

EROSION AND SEDIMENT CONTROL NOTES

GENERAL INSTRUCTIONS

1. THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE ENGINEERING PLANS, LANDSCAPING PLANS AND WRITTEN INSTRUCTIONS RELATING TO THE SUBJECT DEVELOPMENT.
2. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO CONTROL EROSION AND DOWNSTREAM SEDIMENTATION DURING ALL STAGES OF CONSTRUCTION INCLUDING THE MAINTENANCE PERIOD.
3. THE EXTENT AND POSITION OF THE EROSION AND SEDIMENT CONTROL MEASURES TO BE DETERMINED ON SITE BY THE CONTRACTOR TO SUIT THE CONSTRUCTION PROGRAM.
4. THESE PLANS PRESENT CONCEPTS ONLY AND THE MEASURES SHOWN ON THIS DRAWING(S) ARE MINIMUM REQUIREMENTS ONLY.
5. THE CONTRACTOR MUST AT ALL TIMES BE RESPONSIBLE FOR THE ESTABLISHMENT, MANAGEMENT AND MAINTENANCE OF THE EROSION AND SEDIMENT CONTROL MEASURES TO MEET THE REQUIREMENTS OF DEPARTMENT LAND RESOURCE MANAGEMENT (DLRM).
6. LARGE OPEN AREAS OR STEEP BATTERS MUST NOT BE LEFT EXPOSED/UNSTABILISED FOR MORE THAN 10 DAYS OR IF WET WEATHER IS FORECAST.
7. EXPOSED AREAS INCLUDING BATTERS WHICH REMAIN UN-WORKED FOR MORE THEN 10 DAYS MUST BE STABILISED USING TEMPORARY HYDROMULCHING, HYDROSEEDING OR MULCHING, EVEN IF AREAS WILL BE WORKED AT A LATER TIME.
8. ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE INTERNATIONAL EROSION CONTROL ASSOCIATION (AUSTRALASIA).
9. THE CONTRACTOR MUST BE AWARE OF ITS RESPONSIBILITIES FOR PROTECTING THE DOWNSTREAM ENVIRONMENT AND RECEIVING WATER FROM POLLUTION AND ENVIRONMENTAL HARM.

RECOMMENDED IMPLEMENTATION SEQUENCE:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSTALLED AND FUNCTIONAL PRIOR TO WORKS COMMENCING AND IN THE FOLLOWING SEQUENCE.
 - a. CONSTRUCT TEMPORARY STABILISED SITE ACCESS, ENSURING ADJACENT STORMWATER RUN OFF IS DIVERTED AWAY FROM ACCESS
 - b. INSTALL SEDIMENT FENCING AND/OR BARRIER FENCING TO CONFINE INGRESS TO AND EGRESS FROM THE SITE TO STABILISED ACCESS POINT(S) ONLY.
 - c. PROVIDE INLET PROTECTION TO STORMWATER INLETS AND GULLIES ON ALL ROADS ADJOINING THE SITE.
 - d. STABILISE ALL DISTURBED AREAS ASAP AND PROGRESSIVELY AS WORKS ARE COMPLETED. TEMPORARY STABILISATION TO BE DONE USING MULCHING, HYDROMULCHING, HYDROSEEDING OR DIRECT SEEDING TO GIVE A 70% COVERAGE OF GROUND SURFACE WITHIN 14 DAYS OF WORKS COMPLETING (EVEN IF WORKS MAY CONTINUE LATER).
2. UNDERTAKE SITE DEVELOPMENT WORKS SO THAT LAND DISTURBANCE IS CONFINED TO MINIMUM WORKABLE AREAS.
3. DISTURBED AREAS TO EXTEND NO MORE THAN 5 METRES (PREFERABLY 2 METRES) FROM ESSENTIAL WORKS AREAS.
4. WORK AREAS TO BE DELINEATED BY BARRIER FENCING AND DIVERSION CHANNEL UPSLOPE AND SEDIMENT FENCING DOWNSLOPE.
5. THE CONTRACTOR MUST ENSURE THAT THE EXISTING VEGETATION AND GROUND COVER IS RETAINED AS MUCH AS POSSIBLE.
6. TOPSOIL MUST BE STRIPPED AND STOCKPILED FOR LATER USE ONSITE.
7. AT ALL TIMES THE CONTRACTOR MUST MONITOR THE PREVAILING WEATHER CONDITIONS AND PROTECT ANY DOWNSTREAM CONSTRUCTION AND RECEIVING ENVIRONMENTS.
8. EROSION AND SEDIMENT CONTROL PROTECTION MEASURES MUST BE MAINTAINED BY THE CONTRACTOR THROUGHOUT CONTRACT.
9. FOOT AND VEHICULAR TRAFFIC TO BE RESTRICTED IN RECENTLY

STABILISED AREAS INCLUDING THOSE HYDROSEEDED, TURFED OR SEEDDED.

