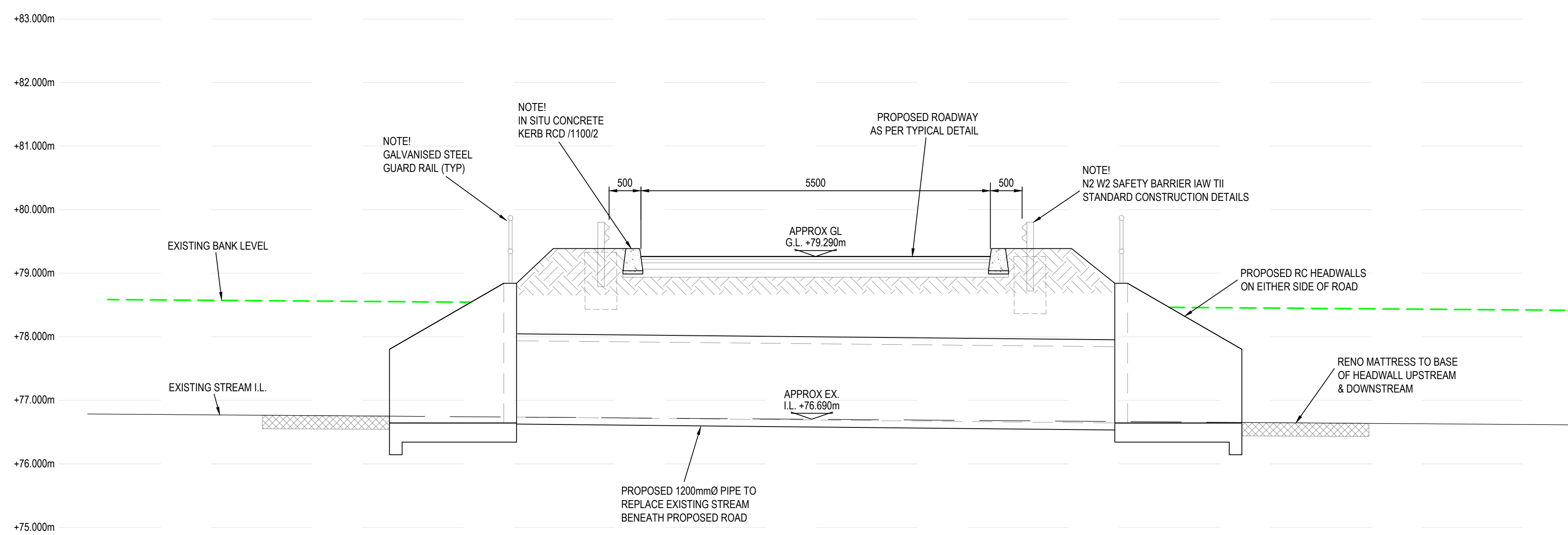
SECTION 1
SCALE 1:100



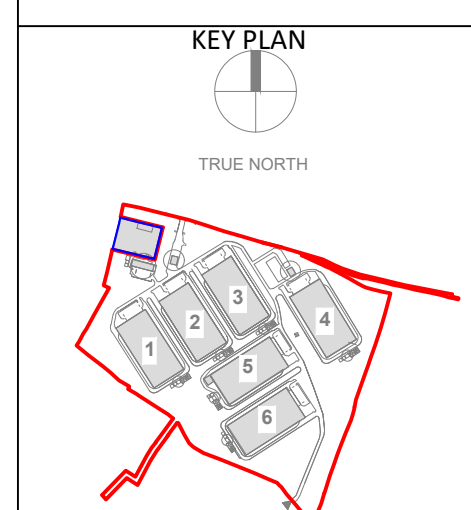
TYPICAL ROAD BUILD UP (5.5m WIDE)
SCALE 1:10



SECTION 2
SCALE 1:100



SECTION 3
SCALE 1:100

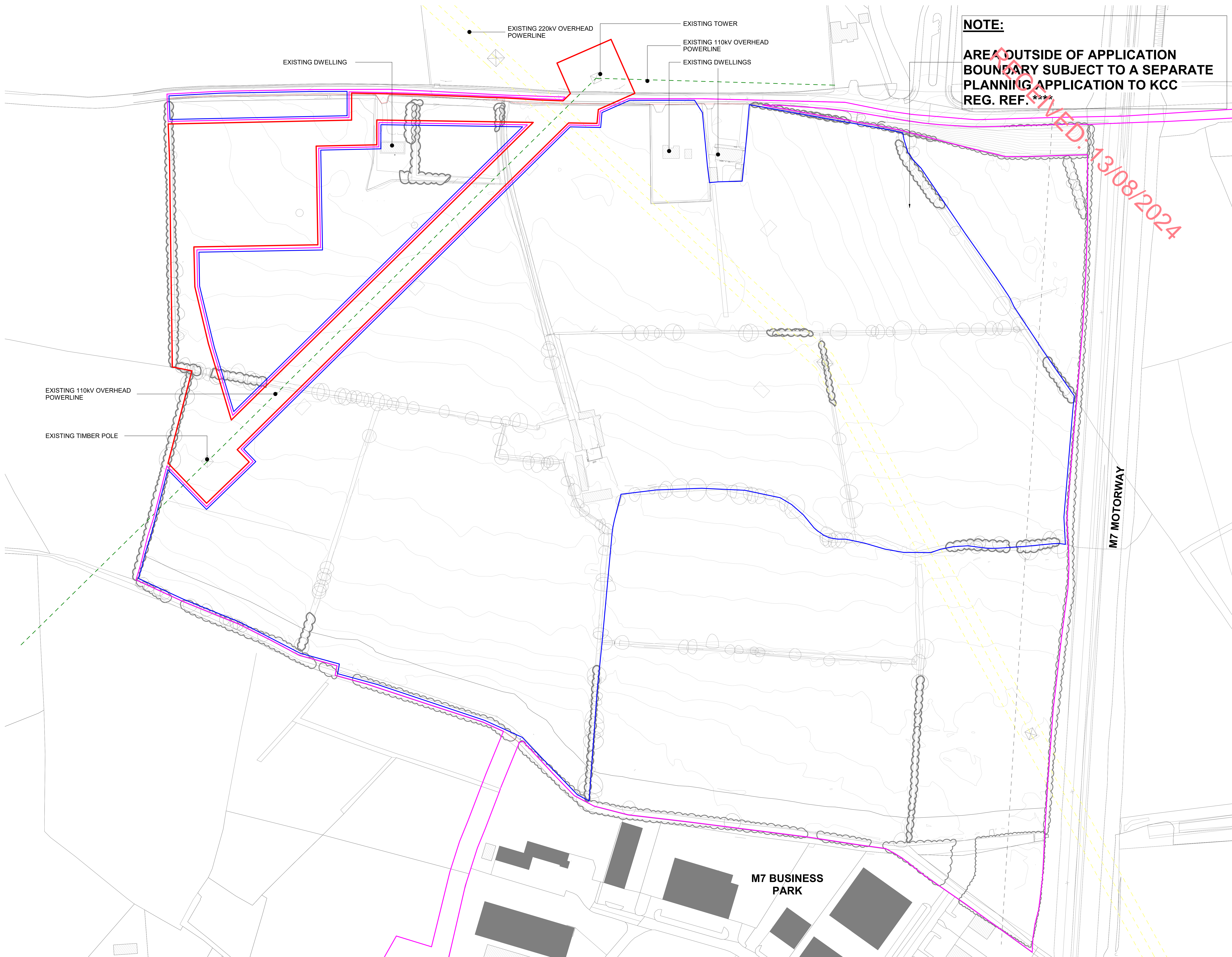


Rev.	Date	Description
P10	26/04/2024	ISSUED FOR PLANNING
P09	10/11/2023	ISSUED FOR PLANNING
P08	09/10/2023	ISSUED FOR PLANNING
P07	07/09/2023	ISSUED FOR PLANNING
P06	06/08/2023	ISSUED FOR PLANNING
P05	20/07/2023	ISSUED FOR INFORMATION
P04	10/07/2023	PROGRESS ISSUE
P03	30/06/2023	PROGRESS ISSUE
P02	29/05/2023	PROGRESS ISSUE
P01	28/04/2023	STAGE 1 ISSUE
STATUS: PLANNING		
PROJECT: HERBATA DATA CENTRE CAMPUS		
PROJECT ADDRESS: NAAS, CO. KILDARE		
DRAWING TITLE: PROPOSED CULVERT DETAILS AT M7 BUSINESS PARK ACCESS		
DRAWING NO: 2232-DOB-ZZ-ZZ-DR-C-1700		
REV.	SUBMITALITY	PROJECT NO.
P10	S3	DOB2232
DATE	28/04/2023	SCALE AS SHOWN
	DR	ME
	DR	RK
RKD		
Donnachadh O'Brien & Associates Consulting Engineers		
17 Farnham Road, Donnybrook, Dublin 4. D04 W9P6, Ireland. Tel: +353 1 896 1500 Fax: +353 1 896 1501		
BSM		
Est. 1960		

