



RED WHARF BAY SEA DEFENCE WALL FBC,

METHOD STATEMENT

CPF 6991



YGC
Council Offices
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Document Control Sheet

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Revision History

Date	Version No.	Summary of Changes
	0.01	First Draft
	0.02	Final Draft

Approvals

Approved by	Signature	Date	Version
Owen Angus Duncan	Senior Engineer	18/05/2021	0.02

Distribution

Name	Title	Date	Version
Bethan Moseley	Technical Assistant	19/05/2021	0.02

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ISO9001:2008
FS526386



ISO14001:2004
EMS 526388



ISO18001:2007
OHS 526389

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1.0 Introduction

This document has been prepared by YGC on behalf of Anglesey County Council to compile a full business case into the provision of an increased protection level to the existing sea defence wall. (Grid Ref 259919,380989).

At the early design stages, it has been determined that the scheme be split into six sections. The first two sections will involve installing new precast concrete section on a cast in situ concrete base. The remaining four sections will involve raising the level of the existing wall, however this will involve significant pointing and grouting of voids. Works are expected to commence before March/April 2022. Proposals details and location are shown in drawing 6991 contained in Appendix A to this document.

The purpose of this document is to outline the methods which will be adopted to undertake the works whilst safeguarding the aquatic and riparian habitat either side of the structure. Compliance with these measures will form a condition of the contract on appointment of the successful contractor for the works.

2.0 Methodology

1. Establish site compound. Provide traffic management and erect diversion signs (if required)
2. The working area is to be securely fenced off using protective barriers to prevent any unauthorised persons entering the work area. Warning signs shall be erected advising others to 'Keep Out'.
3. Locate and mark out existing services, erect suitable protective measures.

Section 1 and 2 – Pre Cast Concrete Section.

4. General Site Clearance. Remove existing tree at section 1 if required.
5. Excavation:

The proposed wall at Section 1 has been set back to avoid working on the beach / area highlighted as Special Area of Conservation (SAC). All material is to remain on site.

Section 2 will involve removal of existing gabions and excavation on the beach front. It is required to carry out the works on section 2 during spring tides to allow sufficient opportunities between springs and neap tides.

Unacceptable excavated material will be disposed responsibly off site (made up ground, bituminous material from car park etc).

6. Formwork and Casting of Proposed Concrete Base:

Cast in situ proposed new concrete base to provide fixing for the precast concrete sections.

Contractors will be required to assess and work around the tidal conditions to this site.

Precautions and temporary works will be required to avoid any risk of contamination.

Imported concrete required.

7. Delivery of pre-cast concrete sections (multiple).

8. Position the precast concrete sections onto the concrete base and fix down using bolts. At vertical joints between sections it will be required to seal all gaps using adequate sealant.

All external masonry finishes to precast sections to be carried out in moulding process off site. This will reduce the construction whilst working in the SAC.

Works will possibly involve grouting or mortar bedding and additional sealant to avoid water penetration on the external face.

9. Masonry cladding to internal (rear) of existing wall by constructing a cast in-situ concrete base and dwarf masonry wall.

10. Reinstatement / Backfilling:

Backfill to Structure – Install back of wall drainage, apply waterproofing and backfill with Class 6N imported material.

Reinstate Car Park – Full carriageway construction will involve importing bituminous material. Road markings to be put down upon completion of the scheme.

Landscaping – Remove from store all acceptable material and backfill / landscape the area behind section 2 wall. Additional topsoil may be required therefore additional import of material.

11. SuDS – Scheme to undergo a full sustainable drainage design during the detailed design stage.

Section 3 to 6 – Pressure pointing and Grouting of Voids.

12. Erect temporary working platform / scaffold to contractor's design. Contractor to assess and consider tide times, heights and ground stability.
13. Take down existing fencing / vrs and parapet wall (masonry). All materials except for masonry to be disposed of responsibly off site.
14. Before the commencement of the pointing works of the wall can commence, it will be necessary to remove all existing Mortar vegetation from the wall joints, whilst any loose masonry mortar will be removed by jet wash and air lance.
15. Carry out pointing work to external masonry wall.
16. 50mm plastic pipes will be placed in the wall in a 1.5m diamond grid to accommodate the Grouting of the inner wall where specified or used as weep pipes.
17. Following the completion of the above steps, the pressure pointing / grouting works can be commenced, works will generally start at the base of the wall working along and then up the wall in a systematic manner ensure that all sections of the wall are suitably pointed. The above operation is repeated until the entire wall has been successfully re-pointed.
18. At the end of each day and upon completion of the works, remove all rubbish, scrap and waste materials/packaging from the premises and dispose of appropriately within the site skips. Thoroughly clean through the area and all transit routes leaving the site in a clean and tidy state.
19. Remove working platform / scaffold and netting once work is completed on the outer face of the wall.
20. Excavate behind wall and infill any significant voids. The previous process of pointing and grouting will alleviate any risk of contamination.
21. Construct proposed new wall to the desired height. Staging or working platform will be required on the external phase to carry out this exercise. Work to be determined by tidal calendar.
22. Backfill and Reinstall Carriageway and Car Park with road markings where required.
23. SuDS – Scheme to undergo a full sustainable drainage design during the detailed design stage.

List of Drawings:**6991/LP/1000****6991/GA/1001 - 1006**

3.0 Standard Practice

1. During all phases of work good working practices in accordance with PPG5, should minimise the risk of hazardous material entering watercourse directly or as runoff
2. No materials or refuelling plants are to be stored within 10m of the sea front / beach.
3. All fuel storage tanks will be bunded and spill kits are to be available on site
4. Any water that comes into contact with wet concrete must be treated as contaminated and must not be allowed to discharge into the watercourse.
5. All precautions are to be taken to prevent sedimentation of the watercourse, should discolouration occur, work is to be stopped and working practices reviewed.
6. No dewatering water shall be discharged to any watercourse without first receiving sufficient settlement to settle out all solids
7. Any waste excavation material or building waste generated in the course of this work must be disposed of satisfactorily and in accordance with Section 34 of the Environment Protection Act 1990
8. Any in river works should not excessively disturb the riverbed and cause silting of the watercourse

4.0 Emergency Procedures

The weather will be monitored constantly throughout the contract and the following procedures put into place should there be a risk of flooding:

1. Should circumstances dictate, it is possible to remove the coffer dam or culvert headwalls from the river and stored within the compound
2. All sandbags will be checked and adequately sealed to prevent potential washout should the coffer dam be overtopped
3. All works made secure and surplus or loose materials removed
4. Pump on standby at all times when cementitious material is being used

