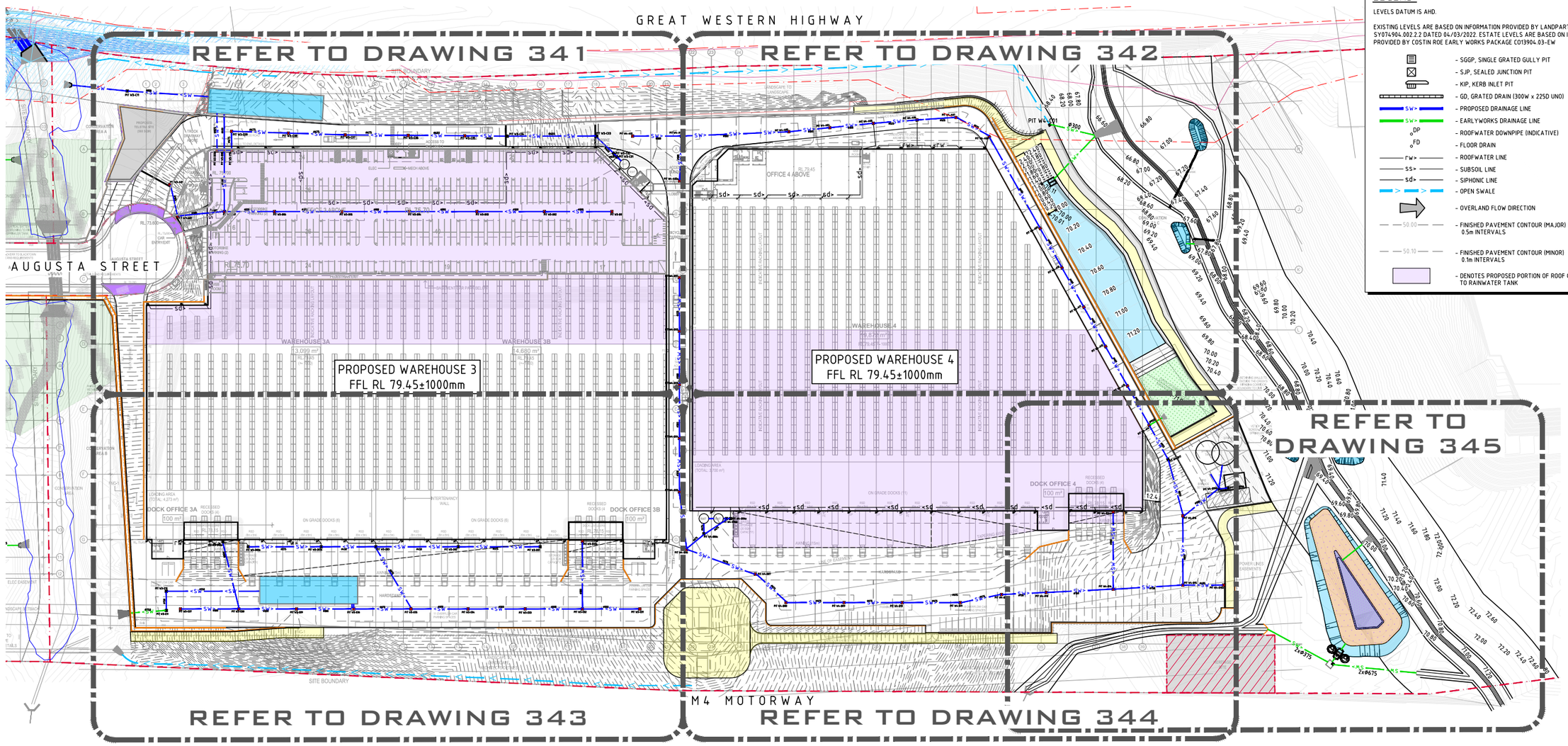


WAREHOUSE 3&4 - STORMWATER DRAINAGE KEY PLAN
SCALE 1:750

STORMWATER DRAINAGE NOTES:

STORMWATER DRAINAGE NOTES ARE APPLICABLE FOR PRIVATE INTERNAL STORMWATER DRAINAGE WORKS ONLY, REFERENCE SHOULD BE MADE TO THE RELEVANT COUNCIL/ ROADS AUTHORITY GUIDELINES AND SPECIFICATIONS FOR ALL STORMWATER DRAINAGE WORKS NOT PART OF THE PRIVATE INTERNAL WORKS.

1. ALL STORMWATER WORKS TO BE COMPLETED IN ACCORDANCE WITH AUSTRALIAN STANDARD AS3500.3 PLUMBING AND DRAINAGE, PART 3: STORMWATER DRAINAGE.
2. THE MINOR (PIPED) SYSTEM HAS BEEN DESIGNED FOR THE 1 IN 20 YEAR ARI STORM EVENT AND THE MAJOR (OVERLAND) SYSTEM HAS BEEN DESIGNED FOR THE 1 IN 100 YEAR ARI STORM EVENT.
3. ALL FINISHED PAVEMENT LEVELS SHALL BE AS INDICATED ON FINISHED LEVELS PLANS 13904.03-SMMD2-350 TO 356.
4. PIT SIZES SHALL BE AS INDICATED IN THE SCHEDULE WHILE PIPE SIZES AND DETAILS ARE PROVIDED ON PLAN.
5. EXISTING STORMWATER PIT LOCATIONS AND INVERT LEVELS TO BE CONFIRMED BY SURVEY PRIOR TO COMMENCING WORKS ON SITE.
6. ALL STORMWATER PIPES Φ375 OR GREATER SHALL BE CLASS 2 (WITH HS2 SUPPORT) REINFORCED CONCRETE WITH RUBBER RING JOINTS UNLESS NOTED OTHERWISE.
7. ALL PIPES UP TO AND INCLUDING Φ300 TO BE uPVC GRADE SN8 UNO.
8. PIPE CLASS NOMINATED ARE FOR IN-SERVICE LOADING CONDITIONS ONLY. CONTRACTOR IS TO MAKE ANY NECESSARY ADJUSTMENTS REQUIRED FOR CONSTRUCTION CONDITIONS.
9. ALL CONCRETE PITS GREATER THAN 1000mm DEEP SHALL BE REINFORCED USING N12-200 EACH WAY CENTERED IN WALL AND BASE. LAP MINIMUM 300mm WHERE REQUIRED. ALL CONCRETE FOR PITS SHALL BE F'c=25 MPa. PRECAST PITS MAY BE USED WITH THE APPROVAL OF THE ENGINEER.
10. IN ADDITION TO ITEM 9 ABOVE, ALL CONCRETE PITS GREATER THAN 3000mm DEEP SHALL HAVE WALLS AND BASE THICKNESS INCREASED TO 200mm.
11. PIPES SHALL BE LAID AS PER PIPE LAYING DETAILS. PARTICULAR CARE SHALL BE TAKEN TO ENSURE THAT THE PIPE IS FULLY AND EVENLY SUPPORTED. RAM AND PACK FILLING AROUND AND UNDER BACK OF PIPES AND PIPE FAUCETS, WITH NARROW EDGED RAMMERS OR OTHER SUITABLE TAMPING DETAILS.
12. CONCRETE PIPES UNDER, OR WITHIN THE ZONE OF INFLUENCE OF PAVED AREAS SHALL BE LAID USING HS2 TYPE SUPPORT, AS A MINIMUM, IN ACCORDANCE WITH AS 3725. AGGREGATE BACKFILL SHALL NOT BE USED FOR PIPE BEDDING AND OR HAUNCH/SIDE SUPPORT.
13. WHERE PIPE LINES ENTER PITS, PROVIDE 2m LENGTH OF STOCKING WRAPPED SLOTTED Φ100 uPVC TO EACH SIDE OF PIPE.
14. ALL SUBSOIL DRAINAGE LINES SHALL BE Φ100 SLOTTED uPVC WITH APPROVED FILTER WRAP LAID IN 300mm WIDE GRANULAR FILTER UNLESS NOTED OTHERWISE. LAY SUBSOIL LINES TO MATCH FALLS OF LAND AND/OR 1 IN 200 MINIMUM. PROVIDE CAPPED CLEANING EYE (RODDING POINT) AT UPSTREAM END OF LINE AND AT 30m MAX. CTS. PROVIDE SUBSOIL LINES TO ALL PAVEMENT/ LANDSCAPED INTERFACES, TO REAR OF RETAINING WALLS (AS NOMINATED BY STRUCTURAL ENGINEER) AND AS SHOWN ON PLAN.
15. WHERE SUBSOIL DRAINAGE PASSES UNDER A PAVEMENT OR A SLAB, UNSLOTTED UPVC ARE TO BE PROVIDED UNLESS NOTED OTHERWISE.
16. ALL PIPE GRADES 1 IN 200 MINIMUM UNO.
17. PROVIDE STEP IRONS IN PITS DEEPER THAN 1000mm.
18. MIN. 600 COVER TO PIPE OBVERT BENEATH ROADS & MIN. 400 COVER BENEATH LANDSCAPED AND PEDESTRIAN AREAS.
19. PIT COVERS IN TRAFFICABLE PAVEMENT SHALL BE CLASS D 'HEAVY DUTY'. WHERE FORKLIFT USE IS REQUIRED EXTERNAL TO THE BUILDING PIT COVERS SHALL BE MIN. CLASS E. PIT COVERS IN CONTAINER PAVEMENTS ARE TO BE MIN. CLASS G. REFER TO ENGINEER FOR SPECIAL DETAILS. THOSE LOCATED IN NON-TRAFFICABLE AREAS SHALL BE CLASS B 'MEDIUM DUTY' U.N.O.
20. PROVIDE CLEANING EYES (RODDING POINTS) TO PIPES AT ALL CORNERS AND T-JUNCTIONS WHERE NO PITS ARE PRESENT.
21. DOWN PIPES (DP) TO BE AS PER HYDRAULIC ENGINEERS DETAILS WITH CONNECTOR TO MATCH DP SIZE U.N.O. ON PLAN. PROVIDE CLEANING EYE AT GROUND LEVEL.
22. PIPE LENGTHS NOMINATED ON PLAN OR LONGSECTIONS ARE MEASURED FROM CENTER OF PITS TO THE NEAREST 0.5m AND DO NOT REPRESENT ACTUAL LENGTH. THE CONTRACTOR IS TO ALLOW FOR THIS.
23. WHERE CONNECTION TO EXISTING INGROUND DRAINAGE SYSTEMS, OPEN SWALES, CHANNELS OR ANY OTHER EXISTING SYSTEM, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION AND INVERT ON SITE AT THE BEGINNING OF THE CONSTRUCTION PERIOD. REFER ANY VARIANCE FROM DOCUMENTATION OR SURVEYS TO THE ENGINEER FOR CLARIFICATION.

WAREHOUSE 3&4 NOTE:

PITS TO BE FITTED WITH OCEAN PROTECT 'OCEANGUARD OG200' INSERT. SHOWN THUS ◇
REFER TO PIT SCHEDULE.

ROOFWATER NOTE:

ROOFWATER LINES TO HAVE NOMINAL 0.5% FALL TO PITS. ENSURE MINIMUM 600 COVER IS MAINTAINED TO ALL PIPES. REFER ALL CONCERN TO ENGINEER. TYPICAL

LEVELS NOTE:

LEVELS SHOWN TO BE +/-1000mm FROM THOSE SHOWN.
FINAL LEVELS SUBJECT TO FINAL GEOTECHNICAL INVESTIGATIONS, ARCHITECTURAL LAYOUT AND ACHIEVING A CUT TO FILL EARTHWORKS BALANCE OVER THE PROPERTY.

GENERAL NOTES:

SUBSOIL DRAINAGE TO BE INSTALLED ALONG ALL KERB AND LANDSCAPED INTERFACES.

6m 0 15 30 45 60 75m
SCALE 1:750 AT B1 SIZE SHEET

FOR SSDA MOD

AMENDMENTS	DATE	ISSUE
ISSUED FOR SSDA MOD	19.06.26	D
ISSUED FOR SSDA MOD	12.06.26	C
ISSUED FOR INFORMATION	05.06.26	B
ISSUED FOR INFORMATION	02.06.26	A

AMENDMENTS DATE ISSUE

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PROJECT
PROPOSED WAREHOUSE DISTRIBUTION
AUGUSTA STREET, HUNTINGWOOD EAST, NSW 2148

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
KP	JB	JUNE 2026	LDV	B1	AS SHOWN	C013904.03-SMMD2-340

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DRAWING TITLE
WH3&4 - STORMWATER DRAINAGE KEY PLAN

DRAWING No C013904.03-SMMD2-340 ISSUE D

GREAT WESTERN HIGHWAY

CATCHMENT 3A: STORMWATER MANAGEMENT SYSTEM:

COMBINED STORMWATER QUALITY/QUANTITY MANAGEMENT SYSTEM
UNDERGROUND TANK WITH FILTER CHAMBER (OCEAN PROTECT 690mm ZPG STORMFILTERS)
NUMBER OF STORMFILTER CARTRIDGES = 60
ON-SITE DETENTION VOLUME PROVIDED = 920m³
LENGTH: 47m
WIDTH: 10m

AMPLITEL SITE.
WORKS ON THIS SITE FORM PART OF A SEPERATE DEVELOPMENT APPLICATION.

SITE BOUNDARY

FNC-1

PROPOSED 1m WIDE BASE, 0.50m DEEP SWALE WITH MAX 1V:3H SIDE SLOPES TO NEAREST DISCHARGE LOCATION

LANDSCAPE SETBACK BATTERED AT 1V:2.5H MAX TO MATCH EXISTING LEVELS AT BOUNDARY

PROPOSED RETAINING WALL

LANDSCAPE TO LANDSCAPE ARCHITECTS DETAILS

20m LANDSCAPE SETBACK

1m HIGH ARMCO BALUSTRADE

PROPOSED TELSTRA SITE (60 SQM)

TRUCK DRIVEWAY ABOVE

ACCESS ROAD

RETAINING WALL TO ENG. DETAILS

LOBBY

ACCESS TO BUILDING 3

MOTORBIKE PARKING (2)

ACCESS BUILDING

PROVIDE FIRST FLUSH DIVERTER TO RAINWATER TANK. FIRST FLUSH DIVERTER SYSTEM TO BE CONFIRMED BY HYDRAULIC ENGINEER

PROPOSED SYPHONIC DRAINAGE AT ROOF LEVEL

PROPOSED SYPHONIC DRAINAGE AT ROOF LEVEL TO DISCHARGE TO PROPOSED FIRST FLUSH PIT PRIOIR TO RWT

PROPOSED 65kL RAINWATER TANK. DETAILS TO BE CONFIRMED BY HYDRAULIC ENGINEER.

ELEC

MECH ABOVE

LANDSCAPE RAMP 25

STAIR TO GF

TRUCK ENTRY

RL. 73.600

CAR ENTRY/EXIT

AUGUSTA STREET

PROPOSED ENTRY TO UNDERCROFT CARPARK REFER TO DRAWING C346

OFFICE 3 ABOVE

RL.75.70

PEDESTRIAN EXIT

MSB ROOM

LANDSCAPE TO LANDSCAPE ARCHITECTS DETAILS

SUBSTATION

PROPOSED CROSSOVER IN ACCORDANCE WITH COUNCIL STANDARD DRAWINGS. ALL EXISTING SERVICES ALIGNMENT, FITTINGS AND DEPTHS TO BE CONFIRMED VIA POTHOLING PRIOR TO COMMENCEMENT OF WORKS. TYPICAL

TRUCK EXIT ROAD

MATCH LINE

PROPOSED REINFORCED EARTH RETAINING WALL IN FILL BY EARLY WORKS CONTRACTOR

INDICATIVE RACKING LAYOUT

WAREHOUSE 3A

13,099 m²

PORTION OF ROOF AND AWNING TO RAINWATER TANK SHOWN HATCHED

PROPOSED REINFORCED EARTH RETAINING WALL

BASEMENT CAR PARK BELOW

PROPOSED WAREHOUSE 3
FFL RL 79.45±1000mm

BREAKLINE - REFER TO DRAWING 343 FOR CONTINUATION

BREAKLINE - REFER TO DRAWING 342 FOR CONTINUATION

WAREHOUSE 3&4 NOTE:

PITS TO BE FITTED WITH OCEAN PROTECT 'OCEANGUARD OG200' INSERT. SHOWN THUS ◇ REFER TO PIT SCHEDULE.

