

DRAWING NUMBER	DRAWING TITLE
60.30255-G-1000	COVER SHEET & SITES LOCALITY PLAN
60.30255-G-1001	DRAWING SCHEDULE & COORDINATES TABLE
60.30255-G-1002	GENERAL NOTES SHEET 1
660.30255-G-1003	GENERAL NOTES SHEET 2
660.30255-G-1004	GENERAL NOTES SHEET 3
660.30255-G-1010	SITE DM00865 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1020	SITE SH00290 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1030	SITE DM00706 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1031	SITE DM00706 - CROSS SECTIONS SHEET
	SITE DIVIDO700 - GROSS SECTIONS SHEET
660.30255-G-1040	SITE AC00088 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1050	SITE DM00548 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1051	SITE DM00548 - DETAILS SHEET
660.30255-G-1060	SITE DM00549 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1070	SITE DM00869 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1071	SITE DM00869 - CROSS SECTIONS SHEET
S60 20255 O 4090	CITE DM00970 CENEDAL ADDANICEMENT LAVOUT DLAN
660.30255-G-1080	SITE DM00870 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1090	SITE SH00282 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1100	SITE SH00288 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1110	SITE SH00292 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1120	SITES DM00882 & DM00555 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1121	SITE DM0555 - CROSS SECTIONS SHEET
660.30255-G-1122	SITE DM00555 - DETAILS SHEET
660.30255-G-1123	SITE DM00882 - CROSS SECTIONS SHEET
660.30255-G-1130	SITES DM00610 & DM00611 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1140	SITE DM00805 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1150	SITE DM00806 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1151	SITE DM00806 - DETAILS SHEET
660.30255-G-1160	SITE DM00533 - GENERAL ARRANGEMENT LAYOUT PLAN
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660.30255-G-1170	SITES DM00577 & DM00718 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1180	SITE DM00755 - GENERAL ARRANGEMENT LAYOUT PLAN
 660.30255-G-1190	SITES DM00757, NH00013 & DM00864 - GENERAL ARRANGEMENT LAYOUT PLAN

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DRAWING NUMBER	DRAWING TITLE
660.30255-G-1200	SITE DM00583 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1201	SITE DM00583 - CROSS SECTIONS SHEET
660.30255-G-1210	SITE DM00828 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1220	SITE NH00011 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1230	SITE DM00513 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1231	SITE DM00513 - CROSS SECTIONS SHEET
660.30255-G-1232	SITE DM00513 - DETAILS SHEET 1
660.30255-G-1233	SITE DM00513 - DETAILS SHEET 2
 660.30255-G-1240	SITE DM00863 - GENERAL ARRANGEMENT LAYOUT PLAN
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660.30255-G-1250	SITE SH00276 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1260	SITE DM00808 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1261	SITE DM00808 - CROSS SECTIONS SHEET
660.30255-G-1262	SITE DM00808 - TREATMENT ELEVATION SHEET
660 20255 C 1270	CITE MT00009 CENEDAL ADDANICEMENT LAVOLIT DI ANI
660.30255-G-1270	SITE MT00008 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1271	SITE MT00008 - CROSS SECTIONS SHEET
660.30255-G-1272	SITE MT00008 - ELEVATION & DETAILS SHEET
660.30255-G-1280	SITENR00016 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1281	SITE NR00016 - CROSS SECTIONS SHEET
660.30255-G-1290	SITE AQ00001 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1300	SITE DM00523 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1310	SITE DM00822 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1320	SITE DM00890 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-1330	SITE DM00899 - GENERAL ARRANGEMENT LAYOUT PLAN
660.30255-G-2000	TYPICAL DETAILS & SPECIFICATIONS SHEET 1
660.30255-G-2001	TYPICAL DETAILS & SPECIFICATIONS SHEET 2
660.30255-G-2002	TYPICAL DETAILS & SPECIFICATIONS SHEET 3
660.30255-G-2003	TYPICAL DETAILS & SPECIFICATIONS SHEET 4
660.30255-G-2010	TYPICAL DETAILS & SPECIFICATIONS SHEET 5
660.30255-G-2011	TYPICAL DETAILS & SPECIFICATIONS SHEET 6
