PROPOSED DEVELOPMENT
11-13 ALBERT ROAD & 2-6 PILGRIM AVENUE, STRATHFIELD
STORMWATER PLANS

GENERAL NOTES

G1. THE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL DRAWINGS AND SPECIFICATIONS AND OTHER WRITTEN INSTRUCTIONS THAT MAY BE ISSUED.
G2. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING FROM THE DRAWINGS. REFER ARCHITECTS DRAWINGS FOR ALL DIMENSIONS.
G3. REFER ANY DISCREPANCY TO THE ENGINEER/ARCHITECT.
G4. MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE APPROPRIATE SAA SPECIFICATIONS OR CODE AND WITH THE REQUIREMENTS OF THE RELEVANT LOCAL AUTHORITY.
G5. THE ALIGNMENT AND LEVEL OF ALL SERVICES SHOWN ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL CONFIRM THE POSITION AND LEVEL OF ALL SERVICES PRIOR TO COMMENCEMENT OF CONSTRUCTION. ANY DAMAGE TO SERVICES SHALL BE RECTIFIED AT THE CONTRACTORS EXPENSE.
G6. NO WORKS ARE TO COMMENCE UNTIL THE REQUIRED TREE REMOVAL PERMITS HAVE BEEN GRANTED BY RELEVANT LOCAL AUTHORITY, AND THE APPROPRIATE NOTICE OF INTENTION TO COMMENCE GIVEN.
G7. ALL SERVICES, OR CONDUITS FOR SERVICING SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF PAVEMENT CONSTRUCTION.
G8. SUBSOIL DRAINAGE, COMPRISING 100 AGRICULTURE PIPE IN GEO-STOCKING TO BE PLACED AS SHOWN AND AS MAY BE DIRECTED BY THE SUPERINTENDENT. SUBSOIL DRAINAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE RELEVANT LOCAL AUTHORITY CONSTRUCTION SPECIFICATION.
G9. NO WORK IS PERMITTED WITHIN ADJOINING PROPERTIES WITHOUT WRITTEN PERMISSION FROM THE OWNERS OR RESPONSIBLE AUTHORITY.

DRAINAGE NOTES

D1. ALL DRAINAGE OUTLET LEVELS SHALL BE CONFIRMED ON SITE, PRIOR TO CONSTRUCTION COMMENCING.
D2. ALL PIPES WITHIN THE PROPERTY TO BE MIN. 100 DIA UPVC @ 1% MIN. GRADE, UNO.
D3. ALL PITS WITHIN THE PROPERTY ARE TO BE FITTED WITH "WELDLOK" OR APPROVED EQUIVALENT GRATES:
- LIGHT DUTY FOR LANDSCAPED AREAS
- HEAVY DUTY WHERE SUBJECTED TO VEHICULAR TRAFFIC
D4. PITS WITHIN THE PROPERTY MAY BE CONSTRUCTED AS:
1) PRECAST STORMWATER PITS
2) CAST INSITU MASS CONCRETE
3) CEMENT RENDERED 230mm BRICKWORK
SUBJECT TO THE RELEVANT LOCAL AUTHORITY CONSTRUCTION SPECIFICATION.
D5. ENSURE ALL GRATES TO PITS ARE SET BELOW FINISHED SURFACE LEVEL WITHIN THE PROPERTY. TOP OF PIT RL'S ARE APPROXIMATE ONLY AND MAY BE VARIED SUBJECT TO APPROVAL OF THE ENGINEER. ALL INVERT LEVELS ARE TO BE ACHIEVED.
D6. ANY PIPES BENEATH RELEVANT LOCAL AUTHORITY ROAD TO BE RUBBER RING JOINTED RCP, UNO.
D7. ALL PITS IN ROADWAYS ARE TO BE FITTED WITH HEAVY DUTY GRATES WITH LOCKING BOLTS AND CONTINUOUS HINGE.
D8. PROVIDE STEP IRONS TO STORMWATER PITS GREATER THAN 1200 IN DEPTH.
D9. TRENCH BACK FILL IN ROADWAYS SHALL COMPRISE SHARP, CLEAN GRANULAR BACK FILL IN ACCORDANCE WITH THE RELEVANT LOCAL AUTHORITY SPECIFICATION TO NON-TRAFFICABLE AREAS TO BE COMPACTED BY RODDING AND TAMPING USING A FLAT PLATE VIBRATOR.
D10. WHERE A HIGH EARLY DISCHARGE (HED) PIT IS PROVIDED ALL PIPES ARE TO BE CONNECTED TO THE HED PIT, UNO.
D11. DOWN PIPES SHALL BE A MINIMUM OF DN100 SW GRADE UPVC OR 100X100 COLORBOND/ZINCALUME STEEL, UNO.
D12. COLORBOND OR ZINCALUME STEEL BOX GUTTERS SHALL BE A MINIMUM OF 450 WIDE X 150 DEEP.
D13. EAVES GUTTERS SHALL BE A MINIMUM OF 125 WIDE X 100 DEEP (OR OF EQUIVALENT AREA) COLORBOND OR ZINCALUME STEEL, UNO.
D14. SUBSOIL DRAINAGE SHALL BE PROVIDED TO ALL RETAINING WALLS & EMBANKMENTS, WITH THE LINES FEEDING INTO THE STORMWATER DRAINAGE SYSTEM, UNO.

EARTHWORKS NOTES

E1. THE EARTHWORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL REPORT.
E2. THE SITE OF THE WORKS SHALL BE PREPARED BY STRIPPING ALL EXISTING TOPSOIL, FILL AND VEGETATION.
E3. SUBGRADE SHALL BE COMPACTED UNTIL A DRY DENSITY HAS BEEN ACHIEVED OF NOT LESS THAN 100% OF THE STANDARD MAXIMUM DRY DENSITY WHEN TESTED IN ACCORDANCE WITH AS 1289 TESTS E.1.1. OR E.1.2.
E4. THE EXPOSED SUBGRADE SHOULD BE PROOF ROLLED TO DETECT ANY SOFT OR WET AREAS WHICH SHOULD BE LOCALLY EXCAVATED AND BACK FILLED WITH SELECTED MATERIAL.
E5. THE BACK FILLING MATERIAL SHALL BE IMPORTED GRANULAR FILL OF LOW PLASTICITY, PREFERABLY CRUSHED SANDSTONE, AND TO BE PLACED IN LAYERS NOT EXCEEDING 150 LOOSE THICKNESS AND COMPACTED TO 98% OF STANDARD DRY DENSITY AT A MOISTURE CONTENT WITHIN 2% OF OPTIMUM.
E6. SITE WORKS ARE TO BE BATTERED TO ADJACENT PROPERTY LEVELS.
E7. STORMWATER MUST NOT BE CONCENTRATED ON TO AN ADJACENT PROPERTY.
E8. AT NO TIME DURING OR AFTER CONSTRUCTION IS STORMWATER TO BE PONDED ON ADJOINING PROPERTIES.
E9. THE SITE SHALL BE GRADED AND DRAINED SO THAT STORMWATER WILL BE DIRECTED AWAY FROM THE BUILDING PLATFORM.
E10. STORMWATER DRAINAGE SHALL BE PROVIDED AND MAINTAINED THROUGHOUT THE COURSE OF CONSTRUCTION. ALL STORMWATER RUNOFF SHALL BE GRADED AWAY FROM THE SITE WORKS AND DISPOSED OF VIA SURFACE CATCHDRAINS AND STORMWATER COLLECTION PITS.
E11. ALL SURFACE CATCH DRAINS SHALL BE GRADED AT 1% (1 IN 100) MINIMUM. THE GROUND SHALL GRADE AWAY FROM ANY DWELLING AT 5% (1 IN 20) FOR THE FIRST METRE THEN AT 2.5% (1 IN 40).
E12. WHERE A CUT FILL PLATFORM IS USED THERE SHALL BE A MINIMUM BERM 1000 WIDE TO THE PERIMETER OF THE SITE WORKS WHICH SHALL BE SUPPORTED BY BATTERS OF 3:1 IN FILL.
E13. ANY VERTICAL OR NEAR VERTICAL PERMANENT EXCAVATION (CUT) DEEPER THAN 600 IN MATERIAL OTHER THAN ROCK SHALL BE ADEQUATELY RETAINED OR BATTERED AT A MINIMUM OF 3:1.
E14. WHERE BATTERS CANNOT BE PROVIDED TO SUPPORT THE CUT OR FILL, THEY SHALL BE ADEQUATELY RETAINED.
E15. RETAINING WALLS ARE TO BE CONSTRUCTED WITH ADEQUATE SUBSOIL DRAINAGE.

CONCRETE PAVEMENT

C1. SUBGRADE SHALL BE PREPARED AS OUTLINED IN EARTHWORKS.
C2. PROVIDE JOINTING AT MINIMUM 6000 MAX. INTERVALS OR AS OTHERWISE SPECIFIED IN THE DRAWINGS.
C3. CONCRETE SHALL COMPRISE A MIN. COMPRESSIVE STRENGTH OF 32MPa AT 28 DAYS IN ACCORDANCE WITH THE RELEVANT LOCAL AUTHORITY SPECIFICATION, UNO.
C4. ANY SUB-BASE MATERIAL SHALL BE COMPACTED AS OUTLINED IN EARTHWORKS.
C5. CONCRETE KERB AND GUTTER SHALL COMPRISE A MINIMUM COMPRESSIVE STRENGTH OF 25MPa, UNO.
C6. CONCRETE WORKS ARE TO BE CURED BY ONE OF THE FOLLOWING MEANS:
i) WETTING TWICE DAILY FOR THE FIRST THREE DAYS;
ii) USING AN APPROVED CURING COMPOUNDED FOR A MINIMUM OF 7 DAYS COMMENCING IMMEDIATELY AFTER POURING.

