

MĀPUA COMMUNITY BOAT RAMP PRELIMINARY ENGINEERING REPORT

42454 / TAHI STREET, MĀPUA / MĀPUA BOAT RAMP TRUST

0800 999 333
hello@do.nz

Level 1, 24 Moorhouse Avenue, Addington
PO Box 589, Christchurch 8140
www.do.nz

Davis Ogilvie & Partners Ltd

QUALITY ASSURANCE

Title: Māpua Community Boat Ramp Preliminary Engineering Report

Client: Māpua Boat Ramp Trust


File Location: \\nnsvr\Data\Projects\20000+\42454 - Mapua Boat Club\Engineering\007 Reports and Consent Docs\Civil\Servicing Report\230418.gs.42454. Mapua Community Boat Ramp Servicing Report.docx

Version: Final


Date: April 2023

Project No.: 42454

Prepared By: **Gary Stevenson**
Principal Engineer
BE (Hons), Nat Res, CPEng, CMEngNZ

Signature:


Reviewed By: **Ross Jennings**
Senior Civil Engineer
BE (Hons), Nat Res, MEngNZ

Signature:


DISCLAIMER

This engineering report has been prepared at the specific instruction of Māpua Boat Ramp Trust. It outlines the design of the preliminary servicing for a proposed development at Tahi Street, Māpua.

Davis Ogilvie did not perform a complete assessment of all possible conditions or circumstances that may exist at the site. Conditions may exist which were undetectable given the limited investigation of the site and have not been taken into account in the report.

Davis Ogilvie's opinions are based upon information that existed at the time of the production of this document. Assessments made in this report are based on the conditions found onsite and published sources detailing the recommended investigation methodologies described. No warranty is included—either expressed or implied—that the actual conditions will conform to the assessments contained in this report.

Davis Ogilvie has provided an opinion based on observations, site investigations, and analysis methodologies current at the time of reporting. The report cannot be used by any third party without the written approval of Davis Ogilvie. The report cannot be used if there are changes in the referenced guidelines, analysis methodologies, laws, or regulations.

Only Māpua Boat Ramp Trust and the Local and Regional Territorial Authorities are entitled to rely upon this engineering report. Davis Ogilvie & Partners Ltd. accepts no liability to anyone else in any way in relation to this report and the content of it and any direct or indirect effect this engineering report may have. Davis Ogilvie & Partners Ltd. does not contemplate anyone else relying on this report or that it will be used for any other purpose.

Should anyone wish to discuss the content of this report with Davis Ogilvie & Partners Ltd., they are welcome to contact us on (03) 366 1653 or at Level 1, 24 Moorhouse Avenue, Addington, Christchurch.

TABLE OF CONTENTS

1.0 PURPOSE OF REPORT 5

2.0 PROPOSAL DESCRIPTION AND EXISTING SITE 6

3.0 EXISTING INFRASTRUCTURE 8

4.0 EARTHWORKS 9

5.0 SEWER 10

6.0 BOAT RAMP 11

7.0 STORMWATER 12

8.0 POTABLE WATER, POWER, AND TELECOM 13

9.0 STREET LIGHTING 13

10.0 TRAFFIC & PARKING 14

11.0 CONCLUSION 15

APPENDIX A – Preliminary Drawings

1.0 PURPOSE OF REPORT

The purpose of this report is to outline the preliminary engineering design concepts which are integral to the proposed boat ramp and future Sea Scout building development at Tahī Street, Māpua. The development comprises Lot 2 DP 11106, Lot 3 DP 11106, Lot 2 DP 11502, Section 24 SO 496194 and Section 25 SO 496194, as shown in Figure 1 below. This report has been prepared in support of an application for resource consent.



Figure 1: Allotments proposed to have engineered structures or utilities built.

This preliminary design report has been prepared to summarise:

- Proposed civil engineering design for the development at Tahī Street, Māpua.
- Existing infrastructure around and within the site.
- Proposed conformance to national standards, Tasman District Council's (TDC) policies and best practices relating to land development, in particular:
 - Nelson Tasman Land Development Manual 2020 (NTLDM).
 - NZS4404:2010 – Land Development and Subdivision Infrastructure.

2.0 PROPOSAL DESCRIPTION AND EXISTING SITE

The proposed development along Tahī Street will consist of:

- Eastern Site – a new vehicle crossing off Tahī Street and exposed aggregate accessway of 7 m width transitioning to 11 m and turning head to service a new boat ramp. The accessway siting requires relocation of the existing pétanque area. A barrier arm is proposed to be installed near the proposed Sea Scout building to control boat ramp usage. The accessway will have a 1 m wide finer chip exposed aggregate to delineate an informal pedestrian footpath adjacent to the kerb channel fender, the vehicle side of kerb. Speeds within the development site will be restricted to 10 km/hr.
- Boat ramp, 11 m width with piles, at gradient of 1V:8H with pedestrian crossing on flat area immediately to west of the ramp to accessway transition point, see Figure 2 below. A boardwalk to the accessway crossing point will be provided from the foreshore to the south to ensure continuity of the existing access along the foreshore.

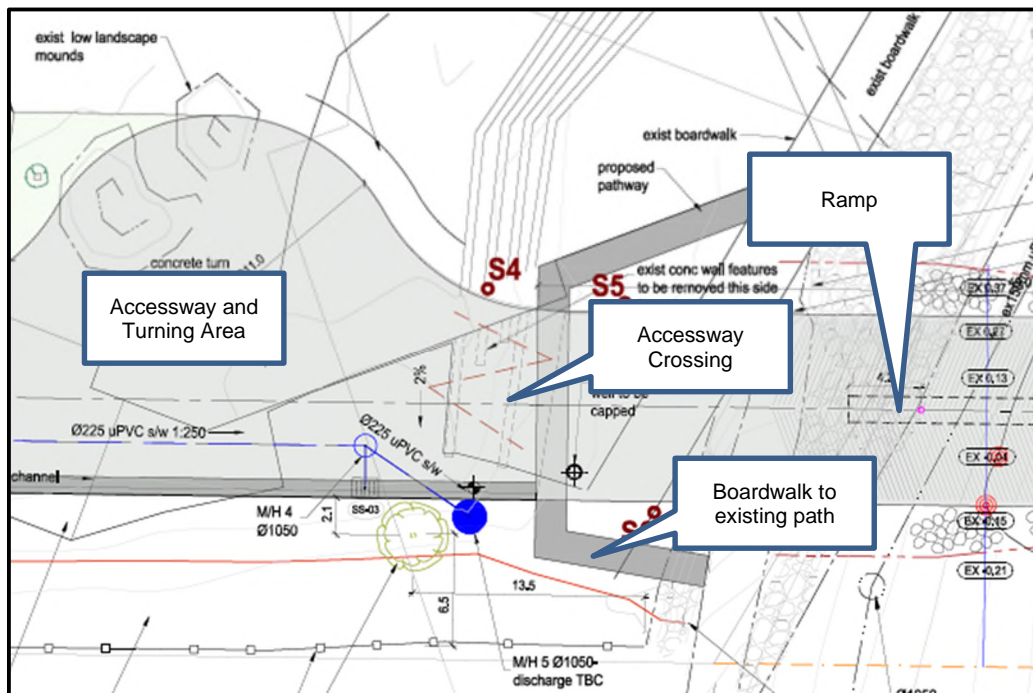


Figure 2.

