

Appendix C – Engineering Plans

Provided under separate cover

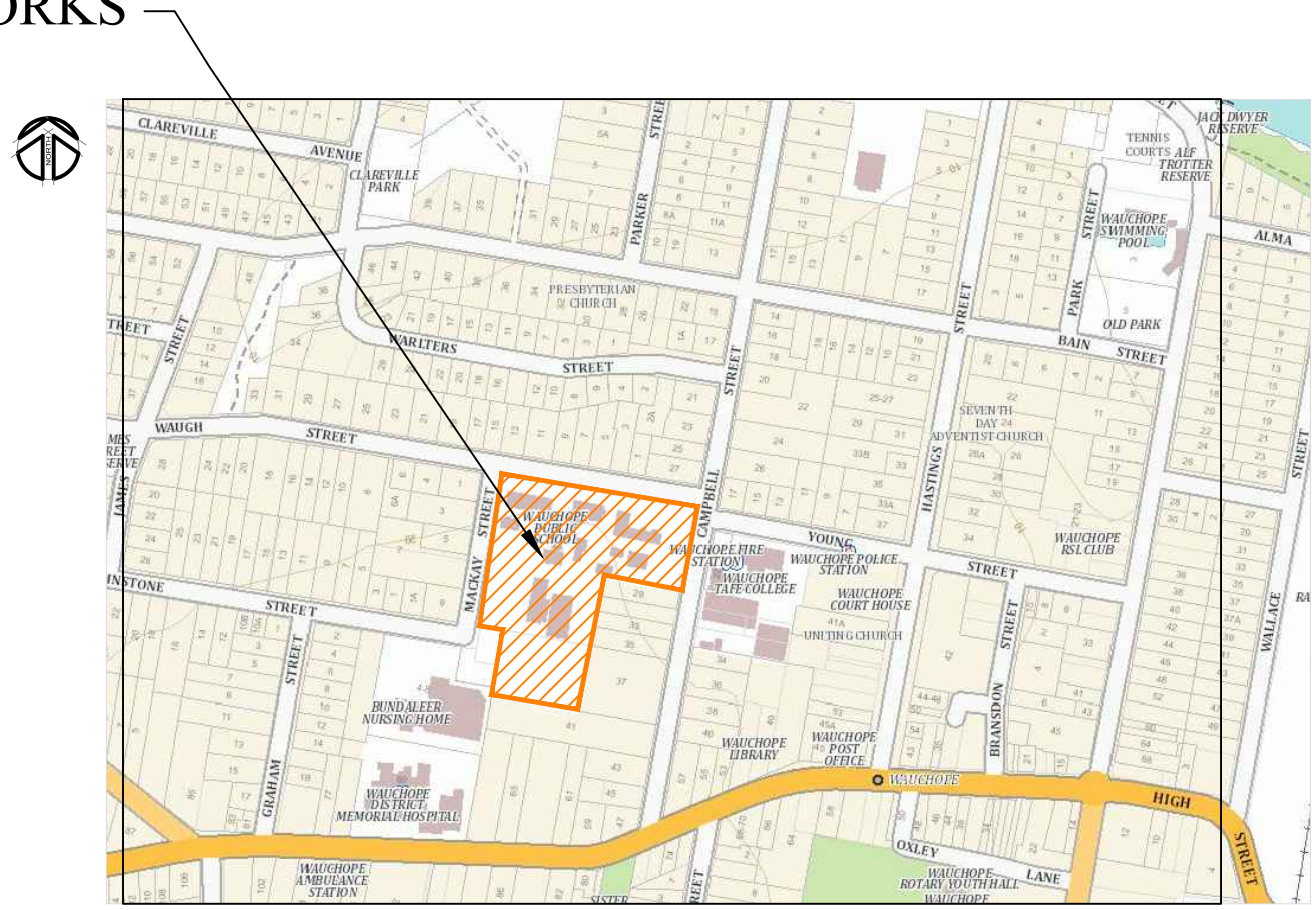
PORT MACQUARIE - HASTINGS COUNCIL WAUCHOPE PUBLIC SCHOOL PROPOSED SCHOOL UPGRADE CONCEPT STORMWATER MANAGEMENT PLANS

Prepared for: Department Of Education

GENERAL NOTES

- 1. ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH PORT MACQUARIE - HASTINGS COUNCIL'S CIVIL CONSTRUCTION SPECIFICATION AND TO THE SATISFACTION OF THE DIRECTOR OF DEVELOPMENT.
- 2. ALL EROSION AND AND SEDIMENTATION CONTROL MEASURES ARE TO BE CARRIED OUT IN ACCORDANCE WITH COUNCILS CODE OF PRACTICE FOR EROSION AND SEDIMENTATION AND MUST BE IMPLEMENTED PRIOR TO THE COMMENCEMENT OF ANY BUILDING OF CIVIL WORKS.
- 3. ALL PUBLIC UTILITIES ARE TO BE CLEARLY IDENTIFIED IN THE FIELD PRIOR TO ANY CIVIL WORKS. COUNCIL DOES NOT ACCEPT ANY RESPONSIBILITY FOR DAMAGE OR RELOCATION COSTS TO PUBLIC UTILITIES DURING CONSTRUCTION OF THE DEVELOPMENT.
- 4. PORT MACQUARIE - HASTINGS COUNCIL ARE TO BE NOTIFIED 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORKS.
- 5. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT ALL WORKS ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE WORKPLACE HEALTH & SAFETY ACT 2011.
- 6. THE DEVELOPER IS RESPONSIBLE FOR ONGOING MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES.
- 7. THESE PLANS ARE TO BE READ IN CONJUNCTION WITH THE CONDITIONS STATED IN PORT MACQUARIE - HASTINGS COUNCIL'S ENGINEERING PLAN APPROVAL CORRESPONDENCE AND THE CONDITIONS OF THE DEVELOPMENT CONSENT.

