PROPOSED BOARDING HOUSE AT 227 BUNGARRIBEE ROAD, BLACKTOWN NSW

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EXISTING KERB INLET PIT	
eTEL EXISTING TELSTRA PIT	
☐ eHYD EXISTING HYDRANT	
esv existing stop valve	
□ eGAS EXISTING GAS VALVE	
O ePP EXISTING POWER POLE	

<u>LEGEN'D</u>	
FF ∅	FIRST FLUSH
eSMH	EXISTING SEWER MANHOLE
OFP -	OVERLAND FLOW PATH
RWO ∅	RAINWATER OUTLET
PS .	PIPE STAND
CO Ø	CLEAR OUT POINT
DDO ∅	DISH DRAIN OUTLET
PD ∅	PLANTER DRAIN
Э	CAPPING
(1.01)	PIT TAG/NUMBER
RH 🖸	RAINHEAD
•	DOWNPIPE DROP
M	NON RETURN VALVE
<u> </u>	WALL PENETRATION
DP •	DOWNPIPE SPREADER
-	WARNING LIGHT
0.00 �	SPOT LEVELS
Δ	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	С								
SW010	BASEMENT PLAN	С								
SW020	SITE STORMWATER PLAN	С								
SW030	EASEMENT LONGITUDINAL SECTION	С								
ER001	EROSION AND SEDIMENT CONTROL PLAN	С								

DRAINAGE NOTES:

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

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

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

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'c FOR CAST IN SITU CONCRETE TO BE A MINIMUM OF 20MPa AT 28 DAYS

PROVIDE CLEANING EYES TO ALL DOWNPIPES NOT DIRECTLY CONNECTED

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 CALIFORNIA BEARING RATIO CHAINAGE 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 **EXISTING** FFL FINISHED FLOOR LEVEL GTD GRATED TRENCH DRAIN GSIP GRATED SURFACE INLET PIT HYDHYDRANT ISOLATING JOINT INTEGRAL KERB INTERSECTION POINT KERB INLET PIT ΚO KERB ONLY KERB & GUTTER KERB RETURN LONGITUDINAL SECTION NGL NATURAL GROUND LEVEL OFP OVERLAND FLOW PATH OSD ON-SITE DETENTION RADIUS REINFORCED CONCRETE PIPE ROLL KERB & GUTTER REDUCED LEVEL RETAINING WALL RAINWATER TANK SAWN CONTROL JOINT SEWER MAN HOLE STORMWATER SW STORMWATER PIT SWP

SWRM STORMWATER RISING MAIN SWS STORMWATER SUMP SV STOP VALVE TOK TOP OF KERB TOW TOP OF WALL TWL TOP WATER LEVEL TANGENT POINT UPVC UNPLASTICISED POLYVINYL CHLORIDE UNLESS NOTED OTHERWISE WEAKENED PLANE JOINT

FIRST FLUSH DEVICE

TYPICAL

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

Chk. App. Description ISSUED FOR DEVELOPMENT APPLICATION H.Y | M.W | P.E. | 01/09/2021

ISSUED FOR DEVELOPMENT APPLICATION

ISSUED FOR DEVELOPMENT APPLICATION



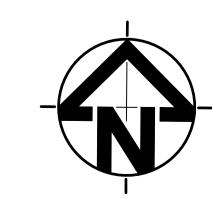
8 Buller Street, North Parramatta 2151 Ph: (02) 9630 0121 Fax: (02) 9630 0132 info@capitalengineering.com.au www.capitalengineering.com.au Client GUS FARES ARCHITECTS

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Title

COVER SHEET



Scale

		00011	
_			
	DEVELOPMEN	IT APPLICATION (DA)	Approved

FOR APPROVAL ^Daper Size

Date

Checked Datum Design Drawn PAUL EL-BAYEH || AHD B.E., M.E., FIEAust, CPEng, NER, RPEQ