NOTE:

AREA OUTSIDE OF APPLICATION
BOUNDARY SUBJECT TO A SEPARATE
PLANNING APPLICATION TO KCC
REG. REF. ****

APPROVED: 13/08/2024



A1051 - EXISTING SITE CONTEXT PLAN
1 : 1000

Rev.	Date	Description
PD4	26/06/2024	ISSUED FOR INFORMATION
PD3	15/12/2023	ISSUED FOR INFORMATION
PD2	11/07/2023	DRAFT PLANNING ISSUE
PD1	03/06/2023	DRAFT PLANNING ISSUE

STATUS	INFORMATION
PROJECT	HERBATA DATA CENTRE CAMPUS
PROJECT ADDRESS	NAAS, CO. KILDARE
DWG TITLE	EXISTING SITE CONTEXT PLAN

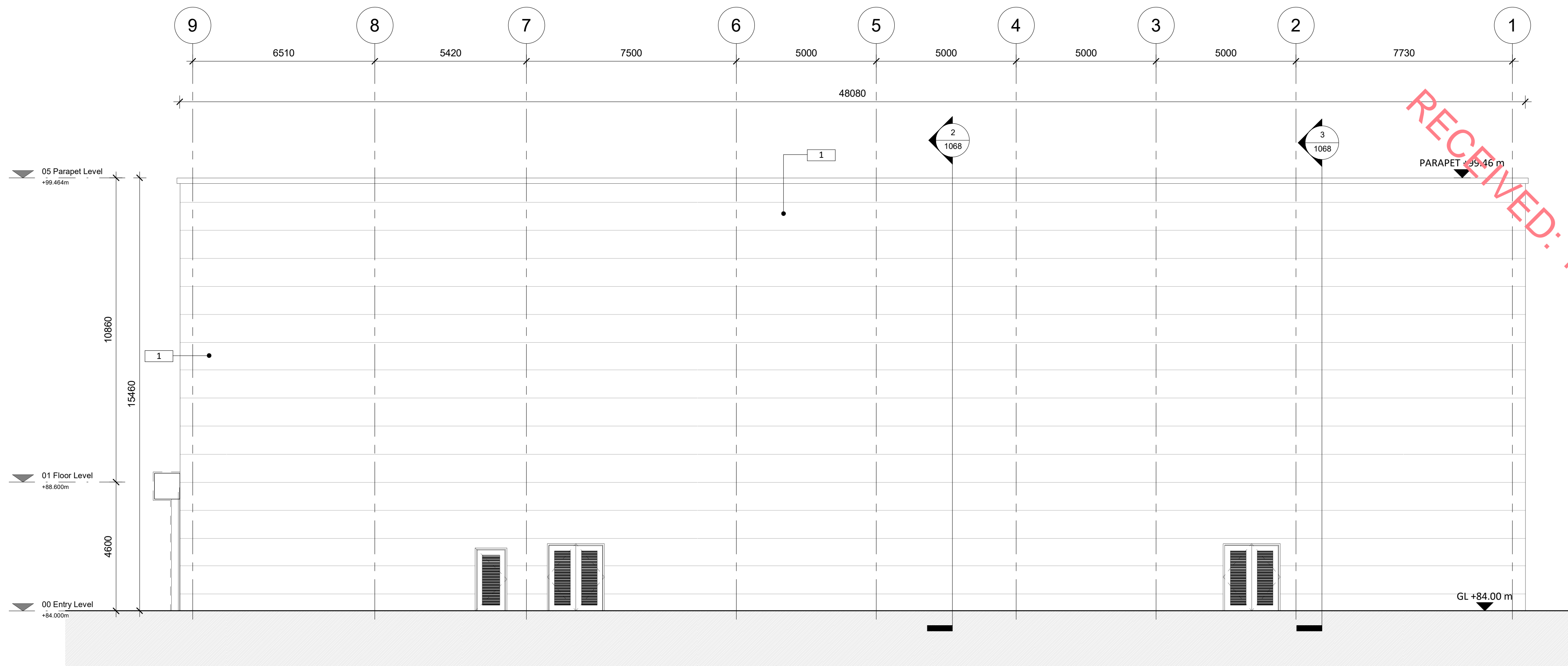
DWG NO.	22217-RKD-ZZ-ZZ-DR-A-1051
REV.	SUSTAINABILITY PROJECT NO. 22217
PD4	S3 SCALE 1:1000
DATE	03/11/2023 DRW: AMG CHK: KOIS

RKD
Riverside Knowledge Design
17 Ardara Road, Dublin 15
01-856 886 886
info@rkdesign.com

BSM
Est. 1968
Donnacha O'Brien
DONNACHA O'BRIEN
& ASSOCIATES CONSULTING ENGINEERS

