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DRAWING SCHEDULE		
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Client
**LINDSAY
BENNELONG**

Project
**61 NORTH STEYNE
MANLY**

Title	COVER SHEET AND DRAWING INDEX
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Scale:
AS SHOWN

Drawn TP	Designed TP	Checked JC	Approved JC
Project Number S220130		Drawing Number C-00-0001	Revision C

SERVICES LEGEND (TYP.)

	G	GAS LINE
	S	SEWER LINE
	W	WATER LINE
	E	ELECTRICAL LINE
	FI	FIRE LINE
	C	COMMUNICATION LINE
	T	TELECOMS LINE
	EXG	EXISTING GAS LINE
	EXS	EXISTING SEWER LINE
	EXW	EXISTING WATER LINE
	EXE	EXISTING ELECTRICAL LINE
	EXFI	EXISTING FIRE LINE
	EXC	EXISTING COMMUNICATION LINE
	EXT	EXISTING TELECOMS LINE
	EX/SW	EXISTING STORMWATER DRAINAGE LINE
	X	REDUNDANT SERVICE LINE
	?	UNKNOWN SERVICE LINE
	X X X X X X X X	TO BE DEMOLISHED/REDUNDANT

SITeworks LEGEND

	LIMIT OF WORKS BOUNDARY
	SITE WORKS BOUNDARY
	CHAIN WIRE FENCE
	SITE FENCE
	RETAINING WALL AND NUMBER
	EXISTING CONTOUR
	DESIGN CONTOUR
	BM NAIL IN KERB R.L. (A.H.D.)	SURVEY BENCHMARK
	P56.20	PROPOSED SURFACE LEVEL
	E56.20	EXISTING SURFACE LEVEL
	FFL180.00	FINISHED FLOOR LEVEL
	01	SETOUT POINT
	B1	BOLLARD FIXED (B1), REMOVABLE (B2)
	BATTER 1 4	BATTER SLOPE 1(VER.):4(HOR.)

STORMWATER DRAINAGE LEGEND

	SW	STORMWATER DRAINAGE LINE
	SSD	SUBSOIL DRAINAGE LINE WITH CLEAR OUT
		STORMWATER OVERLAND FLOWPATH
		GRASS LINED SWALE DRAIN
		GRADED PITS (VARIES IN SIZES)
		JUNCTION PITS (VARIES IN SIZES)
		KERB INLET PITS (VARIES IN TYPE & SIZES)
		GRADED DRAIN (VARIES IN TYPE & SIZES)
STORMWATER DRAINAGE LINE WITH:			
	0375mm RCP2(PIPE SIZE AND CLASS)	
	15.0m @ 1.0%(PIPE GRADE)	
	10m(PIPE LENGTH)	
	USIL:(UP STREAM INVERT LEVEL)	
	DSIL:(DOWN STREAM INVERT LEVEL)	
	0600	
	FLOW DIRECTION		
	PIPE DIAMETER		
	A-00	STORMWATER DRAINAGE STRUCTURE NUMBER
	PIT NUMBER		
	STORMWATER LINE NUMBER		
	SW		
	HY-0000	CONTINUATION ON BUILDING HYDRAULICS ENGINEERING DRAWINGS

ABBREVIATIONS (ROAD)

K&G	KERB AND GUTTER
K&T	KERB AND TOE
KO	KERB ONLY
IK	INTEGRAL KERB
MK	MOUNTABLE KERB
IMK	INTEGRAL MOUNTABLE KERB
RK&G	ROLL KERB AND GUTTER
RK&T	ROLL KERB AND TOE
LK	LAYBACK KERB
FK	FLUSH KERB
PK	PRECAST KERB
BDD	BRICK DISH DRAIN
BK	BRICK KERB
TK	TIMBER KERB
CES	CONCRETE EDGE STRIP
TES	TIMBER EDGE STRIP
BES	BRICK EDGE STRIP
PR	PRAM RAMP
VC	VEHICULAR CROSSING
FSL	FINISHED SURFACE LEVEL
ESL	EXISTING SURFACE LEVEL
FFL	FINISHED FLOOR LEVEL

ABBREVIATIONS (STORMWATER)

S.G.G.P	SINGLE GRATED GULLY PIT
E.K.I.	EXTENDED KERB INLET
G.S.I.P.	GRADED SURFACE INLET PIT
G.D.	GRADED DRAIN
J.P.	JUNCTION PIT
MH	MANHOLE
H.W.	HEADWALL
RCP	REINFORCED CONCRETE PIPE
RRJ	RUBBER RING JOINT
C2, C3, C4	PIPE CLASSIFICATIONS
RCBC	REINFORCED CONCRETE BOX CULVERT
A.D.D.	APRON DISH DRAIN
G.R.P.	GLASS REINFORCED POLYMER
DP	DOWNPIPE
HER	HIGH END RISER
IR	INTERMEDIATE RISER
CO	CLEAROUT
DP	DOWNPIPE
FRP	FIBRE REINFORCED POLYMER
SQID	STORMWATER QUALITY IMPROVEMENT DEVICE
SP	SURCHARGE PIT

ABBREVIATIONS (STRUCTURAL)

SCJ	SAWN CONTRACTION JOINT
EJ	EXPANSION JOINT
DCJ	DOWELLED CONTRACTION JOINT
IJ	ISOLATION JOINT
DDJ	DIAMOND DOWELLED JOINT
DDJI	DIAMOND DOWELLED JOINT INTERFACE WITH STRUCTURE
DEJ	DOWELLED EXPANSION JOINT
TJ	FOOTPATH TOOLED JOINT
ET	EDGE THICKENING

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Project
61 NORTH STEYNE MANLY

Title
LEGEND

Scale:
AS SHOWN

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- ORIGIN OF LEVELS :- AUSTRALIAN HEIGHT DATUM (A.H.D.)
2. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK.
3. ALL WORK IS TO BE UNDERTAKEN IN ACCORDANCE WITH COUNCIL CONSTRUCTION SPECIFICATIONS. THE DETAILS SHOWN ON THE DRAWINGS AND THE SPECIFICATIONS AND THE DIRECTIONS OF THE PRINCIPAL'S REPRESENTATIVE.
4. WHERE NEW WORKS ABOUT EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH, EVEN PROFILE, FREE FROM ABRUPT CHANGES IS OBTAINED.
5. THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.
6. CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATIONS ARE TO BE UNDERTAKEN OVER COMMUNICATIONS OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS.
7. ALL SERVICE TRENCHES UNDER VEHICULAR PAVEMENTS SHALL BE BACKFILLED WITH AN APPROVED GRANULAR MATERIAL AND COMPACTED TO 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS. 1289.5.1.1.
8. ALL TRENCH BACKFILL MATERIAL NOT IN PAVEMENTS SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT MATERIAL.
9. ON COMPLETION OF PIPE INSTALLATION ALL DISTURBED AREAS MUST BE RESTORED TO ORIGINAL, INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL AND GRASSED AREAS AND ROAD PAVEMENTS.
10. PROVIDE 10mm WIDE EXPANDING CORK JOINTS BETWEEN CONCRETE PAVEMENTS AND ALL BUILDINGS , WALLS, FOOTINGS, COLUMNS, KERBS, DISHDRAINS, GRATED DRAINS, BOLLARD FOOTINGS ETC
11. CONTRACTOR TO OBTAIN ALL AUTHORITY APPROVALS.
12. ALL BATTERS TO BE GRASSED LINED IN ACCORDANCE WITH COUNCIL CONSTRUCTION SPECIFICATIONS AND LANDSCAPE ARCHITECTS SPECIFICATION.
13. MAKE SMOOTH TRANSITION TO EXISTING SERVICES AND MAKE GOOD.
14. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY DIRECTION DRAINS AND MOUNDS TO ENSURE THAT AT ALL TIMES EXPOSED SURFACES ARE FREE DRAINING AND WHERE NECESSARY EXCAVATE SUMPS AND PROVIDE PUMPING EQUIPMENT TO DRAIN EXPOSED AREAS.
15. THESE PLANS SHALL BE READ IN CONJUNCTION WITH COUNCIL CONSTRUCTION SPECIFICATIONS AND APPROVED LANDSCAPE, ELECTRICAL AND TELECOMMUNICATIONH DRAWINGS AND SPECIFICATIONS.
16. TRENCHES THROUGH EXISTING ROAD AND CONCRETE PAVEMENTS SHALL BE SAWCUT TO FULL DEPTH OF CONCRETE AND A MIN 50mm IN BITUMINOUS PAVING.
17. ON COMPLETION OF WORKS ALL DISTURBED AREAS MUST BE RESTORED TO ORIGINAL INCLUDING, BUT NOT LIMITED TO, KERBS, FOOTPATHS, CONCRETE AREAS, GRASS AND LANDSCAPED AREAS.

1. EXISTING SERVICES HAVE BEEN PLOTTED FROM SUPPLIED DATA AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SERVICE AUTHORITY.
2. THE CONTRACTOR SHALL ALLOW FOR THE CAPPING OFF, EXCAVATION, REMOVAL AND DISPOSAL, IF REQUIRED OF ALL EXISTING SERVICES, IN AREAS AFFECTED BY WORKS WITHIN THE CONTRACT AREA, AS SHOWN ON THE DRAWINGS UNLESS DIRECTED OTHERWISE BY THE SERVICE AUTHORITY.
3. THE CONTRACTOR SHALL ENSURE THAT AT ALL TIMES SERVICES TO ALL BUILDINGS NOT AFFECTED BY THE WORKS ARE NOT DISRUPTED.
4. PRIOR TO COMMENCEMENT OF ANY WORKS THE CONTRACTOR SHALL GAIN WRITTEN APPROVAL OF HIS PROGRAMME FOR THE RELOCATION/CONSTRUCTION OF TEMPORARY SERVICES.
5. EXISTING BUILDINGS, EXTERNAL STRUCTURES, AND TREES SHOWN ON THESE DRAWINGS ARE FEATURES EXISTING PRIOR TO ANY DEMOLITION WORKS.
6. CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES TO MAINTAIN EXISTING SUPPLY TO BUILDINGS REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF THE SERVICE AUTHORITY. ONCE DIVERSION IS COMPLETE AND COMMISSIONED THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE SERVICE AUTHORITY AND THE RELEVANT SERVICE AUTHORITY.
7. INTERRUPTION TO SUPPLY OF EXISTING SERVICES SHALL BE DONE SO AS NOT TO CAUSE ANY INCONVENIENCE TO THE PRINCIPAL. CONTRACTOR TO GAIN APPROVAL OF SERVICE AUTHORITY FOR TIME OF INTERRUPTION. THE CONTRACTOR IS RESPONSIBLE FOR ALL LIASION.
8. CLEARANCE AND COVER REQUIREMENTS SHALL BE OBTAINED FROM THE COUNCIL AND RELEVANT SERVICE AUTHORITY BEFORE COMMENCEMENT OF WORKS AND SHALL BE ADHERED TO AT ALL TIMES.
9. CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATIONS ARE TO BE UNDERTAKEN OVER TELECOM OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS ONLY.

