Stabilised rock outlet, refer to the detail on sheet SW02

Provide straw bale or coir log filter across floodway, refer detail SD 6-7 on sheet ES02

Proposed stockpile location, TBC onsite. Ensure stockpile is located outside flood extents

Retaining Wall

GIF

Bio-Retention Basin

GIF

Storage

Proposed Gazebo

Sediment fence with turnouts at max. 20m intervals, refer detail SD 6-8 on sheet ES02

Existing swale to be utilised as clean water diversion

Toilet

HYD

SVO

RSIGN

Any disturbed batters to be top soiled and seeded, refer detail SD 7-1 on sheet ES03

Stabilised Site Access

PP

RSIGN

LEGEND

- SD 6-7 Straw Bale Filter or Coir Log Filter
- SD 6-8 Sediment Fence
- Clean water Diversion
- Un-Disturbed Area
- SD 6-14 Stabilised Site Access
- GIF — SD 6-12 Geotextile Inlet Filter

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P2	25/06/25	Water Cycle Management and E&SC Plan - For Approval	HO
P1	07/05/25	Original Issue	GBL

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Approved for Construction:

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Lithgow Mountain Bike Park
3A State Mine Gully Road
Lot 11 DP1240259

EROSION AND SEDIMENT CONTROL PLAN

Central Tablelands Mountain Bike Club

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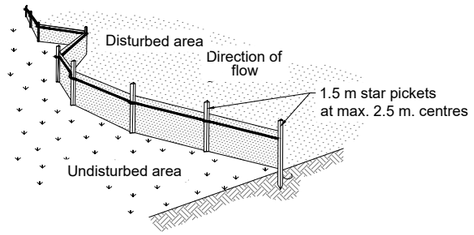
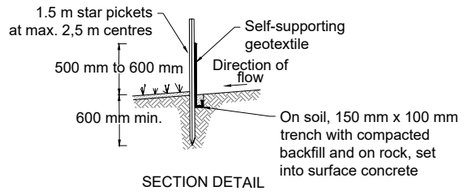
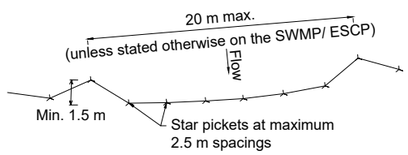




SECTION DETAIL



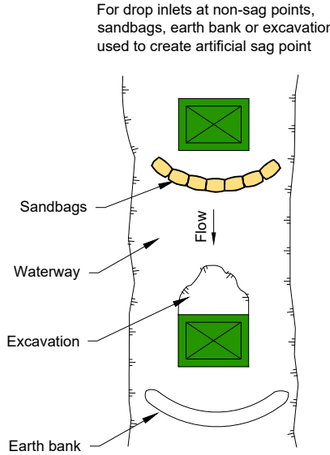
PLAN

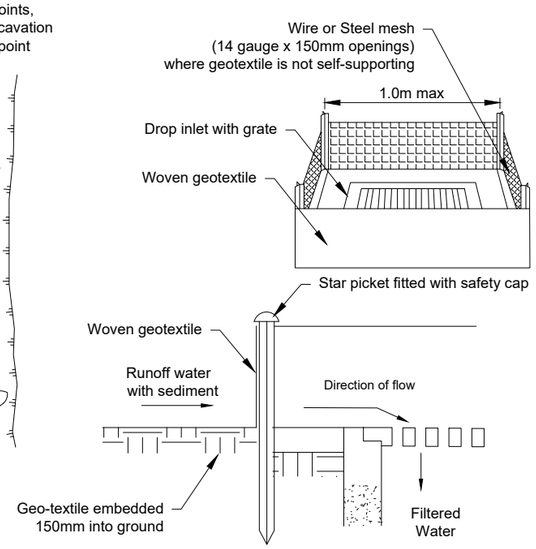
Sediment Fence - SD 6-8

Scale: NTS

Construction Notes:

1. Construct sediment fences as close as possible to being parallel to the contours of the site, but with small returns as shown in the drawing to limit the catchment area of any one section. The catchment area should be small enough to limit water flow if concentrated at one point to 50 litres per second in the design storm event, usually the 10% AEP.
2. Cut a 150 mm deep trench along the upslope line of the fence for the bottom of the fabric to be entrenched.
3. Drive 1.5 metre star pickets into the ground at 2.5 metre intervals (max) at the downslope edge of the trench. Ensure any star pickets are fitted with safety caps.
4. Fix self-supporting geotextile yo the upslope side of the posts ensuring it goes to the base of the trench. Fix the geotextle with wire ties or as recommended by the manufacturer. only use geotextile specifically produced for sediment fencing. the use of shade cloth for this purpose is not satisfactory.
5. Join sections of fabric at a support post with a 150 mm overlap.
6. Backfill the trench over the base of the fabric and compact it throughly over the geotextile.



