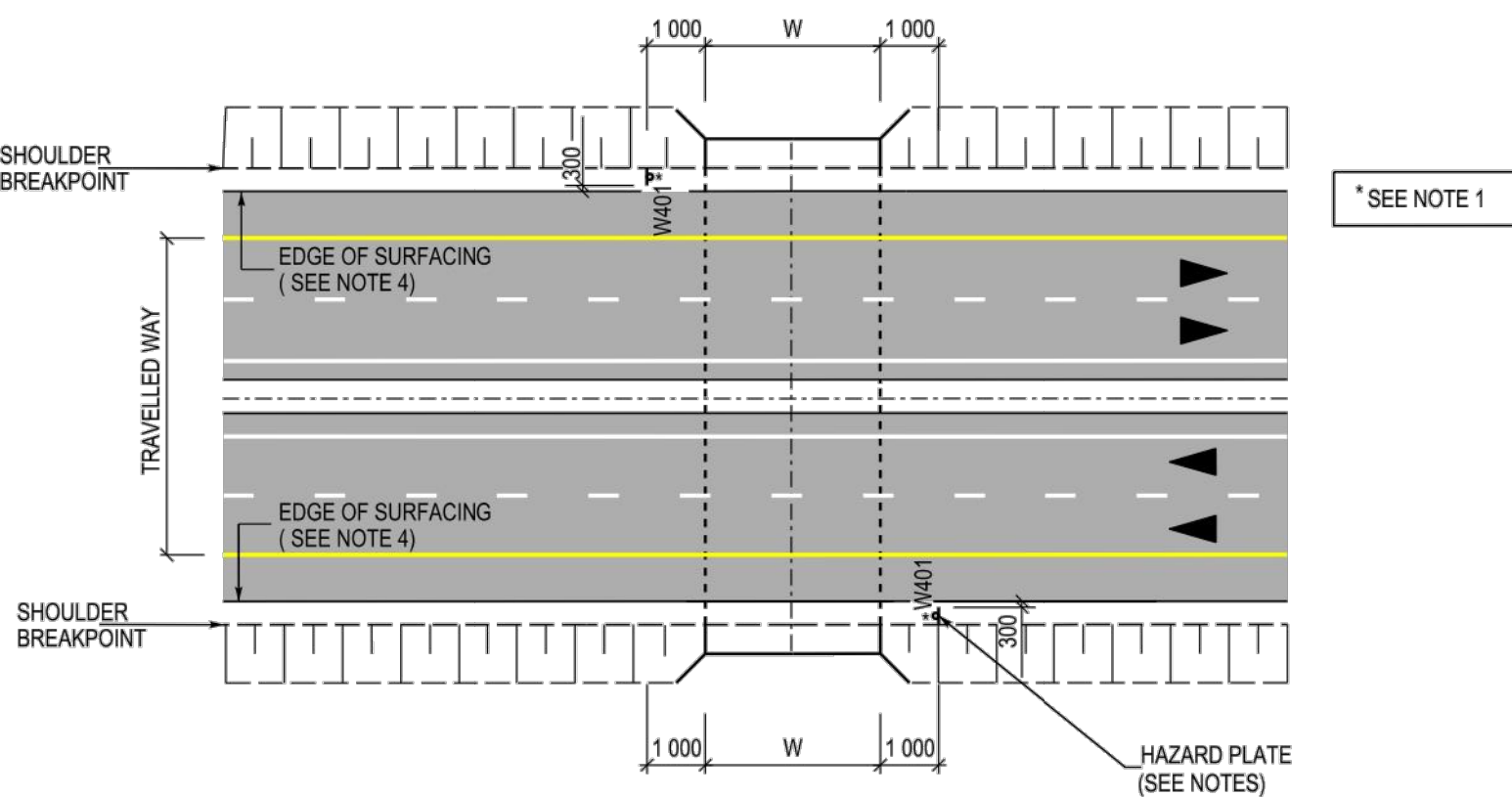
