

# PROPOSED MIXED-USE DEVELOPMENT 594-600 PRINCES HIGHWAY, ROCKDALE STORMWATER CONCEPT DESIGN (S4.55)



LOCALITY PLAN  
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DRAWINGS LIST			
SHEET No.	DWG No.	TITLE	REV
01	SW100	COVER SHEET	P1
02	SW200	STORMWATER CONCEPT DESIGN - BASEMENT 03 PLAN	P1
03	SW201	STORMWATER CONCEPT DESIGN - GROUND FLOOR PLAN	P1
04	SW202	STORMWATER CONCEPT DESIGN - ROOF PLAN	P1
05	SW300	STORMWATER CONCEPT DESIGN - DETAILS SHEET	P1
06	SW400	EROSION AND SEDIMENT CONTROL - PLAN AND DETAILS	P1
07	SW500	STORMWATER CONCEPT DESIGN - MUSIC CATCHMENT PLAN	P1



PREPARED BY:  
SGC Consulting Engineers  
Suite 5.03, Level 5  
156 Pacific Highway  
St. Leonards, NSW 2065  
T: +61 2 8883 4239  
Email: office@sgce.com.au  
Web: www.sgce.com.au

ARCHITECT:  
**FUSE-ARCHITECTS**

CLIENT :  
  
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PRINCES HIGHWAY

SERVICES ON THIS DRAWING  
ARE SHOWN BELOW SLAB U.N.O.

## SUBSOIL DESIGN CALCS:

SINCE THERE ARE NO AREA OF DRIVEWAY RAMP UNCOVERED, SUBSOIL PUMP OUT PIT WILL BE SIZED TO HAVE A VOLUME OF 3.0m<sup>3</sup> AS A MINIMUM REQUIREMENT ACCORDING TO AUSTRALIAN STANDARD.

NOTE:  
BASEMENT DRAINAGE DESIGN SUBJECT TO  
GEOTECHNICAL INVESTIGATION AND  
STRUCTURAL DESIGN OF WALLS AND SLABS.

Reference Coordination Drawing				
Discipline	Drawing Title and Number	Date	Rev.	
ARCH				
ARCH				
STRUCT				
MECH				
ELEC				
HYD				
FIRE				
LANDS				
CIVIL				
SURVEY				



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DESIGNED	PZ	DATE	30.06.22
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APPROVED	SH	DATE	30.06.22

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Suite 5.03, Level 5,  
156 PACIFIC HIGHWAY  
ST. LEONARDS, NSW 2065  
T: +61 2 8883 4239  
Email: office@sgce.com.au  
Web: www.sgce.com.au

A.B.N. 21 118 222 530

PROJECT  
PROPOSED MIXED-USE  
DEVELOPMENT  
594-600 PRINCES HIGHWAY,  
ROCKDALE

Grid	Datum	Sheet	Scale (at original size)
-	A.H.D.	02 OF 07	1:100 @ A1

Drawing Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Drawing Title	STORMWATER CONCEPT DESIGN BASEMENT 03 PLAN		
Project No	Drawing No	Revision No	
20190114	SW200	P1	



A1

BM DH IN VC  
RL: 7.72SERVICES ON THIS DRAWING  
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## DESIGN NOTES:

THE SITE IS LOCATED IN BAYSIDE COUNCIL. THE DESIGN IS BASED ON ROCKDALE CITY COUNCIL'S DCP.

THE SITE IS NOT FLOOD AFFECTED AS ADVISED BY COUNCIL.  
SITE AREA = 2806m<sup>2</sup> (EXCLUDING THE AREA OWNED BY RMS)  
BYPASSING OSD AREA = 146m<sup>2</sup> (5.6% OF TOTAL SITE)

THE OSD STORAGE SYSTEM WILL BE BELOW GROUND OSD TANK. THE SITE BELONGS TO MUDDY CREEK CATCHMENT.  
(PSD = 180L/s/ha, SSR = 320m<sup>3</sup>/ha FOR THE 50 YEAR ARI EVENT)

PSD (50 YRS) = 180 x 2606/10000 = 46.908L/s  
SSR (50 YRS) = 320 x 2606/10000 = 83.392m<sup>3</sup>  
PROVIDE EXTRA VOLUME FOR BYPASSING AREA:  
SSR (50 YRS ADJUSTED) = 83.392 x 1.056 = 88.08m<sup>3</sup>

ORIFICE SHOULD BE SIZED TO PROVIDE THE DESIGN 2 YEAR PSD AT THE DESIGN DEPTH OF THE 2 YEAR STORAGE.  
PSD (2 YEAR ARI) = 46.908 x 0.35 = 16.42L/s  
SSR (2 YEAR ARI) = 88.08 x 0.45 = 39.636m<sup>3</sup>  
2 YEAR AVERAGE WATER DEPTH = 39.636/211 = 0.19m  
2 YEAR MAXIMUM WATER DEPTH = 0.30m

