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GCRE: Global Centre for Rail Excellence

Depot Area Earthworks and Site Wide Drainage:
Method Statement and Risk Assessment (Sewers
and Water Mains)

Global Centre for Rail Excellence (GCRE)

25th March 2024

C1437/Depot Area/Method Statement and Risk Assessment (Sewers and Water Mains)/March 2024/001

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Notice

This document and its contents have been prepared and are intended solely as information and use in relation to the handling and movement of materials within the Global Centre for Rail Excellence site.

Walters UK assumes no responsibility to any other party in respect of or arising out of or in connection with this document and/or its contents.

This document has 17 pages including the cover and excluding appendices.

Document history

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Client signoff

Client	Global Centre for Rail Excellence
Project	Global Centre for Rail Excellence (GCRE)
Job number	C1437
Client signature/date	

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Executive Summary

The present document represents a Method Statement and Risk Assessment for the protection, diversion and removal of both foul and clean water sewers under the ownership of DCWW within the depot phase construction areas of the Global Centre for Rail Excellence (GCRE) project.

The proposed methodologies have been developed by the pre-construction team within Walters UK, where both safety and environmental considerations have been discussed and agreed. These discussions have been informed by ongoing discussions with DCWW representatives on site.

This document outlines;

- ❖ Proposed Works to the DCWW assets
- ❖ How the works will be executed.
- ❖ Key Risks and mitigation to the Assets whilst undertaking the works
- ❖ The construction of the works can be undertaken within current Health and Safety and Environmental Regulations

This document has been developed to support the discharge of Pre-Commencement Planning Condition 25 from Planning Conditions P2021/0327 Neath and Port Talbot County Council and 21/0559/OUT Powys County Council.

1. Introduction

1.1. Proposed Scheme

The development proposal for the Global Centre of Rail Excellence (GCRE), is presented in the Depot Phase Development Plan GCRE_CS_0190 included within Appendix A.

The outline GCRE planning permission for the wider Washery comprises the installation of multiple sidings for rolling stock storage and decommissioning, a ‘shunter’s cabin’ and electricity substation, inspection and maintenance sheds, carriage wash facilities, several buildings forming an Innovation Hub, a Depot, as well as further industrial/commercial developments.

GCREs intention is for development within the Washery to occur in three stages:

- ❖ Stage 1 – construction of earthworks
- ❖ Stage 2 – construction of limited railway trackbed
- ❖ Stage 3 – construction of remaining trackbed and the UKRRIN building

Walters UK (WUK) have been contracted to deliver Stage 1 of the works, consisting of earthworks plateaus, landscaping and ecological enhancements.

No works are to be undertaken outside the Red Line Boundary or on the public highway.

1.2. Planning Status

The GCRE development has been granted planning under the following permissions;

Planning Status

Planning Permission Title	Planning Reference	LPA	Applicable to Depot Area Stage 1 Works
Nant Helen Complimentary Earthworks Scheme	20/0738/FUL	Powys County Council (PCC)	No
	P2020/0362	Neath and Port Talbot Council (NPTC)	No
Development of GCRE	21/0559/OUT	PCC	Yes
	P2021/0327	NPTC	Yes

As a requirement of the approved Planning Consent, Planning Condition (PC) 25 from permissions 21/0559/OUT and P2021/0327 listed below are required to be discharged prior to commencement.

This document will support the discharge of this Pre-Commencement Condition.

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Planning Condition 12 Summary

Planning Decision:	21/0559/OUT Local Planning Authority PCC
Description:	GCRE Planning Permission: Development of a Global Centre of Rail Excellence, comprising of two test tracks of loop configuration being an electrified high speed rolling stock test track of 6.9 km in length and an electrified low speed infrastructure test track of 4.5 km, with overhead line equipment (OLE) and dual platform station test environment; together with operations and control offices (including staff accommodation and welfare), shunter cabins (two), research and development, education and training, rolling stock storage sidings and maintenance/cleaning/decommissioning facilities; associated, drainage, internal vehicular accesses, branch line rail connection, staff and visitor car parking, lighting, electrical infrastructure (including substations and lineside shore supplies and transformers), fencing (perimeter security, acoustic and stock proof), land reformation and hard and soft landscaping, together with demolition of existing buildings/structures

Condition and Summary

25	No development shall take place in any phase of development as identified in condition 7 (including demolition, ground works, site or vegetation clearance) - where such phase affects sewers and water mains - until details of a method statement and risk assessment for the protection of the structural condition of the public sewers and watermains crossing the site has been submitted to and approved in writing by the Local Planning Authority. The approved protection measures shall be implemented in full before any other development hereby permitted has commenced, and shall be retained at all times for the duration of (i) the approved operations including the restoration works.
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Planning Decision:	P2021/0327 Local Planning Authority NPTC
Description:	GCRE Planning Permission: Development of a Global Centre of Rail Excellence, comprising of two test tracks of loop configuration being an electrified high speed rolling stock test track of 6.9 km in length and an electrified low speed infrastructure test track of 4.5 km, with overhead line equipment (OLE) and dual platform station test environment; together with operations and control offices (including staff accommodation and welfare), shunter cabins (two), research and development, education and training, rolling stock storage sidings and maintenance/cleaning/decommissioning facilities; associated, drainage, internal vehicular accesses, branch line rail connection, staff and visitor car parking, lighting, electrical infrastructure (including substations and lineside shore supplies and transformers), fencing (perimeter security, acoustic and stock proof), land reformation and hard and soft landscaping, together with demolition of existing buildings/structures.

Condition and Summary

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1.3. Existing Site

The site was previously the Onllwyn Washeries servicing Nant Helen opencast, and consisting of rail sidings, various industrial buildings and coal stockpiles. The buildings have been demolished and coal stockpiles removed.

Access to the washeries was gained by rail along the Neath and Brecon (NAB) branch line to the West, Heavy Goods vehicles from the A4221 from the East and Light Goods Vehicles from A419 through Onllwyn village.

The Washery buildings have now been demolished and coal stockpiles removed.

Along the Northern site boundary flows a watercourse, the high point of this watercourse is approximately mid-point along the length of the washery, with flows to both the East and West.

Sites of Importance to Nature Conservation (SINC) are present to both the North East and South East, and a wooded area lies between the washery site and the village of Onllwyn to the South.

The existing ground is made up of colliery spoil overlaying glacial till deposits, peat and alluviums and mudstones.

