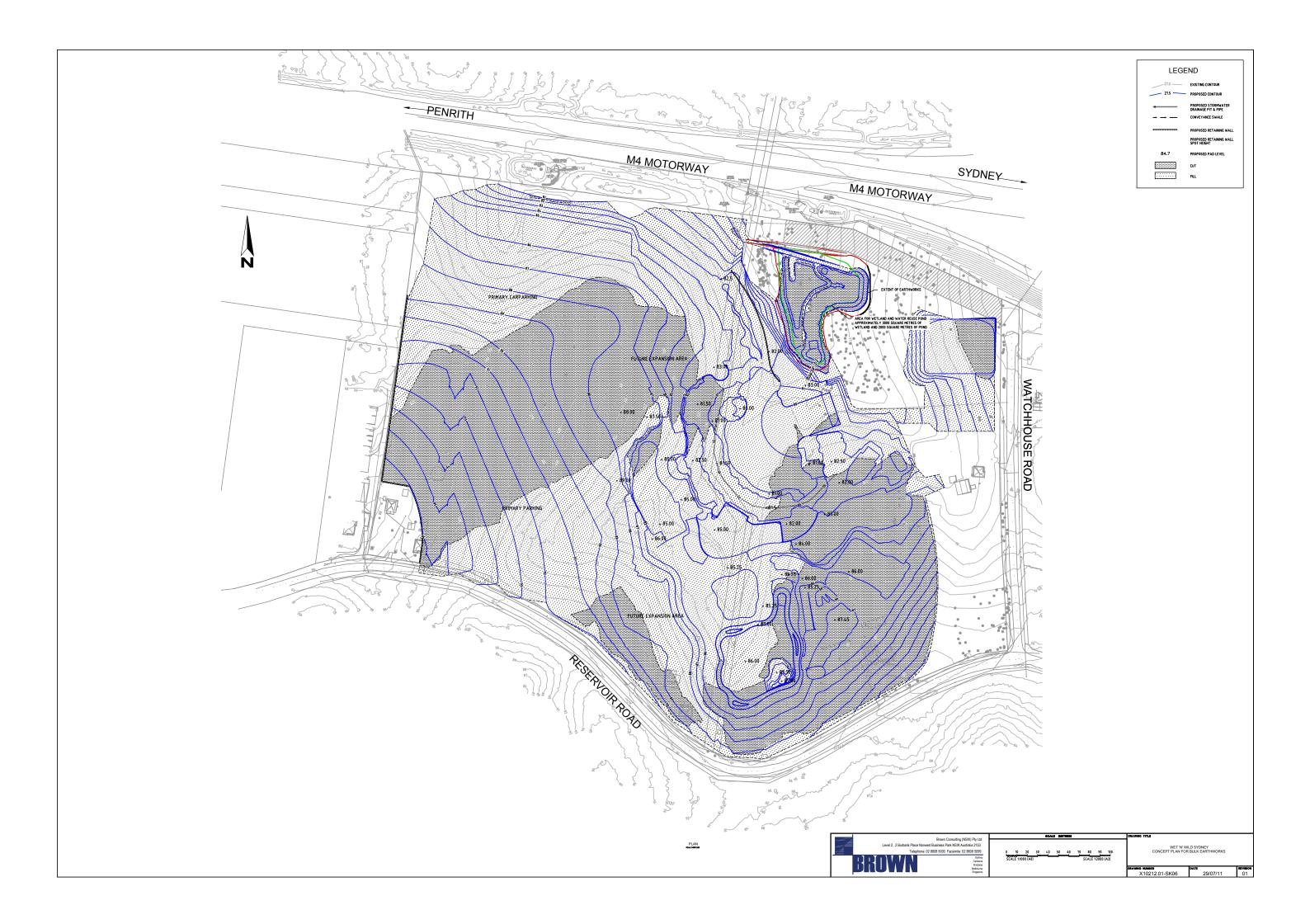
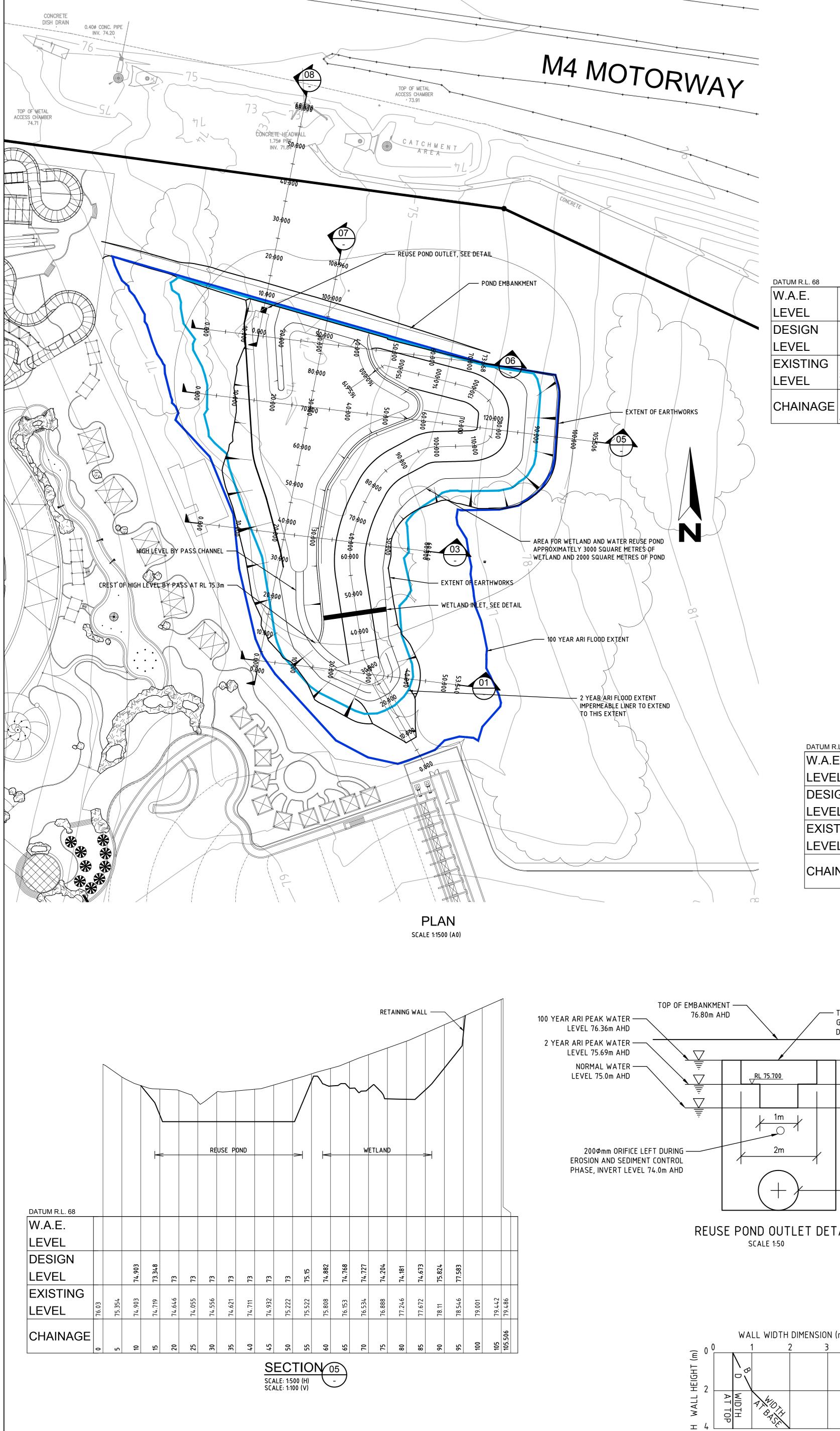


