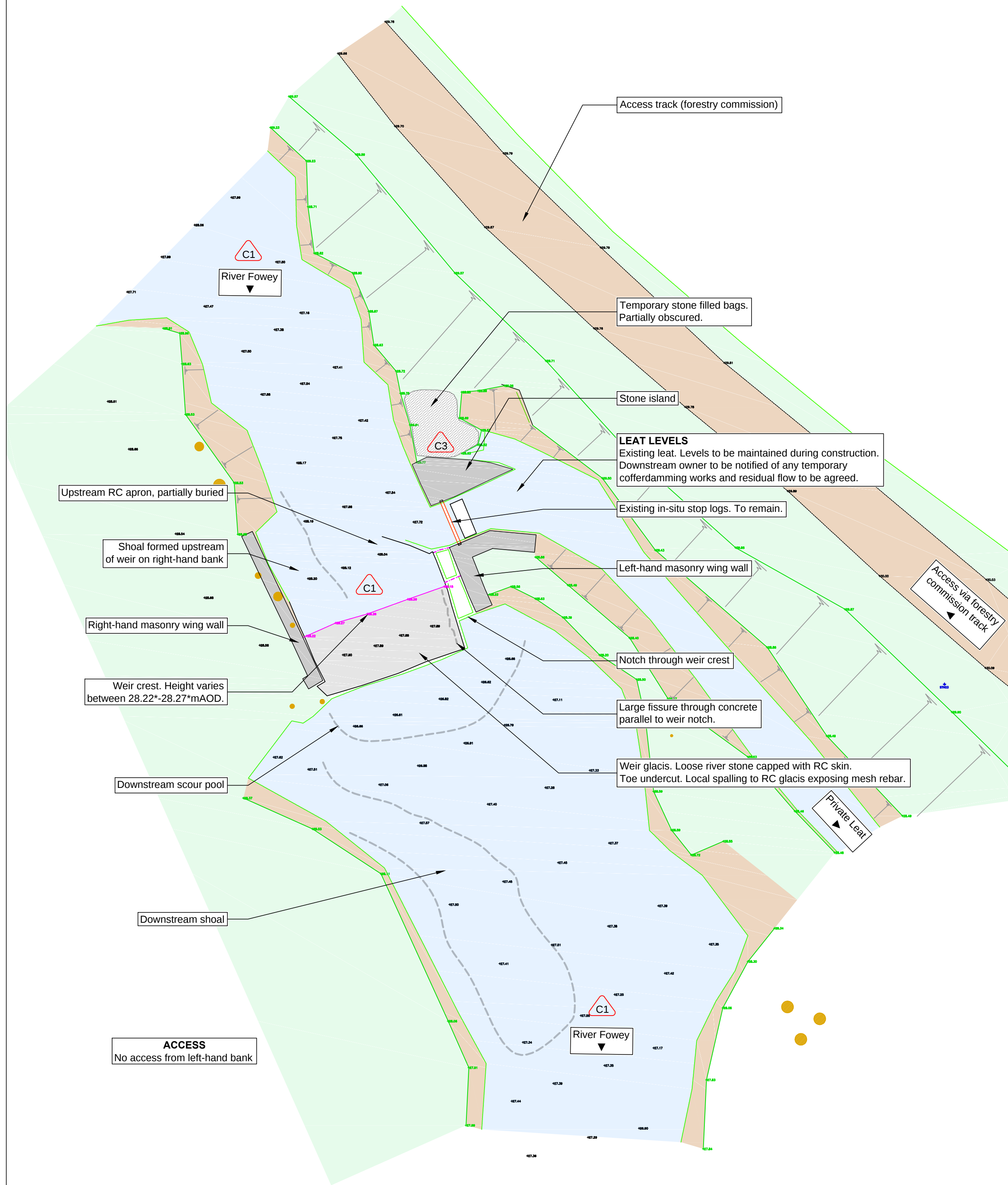




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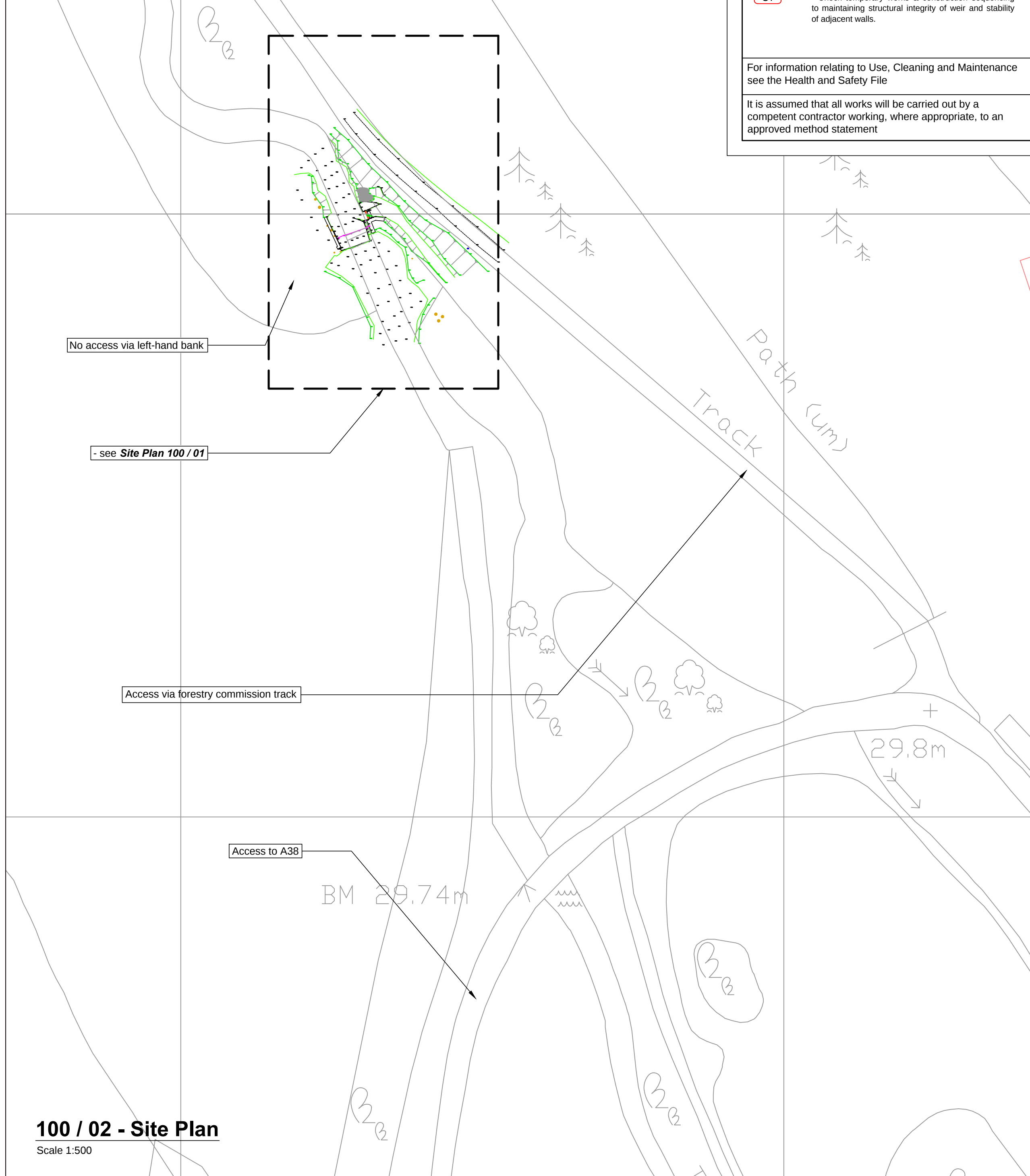


100 / 01 - Existing Site Plan

Scale 1:100



© OS Crown Copyright



100 / 02 - Site Plan

Scale 1:500

SAFETY HEALTH & ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the type of work detailed on this drawing, note the following risks and information.

Risks listed here are not exhaustive. Refer to Designer's Risk Assessment and pre-construction phase plan.

CONSTRUCTION

- C1 Managing flow & stage levels in River Fowey**
 - Monitor flow levels & flood warnings.
 - Check adequacy of cut-off & stability of cofferdams.
- C2 Managing seepage flows through weir**
 - Monitor seepage.
 - Check stability of cut face in weir and assess permeability of formation material.
 - Check adequacy of cut-off & stability of cofferdams.
- C3 Risk of falls from height**
 - Check depth of excavations.
 - Check adequate edge protection and access provision onto weir.
- C4 Lifting**
 - Check crane lifting facilities & constraints.
 - Check access weight & size restrictions for crane along access route to site.
- C5 Interface with public & other site operations**
 - Check adequate warning signs and fencing in place.
- C6 Services**
 - Check for services.
- C7 Stability of Excavations & Structures**
 - Check temporary works & construction sequencing to maintaining structural integrity of weir and stability of adjacent walls.

For information relating to Use, Cleaning and Maintenance see the Health and Safety File

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement

- NOTES:**
- 1. DIMENSIONS:**
 - Are in millimetres unless otherwise stated
 - Marked thus (*) are approximate
 - All levels are in metres to Site Datum.
 - Critical levels set out to crest level. Temporary site datum to be agreed on site.
 - 2. SPECIFICATION:**

All works to be carried out in accordance with the Environment Agency Minimum Technical Requirements which shall be the Civil Engineering Specification for the Water Industry (CESWI).
 - 3. DRAWING INFORMATION:**

Site plans from topographical survey by AP Land Surveys (APLS-0686 Glynn Weir), June 2018.

