



revision	revision details	date	drawn	
Α	Initial Issue	20/04/22	JC	
В	Building Revised	04/07/22	JC	
С	Building Revised	12/09/22	JC	
D	Amendments Re SCA	08/05/23	JC	
Е	Water NSW Amendments	26/05/23	JC	
F	Building Revised	25/01/24	JC	
G	####	10/07/24	JC	
Н	####	12/07/24	JC	
				<b>Civil Development Solutions</b>

Civil Development Solutions ABN 74 160 361 446	
	ı

ABN 74 160 361 446

Civil Engineering, Development and Project Consultants

Unit 9, 44-48 Bowral Street,

BOWRAL NSW 2576

P: 4862-1277

E: admin@cdsolutions.com.au

www.cdsolutions.com.au

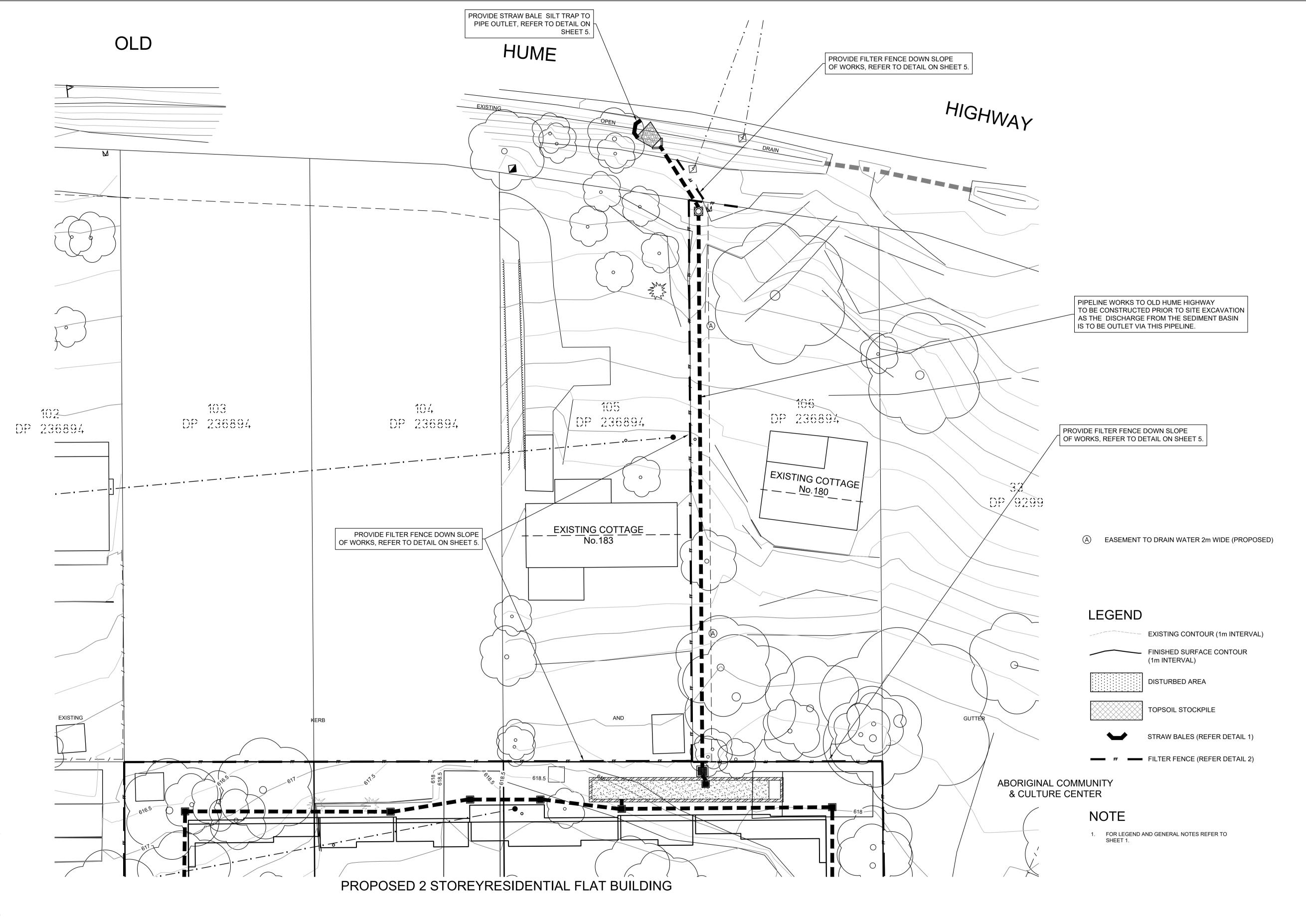
WINGECARRIBEE SHIRE COUNCIL DA: LOT 32 DP9299 LOTS141-142, DP531051
No.1-5 RAINBOW ROAD,
MITTAGONG