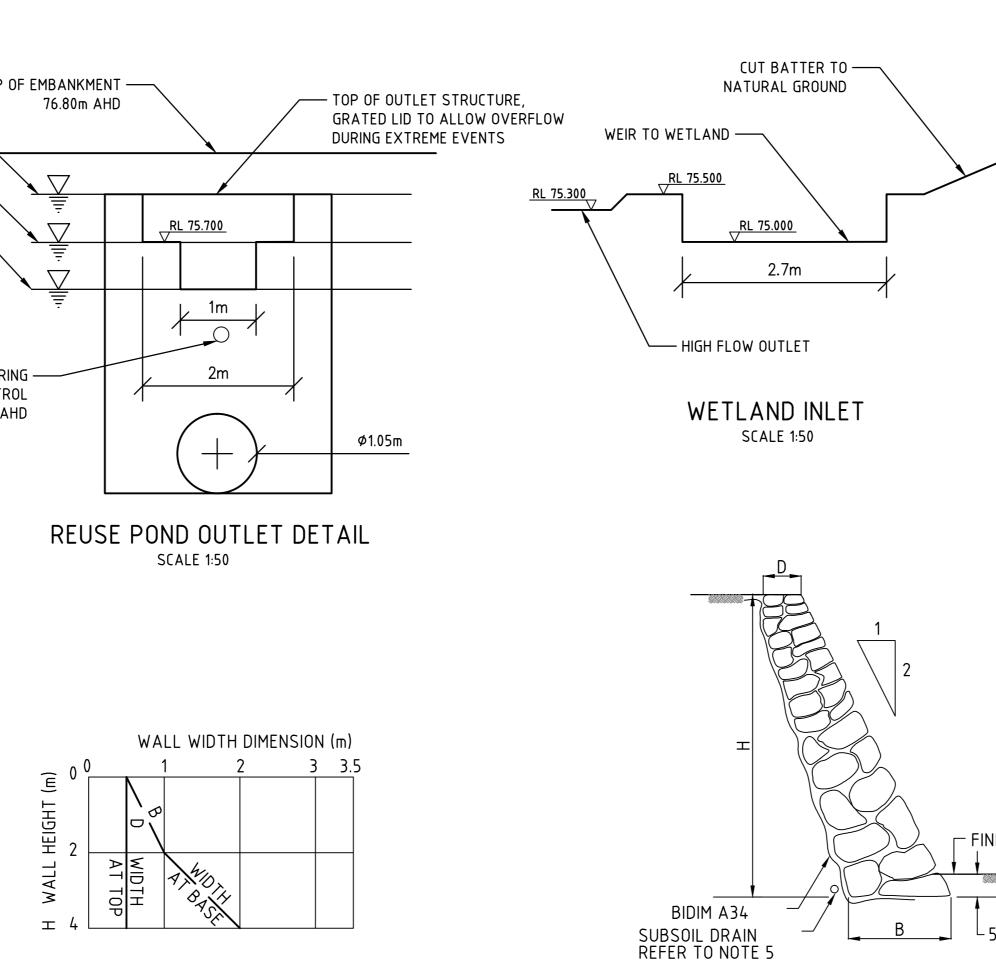
				3%				
E WAY		,sw.		CARRIAGE WAY		FOOTPATH		
m		1	5m -	6.2m		4.6m		
	0.06		0.06	0.246	965.0	0572		
	-0.75		0.75	6,55	6,99	11.55		

LEGEND					
27.0	EXISTING CONTOUR				
27.5	PROPOSED CONTOUR				
	PROPOSED STORMWATER DRAINAGE PIT & PIPE				
• —	CONVEYANCE SWALE				
	PROPOSED RETAINING WALL				
	PROPOSED RETAINING WALL SPOT HEIGHT				
4.7	PROPOSED PAD LEVEL				