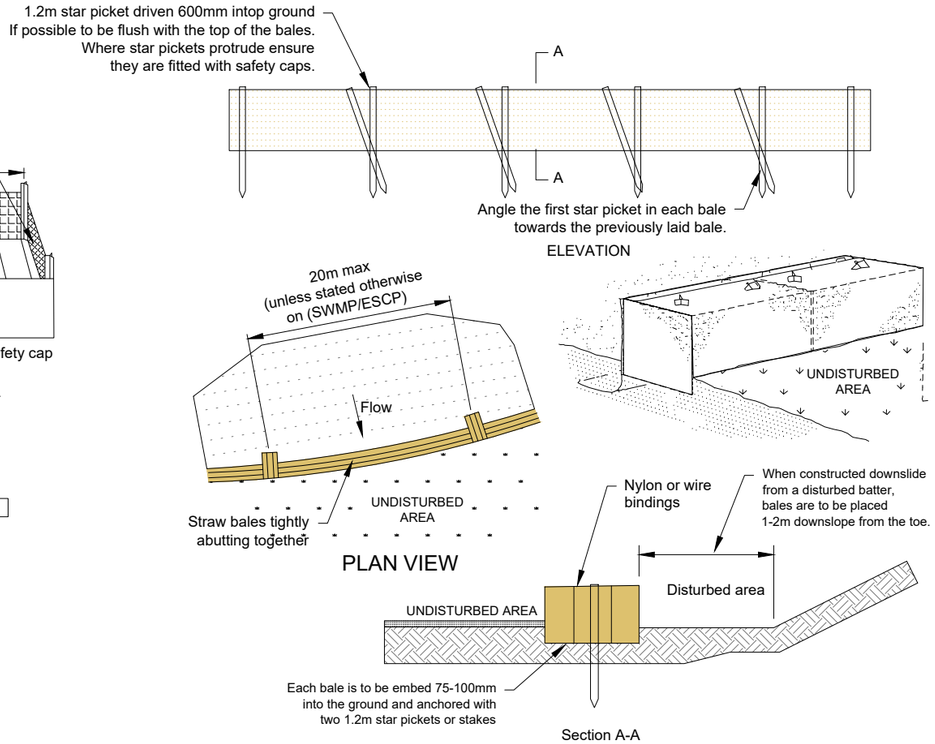


Geo Textile Inlet Filter - SD 6-12

Scale: NTS

Construction Notes:

1. For installation procedures for the straw bales or geo fabric Refer the NSW Managing Urban Stormwater BlueBook, Soils and Construction, Section 6.3 Std Dwg 6-7 and 6-8
2. In water ways, artificial sag points can be created with sand bags or earth banks.
3. Do not cover the inlet with geotextile unless the design is adequate to allow for all waters to bypass it



Straw Bale Filter - SD 6-7

Scale: NTS

Construction Notes:

1. Construct as close as possible to be parallel to site contours.
2. Place bales lengthwise in a row with ends tightly abutting. Use straw to fill any gaps between bales.
3. Ensure that the maximum height of the filter is one bale.

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EROSION AND SEDIMENT CONTROL NOTES

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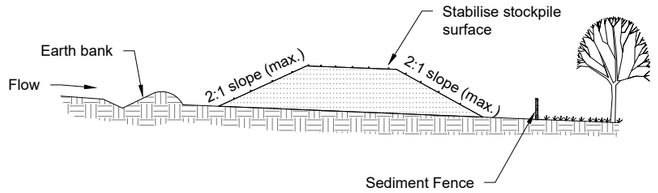
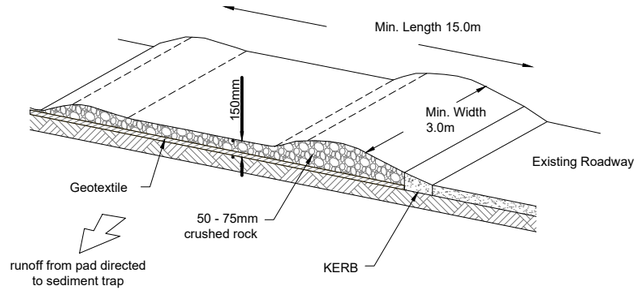


Stockpile - SD 4-1

Scale: NTS

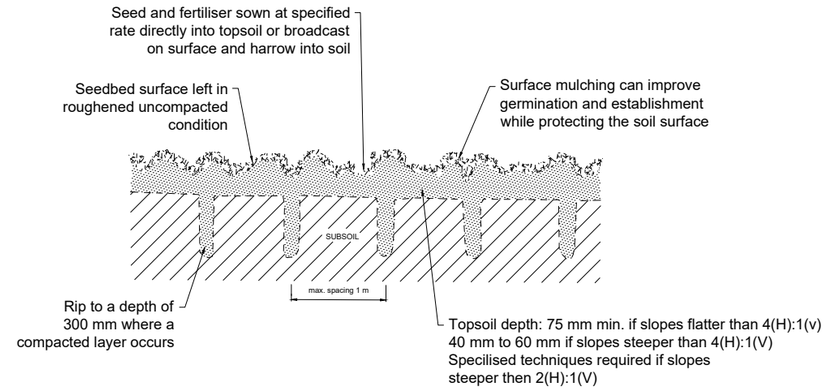
Construction Notes

1. Place stockpiles more than 2 (preferably 5) metres from existing vegetation, concentrated water flow, roads and hazard areas.
2. Construct on the contour as low, flat, elongated mounds.
3. Where there is sufficient area, topsoil stockpiles shall be less than 2 metres in height.
4. where they are to be in place for more than 10 days, stabilise following the approved ESCP or SWMP to reduce the C-factor to less than 0.10.
5. construct earth banks (Standard Drawing 5-5) on the upslope side to divert water around stockpiles and sediment fences (Standard Drawing 6-8) 1 to 2 metres downslope.



Stabilised Site Access Detail - SD 6-14

Scale: NTS

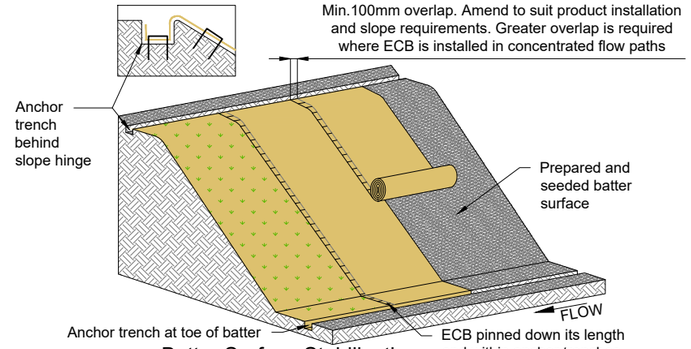


Seedbed Preparation - SD 7-1

Scale: NTS

Construction Notes:

1. Loosen compacted soil before sowing any seed. If necessary, rip the soil to a depth of 300 mm. Avoid rotary hoe cultivation.
2. Work the ground only as much as necessary to achieve the desired tilth and prepare a good seedbed.
3. Avoid cultivation in very wet ir very dry conditions.
4. cultivation on or close to the contour where possible, not up and down the slope.



Batter Surface Stabilisation Detail

Scale: NTS

NOTE:
Top soiled and seeded then lined with 350gsm jute matting and sprayed with a polymer soil stabiliser to the manufacturers specification. Polymer may require reapplication after rain events pending performance inspections until germination and suitable growth has been achieved.

Construction Notes:

1. Avoid removing trees and shrubs if possible - work around them.
2. Ensure 100mm min overlap of 350gsm jute matting.
3. Must be adequately anchored at the top of the batter, pinned / stapled and secured down the batter face at max. 300mm spacings to ensure intimate soil contact.

