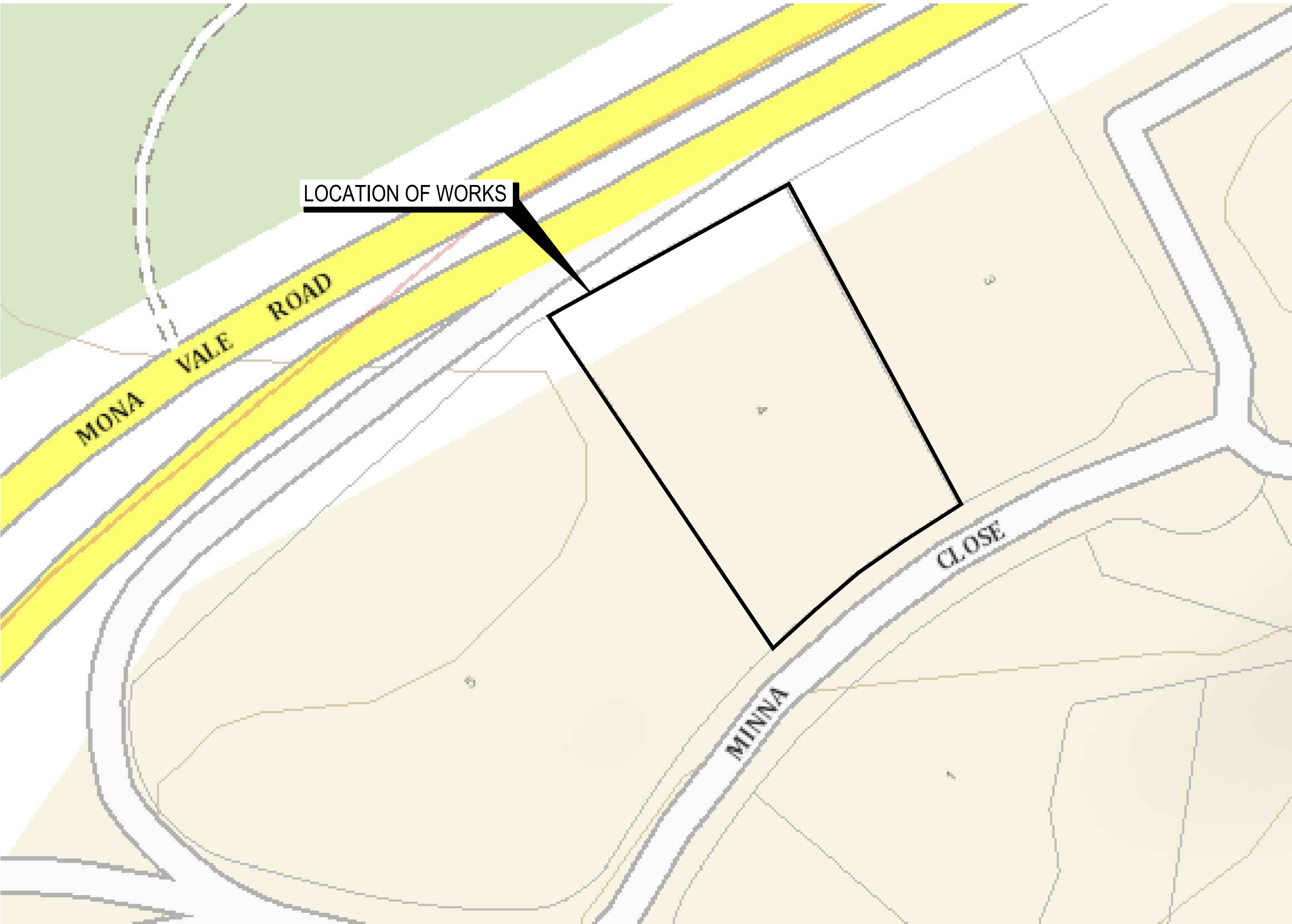



# CIVIL WORKS PACKAGE FOR 4 MINNA CLOSE, BELROSE NSW 2085 DEVELOPMENT APPLICATION

GENERAL	
22-1016-DAC000	COVER SHEET AND LOCALITY PLAN
22-1016-DAC001	GENERAL NOTES
22-1016-DAC002	EXISTING SITE PLAN
22-1016-DAC003	GENERAL ARRANGMENT PLAN
22-1016-DAC004	BULK EARTHWORKS PLAN
SITE SECTIONS	
22-1016-DAC010	SITE SECTIONS
SITEWORKS DRAINAGE	
22-1016-DAC020	SITEWORKS AND STORMWATER DRAINAGE PLAN
22-1016-DAC025	SITEWORKS AND STORMWATER DETAILS SHEET 1
22-1016-DAC026	SITEWORKS AND STORMWATER DETAILS SHEET 2
22-1016-DAC027	SITEWORKS AND STORMWATER DETAILS SHEET 3
PAVEMENT	
22-1016-DAC030	PAVEMENT PLAN
STORMWATER DRAINAGE	
22-1016-DAC042	OSD PLAN AND SECTIONS
22-1016-DAC045	STORMWATER DRAINAGE LONGITUDINAL SECTIONS
22-1016-DAC050	STORMWATER DRAINAGE CATCHMENT PLAN
22-1016-DAC055	MUSIC CATCHMENT PLAN
EROSION AND SEDIMENT CONTROL	
22-1016-DAC060	SEDIMENTATION AND EROSION CONTROL PLAN
22-1016-DAC065	SEDIMENTATION AND EROSION CONTROL DETAILS



LOCALITY PLAN  
N.T.S

		Bar Scales	THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY INTENDED WITHOUT THE WRITTEN PERMISSION OF AT&L	Client  WU PROPERTIES	Scales  NTS	Drawn	JS	Project  4 MINNA CLOSE BELROSE NSW 2085	<div>Civil Engineers and Project Managers</div> <div><div>Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au</div></div>	
						Designed	SM			
						Checked	SM			
						Approved	GJ			
							Title  COVER SHEET AND LOCALITY PLAN			
B	ISSUE FOR APPROVAL				17-04-2024			Status FOR APPROVAL		A1
A	ISSUE FOR APPROVAL				17-05-2023			NOT TO BE USED FOR CONSTRUCTION		
Issue					Description	Date		Project - Drawing No. 22-1016-DAC000		Issue B



SURVEY NOTES

THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY SDG, BEING REGISTERED SURVEYORS. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. AT & L DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS.

SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT AT & L.

THE FOLLOWING NOTES HAVE BEEN TAKEN DIRECTLY FROM THE ORIGINAL SURVEY DOCUMENTS.

GENERAL NOTES

- ONLY TREES GREATER THAN 3.5 METRES IN HEIGHT ARE SHOWN ON THIS PLAN AND THEIR POSITIONS ARE DIAGRAMMATIC ONLY AND MAY REQUIRE ADDITIONAL SURVEY WHERE CRITICAL TO DESIGN.
- CONTOURS ARE INDICATIVE AT GROUND FORM ONLY. SPOT LEVELS ONLY SHOULD BE USED FOR CALCULATIONS OF QUANTITIES WITH CAUTION.
- LEVELS ARE ON AUSTRALIAN HEIGHT DATUM (AHD).
- ALL SETOUT LEVELS MUST BE REFERRED TO THE BENCH MARK SHOWN ON THIS PLAN.

BOUNDARY NOTES

- A BASIC BOUNDARY SURVEY HAS BEEN DONE SUITABLE FOR DA LODGEMENT PURPOSES.
- BOUNDARIES HAVE NOT BEEN MARKED.

SURVEY INFORMATION NOTES

- THE ORIGIN OF COORDINATES COMES FROM SSM88206 E333954.228 N6289239.469 CLASS C POSITIONAL UNCERTAINTY (PU) N/A (MGA2020) ADOPTED FROM SCIMS DATED 08/06/2021.
- THE ORIGIN OF LEVELS COMES FROM SSM75296 RL179.240 CLASS LC POSITIONAL UNCERTAINTY (PU) N/A ADOPTED FROM SCIMS DATED 08/06/2021.
- THE ORIENTATION OF THIS PLAN IS MGA NORTH WHICH HAS BEEN DETERMINED BY A COORDINATE JOIN BETWEEN SSM88206 AND SSM75296.

CERTIFICATE OF TITLE NOTES

- THE FOLLOWING INFORMATION RELATES TO THE RESPECTIVE CERTIFICATE OF TITLE OF EACH LOTS:
  - LOT 502 IN DP875858 (CT EDITION 9 DATED 18/10/2019 SEARCH DATE 01/06/2021)
  - AFFECTED BY:
  - RIGHT OF CARRIAGEWAY 4.0 WIDE (AE960449)
  - RESTRICTION ON THE USE OF LAND (DP265029, DP852750, DP875858 & 0897327)
  - COVENANT (I909898 & DP265029)
  - BENEFITED BY:
  - EASEMENT FOR ACCESS AND DRAINAGE AND WATER MANAGEMENT (DP807013)
- COVENANTS AND RESTRICTIONS NOTED ON THE TITLE HAVE NOT BEEN INVESTIGATED. THESE SHOULD BE INVESTIGATED PRIOR TO DESIGN TO ENSURE ANY FUTURE DEVELOPMENT COMPLIES.

SERVICES NOTES

- ONLY THOSE SERVICES VISIBLE AT THE TIME OF SURVEY HAVE BEEN LOCATED AND ARE QUALITY LEVEL A AS DEFINED BY AS 5488.1:2019.
- UNDERGROUND SERVICES HAVE BEEN PLOTTED FROM 'DIAL-BEFORE-YOU-DIG' PLANS, ARE QUALITY LEVEL D AS DEFINED BY AS 5488.1:2019 AND ARE ONLY CURRENT AT THE DATE OF SEARCH.
- ALL RELEVANT AUTHORITIES MUST BE CONTACTED TO DETERMINE THE FULL EXTENT OF SERVICES PRIOR TO ANY PLANNING OR WORKS NEAR THE SITE.

EXISTING UNDERGROUND SERVICES NOTES

THE LOCATIONS OF UNDERGROUND SERVICES SHOWN IN THIS SET OF DRAWINGS HAVE BEEN PLOTTED FROM SURVEY INFORMATION AND SERVICE AUTHORITY INFORMATION. THE SERVICE INFORMATION HAS BEEN PREPARED ONLY TO SHOW THE APPROXIMATE POSITIONS OF ANY KNOWN SERVICES AND MAY NOT BE AS CONSTRUCTED OR ACCURATE.

AT & L CAN NOT GUARANTEE THAT THE SERVICES INFORMATION SHOWN ON THESE DRAWINGS ACCURATELY INDICATES THE PRESENCE OR ABSENCE OF SERVICES OR THEIR LOCATION AND WILL ACCEPT NO LIABILITY FOR INACCURACIES IN THE SERVICES INFORMATION SHOWN FROM ANY CAUSE WHATSOEVER.

CONTRACTORS SHALL TAKE DUE CARE WHEN EXCAVATING ONSITE INCLUDING HAND EXCAVATION WHERE NECESSARY.

CONTRACTORS ARE TO CONTACT THE RELEVANT SERVICE AUTHORITY PRIOR TO COMMENCEMENT OF EXCAVATION WORKS.

CONTRACTORS ARE TO UNDERTAKE A SERVICES SEARCH PRIOR TO COMMENCEMENT OF WORKS ON SITE. SEARCH RESULTS ARE TO BE KEPT ON SITE AT ALL TIMES.

SITWORKS NOTES

- ORIGIN OF LEVELS:- REFER SURVEY NOTES.
- CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK. ANY DISCREPANCIES TO BE REPORTED TO AT & L.
- MAKE SMOOTH CONNECTION WITH EXISTING WORKS.
- ALL TRENCH BACKFILL MATERIAL SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT MATERIAL.
- ALL SERVICE TRENCHES UNDER VEHICULAR PAVEMENTS SHALL BE BACKFILLED WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75)
- PROVIDE 10mm WIDE EXPANSION JOINTS BETWEEN BUILDINGS AND ALL CONCRETE OR UNIT PAVEMENTS.
- ASPHALTIC CONCRETE SHALL CONFORM TO RMS. SPECIFICATION R116.
- ALL BASECOURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH RMS. FORM 3051 (UNBOUND), RMS. FORM 3052 (BOUND) COMPACTED TO MINIMUM 98% MODIFIED DENSITY IN ACCORDANCE WITH AS 1289 5.2.1 FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 TEST PER 50m<sup>2</sup> OF BASECOURSE MATERIAL PLACED.
- ALL SUB-BASE COURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH RMS. FORM 3051, 3051.1 AND COMPACTED TO MINIMUM 98% MODIFIED DENSITY IN ACCORDANCE WITH AS 1289 5.2.1 FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 TEST PER 50m<sup>2</sup> OF SUB-BASE COURSE MATERIAL PLACED.
- AS AN ALTERNATIVE TO THE USE OF IGNEOUS ROCK AS A SUB-BASE MATERIAL IN (9) A CERTIFIED RECYCLED CONCRETE MATERIAL COMPLYING WITH RMS. FORM 3051 AND 3051.1 WILL BE CONSIDERED. SUBJECT TO MATERIAL SAMPLES AND APPROPRIATE CERTIFICATIONS BEING PROVIDED TO THE SATISFACTION OF AT & L.
- SHOULD THE CONTRACTOR WISH TO USE A RECYCLED PRODUCT THIS SHALL BE CLEARLY INDICATED IN THEIR TENDER AND THE PRICE DIFFERENCE BETWEEN AN IGNEOUS PRODUCT AND A RECYCLED PRODUCT SHALL BE CLEARLY INDICATED.
- WHERE NOTED ON THE DRAWINGS THAT WORKS ARE TO BE CARRIED BY OTHERS, (eg. ADJUSTMENT OF SERVICES), THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CO-ORDINATION OF THESE WORKS.