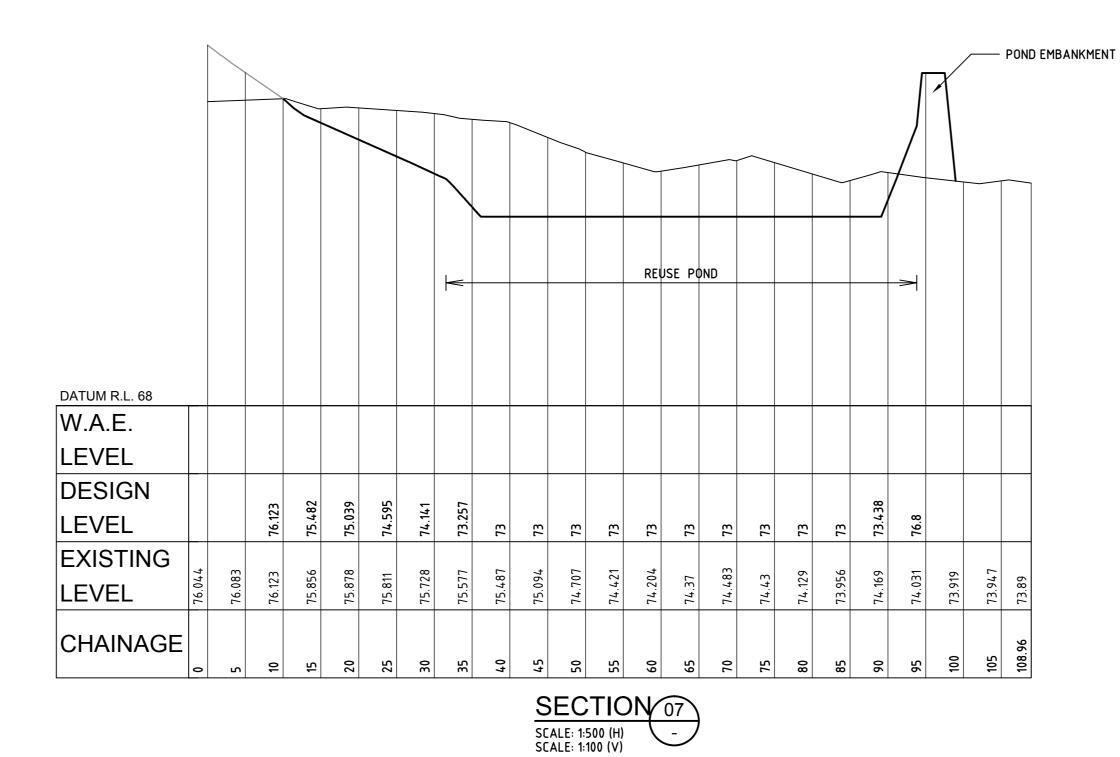
OCALE (METRES)	DRAWING TITLE		
0 10 20 30 40 50 60 70 80 90 100 SCALE 11000 (A0) SCALE 12000 (A2)	CONCEPT PLAN INC	LD SYDNEY LUDING DRAINAGE & ION WORKS	
		DATE	REVISION
	X10212.01-SK05	29/07/11	03



