

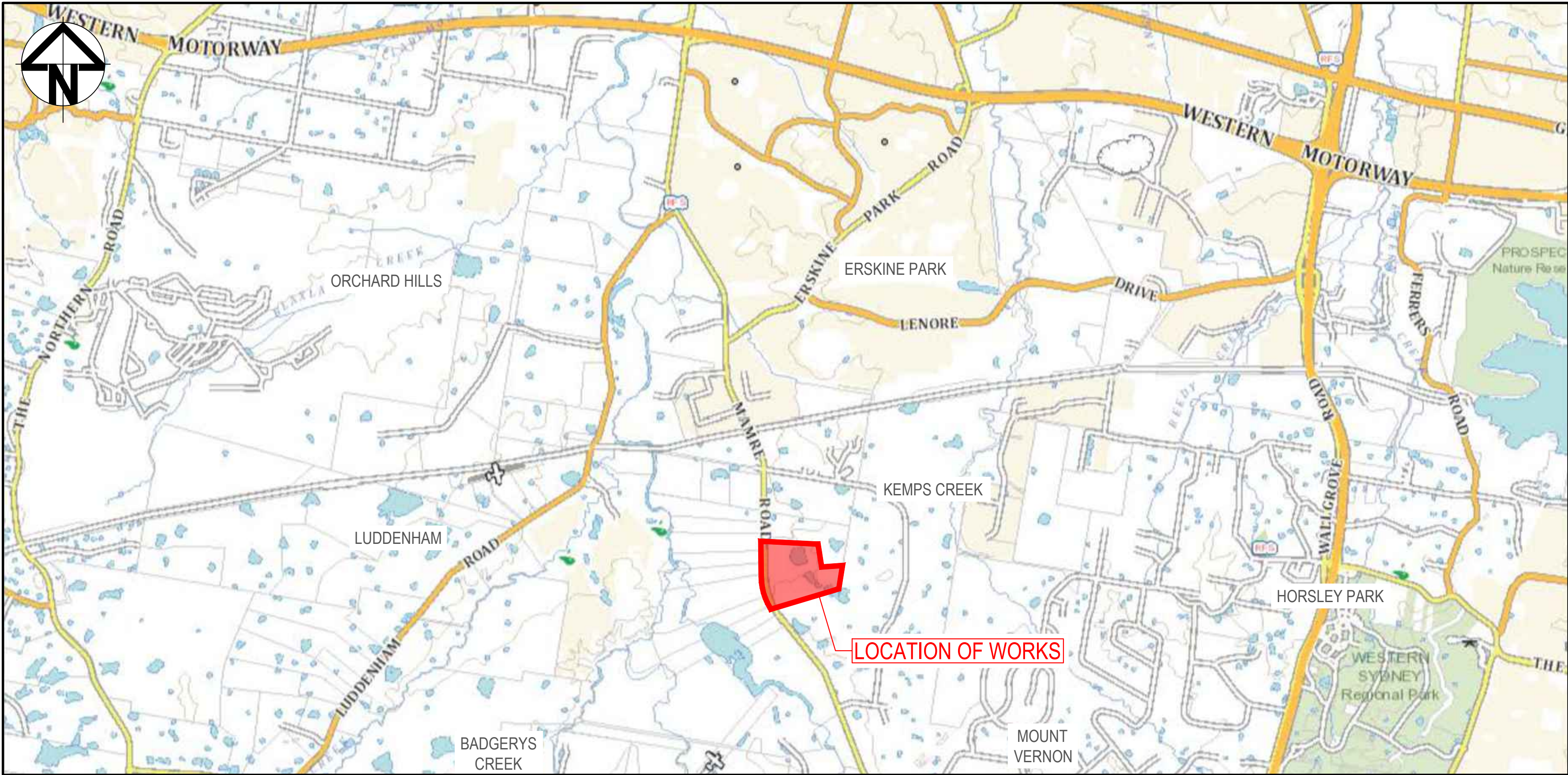
ASPECT INDUSTRIAL ESTATE

STAGE 1B CIVIL WORKS PACKAGE

SUBDIVISION WORKS CERTIFICATE

788-882 MAMRE ROAD, KEMPS CREEK

SSD-10448



THESE DRAWINGS MUST BE READ IN CONJUNCTION WITH THE ITT & RELEVANT COUNCIL CONSTRUCTION SPECIFICATIONS, AUSTRALIAN STANDARDS & AUTHORITY GUIDELINES

LOCALITY PLAN  
NOT TO SCALE

		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 <div></div>	Scales	Drawn JB/MH	Project ASPECT INDUSTRIAL ESTATE MAMRE ROAD, KEMPS CREEK STAGE 1B	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>		
					Designed JB/MH					
Grid	GDA2020				Checked DS					
Height Datum	AHD				Approved DS					
<div></div>					Title  COVER SHEET AND LOCALITY PLAN	Status FOR CONSTRUCTION			A1	
						Project - Drawing No. 18-596-C8000			Issue 1	
1	ISSUED FOR CONSTRUCTION	17-11-22								
A	ISSUED FOR SWC APPROVAL	20-10-22								
Issue	Description	Date								



DRAWING LIST	
DRAWING No.	DRAWING TITLE
18-596-C8000	COVER SHEET AND LOCALITY PLAN
18-596-C8001	DRAWING LIST
18-596-C8002	NOTES AND LEGENDS SHEET SHEET 1
18-596-C8003	NOTES AND LEGENDS SHEET SHEET 2
18-596-C8005	GENERAL ARRANGEMENT PLAN
18-596-C8010	TYPICAL SECTIONS
18-596-C8012	TYPICAL ROAD SECTIONS
18-596-C8015	TYPICAL DETAILS SHEET 1
18-596-C8016	TYPICAL DETAILS SHEET 2
18-596-C8017	TYPICAL DETAILS SHEET 3
18-596-C8050	CONTROL LINE SETOUT PLAN
18-596-C8101	ROADWORKS AND STORMWATER DRAINAGE SHEET 1
18-596-C8102	ROADWORKS AND STORMWATER DRAINAGE SHEET 2
18-596-C8103	ROADWORKS AND STORMWATER DRAINAGE SHEET 3
18-596-C8104	ROADWORKS AND STORMWATER DRAINAGE SHEET 4
18-596-C8105	ROADWORKS AND STORMWATER DRAINAGE SHEET 5
18-596-C8106	ROADWORKS AND STORMWATER DRAINAGE SHEET 6
18-596-C8107	ROADWORKS AND STORMWATER DRAINAGE SHEET 7
18-596-C8121	INTERSECTION PLAN SHEET 1
18-596-C8122	INTERSECTION PLAN SHEET 2
18-596-C8123	INTERSECTION PLAN SHEET 3
18-596-C8124	INTERSECTION PLAN SHEET 4
18-596-C8125	INTERSECTION PLAN SHEET 5
18-596-C8126	INTERSECTION PLAN SHEET 6
18-596-C8131	ROAD LONGITUDINAL SECTION SHEET 1
18-596-C8132	ROAD LONGITUDINAL SECTION SHEET 2
18-596-C8201	BULK EARTHWORKS CUT/FILL PLAN
18-596-C8301	PAVEMENT MARKING AND SIGNPOSTING
18-596-C8321	PAVEMENT PLAN
18-596-C8401	STORMWATER DRAINAGE LONGITUDINAL SECTION SHEET 1
18-596-C8402	STORMWATER DRAINAGE LONGITUDINAL SECTION SHEET 2
18-596-C8403	STORMWATER DRAINAGE LONGITUDINAL SECTION SHEET 3
18-596-C8404	STORMWATER DRAINAGE LONGITUDINAL SECTION SHEET 4
18-596-C8405	STORMWATER DRAINAGE LONGITUDINAL SECTION SHEET 5
18-596-C8406	STORMWATER DRAINAGE LONGITUDINAL SECTION SHEET 6
18-596-C8412	STORMWATER DRAINAGE CATCHMENT PLAN (POST-DEVELOPED)
18-596-C8421	STORMWATER DRAINAGE DETAILS SHEET 1
18-596-C8422	STORMWATER DRAINAGE DETAILS SHEET 2
18-596-C8431	STRUCTURE SETOUT DETAILS SHEET 1
18-596-C8432	STRUCTURE SETOUT DETAILS SHEET 2
18-596-C8433	STRUCTURE SETOUT DETAILS SHEET 3
18-596-C8441	DETENTION BASIN DETAIL PLAN SHEET 1
18-596-C8442	DETENTION BASIN DETAIL PLAN SHEET 2
18-596-C8443	DETENTION BASIN DETAIL PLAN SHEET 3
18-596-C8501	ROAD CROSS SECTIONS ROAD 01 SHEET 1
18-596-C8511	ROAD CROSS SECTIONS ROAD 03 SHEET 1
18-596-C8512	ROAD CROSS SECTIONS ROAD 03 SHEET 2
18-596-C8631	EROSION AND SEDIMENT CONTROL PLAN
18-596-C8633	EROSION AND SEDIMENT CONTROL DETAILS
18-596-C8701	PROPOSED FENCING PLAN
18-596-C8711	PROPOSED FENCING DETAILS SHEET 1
18-596-C8712	PROPOSED FENCING DETAILS SHEET 2
18-596-C8801	VEHICLE TURN PATH PLAN SHEET 1
18-596-C8802	VEHICLE TURN PATH PLAN SHEET 2
18-596-C8803	VEHICLE TURN PATH PLAN SHEET 3
18-596-C8804	VEHICLE TURN PATH PLAN SHEET 4

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<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></div>											
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1. ORIGIN OF LEVELS- REFER SURVEY NOTES.
2. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK. ANY DISCREPANCIES TO BE REPORTED TO AT & L.
3. MAKE SMOOTH CONNECTION WITH EXISTING WORKS.
4. ALL TRENCH BACKFILL MATERIAL SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT MATERIAL.
5. 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)
6. PROVIDE 10mm WIDE EXPANSION JOINTS BETWEEN BUILDINGS AND ALL CONCRETE OR UNIT PAVEMENTS.
7. ASPHALTIC CONCRETE SHALL CONFORM TO TNSW SPECIFICATION R116.
8. ALL BASECOURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH TNSW FORM 3051 (UNBOUND), TNSW 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 OF BASECOURSE MATERIAL PLACED.
9. ALL SUB-BASE COURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH TNSW FORM 3051, 3051.1 AND COMPACT TO MINIMUM 95% MODIFIED DENSITY IN ACCORDANCE WITH AS 1289 5.2.1 FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 PER 50m<sup>2</sup> OF SUB-BASE COURSE MATERIAL PLACED.

1. 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.
2. 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.
3. CONTRACTORS SHALL TAKE DUE CARE WHEN EXCAVATING ONSITE INCLUDING HAND EXCAVATION WHERE NECESSARY.
4. CONTRACTORS ARE TO CONTACT THE RELEVANT SERVICE AUTHORITY PRIOR TO COMMENCEMENT OF EXCAVATION WORKS.
5. 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.
6. PRIOR TO COMMENCEMENT OF WORKS, THE CONTRACTOR IS TO CONFIRM THE ALIGNMENT AND LEVELS OF ALL EXISTING SERVICES AT ALL LOCATIONS WHERE THE PROPOSED SERVICES ARE TO CROSS, CONNECT TO, OR ARE LOCATED IN CLOSE PROXIMITY TO THE EXISTING SERVICES.

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

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

3. NO ADMIXTURES SHALL BE USED IN CONCRETE UNLESS APPROVED IN WRITING BY AT & L.
4. CLEAR CONCRETE COVER TO ALL REINFORCEMENT FOR DURABILITY SHALL BE 40mm TOP AND 70mm FOR EXTERNAL EDGES UNLESS NOTED OTHERWISE.
5. 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.
6. 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 TINSW SPECIFICATION R83.
7. REINFORCEMENT SYMBOLS:  
N DENOTES GRADE 450 N BARS TO AS 1302 GRADE N  
R DENOTES 230 R HOT ROLLED PLAIN BARS TO AS 1302  
SL DENOTES HARD-DRAWN WIRE REINFORCING FABRIC TO AS 1304

NUMBER OF BARS IN GROUP    BAR GRADE AND TYPE

17 N 20 250

NOMINAL BAR SIZE IN mm      SPACING IN mm

THE FIGURE FOLLOWING THE FABRIC SYMBOL SL IS THE REFERENCE NUMBER FOR FABRIC TO AS 1304.

8. FABRIC SHALL BE LAPPED IN ACCORDANCE WITH THE FOLLOWING DETAIL:

25 MIN

LAP TWO WIRES

1. DEMOLITION OF EXISTING DWELLING TO BE CONDUCTED IN ACCORDANCE WITH THE PROVISIONS OF AS2601-2001 - DEMOLITION OF STRUCTURES BY CONTRACTORS EXPERIENCED IN THIS CLASS OF WORK AND HOLDING REQUIRED CURRENT PERMITS AND LICENSES AS REQUIRED.
2. EXISTING INTERNALS FENCING, CATTLE YARDS, UTILITIES AND OTHER REDUNDANT STRUCTURES TO BE DEMOLISHED AND REMOVED TO AN APPROVED WASTE MANAGEMENT FACILITY.
3. DAM DECOMMISSIONING TO BE COMPLETED AS PER THE DAM DECOMMISSIONING PROCEDURE AS CONTAINED WITHIN THE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN (CEMP).
4. ALL EXISTING SERVICES (INCLUDING SEPTIC TANKS) SHALL BE REMOVED FROM SITE.
5. ALL UNDERGROUND CABLES AND PIPES SHALL BE GRUBBED OUT AND CAPPED AT THE BOUNDARY OF THE SITE.

## Bar Scales

ALL OVERHEAD SERVICES SHALL BE REMOVED FROM WITHIN THE SITE BOUNDARY AND MADE SAFE AT THE TERMINATION LOCATION. ANY POLES SHALL BE REMOVED FROM THE SITE.

1. ALL CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 25 MPa U.O IN REINFORCED CONCRETE NOTES.
2. ALL KERBS, GUTTERS, DISH DRAINS AND CROSSINGS TO BE CONSTRUCTED ON MIN 100mm GRANULAR BASECOURSE COMPACTED TO MINIMUM 95% MODIFIED DRY DENSITY (AS 1289 S.2.1).
3. EXPANSION JOINTS (E-J) TO BE FORMED FROM 10mm COMPRESSIBLE CORP FILL BOARD FOR THE FULL DEPTH OF THE SECTION AND CUT TO PROFILE. EXPANSION JOINTS TO BE LOCATED AT DRAINAGE FITTS, 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.
4. WEAKENED PLANE JOINTS TO BE MIN 3mm WIDE AND LOCATED AT 3m CENTRES EXCEPT FOR KERBS WHERE THE WEAKENED PLANE JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLABS.
5. BROOM FINISH TO ALL RAMPED AND VEHICULAR CROSSINGS. ALL OTHER KERBING OR DISH DRAINS TO BE STEEL FLOAT FINISHED.
6. IN THE REPLACEMENT OF KERB AND GUTTER - IF REQUIRED EXISTING ROAD PAVEMENT IS TO BE SAWCUT 900mm U.O FROM THE LIP OF GUTTER, UPON COMPLETION OF THE NEW KERB AND GUTTER, NEW BASECOURSE AND SURFACE TO BE LAID 900mm WIDE U.O.

1. STORMWATER DESIGN CRITERIA:
  - (A) AVERAGE RECURRENCE INTERVAL:
    - 1:100 YEARS MAJOR STORM (OVERLAND FLOW)
    - 1:20 YEARS MINOR STORM (PIPED NETWORK)
  - (B) RAINFALL INTENSITIES:
    - TIME OF CONCENTRATION: 5 MINUTES
    - 1:100 YEARS= 2.19 mm/hr
    - 1:20 YEARS= 1.67 mm/hr
  - (C) RUNOFF COEFFICIENTS:
    - ROOF AREAS: C 100 =1.0
    - EXTERNAL PAVEMENTS: C 100 =1.0
2. PIPES 300 DIA. AND LARGER ARE TO BE REINFORCED CONCRETE (RCP) OR FIBRE REINFORCED CONCRETE (FRC) CLASS 3 APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINTS. U.N.O. ALL ROAD CROSSINGS TO BE CLASS 4 U.N.O.
3. PIPES UP TO 300 DIA SHALL BE SEWER GRADE uPVC WITH SOLVENT WELDED JOINTS.
4. EQUIVALENT STRENGTH VCP OR FRC PIPES MAY BE USED, SUBJECT TO THE APPROVAL OF PENRITH CITY COUNCIL.
5. ALL STORMWATER DRAINAGE LINES UNDER PROPOSED BUILDING SLABS TO BE uPVC PRESSURE PIPE GRADE 6. ENSURE ALL VERTICALS AND DOWNPIES ARE uPVC PRESSURE PIPE, GRADE 6 FOR A MIN OF 3.0m IN HEIGHT.
6. PIPES TO BE INSTALLED TO TYPE HS2 SUPPORT IN ACCORDANCE WITH AS 3725 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 S.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75)
7. ALL INTERNAL WORKS WITHIN PROPERTY BOUNDARIES ARE TO COMPLY WITH THE REQUIREMENTS OF AS 3500 3.1 (1998) AND AS/NZS 3500 3.2 (1998).

CONTINUED FROM BELOW

F. ANY DAMAGE TO THE STRUCTURAL INTEGRITY OF THE PRE-CAST PIT WALL BE REPAIRED AND STRUCTURALLY CERTIFIED TO THE SATISFACTION OF THE SUPERINTENDENT / PENRITH CITY COUNCIL.

G. ALL PRE-CAST PIT PENETRATIONS SHALL BE CUT SO THAT IT IS FLUSH WITH THE INTERNAL WALL.

H. PIPE JOINTING/SEALING OF PIPE PENETRATION TO BE WITH A NON-SHRINK MORTAR MIX, E.G. LANKO 702 DURABED OR SIMILAR APPROVED.

I. SUBSOIL DRAINAGE FLUSHING AND/OR INTERMEDIATE RISERS TO BE INSTALLED AT 40m CENTRES, AND AT ALL UPSTREAM ENDPOINTS

J. ANY ADDITIONAL PENETRATIONS TO ANY STRUCTURAL CONCRETE (E.G. STORMWATER PITS, CULVERTS, HEADWALLS ETC.) SHALL BE CORE DRILLED AND STEEL BLOWN OUT TO MANUFACTURERS REQUIREMENTS, IF REQUIRED.

1. STRIP VEGETATION AND TOPSOIL FROM EMBANKMENT AREA AND STOCKPILE TOPSOIL FOR LATER USE. CUT BACK AREA TO FIRM GROUND.
2. CONSTRUCT EMBANKMENT IN PRESENCE OF QUALIFIED AND EXPERIENCED GEOTECHNICAL ENGINEER IF NOT ROCK.
3. IN THE CASE WHERE THE EMBANKMENT AREAS SHOW ANY FAILURE, THE CONTRACTOR IS TO ENGAGE A QUALIFIED AND EXPERIENCED GEOTECHNICAL ENGINEER TO DETERMINE THE CAUSE AND METHOD OF RECTIFICATION
4. COMPACT CLAY STABILISED WITH GYPSUM (3% BY DRY MASS, MINIMUM) AS APPROVED BY A QUALIFIED AND EXPERIENCED GEOTECHNICAL ENGINEER INTO THE CUT-OFF TRENCH OF LAYERS NOT EXCEEDING 150mm LOOSE THICKNESS TO A DRY DENSITY EQUIVALENT TO 98% OF THAT DETERMINED BY STANDARD COMPACTION (AS 1289.5.1.1) AND AT A MOISTURE CONTENT OF -2% TO +2% OF OPTIMUM MOISTURE CONTENT.
5. GYPSUM STABILISED NATURAL SOILS EXPOSED IN EMBANKMENT AREA WITH MINIMUM 3% GYPSUM BY DRY MASS AND COMPACT AS FOR #4. ALL TO THE APPROVAL OF A QUALIFIED AND EXPERIENCED GEOTECHNICAL ENGINEER.
6. CONSTRUCT BODY OF EMBANKMENT WITH CLAYEY MATERIAL WON FROM SITE. COMPACT THE CLAYEY MATERIAL APPROVED BY A QUALIFIED AND EXPERIENCED GEOTECHNICAL ENGINEER IN LAYERS NOT EXCEEDING 150mm THICKNESS TO A DRY DENSITY EQUIVALENT TO 98% OF THAT DETERMINED BY STANDARD COMPACTION (AS 1289.5.1.1) AND AT A MOISTURE CONTENT OF -2% TO +2% OF OPTIMUM MOISTURE CONTENT. MOST IMPORTANTLY, IF SHRINKAGE CRACKS OCCUR, AS DIRECTED BY A QUALIFIED AND EXPERIENCED GEOTECHNICAL ENGINEER.
7. OVERFILL THE EMBANKMENT AND TRIM OFF, SO THAT THE ENTIRE BODY OF THE EMBANKMENT IS COMPACTED.
8. TRIM THE EMBANKMENTS BATTERS TO THE OVERFILLED MATERIAL, STABILISE THE UPSTREAM CLAY BATTERS WITH WELL MIXED GYPSUM (3% BY DRY MASS, MINIMUM) AND COMPACT TO MIN. 98% STD -2% TO +2% OMC.
9. PLACE ROCK RIP-RAP AS SHOWN.
10. RECOVER TOPSOIL FROM STOCKPILE AND SPREAD OVER EMBANKMENT AND CUT BATTERS (A THIN COVER OF TOPSOIL ONLY HAS BEEN NOMINATED). ONLY LIGHTLY TRACK-ROLL THE TOPSOIL AND THEN LANDSCAPE IN ACCORDANCE WITH THE LANDSCAPE AREA DRAWINGS.
11. WATER AND FERTILISE LANDSCAPE AS REQUIRED BY CLIMATIC CONDITIONS TO ENSURE THE LANDSCAPE IS SUCCESSFUL.
12. AT THE COMPLETION OF WORK WRITTEN CONFIRMATION AND CERTIFICATION IS TO BE PROVIDED FROM A QUALIFIED AND EXPERIENCED GEOTECHNICAL ENGINEER THAT THE EMBANKMENTS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THESE DRAWINGS.

1. THE CONTRACTOR IS RESPONSIBLE FOR ENGAGING A SUITABLY QUALIFIED EROSION AND SEDIMENT CONSULTANT FOR THE DURATION OF THE CONTRACT WITH THE EXPERTISE IN DESIGNING AND DOCUMENTING THE CONTROLS TO ALLOW THE INSTALLATION AND MAINTENANCE OF THE EROSION AND SEDIMENT CONTROLS. SUITABLE EROSION AND SEDIMENT CONTROLS SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR REQUIRED TO SUIT THE CONSTRUCTION STAGING
2. ALL WORK SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH
  - a. NSW DEPARTMENT OF HOUSING MANUAL "MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION", 4th EDITION, MARCH 2004.
  - b. LOCAL AUTHORITY REQUIREMENTS
  - c. EPA REQUIREMENTS
3. MAINTAIN THE EROSION CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT AND THE LOCAL AUTHORITY.
4. WHEN STORMWATER PITS ARE CONSTRUCTED, PREVENT SITE RUNOFF ENTERING UNLESS SEDIMENT FENCES ARE ERECTED AROUND PITS.
5. 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.

6. WHERE PRACTICAL, THE SOIL EROSION HAZARD ON THE SITE WILL BE KEPT AS LOW AS POSSIBLE. TO THIS END, WORKS SHOULD BE UNDERTAKEN / INSTALLED AS DIRECTED BY THE CONTRACTORS EROSION AND SEDIMENT CONTROL CONSULTANT.

CONTINUED ABOVE

7. DURING WINDY WEATHER, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.
8. FINAL SITE LANDSCAPING WILL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 20 WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.
9. 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.
10. 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.
11. 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.
12. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.

## OTHER MATTERS

13. ACCEPTABLE RECEPTORS WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER.
14. ANY EXISTING TREES WHICH FORM PART OF THE FINAL LANDSCAPING PLAN WILL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY:
  - (A) PROTECTING THEM WITH BARRIER FENCING OR SIMILAR MATERIALS INSTALLED OUTSIDE THE DRIP LINE
  - (B) ENSURING THAT NOTHING IS NAILED TO THEM
  - (C) PROHIBITING PAVING, GRADING, SEDIMENT WASH OR PLACING OF STOCKPILES WITHIN THE DRIP LINE EXCEPT UNDER THE FOLLOWING CONDITIONS.
    - (I) 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, WHICH EVER IS THE GREATER
    - (II) 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
    - (III) CARE IS TAKEN NOT TO CUT ROOTS UNNECESSARILY NOR TO COMPACT THE SOIL AROUND THEM.

SUITABLE EROSION AND SEDIMENT CONTROLS SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR THROUGHOUT ALL STAGES OF WORKS, THROUGHOUT THE FULL TERM OF THE CONTRACT, WHERE SHOWN ON A84 DRAWINGS OR WHERE DIRECTED BY THE SUPERINTENDENT OR PENRITH CITY 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 THEIR EROSION ND SEDIMENT CONSULTANT AND PROVIDED BY THE SUPERINTENDENT PRIOR TO CONSTRUCTION COMMENCEMENT.

SUCH CONTROLS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROTECTION OF THE ENVIRONMENT OPERATIONS ACT, PENRITH CITY 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.

1. WHERE EARTHWORKS ARE TO BE CONSTRUCTED ON OR AGAINST ANY EMBANKMENTS OR AGAINST ANY SLOPES AND THE EMBANKMENT/SLOPE IS STEEPER THAN 10(H):1(V) IN ANY DIRECTION, THE CONTRACTOR SHALL CUT TERRACES INTO THE SLOPE TO A MINIMUM DEPTH OF 300mm, EXCEPT WHERE SLOPES ARE STEEPER THAN 4(H):1(V) WHERE, MINIMUM DEPTH SHALL BE 600mm, TO ALLOW ADEQUATE KEY AND COMPACTION OF MATERIAL.
2. THE CONTRACTOR SHALL PRODUCE A MATERIAL TRACKING REGISTER FOR ALL IMPORT AND EXPORT MATERIAL INCLUDING DEMOLITION WASTE. FOR INSTANCES WHERE CONTAMINATED MATERIAL IS EXPORTED FROM THE SITE, THE CONTRACTOR SHALL ENSURE A CHAIN OF CUSTODY REPORT AND CERTIFICATES ARE PROVIDED FOR THE CONTAMINATED MATERIAL.

1. THE CONTRACTOR IS TO PROVIDE STRUCTURAL CERTIFICATION ON ALL STRUCTURAL ELEMENTS, INCLUDING DESIGN CERTIFICATION AND FINAL CONSTRUCTION CERTIFICATION. THIS INCLUDES:

- \* ALL RETAINING WALLS
- \* CULVERTS EXCLUDING BASE SLABS
- \* HEADWALLS
- \* STORMWATER STRUCTURES

ALL STRUCTURAL CERTIFICATES MUST BE PREPARED BY A SUITABLY QUALIFIED STRUCTURAL ENGINEER.

1. THESE DRAWINGS SHOULD BE READ IN CONJUNCTION WITH PENRITH CITY COUNCIL'S LATEST REVISION OF THE 'ENGINEERING CONSTRUCTION SPECIFICATION FOR CIVIL WORKS'
- 2.1. WHERE THERE IS A CONFLICT THE FOLLOWING IS TO OCCUR
- 2.2. NOTIFY THE DESIGN ENGINEER AND/OR SUPERINTENDENT
- 2.2. THE PENRITH CITY COUNCIL'S SPECIFICATION TAKES PRECEDENCE
3. REFER PELL'S ULLIVAN MEYINIK REPORT PSM3739-006S REV 6 (DATED 13 OCT 2020) FOR BULK EARTHWORKS SPECIFICATIONS.
4. REFER SITE IMAGE LANDSCAPE SPECIFICATION (CURRENT REVISION) FOR LANDSCAPE SPECIFICATION.

100mm on Original

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NOTES AND LEGENDS  
SHEET  
SHEET 1

Civil Engineers and Project Managers

**at&i**

Level 7, 153 Walker Street  
North Sydney NSW 2060  
ABN 96 130 882 405  
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[www.atl.net.au](http://www.atl.net.au)  
[info@atl.net.au](mailto:info@atl.net.au)

Status	FOR CONSTRUCTION	A1
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Project - Drawing No.	Issue
18-596-C8002	1



OVERALL SITEWORKS  
LEGEND - COMBINED

	EXISTING BOUNDARY
	EXISTING CONTOUR
	PROPOSED BOUNDARY
	PROPOSED EASEMENT
	FUTURE BOUNDARY
	BATTER
	PROPOSED SURFACE LEVE
	PROPOSED MAJOR CONTOUR (1.0m INTERVAL)
	PROPOSED MINOR CONTOUR (0.20m INTERVAL)
	KERB AND GUTTER (REFER PCC DWG. SD1003/1)
	KERB AND TOE (REFER DWG. C8016)
	MOUNTABLE KERB (REFER PCC DWG. SD1003/2)
	MOUNTABLE KERB WITH EXTENDED BACK (REFER PCC DWG. SD1003/2)
	MOUNTABLE KERB WITH EXTENDED BACK (REFER DETAIL A DWG. C8017)
	CONCRETE DISH DRAIN (REFER DETAIL A DWG. C8017)
	PRAM RAMP (REFER PCC DWG. SD1002)
	VEHICLE CROSSOVER (REFER PCC DWG. SD1004)
	STORMWATER BOX CULVERT WITH NUMBER OF SECTION
	UPSTREAM STORMWATER DIVERSION BOX CULVERT WITH NUMBER OF SECTION
	SPECIAL STORMWATER CULVERT SECTION
	STORMWATER PIPE
	UPSTREAM STORMWATER DIVERSION PIPE
	KERB INLET PIT (REFER PCC DWG. SD2001 U.N.O.)
	SURFACE INLET PIT (REFER PCC DWG. SD2002 U.N.O)
	JUNCTION PIT (REFER PCC DWG. SD2002 U.N.O)
	LIMIT OF WORKS
	SUBSOIL DRAINS WITH FLUSHING POINTS SUBSOIL DRAINAGE FLUSHING AND/OR INTERMEDIATE RISERS TO BE INSTALLED AT 40m CENTRES, AND AT ALL UPSTREAM END POINTS PER PCC SD2004
	SUBSOIL DRAINS BENEATH PAVEMENT REFER DETAIL DWG. C8017
	GRASS LINED CATCH DRAIN REFER DWG C8016
	PROPOSED GRAVITY SEWER REFER QALCHEK DRAWINGS FOR DETAILS
	PROPOSED GRAVITY SEWER MANHOLE REFER QALCHEK DRAWINGS FOR DETAILS
	PROPOSED GRAVITY SEWER MAINTENANCE SHAFT REFER QALCHEK DRAWINGS FOR DETAILS
	PROPOSED STREET LIGHT REFER EDGEWATER DRAWINGS FOR DETAILS
	SERVICE / ITEM TO BE REMOVED
	PROPOSED RIP RAP SCOUR PROTECTION

CONSTRUCTION TOLERANCES

BULK EARTHWORKS		
EARTHWORKS	-50mm / +0mm	OF FINISHED SURFACE LEVEL (AFTER COMPACTION AND TRIMMING)
STORMWATER		
PIPES/CULVERTS	WITHIN 20mm	OF THE DESIGN INVERT LEVEL AT ANY POINT
PIPES/CULVERTS	WITHIN 100mm	OF THE PLAN POSITION SHOWN ON THE DRAWINGS OR SPECIFIED AT ANY POINT
HEADWALLS	WITHIN 20mm	OF THE DESIGN INVERT LEVEL AT ANY POINT
HEADWALLS	WITHIN 100mm	OF THE PLAN POSITION SHOWN ON THE DRAWINGS OR SPECIFIED AT ANY POINT
CHAMBERS	WITHIN 20mm	OF THE INVERT LEVEL SHOWN ON THE DRAWINGS
CHAMBERS	WITHIN 200mm	LONGITUDINALLY OF THE PLAN POSITION, WITH REFERENCE TO THE CONTROL LINE FOR THE ROAD SHOWN ON THE DRAWINGS
LINTELS	AS PER THE TOLERANCES SPECIFIED FOR THE ADJOINING MATERIAL	
COVERS	AS PER THE TOLERANCES SPECIFIED FOR THE ADJOINING MATERIAL	
GRATES	AS PER THE TOLERANCES SPECIFIED FOR THE ADJOINING MATERIAL	
OPEN DRAINS	WITHIN 50mm	OF THE DESIGN LEVEL AT ANY POINT PROVIDED THAT THERE IS A CONTINUOUS DOWNGRADE (WITHOUT PONDING) IN THE DIRECTION OF FLOW NOT LESS THAN 0.5% AT ANY POINT
PAVEMENT / ACCESS TRACKS		
SUBBASE	-10mm / +10mm	OF PAVEMENT COURSE THICKNESS (AFTER COMPACTION & TRIMMING)
SUBBASE	-10mm / +0mm	OF FINISHED SURFACE LEVEL (AFTER COMPACTION AND TRIMMING)
SUBBASE	-5mm / +5mm	ALONG THE FINISHED SURFACE (LAID IN ANY DIRECTION) OVER A LENGTH OF 3 METRES
BASECOURSE	-0mm / +20mm	OF PAVEMENT COURSE THICKNESS (AFTER COMPACTION & TRIMMING)
BASECOURSE	-0mm / +10mm	OF FINISHED SURFACE LEVEL (AFTER COMPACTION AND TRIMMING)
BASECOURSE	-5mm / +5mm	ALONG THE FINISHED SURFACE (LAID IN ANY DIRECTION) OVER A LENGTH OF 3 METRES
SEAL	-0mm / +10mm	OF PAVEMENT FINISHED SURFACE LEVEL (AFTER ROLLING AGGREGATE)
SEAL	-5mm / +10mm	ALONG THE FINISHED SURFACE OVER THE CARRIAGEWAY WIDTH AT THE DATE OF PRACTICAL COMPLETION
SEAL	SURFACE OF THE COURSE, INCLUDING LONGITUDINAL AND TRANSVERSE JOINTS, MUST NOT POND WATER.	
ASPHALT	-0mm / +10mm	OF PAVEMENT FINISHED SURFACE LEVEL (AFTER COMPACTION)
ASPHALT	-5mm / +5mm	ALONG THE FINISHED SURFACE OVER THE CARRIAGEWAY WIDTH AT THE DATE OF PRACTICAL COMPLETION
ASPHALT	-8mm / +8mm	ALONG THE FINISHED SURFACE OVER THE CARRIAGEWAY WIDTH AT THE COMPLETION OF THE DEFECT LIABILITY PERIOD
ASPHALT	SURFACE OF THE COURSE, INCLUDING LONGITUDINAL AND TRANSVERSE JOINTS, MUST NOT POND WATER.	

PAVEMENT / ACCESS TRACKS		
CONCRETE		
KERB	-5mm / +5mm	ALONG THE TOP OF KERB OVER A LENGTH OF 5 METRES
KERB	-5mm / +5mm	ALONG THE FACE OF KERB OVER A LENGTH OF 5 METRES
PATH	-0mm / +10mm	OF FOOTPATH/SHARED PATH FINISHED SURFACE LEVEL
PATH	SURFACE OF THE PATH, INCLUDING JOINTS, MUST NOT POND WATER.	
VERGE		
TURF	-10mm / +0mm	OF PAVEMENT FINISHED SURFACE LEVEL (AFTER COMPACTION) TO THE ADJOINING MATERIAL (FOOTPATHS, KERBS, ETC)
MULCH	-10mm / +0mm	OF PAVEMENT FINISHED SURFACE LEVEL (AFTER COMPACTION) TO THE ADJOINING MATERIAL (FOOTPATHS, KERBS, ETC)
RETAINING / NOISE WALLS		
WALL	-20mm / +20mm	FROM ANY POINT ON THE WALL THE LEVEL MUST NOT DEVIATE FROM THAT SPECIFIED
WALL	-10mm / +10mm	INCLINATION OF THE FACE OF THE COMPLETED WALL MUST NOT DEVIATE FROM THE SPECIFIED INCLINATION PER METER HEIGHT (BLOCK WALL)
WALL	-5mm / +0mm	INCLINATION OF THE FACE OF THE COMPLETED WALL MUST NOT DEVIATE FROM THE SPECIFIED INCLINATION PER METER HEIGHT (PANEL WALL)
WALL	-20mm / +20mm	FLATNESS OF THE FACE OF THE WALL MUST BE SUCH THAT THE MAXIMUM DEVIATION FROM A 4.5 M STRAIGHT EDGE

TOLERANCE FOR EMBANKMENT BATTERS

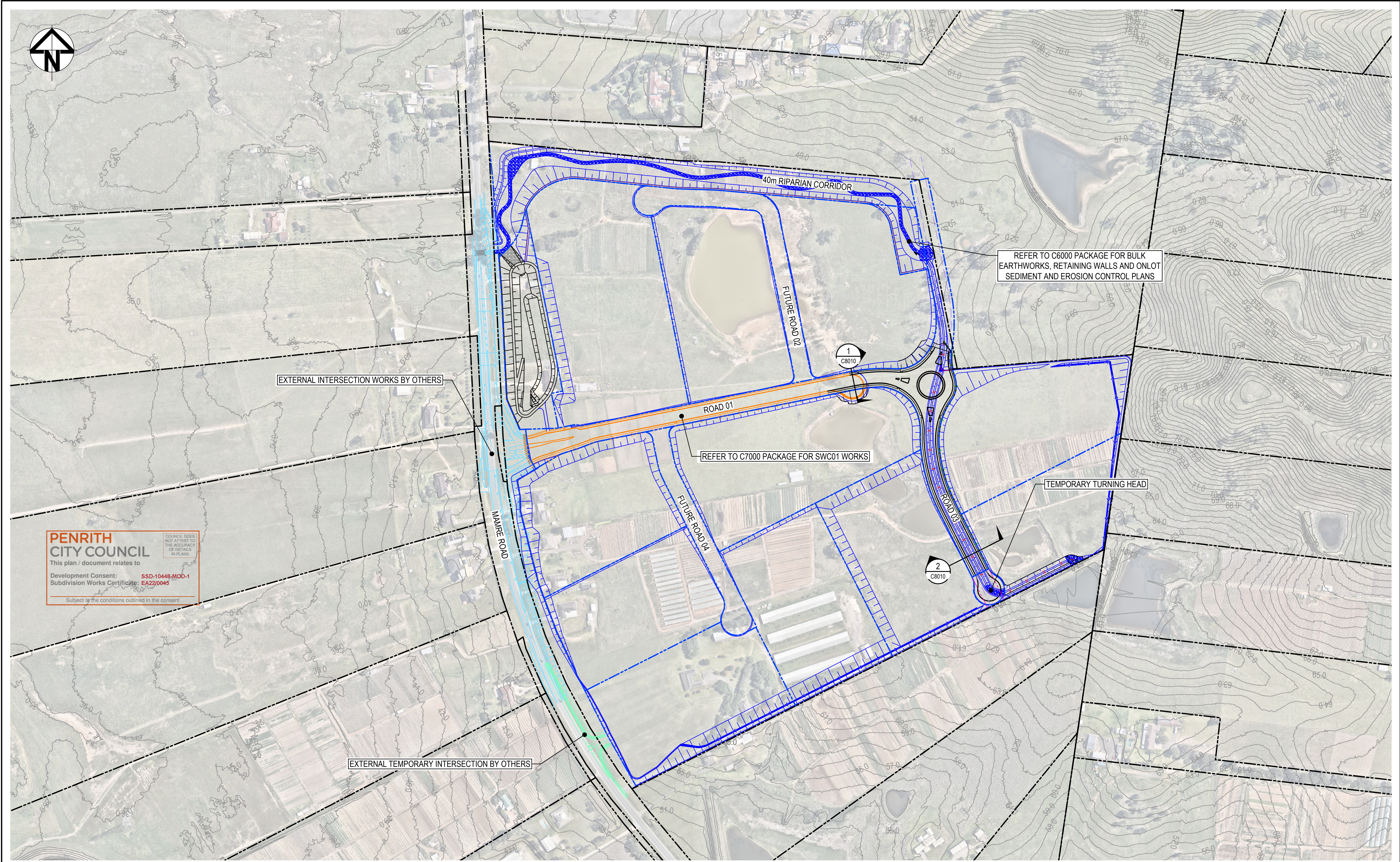
LOCATION	TOLERANCE (mm)	
	SLOPE 1H:1V OR FLATTER	SLOPE STEEPER THAN 1H:1V
AT LEVEL OF TOP OF FORMATION/ UNDERSIDE OF PAVEMENT	+0/-150	+0/-150
BETWEEN TOP OF FORMATION AND 1m BELOW TOP OF FORMATION	+150/-150	+150/-150
BEYOND 1m BELOW TOP OF FORMATION	+300/-300	+300/-300
REFER TO TfNSW R44 SPECIFICATION		

**PENRITH**  
**CITY COUNCIL**  
This plan / document relates to  
Development Consent: **SSD-10448-MOD-1**  
Subdivision Works Certificate: **EA22/0045**  
Subject to the conditions outlined in the consent

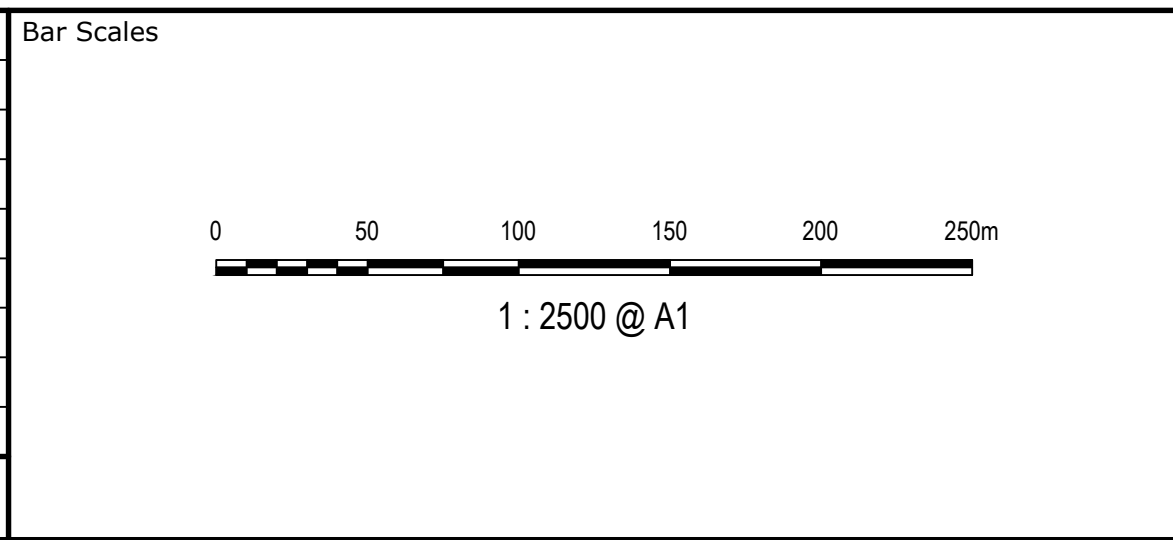
COUNCIL DOES NOT ATTEST TO THE ACCURACY OF DETAILS IN PLANS

			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 <div></div>	Scales	Drawn	JB/MH	Project ASPECT INDUSTRIAL ESTATE MAMRE ROAD, KEMPS CREEK STAGE 1B	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>		
							Designed	JB/MH				
						Grid	GDA2020	Checked			DS	
						Height Datum	AHD	Approved			DS	
						<div></div>						
			Title				NOTES AND LEGENDS SHEET SHEET 2		Status FOR CONSTRUCTION		A1	
							Project - Drawing No. 18-596-C8003				Issue 1	
1	ISSUED FOR CONSTRUCTION		17-11-22									
A	ISSUED FOR SWC APPROVAL		20-10-22									
Issue	Description		Date									





1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22
Issue	Description	Date



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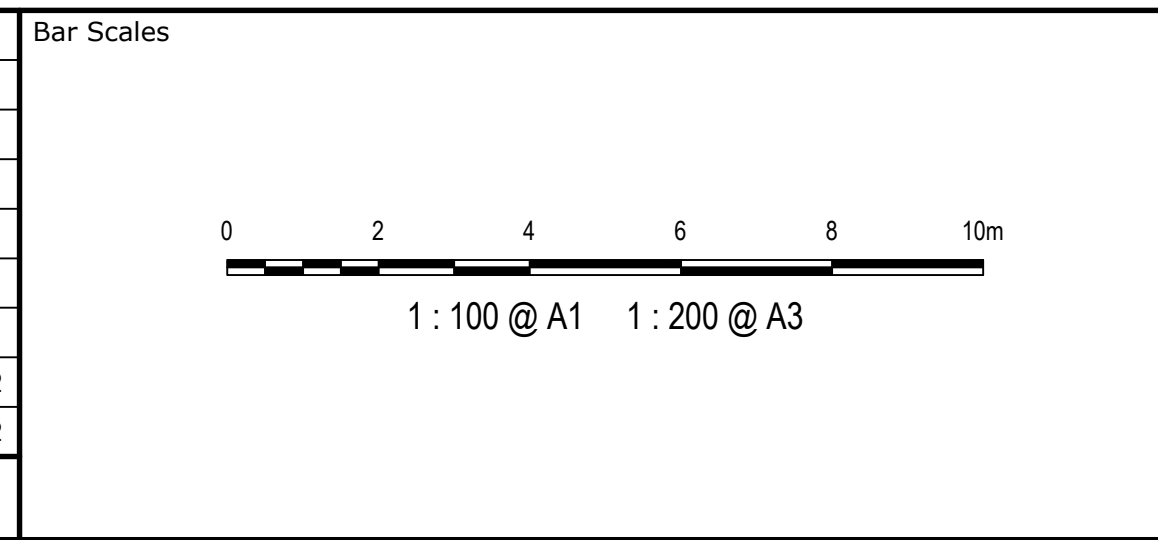
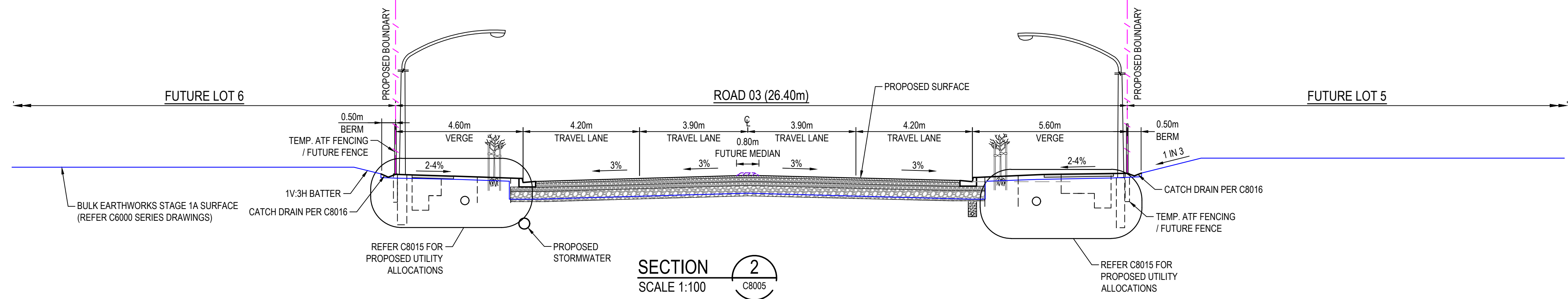


Project  
ASPECT INDUSTRIAL ESTATE  
MAMRE ROAD,  
KEMPS CREEK  
STAGE 1B

Title  
GENERAL ARRANGEMENT  
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 CONSTRUCTION	A1
Project - Drawing No.	18-596-C8005	Issue 1






Client

The Mirvac logo consists of a stylized, dark blue graphic above the word "mirvac" in a lowercase, sans-serif font. The graphic is composed of four chevron-like shapes arranged in a row, with the first and last shapes pointing outwards and the two in the middle pointing inwards towards each other.

Scales  1:100	Drawn	JB/MH	
	Designed	JB/MH	
Grid	GDA2020	Checked	DS
Height Datum	AHD	Approved	DS


GDA2020

Project	ASPECT INDUSTRIAL ESTATE MAMRE ROAD, KEMPS CREEK STAGE 1B
Title	TYPICAL SECTIONS

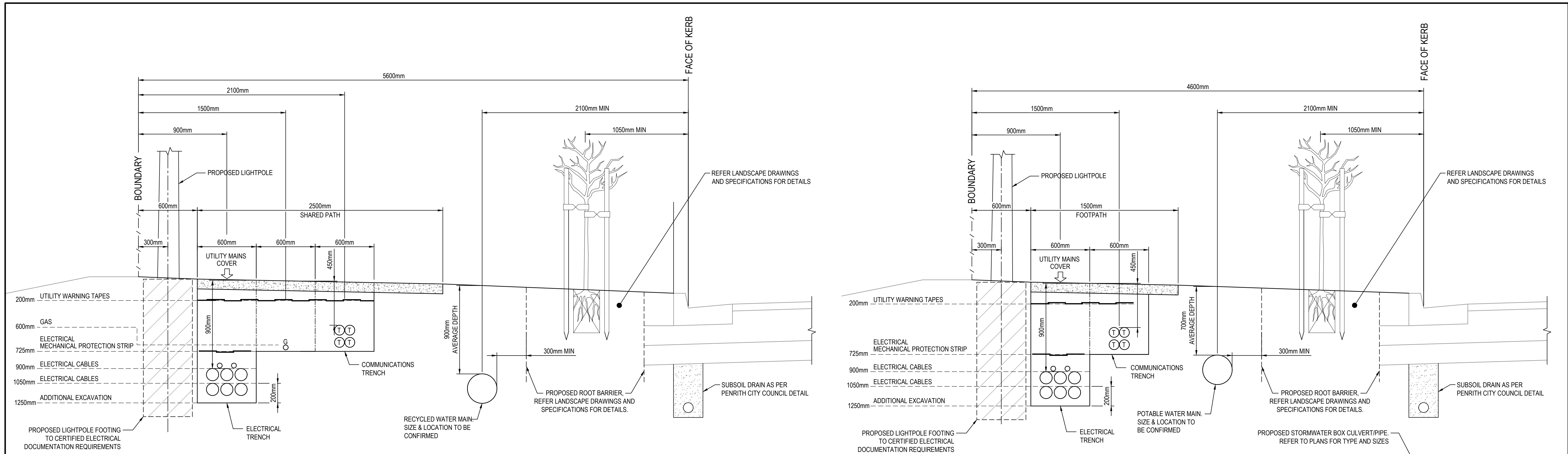
		<p>Civil Engineers and Project Managers</p> <p>Level 7, 153 Walker Street North Sydney NSW 2060</p> <p>ABN 96 130 882 405</p> <p>Tel: 02 9439 1777</p> <p>Fax: 02 9923 1055</p> <p><a href="http://www.atl.net.au">www.atl.net.au</a> <a href="mailto:info@atl.net.au">info@atl.net.au</a></p>
<p>Status</p> <p><b>FOR CONSTRUCTION</b></p>	<p><b>A1</b></p>	
<p>Project - Drawing No.</p> <p><b>18-596-C8010</b></p>	<p>Issue</p> <p><b>1</b></p>	





F:\18-596 Mamre Road\6.0 Drgs\Civil\Final\CC\8000 STAGE 1B CC\18-596-C8012.dwg



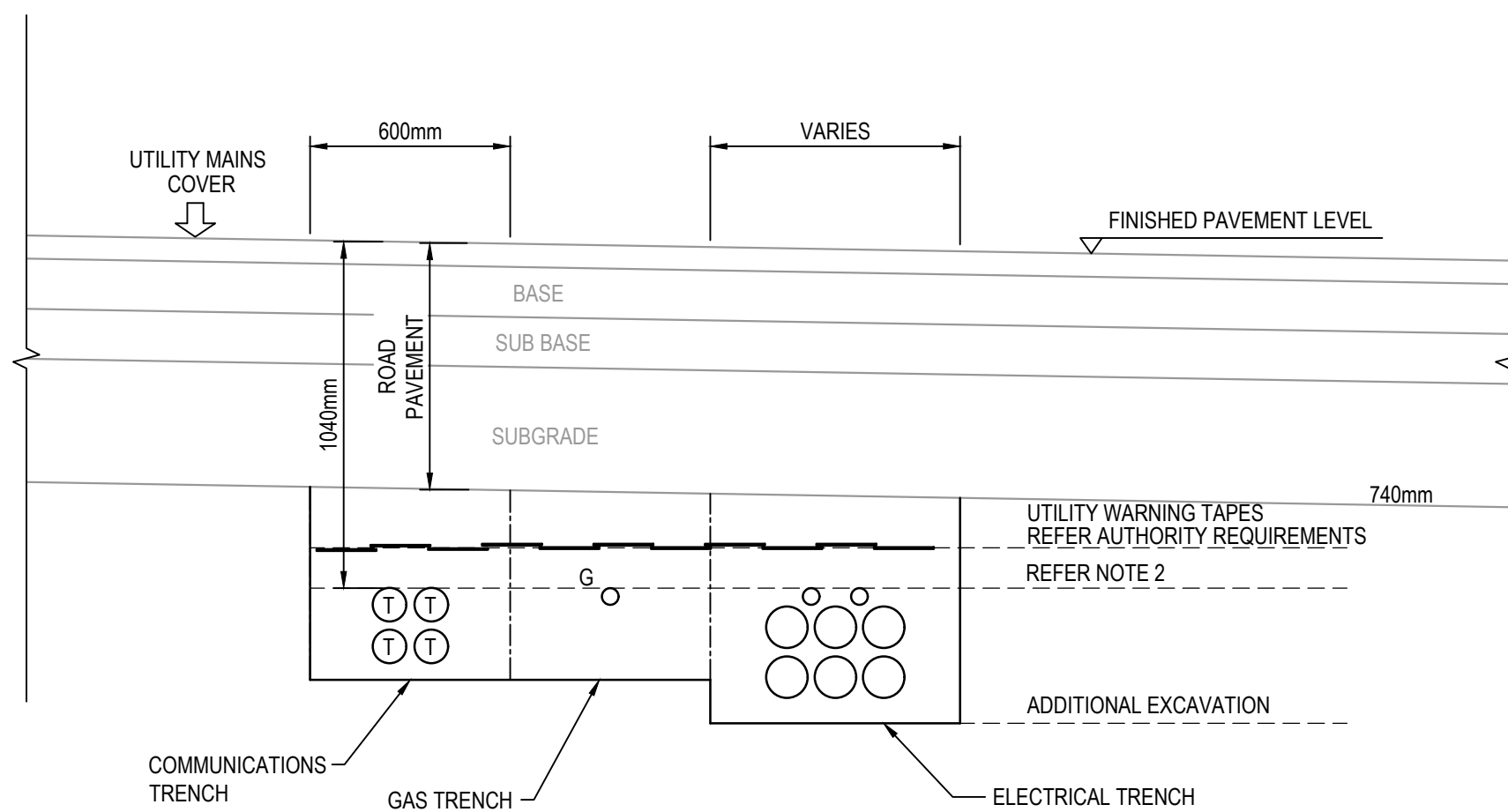


**TYPICAL SERVICES TRENCH DETAIL**  
**ROAD 01 & ROAD 03 (SHARED PATH VERGE)**

SCALE 1:20  
NOTE: FINAL NUMBER, SIZING AND SPACING OF CONDUITS AND PROTECTION STRIPS SUBJECT TO CERTIFIED ELECTRICAL AND COMMUNICATIONS AUTHORITY DOCUMENTATION.

**TYPICAL SERVICES TRENCH DETAIL**  
**ROAD 01 & ROAD 03 (FOOTPATH VERGE)**

SCALE 1:20  
NOTE: FINAL NUMBER, SIZING AND SPACING OF CONDUITS AND PROTECTION STRIPS SUBJECT TO CERTIFIED ELECTRICAL AND COMMUNICATIONS AUTHORITY DOCUMENTATION.



**TYPICAL SERVICES TRENCH DETAIL (ROAD CROSSING)**

- NOTES
- 1: FINAL NUMBER, SIZING AND SPACING OF CONDUITS AND PROTECTION STRIPS SUBJECT TO CERTIFIED ELECTRICAL AND COMMUNICATIONS AUTHORITY DOCUMENTATION.
  - 2: UTILITY DEPTHS TO BE INSTALLED IN ACCORDANCE WITH AUTHORITY REQUIREMENTS OR MINIMUM 300mm BELOW SUBGRADE, WHICHEVER IS THE MORE ONEROUS.

Issue	Description	Date
1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22

Bar Scales
0 500 1000 1500 2000mm
1 : 20 @ A1 1 : 40 @ A3

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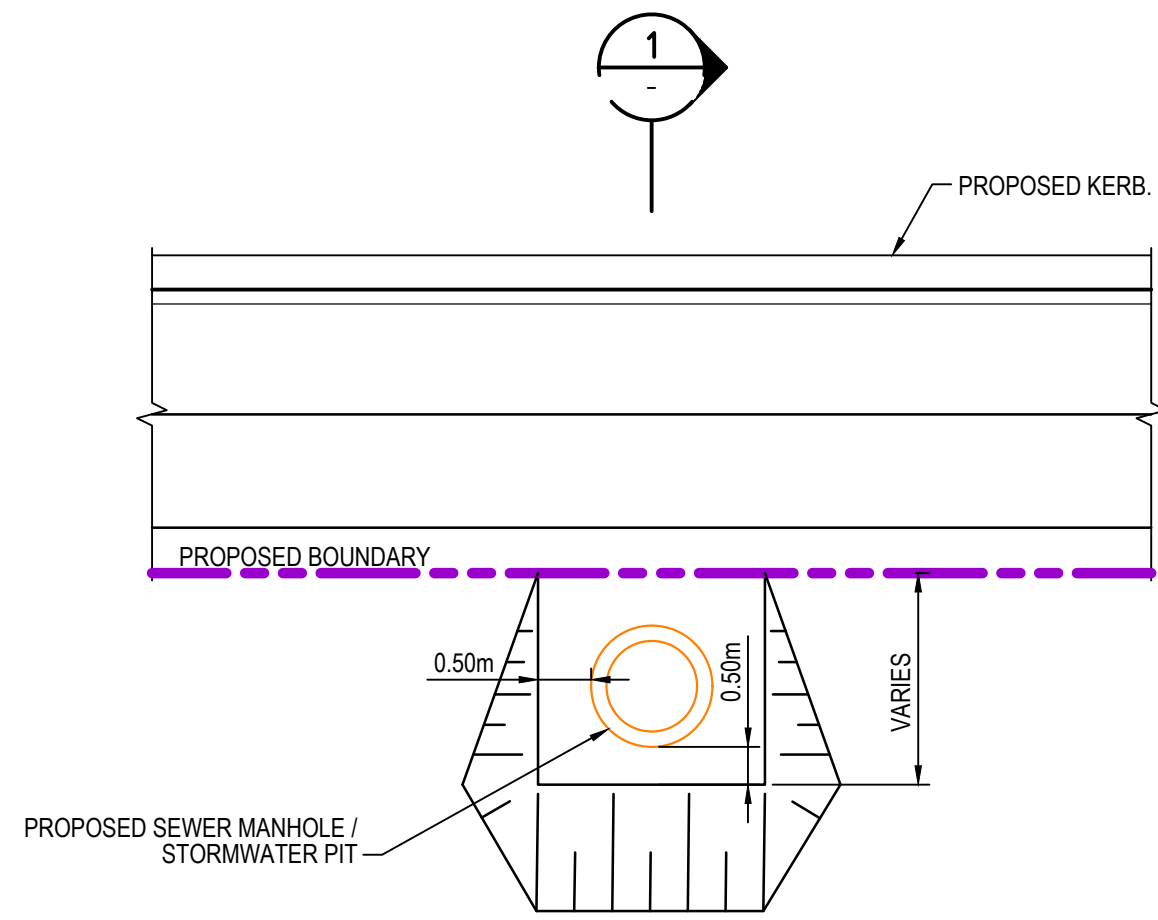
Scales	1:20
Grid	GDA2020
Height Datum	AHD
Drawn	JB/MH
Designed	JB/MH
Checked	DS
Approved	DS

Project	ASPECT INDUSTRIAL ESTATE MAMRE ROAD, KEMPS CREEK STAGE 1B
Title	TYPICAL DETAILS SHEET 1

Civil Engineers and Project Managers	at&l
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 CONSTRUCTION
Project - Drawing No.	18-596-C8015
Issue	1

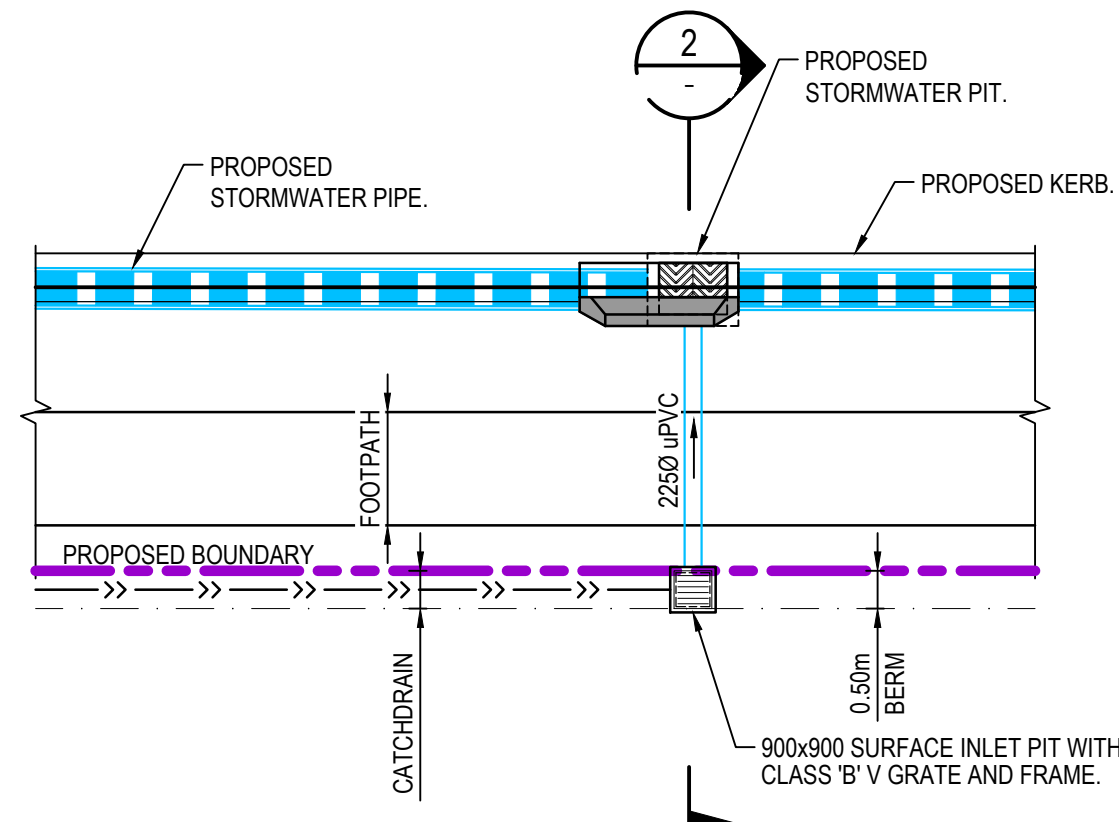
**PENRITH CITY COUNCIL**  
This plan / document relates to  
Development Consent: **SSD-10448-MOD-1**  
Subdivision Works Certificate: **EA22/0045**  
Subject to the conditions outlined in the consent





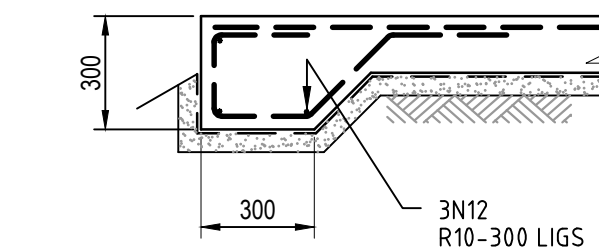
SEWER MANHOLE AND STORMWATER PIT IN BATTER DETAIL

1 : 100



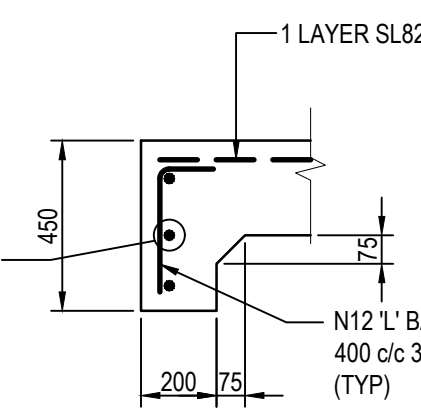
TYPICAL BATTER CATCH DRAIN PIT DETAIL

1 : 100



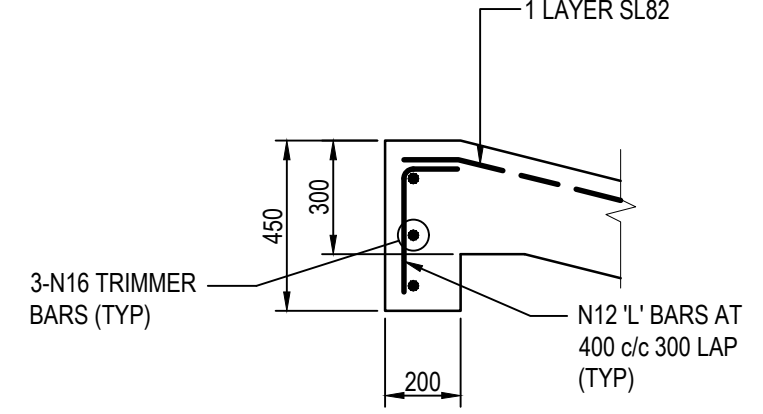
THICKENED EDGE DETAIL (TE)

SCALE 1:20



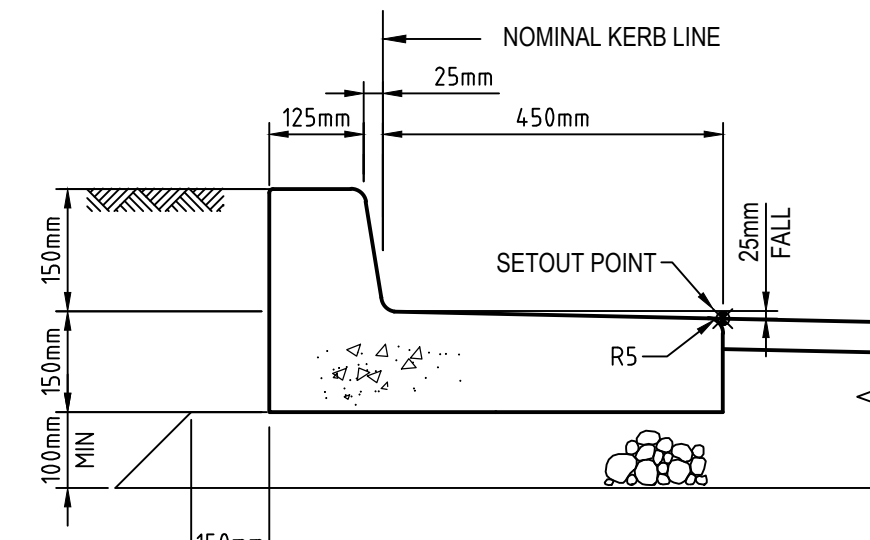
EDGE BEAM DETAIL 1 (EB)

SCALE 1:20



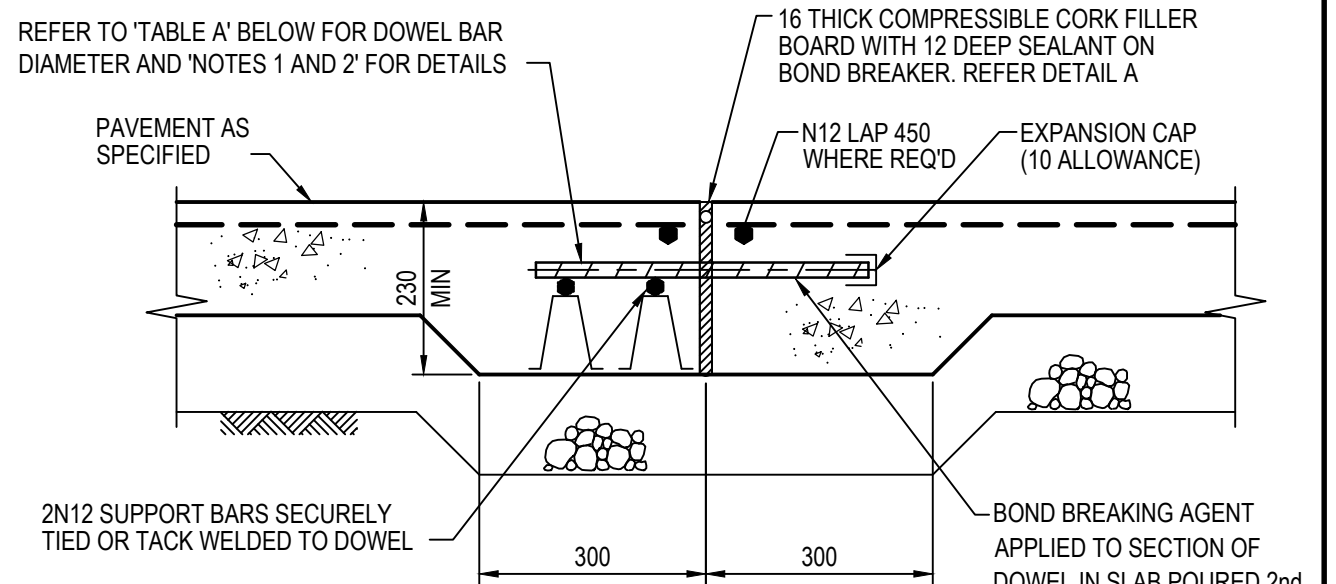
EDGE BEAM DETAIL 2 (EB)

SCALE 1:20



KERB AND TOE (K&T)

SCALE 1:10



DOWELLED EXPANSION JOINT (DEJ)

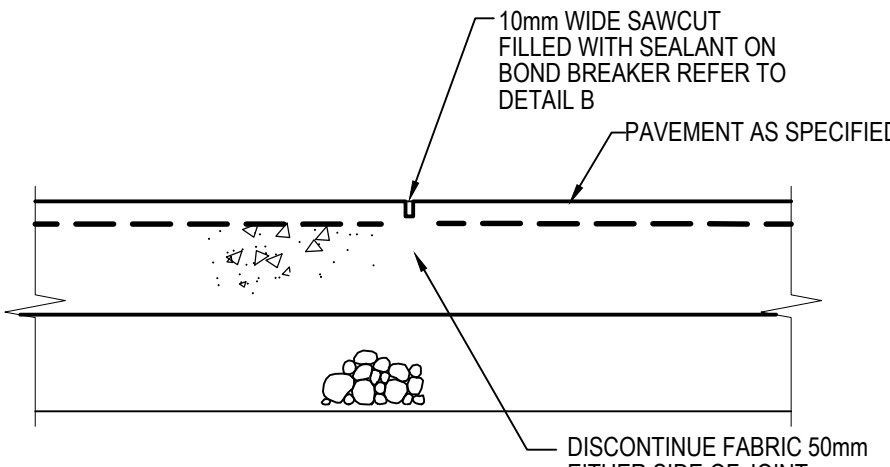
SCALE 1:10

NOTE

1. DOWEL BARS ARE TO BE PLAIN ROUND STEEL BARS OF GRADE 250N AND 450mm LONG PLACED AT 300mm CENTRES.
2. MORE THAN HALF OF THE DOWEL SHOULD BE COATED WITH DEBONDING AGENT TO ENSURE EFFECTIVE DEBONDING FROM THE CONCRETE ON THAT SIDE OF THE JOINT.

