

Ref: 230-004-004L

26 September 2023

Development Assessment
Douglas Shire Council
119-145 Spence Street
Mossman Qld 4873
via email: neil.beck@douglas.qld.gov.au

**6 Endeavour Road, Port Douglas
Operational Works Application OP 2023_5480/1
Response to Information Request**

We refer to Council's information request for the above application dated 17 August 2023 (copy attached) and respond as detailed below.

Item 1 - Stormwater

Existing LIDAR data for the area indicates that the existing Hope Street lots generally fall to the front. On re-inspection, it could be interpreted that there may be a small portion of those lots that does fall to the rear. We have therefore adjusted the design in this area to introduce a drainage path along the driveway to receive run-off and divert to the west.

Item 2 - Stormwater

We assume that Council refers to the 600mm x 600mm field inlet pit located within Lot 5. This has been amended to a 450mm x 450mm Everhard poly pit, which provides 424mm clearance from the outside wall of that pit to the outside wall of the sewer manhole. This meets the clearance requirements in accordance with FNQROC, QUDM and CTM.

Item 3 - Stormwater

This portion of Lot 5 currently drains westward toward the school property with sheet flow crossing the boundary. The development does not propose to change this arrangement however, it does reduce the drainage catchment contributing to that boundary, thereby reducing discharge to the school. We therefore consider that an appropriate drainage arrangement is provided according with Section 3.9.1 of QUDM.

Item 4 - Earthworks

We have provided adjusted level information on the drawing to clarify the design intent.

Item 5 - Earthworks

We have provided additional level information at this lot interface to clarify the design intent.

Item 6 – Internal Driveway

We have provided additional information on the drawings to confirm the arrangement in this location.

Item 7 – Internal Driveway

We have provided additional information on the drawings to confirm an adjusted arrangement in this location.

Item 8 - Landscaping

Plans were not submitted for landscaping arrangements within our operational works application. These will be subject to a separate application to Council. It is understood that this item is to be attended to prior to sealing of the survey plan.

Item 9 – Site Construction Access

The proposed site access location has been amended to be positioned clear of the existing kerb inlet pit.

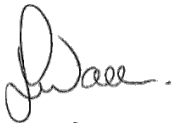
Item 10 – Electricity Supply

SPA Consulting Engineers have been engaged by the applicant to undertake work associated with this item. We will provide the written evidence from Ergon once received from SPA Consulting.

We understand that this is an incomplete response to Council's information request, however elected to issue this correspondence associated with the "civil" items so Council could begin its assessment. As noted in Item 10 above, the relevant Ergon correspondence will be issued once received.

Yours faithfully

CivilWalker Consulting Engineers



Daryl Walker

Director | Principal Engineer

BE(Hons) ME DipPM RPEQ (19806) RPEng (1259)

enc. Council Information Request
Amended Drawings



Attachment 1

DA Form 1 Development Application Details



Attachment 2
Statement of Compliance Engineering Design

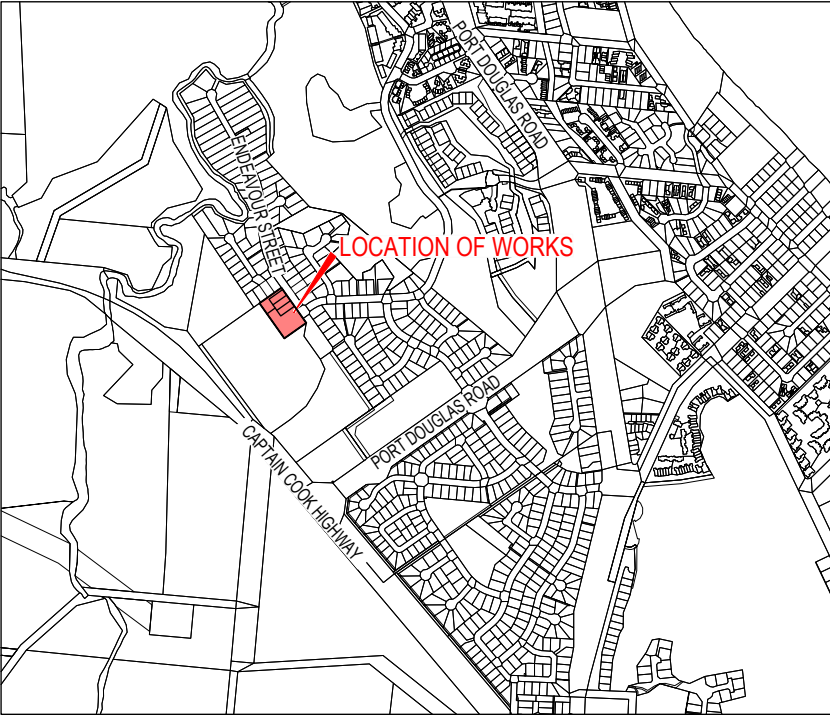


Attachment 3
Project Drawings

ENDEAVOUR STREET SUBDIVISION

CIVIL OPERATIONAL WORK

PROJECT No: 230-004



LOCALITY PLAN
N.T.S.

PROJECT DRAWINGS

DRAWING No.	DRAWING TITLE
230-004-C01	COVER SHEET, DRAWING INDEX & LOCALITY
230-004-C02	IMPORTANT NOTES
230-004-C03	GENERAL ARRANGEMENT
230-004-C04	EARTHWORK & SITE LEVELS
230-004-C05	DRIVEWAY LONGITUDINAL SECTIONS
230-004-C06	DRIVEWAY CROSS SECTIONS
230-004-C07	STORMWATER DRAINAGE LAYOUT
230-004-C08	STORMWATER DRAINAGE LONGITUDINAL SECTION
230-004-C09	STORMWATER DRAINAGE - OPEN DRAIN DETAILS
230-004-C10	SEWERAGE & WATER RETICULATION LAYOUT
230-004-C11	SEWERAGE LONGITUDINAL SECTION
230-004-C12	MISCELLANEOUS DETAILS
230-004-C13	EROSION & SEDIMENT CONTROL STRATEGY

FNQROC STANDARD DRAWINGS

DRAWING No.	DRAWING TITLE
S1000	CONCRETE KERB & CHANNEL PROFILES & DIMENSIONS
S1015	ACCESS CROSSOVERS
S1035	PATHWAYS / BIKEWAYS
S1095	SUBSURFACE DRAINAGE FLUSHING POINTS OUTLET
S1110	CONCRETE DRIVEWAY FOR ALLOTMENT ACCESS
S3000	SEWERAGE MANHOLES
S3005	PROPERTY CONNECTION BRANCHES
S3015	SEWER BEDDING TRENCH DETAILS

INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALIA STANDARD DRAWINGS

DRAWING No.	DRAWING TITLE
D-0040	SEDIMENT CONTROL DEVICES - SEDIMENT FENCE, ENTRY/EXIT SEDIMENT TRAP
D-0041	SEDIMENT CONTROL DEVICES - KERB AND FIELD INLETS, CHECK DAMS & STRAW BALE BANKS

REVISIONS	NO.	DATE	DESCRIPTION	DESIGN	APPROVED
	B	26.09.23	RFI RESPONSE	CW	DJW
	A	14.07.23	INITIAL ISSUE		

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SCALE

ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE



DESIGNED APPROVED	CMD CMD	CHECKED CHECKED	DJW DJW	ENDEAVOUR STREET SUBDIVISION	
ORIGINAL CERTIFIED BY D.J.WALKER				COVER SHEET, DRAWING INDEX & LOCALITY	
DATE: 26.09.23 RPEQ: 19806				DRAWING NO. 230-004-C01	REVISION B

FNQROC REGIONAL DEVELOPMENT MANUAL

1. CONSTRUCTION AND INSTALLATION OF ALL WORKS AS DETAILED ON THESE DRAWINGS SHALL BE IN ACCORDANCE WITH THE PROCEDURES, SPECIFICATIONS AND REFERENCED STANDARD DRAWINGS CONTAINED IN THE CURRENT ISSUE OF THE FNQROC DEVELOPMENT MANUAL UNLESS NOTED OTHERWISE.

COMPLIANCE WITH ASSESSMENT MANAGER CONDITIONS

1. CONSTRUCTION OF THE WORKS DETAILED ON THESE DRAWINGS SHALL NOT COMMENCE UNTIL AN OPERATIONAL WORKS PERMIT HAS BEEN ISSUED BY COUNCIL AND THE REQUIRED PRE-START MEETING HAS BEEN HELD.
2. THE CONTRACTOR SHALL COMPLY WITH ALL RELEVANT CONDITIONS SET OUT IN THE COUNCIL DECISION NOTICE FOR OPERATIONAL WORK.

SURVEY & EXISTING SERVICES

1. THE EXISTING SERVICES SHOWN ON THESE DRAWINGS ARE DERIVED FROM SURFACE SURVEY AS DETAILED ON RPS DRAWINGS. THEY MAY NOT REPRESENT ALL OF THE SERVICES SHOWN ON THOSE DRAWINGS, OR ALL OF THE EXISTING SERVICES PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE SURVEY AND SUBSEQUENTLY LOCATING ALL EXISTING SERVICES PRIOR TO ANY WORKS COMMENCING. ONCE THE LINE AND LEVEL OF EXISTING UNDERGROUND SERVICES HAS BEEN CONFIRMED BY THE CONTRACTOR, THE ENGINEER SHALL BE NOTIFIED OF ANY POTENTIAL CLASHES WITH THE DESIGN PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. ALL DAMAGE TO EXISTING SERVICES SHALL BE MADE GOOD TO THE SATISFACTION OF THE SUPERINTENDENT AND THE RELEVANT AUTHORITY AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL NOTIFY THE RELEVANT AUTHORITY IMMEDIATELY IF ANY DAMAGE OCCURS.

