

SITE CALCULATIONS	
SITE AREA	3000sqm
GROUND FLOOR AREA BLOCK A	514.5sqm
MEZZANINE FLOOR AREA BLOCK A	478.5sqm
TOTAL FLOOR AREA BLOCK A	993.05sqm
TOTAL VOLUME BLOCK A	3972.2m ³
GROUND FLOOR AREA BLOCK B	514.5sqm
MEZZANINE FLOOR AREA BLOCK B	478.5sqm
TOTAL FLOOR AREA BLOCK B	993.05sqm
TOTAL VOLUME BLOCK B	3972.2m ³
TOTAL FLOOR AREA	1986.1sqm
TOTAL VOLUME	7944.4m³
LANDSCAPE AREA	252.338sqm

PROPOSED NEW VEHICULAR CROSSING TO BE CONSTRUCTED TO THE SPECIFICATIONS OF COUNCIL

BENCHMARK STEEL BASE OF LIGHT-POLE RL 490.38

PROPOSED NEW VEHICULAR CROSSING TO BE CONSTRUCTED TO THE SPECIFICATIONS OF COUNCIL

APPLICATION NO:
DA0206/2023

SIGNED:
SHopkins

DATE: 02/06/2023

APPROVED PLAN

PROPOSED SITE PLAN

SITE LEGEND	
ITEM	SYMBOL
GROUND FLOOR AREA	
LINE OF FIRST FLOOR	
SITE BOUNDARY	

NOTES

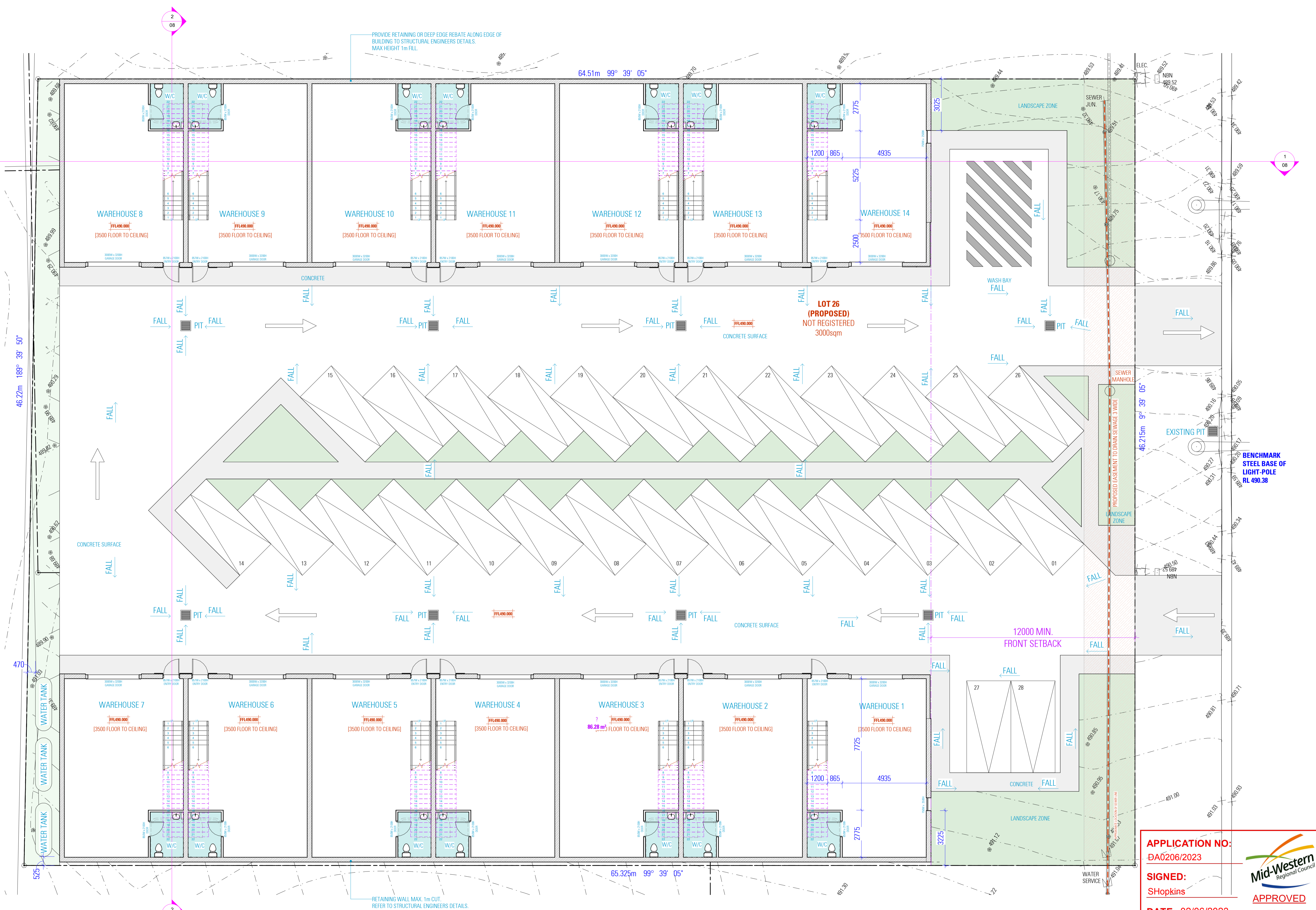
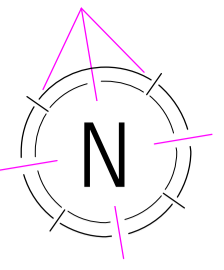
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NOT FOR CONSTRUCTION



PROPOSED GROUND FLOOR PLAN

APPLICATION NO:
DA0206/2023

SIGNED:
SHopkins

DATE: 02/06/2023

APPROVED PLAN

NOTES:

- HARD WIRED PHOTO-ELECTRIC SMOKE ALARMS ARE TO BE INSTALLED IN ACCORDANCE WITH PART 3.7.5
- EXHAUST FROM A BATHROOM, SANITARY COMPARTMENT, OR LAUNDRY MUST BE DISCHARGED DIRECTLY OR VIA A SHAFT OR DUCT TO OUTDOOR AIR OR A VENTILATED ROOF SPACE IN ACCORDANCE WITH PART 3.8.7

NOTES:

- ALL DIMENSIONS ARE IN MILLIMETERS
- DO NOT SCALE. USE FIGURED DIMENSIONS ONLY
- VERIFY ALL DIMENSIONS WITH THE SURVEYOR
- ALL WORKS TO COMPLY WITH THE NATIONAL CONSTRUCTION CODE (NCC) & AUSTRALIAN STANDARDS

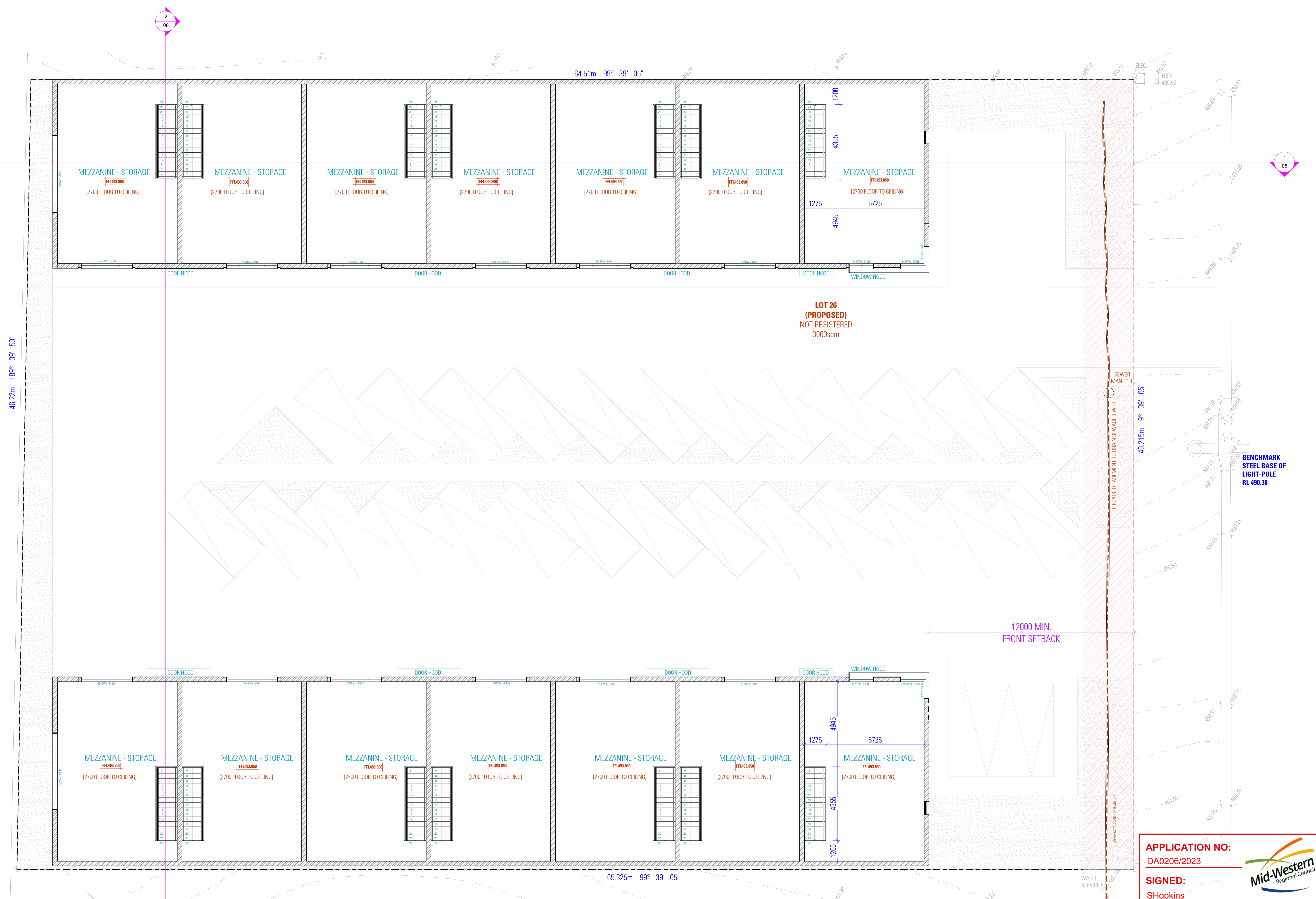
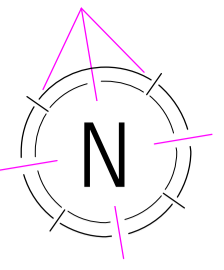
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COMMERCIAL DEVELOPMENT **DRAWING** PROPOSED GROUND FLOOR PLAN