5.0 Emergency Contacts

NRW incident hotline: 0800 807060

HSE hotline: 0845 3009923

Jason Humphreys (Project Manager YGC): 07877826896

Bethan Moseley (Ecologist YGC): 07799 845 982

APPENDIX A

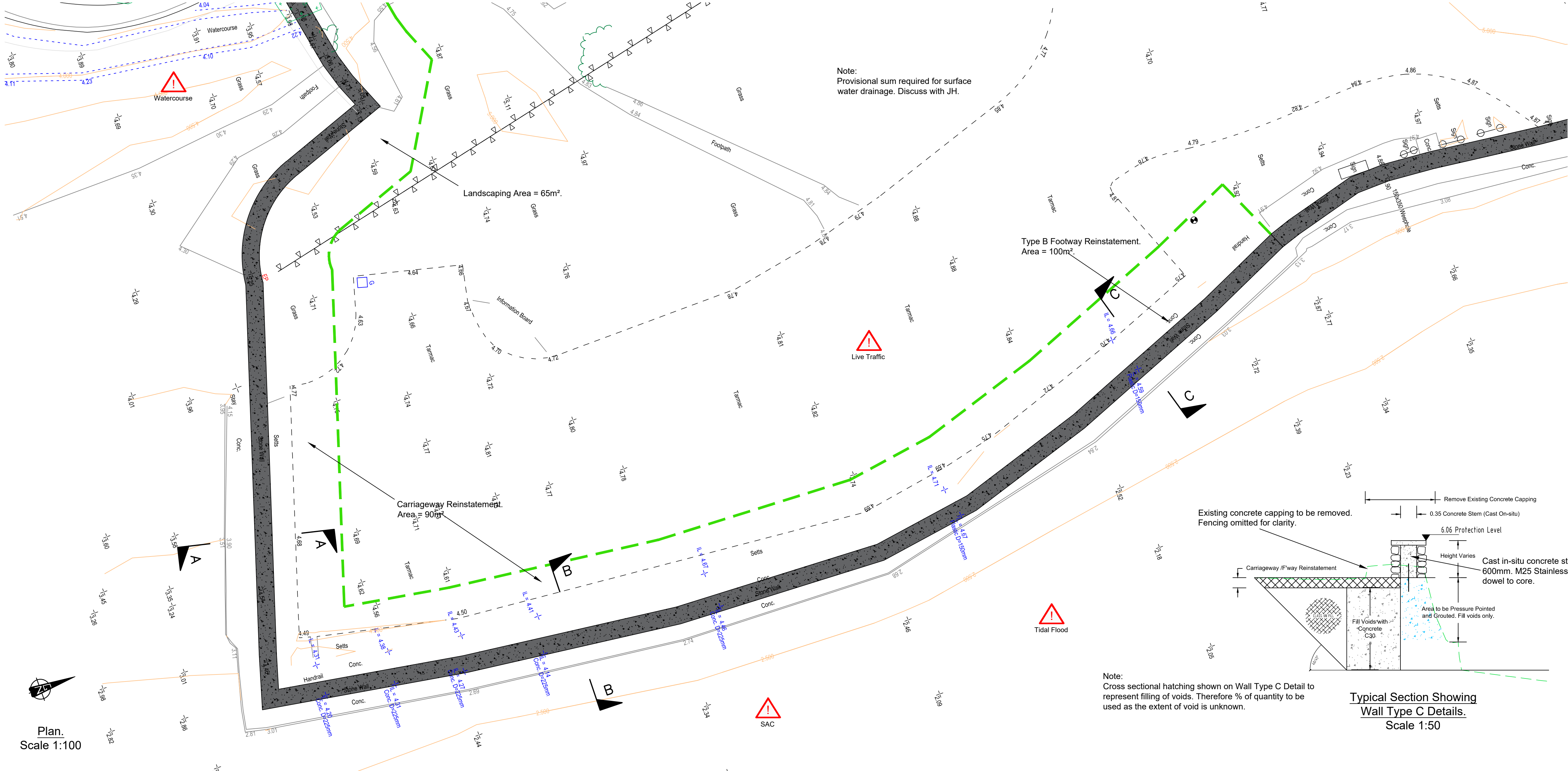
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Note:

- Pre-cast concrete sections will be 1.2m. Length.
- Expansion Joint and Sealant required.
- Price per unit and delivery required.
- Back of pre-cast concrete section to be painted with bitumen sealant (waterproofing).
- All footpath within excavation outline will need to be reinstated as per Type A Footway Construction of SD/M102 C.
- All masonry to match. Section facing to be cast into section during fabrication.

Rhif Lluniad	
Drawing No.	6991/GA/1001

Rhif Lluniad	
Drawing No.	6991/GA/1001



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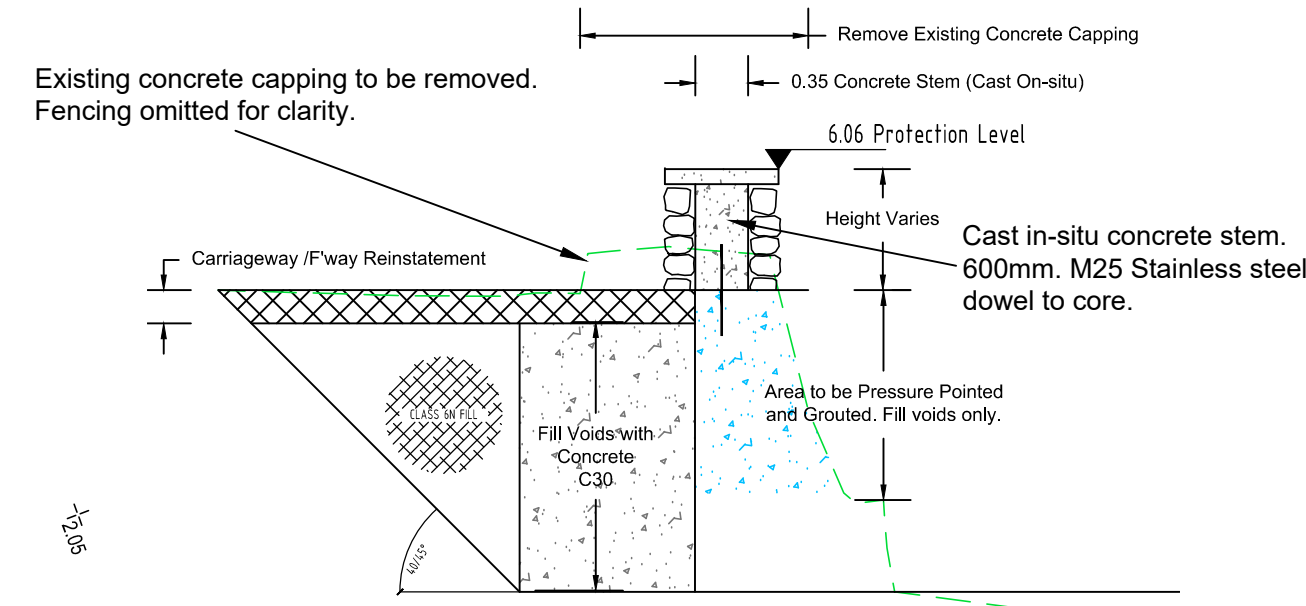
NODIADAU/NOTES

Key:

- Wall Type C (Plan).
- Pressure Pointing (Longsection).
- Grouting of Voids (Typical Section).
- Concrete Backfill (Typical Section).
- Excavation Outline.

