

38801C-C008-CAD[P1].dwg Plotted: 09.02.18 at 12:45 PM By: Cameron Stanford		
88801C-C008-(100	
CiviNIssued\Dwg\2021		
\Job\2021888\01\	8-	
∖Data	8.	
VE-50	20	
0-SER	9.	
2		
₽		=

COPYRIGHT All rights reserved. These drawings, plans and specifications and the copyright therein are the property of the Bonacci Group and must not be used, reproduced or copied wholly or in part without the written permissio of the Bonacci Group. P1 100% SCHEMATIC DESIGN 09.02.18 CS Date By App Rev Description Date By App

SWMP Commentary, Detailed Calculations

Note: These "Detailed Calculation" spreadsheets relate only to high erosion hazard lands as identified in figure 4.6 or where the designer chooses to use the RUSLE to size sediment basins. The "Standard Calculation" spreadsheets should be used on low erosion hazard lands as identified by figure 4.6 and where the designer chooses not to run the RUSLE in calculations.

1. Site Data Sheet

Site Name: Picton High School

Site Location: Picton High School

Precinct:

Description of Site: Existing Picton High School (area nominally 3.2ha) to be demolished. Temporary School to be non disturbed during demolition of existing school

Site area		Si	te	Remarks	
Site area	Basin				Remarks
Total catchment area (ha)	3.2				
Disturbed catchment area (ha)	3.2				

Soi	l ana	lysis

% sand (faction 0.02 to 2.00 mm				Soil texture should be assessed through
% silt (fraction 0.002 to 0.02 mm)				mechanical dispersion only. Dispersin
% clay (fraction finer than 0.002 mm)				agents (e.g. Calgon) should not be used
Dispersion percentage				E.g. enter 10 for dispersion of 10%
% of whole soil dispersible				See Section 6.3.3(e)
Soil Texture Group				See Section 6.3.3(c), (d) and (e)

Design rainfall depth (days)	5			See Sections 6.3.4 (d) and (e)
Design rainfall depth (percentile)	85			See Sections 6.3.4 (f) and (g)
x-day, y-percentile rainfall event	34.1			See Section 6.3.4 (h)
Rainfall intensity: 2-year, 6-hour storm	10.6			See IFD chart for the site

RUSLE Factors

Rainfall erosivity (R -factor)	2460						Automatic calculation from above data
Soil erodibility (K -factor)	0.034						
Slope length (m)	80						
Slope gradient (%)	2						RUSLE data can be obtained from
Length/gradient (LS -factor)	0.41						Appendixes A, B and C
Erosion control practice (P -factor)	1.3	1.3	1.3	1.3	1.3	1.3	
Ground cover (C-factor)	1	1	1	1	1	1	

Calculations

Calculations				
Soil loss (t/ha/yr)	45			
Soil Loss Class	1			See Section 4.4.2(b)
Soil loss (m³/ha/yr)	34			
Sediment basin storage volume, m ³	19			See Sections 6.3.4(i) and 6.3.5 (e)

180209 Ultimate School Sed basin Spreadsheet Detailed edi~t2.xls

BONACCI GROUP Pty Ltd ABN 42 060 332 345 Consulting Engineers, Structural - Civil - Infrastructure Level 6, 37 York Street, Sydney, NSW 2000 Australia Tel: +61 2 8247 8400 Fax: +61 2 8247 8444 sydney@bonaccigroup.com www.bonaccigroup.com

Project Name PICTON HIGH SCHOOL REDEVELOPMENT PICTON, NSW 2571

NOTES:

1. K-FACTOR AND GROUP C HYDROLOGIC GROUP BASED ON TABLE C21

PICTON IS LOCATED IN BETWEEN THESE LOCATIONS.

2. 5-DAY 85% RAINFALL DEPTH OF 34.1mm CHOSEN AS THE AVERAGE OF CAMDEN AND MITTAGONG LANDSCAPE IN TABLE 6.3a "BLUEBOOK" AS

3. ANNUAL SOIL LOSS AS COMPUTED BY THE RUSLE EQUATION IS 114m³ PER

SLAB). CONSEQUENTLY, CONSTRUCTION OF A SEDIMENT BASIN MAY BE

"BLUEBOOK"). CONTRACTOR IS TO USE ALTERNATE SEDIMENT CONTROL MEASURES SUCH THAT QUALITY OF RUNOFF IS OF AN ACCEPTABLE

YEAR DUE TO RELATIVELY FLAT SLOPE ON SITE (ASSUMED NOMINALLY 2% AS PROPOSED CONSTRUCTION WILL REQUIRE FLAT SURFACE FOR BUILDING

UNNECESSARY FOR THE ULTIMATE SCHOOL CONSTRUCTION WORKS AS THE SOIL LOSS IS LESS THAN 150m³/YR (REFER TO SECTION 6.3.2(D) OF THE

"BLUEBOOK" PICTON LANDSCAPE.

STANDARD PRIOR TO DISCHARGE.

Drawing SOIL AND WATER MANAGEMENT COMPUTATIONS

SCHEMATIC DESIGN Project Director Approved Date

Scale N.T.S.