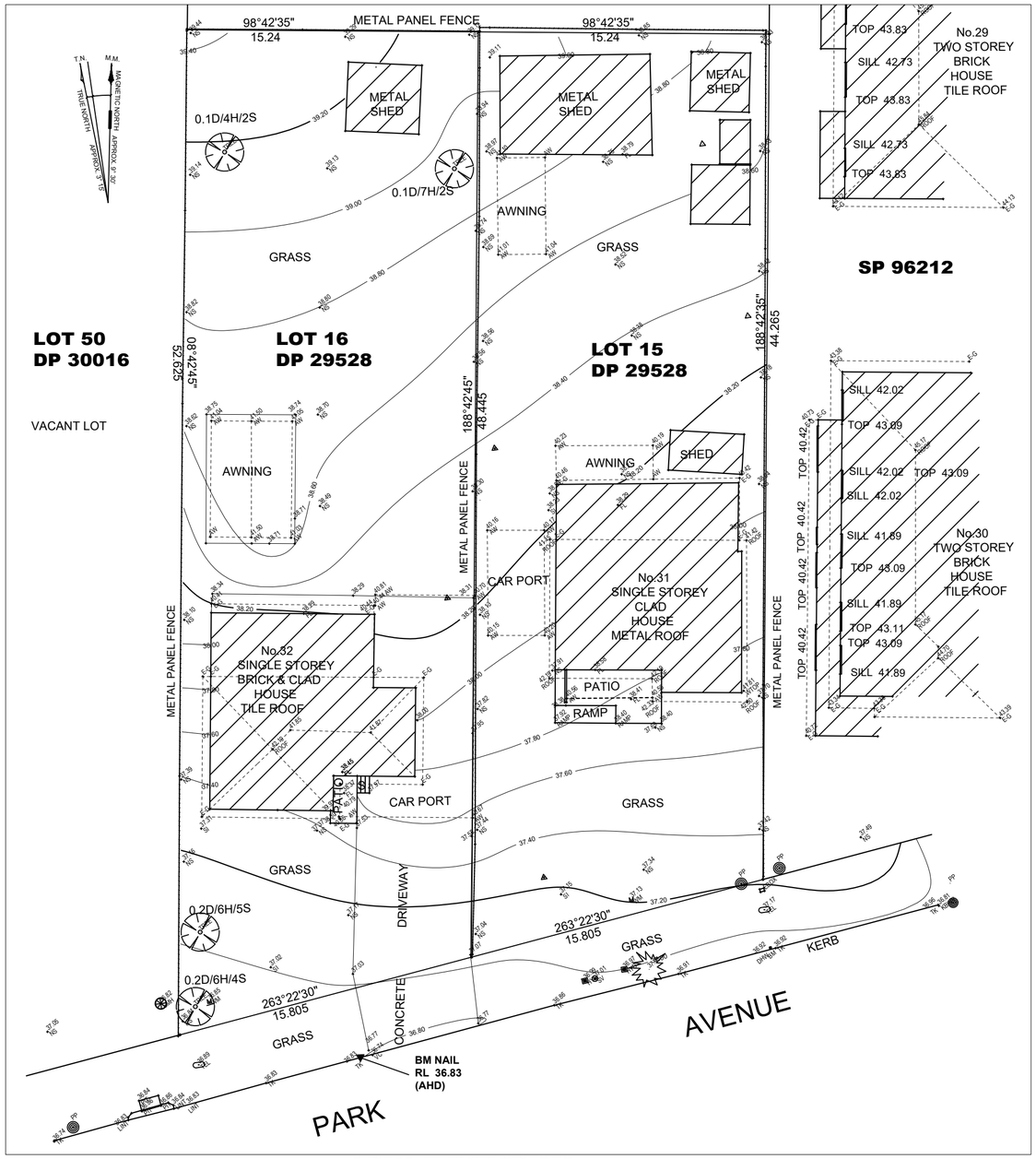
A2 SHEET NO. 01_DWG NO.SW-2011A-DA-01_SURVEY, LOCALITY PLAN & DRAWING SCHEDULE

STORMWATER MANAGEMENT PLAN

SITE - LOTS 15-16 DP 29528 - 31-32 PARK AVENUE, KINGSWOOD



SURVEY PLAN

SCALE 1:150 [SURVEY BY OTHERS]

SCALES

1 0.5 0 1 2 3 4 5m 1 : 100 @ A2

2 1 0 2 4 6 8 10m 1 : 200 @ A3

SURVEY & UTILITY SERVICES NOTES:

1. SURVEY DATA PROVIDED BY OTHERS. MPC TAKES NO RESPONSIBILITY ON THE ACCURACY OF THE LEVELS & DETAILS SHOWN.
2. ALL SERVICES AS SHOWN ON THIS PLAN ARE APPROXIMATE ONLY BY SURVEY. EXACT LOCATION SHALL BE ACCURATELY LOCATED BY CONTACTING DIAL BEFORE YOU DIG OR THE RELEVANT UTILITY PROVIDER BEFORE COMMENCING ANY EXCAVATION OR BUILDING WORKS.
3. ALL WORKS UNDERTAKEN WITHIN THE ROAD RESERVE / CARRIAGEWAY SHALL HAVE PRIOR APPROVAL FROM THE RELEVANT ROAD AUTHORITY, PRIOR TO COMMENCING WORKS.
4. ALL SURVEY LEVELS TO AUSTRALIAN HEIGHT DATUM - mAHD

STORMWATER DRAWING SCHEDULE		
SHEET No.	**DRAWING NUMBER**	**TITLE**
01	SW-2011A-DA-01	SURVEY, LOCALITY PLAN & DRAWING SCHEDULE
02	SW-2011A-DA-02	CONCEPT STORMWATER DRAINAGE PLAN
03	SW-2011A-DA-03	STORMWATER CATCHMENT PLAN
04	SW-2011A-DA-04	OSD DETAILS & CALCULATIONS
05	SW-2011A-DA-05	WATER SENSITIVE URBAN DESIGN DETAILS
06	SW-2011A-DA-06	BASEMENT LEVEL DRAINAGE PLAN
07	SW-2011A-DA-07	PUMPOUT DRAINAGE DETAILS & CALCULATIONS
08	SW-2011A-DA-08	EROSION AND SEDIMENT CONTROL PLAN

LOCALITY PLAN

GOOGLE MAP - NOT TO SCALE

www.dialbeforeyoudig.com.au DIAL 1100 BEFORE YOU DIG

PENRITH CITY COUNCIL

MULTIPRO CONSULTANTS PTY LTD
PO BOX 5468
GREYSTANES NSW 2145
M: 0419 242 726
E: zulfik@bigpond.com
www.multiproconsultant.com.au
ABN: 57615352540

APPROVED BY:
ZULFIQAR KHAN
MIEAust, NER (# 2500471)
Accredited Certifier
(Civil & Structural) (BPB2925)
SIGNED:

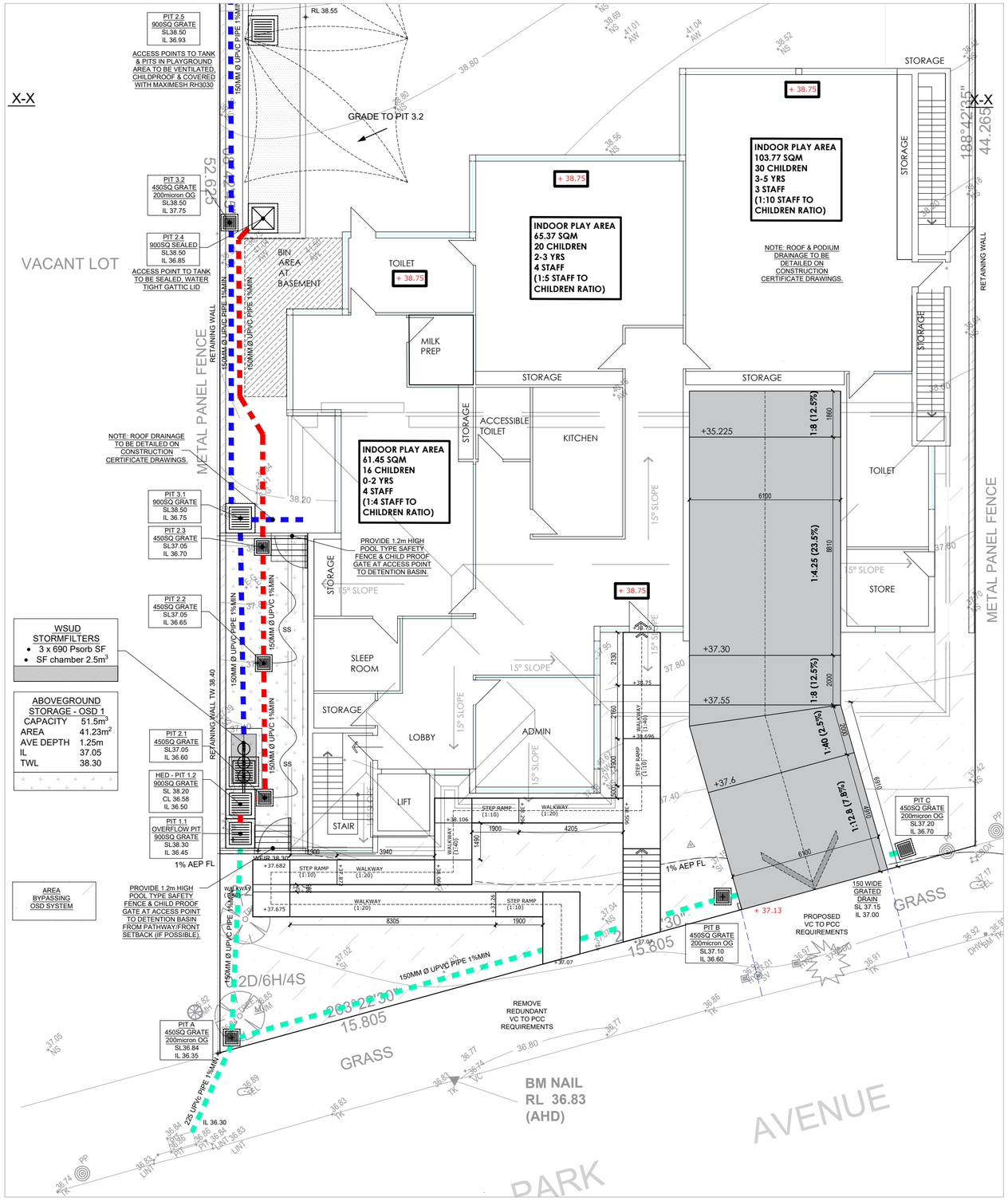
PROJECT :	31-32 PARK AVENUE, KINGSWOOD	APPLICANT/CLIENT:	ARCHIDROME
TITLE :	SURVEY, LOCALITY PLAN & DRAWING SCHEDULE	ARCHITECT:	ARCHIDROME
DESIGN BY: MPC	SCALE: 1:100 or As Shown	FILE: JOB 21-165	
CHECKED BY: Z KHAN	SHEET: 1 OF 8	DATE: 20 AUGUST 2021	