LOT 26, 38 HILL END ROAD, CAERLEON NSW 2850

DESIGNER: MICHEL TOUBIA, JOYCE RAFOUL
SCALE: 1:100/1:150/1:200
ISSUE: 19/01/23
DWG No: 22323 - 02

NOT FOR CONSTRUCTION



PROPOSED MEZZANINE FLOOR PLAN

APPLICATION NO:
DA0206/2023

SIGNED:
SHopkins

DATE: 02/06/2023

APPROVED PLAN

NOTES:

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- EXHAUST FROM A BATHROOM, SANITARY COMPARTMENT, OR LAUNDRY MUST BE DISCHARGED DIRECTLY (OR VIA A SHAFT OR DUCT) TO OUTDOOR AIR OR A VENTILATED ROOF SPACE IN ACCORDANCE WITH PART 3.8.7

NOTES:

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COMMERCIAL DEVELOPMENT **DRAWING** PROPOSED MEZZANINE FLOOR PLAN

LOT 26, 38 HILL END ROAD, CAERLEON NSW

2850

SCALE: 1:100/1:150/1:200

ISSUE

DATE: 19/01/23

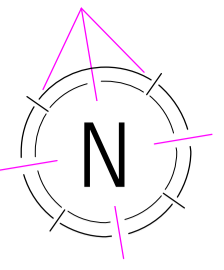
DESIGNER: MICHEL TOUBIA, JOYCE RAFOUL

DRAWN BY: ED CROSSKILL

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SWC No. 22323 - 03

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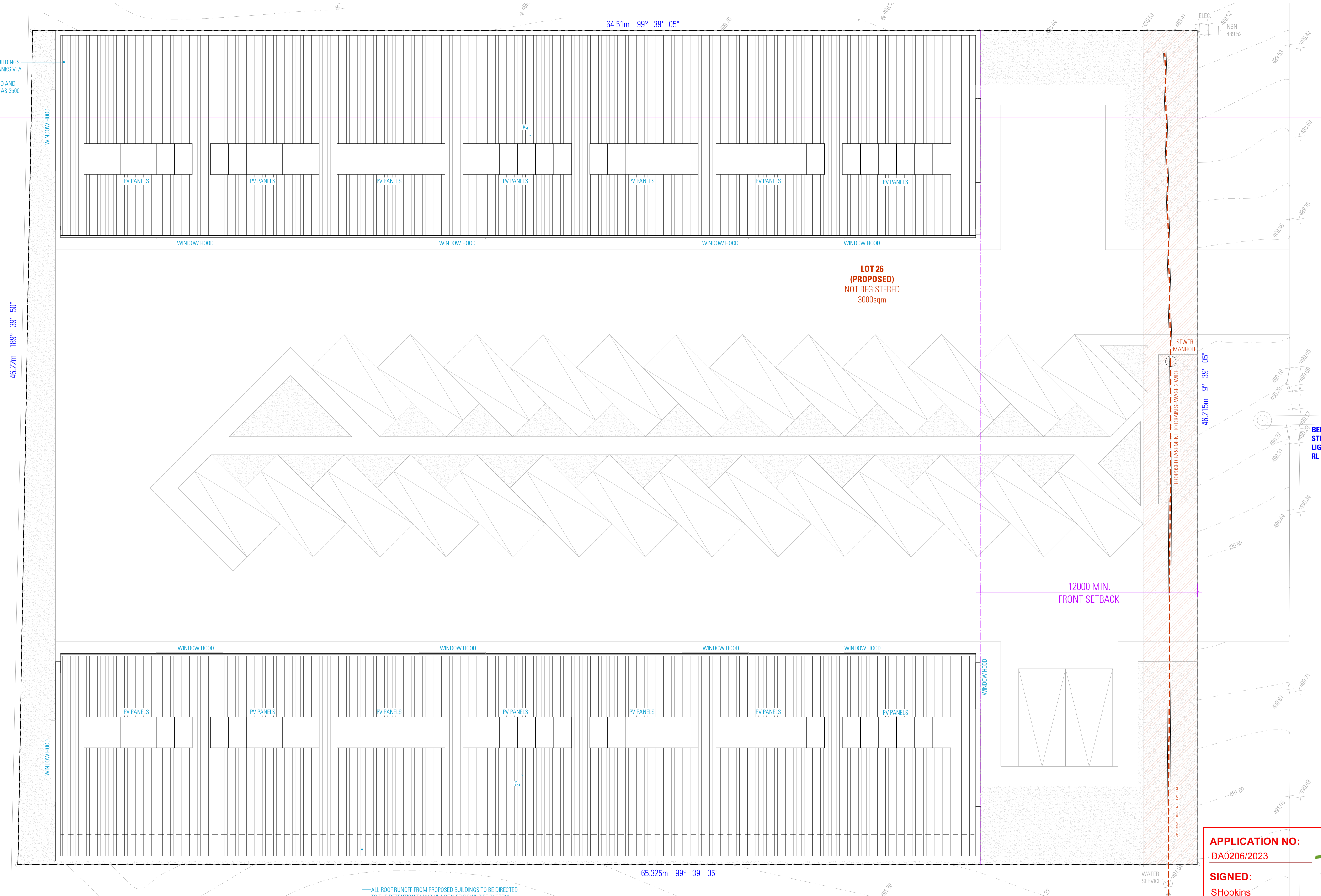


2
08

ALL ROOF RUNOFF FROM PROPOSED BUILDINGS TO BE DIRECTED TO THE DETENTION TANKS VIA A SEALED DOWNPIPE SYSTEM. BUILDING HYDRAULICS TO BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH AS 3500

1
08

1
08



**LOT 26
(PROPOSED)
NOT REGISTERED
3000sqm**

46.22m 188° 39' 50"

64.51m 99° 39' 05"

65.325m 99° 39' 05"

ALL ROOF RUNOFF FROM PROPOSED BUILDINGS TO BE DIRECTED TO THE DETENTION TANKS VIA A SEALED DOWNPIPE SYSTEM. BUILDING HYDRAULICS TO BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH AS 3500

APPLICATION NO:
DA0206/2023

SIGNED:
SHopkins

DATE: 02/06/2023



PROPOSED ROOF PLAN

- NOTES:**
- HARD WIRED PHOTO-ELECTRIC SMOKE ALARMS ARE TO BE INSTALLED IN ACCORDANCE WITH PART 3.7.5
 - EXHAUST FROM A BATHROOM, SANITARY COMPARTMENT, OR LAUNDRY MUST BE DISCHARGED DIRECTLY (OR VIA A SHAFT OR DUCT) TO OUTDOOR AIR OR A VENTILATED ROOF SPACE IN ACCORDANCE WITH PART 3.8.7
- NOTES:**
- ALL DIMENSIONS ARE IN MILLIMETERS
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COMMERCIAL DEVELOPMENT DRAWING
PROPOSED ROOF PLAN

