

## Attachment 1 to Item 10.5.1.

#### Fernadell Park Detailed Design

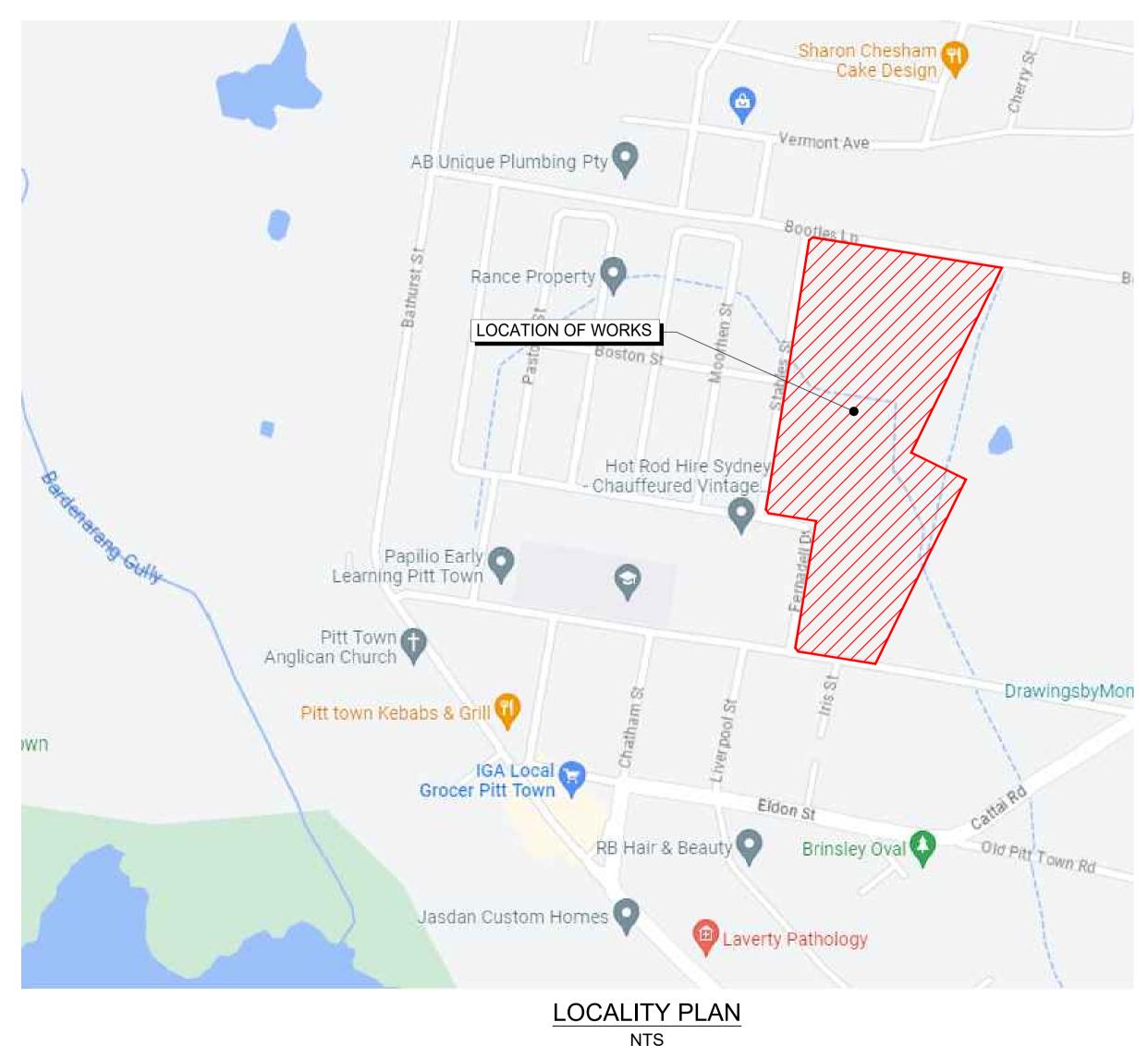
Date of meeting: 8 April 2025 Location: Council Chambers

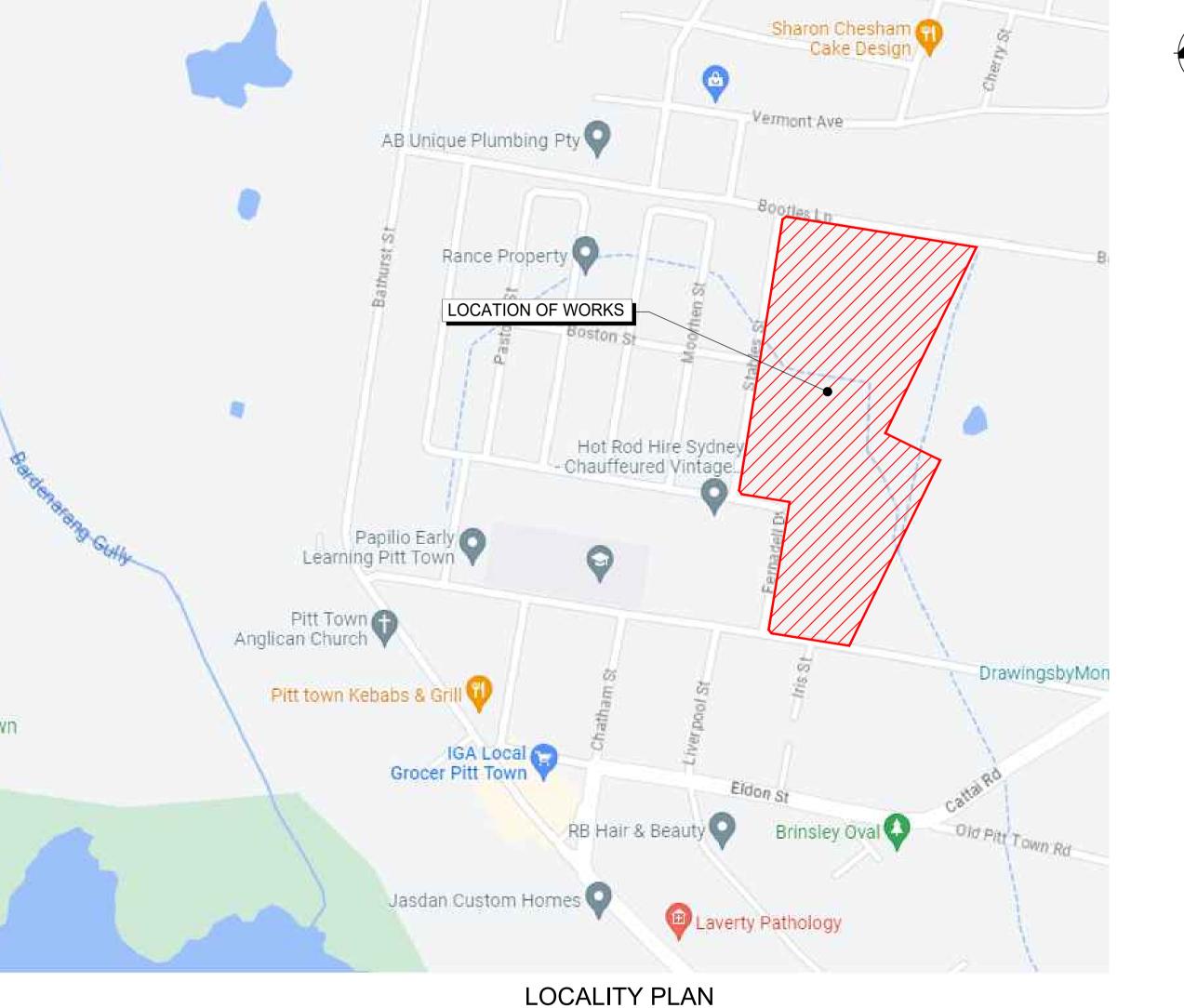
Time: 6:30pm

# FERNADELL RESERVE, PITT TOWN NSW 2756

## CIVIL TENDER DESIGN PACKAGE

AWING LIST	
GENERAL	COVER SHEET, DRAWING LIST AND LOCALITY PLAN
23-1123-C0001	
23-1123-C0002	GENERAL NOTES SHEET 1
23-1123-C0002A	GENERAL NOTES SHEET 2
23-1123-C0003	GENERAL ARRANGEMENT PLAN
BULK EARTHWORKS	DULK FARTUMORKO RUAN
23-1123-C0010	BULK EARTHWORKS PLAN
TYPICAL SECTIONS	TVDIONI OFOTIONIO OUFFT 4
23-1123-C0015	TYPICAL SECTIONS SHEET 1
23-1123-C0016	TYPICAL SECTIONS SHEET 2
SITEWORKS AND DRAINAGE	OUTEWORKS AND STORMWATER REALINAGE BLANCHET A
23-1123-C0020	SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 1
23-1123-C0021	SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 2
23-1123-C0022	SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 3
23-1123-C0023	SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 4
23-1123-C0024	SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 5
23-1123-C0025	SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 6
23-1123-C0026	SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 7
23-1123-C0027	SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 8
23-1123-C0028	SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 9
23-1123-C0029	SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 10
23-1123-C0030	SITEWORKS AND STORMWATER DRAINAGE PLAN SHEET 11
23-1123-C0031	STORMWATER DRAINAGE LONGSECTIONS SHEET 1
23-1123-C0032	STORMWATER DRAINAGE LONGSECTIONS SHEET 2
23-1123-C0033	STORMWATER DRAINAGE LONGSECTIONS SHEET 3
PAVEMENT PLAN	
23-1123-C0035	PAVEMENT PLAN SHEET 1
23-1123-C0036	PAVEMENT PLAN SHEET 2
TYPICAL DETAILS	
23-1123-C0040	TYPICAL DETAILS SHEET 1
23-1123-C0041	TYPICAL DETAILS SHEET 2
23-1123-C0042	TYPICAL DETAILS SHEET 3
23-1123-C0043	TYPICAL DETAILS SHEET 4
23-1123-C0044	TYPICAL DETAILS SHEET 5
23-1123-C0045	TYPICAL DETAILS SHEET 6
23-1123-C0046	PIT DETAILS SHEET 1
23-1123-C0050	HEADWALL A/06 DETAIL
23-1123-C0051	HEADWALL B/05 DETAIL
23-1123-C0055	CUSTOM PIT SETOUT
ROSION AND SEDIMENT PLAN	
23-1123-C0060	EROSION AND SEDIMENT CONTROL PLAN SHEET 1
23-1123-C0061	EROSION AND SEDIMENT CONTROL PLAN SHEET 2
23-1123-C0062	EROSION AND SEDIMENT CONTROL PLAN SHEET 3
23-1123-C0063	EROSION AND SEDIMENT CONTROL PLAN SHEET 4
23-1123-C0064	EROSION AND SEDIMENT CONTROL PLAN SHEET 5
23-1123-C0065	EROSION AND SEDIMENT CONTROL PLAN SHEET 6
23-1123-C0066	EROSION AND SEDIMENT CONTROL PLAN SHEET 7
23-1123-C0067	EROSION AND SEDIMENT CONTROL PLAN SHEET 8
23-1123-C0068	EROSION AND SEDIMENT CONTROL PLAN SHEET 9
23-1123-C0069	EROSION AND SEDIMENT CONTROL PLAN SHEET 10
23-1123-C0070	EROSION AND SEDIMENT CONTROL PLAN SHEET 11
23-1123-C0071	EROSION AND SEDIMENT CONTROL DETAILS





		Bar Scales	Client	Scales		Drawn	NT	Project	Civil Engineers and Project Managers	
					N.T.S.	Designed	SM	FERNADELL RESERVE	Level 7, 153 Wall North Sydney NS	SW 2060
				Grid	MGA2020	Checked	SM	PITT TOWN	ABN 96 130 882 Tel: 02 9439 1 Fax: 02 9923 1	1777
D FOR TENDER	29-08-2024			Height Datum	AHD	Approved	AT	NSW 2756	www.atl.net.au info@atl.net.au	
C 80% DESIGN ISSUE	12-04-24				Pi on	10000			Status FOD TENDED	
B 80% DESIGN ISSUE	20-03-24				GD	A2020		COVER SHEET,	FOR TENDER NOT TO BE USED FOR CONSTRUCTION	A1
A 50% DESIGN ISSUE	03-11-23		Hawkesbury City Council	THIS DRAWII	NG CANNOT BE COPI	ED OR REPRODUC	ED IN ANY FORM	DRAWING LIST AND	Project - Drawing No.	Issue
Issue Description	Date		eny council	OR USED FO	R ANY OTHER PURPO DED WITHOUT THE WI	SE OTHER THAN T	HAT ORIGINALLY	LOCALITY PLAN	23-1123-C0001	D

#### SITEWORKS NOTES

- ORIGIN OF LEVELS:- REFER SURVEY NOTES
- CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK. ANY DISCREPANCIES TO BE REPORTED TO AT & L.
- MAKE SMOOTH CONNECTION WITH EXISTING WORKS.
- ALL TRENCH BACKFILL MATERIAL SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT MATERIAL.
- ALL SERVICE TRENCHES UNDER VEHICULAR PAVEMENTS SHALL BE BACKFILLED WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1(2017). (OR A DENSITY INDEX OF NOT LESS THAN 75)
- PROVIDE 10mm WIDE EXPANSION JOINTS BETWEEN BUILDINGS AND ALL CONCRETE OR UNIT PAVEMENTS.
- ASPHALTIC CONCRETE SHALL CONFORM TO RMS. SPECIFICATION R116.
- ALL BASECOURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH RMS. FORM 3051 (UNBOUND), RMS. FORM ACCORDANCE WITH AS 1289 5.2.1(2017) FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 TEST PER 50m OF BASECOURSE MATERIAL PLACED.
- ALL SUB-BASE COURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH RMS. FORM 3051, 3051.1 AND COMPACTED FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 TEST PER 50m OF SUB3BASE COURSE MATERIAL PLACED.
- ). AS AN ALTERNATIVE TO THE USE OF IGNEOUS ROCK AS A SUB-BASE MATERIAL IN (9) A CERTIFIED RECYCLED CONCRETE MATERIAL COMPLYING WITH RMS. FORM 3051 AND 3051.1 WILL BE CONSIDERED. SUBJECT TO MATERIAL SAMPLES AND APPROPRIATE CERTIFICATIONS BEING PROVIDED TO THE SATISFACTION OF AT & L.
- . SHOULD THE CONTRACTOR WISH TO USE A RECYCLED PRODUCT THIS SHALL BE CLEARLY INDICATED IN THEIR TENDER AND THE PRICE DIFFERENCE BETWEEN AN IGNEOUS PRODUCT AND A RECYCLED PRODUCT SHALL BE CLEARLY INDICATED.
- 2. WHERE NOTED ON THE DRAWINGS THAT WORKS ARE TO BE CARRIED BY OTHERS, (eg. ADJUSTMENT OF SERVICES), THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CO-ORDINATION OF THESE WORKS. ALL BASECOURSE AND SUB-BASE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH THE CURRENT TINSW SPECIFICATION 3051 COMPACTED TO MINIMUM 98% MODIFIED DENSITY IN ACCORDANCE WITH THE CURRENT AS 1289 5.2.1. FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 TEST PER 25m<sup>3</sup> OF BASECOURSE MATERIAL PLACED 1 TEST PER 50m<sup>3</sup> OF SUB-BASE COURSE MATERIAL UNLESS OTHERWISE APPROVED BY AT&L

#### CONCRETE NOTES

- 1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600(2018) 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

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

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

- NO ADMIXTURES SHALL BE USED IN CONCRETE UNLESS APPROVED IN WRITING BY AT & L
- . CLEAR CONCRETE COVER TO ALL REINFORCEMENT FOR DURABILITY SHALL BE 40mm TOP AND 70mm FOR EXTERNAL EDGES UNLESS NOTED OTHERWISE.
- . ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON MILD STEEL PLASTIC TIPPED CHAIRS. PLASTIC CHAIRS OR CONCRETE CHAIRS AT NOT GREATER THAN 1m CENTRES BOTH WAYS. BARS SHALL BE TIED AT ALTERNATE INTERSECTIONS.
- . THE FINISHED CONCRETE SHALL BE A DENSE HOMOGENEOUS MASS, COMPLETELY FILLING THE FORMWORK, THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS. ALL CONCRETE INCLUDING SLABS ON GROUND AND FOOTINGS SHALL BE COMPACTED AND CURED IN ACCORDANCE WITH R.M.S. SPECIFICATION R83.
- N DENOTES GRADE 450 N BARS TO AS/NZS 4671 GRADE N

REINFORCEMENT SYMBOLS:

R DENOTES 230 R HOT ROLLED PLAIN BARS TO AS/NZS 4671

SL DENOTES HARD-DRAWN WIRE REINFORCING FABRIC TO AS/NZS 4671

NUMBER OF BARS IN GROUP BAR GRADE AND TYPE

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

NOMINAL BAR SIZE IN mm \_\_ SPACING IN mm

. FABRIC SHALL BE LAPPED IN ACCORDANCE WITH THE

FOLLOWING DETAIL: \_\_LAP TWO WIRES

#### STORMWATER DRAINAGE NOTES

#### **GENERAL NOTES**

- STORMWATER DESIGN CRITERIA ANNUAL EXCEEDANCE PROBABILITY MINOR STORM: 20% AEP 1% AEP MAJOR STORM:
- 2. PIPES LESS THAN 300 DIA SHALL BE SEWER GRADE uPVC WITH WELDED JOINTS. SOLVENT
- 3. ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE PREFABRICATED
- FITTINGS WHERE PIPES ARE LESS THAN DN300 ALL INTERNAL WORKS WITHIN PROPERTY BOUNDARIES ARE TO COMPLY
- WITH THE REQUIREMENTS OF THE CURRENT AS 3500 3.1 AND AS/NZS 3500 ALL STORMWATER DRAINAGE LINES UNDER PROPOSED BUILDING SLABS TO BE uPVC PRESSURE PIPE GRADE 6. ENSURE ALL VERTICALS AND
- DOWNPIPES ARE uPVC PRESSURE PIPE, GRADE 6 FOR A MIN OF 3.0m IN ALL DRAINAGE LINES TO PROVIDE A 3.0M LENGTH OF DN100 SUBSOIL DRAINAGE PIPE WRAPPED IN FABRIC SOCK, ON THE UPSTREAM SIDE OF EACH PIT. ALLOW FOR SECONDARY SUBSOIL FOR PIPES FOR PIPE
- GRATER THAN DN825. SUBSOIL DRAIN WRAPPED IN APPROVED FILTER SOCK SHALL BE PROVIDED BENEATH ALL KERBLINES WHERE NO DRAINAGE LINES ARE SHOWN ON THE DRAWINGS AND SHALL DISCHARGE INTO DOWNSTREAM
- WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED uPVC SEWER GRADE PIPES ARE TO BE USED.
- CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL FROM AT&L. GRATES AND COVERS SHALL CONFORM TO THE CURRENT AS 3996, CLASS
- D COVER (MINIMUM) SHALL BE PROVIDED IN TRAFFICKED PAVEMENTS WITH CLASS B (MINIMUM) BEING PROVIDED IN NON-TRAFFICKED AREAS. AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, THE
- CONTRACTOR SHALL PROVIDE ADEQUATE SAFETY PROCEDURES TO PREVENT THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS. ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED AND CLEANED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS
- FURTHER DIRECTIONS. 13. ALL STORMWATER PITS ARE TO BE CAST IN-SITU IN ACCORDANCE WITH

REPAIR SHALL BE REPORTED TO THE SUPERINTENDENT/ENGINEER FOR

- THE STORMWATER DETAILS AND SPECIFICATIONS. 14. ALL PITS MUST BE BENCHED AND STREAMLINED TO DIRECT WATER FROM
- THE INLET PIPE TO THE OUTLET PIPE.
- RIGID & SEMI-RIGID PIPE NOTES 15.1. PIPES 300 DIA. AND LARGER TO BE STEEL REINFORCED CONCRETE CLASS '3' APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINTS. U.N.O. ALL
- ROAD CROSSINGS TO BE CLASS '4' U.N.O. 15.2. EQUIVALENT STRENGTH FIBRE REINFORCED CONCRETE PIPES MAY BE USED SUBJECT TO APPROVAL BY AT&L OR THE LOCAL GOVERNMENT
- AUTHORITY 16. REINFORCED CONCRETE PIPES TO COMPLY WITH THE CURRENT AS/NZS
- 17. FIBRE REINFORCED CONCRETE PIPESTO COMPLY WITH THE CURRENT AS
- PIPES TO BE INSTALLED WITH TYPE HS3 (ROAD) AND HS2 (LOTS) SUPPORT IN ACCORDANCE WITH THE CURRENT AS/NZS 3725. IN ALL CASES BACKFILL TRENCH WITH SELECT FILL (MINIMUM CBR 15%) 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 THE CURRENT AS 1289.5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75)
- 19. FLEXIBLE PIPE NOTES 20. FLEXIBLE PIPES TO COMPLY WITH THE CURRENT AS/NZS 2566.1. 21. PIPES TO BE INSTALLED IN ACCORDANCE WITH THE CURRENT AS/NZS 2566 2 IN ALL CASES BACKEILL 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 THE CURRENT
- 22. PRECAST CONCRETE PIT NOTES 23. PRECAST PIT MAY BE USED WITH THE APPROVAL OF AT&L THE SUPERINTENDENT AND THE LOCAL GOVERNMENT AUTHORITY AND SHALL
- ALL PRE-CAST PITS ARE TO BE STRUCTURALLY CERTIFIED TO MEET RELEVANT REQUIREMENTS OF THE CURRENT AS3600 AND AS3996 (2019).
- CONSTRUCTION (R11) AND ARE TO ARE TO BE DESIGNED AND CUSTOM MADE WITH OPENINGS UP TO A MAXIMUM +50mm OD OF THE STORMWATER PIPES. PITS ARE ALSO TO INCLUDE PENETRATIONS FOR SUBSOIL CONNECTIONS AND DOUBLE STEP IRONS INSTALLED FOR PITS >0.6m DEEP. DEMOLITION SAWS MAY BE USED PROVIDING A NEAT FULL
- 26. SHOP DRAWINGS ARE TO BE PROVIDED FOR REVIEW AND ACCEPTANCE. IT SHOULD BE NOTED THAT THE CONTRACTOR IS TO ENSURE THAT THE STRUCTURAL COMPONENTS OF THE PITS ARE NOT COMPROMISED AND ONLY THE PIPE KNOCKOUTS ARE TO BE REMOVED FOR THE PIPE
- 27. ALL PRECAST PITS TO BE FOUNDED ON CONCRETE BLINDING LAYER (100MM ON AN EARTH FOUNDATION OR 150mm ON A ROCK FORMATION) DEPTH TO INVERT AND 150KPa FROM 3.0m TO 6.0m DEPTH TO INVERT (MINIMUM 100mm THICK 25MPa OR DEEPER TO ENSURE MINIMUM SPECIFIED BEARING CAPACITY IS ACHIEVED). CONTRACTOR TO ENGAGE
- GEOTECHNICAL ENGINEER TO PROVIDE WRITTEN CONFIRMATION.
- WITH THE INTERNAL WALL. 29. ALL PIPE JOINTING, SPARGING, RENDERING, FILLING OF GAPS TO BE FILLED WITH A HIGH STRENGTH NON SHRINK GROUT WITH A MINIMUM 40MPa COMPRESSIVE STRENGTH AT 28 DAYS. (LANKO DURABED 702 OR SIMILAR)
- 30. SINGLE UNITS PREFERRED BUT IF REQUIRED MINIMUM RISER DEPTH 600mm PIT INSTALLATION AND JOINTING BETWEEN UNITS SHALL BE UNDERTAKEN IN ACCORDANCE WITH MANUFACTURERS
- RECOMMENDATIONS. ANY DAMAGE TO THE STRUCTURAL INTEGRITY OF THE PRE-CAST PIT WILL BE REPAIRED AND STRUCTURALLY CERTIFIED AT THE CONTRACTORS EXPENCE TO THE SATISFACTION OF THE AT&L, SUPERINTENDENT / LOCAL GOVERNMENT AUTHORITY

## **EROSION AND SEDIMENT CONTROL**

#### **NOTES**

#### **GENERAL INSTRUCTIONS**

- 1. THE SITE SUPERINTENDENT/ENGINEER WILL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE LOCATED AS DOCUMENTED.
- 2. ALL WORK SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH a. LOCAL AUTHORITY REQUIREMENTS b. EPA REQUIREMENTS
- c. NSW DEPARTMENT OF HOUSING MANUAL "MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION", 4th EDITION, MARCH
- 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. LAND DISTURBANCE

- 6. WHERE PRACTICAL, THE SOIL EROSION HAZARD ON THE SITE WILL BE KEPT AS LOW AS POSSIBLE. TO THIS END, WORKS SHOULD BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:
- (A) INSTALL A WIND FENCE ALONG THE BOUNDARIES AS SHOWN ON PLAN. REFER DETAIL.

AS SHOWN ON PLAN. REFER DETAIL.

- (B) INSTALL A SEDIMENT FENCE ALONG THE BOUNDARIES
- (C) CONSTRUCT STABILISED CONSTRUCTION ENTRANCE TO LOCATION AS DETERMINED BY SUPERINTENDENT/ENGINEER. REFER DETAIL.
- (D) INSTALL SEDIMENT BASIN AS SHOWN ON PLAN
- (E) INSTALL SEDIMENT TRAPS AS SHOWN ON PLAN.
- (F) UNDERTAKE SITE DEVELOPMENT WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. WHERE POSSIBLE, PHASE DEVELOPMENT SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF WORKABLE SIZE.

#### **EROSION CONTROL**

- 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.

#### SEDIMENT CONTROL

- 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.
- 2. 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.

#### **EROSION AND SEDIMENT CONTROL NOTES CONTINUED**

#### STAGING

- SUITABLE EROSION AND SEDIMENT CONTROLS SHALL BE DESIGNED. PROVIDED AND MAINTAINED BY THE CONTRACTOR THROUGHOUT ALL STAGES OF WORKS, INCLUDING AT COMPLETION OF THE BULK EARTHWORKS WHERE SHOWN ON AT&L DRAWINGS OR WHERE DIRECTED BY THE SUPERINTENDENT OR HAWKESBURY CITY COUNCIL'S ENGINEERS.
- SEDIMENT AND EROSION CONTROLS ARE TO BE DESIGNED AND DOCUMENTED BY A SUITABLY QUALIFIED EXPERT ENGAGED BY THE CONTRACTOR AND APPROVED AS PART OF THE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. SUCH CONTROLS SHALL BE IN ACCORDANCE WITH THE RELEVANT REQUIREMENTS IN THE LATEST VERSION OF THE MANAGING URBAN STORMWATER: SOILS AND CONSTRUCTION GUIDELINE (LANDCOM).

#### **BULK EARTHWORKS NOTES**

- 1. ORIGIN OF LEVELS: REFER SURVEY NOTES
- 2. STRIP ALL TOPSOIL/ORGANIC MATERIAL FROM CONSTRUCTION AREA AND
- REMOVE FROM SITE OR STOCK PILE AS DIRECTED BY SUPERINTENDENT. 3. EXCAVATED MATERIAL TO BE USED AS STRUCTURAL FILL PROVIDED THE PLACEMENT MOISTURE CONTENT OF THE MATERIAL IS +/- 2% OF THE OPTIMUM MOISTURE CONTENT.
- 4. COMPACT FILL AREAS AND SUBGRADE TO NOT LESS THAN:

LOCATION STANDARD DRY DENSITY (AS 1289 E 5.1.1.)

UNDER BUILDING SLABS ON GROUND UNDER ROADS AND CARPARKS

- LANDSCAPED AREAS UNLESS NOTED OTHERWISE 98% 5. FOR NON COHESIVE MATERIAL, COMPACT TO 75% DENSITY INDEX. BEFORE PLACING FILL, PROOF ROLL EXPOSED SUBGRADE WITH AN 8 TONNE (MIN) DEADWEIGHT SMOOTH DRUM VIBRATORY ROLLER TO DETECT THEN REMOVE SOFT SPOTS (AREAS WITH MORE THAN 2mm
- MOVEMENT UNDER ROLLER). FREQUENCY OF COMPACTION TESTING SHALL BE NOT LESS THAN: (A) 1 TEST PER 200m<sup>2</sup> OF FILL PLACED PER 300 LAYER OF FILL. (B) 3 TESTS PER VISIT
- (C) 1 TEST PER 1000m<sup>3</sup> OF EXPOSED SUBGRADE TESTING SHALL BE "LEVEL 1" TESTING IN ACCORDANCE WITH AS 3798
- 8. FILLING TO BE PLACED AND COMPACTED IN MAXIMUM 150mm LAYERS 9. NO FILLING SHALL TAKE PLACE TO EXPOSE SUBGRADE UNTIL THE AREA HAS BEEN PROOF ROLLED IN THE PRESENCE OF GETECHNICAL ENGINEER AND APPROVAL GIVEN IN WRITING THAT FILLING CAN PROCEED.