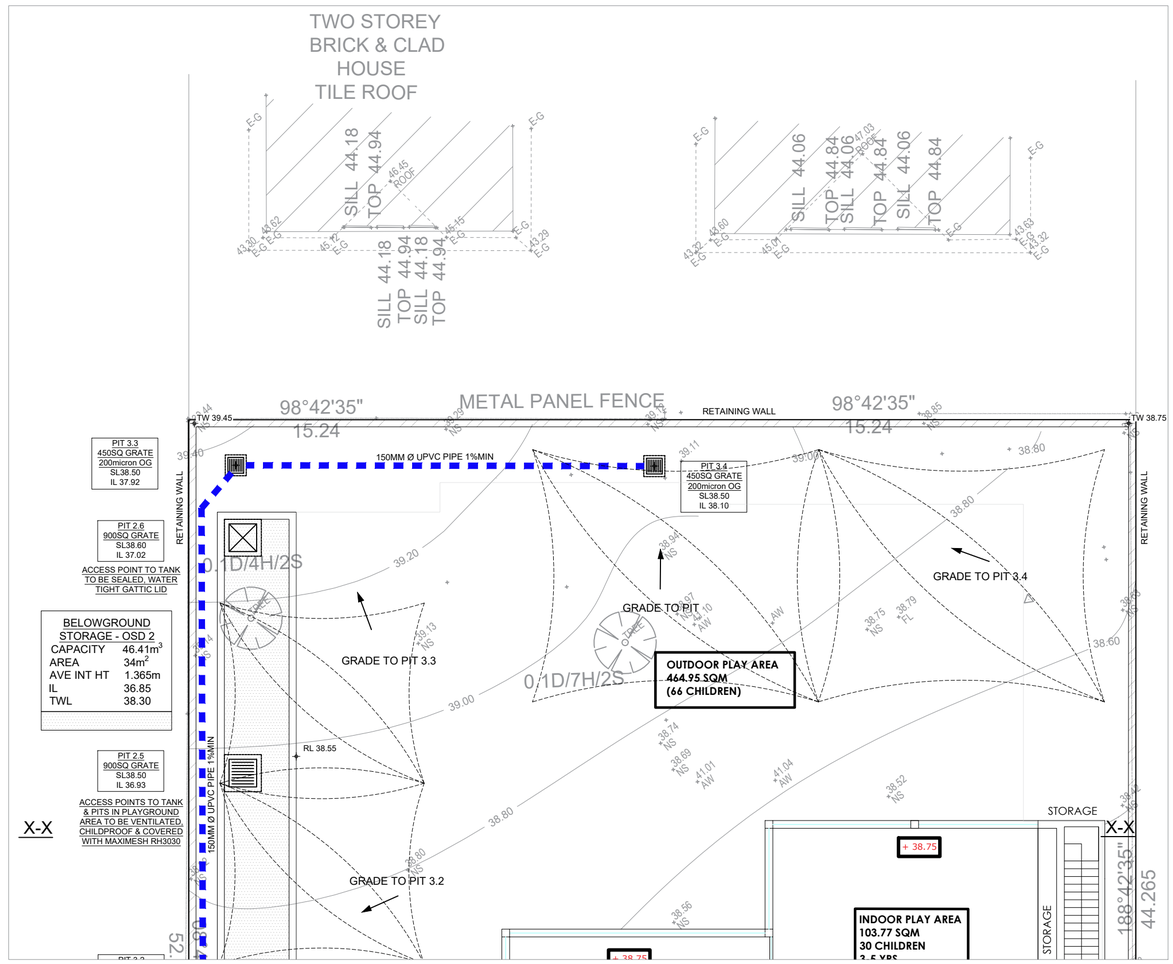
DATE	ISSUE	AMENDMENTS	DESIGNER
		NOT FOR CONSTRUCTION	
20/08/21	A	FOR COUNCIL DA APPROVAL - PROPOSED CHILDCARE CENTRE	MPC01

DRAWING NUMBER: SW-2011A-DA-01
SHEET SIZE: A2

A2 SHEET NO. 02_DWG NO.SW-2011A-DA-02_CONCEPT STORMWATER DRAINAGE PLAN

SITE PLAN CONTINUATION AT X-X





SITE PLAN CONTINUATION AT X-X

SCALES
1 0.5 0 1 2 3 4 5m 1 : 100 @ A2
2 1 0 2 4 6 8 10m 1 : 200 @ A3

www.dialbeforeyoudig.com.au DIAL 1100 BEFORE YOU DIG

MULTIPRO CONSULTANTS PTY LTD
PO BOX 5468
GREYSTANES NSW 2145
M: 0419 242 726
E: zulfik@bigpond.com
www.multiproconsultant.com.au
ABN: 57615352540

APPROVED BY:
ZULFIQAR KHAN
MIEAust, NER (# 2500471)
Accredited Certifier
(Civil & Structural) (BPB2925)
SIGNED:

PROJECT : 30-32 PARK AVENUE, KINGSWOOD
TITLE : CONCEPT STORMWATER DRAINAGE PLAN
DESIGN BY: MPC
CHECKED BY: Z KHAN
SCALE: 1:100 or As Shown
SHEET: 2 OF 8
FILE: JOB 21-165
DATE: 20 AUGUST 2021

APPLICANT/CLIENT: ARCHIDROME
ARCHITECT: ARCHIDROME

DATE	ISSUE	AMENDMENTS	DESIGNER
		NOT FOR CONSTRUCTION	
20/08/21	A	FOR COUNCIL DA APPROVAL - PROPOSED CHILDCARE CENTRE	MPC01

DRAWING NUMBER: SW-2011A-DA-02
SHEET SIZE: A2

A2 SHEET NO. 03_DWG NO.SW-2011A-DA-03_STORMWATER CATCHMENT PLAN

OSD BYPASS
AREA = 180m²
(Flood zone
80m2 approx)

OSD CATCHMENT
AREA = 1297m²

VACANT LOT

METAL PANEL FENCE

RETAINING WALL TW 38.40

150MM Ø UPVC PIPE 1%MIN

150MM Ø UPVC PIPE 1%MIN

RETAINING WALL

52.625

98°42'35"
15.24

METAL PANEL FENCE

RETAINING WALL

188°42'35"
44.265

METAL PANEL FENCE

RETAINING WALL

TWO STOREY
BRICK & CLAD
HOUSE
TILE ROOF

SILL 44.18
TOP 44.94
SILL 44.18
TOP 44.94

SILL 44.06
TOP 44.84
SILL 44.06
TOP 44.84
SILL 44.06
TOP 44.84

TOP 40.42 TOP 40.42 TOP 40.42 TOP 40.42

SILL 41.89 TOP 43.11 SILL 41.89 TOP 43.09 SILL 41.89 TOP 43.09 SILL 42.02 TOP 43.09 SILL 42.02

TOP 43.83 SILL 42.73 TOP 43.83 SILL 42.73 TOP 43.83 SILL 42.73

STORAGE
STAIR
STORAGE
SLEEP ROOM
LIFT
LOBBY
INDOOR PLAY AREA
41.45 SQM
16 CHILDREN
0-2 YRS
4 STAFF
(1:4 STAFF TO CHILDREN RATIO)
PROVIDE 1.2M HIGH POOL TYPE SAFETY FENCE & CHILD PROOF GATE AT ACCESS POINT TO DETENTION BASIN
MILK PREP
TOILET
STORAGE
ACCESSIBLE TOILET
ADMIN
KITCHEN
STORAGE
INDOOR PLAY AREA
45.37 SQM
20 CHILDREN
2-3 YRS
4 STAFF
(1:5 STAFF TO CHILDREN RATIO)
ENTRY
INDOOR PLAY AREA
103.77 SQM
30 CHILDREN
3-5 YRS
3 STAFF
(1:10 STAFF TO CHILDREN RATIO)
OUTDOOR PLAY AREA
464.95 SQM
(64 CHILDREN)
STORE
TOILET
STORAGE
STORAGE
STORAGE
BIN AREA AT BASEMENT
GRADE TO PIT
GRADE TO PIT
GRADE TO PIT

1:8 (12.5%) 1:4.25 (23.5%) 1:8 (12.5%)
2000 8810 1860
1:40 (2.5%) 1:12.8 (7.8%)
6000 0169 0169

2D/6H/5S
2D/6H/4S
0.1D/4H/2S
0.1D/7H/2S

GRASS
GRASS
PARK
AVENUE

BM NAIL
RL 36.83
(AHD)

REMOVE REDUNDANT KERB TO COUNCIL REQUIREMENTS

PROPOSED VC TO PCC REQUIREMENTS

KERB
KERB

SCALES
1 0.5 0 1 2 3 4 5m 1 : 100 @ A2
2 1 0 2 4 6 8 10m 1 : 200 @ A3

www.dialbeforeyoudig.com.au
DIAL 1100 BEFORE YOU DIG

MULTIPRO CONSULTANTS PTY LTD
PO BOX 5468
GREYSTANES NSW 2145
M: 0419 242 726
E: zulfik@bigpond.com
www.multiproconsultant.com.au
ABN: 57615352540

APPROVED BY:
ZULFIQAR KHAN
MIEAust, NER (# 2500471)
Accredited Certifier
(Civil & Structural) (BPB2925)
SIGNED:

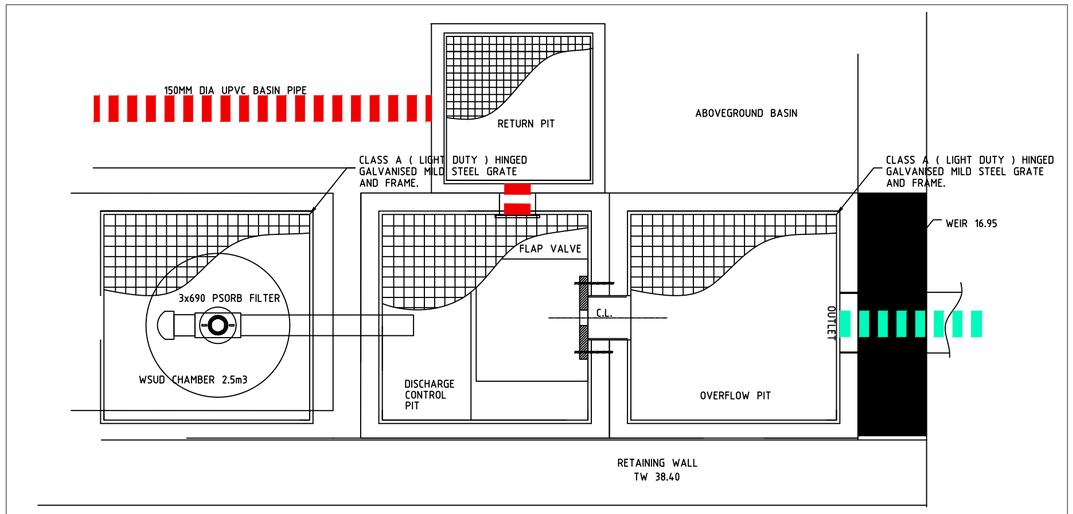
PROJECT : 30-32 PARK AVENUE, KINGSWOOD
TITLE : STORMWATER CATCHMENT PLAN

DESIGN BY: MPC
CHECKED BY: Z KHAN
SCALE: 1:100 or As Shown
SHEET: 3 OF 8
FILE: JOB 21-165
DATE: 20 AUGUST 2021

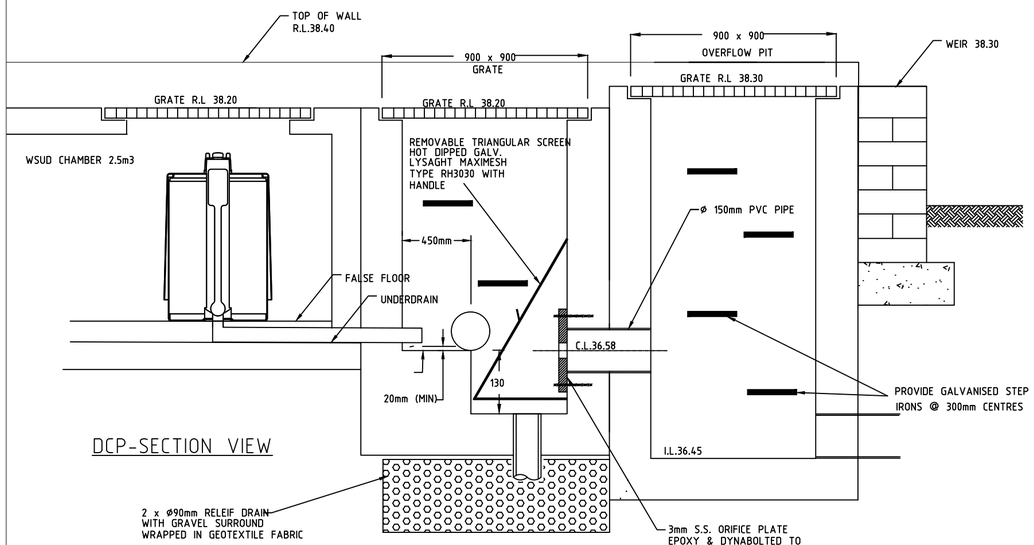
APPLICANT/CLIENT: ARCHIDROME
ARCHITECT: ARCHIDROME

DATE	ISSUE	AMENDMENTS	DESIGNER
		NOT FOR CONSTRUCTION	
20/08/21	A	FOR COUNCIL DA APPROVAL - PROPOSED CHILDCARE CENTRE	MPC01

DRAWING NUMBER: SW-2011A-DA-03
SHEET SIZE: A2



PLAN VIEW (Typical)

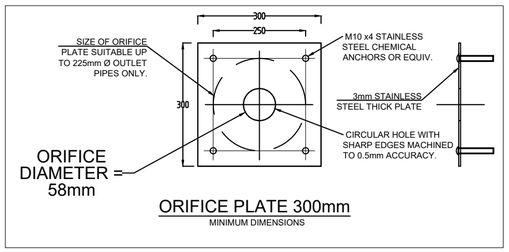


DCP-SECTION VIEW

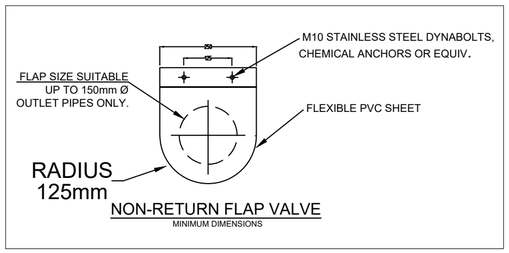
On-Site Detention Calculation Sheet

Project:	Proposed Childcare Centre	Lot No.	15-16
Location:	31-32 Park Avenue, Kingswood	DP No.	29528
Designer:	MultiPro Consultants	OSD No	1

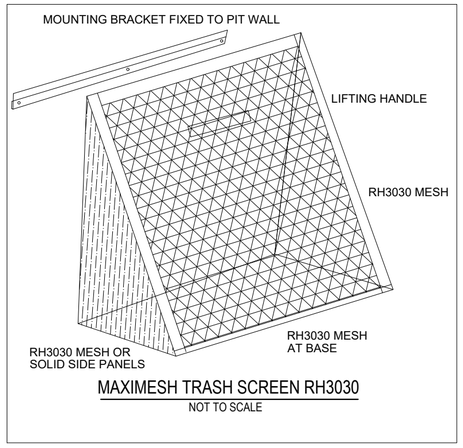
OSD Area:			Drowned	
Site Area	0.138		**0.138**	
Basic Storage Volume	64.80		64.80	
Basic Discharge	6.45		11.03	
Area of Site to Storage	0.130	**94%**	**0.130**	**94%**
Percentage of Site	94.12		94.12	
Storage per ha of contributing area	499.34		499.34	
Volume/PSD Adjustment	73.75		73.75	
PSD for site	9.56		9.56	
Maximum Head to Orifice Centre	1.740		1.100	
Calculated Orifice Diameter	**0.058**		**0.058**	
Maximum discharge	9.563		7.608	
Head for high early discharge	1.640		1.000	
High Early Discharge	9.284	**97%**	7.254	**76%**
Mean Discharge	9.424		7.431	
Average Discharge per Hectare	72.620		57.266	
Final Site Storage Ratio	508		604	
Site Storage Volume	**65.89**		**78.39**	
Volume Provided	**97.91**	**149%**	**97.910**	**125%**



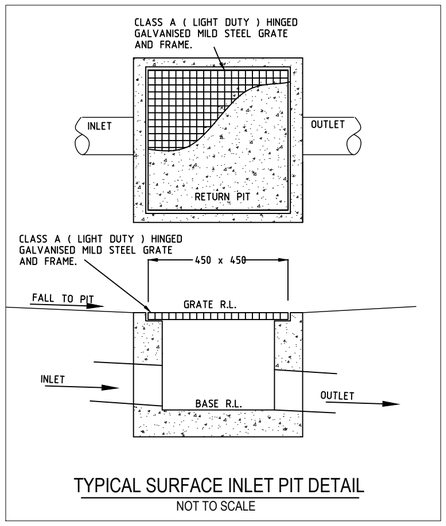
ORIFICE PLATE 300mm
MINIMUM DIMENSIONS



NON-RETURN FLAP VALVE
MINIMUM DIMENSIONS



MAXIMESH TRASH SCREEN RH3030
NOT TO SCALE



TYPICAL SURFACE INLET PIT DETAIL
NOT TO SCALE

SCALES
1 0.5 0 1 2 3 4 5m 1 : 100 @ A2
2 1 0 2 4 6 8 10m 1 : 200 @ A3

GENERAL NOTES

1. ALL WORKS SHALL GENERALLY BE UNDERTAKEN IN ACCORDANCE WITH AS/NZ 3500.3.2:1998 AND COUNCIL'S SPECIFICATIONS &/OR ENGINEERING GUIDELINES;
2. THIS STORMWATER PLAN SHALL BE READ IN CONJUNCTION WITH THE APPROVED ARCHITECTURAL, LANDSCAPE, SURVEY, AND SITE PLANS;
3. ANY DISCREPANCIES OR OMISSIONS SHALL BE REFERRED TO **MULTIPRO** CONSULTANTS TO RESOLVE.
4. ALL DRAINAGE LINES SHALL BE AS FOLLOWS -
   - 90mm DIAMETER WHERE THE LINE ONLY RECEIVES ROOF WATER;
   - 100mm DIAMETER WHERE THE LINE RECEIVES SURFACE RUNOFF OR IF THE LINE IS PART OF AN OSD SYSTEM;
   - A MINIMUM PIPELINE GRADE OF 1% FOR PIPES WITH A DIAMETER LESS THAN 150mm AND 0.5% FOR PIPES OF GREATER DIAMETER;
3. ALL DRAINAGE LINES SHALL HAVE A MINIMUM COVER OF 100mm FOR PRIVATE PIPELINES AND 300mm FOR PUBLIC PIPELINES;
4. ALL PITS WITHIN TRAFFICABLE AREAS (I.E DRIVEWAYS) SHALL BE HEAVY DUTY. ALL SURFACE AREAS SHALL BE GRADED TO THE SURFACE INLET PITS/DRAINS.
5. LOCATION OF DOWN PIPES & FLOOR WASTES ARE INDICATIVE ONLY. DOWNPIPE & FLOOR WASTE SIZE, LOCATION & QUANTITY IS TO BE DETERMINED AT CC STAGE AND PRIOR TO CONSTRUCTION IN ACCORDANCE WITH THE RELEVANT STANDARDS.

UTILITY SERVICES

1. ALL SERVICES AS SHOWN ON THIS PLAN ARE APPROXIMATE ONLY. EXACT LOCATION SHALL BE ACCURATELY LOCATED BY CONTACTING DIAL BEFORE YOU DIG OR THE RELEVANT UTILITY PROVIDER BEFORE COMMENCING ANY EXCAVATION OR BUILDING WORKS.
2. ALL WORKS UNDERTAKEN WITHIN THE ROAD RESERVE / CARRIAGEWAY SHALL HAVE PRIOR APPROVAL FROM THE RELEVANT AUTHORITY, PRIOR TO COMMENCING WORKS.