For Information Purposes only
Not for construction

P01	For Information	20 / 06 / 19
Issue	Description	Date

Status
Detailed Design

Scales	As shown	Current Issue Signatures	
Original Size	A1	Author M.Giblin	
Datum	N/A	Checker M.Lakin	
Grid	N/A	Approver I.St.-R.	
		© Copyright reserved	

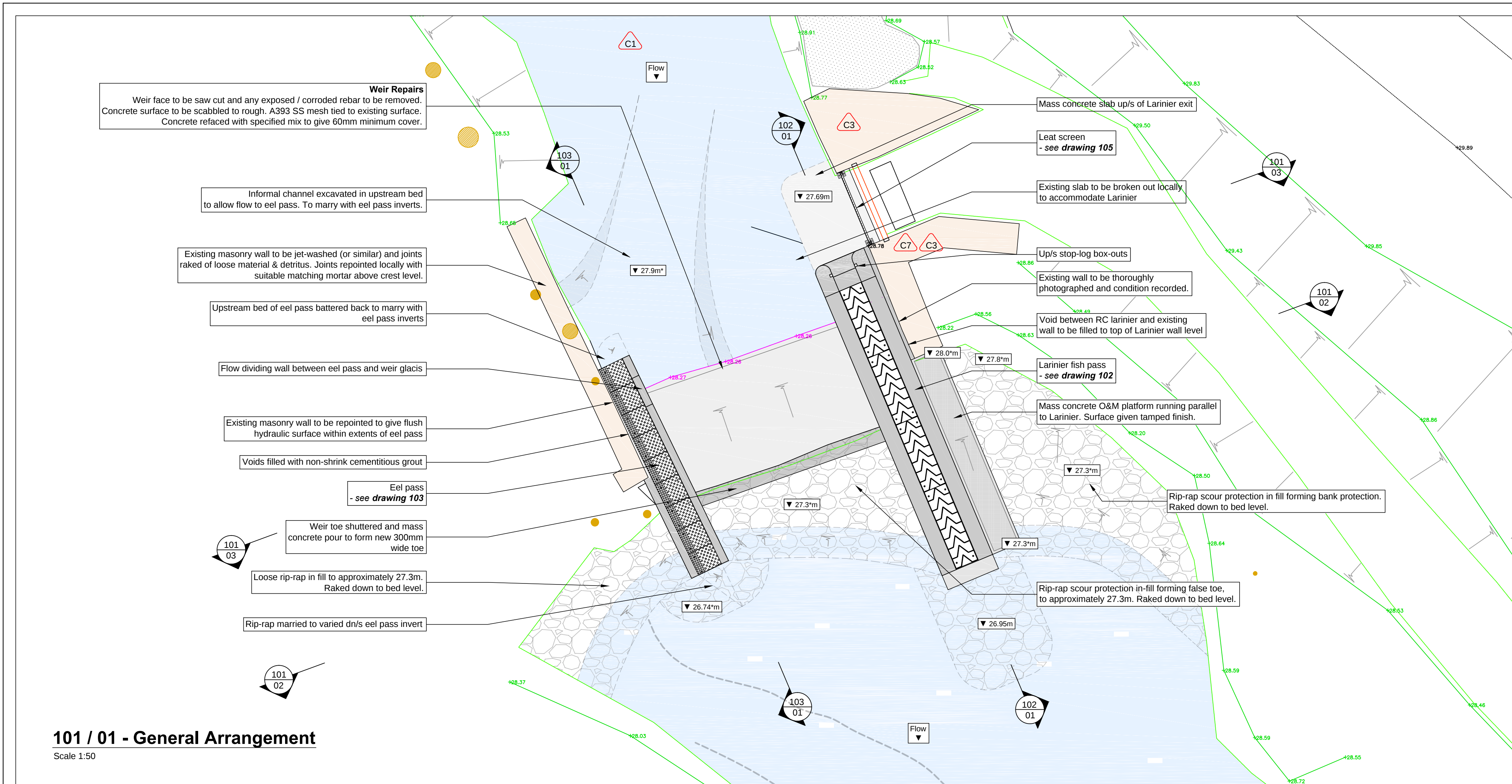
Filename:



PROJECT
**WFG Framework
Glynn Weir**

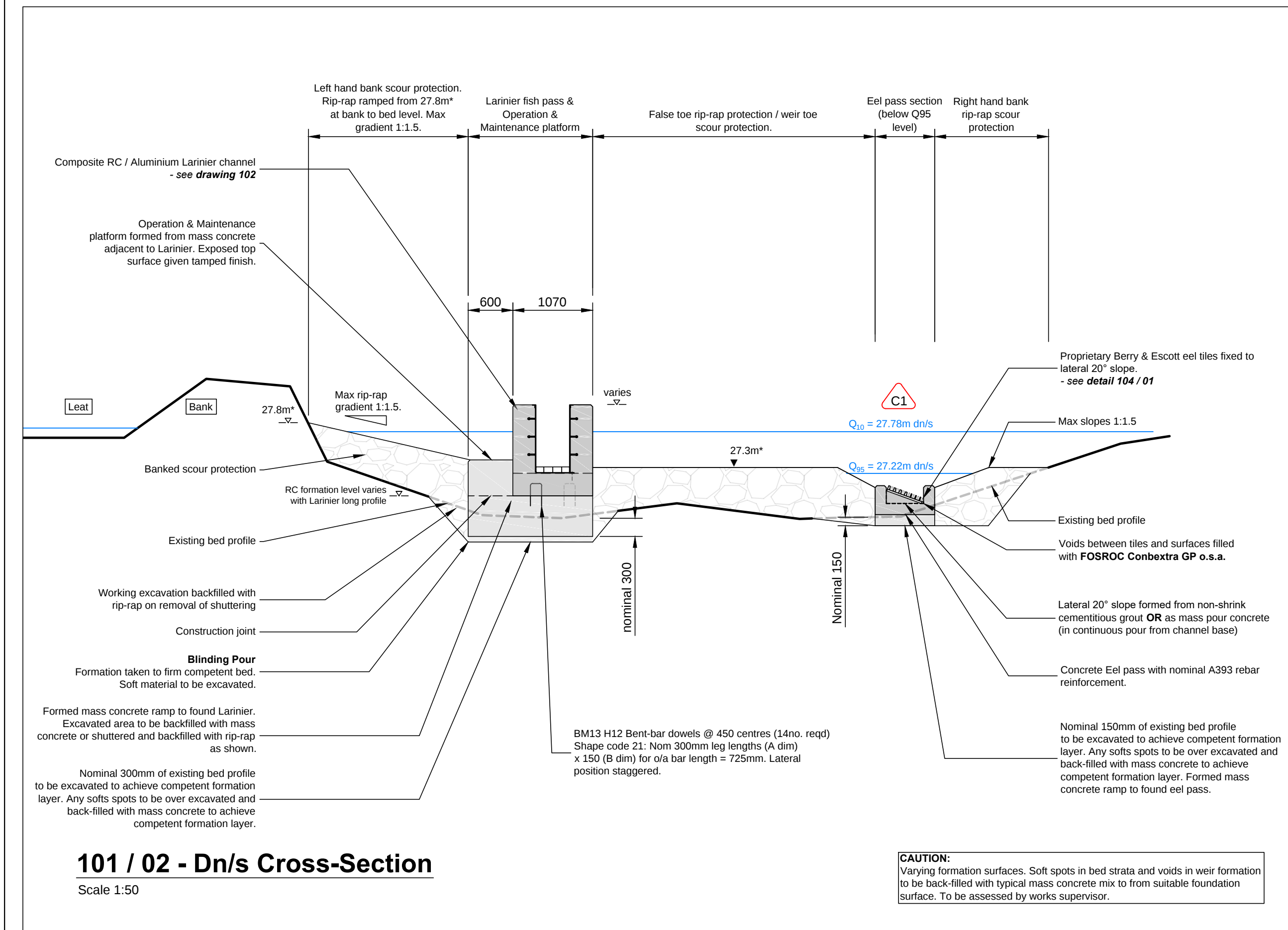
TITLE
Site and Location Plan

Drawing No.	Project No.	Issue
0100	- 02458	- P01



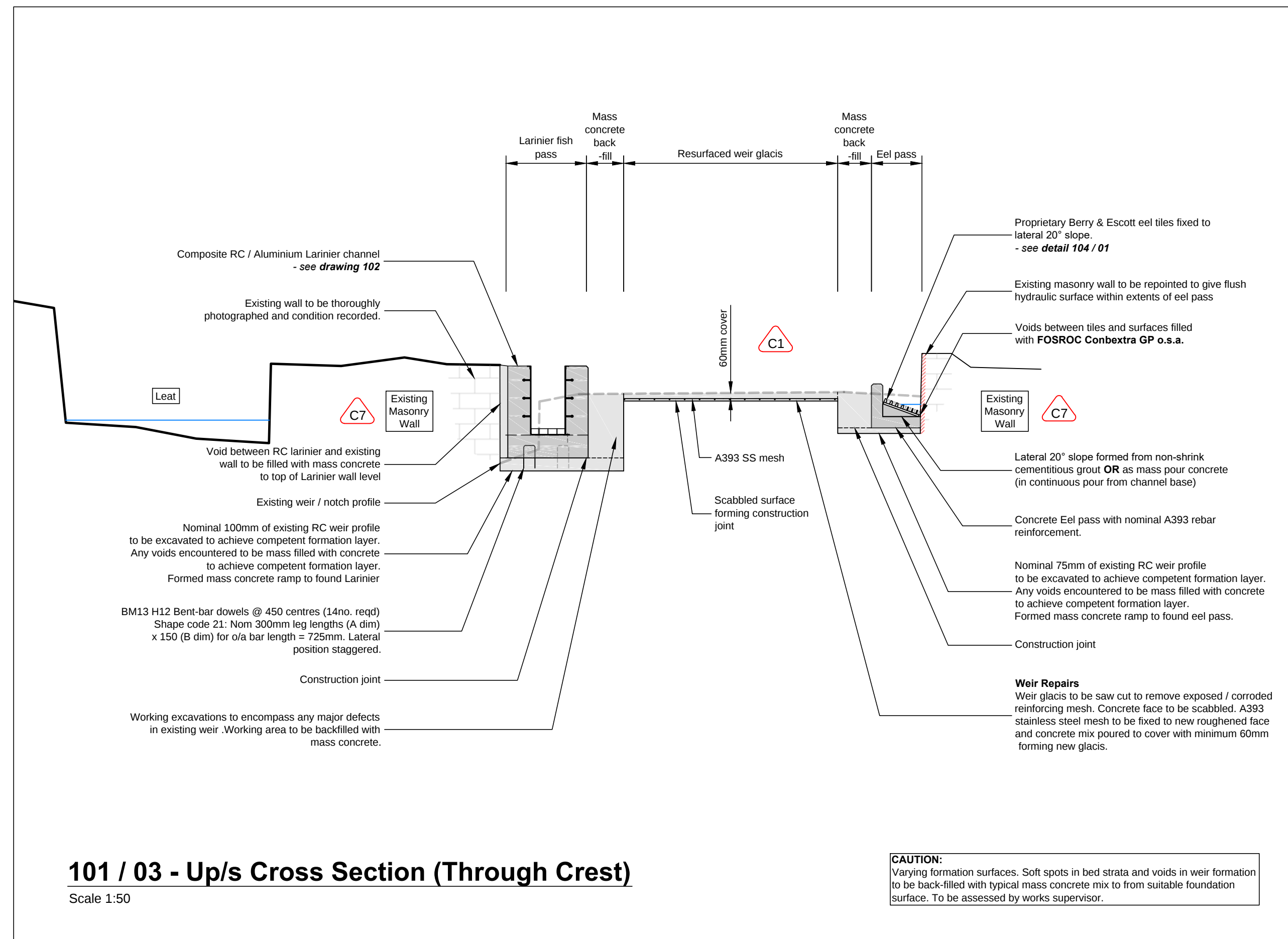
101 / 01 - General Arrangement

Scale 1:50



101 / 02 - Dn/s Cross-Section

Scale 1:50



101 / 03 - Up/s Cross Section (Through Crest)

Scale 1:50

SAFETY HEALTH & ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the type of work detailed on this drawing, note the following risks and information.

Risks listed here are not exhaustive. Refer to Designer's Risk Assessment and pre-construction phase plan.

CONSTRUCTION

Managing flow & stage levels in River Fowey
- Monitor flow levels & flood warnings.
- Check adequacy of cut-off & stability of cofferdams.

Managing seepage flows through weir
- Monitor seepage.
- Check stability of cut face in weir and assess permeability of formation material.
- Check adequacy of cut-off & stability of cofferdams.

