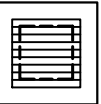
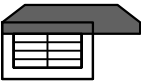
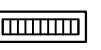
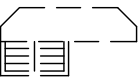
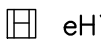
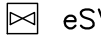
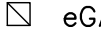
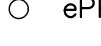
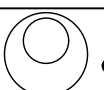


PROPOSED CHILDCARE CENTRE DEVELOPMENT AT 187-189 ADELAIDE STREET, ST MARYS NSW

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

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TM: TRADE MARK OF THE ASSOCIATION OF DIAL BEFORE YOU DIG SERVICES LTD. USED UNDER LICENSE.

DRAWING REGISTER		
NUMBER	NAME	REVISION
SW001	COVER SHEET	B
SW010	BASEMENT PLAN	B
SW020	SITE STORMWATER PLAN	B
SW021	ON-SITE DETENTION SECTION & DETAILS	B
ER001	EROSION AND SEDIMENT CONTROL PLAN	B

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 WELDLK 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_c 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
GSIP	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
OPF	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 BELOW BASE COURSE)	98% MODIFIED
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: ---- (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
B	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	20/12/2021
A	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	14/12/2021

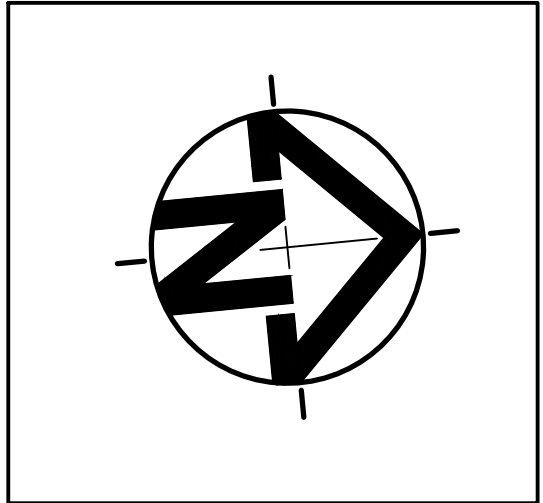

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capital engineering consultants
8 Buller Street,
North Parramatta 2151
Ph: (02) 9630 0121
Fax: (02) 9630 0132
info@capitalengineering.com.au
www.capitalengineering.com.au

Client
JANSSEN DESIGNS

Project
187-189 ADELAIDE STREET, ST MARYS

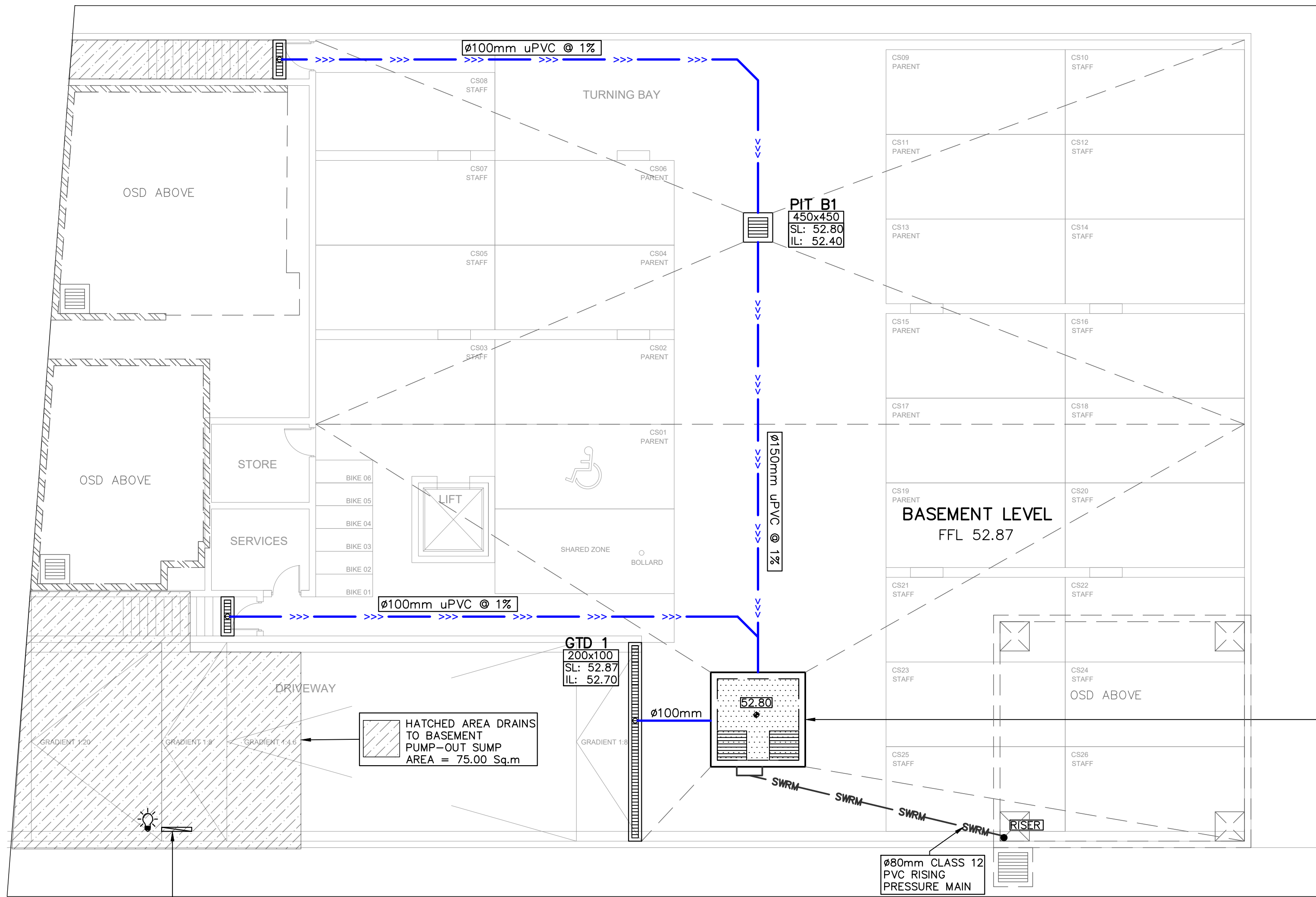
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Title
COVER SHEET

