
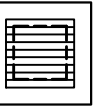

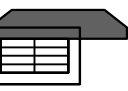

















PROPOSED BOARDING HOUSE AT  
227 BUNGARRIBEE ROAD, BLACKTOWN NSW

LEGEND	
DP ●	DOWNPIPE
— >>> —	STORMWATER LINE
— >>> —	STORMWATER LINE DRAINING TO RWT
— OF —	OVER FLOW PIPE
— — SSD —	SUBSOIL LINE
— — SWRM —	STORMWATER RISING MAIN
— — e —	EXISTING STORMWATER LINE
— SW — SW —	AUTHORITY STORMWATER LINE
— HL — HL —	HIGH LEVEL STORMWATER LINE
— — S —	AUTHORITY SEWER LINE
— — W —	AUTHORITY WATER LINE
— G — G —	AUTHORITY GAS LINE
— — E —	AUTHORITY ELECTRICITY LINE
— FO — FO — FO —	AUTHORITY FIBRE OPTIC LINE
— TEL —	AUTHORITY COMMS LINE
— / — / —	FENCE LINE
	GRATED SURFACE INLET PIT
	GRATED SURFACE INLET PIT WITH ENVIROPOD INSERT
	JUNCTION PIT
	KERB INLET PIT
	EXISTING GRATED SURFACE INLET PIT
	GRATED TRENCH DRAIN
	EXISTING JUNCTION PIT
	EXISTING KERB INLET PIT
 eTEL	EXISTING TELSTRA PIT
 eHYD	EXISTING HYDRANT
 eSV	EXISTING STOP VALVE
 eGAS	EXISTING GAS VALVE
 ePP	EXISTING POWER POLE

LEGEND	
FF ○	FIRST FLUSH
 eSMH	EXISTING SEWER MANHOLE
OFF →	OVERLAND FLOW PATH
RWO ○	RAINWATER OUTLET
PS ●	PIPE STAND
CO ○	CLEAR OUT POINT
DDO ○	DISH DRAIN OUTLET
PD ○	PLANTER DRAIN
]	CAPPING
(1.0)	PIT TAG/NUMBER
RH ☒	RAINHEAD
	DOWNPIPE DROP
	NON RETURN VALVE
	WALL PENETRATION
DP 	DOWNPIPE SPREADER
	WARNING LIGHT
0.00 ●	SPOT LEVELS
▲	BENCHMARK



DIAL BEFORE YOU DIG SHOULD BE CONTACTED PRIOR TO ANY EXCAVATION ON SITE  
TM: TRADE MARK OF THE ASSOCIATION OF DIAL BEFORE YOU DIG SERVICES LTD. USED UNDER LICENSE.

DRAWING REGISTER		
NUMBER	NAME	REVISION
SW001	COVER SHEET	C
SW010	BASEMENT PLAN	C
SW020	SITE STORMWATER PLAN	C
SW030	EASEMENT LONGITUDINAL SECTION	C
ER001	EROSION AND SEDIMENT CONTROL PLAN	C

DRAINAGE NOTES:

ALL PIPES TO BE LAID ON 75mm SAND BED WITH THE BARRELS FULLY SUPPORTED

100mm AND 150mm DIAMETER PIPES TO BE LAID ON MINIMUM 1% GRADE

MINIMUM DEPTH OF COVER FOR PIPES NOT SUBJECT TO VEHICULAR LOADING TO BE 300mm

ALL DRAINAGE PIPES LAID UNDER PAVEMENT SHALL BE REINFORCED CONCRETE WITH RUBBER RING JOINTS

BACKFILL TRENCHES WITH COMPACTED SAND OR APPROVED AGGREGATE MATERIAL

ALL PITS TO HAVE 600x600mm INTERNAL DIMENSIONS (U.N.O.)