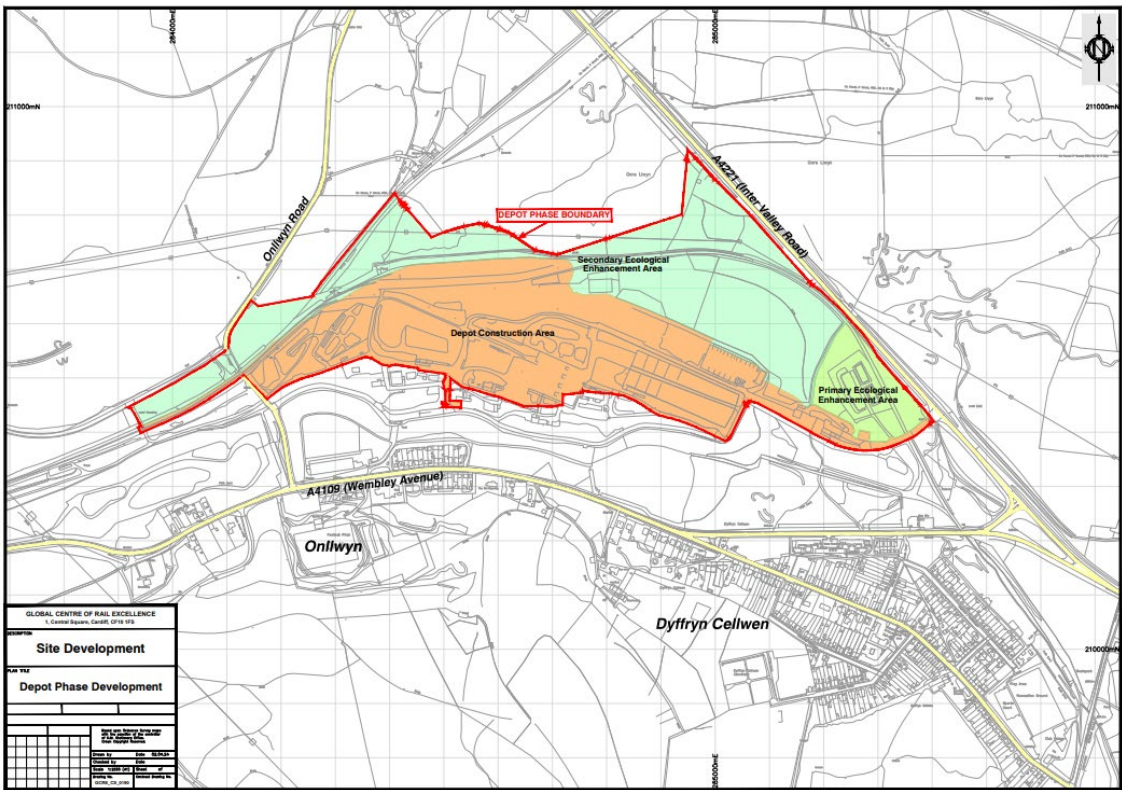
1.4. Scope of Works

WUK are contracted to deliver the Stage 1 works within the depot area, with construction works comprising:

- ❖ Construction of Earthworks Plateaus by undertaking an earthworks cut/fill operation with the site boundary
- ❖ Remediation (should any contaminants be discovered)
- ❖ Construction of Site Wide Drainage including swales, ditches, connecting pipework, attenuation pond and connection to the existing culvert at Onllwyn Road
- ❖ Construction of a combined sewer diversion
- ❖ Construction of a Site Access track along the Northern boundary
- ❖ Ecological Enhancements within the area around the existing waterbodies to the North East
- ❖ Grass seeding and landscape planting to drainage swales and attenuation pond
- ❖ Temporary Works required to deliver the permanent works

The delivery of the construction works will be undertaken as Walters UK as the Principal Contractor for the limits of the GCRE Depot Construction Area.

The site limits are defined by the red line boundary as shown within the figure below.



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1.5. Programme

Anticipated programme for the earthworks delivery is;

- ❖ Construction Start mid-July 2024
- ❖ Construction Completion end of December 2024

1.6. Working Hours

Working hours will be as follows:

- Mon to Fri 07.30am to 18.00pm
- Sat 07.30am to 13.00pm
- No working on Sundays and bank holidays unless agreed with Local Authority

1.7. Site Security

Sections of the perimeter of the Depot Construction Area has existing chainlink fence, and this fence will be utilised as the security fence. Where no chainlink fence exists the site will be secured with double clipped heras fence.

Out of hours security will be provided by 24 hour onsite manned guard.

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2. Existing DCWW Apparatus

2.1. DCWW Combined Sewer

An existing 150 mm diameter combined foul sewer crosses the washery site in North East to South West Direction. There are no visible chambers on the sewer upstream of the site and connection is made downstream of the site into a chamber serving the pumped main from Onllyn before discharging by gravity down the valley towards Severn Sisters.

Within the washery site three chambers are shown on the DCWW plan, however these chambers have not been able to be identified, as presumably, they have been buried beneath the colliery stockpiles over the years.

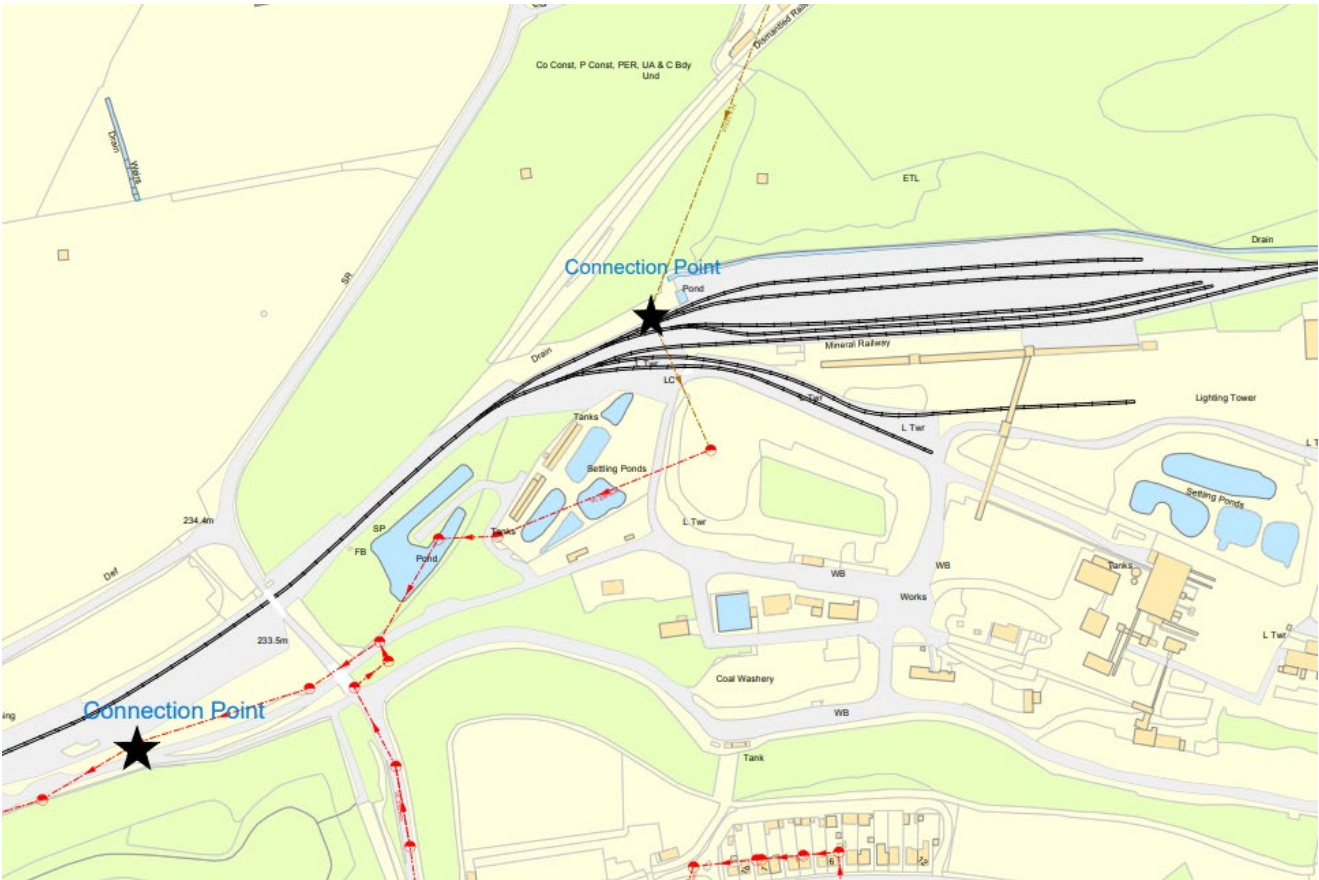
The cover at the connecting manhole adjacent Onllyn Bridge has been lifted and the invert level confirmed for the design, the sewer is at an approximate depth of 4m below ground level. From this point a camera survey has been undertaken by both Walters UK and DCWW to trace the sewer upstream. The sewer trace was unsuccessful as due to blockages within the sewer. The invert level of the sewer upstream has been confirmed by trial hole to inform the design.

