

**Broughty Ferry to Monifieth  
Active Travel Route NCN 01**

**Dighty Bridge**

**MARINE LICENCE APPLICATION  
Drawings and Images**

January 2023

**IMAGES OF SITE LOCATION**





**Broughty Ferry to Monifieth  
Active Travel Route NCN 01**

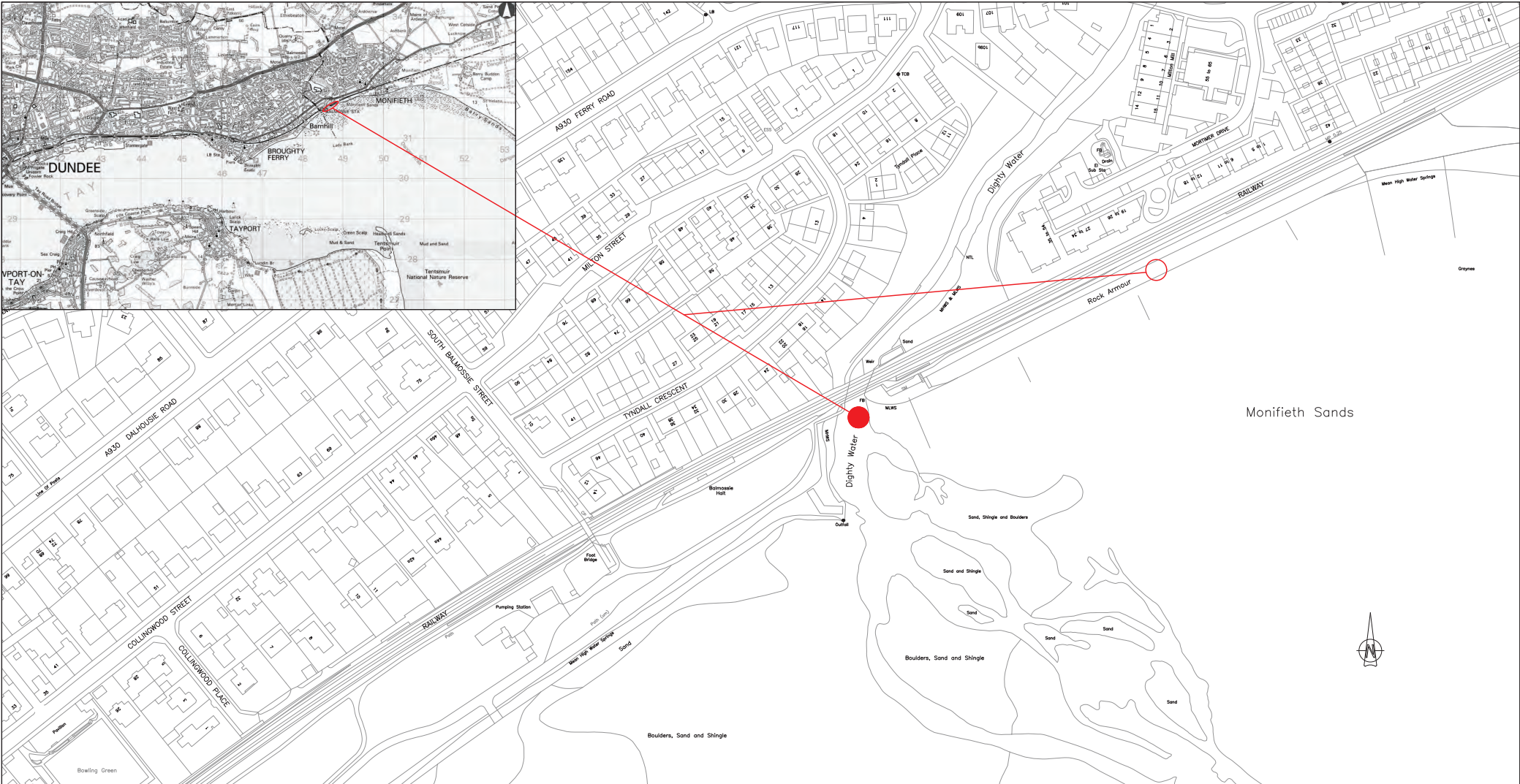
**Dighty Bridge**

**MARINE LICENCE APPLICATION  
Drawings and Images**

January 2023

**CONSULTATION DRAWINGS**





**LEGEND**

- Proposed replacement footbridge (56°28'30"N, 2°50'12.4"W)
- Existing rock armour to be re-graded

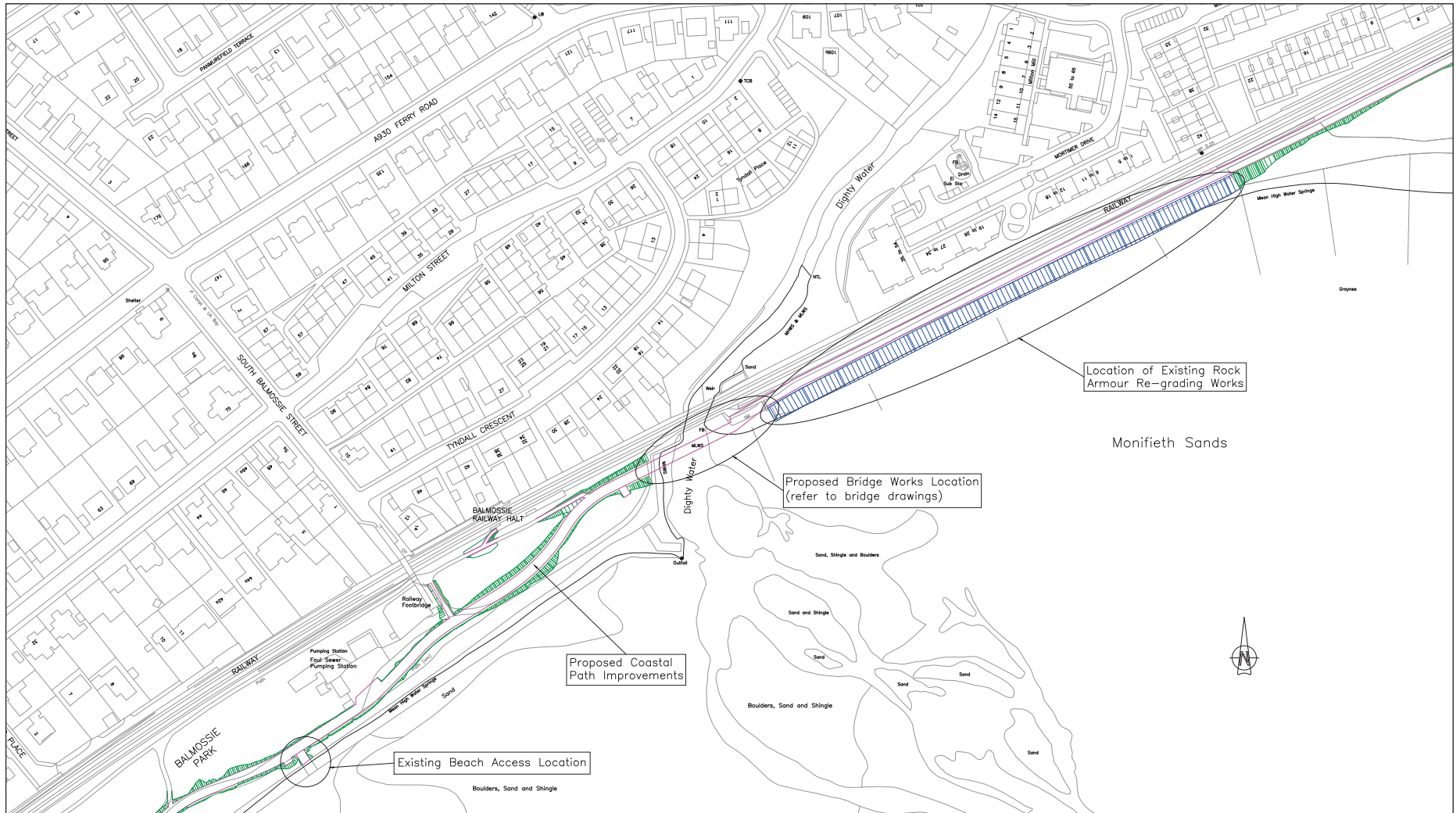
**NOTES**

1. For further details on Broughty Ferry to Monifieth Active Travel see <https://www.broughtyferryactivetravel.com>




Rev	Description	Initials	Date

	Project Title <b>BROUGHTY FERRY TO MONIFIETH          ACTIVE TRAVEL IMPROVEMENTS</b>		
	Drawing Title <b>SITE LOCATION PLAN          DIGHTY BRIDGE &amp; ROCK ARMOUR - AREA 6</b>		
City Development Design & Property Division	Drawing No. 18461-691	Suitability S2	Revision 0
Drawn AGB	Checked GC	Approved GC	Scale NTS
Project No./Ref P18461	Date 06/08/2021	Project No./Ref P18461	Date 06/08/2021



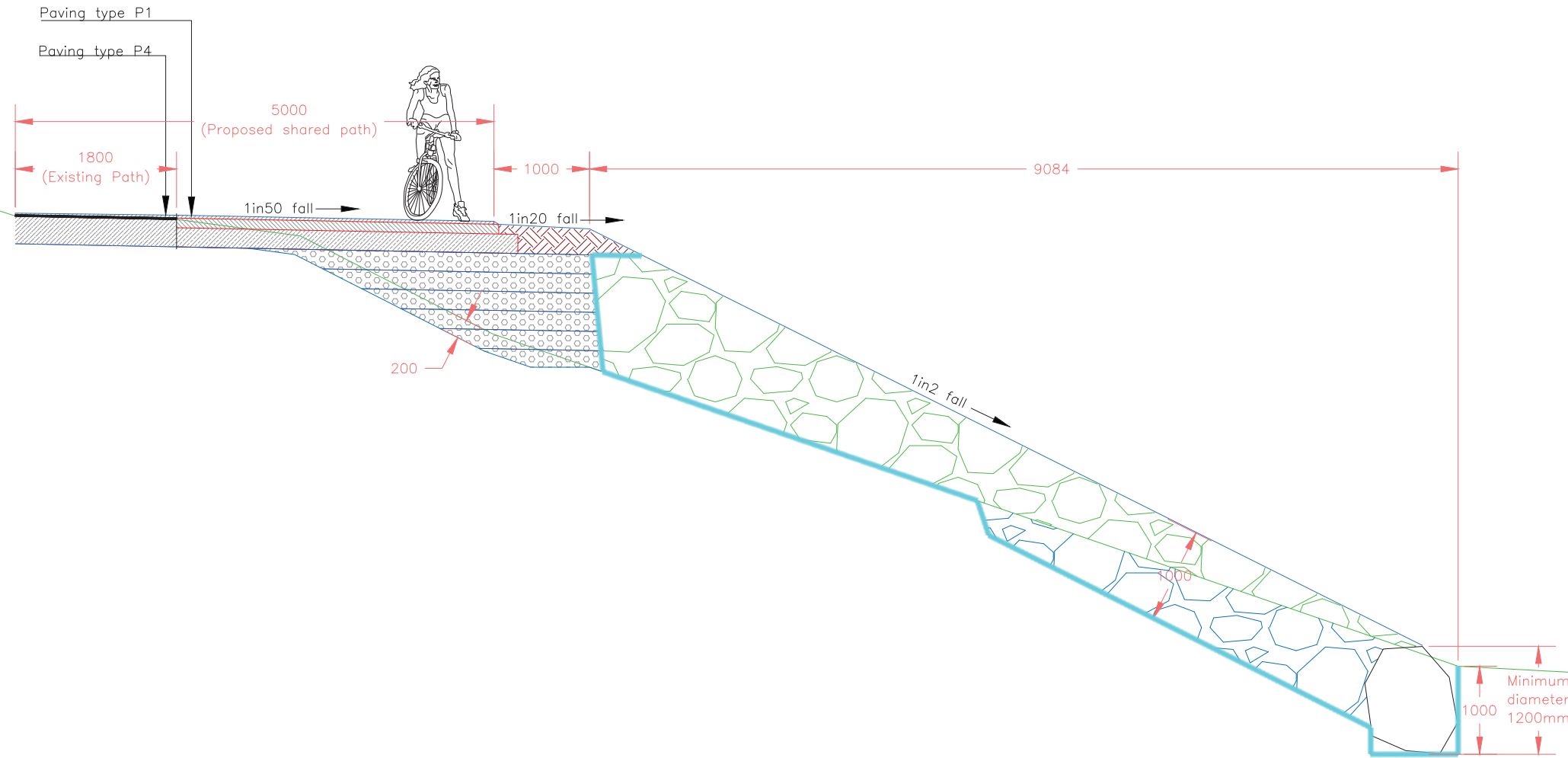
Rev	Description	Initials	Date


**Project Title**  
 BROUGHTY FERRY TO MONIFIETH  
**ACTIVE TRAVEL IMPROVEMENTS**  
**Drawing Title**  
 SITE PLAN  
 DIGHTY BRIDGE & ROCK ARMOUR - AREA 6  
 Drawn No. 18641-692  
 City Development Design & Property Division

Suitability	Revision	Project No./Ref.
S2	0	P18641
Checked	Approved	Scale
AGB	GC	1:1000@A1
		Date
		06/08/21

City Development, Dundee House, 50 North Lindsay Street, Dundee, DD1 1LS, Tel: 01382 434000



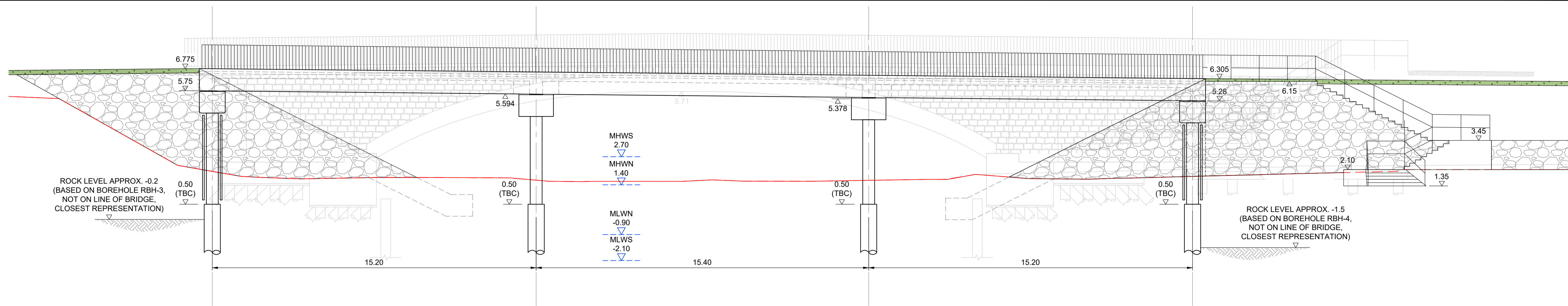


- KEY**
- EXISTING GROUND LEVEL
  - PROPOSED GROUND LEVEL
  - SUITABLE FILL
  - ROCK TIE IN
  - REVISED ROCK PROFILE
  - NEW TOE ROCK (MIN 1200mm DIAMETER)
  - GEOTEXTILE
  - TOPSOIL

