

Issue	Description	Date	Drawn	Approved
A	ISSUE FOR SCHEMATIC DESIGN	18.07.25	DW	VY
B	REISSUE FOR SCHEMATIC DESIGN	01.08.25	DW	VY
C	ISSUE FOR DRAFT DESIGN DEVELOPMENT	26.09.25	DW	VY
D	ISSUE FOR DESIGN DEVELOPMENT	17.10.25	DW	VY
E	ISSUE FOR TENDER	24.10.25	DW	VY

PRINT IN COLOUR

North 	Scale
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Client

 **NSW**
GOVERNMENT

 **Health**
Infrastructure

 **NSW Ambulance**

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DJRD ARCHITECTS

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The logo for DJRD Architects features the lowercase letters 'djrd' in a light grey, sans-serif font. Each letter is accented with a thick, vertical red bar: a red bar to the right of the 'd', a red bar to the left of the 'j', a red bar to the right of the 'r', and a red bar to the left of the second 'd'.

Project
AMBULANCE INFRASTRUCTURE PROGRAM
CAVES BEACH
 2-4 KAYUGA CLOSE,
 CAVES BEACH, NSW ,2281

ACOR
CONSULTANTS

ACOR Consultants Pty Ltd
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Drawing Title CIVIL SERVICES COVER SHEET AND DRAWING INDEX
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Drawn DW	Designed VY	Q.A. Check WM	Date 23.10.25	Scale @ A1 N/A
Project No. NA242236		Drawing No. CAV-C01-0001		
				Issue E

**BEFORE
YOU DIG**
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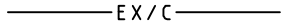
Zero damage - Zero harm - Zero disruption

Oct 24, 2025 - 3:19pm
VSYDPROJ11P\projects\NA24\NA242235\Drawings\CAD\CIV3, Caves Beach (Swainssea)\Drawings\NA242235-CMV-C01-C001.dwg



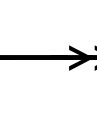
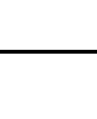
REF Approval No: 15/2026
Date: 02/09/2026

EXISTING SERVICES LEGEND

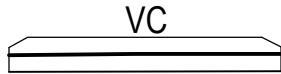
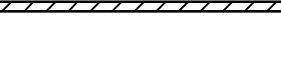
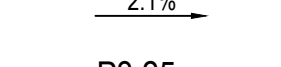
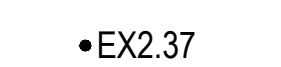
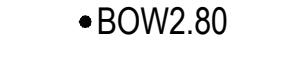
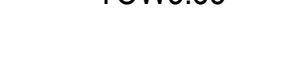
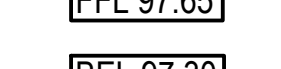
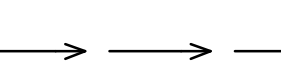
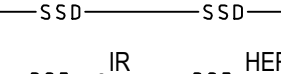
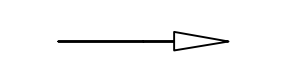
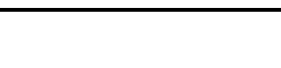
	EXISTING ELECTRICITY
	EXISTING STORMWATER
	EXISTING COMMS
	EXISTING WATER
	EXISTING SEWER
	EXISTING ELECTRICAL PIT
	EXISTING LIGHT POLE
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SOIL EROSION AND SEDIMENT CONTROL LEGEND	
	SEDIMENT FENCE
	WRAP INLET GRATE IN FILTER FABRIC. PROVIDE AT ALL EXISTING SURFACE STORMWATER PITS, RAINWATER OUTLETS AND TRENCH DRAINS.
	SAND BAG SEDIMENT TRAP
	STABILISED CONSTRUCTION EXIT
	ROCK CHECK DAM
	DIRTY WATER CUT OFF DRAIN
	SEDIMENT BASIN
	TEMPORARY STOCKPILE WITH SEDIMENT FENCE SURROUND

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	INTEGRAL KERB
	DRIVEWAY LAYBACK
	WHEEL STOP
	RETAINING WALL
	VEHICLE BARRIER REFER TO DRAWING NA242236-CAV-C06-0601
	PROPOSED GRADE
•P3.25	FINISHED SURFACE LEVEL
•EX2.37	EXISTING SURFACE LEVEL
•BOW2.80	BOTTOM OF WALL
•TOW3.33	TOP OF WALL
	FINISHED FLOOR LEVEL
	BULK EARTHWORKS LEVEL
	STORMWATER OVERLAND FLOW PATH
	GRASS LINED SWALE DRAIN (GRASS TO BE LAID KIKUYU OR EQUAL)
	GRATED DRAIN AND TYPE
	SUBSOIL DRAINAGE LINE
	SUBSOIL HIGH END RISER AND INTERMEDIATE RISER
B1.	BOLLARD AND TYPE
	STORMWATER DRAINAGE STRUCTURE WITH NUMBER (REFER STORMWATER DRAINAGE STRUCTURES/PIT SCHEDULE)
	STORMWATER DRAINAGE LINE
	PIPE FLOW DIRECTION
	RAINWATER CONNECTION (Ø150 uPVC UNO)
	RAINWATER TANK
	STORMWATER DRAINAGE SCOUR PROTECTION (ROCK OUTLET PAD) REFER TO DETAILS ON C08-0303
	EXISTING CONTOURS
	FINISHED SURFACE CONTOUR MAJOR
	EXPANSION JOINT
	CONTINUOUS POURED DOWEL JOINT
	ISOLATION JOINT
	DIAMOND DOWEL JOINT
	KEY JOINT

	INTEGRAL KERB
	DRIVEWAY LAYBACK
	WHEEL STOP
	RETAINING WALL
	VEHICLE BARRIER REFER TO DRAWING NA242236-CAV-C06-0601
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	KEY JOINT

PAVEMENT LEGEND

PAVEMENT TYPE 1
CONCRETE PAVEMENT HARDSTAND
DESIGN SUBGRADE CBR = 5.0% (MINIMUM)

DESIGN FINISHED SURFACE LEVEL

170mm THICK CONCRETE ($f_c = 32\text{MPa}$)
WITH SL82 TOP
(60 COVER)

200mm THICKNESS DGB20 BASECOURSE.
ROLL AND COMPACTED IN ACCORDANCE
WITH GEOTECHNICAL SPECIFICATION TO
98% MODIFIED MAXIMUM DRY DENSITY

EXISTING SUBGRADE 5% CBR

PAVEMENT TYPE 2
CONCRETE FOOTPATH PAVEMENT COLOUR /
FINISH TO LANDSCAPE ARCHITECT'S DETAIL

DESIGN FINISHED SURFACE LEVEL

125mm THICK CONCRETE ($f_c = 32\text{MPa}$) WITH
SL72 CENTALLY LOCATED

50mm WELL GRADED SAND BLINDING

EXISTING SUBGRADE

PAVEMENT TYPE 3
DRIVEWAY IN ACCORDANCE WITH LAKE
MACQUARIE CITY COUNCIL DETAILS

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CONCRETE PAVEMENT HARDSTAND
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EXISTING SUBGRADE

PAVEMENT TYPE 3
DRIVEWAY IN ACCORDANCE WITH LAKE
MACQUARIE CITY COUNCIL DETAILS

PAVEMENT MARKING LEGEND	
	PARKING BAY LINE
	PROPOSED DISABLED CAR PARKING SPACE AND SHARED ZONE WITH BOLLARD.
NOTES 1. ALL PAVEMENT MARKING AND SIGNAGE SHALL BE IN ACCORDANCE WITH AS1742, 1743, 2890 AND RELEVANT NSW GUIDELINES, TECHNICAL NOTES AND SPECIFICATIONS	

PARKING BAY LINE

100

PROPOSED DISABLED CAR PARKING SPACE AND SHARED ZONE WITH BOLLARD.

B1

NOTES

1. ALL PAVEMENT MARKING AND SIGNAGE SHALL BE IN ACCORDANCE WITH AS1742, 1743, 2890 AND RELEVANT NSW GUIDELINES, TECHNICAL NOTES AND SPECIFICATIONS

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Scale:

Client	
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NOT FOR CONSTRUCTION



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Drawing Title
CIVIL SERVICES
LEGENDS SHEET

Drawn DW	Designed VY	Q.A. Check WM	Date 23.10.25	Scale @ A1 N/A
Project No. NA242236	Drawing No. CAV-C01-0101			Issue E



GENERAL NOTES

1.

THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND STRUCTURAL CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED.
2.

ALL DIMENSIONS RELEVANT TO SETTING OUT AND OFF-SITE WORK SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION
3.

DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS.
4.

ALL DIMENSIONS ON DETAILS ARE IN MILLIMETRES UNLESS STATED OTHERWISE. ALL PLANS AND LEVELS ARE EXPRESSED IN METRES.
5.

DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURAL STABILITY OF THE WORKS AND ENSURE NO PARTS BE OVER STRESSED UNDER CONSTRUCTION ACTIVITIES.
6.

WORKMANSHIP AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RELEVANT CURRENT S.A.A. CODES INCLUDING ALL AMENDMENTS, AND THE LOCAL STATUTORY AUTHORITIES, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
7.

THE APPROVAL OF A SUBSTITUTION SHALL BE SOUGHT FROM ACOR CONSULTANTS / PRINCIPAL'S REPRESENTATIVE BUT IS NOT AN AUTHORISATION FOR A VARIATION. ANY VARIATIONS INVOLVED MUST BE TAKEN UP WITH ACOR CONSULTANTS / PRINCIPAL'S REPRESENTATIVE BEFORE THE WORK COMMENCES.
8.

ANY DISCREPANCIES OR OMISSIONS SHALL BE REFERRED TO THE ENGINEER FOR A DECISION BEFORE PROCEEDING WITH THE WORK.
9.

THE CONTRACTOR SHALL GIVE 48 HOURS NOTICE FOR ALL ENGINEERING INSPECTIONS. ALL INSPECTIONS AND CERTIFICATIONS TO BE INCLUDED IN CONTRACTORS COST.
10.

BUILDING FROM THESE DRAWINGS IS NOT TO COMMENCE UNTIL APPROVED BY THE PRINCIPAL CERTIFYING AUTHORITY.
11.

THE WORD 'ENGINEER' USED IN THESE NOTES REFER TO AN EMPLOYEE OR NOMINATED REPRESENTATIVE OF **ACOR CONSULTANTS PTY LTD.**
12.

ALL CONSTRUCTION ACTIVITIES SHALL COMPLY WITH THE RELEVANT CURRENT WORKPLACE HEALTH AND SAFETY LEGISLATION.

EXISTING SERVICES AND FEATURES

1.

THE CONTRACTOR SHALL ALLOW FOR THE CAPPING OFF, EXCAVATION, REMOVAL AND DISPOSAL IF REQUIRED OF ALL EXISTING SERVICES IN AREAS AFFECTED BY WORKS WITHIN THE CONTRACT AREA, AS SHOWN ON THE DRAWINGS UNLESS DIRECTED OTHERWISE BY THE PRINCIPAL'S REPRESENTATIVE.
2.

THE CONTRACTOR SHALL ENSURE THAT AT ALL TIMES SERVICES TO ALL BUILDINGS NOT AFFECTED BY THE WORKS ARE NOT DISRUPTED.
3.

PRIOR TO COMMENCEMENT OF ANY WORKS THE CONTRACTOR SHALL GAIN WRITTEN APPROVAL OF THEIR PROGRAMME FOR THE RELOCATION/CONSTRUCTION OF TEMPORARY SERVICES.
4.

EXISTING BUILDINGS, EXTERNAL STRUCTURES, AND TREES SHOWN ON THESE DRAWINGS ARE FEATURES EXISTING PRIOR TO ANY DEMOLITION WORKS.
5.

CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES TO MAINTAIN EXISTING SUPPLY TO BUILDINGS REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF THE PRINCIPAL'S REPRESENTATIVE. ONCE DIVERSION IS COMPLETE AND COMMISSIONED THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE PRINCIPAL'S REPRESENTATIVE.
6.

INTERRUPTION TO SUPPLY OF EXISTING SERVICES SHALL BE DONE SO AS NOT TO CAUSE ANY INCONVENIENCE TO THE PRINCIPAL. CONTRACTOR TO GAIN APPROVAL OF PRINCIPAL'S REPRESENTATIVE FOR TIME OF INTERRUPTION.

SITeworks NOTES

1.

ORIGIN OF LEVELS :- AUSTRALIAN HEIGHT DATUM (A.H.D.)
2.

CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK.
3.

ALL WORK IS TO BE UNDERTAKEN IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS, THE SPECIFICATIONS AND THE DIRECTIONS OF THE PRINCIPAL'S REPRESENTATIVE.
4.

EXISTING SERVICES HAVE BEEN PLOTTED FROM SUPPLIED DATA AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE PRINCIPAL'S REPRESENTATIVE. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY.
5.

WHERE NEW WORKS ABUT EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS OBTAINED.
6.

THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.
7.

CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATIONS ARE TO BE UNDERTAKEN OVER COMMUNICATIONS OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS.
8.

ALL SERVICE TRENCHES UNDER VEHICULAR PAVEMENTS SHALL BE BACKFILLED WITH AN APPROVED NON-NATURAL GRANULAR MATERIAL AND COMPACTED TO 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS. 1289.5.1.1.
9.

ALL TRENCH BACKFILL MATERIAL SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT MATERIAL.
10.

ON COMPLETION OF PIPE INSTALLATION ALL DISTURBED AREAS MUST BE RESTORED TO ORIGINAL, INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL AND GRASSED AREAS AND ROAD PAVEMENTS.
11.

PROVIDE 10mm WIDE EXPANDING CORK JOINTS BETWEEN CONCRETE PAVEMENTS AND ALL BUILDINGS , WALLS, FOOTINGS, COLUMNS, KERBS, DISH DRAINS, GRATED DRAINS, BOLLARD FOOTINGS ETC
12.

CONTRACTOR TO OBTAIN ALL AUTHORITY APPROVALS.
13.

ALL BATTERS TO BE GRASSED LINED WITH MINIMUM 100 TOPSOIL AND APPROVED COUCH LAID AS TURF.
14.

MAKE SMOOTH TRANSITION TO EXISTING SERVICES AND MAKE GOOD.
15.

THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY DIVERSION DRAINS AND MOUNDS TO ENSURE THAT AT ALL TIMES EXPOSED SURFACES ARE FREE DRAINING AND WHERE NECESSARY EXCAVATE SUMPS AND PROVIDE PUMPING EQUIPMENT TO DRAIN EXPOSED AREAS.
16.

THESE PLANS SHALL BE READ IN CONJUNCTION WITH APPROVED ARCHITECTURAL, STRUCTURAL, HYDRAULIC AND ELECTRICAL DRAWINGS AND SPECIFICATIONS.
17.

TRENCHES THROUGH EXISTING ROAD AND CONCRETE PAVEMENTS SHALL BE SAWCUT TO FULL DEPTH OF CONCRETE AND A MIN 50mm IN BITUMINOUS PAVING.
18.

ALL BRANCH GAS AND WATER SERVICES UNDER DRIVEWAYS AND BRICK PAVING SHALL BE LOCATED IN Ø80 uPVC SEWER GRADE CONDUITS EXTENDING A MIN OF 500mm PAST PAVING.
19.

ON COMPLETION OF WORKS ALL DISTURBED AREAS MUST BE RESTORED TO ORIGINAL INCLUDING, BUT NOT LIMITED TO, KERBS, FOOTPATHS, CONCRETE AREAS, GRASS AND LANDSCAPED AREAS.

COMPACTION NOTES

1.

REFER TO GEOTECHNICAL INVESTIGATION REPORT PREPARED GHD REF: 12657833-REP-00 DATES 28 JULY 2025
2.

STRIP TOPSOIL TO EXPOSE NATURALLY OCCURRING MATERIAL AND STOCKPILE ON SITE FOR SELECTIVE RE-USE OR DISPOSE OFF-SITE AS DIRECTED BY THE SUPERINTENDENT.
3.

UNCONTROLLED FILLING IS TO BE REMOVED FROM THE FOOTPRINT OF THE BUILDING AND PAVEMENT AREAS, THE STRIPPED SURFACE SHALL BE INSPECTED BY A GEOTECHNICAL ENGINEER.
4.

PROOF ROLL EXPOSED NATURAL SURFACE WITH A MINIMUM OF EIGHT PASSES OF A SMOOTH DRUM ROLLER (MINIMUM STATIC WEIGHT OF 10 TONNES) THE FINAL PASS SHALL BE IN THE PRESENCE OF A GEOTECHNICAL ENGINEER.
5.

ALL SOFT, WET OR UNSUITABLE MATERIAL TO BE REMOVED AS DIRECTED BY THE GEOTECHNICAL ENGINEER AND REPLACED WITH APPROVED MATERIAL SATISFYING THE REQUIREMENTS LISTED BELOW.
6.

WASTE CLASSIFICATION OF SPOIL MATERIAL, INCLUDING PROVISION OF APPROPRIATE HAZARDOUS MATERIALS HANDLING (AS REQUIRED) IS THE RESPONSIBILITY OF THE CONTRACTOR PRIOR TO UNDERTAKING THE EXCAVATION WORKS.
7.

ALL FILL MATERIAL SHALL BE FROM A SOURCE APPROVED BY THE GEOTECHNICAL ENGINEER AND SHALL COMPLY WITH THE FOLLOWING :

a.

FREE FROM ORGANIC, PERISHABLE AND CONTAMINATED MATTER

b.

MAXIMUM PARTICLE SIZE 75MM

c.

PLASTICITY INDEX BETWEEN 2% AND 15%
8.

ALL FILL MATERIAL SHALL BE PLACED IN MAXIMUM 200MM THICK LAYERS AND COMPACTED AT OPTIMUM MOISTURE CONTENT (+ OR - 2%) TO ACHIEVE A DRY DENSITY DETERMINED IN ACCORDANCE WITH AS 1289 5.3.1 OF NOT LESS THAN THE FOLLOWING STANDARD MINIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.1.1 :

LOCATION	STANDARD DRY DENSITY
UNDER BUILDING SLABS	98%
AREAS OF SERVICE TRENCHES	98%
EXTERNAL PAVED AREAS, ROADS AND CARPARKS	98%
LANDSCAPED AREAS	90%

THE UPPER 0.5m THICKNESS FOR THE FOLLOWING AREAS MUST BE COMPACTED AT OPTIMUM MOISTURE CONTENT (+ OR -2%) AS FOLLOWS

LOCATION	STANDARD DRY DENSITY
UNDER BUILDING SLABS	100%
PAVEMENTS AND CARPARKS	100%
9.

THE CONTRACTOR SHALL PROGRAM THE EARTHWORKS OPERATION SO THAT THE WORKING AREAS ARE ADEQUATELY DRAINED DURING THE PERIOD OF CONSTRUCTION. THE SURFACE SHALL BE GRADED AND SEALED OFF TO REMOVE DEPRESSIONS, ROLLER MARKS AND SIMILAR WHICH WOULD ALLOW WATER TO POND AND PENETRATE THE UNDERLYING MATERIAL. ANY DAMAGE RESULTING FROM THE CONTRACTOR NOT OBSERVING THESE REQUIREMENTS SHALL BE RECTIFIED BY THE CONTRACTOR AT THEIR COST.
10.

TESTING OF THE SUBGRADE SHALL BE CARRIED OUT BY AN APPROVED NATA REGISTERED LABORATORY AT THE CONTRACTORS EXPENSE. TESTING FREQUENCY SHALL BE IN ACCORDANCE WITH THE FREQUENCY SPECIFIED IN THE GEOTECHNICAL REPORT - FOR EARTHWORKS 1 TEST / 1000m² / LAYER OR THREE TESTS PER VISIT, WHICHEVER IS THE GREATER

STORMWATER NOTES

1.

ALL 375 DIA. DRAINAGE PIPES AND LARGER SHALL BE CLASS "2" APPROVED SPIGOT AND SOCKET FRC OR RCP. PIPES WITH RUBBER RING JOINTS. (U.N.O.) ALL DOWNPIPE DRAINAGE LINES SHALL BE SEWER GRADE uPVC WITH SOLVENT WELD JOINTS. (U.N.O.)
2.

EQUIVALENT STRENGTH REINFORCED CONCRETE PIPES MAY BE USED.
3.

ALL PIPE JUNCTIONS UP TO AND INCLUDING 450 DIA. AND TAPERS SHALL BE VIA PURPOSE MADE FITTINGS.
4.

MINIMUM GRADE TO STORMWATER LINES TO BE 1%. (U.N.O.)
5.

CONTRACTOR TO SUPPLY AND INSTALL ALL FITTINGS AND SPECIALS INCLUDING VARIOUS PIPE ADAPTORS TO ENSURE PROPER CONNECTION BETWEEN DISSIMILAR PIPEWORK.
6.

ALL CONNECTIONS TO EXISTING DRAINAGE PITS SHALL BE MADE IN A TRADESMAN-LIKE MANNER AND THE INTERNAL WALL OF THE PIT AT THE POINT OF ENTRY SHALL BE CEMENT RENDERED TO ENSURE A SMOOTH FINISH.
7.

PRECAST PITS SHALL NOT BE USED UNLESS WRITTEN APPROVAL IS OBTAINED FROM THE ENGINEER.
8.

WHERE TRENCHES ARE IN ROCK, THE PIPE SHALL BE BEDDED ON A MIN. 50MM CONCRETE BED (OR 75MM THICK BED OF 12MM BLUE METAL) UNDER THE BARREL OF THE PIPE. THE PIPE COLLAR AT NO POINT SHALL BEAR ON THE ROCK. IN OTHER THAN ROCK, PIPES SHALL BE LAID ON A 75MM THICK SAND BED. IN ALL CASES BACKFILL THE TRENCH WITH SAND TO 200MM ABOVE THE PIPE. WHERE THE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH WITH SAND OR APPROVED GRANULAR BACKFILL COMPACTED IN 150MM LAYERS TO 98% STANDARD MAX. DRY DENSITY.
9.

BEDDING SHALL BE (U.N.O.) TYPE HS2, IN ACCORDANCE WITH CURRENT RELEVANT AUSTRALIAN STANDARDS.
10.

WHERE STORMWATER LINES PASS UNDER FLOOR SLABS SEWER GRADE RUBBER RING JOINTS ARE TO BE USED.
11.

WHERE SUBSOIL DRAINAGE LINES PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS UNSLOTTED UPVC SEWER GRADE PIPE SHALL BE USED.
12.

PROVIDE 3.0M LENGTH OF 100 DIA. SUBSOIL DRAINAGE PIPE WRAPPED IN FABRIC SOCK, AT UPSTREAM END OF EACH PIT.

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D	ISSUE FOR DESIGN DEVELOPMENT	17.10.25	DW	YY
E	ISSUE FOR TENDER	24.10.25	DW	YY

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North

Scale

Client



Health Infrastructure



NSW Ambulance

Architect

DJRD ARCHITECTS



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Project

AMBULANCE INFRASTRUCTURE PROGRAM
CAVES BEACH
2-4 KAYUGA CLOSE,
CAVES BEACH, NSW ,2281

NOT FOR CONSTRUCTION



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Drawing Title

CIVIL SERVICES
NOTES SHEET 1

Drawn

DW

Designed

VY

O.A. Check

WM

Date

23.10.25

Scale @ A1

N/A

Project No.

NA242236

Drawing No.

CAV-C01-0102

Issue

E



CONCRETE NOTES

GENERAL

1. ALL WORKMANSHIP AND MATERIALS SHALL COMPLY WITH AS 3600 CURRENT EDITIONS WITH AMENDMENTS, AND THE ACSE CONCRETE SPECIFICATION EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
2. VERIFY ALL SETTING OUT DIMENSIONS WITH THE ARCHITECT AND/OR THE SURVEYOR.
3. DO NOT OBTAIN DIMENSIONS BY SCALING THE DRAWINGS.
4. IN CASE OF DOUBT - ASK.

CONCRETE

1. PLACE CONCRETE OF THE FOLLOWING CHARACTERISTIC COMPRESSIVE STRENGTH F_c AS DEFINED IN AS.3600 OR M.R. FORM 609. ADD WATER REDUCING ADMIXTURE EQUAL TO WRDA.

LOCATION	AS.3600 F _c MPa AT 28 DAYS	SPECIFIED SLUMP	NOMINAL AGG. SIZE
ALL KERB PITTS ETC.	25	80	20
VEHICULAR PAVEMENTS	32	80	20

2. USE "A.C.S.E. SPECIFICATION TYPE A" CEMENT.

3. ALL CONCRETE SHALL BE SUBJECT TO PROJECT CONTROL SAMPLE AND TESTING TO AS.3600.

4. CONSOLIDATE BY VIBRATION.

REINFORCEMENT

1. FIX REINFORCEMENT AS SHOWN ON DRAWINGS. THE TYPE AND GRADE IS INDICATED BY A SYMBOL AS SHOWN BELOW. ON THE DRAWING N IS FOLLOWED BY A NUMERAL WHICH INDICATES THE SIZE IN MILLIMETRES. A MARK NUMERAL (IF USED) FOLLOWS THIS NUMERAL.

