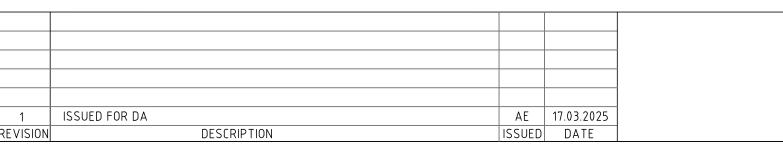
# STORMWATER MANAGEMENT 41 VIRTURE STREET, CONDELL PARK **DEVELOPMENT APPLICATION**

DRAWING No.	DESCRIPTION
SW00	COVER SHEET
SW01	STORMWATER MANAGEMENT PLAN





	COUNCIL ENGINEER
2.	FINAL LOCATION OF

PROCEEDING

4.1. PRIOR TO INSTALLATION OF EROSION AND SEDIMENT CONTROL STRUCTURES

THE OWNER/S.

SATISFACTION OF COUNCIL'S ENGINEER.

BENCH MARKS ONLY.

					DIA
					M (from t
					Location
1	N	lot	subje	ect to v	ehicular loading
	(a	)	with	out pa	vement—
			(i)	for si	ngle dwellings
			(ii)	for ot	ther than Item (i
	(ł	)	with conc		nent of brick or
2	S	ub	ject to	vehic	ular loading:
	(a	)	othe	r than	roads—
			(i)	witho	ut pavement
			(ii)	with	pavement of—
				(A)	reinforced con vehicular load
				(B)	brick or unrein concrete for li loading
	(ł	)	road	s—	
			(i)	seale	d
			(ii)	unsea	led
3					struction equipn at conditions
* †	E	Bel	low th	e unde	y above the top rside of the pave pliance with AS



## GENERAL

ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE LOCAL ING SPECIFICATIONS.

F NEW DOWNPIPES TO BE DETERMINED BY BUILDER/ARCHITECT AT TIME OF CONSTRUCTION.

THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE ARCHITECTS AND OTHER CONSULTANT DRAWINGS. ANY DISCREPANCIES MUST BE REFEREED TO THE ENGINEER BEFORE

INSPECTIONS BY THE CERTIFIEING AUTHORITY SHALL BE CARRIED OUT FOR ALL THE CIVIL WORKS PRIOR TO RELEASE OF THE HOLD POINTS INCLUDING THE FOLLOWING STAGES:

FINAL INSPECTION AFTER ALL WORKS ARE COMPLETED AND 'WORK AS EXECUTED' PLANS HAVE BEEN SUBMITTED TO COUNCIL

MAKE SMOOTH JUNCTIONS WITH EXISTING WORKS.

NO WORK TO BE CARRIED OUT ON COUNCIL PROPERTY OR ADJOINING PROPERTIES WITHOUT THE WRITTEN PERMISSION FROM

VEHICULAR ACCESS AND ALL SERVICES TO BE MAINTAINED AT ALL TIMES TO ADJOINING PROPERTIES AFFECTED BY CONSTRUCTION.

ALL RUBBISH, BUILDINGS, SHEDS AND FENCES TO BE REMOVED TO

THE CONTRACTOR SHALL OBTAIN ALL LEVELS FROM ESTABLISHED

#### WARNING **BEWARE OF UNDERGROUND SERVICES**

The locations of underground services are approximate only and their exact position should be proven on site. No guarantee is given that all existing services are shown. Locate all underground services before commencement of works L 1100 BEFORE YOU DIG www.**1100**.com.au

> TABLE 7.1 11NIMUM PIPE COVER finished surface to top of pipe)

		millimetres				
	Cast iron, ductile iron, galvanized steel	Other authorized* products				
	Minimum cover					
ng:						
5	Nil	100				
(i)	Nil	300				
or unreinforced	Nil†	50†				
	300	450				
_	500	450				
oncrete for heavy	Nil†‡	100†‡				
ading	T G T T   dr	10014				
einforced	Nil†‡	75†‡				
light vehicular						
	300	5001				
	300	5001				
pment loading or	300	500‡				

of the pipe of not less than 50 mm thick. 1762, AS 2033, AS/NZS 2566.1, AS 3725 or AS 4060.