EARTHWORKS NOTES

1. IN ACCORDANCE WITH THE LAND PROTECTION (PEST AND STOCK ROUTE MANAGEMENT) ACT 2002, SOIL OR ANY MATTER CONTAINING REPRODUCTIVE PEST PLANT MATERIAL MUST NOT BE REMOVED FROM THE SITE. THE CONTRACTOR'S ENVIRONMENTAL MANAGEMENT PLAN MUST IDENTIFY APPROPRIATE MEASURES TO BE PUT IN PLACE TO ENSURE THAT SOIL AND OTHER ORGANIC MATERIALS ARE NOT INADVERTENTLY TRANSPORTED TO OTHER LOCATIONS. THE CONTRACTOR SHALL CONTACT COUNCIL'S PEST MANAGEMENT UNIT TO OBTAIN ADVICE WITH REGARD TO DEVELOPING THIS COMPONENT OF THE ENVIRONMENTAL MANAGEMENT PLAN. SOIL (OR OTHER MATTER) CONTAMINATED WITH WEED SEED OR ORGANIC MATERIAL SHOULD NOT BE USED IN LANDSCAPING. A VEHICLE WASH DOWN AND INSPECTION AREA MUST BE PROVIDED FOR ALL MACHINERY / PLANT ENTERING AND LEAVING THE SITE DURING CONSTRUCTION TO REDUCE THE SPREAD OF INVASIVE WEED SPECIES.
2. STRIP AND REMOVE EXISTING TOPSOIL, SOIL CONTAINING SIGNIFICANT AMOUNTS OF ORGANIC MATERIALS AND ALSO ANY DELETERIOUS SOFT WET OR HIGHLY COMPRESSIVE MATERIALS, MATERIALS CONTAMINATED THROUGH PAST SITE USAGE WHICH MAY CONTAIN TOXIC SUBSTANCES OR SOLUBLE COMPOUNDS HARMFUL TO GROUND WATER, MATERIALS CONTAINING SUBSTANCES THAT CAN BE DISSOLVED OR LEACHED OUT IN THE PRESENCE OF MOISTURE (EG GYPSUM) OR WHICH UNDERGO VOLUME CHANGE OR LOSS OF STRENGTH WHEN DISTURBED AND EXPOSED TO MOISTURE (EG. SOME SHALES AND SANDSTONES), SILTS OR MATERIALS THAT HAVE THE DELETERIOUS PROPERTIES OF SILT, AND MATERIAL THAT CONTAINS WOOD, METAL, PLASTIC, BOULDERS OR OTHER DELETERIOUS MATERIAL.
3. REMOVE ALL FISSURED MATERIALS.
4. CLEAR THE SURFACE OF ANY LOOSE ROCK AND SOIL.
5. THE EXISTING SURFACE SHALL THEN BE COMPACTED TO A MINIMUM DRY DENSITY RATIO OF 98% SRDD AND MOISTURE TESTED TO A RANGE OF -2% (DRY) TO +2% (WET) OF OPTIMUM MOISTURE CONTENT USING A STEEL DRUM OR PAD FOOT ROLLER.
6. ANY SOFT SPOTS SHALL BOUGHT TO THE ATTENTION OF THE ENGINEER FOR INSTRUCTION ON HOW TO PROCEED.
7. **NO FILLING OR PAVEMENT CONSTRUCTION OPERATION IS TO BE UNDERTAKEN UNTIL THE ENGINEER HAS PROVIDED AUTHORISATION TO DO SO.**
8. ANY REQUIRED IMPORTED FILL MATERIAL SHALL BE IN ACCORDANCE WITH THE BELOW REQUIREMENTS AND SHALL BE APPROVED BY THE ENGINEER PRIOR TO FILLING OPERATIONS COMMENCING:
- | | |
|---|---------------------|
| AS METRIC SIEVE | % PASSING BY WEIGHT |
| 75mm | 100 |
| 2.36mm | 25 - 70 |
| 75um | 0 - 30 |
| MINIATURE ABRASION LOSS PASSING 2.36mm | 0 - 15 |
| LINEAR SHRINKAGE PASSING 4.25um | 0 - 8 |
| MATERIAL RETAINED ON 2.36mm SIEVE SHALL CONSIST OF SOUND STONE SOAKED CBR 15 AT 95% SRDD COMPACTION | |
9. ANY REQUIRED FILLING SHALL BE UNDERTAKEN BY PLACING APPROVED MATERIAL IN UNIFORM HORIZONTAL LAYERS NOT EXCEEDING 200mm LOOSE THICKNESS AND COMPACTED TO ACHIEVE A DRY DENSITY RATIO OF AT LEAST 95% SRDD. THE MOISTURE CONTENT OF FILL MATERIALS SHALL BE MAINTAINED AT -2% (DRY) TO +2% (WET) OF OPTIMUM MOISTURE CONTENT DURING AND AFTER COMPACTION.
10. THE FOLLOWING TESTING / INSPECTION REQUIREMENTS SHALL BE COMPLIED WITH:
- INSPECTION PRIOR TO FILLING OPERATIONS COMMENCING TO CONFIRM UNSUITABLE MATERIAL HAS BEEN REMOVED
 - COMPACTION TEST RESULTS FOR PREPARED EXISTING SURFACE (PRIOR TO FILLING) AT 1 TEST / 2,500m² AREA.
 - FILL MATERIAL QUALITY CERTIFICATE FROM A NATA APPROVED LABORATORY TO CONFIRM ANY IMPORTED FILL MATERIAL IS IN ACCORDANCE WITH THE ABOVE REQUIREMENTS.
 - COMPACTION TEST RESULTS FOR FILL OPERATIONS AT 1 TEST / 2,500m2 AREA FOR EACH 200mm LAYER.
11. LEVEL 1 INSPECTION AND TESTING IS TO BE UNDERTAKEN IN ACCORDANCE WITH CLAUSE 8.2 WITHIN AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS".
12. TRANSPORTATION OF FILL OR SPOIL TO AND FROM THE SITE MUST NOT OCCUR WITHIN:
- PEAK TRAFFIC TIMES; OR
 - BEFORE 7am OR AFTER 6pm MONDAY TO FRIDAY; OR
 - BEFORE 7am OR AFTER 1pm SATURDAYS; OR
 - ON SUNDAYS OR PUBLIC HOLIDAYS.

ROAD WORK

1. KERB PROFILES SHALL BE IN ACCORDANCE WITH FNQROC STD DRG S1000.
2. ALL KERB SET-OUT DETAILS ARE TO THE LIP OF KERB AND CHANNEL.
3. SUPPLY OF ALL TRAFFIC SIGNS AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE DEPARTMENT OF TRANSPORT & MAIN ROADS "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD)
4. ALL REGULATORY, WARNING AND HAZARD SIGNS SHALL BE SIZE "A" UNLESS NOTED OTHERWISE.
5. STREET SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH FNQROC STD DRG S1040.

CONCRETE DRIVEWAY

1. DRIVEWAY CONSTRUCTION METHODOLOGY SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE FNQROC REGIONAL DEVELOPMENT MANUAL STANDARD SPECIFICATIONS.
2. THE CONTRACTOR IS REMINDED OF THE REQUIREMENT FOR HOLD POINT AND WITNESS POINT INSPECTIONS AS REQUIRED BY THE RELEVANT SPECIFICATION. THE ENGINEER SHALL BE CONTACTED FOR PROOF ROLL AND PRE-POUR INSPECTIONS WITH 48 HOURS NOTICE.
3. THE CONTRACTOR IS REMINDED OF THE REQUIREMENT FOR MATERIAL AND COMPACTION TESTING REQUIREMENTS AS REQUIRED BY THE STANDARD SPECIFICATION.

STORMWATER DRAINAGE

1. PRIOR TO COMMENCEMENT OF PIPE WORK, THE CONTRACTOR SHALL CONFIRM THE INVERT LEVEL OF DOWNSTREAM DRAINAGE TO ENSURE THAT THE STORMWATER SYSTEM CAN ADEQUATELY OUTLET / DRAIN. CONTACT THE ENGINEER IF THERE ARE ANY DISCREPANCIES.
2. FOR STANDARD STORMWATER DRAINAGE DETAILS, REFER FNQROC STANDARD DRAWINGS S1045 - S1100, INCLUSIVE.
3. SUBSOIL DRAINAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH FNQROC STANDARD SPECIFICATION S2.21 AND THE PROJECT DRAWING DETAIL. WHERE INFORMATION IS NOT PROVIDED ON THE PROJECT DRAWING DETAIL, REFERENCE SHALL BE MADE TO FNQROC STANDARD DRAWING S1095.
4. SUBSURFACE DRAIN FLUSHING POINTS AND OUTLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FNQROC STANDARD DRAWING S1095.
5. STORMWATER DRAINAGE PIPES TYPES HAVE BEEN NOMINATED ON THE STORMWATER DRAINAGE LONGITUINDAL SECTIONS, HOWEVER THE PIPE MATERIAL TYPE CAN BE INTERCHANGED WITH EITHER CLASS 2 FLUSH JOINTED REINFORCED CONCRETE PIPES, BLACK MAX OR STORMPRO PIPES.
6. CCTV INSPECTIONS SHALL BE UNDERTAKEN ON ALL NEW STORMWATER PIPES WITH REPORTING PROVIDED IN ACCORDANCE WITH FNQROC REQUIREMENTS.

SEWER

1. ALL SEWER PIPES SHALL BE 150mm DIAMETER uPVC CLASS SN8 UNLESS NOTED OTHERWISE.
2. ALL WORKS SHALL BE IN ACCORDANCE WITH FNQROC STANDARD SPECIFICATION S6, UNLESS NOTED OTHERWISE.
3. FOR DETAILS OF SEWER MANHOLES REFER FNQROC STANDARD DRAWING S3000.
4. FOR DETAILS OF PROPERTY CONNECTION BRANCHES REFER FNQROC STANDARD DRAWING S3005.
5. FOR DETAILS OF SEWER MAIN TRENCH BEDDING REFER FNQROC STANDARD DRAWING S3015.
6. CONNECTION OF NEW SEWER MAIN TO EXISTING MANHOLES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF FNQROC / COUNCIL. CONNECTION TO MANHOLES TO BE MADE WITH SAND-SOCKETED PIPES (TO BE CONFIRMED WITH COUNCIL PRIOR TO CONNECTION).
7. ALL PROPERTY CONNECTION BRANCHES SHALL BE BROUGHT TO WITHIN A MAXIMUM OF 300mm OF THE FINISHED SURFACE LEVEL AND A GLUED CAP INSTALLED. THE RISER MUST BE CONNECTED TO A MARKER PEG WITH PLASTIC COATED WIRE. THE MARKER PEG SHALL BE OF HARDWOOD MATERIAL, PROTRUDING 20mm ABOVE THE FINISHED GROUND LEVEL AND INSTALLED IMMEDIATELY ADJACENT TO THE RISER.
8. ANY VERTICAL DROPS SHALL BE CONSTRUCTED USING FIBREGLASS HEAVY DUTY DEEP SEWER DROPS.
9. CCTV INSPECTION AND REPORT IS TO BE PREPARED FOR ALL NEW SEWER MAINS IN ACCORDANCE WITH FNQROC / COUNCIL REQUIREMENTS.

WATER

1. ALL WATER WORKS TO BE IN ACCORDANCE WITH FNQROC STANDARD SPECIFICATION S5, UNLESS NOTED OTHERWISE.
2. FOR DETAILS OF WATER MAIN TRENCH BEDDING REFER FNQROC STANDARD DRAWING S2016. BEDDING TO BE TYPE 1 UNLESS NOTED OTHERWISE.
3. PROVIDE THRUST BLOCKS IN ACCORDANCE WITH FNQROC REQUIREMENTS.
4. PROVIDE A COMPRESSIBLE LAYER BETWEEN ALL EXISTING / PROPOSED HYDRANT OR VALVE SURROUNDS WITHIN AREAS OF CONCRETE.
5. CONNECTION OF NEW WATER MAIN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF CAIRNS REGIONAL COUNCIL. CONTRACTOR TO LIAISE WITH COUNCIL & ORGANISE FOR CONNECTION.

