A1

Key

- Extent of Infrastructure Works in accordance with planning consent no.133143/VO/2022
- Trial Hole Location
- THXX Trial Hole Reference
- Existing assets

Proposed Electricity Infrastructure

- As-built HV Duct River Crossing Route
- As-built Steel River Crossing
- Other As-built U-tube crossings - see relevant drawings

Safety, Health and Environmental Information

Notes below are additional to hazards/risks normally associated with this type of work. Numbers correspond to Risk Register references (document reference VNIF-ARP-ZZ-YYY-RE-WD-0002)

Construction (Location Specific)

- HAZ-UT-001 - Working adjacent to and within watercourse
- HAZ-SW-003 - Risk of drowning
- HAZ-SW-012 - Risk of waterborne illness

Construction (Site Wide)

The following hazards are considered to be a risk across the full design:
HAZ-SW-002 - Buried Services
HAZ-SW-006 - Asbestos
HAZ-SW-007 - Unexploded Ordnance (UXO)

N

As-built information interpolated from:
- cad survey data 'U Tube As Built Survey Completed' received 22-05-2025'.
- Illustrative mark-ups 'Upstream Ducting Bends Plan and Section' received 22-01-2025 and 'VN - Carry Over Items' received 21-02-2025.
- Emails on construction methodology received 06-05-2025.

River Irk

Collyhurst Weir

Collyhurst Road

TH12

Additional assets identified in TH12 - unconfirmed ownership

For extents of scour see drawing VNIF-ARP-00-YYY-DR-CG-0010

Excavation Zone (1.5m x 3m) for HV Cable Pulling detail confirmed with ENWL (30/03/2023)

Lengths of highlighted ducting where the minimum spacing is below that shown in Detail D. Typical separation is 75mm, minimum is 20mm

HAZ-UT-001
HAZ-SW-003
HAZ-SW-012

River crossing for others omitted from section.
For the OpenReach crossing refer to drawing VNIF-ARP-00-YYY-DR-CU-2009 and for 2nd ENWL duct crossing refer to drawing VNIF-ARP-00-YYY-DR-CU-2010

1 No. uPVC 150mmØ preformed straight duct (length 12.42m) to ENWL adoptable standards

Pinch point where minimum separation between 2No. HV U-tubes reduces to 800mm.

Existing Openreach (assumed to be "Unknown Service" located in TH12) and Cadent assets in proximity to proposed Excavation Zone.

U-tube crossing pipe to extend beyond river channel extents

Refer to Detail D for duct and trench arrangement

2 No. uPVC 150mmØ preformed bends (R1.2m 45°)

2 No. uPVC 150mmØ preformed straight duct (length 1.75m)

12422

HV (1st U-tube)
BT (2nd U-tube)
HV (3rd U-tube)

907

7037

1734

2 No. uPVC 150mmØ preformed straight duct (length 5.90m)

2 No. uPVC 150mmØ preformed bends (R1.2m 45°)

2 No. uPVC 150mmØ preformed straight duct (length 1.2m)

2 No. uPVC 150mmØ preformed bends (R1.2m 45°)

Excavation Zone (1.5m x 3m) for HV Cable Pulling detail confirmed with ENWL (30/03/2023)

4069

12546

1 No. uPVC 150mmØ preformed straight duct (length 12.55m)

300mm minimum external separation between Openreach U-tube pipe and ENWL U-tube pipe

2 No. uPVC 150mmØ preformed straight duct (length 3.28m)

2 No. uPVC 150mmØ preformed bends (R1.2m 45°)

Plan

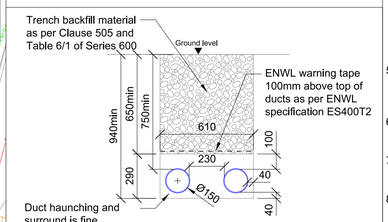
Scale 1:100

9. Utility linestyles have been used to reflect the level of accuracy as per PAS128 standard. The Located Service Classification table below gives a brief overview. For further details refer to document 'PAS 128:2014 Specification for underground utility detection, verification and location'.