## **EXISTING UNDERGROUND SERVICES**

THE LOCATIONS OF UNDERGROUND SERVICES SHOWN IN THIS SET OF DRAWINGS HAVE BEEN PLOTTED FROM SURVEY INFORMATION AND SERVICE AUTHORITY INFORMATION. THE SERVICE INFORMATION HAS BEEN PREPARED ONLY TO SHOW THE APPROXIMATE POSITIONS OF ANY KNOWN SERVICES AND MAY NOT BE AS CONSTRUCTED OR ACCURATE. AT & L CAN NOT GUARANTEE THAT THE SERVICES INFORMATION SHOWN ON THESE DRAWINGS ACCURATELY INDICATES THE PRESENCE OR ABSENCE OF SERVICES OR THEIR LOCATION AND WILL ACCEPT NO LIABILITY FOR INACCURACIES IN THE SERVICES INFORMATION SHOWN FROM ANY CAUSE WHATSOEVER.

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

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

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



1. ALL WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH HAWKESBURY CITY COUNCIL TECHNICAL SPECIFICATIONS AND STANDARD DRAWINGS

2. ANY INCONSISTENCY BETWEEN AT&L AND HAWKESBURY CITY COUNCIL SPECIFICATIONS SHOULD BE REFERRED TO SUPERINTENDENT FOR DIRECTIONS

#### **SURVEY NOTES**

THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN PROVIDED BY MCKINLAY MORGAN & ASSOCIATES PTY LTD, DATED 1-2/02/2023. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. AT & L DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS.

ANY EXISTING BENCHMARKS ARE TO BE PROTECTED.

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

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

#### TYPICAL NOTES:

- THESE NOTES MUST BE INCLUDED WITH ANY COPYING OR REPRODUCTION IN PART OR FULL TOGETHER WITH THE PLAN NUMBER & ANY AMENDMENT. THE INFORMATION SHOWN ON THIS PLAN MUST NOT BE AMENDED OR ALTERED
- THE POSITION OF FEATURES SHOWN HAVE BEEN LOCATED FOR TOPOGRAPHICAL PURPOSES ONLY AT THE REDUCTION RATIO SHOWN. BOUNDARY DIMENSIONS HAVE BEEN TAKEN FROM THE TITLE DIAGRAM THE SURVEY HAS BEEN UNDERTAKEN IN ACCORDANCE WITH CLAUSE 9(1) OF THE SURVEYING & SPATIAL INFORMATION REGULATION 2017.
- THIS SURVEY PLAN IS FOR PLANNING & DESIGN PURPOSES ONLY & IS NOT TO BE USED FOR CONSTRUCTION. IF ANY CONSTRUCTION IS TO BE UNDERTAKEN CLOSE TO OR RELATIVE TO ANY BOUNDARY, OR ACCURATE POSITION OF FEATURES IS NEEDED A SPECIFIC SETOUT OR
- BOUNDARY SURVEY IS REQUIRED.
- CONTOURS SHOWN ARE INDICATIVE OF THE SURFACE & SHOULD NOT BE INTERPOLATED TO DETERMINE ACCURATE LEVELS. TREES SHOWN ARE INDICATIVE OF THEIR SIZE. THE TREE SPREADS ARE
- OF THEIR DRIP LINE. THE TERMS AND CONDITIONS OF RESTRICTIONS APPEARING ON THE CERTIFICATE OF TITLE HAVE NOT BEEN INVESTIGATED.

SHOWN CENTRAL ABOUT THE TRUNK & MAY NOT BE A TRUE INDICATION

98%

98%

- USERVICES THE POSITION OF UNDERGROUND SERVICES SHOWN HEREON HAS BEEN TAKEN FROM BYDA SERVICE AUTHORITY DIAGRAMS. SERVICE AUTHORITY DIAGRAMS PROVIDE AN INDICATION THAT AN UNDERGROUND SERVICE EXISTS AND THERE IS NO
- GUARANTEE/WARRANTY THAT ALL UNDERGROUND SERVICES ARE SHOWN ON THE BYDA NOR ON THIS PLAN NOR THAT THE LOCATION SHOWN ON EITHER IS ACCURATE. PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION, BYDA MUST BE UPDATED. ONLY VISIBLE SERVICES OF ELECTRICITY, COMMUNICATIONS, SEWER, WATER & DRAINAGE HAVE BEEN LOCATED. THE PLOTTING OF ANY
- SERVICE FROM OR BETWEEN VISIBLE STRUCTURES SHOWN HEREON (PIT, HYDRANT ETC) DOES NOT GUARANTEE THE SERVICE IS A STRAIGHT LINE NOR THAT THE SERVICE IS DIRECTLY UNDER THE STRUCTURE. ANY UNDERGROUND SERVICES SHOWN HEREON OR ON ANY SERVICES

PLAN NEAR TO OR CRITICAL TO ANY DESIGN OR CONSTRUCTION MUST

BE CONFIRMED FOR LOCATION & LEVEL BY POTHOLING &/OR DIRECTLY

#### WITH THE RELEVANT SERVICE PROVIDER

- UCOORDINATES THE COORDINATE SYTEM FOR THE DIGITAL FILE FOR THIS PLAN & COORDINATES (WHERE SHOWN ON THIS PLAN) ARE GROUND
- COORDINATES FROM SSM 191093 \* TO GET TRUE AND SURVEY ACCURATE MGA2020 COORDINATES THE PLAN OR DISTANCES INTERPOLATED FROM THE PLAN MUST BE SCALED

COORDINATES & GROUND DISTANCES BASED ON MGA2020

ABOUT SSM 191093 USING THE RELEVANT SCALE FACTOR.

#### **CONSTRUCTION TOLERANCES**

**STORMWATER** 

**PAVEMEN** 

**SUBBASE** 

SEAL

ASPHALT

ASPHALT

PATH

MULCH

EARTHWORKS EARTHWORKS -10mm / +20mm OF FINISHED SURFACE LEVEL (AFTER COMPACTION AND TRIMMING)

#### PIPES WITHIN 20mm OF THE DESIGN INVERT LEVEL AT ANY POINT PIPES 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

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

TO THE CONTROL LINE FOR THE ROAD SHOWN ON THE

IT		
	-10mm / +10mm	OF PAVEMENT COURSE THICKNESS (AFTER COMPACTION & TRIMMING)
	-10mm / +0mm	OF FINISHED SURFACE LEVEL (AFTER COMPACTION AND TRIMMING)
	-5mm / +5mm	ALONG THE FINISHED SURFACE (LAID IN ANY DIRECTION) OVER A LENGTH OF 3 METRES

SUBBASE **SUBBASE** 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 ALONG THE FINISHED SURFACE OVER THE CARRIAGEWAY -5mm / +10mm WIDTH AT THE DATE OF PRACTICAL COMPLETION

JOINTS, MUST NOT POND WATER. ASPHALT -0mm / +10mm OF PAVEMENT FINISHED SURFACE LEVEL (AFTER COMPACTION) ASPHALT ALONG THE FINISHED SURFACE OVER THE CARRIAGEWAY -5mm / +5mm WIDTH AT THE DATE OF PRACTICAL COMPLETION

SURFACE OF THE COURSE, INCLUDING LONGITUDINAL AND TRANSVERSE

ALONG THE FINISHED SURFACE OVER THE CARRIAGEWAY -8mm / +8mm WIDTH AT THE COMPLETION OF THE DEFECT LIABILITY

SURFACE OF THE COURSE, INCLUDING LONGITUDINAL AND TRANSVERSE

SURFACE OF THE PATH, INCLUDING JOINTS, MUST NOT POND WATER.

#### CONCRETE ALONG THE TOP OF KERB OVER A LENGTH OF 5 METRES | KERB KERB ALONG THE FACE OF KERB OVER A LENGTH OF 5 METRES PATH -0mm / +10mm OF FOOTPATH/SHARED PATH FINISHED SURFACE LEVEL

JOINTS, MUST NOT POND WATER.

**VERGE** OF PAVEMENT FINISHED SURFACE LEVEL (AFTER COMPACTION) TO THE ADJOINING MATERIAL (FOOTPATHS,

KERBS, ETC) -10mm / +0mm OF PAVEMENT FINISHED SURFACE LEVEL (AFTER COMPACTION) TO THE ADJOINING MATERIAL (FOOTPATHS,

-20mm / +20mm FLATNESS OF THE FACE OF THE WALL MUST BE SUCH THAT

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THE MAXIMUM DEVIATION FROM A 4.5 M STRAIGHT EDGE

**RETAINING / NOISE WALLS** -20mm / +20mm FROM ANY POINT ON THE WALL THE LEVEL MUST NOT **DEVIATE FROM THAT SPECIFIED** -10mm / +10mm INCLINATION OF THE FACE OF THE COMPLETED WALL MUST NOT DEVIATE FROM THE SPECIFIED INCLINATION PER METER HEIGHT (BLOCK WALL) INCLINATION OF THE FACE OF THE COMPLETED WALL MUST NOT DEVIATE FROM THE SPECIFIED INCLINATION PER METER HEIGHT (PANEL WALL)

## **DETAILS AND SPECIFICATIONS**

Client

SERVICE AUTHORITY PLANS PRIOR TO

COMMENCEMENT OF WORK

FERNADELL RESERVE PITT TOWN NSW 2756

Project

NT

SM

ΑT

GENERAL NOTES SHEET 1

info@atl.net.au FOR TENDER NOT TO BE USED FOR CONSTRUCTION Project - Drawing No. Issue 23-1123-C0002

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

Bar Scales FOR TENDER 29-08-2024 80% DESIGN ISSUE 12-04-24 20-03-24 80% DESIGN ISSUE 50% DESIGN ISSUE 03-11-23 Date Description

lawkesbury City Counc

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**GDA2020** 

Designed

Checked

Approved

Scales

Datum

N.T.S.

MGA2020

AHD

F:\23-1123 Fernadell Reserve\6.0 Drgs\Civil\Final\23-1123-C0002.dwg

100mm on Original

AS 1289.5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75)

BE INSTALLED TO THE MANUFACTURERS RECOMENDATIONS 25. PRE CAST STORMWATER PITS ARE TO BE APPROVED FOR TFNSW

DEPTH CUT IS APPLIED AND ANY ADDITIONAL PENETRATIONS REQUIRED ARE TO BE CORE DRILLED.

PENETRATIONS. WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 100KPa UP TO 3.0m

28. ALL PRE-CAST PIT PENETRATIONS SHALL BE CUT SO THAT IT IS FLUSH

#### HOLD POINT INSPECTION REQUIREMENTS

#### NOTE:

THESE HOLD POINT INSPECTIONS ARE TO BE READ IN CONJUNCTION WITH THE RELEVANT AUTHORITY SPECIFICATIONS AND INSPECTION REQUIREMENTS. WHERE DISCREPANCIES BETWEEN REQUIREMENTS OCCURS, THE AUTHORITY SPECIFICATIONS AND INSPECTION REQUIREMENTS TAKE PRECEDENCE

MANDATORY INSPECTIONS ARE CARRIED OUT AT THE FOLLOWING STAGES:

#### CONSTRUCTION OF STORMWATER

a) PIPES BEFORE BACKFILLING, INCLUDING TRENCH EXCAVATION & BEDDING ZONE

b) BACKFILL TO EMBEDMENT ZONE

c) PIT BASES & HEADWALL APRONS

d) FORMWORK & REO FOR ANY IN-SITU PITS & HEADWALLS. (PRE-POUR)

e) GPT (OR OTHER TREATMENT CHAMBERS) INSTALLATION

f) CONNECTION TO EXISTING SYSTEM

g) TAILOUT WORKS h) FINAL INSPECTION

#### CONSTRUCTION OF ROAD PAVEMENT

a) BOXING OUT & SUBGRADE PROOF ROLL / ROLLER TEST

b) SUB-BASE PROOF ROLL / ROLLER TEST (PER LAYER LAYER)

c) KERB SET OUT / KERB PRE-LAYING

d) BASE-COURSE PROOF ROLL / AND ROLLER TESTS

e) SPRAY SEAL

f) WEARING COURSE g) FINAL INSPECTION

a) FOOTPATH/DRIVEWAY TRIMMING (TO ENSURE CROSSFALL)

CONSTRUCTION OF FOOTPATHS/DRIVEWAYS

b) FOOTPATH/DRIVEWAY SUBGRADE

c) FOOTPATH/DRIVEWAY BEDDING & REINFORCEMENT (PRE-POUR)

d) FINAL INSPECTION

#### CONSTRUCTION OF FOOTPATHS/DRIVEWAYS

FINAL INSPECTION

a) STORMWATER PITS b) FINAL ASPHALT LAYER

c) SIGNAGE

d) LINE-MARKING

e) DEFECTS INSPECTION f) DEFECTS RECTIFICATION

g) HANDOVER

			Bar Scales
В	FOR TENDER	29-08-2024	
Α	80% DESIGN ISSUE	12-04-24	
Issue	Description	Date	

Hawkesbury City Council

Client

Project NT N.T.S. Designed Checked MGA2020 Height Datum

**GDA2020** 

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PITT TOWN NSW 2756

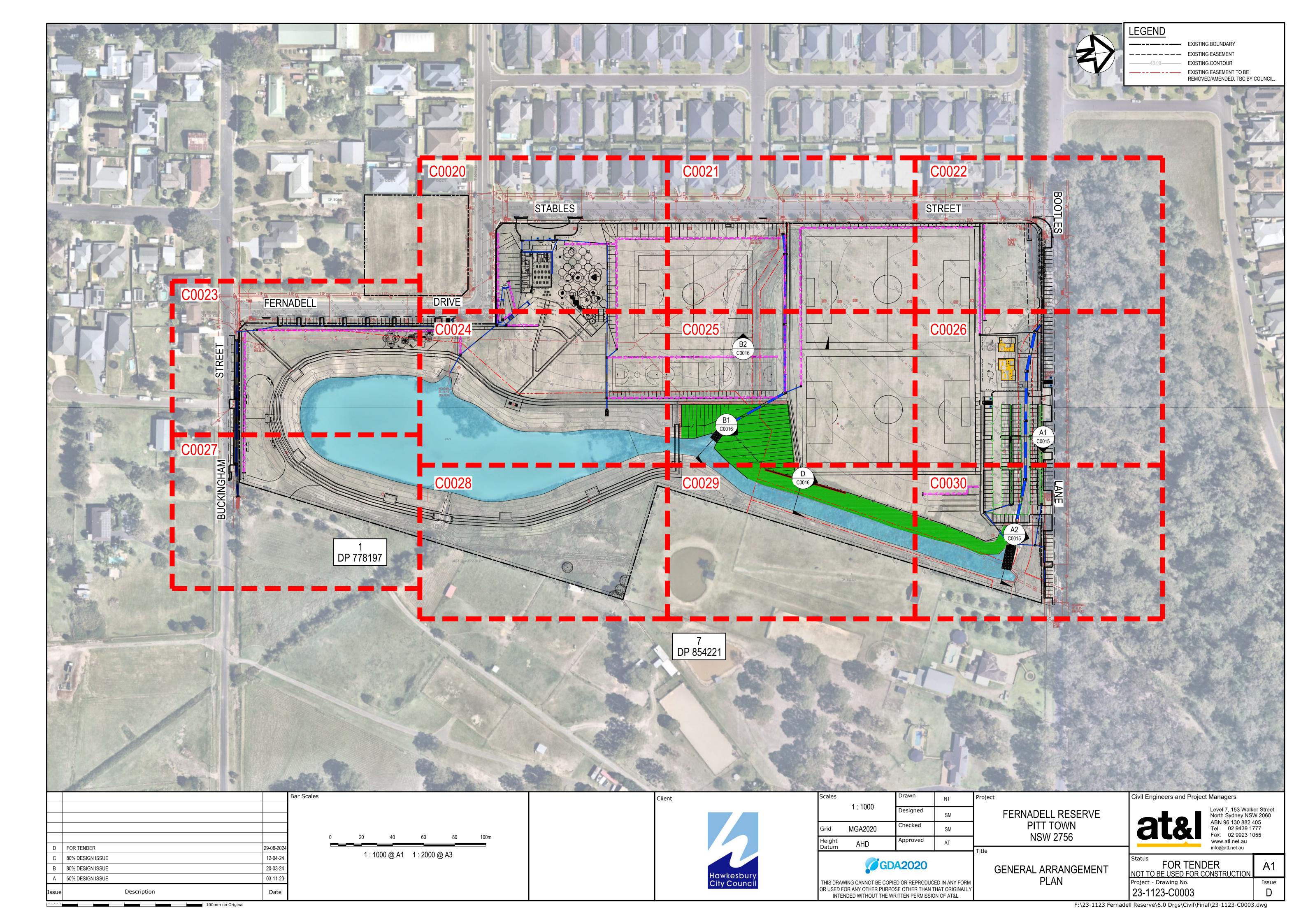
Project - Drawing No. 23-1123-C0002A

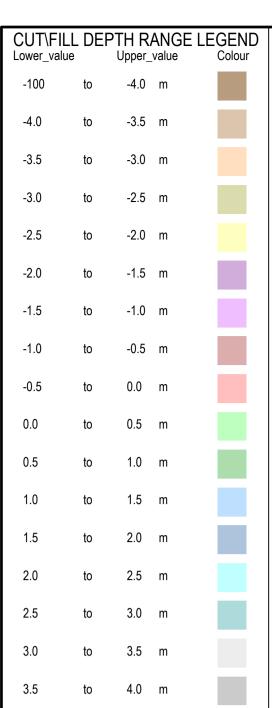
ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au FOR TENDER NOT TO BE USED FOR CONSTRUCTION

Level 7, 153 Walker Street North Sydney NSW 2060

Issue

Civil Engineers and Project Managers





4.0

EARTHWORKS VOLUMES SHOWN ARE APPROXIMATE ONLY.

THE VOLUMES HAVE BEEN CALCULATED USING:

1. 200mm STRIPPING OF EXISTING SURFACE (SURVEY BY McKINLAY

MORGAN & ASSOCIATES DATED 02/02/2023)

2. 150mm THICK STRUCTURAL SLAB FOR PROPOSED COMMUNITY CENTRE AND AMENITIES BUILDINGS

 150mm THICKNESS ASSUMED ACROSS ALL LANDSCAPED, SPORTING FIELDS, PLAY AND COURT AREAS

3. PAVEMENT THICKNESS ADOPTED AS PER DRAWINGS C0035 TO C0036.

THE VOLUMES DO NOT TAKE INTO ACCOUNT:

1. BULKING FACTORS OF REMOVED CUT

2. REMOVAL AND/OR REMEDIATION OF ANY EXISTING UNCONTROLLED

3. STORMWATER AND UTILITIES TRENCHING

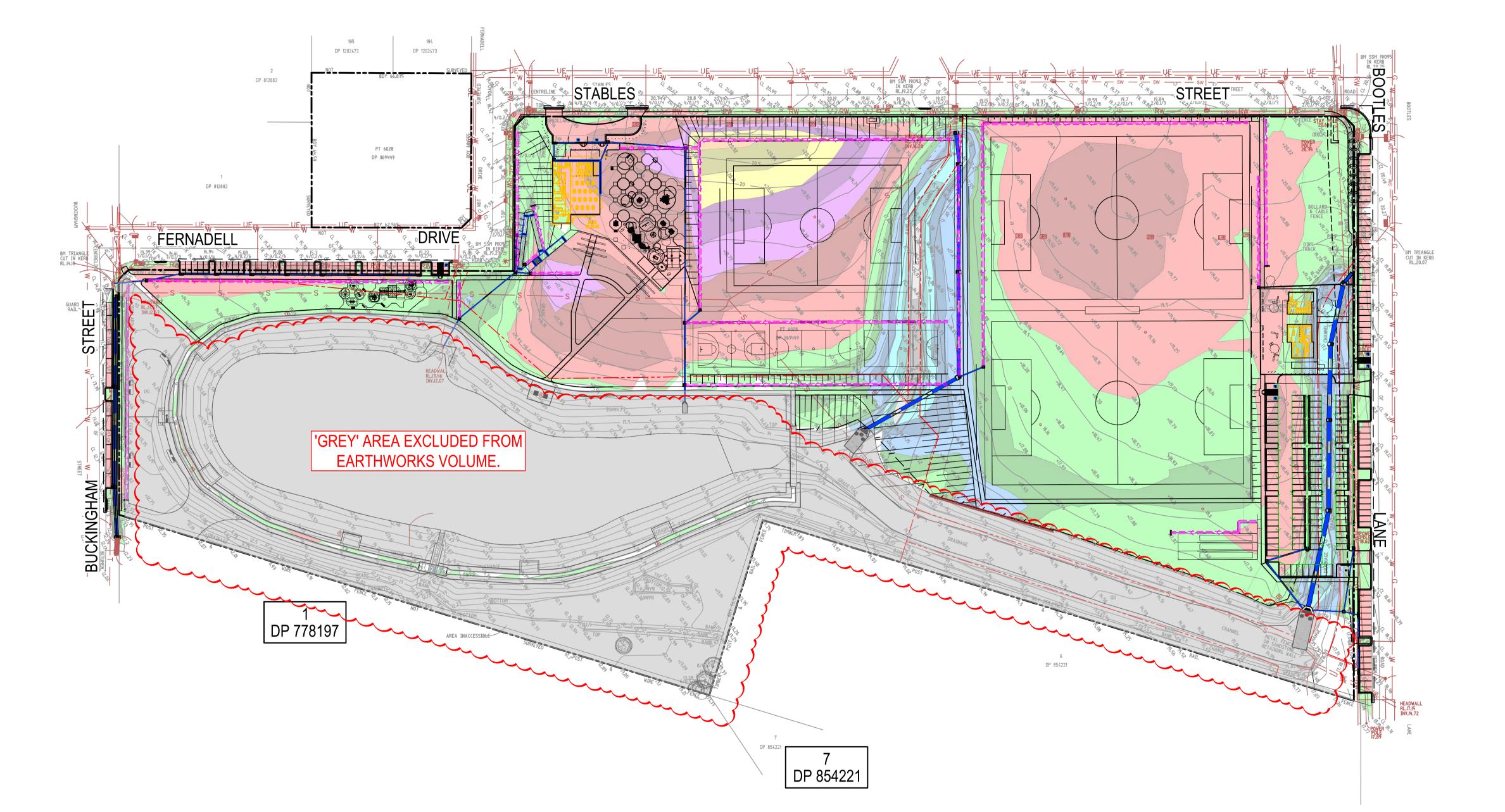
4. BACK FILL OF ANY PROPOSED RETAINING WALLS5. CLOUDED AREA EXCLUDED FROM CALCULATIONS

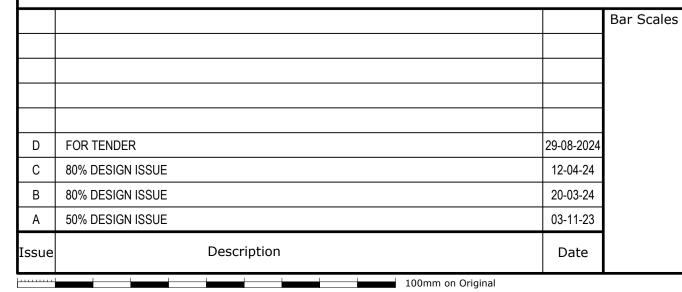
#### **EARTHWORKS VOLUMES**

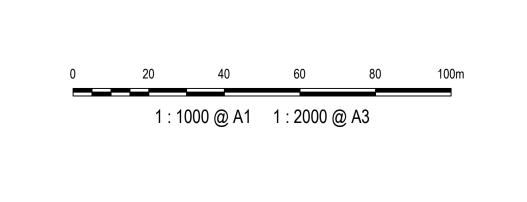
TOTAL: CUT	-18701m³
TOTAL: FILL	20083m³
BALANCE:	1382m³ (IMPORT)

#### **STRIPPING VOLUMES**

VOLUME:	12677m³
NOTE: STRIPPED TOPSOIL ASSUMED T	O BE REMOVED FROM SITE.









Client

Scales	4.0000	Drawn	NT	Projec
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Grid	MGA2020	Checked	SM	
Height Datum	AHD	Approved	AT	
Datum				Title

OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY

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BULK EARTHWORKS
PLAN

FERNADELL RESERVE

PITT TOWN

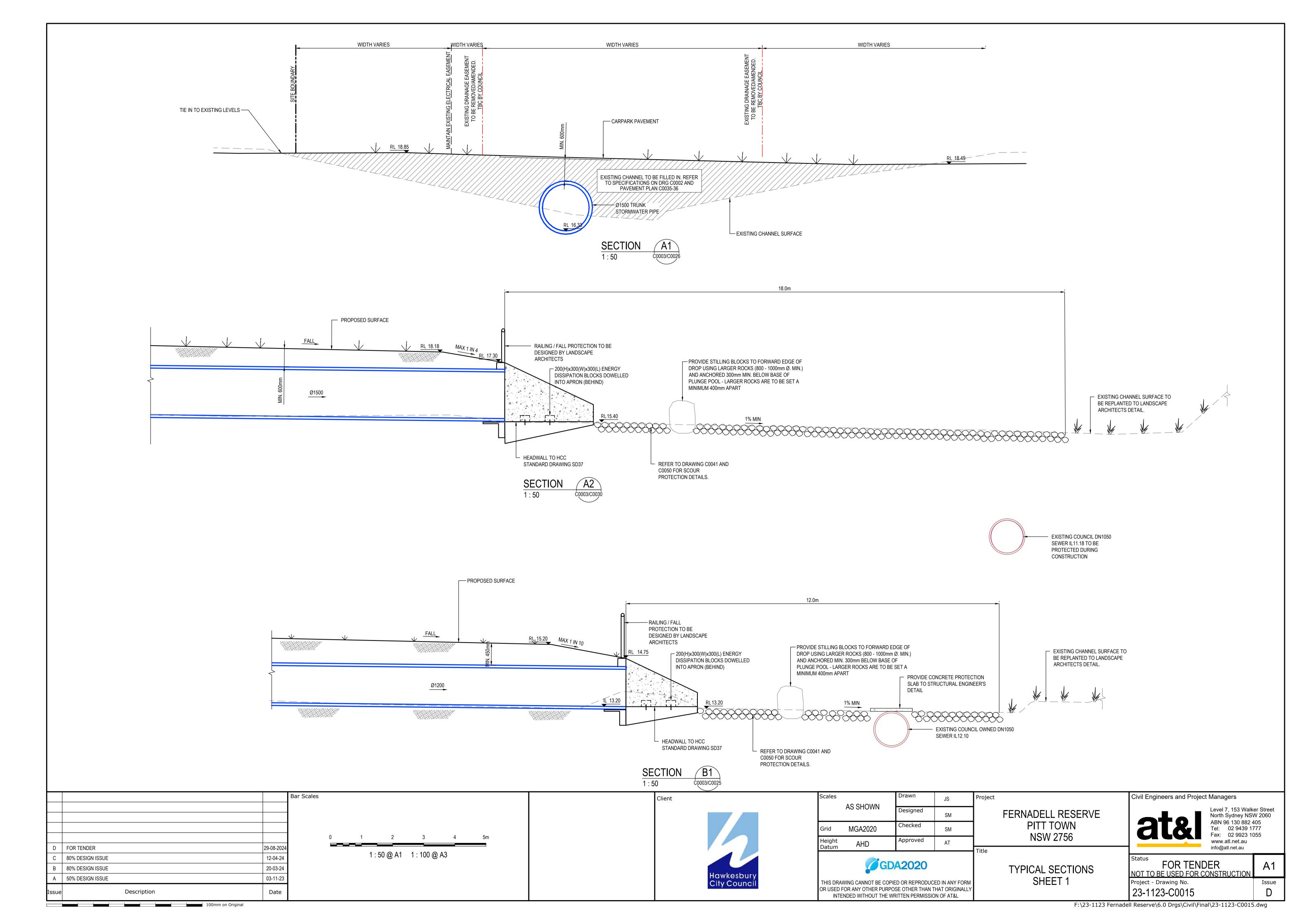
NSW 2756

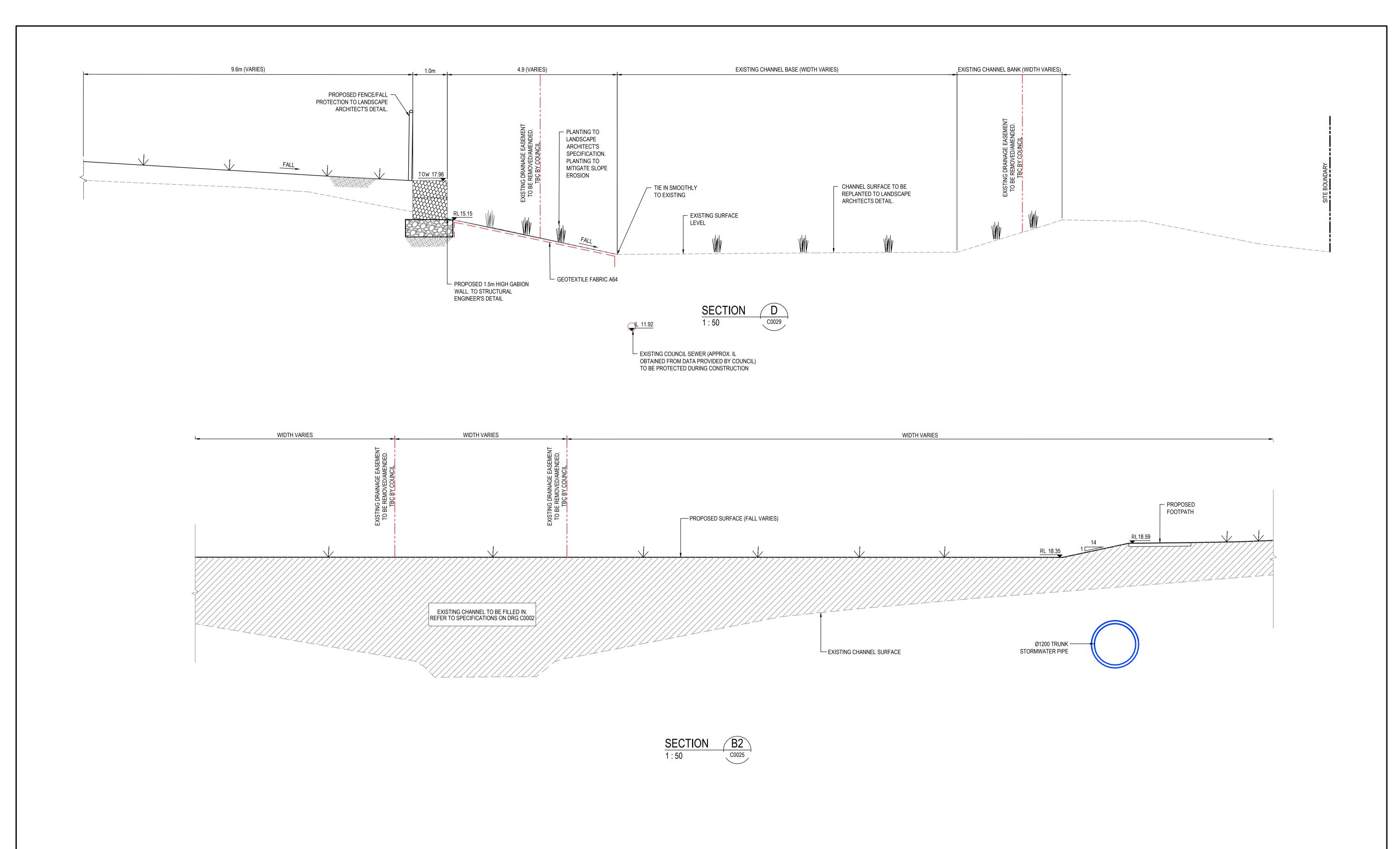
at&l

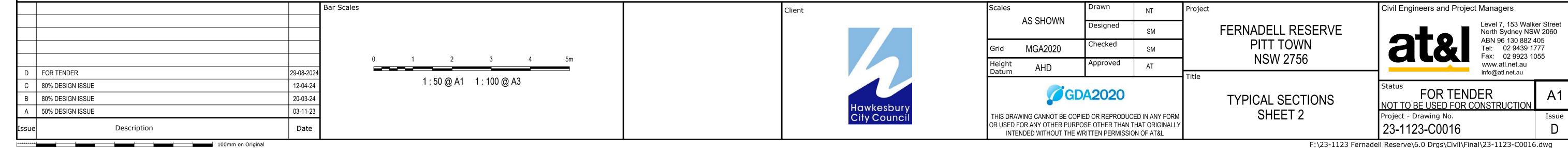
Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au

