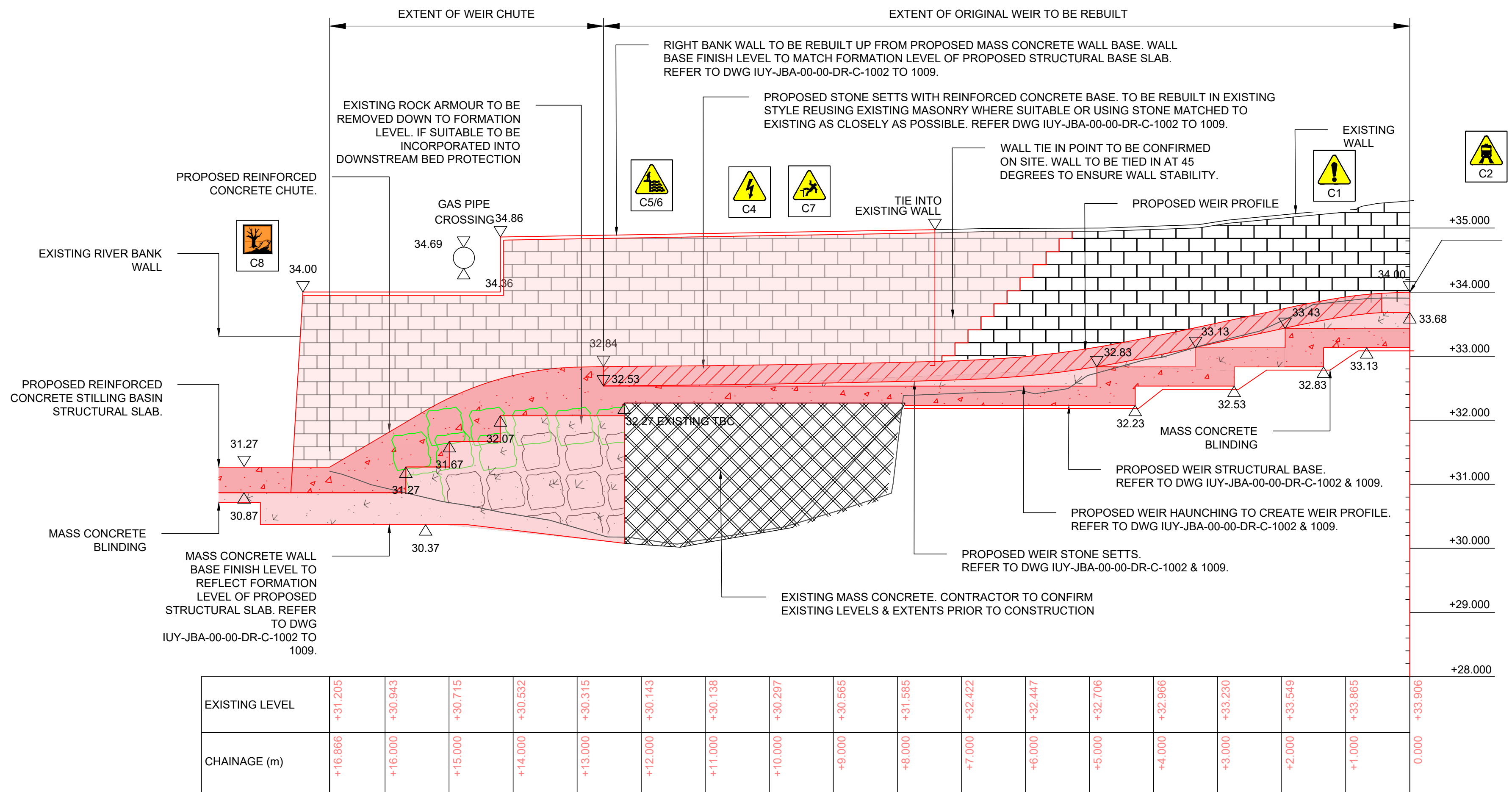