- Sea Scout Building 40 m x 20 m area with car parking and perimeter hardstand located on the existing reserve car park area. This building will be subject to a building consent at a later date, noting the bulk and location of the proposed building shown on plans.
- New metalled car park to the west of Tahī Street to compensate for future loss of car parks due to Sea Scout Building and loss of informal parking on Tahī Street due to vehicle crossing installation. Note that 4 mobile home parks have been provided as has accessible parking on this site and the Sea Scout Building Car Park.

- New vehicle crossing to informal car and boat trailer parking opposite the boat ramp vehicle crossing on Tahi Street.

The development site east of Tahi Street is zoned 'Recreation' and is adjacent to the Open Space and Coastal Marine Area, is bounded to the south by existing residential allotments, reserve land then Aranui Road to the north, Tahi Street to the west, and Waimea Inlet to the east. The development site currently contains a metalled car park, pedestrian walkways, pétanque court, various seating, and landscaped areas.

The site is generally flat, although slightly (approximately 1 m) higher than surrounding land, particularly in the centre of the site with a gradual slope east toward the foreshore and Waimea inlet. According to LiDAR contours the difference in elevation between the highest and lowest areas of the site is approximately 1.5 m. The higher elevation land extends through the site in a slightly mounded ridge running north to south to the east of the existing car park. The topography steepens towards the south of the site within the landscaped areas (refer to Figure 3).



Figure 3: Site Location with LIDAR contours, footpaths, and services. Source GRIP. NTS.

It is important to note that the eastern site is wholly located over the Fruit Growers Chemical Company (FCC) which closed in 1988 and is understood to have been remediated between 2004 and 2008. Site history and remediation is further described in the Detailed Site Investigation undertaken by Davis Ogilvie and appended to the land use consent application.

The development site west of Tahī Street is zoned ‘Residential’ and is bounded to the south by reserve land that is used informally for car and boat trailer parking, vacant commercial zoned land then Aranui Road to the north, residential allotments to the west and Tahī Street to the east. The site is currently flat grassed area with total site area 4,098 m² of which the metalled car park will cover 1,640 m².

3.0 EXISTING INFRASTRUCTURE

There is a 150 mm Tasman District Council (TDC) sanitary sewer main and 200 mm HDPE sewer rising main traversing the proposed boat ramp within the foreshore. There is a 150 mm TDC potable water main in the eastern berm of Tahī Street. Stormwater outfall collecting road generated stormwater is via a swale in the eastern berm of Tahī Street that discharges to a vegetated drain to the south of the site. Stormwater ultimately drains to Waimea inlet. See Figure 4 below for the location of the TDC infrastructure on the site and their sizes.

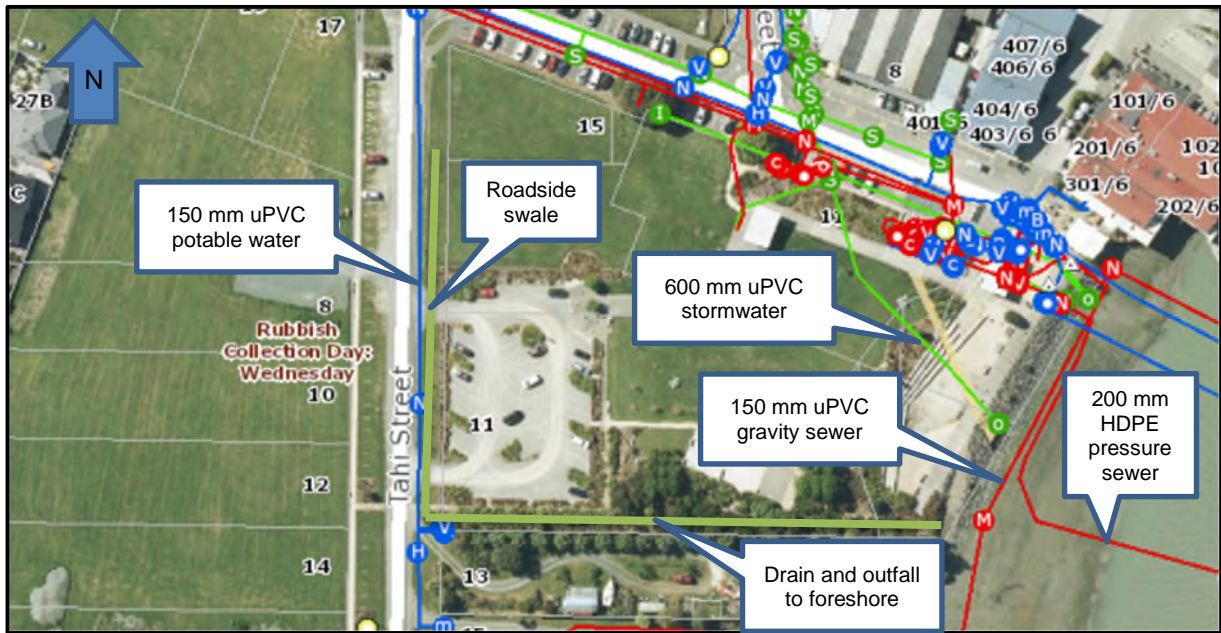


Figure 4: Existing Services.

Both TDC and service provider reticulation is available adjacent to the proposed development site for future connection of services to the Sea Scout Building.

4.0 EARTHWORKS

The site has an extensive land contamination history and once operated as the Fruit Growers Chemical Company where it processed and manufactured multiple chemicals for the agriculture industry. The site was the subject of a multimillion-dollar soil remediation project between 2004 – 2008 to make the site suitable for commercial and recreational land use. This included the construction of approximately a half metre thick soil cap of imported and site won material which met the required soil concentration grades.

