PROPOSED DEVELOPMENT 23-25 LETHBRIDGE ST, ST MARYS

STORMWATER LAYOUT NOTES

PITS UP TO 600mm DEEP TO BE 450x450 U.N.O. PITS UP TO 900mm DEEP TO BE 600x600 U.N.O.

PITS UP TO 1200mm DEEP TO BE 600x600 U.N.O. PITS UP TO 1200mm DEEP TO BE 900x900 U.N.O.

PITS TO BE PRECAST CONCRETE OR RENDERED BRICK WITH CONCRETE HEAVY DUTY GRATES. U.N.O. LIGHT DUTY PITS & GRATES MAY BE USED ONLY IN LIGHT/FOOT TRAFFICABLE AREA
U.N.O. ALL PITS TO BE BENCHED TO DISCHARGE PIPES (U.N.O. GALVANISED STEP IRONS TO ALL PITS EXCEEDING 900 DEPTH.)

- COVER & SUMO GRATES SHALL COMPLY WITH AS2733 & AS4198
 DOWNPIPES ¬=90mm IF CHARGED AND 100x50 BOX IF GRAVITY. U.N.O. DP'S SHALL BE INSTALLED IN ACCORDANCE WITH AS3500.3.2:4,11 & AS4198.

 MAXIMUM ROOF AREA PER DOWNPIPE IS 30m² WITH A QUAD 115 HI−FRONT
- GUTTER U.N.O.

 PIPES TO HAVE 1% MINIMUM GRADE U.N.O. BY PIT INVERTS, PIPES TO BE V.C. CLASS "X" OR U.P.V.C. CLASS STORMWATER PIPE TO AS1254,1260,1273,1477,2179.2 AND WHERE EXPOSED TO DIRECT SUNLIGHT TO HAVE ADEQUATE PROTECTION TO U.V. RADIATION IN ACCORDANCE WITH AS2032. SEWER GRADE/GALVANISED PIPES TO BE USED WHERE COUNCIL POLICY OR CONSENT REQUIRE SUCH.
- GUTTER OUTLETS SHALL BE FITTED VERTICALLY TO THE SOLE OF THE EAVE GUTTERS. RAINHEADS TO HAVE AN OVERFLOW DUCT OR WEIR 50mm BELOW THEIR CREST.
- PROVIDE OVERFLOW SPITTERS TO ALL COVERED BALCONIES/TERRACES. NOT TO BE DIRECTED ON TO ROOF SURFACES.
- RISING MAINS (PRESSURE PIPE) TO BE IN ACCORDANCE WITH AS3500.1:2. SUBSOIL DRAINS TO BE IN ACCORDANCE WITH AS2439.1 CLASS 100 TO BE
- USED ONLY IN SINGLE DWELLINGS.

 ALL PIPE JOINTS TO BE IN ACCORDANCE WITH AS3500.3.2:2.7
- ALL VALVES TO BE IN ACCORDANCE WITH AS3500.3.2
 EXPANSION JOINTS AND ACCESSORIES TO COMPLY WITH AS2179.2 & AS4198.
 ALL TRENCHES TO BE IN ACCORDANCE WITH AS3500.3.2:7.2.8-14, EMBEDMENT MATERIAL & TRENCH FILL TO ALL PIPES & SUBSOIL DRAINS TO BE IN ACCORDANCE WITH AS3500.3.2:7, ALL WORKS TO BE IN ACCORDANCE WITH
- AS1254,1741,2032,2733,2865,3996,1260,1477,2179.1 & 2.2566, 6367,8301, ARR97 & BCA

 IT IS THE BUILDER'S RESPONSIBILITY TO CONFIRM THAT LEVELS AND SURVEYS ARE IN ACCORDANCE WITH LEVELS ON SITE AND ARE APPROVED BY COUNCIL
- THE ARCHITECT BEFORE COMMENCING WORK.

 NO SEWER VENTS, GULLY PITS OR SIMILAR TO BE LOCATED BELOW THE MAXIMUM WATER SURFACE LEVEL IN DETENTION BASINS. ALL BASIN WALLS TO BE WATERTIGHT & STRUCTURALLY DESIGNED BY A STRUCTURAL ENGINEER.

 ALL FENCES WHICH MAY DIVERT ELOW FROM PROPOSED DIRECTION TO BE
- ALL FENCES WHICH MAY DIVERT FLOW FROM PROPOSED DIRECTION TO BE RAISED 100mm.
 BUILDER TO ENSURE ALL DRAINAGE AREAS INCLUDING EXPOSED BALCONIES TO
- ADEQUATE OVERFLOW SECTION THROUGH PLANTERS, PARAPETS ETC.

 ALL EXTERIOR FINISHED GROUND LEVEL TO BE SLOPING AWAY FROM PERIMETER WALLS IN ALL CASES.

 ALL HEADROOM CLEARANCES TO BE COORDINATED BETWEEN THE BUILDER &

HAVE OVERFLOW MECHANISM IN PLACE IN THE EVENT OF BLOCKAGE WITH

THE ARCHITECT. NOTIFY ENGINEER FOR APPROVAL IF ANY CHANGES ARE TO

- ALL GULLY POSITIONS ARE DIAGRAMMATIC ONLY BUILDER SHOULD CONSULT ARCHITECTURALS FOR DIMENSIONS TO LOCATE STORMWATER ELEMENTS U.N.O.
 FIRE RATING TO ARCHITECT'S SPECIFICATIONS.
- ALL FINISHED FLOOR LEVELS ARE NOMINATED BY ARCHITECT.

 ALL SITE SAFTEY MEASURES AND WORK METHOD STATEMENTS PREPARED BY BUILDER/SUB-CONTRACTORS ARE TO BE IMPLEMENTED DURING CONSTRUCTION. NO WORK IS TO COMMENCE UNIT ALL WORKERS CARRY OUT SITE INDUCTION, PREPARED AND CARRIED OUT BY BUILDER. ANY HAZARD IDENTIFICATION TO BE REPORTED IMMEDIATELY TO SITE SUPERVISOR TO CARRY OUT NECESSARY PROCEDURES TO ELIMINATE HAZARD, PRIOR TO PROCEEDING WITH WORK. STRUCTURAL AND GEOTECHNICAL ADVICE SHOULD BE SOUGHT IN ALL CASES.
- TO HAVE "J" BOLTS INSTALLED TO GRATES.

 MAINTENANCE DEVICES REQUIRED BY AUTHORITIES ARE NOT TO BE ASSUMED SHOWN ON DRAWINGS.

CONFINED SPACES SIGNAGE TO BE INSTALLED IN ACCESSIBLE UNDERGROUND TANKS TO WORK COVER SPECIFICATIONS. ALL PITS EXCEEDING 600mm DEPTH

	LEGEND		
TAG	LABEL		
RL 00.000	NEW REDUCED LEVEL		
+ 00.00	EXISTING LEVEL		
S.L. 00.00	SURFACE LEVEL		
I.L. 00.00	INVERT LEVEL		
GFL. 00.00	GROUND FLOOR LEVEL		
FFL. 00.00	FINISH FLOOR LEVEL		
A,B,C,D, etc.	REFER TO PIPE SEHEDULE		
PIT P1	SURFACE INLET PIT		
PIT OP1	OVERLAND FLOW PIT		
AG AG AG	100mm AG. LINE		
∘DP	REFER DOWNPIPE SCHEDULE		
ФDТ	REFER DOWNPIPE SCHEDULE		
oWP1	REFER DOWNPIPE SCHEDULE		
oWP2	REFER DOWNPIPE SCHEDULE		
□RWH	RAIN WATER HEAD		
	GROUND FALL		
\longrightarrow	OVERLAND FLOW		
	DRAINAGE PIPE		
	AERIAL PIPE		
\boxtimes	SEALED PIT: 450x450		
	PIT: 450x450		
	PIT: 600x600		
	W:200mm x D:200mm GRATED DRAIN		
⊜ FG	BALCONY FLOOR GRATE		
₩FW	FLOOR WASTE (REFER PAGE SW200)		

PIPE SCHEDULE TO ALL GUTTERS					
TAG	PIPE Ø	MATERIAL	Min. GRADE		
Α	100	PVC	1%		
В	150	PVC	1%		
С	225	PVC	1%		
D	150x100 GAL. PIPE	STEEL	2%		
DP	150	PVC	1		
WP	150	PVC	_		

	DOWN PIPE			
SCHEDULE				
O DP	DP CARRYING CLEAN ROOF SURFACE WATER TO RWT			
○ WP1	WP CARRYING SURFACE WASTE WATER TO ON SITE DETENTION TANK (OSD)			
○ WP2	WP CARRYING SURFACE WASTE WATER TO BASEMENT PUMP OUT PIT			
© DT	DOWN TURN PIPE TO LEVELS BELOW			

RAINWATER TANKS WITH PUMPS TO SUPPLY GARDEN TAPS & CAR WASH BAY



CONCEPT DRAINAGE PLAN

D ISSUED FOR CO C CONCEPT PLAN B PRELIMINARY P A PRELIMINARY P			
C CONCEPT PLAN	REVIEW 15.04.2020		
D ISSUED FOR CO	SUBMISSION 20.05.2020		

