STORMWATER MANAGEMENT PLAN (FOR DA)
PROPOSED DWELLING
LOT 5, No.7 SOLOMON COURT, GREENACRE

GENERAL NOTES:

1. THESE PLANS REMAIN THE PROPERTY OF NY CIVIL ENGINEERING PTY LTD AND ARE SUBJECT TO COPYRIGHT
2. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE STATED. ALL REDUCED LEVELS (SURFACE LEVELS, INVERT LEVELS) AND CHAINAGES ARE IN METERS UNLESS OTHERWISE STATED. DO NOT SCALE OFF THE DRAWINGS, SCALES ARE AS SHOWN, USE FIGURED DIMENSIONS.
3. THIS PLAN IS TO BE READ IN JUNCTION WITH LATEST ARCHITECTURAL, STRUCTURAL, UTILITY AND LANDSCAPE PLANS IN ADDITION TO ANY RELEVANT GEOTECHNICAL, SOIL CLASSIFICATION OR REF/ENVIRONMENTAL REPORTS. ENGINEER IS TO BE NOTIFIED OF ANY DISCREPANCIES QUOTED ON THIS PLAN.
4. ALL WORKS SHALL BE CARRIED OUT TO LOCAL COUNCIL'S DEVELOPMENT CONTROL PLAN AND SPECIFICATIONS, AS/NZS 3500.3 AND B.C.A.
5. ALL LEVELS SHALL RELATE TO THE ESTABLISHED BM, PM AND/OR LM. ALL EXISTING SERVICES ARE TO BE VERIFIED FOR LOCATION AND DEPTH PRIOR TO COMMENCEMENT OF ANY WORK. CONTRACTOR TO NOIFY DESIGNER OF ANY DISCREPANCIES OF SERVICE LEVELS QUOTED ON THIS PLAN. ALL SURVEY INFORMATION, BUILDING AND FINISHED SURFACE LEVELS SHOWN IN THESE DRAWINGS ARE BASED ON LEVELS OBTAINED FROM DRAWINGS BY OTHERS.
6. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY PRIOR APPROVAL REQUIRED FROM COUNCIL WITH RESPECT TO POTENTIAL IMPACT ON TREES FOR ANY WORKS SHOWN ON THIS DRAWING PRIOR TO THE COMMENCEMENT OF WORKS. NO TREES SHALL BE REMOVED WITHOUT THE WRITTEN PERMISSION OF COUNCIL.
7. THE CONTRACTOR SHALL TAKE ALL DUE CARE TO USE THE ABSOLUTE MINIMUM AREA FOR CONSTRUCTION AND THAT NO UNDUE DAMAGE IS DONE TO THE EXISTING VEGETATION.
8. THE CONTRACTOR SHALL COMPLY WITH CONDITIONS, AND SPECIFICATION OF COUNCIL AND ALL ACTS OF THE NSW EPA.
9. THE CONTRACTOR SHALL TAKE ALL REASONABLE CARE TO PROTECT EXISTING SERVICES. DAMAGED SERVICES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
10. ALL NEW WORK IS TO MAKE A SMOOTH JUNCTION WITH EXISTING WORK.
11. SUITABLE WARNING SIGNS AND BARRICADES ARE TO BE PROVIDED IN ACCORDANCE WITH THE AUSTRALIAN STANDARDS AND AS DIRECTED BY THE RELEVANT AUTHORITY.
12. SERVICES SHOWN ARE INDICATIVE ONLY FROM AVAILABLE INFORMATION AND THE TIME OF SITE INVESTIGATION (IF ANY). THE BUILDER IS TO NOTIFY ENGINEER OF ANY DISCREPANCIES QUOTED ON THIS PLAN.
13. RESTORE ALL TRAFFIC AREAS TO PRE EXISTING CONDITION. FOR ALL SURFACES OTHER THAN IN TRAFFIC AREAS RESTORE DISTURBED SURFACES TO PRE-EXISTING CONDITION AND COMPACT AS SPECIFIED.
14. RESTORE ALL AUTHORITY OWNED AREAS TO COUNCIL AND/OR AUTHORITY STANDARD AND SPECIFICATION.
15. THE WORK AS CONSTRUCTED WORKS SHALL BE INSPECTED BY THE ENGINEER, MINIMUM 48 HOURS NOTICE SHALL BE PROVIDED FOR ALL INSPECTION REQUESTS.
16. THE DESIGN PLANS HEREIN ARE SUBJECT TO COUNCIL APPROVAL PRIOR TO CONSTRUCTION.
17. WORK AS CONSTRUCTED DRAWINGS TO BE REQUESTED AND RECEIVED IN CAD/.DWG FILE TYPE AND HARD COPY 'RED LINE' MARKUP FROM CONSTRUCTOR FOR VERIFICATION AND CERTIFICATION.

ROOF STORMWATER DRAINAGE NOTES:

1. ALL DOWN PIPES TO BE MINIMUM DN90 OR 100x50MM FOR GUTTERS SLOPE 1:500 AND STEEPER AS PER AS 3500.3 - 3.7.8
2. ALL ROOF GUTTERS TO HAVE OVERFLOW PROVISION IN ACCORDANCE WITH AS 3500.3 AND SECTIONS 3.5.3, 3.7.5 AND APPENDIX G OF AS 3500.3.
3. ALL DOWNPIPES TO BE FITTED VERTICALLY TO THE SOLE OF EAVES GUTTERS, RAINHEAD AND/OR SUMP.
4. ALL DOWNPIPES TO DRAIN INTO RAINWATER TANK AND OR PIT PRIOR TO DISCHARGE OFFSITE UNLESS PRIOR APPROVAL IS OBTAINED FROM COUNCIL IN WRITING OR NOTED OTHERWISE ON THIS PLAN.
5. ALL EAVES GUTTERS TO BE SIZED FOR ARI 20 - AS PER AS 3500.3 - 3.5 AND APPENDIX H.
6. ROOF DRAINAGE INSTALLATION TO BE IN ACCORDANCE TO AS 3500.3 SECTION 4.

STORMWATER DRAINAGE NOTES:

PIPE SIZE:

1. THE MINIMUM PIPE SIZE SHALL BE:
   - 1.1. DN90 FOR ALL DOWNPIPES;
   - 1.2. DN100 WHERE THE LINE ONLY RECEIVES ROOF STORMWATER RUNOFF, OR;
   - 1.3. DN100 WHERE THE LINE RECEIVES RUNOFF FROM PAVED OR UNPAVED AREAS.