To allow for stormwater reticulation to function correctly parts of the site will require cutting and / or filling. Refer to preliminary drawing as per **Appendix A**. It is anticipated that cut of 300 mm topsoil for the metal western site car park (1,640 m²) and boat ramp accessway (1,300 m²) will result in a total of 882 m³ of topsoil that will either be utilised on site for landscaping or disposed of offsite. Accessway won topsoil (340 m³) will most likely be kept on site due to its low levels of contamination.

The design surface results in net importation of approximately 820 m³ of hardfill material to build up the western car park level assuming average 0.5 m depth of fill. Subject to final design, approximately 400 m³ hardfill will be required to provide basecourse for the concrete accessway.

For the Sea Scout Building, hardstand, and car park the existing metal car park, topsoil and landscaping within the development area will be cut up to 300 mm depth over the total 1,940 m² equating to a volume of approximately 600 m³. Site won gravel and topsoil will likely be reused. The foundation type and specification for the proposed building have yet to be determined, but it is anticipated that earthworks will not extend more than 0.4 m below existing ground level.

Piped stormwater reticulation will be required. Subject to detailed design, we anticipated approximately 120 m of stormwater pipe installed in 0.8 m wide trenches with a 0.9 m invert below ground level that will project approximately 0.4 m on average below the current 0.5 m thick capping material. Also, associated with the Sea Scout Building is power, telecommunication, potable water, and wastewater reticulation. To ensure adequate covers are met, trenches will likely extend 0.2 m into contaminated soils beneath the cap. We have assumed up to 70 m of service trenches to the building footprint at 0.8 m trench width. When accounting for all reticulation on the eastern site, including sumps, manholes and treatment devices, this equates to approximately 60 – 70 m³ of contaminated material to be disposed of to York Valley landfill in Nelson, subject to their acceptance and potential leachate testing approval.

Erosion, sediment, and contaminated soil control will be critical for the site. A robust site management plan (SMP) and Environmental Management Plan, including erosion and sediment controls, will be produced by a contaminated land SQEP for the project once final designs are produced. The contractor will have procedures and provide training for their staff, including monitoring and auditing of methodology. It is anticipated that contaminated material unsuitable for reuse will either be removed from site immediately and disposed of or be stockpiled for later disposal. For the latter, the stockpiles will be covered with heavy tarpaulins to stabilise and site stormwater prevented from entering the stockpile area. Silt fencing about the stockpile will also be provided.

Vehicles and staff that contact contaminated materials will not be permitted to leave site without decontamination. Procedures to protect the health and safety of contractor staff will be paramount and may include respirators / mask use, coveralls, and boot socks.

All earthworks will be undertaken in accordance with the requirements of NZS 4431:2022 Engineered fill construction for lightweight structures, and TDC NTLDU.

Final design, volumes, plans and a detailed erosion and sediment control, environmental management plan and site management plan will be provided to Council during the engineering approval process for each stage of development.

5.0 SEWER

Refer Figure 5 below. There is an existing 100 mm diameter sewer lateral servicing the reserve toilet block at Aranui Road that discharges into 200 mm PVC main that conveys sewage to the wastewater pump station (WWPS) to the northeast. Figure 5 below shows the lateral location. It is proposed to install a low-pressure sewer (LPS) pump station to service the Sea Scout Hall with a DN40 PE100 PN16 sewer rising main discharging to the toilet lateral.

The benefit of a LPS system is that the rising main can be kept shallow and not protrude too deep into the contaminated fill.

Final approval and servicing of the Sea Scout Building will be subject to Building Consent application.



Figure 5: Proposed Sea Scout Building wastewater servicing.

6.0 BOAT RAMP

The boat ramp is 11 m wide at a gradient of 1V:8H with pedestrian crossing on a flat area immediately to the west of the ramp to accessway transition point. The boat ramp will have centrally placed 250 mm SED H5 Piles embedded 3 to 4 m below existing ground level. A boardwalk to the accessway crossing point will be provided from the foreshore to the south to ensure continuity of the existing access along the foreshore.

The boat ramp will be brushed or slotted concrete poured in-situ or delivered to site as prefabricated panel. The concrete surface, subject to final design, will likely be constructed over geotextile wrapped ballast and AP65 so as to minimise any excavation in the foreshore.

As per preliminary engineering drawings, it is envisaged that up to 600 mm of excavation in the foreshore is required to install the lower end of the ramp and reno mattress. Rather than remove from site, excavated material is proposed to be laid and levelled either side of the excavation to disperse with tidal and wave action over time. Works are envisaged to be undertaken between tides, building up the geotextile mattresses on the in-situ beach sand. No dewatering or sheet piling is envisaged as drainage chip, rail ballast or other porous material will be used to build the mattresses allowing them to become saturated and drain. Rock armouring will be placed against the mattresses to protect from vandalism or damage from vehicles / boats.

The boat ramp is to be constructed over existing wastewater infrastructure being a 150 mm gravity main and 200 mm HDPE rising main. The 150 mm gravity has been located and as-built plans correlated. The HDPE main has been located by hand dig, although the location differs from Council GIS mapping. Where the rising main turns into Waimea Bay has not been located and will need to be found to inform detailed design. Consideration will be given to the protection and structural integrity of the pipes during detailed design and will form part of engineering approval. We don't consider there will be any issues given the large bearing area and limited increase in fill above the pipes.

To allay concerns regarding maintenance and renewals, it is proposed to install carrier pipes under the boat ramp for future use. The carrier pipes are shown in the preliminary drawings.

Given the tidal water velocities in the Waimea Inlet, Gary Teaar of OCEL was commissioned to complete hydrodynamic modelling that included tidal currents impacts on the safe use of the ramp and to assess scouring. This report will inform detailed design.

As per preliminary design drawings, rock armouring either side of the ramp will be required.

7.0 STORMWATER

Stormwater reticulation will be designed in accordance with the TDC NTLDM, NZS 4404 and engineering best practice. Open channels, culverts, swales, and pipes will be designed for 10% AEP + Climate Change factor.

It is proposed that the design catchments be segregated for conveyance and discharge. Soakage and detention ponds have not been considered due to concerns regarding infiltration into and potential for leachate from the FCC landfill.

Runoff from the 1,640 m² western metalled car park site is proposed to be collected via concrete dish drains to sumps that bubble up into the swale on the east side of Tahi Street. The swale will likely require modification to increase capacity. Stormwater is conveyed to the ephemeral swale at the south of the eastern site ultimately discharging to the foreshore of Waimea Inlet. The swale will provide treatment for fine sediment, particulate metals, and hydrocarbons.