FLEXIBLE PAVEMENT NOTES

F1. SUBGRADE SHALL BE PREPARED AS OUTLINED IN EARTHWORKS.
F2. PAVEMENT MATERIAL SHALL CONSIST OF APPROVED OR RIPPED SANDSTONE, NATURAL GRAVEL OR FINE CRUSH ROCK AS PER THE RELEVANT COUNCIL AUTHORITY SPECIFICATION.
F3. PAVEMENT MATERIALS SHALL BE SPREAD IN LAYERS NOT EXCEEDING 150 AND NOT LESS 75 COMPACTED THICKNESS.
F4. PAVEMENT MATERIALS SHALL BE SIZED AND OF A STANDARD OUTLINED IN AS1141.
F5. CRUSHED OR RIPPED SANDSTONE SHALL BE MINUS 75 NOMINAL SIZE DERIVED FROM SOUND, CLEAN SANDSTONE FREE FROM OVERBURDEN, CLAY SEAMS, SHALE AND OTHER DELETERIOUS MATERIAL.
F6. PAVEMENT MATERIALS SHALL BE COMPACTED BY SUITABLE MEANS TO SATISFY THE FOLLOWING MINIMUM SPECIFICATIONS (AS PER AS1289.2)

DESCRIPTION	MEDIUM DENSITY RATIO
SUB-BASE	98% MOD
BASE COURSE	98% MOD
ASPHALTIC CONCRETE	97% MOD

AND SUBJECT TO THE RELEVANT LOCAL AUTHORITY CONSTRUCTION SPECIFICATION.

F7. TESTING FOR EACH LAYER SHALL BE UNDERTAKEN BY A N.A.T.A. REGISTERED LABORATORY IN ACCORDANCE WITH AS1289, AT NOT MORE THAN 50m INTERVALS AND A MINIMUM OF TWO PER LAYER. FURTHER FREQUENCY OF TESTING SHALL BE NO LESS THAN THAT REQUIRED BY AS3978.

PAVED AREAS NOTES

A1. SUBGRADE SHALL BE PREPARED AS OUTLINED IN EARTHWORKS.
A2. ALL PAVERS ARE TO BE PLACED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION.
A3. TRAFFICABLE AREAS:
SUB-BASE TO BE 150 COMPACTED THICKNESS DGS75.
SUB-BASE TO BE SUITABLY COMPACTED TO MEDIUM DENSITY 98% MOD.
SUB-BASE TO EXTEND AT LEAST 200 BEYOND PAVED SURFACE.
PAVERS TO BE 80 THICK INTERLOCKING PAVERS ON 50 SAND BEDDING.
A4. NON TRAFFICABLE AREAS:
SUB BASE AS PER TRAFFICABLE AREAS
PAVERS TO BE 60 INTERLOCKING PAVERS ON 50 SAND BEDDING (UNO).

EROSION AND SEDIMENT NOTES

B1. THIS PLAN TO BE READ IN CONJUNCTION WITH EROSION AND SEDIMENT CONTROL DETAILS AS ATTACHED.
B2. THE CONTRACTOR SHALL IMPLEMENT ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES AS NECESSARY AND TO THE SATISFACTION OF THE RELEVANT LOCAL AUTHORITY PRIOR TO THE COMMENCEMENT OF AND DURING CONSTRUCTION. NO DISTURBANCE TO THE SITE SHALL BE PERMITTED OTHER THAN IN THE IMMEDIATE AREA OF THE WORKS AND NO MATERIAL SHALL BE REMOVED FROM THE SITE WITHOUT THE RELEVANT LOCAL AUTHORITY APPROVAL. ALL EROSION AND SEDIMENT CONTROL DEVICES TO BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH STANDARDS OUTLINED IN NSW DEPARTMENT OF HOUSING'S "MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTIONS".
B3. TOPSOIL SHALL BE STRIPPED AND STOCKPILED OUTSIDE HAZARD AREAS SUCH AS DRAINAGE LINES. THIS TOPSOIL SHALL BE RESPREAD LATER ON AREAS TO BE REVEGETATED AND STABILISED ONLY, (I.E. ALL FOOTPATHS, BATTERS, SITE REGARDING AREAS, BASINS AND CATCHDRAINS). TOPSOIL SHALL NOT BE RESPREAD ON ANY OTHER AREAS UNLESS SPECIFICALLY INSTRUCTED BY THE SUPERINTENDENT. IF THEY ARE TO REMAIN FOR LONGER THAN ONE MONTH STOCKPILES SHALL BE PROTECTED FROM EROSION BY COVERING THEM WITH A MULCH AND HYDROSEEDING AND, IF NECESSARY, BY LOCATING BANKS OR DRAINS DOWNSTREAM OF A STOCKPILE TO RETARD SILT LADEN RUNOFF.
B4. THE CONTRACTOR SHALL REGULARLY MAINTAIN ALL EROSION AND SEDIMENT CONTROL DEVICES AND REMOVE ACCUMULATED SILT FROM SUCH DEVICES SUCH THAT MORE THAN 60% OF THEIR CAPACITY IS LOST. ALL THE SILT IS TO BE PLACED OUTSIDE THE LIMIT OF WORKS. THE PERIOD FOR MAINTAINING THESE DEVICES SHALL BE AT LEAST UNTIL ALL DISTURBED AREAS ARE REVEGETATED AND FURTHER AS MAY BE DIRECTED BY THE SUPERINTENDENT OR COUNCIL.
B5. LAY TURF STRIP (MIN 300 WIDE) ON 100 TOPSOIL BEHIND ALL KERB WITH 1000 LONG RETURNS EVERY 6000 AND AROUND STRUCTURES IMMEDIATELY AFTER BACKFILLING AS PER THE RELEVANT LOCAL AUTHORITY SPECIFICATION.
B6. THE CONTRACTOR SHALL GRASS SEED ALL DISTURBED AREAS WITH AN APPROVED MIX AS SOON AS PRACTICABLE AFTER COMPLETION OF EARTHWORKS AND REGRADING.
B7. VEHICULAR TRAFFIC SHALL BE CONTROLLED DURING CONSTRUCTION CONFINING ACCESS WHERE POSSIBLE TO NOMINATED STABILISED ACCESS POINTS.
B8. WHEN ANY DEVICES ARE TO BE HANDED OVER TO COUNCIL THEY SHALL BE IN CLEAN AND STABLE CONDITION.
B9. THE CONTRACTOR SHALL IMPLEMENT DUST CONTROL BY REGULAR WETTING DOWN (BUT NOT SATURATING) DISTURBED AREA.
B10. PROVIDE AND MAINTAIN SILT TRAPS AROUND ALL SURFACE INLET PITS UNTIL CATCHMENT IS REVEGETATED OR PAVED.
B11. REVEGETATE ALL TRENCHES IMMEDIATELY UPON COMPLETION OF BACKFILLING.
B12. ALL DRAINAGE PIPE INLETS TO BE CAPPED UNTIL:
- DOWNPIPES CONNECTED
- PITS CONSTRUCTED AND PROTECTED WITH SILT BARRIER

SYMBOLS

DESCRIPTION	
	DENOTE ON-SITE DETENTION TANK OR PUMP OUT TANK
	DENOTE ON-SITE DETENTION BASIN
	DENOTE ABSORPTION TRENCH
DP	DENOTES DOWNPIPE
Ø100	DENOTES 100mm DIA PVC (SEWER GRADE) AT 1% MIN. GRADE U.N.O
Ø150	DENOTES 150mm DIA PVC (SEWER GRADE) AT 1% MIN. GRADE U.N.O
Ø225	DENOTES 225mm DIA PVC (SEWER GRADE) AT 0.5% MIN. GRADE U.N.O
	DENOTES AGG LINE
	DENOTES SEDIMENT FENCE
IP	DENOTES INSPECTION OPENING WITH SCREW DOWN LID AT FINISH SURFACE LEVEL
	DENOTES CLEANING EYE
	STORMWATER PIT - GRATED INLET
	STORMWATER PIT - SOLID COVER
	MAINTENANCE PIT
	NON RETURN VALVE
FD	DENOTE ROUND FLOOR DRAINS
FD	DENOTE SQUARE FLOOR DRAINS
PB	DENOTE PLANTER BOX DRAINS
	DENOTE GRATED DRAIN
RL 6.20	PROPOSED FINISH FLOOR LEVEL
	DENOTE EXISTING OVERLAND FLOW PATH
	DENOTE RAINWATER TANK
O/F	DENOTE WATER OUTLET
RL	REDUCED LEVEL/SURFACE LEVELL
IL	INVERT LEVEL
TK	TOP OF KERB

MINIMUM PIPE COVER SHALL BE AS FOLLOWS

LOCATION	MINIMUM COVER
NO SUBJECT TO VEHICLE LOADING	100mm SINGLE RESIDENTAL
SUBJECT TO VEHICLE LOADING	450mm WHERE NOT IN A ROAD
UNDER A SEALED ROAD	600mm
UNSEALED ROAD	750mm
PAVED DRIVEWAY	100mm PLUS DEPTH OF CONCRETE

SEE AS2032 INSTALLATION OF UPVC PIPES FOR FURTHER INFORMATION.

CONCRETE PIPE COVER SHALL BE IN ACCORDANCE WITH AS3725-1989 LOADS ON BURIED CONCRETE PIPES, HOWEVER A MINIMUM COVER OF 450mm WILL APPLY.

WHERE INSUFFICIENT COVER IS PROVIDED, THE PIPE SHALL BE COVERED AT LEAST 50mm THICK OVERLAY AND SHALL BE PAVED WITH AT LEAST:
- 150mm REINFORCED CONCRETE WHERE SUBJECT TO HEAVY VEHICLE TRAFFIC
- 75mm THICKNESS OF BRICK OR 100mm OF CONCRETE PAVING WHERE SUBJECT TO LIGHT VEHICLE TRAFFIC; OR
- 50mm THICK BRICK OR CONCRETE PAVING WHERE NOT SUBJECT TO VEHICLE TRAFFIC.