1. ALL DRAINAGE PIPES GREATER THAN Ø300mm SHALL BE CLASS 2 APPROVED SPIGOT AND SOCKET REINFORCED CONCRETE PIPES WITH RUBBER RING JOINTS (UNO).
2. WHERE DRAINAGE LINE PASS UNDER VEHICULAR PAVEMENTS PIPES SHALL BE CLASS 4 APPROVED SPIGOT AND SOCKET REINFORCED CONCRETE PIPES WITH RUBBER RING JOINTS (UNO).
3. ALL DRAINAGE PIPES LESS THAN OR EQUAL TO Ø300mm SHALL BE uPVC DWV GRADE CLASS SN8 IN ACCORDANCE WITH AS/NZS1260:2009-PVC-U PIPES AND FITTINGS FOR DRAIN, WASTE AND VENT APPLICATION WITH SOLVENT WELDED JOINTS.
4. EQUIVALENT STRENGTH REINFORCED CONCRETE OR FIBROUS REINFORCED CONCRETE MAY BE USED SUBJECT TO APPROVAL BY THE SERVICE AUTHORITY.
5. PIPES FOR SUB-SOIL DRAINS SHALL BE SLOTTED 100mm DIAMETER CLASS 1000 WRAPPED IN GEOFABRIC, UNO, COMPLYING WITH THE REQUIREMENTS OF AS 2439. ALL SUBSOIL PIPES SHALL BE FACTORY SLOTTED HDPE, MINIMUM 100mm DIAMETER SN8 CLASS, SIMILAR OR EQUAL TO VINIDEX DRAINING, CERTIFIED UPVC, IN ACCORDANCE WITH AS1260, AS2032 (PIPE) & AS3789 (JOINTING) INSTALLED ON GEOTEXTILE FABRIC WITH 150mm SURROUND OF 25MM BLUE METAL AGGREGATE. UNO
6. ALL PIPE JUNCTIONS UP TO AND INCLUDING 300 DIA. AND TAPERS SHALL BE VIA PURPOSE MADE FITTINGS.
7. ALL MILD STEEL FIXTURES INCLUDING GRATES, FRAMES, STEP IRONS, LADDERS, ETC., SHALL BE HOT DIP GALVANISED. GALVANISING SHALL COMPLY WITH THE REQUIREMENTS OF AS 1214 OR AS 1650, AS APPROPRIATE.
8. MINIMUM GRADE TO STORMWATER LINES TO BE 1%. (U.N.O.)
9. CONTRACTOR TO SUPPLY AND INSTALL ALL FITTINGS AND SPECIALS INCLUDING VARIOUS PIPE ADAPTORS TO ENSURE PROPER CONNECTION BETWEEN DISSIMILAR PIPEWORK.
10. ALL CONNECTIONS TO EXISTING DRAINAGE PITS SHALL BE MADE IN A TRADESMAN-LIKE MANNER AND THE INTERNAL WALL OF THE PIT AT THE POINT OF ENTRY SHALL BE CEMENT RENDERED TO ENSURE A SMOOTH FINISH.
11. PRECAST PITS SHALL NOT BE USED UNLESS WRITTEN APPROVAL IS OBTAINED FROM THE SERVICE AUTHORITY.
12. WHERE TRENCHES ARE IN ROCK, THE PIPE SHALL BE BEDDED ON A MIN. 50MM CONCRETE BED (OR 75MM THICK BED OF 12mm BLUE METAL) UNDER THE BARREL OF THE PIPE. THE PIPE COLLAR AT NO POINT SHALL BEAR ON THE ROCK. IN OTHER THAN ROCK, PIPES SHALL BE LAID ON A 75MM THICK SAND BED. IN ALL CASES BACKFILL THE TRENCH WITH SAND TO 200MM ABOVE THE PIPE, WHERE THE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH WITH SAND OR APPROVED GRANULAR BACKFILL COMPACTED IN 150MM LAYERS TO 98% STANDARD MAX. DRY DENSITY.
13. BEDDING SHALL BE (U.N.O.) TYPE H2 (NOT UNDER ROADWAYS) OR HS2 (UNDER ROADWAYS) IN ACCORDANCE WITH CURRENT RELEVANT AUSTRALIAN STANDARDS.
14. BACKFILL TRENCH WITH SAND OR APPROVED GRANULAR BACKFILL TO 300mm(MIN) ABOVE THE PIPE. WHERE THE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO PAVEMENT SUBGRADE WITH SAND OR APPROVED GRAVEL SUB-BASE COMPACTED IN 150mm LAYERS TO 98% STANDARD MAXIMUM DRY DENSITY. THE CONTRACTOR IS TO ENSURE COMPACTION EQUIPMENT IS APPROPRIATE FOR THE PIPE CLASS USED.
15. WHERE STORMWATER LINES PASS UNDER FLOOR SLABS DWV GRADE uPVC RUBBER RING JOINTS ARE TO BE USED (UNO).
16. WHERE SUBSOIL DRAINAGE LINES PASS UNDER VEHICULAR PAVEMENTS, UNSLOTTED uPVC DWV GRADE CLASS SN8 PIPE SHALL BE USED.
17. 100mm DIA. SUBSOIL DRAINAGE PIPE 3m LONG WRAPPED IN FILTER SOCK TO BE PROVIDED IN PIPE TRENCHES UPSTREAM OF ALL PITS.
18. PITS DEEPER THAN 1000mm SHALL HAVE ACCESS LADDERS OR STEP IRONS INSTALLED AND SHALL BE IN ACCORDANCE WITH THE LOCAL OR STATUTORY AUTHORITY REQUIREMENTS.
19. ALL FRAMES, COVERS AND GRATINGS FOR PITS, SLUMPS, DRAINS, GRATED DRAINS ETC MUST BE PROVIDED TO SUIT CLASS D DUTIES AND ALL GRATINGS SHALL BE SLIP RESISTANT AND HEELGUARD UNO IN ACCORDANCE WITH AS3996.
20. WHERE A PIT IS IDENTIFIED AS A CONFINED SPACE, PIT COVERS SHALL BE PROVIDED WITH STANDARD CONFINED SPACE SIGNAGE
21. SUBSOIL DRAINAGE LINES SHALL BE INSTALLED AT THE BASE OF ALL RETAINING WALLS AND FOR ALL STORMWATER PITS. ALL SUBSOIL LINES SHALL BE CONNECTED TO DRAIN TO THE STORMWATER DRAINAGE SYSTEM.
22. CAPPED FLUSHING POINTS MUST BE PROVIDED FOR ALL SUBSOIL AND SEEPAGE DRAINAGE SYSTEMS AT THE END OF EACH PIPE, AT 30M SPACING AND AT CHANGES IN DIRECTIONS.
23. INSPECTION OPENINGS AND CLEAROUTS MUST BE PROVIDED AT EVERY JUNCTION, BEND, CHANGE OF DIRECTION AND AT THE BASE OF ALL DOWNPIPS IMMEDIATELY ABOVE WHERE THE DOWNPIPE PENETRATES THE GROUND OR SLAB ON GROUND.

1. DN100 SLOTTED uPVC SUBSOIL DRAINAGE WRAPPED IN GEOFABRIC SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS AND CONNECTED TO THE SITE STORMWATER DRAINAGE SYSTEM (U.N.O):

- UNDER KERBS ADJACENT TO ALL PAVEMENTS
- AT THE BASE OF THE HIGH SIDE OF ALL RETAINING WALLS
- WITHIN LANDSCAPED AREAS

1. ALL WORK SHALL COMPLY WITH COUNCIL CONSTRUCTION SPECIFICATIONS AND AS3798 (2007) - GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS.

2. ALL WORK SHALL COMPLY WITH THE PROJECT GEOTECHNICAL REPORT

3. AFTER DEMOLITION STRIP REMAINING TOPSOIL THROUGHOUT TO EXPOSE NATURALLY OCCURRING AND ENGINEERING MATERIAL AND STOCKPILE ON SITE FOR REUSE AS DIRECTED BY THE SERVICE AUTHORITY.

4. EXCAVATE TO SUBGRADE LEVELS, SEGREGATING AND STOCKPILING MATERIALS FOR LATER REUSE.

5. ALL SOFT OR WET AREAS SHALL BE DRIED TO OPTIMUM MOISTURE AND RE-COMPACTED TO 98% SMD, WHERE MATERIAL IS DEEMED UNSUITABLE BY THE AND CANNOT BE USED ON SITE SHALL REMOVED FROM SITE.

6. ALL FILL MATERIAL SHALL BE FROM A SOURCE APPROVED BY THE SERVICE AUTHORITY AND SHALL COMPLY WITH THE FOLLOWING -

a. FREE FROM ORGANIC AND PERISHABLE MATTER,

b. MAXIMUM PARTICLE SIZE 75mm,

c. PLASTICITY INDEX - BETWEEN 2% AND 15%.