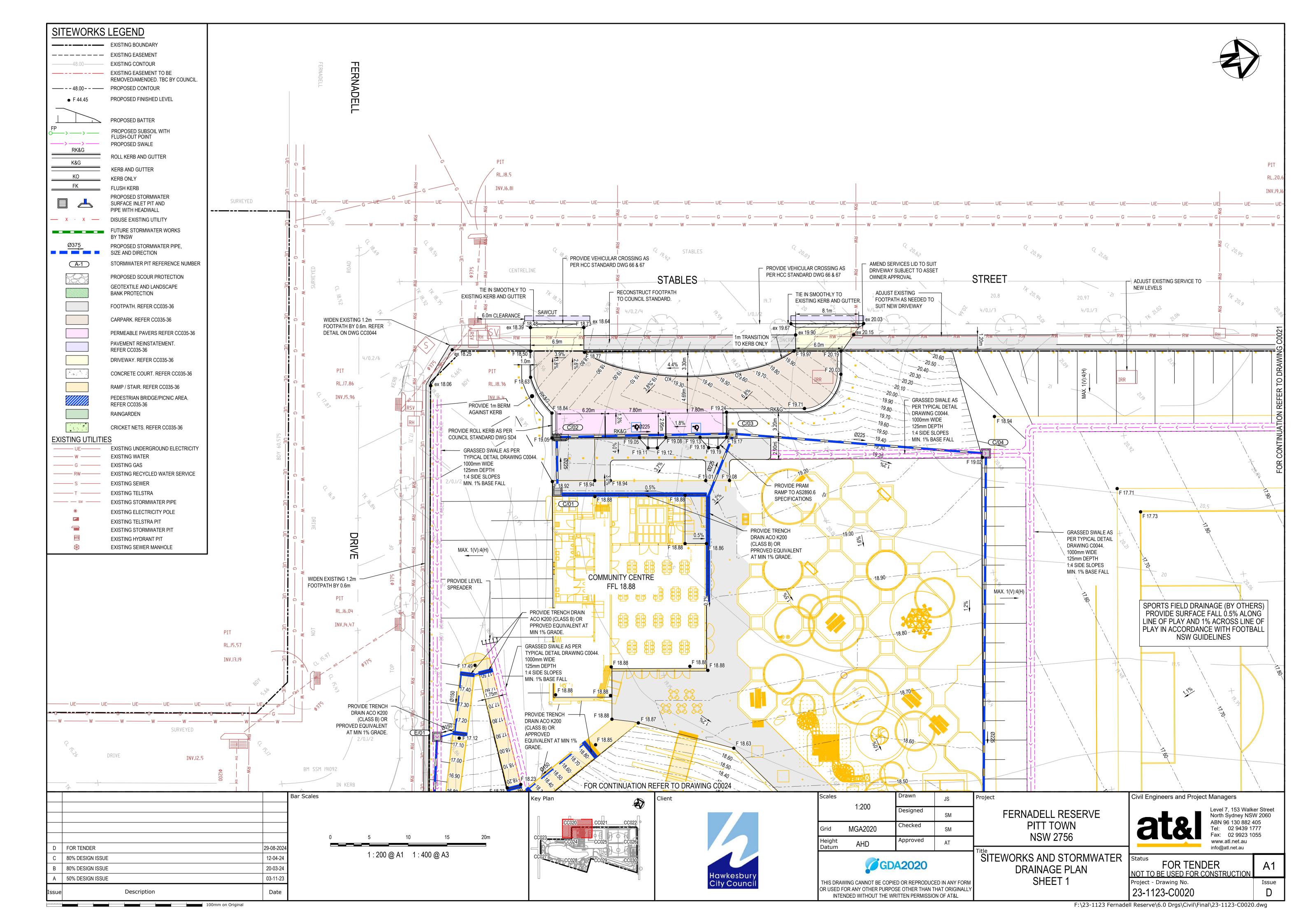
FOR TENDER
NOT TO BE USED FOR CONSTRUCTION
Project - Drawing No.
23-1123-C0010