Located Service Classification	Certainty/Risk	
Type A Verification + Visual identification	Data	
Type B Detection + Typically GPR and EML techniques are used		
Type C Site reconnaissance + Physical surface features identified		
Type D Desktop utility records search		

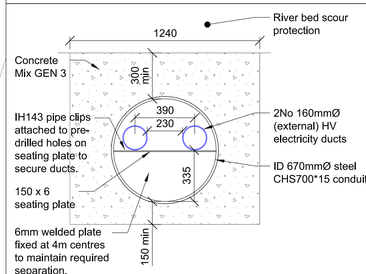
10. For utility diversions and information, see drawings and schedule:
- VNIF-ARP-00-YYY-DR-CU-1010, 1011, & 1012, HIF Lite Utilities, Drainage Diversions & Abandonments.
- VNIF-ARP-00-YYY-DR-CU-1007, Proposed HIF Lite Openreach Diversions.
- VNIF-ARP-00-YYY-DR-CU-1008, Proposed HIF Lite Gas Diversions.
- VNIF-ARP-ZZ-YYY-SH-CU-0001, Utilities Schedule.

11. For ENWL duct products and specifications, see specification ES400D4, Plastic Ducts, Conduits and Accessories.



Detail D

2 way No. 150mm HV Ducts

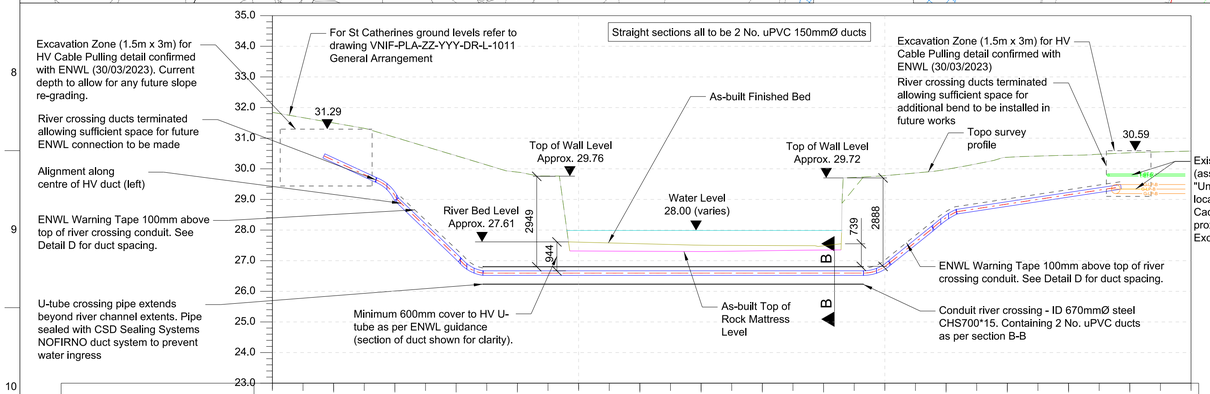


Section B-B

(detail to be applied along river bed section)
Scale 1:20

Notes

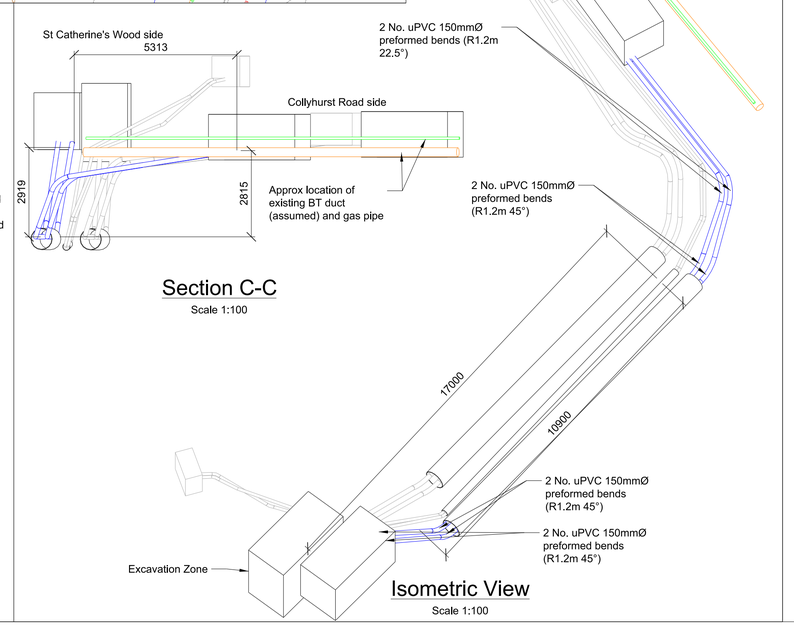
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2. This map is reproduced from Ordnance Survey Material with the permission of the Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office (c) Crown Copyright. License Number 100019568 (2021).
3. Background is based on:
 - Topographical Survey drawing PS-2158-TS by Paragon Surveys dated September 2021.
 - Landscape Architect masterplan drawing VNIF-PLA-ZZ-YYY-DR-L-1011 rev C08 dated 07/06/24 by Planit.
 - Collyhurst Wier Topo Survey drawing 2381331_XS_Collyhurst Weir by Central Alliance dated January 2022.
 - Riverbed Level surveyed by BAM May 2023 - sketch 240530 Utube bed section with additional levels August 2024.
 - Riverside retaining structure topographical survey by Bam dated 28/01/2025.
 - Topographical Survey by Bam dated 24/02/2025.
4. Existing Utilities layout based on the following information:
 - Utility Search Map drawing 97079 undertaken by Atkins dated 24/06/2021.
 - GPR Survey drawing PUM-11943-U-DR-0001 Rev 02 undertaken by Precison Utility Mapping dated 18/01/2022.
 - Trial hole model VNIF-BNL-ZZ-YYY-M3-W-0001 P01 undertaken by BAM dated 07/09/2022.
