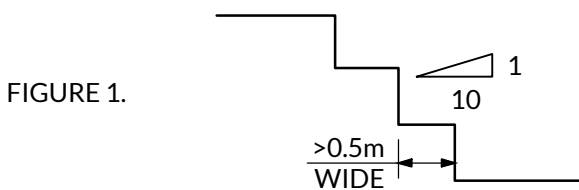


BULK EARTHWORKS NOTES

1. THE CONTRACTOR IS TO FENCE THE LIMIT OF WORKS PRIOR TO THE PRE-START MEETING WITH COUNCIL.
2. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO COMMENCEMENT OF CLEARING AND GRUBBING WORKS.
3. EXCAVATION AND FILLING IS TO BE CARRIED OUT TO THE PLAN LEVELS, DIMENSIONS AND BATTERS AS DRAWN. WORKS ARE TO BE GENERALLY IN ACCORDANCE WITH AS 3798 'GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS' & THE PROJECT GEOTECHNICAL REPORT, AS WELL AS THE LOCAL AUTHORITY STANDARDS.
4. ANY CLEARING REQUIRED TO BE UNDERTAKEN BY THE CONTRACTOR IS TO BE STRICTLY IN ACCORDANCE WITH THE COUNCIL APPROVED VEGETATION MANAGEMENT PLAN.
5. ALL SOILS CONTAINING ORGANIC AND DELETERIOUS MATTER IN THE TOPSOIL ZONE OF SOILS SHALL BE STRIPPED FROM THE CONSTRUCTION AREA. THIS MATERIAL IS NOT CONSIDERED SUITABLE FOR REUSE AS STRUCTURAL FILL. SOFT WET SOILS AND EXISTING FILL IS TO BE REMOVED PRIOR TO THE PLACEMENT OF STRUCTURAL FILL.
6. TREES ARE TO BE MULCHED & STOCKPILED ON SITE FOR USE WITH LANDSCAPING. WHERE PARTS OF TREES CANNOT BE MULCHED, THEY ARE TO BE REMOVED FROM SITE IN ACCORDANCE WITH LOCAL AUTHORITY REQUIREMENTS.
7. SLOPING GROUND SHOULD BE BENCHED TO 'KEY IN' FILL MATERIAL AND OPTIMIZE COMPACTION. THE BENCHES SHOULD SLOPE BACK AT 1V:10H AND BE AT LEAST 0.5m WIDE. WIDER BENCHES TO ACCOMMODATE THE WIDTH OF THE ROLLER MAY NEED TO BE ADAPTED IN SOME SITUATIONS. REFER FIGURE 1.
8. TOPSOIL APPROVED BY THE ENGINEER WHICH IS SUITABLE FOR REUSE IS TO BE CORRECTLY STOCKPILED ON SITE.
9. ALL OF THE SITE SHALL BE FREE DRAINING DURING ALL PHASES OF THE PROJECT. IT IS THE CONTRACTORS RESPONSIBILITY TO PROTECT THE SITE AND SURROUNDING AREAS FROM DAMAGE RESULTING FROM STORMWATER RUNOFF DURING CONSTRUCTION. DRAINAGE CONTROL DEVICES SUCH AS TEMPORARY DIVERSION DRAINS ARE TO BE IMPLEMENTED DURING CONSTRUCTION TO MINIMISE THE EFFECTS OF WEATHER.
10. UNLESS DIRECTED OTHERWISE BY THE SUPERINTENDANT ALL FILL SHALL BE PLACED AT BETWEEN +2% & -2% OF OPTIMUM MOISTURE CONTENT.



11. IN CONSTRUCTION AREAS, THE CLEARED AND STRIPPED GROUND SURFACE SHOULD BE PROOF ROLLED TO DETECT ANY SOFT OR LOOSE MATERIAL. LOOSE SOILS, SHOULD BE COMPACTED TO THE APPROPRIATE REQUIREMENTS. SOFT, WET CLAYS SHOULD PREFERABLY BE REMOVED. IN AREAS OF CUT, PROOF ROLLING MAY BE DEFERRED UNTIL AFTER THE CUT OPERATION. TEST ROLLING SHALL BE DONE WITH A SMOOTH DRUM ROLLER WITH MINIMUM STATIC WEIGHT OF 12 TONNE. THE TYPED NATURAL FOUNDATION SOIL SHALL BE COMPACTED TO A MINIMUM DENSITY INDEX OF 65% (SANDS) OR MINIMUM DENSITY RATIO OF 75% STANDARD (CLAYS).
12. ANY IMPORTED FILL, IF NEEDED TO MAKE UP EARTHWORK DEFICIENCIES, SHOULD BE OF FAIR TO GOOD QUALITY PLACED IN 200 THICK MAXIMUM LOOSE LAYERS AND CONFORM TO THE FOLLOWING GENERAL SPECIFICATION :
- SOAKED CBR