PIT SIZES AND DESIGN

DEPTH (mm)	MINIMUM PIT SIZE (mm)
UP TO 600mm	450 x 450
600mm TO 900mm	600 x 600 U.N.O
900mm TO 1200mm	900 x 900 U.N.O
FROM 1200mm	900 x 900 (WITH STEP IRON)

SCHEDULE OF DRAWINGS

ISSUED FOR DA APPROVAL

REVISION	AMENDMENT	ISSUE DATE
F	ISSUED FOR DA APPROVAL	18-06-2021
E	ISSUED FOR DA APPROVAL	16-06-2021
D	ISSUED FOR DA APPROVAL	03-06-2021
C	ISSUED FOR DA APPROVAL	26-05-2021
B	ISSUED FOR DA APPROVAL	07-12-2020
A	ISSUED FOR COORDINATION	23-11-2020

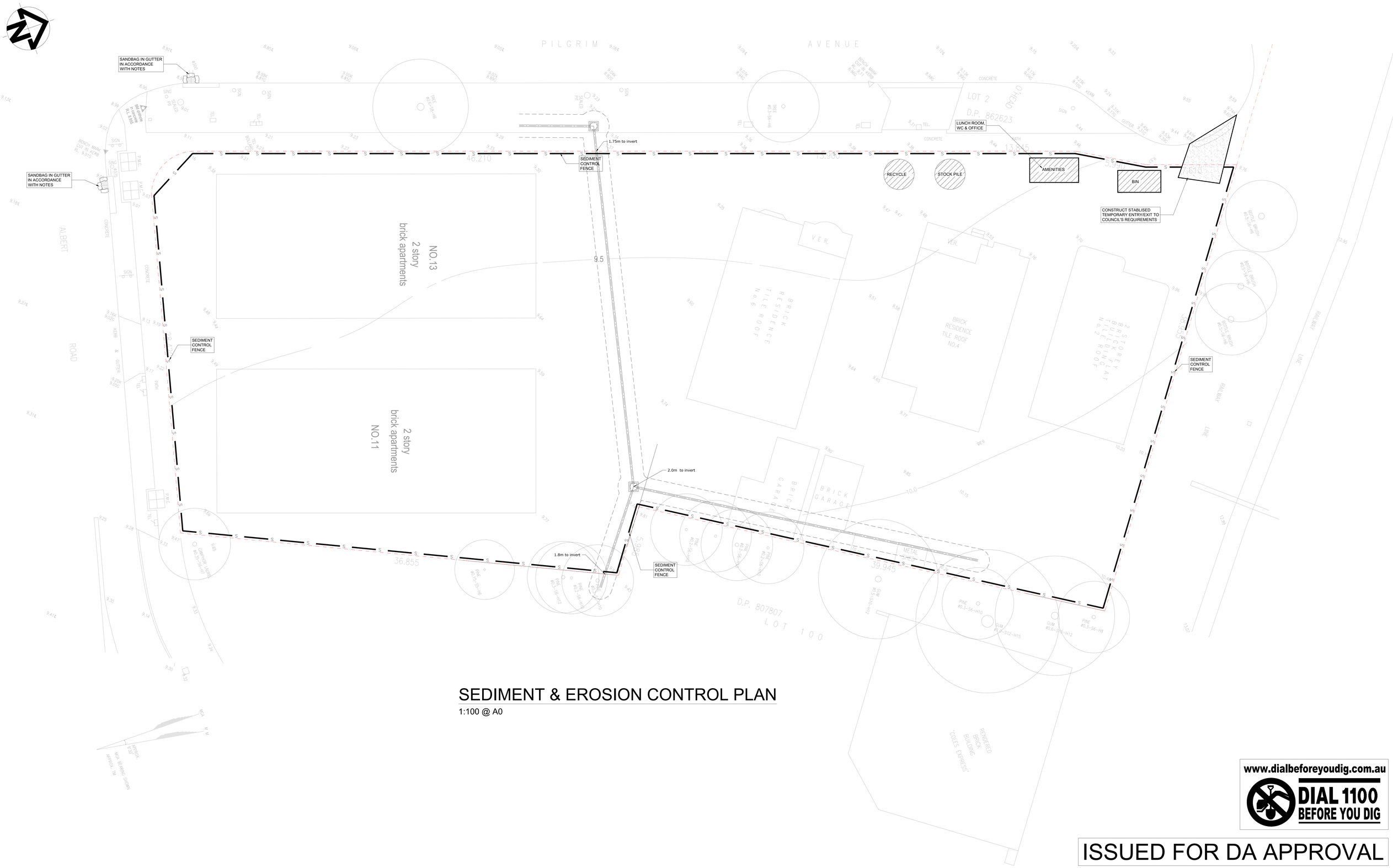
ALPHA ENGINEERING & DEVELOPMENT
Phone: (02) 9745 5202
Fax: (02) 8004 7461
Email: Info@alphaengineering.com.au
Address: 16 Railway Parade, Burwood NSW 2134
Website: www.alphaengineering.com.au

ARCHITECT
KENNEDY ASSOCIATES ARCHITECTS

PROJECT
PROPOSED DEVELOPMENT
11-13 ALBERT ROAD &
2-6 PILGRIM AVENUE,
STRATHFIELD

DRAWING TITLE
GENERAL NOTES

SCALES	DESIGNED	DRAFTED
AS SHOWN	SG	NL
DRAWING NO.	APPROVED	REVISION
A20219 - COVER	JM	F



SEDIMENT & EROSION CONTROL PLAN

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ISSUED FOR DA APPROVAL

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ALPHA ENGINEERING & DEVELOPMENT

Phone: (02) 9745 5202
Fax: (02) 8004 7461
Email: Info@alphaengineering.com.au
Address: 16 Railway Parade, Burwood NSW 2134
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11-13 ALBERT ROAD &
2-6 PILGRIM AVENUE,
STRATHFIELD

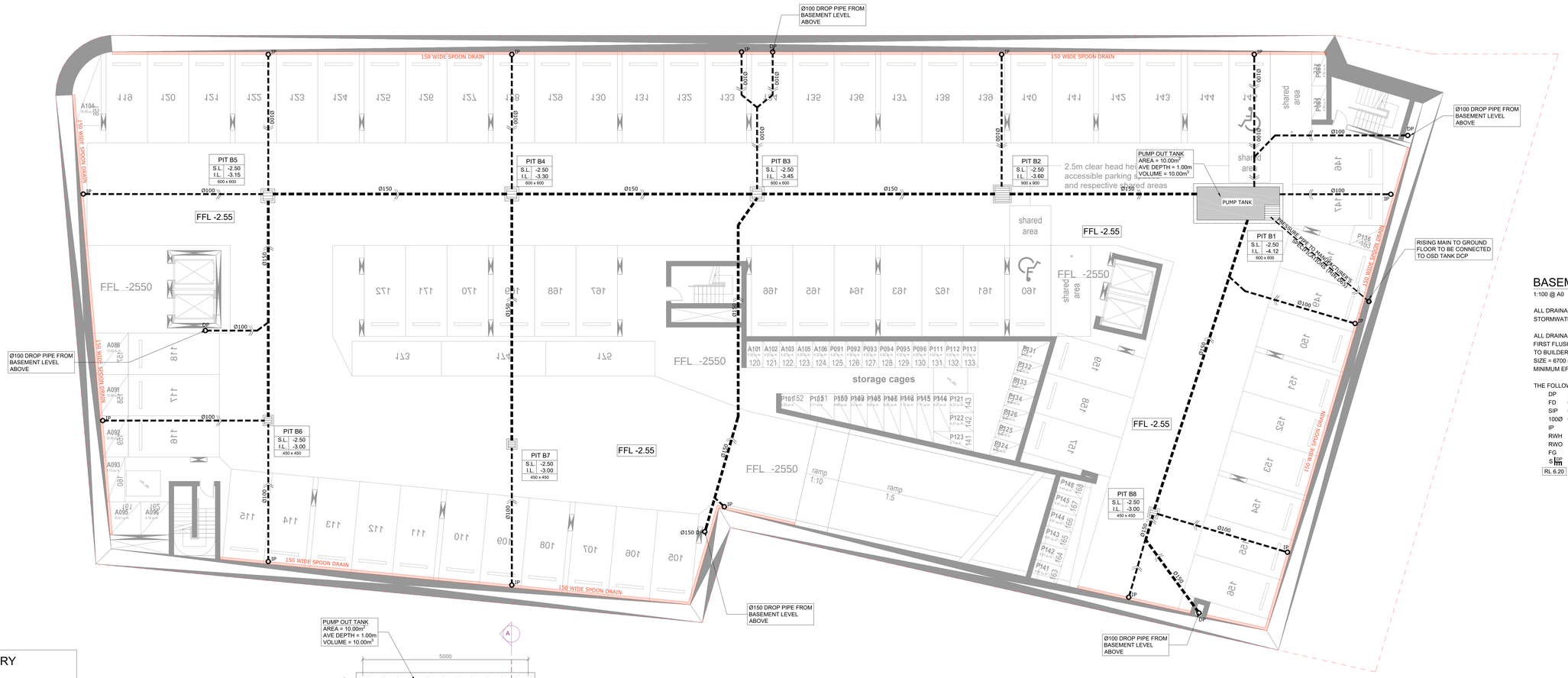
DRAWING TITLE

SEDIMENT AND EROSION CONTROL PLAN

SCALES	DESIGNED	DRAFTED
AS SHOWN	SG	NL
DRAWING NO.	APPROVED	REVISION
A20219 - SW01	JM	F

LEGENDS

- - -	Ø150 uPVC PIPE TO PIT/TANK UNO
	150mm WIDE SPOON DRAIN



BASEMENT 4 DRAINAGE PLAN

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ALL DRAINAGE LINES SHALL BE UPVC (CLASS SH) STORMWATER DRAINAGE PIPE, UNO.