Project Number

SW21046

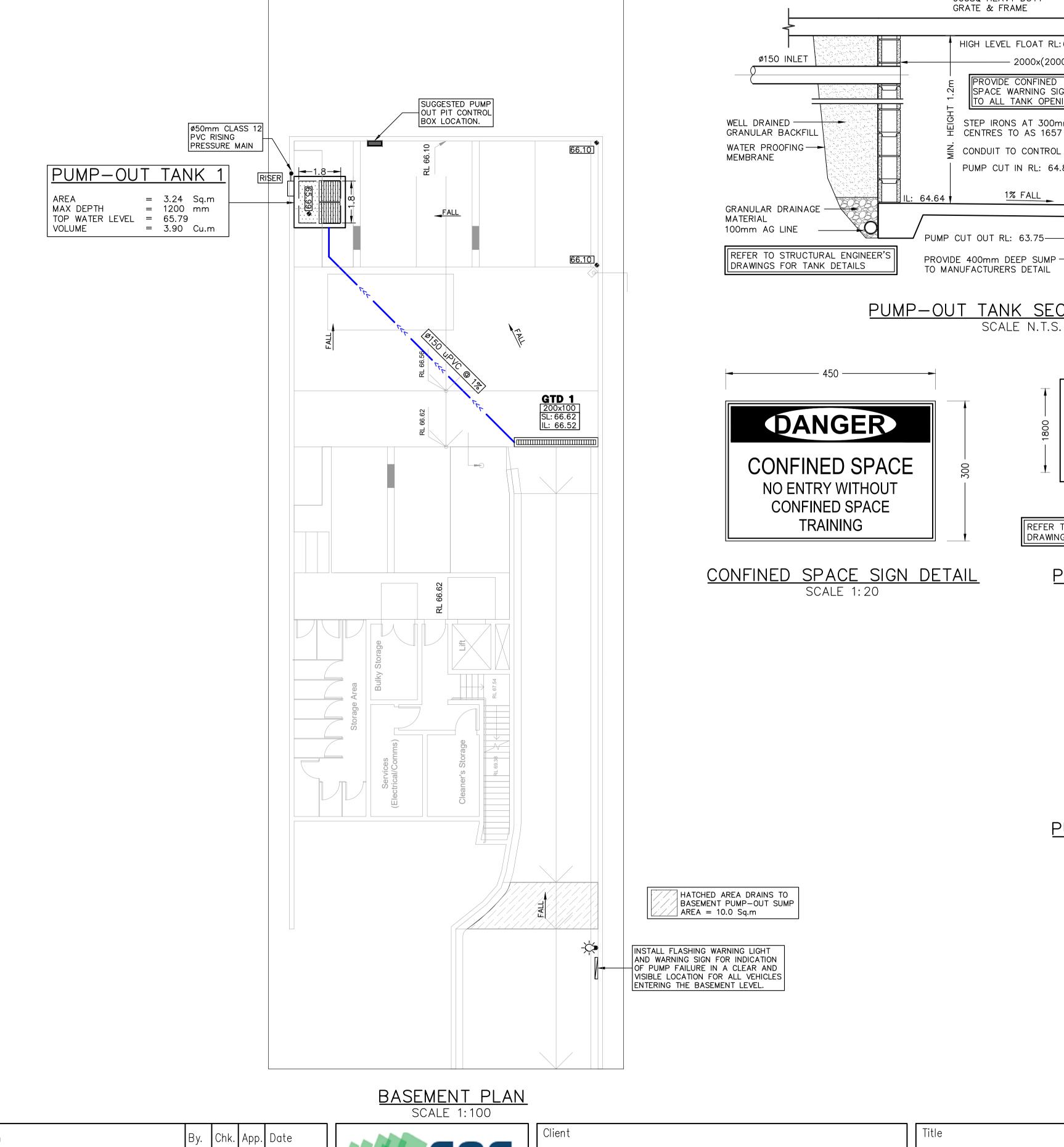
Drawing Number Revision

SW001

P.E.

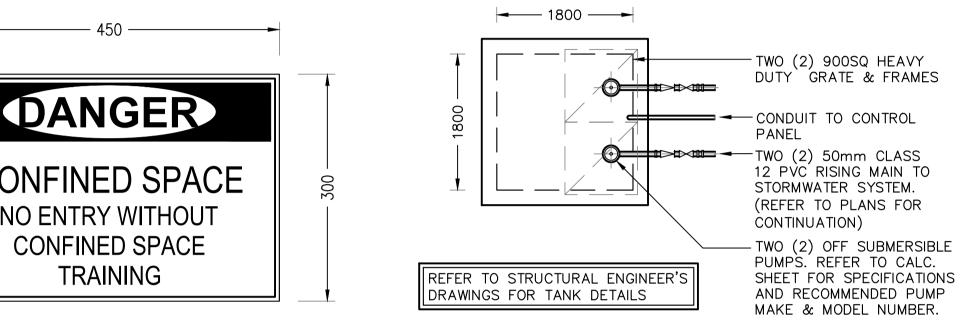
H.Y M.W P.E. 25/02/202

. | 23/03/202[.]