SILT ARRESTORS TO HAVE 900x900mm INTERNAL DIMENSIONS

HEAVY DUTY GRATES AND COVERS ARE TO BE PROVIDED IN TRAFFICABLE AREAS

PIT GRATE TO BE TYPE WELDLOK OR APPROVED EQUIVALENT

ALL PITS SHALL BE PROVIDED WITH A LOCKING CLIP

ALL PITS SHALL BE MAINTAINED REGULARLY

TOP OF BENCHING SHALL BE TO THE HALF OF THE OUTLET PIPE DIAMETER

MAXIMUM FRONT ENTRY PIPE: –  
STRAIGHT ENTRY – Ø750  
SKEW ENTRY 45° – Ø525

Ø100 SUBSOIL DRAINAGE PIPE 3000mm LONG WRAPPED IN FABRIC SOCK TO BE PROVIDED ADJACENT TO INLET PIPES

COMPRESSIVE STRENGTH f<sub>c</sub> FOR CAST IN SITU CONCRETE TO BE A MINIMUM OF 20MPa AT 28 DAYS

PROVIDE CLEANING EYES TO ALL DOWNPIPES NOT DIRECTLY CONNECTED TO PITS

ISOLATED JOINTS TO BE PROVIDED TO ISOLATE CONCRETE PAVEMENTS FROM PITS

ALL TRENCH GRATES PROVIDED SHALL HAVE A MINIMUM CLEAR WIDTH OF 200mm

STORMWATER DRAINAGE CONNECTIONS TO THE MAIN SYSTEM SHALL BE TO THE REQUIREMENTS AND THE SATISFACTION OF LOCAL COUNCIL

ABBREVIATIONS:

Ø or DIA DIAMETER  
CBR CALIFORNIA BEARING RATIO  
CH CHAINAGE  
CL CENTER LINE  
CO CLEAR OUT  
DD DISH DRAIN  
DDO DISH DRAIN OUTLET  
DEJ DOWELLED EXPANSION JOINT  
DGB DENSE GRADED BASECOURSE  
DGS DENSE GRADED SUB-BASE  
DP DOWNPIPE  
e EXISTING  
FFL FINISHED FLOOR LEVEL  
GTD GRATED TRENCH DRAIN  
GSP GRATED SURFACE INLET PIT  
HYD HYDRANT  
IJ ISOLATING JOINT  
IK INTEGRAL KERB  
IL INVERT LEVEL  
IP INTERSECTION POINT  
KIP KERB INLET PIT  
KO KERB ONLY  
K&G KERB & GUTTER  
KR KERB RETURN  
LS LONGITUDINAL SECTION  
NGL NATURAL GROUND LEVEL  
OFF OVERLAND FLOW PATH  
OSD ON-SITE DETENTION  
R RADIUS  
RCP REINFORCED CONCRETE PIPE  
RK ROLL KERB & GUTTER  
RL REDUCED LEVEL  
RW RETAINING WALL  
RWT RAINWATER TANK  
SJ SAWN CONTROL JOINT  
SMH SEWER MAN HOLE  
SW STORMWATER  
SWP STORMWATER PIT  
SWRM STORMWATER RISING MAIN  
SWS STORMWATER SUMP  
SV STOP VALVE  
TOK TOP OF KERB  
TOW TOP OF WALL  
TWL TOP WATER LEVEL  
TP TANGENT POINT  
UPVC UNPLASTICISED POLYVINYL CHLORIDE  
UNO UNLESS NOTED OTHERWISE  
WPJ WEAKENED PLANE JOINT  
FF FIRST FLUSH DEVICE  
TYP TYPICAL  
BM BENCH MARK

STORMWATER PIPE BEDDING/PAVING NOTES:

WHERE TRENCH BASE IS ROCK A MINIMUM OF 75mm BEDDING TO BE PROVIDED UNDER PIPE COLLARS.

STORMWATER PIPE BEDDING DETAIL TO BE IN ACCORDANCE WITH LOCAL COUNCIL REQUIREMENTS. BEDDING DETAILS TO BE CONFIRMED UPON EXCAVATION & PRIOR TO INSTALLATION OF PIPEWORK.