EROSION SEDIMENT CONTROL STRATEGY

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT AND PRESERVE THE NATURAL ENVIRONMENT AND SHALL AVOID ENVIRONMENTAL POLLUTION IN ACCORDANCE WITH THE ENVIRONMENTAL PROTECTION ACT.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INCORPORATION OF APPROPRIATE CONTROL AND MANAGEMENT MEASURES CONFORMING TO THE REQUIREMENTS OF THE ACT AND THE RELEVANT AUTHORITIES.
3. THE CONTRACTOR SHALL INSTALL ALL DEVICES/MEASURES NECESSARY TO COMPLY WITH THE PROVISIONS OF THE FNQROC DEVELOPMENT MANUAL, THE ENVIRONMENTAL PROTECTION ACT AND COUNCIL REQUIREMENTS.
4. ANY SOIL STOCKPILES SHALL BE PROTECTED AGAINST WIND EROSION BY COVERING AND AGAINST STORMWATER RUNOFF BY SILT FENCES AT THE DOWNHILL SLOPES. STOCKPILE LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR AND EROSION/CONTROL MEASURES IMPLEMENTED & MAINTAINED FOR THE LIFE OF THE STOCKPILE.
5. SEQUENCING OF CONTROL MEASURES:
- 5.1. INSTALL STABLE POINT OF ENTRY
 - 5.2. INSTALL SILT FENCES / BUNDS
 - 5.3. PROTECT SOIL STOCKPILES
 - 5.4. CONSTRUCT TEMPORARY SEDIMENT BASINS
 - 5.5. INSTALL STORMWATER PIPES
 - 5.6. IMPLEMENT PROTECTION MEASURES TO STORMWATER PITS
 - 5.7. REVEGETATE BARE AREAS UPON COMPLETION OF EARTHWORK
6. CONTROL MEASURES SHALL BE INSPECTED AFTER EACH RAIN EVENT AND CLEANED / MAINTAINED AS REQUIRED.
7. RETURNS IN SILT FENCE SHALL BE AT 20m INTERVALS WHEN INSTALLED ALONG THE CONTOUR. SPACING TO DECREASE TO 5 - 10m INTERVAL DEPENDENT ON SLOPE IF INSTALLED AT AN ANGLE TO THE CONTOUR. THE CONTRACTOR SHALL SELECT A COMPLIANT SPACING AND MONITOR / CHANGE AS NECESSARY.
8. SILT FENCE RETURNS SHALL CONSIST OF EITHER A V-SHAPED SECTION EXTENDING A MINIMUM OF 1.5m UP THE SLOPE OR A SANDBAG / ROCK/AGGREGATE CHECK DAM HALF THE HEIGHT OF SILT FANCE A MINIMUM OF 1.5m UP THE SLOPE.
9. STORMWATER PITS SHALL HAVE PIT PROTECTION MEASURES AS DETAILED IN FNQROC.
10. THE FOLLOWING REVEGETATION MEASURES SHALL BE UNDERTAKEN IMMEDIATELY UPON COMPLETION OF EARTHWORK:
- 10.1. CUT / FILL BATTERS STEEPER THAN 1 in 4 TO BE HYDROMULCHED
 - 10.2. A STRIP OF TURF TO BE LAID BEHIND ALL KERB LINES
11. ALL REVEGETATION / GRASS TO BE WATER AS REQUIRED TO MAINTAIN UNTIL GROWTH IS ESTABLISHED.
12. A SUITABLE DUST MANAGEMENT STRATEGY SHALL BE MAINTAINED TO MINIMISE DUST NUISANCE ON ADJACENT PROPERTIES. DETAILS OF THE DUST MANAGEMENT STRATEGY SHALL BE INCORPORATED INTO THE CONTRACTOR'S EROSION AND SEDIMENT CONTROL STRATEGY.

REVISIONS					
	B	26.09.23	RFI RESPONSE	CW	DJW
	A	14.07.23	INITIAL ISSUE		
	NO.	DATE	DESCRIPTION	DESIGN	APPROVED

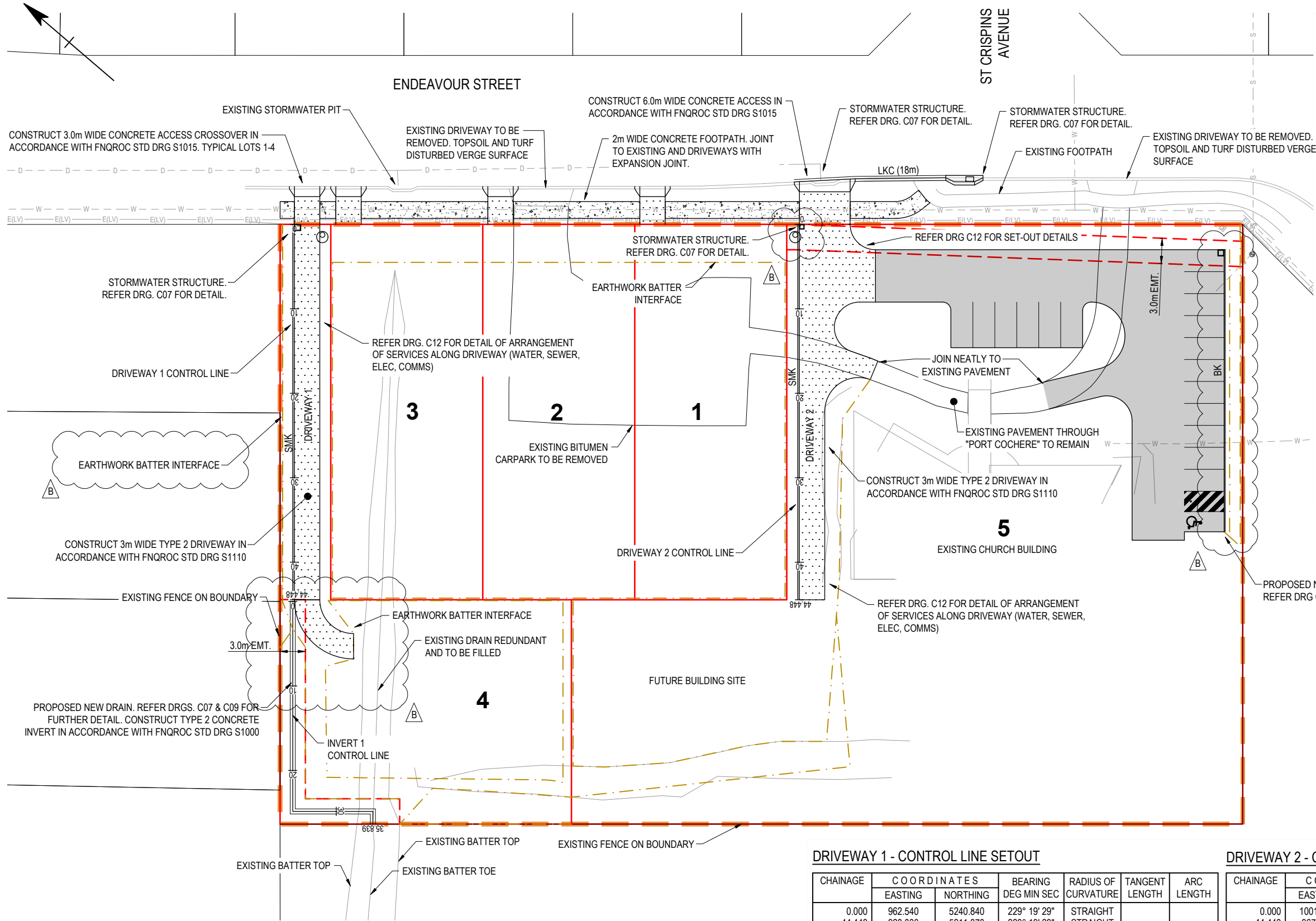
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SCALE

ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE



DRAWN	CMD	CHECKED	DJW	ENDEAVOUR STREET SUBDIVISION	
DESIGNED	CMD	CHECKED	DJW	IMPORTANT NOTES	
APPROVED	ORIGINAL CERTIFIED BY D.J.WALKER			DRAWING NO. 230-004-C02	
DATE: 26.09.23 RPEC: 19806				REVISION B	



LEGEND	
	WORK SCOPE BOUNDARY
	NEW CAR PARK PAVEMENT. REFER DRAWING C12 FOR DETAILS
	NEW CONCRETE DRIVEWAY REFER FNQROC STD DRG S1110
	CONCRETE FOOTPATH
	SEMI-MOUNTABLE KERB TYPE 2 REFER FNQROC STD DRG S1000
	BARRIER KERB REFER FNQROC STD DRG S1000
	LAYBACK KERB & CHANNEL REFER FNQROC STD DRG S1000
	EARTHWORK BATTER INTERFACE
	PROPERTY BOUNDARY
	NEW SEWER MANHOLE
	STORMWATER STRUCTURE
	EXISTING WATER
	EXISTING SEWER
	EXISTING U/G ELECTRICAL
	EXISTING U/G COMMS
	EXISTING STORMWATER

DRIVEWAY 1 - CONTROL LINE SETOUT

CHAINAGE	COORDINATES		BEARING DEG MIN SEC	RADIUS OF CURVATURE	TANGENT LENGTH	ARC LENGTH
	EASTING	NORTHING				
0.000	962.540	5240.840	229° 19' 29"	STRAIGHT		
44.448	928.830	5211.870	229° 19' 29"	STRAIGHT		

DRIVEWAY 2 - CONTROL LINE SETOUT

CHAINAGE	COORDINATES		BEARING DEG MIN SEC	RADIUS OF CURVATURE	TANGENT LENGTH	ARC LENGTH
	EASTING	NORTHING				
0.000	1001.520	5195.490	229° 19' 29"	STRAIGHT		
44.448	967.810	5166.520	229° 19' 29"	STRAIGHT		

INVERT 1 - CONTROL LINE SETOUT

CHAINAGE	COORDINATES		BEARING DEG MIN SEC	RADIUS OF CURVATURE	TANGENT LENGTH	ARC LENGTH
	EASTING	NORTHING				
0.000	928.550	5211.890	229° 19' 26"	STRAIGHT		
24.855	909.700	5195.690	229° 19' 29"	STRAIGHT		
34.343	915.880	5188.490	139° 21' 34"	STRAIGHT		
35.839	914.750	5187.510	229° 03' 59"	STRAIGHT		