7. ALL FILL MATERIAL SHALL BE PLACED IN MAXIMUM 200mm THICK LAYERS AND COMPACTED AT OPTIMUM MOISTURE CONTENT (+ OR - 2%) TO ACHIEVE A DRY DENSITY DETERMINED IN ACCORDANCE WITH AS1289 5.1.1-2003-METHODS OF TESTING SOILS FOR ENGINEERING PURPOSES, OF NOT LESS THAN THE FOLLOWING STANDARD MINIMUM DRY DENSITY -

<u>LOCATION</u>	<u>DENSITY INDEX (SMD)</u>
UNDER BUILDING SLABS	70%
VEHICULAR PAVED AREAS	80%
NON-VEHICULAR PAVED AREAS	70%
LANDSCAPED AREAS	65%

8. THE CONTRACTOR SHALL PROGRAM THE EARTHWORKS OPERATION SO THAT THE WORKING AREAS ARE ADEQUATELY DRAINED DURING THE PERIOD OF CONSTRUCTION. THE SURFACE SHALL BE GRADED AND SEALED OFF TO REMOVE DEPRESSIONS, ROLLER MARKS AND DIRT WHICH WOULD ALLOW WATER TO POND AND PENETRATE THE UNDERLYING MATERIAL. ANY DAMAGE RESULTING FROM THE CONTRACTOR NOT OBSERVING THESE REQUIREMENTS SHALL BE RECTIFIED BY THE CONTRACTOR AT THEIR OWN EXPENSE.

9. TESTING OF THE FILL MATERIAL SHALL BE CARRIED OUT BY AN APPROVED NATA REGISTERED LABORATORY AT THE CONTRACTORS EXPENSE.

10. ROCK LEVELS SHOWN ON BULK EARTHWORKS PLANS AND SECTIONS ARE INFERRED. CONTRACTOR TO CONFIRM DEPTH ON SITE. TYP. INFERRED ROCK LEVELS BASED ON GEOTECHNICAL INVESTIGATION.

11. PROPOSED BULK EARTHWORKS SURFACE LEVEL SHOWN DOES NOT INCLUDE THE LANDSCAPE TOPSOIL SETDOWNS.

12. EXISTING SURFACE LEVEL SHOWN DOES NOT INCLUDE STRIPPING.

13. WHERE FILLING IS REQUIRED TO ACHIEVE DESIGN SUBGRADE PROOF ROLL EXPOSED NATURAL SURFACE WITH A MINIMUM OF EIGHT PASSES OF A VIBRATING ROLLER (MINIMUM STATIC WEIGHT OF 10 TONNES) IN THE PRESENCE OF THE SUPERINTENDENT

1. SEDIMENT FENCES WILL BE INSTALLED AS SHOWN ON THE PLAN AND ELSEWHERE AT THE DISCRETION OF THE SITE SERVICE AUTHORITY TO CONTAIN SOIL AS NEAR AS POSSIBLE TO THEIR SOURCE.
2. SEDIMENT FENCES WILL NOT HAVE CATCHMENT AREAS EXCEEDING 900 SQUARE METRES AND HAVE A STORAGE DEPTH OF AT LEAST 0.6 METRES.
3. SEDIMENT REMOVED FROM ANY TRAPPING DEVICES WILL BE RELOCATED WHERE FURTHER POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS CANNOT OCCUR.
4. STOCKPILES ARE NOT TO BE LOCATED WITHIN 5 METRES OF HAZARD AREAS INCLUDING AREAS OF HIGH VELOCITY FLOWS SUCH AS WATERWAYS, PAVED AREAS AND DRIVEWAYS.
5. WATER WILL BE PREVENTED FROM DIRECTLY ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR WATER HAS BEEN TREATED BY AN APPROVED DEVICE. 6. TEMPORARY SEDIMENT TRAPS WILL REMAIN IN PLACE UNTIL AFTER THE LANDS THEY ARE PROTECTING ARE COMPLETELY REHABILITATED.
6. ACCESS TO SITES SHOULD BE STABILISED TO REDUCE THE LIKELIHOOD OF VEHICLES TRACKING SOIL MATERIALS ONTO PUBLIC ROADS AND ENSURE ALL-WEATHER ENTRY/EXIT.

1. EARTH BATTERS WILL BE CONSTRUCTED WITH AS LOW A GRADIENT AS PRACTICABLE BUT NO STEEPER, UNLESS OTHERWISE NOTED, THAN:
 - a. 2(H):1(V) WHERE SLOPE LENGTH LESS THAN 12 METRES
 - b. 2.5(H):1(V) WHERE SLOPE LENGTH BETWEEN 12 AND 16 METRES.
 - c. 3(H):1(V) WHERE SLOPE LENGTH BETWEEN 16 AND 20 METRES.
 - d. 4(H):1(V) WHERE SLOPE LENGTH GREATER THAN 20 METRES.
2. ALL WATERWAYS, DRAINS, SPILLWAYS AND THEIR OUTLETS WILL BE CONSTRUCTED TO BE STABLE IN AT LEAST THE 5% AEP, TIME OF CONCENTRATION STORM EVENT.
3. WATERWAYS AND OTHER AREAS SUBJECT TO CONCENTRATED FLOWS AFTER CONSTRUCTION ARE TO HAVE A MAXIMUM GROUND COVER C-FACTOR OF 0.05 (70% GROUND COVER) WITHIN 10 WORKING DAYS FROM COMPLETION OF FORMATION. FLOW VELOCITIES ARE TO BE LIMITED TO THOSE SHOWN IN TABLE 5-1 OF "MANAGING URBAN STORMWATER - SOLIDS AND CONSTRUCTION", DEPT OF HOUSING 1998 (BLUE BOOK). FOOT AND VEHICULAR TRAFFIC WILL BE PROHIBITED IN THESE AREAS.
4. ALL LANDS, INCLUDING WATERWAYS AND STOCKPILES, DURING CONSTRUCTION ARE TO HAVE A MAXIMUM GROUND COVER C-FACTOR OF 0.15 (50% GROUND COVER) WITHIN 20 WORKING DAYS FROM INACTIVITY EVEN THOUGH WORKS MAY CONTINUE LATER.
5. FOR AREAS OF SHEET FLOW USE THE FOLLOWING GROUND COVER PLANT SPECIES FOR TEMPORARY COVER. JAPANESE MILLET 20 KG/HA AND OATS 20 KG/HA.
6. PERMANENT REHABILITATION OF LANDS AFTER CONSTRUCTION WILL ACHIEVE A GROUND COVER C-FACTOR OF LESS THAN 0.1 AND LESS THAN 0.05 WITHIN 60 DAYS. NEWLY PLANTED LANDS WILL BE WATERED REGULARLY UNTIL AN EFFECTIVE COVER IS ESTABLISHED AND PLANTS ARE GROWING VIGOROUSLY. FOLLOW-UP SEED AND FERTILISER WILL BE APPLIED AS NECESSARY.
7. RE-VEGETATION SHOULD BE AIMED AT RE-ESTABLISHING NATURAL SPECIES. NATURAL SURFACE SOILS SHOULD BE REPLACED AND NON-PERSISTANT ANNUAL COVER CROPS SHOULD BE USED.

1. ACCEPTABLE BINS WILL BE PROVIDED FOR ANY CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHING, LIGHTWEIGHT WASTE MATERIALS AND LITTER. CLEARANCE SERVICES WILL BE PROVIDED AT LEAST WEEKLY. DISPOSAL OF WASTE WILL BE IN A MANNER APPROVED BY THE SITE SERVICE AUTHORITY.
2. ALL POSSIBLE POLLUTANT MATERIALS ARE TO BE STORED WELL CLEAR OF ANY POORLY DRAINED AREAS, FLOOD PRONE AREAS, STREAMBANKS, CHANNELS AND STORMWATER DRAINAGE AREAS. STORE SUCH MATERIALS IN A DESIGNATED AREA UNDER COVER WHERE POSSIBLE AND WITHIN CONTAINMENT BUNDS.
3. ALL SITE STAFF AND SUB-CONTACTORS ARE TO BE INFORMED OF THEIR OBLIGATION TO USE WASTE CONTROL FACILITIES PROVIDED.
4. ANY DE-WATERING ACTIVITIES ARE TO BE CLOSELY MONITORED TO ENSURE THAT WATER IS NOT POLLUTED BY SEDIMENT, TOXIC MATERIALS OR PETROLEUM PRODUCTS.
5. PROVIDE DESIGNATED VEHICULAR WASHDOWN AND MAINTENANCE AREAS WHICH ARE TO HAVE CONTAINMENT BUNDS.

**BEFORE
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Client
**LINDSAY
BENNELONG**

Title _____

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Client
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Project
61 NORTH STEYNE
MANLY

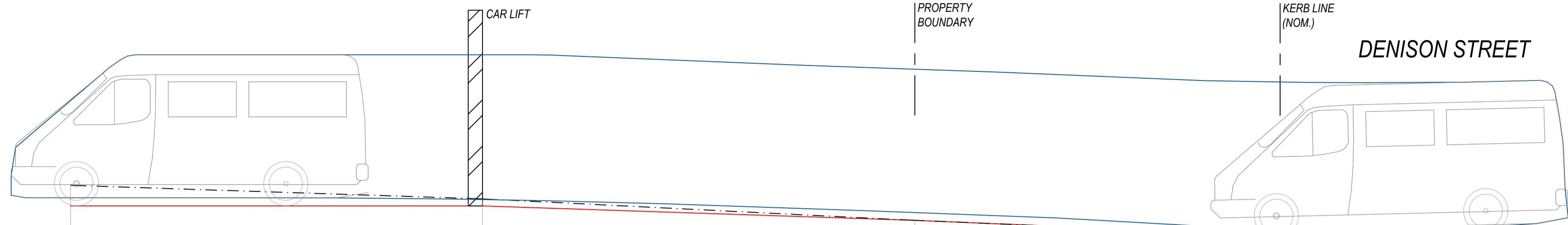
Title
BULK EARTHWORKS PLAN

Scale:
AS SHOWN

Drawn <i>TP</i>	Designed <i>JC</i>	Checked <i>JC</i>	Approved <i>JC</i>
Project Number <i>S220130</i>		Drawing Number <i>C-01-0001</i>	Revision <i>D</i>