ONSITE DETENTION NOTES

1. ALL WALLS FORMING PART OF THE DETENTION BASIN SHALL BE OF MASONRY CONSTRUCTION AN WHOLLY WITHIN THE PROPERTY BOUNDARY;
2. ALL MULCH WITHIN THE ABOVE GROUND DETENTION BASIN (IF PROPOSED) SHALL BE NON-FLOATABLE;
3. ALL GRATES TO BE FITTED WITH CHILD PROOF J-LOCKS;
4. THE CERTIFYING ENGINEER OR COUNCIL'S ENGINEER SHALL INSPECT THE OSD WORKS AT THE CRITICAL STAGES -
   a. PRIOR TO COMMENCING WORK TO DISCUSS SITE CONSTRAINTS;
   b. PRIOR TO LANDSCAPING THE DETENTION BASIN & POURING THE ROOF OF THE DETENTION TANK;
   c. PRIOR TO INSTALLING THE FITTINGS TO THE DISCHARGE CONTROL UNIT;
   d. PRELIMINARY INSPECTION - PRIOR TO CERTIFICATION
   e. FINAL INSPECTION - FOR CERTIFICATION. WORK-AS-EXECUTED [WAE] SHALL BE PREPARED BY A REGISTERED SURVEYOR PRIOR TO FINAL INSPECTION.
3. ALL MAINTENANCE WORK SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE MAINTENANCE SCHEDULE APPROVED BY COUNCIL;
4. DRAINAGE PIPE LINES ARE TO AVOID EXISTING TREES WHEREVER POSSIBLE - GENERALLY OUTSIDE THE DRIP LINE / CANOPY OF THE EXISTING TREE;

INSTALL SIGN NEAR OSD TANK

INSTALL WITHIN OSD BASIN

OSD PLATE

www.dialbeforeyoudig.com.au
DIAL 1100 BEFORE YOU DIG

MULTIPRO CONSULTANTS PTY LTD
PO BOX 5468
GREYSTANES NSW 2145
M: 0419 242 726
E: zulfik@bigpond.com
www.multiproconsultant.com.au
ABN: 57615352540

APPROVED BY:
ZULFIQAR KHAN
MIEAust, NER (# 2500471)
Accredited Certifier
(Civil & Structural) (BPB2925)
SIGNED:

PROJECT: 30-32 PARK AVENUE, KINGSWOOD
TITLE: OSD DETAILS & CALCULATIONS

DESIGN BY: MPC | SCALE: 1:100 or As Shown | FILE: JOB 21-165
CHECKED BY: Z KHAN | SHEET: 4 OF 8 | DATE: 20 AUGUST 2021

APPLICANT/CLIENT: ARCHIDROME
ARCHITECT: ARCHIDROME

NOT FOR CONSTRUCTION

DATE	ISSUE	AMENDMENTS	DESIGNER
20/08/21	A	FOR COUNCIL DA APPROVAL - PROPOSED CHILDCARE CENTRE	MPC01

DRAWING NUMBER: SW-2011A-DA-04
SHEET SIZE: A2

PENRITH CITY COUNCIL

music@link

MUSIC-*link* Report

Project Details

Project:	32 Park Avenue, Kingswood	Company:	Multi Pro Consultants
Report Export Date:	9/07/2021	Contact:	Zulfi Khan
Catchment Name:	16762 - 32 Park Avenue	Address:	PO Box 5468 Greystanes NSW 2145
Catchment Area:	0.148ha	Phone:	0419 242 726
Impervious Area*:	55.14%	Email:	zulfik@bigpond.com
Rainfall Station:	67113 PENRITH		
Modelling Time-step:	6 Minutes		
Modelling Period:	1/01/1999 - 31/12/2008 11:54:00 PM		
Mean Annual Rainfall:	691mm		
Evapotranspiration:	1158mm		
MUSIC Version:	6.3.0		
MUSIC-link data Version:	6.33		
Study Area:	Penrith		
Scenario:	Penrith Development		

*takes into account area from all source nodes that link to the chosen reporting node, excluding Import Data Nodes

Treatment Train Effectiveness

Node: Receiving Node	Reduction
Flow	0.00269%
TSS	85.7%
TP	66.9%
TN	47.3%
GP	100%

Treatment Nodes

Node Type	Number
Sedimentation Basin Node	1
Generic Node	1
GPT Node	2

Source Nodes

Node Type	Number
Urban Source Node	7

Comments

- The "SF Chamber" node has been modified to represent the below ground filtration chamber. Default 'K' values have been manually adjusted to 1 in order to eliminate any performance from the actual tank, which would already be accounted for in the Filter Generic Node Target Elements. Not doing this would represent a duplication of the chamber attenuation effect. (For any questions, please Contact Ocean Protect on 1300 354 722).

Passing Parameters

Node Type	Node Name	Parameter	Min	Max	Actual
GPT	2 x OceanGuard200um	Hi-flow bypass rate (cum/sec)	None	99	0.04
GPT	3 x OceanGuard200um	Hi-flow bypass rate (cum/sec)	None	99	0.06
Receiving	Receiving Node	% Load Reduction	None	None	0.00269
Receiving	Receiving Node	GP % Load Reduction	90	None	100
Receiving	Receiving Node	TN % Load Reduction	45	None	47.3
Receiving	Receiving Node	TP % Load Reduction	60	None	66.9
Receiving	Receiving Node	TSS % Load Reduction	85	None	85.7
Sedimentation	SF Chamber 2.5m◆	High Flow Bypass Out (ML/yr)	None	None	0
Urban	Driveway - 30m◆ (100% Imp.)	Area Impervious (ha)	None	None	0.003
Urban	Driveway - 30m◆ (100% Imp.)	Area Pervious (ha)	None	None	0
Urban	Driveway - 30m◆ (100% Imp.)	Total Area (ha)	None	None	0.003
Urban	Driveway - 36m◆ (100% Imp.)	Area Impervious (ha)	None	None	0.004
Urban	Driveway - 36m◆ (100% Imp.)	Area Pervious (ha)	None	None	0
Urban	Driveway - 36m◆ (100% Imp.)	Total Area (ha)	None	None	0.004
Urban	Landscape - 189m◆ (100% Perv.)	Area Impervious (ha)	None	None	0
Urban	Landscape - 189m◆ (100% Perv.)	Area Pervious (ha)	None	None	0.019
Urban	Landscape - 189m◆ (100% Perv.)	Total Area (ha)	None	None	0.019
Urban	Landscape - 99m◆ (100% Perv.)	Area Impervious (ha)	None	None	0
Urban	Landscape - 99m◆ (100% Perv.)	Area Pervious (ha)	None	None	0.01
Urban	Landscape - 99m◆ (100% Perv.)	Total Area (ha)	None	None	0.01
Urban	Paved - 49m◆ (100% Imp.)	Area Impervious (ha)	None	None	0.005
Urban	Paved - 49m◆ (100% Imp.)	Area Pervious (ha)	None	None	0
Urban	Paved - 49m◆ (100% Imp.)	Total Area (ha)	None	None	0.005
Urban	Playground - 465m◆ (20% Imp.)	Area Impervious (ha)	None	None	0.009
Urban	Playground - 465m◆ (20% Imp.)	Area Pervious (ha)	None	None	0.037
Urban	Playground - 465m◆ (20% Imp.)	Total Area (ha)	None	None	0.047
Urban	Roof - 600m◆	Area Impervious (ha)	None	None	0.06
Urban	Roof - 600m◆	Area Pervious (ha)	None	None	0
Urban	Roof - 600m◆	Total Area (ha)	None	None	0.06

Only certain parameters are reported when they pass validation

Failing Parameters

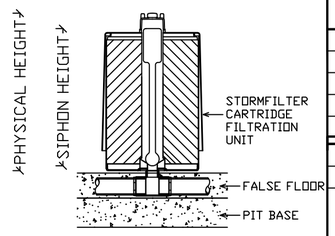
Node Type	Node Name	Parameter	Min	Max	Actual
Sedimentation	SF Chamber 2.5m◆	Notional Detention Time (hrs)	8	12	0.124
Sedimentation	SF Chamber 2.5m◆	Total Nitrogen - k (mg/yr)	500	500	1
Sedimentation	SF Chamber 2.5m◆	Total Phosphorus - k (mg/yr)	6000	6000	1
Sedimentation	SF Chamber 2.5m◆	Total Suspended Solids - k (mg/yr)	8000	8000	1

Only certain parameters are reported when they pass validation

STORMFILTER DESIGN TABLE

- STORMFILTER TREATMENT CAPACITY VARIES BY NUMBER OF FILTER CARTRIDGES INSTALLED.
- THE STANDARD CONFIGURATION IS SHOWN. ACTUAL CONFIGURATION OF THE SPECIFIED STRUCTURE(S) PER CERTIFYING ENGINEER WILL BE SHOWN ON SUBMITTAL DRAWING(S).
- FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF-CLEANING. RADIAL MEDIA DEPTH SHALL BE 178mm.

CARTRIDGE NAME / SIPHON HEIGHT (mm)	690	460	310
CARTRIDGE PHYSICAL HEIGHT (mm)	840	600	600
TYPICAL WEIR HEIGHT [H] (mm)	920	690	540
CARTRIDGE FLOW RATE FOR ZPG MEDIA (L/s)	1.6	1.1	0.7
CARTRIDGE FLOW RATE FOR PSORB MEDIA (L/s)	0.9	0.46	0.39



STORMFILTER CARTRIDGE DETAIL

SITE SPECIFIC DATA REQUIREMENTS

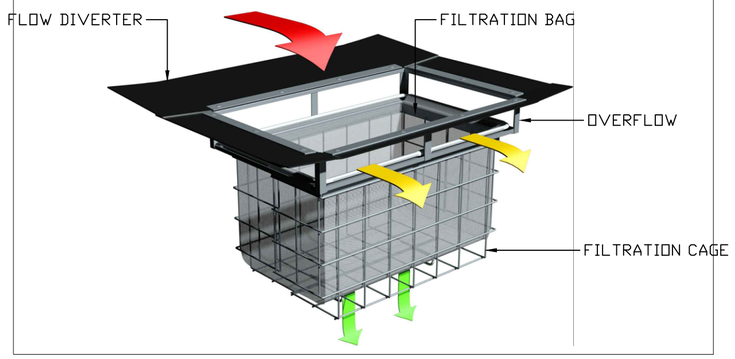
STRUCTURE ID	STRUCT_ID
No. CARTRIDGES REQ'D	C_NUM
SIPHON HEIGHT	C_HT
MEDIA TYPE(ZPG/PSORB)	MEDIA
WQ FLOW RATE (L/S)	WQFR
DIMENSION A	LOA
DIMENSION B	LOB