Risk of falls from height
- Check depth of excavations.
- Check adequate edge protection and access provision onto weir.

Lifting
- Check crane lifting facilities & constraints.
- Check access weight & size restrictions for crane along access route to site.

Interface with public & other site operations
- Check adequate warning signs and fencing in place.

Services
- Check for services.

Stability of Excavations & Structures
- Check temporary works & construction sequencing to maintaining structural integrity of weir and stability of adjacent walls.

For information relating to Use, Cleaning and Maintenance see the Health and Safety File

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement

NOTES:
1. DIMENSIONS:
• Are in millimetres unless otherwise stated
• Marked thus (") are approximate
• All levels are in metres to Site Datum
• Critical levels set out to crest level. Temporary site datum to be agreed on site.

2. SPECIFICATION:
All works to be carried out in accordance with the Environment Agency Minimum Technical Requirements which shall be the Civil Engineering Specification for the Water Industry (CESWI).

3. REINFORCED & MASS CONCRETE
• All concrete to comply with BS 8500-2.
• **Mass concrete and reinforced concrete** of the same mix.
• Concrete to have a minimum strength class of C35 / 45.
• **Designated Mix REQUIREMENTS:**
- RC 35 / 45
- 20mm max. aggregate size
- S3 consistency class
• Reinforcement: All steel reinforcement shall be deformed Type 2 and shall be cut and bent to BS4446 or BS4449.
• Minimum cover to reinforcement C_{min} = 60mm.
• All exposed edges to have 25mm chamfer, with exception to abutting joints.
• Exposed formed concrete to have fair worked finish.
• Exposed unformed concrete to have wood float finish.
• Operation and maintenance platform given tamped finish.
• Nominal 100mm layer of mass concrete blinding for pours.

4. RIP-RAP SCOUR PROTECTION:
• Rip-rap scour protection to comprise of natural hard stone with nominal density 2700kg/m³. Approximate grading to be: 50% 300mm<φ<450mm, 50% 150mm<φ<300mm.

For Information Purposes only
Not for construction

P01 For Information 20 / 06 / 19
Issue Description Date

Status

Detailed Design

Scales	As shown	Current Issue Signatures	Author M.Giblin Checker M.Lakin Approver I.St-R.
Original Size	A1	Copyright reserved	
Datum	N/A		
Grid	N/A		

Filename:

Client:



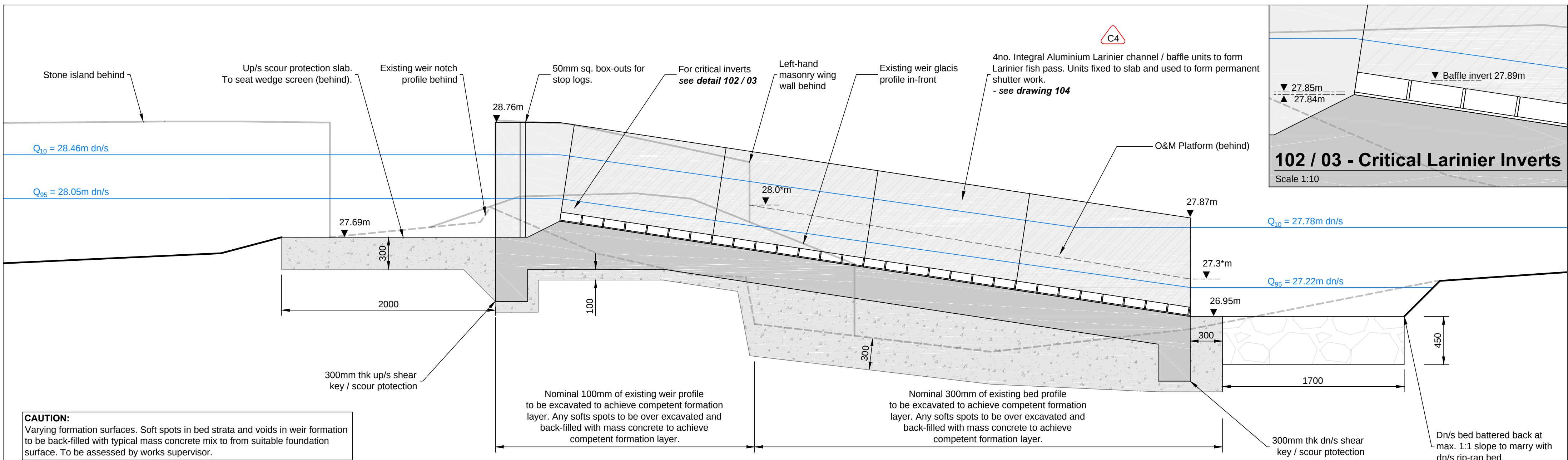
PROJECT

WFG Framework
Glynn Weir

TITLE

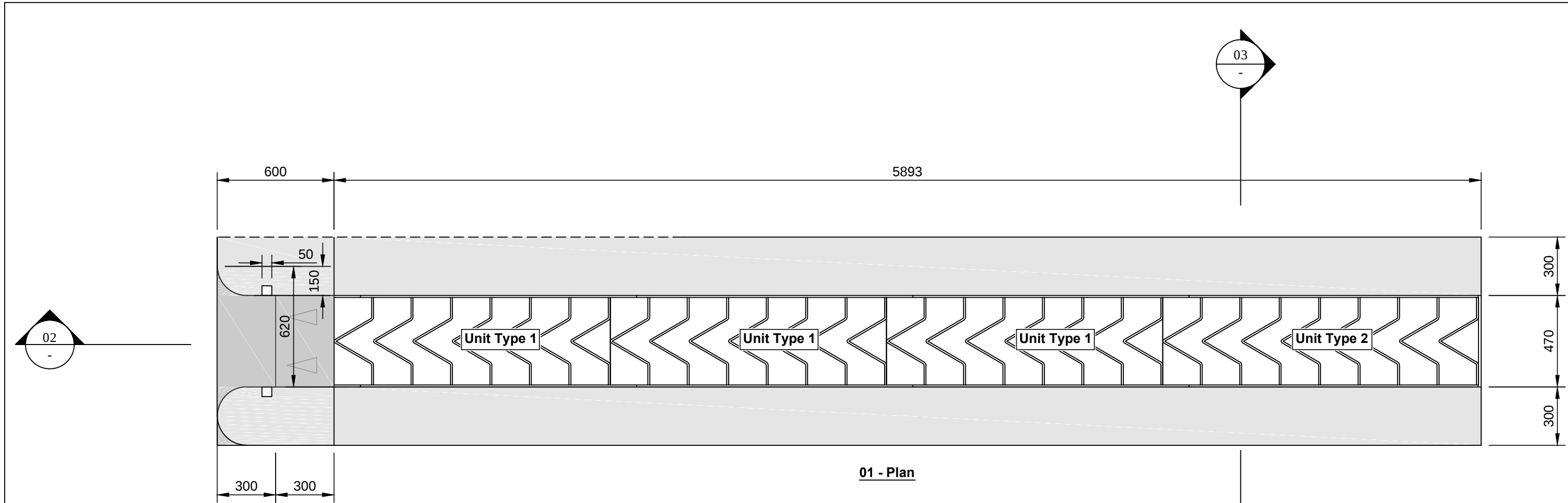
General Arrangement
and Sections

Drawing No. 0101 Project No. - 02458 Issue P01



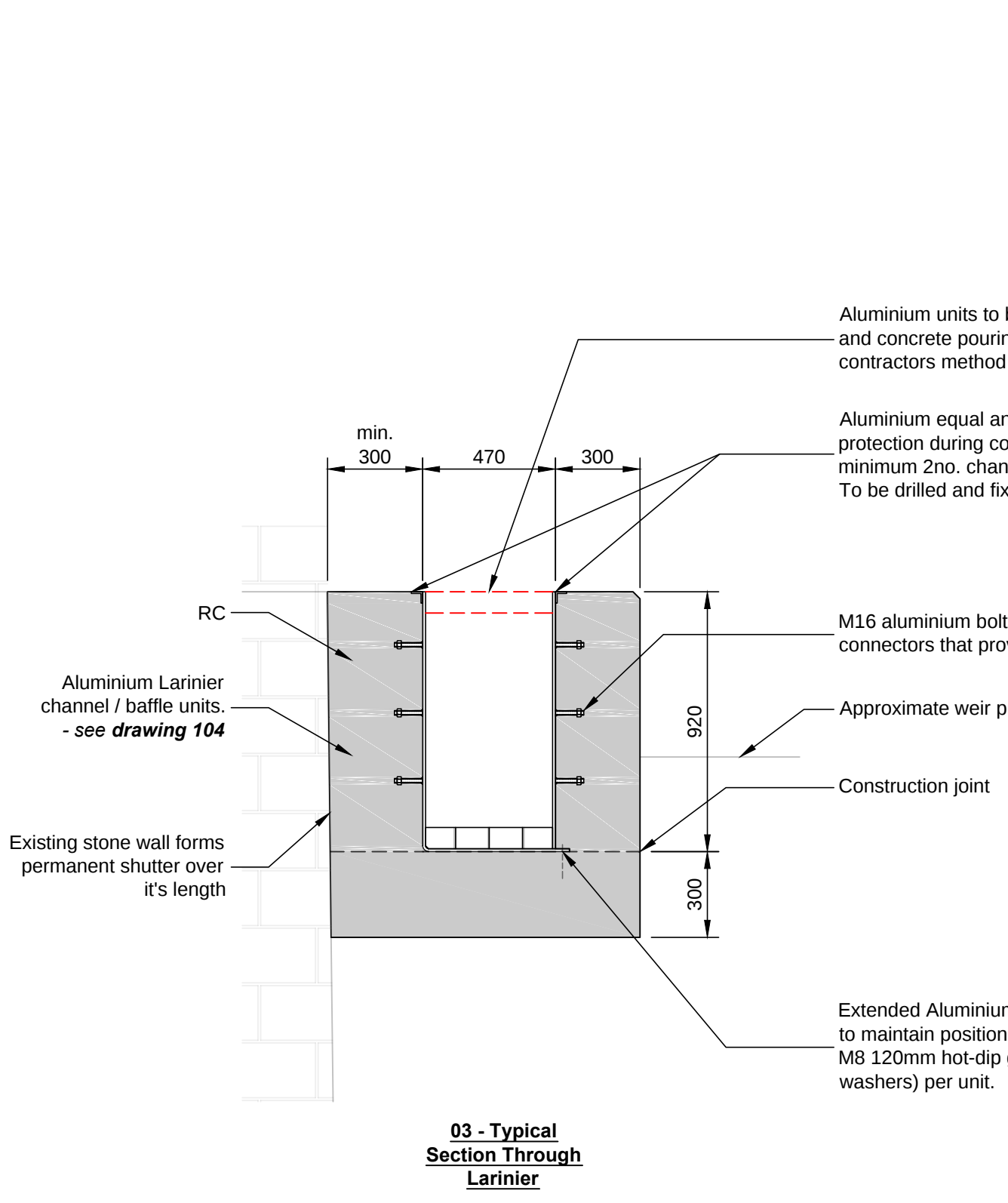
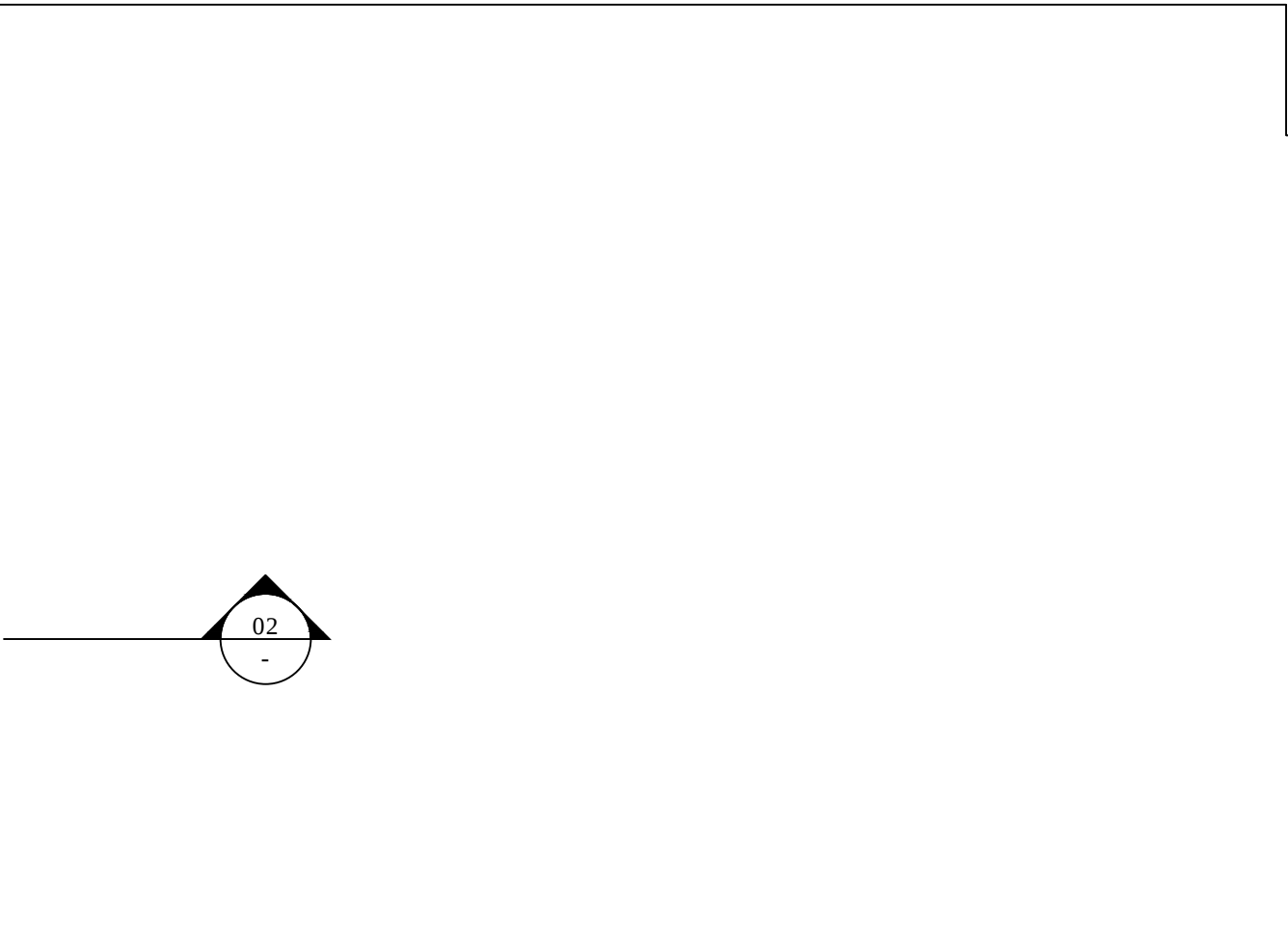
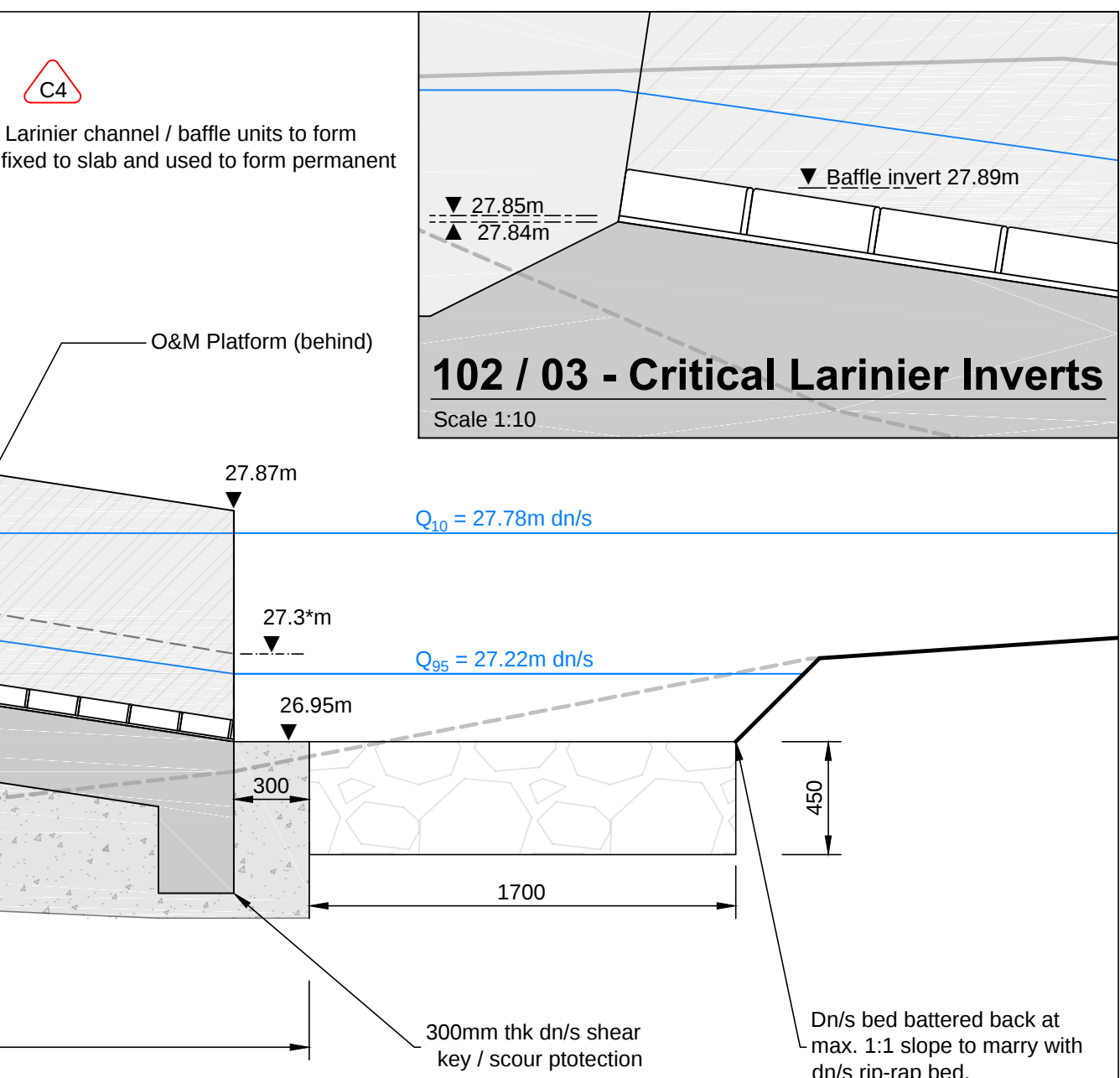
102 / 01 - Long Section Through Larinier

Scale 1:25



102 / 02 - Composite Larinier (plan & sections)

Scale 1:20



SAFETY HEALTH & ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the type of work detailed on this drawing, note the following risks and information.

Risks listed here are not exhaustive. Refer to Designer's Risk Assessment and pre-construction phase plan.

CONSTRUCTION

C1

Managing flow & stage levels in River Fowey

- Monitor flow levels & flood warnings.
- Check adequacy of cut-off & stability of cofferdams.

C2

Managing seepage flows through weir

- Monitor seepage.
- Check stability of cut face in weir and assess permeability of formation material.
- Check adequacy of cut-off & stability of cofferdams.

C3

Risk of falls from height

- Check depth of excavations.
- Check adequate edge protection and access provision onto weir.

C4

Lifting

- Check crane lifting facilities & constraints.
- Check access weight & size restrictions for crane along access route to site.

C5

Interface with public & other site operations

- Check adequate warning signs and fencing in place.

C6

Services

- Check for services.

C7

Stability of Excavations & Structures

- Check temporary works & construction sequencing to maintaining structural integrity of weir and stability of adjacent walls.

For information relating to Use, Cleaning and Maintenance see the Health and Safety File

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement

NOTES:

1. DIMENSIONS:

- Are in millimetres unless otherwise stated
- Marked thus (*) are approximate
- All levels are in metres to Site Datum
- Critical levels set out to crest level. Temporary site datum to be agreed on site.

2. SPECIFICATION:

All works to be carried out in accordance with the Environment Agency Minimum Technical Requirements which shall be the Civil Engineering Specification for the Water Industry (CESWI).

3. REINFORCED & MASS CONCRETE

- All concrete to comply with BS 8500-2.
- **Mass concrete and reinforced concrete** of the same mix.
- Concrete to have a minimum strength class of C35 / 45.
- **Designated Mix REQUIREMENTS:**
- RC 35 / 45
- 20mm max. aggregate size
- S3 consistency class
- Reinforcement: All steel reinforcement shall be deformed Type 2 and shall be cut and bent to BS4466 or BS4449.
- Minimum cover to reinforcement C_{min} = 60mm.
- All exposed edges to have 25mm chamfer, with exception to abutting joints.
- Exposed formed concrete to have fair worked finish.
- Exposed unformed concrete to have wood float finish.
- Nominal 100mm layer of mass concrete blinding for pours.

4. RIP-RAP SCOUR PROTECTION:

- Rip-rap scour protection to comprise of natural hard stone with nominal density 2700kg/m³. Approximate grading to be: 50% 300mm<Ø<450mm, 50% 150mm<Ø<300mm.

For Information Purposes only

Not for construction

P01	For Information	20 / 06 / 19
Issue	Description	Date
Status	Detailed Design	
Scales	As shown	Current Issue Signatures
Original Size	A1	Author M.Giblin
Datum	N/A	Checker M.Lakin
Grid	N/A	Approver I.St-R.
Filename:	© Copyright reserved	
Client	Westcountry Rivers Trust	
PROJECT	WFG Framework Glynn Weir	
TITLE	Larinier Fish Pass Plan and Sections	
Drawing No.	Project No.	Issue
0102	- 02458	- P01



CAUTION:
Varying formation surfaces. Soft spots in bed strata and voids in weir formation to be back-filled with typical mass concrete mix to form suitable foundation surface. To be assessed by works supervisor.