LOT 26, 38 HILL END ROAD, CAERLEON NSW 2850

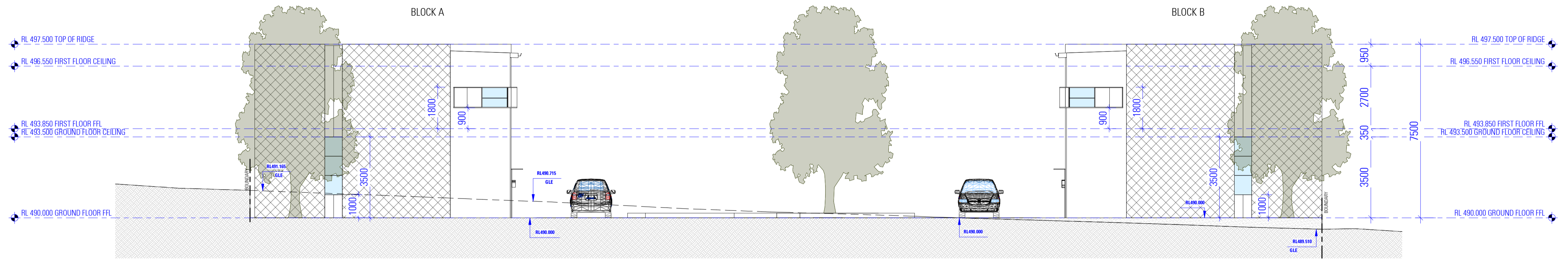
SCALE 1:100/1
ISSUE 1 19/01/23

DESIGNER MICHEL TOUBRA
DRAFTER JOYCE RAFOUL

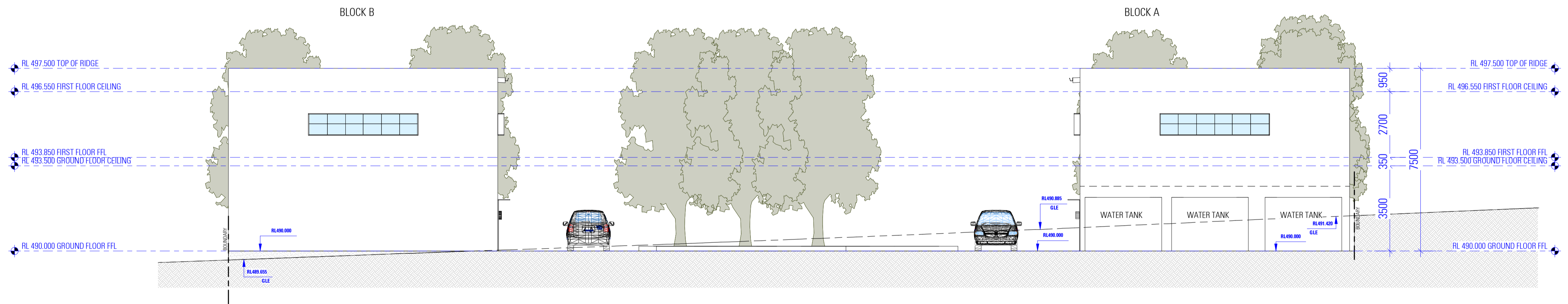
ED CROSSKILL

SWC No. 22323 - 04

NOT FOR CONSTRUCTION



EAST ELEVATION
AS SEEN FROM HILL END ROAD



WEST ELEVATION

NOTES
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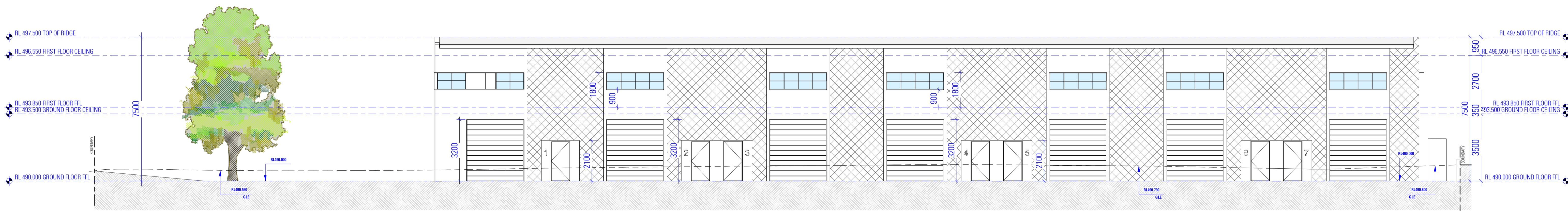
bdqa
ACCREDITED
REGISTERED QUALITY ASSURANCE

COMMERCIAL DEVELOPMENT
LOT 26, 38 HILL END ROAD, CAERLEON NSW
DRAWING EAST AND WEST ELEVATIONS
SCALE 1:100/1
ISSUE 1 19.01.23
DESIGNER MICHEL TOUBA
DRAFTER JOYCE RAFOUL
ED CROSSKILL
2850
DWG No. 22323 - 05

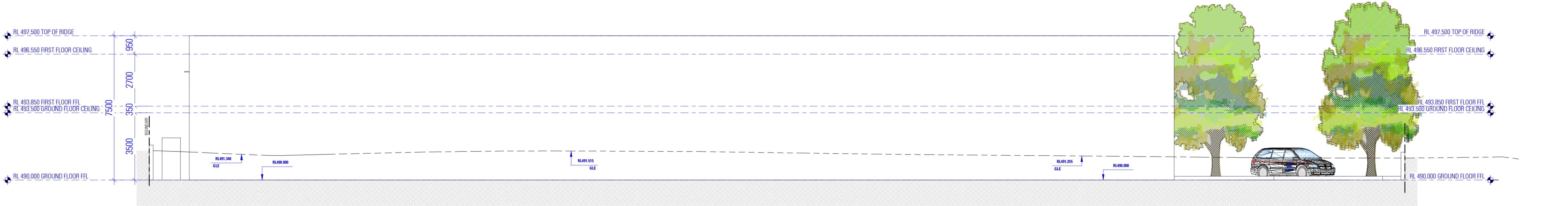
APPLICATION NO:
DA0206/2023
SIGNED:
SHopkins
DATE: 02/06/2023
APPROVED PLAN



NOT FOR CONSTRUCTION



BLOCK A - NORTH ELEVATION



BLOCK A - SOUTH ELEVATION

APPLICATION NO:
DA0206/2023

SIGNED:
SHopkins

DATE: 02/06/2023

APPROVED PLAN



NOT FOR CONSTRUCTION

NOTES

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design **bdag**

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COMMERCIAL DEVELOPMENT

LOT 26, 38 HILL END ROAD, CAERLEON NSW

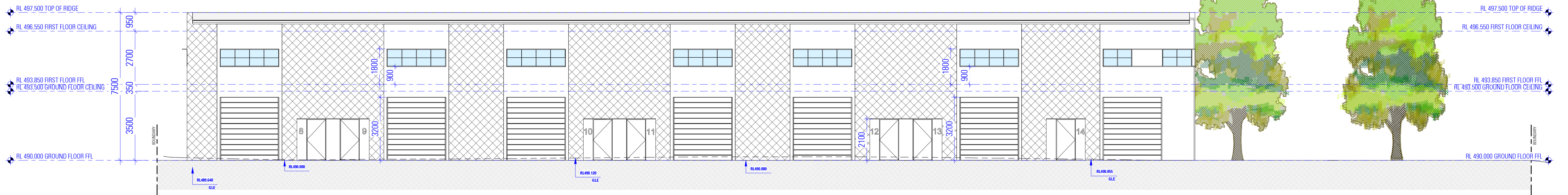
DRAWING BLOCK A NORTH AND SOUTH ELEVATIONS