ALL DRAINAGE LINES SHALL BE LAID @ 1% FALL MIN, UNO.
FIRST FLUSH RAINWATER DEVICES TO BE FITTED TO DRAINAGE LINES TO BUILDER'S DETAIL, TYPICAL MINIMUM EFFECTIVE EAVES GUTTER SIZE = 6700 mm²
MINIMUM EFFECTIVE EAVES GUTTER SLOPE = 1:500

THE FOLLOWING SYMBOLS & ABBREVIATIONS HAVE BEEN USED:

DP	= Ø100, UNO.
FD	= FLOOR OUTLET , REFER TO DETAIL
SIP	= SURFACE INLET PIT (NO LINTEL)
100Ø	= Ø100 CHARGED LINE
IP	= Ø150 INSPECTION POINT
RWH	= RAIN WATER HEAD
RWO	= RAIN WATER OUTLET (300 x 300)
FG	= FLOOR GULLY Ø150
S	= RAINWATER SPREADER
RL 6.20	= PROPOSED FINISHED SURFACE LEVEL

PUMP DESIGN SUMMARY

CATCHMENT AREA = 0.00 m²
(DRIVEWAY RAMP COVERED BY UPPER FLOORS)

SEEPAGE = 2.5ML/YEAR/Ha = 6.85 m³/Ha
SEEPAGE = AREA x 6.85m³ = 0.2869 x 6.85 = 1.97 m³

TOTAL PUMP-OUT TANK REQUIRED = 1.97m³
PUMP OUT TANK VOLUME MUST BE 3.00m³ MINIMUM.
VOLUME PROVIDED = 10.00m³

DISCHARGE RATE CALCULATED BASED ON 50m² CATCHMENT ASSUMPTION

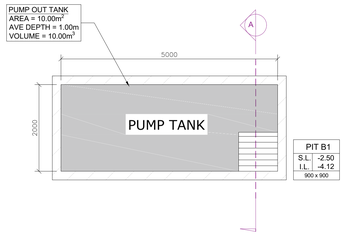
PUMP HEAD = 13 m
RAINFALL INTENSITY FOR CALCULATIONS = 100 YEAR ARI
STORM DURATION 5 MINUTE = 215 mm/h
PUMP RATE REQUIRED = 215 x 50 / 3600 = 3L/s = 180L/min

2 x SABER KS-20 SUBMERSIBLE PUMPS (OR APPROVED EQUIVALENT) PUMPS TO BE USED

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 ALTERNATIVELY 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

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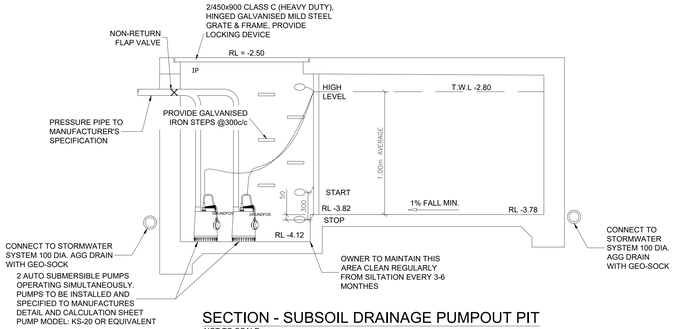
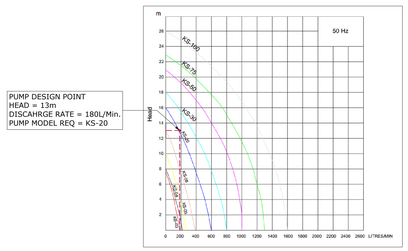


SECTION - SUBSOIL DRAINAGE PUMPOUT PIT

NOT TO SCALE

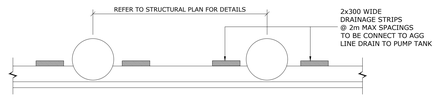


PUMP DESIGN POINT
HEAD = 13m
DISCAHRGE RATE = 180L/Min.
PUMP MODEL REQ = KS-20

MODEL NO.	OUTPUT		DISCHARGE		RATED		MAXIMUM		WEIGHT	DIMENSION
	HP	kW	mm	INCH	HEAD	CAPACITY	HEAD	CAPACITY		
					m	LPM	m	LPM	kg	L X W X H (mm)
KS-03	1/3	0.25	40	1 1/2"	3	130	8	180	9	188 X 141 X 305
KS-04	1/2	0.4	50	2"	5	150	8	220	11	208 X 140 X 359
KS-05	1/2	0.4	50	2"	5	160	10	260	14	230 X 156 X 375
KS-10	1	0.75	50 (80)	2"(3")	6	240	13	380	21	290 X 180 X 425
KS-20	2	1.5	80	3"	10	300	16	600	31	278 X 182 X 475
KS-30	3	2.2	80	3"	10	500	18	800	42	390 X 250 X 450
KS-50	5	3.7	100	4"	10	800	21	1100	48	450 X 240 X 530
KS-75	7.5	5.6	100	4"	15	800	23	1300	60	550 X 310 X 590
KS-100	10	7.5	150	6"	18	900	26	1600	70	550 X 310 X 610

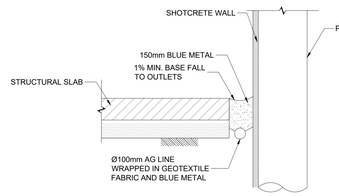
SABRE PUMP GRAPH & SPECIFICATION

NTS



SECTION - TYPICAL SHOTCRETE WALL DRAINAGE

NTS



SPOON DRAIN DETAILS

DETAIL - CONFINED SPACE SIGN

NTS

ISSUED FOR DA APPROVAL

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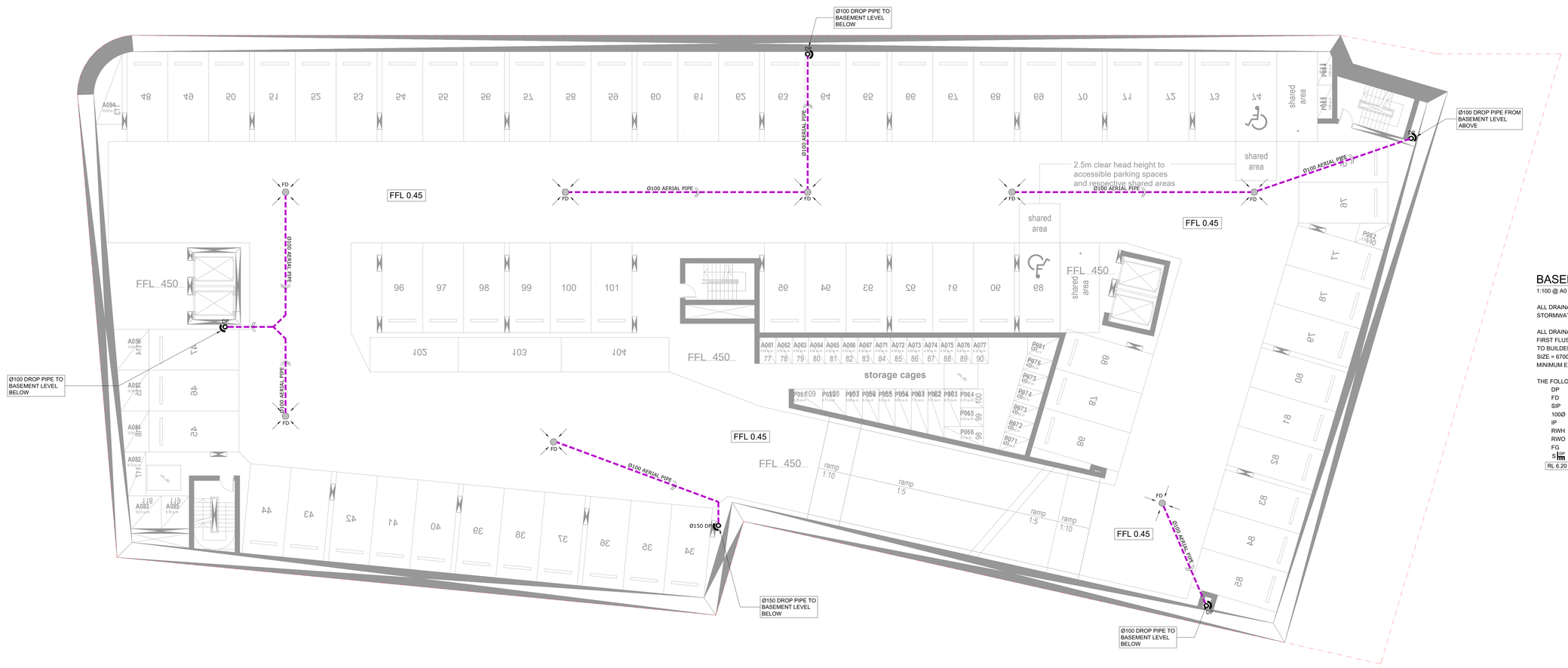
PROJECT

PROPOSED DEVELOPMENT
11-13 ALBERT ROAD &
2-6 PILGRIM AVENUE,
STRATHFIELD

DRAWING TITLE

BASEMENT 4 DRAINAGE PLAN

SCALES	DESIGNED	DRAFTED
AS SHOWN	SG	NL
DRAWING NO.	APPROVED	REVISION
A20219 - SW02	JM	F



BASEMENT 3 DRAINAGE PLAN

1:100 @ A0

ALL DRAINAGE LINES SHALL BE UPVC (CLASS SH)
STORMWATER DRAINAGE PIPE, UNO.

ALL DRAINAGE LINES SHALL BE LAID @ 1% FALL MIN, UNO.
FIRST FLUSH RAINWATER DEVICES TO BE FITTED TO DRAINAGE LINES TO BUILDER'S DETAIL, TYPICAL MINIMUM EFFECTIVE EAVES GUTTER SIZE = 6700 mm²
MINIMUM EFFECTIVE EAVES GUTTER SLOPE = 1:500

THE FOLLOWING SYMBOLS & ABBREVIATIONS HAVE BEEN USED:

DP	= Ø100, UNO.
FD	= FLOOR OUTLET , REFER TO DETAIL
SIP	= SURFACE INLET PIT (NO LINTEL)
100Ø	= Ø100 PIPE CHARGED LINE
IP	= Ø150 AERIAL PIPE INSPECTION POINT
RWH	= RAIN WATER HEAD
RWO	= RAIN WATER OUTLET (300 x 300)
FG	= FLOOR GULLY Ø150 AERIAL PIPE
S	= RAINWATER SPREADER
RL 6.20	= PROPOSED FINISHED SURFACE LEVEL

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REVISION	AMENDMENT	ISSUE DATE
F	ISSUED FOR DA APPROVAL	18-06-2021
E	ISSUED FOR DA APPROVAL	16-06-2021
D	ISSUED FOR DA APPROVAL	03-06-2021
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A	ISSUED FOR COORDINATION	23-11-2020

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Fax: (02) 8004 7461
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Address: 16 Railway Parade, Burwood NSW 2134
Website: www.alphaengineering.com.au