ROOFWATER NOTE:

ROOFWATER LINES TO HAVE NOMINAL 0.5% FALL TO PITS. ENSURE MINIMUM 600 COVER IS MAINTAINED TO ALL PIPES. REFER ALL CONCERN TO ENGINEER. TYPICAL

LEVELS NOTE:

LEVELS SHOWN TO BE +/-1000mm FROM THOSE SHOWN.
FINAL LEVELS SUBJECT TO FINAL GEOTECHNICAL INVESTIGATIONS, ARCHITECTURAL LAYOUT AND ACHIEVING A CUT TO FILL EARTHWORKS BALANCE OVER THE PROPERTY.

GENERAL NOTES:

1. REFER TO DRAWINGS 340 FOR STORMWATER DRAINAGE NOTES.
2. SUBSOIL DRAINAGE TO BE INSTALLED ALONG ALL KERB AND LANDSCAPED INTERFACES.

LEGEND:

LEVELS DATUM IS AHD.

EXISTING LEVELS ARE BASED ON INFORMATION PROVIDED BY LANDPARTNERS TITLED SY074904.002 2.2 DATED 04/03/2022. ESTATE LEVELS ARE BASED ON INFORMATION PROVIDED BY COSTIN ROE EARLY WORKS PACKAGE C013904.03-EW

- SGGP, SINGLE GRATED GULLY PIT
- SJP, SEALED JUNCTION PIT
- KIP, KERB INLET PIT
- GD, GRATED DRAIN (300W x 225D UNO)
- PROPOSED DRAINAGE LINE
- EARLYWORKS DRAINAGE LINE
- ROOFWATER DOWNPIPE (INDICATIVE)
- FLOOR DRAIN
- ROOFWATER LINE
- SUBSOIL LINE
- SIPHONIC LINE
- OPEN SWALE
- OVERLAND FLOW DIRECTION
- FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
- FINISHED PAVEMENT CONTOUR (MINOR) 0.1m INTERVALS
- DENOTES PROPOSED PORTION OF ROOF OR AWNING TO RAINWATER TANK

WAREHOUSE 3&4- STORMWATER DRAINAGE PLAN - SHEET 1

SCALE 1:250

2m 0 5 10 15 20 25m
SCALE 1:250 AT B1 SIZE SHEET

FOR SSDA MOD

AMENDMENTS	DATE	ISSUE
ISSUED FOR SSDA MOD	24.06.26	E
ISSUED FOR SSDA MOD	19.06.26	D
ISSUED FOR SSDA MOD	12.06.26	C
ISSUED FOR INFORMATION	05.06.26	B
ISSUED FOR INFORMATION	02.06.26	A

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CLIENT: ESR

PROJECT: PROPOSED WAREHOUSE DISTRIBUTION
AUGUSTA STREET, HUNTINGWOOD EAST, NSW 2148

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
KP	JB	JUNE 2026	LDV	B1	AS SHOWN	C013904.03-SMMD2-341

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DRAWING TITLE: WH3&4 - STORMWATER DRAINAGE PLAN - SHEET 1

DRAWING No: C013904.03-SMMD2-341 ISSUE: E

GREAT WESTERN HIGHWAY

LANDSCAPE SETBACK BATTERED AT 1V:2.5H MAX TO MATCH EXISTING LEVELS AT BOUNDARY

PROPOSED 1m WIDE BASE, 0.50m DEEP SWALE WITH MAX 1V:3H SIDE SLOPES TO NEAREST DISCHARGE LOCATION

PROPOSED MAINTENANCE ACCESS TRACK. ALL ACCESS TRACKS TO HAVE A MAX 10% GRADE. TBC DURING DETAIL DESIGN.

SITE BOUNDARY

PROPOSED REINFORCED EARTH RETAINING WALL IN FILL BY EARLY WORKS CONTRACTOR

LANDSCAPE TO LANDSCAPE ARCHITECTS DETAILS

PIT W4-A02 PIT W4-A03 PIT W4-A04 PIT W4-A05 PIT W4-A06 PIT W4-A07 PIT W4-A08 PIT W4-A09 PIT W4-A10 PIT W4-A11 PIT W4-A12 PIT W4-A13

PIT W4-C01

PIT W4-A02a SKY BRIDGE ABOVE

PIT W4-B01 PIT W4-B02 PIT W4-B03

Ø300 Ø525 Ø600

1.0% 1.5% 2.0%

RW SW> sd> DP FD FE

TRUCK ACCESS ROAD

90m ARMCO BALUSTRADE

ACCESS TO BUILDING 4

OFFICE ABOVE

ENTRY

LOBBY

OFFICE 4 ABOVE RL.79.45

SUBSTATION

MSB ROOM

METAL STAIR

BICYCLE PARKING (27)

2 WAY TRUCK ACCESS ROAD

INDICATIVE RACKING LAYOUT

PROPOSED SYPHONIC DRAINAGE TO DISCHARGE TO IN-GROUND BREAK PIT W4-A07

PORTION OF ROOF AND AWNING TO RAINWATER TANK SHOWN HATCHED

WAREHOUSE 4
19,872 m²
RL.79.45 (+- 1000)

PROPOSED WAREHOUSE 4
FFL RL 79.45±1000mm

CATCHMENT 4: STORMWATER MANAGEMENT SYSTEM:
COMBINED STORMWATER QUALITY/QUANTITY MANAGEMENT BASIN
BIO-RETENTION AREA PROVIDED = 500m²
300mm EXTENDED DETENTION DEPTH
500mm MIN FILTER MEDIA
ON-SITE DETENTION VOLUME PROVIDED = 2,530m³
BY EARLY WORKS CONTRACTOR.

OPEN STORMWATER MANAGEMENT BASIN

PROPOSED FROG POND BY EARLY WORKS CONTRACTOR.

PROPOSED REINFORCED EARTH RETAINING WALL IN FILL BY EARLY WORKS CONTRACTOR

THE BANK

BREAKLINE - REFER TO DRAWING 341 FOR CONTINUATION

BREAKLINE - REFER TO DRAWING 344 FOR CONTINUATION

MATCH LINE

MATCH LINE

LEGEND:

LEVELS DATUM IS AHD.

EXISTING LEVELS ARE BASED ON INFORMATION PROVIDED BY LANDPARTNERS TITLED SY074904.002.2.2 DATED 04/03/2022. ESTATE LEVELS ARE BASED ON INFORMATION PROVIDED BY COSTIN ROE EARLY WORKS PACKAGE C013904.03-EW

- SGGP, SINGLE GRATED GULLY PIT
- SJP, SEALED JUNCTION PIT
- KIP, KERB INLET PIT
- GD, GRATED DRAIN (300W x 225D UNO)
- PROPOSED DRAINAGE LINE
- EARLYWORKS DRAINAGE LINE
- ROOFWATER DOWNPIPE (INDICATIVE)
- FLOOR DRAIN
- ROOFWATER LINE
- SUBSOIL LINE
- SIPHONIC LINE
- OPEN SWALE
- OVERLAND FLOW DIRECTION
- FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
- FINISHED PAVEMENT CONTOUR (MINOR) 0.1m INTERVALS
- DENOTES PROPOSED PORTION OF ROOF OR AWNING TO RAINWATER TANK

WAREHOUSE 3&4 NOTE:

PITS TO BE FITTED WITH OCEAN PROTECT 'OCEANGUARD OG200' INSERT. SHOWN THUS ◇ REFER TO PIT SCHEDULE.

ROOFWATER NOTE:

ROOFWATER LINES TO HAVE NOMINAL 0.5% FALL TO PITS. ENSURE MINIMUM 600 COVER IS MAINTAINED TO ALL PIPES. REFER ALL CONCERN TO ENGINEER. TYPICAL

LEVELS NOTE:

LEVELS SHOWN TO BE +/-1000mm FROM THOSE SHOWN.
FINAL LEVELS SUBJECT TO FINAL GEOTECHNICAL INVESTIGATIONS, ARCHITECTURAL LAYOUT AND ACHIEVING A CUT TO FILL EARTHWORKS BALANCE OVER THE PROPERTY.

GENERAL NOTES:

1. REFER TO DRAWINGS 340 FOR STORMWATER DRAINAGE NOTES.
2. SUBSOIL DRAINAGE TO BE INSTALLED ALONG ALL KERB AND LANDSCAPED INTERFACES.

WAREHOUSE 3&4 - STORMWATER DRAINAGE PLAN - SHEET 2
SCALE 1:250

2m 0 5 10 15 20 25m
SCALE 1:250 AT B1 SIZE SHEET

FOR SSDA MOD

AMENDMENTS	DATE	ISSUE
ISSUED FOR SSDA MOD	24.06.26	E
ISSUED FOR SSDA MOD	19.06.26	D
ISSUED FOR SSDA MOD	12.06.26	C
ISSUED FOR INFORMATION	05.06.26	B
ISSUED FOR INFORMATION	02.06.26	A

AMENDMENTS DATE ISSUE

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PROJECT
PROPOSED WAREHOUSE DISTRIBUTION
AUGUSTA STREET, HUNTINGWOOD EAST, NSW 2148

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
KP	JB	JUNE 2026	LDV	B1	AS SHOWN	C013904.03-SMMD2-342

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DRAWING TITLE
WH3&4 - STORMWATER DRAINAGE PLAN - SHEET 2

DRAWING No C013904.03-SMMD2-342

ISSUE E

BREAKLINE - REFER TO DRAWING 341 FOR CONTINUATION

MATCH LINE

PROPOSED WAREHOUSE 3
FFL RL 79.45±1000mm

WAREHOUSE 3&4NOTE:

PITS TO BE FITTED WITH OCEAN PROTECT 'OCEANGUARD OG200' INSERT. SHOWN THUS ◇
REFER TO PIT SCHEDULE.

ROOFWATER NOTE:

ROOFWATER LINES TO HAVE NOMINAL 0.5% FALL TO PITS. ENSURE MINIMUM 600 COVER IS MAINTAINED TO ALL PIPES. REFER ALL CONCERN TO ENGINEER. TYPICAL

LEVELS NOTE:

LEVELS SHOWN TO BE +/-100mm FROM THOSE SHOWN.
FINAL LEVELS SUBJECT TO FINAL GEOTECHNICAL INVESTIGATIONS, ARCHITECTURAL LAYOUT AND ACHIEVING A CUT TO FILL EARTHWORKS BALANCE OVER THE PROPERTY.

GENERAL NOTES:

1. REFER TO DRAWINGS 340 FOR STORMWATER DRAINAGE NOTES.
2. SUBSOIL DRAINAGE TO BE INSTALLED ALONG ALL KERB AND LANDSCAPED INTERFACES.

LEGEND:

LEVELS DATUM IS AHD.

EXISTING LEVELS ARE BASED ON INFORMATION PROVIDED BY LANDPARTNERS TITLED SY074904.002.2.2 DATED 04/03/2022. ESTATE LEVELS ARE BASED ON INFORMATION PROVIDED BY COSTIN ROE EARLY WORKS PACKAGE C013904.03-EW

- SGGP, SINGLE GRATED GULLY PIT
- SJP, SEALED JUNCTION PIT
- KIP, KERB INLET PIT
- GD, GRATED DRAIN (300W x 225D UNO)
- PROPOSED DRAINAGE LINE
- EARLYWORKS DRAINAGE LINE
- ROOFWATER DOWNPIPE (INDICATIVE)
- FLOOR DRAIN
- ROOFWATER LINE
- SUBSOIL LINE
- SIPHONIC LINE
- OPEN SWALE
- OVERLAND FLOW DIRECTION
- FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
- FINISHED PAVEMENT CONTOUR (MINOR) 0.1m INTERVALS
- DENOTES PROPOSED PORTION OF ROOF OR AWNING TO RAINWATER TANK

CATCHMENT 3B: STORMWATER MANAGEMENT SYSTEM:

COMBINED STORMWATER QUALITY/QUANTITY MANAGEMENT SYTEM
UNDERGROUND TANK WITH FILTER CHAMBER (OCEAN PROTECT 690mm ZPG STORMFILTERS)
NUMBER OF STORMFILTER CARTRIDGES = 110
ON-SITE DETENTION VOLUME PROVIDED = 1030m³
LENGTH: 40m
WIDTH: 10m

ROOFWATER LINES TO HAVE NOMINAL 0.5% FALL TO PITS. ENSURE MINIMUM 600 COVER IS MAINTAINED TO ALL PIPES. REFER ALL CONCERN TO ENGINEER. TYPICAL

PROPOSED REINFORCED EARTH RETAINING WALL IN FILL BY EARLY WORKS CONTRACTOR

PROPOSED REINFORCED EARTH RETAINING WALL IN FILL BY EARLY WORKS CONTRACTOR

PROPOSED MAINTENANCE ACCESS TRACK. ALL ACCESS TRACKS TO HAVE A MAX 10% GRADE. TBC DURING DETAIL DESIGN.

LANDSCAPE SETBACK BATTERED AT 1V:3H MAX TO MATCH EXISTING LEVELS AT BOUNDARIES.

OPEN 2m WIDE SWALE TO DIRECT DRAINAGE AROUND SITE TO REHABILITATED MEANDERING SWALE

M4 MOTORWAY

BREAKLINE - REFER TO DRAWING 344 FOR CONTINUATION

NOTE:

THESE DRAWINGS ARE ISSUED FOR THE PURPOSE OF PROVIDING THE CIVIL CONCEPT ONLY FOR THE DESIGN AND CONSTRUCT TENDER
THIS IS NOT DETAILED DESIGN
THE CIVIL DETAILS SHALL BE SUBJECT TO CHANGE DURING THE DETAILED DESIGN STAGE

WAREHOUSE 3&4- STORMWATER DRAINAGE PLAN - SHEET 3
SCALE 1:250

2m 0 5 10 15 20 25m
SCALE 1:250 AT B1 SIZE SHEET

FOR SSDA MOD

AMENDMENTS	DATE	ISSUE
ISSUED FOR SSDA MOD	24.06.26	D
ISSUED FOR SSDA MOD	19.06.26	C
ISSUED FOR SSDA MOD	12.06.26	B
ISSUED FOR INFORMATION	02.06.26	A

ARCHITECT: sba — p: 02 9929 9988 e: info@sba.au w: www.sba.au

CLIENT: ESR

PROJECT: PROPOSED WAREHOUSE DISTRIBUTION
AUGUSTA STREET, HUNTINGWOOD EAST, NSW 2148

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
KP	JB	JUNE 2026	LDV	B1	AS SHOWN	C013904.03-SMMD2-343

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CRC COSTIN ROE CONSULTING — CIVIL & STRUCTURAL ENGINEERS

DRAWING TITLE: WH3&4 - STORMWATER DRAINAGE PLAN - SHEET 3
DRAWING No: C013904.03-SMMD2-343
ISSUE: D

BREAKLINE - REFER TO DRAWING 342 FOR CONTINUATION

BREAKLINE - REFER TO DRAWING 343 FOR CONTINUATION

BREAKLINE - REFER TO DRAWING 345 FOR CONTINUATION

LEGEND:

LEVELS DATUM IS AHD.