KERBING NOTES

- ALL CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 25MPa U.N.O IN REINFORCED CONCRETE NOTES.
- ALL KERBS, GUTTERS, DISH DRAINS AND CROSSINGS TO BE CONSTRUCTED ON 100mm GRANULAR BASECOURSE COMPACTED TO MINIMUM 95% MODIFIED DRY DENSITY (AS 1289 5.2.1).
- EXPANSION JOINTS (E.J.) TO BE FORMED FROM 10mm COMPRESSIBLE CORK FILLER BOARD FOR THE FULL DEPTH OF THE SECTION AND CUT TO PROFILE. EXPANSION JOINTS TO BE LOCATED AT DRAINAGE PITS, ON TANGENT POINTS OF CURVES AND ELSEWHERE AT MAX 12m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLABS.
- WEAKENED PLANE JOINTS TO BE MIN 3mm WIDE AND LOCATED AT 3m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE WEAKENED PLANE JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLABS.
- BROOMED FINISH TO ALL RAMPED AND VEHICULAR CROSSINGS. ALL OTHER KERBING OR DISH DRAINS TO BE STEEL FLOAT FINISHED.
- IN THE REPLACEMENT OF KERB AND GUTTER :- EXISTING ROAD PAVEMENT IS TO BE SAWCUT 900mm U.N.O FROM THE LIP OF GUTTER. UPON COMPLETION OF THE NEW KERB AND GUTTER NEW BASECOURSE AND SURFACE TO BE LAID 600mm WIDE U.N.O.

EXISTING ALLOTMENT DRAINAGE PIPES ARE TO BE BUILT INTO THE NEW KERB AND GUTTER WITH 100mm DIA HOLE.

EXISTING KERB AND GUTTER IS TO BE COMPLETELY REMOVED WHERE NEW KERB AND GUTTER IS SHOWN.

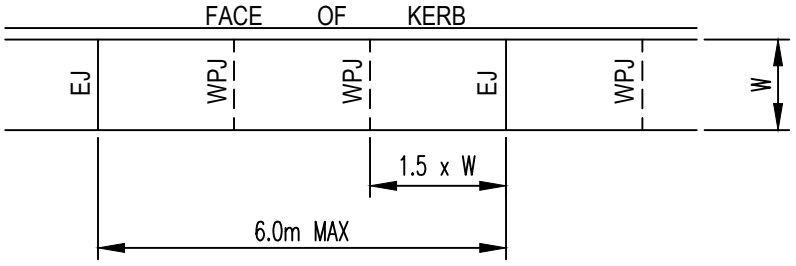
STORMWATER DRAINAGE NOTES

- STORMWATER DESIGN CRITERIA:
  - AVERAGE RECURRENCE INTERVAL:
    - 1% AEP ROOFED AREAS TO SURCHARGE PIT
    - 5% AEP EXTERNAL PAVEMENTS
  - RAINFALL INTENSITIES:
    - TIME OF CONCENTRATION: 5 MINUTES
    - 1% AEP = 269 mm/hr
    - 5% AEP = 210 mm/hr
  - RUNOFF COEFFICIENTS:
    - ROOF AREAS: C 100 =1.0
    - EXTERNAL PAVEMENTS: C 20 =0.95
- PIPES 300 DIA. AND LARGER TO BE REINFORCED CONCRETE CLASS '4' APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINTS. U.N.O.
- PIPES UP TO 300 DIA SHALL BE SEWER GRADE uPVC WITH SOLVENT WELDED JOINTS.
- EQUIVALENT STRENGTH VCP OR FRC PIPES MAY BE USED.
- ALL STORMWATER DRAINAGE LINES UNDER PROPOSED BUILDING SLABS TO BE uPVC PRESSURE PIPE GRADE 6. ENSURE ALL VERTICALS AND DOWNPIPES ARE uPVC PRESSURE PIPE, GRADE 6 FOR A MIN OF 3.0m IN HEIGHT.
- PIPES TO BE INSTALLED TO TYPE HS3 (ROAD) HS2 (LOTS) SUPPORT IN ACCORDANCE WITH AS 3725 (2007) IN ALL CASES BACKFILL TRENCH WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75)
- ALL INTERNAL WORKS WITHIN PROPERTY BOUNDARIES ARE TO COMPLY WITH THE REQUIREMENTS OF AS 3500 3.1 (2006) AND AS/NZS 3500 3.2 (2010).
- PRECAST PITS MAY BE USED EXTERNAL TO THE BUILDING SUBJECT TO APPROVAL BY AT & L.
- ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE PREFABRICATED FITTINGS WHERE PIPES ARE LESS THAN 300 DIA.
- WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED uPVC SEWER GRADE PIPE IS TO BE USED.
- CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.
- GRATES AND COVERS SHALL CONFORM TO AS 3996.
- ALL INTERNAL PIT DIMENSIONS TO CONFORM TO AS3500.3 TABLE 7.5.2.1
- AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.
- ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED AND CLEANED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDENT/ENGINEER FOR FURTHER DIRECTIONS.

JOINTING NOTES

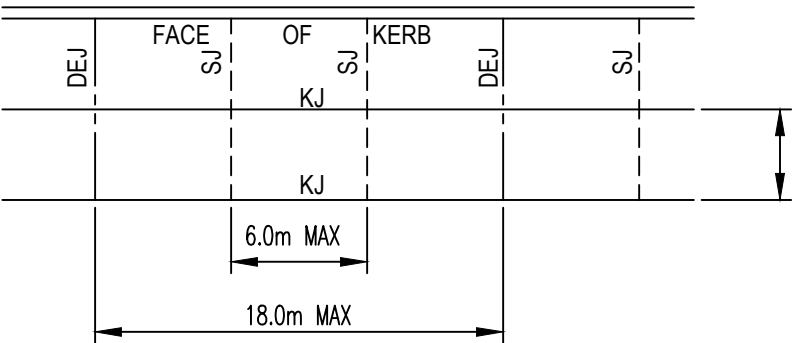
PEDESTRIAN PAVEMENT JOINTS

- ALL PEDESTRIAN PAVEMENTS ARE TO BE JOINTED AS FOLLOWS. (U.N.O)
- EXPANSION JOINTS ARE TO BE LOCATED WHERE POSSIBLE AT TANGENT POINTS OF CURVES AND ELSEWHERE AT MAX. 6.0m CENTRES.
- WEAKENED PLANE JOINTS ARE TO BE LOCATED AT A MAX. SPACING OF 1.5 x WIDTH OF THE PAVEMENT.
- WHERE POSSIBLE JOINTS SHOULD BE LOCATED TO MATCH KERBING AND OR ADJACENT PAVEMENT JOINTS.
- PEDESTRIAN PAVEMENT JOINT DETAIL.



VEHICULAR PAVEMENT JOINTS

- ALL VEHICULAR PAVEMENTS TO BE JOINTED AS FOLLOWS. (U.N.O)
- KEYED CONSTRUCTION JOINTS SHOULD GENERALLY BE LOCATED AT A MAX OF 6.0m CENTRES
- SAWN JOINTS SHOULD GENERALLY BE LOCATED AT A MAX OF 6.0m CENTRES WITH DOWELED EXPANSION JOINTS AT MAX 18.0m CENTRES
- VEHICULAR PAVEMENT JOINT DETAIL.



CONCRETE NOTES

- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- CONCRETE QUALITY ALL REQUIREMENTS OF THE CURRENT ACSE CONCRETE SPECIFICATION DOCUMENT 1 SHALL APPLY TO THE FORMWORK, REINFORCEMENT AND CONCRETE UNLESS NOTED OTHERWISE.

ELEMENT	AS 3600 Fc MPa AT 28 DAYS	SPECIFIED SLUMP	NOMINAL AGG. SIZE
VEHICULAR BASE	32	60	20
KERBS, PATHS, AND PITS	32	80	20

- CEMENT TYPE SHALL BE (ACSE SPECIFICATION) TYPE SL
- PROJECT CONTROL TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH AS 1379.

- NO ADMIXTURES SHALL BE USED IN CONCRETE UNLESS APPROVED IN WRITING BY AT & L.
- CLEAR CONCRETE COVER TO ALL REINFORCEMENT FOR DURABILITY SHALL BE 40mm TOP AND 70mm FOR EXTERNAL EDGES UNLESS NOTED OTHERWISE.

- ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON MILD STEEL PLASTIC TIPPED CHAIRS, PLASTIC CHAIRS OR CONCRETE CHAIRS AT NOT GREATER THAN 1m CENTRES BOTH WAYS. BARS SHALL BE TIED AT ALTERNATE INTERSECTIONS.

- THE FINISHED CONCRETE SHALL BE A DENSE HOMOGENEOUS MASS, COMPLETELY FILLING THE FORMWORK, THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS. ALL CONCRETE INCLUDING SLABS ON GROUND AND FOOTINGS SHALL BE COMPACTED AND CURED IN ACCORDANCE WITH R.M.S. SPECIFICATION R83.

- REINFORCEMENT SYMBOLS:
  - N DENOTES GRADE 450 N BARS TO AS/NZS 4671 GRADE N
  - R DENOTES 230 R HOT ROLLED PLAIN BARS TO AS/NZS 4671
  - SL DENOTES HARD-DRAWN WIRE REINFORCING FABRIC TO AS/NZS 4671

NUMBER OF BARS IN GROUP

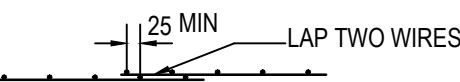
BAR GRADE AND TYPE

NOMINAL BAR SIZE IN mm

SPACING IN mm

THE FIGURE FOLLOWING THE FABRIC SYMBOL SL IS THE REFERENCE NUMBER FOR FABRIC TO AS/NZS 4671.

- FABRIC SHALL BE LAPPED IN ACCORDANCE WITH THE FOLLOWING DETAIL:



EROSION AND SEDIMENT CONTROL NOTES

GENERAL INSTRUCTIONS

- THE SITE SUPERINTENDENT/ENGINEER WILL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE LOCATED AS DOCUMENTED
- ALL WORK SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH
  - A LOCAL AUTHORITY REQUIREMENTS
  - B EPA REQUIREMENTS
  - C NSW DEPARTMENT OF HOUSING MANUAL "MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION", 4th EDITION, MARCH 2004.
- MAINTAIN THE EROSION CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT AND THE LOCAL AUTHORITY.
- WHEN STORMWATER PITS ARE CONSTRUCTED, PREVENT SITE RUNOFF ENTERING UNLESS SEDIMENT FENCES ARE ERECTED AROUND PITS.
- CONTRACTOR IS TO ENSURE ALL EROSION & SEDIMENT CONTROL DEVICES ARE MAINTAINED IN GOOD WORKING ORDER AND OPERATE EFFECTIVELY. REPAIRS AND OR MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED, PARTICULARLY FOLLOWING STORM EVENTS.

LAND DISTURBANCE

- WHERE PRACTICAL, THE SOIL EROSION HAZARD ON THE SITE WILL BE KEPT AS LOW AS POSSIBLE. TO THIS END, WORKS SHOULD BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:
  - INSTALL A WIND FENCE ALONG THE BOUNDARIES AS SHOWN ON PLAN. REFER DETAIL.
  - INSTALL A SEDIMENT FENCE ALONG THE BOUNDARIES AS SHOWN ON PLAN. REFER DETAIL.
  - CONSTRUCT STABILISED CONSTRUCTION ENTRANCE TO LOCATION AS DETERMINED BY SUPERINTENDENT/ENGINEER. REFER DETAIL.
  - INSTALL SEDIMENT BASIN AS SHOWN ON PLAN
  - INSTALL SEDIMENT TRAPS AS SHOWN ON PLAN.
  - UNDERTAKE SITE DEVELOPMENT WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. WHERE POSSIBLE, PHASE DEVELOPMENT SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF WORKABLE SIZE.

EROSION CONTROL

- DURING WINDY WEATHER, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.
- FINAL SITE LANDSCAPING WILL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 20 WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.

SEDIMENT CONTROL

- STOCKPILES WILL NOT BE LOCATED WITHIN 2 METRES OF HAZARD AREAS, INCLUDING LIKELY AREAS OF CONCENTRATED OR HIGH VELOCITY FLOWS SUCH AS WATERWAYS. WHERE THEY ARE BETWEEN 2 AND 5 METRES FROM SUCH AREAS, SPECIAL SEDIMENT CONTROL MEASURES SHOULD BE TAKEN TO MINIMISE POSSIBLE POLLUTION TO DOWNSLOPE WATERS, E.G. THROUGH INSTALLATION OF SEDIMENT FENCING.
- ANY SAND USED IN THE CONCRETE CURING PROCESS (SPREAD OVER THE SURFACE) WILL BE REMOVED AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS FROM PLACEMENT.
- WATER WILL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS IT IS RELATIVELY SEDIMENT FREE, I.E. THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED THROUGH AN APPROVED STRUCTURE.

- TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.

OTHER MATTERS

- ACCEPTABLE RECEPTORS WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER.
- ANY EXISTING TREES WHICH FORM PART OF THE FINAL LANDSCAPING PLAN WILL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY:
  - PROTECTING THEM WITH BARRIER FENCING OR SIMILAR MATERIALS INSTALLED OUTSIDE THE DRIP LINE
  - ENSURING THAT NOTHING IS NAILED TO THEM
  - PROHIBITING PAVING, GRADING, SEDIMENT WASH OR PLACING OF STOCKPILES WITHIN THE DRIP LINE EXCEPT UNDER THE FOLLOWING CONDITIONS:
    - ENCROACHMENT ONLY OCCURS ON ONE SIDE AND NO CLOSER TO THE TRUNK THAN EITHER 1.5 METRES OR HALF THE DISTANCE BETWEEN THE OUTER EDGE OF THE DRIP LINE AND THE TRUNK, WHICHEVER IS THE GREATER
    - A DRAINAGE SYSTEM THAT ALLOWS AIR AND WATER TO CIRCULATE THROUGH THE ROOT ZONE (E.G. A GRAVEL BED) IS PLACED UNDER ALL FILL LAYERS OF MORE THAN 300 MILLIMETRES DEPTH
    - CARE IS TAKEN NOT TO CUT ROOTS UNNECESSARILY NOR TO COMPACT THE SOIL AROUND THEM.

EROSION AND SEDIMENT CONTROL NOTES (CONTINUED)

STAGING

SUITABLE EROSION AND SEDIMENT CONTROLS SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR THROUGHOUT ALL STAGES OF WORKS, INCLUDING AT COMPLETION OF THE BULK EARTHWORKS WHERE SHOWN ON AT&L DRAWINGS OR WHERE DIRECTED BY THE SUPERINTENDENT OR NORTHERN BEACHES COUNCIL'S ENGINEERS. THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING, DOCUMENTING, INSTALLING AND MAINTAINING THE SEDIMENT AND EROSION CONTROLS REQUIRED TO SUIT THE SELECTED CONSTRUCTION STAGING. THIS IS TO BE DOCUMENTED IN THE FORM OF A SOIL AND WATER MANAGEMENT PLAN TO BE DEVELOPED BY THE CONTRACTOR AND APPROVED BY THE SUPERINTENDENT PRIOR TO CONSTRUCTION COMMENCEMENT.

SUCH CONTROLS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROTECTION OF THE ENVIRONMENT OPERATIONS ACT, NORTHERN BEACHES COUNCIL'S SPECIFICATIONS AND THE OFFICE OF ENVIRONMENT AND HERITAGE'S 'MANAGING URBAN STORMWATER: SOILS AND CONSTRUCTION. LANDCOM, (4TH EDITION) MARCH 2004 (REPRINTED 2006) (THE "BLUE BOOK"). VOLUME 1 AND VOLUME 2.

CONSTRUCTION SPECIFICATION

- THESE DRAWINGS SHOULD BE READ IN CONJUNCTION WITH NORTHERN BEACHES COUNCIL'S LATEST DRAWINGS AND SPECIFICATIONS.
- WHERE THERE IS A CONFLICT THE FOLLOWING IS TO OCCUR
  - NOTIFY THE DESIGN ENGINEER AND/OR SUPERINTENDENT
  - THE NORTHERN BEACHES COUNCIL'S SPECIFICATION TAKES PRECEDENT



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CONTRACTOR SHALL CALL;  
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PRIOR TO COMMENCEMENT OF WORK TO OBTAIN  
ALL CURRENT SERVICE AUTHORITY PLANS



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A1

Project - Drawing No.  
22-1016-DAC001

Issue  
B

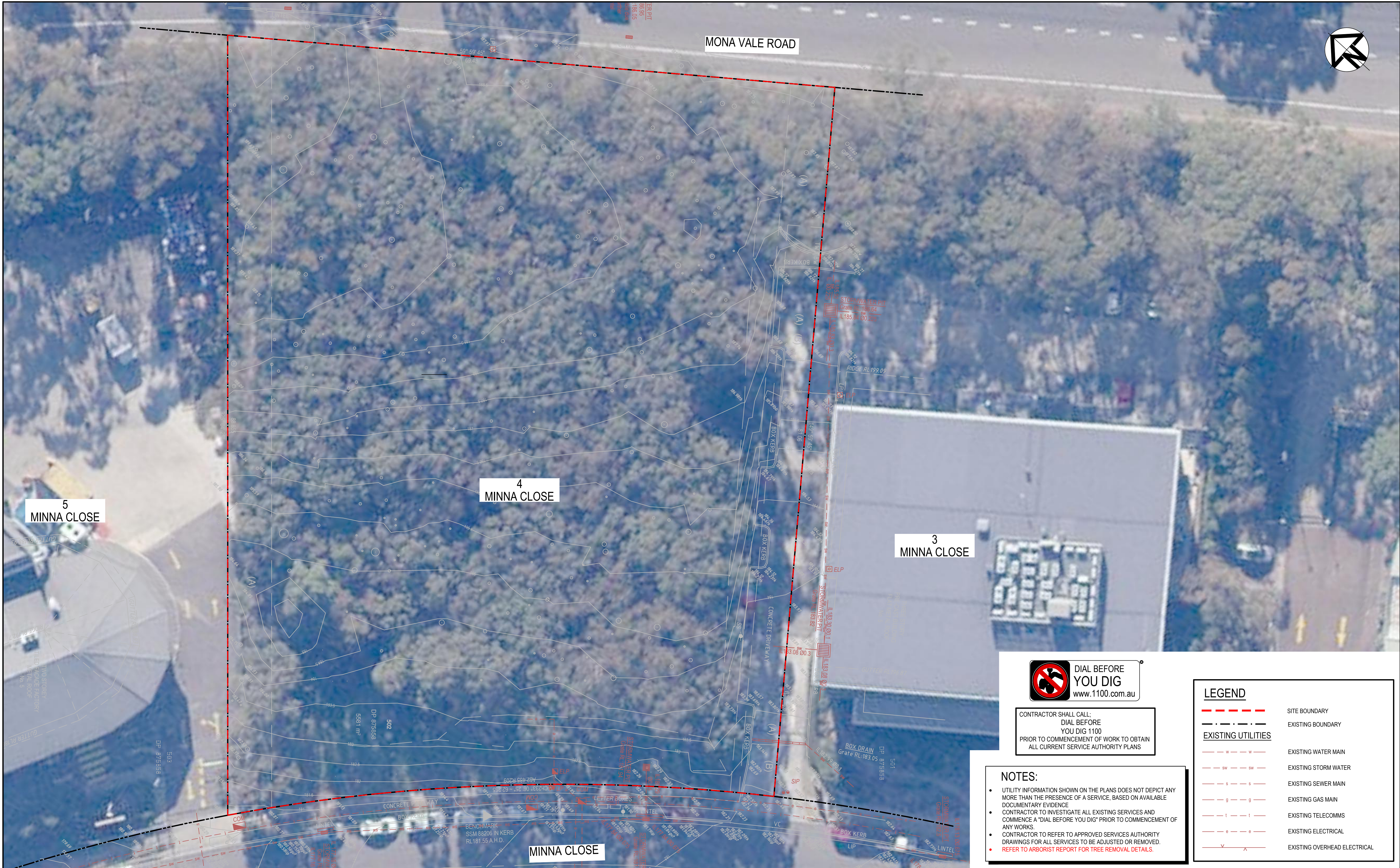
Issue	Description	Date
B	ISSUE FOR APPROVAL	17-04-2024
A	ISSUE FOR APPROVAL	17-05-2023

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CONTRACTOR SHALL CALL:  
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#### NOTES:

- UTILITY INFORMATION SHOWN ON THE PLANS DOES NOT DEPICT ANY MORE THAN THE PRESENCE OF A SERVICE, BASED ON AVAILABLE DOCUMENTARY EVIDENCE.
- CONTRACTOR TO INVESTIGATE ALL EXISTING SERVICES AND COMMENCE A "DIAL BEFORE YOU DIG" PRIOR TO COMMENCEMENT OF ANY WORKS.
- CONTRACTOR TO REFER TO APPROVED SERVICES AUTHORITY DRAWINGS FOR ALL SERVICES TO BE ADJUSTED OR REMOVED.
- REFER TO ARBORIST REPORT FOR TREE REMOVAL DETAILS.

#### LEGEND

---	SITE BOUNDARY
---	EXISTING BOUNDARY
<b>EXISTING UTILITIES</b>	
---	EXISTING WATER MAIN
---	EXISTING STORM WATER
---	EXISTING SEWER MAIN
---	EXISTING GAS MAIN
---	EXISTING TELECOMMS
---	EXISTING ELECTRICAL
---	EXISTING OVERHEAD ELECTRICAL

B	ISSUE FOR APPROVAL	17-04-2024
A	ISSUE FOR APPROVAL	17-05-2023
Issue	Description	Date

Bar Scales
0 5 10 15 20m
1 : 200 @ A1 1 : 400 @ A3

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Scales	1:200
Grid	GDA2020
Height Datum	AHD

Drawn	JS
Designed	SM
Checked	SM
Approved	GJ
Project	4 MINNA CLOSE BELROSE NSW 2085
Title	EXISTING SITE PLAN

Civil Engineers and Project Managers	
<b>at&amp;l</b>	
Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au	
Status	FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION	
Project - Drawing No.	22-1016-DAC002
Issue	B





			<div>Bar Scales</div> <div></div>	<div>THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY INTENDED WITHOUT THE WRITTEN PERMISSION OF AT&amp;L</div>	<div>Client</div> <div>WU PROPERTIES</div>	<div>Scales</div> <div>1:400</div>	<div>Drawn</div> <div>JS</div>	<div>Project</div> <div>4 MINNA CLOSE BELROSE NSW 2085</div>	<div>Civil Engineers and Project Managers</div> <div></div> <div>Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au</div>
	<div>Designed</div> <div>SM</div>								
<div>Grid</div> <div>GDA2020</div>	<div>Checked</div> <div>SM</div>								
<div>Height Datum</div> <div>AHD</div>	<div>Approved</div> <div>GJ</div>								
						<div>Title</div> <div>GENERAL ARRANGMENT PLAN</div>	<div>Status</div> <div>FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION</div>	<div>A1</div>	
						<div>Project - Drawing No.</div> <div>22-1016-DAC003</div>	<div>Issue</div> <div>C</div>		
<div>C</div> <div>ISSUE FOR APPROVAL</div>	<div>17-04-2024</div>								
<div>B</div> <div>ISSUE FOR APPROVAL</div>	<div>19-05-2023</div>								
<div>A</div> <div>ISSUE FOR APPROVAL</div>	<div>17-05-2023</div>								
<div>Issue</div>	<div>Description</div>	<div>Date</div>							



NOTES

EARTHWORKS VOLUMES SHOWN ARE APPROXIMATE ONLY AND HAVE BEEN CALCULATED USING;

THE VOLUMES TAKE INTO ACCOUNT FOR :

1. 200mm THICK STRIPPING OF EXISTING SURFACE
2. 200mm THICK STRUCTURAL SLAB FOR THE PROPOSED BUILDING
2. 200mm THICK PROPOSED PAVEMENT
3. 200mm LANDSCAPE AREA

THE VOLUMES DO NOT TAKE INTO ACCOUNT :

1. BULKING FACTORS OF REMOVED CUT
2. REMOVAL AND/OR REMEDIATION OF ANY EXISTING UNCONTROLLED FILL
3. STORMWATER BASIN AND UTILITIES TRENCHING
4. OSD TANK VOLUMES
5. BACK FILL OF PROPOSED RETAINING WALLS

<u>TOTAL: CUT</u>	-7884m³
<u>TOTAL: FILL</u>	+1m³
<u>BALANCE:</u>	-7883 (EXPORT REQUIRED)




Bar Scales

A horizontal bar scale is shown with markings at 0, 5, 10, 15, and 20m. Below the bar, the scales are indicated as 1 : 200 @ A1 and 1 : 400 @ A3.

## WU PROPERTIES

Project	4 MINNA CLOSE BELROSE NSW 2085
Title	BULK EARTHWORKS PLAN



**Civil Engineers and Project Managers**

Level 7, 153 Walker Street  
North Sydney NSW 2060

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Tel: 02 9439 1777

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[www.atl.net.au](http://www.atl.net.au)

[info@atl.net.au](mailto:info@atl.net.au)

Status

FOR APPROVAL

NOT TO BE USED FOR CONSTRUCTION

Project - Drawing No.