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Lithgow Mountain Bike Park
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EROSION AND SEDIMENT CONTROL NOTES

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NOTES : SEDIMENT CONTROL

1. EROSION AND SEDIMENTATION CONTROL SHALL BE IN ACCORDANCE WITH NSW LANDCOM GUIDELINES " MANAGING URBAN STORMWATER - SOILS & CONSTRUCTION" 4TH EDITION. MINIMISE DISTURBANCE OF EXISTING VEGETATION DURING CONSTRUCTION. EROSION & SEDIMENT CONTROLS TO BE IN PLACE PRIOR TO ANY CONSTRUCTION WORK COMMENCING.
2. CONSTRUCTION IS TO BE PROGRAMMED TO PROVIDE INSTALLATION OF PERIMETER LANDSCAPING/SURFACE TREATMENT AS EARLY AS PRACTICAL.
3. AT THE PRESTART MEETING THE CONTRACTORS WORKS PROGRAM IS TO BE REVIEWED. ALTERATIONS TO THE PROGRAM MAY BE REQUIRED TO ENSURE SATISFACTORY EROSION AND SEDIMENT CONTROL.
4. A PHOTOGRAPHIC RECORD OF SEDIMENT AND EROSION CONTROL DEVICES AND THE IMMEDIATE DOWNSTREAM STORMWATER SYSTEM IS TO BE CARRIED OUT ON A FORTNIGHTLY CYCLE AND AFTER EACH MAJOR STORM EVENT. CARRY OUT CORRECTIVE AND PREVENTATIVE ACTION AS REQUIRED.
5. PUBLIC AND WORKPLACE SAFETY ISSUES MUST BE CONSIDERED AND MONITORED FOR EACH DEVICE TO THE SATISFACTION OF THE SUPERINTENDENT.
6. WOVEN FABRICS ARE TO BE USED FOR SEDIMENT FENCE FILTER FABRIC.
7. SEDIMENT MANAGEMENT DEVICES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND MAINTAINED AT A SUITABLE LEVEL/CONDITION THROUGHOUT CONSTRUCTION. SEDIMENT FENCES ARE TO BE CLEANED OUT WHEN CAPACITY IS REDUCED BY 30%. DRAINAGE STRUCTURE PROTECTION IS TO BE CLEANED FOLLOWING EACH SIGNIFICANT RUNOFF PRODUCING STORM.
8. THE CONTRACTOR SHALL PROVIDE TEMPORARY DRAINAGE CONTROL TO DIVERT FLOW FROM UNDISTURBED AREAS AROUND DISTURBED AREAS AND DIRECT FLOW FROM DISTURBED AREAS TOWARDS CONTROL DEVICES.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE OF SEDIMENT AND EROSION CONTROL DEVICES. ALL DEVICES ARE TO BE INSPECTED AT LEAST WEEKLY AND AFTER SIGNIFICANT RUNOFF PRODUCING STORMS.
10. IF EROSION AND SEDIMENT CONTROL DEVICES HAVE BEEN FOUND TO BE DEFICIENT OR FAILED IN SERVICE DUE TO UNFORESEEN CIRCUMSTANCES CORRECTIVE ACTION IS TO BE UNDERTAKEN BY THE CONTRACTOR IMMEDIATELY WHICH MAY INCLUDE;
    AMENDMENTS/ADDITIONS TO THE ORIGINAL EROSION CONTROL PLANS. SUCH ADDITIONS OR AMENDMENTS ARE TO BE APPROVED BY THE SUPERINTENDENT.
11. STRAW BALES USED IN SEDIMENT DEVICES ARE TO BE REPLACED AFTER A MAXIMUM SERVICE PERIOD OF 6 WEEKS OR AS REQUIRED.
12. SEDIMENT MANAGEMENT DEVICES ARE TO BE MAINTAINED BY THE CONTRACTOR AS NOTED AND DETAILED UNTIL APPROVAL HAS BEEN GRANTED BY THE ENGINEER FOR THEIR REMOVAL. THE CONTRACTOR IS TO REMOVE AND DISPOSE OF THESE DEVICES OFF SITE.
13. ALL TEMPORARY ACCESS ROADS AND HARDSTAND AREAS ARE TO BE TRIMMED AND MAINTAINED IN A SERVICEABLE CONDITION FOR THE DURATION OF THE CONTRACT.
14. ALL TEMPORARY ACCESS ROADS AND HARDSTAND AREAS ARE TO BE REINSTATED TO THE SATISFACTION OF THE SUPERINTENDENT AT THE END OF THE CONTRACT.

DUST MANAGEMENT

1. Ground disturbance is to be minimised and all site vehicle movements are to be maintained with the designated haulage tracks and or roads.
2. All site traffic speeds are to be kept to a minimum. Maximum speed 10 kph.
3. The contractor will ensure that haul roads and all denuded areas are watered as required and a trackifier such as curosol may be required.
4. In the event that dust becomes a nuisance council may instruct the contractor to cease all work until a satisfactory control has been reached.

REVEGETATION MANAGEMENT.

1. All batters & reinstatement works adjacent to new construction works shall be carried out as soon as possible after completion.
2. All disturbed areas & batters shall be turfed or grassed as soon as practical after reinstatement and achieve 70% cover after 10 working days. Areas not worked for 20 days must achieve 50% cover.
3. Replace topsoil on all disturbed areas to a depth of at least 75mm depth on slopes less than 4h:1v and 40mm to 60mm on lands where slopes exceed 4h to 1v.
4. Sow or hydromulch disturbed areas with approved seed/fertiliser mixture.

MONITORING & TESTING

The installation of the erosion and sediment control measures as detailed in this plan will ameliorate potential impact to water quality in the receiving waters. A monitoring program is proposed to ensure that the control measures achieve the desired goals.