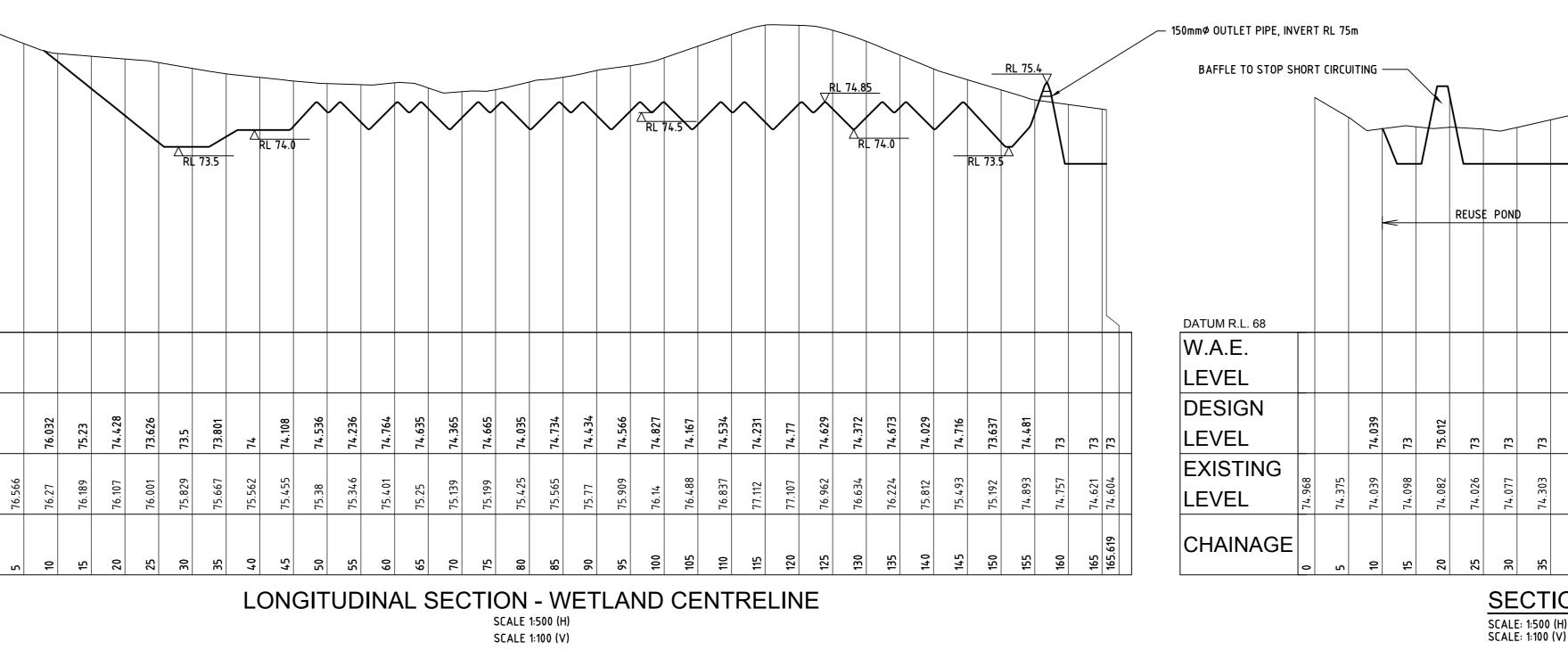




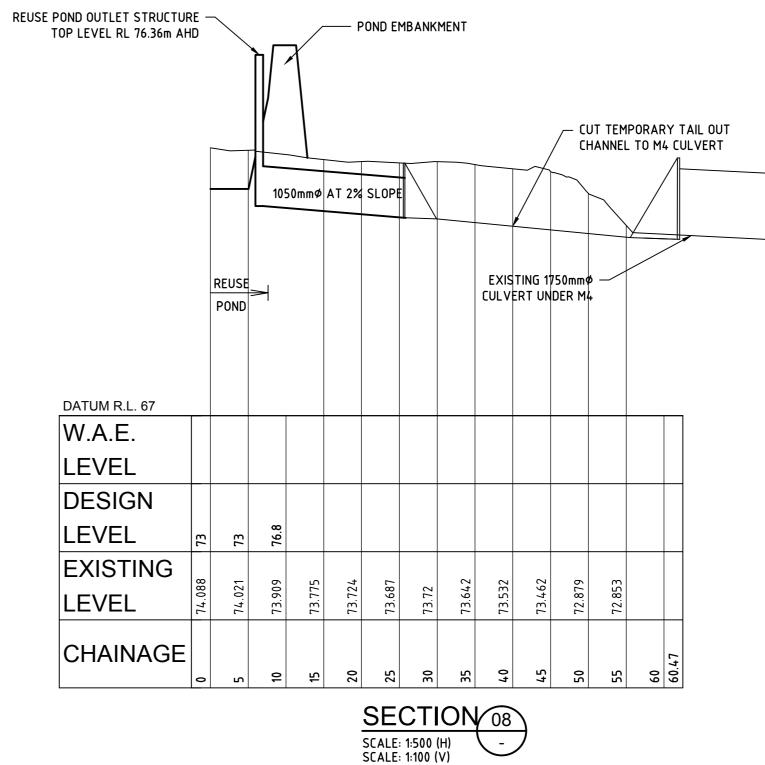




LEVEL





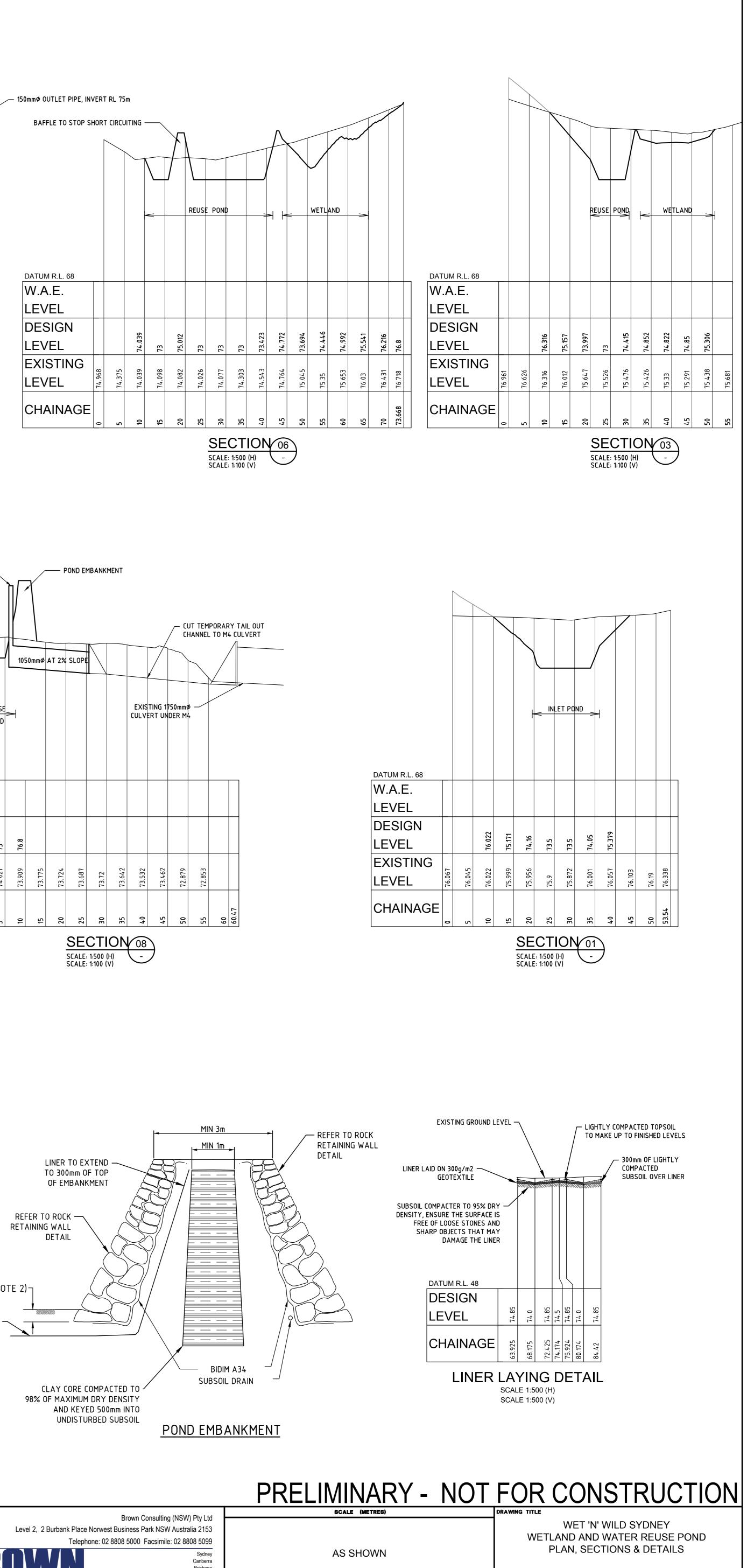


ROCK RETAINING WALL NOTES:

- 1. BACKFILL IS TO BE GRANULAR, FREE DRAINING AND COMPACTED.
- 2. FOUNDATION TO BE APPROVED FOR A SAFE BEARING CAPACITY OF 150 KPa PRIOR TO CONSTRUCTION BY GEOTECHNICAL ENGINEER.
- WHERE THE SURFACE SLOPE OF RETAINED MATERIAL IS BETWEEN 10:1 AND 4:1 THE WALL BASE DIMENSION IS TO BE INCREASED BY 0.5 METRES.
- ROCK IS TO BE SOUND DURABLE SANDSTONE OR OTHER APPROVED MATERIAL AND AT LEAST 0.5 SQUARE METERES PLAN AREA. 4
- A CONTINUOUS 100mm DIA. SUBSOIL DRAIN IS TO BE INSTALLED AT THE REAR OF THE WALL WHERE THE WALL HEIGHT EXCEEDS 3m OR WHERE THE WALL FOUNDATION CONSISTS OF OTHER THAN ROCK.
- ROCKS SHALL BE PLACED IN SUCH A MANNER THAT THEY ARE STABLE AND INTERLOCKING & LAID ROUGHLY COURSED & BEDDED ON THEIR BROADEST BASE.
- 7. TOP COURSE OF ROCKS TO BE GROUTED IN PLACE.