FOOTPATH REINSTATEMENT NOTES:

REMOVE ALL SAND FILL WITHIN THE FOOTPATH AREA TO THE EXISTING SUBGRADE.

SUPPORT ALL AUTHORITY SERVICES TO STRUCTURAL ENGINEERS DETAILS DURING EXCAVATION.

REINSTATE FOOTPATH SUBGRADE.

THE CONTRACTOR SHALL PROVIDE CERTIFICATION OF COMPACTION FROM A NATA REGISTERED TESTING AUTHORITY. MINIMUM THREE TESTS PER LAYER AS FOLLOWS:  
SELECT FILL 95% MODIFIED  
SELECT FILL (LESS THAN 300mm 98% MODIFIED  
BELOW BASE COURSE)  
BASE COURSE 100% MODIFIED

EROSION & SEDIMENT CONTROL NOTES:

PROVIDE SILT FENCE/HAY BAIL BARRIERS TO THE LOW SIDE OF ALL EXPOSED EARTH EXCAVATIONS (TYPICAL).

ISOLATE EXISTING STORMWATER PITS WITH HAY BALES TO FILTER ALL INCOMING FLOWS.

DO NOT STOCK PILE EXCAVATED MATERIAL ON THE ROAD WAY.

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. CAPITAL ENGINEERING CONSULTANTS DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAW.

SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT CAPITAL ENGINEERING CONSULTANTS.

ADOPT DATUM BM CUT IN KERB RL: 74.32 (A.H.D)

SERVICES SHOWN ON PLAN ARE INDICATIVE, EXACT DEPTH AND LOCATION TO BE CONFIRMED ONSITE. CONTRACTOR TO CARRY OUT DIAL BEFORE YOU DIG APPLICATION AND ENGAGE A REGISTERED SURVEYOR TO PEG OUT ALL EXISTING SERVICES PRIOR TO ANY WORK COMMENCING ONSITE.

IT IS THE BUILDERS RESPONSIBILITY TO MAKE SURE ALL SURVEY MARKS TO BE PRESERVED AT ALL COST.

Rev.	Description	By.	Chk.	App.	Date
C	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	01/09/2021
B	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	23/03/2021
A	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	25/02/2021



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Client

GUS FARES ARCHITECTS

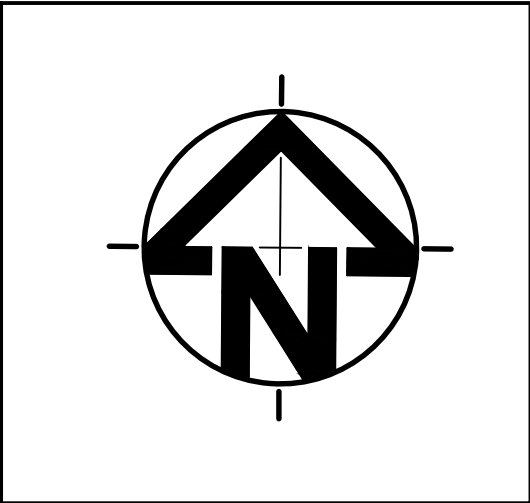
Project

227 BUNGARRIBEE ROAD, BLACKTOWN

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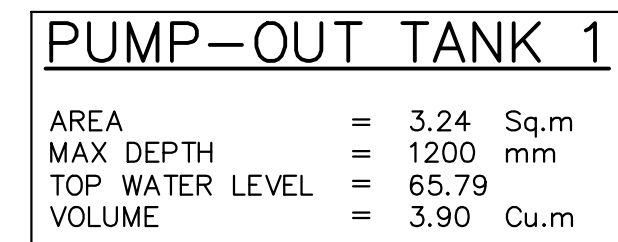
Title