Version: 1, Version Date: 27/05/2020



SUITE 303 / 29-31 LEXTINGTON DRIVE NORWEST BUSINESS PARK, BELLA VISTA N.S.W. 2153

ALL CORRESPONDENCE TO: P.O. BOX 6080 BAULKHAM HILLS BC BAULKHAM HILLS NSW 2153

PH. 8814 6191 FAX 8814 5301 MOB. 0425 270 333 EMAIL andrew@camconsulting.com.au

Project Project
PROPOSED DEVELOPMENT
23-25 LETHBRIDGE ST
ST MARYS
MP = 1

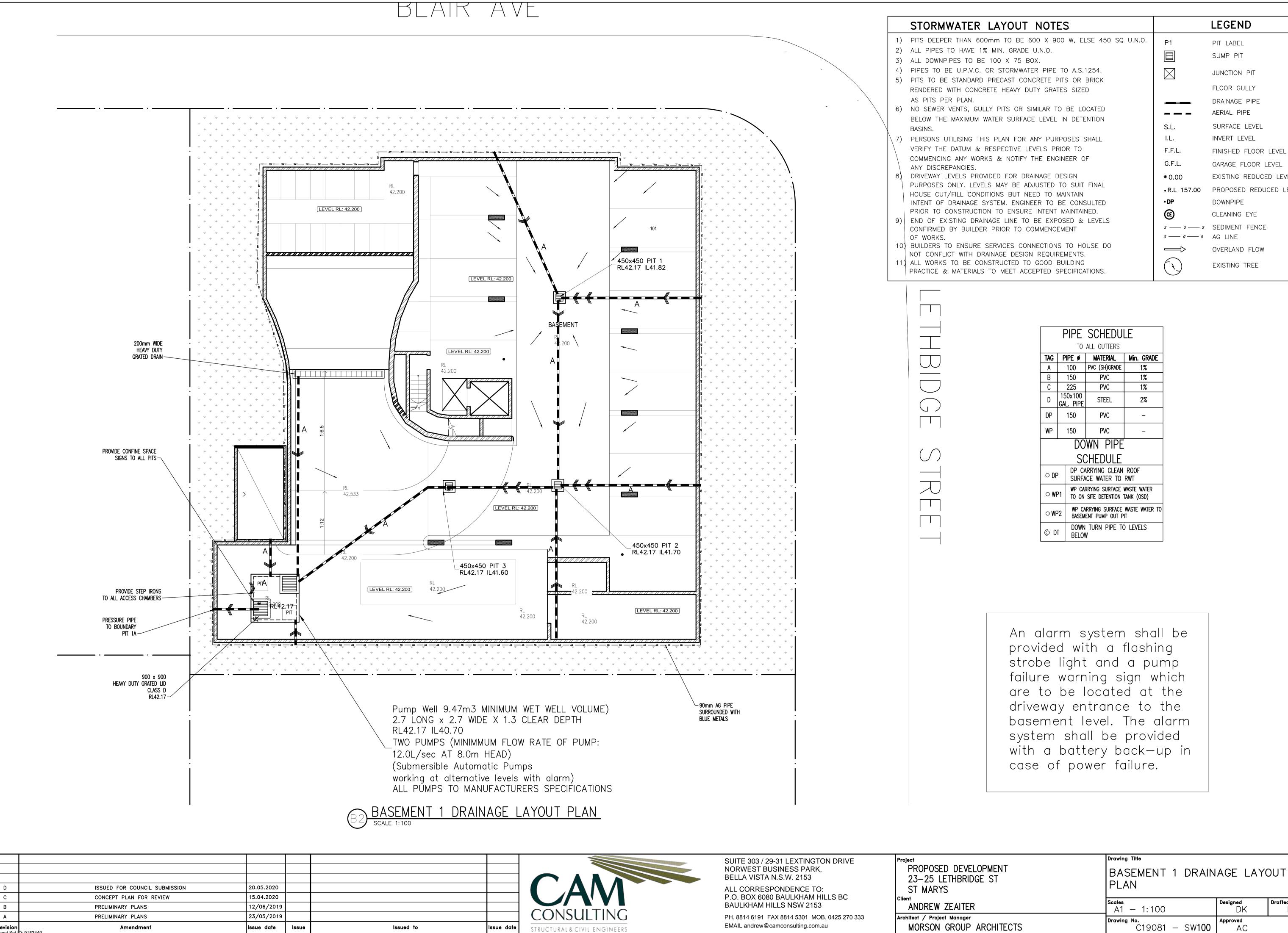
MORSON GROUP ARCHITECTS

ANDREW ZEAITER

Architect / Project Manager

COVER

Drawing Title



Version: 1, Version Date: 27/05/2020

LEGEND 1) PITS DEEPER THAN 600mm TO BE 600 X 900 W, ELSE 450 SQ U.N.O. PIT LABEL SUMP PIT JUNCTION PIT FLOOR GULLY DRAINAGE PIPE AERIAL PIPE SURFACE LEVEL S.L. INVERT LEVEL I.L. F.F.L. FINISHED FLOOR LEVEL G.F.L. GARAGE FLOOR LEVEL * 0.00 EXISTING REDUCED LEVEL • R.L 157.00 PROPOSED REDUCED LEVEL • DP DOWNPIPE CLEANING EYE s — s — s SEDIMENT FENCE $a \longrightarrow a \longrightarrow a$ AG LINE OVERLAND FLOW EXISTING TREE

> Min. GRADE 1% 1% 1% 2% WP CARRYING SURFACE WASTE WATER O WP1 TO ON SITE DETENTION TANK (OSD) WP CARRYING SURFACE WASTE WATER TO BASEMENT PUMP OUT PIT DOWN TURN PIPE TO LEVELS BELOW

> > An alarm system shall be provided with a flashing strobe light 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.

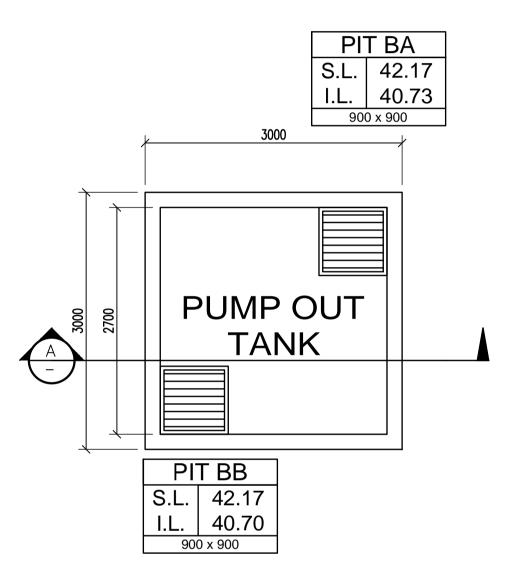
STANDARD PUMP OUT DESIGN NOTES

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

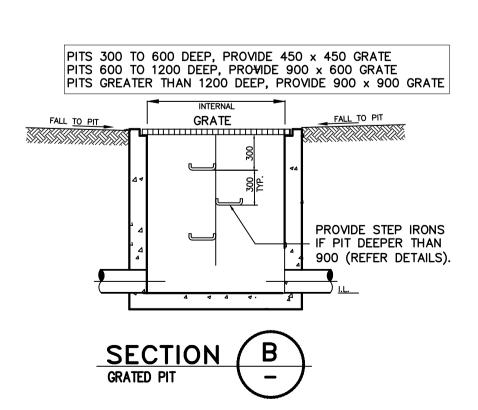
- THE PUMPS SHALL BE PROGRAMMED TO WORK ALTERNATELY SO AS TO ALLOW BOTH PUMPS TO HAVE AN EQUAL OPERATION LOAD AND PUMP LIFE.
- A LOW LEVEL FLOAT SHALL BE PROVIDED TO ENSURE THAT THE MINIMUM REQUIRED WATER LEVEL IS MAINTAINED WITHIN THE SUMP AREA OF THE BELOW GROUND TANK. IN THIS REGARD THIS FLOAT WILL FUNCTION AS AN OFF SWITCH FOR THE PUMPS.

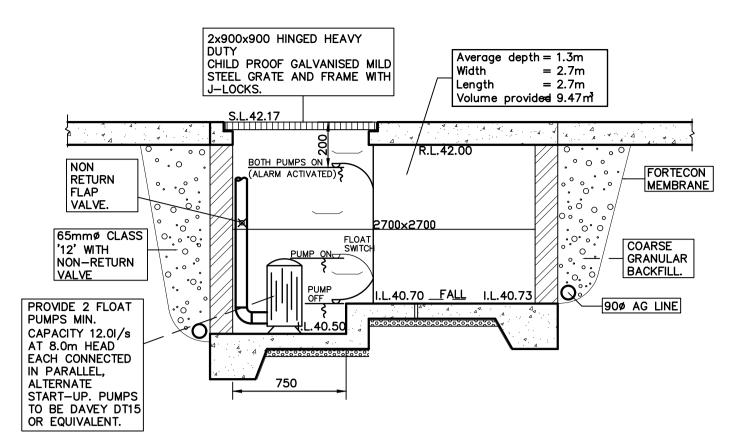
 A SECOND FLOAT SHALL BE PROVIDED AT A HIGHER LEVEL, APPROXIMATELY 300MM ABOVE THE MINIMUM WATER LEVEL, WHEREBY ONE OF THE PUMPS WILL OPERATE AND DRAIN THE TANK TO THE LEVEL OF THE LOW-LEVEL FLOAT.

- A THIRD FLOAT SHALL BE PROVIDED AT A HIGH LEVEL, WHICH IS APPROXIMATELY THE ROOF LEVEL
 OF THE BELOW GROUND TANK. THIS FLOAT SHOULD START THE OTHER PUMP THAT IS NOT
 OPERATING AND ACTIVATE THE ALARM.
- AN ALARM SYSTEM SHALL BE PROVIDED WITH A FLASHING STROBE LIGHT 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.