DESIGN MICHEL TOUBRA
DRAWN JOYCE RAFOUL

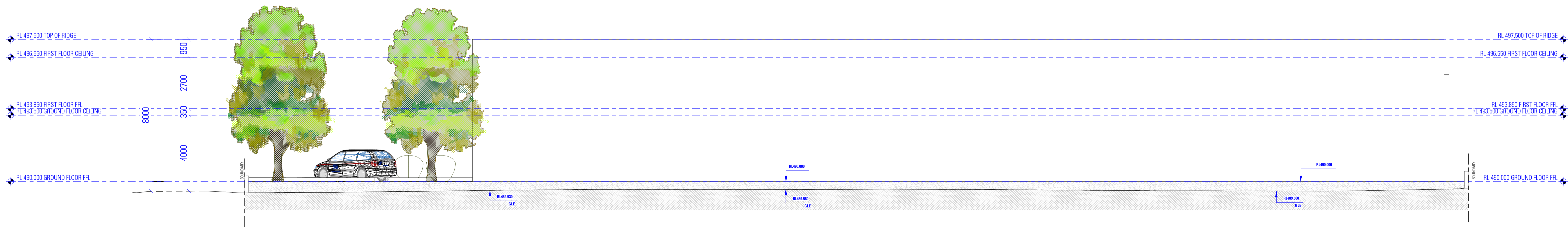
SCALE 1:100/1
ISSUE 19/01/23

DATE 28/05/23

NO. SWG No. 22323 - 06



BLOCK B - SOUTH ELEVATION



BLOCK B - NORTH ELEVATION

APPLICATION NO:
DA0206/2023

SIGNED:
SHopkins

DATE: 02/06/2023

APPROVED PLAN



NOT FOR CONSTRUCTION

NOTES

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design **bdag**

COMMERCIAL DEVELOPMENT **DRAWING**

LOT 26, 38 HILL END ROAD, CAERLEON NSW

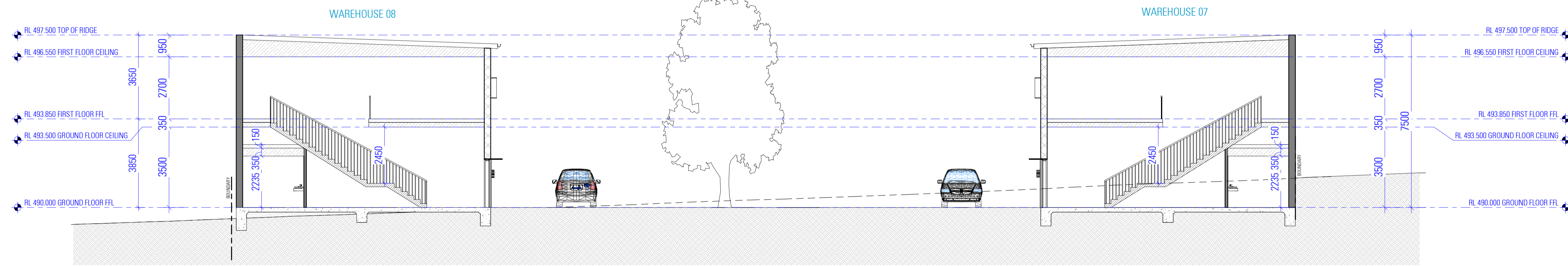
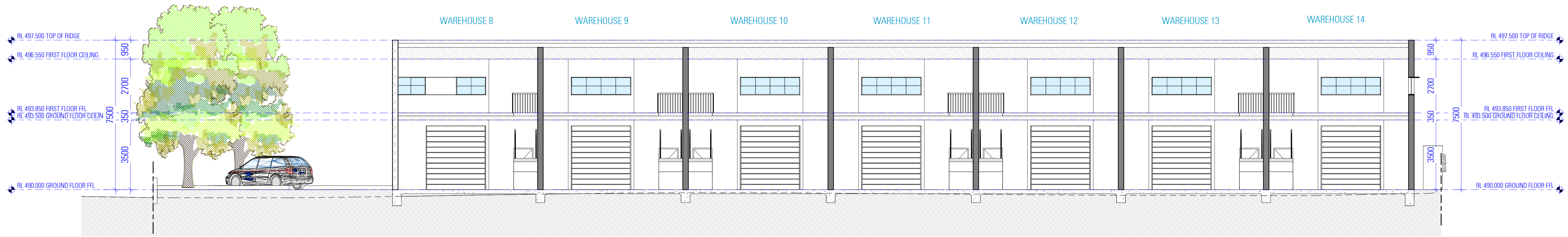
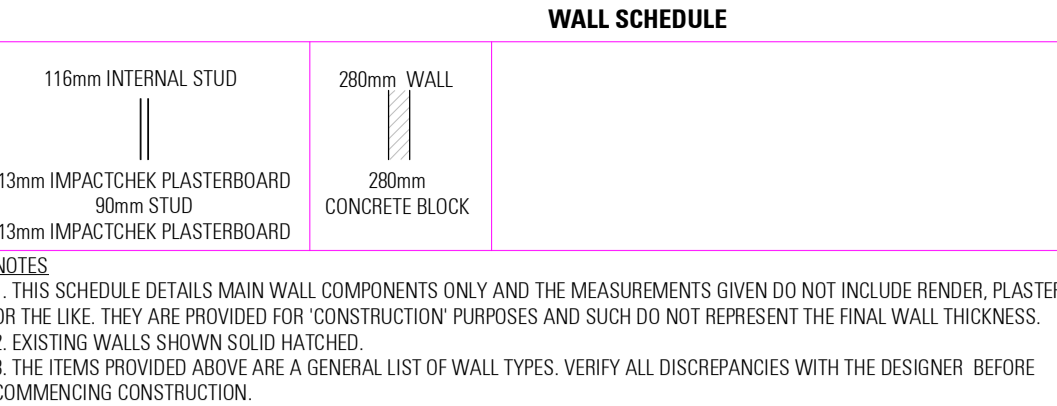
BLOCK B NORTH AND SOUTH ELEVATIONS

DESIGN: MICHEL TOUBRA
DRAFTED: JOYCE RAFOUL

2850
ED: CROSSKILL

SCALE: 1:100/1
ISSUE: 19.01.23

SWC No. 22323 - 07



- EARTHWORKS**
- NATIONAL CONSTRUCTION CODE (NCC)**
- EARTHWORKS AND EXCAVATIONS ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF PART 3.1.1
- STORM WATER**
- POWDER COATED ALUMINIUM GUTTERS & DOWNPIPES
 - REFER TO STORMWATER PLAN FOR ALL SITE DRAINAGE
 - RETAINING WALLS TO BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH PART 3.1.3
 - ROOF WALL CLADDING, GUTTERS & DOWNPIPES ARE TO COMPLY WITH PART 3.3
- AUSTRALIAN STANDARD (AS)**
- FINISHING ALLOWANCES - AS 3600
- TERMITES PROTECTION**
- NATIONAL CONSTRUCTION CODE (NCC)**
- PROTECTION MUST BE IN ACCORDANCE WITH PART 3.1.4
- AUSTRALIAN STANDARD (AS)**
- TERMITES PROTECTION - AS 3660.1
- DOINGS**
- PROPOSED FOOTINGS TO BE THE SPECIFICATIONS OF A QUALIFIED PRACTISING ENGINEER
- NATIONAL CONSTRUCTION CODE (NCC)**
- FOOTINGS AND SLABS ARE TO BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH PART 3.2
- AUSTRALIAN STANDARD (AS)**
- RESIDENTIAL SLABS & FOOTINGS - AS 2890
- GLAZING**
- PROVIDED FLOOR CONSTRUCTION TO THE SPECIFICATIONS OF A QUALIFIED PRACTISING ENGINEER
 - ALL PROVIDES VERANDA'S AS THE USE TO HAVE A 85mm STEPCROWN FROM INTERNAL AREAS UNLESS NOTED OTHERWISE

- AUSTRALIAN STANDARD (AS)**
- FOR ALL REDUCED LEVELS REFER TO FLOOR PLANS (ENGINEERS DETAILS TO BE SUPPLIED/CONFIRM WITH DESIGNER)
 - WINDOWS IN BUILDINGS - AS 2047
 - GLASS IN BUILDINGS - AS 1288
- ROOFING**
- NATIONAL CONSTRUCTION CODE (NCC)**
- ROOF CLADDING SHALL BE CARRIED OUT IN ACCORDANCE WITH PART 3.3.1
- AUSTRALIAN STANDARD (AS)**
- ROOF CLADDING SHALL BE CARRIED OUT IN ACCORDANCE WITH PART 3.3.1
- WALLS**
- NATIONAL CONSTRUCTION CODE (NCC)**
- ALL FRAMING IS TO BE IN ACCORDANCE WITH PART 3.4
 - ALL MASONRY IS TO COMPLY WITH PART 3.3
 - SOUND INSULATION IS TO BE IN ACCORDANCE WITH PART 3.3.1
- AUSTRALIAN STANDARD (AS)**
- MASONRY CONSTRUCTION - AS 3700
 - RESIDENTIAL TIMBER FRAMED CONSTRUCTION - AS 1684
 - CONCRETE STRUCTURES - AS 3600
- STRUCTURE**
- NATIONAL CONSTRUCTION CODE (NCC)**
- STRUCTURAL DESIGN TO BE IN ACCORDANCE WITH PART 3.1.1
 - STRUCTURAL DESIGN TO BE IN ACCORDANCE WITH PART 3.1.1
- AUSTRALIAN STANDARD (AS)**
- SALEMASONRY CODE - AS 3700

- NATIONAL CONSTRUCTION CODE (NCC)**
- WET AREAS ARE TO BE WATERPROOFED IN ACCORDANCE WITH PART 3.8.1
 - AREAS REQUIRING VENTILATION, WHICH ARE NOT NATURALLY VENTILATED, ARE TO BE PROVIDED WITH MECHANICAL VENTILATION IN ACCORDANCE WITH PART 3.8.1
 - EXHAUST FROM A BATHROOM, SANITARY COMPARTMENT, OR LAUNDRY MUST BE DISCHARGED DIRECTLY OR VIA A SHIRT OR SLEEVES TO OUTDOOR AIR OR A VENTILATED ROOF SPACE IN ACCORDANCE WITH PART 3.8.2
 - WATERPROOFING MEMBRANES FOR EXTERNAL ABOVE GROUND USE MUST COMPLY WITH AS 4854 PARTS 1 AND 2
- AUSTRALIAN STANDARD (AS)**
- RESIDENTIAL TIMBER FRAMED CONSTRUCTION - AS 1684
 - FIRE SAFETY IN ACCORDANCE WITH PART 3.7
 - FIRE SEPARATION IS TO BE IN ACCORDANCE WITH PART 3.7.2
 - HARD WHEED PHOTO ELECTRIC SMOKE ALARMS ARE TO BE INSTALLED IN ACCORDANCE WITH PART 3.7.5
 - SMOKE ALARMS - AS 3786
- HEALTH & AMENITY**
- ALL BATHROOM, ENSUITES AND LAUNDRIES TO HAVE FLOOR WASTES AND BE SETDOWN AND WATERPROOFED

- WINDOW BARRIERS** ARE REQUIRED FOR OPENABLE WINDOWS IN EARLY CHILDHOOD CENTRES AND IN BEDROOMS OF RESIDENTIAL BUILDINGS WHERE THE FLOOR BELOW THE WINDOW IS MORE THAN 2m ABOVE THE SURFACE BENEATH TO MEET BCA 3.9.2.6
- THE WINDOW IS TO BE FITTED WITH EITHER A DEVICE TO RESTRICT THE WINDOW OPENING, OR A SUITABLE SCREEN, SO A 125mm SPHERE CANNOT PASS THROUGH
 - THE DEVICE OR SCREEN CAN HAVE A CHILD RESISTANT RELEASE MECHANISM (E.G. A KEY LOCK) WHICH CAN ENABLE THE DEVICE OR SCREEN TO BE REMOVED, UNLOCKED OR OVERSEEN. ISO FOR COMPLETE, THE WINDOW CAN BE CLEANED
 - A BARRIER IS NOT REQUIRED FOR WINDOWS 1.7m OR MORE ABOVE THE FLOOR LEVEL
- AUSTRALIAN STANDARD (AS)**
- SLIP RESISTANCE OF PEDESTRIAN SURFACES - AS/NZS 3861.2
 - FROD PLATFORMS, WALKWAYS, STAIRWAYS AND LADDERS - AS 1857