A visual monitoring program is proposed due to the relatively small size of the development and the amount of earthworks that is to take place. Inspections of all controls to take place weekly and before and after rainfall events (70% chance of 5mm or more)

1. Erosion Hazard and Sediment Basins

Site Name: State Mine Gully Mountain Bike Park

Site Location: 3A State Mine Gully Road, State Mine Gully, NSW 2790

Precinct/Stage:

Other Details:

Site area	Sub-catchment or Name of Structure						Notes
Total catchment area (ha)	0.456						
Disturbed catchment area (ha)	0.456						

Soil analysis (enter sediment type if known, or laboratory particle size data)

Sediment Type (C, F or D) if known:	F						From Appendix C (if known)
% sand (fraction 0.02 to 2.00 mm)							Enter the percentage of each soil fraction. E.g. enter 10 for 10%
% silt (fraction 0.002 to 0.02 mm)							
% clay (fraction finer than 0.002 mm)							
Dispersion percentage							E.g. enter 10 for dispersion of 10%
% of whole soil dispersible							See Section 6.3.3(e). Auto-calculated
Soil Texture Group	F						Automatic calculation from above

Rainfall data

Design rainfall depth (no of days)	5						See Section 6.3.4 and, particularly, Table 6.3 on pages 6-24 and 6-25.
Design rainfall depth (percentile)	80						
x-day, y-percentile rainfall event (mm)	23.6						
Rainfall R-factor (if known)	1700						Only need to enter one or the other here
IFD: 2-year, 6-hour storm (if known)							

RUSLE Factors

Rainfall erosivity (*R*-factor)	1700						Auto-filled from above
Soil erodibility (*K*-factor)	0.036						
Slope length (m)	60						
Slope gradient (%)	2.5						RUSLE LS factor calculated for a high rill/interrill ratio.
Length/gradient (*LS*-factor)	0.46						
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	

Sediment Basin Design Criteria (for Type D/F basins only. Leave blank for Type C basins)

Storage (soil) zone design (no of months)	6						Minimum is generally 2 months
Cv (Volumetric runoff coefficient)	0.5						See Table F2, page F-4 in Appendix F

Calculations and Type D/F Sediment Basin Volumes

Soil loss (t/ha/yr)	37						
Soil Loss Class	1						See Table 4.2, page 4-13
Soil loss (m^3/ha/yr)	28						Conversion to cubic metres
Sediment basin storage (soil) volume (m^3)	6						See Sections 6.3.4(i) for calculations
Sediment basin settling (water) volume (m^3)	54						See Sections 6.3.4(i) for calculations
Sediment basin total volume (m^3)	60						

Soil Loss is less than 200 tonne (~150m^3) therefore a sediment basin is NOT required.

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SOIL AND WATER MANAGEMENT NOTES

Central Tablelands Mountain Bike Club

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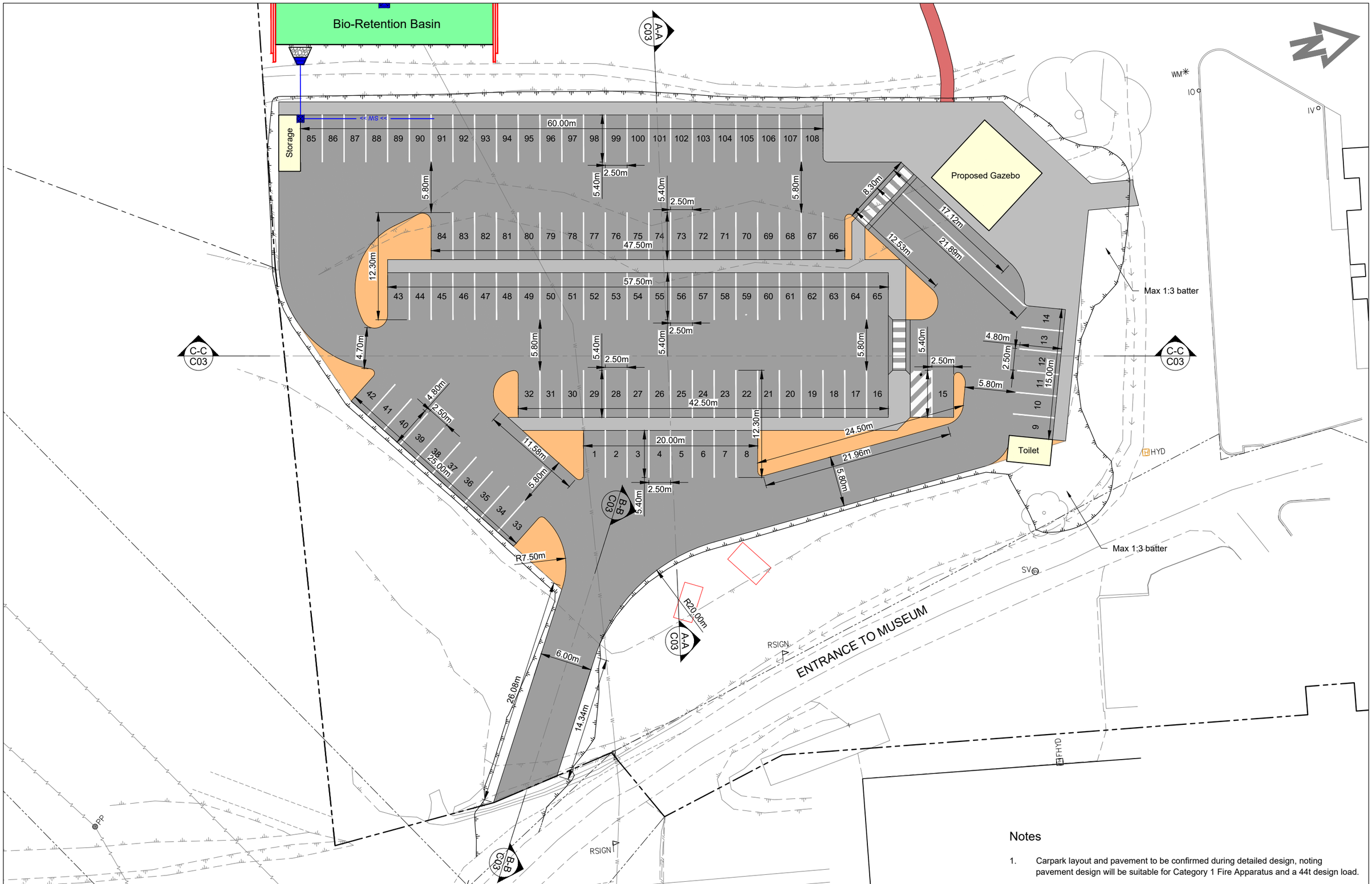

Notes

1. Carpark layout and pavement to be confirmed during detailed design, noting pavement design will be suitable for Category 1 Fire Apparatus and a 44t design load.