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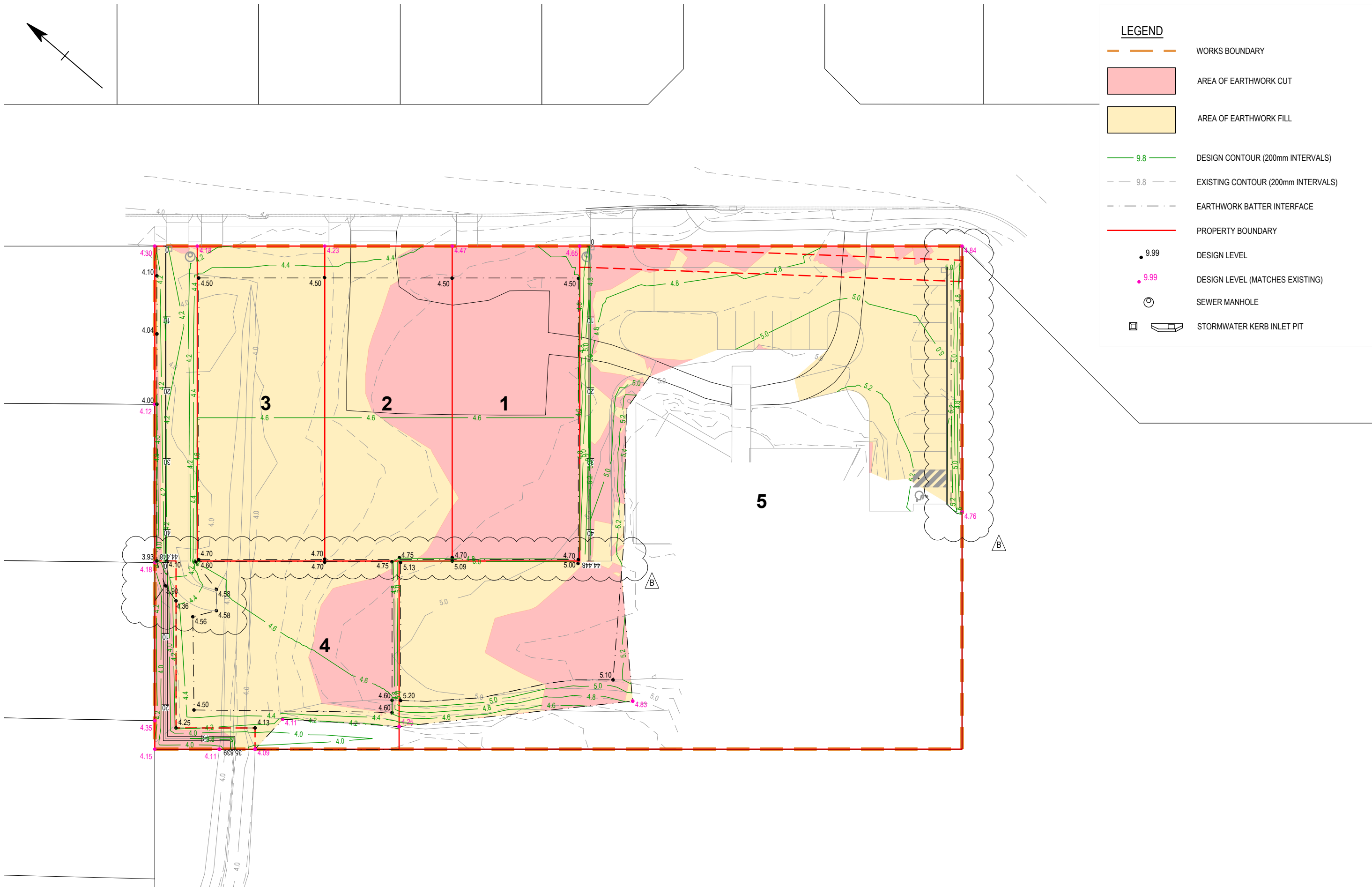
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SCALE
1:250 0 5 10 15 A1 1:500 A3
ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE



DRAWN	CMD	CHECKED	DJW
DESIGNED	CMD	CHECKED	DJW
APPROVED			
ORIGINAL CERTIFIED BY D.J.WALKER			
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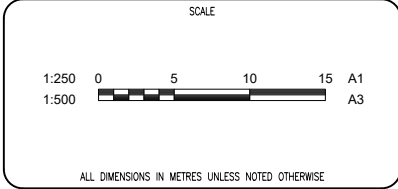
ENDEAVOUR STREET SUBDIVISION	
GENERAL ARRANGEMENT	
DRAWING NO.	230-004-C03
REVISION	B



REVISIONS						
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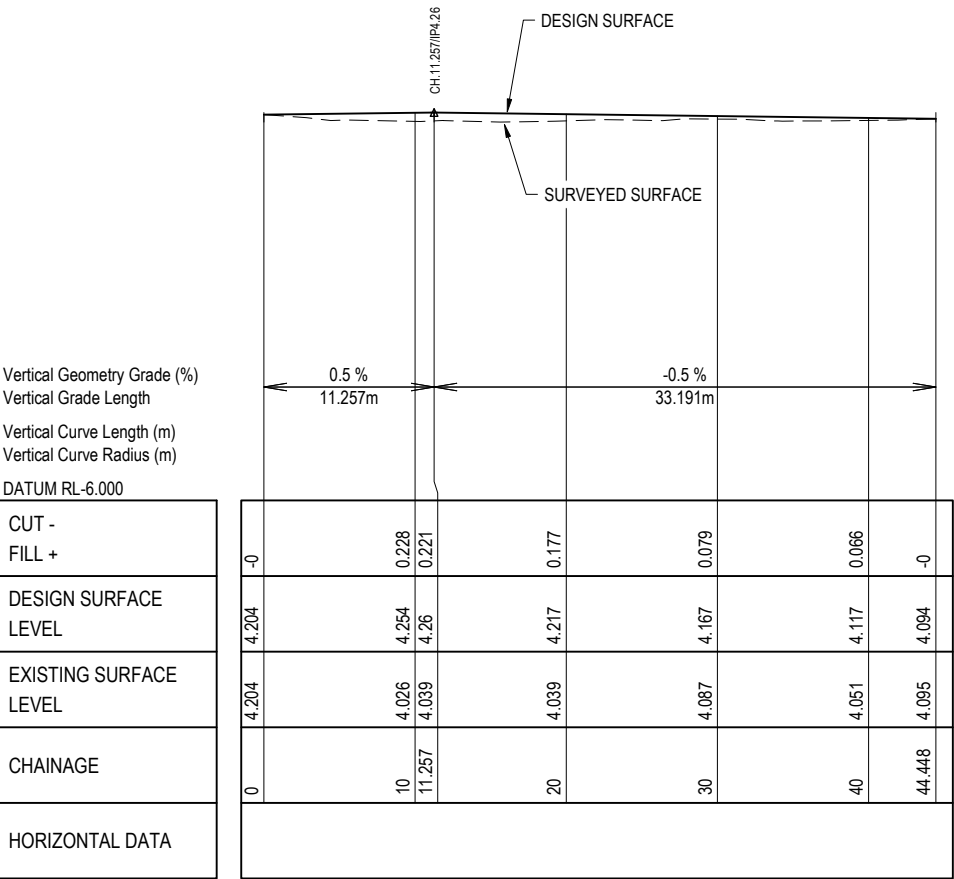
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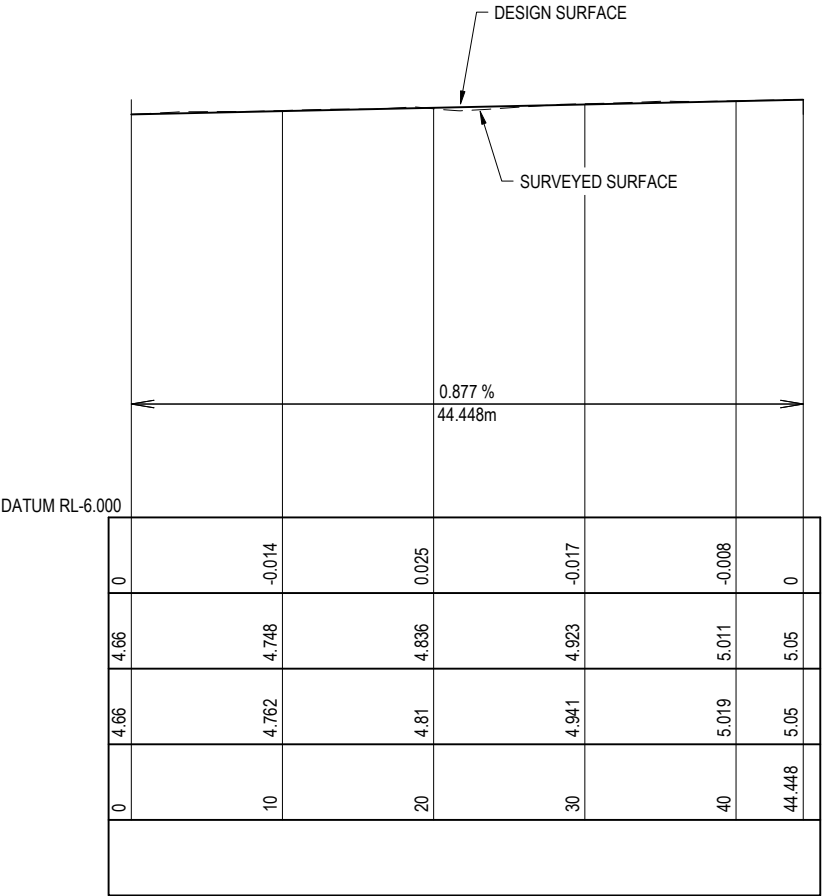


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APPROVED	ORIGINAL CERTIFIED BY D.J.WALKER		
DATE: 26.09.23		RPEQ: 19806	