- EXTERNAL FINISHES**
- REFER TO SCHEDULE OF EXTERNAL MATERIALS, COLOURS AND FINISHES FOR MORE DETAILS
- NATIONAL CONSTRUCTION CODE (NCC)**
- ROOF WALL CLADDING, GUTTERS & DOWNPIPES ARE TO COMPLY WITH PART 3.3
- AUSTRALIAN STANDARD (AS)**
- REFER TO THE FINISHING OF BUILDINGS - AS 2311
- INTERNAL FINISHES**
- NATIONAL CONSTRUCTION CODE (NCC)**
- HEATING APPLIANCES ARE TO BE INSTALLED IN ACCORDANCE WITH PART 3.10.7
- AUSTRALIAN STANDARD (AS)**
- HEATING APPLIANCES - AS 1886
 - INTERIOR LIGHTING - AS 1886
- LANDSCAPE**
- REFER TO LANDSCAPE PLAN FOR ALL PLANTING AND OUTDOOR SURFACE TREATMENTS
- BUSHSIRE**
- THE RECOMMENDATIONS PROVIDED WITHIN THE BUSHSIRE ASSESSMENT REPORT ARE TO BE ADHERED TO, IN THE EVENT THAT THERE ARE INCONSISTENCIES, THE BUSHSIRE REPORT RECOMMENDATIONS ARE TO TAKE PRECEDENCE

- NATIONAL CONSTRUCTION CODE (NCC)**
- BUSHSIRE AREAS ARE TO BE IN ACCORDANCE WITH PART 3.10.7
- AUSTRALIAN STANDARD (AS)**
- CONSTRUCTION OF BUILDINGS IN BUSHSIRE PRONE AREAS - AS 3598
- GENERAL**
- TERRACE PROTECTION IS TO BE IN ACCORDANCE WITH PART 3.1.4
- AUSTRALIAN STANDARD (AS)**
- ELECTRICAL SERVICES - AS/NZS 3000
 - GAS INSTALLATIONS - AS 3801
 - OFF STREET CAR PARKING - AS 2880.1
 - FLEXIBLE BUILDING MEMBRANES & UNDERLAYS - AS/NZS 4200.1
- THE DEVELOPMENT HAS BEEN DESIGNED TO BEST MEET THE GUIDELINES OF COUNCIL & THE NATIONAL CONSTRUCTION CODE (ALL WORK ON SITE SHALL BE CARRIED OUT IN A SIMILAR MANNER TO ADHERE TO THE REQUIREMENTS OF COUNCIL AND THE NCC)**
- MINOR CHANGES TO BUILDING FORM AND CONFIGURATION MAY BE REQUIRED WHEN DRAWINGS ARE SUBSEQUENTLY PREPARED FOR CONSTRUCTION PURPOSES AFTER THE GRANT OF DEVELOPMENT CONSENT**

APPLICATION NO:
DA0206/2023

SIGNED:
S Hopkins

DATE: 02/06/2023

APPROVED PLAN

NOT FOR CONSTRUCTION

NOTES

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design **bdag**

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COMMERCIAL DEVELOPMENT **DRAWING**

LOT 26, 38 HILL END ROAD, CAERLEON NSW

SECTION VIEWS

SCALE 1:100/A1

18/01/23

DESIGN MICHEL TOUBIA

DRAWN JONCE RAFOUL

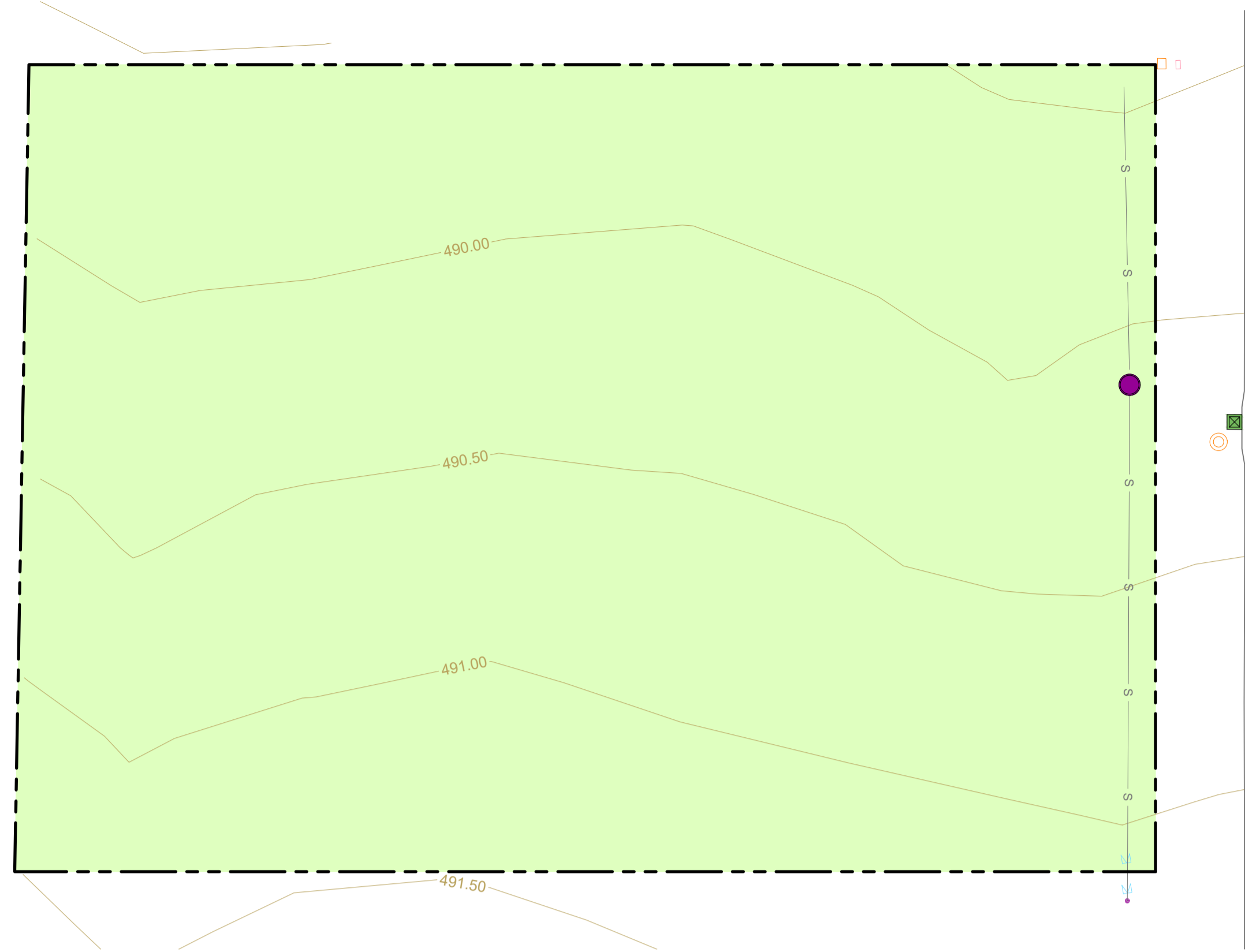
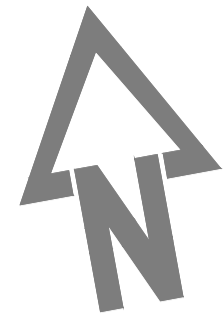
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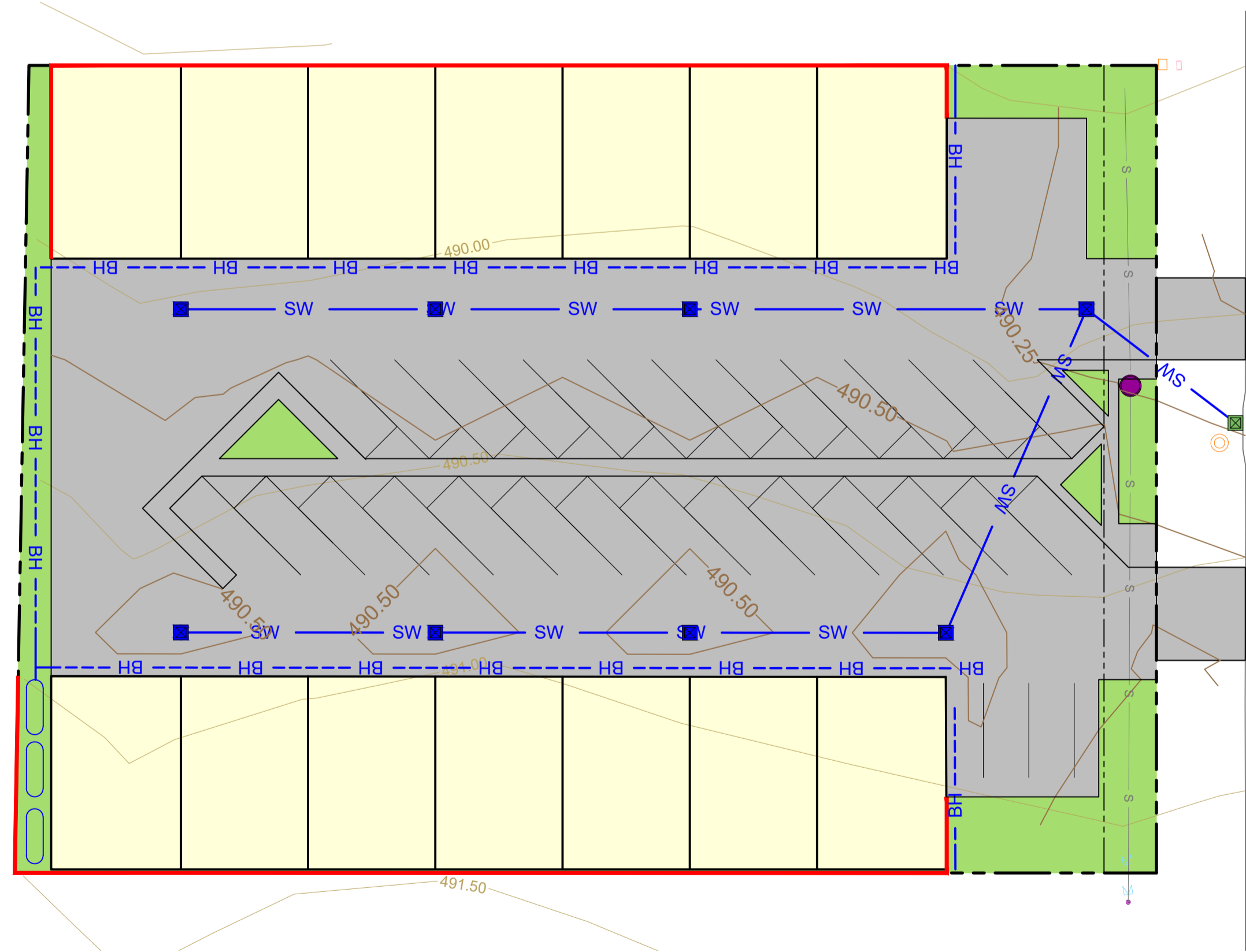
SCALE 1:100/A1