- N. HOT ROLLED DEFORMED BARS, GRADE 500N
- R. HOT ROLLED PLAIN BARS, GRADE 250N
- W. COLD DRAWN PLAIN ROUND WIRE, GRADE 500L
- SL. SQUARE WELDED MESH, GRADE 500L
- RL. RECTANGULAR WELDED MESH, GRADE 500L
- LTM. RECTANGULAR WELDED TRENCH MESH, GRADE 500L

CURING

1. CURING OF ALL CONCRETE SHALL BE IN ACCORDANCE WITH AS3600 AND SHALL COMMENCE WITHIN 2 HOURS OF FINISHING OPERATIONS.
2. CURING SHALL BE CONTINUAL SATURATION WITH POTABLE WATER FOR 3 DAYS FOLLOWED BY PREVENTION OF MOISTURE LOSS FOR THE NEXT 4 DAYS, USING POLYTHENE SHEETING OR WET HESSIAN PROTECTED BY WIND OR TRAFFIC AND THEN ALLOWING GRADUAL DRYING OUT.
3. CURING COMPOUNDS MAY BE USED PROVIDED THAT THEY COMPLY WITH AS3799 AND NOT AFFECT THE PROPOSED FINISH.
4. THE COMPATIBILITY OF CURING COMPOUNDS WITH THE PROPOSED FINISH AND OTHER CONCRETE ADMIXTURES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING AND APPLICATION.
5. CURING COMPOUNDS ARE APPLIED UNIFORMLY IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. PVA - BASED CURING COMPOUNDS ARE NOT ACCEPTABLE.
6. CURING SHALL BE UNDERTAKEN BY AN EXPERIENCED CONTRACTOR FAMILIAR WITH THE PROPOSED COMPOUNDS AND THE MANUFACTURER'S SPECIFICATIONS.
7. WHERE SHADE TEMPERATURES EXCEEDS 35°C, SPRAY THE EXPOSED SURFACE OF THE CONCRETE PAVEMENT / SLAB DURING THE PLACING OF FINISHING OPERATION WITH A FINE FILM OR APPROVED ALIPHATIC ALCOHOL. REPEAT THE SPRAY IF THE SPRAY SURFACE HAS BEEN RE-WORKED.
8. ENSURE ADEQUATE SUPPLY OF ALIPHATIC ALCOHOL ON-SITE PRIOR TO CONCRETE WORKS.

CONCRETE PAVEMENT JOINT NOTES

1. CONCRETE MIX PARAMETERS ;

- MAXIMUM AGGREGATE SIZE 20mm
- FLEXURAL STRENGTH AT 28 DAYS = 3.5MPa
- FLEXURAL STRENGTH AT 90 DAYS = 3.85 MPa
- MAXIMUM WATER / CEMENT RATIO = 0.55
- MAXIMUM SHRINKAGE LIMIT = 650 MICRON STRAINS (AS 1012 Pt 13)
- MINIMUM CEMENT CONTENT = 300kg/m3
- CEMENT TO BE TYPE "A" (NORMAL CEMENT) TO AS.1315
- SLUMP = 50mm

2. JOINT TO BE SAWN AS SOON AS CONCRETE HAS HARDENED SUFFICIENTLY THAT IT WILL NOT BE DAMAGED BY SAWING. IF AN UNPLANNED CRACK OCCURS THE CONTRACTOR SHALL REPLACE WHOLE SLABS EITHER SIDE OF THE UNPLANNED CRACK, UNLESS DIRECTED OTHERWISE.

3. a. CONSTRUCT JOINTS AS DETAILED

- b. CONSTRUCTION JOINTS WHERE REQUIRED BUT NOT SHOWN, SHALL BE LOCATED TO THE APPROVAL OF THE ENGINEER AND CONSTRUCTED AT THE CONTRACTORS EXPENSE.

- c. ALL LONGITUDINAL CONSTRUCTION JOINTS SHALL BE FORMED AND INCLUDE DOWEL BARS AS SPECIFIED. ALL TRANSVERSE CONSTRUCTION JOINTS SHALL BE FORMED AND INCLUDE DOWEL BARS AS SPECIFIED.

- d. BOND BREAKER TO BE TWO (2) UNIFORM COATS OF BITUMEN EMULSION ALL OVER THE EXPOSED SURFACE AND ON END.

3. DOWELS AND TIE BARS TO MEET STRENGTH REQUIREMENTS OF STRUCTURAL GRADE STEEL IN ACCORDANCE AS. 1302. DOWELS AND TIE BARS SHALL BE :-

- STRAIGHT
- TO LENGTH SPECIFIED
- CLEAN AND FREE FROM MILL SCALE, RUST AND OIL.
- SAWN TO LENGTH NOT CROPPED.

4. DIMENSIONS OF SEALANT RESERVOIR DEPENDANT ON THE SEALANT TYPE ADOPTED. ENGINEERS APPROVAL TO BE OBTAINED FOR SEALANT AND RESERVOIR DIMENSIONS AND DETAIL PROPOSED BY THE CONTRACTOR. REFER DETAIL "B" FOR TYPICAL ARRANGEMENT AND SEALANT.

5. PRIOR TO THE PLACEMENT OF CONCRETE IN THE ADJACENT SLAB, SELF EXPANDING CORK FILLER SHALL BE ADHERED TO THE ALREADY CAST AND CLEANED CONCRETE FACE USING AN APPROVED WATERPROOF ADHESIVE. ADHESIVE SHALL BE LIBERALLY APPLIED TO THE FULL FACE OF THE CONCRETE SLAB TO BE COVERED BY THE FILLER, AND ON THE FULL FACE OF THE FILLER TO BE ADHERED.

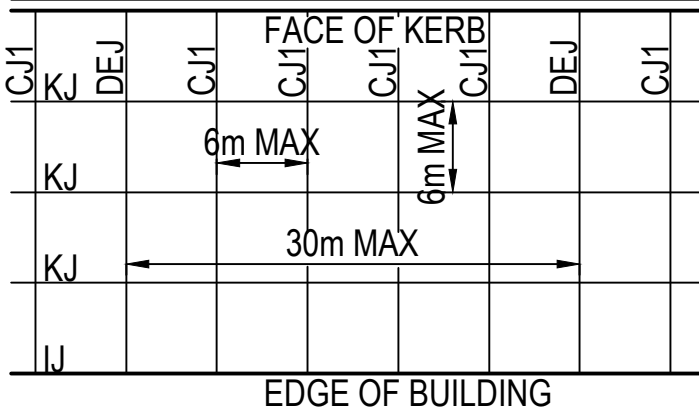
6. REFER TO COMPACTION NOTES FOR PREPARATION OF SUB-BASE AND SUB-GRADE.

7. ALL WORK TO BE BROOM FINISH.

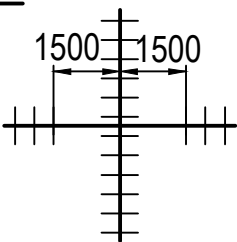
CONCRETE PAVEMENT JOINT NOTES Cont.

VEHICULAR PAVEMENT JOINTING

8. ALL VEHICULAR PAVEMENT TO BE JOINTED AS SHOWN ON DRAWINGS.
9. KEYED CONSTRUCTION JOINTS SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 6m CENTRES.
10. SAWN JOINTS SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 6m CENTRES OR 1.5 x THE SPACING OF KEYED JOINTS, WHERE KEY JOINT SPACING IS LESS THAN 4m, WITH DOWELLED EXPANSION JOINTS AT MAXIMUM OF 30m CENTRES.
11. PROVIDE 10mm WIDE FULL DEPTH ISOLATION JOINTS BETWEEN BUILDINGS AND ALL CONCRETE OR UNIT PAVERS.
12. VEHICULAR PAVEMENT JOINTING AS FOLLOWS.

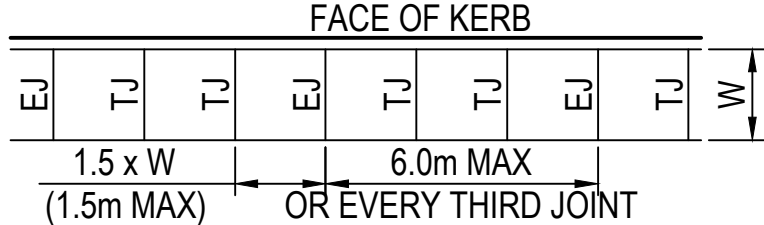


13. WHERE DOWELLED JOINTS INTERSECT REMOVE DOWELS FROM LAST 1500mm FROM JOINT IN DIRECTION OF POUR.



PEDESTRIAN FOOTPATH JOINTING

14. FOOTPATH EXPANSION JOINTS ARE TO BE LOCATED WHERE POSSIBLE AT TANGENT POINTS OF CURVES AND ELSEWHERE AT MAX 6.0m CENTRES.
15. TOOLED JOINTS ARE TO BE LOCATED AT A MAX 1.5 x WIDTH OF THE PAVEMENT.
16. WHERE POSSIBLE JOINTS SHOULD BE LOCATED TO MATCH KERBING AND/OR ADJACENT PAVEMENT JOINTS.



17. ALL PEDESTRIAN FOOTPATH JOINTING LAYOUTS AS FOLLOWS (UNO).

18. ALL RAMPED CROSSINGS SHALL BE DOWELED INTO ADJOINING PATH PAVEMENT.

Issue	Description	Date	Drawn	Approved
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 **Health**
Infrastructure

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Architect

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Drawing Title
CIVIL SERVICES
NOTES SHEET 2

Drawn DW	Designed VY	Q.A. Check WM	Date 23.10.25	Scale @ A1 N/A
Project No. NA242236	Drawing No. CAV-C01-0103	Issue E		



EROSION AND SEDIMENT CONTROL NOTES

GENERAL INSTRUCTIONS

- E1. THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE ENGINEERING PLANS, AND ANY OTHER PLANS OR WRITTEN INSTRUCTIONS THAT MAY BE ISSUED AND RELATING TO DEVELOPMENT AT THE SUBJECT SITE.
- E2. THE PRINCIPAL'S REPRESENTATIVE WILL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE UNDERTAKEN AS INSTRUCTED IN THIS SPECIFICATION AND CONSTRUCTED FOLLOWING THE GUIDELINES OF "MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION", DEPT OF HOUSING, 2004 (BLUE BOOK).
- E3. ALL BUILDERS AND SUB-CONTRACTORS WILL BE INFORMED OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS.

CONSTRUCTION SEQUENCE

- E4. THE SOIL EROSION POTENTIAL ON THIS SITE SHALL BE MINIMISED. HENCE WORKS SHALL BE UNDERTAKEN IN THE FOLLOWING SEQUENCE :
- a. INSTALL SEDIMENT FENCES, TEMPORARY CONSTRUCTION EXIT AND SANDBAG KERB INLET SEDIMENT TRAP.
- b. UNDERTAKE SITE DEVELOPMENT WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. PHASE DEVELOPMENT SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF WORKABLE SIZE.

EROSION CONTROL

- E5. DURING WINDY CONDITIONS, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.
- E6. FINAL SITE LANDSCAPING WILL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 20 WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.
- E7. 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.
- E8. 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.
- E9. 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.
- E10. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.

OTHER MATTERS

- E11. ACCEPTABLE RECEPTORS WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER.
- E12. RECEPTORS FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER ARE TO BE EMPTIED AS NECESSARY. DISPOSAL OF WASTE SHALL BE IN A MANNER APPROVED BY THE PRINCIPAL'S REPRESENTATIVE.

SITE INSPECTION & MAINTENANCE

- E13. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AFTER RAINFALL EVENTS TO ENSURE THAT THEY OPERATE EFFECTIVELY. REPAIR AND OR MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED.

1. Erosion Hazard and Sediment Basins

Site Name:

AIP Tranche 1 Caves Beach

Site Location:

2-4 Kayuga Cl, Caves Beach

Precinct/Stage:

Other Details:

Site area

Sub-catchment or Name of Structure

Notes

Total catchment area (ha)

0.695

Disturbed catchment area (ha)

0.695

Soil analysis (enter sediment type if known, or laboratory particle size data)

Sediment Type (C, F or D) if known:

C

From Appendix C (if known)

% sand (fraction 0.02 to 2.00 mm)

Enter the percentage of each soil fraction. E.g. enter 10 for 10%

% silt (fraction 0.002 to 0.02 mm)

% clay (fraction finer than 0.002 mm)

Dispersion percentage

E.g. enter 10 for dispersion of 10%

% of whole soil dispersible

See Section 6.3.3(e). Auto-calculated

Soil Texture Group

C

Automatic calculation from above

Rainfall data

Design rainfall depth (no of days)

5

See Section 6.3.4 and, particularly, Table 6.3 on pages 6-24 and 6-25.

Design rainfall depth (percentile)

85

x-day, y-percentile rainfall event (mm)

43.2

Rainfall R-factor (if known)

Only need to enter one or the other here

IFD: 2-year, 6-hour storm (if known)

15

RUSLE Factors

Rainfall erosivity (R-factor)

5010

Auto-filled from above

Soil erodibility (K-factor)

0.007

Slope length (m)

53.63

Slope gradient (%)

0.9

RUSLE LS factor calculated for a high rill/interrill ratio.

Length/gradient (LS-factor)

0.16

Erosion control practice (P-factor)

1.3

1.3

1.3

1.3

1.3

1.3

Ground cover (C-factor)

1

1

1

1

1

1

Sediment Basin Design Criteria (for Type D/F basins only. Leave blank for Type C basins)

Storage (soil) zone design (no of months)

2

2

2

2

2

2

Minimum is generally 2 months

Cv (Volumetric runoff coefficient)

0.22

See Table F2, page F-4 in Appendix F

Calculations and Type D/F Sediment Basin Volumes

Soil loss (t/ha/yr)

7

Soil Loss Class

1

See Table 4.2, page 4-13

Soil loss (m3/ha/yr)

6

Conversion to cubic metres

Sediment basin storage (soil) volume (m3)

1

See Sections 6.3.4(i) for calculations

Sediment basin settling (water) volume (m3)

66

See Sections 6.3.4(i) for calculations

Sediment basin total volume (m3)

67

NB for sizing of Type C (coarse) sediment basins, see Worksheet 3 (if required).

Issue

Description

Date

Drawn

Approved

A

ISSUE FOR SCHEMATIC DESIGN

18.07.25

DW

YY

B

REISSUE FOR SCHEMATIC DESIGN

01.08.25

DW

YY

C

ISSUE FOR DRAFT DESIGN DEVELOPMENT

26.09.25

DW

YY

D

ISSUE FOR DESIGN DEVELOPMENT

17.10.25

DW

YY

E

ISSUE FOR TENDER

24.10.25

DW

YY

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Project

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Drawing Title

CIVIL SERVICES
SOIL EROSION AND SEDIMENT CONTROL NOTES

Drawn
DW

Designed
VY

O.A. Check
WM

Date
23.10.25

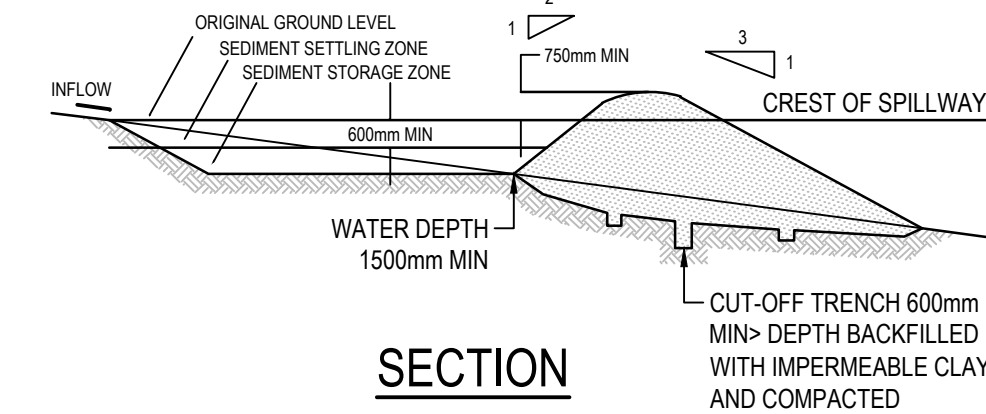
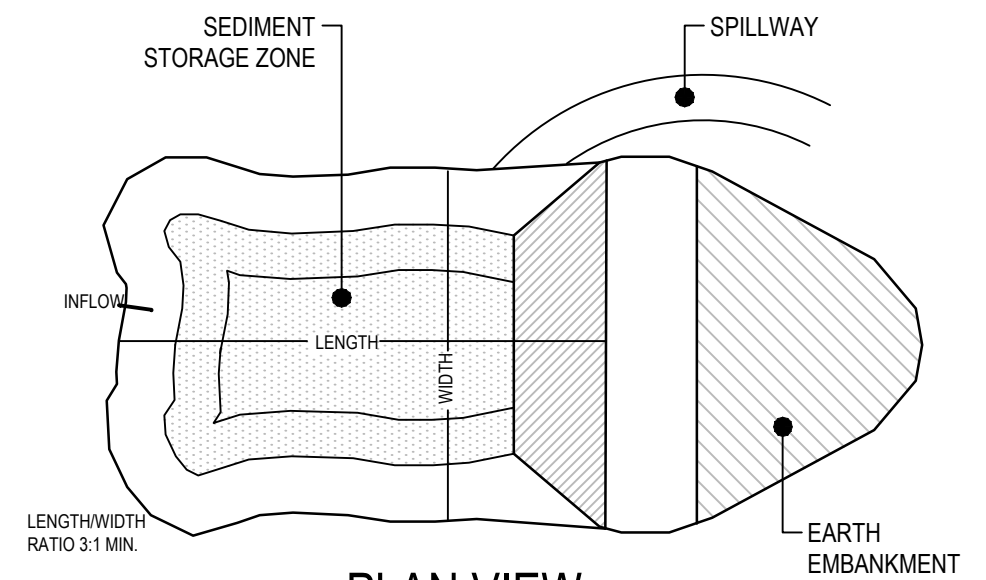
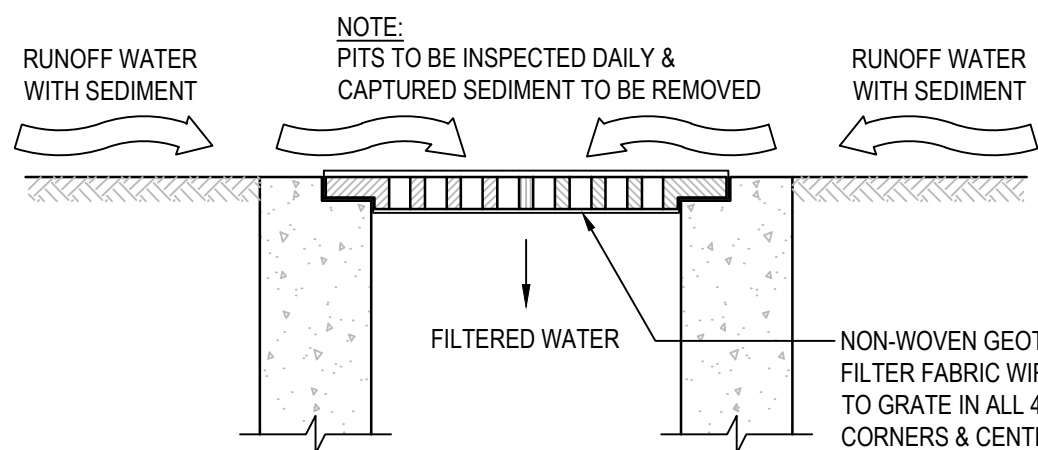
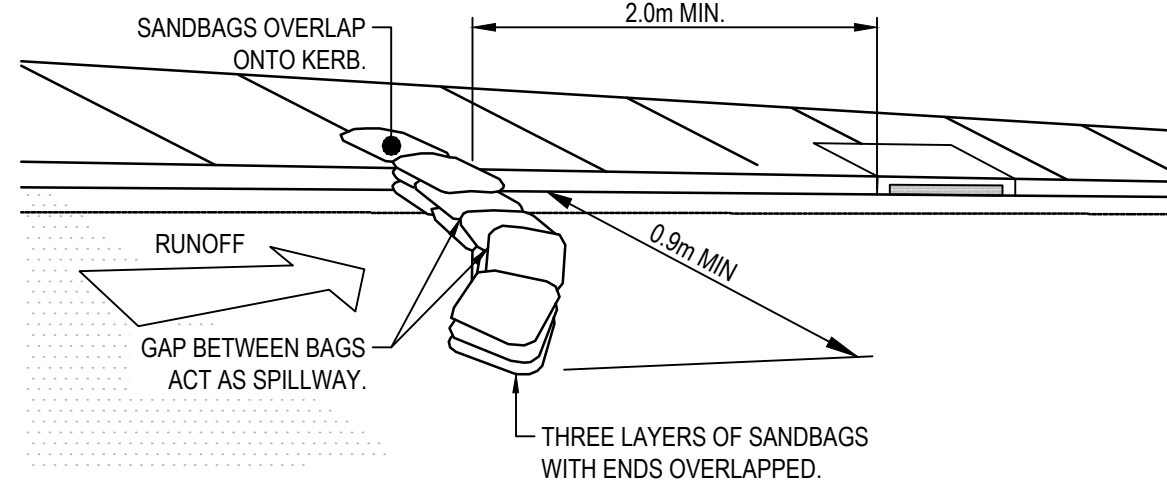
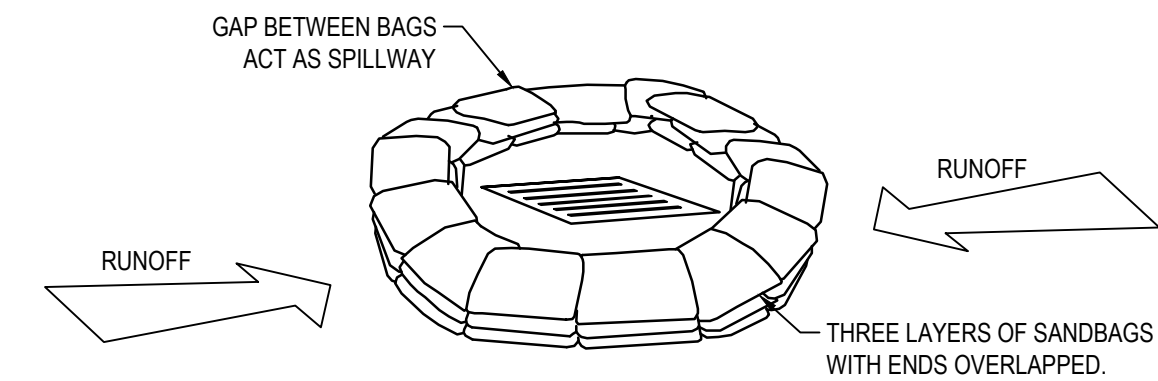
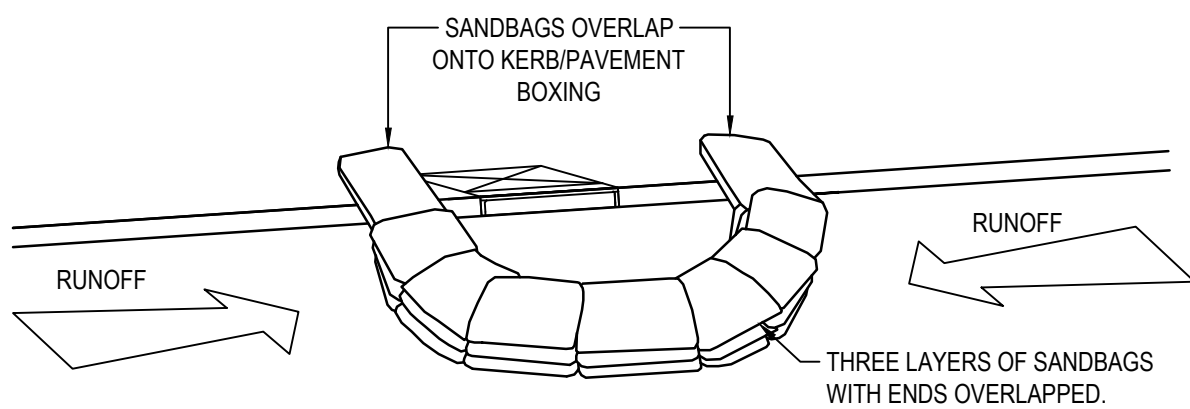
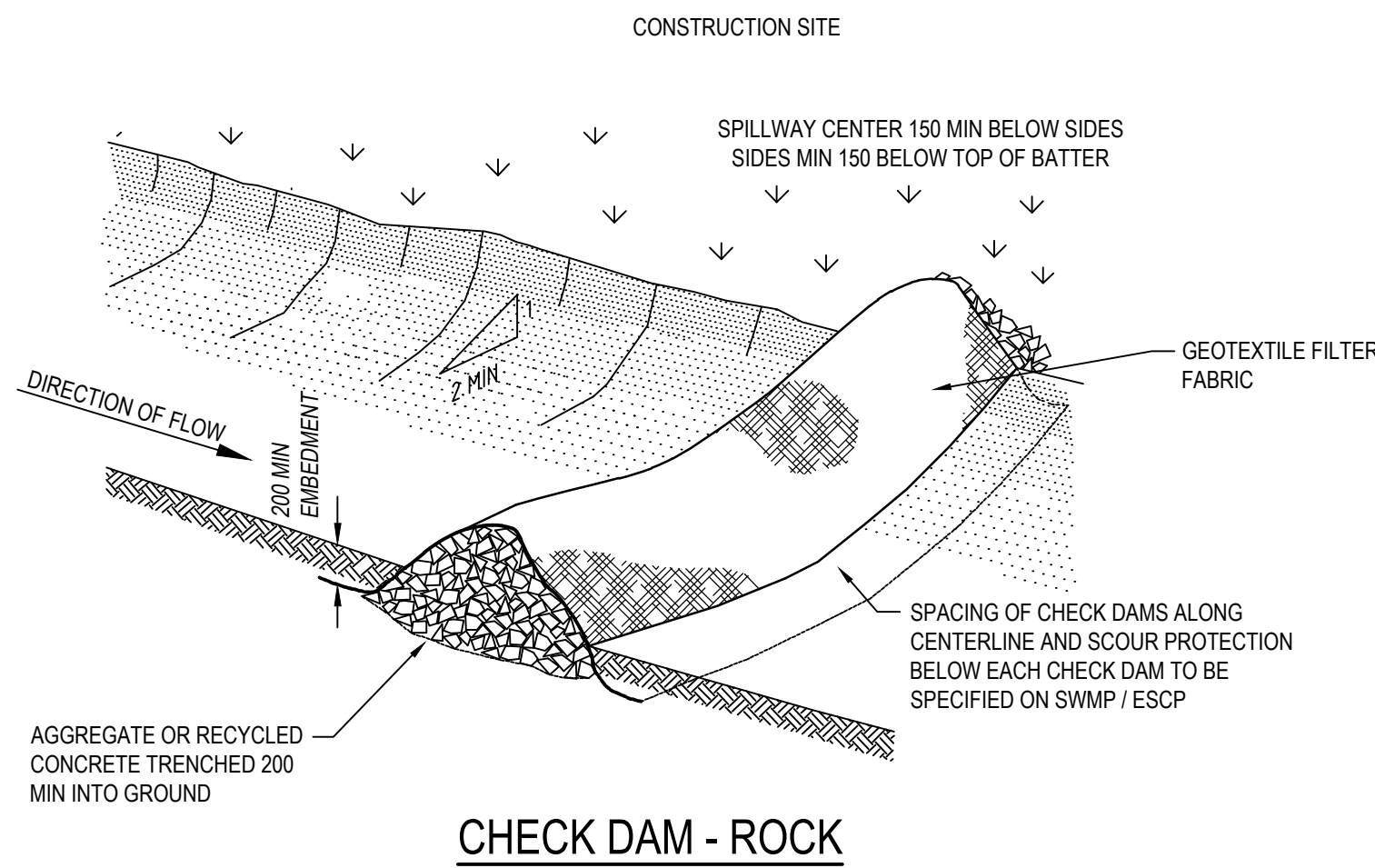
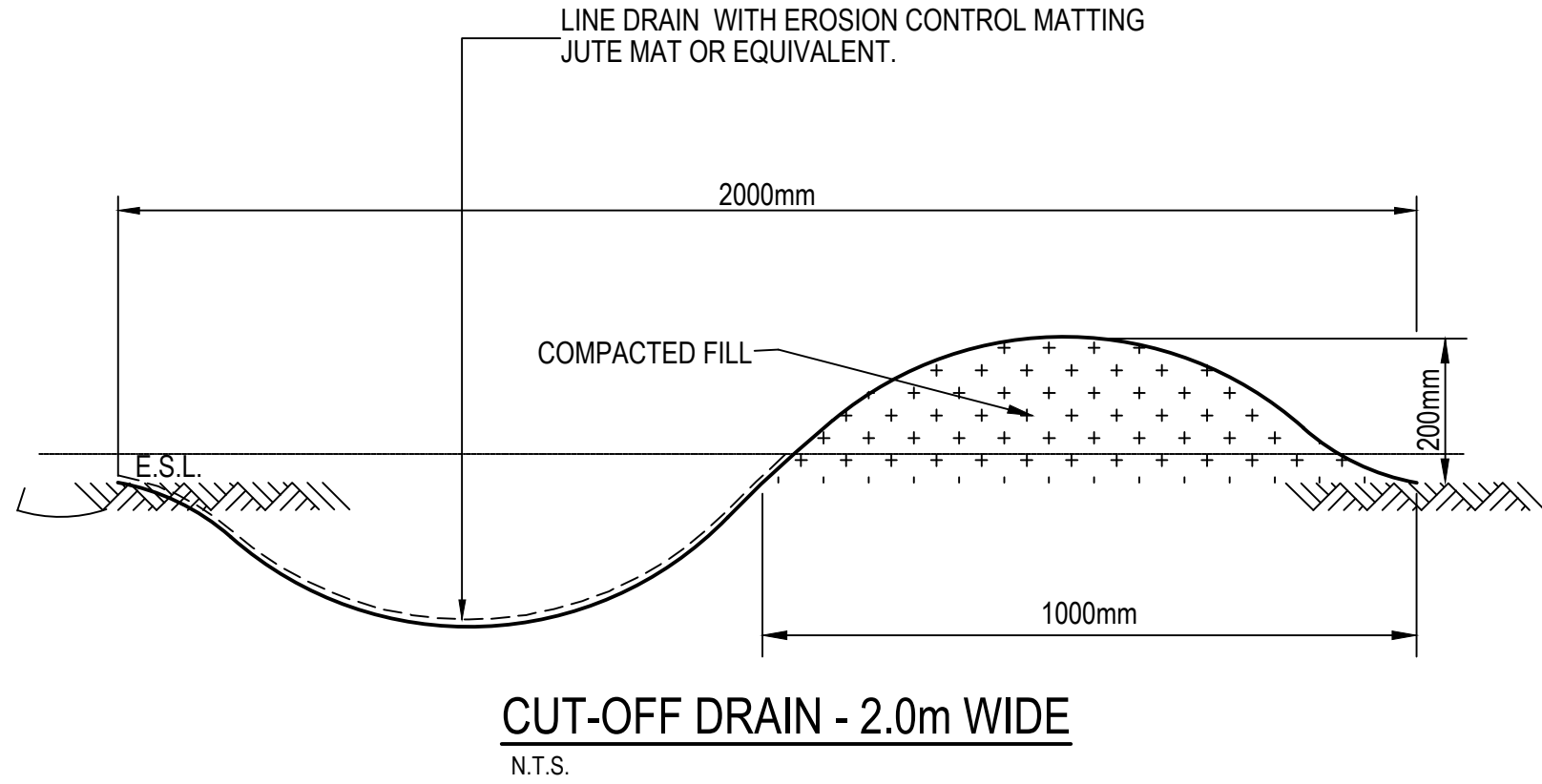
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Project No.
NA242236