The mapped route of the sewer is identified within Figure 1 below. The Connection Points shown were envisaged locations prior to the detailed design being carried out, and these locations have now been modified within the detailed design.

DCWW have been provided with an order to trace the sewer and buried manholes to positively establish the line and level, however the existing route and sewer condition is not required for the diversion works as section of the sewer will be replaced.

The foul sewer from the existing washery site offices join the combined sewer within the extent of the proposed diversion, however, the exact point is again unknown.

Figure 1 – Existing DCWW 150mm dia combined sewer



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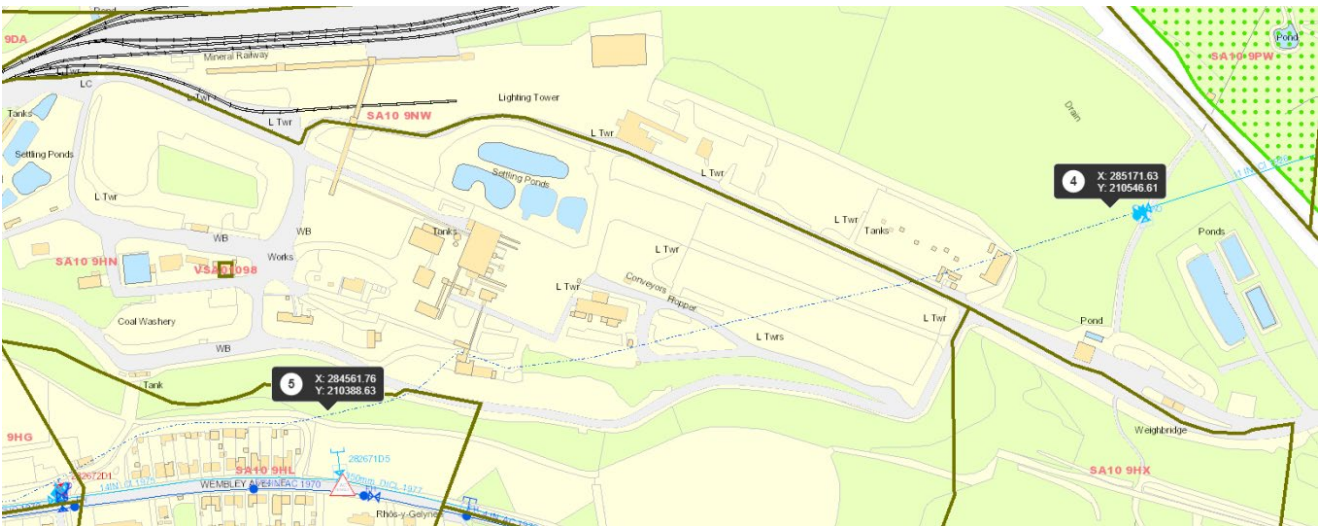
2.2. DCWW 11" Clean Water Main

An existing 11inch Cast Iron clean water main crosses the existing washery site in a North East to South West direction.

The mapped route of the main is identified within Figure 2 below, and this section of the main has been confirmed to be redundant.

The main can only be traced on the Eastern end of the site, as the depth is too great for tracing as the main heads towards the West.

Figure 2 – Existing DCWW clean water 11inch Cast Iron main



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3. Proposed Works and Methodology

3.1. DCWW Combined Sewer

The proposed combined sewer diversion works are shown within drawing GCRE001-AWJV-XX-XX-DR-DH-29100 within Appendix A, with the diversion works programmed to be undertaken within the main Earthworks and Drainage Construction Contract.

The alignment of the sewer has been determined by crossing the railway sidings with minimum impact on the S&C rail units, avoiding the existing settlement lagoons by passing between them, and future proofing the alignment to avoid any further proposed development on the Southern side of the sidings.

The Sewer at the Under-track Crossing (UTX) will include a spare pipe laid alongside for any future maintenance requirements, and will have a concrete bed and surround to provide additional protection. The depth to the invert of the sewer at this point is approximately 2.9m cover to finished level of the proposed track (approximately 1.4m to existing ground level).

To the North of the railway sidings at the connection point, MH FW-01 the sewer is approximately 3.8m deep, and to the South at the connection point, MH FW-08 with the pumped main, the sewer is approximately 4m deep.

A Section 185 Agreement has been applied for between DCWW and GCRE for this proposed design.

3.1.1. Methodology

The proposed methodology for installing the new sewer has been developed to minimise risk to the existing sewer during the construction works whilst always maintaining flows.

Walters site team will introduce themselves to DCWW site representative and will maintain dialogue to update on programme and progress, along with any hold points for inspections.

Prior to the earthworks commencing the existing settlement ponds require cleaning out and filling with engineered site won fill. From historic washery records it is known the existing sewer is located beneath one of the ponds as it was previously damaged as part of a pond cleaning exercise by Celtic Energy as part of the washery operations. Therefore, the new sewer must be installed prior to filling this settlement pond.

This is achievable as there is either sufficient cover to existing ground level to the sewer to allow earthworks operations to be undertaken over the sewer, or where the depth of the sewer decreases at the sidings, the bed and surround detail has concrete protection.

Prior to commencing any mechanical excavation works, a permit to excavate will be raised and hand dug trial holes will be undertaken at the upstream connection point at MH FW-01 to positively identify and confirm the line and level of the connection point. Hand trial holes will not be required on the downstream connection point as the connection is into the known existing chamber. There are no known services on the proposed alignment, however, the alignment will be CAT scanned to ensure no uncharted services are present.

The new sewer installation will commence at MH FW-08 over the existing pipework and installed to manhole without any over pumping measures in place. Prior to the construction of the proposed MH FW-08 on the alignment of the old sewer a CCTV survey will be undertaken of the existing sewer between the existing manhole and the proposed MH FW-08 to prove the integrity of the connecting sewer. The design has been undertaken to construct MH FW-08 upstream of the existing manhole to minimise the impact on the sewer network and the pumped flows which come from Onllyn. Once MH FW-08 has been constructed the old pipework within the chamber can be broken out and a stopper placed within the chamber to allow the remainder of the sewer to be constructed. This section of the new sewer is located at depths of approximately 3m providing over 2.5m of cover, which will provide protection to the sewer during the earthworks operations.

To construct FW-02 and lay the new sewer to make the connection at MH FW-01, overpumping measures will be put in place to maintain flows until flows are turned into the newly laid pipework. As the sewer is blocked the flow rate is unknown, but it is thought the sewer only picks up a limited number of cottages along Onllyn Road and flow rates will be minimal.

Once both connections have been made the existing sewer will be excavated and backfilled.

