

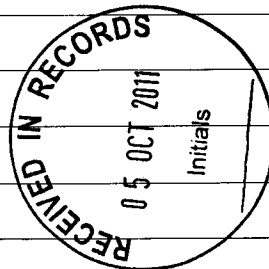
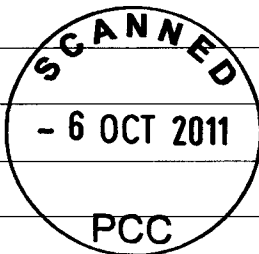
COULD THESE
DRAWINGS BE
PROCESSED ASAP
BECAUSE HE NEEDS TO
REVIEW AND PREPARE HIS
ASSESSMENT ON
TUESDAY AFTERNOON.

ATTN TO:

NATHAN JEGATHEESAN

REGARDS

STUART MATHIE





Cardno

Shaping the Future

Consulting Engineers

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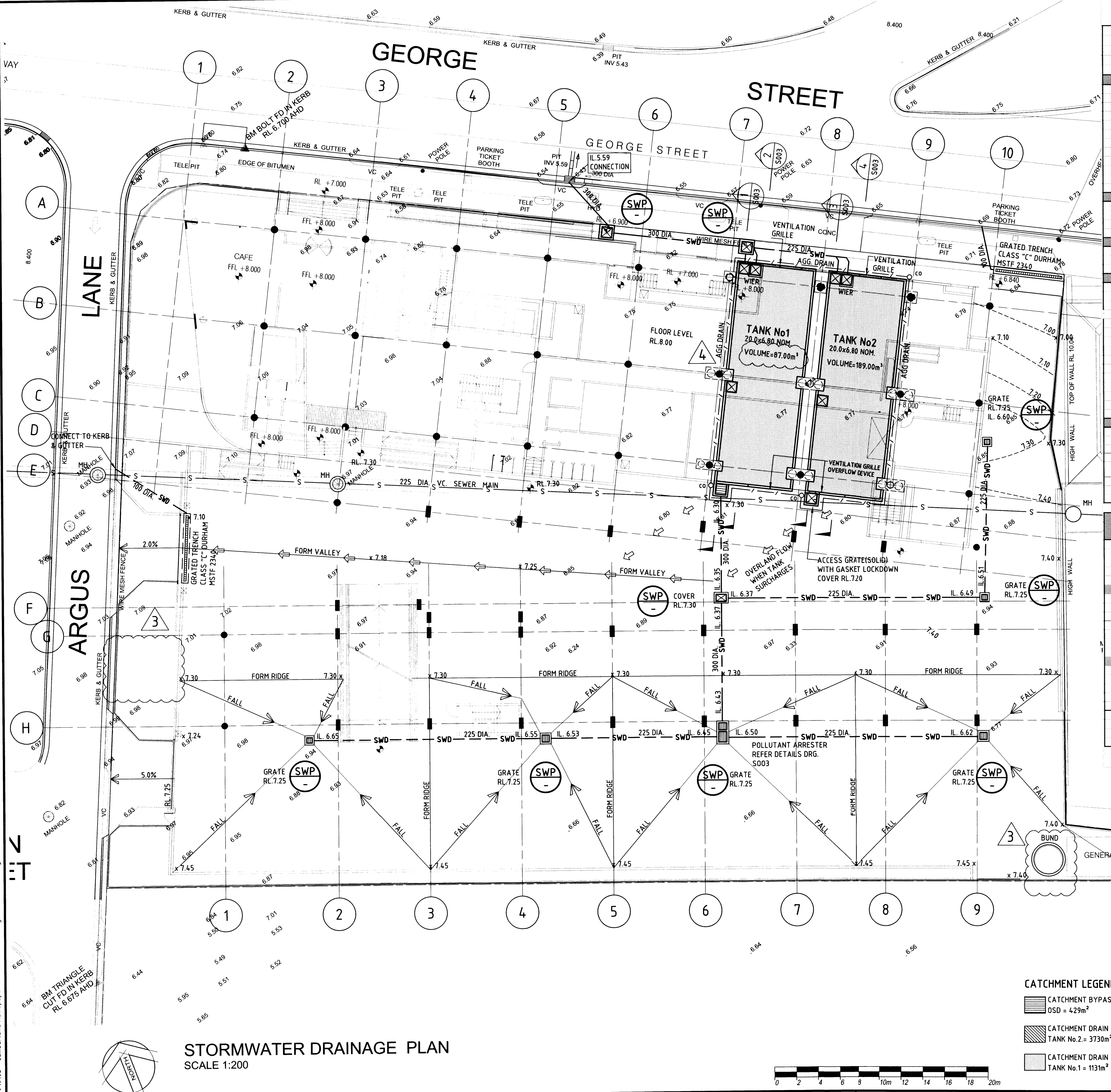
Level 3, 910 Pacific Highway

Gordon NSW 2072 Australia

Ph: 61 2 9496 7700

Fax: 61 2 9499 3902

To	PARRAMATTA CITY COUNCIL											
Address	30 DARCY STREET, PARRAMATTA NSW 2150											
Attention	NATHAN JEGATHEESAN											
Project	CUMBERLAND NATIONWIDE NEWS LIMITED											
Distributed To	Copies											
EGO GROUP	1	1	1	1	1							
EGO GROUP.	1	1	1	1	1							
MARY CASEY	1											
PARRAMATTA CITY COUNCIL						1						
Reason for Issue: A-Approval C-Construction I-Info T-Tender P-Prelim CC-Construction Certificate						P	P	P	P	D	A	A
Media: P-Print F-File T-Tracing C-On disc						F	F	F	F	F	P	
Method of Transport: P-Post H-Hand C-Counter E-Email X-Express Post						E	E	E	E	E	X	P
Remarks/	Authorised By:											
Sent By:	Day		03	28	28	01	17	30				
Stuart M	Month		02	02	02	03	03	09				
	Year		11	11	11	11	11	11				
Dwg No.	Drawing Title											
C001	CIVIL CONSTRUCTION NOTES											
C002	STORMWATER DRAINAGE PLAN											
C003	DRAINAGE & DETENTION TANK DETAILS											
C004	EROSION & SEDIMENTATION CONTROL PLAN											
C002P	STORMWATER DRAINAGE PLAN											
C003P	DRAINAGE & DETENTION TANK DETAILS											
SKT 01	SECT THROUGH UNDERGROUND TANKS											

STORMWATER DRAINAGE PLAN
SCALE 1:200

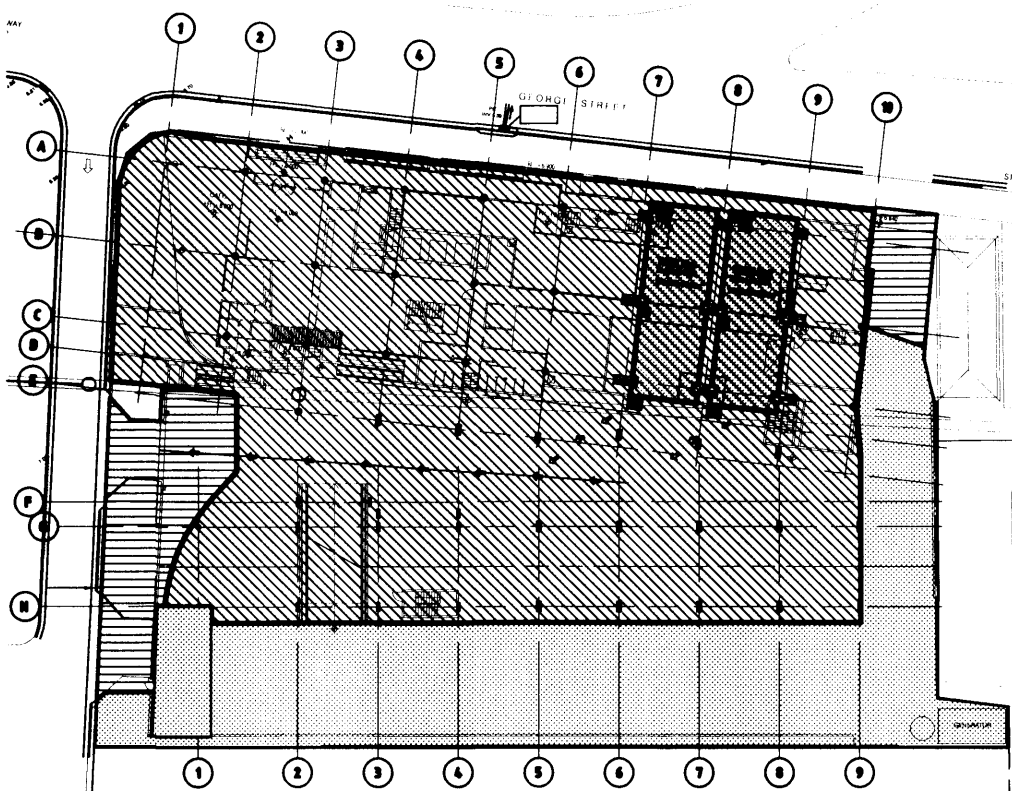
CATCHMENT LEGEND

- CATCHMENT BYPASS
OSD = 429m²
- CATCHMENT DRAIN TO
TANK No.2 = 3730m²
- CATCHMENT DRAIN TO
TANK No.1 = 1131m²



CATCHMENT KEY PLAN

NTS

On-Site Detention Calculation Sheet for Upper Parramatta River Catchment
Non-HED Secondary Outlet
(Due to Elevated Downstream 100 yr ARI Flood Level)