5. Positions of services on this drawing are indicative only and are taken from the sources listed above. No guarantee is given for the accuracy of information and it is intended for information only.
6. Where electricity and telecommunications cables are indicated there may be multiple cables present.
7. Telecommunications cables shown do not reflect that in some areas ducts are shared between companies.
8. For details of pipe clips refer to manufacturer's information shared by BAM on the 27/08/2024.



CHAINAGE	0.000	1.000	2.000	3.000	4.000	5.000	6.000	7.000	8.000	9.000	10.000	11.000	12.000	13.000	14.000	15.000	16.000	17.000	18.000	19.000	20.000	21.000	22.000	23.000	24.000	25.000	26.000	27.000	28.000	29.000	30.000
EXISTING ELEVATION	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
PROPOSED LEVEL	0.000	0.000	30.275	29.814	29.123	28.109	27.147	26.594	26.594	26.594	26.594	26.594	26.594	26.595	26.595	26.595	26.595	26.595	26.595	26.595	26.810	27.606	28.406	28.698	28.850	29.001	29.153	29.304	0.000	0.000	0.000

Section A-A

Scale 1:100



Section C-C

Scale 1:100

Isometric View

Scale 1:100

Rev	Date	Description	By	Chkd	Appd	Auth
P01	30/08/24	3rd HV U-TUBE ADDED	AS	EC	EF	—
P02	06/09/24	WS3 Utube Design Issue	AS	EC	EF	—
C01	06/09/24	WS3 Utube Design Issue	AS	EC	EF	AL
P03	20/03/25	As-built Issue	AS	EF	EF	—
C02	20/03/25	As-built Issue	AS	EF	EF	AL
P04	30/05/25	As-Built Issue	OM	EC	ES	—
C03	03/06/25	As-Built Issue	OM	EC	ES	AL

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Client

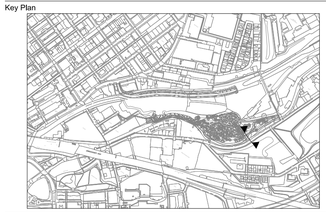
MANCHESTER CITY COUNCIL

bam nuttall

Project Title

Victoria North HIF Infrastructure & Enabling Works

Key Plan



Drawing Title

Proposed HIF Lite Utilities
ENWL Northern River Crossing
Third U-tube

Scale at A1	AS SHOWN	Arup Job No	282022-00
Role	Consultant for Utilities		
Suitability	CR- Construction Record		

Rev	By	Chkd	Appd	
C03	OM	EC	ES	AL
	Date 30/05/25	Date 30/05/25	Date 30/05/25	03/06/25

Name

VNIF	- ARP -	00	- YYY -	DR	- CU -	2010
Project	Originator	Volume	Location	Type	Role	Number

Do not scale

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