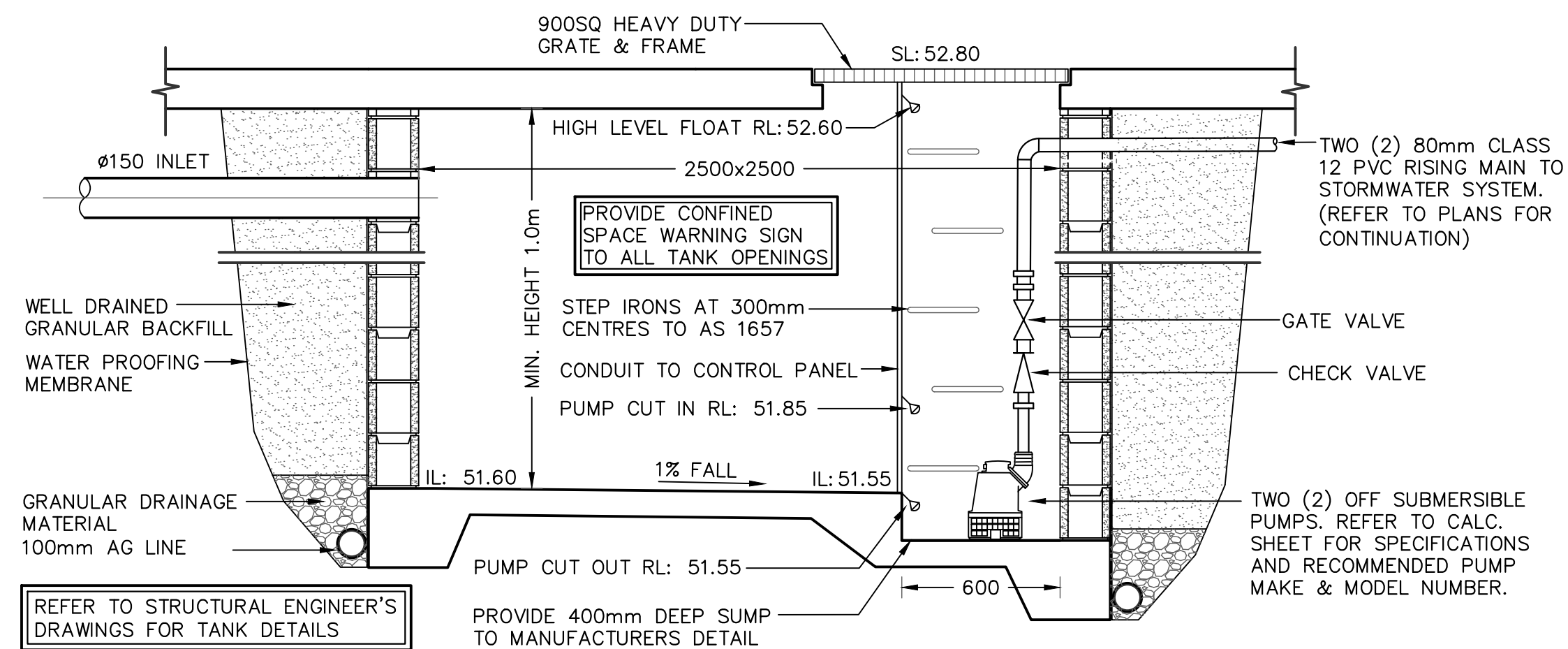


DEVELOPMENT APPLICATION (DA)					Approved	
FOR COORDINATION					P.E.	
Paper Size	Design	Drawn	Checked	Datum	PAUL EL-BAYEH B.E., M.E., FIEAust, CPEng, NER, RPEQ	
A1	H.Y	H.Y	M.W	AHD		
Scale	Date	Project Number		Drawing Number	Revision	
1:100	20/12/2021	SW21345		SW001	B	

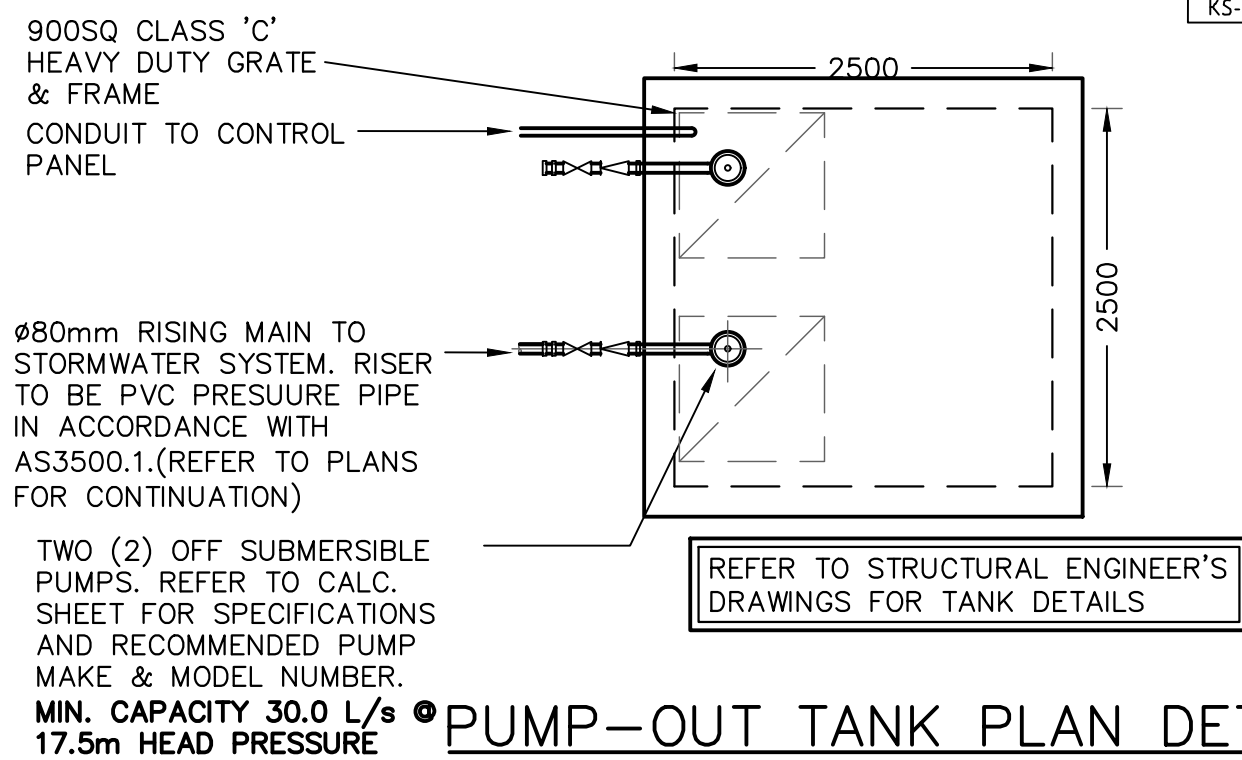
ALL SUB-SOIL DRAINAGE LINES LAID AROUND BASEMENT WALL PERIMETER SHALL BE CONNECTED TO THE BASEMENT DRAINAGE SYSTEM TO STRUCTURAL ENGINEERS DETAILS.