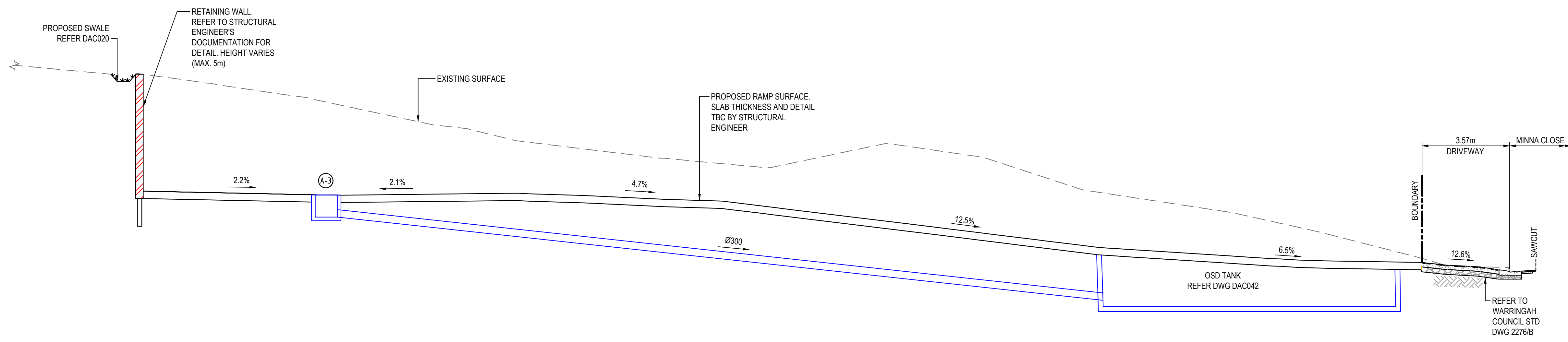
22-1016-DAC004

A1

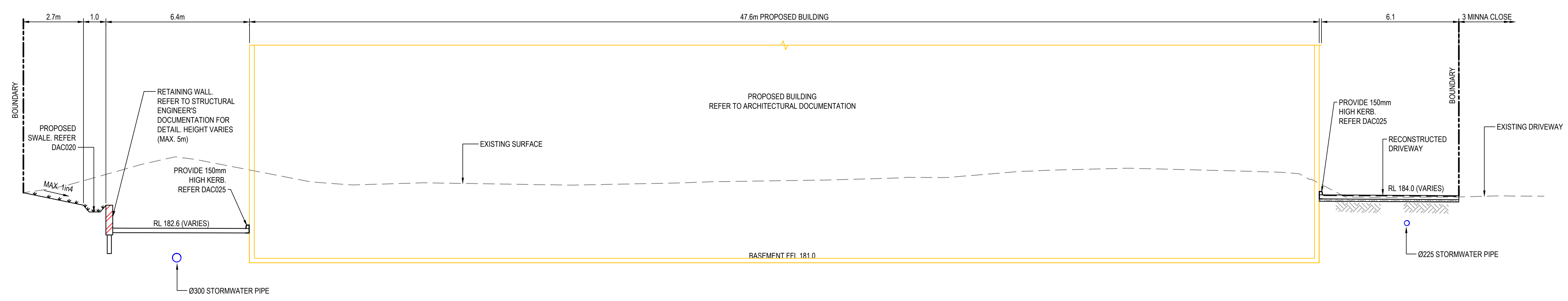
Issue

B





SECTION 1  
1 : 100

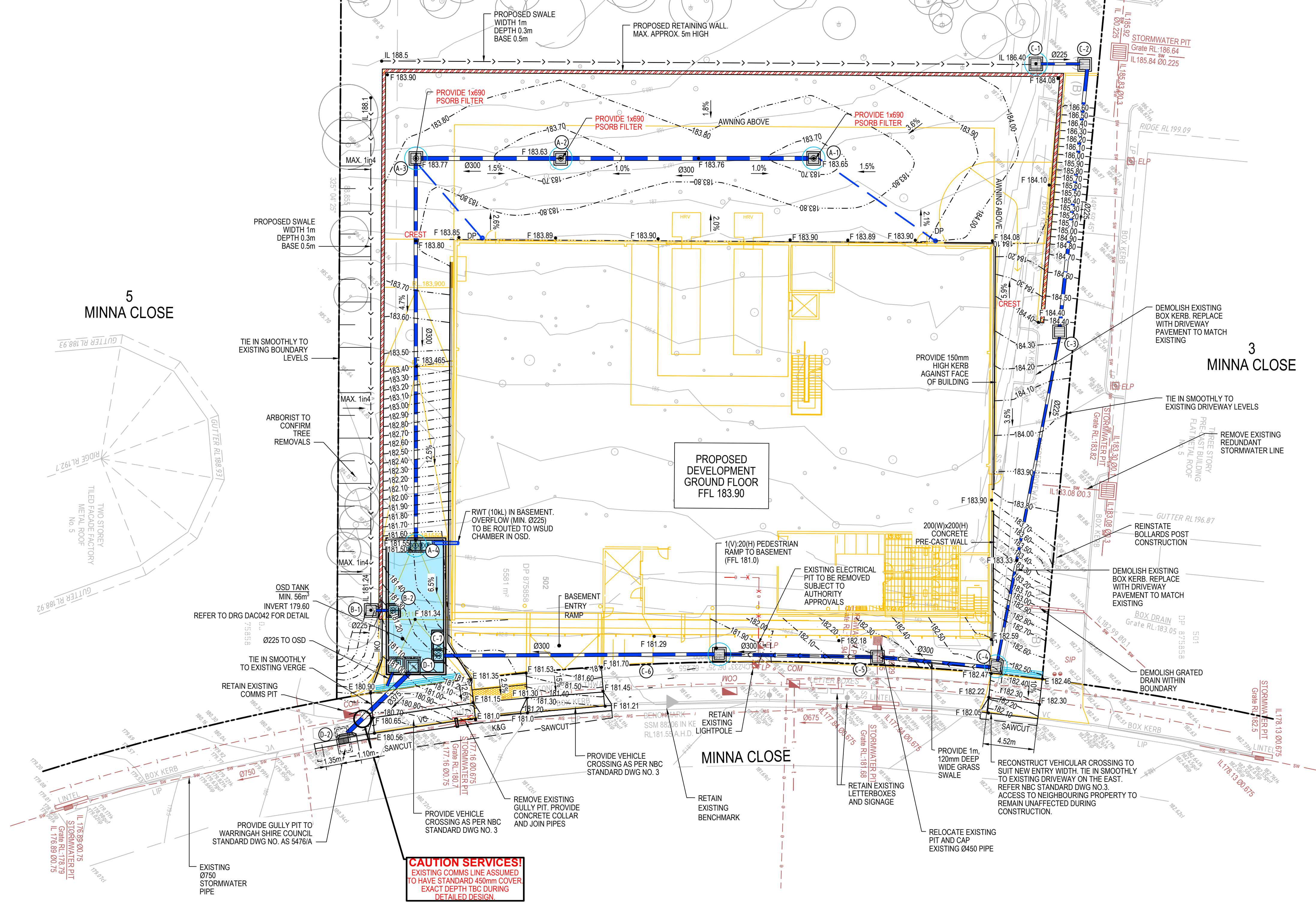
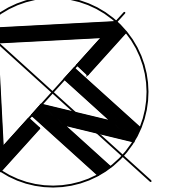


SECTION 2  
1 : 100





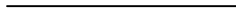






			Bar Scales		THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY INTENDED WITHOUT THE WRITTEN PERMISSION OF AT&L	Client  WU PROPERTIES	Scales 1:100		Drawn JS	Project  4 MINNA CLOSE BELROSE NSW 2085	Civil Engineers and Project Managers				
			 1 : 100 @ A1    1 : 200 @ A3				Designed SM		 Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au						
							Checked SM								
							Height Datum	Approved GJ			Title  SITE SECTIONS	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION	A1		
B	ISSUE FOR APPROVAL		17-04-2024											Project - Drawing No. 22-1016-DAC010	Issue B
A	ISSUE FOR APPROVAL		17-05-2023												
Issue	Description		Date												



DRAINS ANALYSIS RESULTS		
SITE DISCHARGE		
STORM EVENT (AEP)	PRE-DEVELOPMENT FLOWS (m³/s) (FULLY GRASSED)	POST-DEVELOPMENT FLOWS (m³/s)
20%	81	80
5%	132	129
1%	193	166





# LEGEND

	EXISTING BOUNDARY
	FOOTPATH
	PROPOSED INTEGRAL KERB ONLY
	PROPOSED KERB AND GUTTER
	EXISTING CONTOURS
	FINISHED SURFACE LEVEL
	STORMWATER PIT LABEL
	PROPOSED STORMWATER PIPE
	PROPOSED STORMWATER JUNCTION PIT
	PROPOSED STORMWATER GRATED PIT
	PROPOSED PIT WITH OCEANGUARD

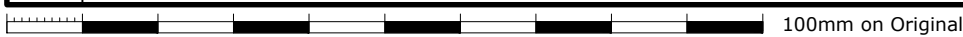
NOTE: ALL STORMWATER PITS TO BE 600X600 UNLESS NOTED OTHERWISE

## UTILITIES

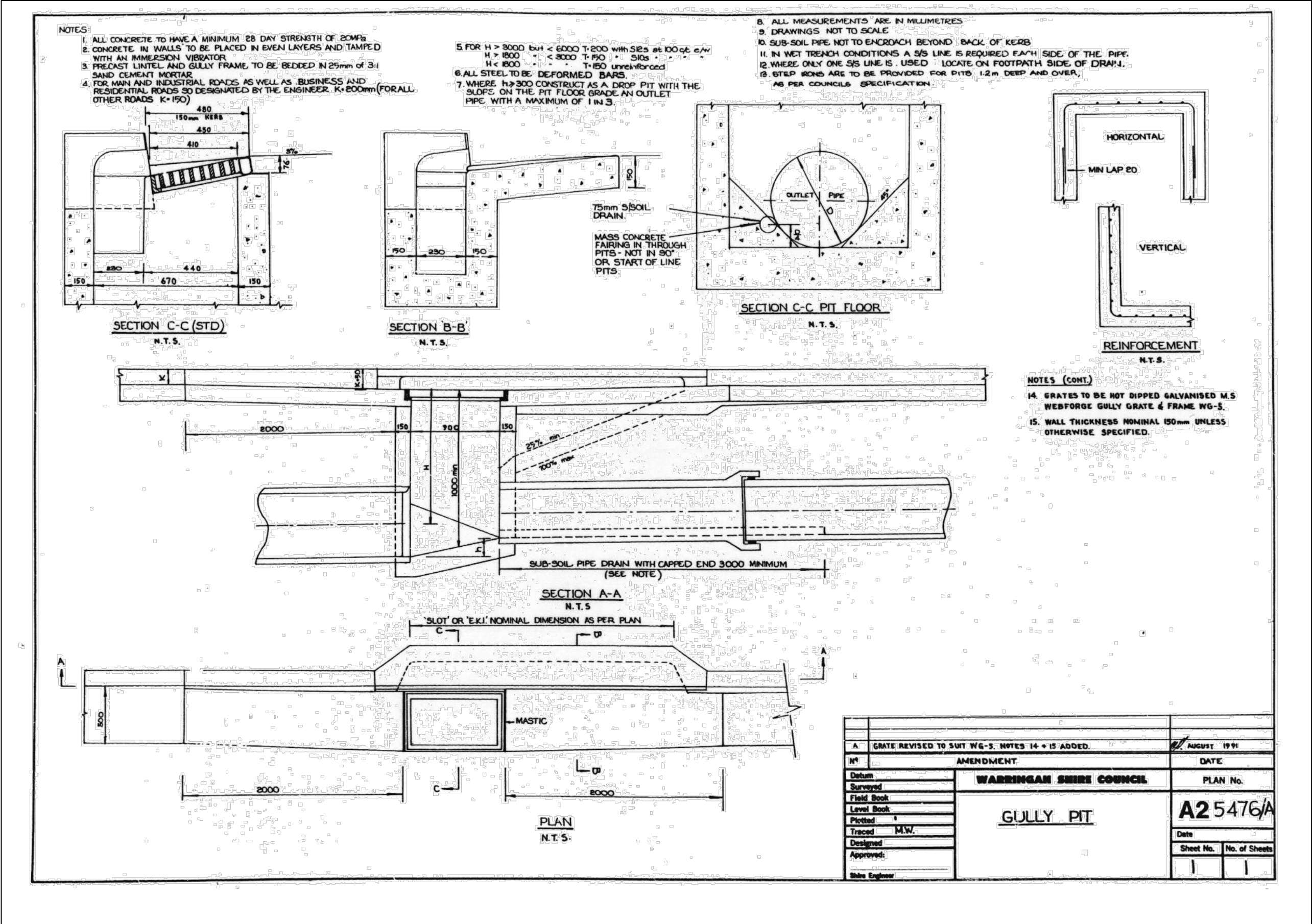
	EXISTING STORM WATER
	EXISTING SEWER MAIN

[illegible]









			Bar Scales		THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY INTENDED WITHOUT THE WRITTEN PERMISSION OF AT&L	Client	WU PROPERTIES		Scales		Drawn		JS		Project  4 MINNA CLOSE BELROSE NSW 2085		<div>Civil Engineers and Project Managers</div> <div>at&amp;l</div> <div>Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au</div>								
				NTS					Designed		SM														
				Grid					GDA2020		Checked		SM												
				Height Datum					AHD		Approved		GJ												
															Title		SITEWORKS AND STORMWATER DETAILS SHEET 2		Status		FOR APPROVAL		A1		
B		ISSUE FOR APPROVAL		17-04-2024															NOT TO BE USED FOR CONSTRUCTION						
A		ISSUE FOR APPROVAL		17-05-2023																	Project - Drawing No.		Issue		
Issue		Description		Date												22-1016-DAC026				B					



Technical drawing of a square test cell. The cell has an outer square boundary with a width of 1100 and a height of 1100. Inside the cell, there is a central circular feature with a diameter of 900. A horizontal inlet pipe enters the cell from the left, labeled "INLET", and a horizontal outlet pipe exits the cell to the right, labeled "OUTLET". Both pipes have a green arrow indicating flow direction. A cross-section line A-A is shown on the left and right sides of the cell, passing through the center of the circular feature. The cell is surrounded by a thick, textured border representing the concrete structure.