MINIMUM 10%

LIQUID LIMIT

MAXIMUM 40%

MAXIMUM AGGREGATE SIZE

75mm

SHRINK/SWELL INDEX

MAXIMUM OF 1.0%
13. GUIDELINES FOR MINIMUM RELATIVE COMPACTION VALUES FOR INSITU SOILS AND IMPORTED FILL FOR THE BUILDING AND PAVEMENTS ARE PRESENTED IN THE FOLLOWING TABLE :

MINIMUM RELATIVE COMPACTION	
LOCATION	MINIMUM DRY DENSITY RATIO (%)
BUILDING AREA	98
PAVEMENT AREA :	
BASE COURSE	98
SUB BASE COURSE	98
a) >0.3m BELOW PAVEMENT SUBGRADE	95
b) <0.3m BELOW PAVEMENT SUBGRADE	100
NOTES :	
1. THE RECOMMENDED COMPACTIONS ARE PERCENTAGES OF THE MAXIMUM DRY DENSITY DETERMINED BY AS 1289 5.1.1, (STANDARD COMPACTION).	
2. FOR PROCESSED PAVEMENT GRAVELS, MINIMUM DENSITY REQUIREMENTS SHOULD BE A PERCENTAGE OF MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1, (MODIFIED COMPACTION).	

14. PRIOR TO THE USE OF ANY IMPORTED ENGINEERED FILL MATERIAL, THE CONTRACTOR SHALL NOMINATE SOURCE MATERIALS TO BE USED & PROVIDE TEST RESULTS OF ITS PROPERTIES FOR ITEMS SUCH AS PARTICLE SIZE DISTRIBUTION GRADINGS, LIQUID LIMIT, PLASTICITY INDEX etc. WHICH WOULD NORMALLY BE PERFORMED BY AN AUTHORIZED TESTING LABORATORY IN SATISFYING THIS REQUIREMENT. RESULTS SHALL BE SUBMITTED TO THE SUPERINTENDENT FOR APPROVAL PRIOR TO COMMENCING ANY WORKS.
15. STOCKPILED TOPSOIL IS TO BE RESPREAD TO AN EVEN 100mm THICKNESS OVER ALL BATTERS AND SURROUNDING EXPOSED AREAS. ANY EXCESS TOPSOIL IS TO BE DISPOSED OF BY THE CONTRACTOR OFF SITE (IF DIRECTED BY THE SUPERINTENDANT).
16. ANY EXCESS SPOIL MATERIAL GENERATED DURING CONSTRUCTION IS TO BE DISPOSED OF AS DIRECTED BY THE SUPERINTENDENT.

BULK EARTHWORKS NOTES

- (CONT.)
17. THE MOVEMENT OF MATERIAL TO AND FROM THE SITE SHALL BE IN ACCORDANCE WITH THE RELEVANT EPA GUIDELINES AND BIO-SECURITY REQUIREMENTS.
18. FOR FURTHER SITE INFORMATION REFER TO THE PROJECT GEOTECHNICAL CONSULTANT.
19. ALTERNATIVE METHODS OF CONSTRUCTION OTHER THAN THAT DESCRIBED ABOVE SHALL ONLY BE ALLOWED IF APPROVAL IS GIVEN BY THE SUPERINTENDENT.
20. DESIGN LEVELS PROVIDED ARE FINISHED SURFACE LEVELS (U.N.O)
21. ALL EARTHWORKS SHALL BE PERFORMED UNDER THE SUPERVISION OF A RECOGNIZED GEOTECHNICAL CONSULTANT TO LEVEL 1 STANDARDS SPECIFIED IN AS 3798 UNLESS DIRECTED OTHERWISE BY THE SUPERINTENDENT. ALL WORKS SHALL BE CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER OF QUEENSLAND (RPEQ). THE MINIMUM CERTIFICATION TO BE PROVIDED BY THE CONTRACTOR TO THE SUPERVISING ENGINEER SHALL BE:
- (i) CERTIFICATION THAT ALL GENERAL EARTHWORKS OPERATIONS - (i.e. STRIPPING PROOF ROLLING OF SUBGRADE, ETC.) HAVE BEEN CARRIED OUT IN ACCORDANCE WITH THE EARTHWORKS SPECIFICATION.