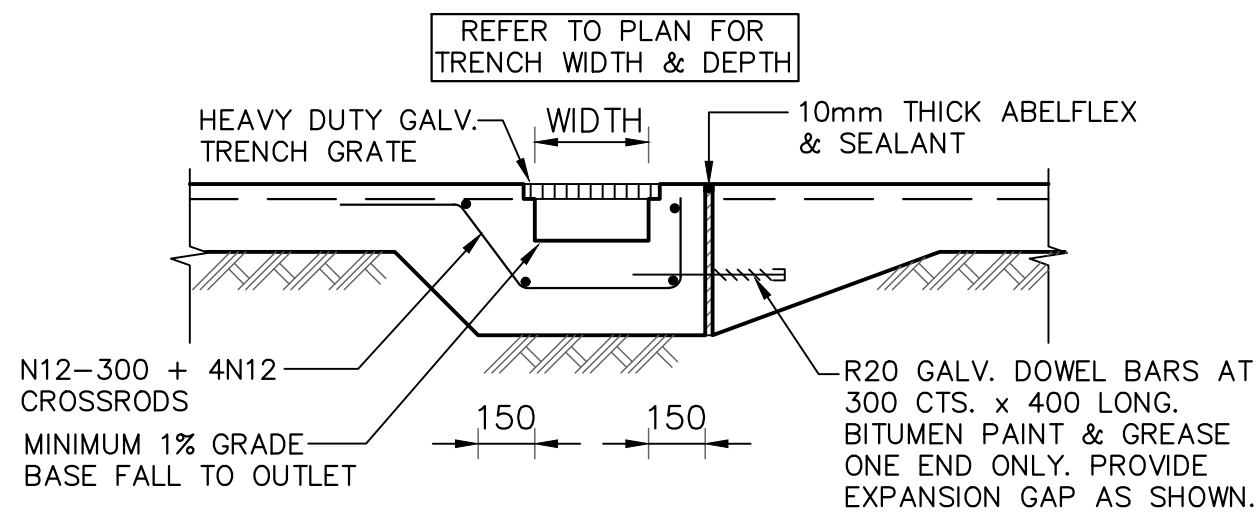
BASEMENT PLAN
SCALE 1:100



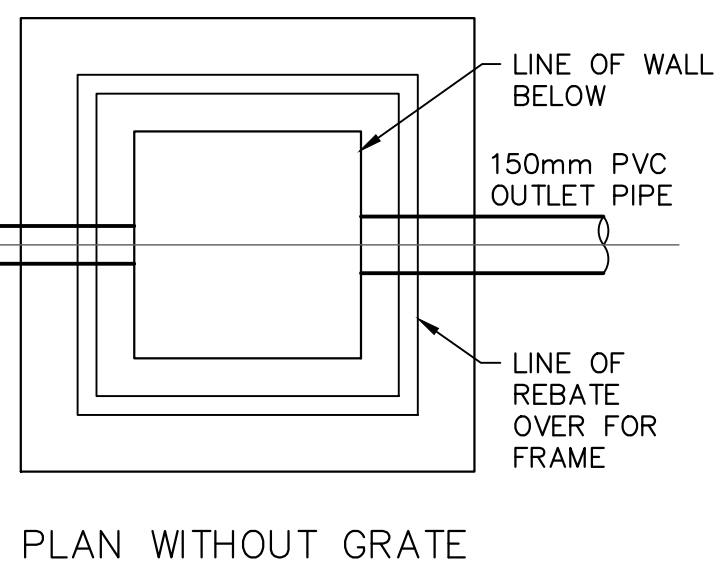
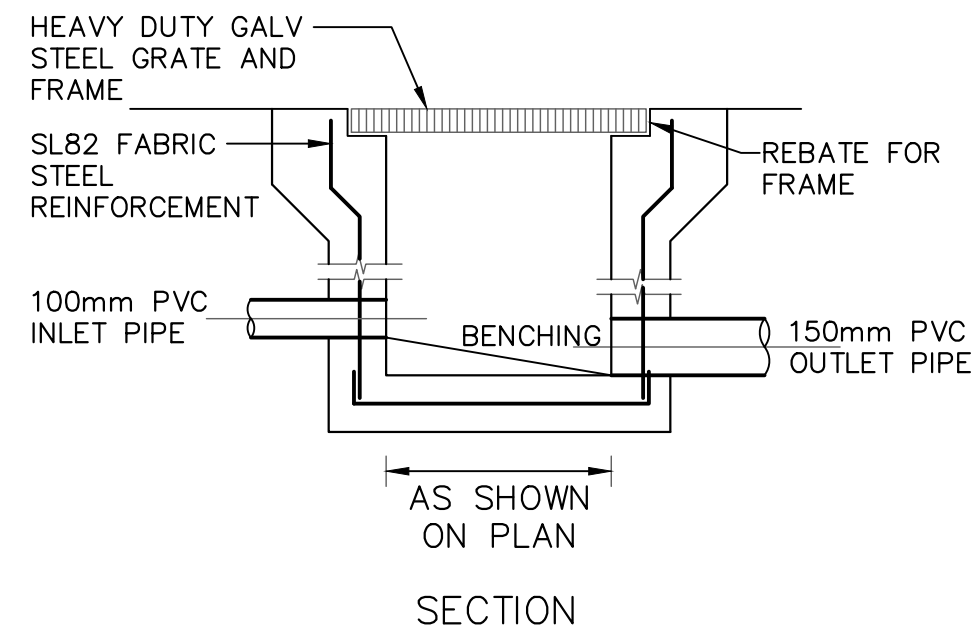
PUMP-OUT TANK SECTION DETAIL
SCALE N.T.S.



PUMP-OUT TANK PLAN DETAIL
SCALE 1:50



GRADED DRAIN DETAIL
SCALE: 1:20



DETAIL
STORMWATER PIT
SCALE 1:20

SEEPAGE NOTE:

SITE FOREMAN TO REPORT SITE SEEPAGE CONDITIONS IN BASEMENT EXCAVATION PRIOR TO FORMING AND POURING OF BASEMENT PUMP-OUT TANK. EXCESSIVE GROUNDWATER SEEPAGE AT BULK EXCAVATION LEVEL MUST BE REPORTED TO DESIGN ENGINEER IMMEDIATELY.

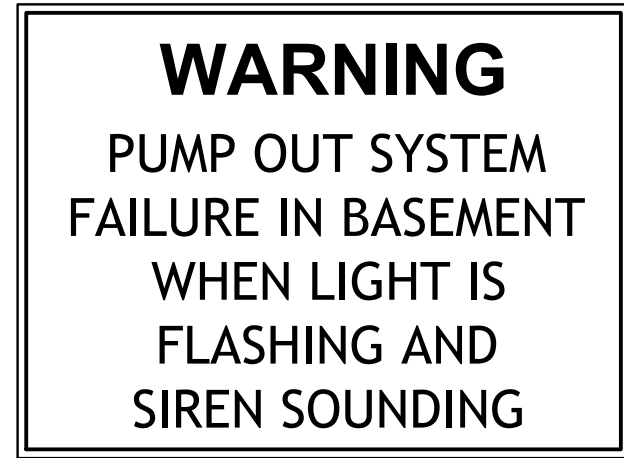
PUMP-OUT TANK 1

AREA = 6.25 Sq.m
MAX DEPTH = 1000 mm
TOP WATER LEVEL = 52.60
VOLUME = 6.25 Cu.m

PUMP COMPLIANCE:

SELECTED PUMPS IN ALL BASEMENT CARPARK AREAS MUST BE CLASS 1 ZONE 2 HAZARDOUS LOCATION RATED. DETAILS OF COMPLIANCE MUST BE PROVIDED BY PUMP MANUFACTURER/INSTALLER TO CEC P/L. ALTERNATIVE PRODUCTS WILL NOT BE CERTIFIED BY CEC P/L.

Type	Output		Outlet		Rated Head Capacity		Maximum Head Capacity		Weigh	Dimension		
	HP	kW	mm	Inch	M	LPM	M	LPM		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



PUMP-OUT WARNING SIGN DETAIL
SCALE 1:20

STANDARD PUMP OUT DESIGN NOTES:

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

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

II). A FLOAT SHALL BE PROVIDED TO ENSURE THAT THE MINIMUM REQUIRED 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 LEVEL.

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 HANDBOOK.

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 100mm 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-ORDINATED WITH STRUCTURAL SLAB AND BEAMS WHERE REQUIRED (TYP).

PUMP STORAGE CALCS:

BELOW GROUND STORAGE:

100yr 2hr ARI STORM= 82.2mm
CATCHMENT AREA= 75m²

V=Axsd
=75x(82.2/1000)
=6.20m³ REQUIRED
=6.25m³ PROVIDED

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

Q=CIA/3600
=1.0x238x75/3600
=4.96 L/s REQUIRED @ 4.20 m OF HEAD

RECOMMENDED PUMP: DUAL SABRE MODEL NO. KS-20 PUMPS WITH 80mm PVC CLASS 12 OUTLETS.



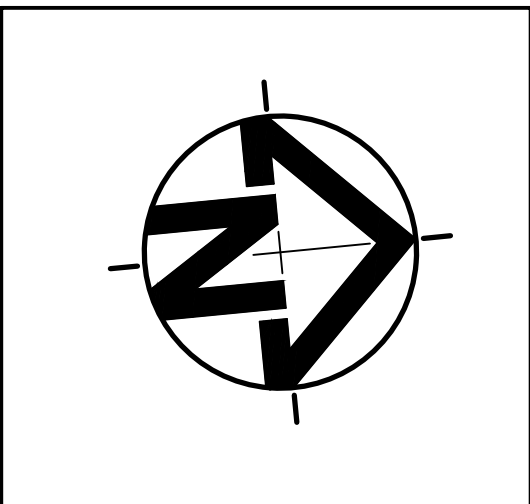
CONFINED SPACE SIGN DETAIL
SCALE 1:20

Rev.	Description	By.	Chk.	App.	Date
B	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	20/12/2021
A	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	14/12/2021



Client	JANSSEN DESIGNS
Project	187-189 ADELAIDE STREET, ST MARYS
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Title	BASEMENT PLAN
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DEVELOPMENT APPLICATION (DA)				
FOR COORDINATION				
Paper Size	Design	Drawn	Checked	Datum
A1	H.Y	H.Y	M.W	AHD
Scale	Date	Project Number		
1:100	20/12/2021	SW21345		

Approved	P.E.
PAUL EL-BAYEH B.E., M.E., FIEAust, CPEng, NER, RPEQ	
Drawing Number	Revision
SW010	B