900 SQUARE ACCESS COVER

CONTRACTOR TO SEAL AS REQUIRED

INLET INVERT MINIMUM 50mm ABOVE OUTLET INVERT LEVEL

INLET PIPE (BY OTHERS)

WEIR

OUTLET PIPE (BY OTHERS)

FALSE FLOOR

RISER 150/300/600

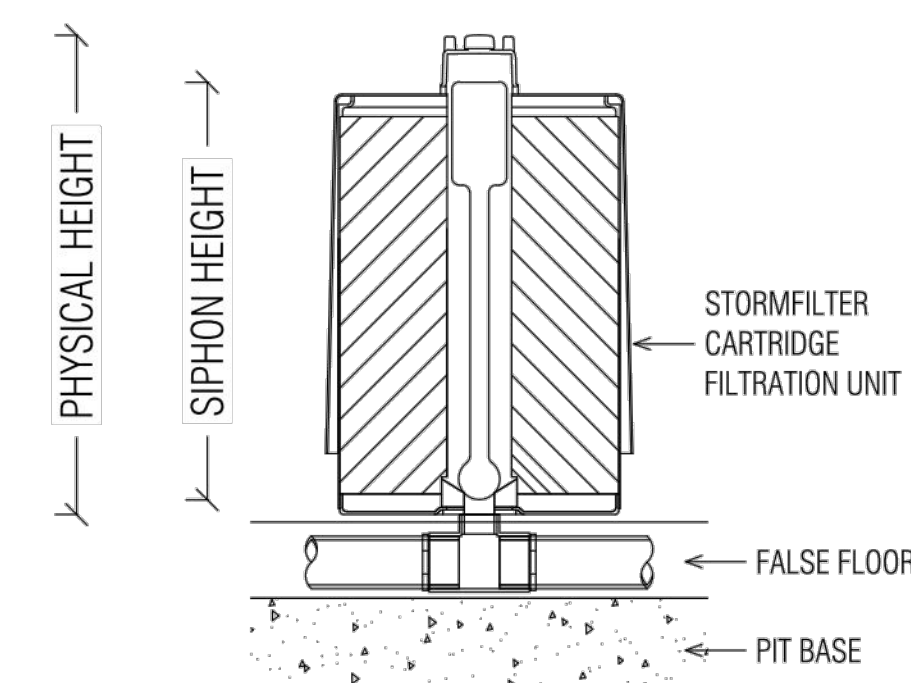
MIN WEIR HEIGHT (H) SEE DESIGN TABLE

900

**SECTION A-A**

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

CARTRIDGE NAME / SIPHON HEIGHT (mm)	690	460	310
CARTRIDGE PHYSICAL HEIGHT (mm)	840	600	600
MINIMUM WEIR HEIGHT [H] (mm)	820	590	440
CARTRIDGE FLOW RATE FOR ZPG MEDIA (L/s)	1.6	1.1	0.7
CARTRIDGE FLOW RATE FOR PSORB MEDIA (L/s)	0.9	0.46	0.39



STRUCTURE ID	[ ]
NUMBER OF CARTRIDGES REQ'D	[ ]
SIPHON HEIGHT (310 / 460 / 690)	[ ]
MEDIA TYPE (ZPG / PSORB)	[ ]
WATER QUALITY FLOW RATE (L/S)	[ ]
HYDRAULIC CAPACITY (L/S)	[ ]

PIPE DATA:	I.L.	MATERIAL	DIAMETER
INLET PIPE #1	[ ]	[ ]	[ ]
INLET PIPE #2	[ ]	[ ]	[ ]
INLET PIPE #3	[ ]	[ ]	[ ]
OUTLET PIPE	[ ]	[ ]	[ ]

PRECAST PIT WEIGHT	TBA
LID WEIGHT	TBA

1. PRECAST STRUCTURE SUPPLIED WITH CORE HOLES TO SUIT OUTER DIAMETER OF NOMINATED PIPE SIZE / MATERIAL.
2. PRECAST STRUCTURE SHALL MEET W80 WHEEL LOAD RATING ASSUMING A MAXIMUM EARTH COVER OF 2.0m AND A GROUND WATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. CERTIFYING ENGINEER TO CONFIRM ACTUAL GROUNDWATER ELEVATION. PRECAST STRUCTURE SHALL BE IN ACCORDANCE WITH AS3600.
3. IF THE PEAK FLOW RATE, AS DETERMINED BY THE SITE CERTIFYING ENGINEER, EXCEEDS THE PEAK HYDRAULIC CAPACITY OF THE SYSTEM, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.
4. ALL WATER QUALITY TREATMENT DEVICES REQUIRE PERIODIC MAINTENANCE. REFER TO OPERATION AND MAINTENANCE MANUAL FOR GUIDELINES AND ACCESS REQUIREMENTS.
5. SITE SPECIFIC PRODUCTION DRAWING WILL BE PROVIDED ON PLACEMENT OF ORDER.
6. DRAWING NOT TO SCALE.

1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY CERTIFYING ENGINEER.
2. CONTRACTOR TO PROVIDE ALL EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE (LIFTING DETAIL PROVIDED SEPARATELY).
3. CONTRACTOR TO APPLY SEALANT TO ALL JOINTS AND TO PROVIDE, INSTALL AND GROUT INLET AND OUTLET PIPES.

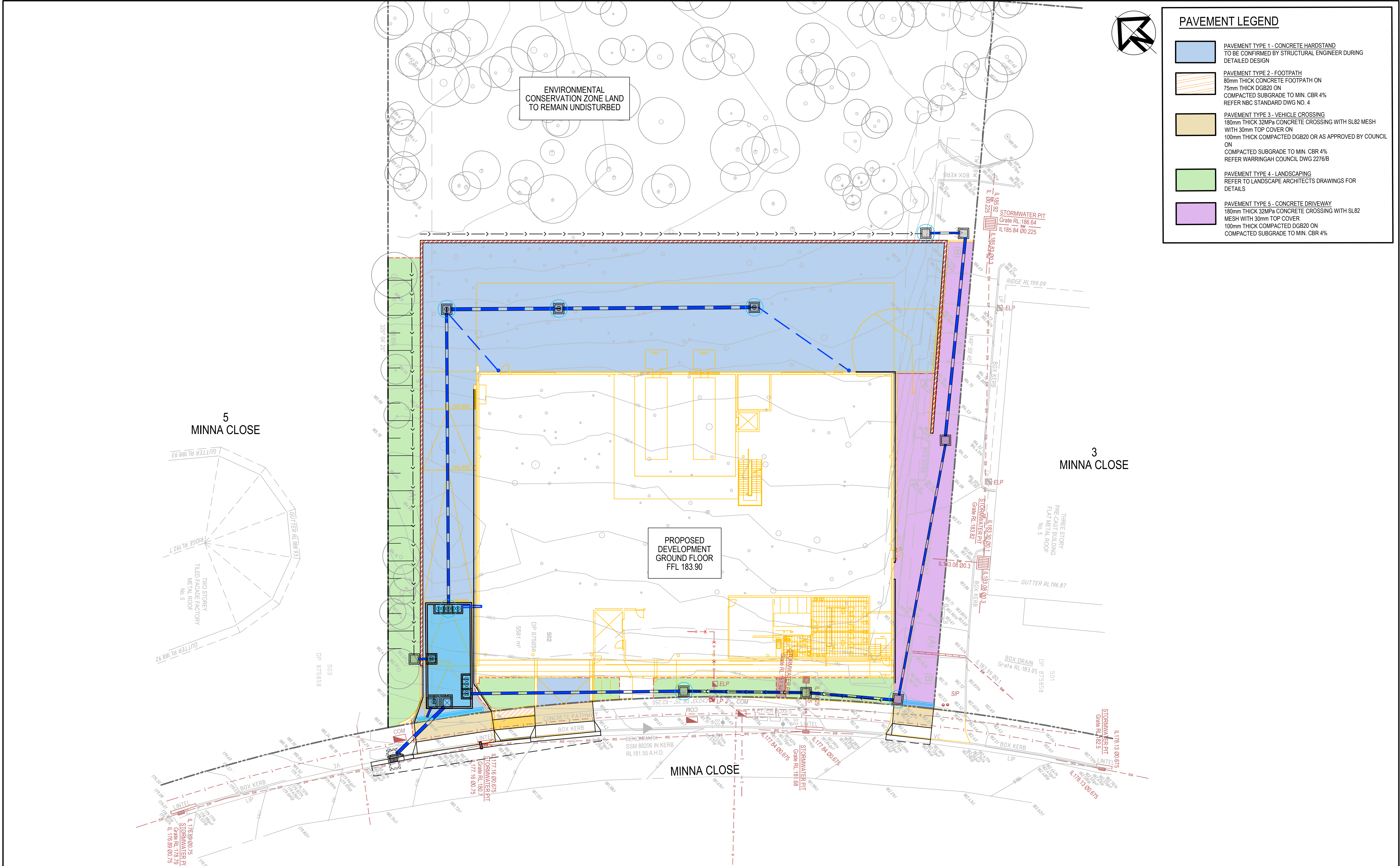


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LAST MODIFIED: 18.10.2023

F:\22-1016 4 Minna Close Belrose\6.0 Drqs\Civil\Final\22-1016-DAC027.dwg





PAVEMENT LEGEND

PAVEMENT TYPE 1 - CONCRETE HARDSTAND  
TO BE CONFIRMED BY STRUCTURAL ENGINEER DURING  
DETAILED DESIGN

PAVEMENT TYPE 2 - FOOTPATH  
80mm THICK CONCRETE FOOTPATH ON  
75mm THICK DGB20 ON  
COMPACTED SUBGRADE TO MIN. CBR 4%  
REFER NBC STANDARD DWG NO. 4

PAVEMENT TYPE 3 - VEHICLE CROSSING  
180mm THICK 32MPa CONCRETE CROSSING WITH SL82 MESH  
WITH 30mm TOP COVER ON  
100mm THICK COMPACTED DGB20 OR AS APPROVED BY COUNCIL  
ON  
COMPACTED SUBGRADE TO MIN. CBR 4%  
REFER WARRINGAH COUNCIL DWG 2276/B

PAVEMENT TYPE 4 - LANDSCAPING  
REFER TO LANDSCAPE ARCHITECTS DRAWINGS FOR  
DETAILS

PAVEMENT TYPE 5 - CONCRETE DRIVEWAY  
180mm THICK 32MPa CONCRETE CROSSING WITH SL82  
MESH WITH 30mm TOP COVER  
100mm THICK COMPACTED DGB20 ON  
COMPACTED SUBGRADE TO MIN. CBR 4%