18/01/23

SWG No. 22323 - 08



Pre-Developed Site Catchment
Scale 1:250



Post-Developed Site Catchment
Scale 1:250

EXISTING CATCHMENT TABLE			
CATCHMENT TYPE	WATERCOM DRAINS CATCHMENT TYPE	TOTAL AREA (m ²)	FRACTION IMPERVIOUS
EXISTING LANDSCAPING	PA	3000	0.00
TOTAL SITE AREA		3000	0.000

Note:
EIA = Effective Impervious Area
RIA = Remaining Impervious Area
PA = Pervious Area

DEVELOPED CATCHMENT TABLE			
CATCHMENT TYPE	WATERCOM DRAINS CATCHMENT TYPE	TOTAL AREA (m ²)	FRACTION IMPERVIOUS
PROPOSED BUILDING	EIA	1132	1.00
PROPOSED CONCRETE	EIA	1606	1.00
PROPOSED LANDSCAPING	PA	262	0.00
TOTAL SITE AREA		3000	0.910

APPLICATION NO:
DA0206/2023

SIGNED:
SHopkins

DATE: 02/06/2023

APPROVED PLAN



PLOT INFO: ...2022.1359-Civil-A.dwg, DATE: Jan 31, 2023 - 10:26:30

Amend	Date	Description	By	Amend	Date	Description	By
B	31/01/23	REVISED FOOTPATH LOCATION	TM				
A	18/01/23	ISSUED FOR APPROVAL	TM				

Approved for Construction:

Garth Dean
B.E. GDSTT FIEAust CPEng NER
APEC Engineer IntPE (Aus) RBP
(Vic/NT)

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Drawn: TM
Designed: TM
Checked: GBL
Scale (A1): AS SHOWN
Date: 18/01/23

FOR APPROVAL

...2022.1359-Civil-A.dwg

COMMERCIAL DEVELOPMENT
38 HILL END ROAD
CAERLEON NSW 2850

CATCHMENT PLAN

NATURAL BUILD PTY LTD

CALARE CIVIL
CONSULTING ENGINEERS

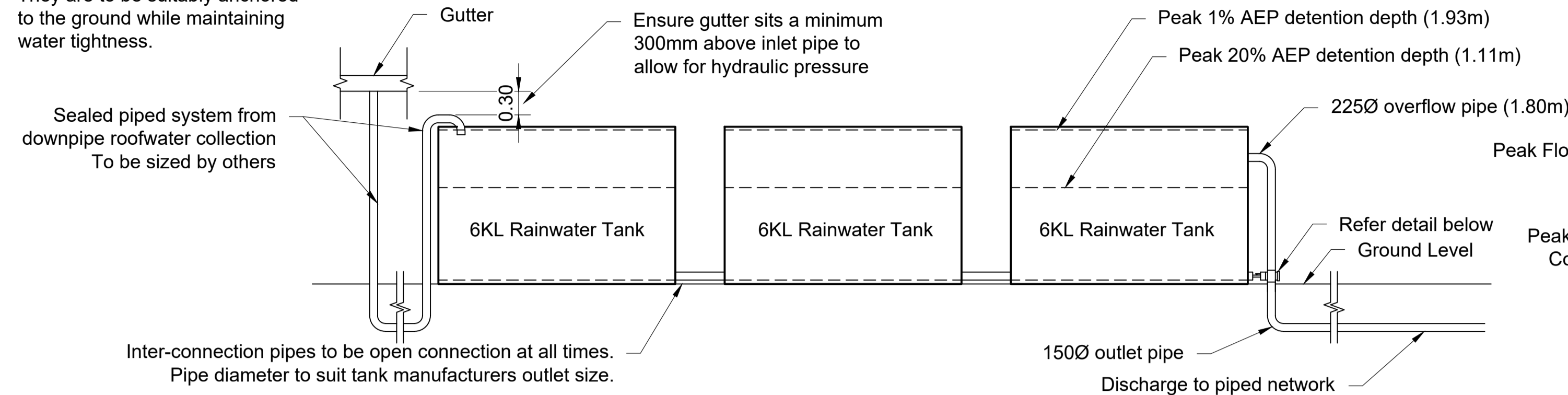
170 RANKIN STREET,
BATHURST, N.S.W. 2795
Tel: (02) 63323343 Fax: (02) 63318210