660.30255-G-2012	TYPICAL DETAILS & SPECIFICATIONS SHEET 7
660.30255-G-2013	TYPICAL DETAILS & SPECIFICATIONS SHEET 8
660.30255-G-2014	TYPICAL DETAILS & SPECIFICATIONS SHEET 9

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SITE NUMBER	SITE LOCATION	EASTING	NORTHING
DM00865	Abernathys Rd	266450	6145038
SH00290	Bamarang Rd	271979	6135292
DM00706	Browns Mountain Rd	273244	6145779
AC00088	Bunkers Hill Rd	274285	6159006
DM00548	Bunkers Hill Rd	275018	6160966
DM00549	Bunkers Hill Rd	274459	6159432
DM00869	Bunkers Hill Rd	274354	6159116
DM00870	Bunkers Hill Rd	274402	6159173
SH00282	Burrier Rd	267939	6137163
SH00288	Burrier Rd	271051	6135673
SH00292	Burrier Rd	268817	6136420
DM00555	Foremans Rd	287060	6155133
DM00882	Foremans Rd	287028	6155134
DM00610	Hughes Rd	267764	6140045
DM00611	Hughes Rd	267775	6140040
DM00805	Kangaroo Valley Rd	279846	6152399
DM00806	Kangaroo Valley Rd	279546	6152162
DM00533	Mount Scanzi Rd	268294	6149554
DM00577	Mount Scanzi Rd	269153	6150610
DM00718	Mount Scanzi Rd	269141	6150636
DM00755	Mount Scanzi Rd	268187	6149366
DM00757	Mount Scanzi Rd	268466	6149581
DM00864	Mount Scanzi Rd	268507	6149629
NH00013	Mount Scanzi Rd	268449	6149585
DM00583	Upper Kangarooo River Rd	278778	6156987
DM00828	Upper Kangarooo River Rd	280258	6161915
NH00011	Upper Kangarooo River Rd	279513	6157304
DM00513	Wattamolla Rd	288246	6154987
DM00863	Wattamolla Rd	285173	6154673
SH00276	Wogamia Rd	272677	6137591
DM00808	Woodhill Mountain Rd	288281	6154144
MT00008	Woodhill Mountain Rd	288085	6154219
NR00016	Yalwal Rd	271466	6134664
AQ00001	Upper Kangarooo River Rd	278908	6157117
DM00523	Suffolk Road	277515	6116275
DM00822	Mount Scanzi Rd	269174	6150402
DM00890	Burrier Rd	269100	6136495
DM00899	Bamarang Rd	272066	6135240

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		DATE	DESCRIPTION				DT

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SHOALHAVEN CITY COUNCIL

PROJECT:
LANDSLIDE REMEDIATION DESIGN OF VARIOUS SITES

DRAWING SCHEDULE & COORDINATES TABLE

FOR CONSTRUCTION A1 DO NOT SCALE THIS DRAWING IF IN DOUBT ASK

DRAWING NUMBER:

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	A B C D E F G H	I J K L M N O P Q	R S T U V W X Y
	EXCAVATION	99. BOTTOM COVER FOR FOOTINGS SHALL BE 75mm UNLESS NOTED OTHERWISE.	STRUCTURAL STEEL
1	71. SUB VERTICAL EXCAVATION MUST NOT EXCEED 1.5m DEPTH PRIOR TO INSPECTION BY A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER.	100. DETAILS OF THE PROPOSED MIX TO BE SUBMITTED & APPROVAL OBTAINED PRIOR TO POURING ANY CONCRETE.	124. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS4100 AND AS1554 EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
	72. WHERE UNFAVOURABLE EXCAVATION CONDITIONS EXIST SUCH AS SHALLOW LARGE FLOATING BOULDERS, SEEK ENGINEERING ADVICE FROM A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER.	101. IN LIEU OF TRIAL MIX OF CONCRETE TO BE USED, RECENT TRIALS AND PRODUCTION RUNS FOR SIMILAR MIX DESIGNS MAY BE SUBMITTED FOR CONSIDERATION AS EVIDENCE OF COMPLIANCE WITH THE	125. ALL MATERIAL TO BE GRADE 250 HOT ROLLED PLATES COMPLYING WITH AS 3678 U.N.O.
2	73. WHERE SHALLOW BEDROCK IS ENCOUNTERED PRIOR TO DESIGN FOUNDATION DEPTH, SEEK ENGINEERING	REQUIREMENTS OF THIS SPECIFICATION WITH REGARD TO MIX DESIGN. 102. THE CONTRACTOR SHALL ALLOW AT LEAST 1 TEST SECTION EVERY 25 CUBIC METRE OF CONCRETE MIX	126. WELDING SHALL BE CARRIED OUT IN ACCORDANCE WITH AS 1554.1 AND SHALL BE GP CATEGORY U.N.O. 127. WELDING CONSUMABLES SHALL BE E49XX OR W5OX.
	ADVICE FROM A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER. 74. TEMPORARY CUT FACES TO BE BATTERED BACK TO A SUITABLE SLOPE TO MAINTAIN STABILITY AT ALL	BROUGHT TO SITE TO DEMONSTRATE COMPLIANCE WITH THIS DOCUMENT. THE FOLLOWING TEST CYLINDERS AND TEST DATA SHALL BE OBTAINED FROM EACH TEST SECTION:	128. INSPECTION SHALL BE CARRIED OUT TO AS 1554.1
3	TIMES. 75. DELINEATE A MINIMUM EXCLUSION ZONE FROM THE EDGE OF THE EXCAVATION EQUAL TO THE HEIGHT OF	A. 7 DAY COMPRESSIVE STRENGTH - 3 CYLINDERS	129. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT STEELWORK IS SECURELY BRACED TEMPORARILY AS NECESSARY TO STABILISE THE STRUCTURE DURING ERECTION.