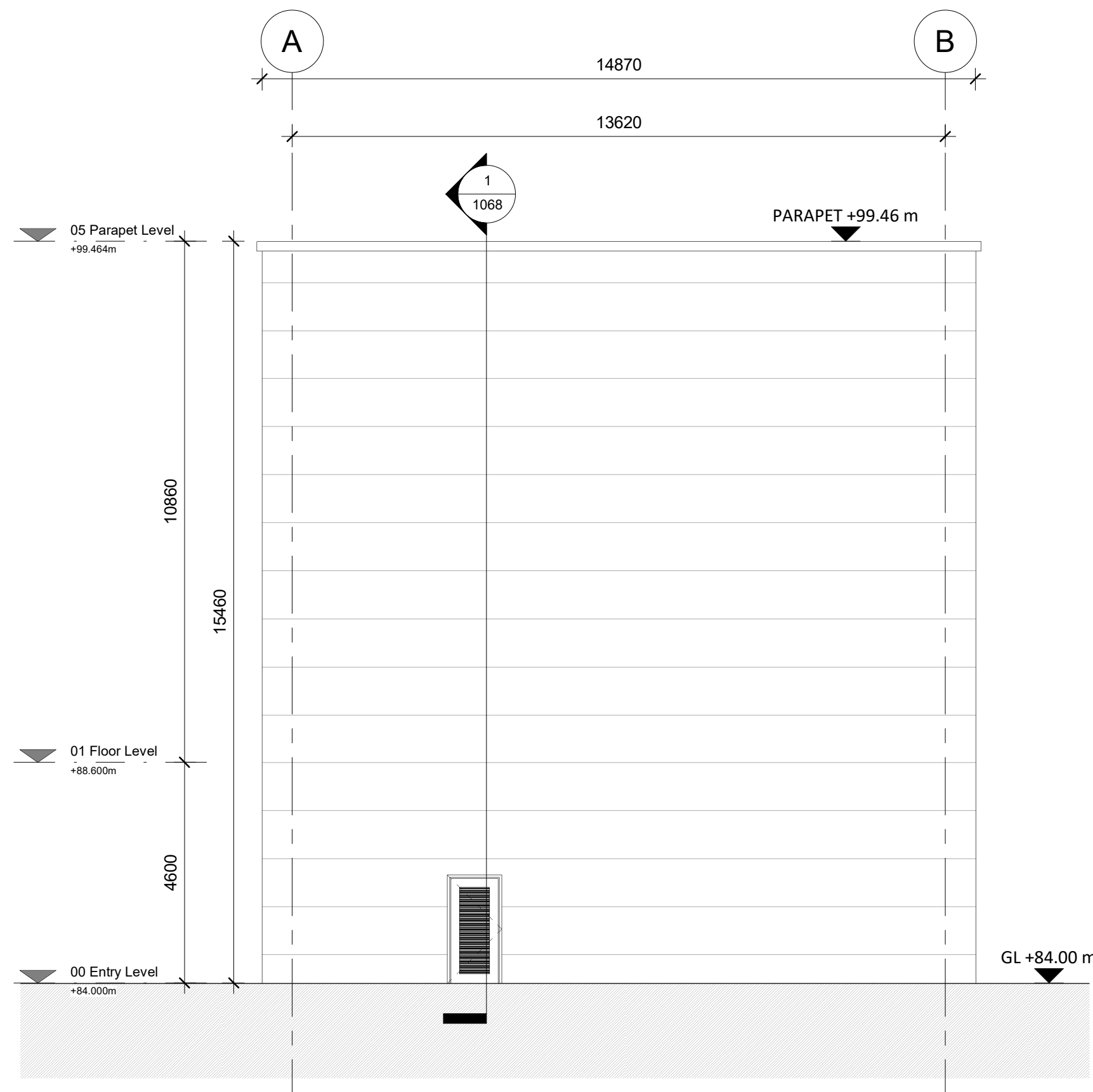


DRAFT
SUBJECT TO SEPARATE SID APPLICATION



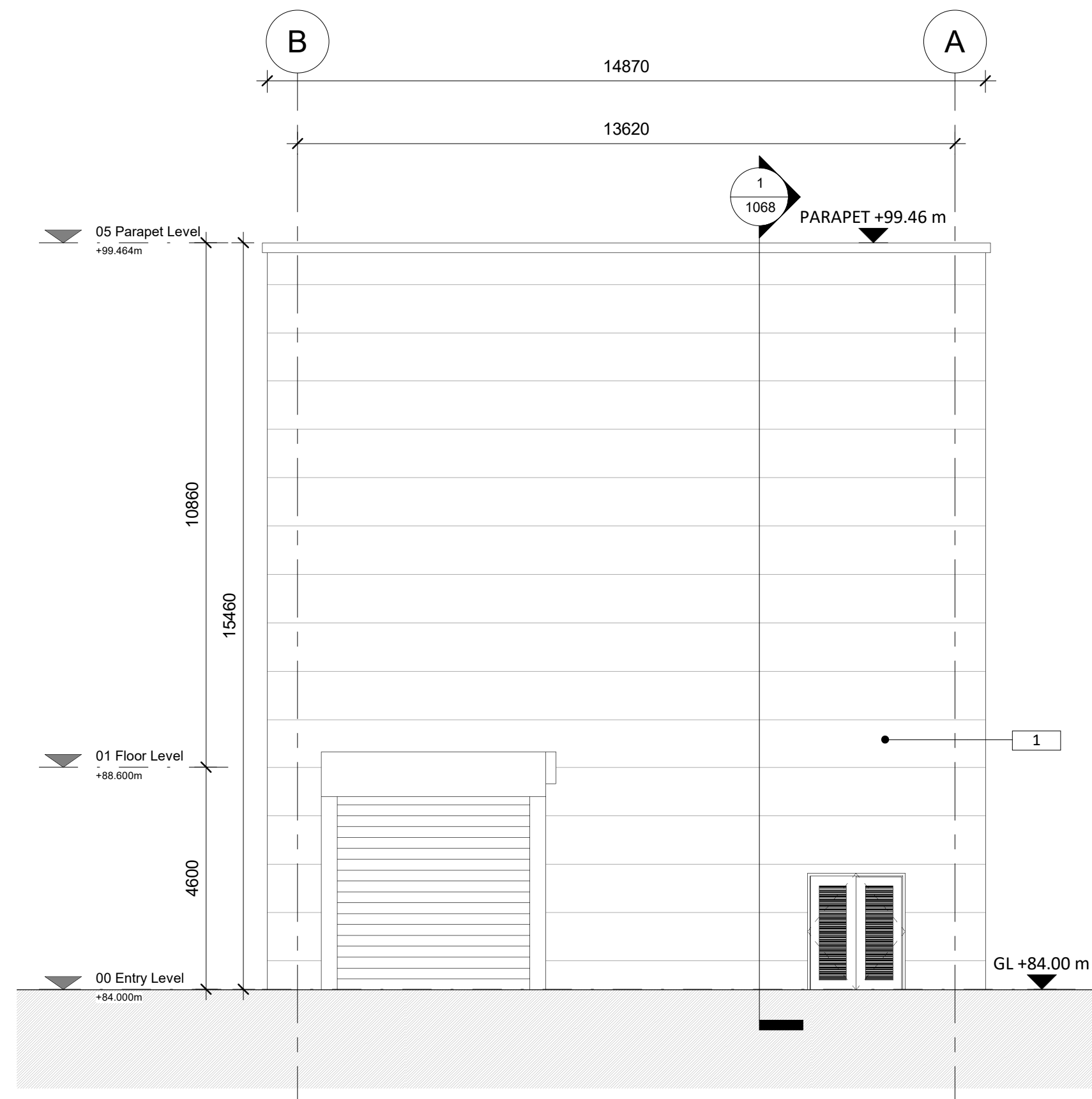
A1069 - PROPOSED ESB SUBSTATION - EAST ELEVATION

1
1 : 100



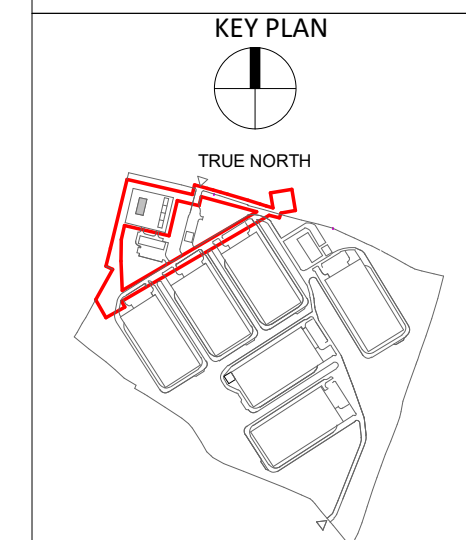
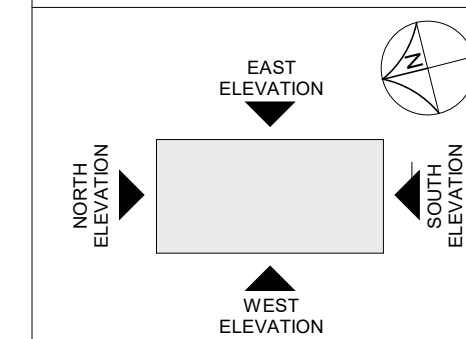
A1069 - PROPOSED ESB SUBSTATION - NORTH ELEVATION