Project:	Cumberland Media Centre
Site Address:	George Street, Parramatta - Catchment 1
Job No:	LH 9103
Designer:	PL
Telephone:	(02) 9496 7700
Site Data	
OSD Area:	Upper Parramatta River Catchment
LGA:	Parramatta City Council
Site Area:	0.156 ha 1,560 m ²
Total Roof Area:	0 ha 0 m ²
Area of Site draining to OSD Storage:	0.1131 ha 1,131 m ² Satisfactory
Residual Site Area (Lot Area - Roof Area):	0.156 ha
Area Bypassing Storage:	0.0429 ha
Area Bypassing / Residual Site Area:	27.5% Satisfactory
No. of Dwellings on Site:	1
Site Area per Dwelling:	0.156 ha
Roof Area per Dwelling:	0.000 ha

Basic OSD Parameters	
Basic SSR Vols	Extended Detention
Basic SRDs	Primary Outlet
Extended Detention	300 m ³ ha
Primary Outlet	40 L/s/ha
Total Storage	520 m ³ ha
Secondary Outlet	150 L/s/ha

OSD Tank Bypass	
Residual Lot Capture in OSD Tank	73%
Adjusted SRDs	32 L/s/ha
Detention	95 L/s/ha

OSD Calculations	
Basic SSR Volume	Extended Detention
Total Rainwater Tank Credits	#DIV/0!
Storage Volume	#DIV/0!
Storage Volume	#DIV/0!
OSD Discharges	Primary Outlet
Extended Detention	46.80 m ³
Primary Outlet	#DIV/0!
Total Storage	81.12 m ³
Flood Detention Storage	#DIV/0!
Secondary Outlet	14.82 L/s
RL of Top Water Level of Storage	6.850 m
RL of Office Centre-line	6.100 m
Number of Offices	1
Estimated Downstream Flood Level	6.04 20 yr ARI
Downstream FL - RL of Office Centre-line	-0.06 Satisfactory
Design Head to Office Centre	0.750 m
Calculated Office Diameter	52 mm Satisfactory
Detention	106 mm

Overflow Weir & Freeboard Calculation	
RL of Minimum Habitable Floor Level	8.000 m
RL of Minimum Garage Floor Level	7.100 m
Length of Overflow Weir	2.40 m
Site Runoff Coefficient	Parramatta City Council
Storm Intensity (5 min 100 yr ARI)	224 mm/h
Peak Flow over Weir	63.3 L/s
Depth of Flow over Weir	64 mm
Freeboard to Habitable Floor	Satisfactory
Freeboard to Garage Floor	Satisfactory

Rainwater Tank Calculations (per Dwelling)	
Only Complete this Section if a Rainwater Tank Airspace Credit is Claimed	
The calculations assume that the same size rainwater tank is installed on each dwelling	
% of Roof draining to Rainwater Tank	80.0% #DIV/0! Min Max
Total Rainwater Tank Volume	5.00 kL Tank Volume OK
Min Volume that triggers Top-up	0.00 kL Note - Min Vol in Tank < 10% Total Tank Vol
Total Tank Vol - Min Top-up Vol	5.00 kL
Dedicated Airspace	
Dedicated Airspace	0.00 kL Satisfactory
Extended Detention	0.00 kL
Dedicated Airspace Credit	0.00 kL
Maximum Tank PSD	40 L/s/ha
Maximum Tank Discharge	0.0 L/s
Maximum Head to Centre of Tank Orifice	0.000 m
Calculated Office Diameter	0 mm
Dynamic Airspace	
Maximum Dynamic Storage (Nett Vol)	5.00 kL Controls minimum % Roof to Rainwater Tank
Daily Demand on Rainwater Tank	0.657 kL/d Satisfactory
Dynamic Airspace at start of Storm	#DIV/0! kL
Dynamic Airspace Credit	#DIV/0! kL
Combined Rainwater Tank Credit	#DIV/0! kL
Maximum Rainwater Tank Credit	0.00 kL
Rainwater Tank Credit per Dwelling	#DIV/0! kL
Rainwater Tank Credit for the Site	#DIV/0! m ³

Signature: _____

Date: _____

On-Site Detention Calculation Sheet for Upper Parramatta River Catchment
Non-HED Secondary Outlet
(Due to Elevated Downstream 100 yr ARI Flood Level)

Project:	Cumberland Media Centre
Site Address:	George Street, Parramatta - Catchment 2
Job No:	LH 9103
Designer:	PL
Telephone:	(02) 9496 7700
Site Data	
OSD Area:	Upper Parramatta River Catchment
LGA:	Parramatta City Council
Site Area:	0.373 ha 3,730 m ²
Total Roof Area:	0 ha 0 m ²
Area of Site draining to OSD Storage:	0.373 ha 3,730 m ² Satisfactory
Residual Site Area (Lot Area - Roof Area):	0.373 ha
Area Bypassing Storage:	0 ha
Area Bypassing / Residual Site Area:	0.0% Satisfactory
No. of Dwellings on Site:	1
Site Area per Dwelling:	0.373 ha
Roof Area per Dwelling:	0.000 ha

Basic OSD Parameters	
Basic SSR Vols	Extended Detention
Basic SRDs	Primary Outlet
Extended Detention	300 m ³ ha
Primary Outlet	40 L/s/ha
Total Storage	520 m ³ ha
Secondary Outlet	150 L/s/ha

OSD Tank Bypass	
Residual Lot Capture in OSD Tank	100%
Adjusted SRDs	40 L/s/ha
Detention	150 L/s/ha

OSD Calculations	
Basic SSR Volume	Extended Detention
Total Rainwater Tank Credits	#DIV/0!
Storage Volume	#DIV/0!
Storage Volume	#DIV/0!
OSD Discharges	Primary Outlet
Extended Detention	111.90 m ³
Primary Outlet	#DIV/0!
Total Storage	193.96 m ³
Flood Detention Storage	#DIV/0!
Secondary Outlet	55.95 L/s
RL of Top Water Level of Storage	7.600 m
RL of Office Centre-line	6.100 m
Number of Offices	1
Estimated Downstream Flood Level	6.04 20 yr ARI
Downstream FL - RL of Office Centre-line	-0.06 Satisfactory
Design Head to Office Centre	1.500 m
Calculated Office Diameter	76 mm Satisfactory
Detention	158 mm

Overflow Weir & Freeboard Calculation	
RL of Minimum Habitable Floor Level	8.000 m
RL of Minimum Garage Floor Level	6.500 m
Length of Overflow Weir	2.80 m
Site Runoff Coefficient	Parramatta City Council
Storm Intensity (5 min 100 yr ARI)	224 mm/h
Peak Flow over Weir	208.9 L/s
Depth of Flow over Weir	160 mm
Freeboard to Habitable Floor	Satisfactory
Freeboard to Garage Floor	Satisfactory

Rainwater Tank Calculations (per Dwelling)	
Only Complete this Section if a Rainwater Tank Airspace Credit is Claimed	
The calculations assume that the same size rainwater tank is installed on each dwelling	
% of Roof draining to Rainwater Tank	80.0% #DIV/0! Min Max
Total Rainwater Tank Volume	5.00 kL Tank Volume OK
Min Volume that triggers Top-up	0.00 kL Note - Min Vol in Tank < 10% Total Tank Vol
Total Tank Vol - Min Top-up Vol	5.00 kL
Dedicated Airspace	
Dedicated Airspace	0.00 kL Satisfactory
Extended Detention	0.00 kL
Dedicated Airspace Credit	0.00 kL
Maximum Tank PSD	40 L/s/ha
Maximum Tank Discharge	0.0 L/s
Maximum Head to Centre of Tank Orifice	0.000 m
Calculated Office Diameter	0 mm
Dynamic Airspace	
Maximum Dynamic Storage (Nett Vol)	5.00 kL Controls minimum % Roof to Rainwater Tank
Daily Demand on Rainwater Tank	0.657 kL/d Satisfactory
Dynamic Airspace at start of Storm	#DIV/0! kL
Dynamic Airspace Credit	#DIV/0! kL
Combined Rainwater Tank Credit	#DIV/0! kL
Maximum Rainwater Tank Credit	0.00 kL
Rainwater Tank Credit per Dwelling	#DIV/0! kL
Rainwater Tank Credit for the Site	#DIV/0! m ³

Signature: _____

Date: _____

LEGEND

- NEW STORMWATER PIPE
- EXISTING SEWER MAIN
- EXISTING SEWER MANHOLE
- EXISTING STORMWATER PIPE
- SUBSOIL DRAIN 90mm DIA. WRAPPED IN FILTER FABRIC SOCK. AND CONNECTED TO DRAINAGE PITS
- CLEAN OUT NEW STORMWATER PIPE
- OVERLAND FLOW PATH
- STORMWATER PIT (GRATED COVER)
- STORMWATER PIT (SOLID COVER)
- EXISTING STORMWATER PIT
- GRATED DRAIN
- FLOOR LEVEL RL 8.00
- PROPOSED FINISHED SURFACE CONTOUR
- PROPOSED FINISHED SURFACE SPOT LEVEL
- EXISTING SURFACE SPOT LEVEL
- FALL INDICATOR IN PAVEMENT TO SUMP

NOT CONSTRUCTION ISSUE

Rev	Date	Description	Drawn	Appr
A	17.03.2011	DEVELOPMENT APPLICATION ISSUE	FJC	PW
4	10.03.2011	TANK 1 - 87.00 CUB. M. (CORRECT) AS PER ISSUE 3	FJC	PW
3	28.02.2011	PRELIMINARY RE ISSUE	FJC	PW
2	14.02.2011	PRELIMINARY RE ISSUE	FJC	PW
1	03.02.2011	PRELIMINARY ISSUE	FJC	PW