ENDEAVOUR STREET SUBDIVISION	
EARTHWORK & SITE LEVELS	
DRAWING NO.	230-004-C04
REVISION	B



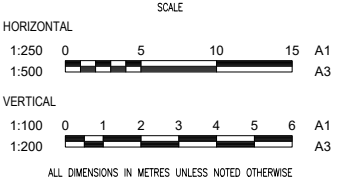
DRIVEWAY 1 - LONGITUDINAL SECTION



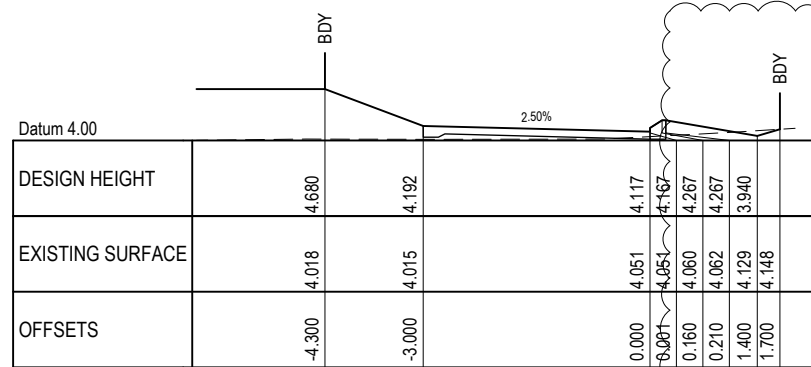
DRIVEWAY 2 - LONGITUDINAL SECTION

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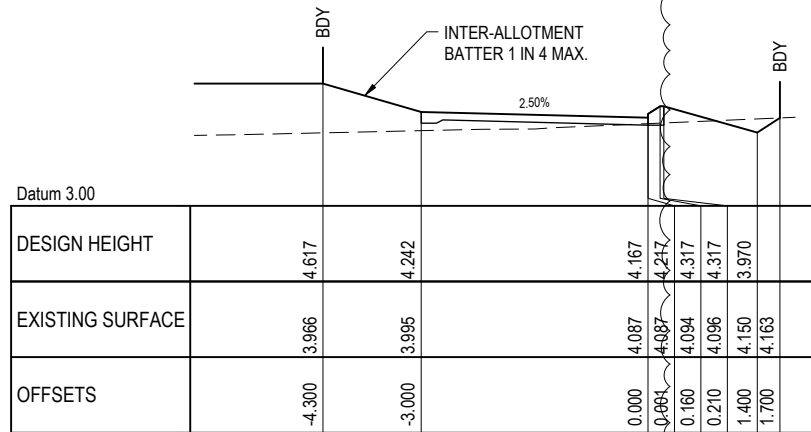
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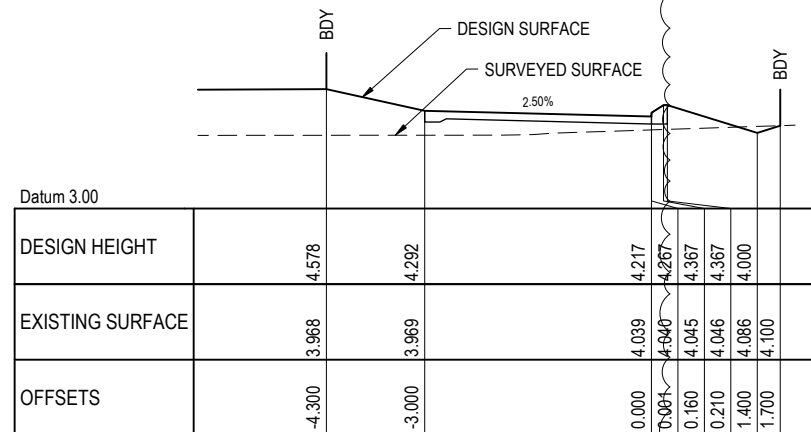
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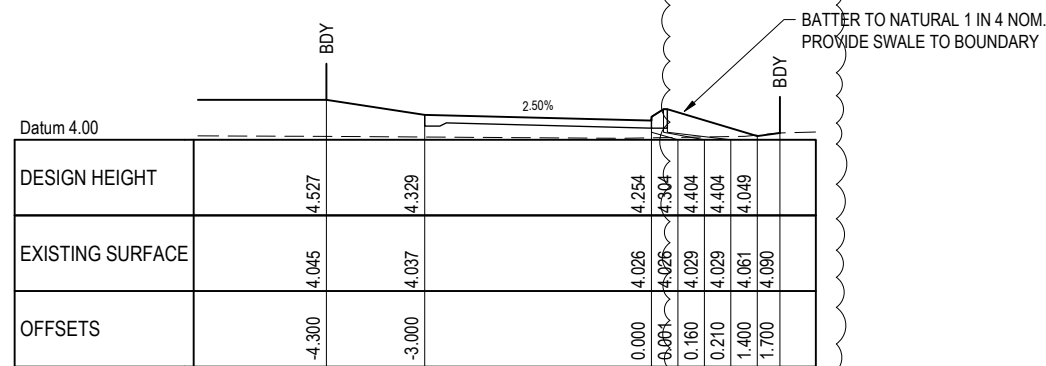
CHAINAGE 40.000