In addition to the hazards/risks normally associated with the type of work detailed on this drawing, note the following risks and information.

Risks listed here are not exhaustive. Refer to Designer's Risk Assessment and pre-construction phase plan.

-
 - Managing flow & stage levels in River Fowey**
 - Monitor flow levels & flood warnings.
 - Check adequacy of cut-off & stability of cofferdams.
-
 - Managing seepage flows through weir**
 - Monitor seepage.
 - Check stability of cut face in weir and assess permeability of formation material.
 - Check adequacy of cut-off & stability of cofferdams.

C3 Risk of falls from height

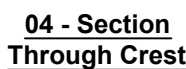
- Check depth of excavations.
- Check adequate edge protection and access provision onto weir.

- Check access weight & size restrictions for crane along access route to site.

C7 Check temporary works & construction sequencing to maintaining structural integrity of weir and stability of adjacent walls.

For information relating to Use, Cleaning and Maintenance
see the Health and Safety File

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement



NOTES:

1. DIMENSIONS:

- Are in millimetres unless otherwise stated
- Marked thus (*) are approximate
- All levels are in metres to Site Datum
- Critical levels set out to crest level. Temporary site datum to be agreed on site.

All works to be carried out in accordance with the Environment Agency Minimum Technical Requirements which shall be the Civil Engineering Specification for the Water Industry (CESWI).

- All concrete to comply with BS 8500-2.
- **Mass concrete** and **reinforced concrete** of the same mix
- Concrete to have a minimum strength class of C35 / 45.

- **Designated Mix REQUIREMENTS:**
 - RC 35 / 45
 - 20mm max. aggregate size
 - S3 consistency class
- Reinforcement: All steel reinforcement shall be deformed Type 2 and shall be cut and bent to BS4466 or BS4449.
- Minimum cover to reinforcement C_{min} = 60mm.
- All exposed edges to have 25mm chamfer, with exception to abutting joints.
- Exposed formed concrete to have fair worked finish.
- Exposed unformed concrete to have wood float finish.
- Nominal 100mm layer of mass concrete blinding for pours.

- Rip-rap scour protection to comprise of natural hard stone with nominal density 2700kg/m^3 . Approximate grading to be: 50% $300\text{mm} < \text{Ø} < 450\text{mm}$, 50% $150\text{mm} < \text{Ø} < 300\text{mm}$.

Status			
Detailed Design			
Scales		Current Issue Signatures	
	As shown	Author M.Giblin	
Original Size	A1	Checker M.Lakin	
Datum	N/A	Approver I.St.-R.	
Grid	N/A	© Copyright reserved	



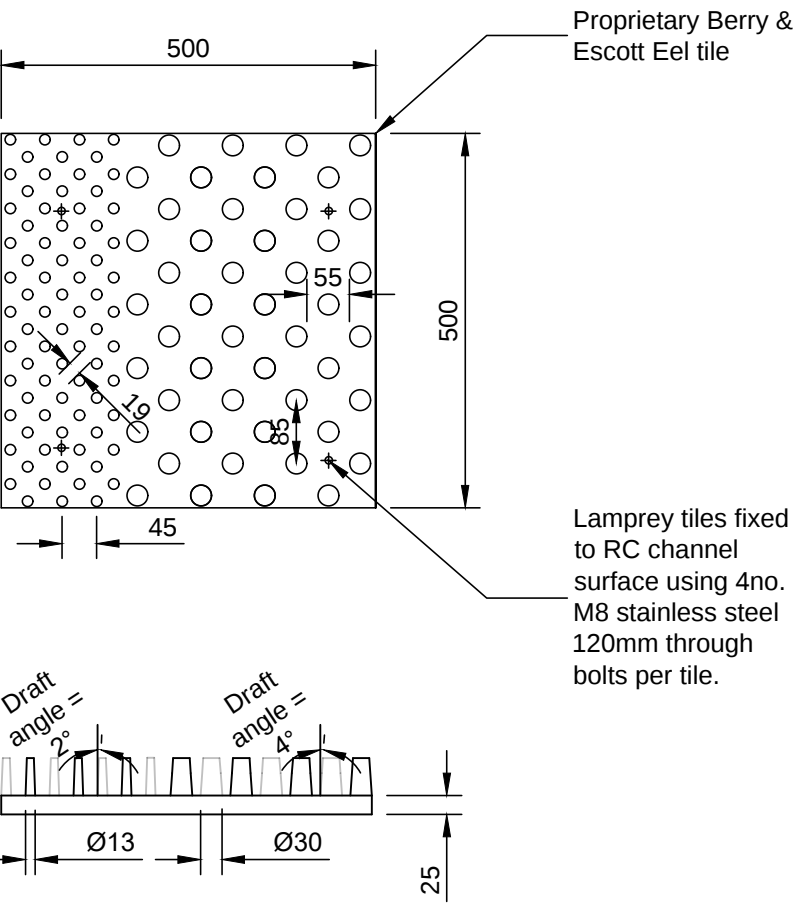
PROJECT

WFG Framework
Glynn Weir

TITLE

Eel Pass
Plan and Sections

Drawing No.	Project No.	Issue
0103	- 02458	- P01



Approximately 11no. Required,
cut to suit where required

104 / 01 - Eel Tile Substrate

Scale 1:10

SAFETY HEALTH & ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the type of work detailed on this drawing, note the following risks and information.

Risks listed here are not exhaustive. Refer to Designer's Risk Assessment and pre-construction phase plan.

CONSTRUCTION

Managing flow & stage levels in River Fowey
- Monitor flow levels & flood warnings.
- Check adequacy of cut-off & stability of cofferdams.

Managing seepage flows through weir
- Monitor seepage.
- Check stability of cut face in weir and assess permeability of formation material.
- Check adequacy of cut-off & stability of cofferdams.

Risk of falls from height
- Check depth of excavations.
- Check adequate edge protection and access provision onto weir.

Lifting
- Check crane lifting facilities & constraints.
- Check access weight & size restrictions for crane along access route to site.

Interface with public & other site operations
- Check adequate warning signs and fencing in place.

Services
- Check for services.

Stability of Excavations & Structures
- Check temporary works & construction sequencing to maintaining structural integrity of weir and stability of adjacent walls.

For information relating to Use, Cleaning and Maintenance see the Health and Safety File

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement

NOTES:
1. DIMENSIONS:
• Are in millimetres unless otherwise stated
• Marked thus (*) are approximate
• All levels are in metres to Site Datum

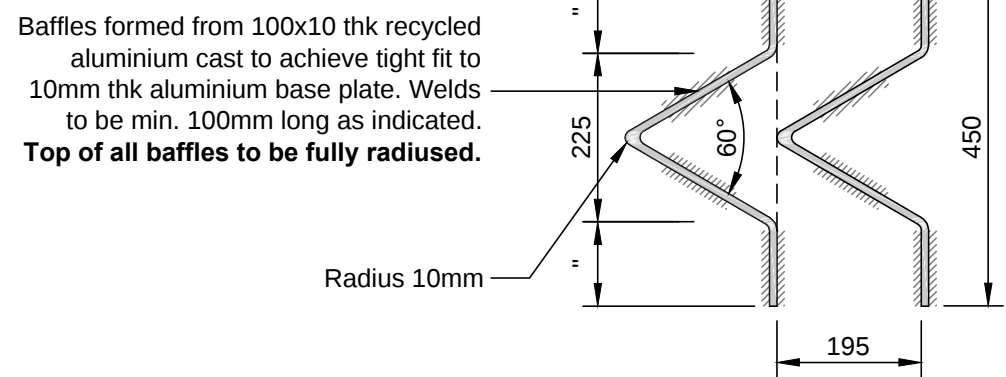
2. SPECIFICATION:
All works to be carried out in accordance with the Environment Agency Minimum Technical Requirements which shall be the Civil Engineering Specification for the Water Industry (CESWI).

3. REINFORCED & MASS CONCRETE
• All concrete to comply with BS 8500-2.
• **Mass concrete and reinforced concrete** of the same mix.
• Concrete to have a minimum strength class of C35 / 45.
• **Designated Mix REQUIREMENTS:**
- RC 35 / 45
- 20mm max. aggregate size
- S3 consistency class

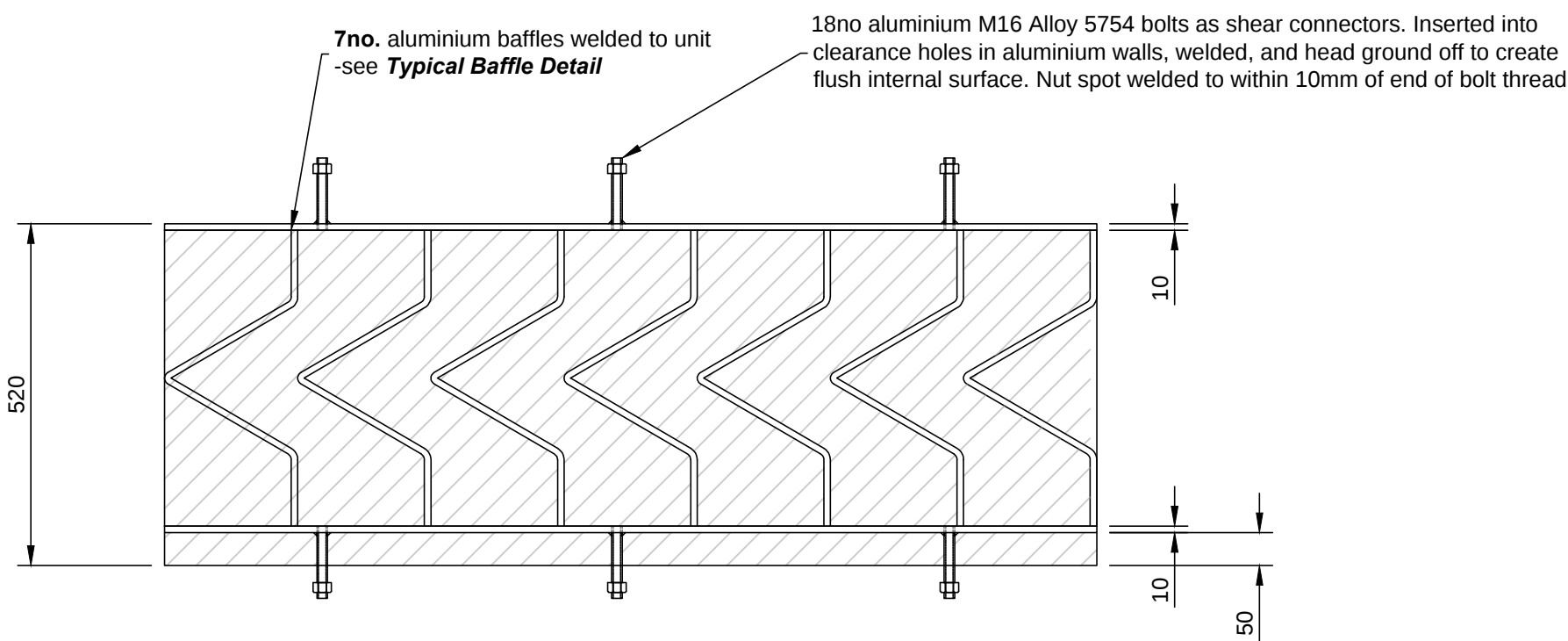
• Reinforcement: All steel reinforcement shall be deformed Type 2 and shall be cut and bent to BS4466 or BS4449.
• Minimum cover to reinforcement C_{min} = 60mm.
• All exposed edges to have 25mm chamfer, with exception to abutting joints.
• Exposed formed concrete to have fair worked finish.
• Exposed uniform concrete to have wood float finish.
• Nominal 100mm layer of mass concrete blinding for pours.