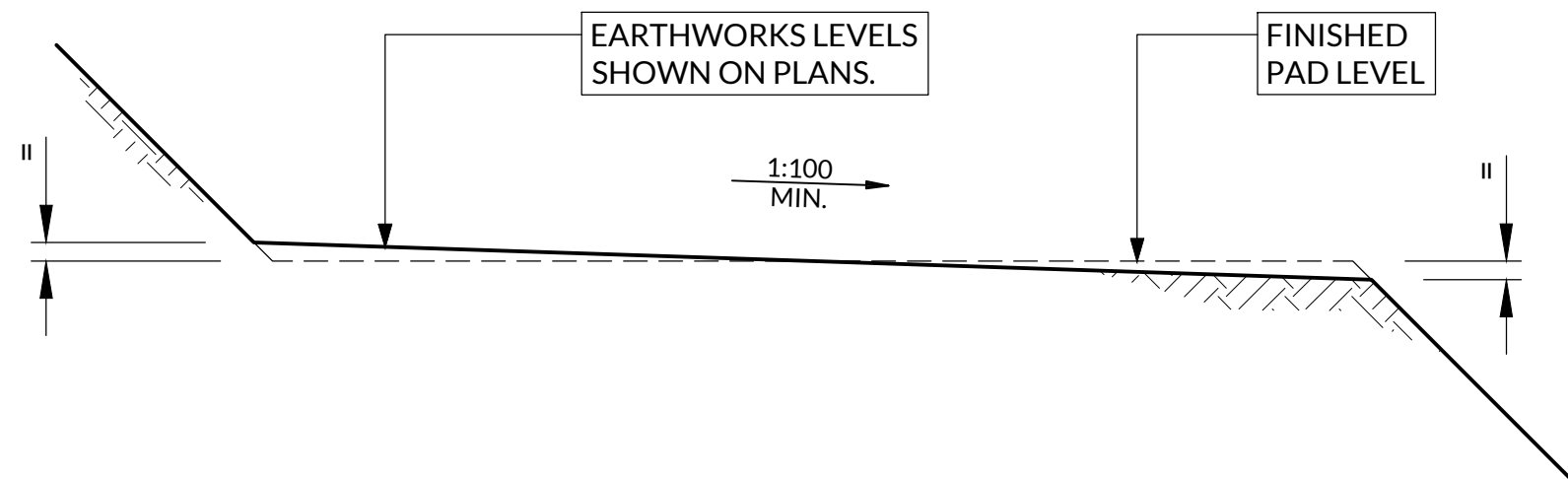
(ii) CERTIFICATION THAT FILL HAS BEEN PLACED AND COMPACTED TO REQUIRED MINIMUM DENSITY IN ACCORDANCE WITH THE EARTHWORKS SPECIFICATION.

(iii) CERTIFICATION THAT THE CONTROLLED FILL IS SUITABLE FOR SUPPORT OF CONVENTIONAL HIGH LEVEL FOOTINGS AND HAS A MINIMUM BEARING CAPACITY OF 150kPa.

(iv) CERTIFICATION THAT THE QUALITY OF ANY IMPORTED FILL COMPLIES WITH THE EARTHWORKS SPECIFICATION REQUIREMENTS.
22. FIELD DENSITY TESTING SHOULD BE CARRIED OUT TO CHECK THE STANDARD COMPACTION ACHIEVED AND THE PLACEMENT MOISTURE CONTENT. THE FREQUENCY AND EXTENT OF TESTING SHOULD BE AS PER GUIDELINES IN AS 3798
23. DEPRESSIONS FORMED BY THE REMOVAL OF VEGETATION, UNDERGROUND ELEMENTS ETC. SHOULD HAVE ALL DISTURBED WEAKENED SOIL CLEANED OUT AND BE BACKFILLED WITH COMPACTED SELECT MATERIAL.
24. ALL NEW WORKS TO MATCH NEATLY WITH EXISTING. THE CONTRACTOR IS TO CONFIRM THE LOCATION OF ALL EXISTING SERVICES AND PROTECT THESE SERVICES DURING CONSTRUCTION. DAMAGED SERVICES SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

