

NOTES

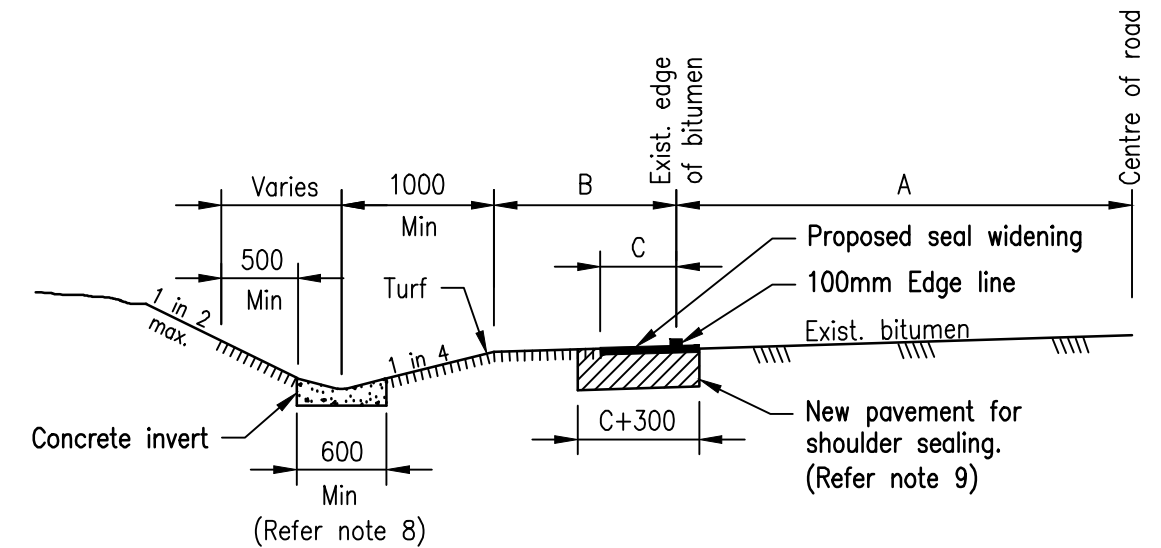
- Catch banks are required at the top of batters in accordance with standard drawing RW-4010
- Where scour is present on batter, an alternative erosion prevention method is to be determined on site in consultation with Council's Engineer.
- In areas to be turfed, the existing surface is to be scarified prior to the placement of turf.
- Turf to be placed on 50mm depth of topsoil, fertilized and watered in.
- Temporary silt fences are to be erected at swale drain outlets prior to commencement of work.
- Where longitudinal grades of swale drains are in excess of 2%, dumped rock protection is to be installed at drain outlets.
- Rock for rock lining shall be min. 100mm size, relatively free of sediments and preferably washed prior to placement. a rounded river rock is preferred to crushed rock.
- 1200mm Concrete invert to be used where grade is in excess of 10% or where required for hydraulic capacity.
- Final pavement depth to be determined from soil tests.
- Pipe crossings or concrete inverts are to be provided at driveways.

**TABLE 1
(SWALE DRAIN TREATMENT SELECTION)**

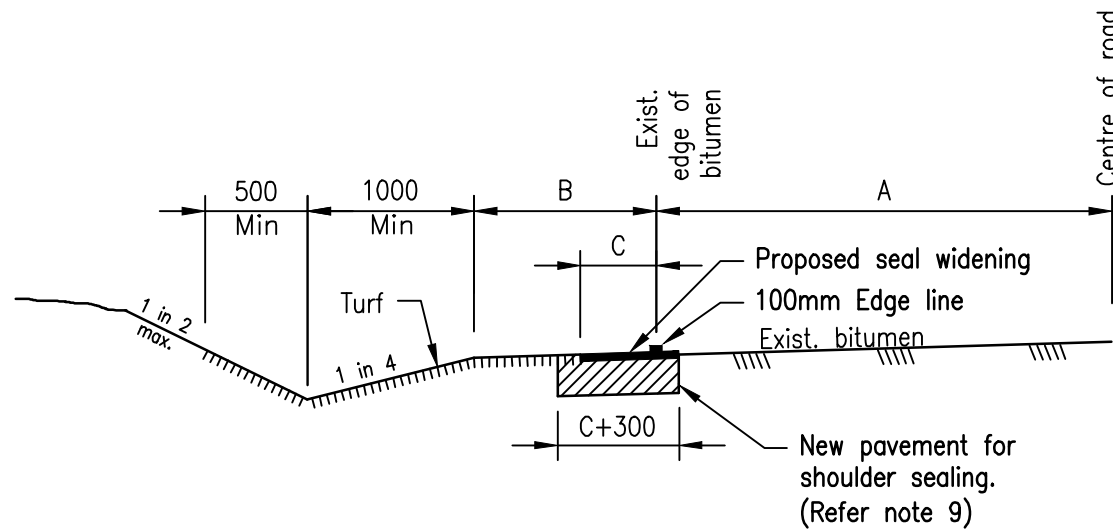
SWALE DRAIN GRADE	TREATMENT
0.4% - 2%	Concrete lined
2% - 5%	Grass lined
5% - 10%	Rock Lined
10% Or greater	Concrete Lined