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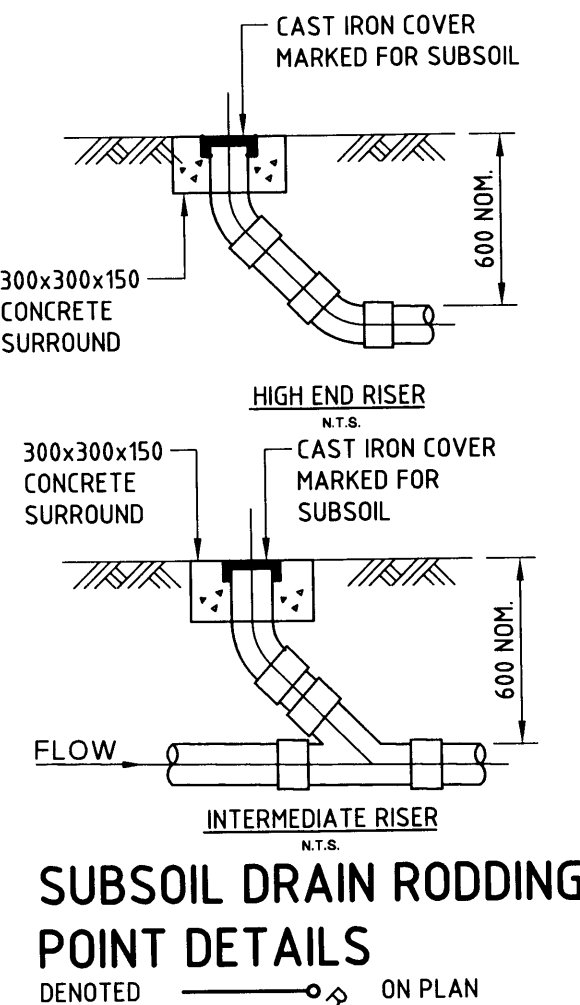
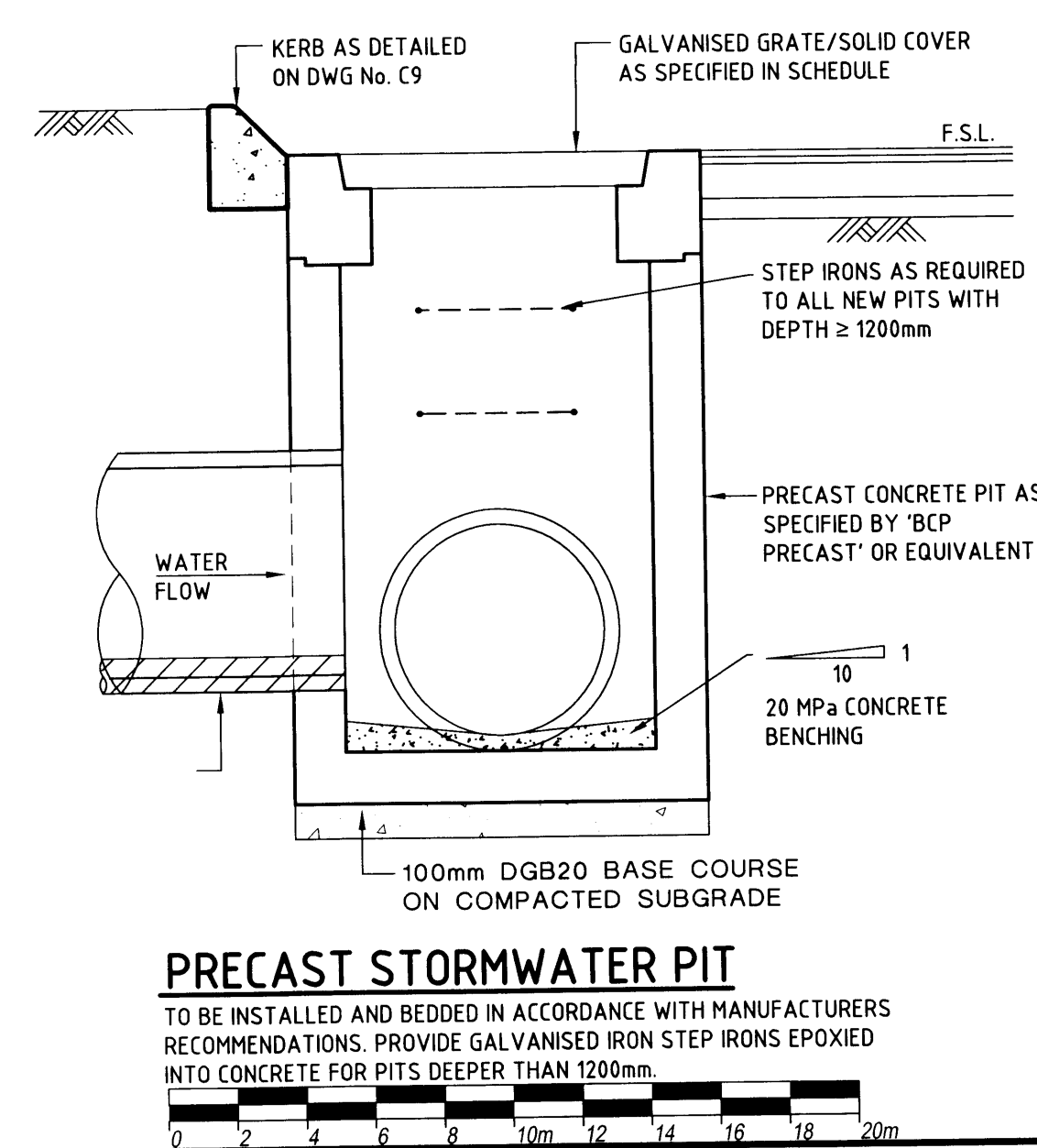