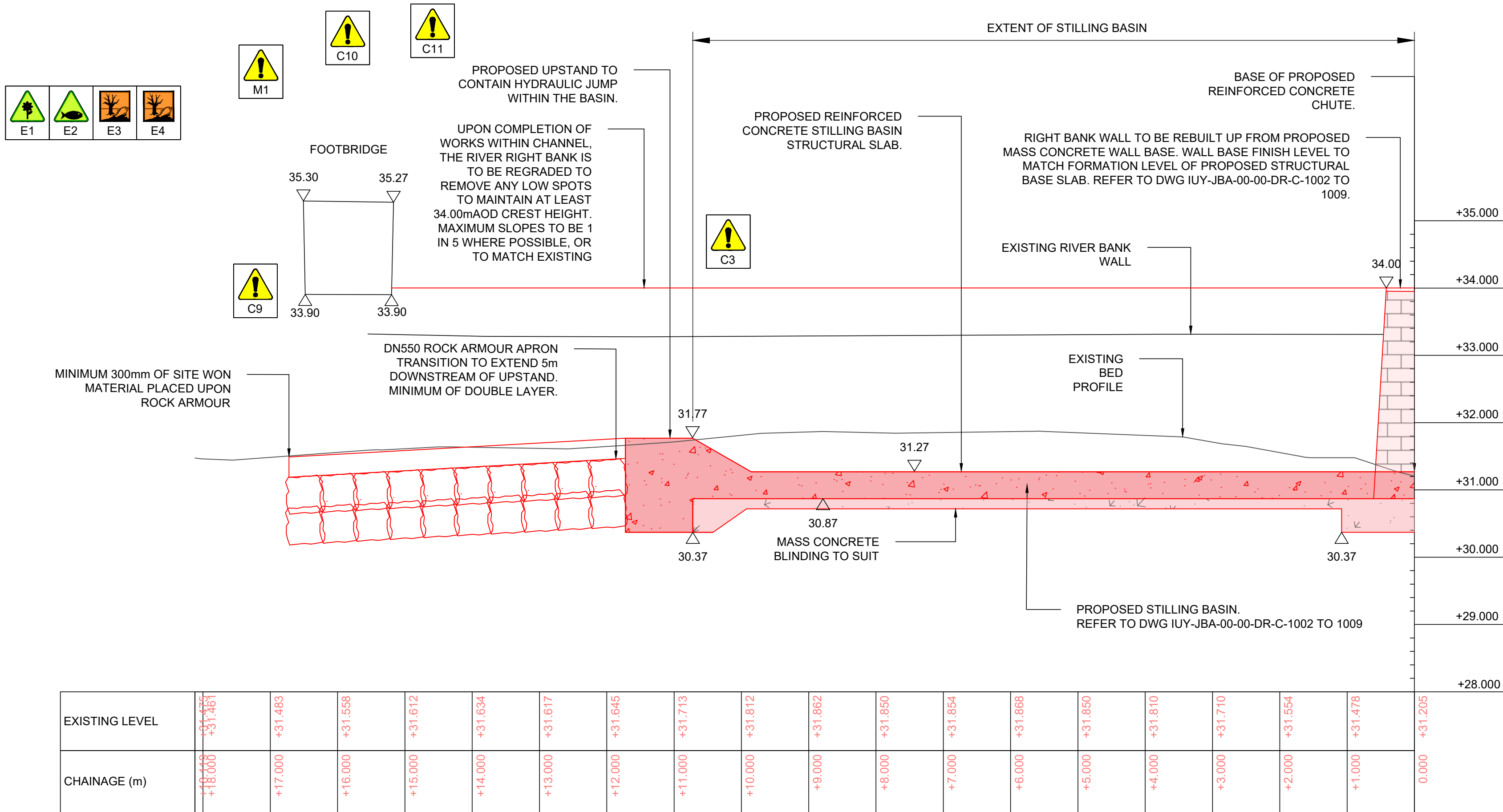