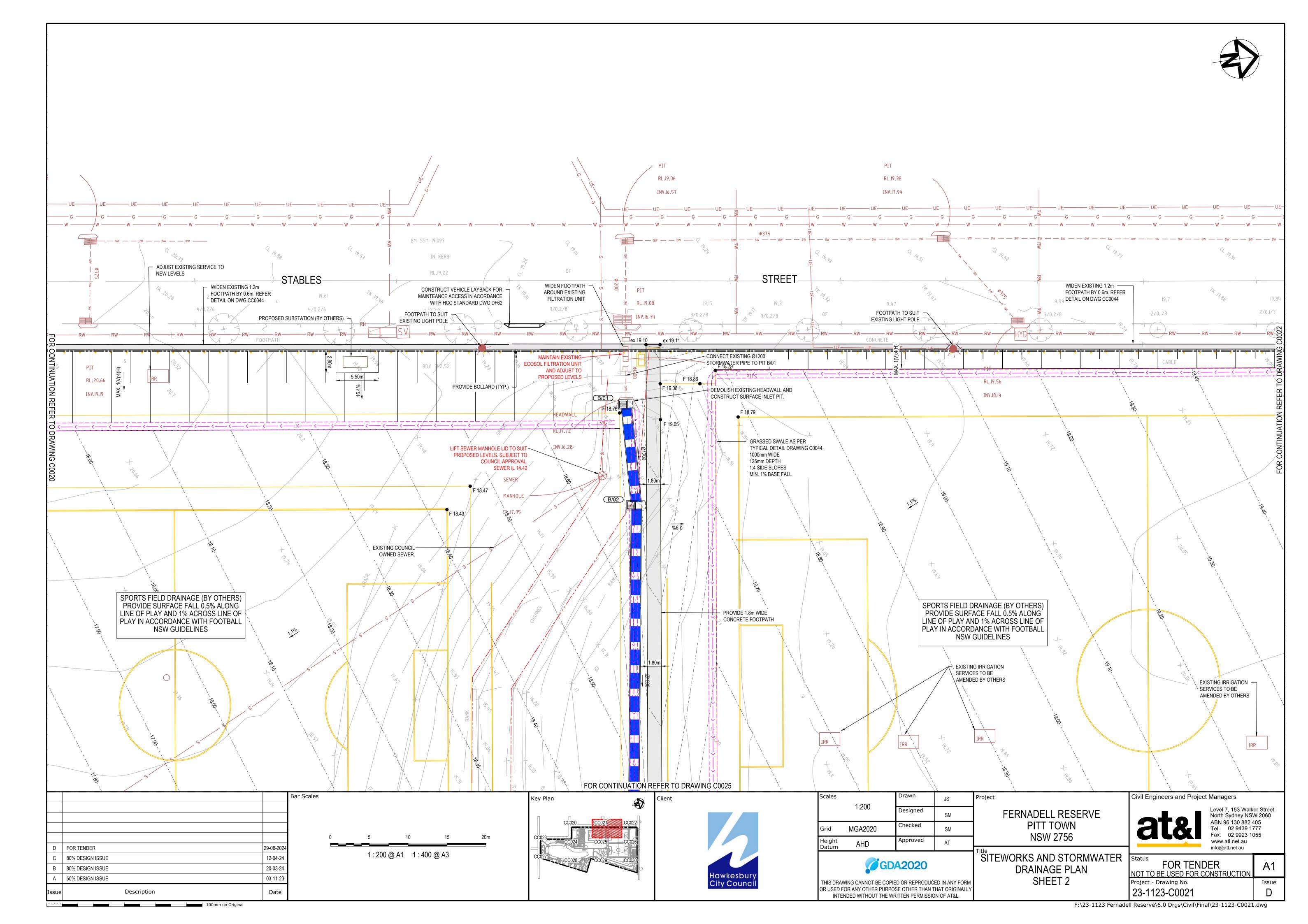
Civil Engineers and Project Managers



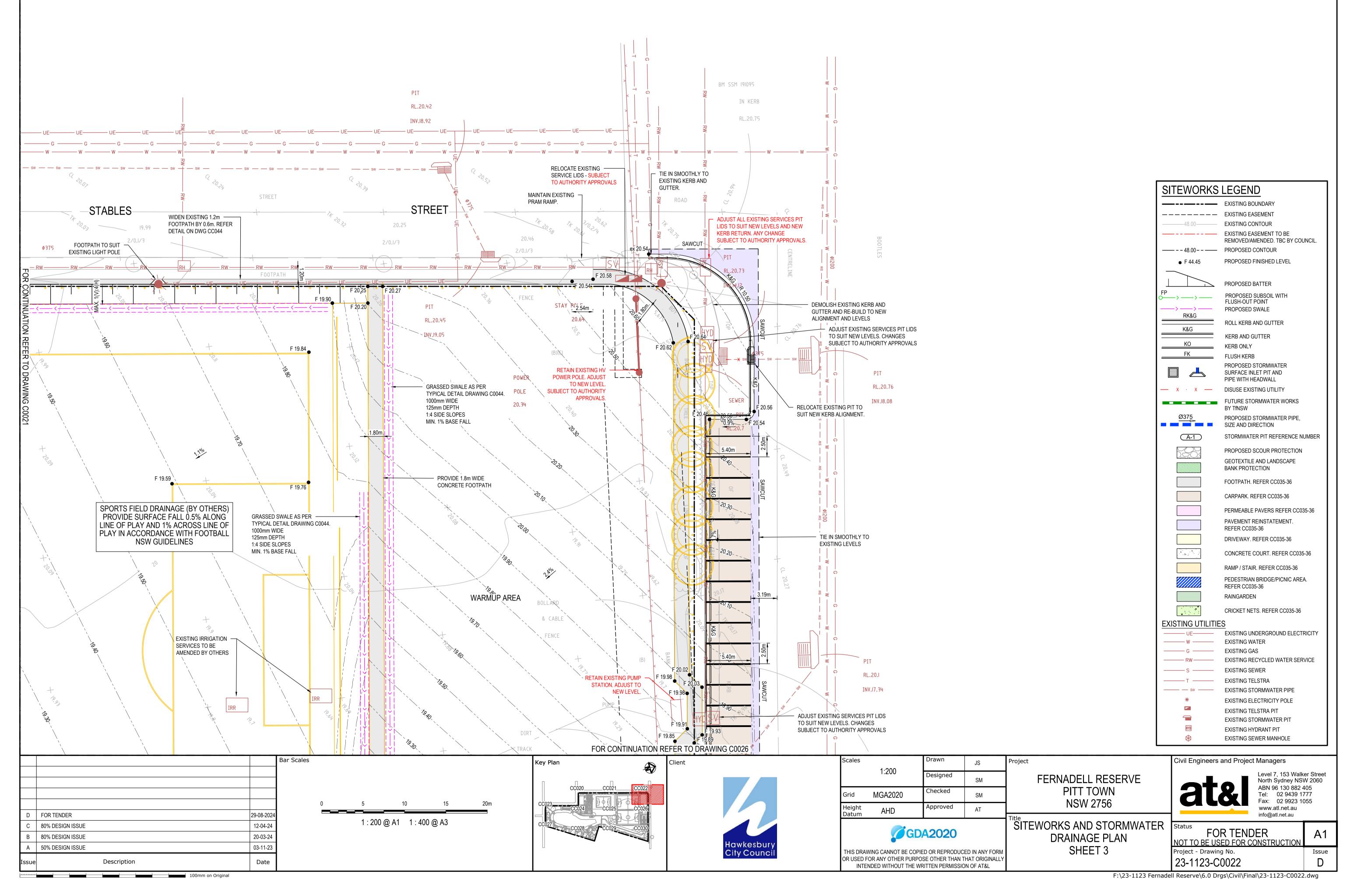


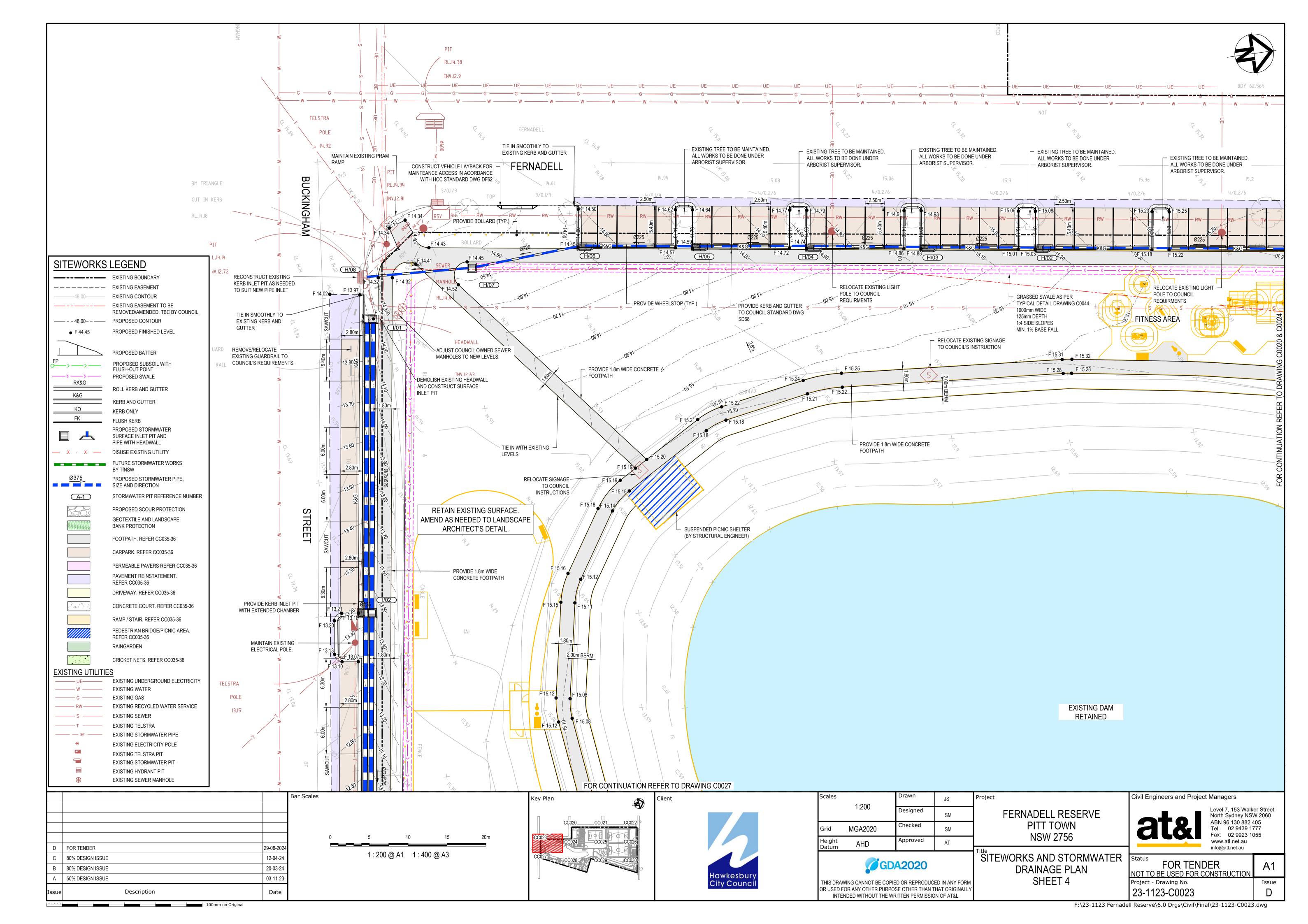


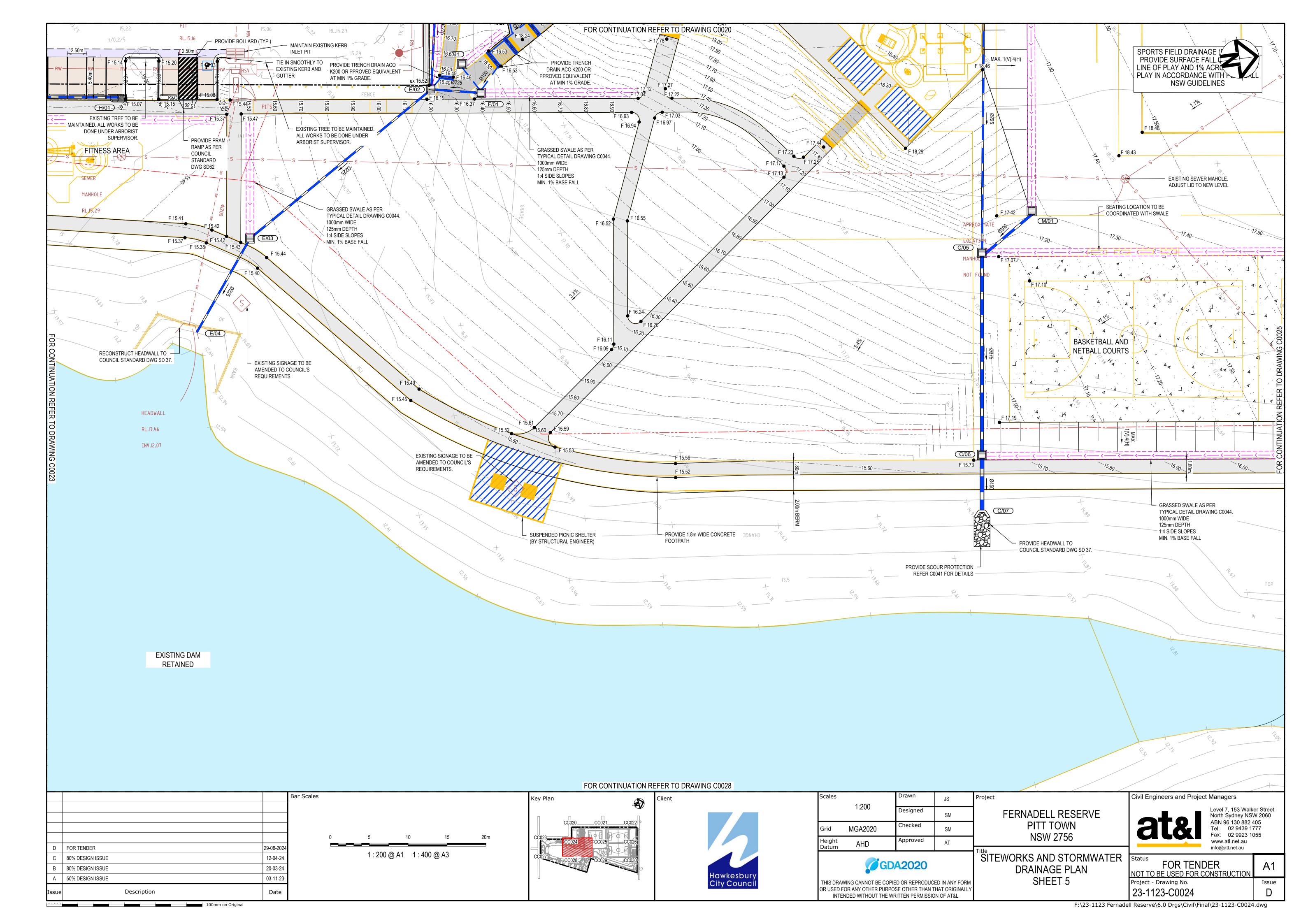


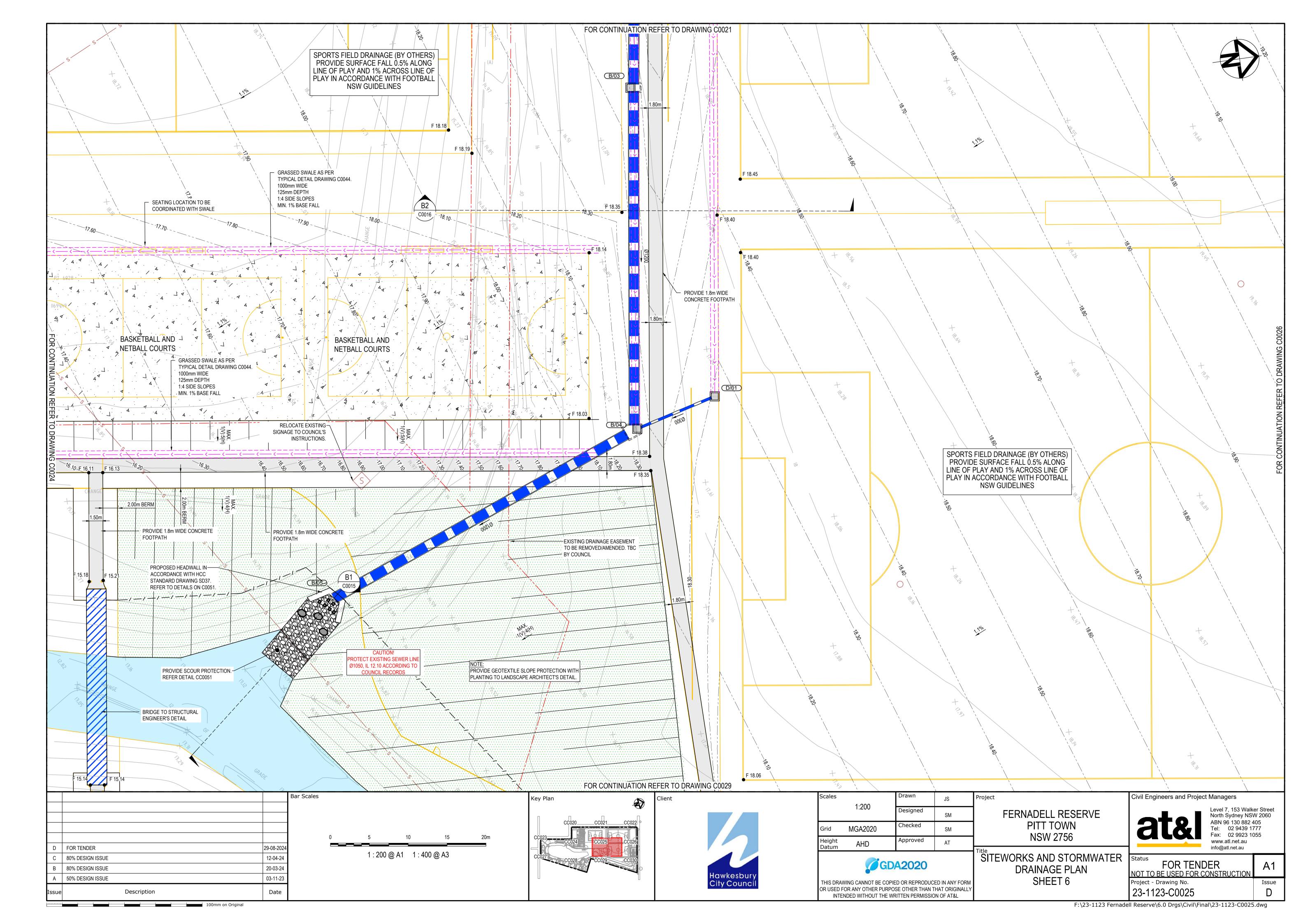


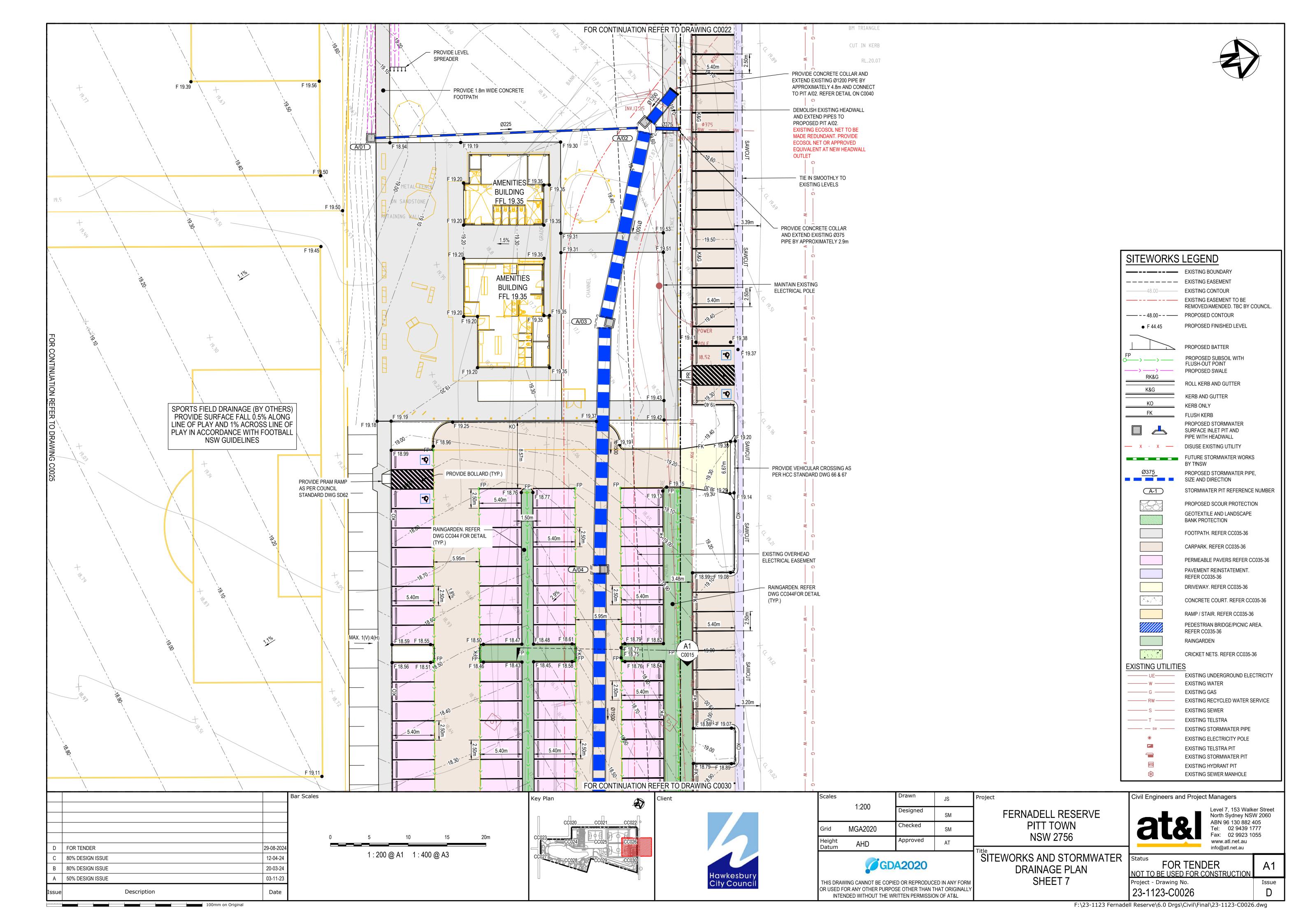


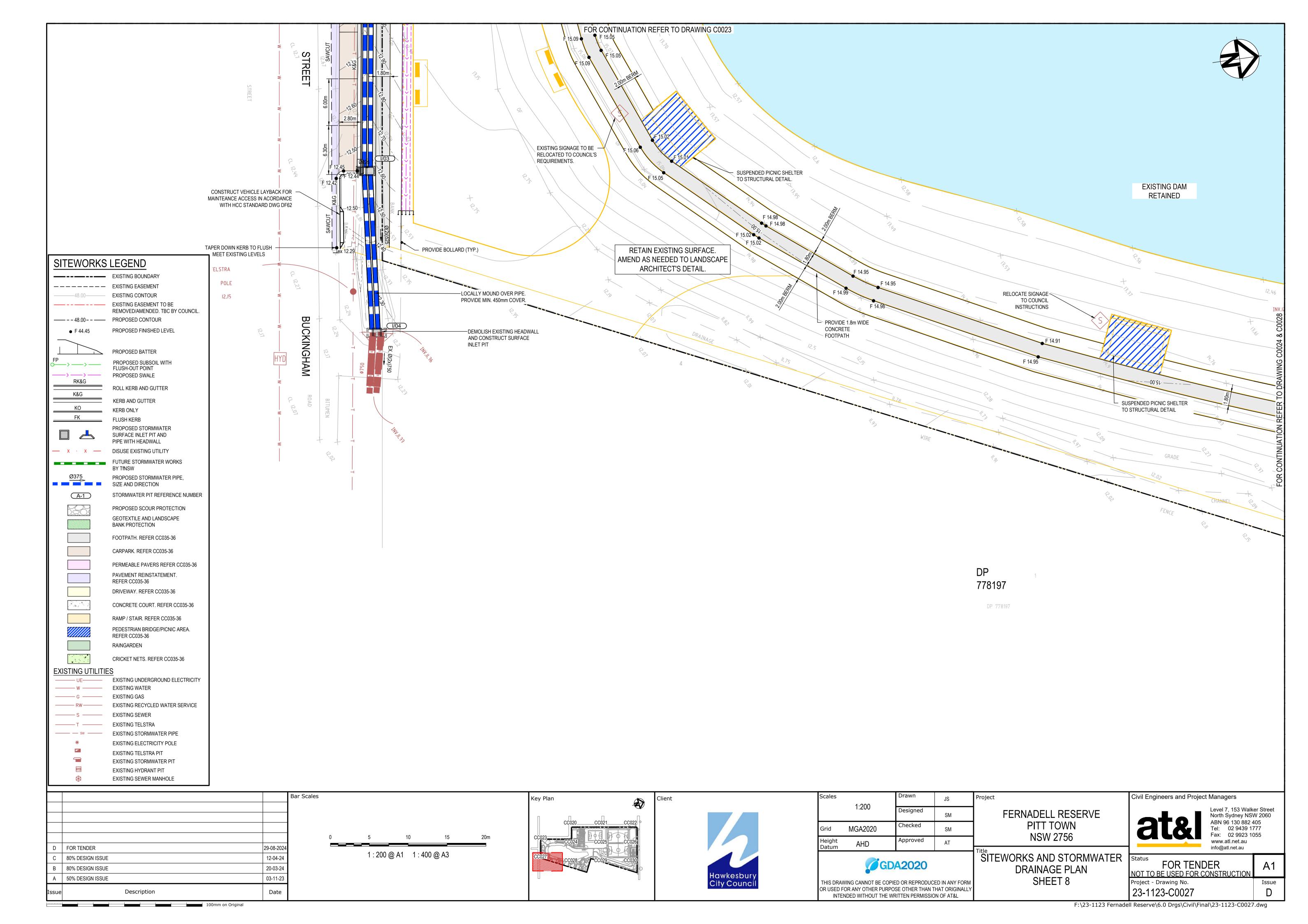


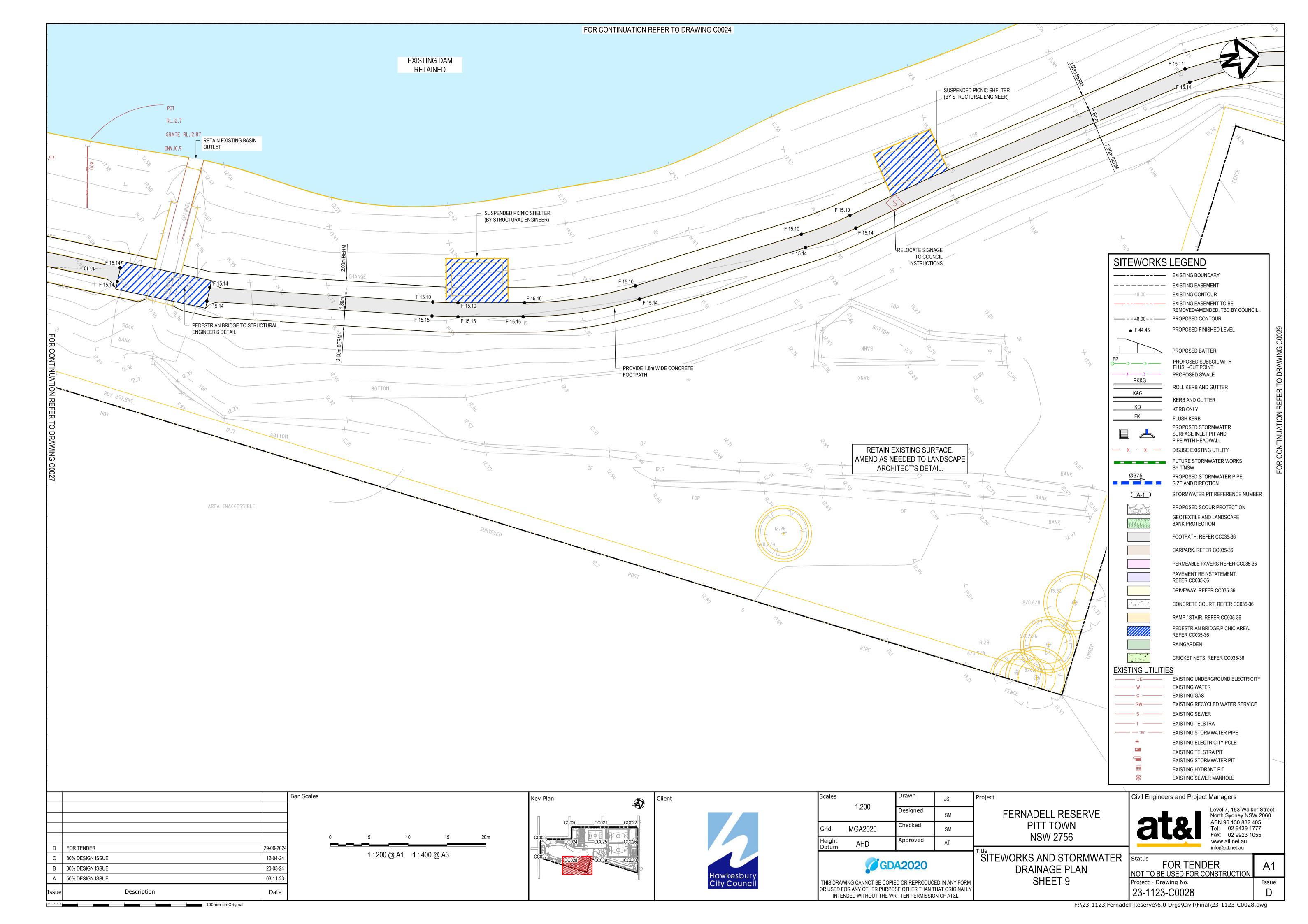


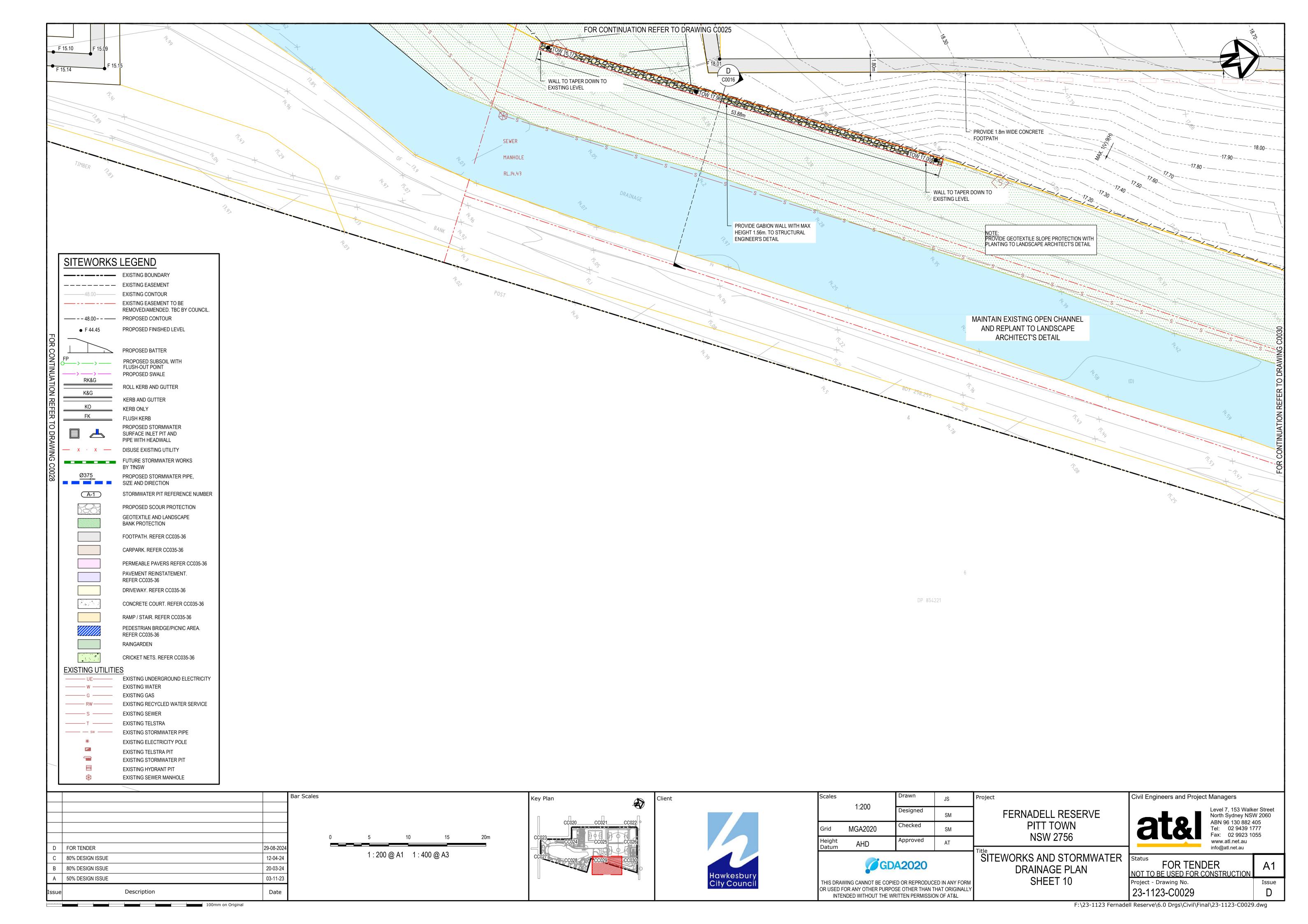


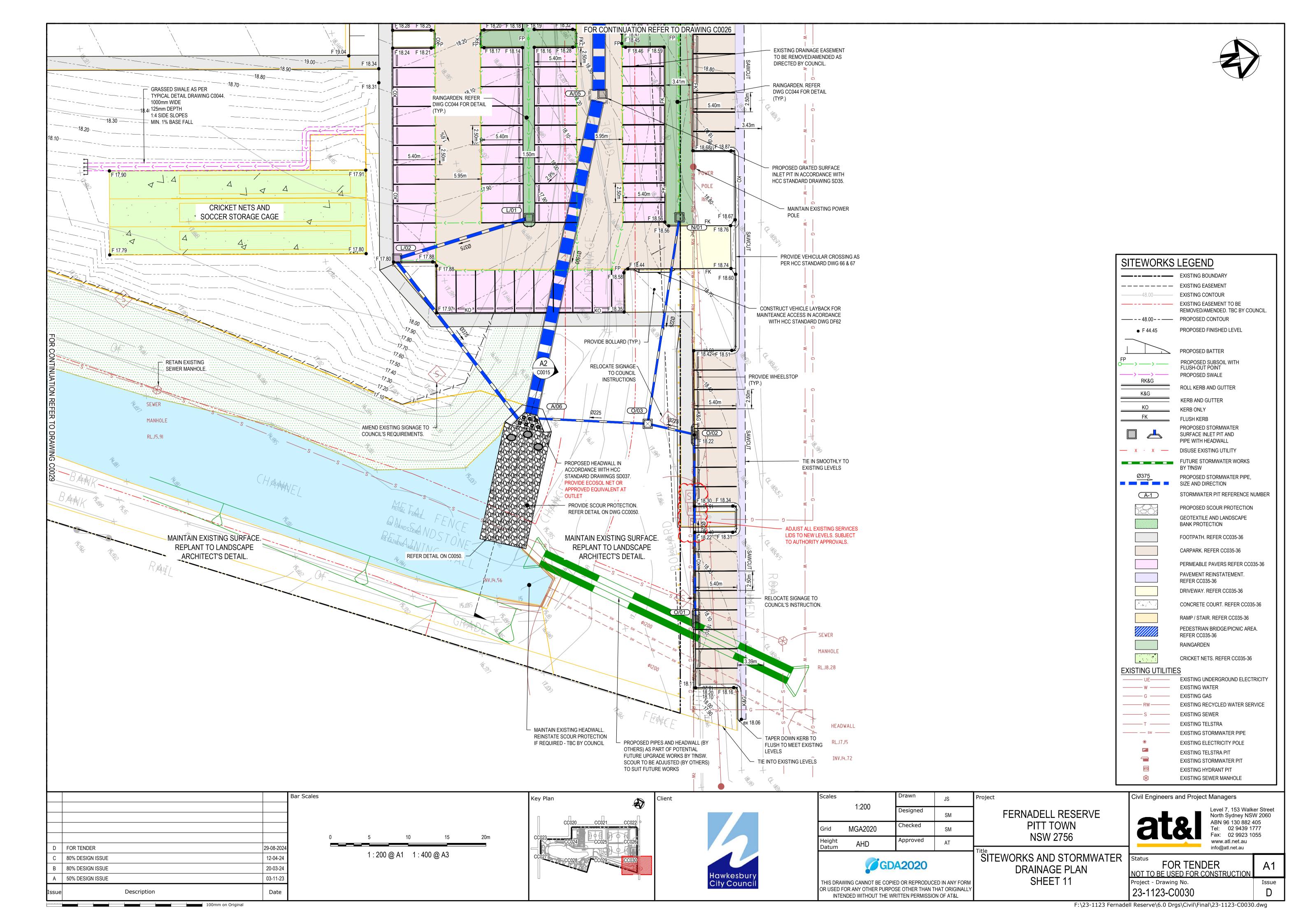


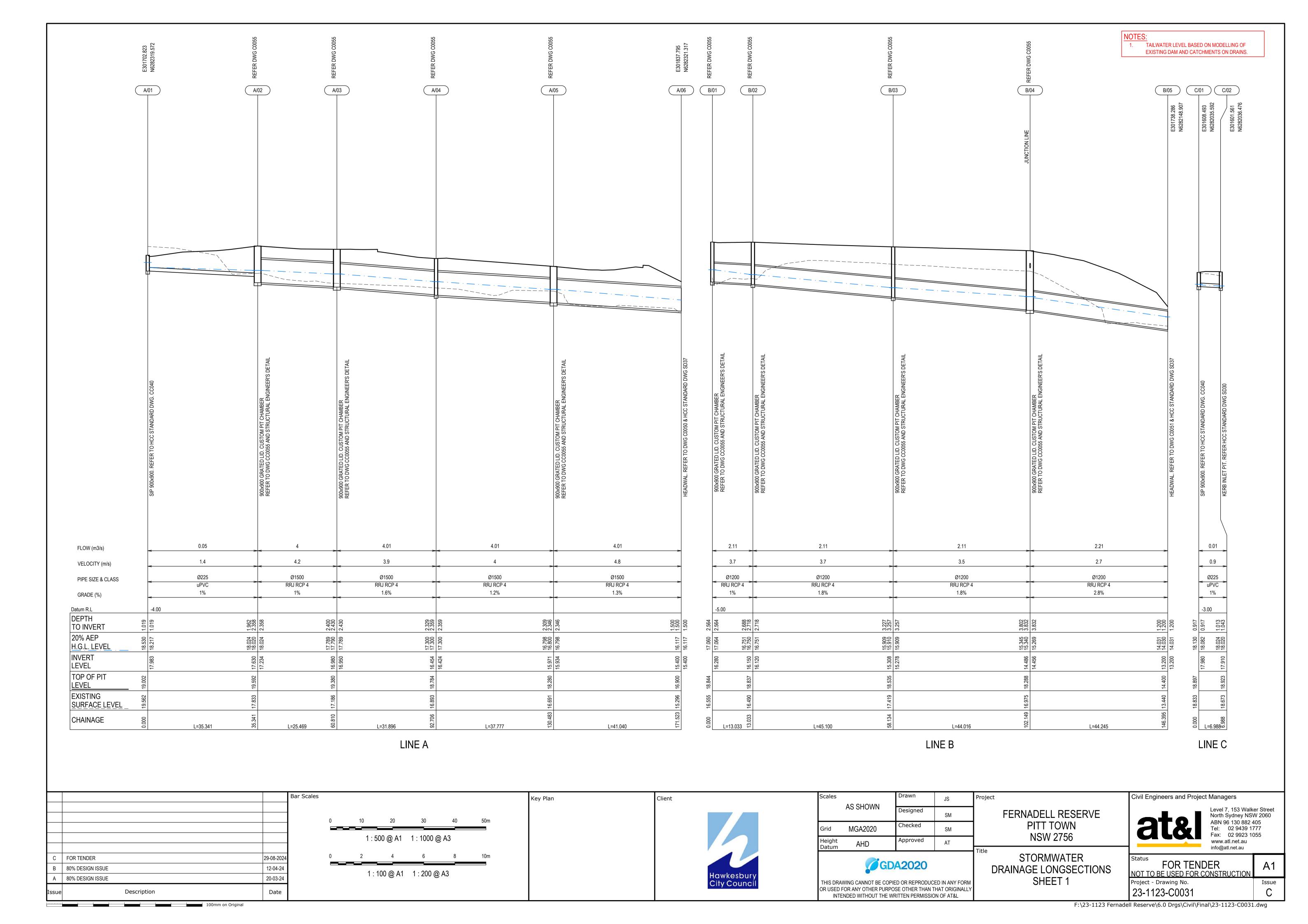


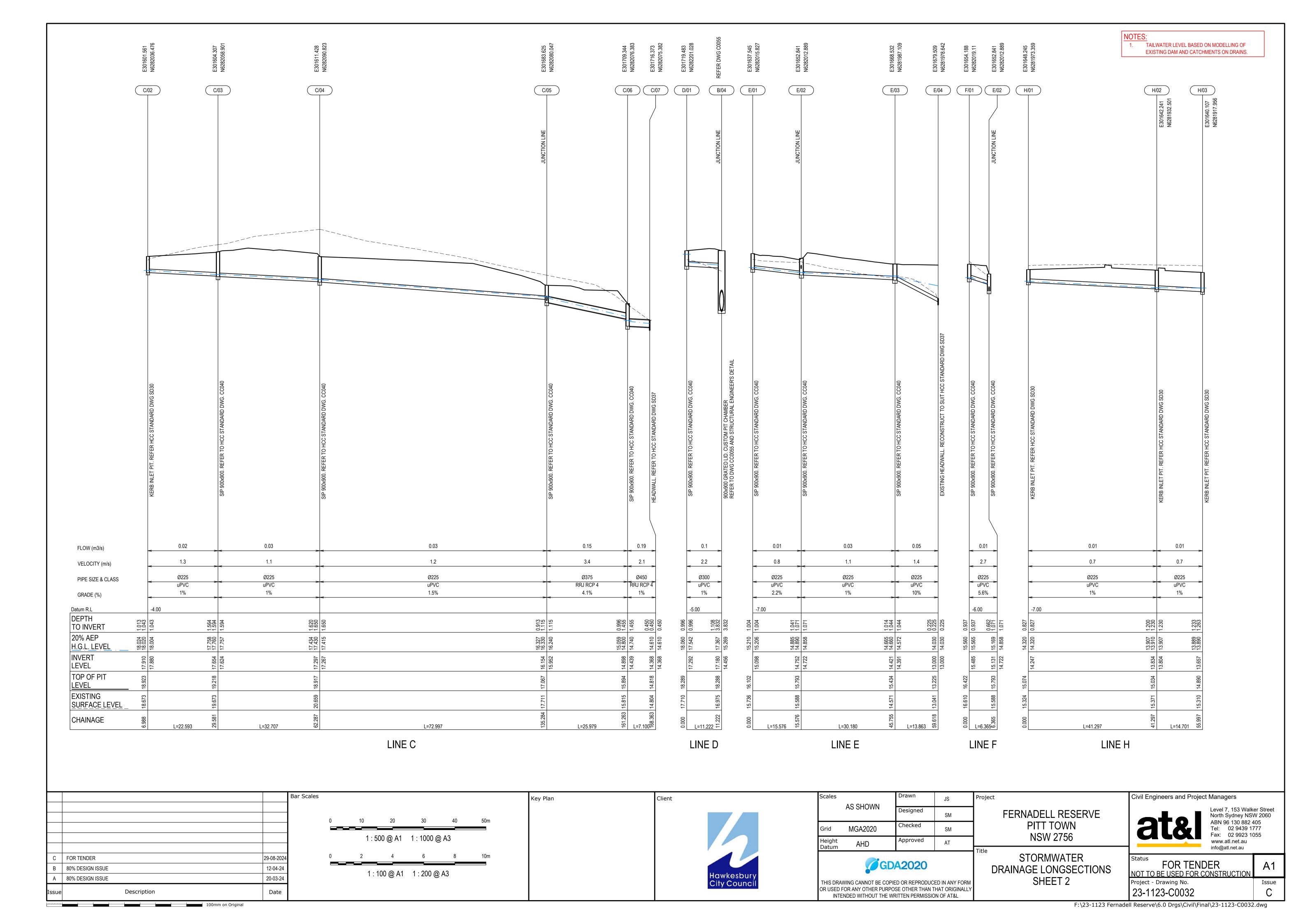


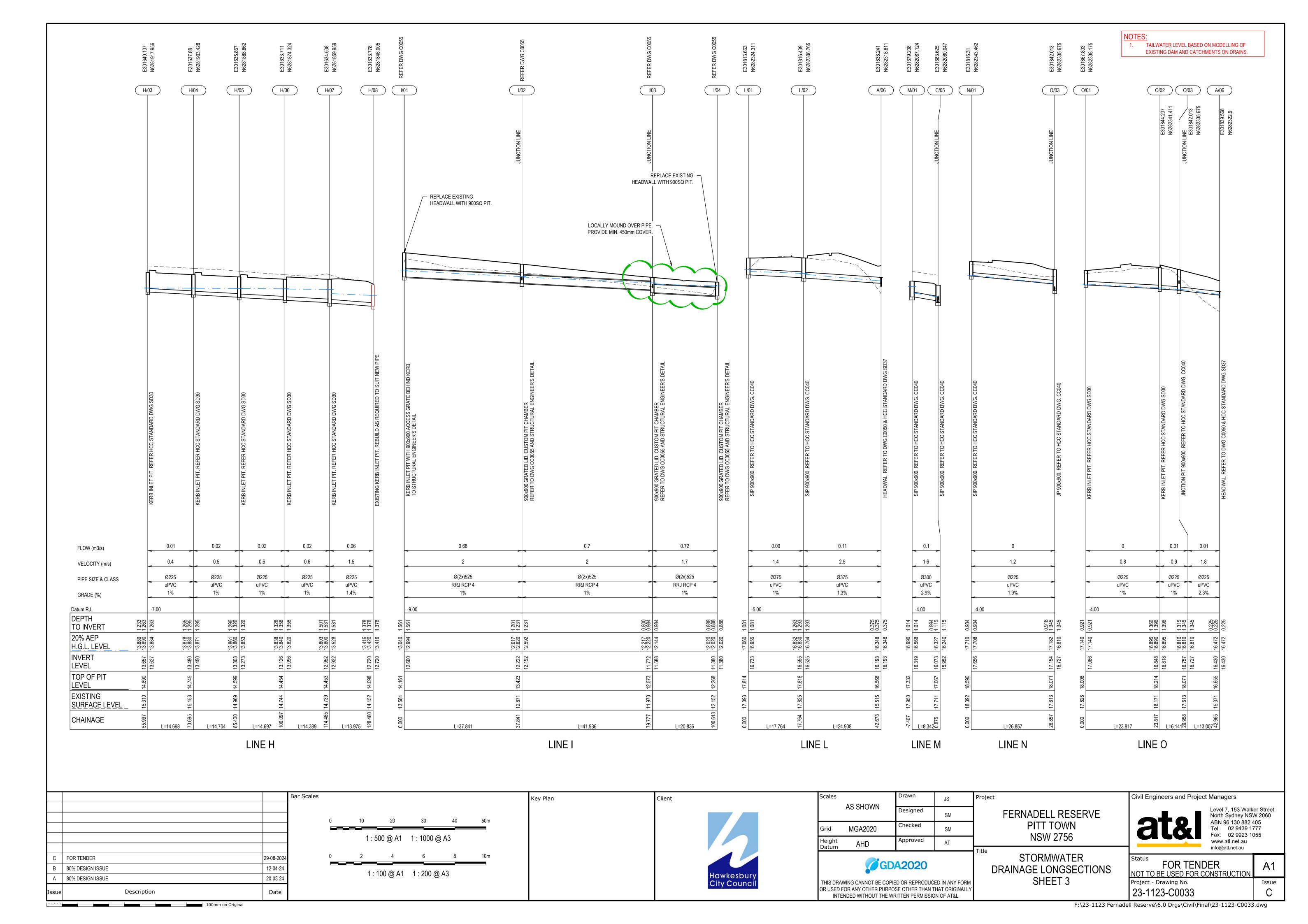


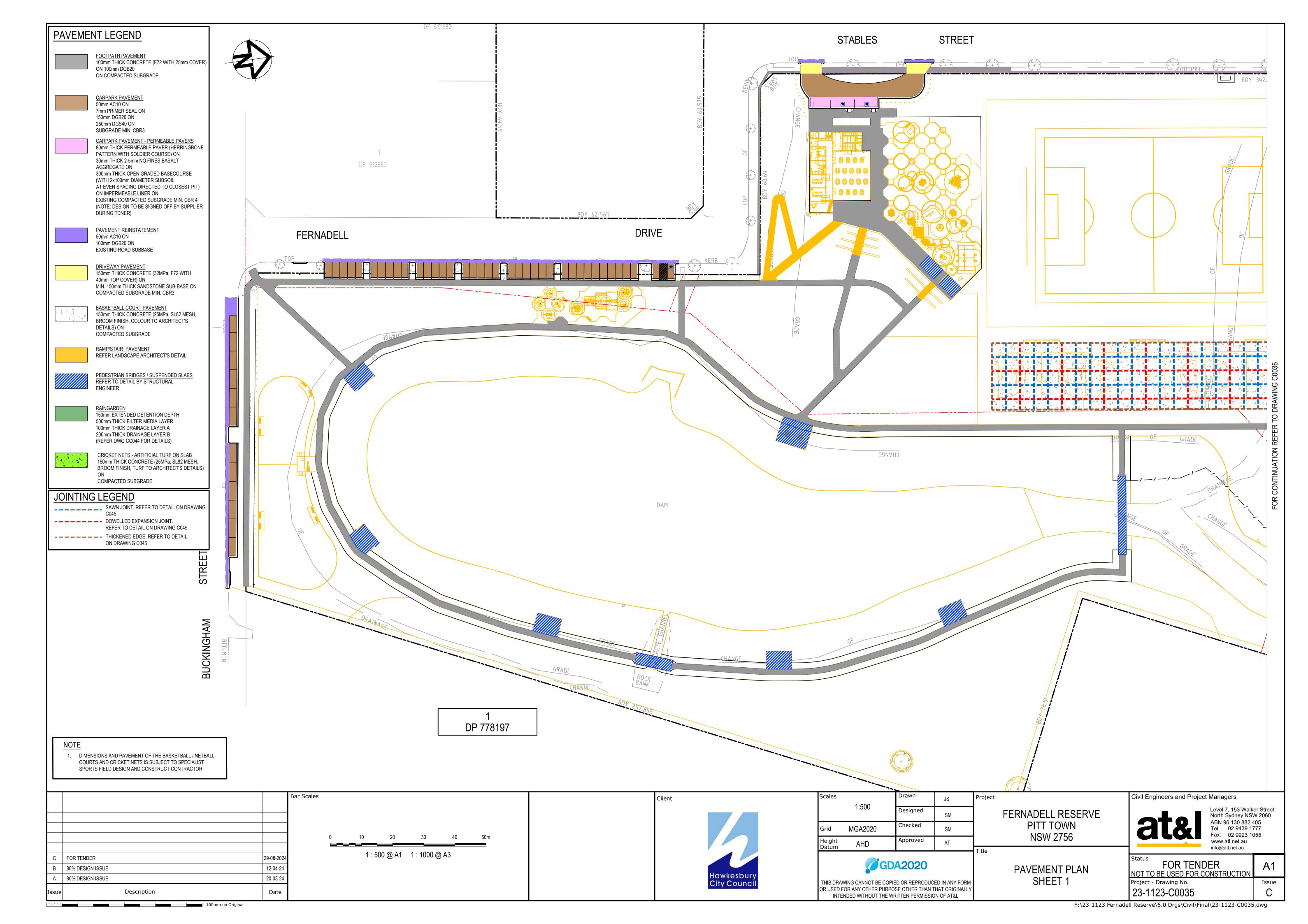


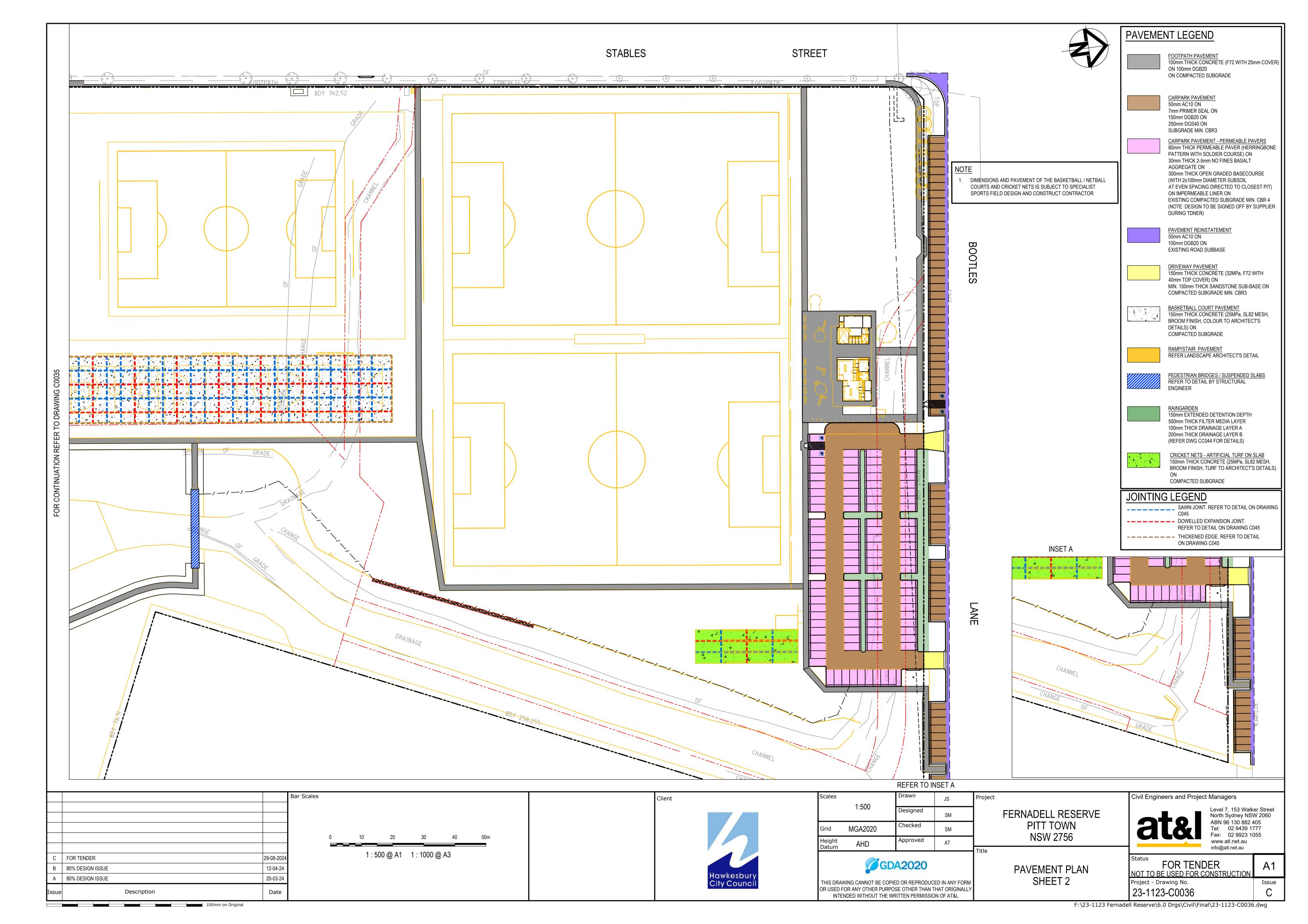


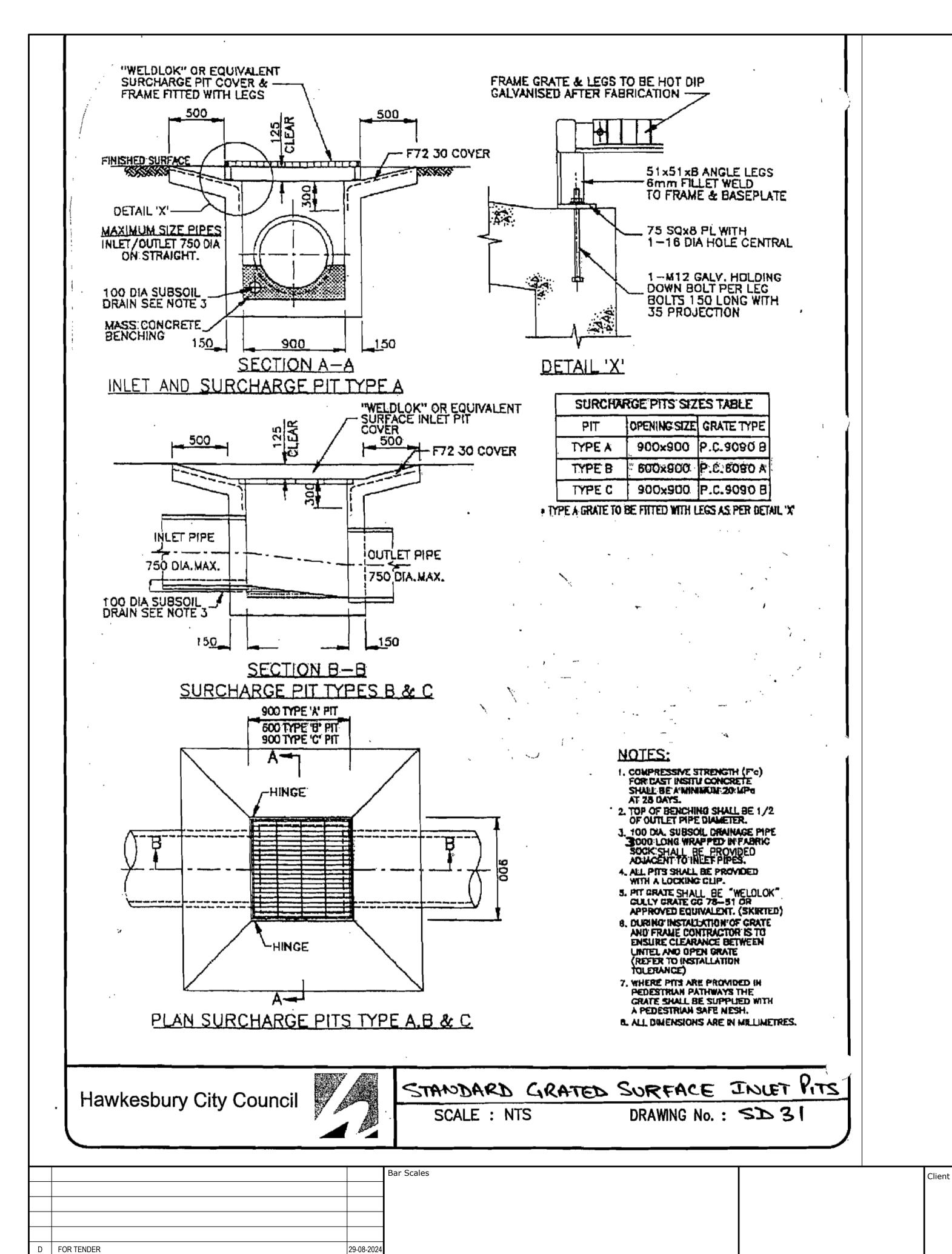












12-04-24

20-03-24

03-11-23

Date

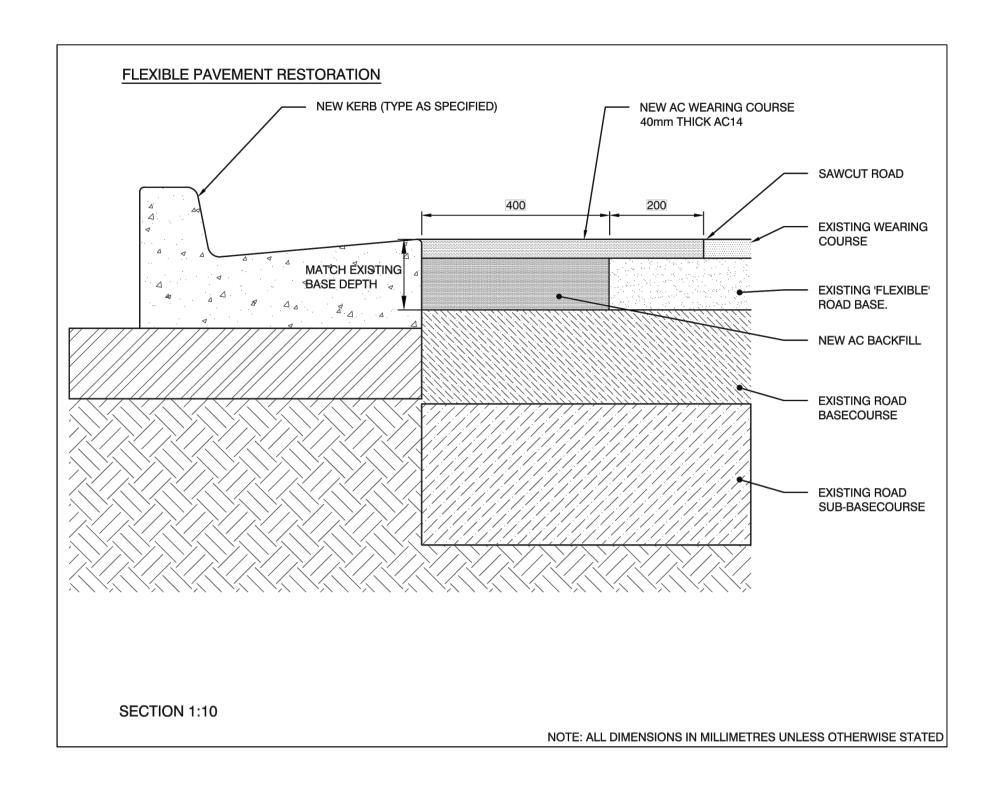
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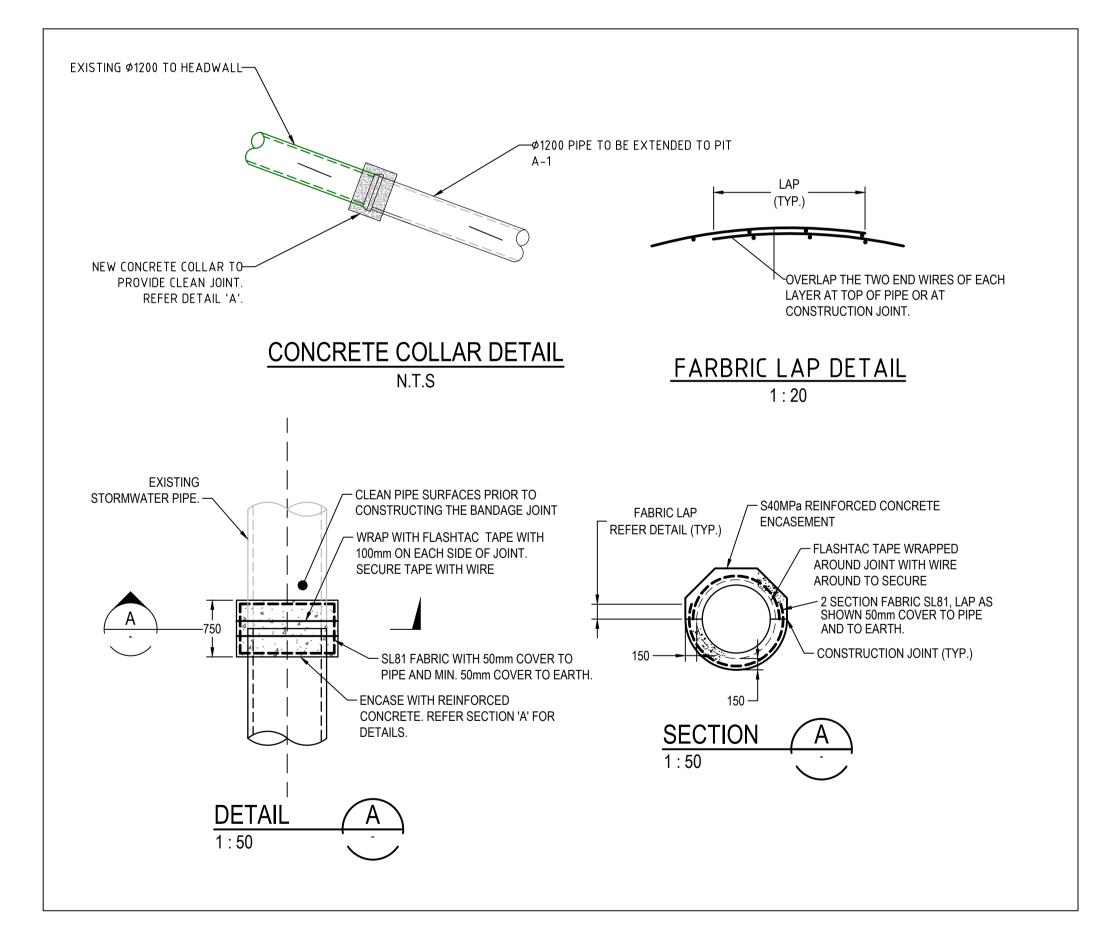
80% DESIGN ISSUE

50% DESIGN ISSUE

Description

100mm on Original







Scales	A C CLIOVA/NI	Drawn	JS	Project
	AS SHOWN	Designed	SM	
Grid	MGA2020	Checked	SM	
Height	AHD	Approved	AT	
Datum				Titlo

**GDA2020** 

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PITT TOWN NSW 2756

FERNADELL RESERVE

TYPICAL DETAILS