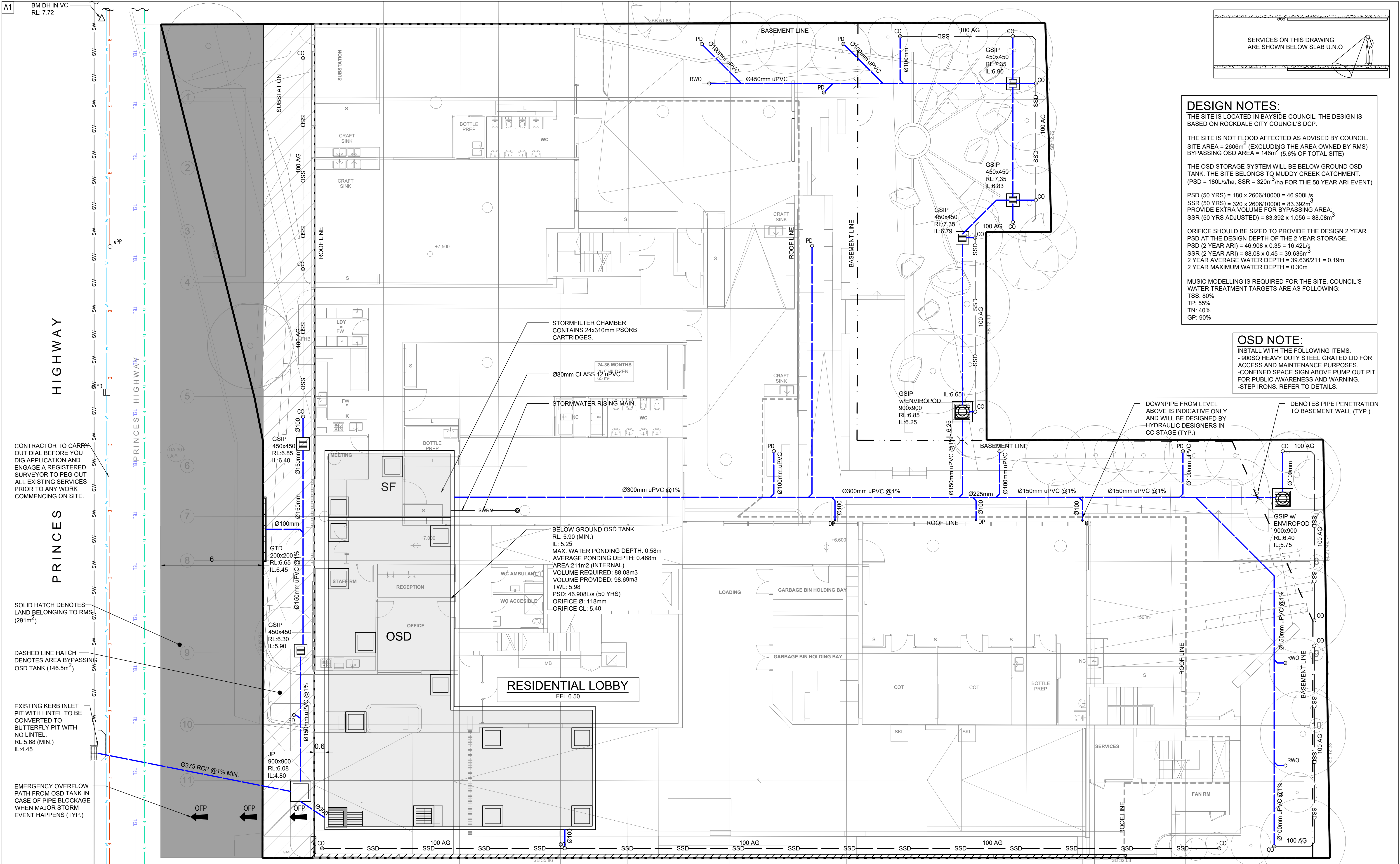
MUSIC MODELLING IS REQUIRED FOR THE SITE. COUNCIL'S WATER TREATMENT TARGETS ARE AS FOLLOWING:  
TSS: 80%  
TP: 55%  
TN: 40%  
GP: 90%

## OSD NOTE:

INSTALL WITH THE FOLLOWING ITEMS:  
- 900SQ HEAVY DUTY STEEL GRATED LID FOR ACCESS AND MAINTENANCE PURPOSES.  
- CONFINED SPACE SIGN ABOVE PUMP OUT PIT FOR PUBLIC AWARENESS AND WARNING.  
- STEP IRONS. REFER TO DETAILS.

DENOTES PIPE PENETRATION TO BASEMENT WALL (TYP.)

DOWNPIPE FROM LEVEL ABOVE IS INDICATIVE ONLY AND WILL BE DESIGNED BY HYDRAULIC DESIGNERS IN CC STAGE (TYP.)

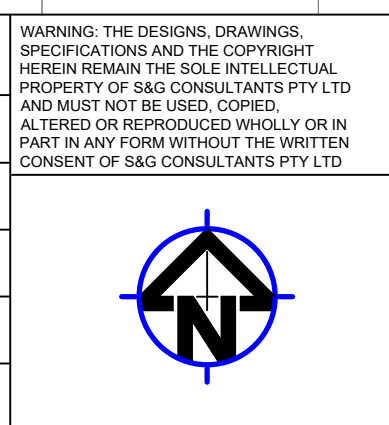


Reference Coordination Drawing			
Discipline	Drawing Title and Number	Date	Rev.
ARCH			
ARCH			
STRUCT			
MECH			
ELEC			
HYD			
FIRE			
LANDS			
CIVIL			
SURVEY			

P1	PRELIMINARY ISSUE	P2	30.06.22	1
Issue	Last revision title	by	Date	Status
1-preliminary				
2-development application				
3-construction certificate				
4-tender				
5-construction				
6-other				

ENGINEERS AUSTRALIA Customer Professional Engineer MEMBER
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Scales  
0m 1 2 3 4 5  
SCALE 1:100 ON ORIGINAL SIZE