Drawing No.
CAV-C03-0101

Issue
E

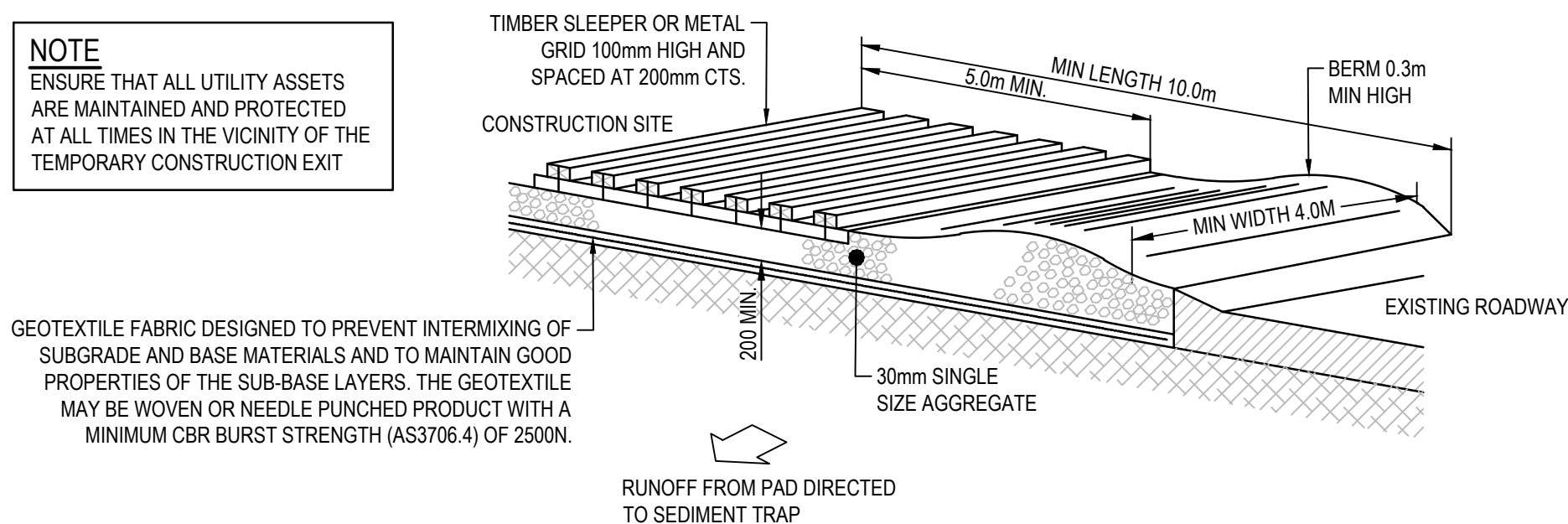
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- Construction Notes
1. REMOVE ANY VEGETATION AND TOPSOIL FROM UNDER THE DAM WALL AND FROM WITHIN THE STORAGE AREA.
 2. CONSTRUCT A CUT-OFF TRENCH 500 mm DEEP AND 1200 mm WIDE ALONG THE CENTRELINE OF THE EMBANKMENT EXTENDING TO A POINT ON THE GULLY WALL LEVEL WITH THE RISER CREST.
 3. MAINTAIN THE TRENCH FREE OF WATER AND RECOMPACT THE MATERIALS WITH EQUIPMENT AS SPECIFIED IN THE SWMP TO 95 PER CENT STANDARD PROCTOR DENSITY.
 4. SELECT FILL FOLLOWING THE SWMP THAT IS FREE OF ROOTS, WOOD, ROCK, LARGE STONE OR FOREIGN MATERIAL.
 5. PREPARE THE SITE UNDER THE EMBANKMENT BY RIPPING TO AT LEAST 100 mm TO HELP BOND COMPACTED FILL TO THE EXISTING SUBSTRATE.
 6. SPREAD THE FILL IN 100 mm TO 150 mm LAYERS AND COMPACT IT AT OPTIMUM MOISTURE CONTENT.
 7. CONSTRUCT THE EMERGENCY SPILLWAY.
 8. REHABILITATE THE STRUCTURE FOLLOWING THE SWMP.

EARTH BASIN - WET
(APPLIES TO TYPE 'D' AND TYPE 'F' SOILS ONLY)

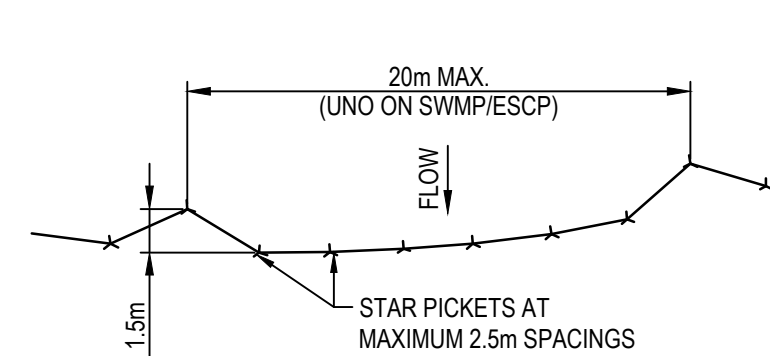
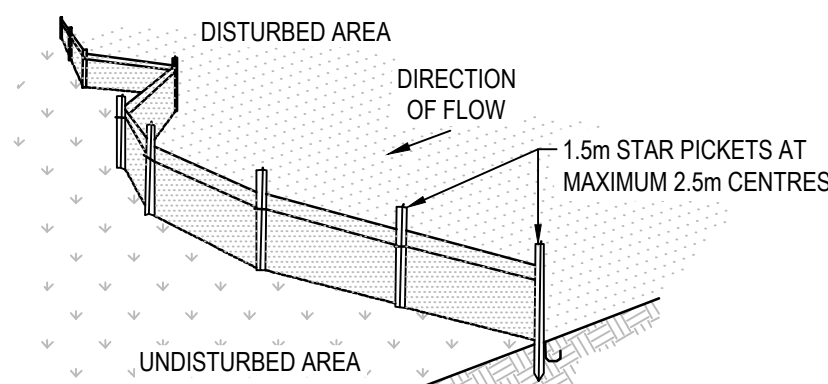
NOTE
ENSURE THAT ALL UTILITY ASSETS ARE MAINTAINED AND PROTECTED AT ALL TIMES IN THE VICINITY OF THE TEMPORARY CONSTRUCTION EXIT



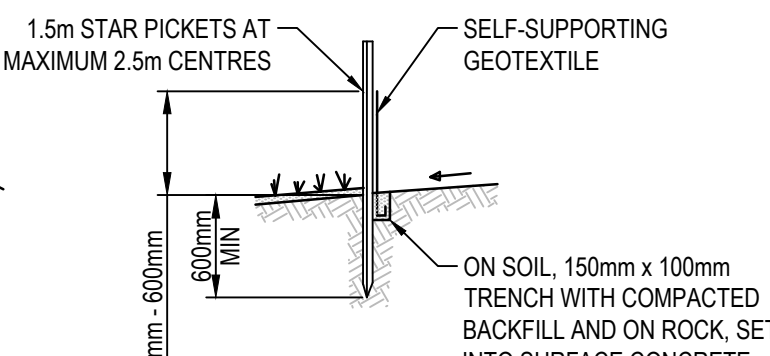
- CONSTRUCTION NOTES**
1. STRIP TOPSOIL AND LEVEL SITE.
 2. COMPACT SUBGRADE.
 3. COVER AREA WITH NEEDLE-PUNCHED GEOTEXTILE.
 4. CONSTRUCT 200mm THICK PAD OVER GEOTEXTILE USING 30mm SINGLE SIZE AGGREGATE.
 5. CONSTRUCT HUMPS IMMEDIATELY WITHIN BOUNDARY TO DIVERT WATER TO A SEDIMENT FENCE OR OTHER SEDIMENT TRAP WHERE THE SEDIMENT IS COLLECTED AND REMOVED.

MAINTENANCE NOTES
THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH PREVENTS TRACKING OR FLOWING OF SEDIMENT OFF THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL GRAVEL AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED OFF THE CONSTRUCTION SITE MUST BE REMOVED IMMEDIATELY.

TEMPORARY STABILISED CONSTRUCTION EXIT
N.T.S.



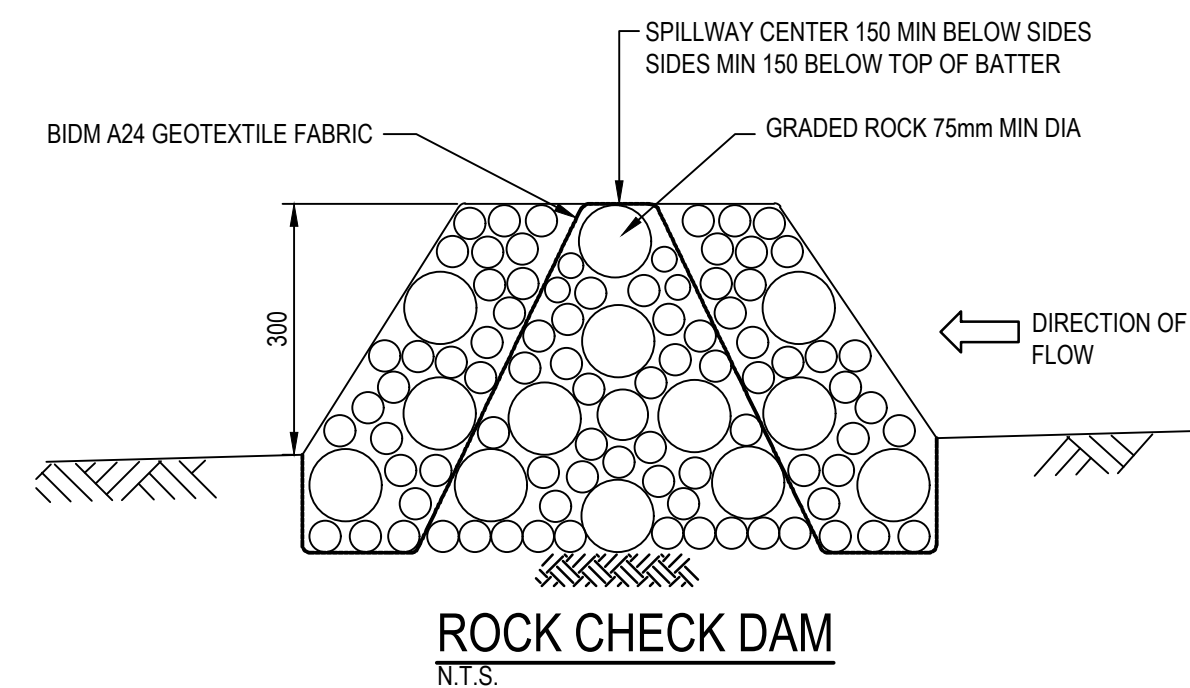
PLAN



SECTION DETAIL

- CONSTRUCTION NOTES**
1. CONSTRUCT SEDIMENT FENCE AS CLOSE AS POSSIBLE TO PARALLEL TO THE CONTOURS OF THE SITE.
 2. DRIVE 1.5m LONG STAR PICKETS INTO GROUND, 2.5 METRES APART (MAX). ENSURE STAR PICKETS ARE FITTED WITH SAFETY CAPS.
 3. DIG A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
 4. BACKFILL TRENCH OVER BASE OF FABRIC.
 5. FIX SELF-SUPPORTING GEOTEXTILE TO UPSLOPE SIDE OF POSTS WITH WIRE TIES OR AS RECOMMENDED BY GEOTEXTILE MANUFACTURER.
 6. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.

SEDIMENT CONTROL FENCE
N.T.S.



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B	NOT IN THIS ISSUE			
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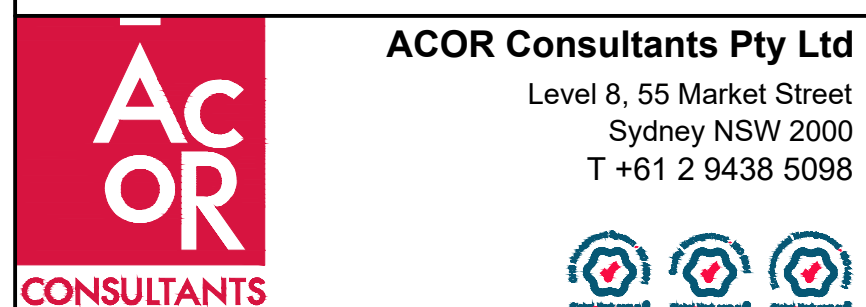
Architect
DJRD ARCHITECTS

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Project
**AMBULANCE INFRASTRUCTURE PROGRAM
CAVES BEACH**

2-4 KAYUGA CLOSE,
CAVES BEACH, NSW ,2281

NOT FOR CONSTRUCTION



Drawing Title
**CIVIL SERVICES
SOIL EROSION AND SEDIMENT CONTROL DETAILS**

Drawn DW	Designed VY	O.A. Check WM	Date 23.10.25	Scale @ A1 AS SHOWN
Project No. NA242236	Drawing No. CAV-C03-0201	Issue E		

EARTHWORKS CUT AND FILL NOTES:

- ALL EARTHWORKS AND SUBGRADE PREPARATION SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE SITE GEOTECHNICAL INVESTIGATION RECOMMENDATIONS
- NO ALLOWANCE HAS BEEN INCLUDED FOR BOXING OUT FOR LANDSCAPING, PAVEMENTS, HARDSCAPE AND OTHER FINISHES. THE CONTRACTOR SHALL ALLOW FOR APPROPRIATE BOX OUT DEPTHS TO ACHIEVE THE REQUIRED SUBGRADE LEVEL TO SUIT THE PROPOSED WORKS.
- NO ALLOWANCE HAS BEEN INCLUDED FOR BOXING OUT FOR FOOTINGS AND SERVICES TRENCHES. THE CONTRACTOR SHALL ALLOW FOR THE REQUIRED EARTHWORKS AND ASSOCIATED DISPOSAL OFF-SITE FOR EXCESS SPOIL PRODUCED BY SUCH EXCAVATIONS.
- BULKING AND COMPACTION FACTORS HAVE NOT BEEN APPLIED TO THE CUT AND FILL QUANTITIES.
- A BOXING OUT OF 200mm FOR THE BUILDING FLOOR SLAB HAS BEEN ALLOWED FOR IN THE CUT AND FILL CALCULATIONS.
- A NOMINAL DEPTH OF 150MM STRIP TO THE EXISTING SURFACE HAS BEEN INCLUDED. THE ACTUAL DEPTH OF STRIPPING ON SITE VARIES AND THE CONTRACTOR SHALL ALLOW TO STRIP AS REQUIRED. WHERE POSSIBLE, STRIP TOPSOIL SHALL BE REUSED ON SITE FOR LANDSCAPING PURPOSES UPON APPROVAL BY THE LANDSCAPE ARCHITECT. EXCESS STRIP TOPSOIL SHALL BE DISPOSED OFFSITE TO AN APPROVED WASTE DISPOSAL FACILITY OR SIMILAR APPROVED LOCATION.

EARTHWORKS CUT AND FILL NOTES: COND

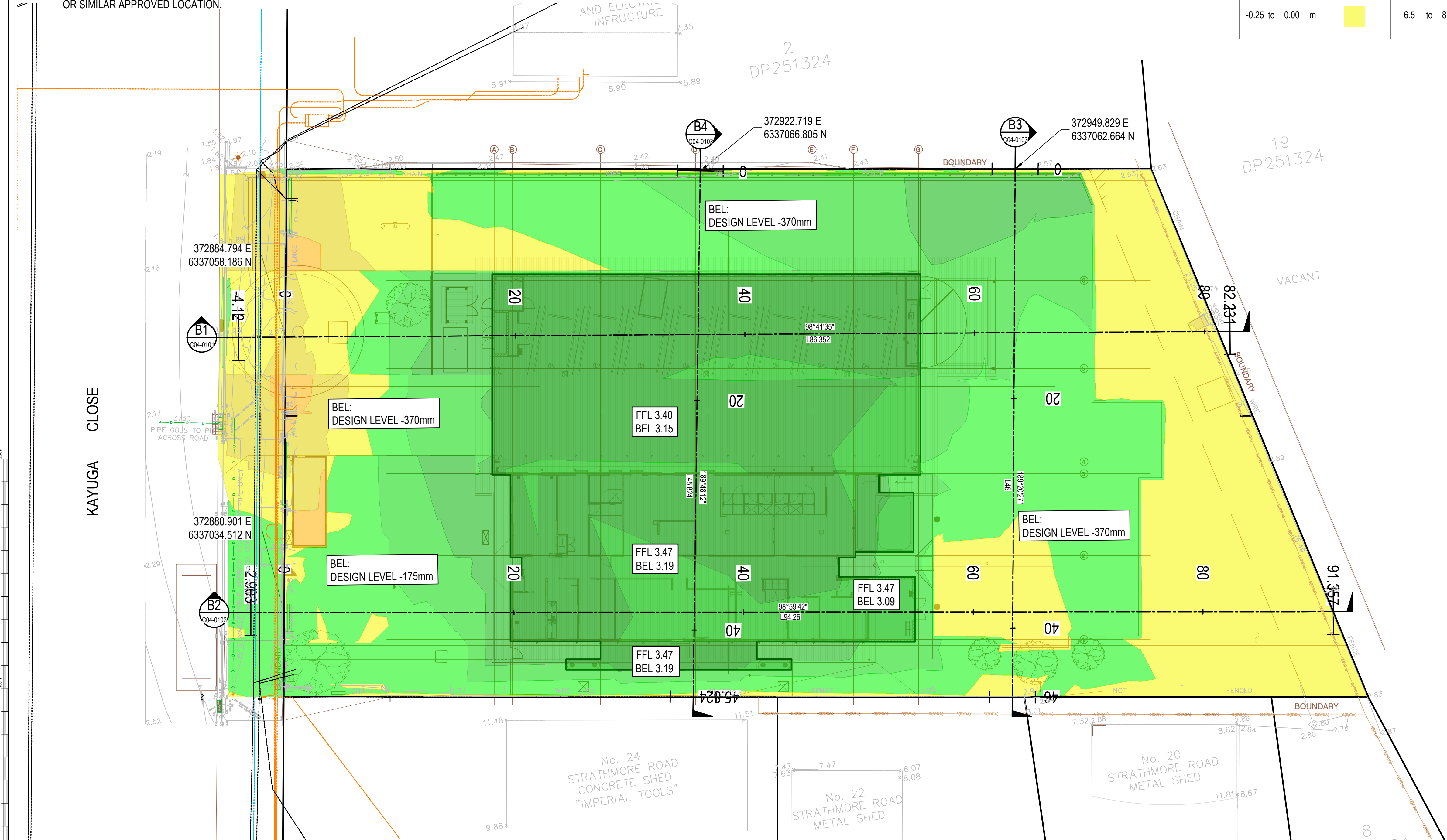
- ALL FILL MATERIAL IS TO BE IMPORTED SPECIFIED CONTROLLED FILL IN ACCORDANCE WITH GEOTECHNICAL RECOMMENDATIONS.
- THE EARTHWORKS VOLUMES ARE FOR THE TOTAL CUT/FILL ONLY AND DOES NOT CONSIDER DIFFERENT SUBGRADE MATERIAL. CONTRACTOR IS TO READ THE GEOTECHNICAL REPORT AND MAKE THEIR OWN ASSESSMENT ON GROUND STRATA CONDITIONS.
- EARTHWORKS VOLUMES ARE INDICATIVELY ONLY.
- DETAILED BULKING AND CUT/FILL QUANTITIES FOR FOOTINGS, TRENCHING AND THE LIKE HAS NOT BEEN INCLUDED IN THE CUT AND FILL ASSESSMENT.
- NO ALLOWANCE FOR TOPSOIL AND FRIABLE SOIL LAYERS HAS BEEN ALLOWED FOR IN LANDSCAPED AREAS. REUSE OF STRIPPED TOPSOIL HAS BEEN ASSUMED.
- ALL TOPSOIL SHALL BE RETAINED ON THE DEVELOPMENT SITE AND UTILISED EFFECTIVELY TO ENCOURAGE APPROPRIATE REVEGETATION.
- THE CONTRACTOR IS RESPONSIBLE FOR RETAINING ALL MATERIAL DISPOSAL RECEIPTS FOR SUBMISSION TO THE PRINCIPAL REPRESENTATIVE FOR REVIEW AND APPROVAL

CUT / FILL QUANTITIES

TOTAL CUT	- 145m³
TOTAL FILL	1075m³
TOTAL BALANCE	930m³ (FILL)