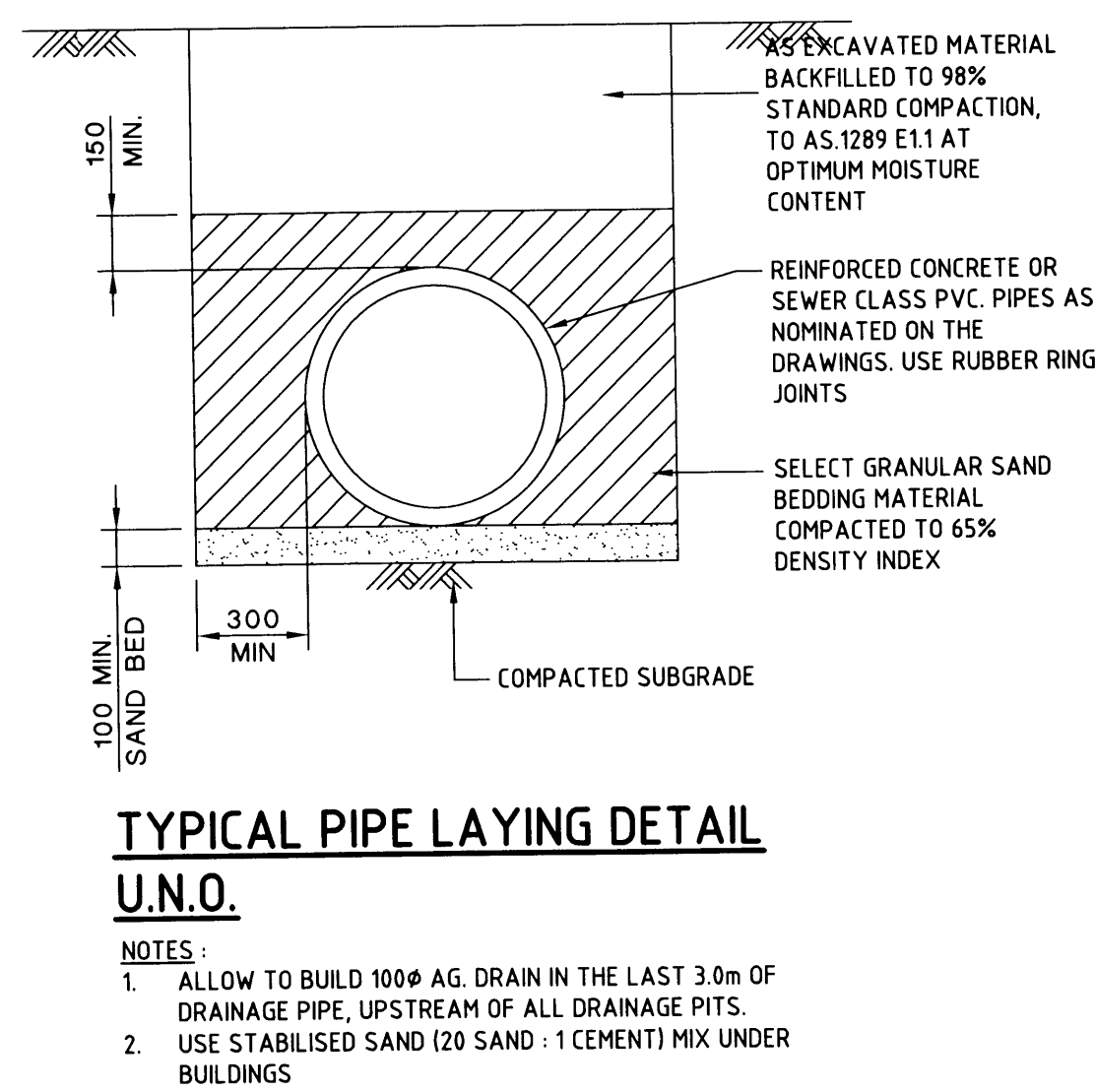
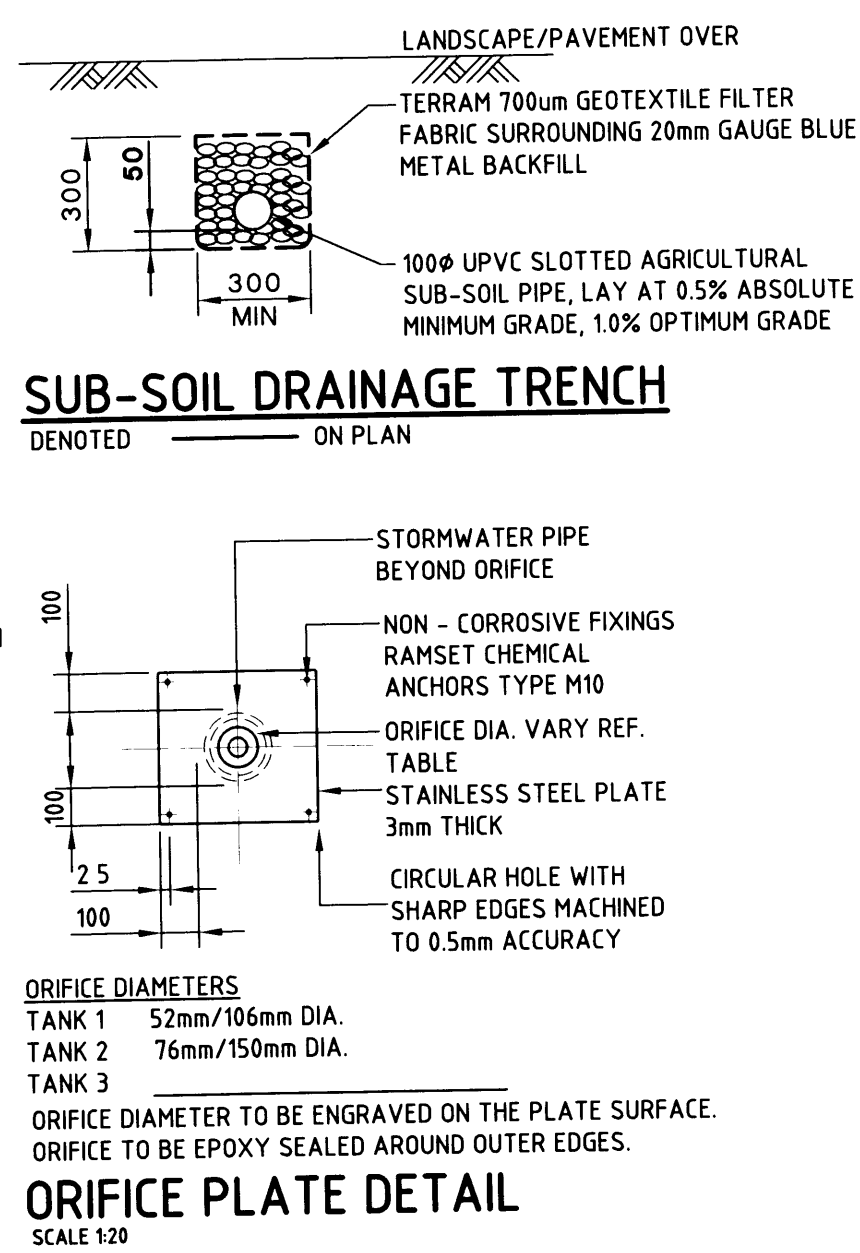
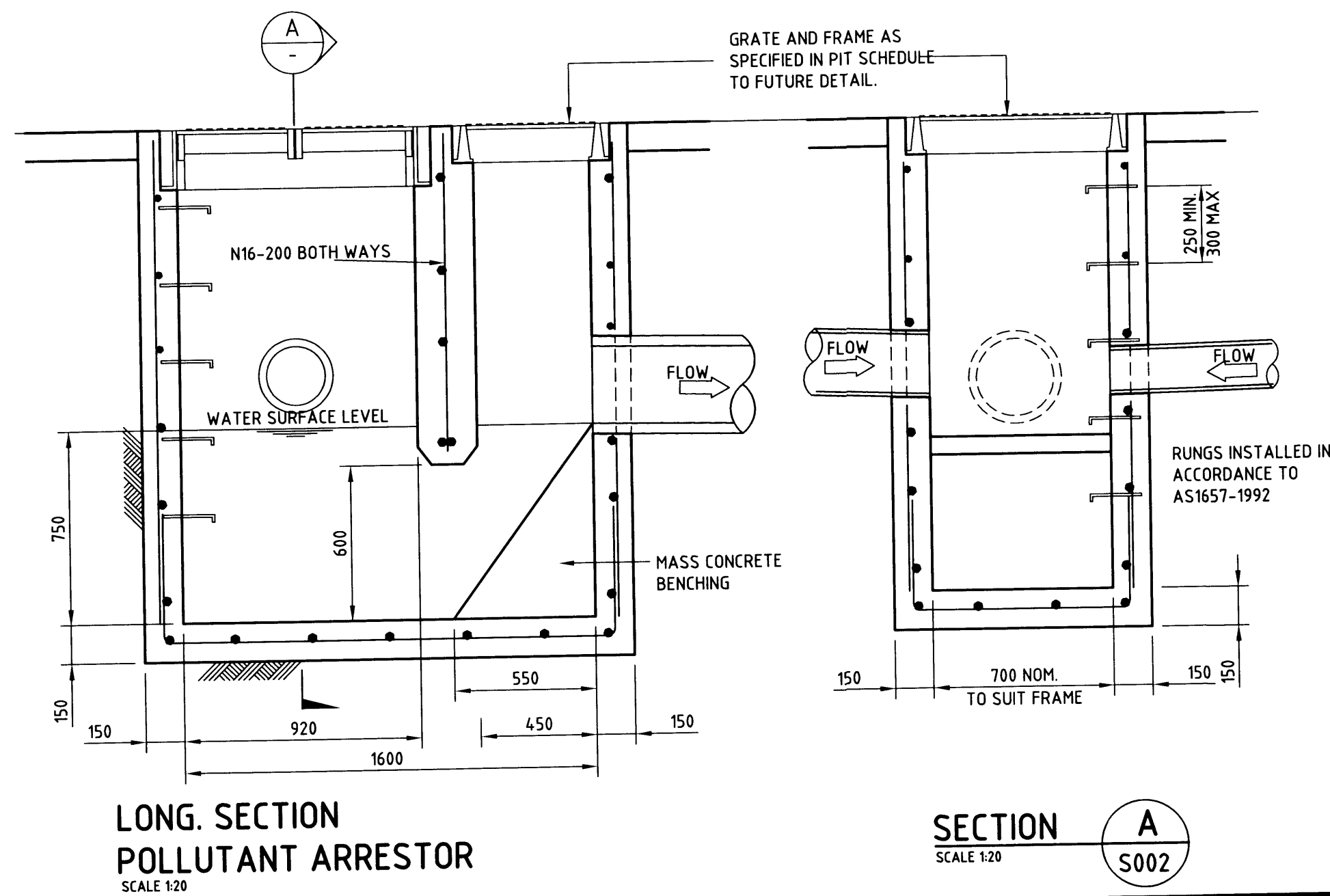
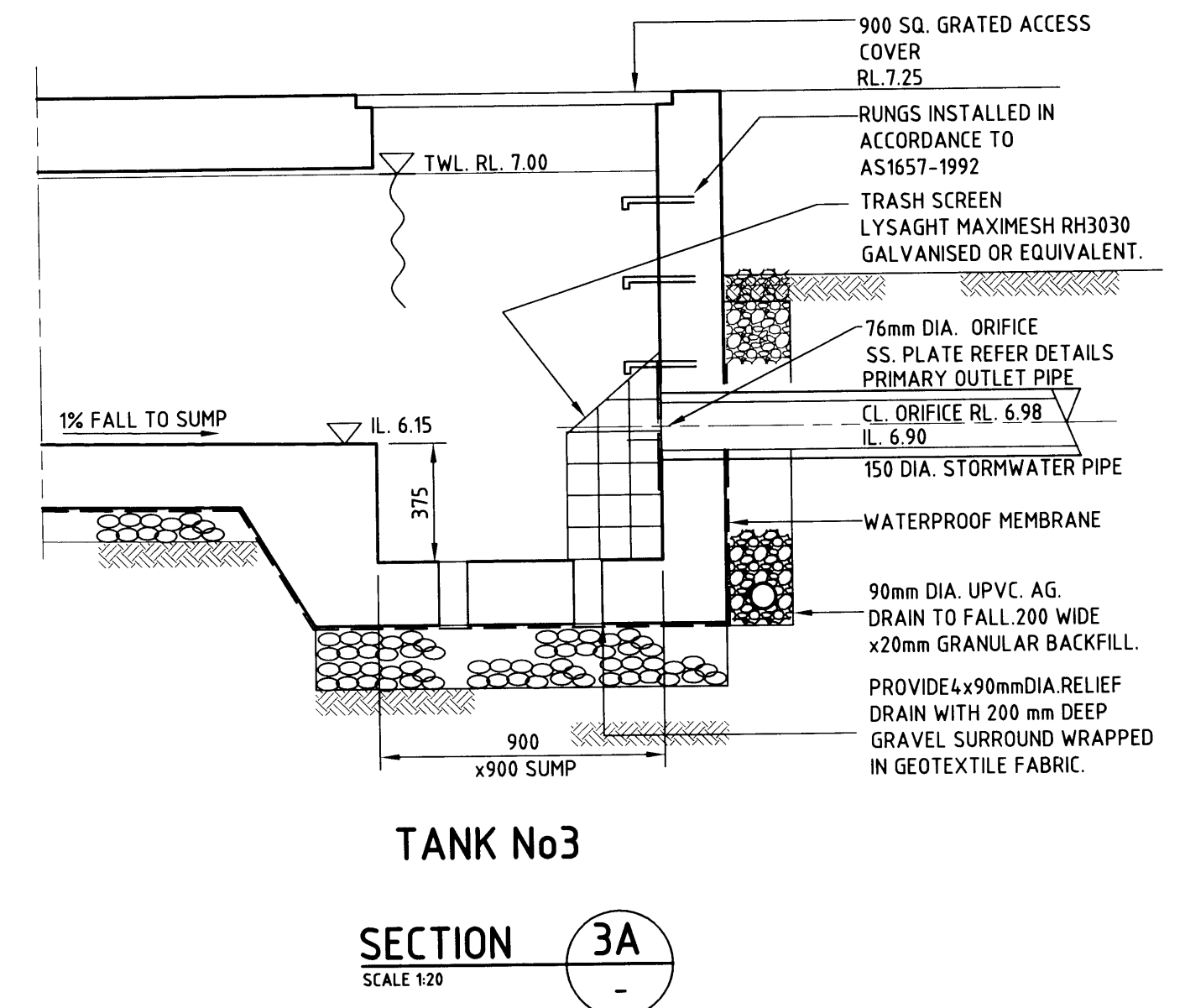