ARCHITECT
KENNEDY ASSOCIATES ARCHITECTS

PROJECT
PROPOSED DEVELOPMENT
11-13 ALBERT ROAD &
2-6 PILGRIM AVENUE,
STRATHFIELD

DRAWING TITLE
BASEMENT 3 DRAINAGE PLAN

SCALES	DESIGNED	DRAFTED
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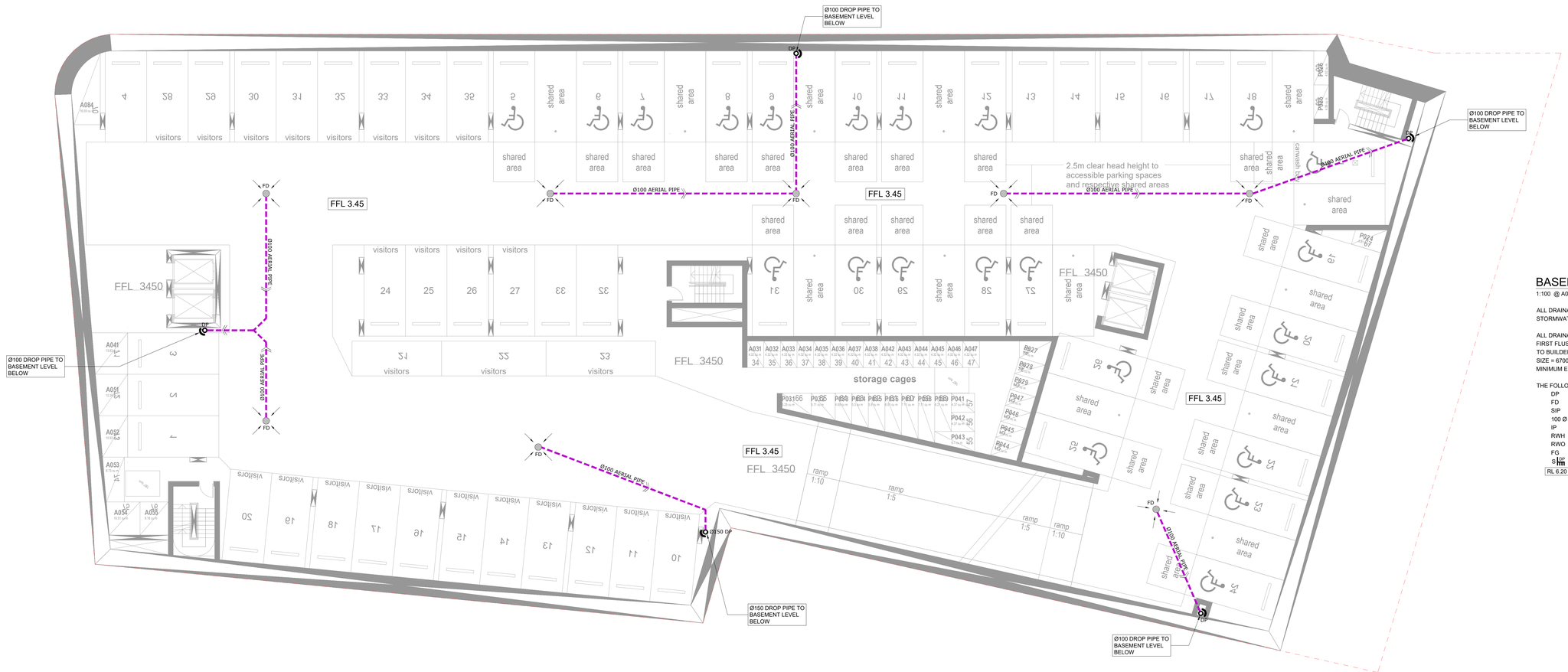
A20219 - SW03	JM	F



BASEMENT 2 DRAINAGE PLAN

1:100 @ A0

ALL DRAINAGE LINES SHALL BE UPVC (CLASS SH)
STORMWATER DRAINAGE PIPE, UNO.

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MINIMUM EFFECTIVE EAVES GUTTER SLOPE = 1:500

THE FOLLOWING SYMBOLS & ABBREVIATIONS HAVE BEEN USED:

DP	= Ø100, UNO.
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RWH	= RAIN WATER HEAD
RWO	= RAIN WATER OUTLET (300 x 300)
FG	= FLOOR GULLY Ø150 AERIAL PIPE
S	= RAINWATER SPREADER
RL 6.20	= PROPOSED FINISHED SURFACE LEVEL

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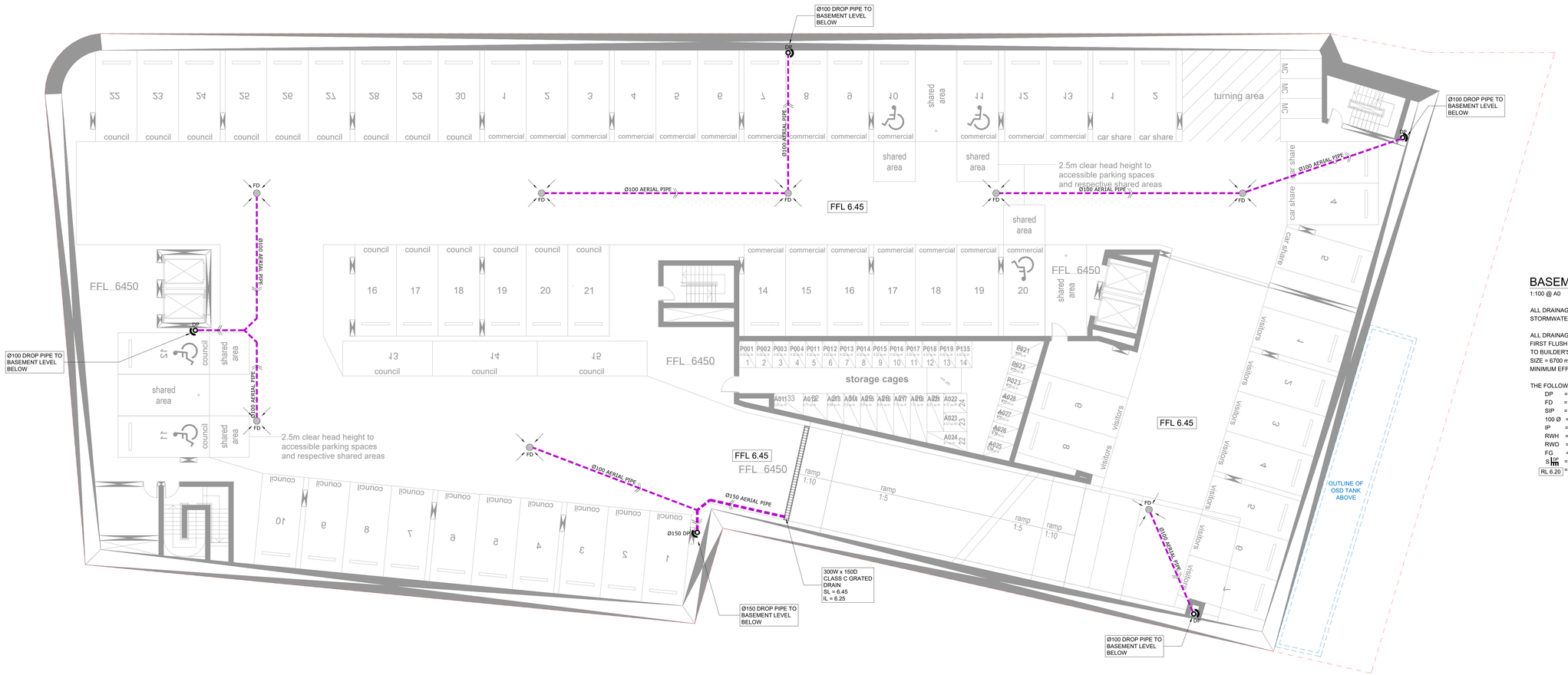
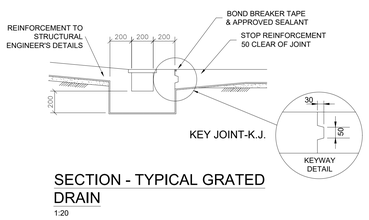
PROJECT
PROPOSED DEVELOPMENT
11-13 ALBERT ROAD &
2-6 PILGRIM AVENUE,
STRATHFIELD

DRAWING TITLE
BASEMENT 2 DRAINAGE PLAN

SCALES	DESIGNED	DRAFTED
AS SHOWN	SG	NL
DRAWING NO.	APPROVED	REVISION
A20219 - SW04	JM	F





SECTION - TYPICAL GRATED DRAIN
1:20

BASEMENT 1 DRAINAGE PLAN
1:100 @ A0

ALL DRAINAGE LINES SHALL BE UPVC (CLASS SH)
STORMWATER DRAINAGE PIPE, UNO.

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FIRST FLUSH RAINWATER DEVICES TO BE FITTED TO DRAINAGE LINES TO BUILDER'S DETAIL, TYPICAL MINIMUM EFFECTIVE EAVES GUTTER SIZE = 6700 mm²
MINIMUM EFFECTIVE EAVES GUTTER SLOPE = 1:500

THE FOLLOWING SYMBOLS & ABBREVIATIONS HAVE BEEN USED:

DP	= Ø100 , UNO.
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RWH	= RAIN WATER HEAD
RWO	= RAIN WATER OUTLET (300 x 300)
FG	= FLOOR GULLY Ø150 AERIAL PIPE
S	= RAINWATER SPREADER
RL 6.20	= PROPOSED FINISHED SURFACE LEVEL

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11-13 ALBERT ROAD &
2-6 PILGRIM AVENUE,
STRATHFIELD

DRAWING TITLE
BASEMENT 1 DRAINAGE PLAN

SCALES	DESIGNED	DRAFTED
AS SHOWN	SG	NL
DRAWING NO.	APPROVED	REVISION
A20219 - SW05	JM	F

EXISTING KERB INLET PIT
TK = 9.06
GRATE SL = 8.91
PIPE CONNECTION IL = 8.42
PIT IL = 8.36 (400mm DEEP PIT)
(EXACT LEVEL TO BE DETERMINED PRIOR TO CC STAGE)

EXISTING COUNCIL Ø300

IL 8.51
HR 2.06m

Ø300 @ 0.5% SLOPE STRAPPED TO WALL

1.75m to invert

PIT JP2
S.L. 10.425
I.L. 8.50
900 x 900

Ø100

FD

FFL 10425

FFL 9380

FFL 9440

Unit P004
1 bed - type 1.11
Area: 54.68 sq m
POS: 16.76 sq m

Unit P003
1 bed - type 1.11
Area: 55.41 sq m
POS: 17.83 sq m

Unit P002
2 bed - type 2.17
Area: 79.53 sq m
POS: 21.16 sq m

Unit P001
2 bed - type 1.10
Area: 71.87 sq m
POS: 24.5 sq m

letterboxes

100mm rise @ 1:50

fire booster

OUTLINE OF BASEMENTS BELOW

OUTLINE OF ROOF ABOVE

ramp 1:20

FFL 9540

substation

IL 8.94
HR 2.49m

Ø225 DROP PIPE FROM LEVEL 1 ABOVE

FFL 10460

Ø225 DP

RISING MAIN FROM PUMP OUT TANK ON BASEMENT FLOOR

waste room A
(17 x 660L bins)

roller door

bin room commercial

bulky waste
(70sq m)

plant

waste room C
(15 x 660L bins)