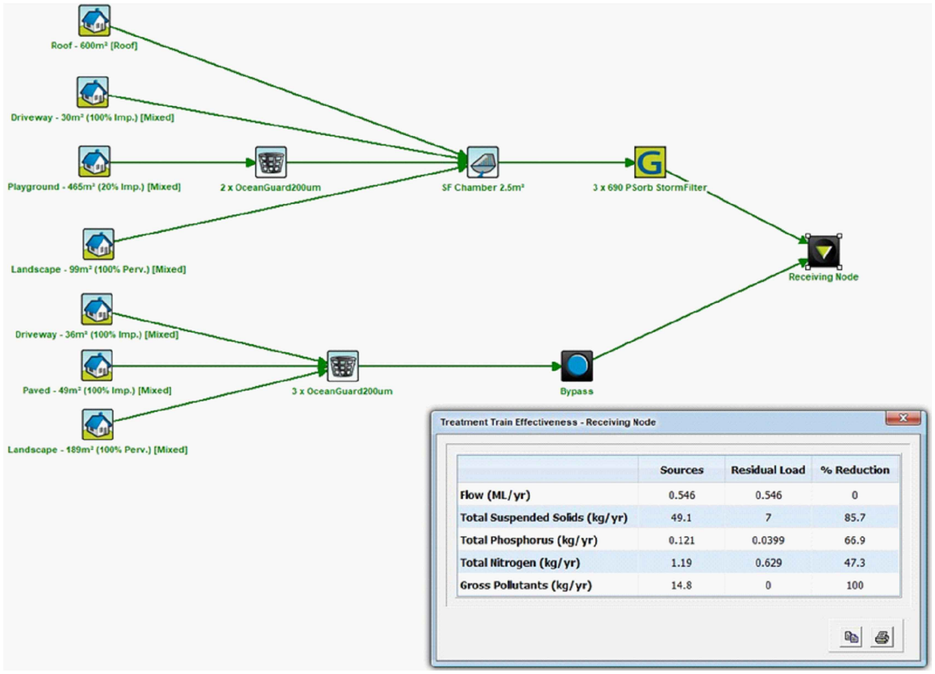
TOTAL CARTRIDGE BAY AREA (A x B) TO MATCH AREA REQUIRED BY MUSIC MODELLING OR COUNCIL SPECIFIC REQUIREMENTS

PLAN ID	MAXIMUM PIT PLAN DIMENSIONS
S	450mm x 450mm
M	600mm x 600mm
L	900mm x 900mm
XL	1200mm x 1200mm

DEPTH ID	BAG DEPTH	OVERALL DEPTH
1	170	270
2	300	450
3	600	700

PLAN ID	DEPTH ID 1	DEPTH ID 2	DEPTH ID 3
S	■		
M	■	■	
L	■	■	■
XL	■	■	■





Treatment Train Effectiveness - Receiving Node

	Sources	Residual Load	% Reduction
Flow (ML/yr)	0.546	0.546	0
Total Suspended Solids (kg/yr)	49.1	7	85.7
Total Phosphorus (kg/yr)	0.121	0.0399	66.9
Total Nitrogen (kg/yr)	1.19	0.629	47.3
Gross Pollutants (kg/yr)	14.8	0	100

GENERAL NOTES -STORMFILTER

1. INLET AND OUTLET PIPES TO BE IN ACCORDANCE WITH APPROVED PLANS.
2. A HIGH FLOW BYPASS ARRANGEMENT OR DISSIPATION STRUCTURE MAY BE REQUIRED TO MINIMISE RE-SUSPENSION OF SOLIDS OR ANY SIGNIFICANT INERTIAL FORCES ON THE CARTRIDGES.
3. ALL WATER QUALITY TREATMENT DEVICES REQUIRE PERIODIC MAINTENANCE. REFER TO OPERATION AND MAINTENANCE MANUAL FOR GUIDELINES AND ACCESS REQUIREMENTS.
4. SITE SPECIFIC PRODUCTION DRAWING WILL BE PROVIDED ON PLACEMENT OF ORDER.
5. THE INVERT LEVEL OF THE INLET PIPE MUST BE GREATER THAN THE RL OF THE FALSE FLOOR WITHIN THE CARTRIDGE CHAMBER.
6. CONCRETE STRUCTURE AND ACCESS COVERS DESIGNED AND PROVIDED BY OTHERS. ACCESS COVERS TO BE A MINIMUM 900 X 900 ABOVE CARTRIDGES. OH&S REGARDING ACCESS COVERS AND TANK ACCESS TO BE ASSESSED BY OTHERS ON SITE.
7. THE STRUCTURE THICKNESSES SHOWN ARE FOR REPRESENTATIONAL PURPOSES.
8. DRAWINGS NOT TO SCALE.

INSTALLATION NOTES

1. UNDERDRAIN AND FALSE FLOOR INSTALLED BY OCEAN PROTECT.

GENERAL NOTES - 200MICRON OG

1. THE MINIMUM CLEARANCE DEPENDS ON THE CONFIGURATION (SEE NOTE 2) AND THE LOCAL COUNCIL REQUIREMENTS.
2. CLEARANCE FOR ANY PIT WITHOUT AN INLET PIPE (ONLY USED FOR SURFACE FLOW) CAN BE AS LOW AS 50mm. FOR OTHER PITS, THE RECOMMENDED CLEARANCE SHOULD BE GREATER OR EQUAL TO THE PIPE OBVERT SO AS NOT TO INHIBIT HYDRAULIC CAPACITY.
3. OCEAN PROTECT PROVIDES TWO FILTRATION BAG TYPES:- 200 MICRON BAGS FOR HIGHER WATER QUALITY FILTERING AND A COARSE BAG FOR TARGETING GROSS POLLUTANTS.
4. DRAWINGS NOT TO SCALE.

SCALES

1 : 100 @ A2

1 : 200 @ A3

OCEAN PROTECT

PHONE: 1300 354 722 www.oceanprotect.com.au

www.dialbeforeyoudig.com.au DIAL 1100 BEFORE YOU DIG

MULTIPRO CONSULTANTS PTY LTD
PO BOX 5468
GREYSTANES NSW 2145
M: 0419 242 726
E: zulfik@bigpond.com
www.multiproconsultant.com.au
ABN: 57615352540

APPROVED BY:
ZULFIQAR KHAN
MIEAust, NER (# 2500471)
Accredited Certifier
(Civil & Structural) (BPB2925)

SIGNED:

PROJECT: 30-32 PARK AVENUE, KINGSWOOD
TITLE: WATER SENSITIVE URBAN DESIGN DETAILS

DESIGN BY: MPC | SCALE: 1:100 or As Shown | FILE: JOB 21-165
CHECKED BY: Z KHAN | SHEET: 5 OF 8 | DATE: 20 AUGUST 2021

APPLICANT/CLIENT: ARCHIDROME
ARCHITECT: ARCHIDROME

DATE	ISSUE	AMENDMENTS	DESIGNER
		NOT FOR CONSTRUCTION	
20/08/21	A	FOR COUNCIL DA APPROVAL - PROPOSED CHILDCARE CENTRE	MPC01

DRAWING NUMBER: SW-2011A-DA-05
SHEET SIZE: A2

A2 SHEET NO. 06_DWG NO.SW-2006C-DA-06_BASEMENT LEVEL DRAINAGE PLAN

U1 - BELOWGROUND STORAGE	
CAPACITY	8m³
AREA[4X2]	8m²
MAX DEPTH	1.0m
IL	33.32
TWL	34.32

ABOVEGROUND STORAGE	
CAPACITY	10.4m³
AREA	104m²
AVE DEPTH	0.1m
MAX DEPTH	0.20m
SL	34.32
TWL	34.52

TREE TO BE RETAINED

TREE TO BE REMOVED

NOTE: FULL DETAILS & LEVELS FOR STORAGE TO BE ON CC DRAWINGS

NOTE: PUMP FAILURE ALARM AND WARNING SIGNAGE TO BE LOCATED NEAR STAIRWELL

PROVIDE SUBSOIL DRAIN AROUND BASEMENT PERIMETER & OSD TANK - INTEGRATED WITH STRUCTURAL DETAILS AT CC STAGE

VACANT LOT

METAL PANEL FENCE

PARK

AVENUE

KERB

GRASS

BM NAIL RL 36.83 (AHD)

263°22'30" 15.805

98°42'35" 15.24

188°42'35" 44.265

0.2D/6H/4S

0.2D/6H/5S

0.1D/4H/2S

BIN AREA

SHARED ZONE

VISITOR PARKING

PARKING SPACES 28

SERVICES

RAMP FROM BASEMENT TO GROUND FLOOR

CATCHMENT AREA TO BASEMENT A=90m²

BUILDING LINE ABOVE

200 WIDE GRATED DRAIN SL 34.98 IL 34.83

100 WIDE GRATED DRAIN SL 34.98 IL 34.85

60Ø UPVC PUMP PIPE TO BE CONNECTED TO PIT B

NOTE: PUMP FAILURE WARNING LIGHT & SIGNAGE TO BE LOCATED AT DRIVEWAY ENTRANCE

LINE OF RAMP ABOVE

PIT B 450SQ GRATE SL37.10 IL 36.60

PIT B1 450SQ GRATE SL34.45 IL 34.00

PIT B2 450SQ GRATE SL34.95 IL 34.25

PIT B3 450SQ GRATE SL34.95 IL 34.40

PIT B4 450SQ GRATE SL34.95 IL 34.40

150MM Ø UPVC 1%MIN

150MM Ø UPVC PIPE 1%MIN

100MM Ø UPVC PIPE 1%MIN

PROVIDE SUBSOIL DRAIN AROUND BASEMENT PERIMETER - INTEGRATED WITH STRUCTURAL DETAILS AT CC STAGE

PROVIDE SUBSOIL DRAIN AROUND BASEMENT PERIMETER - INTEGRATED WITH STRUCTURAL DETAILS AT CC STAGE

TWO STOREY BRICK & CLAD HOUSE TILE ROOF

SILL 44.18
TOP 44.94

SILL 44.06
TOP 44.84

TOP 40.42 TOP 40.42 TOP 40.42 TOP 40.42

SILL 41.89 TOP 43.09 TOP 43.11 SILL 41.89 TOP 43.09 SILL 41.89 SILL 42.02 SILL 42.02 TOP 43.09 SILL 42.02

TOP 43.83 SILL 42.73 TOP 43.83 SILL 42.73 TOP 43.83 SILL 42.73 TOP 43.83 SILL 42.73

SCALES

1 0.5 0 1 2 3 4 5m 1 : 100 @ A2

2 1 0 2 4 6 8 10m 1 : 200 @ A3

www.dialbeforeyoudig.com.au DIAL 1100 BEFORE YOU DIG

MULTIPRO CONSULTANTS PTY. LTD.