AS3500.3



CONTRACTORS SHALL TAKE DUE CARE WHEN EXCAVATING ONSITE INCLUDING HAND EXCAVATION WHERE NECESSARY. CONTRACTORS ARE TO CONTACT THE RELEVANT SERVICE AUTHORITY PRIOR TO COMMENCEMENT OF EXCAVATION WORKS. CONTRACTORS ARE TO UNDERTAKE A SERVICES SEARCH, PRIOR TO COMMENCEMENT OF WORKS ON SITE. SEARCH RESULTS ARE TO BE KEPT ON SITE AT ALL TIMES.

# SITEWORKS NOTES

1. ORIGIN OF LEVELS:- REFER SURVEY NOTES

2. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK. A

3. MAKE SMOOTH CONNECTION WITH EXISTING WORKS.

4. ALL TRENCH BACKFILL MATERIAL SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT MATERIAL.

5. BASE AND SUB-BASE LAYERS ARE TO BE INSPECTED AND TESTED BY AN INDEPENDENT GEOTECHNICAL TESTING AUTHORITY TO LEVEL 1 RESPONSIBILITY AS DEFINED IN AS3798.

6. ALL BASECOURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH RMS FORM 3051, COMPACTED TO MINIMUM 98% MODIFIED DENSITY IN ACCORDANCE WITH AS 1289 5.2.1 FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS TH PER 50m<sup>3</sup> OF BASECOURSE MATERIAL PLACED.

7. ALL SUB-BASE COURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH RMS FORM 3051, AND COMPACTED TO MINIMUM 95% MODIFIED DENSITY IN ACCORDANCE WITH A.S 1289 5.2.1 FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 TEST PER 50m<sup>3</sup> OF SUB-BASE COURSE MATERIAL PLACED.

8. SHOULD THE CONTRACTOR WISH TO USE A RECYCLED PRODUCT THIS SHALL BE CLEARLY INDICATED IN THEIR TENDER AND THE PRICE DIFFERENCE BETWEEN AN IGNEOUS PRODUCT AND A RECYCLED PRODUCT SHALL BE CLEARLY INDICATED.

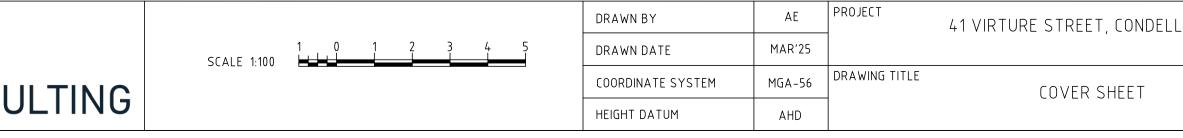
9. WHERE NOTED ON THE DRAWINGS THAT WORKS ARE TO BE CARRIED BY OTHERS, (eq. ADJUSTMENT OF SERVICES), THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CO-ORDINATION OF THESE WORKS.

Nominal size	Minimum gradient Nominal size		Minimum gradient		
DN	Aust.	NZ	DN	Aust.	NZ
90	1:100	1:90	225	1:200	1:350
100	1:100	1:120	300	1:250	1:350
150	1:100	1:200	375	1:300	1:350

MINIMUM INTERNAL DIMENSIONS FOR STORMWATER AND INLET PITS					
Denth	to invert	Minimu	m internal mm	dimensions	
of outlet	Rectangular		Circular		
		Width	Length	Diameter	
	≤600	450	450	600	
>600	≤900	600	600	900	
>900	≤1200	600	900	1 000	
> 1 200		900	900	1 000	