LOCATION OF WORKS



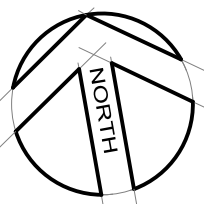
LOCALITY SKETCH
NOT TO SCALE

LEGEND

- ROOF DRAINAGE LINE
- EXISTING DRAINAGE LINE
- 24 NATURAL SURFACE CONTOUR
- PIT 1/2 PIT NUMBER
- GRATED SURFACE INLET PIT
- SEALED PIT
- DP 100 DOWN PIPE SIZE & LOCATION

SHEET INDEX

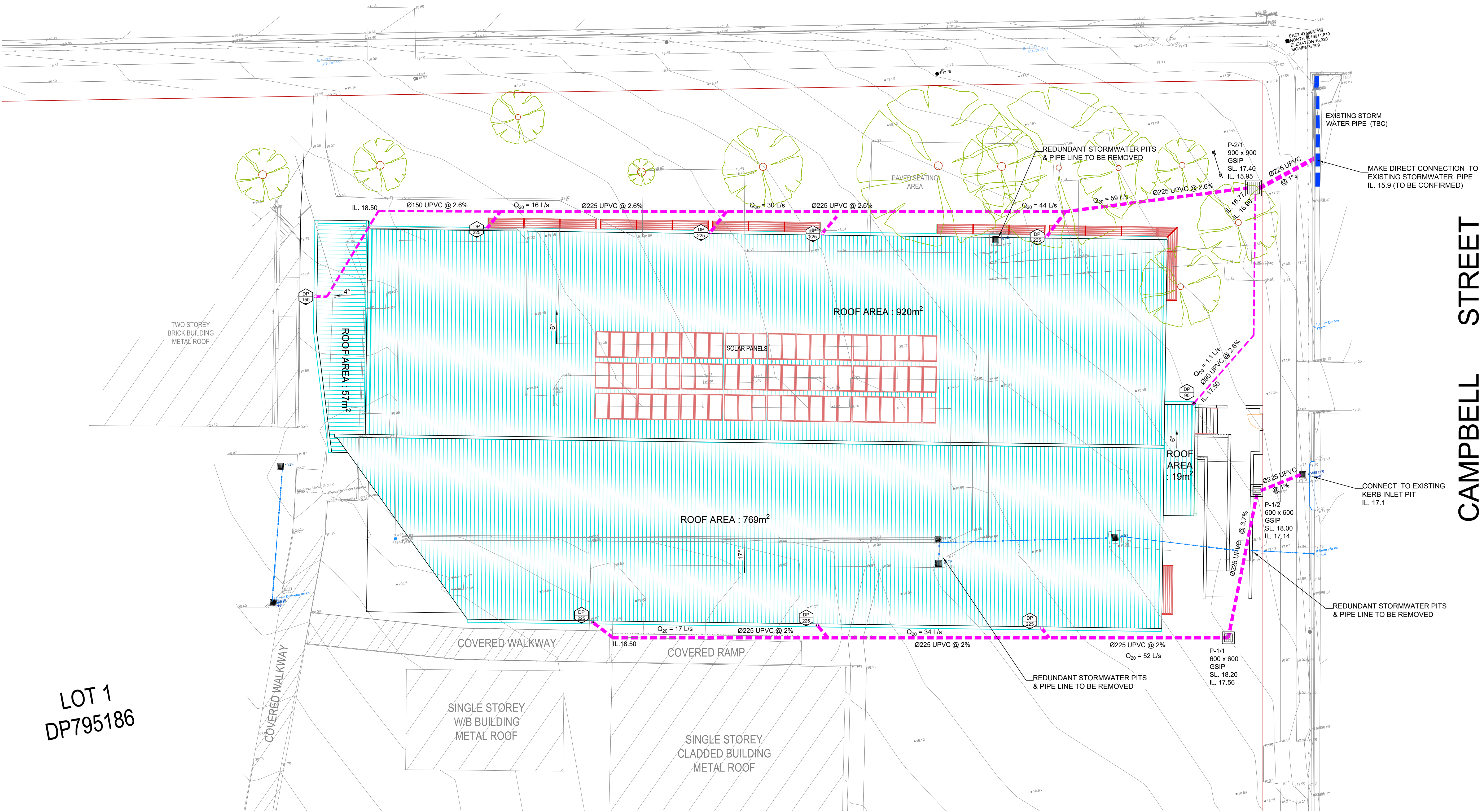
SHEET No.	DESCRIPTION
1	COVER SHEET - GENERAL NOTES, SHEET INDEX AND LEGEND
2	CONCEPT STORMWATER MANAGEMENT PLAN
3	EROSION & SEDIMENT CONTROL PLAN
4	EROSION & SEDIMENT CONTROL DETAILS



CONCEPT DESIGN ONLY
SUBJECT TO FINAL DESIGN
NOT TO BE USED FOR
CONSTRUCTION



WAUGH STREET

CAMPBELL STREET



LOT 1
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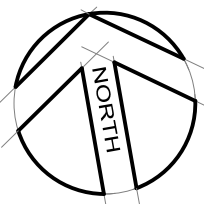


			 TOTAL PROJECT SOLUTIONS LANDING - PROJECT MANAGEMENT - ENGINEERING - CERTIFICATION	SYDNEY P: 02 9659 0005 CENTRAL COAST P: 02 4325 6255 HUNTER P: 02 4966 8388 ABN: 26 134 067 842 barkerryanstewart.com.au mail@barkerryanstewart.com.au	Client:  Education	WAUCHOPE PUBLIC SCHOOL SCHOOL UPGRADE CONCEPT STORMWATER MANAGEMENT PLAN	Designed: AD Drawn: AD Checked: PM	Scales: Plan 1:150 Horiz. Vert. X-Sect. Datum: A.H.D.	Plan No. 160171E1.02 File Ref. CC160171E1.dwg SHEET 2 OF 4 SHEETS	REV. A
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No	DATE	AMENDMENT								