4. ALUMINIUM:
• All structural aluminium alloys to BS8118.
• Sheet plate grade to be Alloy 5251 H22 Temper, **o.s.a.**
• All aluminium welds to be 10mm continuous fillet welds unless otherwise indicated.

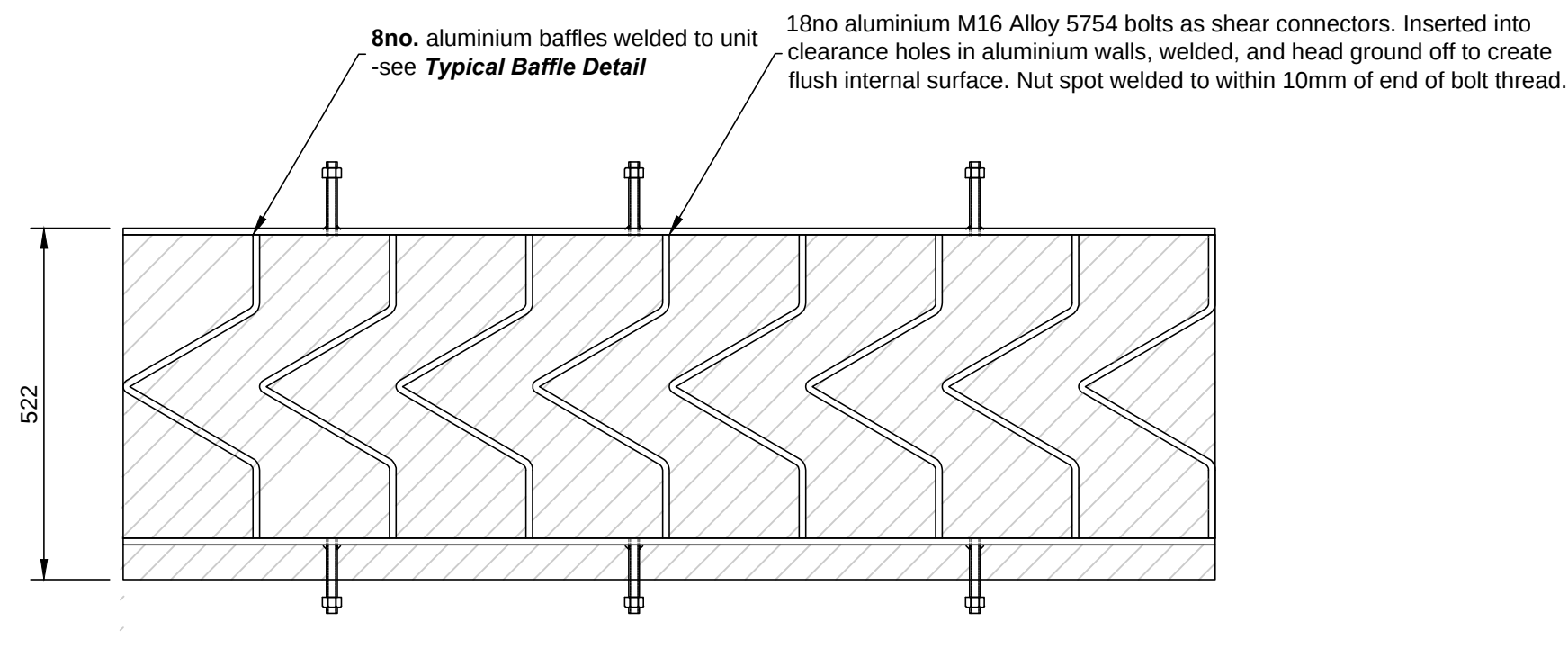
5. FABRICATION:
• Fabricator to prepare fabrication drawings.
• All structural **material components** & all **fabricated** aluminium structures executed to conform to BS EN 1090-2.
• Size of connection plates & bolt hole positions to suit fabrication tolerances and checked prior to delivery to site.



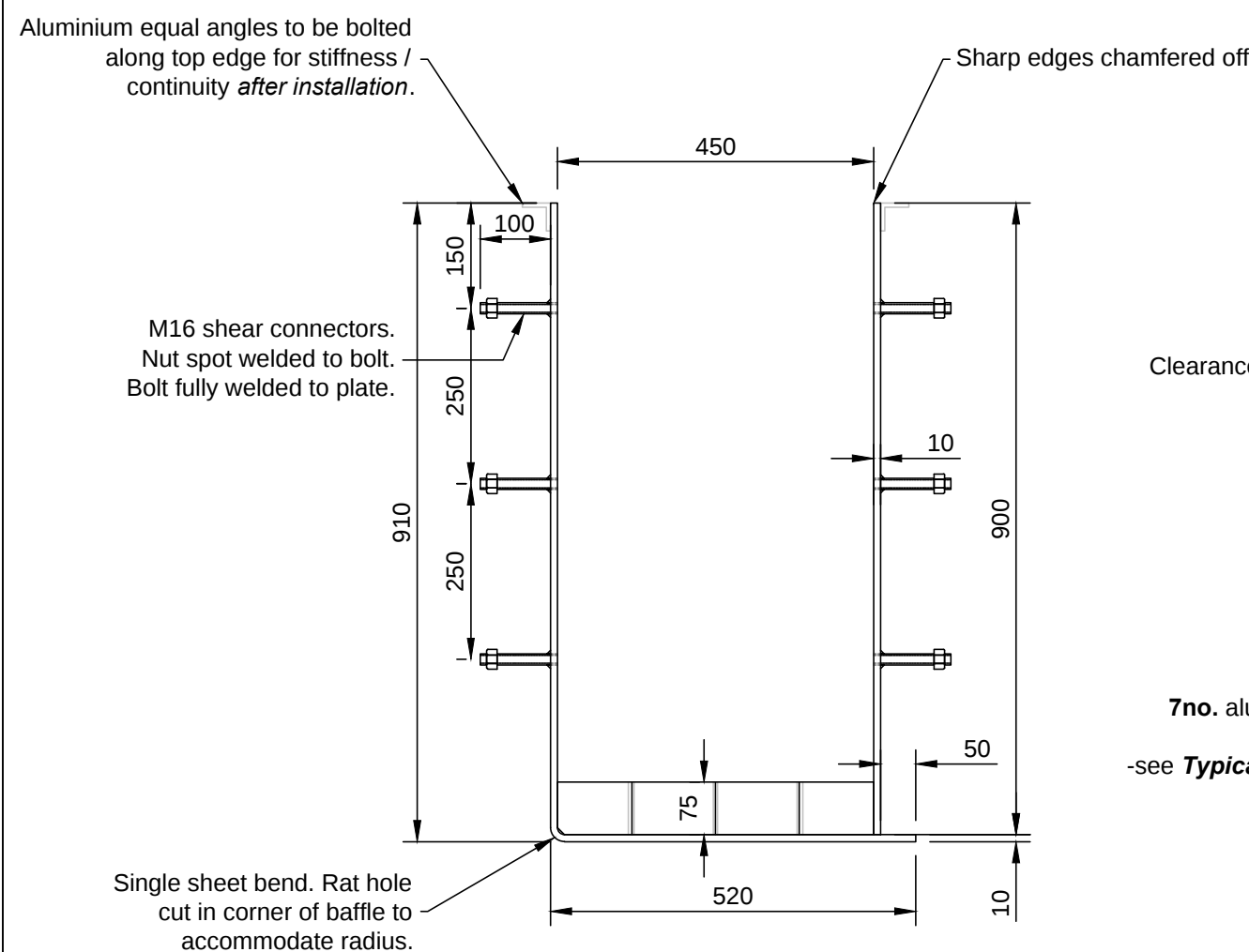
Typical Baffle Detail
- 29no required



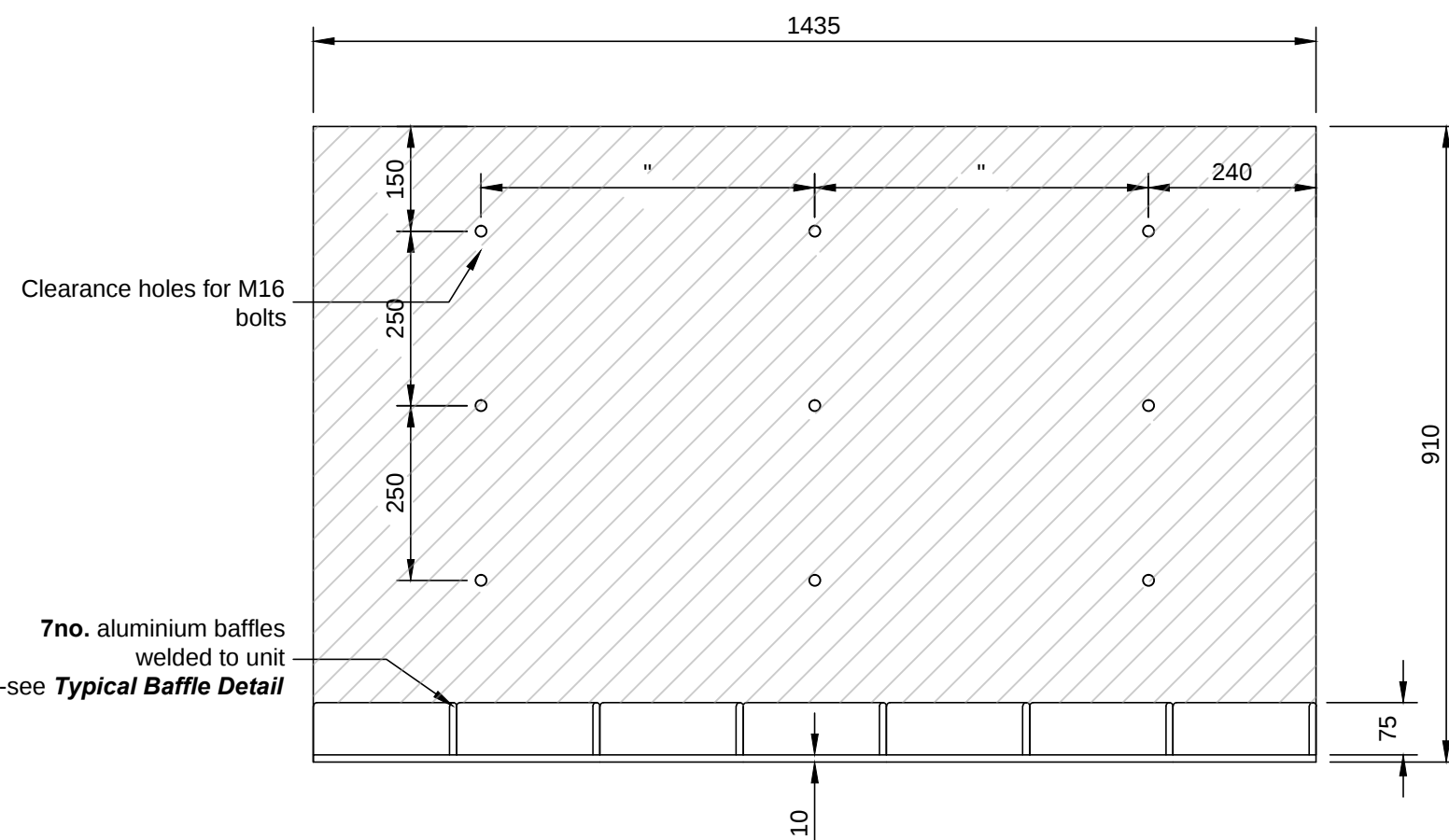
Plan (Unit Type 1)