CONTROL MEASURES

1. FINAL SITE LANDSCAPING MUST BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS OF CONSTRUCTION COMPLETION
2. SEDIMENT LADEN WATER MUST BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM BY USING INLET PROTECTION.
3. ALL PERIMETER BANKS AND CHANNEL DRAINS MUST HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
4. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MUST ONLY BE REMOVED ONCE SITE IS STABILISED AND UPSTREAM WORKS HAVE BEEN COMPLETED.
5. AT CONSTRUCTION COMPLETION ALL TEMPORARY EARTH STRUCTURES, INCLUDING SOIL STOCKPILES ARE TO BE TRACK ROLLED AND SEEDDED. THE CONTRACTOR IS TO ENSURE A 70% COVERAGE WITHIN 14 DAYS.

DUST CONTROL

1. DURING WINDY AND DRY WEATHER ANY UNPROTECTED AREAS MUST BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL. WHERE WATER IS NOT AVAILABLE IN SUFFICIENT QUANTITIES, SOIL BINDERS OR DUST RETARDANTS TO BE USED FOR DUST SUPPRESSION.
2. EXPOSED SURFACES INCLUDING BATTERS MUST BE LEFT ROUGH TO REDUCE WIND SPEEDS AND POTENTIAL FOR WIND EROSION.
3. USE OPEN WEAVE BARRIER FENCING (60% SHADE CLOTH) ON WINDWARD SIDE OF SITE.
4. VEHICLE SPEEDS ARE TO BE LIMITED TO 15KPH WITHIN THE SITE TO LIMIT THE AMOUNT OF DUST PRODUCED.

DEWATERING

1. DURING TRENCH AND EXCAVATION DEWATERING, MEASURES ARE TO BE IMPLEMENTED TO MITIGATE THE SEDIMENT RELATED ENVIRONMENTAL HARM AND/OR IMPACT TO STORMWATER INFRASTRUCTURE RESULTING FROM DEWATERING ACTIVITIES.
2. FLOW DIVERSION BARRIERS, OR OTHER APPROPRIATE SYSTEMS ARE TO BE INSTALLED TO MINIMISE THE QUANTITY OF WATER ENTERING OPEN TRENCHES AND EXCAVATIONS.
3. DEWATERING MEASURES MUST INCLUDE GEOFABRIC FILTERS, NON -WOVEN FILTER FENCING.
4. SEDIMENT LADEN WATER MUST NOT BE DISCHARGED TO THE STORMWATER SYSTEM WITHOUT FIRST BEING TREATED TO THE SATISFACTION OF DLRM.

MAINTENANCE OF PUBLIC ROADS

1. ALL CONSTRUCTION VEHICLES DEPARTING FROM THE SITE MUST HAVE THEIR TYRES WASHED DOWN OR SEDIMENT REMOVED BY A STABILISED SITE ACCESS DEVICE.
2. THE STABILISED SITE ACCESS AREAS MUST BE LOCATED SUCH THAT SILTED WATER IS FILTERED THROUGH A SUITABLE SEDIMENT TRAP (SUCH AS A SEDIMENT FENCE) INSTALLED DOWNSTREAM OF ACCESS.
3. THE CONTRACTOR SHALL INSPECT THE PUBLIC ROADS ADJACENT TO THE SITE DAILY AND MANUALLY REMOVE ANY SEDIMENT DEPOSITS (BY SWEEPING NOT WASH DOWN).

SITE INSPECTION AND MAINTENANCE

1. ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSPECTED REGULARLY, IMMEDIATELY BEFORE SITE CLOSURE, PRIOR TO PREDICTED LARGE STORM EVENTS AND AFTER EVERY SIGNIFICANT (> 5MM) RAINFALL EVENT OR AT LEAST ON A WEEKLY BASIS.
2. REPAIRS AND MAINTENANCE OF ALL DEVICES AND MEASURES INCLUDING DIVERSION CHANNELS MUST BE UNDERTAKEN AS REQUIRED, ENSURING ALL MEASURES ARE FULLY FUNCTIONAL AT ALL TIMES.