900SQ HEAVY DUTY-SL: 65.99 HIGH LEVEL FLOAT RL: 65.79-TWO (2) 50mm CLASS
12 PVC RISING MAIN TO 2000x(2000) STORMWATER SYSTEM. (REFER TO PLANS FOR SPACE WARNING SIGN CONTINUATION) TO ALL TANK OPENINGS STEP IRONS AT 300mm -GATE VALVE CENTRES TO AS 1657 CONDUIT TO CONTROL PANEL CHECK VALVE PUMP CUT IN RL: 64.89 1% FALL IL: 64.59 TWO (2) OFF SUBMERSIBLE PUMPS. REFER TO CALC. SHEET FOR SPECIFICATIONS AND RECOMMENDED PUMP 600 MAKE & MODEL NUMBER.

PUMP-OUT TANK SECTION DETAIL



PUMP-OUT TANK PLAN DETAIL

WARNING

PUMP OUT SYSTEM **FAILURE IN BASEMENT** WHEN LIGHT IS FLASHING AND SIREN SOUNDING

PUMP-OUT WARNING SIGN DETAIL SCALE 1:20

STANDARD PUMP OUT DESIGN

THE PUMP OUT SYSTEM SHALL BE DESIGNED TO BE OPERATED IN THE FOLLOWING MANNER: -

I). THE PUMPS SHALL BE PROGRAMMED TO WORK ALTERNATELY TO ÁLLOW BOTH PUMPS TO HAVE AN EQUAL OPERATION LOAD AND PUMP

II). A FLOAT SHALL BE PROVIDED TO ENSURE THAT THE MINIMUM RÉQUIRED WATER LEVEL IS MAINTAINED WITHIN THE SUMP AREA OF THE BELOW GROUND TANK. IN THIS REGARD THIS FLOAT WILL FUNCTION AS AN OFF SWITCH FOR THE PUMPS AT THE MINIMUM WATER LEVEL. THE SAME FLOAT SHALL BE SET TO TURN ONE OF THE PUMPS ON UPON THE WATER LEVEL IN THE TANK RISING TO APPROXIMATELY 300MM ABOVE THE MINIMUM WATER LEVEL. THE PUMP SHALL OPERATE UNTIL THE TANK IS DRAINED TO THE MINIMUM WATER

III). A SECOND FLOAT SHALL BE PROVIDED AT A HIGH LEVEL, WHICH IS APPROXIMATELY THE ROOF LEVEL OF THE BELOW GROUND TANK. THIS FLOAT SHALL START THE OTHER PUMP THAT IS NOT OPERATING AND ACTIVATE THE ALARM.

IV). AN ALARM SYSTEM SHALL BE PROVIDED WITH A FLASHING STROBELIGHT AND A PUMP FAILURE WARNING SIGN WHICH ARE TO BE LOCATED AT THE DRIVEWAY ENTRANCE TO THE BASEMENT LEVEL. THE ALARM SYSTEM SHALL BE PROVIDED WITH A BATTERY BACK-UP IN CASE OF POWER FAILURE.

V). A CONFINED SPACE DANGER SIGN SHALL BE PROVIDED AT ALL ACCESS POINTS TO THE PUMP OUT STORAGE TANK IN ACCORDANCE WITH THE UPPER PARRAMATTA RIVER CATCHMENT TRUST OSD

KEY NOTES:

INSTALL STEP IRONS FOR EASE OF ACCESS DURING MAINTENANCE OF PUMP OUT CONTROL PIT TO COUNCIL SATISFACTION.

INSTALL CONFINED SPACE SIGN ABOVE PUMP OUT PIT FOR PUBLIC AWARENESS AND WARNING.

ALL STORMWATER PIPES ARE Ø100mm uPVC AND SLOPING @ 1.0% U.N.O (TYP).

ALL BUILDING AND HYDRAULIC SERVICES TO BE PROPERLY CO-ORDINATED WITH STORMWATER PIPES AND ENSURE NO CLASHES ARE PRESENT DURING CONSTRUCTION (TYP).