COVER SHEET



DEVELOPMENT APPLICATION (DA)					Approved	
FOR APPROVAL					P.E.	
Paper Size	Design	Drawn	Checked	Datum	PAUL EL-BAYEH B.E., M.E., FIEAust, CPEng, NER, RPEQ	
A1	H.Y	H.Y	M.W	AHD		
Scale	Date	Project Number		Drawing Number	Revision	
1:100	1/09/2021	SW21046		SW001	C	





Type	Output		Outlet		Rated		Maximum		Weigh	Dimension		
					Head Capacity		Head	Capacity		L(mm)	W(mm)	H(mm)
	HP	kW	mm	inch	M	LPM	M	LPM		Kg		
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KS-04	1/2	0.4	50	2"	5	150	8	220	11	208	140	359
KS-05	1/2	0.4	50	2"	5	160	10	260	14	230	156	375
KS-08	1	0.75	50	2"	6	240	13	380	21	290	180	425
KS-20	2	1.5	80	3"	10	300	16	600	31	278	182	475
KS-30	3	2.2	80	3"	10	500	18	800	42	390	250	450
KS-50	5	3.7	100	4"	10	800	21	1100	48	450	240	530
KS-75	7 1/2	5.6	100	4"	15	800	23	1300	60	550	310	590
KS-100	10	7.5	150	6"	18	900	25	1600	70	550	310	610

Rev.	Description	By.	Chk.	App.	Date
C	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	01/09/2021
B	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	23/03/2021
A	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	25/02/2021

Client

**GUS FARES ARCHITECTS**

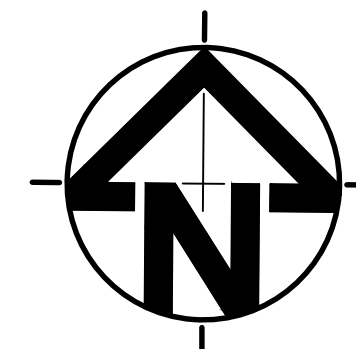
Project

**227 BUNGARRIBEE ROAD, BLACKTOWN**

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Title

**BASEMENT PLAN**



DEVELOPMENT APPLICATION (DA)					Approved	
FOR APPROVAL					P.E.	
Paper Size A1	Design H.Y	Drawn H.Y	Checked M.W	Datum AHD	PAUL EL-BAYEH B.E., M.E., FIEAust, CPEng, NER, RPEQ	
Scale 1:100	Date 1/09/2021	Project Number SW21046			Drawing Number SW010	Revision C



DESIGN NOTES:

THE SITE IS LOCATED IN CITY OF BLACKTOWN COUNCIL

SITE AREA = 837.0m<sup>2</sup> (BY DP)

PROPOSED DEVELOPMENT IS A BOARDING HOME, ONSITE DETENTION IS NOT REQUIRED, REFER TO S3QM REPORT.

ALL NEW STORMWATER PIPES TO HAVE A MINIMUM OF 100mm CONCRETE OR 300mm TOPSOIL COVER U.N.O.

INSTALL CLEAR OUT FOR INSPECTION AND MAINTENANCE PURPOSES WHERE REQUIRED.

RAINWATER TANK TO BE EQUIPPED WITH FIRST FLUSH AND MOSQUITO PROTECTION DEVICES (REFER DETAIL).

LOCATION OF RAINWATER TANK SHOWN ON PLAN IS INDICATIVE. TO BE CONFIRMED DURING CONSTRUCTION.

ENSURE THAT ALL STORMWATER PIPES ARE A MINIMUM OF 600mm AWAY FROM SYDNEY WATER ASSETS (TYP).