500 KEY INTO SOIL (REFER TO NOTE 2)-

LINER LAID ON 300g/m2 — GEOTEXTILE AND UNDER 300mm OF COMPACTED SUBSOIL



- FINISHED SURFACE

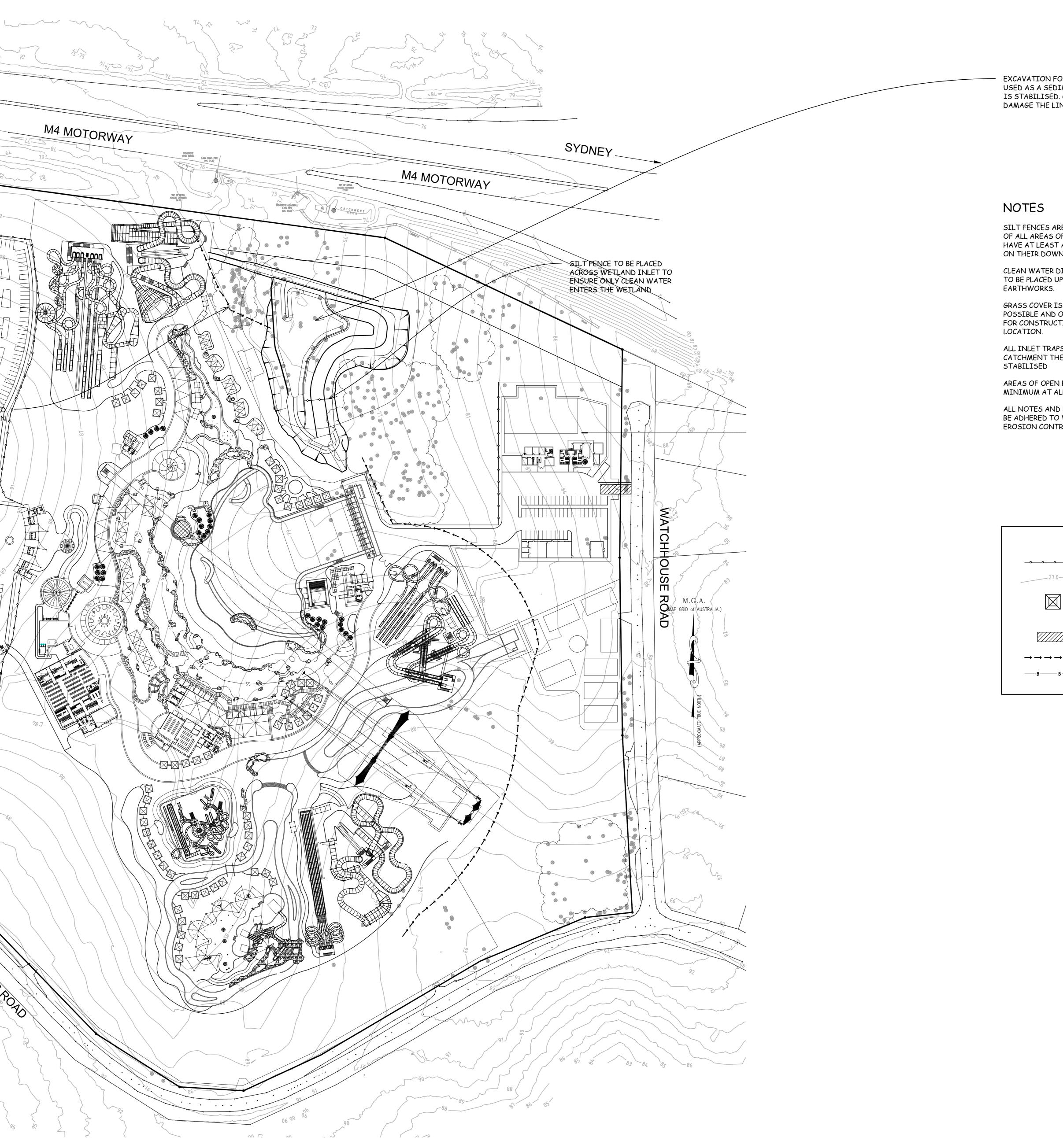
└ 500 KEY INTO SOIL (REFER TO NOTE 2)



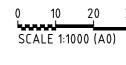
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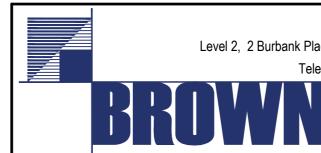
REVISION 29/07/11 01

PENRITH CONCRETE HEADWALL TOP-OF-NETAL ACCESS CHAMBER C BISH 8~ CLEAN, RUN ON WATER TO BE DEVERTED DIRTY, RUN OFF, WATER TO BE DIRECTED & TO THE SEDIMENT BASIN I TALALALALALALALALALALA SILT FENCE TO BE PLACED DOWN GRADIENT OF ANY OPEN EARTHWORKS - REFER DRAWING X10212.1-SK01 FOR INTERSECTION DETAIL P.C. SEPTOR PORD SEDIMENT BASIN OPERATION * OPERATION SHOULD ENSURE THAT WATER HAS DRAINED FROM THE SETTLING ZONE PRIOR TO THE BEGINNING OF THE NEXT STORM EVENT. I.E. DOWN TO THE TEMPORARY 200mmØ ORIFICE ON THE OUTLET STRUCTURE * THE BASIN SHALL BE FLOCCULATED WITHIN 24 HOURS OF THE CONCLUSION OF EACH STORM EVENT * THE BASIN SHALL BE PUMPED OUT 5 DAYS AFTER APPLICATION OF THE FLOCCULENT, PUMP CLEAN WATER TO THE WETLAND AREA, IF THE WETLAND IS FULL, PUMP TO THE POND OUTLET R ★ PLACE A "FULL OF SEDIMENT" MARKER TO SHOW WHEN SEDIMENT DEPTH REACHES 600mm FROM THE INVERT OF THE 200mmØ DIAMETER TEMPORARY ORIFICE









EXCAVATION FOR WATER REUSE POND TO BE USED AS A SEDIMENT BASIN UNTIL THE SITE IS STABILISED. CARE MUST BE TAKEN NOT TO DAMAGE THE LINING DURING DESILTING.

SILT FENCES ARE TO BE PLACED DOWN GRADIENT OF ALL AREAS OF OPEN EARTHWORK THAT DO NOT HAVE AT LEAST A 10m WIDE GRASS BUFFER STRIP ON THEIR DOWN SLOPE SIDE.

CLEAN WATER DIVERSION CHANNELS/BUNDS ARE TO BE PLACED UP GRADIENT OF ANY AREAS OF OPEN EARTHWORKS.