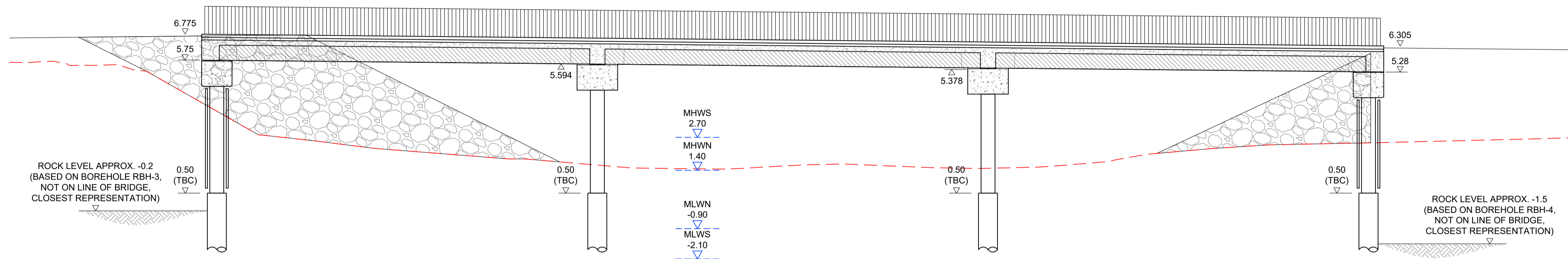
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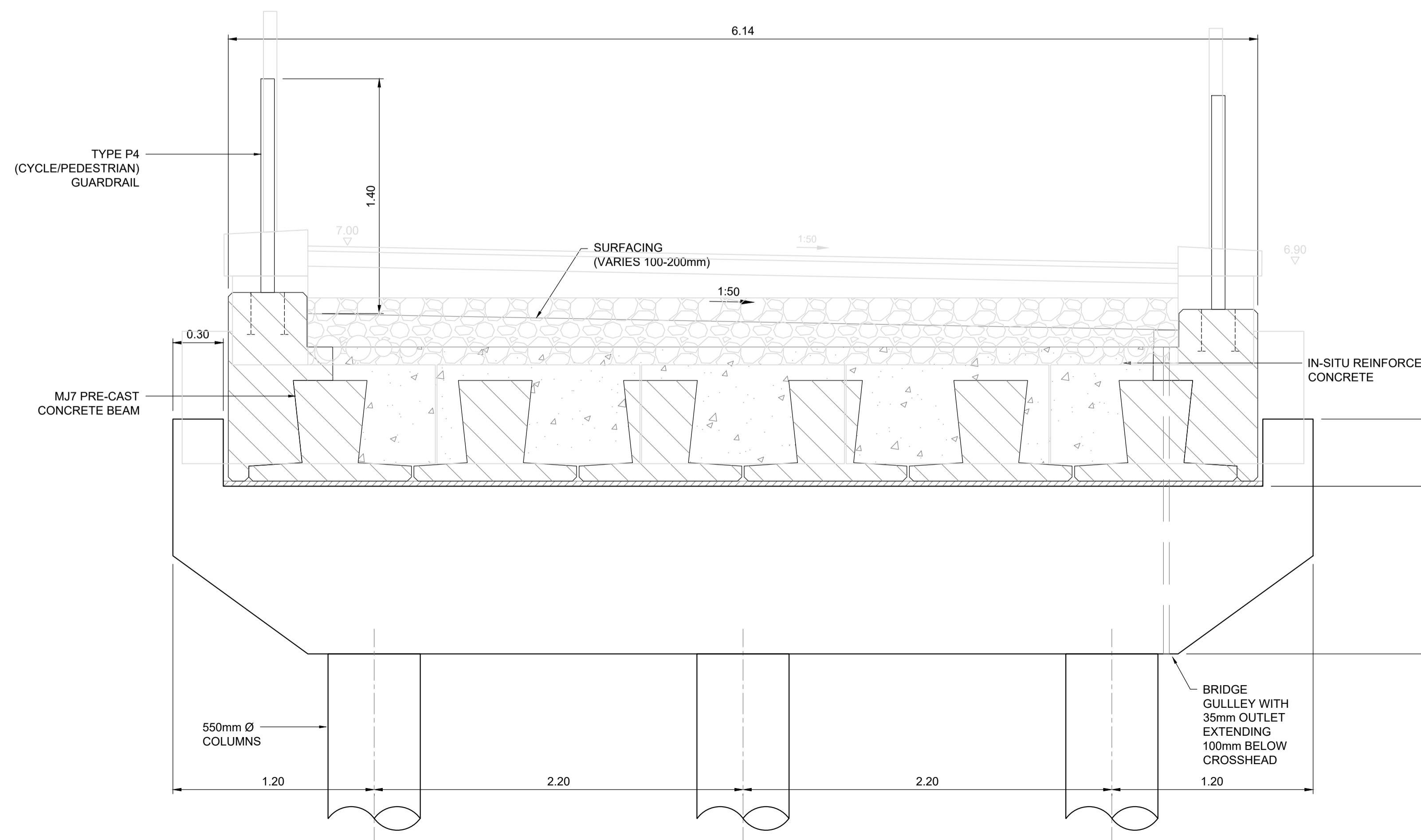
Project Title <b>BROUGHTY FERRY TO MONIFIETH</b> ACTIVE TRAVEL IMPROVEMENTS Drawing Title AREA 6- SECTION 2700			
Dwg No. 18641-DCC-ZZ-XX-DR-K-656	Suitability S1	Revision 0	Project No./Ref. P18641
Drawn CS	Checked GC	Approved GC	Date 28/04/2021
City Development, Dundee House, 50 North Lindsay Street, Dundee, DD1 1LS. Tel: 01382 434000			



**ELEVATION 1-1**  
SCALE 1:100



**SECTION A-A**  
SCALE 1:100



**SECTION B-B**  
SCALE 1:20



Rev.	Date	Drawn	Designed	Checked	Approved
1	27.10.22	P. Smith	S. Farrar	S. Farrar	S. Farrar

Comments: Revised Bridge Structure  
 Client Approval: A - Approved, B - Approved with Revisions, C - Do Not Use

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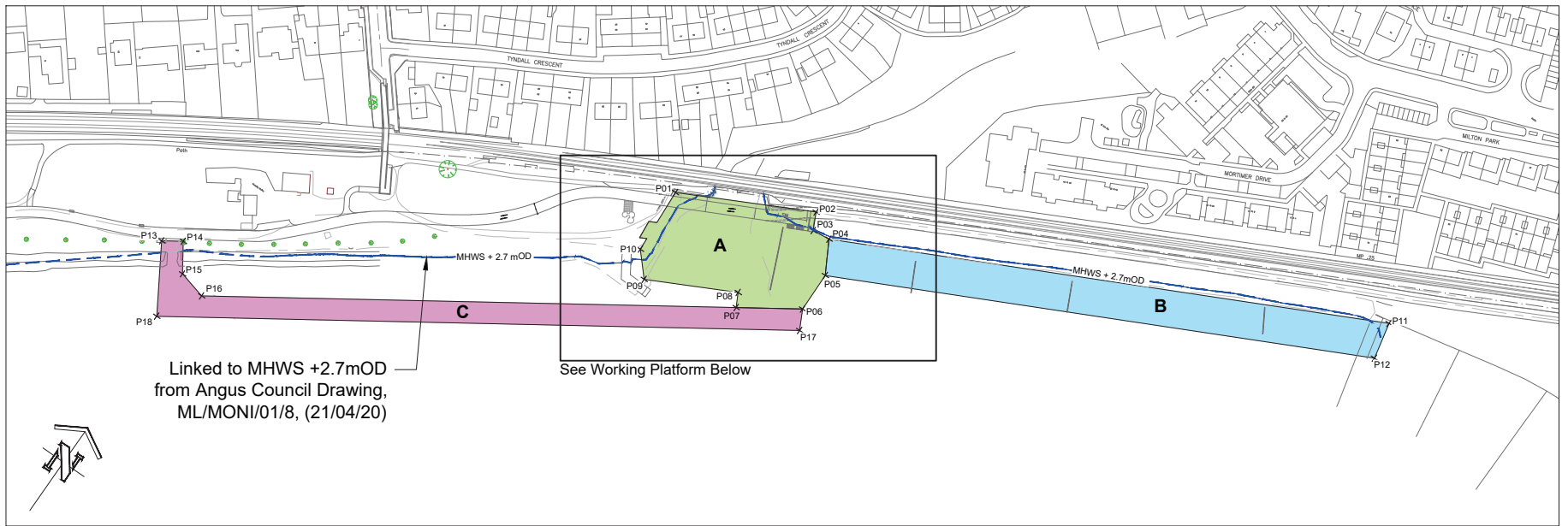
**Project**  
 Digby Bridge

**Title**  
 Overlaid BEBO On Pre-Cast Bridge Sections & Elevations

**Client**  
 Dundee City Council

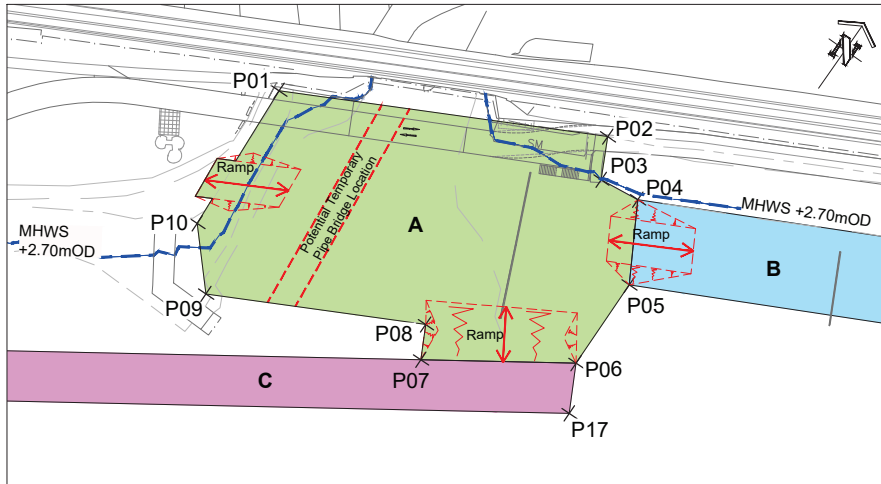
Drawn: P. Smith	Designed: S. Farrar
Checked: S. Farrar	Approved: S. Heaney
Project Reference: 2021s0705	Scale: As Shown @ A1
Drawing Number: FYP-JBAU-00-00-DR-C-1410	Status: S0
	Revision: A
	Sheet Size: A1





**TEMPORARY ACCESS & WORKING PLATFORMS**

Scale: 1:2000@A3



**WORKING PLATFORM**

Scale: 1:1000@A3

**Legend**

- A** Primary Working Platform (MHWS +0.50m)
- B** Trafficked Temporarily By Construction Equipment and Temporary Storage of The Rock Armour (+0.30m Above Existing Foreshore Level)
- C** Only for Construction Equipment IF Access Via Plat A is Restricted. Possibly During Mobilisation & Demobilisation Stages. (+0.30m Above Existing Foreshore Level)

BFMAT: Footprint Areas for Marine Works			
Temporary Access and Working Platforms	Below MHWS		Total
	Below MHWS	Above MHWS	
<b>A</b> Dightly Working Platform	3163	337.9	3,501
<b>B</b> Rock Armour East of Dightly	4431		4,431
<b>C</b> Beach Access at Balmoissie	3260		3,260

Access / Working Platform A			
Point	Easting	Northing	Notes
P01	348531.769	731746.030	Access / Working Platform A
P02	348590.731	731775.695	Top Level @ circa + 3.2m AOD
P03	348594.530	731767.881	Area => 3,500m <sup>2</sup>
P04	348602.777	731768.778	
P05	348610.999	731753.875	
P06	348611.147	731735.055	
P07	348585.359	731718.061	
P08	348582.162	731724.373	
P09	348542.739	731704.539	
P10	348533.341	731715.088	

Access / Working Platform B			
Point	Easting	Northing	Notes
P04	348602.777	731768.778	Access / Working Platform B
P05	348610.999	731753.875	Top Level @ circa + 0.3m above
P11	348839.258	731884.474	existing foreshore level
P12	348842.677	731867.319	Area => 4,500m <sup>2</sup>

Access / Working Platform C			
Point	Easting	Northing	Notes
P06	348611.147	731735.055	Access / Working Platform C
P07	348585.359	731718.061	Top Level @ circa + 0.3m above
P13	348348.057	731591.826	existing foreshore level
P14	348356.408	731597.329	Area => 3,300m <sup>2</sup>
P15	348364.716	731584.72	
P16	348377.840	731581.312	
P17	348615.704	731726.058	
P18	348366.086	731561.675	

RevB: MHWS (+2.7mOD) added, 04/08/21  
 RevA: Footprint areas table added. Figured adjusted, 28/06/21

**Dundee City Council**

**Broughty Ferry To Monifieth  
Active Travel**

Dightly Bridge Temporary Access & Working Platforms 561/DB01RevB

Draft Varies @ A3

**Maclean Consulting**  
 Civil, Structural and Environmental Engineering

11 Castle Street, DUNDEE, DD1 3AA  
 TEL: 01382 221999 FAX: 01382 220383  
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**Broughty Ferry to Monifieth  
Active Travel Route NCN 01**