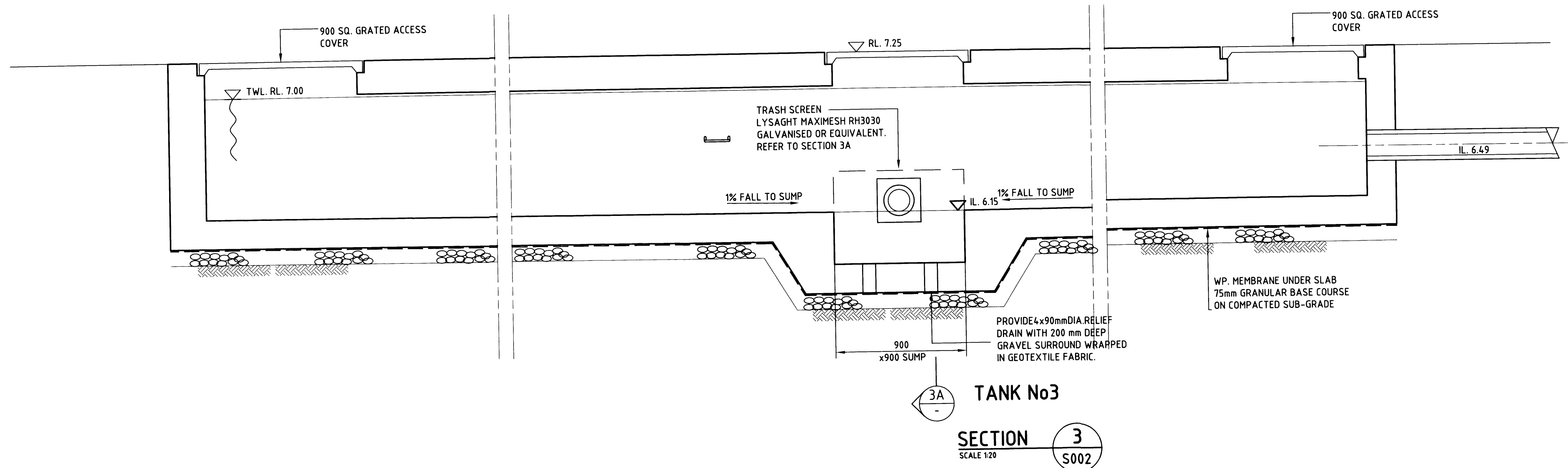
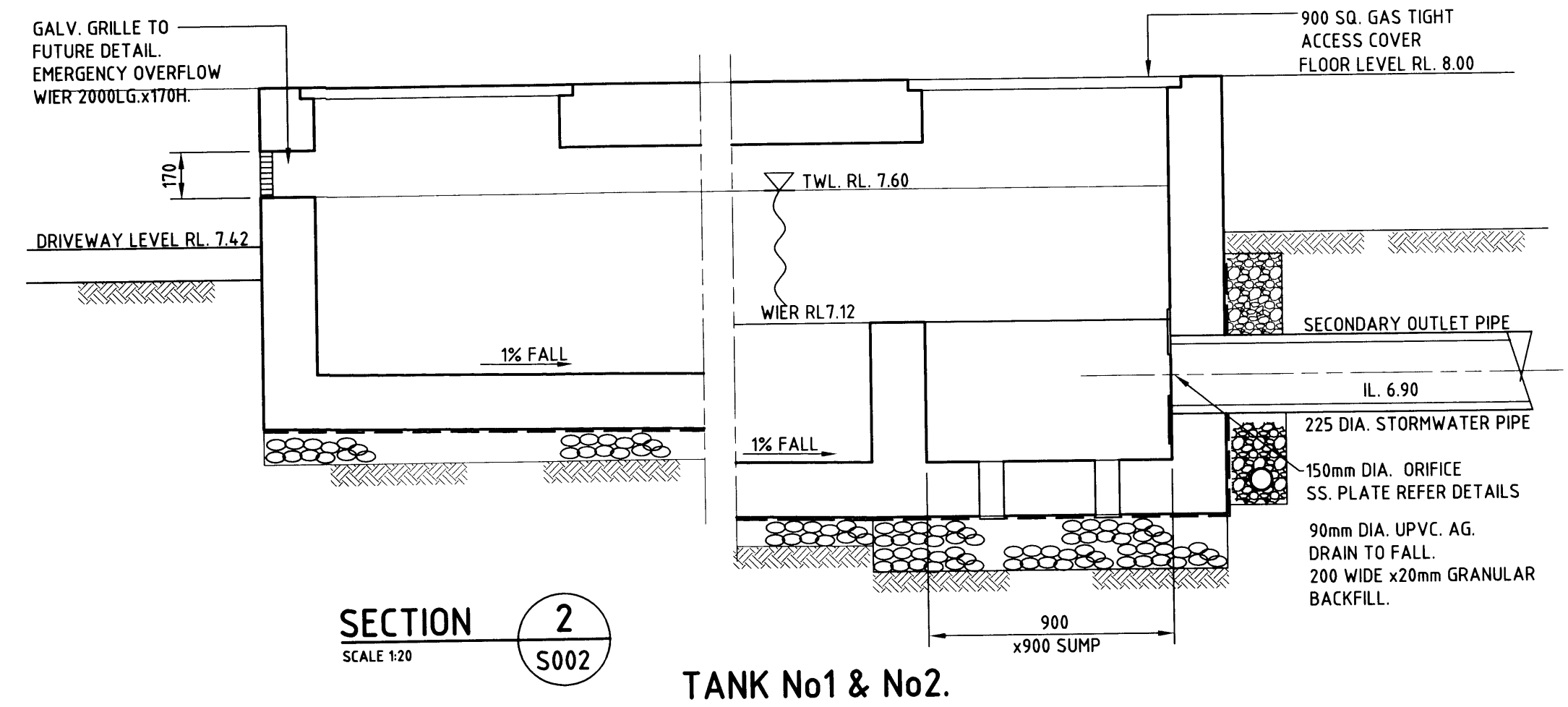
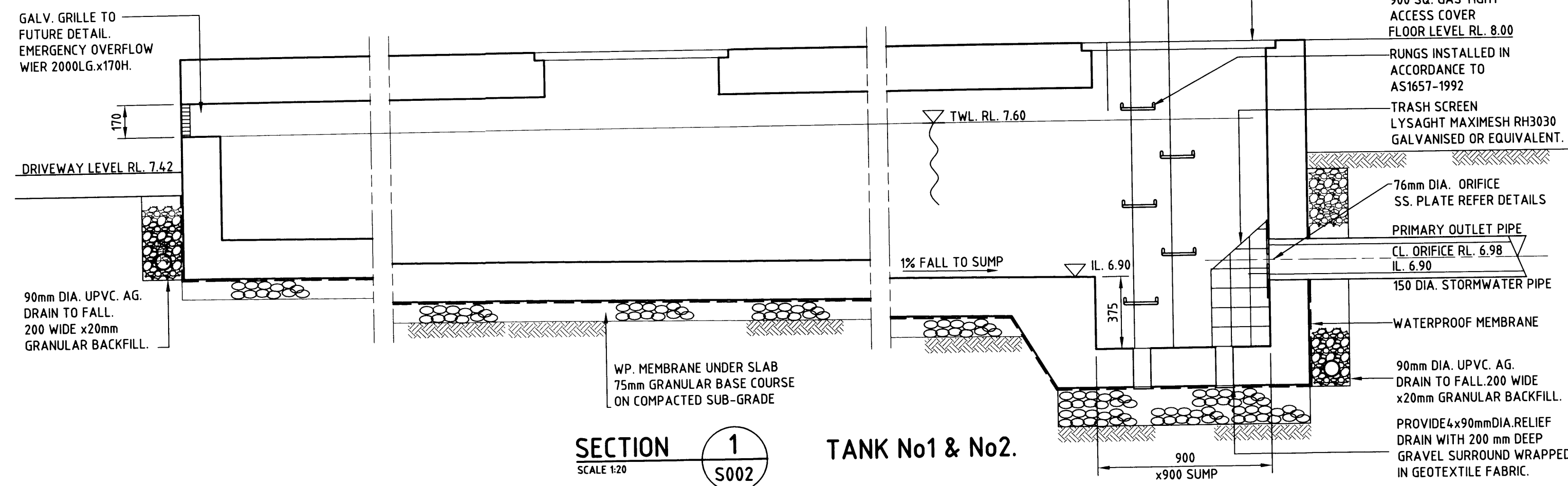