BASEMENT PUMP
OUT TANK PLAN DETAIL
SCALE 1:50

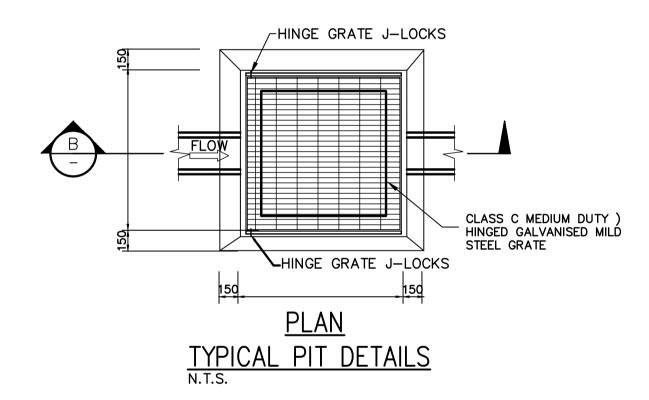


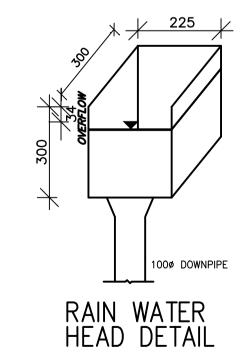




PUMP HOLDING TANK

AREA = 7.29 Sq.m AVERAGE DEPTH = 1300mm TWL = RL 42.08 VOLUME AVAILABLE=9.47 Cu.m







TO BE PLACED AT ALL TANK ACCESS GRATES

STANDARD PUMP OUT DESIGN NOTES

THE PUMP SYSTEM SHALL BE OPERATED IN THE FOLLOWING MANNER: -

- 1. THE PUMPS SHALL BE PROGRAMMED TO WORK ALTERNATELY TO ALLOW BOTH PUMPS TO HAVE AN EQUAL OPERATION LOAD AND PUMP LIFE
- 2. 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 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.
- 3. 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.
- 4. AN ALARM SYSTEM SHALL BE PROVIDED WITH A FLASHING STROBE LIGHT 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.
- 5. A CONFINED SPACE DANGER SIGN SHALL BE PROVIDED AT ALL ACCESS POINTS TO THE PUMP OUT STORAGE TANK.

PUMP-OUT TANK MAINTENANCE SCHEDULE

MAINTENANCE CONTRACT

NOTE: A 24 HOUR X 12 MONTHLY EMERGENCY AND MAINTENANCE CONTRACT SHALL BE OBTAINED FROM A COMPANY CAPABLE OF EXECUTING THE WORK AND SHALL BE KEPT IN FORCE BY THE PROPERTY OWNER(S) FOR THE LIFE OF THE BUILDING.

THE MAINTENANCE CONTRACT SHALL BE CARRIED OUT EVERY THREE (3) MONTHS AND SHALL INCLUDE THE FOLLOWING ACTIVITIES:

- 1. CLEAN OUT ALL PITS OF SILT AND DEBRIS.
- 2. CHECK AND CLEAN OUT, IF NECESSARY, ALL PIPELINES.
- 3. CHECK: 3.1. PUMPS FOR WEAR
 - 3.2. PUMP OIL SEALS
 - 3.3. PUMP STRAINER AND CLEAN
- 4. CARRY OUT ROUTINE MAINTENANCE TO PUMPS AS RECOMMENDED BY THE MANUFACTURER.
- 5. CHECK OPERATIONAL SEQUENCE OF LEVEL SWITCHES, PUMPS AND CONTROL
- PANEL.

 6. THE EMERGENCY CONTRACT SHALL PROVIDE FOR A 24 HOUR X 7 DAY PER WEEK SERVICE.

THE CONTRACTOR SHALL PROVIDE A NAME PLATE STATING NAME, WORKING HOURS, TELEPHONE NUMBER AND OUT OF HOURS NUMBER AND SUCH NAME PLATE SHALL BE FIXED TO THE FRONT OF THE CONTROL PANEL.

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	D	ISSUED FOR COUNCIL SUBMISSION	20.05.2020				1
	С	CONCEPT PLAN FOR REVIEW	15.04.2020				ı
	В	PRELIMINARY PLANS	12/06/2019				ı
	Α	PRELIMINARY PLANS	23/05/2019				1
D	Revision	Amendment D: 9153449	Issue date	Issue	Issued to	Issue date	ı
	Version: 1, Version Date: 27/05/2020						



SUITE 303 / 29-31 LEXTINGTON DRIVE NORWEST BUSINESS PARK, BELLA VISTA N.S.W. 2153

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Project
PROPOSED DEVELOPMENT
23-25 LETHBRIDGE ST
ST MARYS

ANDREW ZEAITER

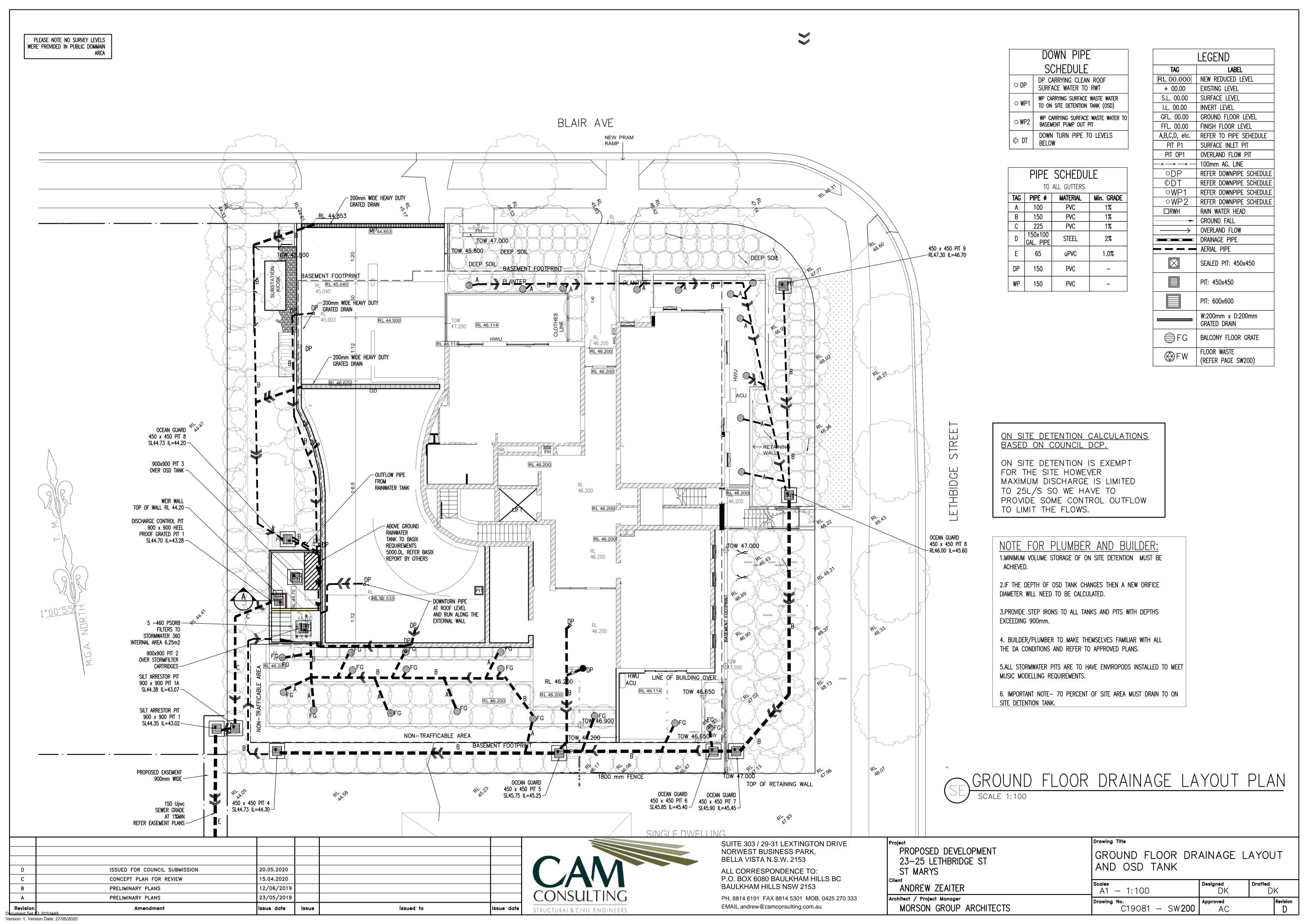
PUMP OUT TANK
AND DETAILS

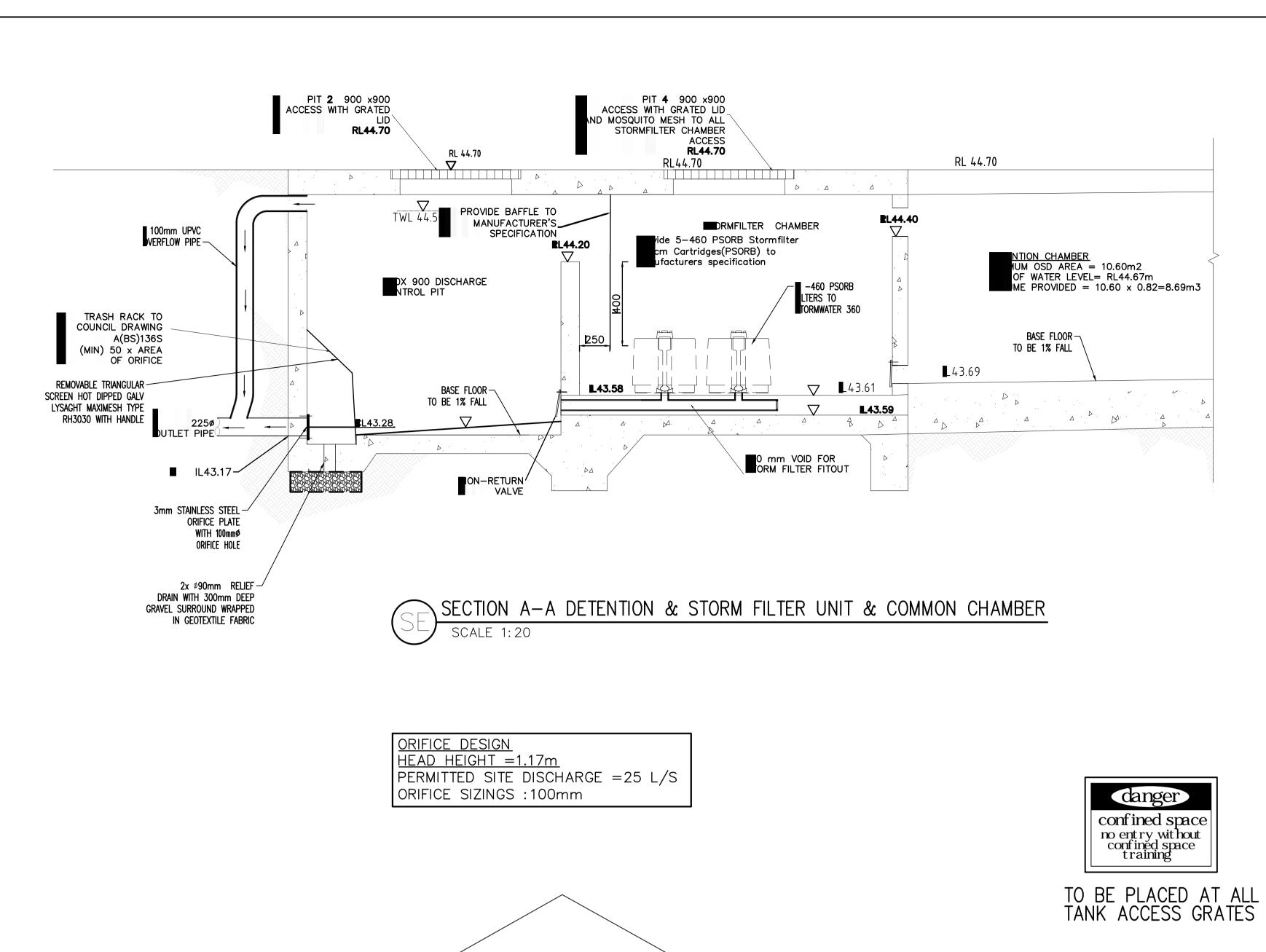
Scales A1 — 1:100	Designed	Drafted DK
Drawing No. C19081 — SW 101	Approved AC	Revision