	EXCAVATION AT ALL TIMES. NO SURCHARGE LOADS ARE TO THE PLACED WITHIN THIS ZONE SUCH AS VEHICLES AND /OR CONSTRUCTION MATERIALS.	B. 14 DAY COMPRESSIVE STRENGTH - 3 CYLINDERSC. 28 DAY COMPRESSIVE STRENGTH - 3 CYLINDERS	130. THE BUILDER SHALL PROVIDE ALL CLEATS AND DRILL ALL HOLES NECESSARY FOR FIXING STEEL TO STEEL WHETHER OR NOT DETAILED ON THE DRAWINGS.
4	76. IF ENCOUNTERED, CARE SHALL BE TAKEN TO MINIMISE DISTURBANCE TO THE UNDERLYING DRYSTONE WALL. ANY DISLODGED DRYSTONE AND/OR VOID CREATED BY EXCAVATION SHALL BE REPLACED AND INFILLED WITH GRANULAR FILL.	103. THE AVERAGE STRENGTH OF THE THREE CYLINDERS TESTED AT 28 DAYS SHALL EXCEED THE SPECIFIED CHARACTERISTIC STRENGTH BY AT LEAST 1.65 TIMES THE STANDARD DEVIATION OF THE RESULTS FOR THAT TRIAL MIX.	SEALANTS AND FILLERS 131. WHERE JOINTS DAYLIGHT AT FORMED JOINTS OR EDGES, THE SEALANT (BOTH TEMPORARY AND
5	77. EXCAVATED MATERIALS SHALL BE STOCKPILED WITH HEIGHT NOT EXCEEDING 2 M.	104. CONCRETE NOT IN ACCORDANCE WITH THIS SPECIFICATION OR CONCRETE WHICH IS DEFECTIVE SHALL, AT THE DIRECTION OF THE PRINCIPAL, BE REMOVED FROM THE JOB AND REPLACED BY THE CONTRACTOR.	PERMANENT) MUST EXTEND DOWN THE VERTICAL FACE OF JOINTS TO PREVENT THE INGRESS OF INCOMPRESSIBLES DURING SUBSEQUENT PAVING. DIMENSIONS MUST BE EQUIVALENT TO THOSE FOR THE TOP JOINT BUT ROTATED 90°.
	78. CREATE SEPARATE STOCKPILES FOR DIFFERENT SOIL TYPES. DO NOT MIX SUBGRADE WITH PAVEMENT OR TOPSOIL. PROVIDE ADEQUATE WATERING, DRAINAGE AND EROSION CONTROL.	105. THE CONCRETE SHALL BE PLACED IN SUCH A MANNER TO AVOID SEGREGATION OR LOSS OF MATERIALS. MAXIMUM FALL OF CONCRETE 1500mm OR USE ENCLOSED CHUTES OR SIMILAR.	132. SEALANTS AND FILLERS MUST COMPLY WITH RMS R83.
6	79. DO NOT ALLOW TRAFFIC ON STOCKPILES.80. ALL FINAL SURFACES SHALL BE CONSTRUCTED TO MATCH EXISTING LEVELS UNLESS OTHERWISE	106. ALL EXTERNAL HORIZONTAL SURFACES TO HAVE A NOMINAL SURFACE FALL TO PREVENT WATER COLLECTION AND PONDING.	DRILLING OF SOIL NAIL HOLES 133. DRILLING FOR NAILS AND ANCHORS IS EXPECTED TO ENCOUNTER RELATIVELY HIGH STRENGTH COLLUVIUM
	APPROVED BY THE PRINCIPAL. DRAINAGE (GENERAL)	CONCRETE CURING	BOULDERS AND BEDROCK. SELECTION OF DRILLING EQUIPMENT TO BE SUITABLE FOR EXPECTED GROUND CONDITIONS. USE ROTARY OR ROTARY-PERCUSSION METHODS AND EQUIPMENT FOR DRILLING TO ENSURE
7	81. PRIOR TO CONSTRUCTION OF THE SURFACE DRAIN SPECIAL CONSIDERATION SHALL BE MADE IN CONSTRUCTING THE CUTOFF SUBSOIL DRAINAGE WHICH SHALL BE CONNECTED TO THE LOCAL DRAINAGE	107. CURING COMPOUNDS SHALL ONLY BE USED ON APPROVAL FROM THE PRINCIPAL. THEY SHALL BE WAX BASED, BE SUITABLY COLOURED FOR IDENTIFICATION PURPOSES, AND SHALL BE TESTED AND MEET ALL OF THE REQUIREMENTS OF AS 3799 - "LIQUID MEMBRANE-FORMING CURING COMPOUNDS FOR CONCRETE".	MINIMAL REMOLDING OF IN-SITU MATERIALS WITHIN THE DRILL HOLES. DO NOT USE DRILLING FLUIDS OTHER THAN AIR, UNLESS OTHERWISE APPROVED BY THE PRINCIPAL. 134. THE CONTRACTOR SHALL INSTALL TEMPORARY CASING TO PREVENT DRILL-HOLE COLLAPSE WHERE
	NETWORK. 82. RESHAPE THE EXISTING SURFACE DRAINAGE AND LINED WITH 40MPA SHOTCRETE WITH DOSAGE RATE OF	108. CURING COMPOUNDS SHALL BE SUITABLY COLOURED FOR IDENTIFICATION PURPOSES.	REQUIRED.