Job No.
2022.1359

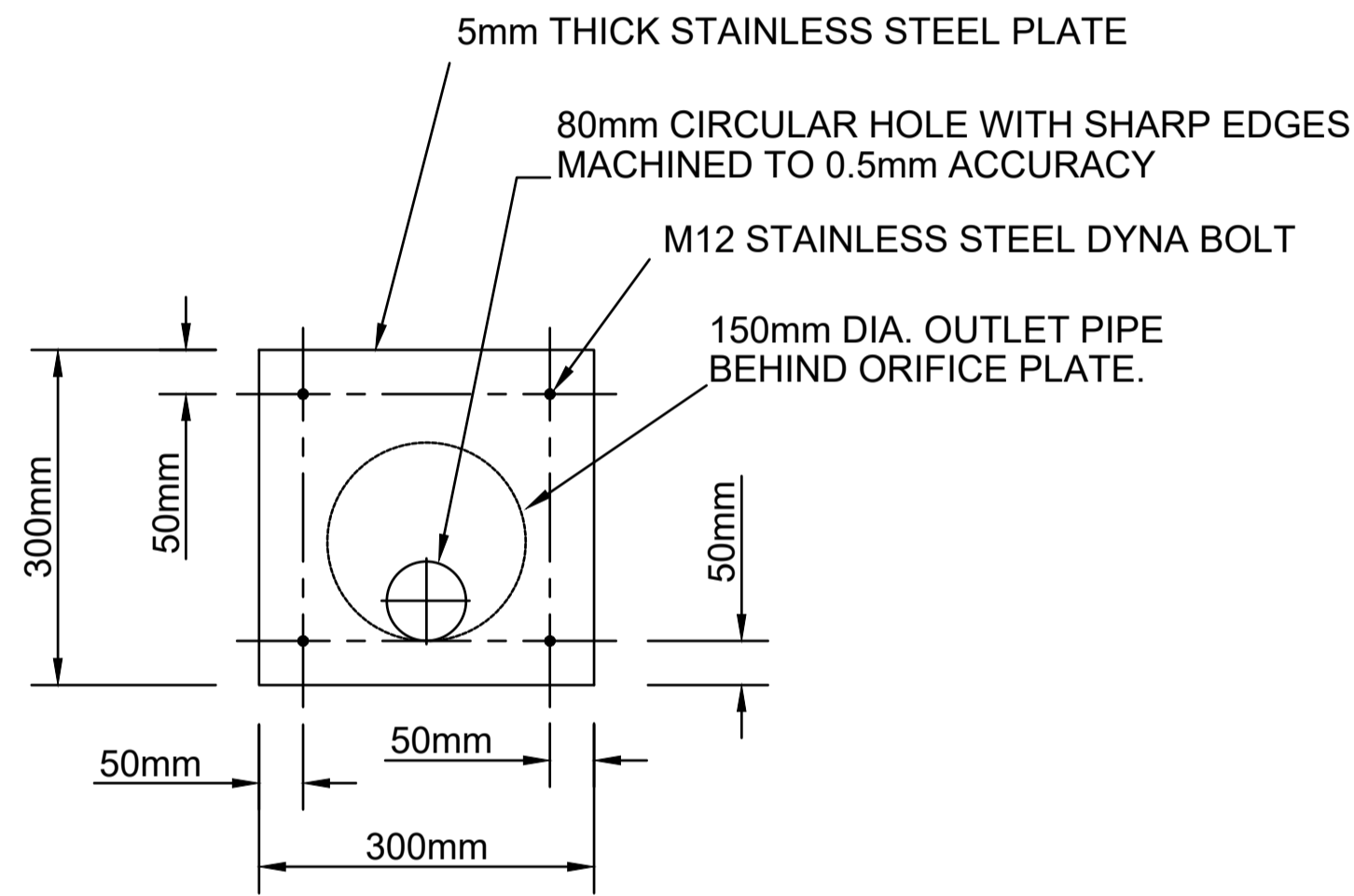
DWG. No. Issue
C06 B

No. in set
13

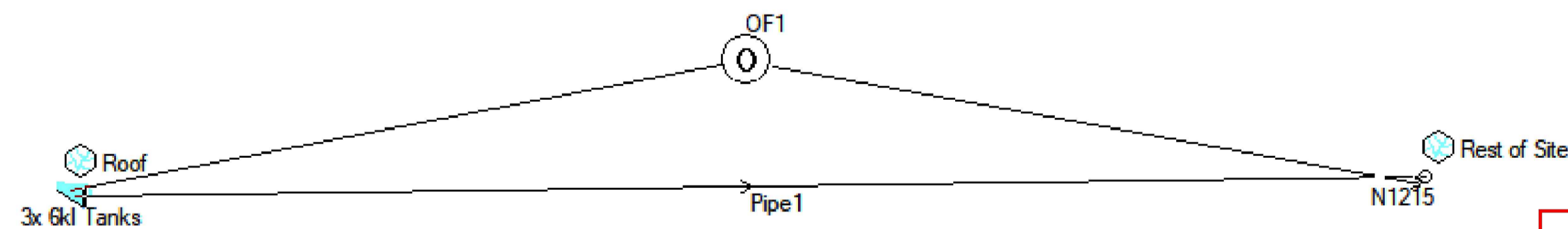
Note
If poly tanks are to be used, they are to be placed on a 100mm thick 32MPa concrete slab with SL72 mesh centrally placed. They are to be suitably anchored to the ground while maintaining water tightness.



Rainwater Tank Detail
Scale 1:50



Outlet Orifice Detail
Scale NTS



Peak Flow of Pre-Developed Site (20% AEP) = 0.067m³/s
Peak Flow of Developed Site Combined total exiting site (20% AEP) = 0.064m³/s

Peak Flow of Pre-Developed Site (1% AEP) = 0.138m³/s
Peak Flow of Developed Site Combined total exiting site (1% AEP) = 0.138m³/s

Watercom Drains - 20% AEP results

DRAINS results prepared from Version 2022.08.8269.12475

PIT / NODE DETAILS								
Name	Max HGL	Max Pond HGL	Max Surface Flow Arriving (cu.m/s)	Max Pond Volume (cu.m)	Min Freeboard (m)	Overflow (cu.m/s)	Constraint	
N1215	0.09		0.056					
SUB-CATCHMENT DETAILS								
Name	Max Flow Q (cu.m/s)	EIA Max Q (cu.m/s)	Remaining Max Q (cu.m/s)	EIA Tc (cu.m/s)	RIA Tc (min)	PA Tc (min)	Due to Storm (min)	
Ex-Cat	0.067	0	0.067	5	2		5 20% AEP, 10 min burst	
Roof	0.034	0.034	0	5	2		5 20% AEP, 5 min burst	
Rest of Site	0.05	0.049	0.002	5	2		5 20% AEP, 5 min burst	
PIPE DETAILS								
Name	Max Q (cu.m/s)	Max V (m/s)	Max U/S HGL (m)	Max D/S HGL (m)	Due to Storm			
Pipe1	0.014	1.05	0.4	0.092	20% AEP, 15 min burst, Storm 7			
CHANNEL DETAILS								
Name	Max Q (cu.m/s)	Max V (m/s)	Due to Storm					
OVERFLOW ROUTE DETAILS								
Name	Max Q U/S	Max Q D/S	Safe Q	Max D	Max DxV	Max Width	Max V	Due to Storm
OF1								
DETENTION BASIN DETAILS								
Name	Max WL	MaxVol	Max Q Total	Max Q Low Level	Max Q High Level			
3x 6kl Tanks	1.11	10.2	0.014	0.014	0			

Run Log for 2022.1359 run at 13:21:35 on 18/1/2023 using version 2022.08.8269.12475

Watercom Drains - 1% AEP results

DRAINS results prepared from Version 2022.08.8269.12475

PIT / NODE DETAILS								
Name	Max HGL	Max Pond HGL	Max Surface Flow Arriving (cu.m/s)	Max Pond Volume (cu.m)	Min Freeboard (m)	Overflow (cu.m/s)	Constraint	
N1215	0.11		0.107					
SUB-CATCHMENT DETAILS								
Name	Max Flow Q (cu.m/s)	EIA Max Q (cu.m/s)	Remaining Max Q (cu.m/s)	EIA Tc (cu.m/s)	RIA Tc (min)	PA Tc (min)	Due to Storm (min)	
Ex-Cat	0.138	0	0.138	5	2		5 1% AEP, 10 min burst	
Roof	0.061	0.061	0	5	2		5 1% AEP, 5 min burst	
Rest of Site	0.096	0.086	0.01	5	2		5 1% AEP, 5 min burst	
PIPE DETAILS								
Name	Max Q (cu.m/s)	Max V (m/s)	Max U/S HGL (m)	Max D/S HGL (m)	Due to Storm			
Pipe1	0.018	1.13	0.663	0.114	1% AEP, 15 min burst, Storm 4			
CHANNEL DETAILS								
Name	Max Q (cu.m/s)	Max V (m/s)	Due to Storm					
OVERFLOW ROUTE DETAILS								
Name	Max Q U/S	Max Q D/S	Safe Q	Max D	Max DxV	Max Width	Max V	Due to Storm
OF1	0.024	0.023						1% AEP, 15 min burst
DETENTION BASIN DETAILS								
Name	Max WL	MaxVol	Max Q Total	Max Q Low Level	Max Q High Level			
3x 6kl Tanks	1.93	17.7	0.042	0.018	0.024			

Run Log for 2022.1359 run at 13:24:56 on 18/1/2023 using version 2022.08.8269.12475

APPLICATION NO:
DA0206/2023

SIGNED:
SHopkins

DATE: 02/06/2023

APPROVED PLAN

PLOT INFO: ...2022.1359-Civil-A.dwg, DATE: Jan 31, 2023 - 10:26:30

Amend	Date	Description	By	Amend	Date	Description	By
B	31/01/23	REVISED FOOTPATH LOCATION	TM				
A	18/01/23	ISSUED FOR APPROVAL	TM				

Approved for Construction:

Garth Dean
B.E. GDSTT FIEAust CPEng NER
APEC Engineer IntPE (Aus) RBP
(Vic/NT)

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Drawn: TM
Designed: TM
Checked: GBL
Scale (A1): AS SHOWN
Date: 18/01/23

FOR APPROVAL

...2022.1359-Civil-A.dwg

COMMERCIAL DEVELOPMENT
38 HILL END ROAD
CAERLEON NSW 2850

DETENTION PLAN

NATURAL BUILD PTY LTD

CALARE CIVIL
CONSULTING ENGINEERS

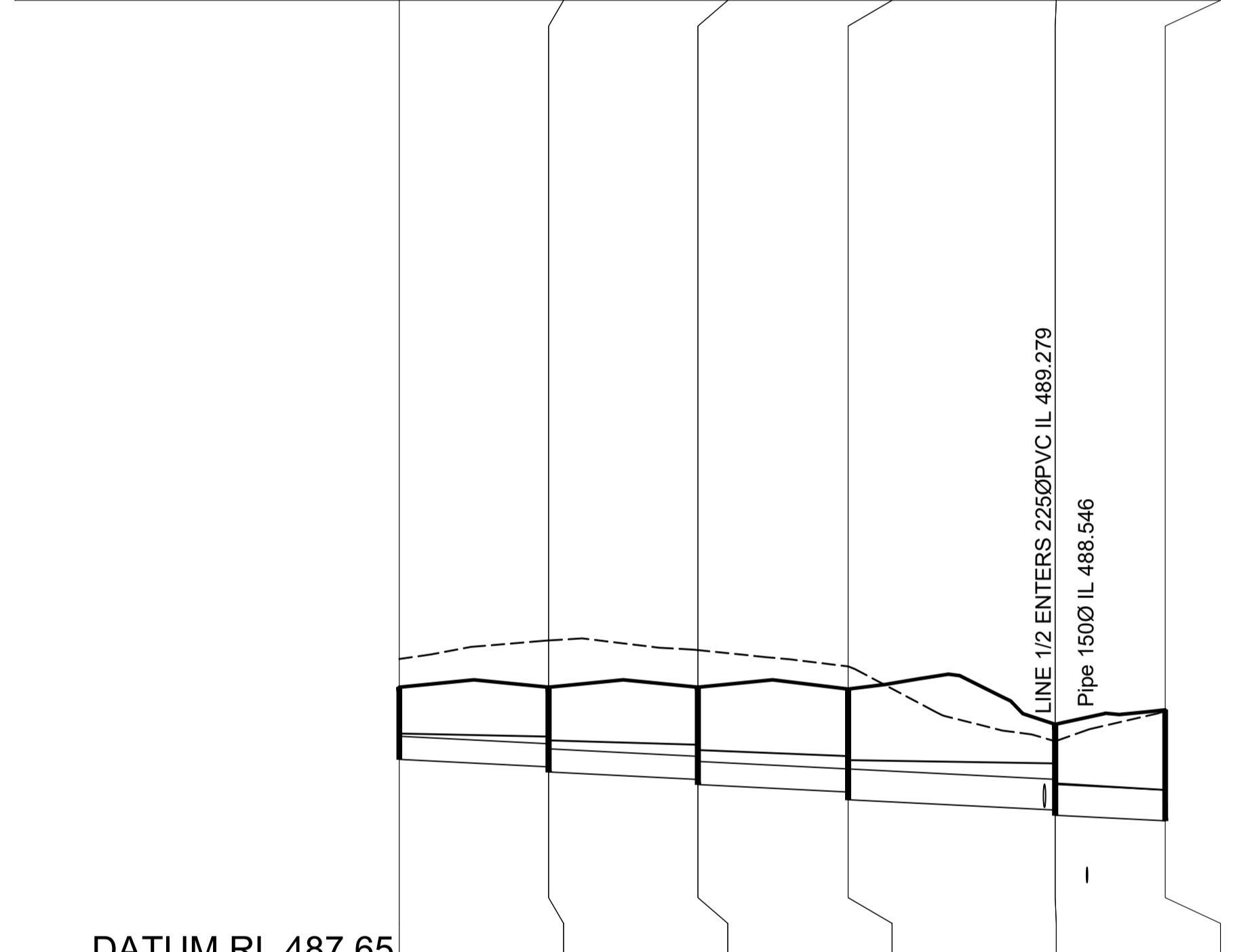
170 RANKIN STREET,
BATHURST, N.S.W. 2795
Tel: (02) 63323343 Fax: (02) 63318210