LONGSECTION (A1-A1)

1:50



LONGSECTION (A2-A2)

1:50

Safety, Health and Environment information

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following significant risks

Construction

|     |  |                                                                                                                                                |
|-----|--|------------------------------------------------------------------------------------------------------------------------------------------------|
| C1  |  | Unstable structure - Risk of collapse of wall without warning and potential loss of the road, leading to fatal injury.                         |
| C2  |  | Live Railway - Works adjacent to a live railway line, risk of damage to Network Rail infrastructure                                            |
| C3  |  | Potential interaction with members of public resulting in serious injury.                                                                      |
| C4  |  | Buried Services - Uncharted third party service connections causing service strike risk, causing property damage and personnel injury.         |
| C5  |  | Working in a watercourse - Risk of flooding/ falls into watercourse resulting in damage to or loss of plant/materials, loss of road, drowning. |
| C6  |  | Working adjacent to watercourse - Injury, damage to or loss, risk of drowning                                                                  |
| C7  |  | Working at height - Risk of fall from height resulting in fall related injury.                                                                 |
| C8  |  | Risk of chemical burns, poisoning, skin and lung irritation. Pollution to river environment                                                    |
| C9  |  | Risk scour damage to downstream channel/footbridge                                                                                             |
| C10 |  | NR/and/or Listed Buildings do not consent to the proposed phase 2 works which may result in delays                                             |
| C11 |  | Subsidence of ground                                                                                                                           |

Environmental

|    |  |                                                                                                                                                                      |
|----|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| E1 |  | Protected Habitat - NRW license required for working within and adjacent to the Afon Uan, risk of prosecution                                                        |
| E2 |  | Working within a protected habitat - Risk of disturbing nesting birds, migrating fish etc - resulting in endangering wildlife or spreading INNS, risk of prosecution |
| E3 |  | Working with concrete near/within a watercourse - risk of concrete spill resulting in pollution.                                                                     |
| E4 |  | Risk reduced through over pumping and dry working area                                                                                                               |

Maintenance

|    |  |                                                                                                                                                   |
|----|--|---------------------------------------------------------------------------------------------------------------------------------------------------|
| M1 |  | Improper or infrequent inspections/maintenance may lead to failure of weir or stilling basin due to abrasive nature of large cobbled bed material |
|----|--|---------------------------------------------------------------------------------------------------------------------------------------------------|

ROCK ARMOUR NOTE

TO COMPLY WITH GOOD PRACTICE, ROCK ARMOUR IS PROPOSED TO BE INSTALLED DOWNSTREAM OF THE STILLING BASIN. THIS WILL ALLOW SOME PARTIAL PROTECTION TO THE NATURAL BED. HOWEVER, MODELLING, BOTH 1D AND 3D, SUGGEST VELOCITIES DOWNSTREAM OF THE STILLING BASIN WILL BE CIRCA 4.0-5.0M/S WHICH IS LIKELY TO BE BEYOND THE CAPABILITIES OF MOST READILY AVAILABLE SCOUR PROTECTION, INCLUDING ROCK ARMOUR.

THE ROCK ARMOUR IS DESIGNED AND SHOULD BE SUITABLE FOR A 1:50 YEAR EVENT, IT IS NOT LOGISTICALLY FEASIBLE TO SATISFY THE REQUIREMENTS OF A 1:100 YEAR EVENT. THE 550MM ROCK PROPOSED IS SUITABLE UP TO AND INCLUDING VELOCITIES OF 3.5M/S. THERE IS A 2% CHANCE OF THE 1:50 YEAR EVENT BEING EXCEED IN ANY GIVEN YEAR. FOLLOWING A 1:100 YEAR EVENT THE INTEGRITY OF THE STRUCTURE SHOULD BE INSPECTED AND ANY DAMAGE MADE GOOD.

DESPITE THE AFOREMENTIONED LIMITATIONS OF THE DESIGN THE ROCK ARMOUR IS A BETTERMENT OF THE EXISTING BED MATERIAL/CONDITIONS. THE NATURAL CHANNEL MATERIAL COMPRISES LARGE ROCKS / COBBLES, THE CONSTANT SHIFTING OF BED MATERIAL IS LIKELY TO ALSO AID IN THE RESILIENCE OF THE ROCK ARMOUR, PLUGGING VOIDS THAT MAY DEVELOP.

