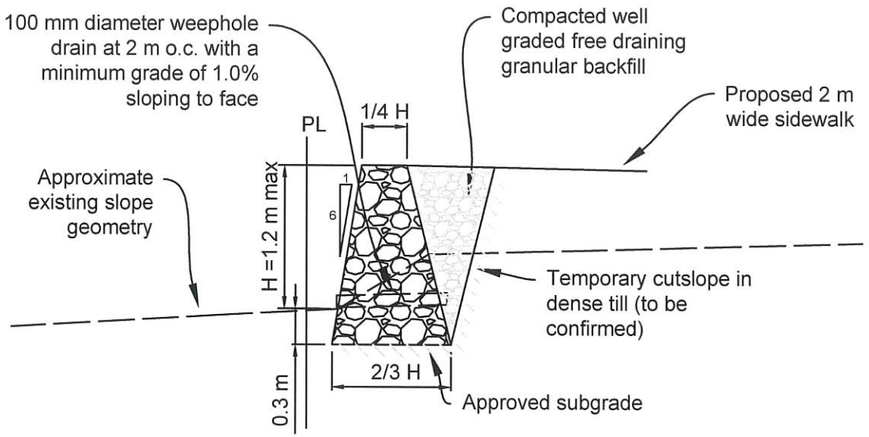
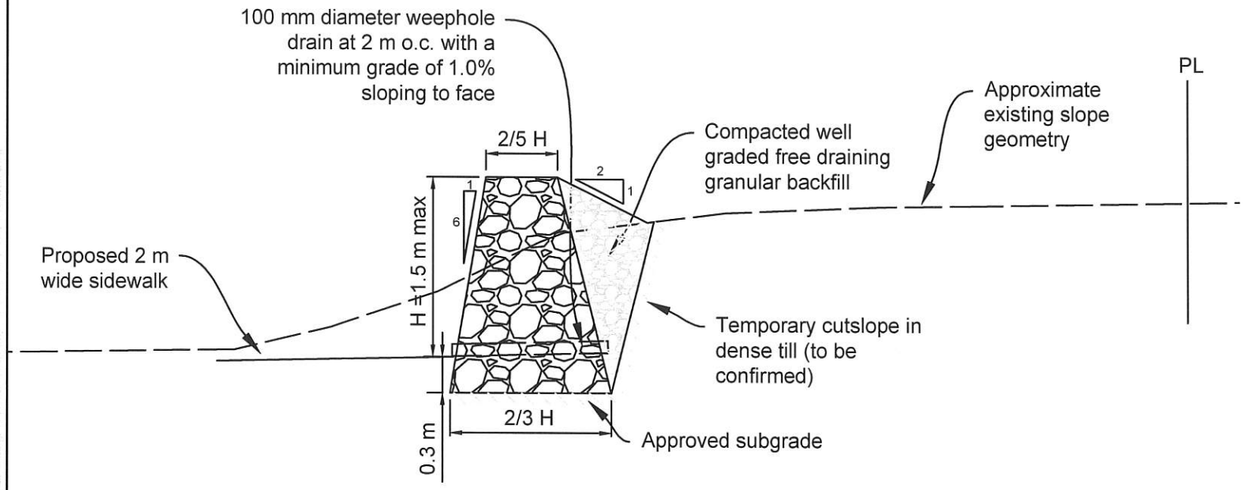


1/A SECTION 1 - ROCK AND MORTAR RETAINING WALL
Typical for Station 1+220 to 1+267



2/A SECTION 2 - ROCK AND MORTAR RETAINING WALL
Typical for Station 1+320 to 1+336

1.0 GENERAL REQUIREMENTS

1.1 Location of all services to be completed by the Contractor. Report all discrepancies between actual conditions and excavation drawings immediately.

1.2 All relevant information which may affect the performance of the wall design must be reported in writing to Ryzuk Geotechnical and Project Manager prior to the start of construction.

1.3 The Contractor is responsible for all due care in assuring no damage is caused to adjacent properties. Any damage caused during installation is the responsibility of the Contractor.

1.4 Location and geometry of existing slopes provided by On Point Engineering. All discrepancies or dimension inaccuracies are to be reported to Ryzuk Geotechnical prior to commencement of the work.

2.0 GENERAL WALL DESIGN/MATERIALS

2.1 Wall construction and fill placement to be carried out under periodic supervision of Ryzuk Geotechnical. All excavation cutslopes, exposed native subgrade and wall base preperation must be viewed and approved by Ryzuk Geotechnical.

2.2 Rock and mortar base to be 2/3 of rock and mortar wall height (H).

2.3 Rock and mortar wall to consist of 0.3 - 1.2 m diameter boulders. Mortar infill to be placed prior to each boulder lift. Minimum of 24 hours is required before subsequent rock layers are added. Typical 4:1 mortar mix (sand to cement) should be used.

2.4 Backfill to consist of approved free draining granular material. Fill to be placed in maximum 0.3 m lifts and compacted to a minimum 95% Standard Proctor Dry Density (SPMDD) or judged equivalent.

2.6 The design of the retaining wall is based on the following soil parameters:

	Friction Angle (deg)	Effective Cohesion (kPa)	Moist Unit Weight (kN/m3)
Wall Backfill	45	0	21
Subgrade	40	0	20

2.7 Factors of Safety
Minimum for Sliding = 1.5
Minimum for Overturning = 2.0
Minimum in Seismic = 1.2

2.8 Seismic design horizontal acceleration coefficient (PGA) = 0.3 g (0.5 times the 2% probability of ground motion exceedance in 50 years). This assumes that the wall can move 50 mm during the design seismic event, per ASSHTO 11.6.5.2.

2.9 Drainage to be provided by 100 mm weephole drains spaced at 2 m o.c., with a minimum grade of 1% sloping down to face.

3.0 DRAWING REVISIONS/USE

3.1 Revisions to wall details can be made only with written confirmation by Ryzuk Geotechnical. These drawings have been prepared for the exclusive use of the Owner and the Owner's Representatives. The noted parameters indicate minimum requirements based on assumed soil conditions. The actual design may vary depending on conditions encountered during the construction.

NOTES
1. This drawing is for the intended use of the client for the specified project, and should not be used elsewhere without the express permission of the client and/or Ryzuk Geotechnical.

REV.	DESCRIPTION	YY/MM/DD	BY
00	ISSUED FOR CONSTRUCTION	21/03/22	STH

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SEAL: PROFESSIONAL ENGINEER, PROVINCE OF BRITISH COLUMBIA, S. T. HAXTON # 50469, 22/03/2021

DRAWN BY	SLR
PROJECT MANAGER	STH
REVIEW	CJF
SCALE	1:50
DATE	2021/03/22
CLIENT	On Point Engineers Ltd
PROJECT TITLE	Otter Point Road Sidewalk Design
PROJECT ADDRESS	2000-2150 Otter Point Rd - Sooke, BC
DRAWING NAME	Retaining Wall Sections & Details
PROJECT No.	9899-4
SHEET No.	1 of 1
REVISION	00