ROBSEA & BILGOLA P/L

CONCEPT DRAINAGE PLAN SHEET 2							
0	5 S	10 CALE: 1:200	15	20 METRES			

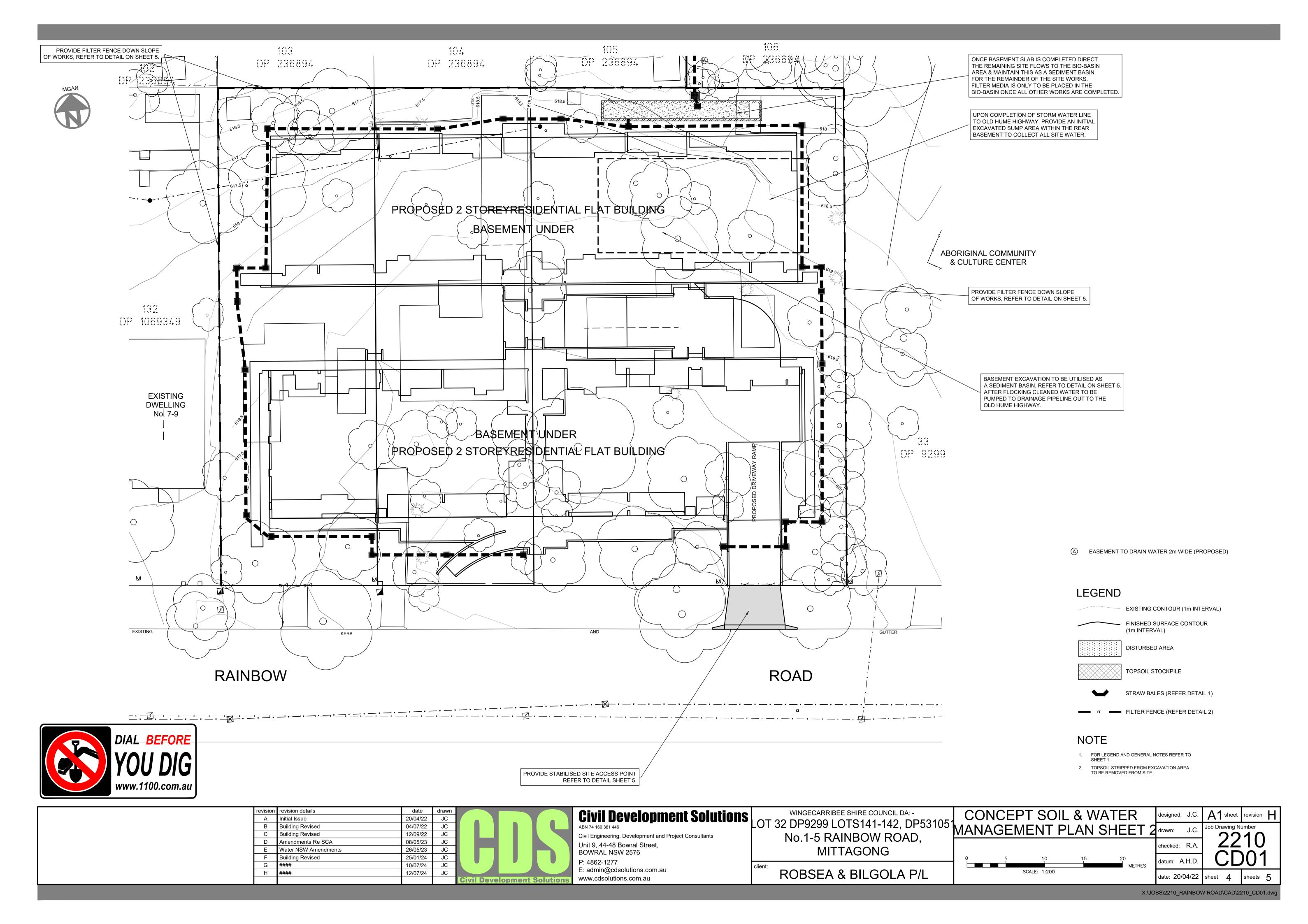
	designed: J.C.	A1 sheet revision H
	drawn: J.C.	Job Drawing Number
	checked: R.A.	
) METRES	datum: A.H.D.	CD01
	date: 20/04/22	sheet 2 sheets 5