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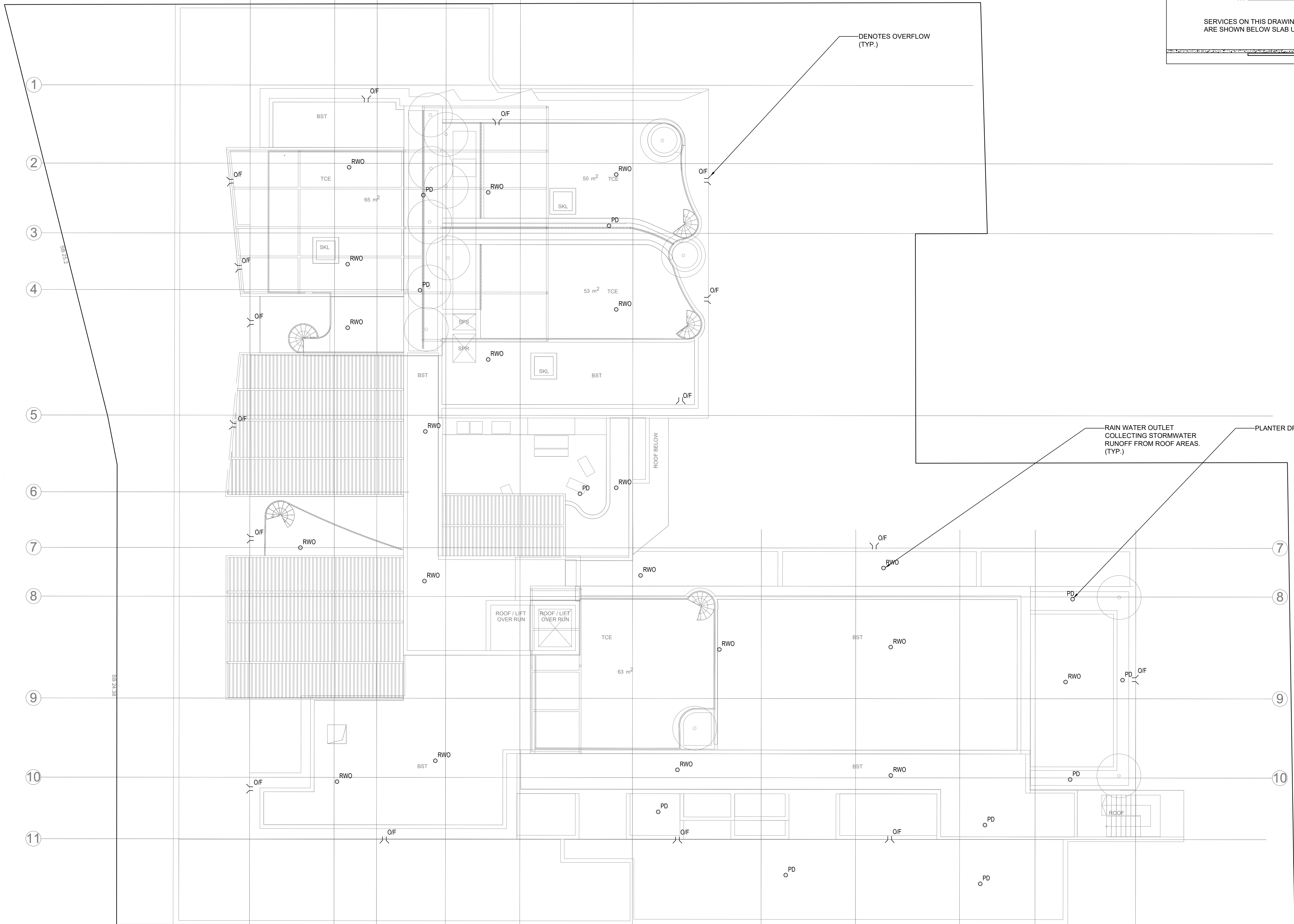
SGC  
Suite 5.03, Level 5,  
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ST. LEONARDS, NSW 2065  
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Email: office@sgce.com.au  
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PROJECT  
PROPOSED MIXED-USE DEVELOPMENT  
594-600 PRINCES HIGHWAY,  
ROCKDALE  
Grid Datum Sheet Scale (at original size)  
A.H.D. 03 OF 07 1:100 @ A1

Drawing Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES	
Drawing Title	STORMWATER CONCEPT DESIGN GROUND FLOOR PLAN	
Project No	Drawing No	Revision No
20190114	SW201	P1



PRINCES HIGHWAY



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SURVEY				

ENGINEERS  
AUSTRALIA  
Chartered Professional Engineer  
MEMBER

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594-600 PRINCES HIGHWAY,  
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Drawing Status	PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES		
Drawing Title	STORMWATER CONCEPT DESIGN ROOF PLAN		
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20190114	SW200	P1	







SITE ENTRY FROM PRINCES HIGHWAY. RUBBLE ENTRY TO BE TEMPORARILY INSTALLED (REFER TO DETAIL). LOCATION TO BE CONFIRMED BY ARCHITECT.

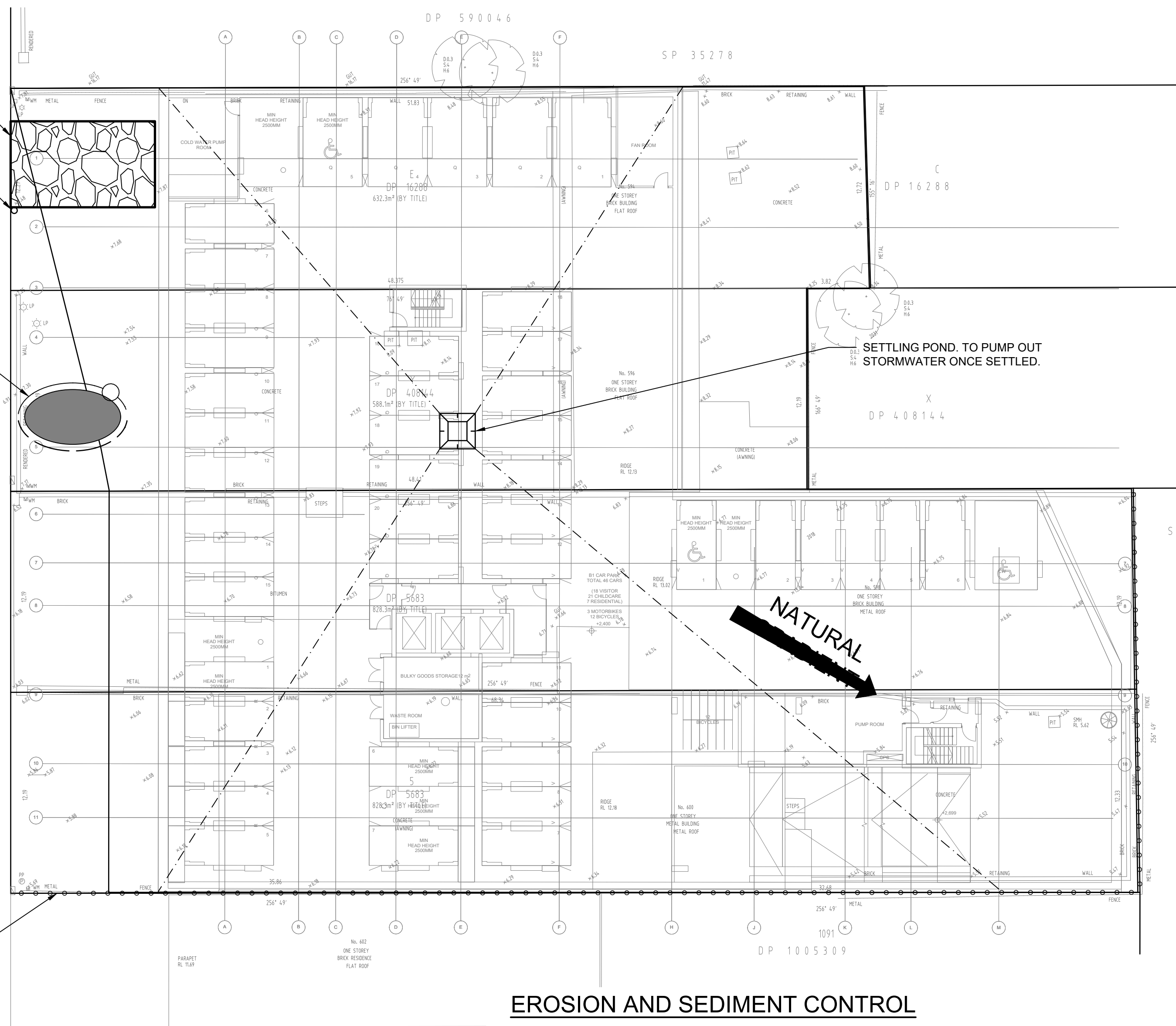
PROVIDE TAP AND HOSE BEHIND FENCE LINE. ALL TRUCK TIRES MUST BE WASHED DOWN BEFORE DEPARTING.