Architect / Project Manager
Ilting.com.au

Architect / Project Manager

MORSON GROUP ARCHITECTS

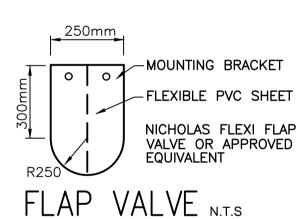


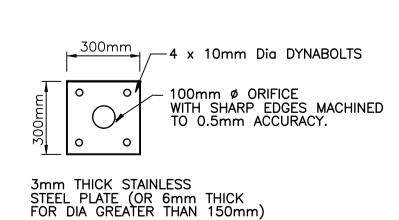


dual feed

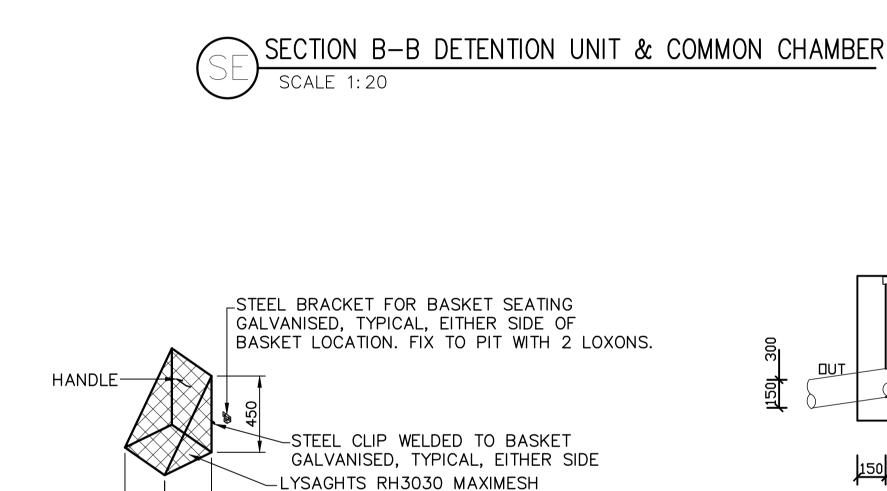
to toilet`

bypass of





ORIFICE PLATE 1 DETAIL



PIT 1 900 x900 ACCESS WITH GRATED

TRASH RACK TO

A(BS)136S

OF ORIFICE

225ø

COUNCIL DRAWING

(MIN) 50 x AREA

3mm STAINLESS STEEL

ORIFICE PLATE

WITH 90mmø

ORIFICE HOLE

RL44.920

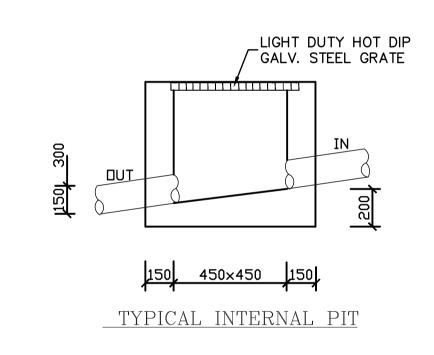
900X 900 DISCHARGE

COMMON CHAMBER

CONTROL PIT

MAXIMESH SCREEN N.T.S. **DETAIL**

GALVANISED



▽ L43.69

PIT **3** 900 x900

CHAMBER ACCESS

RL44.92

DSD CHAMBER

-BASE FLOOR

TO BE 1% FALL

ACCESS WITH GRATED LID

ND MOSQUITO MESH TO ALL

RL44.40

DANGER

400 300

WHEN EXCAVATING WITHIN ANY SITE, FOOTPATH AND ROADWAY ALL SERVICES SHALL BE LOCATED PRIOR TO COMMENCEMENT OF THE EXCAVATION WORKS. CONTACT "DIAL BEFORE YOU DIG" ON PHONE No. 1100 OR GO TO THE

WEB SITE

"www.dialbeforeyoudig.com.au"

INLET --PROVIDE ENVIROPOD WITHOUT OVERFLOW PROVISION TO MANUFACTURER'S **SPECIFICATION** OUTLET -

SECTION OF PITS WITH ENVIRO POD DETAIL N.T.S

prevention device at water meter rainwater to washing machine and toilet Sydney Water RAINWATER TANK EXPLANATORY DIAGRAM (not to scale) supply main RAINWATER TANK NOTES: RAINWATER TANK AND PIPE WORK IS TO BE PAINTED IN COLOURS MATCHING THE EXTERNAL FINISHES OF THE DWELLING AND

IS TO BE NON-REFLECTIVE FINISH.

hot water

tank\

emergency mains drinking water water supply pipes

back flow

rainwater

supply pipes

NOTE: ANY PUMP INSTALLED FOR THE RAINWATER TANKS IS TO BE NO LOUDER THAN 5dB(A) ABOVE BACKGROUND NOISE LEVELS

pressure

pump

/device

/top-up

roof water to

∕rainwater tank

outdoor

STRUCTURAL & CIVIL ENGINEERS

SUITE 303 / 29-31 LEXTINGTON DRIVE NORWEST BUSINESS PARK, BELLA VISTA N.S.W. 2153

ALL CORRESPONDENCE TO: P.O. BOX 6080 BAULKHAM HILLS BC

Architect / Project Manager MORSON GROUP ARCHITECTS

PROPOSED DEVELOPMENT 23-25 LETHBRIDGE ST ST MARYS ANDREW ZEAITER

OSD TANK AND STORMFILTER SECTIONS AND DETAILS

Drafted DK Scales A1 — 1:100 C19081 - SW**201**

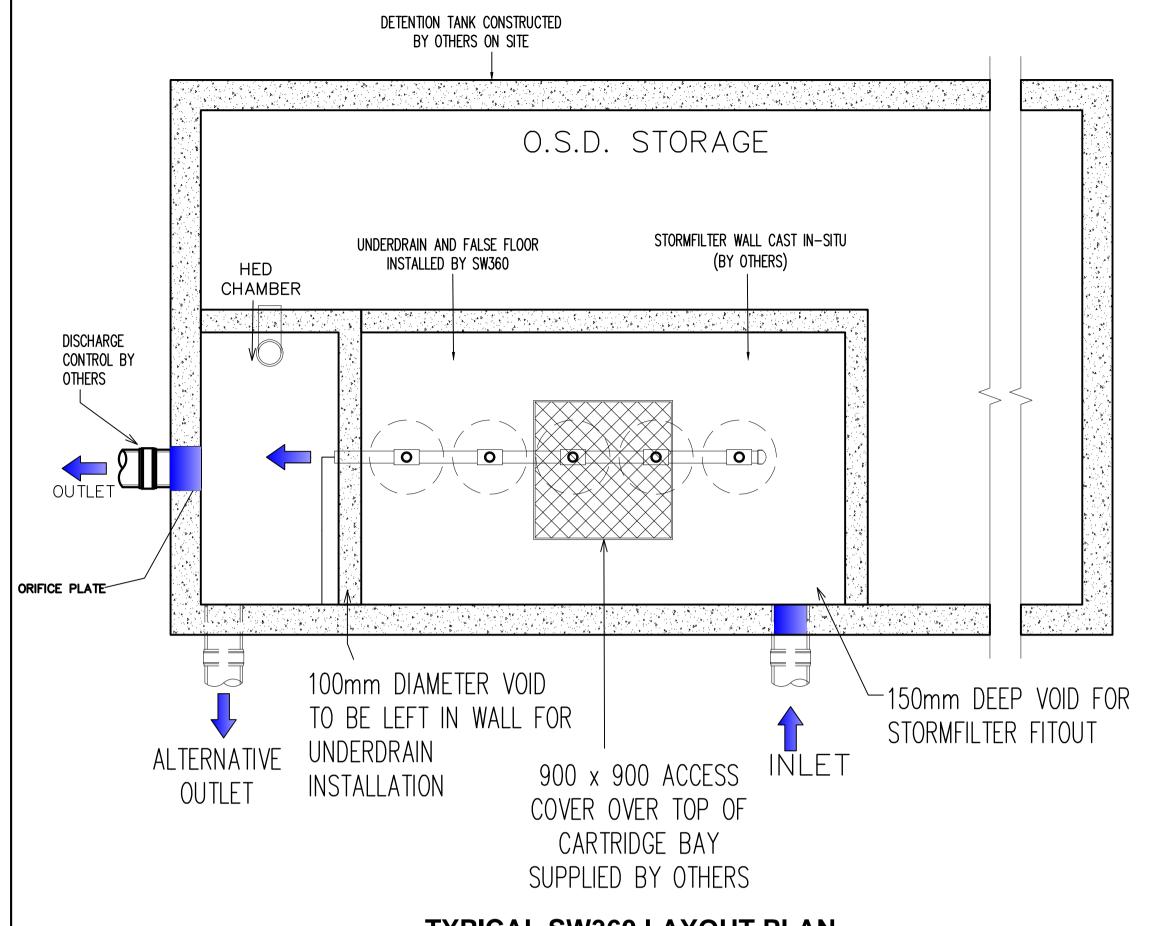
20.05.2020 ISSUED FOR COUNCIL SUBMISSION С 15.04.2020 CONCEPT PLAN FOR REVIEW В 12/06/2019 PRELIMINARY PLANS Α PRELIMINARY PLANS 23/05/2019 Amendment ssue date Issued to