Ø100 AERIAL

mezzanine fire escape above shown dotted

presentation recycling
(86 x 240L bins)

Ø150 AERIAL

Ø225 AERIAL

loading dock

presentation waste
(32 x 660L bins)

PIT JP
S.L. 10.415
I.L. 9.00
900 x 900

DCP
S.L. 10.460
C.L. 9.15
I.L. 8.95
900 x 900

ENSURE PIPE TO MANUFACTURERS SPECIFICATIONS (MIN 450)

OSD TANK
AREA = 48.4m²
TWL = 10.10
MAX DEPTH = 0.95m
AVG DEPTH = 0.85m
VOL REQ. = 41.00m³
VOL PROV. = 41.14m³

FILTER CHAMBER WEIR
2.4m LENGTH
RL 9.99

FILTER CHAMBER
WIDTH = 2.4m
LENGTH = 7m
PROVIDE 21 x 460 PSORB FILTER CARTRIDGES
AREA = 16.8m²

FFL 10460

bicycle parking (66 spaces)

wc

sprinkler plant room

fire pump room

ramp 1:5

ramp 1:10

ramp 1:20

OUTLINE OF BASEMENTS BELOW

OUTLINE OF ROOF ABOVE

PILGRIM AVENUE

ALBERT ROAD

LOT 2 D.P. 862623

D.P. 807807 LOT 100

DESIGN SUMMARY - DRAINS MODEL

TOTAL SITE AREA = 2869 m²
DRAINS MODEL HAS BEEN PREPARED FOR CALCULATION OF PRE & POST DEVELOPMENT FLOWS, USING ILSAX METHOD

PRE - DEVELOPMENT
EXISTING IMPERVIOUS AREA = 1577.95m² (55%)
EXISTING PERVIOUS AREA = 1291.05m² (45%)

POST - DEVELOPMENT
POST - DEVELOPMENT IMPERVIOUS TO OSD = 2869 m² (100%)
POST - DEVELOPMENT PERVIOUS TO OSD = 0.00 m² (0%)
BYPASS AREA TO OSD = 0 m² (0%)

OSD VOLUME REQUIRED = 41.00m³
OSD VOLUME PROVIDED = 41.14m³

SUMMARY OF CALCULATION

	PRE-DEVELOPMENT FLOW (L/S)	POST-DEVELOPMENT FLOW (L/S)		
AEP STORM	EXISTING	OSD	OVERFLOW	TOTAL
50% (~2YR ARI)	49.0	49.00	0	49
10% (~10YR ARI)	92	68	0	68
1% (~100YR ARI)	133	82	0	82

GROUND FLOOR DRAINAGE PLAN

1:100 @ A0

ALL DRAINAGE LINES SHALL BE UPVC (CLASS SH) STORMWATER DRAINAGE PIPE, UNO.

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FIRST FLUSH RAINWATER DEVICES TO BE FITTED TO DRAINAGE LINES TO BUILDER'S DETAIL, TYPICAL MINIMUM EFFECTIVE EAVES GUTTER SIZE = 6700 mm²
MINIMUM EFFECTIVE EAVES GUTTER SLOPE = 1:500

THE FOLLOWING SYMBOLS & ABBREVIATIONS HAVE BEEN USED:
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SIP = SURFACE INLET PIT (NO LINTEL)
100Ø = Ø100 CHARGED LINE
IP = Ø150 INSPECTION POINT
RWH = RAIN WATER HEAD
RWO = RAIN WATER OUTLET (300 x 300)
FG = FLOOR GULLY Ø150
S = RAINWATER SPREADER
RL 6.20 = PROPOSED FINISHED SURFACE LEVEL

LEGEND

	Ø150 uPVC AERIAL PIPE UNO
	Ø150 uPVC PIPE TO PIT/OSD UNO
	Ø300 AERIAL PIPE FROM OSD TANK TO PIT JP2 @ 0.5% SLOPE MINIMUM
	EXISTING COUNCIL Ø300 PIPE
	OUTLINE OF BASEMENT BELOW
	OUTLINE OF ROOF AND FLOORS ABOVE

NOTES:
- UPPER FLOORS AND ROOF TO BE DETAILED PRIOR TO CC
- ALL DOWNPIPE LOCATIONS ARE TENTATIVE AND ARE TO BE FINALISED PRIOR TO CC

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2-6 PILGRIM AVENUE,
STRATHFIELD

DRAWING TITLE
GROUND FLOOR DRAINAGE PLAN

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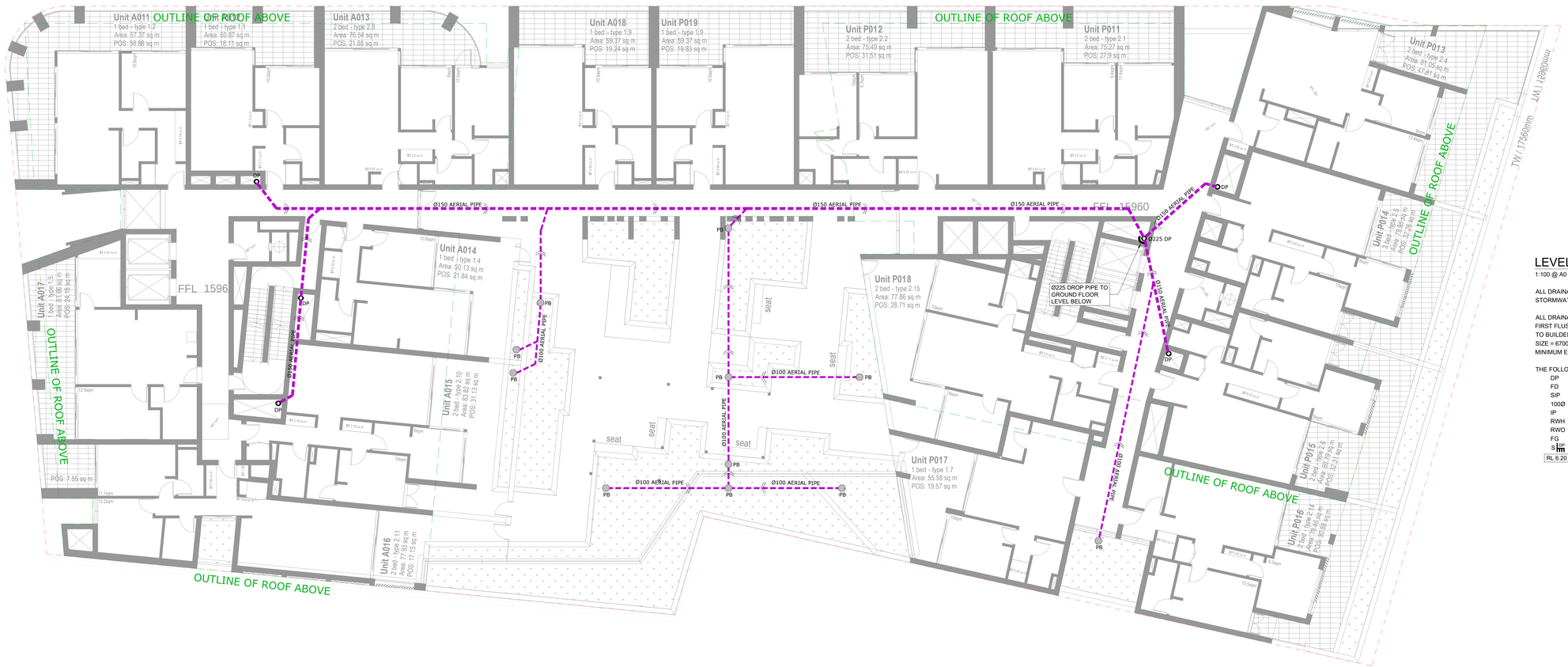
A20219 - SW06	JM	F



LEVEL 1 DRAINAGE PLAN

1:100 @ A0

ALL DRAINAGE LINES SHALL BE UPVC (CLASS SH)
STORMWATER DRAINAGE PIPE, UNO.

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IP	= Ø150 INSPECTION POINT
RWH	= RAIN WATER HEAD
RWO	= RAIN WATER OUTLET (300 x 300)
FG	= FLOOR GULLY Ø150
S	= RAINWATER SPREADER
RL 6.20	= PROPOSED FINISHED SURFACE LEVEL

LEGEND	
	Ø150 uPVC AERIAL PIPE UNO
	OUTLINE OF ROOF ABOVE

NOTES:

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- ALL DOWNPIPE LOCATIONS ARE TENTATIVE AND ARE TO BE FINALISED PRIOR TO CC

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DRAWING TITLE
LEVEL 1 DRAINAGE PLAN