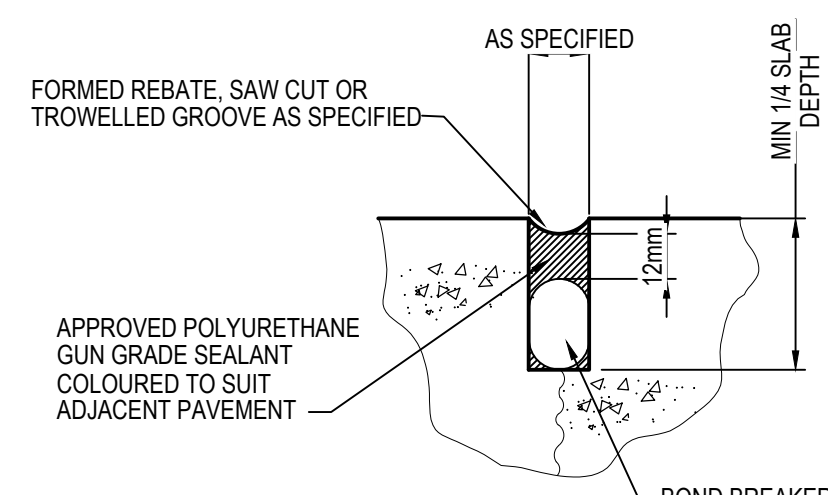
TABLE A

SLAB THICKNESS	DOWEL DIA.
125<D≤160	24
160<D≤200	28
200<D≤250	32
D>250	36



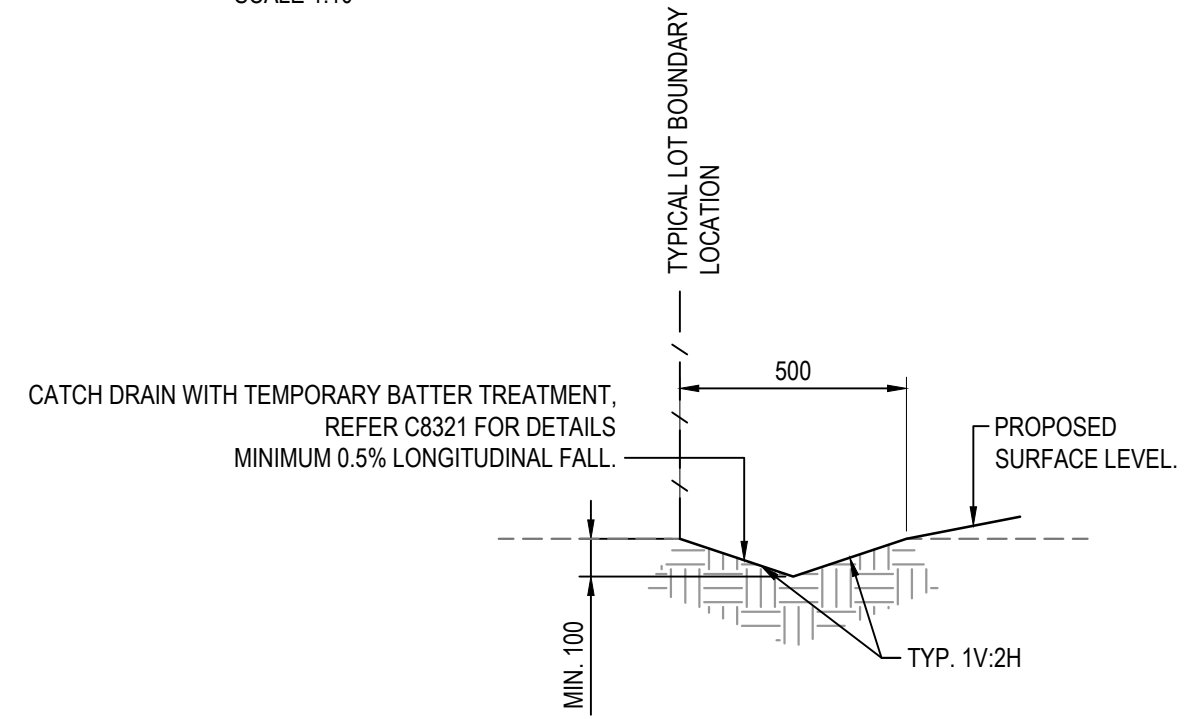
SAWN JOINT (SJ)

SCALE 1:10



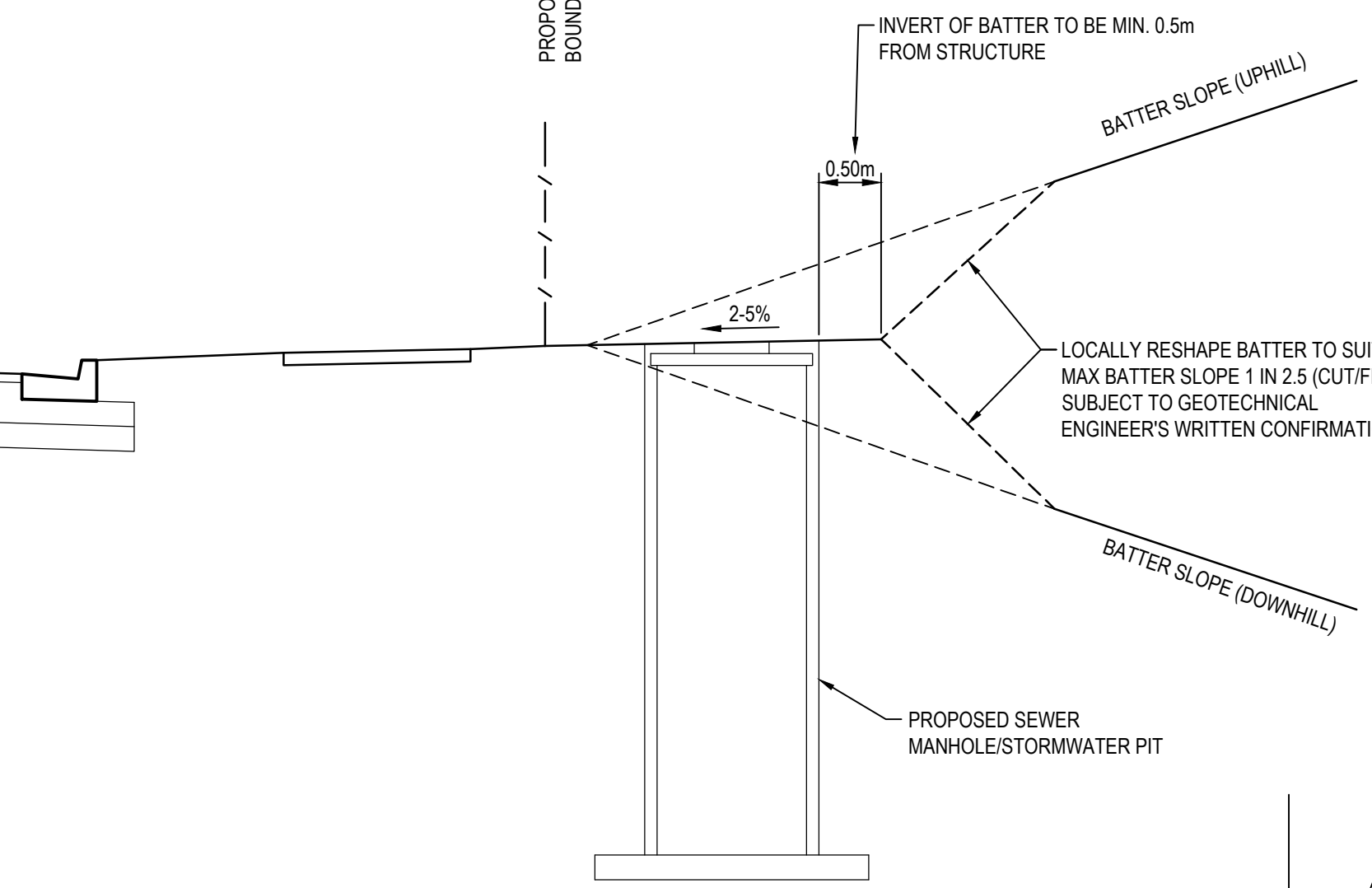
DETAIL B

N.T.S.



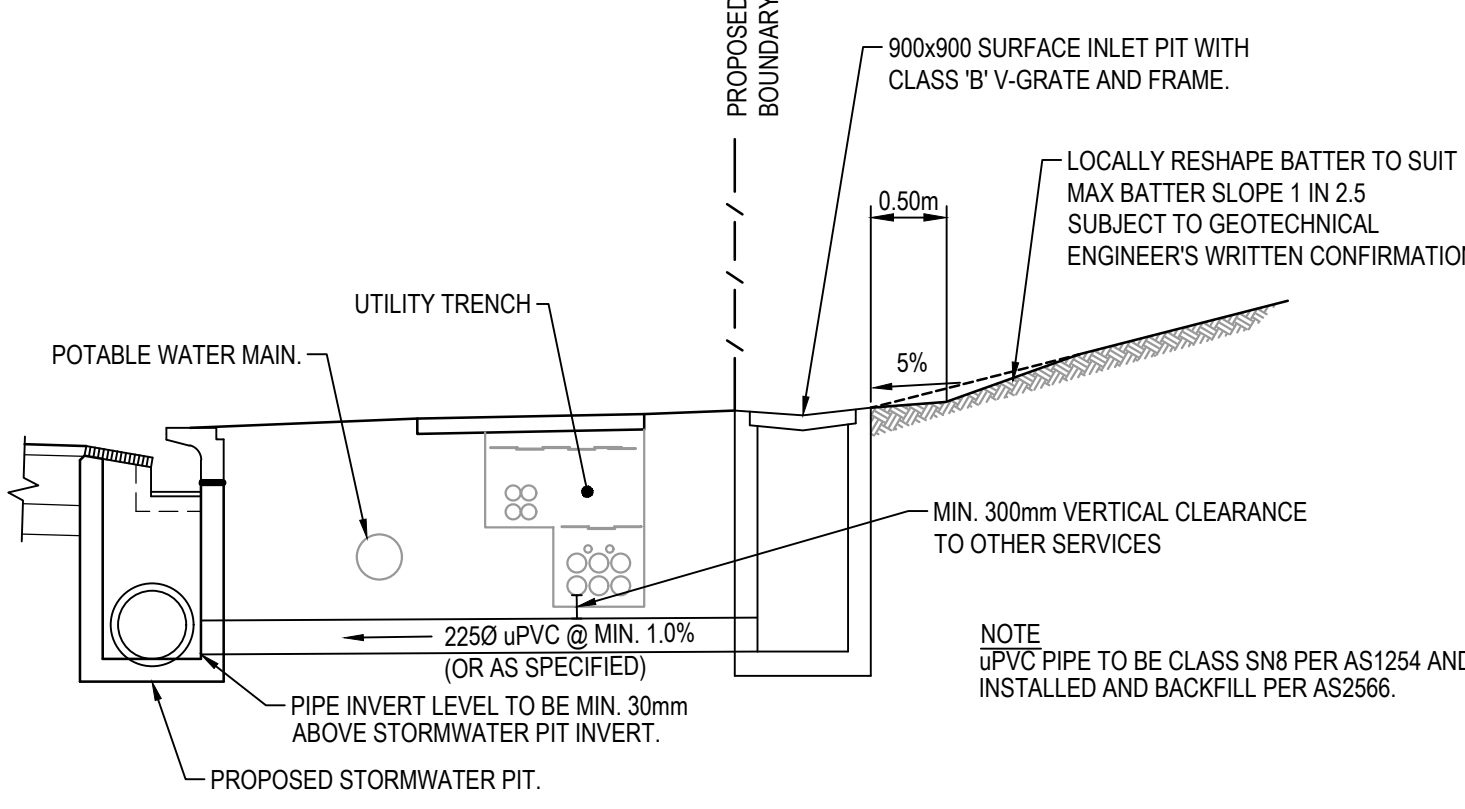
TYPICAL CATCH DRAIN DETAIL

SCALE 1:20



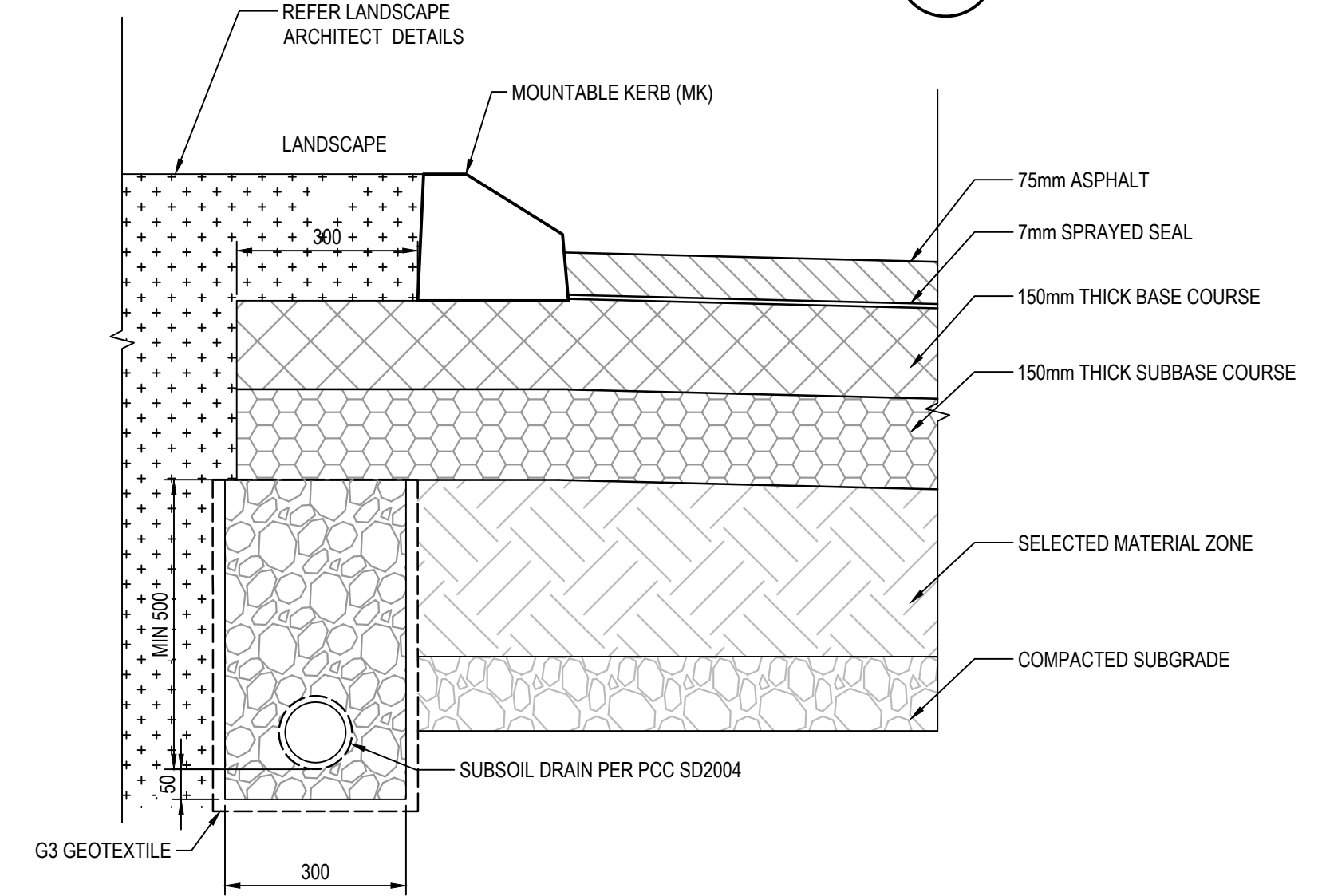
SECTION 1

1 : 50



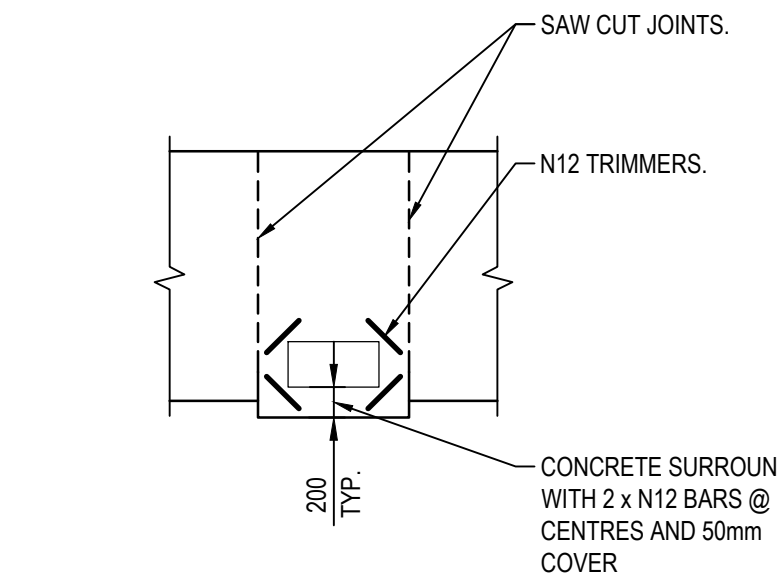
SECTION 2

1 : 50



TYPICAL SECTION THROUGH RAISED TRAFFIC ISLAND WITH LANDSCAPE

SCALE 1:10



SERVICE COVER IN FOOTPATH

TYPICAL DETAIL

SCALE 1:50

**PENRITH CITY COUNCIL**  
This plan / document relates to  
Development Consent: **SSD-10448-MOD-1**  
Subdivision Works Certificate: **EA22/0045**  
Subject to the conditions outlined in the consent

Issue	Description	Date
1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22

Bar Scales	0 100 200 400 600 800 1000mm
1 : 10 @ A1	1 : 20 @ A3
0 500 1000 1500 2000mm	
1 : 20 @ A1	1 : 40 @ A3
0 1 2 3 4 5m	
1 : 50 @ A1	1 : 100 @ A3
0 2 4 6 8 10m	
1 : 100 @ A1	1 : 200 @ A3

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Scales	AS SHOWN
Grid	GDA2020
Height Datum	AHD
Drawn	JB/MH
Designed	JB/MH
Checked	DS
Approved	DS

Project	ASPECT INDUSTRIAL ESTATE MAMRE ROAD, KEMPS CREEK STAGE 1B
Title	TYPICAL DETAILS SHEET 2

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 CONSTRUCTION
Project - Drawing No.	18-596-C8016
Issue	1



The diagram illustrates the cross-section of a road pavement structure. The layers, from top to bottom, are:

- 75mm WEARING COURSE AC14 (A15E)
- 7mm SPRAYED SEAL (A15E)
- 150mm UNBOUND BASECOURSE (R71, TNSW3051, E=350 MPa)
- 150mm UNBOUND SUB-BASECOURSE (R71, TNSW3051, E=250 MPa)
- 370mm SELECTED MATERIAL ZONE
- COMPACTED SUBGRADE

A detail view of a subsoil pipe is shown, consisting of:

- NO FINES CONCRETE (RMS3222) ENCLOSED IN GEOTEXTILE FABRIC
- 100mm DIA. CLASS 400 SUBSOIL PIPE PER PCC SD2004
- MIN 300 (vertical dimension)
- 300 (horizontal dimension)
- 100 (horizontal dimension)

Technical drawing of a concrete roundabout apron, showing cross-section and plan views with detailed annotations.

**Cross-section details:**

- Top Surface:** 2000 units wide.
- Left Side:** 800 units wide, 10 units high, 160 units wide, 610 units wide, 232 units high.
- Right Side:** 1020 units wide, 500 units wide, 500 units wide, 100 units high, 150 units high, 300 units wide.
- Base:** 175mm THICKNESS SUB-BASECOURSE DGS40.
- Reinforcement:** N16 TIE BARS 600 LONG @ 900 cts.
- Aggregate:** 10 OR 20 NOM. SIZE AGGREGATE FILTER MATERIAL WRAPPED IN GEOTEXTILE FABRIC.
- Drainage:** 100mm DIA. SUBSOIL DRAIN PER PCC SD2014.
- Geotextile:** G3 GEOTEXTILE.
- Joint Kerb:** MOUNTABLE KERB TYPE C - MK(C).
- Sealant:** 16 THICK COMPRESSIBLE CORK FILLER BOARD WITH 12 DEEP SEALANT ON BOND BREAKER, REFER DETAIL 'A'.
- Concrete:** 250mm THICKNESS N32 CONCRETE (2 LAYERS SL92 MESH).
- Grades:** 1 IN 15, 1 IN 12.
- Proposed Surface Level:** PROPOSED SURFACE LEVEL OF LOW MAINTENANCE LANDSCAPING. REFER LANDSCAPE DOCUMENTATION FOR DETAILS.
- Landscaping:** FOR LANDSCAPING OF ROUNDABOUT CENTRE ANNULUS, REFER LANDSCAPE DOCUMENTATION FOR DETAILS.

**Plan View details:**

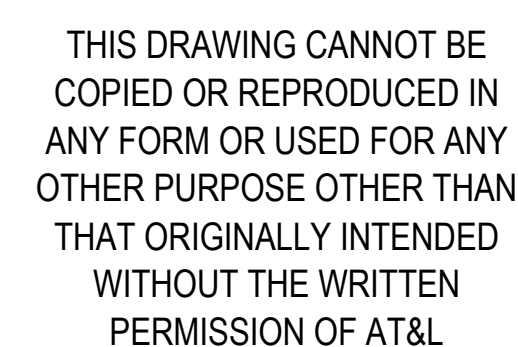
- Left Side:** 500 units wide, 50 units high, 300 units wide.
- Right Side:** 300 units wide, 50 units high, 300 units wide.
- Reinforcement:** N16 TIE BARS 600 LONG @ 900 cts.
- Aggregate:** 10 OR 20 NOM. SIZE AGGREGATE FILTER MATERIAL WRAPPED IN GEOTEXTILE FABRIC.
- Drainage:** 100mm DIA. SUBSOIL DRAIN PER PCC SD2014.
- Geotextile:** G3 GEOTEXTILE.
- Joint Kerb:** MOUNTABLE KERB TYPE C - MK(C).
- Sealant:** 16 THICK COMPRESSIBLE CORK FILLER BOARD WITH 12 DEEP SEALANT ON BOND BREAKER, REFER DETAIL 'A'.
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- Landscaping:** FOR LANDSCAPING OF ROUNDABOUT CENTRE ANNULUS, REFER LANDSCAPE DOCUMENTATION FOR DETAILS.

**Detail B:**


- Top Surface:** 2000 units wide.
- Left Side:** 800 units wide, 10 units high, 160 units wide, 610 units wide, 232 units high.
- Right Side:** 1020 units wide, 500 units wide, 500 units wide, 100 units high, 150 units high, 300 units wide.
- Base:** 175mm THICKNESS SUB-BASECOURSE DGS40.
- Reinforcement:** N16 TIE BARS 600 LONG @ 900 cts.
- Aggregate:** 10 OR 20 NOM. SIZE AGGREGATE FILTER MATERIAL WRAPPED IN GEOTEXTILE FABRIC.
- Drainage:** 100mm DIA. SUBSOIL DRAIN PER PCC SD2014.
- Geotextile:** G3 GEOTEXTILE.
- Joint Kerb:** MOUNTABLE KERB TYPE C - MK(C).
- Sealant:** 16 THICK COMPRESSIBLE CORK FILLER BOARD WITH 12 DEEP SEALANT ON BOND BREAKER, REFER DETAIL 'A'.
- Concrete:** 250mm THICKNESS N32 CONCRETE (2 LAYERS SL92 MESH).
- Grades:** 1 IN 15, 1 IN 12.
- Proposed Surface Level:** PROPOSED SURFACE LEVEL OF LOW MAINTENANCE LANDSCAPING. REFER LANDSCAPE DOCUMENTATION FOR DETAILS.
- Landscaping:** FOR LANDSCAPING OF ROUNDABOUT CENTRE ANNULUS, REFER LANDSCAPE DOCUMENTATION FOR DETAILS.

Diagram illustrating the joint detail for a concrete slab. The joint is formed by a rebate, saw cut, or trowelled groove. The joint width is specified as 2mm. The joint is sealed with approved polyurethane gun grade sealant, coloured to suit adjacent pavement. The joint is also reinforced with a bond breaker. The joint depth is specified as a minimum of 1/4 slab depth. The joint is also reinforced with a bond breaker.

1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22
Issue	Description	Date



Scales	1:10	Drawn	JB/MMH
		Designed	JB/MMH
Grid	GDA2020	Checked	DS
Height Datum	AHD	Approved	DS



The logo for GDA2020 features a stylized blue globe with a white arc and a small blue dot, followed by the text 'GDA2020' in a bold, blue, sans-serif font.

Project	ASPECT INDUSTRIAL ESTATE MAMRE ROAD, KEMPS CREEK STAGE 1B
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Title	TYPICAL DETAILS SHEET 3
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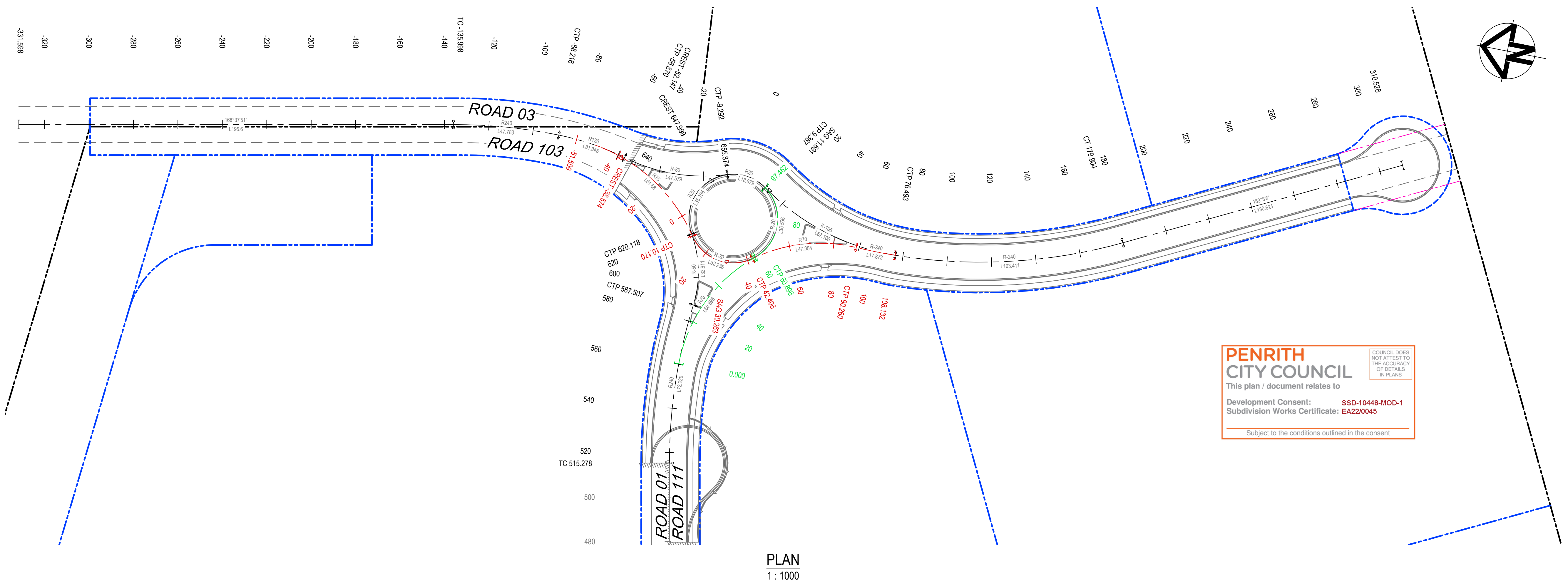
**Civil Engineers and Project Managers**

**at&I**

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

Status	FOR CONSTRUCTION	A1
Project - Drawing No.	18-596-C8017	Issue 1





CONTROL ROAD - ROAD 01 HORIZONTAL POINTS							
PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	294705.671	6253037.413	82°59'28.38"			
TC	46.971	294754.476	6253043.389	82°59'28.38"			
IP 2	75.676	294780.995	6253046.649		R = -700.000	53.411	4°22'18.19"
CT	102.382	294807.188	6253051.921	78°37'10.18"			
TC	515.278	295211.966	6253133.395	78°37'10.18"			
IP 3	551.392	295247.640	6253140.576		R = 240.000	72.229	17°14'35.96"
CC	587.507	295283.839	6253136.859	95°51'46.15"			
IP 4	603.812	295300.659	6253135.131		R = -50.000	32.611	37°22'10.52"
CC	620.118	295315.076	6253143.968	58°29'35.62"			
IP 5	637.996	295336.297	6253156.976		R = 20.000	35.756	102°26'01.17"
IP 6	655.874	295344.430	6253133.452	160°55'36.79"			

CONTROL ROAD - ROAD 111 HORIZONTAL POINTS							
PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	ALLENGTH	DEFLANGLE
IP 1	0.000	295256.611	6253138.100	89°21'06.19"			
IP 2	30.448	295289.134	6253138.468		R = 70.000	60.896	49°50'37.46"
CC	60.896	295310.389	6253113.848	139°11'43.65"			
IP 3	79.179	295327.346	6253094.206		R = -20.000	36.566	104°45'14.70"
IP 4	97.462	295342.022	6253115.606	34°26'28.95"			

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	-331.598	295303.590	6253450.523	168°37'51.08"			
TC	-135.998	295342.149	6253258.761	168°37'51.08"			
IP 2	-112.107	295346.874	6253235.261		R = 240.000	47.783	11°24'26.08"
CC	-88.216	295346.858	625321.1290	180°02'17.16"			
IP 3	-72.543	295346.847	6253195.528		R = 120.000	31.345	14°57'58.48"
CC	-56.870	295342.767	6253180.303	195°00'15.64"			
IP 4	-33.081	295336.420	6253156.623		R = -80.000	47.579	34°04'32.52"
CC	-9.292	295344.430	6253133.452	160°55'43.13"			
IP 5	0.048	295347.725	6253123.922		R = 20.000	18.679	53°30'41.97"
CC	9.387	295342.022	6253115.606	214°26'25.10"			
IP 6	42.940	295322.373	6253086.953		R = -105.000	67.106	36°37'04.15"
CC	76.493	295323.693	6253052.234	177°49'20.95"			
IP 7	128.198	295325.689	6252999.752		R = -240.000	103.411	24°41'14.86"
CT	179.904	295349.422	6252952.900	153°08'06.09"			
IP 8	310.528	295408.450	6252836.373	153°08'06.09"			

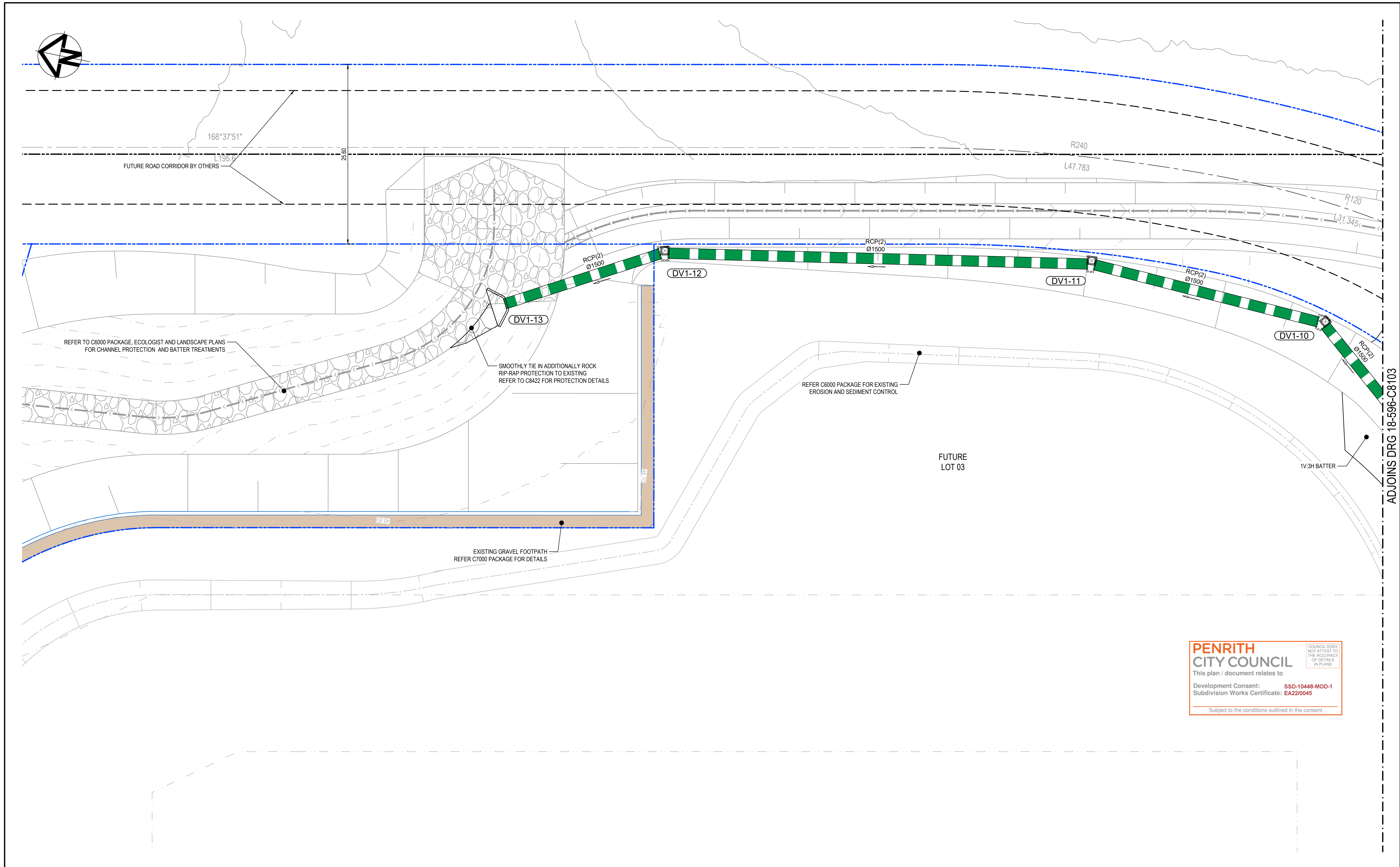
CONTROL ROAD - ROAD 103 HORIZONTAL POINTS							
PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A LENGTH	DEFL ANGLE
IP 1	-51.509	295345.647	6253194.360	188°08'56.43"			
IP 2	-20.669	295341.011	6253161.986		R = 75.000	61.680	47°07'11.09"
CC	10.170	295314.134	6253143.353	235°16'07.53"			
IP 3	26.288	295297.009	6253131.482		R = -20.000	32.236	92°20'53.11"
CC	42.406	295309.572	6253114.858	142°55'14.42"			
IP 4	66.333	295324.588	6253094.989		R = 70.000	47.854	39°10'08.82"
CC	90.260	295323.679	6253070.101	182°05'23.23"			
IP 5	99.196	295323.353	6253061.167		R = -204.000	17.872	4°15'59.46"
IP 6	108.132	295323.693	6253052.234	177°49'23.77"			

[illegible]





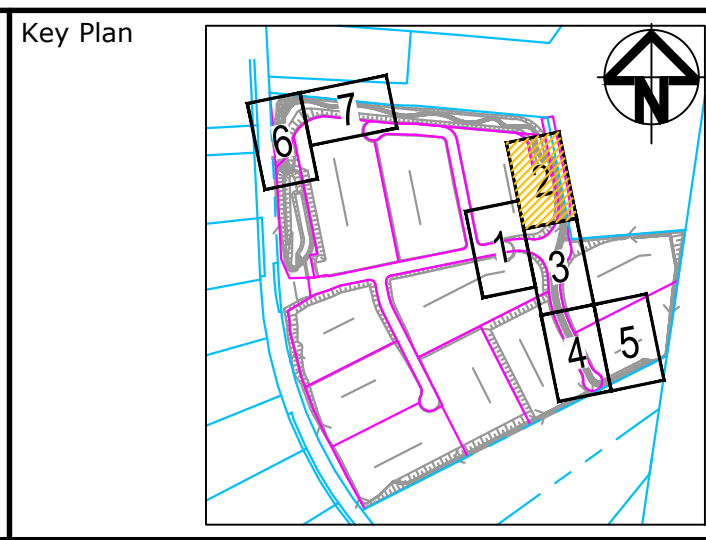
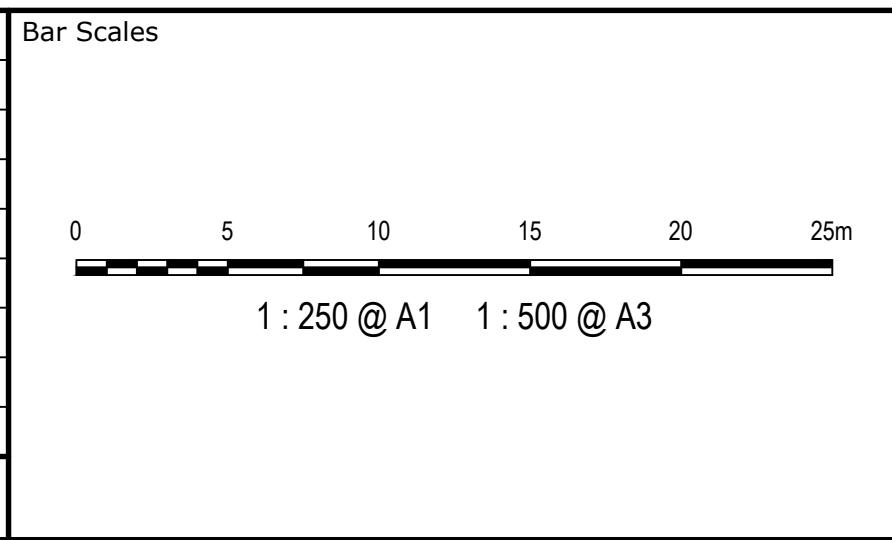




**PENRITH CITY COUNCIL**  
This plan / document relates to  
Development Consent: **SSD-10448-MOD-1**  
Subdivision Works Certificate: **EA22/0045**  
Subject to the conditions outlined in the consent

COUNCIL DOES NOT ATTEST TO THE ACCURACY OF DETAILS IN PLANS

1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22
Issue	Description	Date

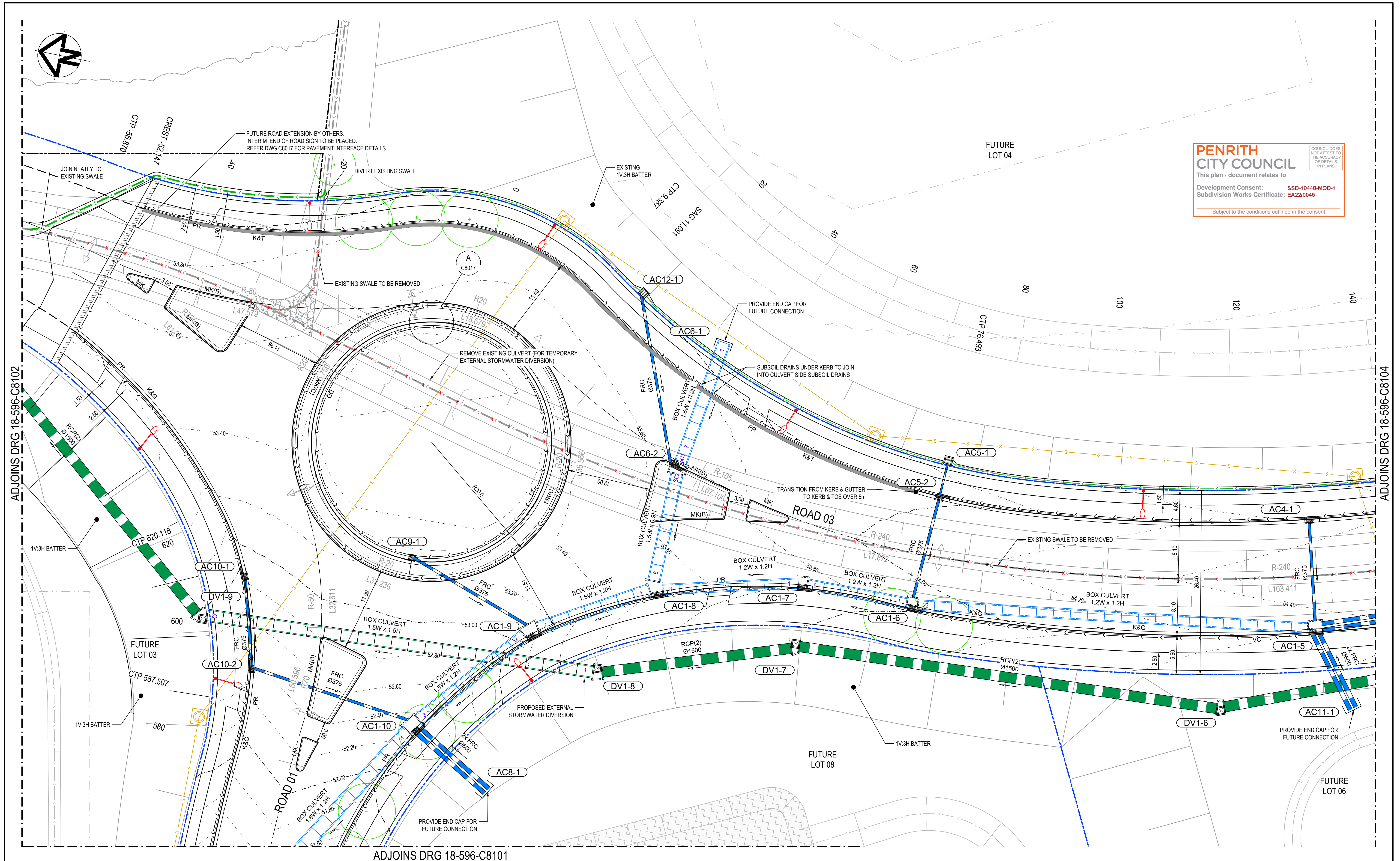


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		Designed	JB/MH
Grid	GDA2020	Checked	DS
Height Datum	AHD	Approved	DS
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Project	ASPECT INDUSTRIAL ESTATE MAMRE ROAD, KEMPS CREEK STAGE 1B
Title	ROADWORKS AND STORMWATER DRAINAGE SHEET 2

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 CONSTRUCTION
Project - Drawing No.	18-596-C8102
Issue	1

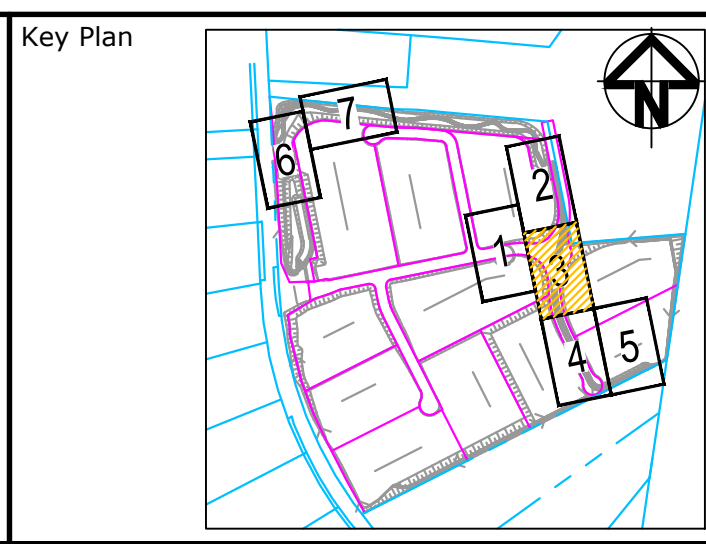
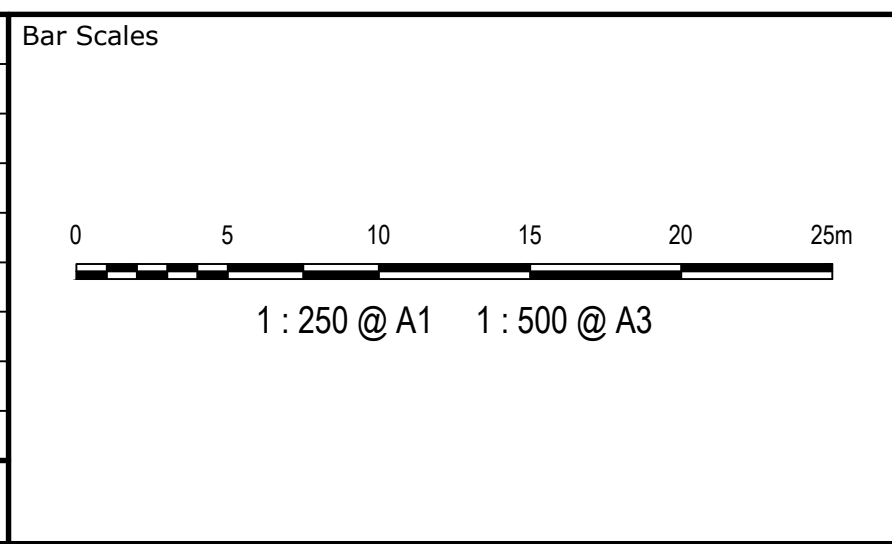




**PENRITH CITY COUNCIL**  
This plan / document relates to  
Development Consent: **SSD-10448-MOD-1**  
Subdivision Works Certificate: **EA220045**  
Subject to the conditions outlined in the consent

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Issue	Description	Date
1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22

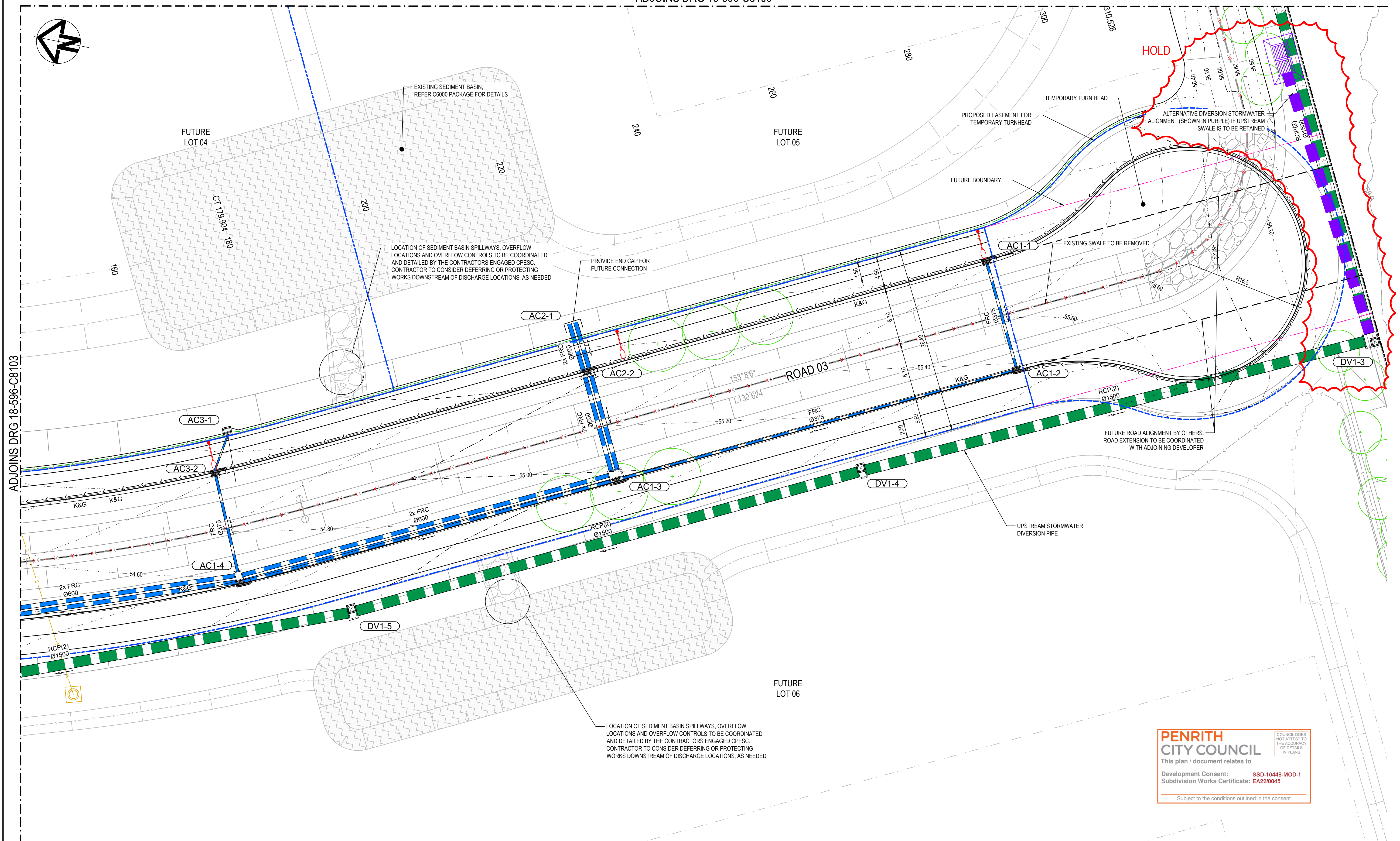


Scales	1:250	Drawn	JB/MH
		Designed	JB/MH
Grid	GDA2020	Checked	DS
Height Datum	AHD	Approved	DS
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Project	ASPECT INDUSTRIAL ESTATE MAMRE ROAD, KEMPS CREEK STAGE 1B
Title	ROADWORKS AND STORMWATER DRAINAGE SHEET 3

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 CONSTRUCTION
Project - Drawing No.	18-596-C8103
Issue	1

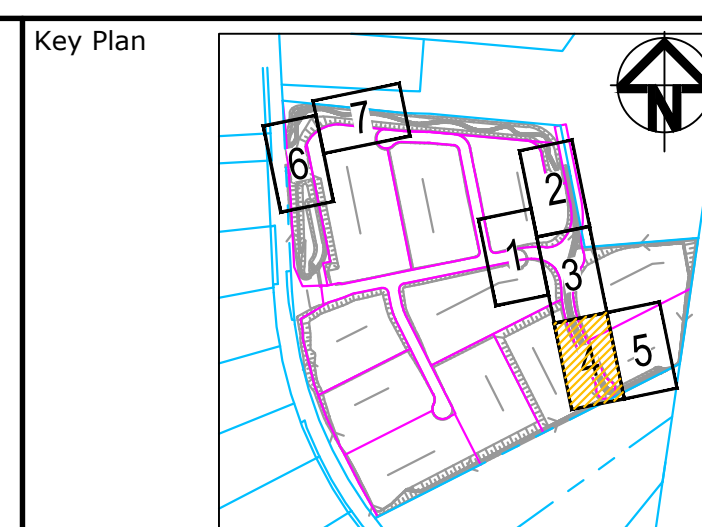
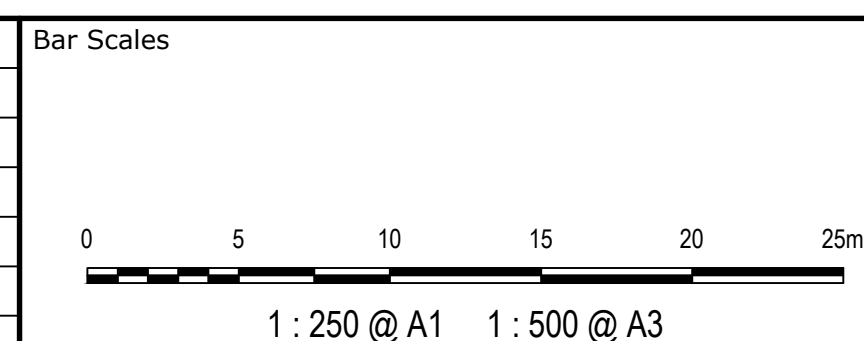




<h1>PENRITH CITY COUNCIL</h1> <p>This plan / document relates to</p> <p><b>Development Consent:</b> <span style="color: red;">SSD-10448-MOD-1</span>  <b>Subdivision Works Certificate:</b> <span style="color: red;">EA22/0045</span></p>	<p>COUNCIL DOES NOT ATTEST TO THE ACCURACY OF DETAILS IN PLANS</p>
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Subject to the conditions outlined in the consent

1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22
Issue	Description	Date




Scales	1:250	Drawn	JB/IMH
		Designed	JB/IMH
Grid	GDA2020	Checked	DS
Height Datum	AHD	Approved	DS

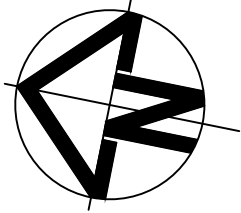
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 **GDA2020**

Project	ASPECT INDUSTRIAL ESTATE MAMRE ROAD, KEMPS CREEK STAGE 1B
Title	ROADWORKS AND STORMWATER DRAINAGE SHEET 4

Civil Engineers and Project Managers		
	Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9349 1777 Fax: 02 9923 1055 <a href="http://www.atl.net.au">www.atl.net.au</a> <a href="mailto:info@atl.net.au">info@atl.net.au</a>	
	Status	FOR CONSTRUCTION
Project - Drawing No. 18-596-C8104	Issue 1	

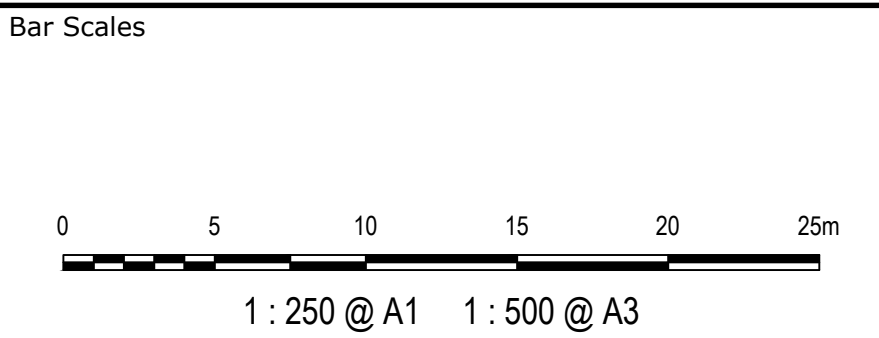




**PENRITH**  
**CITY COUNCIL**  
This plan / document relates to  
Development Consent: **SSD-10448-MOD-1**  
Subdivision Works Certificate: **EA220045**  
Subject to the conditions outlined in the consent

COUNCIL DOES NOT ATTEST TO THE ACCURACY OF DETAILS IN PLANS

1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22
Issue	Description	Date

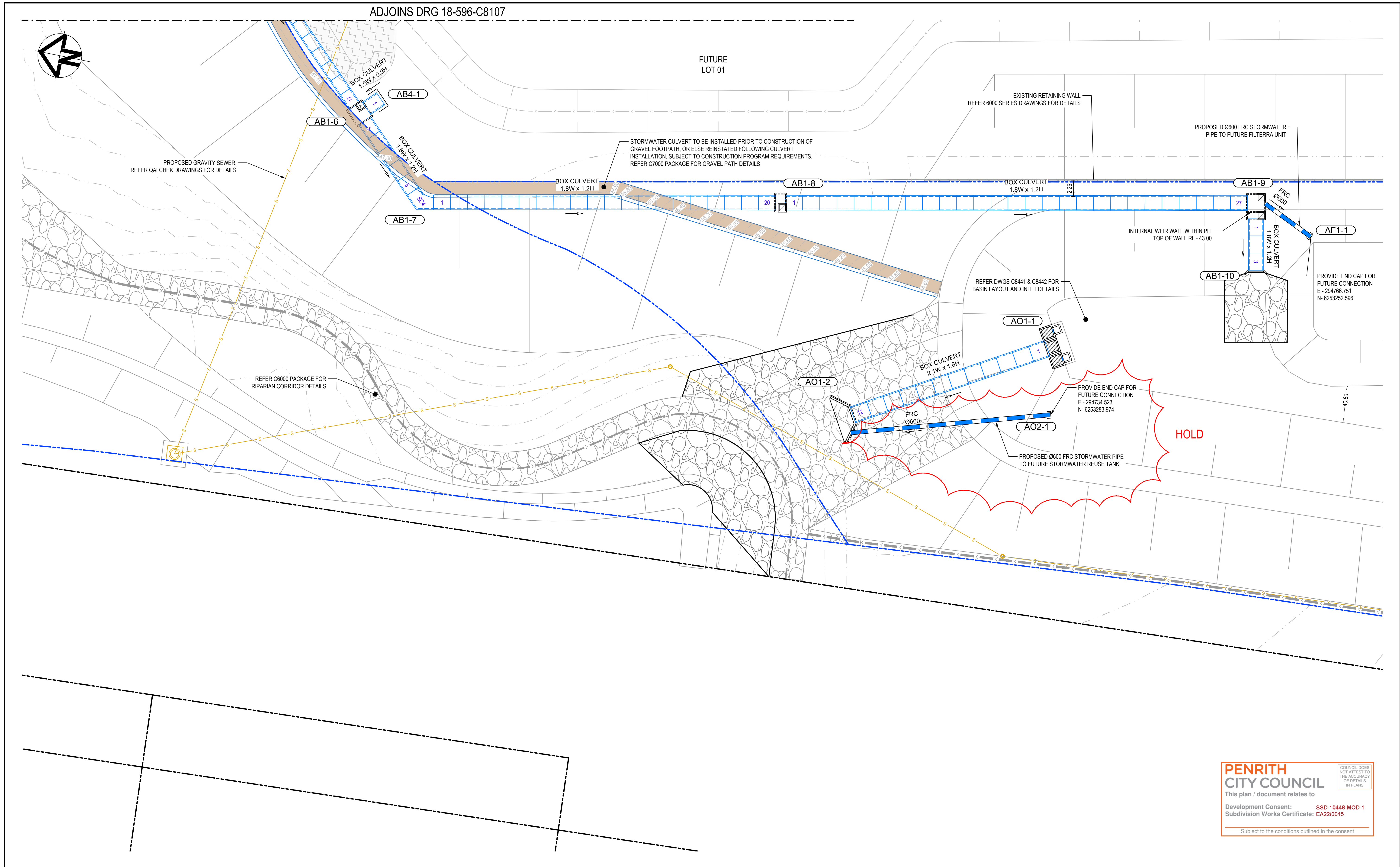


Scales	1:250	Drawn	JB/MH
		Designed	JB/MH
Grid	GDA2020	Checked	DS
Height Datum	AHD	Approved	DS
THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY INTENDED WITHOUT THE WRITTEN PERMISSION OF AT&L			

