



Worksite Survey Team
National Records Centre
Audax Road
YORK

NRSWA Asset Enquiries

YO30 4US

Dear Sir/Madam,

Please find information available as per the checklist.

The information contained herein is based on Network Rail's records and, where appropriate, third parties such as utility companies. The search enclosed does not cover a search of local council records. Also, schematic Signal and Telecom (S&T) cables plans are not provided as part of the search results, therefore you must assume S&T cables are present until proven otherwise.

Although at the date of this letter the information is as up to date as possible, it is **NOT** a statement of validity, accuracy or completeness as to any of the enclosed search information and must not be relied on as such.

Your risk assessment **MUST** take into account:

- That the information supplied, including the services shown on the map from the Rail Infrastructure Network Model (RINM), does not provide any guarantee as to the accuracy of the actual location of services on site and **MUST** be considered as for guidance purposes only.
- That new/unrecorded services are likely to be present
- That the enclosed buried services search information has been collated only for the ELR and Mileage boundaries as stated on the original request form

Included in the buried services search is a list of ASPRO engineers & managers you **MUST** contact before any ground disturbance is carried out, to check whether further information is held locally.

Further guidance can be obtained from the Health and Safety Executive publication HSG47 "Avoiding Danger from Underground Services" and the Network Rail Publication NR/L2/INI/CP1030.

Should you become aware of any additional underground services or assets within the locality during your investigations and/or works, including redundant assets, please identify them as a matter of urgency to the site manager. Records of the location of these assets should be kept for onward transmission and entry into the Hazard Directory.

Yours sincerely

NRSWA Team

Worksite Survey

Buried Services Information Checklist			
Your Ref	P315 Old Wickham Lane	Our Order Ref	273530
Network Rail Record Type	Category	Enclosed Yes/No	Notes (e.g. Nil Return)
Asset Protection National Map	Contact Info	Y	
Hazard Directory	Hazard	Y	
Site Map	GIS Systems	Y	
eB - Corporate records management system	National Records Group	N	Nil Return
Network Rail - Drainage	GIS Systems	Y	
National Records Group - Civils Records	National Records Group	Y	

NIL RETURN: After interrogating the information made available to us, no records containing buried services information have been returned for this worksite. However, reference must be made to the guidelines supplied with this buried services search, which contain important information on safe working practices.



Please complete a development questionnaire and submit it to the relevant route email address found on the map below

The Asset Protection Project Managers lead dedicated teams in providing advice to the public who are planning activities on or near the railway.

The teams deal with a multitude of issues including neighbouring construction sites, utility works, bridge works, domestic maintenance, new road schemes, inspection and surveying and works within the designated precautionary area of level crossings.

* It does not cover subjects such as emergencies, Town & Country Planning, property Sales or complaints.

SCOTLAND

Network Rail
Asset Protection Team
Network Rail
151 St Vincent Street
Glasgow
G2 5NW

Tel:- 07922 020801

Manager: Raymond Sheridan

NEW ENQUIRIES
AssetProtectionScotland@networkrail.co.uk

NORTH & EAST AND EAST COAST (NORTH) ROUTES

Network Rail
Asset Protection Team
George Stephenson House
Toft Green
York
YO1 6JT

Tel:- 07922 019905

Manager: Roland Kettle

NEW ENQUIRIES
AssetProtectionEastern@networkrail.co.uk

NORTH WEST

Network Rail
Asset Protection Team
Floor 1, Square One
4 Travis Street
Manchester
M1 2NY

Tel:- 0330 857 7772

Manager: Haley Perry

NEW ENQUIRIES
AssetProtectionLNWNorth@networkrail.co.uk

WALES

Network Rail
St. Patrick's House
17 Penarth Road
Cardiff
CF10 5ZA

Tel:- 0330 857 7288

Manager: James O'Gorman

NEW ENQUIRIES
AssetProtectionWales@networkrail.co.uk

WESTERN

Network Rail
Asset Protection Team
5th Floor, Western House
1 Holbrook Way
Swindon
SN1 1BD

Tel:- 0330 857 7127

Manager: James O'Gorman

NEW ENQUIRIES
AssetProtectionWestern@networkrail.co.uk

WESSEX

Network Rail
Asset Protection Team
Network Rail
Floor 2C
1 Puddle Doc
London
EC4V 3DS

Tel:- 03308 540 648

Manager: Stephen Plowright

NEW ENQUIRIES
AssetProtectionSouthern@networkrail.co.uk

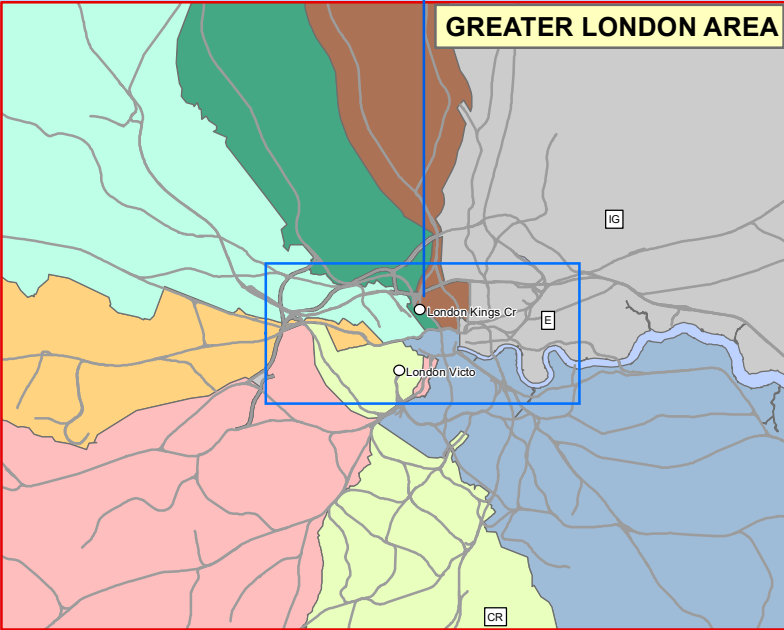
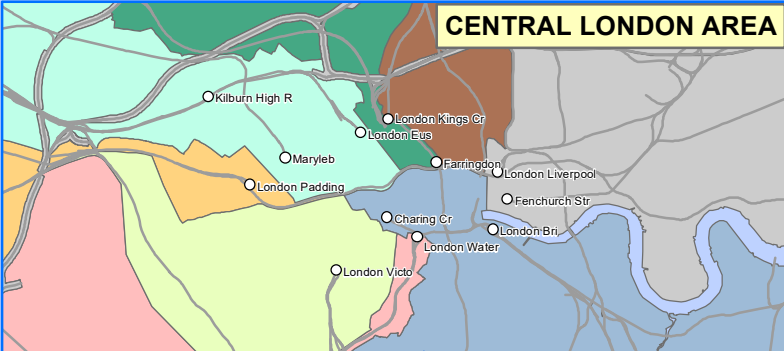
SUSSEX

Network Rail
Asset Protection Team
Network Rail
Floor 2C
1 Puddle Doc
London
EC4V 3DS

Tel:- 03308 540 648

Manager: Stephen Plowright

NEW ENQUIRIES
AssetProtectionSouthern@networkrail.co.uk



CENTRAL

Network Rail
Baskerville House - floor 2
Centenary Square,
Broad Street,
Birmingham,
B1 2ND
What3words: flood.move.secret

Tel: 0330 854 0274 (Contactable Mon-Fri 0830-1630hrs)

Manager: Peter Barron

NEW ENQUIRIES
AssetProtectionCentral@networkrail.co.uk

EAST MIDLANDS AND EAST COAST (SOUTH) ROUTES

Network Rail
Asset Protection Team
John Ellis House
Nelson Street
Derby
DE1 2RU

Tel:- 07922 019905

Manager: Craig Tyas

NEW ENQUIRIES
AssetProtectionEastern@networkrail.co.uk

ANGLIA

Network Rail
Asset Protection Team
11th Floor, One Stratford Place
Montfichet Road
Stratford, London
E20 1EJ

Tel:- 07922 017393 (available 08:30-16:30)
0203 356 2510

Manager: David Kang Gil

NEW ENQUIRIES
AssetProtectionAnglia@networkrail.co.uk

WEST COAST MAINLINE SOUTH

Network Rail
Asset Protection Team
The Quadrant MK (Floor 2)
Elder Gate
Milton Keynes
MK9 1EN

Manager: Simon Bragington

NEW ENQUIRIES
AssetProtectionLNWSouth@networkrail.co.uk

KENT

Network Rail
Asset Protection Team
Network Rail
Floor 2C
1 Puddle Dock
London
EC4V 3DS

Tel:- 03308 540 648

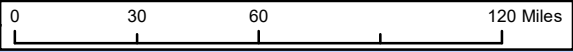
Manager: Stephen Plowright

NEW ENQUIRIES
AssetProtectionSouthern@networkrail.co.uk

Network Rail (High Speed)

Website location: Network Rail / Industry and Partners / Network interface - High Speed 1

NEW ENQUIRIES
AssetProtectionHighSpeed1@networkrail.co.uk



- LEGEND**
- UK Postcode (within single NR Territory)
 - UK Postcode (split between NR Territories)
 - Rail Network

Please note that the route boundaries for the North West & Central Region are currently under review, and therefore this layer represents the latest available data in our systems. The representation of North West & Central regional boundaries in this layer may not represent latest boundary position. Care should be taken when using this information as this information is currently not being updated.

ASPRO NATIONAL MAP

CLIENT:	TECHNICAL AUTHORITY		
JOB NO.:	10519.120	USE TYPE:	[OFFICIAL]
SCALE :	1:3,000,000 @ A3	DATE:	10/04/2024
VERSION:	01	PRODUCED BY:	DJ
		QA BY:	DJ



Asset Information Services

Contains Ordnance Survey data ©
Crown copyright and database right 2024.
Licence No: AC0000849662

GeospatialReportingAnalysis@NetworkRail.co.uk

Corporate GIS data is subject to frequent updates therefore any data exported from the corporate GIS system is a static representation of the data at the time of export, and should be treated as such. No warranty or guarantee is given as to the absolute accuracy or completeness of this information. Network Rail disclaims any responsibility for any loss, damage or inconvenience howsoever caused arising out of or as a consequence of reliance on this information in any context.



Order ID: 273530

ELR	Start Mileage	End Mileage
CJA1	36.1646	37.0374
VTB3	36.1643	37.0369
CJA2	-0.1396	-0.0909



National

Hazard

Directory

Terms and Conditions

The National Hazard Directory (NHD) is issued by Network Rail to provide information on those hazards recorded as present on Network Rail's infrastructure. Its purpose is to alert users to the typical hazards they may come across whilst working on Network Rail's Infrastructure. The National Hazard Directory is maintained by Network Rail to provide its employees and contractors with information on known hazards present on the infrastructure in order to assist in the identification of the associated risks working 'on or near the line'.

The records are updated regularly and therefore Network Rail believe that the contents are reasonably accurate at the time of issue, but some of the information can vary in age and accuracy so for that reason Network Rail will give no warranty as to the suitability of its use. It is recommended that all searches (in particular for buried services) should be conducted together with a site specific risk assessment/site visit, taking into account the requirements of the appropriate track safety rules, rule books/industry standards and so on. Network Rail will accept no liability in respect of the content or subsequent use of the National Hazard Directory or any of the information contained within.

Users of the Directory must note that when working on or near the line that the appropriate requirements of the Rule Book, especially the provisions of the track safety rules, must be applied as appropriate to the activity concerned.

OnTrac Ltd does not warrant the use of the Network Rail National Hazard Directory or any of the information contained within and no representations or warranties are made as to completeness or accuracy of the data. The data should be used for reference purposes only. Accordingly, OnTrac Ltd will accept no responsibility for loss of profit or for any indirect, incidental or consequential damages.

National Hazard Directory - Customised Report Template

No. of Records: 4

Please find below buried services hazards returned from a search of the the National Hazard Directory. **All ELR extents that fall within your worksite have been searched.**
If any of those ELRs are NOT shown in the list of hazards below, buried services hazards have NOT been returned for that particular ELR/mileage.

No.	Hazard ID	ELR	Start Mileage	End Mileage	Hazard Description	Local Name	Free Text
1	70314150	VTB3	34.1489	37.1490	Buried Electrical Cables	Ouse Valley S/S - Haywards Heath S/S	Track id indicative only: Cable Type = 3 Core, Al Cond, XLPE
	Hazard ID	ELR	Start Mileage	End Mileage	Hazard Description	Local Name	Free Text
2	110172134	CJA2	0.0000	0.0788	Buried Telecommunication Cables	Green DISAC Fibre Cable	Green DISAC fibre cable carrying critical services lying on ballast. Cable may be buried or covered in vegetation throughout mileage Owner - Network Rail NRT. CJA2<3300>/CJA1<3300> JN:6650 - Cable ID F-2266-6650-A
3	110073031	CJA2	0.0439	0.0439	Buried Gas Pipe	Copyhold Jn	18" gas main. Info on underground/overhead services <gas, water, electricity> has not been validated.
4	110073032	CJA2	0.1099	0.1099	Buried Water Main	Ardingly	Water Pipe over Bridge. Info on underground/overhead services <gas, water, electricity> has not been validated.

Page Navigation Index Map (1:2500 scale maps)

1

Legend

-  Network Rail Company Ownership Boundary
-  Order Polygon

Order ID: 273530

Plot Date: 30/07/25



Crown copyright and database
rights 2025
Ordnance Survey AC0000849662

User Drawn Polygon / Area of Interest - Order ID : 273530

Legend

- Company Ownership
- Freehold Ownership
 - Leasehold Ownership
 - Prohibitive Interest
 - Bridge (Rail over Rail)
 - Bridge (Rail over River)
 - Bridge (Rail over Road)
 - Bridge (Road over Rail)
 - Level Crossing
 - Tunnel
 - Order Polygon

Nearest station:
Haywards Heath

Order ID: 273530

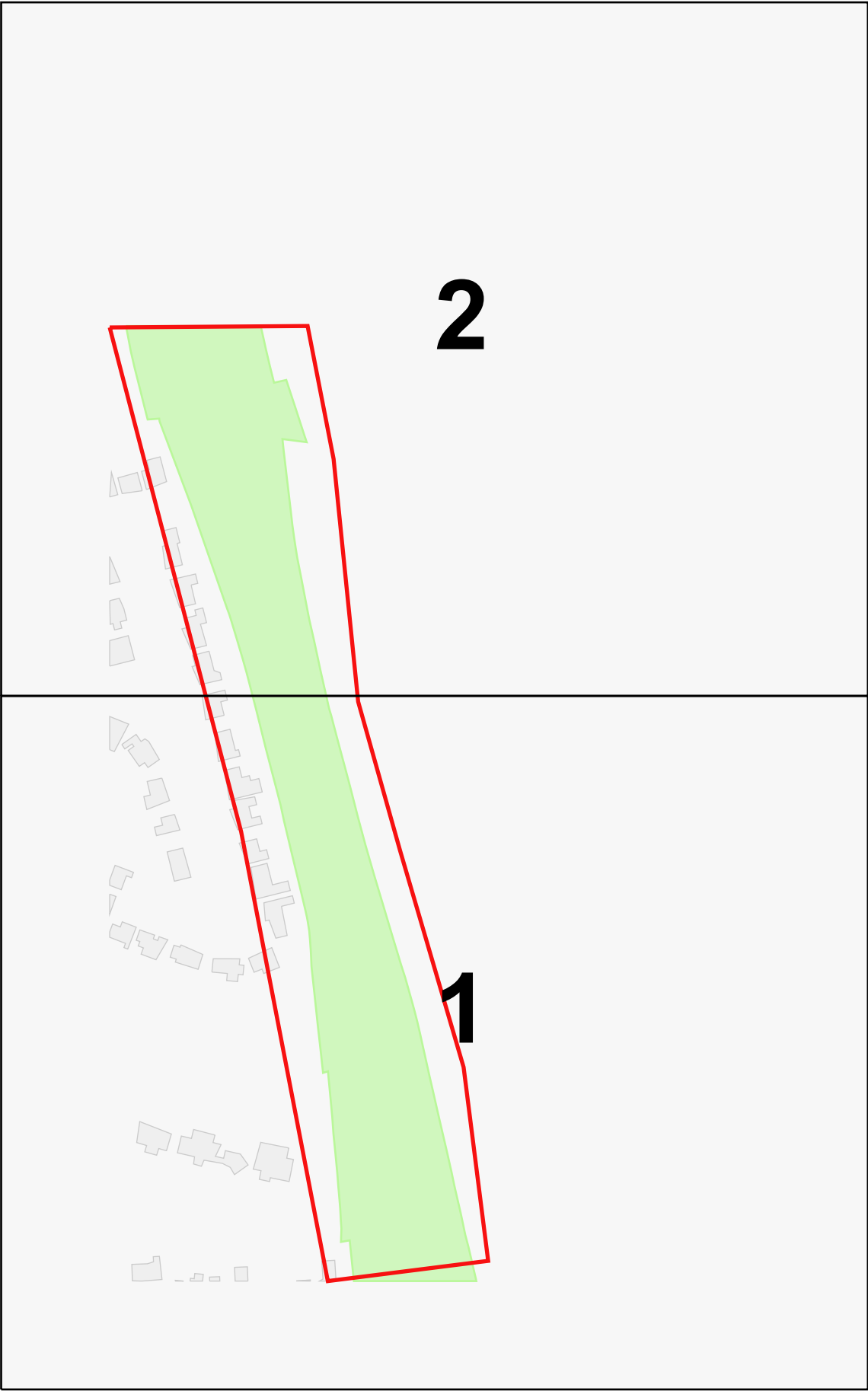
Order Ref: 273530
Plot Scale: 1:2500
Page Index: 1
Centre X, Y: 533304, 125673
Plot Date: 30/07/25



Crown copyright and database
rights 2025
Ordnance Survey AC0000849662



Page Navigation Index Map (1:1250 scale maps)



Legend

-  Network Rail Company Ownership Boundary
-  Order Polygon

Order ID: 273530

Plot Date: 30/07/25



Crown copyright and database
rights 2025
Ordnance Survey AC0000849662

Network Rail - Drainage

Legend

- Company Ownership**

 - Freehold Ownership
 - Leasehold Ownership
 - Prohibitive Interest
 - Bridge (Rail over Rail)
 - Bridge (Rail over River)
 - Bridge (Rail over Road)
 - Bridge (Road over Rail)
 - Level Crossing
 - Tunnel
 - Order Polygon
- DB Asset Line
 - DC Asset Line
 - Chamber (DD)
 - Outfall (DK)
 - Inflow (DL)
 - Point (DM)
 - Soakaway (DN)
 - Pond (DY)
 - Structure (DZ)
 - Channel (ELR, Mileage)
 - Channel (Coordinates)
 - Covered Channel (ELR, Mileage)
 - Covered Channel (Coordinates)
 - Culvert (ELR, Mileage)
 - Culvert (Coordinates)
 - Granular Drain (ELR, Mileage)
 - Granular Drain (Coordinates)
 - Pipe (ELR and Mileage)
 - Pipe (Coordinates)
 - Syphon (ELR, Mileage)
 - Syphon (Coordinates)

Order Ref: 273530
Plot Scale: 1:1250
Page Index: 1
Centre X, Y: 533105, 125514
Plot Date: 30/07/25



Crown copyright and database
rights 2025
Ordnance Survey AC0000849662



Network Rail - Drainage

Legend

Company Ownership

- Freehold Ownership
- Leasehold Ownership
- Prohibitive Interest
- Bridge (Rail over Rail)
- Bridge (Rail over River)
- Bridge (Rail over Road)
- Bridge (Road over Rail)
- Level Crossing
- Tunnel
- Order Polygon