PIPE GRADE:

1. THE MINIMUM PIPE GRADE SHALL BE:
   - 1.1. FOR DN100 - DN150 - 1.00%
   - 1.2. FOR DN225 - 0.50%
   - 1.3. FOR DN300 - 0.45%
   - 1.4. FOR DN375 - 0.35%

STANDARD COVER:

1. MINIMUM PIPE COVER FOR PVC PIPES SHALL BE AS PER AS 3500.3 TABLE 6.2.5:
   - 1.1. NOT SUBJECT TO VEHICULAR LOADING:
     - 1.1.1. WITHOUT PAVEMENT SINGLE DWELLINGS - 100mm
     - 1.1.2. WITHOUT PAVEMENT OTHER THAN SINGLE DWELLINGS - 300mm
     - 1.1.3. WITH PAVEMENT (BRICK/PAVERS) AND/OR UNREINFORCED CONCRETE - 100mm
   - 1.2. SUBJECT TO VEHICULAR LOADING:
     - 1.2.1. ROADS (SEALED) - 600mm
     - 1.2.2. ROADS (UNSEALED) - 750mm
     - 1.2.3. OTHER THAN ROADS (WITH PAVEMENT) - 100mm
     - 1.2.4. OTHER THAN ROADS (WITHOUT PAVEMENT) - 450mm

PIPE INSTALLATION

1. PIPES AND FITTINGS FOR STORMWATER DRAINAGE SHALL BE AS FOLLOWS:
   - 1.1. FOR PIPE SIZES UP TO DN225 - PVC WITH SOLVENT WELDED JOINTS (IN GROUND).
   - 1.2. FOR PIPE SIZES GREATER THAN DN225 - RCP WITH RUBBER RING JOINTS.
   - 1.3. FOR LARGER PIPE DEPTHS AS SPECIFIED IN AS 3500.3 - RCP WITH RUBBER RING JOINTS.
   - 1.4. FOR PIPES AND FITTINGS FOR SUBSOIL DRAINAGE SHALL BE SLOTTED PVS WITH SOLVENT WELDED JOINTS MINIMUM DN150.
2. FOR GRATED DRAINS SHALL BE MINIMUM DN150 IN NON-TRAFFICABLE ZONES AND DN225 IN TRAFFICABLE ZONES.
3. LAY AND JOINT ALL PIPES IN ACCORDANCE WITH THE MANUFACTURING RECOMMENDATIONS AND:
   - 3.1. AS 3725-1989 - LOADS ON BURIED CONCRETE PIPES
   - 3.2. AS 2566 - 1988 - BURIED FLEXIBLE PIPELINES
   - 3.3. AS 1597.2 - 1996 - PRECAST REINFORCED CONCRETE BOX CULVERTS
   - 3.4. AS 3500 - 1990 NATIONAL PLUMBING AND DRAINAGE CODE - PART 2 SANITARY PLUMBING AND SANITARY DRAINAGE - SYDNEY WATER REQUIREMENTS.
4. ALLOW TO TEST ALL PIPES AND PITS TO MANUFACTURERS REQUIREMENTS.

CONNECTIONS TO STORMWATER SYSTEMS UNDER BUILDINGS:

IN ACCORDANCE WITH AS 3500.3 SECTION 9.2

CONNECTIONS TO COUNCIL STORMWATER SYSTEMS:

CONNECTION TO COUNCIL STORMWATER SYSTEM TO BE IN ACCORDANCE TO LOCAL COUNCIL DCP AND STANDARDS. NO CONNECTIONS TO BE MADE UNTIL PROPER PERMIT/APPROVALS ARE OBTAINED FROM LOCAL COUNCIL IN WRITING.

WARNING:

EXISTING SERVICES SHOWN ON THESE PLANS ARE NOT GUARANTEED COMPLETE OR CORRECT AND FURTHER INFORMATION IS REQUIRED FROM THE RELEVANT AUTHORITY AND FIELD INVESTIGATION AND ARE TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

LEGEND

SURFACE INLET PIT		GRATED TRENCH DRAIN	
SURFACE INLET PIT (WITH ENVIROPOD 200 MICRON)		ABSORPTION TRENCH	
ACCESS GRATE (WITH GROSS POLLUTANT TRAP)		PROPOSED ROOF GUTTER FALL	
450 SQUARE INTERVAL	450 X 450	PROPOSED DOWNPIPE SPREADER	SP
GRATE LEVEL = 75.50	SL 75.50	STORMWATER PIPE 100mm DIA. MIN. UNO	
INVERT LEVEL = RL 75.20	IL 75.20	SUBSOIL PIPE	a a
PROPOSED DOWNPIPE 90mm DIA. OR 100mm x 50mm MIN.	DP 90	EXISTING STORMWATER PIPE	SW
NATURAL GROUND FINISHED DESIGN LEVEL	× 10.00	INSPECTION RISER	IR
		RAINWATER HEAD	RWH

STORMWATER PIT/STRUCTURES NOTES:

PIT SIZES AND DEPTHS:

1. PIT SIZES WILL BE AS FOLLOWS:

DEPTH (mm)	MIN. PIT SIZE (mm)
UP TO 450	350x350
450 – 600	450x450
600 – 900	600x600
900 – 1200	600x900
1200+	900x900 (WITH STEP IRONS)

PIT DESIGNS:

1. TRENCH DRAINS: CONTINUOUS TRENCH DRAINS ARE TO BE MIN. DN150 AND MIN. 100mm DEPTH. THE BARS OF THE GRATE ARE TO BE PARALLEL TO THE DIRECTION OF SURFACE FLOW.
2. STEP IRONS: PITS BETWEEN 1.2m AND 6m ARE TO HAVE STEP IRONS IN ACCORDANCE WITH AS 1657. FOR PITS GREATER THAN 6m OTHER MEANS OF ACCESS MUST BE PROVIDED.
3. PLASTIC/PVC PITS: PVC PITS WILL ONLY BE PERMITTED IF THEY ARE MAX. 450x450 AND MAX. 450mm DEPTH AS WELL AS BEING HEAVY DUTY.
4. IN-SITU PITS: IN-SITU PITS ARE TO BE CONSTRUCTED ON A CONCRETE BED OF AT LEAST 150mm THICK. THE WALLS ARE TO BE DESIGNED TO MEET THE MINIMUM REQUIREMENTS OF CLAUSE 4.6.3 OF AS 3500.4. PITS DEEPER THAN 1.8m SHALL BE CONSTRUCTED WITH REINFORCED CONCRETE.
5. GRATES: GRATES ARE TO BE GALVANIZED STEEL GRID TYPE. GRATES ARE TO BE OF HEAVY-DUTY TYPE IN AREAS WHERE THEY MAY BE SUBJECT TO VEHICLE LOADING.

INSTALLATION NOTES:

1. ALL PIPES INTO PITS TO BE CUT FLUSH WITH PIT WALL.
2. ALL PITS THAT ARE INSTALLED AT GREATER THAN 600mm DEEP TO BE MIN. 600x600 PIT.
3. GRATED COVERS ON PITS GREATER THAN 600mm TO BE HINGED.
4. BASE OF PIT TO BE SAME LEVEL OF INVERT OF OUTLET.
5. OUTLET PIPE FROM ANY PIT TO BE 20mm LOWER THAN INLET PIPE/S

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REVISION	DRAWN	DESCRIPTION	DATE
A	SS	ISSUED FOR DA	16.03.2022

DRAWING TITLE: DETAILS, NOTES & LEGEND

PROJECT TITLE: PROPOSED DWELLING
LOT 5, No.7 SOLOMON COURT
GREENACRE

SHEET SIZE	A3
DESIGNED	MR
CHECKED	NZ
ISSUE	A
SCALE	-

JOB REFERENCE: E220087
DRAWING No.: D1
No. IN SET: 8

PUMP-OUT CALCULATIONS AS PER AS3500.3

PROPOSED RISING MAIN PIPE DIAMETER:
65 mm DIA uPVC 'PRESSURE PIPE' CLASS "12"

HEAD LOSS

- STATIC = 4.1 m
- PIPE FRICTION = 1.1 m
- FITTINGS = 0.6 m
- TOTAL = 5.8 m

PUMP DUTY :
10 L/s AT 5.8 m HEAD

PUMP TYPE :
SUBMERSIBLE EQUAL TO DAVEY D150 2.2 kW, 240 V, OR EQUIVALENT.
USE TWO (2) x PUMPS TO OPERATE

ALTERNATIVELY
AS PER AS3500.3.