**Dighty Bridge**

**MARINE LICENCE APPLICATION  
Drawings and Images**

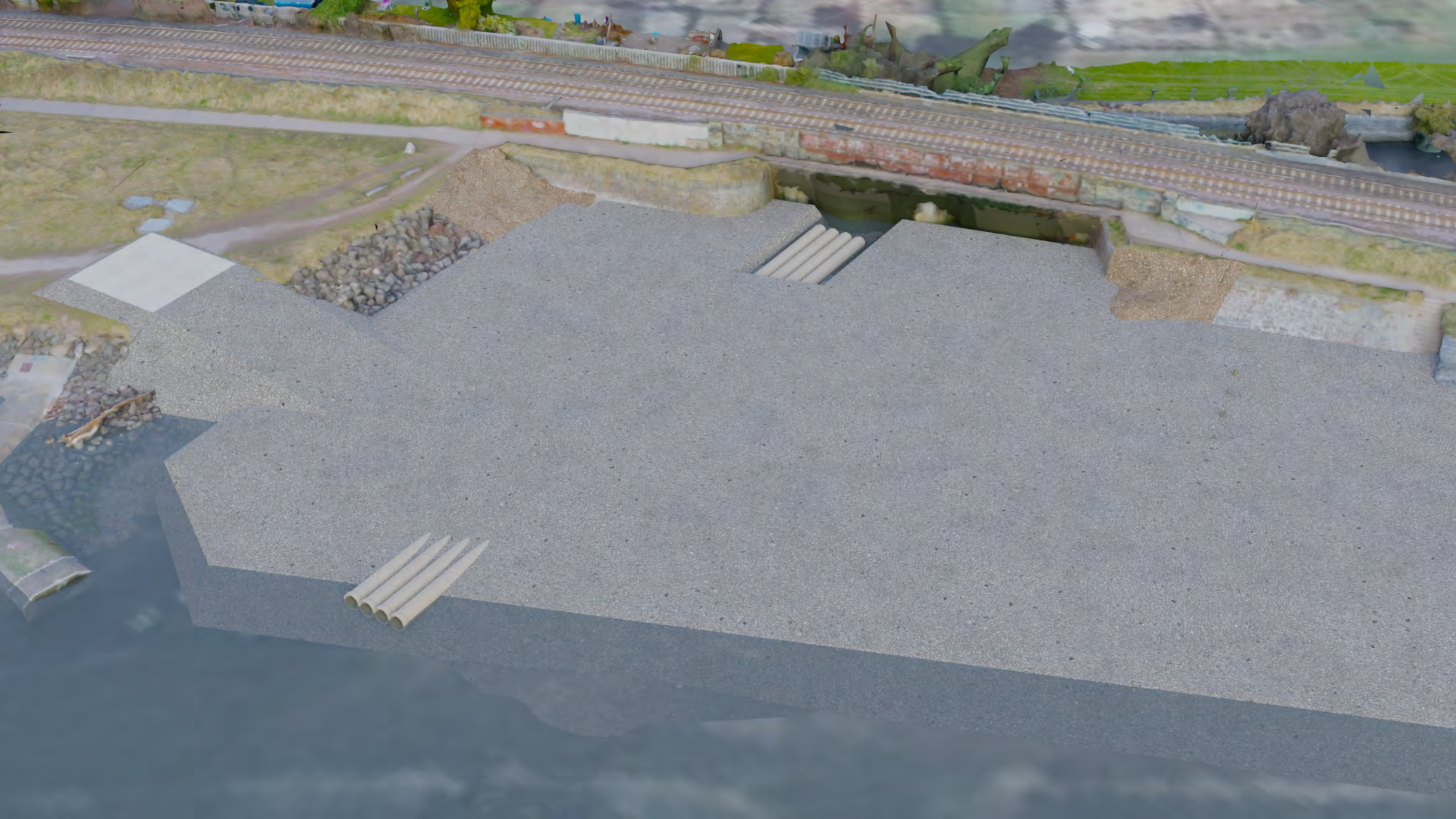
January 2023

**CONSTRUCTION SEQUENCE IMAGES**









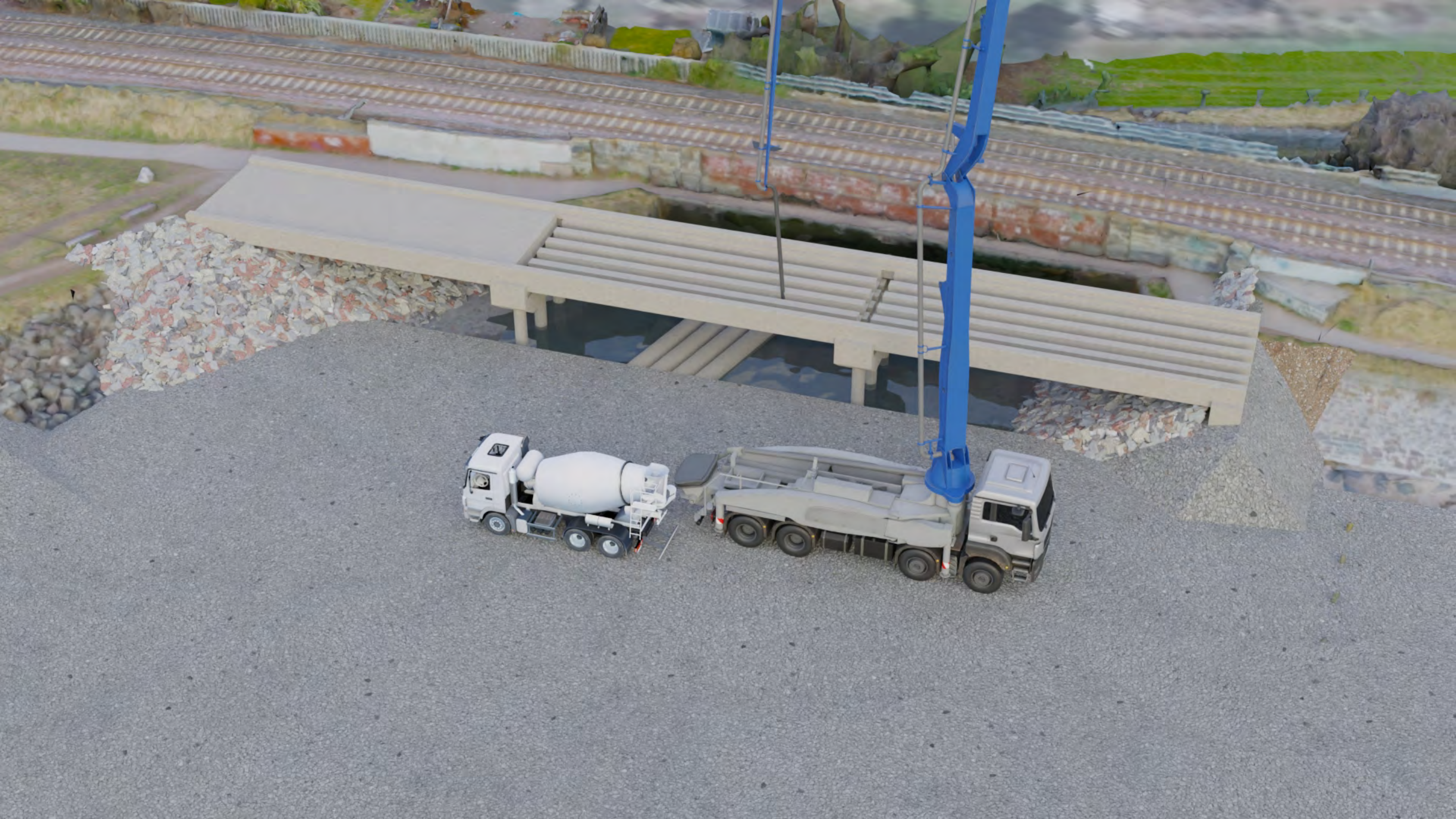




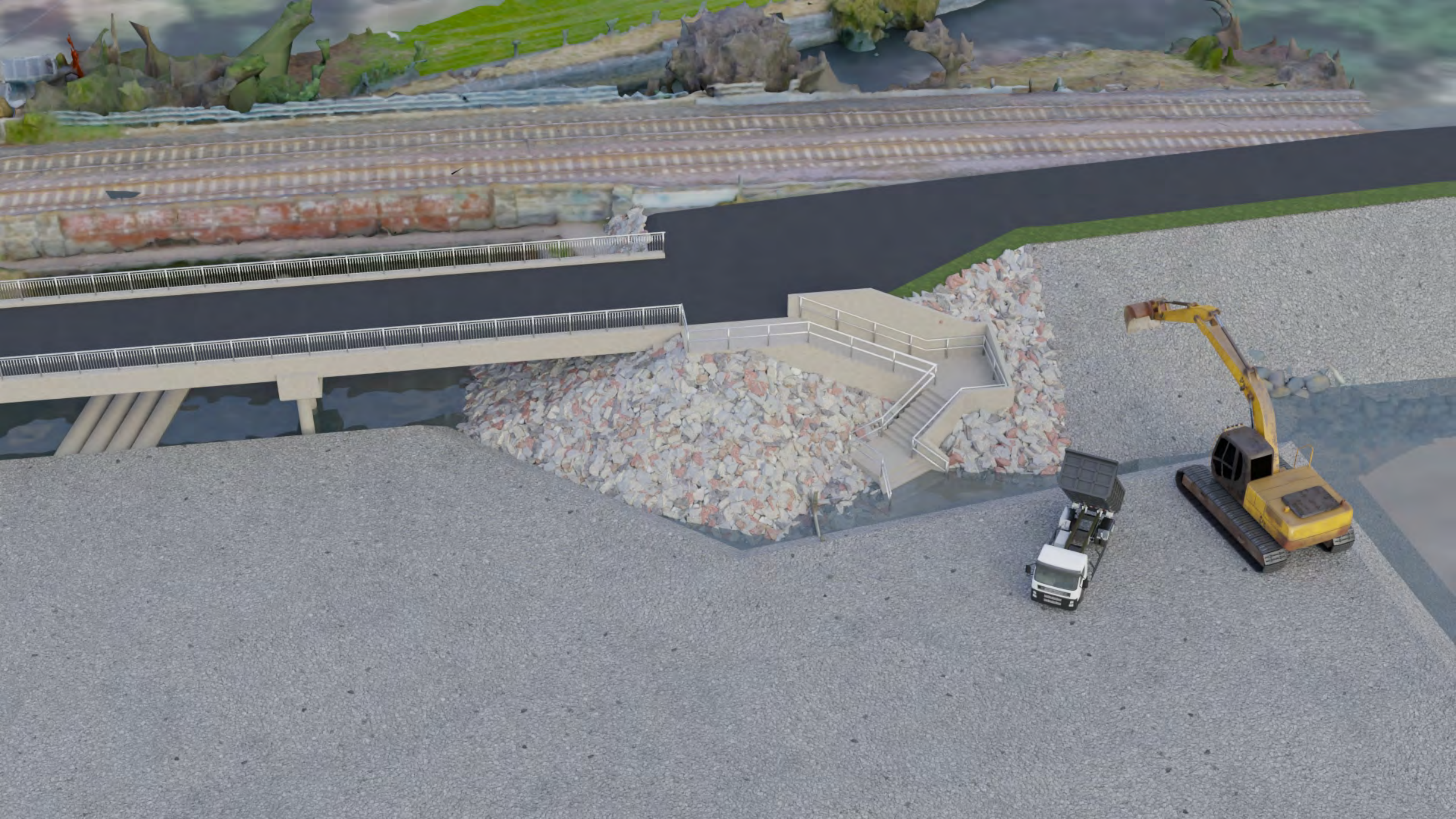














**Broughty Ferry to Monifieth  
Active Travel Route NCN 01**

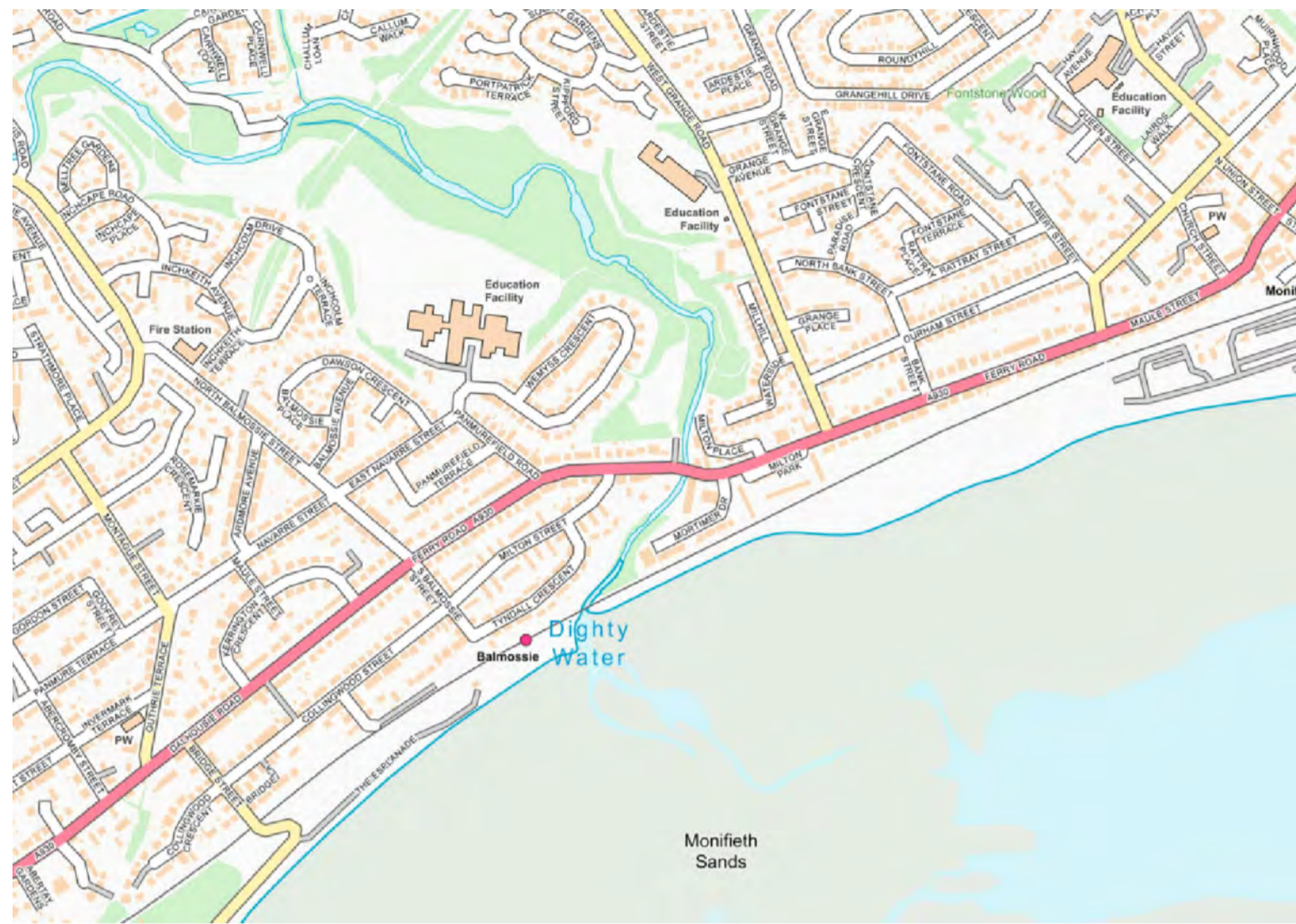
**Dighty Bridge**

**MARINE LICENCE APPLICATION  
Drawings and Images**

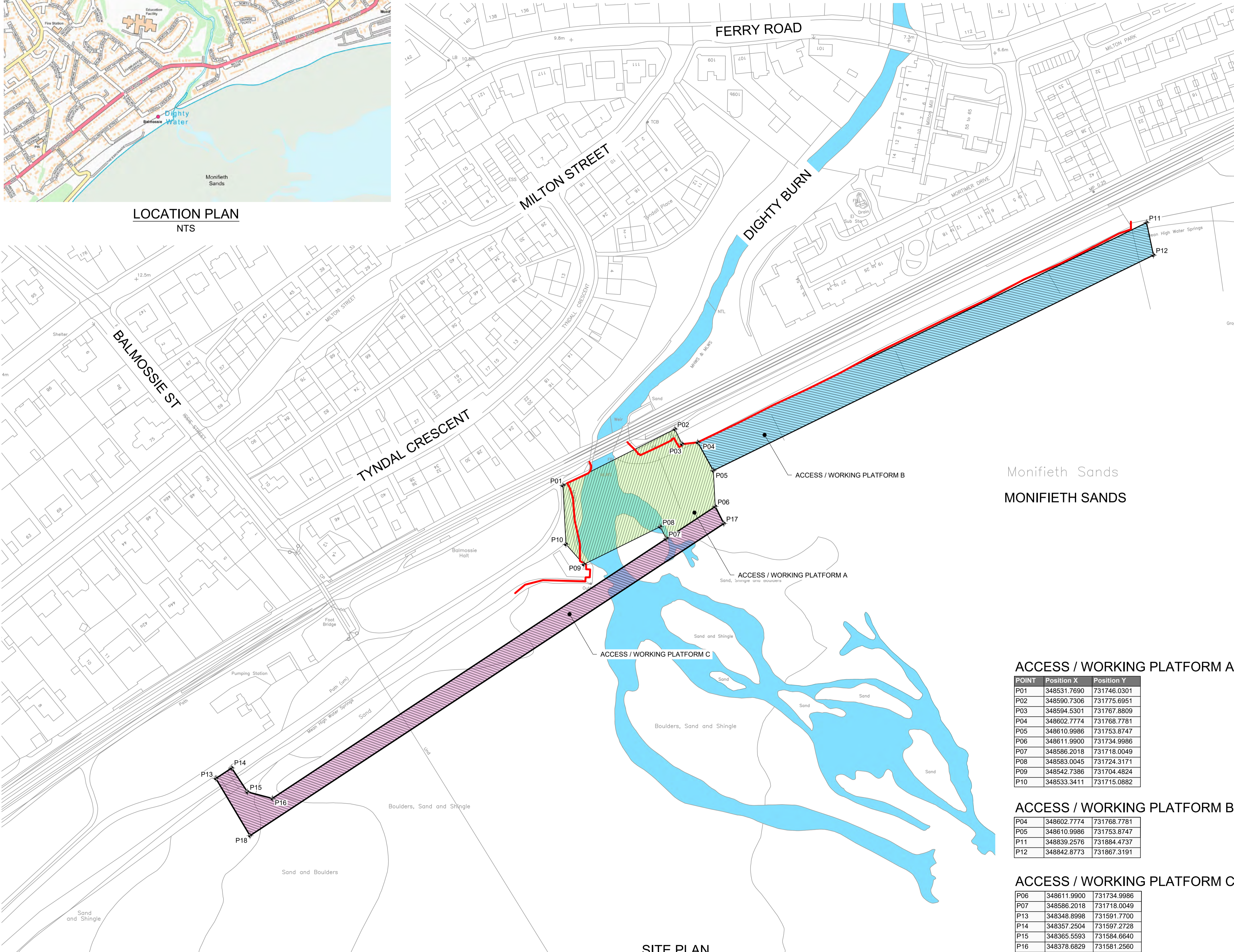
January 2023

**CONSTRUCTION DRAWINGS**

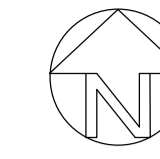




LOCATION PLAN  
NTS



SITE PLAN  
1:500



1			
2			

No.	Construction Risk	Maintenance Risk	Demolition Risk

In addition to the hazards/risks normally associated with the types of work detailed on this drawing take note of the above.

**SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION BOX**

- General Notes**
- A. All dimensions shown are in m unless otherwise stated and levels in metres to Ordnance Datum.
  - B. Do not scale from this drawing. All dimensions must be checked/verified on site.
  - C. Any discrepancies noted on site are to be reported to the Supervisor immediately.
  - D. The locations of any known services shown on drawing are approximate and for guidance only. The Contractor will confirm the location of any services prior to the commencement of any works.
  - E. The electronic version of this drawing is not to be used for setting out.
  - F. Refer to Contract Specification for details of materials and workmanship to be used for the works shown on this drawing.

- Drawing Notes**
- This drawing is to be read in conjunction with:
    - 18641-JBA-V1-XX-DR-C-00601-General\_Notes
    - 18641-JBA-V1-XX-DR-C-00606-Site\_Location\_Plan
    - 18641-JBA-V1-XX-DR-C-00611-Hazards\_&\_Constraints\_Plan
    - 18641-JBA-V1-XX-DR-C-00612-Site\_Clearance
    - 18641-JBA-V1-XX-DR-C-00616-General\_Arrangement
    - 18641-JBA-V1-XX-DR-C-00621-Proposed\_Sections\_&\_Elevations
    - 18641-JBA-V1-XX-DR-C-00622-Proposed\_Sections\_&\_Elevations
    - 18641-JBA-V1-XX-DR-C-00623-Proposed\_Sections\_&\_Elevations
    - 18641-JBA-V1-XX-DR-C-00626-Proposed\_Pile\_Layout
    - 18641-JBA-V1-XX-DR-C-00631-Proposed\_Pier\_&\_Abutment\_Details
    - 18641-JBA-V1-XX-DR-C-00632-Proposed\_Pier-Cast\_Details
    - 18641-JBA-V1-XX-DR-C-00636-Proposed\_Rock\_Armour\_Details
    - 18641-JBA-V1-XX-DR-C-00641-Proposed\_Stair\_Details
    - 18641-JBA-V1-XX-DR-C-00646-Proposed\_Finishes\_Layout
    - 18641-JBA-V1-XX-DR-C-00651-Proposed\_Parapet\_&\_Lighting
    - 18641-JBA-V1-XX-DR-C-00656-Proposed\_Reinforcement\_Details
    - 18641-JBA-V1-XX-DR-C-00657-Proposed\_Reinforcement\_Details
    - 18641-JBA-V1-XX-DR-C-00658-Proposed\_Abutment\_Reinforcement\_Details
    - 18641-JBA-V1-XX-DR-C-00659-Proposed\_Central\_Pier\_Reinforcement\_Details
    - 18641-JBA-V1-XX-DR-C-00660-Proposed\_Column\_Reinforcement\_Details
    - 18641-JBA-V1-XX-DR-C-00661-Proposed\_Stair\_Reinforcement\_Details
    - 18641-JBA-V1-XX-DR-C-00662-Proposed\_Stair\_Reinforcement\_Details

**LEGEND**

- OUTLINE OF BOUNDARY OF REGISTER LAND
- ACCESS / WORKING PLATFORM A
- ACCESS / WORKING PLATFORM B
- ACCESS / WORKING PLATFORM C
- WATER



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**ACCESS / WORKING PLATFORM A**