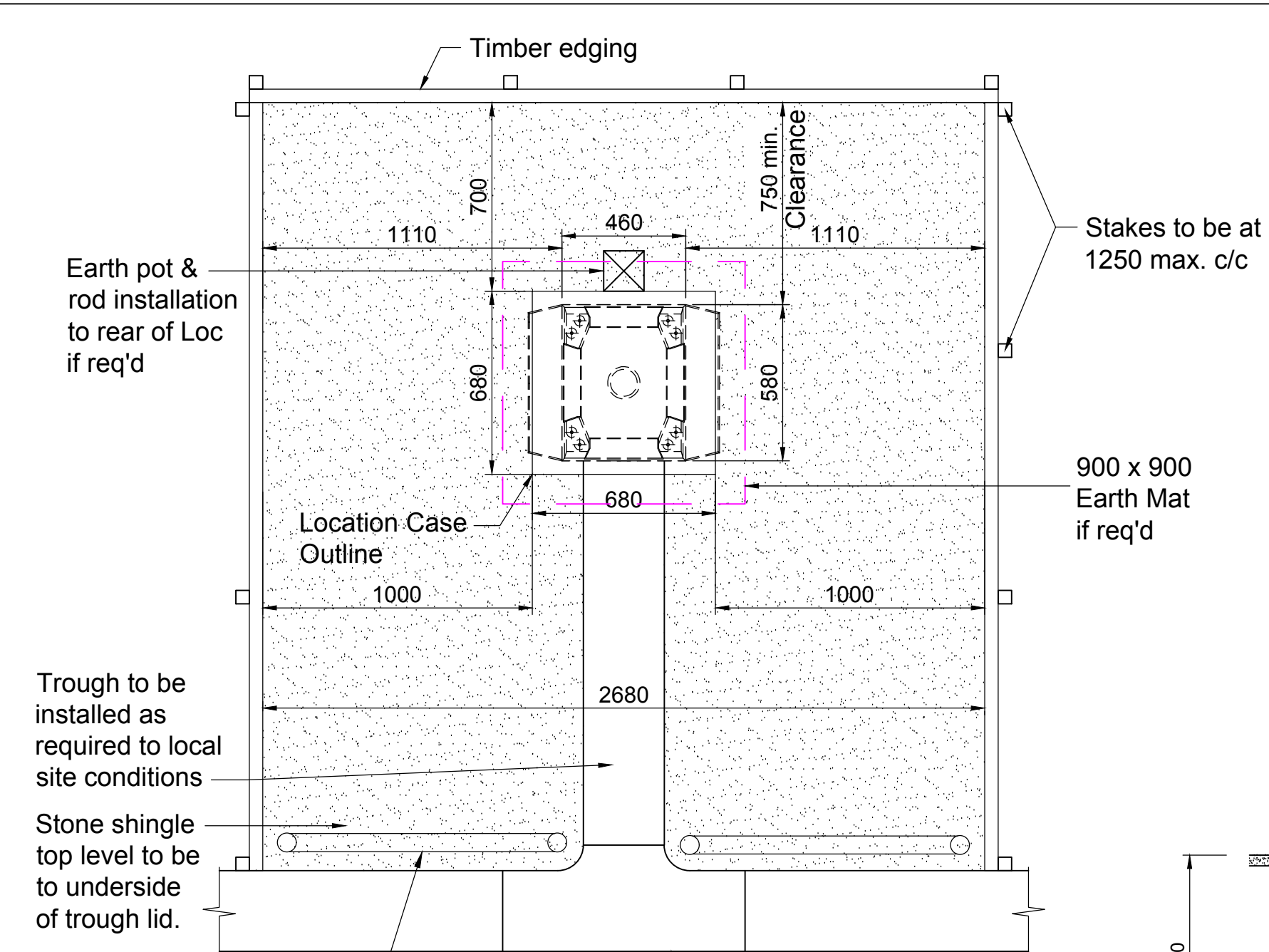
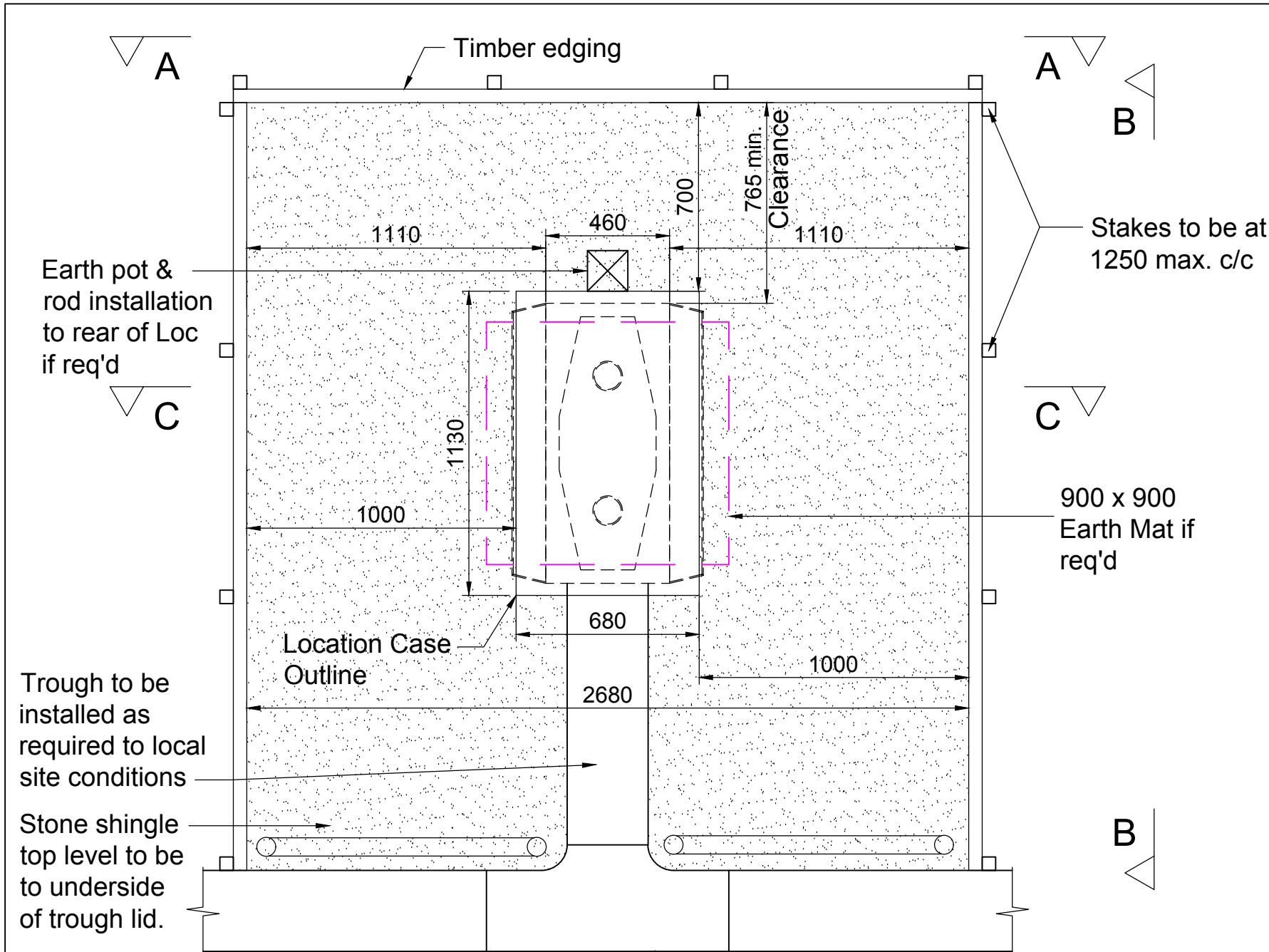
- DB Asset Line
- DC Asset Line
- Chamber (DD)
- Outfall (DK)
- Inflow (DL)
- Point (DM)
- Soakaway (DN)
- Pond (DY)
- Structure (DZ)
- Channel (ELR, Mileage)
- Channel (Coordinates)
- Covered Channel (ELR, Mileage)
- Covered Channel (Coordinates)
- Culvert (ELR, Mileage)
- Culvert (Coordinates)
- Granular Drain (ELR, Mileage)
- Granular Drain (Coordinates)
- Pipe (ELR and Mileage)
- Pipe (Coordinates)
- Syphon (ELR, Mileage)
- Syphon (Coordinates)

Order Ref: 273530
Plot Scale: 1:1250
Page Index: 2
Centre X, Y: 533105, 125832
Plot Date: 30/07/25



Crown copyright and database
rights 2025
Ordnance Survey AC0000849662

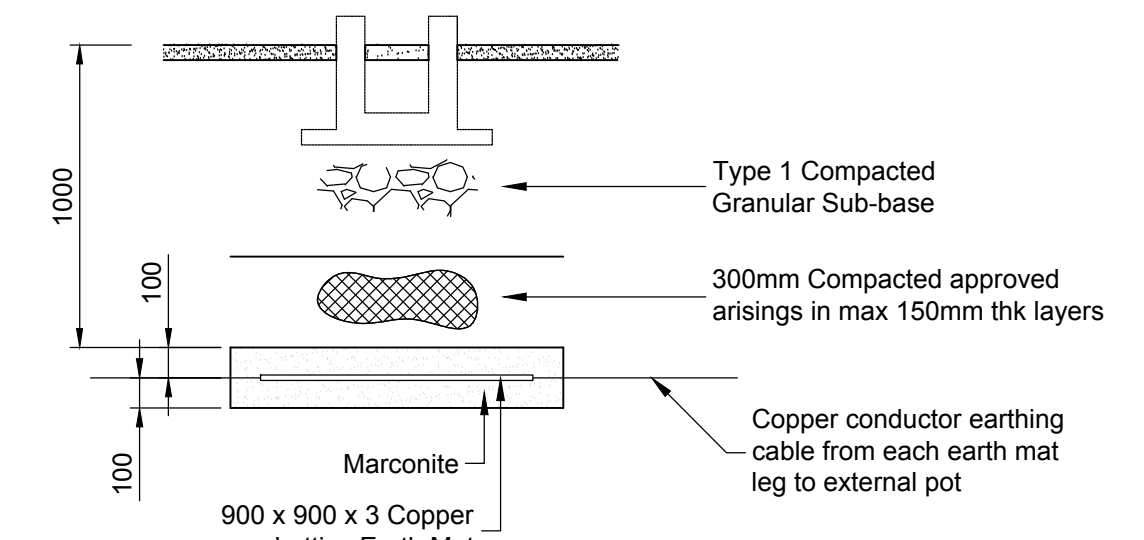




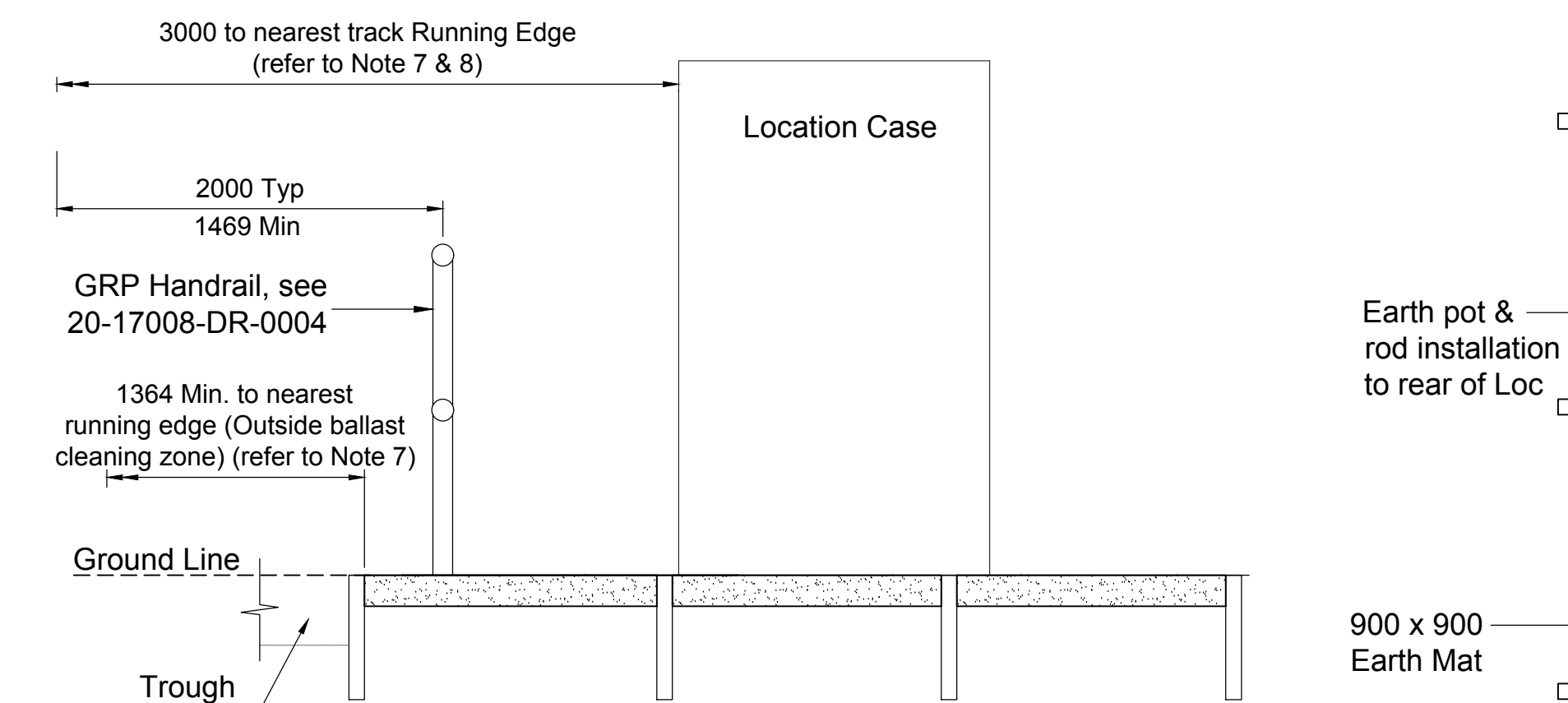
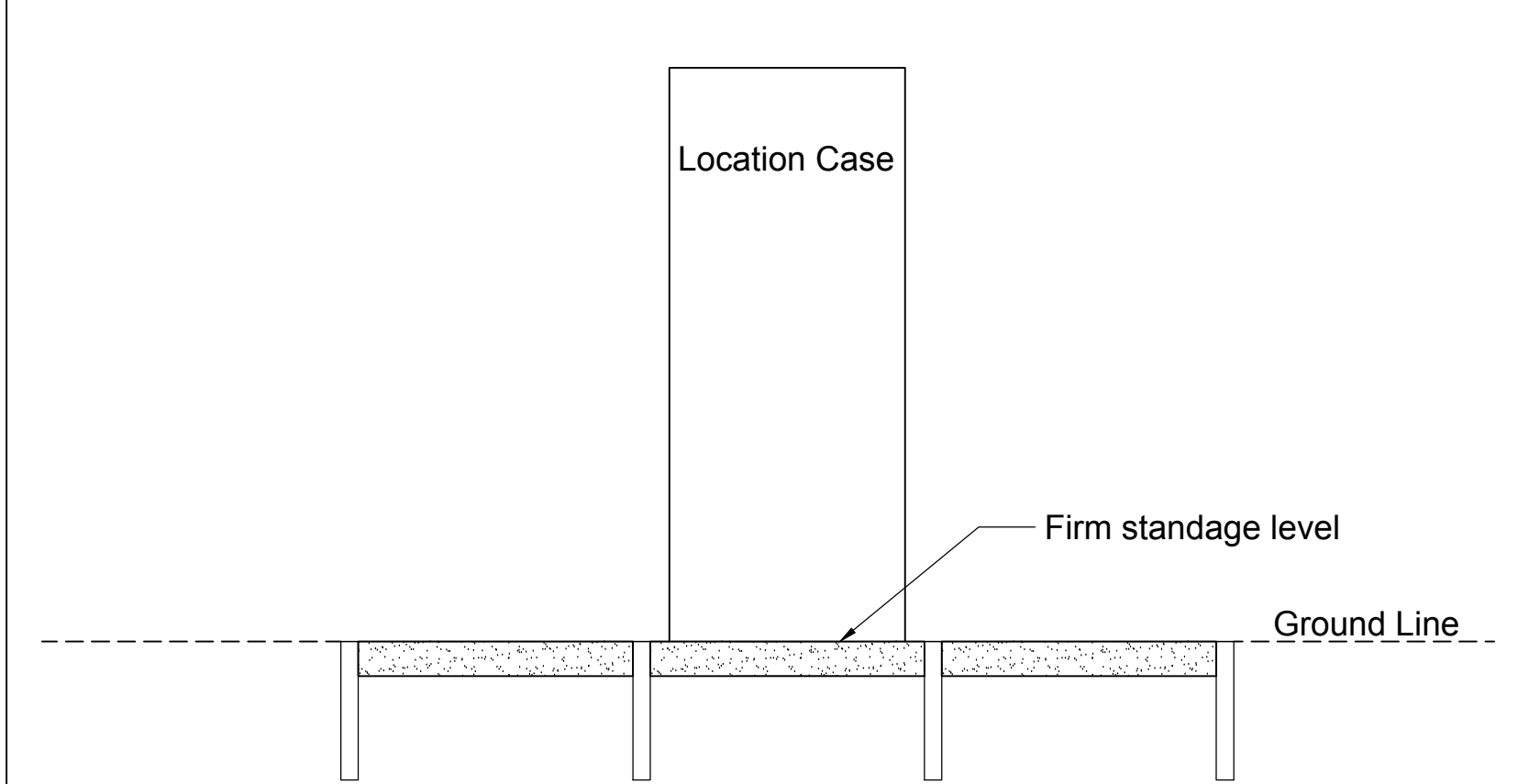
Location Case
Plan
Single Full Location Case
Scale 1:20