OSD BASIN 1:
AREA = 47.00 Sq.m
MAX DEPTH = 550 mm
TOP WATER LEVEL = 56.35
VOLUME PROVIDED = 14.10 Cu.m

OSD BASIN 2:
AREA = 11.27 Sq.m
MAX DEPTH = 350 mm
TOP WATER LEVEL = 56.35
VOLUME PROVIDED = 3.94 Cu.m

PIT P7
600x600
SL: 56.00
IL: 55.75
PROVIDE EMERGENCY
OVERFLOW SPILLWAY
AT T.O.W. R.L. 56.35

DCP 1
600x600
SL: 56.00
CL: 55.73
IL: 55.68
PROVIDE EMERGENCY
OVERFLOW SPILLWAY
AT T.O.W. R.L. 56.35

PIT P1
600x600
SL: 55.90
IL: 55.58

PIT P6
450x450
SL: 56.50
IL: 56.20

PIT P5
450x450
SL: 56.50
IL: 56.05

PIT P4
450x450
SL: 56.50
IL: 55.95

PIT P3
450x450
SL: 56.40
IL: 55.90

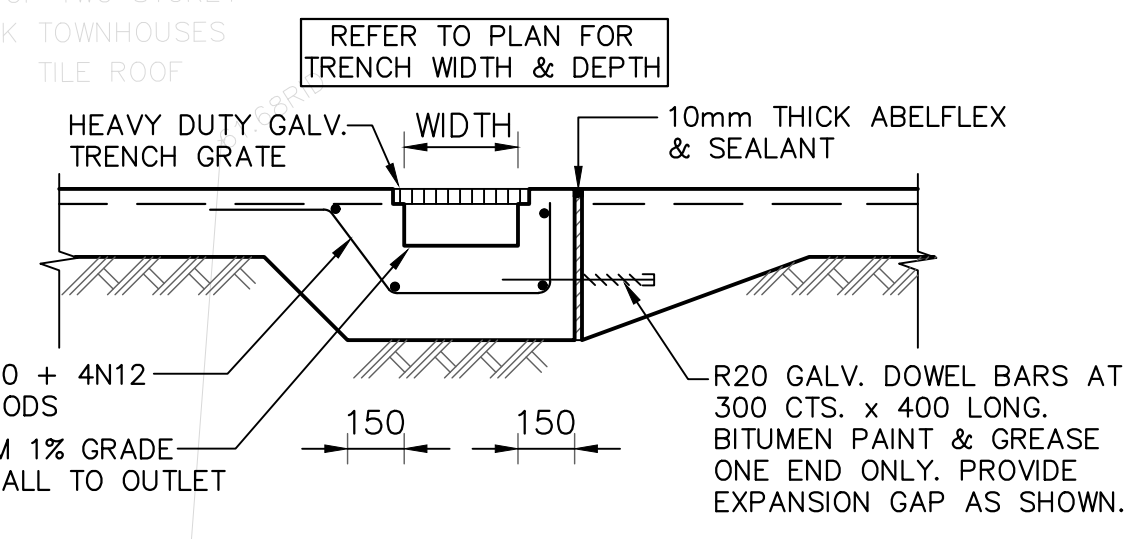
PIT P2
450x450
SL: 56.35
IL: 55.85

OSD TANK 1:
AREA = 48.00 Sq.m
MAX DEPTH = 500 mm
TOP WATER LEVEL = 56.30
VOLUME PROVIDED = 22.5 Cu.m
ORIFICE CENTERLINE = 55.80
OUTLET PIPE IL = 55.75

ALL ROOF AREA TO BE COLLECTED
BY RAINWATER OUTLETS AND
CONNECTED TO DOWNPIPES. ALL
DOWNPIPES TO CONNECT INTO
ON-SITE DETENTION BASIN SYSTEM.
FULL DETAILS OF ROOF DRAINAGE
SHALL BE PROVIDED IN CC STAGE

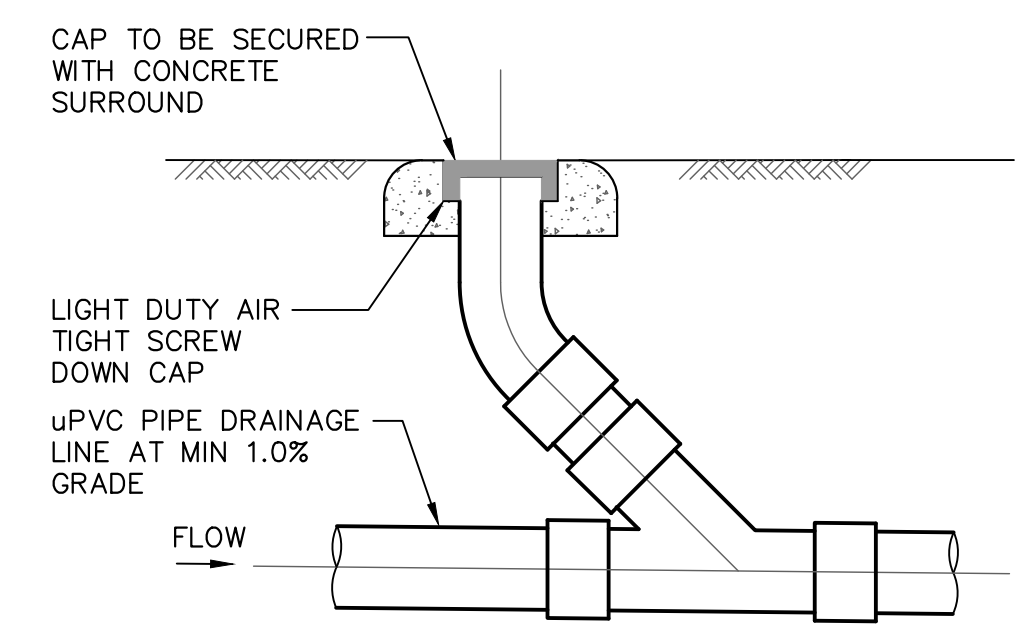
FINISHED FLOOR LEVEL IN
EXTERNAL AREA TO SLOPE
AWAY FROM BUILDING AND
GRATED DRAIN TO BE
COLLECTED BY FLOOR WASTES

ALL PITS AND GRATED DRAINS IN
PLAY/TRAFFICABLE AREAS SHALL
BE FITTED WITH LOCKABLE HEEL
AND WHEELCHAIR SAFE GRATINGS.

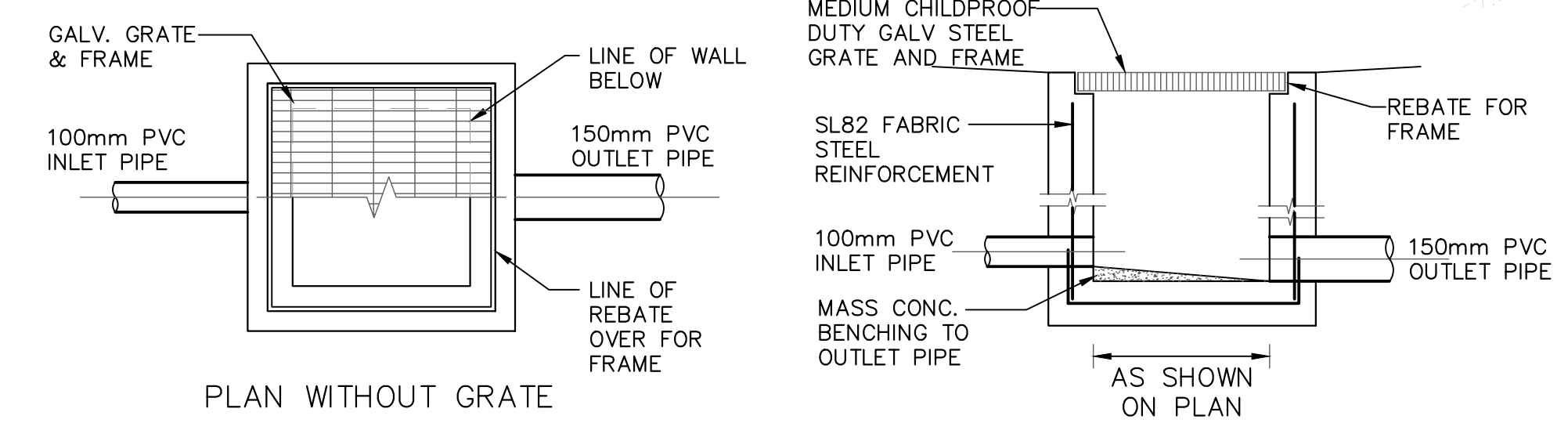


GRATED DRAIN DETAIL
SCALE: 1:20

SITE STORMWATER PLAN
SCALE 1:100



DETAIL 1
CLEANING EYE
SCALE 1:20



TYPICAL GRATED INLET PIT DETAIL
SCALE: 1:20

DESIGN NOTES:

THE SITE IS LOCATED IN PENRITH CITY COUNCIL

SITE AREA = 1100m² (BY DP)

PROPOSED DEVELOPMENT IS A CONSTRUCTION OF A CHILDCARE CENTRE HENCE, ON-SITE DETENTION IS REQUIRED. ON-SITE DETENTION HAS BEEN DESIGNED IN ACCORDANCE WITH PENRITH CITY COUNCIL'S OSD POLICY.