		A B C D E	revision details Initial Issue Building Revised Building Revised Amendments Re SCA Water NSW Amendments Building Revised ####################################	date 20/04/22 04/07/22 12/09/22 08/05/23 26/05/23 25/01/24 10/07/24	drawn JC	Civil Developme	ent Solutions	Civil Development Solutions  ABN 74 160 361 446  Civil Engineering, Development and Project Consultants  Unit 9, 44-48 Bowral Street,  BOWRAL NSW 2576  P: 4862-1277  E: admin@cdsolutions.com.au  www.cdsolutions.com.au	WINGECARRIBEE SHIRE COUNCIL DA: - LOT 32 DP9299 LOTS141-142, DP531057 No.1-5 RAINBOW ROAD, MITTAGONG  Client: ROBSEA & BILGOLA P/L	CONCEPT SOIL & WATER MANAGEMENT PLAN SHEET	designed: J.C.  drawn: J.C.  checked: R.A.  datum: A.H.D.  date: 20/04/22	A1 sheet revision H  Job Drawing Number  2210  CD01  sheet 3 sheets 5
--	--	-----------------------	---	---	--	-----------------	---------------	---	--	--	---	---



## **EROSION CONTROL NOTES**

- 1. ALL EROSION AND SEDIMENTATION CONTROL MEASURES, INCLUDING REVEGETATION AND STORAGE OF SOIL AND TOPSOIL, SHALL BE IMPLEMENTED IN ACCORDANCE WITH MANAGING URBAN STORMWATER SOILD AND CONSTRUCTION, VOLUME 1 (4th EDITION 2004), DURING THE CONSTRUCTION PHASE.
- 2. DISTURBANCE OF VEGETATION SHALL BE KEPT TO A MINIMUM BY STAGING THE DEVELOPMENT.
- 3. ALL DISTURBED AREAS SHALL BE REVEGETATED AS SOON AS THE RELEVANT WORKS ARE COMPLETED.
- 4. TOPSOIL FROM ALL AREAS TO BE DISTURBED SHALL BE STOCKPILED AND LATER RESPREAD TO AID REVEGETATION. TOPSOIL STOCKPILES ARE TO BE NO HIGHER THAN 1.5 METRES. THE TOP 50-75mm (CONTAINING THE BULK OF THE ORGANIC MATERIAL SHOULD BE STORED SEPARATELY FROM UNDERLYING SOIL & RESPREAD LAST. MINIMUM DEPTH 100-125mm. TOPSOIL IS NOT TO BE REMOVED FROM SITE

WITHOUT COUNCIL'S CONCURRENCE. WHERE APPROPRIATE, INSTEAD OF STOCKPILING TOPSOIL IT CAN BE PUSHED UPSLOPE OF EXCAVATED AREAS SO AS TO FORM A BANK ABOVE DISTURBED AREAS. THESE BANKS SHOULD BE DIRECTED TO DISCHARGE WATER

ALL STOCKPILES & BANKS NEED TO BE SEEDED & FERTILISED WITH THE RECOMMENDED SEED MIX.