The Sea Scout building will be subject to building consent application. Runoff from the Sea Scout Building and Hardstand is proposed to direct discharge into the swale to south of the site without treatment.

Runoff from the boat ramp accessway at 1,300 m² and Sea Scout car parking area 535 m² is greater than 50 AADT and 1,000 m² area, therefore will require treatment before discharge to the drain as required by 5.4.8.2 c) of the NTLDM. Due to area constraints, it is proposed that a suitable proprietary device be utilised for this area, installed at the far eastern end of the accessway.

The boat ramp at 520 m² area slopes at 1:8 to the foreshore. No reticulation or treatment is proposed.

Table 1: Summary of Developed Areas	
	Area [m²]
Western Car Park	1,640
Sea Scout Car Park	535
Sea Scout Building	800
Sea Scout Building Hard Stand	605
Boat Ramp Accessway	1,300
Boat Ramp	520

All works will be designed and constructed in accordance with TDC requirements. Final details and design will be provided through the engineering approval process.

8.0 POTABLE WATER, POWER, AND TELECOM

Subject to building consent a potable water service connection from the 150 mm water main in Tahī Street will be required to service the Sea Scout Building. Services including water, power, and telecommunications will be installed within a common services trench to the building. Specific locations will be provided following consultation with the service authorities and plans will be provided for approval to Council prior to installation.

All works carried out will meet the requirements of Councils' NTLDM and the network operators.

9.0 STREET LIGHTING

No additional street lighting or site lighting within the reserve and Tahī Street is proposed as part of these works.

10.0 TRAFFIC & PARKING

It is proposed that new vehicle crossings be installed to the western metalled car park and informal grass car and boat trailer parking area, and modification made to the vehicle crossings into the eastern development area.

During construction exposed aggregate concrete surfacing is proposed for all hard stand at the eastern site including the accessway, but excluding the boat ramp that will be a brushed or raked rough concrete surface for vehicle / pedestrian traction.

Exposed aggregate concrete washdown will be contained and removed from site noting best practice guidelines *“The Environmental Requirements for Exposed Aggregate Driveways, Arrow International and Environment Canterbury”* and *“Safe Environmental Guidelines for Onsite Management of Concrete Washwater, The New Zealand Ready Mixed Concrete Association Inc.”*

The carriageway pavements will be designed as per the NTLDM and Austroads. The total compacted pavement depths will be based on the expected traffic loading and CBR values of the *“in-situ”* material measured at the depth of the proposed subgrade.

The Sea Scout Building will see the loss of 38 car parks from the existing reserve car park. An additional 6 informal car parks along Tahī Street will also be removed to allow for the vehicle crossings to the new car park and the informal car and boat trailer parking areas. These parks will be compensated for at the new metalled car park area with 3 parks changed to accessible parks and addition of 4 mobile home parks.

Road marking and signage shall meet the requirements of the Land Transport Rule (Traffic Control Devices) 2004 and associated sign specification, the NZTA Pedestrian planning and design guide and the NTLDM.

11.0 CONCLUSION

The proposed development at Tahi Street, Māpua can be suitably developed in accordance with TDC requirements.

It is proposed that stormwater from the site will be discharged to surface water after the first flush is treated via a proprietary device for Sea Scout Building Car Parking and Boat Ramp Accessway, and by Low Impact Design utilising swales for the western metalled car park, Sea Scout Building Hardstand and Roof Water.

Existing utilities will be protected, and earthworks undertaken under stringent controls and supervision by a suitable qualified environmental practitioner (SQEP).

The Sea Scout Building, subject to building consent will connect to water, telecom and power from Tahi Street and discharge wastewater via LPS to a 100 mm lateral from toilet block on Aranui Road.

Drawings, specifications and supporting documents will be prepared in accordance with the Nelson Tasman Land Development Manual, NZS4404:2010, NZS 4431:2022, among others, and best engineering practice.

APPENDIX A

Preliminary Drawings

All drawings and other deliverables of any kind provided by Davis Ogilvie ("advice") are, unless agreed otherwise in writing by Davis Ogilvie, prepared exclusively for the client's use for the purposes stated in the scope of services in relation to the project. Unless Davis Ogilvie's prior written consent has been obtained, the client shall not use or rely on the advice (in whole or part) for any other purpose or disclose any of the advice to a third party. Davis Ogilvie shall have no liability if any of the advice is used or relied on by the client for any unauthorised purpose or by any unauthorised third party.

Please destroy or mark suspended all previous revisions and issues of these documents.

Drawings cannot be used as construction documents until issued as 'For Construction'.

DRAWING TRANSFER & ISSUE REGISTER - SHEET 1

Client	Mapua Boat Club
Project No.	42454
Project	Mapua Boat Ramp
Stage	n/a

Drawing Issue Status	
P	Preliminary
A	For Approval
C	Construction
AB	Asbuilt

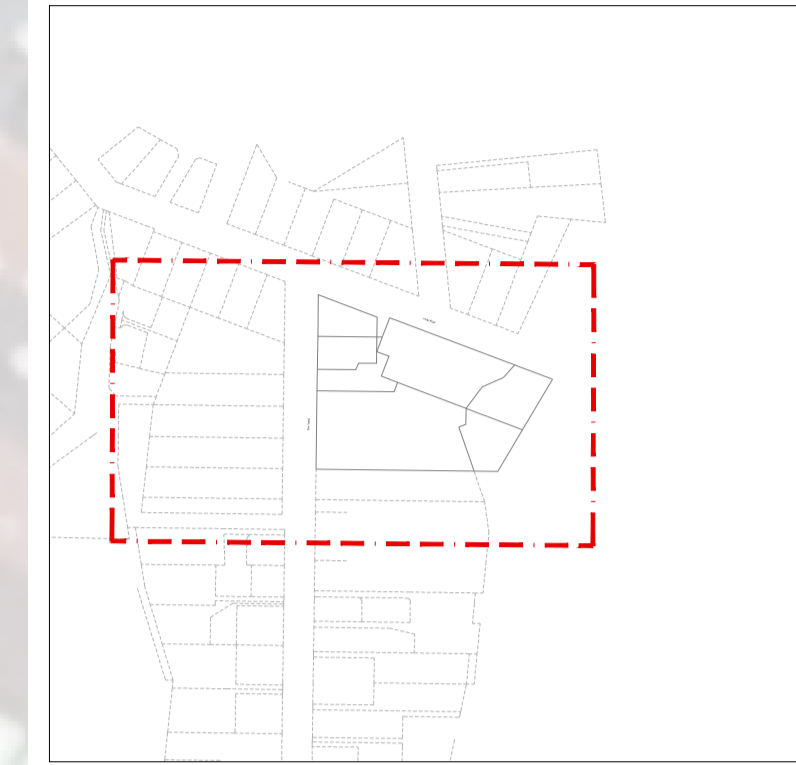
		Date of Issue																		
Day	05	17	3	01	15	14	21	26												
Month	08	08	11	02	02	04	04	04												
Year	22	22	22	23	23	23	23	23												
Issuer	BL	BL																		