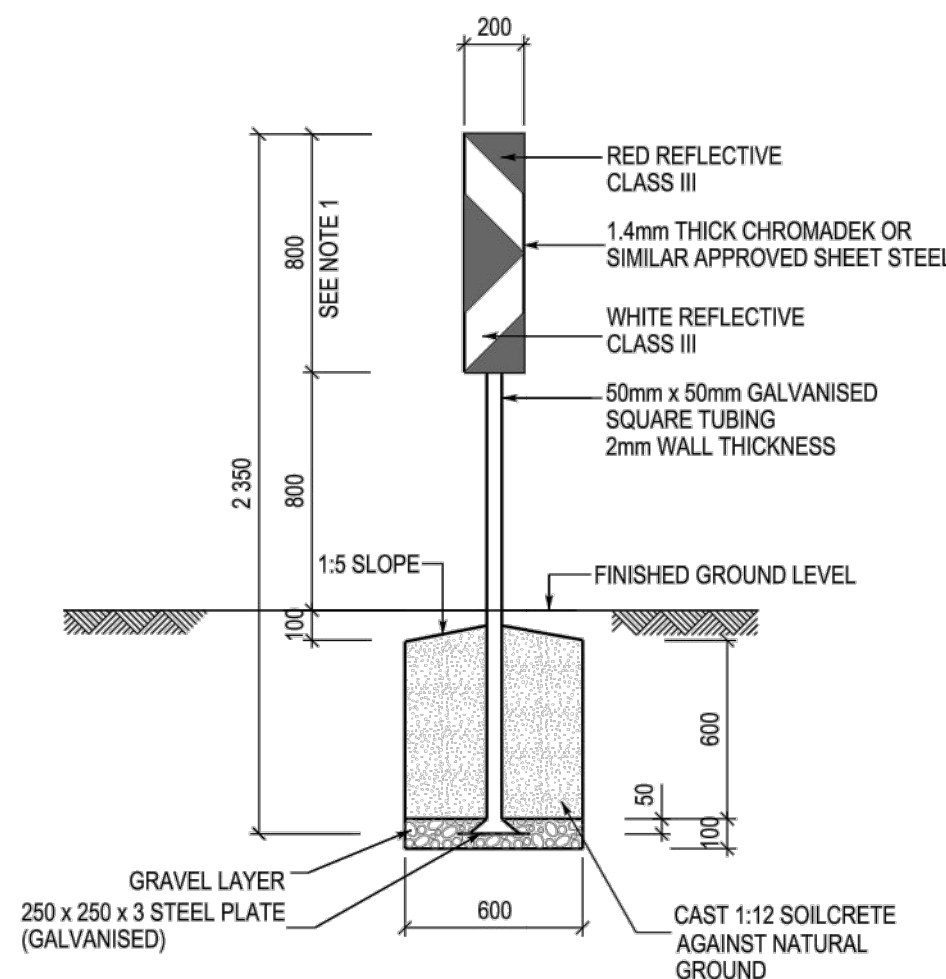