POINT	Position X	Position Y
P01	348531.7690	731746.0301
P02	348590.7306	731775.6951
P03	348594.5301	731767.8809
P04	348602.7774	731768.7781
P05	348610.9986	731753.8747
P06	348611.9900	731734.9986
P07	348586.2018	731718.0049
P08	348583.0045	731724.3171
P09	348542.7386	731704.4824
P10	348533.3411	731715.0882

**ACCESS / WORKING PLATFORM B**

P04	348602.7774	731768.7781
P05	348610.9986	731753.8747
P11	348839.2576	731884.4737
P12	348842.8773	731867.3191

**ACCESS / WORKING PLATFORM C**

P06	348611.9900	731734.9986
P07	348586.2018	731718.0049
P13	348348.8998	731591.7700
P14	348357.2504	731597.2728
P15	348365.5593	731584.6640
P16	348378.6829	731581.2560
P17	348616.5470	731726.0019
P18	348366.9283	731561.6184

Project **Dighty Bridge**

Title **Site Location Plan**











Client **Dundee City Council**

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Drawn: A. Jaraba 04/10/2022 Designed: S. Farrar 04/10/2022  
Checked: S. Farrar 04/10/2022 Approved: S. Heaney 04/10/2022

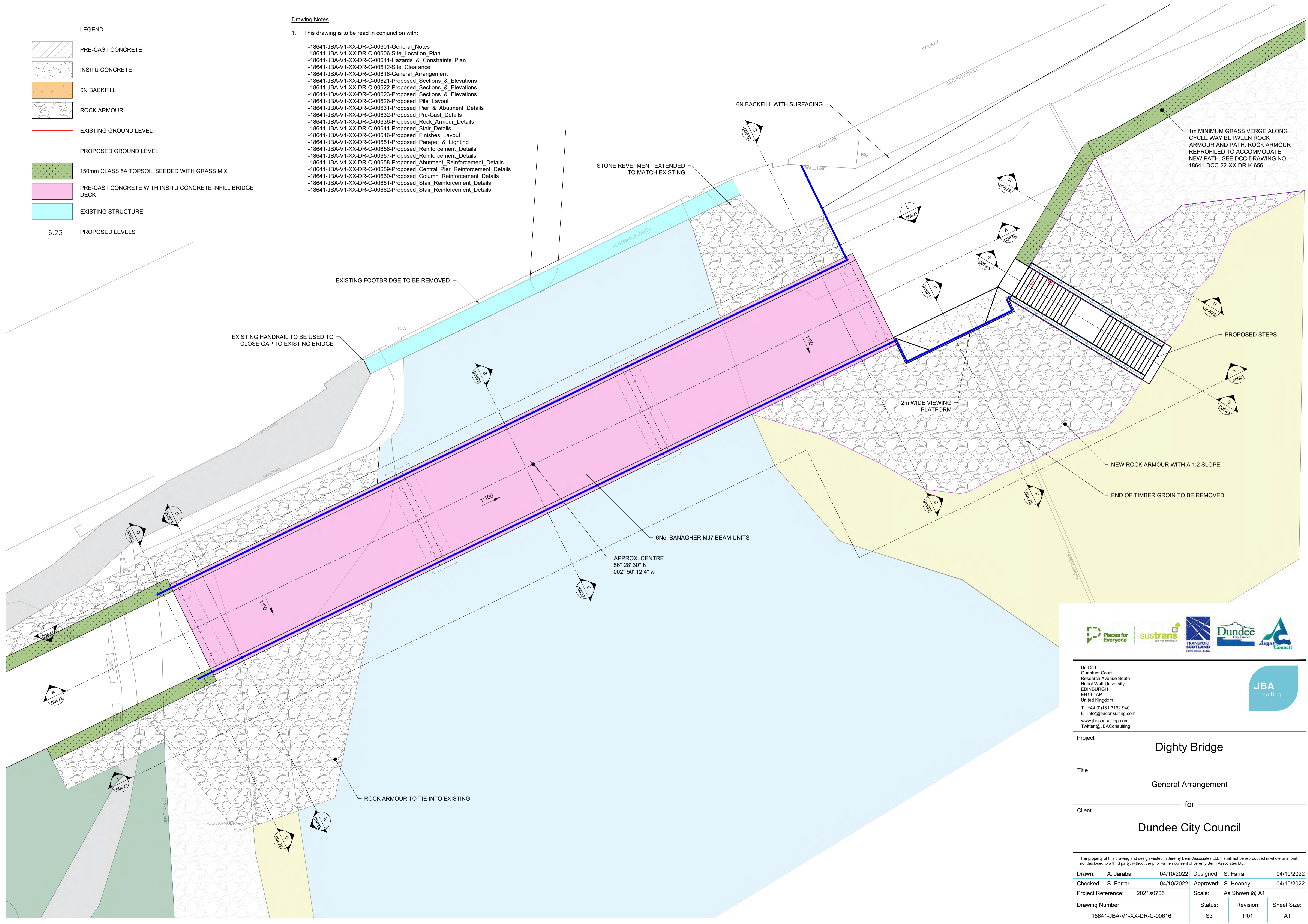
Project Reference: 2021s0705 Scale: As Shown @ A1  
Drawing Number: 18641-JBA-V1-XX-DR-C-00606 Status: S3 Revision: P02 Sheet Size: A1

**LEGEND**

-  PRE-CAST CONCRETE
-  INSITU CONCRETE
-  6N BACKFILL
-  ROCK ARMOUR
-  EXISTING GROUND LEVEL
-  PROPOSED GROUND LEVEL
-  150mm CLASS 5A TOPSOIL SEEDED WITH GRASS MIX
-  PRE-CAST CONCRETE WITH INSITU CONCRETE INFILL BRIDGE DECK
-  EXISTING STRUCTURE
-  6.23 PROPOSED LEVELS

**Drawing Notes**

1. This drawing is to be read in conjunction with:
  - 18641-JBA-V1-XX-DR-C-00601-General\_Notes
  - 18641-JBA-V1-XX-DR-C-00606-Site\_Location\_Plan
  - 18641-JBA-V1-XX-DR-C-00611-Hazards\_&Constraints\_Plan
  - 18641-JBA-V1-XX-DR-C-00612-Site\_Clearance
  - 18641-JBA-V1-XX-DR-C-00616-General\_Arrangement
  - 18641-JBA-V1-XX-DR-C-00621-Proposed\_Sections\_&Elevations
  - 18641-JBA-V1-XX-DR-C-00622-Proposed\_Sections\_&Elevations
  - 18641-JBA-V1-XX-DR-C-00623-Proposed\_Sections\_&Elevations
  - 18641-JBA-V1-XX-DR-C-00626-Proposed\_Pile\_Layout
  - 18641-JBA-V1-XX-DR-C-00631-Proposed\_Pier\_&Abutment\_Details
  - 18641-JBA-V1-XX-DR-C-00632-Proposed\_Pre-Cast\_Details
  - 18641-JBA-V1-XX-DR-C-00636-Proposed\_Rock\_Armour\_Details
  - 18641-JBA-V1-XX-DR-C-00641-Proposed\_Stair\_Details
  - 18641-JBA-V1-XX-DR-C-00646-Proposed\_Finishes\_Layout
  - 18641-JBA-V1-XX-DR-C-00651-Proposed\_Parapet\_&Lighting
  - 18641-JBA-V1-XX-DR-C-00656-Proposed\_Reinforcement\_Details
  - 18641-JBA-V1-XX-DR-C-00657-Proposed\_Reinforcement\_Details
  - 18641-JBA-V1-XX-DR-C-00658-Proposed\_Abutment\_Reinforcement\_Details
  - 18641-JBA-V1-XX-DR-C-00659-Proposed\_Central\_Pier\_Reinforcement\_Details
  - 18641-JBA-V1-XX-DR-C-00660-Proposed\_Column\_Reinforcement\_Details
  - 18641-JBA-V1-XX-DR-C-00661-Proposed\_Stair\_Reinforcement\_Details
  - 18641-JBA-V1-XX-DR-C-00662-Proposed\_Stair\_Reinforcement\_Details



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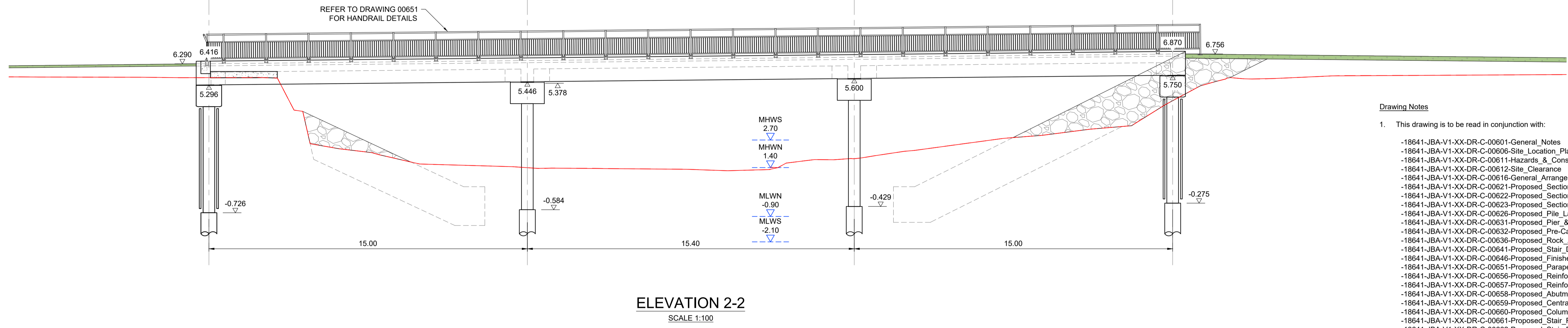
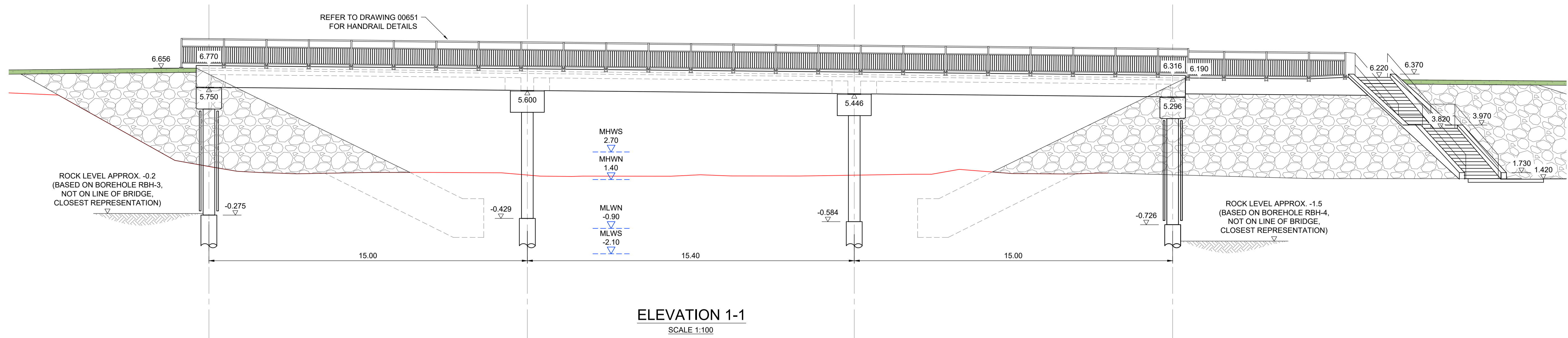
Project **Dighty Bridge**

Title **General Arrangement**

Client **Dundee City Council**

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Drawn:	A. Jaraba	04/10/2022	Designed:	S. Farrar	04/10/2022
Checked:	S. Farrar	04/10/2022	Approved:	S. Heaney	04/10/2022
Project Reference:	2021s0705		Scale:	As Shown @ A1	
Drawing Number:	18641-JBA-V1-XX-DR-C-00616		Status:	S3	Revision: P01
					Sheet Size: A1





- Drawing Notes**
- This drawing is to be read in conjunction with:
    - 18641-JBA-V1-XX-DR-C-00601-General\_Notes
    - 18641-JBA-V1-XX-DR-C-00606-Site\_Location\_Plan
    - 18641-JBA-V1-XX-DR-C-00611-Hazards\_&Constraints\_Plan
    - 18641-JBA-V1-XX-DR-C-00612-Site\_Clearance
    - 18641-JBA-V1-XX-DR-C-00616-General\_Arrangement
    - 18641-JBA-V1-XX-DR-C-00621-Proposed\_Sections\_&Elevations
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    - 18641-JBA-V1-XX-DR-C-00661-Proposed\_Stair\_Reinforcement\_Details
    - 18641-JBA-V1-XX-DR-C-00662-Proposed\_Stair\_Reinforcement\_Details

**LEGEND**

	PRE-CAST CONCRETE
	INSITU CONCRETE
	6N BACKFILL
	STONE REVETMENT
	ROCK ARMOUR
	EXISTING GROUND LEVEL
	PROPOSED GROUND LEVEL
	150mm CLASS 5A TOPSOIL SEEDED WITH GRASS MIX
	PRE-CAST CONCRETE WITH INSITU CONCRETE INFILL BRIDGE DECK
	EXISTING STRUCTURE
	PROPOSED FENCE
	EXISTING PATH
	5.672 EXISTING LEVELS
	6.23 PROPOSED LEVELS



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**JBA consulting**

Project **Dighty Bridge**

Title **Proposed Sections & Elevations - Sheet 1**

Client **Dundee City Council**

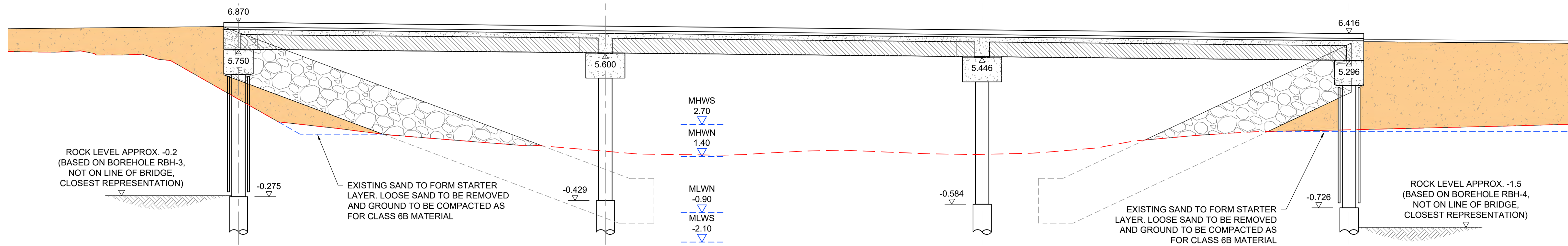
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Drawn: A. Jaraba	04/10/2022	Designed: S. Farrar	04/10/2022
Checked: S. Farrar	04/10/2022	Approved: S. Heaney	04/10/2022
Project Reference: 2021s0705	Scale: As Shown @ A1		
Drawing Number: 18641-JBA-V1-XX-DR-C-00621	Status: S3	Revision: P01	Sheet Size: A1