EXISTING LEVELS ARE BASED ON INFORMATION PROVIDED BY LANDPARTNERS TITLED SY074904.002.2.2 DATED 04/03/2022. ESTATE LEVELS ARE BASED ON INFORMATION PROVIDED BY COSTIN ROE EARLY WORKS PACKAGE C013904.03-EW

- SGGP, SINGLE GRATED GULLY PIT
- SJP, SEALED JUNCTION PIT
- KIP, KERB INLET PIT
- GD, GRATED DRAIN (300W x 225D UNO)
- PROPOSED DRAINAGE LINE
- EARLYWORKS DRAINAGE LINE
- ROOFWATER DOWNPIPE (INDICATIVE)
- FLOOR DRAIN
- ROOFWATER LINE
- SUBSOIL LINE
- SIPHONIC LINE
- OPEN SWALE
- OVERLAND FLOW DIRECTION
- FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
- FINISHED PAVEMENT CONTOUR (MINOR) 0.1m INTERVALS
- DENOTES PROPOSED PORTION OF ROOF OR AWNING TO RAINWATER TANK

WAREHOUSE 3&4 NOTE:

PITS TO BE FITTED WITH OCEAN PROTECT 'OCEANGUARD OG200' INSERT. SHOWN THUS ◇ REFER TO PIT SCHEDULE.

ROOFWATER NOTE:

ROOFWATER LINES TO HAVE NOMINAL 0.5% FALL TO PITS. ENSURE MINIMUM 600 COVER IS MAINTAINED TO ALL PIPES. REFER ALL CONCERN TO ENGINEER. TYPICAL

LEVELS NOTE:

LEVELS SHOWN TO BE +/-1000mm FROM THOSE SHOWN.
FINAL LEVELS SUBJECT TO FINAL GEOTECHNICAL INVESTIGATIONS, ARCHITECTURAL LAYOUT AND ACHIEVING A CUT TO FILL EARTHWORKS BALANCE OVER THE PROPERTY.

GENERAL NOTES:

1. REFER TO DRAWINGS 340 FOR STORMWATER DRAINAGE NOTES.
2. SUBSOIL DRAINAGE TO BE INSTALLED ALONG ALL KERB AND LANDSCAPED INTERFACES.

PROPOSED WAREHOUSE 4
FFL RL 79.45±1000mm

INDICATIVE RA LAYOUT

PORTION OF ROOF AND AWNING TO RAINWATER TANK SHOWN HATCHED

CATCHMENT 4 SITE DISCHARGE POINT 1 INTO BIORETENTION BASIN. OUTLET PIPELINE TO BE INSTALLED THROUGH RETAINING WALL BY EARLY WORKS CONTRACTOR.

OPEN STORMWATER MANAGEMENT BASIN

PROPOSED SPRINKLER TANK

PROPOSED 85kL RAINWATER TANK. DETAILS TO BE CONFIRMED BY HYDRAULIC ENGINEER.

PROPOSED SYPHONIC DRAINAGE TO DISCHARGE TO PROPOSED FIRST FLUSH PIT PRIOIR TO RWT

PROPOSED SYPHONIC DRAINAGE TO DISCHARGE TO IN-GROUND BREAK PIT W4-B08a

PROPOSED RECESSED DOCK 1300 DEEP

PROVIDE FIRST FLUSH DIVERTER TO RAINWATER TANK. FIRST FLUSH DIVERTER SYSTEM TO BE CONFIRMED BY HYDRAULIC ENGINEER

ON GRADE DOCKS (11)

RECESSED DOCKS (4)

DOCK LEVELLERS RL 78.15

100 m²

AWNING ABOVE

AWNING (15m)

AWNING (5m)

TAPERING AWNING LINE

WASTE STORAGE (20 SQM CAPACITY)

TELESCOPIC SLIDING GATE

LINE OF EASEMENT

HARDSTAND

FNC-1

1 OVERFLOW CAR PARKING PACES

18 OVERFLOW CAR PARKING SPACES

RW - TO ENG. DETAILS

ACCESS TRACKS FOR ENDEVOUR ENERGY VEHICLES

20m LANDSCAPE SETBACK

LANDSCAPE TO LANDSCAPE ARCHITECTS DETAILS

FIRE BRIGADE SETDOWN

SPRINKLER TANK

PUMP ROOM

HERITAGE SITE

SITE BOUNDARY

PROPOSED REINFORCED EARTH RETAINING WALL IN FILL BY EARLY WORKS CONTRACTOR

PROPOSED ACCESS TO EXISTING ELECTRICAL TOWERS. ALL ACCESS TRACKS TO HAVE A MAX 10% GRADE. TBC DURING DETAIL DESIGN.

OPEN SWALE DIVERTING OVERLAND FLOW FROM UPSTREAM CATCHMENT AROUND SITE ALONG SIMILAR ROUTE TO EXISTING

HERITAGE SITE SHOWN THUS. NO WORKS WITHIN HERITAGE ZONE. MATCH LEVELS AT BOUNDARY OF HERITAGE SITE.

M4 MOTORWAY

WAREHOUSE 3&4 - STORMWATER DRAINAGE PLAN - SHEET 4
SCALE 1:250

2m 0 5 10 15 20 25m
SCALE 1:250 AT B1 SIZE SHEET

FOR SSDA MOD

AMENDMENTS	DATE	ISSUE
ISSUED FOR SSDA MOD	19.06.26	C
ISSUED FOR SSDA MOD	12.06.26	B
ISSUED FOR INFORMATION	02.06.26	A

ARCHITECT
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CLIENT
ESR

PROJECT
PROPOSED WAREHOUSE DISTRIBUTION
AUGUSTA STREET, HUNTINGWOOD EAST, NSW 2148

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
KP	JB	JUNE 2026	LDV	B1	AS SHOWN	C013904.03-SMMD2-344

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COSTIN ROE CONSULTING — CIVIL & STRUCTURAL ENGINEERS

DRAWING TITLE
WH3&4 - STORMWATER DRAINAGE PLAN - SHEET 4

DRAWING No C013904.03-SMMD2-344

ISSUE C

BREAKLINE - REFER TO DRAWING 342 FOR CONTINUATION

MAIN LINE

LEGEND:

LEVELS DATUM IS AHD.

EXISTING LEVELS ARE BASED ON INFORMATION PROVIDED BY LANDPARTNERS TITLED SY074904.002.2.2 DATED 04/03/2022. ESTATE LEVELS ARE BASED ON INFORMATION PROVIDED BY COSTIN ROE EARLY WORKS PACKAGE C013904.03-EW

- SGGP, SINGLE GRATED GULLY PIT
- SJP, SEALED JUNCTION PIT
- KIP, KERB INLET PIT
- GD, GRATED DRAIN (300W x 225D UNO)
- PROPOSED DRAINAGE LINE
- EARLYWORKS DRAINAGE LINE
- ROOFWATER DOWNPIPE (INDICATIVE)
- FLOOR DRAIN
- ROOFWATER LINE
- SUBSOIL LINE
- SIPHONIC LINE
- OPEN SWALE
- OVERLAND FLOW DIRECTION
- FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
- FINISHED PAVEMENT CONTOUR (MINOR) 0.1m INTERVALS
- DENOTES PROPOSED PORTION OF ROOF OR AWNING TO RAINWATER TANK

WAREHOUSE 3&4 NOTE:

PITS TO BE FITTED WITH OCEAN PROTECT 'OCEANGUARD OG200' INSERT. SHOWN THUS ◇ REFER TO PIT SCHEDULE.

ROOFWATER NOTE:

ROOFWATER LINES TO HAVE NOMINAL 0.5% FALL TO PITS. ENSURE MINIMUM 600 COVER IS MAINTAINED TO ALL PIPES. REFER ALL CONCERN TO ENGINEER. TYPICAL

LEVELS NOTE:

LEVELS SHOWN TO BE +/-1000mm FROM THOSE SHOWN.
FINAL LEVELS SUBJECT TO FINAL GEOTECHNICAL INVESTIGATIONS, ARCHITECTURAL LAYOUT AND ACHIEVING A CUT TO FILL EARTHWORKS BALANCE OVER THE PROPERTY.

GENERAL NOTES:

1. REFER TO DRAWINGS 340 FOR STORMWATER DRAINAGE NOTES.
2. SUBSOIL DRAINAGE TO BE INSTALLED ALONG ALL KERB AND LANDSCAPED INTERFACES.

PROPOSED WAREHOUSE 4
FFL RL 79.45±1000mm

INDICATIVE RACKING LAYOUT

PORTION OF ROOF AND AWNING TO RAINWATER TANK SHOWN HATCHED

CATCHMENT 4 SITE DISCHARGE POINT 1 INTO BIORETENTION BASIN. OUTLET PIPELINE TO BE INSTALLED THROUGH RETAINING WALL BY EARLY WORKS CONTRACTOR.

OPEN STORMWATER MANAGEMENT BASIN

PROPOSED SPRINKLER TANK

PROPOSED 85kL RAINWATER TANK. DETAILS TO BE CONFIRMED BY HYDRAULIC ENGINEER.

PROPOSED SYPHONIC DRAINAGE TO DISCHARGE TO PROPOSED FIRST FLUSH PIT PRIOIR TO RWT

PROPOSED SYPHONIC DRAINAGE TO DISCHARGE TO IN-GROUND BREAK PIT W4-B08a

PROPOSED RECESSED DOCK 1300 DEEP

PROVIDE FIRST FLUSH DIVERTER TO RAINWATER TANK. FIRST FLUSH DIVERTER SYSTEM TO BE CONFIRMED BY HYDRAULIC ENGINEER

ON GRADE DOCKS (11)

RECESSED DOCKS (4)

DOCK LEVELLERS RL 78.15

AWNING (15m)

AWNING (5m)

TAPERING AWNING LINE

WASTE STORAGE (20 SQM CAPACITY)

LINE OF EASEMENT

HARDSTAND

1 OVERFLOW CAR PARKING PACES

18 OVERFLOW CAR PARKING SPACES

FIRE BRIGADE SETDOWN

SPRINKLER TANK

PUMP ROOM

FNC-1

RW - TO ENG. DETAILS

ACCESS TRACKS FOR ENDEVOUR ENERGY VEHICLES

20m LANDSCAPE SETBACK

LANDSCAPE TO LANDSCAPE ARCHITECTS DETAILS

HERITAGE SITE

TELESCOPIC SLIDING GATE

SITE BOUNDARY

PROPOSED REINFORCED EARTH RETAINING WALL IN FILL BY EARLY WORKS CONTRACTOR

PROPOSED ACCESS TO EXISTING ELECTRICAL TOWERS. ALL ACCESS TRACKS TO HAVE A MAX 10% GRADE. TBC DURING DETAIL DESIGN.

OPEN SWALE DIVERTING OVERLAND FLOW FROM UPSTREAM CATCHMENT AROUND SITE ALONG SIMILAR ROUTE TO EXISTING

HERITAGE SITE SHOWN THUS. NO WORKS WITHIN HERITAGE ZONE. MATCH LEVELS AT BOUNDARY OF HERITAGE SITE.

M4 MOTORWAY

BREAKLINE - REFER TO DRAWING 343 FOR CONTINUATION

BREAKLINE - REFER TO DRAWING 345 FOR CONTINUATION

WAREHOUSE 3&4 - STORMWATER DRAINAGE PLAN - SHEET 4
SCALE 1:250

2m 0 5 10 15 20 25m
SCALE 1:250 AT B1 SIZE SHEET

FOR SSDA MOD

AMENDMENTS	DATE	ISSUE
ISSUED FOR SSDA MOD	24.06.26	D
ISSUED FOR SSDA MOD	19.06.26	C
ISSUED FOR SSDA MOD	12.06.26	B
ISSUED FOR INFORMATION	02.06.26	A

ARCHITECT: sba — p: 02 9929 9988 e: info@sba.au w: www.sba.au

CLIENT: ESR

PROJECT: PROPOSED WAREHOUSE DISTRIBUTION
AUGUSTA STREET, HUNTINGWOOD EAST, NSW 2148

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
KP	JB	JUNE 2026	LDV	B1	AS SHOWN	C013904.03-SMMD2-344

CONSULT AUSTRALIA

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CRC COSTIN ROE CONSULTING — CIVIL & STRUCTURAL ENGINEERS

DRAWING TITLE: WH3&4 - STORMWATER DRAINAGE PLAN - SHEET 4

DRAWING No: C013904.03-SMMD2-344 ISSUE: D

BREAKLINE - REFER TO DRAWING 342 FOR CONTINUATION

BREAKLINE - REFER TO DRAWING 344 FOR CONTINUATION

INDICATIVE RACKING LAYOUT

PROPOSED WAREHOUSE 4
FFL RL 79.45±1000mm

PORTION OF ROOF AND AWNING TO RAINWATER TANK SHOWN HATCHED

PROPOSED REINFORCED EARTH RETAINING WALL IN FILL BY EARLY WORKS CONTRACTOR

PROPOSED RECESSED DOCK 1300 DEEP

RECESSED DOCKS (4)

DOCK OF... 100 m²

AWNING ABOVE

AWNING (5m)

TAPERING AWNING LINE

DOCK LEVELLERS

RL 78.15

OPEN STORMWATER MANAGEMENT BASIN

RETAINING WALLS TO OUT... RIF... BOUN...

CATCHMENT 4: STORMWATER MANAGEMENT SYSTEM:

COMBINED STORMWATER QUALITY/QUANTITY MANAGEMENT BASIN
BIO-RETENTION AREA PROVIDED = 500m²
300mm EXTENDED DETENTION DEPTH
500mm MIN FILTER MEDIA
ON-SITE DETENTION VOLUME PROVIDED = 2,530m³
BY EARLY WORKS CONTRACTOR.

PROPOSED SPRINKLER TANK

SCREENING ...RE SPRINKLER TANKS

SPRINKLER TANK

PROPOSED PUMP ROOM

PUMP

FIRE BRIGADE SETDOWN

PROPOSED FROG POND BY EARLY WORKS CONTRACTOR.

DISCHARGE FROM OVERLAND FLOW CHANNEL INTO REHABILITATED BLACKTOWN CREEK.

PROPOSED REINFORCED EARTH RETAINING WALL IN FILL BY EARLY WORKS CONTRACTOR

PROPOSED WETLAND BY EARLY WORKS CONTRACTOR.

POWER LINES EASEMENTS

PROPOSED ACCESS RAMP DOWN TO BLACKTOWN CREEK. MAX 10% GRADE.

PROPOSED REINFORCED EARTH RETAINING WALL IN FILL BY EARLY WORKS CONTRACTOR

CAVE SETBACK

...E TO LANDSCAPE ...TECTS DETAILS

HERITAGE SITE

2xØ375

2xØ675

OPEN SWALE DIVERTING OVERLAND FLOW FROM UPSTREAM CATCHMENT AROUND SITE ALONG SIMILAR ROUTE TO EXISTING

HERITAGE SITE SHOWN THUS. NO WORKS WITHIN HERITAGE ZONE. MATCH LEVELS AT BOUNDARY OF HERITAGE SITE.

SITE BOUNDARY

M4 MOTORWAY

LEGEND:

LEVELS DATUM IS AHD.