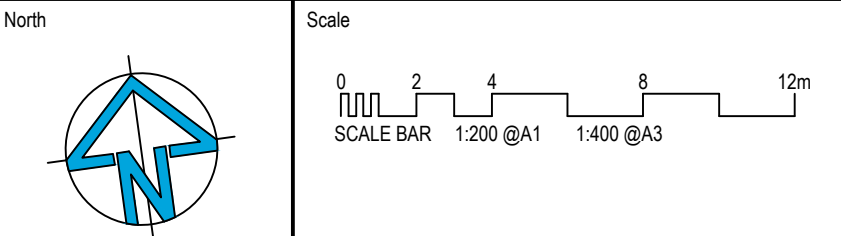
LEGEND

CUT	FILL
-8 to -6.5 m	0.00 to 0.25 m
-6.5 to -5 m	0.25 to 0.5 m
-5.00 to -4.00 m	0.50 to 0.75 m
-4.00 to -3.00 m	0.75 to 1.00 m
-3.00 to -2.50 m	1.00 to 1.50 m
-2.50 to -2.00 m	1.50 to 2.00 m
-2.00 to -1.50 m	2.00 to 2.50 m
-1.50 to -1.00 m	2.50 to 3.00 m
-1.00 to -0.75 m	3.00 to 4.00 m
-0.75 to -0.50 m	4.00 to 5.00 m
-0.50 to -0.25 m	5.00 to 6.5 m
-0.25 to 0.00 m	6.5 to 8 m



Issue	Description	Date	Drawn	Approved
A	ISSUE FOR SCHEMATIC DESIGN	18.07.25	DW	VY
B	REISSUE FOR SCHEMATIC DESIGN	01.08.25	DW	VY
C	ISSUE FOR DRAFT DESIGN DEVELOPMENT	26.09.25	DW	VY
D	ISSUE FOR DESIGN DEVELOPMENT	17.10.25	DW	VY
E	ISSUE FOR TENDER	24.10.25	DW	VY

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Project
AMBULANCE INFRASTRUCTURE PROGRAM
CAVES BEACH
2-4 KAYUGA CLOSE,
CAVES BEACH, NSW, 2281

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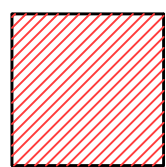
Drawing Title
CIVIL SERVICES
BULK EARTHWORKS PLAN

Drawn DW	Designed VY	Q.A. Check WM	Date 23.10.25	Scale @ A1 1:200
Project No. NA242236	Drawing No. CAV-C04-0001	Issue E		



Issue	Description	Date	Drawn	Approved
A	ISSUE FOR SCHEMATIC DESIGN	18.07.25	DW	VY
B	REISSUE FOR SCHEMATIC DESIGN	01.08.25	DW	VY
C	ISSUE FOR DRAFT DESIGN DEVELOPMENT	26.09.25	DW	VY
D	ISSUE FOR DESIGN DEVELOPMENT	17.10.25	DW	VY

CUT/FILL LEGEND



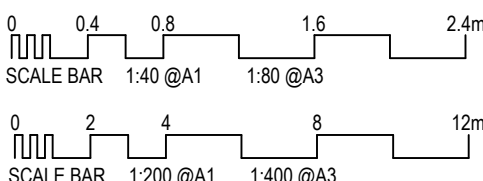
INDICATES AREAS OF CUT

INDICATES AREAS OF FILL

PRINT IN COLOUR

North

Scale



Client



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AMBULANCE INFRASTRUCTURE PROGRAM
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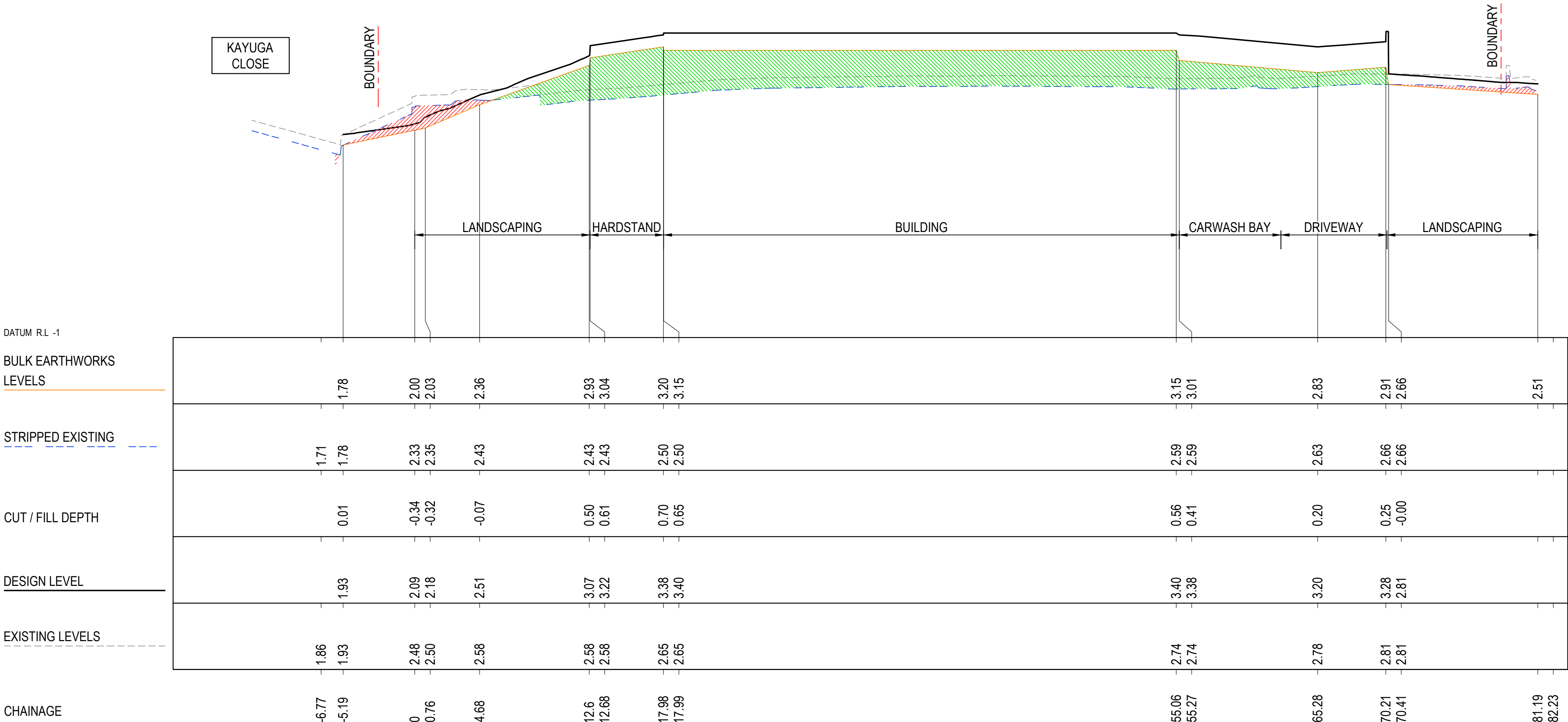


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Drawing Title
CIVIL SERVICES
BULK EARTHWORKS SECTIONS
SHEET 1

Drawn DW	Designed VY	O.A. Check GL	Date 16.10.25	Scale @ A1 AS SHOWN
Project No. NA242236	Drawing No. CAV-C04-0101	Issue D		



SECTION

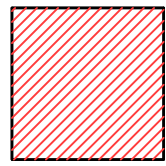
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A1 Vertical scale 1:40

B1

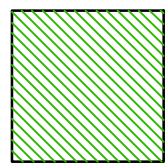
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Issue	Description	Date	Drawn	Approved
A	ISSUE FOR SCHEMATIC DESIGN	18.07.25	DW	VY
B	REISSUE FOR SCHEMATIC DESIGN	01.08.25	DW	VY
C	ISSUE FOR DRAFT DESIGN DEVELOPMENT	26.09.25	DW	VY
D	ISSUE FOR DESIGN DEVELOPMENT	17.10.25	DW	VY

CUT/FILL LEGEND



INDICATES AREAS OF CUT

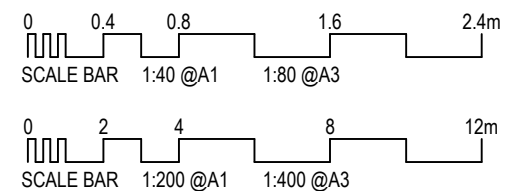


INDICATES AREAS OF FILL

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North

Scale



Client



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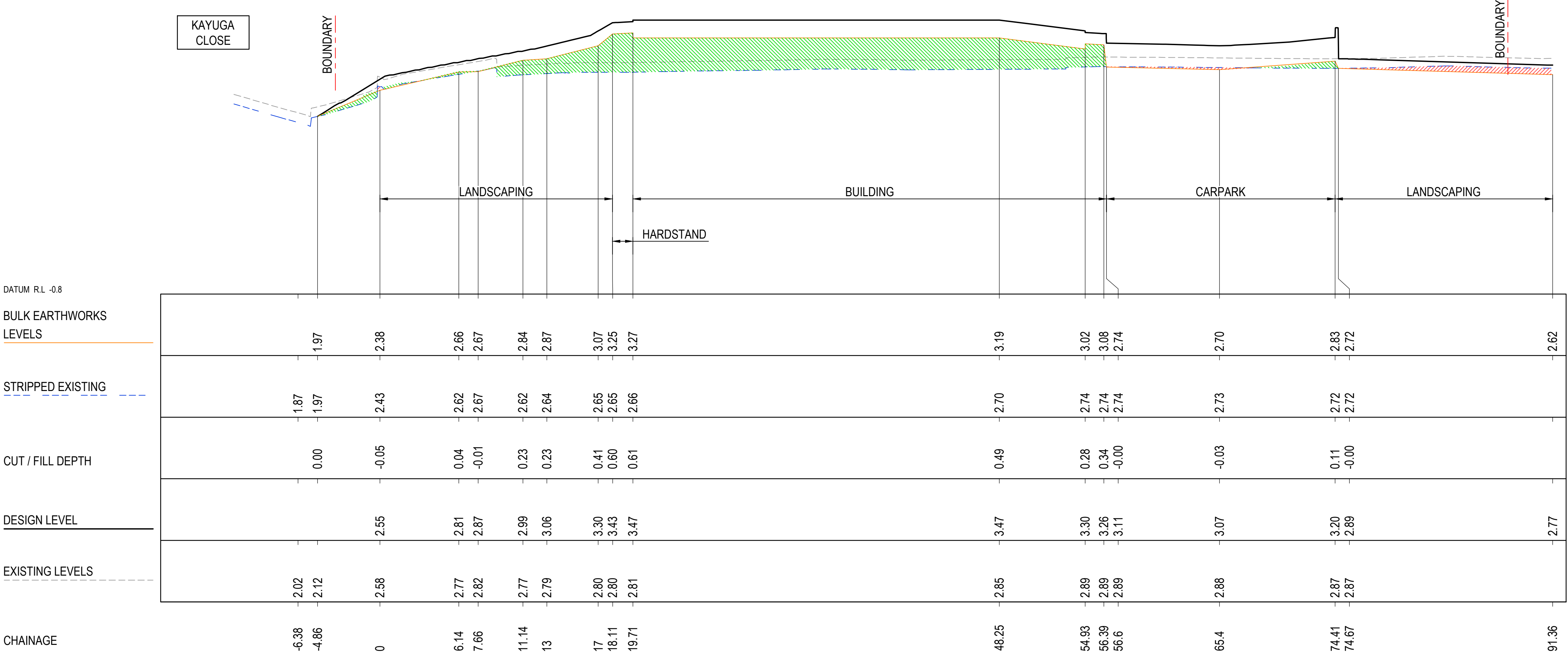


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Drawing Title
CIVIL SERVICES
BULK EARTHWORKS SECTIONS
SHEET 2

Drawn DW	Designed VY	O.A. Check GL	Date 16.10.25	Scale @ A1 AS SHOWN
Project No. NA242236	Drawing No. CAV-C04-0102	Issue D		

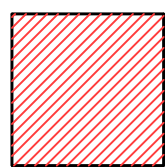


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C04-0001

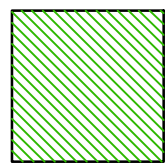


Issue	Description	Date	Drawn	Approved
A	ISSUE FOR SCHEMATIC DESIGN	18.07.25	DW	VY
B	REISSUE FOR SCHEMATIC DESIGN	01.08.25	DW	VY
C	ISSUE FOR DRAFT DESIGN DEVELOPMENT	26.09.25	DW	VY
D	ISSUE FOR DESIGN DEVELOPMENT	17.10.25	DW	VY

CUT/FILL LEGEND



INDICATES AREAS OF CUT

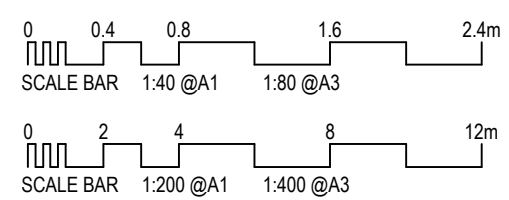


INDICATES AREAS OF FILL

PRINT IN COLOUR

North

Scale



Client



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Project

AMBULANCE INFRASTRUCTURE PROGRAM
CAVES BEACH
2-4 KAYUGA CLOSE,
CAVES BEACH, NSW ,2281

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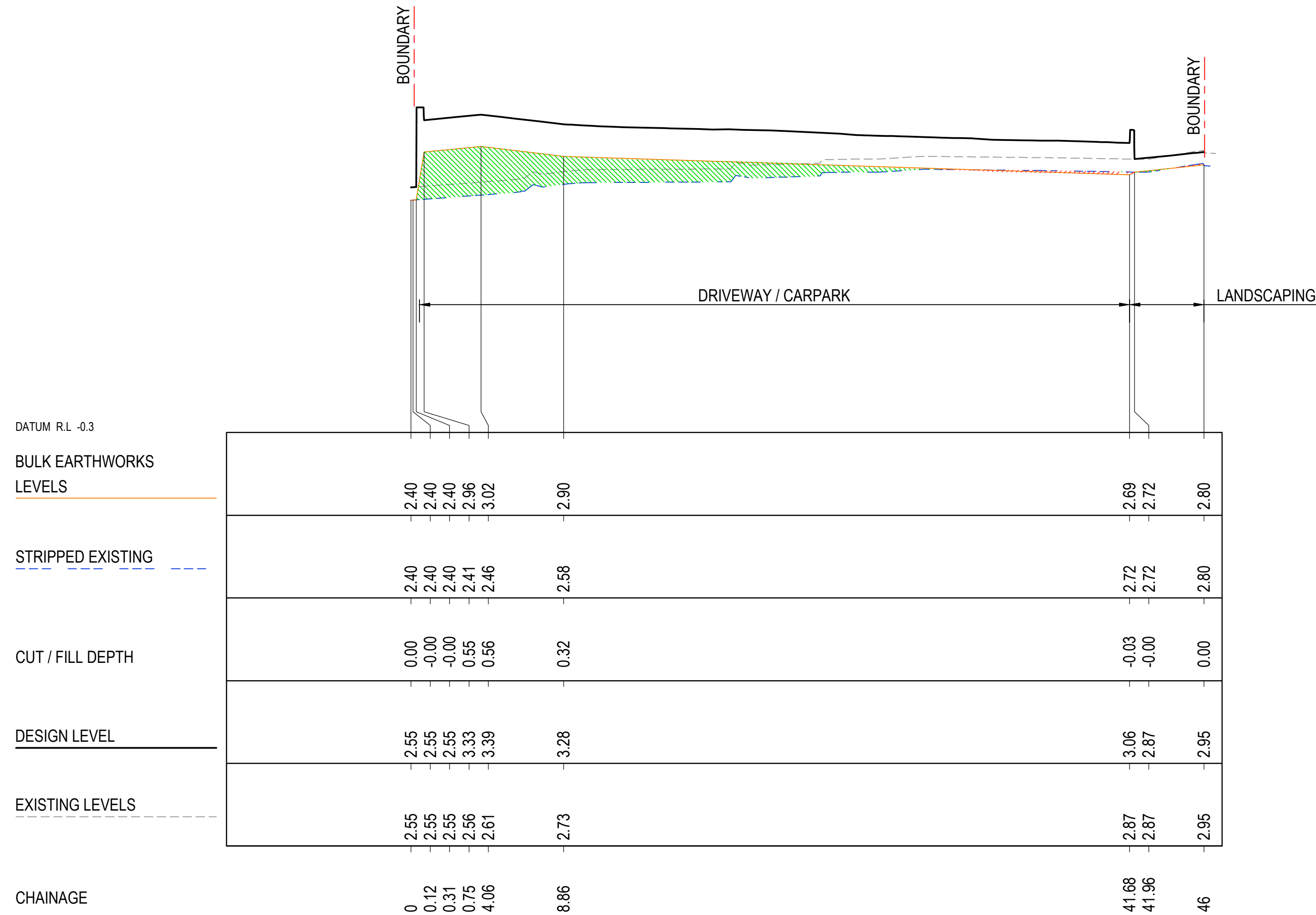


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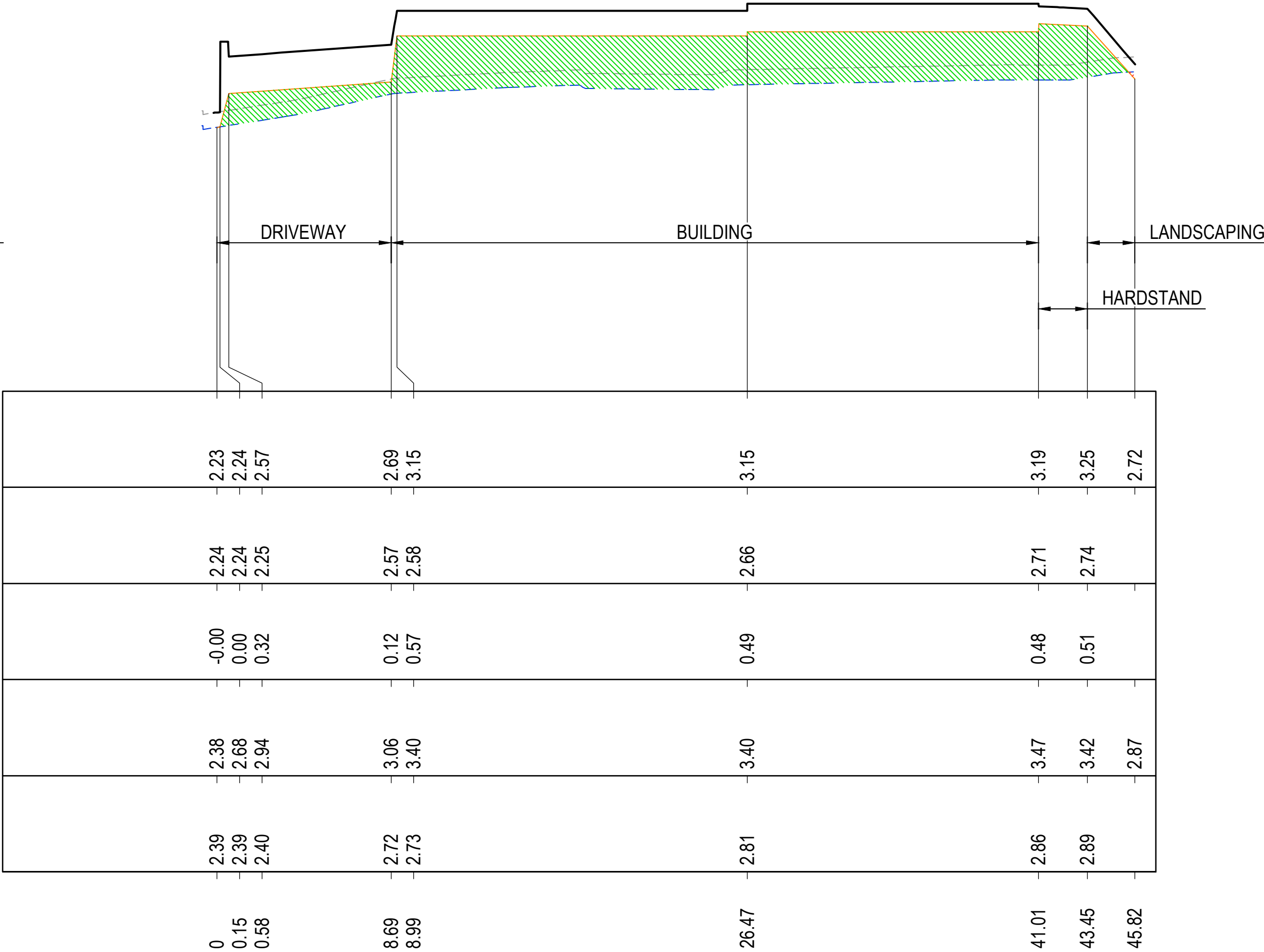


Drawing Title
CIVIL SERVICES
BULK EARTHWORKS SECTIONS
SHEET 3

Drawn DW	Designed VY	D.A. Check GL	Date 16.10.25	Scale @ A1 AS SHOWN
Project No. NA242236	Drawing No. CAV-C04-0103	Issue D		

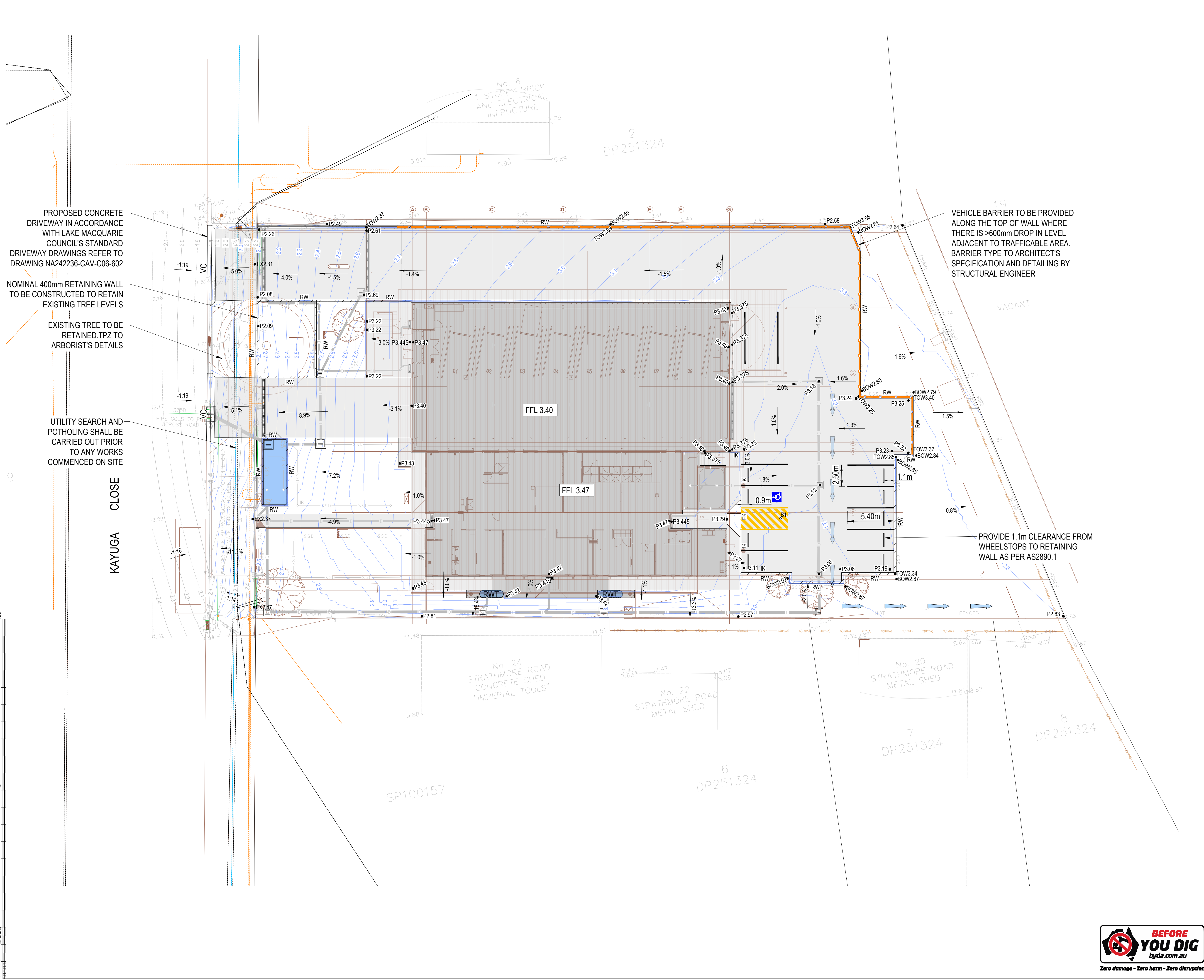


SECTION B3
A1 Horizontal scale 1:200
A1 Vertical scale 1:40
C04-0001



SECTION B4
A1 Horizontal scale 1:200
A1 Vertical scale 1:40
C04-0001





Issue	Description	Date	Drawn	Approved
A	ISSUE FOR SCHEMATIC DESIGN	18.07.25	DW	YY
B	REISSUE FOR SCHEMATIC DESIGN	01.08.25	DW	YY
C	ISSUE FOR DRAFT DESIGN DEVELOPMENT	26.09.25	DW	YY
D	ISSUE FOR DESIGN DEVELOPMENT	17.10.25	DW	YY