**TABLE 2
(TYPICAL DIMENSIONS)**

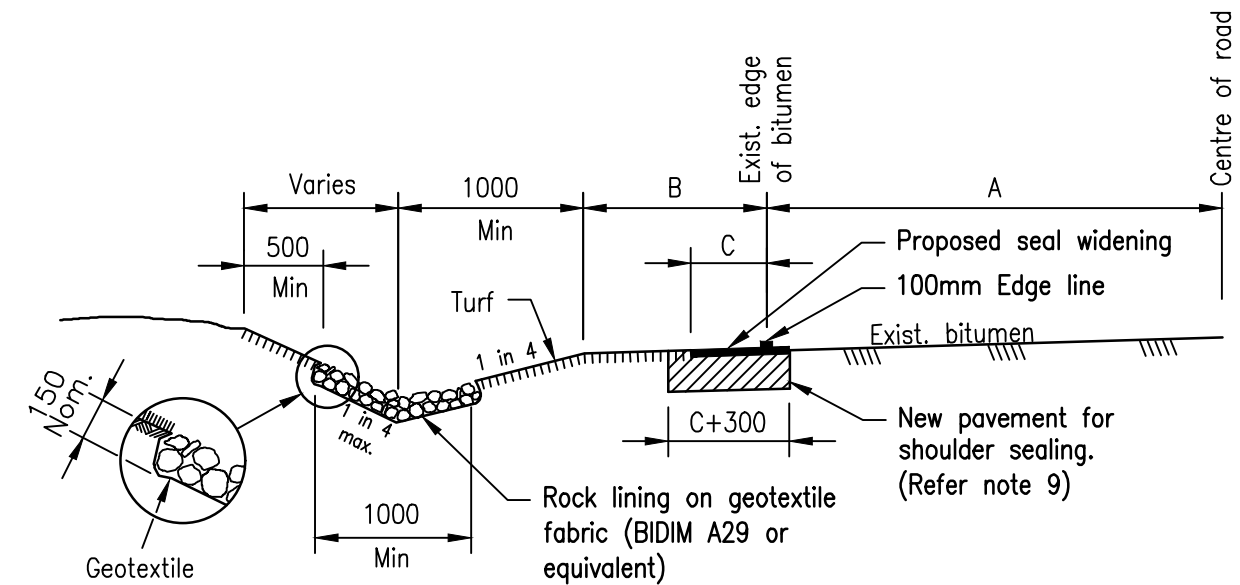
ROAD CLASSIFICATION	DIMENSIONS (MIN.)		
	A	B	C
Access	3000	1200	500
Collector	3500	1500	1000
> Collector	3500	2000	1500



CONCRETE LINED SWALE DRAIN



GRASS LINED SWALE DRAIN



ROCK LINED SWALE DRAIN

REVISIONS		INIT	DATE
E			
D			
C			
B	Minor Changes	RH	05/17
A	Batter Slopes Added	RH	12/16
X	ORIGINAL ISSUE	JN	07/16

SCALES			
Drawn	JN	Date	07/16
Coordinator	PP	Date	07/16
AUTHORISED			
SYD JERRAM 07/07/16			
Manager Integrated Transport Planning & Design RPEQ 6872			

**ROADSIDE DRAINAGE
UPGRADING OF EXISTING ROADS
SWALE DRAINS**



DRG No. **RW-4020**

ORIGINAL SIZE **A3** REVISION **B**