CONTRACTOR TO ENSURE THAT PRINCES HIGHWAY STAYS CLEAN FROM SEDIMENT AT ALL TIMES AND DURING VEHICULAR TRAFFIC.

LOCATION OF STOCKPILES

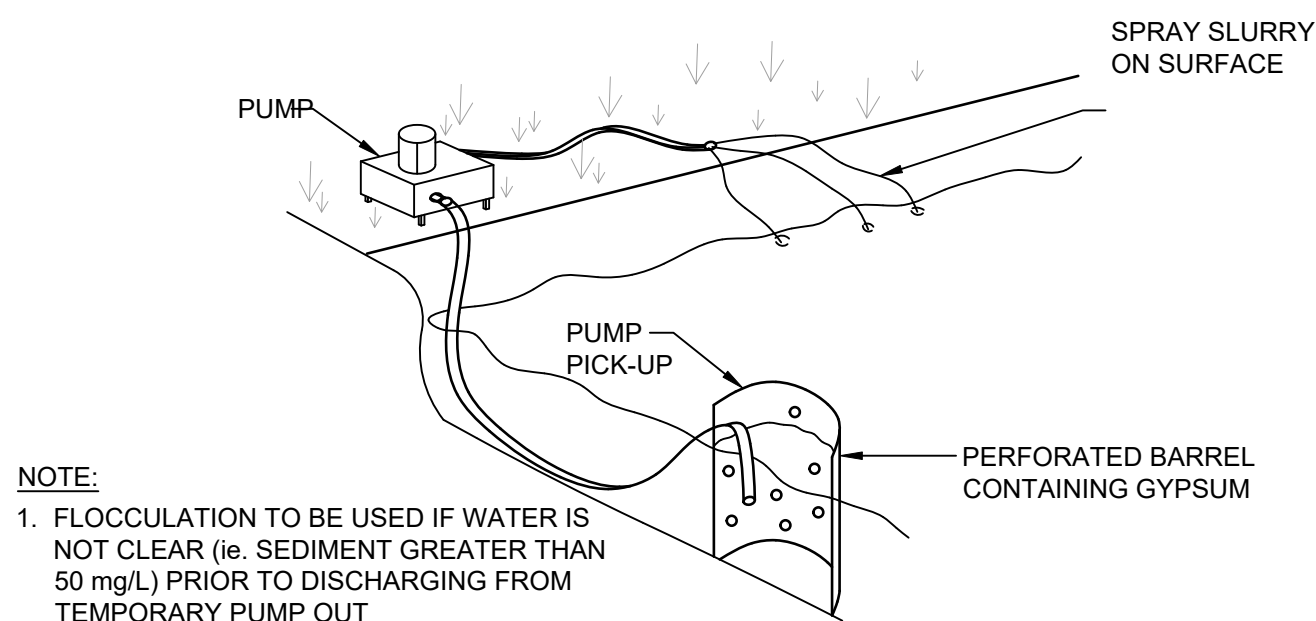
INSTALL SAND BAGS TO PREVENT STORMWATER POLLUTION AFFECTING PRINCES HIGHWAY.

EROSION AND SEDIMENT CONTROL FENCE TO BE INSTALLED AROUND THE LOWER SIDES OF PROPERTY BOUNDARY WHERE REQUIRED (REFER TO DETAIL).