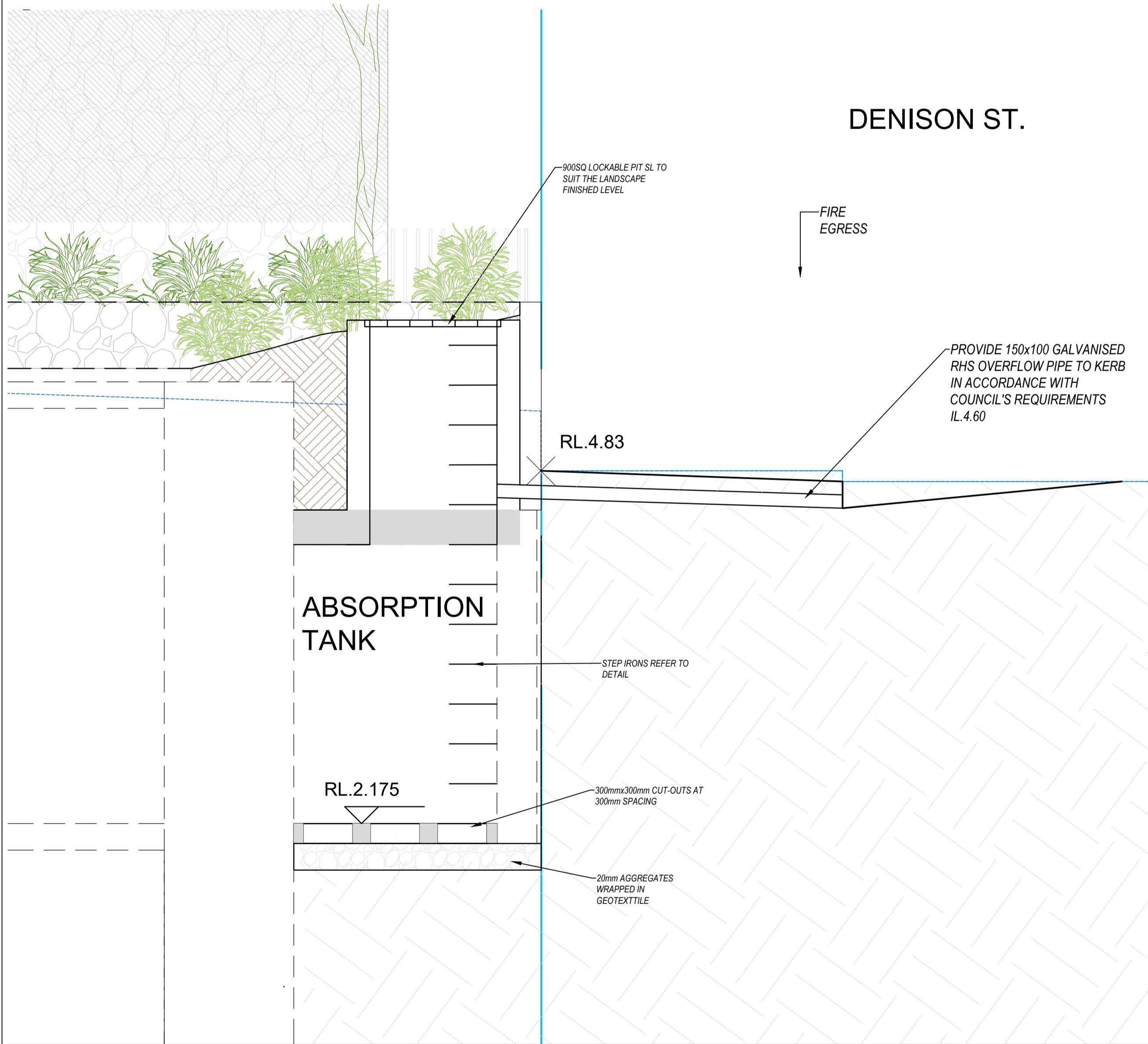
 **BEFORE
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Drawn <i>TP</i>	Designed <i>TP</i>	Checked <i>JC</i>	Approved <i>JC</i>
Project Number <i>S220130</i>		Drawing Number <i>C-02-0001</i>	Revision <i>D</i>

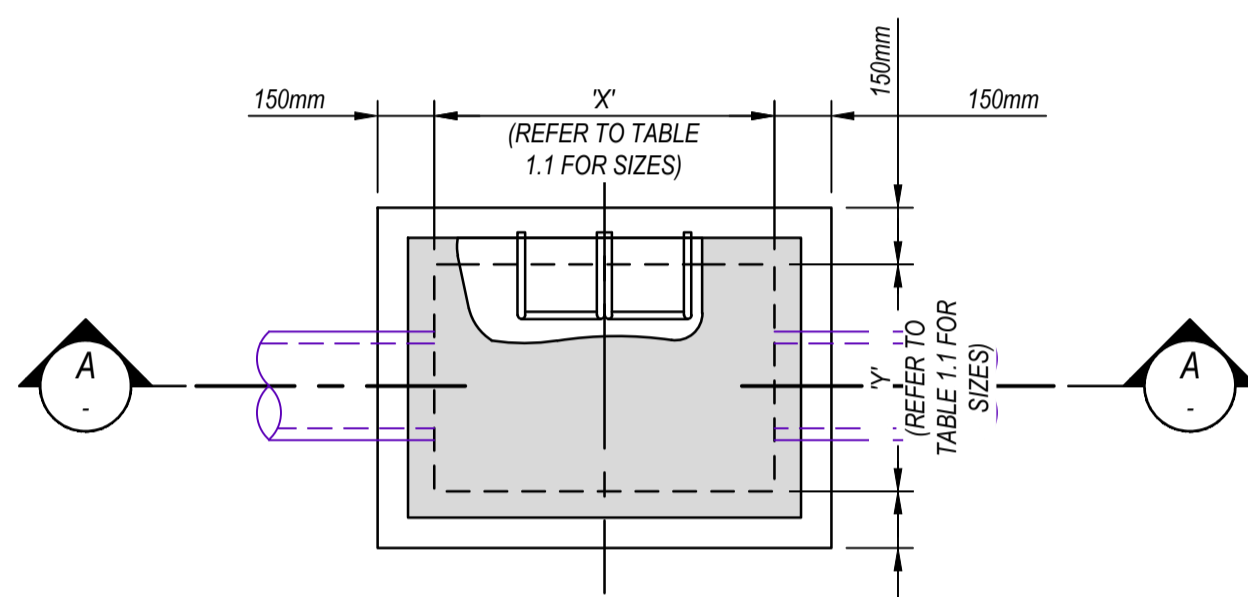


Datum 4.00			
DESIGN LEVEL	5.20	5.20	
EXISTING LEVEL	5.50	5.30	4.99
CUT/FILL DEPTH	-0.30	-0.10	
CHAINAGE	17.62	11.62	5.32

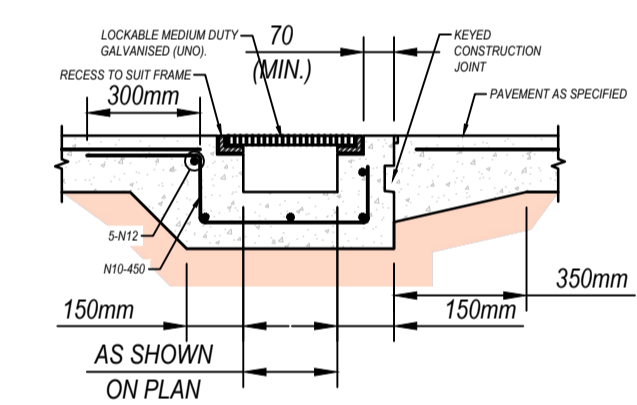
DRIVEWAY LONG SECTION (1)
SCALE 1:50



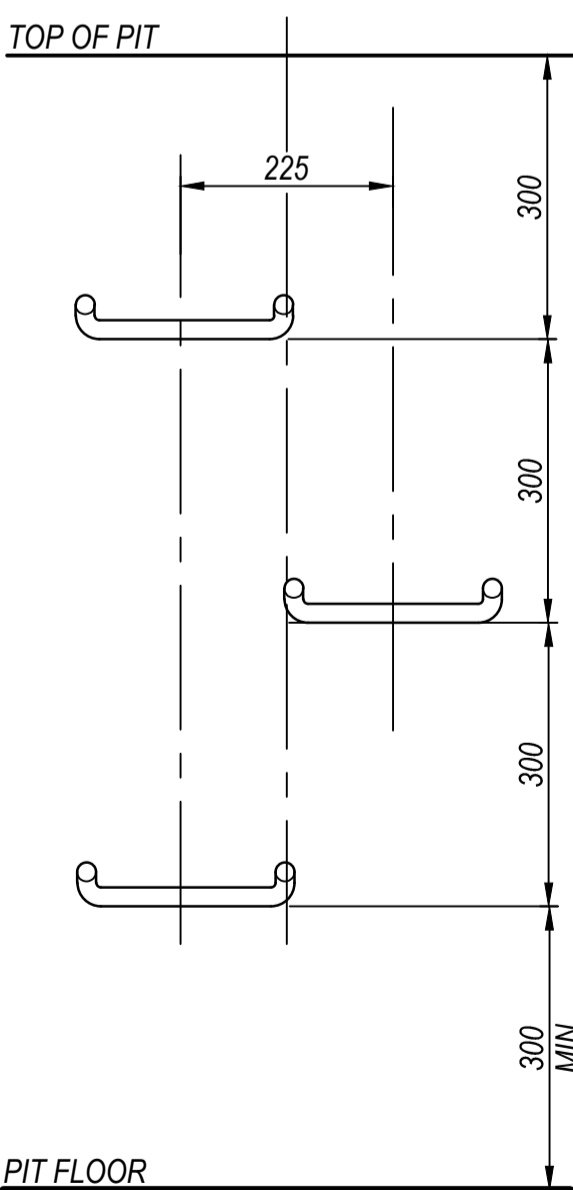
SECTION 2
NTS



BOUNDARY PIT DETAIL
NTS

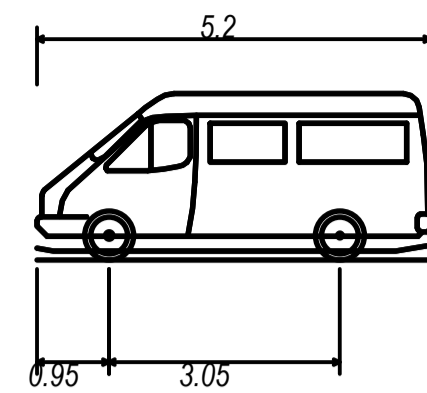


IN-SITU GRATED DRAIN
NTS



STEP IRON
PLACEMENT TO PIT WALL
SCALE NTS

NOTE: ALL STEPS IRON TO BE PLASTIC COATED



B99 Vert Clearance (2004)	
Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	2.200m
Min Body Ground Clearance	0.120m
Track Width	1.840m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	8.000m