SCALES	DESIGNED	DRAFTED
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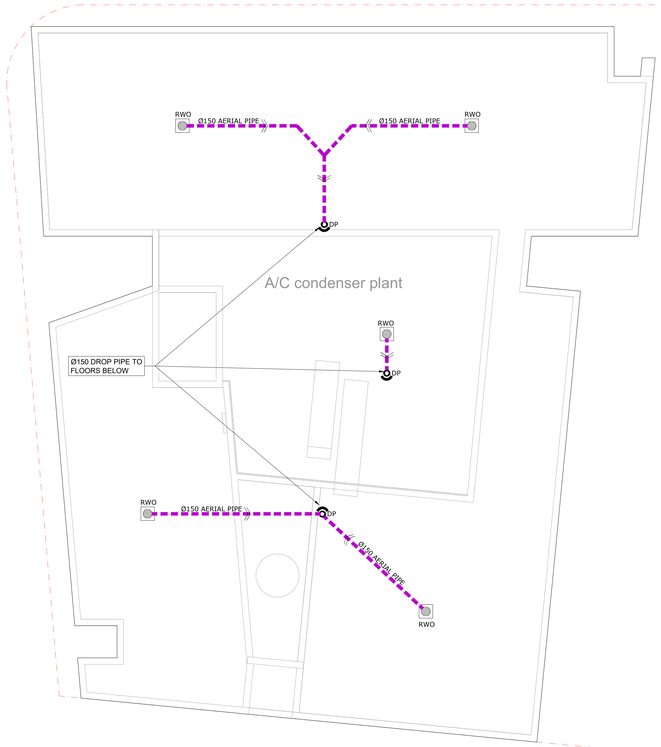
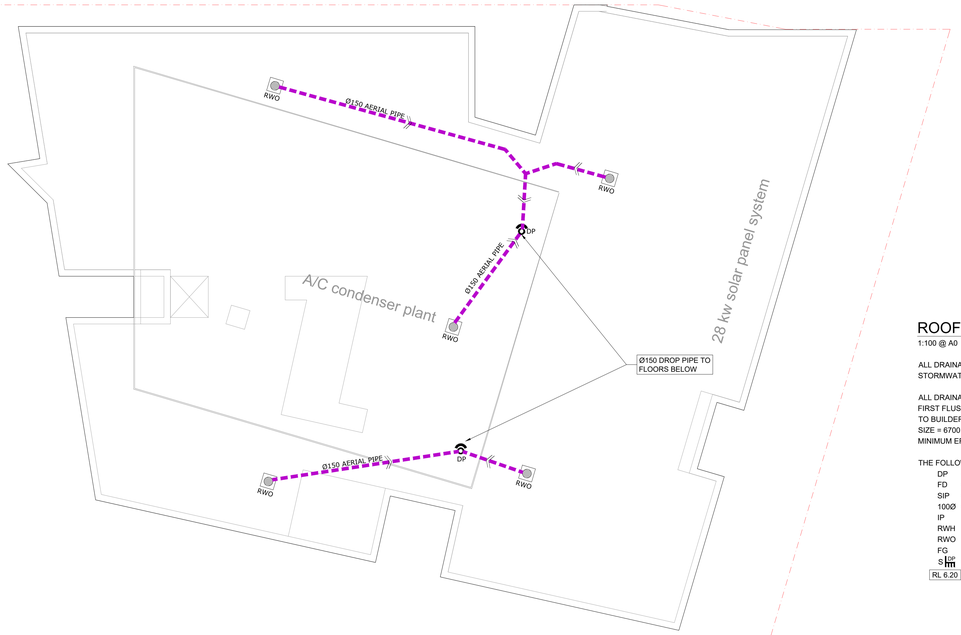
A20219 - SW07	JM	F





ROOF DRAINAGE PLAN

1:100 @ A0

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STORMWATER DRAINAGE PIPE, UNO.

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FIRST FLUSH RAINWATER DEVICES TO BE FITTED TO DRAINAGE LINES
TO BUILDER'S DETAIL, TYPICAL MINIMUM EFFECTIVE EAVES GUTTER
SIZE = 6700 mm²
MINIMUM EFFECTIVE EAVES GUTTER SLOPE = 1:500

THE FOLLOWING SYMBOLS & ABBREVIATIONS HAVE BEEN USED:

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IP	= Ø150 INSPECTION POINT
RWH	= RAIN WATER HEAD
RWO	= RAIN WATER OUTLET (300 x 300)
FG	= FLOOR GULLY Ø150
SP	= RAINWATER SPREADER
RL 6.20	= PROPOSED FINISHED SURFACE LEVEL

LEGEND	
	Ø150 uPVC AERIAL PIPE UNO

NOTES:

- UPPER FLOORS AND ROOF TO BE DETAILED PRIOR TO CC
- ALL DOWNPIPE LOCATIONS ARE TENTATIVE AND ARE TO BE FINALISED PRIOR TO CC

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2-6 PILGRIM AVENUE,
STRATHFIELD

DRAWING TITLE
ROOF DRAINAGE PLAN

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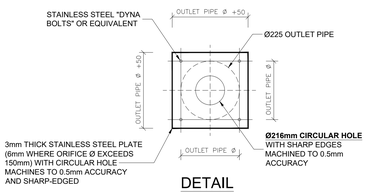
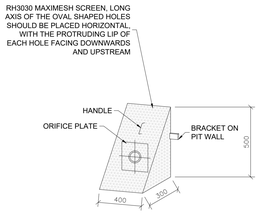
A20219 - SW08	JM	F



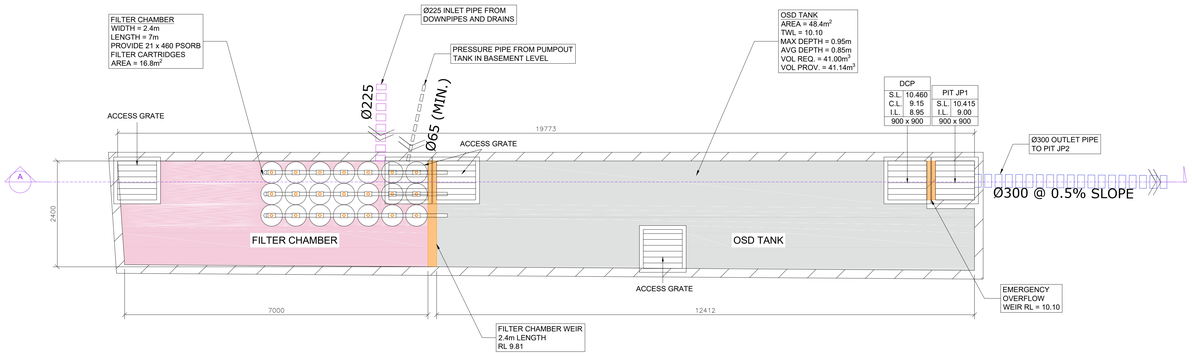
DETAIL
ORIFICE PLATE
1:10

DETAIL - CONFINED SPACE SIGN
NTS
SIGNAGE TO BE AFFIXED BENEATH EACH ACCESS GRATE OF THE OSD TANK AND PUMP OUT TANK

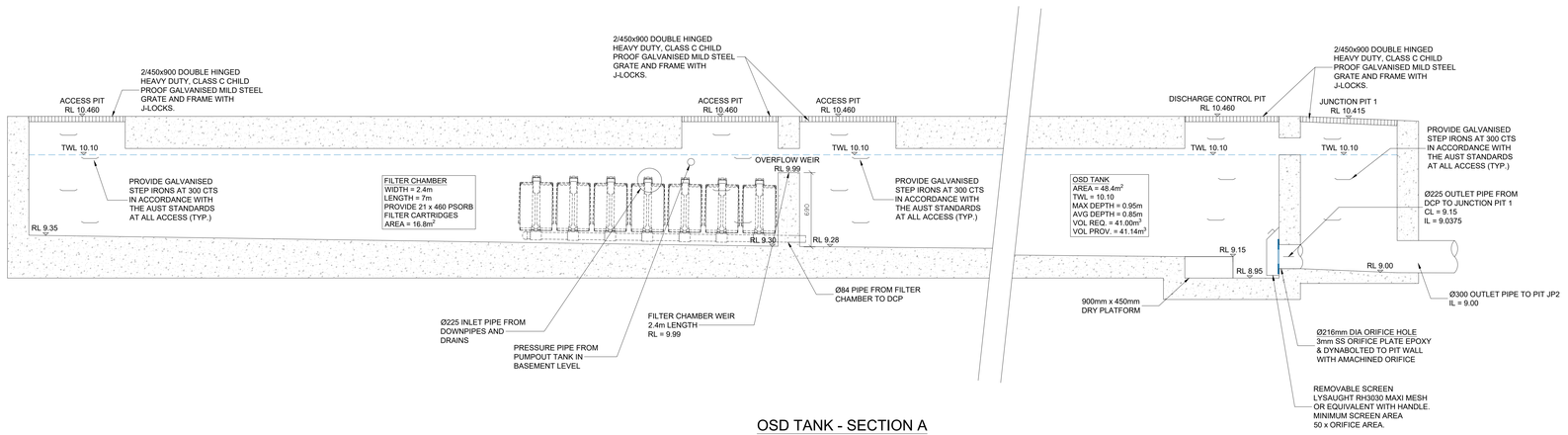
OSD SIGN
NTS
SIGNAGE TO BE AFFIXED IN A VISIBLE SPOT ABOVE OR NEAR THE DCP OF THE OSD TANK



DETAIL - STANDARD TRASH SCREEN
1:20

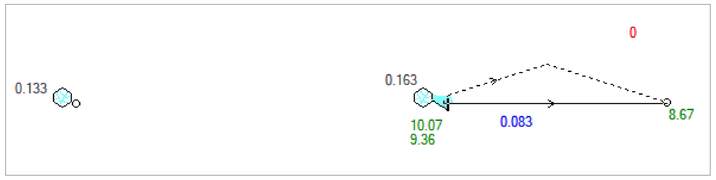


OSD TANK - PLAN
1:50 @ A0

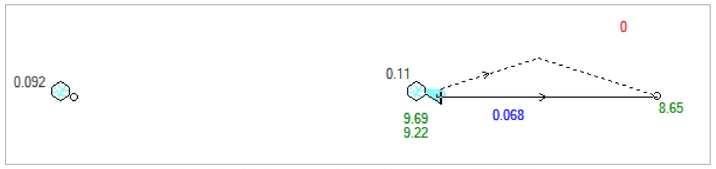


OSD TANK - SECTION A
1:20 @ A0

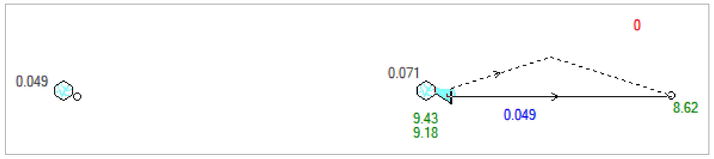
DRAINS MODEL ANALYSIS - LAYOUT
NTS



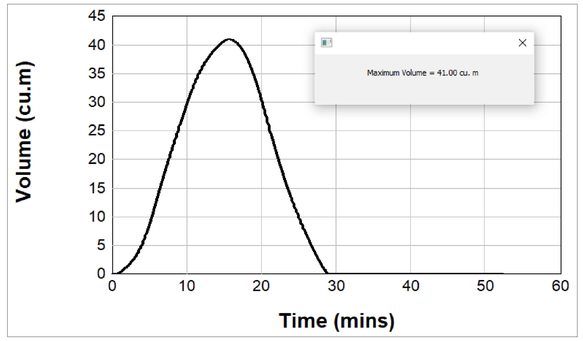
DRAINS MODEL ANALYSIS - 1% AEP (100 YEAR ARI)
NTS