Project	ASPECT INDUSTRIAL ESTATE MAMRE ROAD, KEMPS CREEK STAGE 1B
Title	ROADWORKS AND STORMWATER DRAINAGE SHEET 5

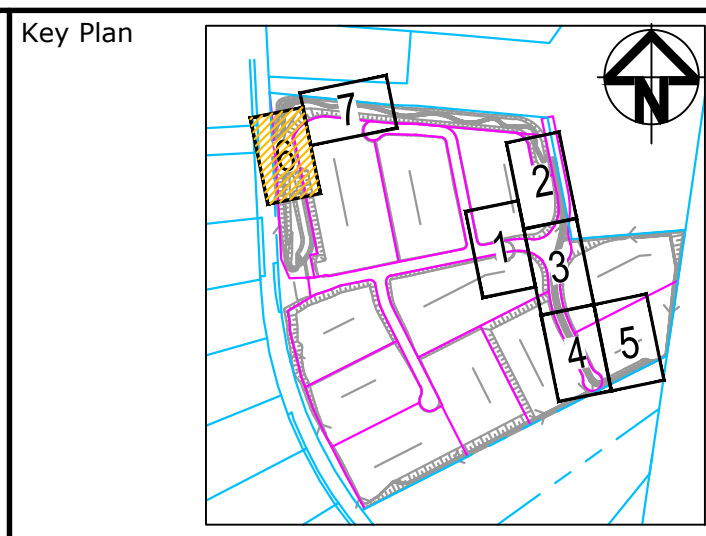
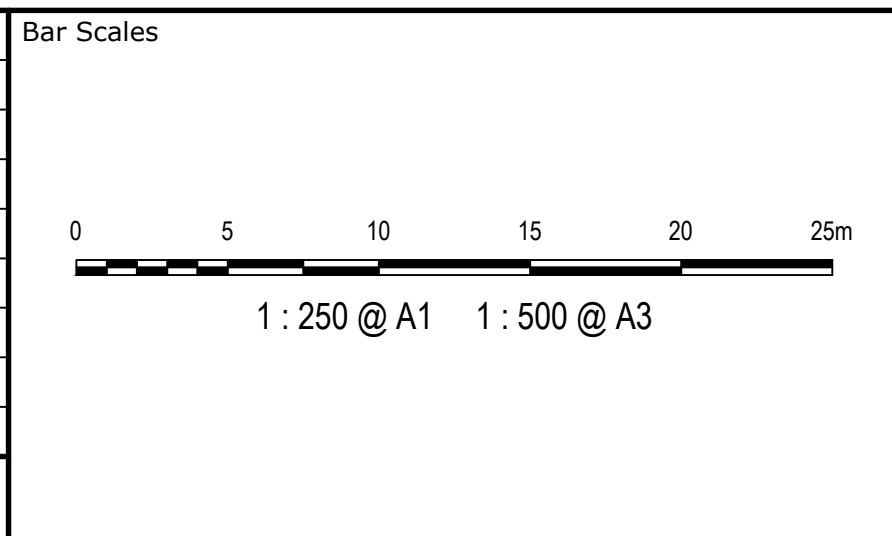
Civil Engineers and Project Managers	
Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au	
Status	FOR CONSTRUCTION
Project - Drawing No.	18-596-C8105
Issue	1





**PENRITH CITY COUNCIL**  
This plan / document relates to  
Development Consent: **SSD-10448-MOD-1**  
Subdivision Works Certificate: **EA22/0045**  
Subject to the conditions outlined in the consent

1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22
Issue	Description	Date



Client

Scales	1:250	Drawn	JB/MH
		Designed	JB/MH
Grid	GDA2020	Checked	DS
Height Datum	AHD	Approved	DS
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Project  
**ASPECT INDUSTRIAL ESTATE  
MAMRE ROAD,  
KEMPS CREEK  
STAGE 1B**

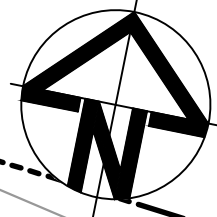
Title  
**ROADWORKS  
AND STORMWATER DRAINAGE  
SHEET 6**

Civil Engineers and Project Managers

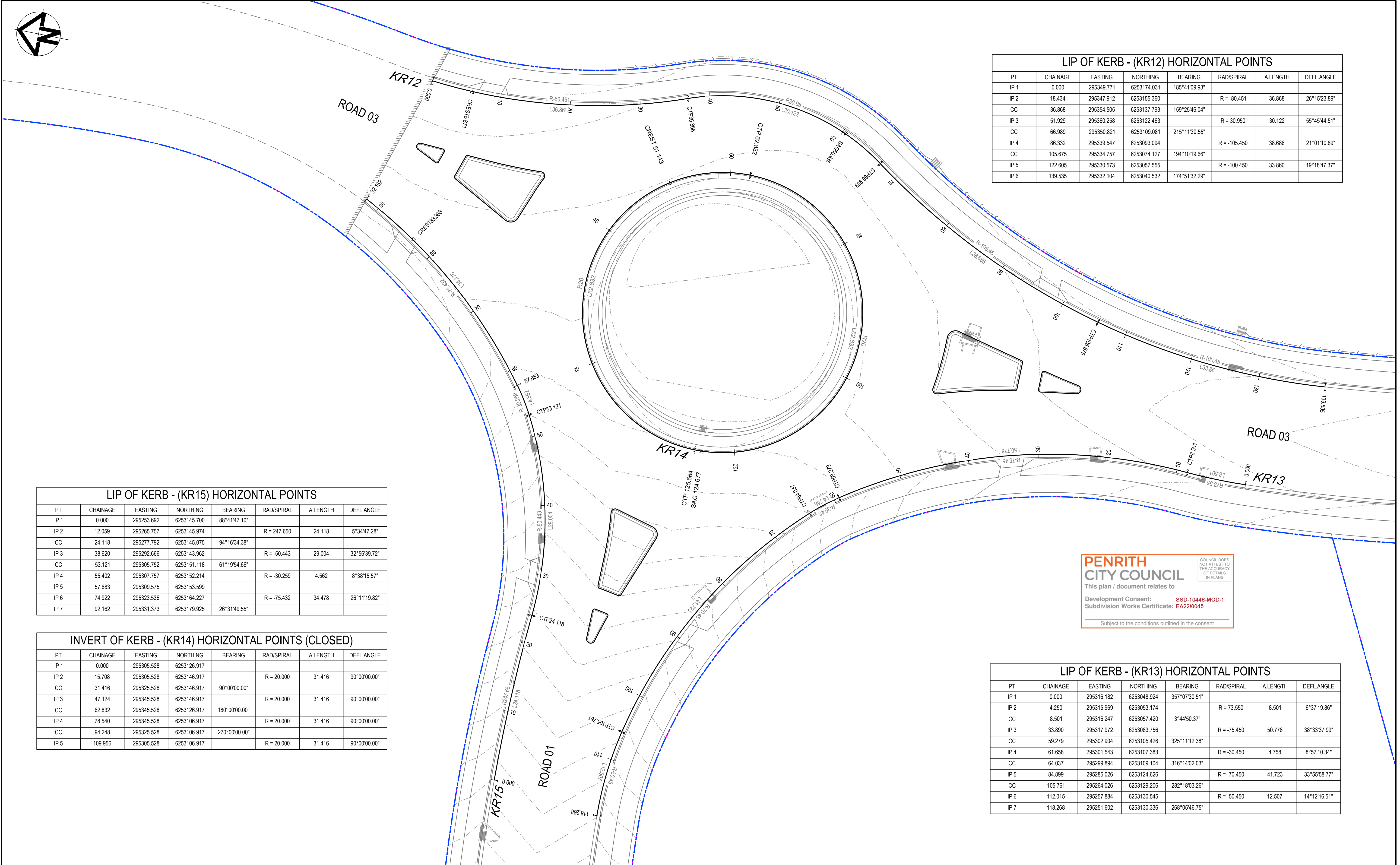
Level 7, 153 Walker Street  
North Sydney NSW 2060  
ABN 96 130 882 405  
Tel: 02 9439 1777  
Fax: 02 9923 1055  
www.atl.net.au  
info@atl.net.au

Status	<b>FOR CONSTRUCTION</b>	<b>A1</b>
Project - Drawing No.	<b>18-596-C8106</b>	Issue
		<b>1</b>









LIP OF KERB - (KR12) HORIZONTAL POINTS							
PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	295349.771	6253174.031	185°41'09.93"			
IP 2	18.434	295347.912	6253155.360		R = -80.451	36.868	26°15'23.89"
CC	36.868	295354.505	6253137.793	159°25'46.04"			
IP 3	51.929	295360.258	6253122.463		R = 30.950	30.122	55°45'44.51"
CC	66.989	295350.821	6253109.081	215°11'30.55"			
IP 4	86.332	295339.547	6253093.094		R = -105.450	38.686	21°01'10.89"
CC	105.675	295334.757	6253074.127	194°10'19.66"			
IP 5	122.605	295330.573	6253057.555		R = -100.450	33.860	19°18'47.37"
IP 6	139.535	295332.104	6253040.532	174°51'32.29"			

LIP OF KERB - (KR15) HORIZONTAL POINTS							
PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	295253.692	6253145.700	88°41'47.10"			
IP 2	12.059	295265.757	6253145.974		R = 247.650	24.118	5°34'47.28"
CC	24.118	295277.792	6253145.075	94°16'34.38"			
IP 3	38.620	295292.666	6253143.962		R = -50.443	29.004	32°56'39.72"
CC	53.121	295306.752	6253151.118	61°19'54.66"			
IP 4	55.402	295307.757	6253152.214		R = -30.259	4.562	8°38'15.57"
IP 5	57.683	295309.575	6253153.599				
IP 6	74.922	295323.536	6253164.227		R = -75.432	34.478	26°11'19.82"
IP 7	92.162	295331.373	6253179.925	26°31'49.55"			

INVERT OF KERB - (KR14) HORIZONTAL POINTS (CLOSED)							
PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	295305.528	6253126.917				
IP 2	15.708	295305.528	6253146.917		R = 20.000	31.416	90°00'00.00"
CC	31.416	295325.528	6253146.917	90°00'00.00"			
IP 3	47.124	295345.528	6253146.917		R = 20.000	31.416	90°00'00.00"
CC	62.832	295345.528	6253126.917	180°00'00.00"			
IP 4	78.540	295345.528	6253106.917		R = 20.000	31.416	90°00'00.00"
CC	94.248	295325.528	6253106.917	270°00'00.00"			
IP 5	109.956	295305.528	6253106.917		R = 20.000	31.416	90°00'00.00"

PENRITH

CITY COUNCIL

This plan / document relates to

Development Consent: **SSD-10448-MOD-1**

Subdivision Works Certificate: **EA22/0045**

COUNCIL DOES NOT ATTEST TO THE ACCURACY OF DETAILS IN PLANS

Subject to the conditions outlined in the consent

LIP OF KERB - (KR13) HORIZONTAL POINTS							
PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	295316.182	6253048.924	357°07'30.51"			
IP 2	4.250	295315.969	6253053.174		R = 73.550	8.501	6°37'19.86"
CC	8.501	295316.247	6253057.420	3°44'50.37"			
IP 3	33.890	295317.972	6253083.756		R = -75.450	50.778	38°33'37.99"
CC	59.279	295302.904	6253105.426	325°11'12.38"			
IP 4	61.658	295301.543	6253107.383		R = -30.450	4.758	8°57'10.34"
CC	64.037	295299.894	6253109.104	316°14'02.03"			
IP 5	84.899	295285.026	6253124.626		R = -70.450	41.723	33°55'58.77"
CC	105.761	295264.026	6253129.206	282°18'03.26"			
IP 6	112.015	295257.884	6253130.545		R = -50.450	12.507	14°12'16.51"
IP 7	118.268	295251.602	6253130.336	268°05'46.75"			

1

ISSUED FOR CONSTRUCTION

17-11-22

A

ISSUED FOR SWC APPROVAL

20-10-22

Issue

Description

Date

Bar Scales

0

5

10

15

20

25m

1 : 250 @ A1    1 : 500 @ A3

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Client

mirvac

Scales

1:250

Grid

GDA2020

Height Datum

AHD

Drawn

JB/MH

Designed

JB/MH

Checked

DS

Approved

DS

GDA2020

Project

ASPECT INDUSTRIAL ESTATE  
MAMRE ROAD,  
KEMPS CREEK  
STAGE 1B

Title

INTERSECTION PLAN  
SHEET 1

Civil Engineers and Project Managers

at&l

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 CONSTRUCTION

Project - Drawing No.

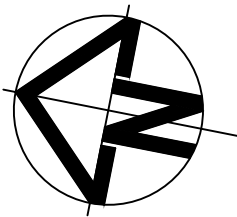
18-596-C8121

Issue

1

F:\18-596 Mamre Road\6.0 Drgs\Civil\Final\CC\8000\_STAGE 1B CC\18-596-C8121.dwg





INVERT OF KERB - (MM06) HORIZONTAL POINTS (CLOSED)							
PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A LENGTH	DEFL ANGLE
IP 1	0.000	295336.989	6253156.687				
IP 2	1.231	295338.139	6253156.244		R = 31.900	2.461	4°25'15.50"
CC	2.461	295339.250	6253155.715	115°28'40.29"			
IP 3	3.078	295340.149	6253155.286		R = -0.600	1.234	117°50'57.76"
CC	3.696	295340.108	6253156.281	357°37'42.53"			
IP 4	7.580	295339.947	6253160.166		R = 80.000	7.770	5°33'52.69"
CT	11.465	295340.163	6253164.048	3°11'35.22"			
TC	14.378	295340.326	6253166.955	3°11'35.22"			
IP 5	14.574	295340.338	6253167.186		R = -0.300	0.393	75°03'11.18"
CT	14.771	295340.120	6253167.257	288°08'24.04"			
TC	17.962	295337.086	6253168.251	288°08'24.04"			
IP 6	18.172	295336.847	6253168.329		R = -0.300	0.419	79°56'37.72"
CT	18.381	295336.729	6253168.108	208°11'46.32"			
TC	27.668	295332.340	6253159.922	208°11'46.32"			
IP 7	28.685	295331.698	6253158.724		R = -1.200	2.034	97°08'21.54"
CT	29.703	295332.967	6253158.236	111°03'24.79"			

INVERT OF KERB - (MM05) HORIZONTAL POINTS (CLOSED)							
PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A LENGTH	DEFL ANGLE
IP 1	0.000	295340.140	6253170.407	108°08'24.04"			
IP 2	0.275	295340.511	6253170.286		R = -0.300	0.550	104°56'48.82"
CT	0.550	295340.533	6253170.676	3°11'35.22"			
TC	3.769	295340.713	6253173.890	3°11'35.22"			
IP 3	4.116	295340.736	6253174.305		R = -0.500	0.693	79°26'42.19"
CC	4.462	295340.332	6253174.404	283°44'53.03"			
IP 4	4.809	295339.929	6253174.502		R = -0.500	0.693	79°26'42.19"
CC	5.156	295339.758	6253174.124	204°18'10.83"			
IP 5	6.702	295339.121	6253172.714		R = 75.000	3.094	2°21'48.39"
CC	8.249	295338.427	6253171.331	206°39'59.22"			
IP 6	8.507	295338.270	6253171.020		R = -0.300	0.516	98°31'35.18"
CT	8.765	295338.601	6253170.912	108°08'24.04"			
IP 7	10.385	295340.140	6253170.407	108°08'24.04"			

INVERT OF KERB - (MM01) HORIZONTAL POINTS (CLOSED)							
PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A LENGTH	DEFL ANGLE
IP 1	0.000	295280.163	6253136.714				
IP 2	4.008	295276.156	6253136.770				
IP 3	4.441	295275.628	6253136.778		R = -0.600	0.866	82°42'01.24"
CC	4.874	295275.553	6253136.255	188°05'49.27"			
IP 4	5.307	295275.479	6253135.732		R = -0.600	0.866	82°42'01.24"
IP 5	5.740	295275.988	6253135.592				
IP 6	7.710	295277.888	6253135.069		R = 70.000	3.940	3°13'29.08"
CC	9.680	295279.755	6253134.439	108°37'17.12"			
IP 7	9.937	295280.084	6253134.329		R = -0.300	0.515	98°17'03.32"
CT	10.194	295280.146	6253134.670	10°20'13.80"			
TC	11.913	295280.454	6253136.361	10°20'13.80"			
IP 8	12.174	295280.518	6253136.709		R = -0.300	0.521	99°32'23.32"
CT	12.434	295280.163	6253136.714	270°47'50.47"			

INVERT OF KERB - (MM02) HORIZONTAL POINTS (CLOSED)							
PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A LENGTH	DEFL ANGLE
IP 1	0.000	295288.250	6253136.602	270°47'50.47"			
TC	4.437	295283.813	6253136.664	270°47'50.47"			
IP 2	4.648	295283.560	6253136.667		R = -0.300	0.421	80°27'36.68"
CT	4.858	295283.514	6253136.417	190°20'13.80"			
TC	7.793	295282.988	6253133.531	190°20'13.80"			
IP 3	8.001	295282.943	6253133.285		R = -0.300	0.417	79°39'55.80"
CT	8.210	295283.177	6253133.196	110°40'17.99"			
TC	17.624	295291.985	6253129.873	110°40'17.99"			
IP 4	18.625	295293.224	6253129.406		R = -1.200	2.003	95°38'19.93"
CT	19.627	295293.567	6253130.685	15°01'58.07"			
TC	25.278	295295.033	6253136.142	15°01'58.07"			
IP 5	25.860	295295.261	6253136.990		R = -0.600	1.165	111°16'52.91"
CC	26.443	295294.388	6253136.894	263°45'05.16"			
IP 6	29.518	295291.328	6253136.559		R = 50.000	6.149	7°02'46.03"
IP 7	32.592	295288.250	6253136.602	270°47'51.19"			

INVERT OF KERB - (MM03) HORIZONTAL POINTS (CLOSED)							
PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A LENGTH	DEFL ANGLE
IP 1	0.000	295326.384	6253080.166				
IP 2	0.269	295326.469	6253080.531		R = -0.300	0.538	102°41'13.26"
CT	0.538	295326.094	6253080.534	270°29'36.92"			
TC	2.954	295323.678	6253080.555	270°29'36.92"			
IP 3	3.214	295323.326	6253080.558		R = -0.300	0.519	99°04'36.76"
CT	3.473	295323.378	6253080.210	171°25'00.16"			
TC	8.616	295324.146	6253075.125	171°25'00.16"			
IP 4	9.037	295324.222	6253074.623		R = -0.600	0.843	80°31'41.36"
CC	9.459	295324.730	6253074.615	90°53'18.81"			
IP 5	9.881	295325.238	6253074.607		R = -0.600	0.843	80°31'41.36"
CC	10.302	295325.329	6253075.107	10°21'37.45"			
IP 6	12.887	295325.794	6253077.649		R = 105.000	5.168	2°49'12.73"

INVERT OF KERB - (MM04) HORIZONTAL POINTS (CLOSED)							
PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A LENGTH	DEFL ANGLE
IP 1	0.000	295327.249	6253083.785				
TC	9.791	295329.530	6253093.307	13°28'20.18"			
IP 2	10.876	295329.885	6253094.788		R = -1.200	2.168	103°31'31.90"
CC	11.960	295328.362	6253094.787	269°56'48.28"			
IP 3	15.723	295324.592	6253094.783		R = 48.841	7.526	8°49'43.27"
CC	19.486	295320.866	6253095.358	278°46'31.55"			
IP 4	20.098	295319.897	6253095.508		R = -0.600	1.226	117°01'37.99"
CC	20.711	295320.204	6253094.578	161°44'53.56"			
IP 5	26.243	295321.941	6253089.313		R = 70.000	11.064	9°03'22.92"
CC	31.776	295322.826	6253083.840	170°48'16.47"			
IP 6	31.986	295322.867	6253083.590		R = -0.300	0.421	80°18'38.03"
CT	32.196	295323.120	6253083.588	90°29'38.44"			
TC	36.031	295326.955	6253083.555	90°29'38.44"			
IP 7	36.233	295327.194	6253083.553		R = -0.300	0.403	77°01'18.27"
CT	36.434	295327.249	6253083.785	13°28'20.18"			

**PENRITH**  
**CITY COUNCIL**  
This plan / document relates to  
Development Consent: **SSD-10448-MOD-1**  
Subdivision Works Certificate: **EA22/0045**  
Subject to the conditions outlined in the consent

COUNCIL DOES NOT ATTEST TO THE ACCURACY OF DETAILS IN PLANS

1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22
Issue	Description	Date

Bar Scales

0

5

10

15

20

25m

1 : 250 @ A1    1 : 500 @ A3

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Client

Scales  
1:250

Grid  
GDA2020

Height Datum  
AHD

Drawn  
Designed

Checked  
Approved

JB/MH  
DS

Project  
ASPECT INDUSTRIAL ESTATE  
MAMRE ROAD,  
KEMPS CREEK  
STAGE 1B

Title  
INTERSECTION PLAN  
SHEET 2

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

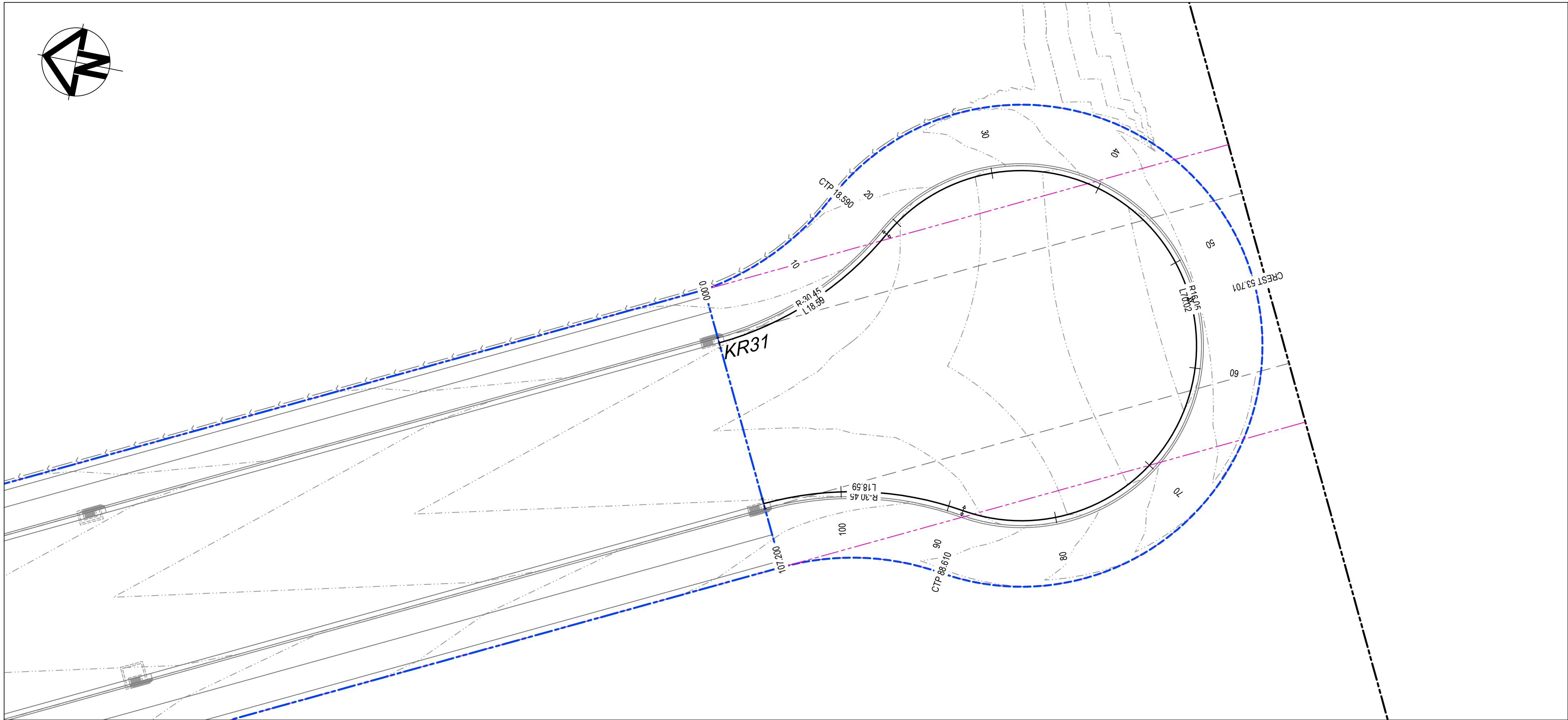
Status  
FOR CONSTRUCTION

Project - Drawing No.  
18-596-C8122

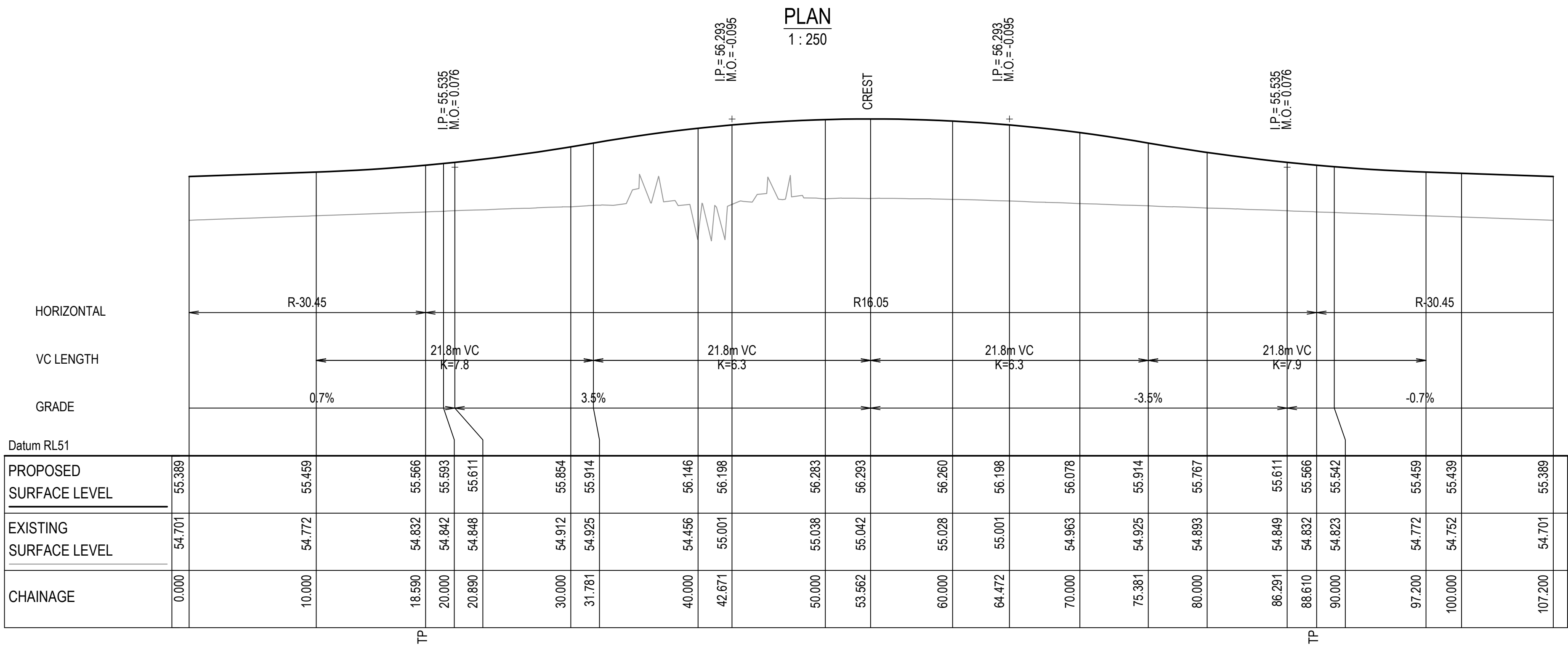
A1

Issue  
1





LIP OF KERB - (KR31) HORIZONTAL POINTS							
PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	295403.228	6252863.610	153°08'05.72"			
IP 2	9.295	295407.564	6252855.051		R = -30.450	18.590	34°58'47.05"
CC	18.590	295416.023	6252850.523	118°09'18.67"			
IP 3	30.260	295428.614	6252843.785		R = 16.050	23.340	83°19'11.37"
CC	41.930	295423.386	6252830.497	201°28'30.04"			
IP 4	53.600	295418.158	6252817.208		R = 16.050	23.340	83°19'11.37"
CC	65.270	295404.352	6252820.855	284°47'41.41"			
IP 5	76.940	295390.545	6252824.501		R = 16.050	23.340	83°19'11.37"
CC	88.610	295392.561	6252838.638	8°06'52.78"			
IP 6	97.905	295393.915	6252848.137		R = -30.450	18.590	34°58'47.05"
IP 7	107.200	295389.579	6252856.696	333°08'05.72"			



KR31 LONGITUDINAL SECTION

SCALE 1:250 HORI.  
1:50 VERT.

**PENRITH CITY COUNCIL**

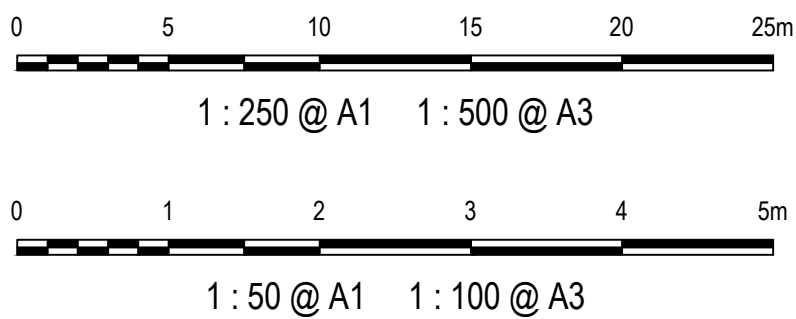
This plan / document relates to

Development Consent: **SSD-10448-MOD-1**  
Subdivision Works Certificate: **EA22/0045**

Subject to the conditions outlined in the consent

1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22
Issue	Description	Date

Bar Scales



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Client

**mirvac**

Scales

1:250 (H)  
1:50 (V)

Grid GDA2020

Height Datum AHD

Drawn JB/MH

Designed JB/MH

Checked DS

Approved DS

**GDA2020**

Project

**ASPECT INDUSTRIAL ESTATE  
MAMRE ROAD,  
KEMPS CREEK  
STAGE 1B**

Title

**INTERSECTION PLAN  
SHEET 3**

Civil Engineers and Project Managers

**at&l**

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

Status

**FOR CONSTRUCTION**

Project - Drawing No.  
**18-596-C8123**

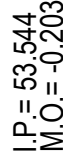
Issue

**1**



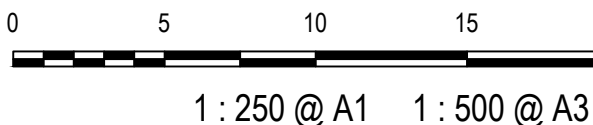


SCALE 1:250 HORI.  
1:50 VERT.



SCALE 1:250 HORI.  
1:50 VERT.

100mm on Original



## PERMISSION OF AT&L



INTERSECTION PLAN  
SHEET 4

**at&I**

Status **FOR CONSTRUCTION**



HORIZONTAL				R-0.6	R-0.6	R70	R-0.3	R-0.3
VC LENGTH								
GRADE		-3.6%	-0.5%	3.6%	-3.6%			
Datum RL48								
PROPOSED SURFACE LEVEL	52.280	52.136	52.128	52.289	52.328	52.280		
EXISTING SURFACE LEVEL	51.492	51.417	51.415	51.539	51.525	51.492		
CHAINAGE	0.000	4.011	5.556	10.000	11.092	12.434		
	TP	PP	PP	PP	PP			

Datum RL47	
PROPOSED SURFACE LEVEL	52.570
EXISTING SURFACE LEVEL	51.851
CHAINAGE	0.000
	5.127
	8.000
	10.000
	18.389
	20.000
	25.262
	30.000
	32.592

HORIZONTAL						
VC LENGTH	105					
GRADE						
Datum RL50						
PROPOSED SURFACE LEVEL	53.811	53.804	53.792	53.880	53.876	53.811
EXISTING SURFACE LEVEL	53.441	53.327	53.063	53.117	53.200	53.441
CHAINAGE	0.000	0.558	2.946	9.671	10.000	15.471

	0+00	10+000	10+869	19+560	20+000	30+000	31+071	36+265	36+434
PROPOSED SURFACE LEVEL	53.766	53.640	53.630	53.586	53.592	53.728	53.742	53.768	53.766
EXISTING SURFACE LEVEL	53.602	53.937	53.814	54.009	54.017	53.446	53.355	53.580	53.602
CHAINAGE	0.000	10.000	10.869	19.560	20.000	30.000	31.071	36.265	36.434


Diagram illustrating a vertical curve with a sag shape. The curve is defined by the following data:

Station	Proposed Surface Level (mm)	Existing Surface Level (mm)	Chainage (m)
0+000	53,738	51,990	0.000
0+942	53,753	51,846	0.942
8+480	53,697	52,408	8.480
10+000	53,730	52,111	10.000
10+376	53,738	51,993	10.376
10+385	53,738	51,990	10.385

Additional details from the diagram:

- Horizontal Curve Segments:** R-0.3, R-0.5, R-0.5, R-0.5, R-0.3
- Grades:** 1.6%, -0.7%, 2.1%
- Datum:** RL49

1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22
Issue	Description	Date

		<p>Civil Engineers and Project Managers</p> <p>Level 7, 153 Walker Street North Sydney NSW 2060</p> <p>ABN 96 130 882 405</p> <p>Tel: 02 9439 1777</p> <p>Fax: 02 9923 1055</p> <p><a href="http://www.atl.net.au">www.atl.net.au</a> <a href="mailto:info@atl.net.au">info@atl.net.au</a></p>
<p>Status</p> <p><b>FOR CONSTRUCTION</b></p>	<p><b>A1</b></p>	
<p>Project - Drawing No.</p> <p><b>18-596-C8125</b></p>		<p>Issue</p> <p><b>1</b></p>

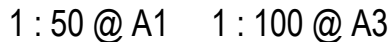




**Tip**



SCALE 1:250 HORIZ.  
1:50 VERT.

100mm on Original

### PERMISSION OF AT&T



Designed	JB/MH
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ASPECT INDUSTRIAL ESTATE  
MAMRE ROAD,  
KEMPS CREEK  
STAGE 1B

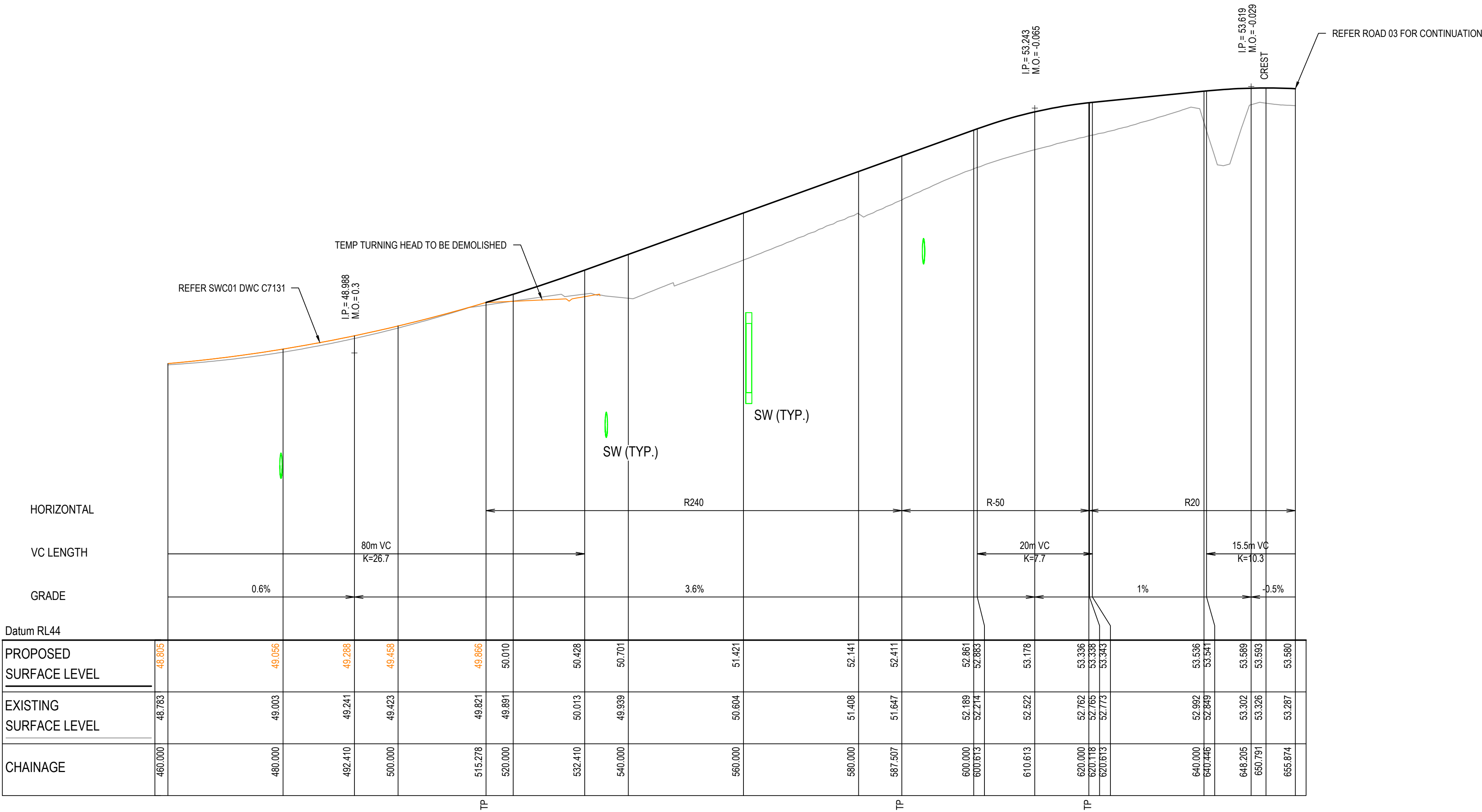
INTERSECTION PLAN  
SHEET 6

**at&T**

Level 7, 153 Walker Street  
North Sydney NSW 2060  
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[www.atl.net.au](http://www.atl.net.au)  
[info@atl.net.au](mailto:info@atl.net.au)

Status  
FOR CONSTRUCTION





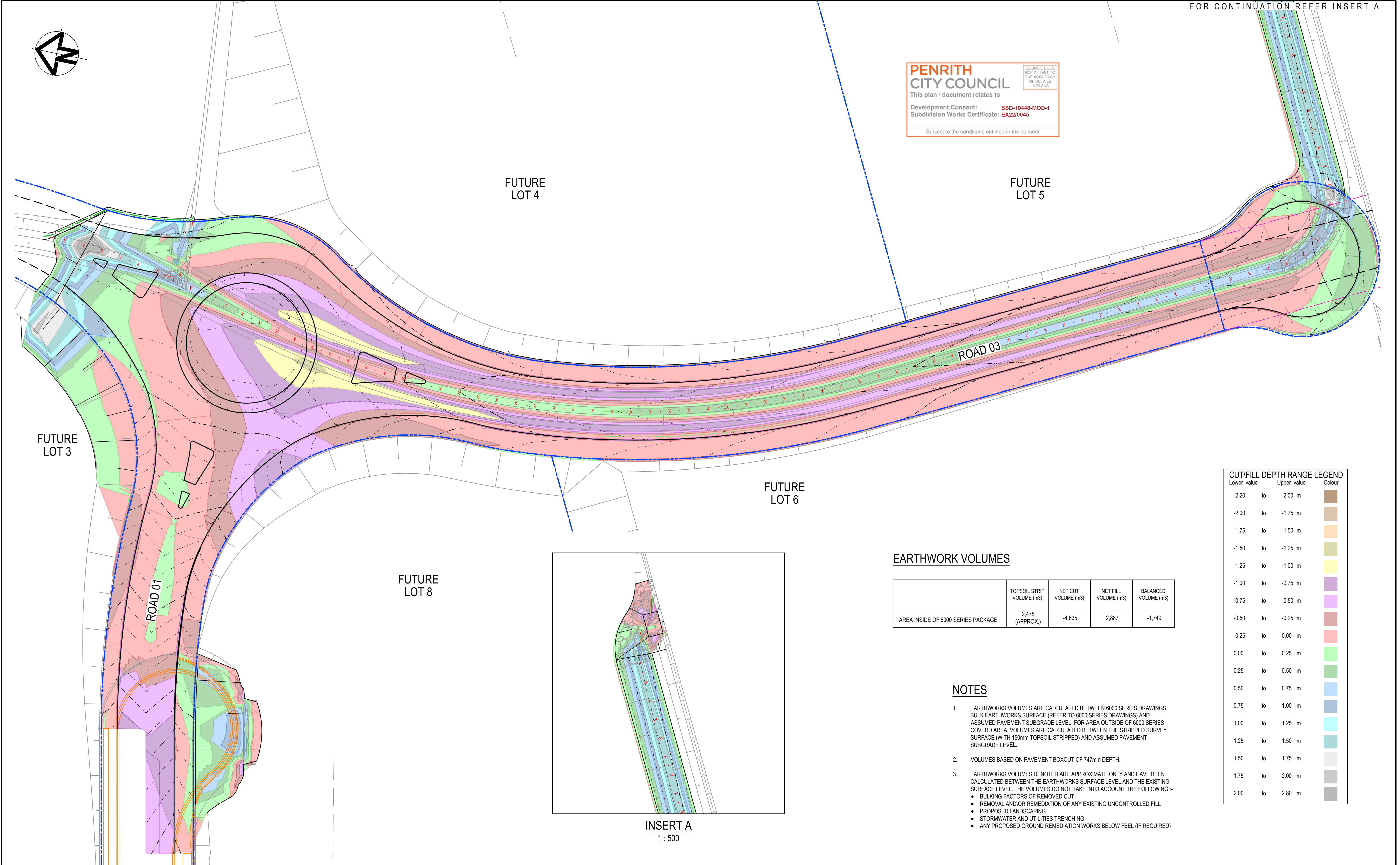
ROAD 01 LONGITUDINAL SECTION

SCALE 1:500 HORI.  
1:50 VERT.









**PENRITH**  
CITY COUNCIL

COUNCIL DOES NOT ATTEST TO THE ACCURACY OF DETAILS IN PLANS

This plan / document relates to

Development Consent: **SSD-10448-MOD-1**  
Subdivision Works Certificate: **EA22/0045**

Subject to the conditions outlined in the consent

EARTHWORK VOLUMES

	TOPSOIL STRIP VOLUME (m3)	NET CUT VOLUME (m3)	NET FILL VOLUME (m3)	BALANCED VOLUME (m3)
AREA INSIDE OF 6000 SERIES PACKAGE	2,475 (APPROX.)	-4,635	2,887	-1,749

NOTES

- EARTHWORKS VOLUMES ARE CALCULATED BETWEEN 6000 SERIES DRAWINGS BULK EARTHWORKS SURFACE (REFER TO 6000 SERIES DRAWINGS) AND ASSUMED PAVEMENT SUBGRADE LEVEL. FOR AREA OUTSIDE OF 6000 SERIES COVERED AREA, VOLUMES ARE CALCULATED BETWEEN THE STRIPPED SURVEY SURFACE (WITH 150mm TOPSOIL STRIPPED) AND ASSUMED PAVEMENT SUBGRADE LEVEL.
- VOLUMES BASED ON PAVEMENT BOXOUT OF 747mm DEPTH.
- EARTHWORKS VOLUMES DENOTED ARE APPROXIMATE ONLY AND HAVE BEEN CALCULATED BETWEEN THE EARTHWORKS SURFACE LEVEL AND THE EXISTING SURFACE LEVEL. THE VOLUMES DO NOT TAKE INTO ACCOUNT THE FOLLOWING :-
  - BULKING FACTORS OF REMOVED CUT
  - REMOVAL AND/OR REMEDIATION OF ANY EXISTING UNCONTROLLED FILL
  - PROPOSED LANDSCAPING
  - STORMWATER AND UTILITIES TRENCHING
  - ANY PROPOSED GROUND REMEDIATION WORKS BELOW FBEL (IF REQUIRED)

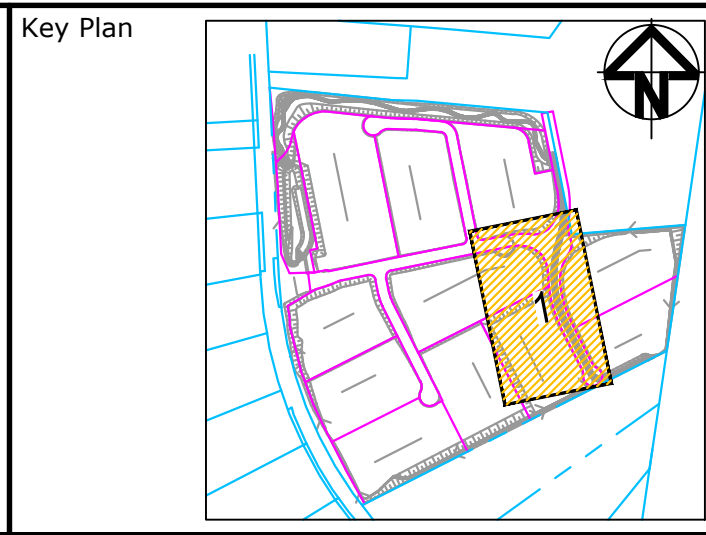
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-2.00	to -1.75 m	
-1.75	to -1.50 m	
-1.50	to -1.25 m	
-1.25	to -1.00 m	
-1.00	to -0.75 m	
-0.75	to -0.50 m	
-0.50	to -0.25 m	
-0.25	to 0.00 m	
0.00	to 0.25 m	
0.25	to 0.50 m	
0.50	to 0.75 m	
0.75	to 1.00 m	
1.00	to 1.25 m	
1.25	to 1.50 m	
1.50	to 1.75 m	
1.75	to 2.00 m	
2.00	to 2.80 m	

1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22
Issue	Description	Date

Bar Scales

01020304050m

1 : 500 @ A1 1 : 1000 @ A3



Client

Scales

1:500

GridGDA2020

Height DatumAHD

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Drawn

Designed

Checked

Approved

Project

ASPECT INDUSTRIAL ESTATE  
MAMRE ROAD,  
KEMPS CREEK  
STAGE 1B

Title

BULK EARTHWORKS  
CUT/FILL PLAN

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 CONSTRUCTION

A1

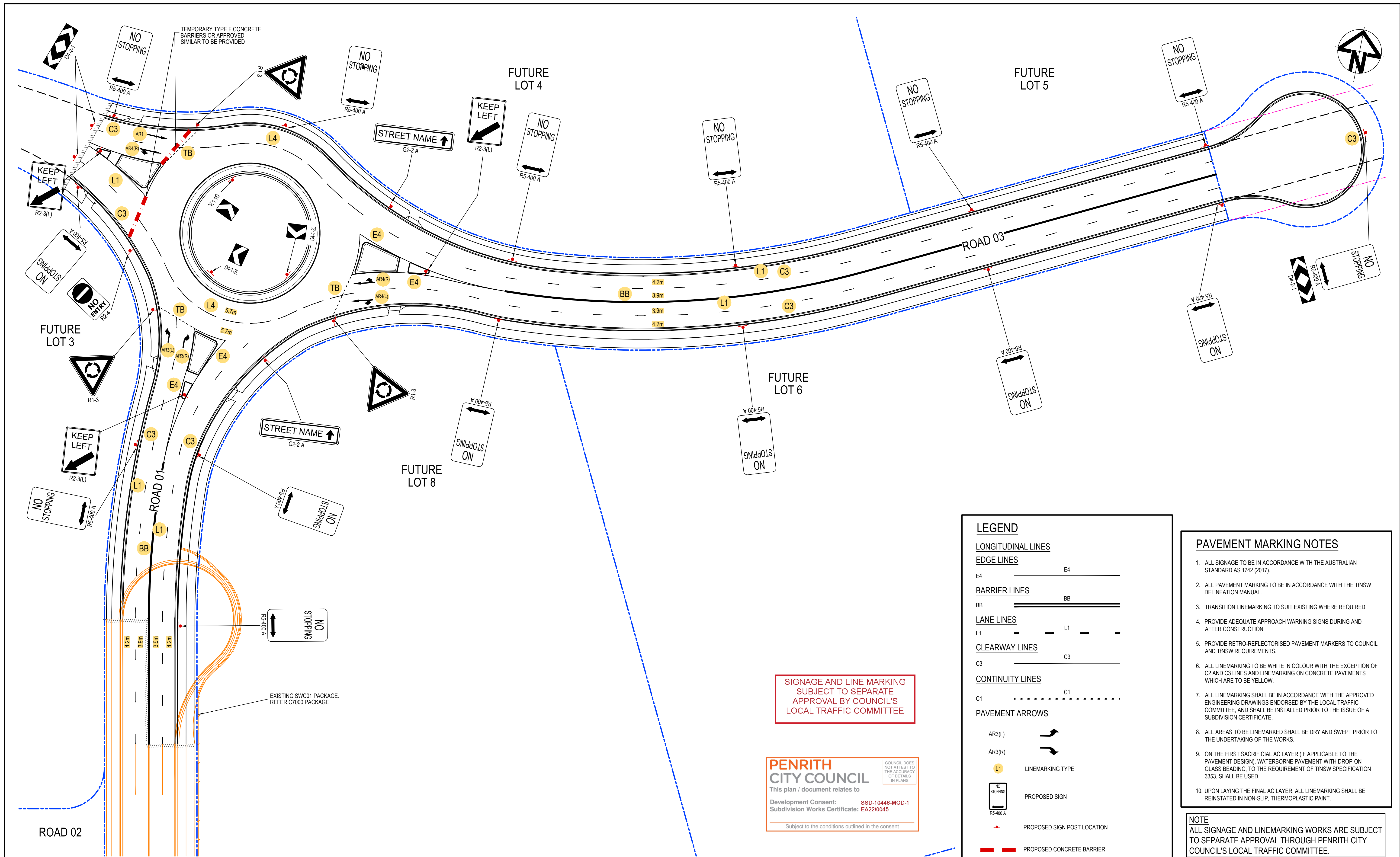
Project - Drawing No.

18-596-C8201

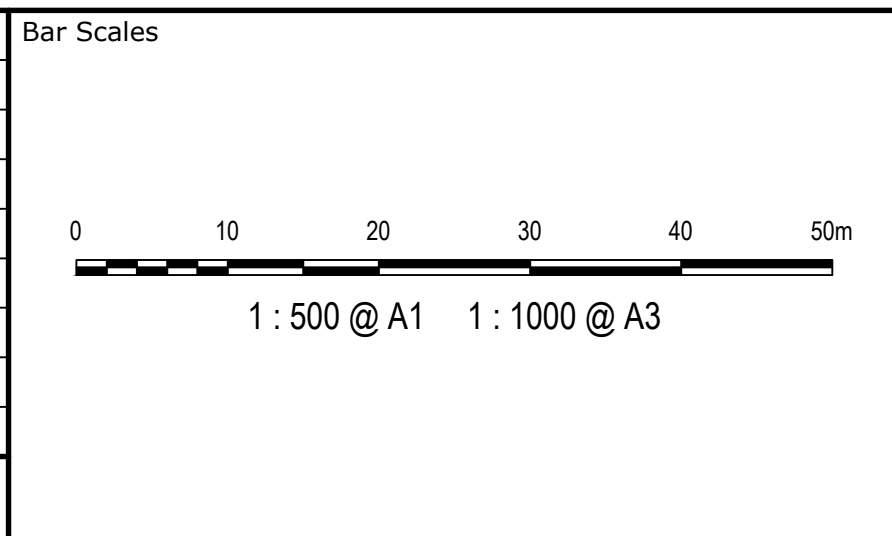
Issue

1





1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22
Issue	Description	Date



Key Plan
----------

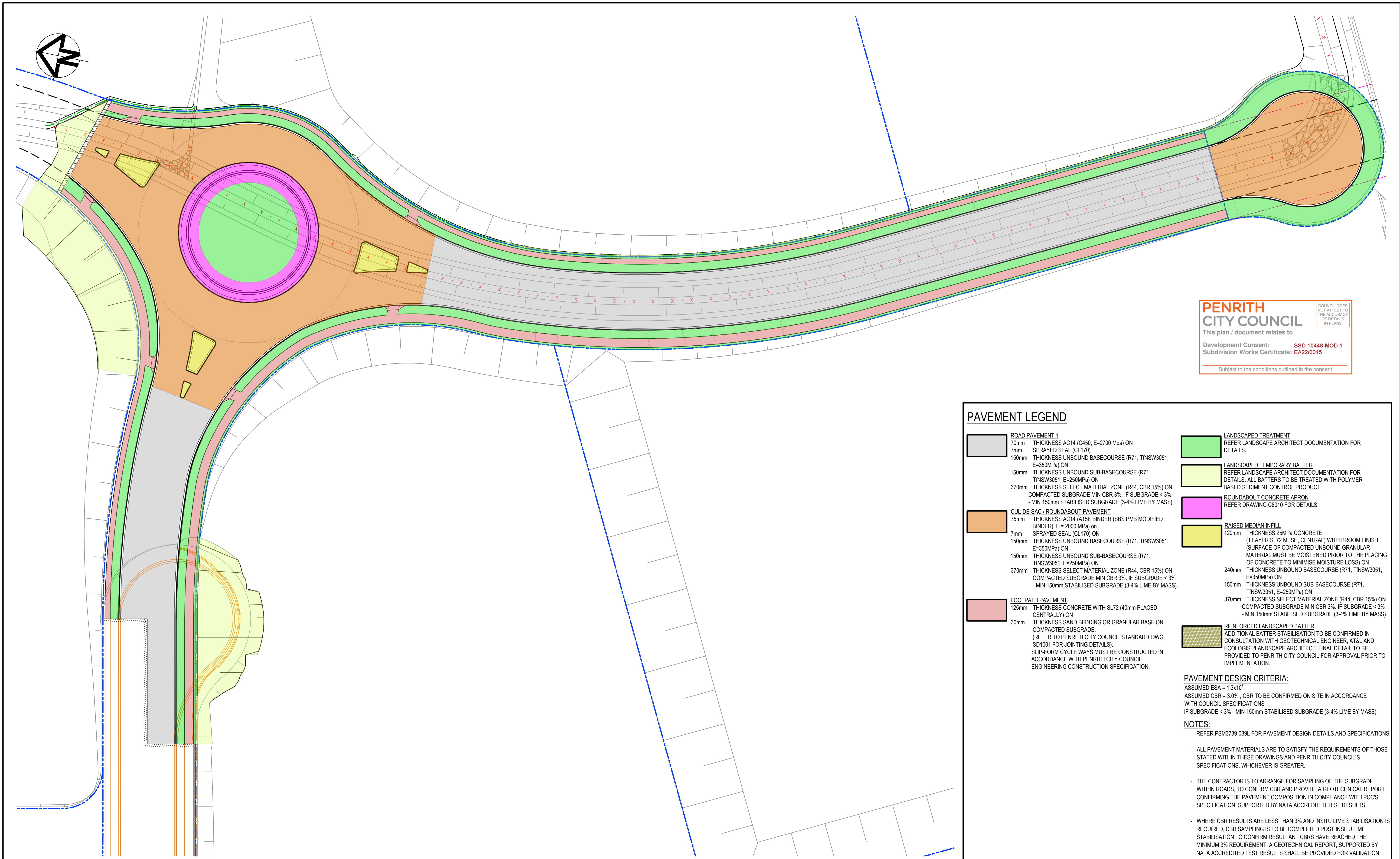


Scales	1:500
Grid	GDA2020
Height Datum	AHD
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Drawn	JB/MH
Designed	JB/MH
Checked	DS
Approved	DS
Project	ASPECT INDUSTRIAL ESTATE MAMRE ROAD, KEMPS CREEK STAGE 1B
Title	PAVEMENT MARKING AND SIGNPOSTING

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 CONSTRUCTION
Project - Drawing No.	18-596-C8301
Issue	1





**PENRITH CITY COUNCIL**  
This plan / document relates to  
Development Consent: **SSD-10448-MOD-1**  
Subdivision Works Certificate: **Ea220045**  
Subject to the conditions outlined in the consent

**PAVEMENT LEGEND**

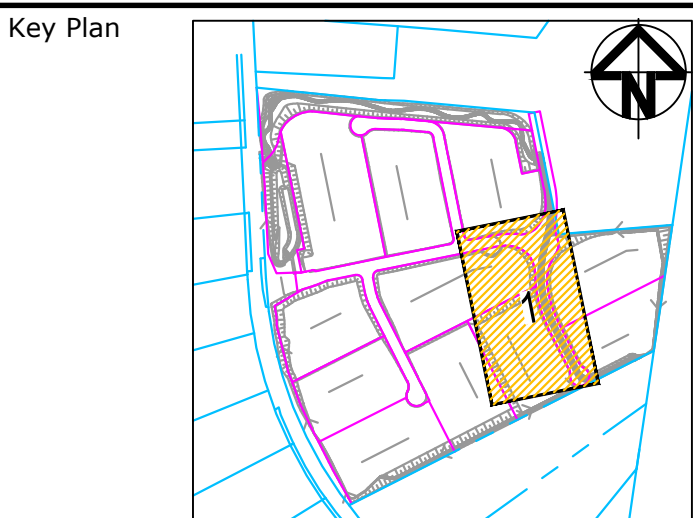
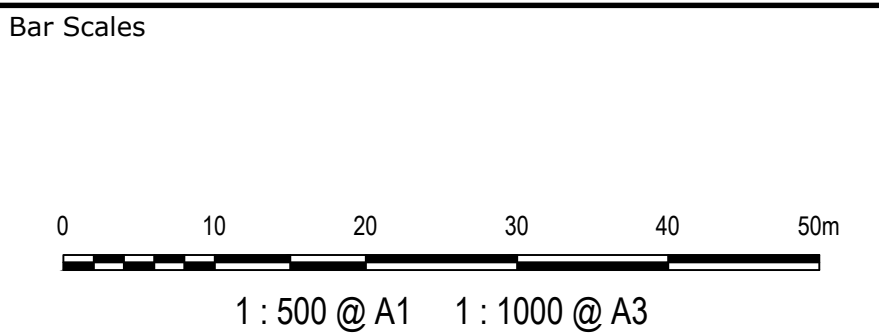
- ROAD PAVEMENT 1**  
70mm THICKNESS AC14 (C450, E=2700 Mpa) ON  
7mm SPRAYED SEAL (CL170)  
150mm THICKNESS UNBOUND BASECOURSE (R71, TINSW3051, E=350MPa) ON  
150mm THICKNESS UNBOUND SUB-BASECOURSE (R71, TINSW3051, E=250MPa) ON  
370mm THICKNESS SELECT MATERIAL ZONE (R44, CBR 15%) ON  
COMPACTED SUBGRADE MIN CBR 3%. IF SUBGRADE < 3%  
- MIN 150mm STABILISED SUBGRADE (3-4% LIME BY MASS).
- CUL-DE-SAC / ROUNDABOUT PAVEMENT**  
75mm THICKNESS AC14 (A15E BINDER (SBS PMB MODIFIED BINDER), E = 2000 MPa) on  
7mm SPRAYED SEAL (CL170) ON  
150mm THICKNESS UNBOUND BASECOURSE (R71, TINSW3051, E=350MPa) ON  
150mm THICKNESS UNBOUND SUB-BASECOURSE (R71, TINSW3051, E=250MPa) ON  
370mm THICKNESS SELECT MATERIAL ZONE (R44, CBR 15%) ON  
COMPACTED SUBGRADE MIN CBR 3%. IF SUBGRADE < 3%  
- MIN 150mm STABILISED SUBGRADE (3-4% LIME BY MASS).
- FOOTPATH PAVEMENT**  
125mm THICKNESS CONCRETE WITH SL72 (40mm PLACED CENTRALLY) ON  
30mm THICKNESS SAND BEDDING OR GRANULAR BASE ON  
COMPACTED SUBGRADE.  
(REFER TO PENRITH CITY COUNCIL STANDARD DWG SD1001 FOR JOINTING DETAILS).  
SLIP-FORM CYCLE WAYS MUST BE CONSTRUCTED IN ACCORDANCE WITH PENRITH CITY COUNCIL ENGINEERING CONSTRUCTION SPECIFICATION.
- LANDSCAPED TREATMENT**  
REFER LANDSCAPE ARCHITECT DOCUMENTATION FOR DETAILS.
- LANDSCAPED TEMPORARY BATTER**  
REFER LANDSCAPE ARCHITECT DOCUMENTATION FOR DETAILS. ALL BATTERS TO BE TREATED WITH POLYMER BASED SEDIMENT CONTROL PRODUCT
- ROUNDABOUT CONCRETE APRON**  
REFER DRAWING C8010 FOR DETAILS
- RAISED MEDIAN INFILL**  
120mm THICKNESS 25MPa CONCRETE  
(1 LAYER SL72 MESH, CENTRAL) WITH BROOM FINISH  
(SURFACE OF COMPACTED UNBOUND GRANULAR MATERIAL MUST BE MOISTENED PRIOR TO THE PLACING OF CONCRETE TO MINIMISE MOISTURE LOSS) ON  
240mm THICKNESS UNBOUND BASECOURSE (R71, TINSW3051, E=350MPa) ON  
150mm THICKNESS UNBOUND SUB-BASECOURSE (R71, TINSW3051, E=250MPa) ON  
370mm THICKNESS SELECT MATERIAL ZONE (R44, CBR 15%) ON  
COMPACTED SUBGRADE MIN CBR 3%. IF SUBGRADE < 3%  
- MIN 150mm STABILISED SUBGRADE (3-4% LIME BY MASS).
- REINFORCED LANDSCAPED BATTER**  
ADDITIONAL BATTER STABILISATION TO BE CONFIRMED IN CONSULTATION WITH GEOTECHNICAL ENGINEER, AT&L AND ECOLOGIST/LANDSCAPE ARCHITECT. FINAL DETAIL TO BE PROVIDED TO PENRITH CITY COUNCIL FOR APPROVAL PRIOR TO IMPLEMENTATION.