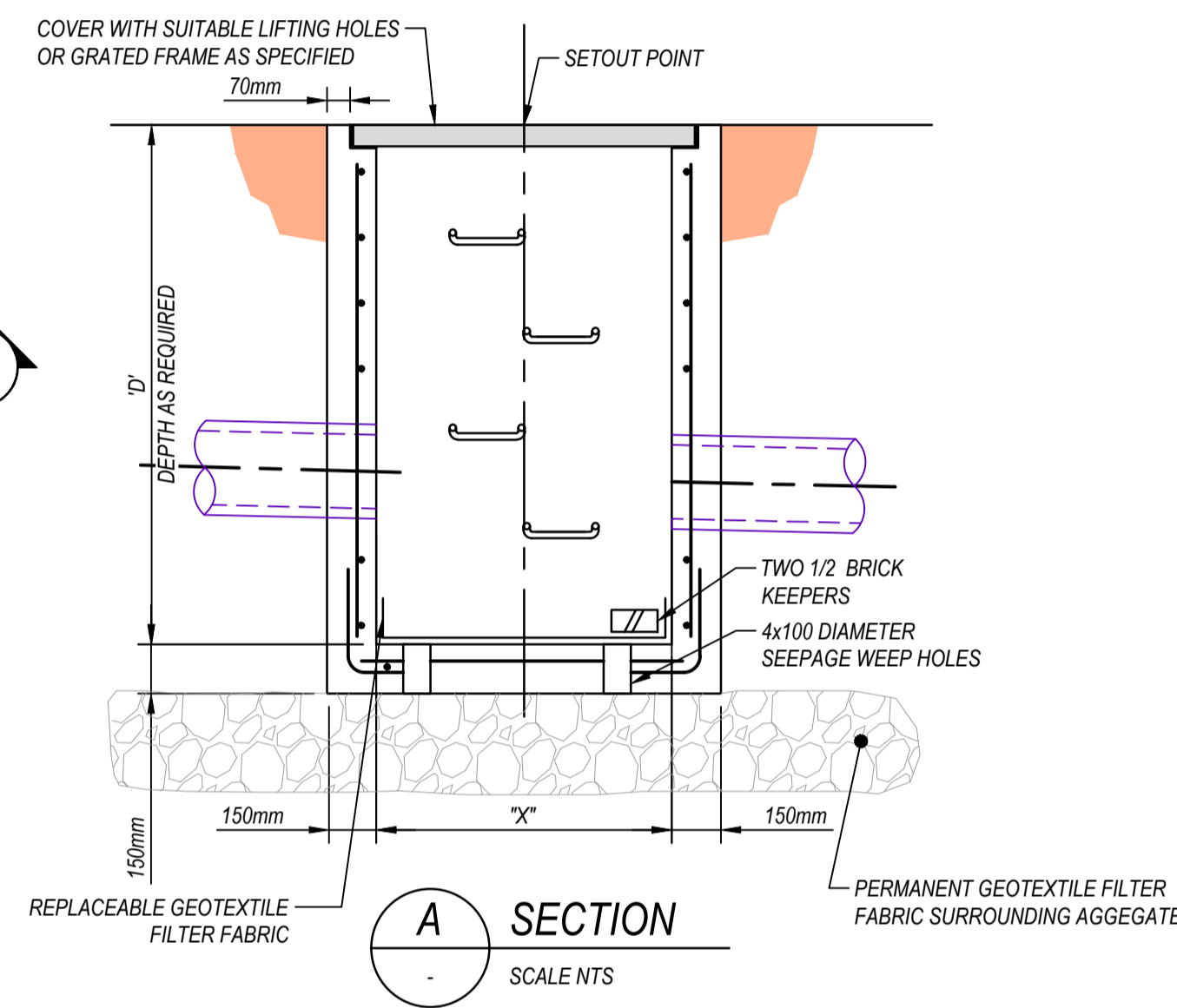
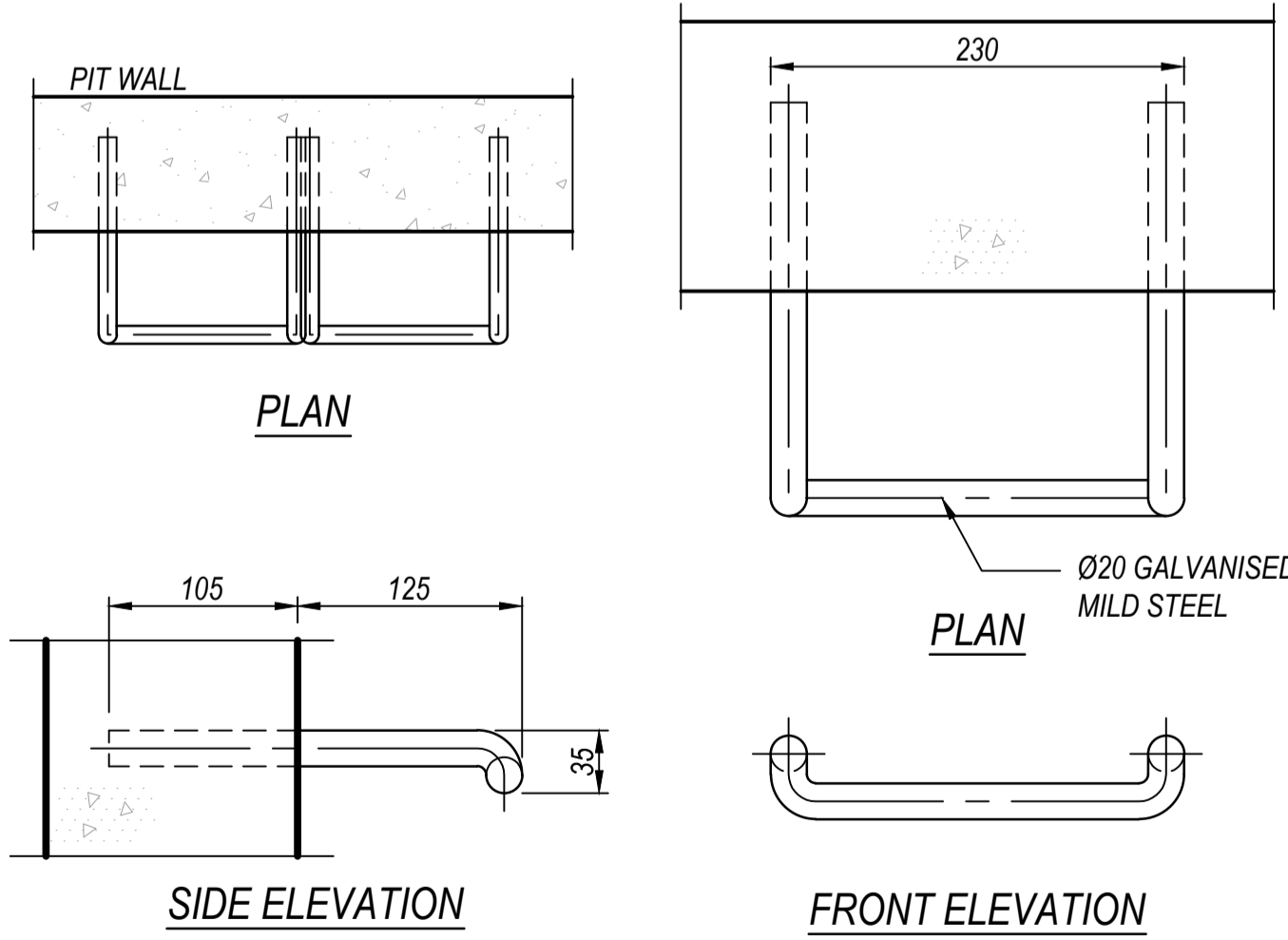


TABLE 1.1 INTERNAL PIT DIMENSIONS (MIN.)		
D	X	Y
D < 600	450	450*
D ≤ 900	600	600*
D ≤ 1200	600	900
D > 1200	900	900

NOTE: PITS DENOTED * SHALL BE USED ONLY WHERE SPECIFIED IN DRAINAGE SCHEDULE OR ON PLAN



STEP IRON DETAIL
SCALE NTS

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Rev	Revision Description	Date
D	ISSUED FOR DA	19.04.2023
C	ISSUED FOR DA	26.10.2022
B	ISSUED FOR DA	17.10.2022
A	ISSUED FOR DRAFT DA	11.10.2022