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A CCTV will be undertaken of the new sewer along with DCWW inspections of the new manholes prior to handover to DCWW for adoption and accompanied with all as-built information.

3.2. DCWW 11” Clean Water Main

The proposed works are to remove the main through the extent of the site, this is too be achieved by cutting the main at the site boundaries and installing stop ends and thrust blocks. This work will have to be undertaken prior to any earthworks in the vicinity of the main.

This proposal has been developed by DCWW and a copy is included within Appendix B.

3.2.1. Methodology

The installation of the thrust blocks and cutting of the main will be undertaken by DCWW nominated contractor. Prior to commencing works all DCWW and their contractor’s staff and operatives will receive a site induction from WUK.

For DCWW to undertake their works, WUK will be required to excavate locally around the main to provide access and working room.

Prior to any excavation works commencing a permit will be raised for working in and around the main. The main will carefully be exposed by excavating a shovel’s depth by hand before the excavating by machine to the depth of the hand dig. this method of slowly opening up the excavation will continue until the main is located.

Once located the main will be exposed by hand to the dimensions required.

DCWW will proceed with their works to cut the main and install the concrete thrust blocks.

When instructed WUK will then backfill the thrust blocks and excavation ensuring the main is protected with bedding material before placing the acceptable backfill.

The remainder of the redundant main will then be removed as part of the main excavation works on receipt of the signed Deed of Release

4. Risk Assessments

4.1. Key Risks for Combined Sewer Works

Task	Risk	Hazard	Mitigation Measures
Exposing existing combined sewer	Damage to the sewer during local excavation works	Sewage leakage from sewer into ground and local watercourses	All excavation to be undertaken under a 'permit to excavate' Existing pipework to be exposed by hand Pipe to be surrounded with bedding stone prior to placing acceptable backfill
Making live sewer connections	Exposure of sewage to operatives	Ingestion of sewage through mouth or cuts and abrasions	Task specific risk assessments undertaken and toolbox talks given Good hygiene practice undertaken Appropriate PPE to be worn
Connecting New sewer to existing pumped chamber	Damage to existing manhole and interruption to sewer pumping regime	Sewage leakage from sewer into ground and local watercourses Disruption to Onllyn pumped sewer	Proposed sewer design has utilised existing pipework and connection into the existing chamber from the pumped sewer
Earthwork operations	Breakage of existing sewer	Sewage leakage from sewer into ground and local watercourses	Earthworks operations and settlement pond filling in the vicinity of the sewer only to be undertaken when the new sewer has come online
Earthwork operations	Breakage of new sewer	Sewage leakage from sewer into ground and local watercourses	Ensure sewer is signposted for reference Ensure concrete protection has achieved strength before placing acceptable backfill
Overpumping	Pump breakdown	Sewage overtopping and leaking into ground or local watercourses	Ensure pump properly maintained and fuelled before use. Ensure local fitter available for the duration of the overpumping
Overpumping	Adverse weather causing excessive flows in the system which pumping measures have difficulty coping with	Sewage overtopping and leaking into ground or local watercourses	Ensure pump deployed has sufficient capacity to deal with excessive flows due to adverse weather Check weather forecasts and only undertake connection works within favourable weather

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4.2. Key Risks for Water Main Works

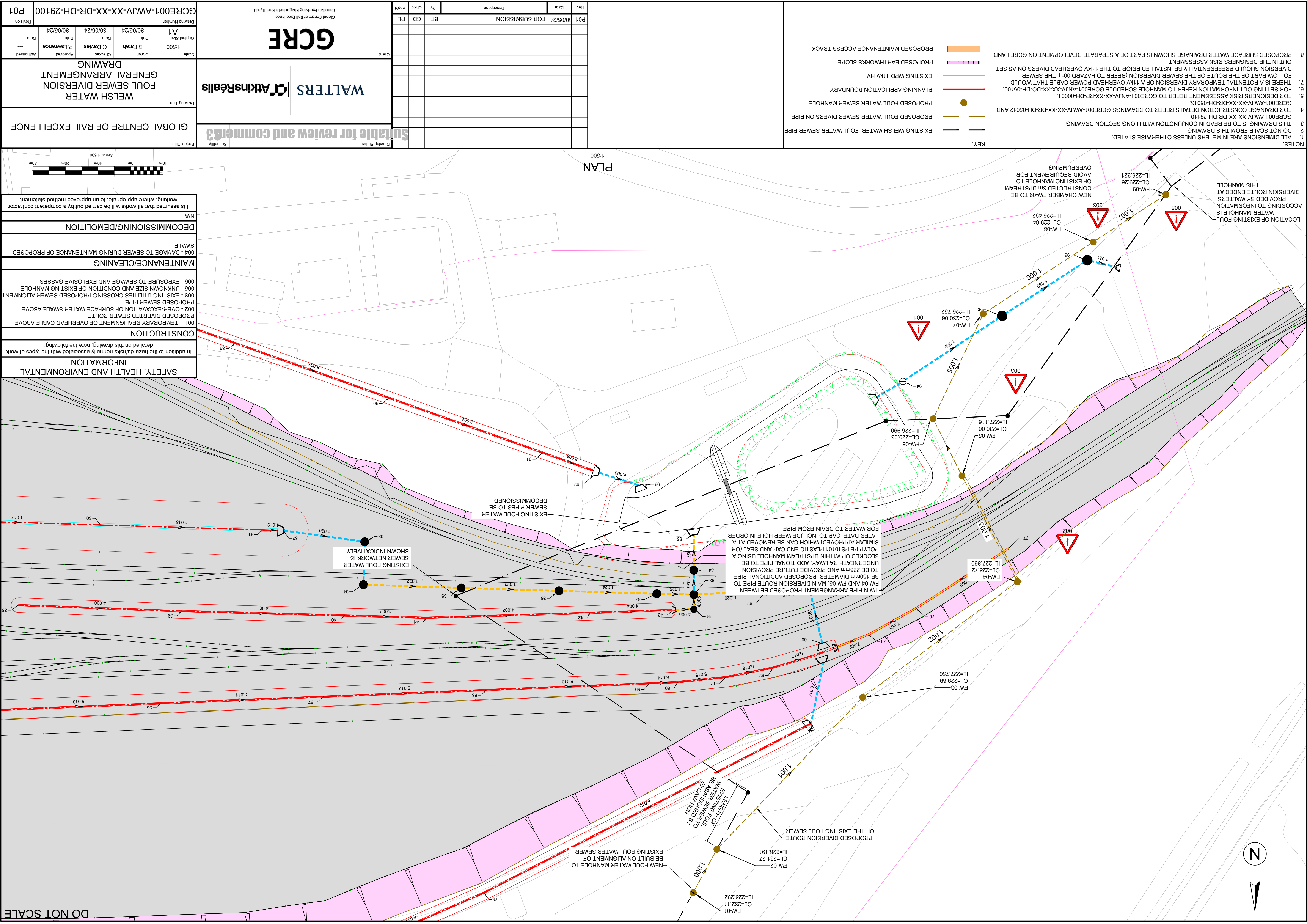
Task	Hazard	Risk	Mitigation Measures
Exposing existing water main	Damage to the main during local excavation works	Damage to DCWW apparatus	Permit to excavate raised Existing pipework to be exposed by hand Pipe to be surrounded with bedding stone prior to placing acceptable backfill
Earthwork operations	Breakage of existing main	Damage to DCWW apparatus	Earthworks operations to be segregated from the main until confirmation from DCWW the main has been cut and the excavation backfilled.
DCWW and their Contractors within WUK site	Interface between DCWW Staff and contractors with WUK Operations	Injury to personnel	All Staff and Operatives to receive site induction Works to watermain to be segregated from all WUK construction works and dedicated means of access provided All works to be undertaken by DCWW and their contractors to be undertaken under task specific RAMS and approved by WUK in advance
Excavation Works	Collapse of excavation	Injury to personnel	Excavation sides to be battered at a maximum gradient of 1in2 Excavation sides to be inspected prior to each shift and after any adverse weather conditions
Excavation Works	Falling into excavation	Injury to personnel	Excavation to be fenced off with heras fence Safe means of access to be provided in and out of the excavation
DCWW works including cutting of the main and construction of the thrust locks	Accident whilst undertaking the works	Injury to personnel	All works to be undertaken by DCWW and their contractors to be undertaken under task specific RAMS and approved by WUK in advance