Drawn	FJC	Date	JAN 2011
Checked	PW	Date	JAN 2011
Designed	PL	Date	JAN 2011
Verified		Date	
Approved		Date	

Client	CUMBERLAND
	CUMBERLAND MEDIA CENTRE
	142-154 MACQUARIE STREET
	PARRAMATTA NSW 2150
	STORMWATER DRAINAGE PLAN

Status: DEVELOPMENT APPLICATION

Date JAN. 2011	Datum AHD	Scale 1:200	Size A1
Drawing Number LH9103-C002			Revision A



NOT CONSTRUCTION ISSUE

Rev	Date	Description	Drawn	Appr.
A	17.03.2011	DEVELOPMENT APPLICATION ISSUE	FJC	PW
1	03.02.2011	PRELIMINARY ISSUE	FJC	PW

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Quality System
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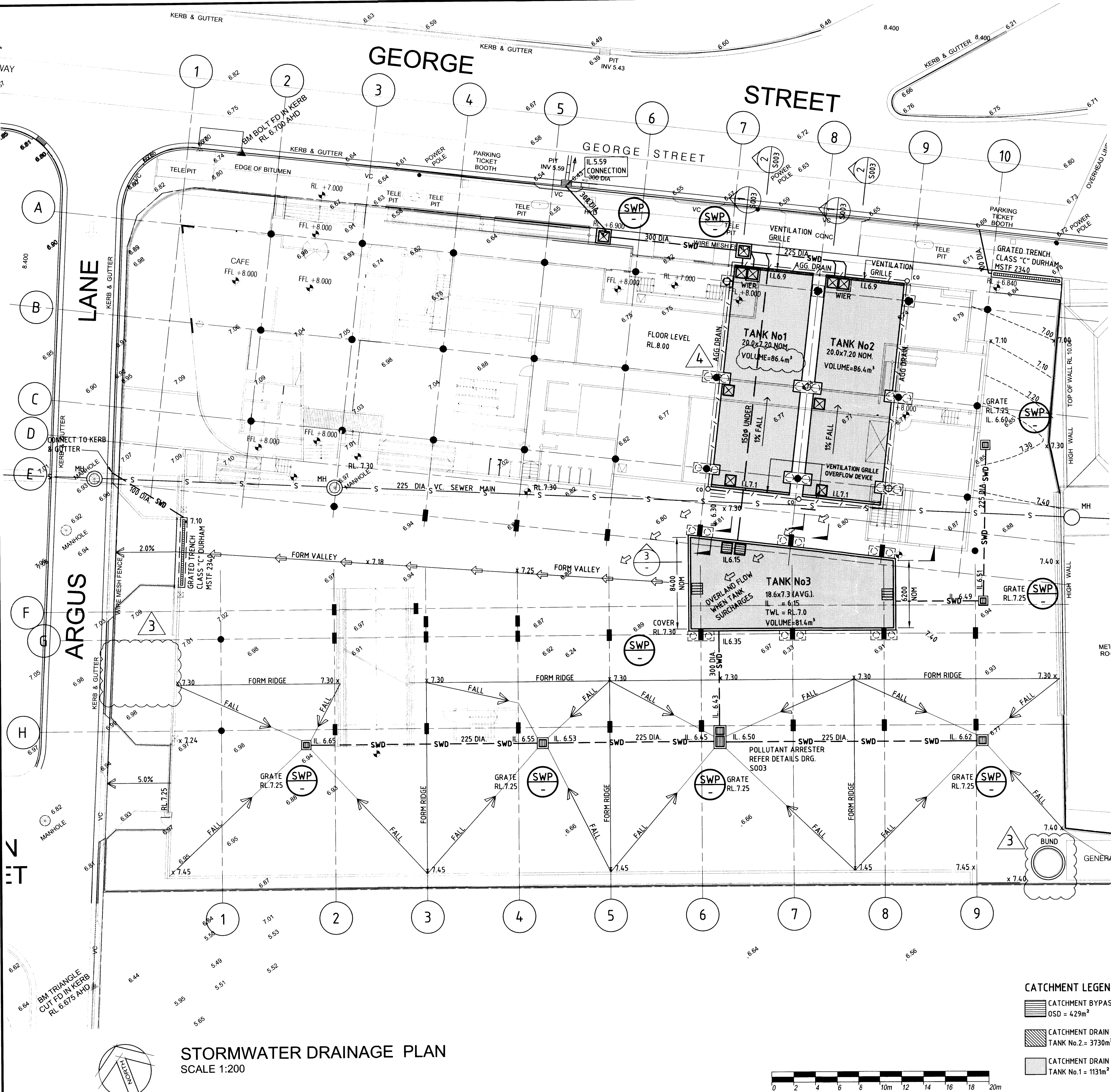
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Designed	PL	Date	JAN 2011
Verified	PW	Date	MAY 2011
Approved		Date	

NATIONWIDE NEWS LIMITED
CUMBERLAND MEDIA CENTRE
142-154 MACQUARIE STREET
PARRAMATTA NSW 2150
DRAINAGE AND DETENTION
TANK DETAILS

Status							
DEVELOPMENT APPLICATION							
Date	JAN. 2011	Datum	AHD	Scale	1:20	Size	A1
Drawing Number						Revision	
LH9103-C003P						A	

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DATE PLOTTED: 30 September 2011 12:11 PM BY: STUART MATTHE (SYDNEY)
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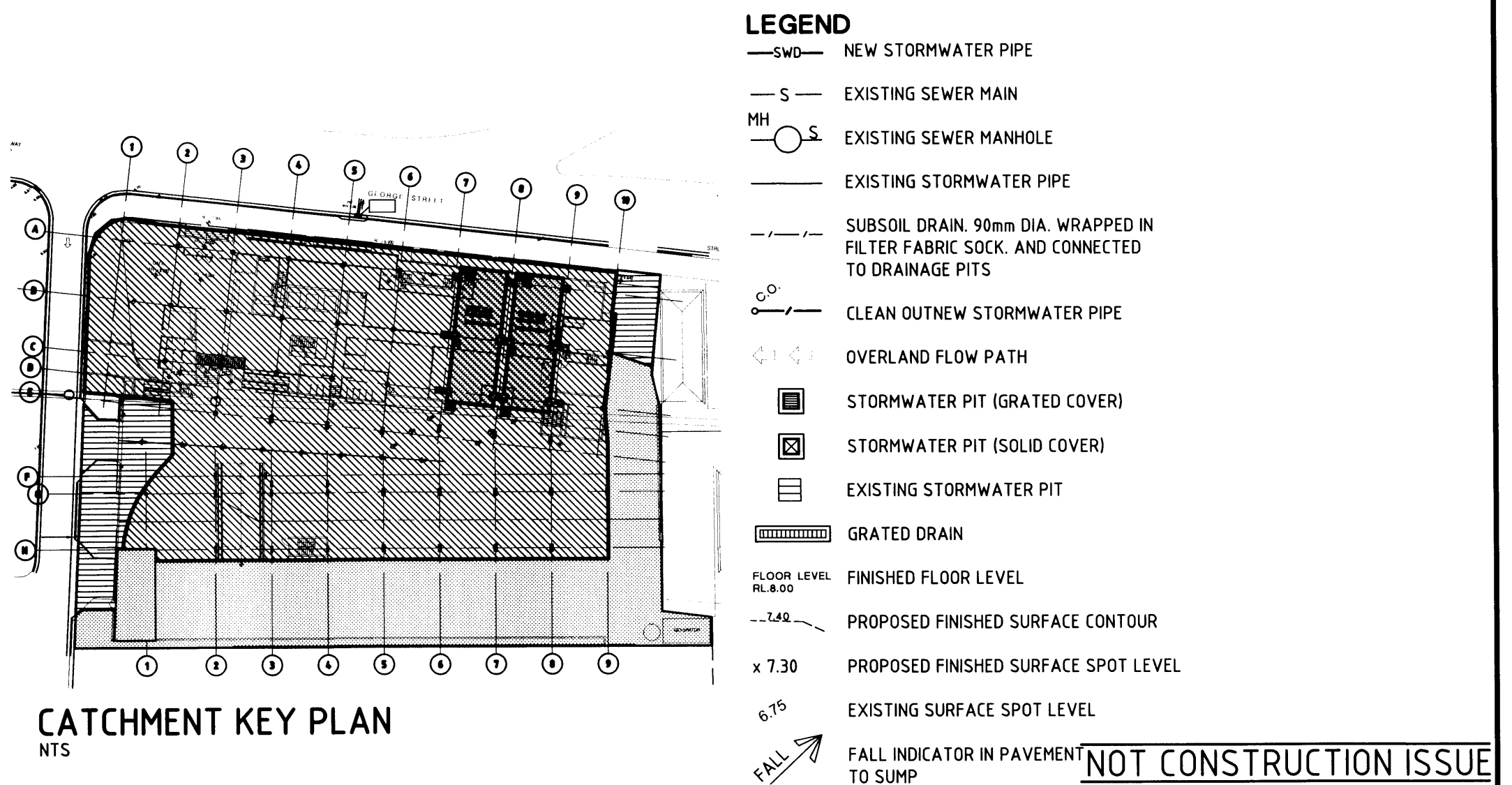