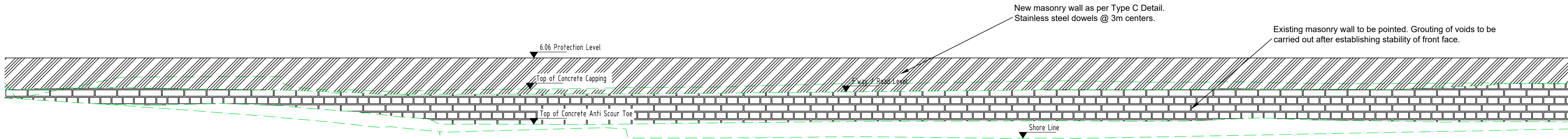
Activities:

- Site Clearance.
- Take Down Existing Steel Parapet.
- Take down masonry wall.
- Remove Concrete capping.
- Pressure Pointing and Grouting.
- Concrete Fill to Voids.
- New 750mm. Wide Wall.
- Reinstate Footway.
- Reinstate Carriageway.
- Include Provisional sum for 400mm high steel parapet to match existing.



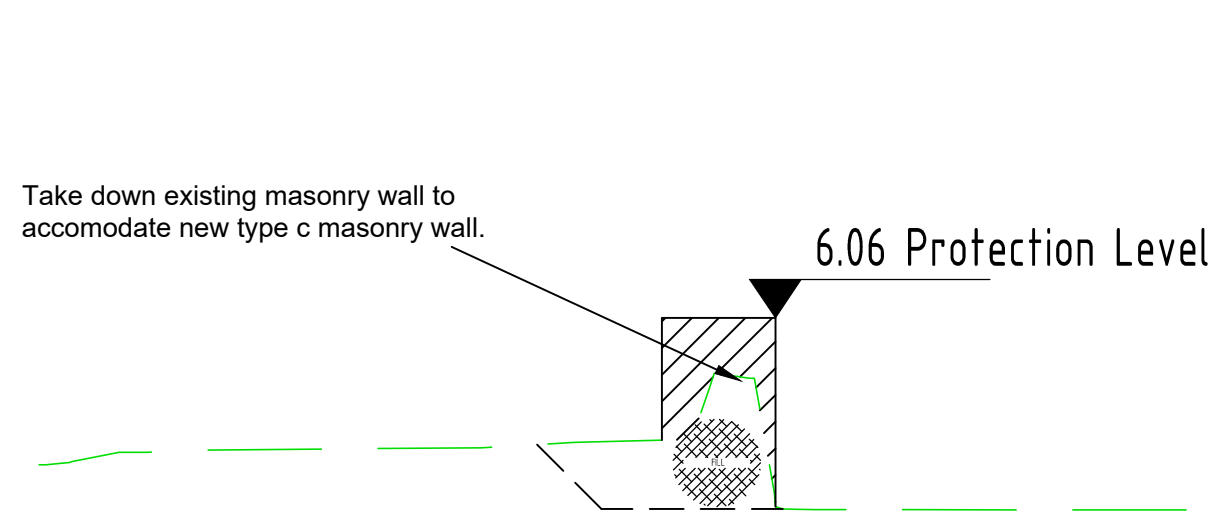
Note: Cross sectional hatching shown on Wall Type C Detail to represent filling of voids. Therefore % of quantity to be used as the extent of void is unknown.

Typical Section Showing Wall Type C Details.
Scale 1:50

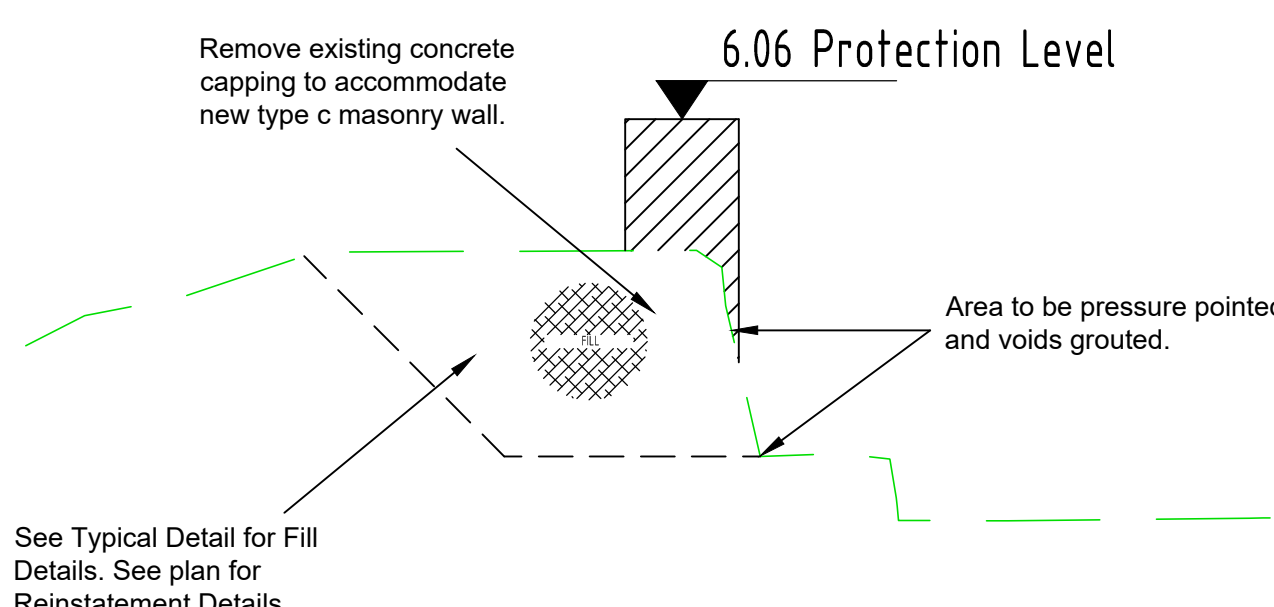


Note:
Extent of works extends beyond extent of this drawing.
Cost consultant to check with Jason Humphreys when carrying out costing...