STORMWATER PIPE ARRANGEMENT TO BE CO-ORDINTED WITH STRUCTURAL SLAB AND BEAMS WHERE REQUIRED (TYP).

PUMP STORAGE CALCS:

BELOW GROUND STORAGE:

100yr 12 HR ARI STORM= 177mm CATCHMENT AREA = 10.0m²

=10.0x(177/1000)

=1.77m³ REQUIRED (MIN. 3.0m³ ADOPTED AS PER AS3500.3) =3.90m³ PROVIDED

PUMP DISCHARGE RATE WAS DESIGNED FOR THE 100yr 5MIN STORM:

Q = CIA / 3600

 $=1.0 \times 229 \times 10.0 / 3600$

=0.64 L/s REQUIRED @ 2.21 m OF HEAD

RECOMMENDED PUMP: DUAL SABRE MODEL NO. KS-03 PUMPS WITH 50mm PVC CLASS 12 OUTLETS.

PUMP TO BE USED (IN ----ACCORDANCE WITH AS/NZS 3500.3 A 0.64L/S PUMP IS REQUIRED AT MINUMUM)

	Output		Outlet		Rated Head Capacity		Maxımum		Weigh	Dimension		
Туре							Head	Head Capacity				
	ΗP	kW	mm	Inch	Μ	LPM	Μ	LPM	Кд	L(mm)	W(mm)	H(mm)
KS-03	1/3	0.25	40	1 1/2"	3	130	8	180	9	188	141	305
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

SW21046

Description H.Y M.W P.E. 01/09/2021 ISSUED FOR DEVELOPMENT APPLICATION ISSUED FOR DEVELOPMENT APPLICATION . | 23/03/202[.] ISSUED FOR DEVELOPMENT APPLICATION H.Y M.W P.E. 25/02/202

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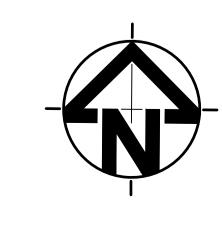
8 Buller Street, North Parramatta 2151 Ph: (02) 9630 0121 Fax: (02) 9630 0132 info@capitalengineering.com.au www.capitalengineering.com.au

GUS FARES ARCHITECTS

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BASEMENT PLAN



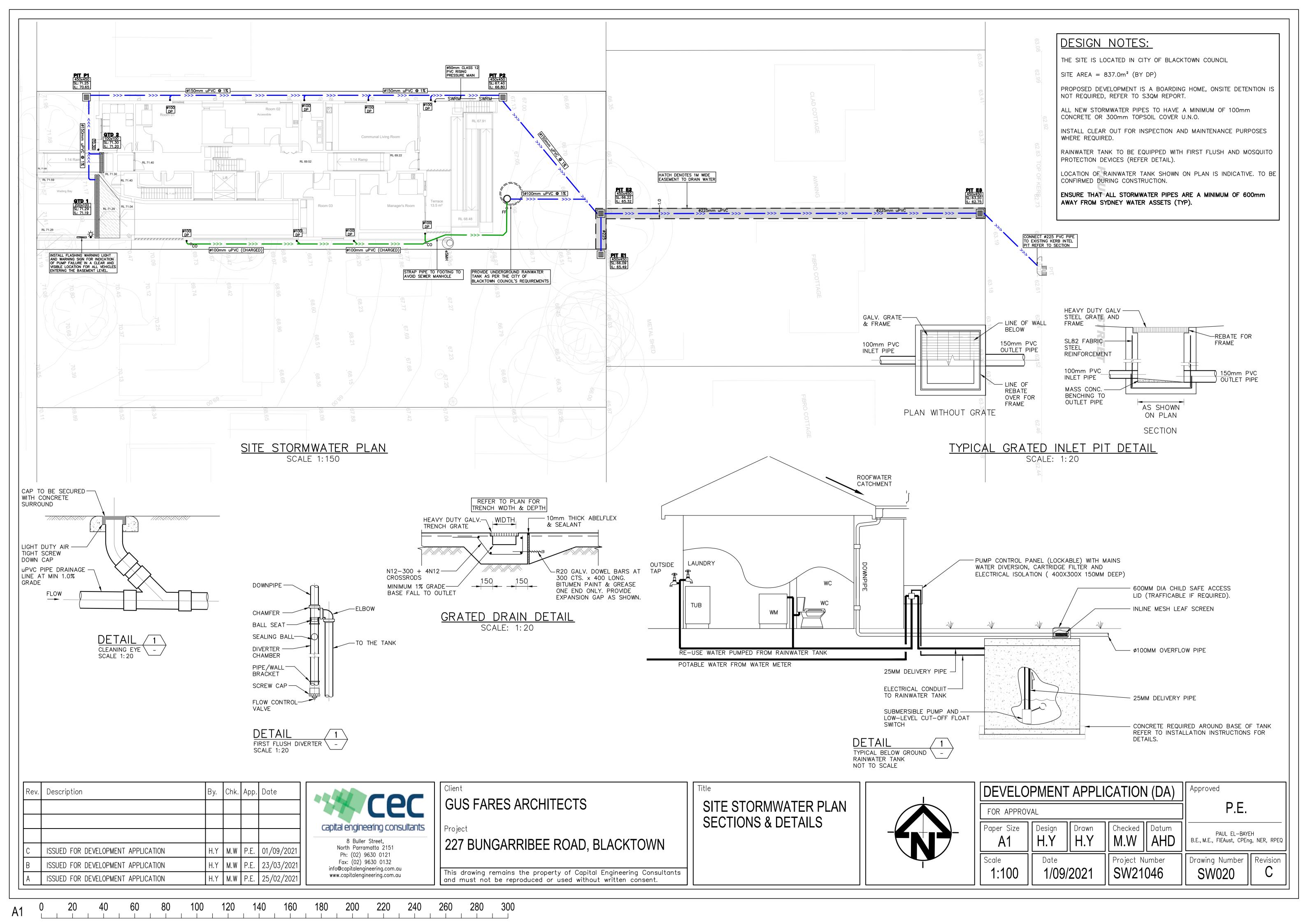
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FOR APPROVAL	