**PAVEMENT DESIGN CRITERIA:**  
ASSUMED ESA = 1.3x10<sup>7</sup>  
ASSUMED CBR = 3.0% ; CBR TO BE CONFIRMED ON SITE IN ACCORDANCE WITH COUNCIL SPECIFICATIONS  
IF SUBGRADE < 3% - MIN 150mm STABILISED SUBGRADE (3-4% LIME BY MASS)

**NOTES:**

- REFER PSM3739-039L FOR PAVEMENT DESIGN DETAILS AND SPECIFICATIONS
- ALL PAVEMENT MATERIALS ARE TO SATISFY THE REQUIREMENTS OF THOSE STATED WITHIN THESE DRAWINGS AND PENRITH CITY COUNCIL'S SPECIFICATIONS, WHICHEVER IS GREATER.
- THE CONTRACTOR IS TO ARRANGE FOR SAMPLING OF THE SUBGRADE WITHIN ROADS, TO CONFIRM CBR AND PROVIDE A GEOTECHNICAL REPORT CONFIRMING THE PAVEMENT COMPOSITION IN COMPLIANCE WITH PCC'S SPECIFICATION, SUPPORTED BY NATA ACCREDITED TEST RESULTS.
- WHERE CBR RESULTS ARE LESS THAN 3% AND INSITU LIME STABILISATION IS REQUIRED, CBR SAMPLING IS TO BE COMPLETED POST INSITU LIME STABILISATION TO CONFIRM RESULTANT CBR'S HAVE REACHED THE MINIMUM 3% REQUIREMENT. A GEOTECHNICAL REPORT, SUPPORTED BY NATA ACCREDITED TEST RESULTS SHALL BE PROVIDED FOR VALIDATION.

1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22
Issue	Description	Date

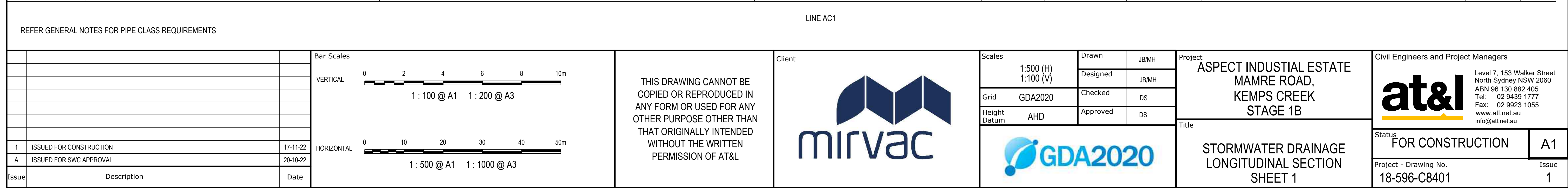


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Grid	GDA2020
Height Datum	AHD
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Drawn	JB/MH
Designed	JB/MH
Checked	DS
Approved	DS
Project	ASPECT INDUSTRIAL ESTATE MAMRE ROAD, KEMPS CREEK STAGE 1B
Title	PAVEMENT PLAN

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 CONSTRUCTION
Project - Drawing No.	18-596-C8321
Issue	1

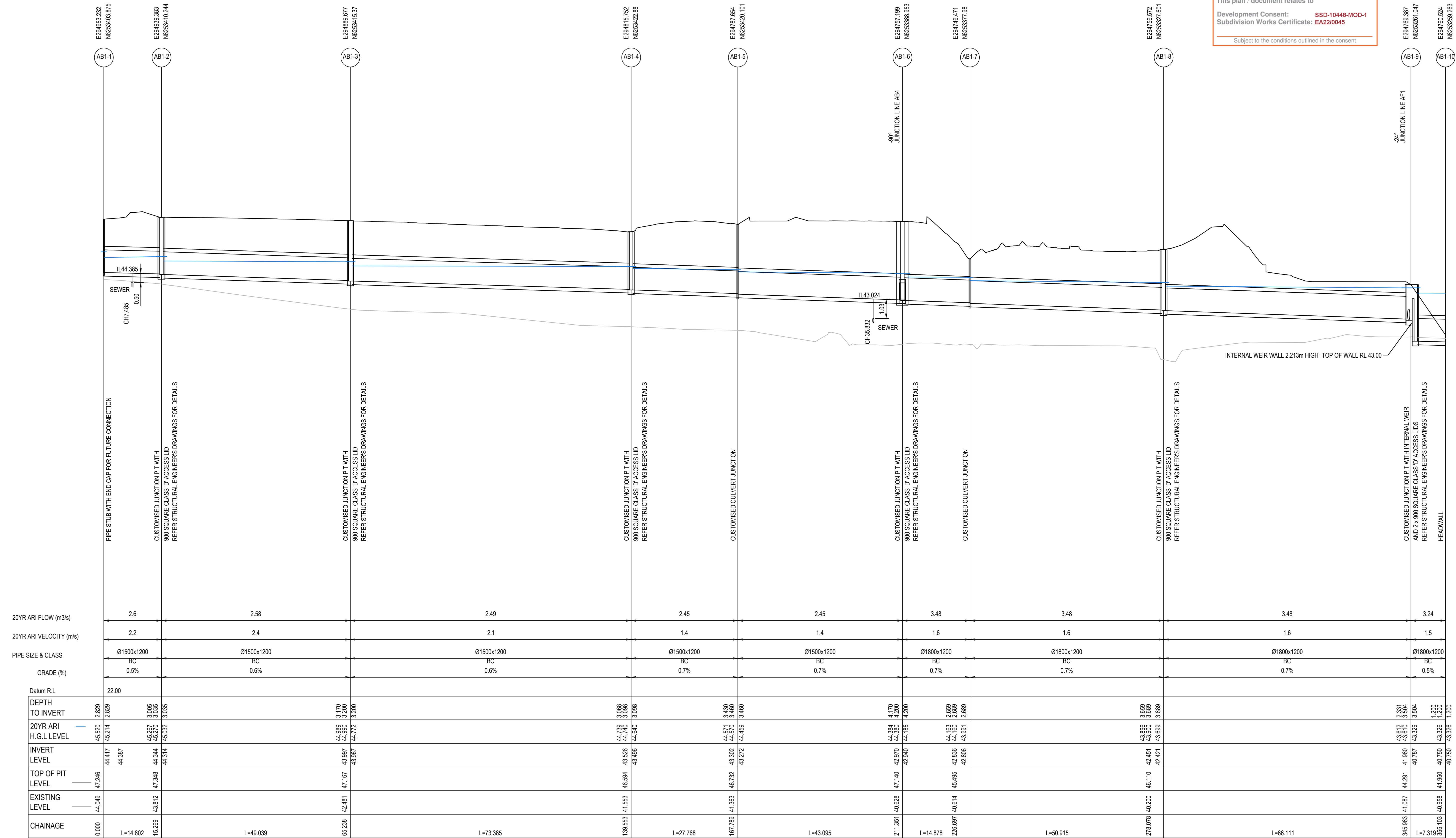












REFER GENERAL NOTES FOR PIPE CLASS REQUIREMENTS

1

ISSUED FOR CONSTRUCTION

17-11-22

A

ISSUED FOR SWC APPROVAL

20-10-22

Issue

Description

Date

Bar Scales

VERTICAL

0 2 4 6 8 10m

1 : 100 @ A1 1 : 200 @ A3

HORIZONTAL

0 10 20 30 40 50m

1 : 500 @ A1 1 : 1000 @ A3

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Client

mirvac

Scales

1:500 (H)  
1:100 (V)

Grid

GDA2020

Height Datum

AHD

Drawn

JB/MH

Designed

JB/MH

Checked

DS

Approved

DS

GDA2020

Project

ASPECT INDUSTRIAL ESTATE  
MAMRE ROAD,  
KEMPS CREEK  
STAGE 1B

Title

STORMWATER DRAINAGE  
LONGITUDINAL SECTION  
SHEET 3

Civil Engineers and Project Managers

at&l

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 CONSTRUCTION

A1

Project - Drawing No.

18-596-C8403

Issue

1



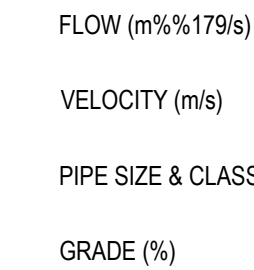
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F:\18-596 Mamre Road\6.0 Drgs\Civil\Final\CC\8000\_STAGE 1B CC\18-596-C8405.dwg





LINE AA10

LINE AF1

LINE AO2

100mm on Original



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Scales	1:500 (H) 1:100 (V)	Drawn	JB/MH
		Designed	JB/MH
Grid	GDA2020	Checked	DS
Height Datum	AHD	Approved	DS

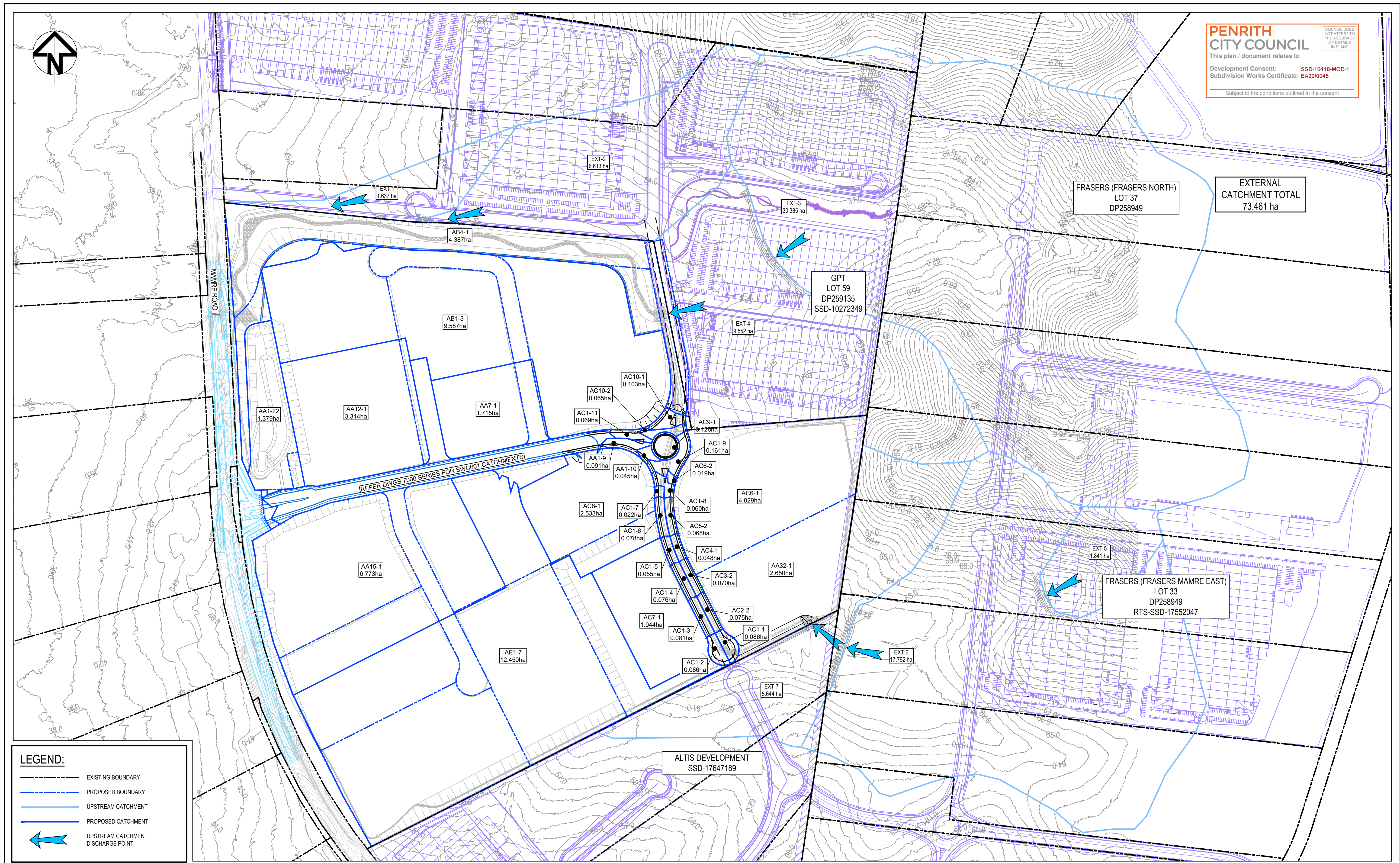


The logo for GDA2020, featuring a stylized blue globe icon with a white swoosh and the text 'GDA2020' in blue.

Project	ASPECT INDUSTRIAL ESTATE MAMRE ROAD, KEMPS CREEK STAGE 1B
Title	STORMWATER DRAINAGE LONGITUDINAL SECTION SHEET 6

		<p>Civil Engineers and Project Managers</p> <p>Level 7, 153 Walker Street North Sydney NSW 2060</p> <p>ABN 96 130 882 405</p> <p>Tel: 02 9439 1777</p> <p>Fax: 02 9923 1055</p> <p><a href="http://www.atl.net.au">www.atl.net.au</a> <a href="mailto:info@atl.net.au">info@atl.net.au</a></p>
Status	FOR CONSTRUCTION	A1
Project - Drawing No. 18-996-C8406		Issue 1









100mm on Original

## Bar Scales

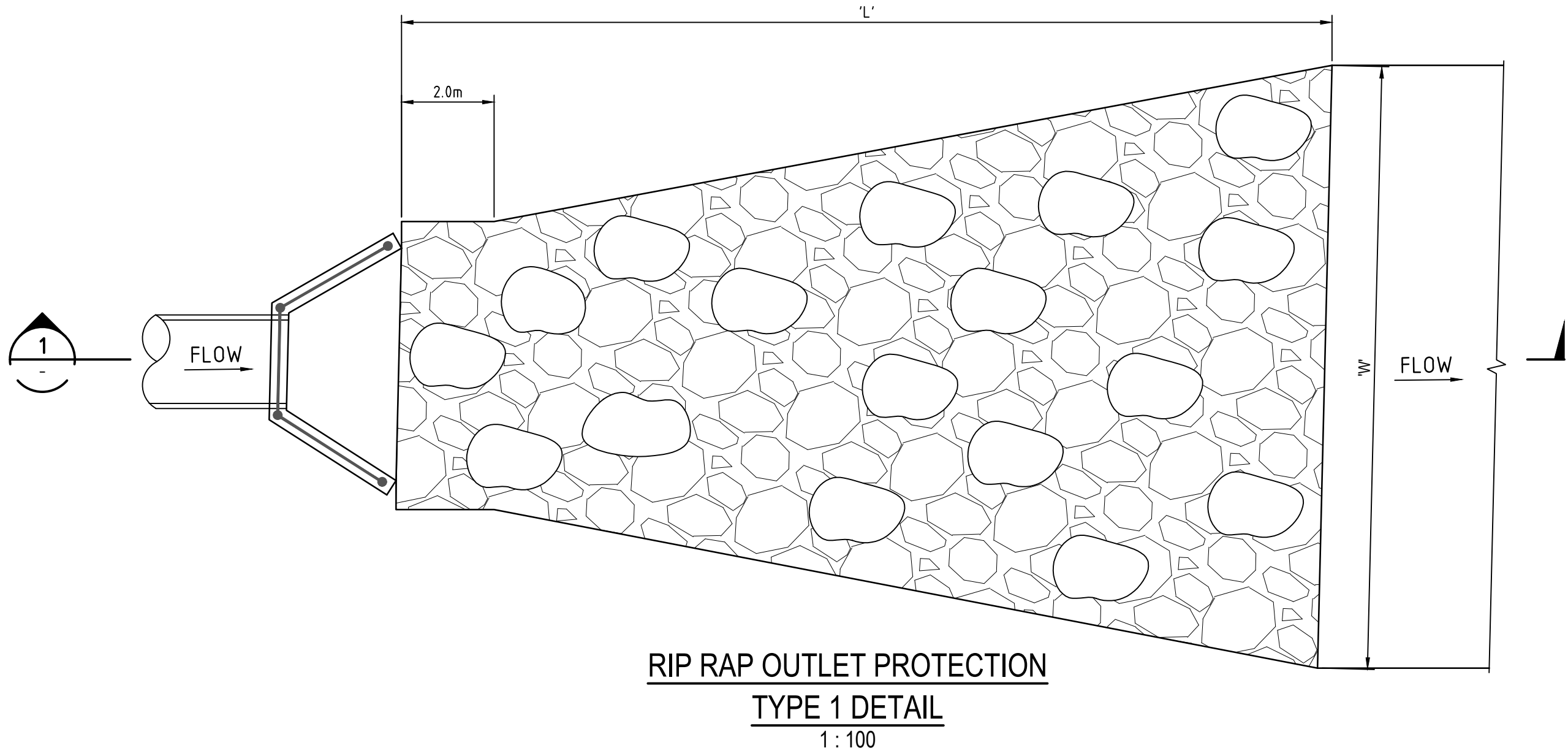
ON  $\odot$  2



Project  
ASPECT INDUSTRIAL ESTATE  
MAMRE ROAD,  
KEMPS CREEK  
STAGE 1B

**at&I**





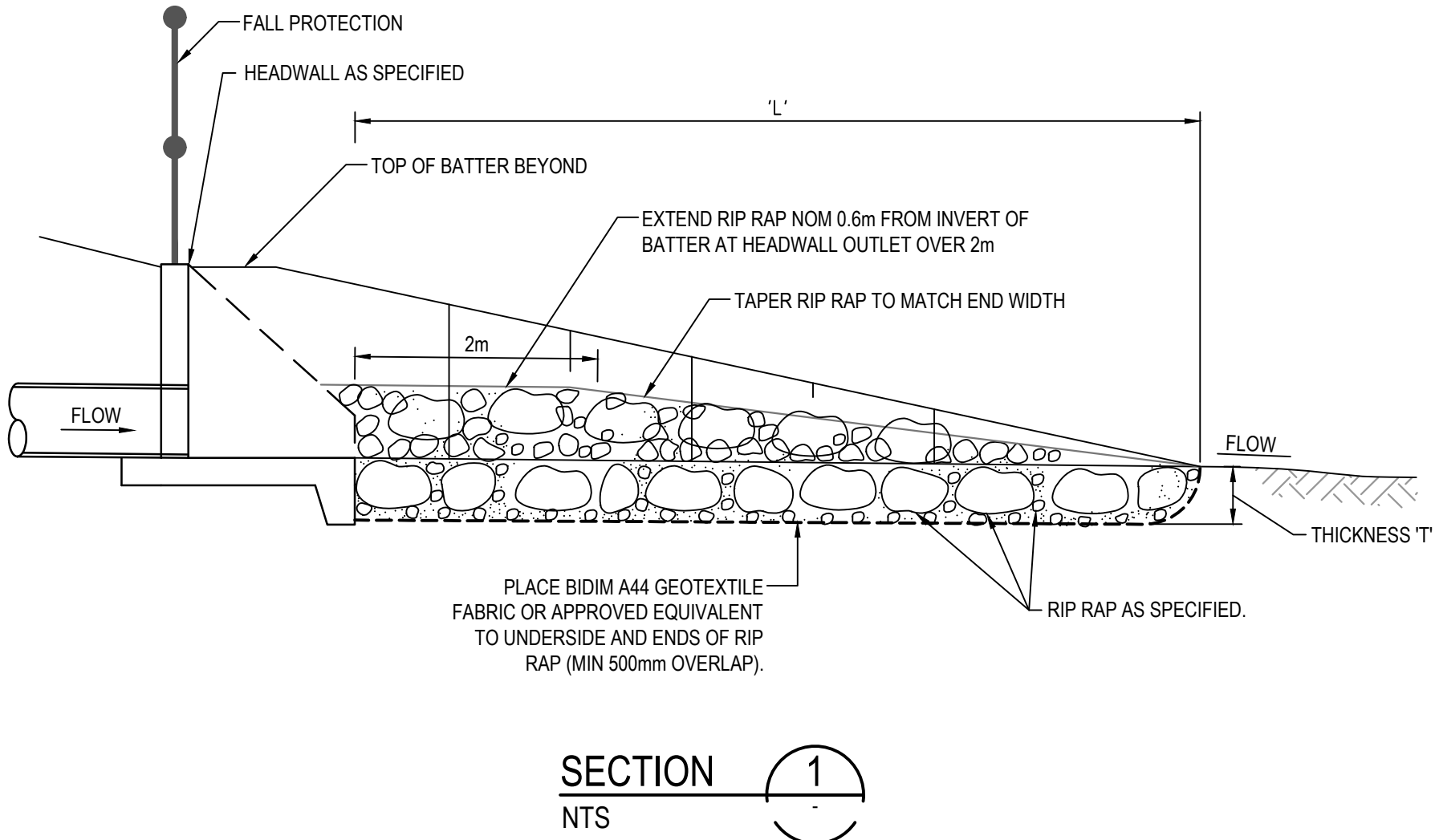
SCOUR PROTECTION SCHEDULE

OUTLET HEADWALL No.	PIPE Ø (mm)	LENGTH OF PROTECTION (m)	WIDTH OF PROTECTION (m)	NOMINAL ROCK SIZE (mm)	THICKNESS OF PROTECTION (mm)
	'D'	'L'	'W'	'd50'	'T'
AO1-2	2.1 x 1.8	VARIES	VARIES	500	750
AB1-10	1.8 x 1.2	10.000	9.000	300	450
DV1-13	1800	VARIES	VARIES	300	600

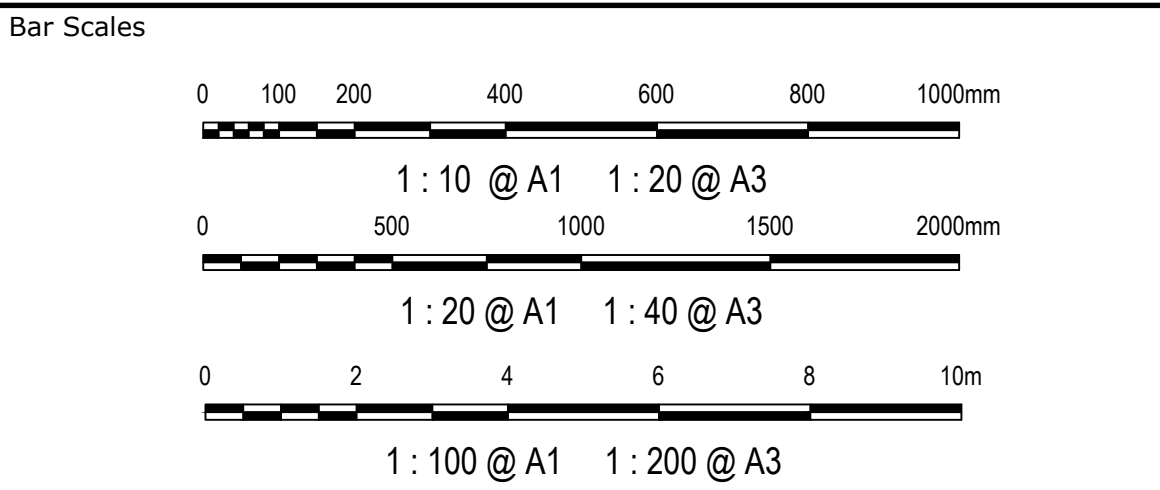
- NOTE:
- MINIMUM NOMINAL ROCK SIZE 'd50' IS 300mm.
  - MINIMUM THICKNESS 'T' IS 1.5 x NOMINAL ROCK SIZE
  - ROCK IS NOT TO BE SITE WON SHALE OR OTHER WEATHERABLE ROCK
  - REFER TO LAYOUT PLANS FOR ACTUAL EXTENT OF PROTECTION

ROCK GRADATION TABLE

	d50					ROCK DISTRIBUTION BY %
	200mm	300mm	400mm	500mm	600mm	
ROCK SIZE (mm)	400	600	750	850	900	15-25%
	300	400	525	600	750	20%
	200	300	400	500	600	50%
	75	100	150	150	200	15-25%



1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22
Issue	Description	Date



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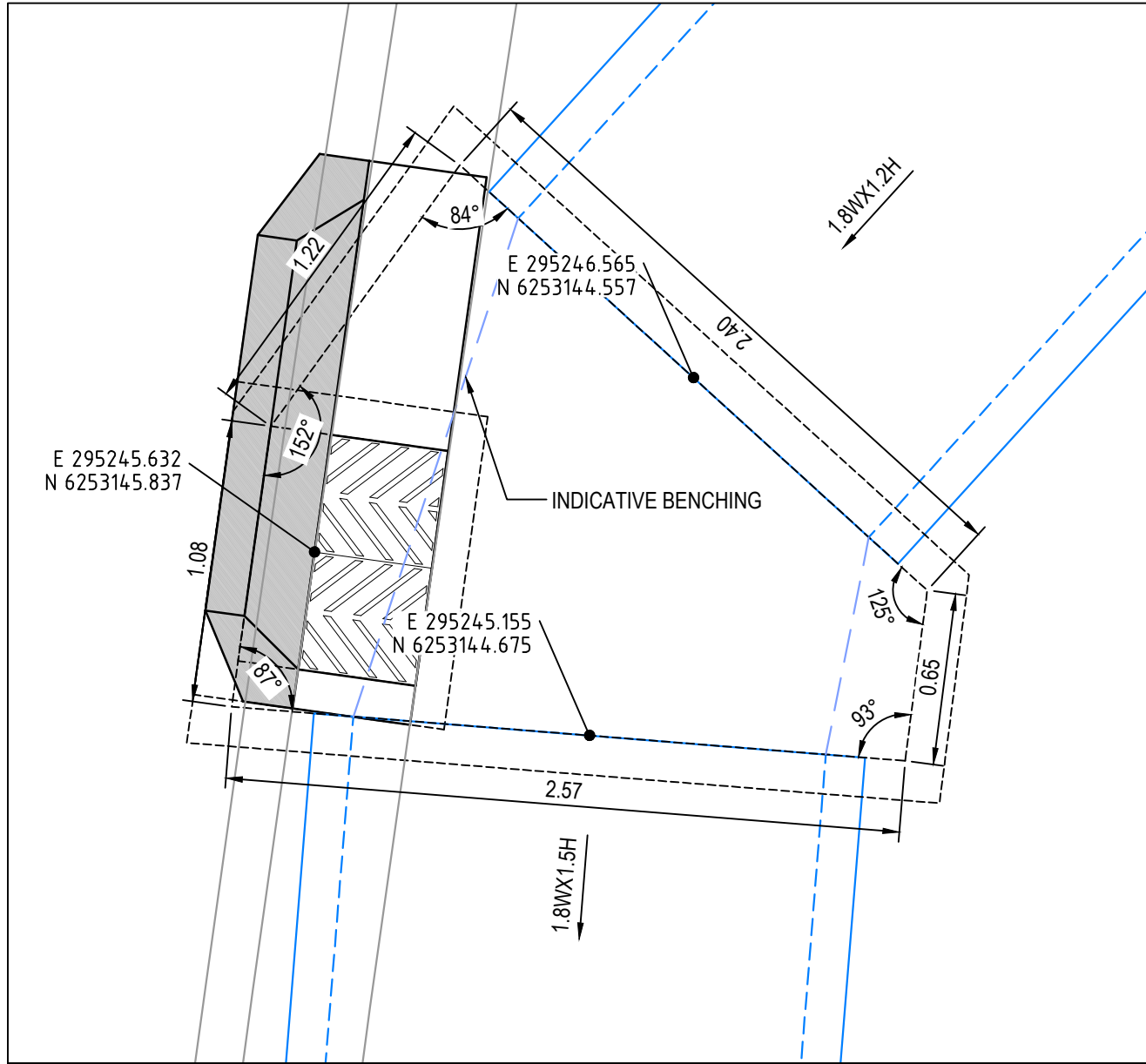


Scales	AS SHOWN	Drawn	JB/MH
		Designed	JB/MH
Grid	GDA2020	Checked	DS
Height Datum	AHD	Approved	DS

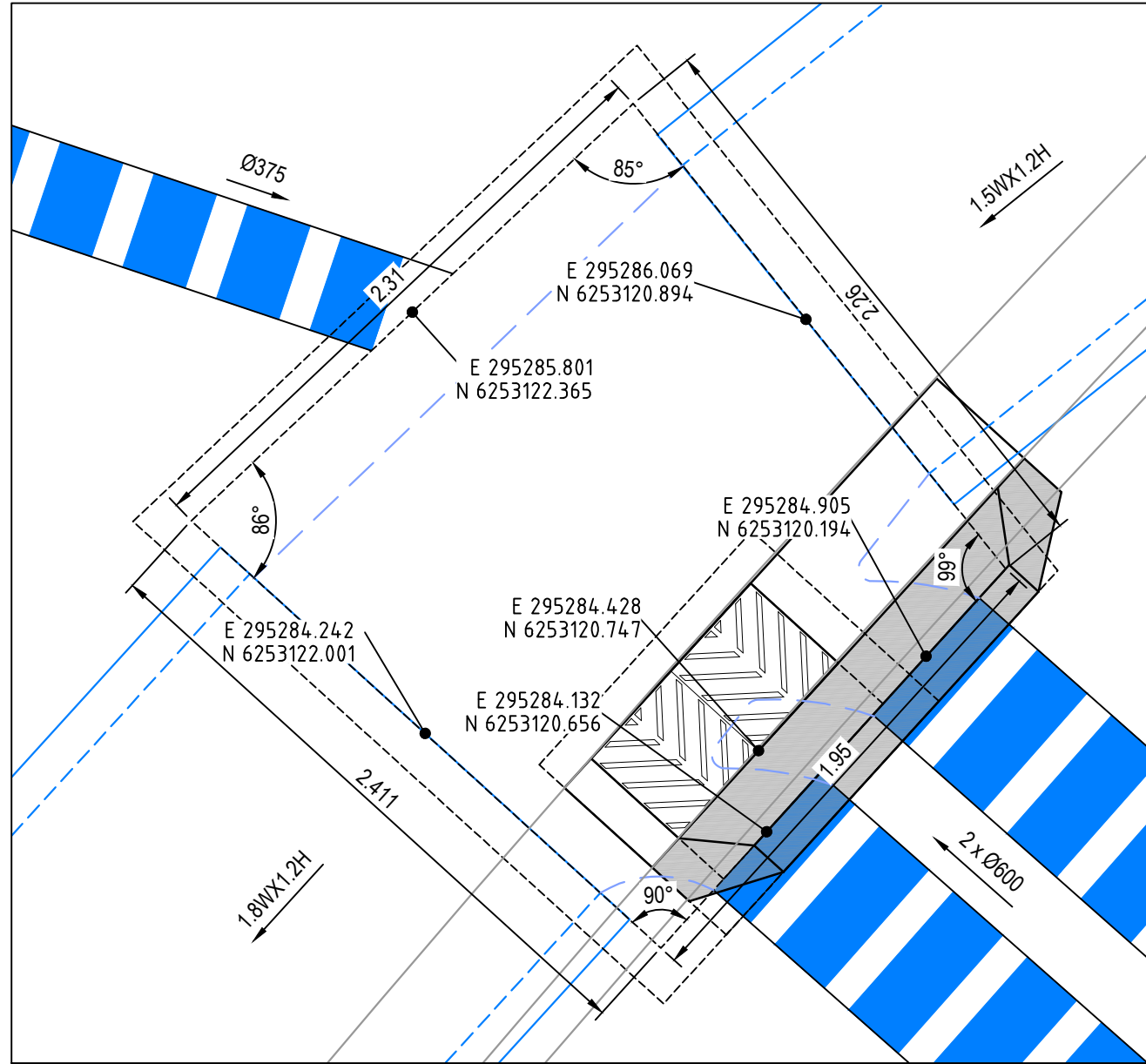
Project	ASPECT INDUSTRIAL ESTATE MAMRE ROAD, KEMPS CREEK STAGE 1B
Title	STORMWATER DRAINAGE DETAILS SHEET 2

Civil Engineers and Project Managers		
Status	FOR CONSTRUCTION	A1
Project - Drawing No.	18-596-C8422	Issue 1

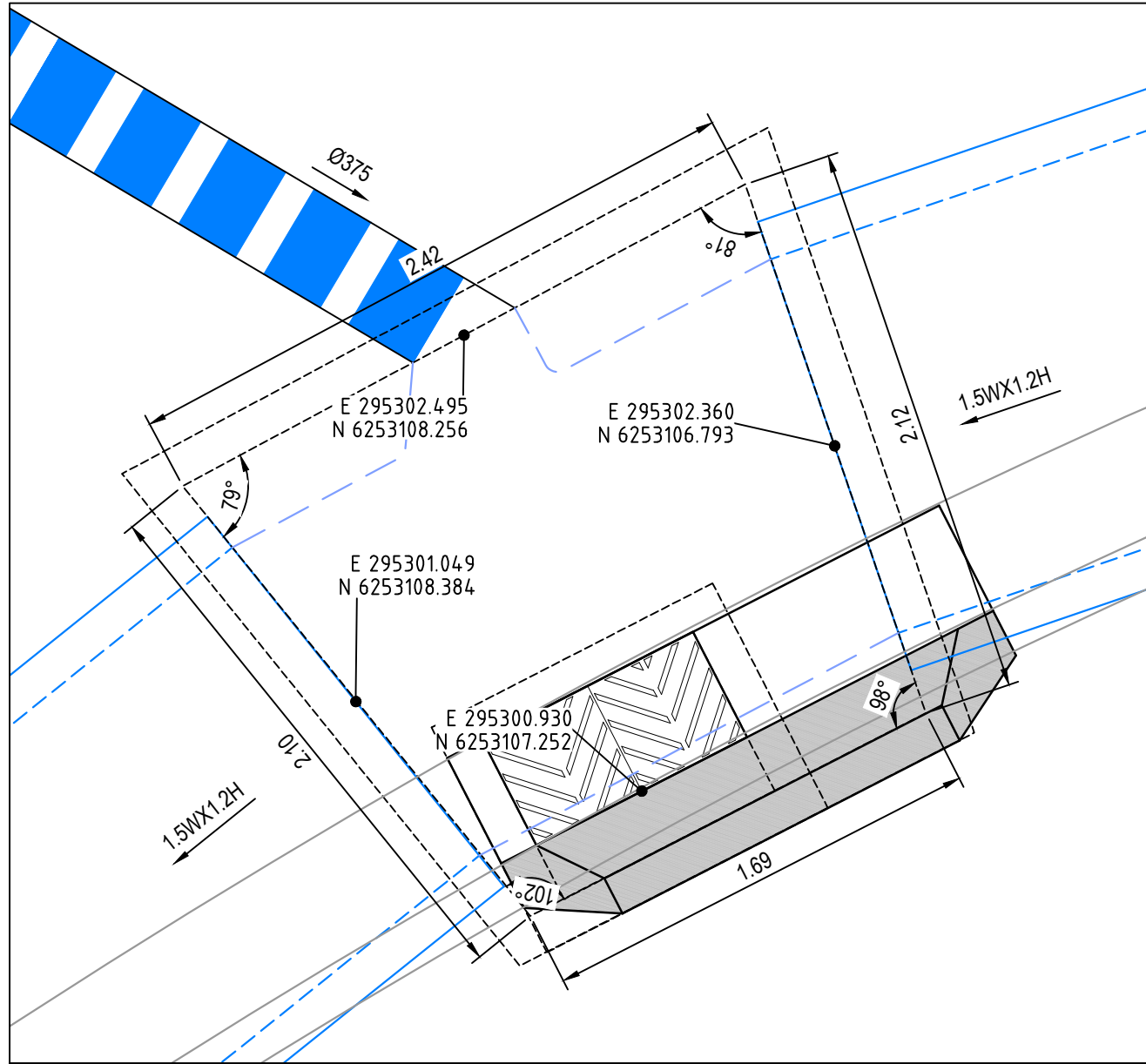




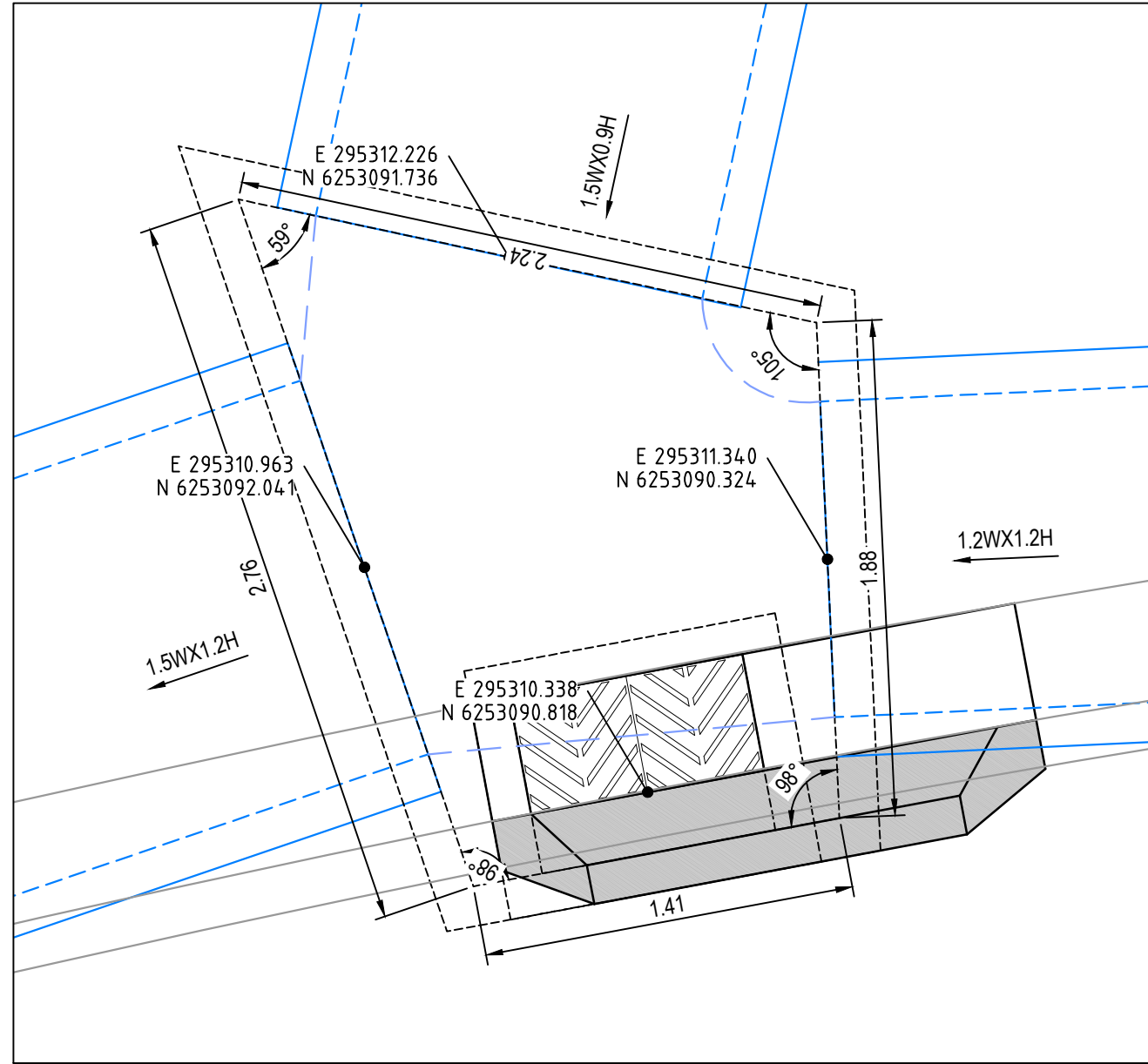
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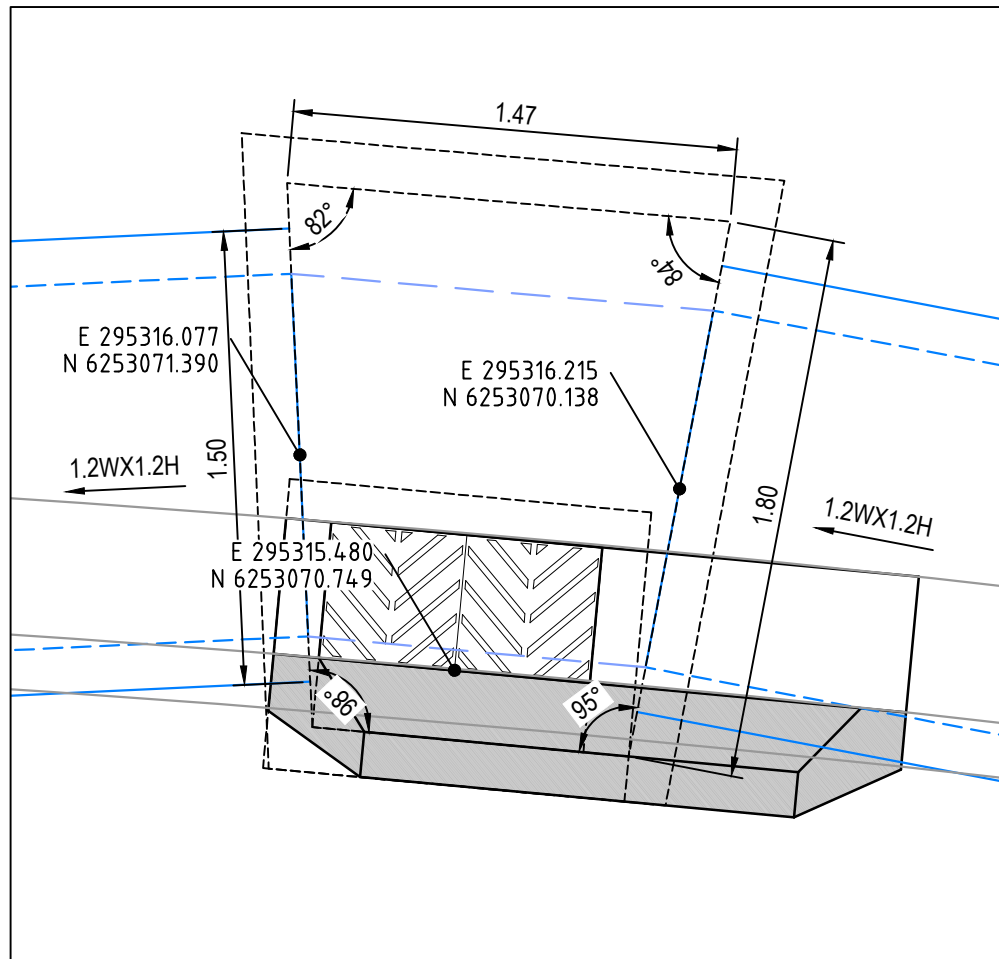
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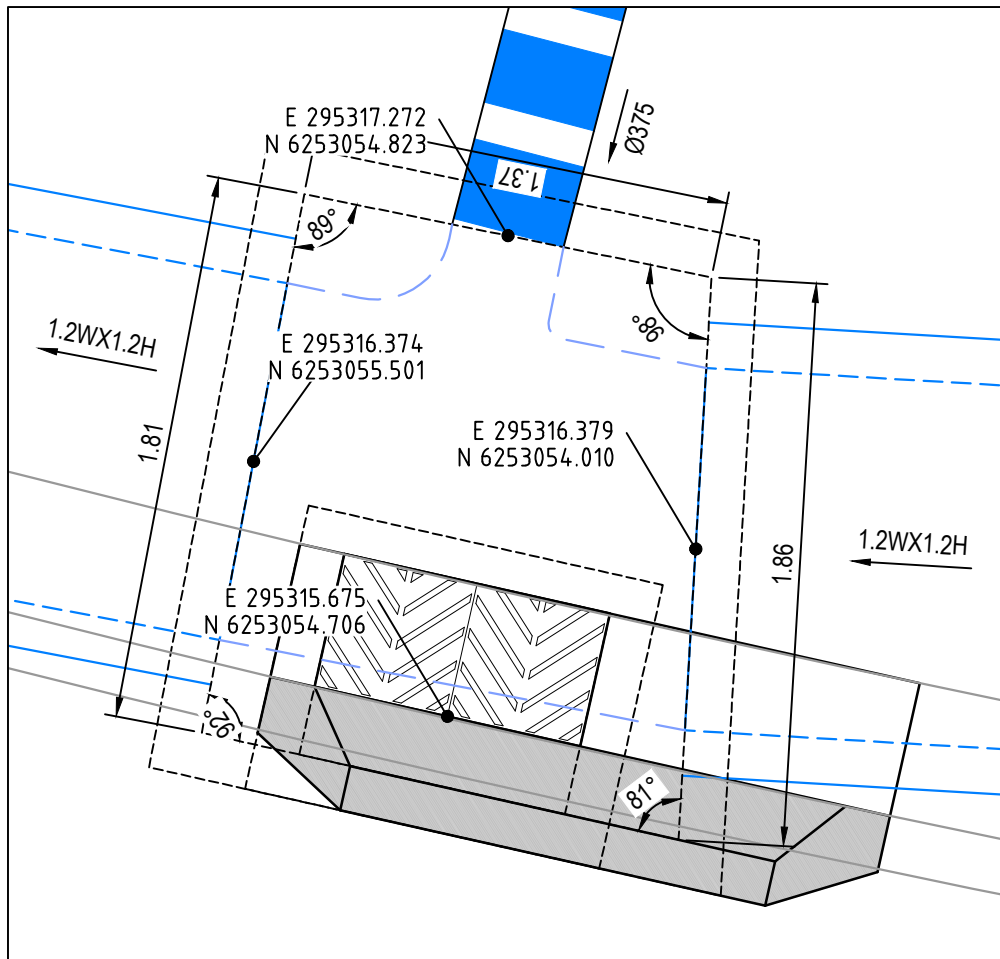
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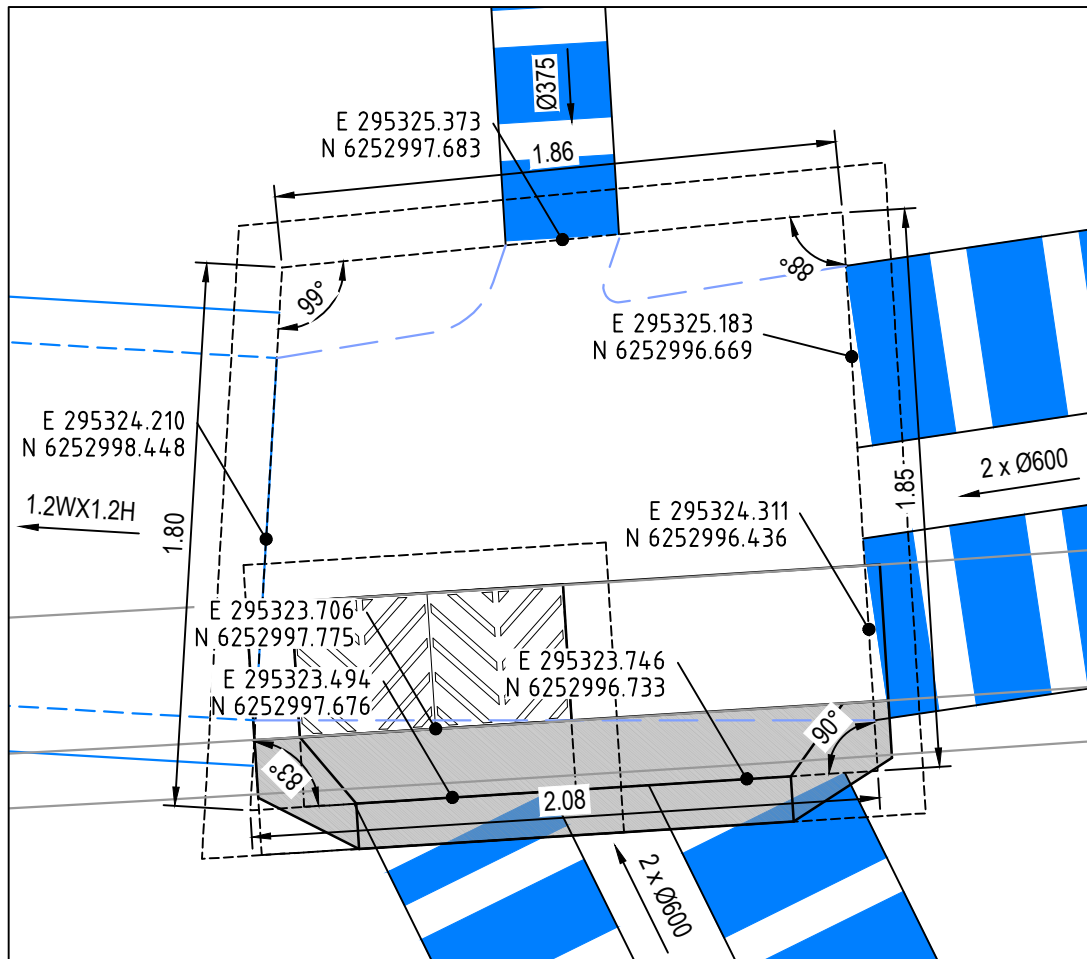
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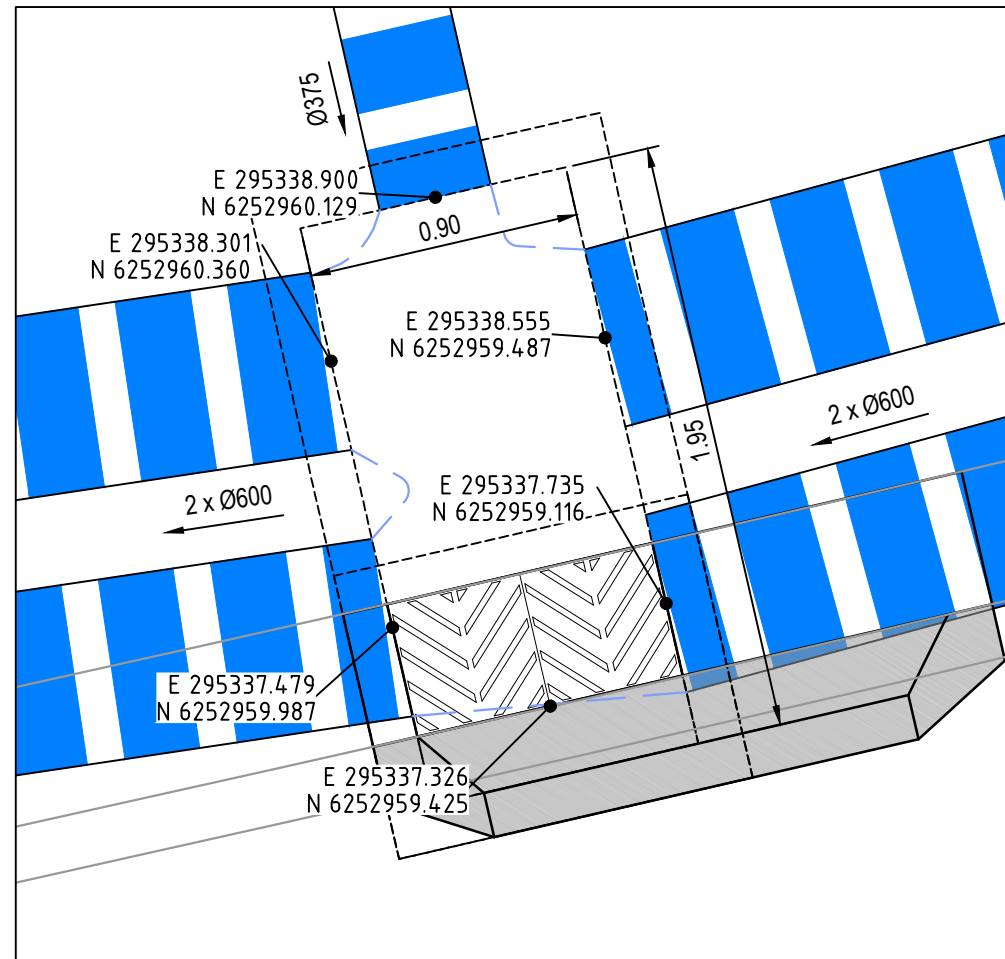
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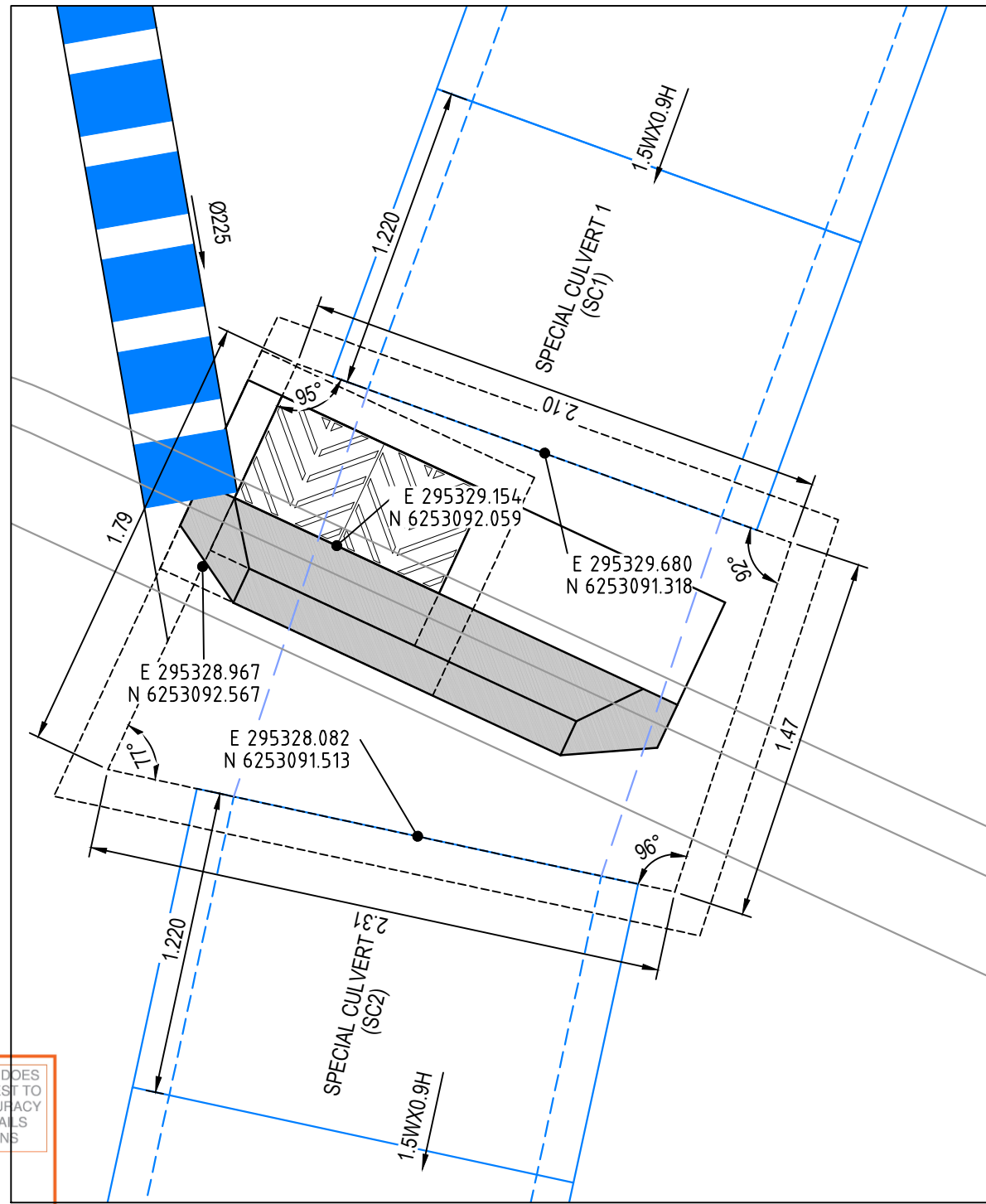
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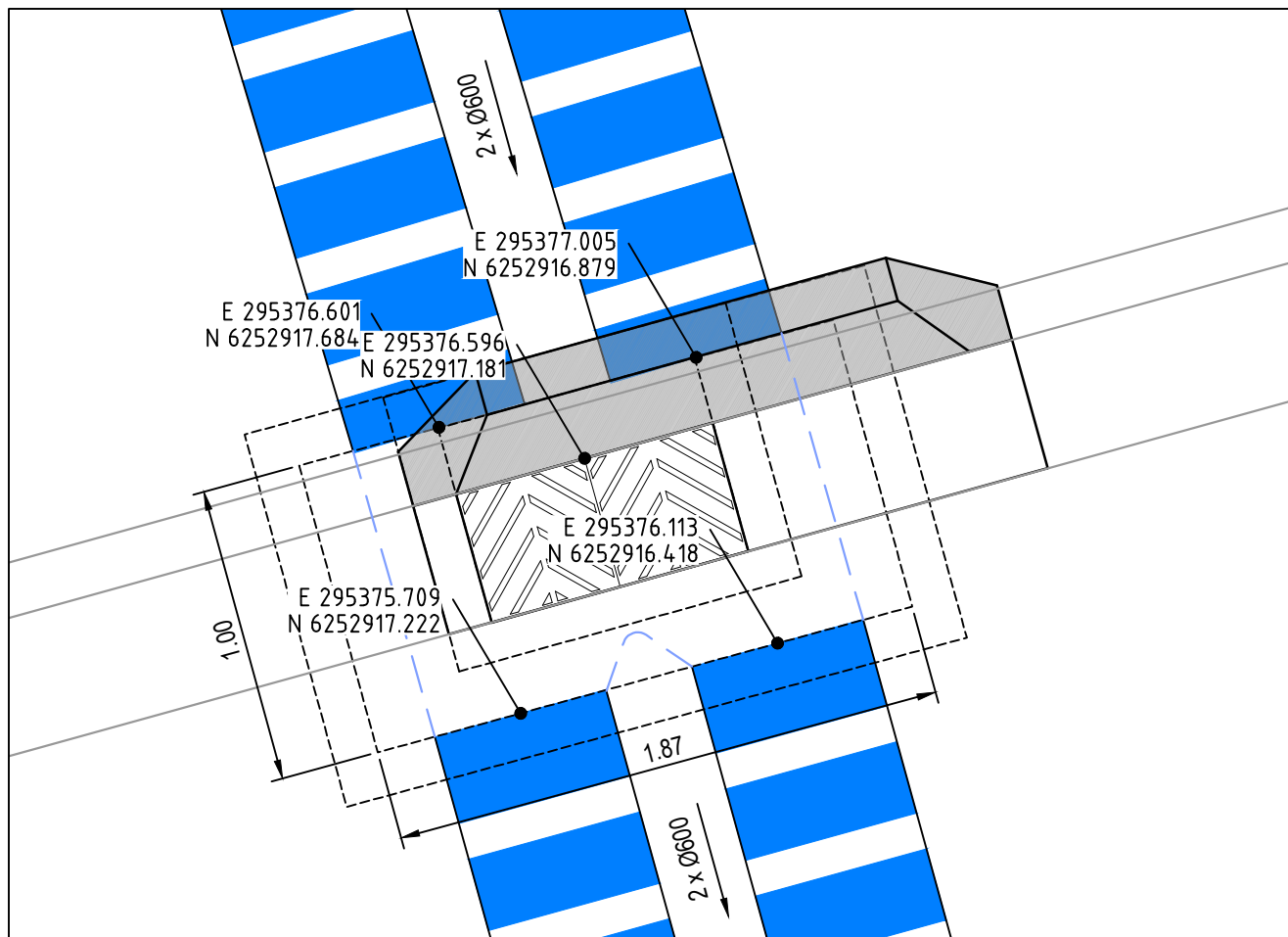
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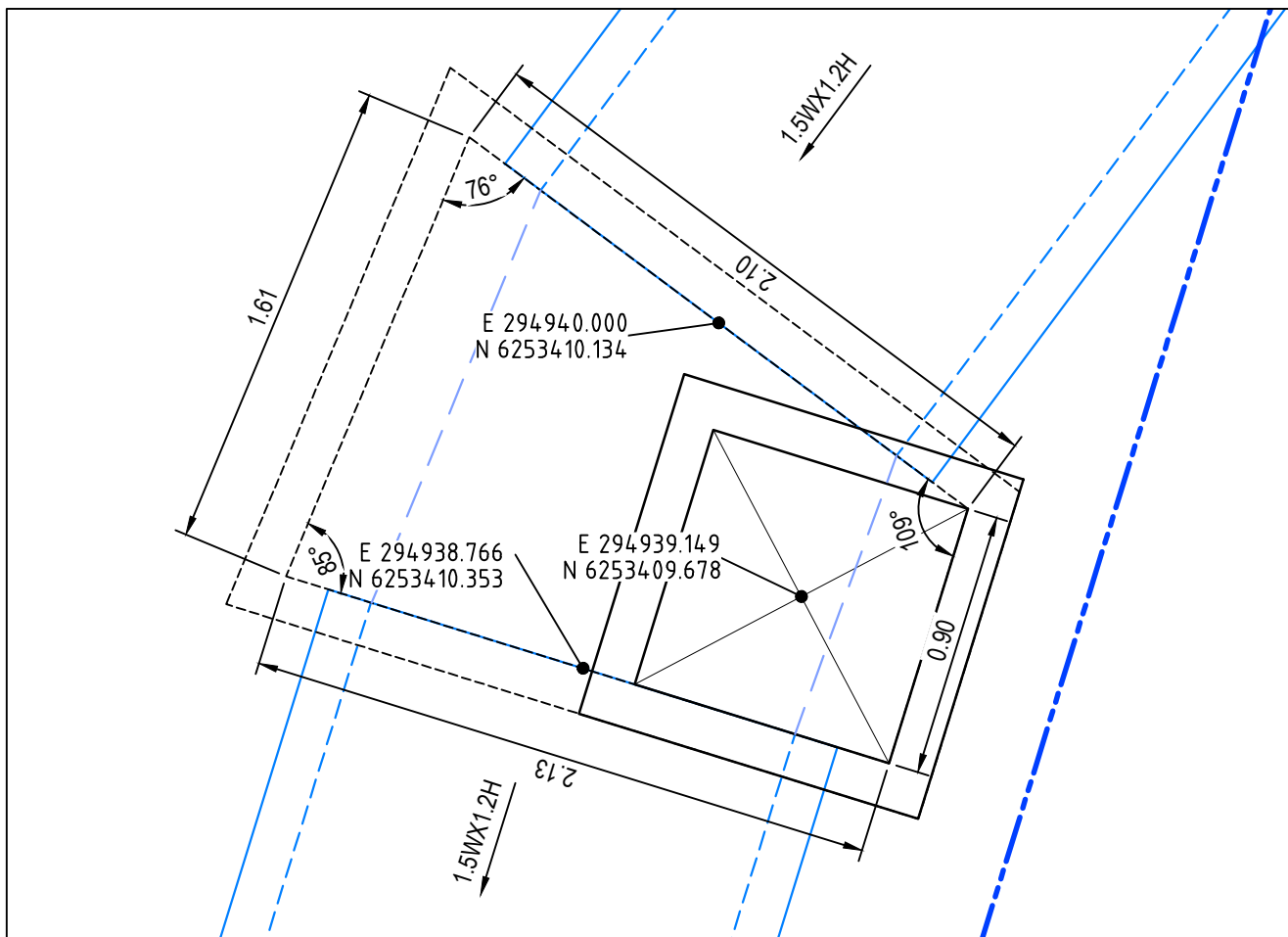
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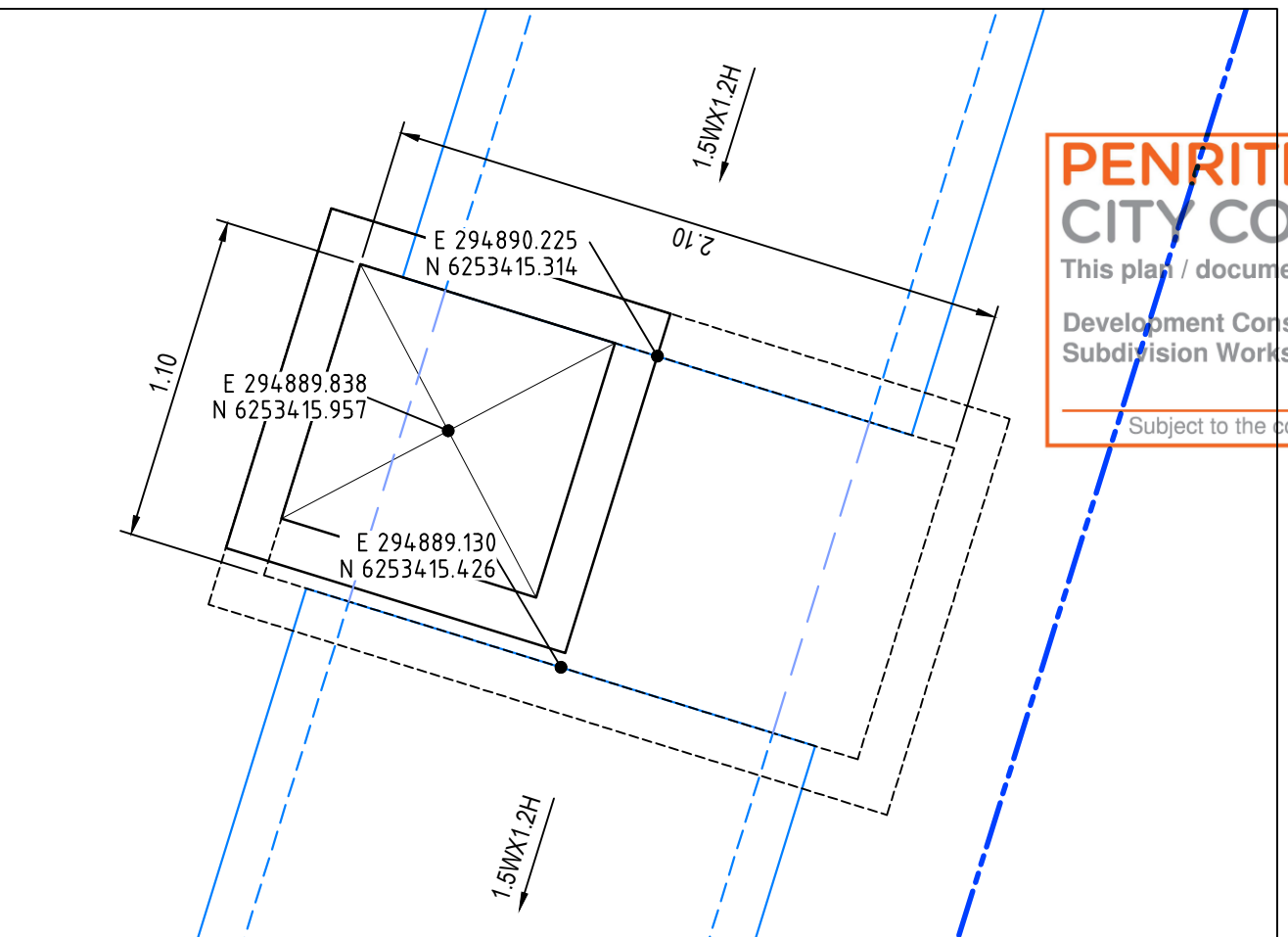
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PIT AC2-2



PIT AB1-2

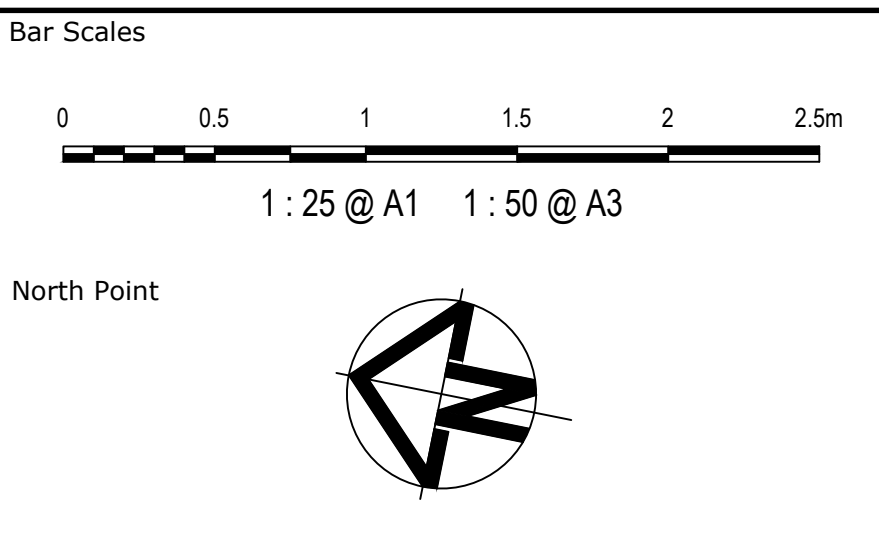


PIT AB1-3

**PENRITH CITY COUNCIL**  
This plan / document relates to  
Development Consent: **SSD-10448-MOD-1**  
Subdivision Works Certificate: **EA22/0045**  
Subject to the conditions outlined in the consent

- STORMWATER NOTES:**
1. STORMWATER PIT CHAMBER DIMENSIONS SHOWN ON THIS PLAN ARE SHOWN AS A GUIDE ONLY. CONTRACTOR TO CONFIRM CHAMBER DIMENSIONS ON SITE WITH SITE SUPERINTENDENT
  2. ALL PITS TO HAVE MASS CONCRETE (N20) BENCHING TO ENSURE SMOOTH FLOW & SMOOTH TRANSITION FROM ENTRY PIPES TO EXIT PIPES.
  3. BENCHING MUST BE PLACED TO ENSURE SURFACE IS SMOOTH & FREE FROM VOIDS AND CRACKS.
  4. BENCHING MUST BE A MIN. HEIGHT EQUAL TO HALF THE BARREL OF THE PIPE.
  5. ENSURE ALL STEP IRONS ARE LOCATED ON THE CLOSEST FACE TO THE OPENING TO ALLOW FREE ACCESS TO THE CHAMBER.
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  7. PIT WIDTHS ARE TO ALLOW FOR PIPE DIAMETER + 150mm TO PIT WALL MIN.
  8. IF IN DOUBT, SEEK CLARIFICATION FROM THE SUPERINTENDENT.