**POSITIONING OF HAZARD PLATES AT CULVERTS: SINGLE CARRIAGEWAY ROADS**  
N.T.S.



**POSITIONING OF HAZARD PLATES AT CULVERTS: DUAL CARRIAGEWAY ROADS**  
N.T.S.



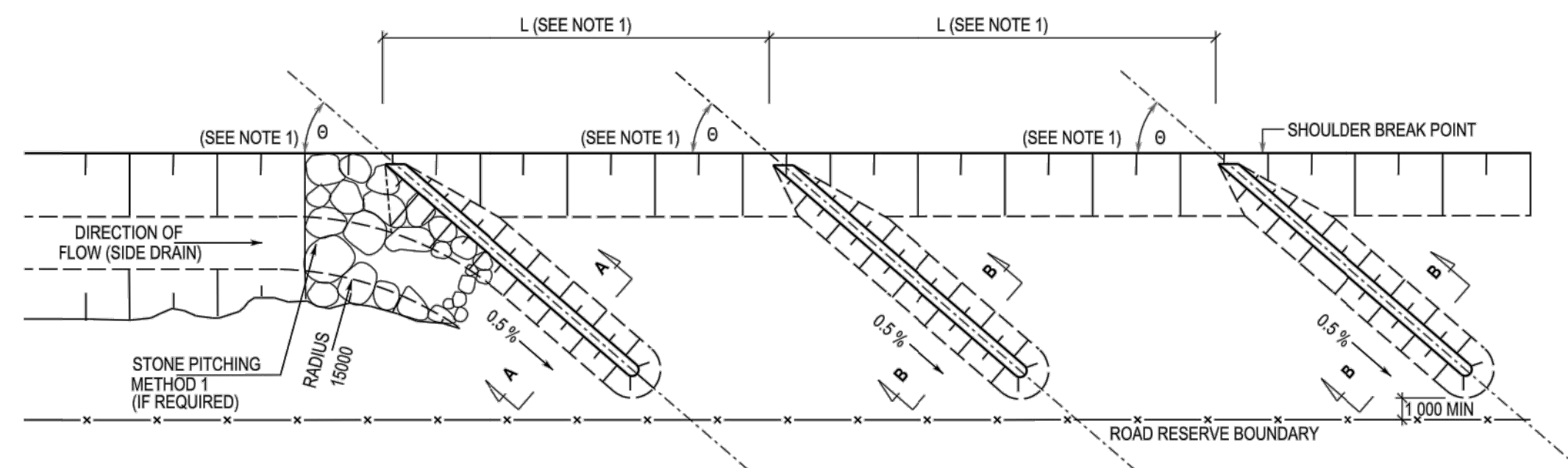
**FRONT ELEVATION OF HAZARD PLATE**

(ACCORDING TO DETAIL FOR W401 AND W402 OF THE SOUTH AFRICAN ROAD TRAFFIC SIGNS MANUAL - JUNE 1999)  
SCALE 1:20

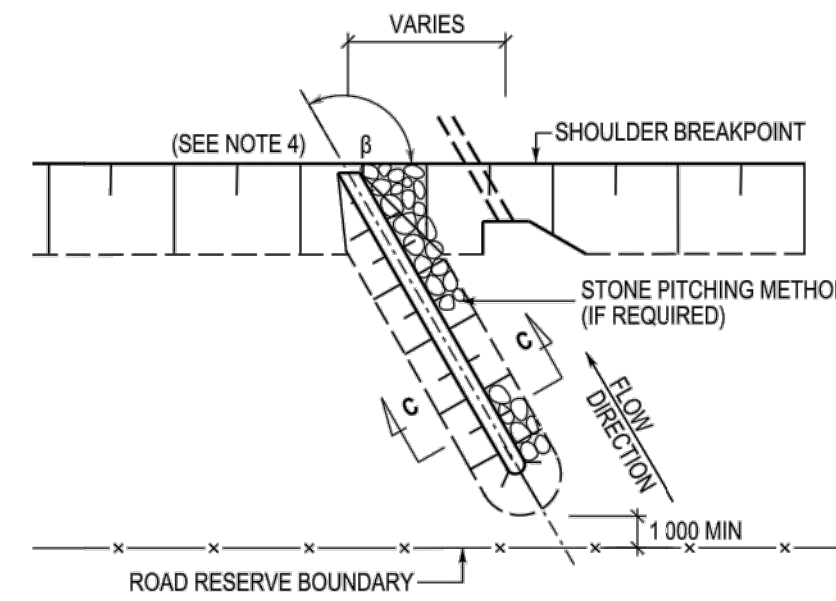
**NOTES:**

1. THE INNER EDGE OF THE HAZARD PLATE SHALL BE 300mm FROM THE SHOULDER BREAKPOINT.
2. WHERE W-2.0m ONLY ONE DOUBLE SIDED HAZARD PLATE (W401) SHALL BE PROVIDED PER DIRECTION, SITUATED ON THE UPSTREAM SIDE OF THE TRAFFIC FLOW.
3. HAZARD PLATE TO BE ATTACHED TO SECTION BY MEANS OF TWO GALVANISED M10 BOLTS AND NUTS.
4. SURFACED SHOULDERS ONLY TO BE PROVIDED ACCORDING TO THE DRAWINGS OR WHERE OTHERWISE INDICATED BY THE ENGINEER ON SITE.

