LOCALITY PLAN

THE CONSTRUCTION SITE IS APPROXIMATELY ??? km BY ROAD FROM SYDNEY

NAME OF THE ROAD

MAIN ROAD No

NAME OF THE COUNCIL

GEOTECHNICAL STANDARD DRAWINGS

TYPICAL GABION WALL

AT LOCATION

EX A M P L E O N LY

RETAINING WALL SITE

THE CONSTRUCTION SITE IS APPROXIMATELY ??? km BY ROAD FROM SYDNEY

FILE No: GEO5065

DATE: 15/05/2019

ISSUE: REV - 1

No OF SHEETS: 5

COPYRIGHT ROADS AND MARITIME SERVICES
NOTES FOR USE OF THESE DRAWINGS

1. This standard drawing shall not be used for the case where traffic live loads (not refer to short term maintenance) are directly above the wall and wall shall be located outside the active bearing pressure influence zone from live traffic.

2. This is a standard drawing. It is the user's responsibility to assess the drawing and ensure its applicability to the site.

3. The design set is limited to wall heights ≤ 3500mm (Refer to Table 2, Sheet 5) for wall heights > 3500mm a separate design must be developed by a suitably qualified designer.

4. The design is limited to 1:5 sloping ground.

5. The designer must take into consideration safe access for maintenance inspection of the wall and cleaning of the drain and overall access of the public to the top of the wall. A new assessment must be considered in the design procedure and documented in the design report. Safety elements detailed in the report must be included on the design drawings with appropriate notes.

6. Notes to be removed for as construction drawings.

7. These drawings must be used in conjunction with other drawings.

8. These gabion wall drawings are to be used on downslope only where they are to be used on the embankment and are exposed to traffic impacts, appropriate impact barriers are to be provided.

9. These gabion walls must be designed and located in areas not accessible by public.
GENERAL
1. All dimensions are in meters unless shown otherwise.
2. Refer to geotechnical factual report and/or geotechnical interpretative report for borehole (in and subsurface information).
3. Road and stormwater drainage to be designed by others.
4. All subsurface drainage shall be properly designed to the nearest infiltration system.

GABION NOTES
5. The Gabion must be in accordance with RMS GA Specification R55.
6. Geotextiles must be in accordance with RMS GA Specification R63.
7. A non-woven geotextile shall be incorporated at the back face of the Gabion units.
8. Gabion baskets must be galvanized and fully laced to both upper and lower reinforcing baskets.
9. Gabion must be designed and cell of length not greater than 2m.
10. The front face and all other exposed faces in Gabion shall be hand packed with blocks so as to provide a smooth finish.

FOUNDATION NOTES
11. The minimum allowable bearing pressure of the foundation is 150 kPa.
12. Unsuitable materials below the foundation level of the Gabion wall must be removed and replaced with select fill. Foundation material properties must be verified by suitably qualified geotechnical engineers on site to confirm the design assumptions.
13. Foundation base must be level prior to placing the Gabion wall.

DESIGN CRITERIA
15. For earthquake acceleration coefficient, refer to AS 1170.2 and AS 1170.4. For spectral shape factor, refer to AS 1170.2.
16. Subsurface loading is 5 kPa (for non-trafficked).
17. Subsurface loading is 20kPa for traffic loading.
18. Not used.
19. Not used.

CONSTRUCTION SEQUENCE
20. Any utilities within the vicinity must be relocated prior to excavation.
21. Excavate down to the Gabion wall foundation level.
22. Place formwork mass concrete.
23. Install the first layer of Gabion on the foundation.
24. Place the backfill and compact to meet the requirement of structural fill.
25. Place the gabion and compact to meet the requirement of structural fill.
26. Repeat steps 25 and 26 up to the top layer.
27. Not used.

SOIL MATERIAL
28. Soil in the vicinity of the Gabion wall foundation material properties assumed in design are for cohesionless soil. Reference angle 30° and 0 kPa.
29. The drawing set is valid for the assumed existing soil strengths/consistencies, uniform density or density tests, and for strains less than those assumed. A separate design must be developed.
30. Select fill in accordance with RMS GA Specification R55 must have the following material properties:
   - Effective internal friction angle greater than 32 degrees.
   - Drained Young’s modulus not less than 20 kN/m².
31. Select fill must be placed in lifts not exceeding 150mm and compacted to 95% standard compaction at 60-90% optimum moisture content based on RMS GA Specifications R44.

SAFETY IN DESIGN
32. The designer must take into consideration safe access for maintenance inspection of the wall and cleaning of the demarcation if any and overall access by the public to the top of the wall. A field assessment must be conducted in the design procedure and documented in the design report. Safety equipment detailed in the report must be included on the design drawings, with appropriate notes (this note to be removed for construction drawings).

MASS CONCRETE LAYER
34. Minimum 28 day compressive strength must be 20 MPa.

GEOENGINEERING STANDARD DRAWINGS
GENERAL NOTES
TYPICAL GABION WALL

DESIGNER: GEOENGINEERING DESIGN ENGINEERING TECHNOLOGY NETWORK MANAGEMENT
PREPARED BY: GEOENGINEERING DESIGN ENGINEERING TECHNOLOGY NETWORK MANAGEMENT
CHECKED BY: B XIAO
DRAWN BY: W LI EW

TORNSPORT ROADS AND MARITIME SERVICES

COORDINATE SYSTEM: WGS 84 ZONE 56
REPORT SYSTEM A: Z

ROADS AND MARITIME SPECIFICATIONS

14/05/2019
CHECKED AUTH. NO OF SHEETS
DATE ISSUE NO OF SHEETS
PREP. LIEW

GEOTECHNICAL STANDARD DRAWINGS

UTILITY DISCLAIMER
35. Prior to the commencement of any works the relevant utility plans must be obtained by dialing 1100 or faxing 1300 652 077. Dial before you dig. Caution, must be exercised when working in the vicinity of all utility services.

