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**Water Resources  
LICENCE TO**

**ABSTRACT**

**WATER**

Environment Act 1995  
Water Resources Act 1991 as amended by the  
Water Act 2003  
Water Resources (Abstraction and Impounding)  
Regulations 2006

# IMPORTANT NOTES

## Need for safekeeping

**This licence is an important document.** The permission or right to abstract water may be valuable to your landholding. So -

- **Keep the licence safe, preferably with your deeds etc.**
- **Take careful note of the comments below about “transfer and apportionment” and “death and bankruptcy”.**

**This is to ensure that the permission and any rights granted by the licence continue if you need to pass it on to someone else.**

If you want to:

- [revoke \(cancel\) the licence;](#)
- [notify us of the death or bankruptcy of the licence holder ;](#)
- [vary \(change/amend\) the licence in any way](#)
- [change the owner of the licence or](#)
- [change your contact address \(but you continue to hold the licence\).](#)

You can find our forms on [.GOV.UK](#) or alternatively contact us for advice on how to make any changes by calling our National Customer Centre on 03708 506 506

## Transfer and apportionment (split)

If you need to pass this licence or any part of it to someone else, you must contact the Environment Agency and obtain the appropriate application forms. Temporary licences cannot be transferred or apportioned. The licence holder remains responsible for compliance with the terms of the licence and any charges payable until the licence has been transferred or apportioned.

## Death or bankruptcy of the licence holder

**‘Vesting’** is the transfer of responsibility and ownership of a licence when an existing licence holder is no longer able to hold the licence either through death or bankruptcy.

If a licence has been **‘vested’** in you, as a result of the death or bankruptcy of the licence holder, please contact the Environment Agency in writing, telling us the licence number(s) and the date that the licence vested in you as a personal representative or trustee of the licence holder. This is necessary in order to enable you to subsequently transfer the licence.

You must notify us in writing within **15 months** of the date of vesting, being either death or bankruptcy of the licence holder giving the full names of all personal representatives or trustees and a contact address.

## Time limits

Your licence may be subject to a time limit (where appropriate this will be shown on the front of your licence). All new abstraction licences are legally required to include a time limit. For variations to licences, time limits are added in accordance with our policy.

The duration of a time limit is determined in accordance with our time limiting policy. The time limit is linked to the next or subsequent review of water resources within the relevant [Abstraction Licensing Strategy](#) (ALS)

At the end of the time limit, we should be able to renew the licence if:

- there is no damage to the environment;
- the need for the abstraction can still be justified;
- water is being used efficiently; and
- you still meet the legal requirements for getting a licence.

If your licence is time limited and you wish to renew it when it expires, you will need to apply for a new licence to replace the existing one. You are advised to submit this application at least six months before it expires. To allow you to give early consideration to this, we will send you a reminder approximately 18 months before the expiry date.

If your licence cannot be renewed, we will endeavour to give at least six years notice. We will also endeavour to give at least six years notice where the licence is likely to be renewed on different terms and will significantly impact upon the use of the licence.

In exceptional circumstances, for example where there are other overriding statutory duties such as the Habitats Regulations, it may not be possible to provide six years notice.

## Charges

Unless specifically exempted, we will levy an annual charge for water authorised to be abstracted by this licence, in accordance with our abstraction charges scheme in force at the time. To work out your charges, please refer to our [Scheme of Abstraction Charges](#) available on GOV.UK.

## Quantity and quality of water

You must not abstract more than the quantity specified in the licence. The Environment Agency does not, by issue of this licence or otherwise, in any way guarantee that the source of supply will produce the quantity of water authorised to be abstracted by this licence, nor that the water is fit for its intended use.

The quantity of water authorised for abstraction is given in cubic metres. One cubic metre is approximately 220 gallons. (The precise conversion is 1 cubic metres = 219.969 gallons).

## Source of supply and authorised point of abstraction

You may abstract from the point(s) specified in the licence and from no other points. If you want to add or change the authorised point(s) of abstraction, you must apply to us to vary the licence.

## Purpose for which water is authorised to be used

You may only use the water for the purpose(s) specified in the licence. You must apply to us to vary the licence if you wish to add to or change the purpose(s).

## Offences

Under the Water Resources Act 1991 it is an offence:-

- to abstract water, or cause or permit any other person to abstract water, unless the abstraction is authorised by and in accordance with an abstraction licence, or is subject to an exemption;
- to do anything to enable abstraction, or to increase abstraction, except in accordance with an abstraction licence or exemption;
- to fail to comply with the conditions of an abstraction licence.

**Note in particular that it may be a condition of the licence to maintain the meter or other measuring device etc. and failure to do so will be an offence;**

- to interfere with a meter or other device which measures quantities of water abstracted so as to prevent it from measuring correctly;
- to fail to provide information which we have reasonably required for the purpose of carrying out any of the Environment Agency's water resources functions;
- to knowingly make false statements for the purpose of obtaining a licence or consent or in giving required information.

The requirement for a licence is subject to some exemptions, set out in the Water Resources Act 1991 as amended. If in any doubt as to whether you need a licence, contact us at the address shown at the bottom of the front page of the licence.

## Right of appeal

If you are dissatisfied with our decision on your licence application, you have the right to appeal against our decision.

You should write to the Secretary of State for the Environment, Food and Rural Affairs, care of The Planning Inspectorate at:  
The Environment Team  
3A Eagle Wing,  
Temple Quay House,  
2 The Square,  
Temple Quay,  
Bristol,  
BS1 6PN

Alternatively you can obtain an on-line appeal form at:  
<https://www.gov.uk/government/publications/water-abstraction-and-impoundment-appeal-form>

You must serve notice of appeal within 28 days of the date of receipt of this licence (although the Secretary of State has power to allow a longer period for serving notice of appeal). See [Water Resources Act 1991, section 43](#).

## Disclosure of information

Details of this licence are placed on a register, kept by the Environment Agency and open for inspection by the public. The public may also obtain further details about it by virtue of the Environmental Information Regulations 2004 (see also Disclosure of Information) except in special cases (for advice please contact us at the address shown on the front page of the licence).

Members of the public are also entitled to ask us for other “environmental information” it holds, including any activities likely to affect “the state of any water” or any “activities or other measures designed to protect it”. That would include the information additional to the licence document e.g. any related agreement or abstraction returns. In certain restricted circumstances it is possible to claim that information should be kept confidential. If you require more information about keeping this information off the public register because it is confidential, please contact us by writing to the address shown on the front page of the licence within 28 days of receiving this licence.

Licence Serial No:	TH/039/0036/028
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Please quote the serial number in all correspondence about this licence



## TRANSFER LICENCE TO ABSTRACT WATER

The Secretary of State for the Environment, Food and Rural Affairs is hereby deemed to grant a licence to:-

Environment Agency  
Horizon House  
Deanery Road  
Bristol  
BS1 5AH

(“the Licence Holder”)

This licence authorises the Licence Holder to abstract water from the source of supply described in the Schedule of Conditions to this licence and subject to the provisions of that Schedule. The licence commences from the effective date shown below and shall remain in force until the date of expiry shown below.

<b>Signed</b> .....	<b>Date of issue</b> ..... <day/month/year>
<insert name>	<b>Date effective</b> ..... <day/month/year>
Deputy Director of Water Management and Investment Environment Agency Horizon House Deanery Road Bristol BS1 5AH	<b>Date of expiry</b> ..... 31 March 2028

The licence should be kept safe and its existence disclosed on any sale of the property to which it relates. Please read the ‘important notes’ on the cover to this licence.

Note: References to "the map" are to the map which forms part of this licence.  
References to “the Agency” are to the Environment Agency or any successor body.

## SCHEDULE OF CONDITIONS

### 1. SOURCE OF SUPPLY

- 1.1 Inland water known as Duke of Northumberland's River at Mereway Fish Pass, Mereway, Twickenham.

### 2. POINT OF ABSTRACTION

- 2.1 At National Grid Reference TQ 14964 73319 marked 'A' on the map.

### 3. MEANS OF ABSTRACTION

- 3.1 Gravity flow to an open fish and eel pass channel, with a maximum design flow of 148 litres per second.

### 4. PURPOSE OF ABSTRACTION

- 4.1 Transfer for the purpose of maintaining flow through a fish and eel pass.

### 5. PERIOD OF ABSTRACTION

- 5.1 All year.

### 6. FURTHER CONDITIONS

- 6.1 The Licence Holder shall return all of the water abstracted in pursuance of this licence to the River Crane at National Grid Reference TQ 14981 73299 marked 'Q' on the map.

- 6.2 The Licence Holder shall construct, operate and maintain the fish and eel pass in accordance with the specifications and plans:

- Mereway Sluice General Arrangement Fish Pass: 122749-GBV-Z0-320-DR-C-00112 Revision P04 Dated 04 February 2019
- Mereway Sluice – Fish Pass Camera Location Details: 122749-GBV-Z0-320-DR-C-00156 Revision P05 Dated 08 February 2021
- Mereway Sluice – Fish Pass Plan and Sections Eel Pass: 122749-GBV-Z0-320-DR-C-00158 Revision P03 Dated 22 July 2019
- Mereway Sluice – Fish Pass Headwall Plan and Section: 122749-GBV-Z0-320-DR-C-00152 Revision P04 Dated 22 July 2019
- Mereway Sluice – Fish Pass Larinier Fish Pass Details: 122749-GBV-Z0-320-DR-C-00157 Revision P04 Dated 22 July 2019
- Mereway Sluice – Fish Pass Larinier Fish Pass Pre-Barrage: 122749-GBV-Z0-320-DR-C-00159 Version P04 Dated 22 July 2019
- Mereway Sluice – Fish Pass Vehicle Crossing Details: 122749-GBV-Z0-320-DR-C-00155 Version P03 Dated 08 February 2021
- Mereway Sluice – Fish Pass General Arrangement Larinier Fish Pass: 122749-GBV-Z0-320-DR-C-00153 Version P04 Dated 22 July 2019

Copies of which are appended to this licence, or such minor amendments to those documents that are accepted in writing by the Agency prior to the date of commencement of construction.

- 6.3 The Licence Holder shall maintain the fish and eel pass channel to prevent leakage and to be free from obstruction at all times and remain effective at all times.
- 6.4 (i) At all times during the life of the fish and eel pass works authorised by this licence, the Licence Holder shall manage the fish and eel pass in accordance with the Mereway Fish Pass Protocol (v1 July 2023), as amended from time to time.
- (ii) The Licence Holder shall instigate the Mereway Fish Pass Protocol (v1 July 2023) when instructed by the Agency. Such direction shall not be given unless the mean daily flow of the Duke of Northumberland River at the Agency's gauging station at Mogden (at National Grid Reference TQ 15394 75197) is less than or equal to 9,418 cubic metres per day.
- 6.5 (i) No abstraction shall take place until the Licence Holder has been granted approval by the Agency for installation at the weir of a fish pass and approval for installation of an eel pass.
- (ii) The Licence Holder shall maintain, repair or replace the fish and eel pass and ensure that it remains free of obstruction in order that it is effective at all times.
- (iii) The Licence Holder shall keep records of maintenance, repair or replacement of the fish and eel pass for 6 years and shall make them available during all reasonable hours for inspection by the Agency.
- 6.6 (i) The Licence Holder shall provide written confirmation (including drawing/s that clearly detail and show the fish and eel pass as it has been built) to the Agency from an independent qualified civil engineer, or other suitably qualified person, that the fish and eel pass has been constructed in accordance with the submitted specification and drawings specified in condition 6.2 of this licence (or such minor amendments to these documents that have been accepted in writing by the Agency).
- (ii) The Licence Holder shall provide the written confirmation referred to above at least 14 calendar days before the fish and eel pass becomes operational.
- (iii) The Licence Holder shall not operate the fish and eel pass unless such confirmation has been submitted and written approval has been given by the Agency.
- 6.7 The Licence Holder shall ensure that during construction works and any subsequent maintenance works to the fish and eel pass the flow in the Duke of Northumberland's River and River Crane is allowed to pass downstream unchanged in quantity and quality at all times.

## ADDITIONAL INFORMATION

Note: the following is provided for information only. It does not form part of the licence.

### REASONS FOR CONDITIONS

The licence is time-limited to a date to reflect the timing of a future review of the catchment resources availability.

The licence includes a flow trigger condition to protect the environment and the interests of existing licensed abstractors and downstream lawful users of water.

Condition 6.1: Water must be returned at the National Grid Reference specified, to protect the environment and the interests of the existing downstream protected rights and lawful users of water.

Condition 6.4 is in place to ensure an equitable split of the naturally occurring flows between the Lower Crane and the Duke of Northumberland River in accordance with the Environment Agency's statutory duties and responsibilities.

### IMPORTANT NOTES

#### Abstraction Reform

We have granted this licence in line with current legal requirements and policies on managing water resources. However, Government have consulted on reforms which may affect the duration, quantities and management of licences before your current licence expires (ends), where appropriate. You should take account of this when making business decisions. If you would like to find out more, please search for 'abstraction reform' on [gov.uk](http://gov.uk).