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Walters UK Limited
Hirwaun House
Hirwaun Industrial Estate
Hirwaun
Aberdare
CF33 9UL

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Appendix A. Proposed Combined Sewer Alignment



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Appendix B. Proposed Works to Water Main

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Developer Services
PO Box 3146
Cardiff
CF30 0EH

Tel: +44 (0)800 917 2652
Fax: +44 (0)2920 740472
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developer.services@dwrcymru.com

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Ffôn: +44 (0)800 917 2652
Ffacs: +44 (0)2920 740472
E.bost:
developer.services@dwrcymru.com

Walters UK Ltd
Hirwaun House
Hirwaun
Aberdare
CF44 9UL

Date: 13/11/2023

Enquiries please contact: Andrew Wall
Email: Andrew.Wall@dwrcymru.com
Tel: 0800 917 2652

Our Ref: WMD0002630 R2

For the Attention of Mr. Andrew Pope

Dear Andrew,

Budgetary Estimate: Cut and Cap 11 inch Cast Iron Water Main for Neath Train Development, Onllwyn

Cost Estimate: £11,121.25 + VAT (£13,345.50 including VAT)

Further to the site investigatory works which confirmed the 11-inch Cast Iron water main crossing the development is abandoned, I enclose our estimate to undertake cutting and capping of the water main and a copy of Drawing No. WMD0002630-001-01 which shows our proposals.

The offer also includes a cost for the preparation of a Deed of Release by our Legal department which once agreed will transfer the ownership of the asset to yourself. The asset will not be permitted to be removed until this is signed by all parties.

We have not included within our offer an allowance for land compensation, should the need for compensation arise this would be additional cost incurred to the scheme and be fully rechargeable.

Please note: -

1. This offer is based on the information that has been made available to us.
2. A Final Account reconciliation will be undertaken approximately 3 months after scheme completion and will be based on the actual costs incurred. Depending on these actual costs, a further payment may become due to Dwr Cymru or a refund made to you.
3. We require clear and unrestricted access to our work areas.
4. The excavations are to be readily available on arrival to site including de-watering if required with the main exposed 1m wide with a clearance of 150mm beneath.
5. The main is to be exposed on arrival to site in accordance with drawing WMD0002630-001-01.

We're not-for-profit. Every single penny we make goes back into looking after your water and environment. You can contact us in Welsh or English.

Rydym yn gwmni nid-er-elw. Mae pob ceiniog a wnawn yn mynd i ofalu am eich dŵr a'ch amgylchedd. Cysylltwch a ni yn Gymraeg neu'n Saesneg.

Dŵr Cymru Cyf. (No./Rhif 2366777)
A limited Company registered in Wales:
Cwmni cyfyngedig wedi'i gofrestru yng Nghymru:

Linea, Fortran Road, St Mellons, Cardiff, CF3 0LT

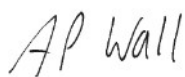
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6. Backfill of excavations to be undertaken by others.
7. We have allowed for normal Monday to Friday working and no allowance has been made for statutory holidays or weekend working.
8. No allowance has been for the removal of the abandoned water main.
9. Any delays and associated costs as a result of third-party interference, inaccurate utility information, unforeseen ground obstructions/conditions including concrete or hard ground or contaminated ground and/or ground water, ordnance, unchartered services, archaeological, ecological or environmental issues will be subject to recharge and included in the final account calculation.
10. Out of normal working hours site security has not been included within the estimated scheme cost. If for any reason there becomes a requirement for out of normal working hours security then this will be subject to recharge and included in the final account calculation.
11. We will not be liable for any delay and or associated costs caused to the developer as a consequence of our works.
12. You will be responsible to reimburse to Dwr Cymru any abortive costs incurred should the scheme not proceed or be aborted by you at any stage.

We look forward to receiving your response - should you require any assistance or clarification in relation to this offer please do not hesitate to contact the writer at the above address.

We hope that you find the below estimate acceptable and look forward to working with you.

Yours faithfully,



Andrew Wall
Project Manager
Developer Services

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Quotation

Our estimate for carrying out the above investigations is **£11,121.25 + VAT (£13,345.50 including VAT)**

This cost includes:

Permissions, Documentation and Site Meetings

- Preparation of works information and relevant health and safety documentation.
- Supervision and reporting of contractor's activity by DCWW Site controller. This is to ensure the work is being carried out safely and to ensure the DCWW Project Manager is kept informed of developments on site.
- Issue of permits by DCWW Operations for works to the water main.
- Preparation of a Deed of Release by DCWW Legal team.

Site Establishment, Mobilisation and Demobilisation

- Mobilisation / demobilisation of team and equipment to site.

Work Details

- Review excavation safety and dimensions in relation to drawing WMD0002630-001-01.
- Cut and cap the existing 11" Cast Iron main.
- Erect formwork to cast the thrust blocks, as required.
- Pour concrete into excavation to cast the thrust blocks.
- Cut physical break in pipework to enable contractor removal.

Conditions

Commencement on site by Dwr Cymru Welsh Water will be wholly dependent upon the receipt of your payment, for the amount indicated above, to the above address.

This estimate will remain valid for a period of three months. If your payment is not received within this period, a new estimate will be provided to reflect any prevailing costs.

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Terms and Conditions

1 General

All estimates and quotations are provided after reference to Dwr Cymru Welsh Water's Asset Information System and the information you have given us. It assumes that:

- The answers you have given us, in response to the information that we have requested are correct.
- These quotations are provided only by reference to the Developer's site and location plans and Dwr Cymru Welsh Water's Assets Information System, which shows the size, type and approximate location of the Company's water main and sewers. Should any information be found to be incorrect, additional costs will be included in the final account.
- We assume that there will be no requirement to excavate in rock and that the land is reasonably drained and that there will be no requirement for shoring of trenches and excavations.
- The necessary rights of access to the site are given to Dwr Cymru Welsh Water.
- The Developer has complied with all appropriate requirements under the Health and Safety Acts.
- Should the Developer be opening the Highway then they must have the appropriate licence to do so and they will be responsible for the Highway Authority's Streetworks Requirements. A copy of the relevant Licence would need to be produced to us before any work can be carried out.
- Should Dwr Cymru Welsh Water's Contractors attend the site to carry out planned work, but the work cannot be completed due to reasons beyond Dwr Cymru Welsh Water's control, then the additional costs will be included in the final account.
- Quotations and Estimates are valid for 3 months. Thereafter, Dwr Cymru Welsh Water reserves the right to review the price.