SHEET 1

Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au FOR TENDER

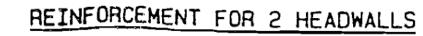
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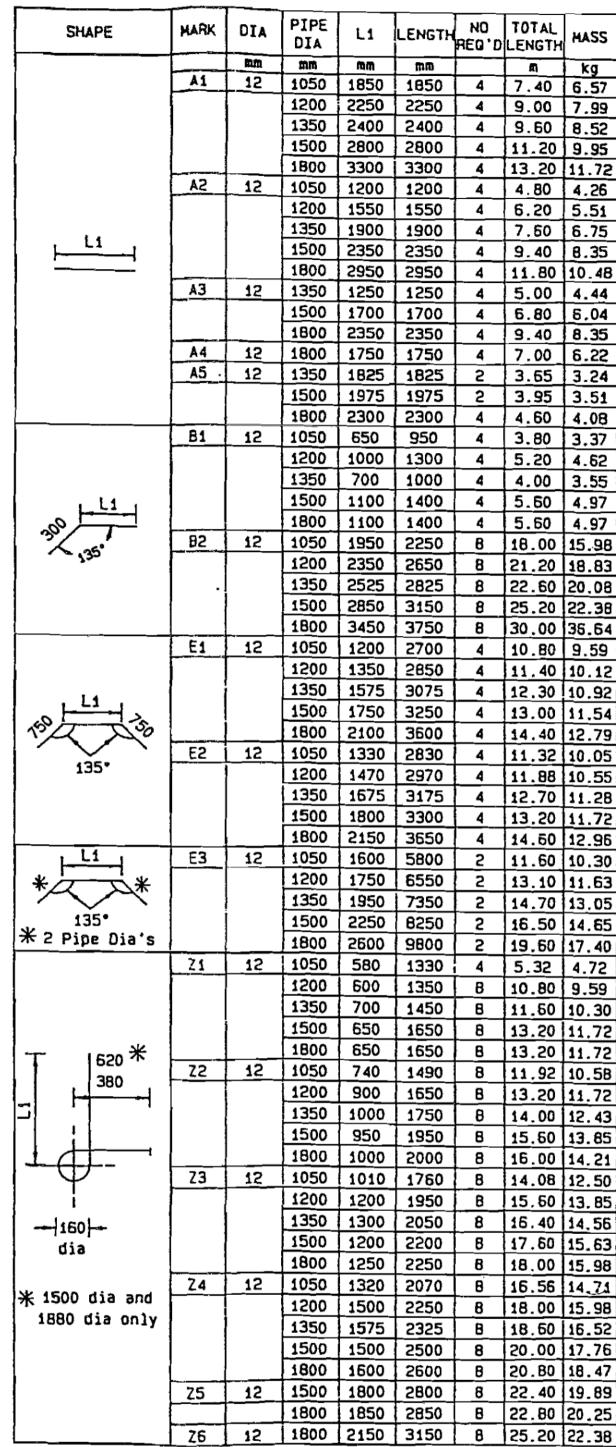
Issue

North Sydney NSW 2060 ABN 96 130 882 405

Civil Engineers and Project Managers

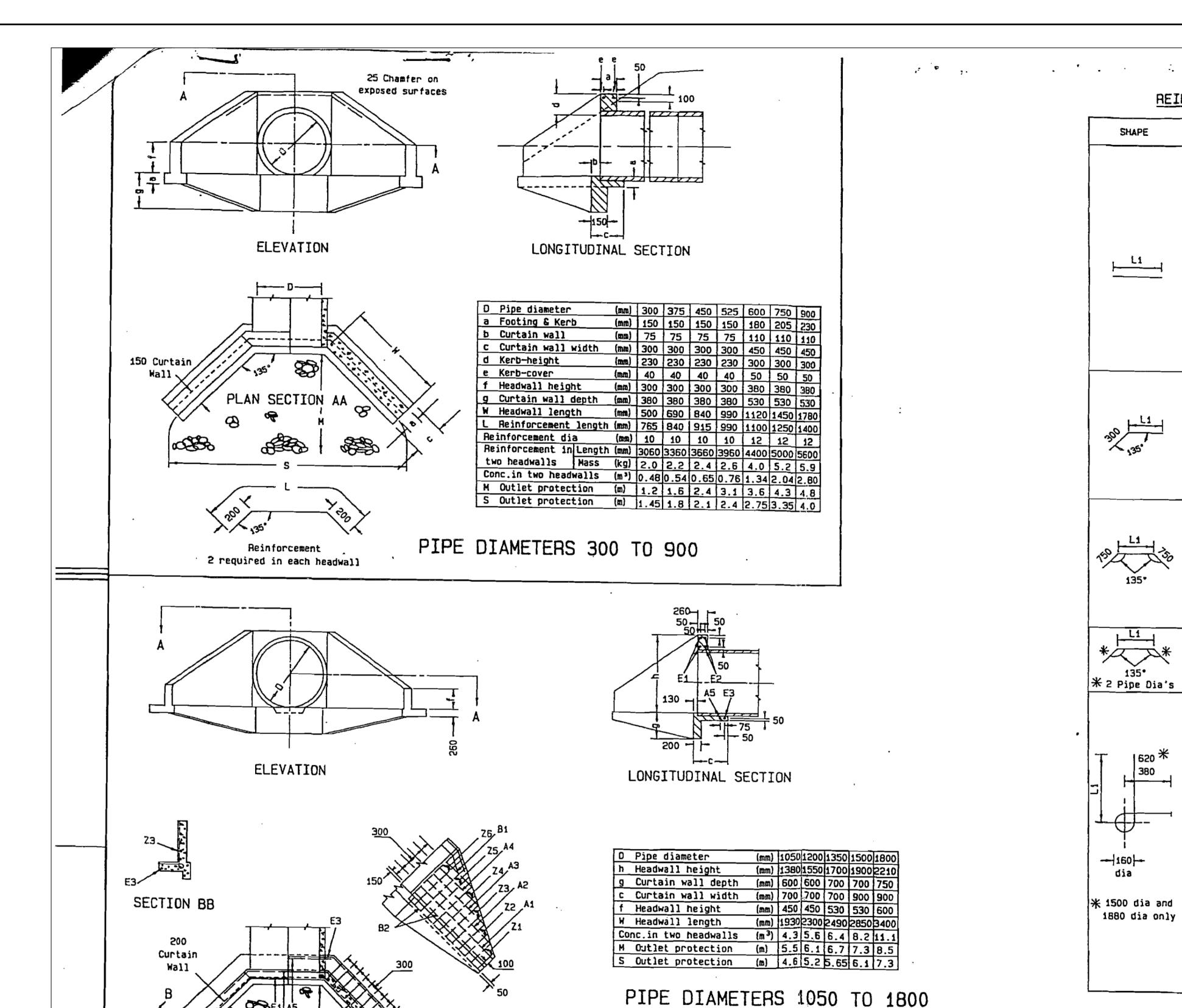
NOT TO BE USED FOR CONSTRUCTION Project - Drawing No. 23-1123-C0040





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	Z6	12	1800	1850 2150	3150	8	22.80	20.25

HAWKESBURY CITY COUNCIL SD37 SHEET 10F3 CONCRETE HEADWALLS FOR SINGLE PIPE CULVERTS



D	FOR TENDER	29-08-2024
С	80% DESIGN ISSUE	12-04-24
В	80% DESIGN ISSUE	20-03-24
Α	50% DESIGN ISSUE	03-11-23
Issue	Description	Date



Clear cover to outer face of reinforcement

50mm unless otherwise shown

All dimensions are in millimetres

Concrete Grade 20MPa

Scales		Drawn	JS	Proj
	AS SHOWN	Designed	SM	
Grid	MGA2020	Checked	SM	
Height	AHD	Approved	AT	

**GDA2020** 

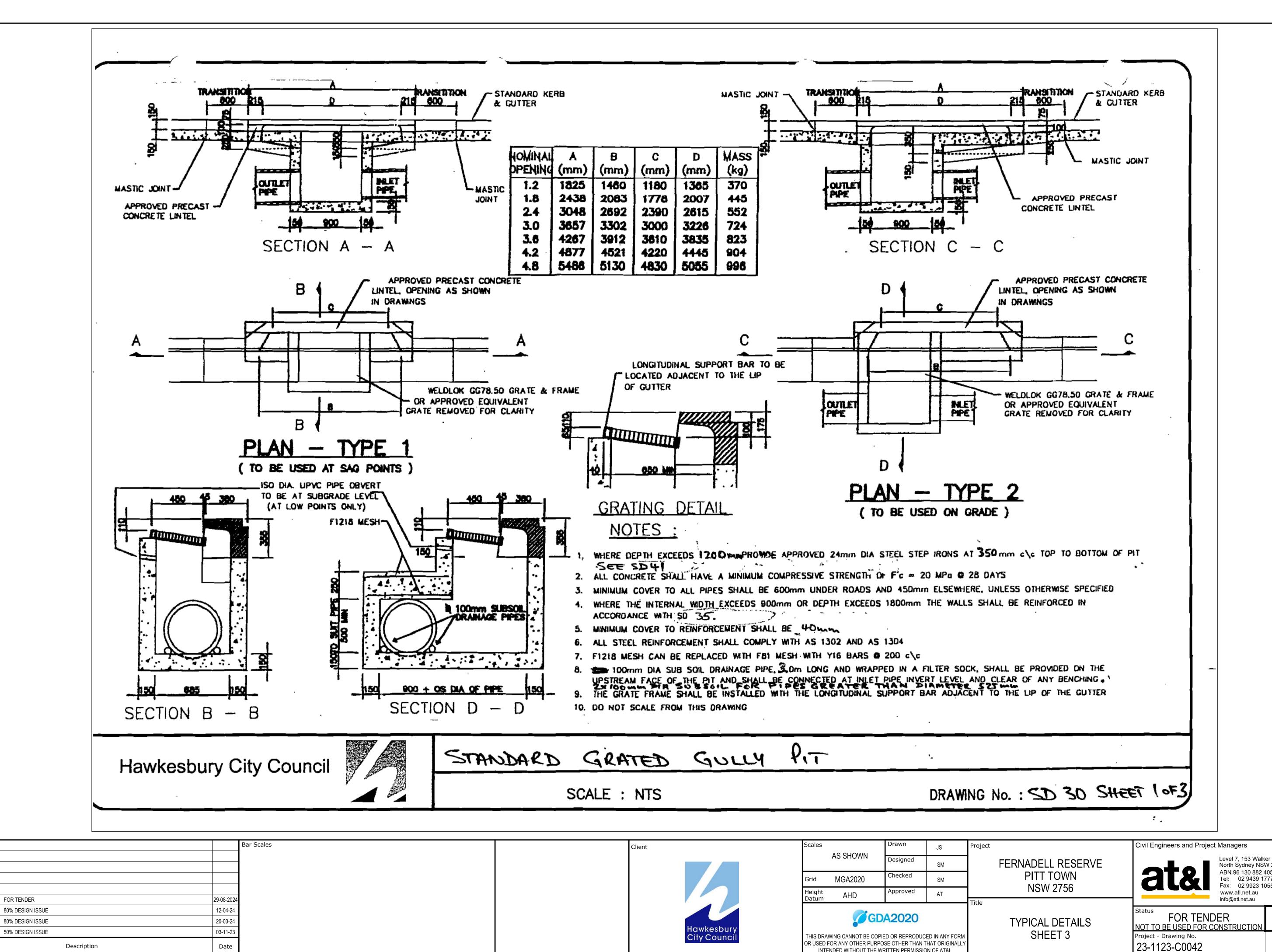
OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY

FERNADELL RESERVE PITT TOWN NSW 2756

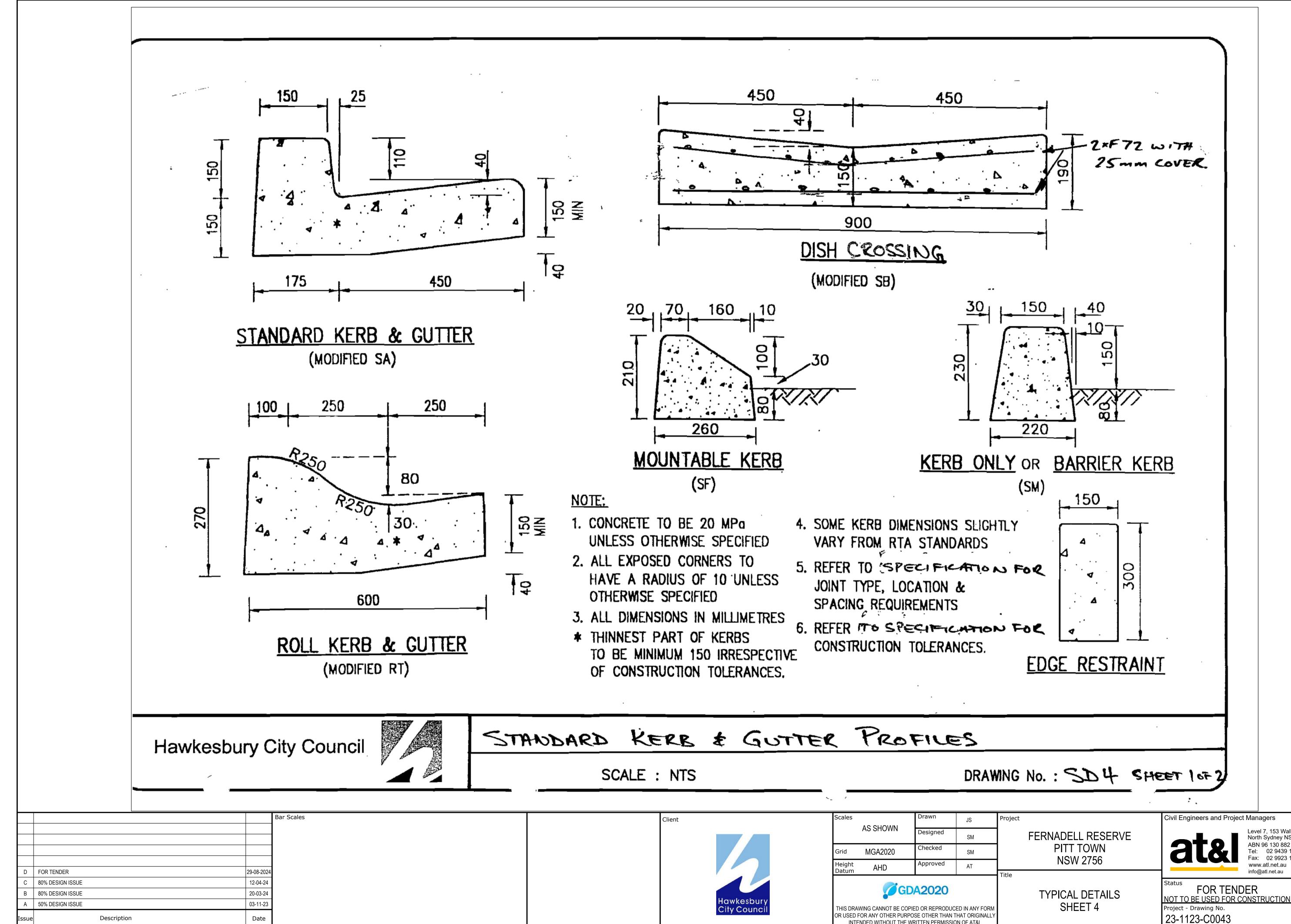
TYPICAL DETAILS

FOR TENDER NOT TO BE USED FOR CONSTRUCTION Project - Drawing No.