EXISTING LEVELS ARE BASED ON INFORMATION PROVIDED BY LANDPARTNERS TITLED SY074904.002.2.2 DATED 04/03/2022. ESTATE LEVELS ARE BASED ON INFORMATION PROVIDED BY COSTIN ROE EARLY WORKS PACKAGE C013904.03-EW

- SGGP, SINGLE GRATED GULLY PIT
- SJP, SEALED JUNCTION PIT
- KIP, KERB INLET PIT
- GD, GRATED DRAIN (300W x 225D UNO)
- SW> - PROPOSED DRAINAGE LINE
- SW> - EARLYWORKS DRAINAGE LINE
- DP - ROOFWATER DOWNPIPE (INDICATIVE)
- FD - FLOOR DRAIN
- rw> - ROOFWATER LINE
- ss> - SUBSOIL LINE
- sd> - SIPHONIC LINE
- OPEN SWALE
- OVERLAND FLOW DIRECTION
- 50.00 - FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
- 50.10 - FINISHED PAVEMENT CONTOUR (MINOR) 0.1m INTERVALS
- DENOTES PROPOSED PORTION OF ROOF OR AWNING TO RAINWATER TANK

WAREHOUSE 3&4 NOTE:

PITS TO BE FITTED WITH OCEAN PROTECT 'OCEANGUARD OG200' INSERT. SHOWN THUS ◇ REFER TO PIT SCHEDULE.

ROOFWATER NOTE:

ROOFWATER LINES TO HAVE NOMINAL 0.5% FALL TO PITS. ENSURE MINIMUM 600 COVER IS MAINTAINED TO ALL PIPES. REFER ALL CONCERN TO ENGINEER. TYPICAL

LEVELS NOTE:

LEVELS SHOWN TO BE +/-1000mm FROM THOSE SHOWN.
FINAL LEVELS SUBJECT TO FINAL GEOTECHNICAL INVESTIGATIONS, ARCHITECTURAL LAYOUT AND ACHIEVING A CUT TO FILL EARTHWORKS BALANCE OVER THE PROPERTY.

GENERAL NOTES:

1. REFER TO DRAWINGS 340 FOR STORMWATER DRAINAGE NOTES.
2. SUBSOIL DRAINAGE TO BE INSTALLED ALONG ALL KERB AND LANDSCAPED INTERFACES.

WAREHOUSE 3&4 - STORMWATER DRAINAGE PLAN - SHEET 5

SCALE 1:250

2m 0 5 10 15 20 25m
SCALE 1:250 AT B1 SIZE SHEET

FOR SSDA MOD

AMENDMENTS	DATE	ISSUE
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PROJECT
PROPOSED WAREHOUSE DISTRIBUTION
AUGUSTA STREET, HUNTINGWOOD EAST, NSW 2148

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
KP	JB	JUNE 2026	LDV	B1	AS SHOWN	C013904.03-SMMD2-345

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DRAWING TITLE
WH3&4 - STORMWATER DRAINAGE PLAN - SHEET 5

DRAWING No C013904.03-SMMD2-345

ISSUE C

BREAKLINE - REFER TO DRAWING 342 FOR CONTINUATION

BREAKLINE - REFER TO DRAWING 344 FOR CONTINUATION

CATCHMENT 4: STORMWATER MANAGEMENT SYSTEM:

COMBINED STORMWATER QUALITY/QUANTITY MANAGEMENT BASIN
BIO-RETENTION AREA PROVIDED = 500m²
300mm EXTENDED DETENTION DEPTH
500mm MIN FILTER MEDIA
ON-SITE DETENTION VOLUME PROVIDED = 2,530m³
BY EARLY WORKS CONTRACTOR.

PROPOSED WAREHOUSE 4
FFL RL 79.45±1000mm

PORTION OF ROOF AND AWNING TO RAINWATER TANK SHOWN HATCHED

PROPOSED RECESSED DOCK 1300 DEEP

RECESSED DOCKS (4)

DOCK OFFICE 100 m²

AWNING ABOVE

DOCK LEVELLERS

AWNING (5m)

TAPERING AWNING LINE

PROPOSED REINFORCED EARTH RETAINING WALL IN FILL BY EARLY WORKS CONTRACTOR

OPEN STORMWATER MANAGEMENT BASIN

PROPOSED SPRINKLER TANK

SPRINKLER TANKS

PROPOSED PUMP ROOM

FIRE BRIGADE SETDOWN

PROPOSED FROG POND BY EARLY WORKS CONTRACTOR.

DISCHARGE FROM OVERLAND FLOW CHANNEL INTO REHABILITATED BLACKTOWN CREEK.

PROPOSED REINFORCED EARTH RETAINING WALL IN FILL BY EARLY WORKS CONTRACTOR

PROPOSED WETLAND BY EARLY WORKS CONTRACTOR.

POWER LINES EASEMENTS

PROPOSED ACCESS RAMP DOWN TO BLACKTOWN CREEK. MAX 10% GRADE.

2xØ375

2xØ675

HERITAGE SITE

PROPOSED REINFORCED EARTH RETAINING WALL IN FILL BY EARLY WORKS CONTRACTOR

OPEN SWALE DIVERTING OVERLAND FLOW FROM UPSTREAM CATCHMENT AROUND SITE ALONG SIMILAR ROUTE TO EXISTING

HERITAGE SITE SHOWN THUS. NO WORKS WITHIN HERITAGE ZONE. MATCH LEVELS AT BOUNDARY OF HERITAGE SITE.

SITE BOUNDARY

M4 MOTORWAY

LEGEND:

LEVELS DATUM IS AHD.

EXISTING LEVELS ARE BASED ON INFORMATION PROVIDED BY LANDPARTNERS TITLED SY074904.002.2.2 DATED 04/03/2022. ESTATE LEVELS ARE BASED ON INFORMATION PROVIDED BY COSTIN ROE EARLY WORKS PACKAGE C013904.03-EW

- SGGP, SINGLE GRATED GULLY PIT
- SJP, SEALED JUNCTION PIT
- KIP, KERB INLET PIT
- GD, GRATED DRAIN (300W x 225D UNO)
- PROPOSED DRAINAGE LINE
- EARLYWORKS DRAINAGE LINE
- ROOFWATER DOWNPIPE (INDICATIVE)
- FLOOR DRAIN
- ROOFWATER LINE
- SUBSOIL LINE
- SIPHONIC LINE
- OPEN SWALE
- OVERLAND FLOW DIRECTION
- FINISHED PAVEMENT CONTOUR (MAJOR) 0.5m INTERVALS
- FINISHED PAVEMENT CONTOUR (MINOR) 0.1m INTERVALS
- DENOTES PROPOSED PORTION OF ROOF OR AWNING TO RAINWATER TANK

WAREHOUSE 3&4 NOTE:

PITS TO BE FITTED WITH OCEAN PROTECT 'OCEANGUARD OG200' INSERT. SHOWN THUS ◇ REFER TO PIT SCHEDULE.

ROOFWATER NOTE:

ROOFWATER LINES TO HAVE NOMINAL 0.5% FALL TO PITS. ENSURE MINIMUM 600 COVER IS MAINTAINED TO ALL PIPES. REFER ALL CONCERN TO ENGINEER. TYPICAL

LEVELS NOTE:

LEVELS SHOWN TO BE +/-1000mm FROM THOSE SHOWN.
FINAL LEVELS SUBJECT TO FINAL GEOTECHNICAL INVESTIGATIONS, ARCHITECTURAL LAYOUT AND ACHIEVING A CUT TO FILL EARTHWORKS BALANCE OVER THE PROPERTY.

GENERAL NOTES:

1. REFER TO DRAWINGS 340 FOR STORMWATER DRAINAGE NOTES.
2. SUBSOIL DRAINAGE TO BE INSTALLED ALONG ALL KERB AND LANDSCAPED INTERFACES.

WAREHOUSE 3&4 - STORMWATER DRAINAGE PLAN - SHEET 5

SCALE 1:250

2m 0 5 10 15 20 25m
SCALE 1:250 AT B1 SIZE SHEET

FOR SSDA MOD

AMENDMENTS	DATE	ISSUE
ISSUED FOR SSDA MOD	24.06.26	D
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AUGUSTA STREET, HUNTINGWOOD EAST, NSW 2148

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
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CRC COSTIN ROE CONSULTING | CIVIL & STRUCTURAL ENGINEERS

DRAWING TITLE
WH3&4 - STORMWATER DRAINAGE PLAN - SHEET 5

DRAWING No C013904.03-SMMD2-345

ISSUE D

ENCLOSURE 2
OSD CALCULATION SHEETS

Blacktown City Council - On-site Detention Deemed to Comply Tool

Select project to Load or Delete:

v1.9

Project Details:

Project Title	WAREHOUSE 1
Address	Augusta Street, Blacktown
Reference Number	SSD-36138263

General Site Data:

Site Area (m^2)	11580 m^2
Area Draining to OSD (m^2)	11580 m^2

On-Site Detention Data:

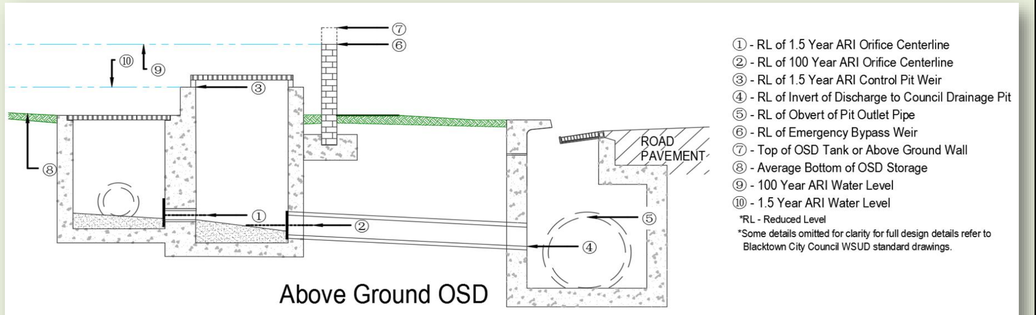
OSD Location	Below Ground
OSD Discharge Location	West Creek
RL of Bottom of OSD Storage Area	71.325
RL of Top of OSD Storage Area	73.100
Length of Emergency Overflow Weir (m)	3.00 m

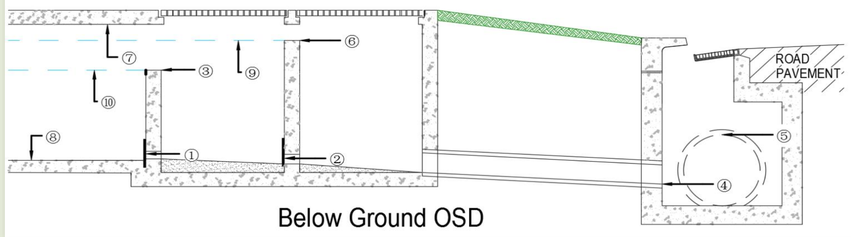
Filter Cartridges:

Will filter cartridges be used to manage water quality?	Yes
Design flow from Filter Cartridges (L/s)	64.47 L/s
Filter Cartridges flow with 100 Year ARI Head (L/s)	79.86 L/s

Discharge Data:

RL of 1.5 Year ARI Orifice Centreline	71.250
Number of Orifices	1
RL of 100 Year ARI Orifice Centreline	71.200
Number of Orifices	1
RL of Invert of Discharge to Council Drainage Pit	70.000





① - RL of 1.5 Year ARI Orifice Centerline
② - RL of 100 Year ARI Orifice Centerline
③ - RL of 1.5 Year ARI Control Pit Weir
④ - RL of Invert of Discharge to Council Drainage Pit
⑤ - RL of Obvert of Pit Outlet Pipe
⑥ - RL of Emergency Bypass Weir
⑦ - Top of OSD Tank or Above Ground Wall
⑧ - Average Bottom of OSD Storage
⑨ - 100 Year ARI Water Level
⑩ - 1.5 Year ARI Water Level

*RL - Reduced Level
*Some details omitted for clarity for full design details refer to Blacktown City Council WSUD standard drawings.

Below Ground OSD Summary with calculated values

Site:	
Site Area	11580 m^2
Site Area NOT Draining to OSD	0 m^2
Reduced Levels (AHD):	
RL of Top of Tank	73.1
RL of Bottom of OSD Tank	71.325
RL of 1.5 Year ARI Overflow Weir	72.355
RL of Emergency Overflow Weir	72.89
RL of 1.5 Year ARI Orifice Centerline	71.25
RL of 100 Year ARI Orifice Centreline	71.2
RL of Invert of Discharge to Council Drainage Pit	70
	0
Minium RL of Garage Floor	73.19
Minium RL of House Floor	73.29
OSD Volume:	
Required Storage BELOW 1.5 Year ARI Overflow Weir	347.4 m^3
Required Storage BELOW Emergency Overflow Weir	526.9 m^3
Discharge Details:	
Using Filter Cartridges to Manage Water Quality	Yes
Discharge Location	West Creek
Length of Emergency Overflow Weir	3.00 m
Maximum 1.5 Year ARI Site Discharge	64.47 L/s
1.5 Year ARI Orifice Discharge	No Orifice Needed
Maximum 100 Year ARI Site Discharge	220.02 L/s
100 Year ARI Orifice Discharge	140.16 L/s
Filter Cartridges design flow	64.47 L/s
Filter Cartridges Discharge with Additional Head	79.86 L/s
Orifice Details:	
Number of 1.5 Year ARI Orifices	1
Number of 100 Year ARI Orifices	1
1.5 Year ARI Orifice Size (mm)	No Orifice Needed
100 Year ARI Orifice Size (mm)	225.5 mm
Notifications:	

Access grates to be provided such that the maximum reach from any point in the tank to the neaest grate is 3.0m. As there is no 1.5year ARI orifice the under drain flow from the filter cartridges will control the minorstorms. To ensure the storage can drain the base of the tank is to be configured to direct flows through the Non-Return flap to the filter storage chamber.

Blacktown City Council - On-site Detention Deemed to Comply Tool

Select project to Load or Delete:

v1.9

Project Details:

Project Title	WAREHOUSE 2
Address	Augusta Street, Blacktown
Reference Number	SSD-36138263

General Site Data:

Site Area (m^2)	20845 m^2
Area Draining to OSD (m^2)	20400 m^2

On-Site Detention Data:

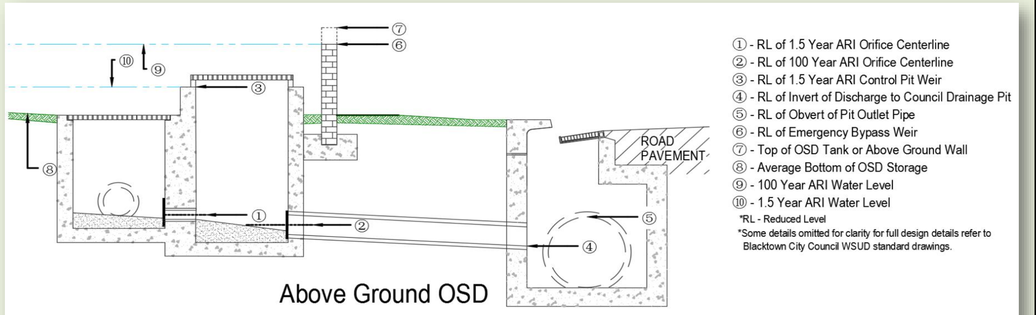
OSD Location	Below Ground
OSD Discharge Location	West Creek
RL of Bottom of OSD Storage Area	73.175
RL of Top of OSD Storage Area	75.300
Length of Emergency Overflow Weir (m)	3.00 m

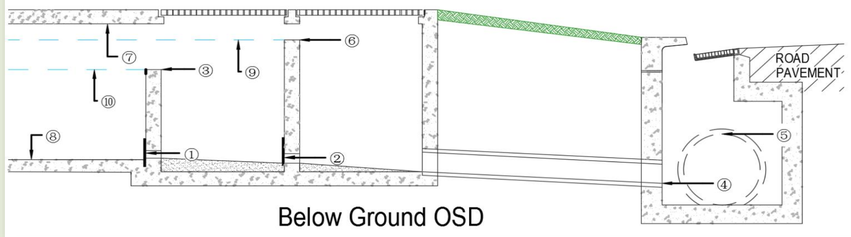
Filter Cartridges:

Will filter cartridges be used to manage water quality?	Yes
Design flow from Filter Cartridges (L/s)	128.95 L/s
Filter Cartridges flow with 100 Year ARI Head (L/s)	185.02 L/s

Discharge Data:

RL of 1.5 Year ARI Orifice Centreline	73.050
Number of Orifices	1
RL of 100 Year ARI Orifice Centreline	73.000
Number of Orifices	1
RL of Invert of Discharge to Council Drainage Pit	71.350





① - RL of 1.5 Year ARI Orifice Centerline
② - RL of 100 Year ARI Orifice Centerline
③ - RL of 1.5 Year ARI Control Pit Weir
④ - RL of Invert of Discharge to Council Drainage Pit
⑤ - RL of Obvert of Pit Outlet Pipe
⑥ - RL of Emergency Bypass Weir
⑦ - Top of OSD Tank or Above Ground Wall
⑧ - Average Bottom of OSD Storage
⑨ - 100 Year ARI Water Level
⑩ - 1.5 Year ARI Water Level

*RL - Reduced Level
*Some details omitted for clarity for full design details refer to Blacktown City Council WSUD standard drawings.