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.

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

Rev.	Description	By.	Chk.	App.	Date
B	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	20/12/2021
A	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	14/12/2021

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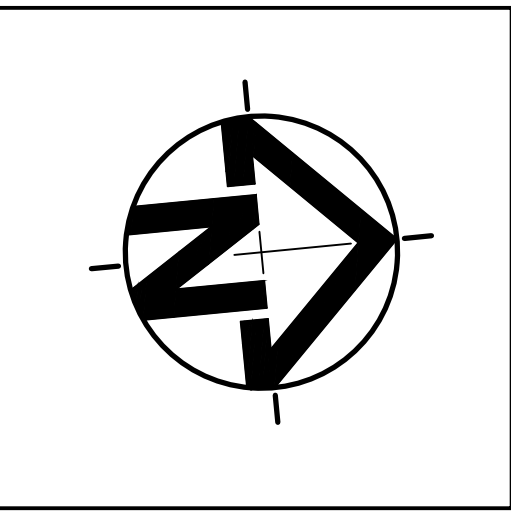
8 Buller Street,
North Parramatta 2151
Ph: (02) 9630 0121
Fax: (02) 9630 0132
info@capitalengineering.com.au
www.capitalengineering.com.au

Client
JANSSEN DESIGNS

Project
187-189 ADELAIDE STREET, ST MARYS

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Title
**SITE STORMWATER PLAN
SECTIONS & DETAILS**



DEVELOPMENT APPLICATION (DA)				
FOR COORDINATION				
Paper Size A1	Design H.Y	Drawn H.Y	Checked M.W	Datum AHD
Scale 1:100	Date 20/12/2021	Project Number SW21345		

Approved P.E.	
PAUL EL-BAYEH B.E., M.E., FIEAust, CPEng, NER, RPEQ	
Drawing Number SW020	Revision B

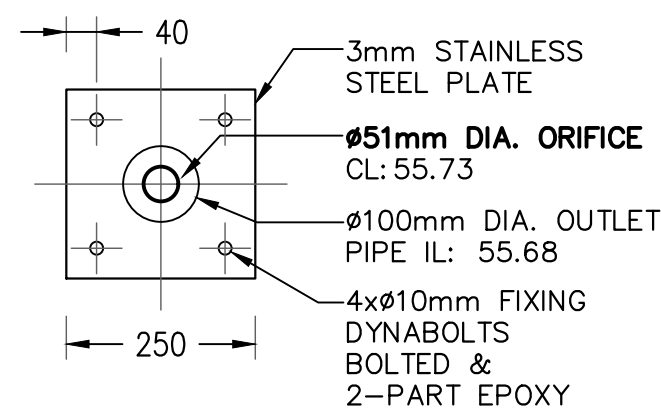
INSTALL STEP IRONS FOR EASE OF ACCESS DURING MAINTENANCE OF DETENTION TANK TO COUNCIL SATISFACTION.

INSTALL CONFINED SPACE SIGN ABOVE DETENTION TANK FOR PUBLIC AWARENESS AND WARNING.

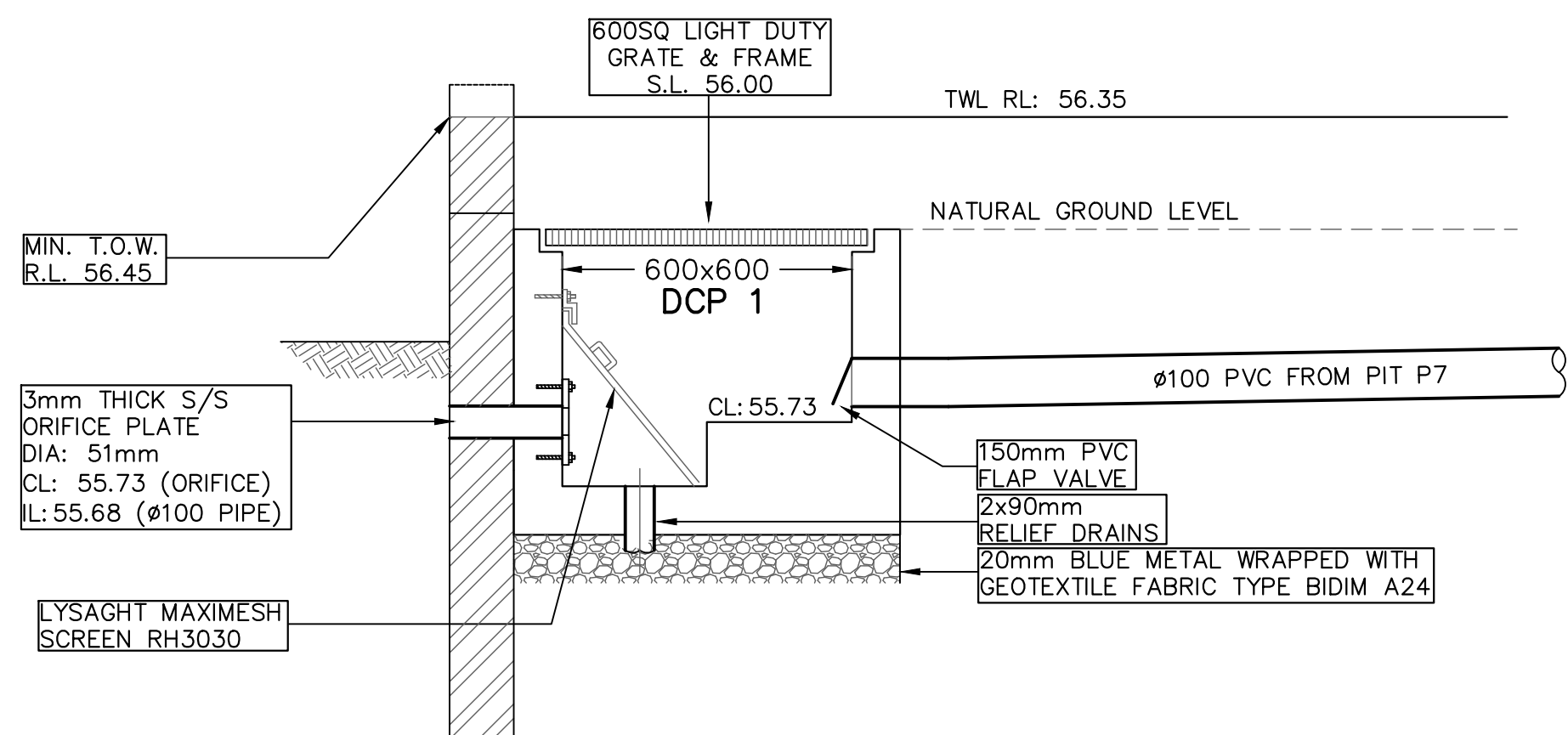
ALL STORMWATER PIPES ARE MIN. $\phi 100\text{mm}$ uPVC AND SLOPING @ 1.0% U.N.O (TYP).

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-ORDINATED WITH STRUCTURAL SLAB AND BEAMS WHERE REQUIRED (TYP).