Issue	Description	Date
1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22



Key Plan

Client

**mirvac**

Scales  
1:25

Grid  
GDA2020

Height Datum  
AHD

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**GDA2020**

Drawn  
JB/MH

Designed  
JB/MH

Checked  
DS

Approved  
DS

Project  
**ASPECT INDUSTRIAL ESTATE  
MAMRE ROAD,  
KEMPS CREEK  
STAGE 1B**

Title  
**STRUCTURE SETOUT DETAILS  
SHEET 1**

Civil Engineers and Project Managers

**at&l**

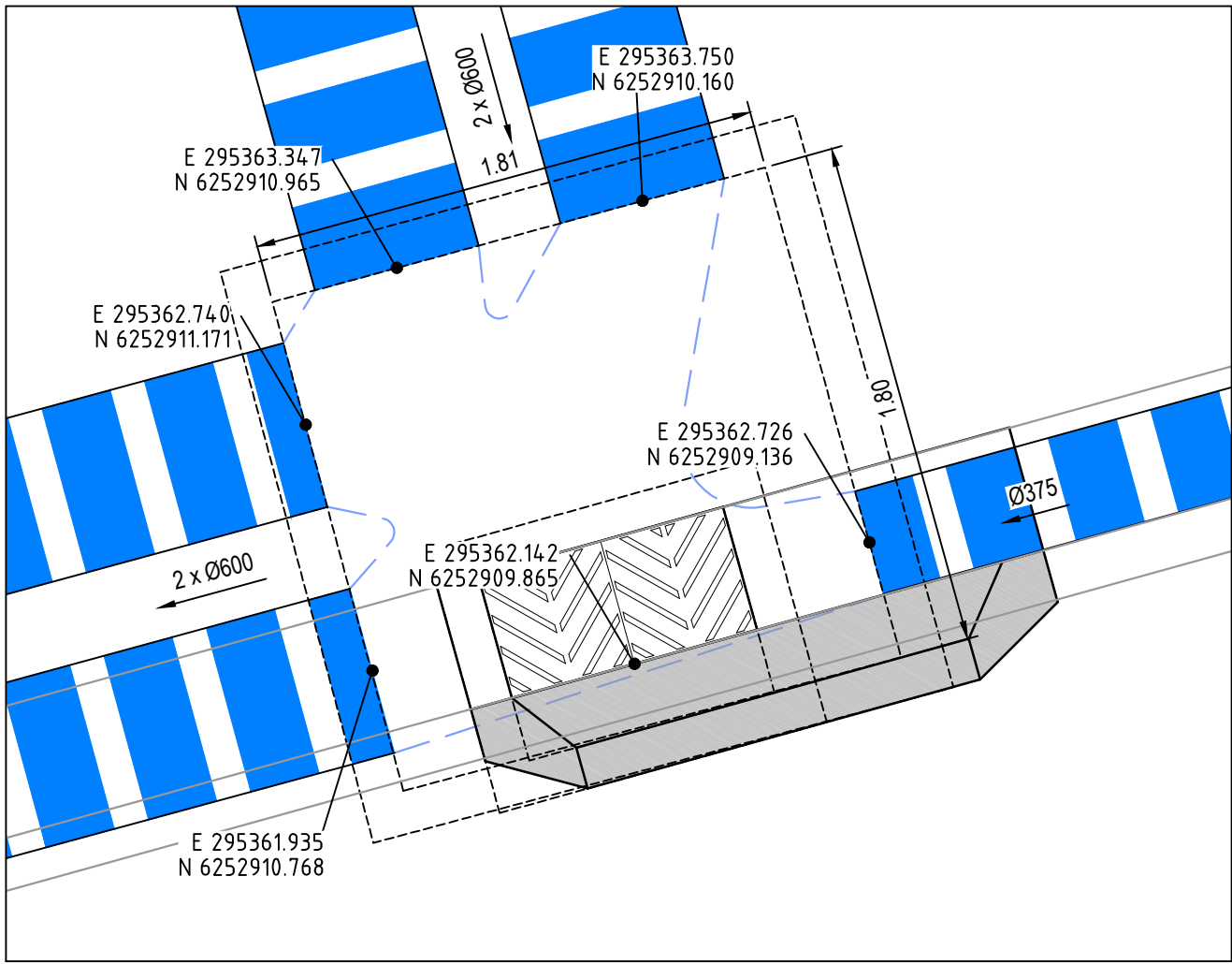
Level 7, 153 Walker Street  
North Sydney NSW 2060  
ABN 96 130 882 405  
Tel: 02 9439 1777  
Fax: 02 9923 1055  
www.atl.net.au  
info@atl.net.au

Status  
**FOR CONSTRUCTION**

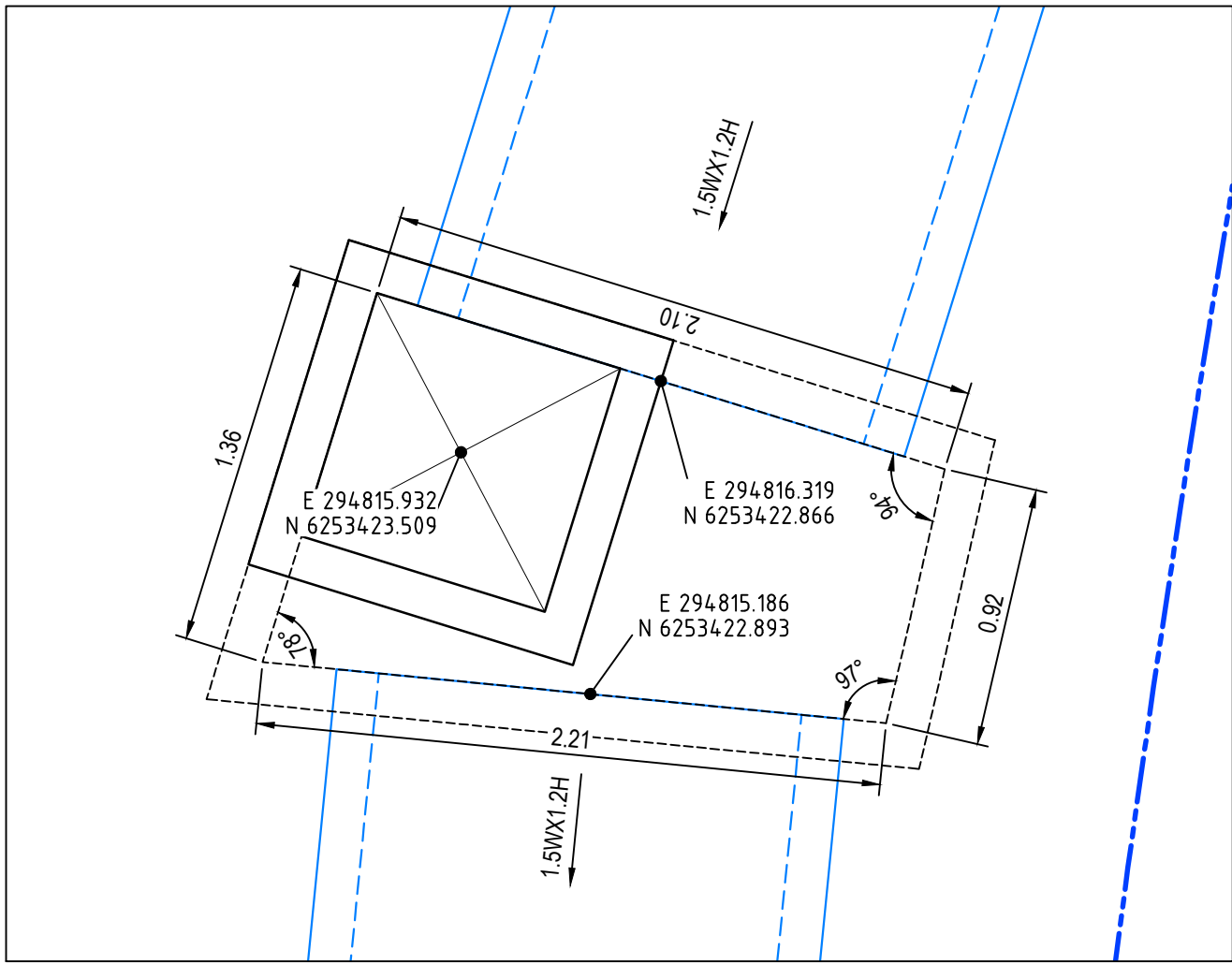
Project - Drawing No.  
**18-596-C8431**

Issue  
**1**

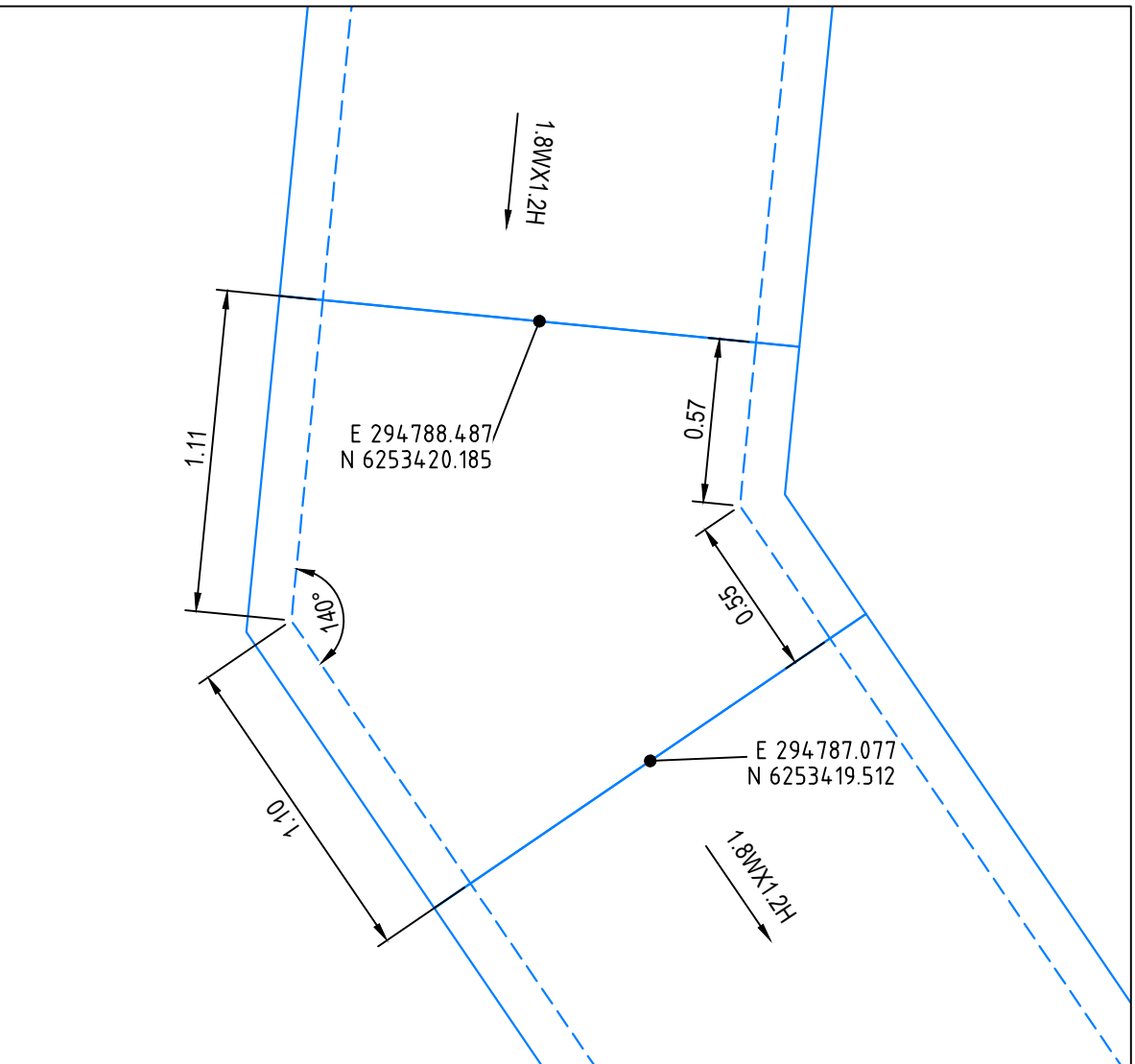




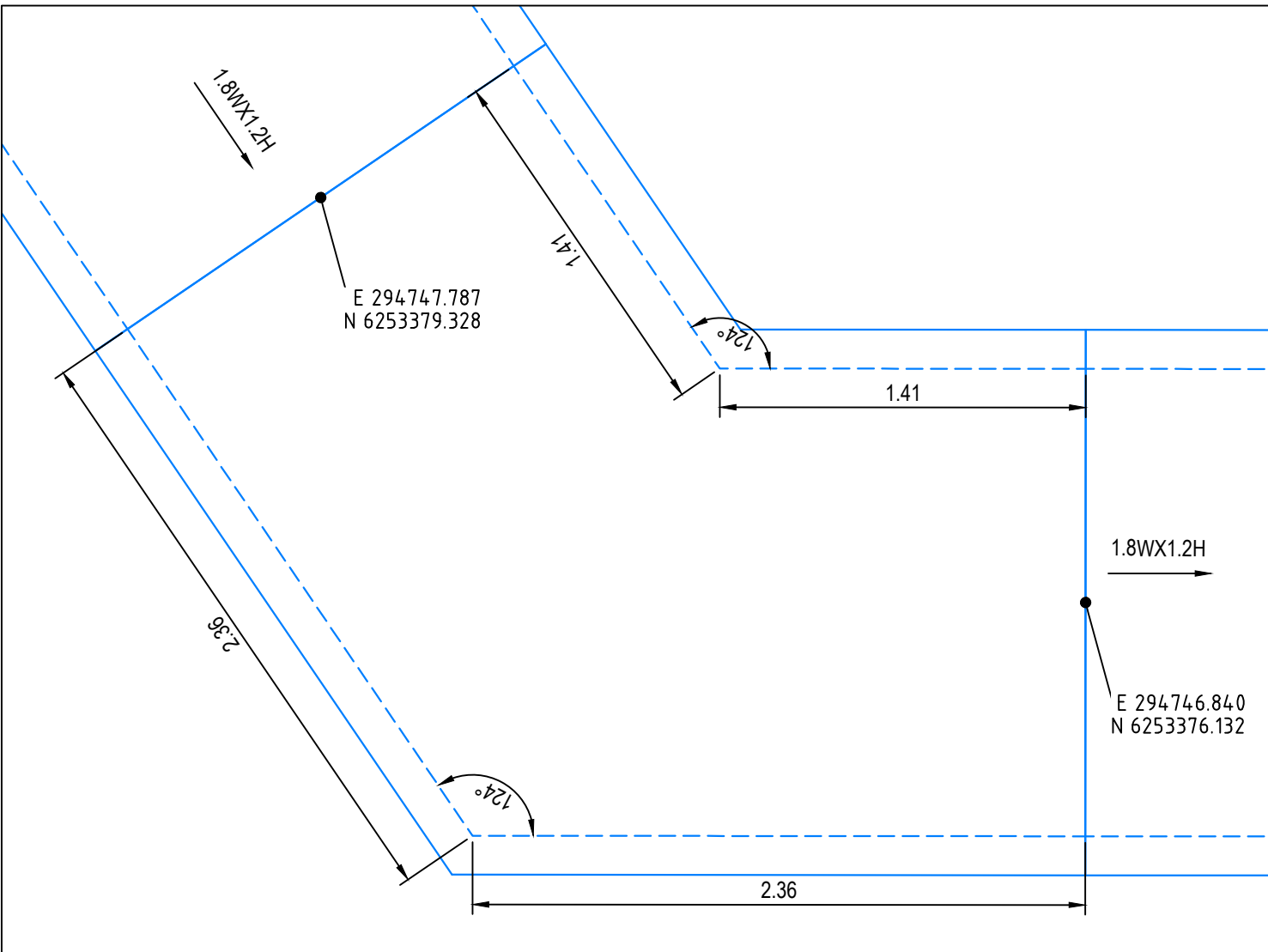
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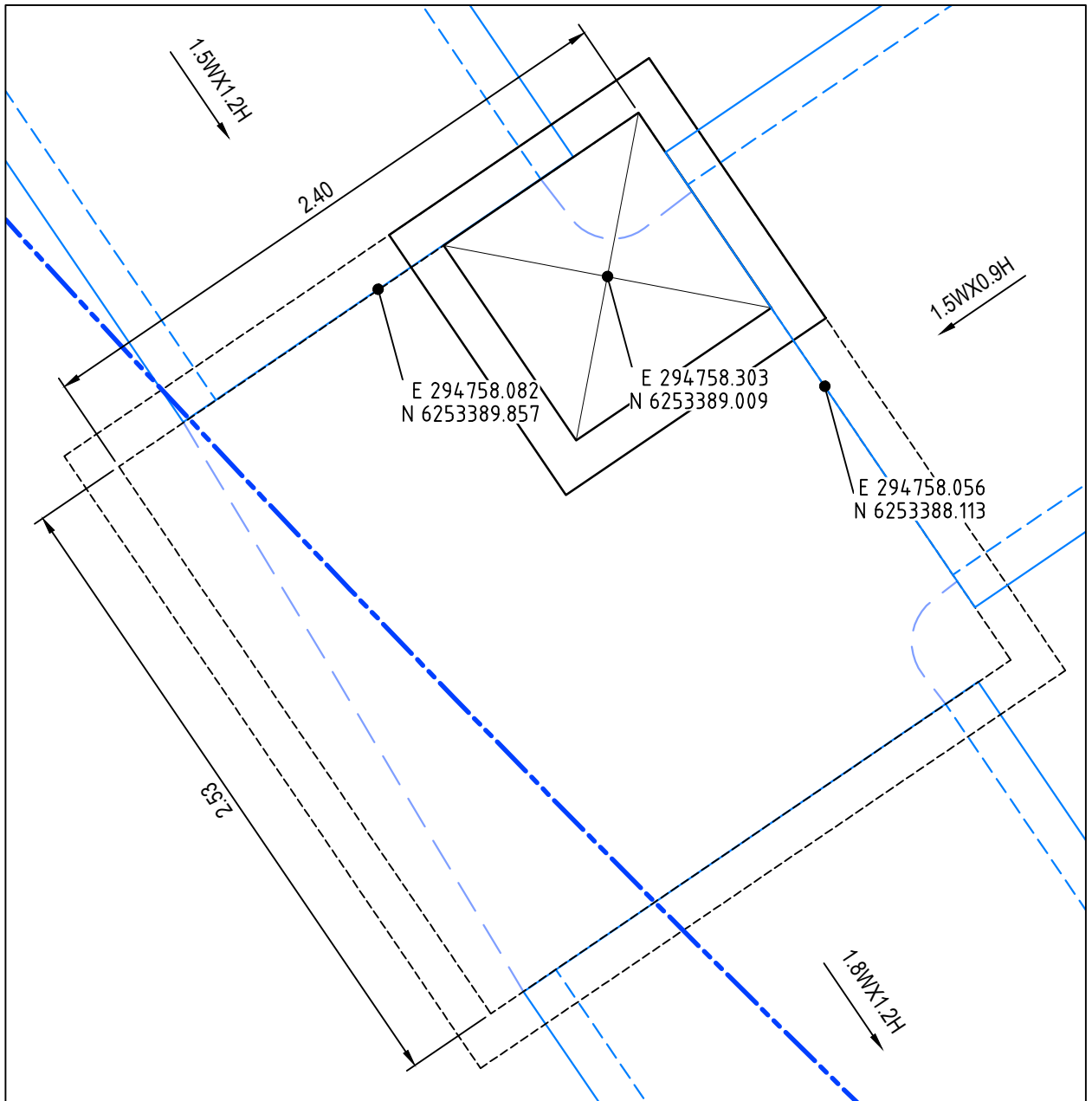
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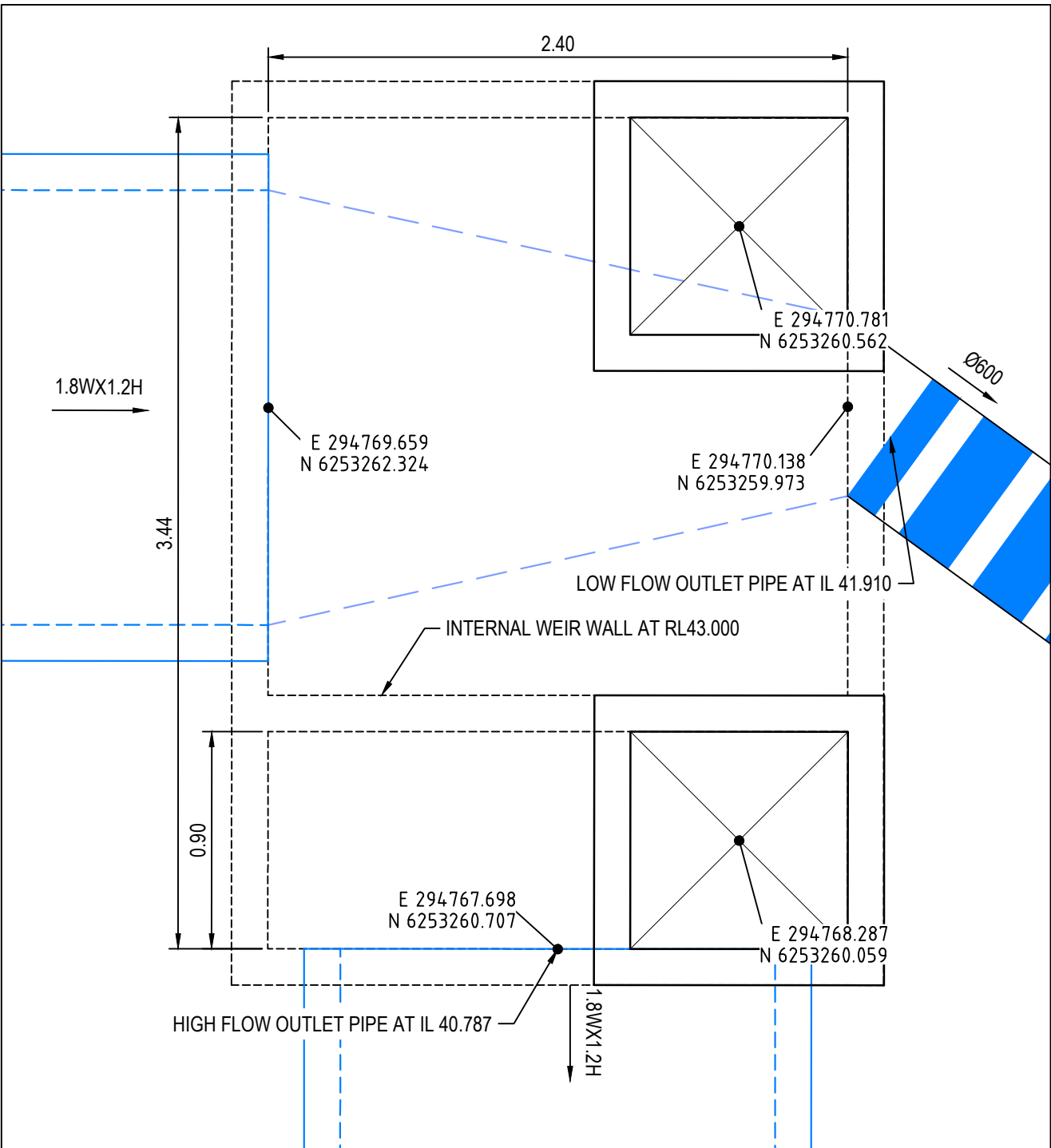
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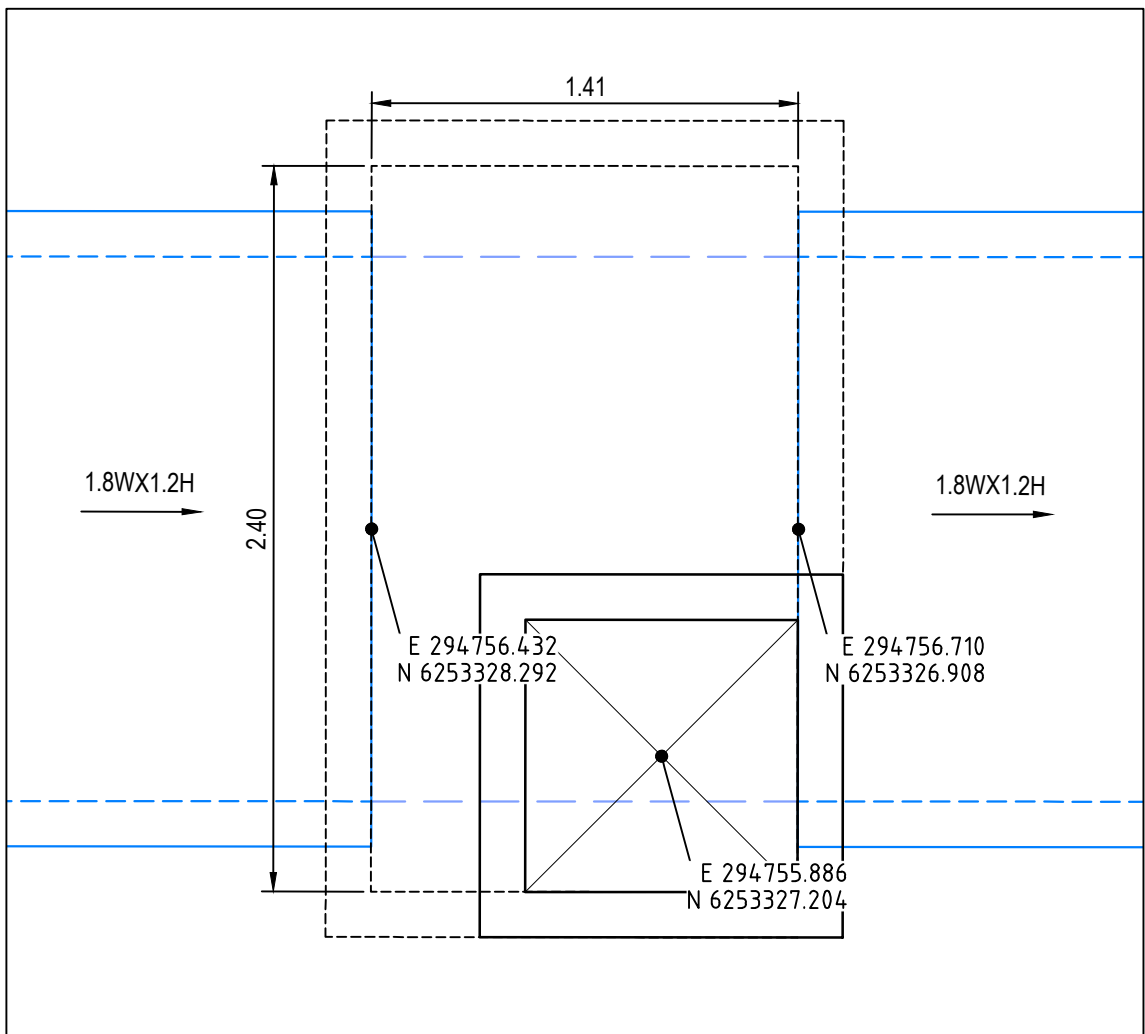
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PIT AB1-6

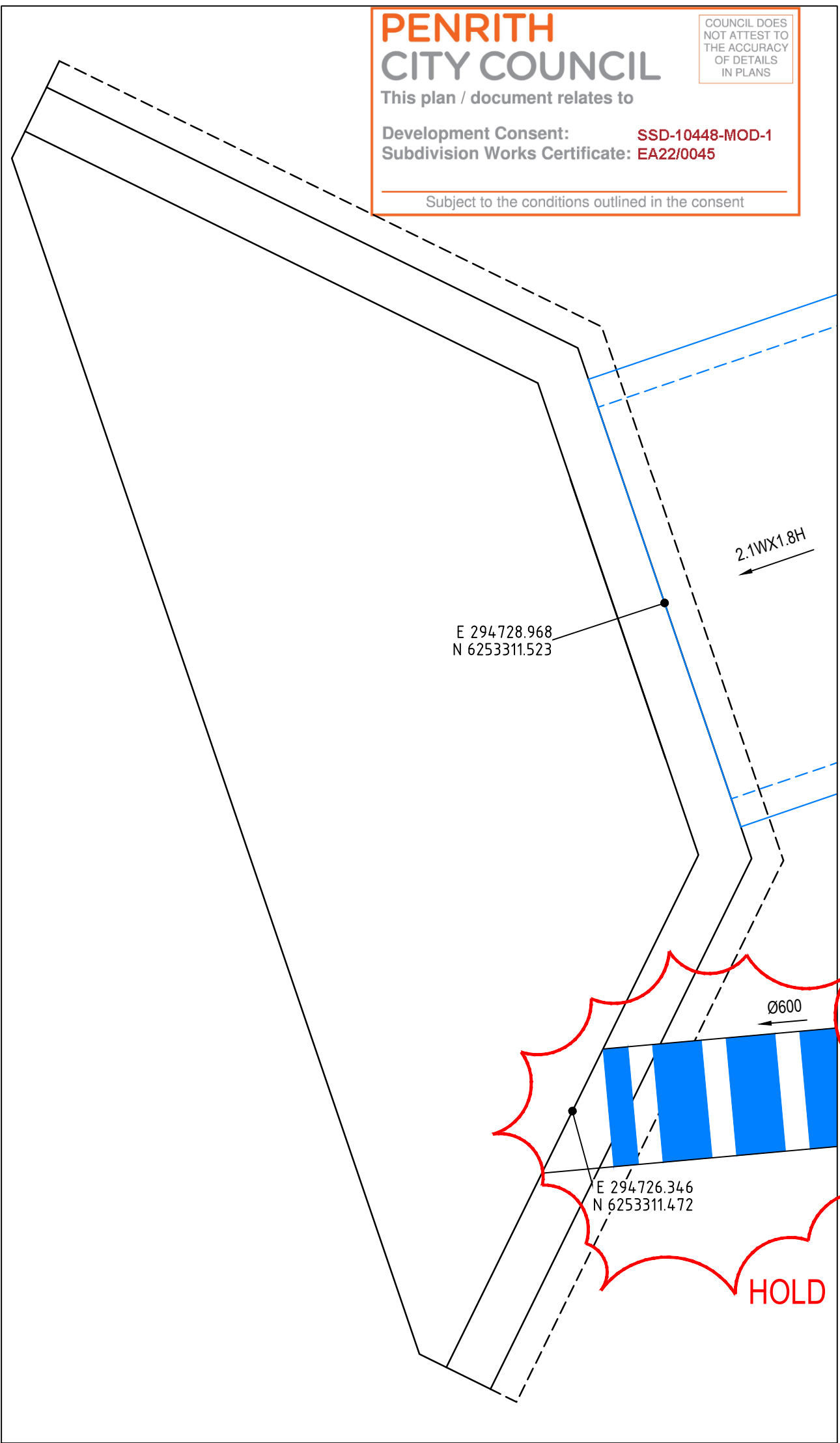


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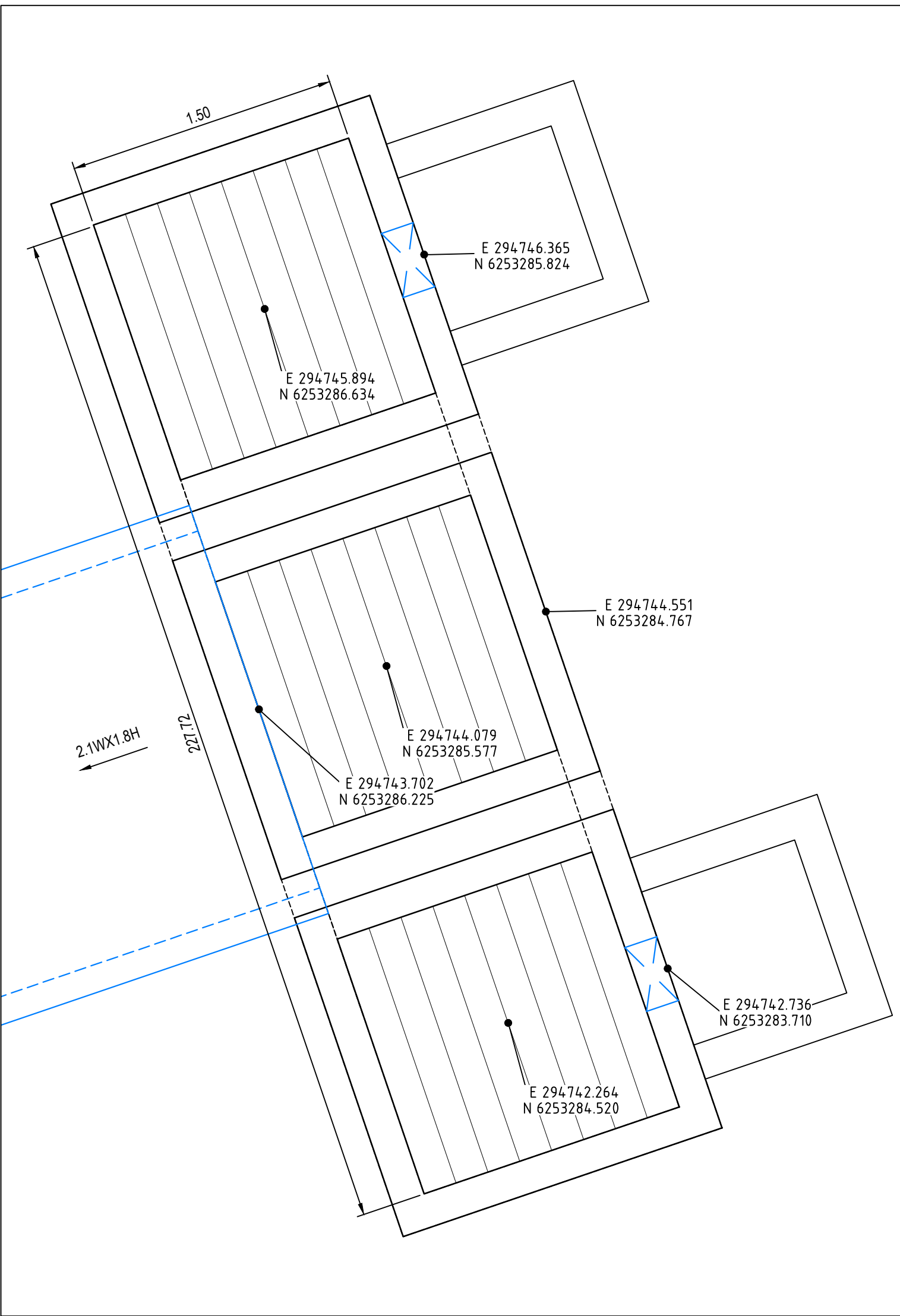


PIT AB1-8

- STORMWATER NOTES:**
1. STORMWATER PIT CHAMBER DIMENSIONS SHOWN ON THIS PLAN ARE SHOWN AS A GUIDE ONLY. CONTRACTOR TO CONFIRM CHAMBER DIMENSIONS ON SITE WITH SITE SUPERINTENDENT.
  2. ALL PITS TO HAVE MASS CONCRETE (N20) BENCHING TO ENSURE SMOOTH FLOW & SMOOTH TRANSITION FROM ENTRY PIPES TO EXIT PIPES.
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  7. IF IN DOUBT, SEEK CLARIFICATION FROM THE SUPERINTENDENT.
  - 8.

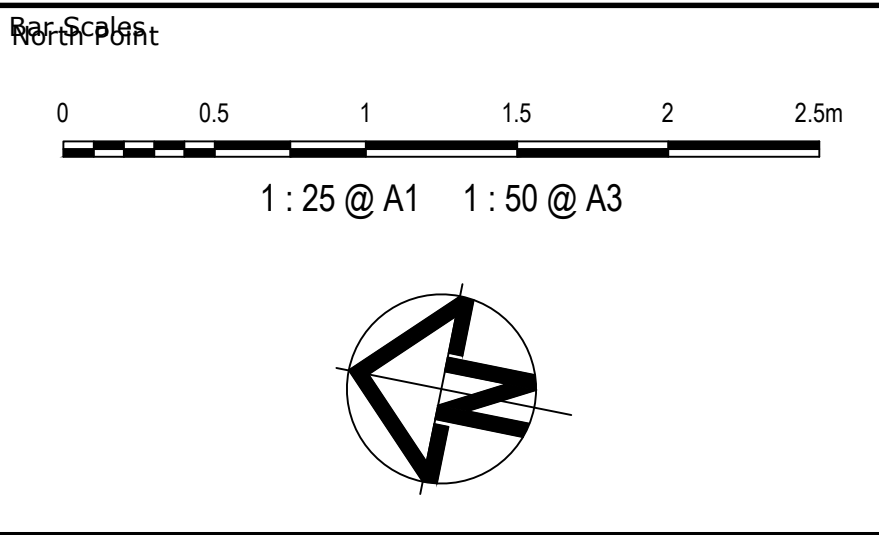


PIT AO1-2



PIT AO1-1

Issue	Description	Date
1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22



Key Plan

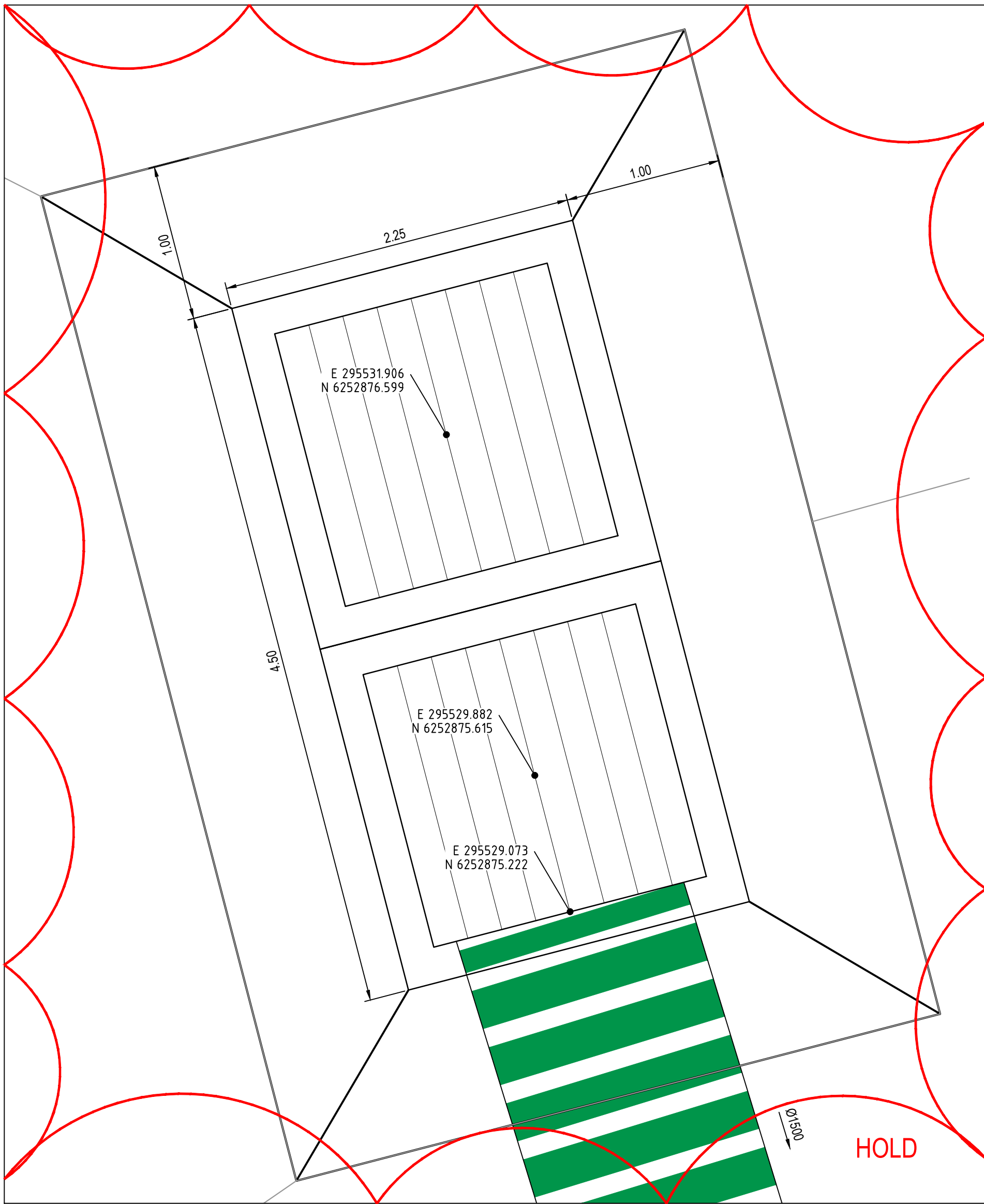


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Grid	GDA2020
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GDA2020	

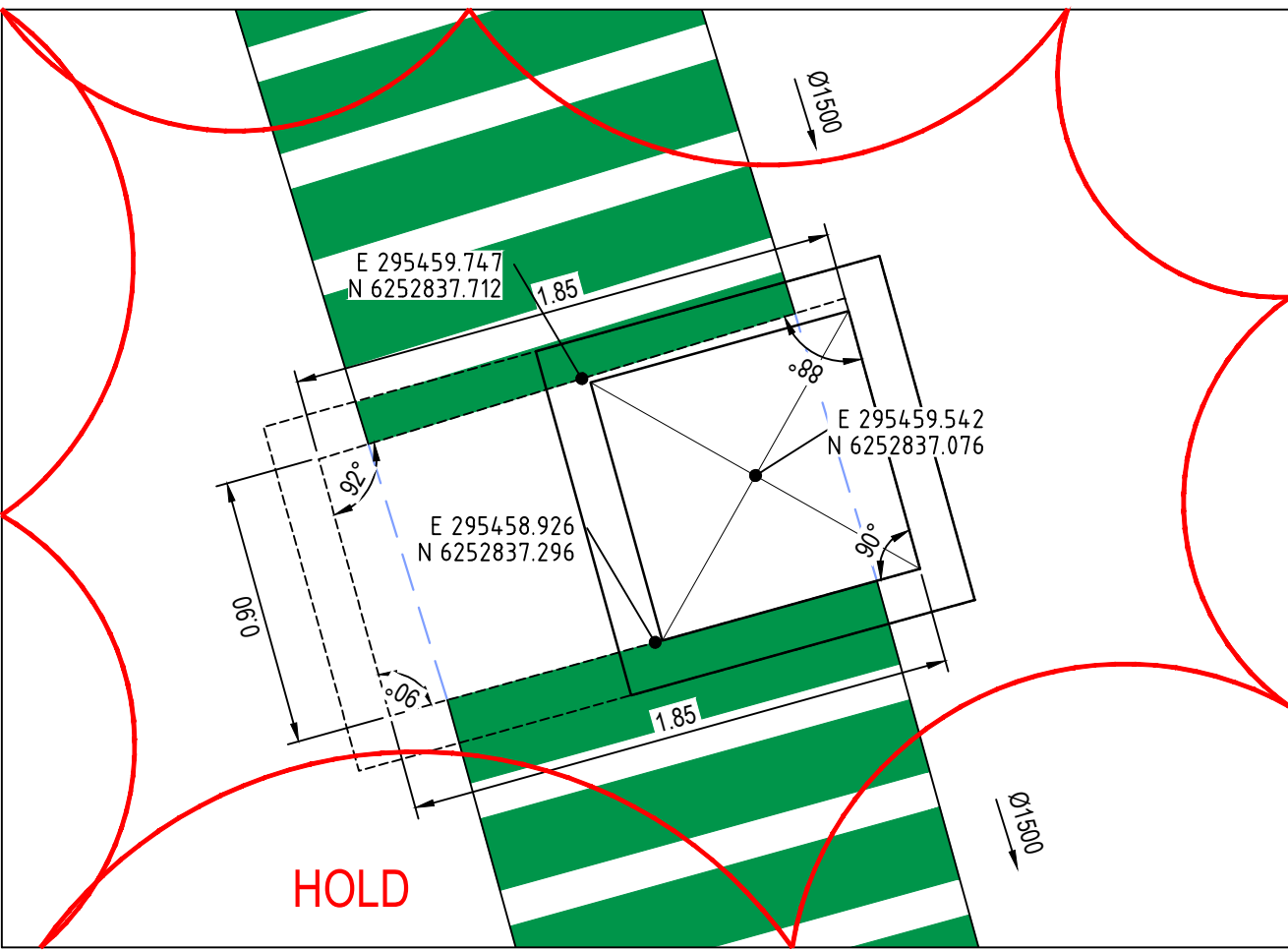
Drawn	JB/MH
Designed	JB/MH
Checked	DS
Approved	DS
Project	
ASPECT INDUSTRIAL ESTATE MAMRE ROAD, KEMPS CREEK STAGE 1B	
Title	
STRUCTURE SETOUT DETAILS SHEET 2	

Civil Engineers and Project Managers	
at&l	
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 CONSTRUCTION
Project - Drawing No.	18-596-C8432
Issue	1