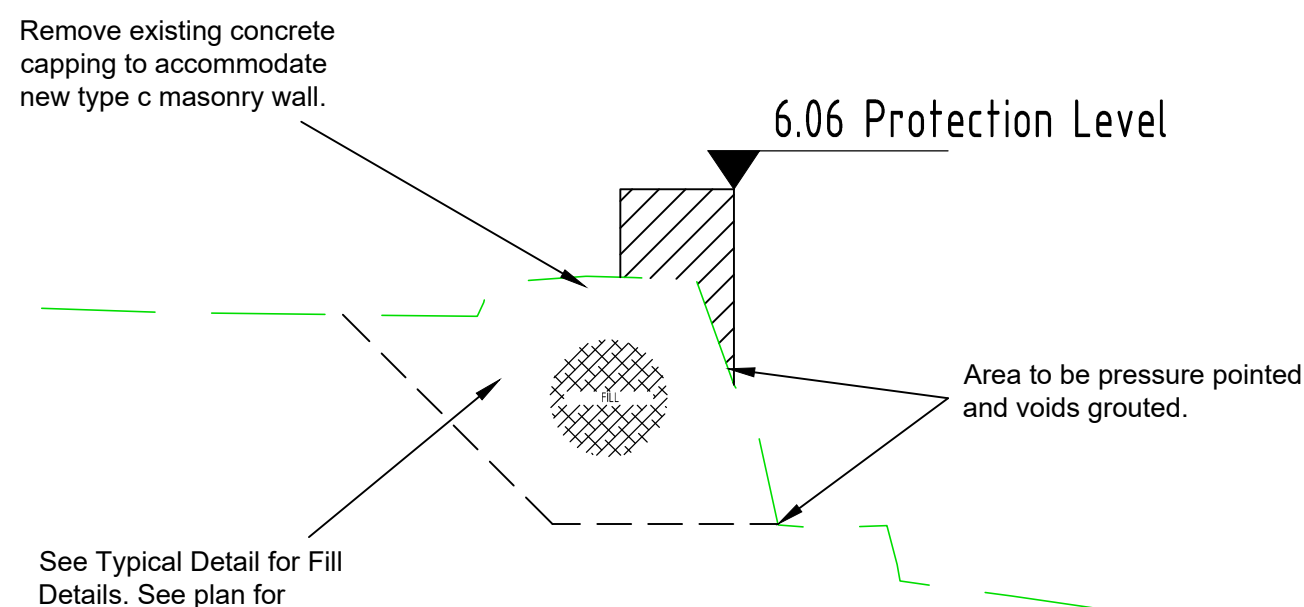
Existing Longsection.
1:100.



Section A-A (Existing).
1:50



Section B-B (Existing).
1:50



Section C-C (Existing).
1:50

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CYNGOR GWYNEDD COUNCIL

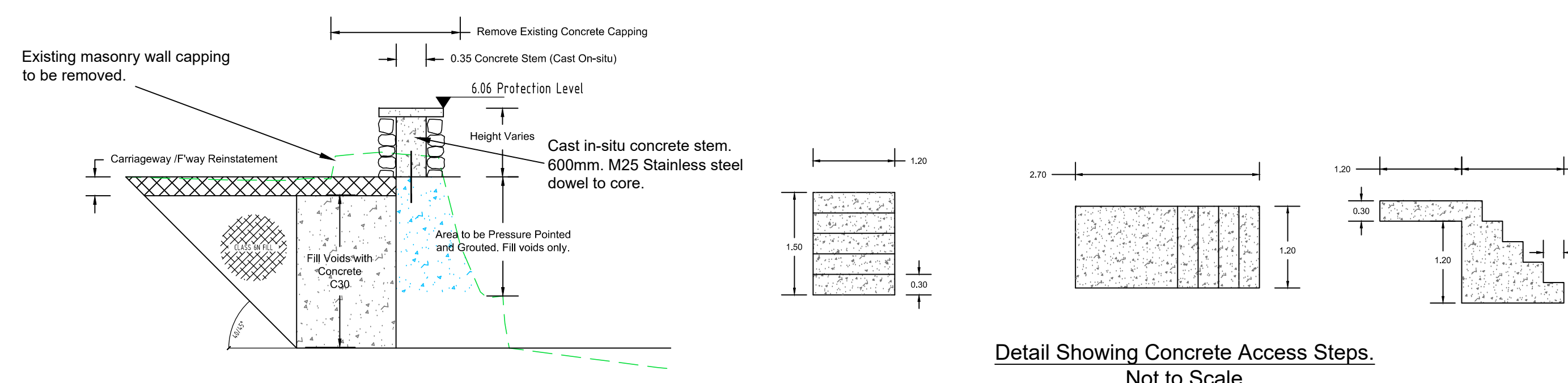
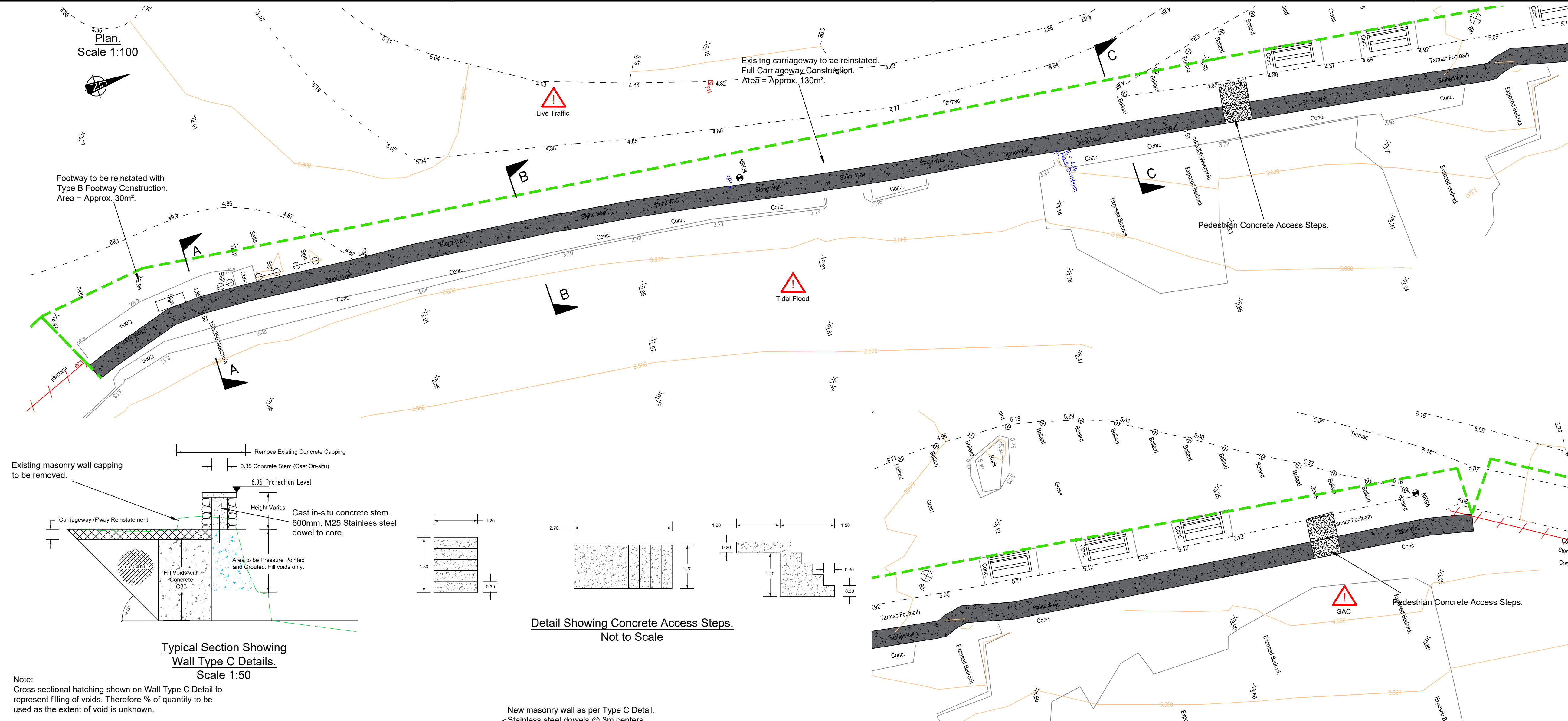
CYNILLUN / SCHEME :
Red Wharf Bay Sea Defence