EROSION AND SEDIMENTATION CONTROL NOTES

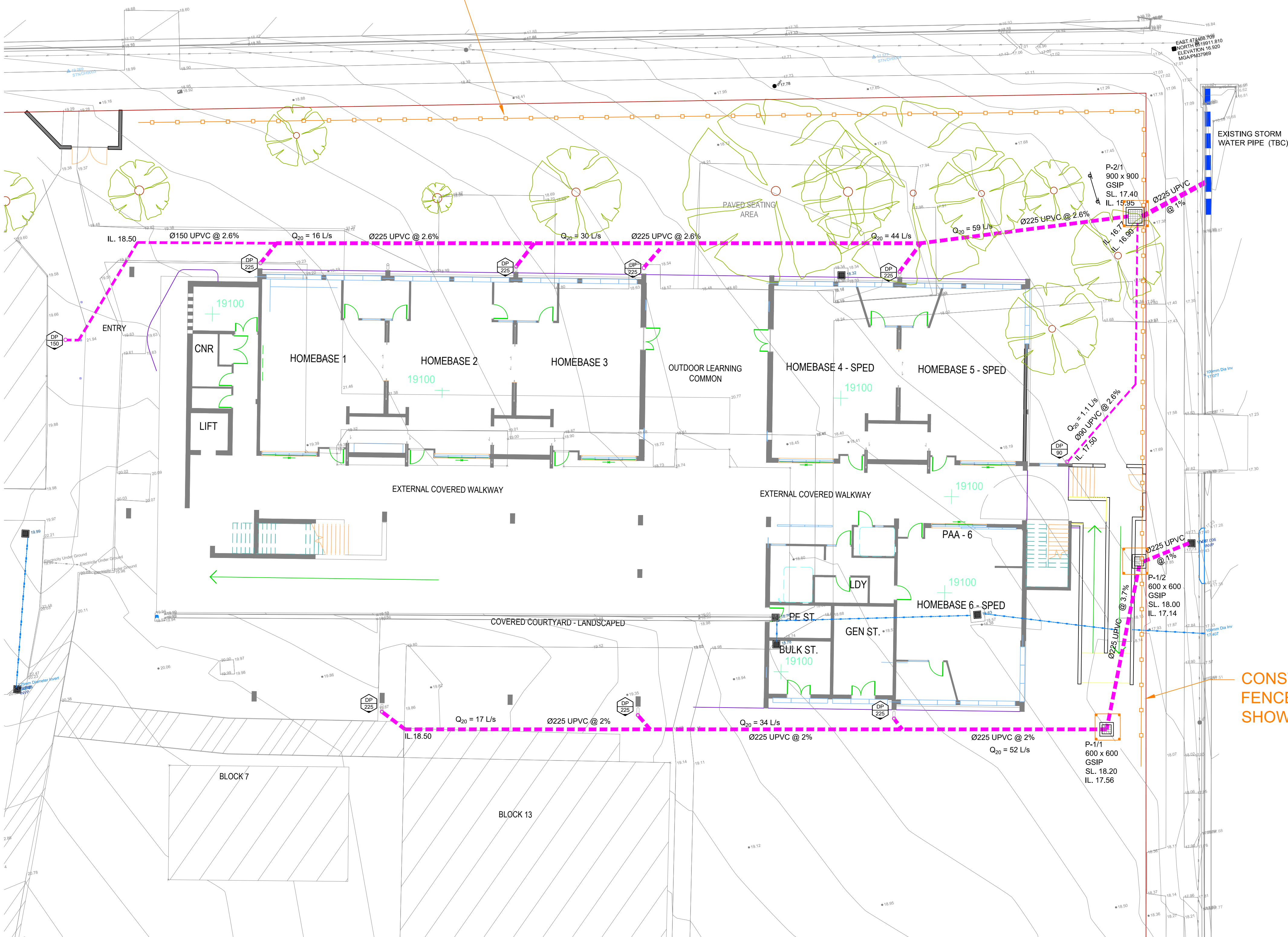
- 1. PRIOR TO THE COMMENCEMENT OF SITE DISTURBANCE, THE CONTRACTOR SHALL ESTABLISH ALL NECESSARY EROSION AND SEDIMENTATION CONTROL MEASURES IN ACCORDANCE WITH THIS PLAN, COUNCIL'S "CIVIL WORKS SPECIFICATION, PART 2 - CONSTRUCTION", AND THE NSW DEPARTMENT OF HOUSING'S PUBLICATION "MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTION".
- 2. THE LOCATION OF EROSION AND SEDIMENTATION CONTROL DEVICES SHOWN ON THIS PLAN ARE INDICATIVE ONLY AND SHOULD BE ADJUSTED TO SUIT SITE CONDITIONS.
- 3. WHERE WORKS ARE DELAYED OR IN ABEYANCE AND DISTURBED AREAS ARE LIKELY TO BE EXPOSED FOR A PERIOD OF TWO MONTHS OR MORE, TEMPORARY REHABILITATION WORKS SHALL BE UNDERTAKEN TO PROTECT THE SITE.
- 4. ALL DISTURBED AREAS SHALL BE TOP SOILED, SEEDED AND MULCHED WITHIN 20 DAYS OF THE COMPLETION OF THE WORKS.
- 5. THE CONTRACTOR SHALL CONDUCT WEEKLY INSPECTIONS OF THE SITE TO ENSURE THAT ALL DEVICES AND REHABILITATION AREAS HAVE BEEN ADEQUATELY MAINTAINED. THE CONTRACTOR SHALL ALSO KEEP A LOG BOOK DETAILING SUCH INSPECTIONS, AND RECORDING RAINFALL EVENTS AND OTHER RELEVANT EVENTS.
- 6. TOPSOIL SHALL BE STOCKPILED IN THE LOCATIONS SHOWN ON THIS PLAN OR AS DIRECTED BY COUNCIL'S ENGINEER. WHERE IT IS LIKELY THAT STOCKPILES WILL REMAIN IN PLACE FOR A PERIOD EXCEEDING 4 WEEKS, THEN THE STOCKPILE SHALL BE STABILISED BY SEEDING OR EQUIVALENT METHODS.
- 7. ALL REVEGETATION WORKS ARE TO BE MAINTAINED, INCLUDING WATERING AND MOWING WHERE NECESSARY UNTIL THE COMPLETION OF THE MAINTENANCE PERIOD.
- 8. THE MOVEMENT OF VEHICULAR TRAFFIC ON THE SITE SHALL BE CONFINED TO DESIGNATED AREAS DURING CONSTRUCTION WORKS. VEHICULAR ACCESS SHALL BE DENIED TO AREAS TO BE LEFT UNDISTURBED.
- 9. SITE ACCESS SHALL BE LIMITED TO THE LOCATIONS SHOWN ON THIS PLAN. SHAKE-DOWN AREAS SHALL BE CONSTRUCTED AS SHOWN.
- 10. DURING CONSTRUCTION WORKS, DUST CONTROL MEASURES SHALL BE IMPLEMENTED TO MINIMISE THE AMOUNT OF DUST GENERATED FROM THE SITE. THESE MEASURES TO BE IMPLEMENTED TO COUNCIL'S SATISFACTION.
- 11. MAINTENANCE AND CLEANING OF CONSTRUCTION PLANT SHALL BE CARRIED OUT IN AN AREA WHERE RUNOFF CAN BE CONTAINED AND APPROPRIATELY TREATED AND DISPOSED OF.
- 12. ALL EROSION AND SEDIMENTATION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL ALL DISTURBED AREAS HAVE ADEQUATELY REGENERATED. THIS STAGE SHALL BE DETERMINED BY THE CERTIFIER.

WAUGH STREET



CONCEPT DESIGN ONLY
SUBJECT TO FINAL DESIGN
NOT TO BE USED FOR
CONSTRUCTION

CONSTRUCT SEDIMENT
FENCE AROUND SITE AS
SHOWN (REFER DETAIL).