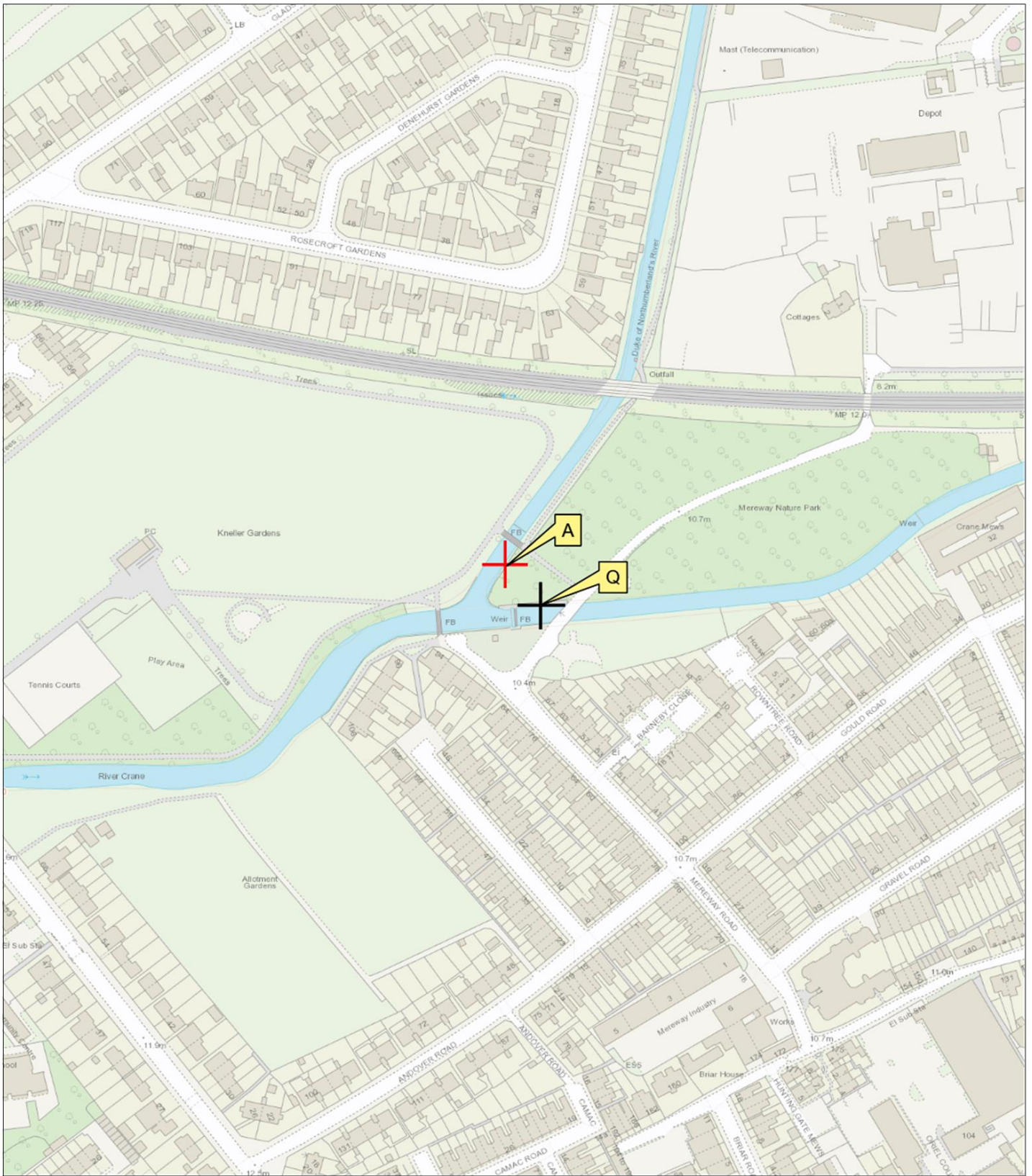
#### Water efficiency note

The Licence Holder should use water abstracted under the terms of this licence in an efficient manner. The Agency may refer to its guidance on water efficiency (or equivalent guidance) in determining whether water is being used efficiently and may offer advice on any measures considered necessary to meet particular recommendations.

#### Mereway Weir and Fish Pass Operating Protocol

The abstraction at Mereway Fish Pass is made in accordance with the terms of the Mereway Weir and Fish Pass Operating Protocol. This document is to manage the low flow arrangements between the Lower Crane and the Duke of Northumberland River.

The written confirmation required by Condition 6.6 of this licence should be sent to the following email address: [HertsNLondon@environment-agency.gov.uk](mailto:HertsNLondon@environment-agency.gov.uk)



0 125  
Metres

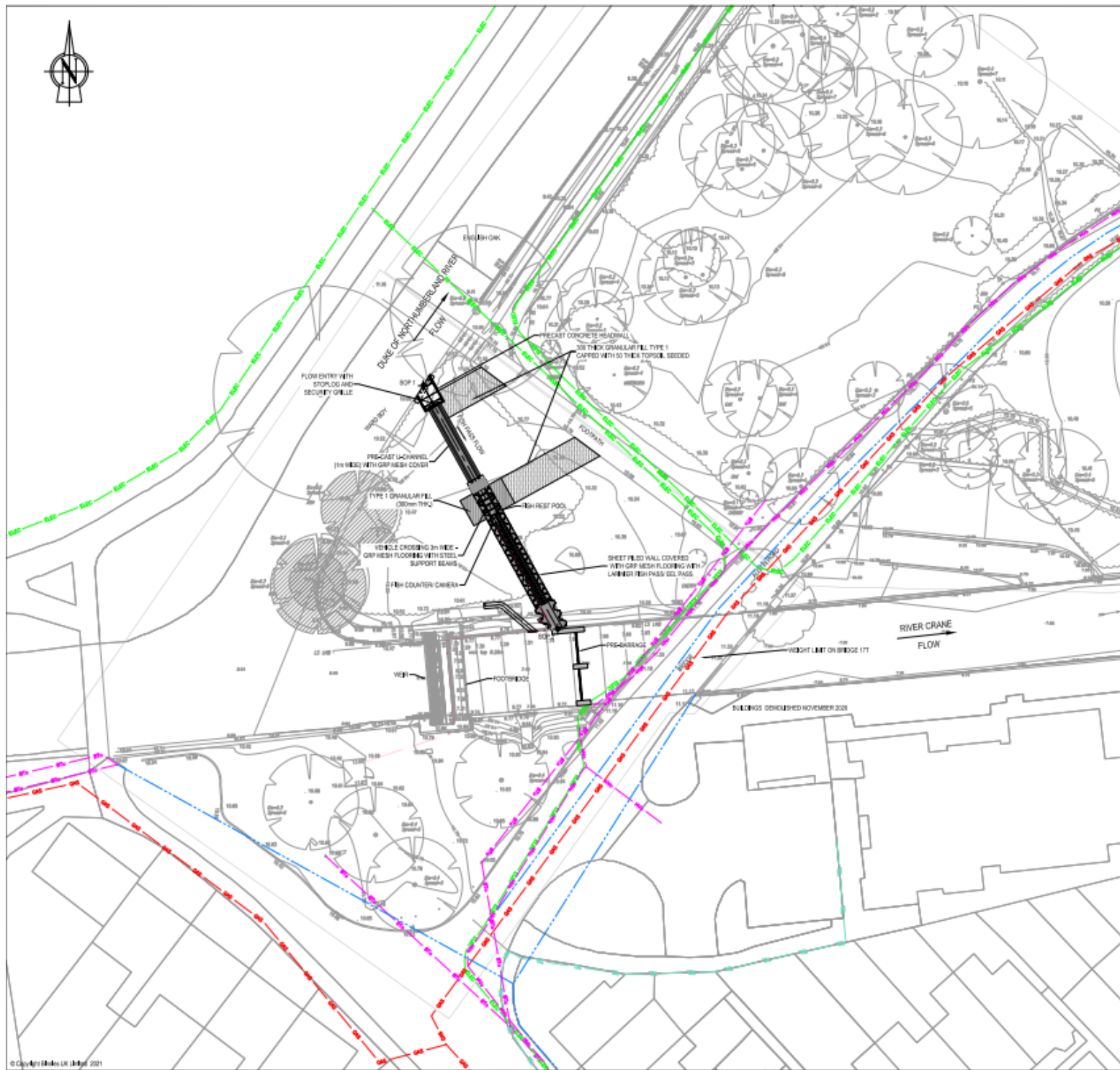
**MAP ACCOMPANYING LICENCE NUMBER**

**TH/039/0036/028**

Scale 1:2,500



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- LEGEND:**
- ELECTRICAL OVERHEAD CABLE
  - BT OVERHEAD POLE AND CABLE
  - GAS
  - TEL TELEPHONE
  - UK POWER NETWORK
  - WATER

SETTING OUT POINTS		
SOP No.	NORTHING	EASTING
SOP 1	17322112	51496208
SOP 2	17322107	51496115

NOTE: This drawing has been prepared using the best available information and the client is responsible for its accuracy.

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- NOTES:**
1. ALL DIMENSIONS IN MILLIMETRES UNLESS STATED OTHERWISE.
  2. ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS STATED OTHERWISE.
  3. ONLY EXISTING UTILITIES AND FEATURES HAVE BEEN INDICATED WITH APPROXIMATE LOCATIONS. ACTUAL POSITIONS MUST BE ESTABLISHED AND VERIFIED ON SITE.

**SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION:**

IN ADDITION TO THE HAZARDS OR RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILLED ON THIS DRAWING, THE FOLLOWING SIGNIFICANT RESIDUAL RISKS SHOULD BE NOTICED. FURTHER DETAILS ARE INCLUDED IN THE CONSTRUCTION MANAGEMENT REGISTER.

- CONSTRUCTION:**
- S1. RESTRICTED AND HAZARDOUS ACCESS TO THE ADJACENT PUBLIC STREETS, CANOPY OF ROAD BRIDGE ALONG WITH ROAD IT TOWER, CHANGING AND UNSTABLE SURFACE ALONG FOOTPATH AND ROAD NEAR BRIDGE.
  - S2. COMPROMISED CREATED PUBLIC FOOTPATH.
  - S3. SUB-ATMOSPHERIC WATER, RISK OF COLLAPSE HEAVE AT BOTTOM OF EXCAVATION AND ADJACENT PARK AREA.
  - S4. INTERFERENCE PUBLIC AND LOCAL RESIDENTS - HEAVY PROX. OTHER PUBLIC FOOTPATH AND ADJACENT PARK AREA. ROAD BRIDGE DOWNSTREAM DURING WORKS.
  - S5. LACK OF INFORMATION ON CONCRETE WALL, TRENCHES AND REINFORCEMENT FOR CONCRETE BRIDGE OF CHANNEL. LACK OF INFORMATION ON EXISTING STRUCTURES, TEMPORARY WORKS DURING FULL CONSTRUCTION.
  - S6. NOISE AND VIBRATION FROM ROAD ADJACENT BRIDGE HEAVY PROXIMITY.
  - S7. RISK OF COLLAPSE INCREASED FLOODING DUE TO TEMPORARY COVER BAR IN CASE OF NORTHWARD FLOODING.
- PERFORMANCE, CLEANING AND OPERATION:**
- S1. RESTRICTED AND HAZARDOUS ACCESS TO THE ADJACENT PUBLIC STREETS, CANOPY OF ROAD BRIDGE ALONG WITH ROAD IT TOWER, PUBLIC FOOTPATH AND ADJACENT PARK AREA. ROAD BRIDGE DOWNSTREAM DURING WORKS.
  - S2. COMPROMISED CREATED PUBLIC FOOTPATH.
  - S3. SUB-ATMOSPHERIC WATER, RISK OF COLLAPSE HEAVE AT BOTTOM OF EXCAVATION AND ADJACENT PARK AREA. ROAD BRIDGE DOWNSTREAM DURING WORKS.
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- DECOMMISSIONING OR DEMOLITION:**
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  - S2. COMPROMISED CREATED PUBLIC FOOTPATH.
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POI	UJ	HUR	JH	TS	18/02/21	FOR SUPERVISOR
P01	UJ	HUR	JH	TS	18/02/21	FOR CONTRACTOR
P02	UJ	HUR	JH	TS	18/02/21	FOR CONTRACTOR
P03	UJ	HUR	TS	JH	14/05/21	FOR CONTRACTOR
P04	UJ	HUR	TS	JH	05/07/21	FOR CONTRACTOR