#### GENERAL STORMWATER NOTES

- ALL PIPES ON DRAWINGS TO BE MIN 1% GRADE UNLESS NOTED OTHERWISE.
- . ALL DOWNPIPES TO BE 100Ø PVC UNLESS NOTED OTHERWISE.
- PIPES 375 DIA. AND LARGER TO BE REINFORCED CONCRETE CLASS '2'
- APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINTS. U.N.O. PIPES 300 DIA AND LESS SHALL BE DWV GRADE (CLASS SN8) uPVC WITH
- SOLVENT WELDED JOINTS.
- 5. EQUIVALENT STRENGTH FRC PIPES MAY BE USED.
- ALL PIPES ARE TO BE UNIFORMLY SUPPORTED ALONG THE LENGTH OF THE BARREL BY SUITABLE FILL MATERIAL. REFER TO BEDDING SUPPORT
- PIPES WITH SOCKETS SHALL BE LAID IN BEDDING WHERE SUITABLE RECESSES HAVE BEEN PROVIDED TO ENSURE PIPES DO NOT BEAR ON THEIR SOCKETS.
- ALL STORMWATER DRAINAGE LINES UNDER PROPOSED BUILDING SLABS TO BE uPVC PRESSURE PIPE GRADE 6. ENSURE ALL VERTICALS AND DOWNPIPES ARE uPVC PRESSURE PIPE, GRADE 6 FOR A MIN OF 3.0m IN HEIGHT.
- . PIPES TO BE INSTALLED TO TYPE HS1 SUPPORT IN ACCORDANCE WITH AS 3725 (2007) IN ALL CASES BACKFILL TRENCH WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1 (OR A DENSITY INDEX OF NOT LESS THAN 75).
- 10. REFER TO AS/NRS 3725:2007 TABLE B1 FOR REQUIRED FILL DEPTHS ABOVE PIPE BARREL PRIOR TO USE OF COMPACTION MACHINERY OR TRAVERSING OF PIPES BY GENERAL SITE EQUIPMENT.
- 1. WHERE WORKING METHODS REQUIRE HIGHER CLASS PIPE, THE CONTRACTOR SHALL REFER TO AS 3725 (2007) TO DETERMINE THE APPROPRIATE PIPE CLASS.
- 12. ALL INTERNAL WORKS WITHIN PROPERTY BOUNDARIES ARE TO COMPLY WITH THE REQUIREMENTS OF AS 3500 3.1 (2018) AND AS/NZS 3500 3.2 (2018).
- 13. ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE PREFABRICATED FITTINGS WHERE PIPES ARE LESS THAN 300 DIA.
- 4. WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED uPVC SEWER GRADE PIPE IS TO BE USED.
- 15. CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.
- 16. GRATES AND COVERS SHALL CONFORM TO AS 3996.
- 7. ALL BOX CULVERTS SHALL BE STRUCTURALLY DESIGNED BY THE MANUFACTURER AND DELIVERED TO SITE AS FIT FOR PURPOSE.
- 18. AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.
- 19. ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED AND CLEANED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDENT/ENGINEER FOR FURTHER DIRECTIONS.



# **FIRST FLOOR & ROOF NOTES**

- INSTALL 50mm uPVC SPITTER PIPES 20mm ABOVE SURFACE LEVEL FOR BALCONY AND CONCRETE ROOF AREAS TO ALLOW FOR EMERGENCY OVERFLOW INCASE OF BLOCKAGES DURING HEAVY STORMS, PLUMBER TO CONFIRM LOCATION DURING CONSTRUCTION.
- ALL BUILDING AND HYDRAULIC SERVICES TO BE PROPERLY CO-ORDINATED WITH STORMWATER PIPES AND ENSURE NO CLASHES ARE PRESENT DURING CONSTRUCTION (TYP).
- STORMWATER PIPE ARRANGEMENT TO BE CO-ORDINTED WITH STRUCTURAL SLAB AND BEAMS WHERE REQUIRED (TYP).
- BALCONY, TERRACE & CONCRETE ROOF AREAS TO SLOPE TOWARDS RAINWATER OUTLETS WHERE REQUIRED (TYP).
- ARROW DENOTES THE SLOPE OF FINISHED SURFACE LEVEL (TYP)
- DOWNPIPES SHOWN ON PLAN ARE TO BE Ø100mm uPVC U.N.O. (TYP). PROPOSED DOWNPIPE LOCATIONS ARE NOMINAL AND TO BE
- CONFIRMED DURING CONSTRUCTION (TYP). INSTALL DOWNPIPE WITH SPREADER (IF REQUIRED) TO DISPERSE
- STORMWATER ONTO LOWER ROOF AREAS EFFECTIVELY. PROVIDE SURFACE DRAINAGE FOR ALL CONCRETE AND BALCONY ROOF AREAS WHERE REQUIRED.