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1 : 100



A1069 - PROPOSED ESB SUBSTATION - SOUTH ELEVATION

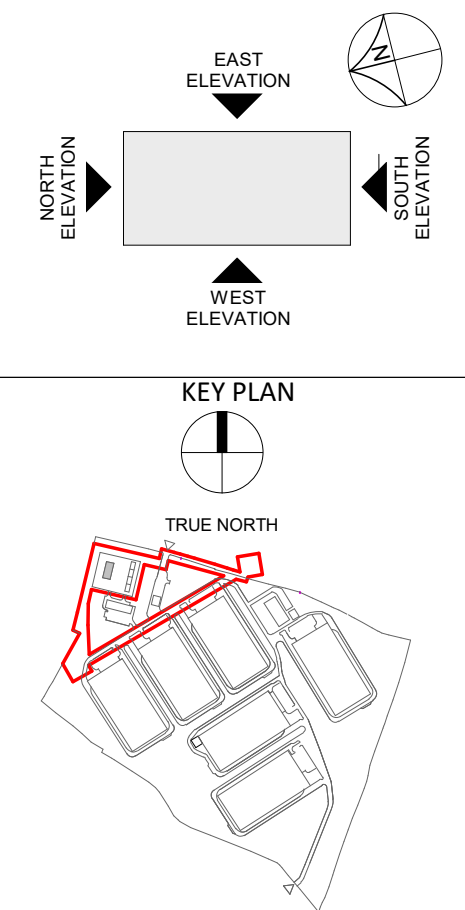
3
1 : 100



P03	15/12/2023	ISSUED FOR INFORMATION
P02	11/07/2023	DRAFT PLANNING ISSUE
P01	02/06/2023	DRAFT PLANNING ISSUE
Rev.	Date	Description
STATUS INFORMATION		
PROJECT ELECTRIC SUBSTATION		
PROJECT ADDRESS NAAS, CO. KILDARE		
DWG TITLE PROPOSED ESB SUBSTATION - ELEVATIONS (SHEET 1 OF 2)		
DWG NO. 22217-RKD-ZZ-ZZ-DR-A-1069		
REV. P03	STATUS S3	PROJECT NO. 22217
		SCALE 1:100
DATE 11/07/2023	DRN AMG	CHK KOS

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- Notes:
- LEGEND**
1. PROPRIETARY INSULATED METAL CLADDING SYSTEM ON STEEL STRUCTURE (EUROBOND FLAT PROFILE PANELS OR OTHER APPROVED) TO DATA HALL AREA. COLOUR TONE - LIGHT GREY.
2. RENDER FINISH IN SELECTED COLOUR.
3. SELECTED PARALON OR OTHER APPROVED ROOF FINISH LAID TO MANUFACTURERS SPECIFICATION ON STEEL STRUCTURE TO ENGINEERS FUTURE DETAILS.
4. 2.4m HIGH PALLISADE SECURITY FENCE AROUND COMPOUND AREA.
5. 2.4m HIGH SWING GATE IN PALLISADE FENCE.



P03	15/12/2023	ISSUED FOR INFORMATION
P02	11/07/2023	DRAFT PLANNING ISSUE
P01	02/06/2023	DRAFT PLANNING ISSUE

Rev.	Date	Description
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STATUS INFORMATION

PROJECT ELECTRIC SUBSTATION

PROJECT ADDRESS NAAS, CO. KILDARE

DWG TITLE PROPOSED ESB SUBSTATION - ELEVATIONS (SHEET 2 OF 2)

DWG NO. 22217-RKD-ZZ-ZZ-DR-A-1070

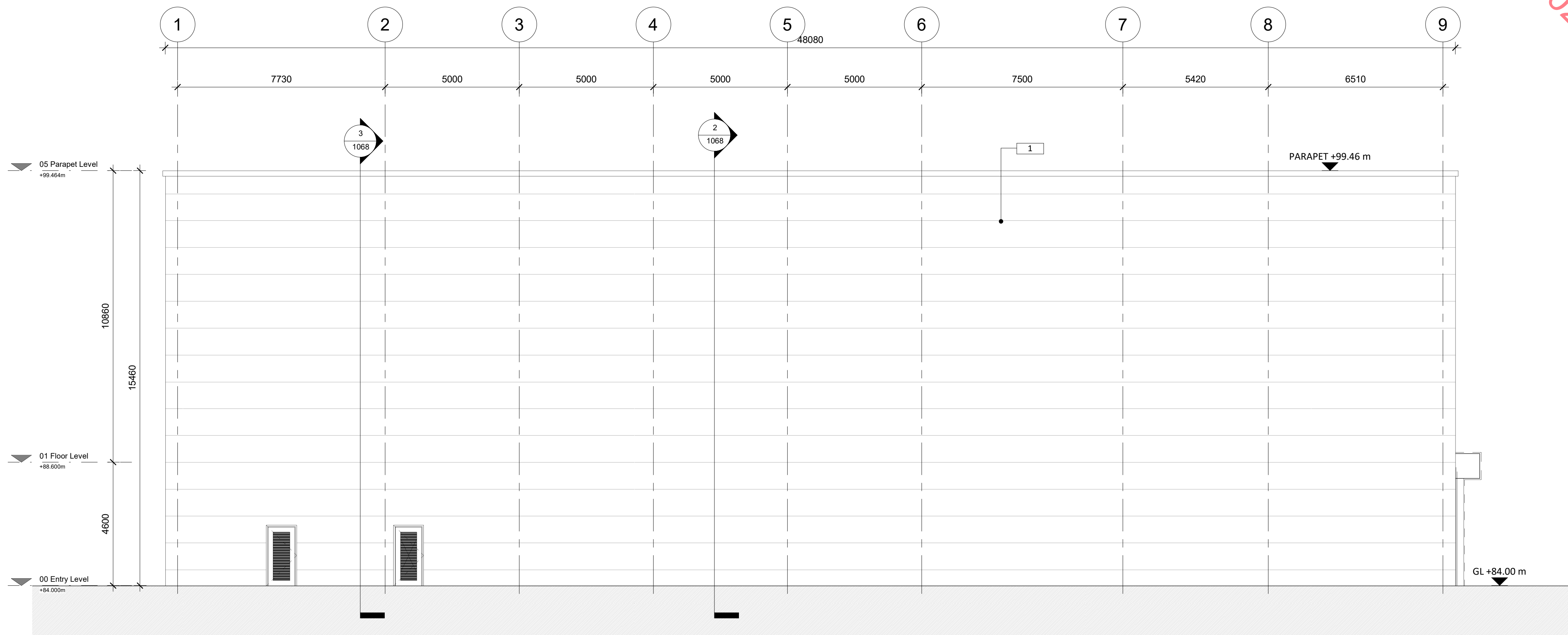
REV.	STATUS	PROJECT NO.	SCALE
P03	S3	22217	1:100