2 Abortive Costs

- Any abortive works will be recharged at cost should the scheme not progress. Dwr Cymru reserve the right to charge for a second or subsequent design that may become necessary due to any change in the layout or construction programme of the development.
- Dwr Cymru also reserve the right to levy charges for any abortive costs incurred at the construction stage due to the actions or otherwise of the developer or other agent acting on his behalf.

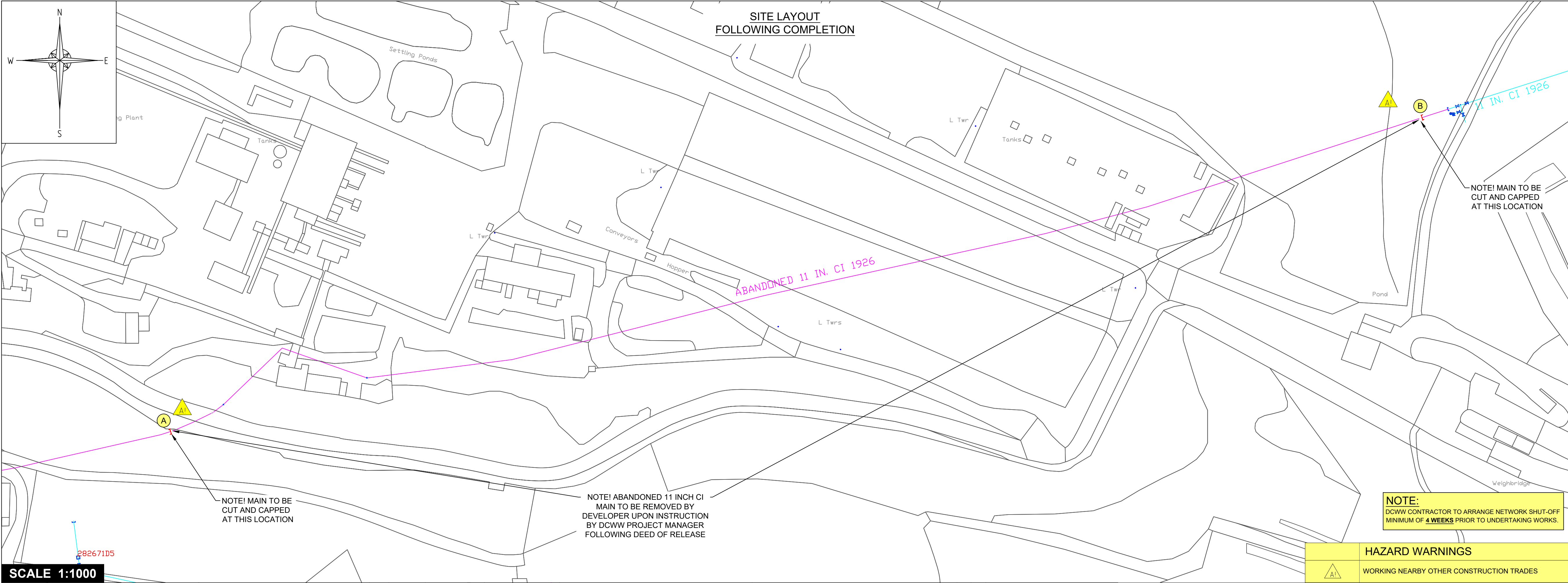
3 Traffic Management Act (April 1st 2008)

- The New Traffic Management Act introduced a change in the notification's periods required by the Various Highway Authorities. This applies to excavations in the Public Carriageway, Footpaths and Verges. Under certain circumstances a Minimum Period of Three Months Notification is required. You are advised to take this into consideration as applications to the Highway Authority are only applied for following payment.