**TYPICAL DETAILS OF HAZARD PLATE AND POSITIONING AT CULVERTS**



**PLAN OF MITRE BANKS**  
N.T.S.

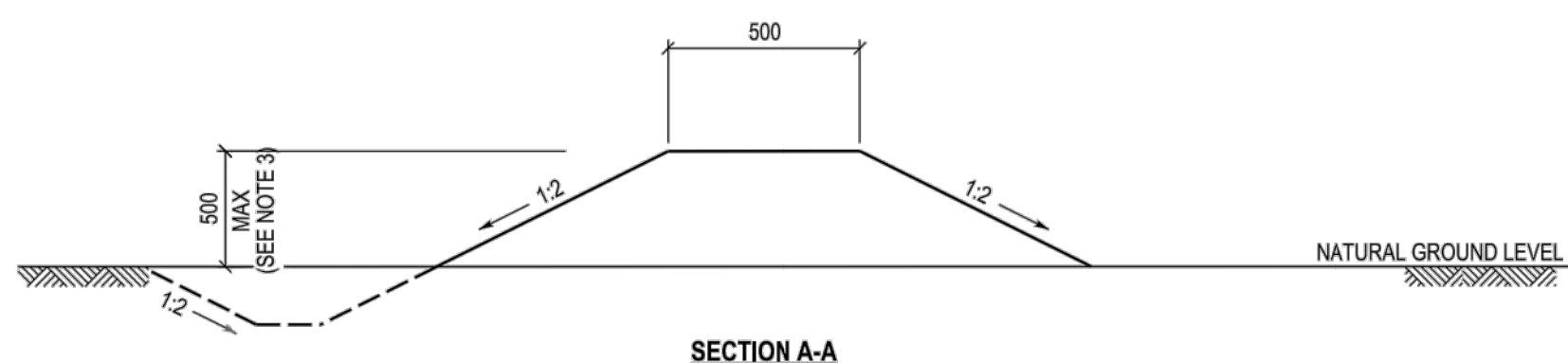


**PLAN OF BERM**  
N.T.S.

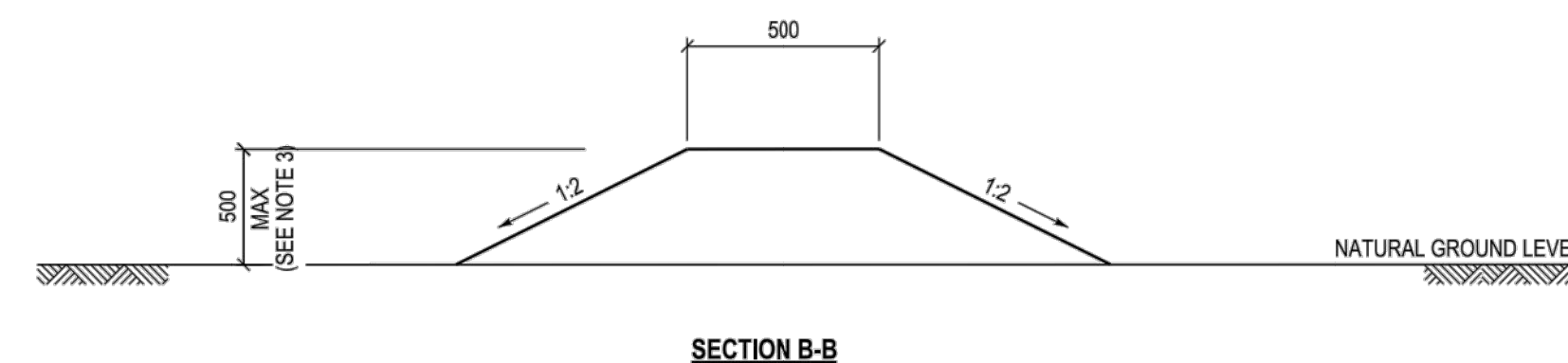
**NOTES:**

1. DIMENSION L AND ANGLE  $\theta$  SHOULD BE DETERMINED BY NATURAL TOPOGRAPHY TO PROVIDE A SLOPE OF 0.5% ALONG THE BERM.