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Lithgow Mountain Bike Park
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PRELIMINARY OVERALL SITE PLAN

Central Tablelands Mountain Bike Club

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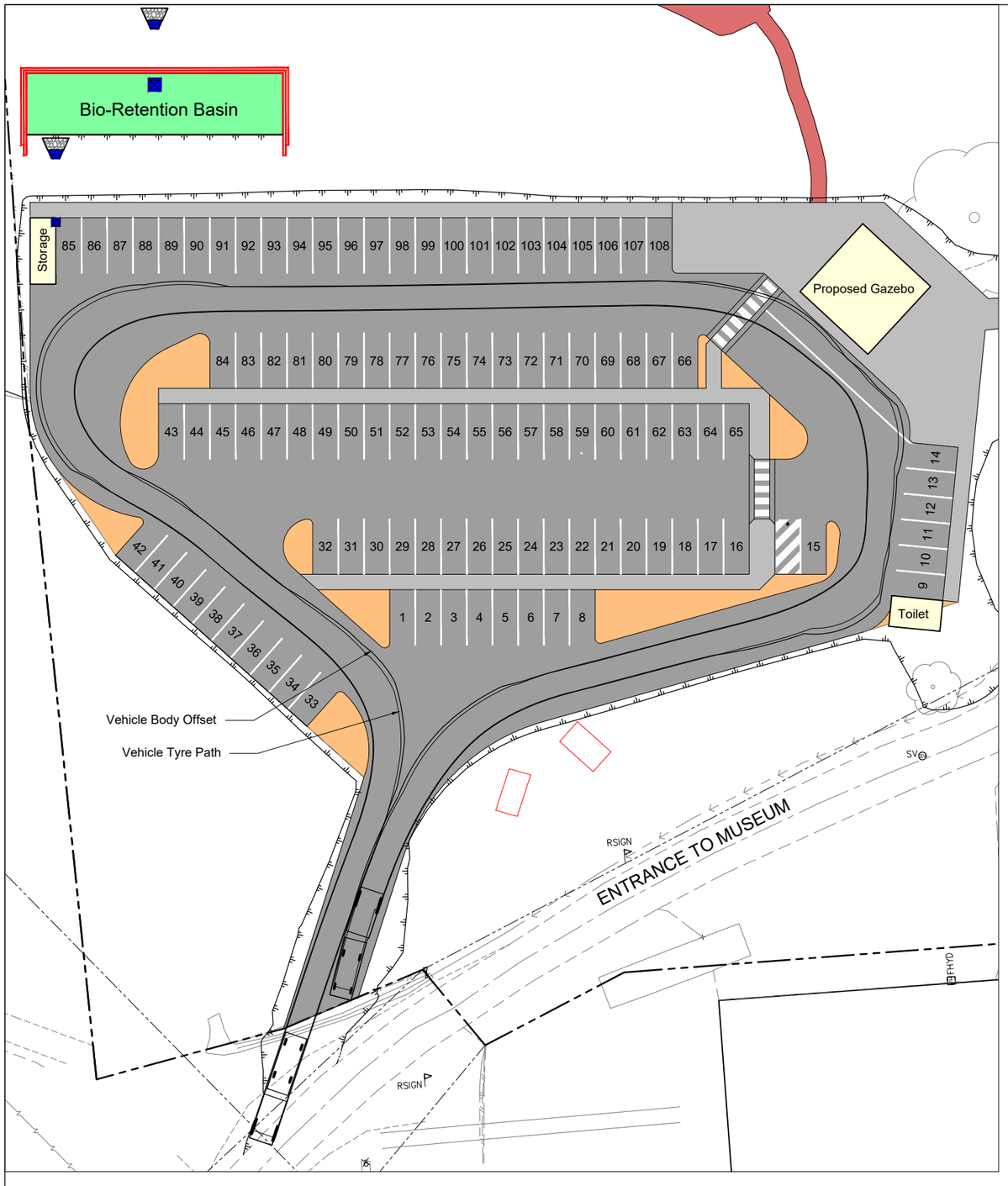
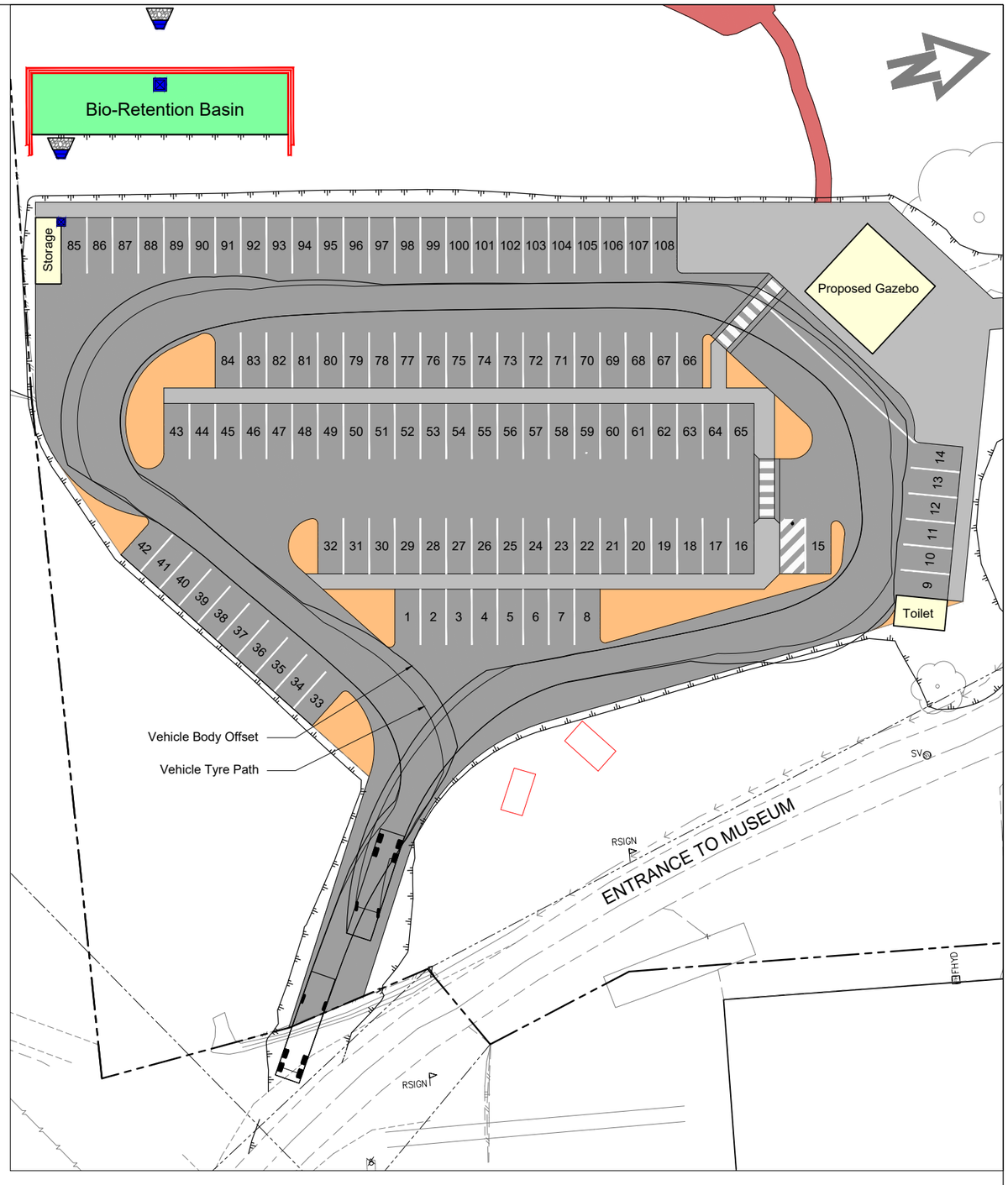