## EROSION AND SEDIMENT CONTROL

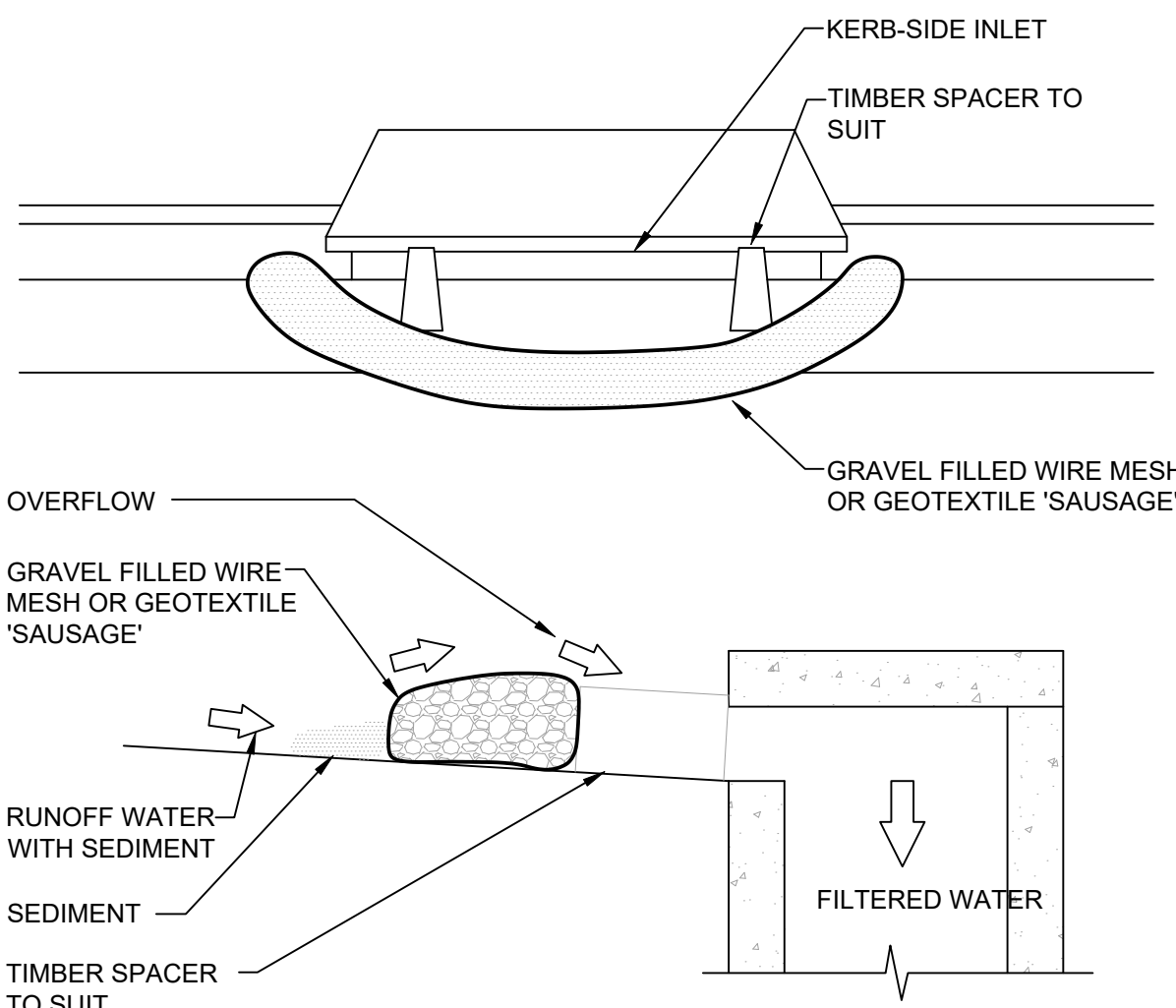
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## FLOCCULATION DETAIL

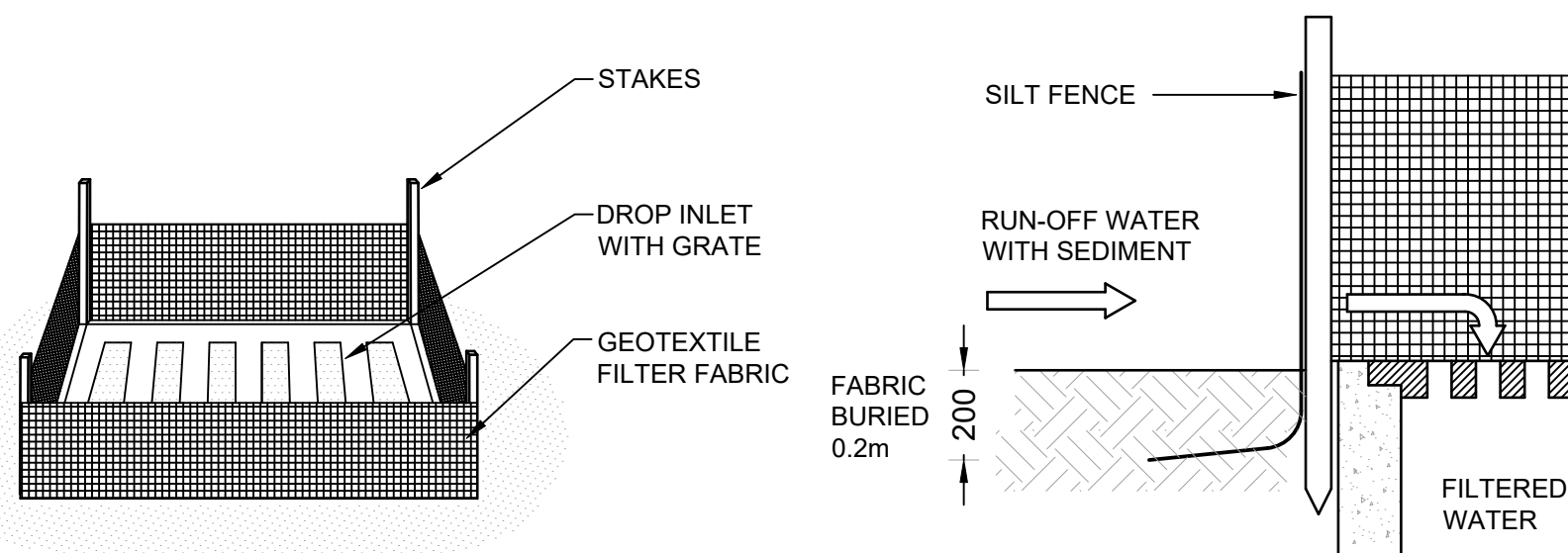
NOT TO SCALE

- NOTE:**
- FLOCCULATION TO BE USED IF WATER IS NOT CLEAR (ie. SEDIMENT GREATER THAN 50 mg/L) PRIOR TO DISCHARGING FROM TEMPORARY PUMP OUT
  - FOR RATES & AGENTS SEE APPENDIX E OF NEW SOUTH WALES DEPARTMENT OF HOUSING 'MANAGING URBAN STORMWATER SOILS & CONSTRUCTION'.