Plan (Unit Type 1)



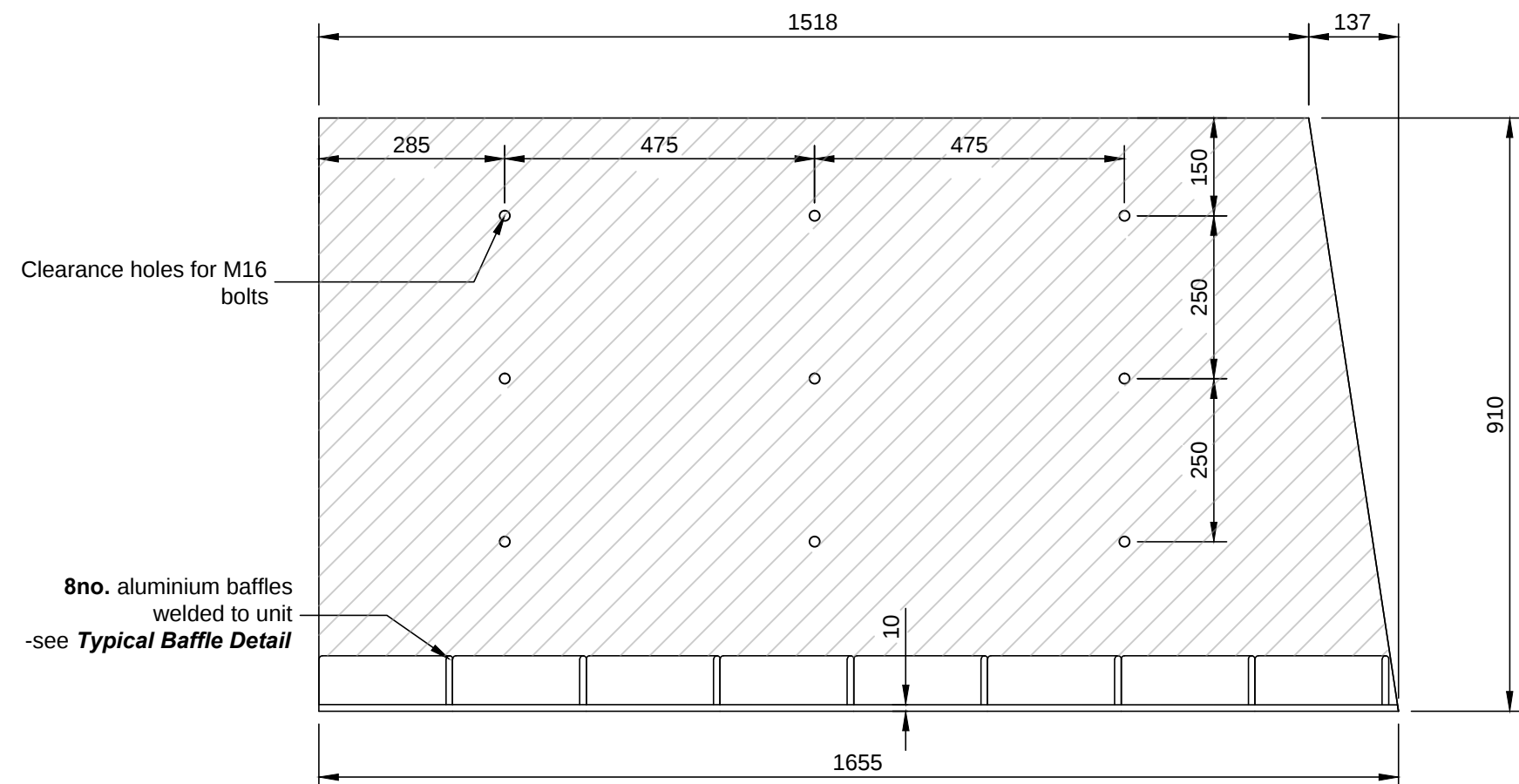
Typical Section (Unit 1 & Unit 2)



Long Section (Unit Type 1)



Caution:
Estimated lift weight= 110kg
Aluminium units to be internally braced during installation and concrete pouring works to maintain form, subject to contractors method of working.



Long Section (Unit Type 1)



Caution:
Estimated lift weight= 120kg
Aluminium units to be internally braced during installation and concrete pouring works to maintain form, subject to contractors method of working.

For Information Purposes only
Not for construction

P01	For Information	20 / 06 / 19
Issue	Description	Date

Status	Detailed Design
--------	-----------------

Scales	As shown	Current Issue Signatures
Original Size	A1	Author M.Giblin
Datum	N/A	Checker M.Lakin
Grid	N/A	Approver I.St-R.
Filename:	© Copyright reserved	