PRINT IN COLOUR

North

Scale

0 2 4 8 12m

SCALE BAR 1:200 @A1 1:400 @A3

Client

NSW Health Infrastructure NSW Ambulance

Architect

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Project

AMBULANCE INFRASTRUCTURE PROGRAM
CAVES BEACH
2-4 KAYUGA CLOSE,
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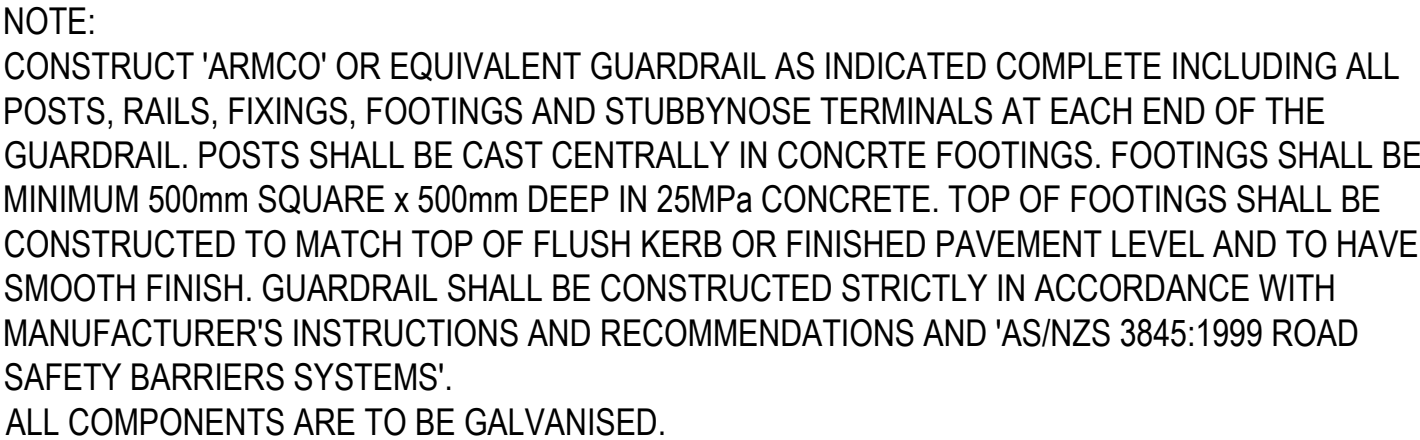
Drawing Title

CIVIL SERVICES
SITEWORKS AND GRADING PLAN

Drawn	Designed	Q.A. Check	Date	Scale @ A1
DW	VY	GL	16.10.25	1:200

Project No.	Drawing No.	Issue
NA242236	CAV-C05-0001	D

BEFORE YOU DIG
byda.com.au
Zero damage - Zero harm - Zero disruption



SCALE 1:20



SCALE 1:20

- CONSTRUCT IN ACCORDANCE WITH AS/NZS 2890.6
- DEDICATED SPACE AND SHARED SPACE DIMENSIONS TO BE CONFIRMED ON PLANS
- PROVIDE SHARED AREA AT THE END OF THE DEDICATED PARKING SPACE WITH A MAXIMUM 1:40 GRADE IN ANY DIRECTION. REFER TO PLAN FOR FURTHER DETAILS.
- ALL PAVEMENT MARKINGS SHALL HAVE A SLIP RESISTANT SURFACE IN ACCORDANCE WITH AS/NZS 2890.6

* 500 TO 600 IN ACCORDANCE WITH AS/NZS 2890.6



NOTE 1: GRADE AT 1:8 UP TO A MAXIMUM OF 1:4 GRADE IF REQUIRED TO ALLOW CONSTRUCTION OF FOOTPATH CLEAR LANDING IN CONSTRAINED AREAS. GREATER THAN 1:8 GRADE ONLY ALLOWABLE WHERE RAMP DOES NOT FORM PART OF THE PEDESTRIAN PATHWAY. 1:4 GRADE ON RAMP SPLAY REQUIRES HANDRAIL TO AS/NZS 1428.1

NOTE 2: CONTRACTOR TO INSTALL TACTILE PAVEMENT MARKERS IN ACCORDANCE WITH AS/NZS 1428.4



SCALE 1:20

PLAN



SCALE 1:20

NOTE: CONSTRUCT SAWCUT JOINTS IN CONCRETE MEDIAN AT MAX. 2.0m CENTRES AND EXPANSION JOINTS AT MAX. 8.0m CENTRES



SCALE 1:10
SHOWN AS 'MK'



SCALE 1:10
SHOWN AS 'IK'

PRINT IN COLOUR 

North

Scale

Client



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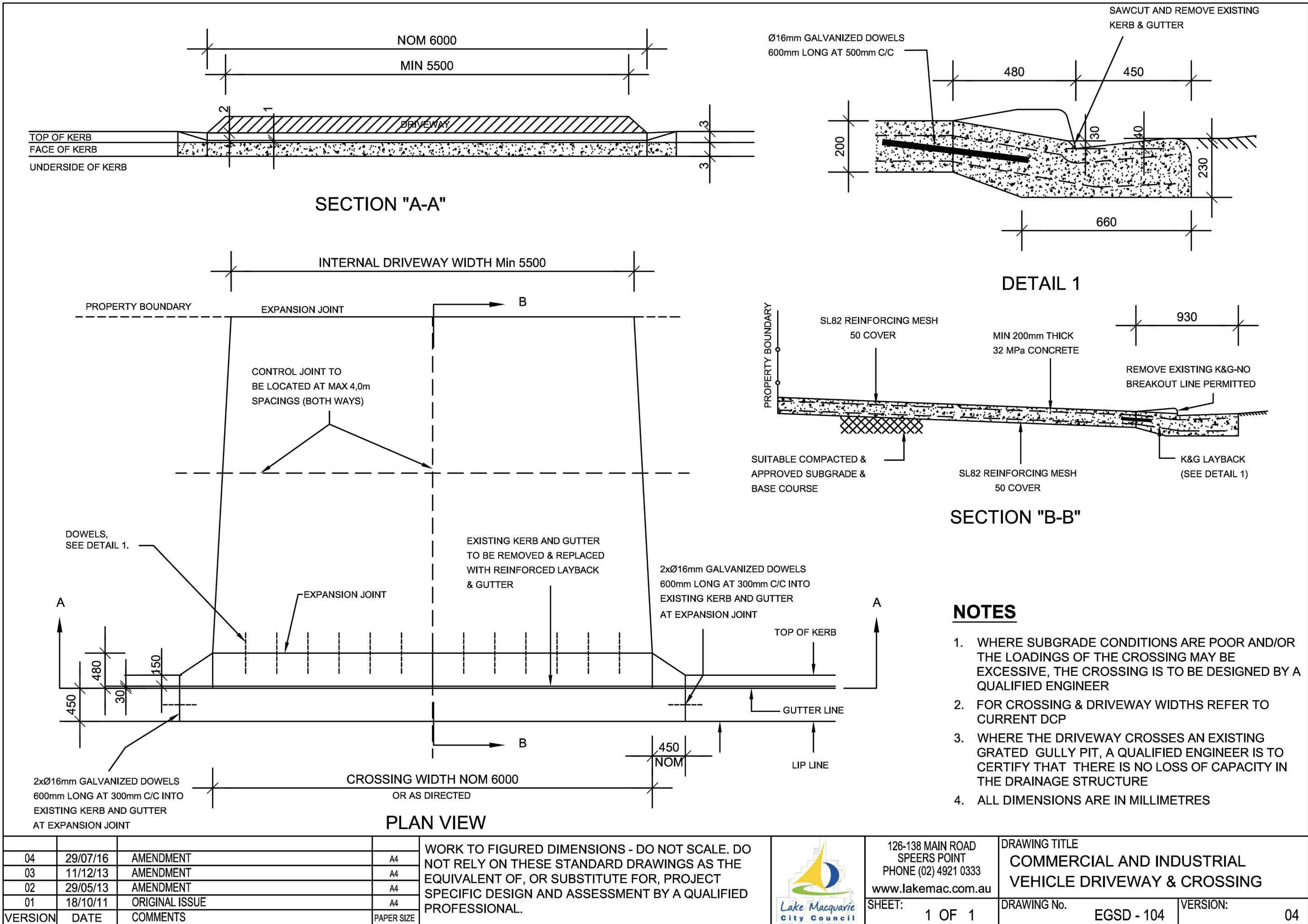
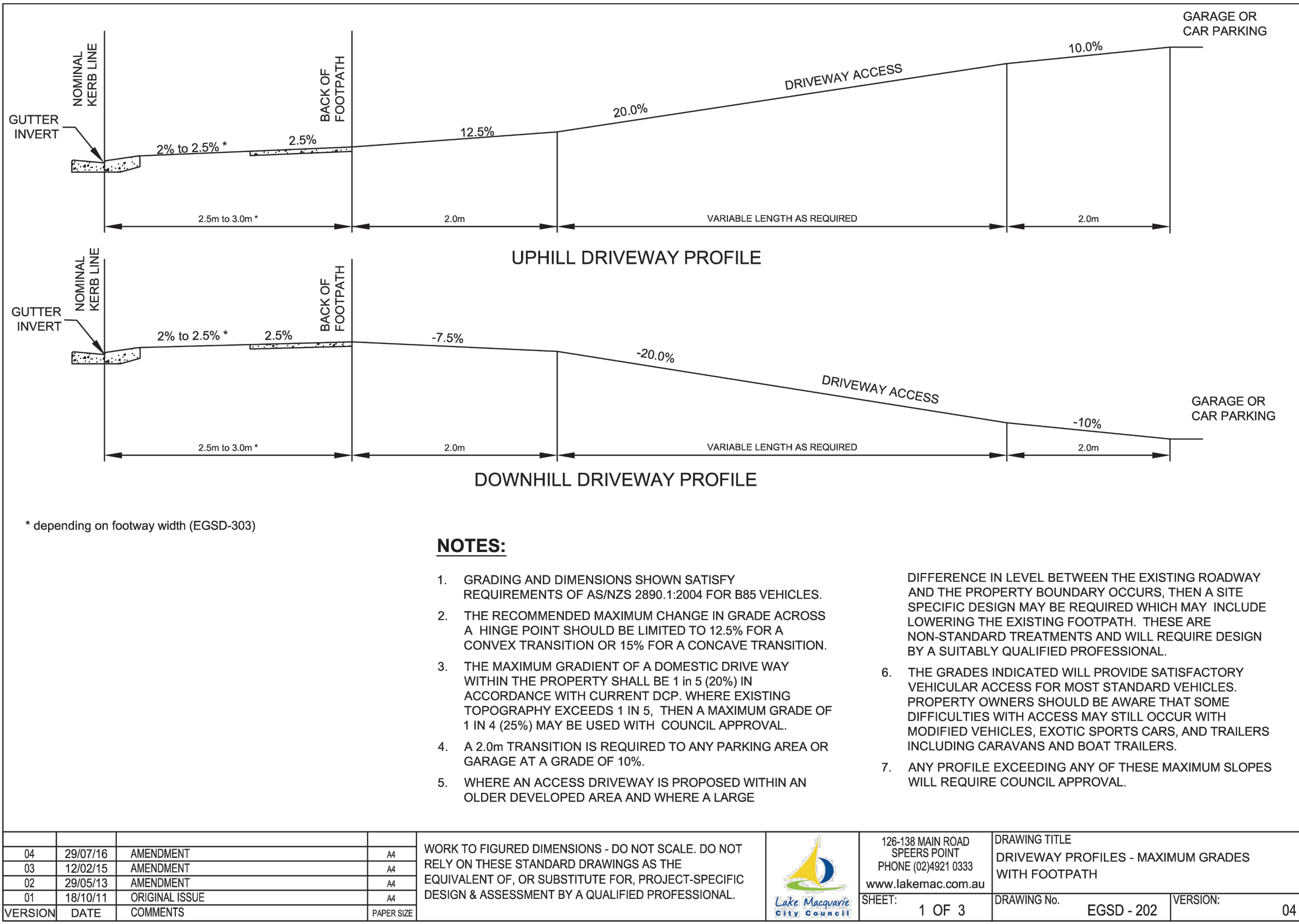
Project
AMBULANCE INFRASTRUCTURE PROGRAM
CAVES BEACH
2-4 KAYUGA CLOSE,
CAVES BEACH, NSW ,2281

NOT FOR CONSTRUCTION



Drawing Title
CIVIL SERVICES
SITEWORKS DETAILS
SHEET 1

Drawn DW	Designed VY	Q.A. Check WM	Date 23.10.25	Scale @ A1 AS SHOWN
Project No. NA242236	Drawing No. CAV-C06-0601			Issue E



Issue	Description	Date	Drawn	Approved
A	NOT IN THIS ISSUE			
B	NOT IN THIS ISSUE			
C	NOT IN THIS ISSUE			
D	ISSUE FOR DESIGN DEVELOPMENT	17.10.25	DW	VY
E	ISSUE FOR TENDER	24.10.25	DW	VY

PRINT IN COLOUR

North Scale

Client

NSW Health Infrastructure NSW Ambulance

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Project
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CAVES BEACH, NSW ,2281

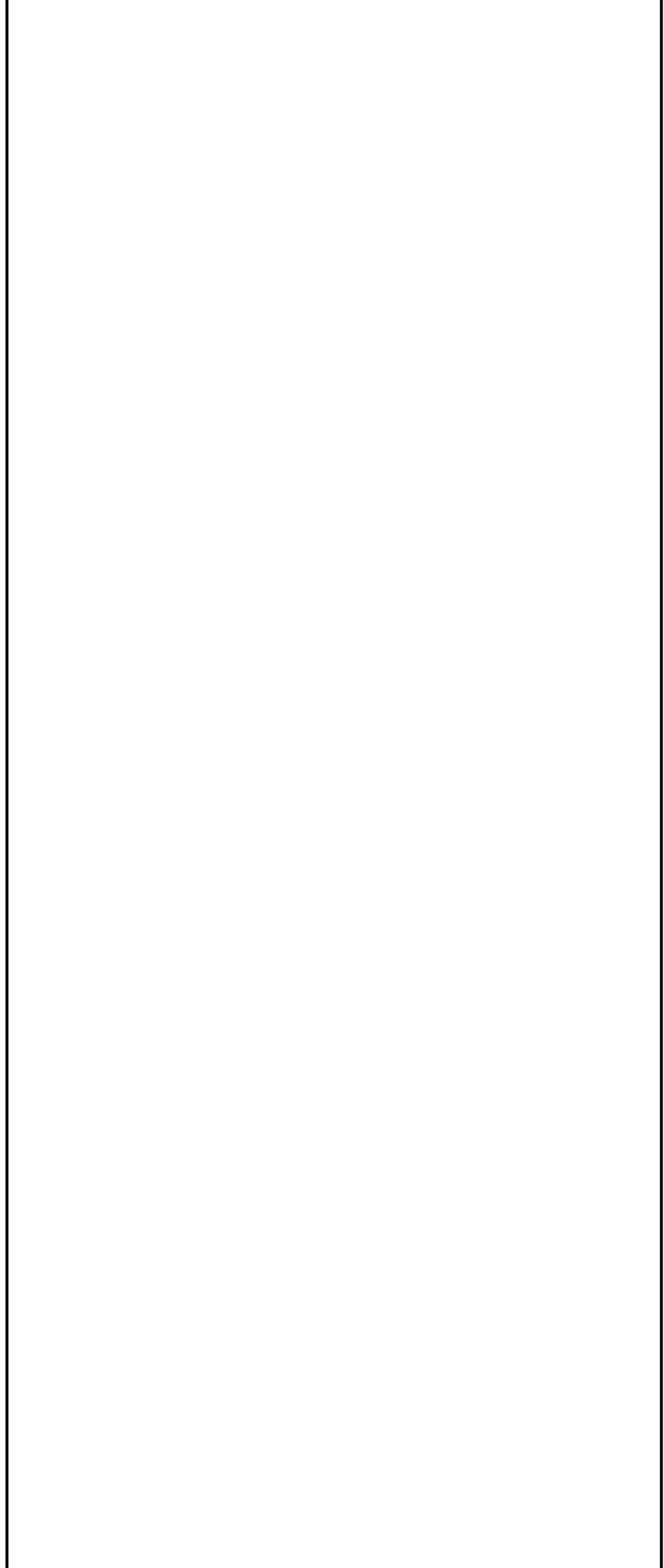
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Drawing Title
CIVIL SERVICES
SITEWORKS DETAILS
SHEET 2

Drawn DW	Designed VY	O.A. Check WM	Date 23.10.25	Scale @ A1 AS SHOWN
Project No. NA242236	Drawing No. CAV-C06-0602	Issue E		

Issue	Description	Date	Drawn	Approved
A	ISSUE FOR SCHEMATIC DESIGN	18.07.25	DW	VY
B	REISSUE FOR SCHEMATIC DESIGN	01.08.25	DW	VY
C	ISSUE FOR DRAFT DESIGN DEVELOPMENT	26.09.25	DW	VY
D	ISSUE FOR DESIGN DEVELOPMENT	17.10.25	DW	VY
E	ISSUE FOR TENDER	24.10.25	DW	VY



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North

Scale

Client

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Project

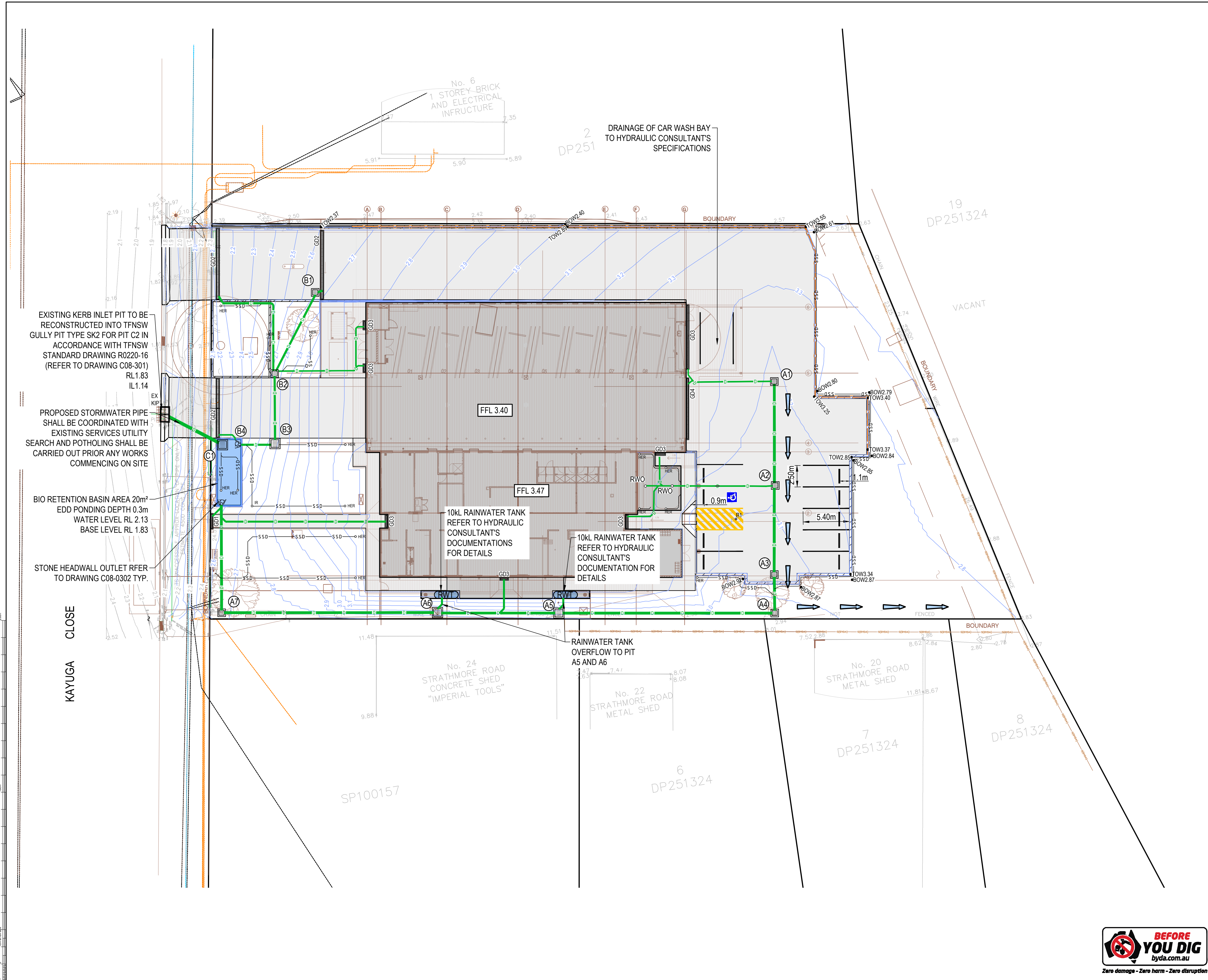
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CAVES BEACH**
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CAVES BEACH, NSW ,2281

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Drawing Title
**CIVIL SERVICES
STORMWATER MANAGEMENT PLAN**

Drawn	Designed	Q.A. Check	Date	Scale @ A1
DW	VY	WM	23.10.25	1:200
Project No.	Drawing No.			Issue
NA242236	CAV-C08-0001			E



Issue	Description	Date	Drawn	Approved
A	ISSUE FOR SCHEMATIC DESIGN	18.07.25	DW	YY
B	REISSUE FOR SCHEMATIC DESIGN	01.08.25	DW	YY
C	ISSUE FOR DRAFT DESIGN DEVELOPMENT	26.09.25	DW	YY
D	ISSUE FOR DESIGN DEVELOPMENT	17.10.25	DW	YY
E	ISSUE FOR TENDER	24.10.25	DW	YY

PRINT IN COLOUR

North	Scale
	0 1 2 4 6m SCALE BAR 1:100 @A1 1:200 @A3
	0 5 10 20 30m SCALE BAR 1:500 @A1 1:1000 @A3



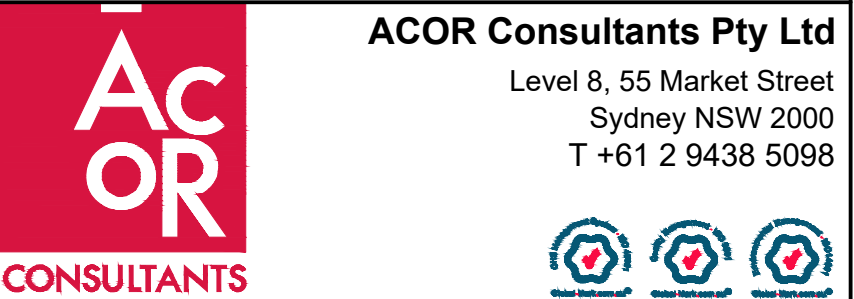
Architect
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Project
AMBULANCE INFRASTRUCTURE PROGRAM
CAVES BEACH

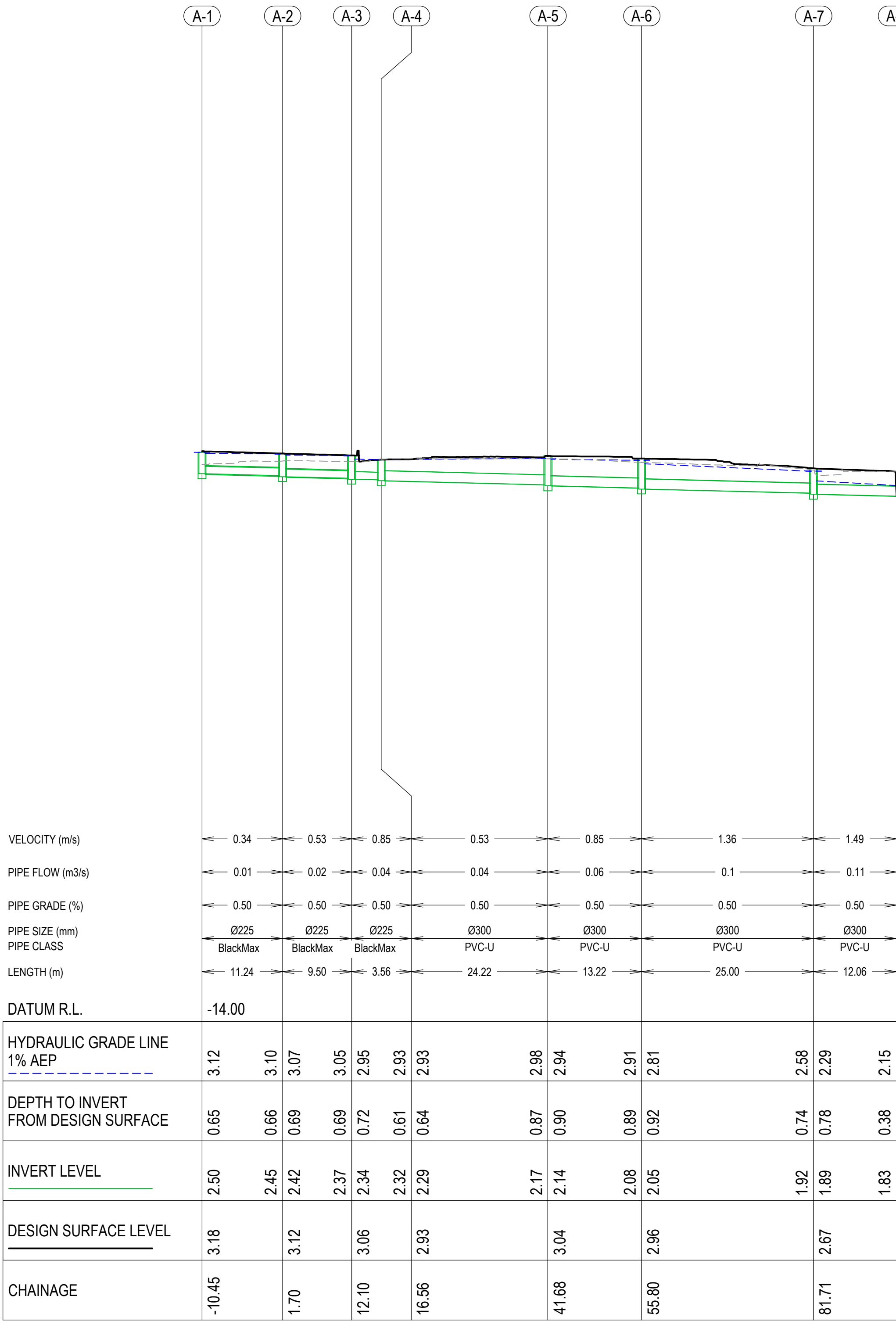
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CAVES BEACH, NSW ,2281