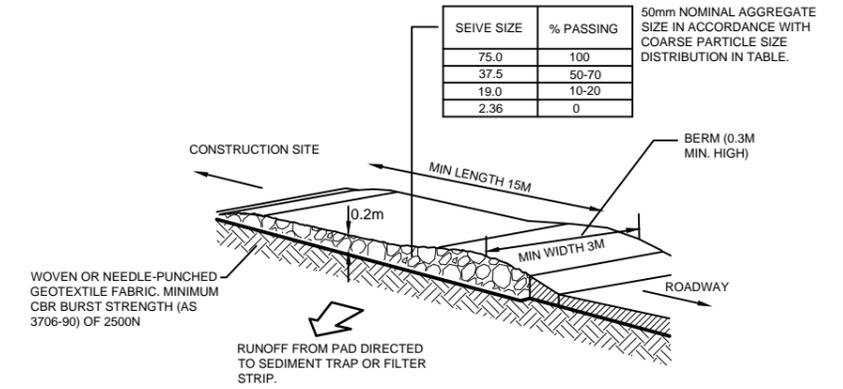
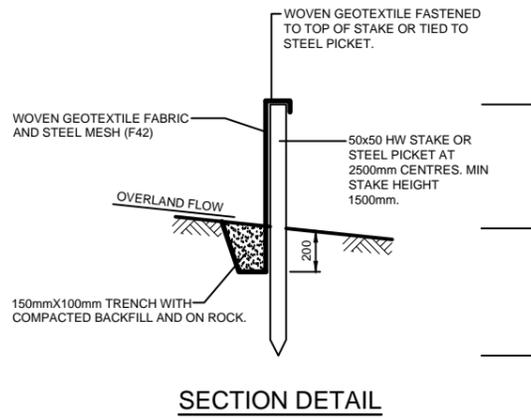
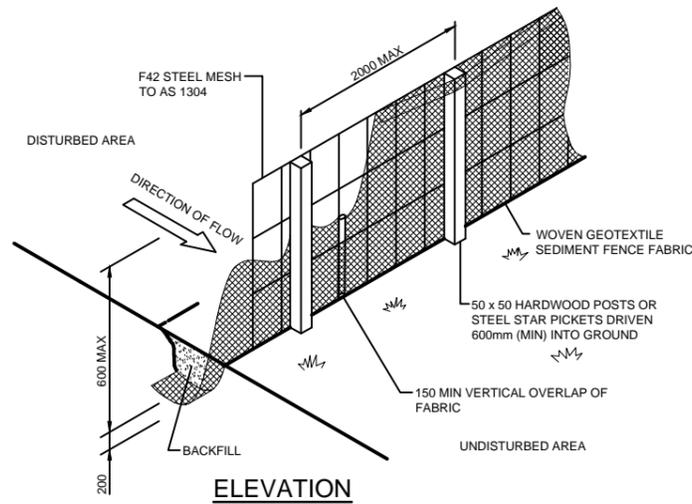
3. ENSURE SEDIMENT LADEN WATER HAS NOT BEEN DIVERTED AROUND DEVICES.
4. REPAIR SCOUR DAMAGE TO SEDIMENT CONTROL MEASURES AFTER RAINFALL EVENTS AND REINSTATE DEVICES AS NECESSARY.
5. SEDIMENT FENCES WILL REQUIRE CLEANING WHEN SEDIMENT REACHES 300MM DEPTH OR ONE-HALF THE HEIGHT OF THE FILTER FABRIC AND ALL OTHER SEDIMENT TRAPS WILL REQUIRE CLEANING OUT WHEN 30% OF DESIGN CAPACITY IS REACHED.
6. ALL INLET AND GULLY TRAPS TO BE CLEANED NOT HOSED AFTER EVERY RAINFALL EVENT, (1>5mm) OR AT LEAST ON A WEEKLY BASIS.
7. SEDIMENT REMOVED FROM ANY TRAPPING DEVICE TO BE RELOCATED, ENSURING FURTHER POLLUTION TO DOWNSTREAM ENVIRONMENTS WILL NOT OCCUR.
8. ALL SEEDING, HYDROSEEDING AND TURFING REQUIRES REGULAR WATERING, UNTIL EFFECTIVE COVER ESTABLISHED AND PLANTS ARE GROWING VIGOROUSLY. WATERING MUST VARY DEPENDING ON WEATHER AND SOIL CONDITIONS.
9. EXCESSIVE VEGETATION GROWTH WILL BE CONTROLLED THROUGH MOWING OR SLASHING.
10. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE INSPECTION, MAINTENANCE AND TESTING OF DEVICES IS UNDERTAKEN ON SITE.
11. THE CONTRACTOR MUST CONSTRUCT AND IMPLEMENT ADDITIONAL MEASURES AS NECESSARY TO ENSURE PROTECTION OF DOWNSTREAM ENVIRONMENTS.