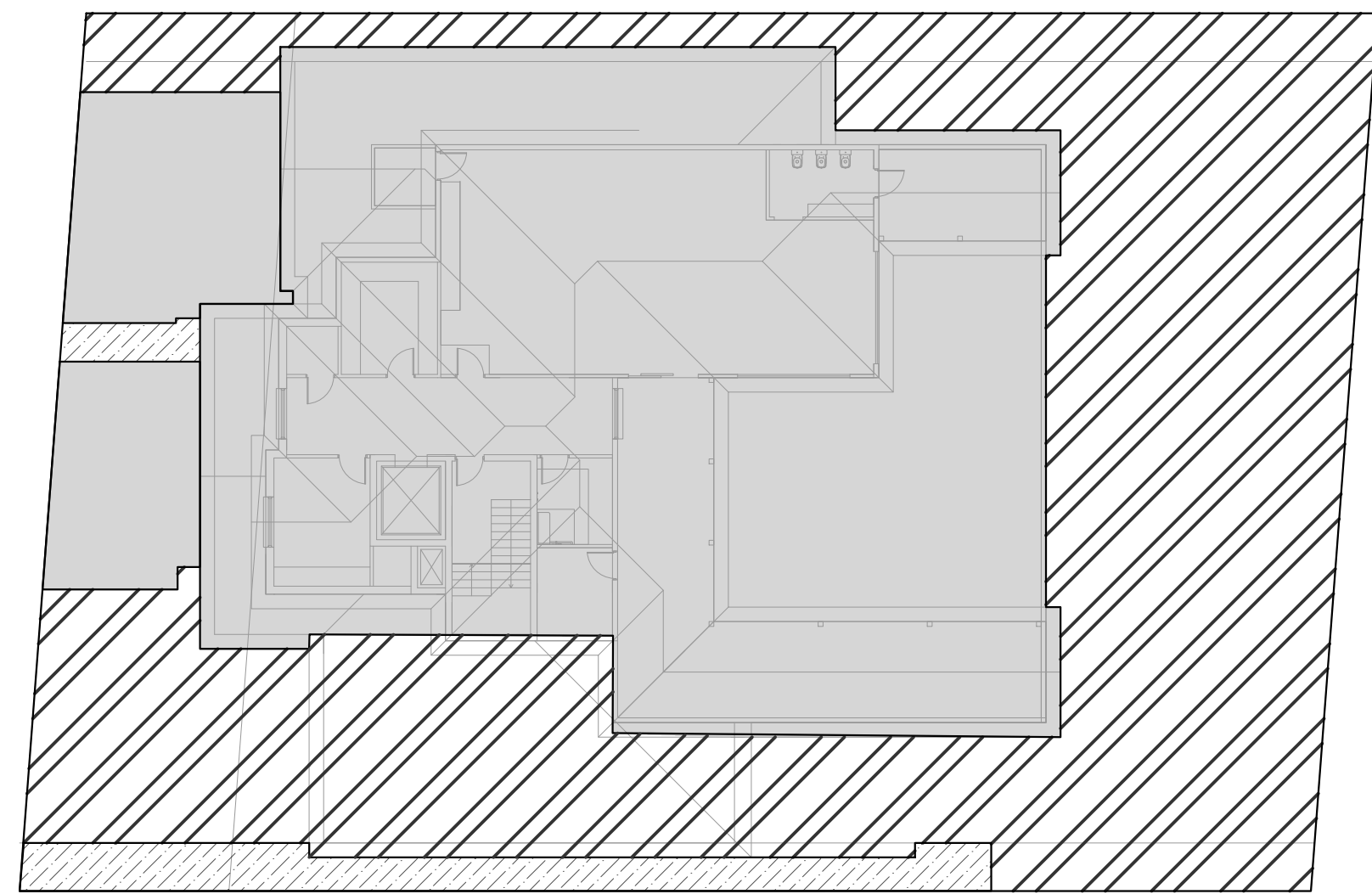


ORIFICE PLATE DETAIL OSD 2
SCALE: 1:10

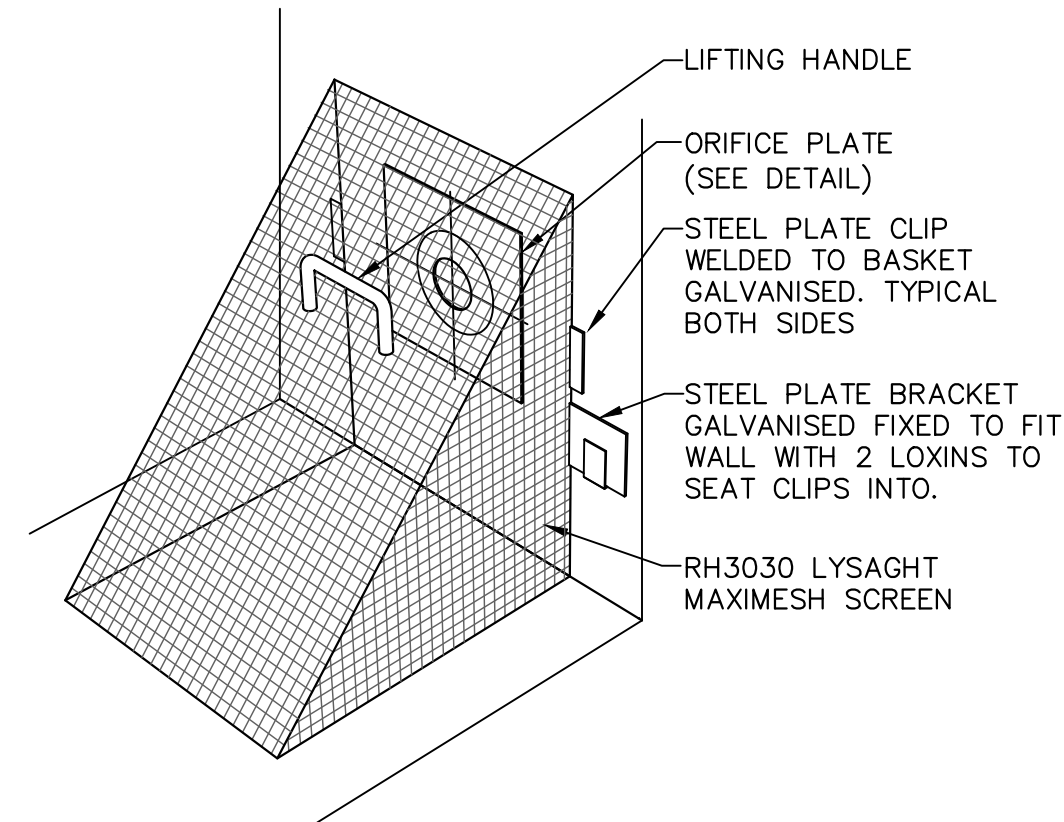
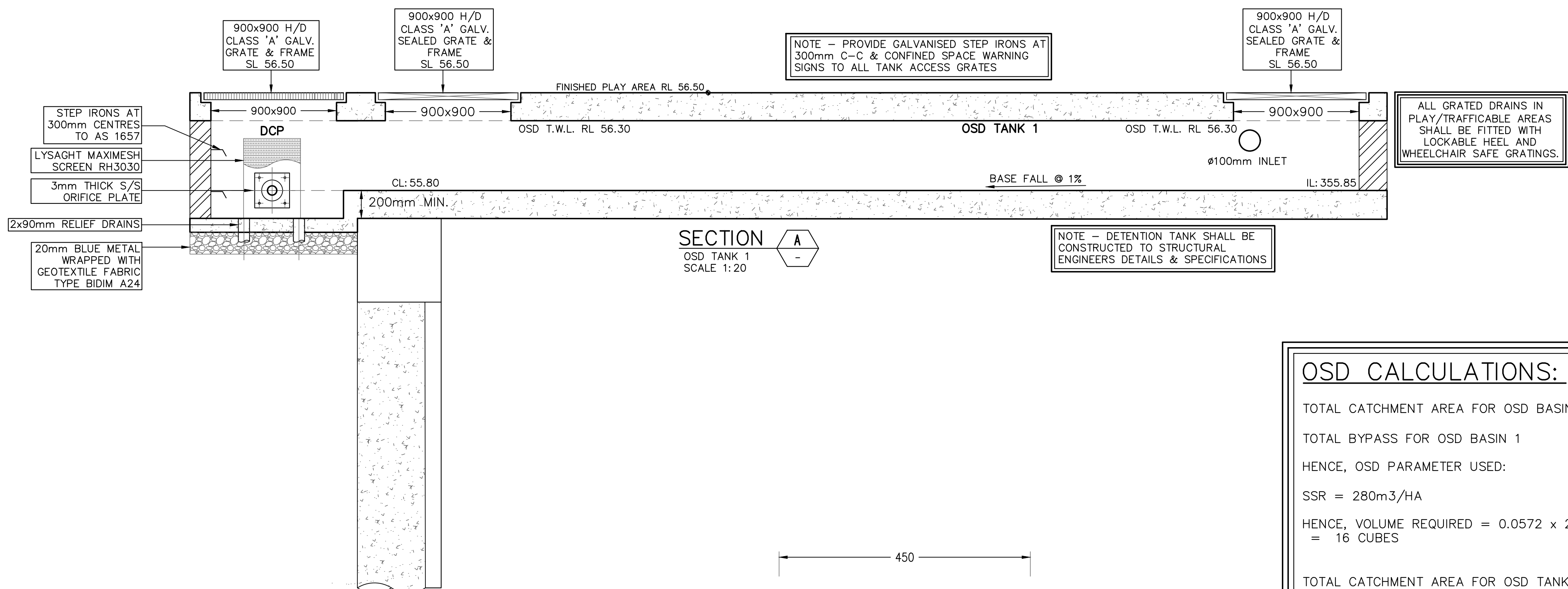