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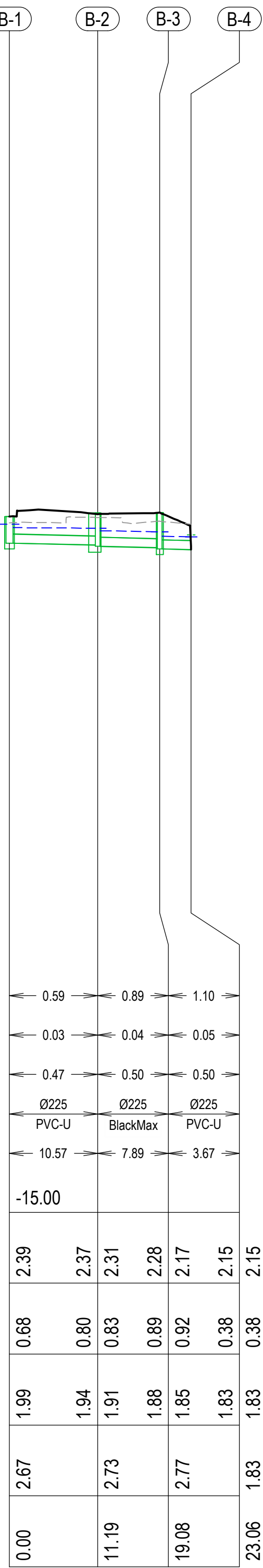


Drawing Title
CIVIL SERVICES
STORMWATER LONGITUDINAL SECTIONS
SHEET 1

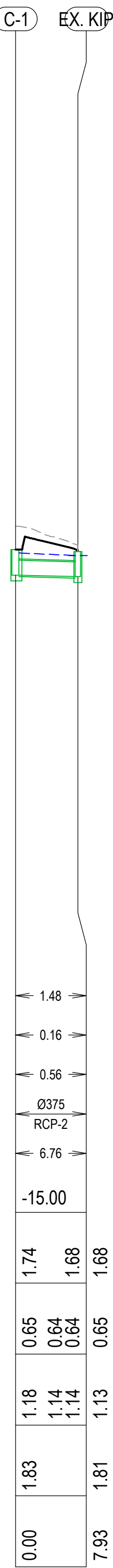
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Project No. NA242236	Drawing No. CAV-C08-0101			Issue E



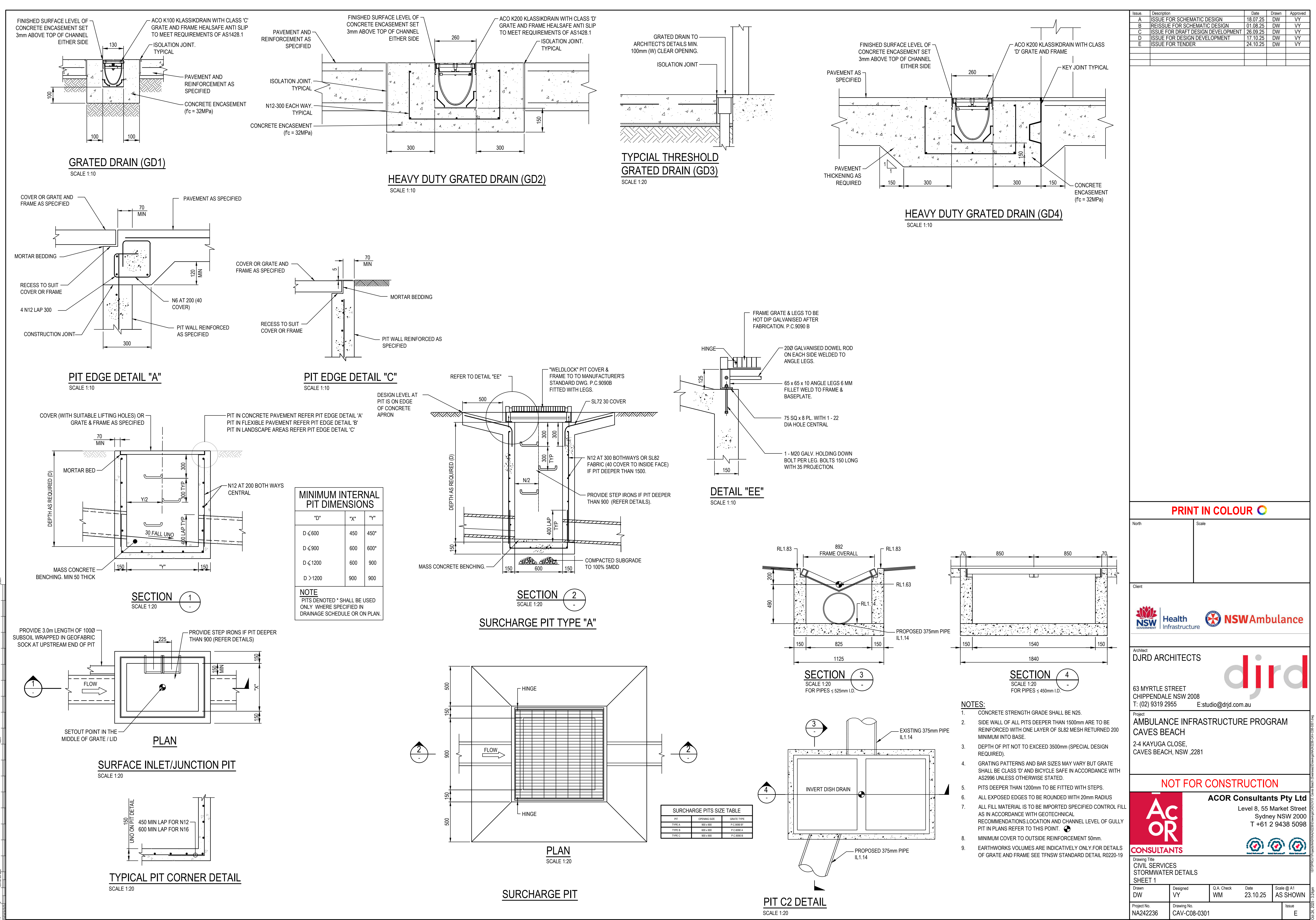
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A1 Horizontal scale 1:500
A1 Vertical scale 1:100



LINE B
A1 Horizontal scale 1:500
A1 Vertical scale 1:100



LINE C
A1 Horizontal scale 1:500
A1 Vertical scale 1:100



Issue	Description	Date	Drawn	Approved
A	ISSUE FOR SCHEMATIC DESIGN	18.07.25	DW	VY
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C	ISSUE FOR DRAFT DESIGN DEVELOPMENT	26.09.25	DW	VY
D	ISSUE FOR DESIGN DEVELOPMENT	17.10.25	DW	VY
E	ISSUE FOR TENDER	24.10.25	DW	VY

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North Scale

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Project
**AMBULANCE INFRASTRUCTURE PROGRAM
CAVES BEACH**
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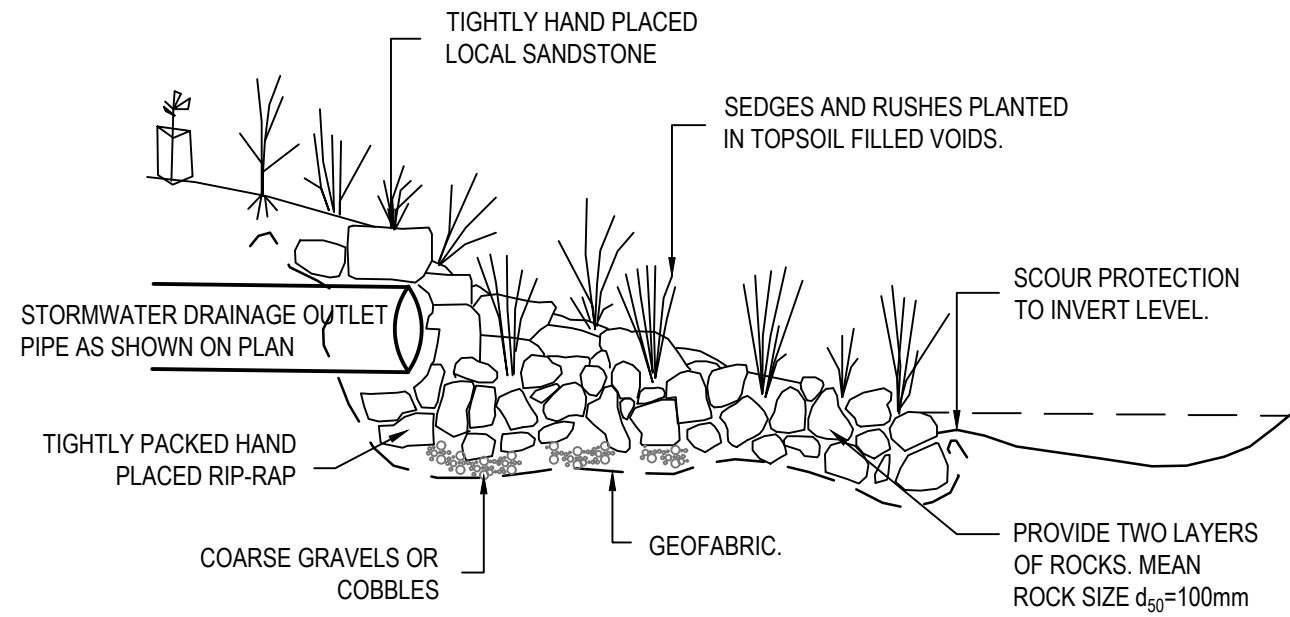
Drawing Title
CIVIL SERVICES
STORMWATER DETAILS
SHEET 1

Drawn	Designed	O.A. Check	Date	Scale @ A1
DW	VY	WM	23.10.25	AS SHOWN

Project No.	Drawing No.	Issue
NA242236	CAV-C08-0301	E

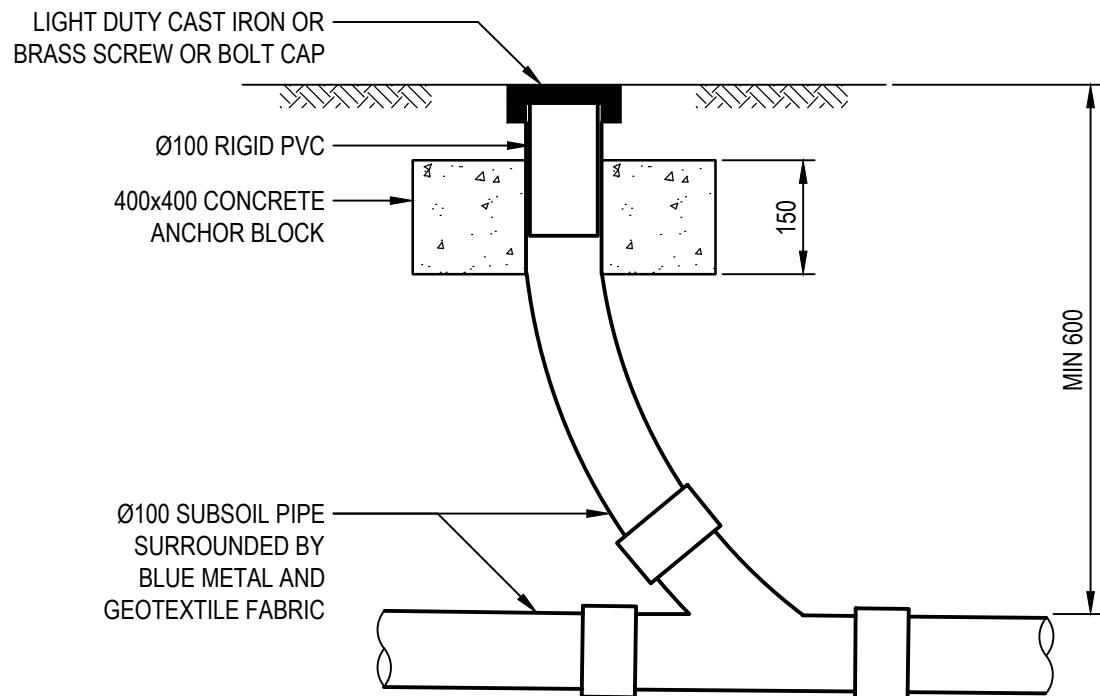
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Issue	Description	Date	Drawn	Approved
A	ISSUE FOR SCHEMATIC DESIGN	18.07.25	DW	YY
B	REISSUE FOR SCHEMATIC DESIGN	01.08.25	DW	YY
C	ISSUE FOR DRAFT DESIGN DEVELOPMENT	26.09.25	DW	YY
D	ISSUE FOR DESIGN DEVELOPMENT	17.10.25	DW	YY
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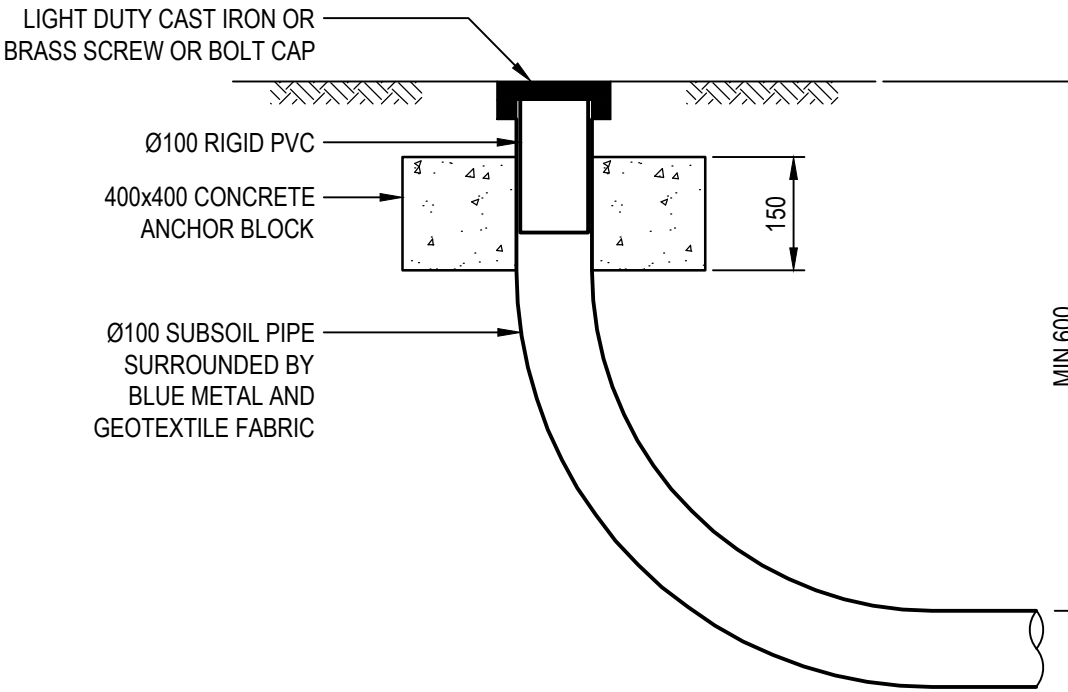
TYPICAL STONE HEADWALL DETAIL

SCALE 1:20



INTERMEDIATE RISER

SCALE 1:10



HIGH END RISER

SCALE 1:10

FILTER MEDIA SPECIFICATION:

THE FILTER MEDIA SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

- pH BETWEEN 5.5 TO 7.5
- ELECTRICAL CONDUCTIVITY (EC) < 1.2 dS/m
- ORGANIC MATTER CONTENT < 5% w/w
- ORTHOPHOSPHATE CONTENT ≤ 40 mg/kg
- TOTAL NITROGEN CONTENT = 500 mg/kg
- TOTAL SILT & CLAY CONTENT (<0.05mm) < 3% w/w
- MINIMUM HYDRAULIC CONDUCTIVITY AS DEFINED BY ASTM F1815-06 OF 200mm/h (ACTUAL, NOT PREDICTED)
- MAXIMUM HYDRAULIC CONDUCTIVITY AS DEFINED BY ASTM F1815-06 OF 400mm/h (ACTUAL, NOT PREDICTED).

THE FILTER MEDIA SHALL BE WELL GRADED AND GENERALLY BE A LOAMY SAND AND BE FREE OF CONTAMINANTS SUCH AS RUBBISH, DELETERIOUS MATERIAL, TOXICANTS, DECLARED PLANTS AND WEEDS AND SHOULD NOT BE HYDROPHOBIC.

THE COARSE SAND TRANSITION LAYER SHALL BE OF A CLEAN WELL GRADED SAND/COARSE SAND MATERIAL CONTAINING LITTLE OR NO FINES.

THE DRAINAGE LAYER SHALL BE OF A CLEAN FINE GRAVEL CONSISTED OF 5-7 mm WASHED SCREENINGS.

BIO-RETENTION PLANTING PLAN:

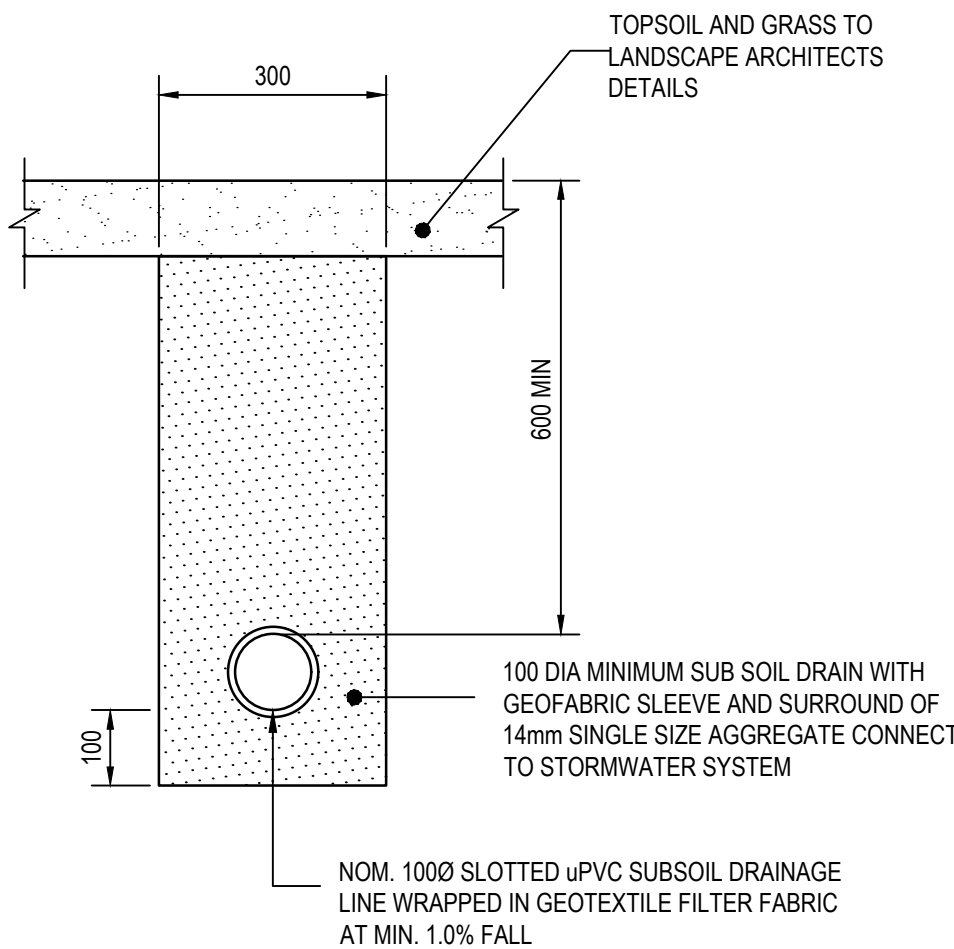
ALL BATTER SLOPES ARE TO BE TURFED.

BIO-RETENTION BASIN FILTER MEDIA IS TO BE PLANTED OUT AT 5 PLANTS/ m² WITH SPECIES FROM THE FOLLOWING MIX:

- BAUMEIA JUNCEA
- CAREX APPRESSA
- CAREX FASCICULARIS
- CYPERUS EXALTATUS
- CAREX POLYSTACHYUS
- GAHNIA SIEBERANA
- JUNCUS PRISMATOCARPUS
- JUNCUS USITATUS
- LOMANDRA LONGIFOLIA
- PASPALUM DISTICHUM
- SCHOENUS BREVIFOLIUS

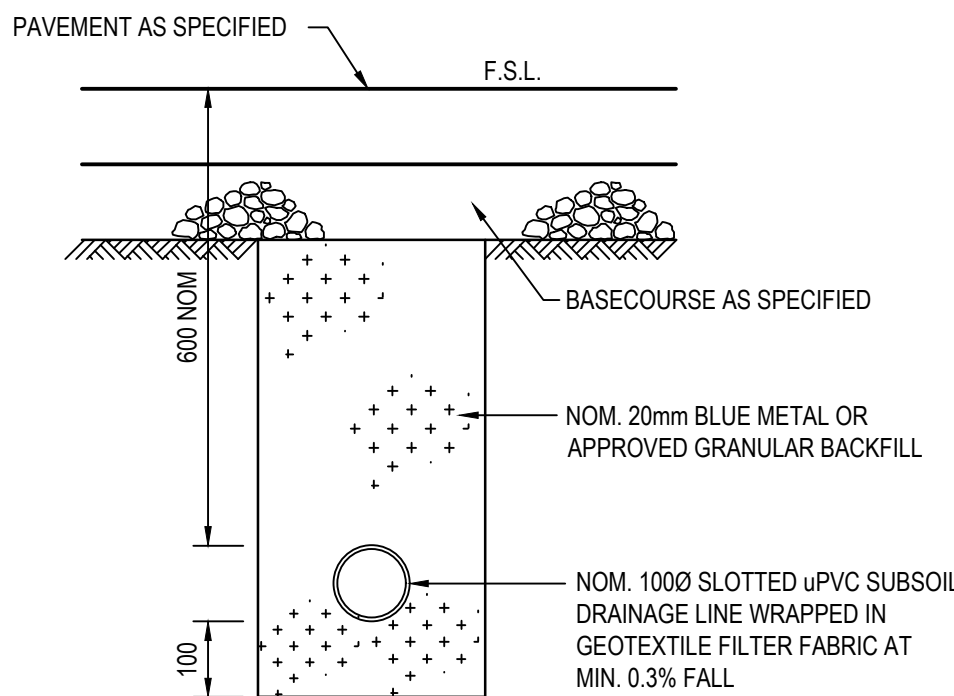
NOTE:

FLUSHING POINTS TO BE PROVIDED AT END OF EVERY SUBSOIL DRAINAGE LINE



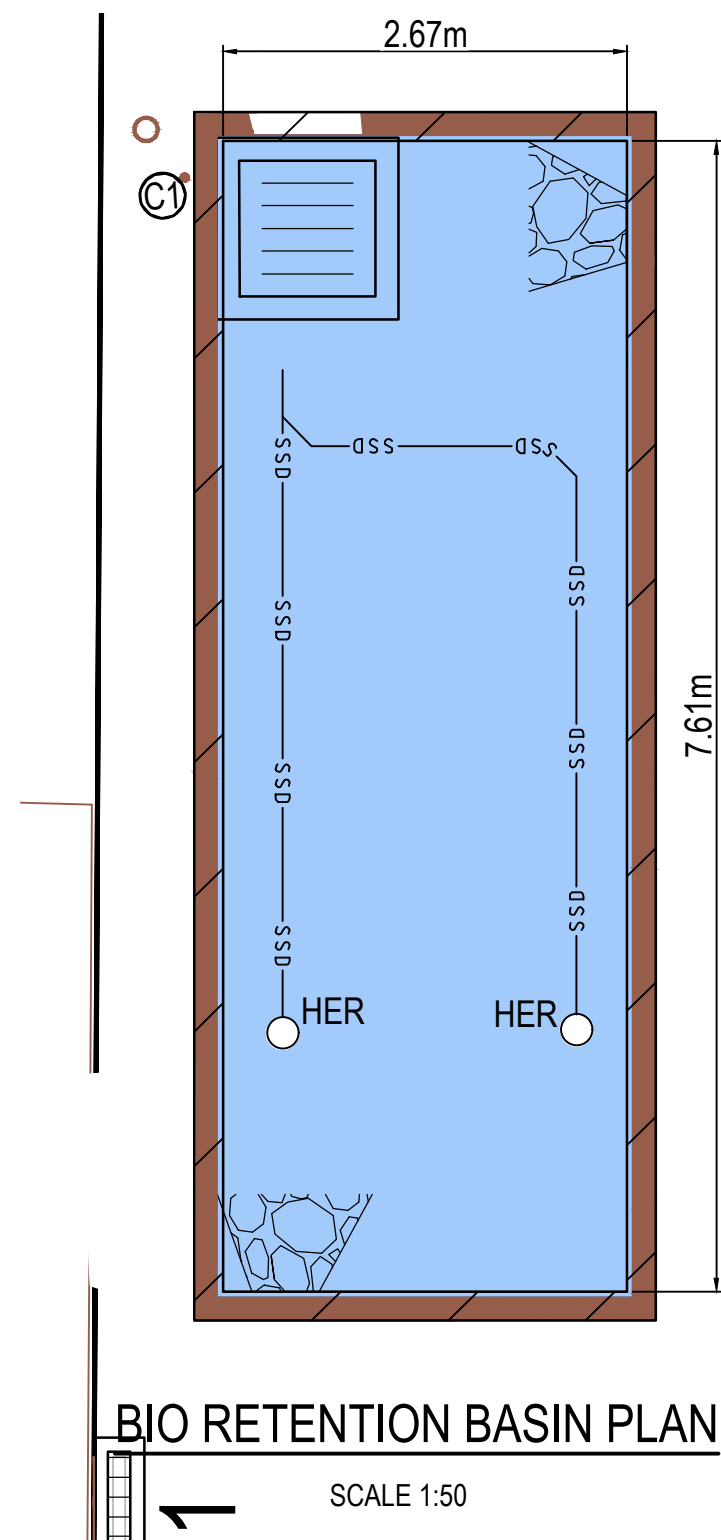
SUBSOIL DRAINAGE - TYPICAL

SCALE 1:10



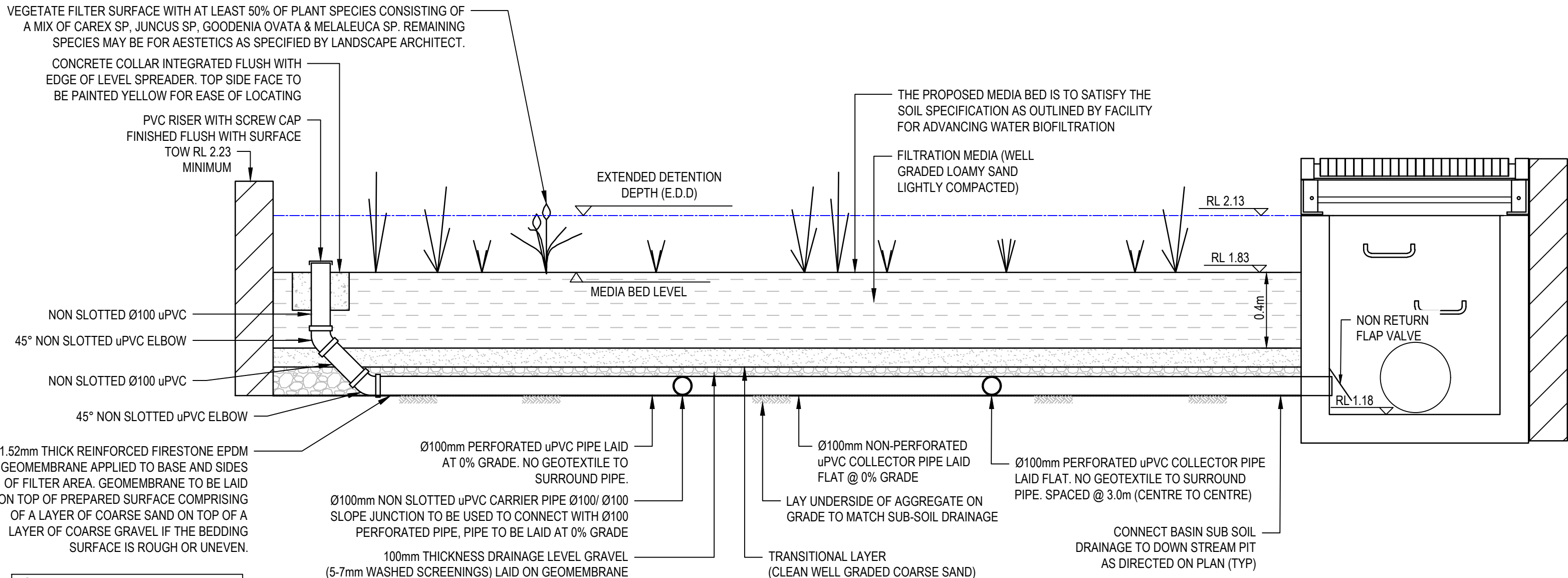
SUBSOIL UNDER PAVEMENTS

SCALE 1:10



BIO RETENTION BASIN PLAN

SCALE 1:50



BIORETENTION BASIN DETAIL

NOT TO SCALE

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North

Scale

Client

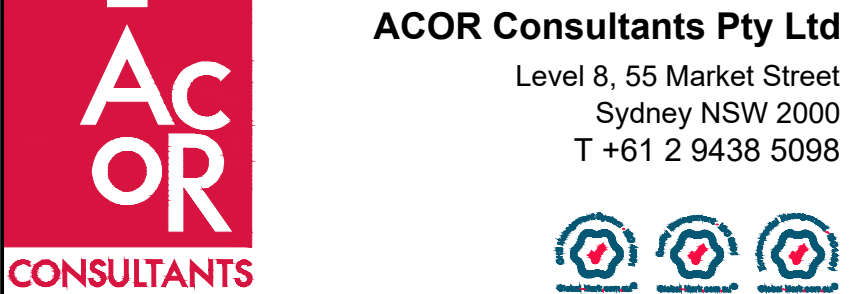


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CAVES BEACH
2-4 KAYUGA CLOSE,
CAVES BEACH, NSW ,2281

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Drawing Title
CIVIL SERVICES
STORMWATER DETAILS
SHEET 2

Drawn DW	Designed VY	O.A. Check WM	Date 23.10.25	Scale @ A1 AS SHOWN
Project No. NA242236	Drawing No. CAV-C08-0302	Issue E		

STORMWATER DESIGN REQUIREMENTS

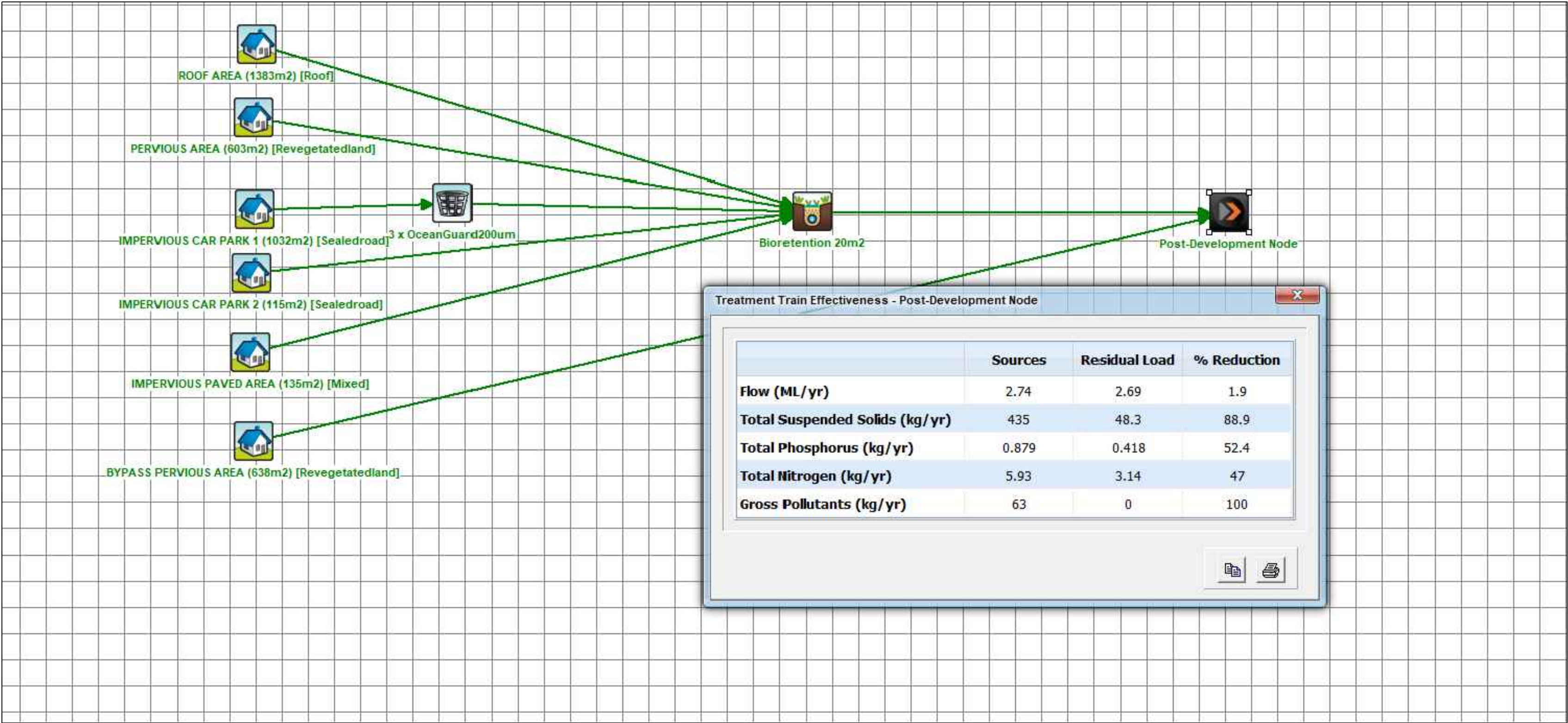
STORMWATER QUANTITY
LAKE MACQUARIE COUNCIL REQUIRES A RECOGNISED ROUTING METHODS TO DESIGN OSD SYSTEMS WITH STORAGE VOUMES LARGER THAN 50m3. EMAIL CORRESPONDANCE WITH LAKE MACQUARIE COUNCIL CONFIRMED THAT DRAINS MODELLING IS REQUIRED TO SHOW POST-DEVELOPMENT FLOWS RESTRICTED TO PRE-DEVELOPMENT CONDITIONS FOR STORMS RANGING FROM 1EY TO 1% AEP.

	PRE-DEVELOPMENT	POST-DEVELOPMENT
1EY DISCHARGE:	71L/s	55L/s
50% AEP DISCHARGE:	83L/s	65L/s
0.5EY DISCHARGE:	93L/s	74L/s
20% AEP DISCHARGE:	123L/s	96L/s
0.2EY DISCHARGE:	125L/s	98L/s
10% AEP DISCHARGE:	153 L/s	132L/s
5% AEP DISCHARGE:	184L/s	147L/s
2% AEP DISCHARGE:	229L/s	161L/s
1% AEP DISCHARGE:	266L/s	170L/s

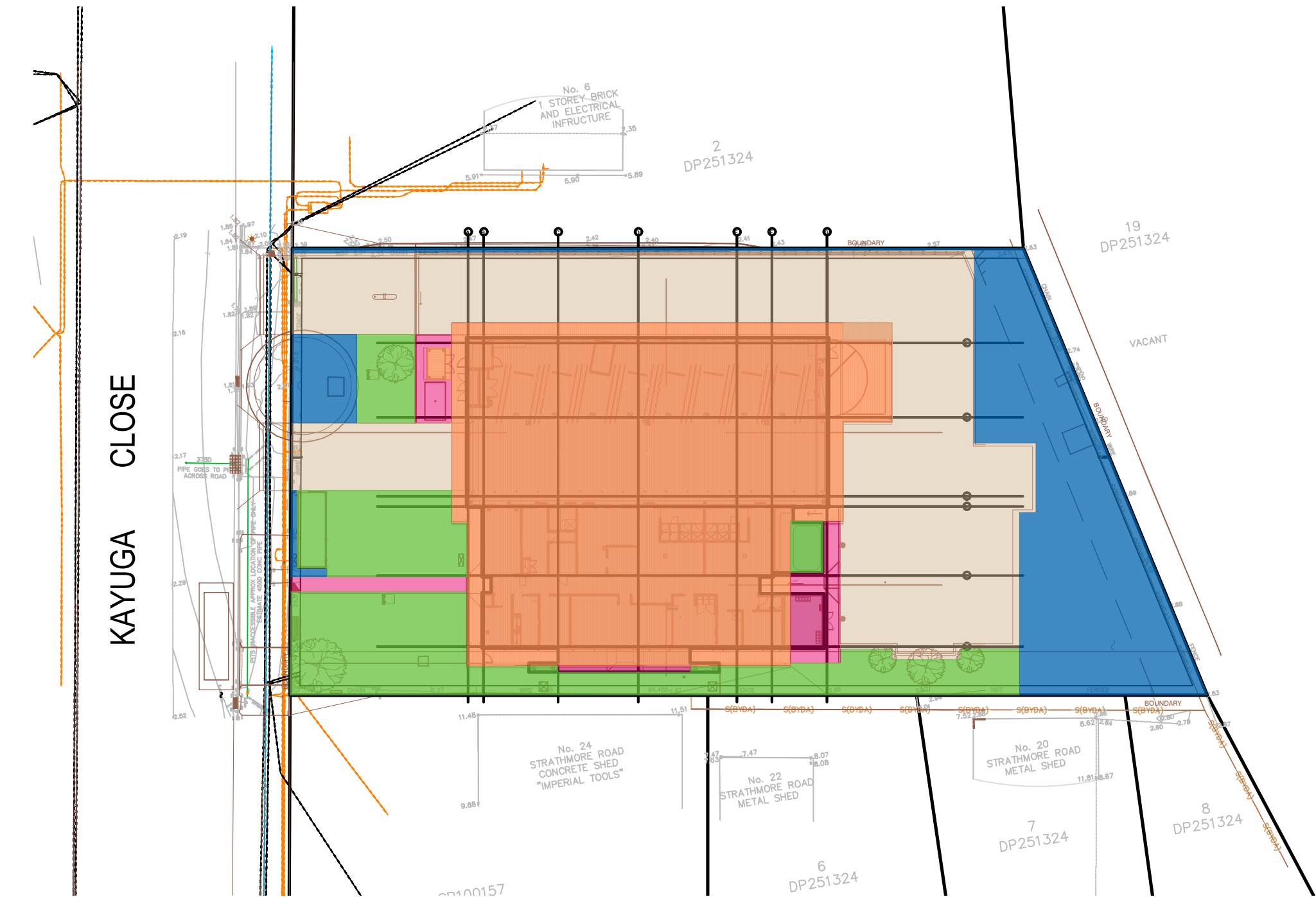
POST-DEVELOPMENT OUTFLOW < PRE-DEVELOPMENT OUTFLOW IN ALL STORMS FROM 1EY TO 1%AEP

STORMWATER QUALITY - WATER SENSITIVE URBAN DESIGN
LAKE MACQUARIE CITY COUNCIL WATER CYCLE MANAGEMENT GUIDELINE OUTLINES POST-DEVELOPMENT REDUCTION TARGETS AS BELOW:
GROSS POLLUTANT: 70%
TOTAL SUSPENDED SOLIDS: 80%
TOTAL PHOSPHOROUS: 45%
TOTAL NITROGEN: 45%

MUSIC MODEL RESULTS AS PER SCREENSHOT SHOWS THE PROPOSED TREATMENT TRAIN ACHIEVES REDUCTION TARGETS AS PER COUNCIL REQUIREMENTS



MUSIC SUMMARY



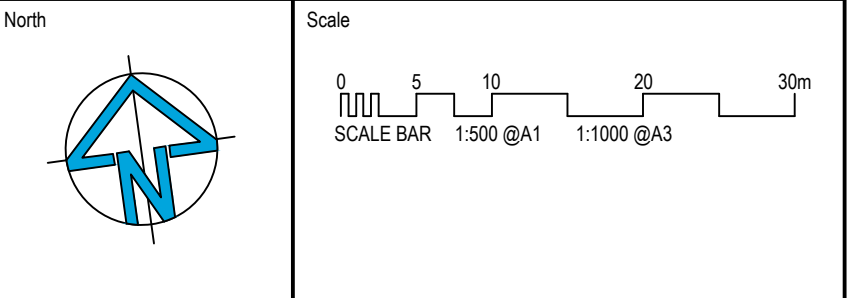
MUSIC CATCHMENT PLAN
SCALE 1:500

DESIGN CATCHMENT SUMMARY

CATCHMENTS	TYPE	AREA (m²)	IMPERVIOUS (%)	TREATMENT
	ROOF AREA	1383.28	100	BIO-RETENTION BASIN
	PERVIOUS AREA	602.83	0	BIO-RETENTION BASIN
	IMPERVIOUS CARPARK	1147.07	100	PIT BASKETS AND BIO-RETENTION BASIN
	IMPERVIOUS PAVED AREA	134.61	100	BIO-RETENTION BASIN
	PERVIOUS AREA (BYPASS)	638.50	0	N/A

Issue	Description	Date	Drawn	Approved
A	ISSUE FOR SCHEMATIC DESIGN	18.07.25	DW	VY
B	REISSUE FOR SCHEMATIC DESIGN	01.08.25	DW	VY
C	ISSUE FOR DRAFT DESIGN DEVELOPMENT	26.09.25	DW	VY
D	ISSUE FOR DESIGN DEVELOPMENT	17.10.25	DW	VY
E	ISSUE FOR TENDER	24.10.25	DW	VY
F	RE-ISSUE FOR TENDER	22.04.26	TW	VY

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Drawing Title
CIVIL SERVICES
STORMWATER MANAGEMENT CATCHMENT PLAN

Drawn DW	Designed VY	O.A. Check WM	Date 22.04.26	Scale @ A1 1:500
Project No. NA242236	Drawing No. CAV-C08-0401	Issue F		



Pit Name	Pit Type	Easting	Northing	Setout RL	Pit Depth	Cover Type	Step Iron (Y/N)	Heelsafe (Y/N)	Oceanguard (Y/N)
A1	Surface Inlet Pit 600 x 600	372948.962	6337044.253	3.18	0.73	CLASS C' GALVANISED STEEL GRATE HINGED TO FRAME	N	N	Y
A2	Surface Inlet Pit 600 x 600	372947.036	6337032.262	3.12	0.75	CLASS C' GALVANISED STEEL GRATE HINGED TO FRAME	N	N	Y
A3	Surface Inlet Pit 600 x 600	372945.387	6337021.994	3.06	0.74	CLASS C' GALVANISED STEEL GRATE HINGED TO FRAME	N	N	Y
A4	Surface Inlet Pit 600 x 600	372944.742	6337017.579	2.93	0.76	CLASS B' GALVANISED STEEL GRATE HINGED TO FRAME	N	N	N
A5	Surface Inlet Pit 900 x 900	372919.938	6337021.528	3.04	0.96	CLASS B' GALVANISED STEEL GRATE HINGED TO FRAME	Y	N	N
A6	Surface Inlet Pit 900 x 900	372905.998	6337023.806	2.96	1.04	CLASS B' GALVANISED STEEL GRATE HINGED TO FRAME	Y	N	N
A7	Surface Inlet Pit 600 x 600	372880.411	6337027.855	2.67	0.84	CLASS B' GALVANISED STEEL GRATE HINGED TO FRAME	N	N	N
B-1	Surface Inlet Pit 600 x 600	372897.791	6337062.85	2.67	0.73	CLASS B' GALVANISED STEEL GRATE HINGED TO FRAME	N	N	N
B-2	Surface Inlet Pit 600 x 600	372891.642	6337054.251	2.73	0.85	CLASS B' GALVANISED STEEL GRATE HINGED TO FRAME	N	N	N
B-3	Surface Inlet Pit 900 x 900	372890.45	6337046.451	2.77	0.94	CLASS B' GALVANISED STEEL GRATE HINGED TO FRAME	Y	N	N
C1	Bio-basin	372884.77	6337043.63	2.13	NA	NA	NA	NA	NA
Ex. KIP	Existing Pit	372878.21	6337051.596	1.81	Existing	As per drawing C08-0301	NA	NA	NA

Issue	Description	Date	Drawn	Approved
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B	REISSUE FOR SCHEMATIC DESIGN	01.08.25	DW	VY
C	ISSUE FOR DRAFT DESIGN DEVELOPMENT	26.09.25	DW	VY
D	ISSUE FOR DESIGN DEVELOPMENT	17.10.25	DW	VY
E	ISSUE FOR TENDER	24.10.25	DW	VY

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Health
Infrastructure

 **NSW Ambulance**

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AMBULANCE INFRASTRUCTURE PROGRAM
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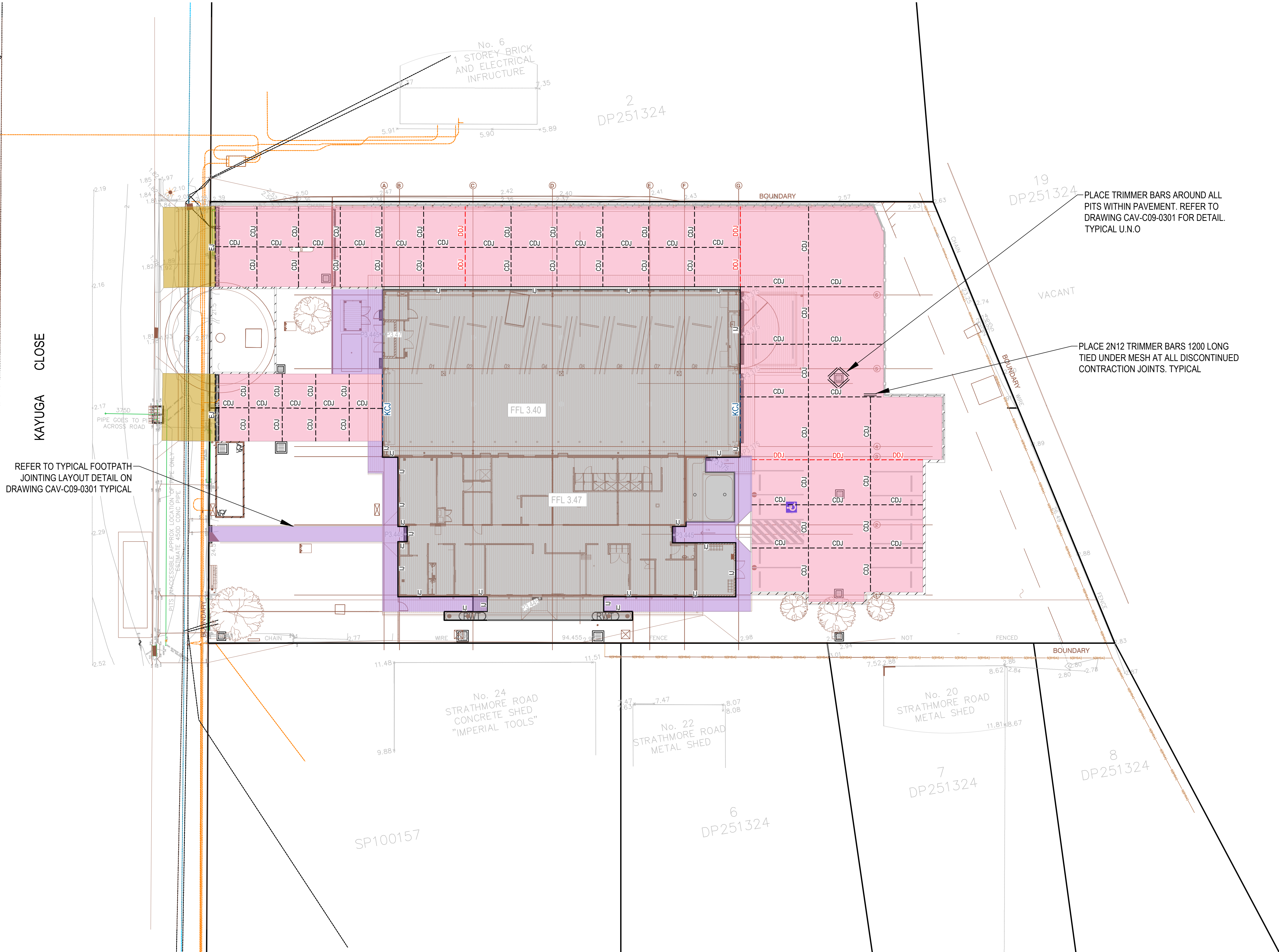


Drawing Title
CIVIL SERVICES
PIT SCHEDULE

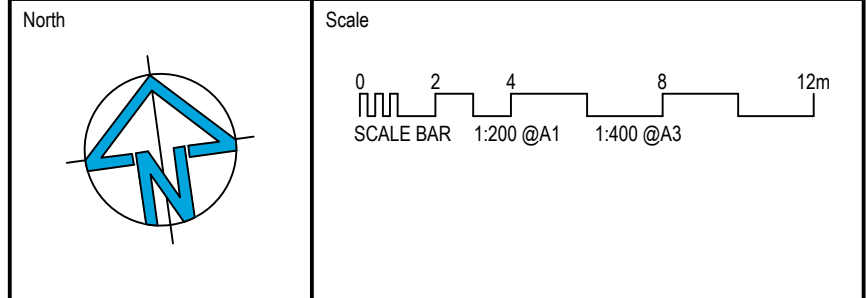
Drawn DW	Designed VY	QA Check WM	Date 23.10.25	Scale @ A1 N/A
Project No. NA242236	Drawing No. CAV-C08-0501	Issue E		



Issue	Description	Date	Drawn	Approved
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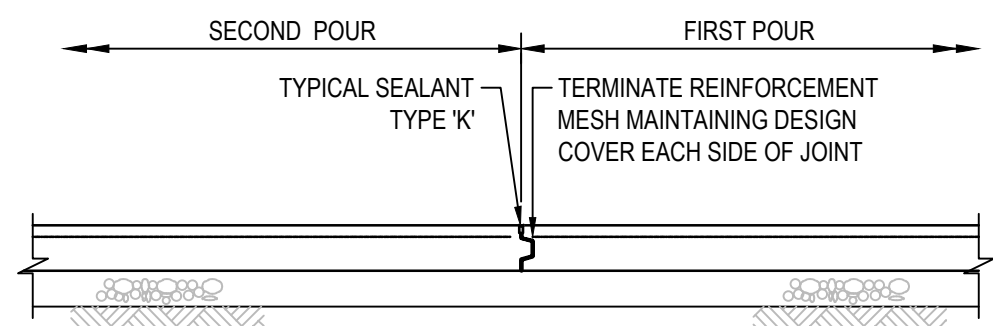
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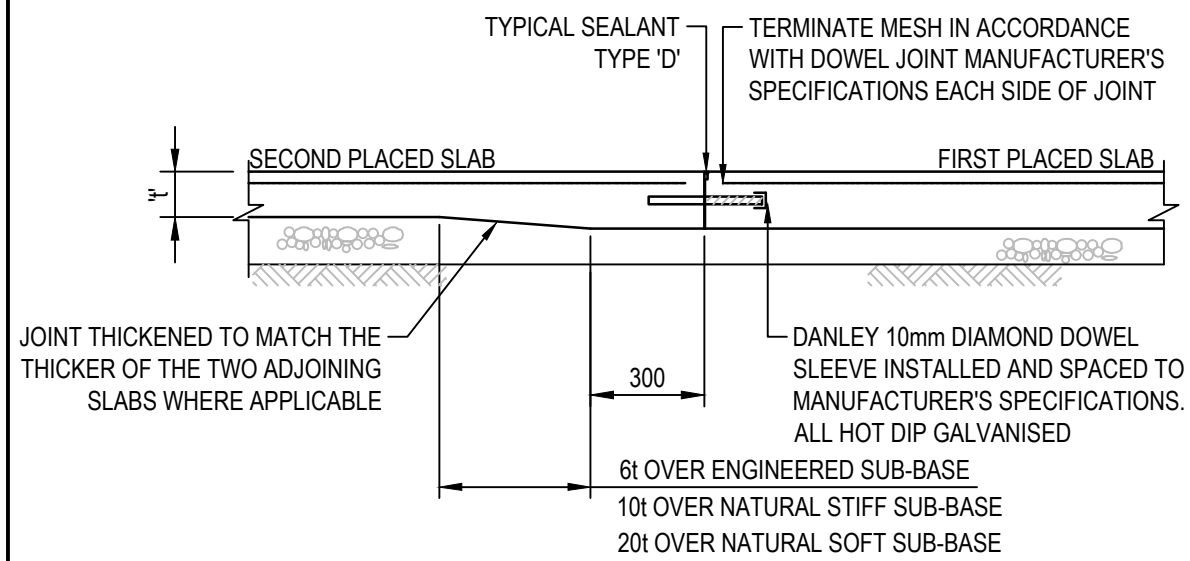
Drawing Title
CIVIL SERVICES
PAVEMENT PLAN