Rev	Date	Description	Drawn	Appr
A	17.03.2011	DEVELOPMENT APPLICATION ISSUE	FJC	PW
1	1.03.2011	TANK 1 - 87.00 CUB. M. (CORRECT) AS PER ISSUE 3	FJC	PW
2	28.02.2011	PRELIMINARY RE ISSUE	FJC	PW
3	14.02.2011	PRELIMINARY RE ISSUE	FJC	PW
1	03.02.2011	PRELIMINARY ISSUE	FJC	PW

STORMWATER DRAINAGE PLAN
SCALE 1:200



CATCHMENT LEGEND	
[Pattern]	CATCHMENT BYPASS OSD = 429m ²
[Pattern]	CATCHMENT DRAIN TO TANK No.2 = 3730m ²
[Pattern]	CATCHMENT DRAIN TO TANK No.1 = 1131m ²



CATCHMENT KEY PLAN
NTS

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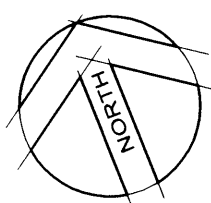
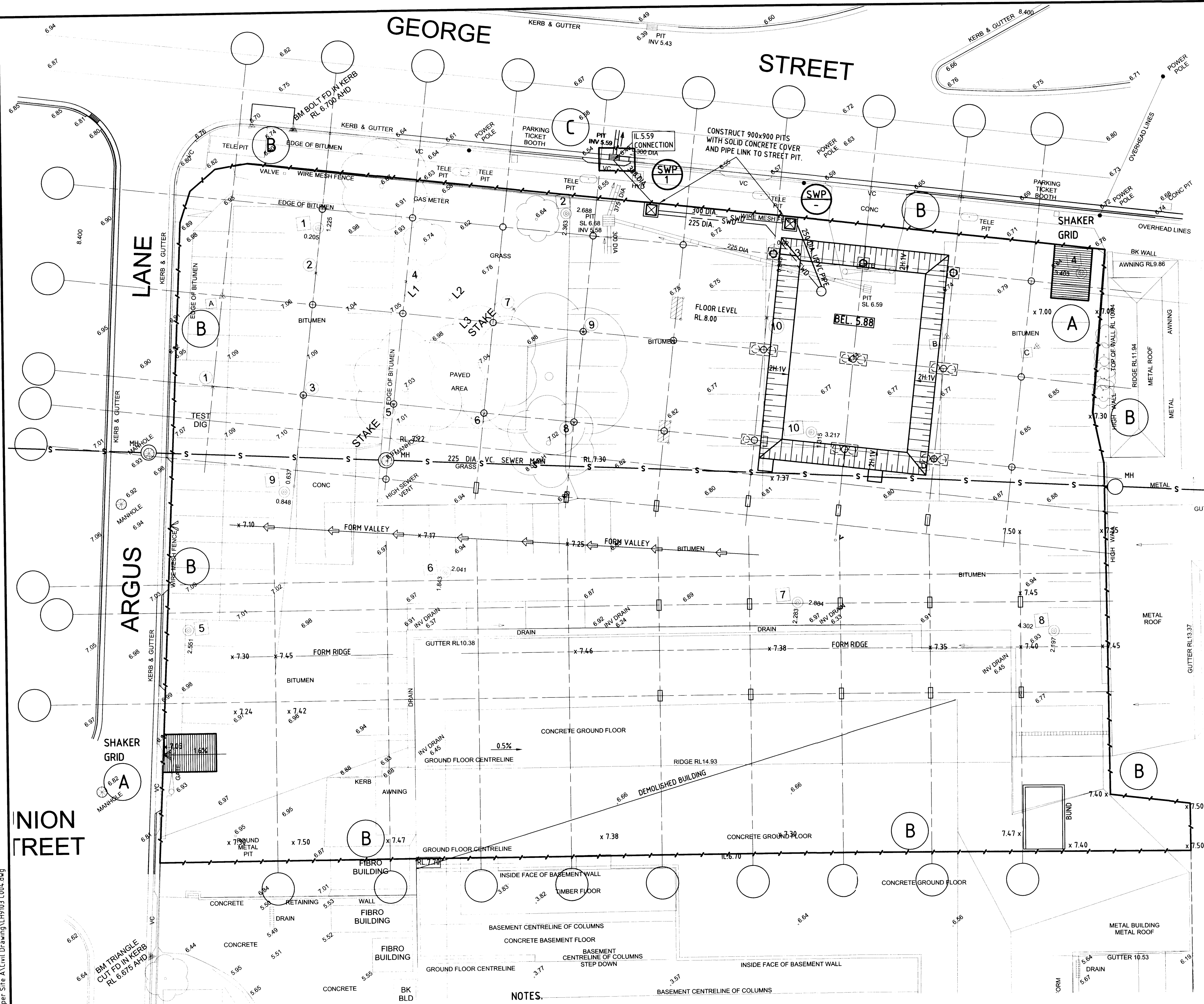
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Drawn	FJC	Date	JAN 2011
Checked	PW	Date	JAN 2011
Designed	PL	Date	JAN 2011
Verified		Date	
Approved		Date	

Client: **CUMBERLAND NATIONWIDE NEWS LIMITED**
CUMBERLAND MEDIA CENTRE
142-154 MACQUARIE STREET
PARRAMATTA NSW 2150
STORMWATER DRAINAGE PLAN

NATIONWIDE NEWS LIMITED				
	Status			
	DEVELOPMENT APPLICATION			
	Date	Datum	Scale	Size
	JAN. 2011	AHD	1:200	A1
Drawing Number				Revision
LH9103-C002P				A



EROSION AND SEDIMENT CONTROL PLAN

SCALE 1:200

NOTES.

- NO AREA OF THE SITE IS TO BE DISTURBED OTHER THAN THAT REQUIRED FOR NEW SLABS, PIERS, AND DETENTION TANK. THE SITE HAS HERITAGE FOUNDATIONS WHICH ARE TO BE PRESERVED BY THE CONTRACTOR DURING ALL EARTHWORKS AND CONSTRUCTION.
- PHASE WORKS TO INSTALL SHAKER GRID FIRST, PERIMETER SILT FENCE THEN SEDIMENT BASIN CONSTRUCTED TO THE INVERT NOTED WHICH IS THE BULK EXCAVATION LEVEL OF THE DETENTION BASIN. LINKING PIPEWORK AND PITS (SWP1) WITH 300 mm DIA. STREET CONNECTION ARE TO BE CONSTRUCTED AS PART OF THE SEDIMENT CONTROL BASIN.

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Client **CUMBERLAND NATIONWIDE NEWS LIMITED**

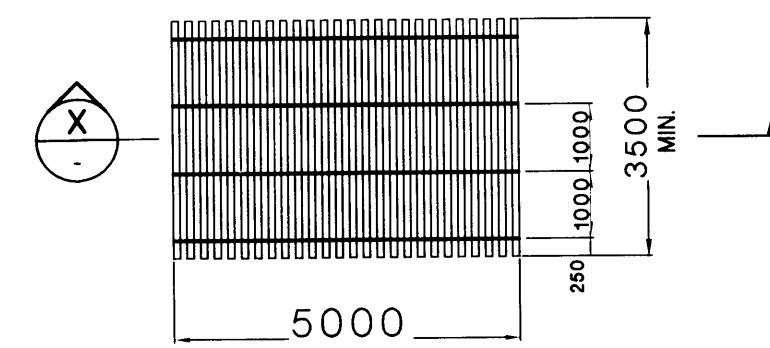
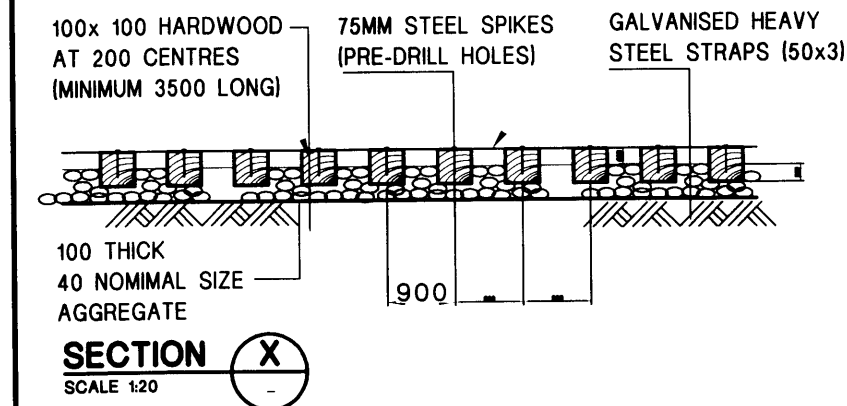
CUMBERLAND MEDIA CENTRE
142-154 MACQUARIE STREET
PARRAMATTA NSW 2150