Large SUV / Van with Trailer
Scale 1:250



10m long Category 1 Fire truck
Scale 1:250

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VEHICLE TURNING PATH ASSESSMENT

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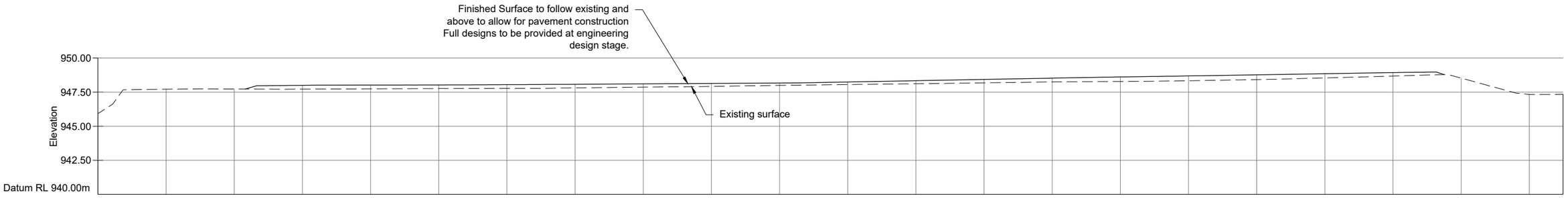

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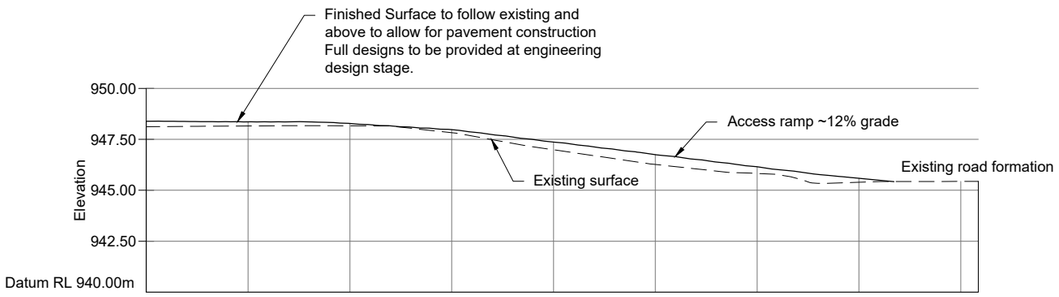

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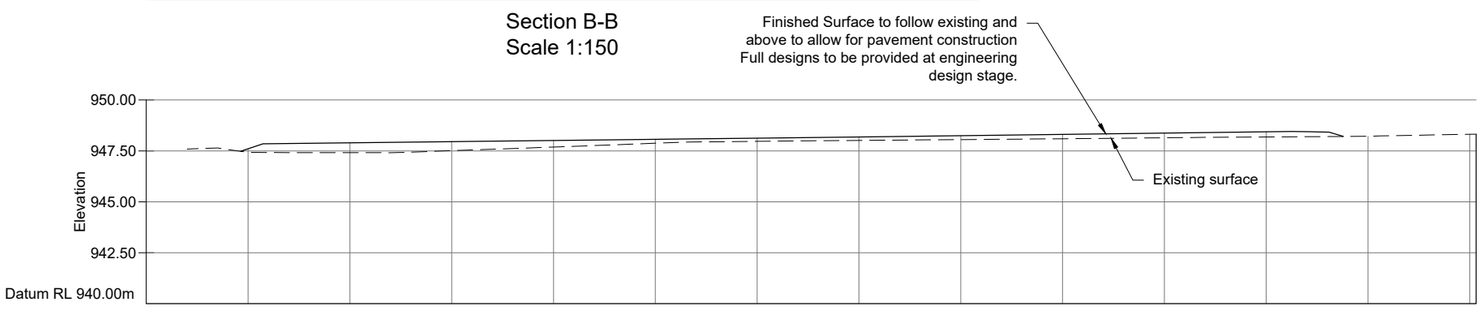

Section A-A
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Garth Dean
B.E. GDSTT FIEAust CPEng NER
APEC Engineer IntPE (Aus) RBP
(Vic/NT)

Drawn:	HO
Designed:	GBL / HO
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Plot Date: 22/08/2025 9:43:21 AM
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Lithgow Mountain Bike Park
3A State Mine Gully Road
Lot 11 DP1240259