FURTHER INFORMATION IS AVAILABLE WITHIN THE DESIGN DECISION LOG

Grading requirement of stone

|             | d0 / M0 (Minimum stone size) | d50 / M50 (Average stone size) | d100 / M100 (Maximum stone size) |
|-------------|------------------------------|--------------------------------|----------------------------------|
| Size (mm)   | 420                          | 550                            | 720                              |
| Weight (kg) | 185                          | 416                            | 933                              |

Minimum properties of stone

| Test                                                     | Reference BS      | Unit | Value            |
|----------------------------------------------------------|-------------------|------|------------------|
| Oven Dry Particle Density (min)                          | BS EN 13383-2     | t/m³ | 2.5              |
| Apparent Particle Density (min)                          | BS EN 13383-2     | t/m³ | 2.52             |
| Water Absorption (WA) (max)                              | BS EN 13383-2     | %    | 2.0              |
| Compressive Strength Category                            | EN 1926           | -    | CS <sub>80</sub> |
| Resistance to wear: Micro-Deval Co-efficient (Mde) (max) | BS EN 1097 Part 1 | -    | 10-30            |
| Resistance to fragmentation: Los Angeles test (LA) (max) | BS EN 1097 Part 2 | %    | <25              |
| Magnesium Sulphate Soundness: (max)                      | BS EN 1367-2      | %    | 10               |
| Freeze- Thaw Loss: (max)                                 | BS EN 13383-2     | %    | 1.0              |

APPROVED FOR CONSTRUCTION

| Position         | Signature | Name              | Date       |
|------------------|-----------|-------------------|------------|
| CEM              |           | Owen Jones        | 25/07/2025 |
| CRE construction |           |                   |            |
| DPE              |           |                   |            |
| PE               |           |                   |            |
| AE               |           |                   |            |
| CRE designs      |           | Scott Riddlestone | 16/07/2025 |
| Designer         |           | Ed Hogan          | 16/07/2025 |
| Checker          |           | Scott Riddlestone | 16/07/2025 |

Our Lifesaving Rules



GENERAL NOTES

- ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
- ALL LEVELS ARE IN METRES RELATIVE TO ORDNANCE DATUM NEWLYN (OD) UNLESS NOTED OTHERWISE.
- ALL COORDINATES ARE IN METRES RELATIVE TO ORDNANCE SURVEY NATIONAL GRID.
- DO NOT SCALE FROM THIS DRAWING. ALL DIMENSIONS MUST BE CHECKED/VERIFIED ON SITE.
- ANY DISCREPANCIES NOTED ON SITE ARE TO BE REPORTED TO THE SUPERVISOR IMMEDIATELY.
- THE ELECTRONIC VERSION OF THIS DRAWING IS NOT TO BE USED FOR SETTING OUT.
- REFER TO CONTRACT SPECIFICATION FOR DETAILS OF MATERIALS AND WORKMANSHIP TO BE USED FOR THE WORKS SHOWN ON THIS DRAWING.
- HAZARDS TO BE CLEARLY DEFINED AND DISPLAYED AT DESIGN STAGE.

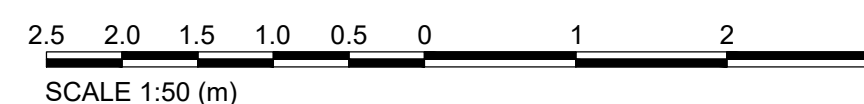
KEY  
PROPOSED  
EXISTING  
TO BE REMOVED