GRASS VARIETIES & QUANTITIES	kg/ha
Currie Cocksfoot	4
Victorian Ryegrass	5
Kangaroo Ryegrass	5
Karridale Sub Clover	2
Cajon Fescue	6
White Clover	3
Japanese Millet (if planted November to March)	8-10
Cereal Rye (if planted April to October)	10

Bitumen & Straw mulch or equivalent mulch should be applied on areas with a slope greater than 1V:3H. Straw should be applied at 5,000 kg/ha.

\* Fertiliser Grower 11, Starter 13 or 18, or equivalent \* Fertiliser not to be used along or in watercourses,

250-300kg/ha

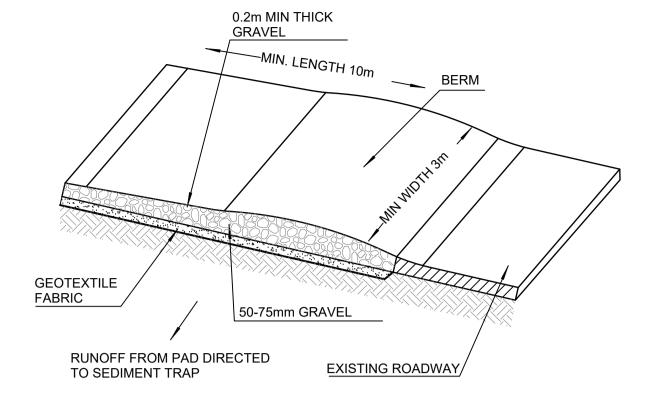
- 5. TURF STRIPS TO BE PLACED BEHIND ALL NEWLY CONSTRUCTED KERB & GUTTER WITHIN 7 DAYS OF COMPLETION OF CONCRETING. MINIMUM WIDTH 0.9m. IN ADDITION, EXTENSIONS OF TURF AT AN ANGLE OF APPROX. 70° TO KERB AT INTERVALS OF 20M PERPENDICULAR TO THE KERB FOR A DISTANCE OF 2M ON STEEPER SECTIONS OF ROAD WHERE THERE IS A POTENTIAL FOR WATER TO CONCENTRATE ALONG THE END OF THE TURF. IF THERE IS INSUFFICIENT RAIN, SUPPLEMENTARY WATER SHOULD BE UNDERTAKEN.
- STRAW BALES TO BE PLACED END TO END IN A SINGLE ROW AND EMBEDDED INTO THE SOIL TO A DEPTH OF 100mm. EACH BALE TO BE SECURELY ANCHORED WITH TWO STEEL STAKES DRIVEN 500 - 750mm INTO THE GROUND AND LOCATED ON THE BALE CENTRELINE. (REFER DETAIL 1) 7. FILTER FENCE TO BE CONSTRUCTED BY STRETCHING A

6. ALL STRAW BALES TO BE BOUND WITH WIRE.

- FILTER FABRIC (PROPEX OR SIMILAR) BETWEEN POSTS AT 2.0m CENTRES. FABRIC TO BE BURIED 200mm ALONG IT'S LOWER EDGE. FILTER FENCE TO BE PLACED AS NEAR TO THE CONTOUR AS POSSIBLE. (REFER DETAIL 2)
- 8. WIREMESH & GRAVEL INLET FILTERS TO BE PROVIDED AT ALL KERB INLET PITS (REFER DETAIL 3)
- 9. THE CAPACITY & EFFECTIVENESS OF RUNOFF & SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AT NO LESS THAN 70% CAPACITY AT ALL TIMES TO THE SATISFACTION OF W.S. COUNCIL.
- 10. ALL CONTROLS SHOULD BE INSPECTED AT THE END OF EACH DAY & PARTICULARLY BEFORE WEEKENDS &/OR WHEN THE SITE IS TO BE LEFT FOR EXTENDED PERIODS.