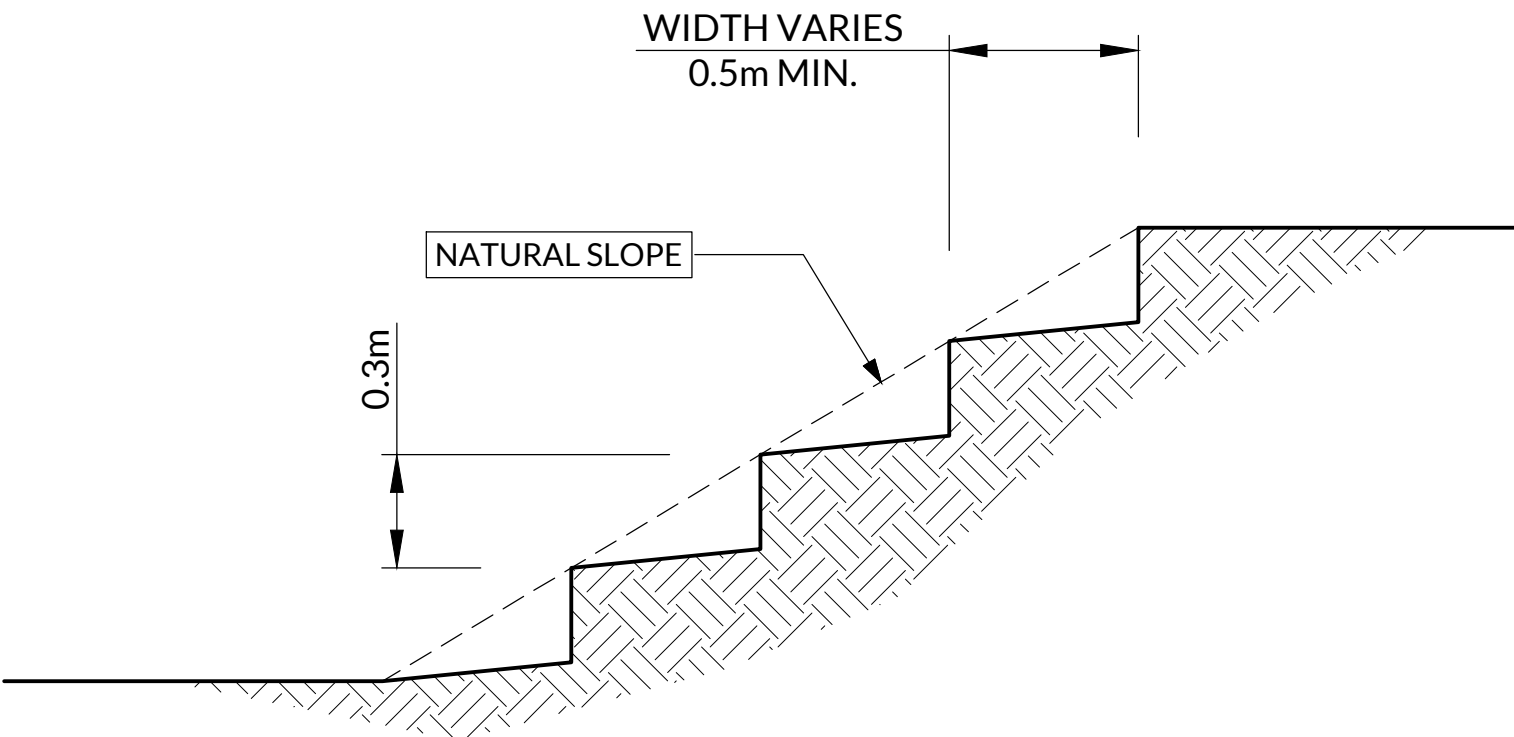
Approval no: DEV2025/1623
Date: 21 July 2025



TYPICAL BULK EARTHWORKS PAD CONSTRUCTION DETAIL

SCALE N.T.S.