Drawing Title	Sheet No.																						
Prelim Access Road & Ramp Layout Plan	P1	P1	2	3	4			5	6														
Access Road & Ramp Layout Plan - Option 2	P2	P1	2																				
Access Road & Ramp Long Section Details	P3	P1	2					2	3	4													
Car and Informal Boat Parking	P4-3				3	4	5	5															
Details	P5						1	1	1														

Note: Format of issue stated in distribution columns. H.C. = Hard Copy	Distribution																					
	Mapua Boat Club	pdf	pdf	pdf	pdf	pdf	pdf	pdf	pdf	pdf												
	Nelson District Council							pdf														

Rev.	Date	Reason	Approved
1	04/08/22	Issued for discussion	GS
2	16/08/22	Ramp access revisions round tree, & landscape overlay	GS
3	03/11/22	Updated carpark entrance	GS
4	01/02/23	Added signage locations	GS
5	15/02/23	Added cycle parking bay and walkway access	GS
6	21/04/23	Minor ramp amendments	GS

FOR INFORMATION



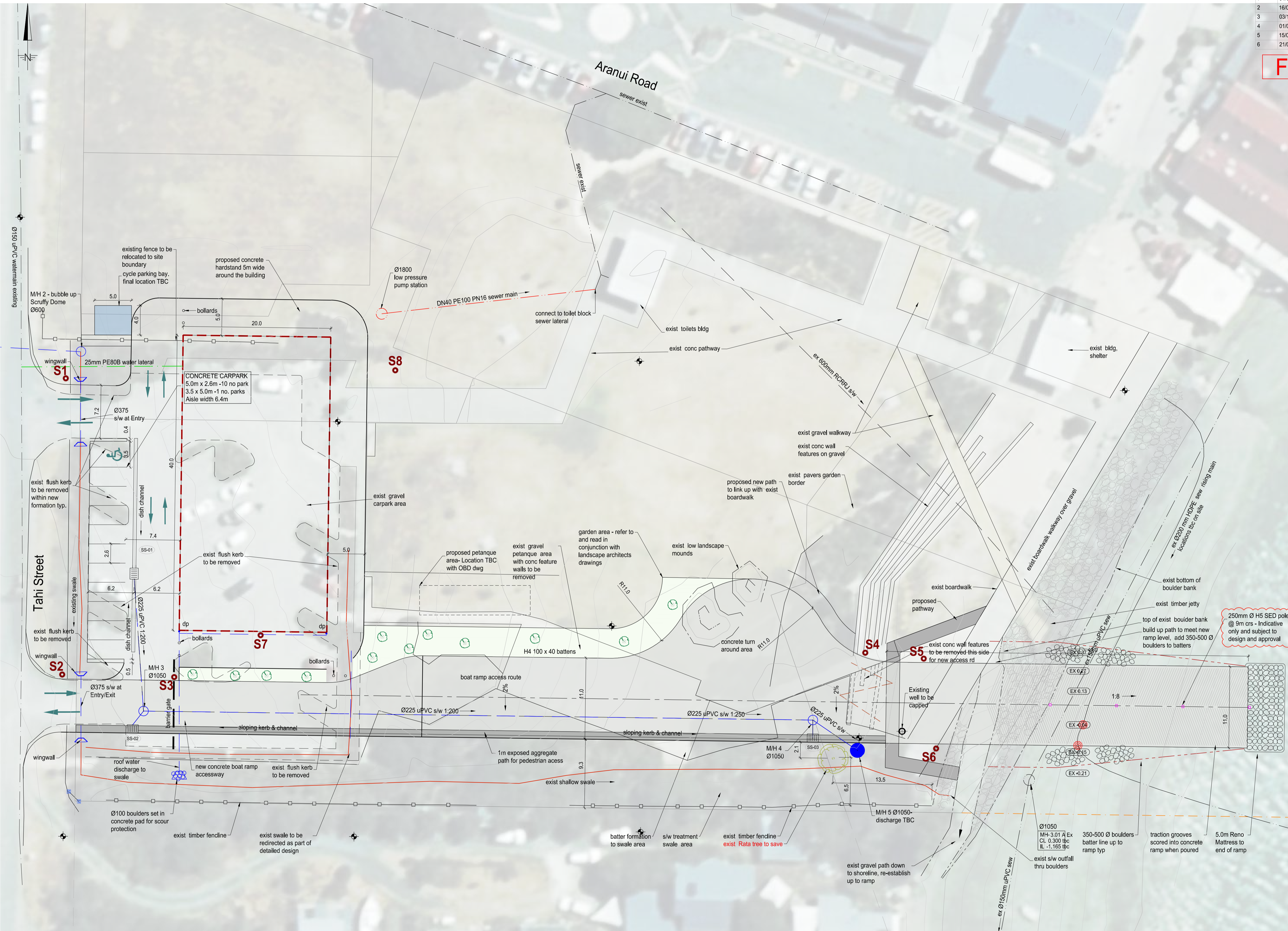
LOCATION PLAN
Scale 1:5,000 m

NOTES:

1. THE CONTRACTOR IS TO HAVE AN APPROVED ENVIRONMENTAL MANAGEMENT PLAN (EMP) AND A CONSTRUCTION TRAFFIC MANAGEMENT PLAN (CTMP) FROM TASMAN DISTRICT COUNCIL PRIOR TO ANY WORKS COMMENCING ONSITE.
2. ALL EARTHWORKS ARE TO BE CARRIED OUT IN ACCORDANCE WITH NZS. 4431: 2022. 'CODE OF PRACTICE FOR EARTH FILL FOR RESIDENTIAL PURPOSES'. TDC SPECIFICATIONS, DAVIS OGILVIE'S SPECIFICATION, DAVIS OGILVIE'S GEOTECHNICAL INVESTIGATION FOR SUBDIVISION REPORT.
3. AT ALL TIMES CUT AND FILLS SHALL BE MAINTAINED WITH ADEQUATE FALLS AND DRAINAGE TO MINIMISE ANY INFILTRATION OF WATER AND TO ALLOW READY RUN OFF TO ENSURE NO PONDING. CONTRACTOR TO REGRADE LOT WHERE NECESSARY.
4. FILL AND SECTION LEVELS ARE MINIMUM LEVELS ONLY.
5. PRIOR TO ANY WORKS COMMENCING ONSITE, THE CONTRACTOR IS TO ENGAGE A REGISTERED PROFESSIONAL SURVEYOR AND/ OR LICENSED CADASTRAL SURVEYOR TO SUPERVISE ALL SET OUT & PROVIDE ASBUILT PLANS FOR REVIEWS.
6. SETOUT IS NOT TO BE SCALED OFF THE PLANS, THE ENGINEER WILL PROVIDE ELECTRONIC DATA FOR THE CONTRACTOR. ANY VARIATIONS ARE TO BE APPROVED BY THE ENGINEER.
7. BATTERS NOT TO EXCEED A GRADE OF 1:2 UNLESS NOTED OTHERWISE. BOULDERS TO BE PLACED AS PER PLAN DETAILS.
8. ALL LEVELS ARE IN TERMS OF THE NZVD 2016 RL 2.97m BENCHMARK AS PER PLAN.
9. SEA LEVEL R.L.'S ARE TAKEN AT THE PORT NELSON TIDE GAUGE. THERE MAY BE VARIATIONS BETWEEN PORT NELSON & MAPUA. A CORRECTION OF -2.578 HAS BEEN APPLIED TO CONVERT PORT NELSON LEVELS TO NZVD2016 LEVELS.
10. EXISTING SERVICE LOCATION AND PROTECTION IS CONTRACTOR'S RESPONSIBILITY. EXISTING SERVICES SHOWN ON PLANS ARE INDICATIVE ONLY. REFER TO PROVIDER'S AS-BUILT PLANS AND UNDERTAKE UNDERGROUND CABLE LOCATION AND POT HOLING AS REQUIRED.
11. ALL LANDSCAPING WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE LANDSCAPE ARCHITECTS DRAWINGS, AND THE TASMAN DISTRICT COUNCILS SPECIFICATIONS

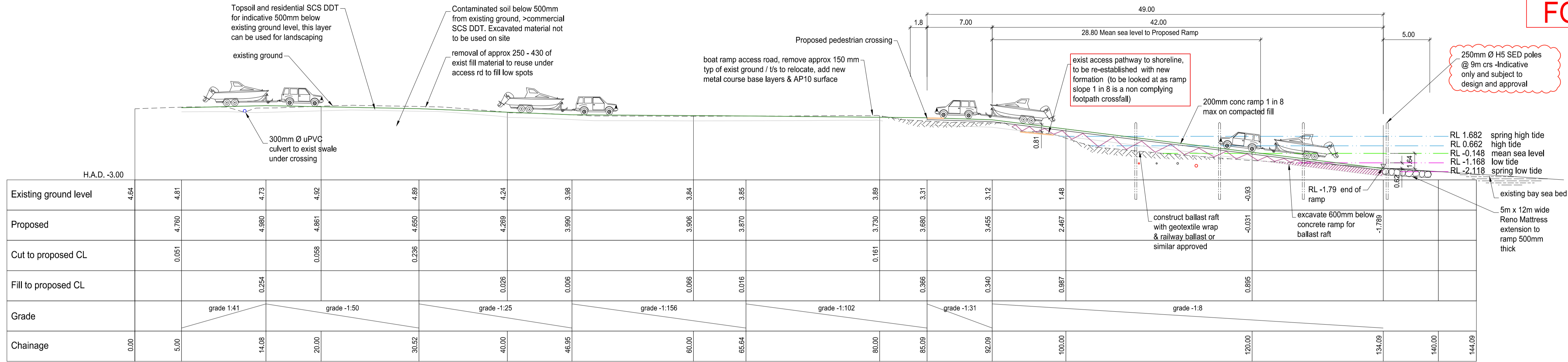
KEY

KERB LEVELS	K 3.75
SURFACE LEVEL	SL 3.76
EXISTING SEWER	---
PROPOSED SEWER	---
EXISTING WATER	---
PROPOSED WATER	---
EXISTING STORMWATER	---
PROPOSED STORMWATER	---
PROPOSED BATTER LINE	---
SECTION FORMATION LEVELS	FL 4.85
EXISTING GROUND CONTOURS	4.00
METAL SURFACE FORMATION	---
CONCRETE RAMP FORMATION	---
PEZIMETER TEST LOCATION	---
TOPO PICK UP LOCATION OF EXISTING SEWER	---
S1-S9 SIGNAGE LOCATIONS	---



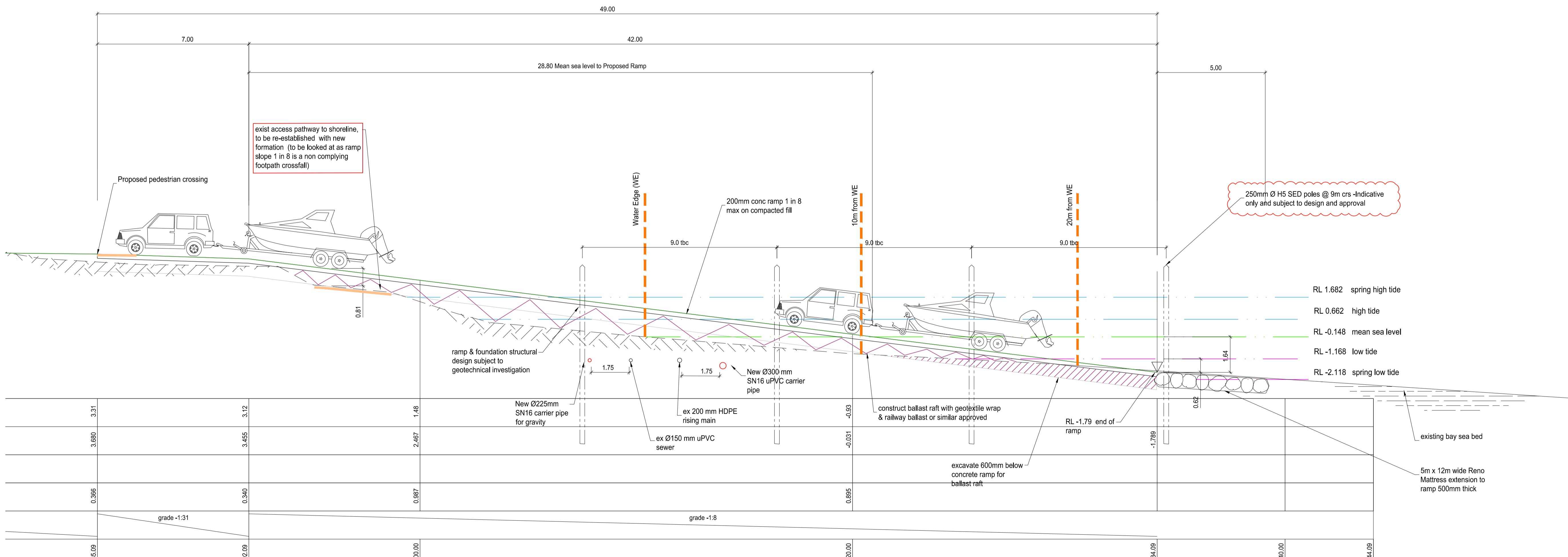
Rev.	Date	Reason	Approved
1	04/08/2022	Issued for discussion	GS
2	16/08/2022	Prelim Issue, landscape overlay on plan	GS
3	21/04/2023	Minor ramp amendments	GS
4	26/04/2023	Minor changes	GS