PO BOX 5468
GREYSTANES NSW 2145
M: 0419 242 726
E: zulfik@bigpond.com
www.multiproconsultant.com.au
ABN: 57611352540

APPROVED BY:
ZULFIQAR KHAN
MIEAust, NER (# 2500471)
Accredited Certifier
(Civil & Structural) (BPB2925)

SIGNED:

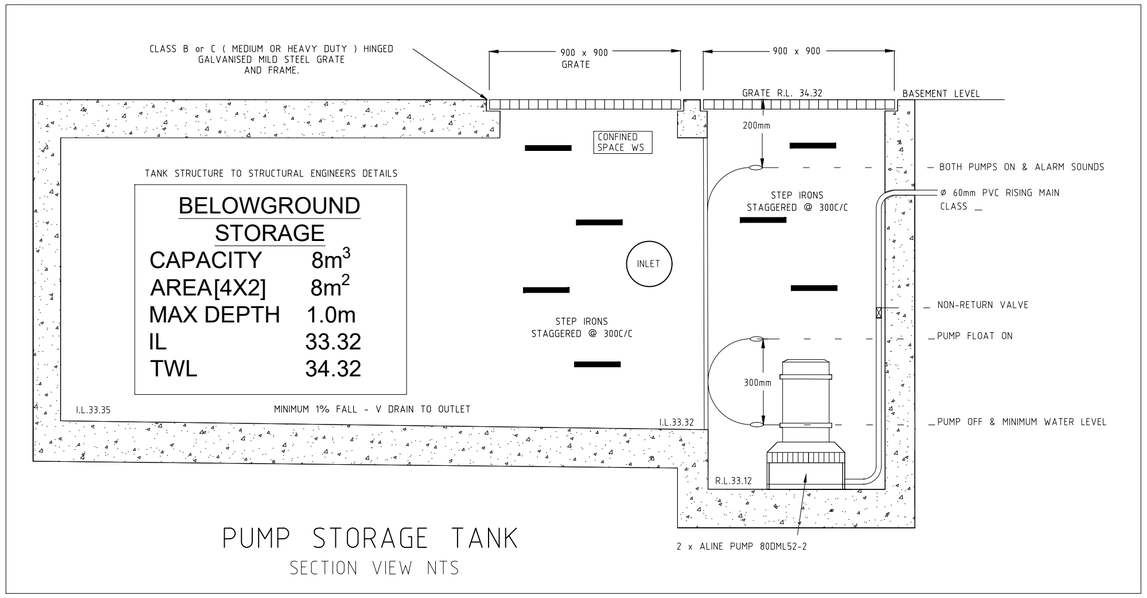
PROJECT : 30-32 PARK AVENUE, KINGSWOOD
TITLE : BASEMENT LEVEL DRAINAGE PLAN

DESIGN BY: MPC
CHECKED BY: Z KHAN
SCALE: 1:100 or As Shown
SHEET: 6 OF 8
FILE: JOB 21-165
DATE: 20 AUGUST 2021

APPLICANT/CLIENT: ARCHIDROME
ARCHITECT: ARCHIDROME

DATE	ISSUE	AMENDMENTS	DESIGNER
		NOT FOR CONSTRUCTION	
20/08/21	A	FOR COUNCIL DA APPROVAL - PROPOSED CHILDCARE CENTRE	MPC01

DRAWING NUMBER: SW-2011A-DA-06
SHEET SIZE: A2



PUMP STORAGE TANK

SECTION VIEW NTS

MPC - PUMP STORAGE REQUIREMENT

Property : 31-32 Park Avenue, Kingswood

Area = 89.6 sq.m

Duration	1 Yr	Q1	V1	2 Yr	Q2	V2	5 Yr	Q5	V5	10 Yr	Q10	V10	20 Yr	Q20	V20	50 Yr	Q50	V50	100 Yr	Q100	V100
6 min	78	1.9	0.7	100	2.5	0.9	127	3.2	1.1	142	3.5	1.3	163	4.0	1.5	189	4.7	1.7	209	5.2	1.9
7 min	74	1.8	0.8	94	2.4	1.0	120	3.0	1.3	134	3.3	1.4	154	3.8	1.6	179	4.4	1.9	197	4.9	2.1
8 min	70	1.7	0.8	90	2.2	1.1	114	2.8	1.4	127	3.2	1.5	146	3.6	1.7	170	4.2	2.0	188	4.7	2.2
9 min	67	1.7	0.9	86	2.1	1.1	108	2.7	1.5	122	3.0	1.6	139	3.5	1.9	162	4.0	2.2	179	4.5	2.4
10 min	64	1.6	1.0	82	2.0	1.2	104	2.6	1.6	116	2.9	1.7	133	3.3	2.0	155	3.9	2.3	171	4.3	2.6
11 min	61	1.5	1.0	79	2.0	1.3	100	2.5	1.6	112	2.8	1.8	128	3.2	2.1	149	3.7	2.4	164	4.1	2.7
12 min	59	1.5	1.1	76	1.9	1.4	96	2.4	1.7	108	2.7	1.9	123	3.1	2.2	143	3.6	2.6	158	3.9	2.8
13 min	57	1.4	1.1	73	1.8	1.4	93	2.3	1.8	104	2.6	2.0	119	3.0	2.3	138	3.4	2.7	153	3.8	3.0
14 min	55	1.4	1.2	71	1.8	1.5	90	2.2	1.9	100	2.5	2.1	115	2.9	2.4	134	3.3	2.8	148	3.7	3.1
15 min	53	1.3	1.2	68	1.7	1.5	87	2.2	1.9	97	2.4	2.2	111	2.8	2.5	129	3.2	2.9	143	3.6	3.2
16 min	52	1.3	1.2	66	1.7	1.6	84	2.1	2.0	94	2.3	2.3	108	2.7	2.6	126	3.1	3.0	139	3.5	3.3
17 min	50	1.3	1.3	65	1.6	1.6	82	2.0	2.1	92	2.3	2.3	105	2.6	2.7	120	3.0	3.1	135	3.4	3.4
18 min	49	1.2	1.3	63	1.6	1.7	80	2.0	2.1	89	2.2	2.4	102	2.5	2.7	119	3.0	3.2	131	3.3	3.5
20 min	47	1.2	1.4	60	1.5	1.8	76	1.9	2.3	85	2.1	2.5	97	2.4	2.9	113	2.8	3.4	125	3.1	3.7
25 min	42	1.0	1.6	53	1.3	2.0	68	1.7	2.5	76	1.9	2.8	87	2.2	3.2	101	2.5	3.8	112	2.8	4.2
30 min	38	0.9	1.7	49	1.2	2.2	62	1.5	2.8	69	1.7	3.1	79	2.0	3.5	92	2.3	4.1	89	2.2	4.0
35 min	35	0.9	1.8	45	1.1	2.3	57	1.4	3.0	64	1.6	3.3	73	1.8	3.8	84	2.1	4.4	88	2.2	4.6
40 min	32	0.8	1.9	42	1.0	2.5	53	1.3	3.1	59	1.5	3.5	68	1.7	4.0	79	2.0	4.7	87	2.2	5.2
45 min	30	0.8	2.0	39	1.0	2.6	49	1.2	3.3	55	1.4	3.7	63	1.6	4.3	74	1.8	4.9	81	2.0	5.5
50 min	29	0.7	2.1	37	0.9	2.7	47	1.2	3.5	52	1.3	3.9	60	1.5	4.5	69	1.7	5.2	77	1.9	5.7
55 min	27	0.7	2.2	35	0.9	2.9	44	1.1	3.6	49	1.2	4.1	56	1.4	4.6	66	1.6	5.4	73	1.8	6.0
60 min	26	0.6	2.3	33	0.8	3.0	42	1.0	3.8	47	1.2	4.2	54	1.3	4.8	63	1.6	5.6	69	1.7	6.2
75 min	22	0.6	2.5	29	0.7	3.2	37	0.9	4.1	41	1.0	4.6	47	1.2	5.3	55	1.4	6.2	61	1.5	6.8
90 min	20	0.5	2.7	26	0.6	3.5	33	0.8	4.4	37	0.9	5.0	42	1.1	5.7	49	1.2	6.6	55	1.4	7.4
2 hr	17	0.4	3.0	21	0.5	3.8	27	0.7	4.9	31	0.8	5.5	36	0.9	6.4	42	1.0	7.5	46	1.2	8.3
3 hr	13	0.3	3.4	16	0.4	4.4	21	0.5	5.7	24	0.6	6.5	28	0.7	7.5	33	0.8	8.8	36	0.9	9.8
4 hr	11	0.3	3.8	14	0.3	4.9	18	0.4	6.4	20	0.5	7.2	23	0.6	8.4	27	0.7	9.8	31	0.8	11.0
5 hr	9	0.2	4.1	12	0.3	5.3	15	0.4	6.9	18	0.4	7.9	20	0.5	9.1	24	0.6	10.7	27	0.7	12.0
6 hr	8	0.2	4.3	10	0.3	5.6	14	0.3	7.4	16	0.4	8.4	18	0.5	9.8	21	0.5	11.6	24	0.6	12.9
8 hr	7	0.2	4.8	9	0.2	6.2	11	0.3	8.2	13	0.3	9.4	15	0.4	10.9	18	0.4	13.0	20	0.5	14.5
10 hr	6	0.1	5.2	8	0.2	6.8	10	0.2	8.9	11	0.3	10.2	13	0.3	11.9	16	0.4	14.2	18	0.4	15.9
12 hr	5	0.1	5.5	7	0.2	7.2	9	0.2	9.6	10	0.3	11.0	12	0.3	12.8	14	0.4	15.2	16	0.4	17.1
14 hr	5	0.1	5.9	6	0.2	7.6	8	0.2	10.2	9	0.2	11.7	11	0.3	13.7	13	0.3	16.3	15	0.4	18.3
16 hr	4	0.1	6.2	6	0.1	8.0	7	0.2	10.7	9	0.2	12.3	10	0.3	14.4	12	0.3	17.2	13	0.3	19.3
18 hr	4	0.1	6.5	5	0.1	8.4	7	0.2	11.2	8	0.2	12.9	9	0.2	15.1	11	0.3	18.0	13	0.3	20.3
20 hr	4	0.1	6.7	5	0.1	8.8	7	0.2	11.7	8	0.2	13.5	9	0.2	15.8	11	0.3	18.8	12	0.3	21.2
22 hr	4	0.1	7.0	5	0.1	9.1	6	0.2	12.2	7	0.2	14.0	8	0.2	16.4	10	0.2	19.6	11	0.3	22.0
24 hr	3	0.1	7.2	4	0.1	9.4	6	0.1	12.6	7	0.2	14.5	8	0.2	17.0	9	0.2	20.3	11	0.3	22.8
36 hr	3	0.1	8.3	3	0.1	10.8	5	0.1	14.6	5	0.1	16.9	6	0.2	19.8	7	0.2	23.8	8	0.2	26.8
48 hr	2	0.1	9.1	3	0.1	11.9	4	0.1	16.1	4	0.1	18.7	5	0.1	22.0	6	0.2	26.4	7	0.2	29.8
60 hr	2	0.0	9.7	2	0.1	12.7	3	0.1	17.3	4	0.1	20.1	4	0.1	23.7	5	0.1	28.4	6	0.1	32.1
72 hr	2	0.0	10.1	2	0.1	13.4	3	0.1	18.2	3	0.1	21.2	4	0.1	24.9	5	0.1	30.0	5	0.1	33.9

Required Pump Discharge	5.2		
Volume of Storage in Tank	7.4	Aboveground ponding =	9.8
Volume of Total Storage	17.1		

SCALES

1 0.5 0 1 2 3 4 5m 1 : 100 @ A2

2 1 0 2 4 6 8 10m 1 : 200 @ A3

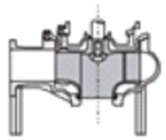
EBARA

Single Channel Impeller - 76mm passage

Model DML

Submersible Sewage Pumps

Submersible sewage pumps with single channel non-clog impellers and double row lower bearings for reliability. Suitable for raw sewage, waste water, storm water, etc.