OSD 2 DISCHARGE CONTROL UNIT SECTION DETAIL

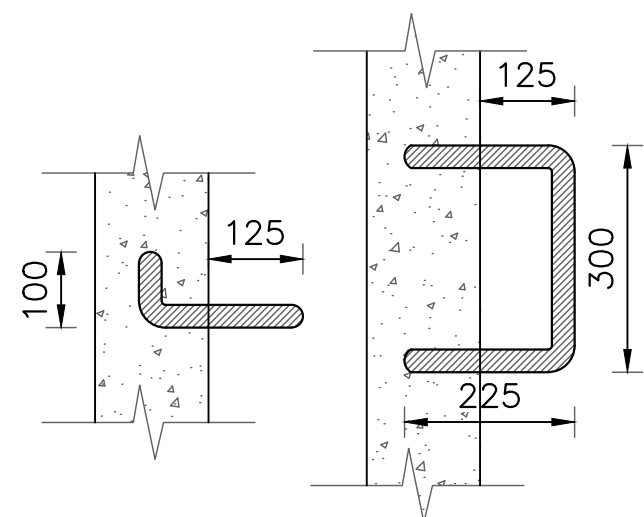
SCALE 1:20



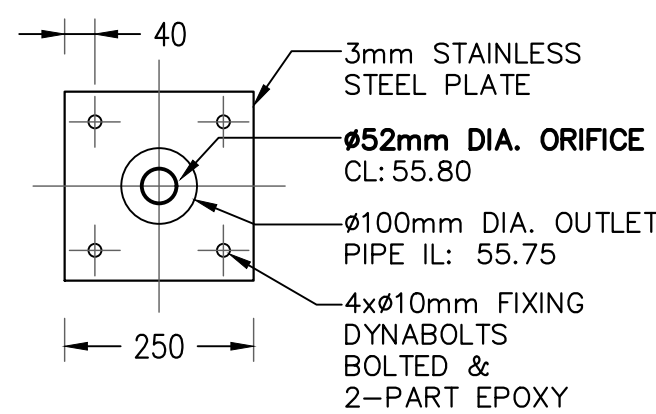
POST-DEVELOPED CATCHMENT PLAN
SCALE 1:200



TRASH SCREEN DETAIL
NOT TO SCALE



STEP IRON DETAIL
SCALE: 1:10



ORIFICE PLATE DETAIL OSD 1
SCALE: 1:10



CONFINED SPACE SIGN
NOT TO SCALE

TOTAL CATCHMENT AREA FOR OSD BASIN 1 = 572m^2

TOTAL BYPASS FOR OSD BASIN 1 = 0m^2

HENCE, OSD PARAMETER USED:

SSR = $280\text{m}^3/\text{HA}$

HENCE, VOLUME REQUIRED = 0.0572×280
= 16 CUBES

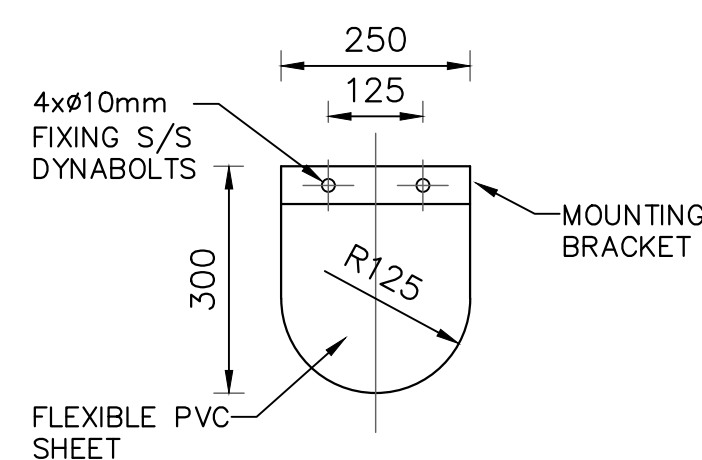
TOTAL CATCHMENT AREA FOR OSD TANK 1 = 530m^2

TOTAL BYPASS FOR OSD TANK 1 = 42m^2

HENCE, OSD PARAMETER USED:

SSR = $373\text{m}^3/\text{HA}$

HENCE, VOLUME REQUIRED = 0.0530×373
19.8 CUBES



DETAIL 1
FLAP VALVE
SCALE 1:10

Rev.	Description	By.	Chk.	App.	Date
B	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	20/12/2021
A	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	14/12/2021