PRECAST BASES BY ANDERTON
CONCRETE PRODUCTS LTD.
OR SIMILAR APPROVED

Location Case
Plan
Single Half Location Case
Scale 1:20

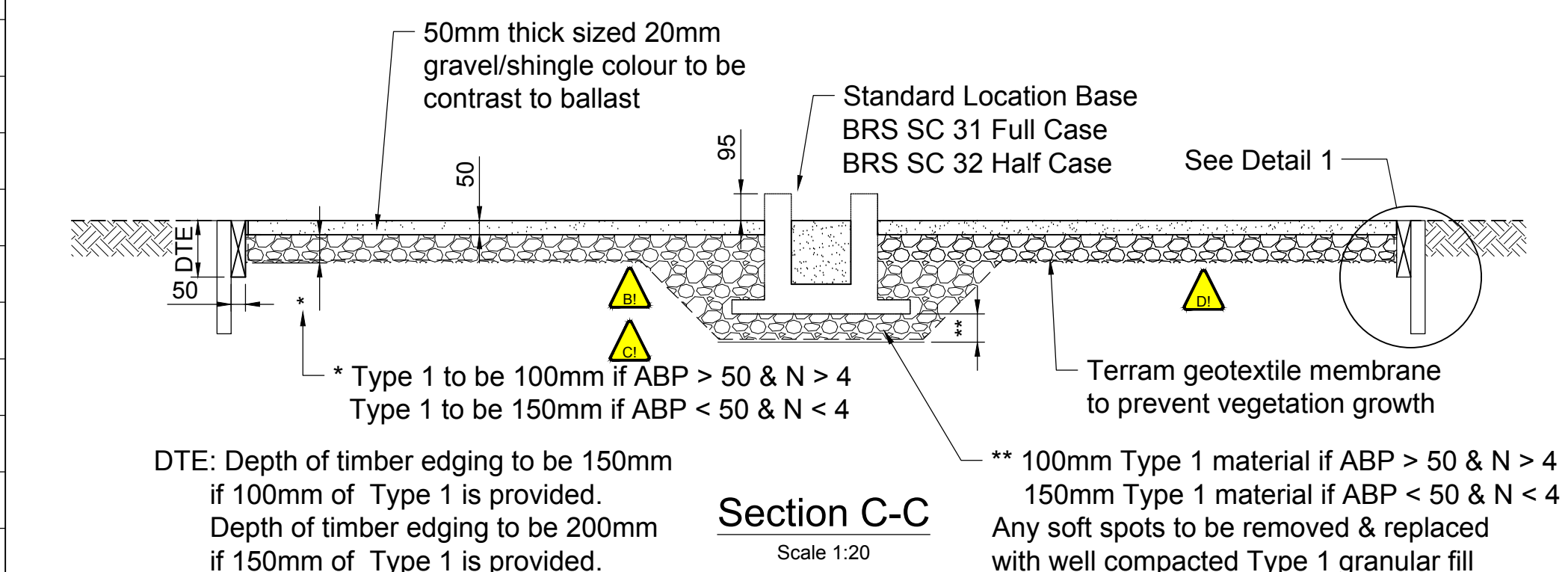


INDICATIVE EARTH MAT DETAILS
Scale 1:25



Rear Elevation A-A
Single Location Case - Double, Triple etc. similar
Scale 1:20

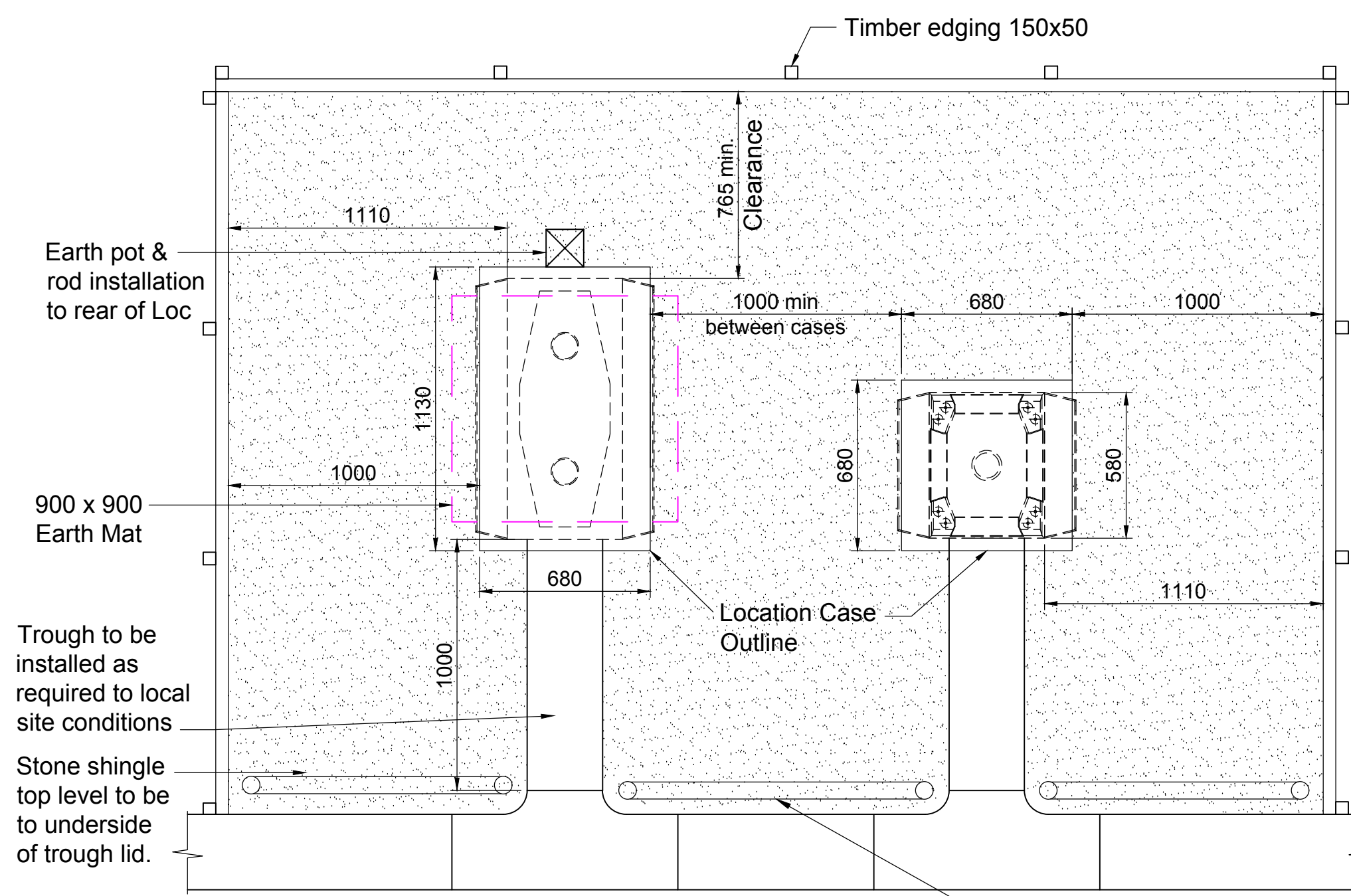
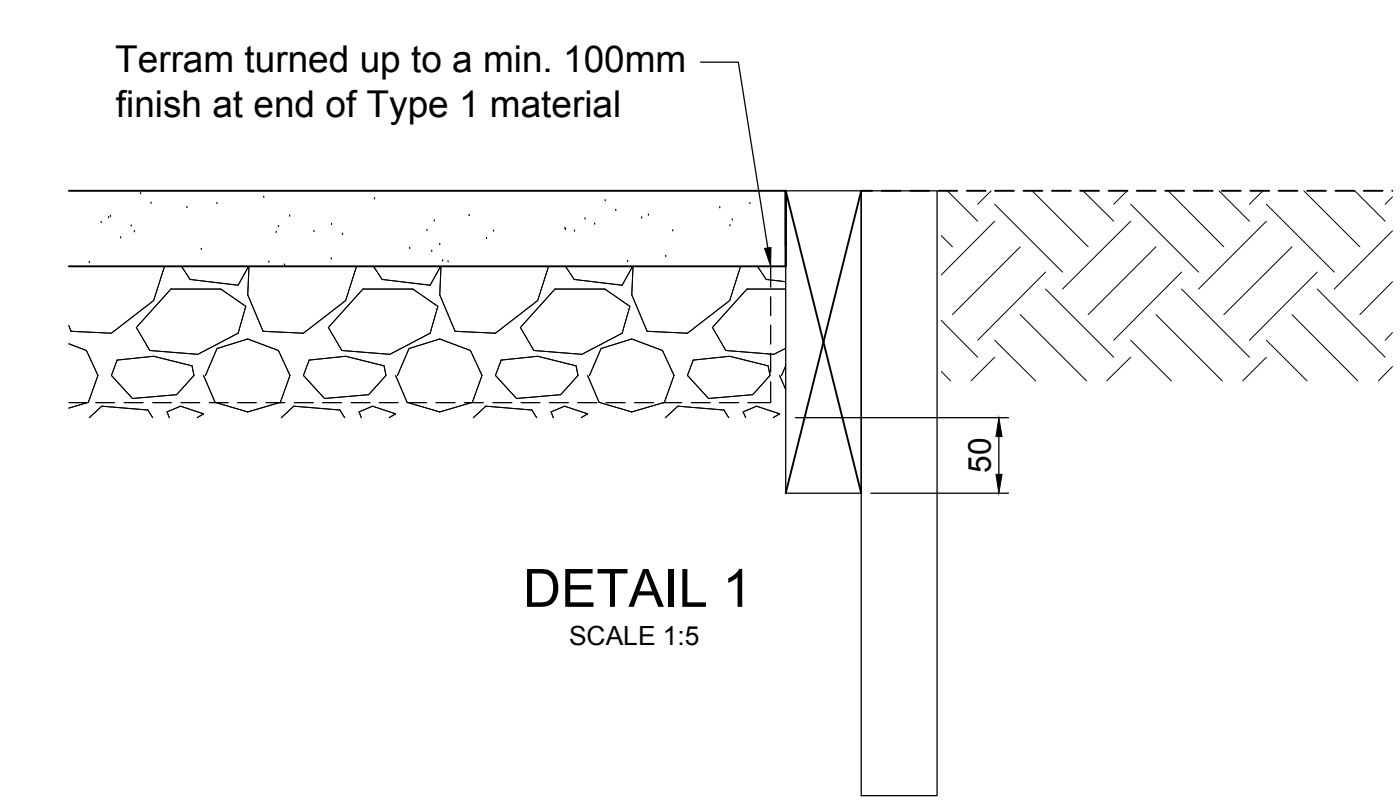
Side Elevation B-B
Single Location Case - Double, Triple etc. similar
Scale 1:20



Section C-C
Scale 1:20

Minimum Ground Conditions	
Loose Sands	Small Resistance to shovelling (ABP = <100kN/m²)
Soft Clays	Easily moulded with firm finger pressure (ABP = <75kN/m²)

Where groundwater is present, halve ABP value



Plan: Double Location Case
Triple, etc. Location Case similar
Scale 1:20

NOTE:
FULL BURIED SERVICES CHECK TO BE CARRIED OUT IN ACCORDANCE WITH METHOD STATEMENT / RISK ASSESSMENT. AREA OF CONSTRUCTION TO BE SCANNED WITH SUITABLE APPROVED CABLE AVOIDANCE TOOL PRIOR TO ANY EXCAVATION.

NOTE:
PRECAST CONCRETE BASES TO CONFORM TO THE FOLLOWING:
BRS SC 31 LARGE APPARATUS CASE - CATALOG No. K004/104273
BRS SC 32 SMALL APPARATUS CASE - CATALOG No. K004/104274

- NOTES (CONT.):
- NUMBER OF EARTH MATS REQUIRED TO BE DETERMINED ON SITE BY TESTING TO MEET REQUIRED RESISTANCE.
 - AREA TO BE TREATED WITH NON-TOXIC NR APPROVED WEEDKILLER PRIOR TO CONSTRUCTION.

RESIDUAL RISKS

1	WORKING ADJACENT RAILWAY INC SHARPS, LEPTOSPIROSIS, MANUAL HANDLING (TROUGHES)
2	UNDERGROUND SERVICES
3	UNAUTHORISED ACCESS
4	ROAD / RAIL PLANT
5	EXCAVATIONS & TEMPORARY WORKS
6	COSHH - USE OF WEEDKILLER

HAZARD WARNINGS
(IN LINE WITH DESIGNER RESPONSIBILITIES UNDER CDM REGS 2015)

A	ELECTROCUTION
B	EXCAVATIONS & TEMPORARY WORKS
C	BURIED SERVICES
D	USE OF WEEDKILLER

Save as is permitted by the terms for the provision of this document, copyright in this document belongs to Kier Professional Services Limited. It is a condition of the supply of this document that the recipient shall not duplicate or reproduce it in whole or in part, nor disclose its contents without the written authorisation of Kier Professional Services Limited. No liability shall be accepted for its unauthorised use.

- NOTES:**
- UNLESS SHOWN OTHERWISE OR INDICATED IN THE SPECIFICATION, WHICHEVER IS THE MORE ONEROUS, DIMENSIONAL TOLERANCE IS TO BE IN ACCORDANCE WITH TABLES 1 AND 2 OF BS 5606.
 - ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE. DO NOT SCALE FROM THIS DRAWING, USE FIGURED DIMENSIONS ONLY.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATION AND ANY SPECIALIST DRAWINGS.
 - CONTRACTOR TO CHECK FOR BURIED SERVICES BY NETWORK RAIL APPROVED CAT SCAN PRIOR TO EXCAVATION. CONTRACTOR TO CHECK GROUND LEVELS / PROFILES BEFORE COMMENCEMENT OF WORK TO FINALLY DETERMINE QUANTITIES OF MATERIALS REQUIRED.
 - UNLESS THE REVISION OF THIS DRAWING IS DENOTED BY THE PREFIX C THEN THIS DRAWING IS NOT FOR CONSTRUCTION.
 - CRUCIAL MATERIAL CHARACTERISTICS ARE AS FOLLOWS:
ALL TIMBER TO BE MINIMUM GRADE C16, FROM A SUSTAINABLE SOURCE AND BE IN ACCORDANCE WITH N.R. COMPANY STANDARD NR/CN/CIV/008. ARRANGEMENT TO BE VERIFIED AT EACH SITE. TIMBER SHALL BE TREATED WITH AN APPROPRIATE PRESERVATIVE USE IN CONTACT WITH GROUND IN ACCORDANCE WITH NR/L3/CIV/140/164.
 - CLEARANCE TO TRACK MUST COMPLY WITH NR/L3/SIG/11303, APPENDIX 2 G05.
 - THE POSITION OF ALL LOC AREAS WILL BE DETERMINED FROM THE APPROVED SCHEME LOC SIGHTING FORM AT POSITIONS AGREED AND MARKED WITH NETWORK RAIL.
 - ABP IS ALLOWABLE BEARING PRESSURE IN kN/m².
 - SAFE WORKING AREAS:**
(I) SAFE WORKING AREAS CONFORM TO RT/E/C/11821 ISSUE 1, CHAPTER 6, PARAGRAPH 2. DATED 2000.
(II) SAFE WORKING AREA MINIMUM WIDTH 700mm. SAFE WORKING LOAD 5.0N/m².
 - GUARD RAILS SHALL BE 2.0m FROM RUNNING RAIL UNLESS SUBJECTED TO INDIVIDUAL ASSESSMENT BY THE GAUGING ENGINEER TEAM.

Z01	01/05/19	Issue for Health & Safety File	SS	WH	WH
C01	14.05.18	Issue for Construction	SD	SS	NH
P01	23.03.18	Issue for F002/3 Approval	SD	SS	NH
T01	17.11.17	Issue for Tender	RJ	SS	NH
Issue	Date	Description	Drawn	Des.	Chkd.

Issue codes:-
F : Feasibility | T : Tender | P: Preliminary | C : Construction | AB : As built

Drawing status
AS BUILT



KIER
Kier Professional Services Limited
Kier Duplex, Ayton Rd, Wymondham, Norfolk NR18 0RJ
Tel : 01767 355 000
www.kier.co.uk professional.services@kier.co.uk

Client
KIER INFRASTRUCTURE & OVERSEAS

Contract
**BRIGHTON MAIN LINE
SIGNALLING RENEWALS
(PROJECT No 149451)**

Title
**TYPICAL LOCATION AREA
CONSTRUCTION**

Scale (A1) As Indicated

Drawing No.	Issue
20-17008-DR-0001	Z01

NOTES:

- UNLESS SHOWN OTHERWISE OR INDICATED IN THE SPECIFICATION, WHICHEVER IS THE MORE ONEROUS, DIMENSIONAL TOLERANCE IS TO BE IN ACCORDANCE WITH TABLES 1 AND 2 OF BS 5606.
- ALL DIMENSIONS ARE IN MILLIMETERS (MM) UNLESS NOTED OTHERWISE. DO NOT SCALE FROM THIS DRAWING, USE FIGURED DIMENSIONS ONLY.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATION AND ANY SPECIALIST DRAWINGS.
- CONTRACTOR TO CHECK FOR BURIED SERVICES BY NETWORK RAIL APPROVED CAT SCAN PRIOR TO EXCAVATION. CONTRACTOR TO CHECK GROUND LEVELS/ PROFILES BEFORE COMMENCEMENT OF WORK TO FINALLY DETERMINE QUANTITIES OF MATERIALS REQUIRED.
- UNLESS THE REVISION OF THIS DRAWING IS DENOTED BY THE PREFIX C THEN THIS DRAWING IS NOT FOR CONSTRUCTION.
- CRUCIAL MATERIAL CHARACTERISTICS ARE AS FOLLOWS:

ALL STEEL HOT DIPPED GALVANISED TO BS EN ISO 1461.
CONCRETE FOR FOUNDATIONS TO BE DESIGNATED CONCRETE IN ACCORDANCE WITH BS8500-2, DESIGNATION FND-2, MINIMUM COMPRESSIVE STRENGTH C25/30.
CONCRETE FOR BALLAST BOARD & POSTS SHALL BE MINIMUM COMPRESSIVE STRENGTH C25/30 ACCORDANCE WITH BS8500-1.
- ARRANGEMENT OF WALL AND FOUNDATION TO BE VERIFIED AT EACH SITE.
- CLEARANCE TO TRACK MUST COMPLY WITH NRL3/SIG/1303, APPENDIX 2G05.
- THE WALLS HAVE BEEN DESIGNED BASED ON RETAINING GRANULAR SOIL WITH INTERNAL ANGLE OF SHEARING RESISTANCE ϕ OF 40° WITH EXISTING GROUND MIN INTERNAL ANGLE OF SHEARING RESISTANCE ϕ OF 31°. EACH LOCATION IS TO BE ASSESSED FOR COMPLIANCE WITH THESE SOIL CONDITIONS.
- REFER TO SITE SPECIFIC LOC SIGHTING FORMS.
- GUARD RAILS SHALL BE 2.0m FROM RUNNING RAIL UNLESS SUBJECTED TO INDIVIDUAL ASSESSMENT BY THE GAUGING ENGINEER TEAM.

NOTES (CONT.):

- THE WALLS ARE DESIGNED FOR UNFORESEEN EXCAVATION IN FRONT OF THE WALL OF 100MM, AND A SURCHARGE BEHIND THE WALL SAFE WORKING OF 5kN/m².
- THE POSITION OF ALL LOC AREAS WILL BE DETERMINED FROM THE APPROVED SCHEME LOC SIGHTING FORM AT POSITIONS AGREED AND MARKED WITH NETWORK RAIL.
- MAXIMUM DESIGNED WALL HEIGHT TO BE 900MM AND IS NOT TO BE EXCEEDED UNDER ANY CIRCUMSTANCES. THIS DESIGN DOES NOT ALLOW FOR TERRACING THE WALLS.
- ALL CONCRETE PRODUCTS TO BE REINFORCED TO MINIMUM STEEL AREA AS DICTATED BY DESIGN PARAMETERS.
- SAFE WORKING AREAS:**
SAFE WORKING AREAS CONFORM TO RT/E/C/11821 ISSUE 1, CHAPTER 6, PARAGRAPH 2, DATED 2000.
(i) SAFE WORKING AREA MINIMUM WIDTH 700MM.
- NUMBER OF EARTH MATS REQUIRED TO BE DETERMINED ON SITE BY TESTING TO MEET REQUIRED RESISTANCE. EARTHING INSTALLATION IS INDICATIVE AND TO BE DESIGNED BY OTHERS.

RESIDUAL RISKS

1	WORKING ADJACENT RAILWAY INC SHARPS, LEFTOSPIROSIS, MANUAL HANDLING (TROUGH)
2	UNDERGROUND SERVICES
3	THIRD RAIL & ELECTROCUTION
4	UNAUTHORISED ACCESS
5	ROAD / RAIL PLANT
6	TRACK JOINTS, MONITORING & CRT
7	EXCAVATIONS & TEMPORARY WORKS

HAZARD WARNINGS

(IN LINE WITH DESIGNER RESPONSIBILITIES UNDER CDM REGS 2015)

	ELECTROCUTION
	EXCAVATIONS & TEMPORARY WORKS
	BURIED SERVICES

Z01	01/05/19	Issue for Health & Safety File	SS	WH	WH
C01	14.05.18	Issue for Construction	SD	SS	NH
P01	23/03/18	Issue for F002/3 Approval	SD	SS	NH
T01	17/11/17	Issue for Tender	RJ	SS	NH
Issue:	Date	Description	Drawn	Des.	Chkd.