CHAINAGE 30.000

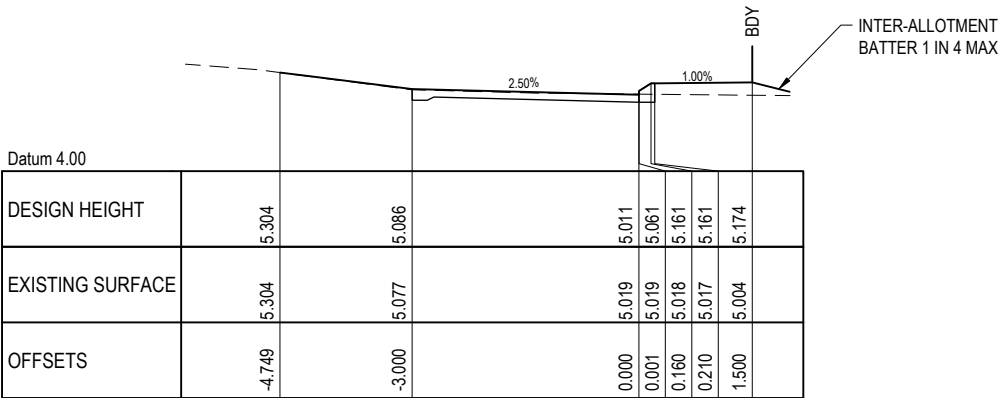


CHAINAGE 20.000

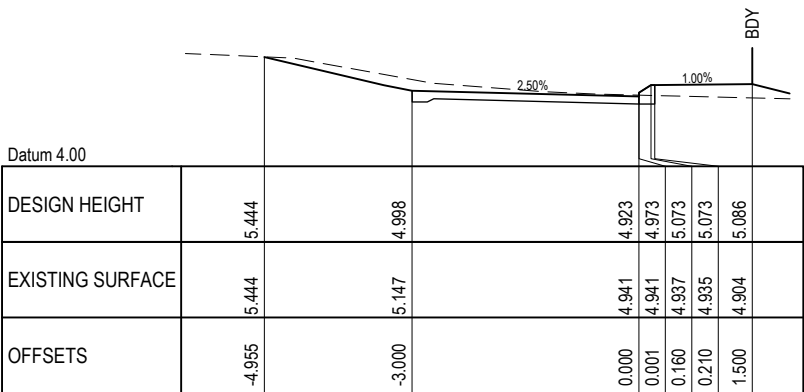


CHAINAGE 10.000

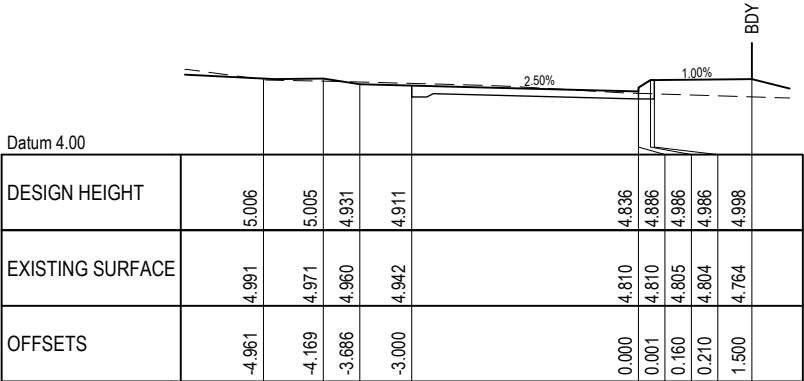
DRIVEWAY 1 - CROSS SECTIONS



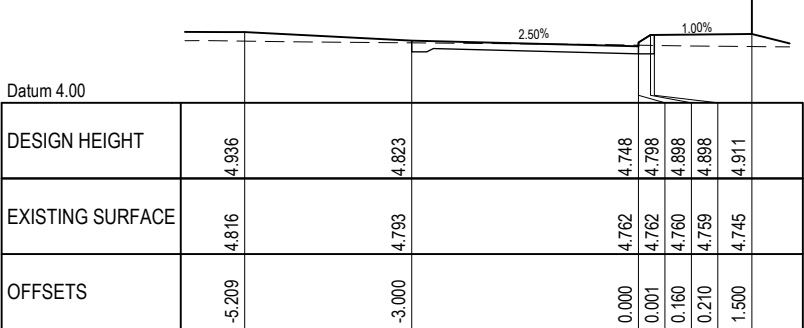
CHAINAGE 40.000



CHAINAGE 30.000



CHAINAGE 20.000

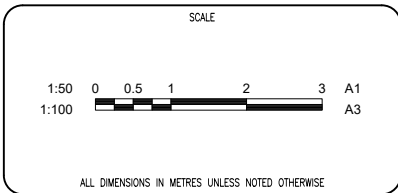


CHAINAGE 10.000

DRIVEWAY 2 - CROSS SECTIONS

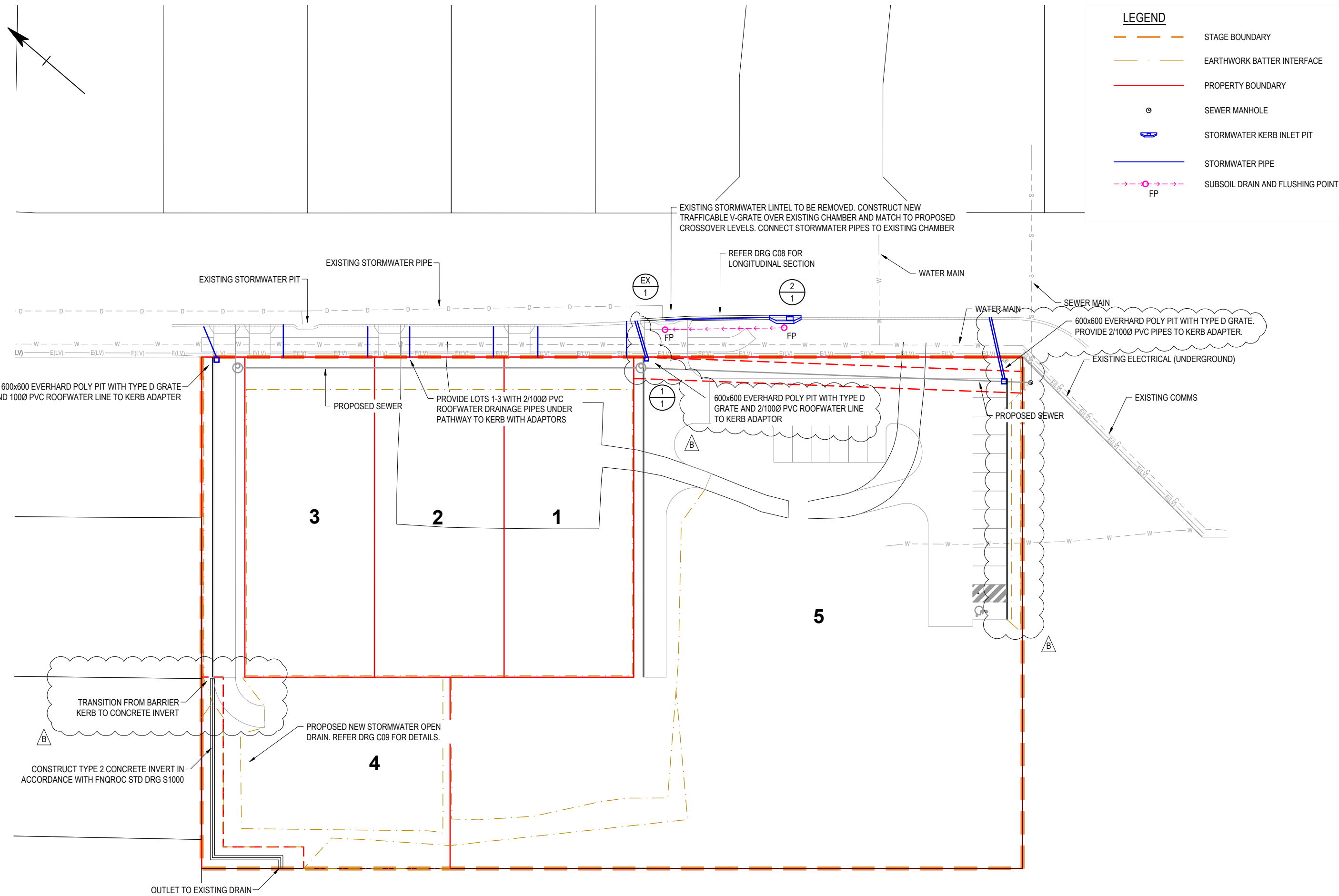
REVISIONS				DESIGN	APPROVED
	NO.	DATE	DESCRIPTION		
	B	26.09.23	RFI RESPONSE	CW	DJW
	A	14.07.23	INITIAL ISSUE		

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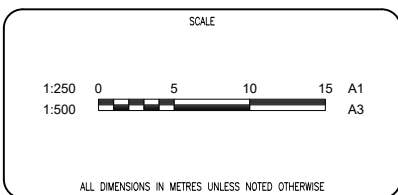
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DESIGNED	CMD	CHECKED	DJW
APPROVED	ORIGINAL CERTIFIED BY D.J.WALKER		
DATE: 26.09.23		RPEQ: 19806	

ENDEAVOUR STREET SUBDIVISION	
DRIVEWAY CROSS SECTIONS	
DRAWING NO.	230-004-C06
REVISION	B



REVISIONS						
	B	26.09.23	RFI RESPONSE		CW DJW	
	A	14.07.23	INITIAL ISSUE			
	NO.	DATE	DESCRIPTION		DESIGN	APPROVED

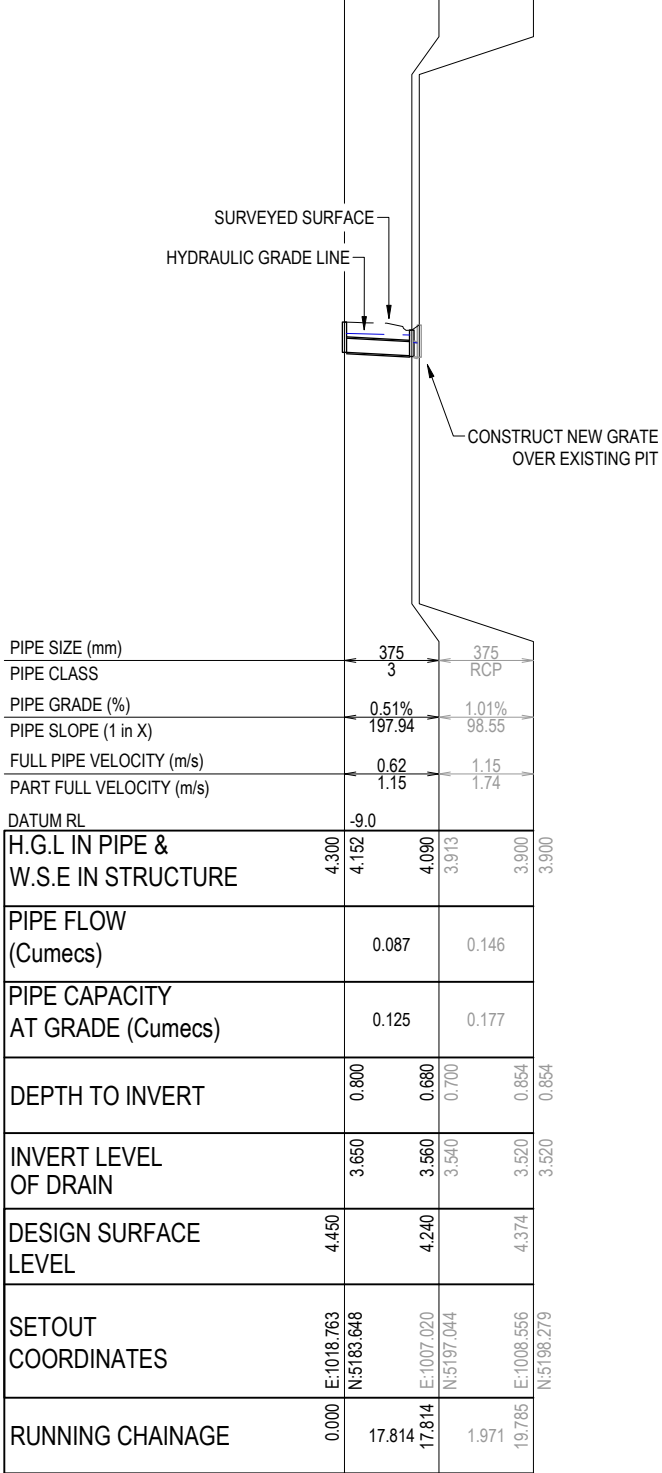
CLIENT	
J & V NOLI	



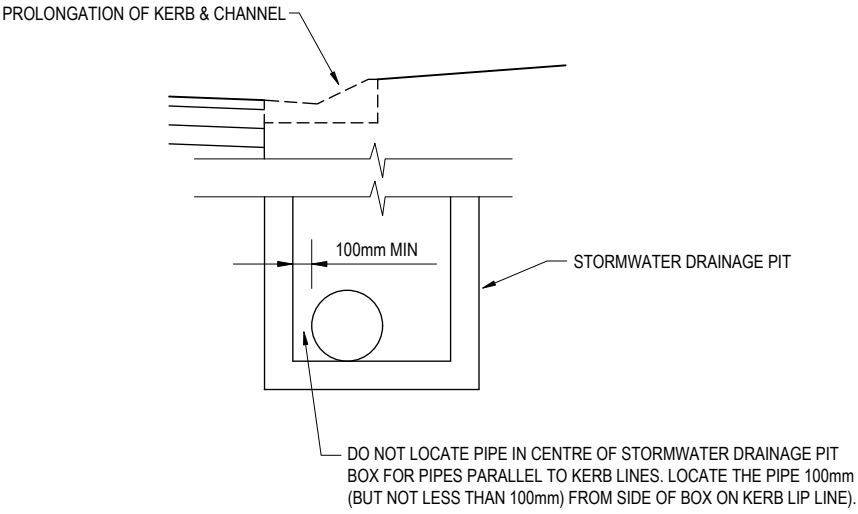
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DESIGNED	CMD	CHECKED	DJW
APPROVED	ORIGINAL CERTIFIED BY D.J.WALKER		
DATE: 26.09.23		RPEQ: 19806	

ENDEAVOUR STREET SUBDIVISION	
STORMWATER DRAINAGE LAYOUT	
DRAWING NO.	230-004-C07
REVISION	B

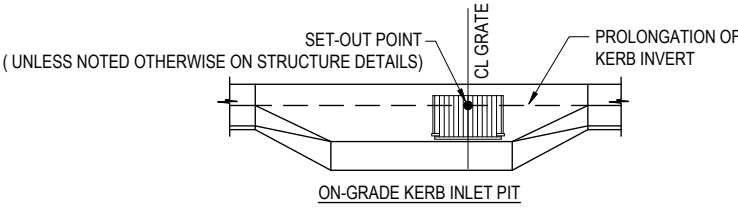
STRUCTURE NAME	2/1	1/1	EX/1
STRUCTURE DESCRIPTION	ON GRADE KERB INLET PIT TYPE S LINTEL 2.4m	900x900 TRAFFICABLE V-GRADE OVER EXISTING CHAMBER	EXISTING MANHOLE



LINE 1



STORMWATER PIPE POSITION RELATIVE TO PIT WALL
N.T.S.



STORMWATER SETOUT POINT
N.T.S.