8	15KG/M3. 83. STEEL FLOAT ALL SHOTCRETE SURFACES.	109. THE CONTRACTOR SHALL DEMONSTRATE TO THE PRINCIPAL THAT THE CURING COMPOUND IS SUITABLE FOR ALL AMBIENT TEMPERATURES, AND THE PARTICULAR CURING COMPOUND SHALL BE APPROVED PRIOR	135. WHERE THE GROUND IS SUSCEPTIBLE TO COLLAPSE CASING SHALL BE USED. 136. HOLE SHALL BE CLEANED OF ALL LOOSE OR DELETERIOUS MATERIAL ON COMPLETION OF DRILLING AND
	GABIONS AND RENO MATTRESS	TO USE. 110. CURING COMPOUNDS SHALL NOT BE BASED ON PVA OR CHLORINATED RUBBER.	THE OPENING SEALED TO PREVENT ENTRY FROM FOREIGN MATTER. SOIL NAIL AND FACING REINFORCEMENT
9	84. GABIONS: DOUBLE TWISTED, HEXAGONAL WIRE MESH GABIONS OF NOMINAL 80x100 MESH, WITH 3.4mm O/D FRAME WIRE AND 2.7mm MESH WIRE, COMPLETE WITH DIAPHRAGMS AT 1M CENTRES. ALL COMPONENTS TO BE MECHANICALLY CONNECTED AT THE PRODUCTION FACILITY WITH MINIMUM CONNECTION STRENGTH	111. CURING COMPOUNDS SHALL BE SUPPLIED WITH A CERTIFICATE OF COMPLIANCE FROM THE MANUFACTURER IN ACCORDANCE WITH AS 3799 - SECTION 3.3. A COPY OF THIS SHALL BE PROVIDED TO THE PRINCIPAL PRIOR TO CONCRETE BEING MIXED.	137. SOIL NAILS TO BE DOUBLE ENCAPSULATED AND HOT-DIP GALVANIZED IN ACCORDANCE WITH AS4680. 138. DRILL HOLES FOR NAILS MUST BE AT LEAST 150mm DIAMETER AND PREPARED AS PER TFNSW R64 U.N.O.
	REQUIREMENTS AS PER TABLE 2 OF ASTM A975, INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.	112. WATER FOR CURING SHALL BE POTABLE WATER WITH A pH BETWEEN 5 AND 7, AND SHALL NOT CONTAIN IMPURITIES IN SUFFICIENT QUANTITY TO CAUSE DISCOLOURATION OF THE CONCRETE.	139. SOIL NAILS TO BE GRADE D500N OR EQUIVALENT HIGH STRENGTH DEFORMED BARS.
10	85. ALL WIRE SHALL BE MILD STEEL, GALMAC COATED (95% ZINC + 5% ALUMINIUM MISCHMETAL ALLOY) TO THE REQUIREMENTS OF ASTM B750-99 AND HEAT BONDED THROUGH EXTRUSION WITH AN ADDITIONAL 0.5MM	113. STEAM CURING IS NOT PERMITTED.	140. SOIL NAILS MUST BE INSTALLED AS SHOWN IN THE SCHEDULES. 141. PROVIDE CENTRALISERS FOR NAILS AT INTERVAL NOT EXCEEDING 2000mm. →
	HEAVY DUTY GREY PVC COATING.	REINFORCEMENT (FOOTINGS)	142. STEEL MESH MUST BE GRADE D500N IN ACCORDANCE WITH AS4671.
11	86. GABIONS MUST HAVE A VALID BRITISH BOARD OF AGRÉMENT (BBA) CERTIFICATE FOR GALFAN + PVC WIRE. 87. THE GABION FILL MATERIAL SHALL BE IN ACCORDANCE WITH AS 2758.4 - 2000. THE MINIMUM ROCK SIZE	114. STEEL REINFORCEMENT MUST BE IN ACCORDANCE WITH AS 4671, DOWELS MUST COMPLY WITH AS 3679.1.115. MESH REINFORCEMENT SIZE MUST BE IN ACCORDANCE WITH DRAWING DETAILS.	143. BEARING PLATE MUST BE GRADE D250N IN ACCORDANCE WITH AS3678 144. SOIL NAIL FACING SHOTCRETE COVER TO REINFORCEMENT FROM AIR = 50mm
	SHALL BE 100mm AND THE MAXIMUM ROCK SIZE SHALL BE 250mm.	116. REINFORCEMENT MAY BE DISPLACED SLIGHTLY WHERE NECESSARY TO CLEAR DOWELS, ANCHOR BOLTS,	145. SOIL NAIL FACING SHOTCRETE COVER TO REINFORCEMENT FROM GROUND = 75mm
12	88. BIDIM A34 NON-WOVEN GEOTEXTILE (OR APPROVED EQUIVALENT) TO BE PLACED AT ALL ROCKFILL-SOIL INTERFACE, INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.	FORMED HOLES AND RECESSES. 117. AUSTRALIAN STANDARD BAR SHAPES ARE IN ACCORDANCE WITH AS 1100.501.	146. SOIL NAIL 40mm COVER IS ACCEPTABLE TO STRIP DRAIN. CONSTRUCTION METHODOLOGY TO ENSURE COVER TO STRIP DRAIN IS ACHIEVED. LOCAL ADDITIONAL EXCAVATION MAY BE REQUIRED.