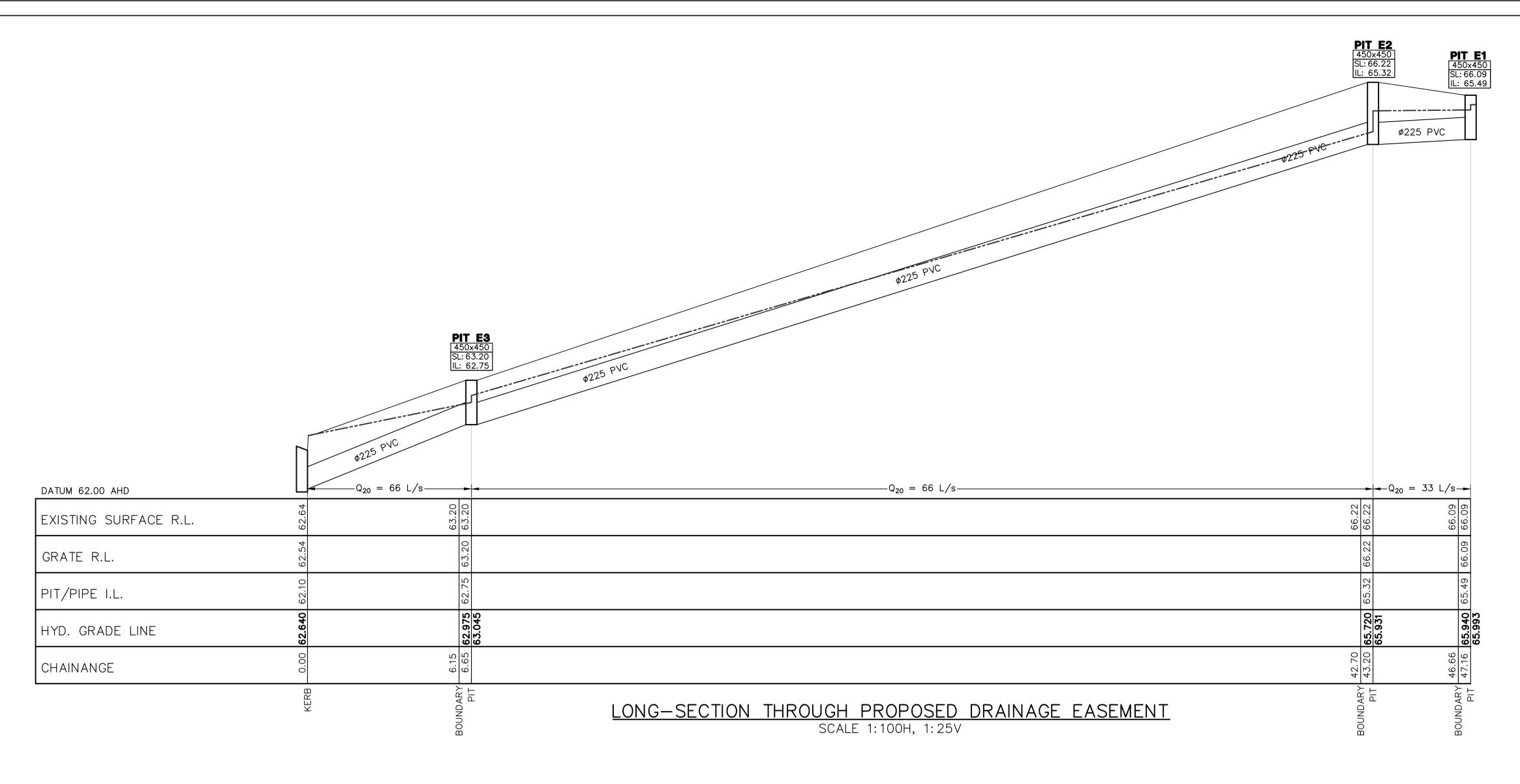
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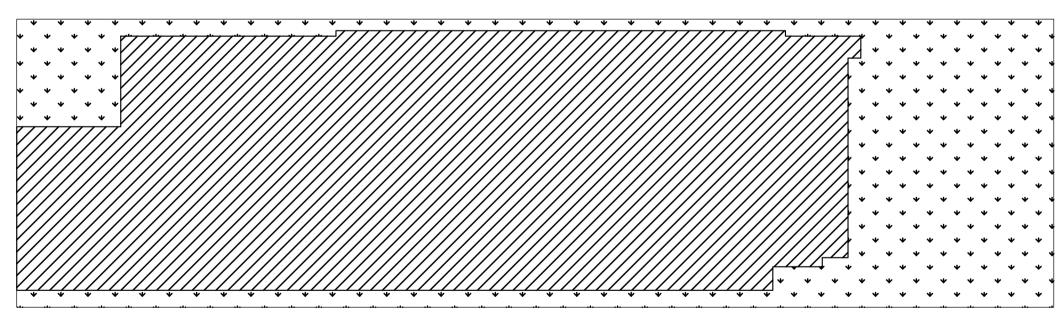
Datum PAUL EL-BAYEH || AHD B.E., M.E., FIEAust, CPEng, NER, RPEQ