REVISIONS					
	B	26.09.23	RFI RESPONSE	CW	DJW
	A	14.07.23	INITIAL ISSUE		
	NO.	DATE	DESCRIPTION	DESIGN	APPROVED

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SCALE

1:1000 0 10 20 30 40 50 60 A1

1:2000 0 10 20 30 40 50 60 A3

HORIZONTAL

1:100 0 1 2 3 4 A1

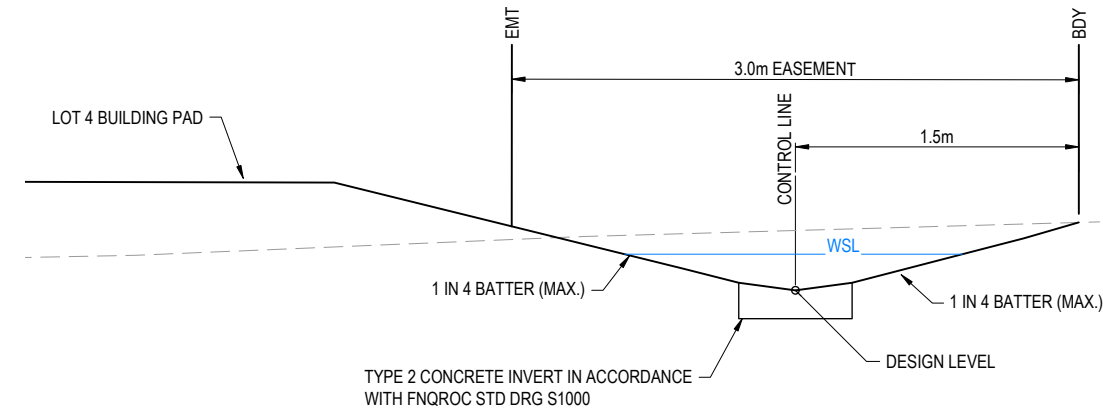
1:200 0 1 2 3 4 A3

VERTICAL

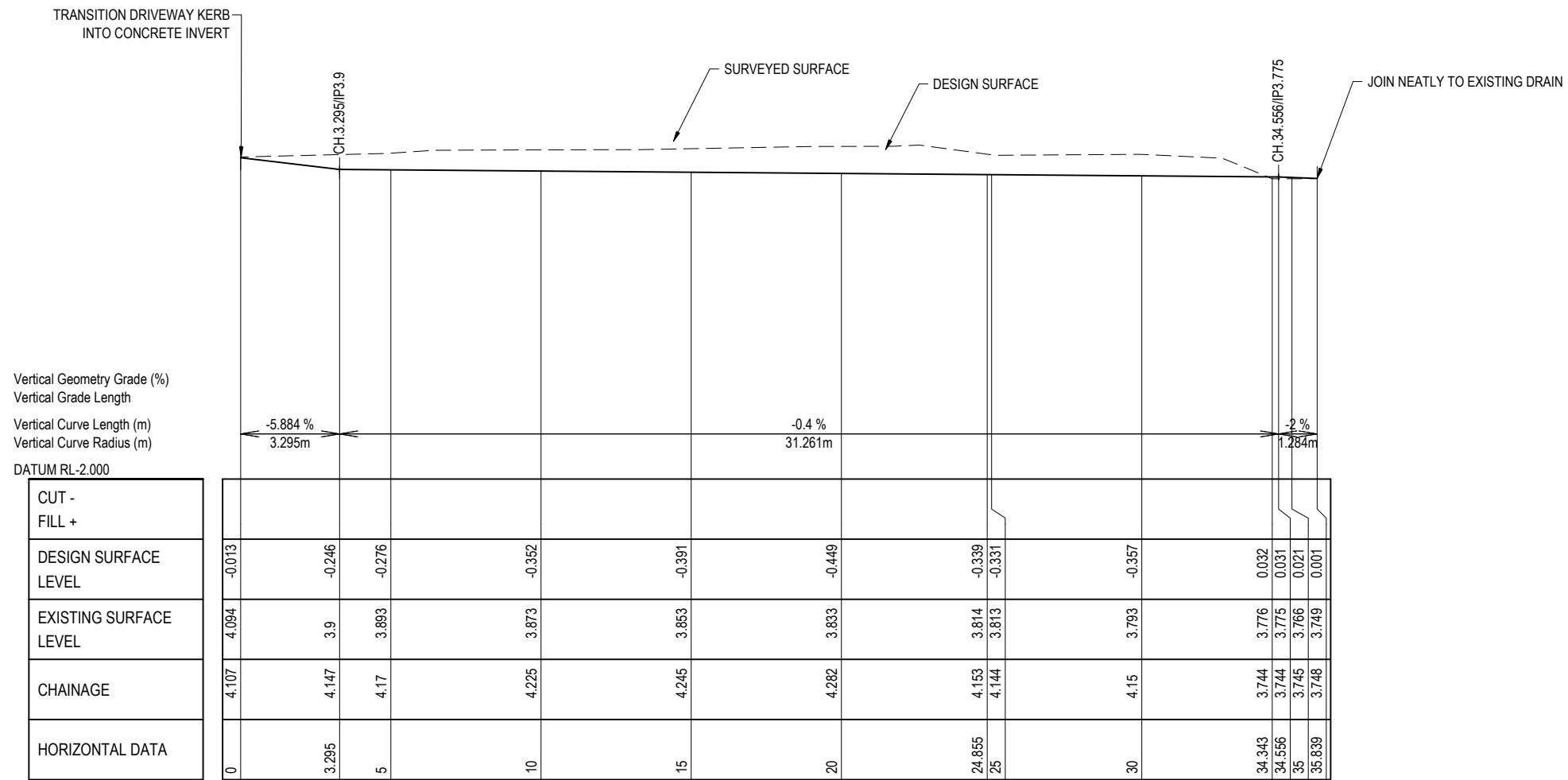
ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE

 **CivilWalker**
CONSULTING ENGINEERS

DRAWN	CMD	CHECKED	DJW	ENDEAVOUR STREET SUBDIVISION	
DESIGNED	CMD	CHECKED	DJW	STORMWATER DRAINAGE	
APPROVED	ORIGINAL CERTIFIED BY D.J.WALKER			LONGITUDINAL SECTION	
DATE: 26.09.23 RPEQ: 19806				DRAWING NO.	230-004-C08
				REVISION	B



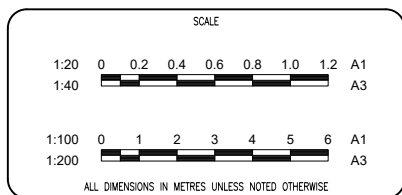
INVERT DRAIN TYPICAL SECTION
SCALE 1:20



INVERT DRAIN LONGITUDINAL SECTION
SCALE 1:100

REVISIONS	NO.	DATE	DESCRIPTION	DESIGN	APPROVED
	B	26.09.23	RFI RESPONSE	CW	DJW
	A	14.07.23	INITIAL ISSUE		

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DRAWN		CMD		CHECKED		DJW	
DESIGNED		CMD		CHECKED		DJW	
APPROVED		ORIGINAL CERTIFIED BY D.J.WALKER					
DATE: 26.09.23				RPEQ: 19806			

ENDEAVOUR STREET SUBDIVISION		
STORMWATER DRAINAGE		
OPEN DRAIN DETAILS		
DRAWING NO.	230-004-C09	REVISION B

LEGEND

PROPERTY BOUNDARY

EASEMENT BOUNDARY

PROPOSED WATER CONNECTION

EXISTING WATER MAIN

SEWER MANHOLE

150mm DIA SEWER GRAVITY MAIN

PROPERTY CONNECTION BRANCH ON NEW SEWER & TYPE E2

EXISTING SEWER & PROPERTY CONNECTION BRANCH

REVISED	NO.		DATE		DESCRIPTION		DESIGN		APPROVED	
	B		26.09.23		RFI RESPONSE		CW		DJW	
A		14.07.23		INITIAL ISSUE						

CLIENT

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SCALE

1:250

0

5

10

15

A1

A3

ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE

CivilWalker

CONSULTING ENGINEERS

DRAWN

CMD

CHECKED

DJW

DESIGNED

CMD

APPROVED

CHECKED

ORIGINAL CERTIFIED BY
D.J.WALKER

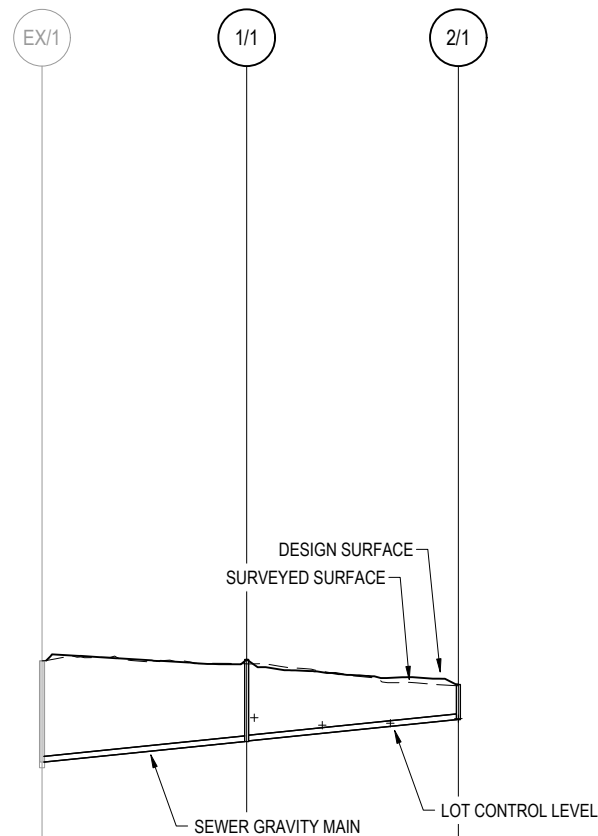
DATE: 26.09.23 RPEQ: 19806

ENDEAVOUR STREET SUBDIVISION

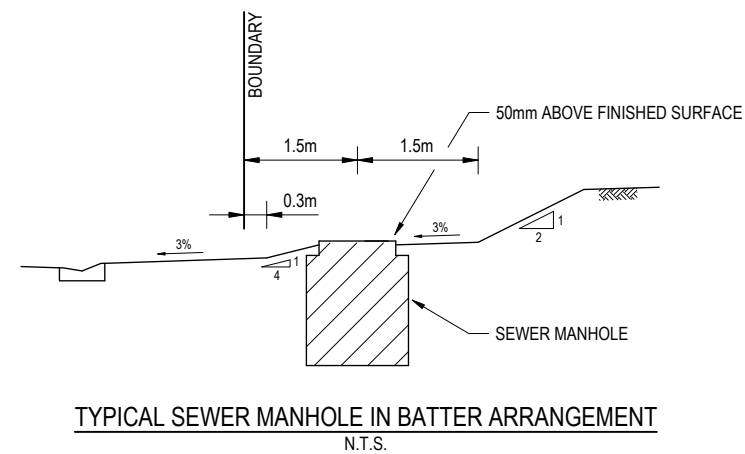
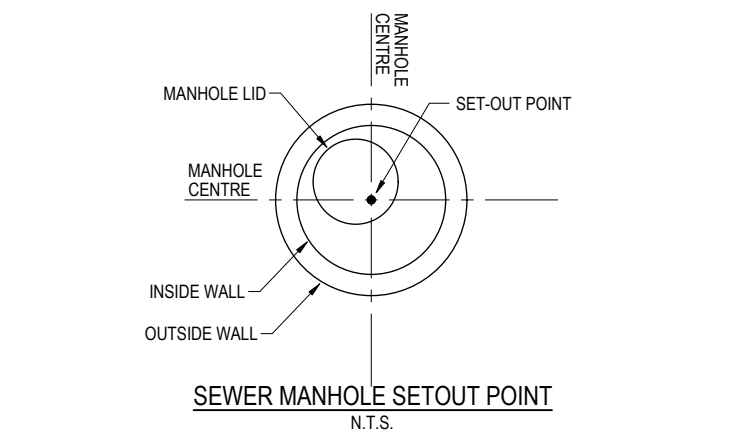
SEWERAGE & WATER RETICULATION LAYOUT