Client
LINDSAY BENNELONG

Project
61 NORTH STEYNE MANLY

Title
DETAILS

Scale:
AS SHOWN

Drawn
TP

Designed
TP

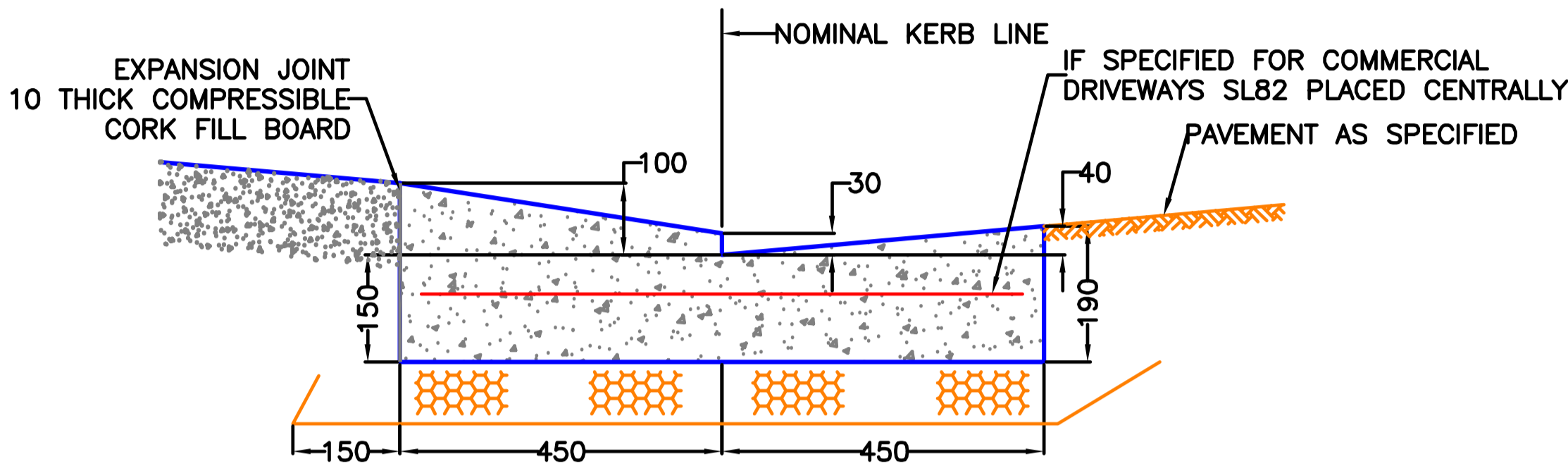
Checked
JC

Approved
JC

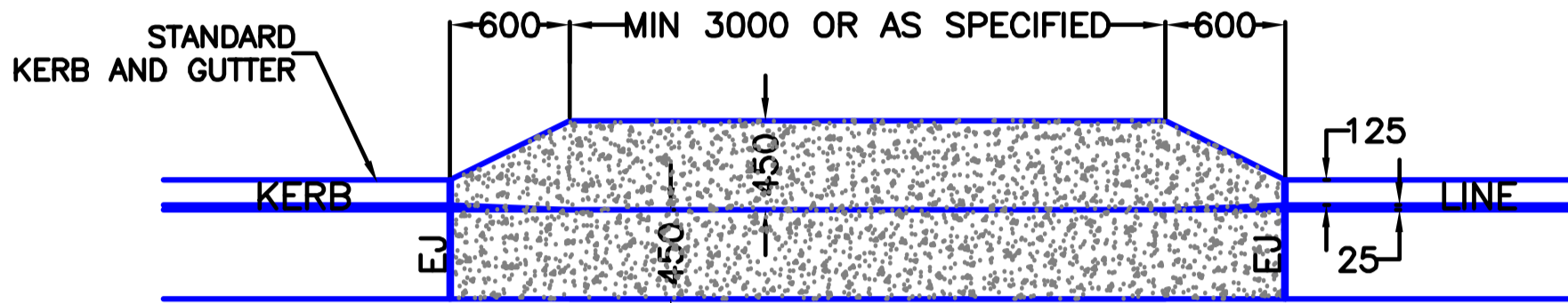
Project Number
S220130

Drawing Number
C-03-1001

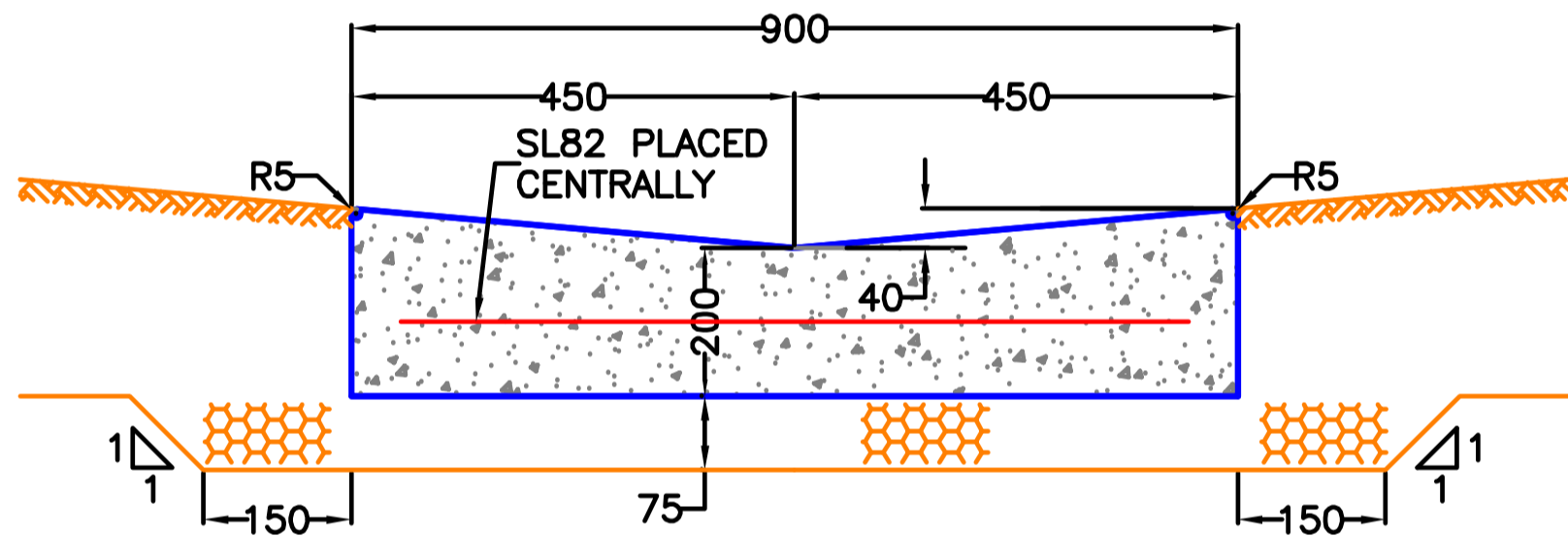
Revision
D



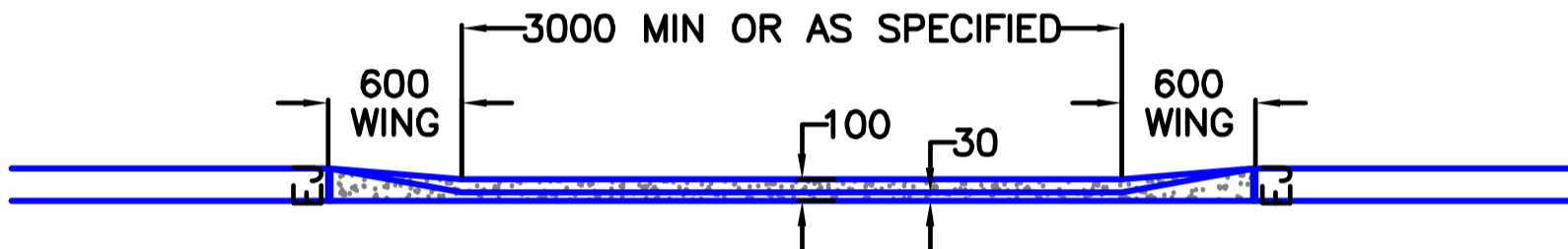
STANDARD CONCRETE LAYBACK DETAIL
NOT TO SCALE