# CHARGED LINES

- ALL CHARGED LINES SHALL BE MIN. 100mm SEWER GRADE uPVC FROM CONNECTION POINT TO THE GUTTER INVERT LEVEL.
- ALL EXPOSED PIPEWORK SHALL BE PAINTED IN A COLOUR TO COMPLIMENT THE DEVELOPMENT AND TO PROTECT AGAINST ULTRA-VIOLET LIGHT DAMAGE FROM THE SUN.
- ALL JOINTS WITHIN THE CHARGED SYSTEM MUST BE SOLVENT WELDED AND PRESSURE TESTED IN ACCORDANCE WITH AS3500.3.
- CLEAR-OUT POINTS (IN ADDITION TO THOSE SHOWN ON PLAN) SHALL BE PROVIDED AT 20m INTERVALS AND AT CRITICAL BENDS WITHIN THE CHARGED SYSTEM.
- A MIN. 350x350 DRIBBLE PIT WITH A PIPE AND SCREW-CAP SHALL BE PROVIDED AT THE LOWEST POINT OF THE CHARGED SYSTEM. THE BASE OF THE PIT SHALL BE FITTED WITH WEEP HOLES WHICH DRAIN INTO AN AGGREGATE LAYER.

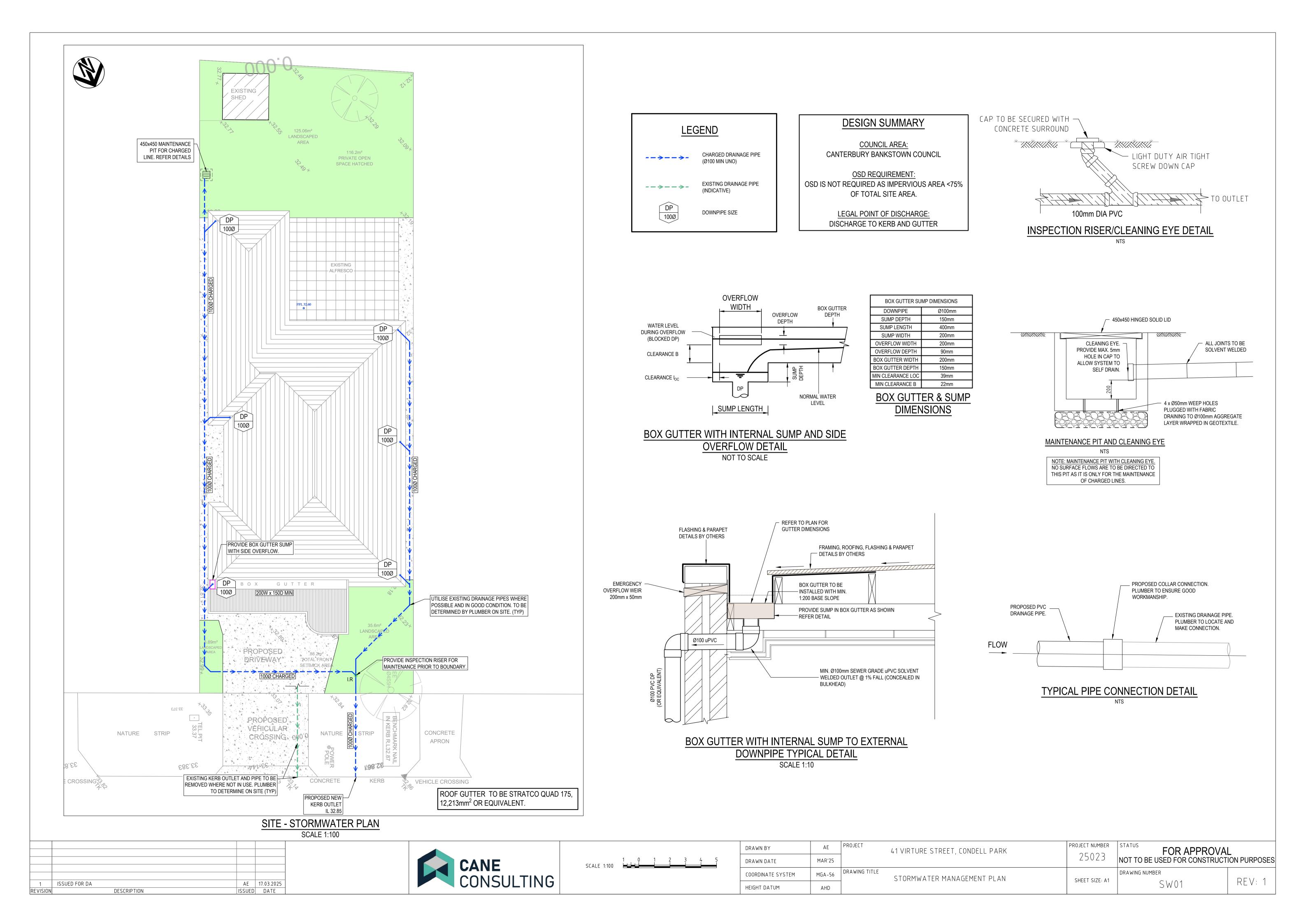
# **SURVEY**

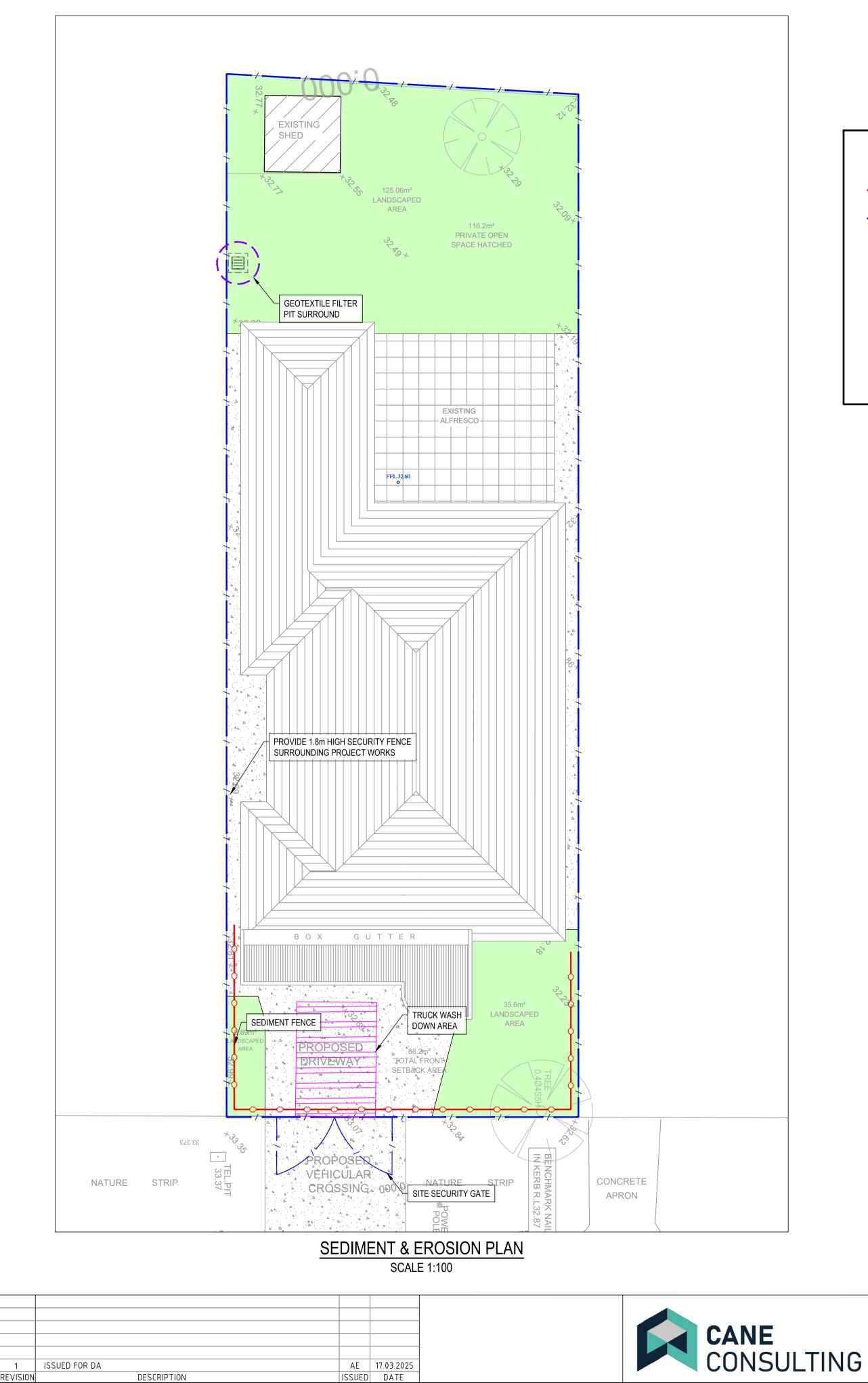
THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY REGISTERED SURVEYORS. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN.