EROSION AND SEDIMENT CONTROL
PLAN AND DETAILS

Status **DEVELOPMENT APPLICATION**

Date **JAN. 2011** Datum **AHD** Scale **1:200** Size **A1**

Drawing Number **LH9103-C004** Revision **A**

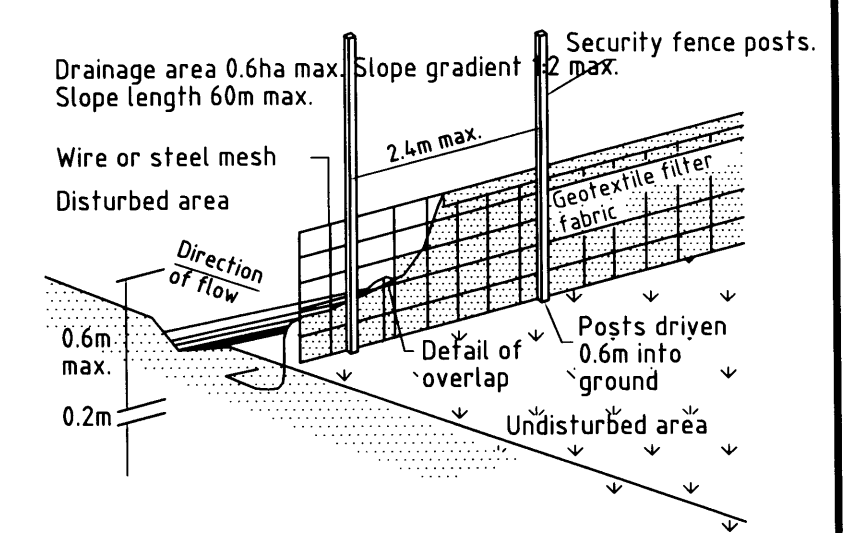


PLAN-SHAKER

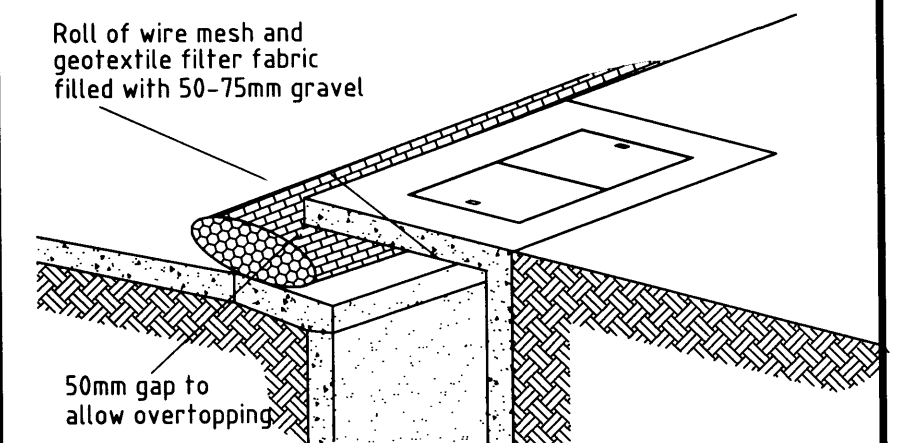
TRUCK SHAKER GRID DETAIL A

SHAKER GRID NOTES

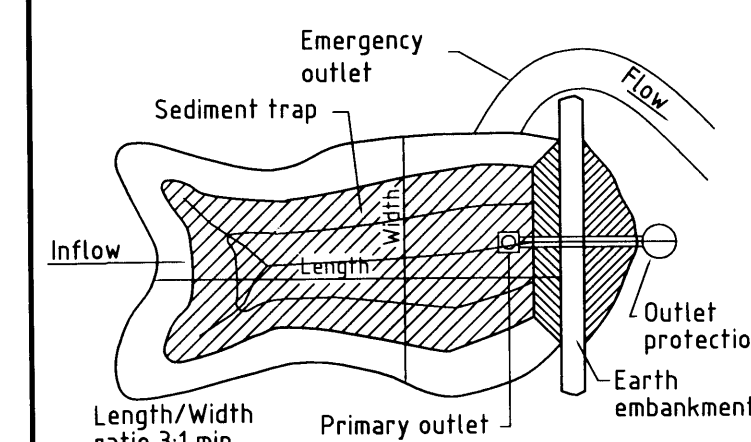
- THIS DEVICE IS TO BE LOCATED AT ALL EXITS FROM THE CONSTRUCTION SITE.
 - THE DEVICE IS TO BE REGULARLY CLEANED OF DEPOSITED MATERIAL SO AS TO MAINTAIN A 50 MM DEEP SPACE BETWEEN PLANKS.
 - ANY UNSEALED ROAD BETWEEN THIS DEVICE AND COUNCILS NEAREST ROADWAY TO BE TOPPED WITH 100MM THICK 40MM NOMINAL SIZE AGGREGATE.
 - ALTERNATIVELY, THREE (3) PRECAST CONCRETE CATTLE GRIDS (AS MANUFACTURED BY 'HUMES CONCRETE') MAY BE USED.
- NOTES 1, 2, 3, ABOVE ALSO APPLY.



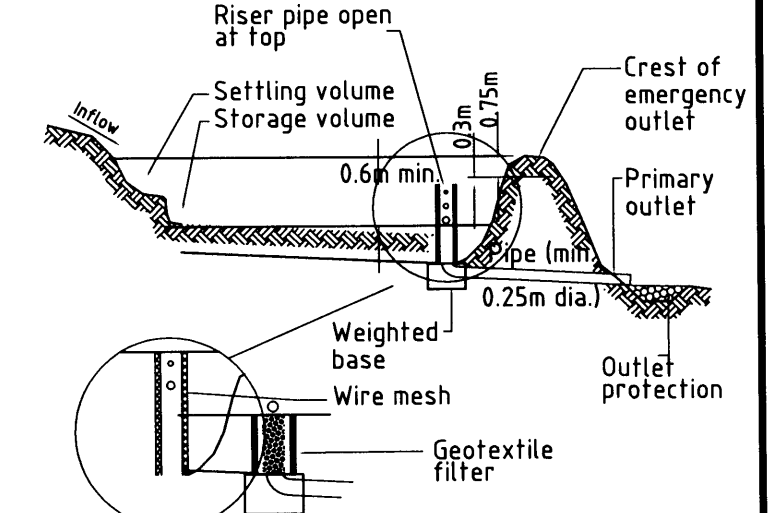
Sediment Fence DETAIL B



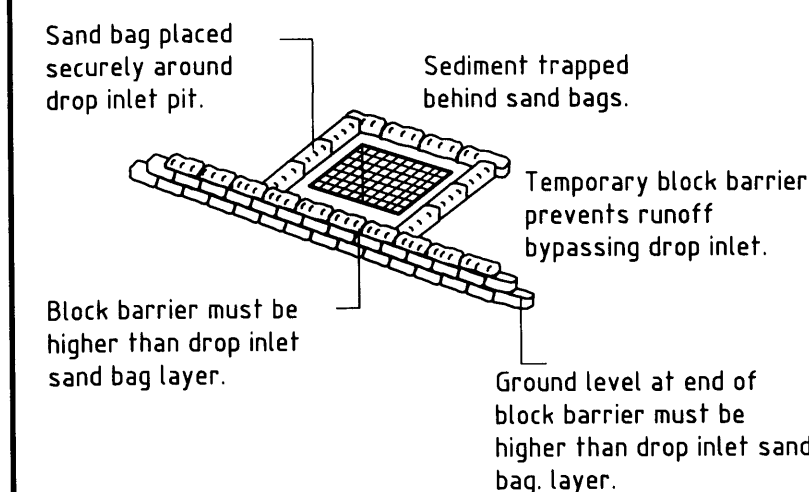
Portable Gravel Kerb Inlet Sediment Trap DETAIL C



Plan View of Typical Sediment Basin DETAIL D



Cross section of Typ. Sediment Basin



Temporary Sand Bag Sediment Trap DETAIL E

SEDIMENT RUN-OFF CONTROL NOTES

SR1. THE CONTRACTOR SHALL INSTALL AND MAINTAIN SOIL EROSION AND SEDIMENT CONTROL MEASURES GENERALLY IN ACCORDANCE WITH GUIDELINES OF THE LANDCOM MANAGING URBAN STORMWATER MANUAL AND AS NECESSARY TO PREVENT RUN-OFF FROM SITE OF SEDIMENT RESULTING FROM THE WORKS. SUCH MEASURES SHALL ALSO COMPLY WITH REQUIREMENTS OF COUNCIL AND EPA. THIS WORK SHALL BE DONE PRIOR TO ANY EARTHWORKS COMMENCING ON SITE.

SR2. GRADE FINISHED SURFACE TO SHED WATER EVENLY WITHOUT CHANNELLING (UNTIL PIPED STORMWATER SYSTEM IS CONSTRUCTED). NOMINAL GRADIENTS FROM HIGH POINT OF 0.2%.

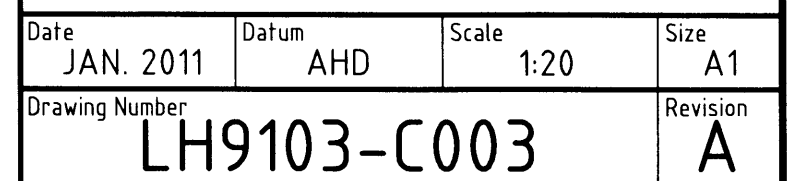
SR3. MAINTAIN THE EROSION CONTROL DEVICES INDICATED ON THE DRAWINGS TO THE SATISFACTION OF THE SITE SUPERINTENDENT AND THE LOCAL AUTHORITIES.

SR4. WHEN PROPOSED STORMWATER PITS ARE CONSTRUCTED, PREVENT SITE RUNOFF ENTERING UNLESS SILT FENCES ARE ERECTED AROUND PITS AND ON ROAD.

SR5. STREET PROTECTION WITH SHAKER EXIT GRIDS & STREET PIT INLET PROTECTION TO BE MAINTAINED FOR THE DURATION OF THE CONTRACT.



NOT CONSTRUCTION ISSUE



DATE PLOTTED: 30 September 2011 12:08 PM BY : STUART MATHIE (SYDNEY)

CAD FILE: N:\Structures\LH9100-9199\9103 - Cumberland Newspaper Site A\Civil Drawing\LH9103 C001.dwg

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