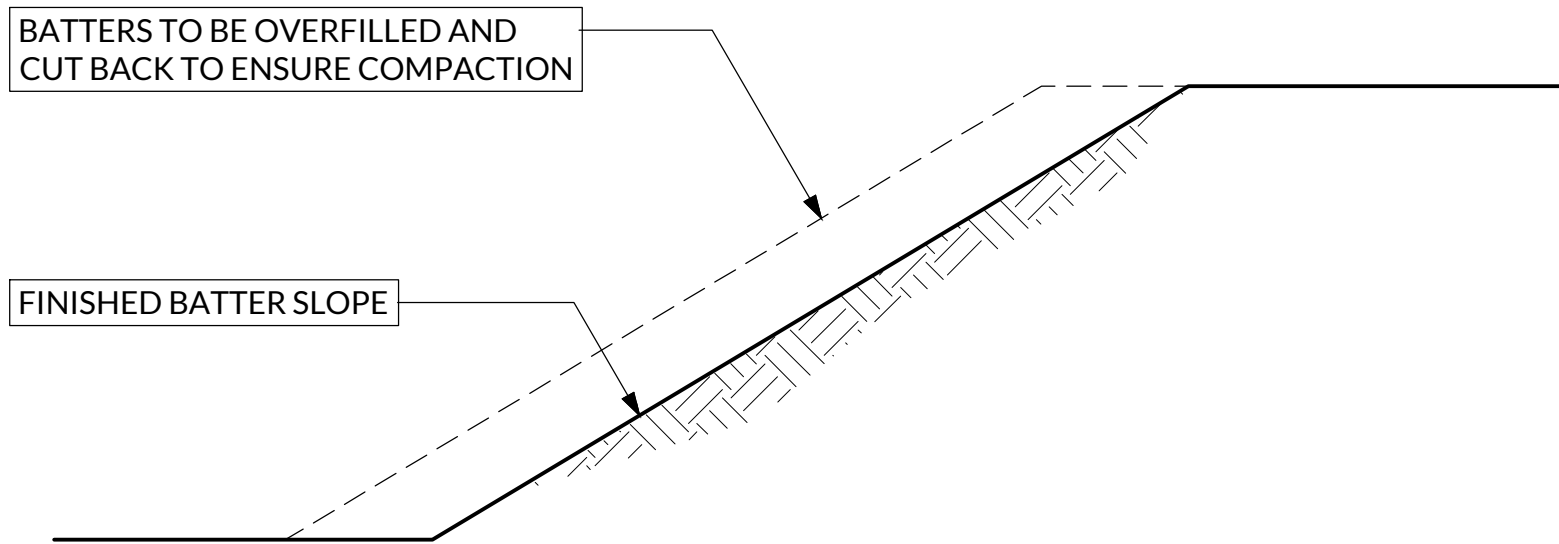
NOTE : EARTHWORKS PLATFORMS ARE TO BE FORMED WITH MIN. 1:100 FALL ACROSS PAD DURING THE BULK EARTHWORKS PHASE. PLATFORMS TO BE TRIMMED TO FINISHED PAD LEVELS DURING DETAILED EARTHWORKS.



COMPACTION ON SLOPES DETAIL

SCALE N.T.S.

NOTE : COMPACTION ON SLOPES GREATER THAN 1 IN 10 TO BE KEYED AS SHOWN UNLESS DIRECTED OTHERWISE BY THE GEOTECHNICAL ENGINEER.



BATTER CUTBACK DETAIL

SCALE N.T.S.

NOTE :

NO WORKS TO BE UNDERTAKEN OUTSIDE THE DESIGNATED SITE BOUNDARY UNLESS DIRECTED OTHERWISE BY THE MANAGING CONTRACTOR.

No.	DATE	AMENDMENT	BY	CLIENT :	PROJECT :	Drawn : C.R.P.	Date : MAY 2025	DRAWING TITLE :		
A	23.05.25	PRELIMINARY ISSUE	C.R.P.							
RP DESCRIPTION : LOT 41 ON SP338465 PARISH OXLEY - COUNTY STANLEY LGA : BRISBANE CITY COUNCIL				KUSTOM HOMES	 MRC CONSULTING ENGINEERS MRC Consulting Engineers PO Box 778, Ashgrove West, Brisbane, QLD 4060 e : admin@mrceng.com.au, www.mrceng.com.au	Designed : M.H.		Checked : R.A.		BULK EARTHWORKS NOTES AND DETAILS SHEET
						Approved : M.H.				
						Status : PRELIMINARY		Project No. J25139	Drawing No. C-1.01	Revision A