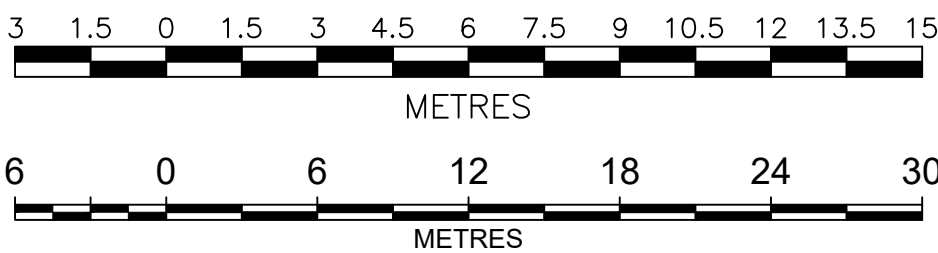


CAMPBELL STREET

CONSTRUCT SEDIMENT
FENCE AROUND SITE AS
SHOWN (REFER DETAIL).

LEGEND

- SEDIMENT FENCE
- STABILISED SITE ACCESS AT ENTRANCE TO WORKS
- SURFACE INLET PIT SEDIMENT TRAP
- HAY BALE SEDIMENT TRAP
- MESH & GRAVEL 'SAUSAGE' FILTER



A	28/06/17	FIRST ISSUE
No	DATE	AMENDMENT

**BARKER
RYAN
STEWART**

TOTAL PROJECT SOLUTIONS
PLANNING - PROJECT MANAGEMENT - ENGINEERING - CERTIFICATION

SYDNEY
P: 02 9659 0005
CENTRAL COAST
P: 02 4325 5255
HUNTER
P: 02 4966 8388
ABN: 26 134 067 842
barkerryanstewart.com.au
mail@barkerryanstewart.com.au

Client:

WAUCHOPE PUBLIC SCHOOL
SCHOOL UPGRADE

EROSION & SEDIMENT CONTROL PLAN

Designed: AD
Drawn: AD
Checked: PM

Scales: Plan 1:150
Horiz.
Vert.
X-Sect.

Datum: A.H.D.

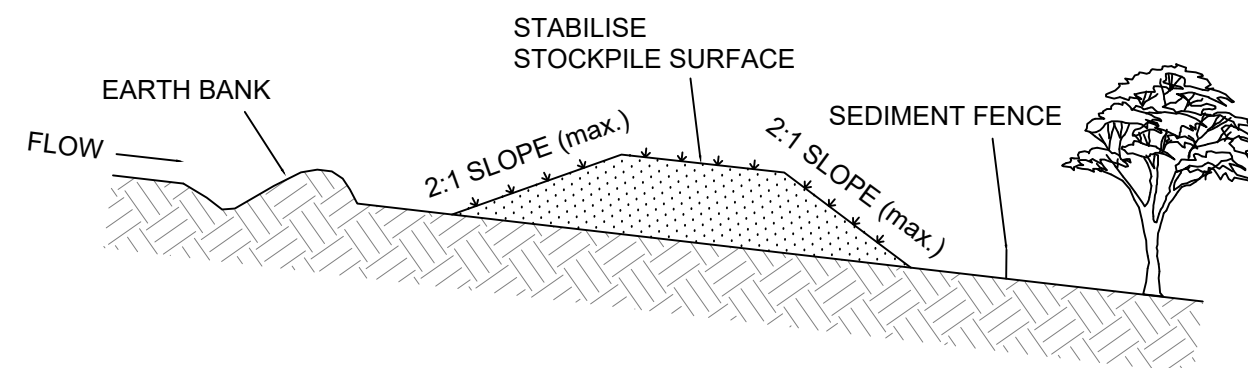
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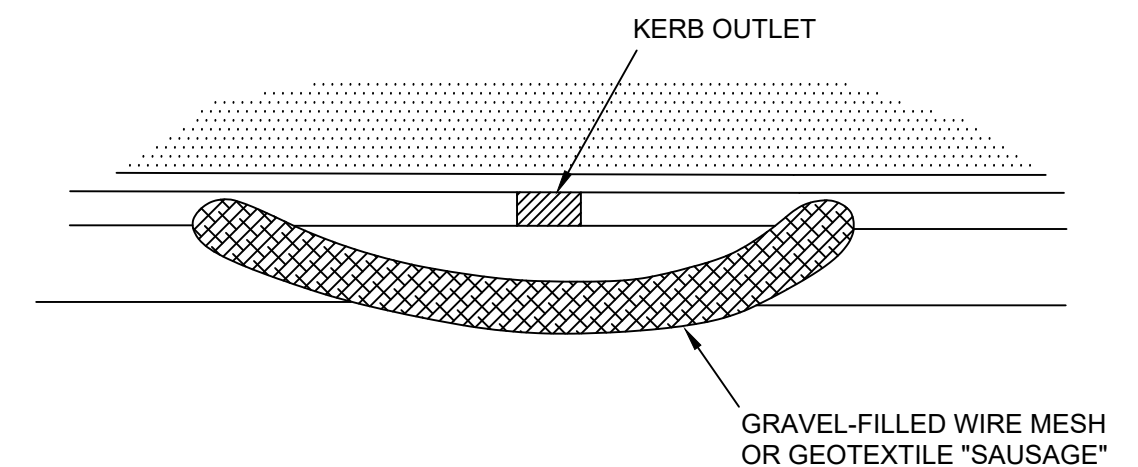
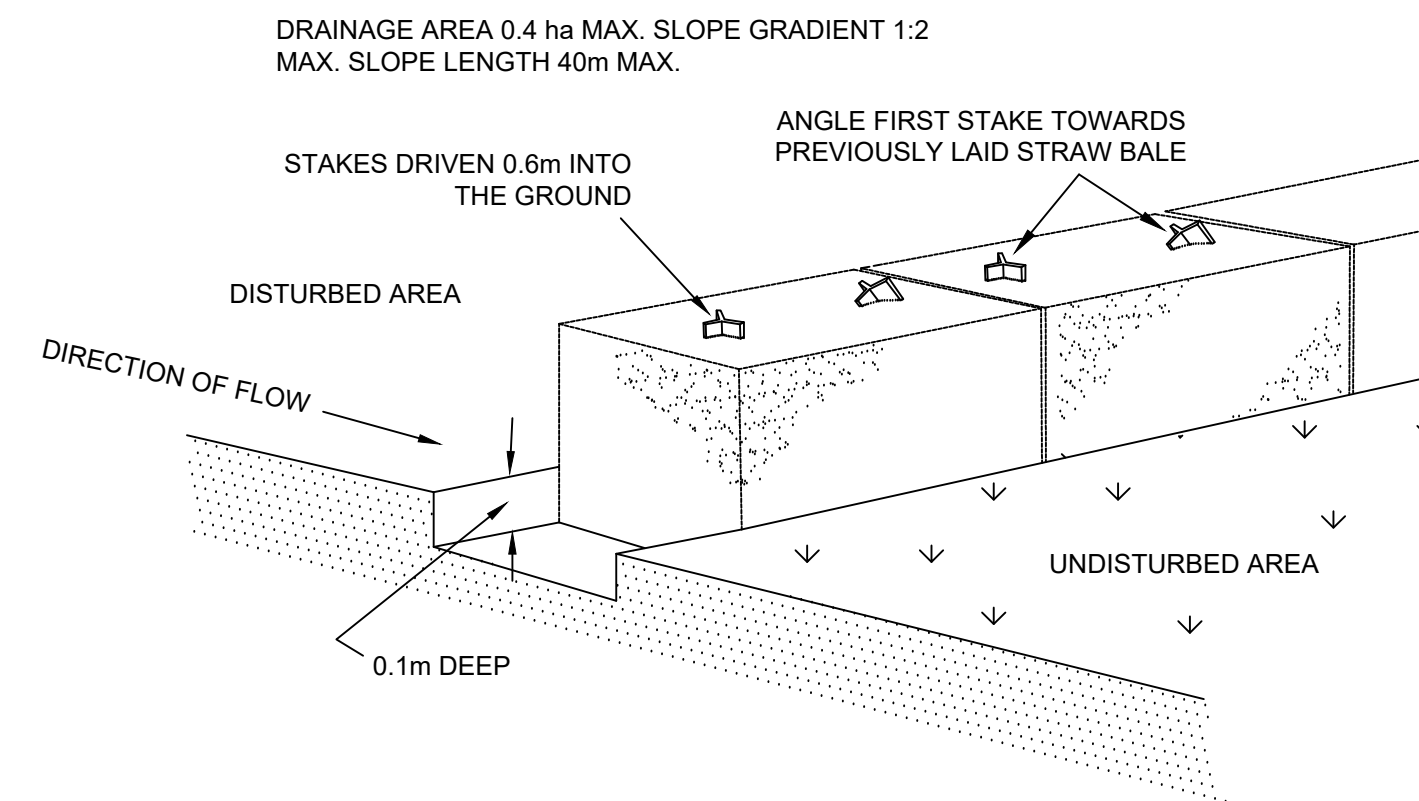
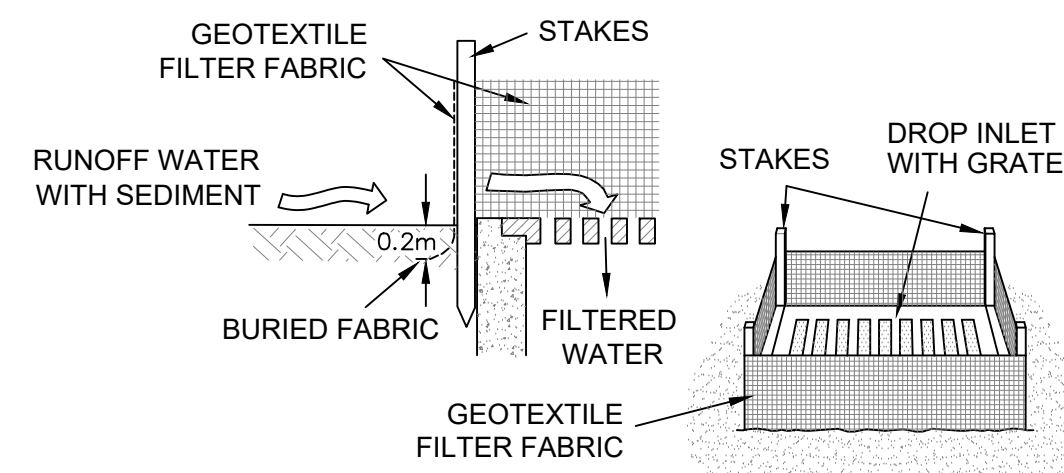
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CONSTRUCTION NOTES