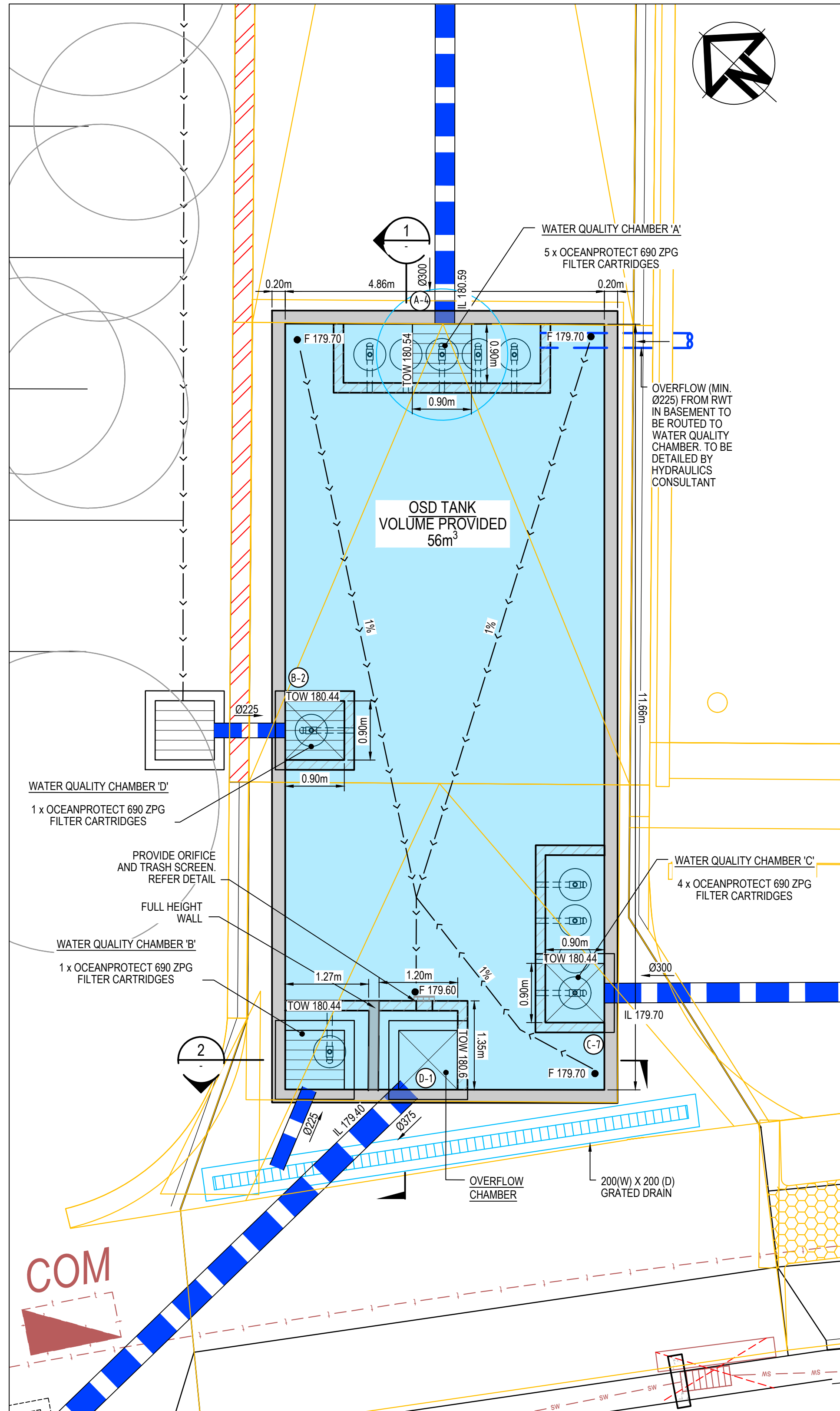
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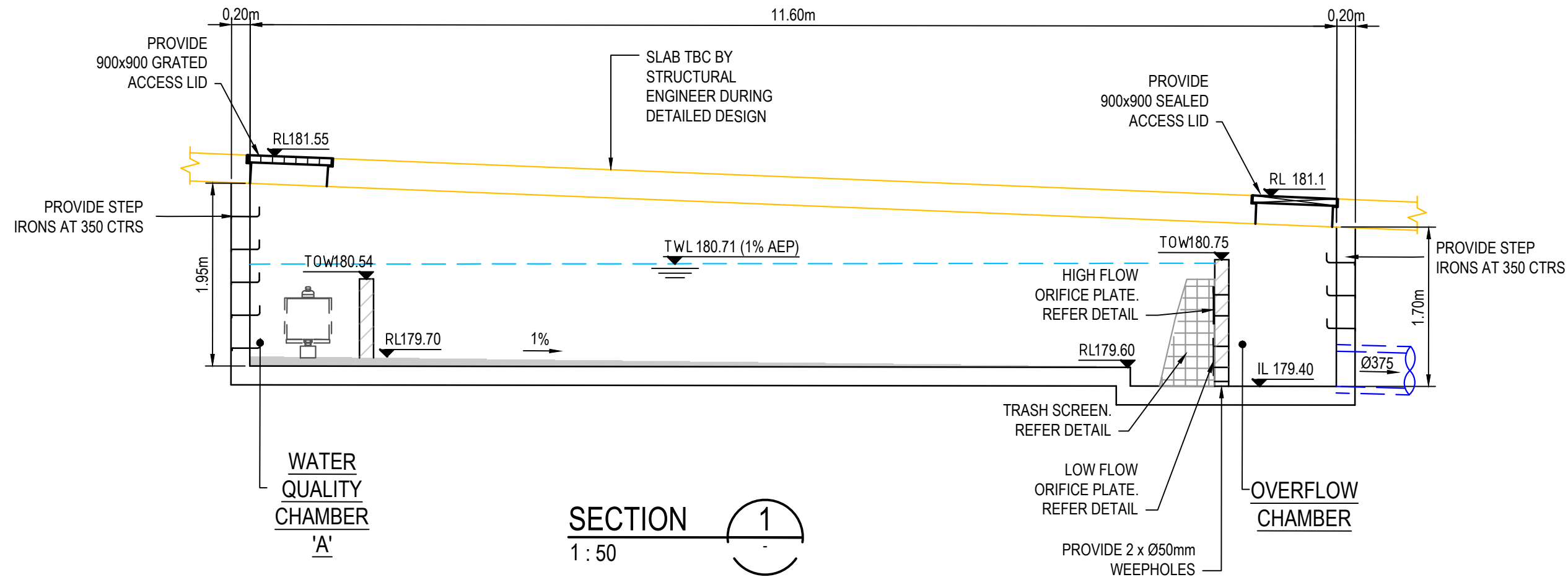
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NOT TO BE USED FOR CONSTRUCTION  
Project - Drawing No.  
**22-1016-DAC030**

A1  
Issue  
**B**

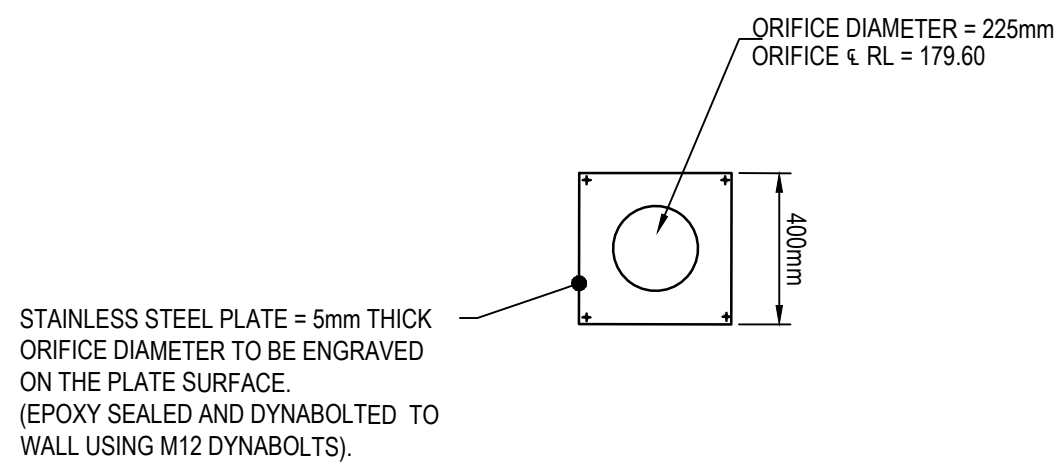
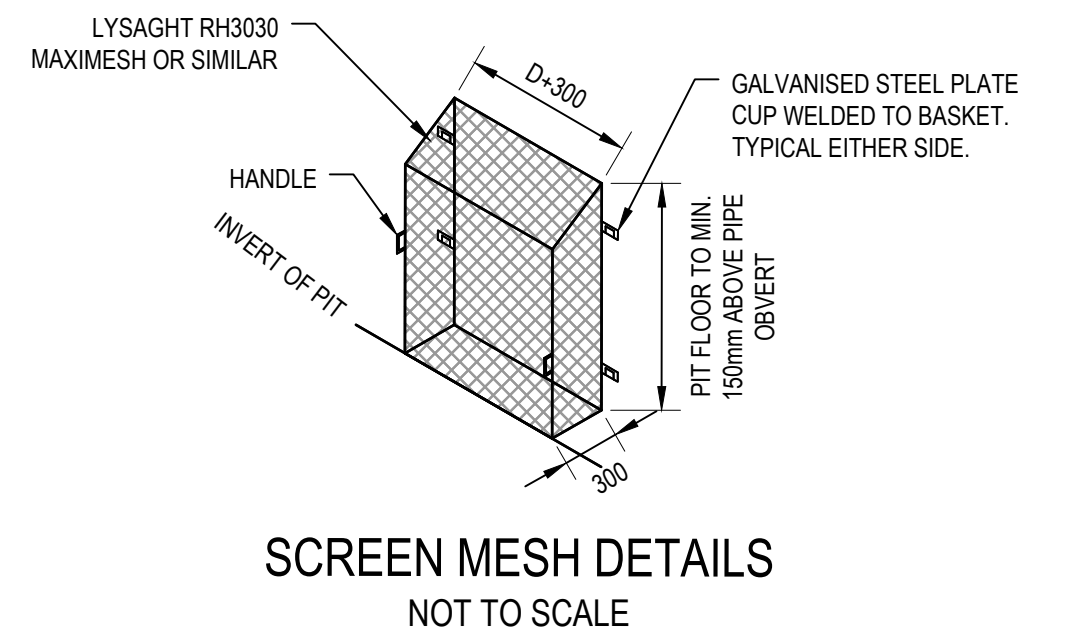




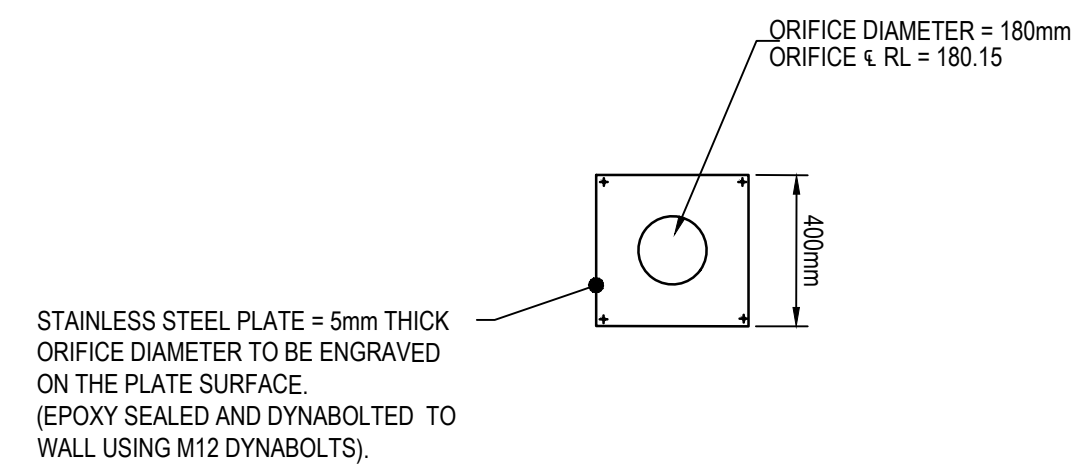
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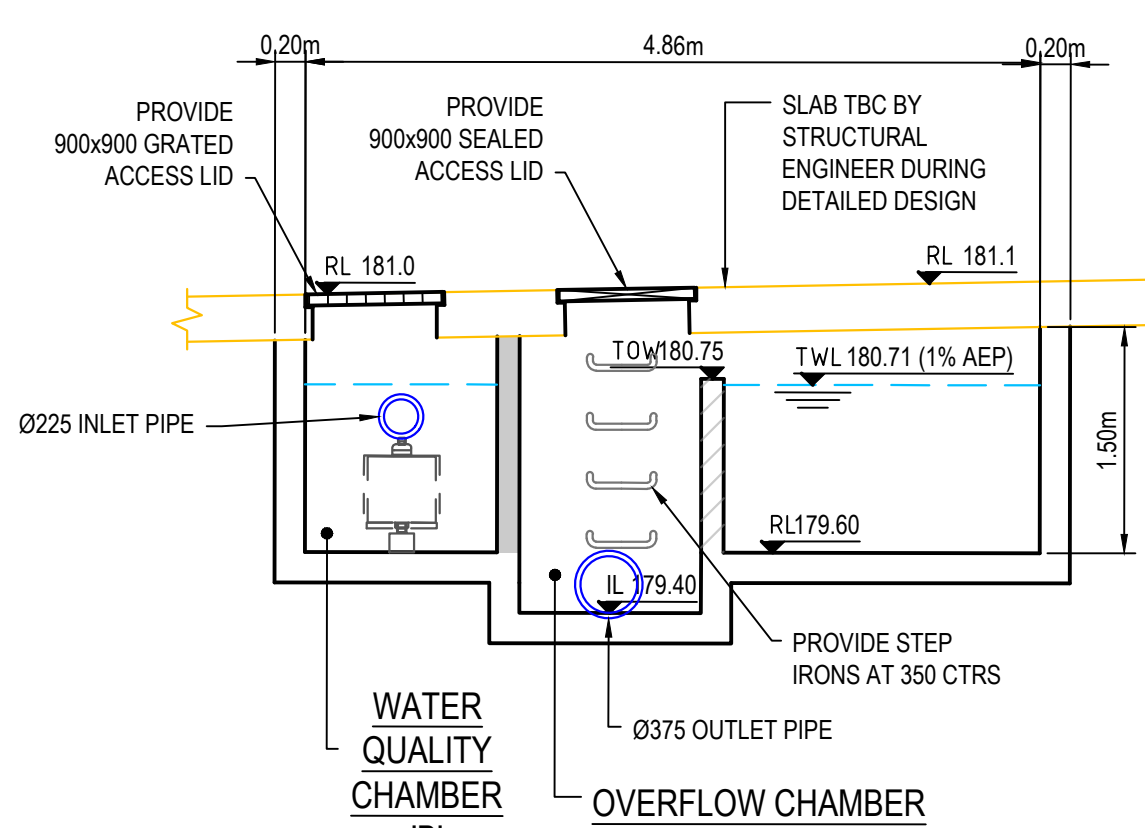
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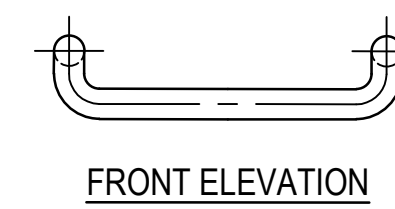
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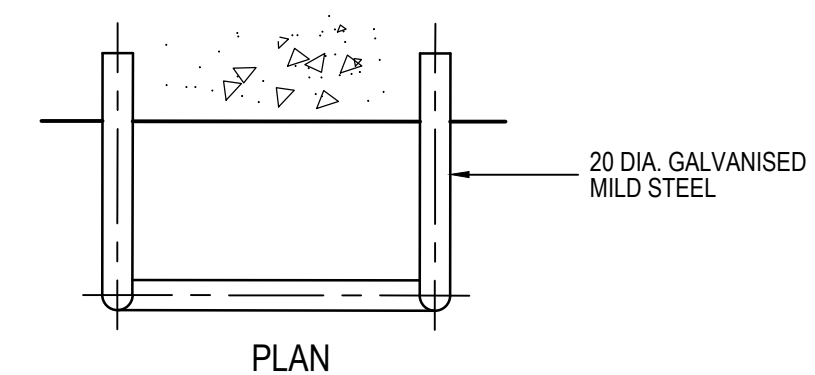
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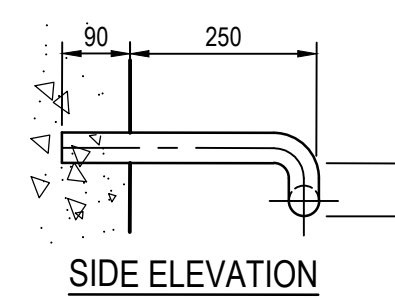
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FRONT ELEVATION