CERTIFICATION

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 12/03/2018

Michael Cooper

ISSUE FOR APPROVAL		12-03-18	MC	NTCE	 N.T. Consulting Engineers ABN 73 102 631 186 P.O. Box 900 COOLALINGA 0839 Northern Territory, Australia www.ntconsultingengineers.com.au Mobile: 0427 411 633 Email: ntce@westnet.com.au	DRAWN PC DATE 12-03-2018 DESIGNED MC DATE 12-03-2018	CHECKED MC DATE 12-03-2018 CHECKED OATS DATE 12-03-2018	 REMOTE AREA BUILDERS	PROPOSED AFL CHANGE ROOMS LOT 938 WURUMIYANGA, BATHURST ISLAND D.T. HOBBS EROSION & SEDIMENT CONTROL PLAN					
No.	DESCRIPTION	DATE	NAME	DEPT./COMPANY		STRUCTURALLY CONCURRED Michael Cooper 12193ES	DESIGN PROJECT LEADER BARRY DATE 12-03-2018		PROJECT OFFICER D.HOBBS DATE 12-03-2018	FILE No.	ASSET No.	SHEET No.	DRAWING No.	AMEND.
	AMENDMENTS								-	-	1 of 3	V892234-S1	-	A3

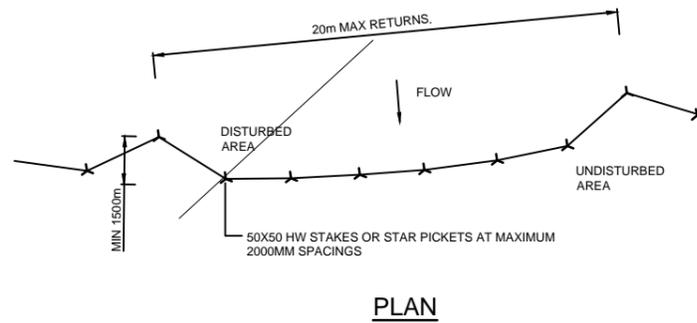


TEMPORARY STABILISED SITE ENTRY/EXIT (ROCK)

SCALE N.T.S.

NOTES:

1. STABILISED ACCESS SHOULD BE CLEANED AND MAINTAINED AFTER EVERY RAINFALL EVENT (>5mm) AND WHEN SEDIMENT ACCUMULATION IS NOTED.
2. FINE ACCUMULATED SEDIMENTS SHOULD BE REMOVED FROM AGGREGATE REGULARLY.

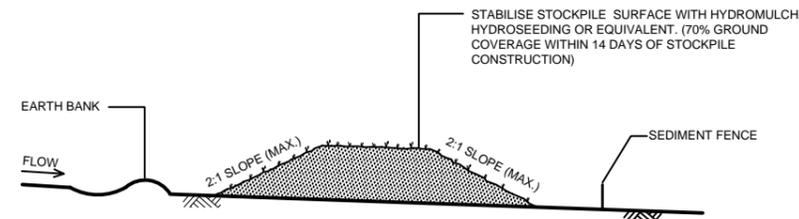


SEDIMENT FENCE DETAIL

SCALE N.T.S.

NOTES:

1. HORIZONTAL BAR STEEL MESH TO BE FLUSH WITH TOP OF GEOTEXTILE FABRIC WITH NO VERTICAL BARS PROTRUDING PAST TOP OF SEDIMENT FENCE.
2. NO SHADE CLOTH TO BE USED FOR SEDIMENT FENCING.
3. CATCHMENT DRAINING TO SEDIMENT FENCE SHOULD BE MAX 0.6ha.
4. UPSTREAM SLOPE TO BE 1:2 MAX AND SLOPE LENGTH 60m MAX.
5. SEDIMENT FENCES ARE TO BE INSTALLED PARALLEL TO CONTOURS WHERE POSSIBLE AND HAVE RETURNS EVERY 20 METRES, TO LIMIT CONTRIBUTING CATCHMENT AND ENCOURAGE PONDING.
6. SEDIMENT FENCES TO BE INSTALLED NO MORE THAN 5 METRES FROM DISTURBED AREAS OR STOCKPILES.