SITE STORMWATER PLAN  
SCALE 1:150

TYPICAL GRATED INLET PIT DETAIL  
SCALE: 1:20

GRADED DRAIN DETAIL  
SCALE: 1:20

DETAIL  
TYPICAL BELOW GROUND  
RAINWATER TANK  
NOT TO SCALE

Rev.	Description	By.	Chk.	App.	Date
C	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	01/09/2021
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A	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	25/02/2021



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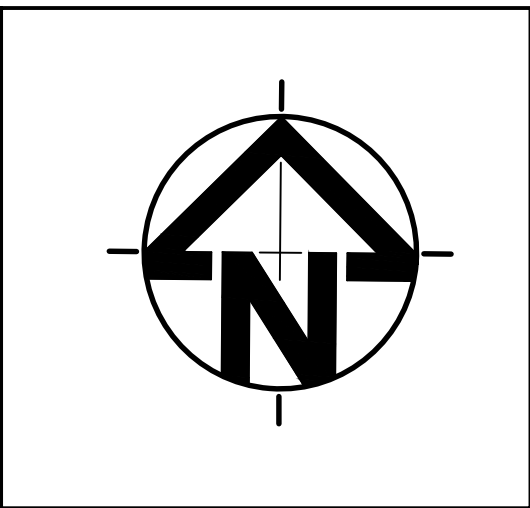
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www.capitalengineering.com.au

Client  
**GUS FARES ARCHITECTS**

Project  
**227 BUNGARRIBEE ROAD, BLACKTOWN**

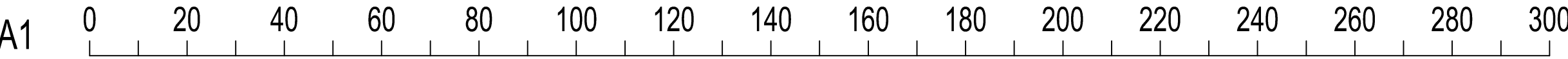
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Title  
**SITE STORMWATER PLAN  
SECTIONS & DETAILS**

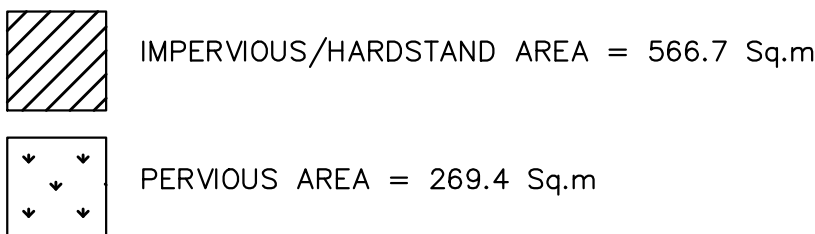


DEVELOPMENT APPLICATION (DA)				
FOR APPROVAL				
Paper Size <b>A1</b>	Design <b>H.Y</b>	Drawn <b>H.Y</b>	Checked <b>M.W</b>	Datum <b>AHD</b>
Scale <b>1:100</b>	Date <b>1/09/2021</b>	Project Number <b>SW21046</b>		

Approved <b>P.E.</b>	
PAUL EL-BAYEH B.E., M.E., FIEAust, CPEng, NER, RPEQ	
Drawing Number <b>SW020</b>	Revision <b>C</b>





[illegible]

Rev.	Description	By.	Chk.	App.	Date
C	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	01/09/2021
B	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	23/03/2021
A	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	25/02/2021



Client

GUS FARES ARCHITECTS

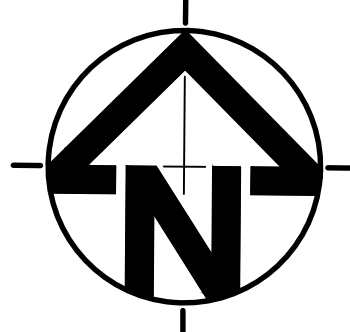
Project

227 BUNGARRIBEE ROAD, BLACKTOWN

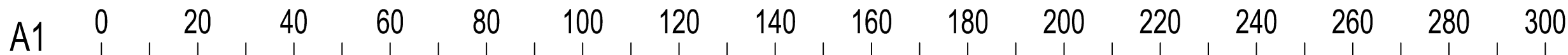
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Title