Drawn by: T.J.L Date: 04/02/19

Status:  For client review, comment and approval



Client Drawing No. DRYMS200043-GBV-SF-320-DR-C-0112\_38-58-P05-03405-EAA-1004



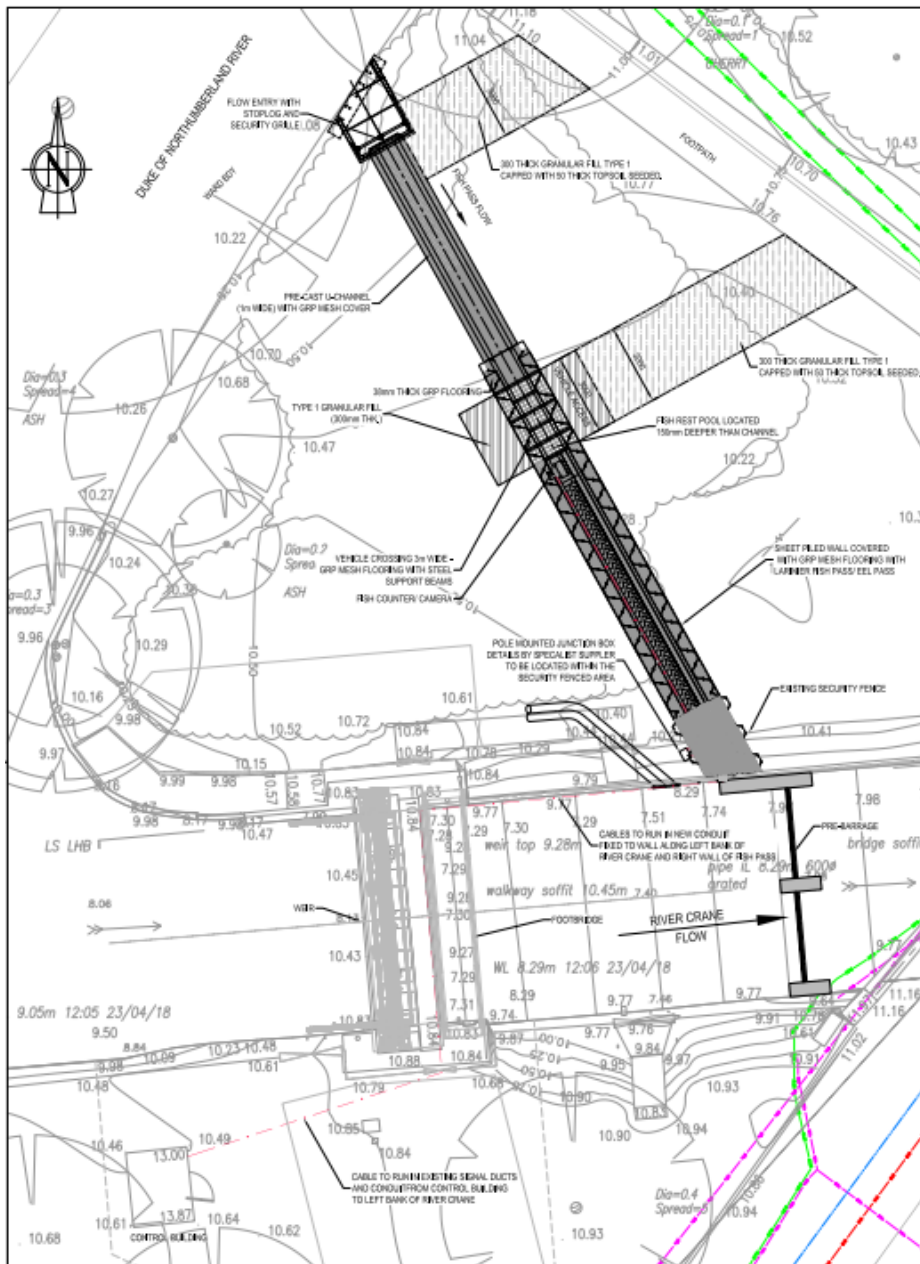
Project: HNL MEICA APPRAISAL PACKAGE

Drawn by: MEREWAY SLUICE  
GENERAL ARRANGEMENT  
FISH PASS

Drawing scale:	1:200	Sheet size:	A1
Drawing No.:	122749-GBV-20-320-DR-C-00112	Revision:	P04

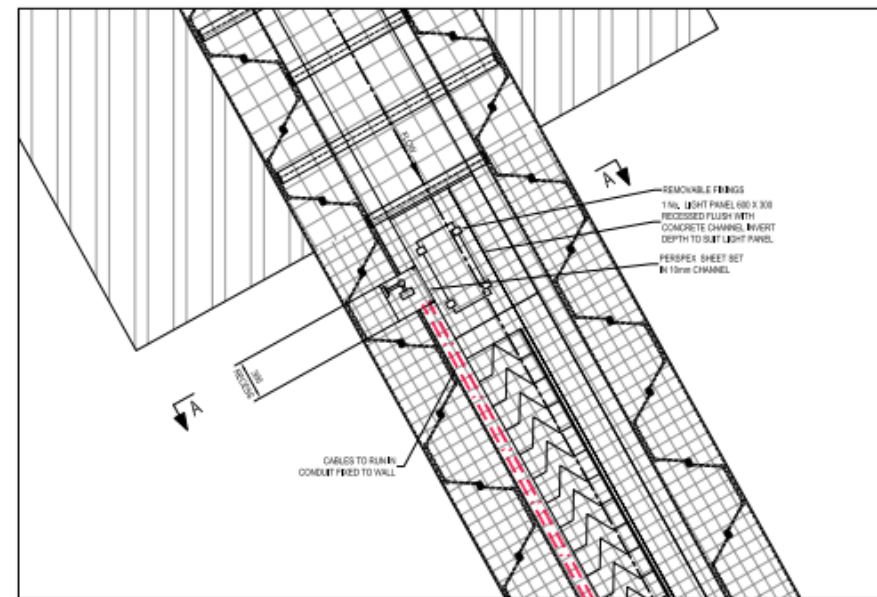
FOR PREVIOUS VERSIONS OF THIS FILE SEE 122749-BVL-20-320-DR-C-00112





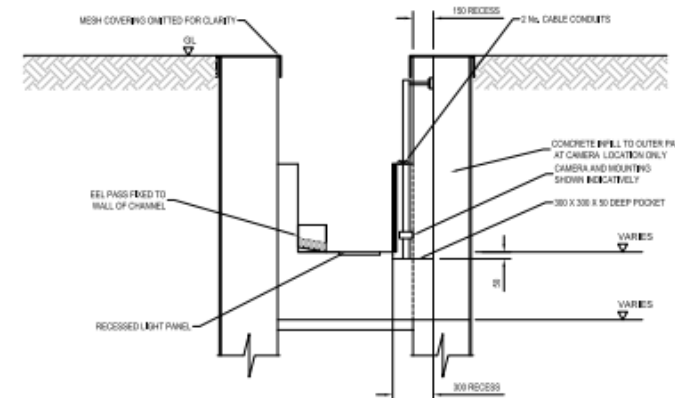
PLAN ON CAMERA CABLE ROUTING

SCALE 1:100



PLAN ON CAMERA LOCATION

SCALE 1:20



SECTION AA

SCALE 1:20

Note: This drawing is the subject and details of the works shown. It shall not be used for any other purpose without the written consent of the contractor.

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**NOTES**

1. ALL DIMENSIONS IN MILLIMETRES UNLESS STATED OTHERWISE.
2. ALL LEVELS IN METRES ABOVE ORDNANCE DATUM (NEWLYN).
3. SEE EICA INSTALLATION SPECIFICATION FOR DETAILS OF INTERNAL AND ASSOCIATED INSTALLATIONS.

**SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION**

IN ADDITION TO THE HAZARDS OR RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILLED ON THIS DRAWING, THE FOLLOWING SIGNIFICANT HAZARDS SHOULD BE NOTED. FURTHER DETAILS ARE INCLUDED IN THE O&M DESIGN RISK MANAGEMENT PROCEEDURE.

**CONSTRUCTION:**

- 1.1. RESTRICTED AND UNWIDEN ACCESS TO THE ADJACENT LOCAL STREETS, GAPING OF ROAD BEING ALONG ADJACENT ROAD IT TOWNS.
- 1.2. CHANGING AND UNDERGROUND SERVICES ALONG FOOTPATH AND ROAD NEAR BYWORKS.
- 1.3. COMPACT SPACE CREATED WITHIN THE CHANNEL.
- 1.4. SUB-AQUA GROUND WATER/DEPTH OF GROUND HEAVY AT BOTTOM OF EXCAVATION AND HEAVY AT TOP OF GROUNDWORK.
- 1.5. INTRUSIVE BODIES AND LOCAL RESIDENTS - HEAVY FROM OTHER PUBLIC FOOTPATH AND QUADRANT FARM AREA, ROAD BEING CONSTRUCTION SERVICES PROTECTIVE HOUSES.
- 1.7. LACK OF INFORMATION ON CHANNEL WALL, TOWNS AND REINFORCEMENT FOR CONSTRUCTION OF CRANE LANDING, LACK OF INFORMATION ON LOCAL STRUCTURES, TEMPORARY WORKS SHOULD TO FULLY COMPLETED.
- 1.8. HOLE AND HAZARD FROM LOCAL RESIDENTS CONTACTING NEARBY PROPERTY.
- 1.9. HOLE OF CAUTION INCREASED FLOODING DUE TO TEMPORARY CONSTRUCTION OF NORTH BANK AND TOWNS.

**MAINTENANCE, CLEANING AND OPERATION:**

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**DECOMMISSIONING OR DEMOLITION:**

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REV	DATE	BY	CHKD	TS	DESCRIPTION
P01	15/04/21	JH	TS		FOR CONTRACTOR PENDING
P02	27/04/21	JH	TS		FOR CONTRACTOR PENDING
P03	14/05/21	JH	TS		FOR CONTRACTOR PENDING
P04	05/07/21	JH	TS		FOR CONTRACTOR PENDING
P05	05/07/21	JH	TS		FOR CONTRACTOR PENDING

Drawn by: J.H. Date: 08/02/21  
 Status: SB  
 Details for client review, comment and/or approval.

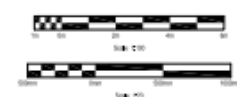


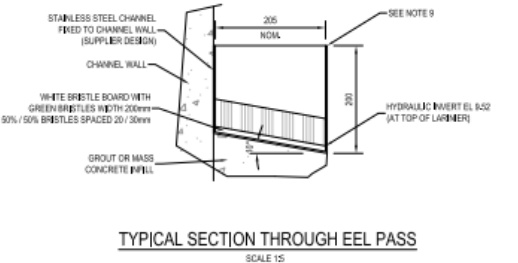
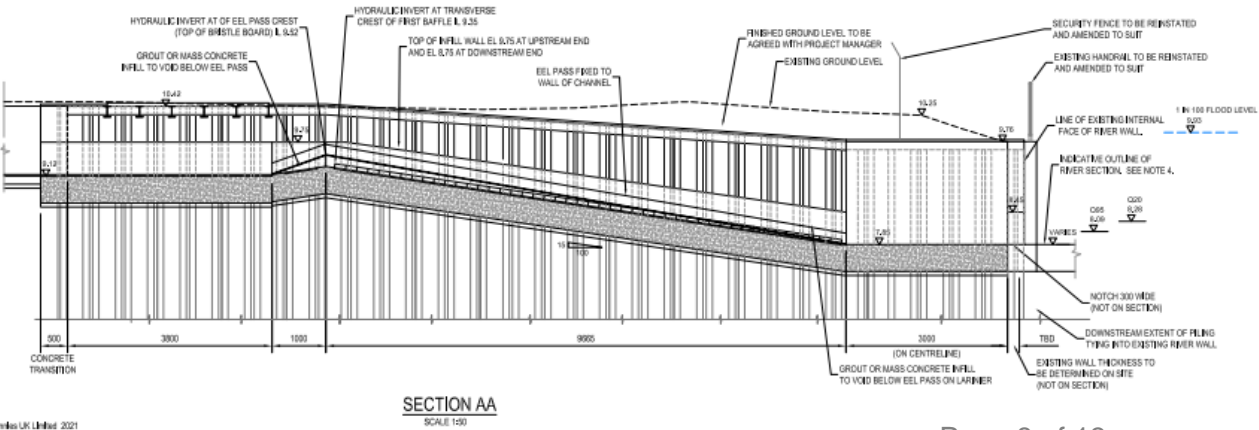
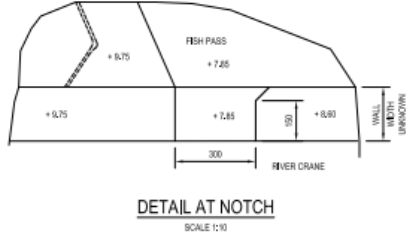
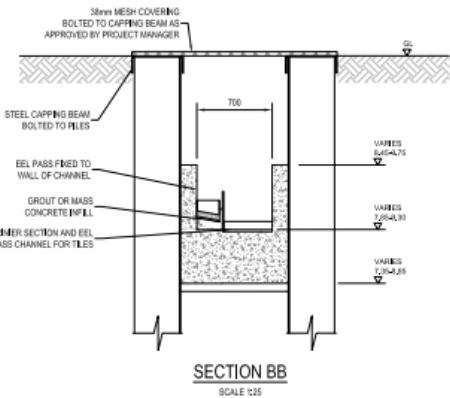
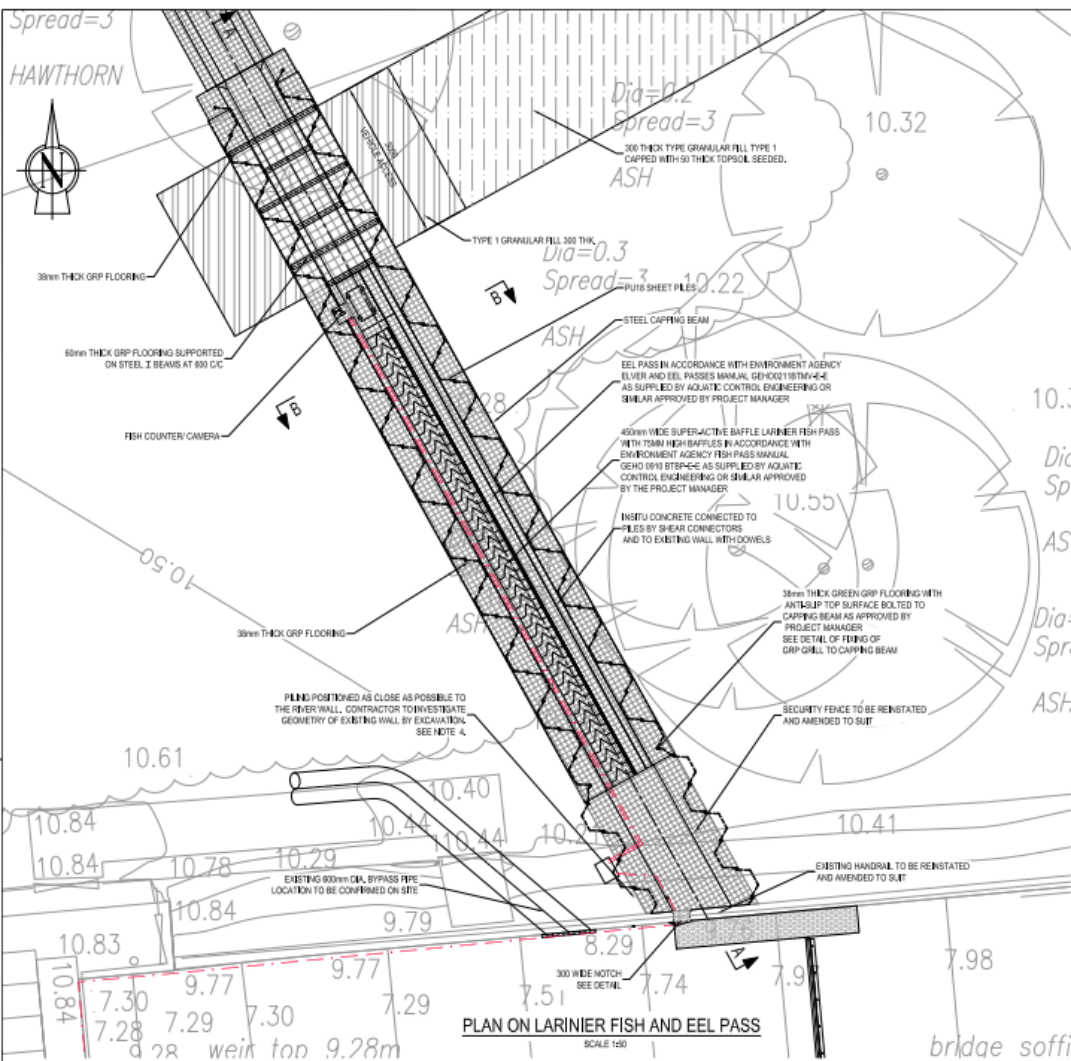
Project: HNL MEICA APPRAISAL PACKAGE