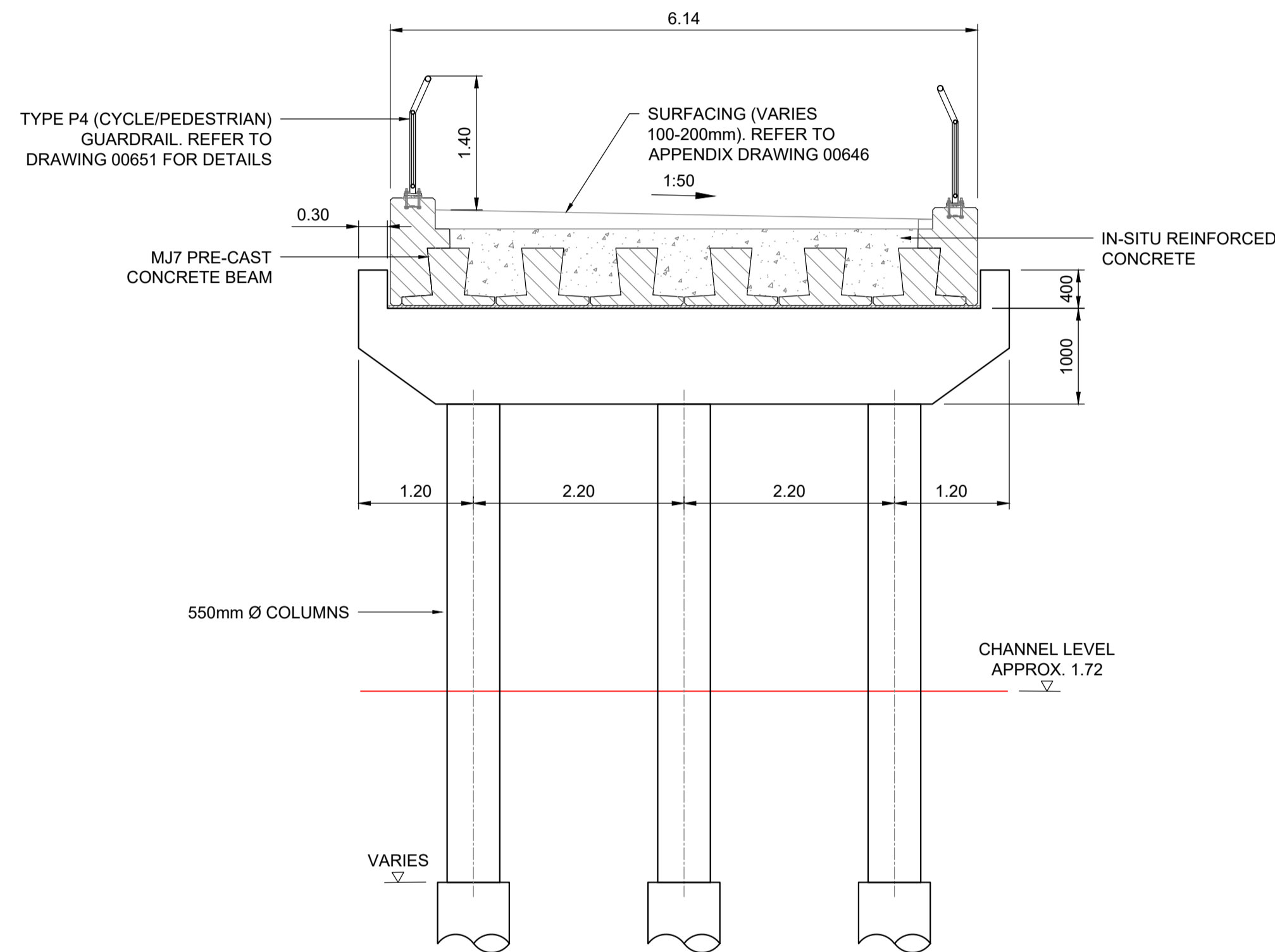
Drawing Notes

1. This drawing is to be read in conjunction with:

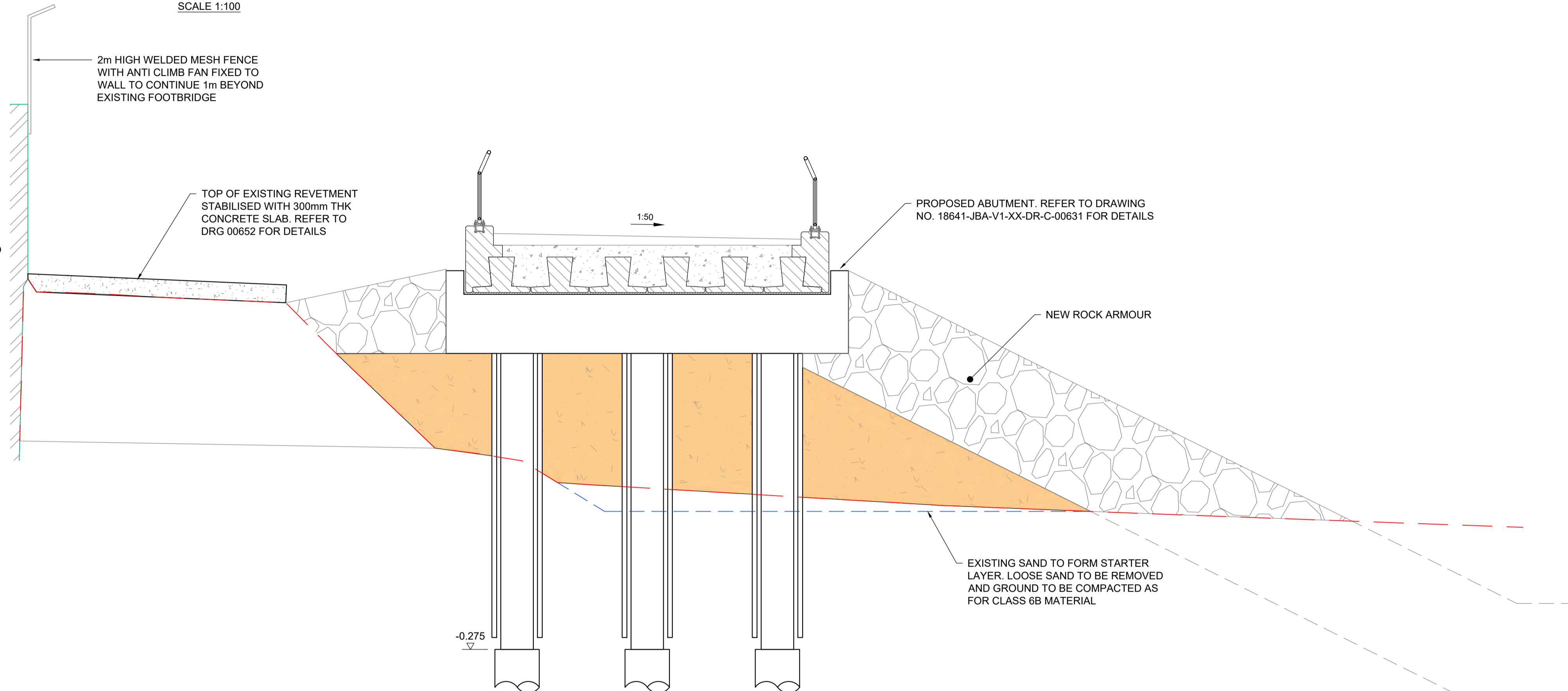
- 18641-JBA-V1-XX-DR-C-00601-General\_Notes
- 18641-JBA-V1-XX-DR-C-00606-Site\_Location\_Plan
- 18641-JBA-V1-XX-DR-C-00611-Hazards\_&\_Constraints\_Plan
- 18641-JBA-V1-XX-DR-C-00612-Site\_Clearance
- 18641-JBA-V1-XX-DR-C-00616-General\_Arrangement
- 18641-JBA-V1-XX-DR-C-00621-Proposed\_Sections\_&\_Elevations
- 18641-JBA-V1-XX-DR-C-00622-Proposed\_Sections\_&\_Elevations
- 18641-JBA-V1-XX-DR-C-00623-Proposed\_Sections\_&\_Elevations
- 18641-JBA-V1-XX-DR-C-00626-Proposed\_Pile\_Layout
- 18641-JBA-V1-XX-DR-C-00631-Proposed\_Pier\_&\_Abutment\_Details
- 18641-JBA-V1-XX-DR-C-00632-Proposed\_Pre-Cast\_Details
- 18641-JBA-V1-XX-DR-C-00636-Proposed\_Rock\_Armour\_Details
- 18641-JBA-V1-XX-DR-C-00641-Proposed\_Stair\_Details
- 18641-JBA-V1-XX-DR-C-00646-Proposed\_Finishes\_Layout
- 18641-JBA-V1-XX-DR-C-00651-Proposed\_Parapet\_&\_Lighting
- 18641-JBA-V1-XX-DR-C-00656-Proposed\_Reinforcement\_Details
- 18641-JBA-V1-XX-DR-C-00657-Proposed\_Reinforcement\_Details
- 18641-JBA-V1-XX-DR-C-00658-Proposed\_Abutment\_Reinforcement\_Details
- 18641-JBA-V1-XX-DR-C-00659-Proposed\_Central\_Pier\_Reinforcement\_Details
- 18641-JBA-V1-XX-DR-C-00660-Proposed\_Column\_Reinforcement\_Details
- 18641-JBA-V1-XX-DR-C-00661-Proposed\_Stair\_Reinforcement\_Details
- 18641-JBA-V1-XX-DR-C-00662-Proposed\_Stair\_Reinforcement\_Details



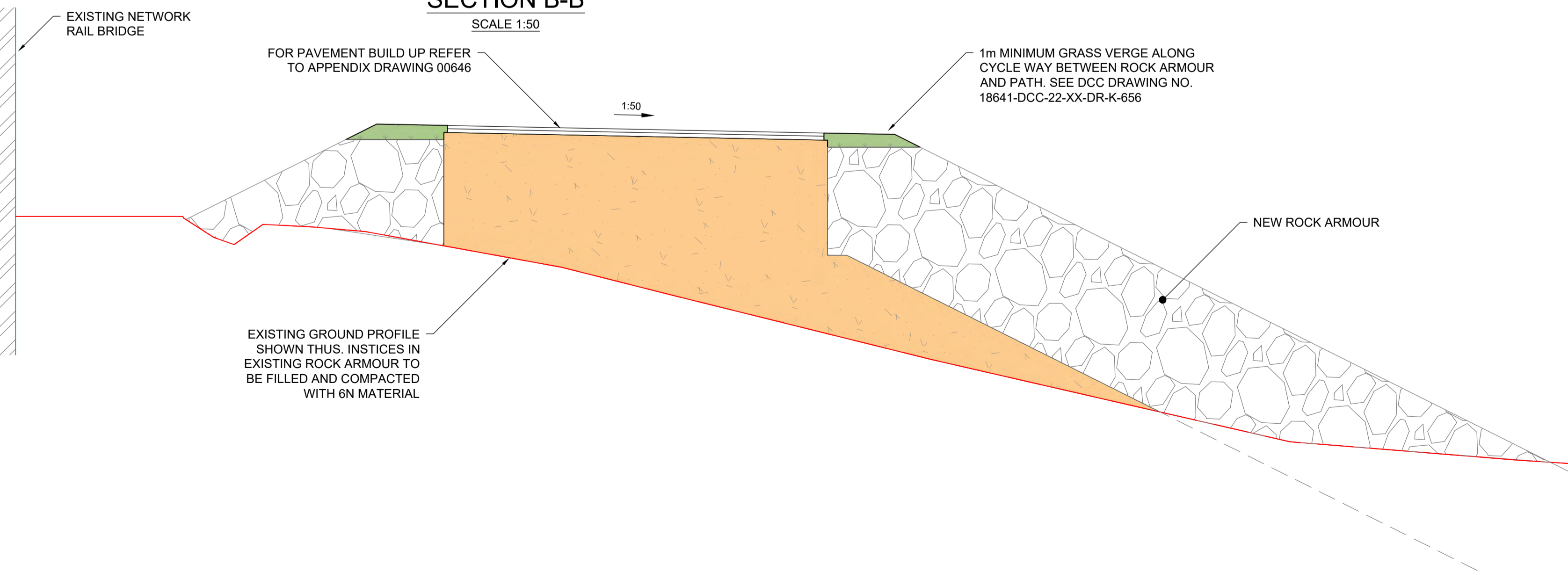
SECTION A-A  
SCALE 1:100



SECTION B-B  
SCALE 1:50



SECTION C-C  
SCALE 1:50



SECTION D-D  
SCALE 1:50

LEGEND

	PRE-CAST CONCRETE
	INSITU CONCRETE
	6N BACKFILL
	STONE REVETMENT
	ROCK ARMOUR
	EXISTING GROUND LEVEL
	PROPOSED GROUND LEVEL
	150mm CLASS 5A TOPSOIL SEEDED WITH GRASS MIX
	PRE-CAST CONCRETE WITH INSITU CONCRETE INFILL BRIDGE DECK
	EXISTING STRUCTURE
	PROPOSED FENCE
	EXISTING PATH
	EXISTING LEVELS
	PROPOSED LEVELS



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Project **Dighty Bridge**

Title **Proposed Sections & Elevations - Sheet 2**

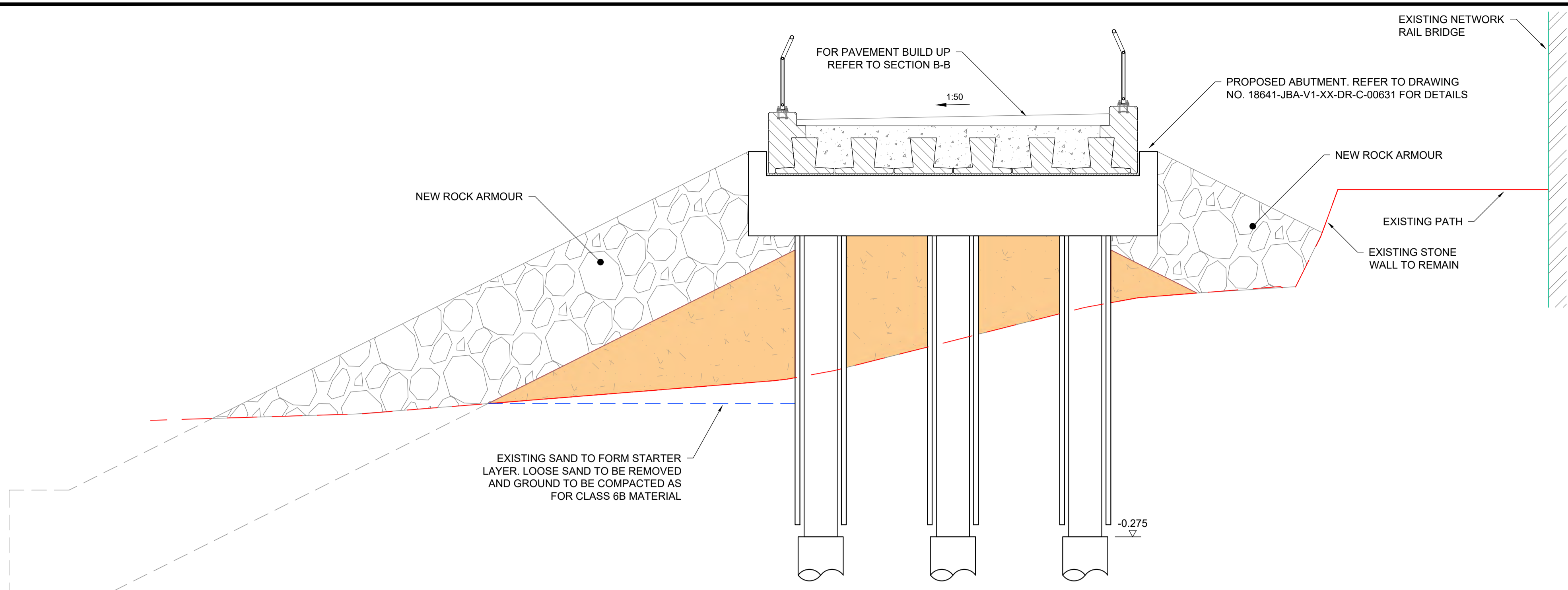
Client **Dundee City Council**

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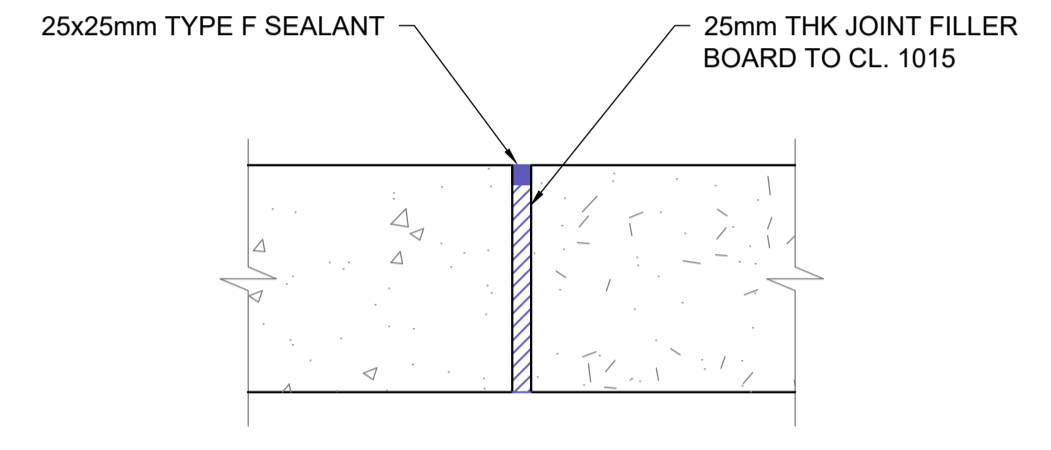
Drawn: A. Jaraba	04/10/2022	Designed: S. Farrar	04/10/2022
Checked: S. Farrar	04/10/2022	Approved: S. Heaney	04/10/2022
Project Reference: 2021s0705	Scale: As Shown @ A1		
Drawing Number: 18641-JBA-V1-XX-DR-C-00622	Status: S3	Revision: P01	Sheet Size: A1