Impeller Type & Solids Handling

Enclosed Single Channel

Model	Ø kW	80 A6	100 A6	100 A8
Free impeller Passage (mm)		76	76	76

Specifications
- Submersible pump with non clog single channel impeller
- Maximum solids handling: 76 mm
- Maximum liquid temperature: 40 °C
- Maximum submergence: 8 m

Materials
- Pump casing: Cast Iron
- Impeller: Cast Iron
- Wear ring: Bronze
- Shaft: 403 Stainless Steel
- Motor frame: Cast Iron
- Fasteners: 304 Stainless Steel
- Mechanical seal: Double mechanical seal in oil chamber, Silicon Carbide lower faces, Carbon/Ceramic upper faces.

Motor Data
- Air filled, dry submersible, 4 pole, 50 Hz
- Y-Δ Star-Delta (DOL for 2.2 kW)
- Insulation class F
- IP68 protection
- 3 Phase - 400 Volt

Range
- 80 to 150 mm Ø discharge
- 2.2 to 22 kW - 3 Phase (Manual only)

Supply
- Cable(s): 10 m
- Discharge elbow with companion flange *(80 & 100 mm screwed, 150 mm weld on)*

Accessories
- Quick Discharge Connectors (QDC) available

PUMPOUT SYSTEM CALCULATIONS - 31-32 PARK AVENUE, KINGSWOOD

HL=	(3.35x10e6 x Q/d^2.63 x C)^1.852			Hazen -Williams C	150							
	HL (m/100m), Q(L/s), d(mm)			Pipe Diameter	60	mm						
				Pipe Length	12	m						
h1=	kv^2/2g			Elevation Head	3.35	m						
	k(cum), v(m/s), g(gravity(m/s))											
				Bend Losses, Kb	1.53	90 bend=0.51						
				Valve Losses, Kv	0.14							
H=	Hf+h1+Elevation Head (static head)			Entry/Exit Losses, Ke	2.00							
(Total Head)				Cum Losses, K	3.67							
		Start Flow	2									
		Increment	2									
Q (L/s)		**2**	**4**	**6**	**8**	**10**	**12**	**14**	**16**	**18**	**20**	**22**
HL (m/100m)		0.89	3.22	6.83	11.64	17.59	24.66	32.81	42.01	52.25	63.51	75.77
Hf (m)	*HL x pipe length/*	0.11	0.39	0.82	1.40	2.11	2.96	3.94	5.04	6.27	7.62	9.09
v (m/s)	*Q(m) x area of pi*	0.71	1.41	2.12	2.83	3.54	4.24	4.95	5.66	6.37	7.07	7.78
h1 (m)	*k(cum) x Q(m)^2*	0.09	0.37	0.84	1.50	2.34	3.37	4.59	5.99	7.58	9.36	11.32
H (m)		**3.55**	**4.11**	**5.01**	**6.24**	**7.80**	**9.68**	**11.87**	**14.38**	**17.20**	**20.33**	**23.77**

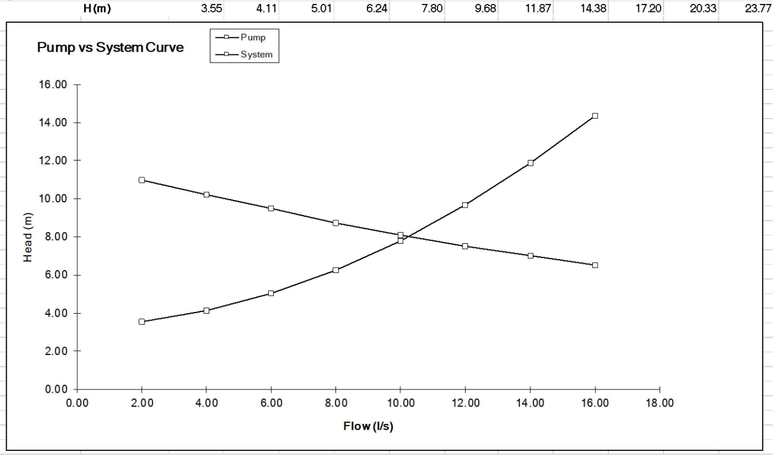
Note: *Hazen-Williams constant*

125-140	Commercial Steel Pipe
135-140	Bitumen lined cast iron pipe
140-145	Copper Tube
145-150	PVC

Rising main =60mm Diameter

Selected Pump = 2 x Aline Submersible Pumps - 80DML 52-2 (2.2Kw 415 Volt)

Pump	**Q(l/s)**	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18	20	22
	H(m)	11.00	10.20	9.50	8.75	8.10	7.50	7.00	6.50	6.00	5.50	5.00
System	**Q(l/s)**	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00
	H(m)	3.55	4.11	5.01	6.24	7.80	9.68	11.87	14.38	17.20	20.33	23.77



GENERAL NOTES

1. ALL WORKS SHALL GENERALLY BE UNDERTAKEN IN ACCORDANCE WITH AS/NZ 3500.3.2:1998 AND COUNCIL'S SPECIFICATIONS &/OR ENGINEERING GUIDELINES;
2. THIS STORMWATER PLAN SHALL BE READ IN CONJUNCTION WITH THE APPROVED ARCHITECTURAL, LANDSCAPE, SURVEY, AND SITE PLANS;
3. ANY DISCREPANCIES OR OMISSIONS SHALL BE REFERRED TO **MULTIPRO** CONSULTANTS TO RESOLVE.
4. ALL DRAINAGE LINES SHALL BE AS FOLLOWS -
   - 90mm DIAMETER WHERE THE LINE ONLY RECEIVES ROOF WATER;
   - 100mm DIAMETER WHERE THE LINE RECEIVES SURFACE RUNOFF OR IF THE LINE IS PART OF AN OSD SYSTEM;
   - A MINIMUM PIPELINE GRADE OF 1% FOR PIPES WITH A DIAMETER LESS THAN 150mm AND 0.5% FOR PIPES OF GREATER DIAMETER;
3. ALL DRAINAGE LINES SHALL HAVE A MINIMUM COVER OF 100mm FOR PRIVATE PIPELINES AND 300mm FOR PUBLIC PIPELINES;
4. ALL PITS WITHIN TRAFFICABLE AREAS (I.E DRIVEWAYS) SHALL BE HEAVY DUTY. ALL SURFACE AREAS SHALL BE GRADED TO THE SURFACE INLET PITS/DRAINS.
5. LOCATION OF DOWN PIPES & FLOOR WASTES ARE INDICATIVE ONLY. DOWNPIPE & FLOOR WASTE SIZE, LOCATION & QUANTITY IS TO BE DETERMINED AT CC STAGE AND PRIOR TO CONSTRUCTION IN ACCORDANCE WITH THE RELEVANT STANDARDS.

UTILITY SERVICES

1. ALL SERVICES AS SHOWN ON THIS PLAN ARE APPROXIMATE ONLY. EXACT LOCATION SHALL BE ACCURATELY LOCATED BY CONTACTING DIAL BEFORE YOU DIG OR THE RELEVANT UTILITY PROVIDER BEFORE COMMENCING ANY EXCAVATION OR BUILDING WORKS.
2. ALL WORKS UNDERTAKEN WITHIN THE ROAD RESERVE / CARRIAGEWAY SHALL HAVE PRIOR APPROVAL FROM THE RELEVANT AUTHORITY, PRIOR TO COMMENCING WORKS.

BASEMENT PUMPOUT SPECIFICATIONS & NOTES

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

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

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

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

IV). AN ALARM SYSTEM SHALL BE PROVIDED WITH A FLASHING 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.

V). A CONFINED SPACE DANGER SIGN SHALL BE PROVIDED AT ALL ACCESS POINTS TO THE PUMP OUT STORAGE TANK..

INSTALL SIGN NEAR TANK

www.dialbeforeyoudig.com.au DIAL 1100 BEFORE YOU DIG

MULTIPRO CONSULTANTS PTY LTD
PO BOX 5468
GREYSTANES NSW 2145
M: 0419 242 726
E: zulfik@bigpond.com
www.multiproconsultant.com.au
ABN: 57615352540

APPROVED BY:
ZULFIQAR KHAN
MIEAust, NER (# 2500471)
Accredited Certifier
(Civil & Structural) (BPB2925)
SIGNED:

PROJECT : 30-32 PARK AVENUE, KINGSWOOD
TITLE : PUMPOUT DRAINAGE DETAILS & CALCULATIONS
DESIGN BY: MPC
CHECKED BY: Z KHAN
SCALE: 1:100 or As Shown
SHEET: 7 OF 8
FILE: JOB 21-165
DATE: 20 AUGUST 2021