Below Ground OSD Summary with calculated values

Site:	
Site Area	20845 m^2
Site Area NOT Draining to OSD	445 m^2
Reduced Levels (AHD):	
RL of Top of Tank	75.3
RL of Bottom of OSD Tank	73.175
RL of 1.5 Year ARI Overflow Weir	74.38
RL of Emergency Overflow Weir	75
RL of 1.5 Year ARI Orifice Centerline	73.05
RL of 100 Year ARI Orifice Centreline	73
RL of Invert of Discharge to Council Drainage Pit	71.35
	0
Minium RL of Garage Floor	75.39
Minium RL of House Floor	75.49
OSD Volume:	
Required Storage BELOW 1.5 Year ARI Overflow Weir	625.4 m^3
Required Storage BELOW Emergency Overflow Weir	948.4 m^3
Discharge Details:	
Using Filter Cartridges to Manage Water Quality	Yes
Discharge Location	West Creek
Length of Emergency Overflow Weir	3.00 m
Maximum 1.5 Year ARI Site Discharge	128.95 L/s
1.5 Year ARI Orifice Discharge	No Orifice Needed
Maximum 100 Year ARI Site Discharge	371.14 L/s
100 Year ARI Orifice Discharge	186.12 L/s
Filter Cartridges design flow	128.95 L/s
Filter Cartridges Discharge with Additional Head	185.02 L/s
Orifice Details:	
Number of 1.5 Year ARI Orifices	1
Number of 100 Year ARI Orifices	1
1.5 Year ARI Orifice Size (mm)	No Orifice Needed
100 Year ARI Orifice Size (mm)	249.0 mm
Notifications:	

Access grates to be provided such that the maximum reach from any point in the tank to the neaest grate is 4.0m. As there is no 1.5year ARI orifice the under drain flow from the filter cartridges will control the minorstorms. To ensure the storage can drain the base of the tank is to be configured to direct flows through the Non-Return flap to the filter storage chamber.

Blacktown City Council - On-site Detention Deemed to Comply Tool

Select project to Load or Delete:

v1.9

Project Details:

Project Title	WAREHOUSE 3A
Address	Augusta Street, Blacktown
Reference Number	SSD-36138263

General Site Data:

Site Area (m^2)	19790 m^2
Area Draining to OSD (m^2)	19790 m^2

On-Site Detention Data:

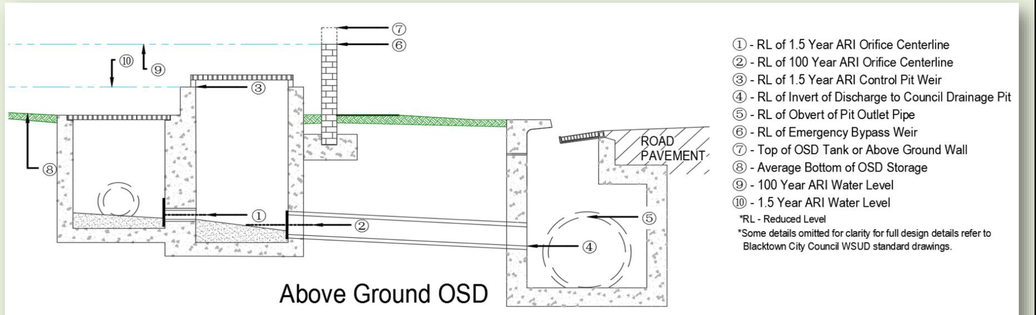
OSD Location	Below Ground
OSD Discharge Location	
RL of Bottom of OSD Storage Area	71.785
RL of Top of OSD Storage Area	74.000
Length of Emergency Overflow Weir (m)	3.00 m

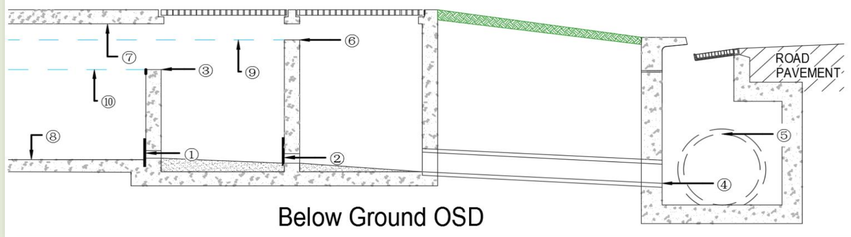
Filter Cartridges:

Will filter cartridges be used to manage water quality?	Yes
Design flow from Filter Cartridges (L/s)	110.52 L/s
Filter Cartridges flow with 100 Year ARI Head (L/s)	153.01 L/s

Discharge Data:

RL of 1.5 Year ARI Orifice Centreline	71.550
Number of Orifices	1
RL of 100 Year ARI Orifice Centreline	71.500
Number of Orifices	1
RL of Invert of Discharge to Council Drainage Pit	69.000
	74.000





① - RL of 1.5 Year ARI Orifice Centerline
② - RL of 100 Year ARI Orifice Centerline
③ - RL of 1.5 Year ARI Control Pit Weir
④ - RL of Invert of Discharge to Council Drainage Pit
⑤ - RL of Obvert of Pit Outlet Pipe
⑥ - RL of Emergency Bypass Weir
⑦ - Top of OSD Tank or Above Ground Wall
⑧ - Average Bottom of OSD Storage
⑨ - 100 Year ARI Water Level
⑩ - 1.5 Year ARI Water Level

*RL - Reduced Level
*Some details omitted for clarity for full design details refer to Blacktown City Council WSUD standard drawings.

Below Ground OSD Summary with calculated values

Site:		
	Site Area	19790 m^2
	Site Area NOT Draining to OSD	0 m^2
Reduced Levels (AHD):		
	RL of Top of Tank	74
	RL of Bottom of OSD Tank	71.785
	RL of 1.5 Year ARI Overflow Weir	73.055
	RL of Emergency Overflow Weir	73.71
	RL of 1.5 Year ARI Orifice Centerline	71.55
	RL of 100 Year ARI Orifice Centreline	71.5
	RL of Invert of Discharge to Council Drainage Pit	69
		74
	Minium RL of Garage Floor	74.09
	Minium RL of House Floor	74.19
OSD Volume:		
	Required Storage BELOW 1.5 Year ARI Overflow Weir	593.7 m^3
	Required Storage BELOW Emergency Overflow Weir	900.4 m^3
Discharge Details:		
	Using Filter Cartridges to Manage Water Quality	Yes
	Discharge Location	
	Length of Emergency Overflow Weir	3.00 m
	Maximum 1.5 Year ARI Site Discharge	110.52 L/s
	1.5 Year ARI Orifice Discharge	No Orifice Needed
	Maximum 100 Year ARI Site Discharge	376.01 L/s
	100 Year ARI Orifice Discharge	223.00 L/s
	Filter Cartridges design flow	110.52 L/s
	Filter Cartridges Discharge with Additional Head	153.01 L/s
Orifice Details:		
	Number of 1.5 Year ARI Orifices	1
	Number of 100 Year ARI Orifices	1
	1.5 Year ARI Orifice Size (mm)	No Orifice Needed
	100 Year ARI Orifice Size (mm)	266.0 mm

Notifications:

Access grates to be provided such that the maximum reach from any point in the tank to the neaest grate is 4.0m. As there is no 1.5year ARI orifice the under drain flow from the filter cartridges will control the minorstorms. To ensure the storage can drain the base of the tank is to be configured to direct flows through the Non-Return flap to the filter storage chamber.

Blacktown City Council - On-site Detention Deemed to Comply Tool

Select project to Load or Delete:

v1.9

Project Details:

Project Title	WAREHOUSE 3B
Address	Augusta Street, Blacktown
Reference Number	SSD-36138263

General Site Data:

Site Area (m^2)	22390 m^2
Area Draining to OSD (m^2)	22390 m^2

On-Site Detention Data:

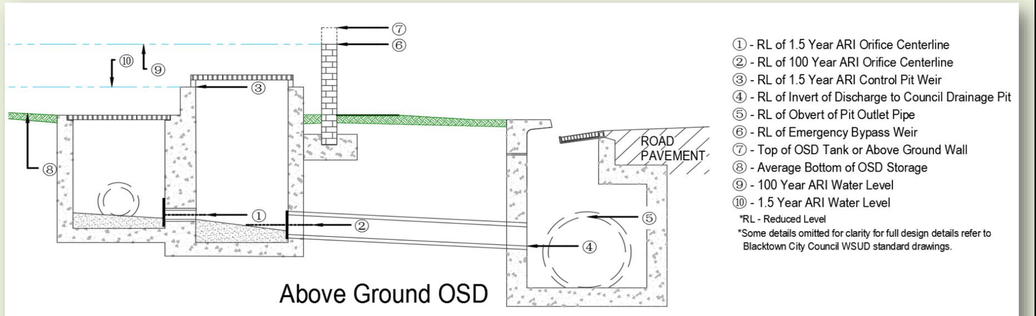
OSD Location	Below Ground
OSD Discharge Location	
RL of Bottom of OSD Storage Area	75.500
RL of Top of OSD Storage Area	78.400
Length of Emergency Overflow Weir (m)	3.00 m

Filter Cartridges:

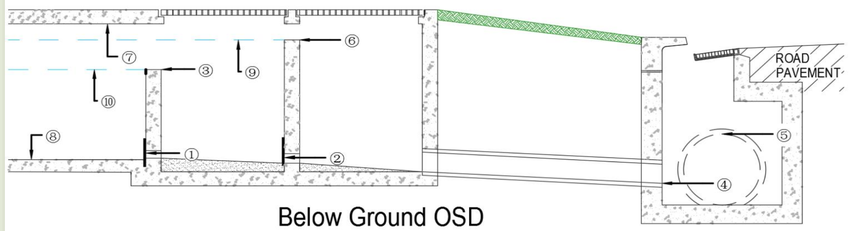
Will filter cartridges be used to manage water quality?	Yes
Design flow from Filter Cartridges (L/s)	202.63 L/s
Filter Cartridges flow with 100 Year ARI Head (L/s)	322.57 L/s

Discharge Data:

RL of 1.5 Year ARI Orifice Centreline	75.200
Number of Orifices	1
RL of 100 Year ARI Orifice Centreline	75.100
Number of Orifices	1
RL of Invert of Discharge to Council Drainage Pit	72.150



Above Ground OSD



Below Ground OSD

① - RL of 1.5 Year ARI Orifice Centerline
② - RL of 100 Year ARI Orifice Centerline
③ - RL of 1.5 Year ARI Control Pit Weir
④ - RL of Invert of Discharge to Council Drainage Pit
⑤ - RL of Obvert of Pit Outlet Pipe
⑥ - RL of Emergency Bypass Weir
⑦ - Top of OSD Tank or Above Ground Wall
⑧ - Average Bottom of OSD Storage
⑨ - 100 Year ARI Water Level
⑩ - 1.5 Year ARI Water Level

*RL - Reduced Level
*Some details omitted for clarity for full design details refer to Blacktown City Council WSUD standard drawings.

Below Ground OSD Summary with calculated values

Site:		
	Site Area	22390 m^2
	Site Area NOT Draining to OSD	0 m^2
Reduced Levels (AHD):		
	RL of Top of Tank	78.4
	RL of Bottom of OSD Tank	75.5
	RL of 1.5 Year ARI Overflow Weir	77.205
	RL of Emergency Overflow Weir	78.085
	RL of 1.5 Year ARI Orifice Centerline	75.2
	RL of 100 Year ARI Orifice Centreline	75.1
	RL of Invert of Discharge to Council Drainage Pit	72.15
		0
	Minium RL of Garage Floor	78.49
	Minium RL of House Floor	78.59
OSD Volume:		
	Required Storage BELOW 1.5 Year ARI Overflow Weir	671.7 m^3
	Required Storage BELOW Emergency Overflow Weir	1018.7 m^3
Discharge Details:		
	Using Filter Cartridges to Manage Water Quality	Yes
	Discharge Location	
	Length of Emergency Overflow Weir	3.00 m
	Maximum 1.5 Year ARI Site Discharge	202.63 L/s
	1.5 Year ARI Orifice Discharge	No Orifice Needed
	Maximum 100 Year ARI Site Discharge	425.41 L/s
	100 Year ARI Orifice Discharge	102.84 L/s
	Filter Cartridges design flow	202.63 L/s
	Filter Cartridges Discharge with Additional Head	322.57 L/s
Orifice Details:		
	Number of 1.5 Year ARI Orifices	1
	Number of 100 Year ARI Orifices	1
	1.5 Year ARI Orifice Size (mm)	No Orifice Needed
	100 Year ARI Orifice Size (mm)	167.5 mm

Notifications:

Access grates to be provided such that the maximum reach from any point in the tank to the neaest grate is 6.0m. As there is no 1.5year ARI orifice the under drain flow from the filter cartridges will control the minorstorms. To ensure the storage can drain the base of the tank is to be configured to direct flows through the Non-Return flap to the filter storage chamber.