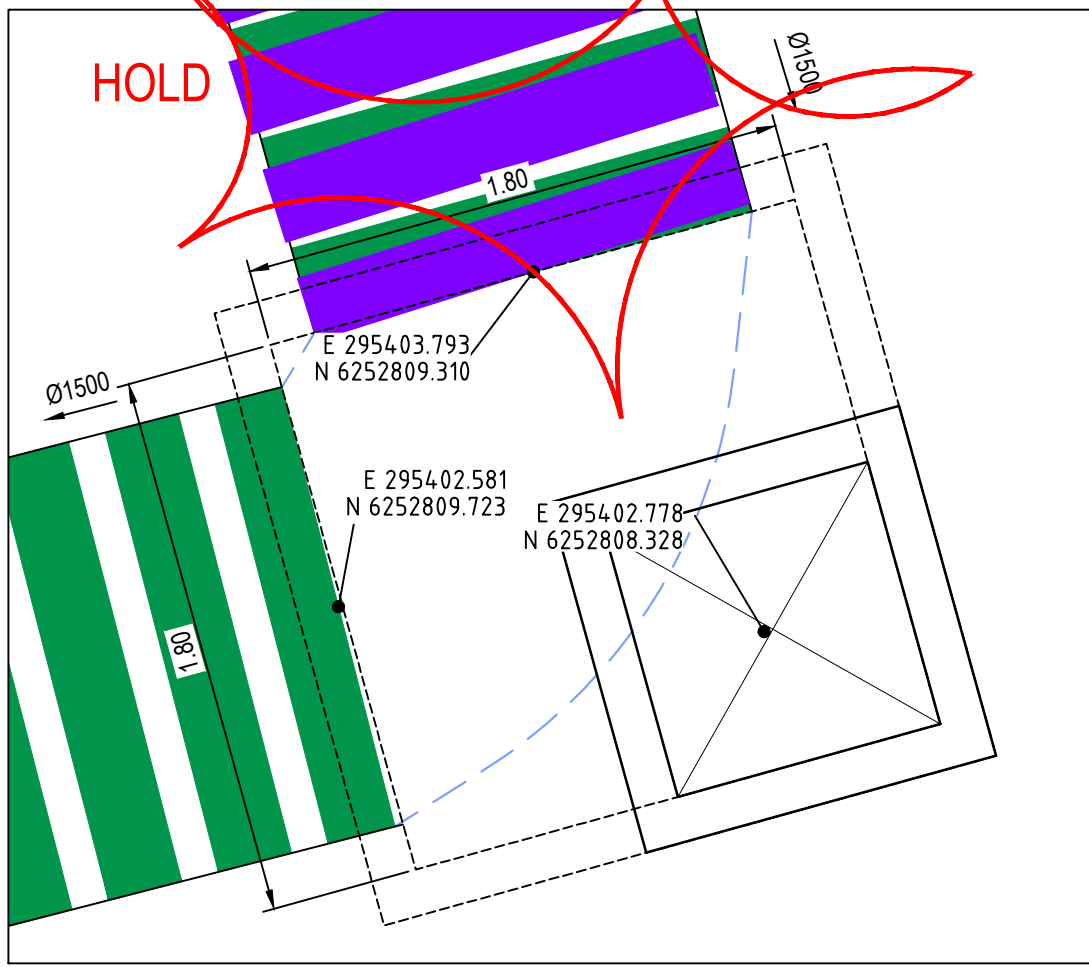




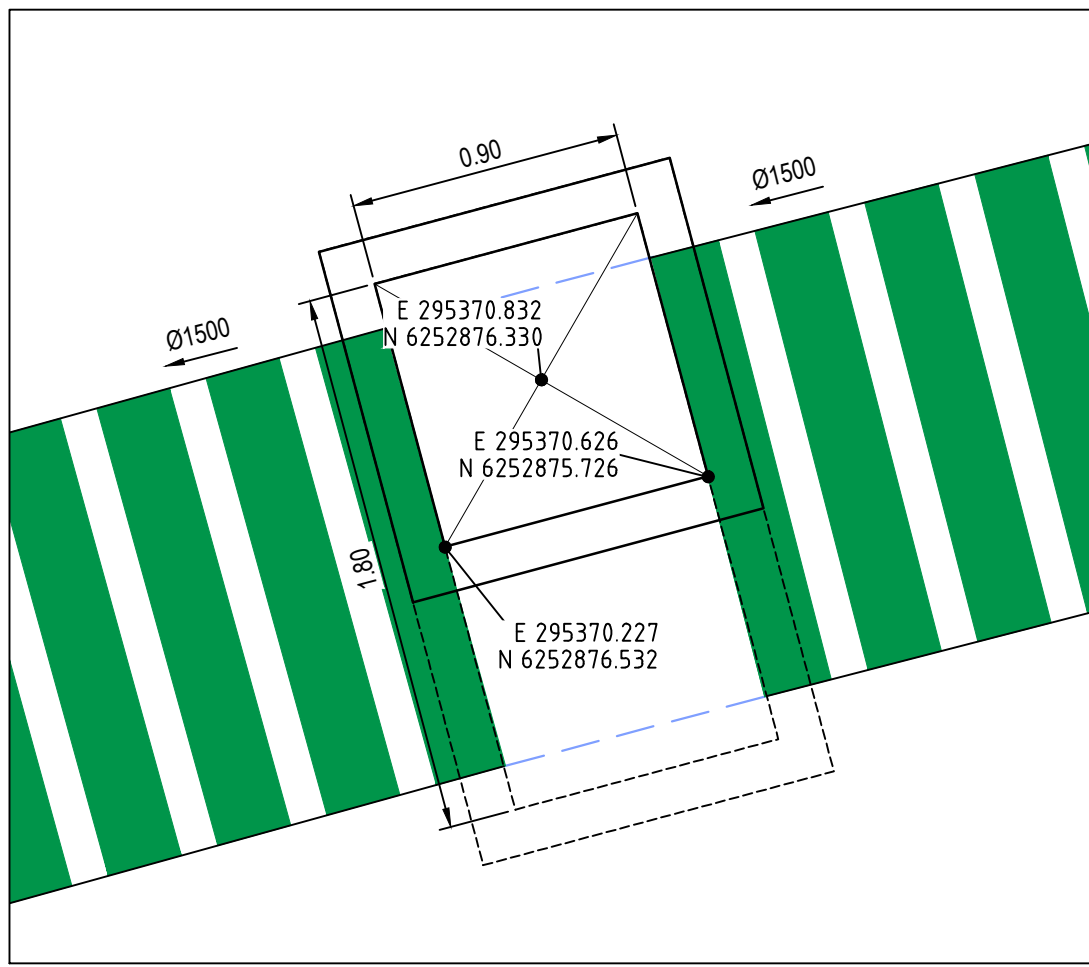
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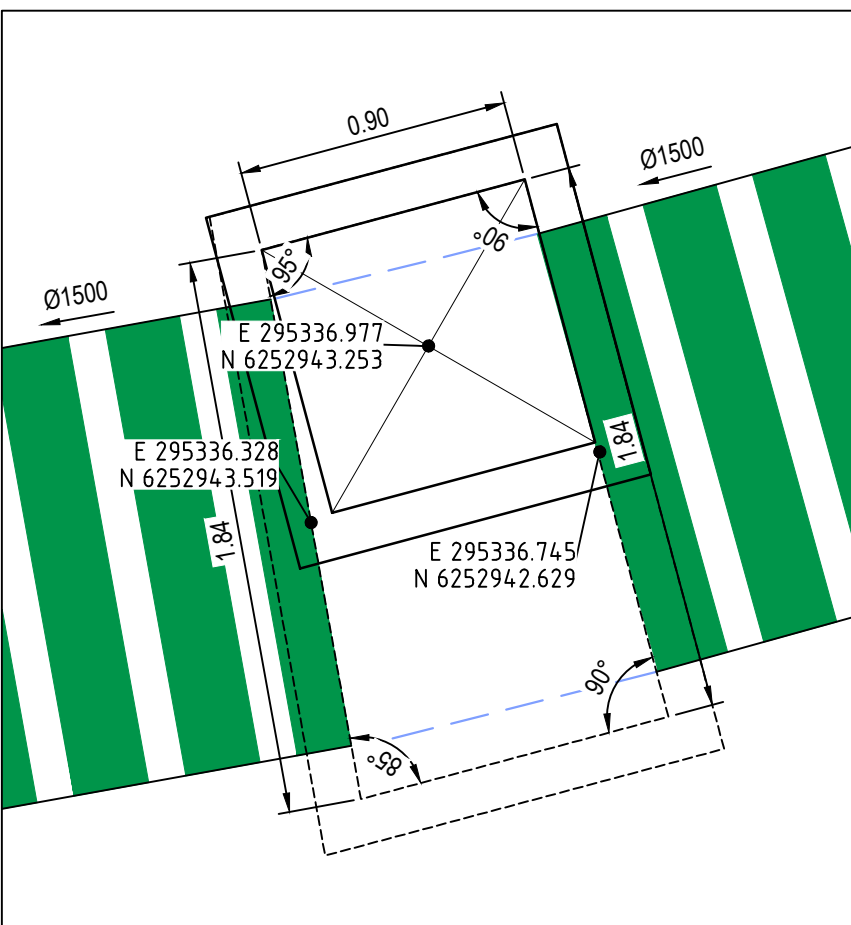
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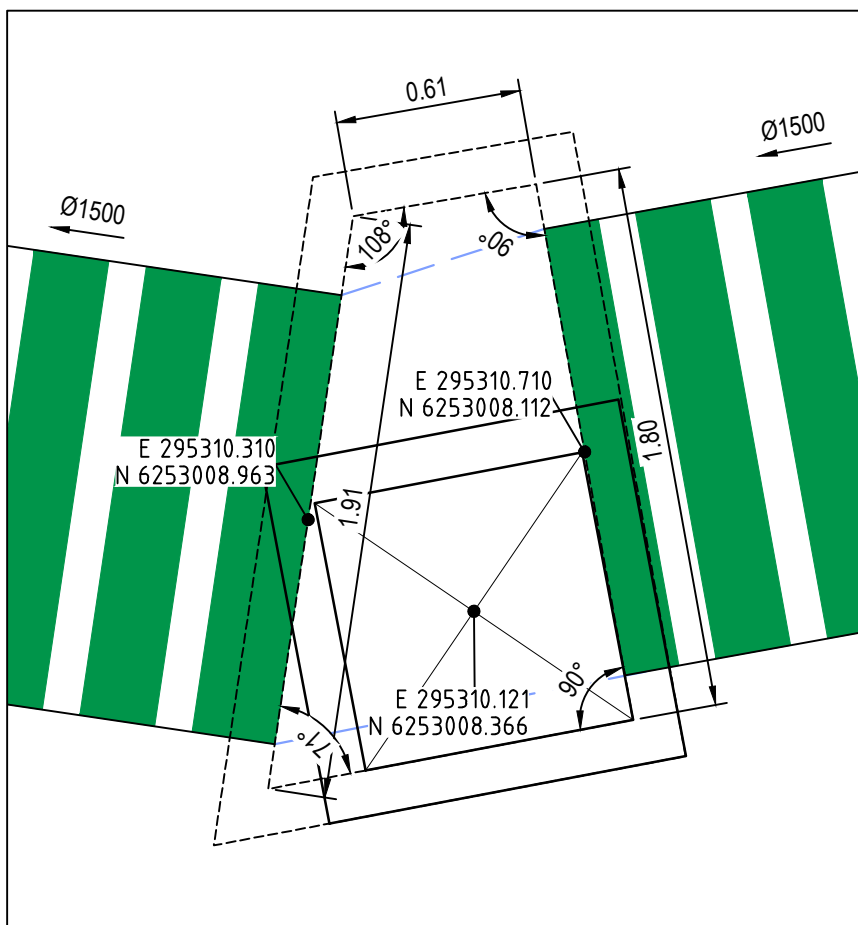
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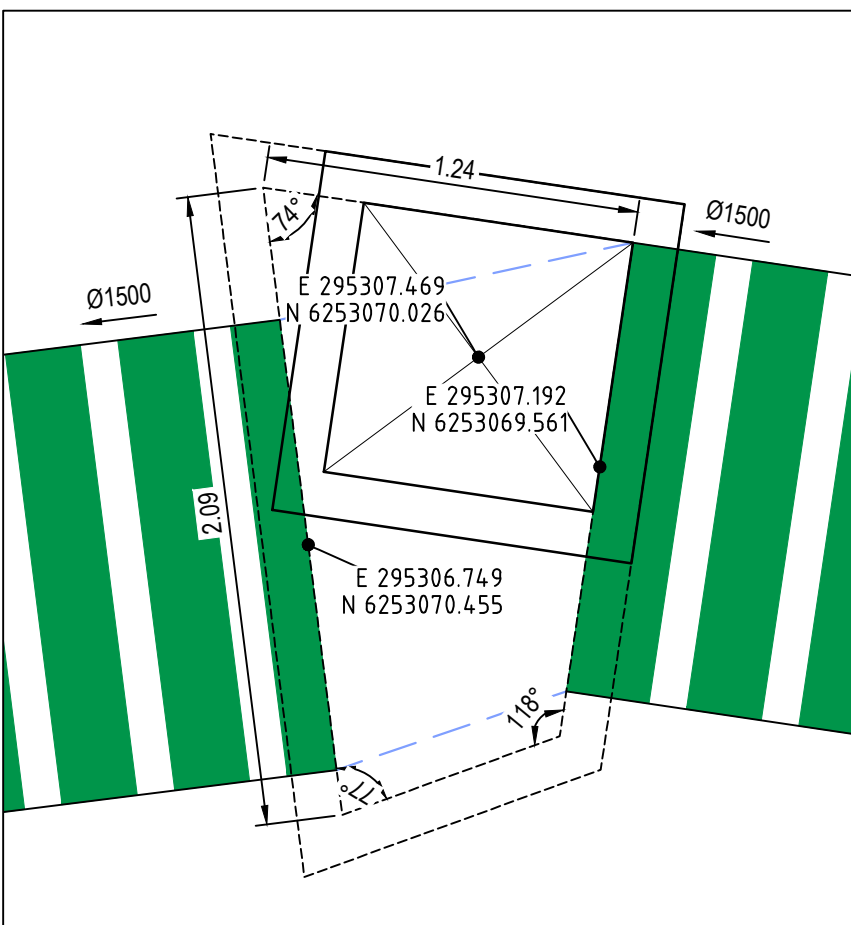
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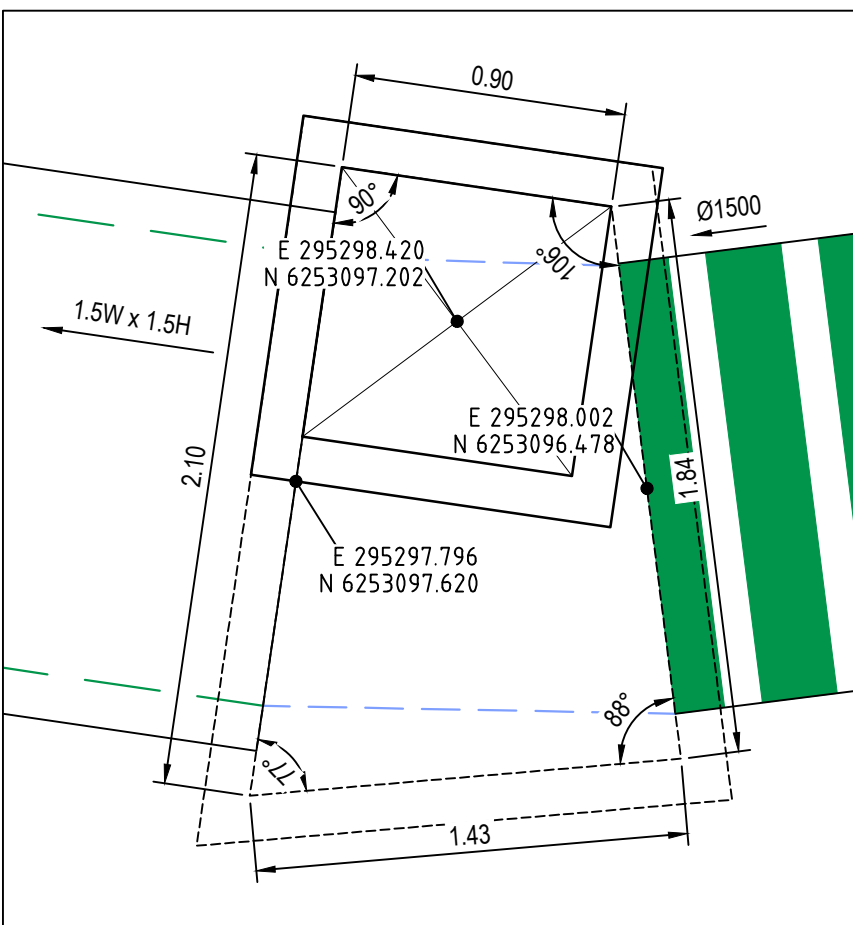
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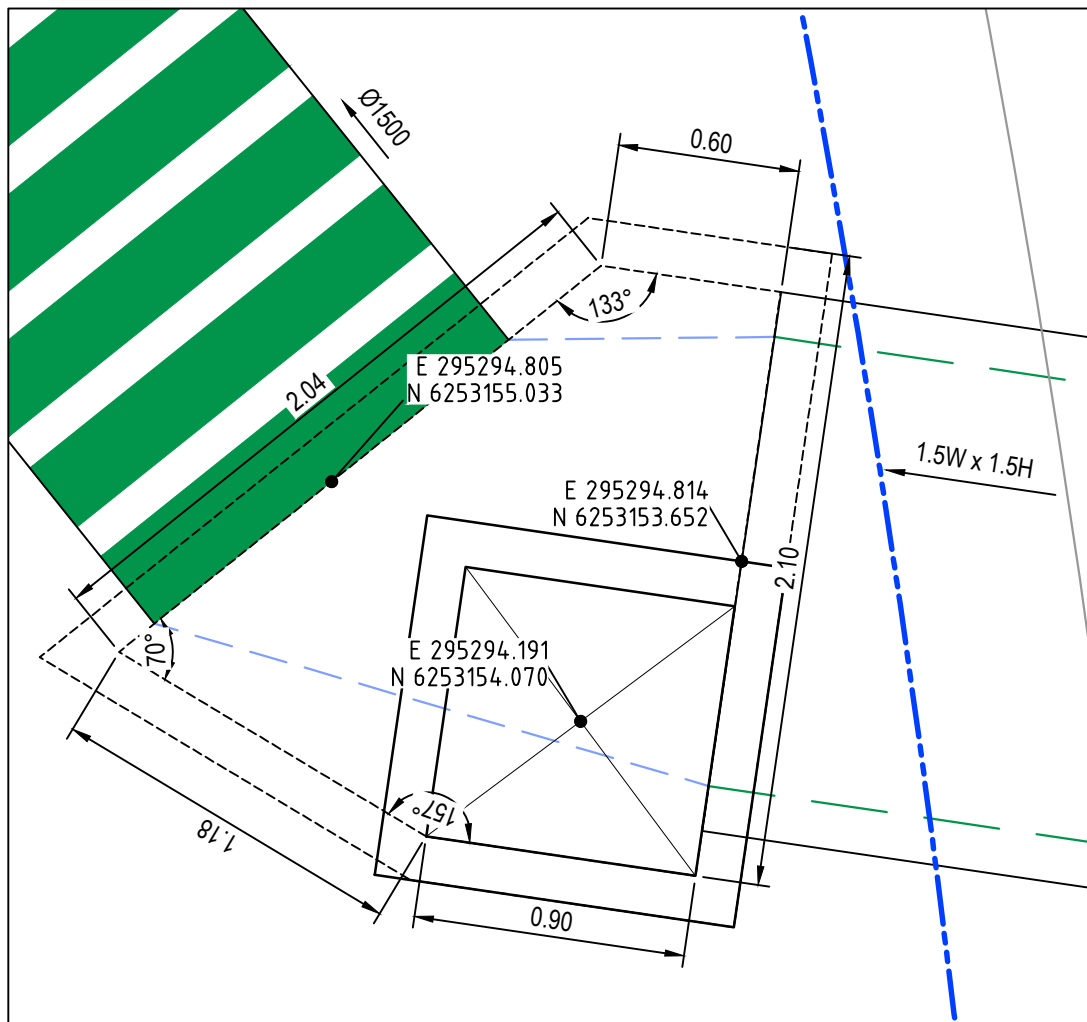
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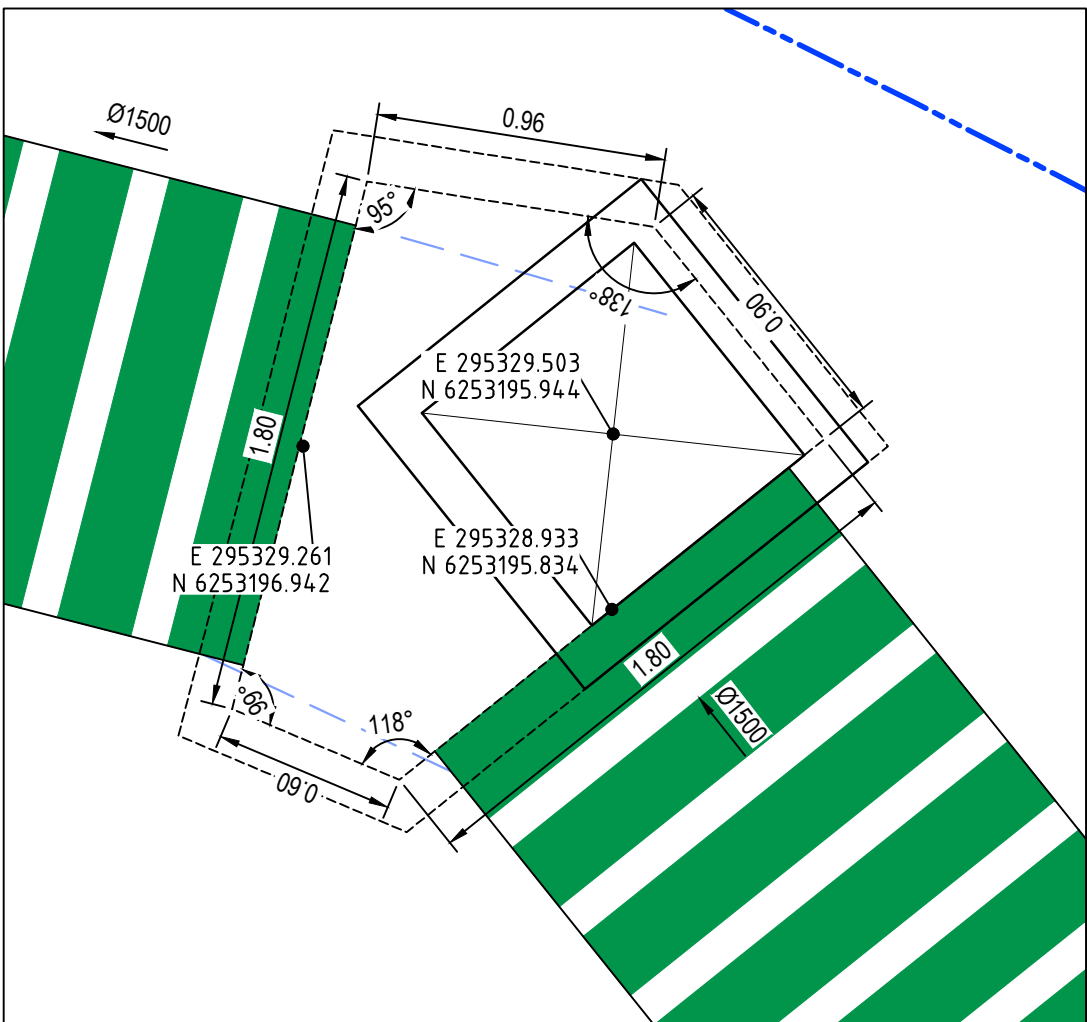
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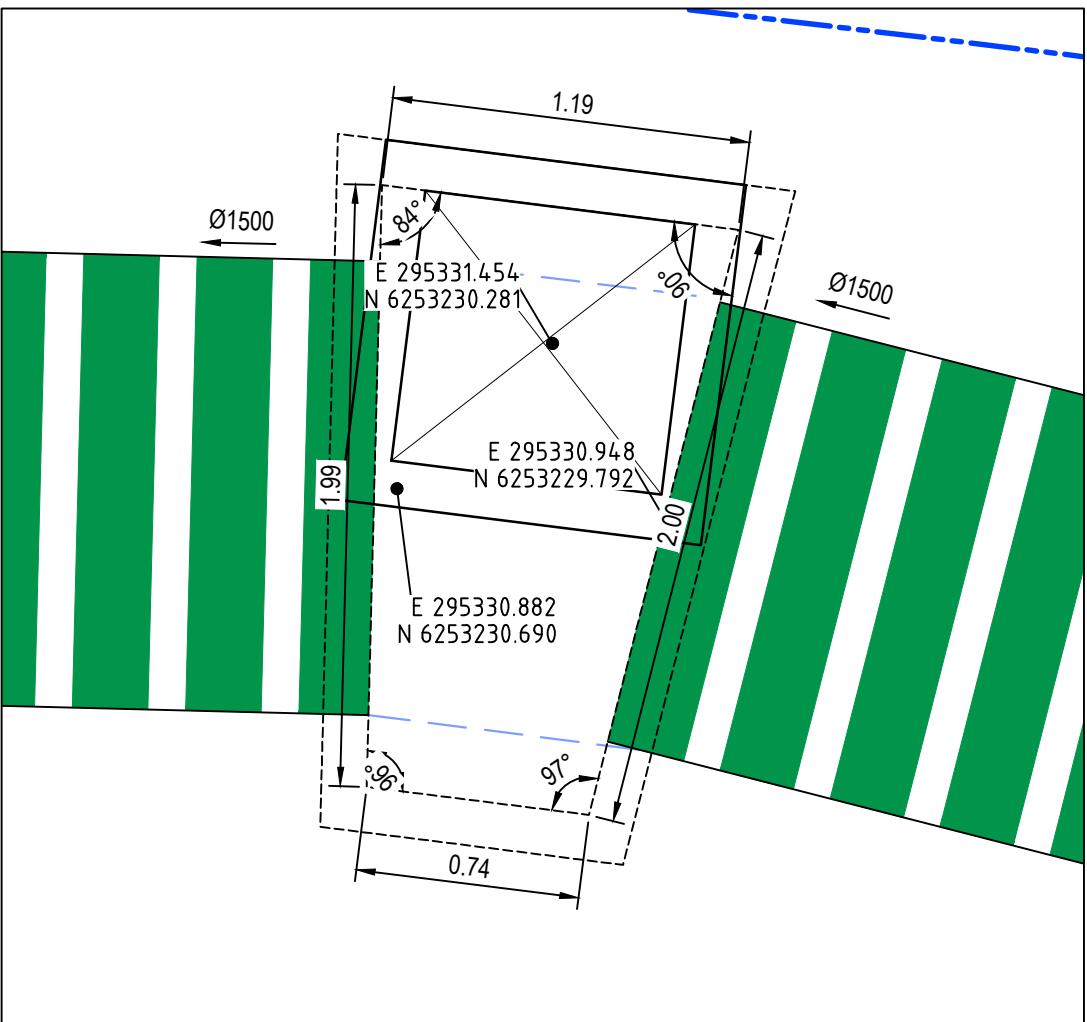
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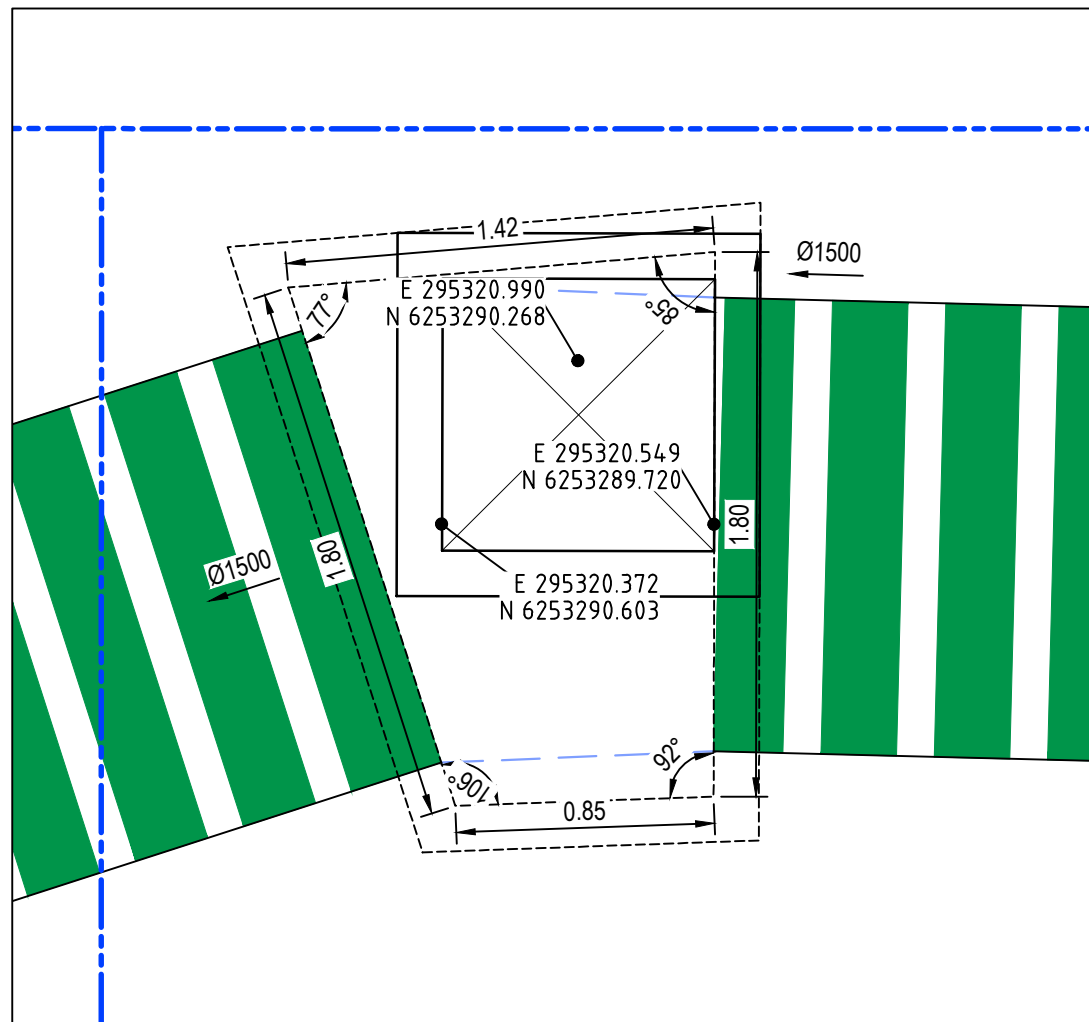
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PIT DV1-10



PIT DV1-11

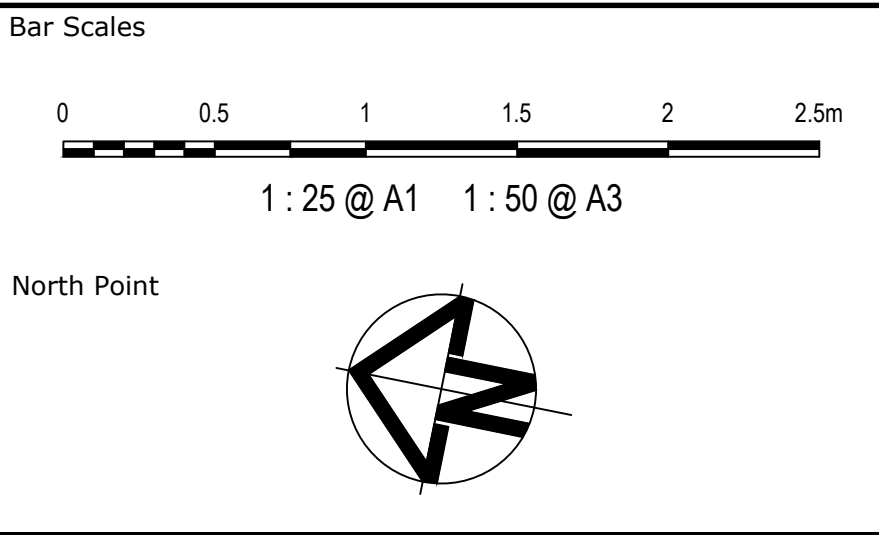


PIT DV1-12

**PENRITH CITY COUNCIL**  
This plan / document relates to  
Development Consent: **SSD-10448-MOD-1**  
Subdivision Works Certificate: **EA220045**  
Subject to the conditions outlined in the consent.

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1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22
Issue	Description	Date



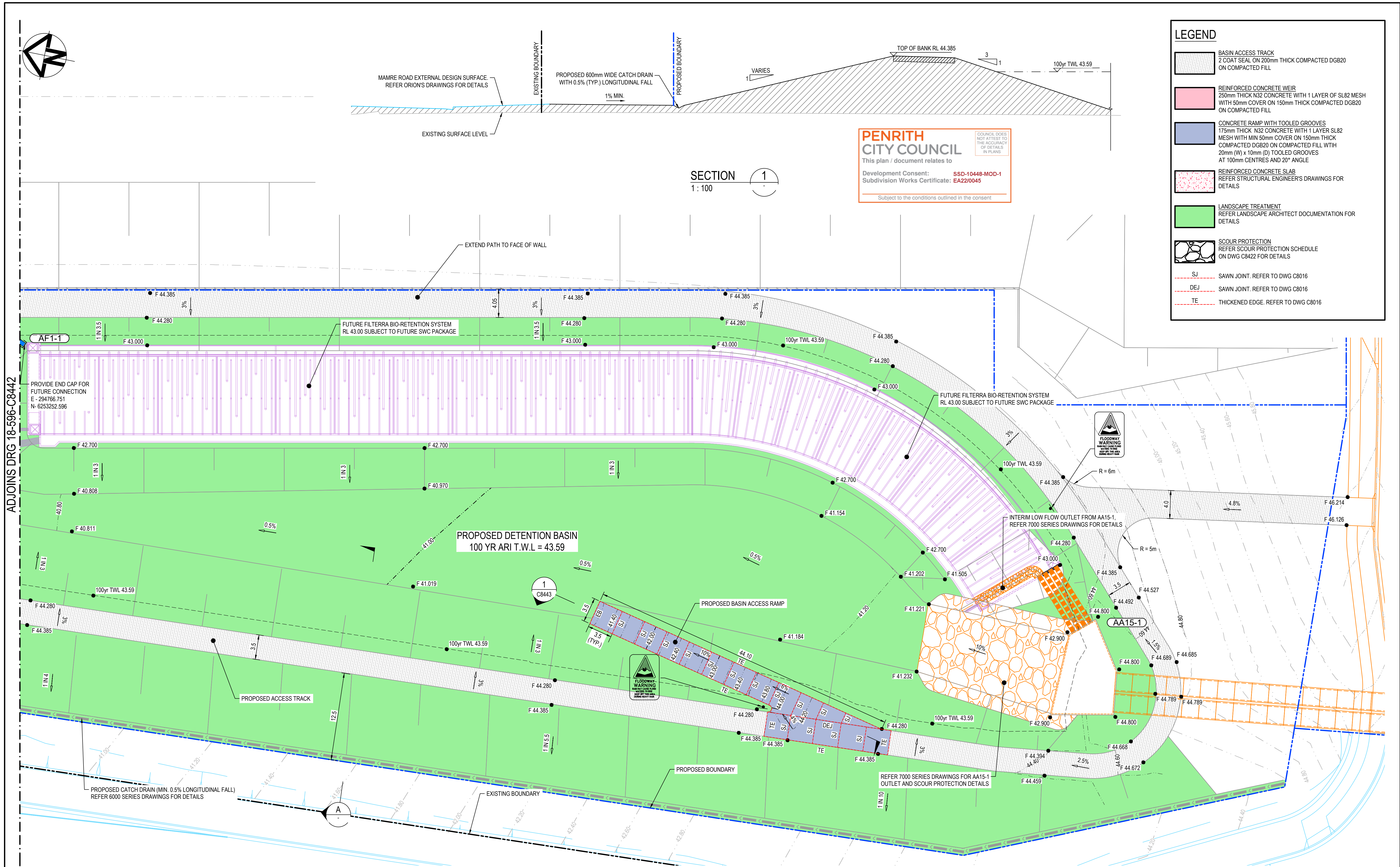
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Grid	GDA2020	Designed	JB/MH
Height Datum	AHD	Checked	DS
		Approved	DS

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Project	ASPECT INDUSTRIAL ESTATE MAMRE ROAD, KEMPS CREEK STAGE 1B
Title	STRUCTURE SETOUT DETAILS SHEET 3

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 CONSTRUCTION	
Project - Drawing No.		A1	
18-596-C8433		Issue	
		1	





LEGEND

BASIN ACCESS TRACK  
2 COAT SEAL ON 200mm THICK COMPACTED DGB20  
ON COMPACTED FILL

REINFORCED CONCRETE WEIR  
250mm THICK N32 CONCRETE WITH 1 LAYER OF SL82 MESH  
WITH 50mm COVER ON 150mm THICK COMPACTED DGB20  
ON COMPACTED FILL

CONCRETE RAMP WITH TOOLED GROOVES  
175mm THICK N32 CONCRETE WITH 1 LAYER SL82  
MESH WITH MIN 50mm COVER ON 150mm THICK  
COMPACTED DGB20 ON COMPACTED FILL WITH  
20mm (W) x 10mm (D) TOOLED GROOVES  
AT 100mm CENTRES AND 20° ANGLE

REINFORCED CONCRETE SLAB  
REFER STRUCTURAL ENGINEER'S DRAWINGS FOR  
DETAILS

LANDSCAPE TREATMENT  
REFER LANDSCAPE ARCHITECT DOCUMENTATION FOR  
DETAILS

SCOUR PROTECTION  
REFER SCOUR PROTECTION SCHEDULE  
ON DWG C8422 FOR DETAILS

SJ SAWN JOINT. REFER TO DWG C8016

DEJ SAWN JOINT. REFER TO DWG C8016

TE THICKENED EDGE. REFER TO DWG C8016

PENRITH  
CITY COUNCIL

This plan / document relates to

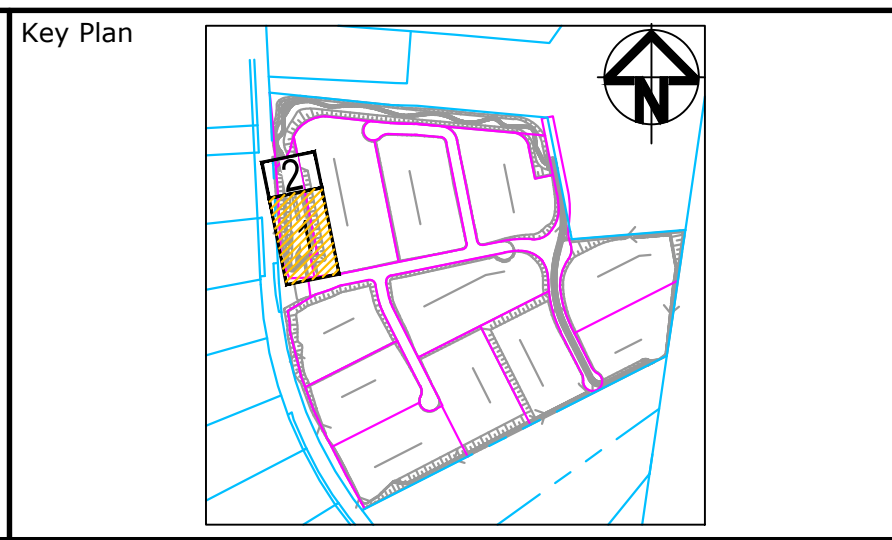
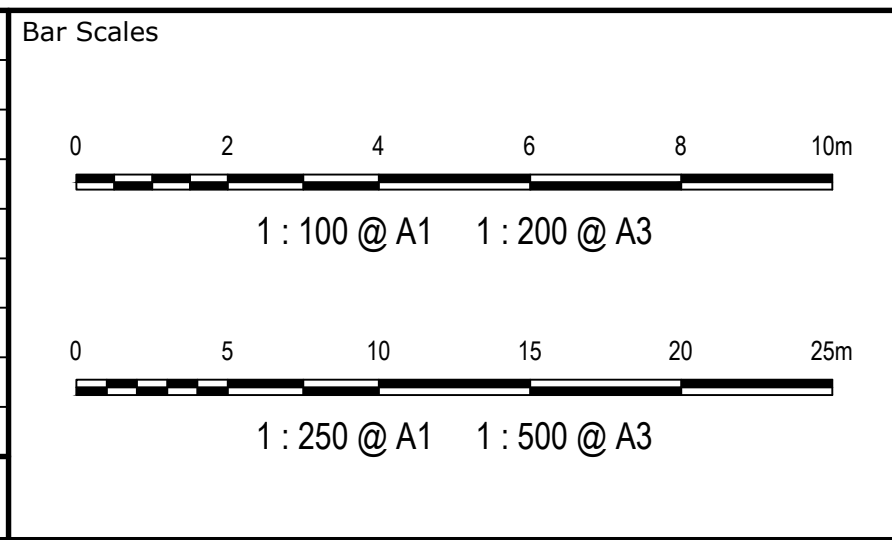
Development Consent: **SSD-10448-MOD-1**  
Subdivision Works Certificate: **EA22/0045**

Subject to the conditions outlined in the consent

COUNCIL DOES NOT ATTEST TO THE ACCURACY OF DETAILS IN PLANS

ADJOINS DRG 18-596-C8442

1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22
Issue	Description	Date



Client

Scales	AS SHOWN	Drawn	JB/MH
		Designed	JB/MH
Grid	GDA2020	Checked	DS
Height Datum	AHD	Approved	DS
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Project

ASPECT INDUSTRIAL ESTATE  
MAMRE ROAD,  
KEMPS CREEK  
STAGE 1B

Title

DETENTION BASIN  
DETAIL PLAN  
SHEET 1

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 CONSTRUCTION

A1

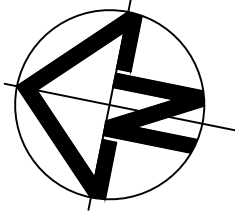
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18-596-C8441

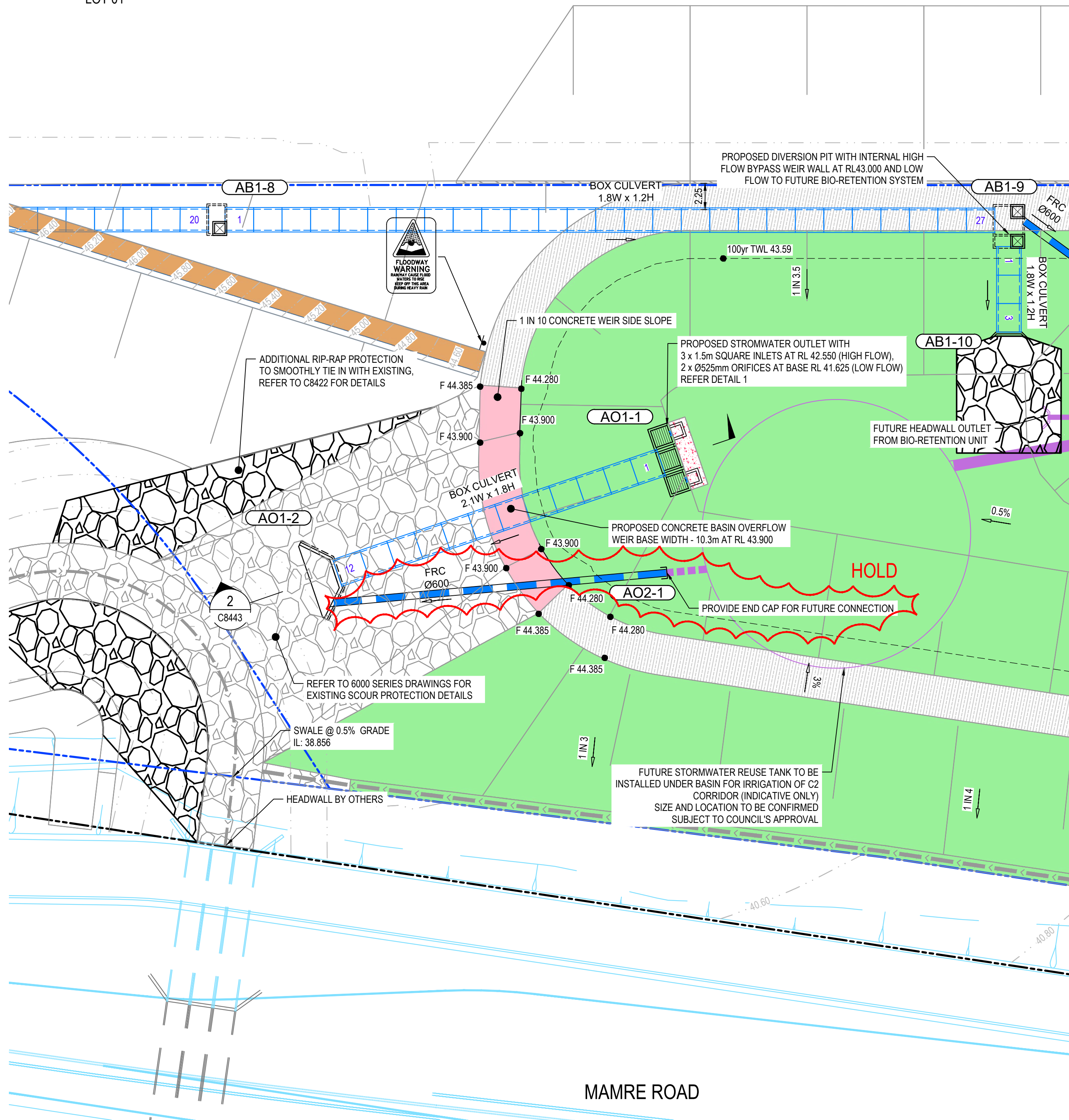
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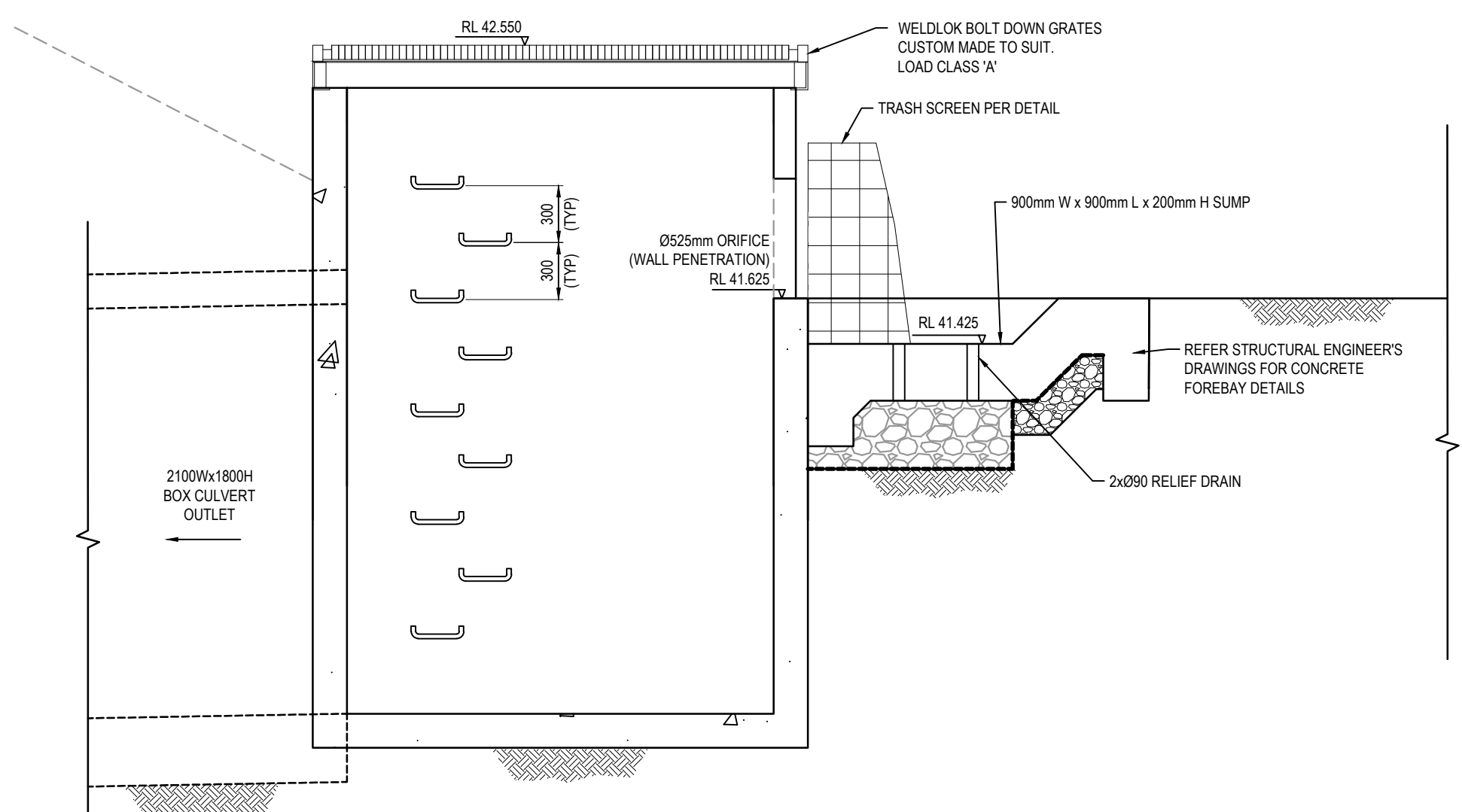
FUTURE  
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ADJOINS DRG 18-596-C8441

**LEGEND**

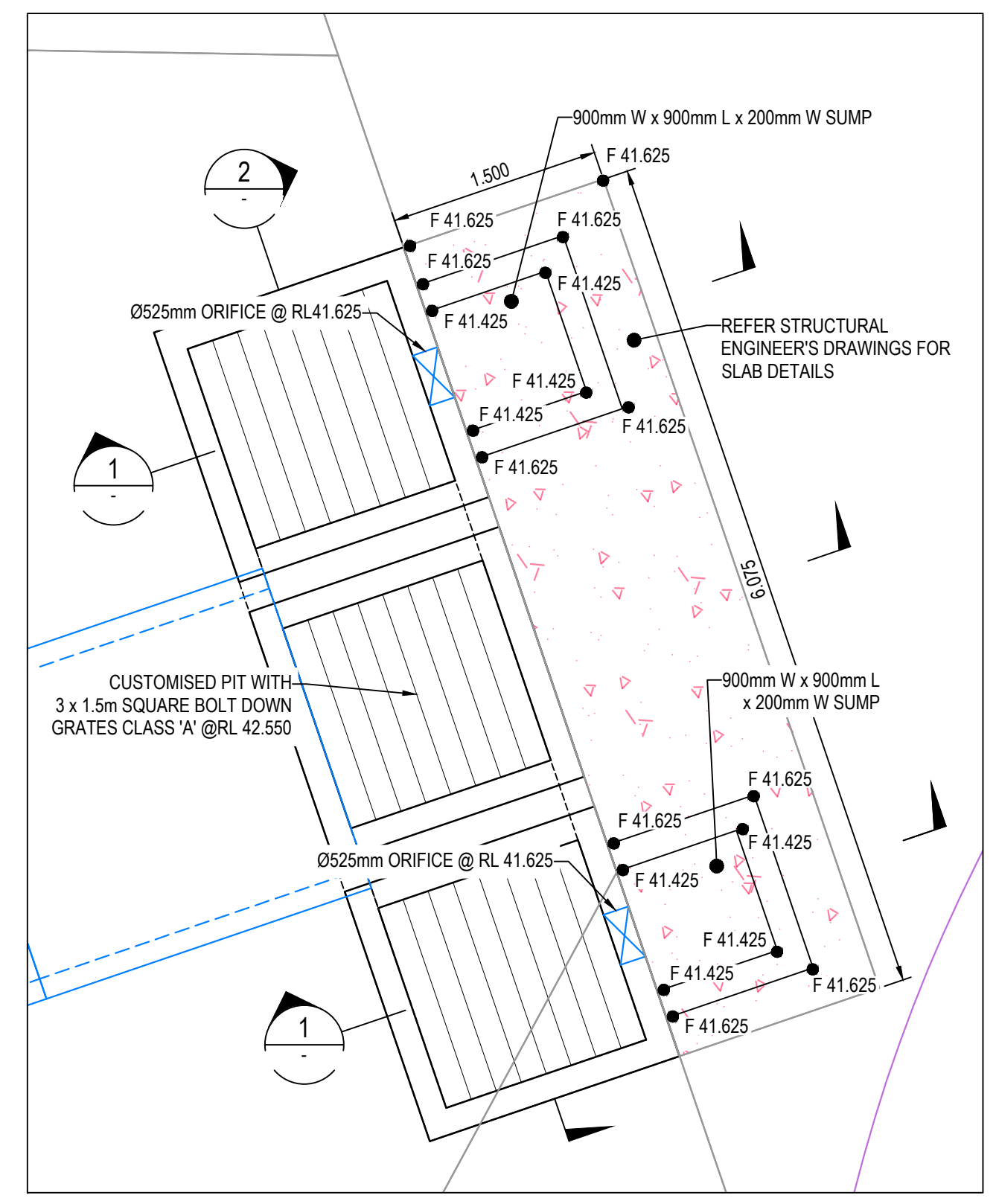
- BASIN ACCESS TRACK  
2 COAT SEAL ON 200mm THICK COMPACTED DGB20 ON COMPACTED FILL
- REINFORCED CONCRETE WEIR  
250mm THICK N32 CONCRETE WITH 1 LAYER OF SL82 MESH WITH 50mm COVER ON 150mm THICK COMPACTED DGB20 ON COMPACTED FILL
- CONCRETE RAMP WITH TOOLED GROOVES  
225mm THICK N32 CONCRETE WITH 2 LAYERS SL82 MESH WITH MIN 50mm COVER ON 150mm THICK COMPACTED DGB20 ON COMPACTED FILL WITH 20mm (W) x 10mm (D) TOOLED GROOVES AT 100mm CENTRES AND 20° ANGLE
- REINFORCED CONCRETE SLAB  
REFER STRUCTURAL ENGINEER'S DRAWINGS FOR DETAILS
- LANDSCAPE TREATMENT  
REFER LANDSCAPE ARCHITECT DOCUMENTATION FOR DETAILS
- SCOUR PROTECTION  
REFER SCOUR PROTECTION SCHEDULE ON DWG C8422 FOR DETAILS
- SJ SAWN JOINT. REFER TO DWG C8016
- DEJ SAWN JOINT. REFER TO DWG C8016
- TE THICKENED EDGE. REFER TO DWG C8016



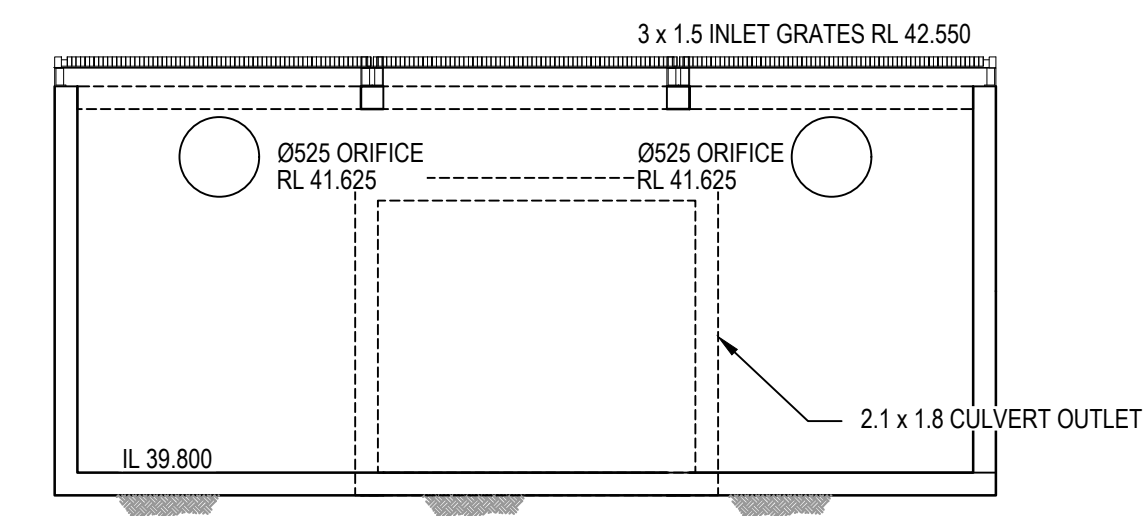
SECTION 1  
1:20

**PENRITH CITY COUNCIL**  
This plan / document relates to  
Development Consent: **SSD-10448-MOD-1**  
Subdivision Works Certificate: **EA22/0045**  
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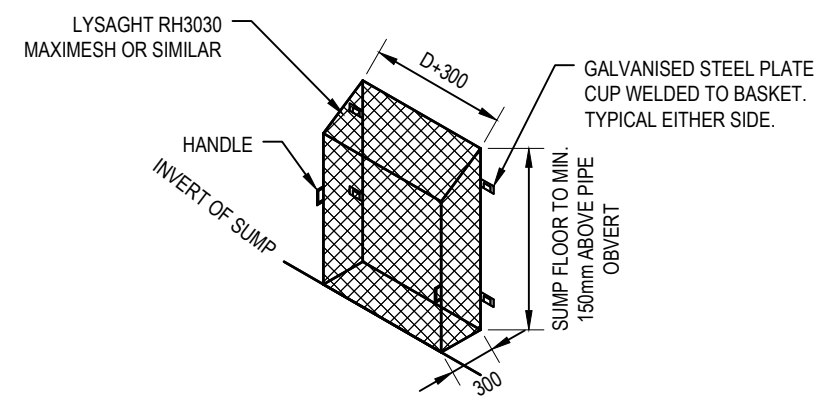
COUNCIL DOES NOT ATTEST TO THE ACCURACY OF DETAILS IN PLANS



DETAIL 1: STRUCTURE AO1-1  
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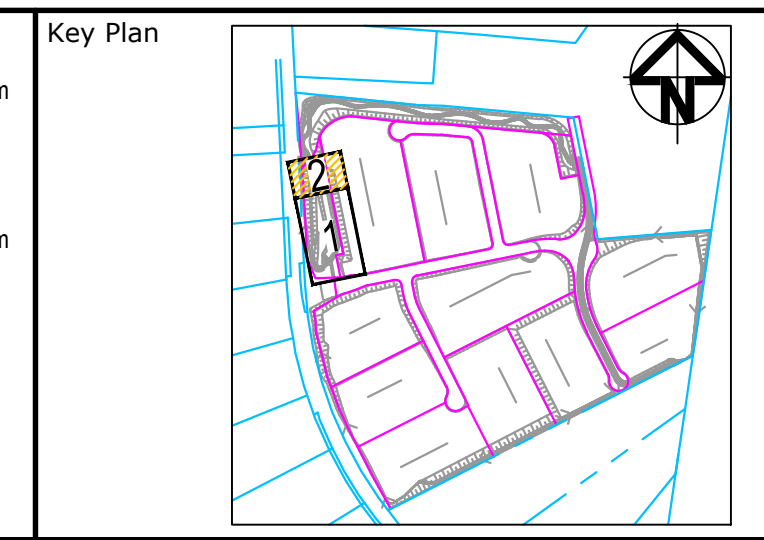
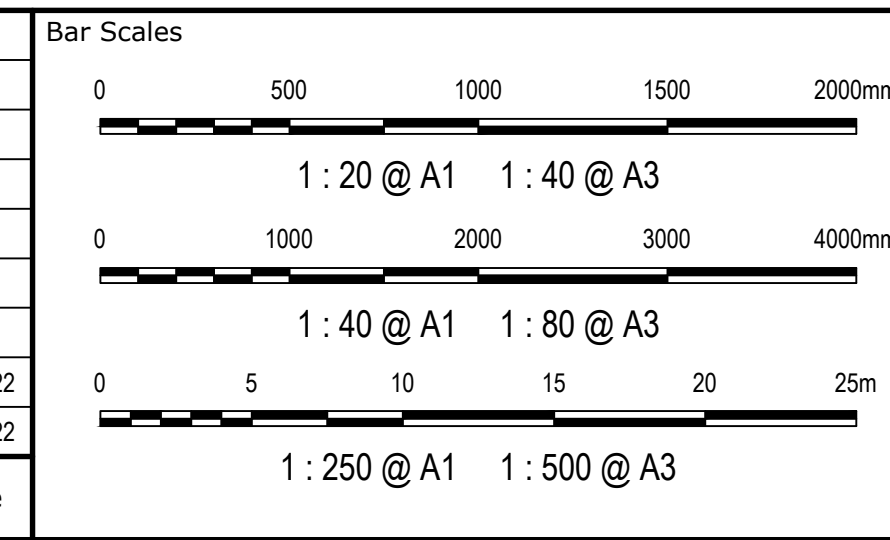


SECTION 2  
1:50



TRASH SCREEN MESH DETAILS  
NOT TO SCALE

Issue	Description	Date
1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22



Scales	AS SHOWN	Drawn	JB/MH
Grid	GDA2020	Designed	JB/MH
Height Datum	AHD	Checked	DS
		Approved	DS

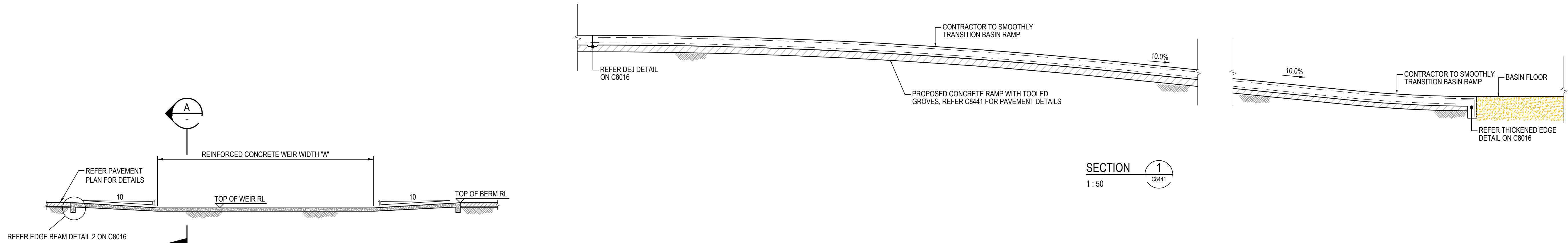
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**GDA2020**

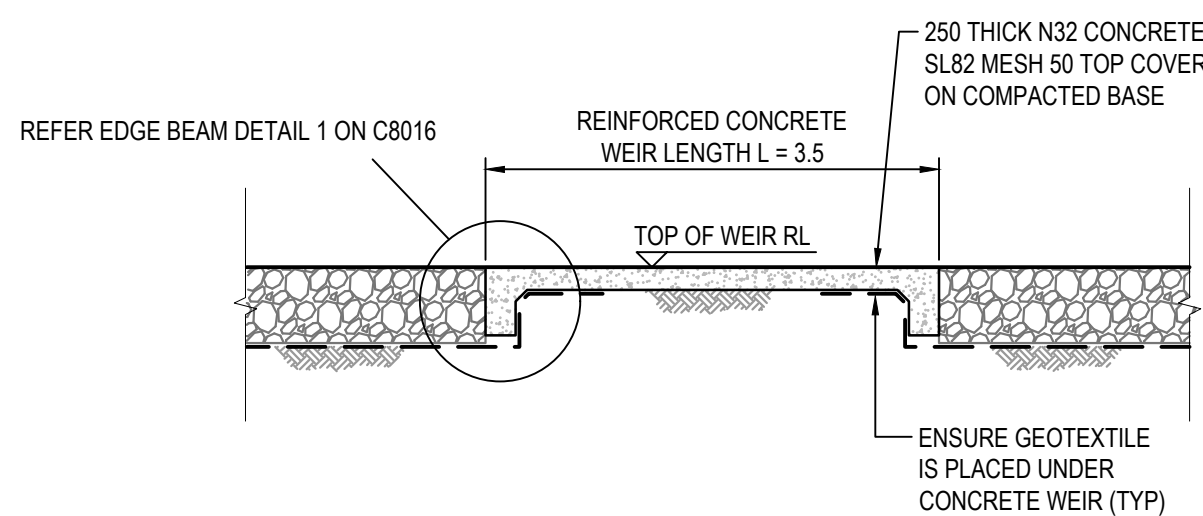
Project	ASPECT INDUSTRIAL ESTATE MAMRE ROAD, KEMPS CREEK STAGE 1B
Title	DETENTION BASIN DETAIL PLAN SHEET 2

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 CONSTRUCTION
Project - Drawing No.	18-596-C8442
Issue	1

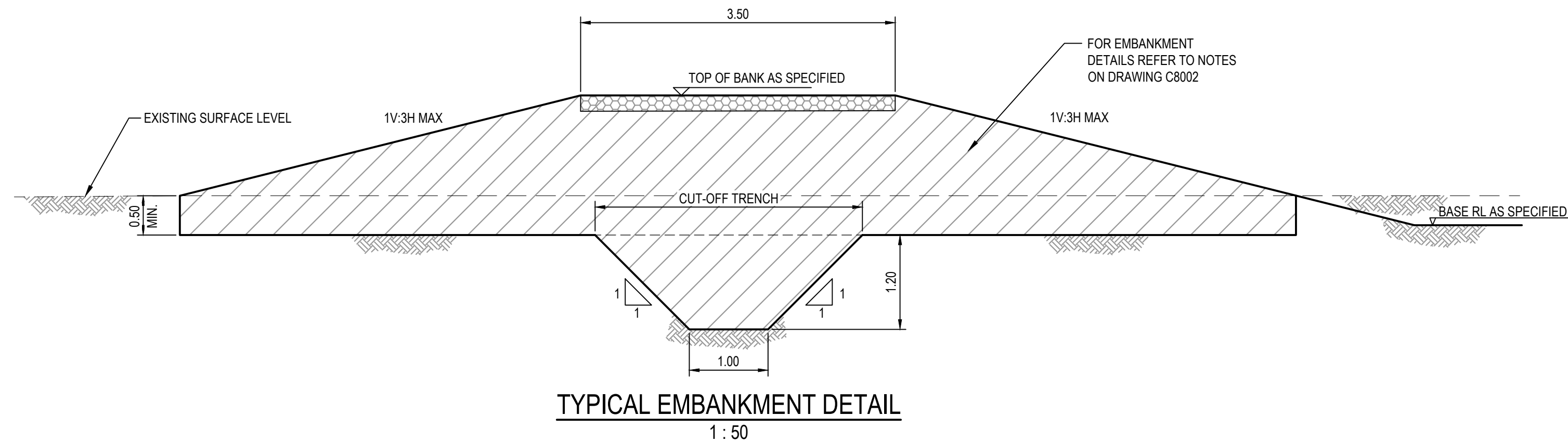




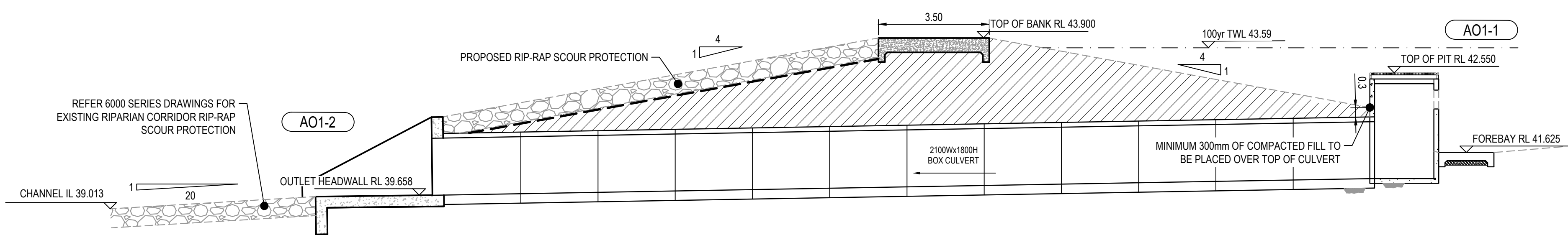
CONCRETE WEIR DETAILS  
NTS



SECTION A  
NTS



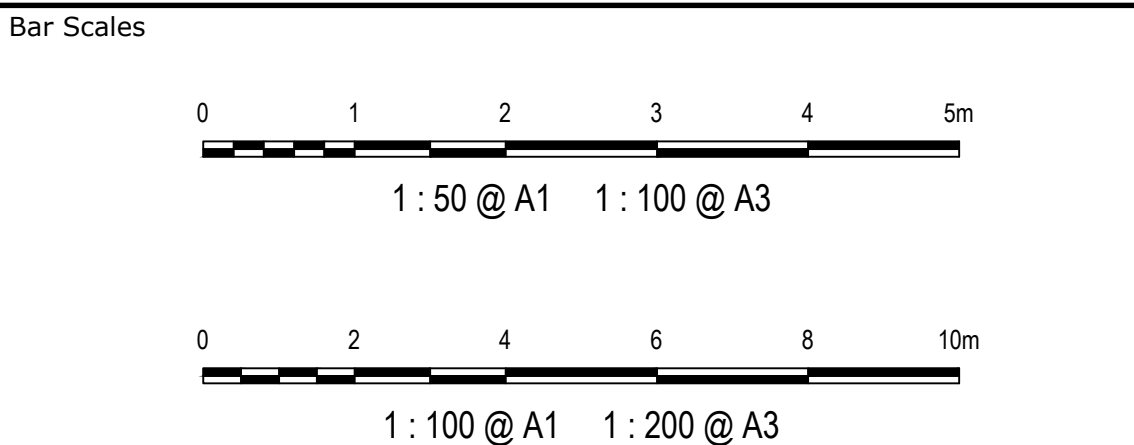
TYPICAL EMBANKMENT DETAIL  
1 : 50



SECTION 2  
1 : 100

**PENRITH CITY COUNCIL**  
This plan / document relates to  
Development Consent: **SSD-10448-MOD-1**  
Subdivision Works Certificate: **EA22/0045**  
Subject to the conditions outlined in the consent

1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22
Issue	Description	Date



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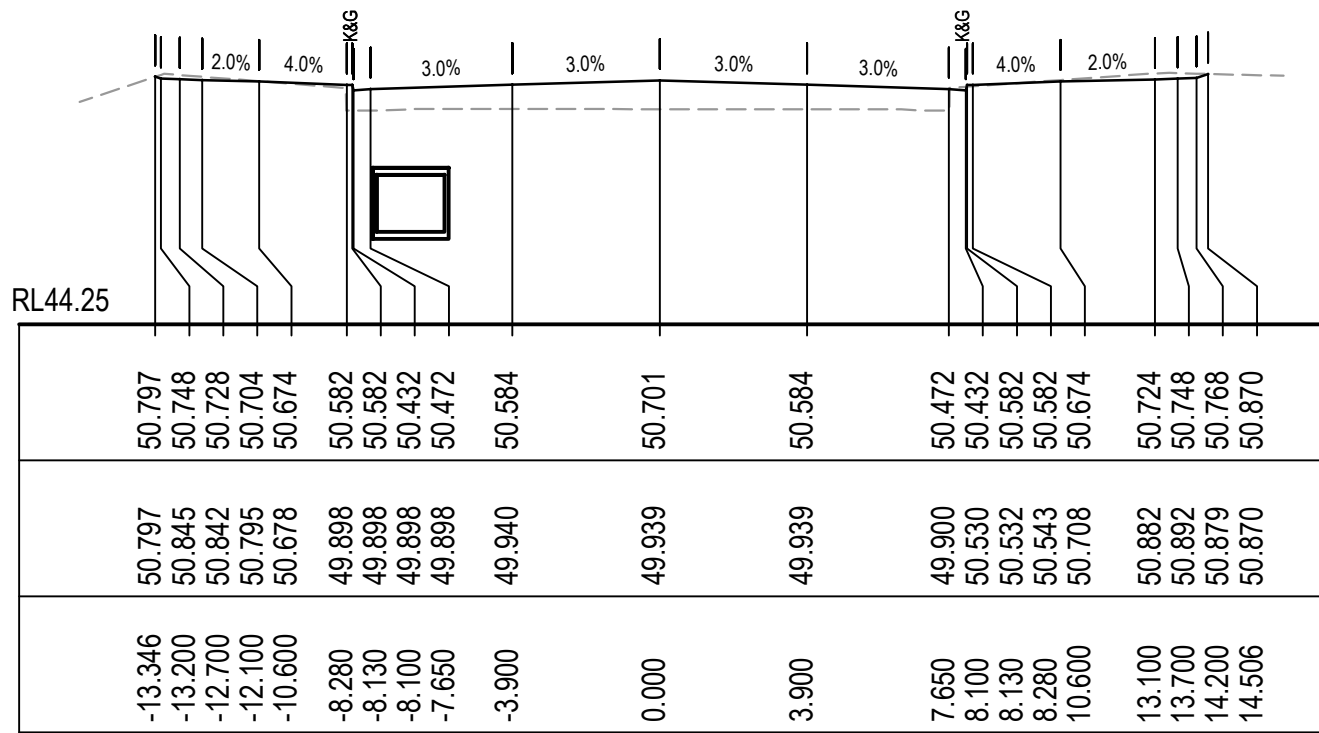


Scales  
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Height Datum AHD  
Drawn  
Designed  
Checked  
Approved  
JB/MH  
DS  
DS  
GDA2020

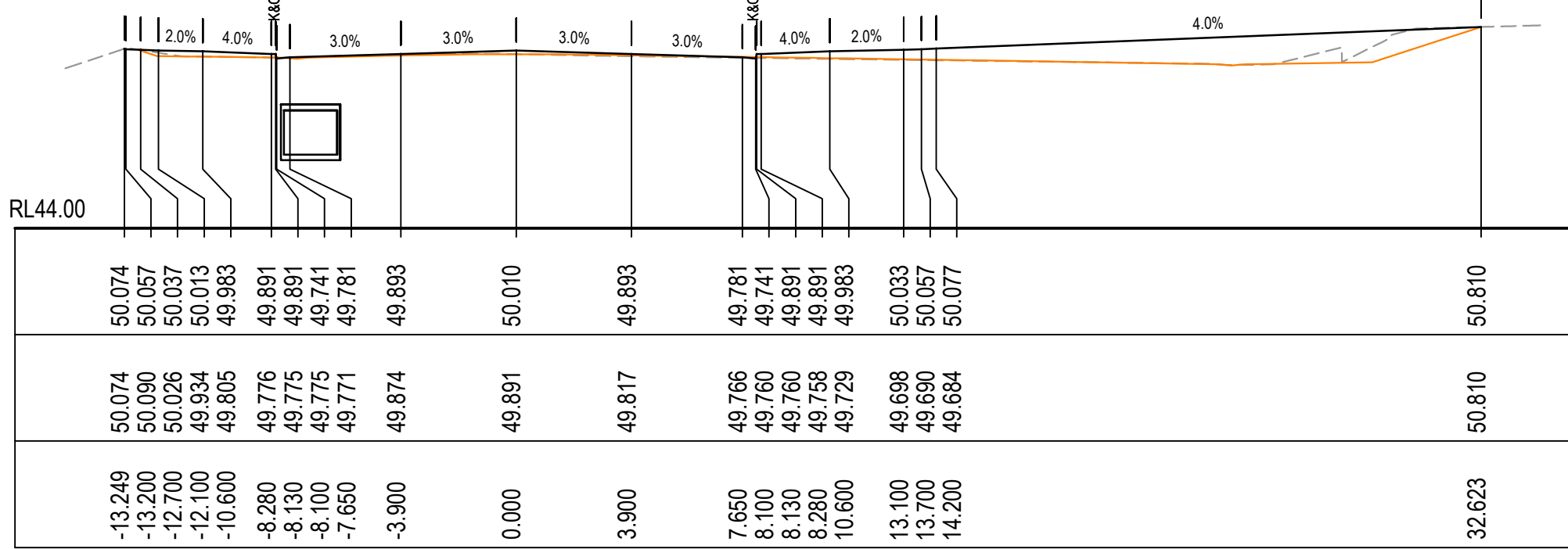
Project  
ASPECT INDUSTRIAL ESTATE  
MAMRE ROAD,  
KEMPS CREEK  
STAGE 1B  
Title  
DETENTION BASIN  
DETAIL PLAN  
SHEET 3

Civil Engineers and Project Managers  
**at&l**  
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 CONSTRUCTION  
Project - Drawing No.  
18-596-C8443  
Issue  
1