PRELIMINARY SITE CROSS SECTIONS

Central Tablelands Mountain Bike Club

CALARE CIVIL
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Job No. 20250105
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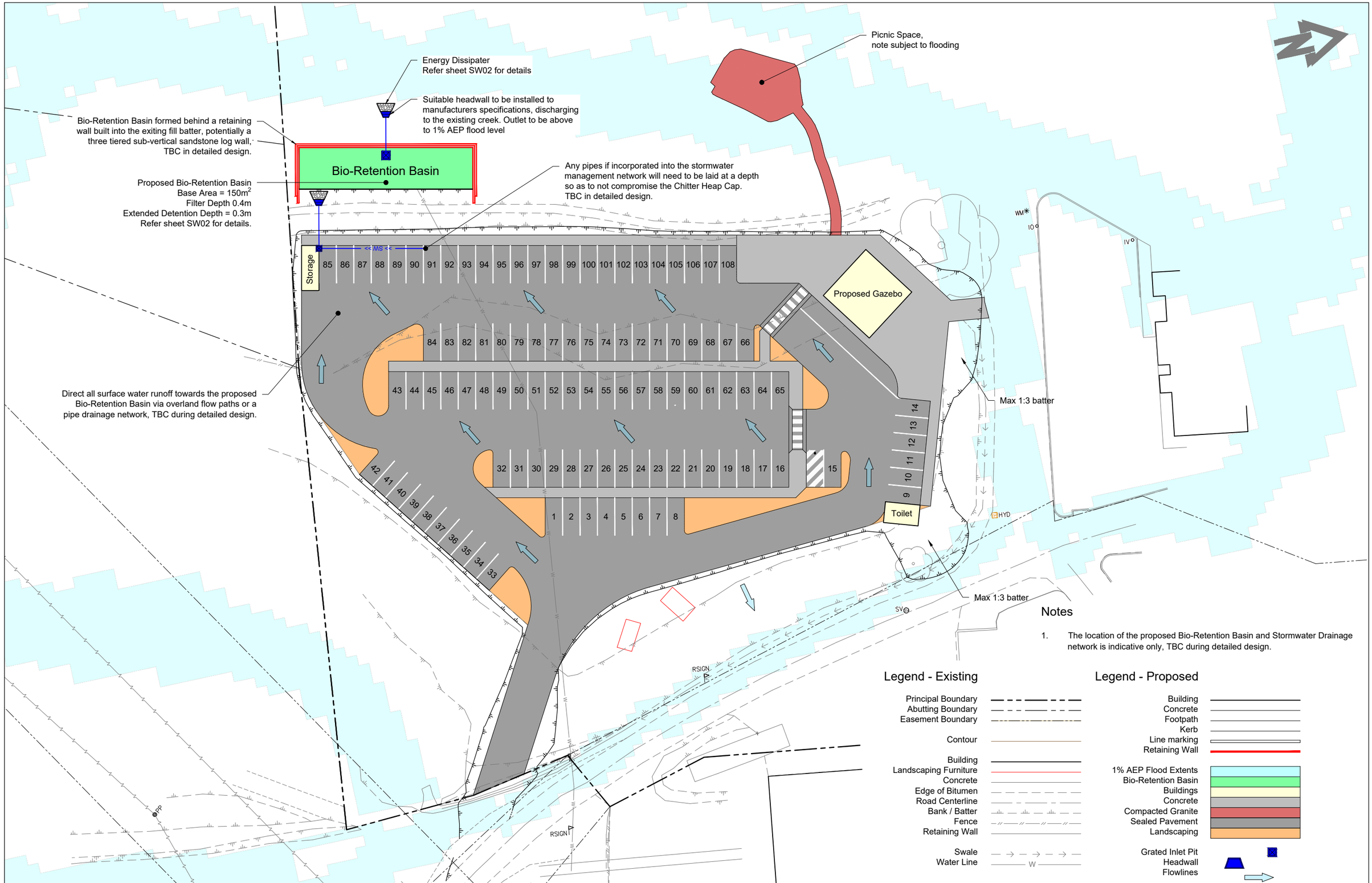

Notes

1. The location of the proposed Bio-Retention Basin and Stormwater Drainage network is indicative only, TBC during detailed design.

Legend - Existing

- Principal Boundary
- Abutting Boundary
- Easement Boundary
- Contour
- Building
- Landscaping Furniture
- Concrete
- Edge of Bitumen
- Road Centerline
- Bank / Batter
- Fence
- Retaining Wall
- Swale
- Water Line

Legend - Proposed

- Building
- Concrete
- Footpath
- Kerb
- Line marking
- Retaining Wall
- 1% AEP Flood Extents
- Bio-Retention Basin
- Buildings
- Concrete
- Compacted Granite
- Sealed Pavement
- Landscaping
- Grated Inlet Pit
- Headwall
- Flowlines

Amend	Date	Description	By
P3	22/08/25	Carpark Layout Adjustment	HO/GBL
P2	25/06/25	Water Cycle Management and E&SC Plan - For Approval	HO
P1	07/05/25	Original Issue	GBL

DO NOT SCALE OFF DRAWINGS
Contact Calare Civil if clarification required

FOR DA APPROVAL
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Lithgow Mountain Bike Park
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STORMWATER MANAGEMENT PLAN