Drawing title: MEREWAY SLUICE - FISHPASS CAMERA LOCATION DETAILS

Drawing no: AS SHOWN Sheet no: A1

Drawing no: 122745-GBV-20-320-DR-C-00156





- NOTES**
1. ALL DIMENSIONS IN MILLIMETRES UNLESS STATED OTHERWISE.
  2. ALL LEVELS IN METRES ABOVE ORDNANCE DATUM (NEWLYN).
  3. ONLY PRINCIPAL UTILITIES AND FEATURES HAVE BEEN INDICATED WITH APPROXIMATE LOCATIONS. ACTUAL POSITIONS MUST BE ESTABLISHED AND VERIFIED ON SITE. NO INFORMATION AVAILABLE ON EXISTING RIVER WALL.
  4. CONTRACTOR TO ENSURE EXISTING RIVER WALL IS NOT DAMAGED DURING CONSTRUCTION. MODIFICATIONS TO DESIGN DUE TO GEOMETRY OF EXISTING WALL TO BE AGREED AND APPROVED BY PROJECT MANAGER.
  5. FISH PASS CONNECTION TO RIVER CRANE LOCATED IN POOL DOWNSTREAM OF WORK.
  6. OPERATION OF FISH PASS MAY BE IMPACTED WHILE BYPASS IN OPERATION.
  7. CAPPING BEAMS AND SUPPORT BEAMS TO BE HOT DIP GALVANIZED TO EN ISO 1461.
  8. CAPPING BEAMS SHALL BE MODIFIED TO SUIT VEHICLE ACCESS SUPPORT BEAMS.
  9. TOP LEVEL OF EEL CHANNEL WALL EL. 6.75 (MINIMUM).

Notes: The title indicating the highest depth of the works shown in this drawing are not to be taken as the maximum depth of the river under contract.

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**SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION**

IN ADDITION TO THE HAZARDS OR RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, THE FOLLOWING SIGNIFICANT RESIDUAL RISKS SHOULD BE NOTED. FURTHER DETAILS ARE INCLUDED IN THE CON DESIGN RISK MANAGEMENT REGISTER.

**CONSTRUCTION:**

- S1 RESTRICTED AND NARROW ACCESS TO SITE ALONG RESIDENTIAL STREETS. CAPACITY OF ROAD BRIDGE ALONG ALLEN ROAD IT TRAVELS.
- S2 OVERGROUND AND UNDERGROUND SERVICES ALONG FOOTPATH AND ROAD NEAR BRIDGE.
- S3 COMBINED SPACE CREATED WITHIN FISH PASS.
- S4 USE AFTER HOURS AND/OR NEAR OF GROUND HEAVE AT BOTTOM OF EXCAVATION AND ADJACENT ENTRANCE OF PROXIMITY.
- S5 INTERFERENCE WITH PUBLIC AND LOCAL RESIDENTS, NEARBY PROX. OTHER PUBLIC FOOTPATH AND ADJACENT PARK AREA, ROAD BRIDGE DOWNSTREAM SERVES RESIDENTIAL HOUSES.
- S6 LACK OF INFORMATION ON RIVER CHANNEL WALL THICKNESS AND REINFORCEMENT FOR CONSIDERATION OF CRANE LOADING, LACK OF INFORMATION ON EXISTING BRIDGE STRUCTURES, TEMPORARY WORKS DESIGN TO FULLY CONSIDER RISKS.
- S7 HEAVE AND ABRASSION FROM PILING ACTIVITIES IMPACTING HEAVY PROXIMITY.
- S8 RISK OF COLLAPSE/INCREASED FLOODING DUE TO TEMPORARY COFFER DAM FAILURE OF NORTH BANK AND PILES.

**MAINTENANCE, CLEANING AND OPERATION:**

- S1 RESTRICTED AND NARROW ACCESS TO SITE ALONG RESIDENTIAL STREETS. CAPACITY OF ROAD BRIDGE ALONG ALLEN ROAD IT TRAVELS.
- S2 OVERGROUND AND UNDERGROUND SERVICES ALONG FOOTPATH AND ROAD NEAR BRIDGE.
- S3 COMBINED SPACE WITHIN FISH PASS. CLEANING CAN BE CARRIED OUT FROM GROUND LEVEL. OCCASIONAL MAINTENANCE REQUIRES RAIS.

**DECOMMISSIONING OR DEMOLITION:**

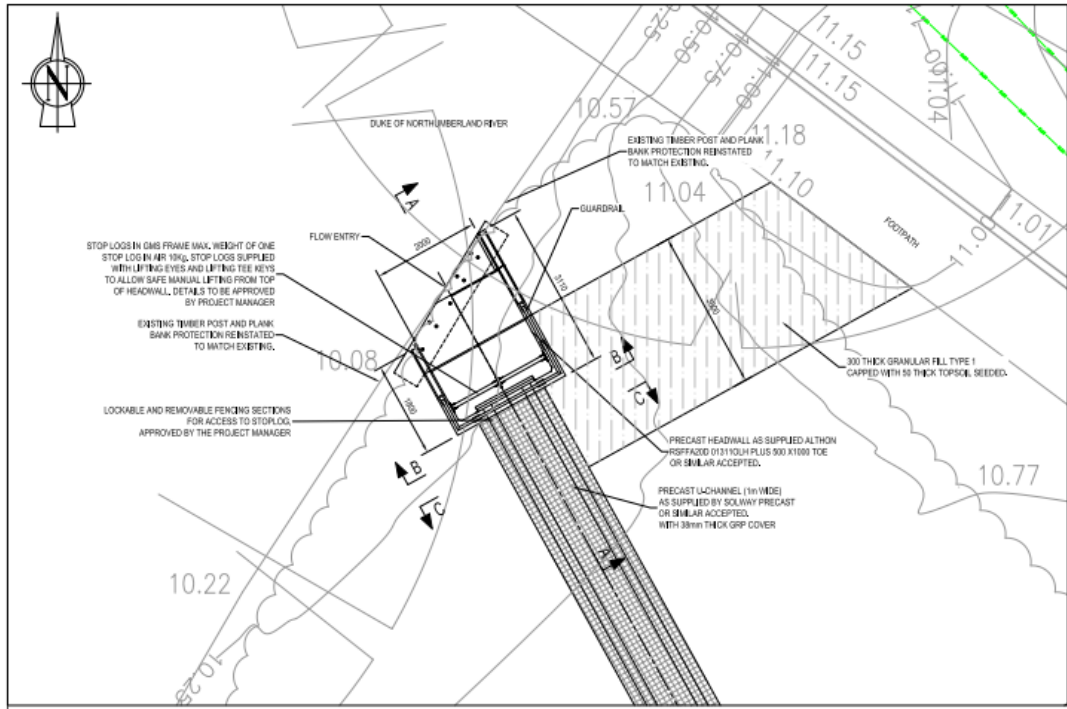
- S1 RESTRICTED AND NARROW ACCESS TO SITE ALONG RESIDENTIAL STREETS. CAPACITY OF ROAD BRIDGE ALONG ALLEN ROAD IT TRAVELS.
- S2 OVERGROUND AND UNDERGROUND SERVICES ALONG FOOTPATH AND ROAD NEAR BRIDGE.
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- S7 HEAVE AND ABRASSION FROM PILING ACTIVITIES IMPACTING HEAVY PROXIMITY.
- S8 RISK OF COLLAPSE/INCREASED FLOODING DUE TO TEMPORARY COFFER DAM FAILURE OF NORTH BANK AND PILES.

Rev	Drawn	Check	Revised	Approved	Date	Description
P01	JJ	HJR	JH	TB	15/04/21	FOR CONTRACTOR PILING
P02	JJ	HJR	TB	JH	27/04/21	FOR CONTRACTOR PILING
P03	JJ	HJR	TB	JH	14/05/21	FOR CONTRACTOR PILING

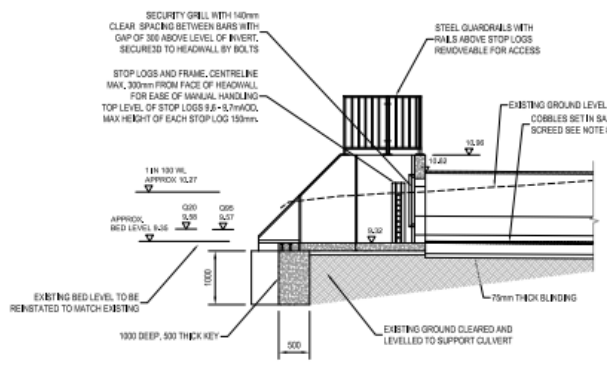
Designed by: T.N. Date: 22/07/19  
 Status: 53  
 Suitable for client review, comment and/or approval  
 Client: WEM  
 Environment Agency Framework

Client Drawing No. **gb** A GALLIFORD TRY & BINNIES JOINT VENTURE  
 Registered in England and Wales. Company no. 0834328  
 Registered office: Cowley Business Park, Cowley, Oxford, Oxfordshire, OX4 2AF, UK  
 Project: **HNL MEICA APPRAISAL PACKAGE**

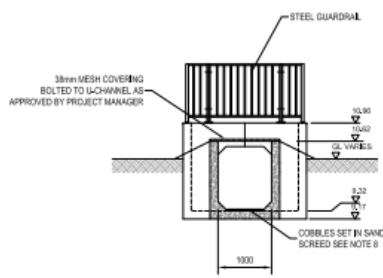
Drawing title: **MEREWAY SLUICE - FISHPASS PLAN AND SECTIONS EEL PASS**  
 Drawing scale: AS SHOWN  
 Drawing no: A1  
 Revision: 122748-GBV-20-320-DR-C-00158  
 P03



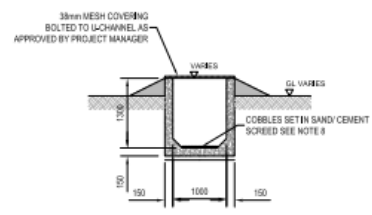
**PLAN ON UPSTREAM HEADWALL**  
SCALE 1:50



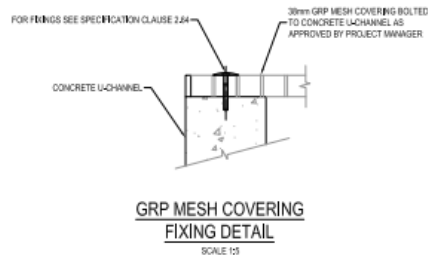
**SECTION AA**  
SCALE 1:50



**SECTION BB**  
SCALE 1:50



**SECTION CC**  
SCALE 1:50



**GRP MESH COVERING FIXING DETAIL**  
SCALE 1:5

- NOTES**
- ALL DIMENSIONS IN MILLIMETRES UNLESS STATED OTHERWISE.
  - ALL LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS NOTED OTHERWISE.
  - ONLY PRINCIPAL UTILITIES AND FEATURES HAVE BEEN INDICATED WITH APPROXIMATE LOCATIONS. ACTUAL POSITIONS MUST BE ESTABLISHED AND VERIFIED ON SITE.
  - NO INFORMATION AVAILABLE ON EXISTING RIVER WALL. CONTRACTOR TO ENSURE EXISTING RIVER WALL IS NOT DAMAGED DURING CONSTRUCTION. MODIFICATIONS TO DESIGN DUE TO GEOMETRY OF EXISTING WALL TO BE AGREED AND APPROVED BY PROJECT MANAGER.
  - PRECAST CONCRETE CHANNEL UNITS SHALL HAVE A MAXIMUM LENGTH OF 3m. THEY SHALL BE PROVIDED WITH LIFTING POINTS TO FACILITATE HANDLING AND PLACEMENT.
  - REINFORCING BARS SHALL BE AS SUPPLIED BY BERRY & ESCOTT OR SIMILAR ACCEPTED. THEY SHALL BE FREED IN PLACE IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTION. WHERE CUT SMALLER BARS SHALL BE RETAINED.
  - CHANNEL JOINTS AND JOINTS WITH ADJACENT STRUCTURES SHALL BE SEALED USING DENSITON STOPSTRIP OR SIMILAR ACCEPTED.
  - 30-40mm COBBLES SET IN A 15mm THICK SAND/CEMENT SCREEN. COBBLES TO BE RANDOMLY SPACED AT TYPICALLY 80mm CENTRES. CONSTRUCTION JOINTS IN SCREEN TO MATCH PRECAST CHANNEL JOINTS.

Note: The levels indicating the height and depth of the Works, shown in this drawing are not to be taken as being the responsibility of the contractor under Contract.