TYPICAL STOCKPILE CONFIGURATION

SCALE N.T.S.

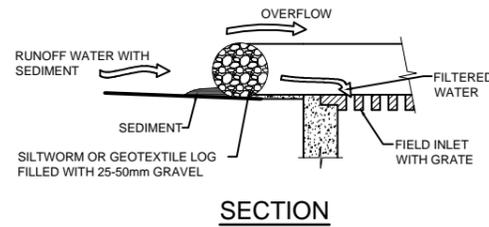
NOTES:

1. LOCATE STOCKPILES AT TOP OF CATCHMENT ON FLAT GROUND AND NOT WITHIN 5m OF CONCENTRATED FLOW PATHS.
2. STOCKPILES SHOULD HAVE EARTH BANKS UPSLOPE FOR DIVERSION OF UPSTREAM WATER AROUND STOCKPILE AND SEDIMENT FENCES PLACED 1-2m DOWNSLOPE.

CERTIFICATION

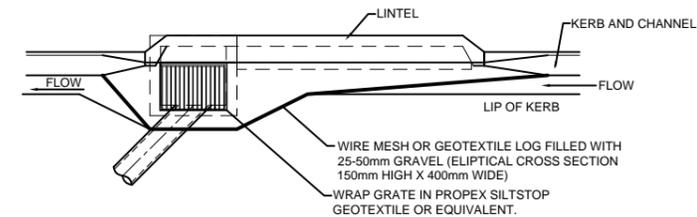
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12/03/2018

..... Michael Cooper



FIELD INLET SEDIMENT TRAP DETAIL

SCALE N.T.S.



TEMPORARY GULLY TRAP DETAIL

SCALE N.T.S.

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No.	DESCRIPTION	DATE	NAME	DEPT./COMPANY.
	AMENDMENTS			



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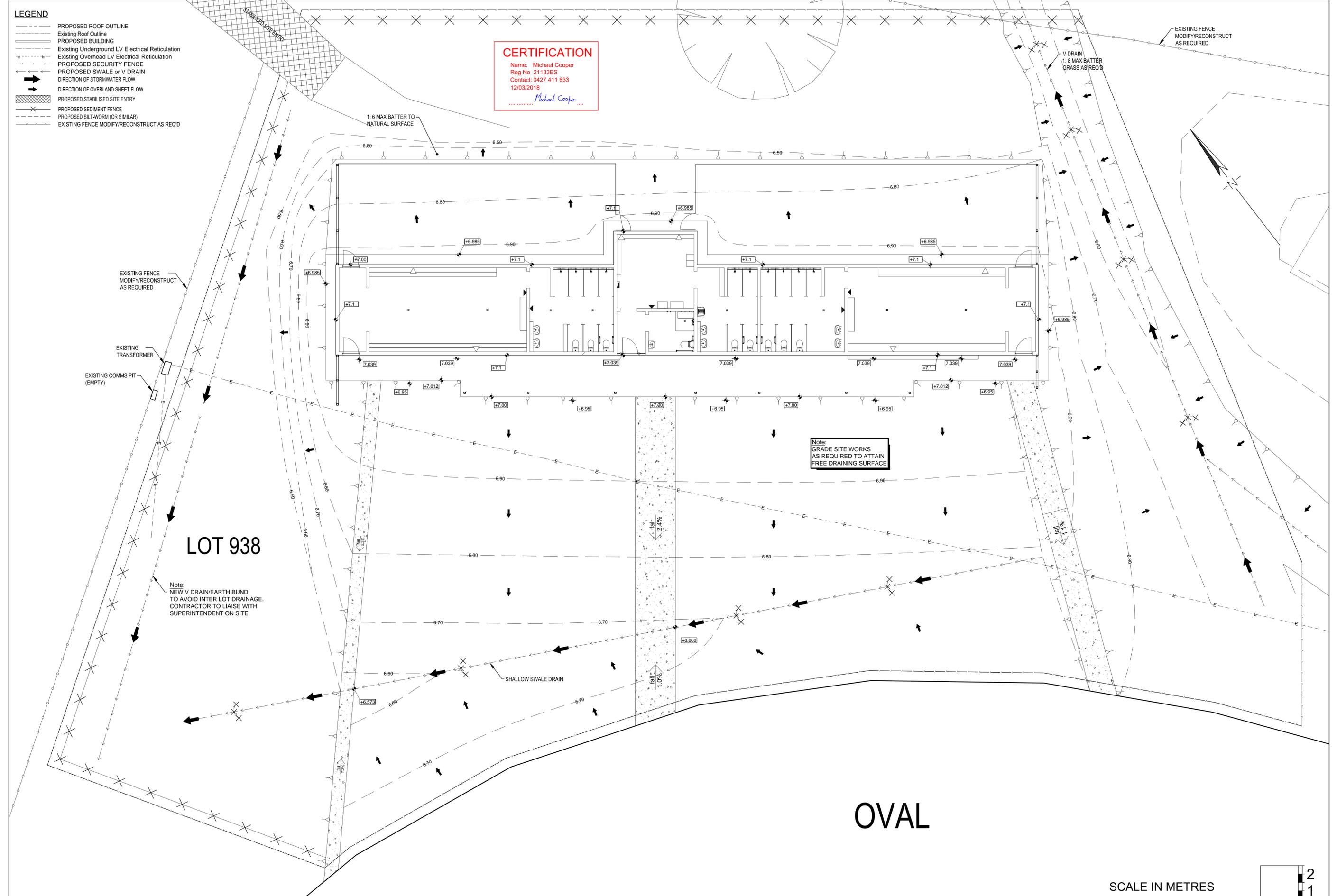
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DESIGN PROJECT LEADER	BARRY	PROJECT OFFICER	D.HOBBS
DATE	12-03-2018	DATE	12-03-2018