TEITL LLUNIAID / DRAWING TITLE :
General Arrangement Section 3

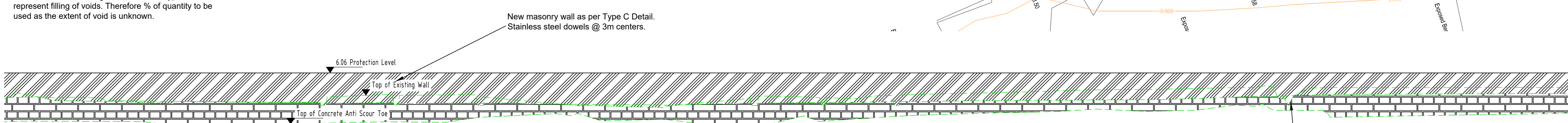
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GWIRIWYD GAN : CHECKED BY : J. Humphreys	DYDDIAD GWIRIWYD : DATE CHECKED : March 2021
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Drawing No. **6991/GA/1003**

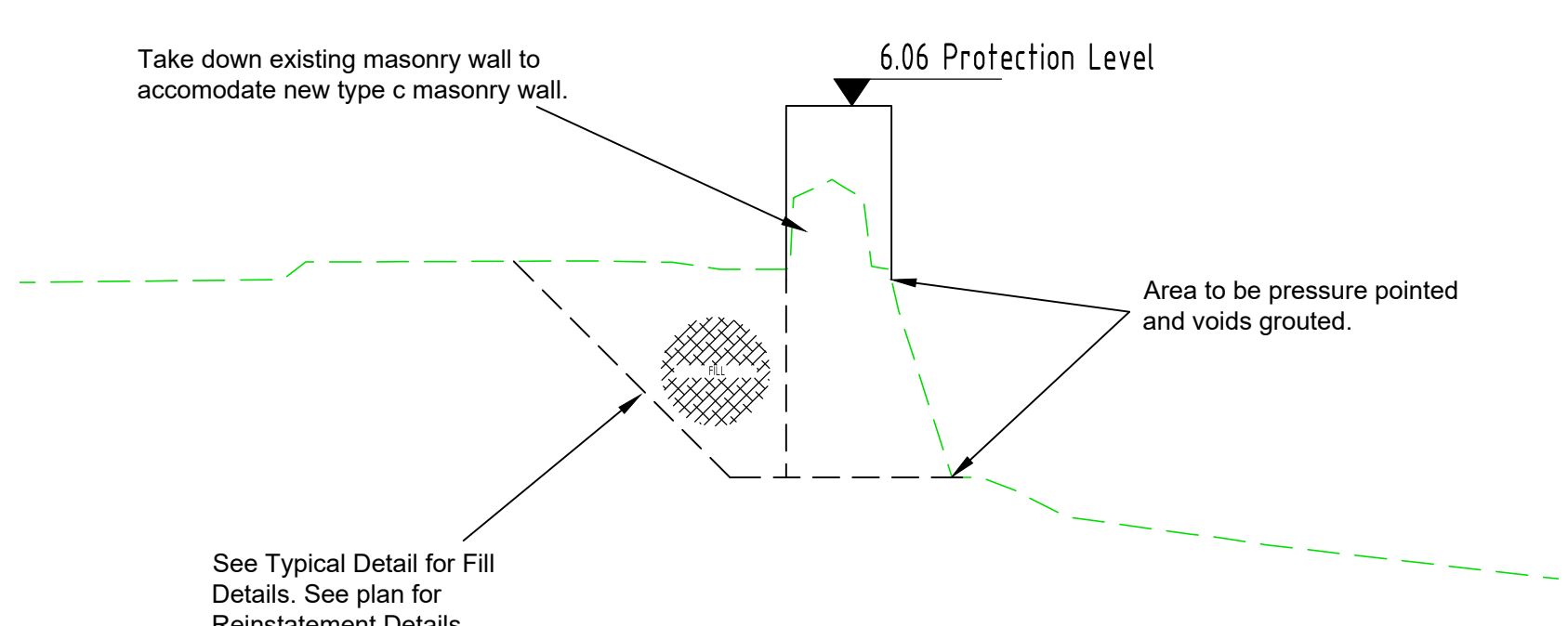
DRAFT PLAN



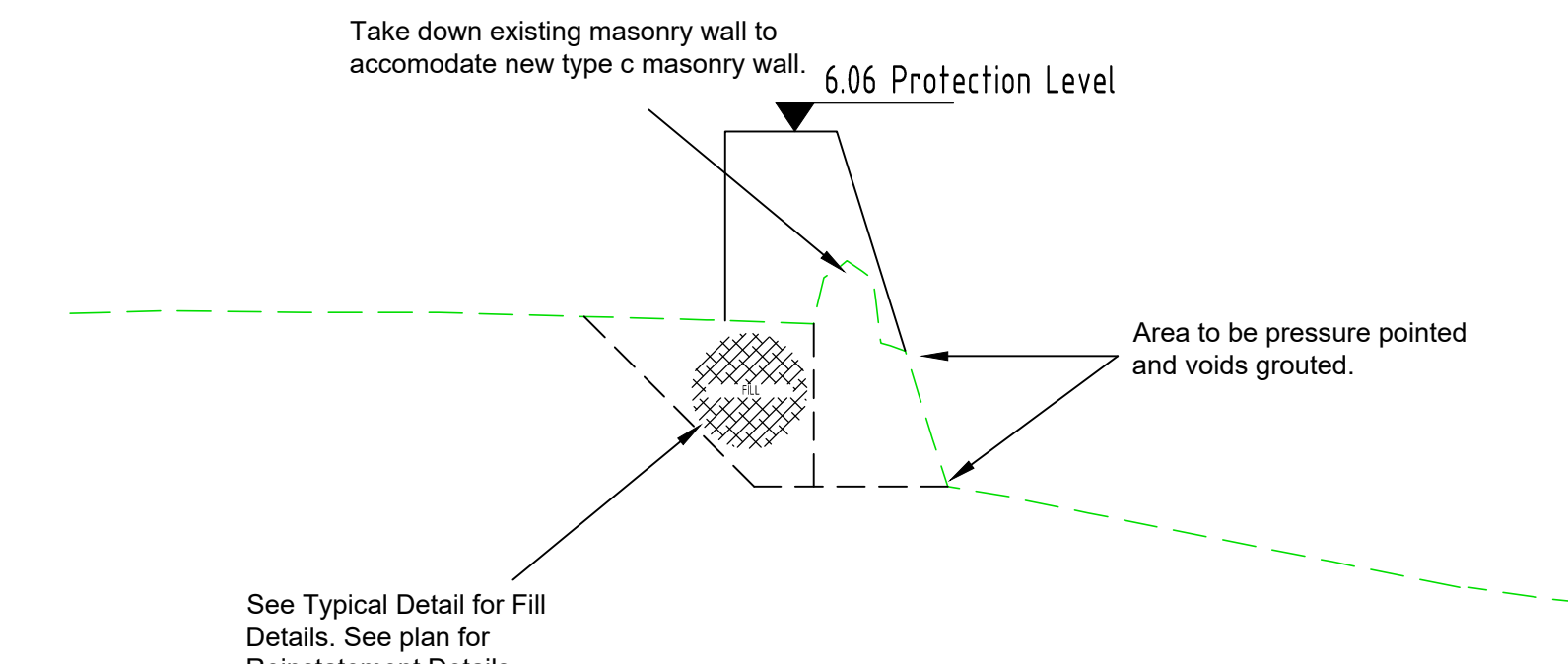
Note:
Cross sectional hatching shown on Wall Type C Detail to represent filling of voids. Therefore % of quantity to be used as the extent of void is unknown.



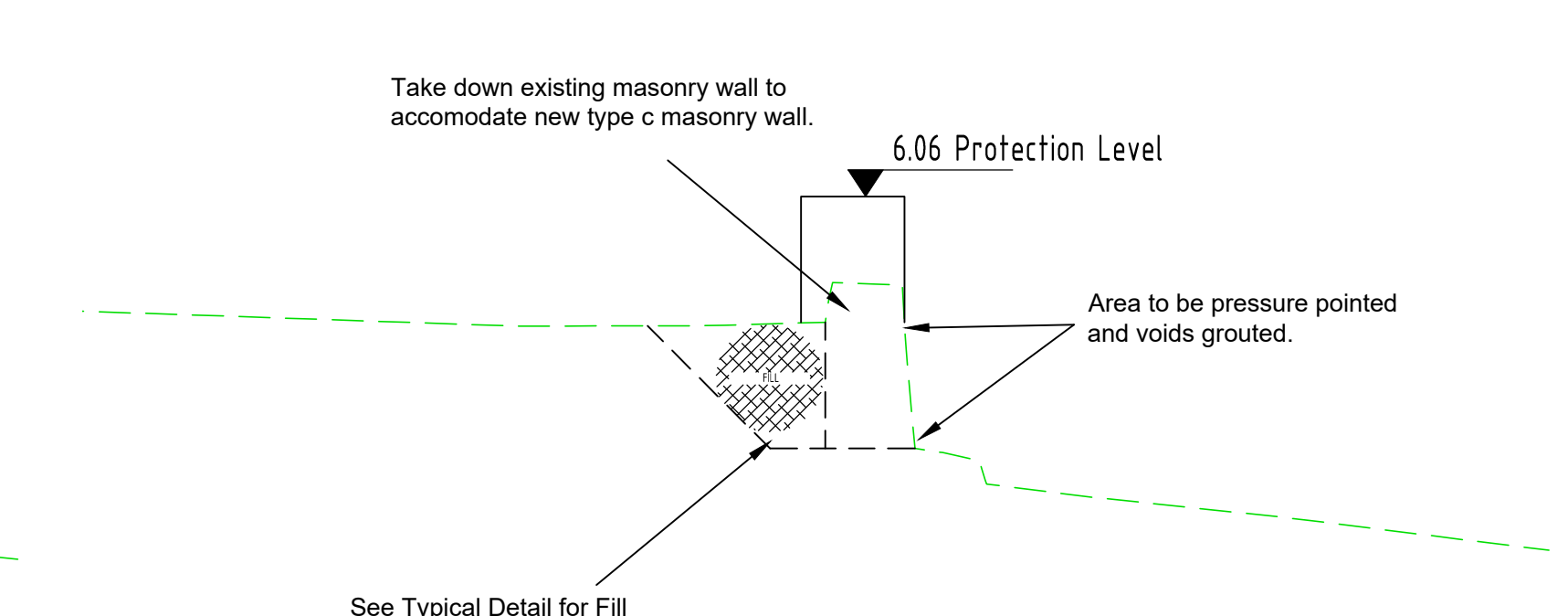
Existing masonry wall to be pointed. Grouting of voids to be carried out after establishing stability of front face.



Section A-A (Existing).
1:50



Section B-B (Existing).
1:50



Section C-C (Existing).
1:50

CLEIENT/CLIENT :

NODIADAU/NOTES

Key:

Wall Type C (Plan).

Pressure Pointing (Longsection).

Grouting of Voids (Typical Section).

Concrete Backfill (Typical Section).

Excavation Outline.

Activities:

- Site Clearance.
- Take down masonry wall.
- Remove Concrete capping.
- Pressure Pointing and Grouting.
- Concrete Fill to Voids.
- New 750mm. Wide Wall.
- Reinstatement Footway.
- Reinstatement Carriageway.
- Include Provisional sum for 400mm high steel parapet to match existing.

RHIF NO.

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CYNLLUN / SCHEME :

Red Wharf Bay Sea Defence

TEITL LLUNIAD / DRAWING TITLE :

General Arrangement Section

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CHECKED BY :
SHEWYD :
1 of 1