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**SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION**

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**CONSTRUCTION:**

- S1 RESTRICTED AND NARROW ACCESS TO SITE ALONG RESIDENTIAL STREET. CAPACITY OF ROAD BRIDGE ALONG AUSTIN ROAD 17 TONNES.
- S2 OVERGROUND AND UNDERGROUND SERVICES ALONG FOOTPATH AND ROAD NEAR FISH PASS.
- S3 COVERED SPACE CREATED WITHIN FISH PASS.
- S4 SUB-INTERMEDIATE GROUND WATER. RISK OF GROUND HEAVE AT BOTTOM OF EXCAVATIONS AND ADJACENT ENTRANCE OF BROOKDALE.
- S5 INTERFERENCE WITH PUBLIC AND LOCAL RESIDENTS, NEARBY FROM OTHER PUBLIC FOOTPATH AND ADJACENT PARK AREA, ROAD BRIDGE DOWNSTREAM SERVES RESIDENTIAL HOUSES.
- S6 LACK OF INFORMATION ON FISH CHANNEL WALL THICKNESS AND REINFORCEMENT FOR CONSIDERATION OF OMBE LOADING. LACK OF INFORMATION ON EXISTING BRIDGE STRUCTURES. TEMPORARY WORKS SUBJECT TO FULL CONSTRUCTION RISK.
- S7 HOLES AND ABUTMENT FROM PILING ACTIVITIES IMPACTING HEAVY PROPERTY.
- S8 RISK OF COLLAPSE INCREASED FLOODING DUE TO TEMPORARY COVER DAM BULK OF NORTHUMBERLAND RIVER.

**MAINTENANCE, CLEANING AND OPERATION:**

- S1 RESTRICTED AND NARROW ACCESS TO SITE ALONG RESIDENTIAL STREET.
- S2 INTERFERENCE WITH PUBLIC AND LOCAL RESIDENTS, NEARBY FROM OTHER PUBLIC FOOTPATH AND ADJACENT PARK AREA, ROAD BRIDGE DOWNSTREAM SERVES RESIDENTIAL HOUSES.
- S3 COVERED SPACE WITHIN FISH PASS. CLEANING CAN BE CARRIED OUT FROM GROUND LEVEL. OCCASIONAL MAINTENANCE REQUIRES RAMP.

**DECOMMISSIONING OR DEMOLITION:**

- S1 RESTRICTED AND NARROW ACCESS TO SITE ALONG RESIDENTIAL STREET. CAPACITY OF ROAD BRIDGE ALONG AUSTIN ROAD 17 TONNES.
- S2 OVERGROUND AND UNDERGROUND SERVICES ALONG FOOTPATH AND ROAD NEAR FISH PASS.
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- S7 HOLES AND ABUTMENT FROM PILING ACTIVITIES IMPACTING HEAVY PROPERTY.
- S8 RISK OF COLLAPSE INCREASED FLOODING DUE TO TEMPORARY COVER DAM BULK OF NORTHUMBERLAND RIVER.

**FOR QA REVIEW**

POI	JJ	HJR	JH	TB	105021	
P01	JJ	HJR	JH	TB	150421	FOR CONTRACTOR FIXING
P02	JJ	HJR	JH	TB	140021	FOR CONTRACTOR FIXING
P03	JJ	HJR	TB	JH	140021	FOR CONTRACTOR FIXING
P04	JJ	HJR	TB	JH	050721	FOR CONTRACTOR FIXING

Rev: Drawn: Check: Revis: Approved: Date: 22/07/19

Designed by: T.N. Date: 22/07/19

Status: **DR** Suitable for client review, comment and/or approval



Client Drawing No.

**gb** A GALLIFORD TRY & BINNIES JOINT VENTURE

Registered office: Cowley Business Park, Cowley, Merseyside, M88 2NL, UK  
Registered in England and Wales. Company no. 0834208

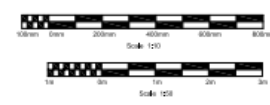
Project: **HNL MEICA APPRAISAL PACKAGE**

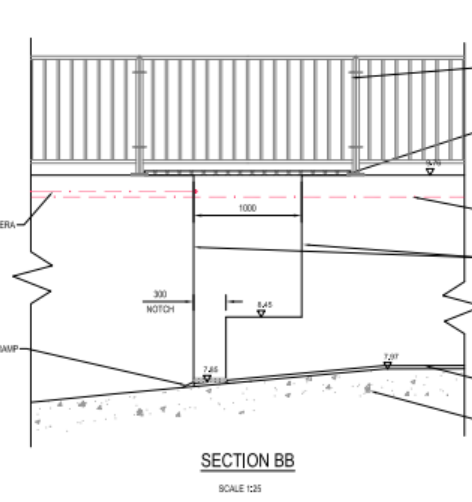
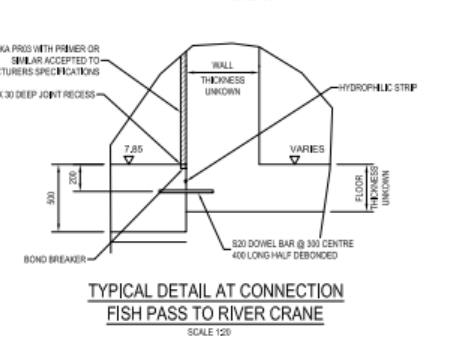
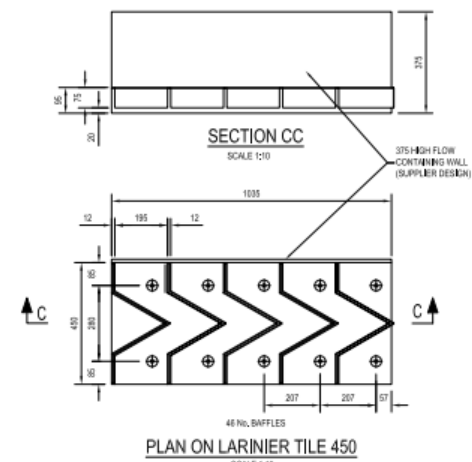
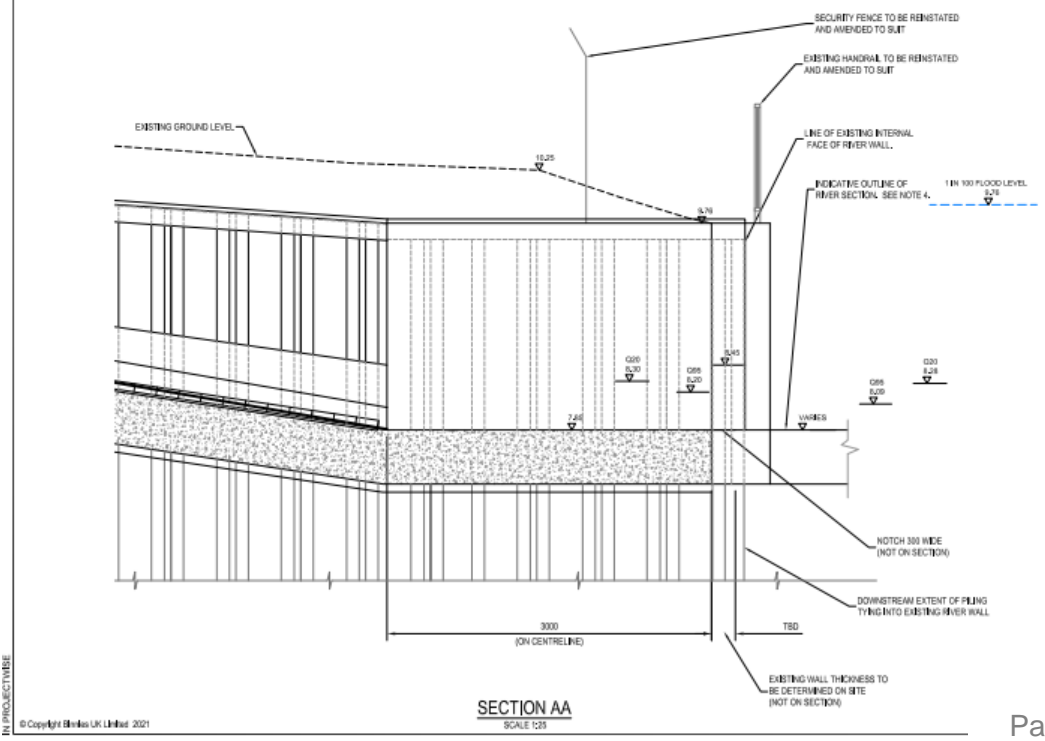
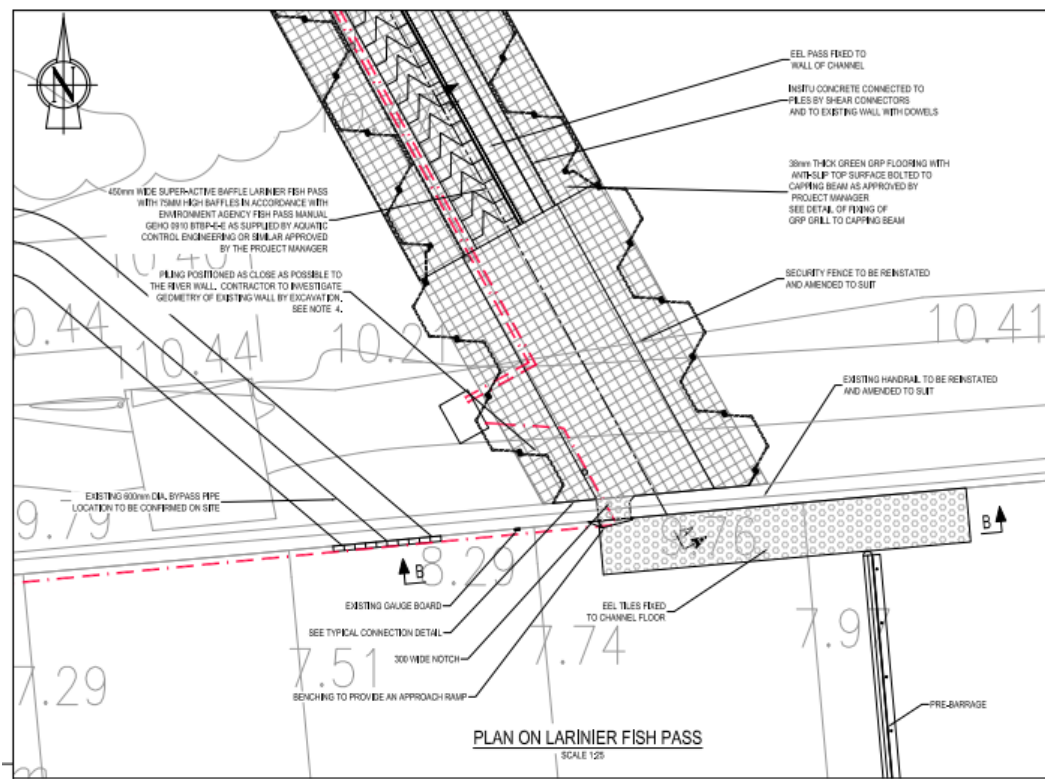
Drawing No: **MEREWAY SLUICE - FISHPASS HEADWALL PLAN AND SECTIONS**

Drawing code: **AS SHOWN** Sheet size: **A1**

Drawing no: **122749-GBV-Z0-320-DR-C-00152** Revision: **P04**

FOR PREVIOUS VERSIONS OF THIS FILE SEE  
122749-GBV-Z0-320-DR-C-00152





Note: This drawing indicates the height and depth of the Works, shown in blue, and are not to be taken as indicating the condition of the structure under Construction.

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**NOTES**

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- NO INFORMATION AVAILABLE ON EXISTING RIVER WALL. CONTRACTOR TO ENSURE EXISTING RIVER WALL IS NOT DAMAGED DURING CONSTRUCTION. NOTIFICATION TO DESIGN DUE TO GEOMETRY OF EXISTING WALL TO BE AGREED AND APPROVED BY PROJECT MANAGER.
- FISH PASS CONNECTION TO RIVER CRANE LOCATED IN POOL DOWNSTREAM OF WEIR.
- OPERATION OF FISH PASS MAY BE IMPACTED WHILE BYPASS IN OPERATION.
- CAPPING BEAMS AND SUPPORT BEAMS TO BE HOT DIP GALVANIZED TO EN ISO 1461.

**SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION**

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**CONSTRUCTION:**

- RESTRICTED AND NARROW ACCESS TO SITE ALONG RESIDENTIAL STREETS, CAPACITY OF ROAD BRIDGE ALONG A1671 ROAD IT TOWERS.
- OVERHEAD AND UNDERGROUND SERVICES ALONG FOOTPATH AND ROAD NEAR FISH PASS.
- CONFINED SPACE CREATED WITHIN FISH PASS.
- SUB-ARTERIAL GROUND WATER, RISK OF GROUND HEAVE AT BOTTOM OF EXCAVATIONS AND ADJUT DRAINAGE OF UNDERGROUND SERVICES RESIDENTIAL AREAS.
- INTERFERENCE WITH PUBLIC AND LOCAL RESIDENTS, NEARBY PROX. OTHER PUBLIC FOOTPATH AND ADJACENT PARK AREA, ROAD BRIDGE DOWNSTREAM SERVICES RESIDENTIAL AREAS.
- LACK OF INFORMATION ON RIVER CHANNEL, WALL THICKNESS AND FIRM PROSPECT FOR CONSTRUCTION OF CHANNEL LINING, LACK OF INFORMATION ON EXISTING HIGH STRUCTURES, TEMPORARY WORKS DUE TO WALL CONSTRUCTION.
- WEEK AND SEVERAL MONTHS FROM PILING ACTIVITIES IMPACTING NEARBY PROPERTIES.
- RISK OF CHAIN INCREASED FLOODING DUE TO TEMPORARY COVER DAM IN RISK OF NORTHAMPSLAND RIVER.