Blacktown City Council - On-site Detention Deemed to Comply Tool

Select project to Load or Delete:

v1.9

Project Details:

Project Title	WAREHOUSE 4
Address	Augusta Street, Blacktown
Reference Number	SSD-36138263

General Site Data:

Site Area (m^2)	46480 m^2
Area Draining to OSD (m^2)	46480 m^2

On-Site Detention Data:

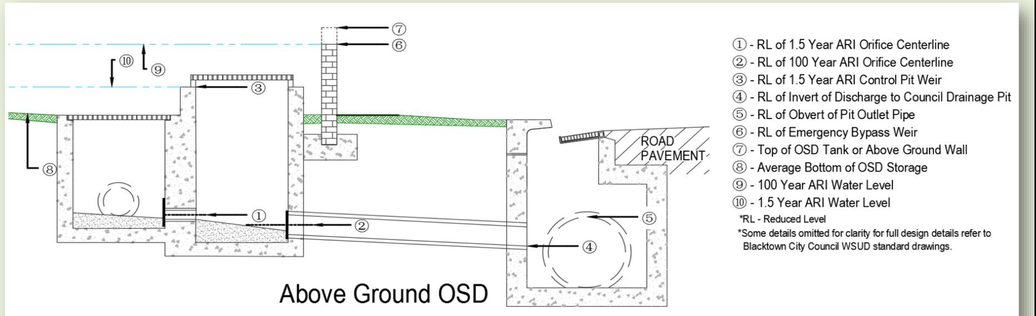
OSD Location	Above Ground
OSD Discharge Location	
RL of Bottom of OSD Storage Area	70.850
RL of Top of OSD Storage Area	73.000
Length of Emergency Overflow Weir (m)	8.00 m

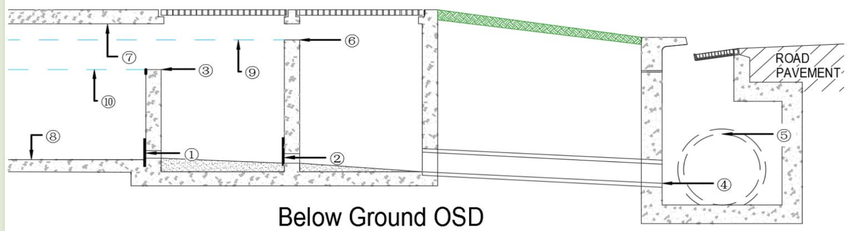
Filter Cartridges:

Will filter cartridges be used to manage water quality?	No

Discharge Data:

RL of 1.5 Year ARI Orifice Centreline	70.500
Number of Orifices	1
RL of 100 Year ARI Orifice Centreline	70.200
Number of Orifices	1
RL of Invert of Discharge to Council Drainage Pit	69.500
	70.750





① - RL of 1.5 Year ARI Orifice Centerline
② - RL of 100 Year ARI Orifice Centerline
③ - RL of 1.5 Year ARI Control Pit Weir
④ - RL of Invert of Discharge to Council Drainage Pit
⑤ - RL of Obvert of Pit Outlet Pipe
⑥ - RL of Emergency Bypass Weir
⑦ - Top of OSD Tank or Above Ground Wall
⑧ - Average Bottom of OSD Storage
⑨ - 100 Year ARI Water Level
⑩ - 1.5 Year ARI Water Level

*RL - Reduced Level
*Some details omitted for clarity for full design details refer to Blacktown City Council WSUD standard drawings.

Above Ground OSD Summary with calculated values

Site:	
Site Area	46480 m^2
Site Area NOT Draining to OSD	0 m^2
Reduced Levels (AHD):	
RL of Top of Tank	73
RL of Bottom of OSD Tank	70.85
RL of 1.5 Year ARI Overflow Weir	72.09
RL of Emergency Overflow Weir	72.73
RL of 1.5 Year ARI Orifice Centerline	70.5
RL of 100 Year ARI Orifice Centreline	70.2
RL of Invert of Discharge to Council Drainage Pit	69.5
	70.75
Minium RL of Garage Floor	73.09
Minium RL of House Floor	73.19
OSD Volume:	
Required Storage BELOW 1.5 Year ARI Overflow Weir	1394.4 m^3
Required Storage BELOW Emergency Overflow Weir	2114.8 m^3
Discharge Details:	
Using Filter Cartridges to Manage Water Quality	No
Discharge Location	
Length of Emergency Overflow Weir	8.00 m
Maximum 1.5 Year ARI Site Discharge	185.92 L/s
1.5 Year ARI Orifice Discharge	185.92 L/s
Maximum 100 Year ARI Site Discharge	883.12 L/s
100 Year ARI Orifice Discharge	883.12 L/s
Orifice Details:	
Number of 1.5 Year ARI Orifices	1
Number of 100 Year ARI Orifices	1
1.5 Year ARI Orifice Size (mm)	263.5 mm
100 Year ARI Orifice Size (mm)	511.5 mm
Notifications:	

Blacktown City Council - On-site Detention Deemed to Comply Tool

Select project to Load or Delete:

v1.9

Project Details:

Project Title	WAREHOUSE 5A_1
Address	Augusta Street, Blacktown
Reference Number	SSD-36138263

General Site Data:

Site Area (m^2)	16300 m^2
Area Draining to OSD (m^2)	16300 m^2

On-Site Detention Data:

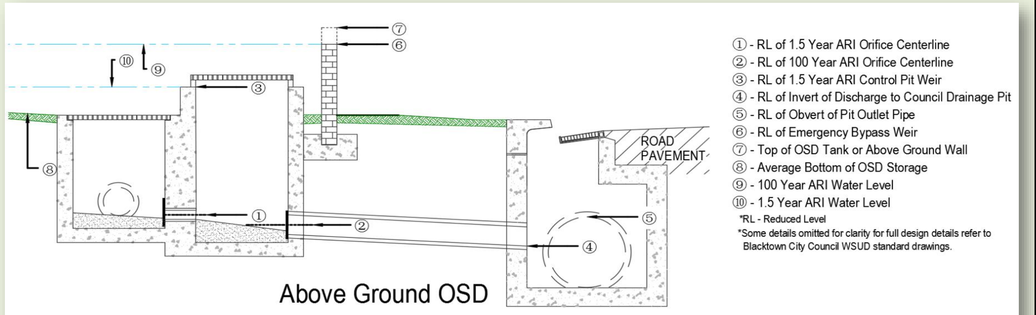
OSD Location	Below Ground
OSD Discharge Location	
RL of Bottom of OSD Storage Area	71.500
RL of Top of OSD Storage Area	74.000
Length of Emergency Overflow Weir (m)	3.00 m

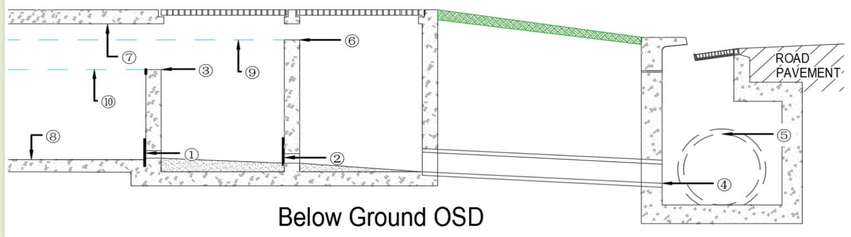
Filter Cartridges:

Will filter cartridges be used to manage water quality?	Yes
Design flow from Filter Cartridges (L/s)	126.69 L/s
Filter Cartridges flow with 100 Year ARI Head (L/s)	150.68 L/s

Discharge Data:

RL of 1.5 Year ARI Orifice Centreline	71.000
Number of Orifices	1
RL of 100 Year ARI Orifice Centreline	70.500
Number of Orifices	1
RL of Invert of Discharge to Council Drainage Pit	67.200
	69.500





① - RL of 1.5 Year ARI Orifice Centerline
② - RL of 100 Year ARI Orifice Centerline
③ - RL of 1.5 Year ARI Control Pit Weir
④ - RL of Invert of Discharge to Council Drainage Pit
⑤ - RL of Obvert of Pit Outlet Pipe
⑥ - RL of Emergency Bypass Weir
⑦ - Top of OSD Tank or Above Ground Wall
⑧ - Average Bottom of OSD Storage
⑨ - 100 Year ARI Water Level
⑩ - 1.5 Year ARI Water Level

*RL - Reduced Level
*Some details omitted for clarity for full design details refer to Blacktown City Council WSUD standard drawings.

Below Ground OSD Summary with calculated values

Site:		
	Site Area	16300 m^2
	Site Area NOT Draining to OSD	0 m^2
Reduced Levels (AHD):		
	RL of Top of Tank	74
	RL of Bottom of OSD Tank	71.5
	RL of 1.5 Year ARI Overflow Weir	72.975
	RL of Emergency Overflow Weir	73.74
	RL of 1.5 Year ARI Orifice Centerline	71
	RL of 100 Year ARI Orifice Centreline	70.5
	RL of Invert of Discharge to Council Drainage Pit	67.2
		69.5
	Minium RL of Garage Floor	74.09
	Minium RL of House Floor	74.19
OSD Volume:		
	Required Storage BELOW 1.5 Year ARI Overflow Weir	489.0 m^3
	Required Storage BELOW Emergency Overflow Weir	741.7 m^3
Discharge Details:		
	Using Filter Cartridges to Manage Water Quality	Yes
	Discharge Location	
	Length of Emergency Overflow Weir	3.00 m
	Maximum 1.5 Year ARI Site Discharge	126.69 L/s
	1.5 Year ARI Orifice Discharge	No Orifice Needed
	Maximum 100 Year ARI Site Discharge	309.70 L/s
	100 Year ARI Orifice Discharge	159.02 L/s
	Filter Cartridges design flow	126.69 L/s
	Filter Cartridges Discharge with Additional Head	150.68 L/s
Orifice Details:		
	Number of 1.5 Year ARI Orifices	1
	Number of 100 Year ARI Orifices	1
	1.5 Year ARI Orifice Size (mm)	No Orifice Needed
	100 Year ARI Orifice Size (mm)	204.0 mm

Notifications:

Access grates to be provided such that the maximum reach from any point in the tank to the neaest grate is 6.0m. As there is no 1.5year ARI orifice the under drain flow from the filter cartridges will control the minorstorms. To ensure the storage can drain the base of the tank is to be configured to direct flows through the Non-Return flap to the filter storage chamber.

Blacktown City Council - On-site Detention Deemed to Comply Tool

Select project to Load or Delete:

v1.9

Project Details:

Project Title	WAREHOUSE 5A_2
Address	Augusta Street, Blacktown
Reference Number	SSD-36138263

General Site Data:

Site Area (m^2)	28870 m^2
Area Draining to OSD (m^2)	28870 m^2

On-Site Detention Data:

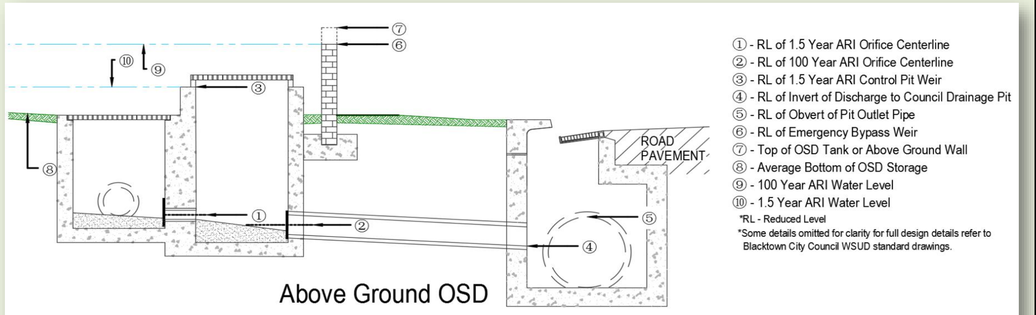
OSD Location	Below Ground
OSD Discharge Location	
RL of Bottom of OSD Storage Area	73.400
RL of Top of OSD Storage Area	76.000
Length of Emergency Overflow Weir (m)	3.00 m

Filter Cartridges:

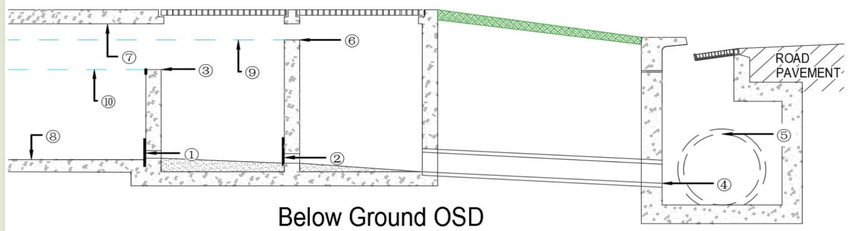
Will filter cartridges be used to manage water quality?	Yes
Design flow from Filter Cartridges (L/s)	153.99 L/s
Filter Cartridges flow with 100 Year ARI Head (L/s)	184.79 L/s

Discharge Data:

RL of 1.5 Year ARI Orifice Centreline	72.600
Number of Orifices	1
RL of 100 Year ARI Orifice Centreline	72.100
Number of Orifices	1
RL of Invert of Discharge to Council Drainage Pit	70.500
	69.500



Above Ground OSD



Below Ground OSD

① - RL of 1.5 Year ARI Orifice Centerline
② - RL of 100 Year ARI Orifice Centerline
③ - RL of 1.5 Year ARI Control Pit Weir
④ - RL of Invert of Discharge to Council Drainage Pit
⑤ - RL of Obvert of Pit Outlet Pipe
⑥ - RL of Emergency Bypass Weir
⑦ - Top of OSD Tank or Above Ground Wall
⑧ - Average Bottom of OSD Storage
⑨ - 100 Year ARI Water Level
⑩ - 1.5 Year ARI Water Level

*RL - Reduced Level
*Some details omitted for clarity for full design details refer to Blacktown City Council WSUD standard drawings.

Below Ground OSD Summary with calculated values

Site:		
	Site Area	28870 m^2
	Site Area NOT Draining to OSD	0 m^2
Reduced Levels (AHD):		
	RL of Top of Tank	76
	RL of Bottom of OSD Tank	73.4
	RL of 1.5 Year ARI Overflow Weir	74.865
	RL of Emergency Overflow Weir	75.625
	RL of 1.5 Year ARI Orifice Centerline	72.6
	RL of 100 Year ARI Orifice Centreline	72.1
	RL of Invert of Discharge to Council Drainage Pit	70.5
		69.5
	Minium RL of Garage Floor	76.09
	Minium RL of House Floor	76.19
OSD Volume:		
	Required Storage BELOW 1.5 Year ARI Overflow Weir	866.1 m^3
	Required Storage BELOW Emergency Overflow Weir	1313.6 m^3
Discharge Details:		
	Using Filter Cartridges to Manage Water Quality	Yes
	Discharge Location	
	Length of Emergency Overflow Weir	3.00 m
	Maximum 1.5 Year ARI Site Discharge	153.99 L/s
	1.5 Year ARI Orifice Discharge	No Orifice Needed
	Maximum 100 Year ARI Site Discharge	548.53 L/s
	100 Year ARI Orifice Discharge	363.74 L/s
	Filter Cartridges design flow	153.99 L/s
	Filter Cartridges Discharge with Additional Head	184.79 L/s
Orifice Details:		
	Number of 1.5 Year ARI Orifices	1
	Number of 100 Year ARI Orifices	1
	1.5 Year ARI Orifice Size (mm)	No Orifice Needed
	100 Year ARI Orifice Size (mm)	302.0 mm

Notifications:

Access grates to be provided such that the maximum reach from any point in the tank to the neaest grate is 6.0m. As there is no 1.5year ARI orifice the under drain flow from the filter cartridges will control the minorstorms. To ensure the storage can drain the base of the tank is to be configured to direct flows through the Non-Return flap to the filter storage chamber.