PUMP CONTROL:
AUTOMATIC WITH FLOAT SWITCHES

PUMP OUT SYSTEM

- DESIGN STORM 100 ARI 2Hr (I = 36.8mm/hr) TO AS3500.3:2021
- MAX DISCAHRGE 100 ARI 5Min (I = 204mm/hr) TO BANKSTOWN COUNCIL STORMWATER SPECIFICATION
- AREA TO PUMP APPROX 35m^2
- MAX FLOW $\frac{0.0035Ha \times 204\ mm/hr}{360}$ = 2.0L/s
- DESIGN FLOW $\frac{0.0050Ha \times 36.8\ mm/hr}{360}$ = 0.36L/s
- DESIGN VOLUME 0.36L/s x 60s x 120min = 2,592L

THEREFORE PROVIDE MINIMUM 3.00m^3 HOLDING TANK
PUMP MINIMUM CAPACITY = 10L/s (AS PER AS 3500.3)
PROVIDE DUAL PUMPS WITH MINIMUM DISCHARGE RATE OF 5 l/s EACH.
REFER TO DETAIL

STANDARD PUMP OUT DESIGN NOTES:

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

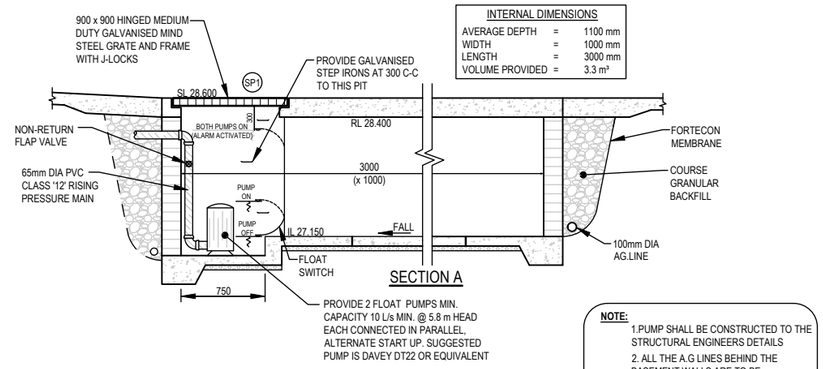
- THE PUMPS SHALL BE PROGRAMMED TO WORK ALTERNATELY SO AS TO ALLOW BOTH PUMPS TO HAVE AN EQUAL OPERATION LOAD AND PUMP LIFE.

- 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 THE FLOAT WILL FUNCTION AS AN OFF SWITCH FOR THE PUMPS.

- A SECOND FLOAT HALL 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.



PUMP HOLDING TANK
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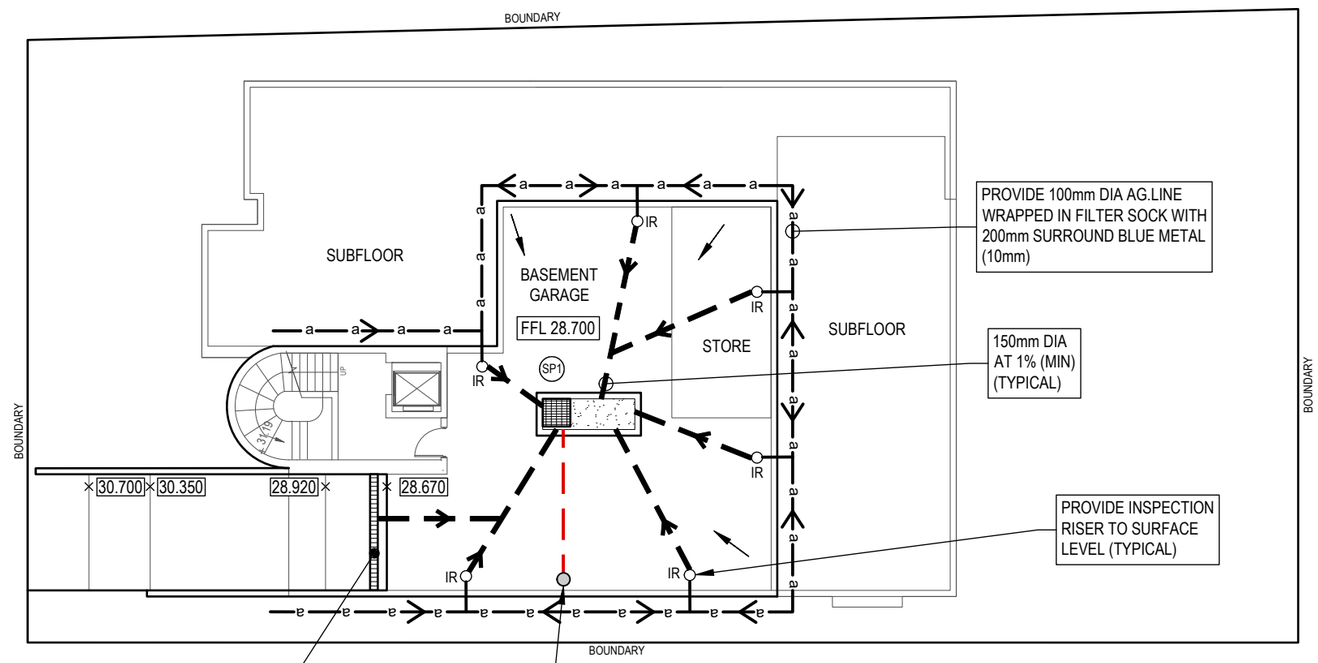

BASEMENT PLAN
1:200

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	A	SS	ISSUED FOR DA	16.03.2022

DRAWING TITLE
STORMWATER MANAGEMENT
BASEMENT LEVEL PLAN

PROJECT TITLE
PROPOSED DWELLING
LOT 5, No.7 SOLOMON COURT
GREENACRE

SHEET SIZE	A3
DESIGNED	MR
CHECKED	NZ
ISSUE	A
SCALE	AS NOTED

JOB REFERENCE E220087
DRAWING No. D2
No. IN SET 8

AREA CALCULATIONS		
TOTAL SITE AREA	834.7000	m²
EXISTING DEVELOPMENT		
ROOF AREA	209.300000	m²
PAVED AREA	111.100000	m²
DRIVEWAY AREA	54.200000	m²
IMPERVIOUS AREA	374.600000	m²
TOTAL IMPERVIOUS AREA PERCENTAGE	44.878399	%
PROPOSED DEVELOPMENT		
PROPOSED ROOF AREA	471.000000	m²
PROPOSED PAVED AREA	86.000000	m²
PROPOSED DRIVEWAY AREA	33.000000	m²
TOTAL IMPERVIOUS AREA	590.000000	m²
TOTAL IMPERVIOUS AREA PERCENTAGE	70.684078	%

RAINWATER RE-USE TANK - RWT

(AS PER BASIX REQUIREMENTS)

SIZE: 5,033 LITRES
SLIMLINE TANK BY "KINGSPAN" OR SIMILAR
(3200L x 900W x 1860H)
INSTALL TO MANUFACTURES SPECIFICATIONS, AS3500 AND COUNCIL REQUIREMENTS

- FOR RE-USE AS SPECIFIED BY BASIX CERTIFICATE
- ENSURE TOP OF TANK IS MIN 0.7m BELOW ROOF GUTTERS TO ENSURE SUFFICIENT HEAD FOR THE SYSTEM
- TANK TO BE INSTALLED BY LICENSED PLUMBER IN ACCORDANCE WITH AS/NZS 3500:2003 AND NSW CODE OF PRACTICE PLUMBING AND DRAINAGE 2006