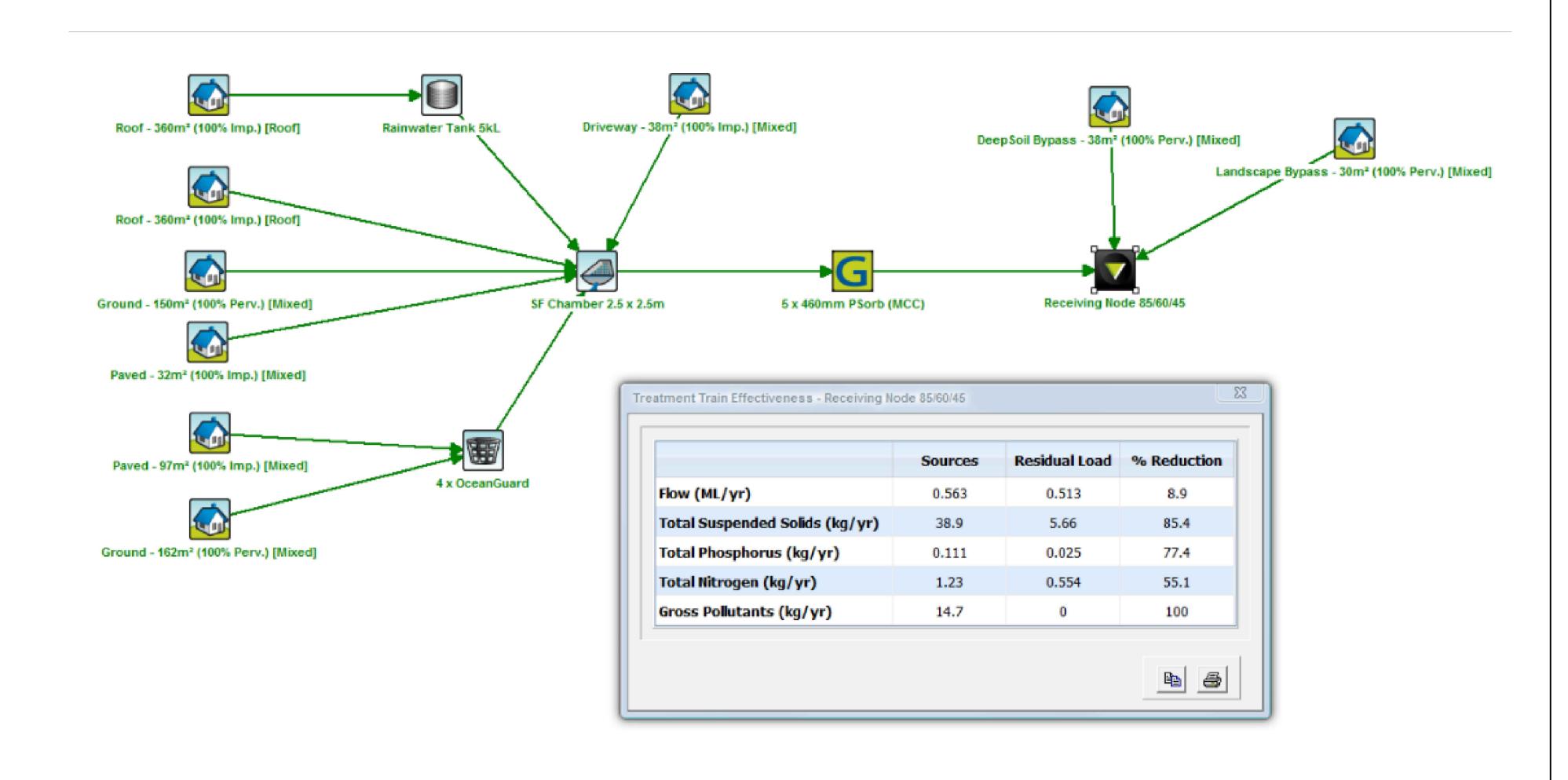
CONSULTING

BAULKHAM HILLS NSW 2153

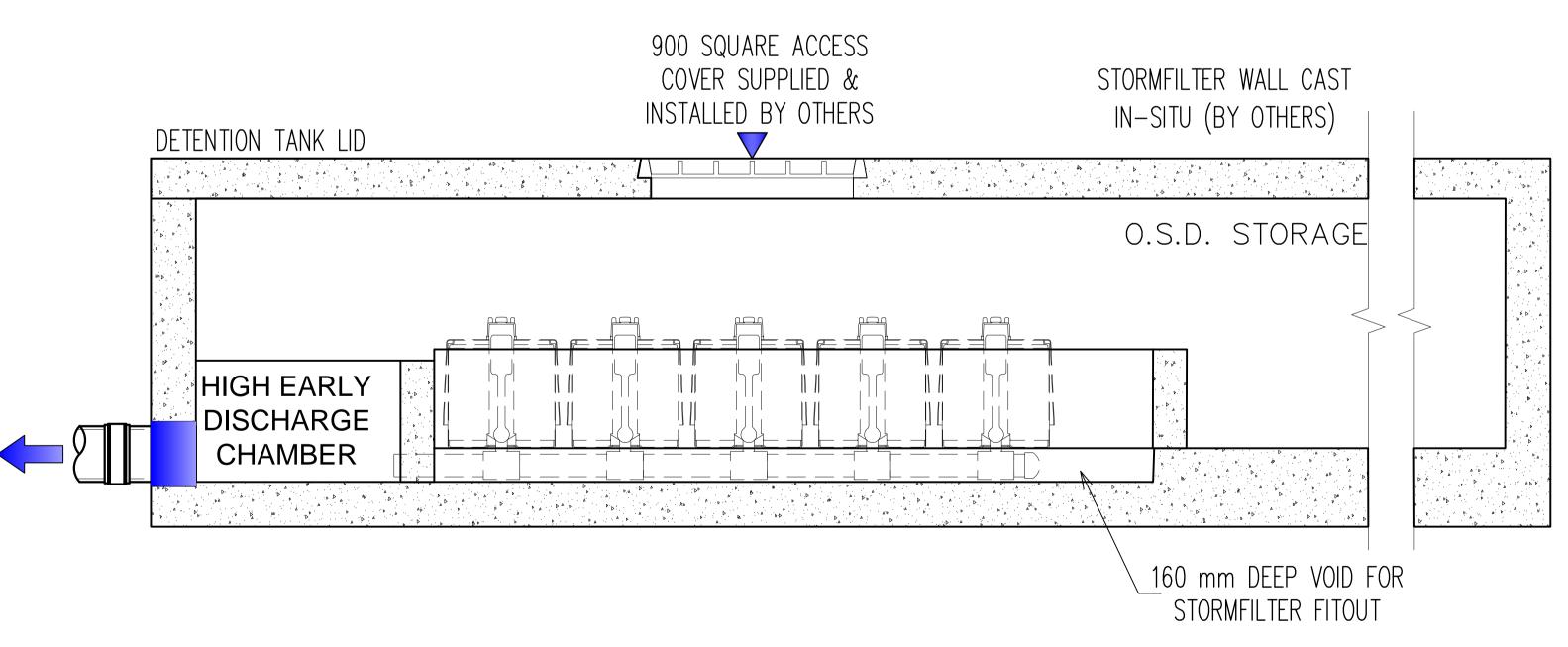
PH. 8814 6191 FAX 8814 5301 MOB. 0425 270 333 EMAIL andrew@camconsulting.com.au

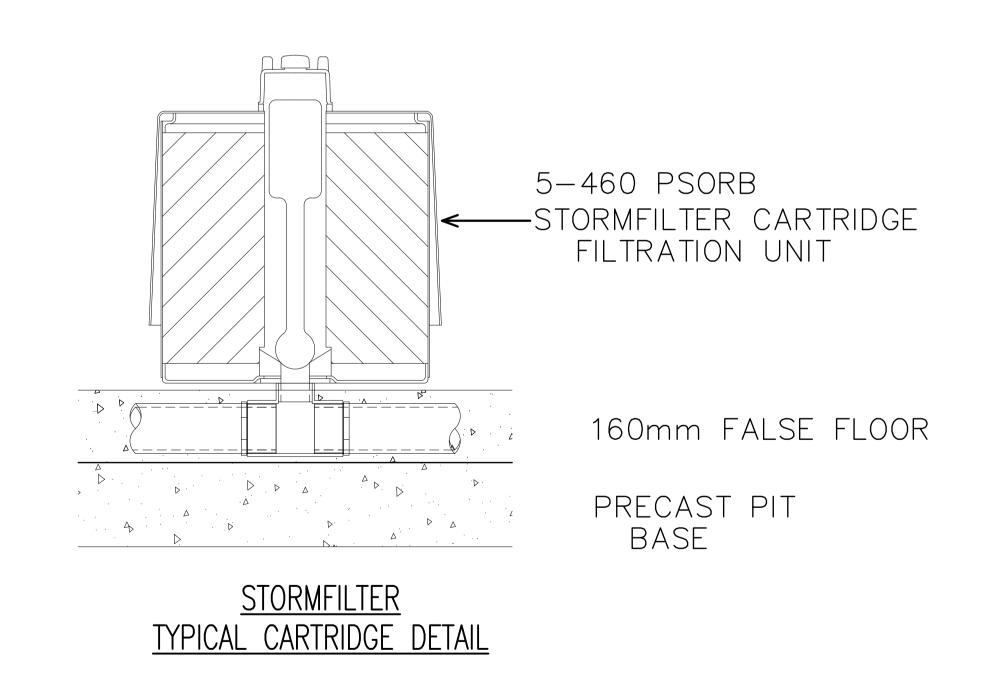
Revision Version: 1, Version Date: 27/05/2020