Issue codes:- F : Feasibility | T : Tender | P : Preliminary | C : Construction | AB : As built

Drawing status **AS BUILT**



Kier Professional Services Limited
Kier Duplex, Ayton Rd, Wymondham, Norfolk NR18 0RJ
Tel : 01767 355 000
www.kier.co.uk professional.services@kier.co.uk

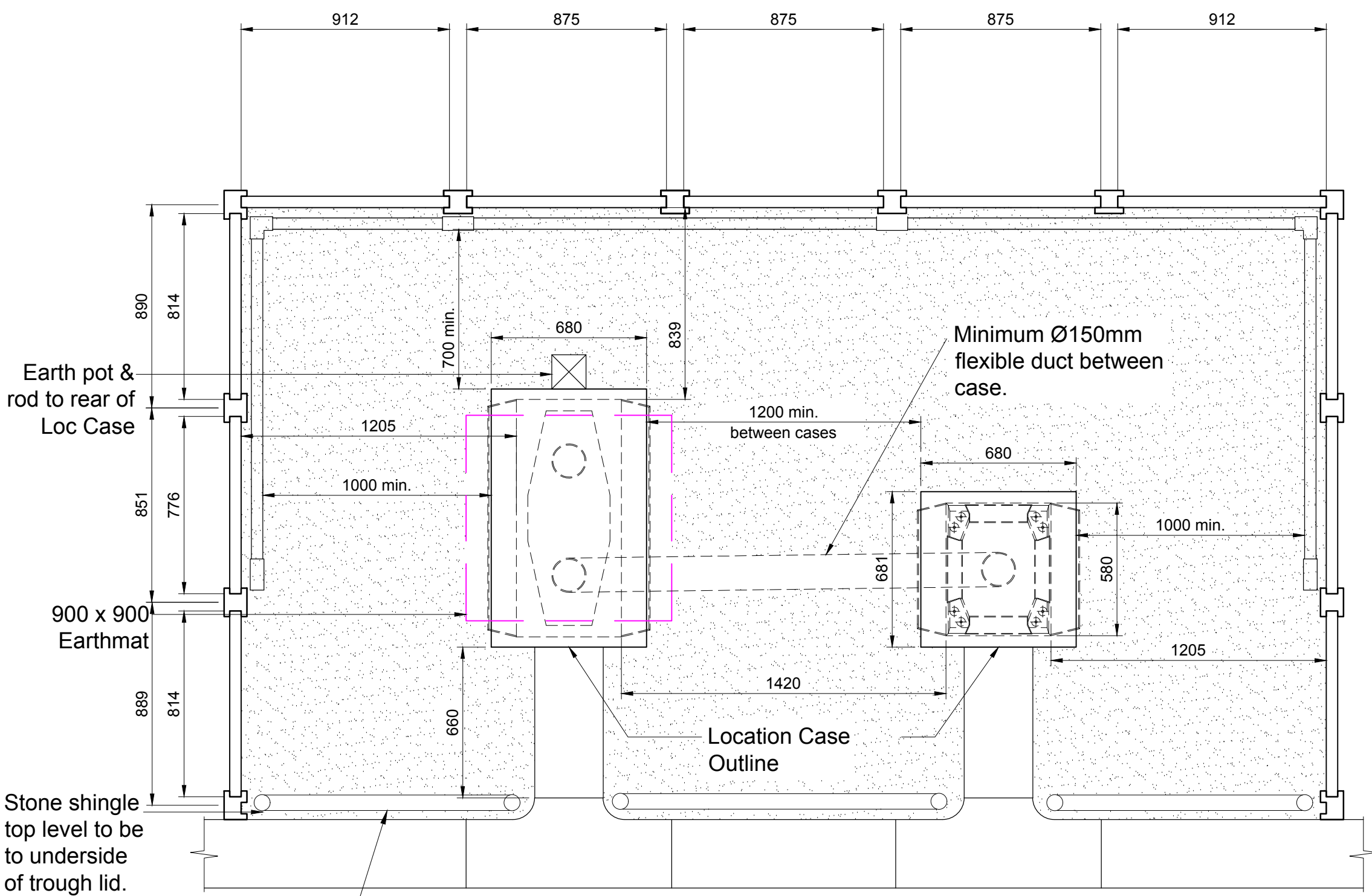
Client **KIER INFRASTRUCTURE & OVERSEAS**

Contract **BRIGHTON MAIN LINE
SIGNALLING RENEWALS
(PROJECT No 149451)**

Title **TYPICAL DOWN BANK
LOCATION**

Scale (A1) As Indicated

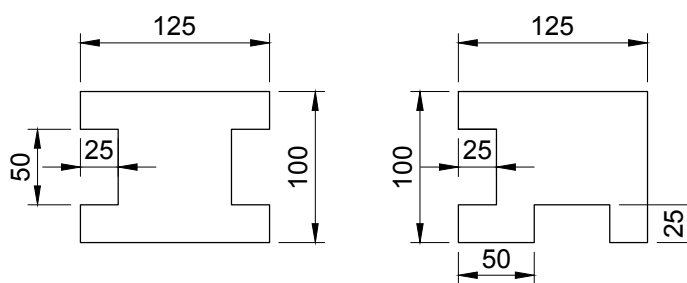
Drawing No. **20-17008-DR-0002** Issue **Z01**



Plan: Double Location Case

Triple, Etc. Location Case Similar

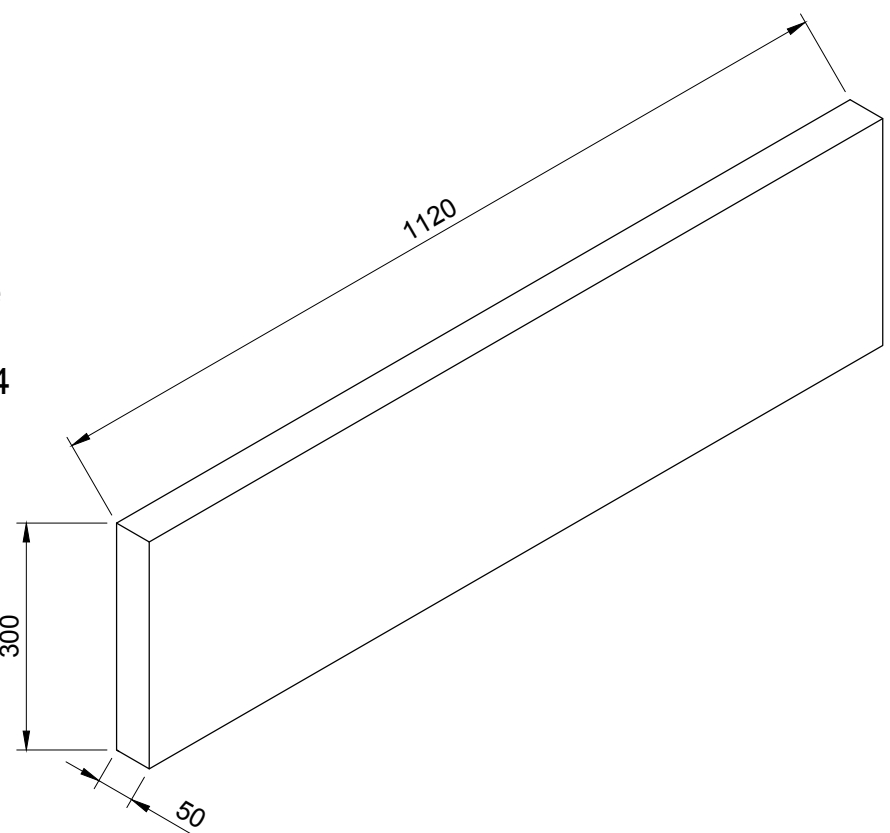
Scale 1:20



Reinforced Concrete Posts

Scale 1:5

Minimum moment capacity of Posts to be 4.0kNm



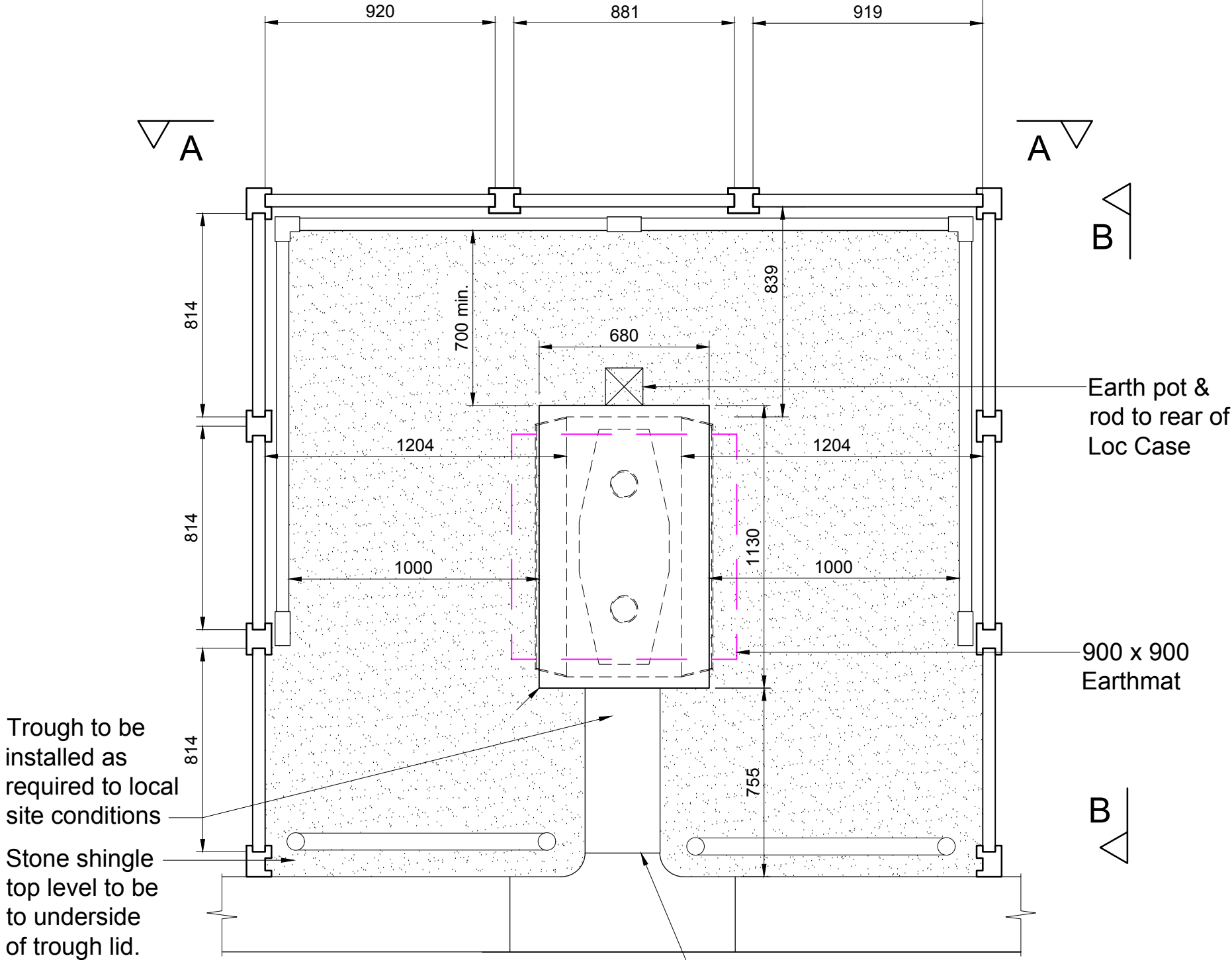
Reinforced Concrete Ballast Boards

Scale 1:10

Minimum moment capacity of Ballast Boards to be 1.0kNm
Anderton Product Reference GBS300

Number of Boards	Dimensions	
	A	B
1	600	300
2	900	600
3	1200	900

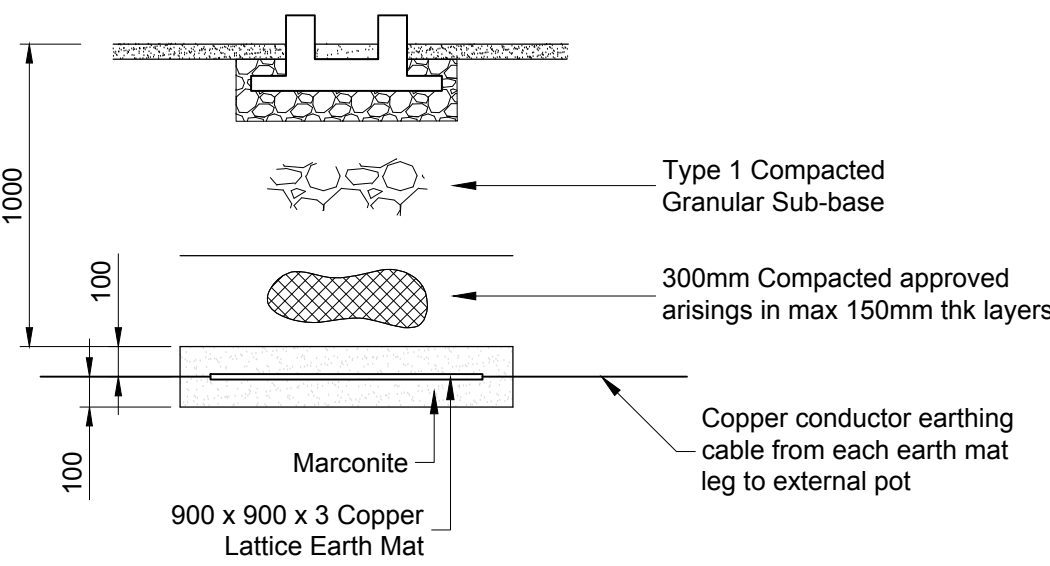
NOTE: MAX GROUND PROFILE SLOPE TO BE 1:2.
IF PROFILE DIFFERS, CONTACT DESIGNER



Plan

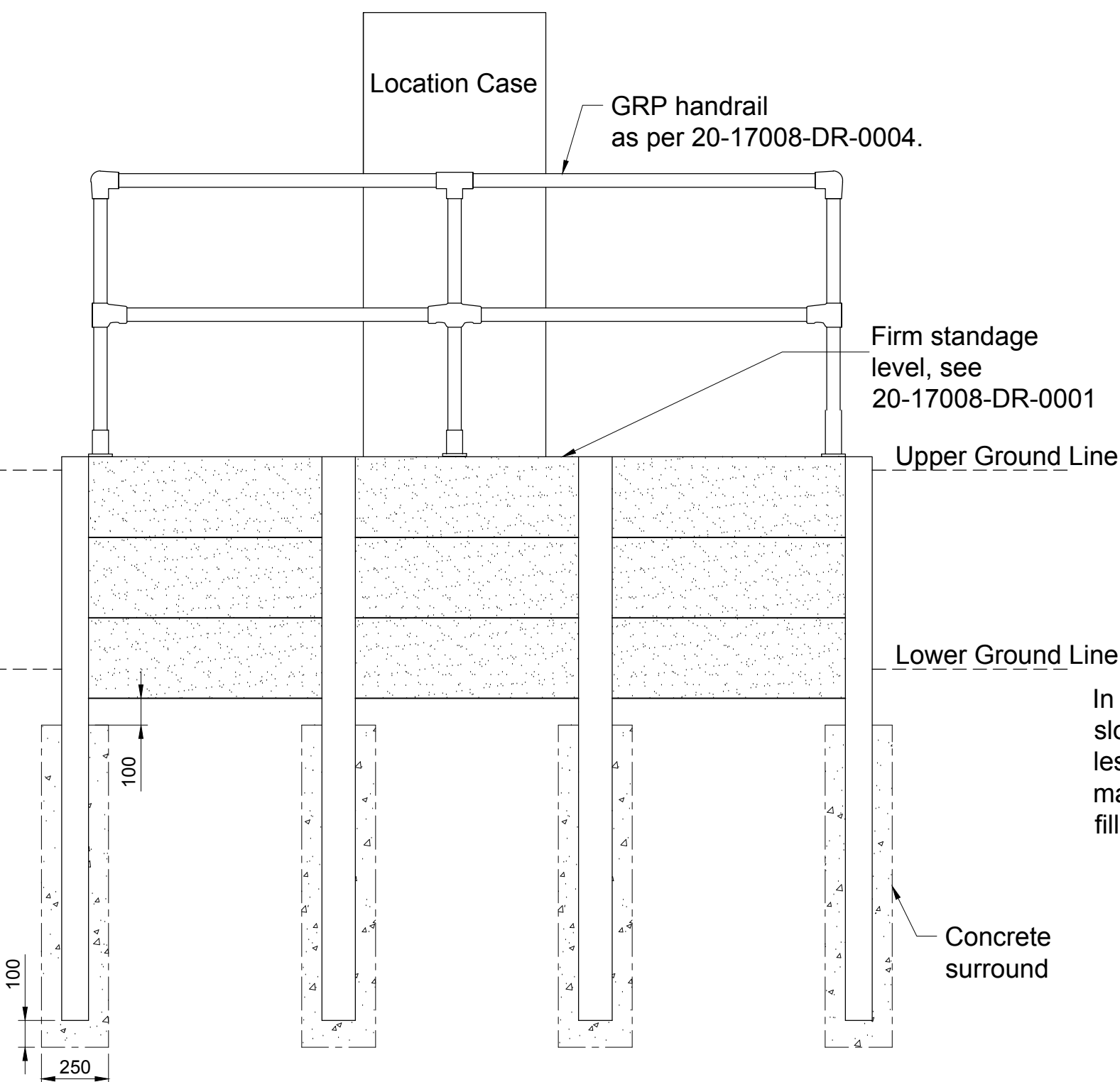
Single Location Case

Scale 1:20



INDICATIVE EARTH MAT DETAILS

Scale 1:25

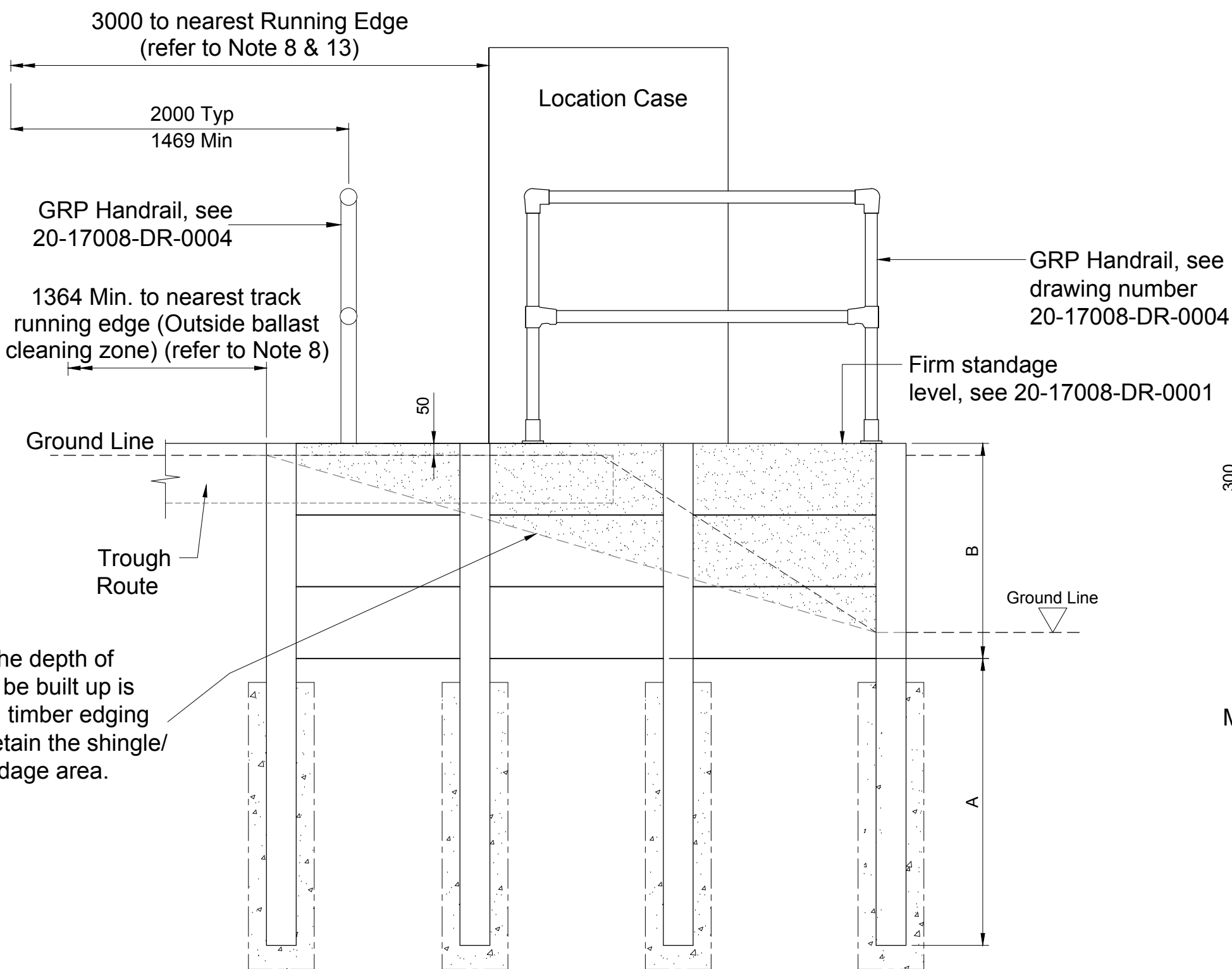


Rear Elevation A-A

Single Location Case

Double Triple Etc, Similar

Scale 1:20

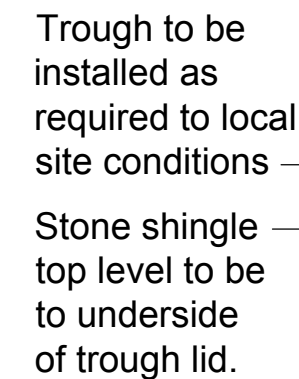


Side Elevation B-B

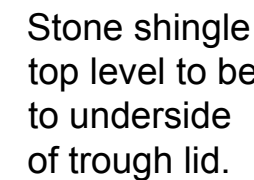
Single Location Case

Double Triple Etc, Similar

Scale 1:20



PRECAST BASES BY ANDERTON
CONCRETE PRODUCTS LTD.
OR SIMILAR APPROVED
SUITABILITY OF LARGE APPARATUS BASE IS
SUBJECT TO CONFIRMATION OF DIMENSIONS
FROM ANDERTON CONCRETE PRODUCTS LTD.