Blacktown City Council - On-site Detention Deemed to Comply Tool

Select project to Load or Delete:

v1.9

Project Details:

Project Title	Huntingwood Precinct - LOT 5B
Address	Augusta Street, Blacktown
Reference Number	SSD-36138263

General Site Data:

Site Area (m^2)	12310 m^2
Area Draining to OSD (m^2)	12310 m^2

On-Site Detention Data:

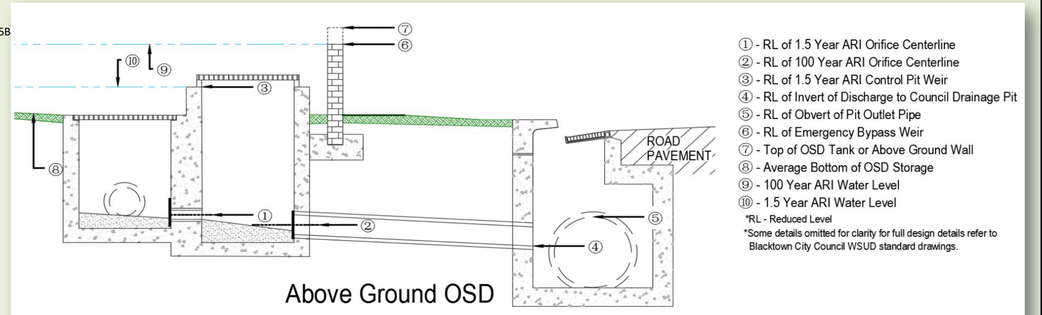
OSD Location	Below Ground
OSD Discharge Location	Council Drainage Pit
RL of Bottom of OSD Storage Area	74.000
RL of Top of OSD Storage Area	76.300
Length of Emergency Overflow Weir (m)	3.00 m

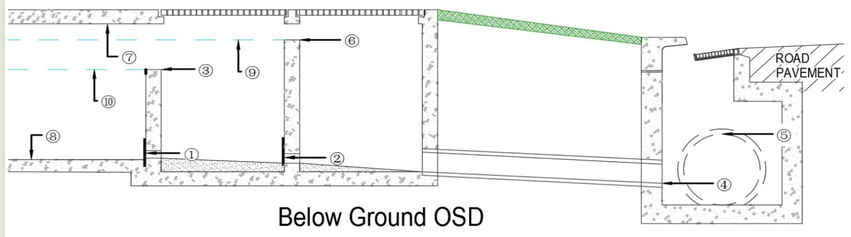
Filter Cartridges:

Will filter cartridges be used to manage water quality?	Yes
Design flow from Filter Cartridges (L/s)	71.08 L/s
Filter Cartridges flow with 100 Year ARI Head (L/s)	116.07 L/s

Discharge Data:

RL of 1.5 Year ARI Orifice Centreline	73.940
Number of Orifices	1
RL of 100 Year ARI Orifice Centreline	73.740
Number of Orifices	1
RL of Invert of Discharge to Council Drainage Pit	73.250
RL of obvert of Pit outlet pipe	73.500





① - RL of 1.5 Year ARI Orifice Centerline
② - RL of 100 Year ARI Orifice Centerline
③ - RL of 1.5 Year ARI Control Pit Weir
④ - RL of Invert of Discharge to Council Drainage Pit
⑤ - RL of Obvert of Pit Outlet Pipe
⑥ - RL of Emergency Bypass Weir
⑦ - Top of OSD Tank or Above Ground Wall
⑧ - Average Bottom of OSD Storage
⑨ - 100 Year ARI Water Level
⑩ - 1.5 Year ARI Water Level

*RL - Reduced Level
*Some details omitted for clarity for full design details refer to Blacktown City Council WSUD standard drawings.

Below Ground OSD Summary with calculated values

Site:	
Site Area	12310 m^2
Site Area NOT Draining to OSD	0 m^2
Reduced Levels (AHD):	
RL of Top of Tank	76.3
RL of Bottom of OSD Tank	74
RL of 1.5 Year ARI Overflow Weir	75.375
RL of Emergency Overflow Weir	76.085
RL of 1.5 Year ARI Orifice Centerline	73.94
RL of 100 Year ARI Orifice Centreline	73.74
RL of Invert of Discharge to Council Drainage Pit	73.25
RL of obvert of Pit outlet pipe	73.5
Minium RL of Garage Floor	76.39
Minium RL of House Floor	76.49
OSD Volume:	
Required Storage BELOW 1.5 Year ARI Overflow Weir	369.3 m^3
Required Storage BELOW Emergency Overflow Weir	560.1 m^3
Discharge Details:	
Using Filter Cartridges to Manage Water Quality	Yes
Discharge Location	Council Drainage Pit
Length of Emergency Overflow Weir	3.00 m
Maximum 1.5 Year ARI Site Discharge	71.08 L/s
1.5 Year ARI Orifice Discharge	No Orifice Needed
Maximum 100 Year ARI Site Discharge	233.89 L/s
100 Year ARI Orifice Discharge	117.82 L/s
Filter Cartridges design flow	71.08 L/s
Filter Cartridges Discharge with Additional Head	116.07 L/s
Orifice Details:	
Number of 1.5 Year ARI Orifices	1
Number of 100 Year ARI Orifices	1
1.5 Year ARI Orifice Size (mm)	No Orifice Needed
100 Year ARI Orifice Size (mm)	190.5 mm
Notifications:	

Access grates to be provided such that the maximum reach from any point in the tank to the neaest grate is 4.0m. As there is no 1.5year ARI orifice the under drain flow from the filter cartridges will control the minorstorms. To ensure the storage can drain the base of the tank is to be configured to direct flows through the Non-Return flap to the filter storage chamber.

ENCLOSURE 3
MUSIC LINK OUTPUT

MUSIC-*link* Report

Project Details		Company Details	
Project:	SSD-36138263_MODIFICATION_AUGUSTA STREET WAREHOUSE & DISTRIBUTION CENTRE	**Company:**	Costin Roe Consulting
Report Export Date:	2/04/2025	**Contact:**	Lourens de Villiers
Catchment Name:	Co13904_03_Huntingwood Precinct_REV08_SSDA MOD	**Address:**	
Catchment Area:	22.993ha	**Phone:**	
Impervious Area*:	72.63%	**Email:**	lourens.devilliers@costinroe.com.au
Rainfall Station:	67035 LIVERPOOL(WHITLAM		
Modelling Time-step:	6 Minutes		
Modelling Period:	1/01/1967 - 31/12/1976 11:54:00 PM		
Mean Annual Rainfall:	857mm		
Evapotranspiration:	1261mm		
MUSIC Version:	6.3.0		
MUSIC-link data Version:	6.35		
Study Area:	Blacktown		
Scenario:	Blacktown Development		

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

Treatment Train Effectiveness		Treatment Nodes		Source Nodes	
Node: 90TSS-68TP-47TN-92GP	**Reduction**	**Node Type**	**Number**	**Node Type**	**Number**
Flow	6.33%	Wetland Node	1	Urban Source Node	30
TSS	90.7%	Sedimentation Basin Node	6		
TP	68.3%	Rain Water Tank Node	5		
TN	47%	Bio Retention Node	1		
GP	100%	Generic Node	8		
		GPT Node	25		

Comments

All nodes are set to Blacktown City Council's requirements. Roof Nodes incorrectly showing errors on the MUSIC Link report

Passing Parameters

Node Type	Node Name	Parameter	Min	Max	Actual
Bio	B4_0.09Ha (Bioretention)	Hi-flow bypass rate (cum/sec)	None	None	100
Bio	B4_0.09Ha (Bioretention)	PET Scaling Factor	2.1	2.1	2.1
GPT	B5A X 12 OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.24
GPT	1 X OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.02
GPT	1 X OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.02
GPT	1 X OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.02
GPT	1 X OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.02
GPT	12 X OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.24
GPT	3 X OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.06
GPT	5 X OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.1
GPT	6 X OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.12
GPT	B2_1 X OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.02
GPT	B2_1 X OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.02
GPT	B2_1 X OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.02
GPT	B2_1 X OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.02
GPT	B2_17 X OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.34
GPT	B2_3 X OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.06
GPT	B3B_1 X OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.02
GPT	B3B_10 X OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.2
GPT	B3B_3 X OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.06
GPT	B3B_42 X OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.84
GPT	B3B_5 X OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.1
GPT	B3B_5 X OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.1
GPT	B5A X 5 OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.1
GPT	B5A X 5 OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.1
GPT	B5B X 2 OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.04
GPT	B5B_5 X OceanGuard 200 micron - white (BCC)	Hi-flow bypass rate (cum/sec)	None	None	0.1
Rain	B1 RWT (65KL)	% Reuse Demand Met	80	None	83.8923
Rain	B2 RWT (65KL)	% Reuse Demand Met	80	None	81.6221
Rain	B3A RWT (90KL) [2x45kl]	% Reuse Demand Met	80	None	82.36
Rain	B4 RWT 1 (85KL)	% Reuse Demand Met	80	None	81.60
Rain	B5B RWT 1 (1x65KL_ 1x85kl)	% Reuse Demand Met	80	None	80.59
Receiving	90TSS-68TP-47TN-92GP	% Load Reduction	None	None	6.33
Receiving	90TSS-68TP-47TN-92GP	GP % Load Reduction	90	None	100
Receiving	90TSS-68TP-47TN-92GP	TN % Load Reduction	45	None	47
Receiving	90TSS-68TP-47TN-92GP	TP % Load Reduction	65	None	68.3
Receiving	90TSS-68TP-47TN-92GP	TSS % Load Reduction	85	None	90.7
Sedimentation	B2_SF Chamber (81m)	Exfiltration Rate (mm/hr)	0	0	0
Sedimentation	B2_SF Chamber (81m)	High Flow Bypass Out (ML/yr)	None	None	0
Sedimentation	B2_SF Chamber (81m)	Notional Detention Time (hrs)	None	None	0.105

Only certain parameters are reported when they pass validation

Node Type	Node Name	Parameter	Min	Max	Actual
Sedimentation	B3A_SF Chamber (35m²)	Exfiltration Rate (mm/hr)	0	0	0
Sedimentation	B3A_SF Chamber (35m²)	High Flow Bypass Out (ML/yr)	None	None	0
Sedimentation	B3A_SF Chamber (35m²)	Notional Detention Time (hrs)	None	None	0.0436
Sedimentation	B3B_SF Chamber (60m²)	Exfiltration Rate (mm/hr)	0	0	0
Sedimentation	B3B_SF Chamber (60m²)	High Flow Bypass Out (ML/yr)	None	None	0
Sedimentation	B3B_SF Chamber (60m²)	Notional Detention Time (hrs)	None	None	0.0399
Sedimentation	B5A_SF Chamber (90m²)	Exfiltration Rate (mm/hr)	0	0	0
Sedimentation	B5A_SF Chamber (90m²)	High Flow Bypass Out (ML/yr)	None	None	0
Sedimentation	B5A_SF Chamber (90m²)	Notional Detention Time (hrs)	None	None	0.0546
Sedimentation	SF Chamber (28m²)	Exfiltration Rate (mm/hr)	0	0	0
Sedimentation	SF Chamber (28m²)	High Flow Bypass Out (ML/yr)	None	None	0
Sedimentation	SF Chamber (28m²)	Notional Detention Time (hrs)	None	None	0.0666
Sedimentation	SF Chamber (30m²)	Exfiltration Rate (mm/hr)	0	0	0
Sedimentation	SF Chamber (30m²)	High Flow Bypass Out (ML/yr)	None	None	0
Sedimentation	SF Chamber (30m²)	Notional Detention Time (hrs)	None	None	0.0522
Urban	B1_0.054Ha_Landscape A (BCC Pervious Areas)	Area Impervious (ha)	None	None	0
Urban	B1_0.054Ha_Landscape A (BCC Pervious Areas)	Area Pervious (ha)	None	None	0.054
Urban	B1_0.054Ha_Landscape A (BCC Pervious Areas)	Total Area (ha)	None	None	0.054
Urban	B1_0.090Ha_Landscape B (BCC Pervious Areas)	Area Impervious (ha)	None	None	0
Urban	B1_0.090Ha_Landscape B (BCC Pervious Areas)	Area Pervious (ha)	None	None	0.09
Urban	B1_0.090Ha_Landscape B (BCC Pervious Areas)	Total Area (ha)	None	None	0.09
Urban	B1_0.26Ha_Landscape Bypass (BCC Pervious Areas)	Area Impervious (ha)	None	None	0
Urban	B1_0.26Ha_Landscape Bypass (BCC Pervious Areas)	Area Pervious (ha)	None	None	0.26
Urban	B1_0.26Ha_Landscape Bypass (BCC Pervious Areas)	Total Area (ha)	None	None	0.26
Urban	B1_0.460Ha (BCC Road Areas)	Area Impervious (ha)	None	None	0.46
Urban	B1_0.460Ha (BCC Road Areas)	Area Pervious (ha)	None	None	0
Urban	B1_0.460Ha (BCC Road Areas)	Total Area (ha)	None	None	0.46
Urban	B3A_0.14Ha (BCC Road Areas)	Area Impervious (ha)	None	None	0.14
Urban	B3A_0.14Ha (BCC Road Areas)	Area Pervious (ha)	None	None	0
Urban	B3A_0.14Ha (BCC Road Areas)	Total Area (ha)	None	None	0.14
Urban	B3A_0.252Ha_Landscape A (BCC Pervious Areas)	Area Impervious (ha)	None	None	0
Urban	B3A_0.252Ha_Landscape A (BCC Pervious Areas)	Area Pervious (ha)	None	None	0.252
Urban	B3A_0.252Ha_Landscape A (BCC Pervious Areas)	Total Area (ha)	None	None	0.252
Urban	B3A_0.497Ha_Landscape Bypass (BCC Pervious Areas)	Area Impervious (ha)	None	None	0
Urban	B3A_0.497Ha_Landscape Bypass (BCC Pervious Areas)	Area Pervious (ha)	None	None	0.49
Urban	B3A_0.497Ha_Landscape Bypass (BCC Pervious Areas)	Total Area (ha)	None	None	0.49
Urban	B3A_1.51Ha (BCC Roof Area to RWT)	Area Impervious (ha)	None	None	1.51
Urban	B3A_1.51Ha (BCC Roof Area to RWT)	Area Pervious (ha)	None	None	0
Urban	B3A_1.51Ha (BCC Roof Area to RWT)	Total Area (ha)	None	None	1.51
Urban	B3B_0.619Ha (BCC Road Areas)	Area Impervious (ha)	None	None	0.619