Drawing Notes

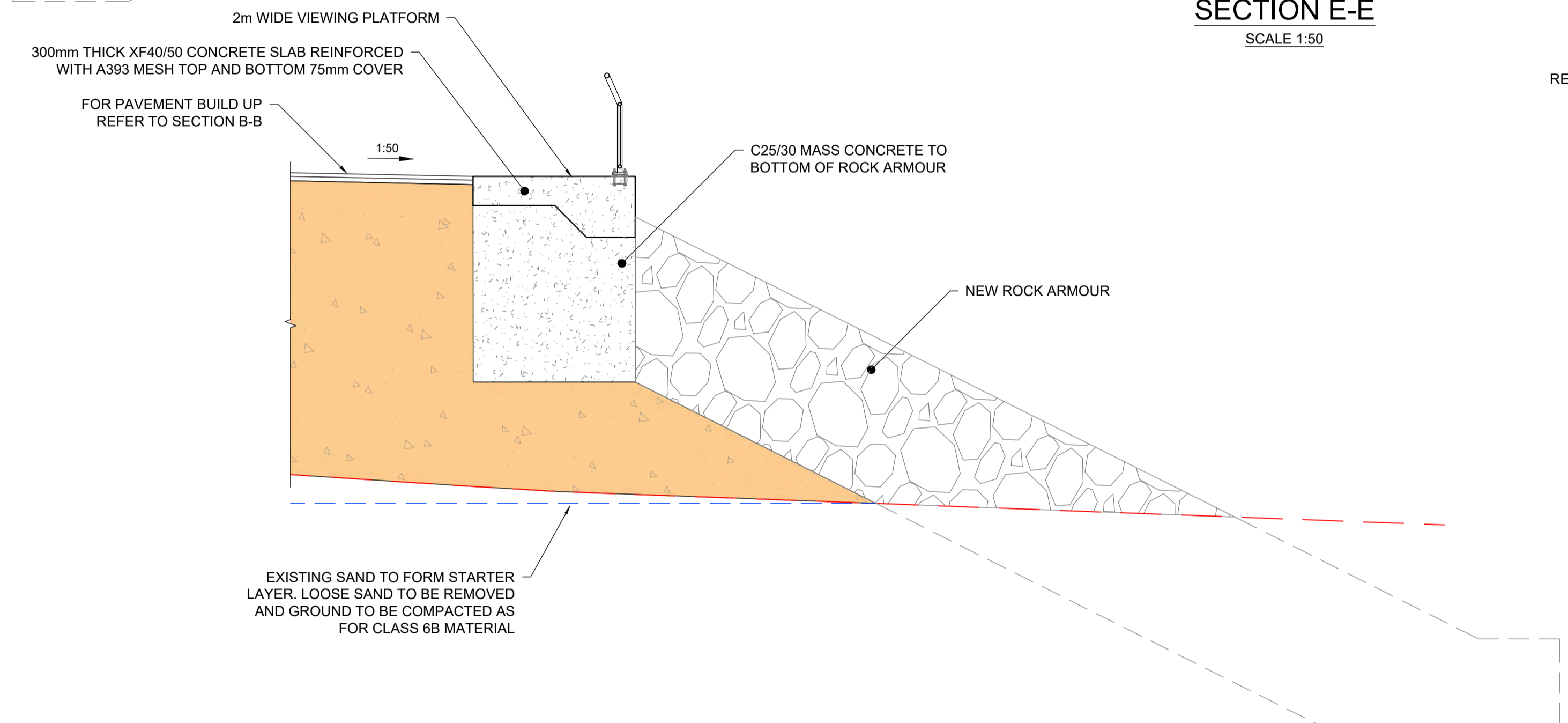
- This drawing is to be read in conjunction with:
  - 18641-JBA-V1-XX-DR-C-00601-General\_Notes
  - 18641-JBA-V1-XX-DR-C-00606-Site\_Location\_Plan
  - 18641-JBA-V1-XX-DR-C-00611-Hazards\_&Constraints\_Plan
  - 18641-JBA-V1-XX-DR-C-00612-Site\_Clearance
  - 18641-JBA-V1-XX-DR-C-00616-General\_Arrangement
  - 18641-JBA-V1-XX-DR-C-00621-Proposed\_Sections\_&Elevations
  - 18641-JBA-V1-XX-DR-C-00622-Proposed\_Sections\_&Elevations
  - 18641-JBA-V1-XX-DR-C-00623-Proposed\_Sections\_&Elevations
  - 18641-JBA-V1-XX-DR-C-00626-Proposed\_Pile\_Layout
  - 18641-JBA-V1-XX-DR-C-00631-Proposed\_Pier\_&Abutment\_Details
  - 18641-JBA-V1-XX-DR-C-00632-Proposed\_Pre-Cast\_Details
  - 18641-JBA-V1-XX-DR-C-00636-Proposed\_Rock\_Armour\_Details
  - 18641-JBA-V1-XX-DR-C-00641-Proposed\_Stair\_Details
  - 18641-JBA-V1-XX-DR-C-00646-Proposed\_Finishes\_Layout
  - 18641-JBA-V1-XX-DR-C-00651-Proposed\_Parapet\_&Lighting
  - 18641-JBA-V1-XX-DR-C-00656-Proposed\_Reinforcement\_Details
  - 18641-JBA-V1-XX-DR-C-00657-Proposed\_Reinforcement\_Details
  - 18641-JBA-V1-XX-DR-C-00658-Proposed\_Abutment\_Reinforcement\_Details
  - 18641-JBA-V1-XX-DR-C-00659-Proposed\_Central\_Pier\_Reinforcement\_Details
  - 18641-JBA-V1-XX-DR-C-00660-Proposed\_Column\_Reinforcement\_Details
  - 18641-JBA-V1-XX-DR-C-00661-Proposed\_Stair\_Reinforcement\_Details
  - 18641-JBA-V1-XX-DR-C-00662-Proposed\_Stair\_Reinforcement\_Details



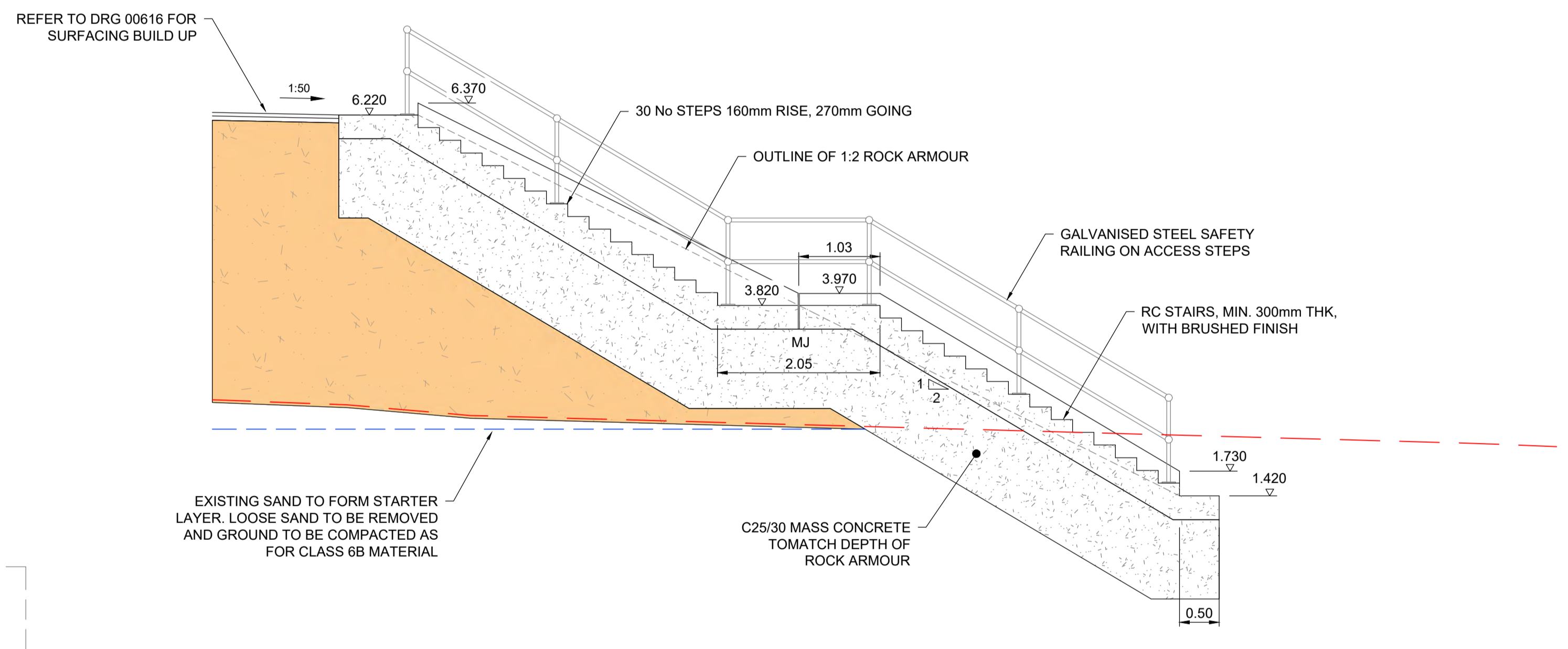
**SECTION E-E**  
SCALE 1:50



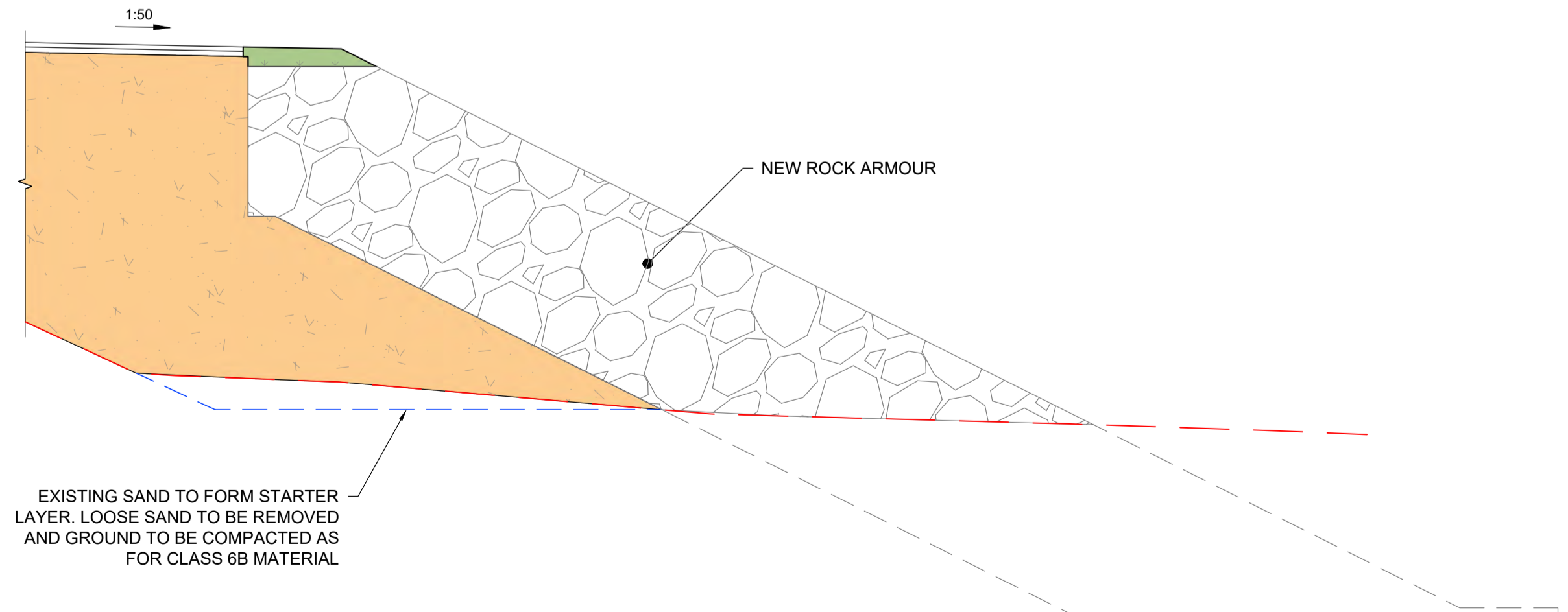
**TYPICAL MOVEMENT JOINT DETAIL**  
SCALE 1:10



**SECTION F-F**  
SCALE 1:50



**SECTION G-G**  
SCALE 1:50



**SECTION H-H**  
SCALE 1:50

**LEGEND**

	PRE-CAST CONCRETE
	INSITU CONCRETE
	6N BACKFILL
	STONE REVETMENT
	ROCK ARMOUR
	EXISTING GROUND LEVEL
	PROPOSED GROUND LEVEL
	150mm CLASS 5A TOPSOIL SEEDED WITH GRASS MIX
5.672	EXISTING LEVELS
6.23	PROPOSED LEVELS



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Project	<b>Dighty Bridge</b>		
Title	Proposed Sections & Elevations - Sheet 3		
Client	for <b>Dundee City Council</b>		
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Drawn:	A. Jaraba	04/10/2022	Designed: S. Farrar 04/10/2022
Checked:	S. Farrar	04/10/2022	Approved: S. Heaney 04/10/2022
Project Reference:	2021s0705	Scale:	As Shown @ A1
Drawing Number:	18641-JBA-V1-XX-DR-C-00623	Status:	S3
		Revision:	P01
		Sheet Size:	A1

PILE LOADING SCHEDULE

LOAD EFFECTS AT BOTTOM OF COLUMN/TOP OF PILE INTERFACE

ULS	MAXIMUM AXIAL WITH CO-EXISTING MAXIMUM MOMENT						ULS	MINIMUM AXIAL WITH CO-EXISTING MAXIMUM MOMENT					
	Abutment			Pier				Abutment			Pier		
	Axial (kN)	Moment (kNm)	Shear (kN)	Axial (kN)	Moment (kNm)	Shear (kN)		Axial (kN)	Moment (kNm)	Shear (kN)	Axial (kN)	Moment (kNm)	Shear (kN)
<b>Unfactored</b>							<b>Unfactored</b>						
Permanent	597	203	82	1092	83	34	Permanent	480	181	98	833	53	22
Variable	129	213	108	97	86	63	Variable	71	205	96	30	79	51
<b>Total</b>	<b>726</b>	<b>417</b>	<b>190</b>	<b>1189</b>	<b>169</b>	<b>97</b>	<b>Total</b>	<b>551</b>	<b>386</b>	<b>194</b>	<b>863</b>	<b>132</b>	<b>73</b>
<b>Factored Combination 1</b>							<b>Factored Combination 1</b>						
Permanent	785	262	104	1429	104	42	Permanent	639	235	123	1108	68	28
Variable	189	329	166	137	132	95	Variable	110	318	149	47	122	79
<b>Total</b>	<b>974</b>	<b>591</b>	<b>270</b>	<b>1566</b>	<b>236</b>	<b>137</b>	<b>Total</b>	<b>749</b>	<b>552</b>	<b>272</b>	<b>1155</b>	<b>190</b>	<b>107</b>
<b>Factored Combination 2</b>							<b>Factored Combination 2</b>						
Permanent	597	190	101	1092	83	34	Permanent	534	187	98	833	53	22
Variable	159	276	139	116	111	80	Variable	92	267	125	39	103	66
<b>Total</b>	<b>756</b>	<b>466</b>	<b>240</b>	<b>1208</b>	<b>194</b>	<b>114</b>	<b>Total</b>	<b>626</b>	<b>454</b>	<b>223</b>	<b>872</b>	<b>156</b>	<b>88</b>

ACCIDENTAL LOADCASES (EXTREME WAVE)

Accidental Design	MAXIMUM AXIAL WITH CO-EXISTING MAXIMUM MOMENT						Accidental Design	MINIMUM AXIAL WITH CO-EXISTING MAXIMUM MOMENT					
	Abutment			Pier				Abutment			Pier		
	Axial (kN)	Moment (kNm)	Shear (kN)	Axial (kN)	Moment (kNm)	Shear (kN)		Axial (kN)	Moment (kNm)	Shear (kN)	Axial (kN)	Moment (kNm)	Shear (kN)
Permanent	597	203	82	1092	83	34	Permanent	480	181	98	833	53	22
Variable	362	323	130	393	360	144	Variable	-276	323	130	-357	360	144
<b>Total</b>	<b>958</b>	<b>467</b>	<b>188</b>	<b>1485</b>	<b>419</b>	<b>168</b>	<b>Total</b>	<b>204</b>	<b>451</b>	<b>200</b>	<b>476</b>	<b>397</b>	<b>160</b>

LOAD FACTORS

Action	Combination 1	Combination 2	Accidental factors	$\psi_0$	$\psi_1$
Dead	1.35	1	1	-	-
SDL	1.2	1	1	-	-
Settlement	1.2	1	1	-	-
Pedestrian	1.35	1.15	1	0.4	0
Vehicle	1.35	1.15	1	0.4	0
Temperature	1.55	1.3	1	0.6	0.6
Wave	0	0	1	-	-