BANKSTOWN CITY COUNCIL - STORMWATER CALCULATIONS

RELEVANT DESIGN CODE: DEVELOPMENT ENGINEERING STANDARDS JUNE 2009

DRAINAGE REQUIREMENT:
PROPOSAL: SINGLE DWELLING
SITE AREA: 834.7m²

- POST DEV. IMPERVIOUS AREA - 590 m²
(71% OF SITE AREA < 75%)

THEREFORE OSD NOT REQUIRED
(PART 10.1.2 'EXEMPTION TO OSD')

DRAINAGE PIPE LEGEND

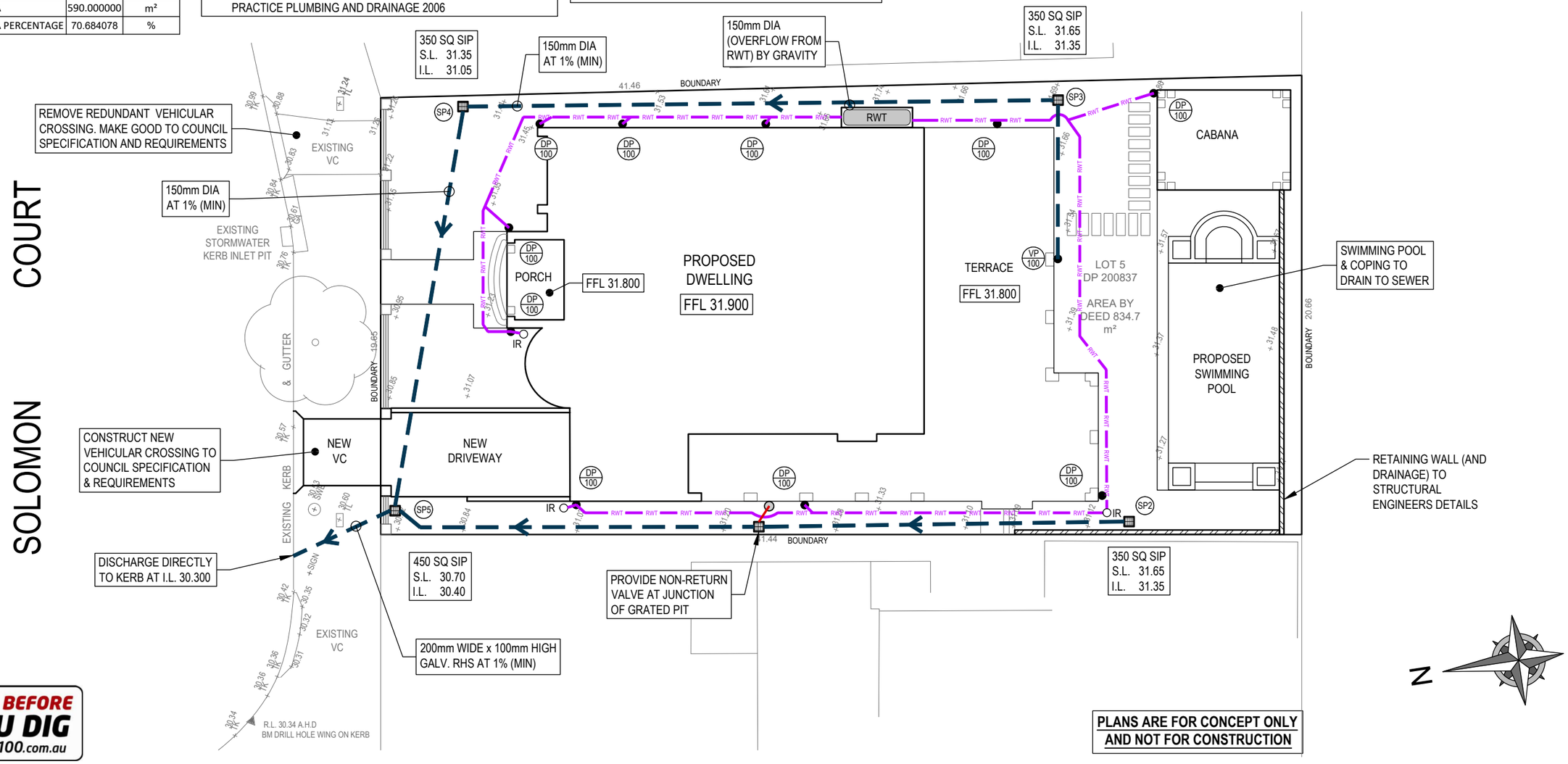
- EXISTING STORMWATER PIPE
- DRAINAGE PIPES TO RAINWATER TANK
- DRAINAGE PIPES VIA GRAVITY
- CHARGED DRAINAGE PIPES
- 65mm DIA CLASS 12 PUMP LINE

NOTE: ALL IN GROUND PIPES TO BE 100mm DIA PVC UNO

NOTE: ENSURE ANY PROPOSED PAVING IS GRADED SO THAT IT IS NOT IMPACTING ADJOINING PROPERTIES.

INSPECTION RISER (IR)

PROVIDE 'SCREW CAP' INSPECTION RISER AT LOWEST POINT OF 'CHARGED LINES'



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APPROVED BY	REVISION	DRAWN	DESCRIPTION	DATE
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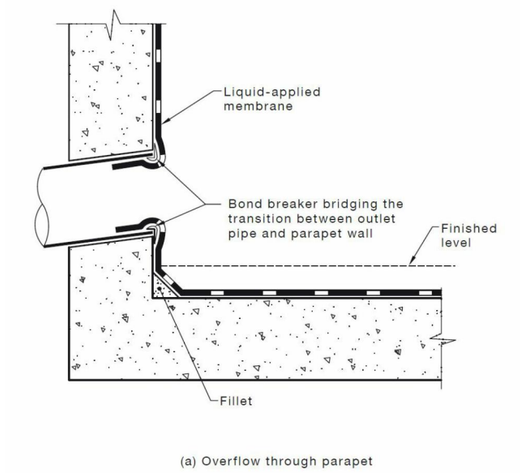
DRAWING TITLE
STORMWATER MANAGEMENT GROUND FLOOR PLAN

PROJECT TITLE
PROPOSED DWELLING
LOT 5, No.7 SOLOMON COURT
GREENACRE

SHEET SIZE	A3
DESIGNED	MR
CHECKED	NZ
ISSUE	A
SCALE	1:200

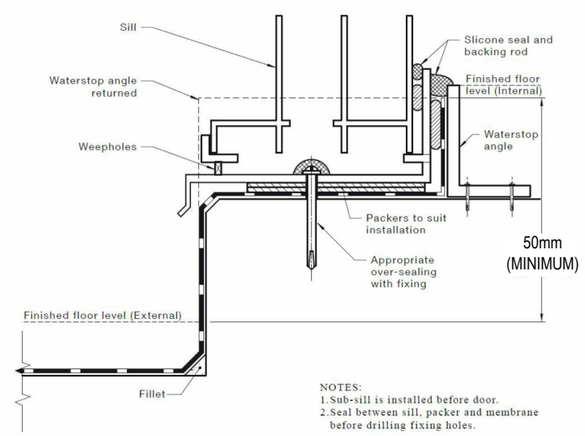
JOB REFERENCE E220087
DRAWING No. D3
No. IN SET 8



(a) Overflow through parapet

BALCONY PARAPET OVERFLOW - AS4654.2

NTS



NOTE: For falls, see Clause 2.5.2.