1. WHERE POSSIBLE LOCATE STOCKPILE AT LEAST 5 METRES FROM EXISTING VEGETATION, CONCENTRATED WATER FLOWS, ROADS, HAZARDOUS AREAS AND MIN. 1.5m AWAY FROM EMBANKMENTS.
2. CONSTRUCT ON THE CONTOUR AS A LOW, FLAT ELONGATED MOUND.
3. WHERE THERE IS SUFFICIENT AREA TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METRES IN HEIGHT.
4. REHABILITATE IN ACCORDANCE WITH THE SWMP/ESCP.
5. CONSTRUCT EARTH BANK (STANDARD DRAWING 5-5) ON THE UPSLOPE SIDE TO DIVERT RUN OFF AROUND THE STOCKPILE AND A SEDIMENT FENCE (STANDARD DRAWING 6-1) 1 TO 2 METRES DOWNSLOPE OF STOCKPILE.



CONSTRUCTION NOTES

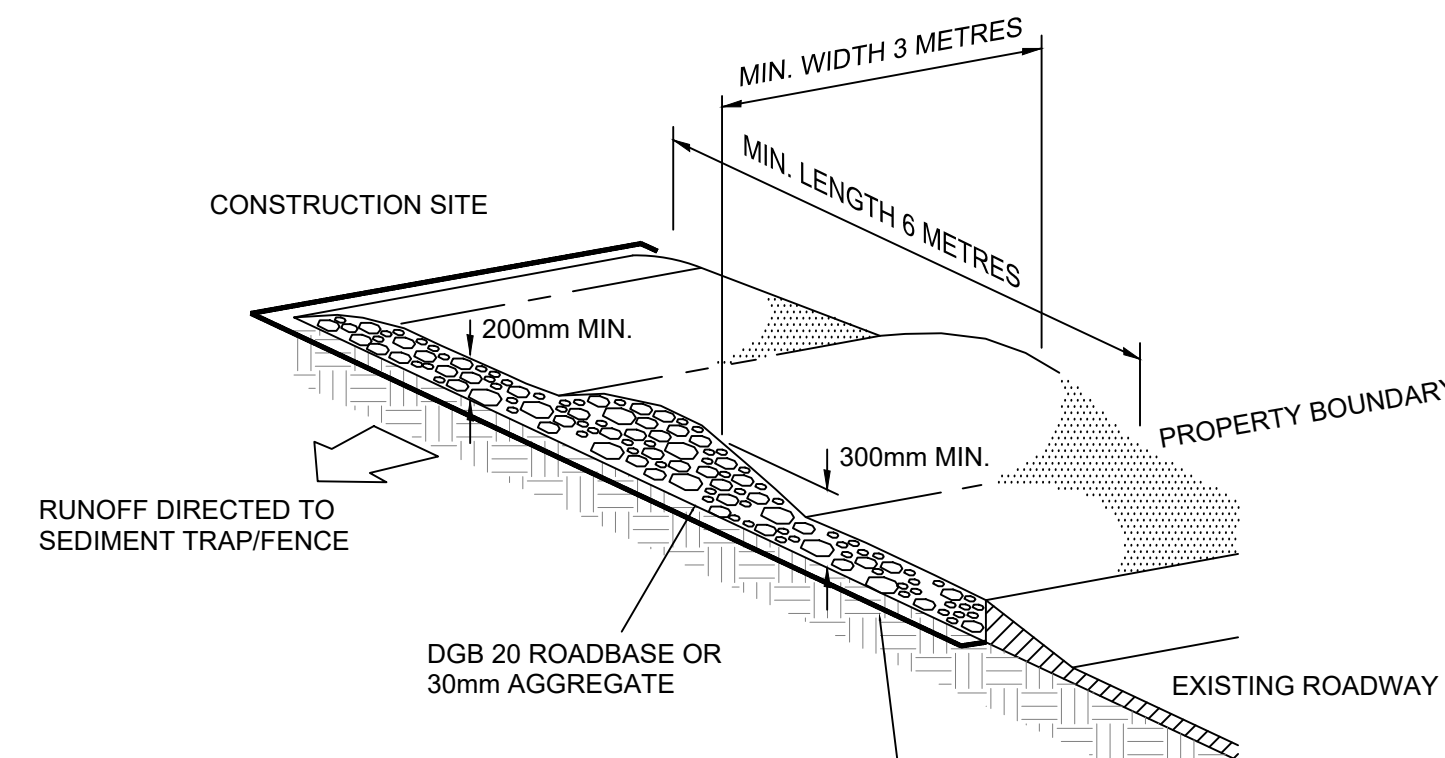
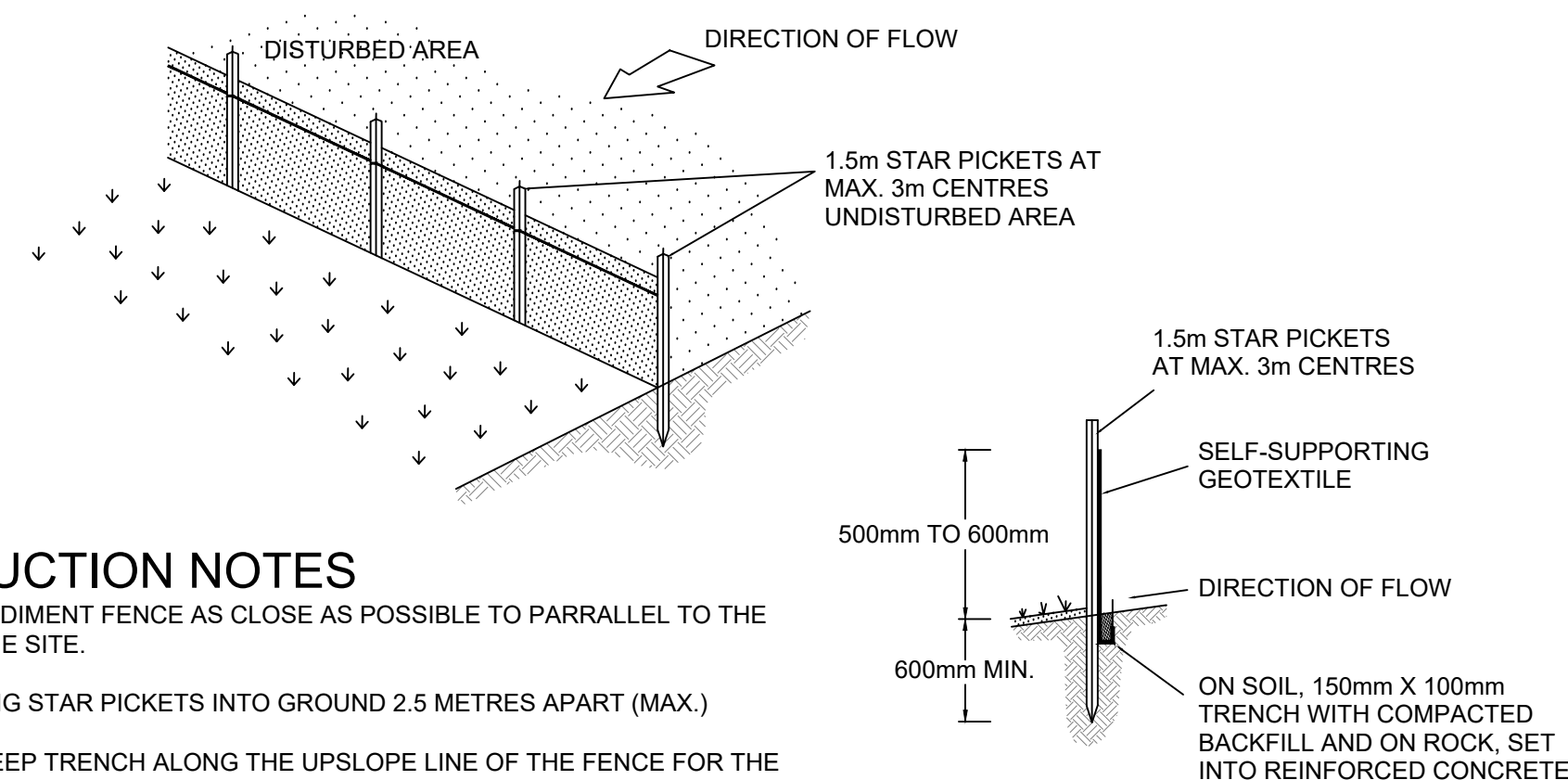
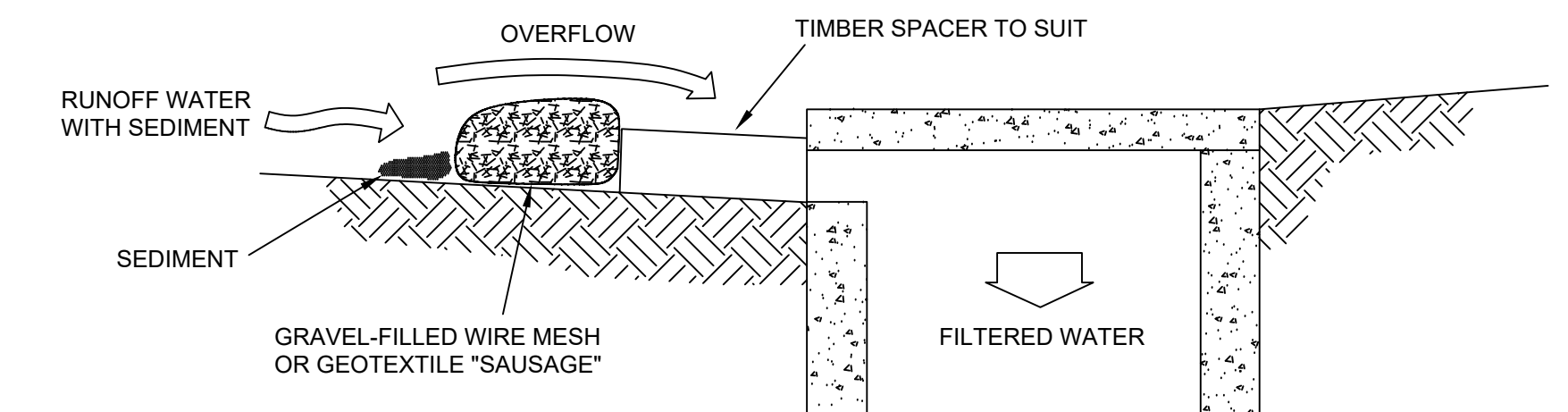
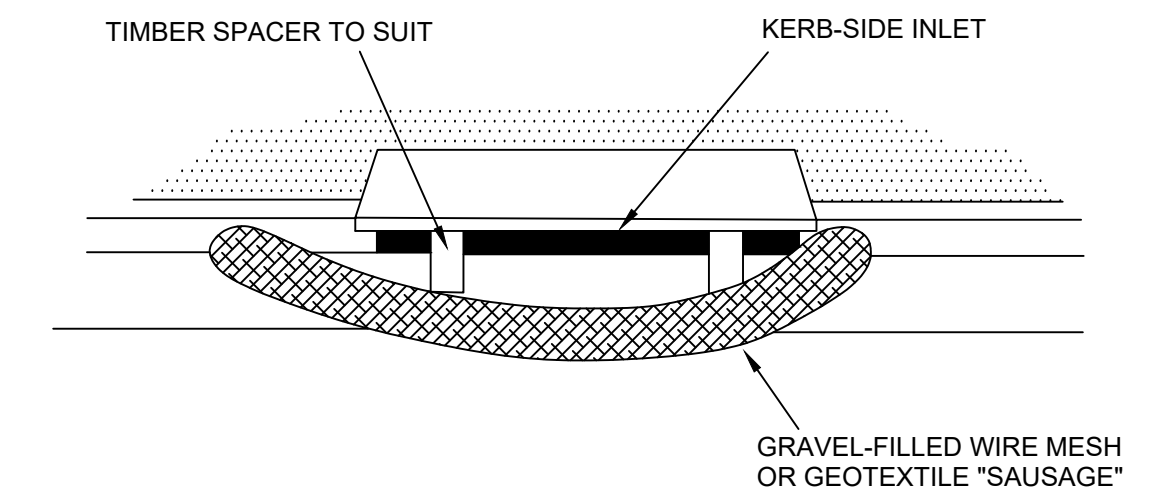
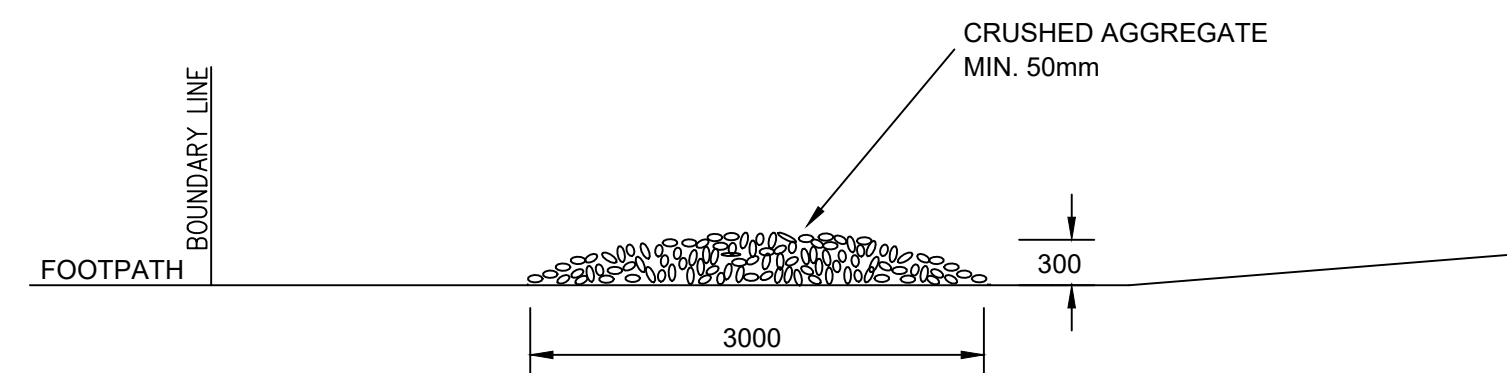
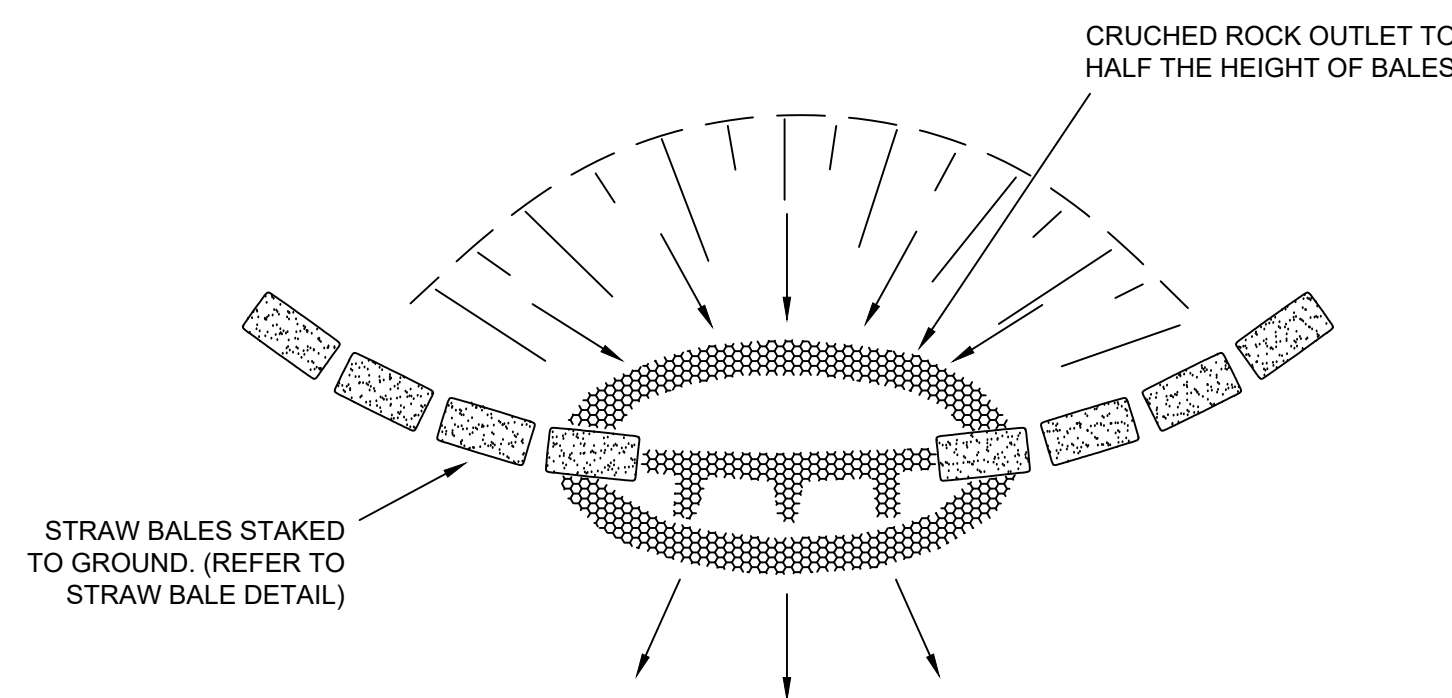