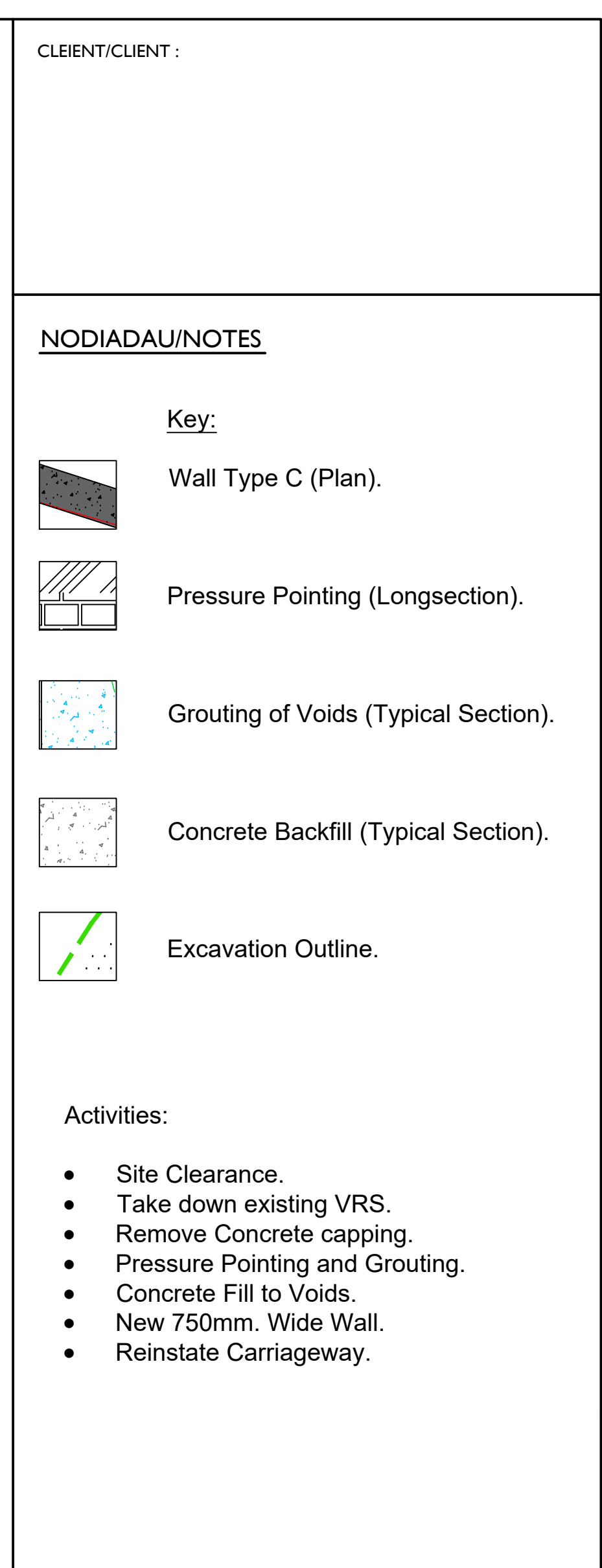
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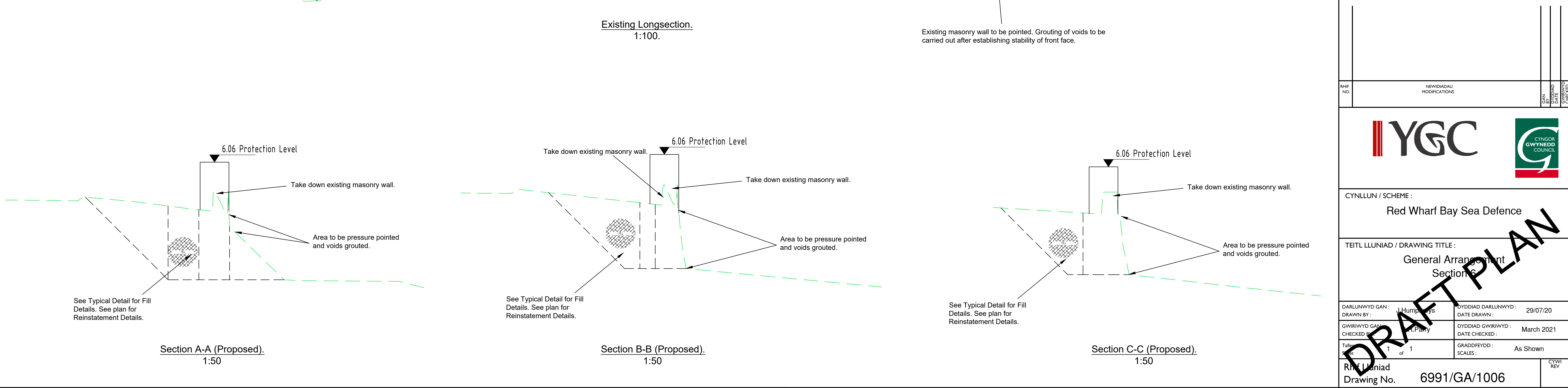
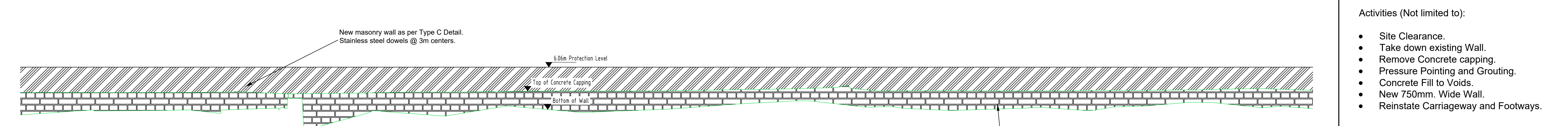
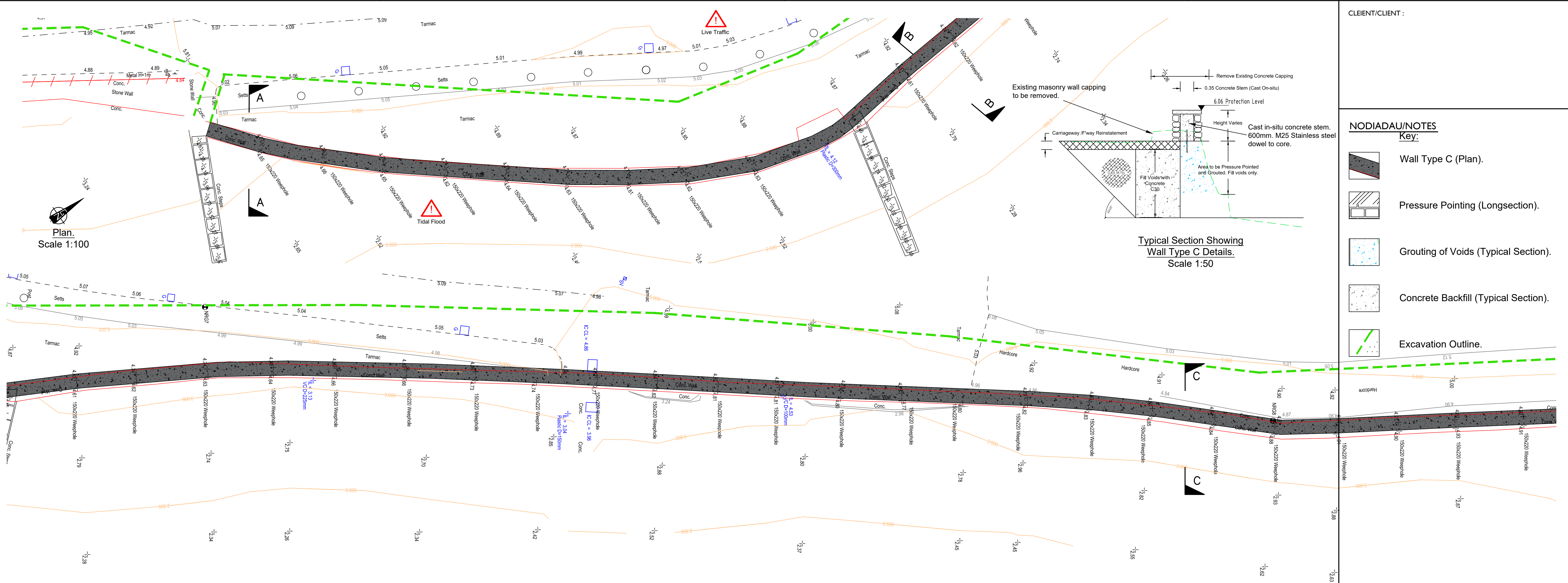
Rhif Lluniad
Drawing No.