GRASS COVER IS TO BE MAINTAINED AS LONG AS POSSIBLE AND ONLY REMOVED WHEN NECESSARY FOR CONSTRUCTION ACTIVITIES AT THAT

ALL INLET TRAPS ARE TO BE PROTECTED UNTIL THE CATCHMENT THEY DRAIN IS ARE AT LEAST 80% STABILISED

AREAS OF OPEN EARTHWORKS ARE TO BE KEPT TO A MINIMUM AT ALL STAGES OF CONSTRUCTION

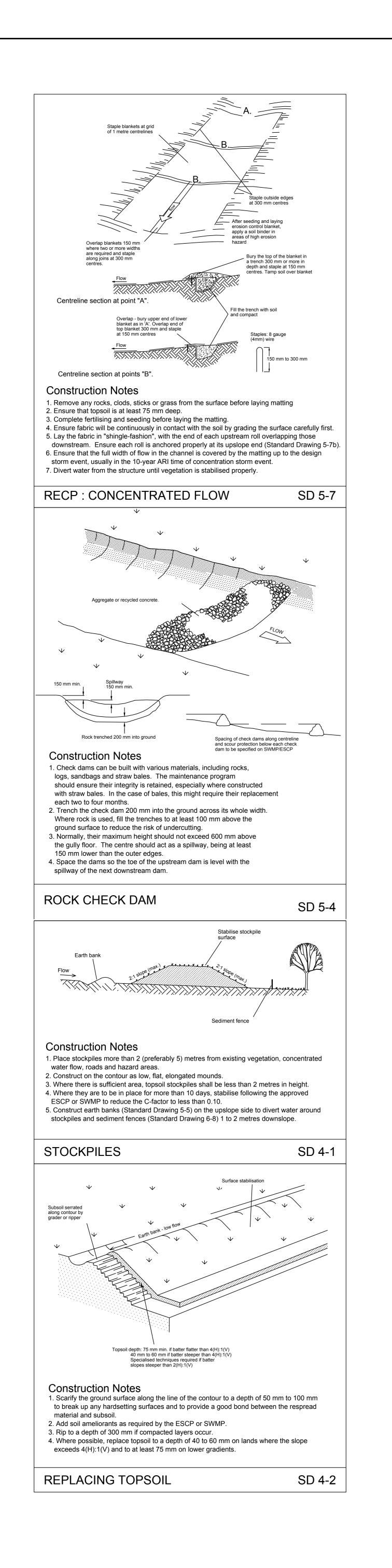
ALL NOTES AND DETAILS ON SHEET SK09 ARE TO BE ADHERED TO WHEN INSTALLING SEDIMENT AND EROSION CONTROL MEASURES

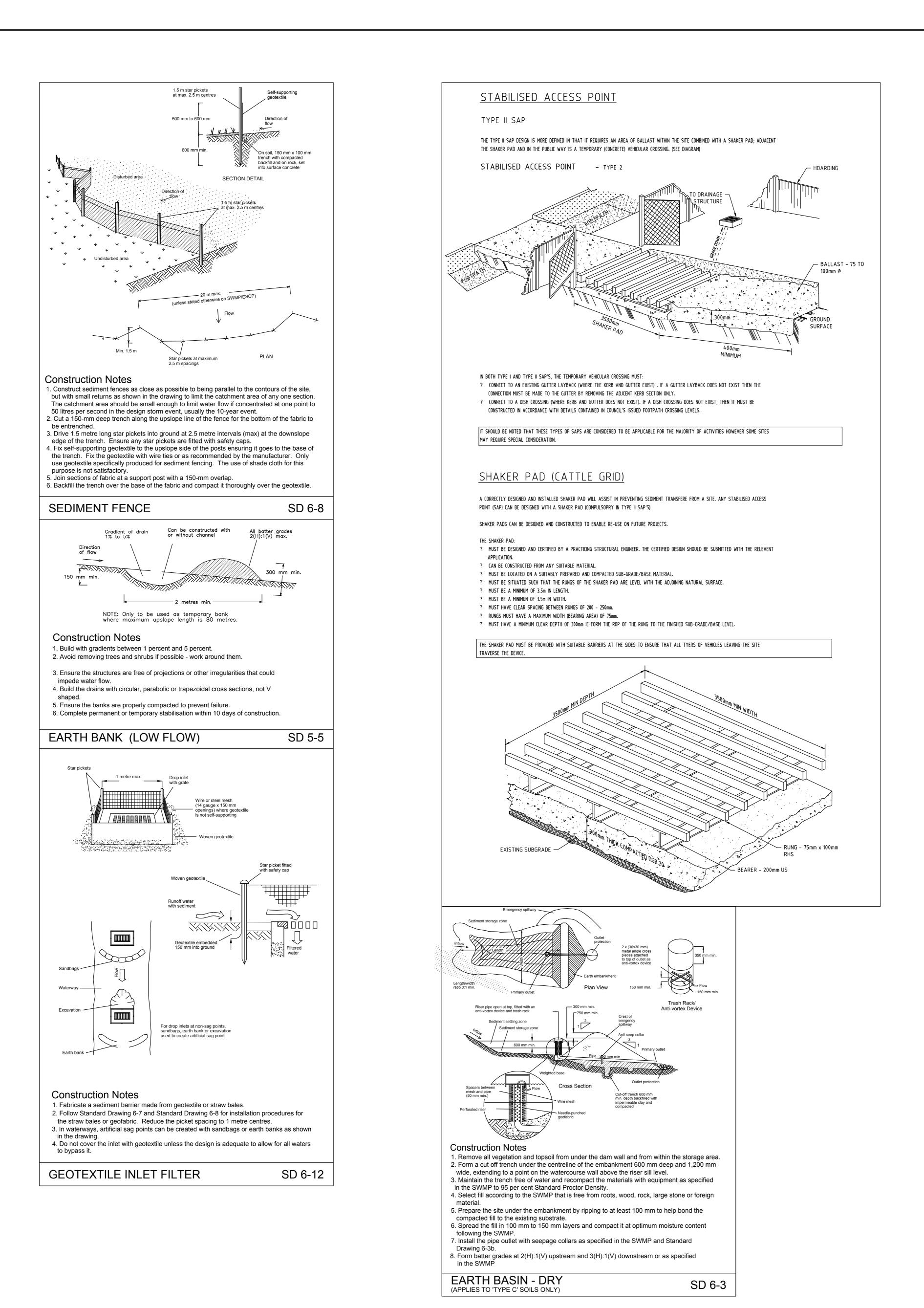
LEG	END
	SEDIMENT FENCE
0	EXISTING CONTOUR
	INLET SEDIMENT TRAP DURING CONSTRUCTION, KERB INLET CONTROL AFTER CONSTRUCTION
	STABILISED SITE ACCESS
→	CATCH DRAIN/ DIVERSION BANK
- В ———	TREE PROTECTION BARRIER