PRECAST BASES BY ANDERTON
CONCRETE PRODUCTS LTD.
OR SIMILAR APPROVED
SUITABILITY OF LARGE APPARATUS BASE IS
SUBJECT TO CONFIRMATION OF DIMENSIONS
FROM ANDERTON CONCRETE PRODUCTS LTD.

12. THE WALLS ARE DESIGNED FOR UNFORESEEN EXCAVATION IN FRONT OF THE WALL OF 100MM, AND A SURCHARGE BEHIND THE WALL SAFE WORKING OF 5kN/m².
13. THE POSITION OF ALL LOC AREAS WILL BE DETERMINED FROM THE APPROVED SCHEME LOC SIGHTING FORM AT POSITIONS AGREED AND MARKED WITH NETWORK RAIL.
14. MAXIMUM DESIGNED WALL HEIGHT TO BE 900MM AND IS NOT TO BE EXCEEDED UNDER ANY CIRCUMSTANCES. THIS DESIGN DOES NOT ALLOW FOR TERRACING THE WALLS.
15. ALL CONCRETE PRODUCTS TO BE REINFORCED TO MINIMUM STEEL AREA AS DICTATED BY DESIGN PARAMETERS.
16. **SAFE WORKING AREAS:**
SAFE WORKING AREAS CONFORM TO RT/EIC/11821 ISSUE 1, CHAPTER 6, PARAGRAPH 2, DATED 2000.
(I) SAFE WORKING AREA MINIMUM WIDTH 700MM.
17. NUMBER OF EARTH MATS REQUIRED TO BE DETERMINED ON SITE BY TESTING TO MEET REQUIRED RESISTANCE. EARTHING INSTALLATION IS INDICATIVE AND TO BE DESIGNED BY OTHERS.

1. UNLESS SHOWN OTHERWISE OR INDICATED IN THE SPECIFICATION, WHICHEVER IS THE MORE ONEROUS, DIMENSIONAL TOLERANCE IS TO BE IN ACCORDANCE WITH TABLES 1 AND 2 OF BS 5606.
2. ALL DIMENSIONS ARE IN MILLIMETERS (MM) UNLESS NOTED OTHERWISE. DO NOT SCALE FROM THIS DRAWING. USE FIGURED DIMENSIONS ONLY.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE SPECIFICATION AND ANY SPECIALIST DRAWINGS.
4. CONTRACTOR TO CHECK FOR BURIED SERVICES BY NETWORK RAIL APPROVED CAT SCAN PRIOR TO EXCAVATION. CONTRACTOR TO CHECK GROUND LEVELS/ PROFILES BEFORE COMMENCEMENT OF WORK TO FINALLY DETERMINE QUANTITIES OF MATERIALS REQUIRED.
5. UNLESS THE REVISION OF THIS DRAWING IS DENOTED BY THE PREFIX C THEN THIS DRAWING IS NOT FOR CONSTRUCTION.
6. CRUCIAL MATERIAL CHARACTERISTICS ARE AS FOLLOWS:

ALL STEEL HOT DIPPED GALVANISED TO BS EN ISO 1461.
CONCRETE FOR FOUNDATIONS TO BE DESIGNATED CONCRETE IN ACCORDANCE WITH BS8500-2. DESIGNATION FND-2. MINIMUM COMPRESSIVE STRENGTH C25/30.
CONCRETE FOR BALLAST BOARD & POSTS SHALL BE MINIMUM COMPRESSIVE STRENGTH C25/30 ACCORDANCE WITH BS8500-1.
7. ARRANGEMENT OF WALL AND FOUNDATION TO BE VERIFIED AT EACH SITE.
8. CLEARANCE TO TRACK MUST COMPLY WITH NR/L3/SIG/11303, APPENDIX 2G05.
9. THE WALLS HAVE BEEN DESIGNED BASED ON NATURAL GROUND WITH INTERNAL ANGLE OF SHEARING RESISTANCE ϕ OF 35°. EACH LOCATION IS TO BE ASSESSED FOR COMPLIANCE WITH THESE SOIL CONDITIONS.
10. REFER TO SITE SPECIFIC LOC SITING FORMS.
11. GUARD RAILS SHALL BE 2.0m FROM RUNNING RAIL UNLESS SUBJECTED TO INDIVIDUAL ASSESSMENT BY THE GAUGING ENGINEER TEAM.

Issue codes:-

F : Feasibility	T : Tender	P: Preliminary	C : Construction	AB : As built
-----------------	------------	----------------	------------------	---------------

A.S. BILIT

A.S. BILIT



Kier Professional Services Limited
Kier Duplex, Ayton Rd, Wymondham, Norfolk NR18 0RJ
Tel : 01767 355 000
www.kier.co.uk professional.services@kier.co.uk

Client **KIER INFRASTRUCTURE & OVERSEAS**

Contract

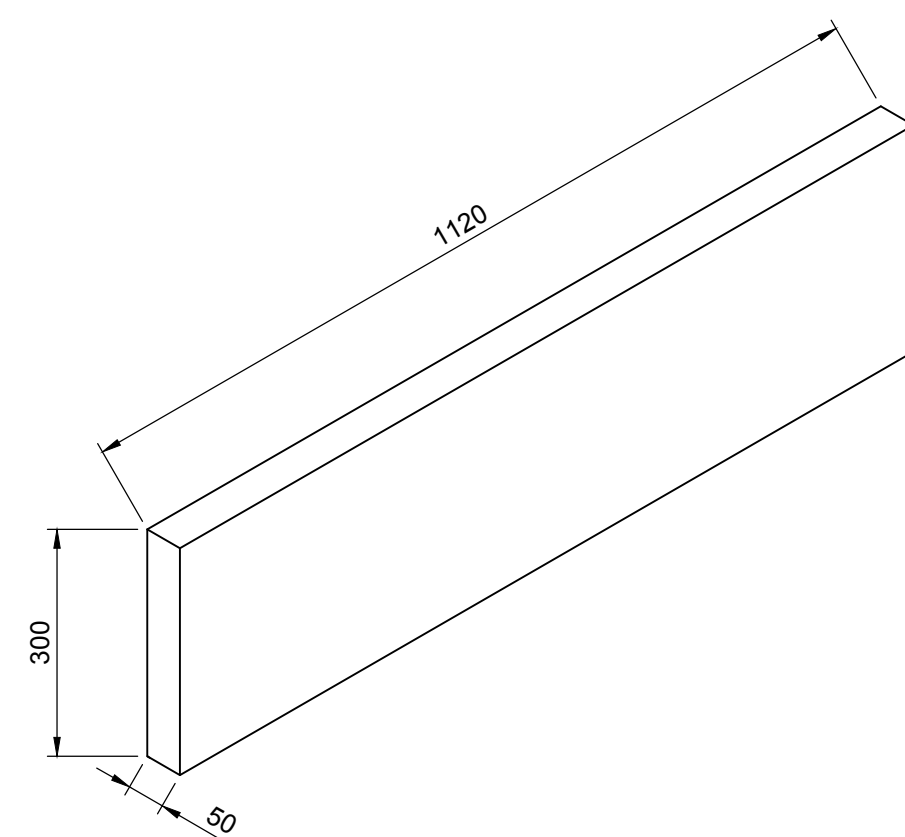
**BRIGHTON MAIN LINE
SIGNALLING RENEWALS
(PROJECT No 149451)**

Title	TYPICAL UP BANK LOCATION
-------	--------------------------

Scale (A1)	As Shown
------------	----------

Drawing No.
20-17008-DR-0003

Issue
Z01



Minimum moment capacity of Ballast Boards to be 1.0kNm
Anderton Product Reference GBS300

Number of Boards	Dimensions	
	A	B
1	700	300
2	1150	600
3	1600	900

NOTE: MAX GROUND PROFILE SLOPE TO BE 1:2.
IF PROFILE DIFFERS, CONTACT DESIGNER

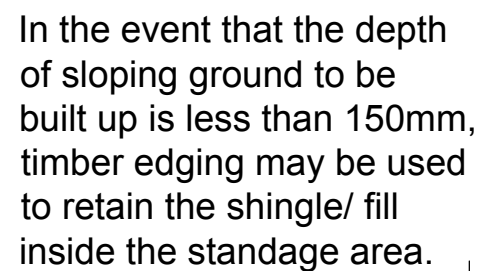
Single Location Case - Double, Triple etc. similar



Minimum capacity
of Posts to be 7.0kNm

NOTE:
FULL BURIED SERVICES CHECK TO BE CARRIED OUT IN ACCORDANCE WITH METHOD
STATEMENT / RISK ASSESSMENT. AREA OF CONSTRUCTION TO BE SCANNED WITH
SUITABLE APPROVED CABLE AVOIDANCE TOOL PRIOR TO ANY EXCAVATION.

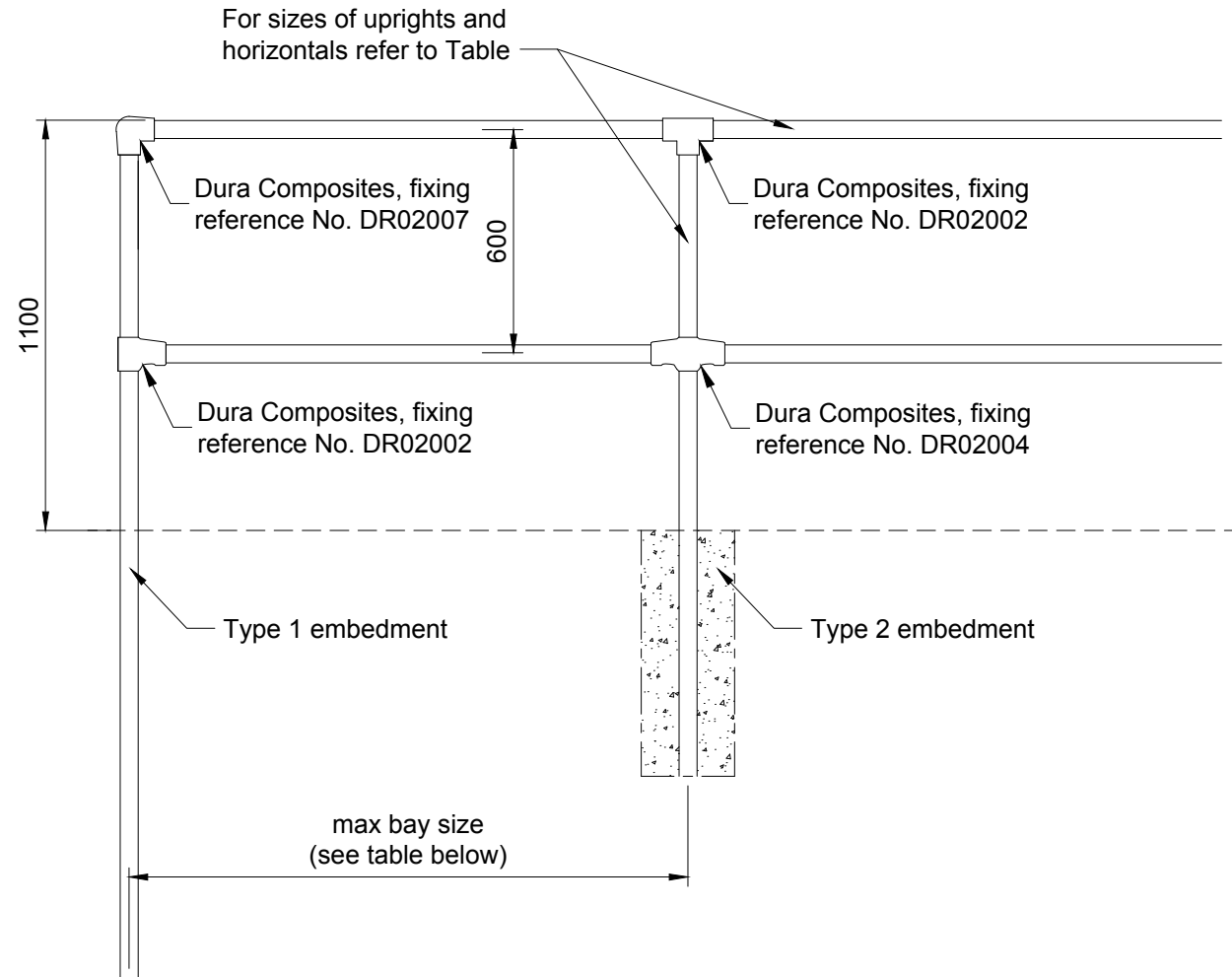
NOTE:
PRECAST CONCRETE BASES TO CONFORM TO THE FOLLOWING:
BRS SC 31 LARGE APPARATUS CASE - CATALOG No. K004/104273
BRS SC 32 SMALL APPARATUS CASE: - CATALOG No. K004/104274



Single Location Case - Double, Triple etc. similar

RESIDUAL RISKS	
1	WORKING ADJACENT RAILWAY INC SHARPS, LEPTOSPIROSIS, MANUAL HANDLING (TROUGHES)
2	UNDERGROUND SERVICES
3	THIRD RAIL & ELECTROCUTION
4	UNAUTHORISED ACCESS
5	ROAD / RAIL PLANT
6	TRACK JOINTS, MONITORING & CRT
7	EXCAVATIONS & TEMPORARY WORKS

HAZARD WARNINGS (IN LINE WITH DESIGNER RESPONSIBILITIES UNDER CDM REGS 2015)	
	ELECTROCUTION
	EXCAVATIONS & TEMPORARY WORKS
	BURIED SERVICES



Typical Elevation

Scale 1:20

	Post Embedment Type	Embedment Depth
Type 1	Driven	1200mm
Type 2	Ø250mm Concrete Surround	660mm

SIZE OF UPRIGHT (mm O.D.)	SIZE OF HORIZONTAL (mm O.D.)	MAXIMUM BAY SIZE (m)
8 - 48.3	8 - 48.3	1.5
7 - 42.4	7 - 42.4	1.3

RESIDUAL RISKS

1	WORKING ADJACENT RAILWAY INC SHARPS, LEPTOSPIROSIS, MANUAL HANDLING (TROUGHES)
2	UNDERGROUND SERVICES
3	THIRD RAIL & ELECTROCUTION
4	UNAUTHORISED ACCESS
5	ROAD / RAIL PLANT
6	TRACK JOINTS, MONITORING & CRT
7	EXCAVATIONS & TEMPORARY WORKS

HAZARD WARNINGS

(IN LINE WITH DESIGNER RESPONSIBILITIES UNDER CDM REGS 2015)

	ELECTROCUTION
	EXCAVATIONS & TEMPORARY WORKS
	BURIED SERVICES

HANDRAIL NOTES:

- Handrail Designed for 0.4kn/m horizontal force on top rail as required by NR/SP/OHS/069.
- All tubes and fixings shall be glass reinforced plastic (GRP) by Dura Composites or similar approved in accordance with BS EN SO 14422-3:2001 and BS 6399-1:1996.
- Handrail as detailed based on Dura Composites products. Where other systems are to be utilised, the design should be checked by the designer.
- Surround to post bellow ground level to be of post mix concrete.
- Handrails must be provided where falls would exceed 2.0m in Vertical Height. They may be fitted where the fall is less than 2.0m, but the likelihood must be assessed to determine this.
- Contractor to check for buried services by Network Rail approved CAT scan prior to excavation. Contractor to check ground levels/profiles before commencement of work to finally determine quantities of materials required.

Save as is permitted by the terms for the provision of this document, copyright in this document belongs to Kier Professional Services Limited. It is a condition of the supply of this document that the recipient shall not duplicate or reproduce it in whole or in part, nor disclose its contents without the written authorisation of Kier Professional Services Limited.
No liability shall be accepted for its unauthorised use.

Notes:

- Unless shown otherwise or indicated in the Specification, whichever is the more onerous, dimensional tolerance is to be in accordance with Tables 1 and 2 of BS 5606.
- All dimensions are in millimetres (mm) unless noted otherwise. DO NOT SCALE FROM THIS DRAWING, USE FIGURED DIMENSIONS ONLY.
- This drawing is to be read in conjunction with the Specification and any Specialist drawings.
- UNLESS THE REVISION OF THIS DRAWING IS DENOTED BY THE PREFIX C THEN THIS DRAWING IS NOT FOR CONSTRUCTION.

IF IN DOUBT ASK

Z01	01/05/19	Issue for Health & Safety File	SS	WH	WH
C01	14.05.18	Issue for Construction.	SD	SS	NH
P01	23.03.18	Issue for F002/3 Approval	SD	SS	NH
T01	17.11.17	Issue for Tender	RJ	SS	NH
Issue	Date	Description	Drawn	Des.	Chkd.