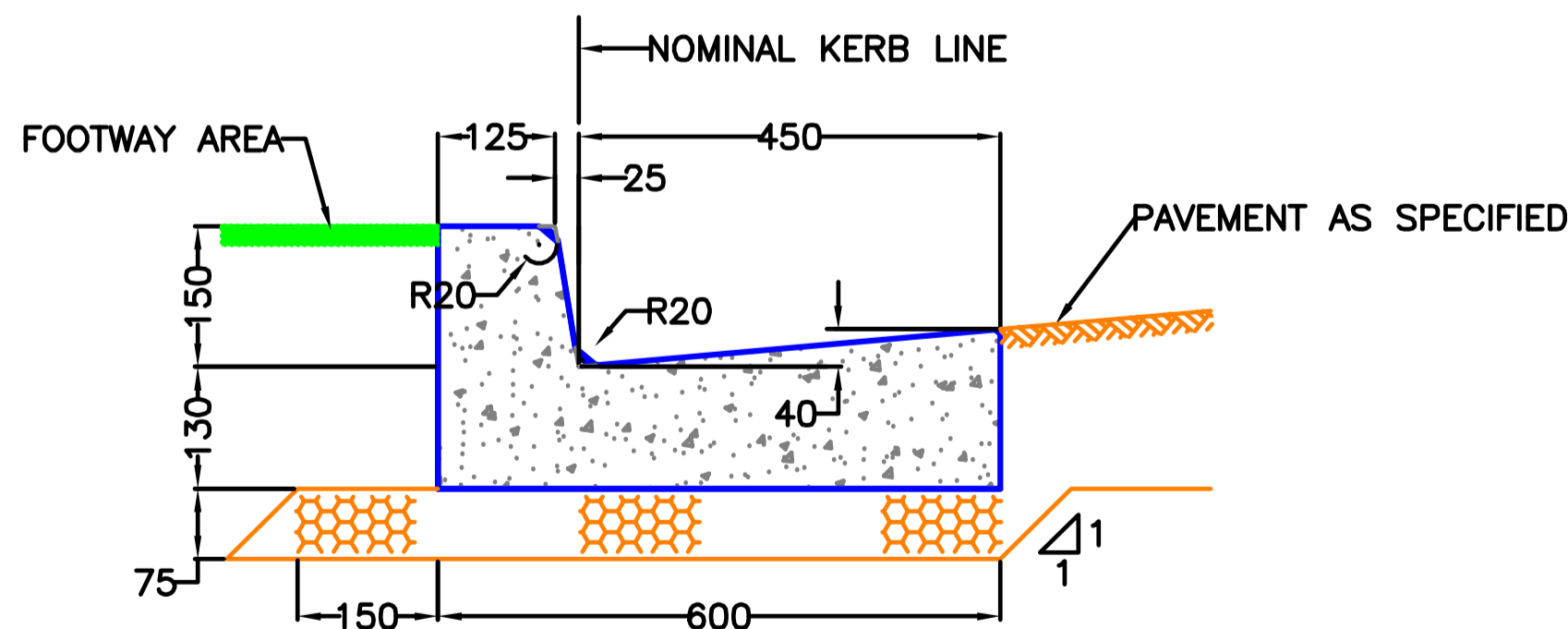
CONCRETE LAYBACK - PLAN
NOT TO SCALE



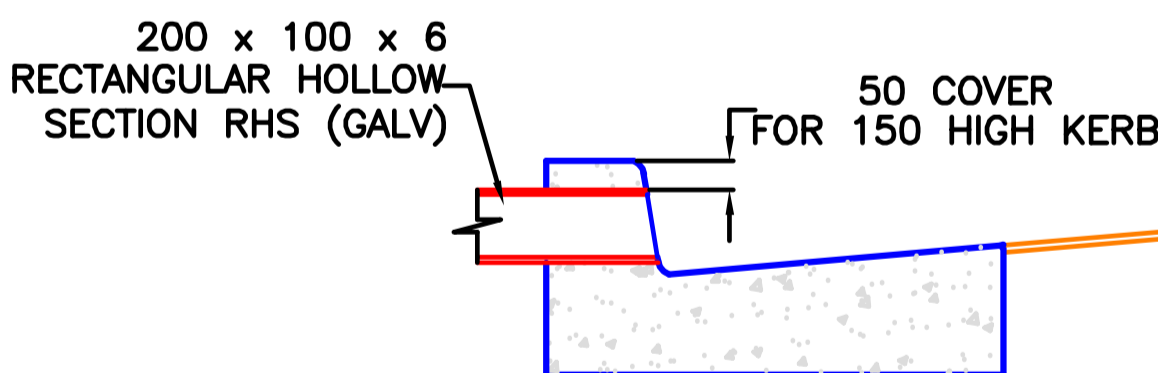
CONCRETE DISH DRAIN DETAIL
NOT TO SCALE



CONCRETE LAYBACK - FRONT ELEVATION
NOT TO SCALE



CONCRETE KERB & GUTTER DETAIL
NOT TO SCALE



PRIVATE PIPE CONNECTION TO KERB DETAIL
SCALE - NOT TO SCALE

STANDARD KERB AND GUTTER NOTES

1. KERB AND GUTTER, CONCRETE EDGING, DISH DRAINS AND THE LIKE SHALL BE POURED IN PLAIN CONCRETE AND FINISHED WITH A STEEL TROWEL.
2. THE MINIMUM COMPRESSIVE STRENGTH SHALL BE 25MPa AT 28 DAYS.
3. FOR ELEMENTS CONSTRUCTED USING SLIPFORM, REINFORCEMENT WILL NOT BE REQUIRED PROVIDED THAT THE CONCRETE COMPRESSIVE STRENGTH IS NOT LESS THAN 32MPa AT 28 DAYS.
4. WHERE COUNCIL OR ITS REPRESENTATIVE DIRECTS THAT THE GUTTER IS TO BE RETAINED, THE CONTRACTOR SHALL PLACE A 75mm DEEP SAW CUT IN THE GUTTER INVERT AND REMOVE THE KERB AND OR LAYBACK.
5. WHERE EXISTING KERB AND ASSOCIATED ELEMENT IS TO BE REPLACED SAW CUT IN THE ASPHALT MINIMUM 500mm FROM LIP OF GUTTER, COMPACT SUBGRADE AND INSTALL ASPHALT STRIP TO MAKE SMOOTH TRANSITION.
6. THE CONSTRUCTION OF ALL VEHICLE CROSSINGS AND ASSOCIATED WORKS WITHIN THE ROAD RESERVE MUST BE UNDERTAKEN BY A COUNCIL APPROVED CONTRACTOR.

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B	ISSUED FOR DA	17.10.2022
A	ISSUED FOR DRAFT DA	11.10.2022
Rev	Revision Description	Date

scp engineers and development consultants

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Client
LINDSAY BENNELONG

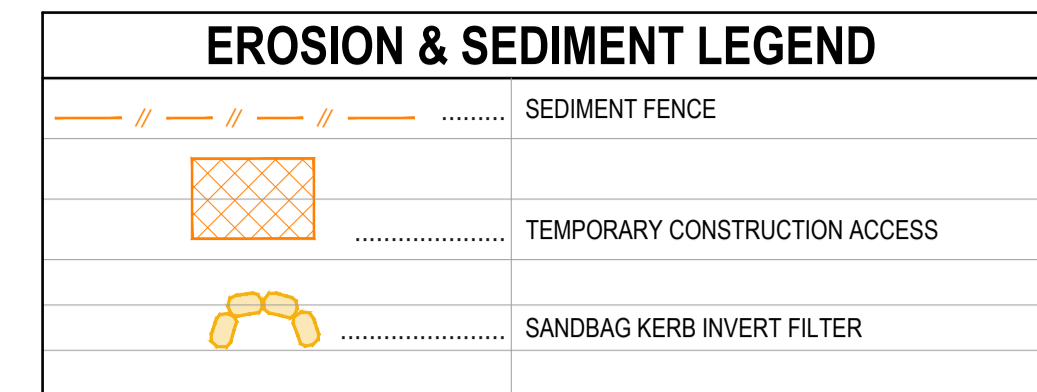
Project
61 NORTH STEYNE MANLY

Title
COUNCIL STANDARD DETAILS

Scale:
AS SHOWN

Drawn TP	Designed TP	Checked JC	Approved JC
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Project Number S220130	Drawing Number C-03-1001	Revision C
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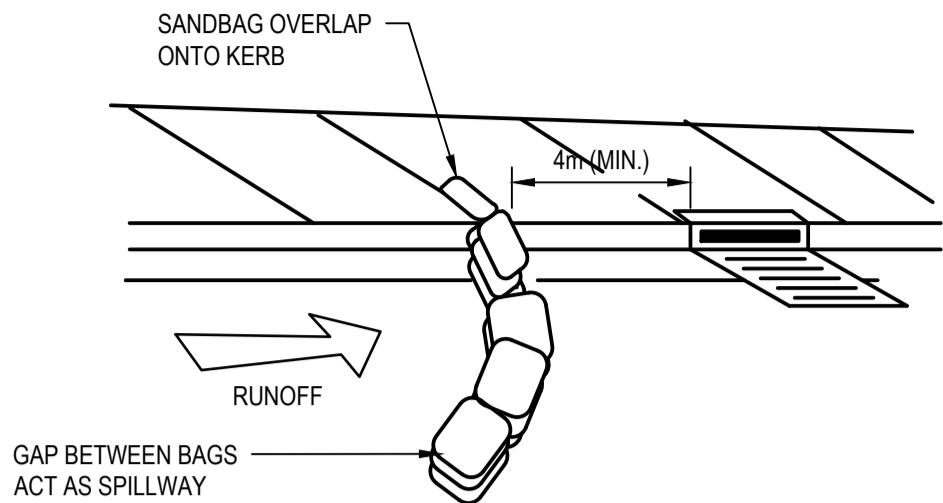
 **scp** **engineers
and development
consultants**

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Title	EROSION AND SEDIMENT CONTROL PLAN
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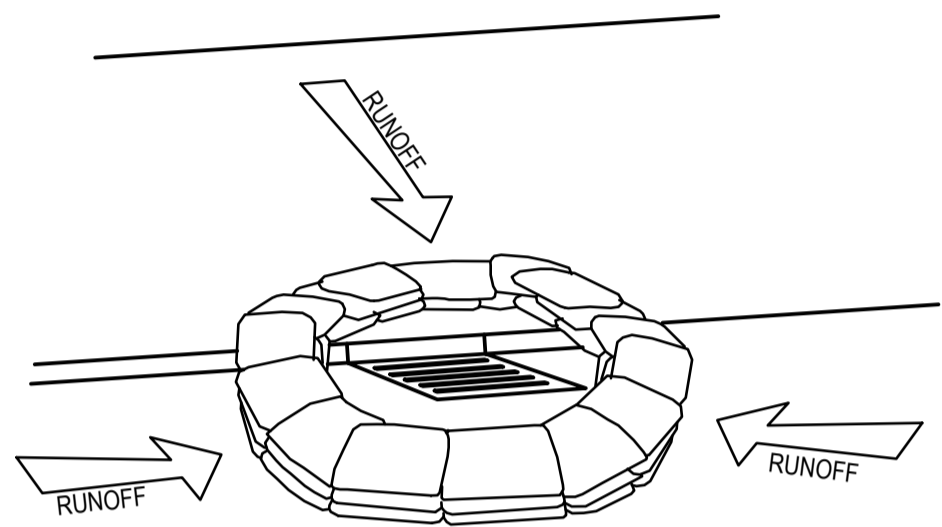
0 1 2 3 4 5m
1:100

Drawn TP	Designed TP	Checked JC	Approved JC
Project Number S220130		Drawing Number C-06-0001	
			Revision C



KERB INLET SEDIMENT FILTER (ON GRADE)