PRELIMINARY - NOT FOR CONSTRUCTION SCALE (METRES)

10 20 30 40 50 60 70 80 90 100 SCALE 1:2000 (A2)

WET 'N' WILD SYDNEY EROSION AND SEDIMENT CONTROL PLAN





CONTROL MEASURES PRIOR TO THE COMMENCEMENT OF ANY WORKS BEING CARRIED OUT, ALL SOIL AND EROSION MEASURES SHALL BE MAINATAINED AND KEPT IN PLACE FOR THE FULL DURATION OF THE WORKS AND SHALL ONLY BE REMOVED AT FINAL STABILISATION OF THE 20. ENSURE SOIL IS THOROUGHLY SOAKED TO A DEPTH OF 75mm (RAIN OR WORKS. WHERE IT IS NECESSARY TO UNDERTAKE STRIPPING IN ORDER TO CONSTRUCT A SEDIMENT CONTROL DEVICE ONLY SUFFICIENT GROUND SHALL BE STRIPPED TO ALLOW CONSTRUCTION.

1. THE CONTRACTOR SHALL IMPLEMENT ALL SOIL EROSION AND SEDIMENT

- 2. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED AS INDICATED ON THESE DRAWINGS. LOCATION AND EXTENT OF SOIL AND WATER MANAGEMENT DEVICES IS DIAGRAMMATIC ONLY AND THE ACTUAL REQUIREMENTS SHALL BE CONFIRMED ON SITE PRIOR TO COMMENCEMENT.
- 3. CONFORMITY WITH THIS PLAN SHALL IN NO WAY REDUCE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT AGAINST WATER DAMAGE DURING THE COURSE OF THE CONTRACT. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT ANY NECESSARY CONTROL IS IN PLACE EVEN THOUGH SUCH CONTROL MAY NOT BE SHOWN ON THE PLAN.
- 4. THE CONTRACTOR SHALL INFORM ALL SUBCONTRACTORS AND ALL EMPLOYEES OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSTREAM AREAS 5. APART FROM SEDIMENT BASINS, THE CONTRACTOR SHALL REGULARLY
- MAINTAIN SEDIMENT AND EROSION CONTROL STRUCTURES AND DESILT SUCH STRUCTURES PRIOR TO THE REDUCTION IN CAPACITY OF 30% DUE TO ACCUMULATED SEDIMENT. THE SEDIMENT SHALL BE DISPOSED OF ON SITE IN A MANNER APPROVED BY THE ENGINEER.
- 6. THE CONTRACTOR SHALL TEMPORARILY REHABILITATE WITHIN TEN (10) DAYS ANY DISTURBED AREAS PROVIDING A MINIMUM 60% COVER. FINAL REHABILITATION IS TO BE PROVIDED WITHIN A FURTHER 60 DAYS WITH A MINIMUM 70% COVER.
- 7. ALL BATERS AND DISTURBED LAND TO BE REVEGETATED AS SPECIFIED IN THE LANDSCAPE DRAWINGS 8. THE CONTRACTOR SHALL PROVIDE WATERING OF THE VEGETATED BATTERS FOR MAINTENANCE PERIOD, TO LANDSCAPE ARCHITECT SPECIFICATIONS. PLANT, MACHINERY AND VEHICLES SHALL NOT BE
- DRIVEN OVER GRASSED AREAS UNLESS ON AN APPROVED HAULAGE ROUTE. 9. ALL DRAINAGE WORKS SHALL BE CONSTRUCTED AND STABILISED AS QUICKLY AS POSSIBLE TO MINIMISE RISK OF EROSION.
- 10. SITE ACCESS SHALL BE RESTRICTED TO THE NOMINATED POINTS. 11. DUST AND SITE DISTURBANCE MUST BE KEPT TO A MINIMUM ALWAYS. DURING WINDY WEATHER, LARGE, UNPROTECTED AREAS MUST BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO REDUCE WIND
- EROSION. ERECT BARRIER FENCING TO MINIMISE LAND DISTURBANCE BY PREVENTING VEHICULAR AND PEDESTRIAN ACCESS TO AREAS BEING REHABILITATED AND LANDS THAT DO NOT NEED TO BE DISTURBED BY THIS PROJECT. 12. STOCKPILE TOPSOILS, SUBSOILS AND OTHER MATERIALS SEPARATELY
- 13. TOPSOIL SHALL BE STORED IN LOW MOUNDS NO MORE THAN 2 METRES HIGH AND RE-USED WITHIN TWO MONTHS TO MAINTAIN ACTIVE POPULATIONS OF BENEFICIAL SOIL MICROBES AND SEED.
- 14. PLACE ALL STOCKPILES AT LEAST FIVE METRES FROM AREAS OF LIKELY CONCENTRATED OR HIGH VELOCITY FLOWS, ESPECIALLY EARTH BANKS AND ROADS. IF NECESSARY, EARTH BANKS OR DRAINS WILL BE CONSTRUCTED TO DIVERT LOCALISED RUN-ON.
- 15. TURN TOPSOIL STOCKPILES OVER TO AERATE THEM AT MONTHLY INTERVALS. ENSURE VEGETATION IS NOT INCORPORATED INTO THE SOIL. 31. SILT FENCES ARE TO BE PLACED DOWN GRADIENT OF ALL AREAS OF
- 16. AVOID REVERSING THE SOIL PROFILE MATERIALS DURING FILL OPERATIONS - REPLACE DISTURBED SOILS IN THEIR ORIGINAL ORDER. 17. ON COMPLETION OF MAJOR EARTHWORKS AND BEFORE ADDING TOPSOIL,
- LEAVE DISTURBED LANDS WITH A LOOSE SURFACE. ALTERNATELY, DISTURBED AREAS PREVIOUSLY COMPACTED BY CONSTRUCTION WORKS 33. GRASS COVER IS TO BE MAINTAINED AS LONG AS POSSIBLE AND ONLY WILL BE RIPPED TO MORE THAN 200-MM ALONG THE CONTOUR BEFORE APPLYING TOPSOIL (REFER REPLACING TOPSOIL STANDARD DETAIL).
- 18. PROVIDING MATERIALS ARE AVAILABLE, SPREAD TOPSOIL TO A MINIMUM 34. AREAS OF OPEN EARTHWORKS ARE TO BE KEPT TO A MINIMUM AT ALL DEPTH OF 75mm IN REVEGETATION AREAS ON SLOPES OF 4(H):1(V) OR LESS AND TO A DEPTH OF 40 TO 60mm IN REVEGETATION AREAS STEEPER THAN 4:1.







