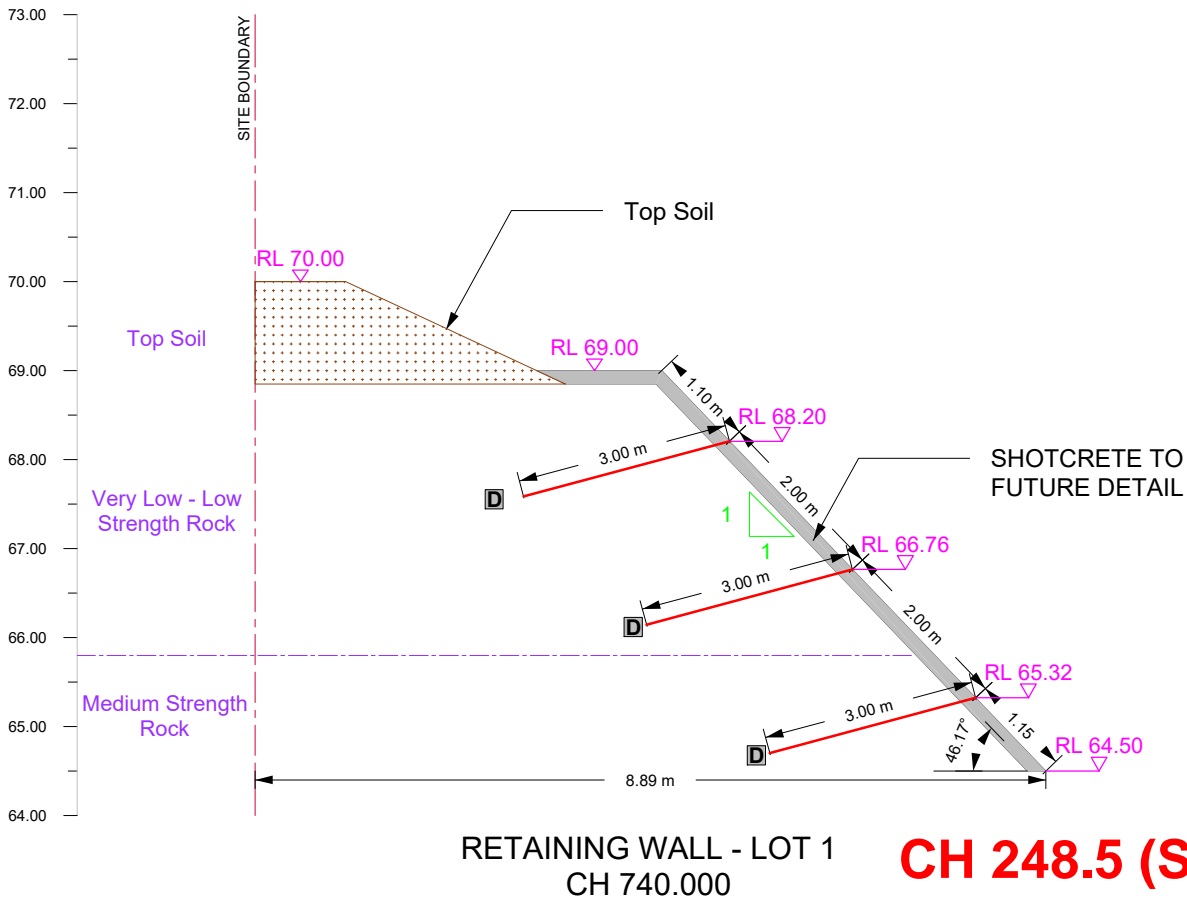


NOTES:

1. The shotcrete face should be designed by a structural engineer to support a nominal pressure of 5 kPa for rock and 15 kPa for soil and engineered fill. The bearing plates for all anchors/rockbolts/dowels shall be designed by a structural engineer to bear on the shotcrete, using a high strength leveling pad to ensure sound contact, where required.
2. Vertical strip drains shall be installed at 2 m centers. The strip drains shall be designed to either exit on the benches (with seepage to discharge on the face) or to collect at the toe, to discharge into the drainage system. All strip drains shall be designed to accept 0.2 L/m2 of tributary area face covered/minute.
3. All steel dowels and rockbolts shall be permanent (double corrosion protected, including trumpets for bearing plates).
4. All anchors should be permanent (double corrosion protected, including trumpets for bearing plates). Plastic sheathed free lengths should be used to allow rockbolts to be tested, stressed and locked-off at the design working load (if the bolts are to be installed as active support - care should be taken to not over stress the short free lengths).
5. Factory cogged bars may be used for dowels. If cogged bars are used, the structural engineer should provide details for the cog length and face connection as well as a short protective plastic sheath to act as a 'trumpet'.
6. The actual rockbolt/dowel locations and batter geometry details should be shown on the elevation drawings (by others).
7. RLs shown are for design purposes only. To be confirmed during construction. If rock levels and RLs are found to be different, redesign will be required.
8. All faces need to be inspected, prior to shotcreting by a qualified geotechnical engineer at 1.5 m drops to confirm that the conditions are as anticipated in the design. Any potentially unstable wedges will require additional support - as per geotechnical engineers recommendation.
9. Free lengths, bond lengths and RLs are as per the section drawings - also refer support type table.
10. All anchors/rockbolts/dowels shall be installed and tested in accordance with the drawings and support specifications.
11. The following tests shall be carried out on the anchors/rockbolts/dowels:
  - Allow for 3 Proof Tests.
  - Acceptance Testing shall be carried out on all stressed rockbolts and anchors.