**MAINTENANCE, CLEANING AND OPERATION:**

- RESTRICTED AND NARROW ACCESS TO SITE ALONG RESIDENTIAL STREETS, CAPACITY OF ROAD BRIDGE ALONG A1671 ROAD IT TOWERS.
- INTERFERENCE WITH PUBLIC AND LOCAL RESIDENTS, NEARBY PROX. OTHER PUBLIC FOOTPATH AND ADJACENT PARK AREA, ROAD BRIDGE DOWNSTREAM SERVICES RESIDENTIAL AREAS.
- CONFINED SPACE WITHIN FISH PASS, CLEANING CAN BE CARRIED OUT FROM GROUND LEVEL, OCCASIONAL MAINTENANCE RESOURCES NEEDED.

**DECOMMISSIONING OR DEMOLITION:**

- RESTRICTED AND NARROW ACCESS TO SITE ALONG RESIDENTIAL STREETS, CAPACITY OF ROAD BRIDGE ALONG A1671 ROAD IT TOWERS.
- OVERHEAD AND UNDERGROUND SERVICES ALONG FOOTPATH AND ROAD NEAR FISH PASS.
- CONFINED SPACE CREATED WITHIN FISH PASS.
- SUB-ARTERIAL GROUND WATER, RISK OF GROUND HEAVE AT BOTTOM OF EXCAVATIONS AND ADJUT DRAINAGE OF UNDERGROUND SERVICES RESIDENTIAL AREAS.
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- RISK OF CHAIN INCREASED FLOODING DUE TO TEMPORARY COVER DAM IN RISK OF NORTHAMPSLAND RIVER.

Rev	Date	Class	Rev'd	App'd	Date	Drawn by
P02	JJ	HJR	JH	TB	15/04/21	FOR CONTRACTOR PILING
P03	JJ	HJR	TB	JH	14/05/21	FOR CONTRACTOR PILING
P04	JJ	HJR	TB	JH	05/07/21	FOR CONTRACTOR PILING

Drawn by: T.N. Date: 22/07/19

Status: **SB** *Suitable for client review, comment and/or approval*

Client: **WEM** Environment Agency Framework

Client Drawing No.:

**gb** A GALLIFORD TRY & BINNIES JOINT VENTURE

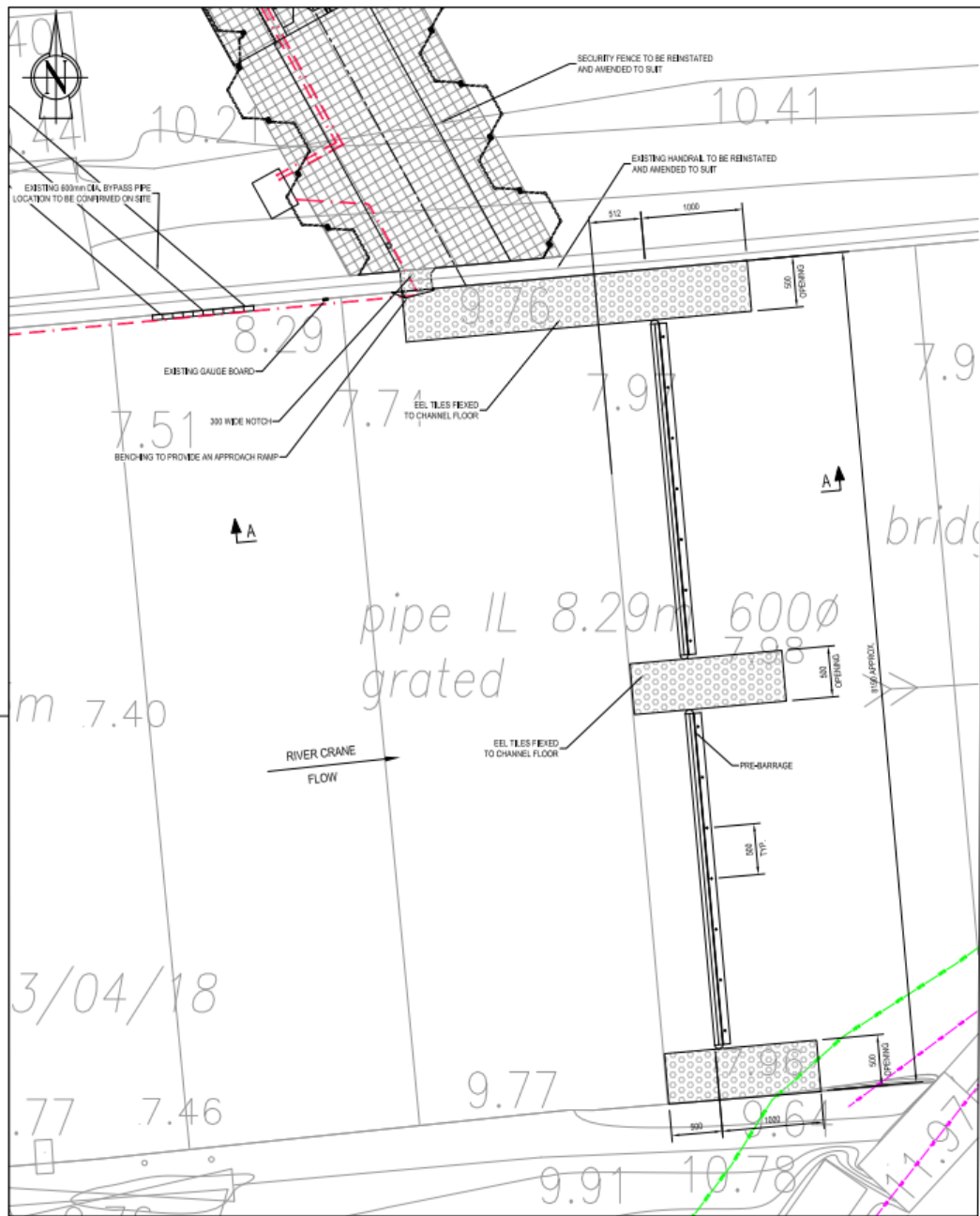
Registered office: Conley Business Park, Conley, Limerick, Mid-West, IE Registered in England and Wales: Company no. 0634208

Project: **HNL MEICA APPRAISAL PACKAGE**

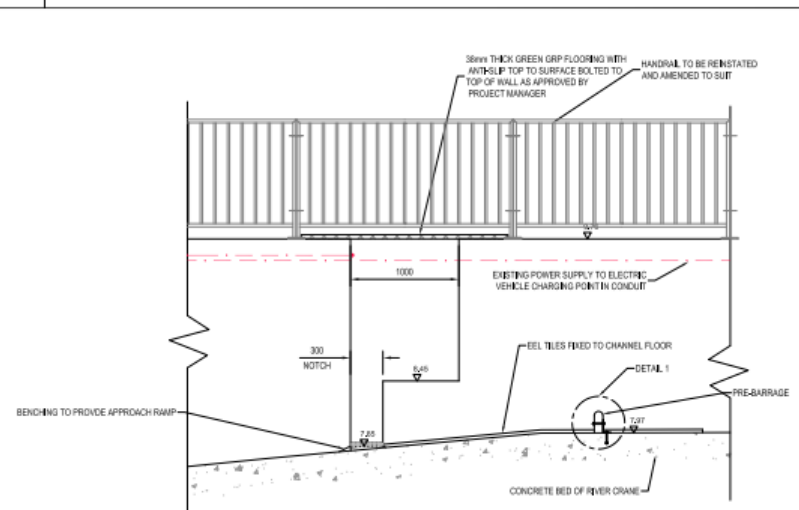
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Drawing scale: **AS SHOWN** Sheet No: **A1**

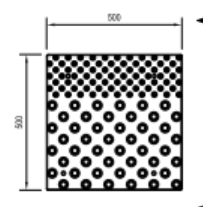
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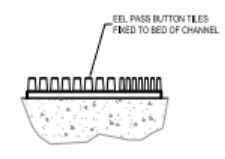
PLAN ON PRE-BARRAGE  
SCALE 1:25



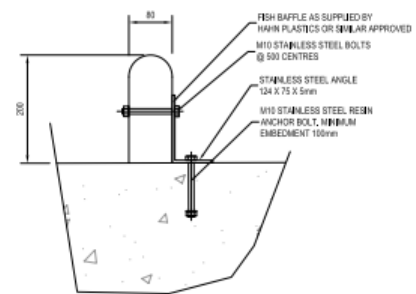
SECTION AA  
SCALE 1:25



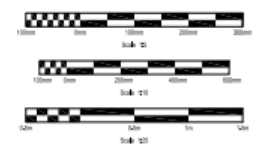
PLAN ON EEL TILE  
SCALE 1:10



ELEVATION BB  
SCALE 1:10



DETAIL 1  
SCALE 1:5



Notes: The 38mm thick GRP flooring and handrail details of this drawing are not to be taken as indicating the approval of the contractor under contract.

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NOTES

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- ALL LEVELS IN METRES ABOVE ORDNANCE DATUM (ENGLAND).
- ONLY PRINCIPAL UTILITIES AND FEATURES HAVE BEEN INDICATED WITH APPROXIMATE LOCATIONS. ACTUAL POSITIONS MUST BE ESTABLISHED AND VERIFIED ON SITE. NO INFORMATION AVAILABLE ON EXISTING RISERS WALL.
- CONTRACTOR TO ENSURE EXISTING RIVER WALL IS NOT DAMAGED DURING CONSTRUCTION. MODIFICATIONS TO DESIGN DUE TO GEOMETRY OF EXISTING WALL TO BE AGREED AND APPROVED BY PROJECT MANAGER.
- FISH PASS CONNECTION TO RIVER CRANE LOCATED IN POOL DOWNSTREAM OF WEIR.
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- CAPPING BEAMS AND SUPPORT BEAMS TO BE HOT DIP GALVANIZED TO EN ISO 1461.

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARDS OR RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, THE FOLLOWING INFORMATION REGARDING HAZARDS SHOULD BE NOTED. FURTHER DETAILS ARE INCLUDED IN THE COM DESIGN RISK MANAGEMENT REGISTER

CONSTRUCTION:

- RESTRICTED AND NARROW ACCESS TO SITE ALONG RESIDENTIAL STREET. CAPACITY OF ROAD BRIDGE ALONG AUSTIN ROAD 17 TONNELL.
- OVERGROUND AND UNDERGROUND SERVICES ALONG FOOTPATH AND ROAD NEAR FISH PASS.
- CONFINED SPACE CREATED AROUND FISH PASS.
- SEA WATER IN GROUND WATERS, RISE OF GROUND HEAVE AT BOTTOM OF EXCAVATIONS AND ADJACENT ENTRANCE OF GROUNDWATER.
- INTERFERENCE WITH PUBLIC AND LOCAL RESIDENTS, NEARBY FROM OTHER PUBLIC FOOTPATH AND ADJACENT PARK AREA, ROAD BRIDGE DOWNSTREAM SERVICES RESIDENTIAL HOUSES.
- LACK OF INFORMATION ON EXISTING CHANNEL, WALL THICKNESS AND REINFORCEMENT FOR CONSIDERATION OF CRANE LOADING, LACK OF INFORMATION ON EXISTING BRIDGE STRUCTURES, TEMPORARY WORKS DESIGN TO FULLY CONSIDER RISKS.
- HAZE AND VIBRATION FROM ROAD ACTIVITIES IMPACTING NEARBY PROPERTIES.
- RISK OF COLLAPSE INCREASED FLOODING DUE TO TEMPORARY COVER DAM IN DUKES OF NORTHAMBERLAND WEIR.

MAINTENANCE, CLEANING AND OPERATION:

- RESTRICTED AND NARROW ACCESS TO SITE ALONG RESIDENTIAL STREET.
- INTERFERENCE WITH PUBLIC AND LOCAL RESIDENTS, NEARBY FROM OTHER PUBLIC FOOTPATH AND ADJACENT PARK AREA, ROAD BRIDGE DOWNSTREAM SERVICES RESIDENTIAL HOUSES.
- CONFINED SPACE NEAR FISH PASS. CLEANING CAN BE CARRIED OUT FROM GROUND LEVEL, OCCASIONAL MAINTENANCE RESOURCES RAISE

DECOMMISSIONING OR DEMOLITION:

- RESTRICTED AND NARROW ACCESS TO SITE ALONG RESIDENTIAL STREET. CAPACITY OF ROAD BRIDGE ALONG AUSTIN ROAD 17 TONNELL.
- OVERGROUND AND UNDERGROUND SERVICES ALONG FOOTPATH AND ROAD NEAR FISH PASS.
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- HAZE AND VIBRATION FROM ROAD ACTIVITIES IMPACTING NEARBY PROPERTIES.
- RISK OF COLLAPSE INCREASED FLOODING DUE TO TEMPORARY COVER DAM IN DUKES OF NORTHAMBERLAND WEIR.

Rev	Drawn	Checked	Revised	Approved	Date	Description
P01	JJ	HJR	JH	TB	15/04/21	FOR CONTRACTOR PRICING
P02	JJ	HJR	TB	JH	27/04/21	FOR CONTRACTOR PRICING
P03	JJ	HJR	TB	JH	14/05/21	FOR CONTRACTOR PRICING
P04	JJ	HJR	TB	JH	05/07/21	FOR CONTRACTOR PRICING

Drawn by: T.N. Date: 22/07/19

Scale: Suitable for client review, comment and/or approval

Client:



Client Drawing No.