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4 Overriding Conditions

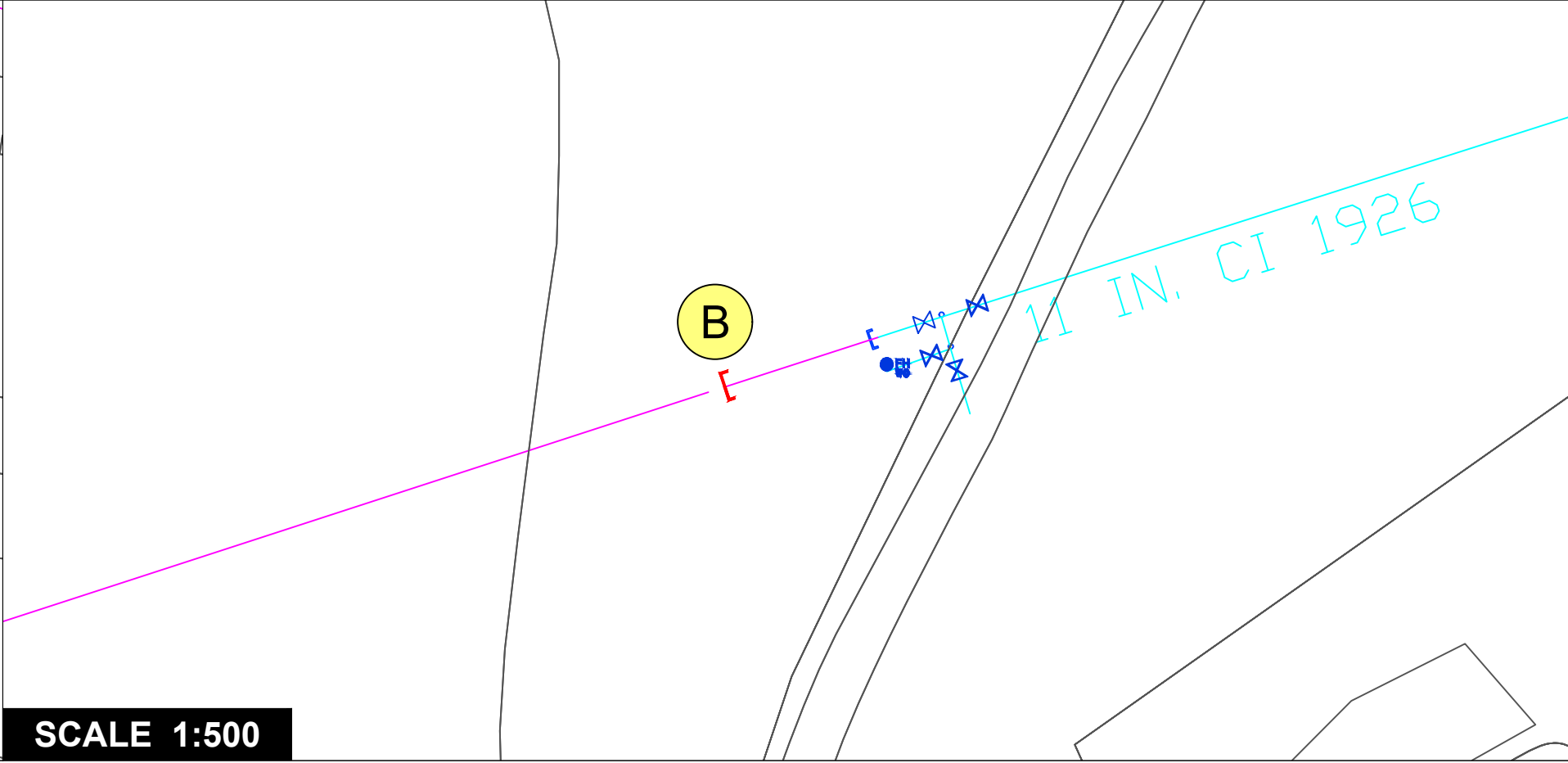
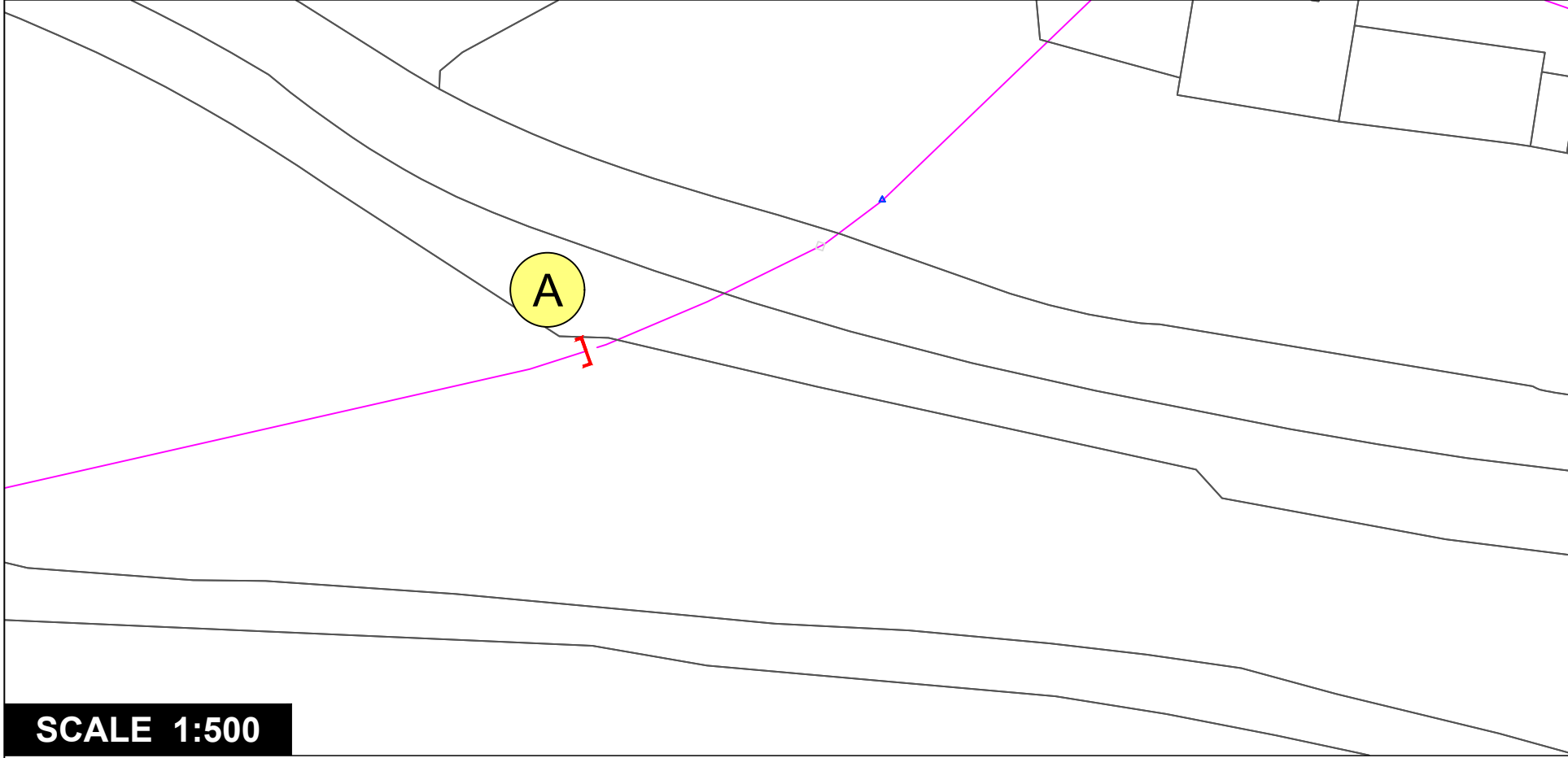
- These terms and conditions override any terms and conditions on any letter of confirmation, requisition or purchase order, which the Developer may supply to Dwr Cymru Welsh Water irrespective of whether any such letter, requisition or purchase order is issue prior to or after this quotation.



- NOTES**
- DWR CYMRU CYF GIVES THIS INFORMATION AS TO THE POSITION OF ITS UNDERGROUND APPARATUS BY WAY OF GENERAL GUIDANCE ONLY ON THE STRICT UNDERSTANDING THAT IT IS BASED ON THE BEST INFORMATION AVAILABLE AND NO WARRANTY AS TO ITS CORRECTNESS IS RELIED UPON IN THE EVENT OF EXCAVATIONS OR OTHER WORKS MADE IN THE VICINITY OF THE COMPANY'S APPARATUS AND ANY ONUS OF LOCATING THE APPARATUS RESTS ENTIRELY ON YOU. IT MUST BE UNDERSTOOD THAT THE FURNISHING OF THE INFORMATION IS ENTIRELY WITHOUT PREJUDICE TO THE PROVISION OF THE NEW ROAD AND STREET WORKS ACT 1991 AND THE COMPANY'S RIGHT TO BE COMPENSATED FOR PROVISION OF THE NEW ROAD AND STREET WORKS ACT 1991 AND THE COMPANY'S RIGHT TO BE COMPENSATED FOR ANY DAMAGE TO ITS APPARATUS. SERVICE PIPES ARE NOT GENERALLY SHOWN BUT THEIR PRESENCE SHOULD BE ANTICIPATED.
 - EXACT LOCATIONS OF ALL APPARATUS TO BE DETERMINED ON SITE.
 - REPRODUCED FROM THE ORDNANCE SURVEY'S MAPS WITH THE PERMISSION OF THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE. CROWN COPYRIGHT. LICENSE NO. 100019534.
 - O.S. REFERENCE 285184, 210541
 - LOCATION OF CONNECTIONS TO BE CONFIRMED ON SITE.
 - THE POSITIONING OF THE MAINS IS TO BE IN ACCORDANCE WITH THE NATIONAL JOINT UTILITIES GROUP GUIDELINES.

LEGEND

	EXISTING TRUNK WATER MAIN
	ABANDONED WATER MAIN
	EXISTING SLUICE VALVE
	EXISTING FIRE HYDRANT
	EXISTING BLANK PLATE
	PROPOSED BLANK PLATE



WMD0002630 - SCOPE OF WORK:

- DEVELOPER TO:**
- PROVIDE UNRESTRICTED ACCESS TO DCWW WORK AREA FOR THE DURATION OF DCWW ONSITE WORKS.
 - COMPLY WITH DCWW OPERATIONAL REQUIREMENTS CONCERNING EXISTING AND NEW POTABLE WATER ASSETS THROUGHOUT THE CONSTRUCTION PERIOD.
 - HAND DIG TECHNIQUES TO BE ADOPTED WHEN EXCAVATION ADJACENT TO EXISTING WATER MAINS IS REQUIRED.
 - UNDERTAKE FURTHER EXCAVATION WORKS ON SITE AS REQUIRED IF NECESSITATED BY THE INSTALLATION.
 - REMOVE ABANDONED 11 INCH CAST IRON WATER MAIN UPON INSTRUCTION BY DCWW PROJECT MANAGER AND SIGNING OF DEED OF RELEASE DOCUMENT PREPARED BY DCWW LEGAL TEAM.
- DWR CYMRU WELSH WATER CONTRACTOR TO:**
- SATISFY THEMSELVES AS TO THE EXACT POSITION OF STATUTORY UNDERTAKERS AND OTHER PUBLICLY AND PRIVATELY OWNED SERVICES OR SUPPLIES.
 - ARRANGE FOR PERMIT TO WORK AND CERTIFICATE OF ISOLATION TO BE IN PLACE FOR WORKS TO THE ABANDONED 11 INCH CAST IRON TRUNK WATER MAIN.