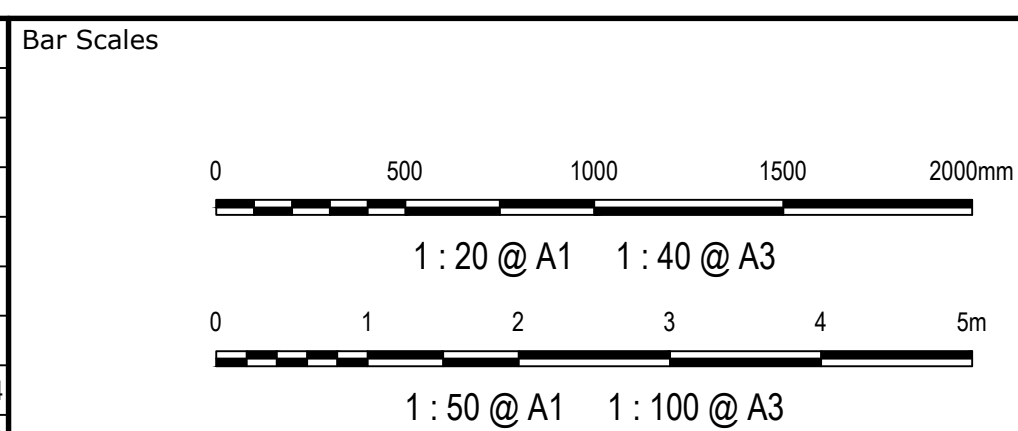
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SIDE ELEVATION

STEP IRON DETAIL  
NTS

Issue	Description	Date
B	ISSUE FOR APPROVAL	17-04-2024
A	ISSUE FOR APPROVAL	17-05-2023



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Client  
**WU PROPERTIES**

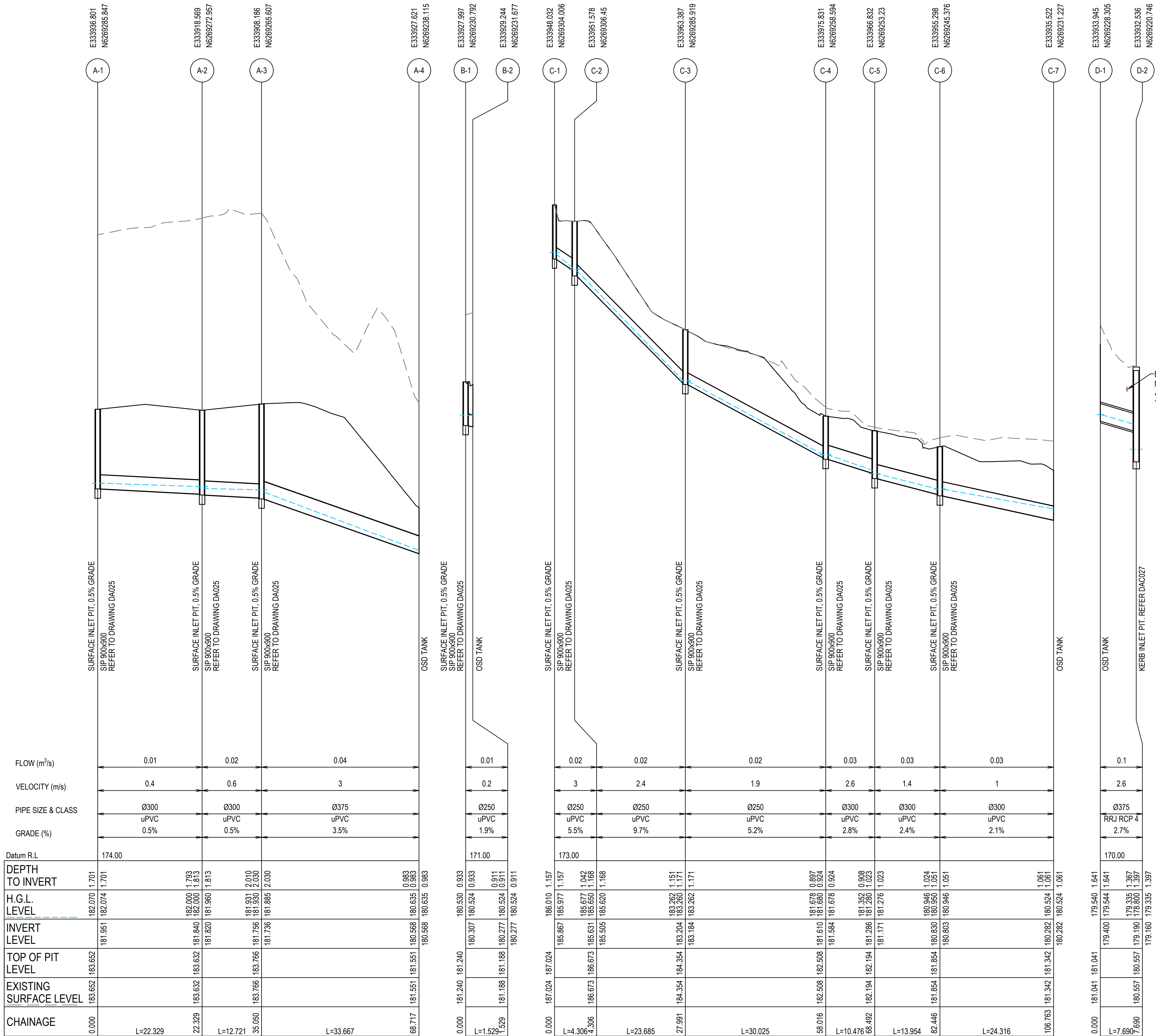
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Height Datum	Checked
AHD	SM
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Project  
**4 MINNA CLOSE  
BELROSE NSW 2085**

Title  
**OSD  
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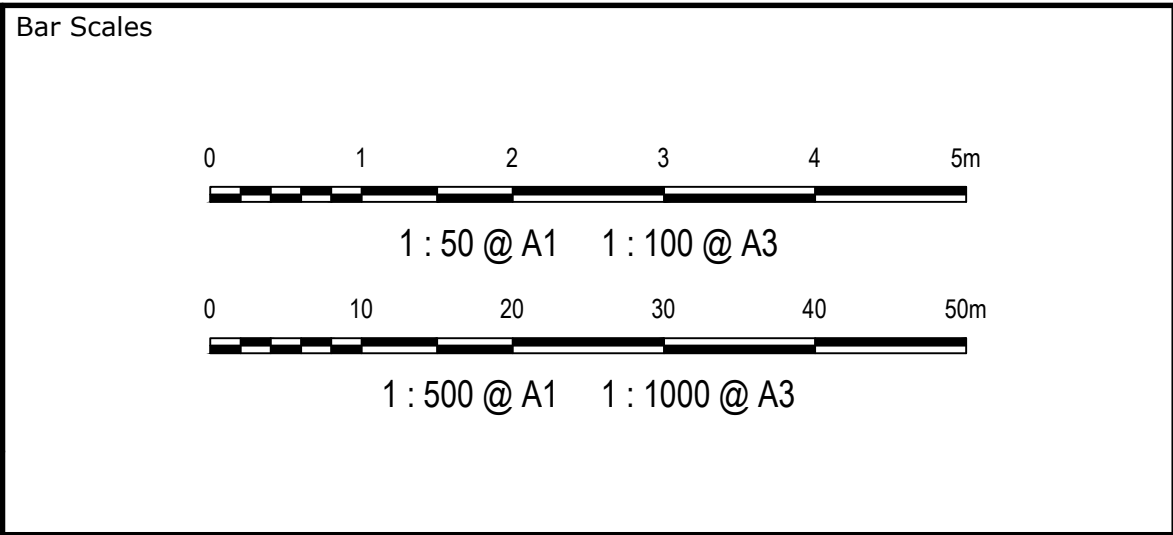
Civil Engineers and Project Managers		
<b>at&amp;l</b> Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au		
Status	FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION	A1
Project - Drawing No.	22-1016-DAC042	Issue B





NOTE:  
- TAILWATER LEVEL ADOPTED AS EXISTING PIT LID LEVEL FOR 5%, 20% AND 1% AEP STORM EVENTS

B	ISSUE FOR APPROVAL	17-04-2024
A	ISSUE FOR APPROVAL	17-05-2023
Issue	Description	Date



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WU PROPERTIES

Scales 1:50 V 1:500 H	Drawn	JS
	Designed	SM
	Checked	SM
Grid GDA2020	Approved	GJ
Height Datum AHD		

Project  
4 MINNA CLOSE  
BELROSE NSW 2085

Stormwater Drainage Longitudinal Sections

Project - Drawing No.  
22-1016-DAC045

Civil Engineers and Project Managers

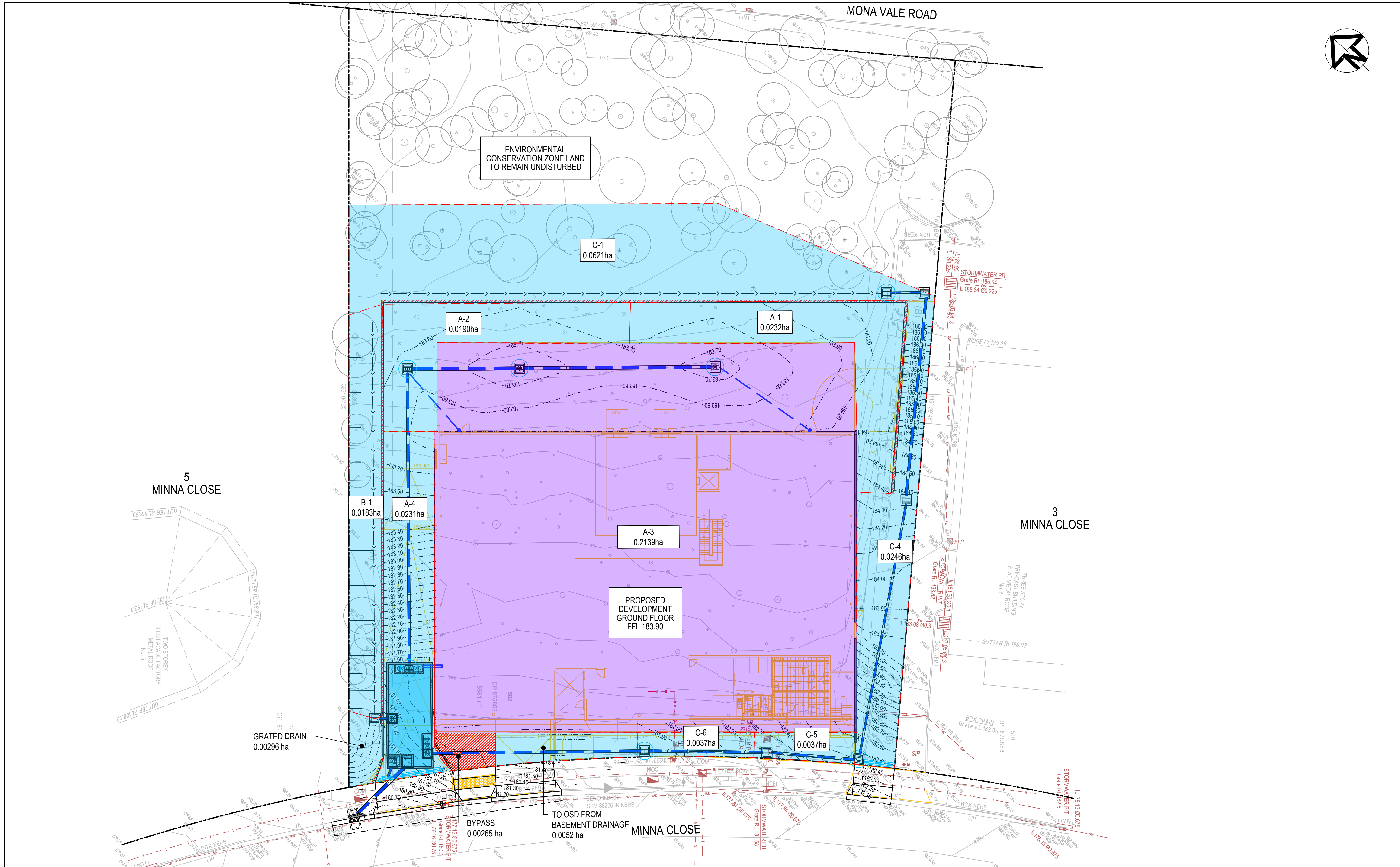
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info@atl.net.au