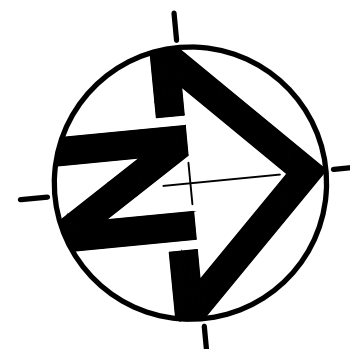


Client
JANSSEN DESIGNS

Project
187-189 ADELAIDE STREET, ST MARYS

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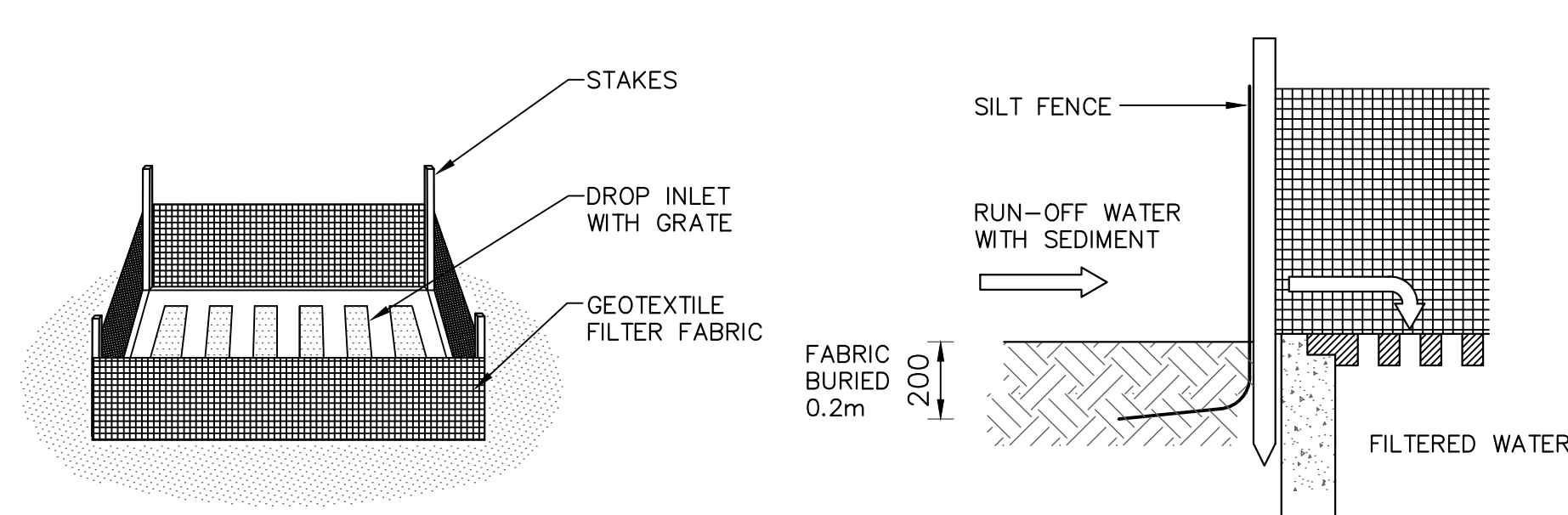
Title	OSD SECTIONS & DETAILS
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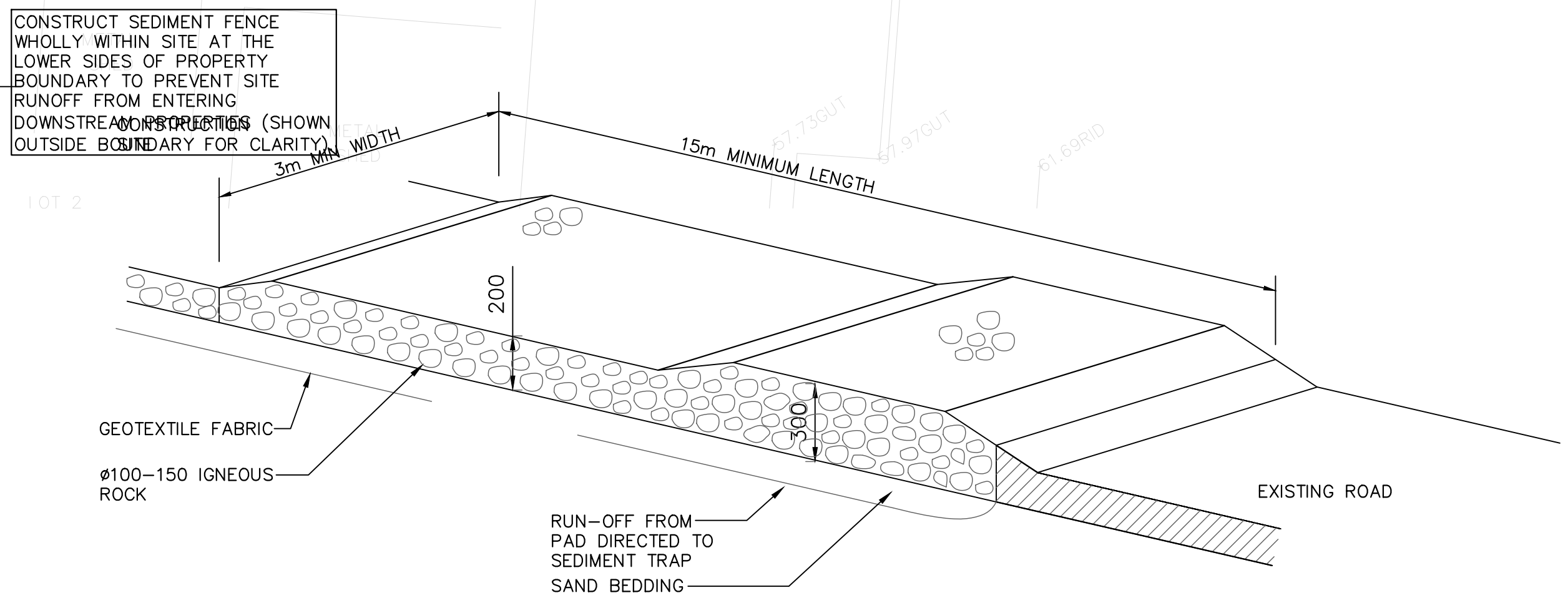
DEVELOPMENT APPLICATION (DA)					Approved	
FOR COORDINATION					P.E.	
Paper Size A1	Design H.Y	Drawn H.Y	Checked M.W	Datum AHD	PAUL EL-BAYEH B.E., M.E., FIEAust, CPEng, NER, RPEQ	
Scale 1:100	Date 20/12/2021	Project Number SW21345			Drawing Number SW021	Revision B



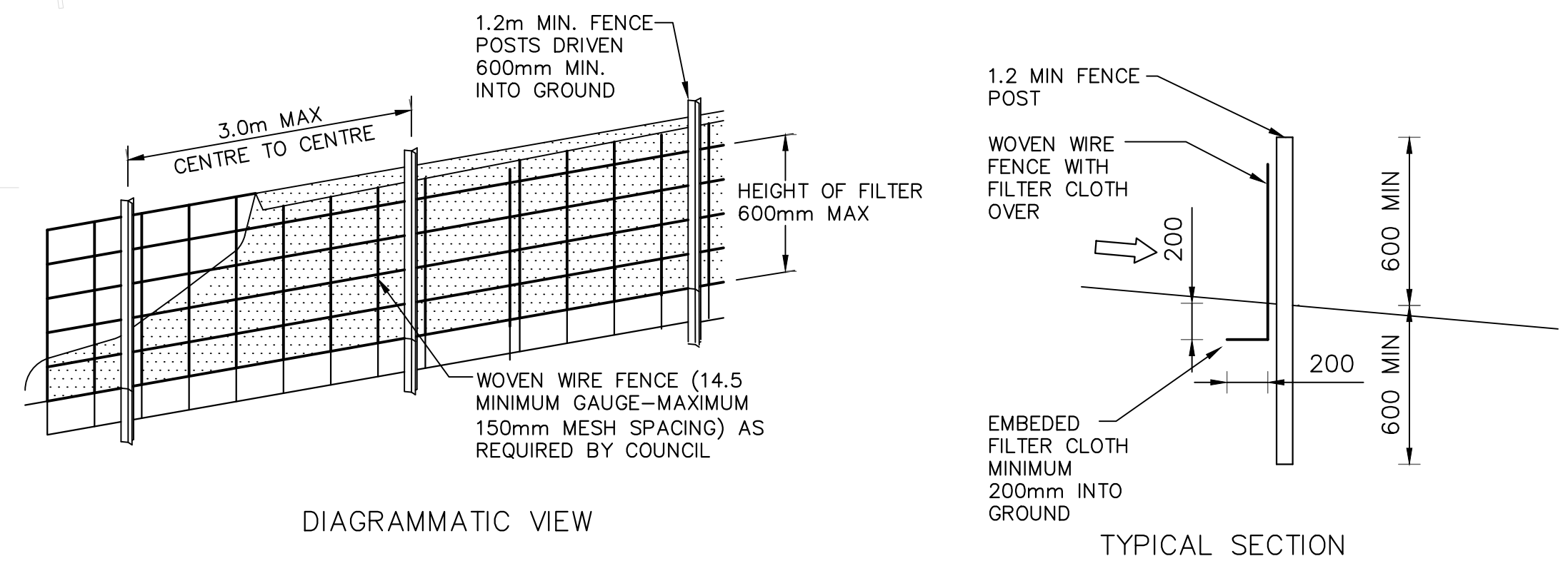
EROSION & SEDIMENT CONTROL PLAN
SCALE 1:100



SUMP SEDIMENT TRAP DETAIL
NOT TO SCALE



TEMPORARY CONSTRUCTION EXIT (RUBBLE ALTERNATIVE)
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 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

Rev.	Description	By.	Chk.	App.	Date
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A	ISSUED FOR DEVELOPMENT APPLICATION	H.Y	M.W	P.E.	14/12/2021



capital engineering consultants

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

Client

JANSSEN DESIGNS

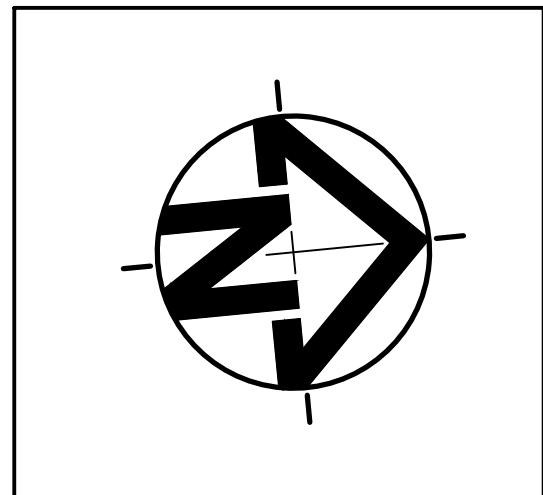
Project

187-189 ADELAIDE STREET, ST MARYS

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Title

EROSION AND SEDIMENT CONTROL PLAN



DEVELOPMENT APPLICATION (DA)				
FOR COORDINATION				
Paper Size	Design	Drawn	Checked	Datum
A1	H.Y	H.Y	M.W	AHD
Scale	Date	Project Number		
1:100	20/12/2021	SW21345		

Approved	
P.E.	
PAUL EL-BAYEH B.E., M.E., FIEAust, CPEng, NER, RPEQ	
Drawing Number	Revision
ER001	B