NTS

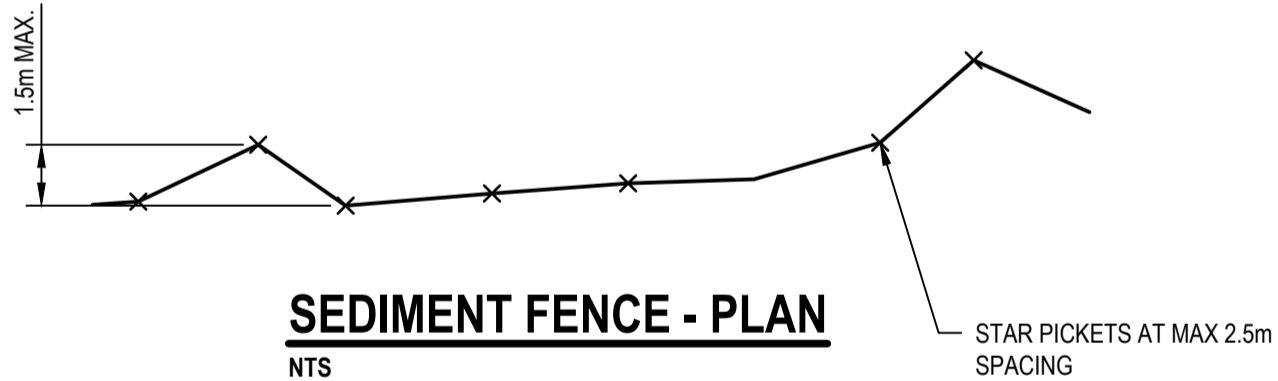


KERB INLET SEDIMENT FILTER - SANDBAG SURROUND

NTS

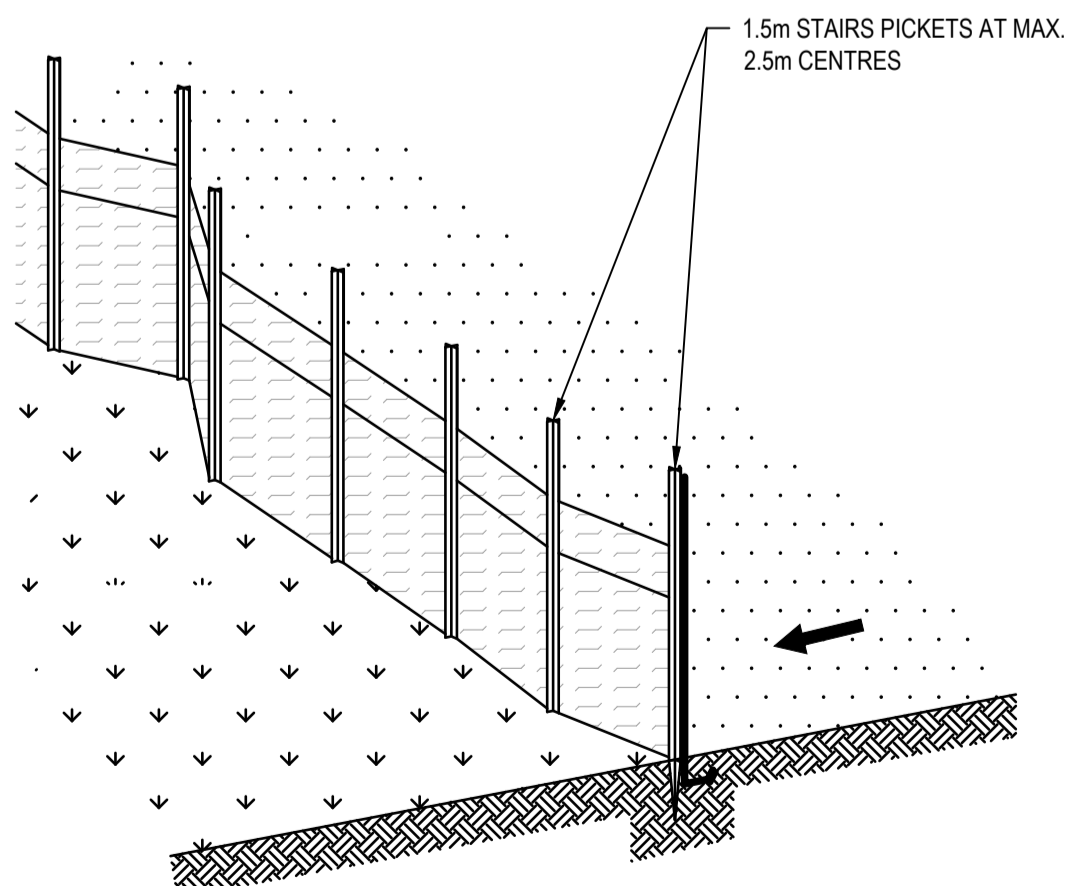
KERB INLET SEDIMENT FILTER

1. REFER TO APPROVED PLANS FOR LOCATIONAND INSTALLATION DETAILS. IF THERE ARE QUESTIONS OR PROBLEMS WITH THE LOCATION,DIMENSIONS, OR METHOD OF INSTALLATION, CONTACT THE ENGINEER OR RESPONSIBLE ON-SITE OFFICER FOR ASSISTANCE.
2. ENSURE THAT THE INSTALLATION OF THE SEDIMENT TRAP WILL NOT CAUSE UNDESIRABLE SAFETY OR FLOODING ISSUES.
3. INSTALL SEDIMENT TRAP IN ACCORDANCE WITH STANDARD DRAWING SUPPLIED WITH THE APPROVED PLAN, OR AS DIRECTED BY THESITE SUPERVISOR.
4. ENSURE THE SEDIMENT TRAP IS CONSTRUCTED UP-SLOPE OF AN ON-GRADE KERB INLET. THE SEDIMENT TRAP MUST NOT SURROUND THE KERB INLET UNLESS SPECIFICALLY DIRECTED BY THE SITE SUPERVISOR.
5. ENSURE THE SEDIMENT TRAP FULLY ENCLOSES THE KERB INLET. USE APPROPRIATE SPACERS TO ENSURE THE SEDIMENT TRAP DOES NOT BLOCK THE SIDE-ENTRY INLET.
6. TAKE ALL NECESSARY MEASURE TO MINIMISE THE SAFETY RISK CAUSED BY THE STRUCTURE



SEDIMENT FENCE - PLAN

NTS



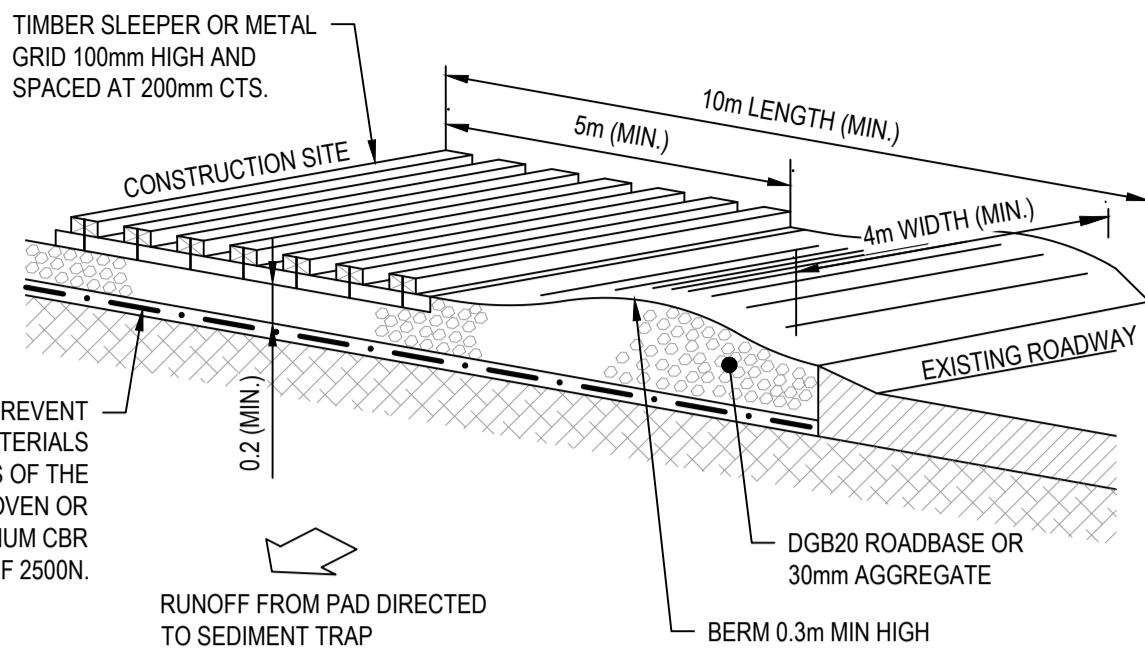
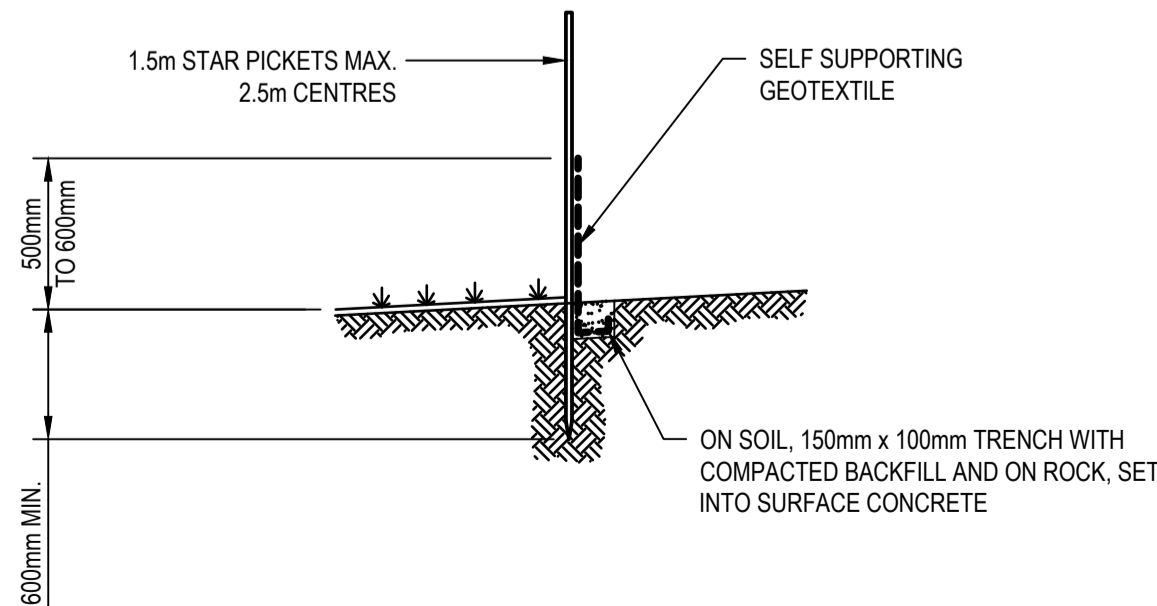
SEDIMENT FENCE

NTS

SEDIMENT FENCE

NTS

1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BE PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING, TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 litres/sec IN THE DESIGN STORM EVENT, USUALLY THE 10 YEAR EVENT.
2. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5 METER LONG STAR PICKETS INTO GROUND AT 2.5 METER INTERVALS (MAX.) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS, ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES, OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.



TEMPORARY STABILISED CONSTRUCTION EXIT

NTS

CONSTRUCTION NOTES

1. CONTRACTOR SHALL CONDUCT A DIAL BEFORE YOU DIG SEARCH PRIOR TO COMMENCEMENT OF ANY WORK.
2. ENSURE THAT ALL COUNCIL AND PUBLIC UTILITY ASSETS ARE MAINTAINED AND PROTECTED AT ALL TIMES IN THE VICINITY OF THE TEMPORARY CONSTRUCTION EXIT.
3. STRIP TOPSOIL AND LEVEL SITE.
4. COMPACT SUBGRADE.
5. COVER AREA WITH NEEDLE-PUNCHED GEOTEXTILE.
6. CONSTRUCT 200mm THICK PAD OVER GEOTEXTILE USING ROADBASE OR 30mm AGGREGATE.
7. CONSTRUCT HUMP IMMEDIATELY WITHIN BOUNDARY TO DIVERT WATER TO A SEDIMENT FENCE OR OTHER SEDIMENT TRAP WHERE THE SEDIMENT IS COLLECTED AND REMOVED.

MAINTENANCE NOTES

THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH PREVENTS TRACKING OR FLOWING OF SEDIMENT OFF THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL GRAVEL AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED OFF THE CONSTRUCTION SITE MUST BE REMOVED IMMEDIATELY.

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Project
61 NORTH STEYNE MANLY

Title
EROSION AND SEDIMENT CONTROL DETAILS

Scale:
AS SHOWN

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