FOR INFORMATION



Road Access Longsection

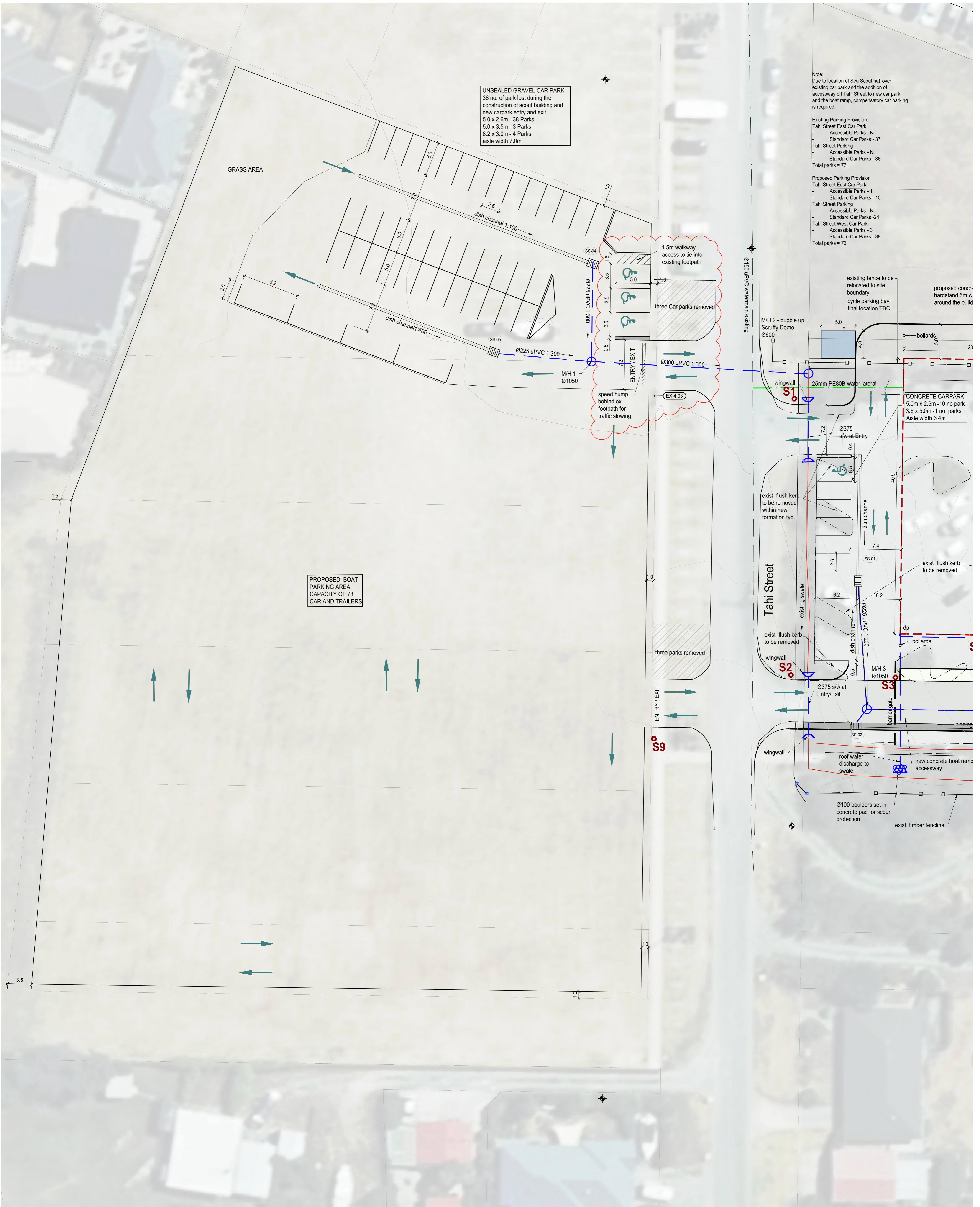
Scale: Horiz 1:250
Vert 1:250



CAD ref: 42454.Master Xref

Rev.	Date	Reason	Approved
1	08/11/22	Issued for discussion	GS
2	21/12/22	Minor change to carpark	GS
3	01/02/23	Added signage locations	GS
4	15/02/23	Added cycle parking bay and walkway access	GS
5	14/04/23	Added speed bump behind footpath	GS

FOR INFORMATION



Note:
Due to location of Sea Scout hall over existing car park and the addition of accessway off Tahī Street to new car park and the boat ramp, compensatory car parking is required.