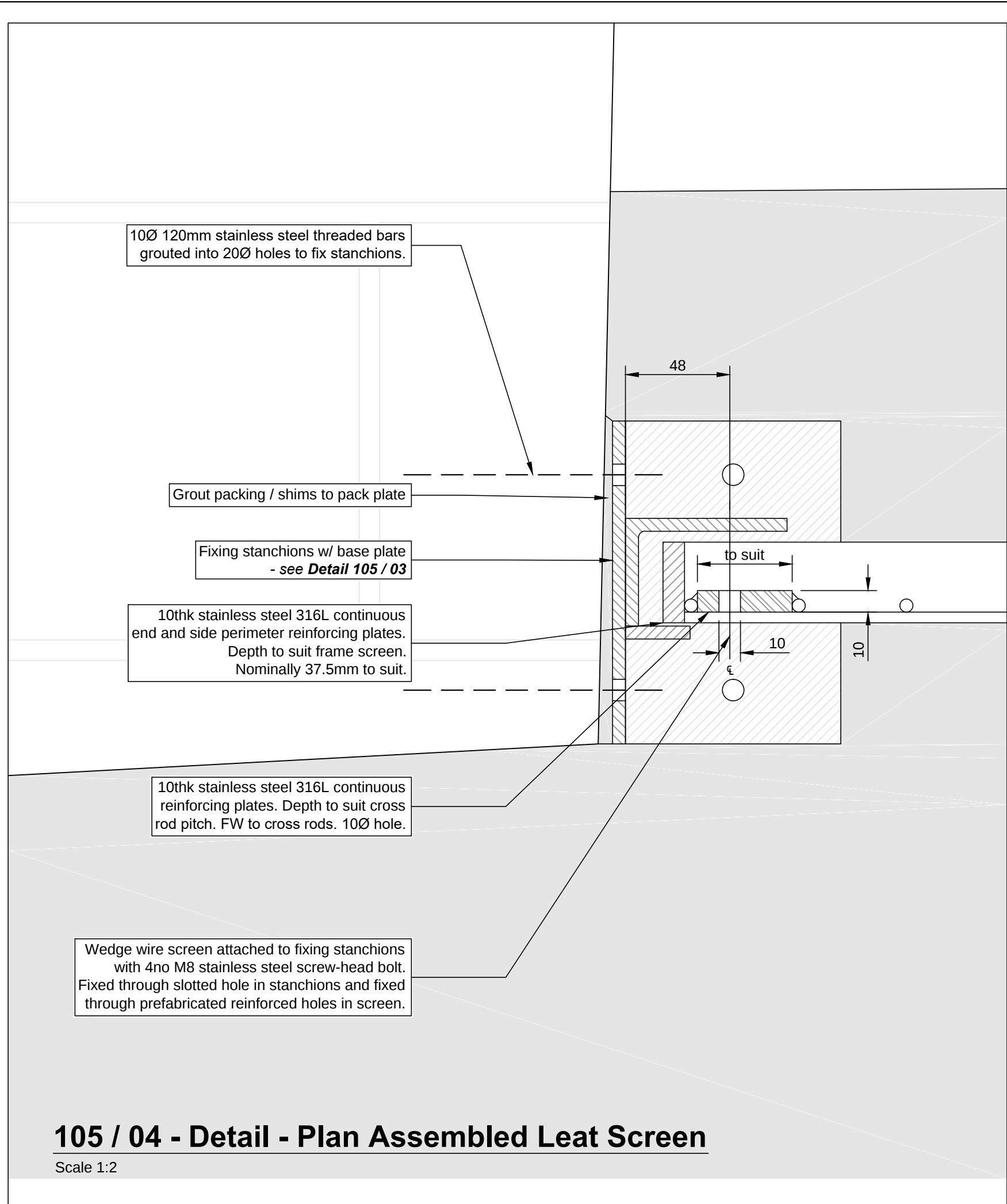
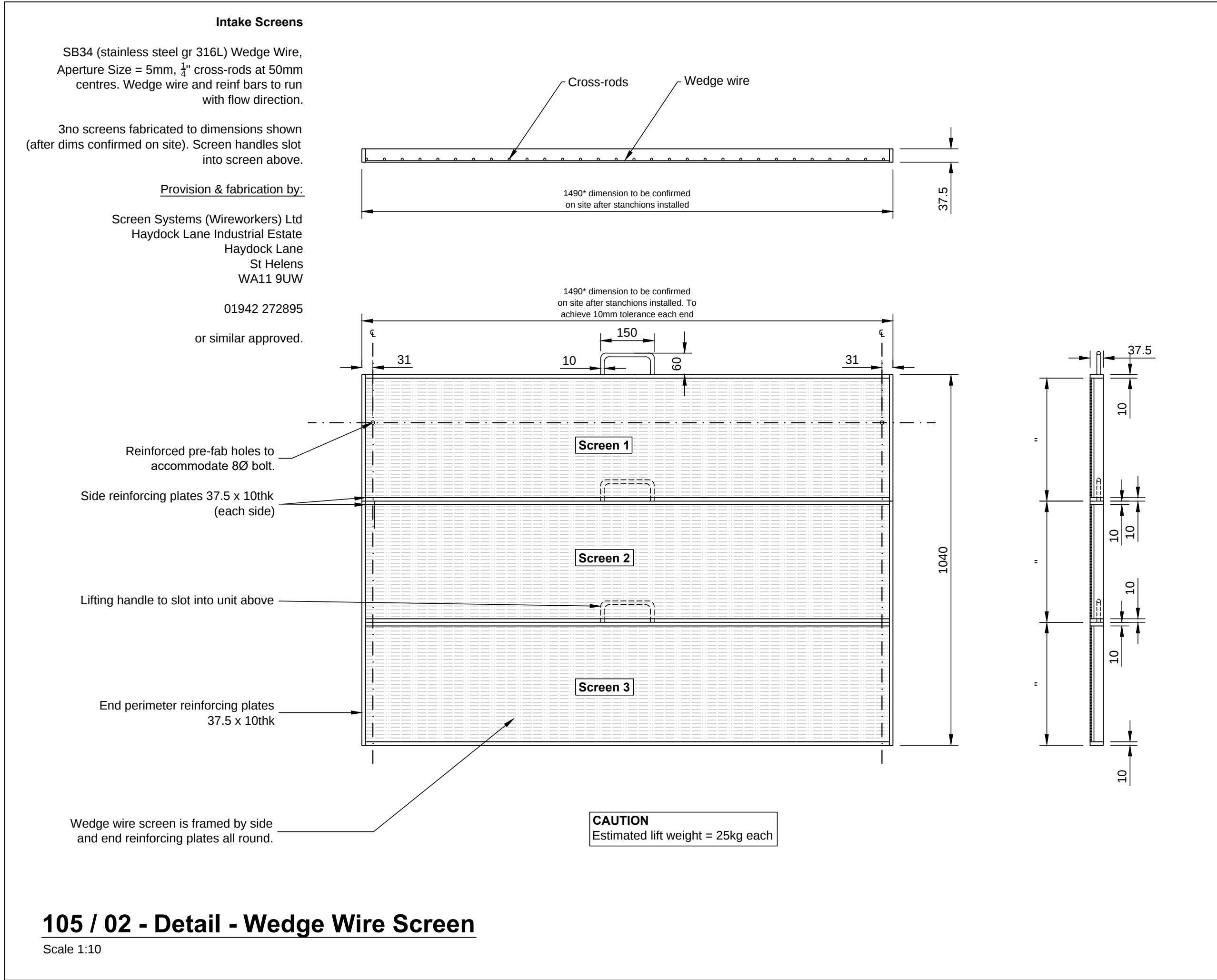
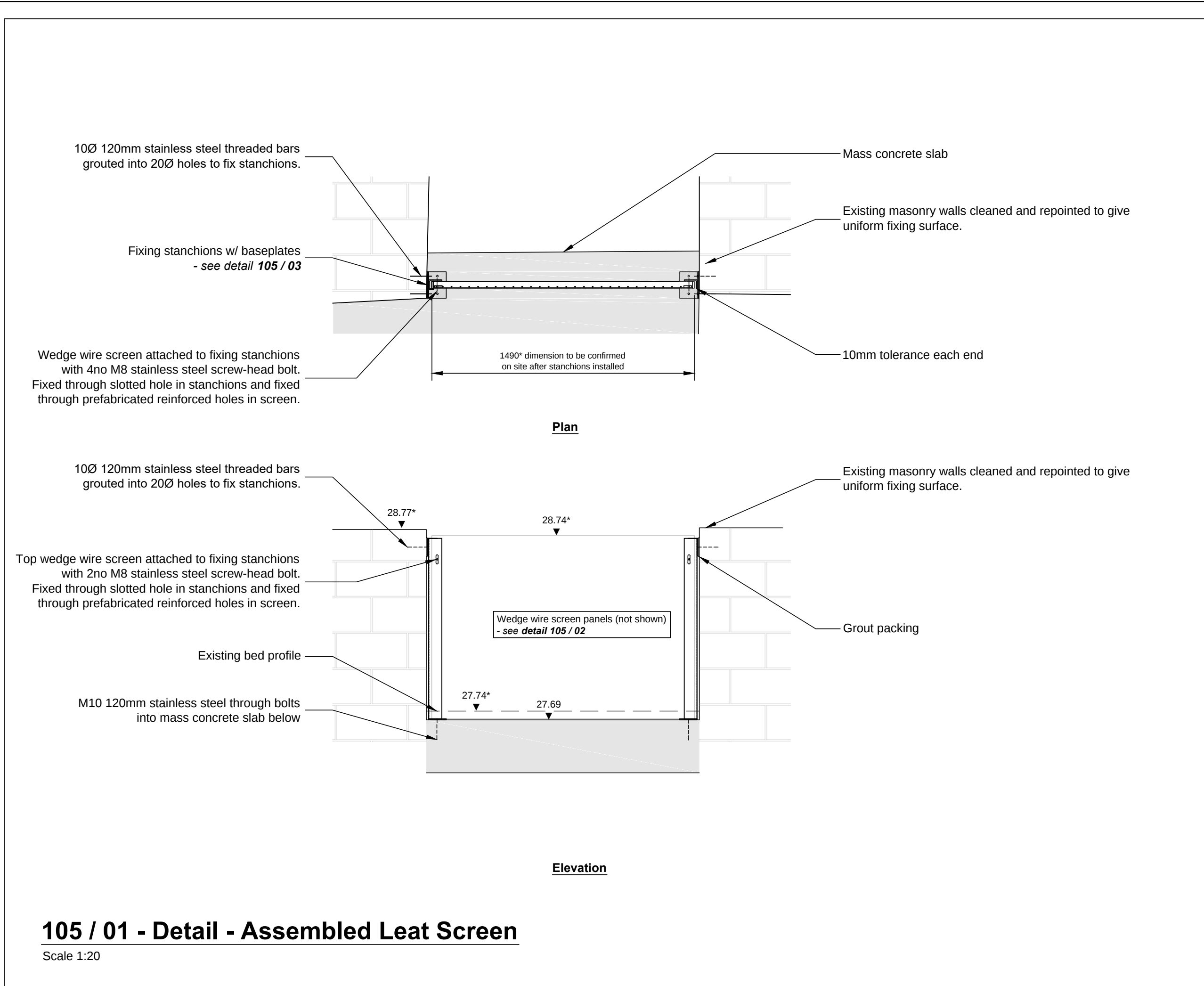
Client	Westcountry Rivers Trust
--------	--------------------------

FISHTEK CONSULTING

PROJECT	WFG Framework Glynn Weir
---------	--------------------------

TITLE	Aluminium Larinier Fabricated Elements and Eel Tiles
-------	--

Drawing No.	Project No.	Issue
0104	- 02458	- P01



SAFETY HEALTH & ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the type of work detailed on this drawing, note the following risks and information.

Risks listed here are not exhaustive. Refer to Designer's Risk Assessment and pre-construction phase plan.

CONSTRUCTION

C1 Managing flow & stage levels in River Fowey
- Monitor flow levels & flood warnings.
- Check adequacy of cut-off & stability of cofferdams.

C2 Managing seepage flows through weir
- Monitor seepage.
- Check stability of cut face in weir and assess permeability of formation material.
- Check adequacy of cut-off & stability of cofferdams.

C3 Risk of falls from height
- Check depth of excavations.
- Check adequate edge protection and access provision onto weir.

C4 Lifting
- Check craneage lifting facilities & constraints.
- Check access weight & size restrictions for craneage along access route to site.

C5 Interface with public & other site operations
- Check adequate warning signs and fencing in place.

C6 Services
- Check for services.

C7 Stability of Excavations & Structures
- Check temporary works & construction sequencing to maintaining structural integrity of weir and stability of adjacent walls.

For information relating to Use, Cleaning and Maintenance see the Health and Safety File

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement

NOTES:

1. DIMENSIONS:

- Are in millimetres unless otherwise stated
- Marked thus (°) are approximate
- All levels are in metres to Site Datum
- Critical levels set out to crest level. Temporary site datum to be agreed on site.

2. SPECIFICATION:

All works to be carried out in accordance with the Environment Agency Minimum Technical Requirements which shall be the Civil Engineering Specification for the Water Industry (CESWI).

3. ALUMINIUM:

- All structural aluminium alloys to BS8118.
- Sheet plate grade to be Alloy 5251 H22 Temper, o.s.a.
- All aluminium welds to be 10mm continuous fillet welds unless otherwise indicated.

4. FABRICATION:

- Fabricator to prepare fabrication drawings.
- All structural material components & all fabricated aluminium or stainless steel structures executed to conform to BS EN 1090-2
- Size of connection plates & bolt hole positions to suit fabrication tolerances and checked prior to delivery to site.

5. STAINLESS STEEL:

- All structural stainless steel 316L, o.s.a.
- Wedge wire screen by Screen Systems (Wireworkers) Ltd.

For Information Purposes only
Not for construction

P01	For Information	20 / 06 / 19
Issue	Description	Date

Status	Detailed Design
--------	-----------------

Scales	As shown	Current Issue Signatures	
Original Size	A1	Author M.Giblin	
Datum	N/A	Checker M.Lakin	
Grid	N/A	Approver I.S.L.-R.	
		© Copyright reserved	

Filename:

Client



PROJECT

WFG Framework
Glynn Weir

TITLE

Leat Screen
Assembly and Fabrication
Details

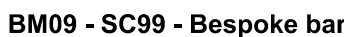
Drawing No.	Project No.	Issue
0105	- 02458	- P01



						BAR SCHEDULE				DRAWING NO. 106				SHEET 1		REV P01	
TITLE		Glynn Weir															
ITEM		Larrier															
MEMBER		BAR MARK	TYPE AND SIZE	NO. OF BARS	NO. OF BARS IN EACH	TOTAL NO.	LENGTH OF EACH BAR, MET	SHORE CODE	A*	B*	C*	D*	E/A*				
		01	H16	1	40	40	6000	00	6000	180	Straights **						
		02	H16	1	88	88	2825	21	980	950	Channel U-bars						
		03	H16	1	25	25	1475	21	700	145	Wall/slab-end U-bars						
		04	H16	1	08	08	2750	32	970	180	1080	615					
		05	Not used														
		06	H16	1	14	14	1625	63	465	145	210	210	Links				
		07	H16	1	08	08	1550	21	710	180	Shear link U-bars						
		08	Not used														
		09	H16	1	07	07	1925	99	1170	145	250	330	150				
		10	H16	1	07	07	1030	15	330	200	700						
		11	H16	1	07	07	1675	15	700	115	975						
		12	H16	1	32	32	1020	12	210	810	Wall-end L-bars*						
		13	H12	1	14	14	725	21	300	150	U-bar dowels (10T)						
		14	A393 Mesh (approx. 4.5m ² eel pass)														
		15	A393 SS grade 304 mesh (approx. 15.0m ² weir repair)														

Laps: Tension faces 40Ø (480mm)

** Length cut to suit from stock steel



- Nominal 100mm layer of mass concrete

P01	For Information	20 / 06 / 19
Issue	Description	Date

Detailed Design			
Scales	As shown	Current Issue Signatures	
		Author M.Giblin	
Original Size	A1	Checker M.Lakin	
Datum	N/A	Approver I.St.-R.	
Grid	N/A	© Copyright reserved	

Filename:

Client



PROJECT

WFG Framework
Glynn Weir

TITLE

Reinforced Concrete Details and Schedule

Drawing No.	Project No.	Issue
0106	- 02458	- P01