REGISTRATION No OF PLANS
DS2016/001419
FILE No.
GEO5065

COPYRIGHT ROADS AND MARITIME SERVICES

REV - 1
15/06/2019
SHEET No
3

K:\Bridges\Current Projects\Geotechnical\G9_Reinforced BW STD\G9 GN.dgn

15/05/2019
NO UTILITY INVESTIGATION HAS BEEN CARRIED OUT FOR THIS PROJECT. THE PRESENCE OF A UTILITY SERVICE, ITS SIZE AND LOCATION SHOULD BE CONFIRMED BY A FIELD INSPECTION, PRIOR TO THE COMMENCEMENT OF ROADWORKS AND THE RELEVANT UTILITY PLANS OBTAINED BY DIALLING PH 1100 OR FAX 1300 652 077 (DIAL BEFORE YOU DIG). CAUTION SHOULD BE EXERCISED WHEN WORKING IN THE VICINITY OF ALL UTILITY SERVICES.

LEGEND

TOP OF RETAINING WALL (EV42)

APPROX EXISTING GROUND LEVEL ON CONTROL LINE MK42

SA KERB LINE, ON CONTROL LINE MK42

APPROX EXISTING GROUND LEVEL ON CONTROL LINE MK42

CHAINAGE ON CONTROL LINE MK42

MEASURE IN 0.5M

TOP OF RETAINING WALL (EV42)

SA KERB LINE, ON CONTROL LINE MK42

APPROX EXISTING GROUND LEVEL ON CONTROL LINE MK42

CHAINAGE ON CONTROL LINE MK42

GENERAL ARRANGEMENT

ELEVATION

PLAN

RECOMMENDED BY: GEOTECHNICAL ENGINEERING SECTION
ENGINEERING TECHNOLOGY, NETWORK MANAGEMENT

DRAWN: B XIAO
CHECKED: B XIAO

PREPARED BY: GEOENGINEERING... GEOENGINEERING... GEOENGINEERING...

COORDINATE SYSTEM: MGA ZONE 56

HEIGHT DATUM: A.H.D.

SURFACE LEVEL (SA KERB LINE)

TOP OF RETAINING WALL

APPROX EXISTING GROUND LEVEL

CHAINAGE ON CONTROL LINE MK42

DRAINAGE PIPE

DRAINAGE DISCHARGE

SA KERB LINE, ON CONTROL LINE MK42

APPROX EXISTING GROUND LEVEL

CHAINAGE ON CONTROL LINE MK42

DRAINAGE PIPE

DRAINAGE DISCHARGE

SA KERB LINE, ON CONTROL LINE MK42

APPROX EXISTING GROUND LEVEL

CHAINAGE ON CONTROL LINE MK42

DRAINAGE PIPE

DRAINAGE DISCHARGE

SA KERB LINE, ON CONTROL LINE MK42

APPROX EXISTING GROUND LEVEL

CHAINAGE ON CONTROL LINE MK42

DRAINAGE PIPE

DRAINAGE DISCHARGE

SA KERB LINE, ON CONTROL LINE MK42

APPROX EXISTING GROUND LEVEL

CHAINAGE ON CONTROL LINE MK42

DRAINAGE PIPE

DRAINAGE DISCHARGE

SA KERB LINE, ON CONTROL LINE MK42

APPROX EXISTING GROUND LEVEL

CHAINAGE ON CONTROL LINE MK42

DRAINAGE PIPE

DRAINAGE DISCHARGE

SA KERB LINE, ON CONTROL LINE MK42

APPROX EXISTING GROUND LEVEL

E V 4 2 L I N E
GENERAL NOTES

FOR OTHER GENERAL NOTES RELATING TO THIS SHEET, SEE SHEET No 2.

SCALE

0

500

1 000

1 000

2 000

3 000

DETAIL

B

100

200

300

400

500

0

100

50

TABLE 2: GABION CONFIGURATION

<table>
<thead>
<tr>
<th>HEIGHT 'H' (mm)</th>
<th>BASE 'W' (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 000</td>
<td>2 000</td>
</tr>
<tr>
<td>1 000</td>
<td>2 000</td>
</tr>
<tr>
<td>2 000</td>
<td>1 000</td>
</tr>
<tr>
<td>1 000</td>
<td>1 000</td>
</tr>
</tbody>
</table>

GABION TYPICAL WALL CONFIGURATION

300

300

WIDENING OF XXXX ROAD CARRIAGEWAY

EXISTING XXXX ROAD CARRIAGEWAY

CONTROL LINE MK2

TRAFFIC RAIDER

TRAFFIC RAIDER

TO BE DESIGNED BY OTHER

SA KERB BY OTHER

SELECT FILL

ASSUMED TEMPORARY CUT PROFILE

CLASS B GEOTEXTILE (NON-WOVEN)

IN ACCORDANCE WITH RMS SPECIFICATION R63

IN ACCORDANCE WITH RMS SPECIFICATION R355

WRAPPED IN GEOTEXTILE

WITH RMS SPECIFICATION 3580

20mm CRUSHED ROCK IN ACCORDANCE

WITH RMS SPECIFICATION 3555

WITH RMS SPECIFICATION R63

50mm THICK MASS CONCRETE

500 SQ

DRAINAGE PIPE

GEOFABRIC

GENERAL NOTES

SCALE

1:50

FOR OTHER GENERAL NOTES RELATING TO THIS SHEET, SEE SHEET No 2.