	89. ROCK FILL MATERIAL BEHIND THE GABION SHALL HAVE A MINIMUM SIZE OF 75mm AND MAXIMUM SIZE OF 200mm. ROCK FILL TYPE A MATERIAL SHALL BE IN ACCORDANCE WITH AS 2758.4-2000.	118. BAR SIZE IS THE NOMINAL DIAMETER IN MILLIMETRES, OR THE AS/NZS 4671 FABRIC NUMBER.	147. STEEL MESH MUST BE LAPPED AT ONE LOCATION NEATLY BY THREE WIRES SO AS NOT TO CREATE
13	PILES AND FOUNDATIONS	119. THE GRADE OF REINFORCEMENT, IF NOT STATED ON THE DRAWINGS SHALL BE D500N TO AS/NZS 4671.	SHADOW IN THE SHOTCRETE. 148. ALL STEEL MESH LAPS AND STARTER BARS SHALL BE CLEANED TO BARE MESH PRIOR TO FIXING THE
	90. THE BEARING CAPACITY AT FOUNDING LEVEL SHALL BE VERIFIED BY A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF CONCRETE.	120. BAR BENDING AND HOOK DETAILS SHALL BE IN ACCORDANCE WITH SECTION 5.13 OF AS 5100.121. LAPS NOT SHOWN ON THE DRAWINGS SHALL BE STAGGERED SO THAT NO MORE THAN 50% OF BARS ARE	ADJOINING STEEL OR SPRAYING THE NEXT PANEL. 149. STEEL MESH LAPS MUST BE STAGGERED AND CUT SUCH THAT ONLY TWO SHEETS ARE LAPPED AT ONE
14	91. THE FOUNDATION MATERIAL SHALL BE INSPECTED BY A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER TO CONFIRM THE EXPOSED FOUNDATION MATERIAL SATISFIES THE DESIGN ASSUMPTIONS. ANY MATERIAL	LAPPED IN ANY CROSS SECTION. 122. REINFORCEMENT SYMBOLS COMMONLY USED ARE:	LOCATION. LAPS ARE NOT ALLOWED OVER STRIP DRAINS.
17	ASSESSED TO BE UNSUITABLE (INCLUDING EXISTING FILL) SHALL BE REMOVED AND REPLACED. 92. CLEANLINESS OF PILE BASES SHALL BE CONFIRMED ON SITE BY A SUITABLY QUALIFIED GEOTECHNICAL	N DENOTES GRADE 500 MPa N BARS TO AS 4671.	150. NAILS, BEARING PLATES, WASHERS AND ALL STEEL REINFORCEMENT MUST BE HOT DIP GALVANISED AND IN ACCORDANCE WITH AS4680 WITH A COATING WEIGHT OF 600G/M2.
15	ENGINEER PRIOR TO CASTING OF PILES.	R DENOTES GRADE 250 R HOT ROLLED PLAIN BARS TO AS 4671. SL DENOTES SQUARE REINFORCING FABRIC TO AS 4671.	151. NAIL NUTS MUST BE GRADE C COMPLYING WITH AS1112.3 AND PROPERTY CLASS 5 COMPLYING WITH AS4291.2 OR EQUIVALENT TO SUIT THE THREADED END OF SOIL NAIL.
15	93. ALL BORED PILE WORK SHALL BE IN ACCORDANCE WITH AS2159.94. STEEL CASING (IF REQUIRED) AND REINFORCING CAGE SHALL BE SECURELY AND ACCURATELY HELD IN	RL DENOTES RECTANGULAR REINFORCING FABRIC TO AS 4671.	