TYPICAL SW360 LAYOUT PLAN





TYPICAL STORMWATER 360 SECTIONS

						İ
D	ISSUED FOR COUNCIL SUBMISSION	20.05.2020				
С	CONCEPT PLAN FOR REVIEW	15.04.2020				
В	PRELIMINARY PLANS	12/06/2019				
Α	PRELIMINARY PLANS	23/05/2019				
Revision	Amendment D: 9153449	Issue date	Issue	Issued to	Issue date	

Version: 1, Version Date: 27/05/2020



SUITE 303 / 29-31 LEXTINGTON DRIVE NORWEST BUSINESS PARK, BELLA VISTA N.S.W. 2153

ALL CORRESPONDENCE TO:
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EMAIL andrew@camconsulting.com.au

AN Architec

PROPOSED DEVELOPMENT
23-25 LETHBRIDGE ST
ST MARYS

Drawing Title
STORMFILTER TANK AND DETAILS

ST MARYS

Client
ANDREW ZEAITER

Architect / Project Manager
MORSON GROUP ARCHITECTS

DE TAILS

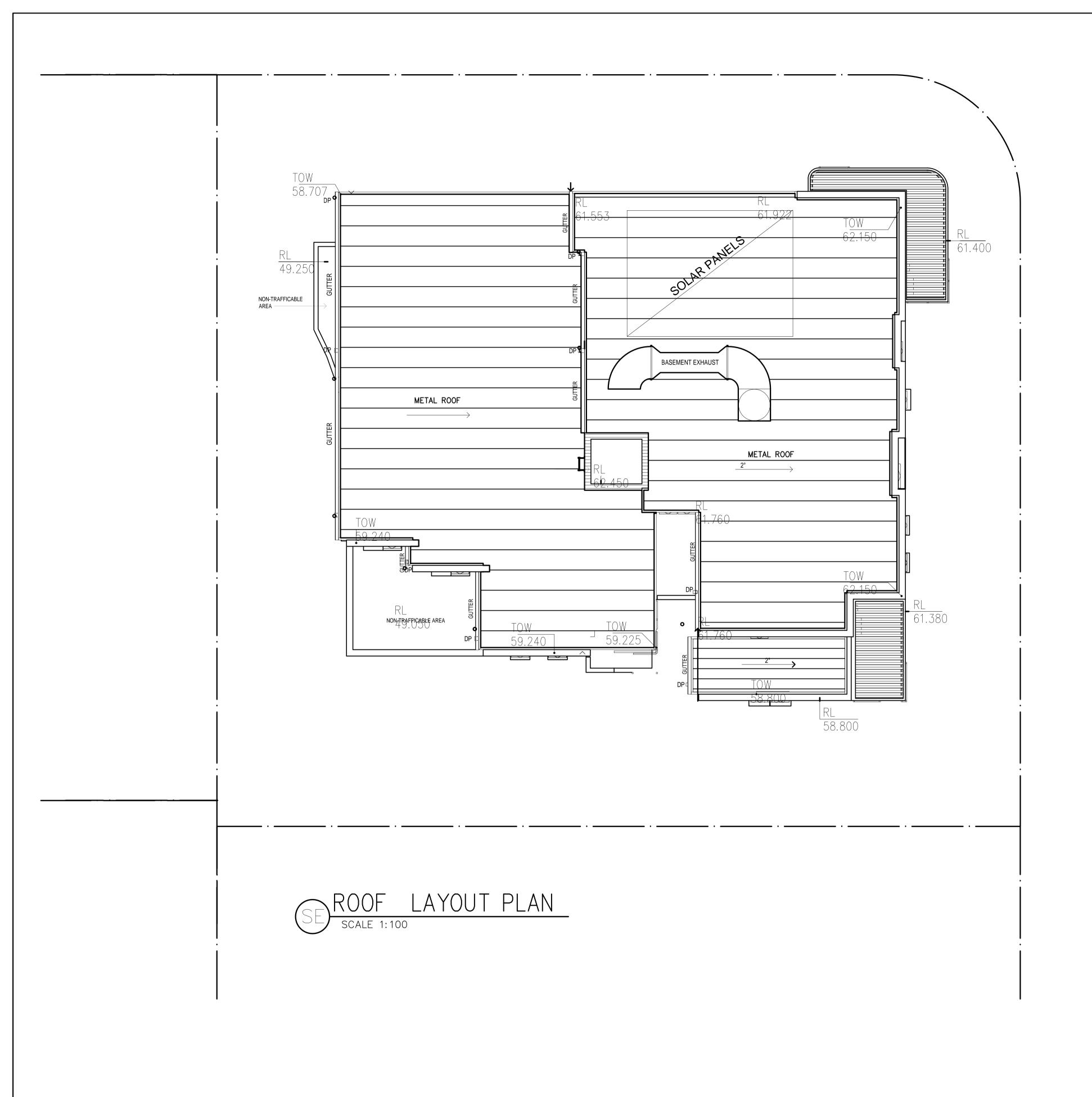
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A1 - 1:100
Designed
Drafted
DK

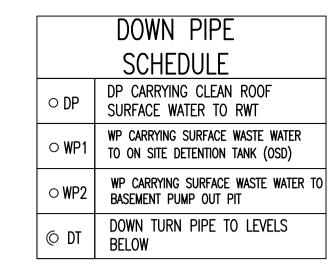
Drafted
DK

Drafted
DK

Drawing No.
C19081 - SW202
AC
D

Revision
D





	PIPE	SCHEDU	LE
	TO		
TAG	PIPE Ø	MATERIAL	Min. GRADE
Α	100	PVC	1%
В	150	PVC	1%
С	225	PVC	1%
D	150x100 GAL. PIPE	STEEL	2%
E	65	uPVC	1.0%
DP	150	PVC	ı
WP	150	PVC	_

LEGEND				
TAG	LABEL			
RL 00.000	NEW REDUCED LEVEL			
+ 00.00	EXISTING LEVEL			
S.L. 00.00	SURFACE LEVEL			
I.L. 00.00	INVERT LEVEL			
GFL. 00.00	GROUND FLOOR LEVEL			
FFL. 00.00	FINISH FLOOR LEVEL			
A,B,C,D, etc.	REFER TO PIPE SEHEDULE			
PIT P1	SURFACE INLET PIT			
PIT OP1	OVERLAND FLOW PIT			
AG AG	100mm AG. LINE			
ODP	REFER DOWNPIPE SCHEDULE			
©DT	REFER DOWNPIPE SCHEDULE			
○WP1	REFER DOWNPIPE SCHEDULE			
∘WP2	REFER DOWNPIPE SCHEDULE			
□RWH	RAIN WATER HEAD			
	GROUND FALL			
\longrightarrow	OVERLAND FLOW			
	DRAINAGE PIPE			
	AERIAL PIPE			
	SEALED PIT: 450x450			
	PIT: 450x450			
	PIT: 600x600			
	W:200mm x D:200mm GRATED DRAIN			
⊜ FG	BALCONY FLOOR GRATE			
₩FW	FLOOR WASTE (REFER PAGE SW200)			

D	Revision	Amendment	Issue date	Issue	Issued to	Issue date
	Α	PRELIMINARY PLANS	23/05/2019			
	В	PRELIMINARY PLANS	12/06/2019			
	С	CONCEPT PLAN FOR REVIEW	15.04.2020			
	D	ISSUED FOR COUNCIL SUBMISSION	20.05.2020			

Version: 1, Version Date: 27/05/2020



SUITE 303 / 29-31 LEXTINGTON DRIVE NORWEST BUSINESS PARK, BELLA VISTA N.S.W. 2153 ALL CORRESPONDENCE TO:

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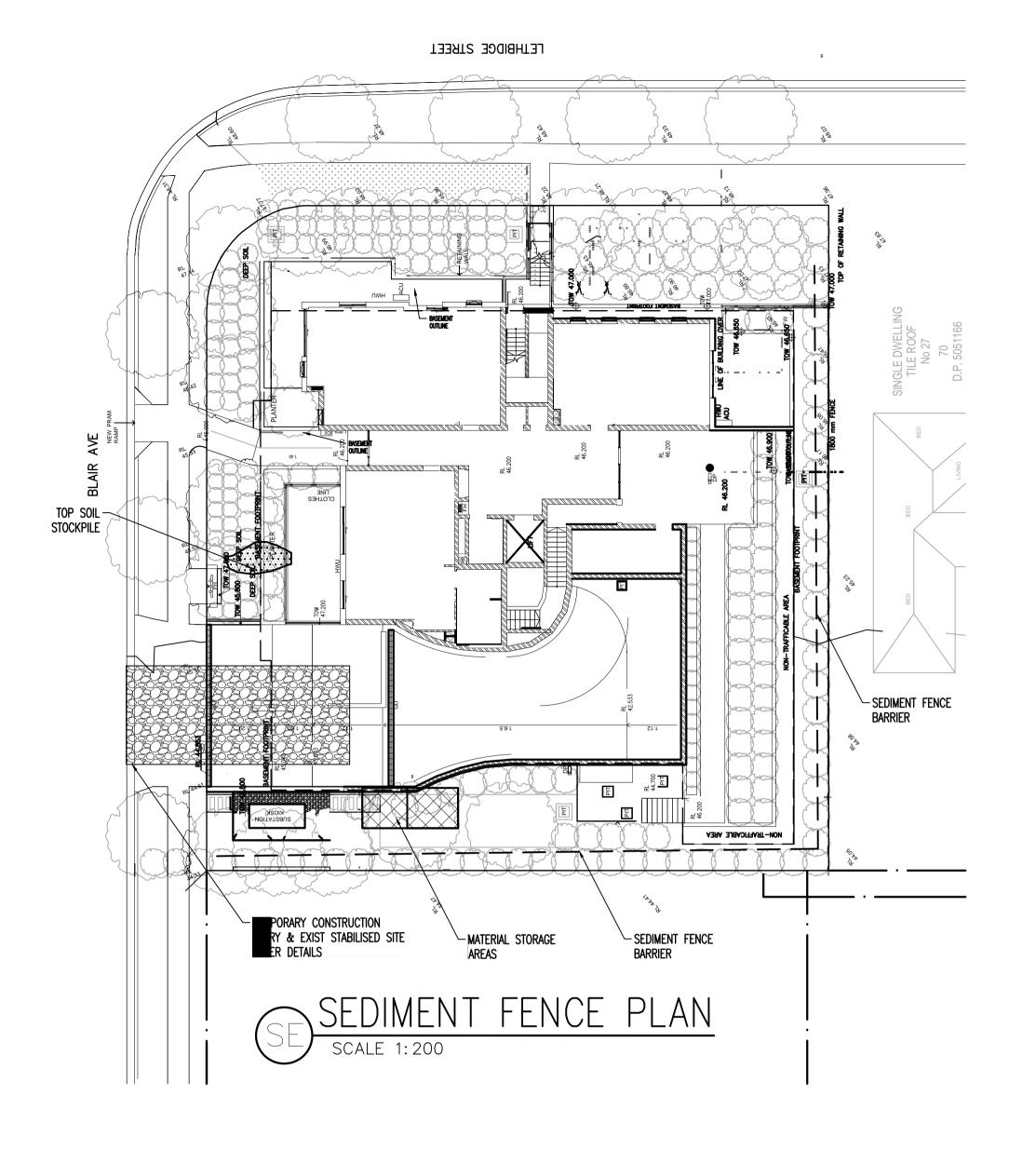
Project
PROPOSED DEVELOPMENT
23-25 LETHBRIDGE ST
ST MARYS
Client
ANDREW ZEAITER

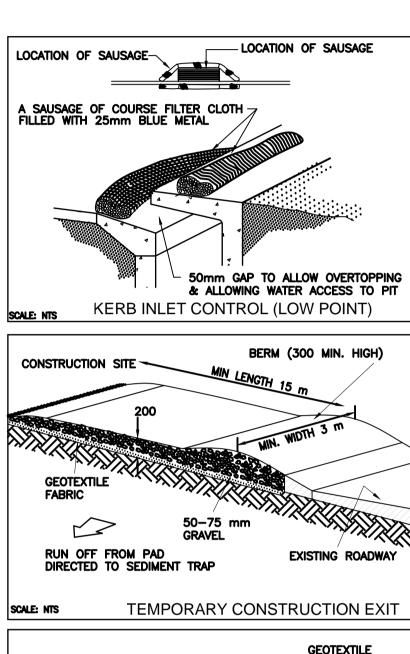
MORSON GROUP ARCHITECTS

Architect / Project Manager

Proving Title
ROOF PLAN

Scales A1 — 1:100	Designed	Drafted DK
Drawing No. C19081 — SW 203	Approved AC	Revisio





GEOTEXTILE FILTER FABRIC WIRE AND STEEL MESH-Disturbed area Undisturbed area 🗸 SEDIMENT FENCE

LEGEND TEMPORARY CONSTRUCTION ENTRY & EXIST STOCKPILE OF SOIL STOCKPILE OF SOIL

ISSUED FOR COUNCIL SUBMISSION

CONCEPT PLAN FOR REVIEW

Amendment

PRELIMINARY PLANS

PRELIMINARY PLANS

20.05.2020

15.04.2020

12/06/2019

23/05/2019

ssue date

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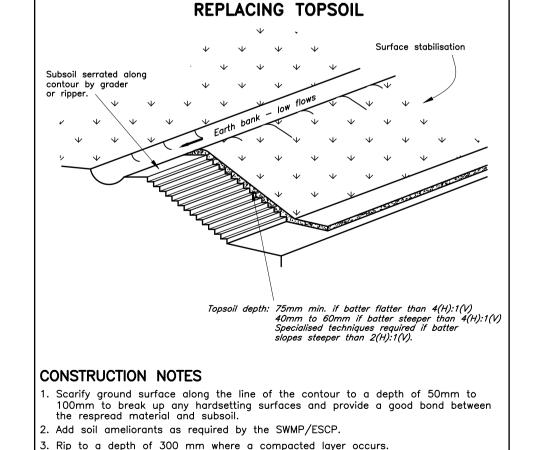
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Revision

Version: 1, Version Date: 27/05/2020



Issue date

1. Replace topsoil.

Issued to

EARTH BANK (LOW FLOW) Can be constructed with or without channel Gradient of drain 1% to 5% All batter grades 2(H):(V) max. of flow 2 metres min. NOTE: Only to be used as temporary bank where maximum upslope length is 80 metres. CONSTRUCTION NOTES Construct with gradient of 1 per cent to 5 per cent. . Avoid removing trees and shrubs if possible. . Drains to be of circular, parabolic or trapezoidal cross section not v-shaped. . Earth banks to be adequately compacted in order to prevent failure. 5. Permanent or temporary stabilisation of the earth bank to be completed within 10 days of construction 6. All outlets from disturbed lands are to feed into a sediment basin or similar.

- Discharge runoff collected from undisturbed lands onto either a stabilised or an undisturbed disposal site within the same subcatchment area from which the water originated. 3. Compact bank with a suitable implement in suitable in situations where they are
- required to function for more than five days 9. Earth banks to be free of projections or other irregularities that will impede

CONSULTING

STRUCTURAL & CIVIL ENGINEERS

MAINTENANCE PROGRAM

STOCK PILES

- LOCATE STOCKPILES:
 - AT LEAST TWO METRES (PREFERABLY 5M) CLEAR FOR CONCENTRATED WATER FLOWS AND TRAFFIC AREAS
 - ON SLOPES LESS THAN 1(V):10(H) - SEPARATE FROM STANDING VEGETATION THAT IS MORE THAN 100mm HIGH
- ON CONTOUR MAINTAIN TOPSOIL STOCKPILES AS A LOW, FLAT, ENLONGATED

SEDIMENT FILTER FENCING

 INSPECT ALL SEDIMENT FENCING WEEKLY AND REMOVE ANY SEDIMENT BEFORE IT REDUCES THE BARRIE'S RETENTION CAPACITY BY 30%. BACK FLUSH, KNOCK THE SEDIMENT OFF, OR REPLACE ANY GEOFRABRIC THAT HAS BECOME CLOGGED. REINSTATE DESIGN CAPACITY AFTER EACH STORM EVENT BY ELIMINATING ANY EVIDENCE OF SAGGING, OVERTOPPING, UNDERMINING OR BYPASSING OF THE STRUCTURE. IF OVERTOPPING HAS OCCURED, INVESTIGATE THE NEED FOR ADDITIONAL CONTROLS, MORE SUPPORT AND CLOSER SUPERVISION DURING INSTALLATION.

GRAVEL INLET FILTERS & GEOFABRIC FILTERS

- CLEAR ALL ACCUMULATED SEDIMENT AFTER EACH STORM
- REPLACE ANY BLOCKS OR GRAVEL DISPLACED OR DAMAGED
- REMOVE ANY FILTER THAT IS AN IMPEDIMENT OR A DANGER TO AUTHORISED PUBLIC ACCESS AND REPLACE IT WHEN STORM RAIN THREATEN RUNOFF

REPLACE TOPSOIL

- SPRAY IRRIGATION AT A RATE THAT MAINTAINS MOIST SOIL CONDITIONS TO A DEPTH OF 80-100mm WITHOUT CAUSING **EROSIVE RUNOFF**
- THE USE OF FERTILISERS.

EARTH BANKS AND CATCH DRAINS

- INSPECT WEEKLY AND AFTER SIGNIFICANT RAIN EVENT
- UNDERSTAKE ANY NECESSARY REPAIR WORKS AS A PRIORITY
- REMOVE ACCUMULATED SEDIMENT

ROCK CHEKC DAMS

REMOVAL OF ACCUMULATED SEDIMENT AND DEBRIS

WASTE CONTROL INSTRUCTIONS

- ACCEPTABLE BINS WILL BE PROVIDED FOR ANY CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHING, LIGHTWEIGHT WASTE MATERIALS AND LITTER, CLEARANCE SERVICES WILL BE PROVIDED AT LEAST WEEKLY, DISPOSAL OF WASTE WILL BE IN A MANNER APPROVED BY THE SITE SUPERINTENDENT.
- ALL POSSIBLE POLLUTANT MATERIALS ARE TO BE STORED WELL CEAR OF ANY POOR DRAINED AREAS, FLOOR PRONE AREAS, STEAMBANKS, CHANNELS, AND STORMWATER DRAINAGE AREAS. STORE SUCH MATERIALS IN A DESIGNATED AREA UNDER COVER WHERE POSSIBLE AND WITHIN CONTAINMENT BUNDS.
- ALL SITE STAFF AND SUB-CONTRACTORS ARE TO BE INFORMED OF THEIR OBLIGATION TO USE WASTE CONTROL FACILITIES PROVIDED.
- ANY DE-WATERING ACTIVITIES ARE TO BE CLOSELY MONITORED TO ENSURE THAT WATER IS NOT POLLUTED BY SEDIMENT, TOXIC MATERIALS OR PETROLEUM PRODUCTS.
- PROVIDE DESIGNATED VEHICULAR WASHDOWN AND MAINTENANCE AREAS WHICH ARE TO HAVE CONTAINMENT BUNDS.