CANE CONSULTING DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION OR DESIGN.

SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT CANE CONSULTING.

PARK	PROJECT NUMBER			
	25023	FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION PURI		
		DRAWING NUMBER		
	SHEET SIZE: A1	SW00	REV: 1	

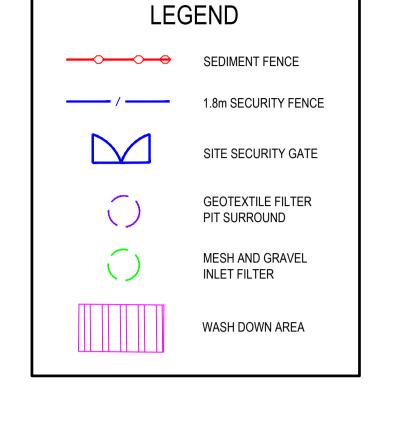




DISTURBED AREA DIRECTION OF FLOW NAX 0,2m 0,2m CEDIMENT FENCE NTS	
TIMBER SPACER TO SUIT	CONSTRUCTION SITE

OVERFLOW

WIRE OR STEEL MESH  $\neg$ 



# GENERAL INSTRUCTION

- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONTROL OF EROSION AND SEDIMENTATION TO THE SATISFACTION OF COUNCIL, NSW OFFICE OF WATER, OFFICE OF ENVIRONMENT AND HERITAGE, THE EROSION AND SEDIMENTATION CONTROLS SHOWN ON THE DRAWINGS SHALL ONLY BE USED AS A GUIDE BY THE CONTRACTOR, AND SHALL REPRESENT THE MINIMUM REQUIREMENT ONLY.
- THE CONTRACTOR SHALL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE LOCATED AS DOCUMENTED OR AS OTHERWISE DIRECTED BY THE SUPERINTENDENT. ALL WORK SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH a. LOCAL AUTHORITY REQUIREMENTS
- EPA REQUIREMENTS NSW DEPARTMENT OF HOUSING MANUAL "MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION", 4th EDITION, MARCH 2004.
- MAINTAIN THE EROSION CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT AND THE LOCAL AUTHORITY.
- WHEN STORMWATER PITS ARE CONSTRUCTED, PREVENT SITE RUNOFF ENTERING UNLESS SEDIMENT FENCES ARE ERECTED AROUND PITS.
- CONTRACTOR IS TO ENSURE ALL EROSION & SEDIMENT CONTROL DEVICES ARE MAINTAINED IN GOOD WORKING ORDER AND OPERATE EFFECTIVELY. REPAIRS AND OR MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED, PARTICULARLY FOLLOWING STORM EVENTS.

#### LAND DISTURBANCE

6. WHERE PRACTICAL, THE SOIL EROSION HAZARD ON THE SITE WILL BE

OR GEOTEXTILE 'SAUSAGE'

FILTERED WATER

TIMBER SPACER

TO SUIT

MESH AND GRAVEL INLET FILTER NTS

# SEDIMENT AND EROSION CONTROL NOTES

- KEPT AS LOW AS POSSIBLE. TO THIS END, WORKS SHOULD BE UNDERTAKEN IN THE FOLLOWING SEQUENCE: a. INSTALL A SEDIMENT FENCE ALONG THE BOUNDARIES AS SHOWN ON PLAN. REFER DETAIL.
- CONSTRUCT STABILISED CONSTRUCTION ENTRANCE TO LOCATION b. AS DETERMINED BY SUPERINTENDENT/ENGINEER. REFER DETAIL. UNDERTAKE SITE DEVELOPMENT WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. WHERE POSSIBLE, PHASE DEVELOPMENT SO THAT LAND DISTURBANCE IS CONFINED TO

AREAS OF WORKABLE SIZE.