DATE 11/07/2023 DRN AMG CHK KOS

RKD
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Est. 1968

DONNACHADH O'BRIEN
& ASSOCIATES CONSULTING ENGINEERS

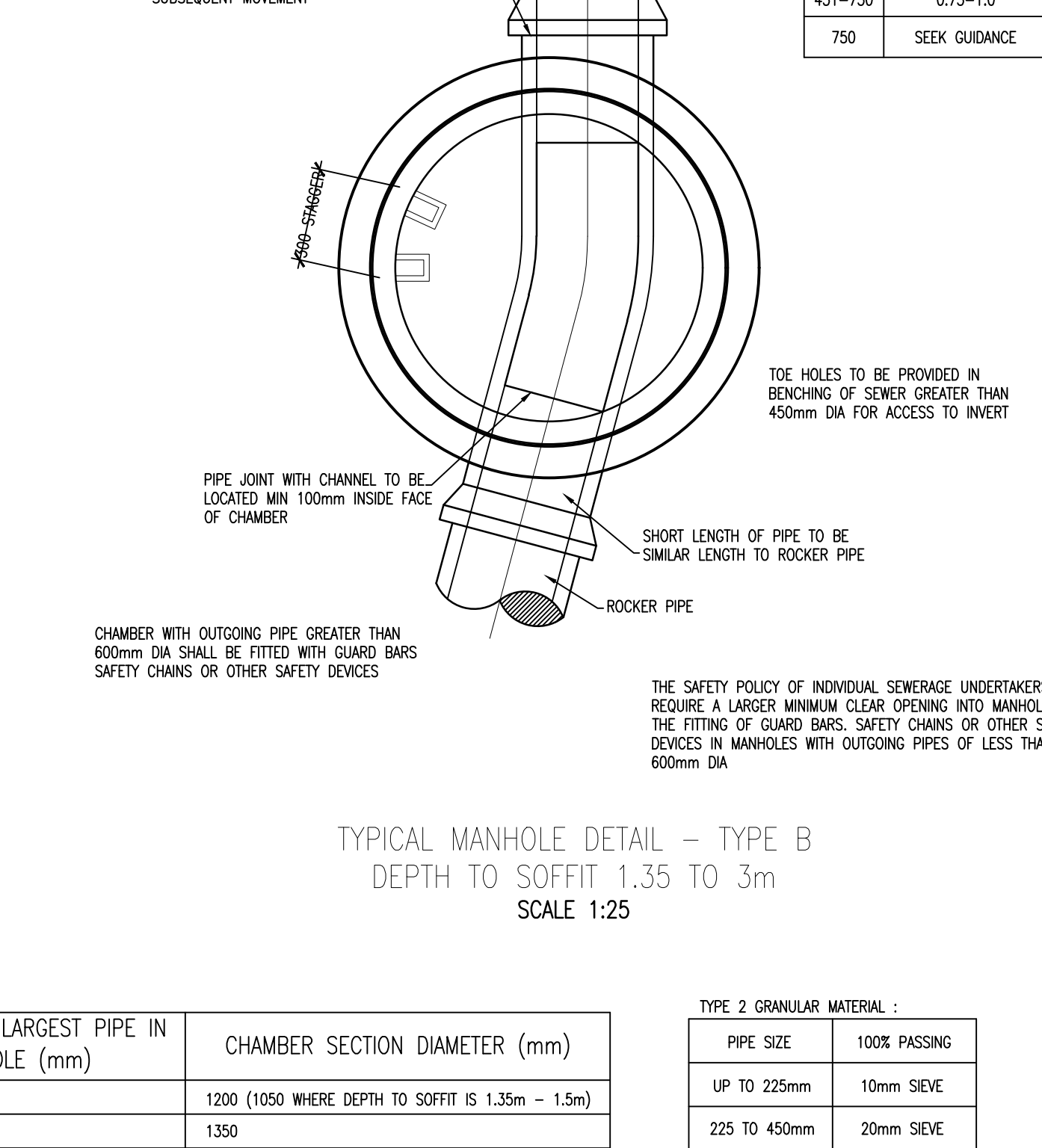
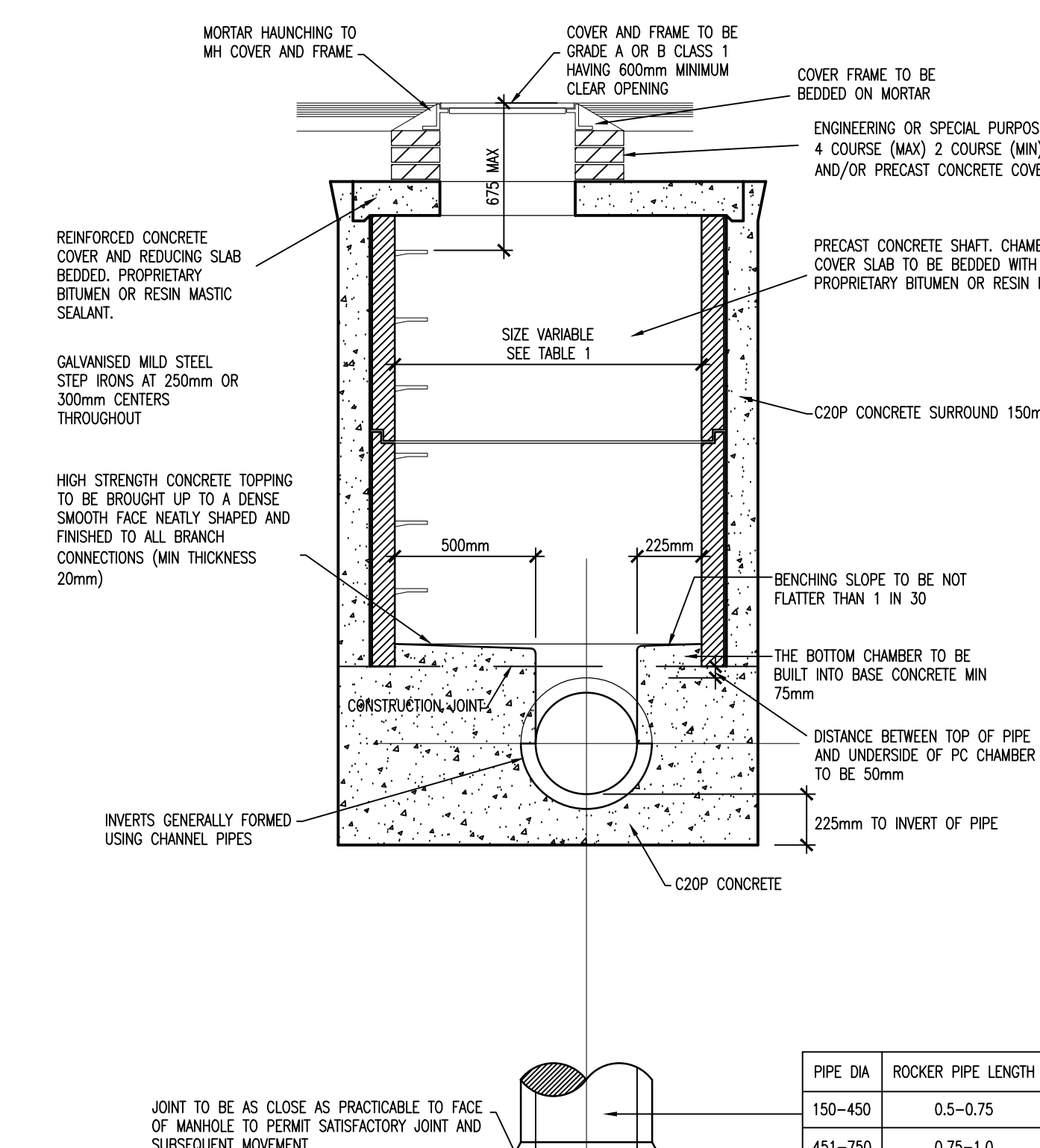