SEDIMENT CONTROL INSTRUCTIONS

- SEDIMENT FENCES WILL BE INSTALLED AS SHOWN ON THE PLAN AND ELSEWHERE AT THE DISCRETION OF THE SITE SUPERINTENDENT TO CONTAIN SOIL AS NEAR AS POSSIBLE TO THEIR SOURCE.
- SEDIMENT FENCE WILL NOT HAVE A CATCHEMENT AREAS EXCEEDING 900 SQUARE METRES AND HAVE A STORAGE DEPTH OF AT LEAST 0.6 METRES.
- SEDIMENT REMOVED FROM ANY TRAPPING DEVICES WILL BE LOCATED WHERE FURTHER POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS CANNOT OCCUR.
- STOCKPILES ARE NOT TO BE LOCATED WITHIN 5 METRES OF HAZARD AREAS INCLUDING AREAS OF HIGH VELOCITY FLOWS SUCH AS WATERWAYS, PAVED AREAS AND DRIVEWAYS.
- WATER WILL BE PREVENTED FROM DIRECTLY ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPE AND/OR WATER HAS BEEN TREATED BY AN APPROVED DEVICE.
- TEMPORARY SEDIMENT TRAPS WILL REMAIN IN PLACE UNTIL AFTER THE LANDS ARE PROTECTING ARE COMEPLETLY REHABILITATED
- ACCESS TO SITES SHOULD BE STABALISED TO REDUCE THE LIKELIHOOD OF VEHICLES TRACKING SOIL MATERIALS ONTO PUBLIC ROADS AND ENSURE ALL-WEATHER ENTRY/EXIT.

GENERAL INSTRUCTIONS

- THIS SOIL AND WATER MANAGEMENT PLAN IS TO BE REAR IN CONJUNCTION WITH OTHER ENGINEERING PLANS RELATING TO THIS DEVELOPMENT
- CONTRACTORS WILL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE UNDERTAKEN AS INSTRUCTED IN THIS SPECIFICATION AND CONSTRUCTED FOLLOWING THE GUILDLINES OF "MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION". DEPT OF HOUSING 1998(BLUE BOOK)
- ALL SUBCONTRACTORS WILL BE INFORMED OF THIER RESPONSIBILITIES IN REDUCING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE AREAS.

SOIL EROSION CONTROL INSTRUCTIONS

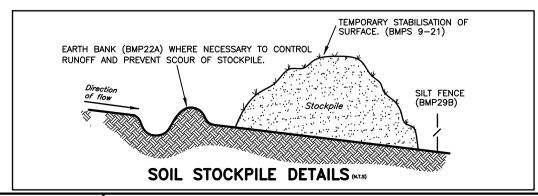
- EARTH BATTERS WILL BE CONSTRUCTED WITH AS LOW AS A GRADIENT AS PRACTICABLE BUT NO STEEPER, UNLESS OTHERWISE NTOED, THAN:
 - -2(H):1(V) WHERE SLOPE LENGTH LESS THAN 12 METRES -2.5(H):1(V) WHERE SLOPE LENGTH BETWEEN 12 & 16 METRES -3(H):1(V) WHERE SLOPE LENGTH BETWEEN 16 & 20 METRES -4(H):1(V) WHERE SLOPE LENGTH GREATER THAN 20 METRES
- ALL WATERWAYS, DRAINS, SPILLWAYS AND THEIR OUTLETS WILL BE CONSTRUCTED TO BE STABLE IN AT LEAST THE 1:20 YEAR ARI, TIME OF CONCENTRATION STORM EVENT.
- WATERWAYS AND OTHER AREAS SUBJECT TO CONCENTRATED FLOWS AFTER CONSTRUCTION ARE TO HAVE A MAXIMUM GROUNDCOVER C-FACTOR OF 0.05 (70% GROUND COVER) WITHIN 10 WORKING DAYS FROM COMPLETION OFFORMATION. FLOW VELOCITIES ARE TO BE LIMITED TO THOSE SHOWN INTABLE 5-1 OF "MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTION DEPT OF HOUSING 1998 (BLUE BOOK). FOOT AND VEHICULAR TRAFFIC WILL BE PROHIBITED IN THESE AREAS.
- STOCKPILES AFTER CONSTRUCTION ARE TO HAVE A MAXIMUM GROUND COVER C-FATOR OF 0.1 (60% GROUND COVER) WITHIN 10 WORKING DAYS FROM COMPLETION OF FORMATION.
- ALL LANDS, INCLUDING WATERWAYS AND STOCKPILES, DURING CONSTRUCTION ARE TO HAVE A MAXIMUM GROUND COVER C-FACTOR OF 0.15 (50% GROUND COVER) WITHIN 20 WORKING DAYS FROM INACTIVITY EVEN THOUGH WORKS MAY CONTINUE LATER.
- FOR AREAS OF SHEET FLOW USE THE FOLLOWING GROUND COVER PLANT SPECIES FOR TEMPORARY COVER: JAPANESE MILLET 20KG/HA AND OATS.
- PERMANENT REHABILITATION OF LANDS AFTER CONSTRUCTION WILL ACHIEVE A GROUND COVER C-FACTOR OF LESS THAN 0.1 AND LESS THAN 0.05 WITHIN 60 DAYS. NEWLY PLANTED LANDS WILL BE WATERED REGULARLY UNTIL AN EFFECTIVE COVER IS ESTABLISHED AND PLANTS ARE GROWING VIGOROUSLY FOLLOW-UP SEED AND FERTILISER WILL BE APPLIED AS 20KG/HA
- REVEGATATION SHOULD BE AIMED AT RE-ESTABLISHING NATURAL SPECIES. NATURAL SURFACE SOILS SHOULD BE REPLACED AND NON-PERSISTANT ANNUAL COVER SROPS SHOULS BE USED.

DUST CONTROL INSTRUCTIONS

- ALL STOCKPILED MATERIAL OR SEDIMENT COLLECTION TO BE SPRAYED BY LIGHTLY WIDE ANGLED WATER
- THIS TEMPORARY MECHANICAL METHOD CONFINES AND SETTLES THE DUST FROM THE AIR BY DUST AND WATER PARTICLE ADHESION. WATER IS SPRAYED THROUGH NOZZELS OVER THE PROBLEM AREA.

LAND DISTURBANCE INSTRUCTIONS

- DISTURBANCE TO BE NO FURTHER THAN 5 (PREFERABLY 2) METRES FROM THE EDGE OF ANY ESSENTIAL ENGINEERING ACTIVITY AS SHOWN ON APPROVED PLANS, ALL SITE WORKERS WILL CLEARLY RECOGNISE THESE ZONES THAT, WHERE APPROPRIATE. ARE IDENTIFIED WITH BARRIER FENCING (UPSLOPE) AND SEDIMENT FENCING (DOWNSLOPE) OR SIMILAR MATERIALS.
- ACCESS AREAS ARE TO BE LIMITED TO A MAXIMUM WIDTH OF 10 METRES THE SITE MANAGER WILL DETERMINE AND MARK THE LOCATION OF THESE BOUNDARIES THAT, WHERE APPROPRIATE, ARE IDENTIFIED WITH BARRIER FENCING (UPSLOPE) AND SEDIMENT FENCING (DOWNSLOPE) OR SIMILAR MATERIALS.
- ENTRY TO LANDS NOT REQUIRED FOR CONSTRUCTION OR ACCESS IS PROHIBITED EXCEPT FOR ESSENTIAL THINNING OF PLANT GROWTH.
- WORKS ARE TO PROCEED IN THE FOLLOWING SEQUENCE: - INSTALL ALL BARRIER AND SEDIMENT FENCING WHERE SHOWN ON THE PLAN
 - CONSTRUCT THE STABILISED SITE ACCESS
 - CONSTRUCT DIVERSION DRAINS AS REQUIRED
 - INSTALL MESH AND GRAVEL INLETS FOR ANY ADJACENT KERB
- INSTALL GEOTEXTILE INLET FILTERS AROUND ANY ON-SITE DROP INLET PITS
- CLEAR SITE AND STRIP AND STICKPILE TOPSOIL IN LOCATIONS SHOWN ON THE PLAN
- UNDERTAKE ALL ESSENTIAL CONSTRUCTION WORKS ENSURING THAT ROOF AND/OR PAVED AREA STORMWATER SYSTEMS ARE CONNECTED TO PERMANENT DRAINAGE AS SOON AS PRACTICABLE.
- GRADE LOT AREAS TO FINAL GRADES AND APPLY PERMAMENT STABILISATION (LANDSCAPING) WITHIN 20 DAYS OF COMPLETION OR CONSTRUCTION WORKS.
- -REMOVE TEMPRARY EROSION CONTROL MEASURES AFTER THE PERMANENT LANDSCAPING HAS BEEN COMPLETED
- ENSURE THAT SLOPE LENGTHS DO NOT EXCEED 80 METRES WHERE PRACTICIBLE SLOPE LENGTHS ARE SETERMINED BY SILTATION FENCING AND CATCH DRAIN SPACING LATER.
- ON COMPLETION OF MAJOR WORKS LEAVE DISTURBED LANDS WITH A SCARIFIED SURFACE TO ENCOURAGE WATER INFILTRATION AND ASSIST WITH KEYING TOPSOIL.



EROSION AND SEIDMENT FENCE

A1 - 1:100Approved C19081 - SW**204**

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