BACLONY MENBRANE TERMINATION - AS4654.2

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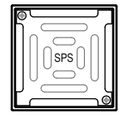
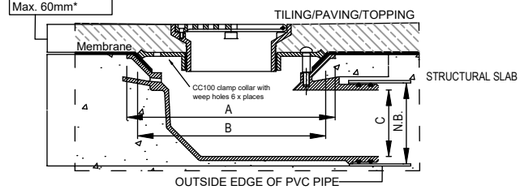
SPS 150MM SQUARE VARI-LEVEL FLOOR DRAIN WITH SIDE-OUTLET LOWER BODY

Specification codes:
Q150G/C109 (bronze grate, CI lower body)
Q150N/C109 (nickel bronze grate, CI lower body)
Q150S4/C109 (polished 304SS, CI lower body)
Q150S/C109 (satin 316SS grate, CI lower body)
For 80mm outlet, use suffix "C89" not "C109"



Height adjustment:
Min. 25mm
Max. 60mm*

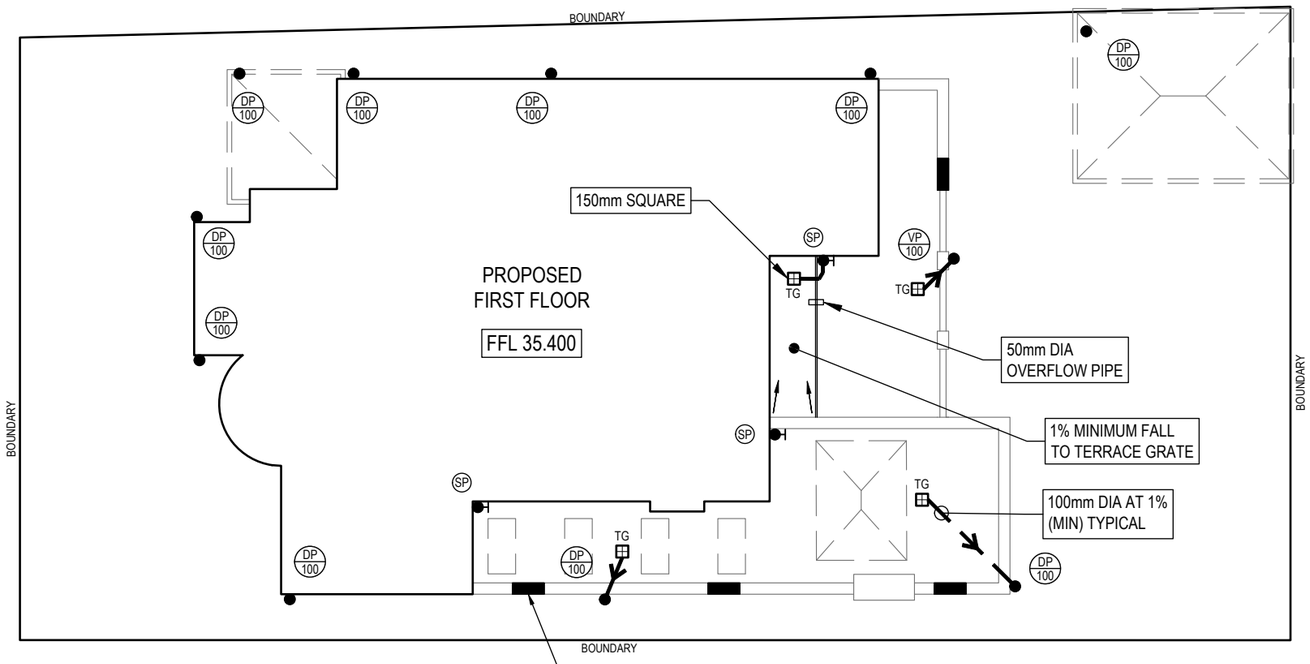


N.B.	A	B	C	D	E
80	260	240	110	115	28
100	260	40	110	140	28

* EP100 EXTENSION PIECE AVAILABLE TO INCREASE MAX. HEIGHT

150mm SQUARE TERRACE GRATE

NTS



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DRAWING TITLE
STORMWATER MANAGEMENT
FIRST FLOOR PLAN

PROJECT TITLE
PROPOSED DWELLING
LOT 5, No.7 SOLOMON COURT
GREENACRE

SHEET SIZE	A3
DESIGNED	MR
CHECKED	NZ
ISSUE	A
SCALE	1:200

JOB REFERENCE E220087

DRAWING No. D4

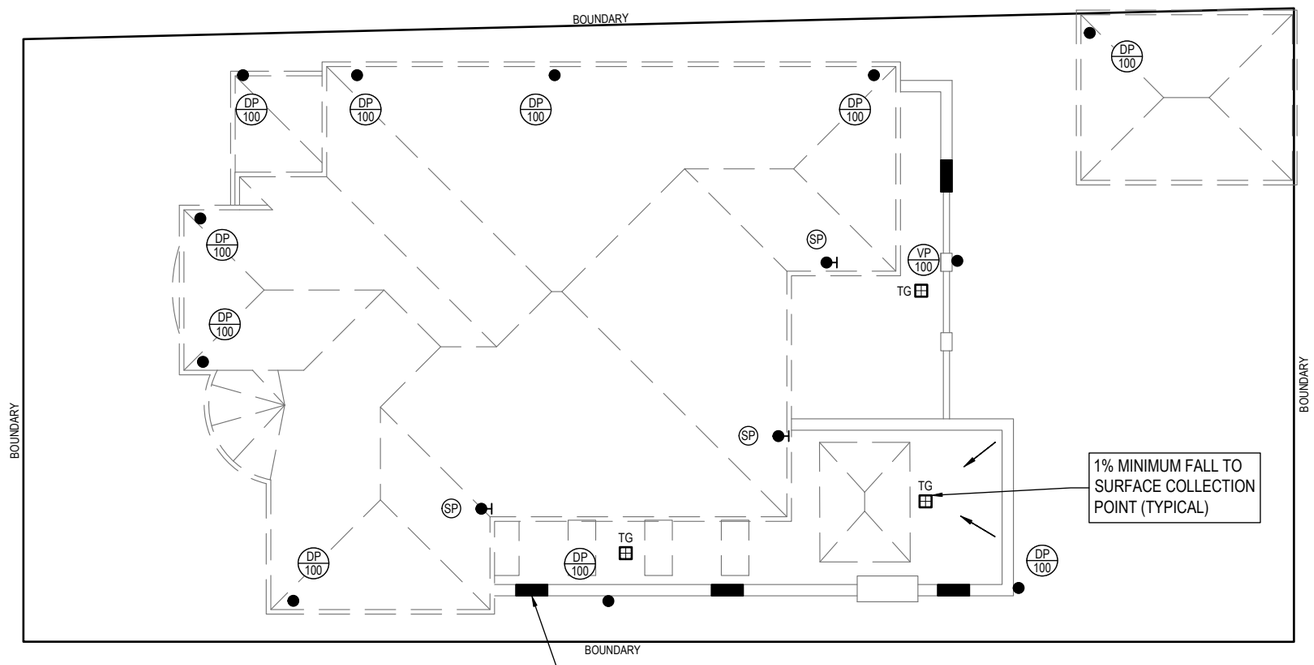
No. IN SET 8

DP 90	DOWNPIPE TO RAINWATER TANK
VP 90	VERTICAL PIPE NOT TO RAINWATER TANK

ROOF DRAINAGE (EAVES GUTTERING)