Issue codes:-

F : Feasibility | T : Tender | P: Preliminary | C : Construction | AB : As built

Drawing status	AS BUILT
----------------	----------



Kier Professional Services Limited
Kier Duplex, Ayton Rd, Wymondham, Norfolk NR18 0RJ
Tel : 01767 355 000
www.kier.co.uk professional.services@kier.co.uk

Client
KIER INFRASTRUCTURE & OVERSEAS

Contract
**BRIGHTON MAIN LINE
SIGNALLING RENEWALS
(PROJECT No 149451)**

Title
**TYPICAL HANDRAIL
GENERAL ARRANGEMENT**

Scale (A3) As indicated

Drawing No. 20-17008-DR-0004	Issue Z 01
--	----------------------

Notes:

- Unless shown otherwise or indicated in the Specification, whichever is the more onerous, dimensional tolerance is to be in accordance with Tables 1 and 2 of BS 5606.
- All dimensions are in millimetres (mm) unless noted otherwise. DO NOT SCALE FROM THIS DRAWING, USE FIGURED DIMENSIONS ONLY.
- This drawing is to be read in conjunction with the Specification and any Specialist drawings.
- UNLESS THE REVISION OF THIS DRAWING IS DENOTED BY THE PREFIX C THEN THIS DRAWING IS NOT FOR CONSTRUCTION.
- Crucial material characteristics are as follows:

Concrete for foundations be designated concrete in accordance with BS8500-2, designation FND(minimum compressive strength C32/40), subject to receipt of ground contamination testing.Design chemical class is DC1.

All reinforcement shall be grade B500A in accordance with BS 4449:2005.

Ducts shall be Ø150mm Rigiduct or similar approved smooth bore as approved for use by EDF energy networks.
- Contractor to check for buried services by Network Rail approved cat scan prior to excavation. Contractor to check ground levels/ profiles before commencement of work to finally determine quantities of materials required.
- Minimum Allowable Bearing Capacity of 55 kN/m² shall be confirmed at site.
- Clearance to track must comply with NR/L3/SIG/11303, Appendix 2G05.

IF IN DOUBT ASK

Z01	01/05/19	Issue for Health & Safety File	SS	WH	WH
C01	05/10/18	Issue for Construction	SS	SS	CC
P02	25/9/18	Updated with FSR Requirements, Issue for F003 approval	SS	SS	CC
P01	23/03/18	Issue for F002/3 Approvals	SD	SS	NH
Issue	Date	Description	Drawn	Des.	Chkd.

Issue codes:- F : Feasibility | T : Tender | P: Preliminary | C : Construction | AB : As built

Drawing status AS BUILT



Kier Professional Services Limited
Kier Duplex, Ayton Rd, Wymondham, Norfolk NR18 0RJ
Tel : 01767 355 000
www.kier.co.uk professional.services@kier.co.uk

Client KIER INFRASTRUCTURE & OVERSEAS

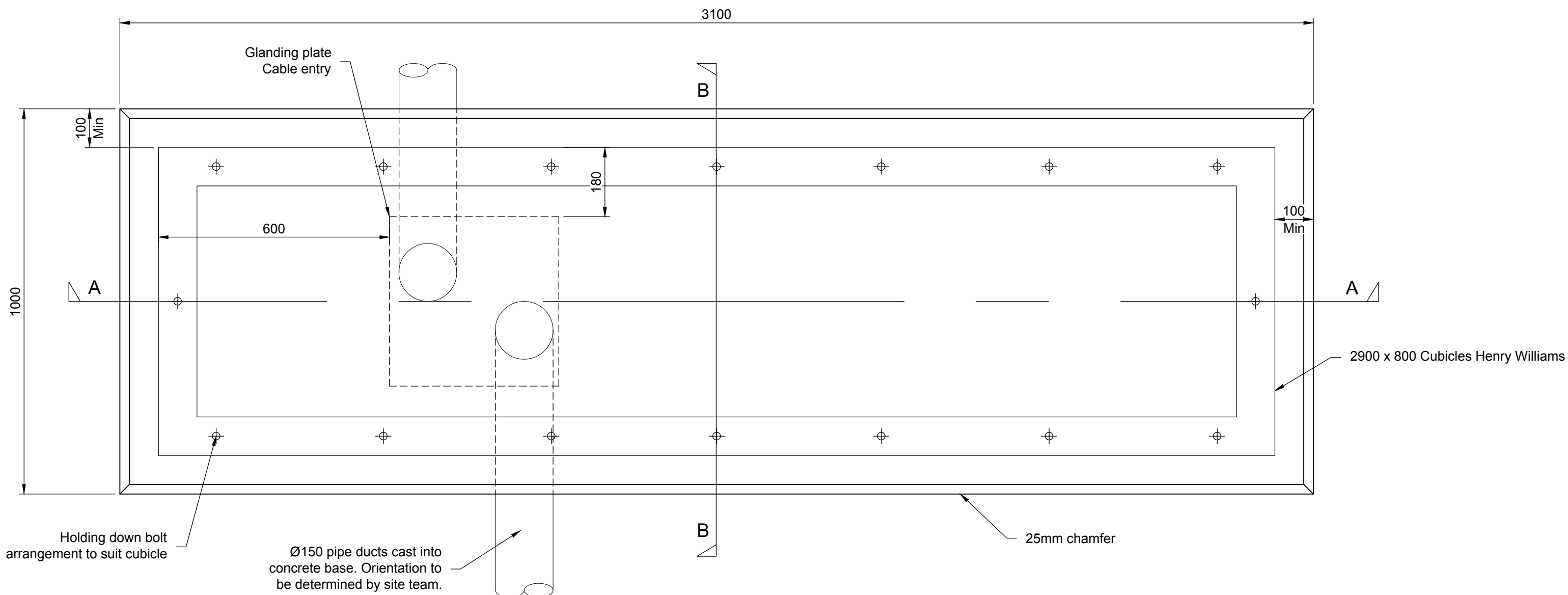
Contract BRIGHTON MAIN LINE
SIGNALLING RENEWALS
(PROJECT No 149451)

Title

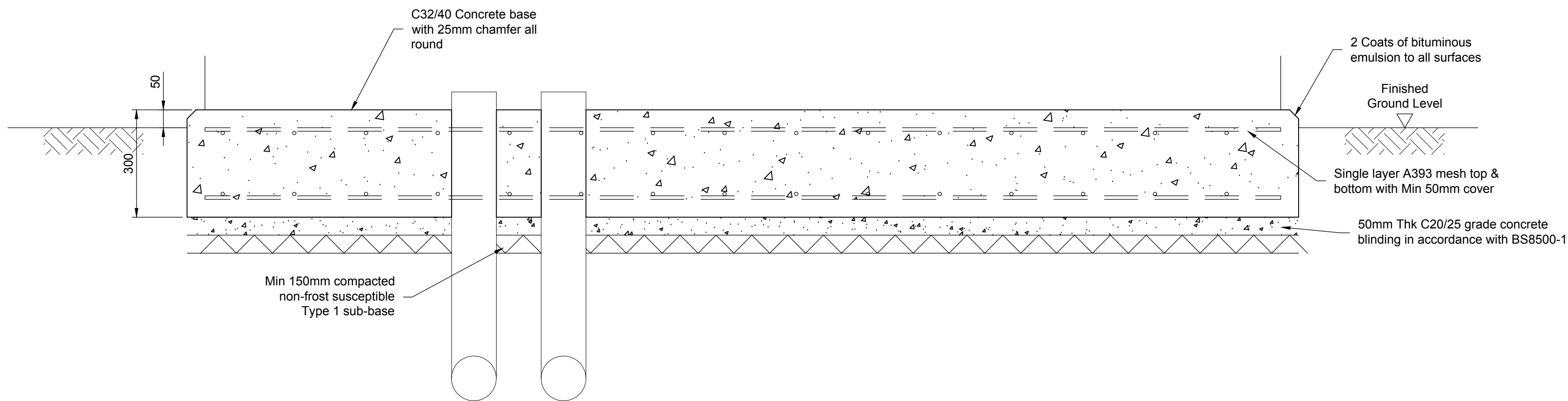
TYPICAL FSR FOUNDATION

Scale (A1) 1:10

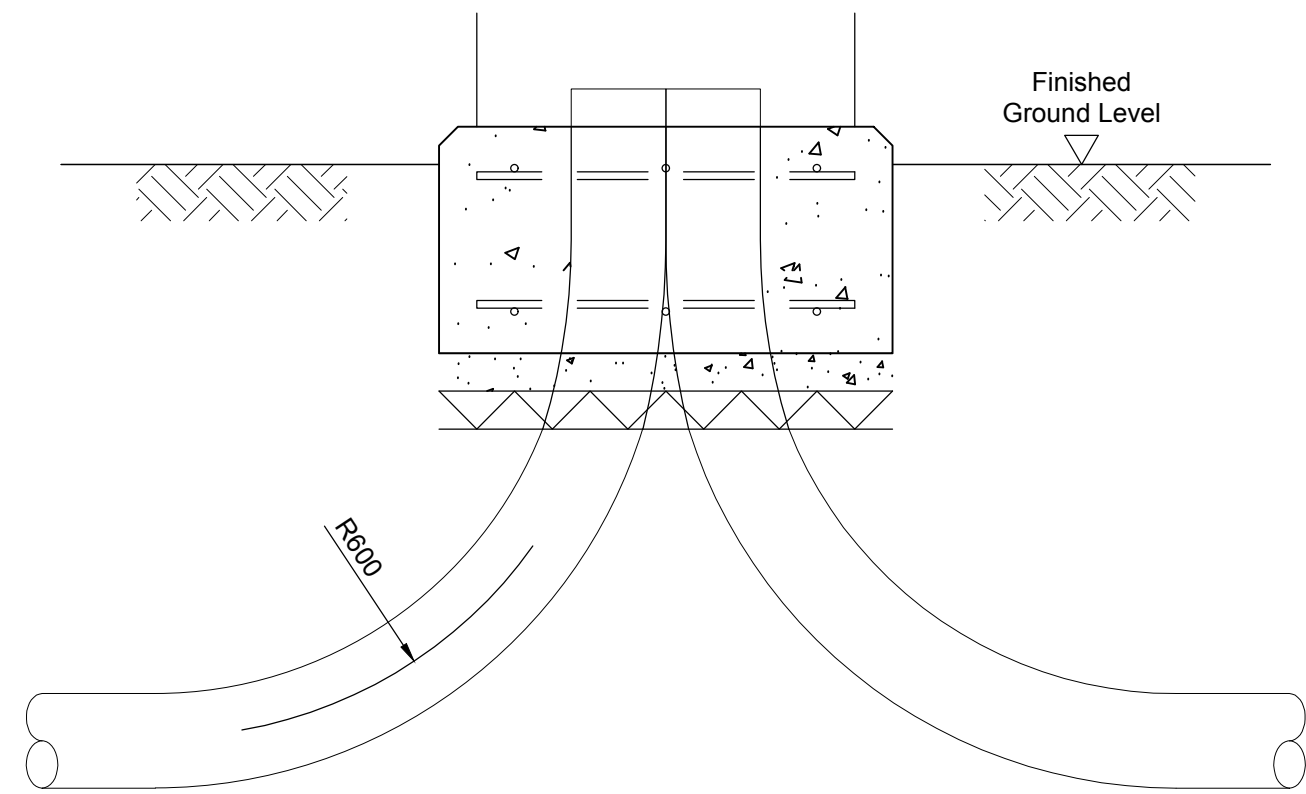
Drawing No. 20-17008-DR-0005 Issue Z01



Plan on FSR Cubicle Base



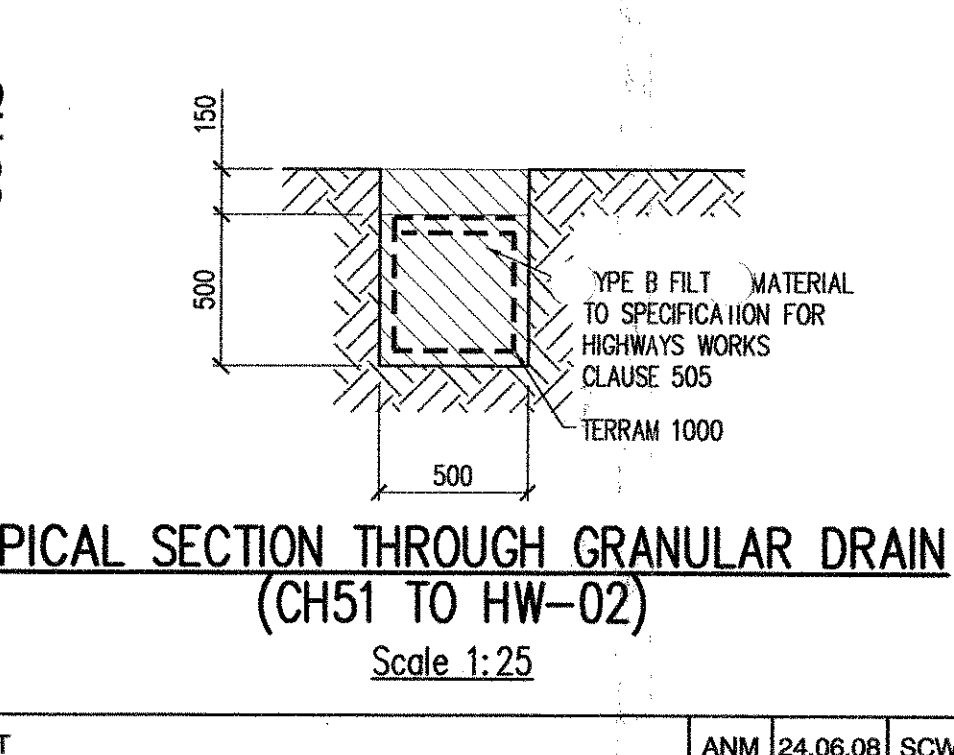
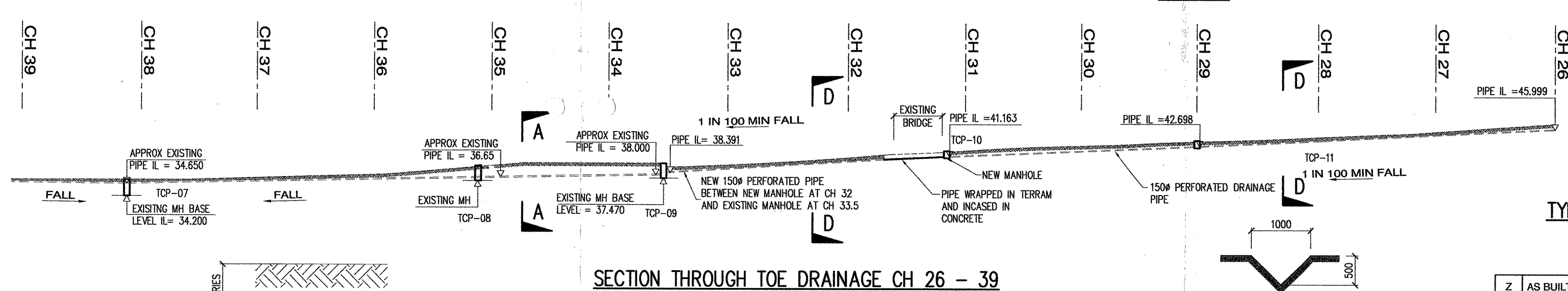
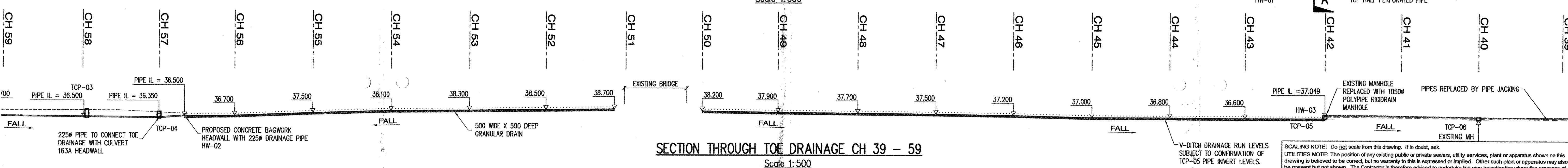
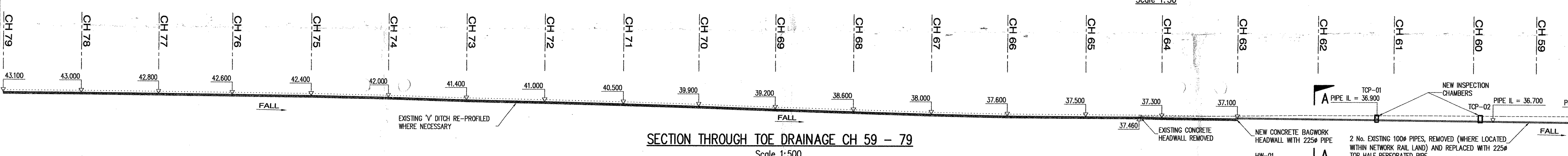
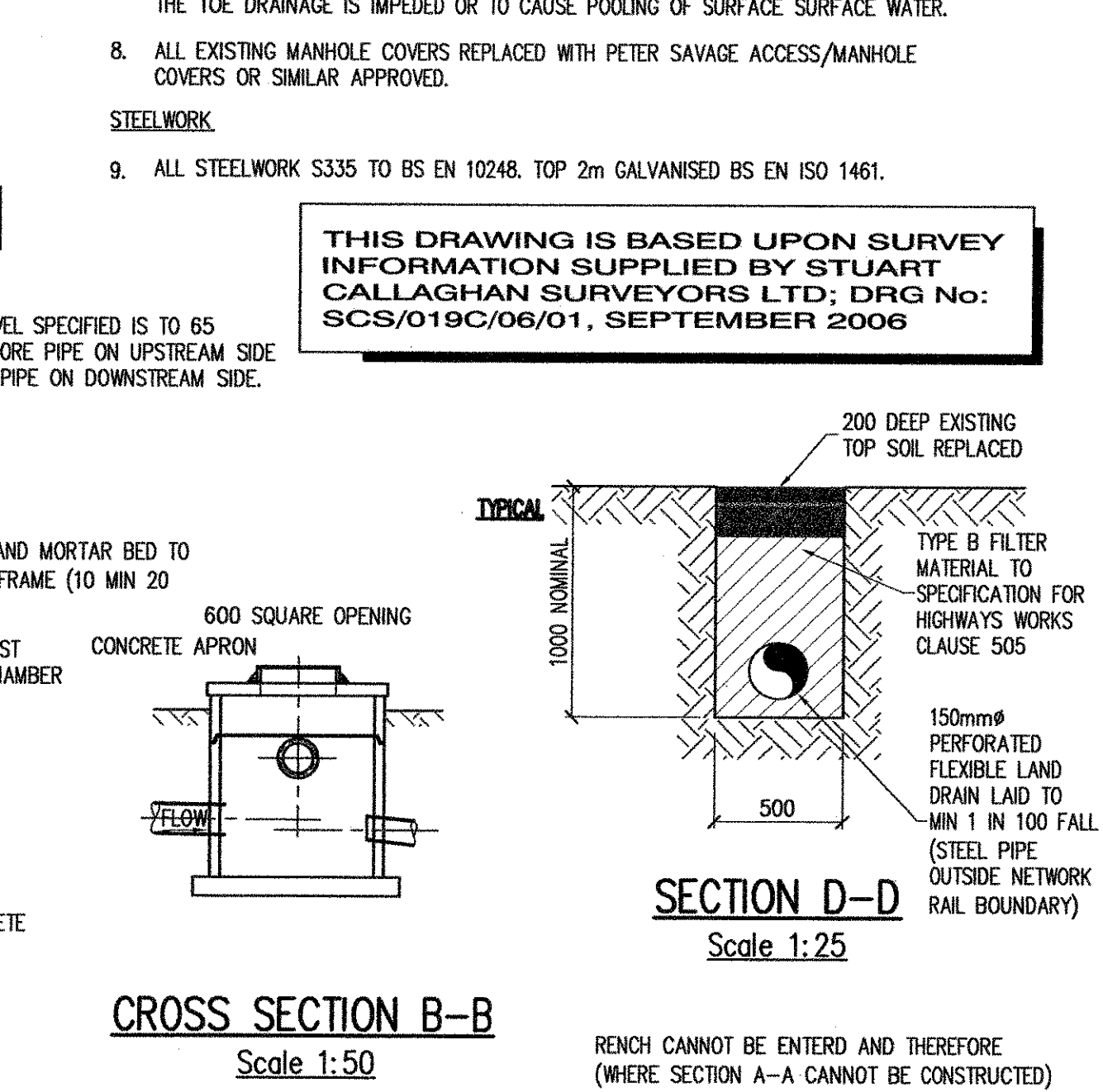
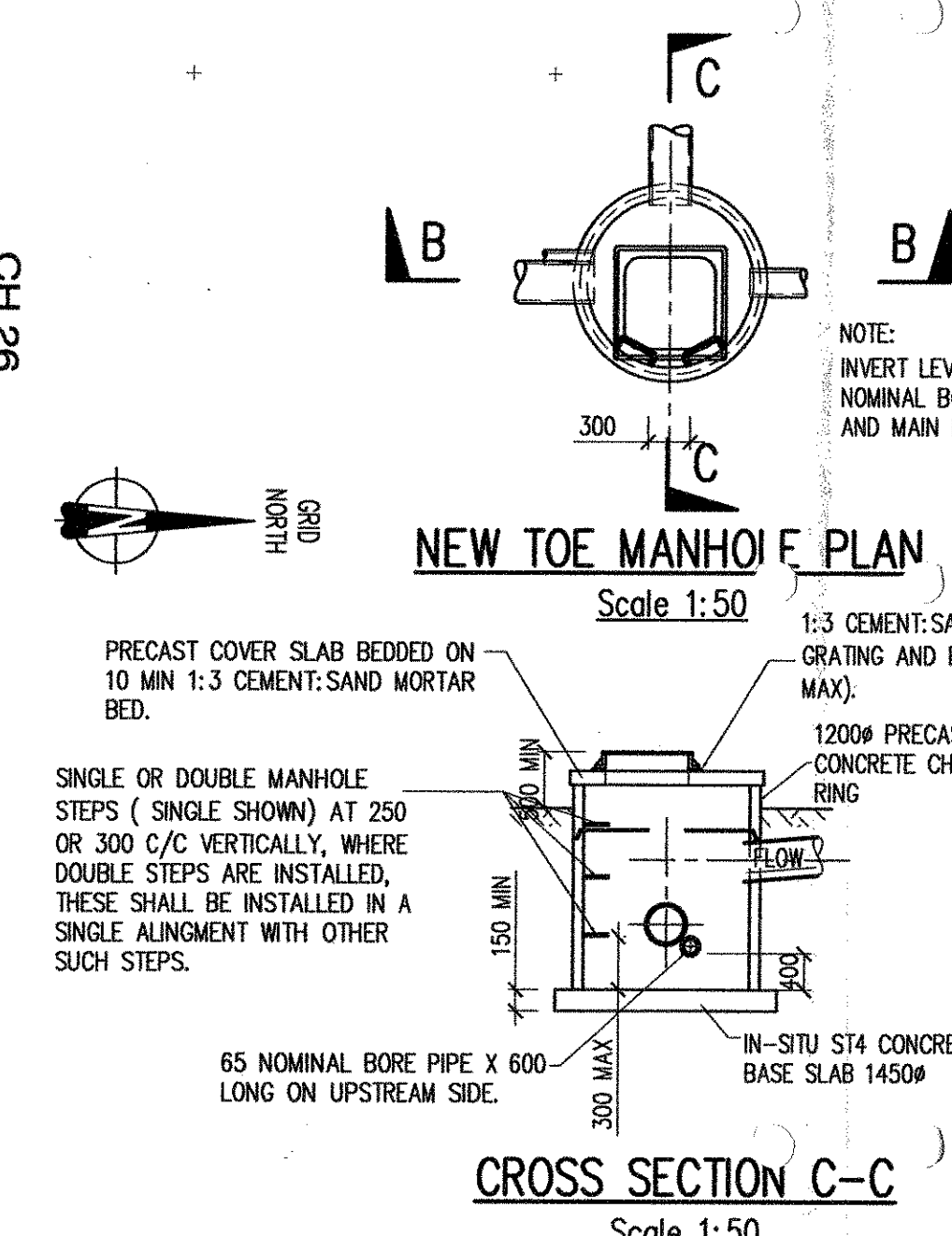
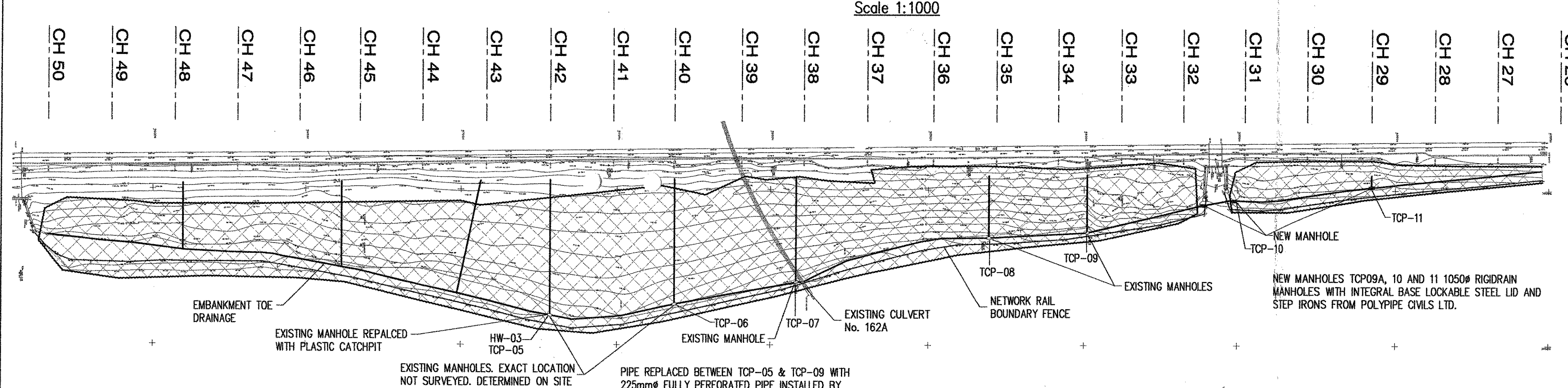
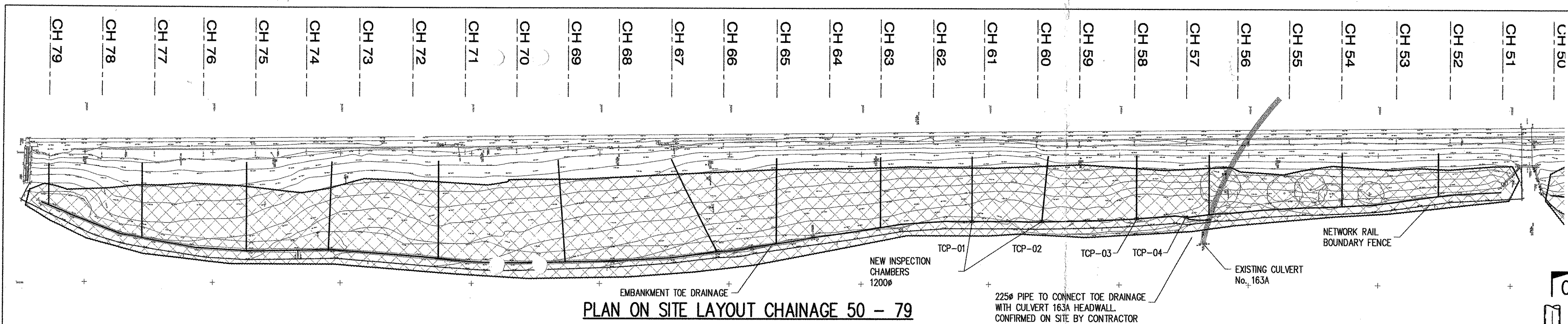
Section A-A