Approved

Drawing Number Revision SW010







IMPERVIOUS/HARDSTAND AREA = 566.7 Sq.m



PERVIOUS AREA = 269.4 Sq.m

JOB N	0. :	21046																
					22	5-227 Bu	ngarribe	e Road, E	Blacktowi	NSW								
e for bac	kward	checking	of pipe	system							DE	ESIGN ARI :	20	Year				
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					0						2							
	Length	_	•	Full Pipe	<u>V</u> ²	D/S HGL	Pipe	HGL just	Obvert	Pit Pressure	<u>K. V</u> ²	Adopted	U/S	Freeboard	k	REYNOLDS	FRICTION	SLOP
Reach		Flowrate	Diameter	Velocity	2g	Level **	Friction	below	Level at	Change	2g	U/S Pit	Surface	(mm)	VALUE	NO.	FACTOR	of
							Loss	U/S Pit	Upperend	Coeff.		HGL {or	Level		(pipe wall			TEL
									of Pipe	Ku		Water} level*			roughness)			
	L	Q		V			S _f .L	[7] + [8]		{or K _w }	[11] x [6]				k	N_r	f	S_f
	[m]	[m³/s]	[m]	[m/s]	[m]	[m AHD]	[m]	[m AHD]	[m AHD]		(m)	[m AHD]	[m AHD]		(mm)			
												62.975						
	7.6	0.066	0.225	1.660	0.140	62.640	0.067	62.707	62.975	0.5	0.070	63.045	63.200	155	0.0015	327617.18	0.0142	0.008
	36.1	0.066	0.225	1.660	0.140	63.045	0.320	65.720	65.625	1.5	0.211	65.931	66.220	289	0.0015	327617.18	0.0142	0.008
	3.5	0.033	0.225	0.830	0.035	65.931	0.009	65.940	65.715	1.5	0.053	65.993	66.090	97	0.0015	163808.59	0.0162	0.002