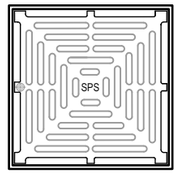
- GUTTERING - CROSS SECTIONAL AREA OF GUTTER TO BE GREATER THAN 10,900mm²
- DOWN PIPES - 100mm DIA PVC OR COLORBOND

NOTE: ROOF DESIGNED TO 5% AEP INTENSITY 170mm/hr



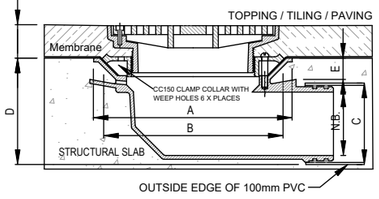
SPS 225mm Square Vari-Level Floor Drain With Side-Outlet Lower Body

SPECIFICATION CODES:
Q225AB/C109 (AB2 BRONZE GRATE, CI LOWER BODY)
Q225N/C109 (NICKEL BRONZE GRATE, CI LOWER BODY)
Q225S/C109 (SATIN 316 SS GRATE, CI LOWER BODY)
FOR 80MM OUTLET, USE SUFFIX "C89" NOT "C109"



HEIGHT ADJUSTMENT:
MIN. 32mm
MAX. 80mm*

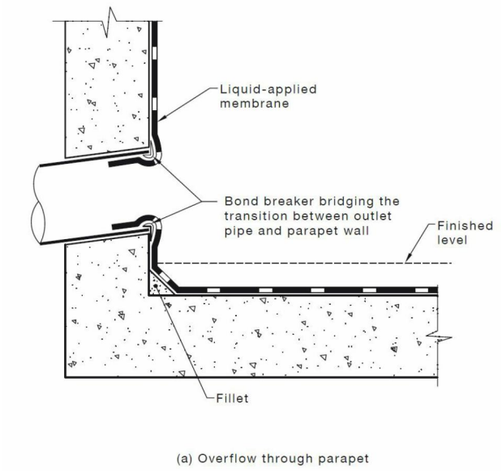
N.B.	A	B	C	D	E
80	260	240	62	115	28
100	260	240	83	140	28



**EP150 EXTENSION PIECE AVAILABLE TO INCREASE MAX. HEIGHT

225 mm SQUARE TERRACE GRATE (SPS) - TG

NTS



(a) Overflow through parapet

PARAPET OVERFLOW - AS4654.2

NTS

ROOF DRAINAGE (CONCRETE ROOF)

- DRAINAGE - TERRACE GRATES TO BE 225mm SQUARE

NOTE: ROOF DESIGNED TO 1% AEP INTENSITY 204mm/hr

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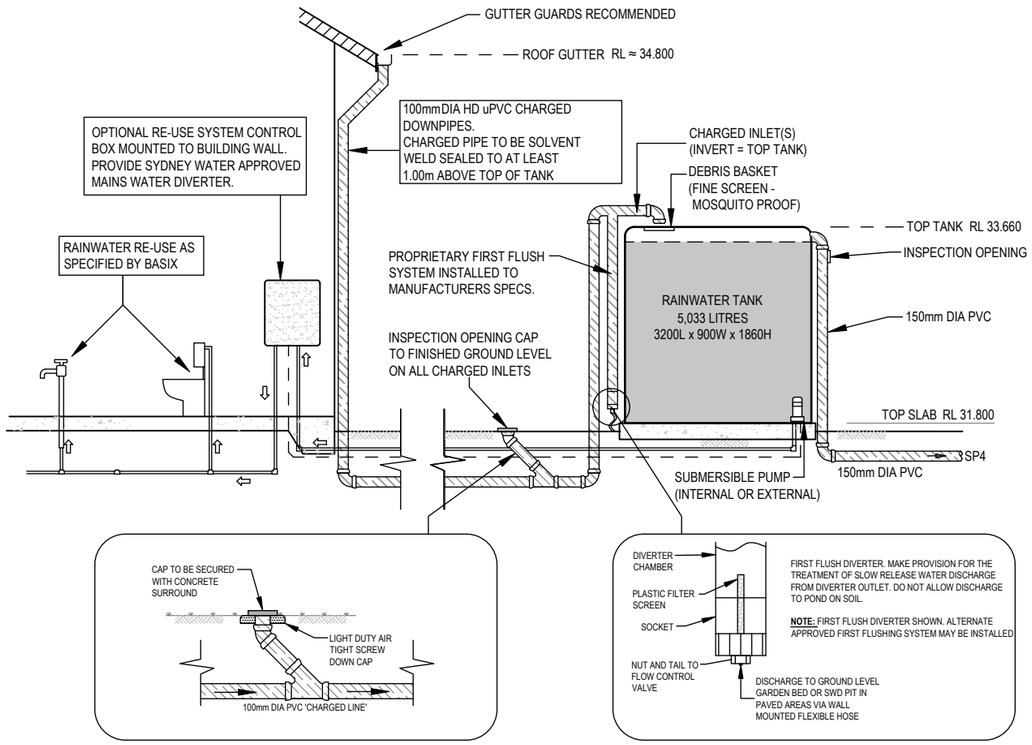
NADER ZAKI MIEAust CPEng NER	A	SS	ISSUED FOR DA	16.03.2022

DRAWING TITLE
STORMWATER MANAGEMENT
ROOF PLAN

PROJECT TITLE
PROPOSED DWELLING
LOT 5, No.7 SOLOMON COURT
GREENACRE

SHEET SIZE	A3
DESIGNED	MR
CHECKED	NZ
ISSUE	A
SCALE	1:200

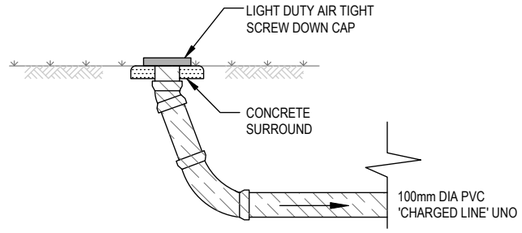
JOB REFERENCE E220087
DRAWING No. D5
No. IN SET 8



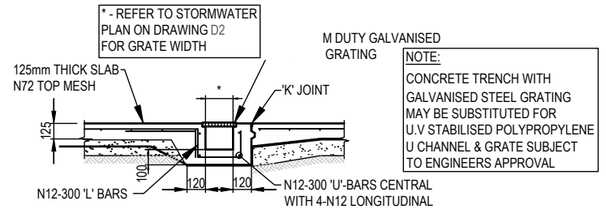
RAINWATER RE-USE TANK - ABOVE GROUND
NTS

TYPICAL WARNING SIGN
NTS

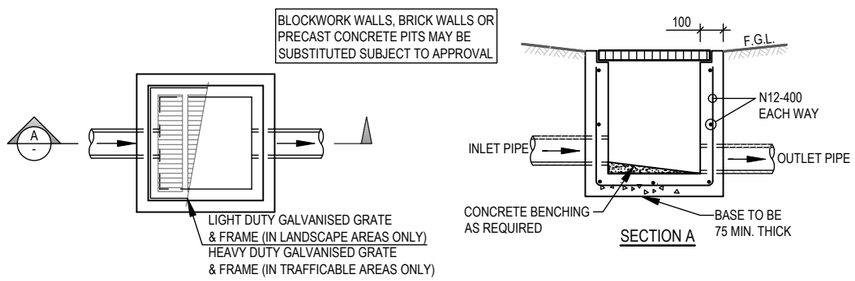
EVERY EXTERNAL SUPPLY OUTLET FROM RAINWATER RE-USE TANK TO BE LABELED WITH METALLIC WARNING SIGN



INSPECTION RISER - IR
NTS



GRATED DRAIN
NTS



SECTION A

TYPICAL PIT (SIP)
NTS

NOTE:
ALL PROPOSED SITE PITS ARE TO BE CONSTRUCTED IN CONCRETE CAST IN SITU, PLASTIC OR BRICK PITS ARE NOT ACCEPTABLE. HOWEVER, 'COUNCIL MAY CONSIDER PRE-CAST UNITS IF THE UNITS ARE PLACED ON A SOLID BASE OF GRAVEL OR CONCRETE OF 75mm THICK AND BACKFILL UP TO HALF THE DEPTH OF THE PIT SURROUND WITH CONCRETE.