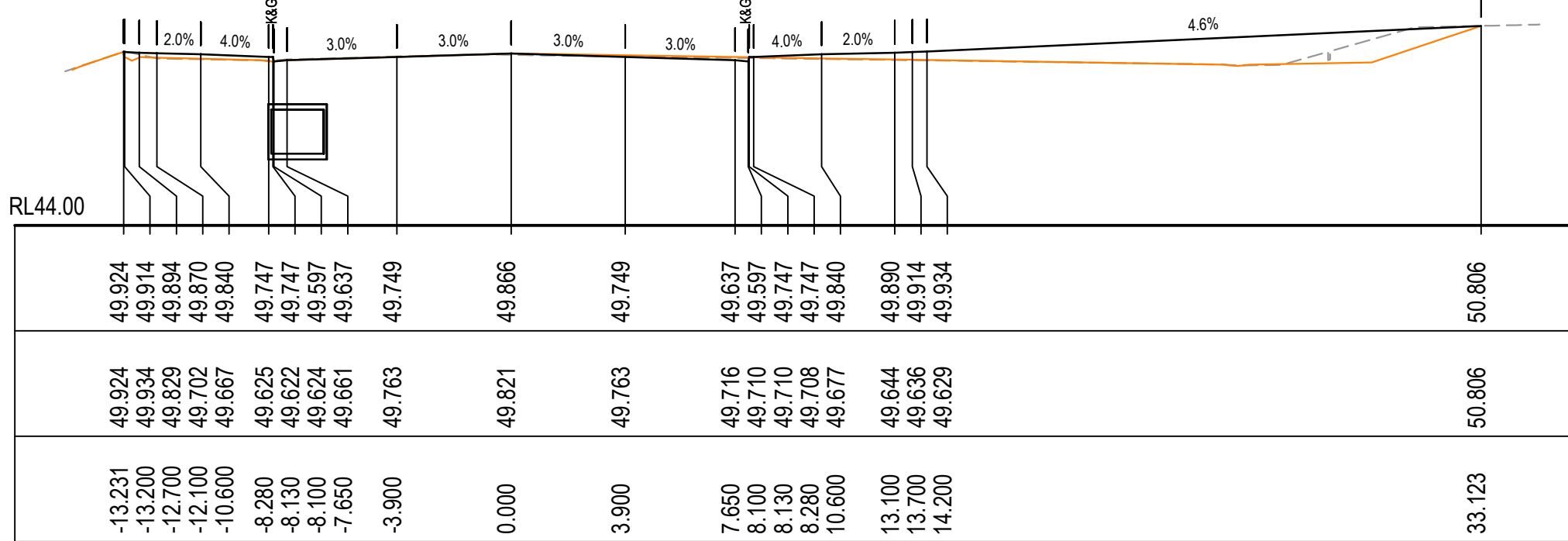




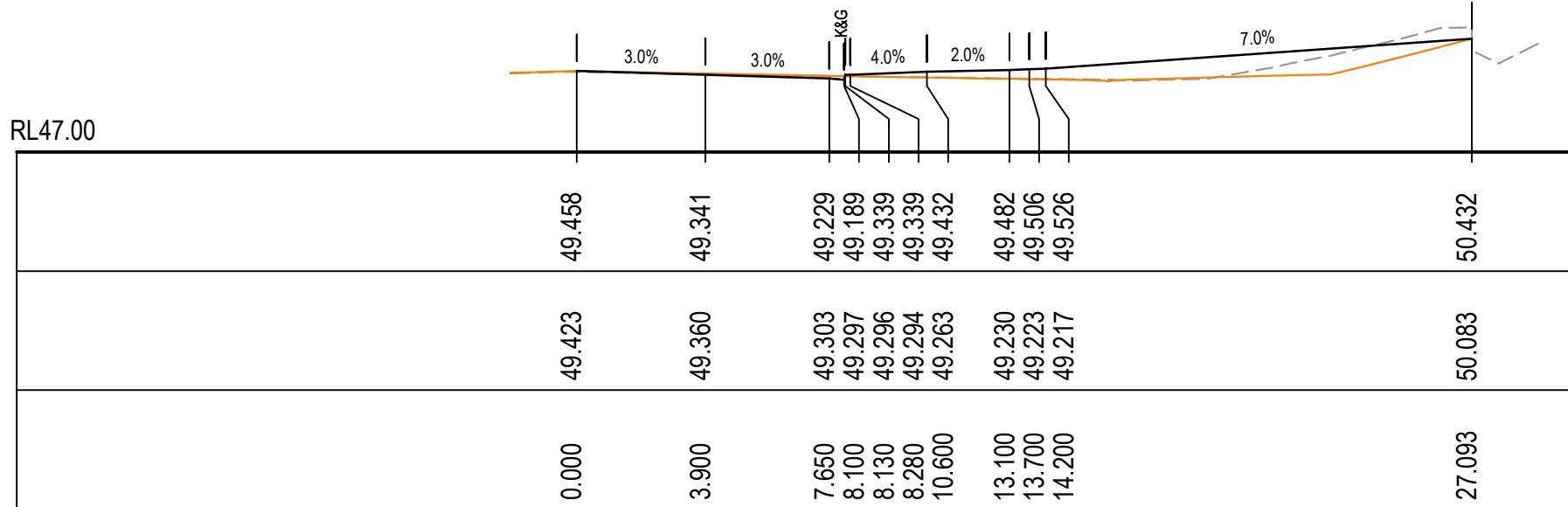
CH 540



CH 520

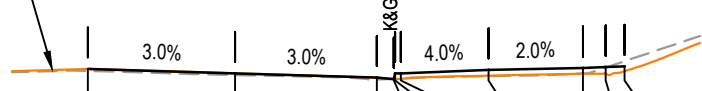


CH 515.281



CH 500

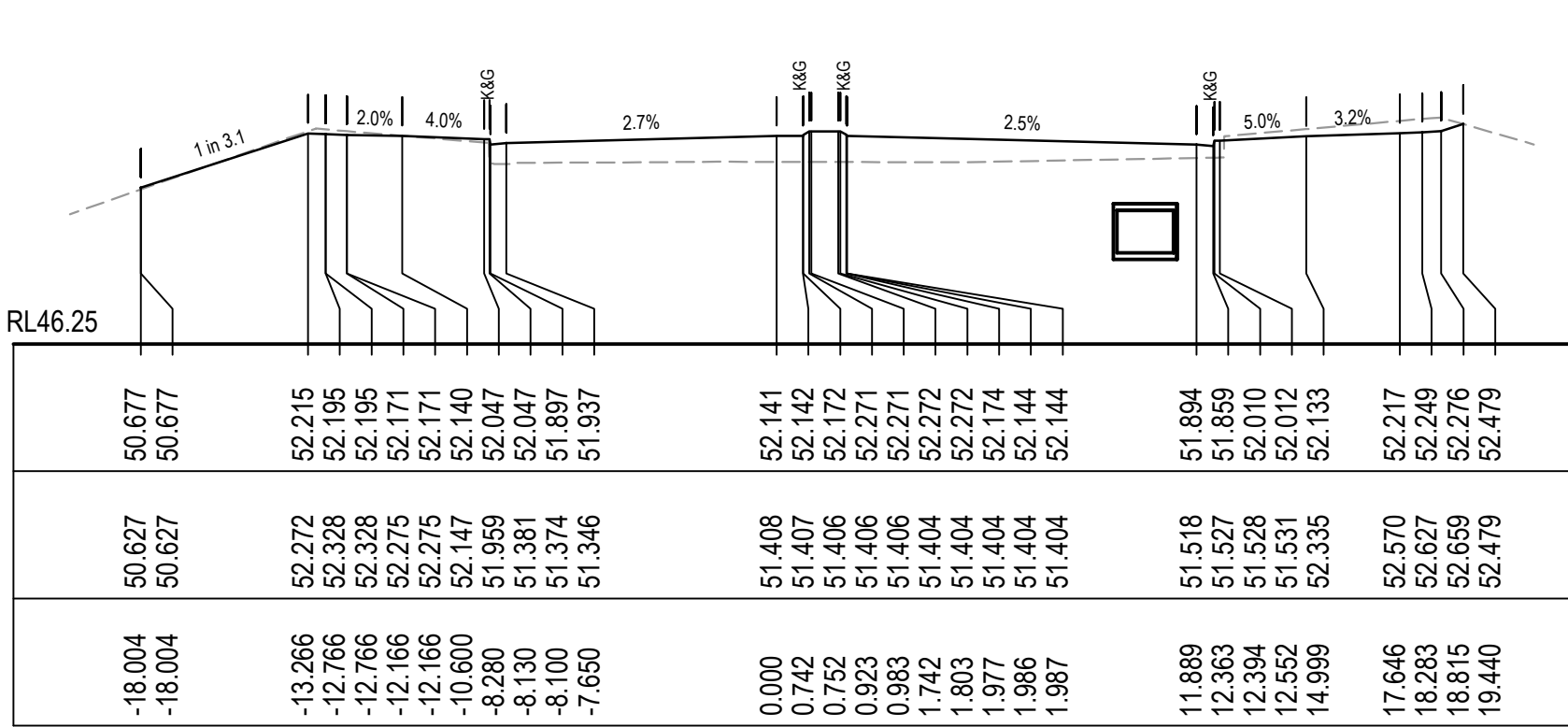
SWC01 DESIGN LEVEL



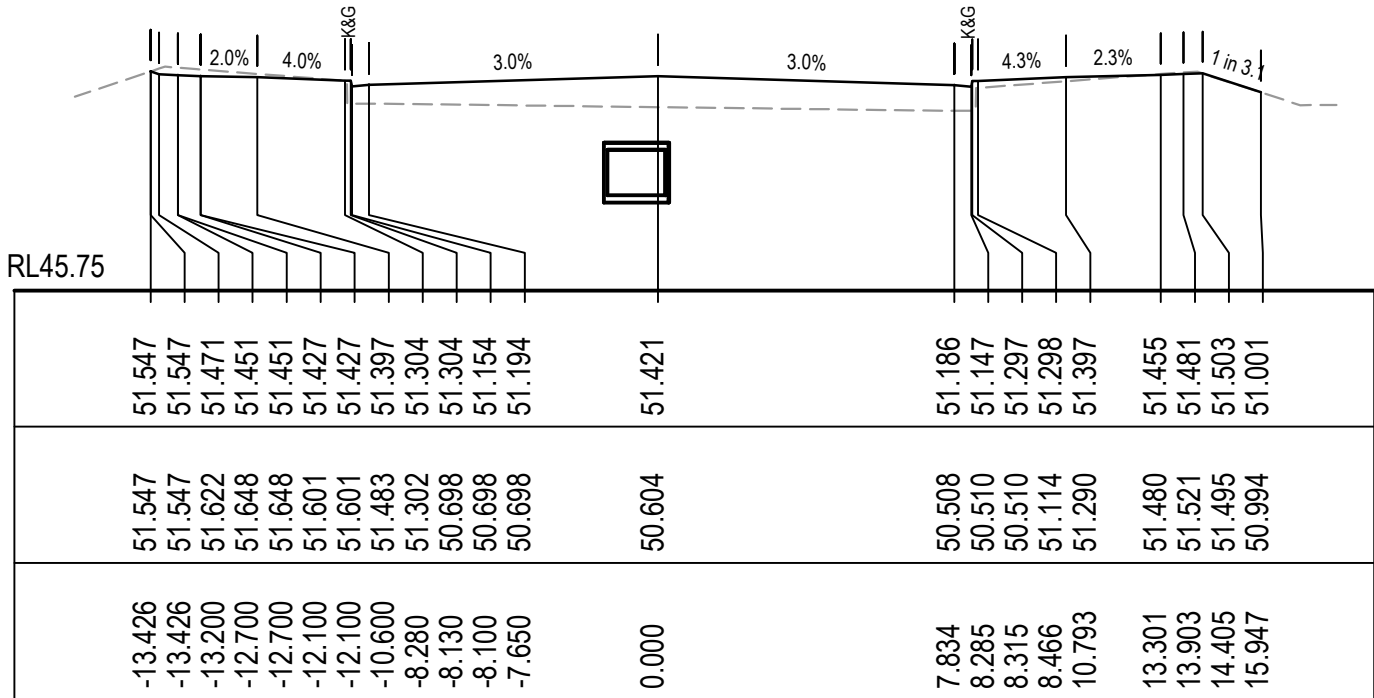
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RL46.75

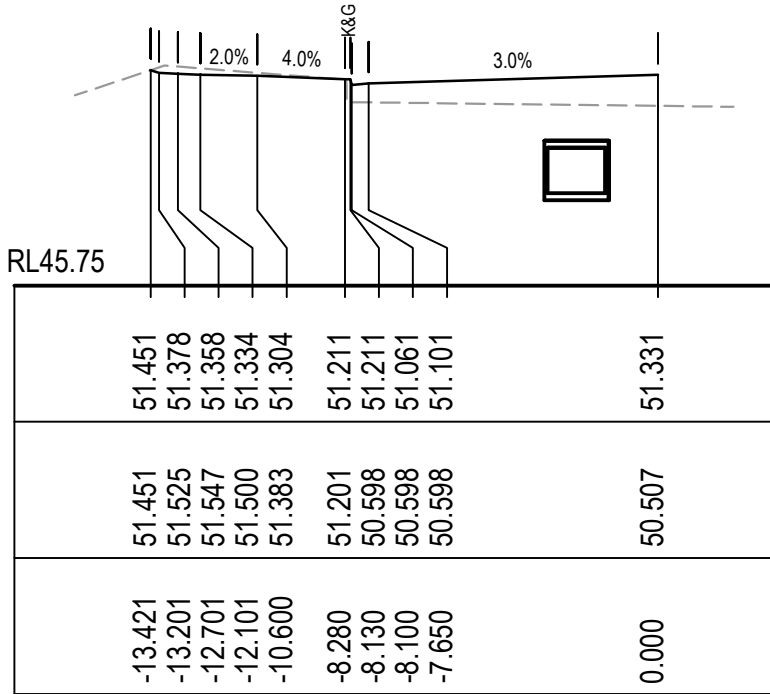
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EXISTING SURFACE LEVEL	49.003	48.893	48.774	48.792	48.793	48.799	48.864	48.932	49.081
CENTRELINE OFFSET	0.000	3.900	7.650	8.100	8.130	8.280	10.600	13.100	14.200



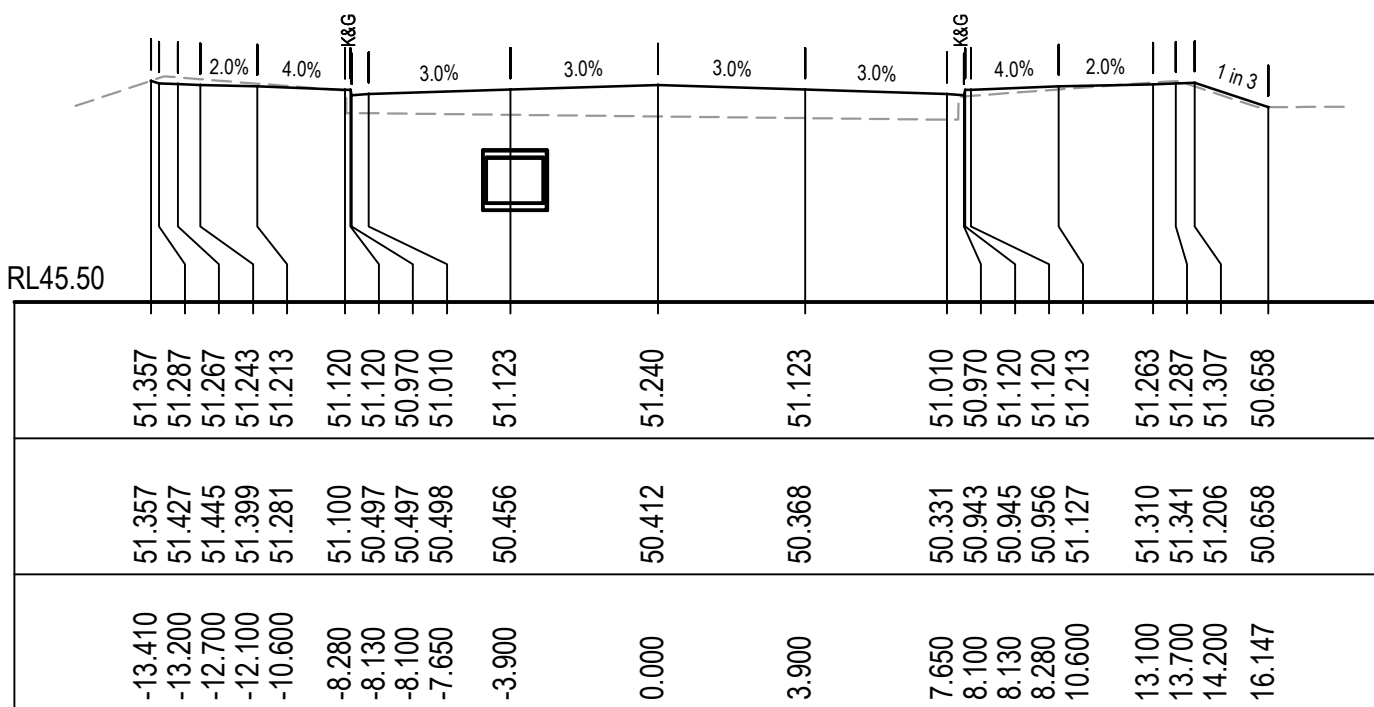
CH 580



CH 560

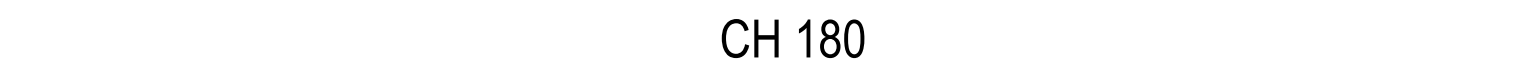
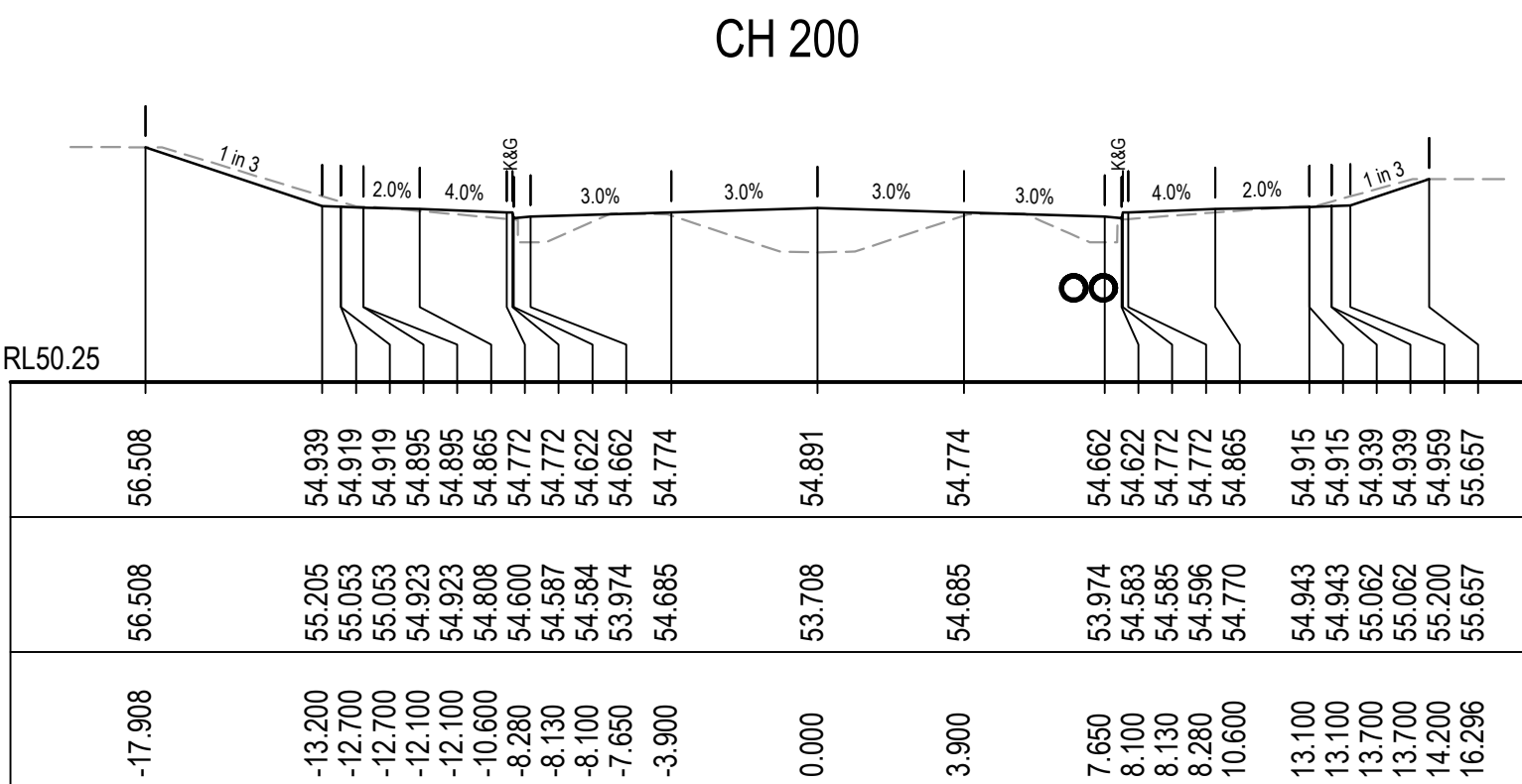
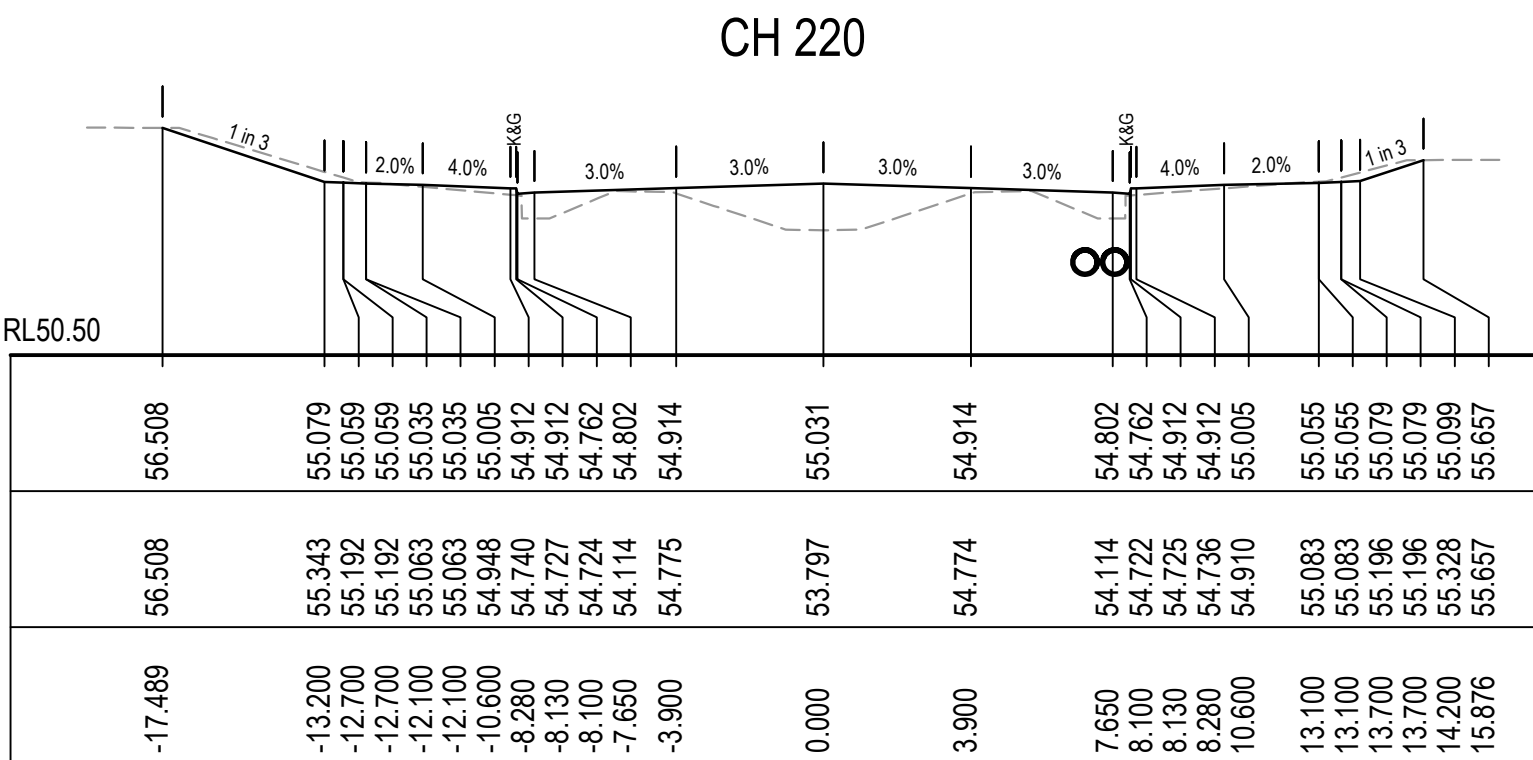
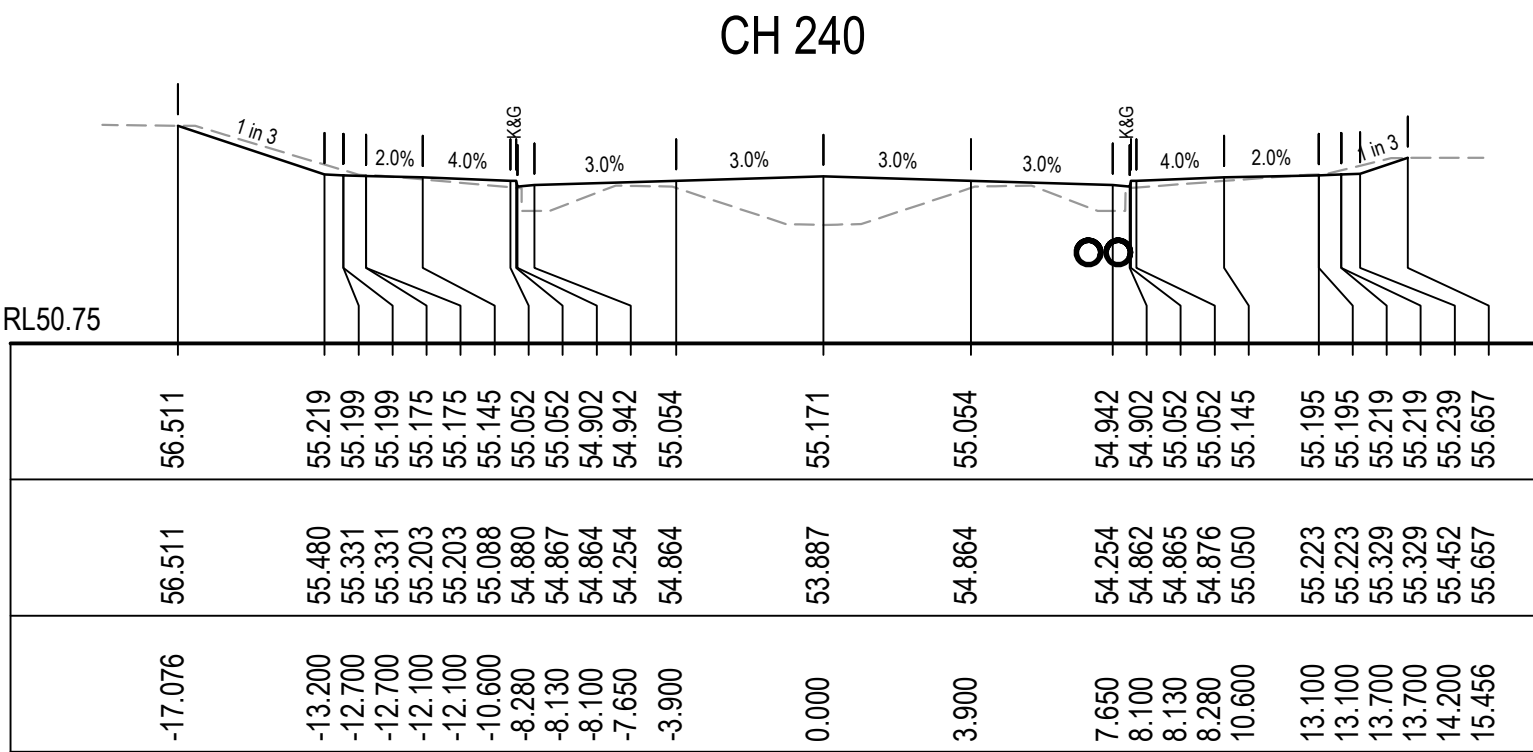
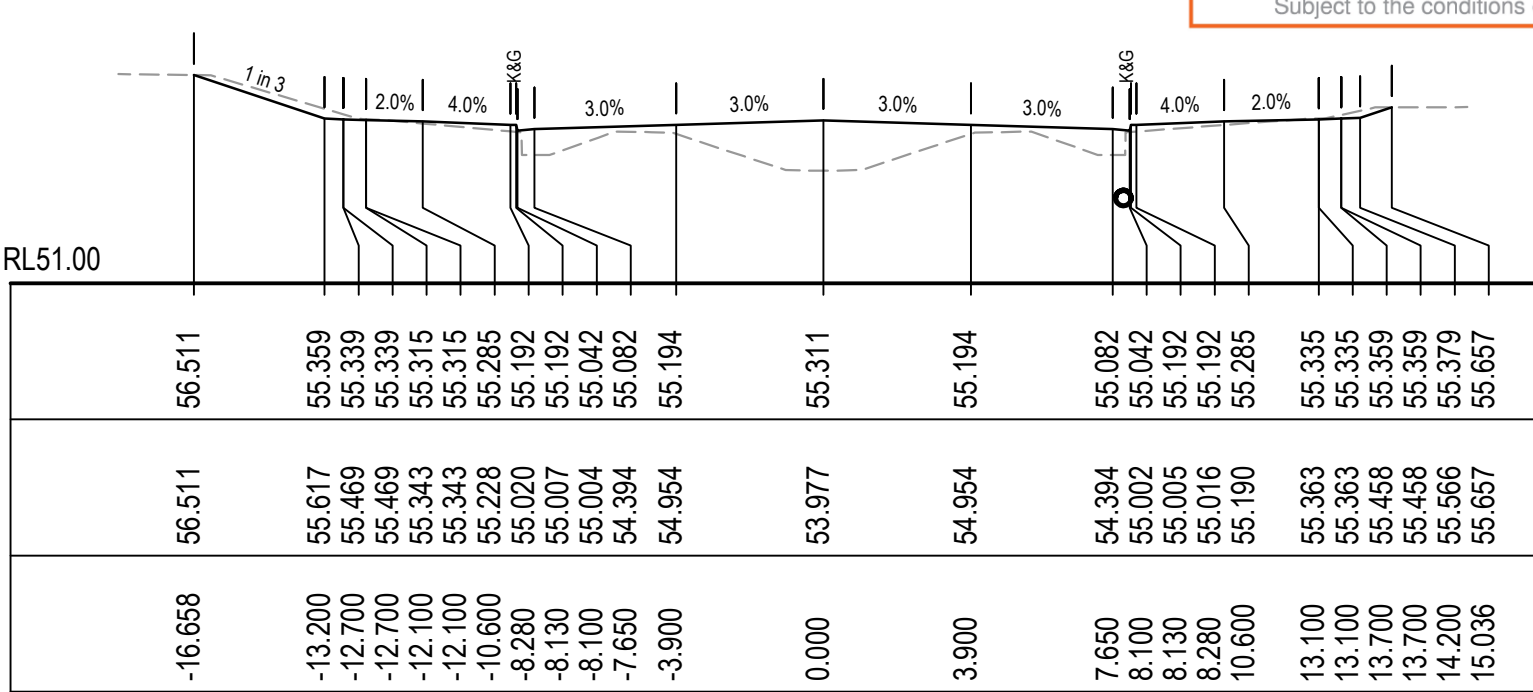
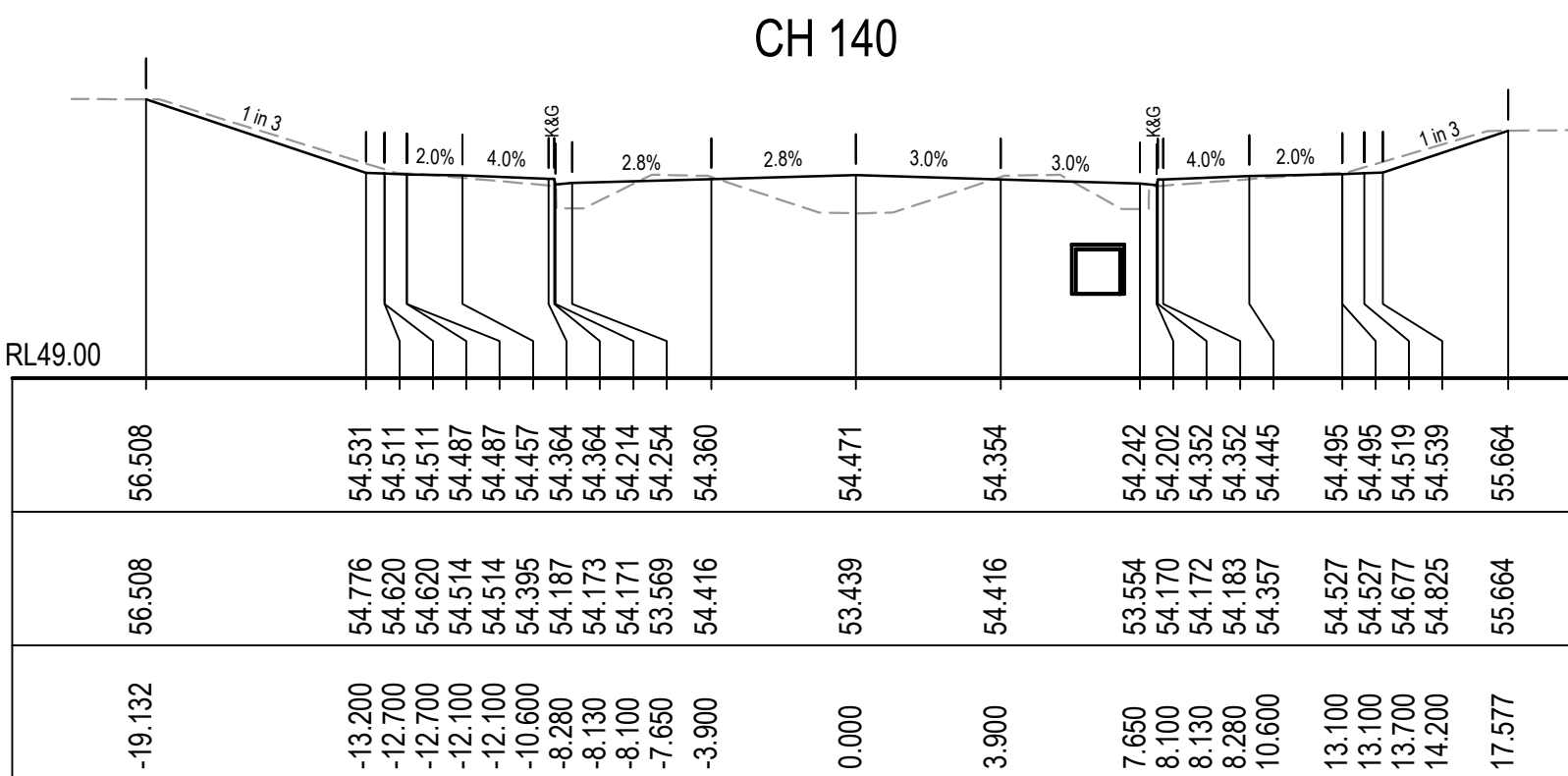
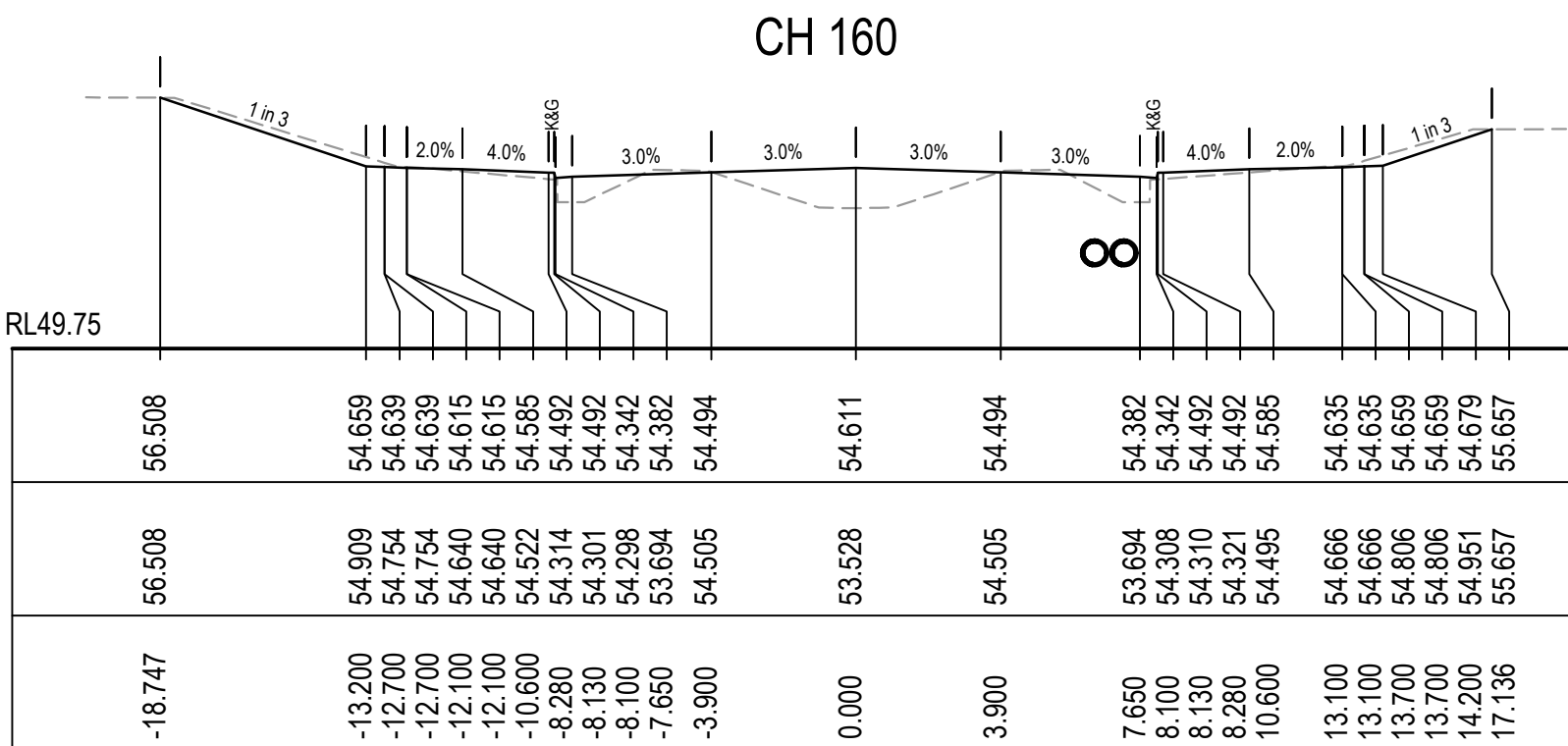
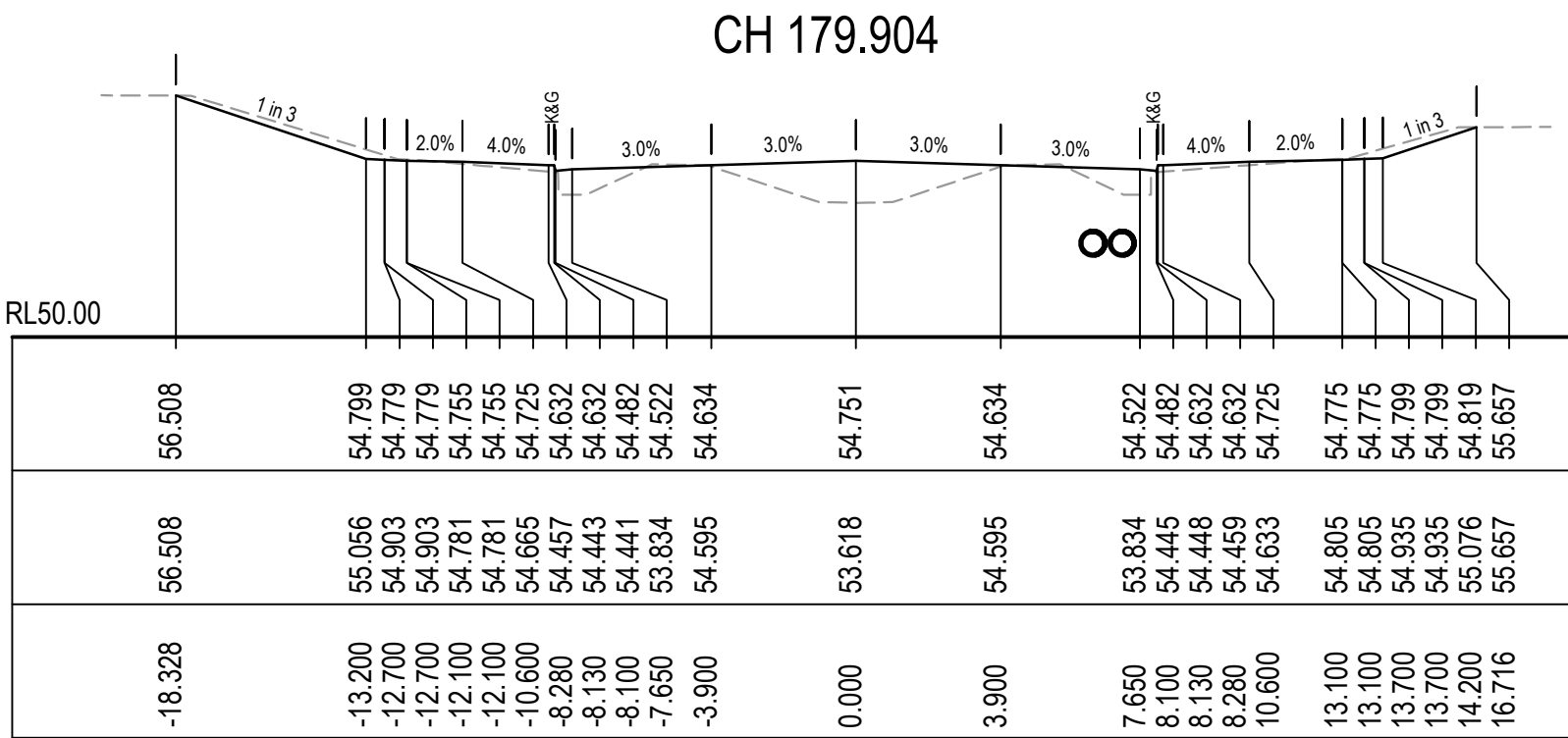
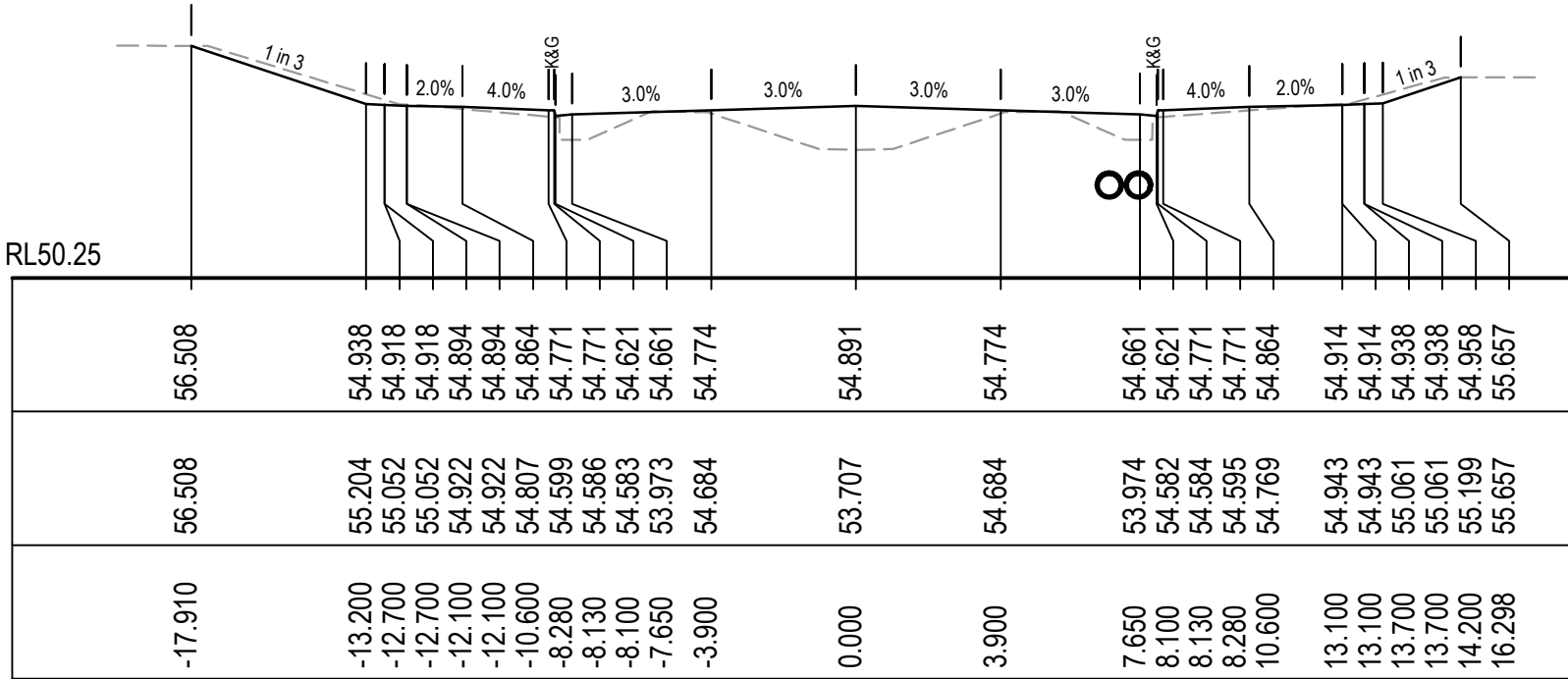
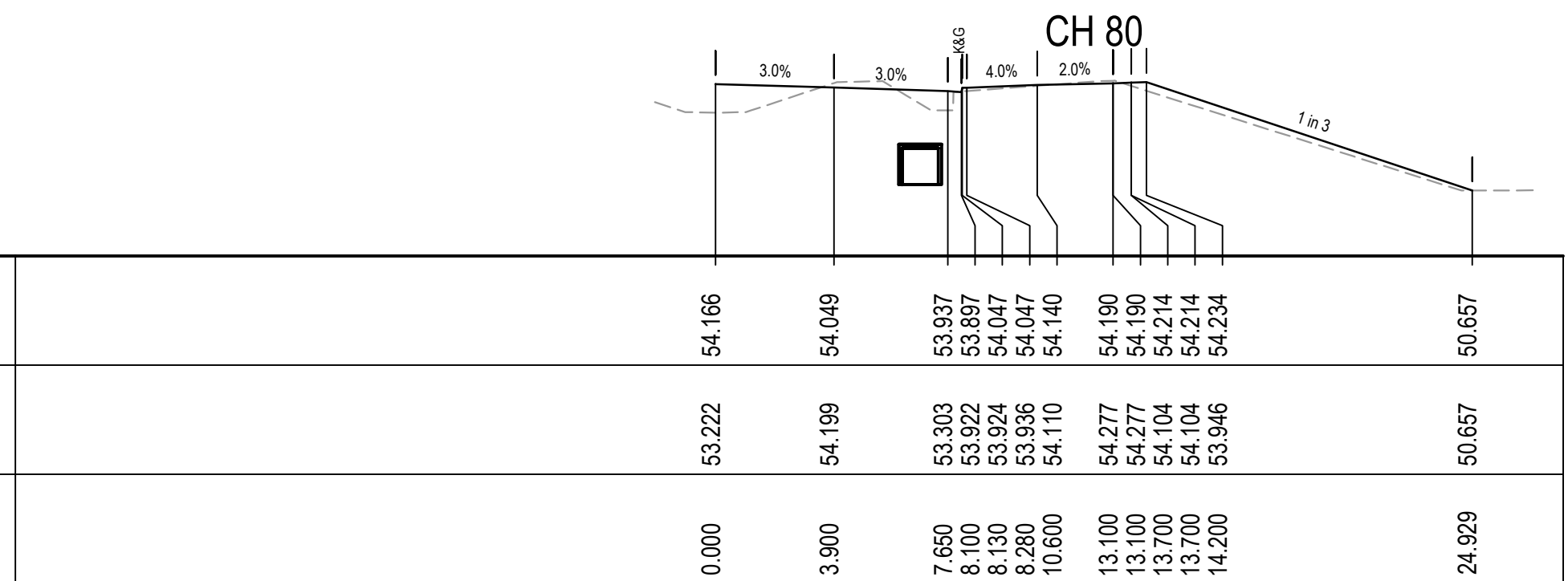
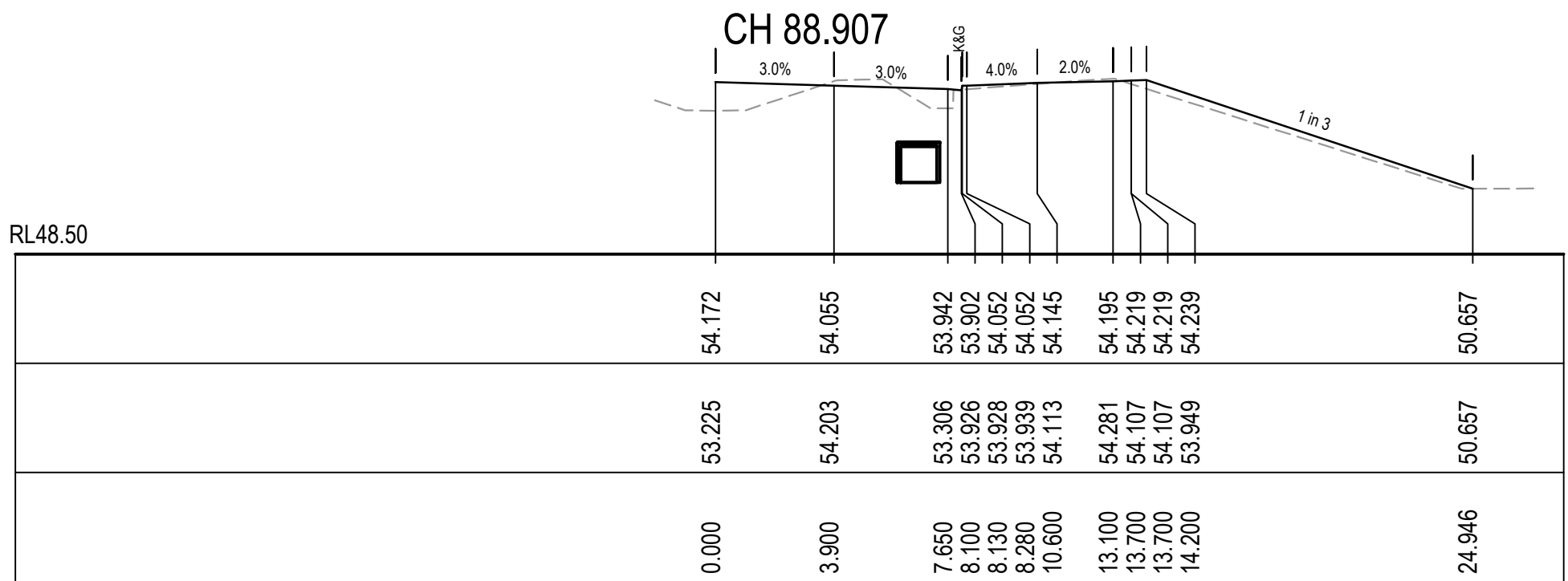
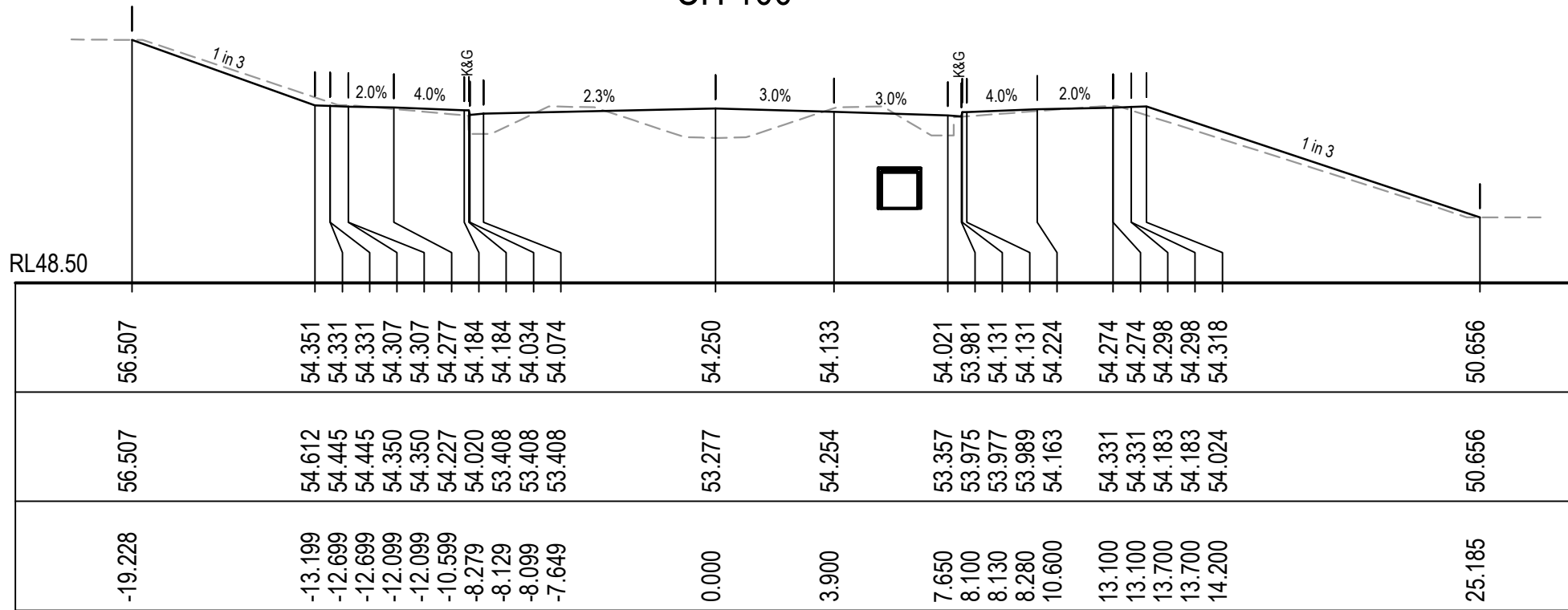
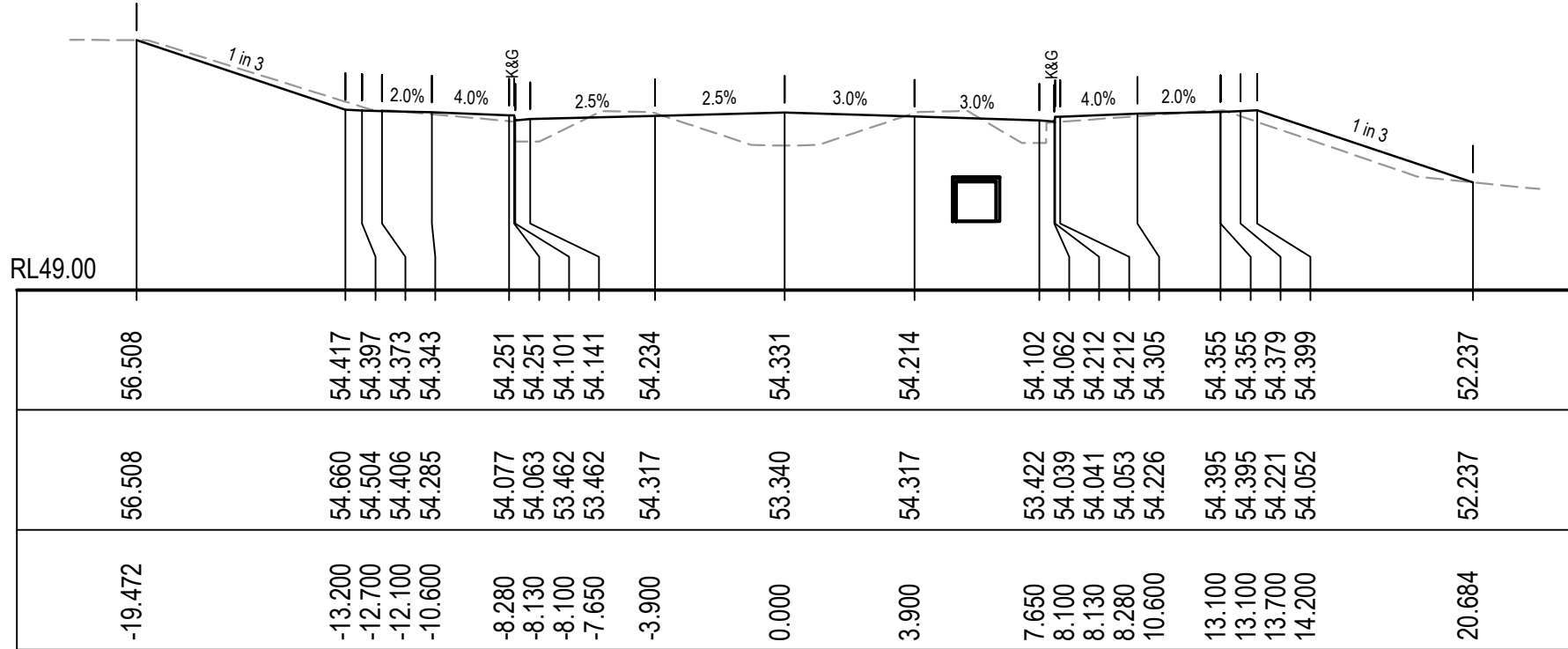


CH 557.491



CH 554.971





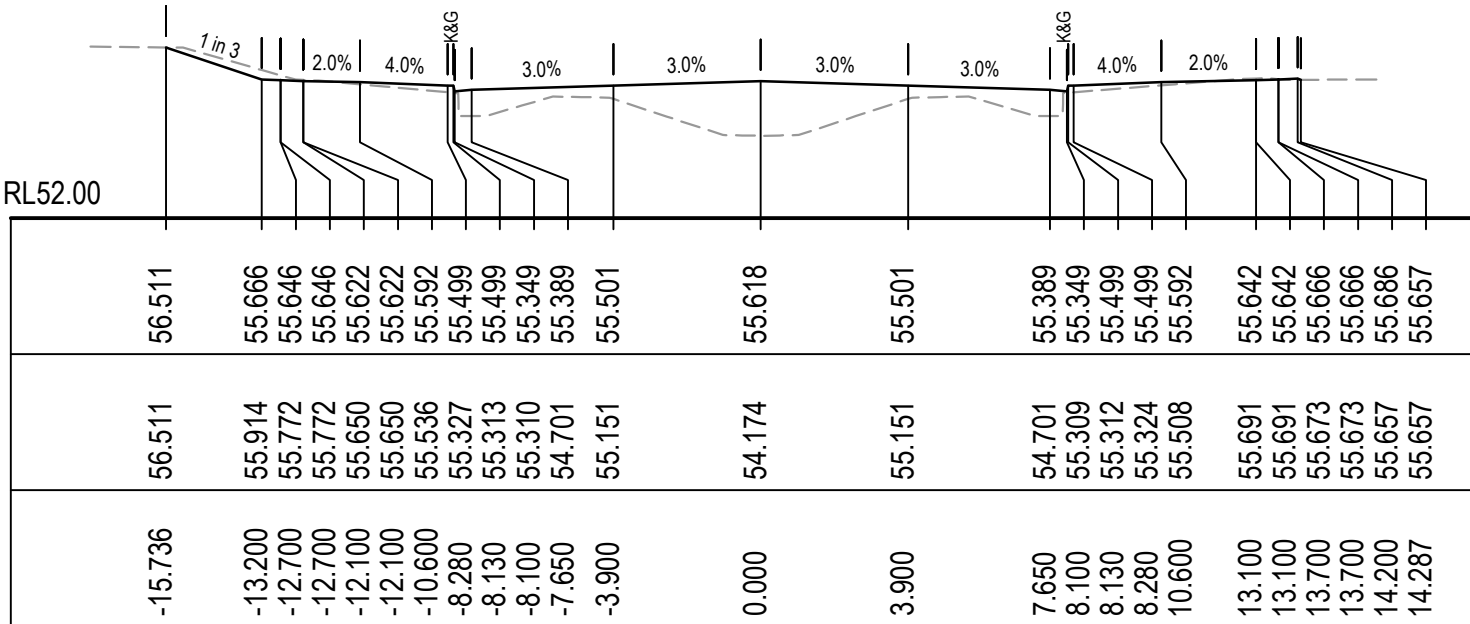
1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22
Issue	Description	Date

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

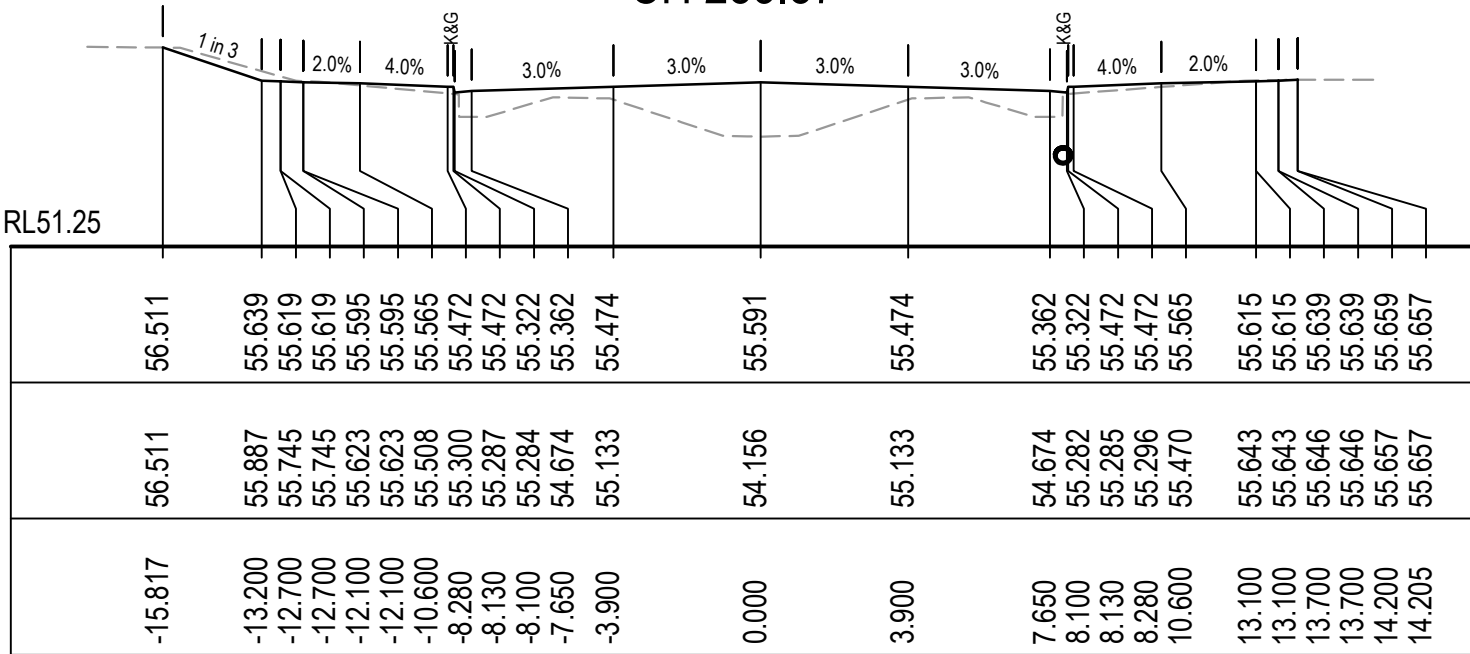
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		Designed	JB/MH
Grid	GDA2020	Checked	DS
Height Datum	AHD	Approved	DS
 GDA2020			

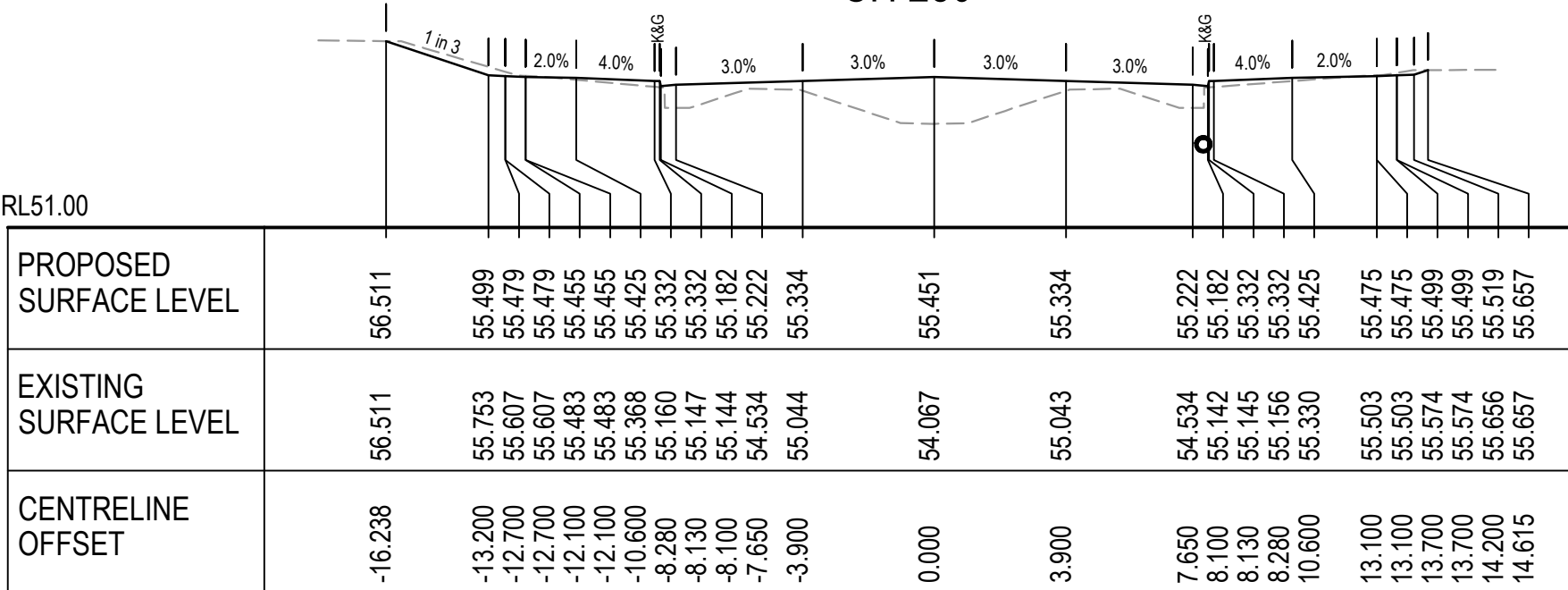




CH 283.87

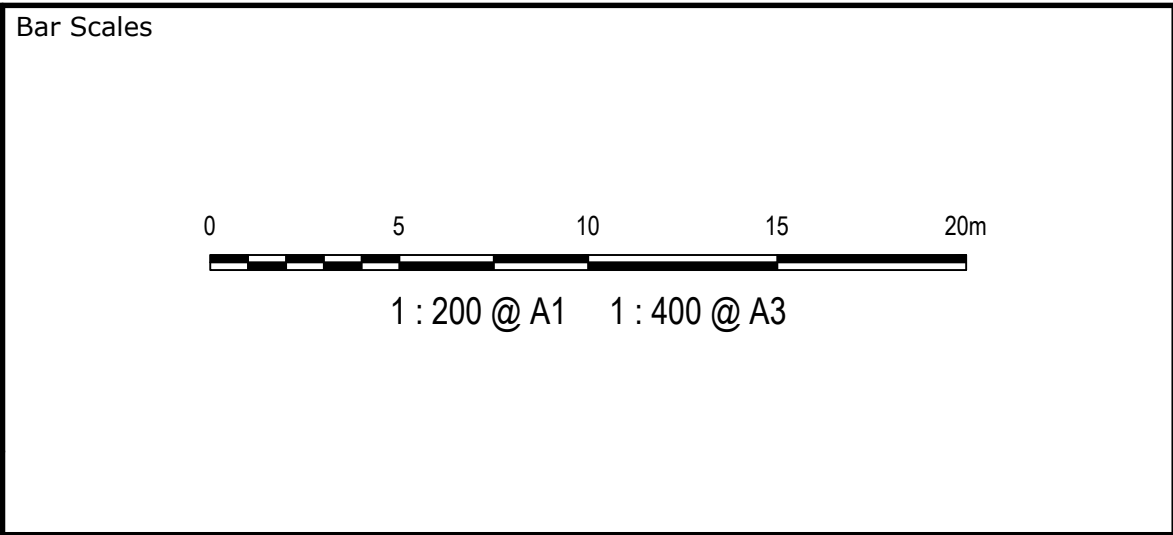


CH 280



CH 260

1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22
Issue	Description	Date



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Project

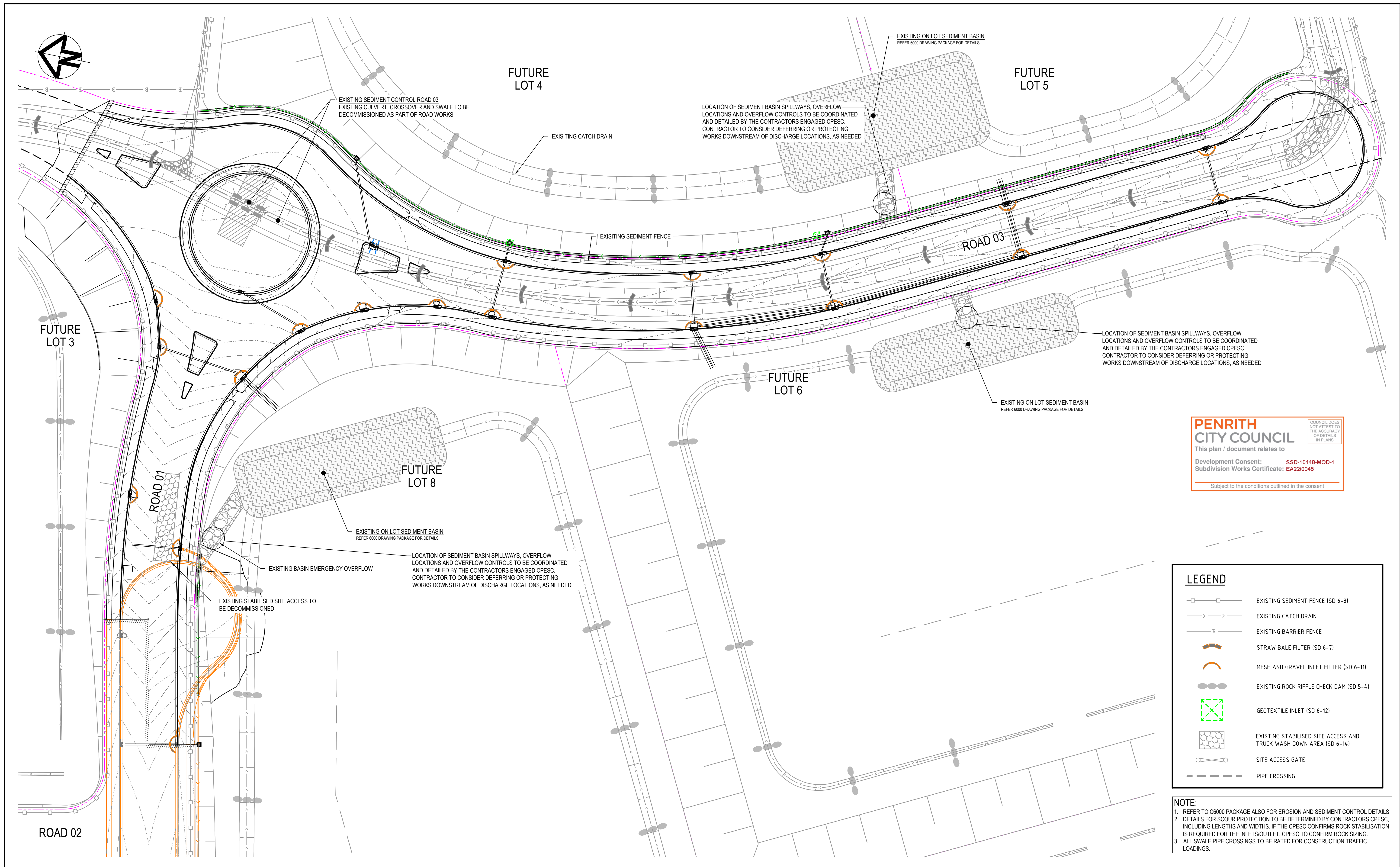
ASPECT INDUSTRIAL ESTATE  
MAMRE ROAD,  
KEMPS CREEK  
STAGE 1B

Title

ROAD CROSS SECTIONS  
ROAD 03  
SHEET 2

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 CONSTRUCTION	A1
Project - Drawing No.	18-596-C8512	Issue
		1





PENRITH

CITY COUNCIL

This plan / document relates to

Development Consent: **SSD-10448-MOD-1**

Subdivision Works Certificate: **EA22/0045**

COUNCIL DOES NOT ATTEST TO THE ACCURACY OF DETAILS IN PLANS

Subject to the conditions outlined in the consent

LEGEND

EXISTING SEDIMENT FENCE (SD 6-8)

EXISTING CATCH DRAIN

EXISTING BARRIER FENCE

STRAW BALE FILTER (SD 6-7)

MESH AND GRAVEL INLET FILTER (SD 6-11)

EXISTING ROCK RIFFLE CHECK DAM (SD 5-4)

GEOTEXTILE INLET (SD 6-12)

EXISTING STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA (SD 6-14)

SITE ACCESS GATE

PIPE CROSSING

NOTE:  
1. REFER TO C6000 PACKAGE ALSO FOR EROSION AND SEDIMENT CONTROL DETAILS  
2. DETAILS FOR SCOUR PROTECTION TO BE DETERMINED BY CONTRACTORS CPESC, INCLUDING LENGTHS AND WIDTHS. IF THE CPESC CONFIRMS ROCK STABILISATION IS REQUIRED FOR THE INLETS/OUTLET, CPESC TO CONFIRM ROCK SIZING.  
3. ALL SWALE PIPE CROSSINGS TO BE RATED FOR CONSTRUCTION TRAFFIC LOADINGS.