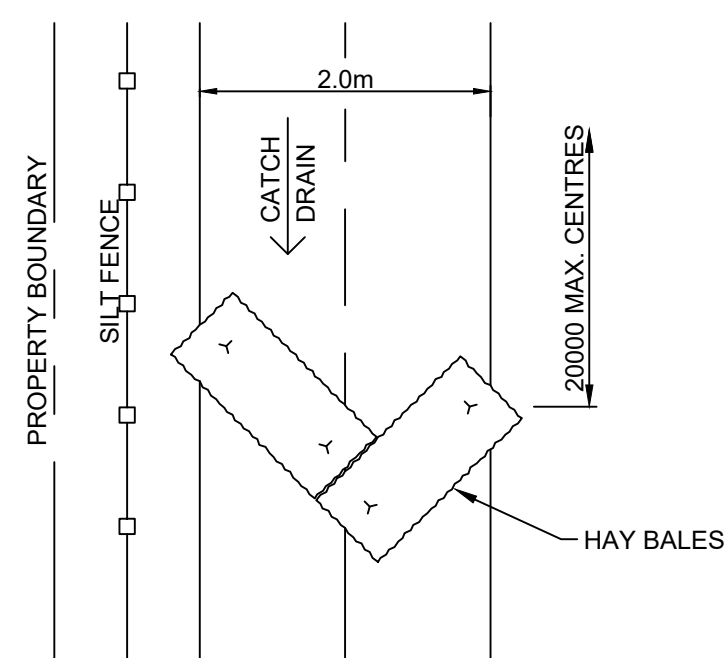
1. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH AND FILL IT WITH 25mm TO 50mm GRAVEL.
2. FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm HIGH X 400mm WIDE.
3. FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING FILTER.
4. SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY FIRMLY ABUT EACH OTHER AND SEDIMENT-LADEN WATERS CANNOT PASS BETWEEN.