2. OPEN DRAINS SHOULD BE INCORPORATED ALONG BERMS WHERE REQUIRED.
3. TOP OF BERM TO BE AT LEAST 100mm BELOW SHOULDER BREAKPOINT.
4. ANGLE  $\beta$  TO BE DETERMINED BY ENGINEER ACCORDING TO TOPOGRAPHY.

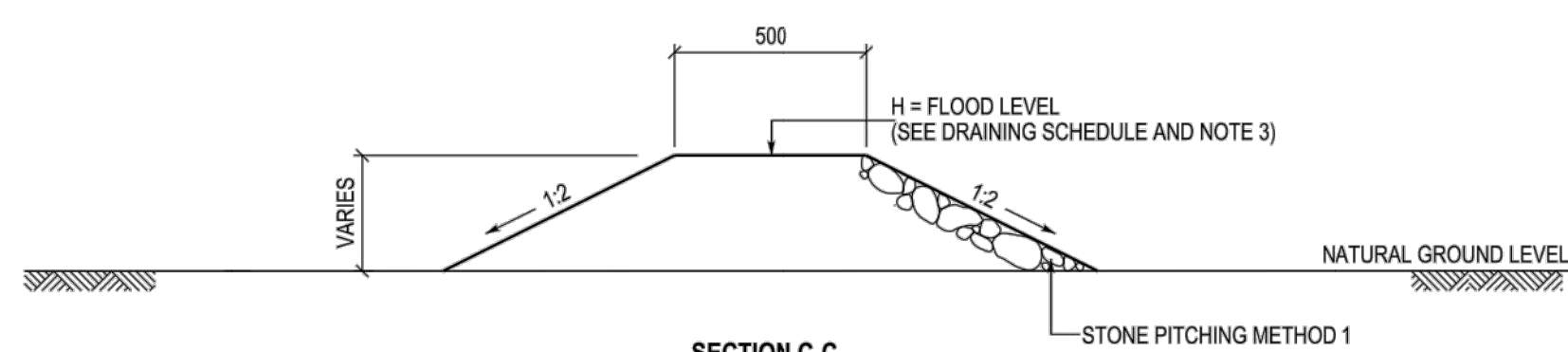
**TYPICAL DETAIL OF MITRE BANKS AND BERMS**  
N.T.S.