## GRAVEL INLET FILTER (SAUSAGE)

NOT TO SCALE



## GEOTEXTILE INLET FILTER

NOT TO SCALE

## EROSION & SEDIMENTATION CONTROL NOTES

- CONTRACTOR SHALL PROVIDE SEDIMENT FENCING MATERIAL DURING CONSTRUCTION TO THE LOW SIDE OF THE WORKS. TIE SEDIMENT FENCING MATERIAL TO CYCLONE WIRE SECURITY FENCE. SEDIMENT CONTROL FABRIC SHALL BE AN APPROVED MATERIAL (EG. HUMES PROPEX SILT STOP) STANDING 300mm ABOVE GROUND & EXTENDING 150mm BELOW GROUND.
- EXISTING DRAINS LOCATED WITHIN THE SITE SHALL ALSO BE ISOLATED BY SEDIMENT FENCING MATERIAL.
- NO PARKING OR STOCKPILING OF MATERIALS IS PERMITTED ON THE LOWER SIDE OF THE SEDIMENT FENCE.
- GRASS VERGES SHALL BE MAINTAINED AS MUCH AS PRACTICAL TO PROVIDE A BUFFER ZONE TO THE CONSTRUCTION SITE.
- CONSTRUCTION ENTRY/EXIT SHALL BE VIA THE LOCATION NOTED ON THE DRAWING. CONTRACTOR SHALL ENSURE ALL DROPPABLE SOIL & SEDIMENT IS REMOVED PRIOR TO CONSTRUCTION TRAFFIC EXITING SITE. CONTRACTOR SHALL ENSURE ALL CONSTRUCTION TRAFFIC ENTERING & LEAVING THE SITE DO SO IN A FORWARD DIRECTION.

## GENERAL NOTES

- THIS PLAN IS A CONCEPT PLAN ONLY FOR STORMWATER DISPOSAL & EROSION CONTROL. IT IS NOT SUITABLE FOR CONSTRUCTION. THIS PLAN SHOULD BE ADAPTED BY THE BUILDER DURING DEMOLITION, EXCAVATION & CONSTRUCTION PHASES TO ENSURE ADEQUATE PERFORMANCE.
- ALL DRAINAGE LAYOUT & DETAILS ARE DIAGRAMMATIC & INDICATIVE ONLY. ACTUAL LOCATION, SIZES, LEVELS & GRADES MAY ALTER WHEN DETAIL DESIGN WORKS ARE DOCUMENTED.

## CONSTRUCTION NOTES

FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT

FILL THE SLEEVE WITH 25mm TO 50mm GRAVEL

FORM AN ELLIPTICAL CROSS-SECTION OF THE KERB INLET LEAVING A 100mm GAP AT THE TOP TO ACT AS AN EMERGENCY SPILLWAY

MAINTAIN THE OPENING WITH SPACER BLOCKS

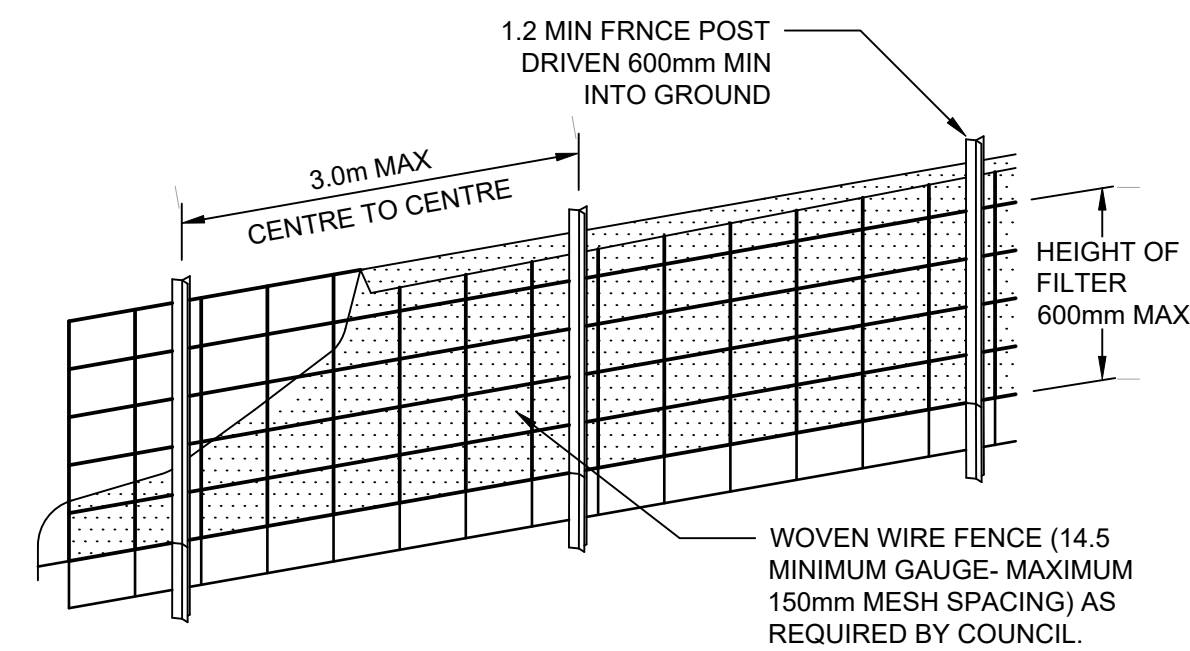
FORM A SEAL WITH THE KERBING AND PREVENT SEDIMENT BYPASSING THE FILTER

FIT TO ALL KERB INLETS AT SAG POINTS

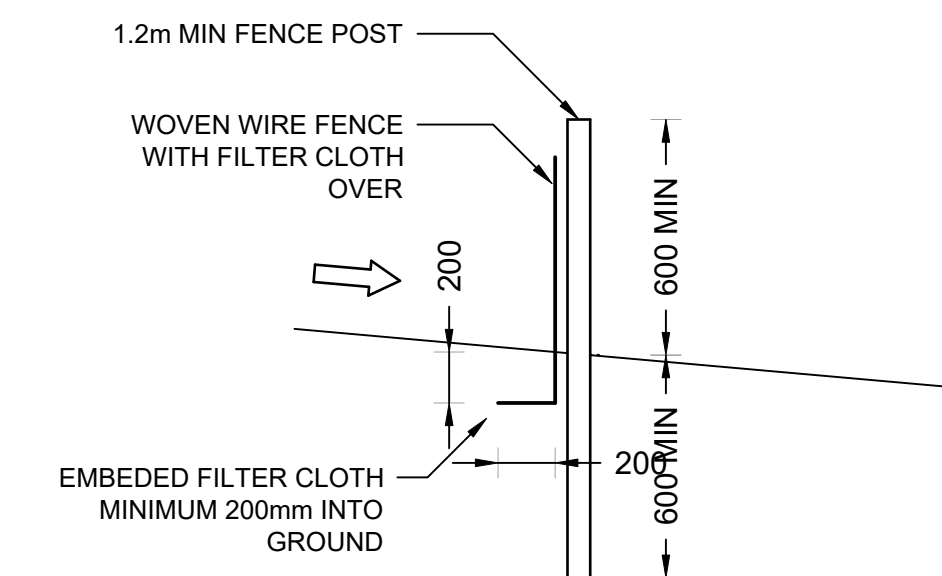
## CLAY SOILS

A SYSTEM SHALL BE INSTALLED TO EITHER:

- TRANSPORT STORMWATER RUNOFF WITH SUSPENDED SOLIDS FROM SITE VIA PUMP TRUCKS.
- TREAT THE STORMWATER RUNOFF WITH SUSPENDED SOLIDS SO THE DISCHARGE WATER QUALITY TO COUNCIL STORMWATER DRAINAGE SYSTEM HAS A MAXIMUM CONCENTRATION OF SUSPENDED SOLIDS THAT DOES NOT EXCEED 50 MILLIGRAMS PER LITRE IN ACCORDANCE WITH THE PROTECTION OF THE ENVIRONMENT OPERATION ACT (POEO 1997) AND SHALL BE APPROVED BY LOCAL COUNCIL



DIAGRAMMATIC VIEW



TYPICAL SECTION

## SEDIMENT FENCE

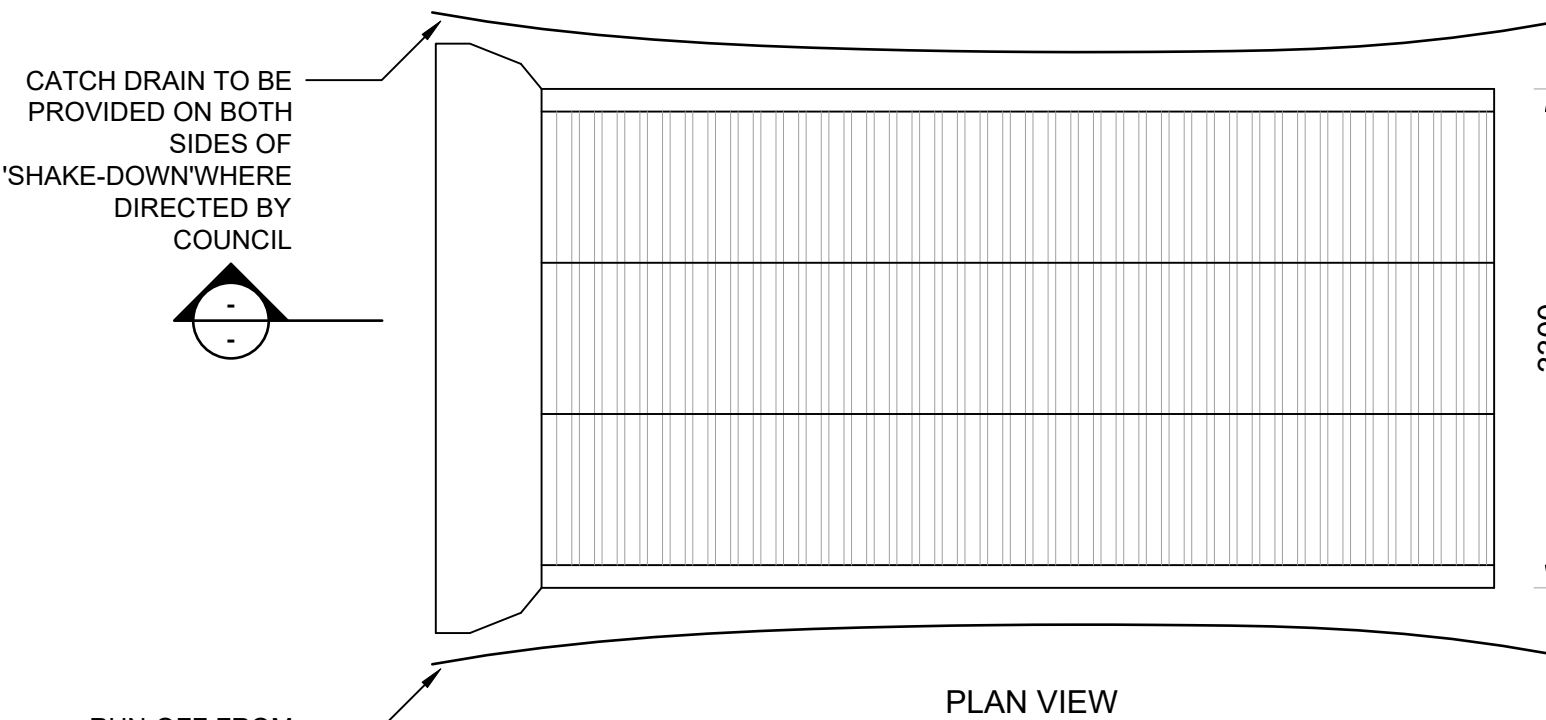
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## LEGEND

- SEDIMENT FENCE
- STABILISED SITE ACCESS
- SANDBAGS

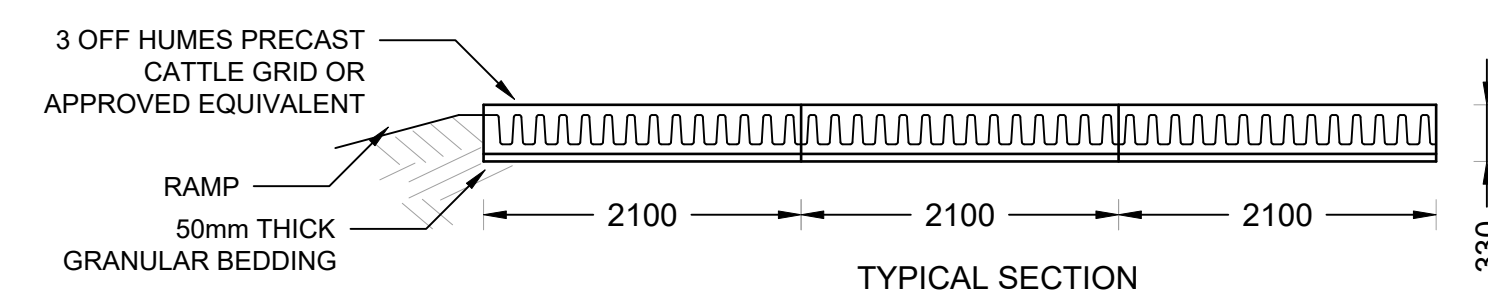
## GEOTEXTILE INLET FILTER

GEOTEXTILE INLET FILTER IS PLACED IN EVERY PIT WITHIN THE SITE TO ENSURE THE RUNOFF WATER DURING CONSTRUCTION NOT ENTER THE PITS.