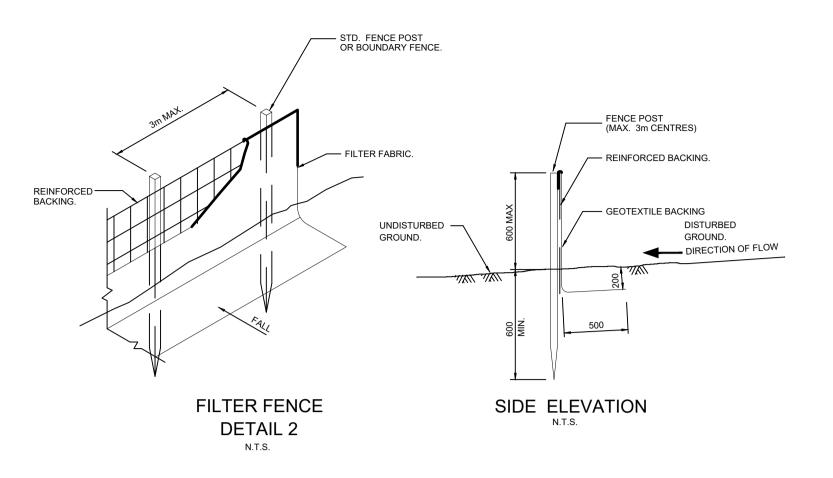
#### 11. TO MINIMISE SOIL EROSION AND SEDIMENT MOVEMENT DURING CONSTRUCTION, THE FOLLOWING MEASURES SHALL BE IMPLEMENTED:

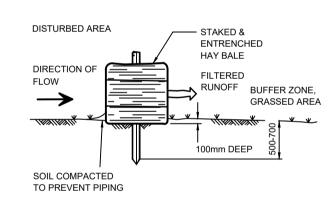
- REMOVAL AND/OR DISTURBANCE OF VEGETATION SHALL BE CONFINED TO WITHIN TWO (2) METRES OF THE REQUIRED WORKS.
  STOCKPILES OF CONSTRUCTION AND LANDSCAPING MATERIALS, AND OF SITE DEBRIS SHALL BE LOCATED CLEAR OF DRAINAGE LINES AND IN SUCH A POSITION THAT THEY ARE PROTECTED FROM EROSION AND
- DO NOT ENCROACH UPON ANY FOOTPATH, NATURE STRIP OR ROADWAY. VEHICULAR ACCESS SHALL BE CONTROLLED SO AS TO PREVENT TRACKING OF SEDIMENT ONTO ADJOINING ROADWAYS, PARTICULARLY DURING WET WEATHER OR WHEN THE SITE IS MUDDY. SEDIMENT DEPOSITED ON ADJOINING ROADWAYS SHALL BE REMOVED BY MEANS OTHER THAN WASHING. ALL MATERIAL SHALL BE REMOVED AS SOON AS POSSIBLE AND THE COLLECTED MATERIAL SHALL BE DISPOSED OF IN A MANNER WHICH WILL PREVENT ITS MOBILISATION.
- 12. ALL EROSION AND SEDIMENT CONTROL DEVICES ARE TO REMAIN IN POSITION AND BE MAINTAINED UNTIL ADVISED BY COUNCIL'S DEVELOPMENT ENGINEER THAT THEY MAY BE REMOVED OR UNTIL THE 12 MONTH MAINTENANCE PERIOD HAS LAPSED.