Status  
FOR APPROVAL  
NOT TO BE USED FOR CONSTRUCTION

Issue  
B



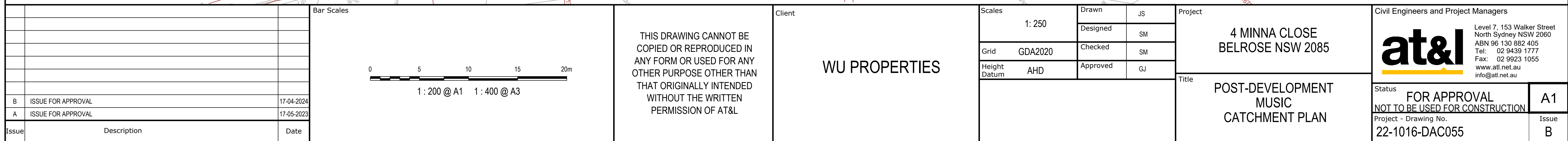


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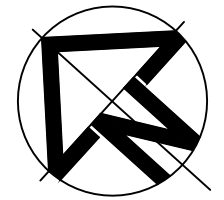
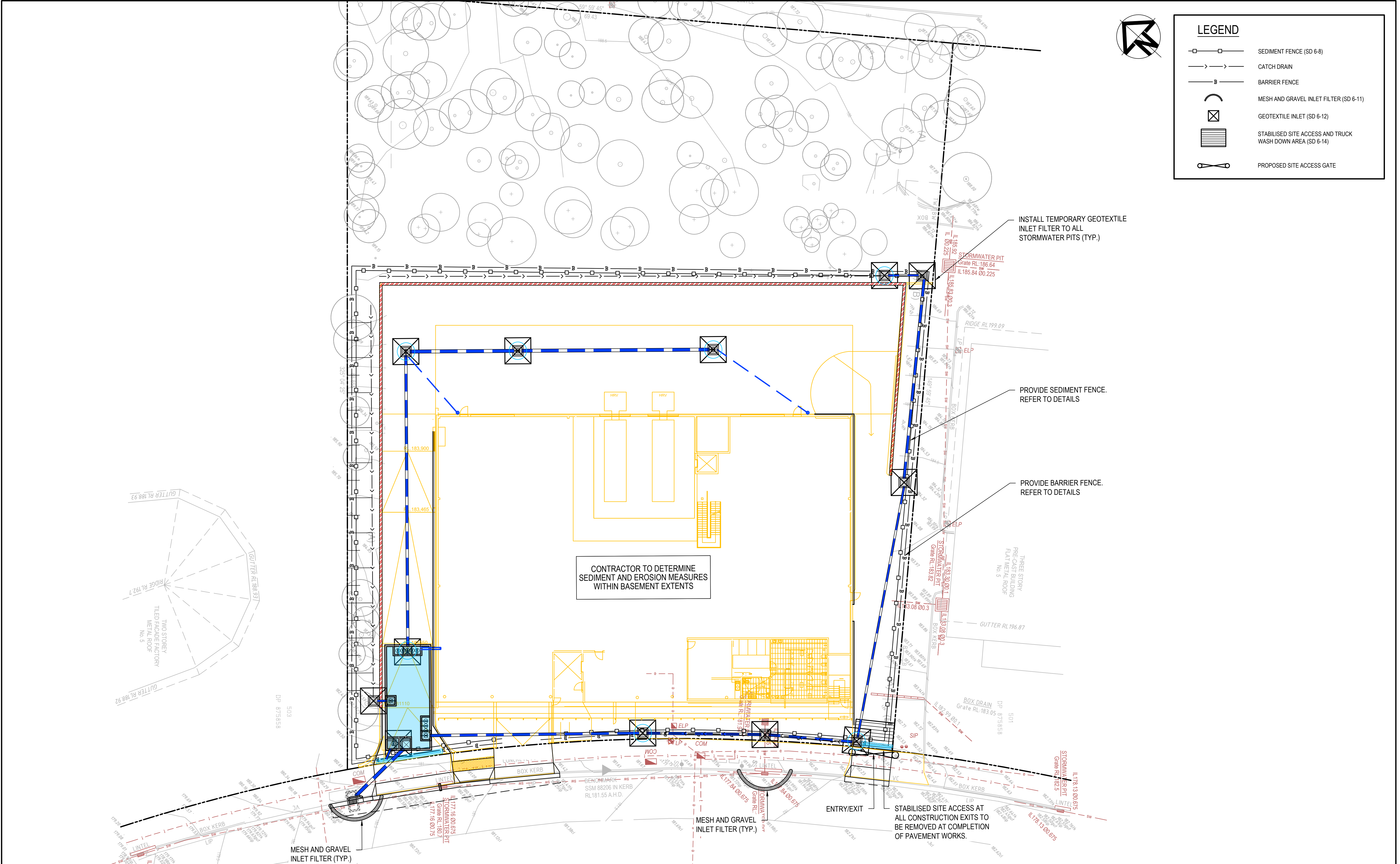






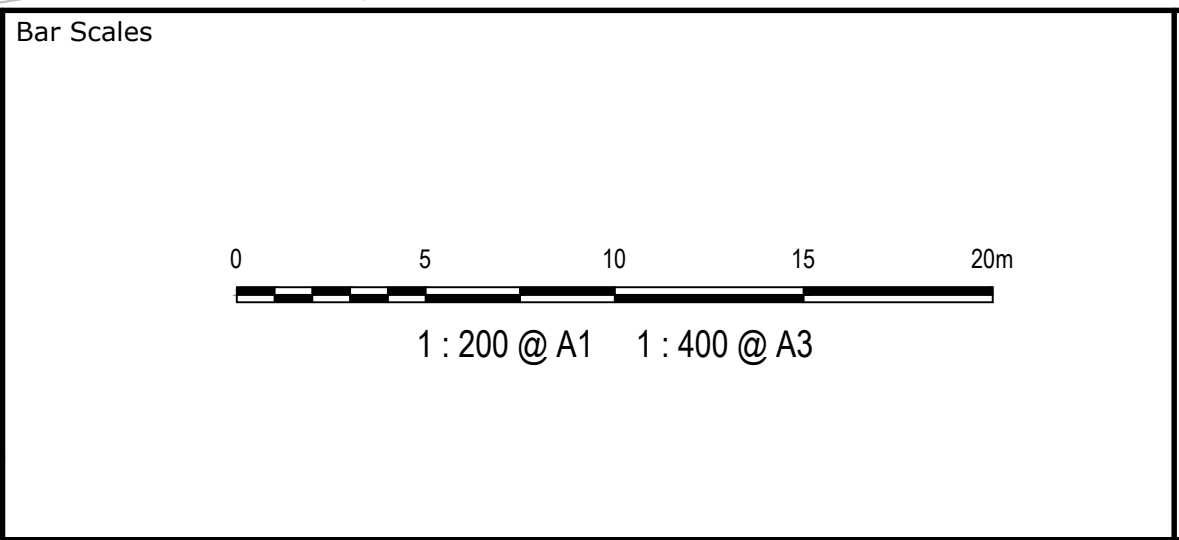






LEGEND	
	SEDIMENT FENCE (SD 6-8)
	CATCH DRAIN
	BARRIER FENCE
	MESH AND GRAVEL INLET FILTER (SD 6-11)
	GEOTEXTILE INLET (SD 6-12)
	STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA (SD 6-14)
	PROPOSED SITE ACCESS GATE

B	ISSUE FOR APPROVAL	17-04-2024
A	ISSUE FOR APPROVAL	17-05-2023
Issue	Description	Date



THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY INTENDED WITHOUT THE WRITTEN PERMISSION OF AT&L

Client

WU PROPERTIES

Scales	1 : 250	Drawn	JS
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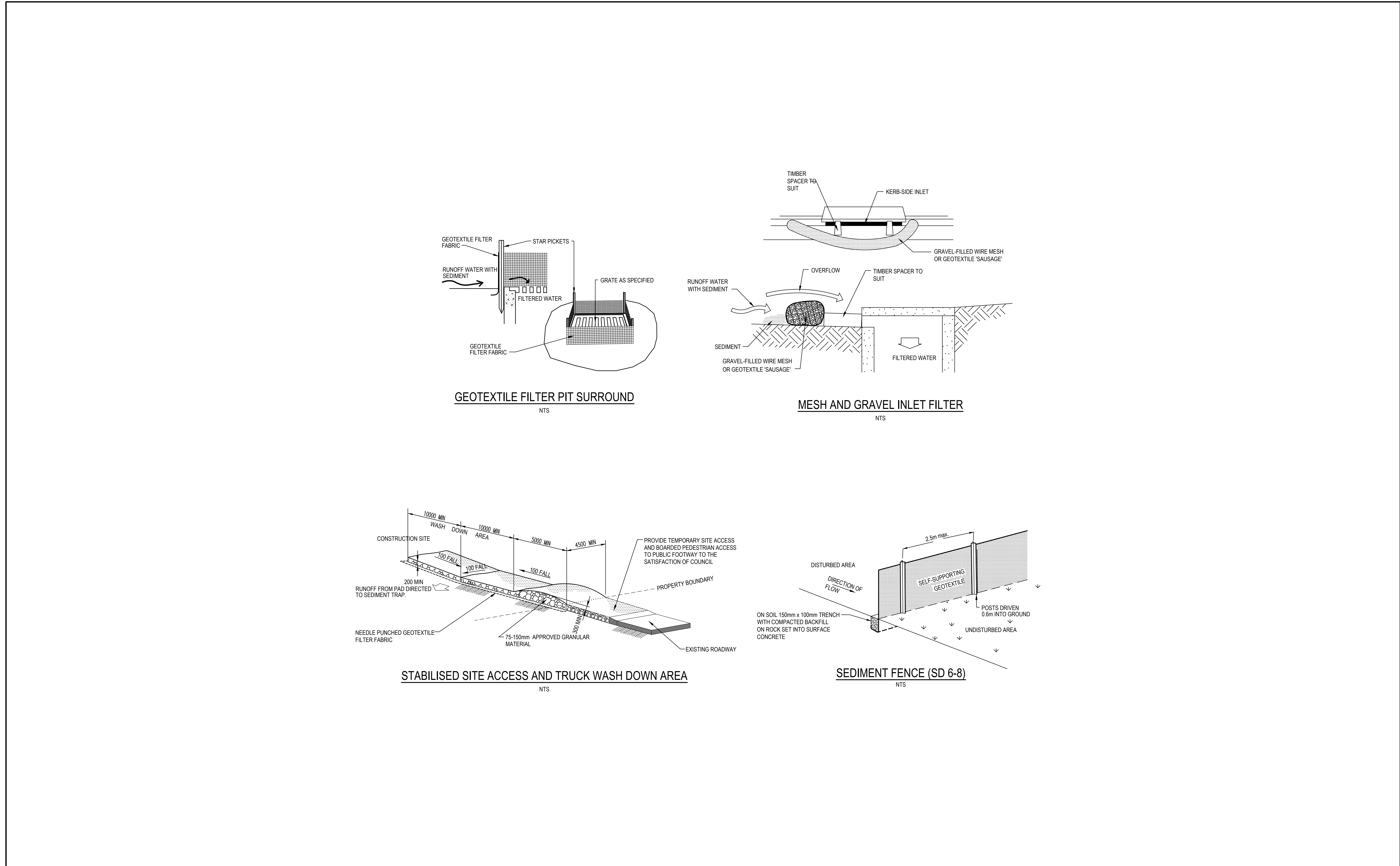
Project	4 MINNA CLOSE BELROSE NSW 2085
	SEDIMENTATION AND EROSION CONTROL PLAN
Title	

Civil Engineers and Project Managers

Level 7, 153 Walker Street  
North Sydney NSW 2060  
ABN 96 130 882 405  
Tel: 02 9439 1777  
Fax: 02 9923 1055  
www.atl.net.au  
info@atl.net.au

Status	FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION	A1
Project - Drawing No.	22-1016-DAC060	Issue B





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