PROPOSED AFL CHANGE ROOMS LOT 938 WURUMIYANGA, BATHURST ISLAND D.T. HOBBS EROSION & SEDIMENT CONTROL PLAN				
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				SHEET SIZE A3

- LEGEND**
- PROPOSED ROOF OUTLINE
 - - - Existing Roof Outline
 - ▭ PROPOSED BUILDING
 - Existing Underground LV Electrical Reticulation
 - - - Existing Overhead LV Electrical Reticulation
 - PROPOSED SECURITY FENCE
 - PROPOSED SWALE or V DRAIN
 - DIRECTION OF STORMWATER FLOW
 - DIRECTION OF OVERLAND SHEET FLOW
 - ▨ PROPOSED STABILISED SITE ENTRY
 - × PROPOSED SEDIMENT FENCE
 - PROPOSED SILT-WORM (OR SIMILAR)
 - EXISTING FENCE MODIFY/RECONSTRUCT AS REQ'D

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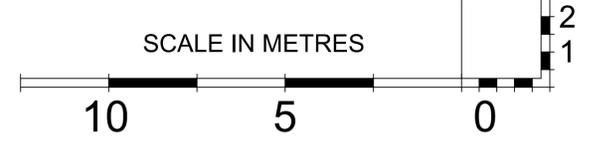


LOT 938

Note:
 NEW V DRAIN/EARTH BUND
 TO AVOID INTER LOT DRAINAGE.
 CONTRACTOR TO LIAISE WITH
 SUPERINTENDENT ON SITE

Note:
 GRADE SITE WORKS
 AS REQUIRED TO ATTAIN
 FREE DRAINING SURFACE

OVAL



		N.T. Consulting Engineers ABN 73 102 631 186 P.O. Box 900 COOLALINGA 0830 Northern Territory, Australia www.ntconsultingengineers.com.au		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>DRAWN</td> <td>PC</td> <td>CHECKED</td> <td>MC</td> </tr> <tr> <td>DATE</td> <td>12-09-2018</td> <td>DATE</td> <td>12-09-2018</td> </tr> <tr> <td>DESIGNED</td> <td>MC</td> <td>DATE</td> <td>12-09-2018</td> </tr> <tr> <td>PROJECT OFFICER</td> <td>D. HOBBS</td> <td>DATE</td> <td>12-09-2018</td> </tr> </table>		DRAWN	PC	CHECKED	MC	DATE	12-09-2018	DATE	12-09-2018	DESIGNED	MC	DATE	12-09-2018	PROJECT OFFICER	D. HOBBS	DATE	12-09-2018			PROPOSED AFL CHANGE ROOMS LOT 938 WURUMIYANGA, BATHURST ISLAND D.T. HOBBS EROSION & SEDIMENT CONTROL PLAN		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>FILE NO.</td> <td>ASSET NO.</td> <td>SHEET NO.</td> <td>DRAWING NO.</td> <td>REV.</td> </tr> <tr> <td>-</td> <td>-</td> <td>3 of 3</td> <td>V892234-S3</td> <td>A1</td> </tr> </table>		FILE NO.	ASSET NO.	SHEET NO.	DRAWING NO.	REV.	-	-	3 of 3	V892234-S3	A1
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