Singapore

- 19. LEAVE TOPSOIL IN A SCARIFIED OR ROUGH CONDITION ONCE REPLACED TO HELP MOISTURE INFILTRATION AND REDUCE SOIL EROSION.
- IRRIGATION) IMMEDIATELY BEFORE PLANTING. 21. HANDLE TOPSOIL ONLY WHEN IT IS MOIST (NOT WET OR DRY) TO AVOID DECLINE OF SOIL STRUCTURE
- 22. SEDIMENT BASINS SHALL BE MAINTAINED FOR THE ENTIRE DURATION OF THE PROJECT OR UNTIL SUCH TIME AS ALL DISTURBED AREAS ARE HYDROMULCHED.
- 23. WHERE FLOCCULATION OF BASINS IS REQUIRED UNLESS OTHERWISE SPECIFIED THE RECOMMENDED INITIAL DOSING IS 30KG OF GYPSUM PER 100 CUBIC METRES OF BASIN VOLUME. THE CONTRACTOR MAY VARY THIS RATE SUBJECT TO TESTING OF PREVIOUS WATER SAMPLES AND THE ACHIEVEMENTS OF THE REQUIRED WATER QUALITY STANDARDS.
- 24. ANY DAMS TO BE DESILTED SHALL BE FLOCCULATED TO SETTLE ANY SUSPENDED SOLIDS CLEAR WATER SHALL THEN BE PUMPED OUT IN A MANNER THAT WILL NOT CAUSE DOWNSTREAM EROSION. THE DAM WALL SHALL THEN BE BREACHED AND ANY SILT REMOVED AND PLACED IN A SUITABLY CONSTRUCTED DRYING BASIN. WHEN DRY, THE SILT SHALL BE REMOVED FROM SITE OR MIXED WITH TOP SOIL FOR FUTURE SPREADING.
- 25. THE CONTRACTOR SHALL MAINTAIN A LOG BOOK DETAILING: · RECORDS OF ALL RAINFALL CONDITION OF SOIL AND WATER MANAGEMENT STRUCTURES ANY APPLICATION OF FLOCCULATING AGENTS TO SEDIMENT BASIN
- VOLUMES OF ALL WATER DISCHARGED FROM SEDIMENT BASINS ANY ADDITIONAL REMEDIAL WORKS REQUIRED 26. THE LOG BOOK SHALL BE MAINTAINED ON A WEEKLY BASIS AND BE MADE
- AVAILABLE TO ANY AUTHORISED PERSON UPON REQUEST. THE ORIGINAL LOG BOOK SHALL BE ISSUED TO THE PROJECT MANAGER AT THE COMPLETION OF WORKS
- 27. A SELF AUDITING PROGRAM SHOULD BE ESTABLISHED BASED ON A CHECK SHEET DEVELOPED FOR THE SITE. A SITE INSPECTION USING THE CHECK SHEET SHOULD BE MADE BY THE SITE MANAGER AT LEAST WEEKLY, IMMEDIATELY BEFORE SITE CLOSURE AND IMMEDIATELY FOLLOWING RAINFALL EVENTS THAT CAUSE RUNOFF.
- 28. UNDERTAKE THE SELF AUDIT BY: a. WALKING AROUND THE SITE SYSTEMATICALLY (E.G. CLOCKWISE) b. RECORDING THE CONDITION OF EVERY BEST MANAGEMENT PRACTISE EMPLOYED
- c. RECORDING MAINTENANCE REQUIREMENTS (IF ANY) FOR EACH BEST MANAGEMENT PRACTISE
- d. RECORDING THE VOLUMES OF SEDIMENT REMOVED FROM THE SEDIMENT RETENTION SYSTEMS WHERE APPLICABLE e. RECORDING THE SITE WHERE SEDIMENT IS DISPOSED
- f. FORWARDING A SIGNED DUPLICATE OF THE COMPLETED CHECK SHEET TO THE PROJECT MANAGER/DEVELOPER/SITE OPERATOR FOR THEIR INFORMATION
- 29. IN PARTICULAR, INSPECT: LOCATIONS WHERE VEHICLES ENTER AND LEAVE THE SITE ALL INSTALLED EROSION AND SEDIMENT CONTROL MEASURES, ENSURING THEY ARE OPERATING CORRECTLY AREAS THAT MIGHT SHOW WHETHER SEDIMENT OR OTHER POLLUTANTS ARE LEAVING THE SITE OR HAVE POTENTIAL TO DO SO ALL DISCHARGE POINTS, TO ASSESS WHETHER THE EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING IMPACTS TO THE RECEIVING WATERS
- 30. A SITE INSPECTION USING THE CHECK SHEET WILL BE MADE BY THE SITE MANAGER AT LEAST WEEKLY, IMMEDIATELY BEFORE SITE CLOSURE, AND IMMEDIATELY FOLLOWING RAINFALL EVENTS GREATER THAN 5mm IN 24 HOURS.
- OPEN EARTHWORK THAT DO NOT HAVE AT LEAST A 10m WIDE GRASS BUFFER STRIP ON THEIR DOWN SLOPE SIDE.
- 32. CLEAN WATER DIVERSION CHANNELS/BUNDS ARE TO BE PLACED UP GRADIENT OF ANY AREAS OF OPEN EARTHWORKS.
- REMOVED WHEN NECESSARY FOR CONSTRUCTION ACTIVITIES AT THAT LOCATION.
- STAGES OF CONSTRUCTION

PRELIMINARY - NOT FOR CONSTRUCTION SCALE (METRES)

10 20 30 40 50 60 70 80 90 100 SCALE 1:2000 (A2)

WET 'N' WILD SYDNEY **EROSION AND SEDIMENT CONTROL** DETAILS