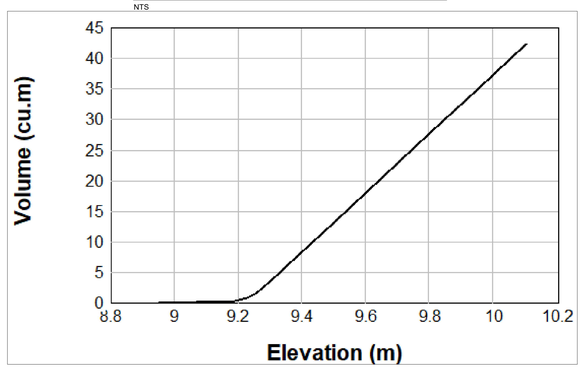
DRAINS MODEL ANALYSIS - 10% AEP (10 YEAR ARI)
NTS



DRAINS MODEL ANALYSIS - 50% AEP (2 YEAR ARI)
NTS



DRAINS MODEL - INFLOW VOLUME GRAPH
NTS



DRAINS MODEL - STORAGE VS ELEVATION GRAPH
NTS

DESIGN SUMMARY - DRAINS MODEL

TOTAL SITE AREA = 2869 m²
DRAINS MODEL HAS BEEN PREPARED FOR CALCULATION OF PRE & POST DEVELOPMENT FLOWS, USING ILSAX METHOD

PRE - DEVELOPMENT
EXISTING IMPERVIOUS AREA = 1577.95m² (55%)
EXISTING PERVIOUS AREA = 1291.05m² (45%)

POST - DEVELOPMENT
POST - DEVELOPMENT IMPERVIOUS TO OSD = 2869 m² (100%)
POST - DEVELOPMENT PERVIOUS TO OSD = 0.00 m² (0%)
BYPASS AREA TO OSD = 0 m² (0%)

OSD VOLUME REQUIRED = 41.00m³
OSD VOLUME PROVIDED = 41.14m³

SUMMARY OF CALCULATION

	PRE-DEVELOPMENT FLOW (L/S)	POST-DEVELOPMENT FLOW (L/S)		
AEP STORM	EXISTING	OSD	OVERFLOW	TOTAL
50% (~2YR ARI)	49.0	49.00	0	49
10% (~10YR ARI)	92	68	0	68
1% (~100YR ARI)	133	82	0	82

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ISSUED FOR DA APPROVAL

REVISION	AMENDMENT	ISSUE DATE
F	ISSUED FOR DA APPROVAL	18-06-2021
E	ISSUED FOR DA APPROVAL	16-06-2021
D	ISSUED FOR DA APPROVAL	03-06-2021
C	ISSUED FOR DA APPROVAL	26-05-2021
B	ISSUED FOR DA APPROVAL	07-12-2020
A	ISSUED FOR COORDINATION	23-11-2020

ALPHA ENGINEERING & DEVELOPMENT

Phone: (02) 9745 5202
Fax: (02) 8004 7461
Email: Info@alphaengineering.com.au
Address: 16 Railway Parade, Burwood NSW 2134
Website: www.alphaengineering.com.au

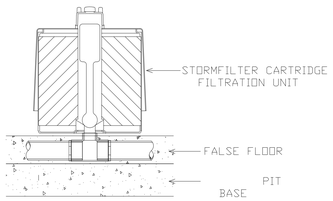
ARCHITECT
KENNEDY ASSOCIATES ARCHITECTS

PROJECT
PROPOSED DEVELOPMENT
11-13 ALBERT ROAD &
2-6 PILGRIM AVENUE,
STRATHFIELD

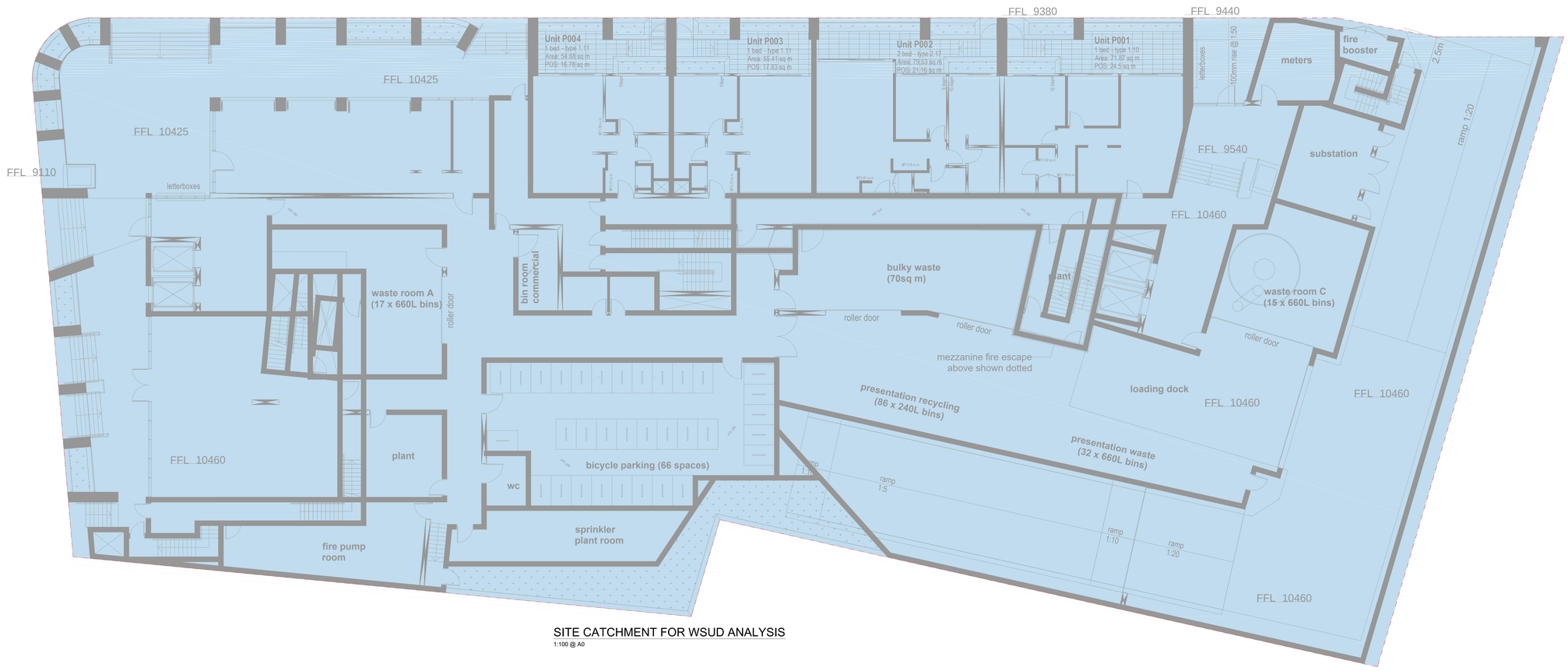
DRAWING TITLE
OSD SECTIONS AND DETAILS & DRAINS MODEL ANALYSIS

SCALES	DESIGNED	DRAFTED
AS SHOWN	SG	NL
DRAWING NO.	APPROVED	REVISION
A20219 - SW09	JM	F

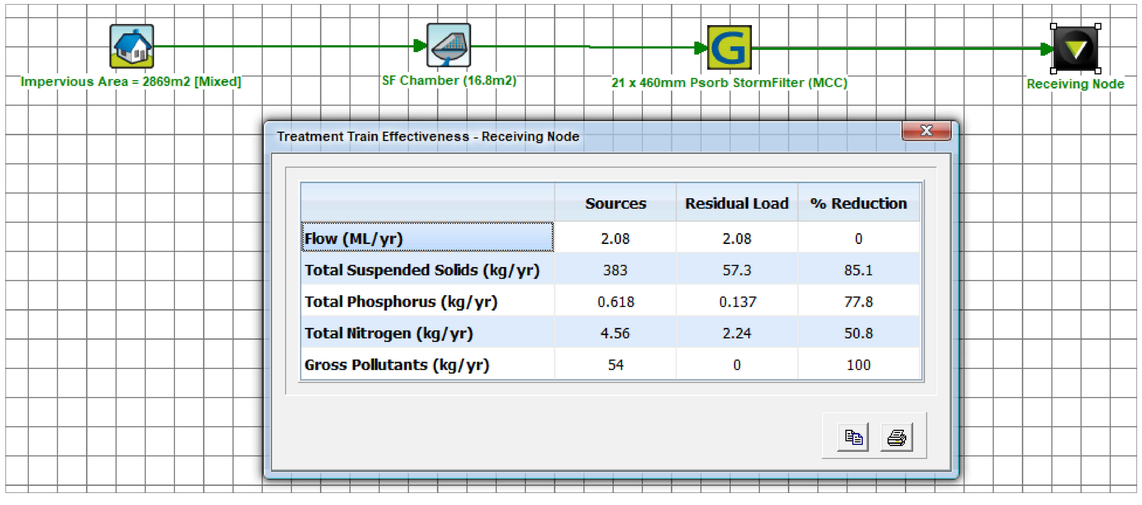
WSUD LEGEND
IMPERVIOUS AREA TO FILTRATION SYSTEM = 2869m²



STORMFILTER CARTRIDGE DETAIL



SITE CATCHMENT FOR WSUD ANALYSIS
1:100 @ A0



WSUD ANALYSIS - MUSIC MODEL
NTS

WSUD TARGET REQUIREMENTS			
	TARGET REDUCTION	ACHIEVED REDUCTION	REQUIREMENT ACHIEVED?
TOTAL SUSPENDED SOLIDS (kg/yr)	85	85	YES
TOTAL PHOSPHORUS (kg/yr)	60	77.8	YES
TOTAL NITROGEN (kg/yr)	45	50	YES
GROSS POLLUTANTS (kg/yr)	100	100	YES

PROVIDE 16.8m² FILTER CHAMBER WITH 21 x 460PSORB FILTER CARTRIDGES FROM OCEAN PROTECT.

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