TOPSOIL STOCKPILE

SURFACE INLET PIT SEDIMENT TRAP

STRAW BALE SEDIMENT FILTER

MESH & GRAVEL FILTER "SAUSAGE" BARRIER



CONSTRUCTION NOTES

1. CONSTRUCT SEDIMENT FENCE AS CLOSE AS POSSIBLE TO PARRALLEL TO THE CONTOURS OF THE SITE.
2. DRIVE 1.5m LONG STAR PICKETS INTO GROUND 2.5 METRES APART (MAX.)
3. DIG A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
4. FIX SELF-SUPPORTING GEOTEXTILE TO UPSLOPE SIDE OF POSTS WITH WIRE TIES OR AS RECOMMENDED BY GEOTEXTILE MANUFACTURER.
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.

SECTION DETAIL

CONSTRUCTION NOTES



- | | |
|---|--|
| 1. STRIP TOPSOIL AND LEVEL SITE. | GEOTEXTILE FABRIC DESIGNED TO PREVENT INTERMIXING OF SUBGRADE AND BASE MATERIALS AND TO MAINTAIN GOOD PROPERTIES OF THE SUB-BASE LAYERS. |
| 2. COMPACT SUBGRADE. | |
| 3. COVER AREA WITH NEEDLE-PUNCHED GEOTEXTILE. | GEOFABRIC MAY BE A WOVEN OR NEEDLE PUNCHED PRODUCT WITH A MINIMUM CBR BURST STRENGTH (AS3706.4-90) OF 2500 N |
| 4. CONSTRUCT 200mm THICK PAD OVER GEOTEXTILE USING ROADBASE OR 30mm AGGREGATE. MINIMUM LENGTH 15 METRES OR TO BUILDING ALIGNMENT. MINIMUM WIDTH 3 METRES. | |
| 5. CONSTRUCT HUMP IMMEDIATELY WITHIN BOUNDARY TO DIVERT WATER TO A SEDIMENT FENCE OR OTHER SEDIMENT TRAP. | |

CONSTRUCTION NOTES

INSTALL FILTERS TO KERB INLET ONLY AT SAG POINTS.

1. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT AND FILL IT WITH 25mm TO 50mm GRAVEL.
2. FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm HIGH X 400mm WIDE.
3. PLACE THE FILTER AT THE OPENING LEAVING AT LEAST A 100mm SPACE BETWEEN IT AND THE KERB INLET MAINTAIN THE OPENING WITH SPACER BLOCKS.
4. FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING FILTER.
5. SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY FIRMLY ABUT EACH OTHER AND SEDIMENT-LADEN WATERS CANNOT PASS BETWEEN.
- 6.

MESH & GRAVEL INLET "SAUSAGE" FILTER

			 BARKER RYAN STEWART <small>TOTAL PROJECT SOLUTIONS PLANNING - PROJECT MANAGEMENT - ENGINEERING - CERTIFICATION</small>	SYDNEY P: 02 9659 0005 CENTRAL COAST P: 02 4326 5255 HUNTER P: 02 4966 8388 ABN: 26 134 067 842 barkerryanstewart.com.au mail@barkerryanstewart.com.au	Client: 	WAUCHOPE PUBLIC SCHOOL SCHOOL UPGRADE EROSION & SEDIMENT CONTROL DETAILS	Designed: AD Drawn: AD Checked: PM	Scales: Plan Horiz. Vert. X-Sect. Datum: A.H.D.	Plan No. 160171E1.04 File Ref. CC160171E1.dwg SHEET 4 OF 4 SHEETS	REV. A
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