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APPROVED BY	REVISION	DRAWN	DESCRIPTION	DATE
NADER ZAKI MIEAust CPEng NER	A	SS	ISSUED FOR DA	16.03.2022

DRAWING TITLE
STORMWATER DETAILS

PROJECT TITLE
PROPOSED DWELLING
LOT 5, No.7 SOLOMON COURT
GREENACRE

SHEET SIZE	A3
DESIGNED	MR
CHECKED	NZ
ISSUE	A
SCALE	AS NOTED

JOB REFERENCE E220087
DRAWING No. D6
No. IN SET 8

DUST CONTROL:

• NOTE: DURING EXCAVATION, DEMOLITION AND CONSTRUCTION, ADEQUATE MEASURES SHALL BE TAKEN TO PREVENT DUST FROM AFFECTING THE AMENITY OF THE NEIGHBORHOOD.

THE FOLLOWING MEASURES MUST BE ADOPTED:

1. PHYSICAL BARRIERS SHALL BE ERECTED AT RIGHT ANGLES TO PREVENT WIND DIRECTION OR SHALL BE PLACED AROUND OR OVER DUST SOURCES TO PREVENT WIND OR ACTIVITY FROM GENERATING DUST.
2. EARTHWORKS AND SCHEDULING ACTIVITIES SHALL BE MANAGED TO COINCIDE WITH THE NEXT STAGE OF DEVELOPMENT TO MINIMISE THE AMOUNT OF TIME THE SITE IS LEFT TO CUT OR EXPOSED.
3. ALL MATERIALS SHALL BE STORED OR STOCKPILED AT THE BEST LOCATIONS.
4. THE GROUND SURFACE SHOULD BE DAMPENED SLIGHTLY To PREVENT DUST FROM BECOMING AIRBORNE BUT SHOULD NOT BE WET TO THE EXTENT THAT RUN-OFF OCCURS.
5. ALL VEHICLES CARRYING SOIL OR RUBBLE TO OR FROM THE SITE SHALL AT ALL TIMES BE COVERED TO PREVENT THE ESCAPE OF DUST.
6. ALL EQUIPMENT WHEELS SHALL BE WASHED BEFORE EXISTING THE SITE USING MANUAL OR AUTOMATED SPRAYERS AND DRIVE - THROUGH WASHING BAYS.
7. GATES SHALL BE CLOSED BETWEEN VEHICLE MOVEMENTS SHALL BE FITTED WITH SHADE CLOTH.
8. CLEANING OF FOOTPATHS AND ROADWAYS SHALL CARRIED OUT DAILY.
9. ALL BUILDERS REFUSE, SPOIL AND/OR MATERIAL UNSUITABLE FOR USE IN LANDSCAPE AREAS SHALL BE REMOVED FROM SITE ON COMPLETION OF THE BUILDING WORKS.

NOTES:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE INSPECTED AND MAINTAINED DAILY BY SITE MANAGER IN ACCORDANCE WITH COUNCIL REQUIREMENTS.
2. ALL STOCKPILES TO BE CLEAR FROM DRAINS, GUTTERS AND FOOTPATHS.
3. DRAINAGE IS TO BE CONNECTED TO STORMWATER SYSTEM AS SOON AS POSSIBLE.
4. ROADS AND FOOTPATH TO BE SWEPT DAILY AS REQUIRED BY COUNCIL.
5. IF YOU DO NOT COMPLY WITH COUNCIL REQUIREMENTS & DOCUMENTATION, YOU MAY BE LIABLE TO PROSECUTION FROM GOVERNMENT AUTHORITIES .

LEGEND:

UNDISTURBED VEGETATION

SEDIMENT FENCE

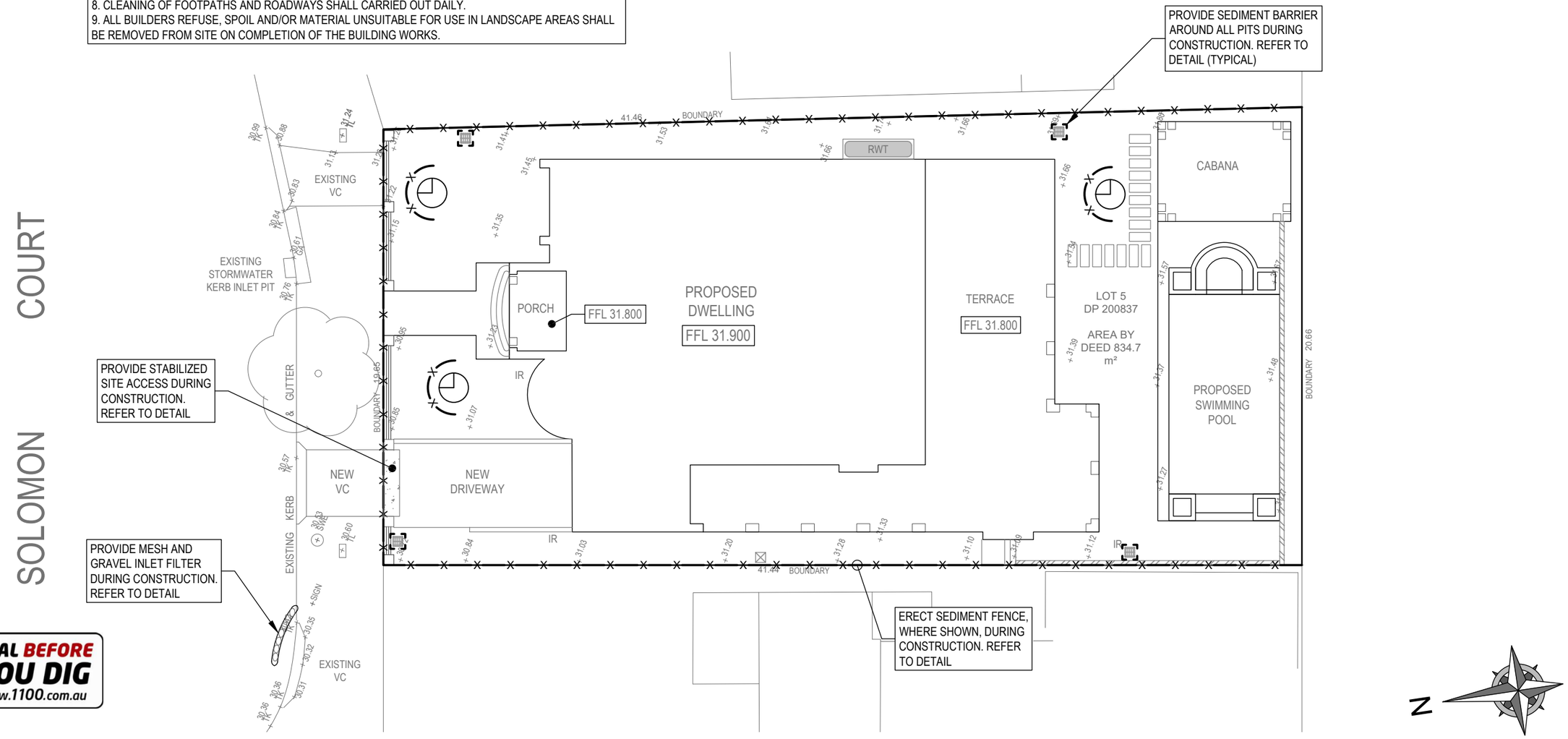
STOCK PILES

STABILIZED SITE ACCESS

MESH & GRAVEL INLET FILTER

WATER DIVERSION

STORMWATER PIT WITH SEDIMENT BARRIER



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DRAWING TITLE

SEDIMENT CONTROL PLAN

PROJECT TITLE

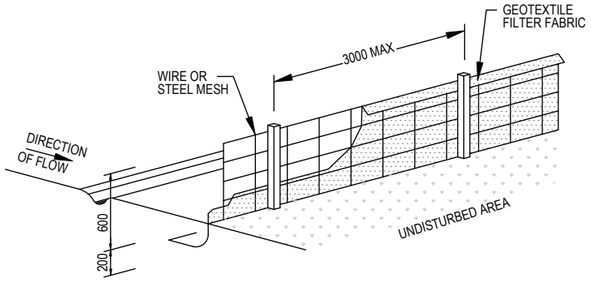
PROPOSED DWELLING
LOT 5, No.7 SOLOMON COURT
GREENACRE

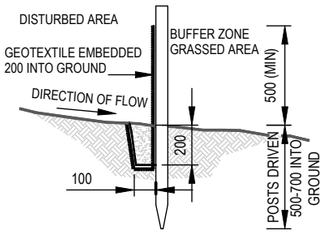
SHEET SIZE	A3
DESIGNED	MR
CHECKED	NZ
ISSUE	A
SCALE	1:200

JOB REFERENCE E220087

DRAWING No. D7

No. IN SET 8



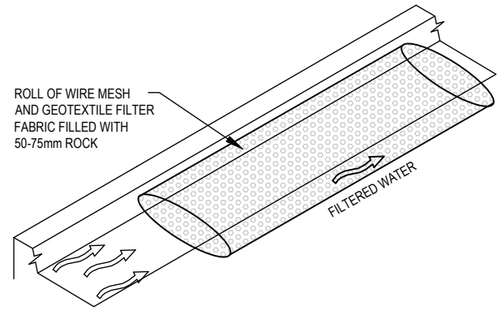


SEDIMENT FENCE DETAIL

NTS

CONSTRUCTION NOTES:

1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENTS AREA OF ANY ONE SECTION. THE CATCHMENTS AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10 YEAR EVENT.
2. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5m LONG STAR PICKETS INTO GROUND AT 2.5m INTERVALS (MAX) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

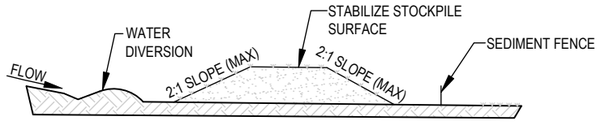


MESH AND GRAVEL FILTER

NTS

CONSTRUCTION NOTES:

1. INSTALL FILTERS TO KERB INLETS ONLY AT SAG POINTS
2. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT AND FILL IT WITH 25mm TO 50mm GRAVEL.
3. FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm(h) x 400mm(w).
4. PLACE THE FILTER AT THE OPENING LEAVING AT LEAST 100mm SPACE BETWEEN IT AND THE KERB INLET. MAINTAIN THE OPENING WITH SPACER BLOCKS.
5. FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING THE FILTER.
6. SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY FIRMLY ABUT EACH OTHER AND SEDIMENT-LADEN WATERS CANNOT PASS BETWEEN.

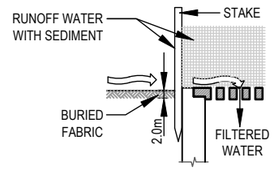


STOCKPILE

NTS

NOTE:

1. PLACE STOCKPILES MORE THAN 2 (PREFERABLY 5) METERS FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METERS IN HEIGHT.
4. WHERE THEY ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, STABILIZE FOLLOWING THE APPROVED ESCP OR SWMP TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
5. CONSTRUCT EARTH BANKS (LOW FLOW) ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES 1 TO 2 METERS ON THE DOWNSLOPE.

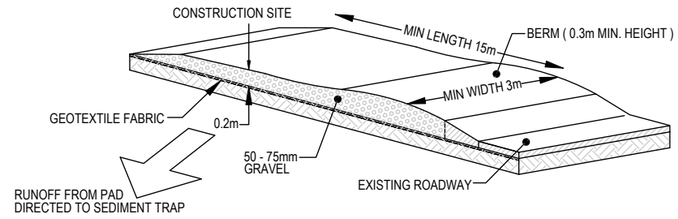


SEDIMENT BARRIER AROUND PIT

NTS

CONSTRUCTION NOTES:

1. FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE OR STRAW BALES.
2. FOLLOW STRAW FILTER AND SEDIMENT FENCE FOR INSTALLATION PROCEDURES FOR THE STRAW BALES OR GEOFABRIC. REDUCE THE PICKET SPACING TO 1 METRE CENTRES.
3. IN WATERWAYS, ARTIFICIAL SAG POINTS CAN BE CREATED WITH SANDBAGS OR EARTH BANKS AS SHOWN IN THE DRAWING.
4. DO NOT COVER THE INLET WITH GEOTEXTILE UNLESS THE DESIGN IS ADEQUATE TO ALLOW FOR ALL WATERS TO BYPASS IT.



STABILIZED SITE ACCESS

NTS

CONSTRUCTION NOTES:

1. STRIP THE TOPSOIL, LEVEL THE SITE AND COMPACT THE SUBGRADE
2. COVER THE AREA WITH NEEDLE-PUNCHED GEOTEXTILE
3. CONSTRUCT A 200mm THICK PAD OVER THE GEOTEXTILE USING ROAD BASED OR 30mm AGGREGATE
4. ENSURE THE STRUCTURE IS AT LEAST 15m LONG OR TO BUILD ALIGNMENT AND AT LEAST 3 METERS WIDE.
5. WHERE A SEDIMENT FENCE JOINS ONTO THE STABILIZED ACCESS, CONSTRUCT A HUMP IN THE STABILIZED ACCESS TO DIVERT WATER TO THE SEDIMENT FENCE.

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NADER ZAKI MIEAust CPEng NER	A	SS	ISSUED FOR DA	16.03.2022

DRAWING TITLE

SEDIMENT CONTROL DETAILS

PROJECT TITLE

PROPOSED DWELLING
LOT 5, No.7 SOLOMON COURT
GREENACRE

SHEET SIZE	A3
DESIGNED	MR
CHECKED	NZ
ISSUE	A
SCALE	AS NOTED

JOB REFERENCE E220087

DRAWING No. D8

No. IN SET 8