Section B-B

FSR Locations			
Location Ref	Mileage	Henry Williams Drawing No	Mott MacDonald Drg No
Hassocks	VTB3 43m 65ch	792-BMSP-HW-001	MMD-397149-E-DES-00-XX-3000
Preston Park	VTB3 48m 78ch	792-BMSP-HW-002	MMD-397149-E-DES-00-XX-5000
Keymer Junction	VTB3 40m 78ch	792-BMSP-HW-004	MMD-397149-E-DES-00-XX-2000

Note:
Full buried services check to be carried out in accordance with method statement / risk assessment. Area of construction to be scanned with suitable approved cable avoidance tool prior to any excavation.



NOTES

GENERAL

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS.
- SPECIFICATION SHALL BE IN ACCORDANCE WITH THE RELEVANT NETWORK RAIL LINE AND GROUP STANDARDS.
- ALL LEVELS ARE IN METRES AND RELATIVE TO ORDNANCE DATUM (NEWLYN).
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
- ALL PROPRIETARY PRODUCTS PLACED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.

DRAINAGE

- ALL EXISTING DRAINAGE CHECKED AND OVER HAULED WHERE REQUIRED.
- COUNTERFORT DRAIN ARISINGS DISPOSED ON SITE ALONG EMBANKMENT TOE BUT NOT SUCH THAT THE TOE DRAINAGE IS IMPEDED OR TO CAUSE POOLING OF SURFACE SURFACE WATER.
- ALL EXISTING MANHOLE COVERS REPLACED WITH PETER SAVAGE ACCESS/MANHOLE COVERS OR SIMILAR APPROVED.

STEELWORK

- ALL STEELWORK S335 TO BS EN 10248, TOP 2m GALVANISED BS EN ISO 1461.

THIS DRAWING IS BASED UPON SURVEY INFORMATION SUPPLIED BY STUART CALLAGHAN SURVEYORS LTD. DRG No: SCS/019C/06/01, SEPTEMBER 2006

SECTION A-A
Scale 1:25

SECTION D-D
Scale 1:25

CROSS SECTION C-C
Scale 1:50

CROSS SECTION B-B
Scale 1:50

SECTION THROUGH TOE DRAINAGE CH 59 - 79
Scale 1:500

SECTION THROUGH TOE DRAINAGE CH 39 - 59
Scale 1:500

SECTION THROUGH TOE DRAINAGE CH 26 - 39
Scale 1:500

TYPICAL SECTION THROUGH 'V' DITCH (CH 79 TO TCP-01)
Scale 1:50

TYPICAL SECTION THROUGH GRANULAR DRAIN (CH51 TO HW-02)
Scale 1:25

Drawing Issue Status

Mark	Revision	Date	Chkd
Z	AS BUILT	24.06.08	SCW
C	CHANGES DUE TO SITE CONSTRAINTS	06.12.07	SCW
B	GENERAL AMENDMENTS	15.06.07	SCW
A	STEELWORK NOTE ADDED	08.10.06	SCW

Client

nuttall

pba peterbrett

BURGESS HILL TO HASSOCKS EMBANKMENT

TOE DRAINAGE

AS BUILT

SE00013991

Client

nuttall

pba peterbrett

BURGESS HILL TO HASSOCKS EMBANKMENT

TOE DRAINAGE

AS BUILT

SE00013991

Client

nuttall

pba peterbrett

BURGESS HILL TO HASSOCKS EMBANKMENT

TOE DRAINAGE

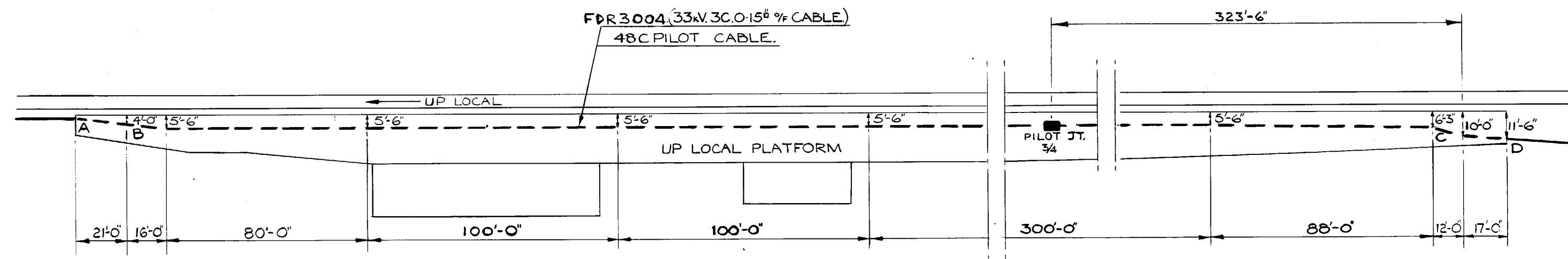
AS BUILT

SE00013991

TO REDHILL 3/4
TO REDHILL

EARLSWOOD STATION

TO SALFORDS 3/4
TO SALFORDS



ROUTE DETAILS

- A - B B.C.T. UP RAMP WITH 9' COVER.
- B - C B.C.T. WITH 6" AVERAGE COVER.
- C - D B.C.T. THROUGH BANK TO SURFACE.

NOTE: B.C.T. IS CAST IN SITU 20' WIDE.

SURFACE ROUTE	—————
BURIED ROUTE	-----
LEAD TO DUCTS	----->
SURFACE FEEDER JOINT	○
BURIED FEEDER JOINT	●
SURFACE PILOT JOINT	□
BURIED PILOT JOINT	■
SCALE: 1" TO 40'-0"	
DIMENSIONS ARE FOR ROUTE LOCATION ONLY & DO NOT REFER TO CABLE LENGTH	

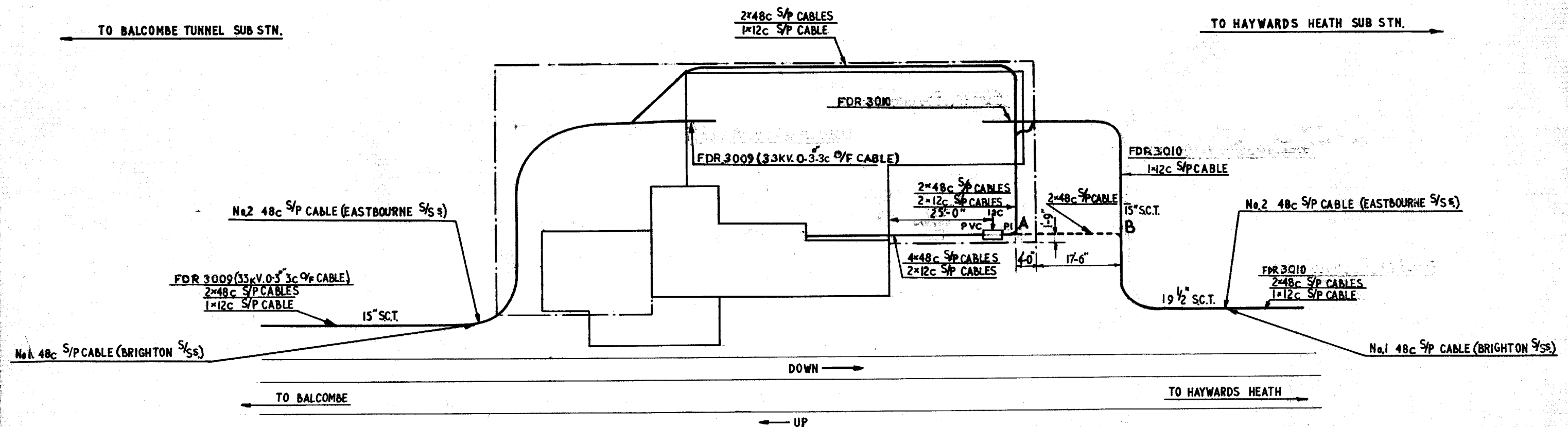
1 CHD:
APP:
FEEDER No 3004
WAS FEEDER No 4

37898

BRITISH RAILWAYS SOUTHERN REGION CHIEF MECH. & ELEC. ENGRS. DEPT SOUTHERN HOUSE CROYDON	
REDHILL 3/4 T O SALFORDS 3/4	
FEEDER No 3004 AND 48 CORE PILOT CABLE	
DRN: ~ 10.5.2.70 CHD: ~ 10.5.2.70 APP: ~ 10.4.70	AGD: ~ CHART No. B.M.15

OUSE VALLEY SUB. STN.

NOTES:-
F3010 RENEWAL
ALL EXISTING INFORMATION UNVALIDATED
HV DETAILS ONLY AMENDED
DETAILS SUPPLIED BY MURPHY LTD.



ROUTE DETAILS
A-B 10" B.C.T. WITH 6" AVERAGE COVER.