UTILITY SERVICES INVESTIGATION GAUGE TO PAS 128

|  |                                                                            |
|--|----------------------------------------------------------------------------|
|  | TYPE D: DESK STUDY                                                         |
|  | TYPE C: DESK STUDY AND SITE RECONNAISSANCE                                 |
|  | TYPE B: DESK STUDY WITH SITE RECON AND UTILITY DETECTION SURVEY            |
|  | TYPE A: DESK STUDY WITH SITE RECON, UTILITY DETECTION SURVEY & TRIAL HOLES |

| TYPE D   | TYPE C | TYPE B | TYPE A |
|----------|--------|--------|--------|
| 22/09/23 |        |        |        |

THE POSITION OF ANY EXISTING PUBLIC OR PRIVATE SEWERS, UTILITY SERVICES, PLANT OR APPARATUS SHOWN ON THIS DRAWING HAS BEEN OBTAINED FROM STATUTORY RECORDS. THE INFORMATION SHOWN IS BELIEVED TO BE CORRECT BUT NO WARRANTY TO THIS IS EXPRESSED OR IMPLIED. OTHER SUCH PLANT OR APPARATUS MAY ALSO BE PRESENT BUT NOT SHOWN. INVESTIGATIONS SHOULD BE UNDERTAKEN ON SITE CONFIRMING LOCATIONS BEFORE BREAKING GROUND.



| RESOLVEN AQUEDUCT - WEIR DRAWINGS |                         |
|-----------------------------------|-------------------------|
| DWG No.                           | DWG Title.              |
| IUY-JBA-00-00-DR-C-1002           | GENERAL ARRANGEMENT     |
| IUY-JBA-00-00-DR-C-1003           | WEIR LONG SECTION       |
| IUY-JBA-00-00-DR-C-1004           | CONCRETE LAYOUT         |
| IUY-JBA-00-00-DR-C-1005           | REINFORCEMENT DETAILING |
| IUY-JBA-00-00-DR-C-1006           | SETTING OUT             |
| IUY-JBA-00-00-DR-C-1007           | WALL LONG SECTIONS      |
| IUY-JBA-00-00-DR-C-1008           | TYPICAL CROSS SECTIONS  |
| IUY-JBA-00-00-DR-C-1009           | TYPICAL DETAILS         |

|      |                           |          |        |          |         |          |
|------|---------------------------|----------|--------|----------|---------|----------|
| C02  | APPROVED FOR CONSTRUCTION | 25/07/25 | AB     | EH       | SR      | EP       |
| C01  | APPROVED FOR CONSTRUCTION | 16/07/25 | AB     | EH       | SR      | EP       |
| B02  | FORM B UPDATES            | 14/07/25 | AB     | EH       | SR      | EP       |
| B01  | FORM B                    | 14/05/25 | AB     | EH       | SR      | EP       |
| Rev. | Description               | Date     | Author | Designer | Checker | Approver |

Document Control

Status APPROVED FOR CONSTRUCTION

|                                                                                                     |                               |
|-----------------------------------------------------------------------------------------------------|-------------------------------|
| Contractor<br>Rampart House<br>Kingsway<br>Floresfach<br>Swansea<br>SA5 4DL<br>Tel:44(0)1792 572840 | <br>A part of MGroup Services |
|-----------------------------------------------------------------------------------------------------|-------------------------------|

|                                                                                                       |                                                                                                      |  |
|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|--|
| Consultant<br>The Old School House<br>St. Joseph's Street<br>TADCASTER<br>North Yorkshire<br>LS24 9HA | T: +44 (0)1937 837 900<br>E: info@baconsulting.com<br>www.baconsulting.com<br>Twitter @JBAConsulting |  |
|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|--|

Project Title

RESOLVEN AQUEDUCT & WEIR

Drawing Title

PROPOSED LONG SECTION



© copyright reserved

Parent Model  
NOT FROM MODEL

|                                                 |                            |                                 |                             |
|-------------------------------------------------|----------------------------|---------------------------------|-----------------------------|
| Security Classification<br><b>OFFICIAL</b>      |                            | Scale<br><b>AS SHOWN</b>        |                             |
| Author<br><b>A.BOSOMWORTH</b>                   | Designer<br><b>E HOGAN</b> | Checker<br><b>S RIDDLESTONE</b> | Approver<br><b>E PARKER</b> |
| Suitability<br><b>APPROVED FOR CONSTRUCTION</b> |                            |                                 | Revision<br><b>C02</b>      |

Information Container  
IUY-JBA-00-00-DR-C-1003-C02-WEIR LONG SECTION.dwg

A1 Sheet Size