Drawn DW	Designed VY	O.A. Check WM	Date 23.10.25	Scale @ A1 1:200
Project No. NA242236	Drawing No. CAV-C09-0001			Issue E

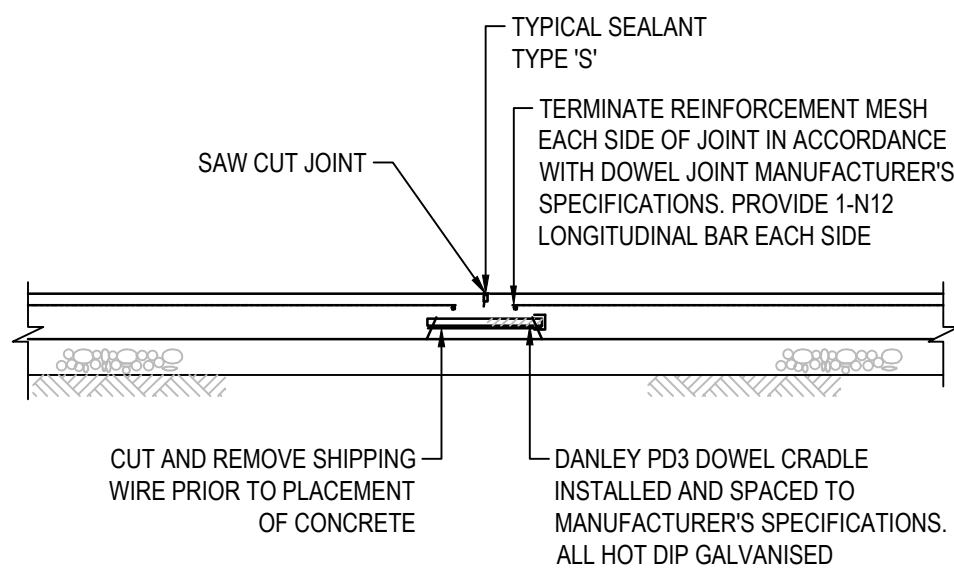




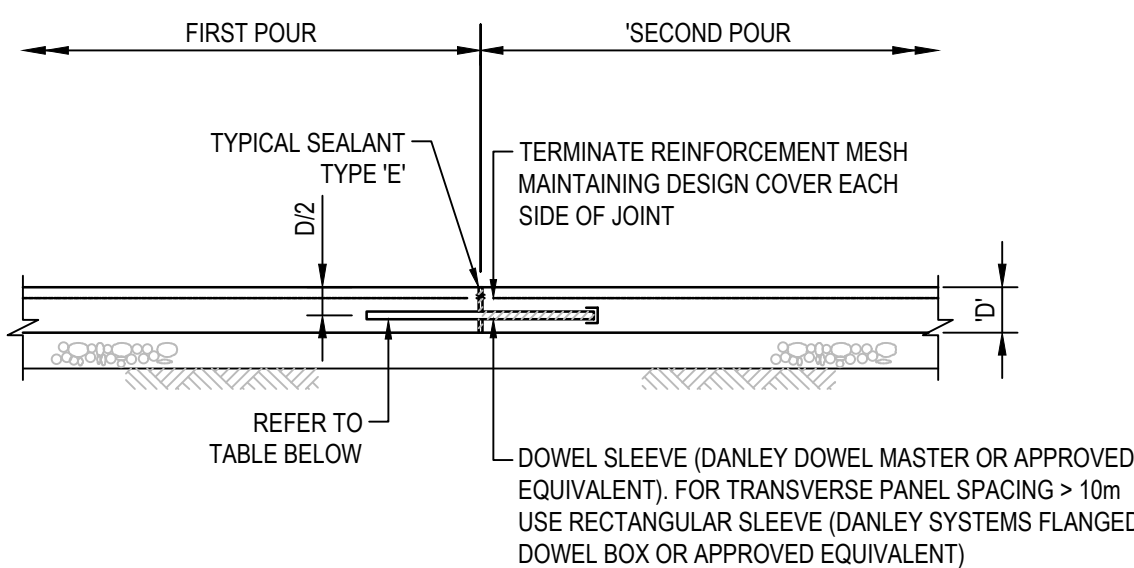
TYPICAL KEYED JOINT - KCJ
SCALE 1:20



TYPICAL DIAMOND DOWEL JOINT - DDJ
SCALE 1:20



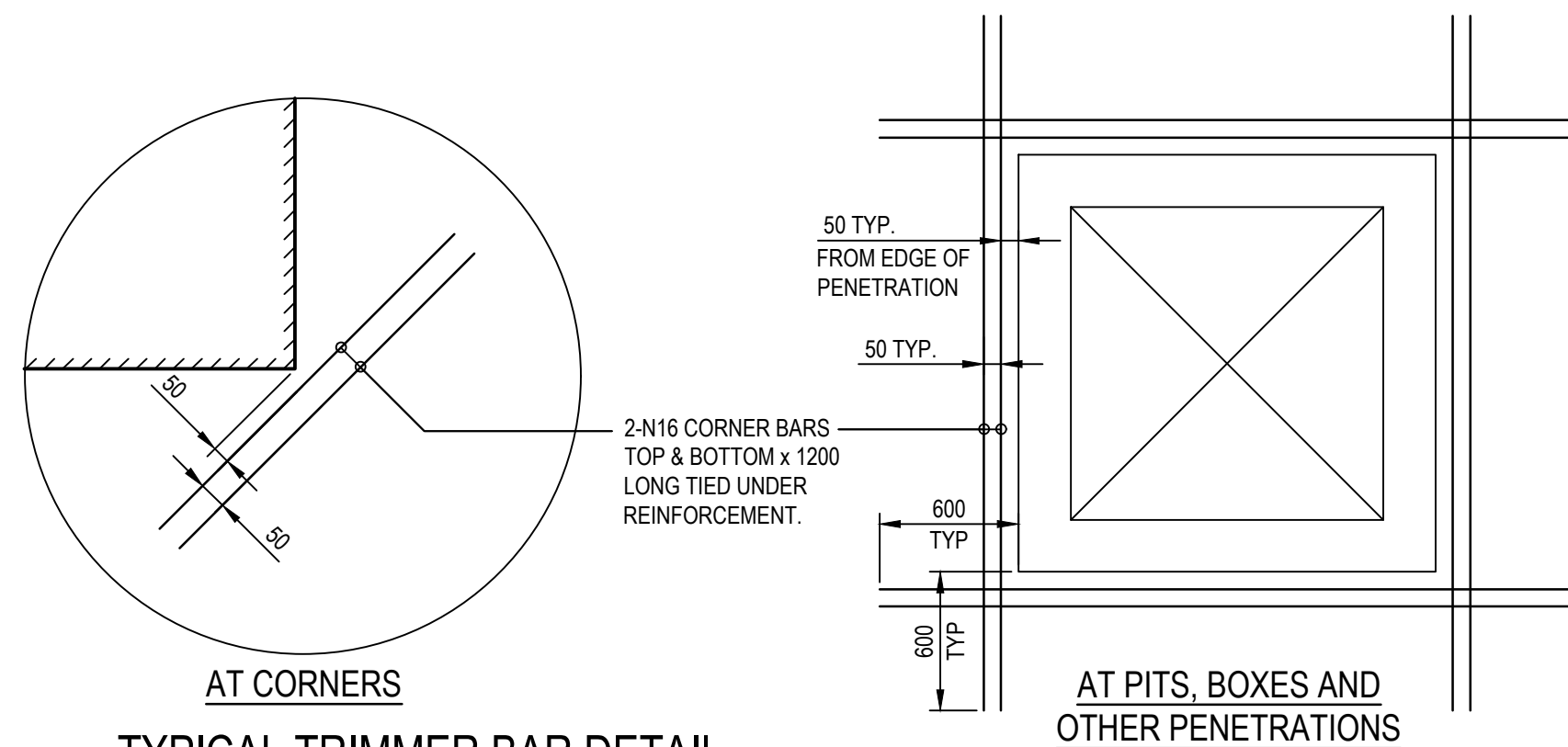
TYPICAL CONTINUOUS POUR DOWEL JOINT - CDJ
SCALE 1:20



TYPICAL EXPANSION JOINT - EJ
SCALE 1:20

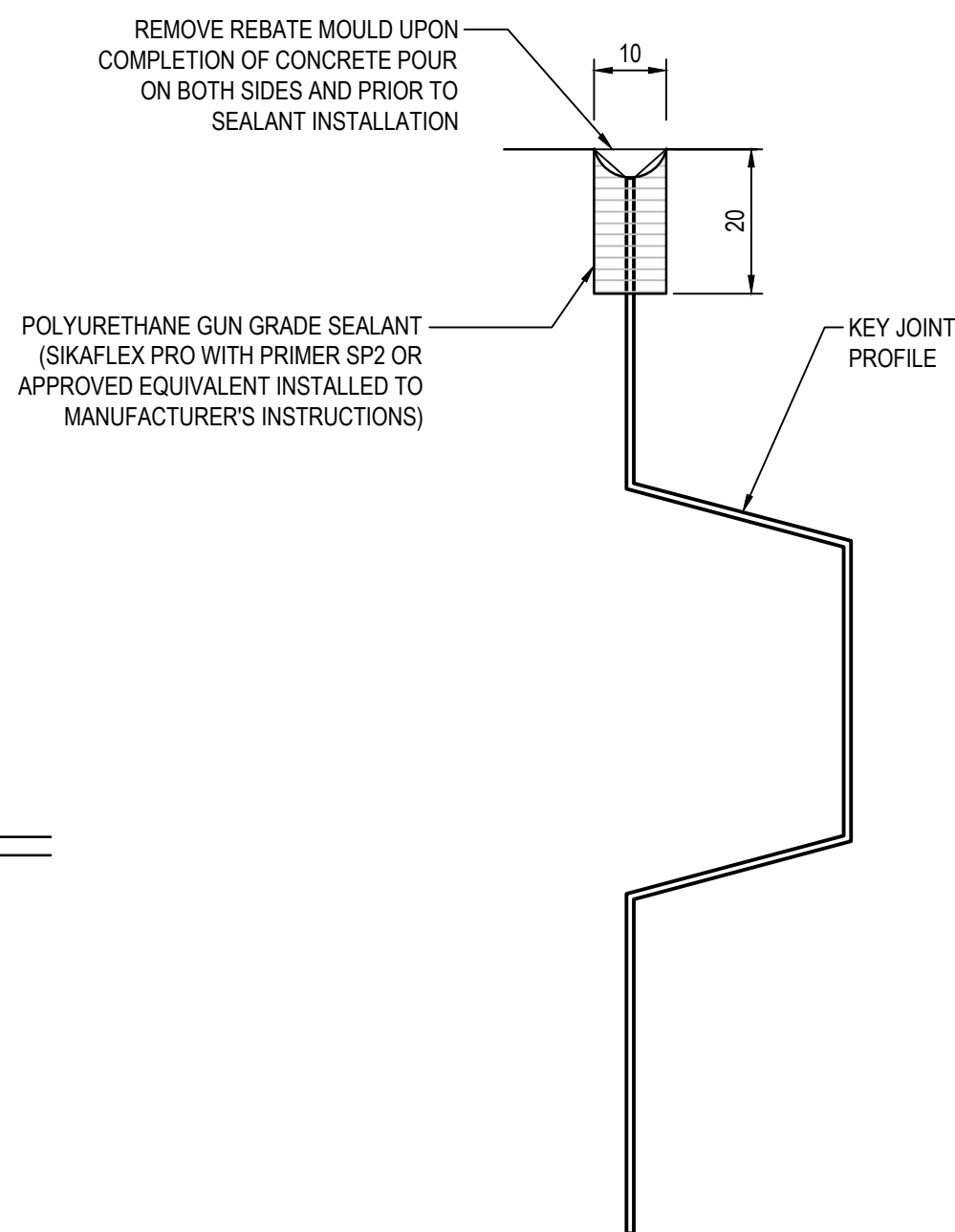
ROUND DOWELS (GRADE 250R) @ 300 CRS		
SLAB THICKNESS (D) (mm)	DOWEL DIAMETER (mm)	DOWEL LENGTH (mm)
150 - 190	20	400
200 - 240	24	450
250 - 270	30	450
280 - 340	33	450
350	36	500

SQUARE DOWELS		
SLAB THICKNESS (D) (mm)	DOWEL DIMENSIONS (SIZE x LENGTH) (mm)	DOWEL SPACING (mm)
125 - 150	20 x 350	450
175 - 200	25 x 400	450
225 - 275	32 x 450	300

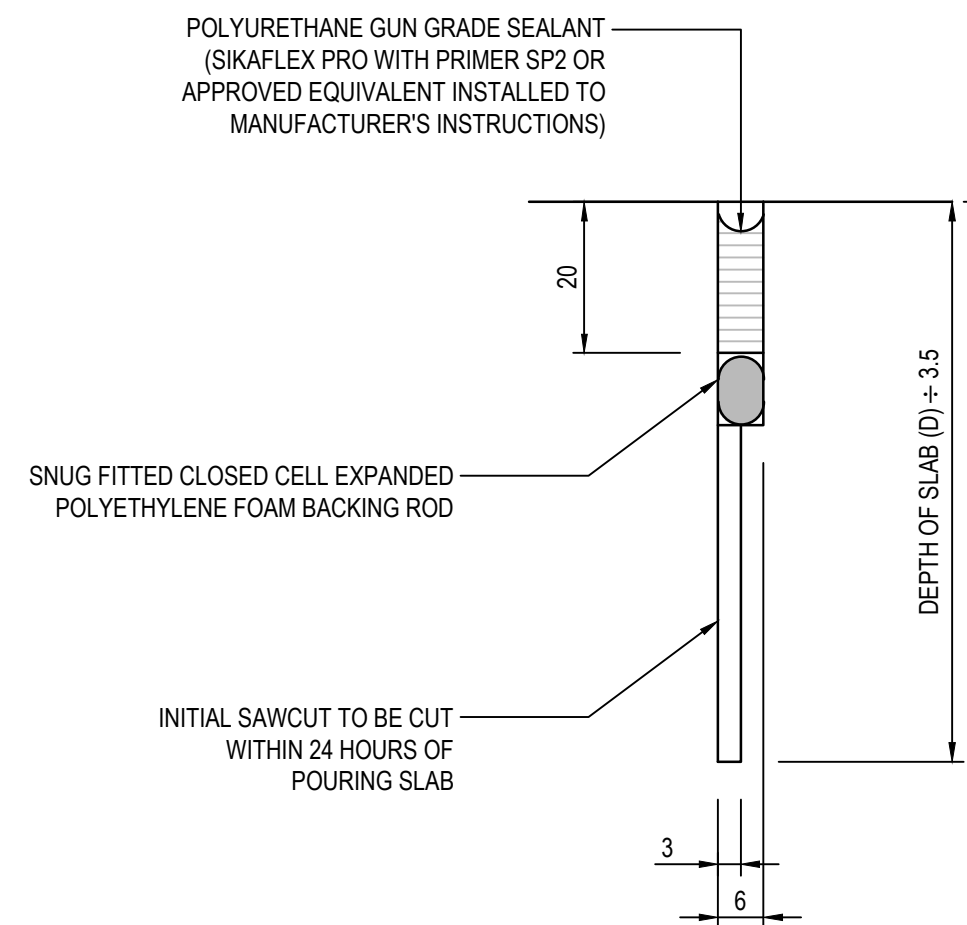


TYPICAL TRIMMER BAR DETAIL
SCALE 1:20

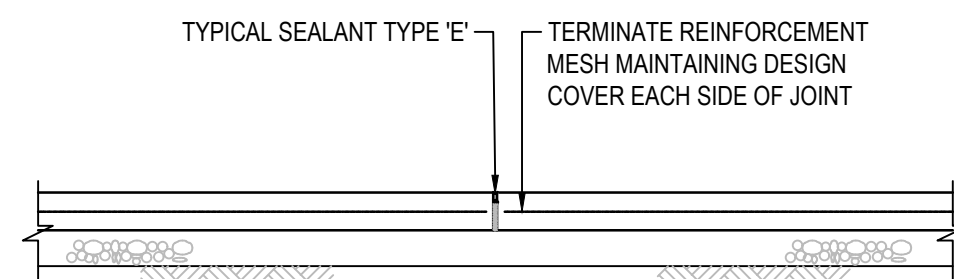
- TRIMMER BARS:
 - TO BE CONSTRUCTED AT ALL PENETRATIONS IN AIRCRAFT/VEHICLE CONCRETE PAVEMENTS INCLUDING BUT NOT LIMITED TO:
 - ALL SERVICE PITS
 - ALL DRAINAGE STRUCTURES
 - ALL VALVE BOXES
 - ALL IN-GROUND FIRE HYDRANTS
 - ALL PROTRUDING CORNERS OF STRUCTURES OR SLABS
 - ALL COLUMNS PENETRATING CONCRETE PAVEMENT
- CONSTRUCT 2-N16 TRIMMER BARS (1200LONG, TOP AND BOTTOM) AT ALL MISMATCHED OR DISCONTINUOUS JOINTS. TYPICAL



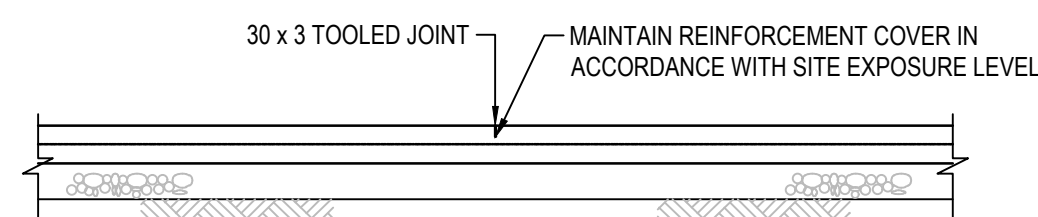
TYPICAL JOINT SEALANT TYPE 'K'
SCALE 1:1



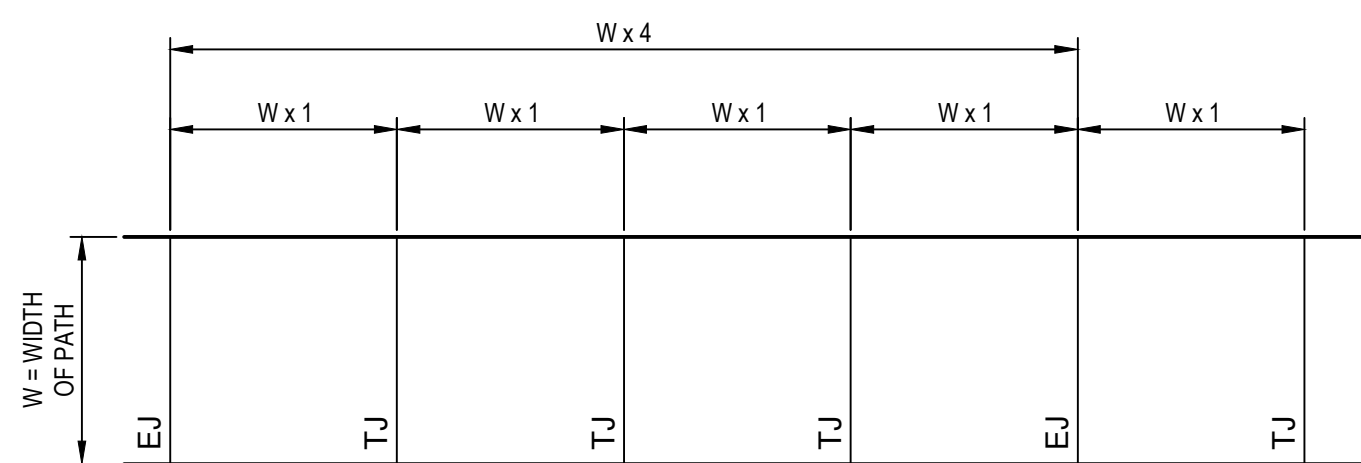
TYPICAL JOINT SEALANT TYPE 'S'
SCALE 1:1



TYPICAL FOOTPATH EXPANSION JOINT - EJ
SCALE 1:20

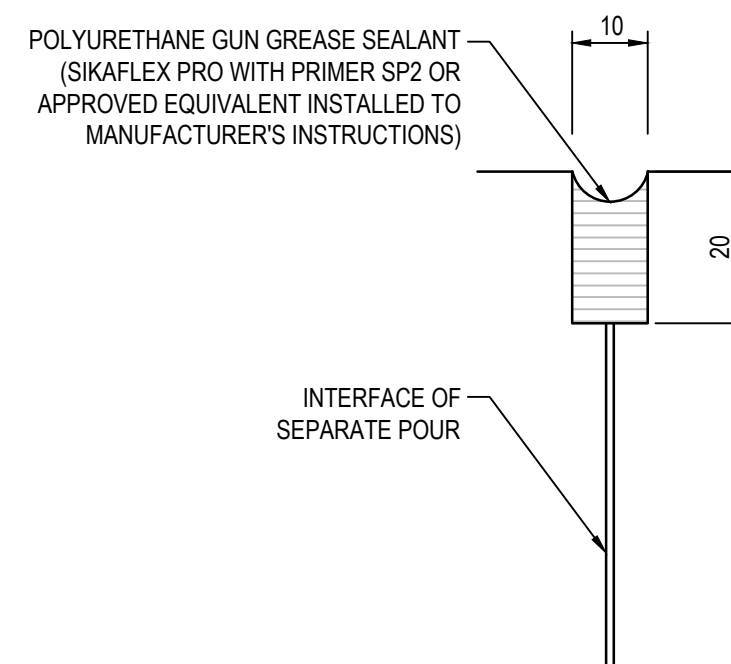


TYPICAL FOOTPATH TOOLED JOINT - TJ
SCALE 1:20

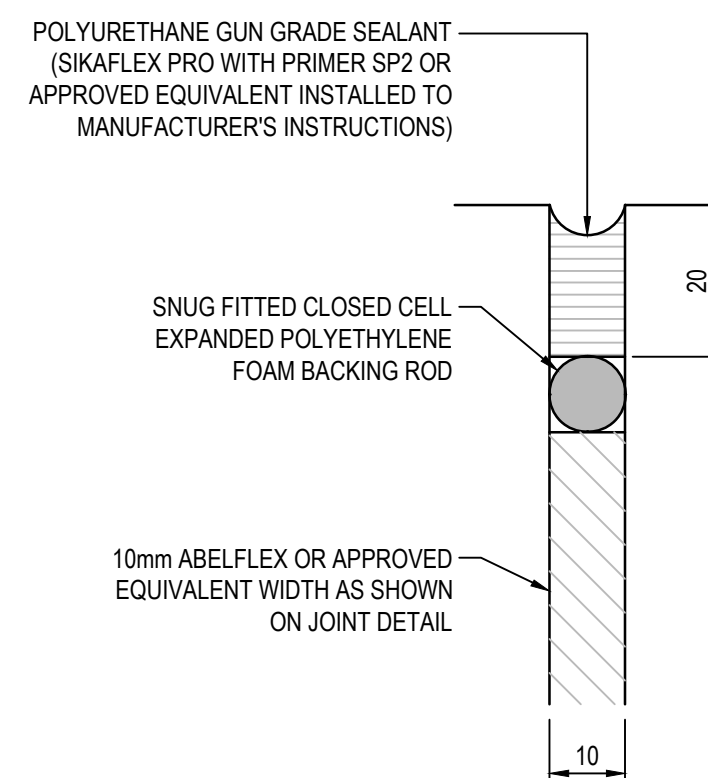


FOOTPATH NOTE
CONCRETE TO HAVE BROOM FINISH WITH SMOOTH TROWELLED EDGES.
TJ - FOOTPATH TOOLED JOINT. REFER DETAIL
EJ - FOOTPATH EXPANSION JOINT. REFER DETAIL

TYPICAL JOINT PLAN FOR FOOTPATHS
NTS



TYPICAL JOINT SEALANT TYPE 'D'
SCALE 1:1



TYPICAL JOINT SEALANT TYPE 'E'
SCALE 1:1

Issue	Description	Date	Drawn	Approved
A	NOT IN THIS ISSUE			
B	NOT IN THIS ISSUE			
C	ISSUE FOR DRAFT DESIGN DEVELOPMENT	26.09.25	DW	VY
D	ISSUE FOR DESIGN DEVELOPMENT	17.10.25	DW	VY
E	ISSUE FOR TENDER	24.10.25	DW	VY

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Drawing Title	CIVIL SERVICES PAVEMENT DETAILS
---------------	------------------------------------

Drawn DW	Designed VY	Q.A. Check WM	Date 23.10.25	Scale @ A1 AS SHOWN
Project No. NA242236	Drawing No. CAV-C09-0301	Issue E		