PLAN VIEW

CATCH DRAIN TO BE PROVIDED ON BOTH SIDES OF 'SHAKE-DOWN' WHERE DIRECTED BY COUNCIL



TYPICAL SECTION

## 'CATTLE GRID' ALTERNATIVE

TEMPORARY CONSTRUCTION EXIT

NOT TO SCALE

Reference Coordination Drawing			
Discipline	Drawing Title and Number	Date	Rev.
ARCH			
ARCH			
STRUCT			
MECH			
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FIRE			
LANDS			
SURVEY			



ENGINEERS AUSTRALIA  
Chartered Professional Engineer  
MEMBER

QUALITY CONTROL			
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Scale

0m 2 4 6 8 10  
SCALE 1:200 ON ORIGINAL SIZE

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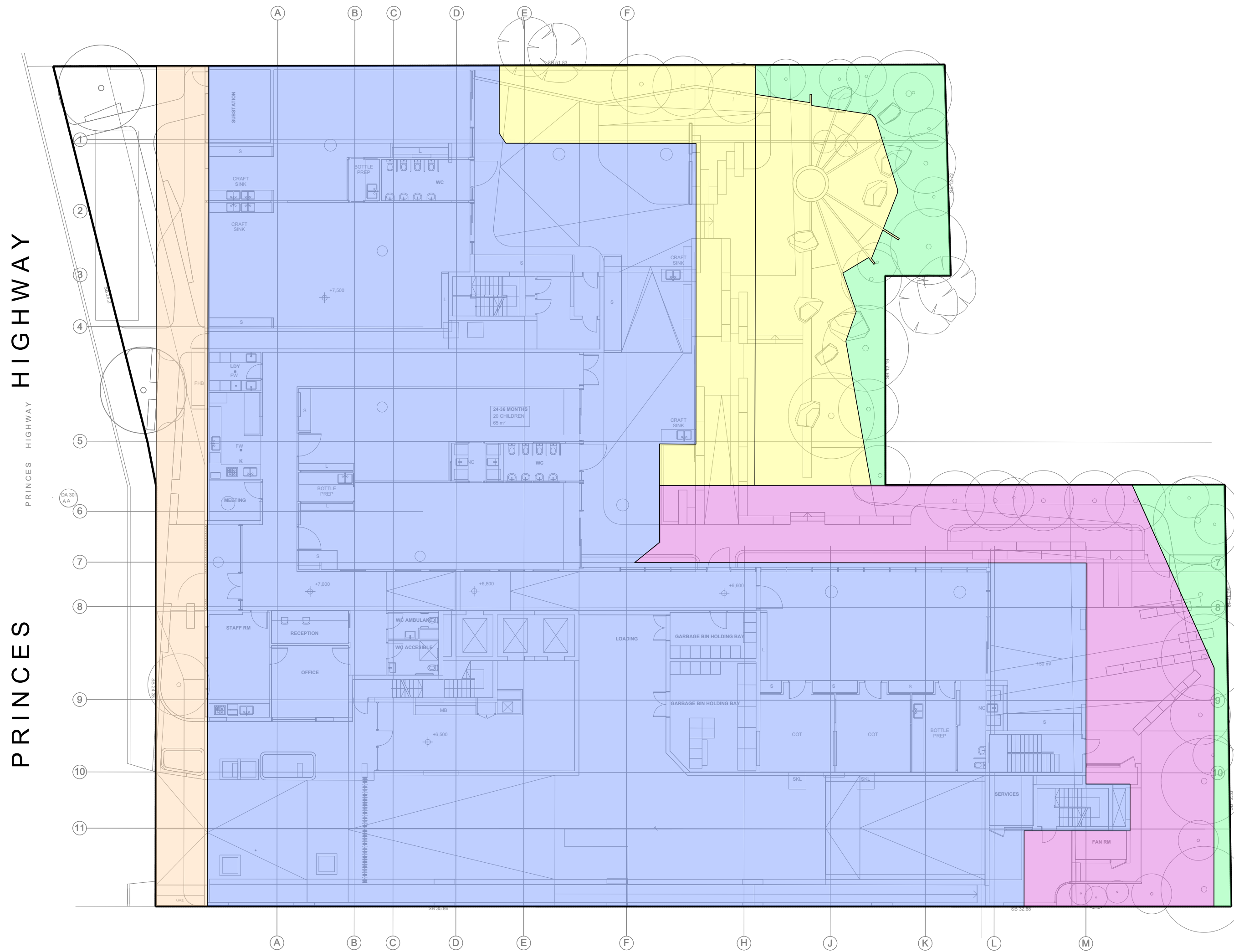
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Suite 5.03, Level 5,  
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PROJECT  
PROPOSED MIXED-USE DEVELOPMENT  
594-600 PRINCES HIGHWAY, ROCKDALE

Drawing Status: PRELIMINARY  
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Drawing Title: EROSION AND SEDIMENT CONTROL PLAN AND DETAILS  
Project No: 20190114  
Drawing No: SW200  
Revision No: P1





- LANDSCAPING AREA TO ENVIROPOD AND SF (129m<sup>2</sup>, 0% IMPERVIOUS)
- PAVED AREA TO ENVIROPOD AND SF (285m<sup>2</sup>, 100% IMPERVIOUS)
- PAVED AREA TO SF (278m<sup>2</sup>, 100% IMPERVIOUS)
- ROOF AREA TO SF (1762m<sup>2</sup>, 100% IMPERVIOUS)
- BYPASSING AREA (146m<sup>2</sup>, 40% IMPERVIOUS)

MUSIC CATCHMENT PLAN  
SCALE 1:200