A1070 - PROPOSED ESB SUBSTATION - WEST ELEVATION

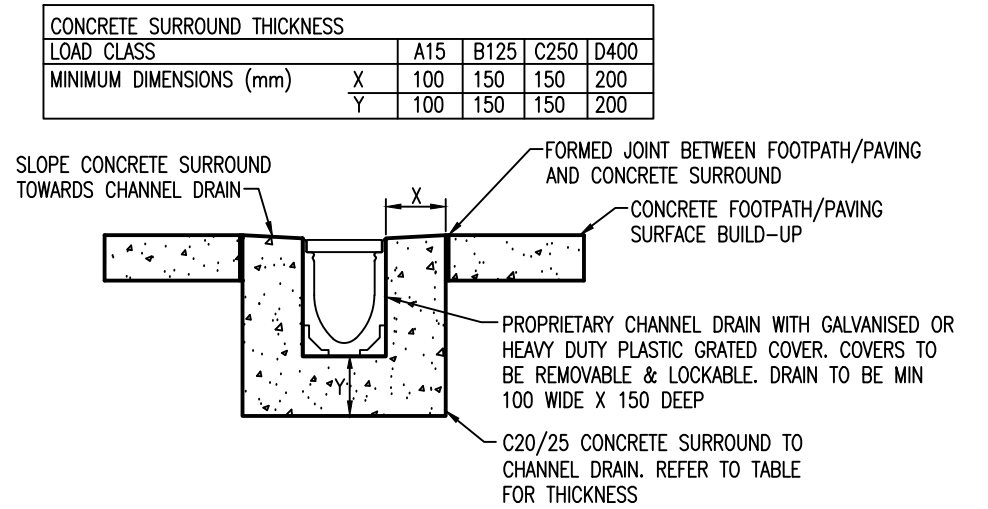
1 : 100

DRAFT

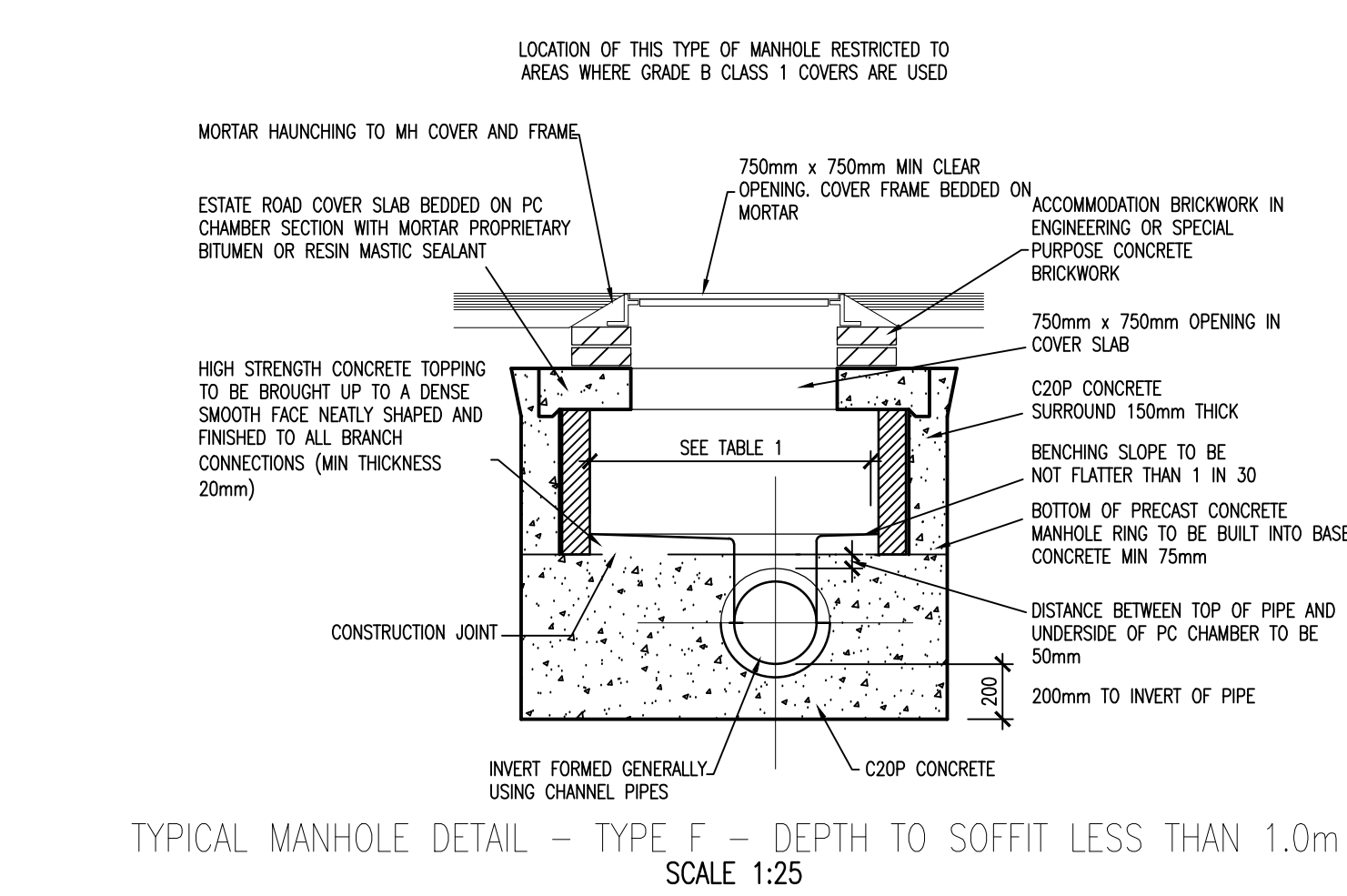
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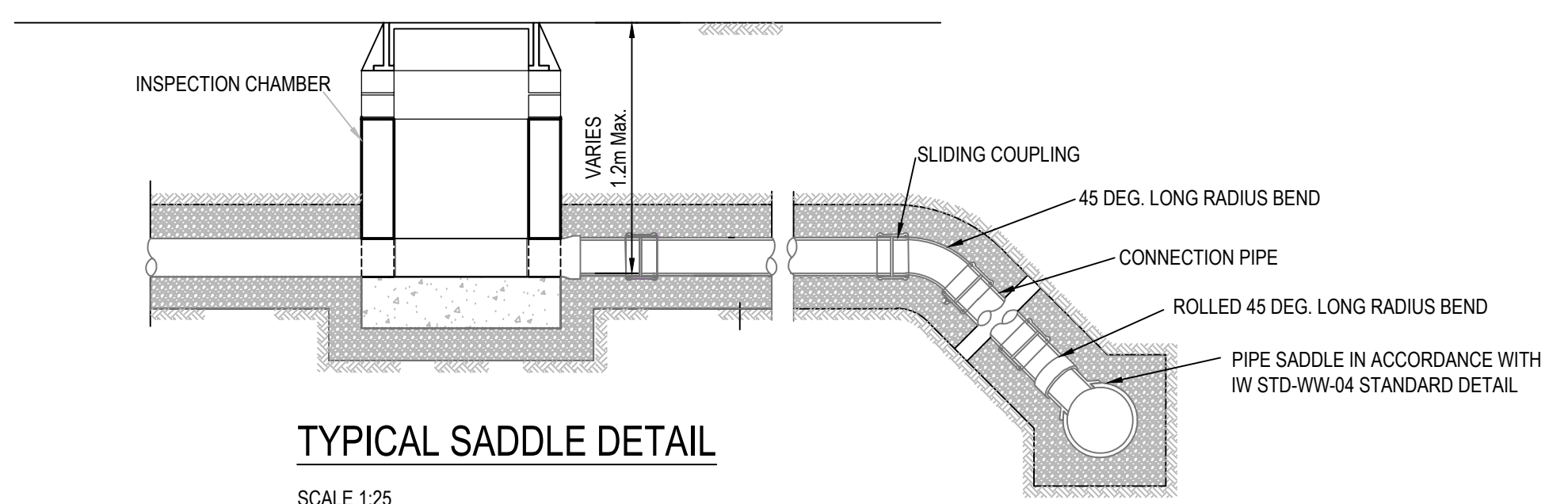
PIPE SIZE	100% PASSING
UP TO 225mm	10mm SIEVE
225 TO 450mm	20mm SIEVE
ABOVE 450mm	25mm SIEVE