APPLICANT/CLIENT: ARCHIDROME
ARCHITECT: ARCHIDROME

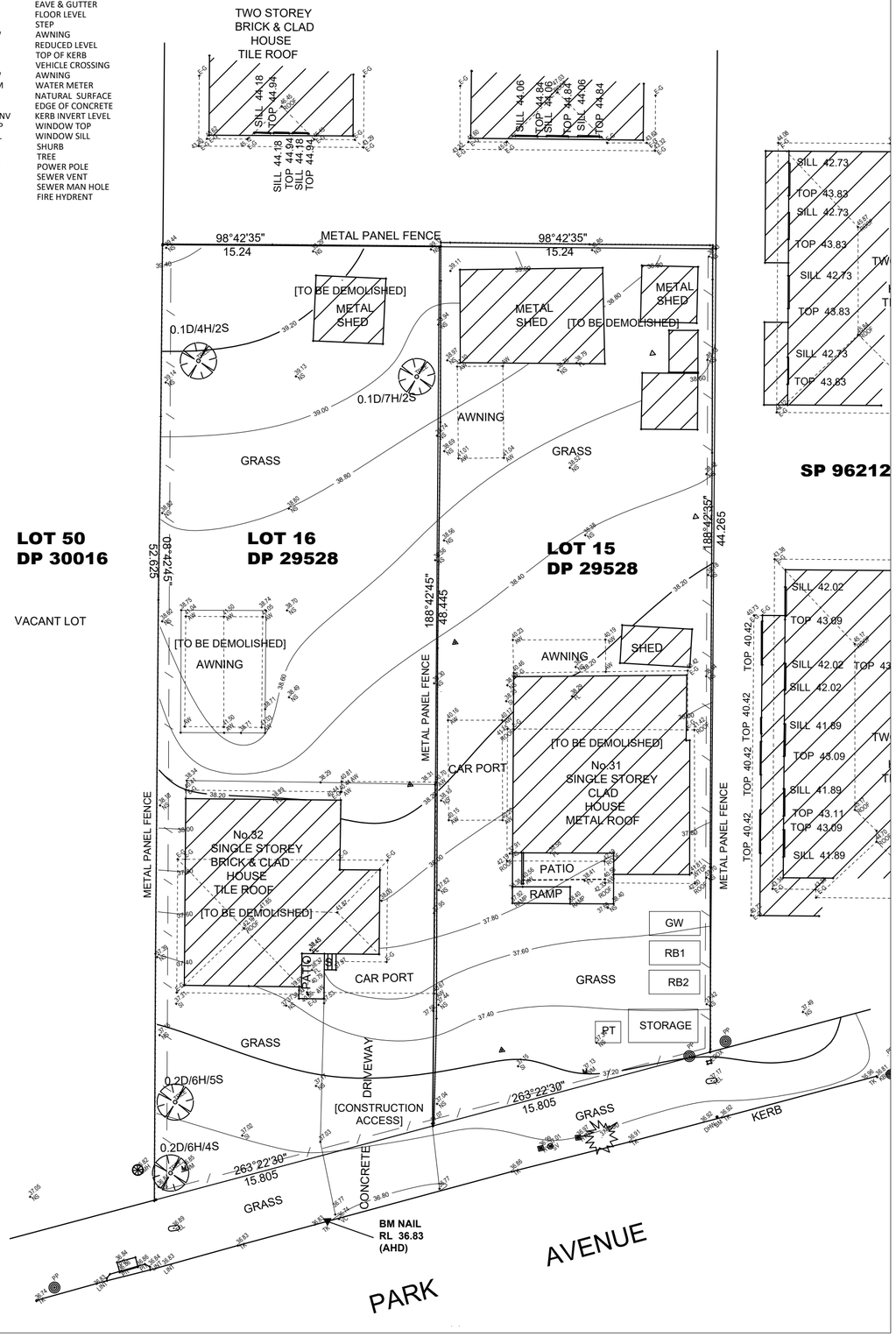
DATE	ISSUE	AMENDMENTS	DESIGNER
		NOT FOR CONSTRUCTION	
20/08/21	A	FOR COUNCIL DA APPROVAL - PROPOSED CHILDCARE CENTRE	MPC01

DRAWING NUMBER: SW-2011A-DA-07
SHEET SIZE: A2

A2 SHEET NO. 08_DWG NO.SW-2011A-DA-08_EROSION & SEDIMENT CONTROL PLAN

LEGEND:

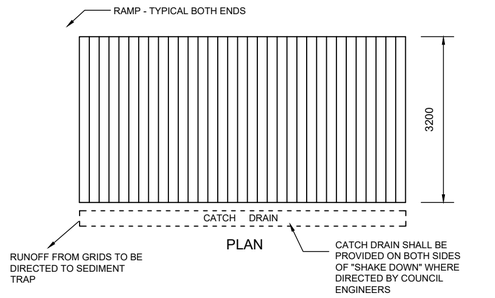
AHD	AUSTRALIAN HEIGHT DATUM
BM	BENCH MARK
TEL	COMMUNICATION PIT
E-G	EAVE & GUTTER
FL	FLOOR LEVEL
S	STEP
AW	AWNING
RL	REDUCED LEVEL
TK	TOP OF KERB
VC	VEHICLE CROSSING
AW	AWNING
WM	WATER METER
NS	NATURAL SURFACE
EC	EDGE OF CONCRETE
KBINV	KERB INVERT LEVEL
TOP	WINDOW TOP
SILL	WINDOW SILL
	SHURB
	TREE
	POWER POLE
	SEWER VENT
	SEWER MAN HOLE
	FIRE HYDRENT



SCALES

1 0.5 0 1 2 3 4 5m 1 : 100 @ A2

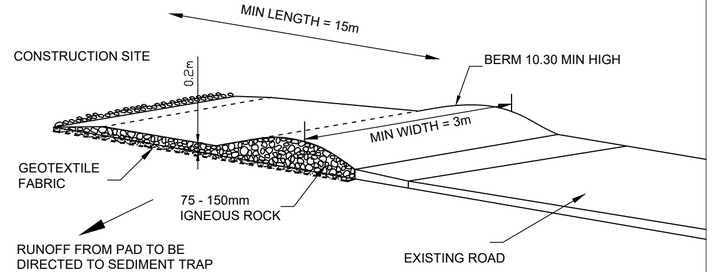
2 1 0 2 4 6 8 10m 1 : 200 @ A3



CATTLE GRID ALTERNATIVE

NOT TO SCALE

CONSTRUCTION ACCESS OPTIONS

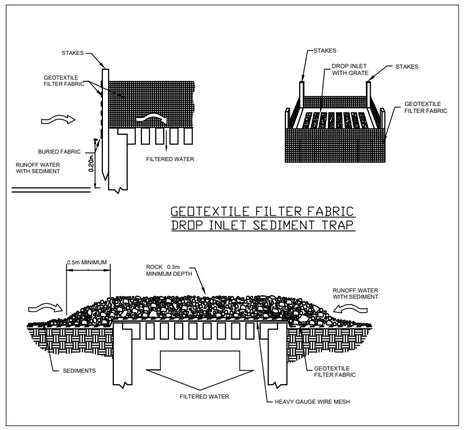


RUBBLE ALTERNATIVE

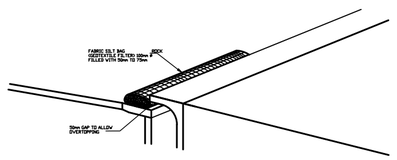
NOT TO SCALE

NOTES

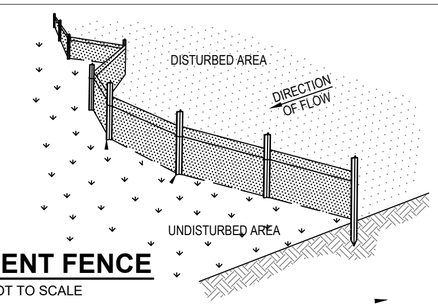
1. EXCAVATE AREA APPROX. 3.3m WIDE BY 2.2m LENGTH. THE FLOOR OF THE EXCAVATION MUST BE FLAT, WITHOUT HIGH POINTS. AN EXCAVATED DEPTH OF 100mm ACCOMMODATES A BEDDING LAYER 50mm THICK AND GRID SET DOWN OF 50mm PER UNIT.
2. BEDDING MATERIAL SHALL BE SAND OR OTHER SUITABLE APPROVED MATERIAL. BEDDING MATERIAL SHALL BE EVENLY RAKED OVER FLOOR OF EXCAVATION TO A DEPTH SLIGHTLY MORE THAN 50mm. ENSURE BEDDING IS LEVEL IN BOTH DIRECTIONS.
3. LOWER CATTLE GRID ONTO THE PREPARED BASE. ENSURE THAT NO PART OF THE UNIT IS SITTING ON ANY HIGH POINT.
4. BACKFILL AND COMPACT AROUND GRID. GRADE EXCAVATED MATERIAL UP TO GRID ON EACH SIDE TO FORM A RAMP. IF DEPRESSIONS OCCUR ON THESE RAMPS WITH USE, ADD ADDITIONAL MATERIAL.
5. MAINTAIN SHAKER GRIDS IN CLEAN AND SERVICEABLE CONDITION DURING TOTAL TIME OF USAGE.
6. MINIMUM LENGTH OF SHAKER PAD = 5 UNITS.



GEOTEXTILE FILTER FABRIC DROP INLET SEDIMENT TRAP

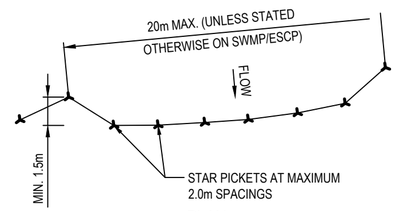


PORTABLE ROCK KERB INLET SEDIMENT TRAP

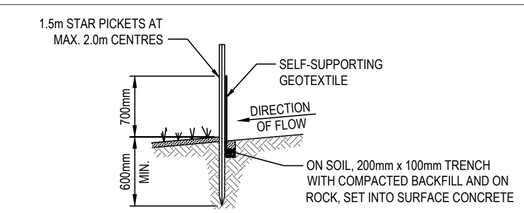


SEDIMENT FENCE

NOT TO SCALE



PLAN



SECTION DETAIL

MULTIPRO CONSULTANTS PTY. LTD.

PO BOX 5468
GREYSTANES NSW 2145
M: 0419 242 726
E: zulfik@bigpond.com
www.multiproconsultant.com.au
ABN: 57615352540

APPROVED BY:
ZULFIQAR KHAN
MIEAust, NER (# 2500471)
Accredited Certifier
(Civil & Structural) (BPB2925)

SIGNED:

PROJECT : 30-32 PARK AVENUE, KINGSWOOD
TITLE : EROSION & SEDIMENT CONTROL PLAN

DESIGN BY: MPC
CHECKED BY: Z KHAN
SCALE: 1:100 or As Shown
SHEET: 8 OF 8
FILE: JOB 21-165
DATE: 20 AUGUST 2021

APPLICANT/CLIENT: ARCHIDROME
ARCHITECT: ARCHIDROME

DATE	ISSUE	AMENDMENTS	DESIGNER
		NOT FOR CONSTRUCTION	
20/08/21	A	FOR COUNCIL DA APPROVAL - PROPOSED CHILDCARE CENTRE	MPC01

DRAWING NUMBER: SW-2011A-DA-08
SHEET SIZE: A2