6991/GA/1004

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CLEIENT/CLIENT :

NODIADAU/NOTES
Key:

- Wall Type C (Plan).
- Pressure Pointing (Longsection).
- Grouting of Voids (Typical Section).
- Concrete Backfill (Typical Section).
- Excavation Outline.

Activities (Not limited to):

- Site Clearance.
- Take down existing Wall.
- Remove Concrete capping.
- Pressure Pointing and Grouting.
- Concrete Fill to Voids.
- New 750mm. Wide Wall.
- Reinstate Carriageway and Footways.

RHIF NO. NEWIDIADAU MODURATIONS

YGC CYNGOR GWYNEDD COUNCIL

CYNLLUN / SCHEME : Red Wharf Bay Sea Defence

TEITL LLUNIAD / DRAWING TITLE : General Arrangement Section 6

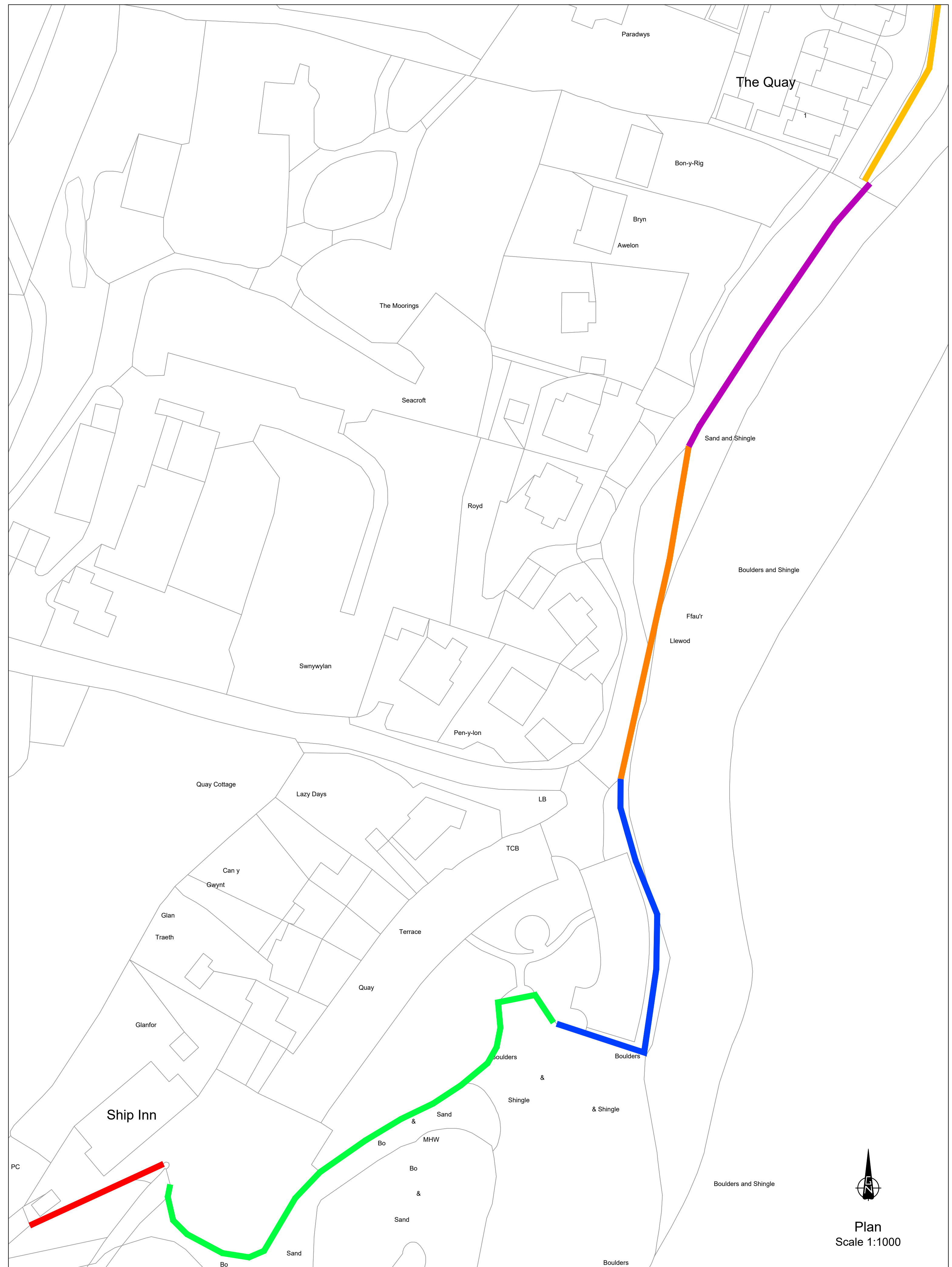
DARLUNWYD GAN : J. Humphreys
DRAWN BY : J. Humphreys
GWIRIWIYD GAN : J. Humphreys
CHECKED BY : J. Humphreys

DYDDIAD DARLUNWYD : 29/07/20
DATE DRAWN : 29/07/20
DYDDIAD GWIRIWIYD : March 2021
DATE CHECKED : March 2021

Tafod : 1 of 1
Graddfeydd : As Shown
Scales : As Shown

Rhif Lluniad : 6991/GA/1006
Drawing No. : 6991/GA/1006

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CLIENT/CLIENT :

Key



CYNLLUN / SCHEME :
Red Wharf Bay Sea Defence

TEITL LLUNIAD / DRAWING TITLE :

DARLUNWYD GAN : DRAWN BY :		J.Humphreys	DYDDIAD DARLUNWYD : DATE DRAWN :	25/03/2021
GWIRIWYD GAN : CHECKED BY :		D.R.Parry	DYDDIAD GWIRIWYD : DATE CHECKED :	26/03/2021
Tafien Sheet	1	of 1	GRADDFEYDD : SCALES :	As Shown

Seilwyd ar fap yr Arolwg Ordians gyda
chaniatad Rheolwr Gwasg ei Mawrhydi.
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Mae atgynyrchu heb awdurdod yn torri hawlfraint
y Goron a gall arwain at erlyniad neu achos sifil.