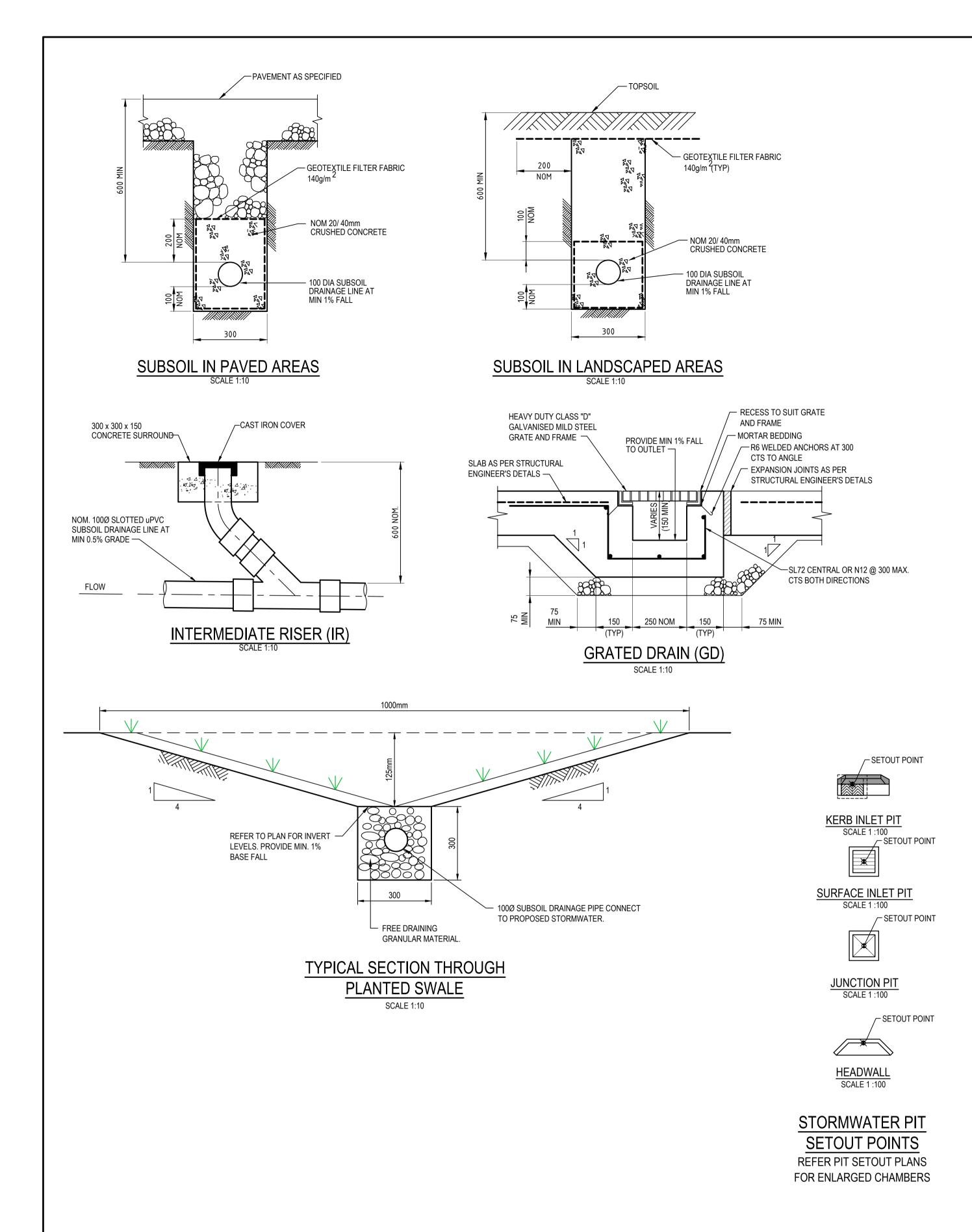
Civil Engineers and Project Managers

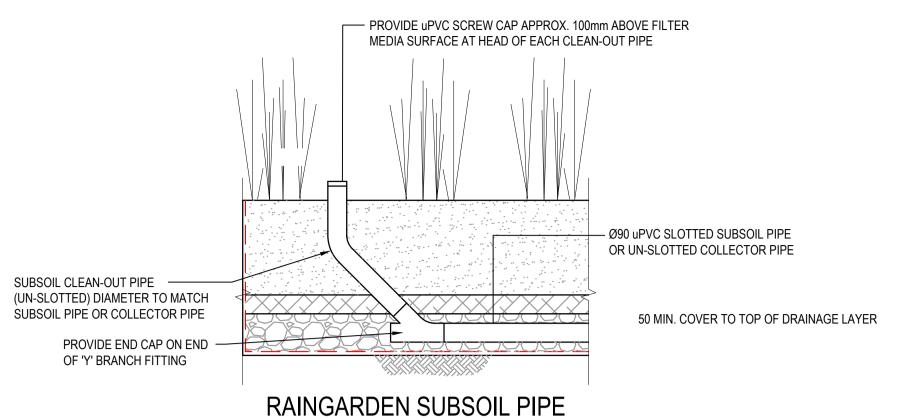


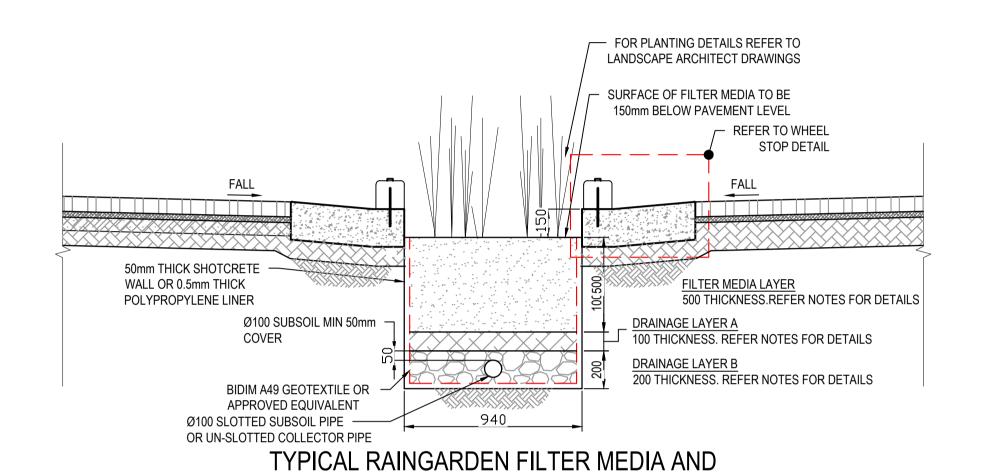
F:\23-1123 Fernadell Reserve\6.0 Drgs\Civil\Final\23-1123-C0042.dwg



F:\23-1123 Fernadell Reserve\6.0 Drgs\Civil\Final\23-1123-C0043.dwg

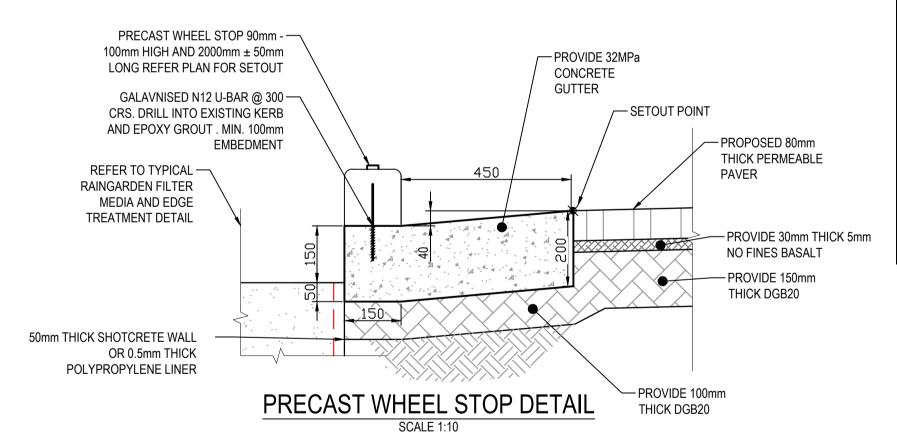






**EDGE TREATMENT DETAIL** 

FLUSH-OUT DETAIL



#### **BIO-RETENTION FILTER MEDIA SPECIFICATION**

#### **MATERIALS:**

BIO-RETENTION FILTER MEDIA, TRANSITION LAYER AND DRAINAGE LAYERS TO BE IN ACCORDANCE WITH CURRENT VERSION OF FAWB DOCUMENT "STORMWATER BIO-FILTRATION SYSTEMS ADOPTION GUIDELINES" AND THE FOLLOWING.:

#### A) BIO-RETENTION FILTER MEDIA

1. BIO-RETENTION MEDIA IS TO BE FREE OF RUBBISH AND DELETERIOUS MATERIAL. 2. BIO-RETENTION FILTER MEDIA SATURATED HYDRAULIC CONDUCTIVITY TO BE 100mm/hr - 250mm/hr USING TEST METHOD ASTM F1815-06.

3. BIO-RETENTION FILTER MEDIA PARTICLE SIZE DISTRIBUTION IS TO BE AS FOLLOWS:

CLAY & SILT	<3%	(<0.05mm)
VERY FINE SAND	5-30%	(0.05-0.15mm
FINE SAND	10-30%	(0.15-0.25mm
MEDIUM TO COARSE SAND	40-60%	(0.25-1.0mm)
COARSE SAND	7-10%	(1.0-2.0mm)
FIN GRAVEL	<3%	(2.0-3.4mm)

THE COMBINED PERCENTAGE OF CLAY AND SILT MUST NOT EXCEED 3% (W/W) UNDER ANY CIRCUMSTANCES.

#### 4. BIO-RETENTION FILTER MEDIA IS TO BE TESTED AND COMPLY WITH THE FOLLOWING

REQUIREMENTS: a) ORGANIC MATTER CONTENT IN ACCORDANCE WITH AS 4419 MUST NOT EXCEED

5%(W/W) b) TOTAL NITROGEN (TN) CONTENT <1000mg/kg

c) ORTHOPHOSPHATE (PO43) CONTENT MUST NOT EXCEED 80mg/kg. d) AS SPECIFIED FOR "NATURAL SOILS AND SOIL BLENDS" AS4419 - pH 5.5-7.5 (pH 1.5 IN WATER)

e) ELECTRICAL CONDUCTIVITY (EC) AS SPECIFIED FOR "NATURAL SOILS AND SOILS BLENDS" AS4419 <1.2ds/m

f) DISPENSABILITY - AS SPECIFIED FOR 'NATURAL SOILS AND SOIL BLENDS'

#### CATEGORY 1 OR 2

a) TEXTURE - SANDY LOAM MIX AS PER AS4419 (IN ACCORDANCE WITH FAWB GUIDELINES)

#### 5. PRIOR TO PLACEMENT OF THE FILTER MEDIA A STATEMENT IS TO BE SUBMITTED FROM A QUALIFIED HORTICULTURIST CONFIRMING THAT THE SOIL IS CAPABLE OF SUPPORTING A HEALTHY VEGETABLE COMMUNITY.

6. TESTS CONFIRMING THE REQUIREMENTS OF ITEMS 1 TO 4 ARE TO BE SUBMITTED FOR APPROVAL PRIOR TO PLACEMENT OF FILTER MEDIA.

#### B) DRAINAGE LAYER A

DRAINAGE LAYER MATERIAL IS TO BE CLEAN, FINE GRAVEL, SUCH AS A 2 - 5mm WASHED SCREENING. THE PARTICLE SIZE DISTRIBUTION TO BE: D15 (DRAINAGE LAYER) < 5 x D85 (TRANSITION LAYER)

WHERE: D15 (DRAINAGE LAYER) IS THE 15TH PERCENTILE PARTICLE SIZE IN THE TRANSITION LAYER MATERIAL (i.e, 15% OF THE SAND IS SMALLER THAN D15 mm), AND D85 (TRANSITION LAYER) IS THE 85th PERCENTILE PARTICLE SIZE IN THE FILTER MEDIA.

#### C) DRAINAGE LAYER B

#### NO FINES DRAINAGE GRAVEL.

ACCEPTABLE PARTICLE DISTRIBUTION AS FOLLOWS:

0% 4-7mm >70%

2-4mm <20% <2mm

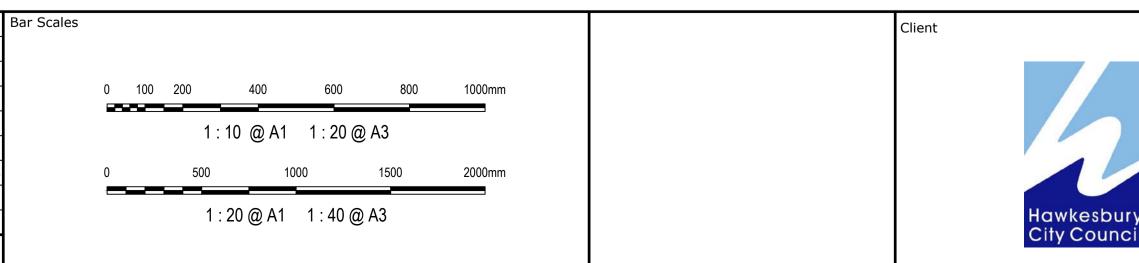
#### SEDIMENTATION LAYER

FUTURE WATER QUALITY BASINS ARE TO BE USED AS SEDIMENTATION BASINS UNTIL THE MAJORITY OF THE DEVELOPMENT IS COMPLETE. BASINS ARE TO BE OVER EXCAVATED BY 100mm AND (50mm) OF TOPSOIL WON FROM SITE LAID, TURFED WITH COUCH. AT THE COMPLETION OF THE DEVELOPMENT OR WHEN DIRECTED BY THE SUPERINTENDENT, ANY SIGNIFICANT (>50mm) BUILD-UP OF SEDIMENTATION TO BE REMOVED AND FINAL SUBSOIL FILTER MATERIAL INSTALLED. TURF & TOPSOIL CAN REMAIN INSITU. SEDIMENTATION BUILD-UP REMOVAL IS TO BE REMOVED FROM SITE OR REUSED ON SITE DURING THE CONTRACT

#### **INSTALLATION:**

FILTER MATERIAL IS TO BE LIGHTLY COMPACTED EG. A SINGLE PASS WITH A DRUM LAWN ROLLER. UNDER NO CIRCUMSTANCES SHOULD HEAVY EQUIPMENT OR MULTIPLE PASSES BE MADE. FILTER MEDIA SHOULD BE INSTALLED IN TWO LIFTS UNLESS THE DEPTH IS LESS THAN

ALL MATERIALS IS TO BE PER FAWB GUIDELINES.



Project JS AS SHOWN Designed SM Checked SM MGA2020 Approved ΑT AHD Datum

**GDA2020** 

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TYPICAL DETAILS SHEET 5

FERNADELL RESERVE

PITT TOWN

NSW 2756

Civil Engineers and Project Managers Level 7, 153 Walker Street

North Sydney NSW 2060

www.atl.net.au info@atl.net.au FOR TENDER NOT TO BE USED FOR CONSTRUCTION Project - Drawing No. Issue

ABN 96 130 882 405

Tel: 02 9439 1777

Fax: 02 9923 1055

29-08-2024

12-04-24

20-03-24

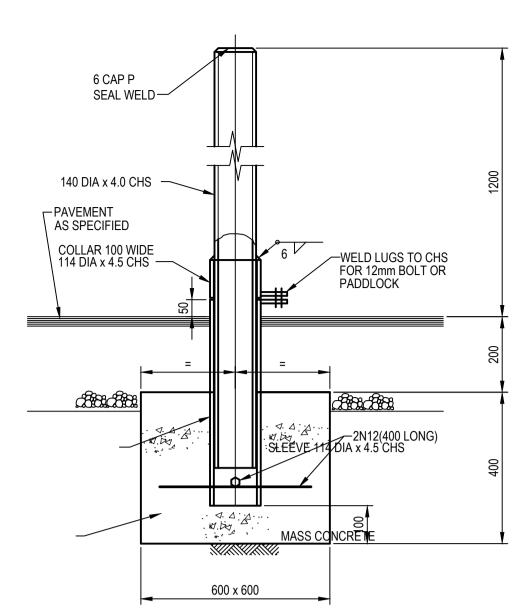
Date

FOR TENDER

80% DESIGN ISSUE

80% DESIGN ISSUE

Description



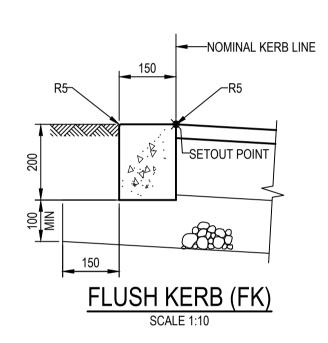
#### BOLLARD TO FLEXIBLE PAVEMENT (B)

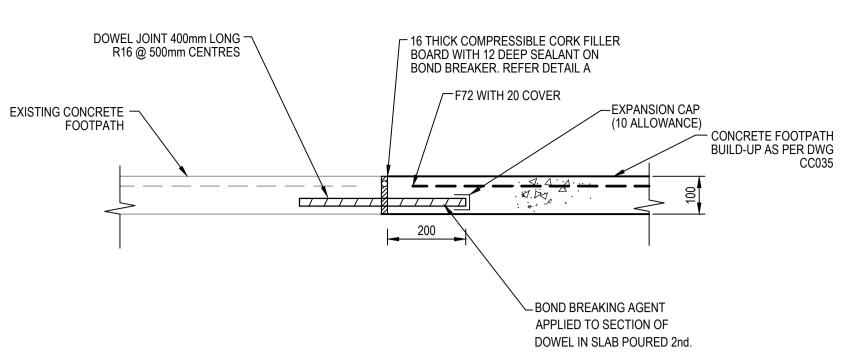
- SUBSOIL FLUSHING POINT COVER, GATIC TYPE 714 (OR APPROVED EQUIVALENT) IN CONCRETE SURROUND

- 300 X 300 X 150

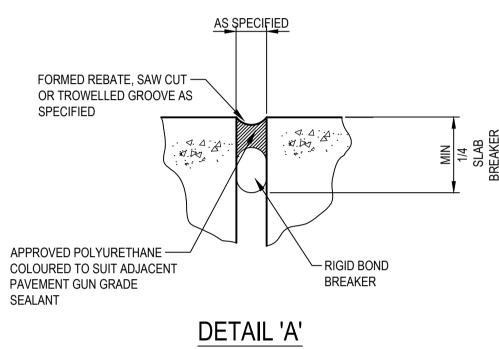
CONCRETE SUROUND

SCALE 1:10 FINISH: HOT DIP GALVANISED

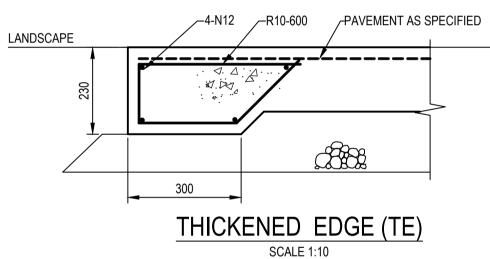


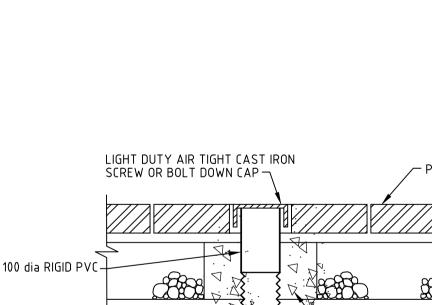


### FOOTPATH WIDENING FERNADELL DR AND STABLES ST DOWELLED EXPANSION JOINT (DEJ)



NTS





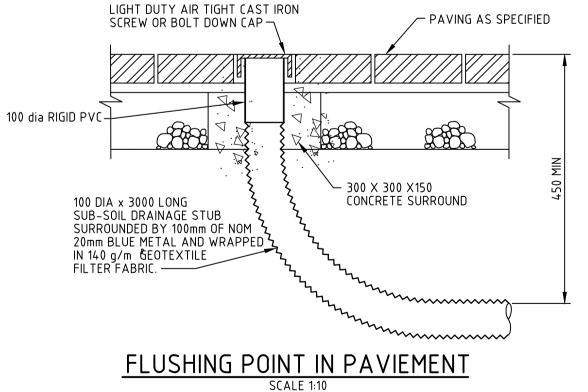
## FLUSHING POINT IN LANDSCAPING NOTE: SLOTTED RIGID PVC PIPE AND FITTINGS MAY BE USED

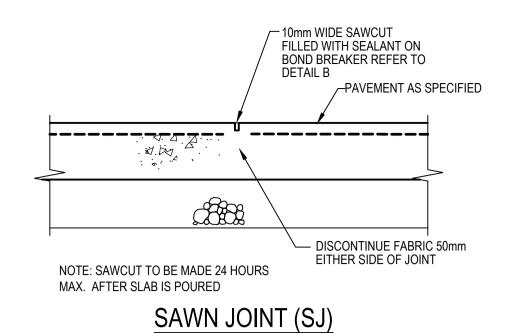
100 DIA x 3000 LONG
SUB-SOIL DRAINAGE STUB
SURROUNDED BY 100mm OF NOM

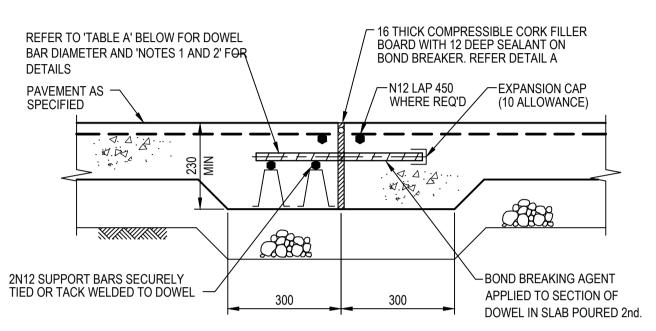
20mm BLUE METAL AND WRAPPED

IN 140 g/m GEOTEXTILE FILTER FABRIC.





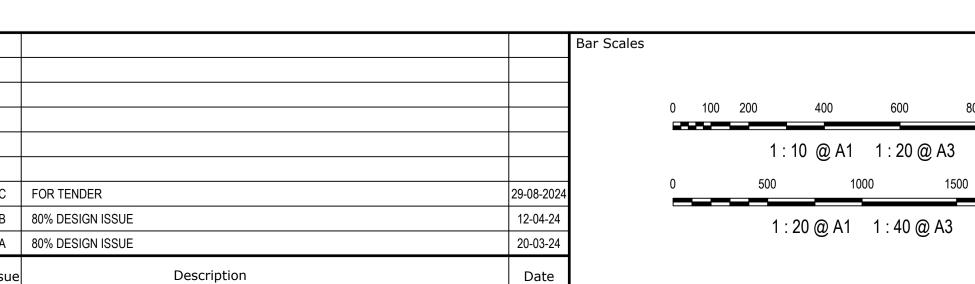




## DOWELLED EXPANSION JOINT (DEJ) SCALE 1:10

TABLE	A
SLAB THICKNESS	DOWEL DIA.
125 <d≤160< td=""><td>24</td></d≤160<>	24
160 <d≤200< td=""><td>28</td></d≤200<>	28
200 <d≤250< td=""><td>32</td></d≤250<>	32
D>250	36

- 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.





Client

Scales	A C CLIOVA/NI	Drawn	JS	Project
	AS SHOWN	Designed	SM	
Grid	MGA2020	Checked	SM	
Height Datum	AHD	Approved	AT	
Datum				T:HA

OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY

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FERNADELL RESERVE PITT TOWN NSW 2756

> TYPICAL DETAILS SHEET 6

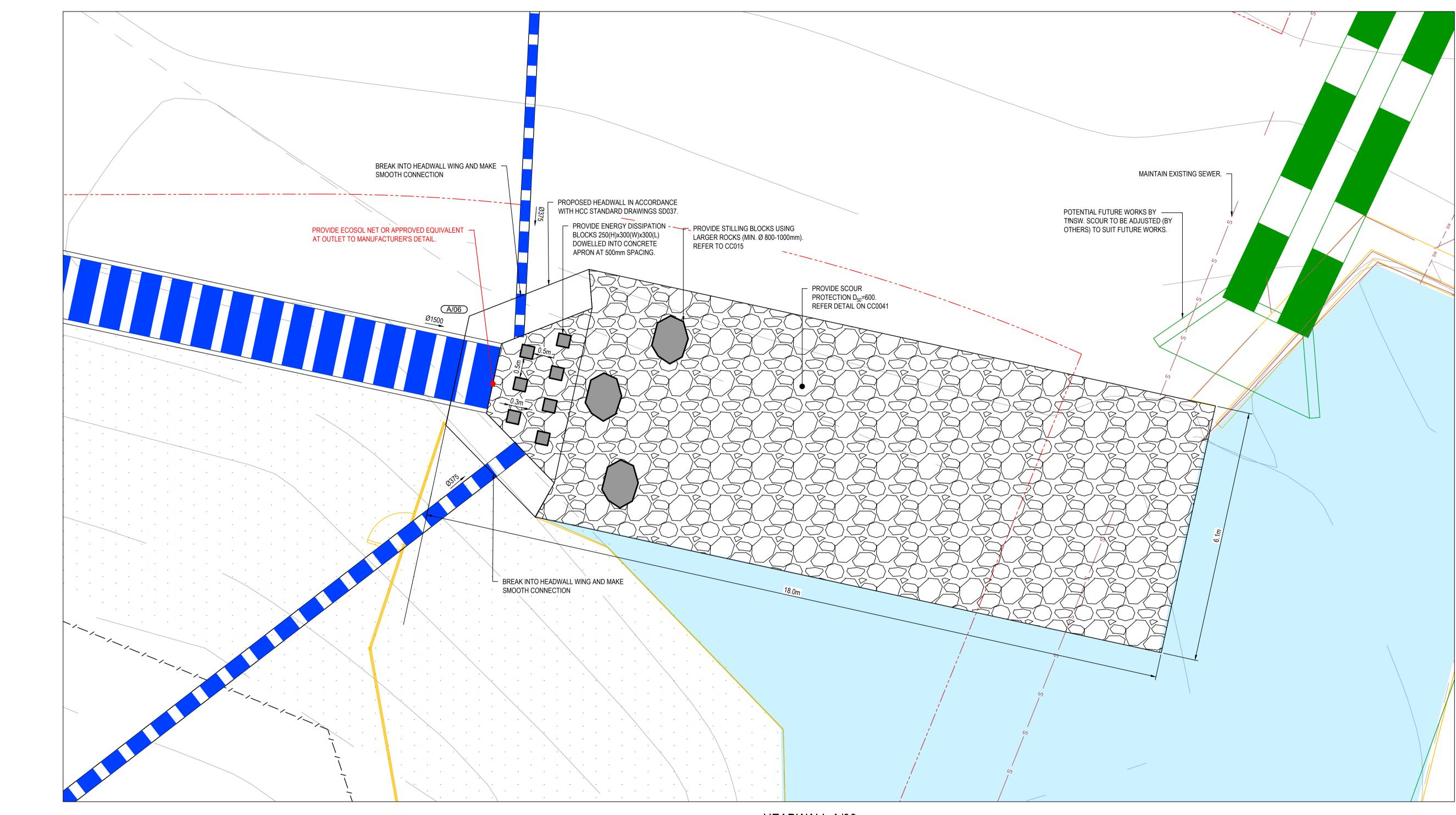


Level 7, 153 Walker Street North Sydney NSW 2060 ABN 96 130 882 405 Tel: 02 9439 1777 Fax: 02 9923 1055 www.atl.net.au info@atl.net.au