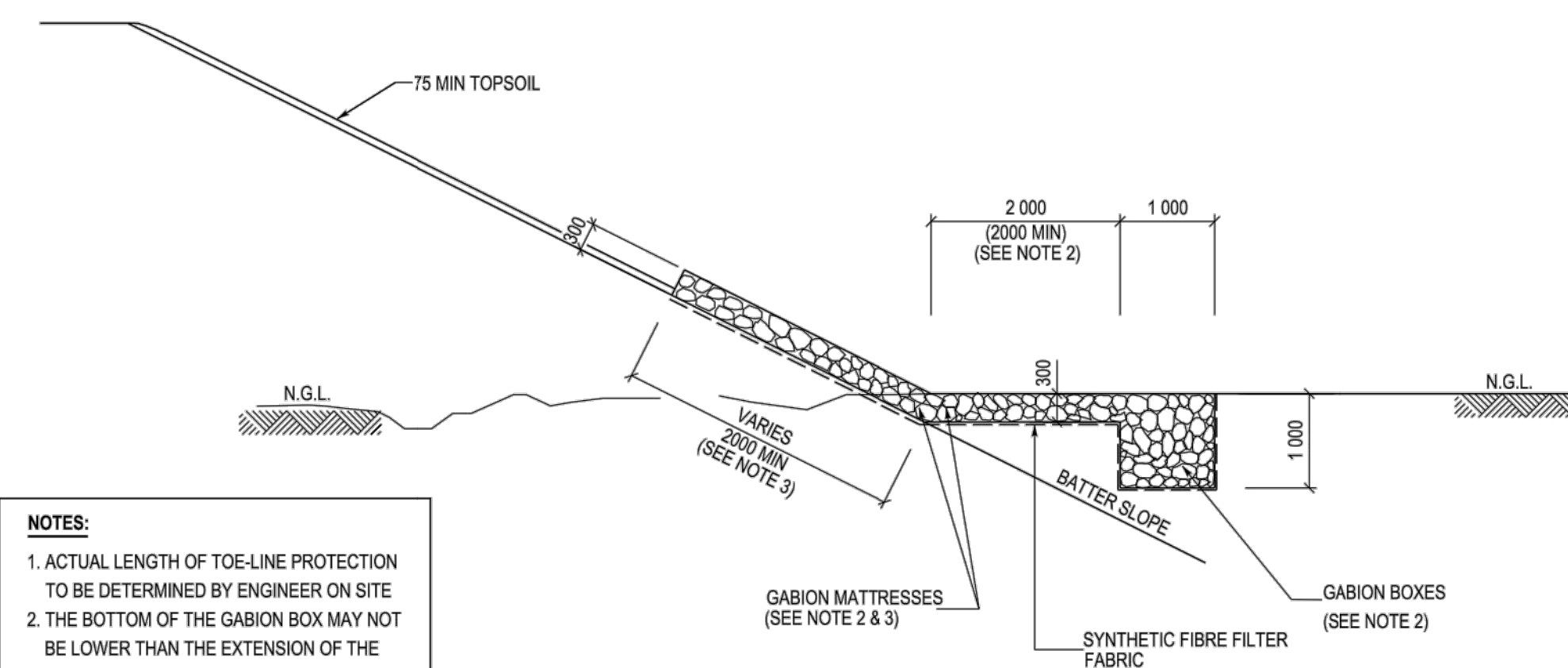
**SECTION A-A**  
N.T.S.



**SECTION B-B**  
N.T.S.



**SECTION C-C**  
N.T.S.



**TYPICAL DETAIL OF GABION TOE-LINE PROTECTION**  
SCALE 1:50

**NOTES:**

1. ACTUAL LENGTH OF TOE-LINE PROTECTION TO BE DETERMINED BY ENGINEER ON SITE.
2. THE BOTTOM OF THE GABION BOX MAY NOT BE LOWER THAN THE EXTENSION OF THE BATTER SLOPE.
3. DIMENSION MAY ALTER ACCORDING TO REQUIREMENTS OF THE ENGINEER ON SITE.

**FOR TENDER**

CLIENT:



MOGALAKWENA MUNICIPALITY

54 Relief Street  
Mokopane  
0801

TEL: (015) 491 9600  
FAX: (015) 491 9038

PROJECT:

**CONTRACT No. :**

**UPGRADING OF GRAVEL ROADS AND STORMWATER IN  
MOORDKOPPIE CLUSTER MOLEKANE VILLAGE**

DESIGN COORDINATOR APPROVAL:

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT MANAGER APPROVAL:

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

CLIENT APPROVAL:

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

REV	DATE	DESCRIPTION	DRAWN
A	SEP. 2020	ISSUED FOR TENDER PURPOSE ONLY	MLM
REVISIONS			

DRAWN: ML. MATHEGA	CHECKED: S. SITHOLE	DESIGNED: A. JUBA
SCALES: AS SHOWN	DATE: SEPTEMBER 2020	
DRAWING TITLE:	MOLEKANE VILLAGE; STANDARD DETAILS, SHEET 5 OF 7	
SIZE: A0	PROJECT No.	
REV No. A	DRAWING No.	ROMH-042-07-06-05

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