	POSITION DURING CONCRETÉ PLACEMENT. 95. BORED PILES SHALL BE CONCRETED ON THE DAY OF APPROVAL UNLESS PERMISSION IS GIVEN OTHERWISE.	LTM DENOTES TRENCH MESH WHICH SHALL COMPLY WITH AS 4671. 123. THE METHOD USED TO LABLE REINFORCEMENT ON THE DRAWINGS IS AS FOLLOWS:	
16	96. BORED PILE TOE LEVELS, WHERE SHOWN ARE ESTIMATES ONLY AND SHALL BE ESTABLISHED DURING SITE		
	INSPECTION OF WORK IN PROGRESS. CONCRETE	NUMBER OF BARS IN GROUP BAR AND TYPE	
17	97. MINIMUM 28 DAY CHARACTERISTIC COMPRESSIVE STRENGTH OF ALL CONCRETE IS 40 MPa.	17Ń20-250 SPACING IN mm	
	98. COVER TO REINFORCEMENT NEAREST TO THE CONCRETE SURFACE SHALL BE 50MM UNLESS NOTED OTHERWISE.	NOMINAL BAR SIZE IN mm	
18			
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PLOT DATE b-2023 4:11:48	THE COMPANY. THIS DRAWING IS NOT TO BE I	JSED FOR DRG 201524 DATE MB/DT 19.10.2022 F: +61 2 4249 1000 www.slrconsulting.com City	Council DRAWING TITLE: GENERAL NOTES SHEET 2
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A B C D E F G H	I J K L M N O P Q	R S T U V W X Y
GROUT REQUIREMENTS	SAFETY BARRIERS	D. INSPECTION & APPROVAL OF STEEL SURFACES PRIOR TO PAINTING AND PROTECTIVE COATINGS.
152. GROUTS MUST HAVE HIGH BLEED RESISTANCE, LOW SHRINKAGE AND HIGH FLUIDITY. DO NOT USE ADDITIVES OR ADMIXTURES WITHOUT THE APPROVAL OF THE PRINCIPAL.	177. RAIL AND RAIL STIFFENING PIECES ARE FROM 2.7 OR 3.5 BMT GRADE HA350 STEEL TO AS 1594 AND HOT DIP GALVANISED TO AS 4680 AFTER FABRICATION. FLAME CUTTING TO RAIL IS NOT PERMITTED. RAIL TO BE	E. REVIEW & RELEASE OF METHODOLOGY FOR INSTALLATION AND ERECTION.F. INSPECTION OF ERECTED STEEL WORK PRIOR TO ANY COVERINGS.
153. MINIMUM COMPRESSIVE STRENGTH OF GROUT MUST BE 40MPA AT 28 DAYS.	STAMPED 350/2.7 BMT (OR SIMILAR). 178. RAIL 2.7BMT CAN BE SUPPLIED CURVED TO A MINIMUM RADIUS OF 5000. RAIL 3.5BMT CAN BE SUPPLIED	194. SOIL NAILS AND SHOTCRETE FACING
154. GROUT FLUIDITY, BLEED AND COMPRESSIVE STRENGTH TESTING TO BE IN ACCORDANCE WITH TFNSW R64 CLAUSE 3.4.3	CURVED TO A MINIMUM RADIUS OF 6000.	A. REVIEW & RELEASE OF MATERIAL CERTIFICATES (TFNSW R64 CL. 2.1).
SOIL NAIL TESTING PROCEDURE	179. POSTS AND BLOCKOUT PIECES ARE FROM 4.3 BMT PLATE GRADE HA300 STEEL TO AS 1594 AND HOT DIP GALVANISED TO AS 4680 AFTER FABRICATION.	B. REVIEW & RELEASE OF GROUT AND SHOTCRETE MIX, INCLUDING TEST RESULTS (TFNSW R64 CL. 2.2.7 & TFNSW R68 CL. 3.8.1).
155. NAIL TESTING TO BE CONDUCTED IN ACCORDANCE WITH TFNSW R64.	180. BMT = BASE METAL THICKNESS.	C. REVIEW & RELEASE OF CONSTRUCTION METHOD STATEMENT (TFNSW R64 3.1).
156. CONTRACTOR TO CONFIGURE TEST NAILS (INCLUDING NAIL DIAMETER	181. STEEL BASE PLATE AND BOTTOM PLATE ARE TO AS 3678, GRADE HD250. POSTS TO BE WELDED TO BASE	D. INSPECTION & APPROVAL OF EXTENT OF WORKS AND SET-OUT OF NAIL LOCATIONS.
AND BEARING PLATE) TO ENSURE 200% OF THE WORKING BOND STRESS CAN BE ACHIEVED PRIOR TO 80%	PLATE. POSTS AND PLATES HOT DIP GALVANISED TO AS 4680 AFTER FABRICATION	E. WITNESS OF INSTALLATION OF PRODUCTION NAILS (TFNSW R64 CL. 3.4).
OF THE BAR YIELD LOAD. 157. SUITABILITY TESTING ARE TO BE COMPLETED PRIOR TO INSTALLATION OF PRODUCTION NAILS.	182. HEXAGON BOLTS TO AS 1111 (GRADE 4.6). HEXAGON NUTS TO AS 1112 (GRADE 5). NUTS SHALL BE TAPPED TO SUIT GALVANISED THREADS. BLACK STEEL WASHERS, LARGE SERIES TO AS 1237. BOLTS, NUTS AND	F. WITNESS OF EXPOSED SLOPE FACE AFTER CLEARING OF EACH SECTION (TFNSW R64 CL. 3.3).
158. A TOTAL OF 3% OF PERMANENT NAILS SHALL BE SUBJECTED TO ACCEPTANCE TESTS.	WASHERS SHALL BE HOT DIP GALVANISED IN ACCORDANCE WITH THE REQUIREMENTS OF AS 1214.	G. INSPECTION & APPROVAL OF GROUTING OF NAILS (R64 CL 3. 4. 3. 4).