Issue

FOR TENDER NOT TO BE USED FOR CONSTRUCTION Project - Drawing No. 23-1123-C0045

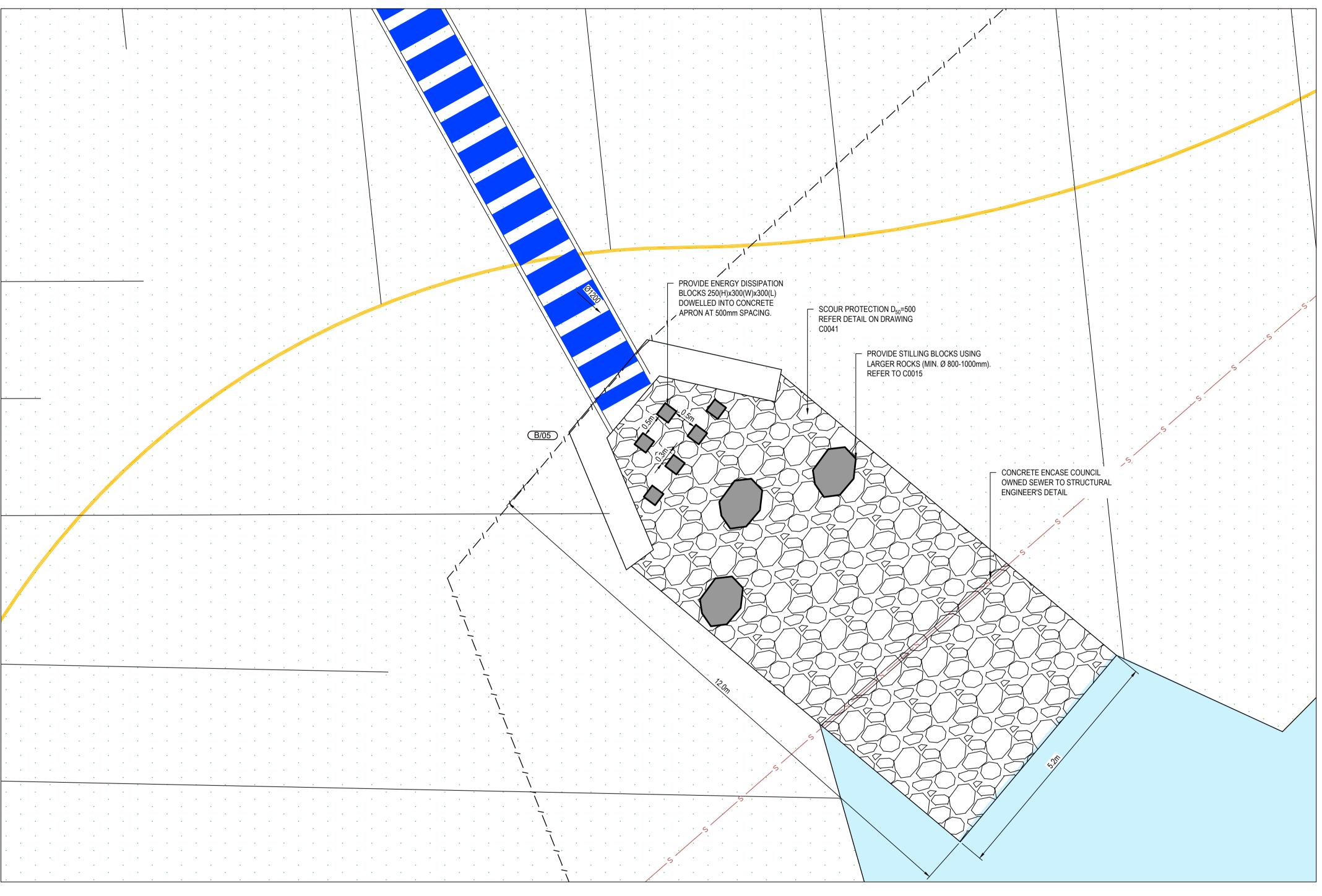




HEADWALL A/06 1 : 50

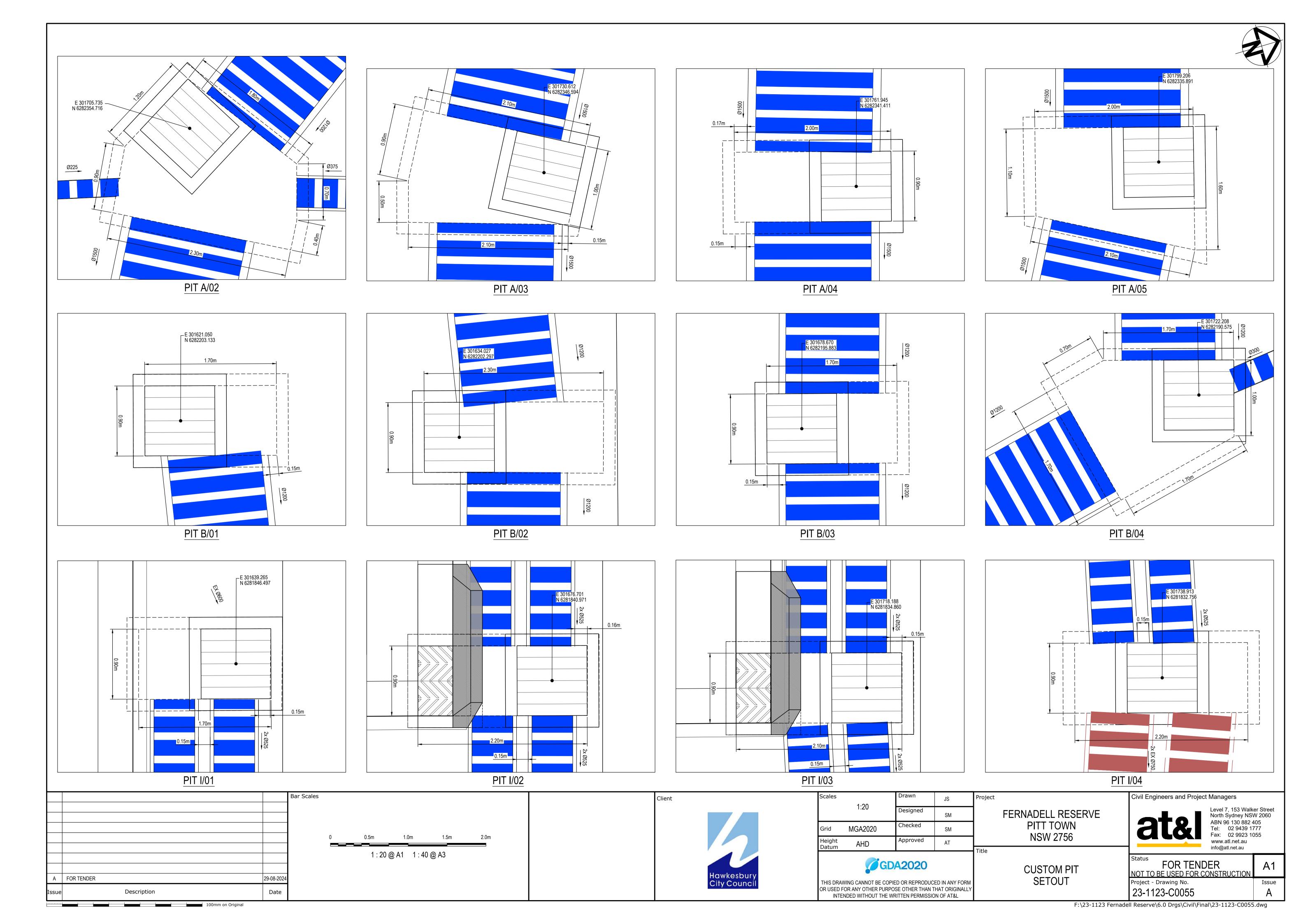
	Bar Scales	Clier	nt	Scales	Drawn	NT	Project	Civil Engineers and Project Managers	
				AS SHOWN	Designed	SM	FERNADELL RESERVE	Level 7, 153 W North Sydney N	/alker Street NSW 2060
		CC020 CC021 CC022		Grid MGA2020	Checked	SM	PITT TOWN	ABN 96 130 88 Tel: 02 9439 Fax: 02 9923	82 405 9 1777 3 1055
	0 1 2 3 4 5m	CC024 CC025 CC026		Height Datum AHD	Approved	AT	NSW 2756	www.atl.net.au info@atl.net.au	ı
C FOR TENDER 29-08-2024	1 : 50 @ A1 1 : 100 @ A3	CC027 CC028 CC029 CC030		Pi on	40000		Title	Status FOD TEMPED	
B 80% DESIGN ISSUE 12-04-24				GD	A2020		HEADWALL A/06	FOR TENDER NOT TO BE USED FOR CONSTRUCTION	A1
A 80% DESIGN ISSUE 20-03-24			Hawkesbury City Council	THIS DRAWING CANNOT BE COPI	ED OR REPRODUCI	ED IN ANY FORM	DETAIL	Project - Drawing No.	Issue
Issue Description Date			,	OR USED FOR ANY OTHER PURPO INTENDED WITHOUT THE W				23-1123-C0050	С

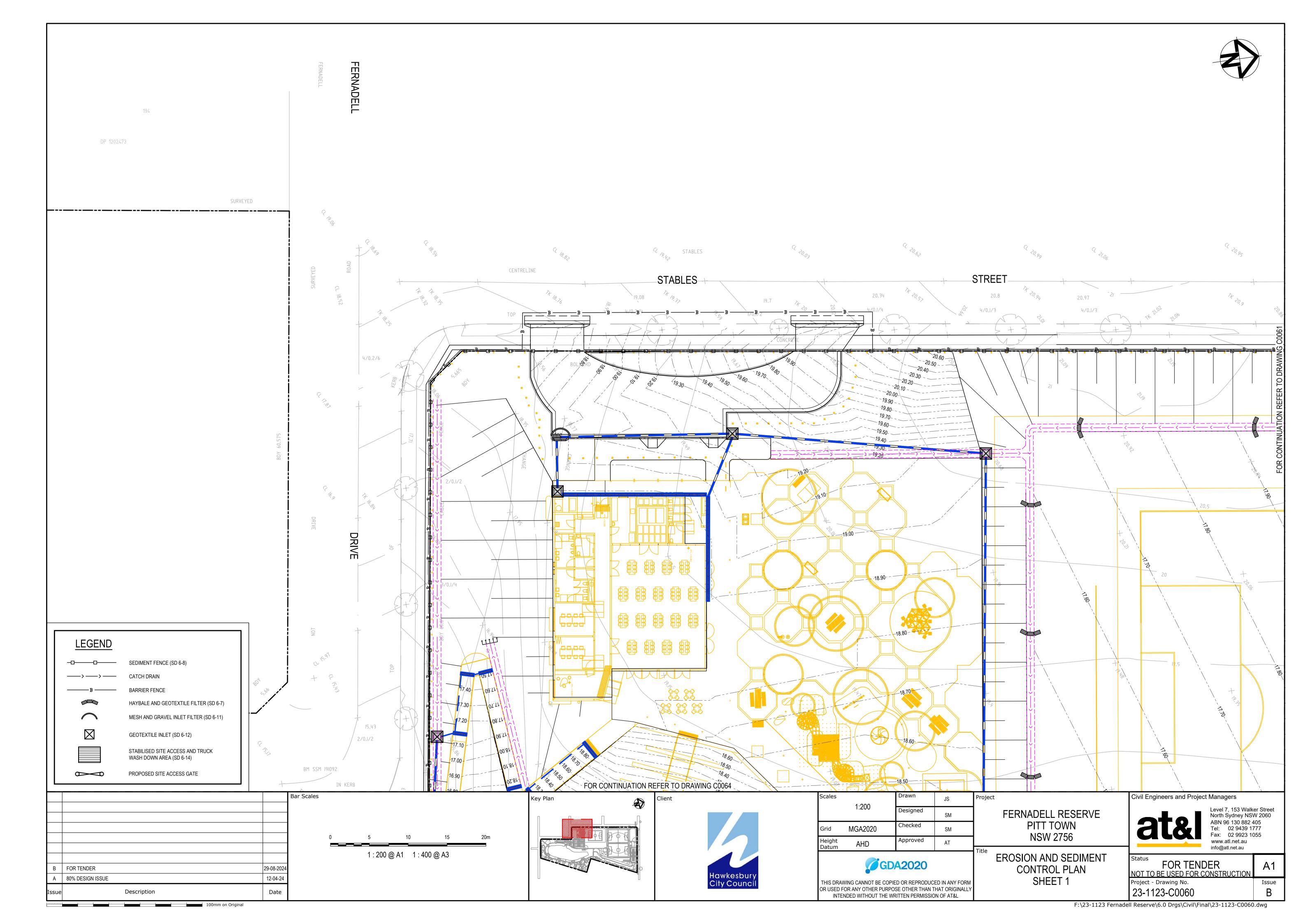


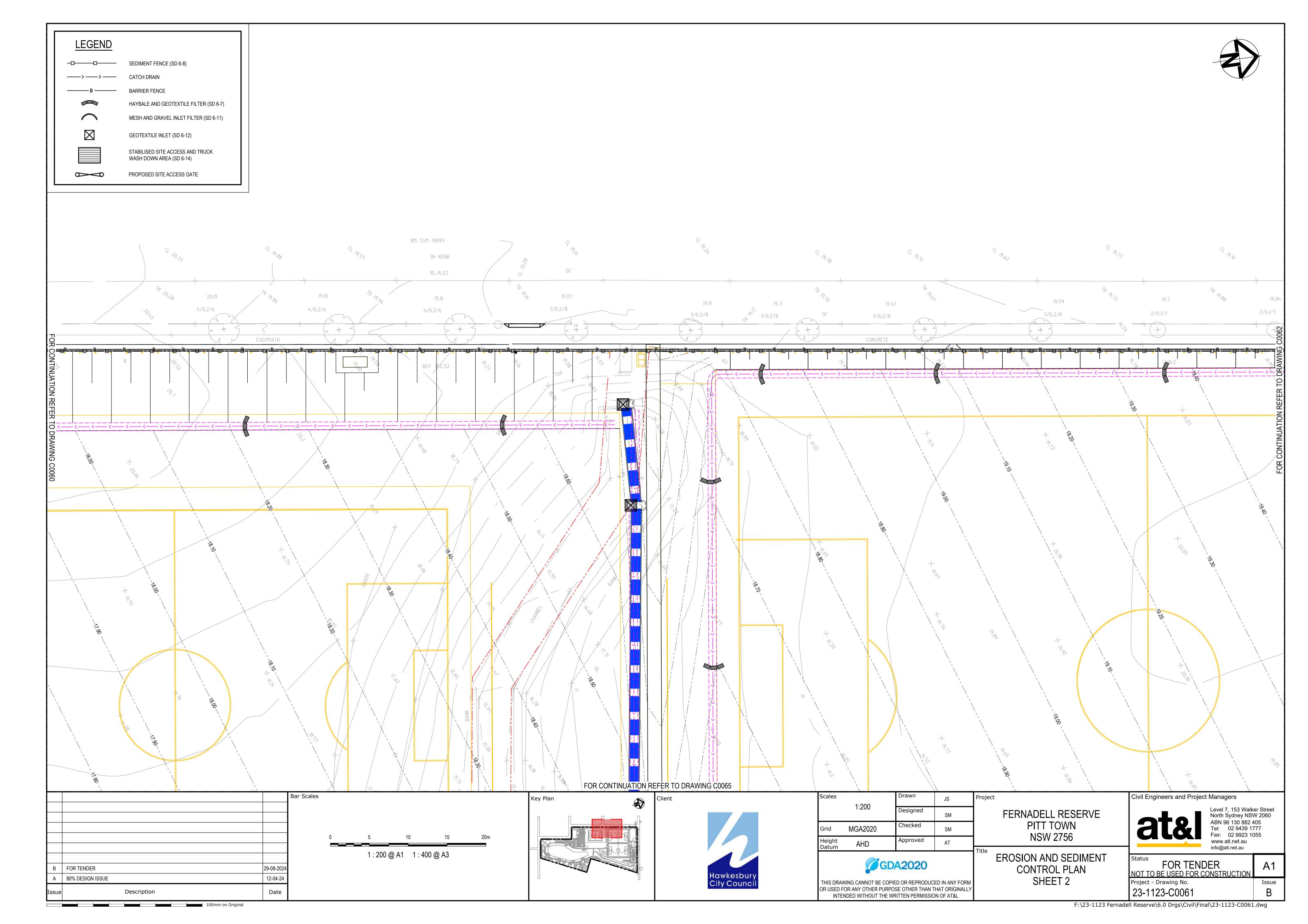


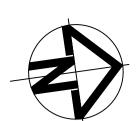
HEADWALL B/05 1 : 50

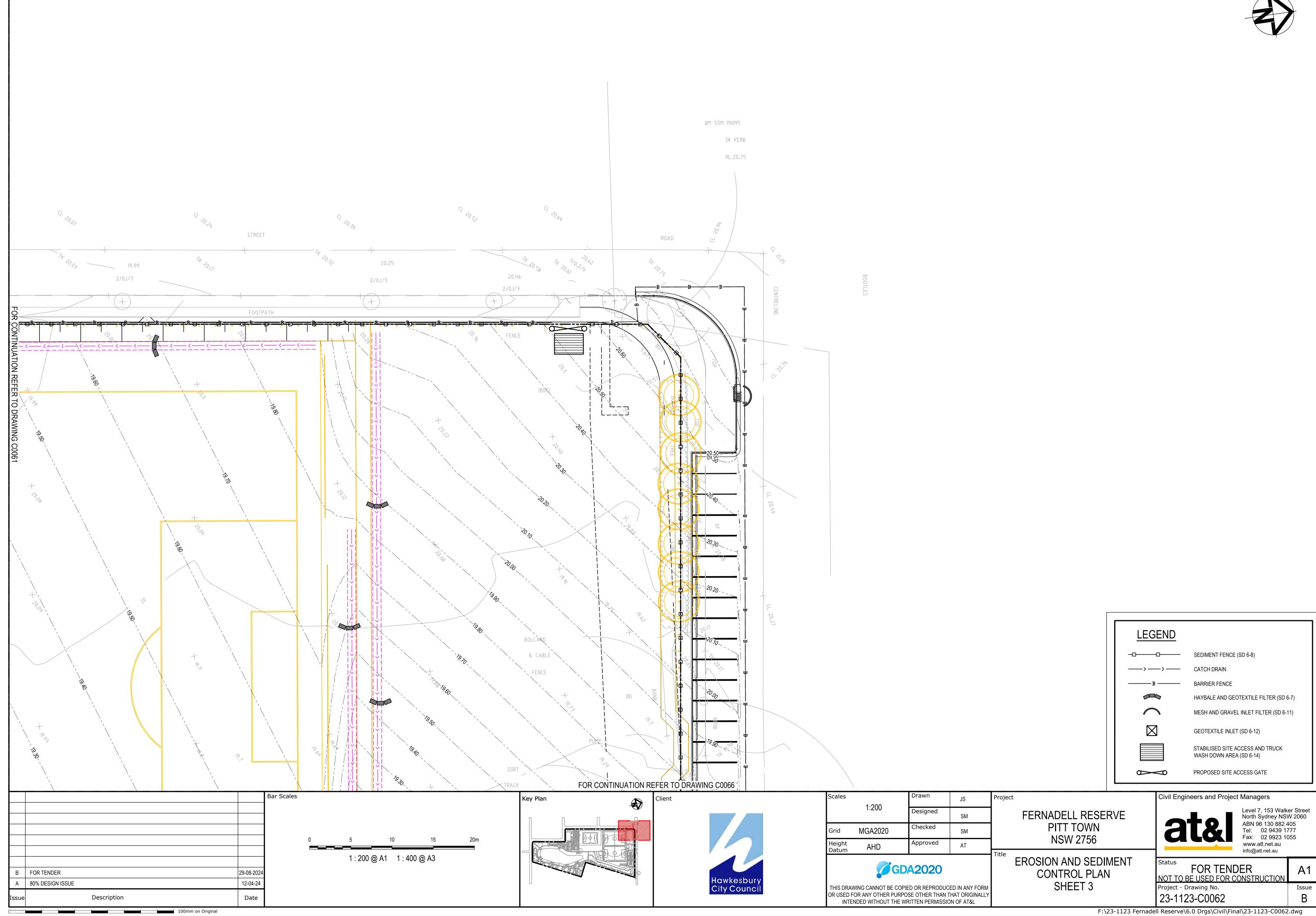
AS SHOWN   Designed   SM   FERNADELL RESERVE   PITT TOWN   NSW 2756		Bar Sca	ales	Clie	nt	Scales	Drawn JS	Project	Civil Engineers and Project Managers	
NSW 2756   Status						AS SHOWN	Designed SM	FERNADELL RESERVE	Level 7, 153 Wa North Sydney N	alker Street ISW 2060
C FOR TENDER B 80% DESIGN ISSUE 12-04-24 A 80% DESIGN ISSUE Description  Description  Description  Description  Description  Description  Description  Description  Description  Description  Description  Description  AHD  Title  Status  FOR TENDER NOT TO BE USED FOR CONSTRUCTION Project - Drawing No. DETAIL  Status  FOR TENDER NOT TO BE USED FOR CONSTRUCTION Project - Drawing No. DETAIL  OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY  OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALY  OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALY  OR USED FOR ANY OTHER PURPOSE OTHE				CC020CC021CC022		Grid MGA2020	Checked SM		ABN 96 130 882 Tel: 02 9439 Fax: 02 9923	2 405 1777 1055
B 80% DESIGN ISSUE  Hawkesbury City Council  HEADWALL B/05  NOT TO BE USED FOR CONSTRUCTION  Froject - Drawing No.  Issue  OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY  Description  OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY  THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY  DETAIL  OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY  THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY  OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY  OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY  OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY  OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY  OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY  OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY  OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY				CC023 CC024 CC025 CC026			Approved AT	NSVV 2756	www.atl.net.au	
A 80% DESIGN ISSUE  THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY  Description  OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY  NOT TO BE USED FOR CONSTRUCTION Project - Drawing No.  Issue  20-03-24  Project - Drawing No.  12-07-24  Project - Drawing No	C FOR TENDER	29-08-2024	1 : 50 @ A1 1 : 100 @ A3	CC027 CC028 CC029 CC030			1.0000	Title	Status FOD TENDED	
A 80% DESIGN ISSUE  City Council  THIS DRAWING CANNOT BE COPIED OR REPRODUCED IN ANY FORM OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY  OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY  OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY  Canada and the state of the	B 80% DESIGN ISSUE	12-04-24				GL	A2020	HEADWALL B/05	FUR LENDER	, A1
OR USED FOR ANY OTHER PURPOSE OTHER THAN THAT ORIGINALLY Description	A 80% DESIGN ISSUE	20-03-24			City Council	THIS DRAWING CANNOT BE COP	ED OR REPRODUCED IN ANY F			
	Issue Description	Date				OR USED FOR ANY OTHER PURPO	OSE OTHER THAN THAT ORIGIN			С