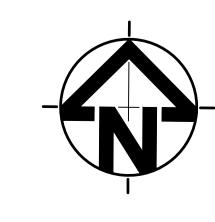
Rev.	Description	Ву.	Chk.	App.	Date
С	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	01/09/2021
В	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	23/03/2021
Α	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	25/02/2021



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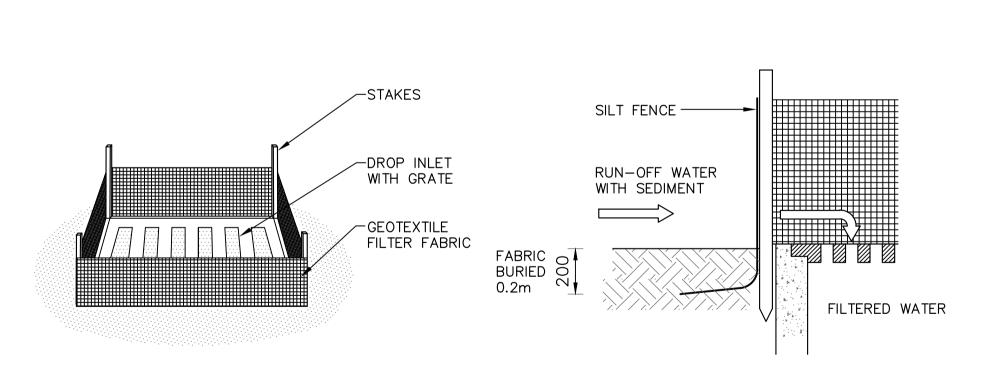
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PAUL EL-BAYEH B.E., M.E., FIEAust, CPEng, NER, RPEQ Revision

Project Number SW21046 Drawing Number SW030

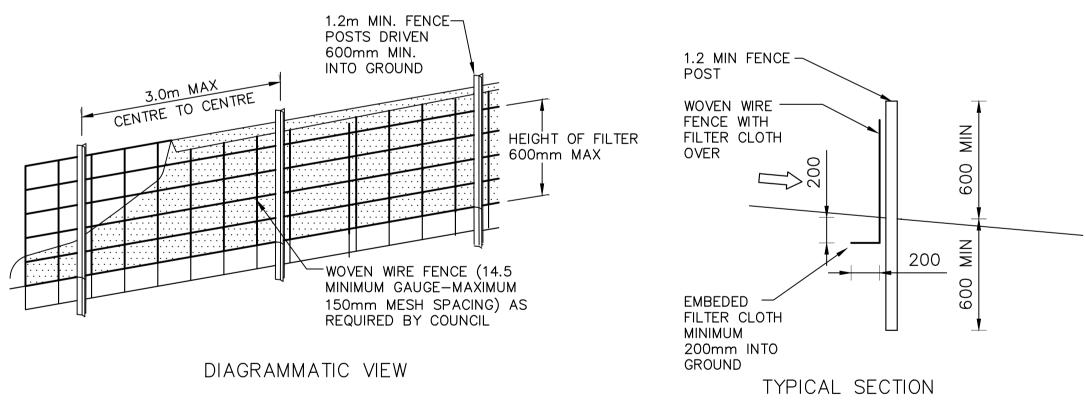
CONSTRUCT SIGNATURE OF PROPERTY BOUNDARY TO PROPERTY BOUNDARY BOUN

EROSION & SEDIMENT CONTROL PLAN SCALE 1:100



SUMP SEDIMENT TRAP DETAIL

NOT TO SCALE



SEDIMENT FENCE DETAIL

NOT TO SCALE

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 NECCESSARY 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 FOLLOW

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

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	C	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	01/09/2021
E	3	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	23/03/2021
	4	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	25/02/2021



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GUS FARES ARCHITECTS

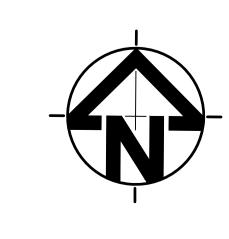
Project

227 BUNGARRIBEE ROAD, BLACKTOWN

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Title

EROSION AND SEDIMENT CONTROL PLAN



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FOR APPROVAL								
Paper Size A1	Design H.Y	Drawn H.Y	Checked M.W	Datur AH				

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B.E., M.E., FIEAust, CPEng, NER, RPEQ

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