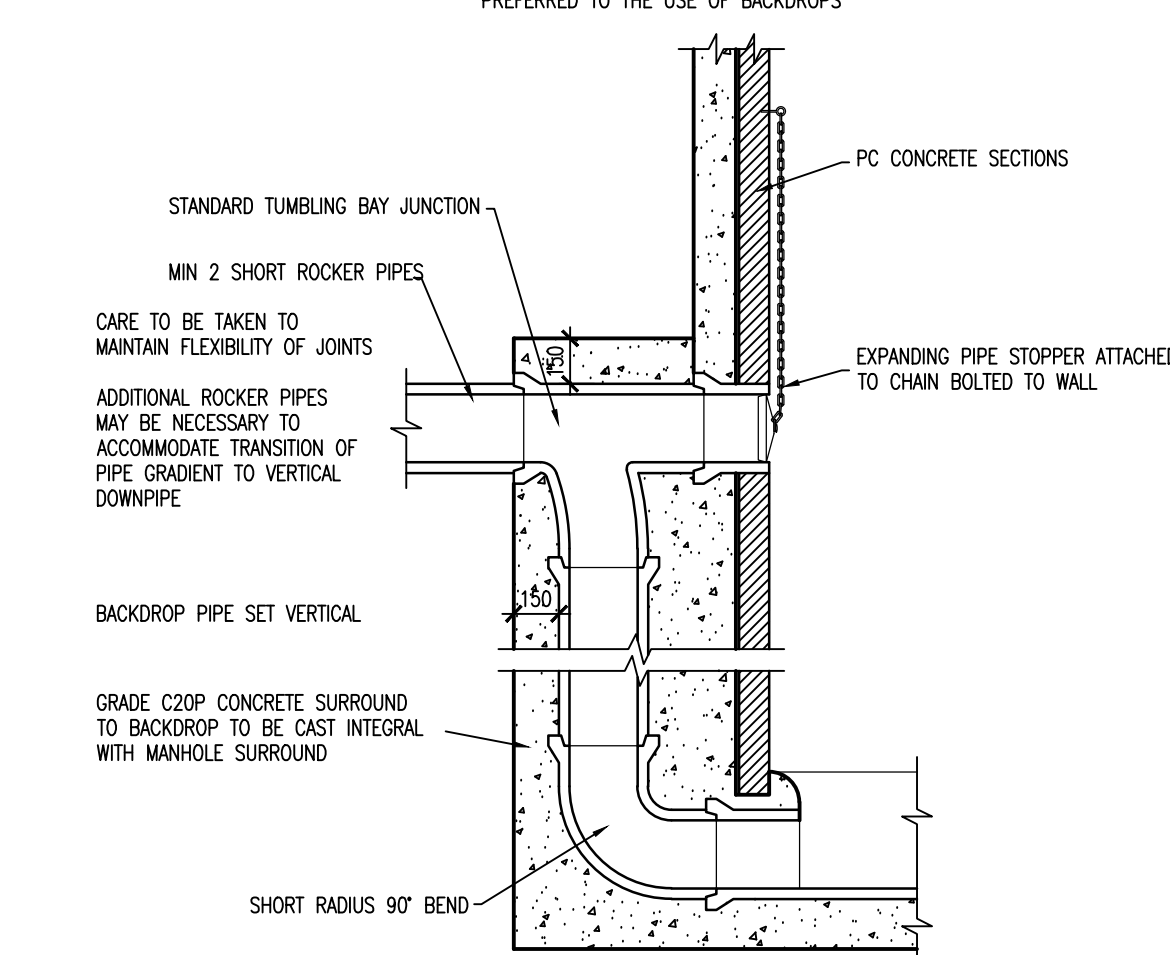
TYPICAL CHANNEL DRAIN
SCALE 1:25



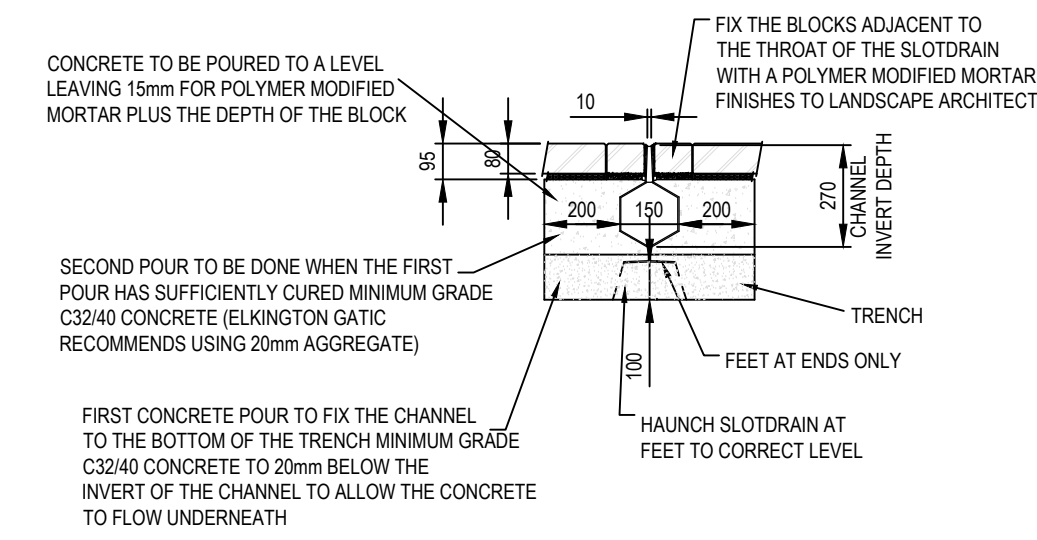
TYPICAL MANHOLE DETAIL - TYPE F - DEPTH TO SOFFIT LESS THAN 1.0m
SCALE 1:25



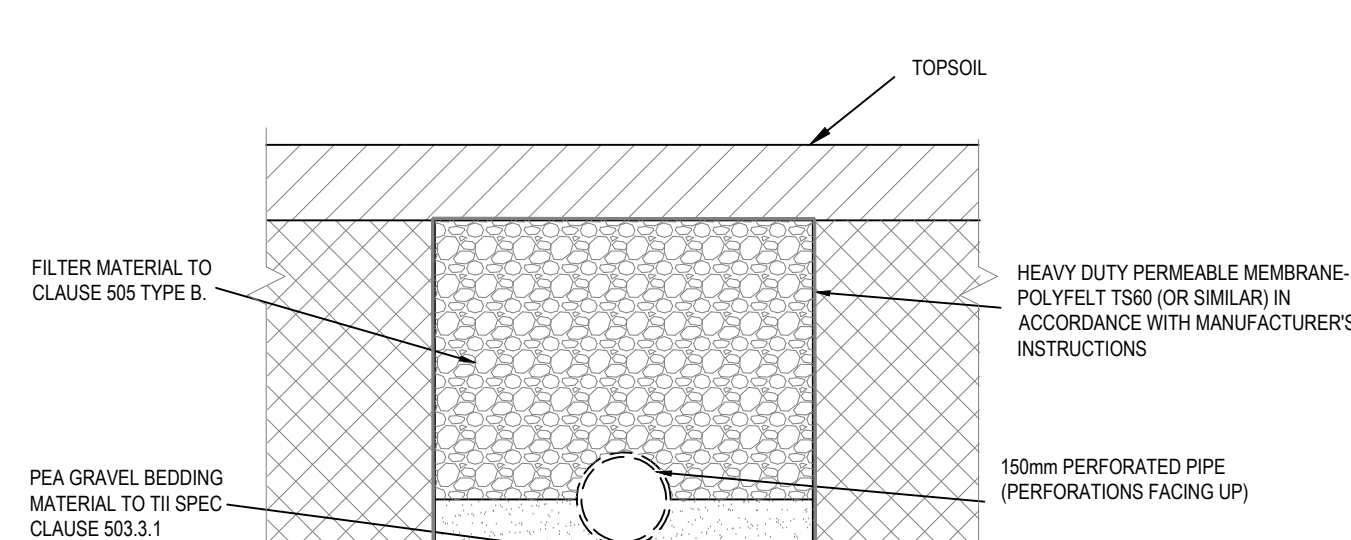
TYPICAL SADDLE DETAIL
SCALE 1/25



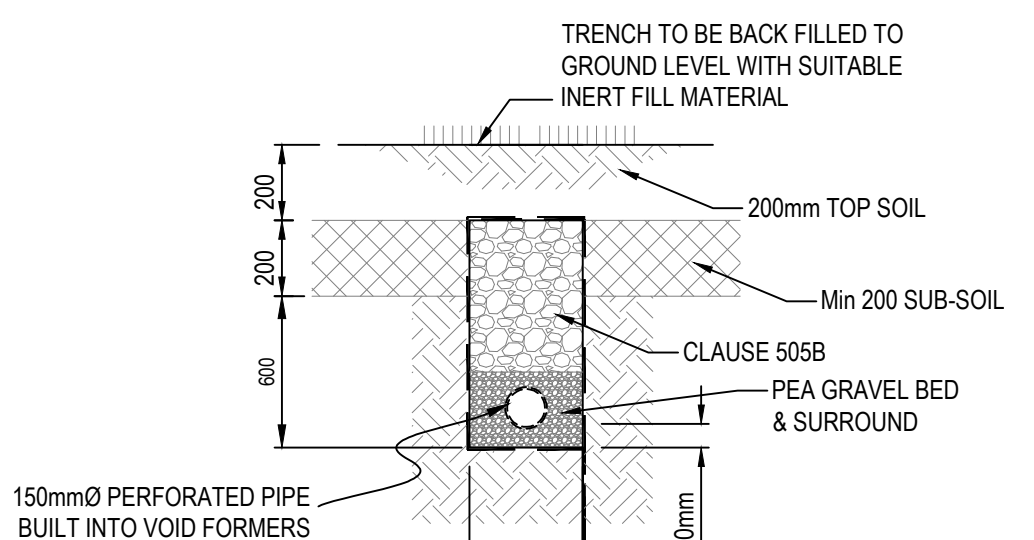
TYPICAL VERTICAL BACKDROP DETAIL
SCALE 1:25