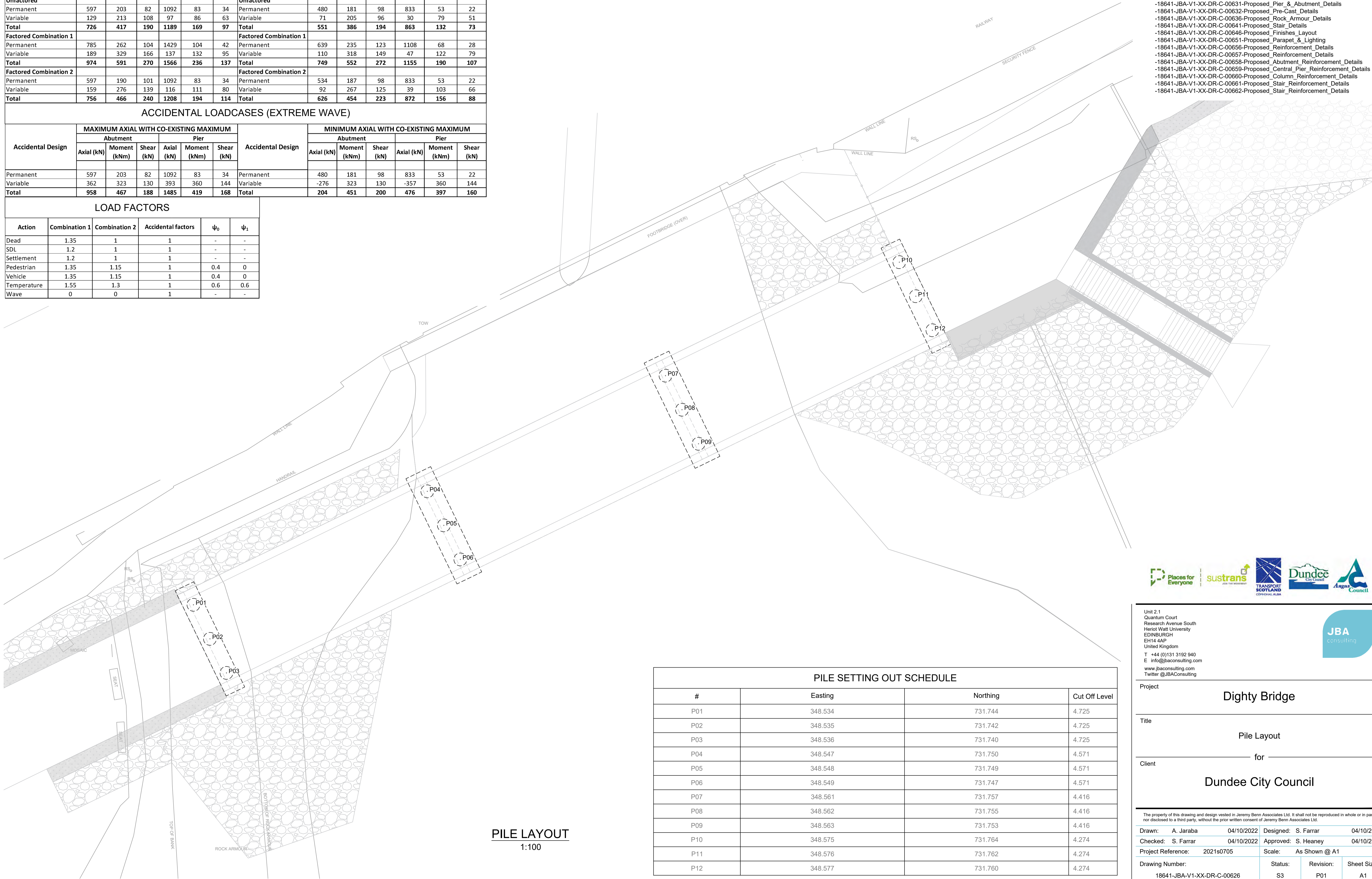
NOTE 1:  
IN THE DESIGN OF FOOTBRIDGES, WIND AND THERMAL ACTIONS ARE NOT TO BE CONSIDERED SIMULTANEOUSLY ACCORDING TO THE BS EN 1990. THERMAL ACTIONS BEING MORE CRITICAL THAN WIND ACTIONS, THE LATTER HAVE THEREFORE BEEN IGNORED.

NOTE 2:  
THE WAVE IMPACT LOAD CASE HAS BEEN ESTIMATED IN THE 1:200 YEAR EVENT WITH AN ALLOWANCE FOR CLIMATE CHANGE IN THE YEAR 2121. NO SCOUR AT THE BASE OF THE COLUMNS WAS ASSUMED.

NOTE 3:  
FACTORS, DESIGN FORCES AND MOMENTS FOLLOW THE RECOMMENDATIONS OF THE BS EN 1990:2002+A1:2005 NA

Drawing Notes

- This drawing is to be read in conjunction with:
  - 18641-JBA-V1-XX-DR-C-00601-General\_Notes
  - 18641-JBA-V1-XX-DR-C-00606-Site\_Location\_Plan
  - 18641-JBA-V1-XX-DR-C-00611-Hazards\_&Constraints\_Plan
  - 18641-JBA-V1-XX-DR-C-00612-Site\_Clearance
  - 18641-JBA-V1-XX-DR-C-00616-General\_Arrangement
  - 18641-JBA-V1-XX-DR-C-00621-Proposed\_Sections\_&Elevations
  - 18641-JBA-V1-XX-DR-C-00622-Proposed\_Sections\_&Elevations
  - 18641-JBA-V1-XX-DR-C-00623-Proposed\_Sections\_&Elevations
  - 18641-JBA-V1-XX-DR-C-00626-Proposed\_Pile\_Layout
  - 18641-JBA-V1-XX-DR-C-00631-Proposed\_Pier\_&Abutment\_Details
  - 18641-JBA-V1-XX-DR-C-00632-Proposed\_Pre-Cast\_Details
  - 18641-JBA-V1-XX-DR-C-00636-Proposed\_Rock\_Armour\_Details
  - 18641-JBA-V1-XX-DR-C-00641-Proposed\_Stair\_Details
  - 18641-JBA-V1-XX-DR-C-00646-Proposed\_Finishes\_Layout
  - 18641-JBA-V1-XX-DR-C-00651-Proposed\_Parapet\_&Lighting
  - 18641-JBA-V1-XX-DR-C-00656-Proposed\_Reinforcement\_Details
  - 18641-JBA-V1-XX-DR-C-00657-Proposed\_Reinforcement\_Details
  - 18641-JBA-V1-XX-DR-C-00658-Proposed\_Abutment\_Reinforcement\_Details
  - 18641-JBA-V1-XX-DR-C-00659-Proposed\_Central\_Pier\_Reinforcement\_Details
  - 18641-JBA-V1-XX-DR-C-00660-Proposed\_Column\_Reinforcement\_Details
  - 18641-JBA-V1-XX-DR-C-00661-Proposed\_Stair\_Reinforcement\_Details
  - 18641-JBA-V1-XX-DR-C-00662-Proposed\_Stair\_Reinforcement\_Details



PILE LAYOUT  
1:100

PILE SETTING OUT SCHEDULE			
#	Easting	Northing	Cut Off Level
P01	348.534	731.744	4.725
P02	348.535	731.742	4.725
P03	348.536	731.740	4.725
P04	348.547	731.750	4.571
P05	348.548	731.749	4.571
P06	348.549	731.747	4.571
P07	348.561	731.757	4.416
P08	348.562	731.755	4.416
P09	348.563	731.753	4.416
P10	348.575	731.764	4.274
P11	348.576	731.762	4.274
P12	348.577	731.760	4.274



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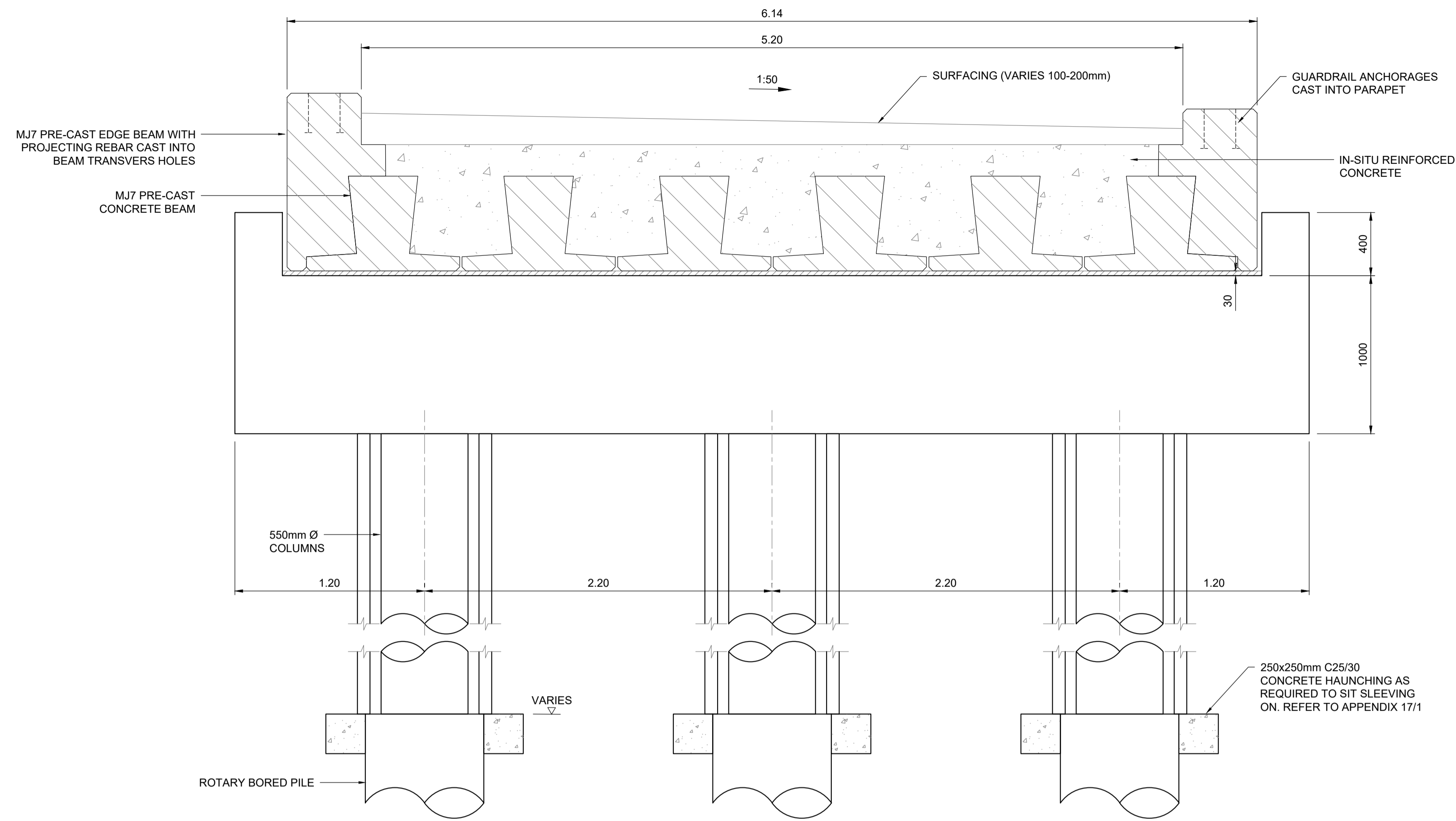
Project **Dighty Bridge**

Title **Pile Layout**

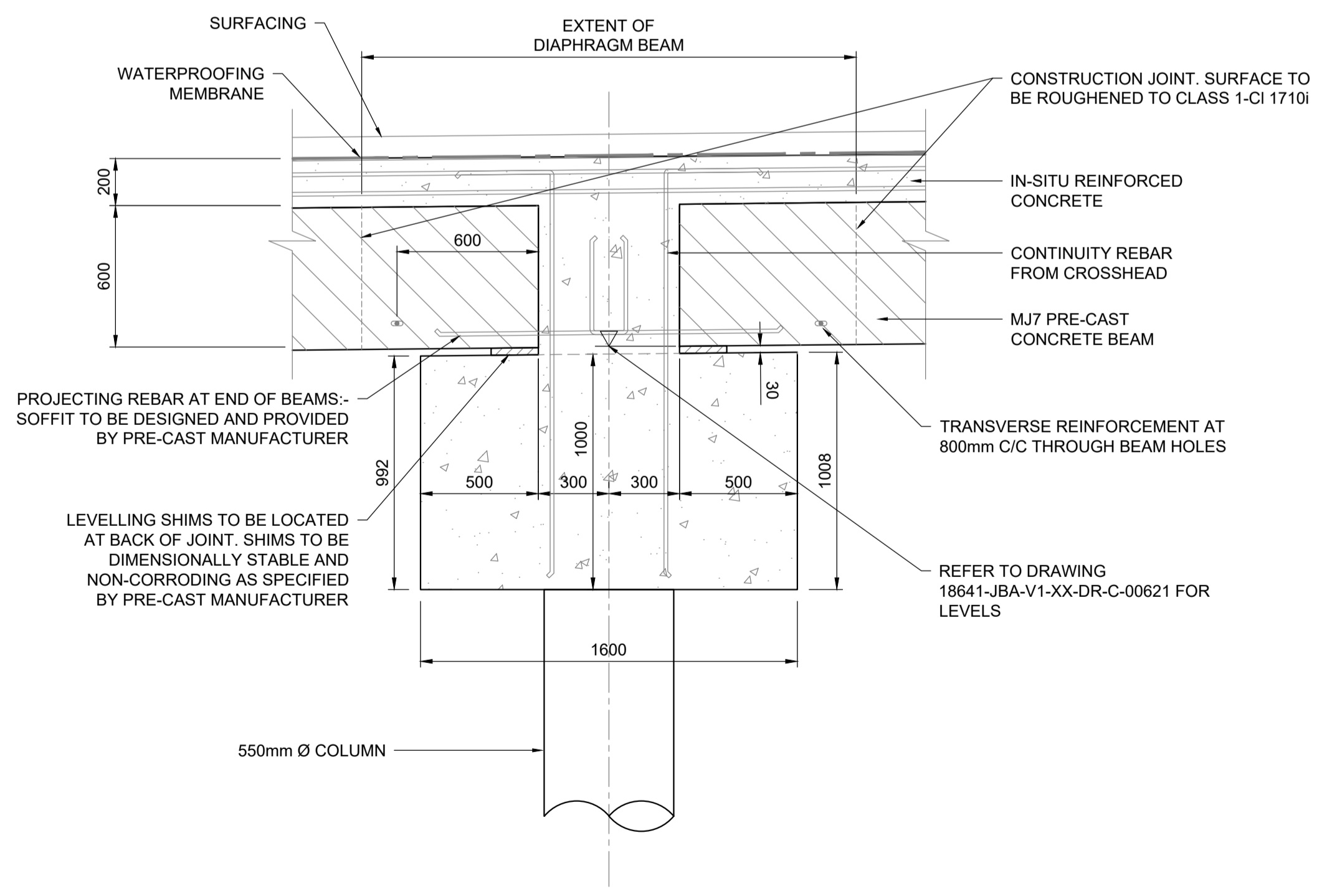
Client **Dundee City Council**

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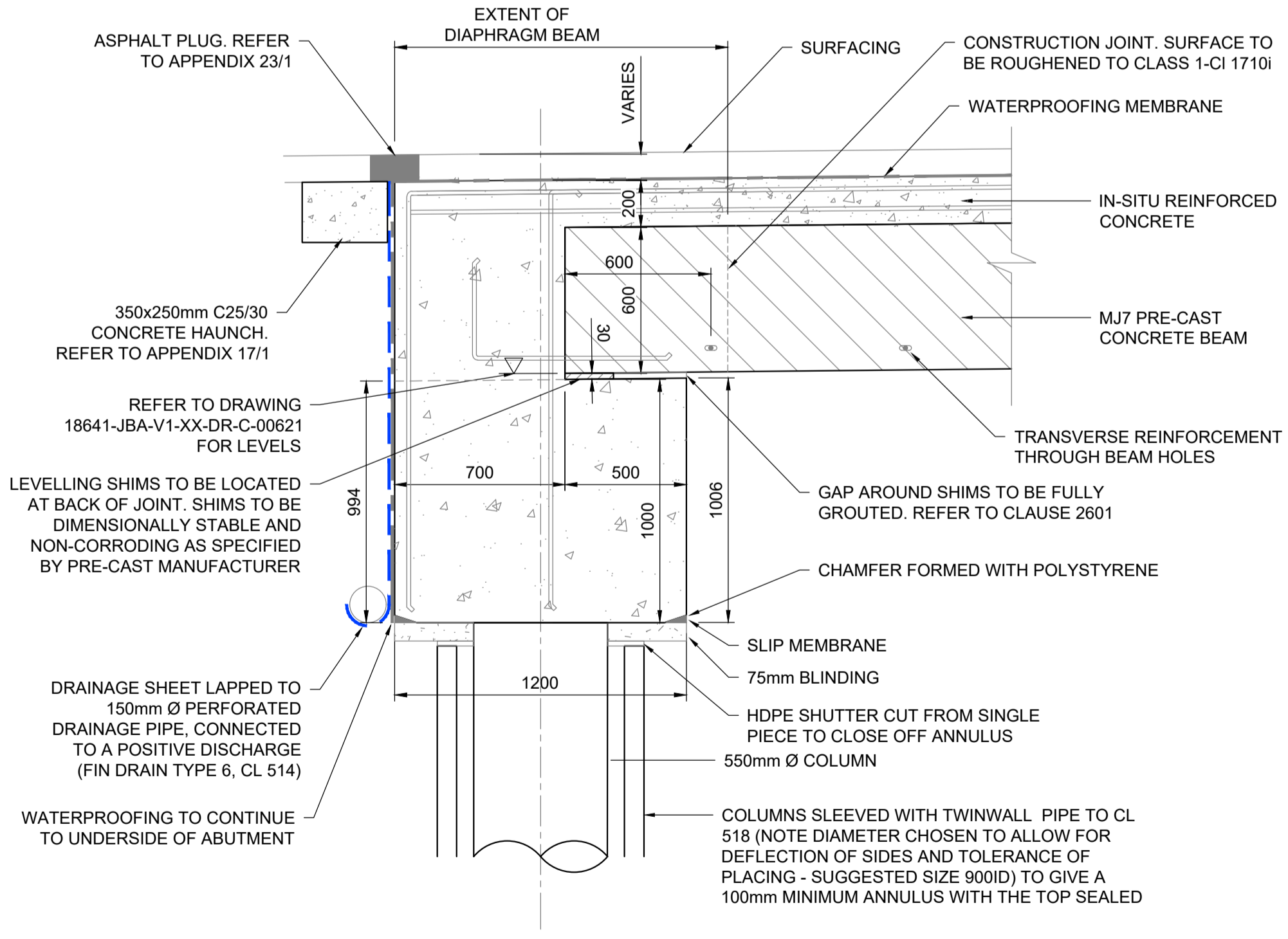
Drawn: A. Jaraba	04/10/2022	Designed: S. Farrar	04/10/2022
Checked: S. Farrar	04/10/2022	Approved: S. Heaney	04/10/2022
Project Reference: 2021s0705	Scale: As Shown @ A1		
Drawing Number: 18641-JBA-V1-XX-DR-C-00626	Status: S3	Revision: P01	Sheet Size: A1