- PHASE 1**
- CUT AND CAP MAIN ON A LAY ONLY BASIS UNDER SHUT-OFF CONDITIONS AND INSTALL THRUST BLOCK AS REQUIRED. NOTE - ABANDONED WATER MAIN WAS DRILLED AND TAPPED AT THESE LOCATIONS ON THE 13/09/2023 AND MAIN WAS CONFIRMED TO BE DEAD.
- PHASE 2**
- CUT PHYSICAL BREAKS ALONG ABANDONED 11 INCH CAST IRON WATER MAIN AT POINT 'A' AND 'B' TO ALLOW EXISTING MAIN TO BE REMOVED.

THRUST BLOCKS REQUIRED

CONCRETE THRUST BLOCKS ARE TO BE GRADE C25 S3 100mm SLUMP.

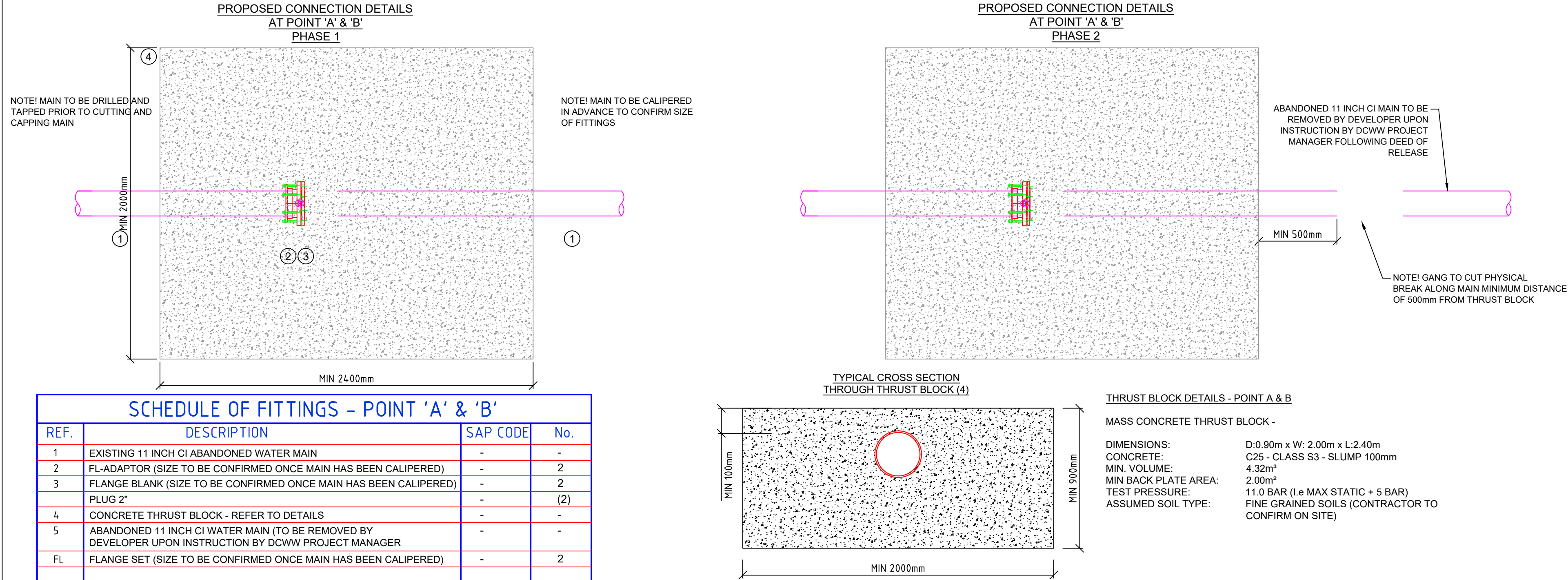
CONCRETE SHOULD BE READY MIX UNLESS STATED OTHERWISE.

ALL CONCRETE THRUST AND ANCHOR BLOCKS ARE TO BE INSTALLED AS PER THE DESIGN DRAWINGS AND ANY SUPPORTING STANDARD DETAILS.

DCWW CONTRACTOR TO ENSURE THAT ALL PHASING INCLUDING ASSOCIATED CONCRETE CURING PERIODS ARE FOLLOWED AS LAID OUT ON CONTRACT DRAWINGS

NOTES:

- DO NOT SCALE FROM THIS DRAWING. FOR DISCREPANCIES OR OMISSIONS THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO WORKS COMMENCING.
- MAX STATIC PRESSURE IN EXISTING WATER MAIN IS 60m HEAD (IF OPERATIONAL).
- ALL SLUICE VALVES TO BE **ANTICLOCKWISE** CLOSING UNITS.
- ALL MATERIALS TO BE IN ACCORDANCE WITH SPECIFICATIONS SET OUT IN THE CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY (7TH EDITION) AND INSTALLED IN ACCORDANCE WITH MANUFACTURERS' SPECIFICATIONS.
- ALL WATER MAINS TO BE INSTALLED WITH 900mm COVER.
- TYPICAL TRENCH SPECIFICATION DETAILED ON DRAWING TR_003 ISSUE C1. DRAWING AVAILABLE ON REQUEST.
- ALL PIPE AND FITTINGS TO BE STORED OFF GROUND IN A SAFE AND HYGIENIC MANNER. PIPES SHOULD BE CAP ENDED AT ALL TIMES AND FITTINGS SHOULD BE STORED IN SEALED BAGS. THE STORAGE AREA SHOULD BE SECURELY FENCED TO PREVENT UNAUTHORISED ACCESS.
- PIPES TO BE BUTT FUSED WHERE PRACTICABLE.
- ALL EXCAVATION WORK MUST BE COMPLIANT WITH HSE DOCUMENT HSG47 'AVOIDING DANGER FROM UNDERGROUND SERVICES'.
- ALL SLUICE VALVES AND HYDRANTS TO BE CONNECTED VIA PUPPED FLANGE FITTINGS UNLESS SHOWN OTHERWISE.
- ALL VALVES ON THE LIVE NETWORK TO BE OPERATED BY DCWW PERSONNEL ONLY.
- ALL HYDRANTS MUST BE VALVE CONTROLLED.



01	DRAFT ISSUE	AW			19/10/23
	DESCRIPTION	AUTH	CKD	APPD	DATE
CLIENT					
WALTERS UK LTD					
PROJECT					
FORMER ONLLWYN WASHERY, ONLLWYN, NEATH SA10 9HA					
WATER MAINS LAYOUT AND CONNECTION DETAILS DRAFT ISSUE					
SCALE A1					
AS SHOWN					
DWR CYMRU WELSH WATER DEVELOPER SERVICES PO BOX 3146 CARDIFF CF30 0EH					
Tel : +44 (0) 800 917 2652 Fax: +44 (0) 2920 740 472					
PROJECT CODE		DRAWING NO.		ISSUE	
WMD0002630		001		01	