1	TO BALCOMBE
2	TO HAYWARDS HEATH
3	TO BALCOMBE
4	TO HAYWARDS HEATH
5	TO BALCOMBE
6	TO HAYWARDS HEATH
7	TO BALCOMBE
8	TO HAYWARDS HEATH
9	TO BALCOMBE
10	TO HAYWARDS HEATH
11	TO BALCOMBE
12	TO HAYWARDS HEATH
13	TO BALCOMBE
14	TO HAYWARDS HEATH
15	TO BALCOMBE
16	TO HAYWARDS HEATH
17	TO BALCOMBE
18	TO HAYWARDS HEATH
19	TO BALCOMBE
20	TO HAYWARDS HEATH
21	TO BALCOMBE
22	TO HAYWARDS HEATH
23	TO BALCOMBE
24	TO HAYWARDS HEATH
25	TO BALCOMBE
26	TO HAYWARDS HEATH
27	TO BALCOMBE
28	TO HAYWARDS HEATH
29	TO BALCOMBE
30	TO HAYWARDS HEATH
31	TO BALCOMBE
32	TO HAYWARDS HEATH
33	TO BALCOMBE
34	TO HAYWARDS HEATH
35	TO BALCOMBE
36	TO HAYWARDS HEATH
37	TO BALCOMBE
38	TO HAYWARDS HEATH
39	TO BALCOMBE
40	TO HAYWARDS HEATH
41	TO BALCOMBE
42	TO HAYWARDS HEATH
43	TO BALCOMBE
44	TO HAYWARDS HEATH
45	TO BALCOMBE
46	TO HAYWARDS HEATH
47	TO BALCOMBE
48	TO HAYWARDS HEATH
49	TO BALCOMBE
50	TO HAYWARDS HEATH
51	TO BALCOMBE
52	TO HAYWARDS HEATH
53	TO BALCOMBE
54	TO HAYWARDS HEATH
55	TO BALCOMBE
56	TO HAYWARDS HEATH
57	TO BALCOMBE
58	TO HAYWARDS HEATH
59	TO BALCOMBE
60	TO HAYWARDS HEATH
61	TO BALCOMBE
62	TO HAYWARDS HEATH
63	TO BALCOMBE
64	TO HAYWARDS HEATH
65	TO BALCOMBE
66	TO HAYWARDS HEATH
67	TO BALCOMBE
68	TO HAYWARDS HEATH
69	TO BALCOMBE
70	TO HAYWARDS HEATH
71	TO BALCOMBE
72	TO HAYWARDS HEATH
73	TO BALCOMBE
74	TO HAYWARDS HEATH
75	TO BALCOMBE
76	TO HAYWARDS HEATH
77	TO BALCOMBE
78	TO HAYWARDS HEATH
79	TO BALCOMBE
80	TO HAYWARDS HEATH
81	TO BALCOMBE
82	TO HAYWARDS HEATH
83	TO BALCOMBE
84	TO HAYWARDS HEATH
85	TO BALCOMBE
86	TO HAYWARDS HEATH
87	TO BALCOMBE
88	TO HAYWARDS HEATH
89	TO BALCOMBE
90	TO HAYWARDS HEATH
91	TO BALCOMBE
92	TO HAYWARDS HEATH
93	TO BALCOMBE
94	TO HAYWARDS HEATH
95	TO BALCOMBE
96	TO HAYWARDS HEATH
97	TO BALCOMBE
98	TO HAYWARDS HEATH
99	TO BALCOMBE
100	TO HAYWARDS HEATH

1	TO BALCOMBE
2	TO HAYWARDS HEATH
3	TO BALCOMBE
4	TO HAYWARDS HEATH
5	TO BALCOMBE
6	TO HAYWARDS HEATH
7	TO BALCOMBE
8	TO HAYWARDS HEATH
9	TO BALCOMBE
10	TO HAYWARDS HEATH
11	TO BALCOMBE
12	TO HAYWARDS HEATH
13	TO BALCOMBE
14	TO HAYWARDS HEATH
15	TO BALCOMBE
16	TO HAYWARDS HEATH
17	TO BALCOMBE
18	TO HAYWARDS HEATH
19	TO BALCOMBE
20	TO HAYWARDS HEATH
21	TO BALCOMBE
22	TO HAYWARDS HEATH
23	TO BALCOMBE
24	TO HAYWARDS HEATH
25	TO BALCOMBE
26	TO HAYWARDS HEATH
27	TO BALCOMBE
28	TO HAYWARDS HEATH
29	TO BALCOMBE
30	TO HAYWARDS HEATH
31	TO BALCOMBE
32	TO HAYWARDS HEATH
33	TO BALCOMBE
34	TO HAYWARDS HEATH
35	TO BALCOMBE
36	TO HAYWARDS HEATH
37	TO BALCOMBE
38	TO HAYWARDS HEATH
39	TO BALCOMBE
40	TO HAYWARDS HEATH
41	TO BALCOMBE
42	TO HAYWARDS HEATH
43	TO BALCOMBE
44	TO HAYWARDS HEATH
45	TO BALCOMBE
46	TO HAYWARDS HEATH
47	TO BALCOMBE
48	TO HAYWARDS HEATH
49	TO BALCOMBE
50	TO HAYWARDS HEATH
51	TO BALCOMBE
52	TO HAYWARDS HEATH
53	TO BALCOMBE
54	TO HAYWARDS HEATH
55	TO BALCOMBE
56	TO HAYWARDS HEATH
57	TO BALCOMBE
58	TO HAYWARDS HEATH
59	TO BALCOMBE
60	TO HAYWARDS HEATH
61	TO BALCOMBE
62	TO HAYWARDS HEATH
63	TO BALCOMBE
64	TO HAYWARDS HEATH
65	TO BALCOMBE
66	TO HAYWARDS HEATH
67	TO BALCOMBE
68	TO HAYWARDS HEATH
69	TO BALCOMBE
70	TO HAYWARDS HEATH
71	TO BALCOMBE
72	TO HAYWARDS HEATH
73	TO BALCOMBE
74	TO HAYWARDS HEATH
75	TO BALCOMBE
76	TO HAYWARDS HEATH
77	TO BALCOMBE
78	TO HAYWARDS HEATH
79	TO BALCOMBE
80	TO HAYWARDS HEATH
81	TO BALCOMBE
82	TO HAYWARDS HEATH
83	TO BALCOMBE
84	TO HAYWARDS HEATH
85	TO BALCOMBE
86	TO HAYWARDS HEATH
87	TO BALCOMBE
88	TO HAYWARDS HEATH
89	TO BALCOMBE
90	TO HAYWARDS HEATH
91	TO BALCOMBE
92	TO HAYWARDS HEATH
93	TO BALCOMBE
94	TO HAYWARDS HEATH
95	TO BALCOMBE
96	TO HAYWARDS HEATH
97	TO BALCOMBE
98	TO HAYWARDS HEATH
99	TO BALCOMBE
100	TO HAYWARDS HEATH

BRITISH RAILWAYS
SOUTHERN REGION
CHIEF MECH. & ELEC. ENGRS. DEPT.
15, ST. THOMAS ST. S.E.1

OUSE VALLEY SUBSTATION.

DETAILS OF FEEDERS 3009 & 3010
SUPERVISORY/PILOT CABLES.

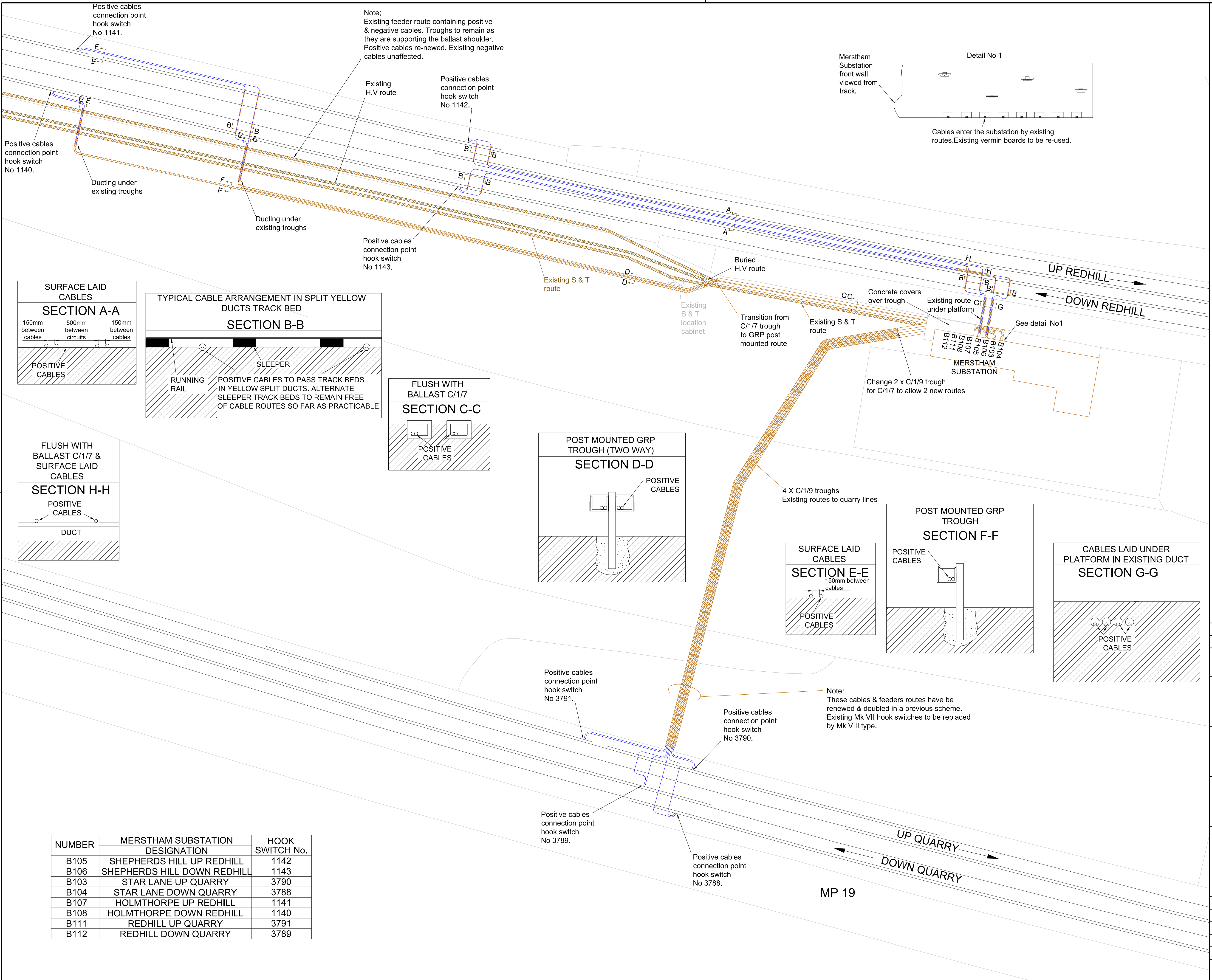
CHART NO.
B.M.40.

5087

Reproduced from the Ordnance Survey Map with permission of the controller of Her Majesty's Stationery Office. Crown Copyright. Licence No: 0100040892. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings.

LEGEND

- EXISTING TROUGH
- TROUGH POSITIVE CABLE ROUTE
- CABLE DUCTING
- SPLIT DUCTING ROUTE



NUMBER	MERSTHAM SUBSTATION DESIGNATION	HOOK SWITCH No.
B105	SHEPHERDS HILL UP REDHILL	1142
B106	SHEPHERDS HILL DOWN REDHILL	1143
B103	STAR LANE UP QUARRY	3790
B104	STAR LANE DOWN QUARRY	3788
B107	HOLMTHORPE UP REDHILL	1141
B108	HOLMTHORPE DOWN REDHILL	1140
B111	REDHILL UP QUARRY	3791
B112	REDHILL DOWN QUARRY	3789

Rev.	Date	Description of Revisions	Drawn	Cl'd	App
Status AS BUILT					

This drawing is the property of Network Rail. It shall not be reproduced in whole or in part, nor disclosed to a third party, without the written permission of the Programme Director, Thameslink Programme, James Forbes House, 27 Great Suffolk Street, London SE1 0NS. Copyright 2010 Network Rail.



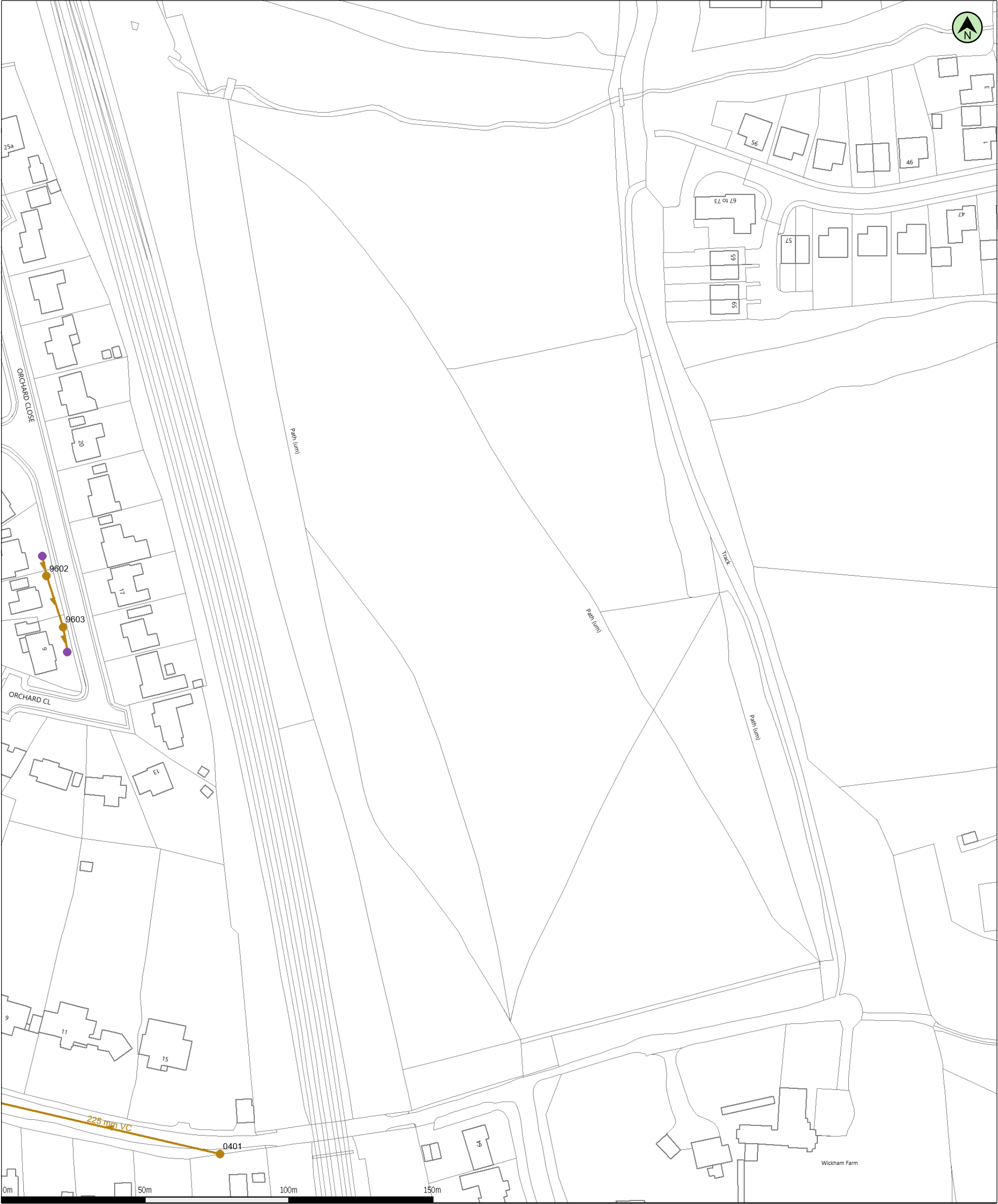
Client
Thameslink Programme
James Forbes House
27 Great Suffolk Street
London SE1 0NS
Tel: 0207 023 3559



Project Title
**THAMESLINK PROGRAMME
N244 Electrification & Plant**

Drawing Title
**MERSTHAM SUBSTATION
ARRANGEMENT OF TRACK FEEDER
CABLE ROUTES & CONTAINMENT**

Drawn By	Name	B Truslove	Sig.	BT	Date	15/06/12
Checked By	Name	N Vaughan	Sig.	NV	Date	15/06/12
Approved By	Name	N McLoughlin	Sig.	NM	Date	15/06/12
Scale	1:200					Sheet 1 of 1
Map Grid	OSGB	ELR	VTB3	UCM	Miles yds	From 18 1702 To 19 245
Network Rail Drawing Number	N244-SRS-DRG-EP-000139					Rev Z01



(c) Crown copyright and database rights 2025 Ordnance Survey AC0000808122
Data updated: 23/07/25

Scale: 1:1250
Map Centre: 533148,125614

Date: 31/07/25
Our Ref: 1839902 - 2

Wastewater Plan A3
Powered by digdat

s.butt@natic.co.uk

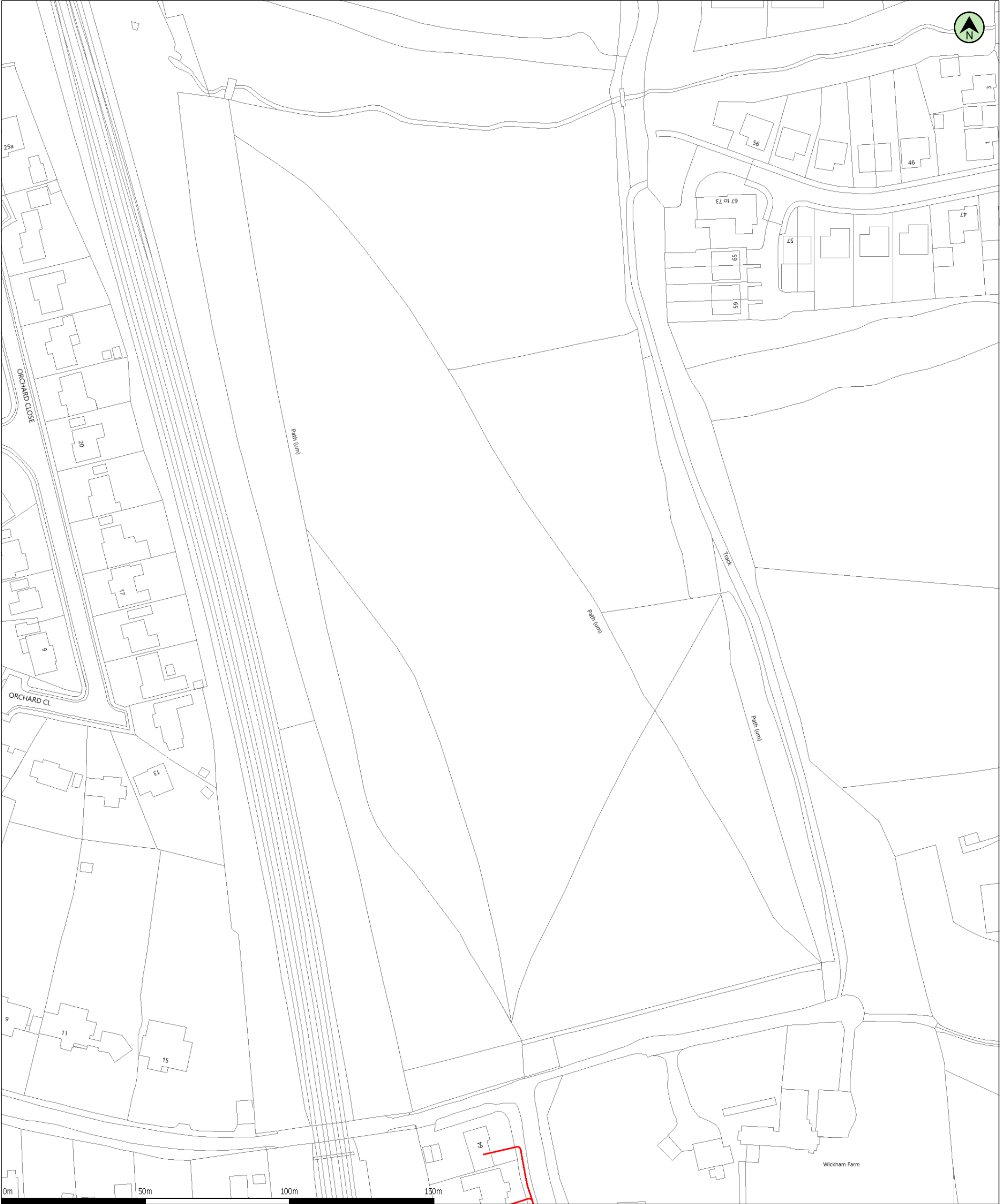
P315



The positions of pipes shown on this plan are believed to be correct, but Southern Water Services Ltd accept no responsibility in the event of inaccuracy. The actual positions should be determined on site. This plan is produced by Southern Water Services Ltd (c) Crown copyright and database rights 2025 Ordnance Survey AC0000808122 .This map is to be used for the purposes of viewing the location of Southern Water plant only. Any other uses of the map data or further copies is not permitted.

WARNING: BAC pipes are constructed of Bonded Asbestos Cement.

WARNING: Unknown (UNK) materials may include Bonded Asbestos Cement.



(c) Crown copyright and database rights 2025 Ordnance Survey AC0000818557
Data updated: 02/06/25

Scale: 1:1250
Map Centre: 533148,125614

Date: 31/07/25
Our Ref: 1839902 - 1

Telecoms Plan A3
Powered by digdat

Duct, Trench

Chamber / Pole

Cabinet

s.butt@natic.co.uk

P315



Important Information - please read The purpose of this plan is to identify Virgin Media apparatus. We have tried to make it as accurate as possible but we cannot warrant its accuracy. In addition, we caution that within Virgin Media apparatus there may be instances where mains voltage power cables have been placed inside green, rather than black ducting. Further details can be found using the "Affected Postcodes.pdf", which can be downloaded from this website. Therefore, you must not rely solely on this plan if you are carrying out any excavation or other works in the vicinity of Virgin Media apparatus. The actual position of any underground service must be verified by cable detection equipment, etc. and established on site before any mechanical plant is used. Accordingly, unless it is due to the negligence of Virgin Media, its employees or agents, Virgin Media will not have any liability for any omissions or inaccuracies in the plan or for any loss or damage caused or arising from the use of and/or any reliance on this plan. This plan is produced by Virgin Media Limited (c) Crown copyright and database rights 2025 Ordnance Survey AC0000818557.