Central Tablelands Mountain Bike Club

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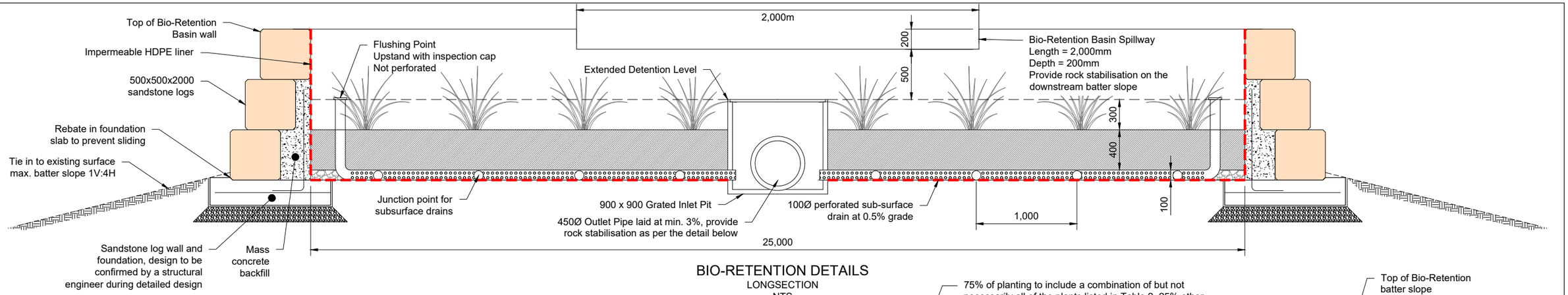
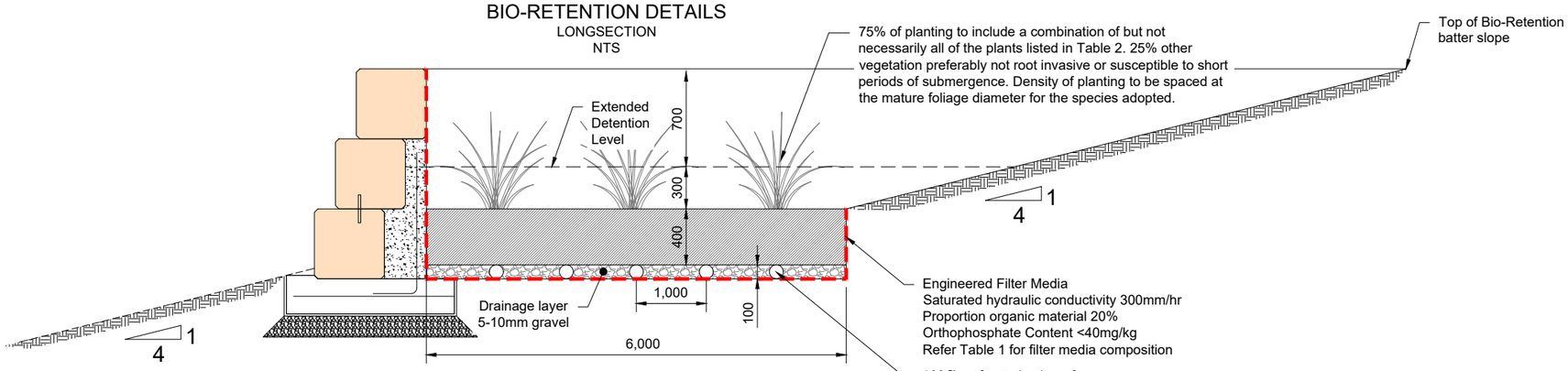


BIO-RETENTION DETAILS
LONGSECTION
NTS



BIO-RETENTION DETAILS
CROSS SECTION
NTS

Filter Media

Structural Stability:
- Dispensability testing should be done if soil is structurally unstable

Engineered filter media:
- Filter media to consist of 400mm of washed sand with 300mm/hr hydraulic conductivity. An additional 100mm of washed sand ameliorated with 20% premium potting mix per volume to be provided as topping layer. Refer Table 3 for details

Table 1 - Proposed Bio-Retention Basin Quantities

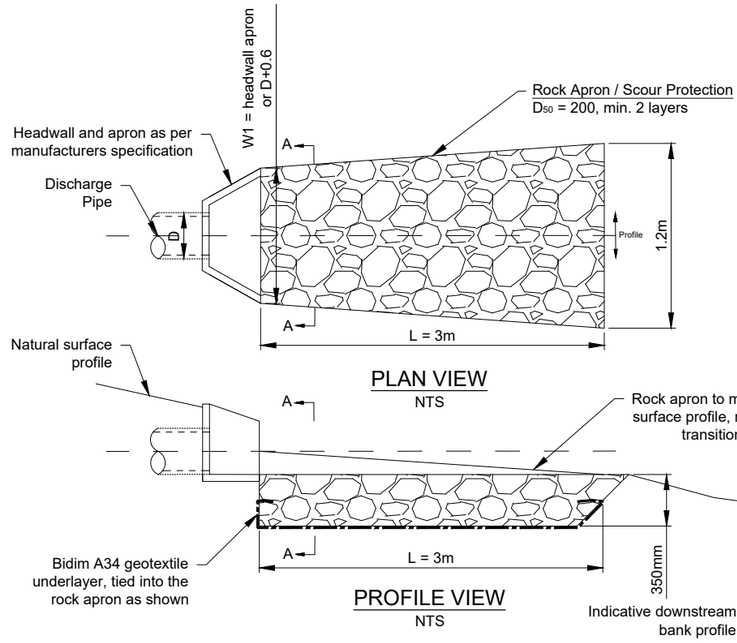
Layer	Material	Quantity (m^3)
Engineered Filter Media (Compound Mix)	Premium Potting Mix	3
	Washed Sand	12
Filter Media	Washed Sand	45
Drainage Layer	5-10mm Drainage Gravel	15

Table 2

Plant name Listed in order of preference
Carex appressa
Melaleuca ericifolia
Goodenia ovata
Ficinia nodosa
Juncus amabilis
Juncus flavidus
For the batters and spillway use suitable deep rooting heavy mat grass e.g. Buffalo or Kasbah Cocksfoot. Refer to turf supplier for recommendations

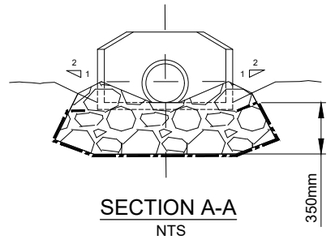
Table 3

Name	Quantity (kg/100m^2 filter area)
Granulated poultry manure fines	50
Superphosphate	2
Magnesium sulphate	3
Potassium sulphate	2
Trace element mix	1
Fertiliser NPK (16.4.14)	4
Lime	20
Total	82



PLAN VIEW
NTS

PROFILE VIEW
NTS



SECTION A-A
NTS

ENERGY DISSIPATER - SD 5-8

Construction Notes:
1. Compact the subgrade fill to the density of the surrounding undisturbed material.
2. Prepare a smooth, even foundation for the headwall and rock apron so to ensure that the geotextile does not tear when covered with rock.
3. Should any minor damage to the geotextile occur, repair it before spreading any rock. For repairs, patch one piece of fabric over the damage, making sure that all joints and patches overlap more than 300mm.
4. Provide rock rip rap scour protection. Rip rap shall have a D_{50} = 200mm, be a minimum of 2 layers thick

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TYPICAL DETAILS

Central Tablelands Mountain Bike Club

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