1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22
Issue	Description	Date

Bar Scales

0

5

10

15

20

25m

1 : 250 @ A1    1 : 500 @ A3

Key Plan

Client

Scales

1:500

Drawn

JB/MH

Designed

JB/MH

Checked

DS

Approved

DS

Grid

GDA2020

Height Datum

AHD

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Project

ASPECT INDUSTRIAL ESTATE  
MAMRE ROAD,  
KEMPS CREEK  
STAGE 1B

Title

EROSION AND  
SEDIMENT CONTROL  
PLAN

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 CONSTRUCTION

Project - Drawing No.

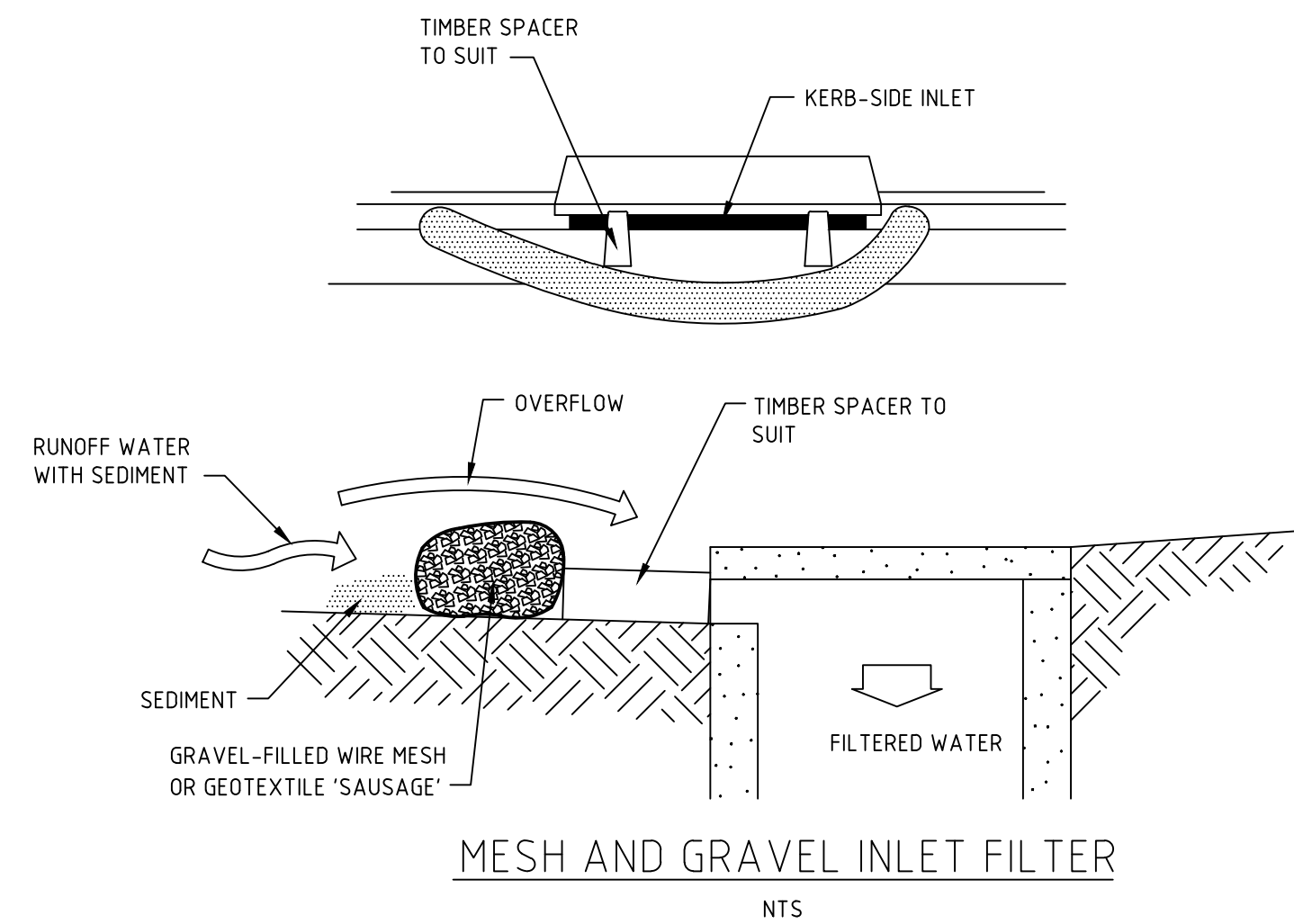
18-596-C8631

Issue

1

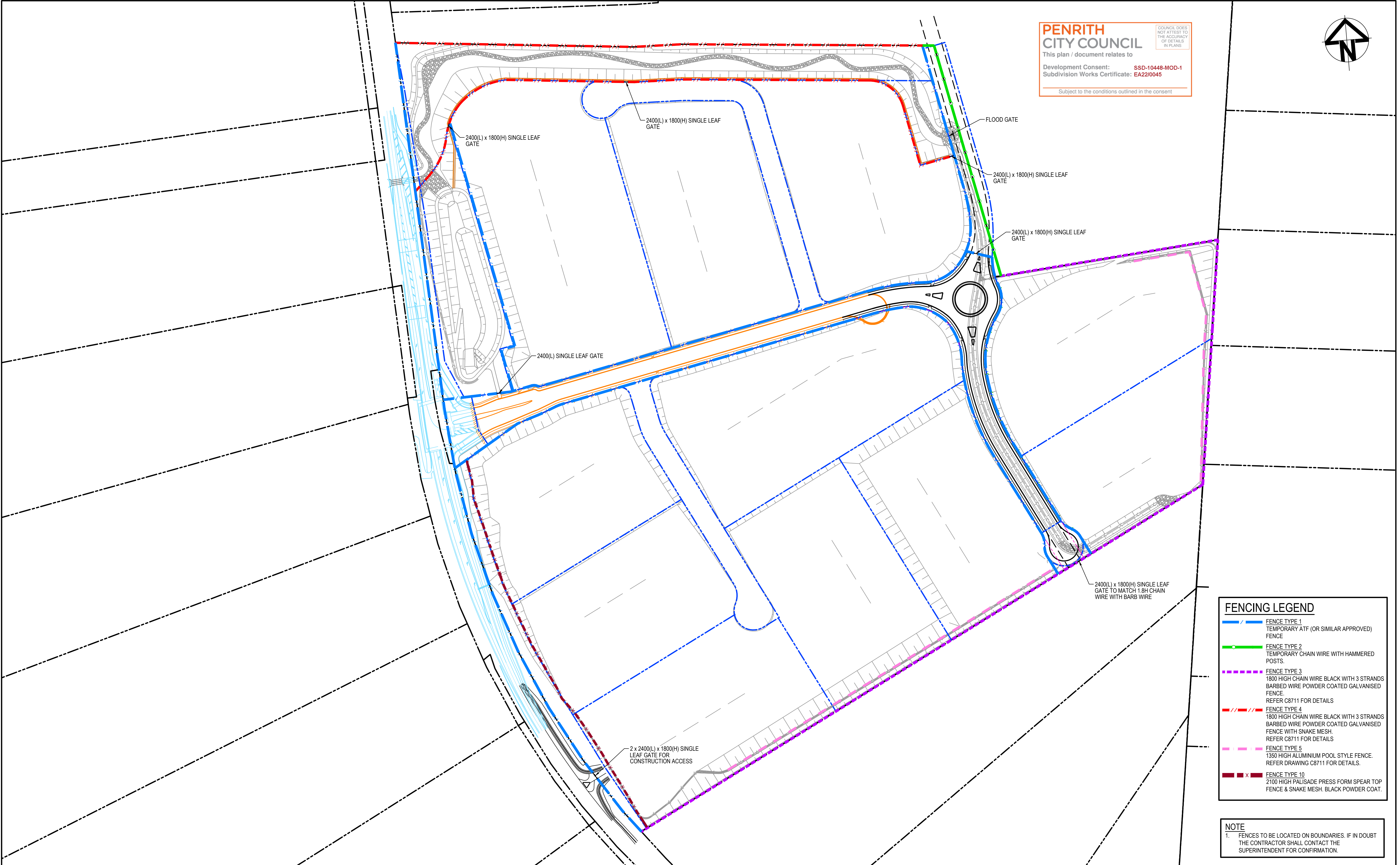
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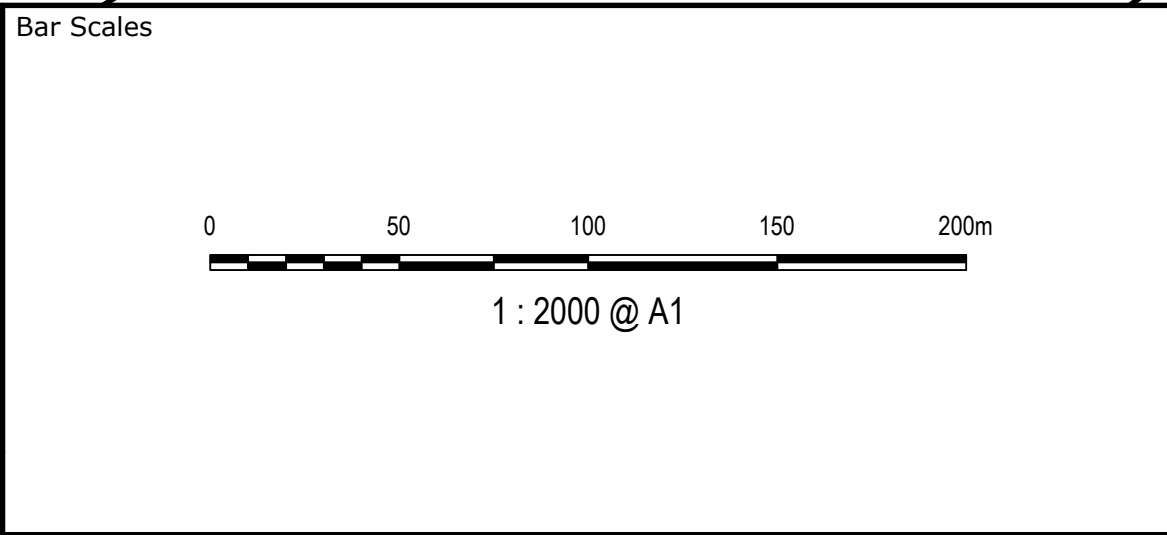


		Bar Scales	THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY INTENDED WITHOUT THE WRITTEN PERMISSION OF AT&L	Client 	Scales AS SHOWN	Drawn Designed	JB/MH JB/MH	Project ASPECT INDUSTRIAL ESTATE MAMRE ROAD, KEMPS CREEK STAGE 1B	Civil Engineers 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		
					Grid GDA2020	Checked	DS			Title EROSION AND SEDIMENT CONTROL DETAILS	
					Height Datum	AHD	Approved				DS
								Status FOR CONSTRUCTION		A1	
								Project - Drawing No. 18-596-C8633		Issue 1	
1	ISSUED FOR CONSTRUCTION	17-11-22									
A	ISSUED FOR SWC APPROVAL	20-10-22									
Issue	Description	Date									





1	ISSUED FOR CONSTRUCTION	17-11-22
A	ISSUED FOR SWC APPROVAL	20-10-22
Issue	Description	Date



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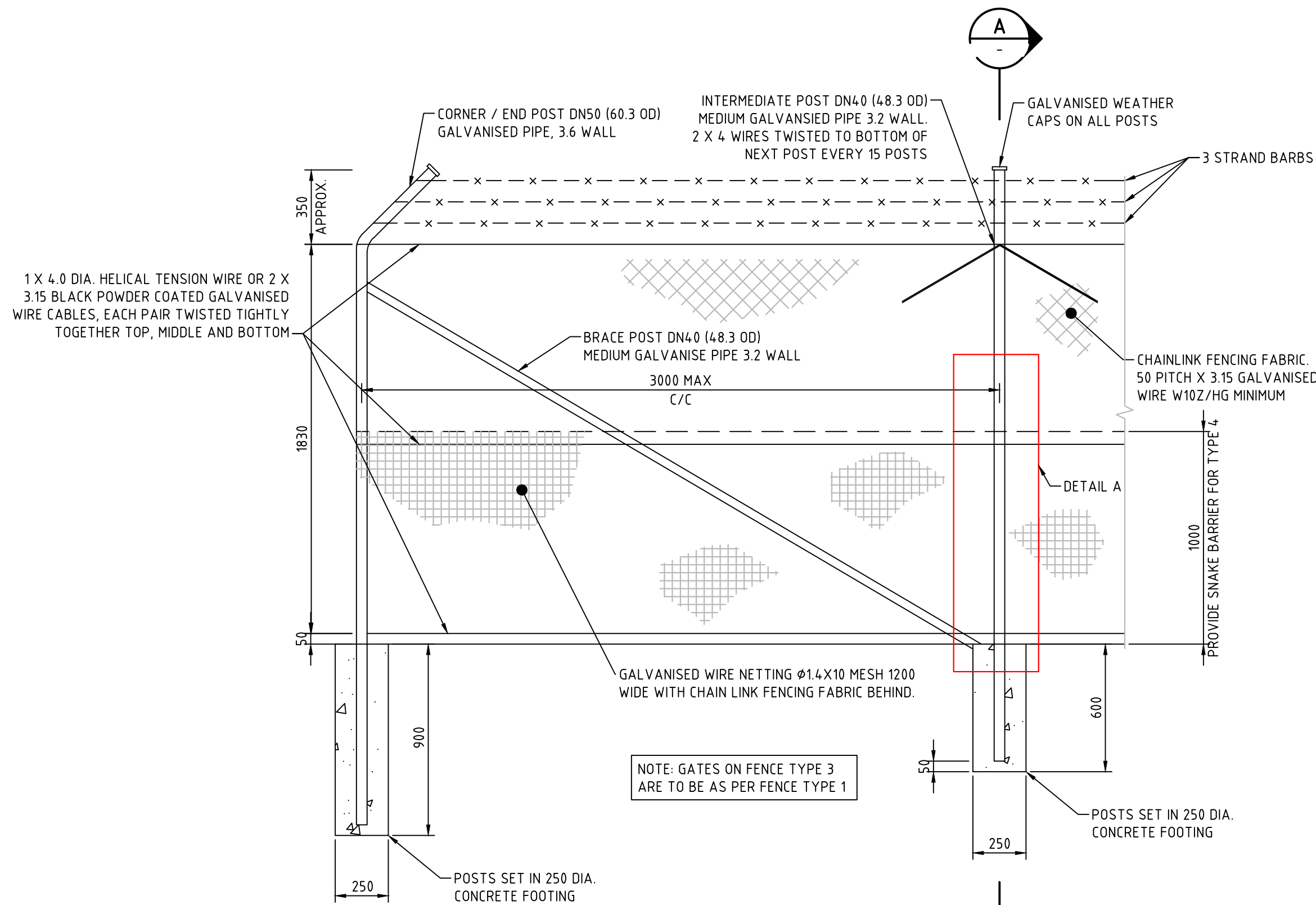


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Height Datum	AHD	Approved	DS

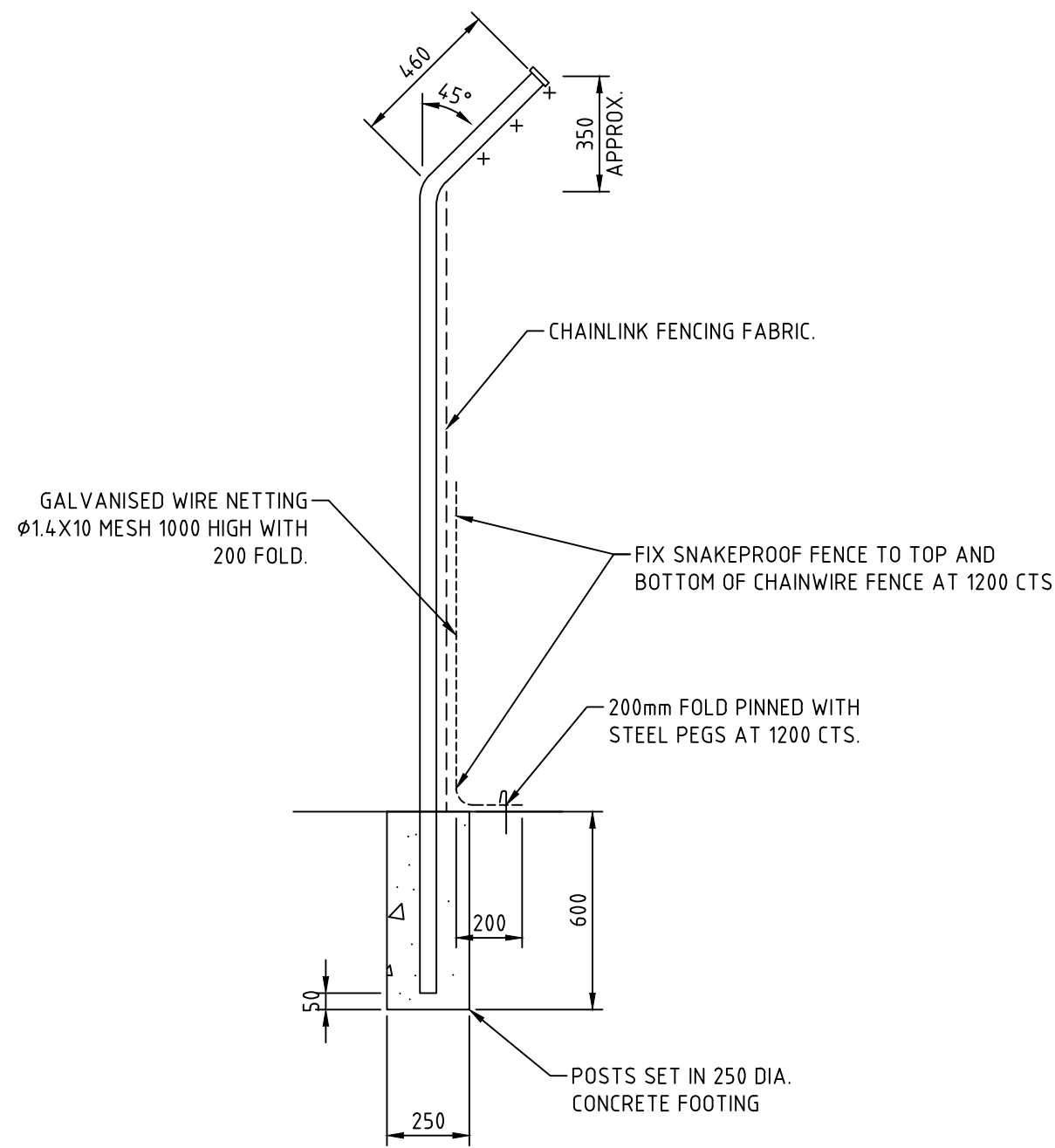
Project	ASPECT INDUSTRIAL ESTATE MAMRE ROAD, KEMPS CREEK STAGE 1B
Title	PROPOSED FENCING PLAN

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 CONSTRUCTION	A1
Project - Drawing No.	18-596-C8701	Issue 1

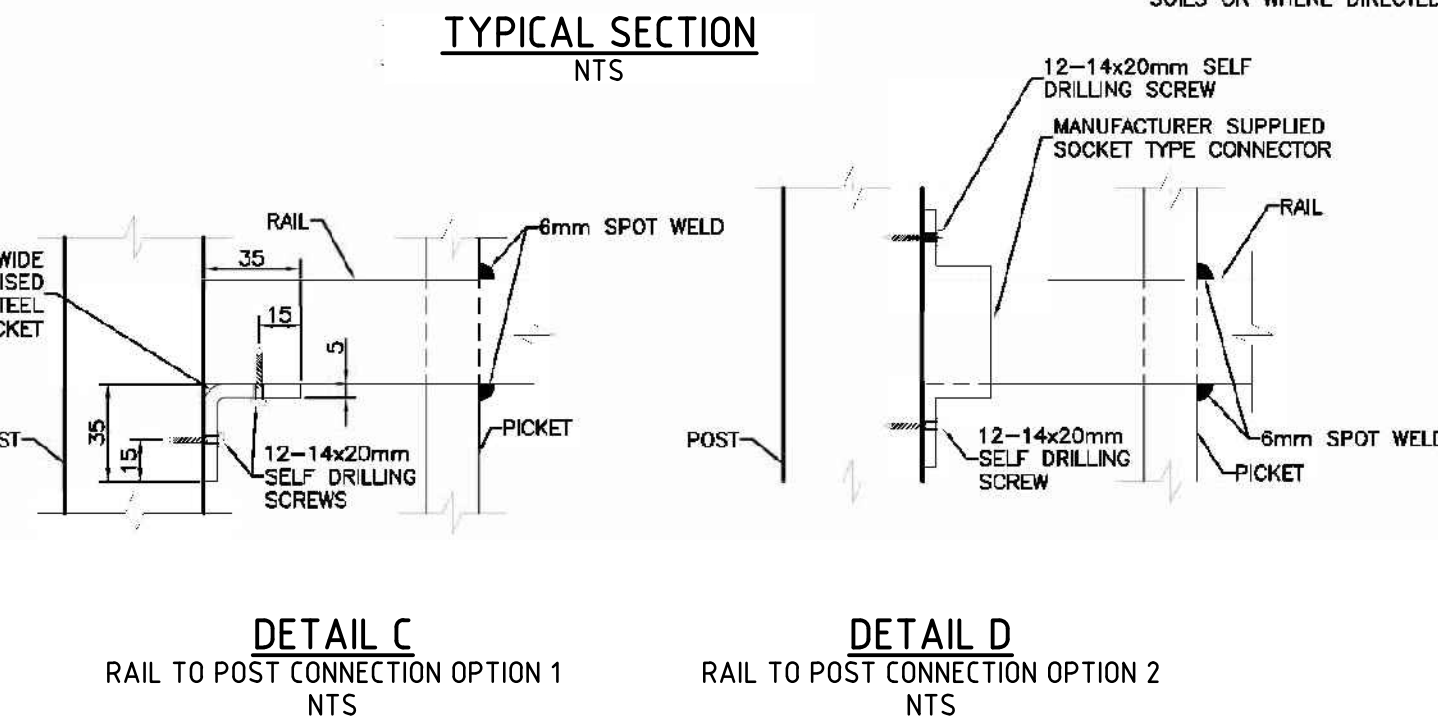
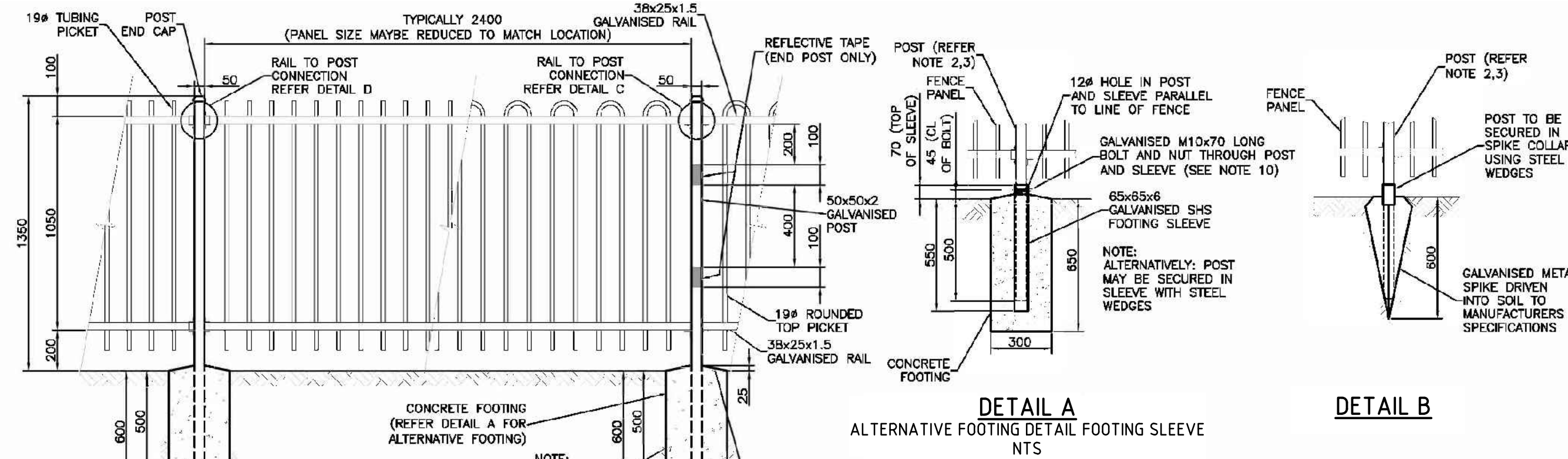




FENCE TYPE 3 AND TYPE 4  
BLACK POWDER COATED CHAINWIRE BOUNDARY FENCE  
1 : 20

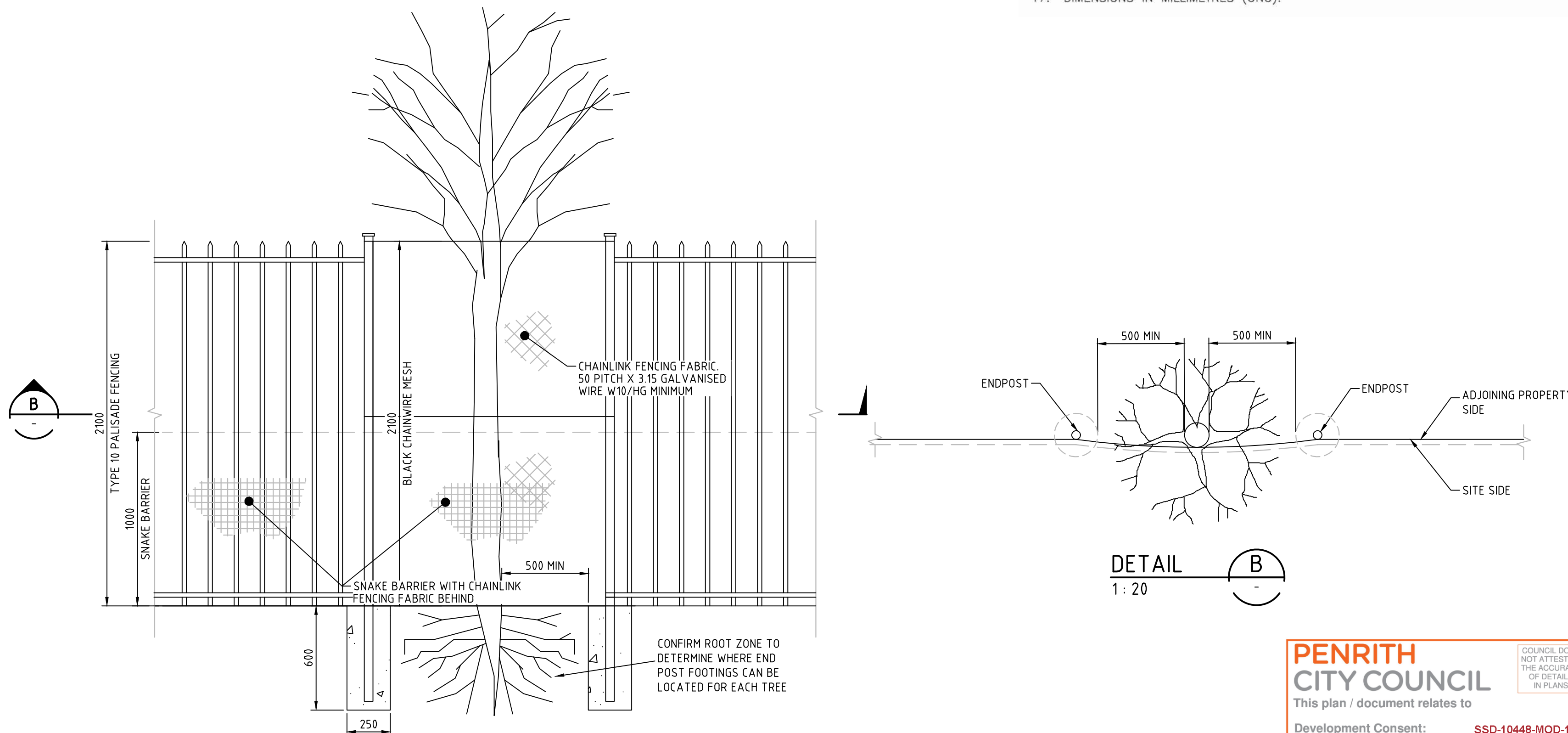


DETAIL A  
1 : 20



FENCE TYPE 5 - ALUMINIUM POOL STYLE FENCE DETAIL  
SCALE 1:25

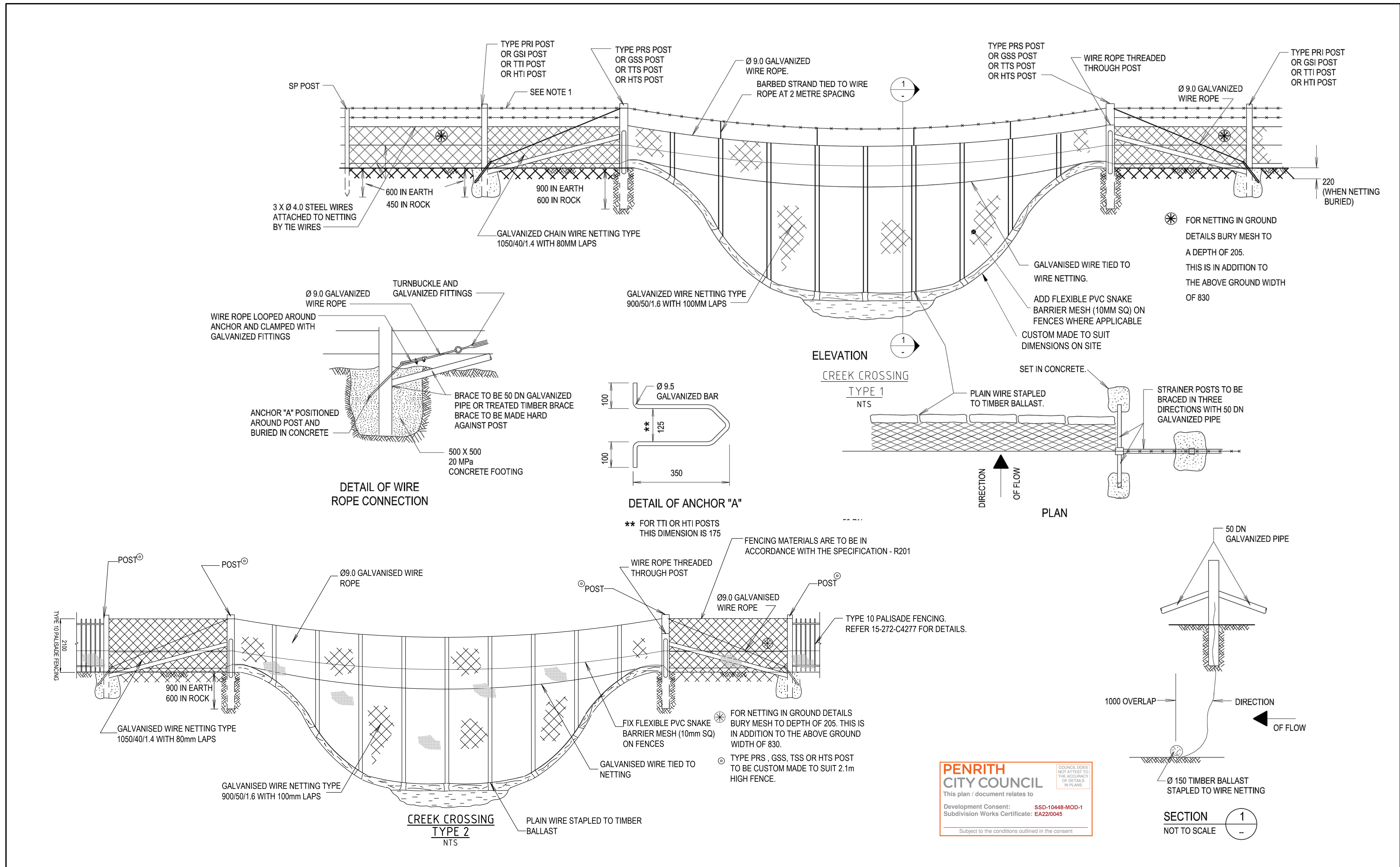
- NOTES:
- THIS STANDARD IS NOT FOR USE IN A MARINE ENVIRONMENT. THE MARINE ENVIRONMENT COULD EXTEND UP TO 1 km FROM THE FORESHORE.
  - GATE, END AND INTERMEDIATE POSTS TO BE 50x50x2 GALVANISED STEEL SECTION TO AS 1163.
  - FENCE RAILS TO BE 38x25x1.5 GALVANISED STEEL SECTION TO AS 1163.
  - PANELS TO BE FIXED TO POSTS USING MANUFACTURER SUPPLIED SOCKET CONNECTORS OR 25 WIDE 35x35x2 GALVANISED MILD STEEL 'L' BRACKETS. BOTH CONNECTORS TO BE ATTACHED WITH GALVANISED 12-14x20mm HEXAGON HEAD SELF DRILLING (TEK) SCREWS.
  - PANELS TO BE 2400x1050 WITH 19 DIAMETER PICKETS, EITHER STRAIGHT TUBULAR OR ROUNDED TOP STYLE.
  - PICKETS TO PASS THROUGH TOP AND BOTTOM RAIL AND BE SECURED TO TOP AND UNDERSIDE OF RAIL WITH 6mm SPOT WELD.
  - HOT DIP GALVANISING: FERROUS OPEN SECTIONS TO AS 4791, FERROUS HOLLOW SECTIONS TO AS 4792.
  - ALL CONCRETE TO BE GRADE N25.
  - POSTS ARE TO BE VERTICAL.
  - POST SPIKES, WHERE USED, ARE TO BE INSTALLED TO MANUFACTURERS SPECIFICATIONS.
  - WHERE SLEEVES OR POST SPIKES ARE USED, POSTS ARE TO BE SECURED WITH BOLTS AS SHOWN OR STEEL WEDGES.
  - NUTS (WHERE USED) TO BE SPOT WELDED TO BOLTS AS AN ANTI-THEFT DETERRENT.
  - RAKED PANELS ARE AVAILABLE FOR SLOPES UP TO 1 IN 5.
  - THESE FENCES ARE INTENDED AS A PEDESTRIAN BARRIER AND ARE NOT TO BE USED IN SITUATIONS WHERE MOTOR VEHICLES REQUIRE RESTRAINT.
  - STEEL WORK TO BE POWDER COATED TO AS 4506 TO MATCH COLOUR CO-ORDINATION IN THE AREA. COLOUR FOR TRAFFIC APPLICATIONS TO BE EITHER BCC CORPORATE COLOUR PALETTE "GREY 3" (AS 2700-1996 "N65 GRAPHITE GREY" EQUIV.), "BLUE 3" (AS 2700S-1996 "B62 MIDNIGHT BLUE" EQUIV.), "GREEN 1" (AS 2700-1996 "G12 HOLLY" EQUIV.) OR BLACK (AS 2700-1996 "N61 BLACK" EQUIV.).
  - 100mm WIDE REFLECTIVE TAPE TO BE APPLIED TO END POSTS WHEREVEHICLE TRAFFIC CONFLICT MAY OCCUR.
  - DIMENSIONS IN MILLIMETRES (UNO).



FENCING AROUND TREE ON BOUNDARY DETAIL  
1 : 20

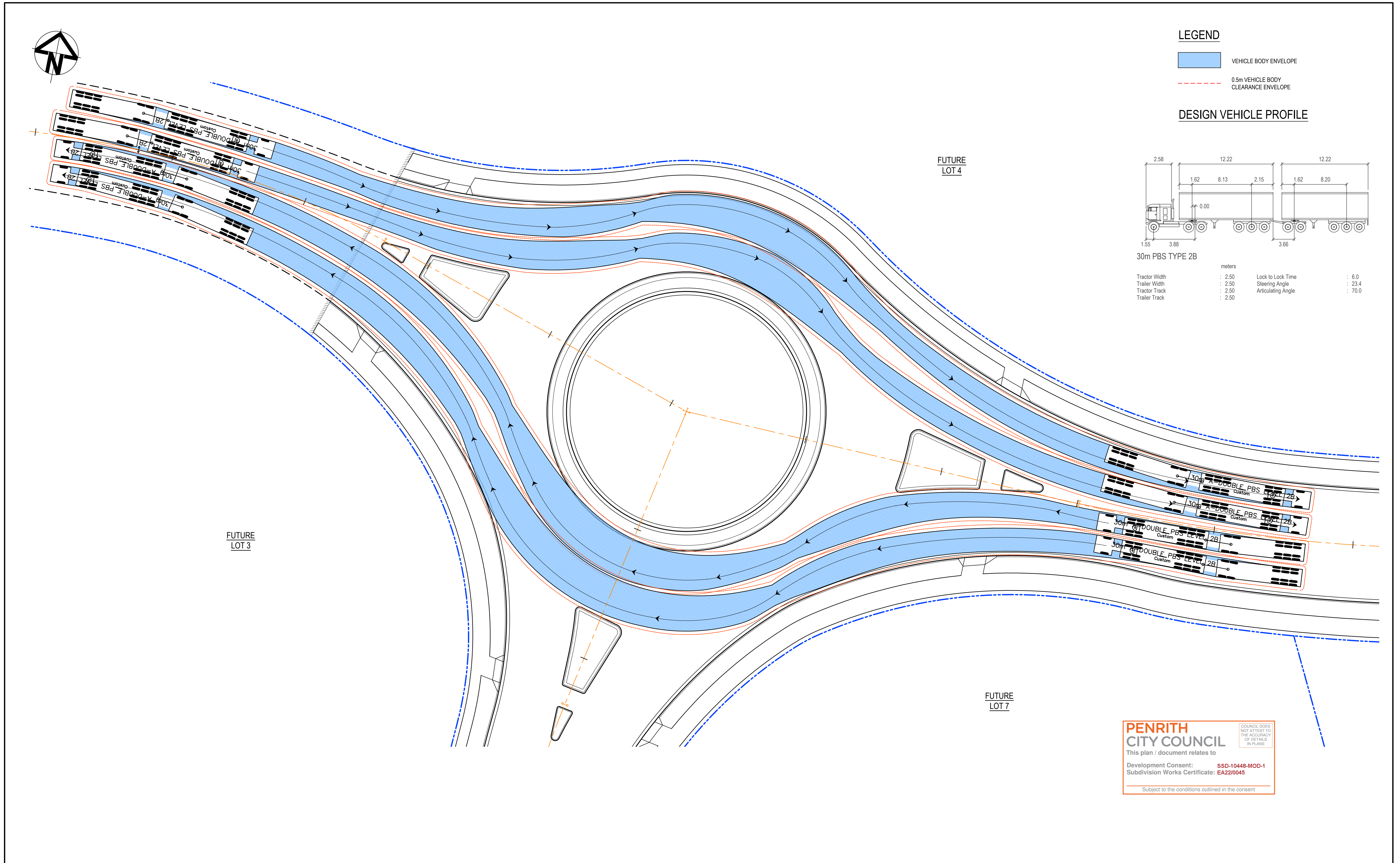
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			Bar Scales	THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY INTENDED WITHOUT THE WRITTEN PERMISSION OF AT&L	Client 	Scales		Drawn		Project ASPECT INDUSTRIAL ESTATE MAMRE ROAD, KEMPS CREEK STAGE 1B	Civil Engineers and Project Managers	
AS SHOWN		Designed				JB/MH	 <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>					
Grid	GDA2020	Checked				DS						
Height Datum	AHD	Approved				DS						
												
		Title		PROPOSED FENCING DETAILS SHEET 2		Status FOR CONSTRUCTION		A1				
						Project - Drawing No. 18-596-C8712		Issue 1				
1	ISSUED FOR CONSTRUCTION	17-11-22										
A	ISSUED FOR SWC APPROVAL	20-10-22										
Issue	Description	Date										





VEHICLE BODY ENVELOPE

0.5m VEHICLE BODY CLEARANCE ENVELOPE

30m PBS TYPE 2B

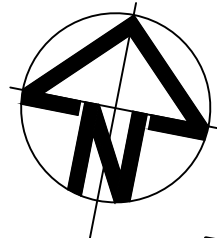
	Tractor Width	Trailer Width	Tractor Track	Trailer Track	Lock to Lock Time	Steering Angle	Articulating Angle
Value	2.50	2.50	2.50	2.50	6.0	23.4	70.0

<h1>PENRITH CITY COUNCIL</h1> <p>This plan / document relates to</p> <p><b>Development Consent:</b> <span style="color: red;">SSD-10448-MOD-1</span>  <b>Subdivision Works Certificate:</b> <span style="color: red;">EA22/0045</span></p>		<p>COUNCIL DOES NOT ATTEST TO THE ACCURACY OF DETAILS IN PLANS</p>
<p>Subject to the conditions outlined in the consent</p>		

[illegible]

F:\18-596 Mamre Road\6.0 Drgs\Civil\Final\CC\8000\_STAGE 1B CC\18-596-C8801.dwg

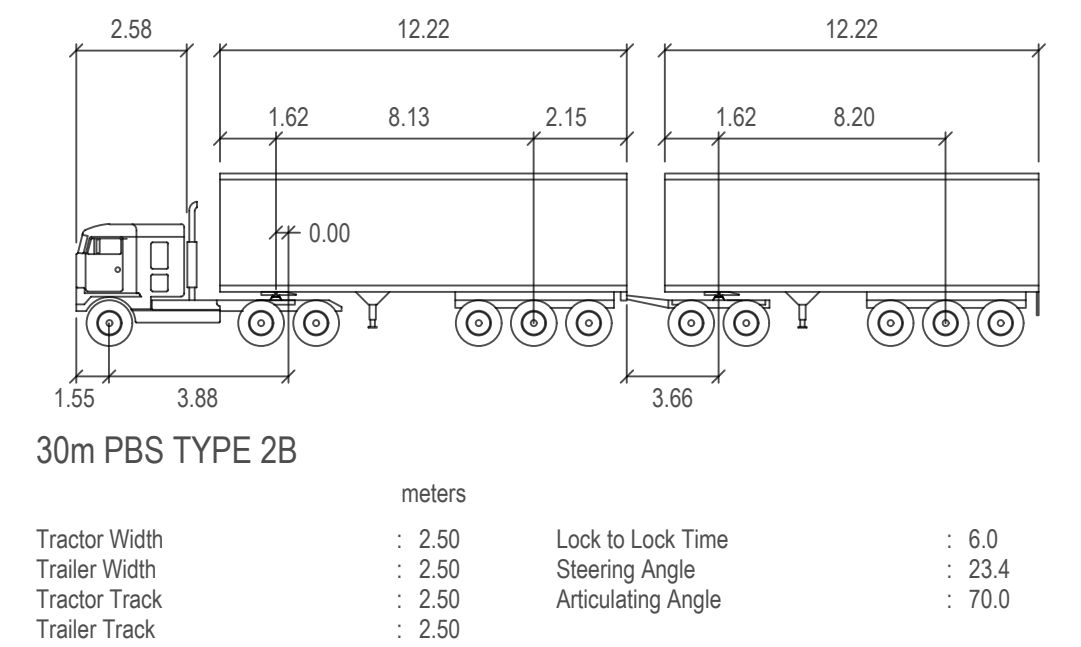




LEGEND

- VEHICLE BODY ENVELOPE
- 0.5m VEHICLE BODY CLEARANCE ENVELOPE

DESIGN VEHICLE PROFILE



30m PBS TYPE 2B

30m PBS TYPE 2B

FUTURE LOT 3

FUTURE LOT 4

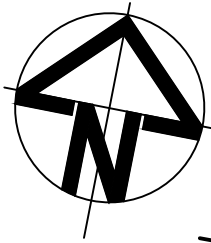
FUTURE LOT 7

**PENRITH CITY COUNCIL**  
This plan / document relates to  
Development Consent: **SSD-10448-MOD-1**  
Subdivision Works Certificate: **EA22/0045**  
Subject to the conditions outlined in the consent

COUNCIL DOES NOT ATTEST TO THE ACCURACY OF DETAILS IN PLANS

			<div>Bar Scales</div> 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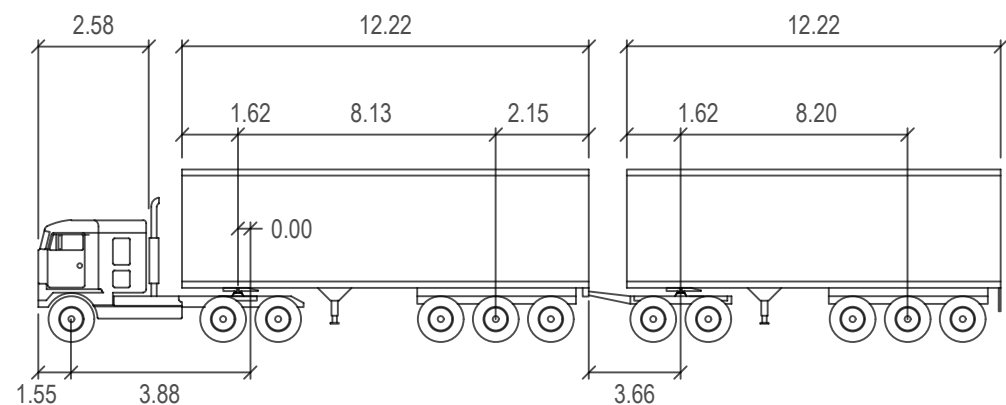




LEGEND

- VEHICLE BODY ENVELOPE
- 0.5m VEHICLE BODY CLEARANCE ENVELOPE

DESIGN VEHICLE PROFILE



30m PBS TYPE 2B

Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 23.4
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.50		

FUTURE LOT 3

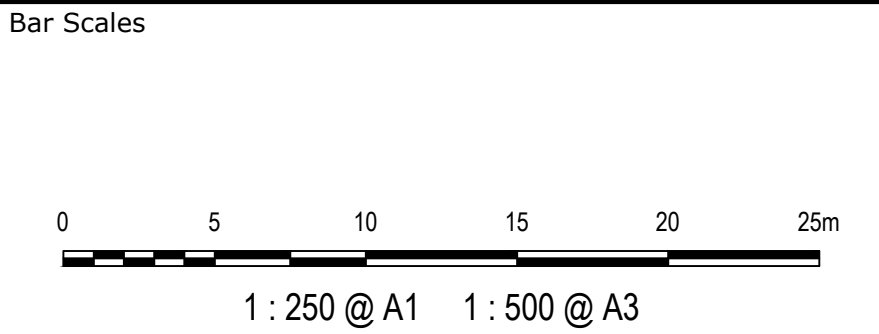
FUTURE LOT 4

FUTURE LOT 7

**PENRITH CITY COUNCIL**  
This plan / document relates to  
Development Consent: **SSD-10448-MOD-1**  
Subdivision Works Certificate: **EA22/0045**  
Subject to the conditions outlined in the consent

COUNCIL DOES NOT ATTEST TO THE ACCURACY OF DETAILS IN PLANS

1	ISSUED FOR CONSTRUCTION	17-11-22
Issue	Description	Date



Key Plan
----------

Client

Scales	1:500	Drawn	JB/MH
		Designed	JB/MH
Grid	GDA2020	Checked	DS
Height Datum	AHD	Approved	DS
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			

Project  
**ASPECT INDUSTRIAL ESTATE  
MAMRE ROAD,  
KEMPS CREEK  
STAGE 1B**

Title  
**VEHICLE TURN  
PATH PLAN  
SHEET 3**

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

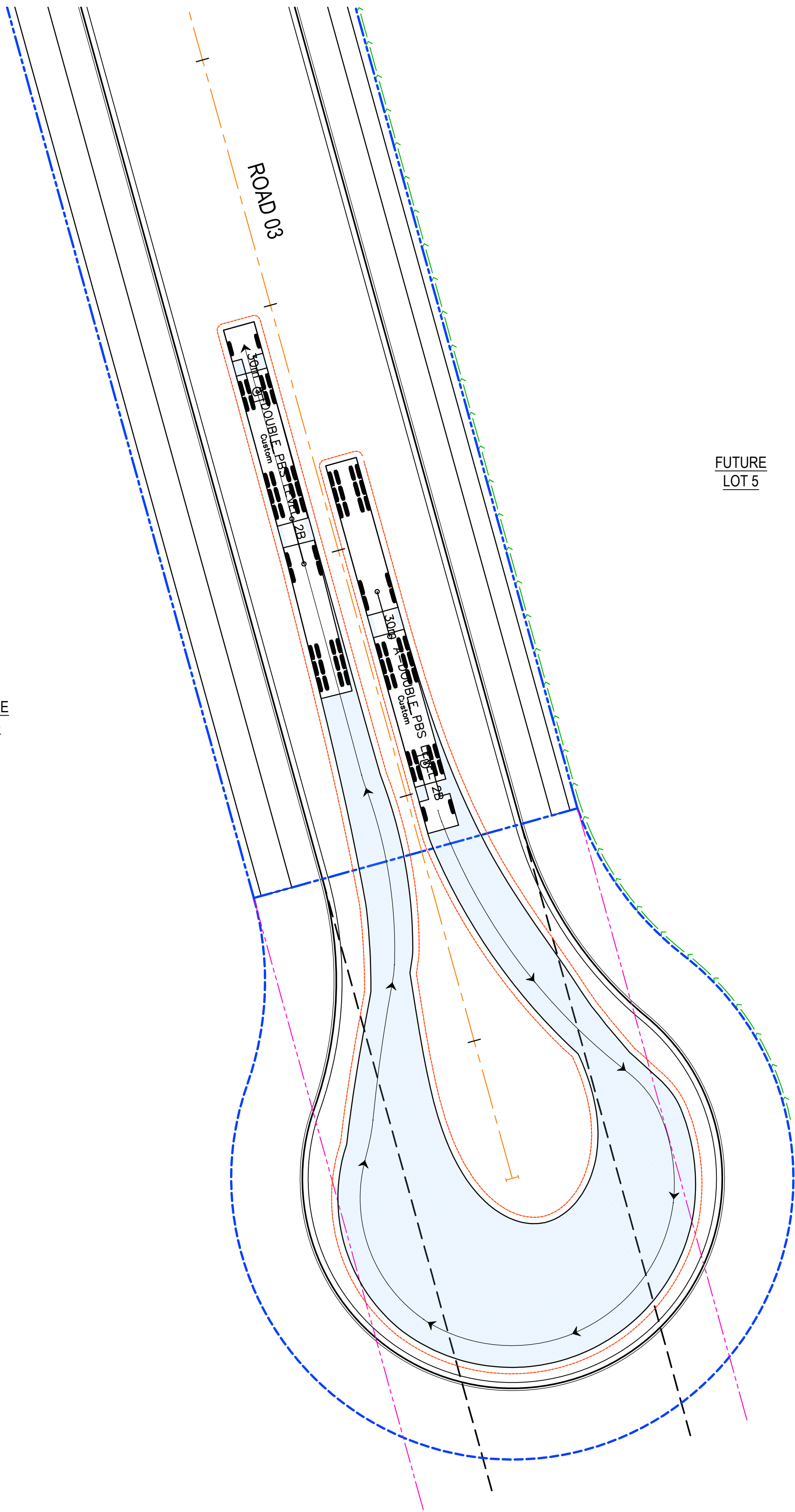
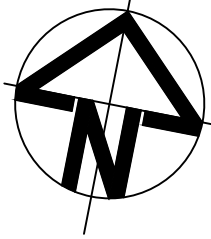
Status  
**FOR CONSTRUCTION**

A1

Project - Drawing No.  
**18-596-C8803**

Issue  
**1**

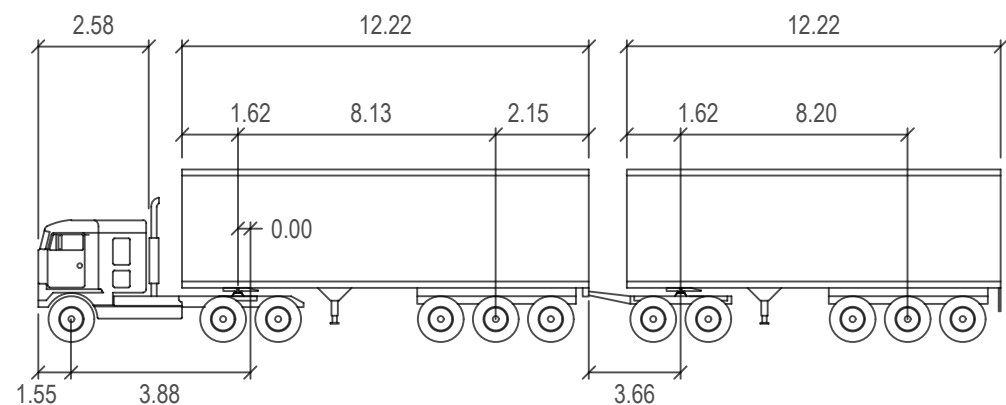




LEGEND

- VEHICLE BODY ENVELOPE
- 0.5m VEHICLE BODY CLEARANCE ENVELOPE

DESIGN VEHICLE PROFILE



30m PBS TYPE 2B

	metres		
Tractor Width	: 2.50	Lock to Lock Time	: 6.0
Trailer Width	: 2.50	Steering Angle	: 23.4
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.50		

**PENRITH**  
CITY COUNCIL

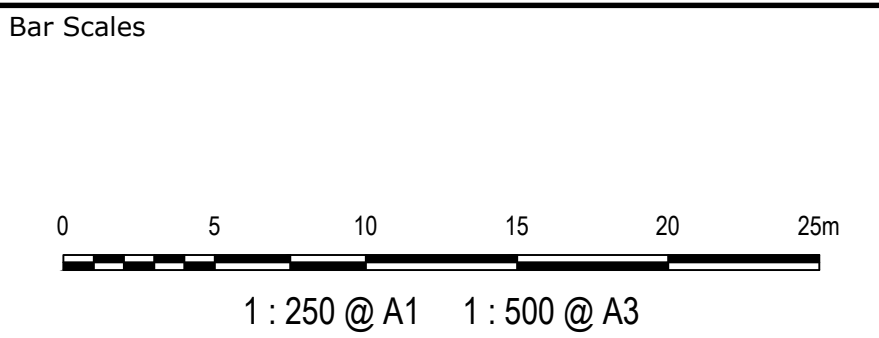
This plan / document relates to

Development Consent: **SSD-10448-MOD-1**  
Subdivision Works Certificate: **EA22/0045**

Subject to the conditions outlined in the consent

COUNCIL DOES NOT ATTEST TO THE ACCURACY OF DETAILS IN PLANS

1	ISSUED FOR CONSTRUCTION	17-11-22
Issue	Description	Date



Key Plan
----------

Client

Scales	1:500	Drawn	JB/MH
		Designed	JB/MH
Grid	GDA2020	Checked	DS
Height Datum	AHD	Approved	DS
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Project	ASPECT INDUSTRIAL ESTATE MAMRE ROAD, KEMPS CREEK STAGE 1B
Title	VEHICLE TURN PATH PLAN SHEET 4

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 CONSTRUCTION
Project - Drawing No.	18-596-C8804
Issue	1