### EROSION CONTROL

- DURING WINDY WEATHER, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.
- 8. FINAL SITE LANDSCAPING WILL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 20 WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.
- SEDIMENT CONTROL
- 9. STOCKPILES WILL NOT BE LOCATED WITHIN 2 METRES OF HAZARD AREAS, INCLUDING LIKELY AREAS OF CONCENTRATED OR HIGH VELOCITY FLOWS SUCH AS WATERWAYS. WHERE THEY ARE BETWEEN 2 AND 5 METRES FROM SUCH AREAS, SPECIAL SEDIMENT CONTROL MEASURES SHOULD BE TAKEN TO MINIMISE POSSIBLE POLLUTION TO DOWNSLOPE WATERS, E.G. THROUGH INSTALLATION OF SEDIMENT FENCING.
- 10. ANY SAND USED IN THE CONCRETE CURING PROCESS (SPREAD OVER THE SURFACE) WILL BE REMOVED AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS FROM PLACEMENT.
- 11. WATER WILL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS IT IS RELATIVELY SEDIMENT FREE, I.E. THE

RUNOFF WATER WITH

SEDIMENT

SEDIMENT

GRAVEL-FILLED WIRE MESH OR GEOTEXTILE 'SAUSAGE'

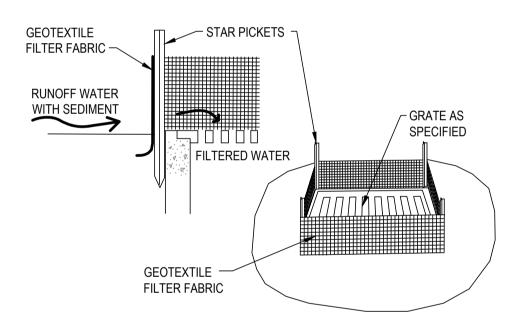
	DRAWN BY	AE	PROJECT 41 VIRTURE STREET, CONDELL PARK	PROJECT NUMBER	FOR APPROVAL		
	DRAWN DATE	MAR'25		25023	NOT TO BE USED FOR CONSTRUCTION PURPOSES		
	COORDINATE SYSTEM	MGA-56	DRAWING TITLE SEDIMENT AND EROSION CONTROL PLAN	SHEET SIZE: A1	DRAWING NUMBER	REV: 1	
	HEIGHT DATUM	AHD		SHEET SIZE: AT	SW02		

- CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED THROUGH AN APPROVED STRUCTURE.
- 12. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.
- 13. ACCEPTABLE RECEPTORS WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER.

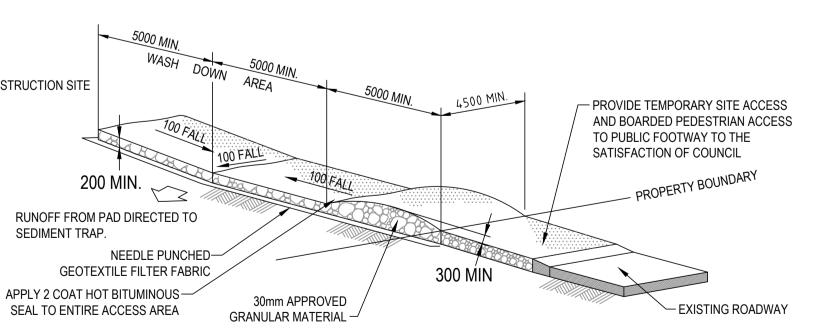
14. ANY EXISTING TREES WHICH FORM PART OF THE FINAL LANDSCAPING PLAN WILL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY:

OTHER MATTERS

- PROTECTING THEM WITH BARRIER FENCING OR SIMILAR MATERIALS INSTALLED OUTSIDE THE DRIP LINE ENSURING THAT NOTHING IS NAILED TO THEM
- PROHIBITING PAVING, GRADING, SEDIMENT WASH OR PLACING OF STOCKPILES WITHIN THE DRIP LINE EXCEPT UNDER THE FOLLOWING CONDITIONS.
- ENCROACHMENT ONLY OCCURS ON ONE SIDE AND NO CLOSER TO THE TRUNK THAN EITHER 1.5 METRES OR HALF THE DISTANCE BETWEEN THE OUTER EDGE OF THE DRIP LINE AND THE TRUNK, WHICH EVER IS THE GREATER
- II) A DRAINAGE SYSTEM THAT ALLOWS AIR AND WATER TO CIRCULATE THROUGH THE ROOT ZONE (E.G. A GRAVEL BED) IS PLACED UNDER ALL FILL LAYERS OF MORE THAN 300 MILLIMETRES DEPTH (III) CARE IS TAKEN NOT TO CUT ROOTS UNNECESSARILY NOR TO COMPACT THE SOIL AROUND THEM.



# GEOTEXTILE FILTER PIT SURROUND



#### STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA NTS