Existing Parking Provision:
Tahī Street East Car Park
- Accessible Parks - Nil
- Standard Car Parks - 37
Tahī Street Parking
- Accessible Parks - Nil
- Standard Car Parks - 36
Total parks = 73

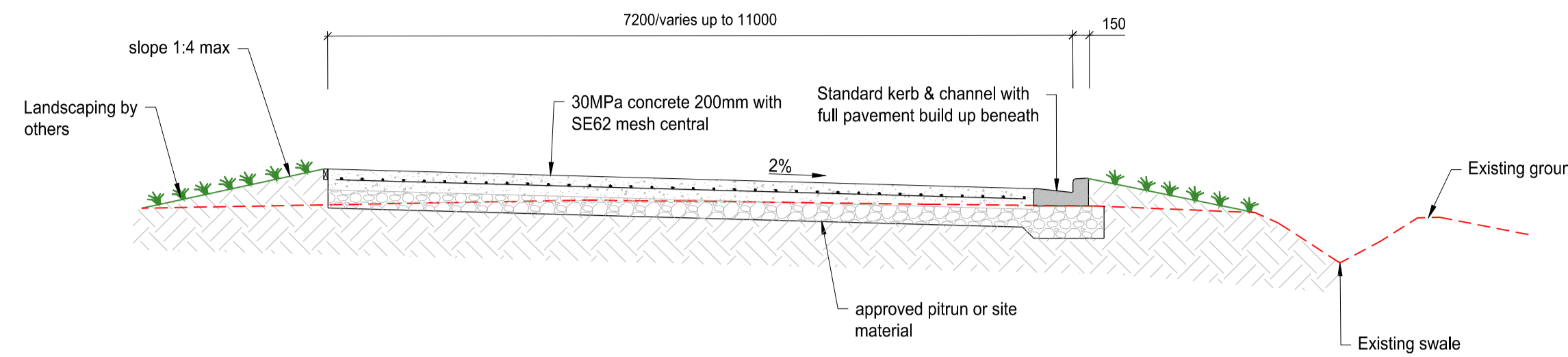
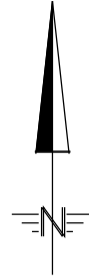
Proposed Parking Provision
Tahī Street East Car Park
- Accessible Parks - 1
- Standard Car Parks - 10
Tahī Street Parking
- Accessible Parks - Nil
- Standard Car Parks - 24
Tahī Street West Car Park
- Accessible Parks - 3
- Standard Car Parks - 38
Total parks = 76

existing fence to be relocated to site boundary
cycle parking bay, final location TBC
proposed concrete hardstand 5m w around the build

CONCRETE CARPARK
5.0m x 2.6m - 10 no park
3.5 x 5.0m - 1 no. parks
Aisle width 6.4m

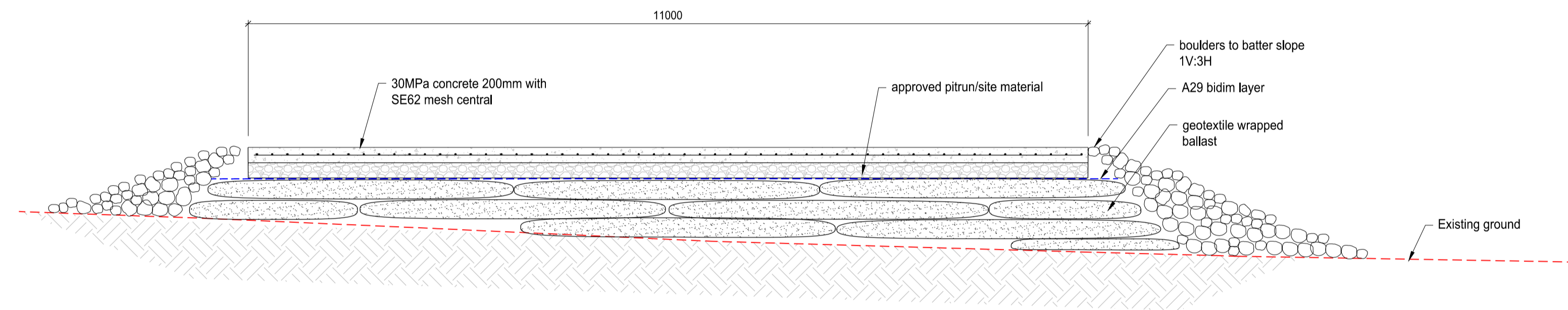
Rev.	Date	Reason	Approved
1	25/01/2023	Issued for discussion	GS

FOR INFORMATION



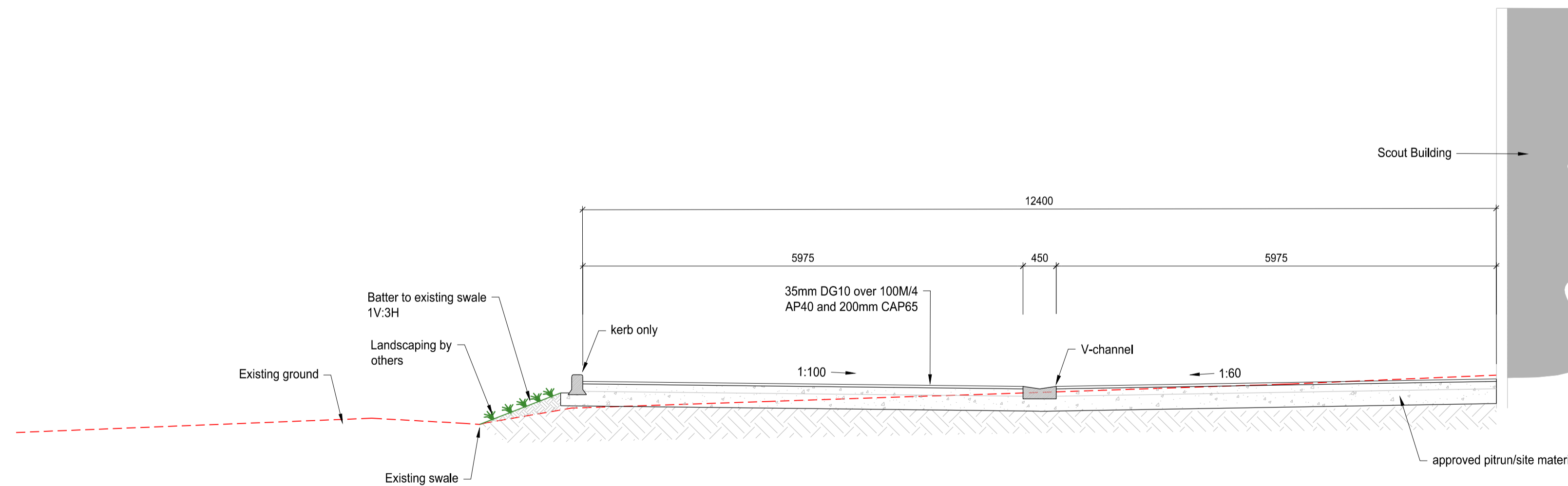
TYPICAL CROSS SECTION CONCRETE RAMP ACCESSWAY AT ENTRANCE

Scale: 1:50



TYPICAL CROSS SECTION CONCRETE RAMP ACCESSWAY

Scale: 1:50



CROSS SECTION SCOUT BUILDING CARPARK

Scale: 1:50