DRAINAGE EASEMENT  
LONG-SECTION



DEVELOPMENT APPLICATION (DA)					Approved	
FOR APPROVAL					P.E.	
Paper Size <b>A1</b>	Design <b>H.Y</b>	Drawn <b>H.Y</b>	Checked <b>M.W</b>	Datum <b>AHD</b>	PAUL EL-BAYEH B.E., M.E., FIEAust, CPEng, NER, RPEQ	
Scale <b>1:100</b>	Date <b>1/09/2021</b>	Project Number <b>SW21046</b>			Drawing Number <b>SW030</b>	Revision <b>C</b>





EROSION CONTROL

BEFORE EARTHWORKS CAN COMMENCE THE EROSION & SEDIMENT CONTROL MEASURES MUST BE IN PLACE.

DURING THE CONSTRUCTION PERIOD, THESE CONTROL MEASURES WILL NEED TO BE INSPECTED & MAINTAINED REGULARLY, ESPECIALLY AFTER STORM EVENTS, BY THE CONTRACTOR.

ALL WORK IS TO BE CARRIED OUT TO PREVENT EROSION, CONTAMINATION & SEDIMENTATION OF THE STORAGE SITE, SURROUNDING AREAS & DRAINAGE SYSTEMS.

MINIMIZE DISTURBED AREA COVERED WITH NATURAL VEGETATION. ONLY THOSE AREAS DIRECTLY REQUIRED FOR CONSTRUCTION ARE TO BE DISTURBED.

INSTALL EROSION/SEDIMENT CONTROL MEASURES PRIOR TO COMMENCEMENT OF CONSTRUCTION OR EXCAVATION OPERATIONS.

PROVIDE SILT FENCE/STRAW BAIL BARRIERS TO THE LOW SIDE OF ALL EXPOSED EARTH EXCAVATIONS. 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.

ISOLATE EXISTING STORMWATER PITS WITH STRAW BALES OR SILT TRAPS TO FILTER ALL INCOMING FLOWS.

DO NOT STOCKPILE EXCAVATED MATERIAL ON THE ROAD WAY.

DIVERT CLEAN WATER FROM UNDISTURBED AREAS AROUND THE WORKING AREAS.

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 AND LEAVING THE SITE DO SO IN A FORWARD DIRECTION.

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.

ADOPT TEMPORARY MEASURES AS MAY BE NECESSARY FOR EROSION & SEDIMENT CONTROL, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

- DRAINS: TEMPORARY DRAINS AND CATCH DRAINS.
- SPREADER BANKS OR OTHER STRUCTURES: TO DISPERSE CONCENTRATED RUNOFF.
- SILT TRAPS: CONSTRUCTION AND MAINTENANCE OF SILT TRAPS TO PREVENT DISCHARGE OF SCOURED MATERIAL TO DOWNSTREAM AREAS.

AFTER RAIN, INSPECT, CLEAN, AND REPAIR IF REQUIRED, TEMPORARY EROSION & SEDIMENT CONTROL MEASURES.

REMOVE TEMPORARY EROSION & SEDIMENT CONTROL MEASURES WHEN THEY ARE NO LONGER REQUIRED.

COMPLY WITH THE REQUIREMENTS OF LANDCOM'S MANAGING URBAN STORMWATER – SOIL AND CONSTRUCTION 'THE BLUE BOOK' LATEST EDITION

THE EROSION & SEDIMENT CONTROL PLAN PROVIDED IS ONLY INDICATIVE. THE CONTRACTOR SHOULD PREPARE A DETAILED ESCP SUITABLE FOR THE SPECIFIC SITE CONDITIONS

EROSION & SEDIMENT CONTROL PLAN  
SCALE 1:100

SUMP SEDIMENT TRAP DETAIL  
NOT TO SCALE

SEDIMENT FENCE DETAIL  
NOT TO SCALE