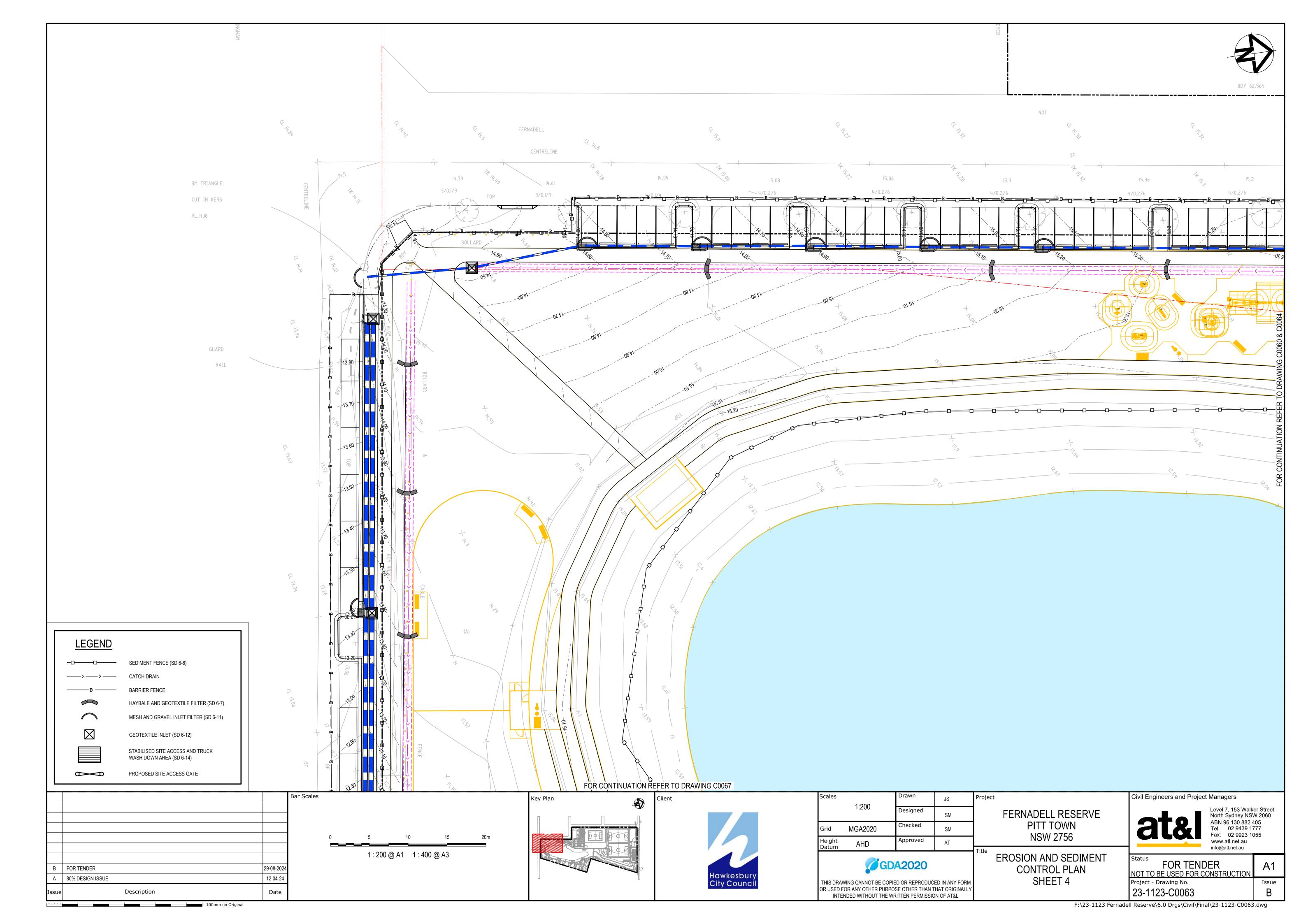


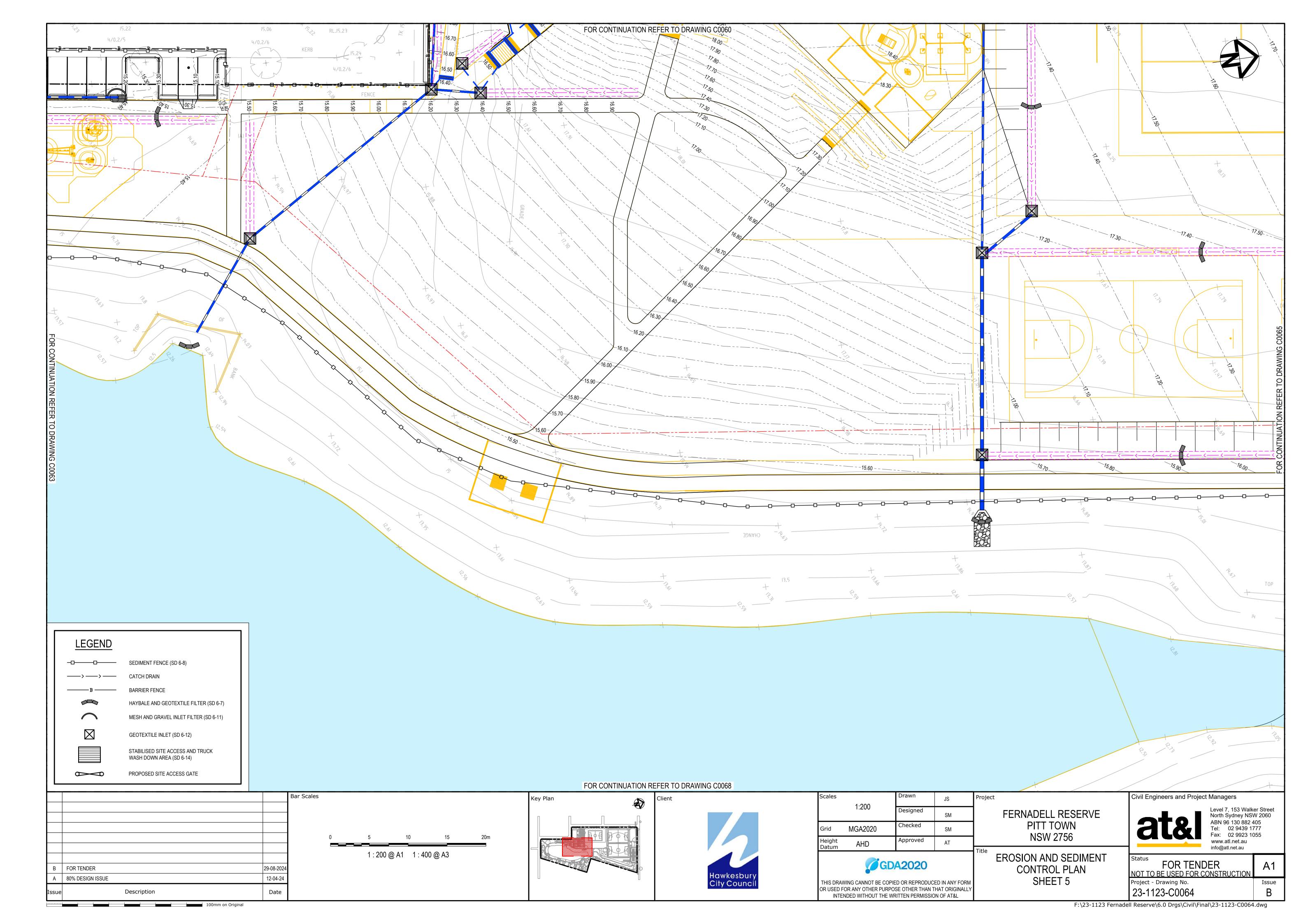


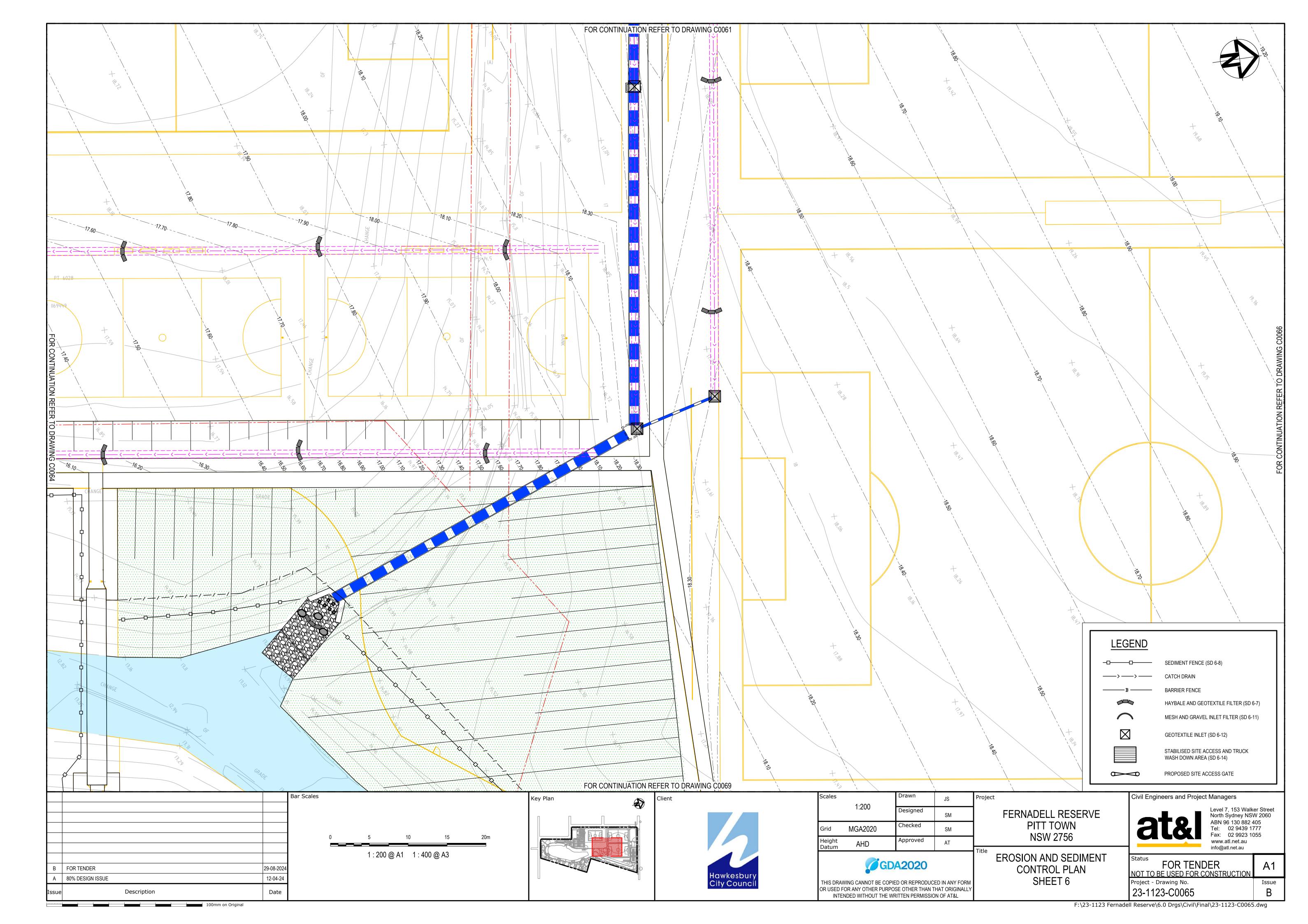


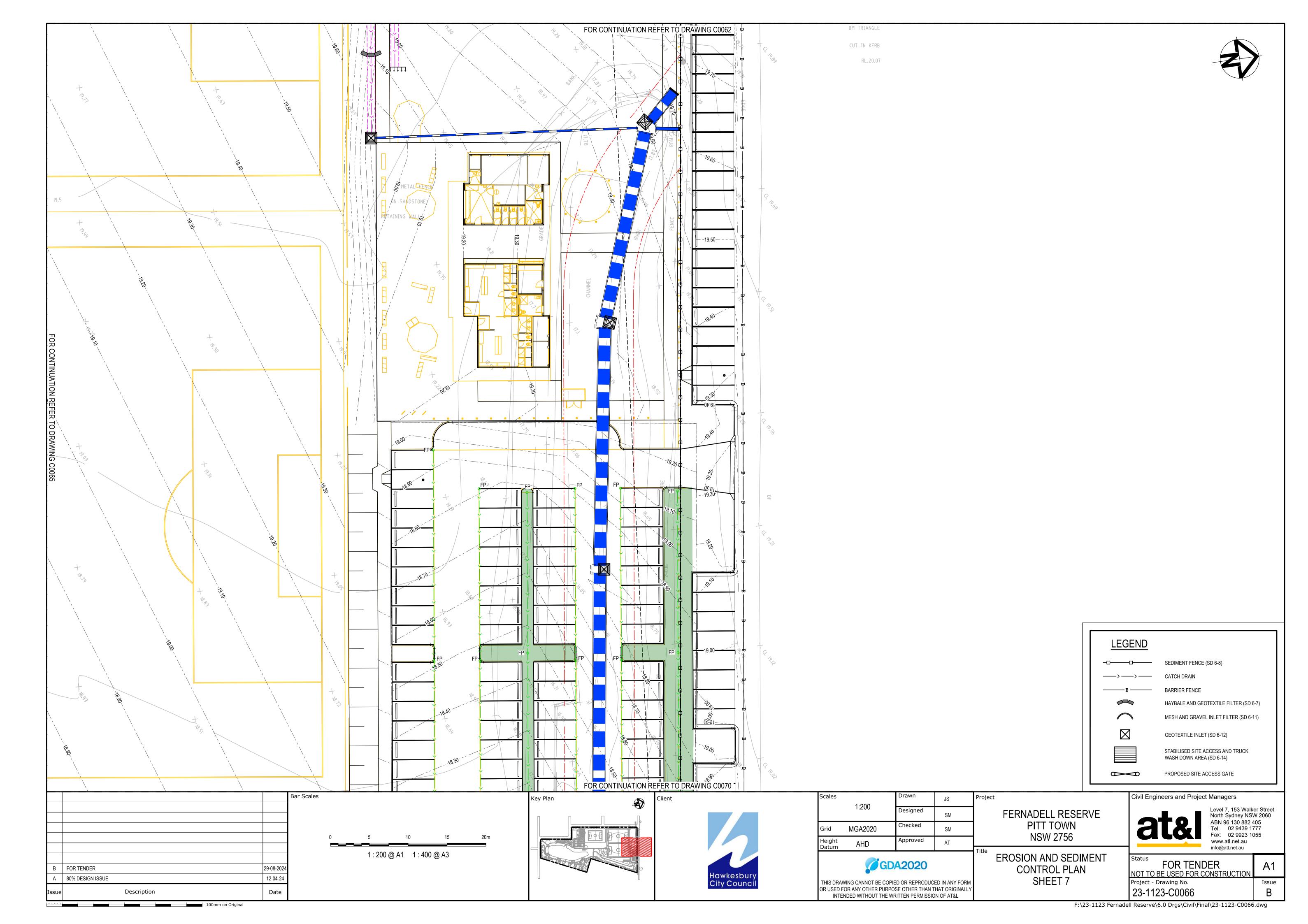


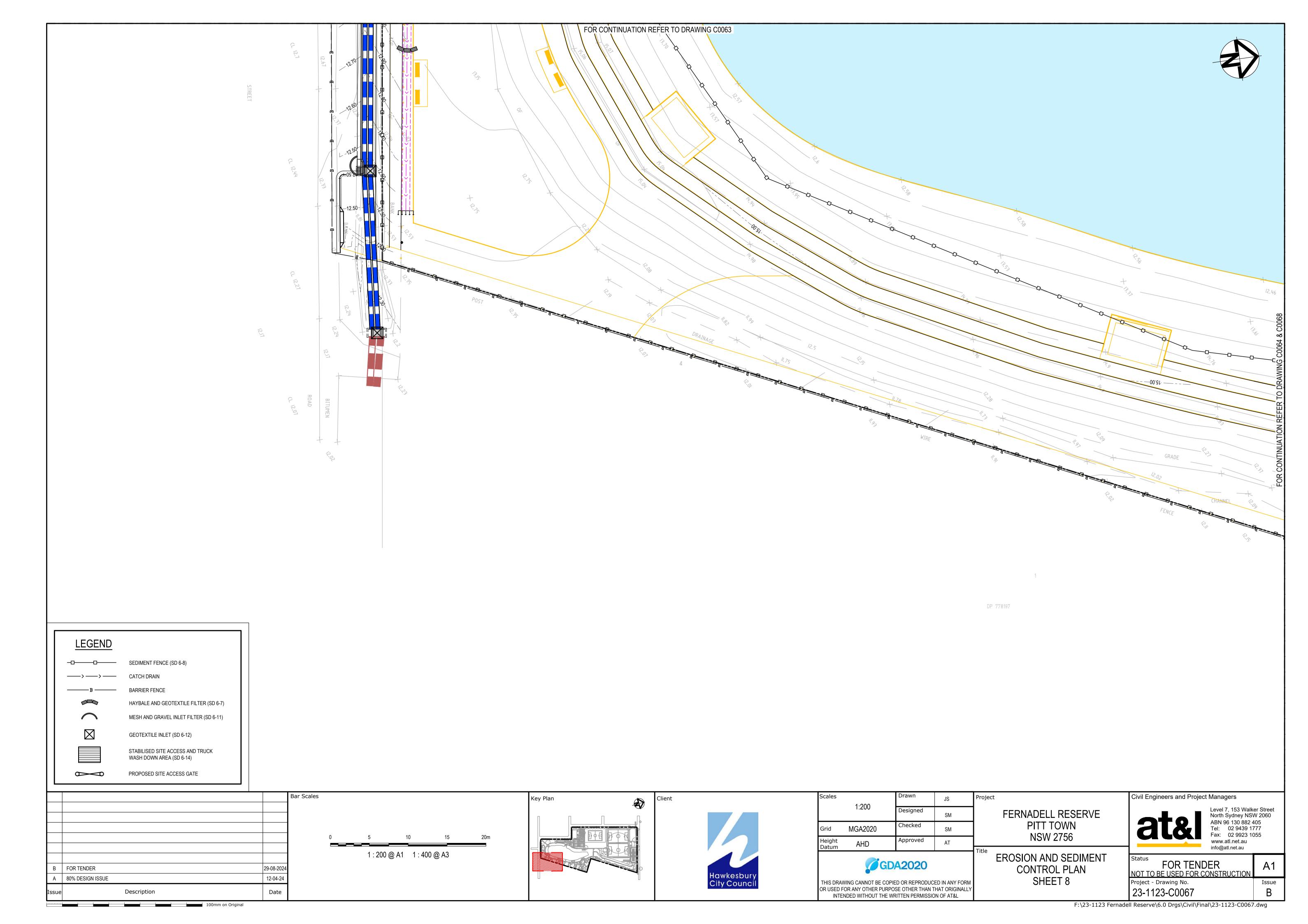


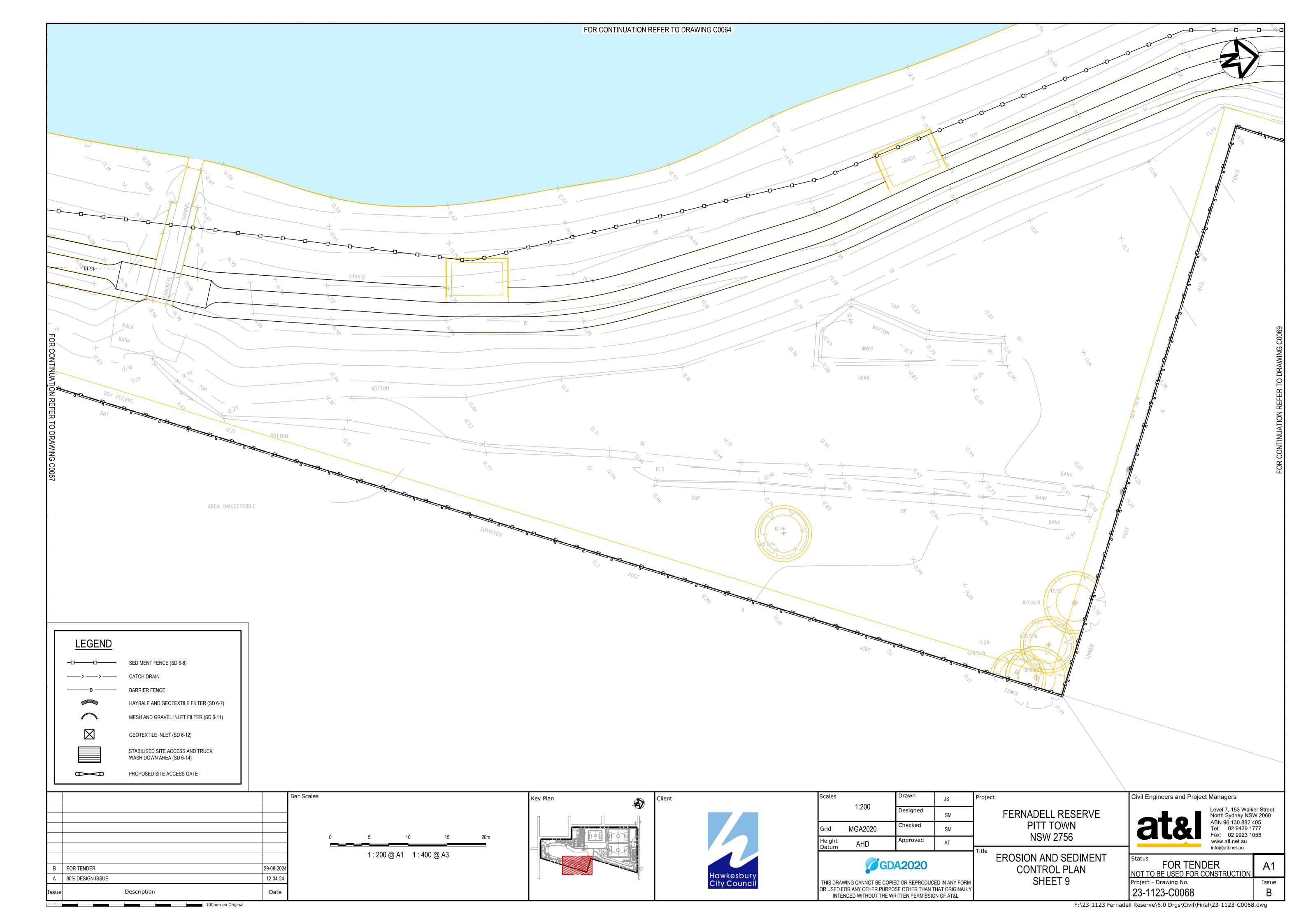


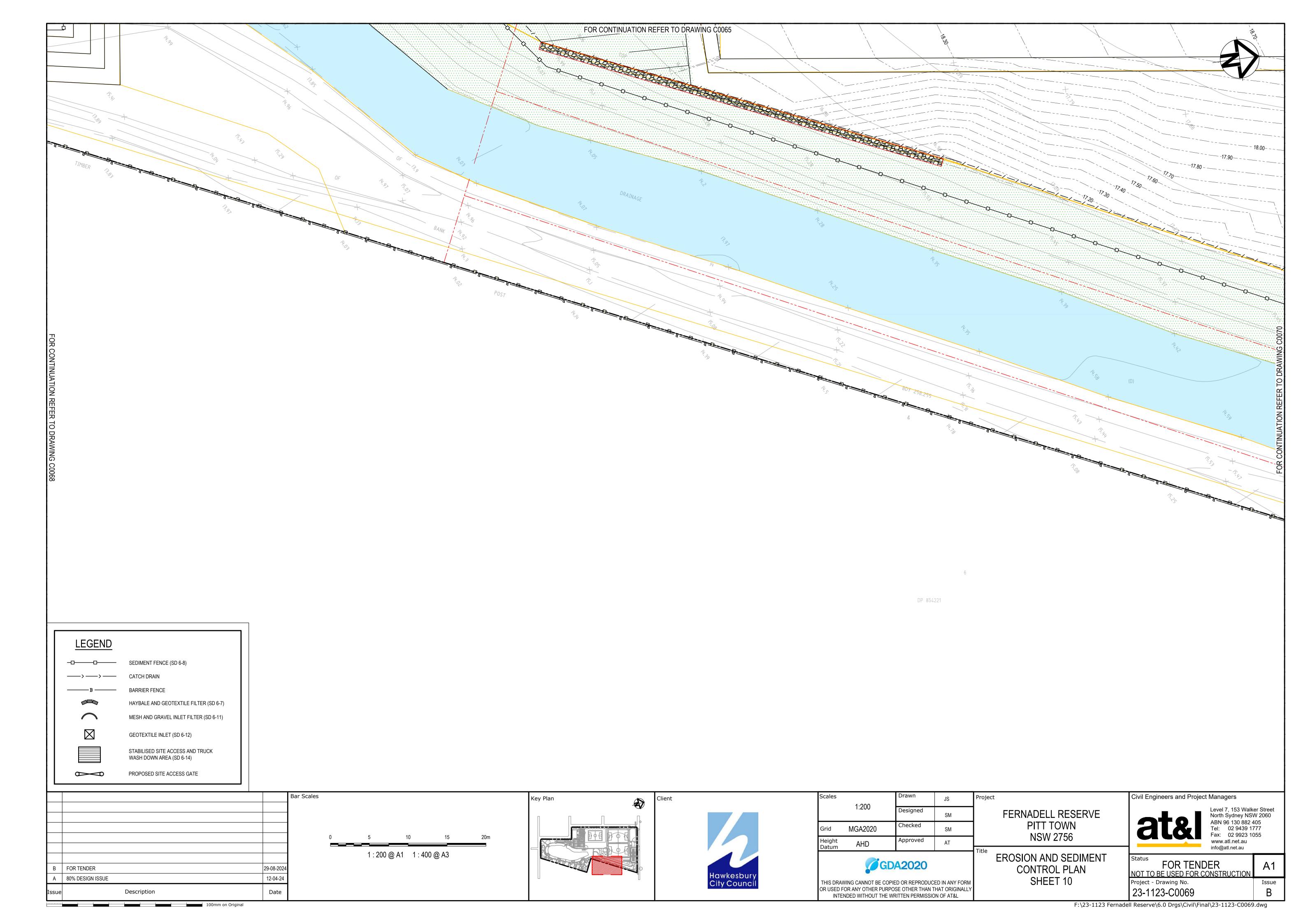


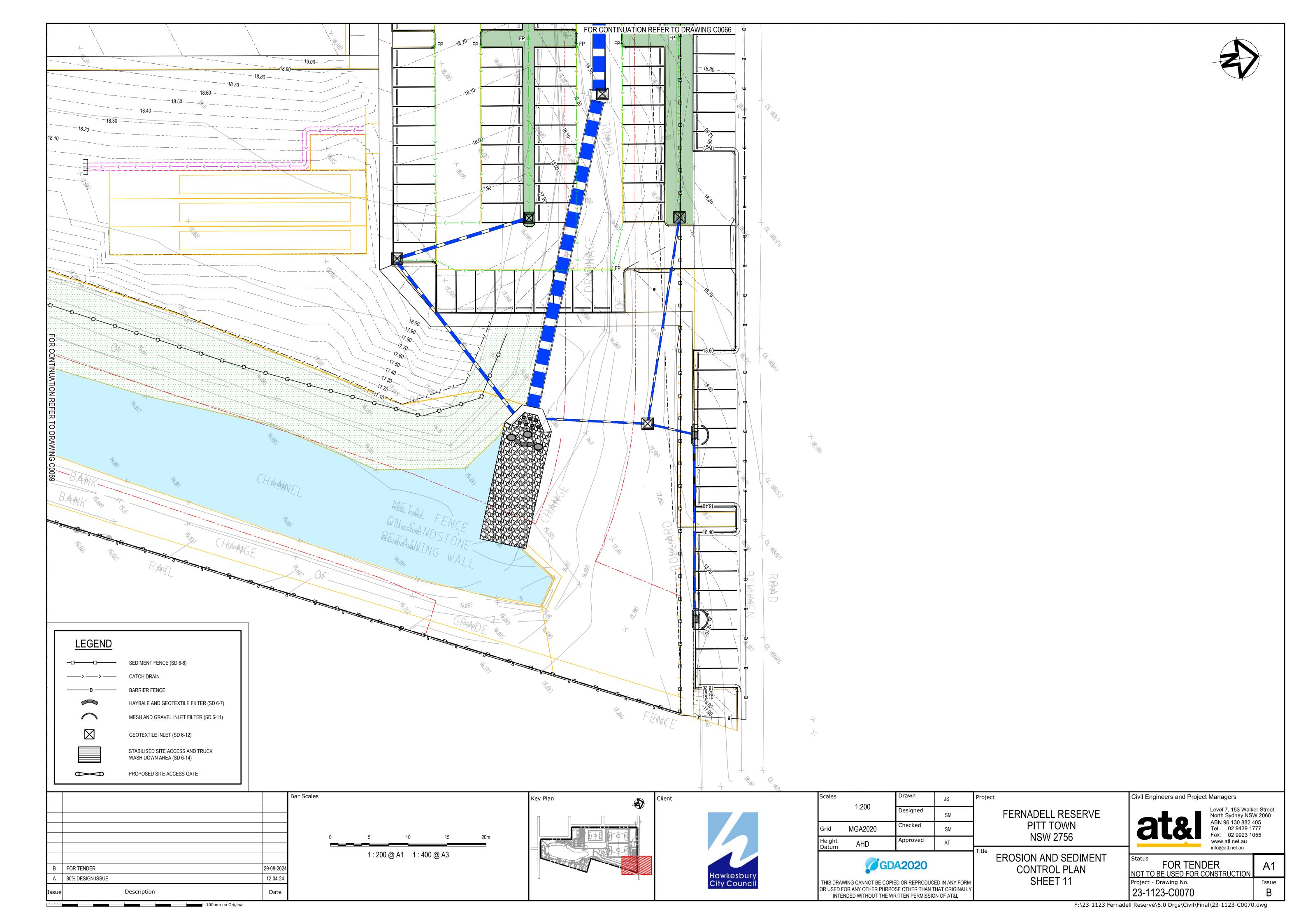


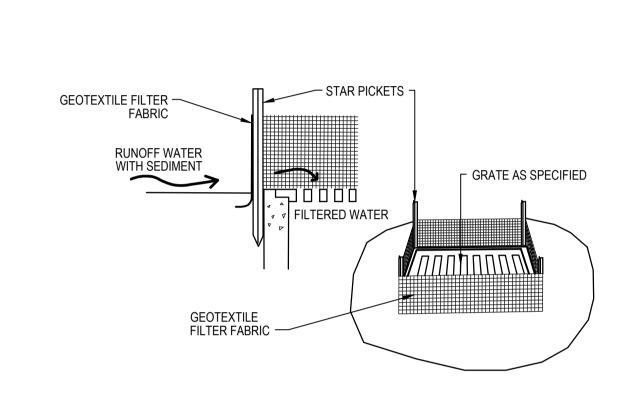


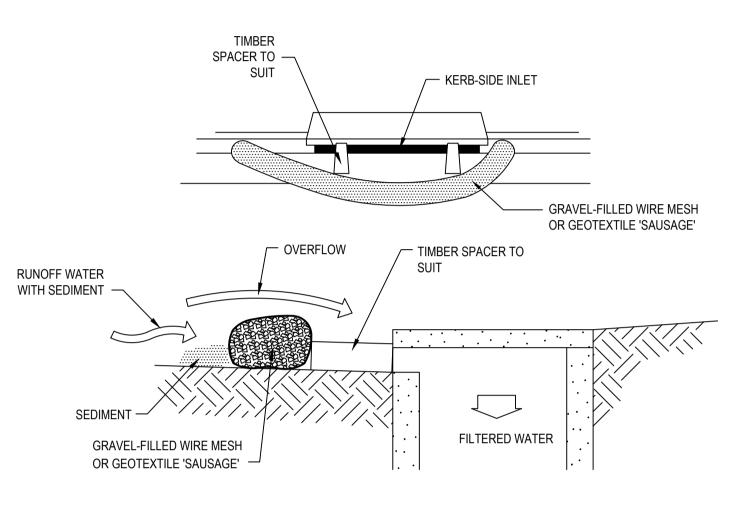








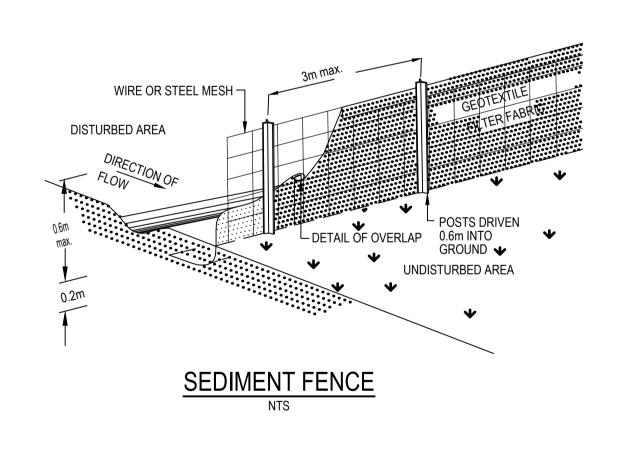


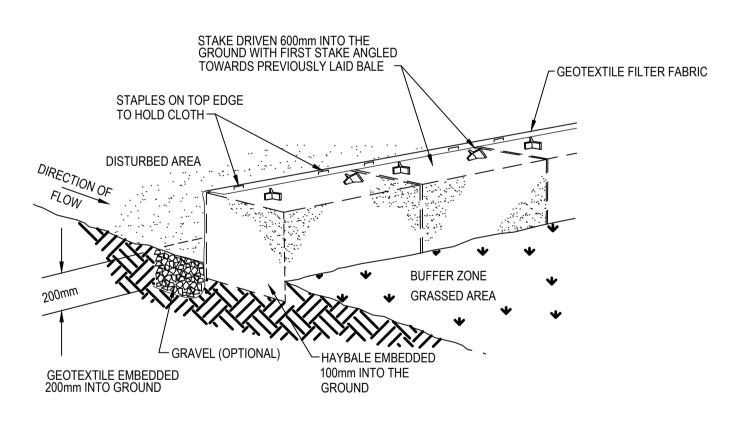


### GEOTEXTILE FILTER PIT SURROUND

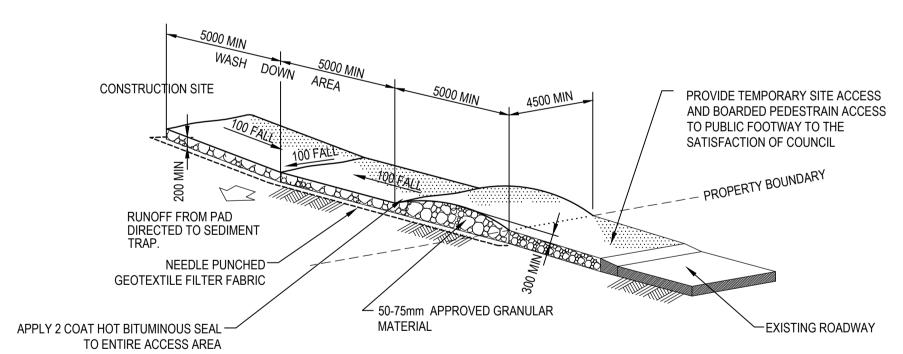
NTS

MESH AND GRAVEL INLET FILTER





HAYBALE AND GEOTEXTILE SEDIMENT FILTER



STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA

NTS

			Bar Scales
В	FOR TENDER	29-08-2024	
Α	80% DESIGN ISSUE	12-04-24	
Issue	Description	Date	

Hawkesbury City Council

Client

Scales	Drawn	JS	Proje	
	AS SHOWN	Designed	SM	
Grid	MGA2020	Checked	SM	
Height Datum	AHD	Approved	AT	

**GDA2020** 

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FERNADELL RESERVE
PITT TOWN
NSW 2756

EROSION AND SEDIMENT CONTROL DETAILS

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 TENDER
NOT TO BE USED FOR CONST

NOT TO BE USED FOR CONSTRUCTION
Project - Drawing No.
23-1123-C0071

Issue