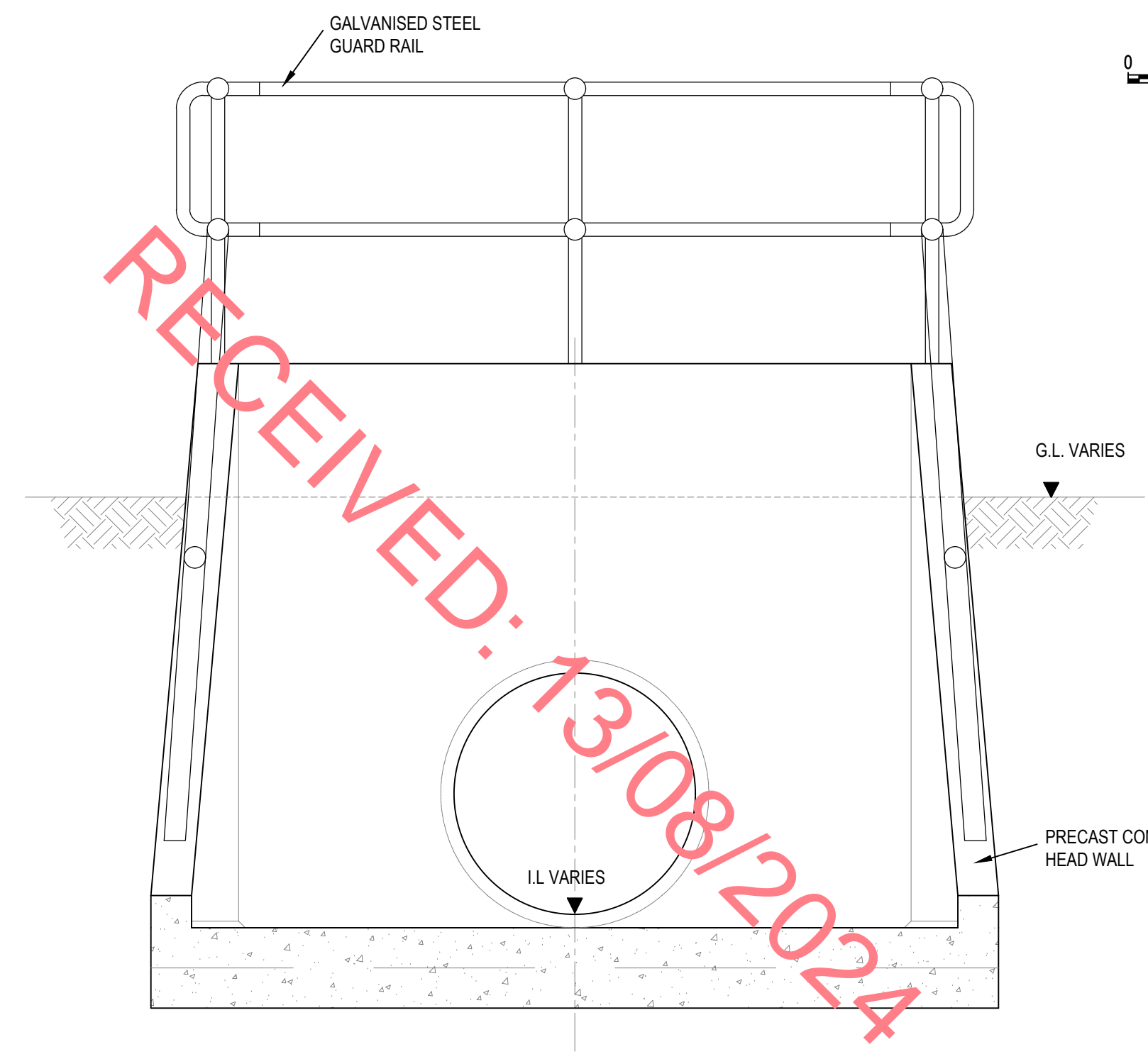
TYPICAL SLOT DRAIN DETAIL
SCALE: 1/20



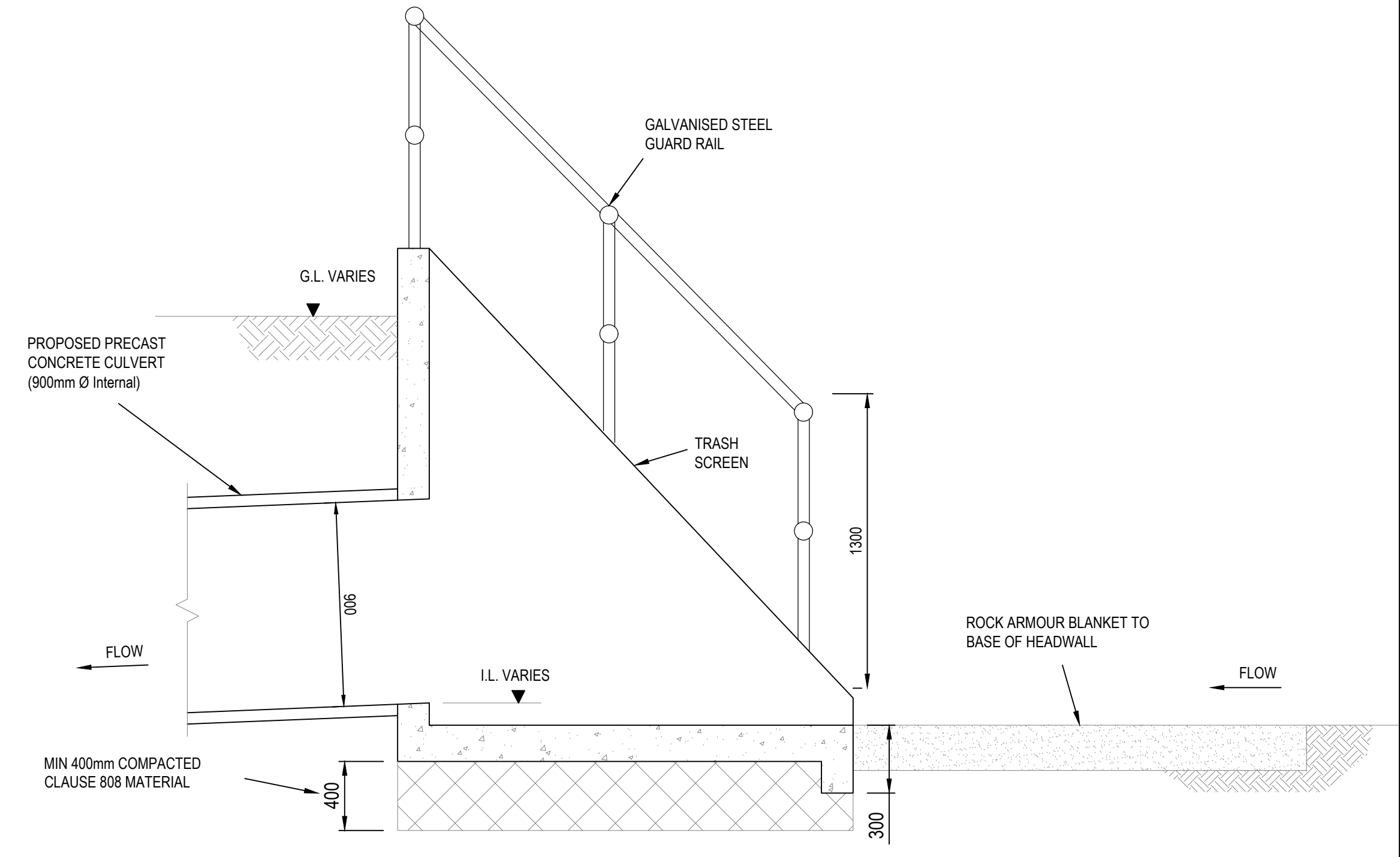
TYPICAL DETAIL OF INFILTRATION TRENCH
SCALE: 1/20



TYPICAL DETAIL LAND DRAIN
SCALE: 1/20



HEADWALL TYPICAL ELEVATION



HEADWALL TYPICAL SECTION

TYPICAL PRECAST HEADWALL DETAIL