**PROPOSED ABUTMENT ELEVATION**  
SCALE 1:20



**PROPOSED CENTRAL PIER SUPPORT DETAIL**  
SCALE 1:20



**PROPOSED ABUTMENT DETAIL**  
SCALE 1:20

- Drawing Notes**
- This drawing is to be read in conjunction with:
    - 18641-JBA-V1-XX-DR-C-00601-General\_Notes
    - 18641-JBA-V1-XX-DR-C-00606-Site\_Location\_Plan
    - 18641-JBA-V1-XX-DR-C-00611-Hazards\_&Constraints\_Plan
    - 18641-JBA-V1-XX-DR-C-00612-Site\_Clearance
    - 18641-JBA-V1-XX-DR-C-00616-General\_Arrangement
    - 18641-JBA-V1-XX-DR-C-00621-Proposed\_Sections\_&Elevations
    - 18641-JBA-V1-XX-DR-C-00622-Proposed\_Sections\_&Elevations
    - 18641-JBA-V1-XX-DR-C-00623-Proposed\_Sections\_&Elevations
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    - 18641-JBA-V1-XX-DR-C-00632-Proposed\_Pre-Cast\_Details
    - 18641-JBA-V1-XX-DR-C-00636-Proposed\_Rock\_Armour\_Details
    - 18641-JBA-V1-XX-DR-C-00641-Proposed\_Stair\_Details
    - 18641-JBA-V1-XX-DR-C-00646-Proposed\_Finishes\_Layout
    - 18641-JBA-V1-XX-DR-C-00651-Proposed\_Parapet\_Lighting
    - 18641-JBA-V1-XX-DR-C-00656-Proposed\_Reinforcement\_Details
    - 18641-JBA-V1-XX-DR-C-00657-Proposed\_Reinforcement\_Details
    - 18641-JBA-V1-XX-DR-C-00658-Proposed\_Abutment\_Reinforcement\_Details
    - 18641-JBA-V1-XX-DR-C-00659-Proposed\_Central\_Pier\_Reinforcement\_Details
    - 18641-JBA-V1-XX-DR-C-00660-Proposed\_Column\_Reinforcement\_Details
    - 18641-JBA-V1-XX-DR-C-00661-Proposed\_Stair\_Reinforcement\_Details
    - 18641-JBA-V1-XX-DR-C-00662-Proposed\_Stair\_Reinforcement\_Details

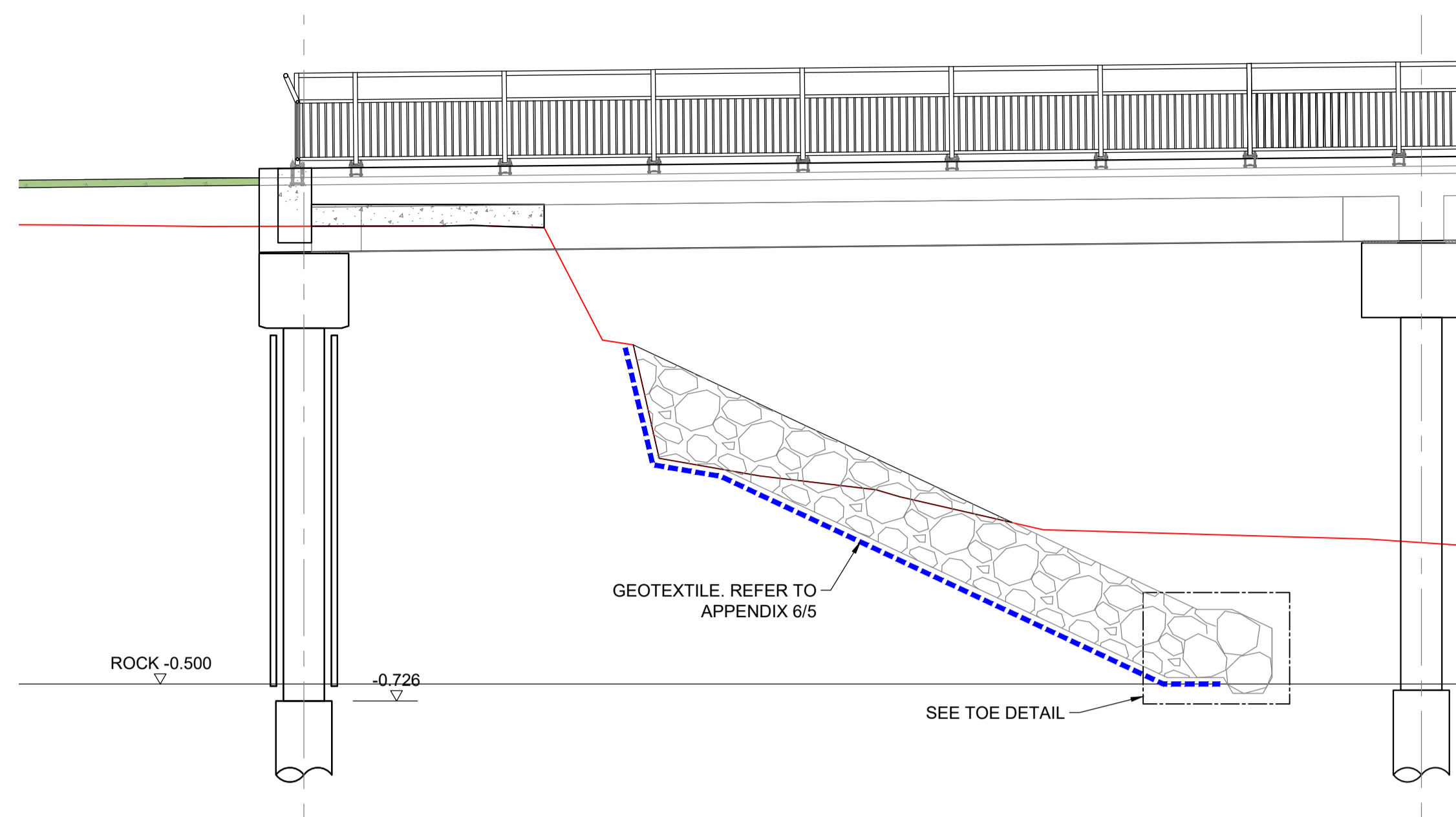


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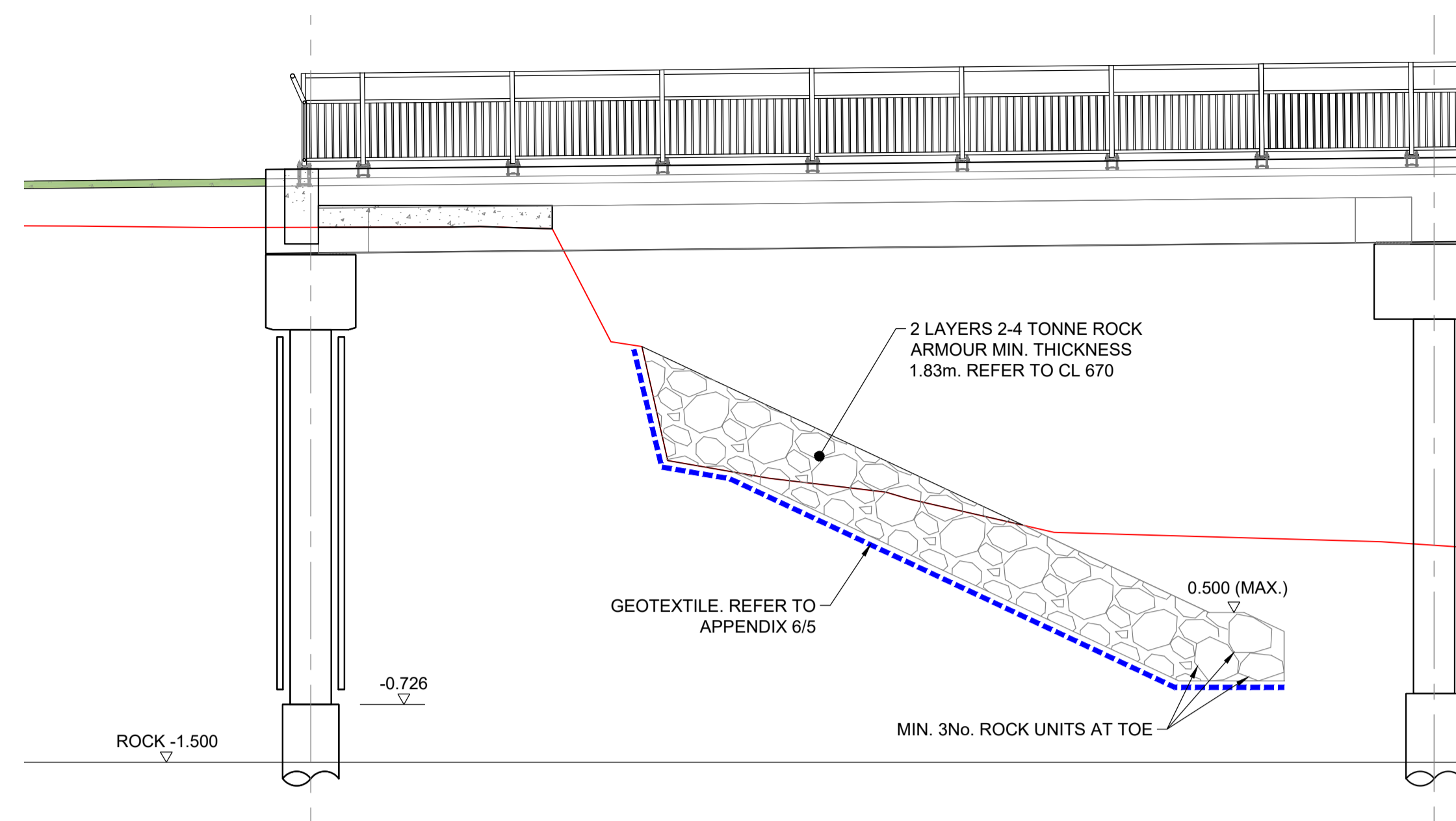
Project	Dighty Bridge		
Title	Proposed Pier & Abutment Details		
Client	for Dundee City Council		

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Drawn: P. Smith	Designed: S. Farrar		
Checked: S. Farrar	Approved: S. Heaney		
Project Reference: 2021s0705	Scale: As Shown @ A1		
Drawing Number: 18641-JBA-V1-XX-DR-C-00631	Status: S3	Revision: P01	Sheet Size: A1



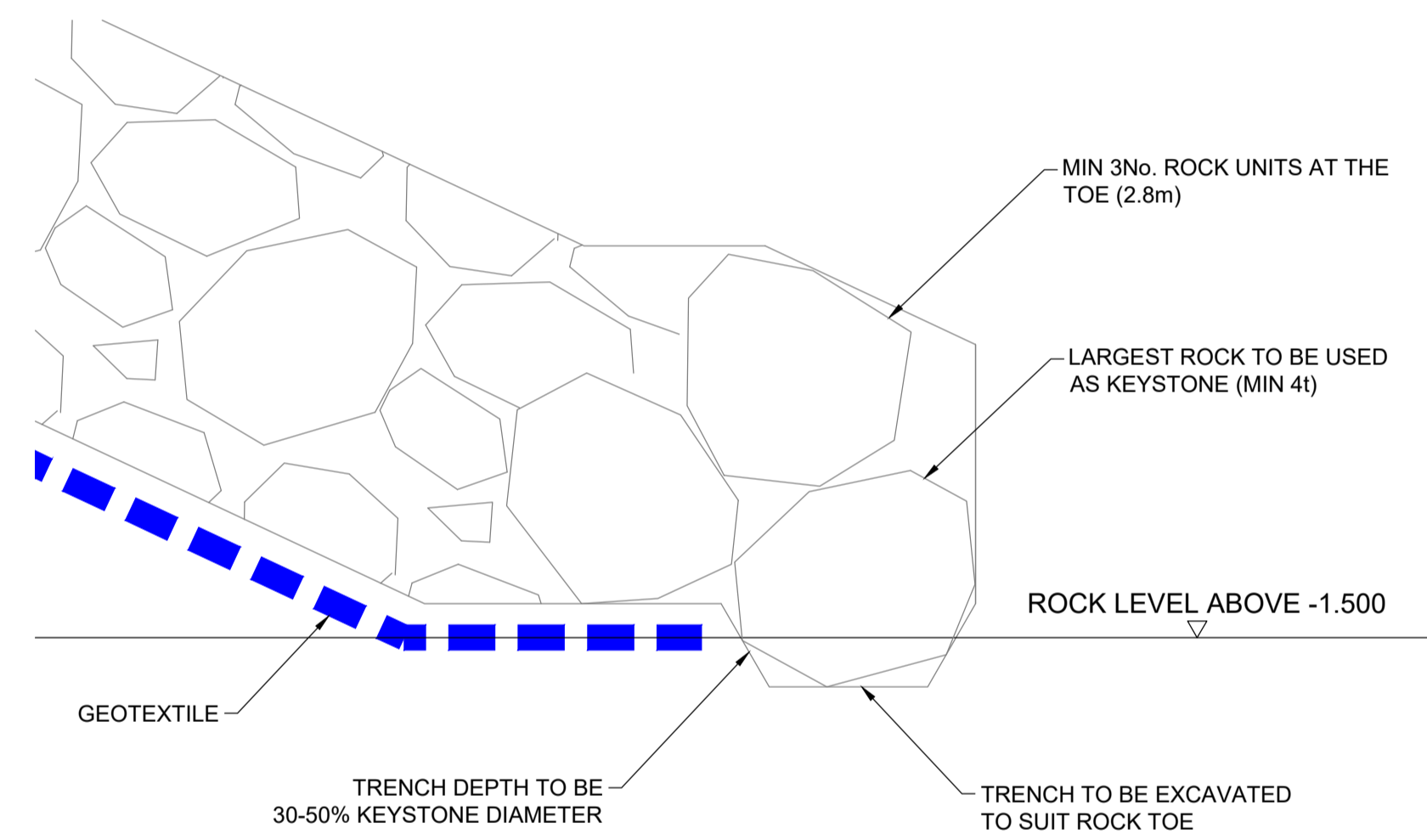
TYPICAL SECTION WHEN ROCK IS ABOVE -1.5mAOD

SCALE 1:20



TYPICAL SECTION WHEN ROCK IS BELOW -1.5mAOD

SCALE 1:20



TOE DETAIL

SCALE 1:5

1			
2			
No.	Construction Risk	Maintenance Risk	Demolition Risk

In addition to the hazards/risks normally associated with the types of work detailed on this drawing take note of the above.

**SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION BOX**

**General Notes**

- A. All dimensions shown are in m unless otherwise stated and levels in metres to Ordnance Datum.
- B. Do not scale from this drawing. All dimensions must be checked/verified on site.
- C. Any discrepancies noted on site are to be reported to the Supervisor immediately.
- D. The locations of any known services shown on drawing are approximate and for guidance only. The Contractor will confirm the location of any services prior to the commencement of any works.
- E. The electronic version of this drawing is not to be used for setting out.
- F. Refer to Contract Specification for details of materials and workmanship to be used for the works shown on this drawing.

**Drawing Notes**

1. This drawing is to be read in conjunction with:
  - 18641-JBA-V1-XX-DR-C-00601-General\_Notes
  - 18641-JBA-V1-XX-DR-C-00606-Site\_Location\_Plan
  - 18641-JBA-V1-XX-DR-C-00611-Hazards\_&\_Constraints\_Plan
  - 18641-JBA-V1-XX-DR-C-00612-Site\_Clearance
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  - 18641-JBA-V1-XX-DR-C-00662-Proposed\_Stair\_Reinforcement\_Details

**LEGEND**

- EXISTING GROUND LEVEL
- - - - EXTENT OF EROSION CONTROL GEOTEXTILE



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Project **Digby Bridge**

Title **Proposed Rock Armour Details**

Client **Dundee City Council**

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