159. LOCATIONS OF THE SUITABILITY AND ACCEPTANCE TEST SOIL NAILS TO BE CONFIRMED ON SITE.	183. NUTS SHALL BE SNUG TIGHT TO AS 4100.	H. REVIEW & APPROVAL OF SUITABILITY TEST RECORD (TFNSW R64 CL. 5.2.1).
SHOTCRETE	184. TERMINAL CONNECTORS ARE FROM 2.7 BMT GRADE HA350 STEEL TO AS 1594 AND HOT DIP GALVANISED TO AS 4680 AFTER FABRICATION.	 I. REVIEW & APPROVAL OF TEST RESULTS FOR ACCEPTANCE TEST NAILS (TFNSW R64 CL. 5.2.2). J. INSPECTION & APPROVAL OF SURFACE PREPARATION FOR MESH PLACEMENT AND SHOTCRETING TFNSV
160. SHOTCRETE TO BE IN ACCORDANCE WITH TFNSW R68.	185. DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES	R64 CL. 6.2 & TFNSW R68 CL. 4.2).
161. MINIMUM COMPRESSIVE STRENGTH OF SHOTCRETE MUST BE 40MPA AT 28 DAYS. USE SHRINKAGE LIMITED CEMENT IN SHOTCRETE IN ACCORDANCE WITH SPECIFICATION TFNSW R68 AND TFNSW QA3211.	ARE NOMINATED. TRAFFIC BARRIERS SHOULD SATISFY R132. HOLD POINTS, WITNESS POINTS AND APPROVALS	K. WITNESS OF SHOTCRETE MESH PLACEMENT AND WALL DRAINAGE (R68 CL. 5.5 AND CL. 5.6).L. WITNESS OF SHOTCRETE PLACEMENT (TFNSW R68 CL. 7).
162. SHOTCRETE MIX DESIGN TO EXPOSURE CLASSIFICATION B:2 IN ACCORDANCE WITH TENSW R64 CLAUSE 2.3.3.	186. A SUITABLY QUALIFIED GEOETCHNICAL ENGINEER TO BE PRESENT ON SITE DURING CONSTRUCTION. GROUND	M. REVIEW & APPROVAL OF SHOTCRETE TEST RESULTS (R68 CL 8.5).
163. SHOTCRETE QUALITY TESTING IN ACCORDANCE WITH TFNSW R68 CLAUSE 8.5 AND ANNEXURE R68/L. 164. APPROPRIATE THICKNESS GAUGES SHALL BE FIXED TO THE STEELWORKS TO ALLOW PROOF OF ADEQUATE	CONDITIONS AND DESIGN ASSUMPTIONS SHALL BE VALIDATED DURING CONSTRUCTION. 187. THE CONTRACTOR SHALL PROVIDE TO THE PRINCIPAL'S REPRESENTATIVE A MINIMUM OF 2 WORKING DAYS'	
COVER.	NOTICE FOR ANY INSPECTION AND 7 DAYS FOR ANY REVIEWS OF SHOP DRAWINGS AND ALTERNATIVE DESIGNS.	
<u>FIBRECRETE</u>	188. THE GENERAL AND PROJECT START UP MANDATORY HOLD POINTS ARE:	
165. FIBRECRETE TO BE IN ACCORDANCE WITH TFNSW B82. 166. MINIMUM COMPRESSIVE STRENGTH OF FIBRECRETE MUST BE 40MPA AT 28 DAYS. USE SHRINKAGE LIMITED	A. REVIEW & RELEASE OF WHS PLAN, INCLUDING SWMS.	
CEMENT IN FIBRECRETE IN ACCORDANCE WITH SPECIFICATION TENSW B82 AND TENSW QA3211.	B. REVIEW & RELEASE OF CONSTRUCTION STAGING PLANS.	
167. FIBRECRETE MIX DESIGN TO EXPOSURE CLASSIFICATION B:2 IN ACCORDANCE WITH TFNSW R64 CLAUSE 2.3.3.	C. REVIEW & RELEASE OF CONSTRUCTION PROGRAM.	
168. SHOTCRETE QUALITY TESTING IN ACCORDANCE WITH TFNSW B82.	D. REVIEW & RELEASE OF CONSTRUCTION ENVIRONMENTAL SITE MANAGEMENT PLAN (CEMP).	
169. APPROPRIATE THICKNESS GAUGES SHALL BE FIXED TO THE STEELWORKS TO ALLOW PROOF OF ADEQUATE COVER.	E. REVIEW & RELEASE OF PROJECT QUALITY PLAN (INCLUDING ITP'S) 189. DEMOLITION (AS REQUIRED)	
DRAINAGE (SOIL NAILING)	A. REVIEW & RELEASE OF METHODOLOGY FOR DEMOLITION.	
170. 150mm HDPE STRIP FILTER DRAIN (FLEXIBLE CUSPATED DRAINS) TO BE IN ACCORDANCE WITH TFNSW QA3557.	B. WITNESS PRIOR TO COMMENCEMENT OF DEMOLITION.	