**gb** A GALLIFORD TRY & BINNIES JOINT VENTURE

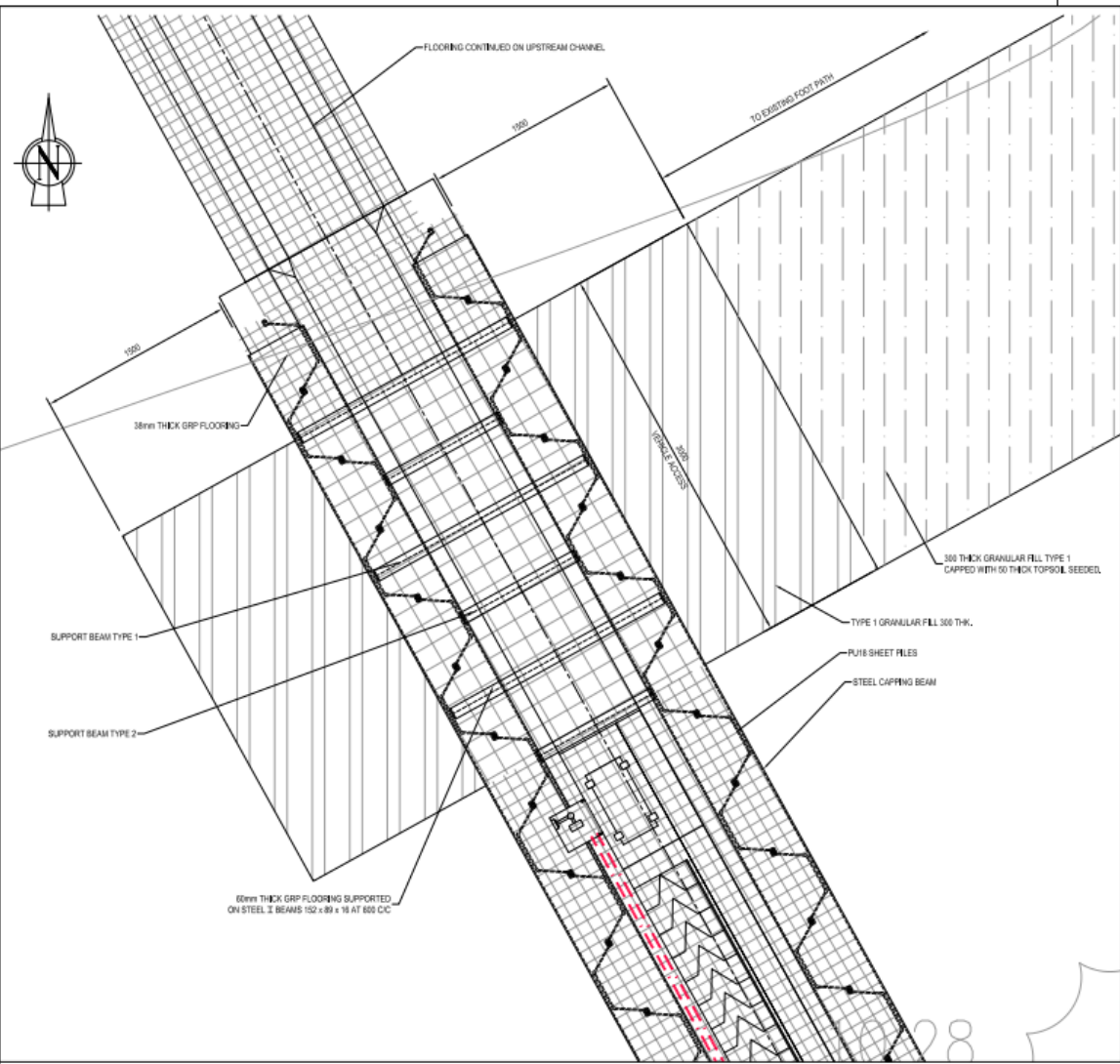
Registered office: Cavally Business Park, Conwy, Llandudno, LL58 2AL, UK  
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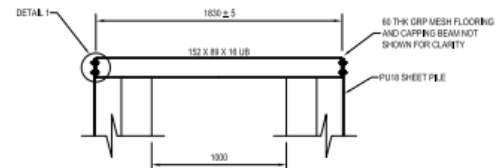
HNL MEICA APPRAISAL PACKAGE

Drawing title:  
**MEREWAY SLUICE - FISHPASS  
LARINIER FISH PASS  
PRE-BARRAGE**

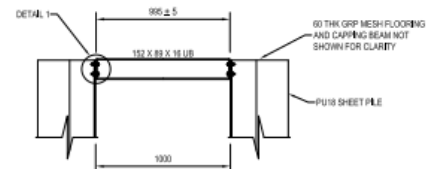
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Drawing no: 122749-GBV-ZO-320-DR-C-00159 Rev/No: P04



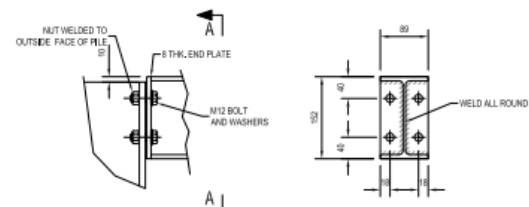
PLAN ON VEHICLE CROSSING  
SCALE 1:20



SUPPORT BEAM ELEVATION  
TYPE 1  
3 REQUIRED AS DRAWN  
SCALE 1:20

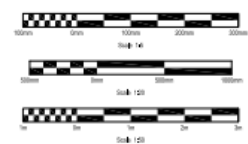


SUPPORT BEAM ELEVATION  
TYPE 2  
3 REQUIRED AS DRAWN  
SCALE 1:20



DETAIL 1  
SCALE 1:5

ELEVATION A  
SCALE 1:5



Note: The client is to be notified and details of the items shown in this drawing are not to be taken as a liability of the contractor unless stated.

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NOTES

1. ALL DIMENSIONS IN MILLIMETRES UNLESS STATED OTHERWISE.
2. ALL LEVELS IN METRES ABOVE ORDNANCE DATUM (NEWLYN).
3. CAPPING BEAMS AND SUPPORT BEAMS TO BE HOT DIP GALVANIZED TO EN ISO 1461.
4. JOINTS IN THE GRP MESH FLOORING TO BE LOCATED CENTRALLY OVER THE SUPPORT BEAMS.
5. CAPPING BEAMS TO BE MODIFIED LOCALLY TO ACCOMMODATE THE SUPPORT BEAMS.

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARDS OR RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, THE FOLLOWING SPECIAL RISKS SHOULD BE NOTED. FURTHER DETAILS ARE INCLUDED IN THE CON DESIGN RISK MANAGEMENT REGISTER.

CONSTRUCTION:

- S1 RESTRICTED AND NARROW ACCESS TO SITE ALONG RESIDENTIAL STREET, CAPACITY OF ROAD BRIDGE ALONG AUSTIN ROAD 17 TONNES.
- S2 OVERGROUND AND UNDERGROUND SERVICES ALONG FOOTPATH AND ROAD NEAR FISHPASS.
- S3 CONFINED SPACE CREATED WITHIN FISHPASS.
- S4 SUBMITTAN GROUND WATER, RISE OF GROUND HEAVE AT BOTTOM OF EXCAVATIONS AND ABRUPT ENTRANCE OF GROUNDWATER.
- S5 INTERFERENCE WITH PUBLIC AND LOCAL RESIDENTS, NEARBY FROM OTHER PUBLIC FOOTPATH AND ADJACENT PARK AREA, ROAD BRIDGE DOWNSTREAM SERVICES RESIDENTIAL HOUSES.
- S6 LACK OF INFORMATION ON RIVER CHANNEL, WALL THICKNESS AND REINFORCEMENT FOR CONSIDERATION OF CRANE LOADING, LACK OF INFORMATION ON EXISTING BRIDGE STRUCTURES, TEMPORARY WORKS BEING TO FULLY COMPLETED.
- S7 RISKS AND IMPACT FROM PUBLIC ACTIVITIES IMPACTING HEAVY PROPERTY.
- S8 RISKS OF CHRONIC INCREASED FLOODING DUE TO TEMPORARY COVER DAM RISK OF NORTHAMBERLAND RIVER.

MAINTENANCE, CLEANING AND OPERATION:

- S1 RESTRICTED AND NARROW ACCESS TO SITE ALONG RESIDENTIAL STREET, CAPACITY OF ROAD BRIDGE ALONG AUSTIN ROAD 17 TONNES.
- S2 OVERGROUND AND UNDERGROUND SERVICES ALONG FOOTPATH AND ROAD NEAR FISHPASS.
- S3 CONFINED SPACE WITHIN FISHPASS, CLEANING CAN BE CARRIED OUT FROM GROUND LEVEL, OCCASIONAL MAINTENANCE REQUIRED DMS.

DECOMMISSIONING OR DEMOLITION:

- S1 RESTRICTED AND NARROW ACCESS TO SITE ALONG RESIDENTIAL STREET, CAPACITY OF ROAD BRIDGE ALONG AUSTIN ROAD 17 TONNES.
- S2 OVERGROUND AND UNDERGROUND SERVICES ALONG FOOTPATH AND ROAD NEAR FISHPASS.
- S3 CONFINED SPACE CREATED WITHIN FISHPASS.
- S4 SUBMITTAN GROUND WATER, RISE OF GROUND HEAVE AT BOTTOM OF EXCAVATIONS AND ABRUPT ENTRANCE OF GROUNDWATER.
- S5 INTERFERENCE WITH PUBLIC AND LOCAL RESIDENTS, NEARBY FROM OTHER PUBLIC FOOTPATH AND ADJACENT PARK AREA, ROAD BRIDGE DOWNSTREAM SERVICES RESIDENTIAL HOUSES.
- S6 LACK OF INFORMATION ON RIVER CHANNEL, WALL THICKNESS AND REINFORCEMENT FOR CONSIDERATION OF CRANE LOADING, LACK OF INFORMATION ON EXISTING BRIDGE STRUCTURES, TEMPORARY WORKS BEING TO FULLY COMPLETED.
- S7 RISKS AND IMPACT FROM PUBLIC ACTIVITIES IMPACTING HEAVY PROPERTY.
- S8 RISKS OF CHRONIC INCREASED FLOODING DUE TO TEMPORARY COVER DAM RISK OF NORTHAMBERLAND RIVER.

Rev	Drawn	Check	Revised	Approved	Date	Description
P01	JJ	HJR	JH	TB	18/02/21	FOR SA REVIEW
P02	JJ	HJR	JH	TB	15/04/21	FOR CONTRACTOR PRELIM
P03	JJ	HJR	TB	JH	05/07/21	FOR CONTRACTOR PRELIM