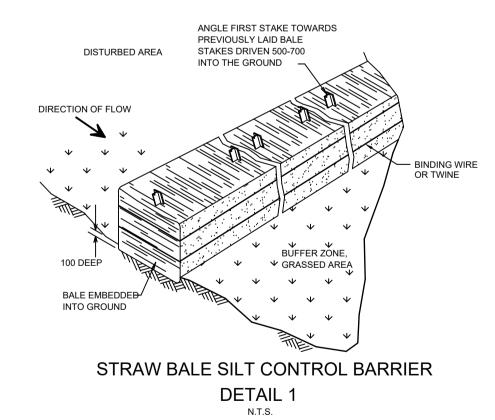
# STABILISED SITE ACCESS

(NOT TO SCALE)





SIDE ELEVATION



# **SEDIMENT BASIN NOTES:**

MANAGEMENT OF SEDIMENT BASINS IS THE RESPONSIBILITY OF THE CONTRACTOR AND ARE TO BE MAINTAINED IN ACCORDANCE WITH SECTION 6.3 AND APPENDIX F OF MANAGING URBAN STORMWATER (BLUE BOOK).

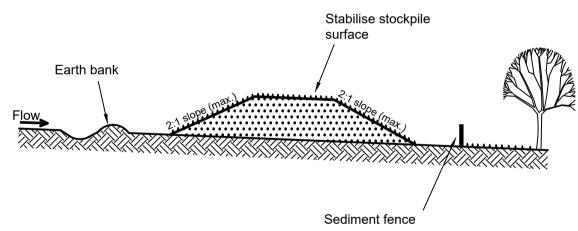
### SEDIMENT BASINS WILL:

- 1. BE CONSTRUCTED WHERE SHOWN. THEY HAVE BEEN DESIGNED TO A FORMULA BASED ON A DESIGN STORM EVENT OF 5 DAY 75th PERCENTILE.
- 2. BE FLOCCULATED (APPENDIX E, LANDCOM 2004) BEFORE DISCHARGE OCCURS (UNLESS DESIGN STORM
- EVENT IS EXCEEDED); AND 3. HAVE ONE OR MORE PEGS PLACED ON THE FLOOR TO INDICATE CLEARLY THE LEVEL AT WHICH DESIGN SEDIMENT CAPACITY OCCURS AND WHEN SEDIMENT IS REQUIRED TO BE REMOVED.

STORED CONTENTS OF THE BASINS WILL BE TREATED WITH GYPSUM (APPENDIX E, LANDCOM 2004) OR OTHER FLOCCULATING AGENTS WHERE THEY CONTAIN MORE THAN 50 mg/L OF SUSPENDED SOLIDS. TREATMENT WILL BE AS FOLLOWS:

- 1. TREAT THE WATERS AND ALLOW AT LEAST 24 HOURS TO SETTLE WITHIN 4 DAYS FROM THE CONCLUSION OF THE RAINFALL EVENT.
- 2. DRAIN THE BASIN SO THAT FULL STORAGE CAPACITY IS REGAINED WITHOUT DISCHARGING THE SEDIMENT FROM THE SITE WITHIN 5 DAYS FROM THE CONCLUSION OF THE RAINFALL EVENT.

SEDIMENT REMOVED FROM ANY TRAPPING DEVICE WILL BE DISPOSED OF IN LOCATIONS WHERE FURTHER EROSION AND CONSECUENT POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS WILL NOT OCCUR.



# 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.

STOCKPILE DETAIL SD 4-1



vision	revision details	date	drawn	
Α	Initial Issue	20/04/22	JC	
В	Building Revised	04/07/22	JC	
O	Building Revised	12/09/22	JC	
D	Amendments Re SCA	08/05/23	JC	
Е	Water NSW Amendments	26/05/23	JC	
F	Building Revised	25/01/24	JC	
G	####	10/07/24	JC	
Н	####	12/07/24	JC	
				Civil Development Solution

Civil Engineering, Development and Project Consultants Unit 9, 44-48 Bowral Street, **BOWRAL NSW 2576** P: 4862-1277 E: admin@cdsolutions.com.au

www.cdsolutions.com.au

Civil Development Solutions Lot 32 DP9299 LOTS141-142, DP53105 M No.1-5 RAINBOW ROAD, **MITTAGONG** 

**ROBSEA & BILGOLA P/L** 

		T SOIL ENT P		ATER SHEET:	designed: drawn:
					checked:
0	5	10	15	20 METRES	datum: A
	S	SCALE: 1:200			date: 20/0

Job Drawing Number R.A /04/22