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Node Type	Node Name	Parameter	Min	Max	Actual
Urban	B3B_0.619Ha (BCC Road Areas)	Area Pervious (ha)	None	None	0
Urban	B3B_0.619Ha (BCC Road Areas)	Total Area (ha)	None	None	0.619
Urban	B3B_1.97Ha (BCC Roof Area)	Area Impervious (ha)	None	None	1.97
Urban	B3B_1.97Ha (BCC Roof Area)	Area Pervious (ha)	None	None	0
Urban	B3B_1.97Ha (BCC Roof Area)	Total Area (ha)	None	None	1.97
Urban	B4_0.652Ha_Landscape A (BCC Pervious Areas)	Area Impervious (ha)	None	None	0
Urban	B4_0.652Ha_Landscape A (BCC Pervious Areas)	Area Pervious (ha)	None	None	0.65
Urban	B4_0.652Ha_Landscape A (BCC Pervious Areas)	Total Area (ha)	None	None	0.65
Urban	B4_0.821Ha_Landscape Bypass (BCC Pervious Areas)	Area Impervious (ha)	None	None	0
Urban	B4_0.821Ha_Landscape Bypass (BCC Pervious Areas)	Area Pervious (ha)	None	None	0.8
Urban	B4_0.821Ha_Landscape Bypass (BCC Pervious Areas)	Total Area (ha)	None	None	0.8
Urban	B4_1.042Ha (BCC Roof Area)	Area Impervious (ha)	None	None	1.042
Urban	B4_1.042Ha (BCC Roof Area)	Area Pervious (ha)	None	None	0
Urban	B4_1.042Ha (BCC Roof Area)	Total Area (ha)	None	None	1.042
Urban	B4_1.513Ha (BCC Roof Area to RWT)	Area Impervious (ha)	None	None	1.513
Urban	B4_1.513Ha (BCC Roof Area to RWT)	Area Pervious (ha)	None	None	0
Urban	B4_1.513Ha (BCC Roof Area to RWT)	Total Area (ha)	None	None	1.513
Urban	B4_1.530Ha (BCC Road Areas)	Area Impervious (ha)	None	None	1.53
Urban	B4_1.530Ha (BCC Road Areas)	Area Pervious (ha)	None	None	0
Urban	B4_1.530Ha (BCC Road Areas)	Total Area (ha)	None	None	1.53
Urban	B5A_0.532Ha_Landscape (BCC Pervious Areas)	Area Impervious (ha)	None	None	0
Urban	B5A_0.532Ha_Landscape (BCC Pervious Areas)	Area Pervious (ha)	None	None	0.53
Urban	B5A_0.532Ha_Landscape (BCC Pervious Areas)	Total Area (ha)	None	None	0.53
Urban	B5A_2.078Ha (BCC Road Areas)	Area Impervious (ha)	None	None	2.078
Urban	B5A_2.078Ha (BCC Road Areas)	Area Pervious (ha)	None	None	0
Urban	B5A_2.078Ha (BCC Road Areas)	Total Area (ha)	None	None	2.078
Urban	B5A_2.103Ha (BCC Roof Area)	Area Impervious (ha)	None	None	2.103
Urban	B5A_2.103Ha (BCC Roof Area)	Area Pervious (ha)	None	None	0
Urban	B5A_2.103Ha (BCC Roof Area)	Total Area (ha)	None	None	2.103
Urban	B5A_2.62Ha_Landscape B (BCC Pervious Areas)	Area Impervious (ha)	None	None	0
Urban	B5A_2.62Ha_Landscape B (BCC Pervious Areas)	Area Pervious (ha)	None	None	2.6
Urban	B5A_2.62Ha_Landscape B (BCC Pervious Areas)	Total Area (ha)	None	None	2.6
Urban	B5B_0.129Ha_Landscape Bypass (BCC Pervious Areas)	Area Impervious (ha)	None	None	0
Urban	B5B_0.129Ha_Landscape Bypass (BCC Pervious Areas)	Area Pervious (ha)	None	None	0.12
Urban	B5B_0.129Ha_Landscape Bypass (BCC Pervious Areas)	Total Area (ha)	None	None	0.12
Urban	B5B_0.336Ha (BCC Road Areas)	Area Impervious (ha)	None	None	0.336
Urban	B5B_0.336Ha (BCC Road Areas)	Area Pervious (ha)	None	None	0
Urban	B5B_0.336Ha (BCC Road Areas)	Total Area (ha)	None	None	0.336
Urban	B5B_0.896Ha (BCC Roof Area to RWT)	Area Impervious (ha)	None	None	0.896
Urban	B5B_0.896Ha (BCC Roof Area to RWT)	Area Pervious (ha)	None	None	0

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Node Type	Node Name	Parameter	Min	Max	Actual
Urban	B5B_0.896Ha (BCC Roof Area to RWT)	Total Area (ha)	None	None	0.896
Urban	Building 1_0.279Ha (BCC Roof Area to RWT)	Area Impervious (ha)	None	None	0.279
Urban	Building 1_0.279Ha (BCC Roof Area to RWT)	Area Pervious (ha)	None	None	0
Urban	Building 1_0.279Ha (BCC Roof Area to RWT)	Total Area (ha)	None	None	0.279
Urban	Building 1_0.279Ha (BCC Roof Area)	Area Impervious (ha)	None	None	0.279
Urban	Building 1_0.279Ha (BCC Roof Area)	Area Pervious (ha)	None	None	0
Urban	Building 1_0.279Ha (BCC Roof Area)	Total Area (ha)	None	None	0.279
Urban	Building 2_0.08Ha_Landscape A (BCC Pervious Areas)	Area Impervious (ha)	None	None	0.024
Urban	Building 2_0.08Ha_Landscape A (BCC Pervious Areas)	Area Pervious (ha)	None	None	0.055
Urban	Building 2_0.08Ha_Landscape A (BCC Pervious Areas)	Total Area (ha)	None	None	0.08
Urban	Building 2_0.08Ha_Landscape B (BCC Pervious Areas)	Area Impervious (ha)	None	None	0.015
Urban	Building 2_0.08Ha_Landscape B (BCC Pervious Areas)	Area Pervious (ha)	None	None	0.064
Urban	Building 2_0.08Ha_Landscape B (BCC Pervious Areas)	Total Area (ha)	None	None	0.08
Urban	Building 2_0.325Ha_Landscape Bypass (BCC Pervious Areas)	Area Impervious (ha)	None	None	0
Urban	Building 2_0.325Ha_Landscape Bypass (BCC Pervious Areas)	Area Pervious (ha)	None	None	0.325
Urban	Building 2_0.325Ha_Landscape Bypass (BCC Pervious Areas)	Total Area (ha)	None	None	0.325
Urban	Building 2_0.579Ha (BCC Roof Area to RWT)	Area Impervious (ha)	None	None	0.579
Urban	Building 2_0.579Ha (BCC Roof Area to RWT)	Area Pervious (ha)	None	None	0
Urban	Building 2_0.579Ha (BCC Roof Area to RWT)	Total Area (ha)	None	None	0.579
Urban	Building 2_0.598Ha (BCC Roof Area)	Area Impervious (ha)	None	None	0.598
Urban	Building 2_0.598Ha (BCC Roof Area)	Area Pervious (ha)	None	None	0
Urban	Building 2_0.598Ha (BCC Roof Area)	Total Area (ha)	None	None	0.598
Urban	Building 2_0.730Ha (BCC Road Areas)	Area Impervious (ha)	None	None	0.73
Urban	Building 2_0.730Ha (BCC Road Areas)	Area Pervious (ha)	None	None	0
Urban	Building 2_0.730Ha (BCC Road Areas)	Total Area (ha)	None	None	0.73
Wetland	Blacktown Only Wetland	% Reuse Demand Met	None	None	0

Only certain parameters are reported when they pass validation

Failing Parameters

Node Type	Node Name	Parameter	Min	Max	Actual
Urban	B3A_1.51Ha (BCC Roof Area to RWT)	Baseflow Total Nitrogen Mean (log mg/L)	0.32	0.32	0.11
Urban	B3A_1.51Ha (BCC Roof Area to RWT)	Baseflow Total Phosphorus Mean (log mg/L)	-0.82	-0.82	-0.85
Urban	B3A_1.51Ha (BCC Roof Area to RWT)	Baseflow Total Suspended Solids Mean (log mg/L)	1.1	1.1	1.2
Urban	B3B_1.97Ha (BCC Roof Area)	Baseflow Total Nitrogen Mean (log mg/L)	0.32	0.32	0.11
Urban	B3B_1.97Ha (BCC Roof Area)	Baseflow Total Phosphorus Mean (log mg/L)	-0.82	-0.82	-0.85
Urban	B3B_1.97Ha (BCC Roof Area)	Baseflow Total Suspended Solids Mean (log mg/L)	1.1	1.1	1.2
Urban	B4_1.042Ha (BCC Roof Area)	Baseflow Total Nitrogen Mean (log mg/L)	0.32	0.32	0.11
Urban	B4_1.042Ha (BCC Roof Area)	Baseflow Total Phosphorus Mean (log mg/L)	-0.82	-0.82	-0.85
Urban	B4_1.042Ha (BCC Roof Area)	Baseflow Total Suspended Solids Mean (log mg/L)	1.1	1.1	1.2
Urban	B4_1.513Ha (BCC Roof Area to RWT)	Baseflow Total Nitrogen Mean (log mg/L)	0.32	0.32	0.11
Urban	B4_1.513Ha (BCC Roof Area to RWT)	Baseflow Total Phosphorus Mean (log mg/L)	-0.82	-0.82	-0.85
Urban	B4_1.513Ha (BCC Roof Area to RWT)	Baseflow Total Suspended Solids Mean (log mg/L)	1.1	1.1	1.2
Urban	B5A_2.103Ha (BCC Roof Area)	Baseflow Total Nitrogen Mean (log mg/L)	0.32	0.32	0.11
Urban	B5A_2.103Ha (BCC Roof Area)	Baseflow Total Phosphorus Mean (log mg/L)	-0.82	-0.82	-0.85
Urban	B5A_2.103Ha (BCC Roof Area)	Baseflow Total Suspended Solids Mean (log mg/L)	1.1	1.1	1.2
Urban	B5B_0.896Ha (BCC Roof Area to RWT)	Baseflow Total Nitrogen Mean (log mg/L)	0.32	0.32	0.11
Urban	B5B_0.896Ha (BCC Roof Area to RWT)	Baseflow Total Phosphorus Mean (log mg/L)	-0.82	-0.82	-0.85
Urban	B5B_0.896Ha (BCC Roof Area to RWT)	Baseflow Total Suspended Solids Mean (log mg/L)	1.1	1.1	1.2
Urban	Building 1_0.279Ha (BCC Roof Area to RWT)	Baseflow Total Nitrogen Mean (log mg/L)	0.32	0.32	0.11
Urban	Building 1_0.279Ha (BCC Roof Area to RWT)	Baseflow Total Phosphorus Mean (log mg/L)	-0.82	-0.82	-0.85
Urban	Building 1_0.279Ha (BCC Roof Area to RWT)	Baseflow Total Suspended Solids Mean (log mg/L)	1.1	1.1	1.2
Urban	Building 1_0.279Ha (BCC Roof Area)	Baseflow Total Nitrogen Mean (log mg/L)	0.32	0.32	0.11
Urban	Building 1_0.279Ha (BCC Roof Area)	Baseflow Total Phosphorus Mean (log mg/L)	-0.82	-0.82	-0.85
Urban	Building 1_0.279Ha (BCC Roof Area)	Baseflow Total Suspended Solids Mean (log mg/L)	1.1	1.1	1.2
Urban	Building 2_0.579Ha (BCC Roof Area to RWT)	Baseflow Total Nitrogen Mean (log mg/L)	0.32	0.32	0.11
Urban	Building 2_0.579Ha (BCC Roof Area to RWT)	Baseflow Total Phosphorus Mean (log mg/L)	-0.82	-0.82	-0.85
Urban	Building 2_0.579Ha (BCC Roof Area to RWT)	Baseflow Total Suspended Solids Mean (log mg/L)	1.1	1.1	1.2
Urban	Building 2_0.598Ha (BCC Roof Area)	Baseflow Total Nitrogen Mean (log mg/L)	0.32	0.32	0.11
Urban	Building 2_0.598Ha (BCC Roof Area)	Baseflow Total Phosphorus Mean (log mg/L)	-0.82	-0.82	-0.85
Urban	Building 2_0.598Ha (BCC Roof Area)	Baseflow Total Suspended Solids Mean (log mg/L)	1.1	1.1	1.2

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ENCLOSURE 4
1% AEP FLOOD MODEL CONFIRMING CONSITENCY WITH APPROVED MODELS

FLOOD DEPTH (m)			
No.	FROM DEPTH	TO DEPTH	COLOUR
1	0.020	0.200	
2	0.200	0.400	
3	0.400	0.600	
4	0.600	0.800	
5	0.800	1.000	
6	1.000	1.500	
7	1.500	2.000	
8	2.000	2.500	
9	2.500	3.000	
10	3.000	4.000	

NOTE: FLOOD DEPTH NOT SHOWN FOR LESS THAN 20mm

LEGEND:

LEVELS DATUM IS AHD.

- 30.00 – FLOOD LEVEL CONTOUR (MAJOR) 1m INTERVALS
- 30.20 – FLOOD LEVEL CONTOUR (MINOR) 0.2m INTERVALS
- – FLOOD MODELLING BOUNDARY
- – SITE BOUNDARY
- SW – EXISTING STORMWATER STRUCTURE
- – SURFACE CONTOUR (MAJOR) 5m INTERVALS
- – SURFACE CONTOUR (MINOR) 1m INTERVALS
- – SSD APPROVED FLOOD EXTENT

GREAT WESTERN HIGHWAY

M4 MOTORWAY

FLUSHCOMBE ROAD

AUGUSTA STREET

PROPOSED WAREHOUSE 1
FFL RL 73.32±1000mm

PROPOSED WAREHOUSE 2
FFL RL 76.00±1000mm

PROPOSED WAREHOUSE 3
FFL RL 78.10±1000mm

PROPOSED WAREHOUSE 4
FFL RL 78.10±1000mm

PROPOSED WAREHOUSE 5
FFL RL 82.40±1000mm

3x Ø1150 RCP

Ø1800 RCP

Ø900 RCP

Ø1800 RCP

1% AEP MOD2 FLOOD EXTENT COMPARISON
SCALE 1:1500

15m 0 15 30 45 60 75 90 105 120 135 150m
SCALE 1:1500 AT B1 SIZE SHEET

)25 '(9(/230(17 $33/,&$7,21

ISSUE	DATE	AMENDMENTS
A	12.06.26	ISSUED FOR SSDA MOD

ARCHITECT: PACE ARCHITECTS

CLIENT: ESR

PROJECT
PROPOSED WAREHOUSE DISTRIBUTION
AUGUSTA STREET, HUNTINGWOOD EAST, NSW 2148

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
LDV	KP	FEB'25	MW	B1	AS SHOWN	C013904.03-FSMMD2

CRG CIVIL & STRUCTURAL ENGINEERS

DRAWING TITLE
1% AEP MOD2 FLOOD EXTENT COMPARISON

DRAWING No C013904.03-FSMMD2-000

ISSUE A

FLOOD DEPTH (m)			
No.	FROM DEPTH	TO DEPTH	COLOUR
1	0.020	0.200	
2	0.200	0.400	
3	0.400	0.600	
4	0.600	0.800	
5	0.800	1.000	
6	1.000	1.500	
7	1.500	2.000	
8	2.000	2.500	
9	2.500	3.000	

NOTE: FLOOD DEPTH NOT SHOWN FOR LESS THAN 20mm

LEGEND:

LEVELS DATUM IS AHD.

- 30.00 – FLOOD LEVEL CONTOUR (MAJOR) 1m INTERVALS
- 30.20 – FLOOD LEVEL CONTOUR (MINOR) 0.2m INTERVALS
- FLOOD MODELLING BOUNDARY
- SITE BOUNDARY
- SW – EXISTING STORMWATER STRUCTURE
- SURFACE CONTOUR (MAJOR) 5m INTERVALS
- SURFACE CONTOUR (MINOR) 1m INTERVALS

FLUSHCOMBE ROAD

AUGUSTA STREET

GREAT WESTERN HIGHWAY

M4 MOTORWAY

3x Ø1150 RCP

Ø1800 RCP

Ø900 RCP

1% AEP PRE-DEVELOPMENT FLOOD LEVELS AND DEPTHS

SCALE 1:1500

15m 0 15 30 45 60 75 90 105 120 135 150m

SCALE 1:1500 AT B1 SIZE SHEET

FOR DEVELOPMENT APPLICATION

AMENDMENTS	DATE	ISSUE
ISSUED FOR SSDA MOD	12.06.26	A

AMENDMENTS	DATE	ISSUE

ARCHITECT: PACE ARCHITECTS

CLIENT: ESR

PROJECT: PROPOSED WAREHOUSE DISTRIBUTION
AUGUSTA STREET, HUNTINGWOOD EAST, NSW 2148

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
LDV	KP	FEB'25	MW	B1	AS SHOWN	C013904.03-FSMMD2

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COSTIN ROE CONSULTING | CIVIL & STRUCTURAL ENGINEERS

DRAWING TITLE: 1% AEP PRE-DEVELOPMENT FLOOD LEVELS AND DEPTHS

DRAWING No: C013904.03-FSMMD2-001

ISSUE: A