Job No.
2022.1359

DWG. No. Issue
C07 B

No. in set
13

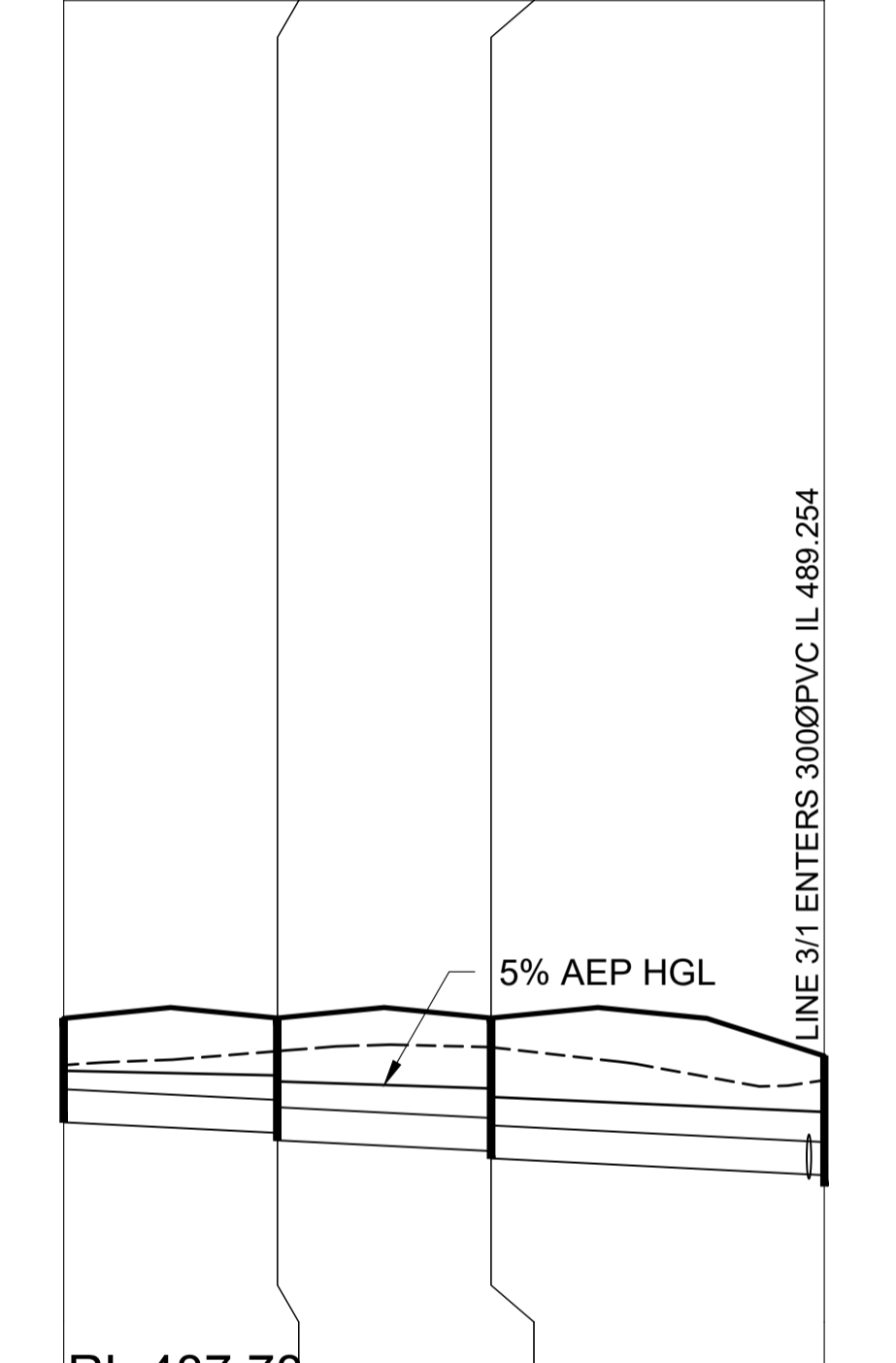
	6/1	5/1	4/1	3/1	2/1	1/1
PIT TYPE	FI	FI	FI	FI	FI	Ex Pit
GRATE/LID	600x600	600x600	600x600	600x600	600x600	
PIT SIZE	600 x 600	600 x 600	600 x 600	600 x 600	600 x 600	
FLOW (LIT/SEC)	27.670	33.920	40.079	52.520	105.851	
VELOCITY (m/s)	1.205	1.264	1.299	1.419	1.497	
HGL LEVEL (m)	490.193	489.971 489.934	489.891 489.839	489.780 489.742	489.709 489.515	489.450



	DATUM RL 487.65				
DIAMETER (mm)	225Ø PVC	225Ø PVC	225Ø PVC	300Ø PVC	300Ø PVC
CLASS					
SLOPE/GRADE	0.50% 1:200.00	0.50% 1:200.00	0.50% 1:200.00	0.50% 1:199.92	0.50% 1:198.63
DEPTH (m)	0.703	0.776 0.826	0.899 0.949	1.004 1.079	0.837 0.887
INVERT LEVEL (m)	489.749	489.676 489.626	489.553 489.503	489.430 489.355	489.254 489.204
TOP OF PIT LEVEL	490.452	490.452	490.452	490.434	490.091
FINAL SURFACE LEVEL	490.452	490.452	490.452	490.434	490.091
CHAINAGE	0.000	14.560	14.560	29.120	14.650
				43.770	20.192
				63.962	10.726
				74.688	

1
SCALES: HORIZONTAL 1:500 VERTICAL 1:50

	3/2	2/2	1/2	2/1
PIT TYPE	FI	FI	FI	FI
GRATE/LID	600x600	600x600	600x600	600x600
PIT SIZE	600 x 600	600 x 600	600 x 600	600 x 600
FLOW (LIT/SEC)	29.207	35.830	42.356	
VELOCITY (m/s)	1.223	1.275	1.312	
HGL LEVEL (m)	490.196	489.958 489.916	489.869 489.811	489.709



	RL 487.78		
DIAMETER (mm)	225Ø PVC	225Ø PVC	225Ø PVC
CLASS			
SLOPE/GRADE	0.50% 1:200.00	0.50% 1:200.00	0.50% 1:200.00
DEPTH (m)	0.708	0.782 0.832	0.905 0.956
INVERT LEVEL (m)	489.639	489.566 489.516	489.443 489.393
TOP OF PIT LEVEL	490.347	490.348	490.348
FINAL SURFACE LEVEL	490.347	490.348	490.348
CHAINAGE	0.000	14.560	14.560
			22.700
			51.920

2
SCALES: HORIZONTAL 1:500 VERTICAL 1:50

APPLICATION NO:
DA0206/2023

SIGNED:
SHopkins

DATE: 02/06/2023

APPROVED
PLAN

PLOT INFO: ...2022.1359-Civil-A.dwg, DATE: Jan 31, 2023 - 10:26:32

Amend	Date	Description	By	Amend	Date	Description	By
B	31/01/23	REVISED FOOTPATH LOCATION	TM				
A	18/01/23	ISSUED FOR APPROVAL	TM				

Approved for Construction:

Garth Dean
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APEC Engineer IntPE (Aus) RBP
(Vic/NT)

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Drawn: TM
Designed: TM
Checked: GBL
Scale (A1): AS SHOWN
Date: 18/01/23

FOR APPROVAL

...2022.1359-Civil-A.dwg

COMMERCIAL DEVELOPMENT
38 HILL END ROAD
CAERLEON NSW 2850

STORMWATER LONGSECTION

NATURAL BUILD PTY LTD

CALARE CIVIL
CONSULTING ENGINEERS

170 RANKIN STREET,
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Tel: (02) 63323343 Fax: (02) 63318210

Job No.
2022.1359

DWG. No. Issue
SW01 B

No. in set
13