171. BOTTOM OF THE STRIP DRAINS DAYLIGHT AT BOTTOM OF SHOTCRETE WALL FACING.	C. PROVISION OF ANY LICENSES AND AUTHORITY APPROVALS.	
172. HDPE STRIP DRAIN TO BE CORRUGATED CORE PERFORATED AND MUST BE INSTALLED DIAGONALLY ACROSS SLOPE FACE AT 45°.	190. SURVEY AND SET OUT	
173. STRIP DRAINS MUST BE CHASED INTO SOIL SLOPE TO ALLOW FULL SHOTCRETE THICKNESS AT ALL	191. EXCAVATION AND EARTHWORKS	
LOCATIONS.	A. REVIEW & RELEASE OF METHODOLOGY FOR EXCAVATION, SHORING AND FILLING. B. REVIEW & RELEASE OF IMPORTED FILL MATERIAL.	
174. WHERE CONNECTION IS TO BE MADE TO AN EXISTING DRAINAGE STRUCTURE OR OPEN DRAIN THE POSITION AND LEVEL OF EXISTING DRAINAGE STRUCTURE SHALL BE CONFIRMED PRIOR TO CONSTRUCTION. BLEND	i. PROVIDE EVIDENCE OF SERVICE LOCATION, PRIOR TO ANY EXCAVATION, AND COMPLY TO THE	
CONNECTIONS SMOOTHLY TO ENSURE PROPER DRAINAGE AT ALL POINTS.	PRINCIPAL'S EXCAVATION PERMIT REQUIREMENTS.	
SPECIFICATIONS (SOIL NAILING)	ii. DENSITY TEST RESULTS OF FILLED AND COMPACTED MATERIAL.	
175. ALL SOIL NAILING MATERIALS AND WORK IS TO COMPLY WITH THE FOLLOWING TFNSW PROJECT SPECIFIC SPECIFICATIONS:	C. WTINESS BEARING CAPACITY OF EXCAVATIONS PRIOR TO POURING OF ANY FOUNDATIONS BY GEOTECHNICAL ENGINEER.	
A. R64 SOIL NAILING	192. CONCRETE	
B. R68 SHOTCRETE WITHOUT FIBRES	A. REVIEW & RELEASE OF CONCRETE MIX DESIGN. THIS INCLUDES ASSESSMENT OF SLUMP TEST RESULTS ON CONCRETE DELIVERY.	
C. B82 SHOTCRETE WITH FIBRES	B. REVIEW & RELEASE OF CONCRETE SURFACES (AND REINFORCEMENT CONDITION) FOLLOWING	
D. R178 REVEGETATION 176. ALL SOIL NAILING MATERIALS AND WORK IS TO COMPLY WITH THE FOLLOWING TFNSW QA STANDARD	DEMOLITION, SCABBLING, CUTTING AND SAWING.	
SPECIFICATIONS:	C. WITNESS OF COMPLETED REINFORCEMENT FIXED IN PLACE.	
A. R23 PLASTIC FLEXIBLE PIPES	D. WITNESS OF COMPLETED FORMWORK. E. REVIEW & APPROVAL OF CONCRETE TEST RESULTS.	
B. R53 CONCRETE FOR GENERAL USE MORTAR AND GROUT	F. WITNESS PRIOR TO POURING CONCRETE.	
C. R55 ROCK FILLED GABIONS AND MATTRESSES	193. STRUCTURAL STEEL AND OTHER METALS	
D. R63 GEOTEXTILES E. R71 UNBOUND AND MODIFIED PAVEMENT COURSE	A. SHOP DETAILS FOR REVIEW AND COMMENT.	
F. 3557 FLEXIBLE STRIP FILTER DRAINS	B. INSPECTION & APPROVAL OF FABRICATED ELEMENTS PRIOR TO DELIVERY.	
	C. WELD TESTING RESULTS, PRIOR TO DELIVERY.	
THIS DRAWING IS THE PROP		CLIENT: SHOALHAVEN CITY COUNCIL
SLR CONSULTING AUSTRAI MUST NOT BE RETAINED, CO	LIA AND WP/GL 20.10.2022 INNOVATION CAMPUS, SQUIRES WAY NORTH WOLLONGONG NSW 2500	PROJECT: LANDSLIDE REMEDIATION DESIGN OF VARIOUS SITES
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1 24.02.2023 ISSUED FOR CONSTRUCTION DT	The content contained within this document may be based on third party data	UCTION A1 DO NOT SCALE THIS DRAWING N/A SCALE: DRAWING NUMBER: 15 N/A 660.30255-G-1004
DATE DESCRIPTION jects-SLR\660-SrvWOL\660.30255.00000 Detailed Geotechnical Analysis and Desig\06 SLR Data\01 CADGIS\CAD\660.30255-G-1000.dwg	DT 25.10.2022 accuracy of any such information.	UCTION AT IF IN DOUBT ASK N/A 660.30255-G-1004

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