Support Type Table

Support Type	Horizontal Spacing (m)	Ultimate Bar Capacity (kN)	Working Load (kN)	Lock Off Load (kN)	Hole Dia. (mm)	Drill Angle (deg)	Bearing Plate Dimension
Dowel	2.0	250	125	-	125	-15°	Structural Eng. to design
Rockbolt	1.5	250	125	-	125	-15°	Structural Eng. to design



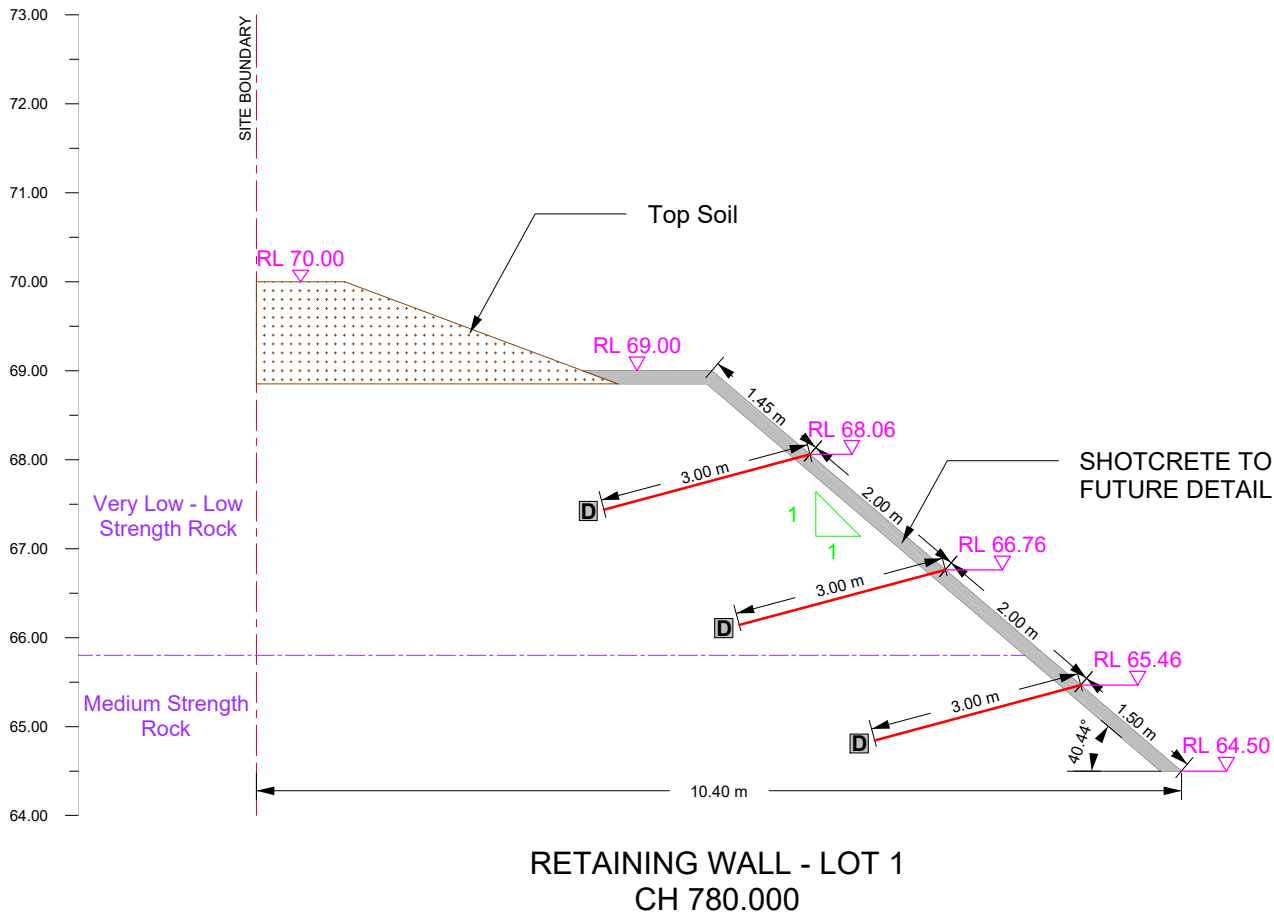
Legend	
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