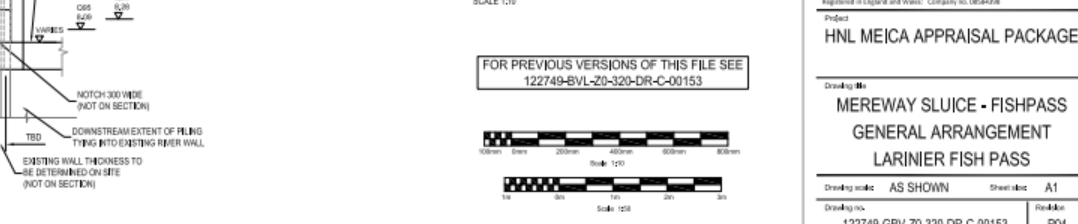
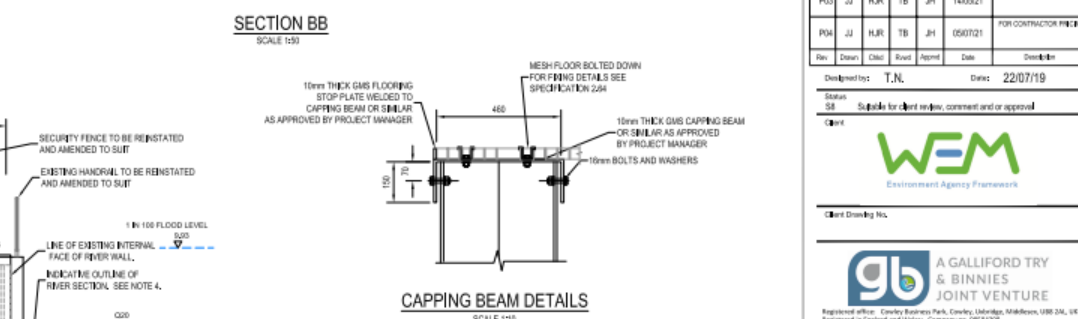
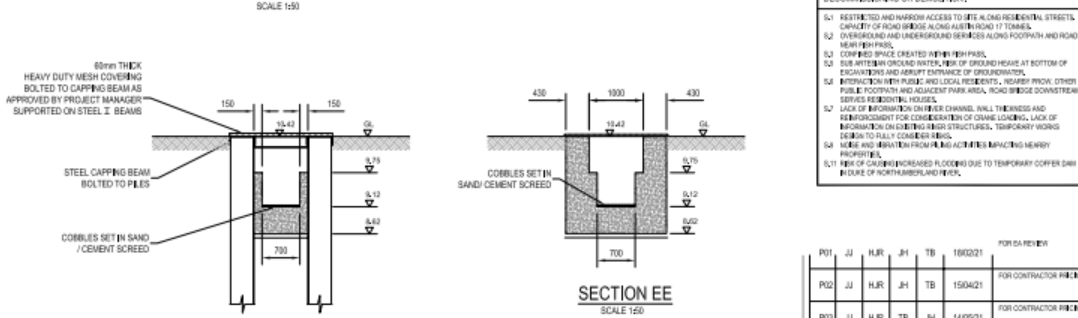
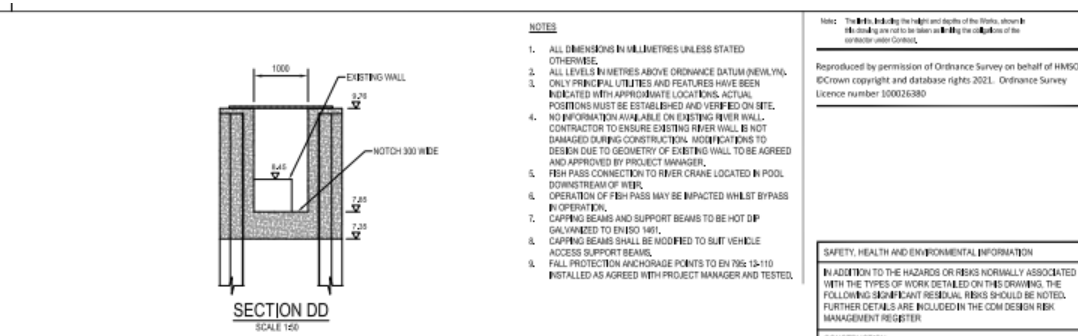
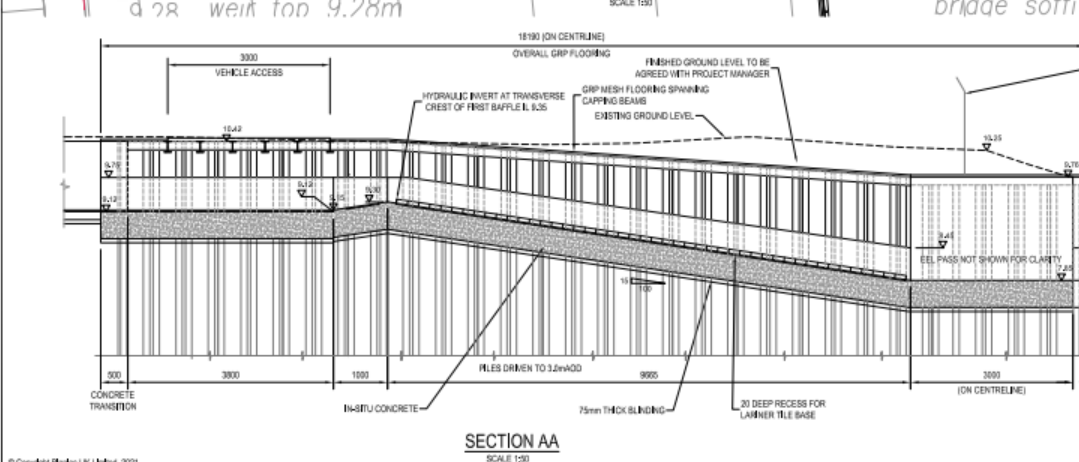
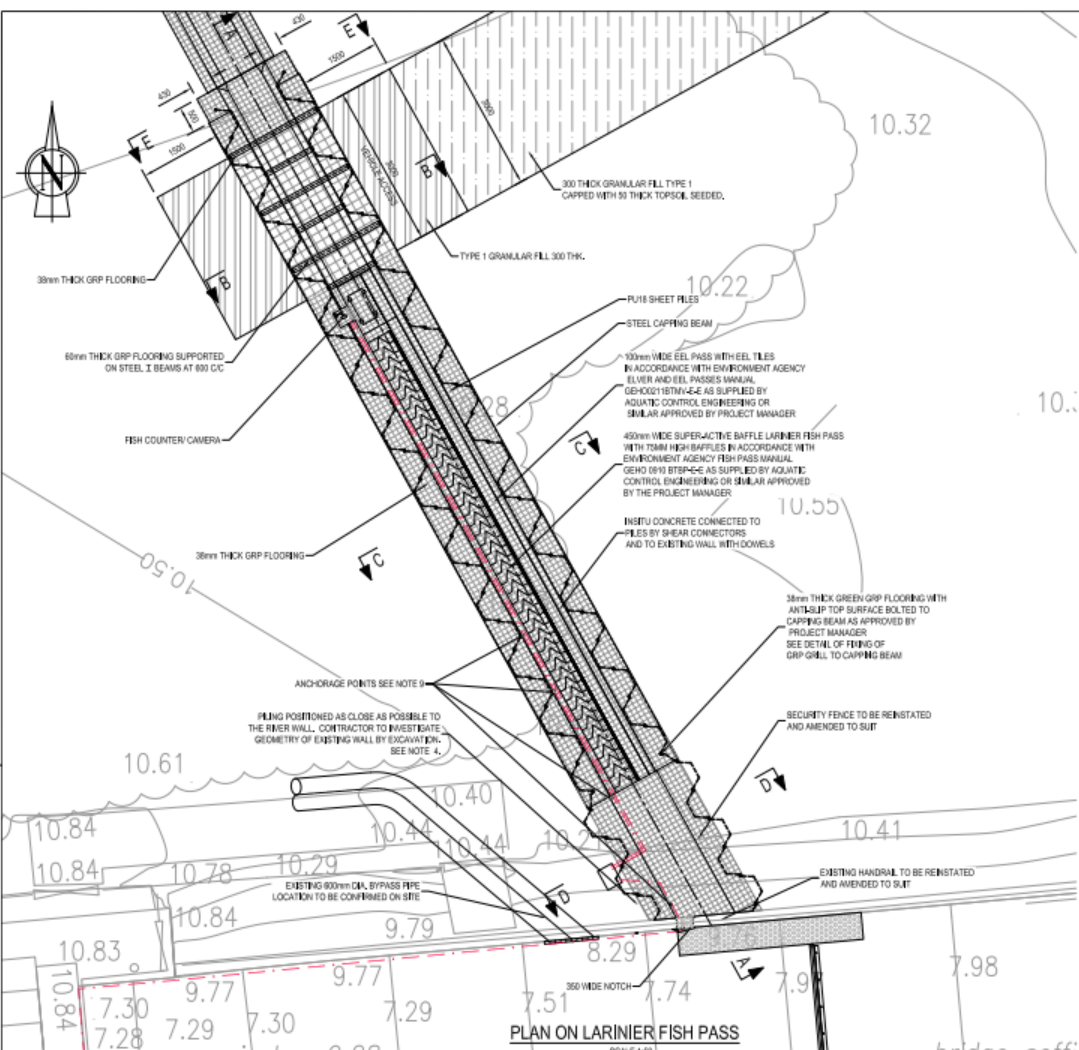
Drawn by: J.J.H. Date: 08/02/21  
Status: 08  
Suitable for client review, comment and/or approval



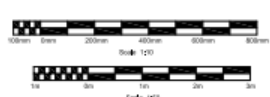
Project: HNL MEICA APPRAISAL PACKAGE

Drawing No: MEREWAY SLUICE - FISHPASS VEHICLE CROSSING DETAILS

Drawing code: AS SHOWN	Sheet size: A1
Drawing no: 122749-GBV-Z0-320-DR-C-00155	Rev No: P03



FOR PREVIOUS VERSIONS OF THIS FILE SEE  
122749-BVL-Z0-320-DR-C-00153



- NOTES**
1. ALL DIMENSIONS IN MILLIMETRES UNLESS STATED OTHERWISE.
  2. ALL LEVELS IN METRES ABOVE ORDNANCE DATUM (NEWLYN).
  3. ONLY PRINCIPAL UTILITIES AND FEATURES HAVE BEEN INDICATED WITH APPROXIMATE LOCATIONS. ACTUAL POSITIONS MUST BE ESTABLISHED AND VERIFIED ON SITE.
  4. NO INFORMATION AVAILABLE ON EXISTING RIVER WALL. CONTRACTOR TO ENSURE EXISTING RIVER WALL IS NOT DAMAGED DURING CONSTRUCTION. INDICATIONS TO DESIGN DUE TO GEOMETRY OF EXISTING WALL TO BE AGREED AND APPROVED BY PROJECT MANAGER.
  5. FISH PASS CONNECTION TO RIVER CRANE LOCATED IN POOL DOWNSTREAM OF WEIR.
  6. OPERATION OF FISH PASS MAY BE IMPACTED WHILE BYPASS IN OPERATION.
  7. CAPPING BEAMS AND SUPPORT BEAMS TO BE HOT DIP GALVANIZED TO ENDS 180°.
  8. CAPPING BEAMS SHALL BE MODIFIED TO SUIT VEHICLE ACCESS SUPPORT BEAMS.
  9. FALL PROTECTION ANCHORAGE POINTS TO EN 796 13-10 INSTALLED AS AGREED WITH PROJECT MANAGER AND TESTED.

**SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION**

IN ADDITION TO THE HAZARDS OR RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, THE FOLLOWING SIGNIFICANT RESIDUAL RISKS SHOULD BE NOTED. FURTHER DETAILS ARE INCLUDED IN THE CON DESIGN RISK MANAGEMENT REGISTER.

**CONSTRUCTION:**

- 5.1 RESTRICTED AND NARROW ACCESS TO SITE ALONG RESIDENTIAL STREETS. CAPACITY OF ROAD BRIDGE ALONG ALLEN ROAD 17 TONNES.
- 5.2 OVERGROUND AND UNDERGROUND SERVICES ALONG FOOTPATH AND ROAD NEAR FISH PASS.
- 5.3 COMPRESSED SPACE CREATED WITHIN FISH PASS.
- 5.4 SUB-AQUATIC ORDNANCE WATER BEP OF GROUND HEAR AT BOTTOM OF EXCAVATION AND ADJACENT PARK AREA, ROAD BRIDGE DOWNSTREAM SERVES RESIDENTIAL HOUSES.
- 5.5 INTERFERENCE WITH PUBLIC AND LOCAL RESIDENTS, NEARBY POOL, OTHER PUBLIC FOOTPATH AND ADJACENT PARK AREA, ROAD BRIDGE DOWNSTREAM SERVES RESIDENTIAL HOUSES.
- 5.6 LACK OF INFORMATION ON RIVER CHANNEL, WALL THICKNESS AND REQUIREMENT FOR CONSIDERATION OF CRANE LOADING, LACK OF INFORMATION ON EXISTING BRIDGE STRUCTURES, TEMPORARY WORKS DESIGN TO RALLY CONSIDER BEING.
- 5.7 WIND AND VIBRATION FROM PILING ACTIVITIES IMPACTING HEAVY INFRASTRUCTURE.
- 5.8 RISK OF CAUSING INCREASED FLOODING DUE TO TEMPORARY COFFER DAM IN PLACE OF NORTH ABUTMENT AND WEIR.

**MAINTENANCE, CLEANING AND OPERATION:**

- 6.1 RESTRICTED AND NARROW ACCESS TO SITE ALONG RESIDENTIAL STREETS. CAPACITY OF ROAD BRIDGE ALONG ALLEN ROAD 17 TONNES.
- 6.2 INTERFERENCE WITH PUBLIC AND LOCAL RESIDENTS, NEARBY POOL, OTHER PUBLIC FOOTPATH AND ADJACENT PARK AREA, ROAD BRIDGE DOWNSTREAM SERVES RESIDENTIAL HOUSES.
- 6.3 COMPRESSED SPACE WITHIN FISH PASS, CLEANING CAN BE CARRIED OUT FROM GROUND LEVEL, OCCASIONAL MAINTENANCE REQUIRED BASE.

**DECOMMISSIONING OR DEMOLITION:**

- 7.1 RESTRICTED AND NARROW ACCESS TO SITE ALONG RESIDENTIAL STREETS. CAPACITY OF ROAD BRIDGE ALONG ALLEN ROAD 17 TONNES.
- 7.2 OVERGROUND AND UNDERGROUND SERVICES ALONG FOOTPATH AND ROAD NEAR FISH PASS.
- 7.3 COMPRESSED SPACE CREATED WITHIN FISH PASS.
- 7.4 SUB-AQUATIC ORDNANCE WATER BEP OF GROUND HEAR AT BOTTOM OF EXCAVATION AND ADJACENT PARK AREA, ROAD BRIDGE DOWNSTREAM SERVES RESIDENTIAL HOUSES.
- 7.5 INTERFERENCE WITH PUBLIC AND LOCAL RESIDENTS, NEARBY POOL, OTHER PUBLIC FOOTPATH AND ADJACENT PARK AREA, ROAD BRIDGE DOWNSTREAM SERVES RESIDENTIAL HOUSES.
- 7.6 LACK OF INFORMATION ON RIVER CHANNEL, WALL THICKNESS AND REQUIREMENT FOR CONSIDERATION OF CRANE LOADING, LACK OF INFORMATION ON EXISTING BRIDGE STRUCTURES, TEMPORARY WORKS DESIGN TO RALLY CONSIDER BEING.
- 7.7 WIND AND VIBRATION FROM PILING ACTIVITIES IMPACTING HEAVY INFRASTRUCTURE.
- 7.8 RISK OF CAUSING INCREASED FLOODING DUE TO TEMPORARY COFFER DAM IN PLACE OF NORTH ABUTMENT AND WEIR.

Rev	Design	Check	Issue	Approved	Date	Description
P01	JJ	HJR	JH	TB	18/02/21	FOR EA REVIEW
P02	JJ	HJR	JH	TB	15/04/21	FOR CONTRACTOR PILING
P03	JJ	HJR	TB	JH	14/05/21	FOR CONTRACTOR PILING
P04	JJ	HJR	TB	JH	05/07/21	FOR CONTRACTOR PILING

Designed by: T.N. Date: 22/07/19

Status: SA Suitable for client review, comment and/or approval

Client: **WEM**  
Environment Agency Framework

Client Drawing No.:

**gb** A GALLIFORD TRY & BINNIES JOINT VENTURE

Registered office: Cowley Business Park, Cowley, Oxford, Middlesex, UB8 2AL, UK  
Registered in England and Wales. Company no. 0834028

Product: **HNL MEICA APPRAISAL PACKAGE**

Drawing title: **MEREWAY SLUICE - FISHPASS GENERAL ARRANGEMENT LARINIER FISH PASS**

Drawing scale: AS SHOWN Sheet size: A1

Drawing no.: 122749-GBV-Z0-320-DR-C-00153 File name: P04

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