DRAWING NO. 230-004-C10

REVISION B

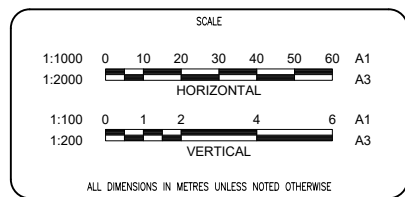


DIAMETER (CLASS)	Ø150uPVC (SN8)		Ø150uPVC (SN8)	
GRADE 1 in X	99.91		99.82	
DATUM RL	-12.0			
DEPTH TO INVERT	2.810 2.730		2.172 2.152	0.928
INVERT LEVEL	2.010 2.090		2.632 2.652	3.213
FINISHED SURFACE LEVEL			4.804	4.141
EXISTING SURFACE LEVEL	4.820		4.689	4.108
SETOUT COORDINATES	E:1033.778 N:5152.523		E:1000.056 N:5194.892	E:963.552 N:5237.360
CHAINAGE	0.000	54.151	54.151	56.001

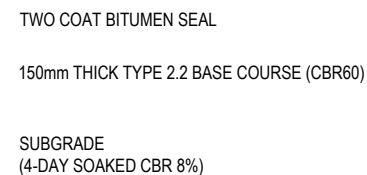


REVISIONS					
	B	26.09.23	RFI RESPONSE	CW	DJW
	A	14.07.23	INITIAL ISSUE		
	NO.	DATE	DESCRIPTION	DESIGN	APPROVED

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DRAWN		CMD	CHECKED	DJW	ENDEAVOUR STREET SUBDIVISION	
DESIGNED		CMD	CHECKED	DJW	SEWERAGE LONGITUDINAL SECTION	
APPROVED		ORIGINAL CERTIFIED BY D.J.WALKER			DRAWING NO.	
					230-004-C11	
		DATE: 26.09.23			RPEQ: 19806	REVISION
						B



N.T.S

EXISTING EDGE OF PAVEMENT

NEW PAVEMENT

EXISTING PAVEMENT

100mm MIN

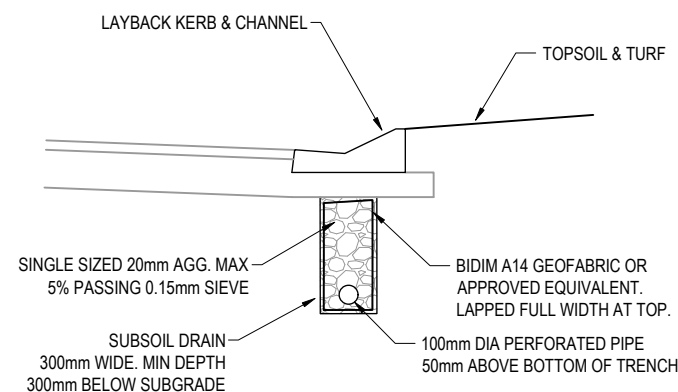
PAVEMENT AS

SAWCUT EXISTING ROAD & JOINT NEATLY

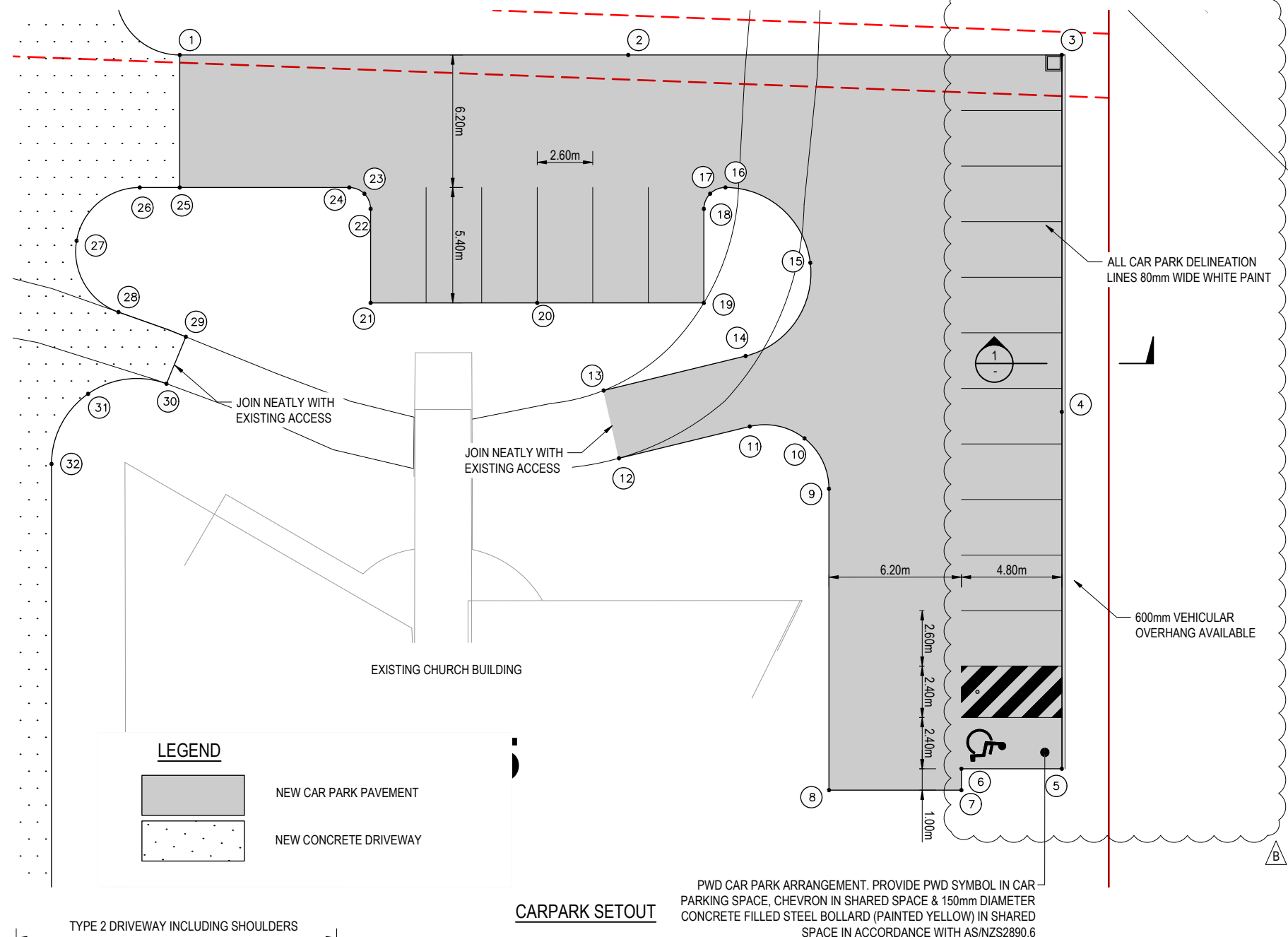
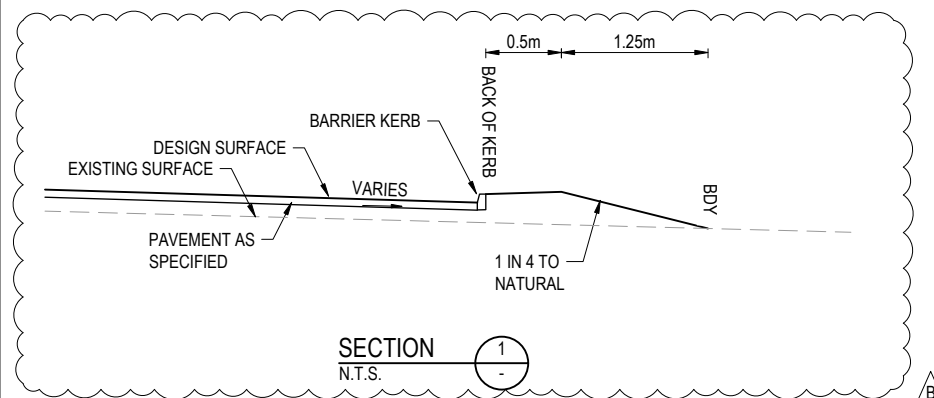
4

1

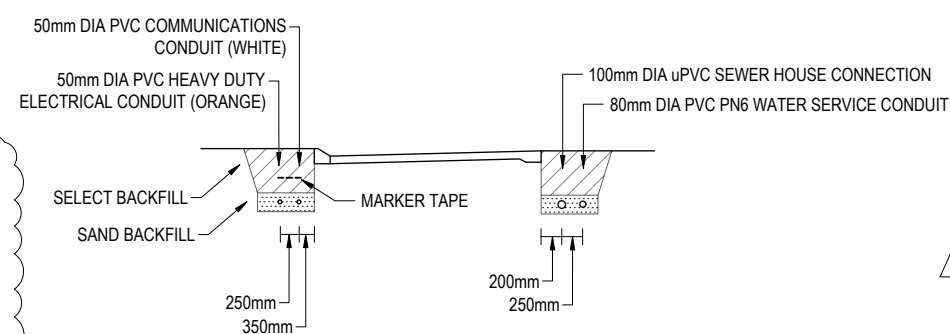
N.T.S.



N.T.S.



PWD CAR PARK ARRANGEMENT. PROVIDE PWD SYMBOL IN CAR -
PARKING SPACE, CHEVRON IN SHARED SPACE & 150mm DIAMETER
CONCRETE FILLED STEEL BOLLARD (PAINTED YELLOW) IN SHARED
SPACE IN ACCORDANCE WITH AS/NZS2890.6



N.T.S

SUPPLY & INSTALLATION OF ELECTRICAL /
TELECOMMUNICATIONS CONDUITS SHALL BE IN ACCORDANCE
WITH THE RELEVANT AUTHORITIES REQUIREMENTS.

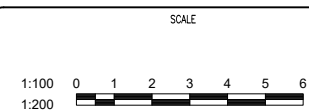
CARPARK SETOUT			
POINT NO.	EASTING	NORTHING	LEVEL
1	1005.111	5186.710	4.97
2	1018.798	5170.789	4.82
3	1032.028	5155.399	4.94
4	1019.364	5144.512	5.03
5	1006.700	5133.626	5.11
6	1003.637	5137.190	5.14
7	1002.878	5136.538	5.15
8	998.836	5141.239	5.18
9	1009.529	5150.431	5.26
10	1010.570	5152.837	5.23
11	1009.323	5155.143	5.20
12	1004.205	5158.817	5.14
13	1006.140	5161.429	5.11
14	1011.697	5157.440	5.09
15	1016.979	5157.987	5.07

16	1017.063	5163.296	5.06
17	1016.373	5163.650	5.05
18	1015.646	5163.411	5.03
19	1012.309	5160.542	5.04
20	1007.224	5166.457	5.02
21	1002.139	5172.372	4.99
22	1005.476	5175.240	4.98
23	1005.821	5175.923	4.97
24	1005.582	5176.651	4.97
25	1000.409	5182.668	4.95
26	999.190	5184.087	4.94
27	995.372	5184.704	4.92
28	994.119	5181.045	4.93
29	995.299	5177.896	4.96
30	993.041	5177.154	4.96
31	990.290	5179.627	4.94
32	986.687	5178.786	4.92

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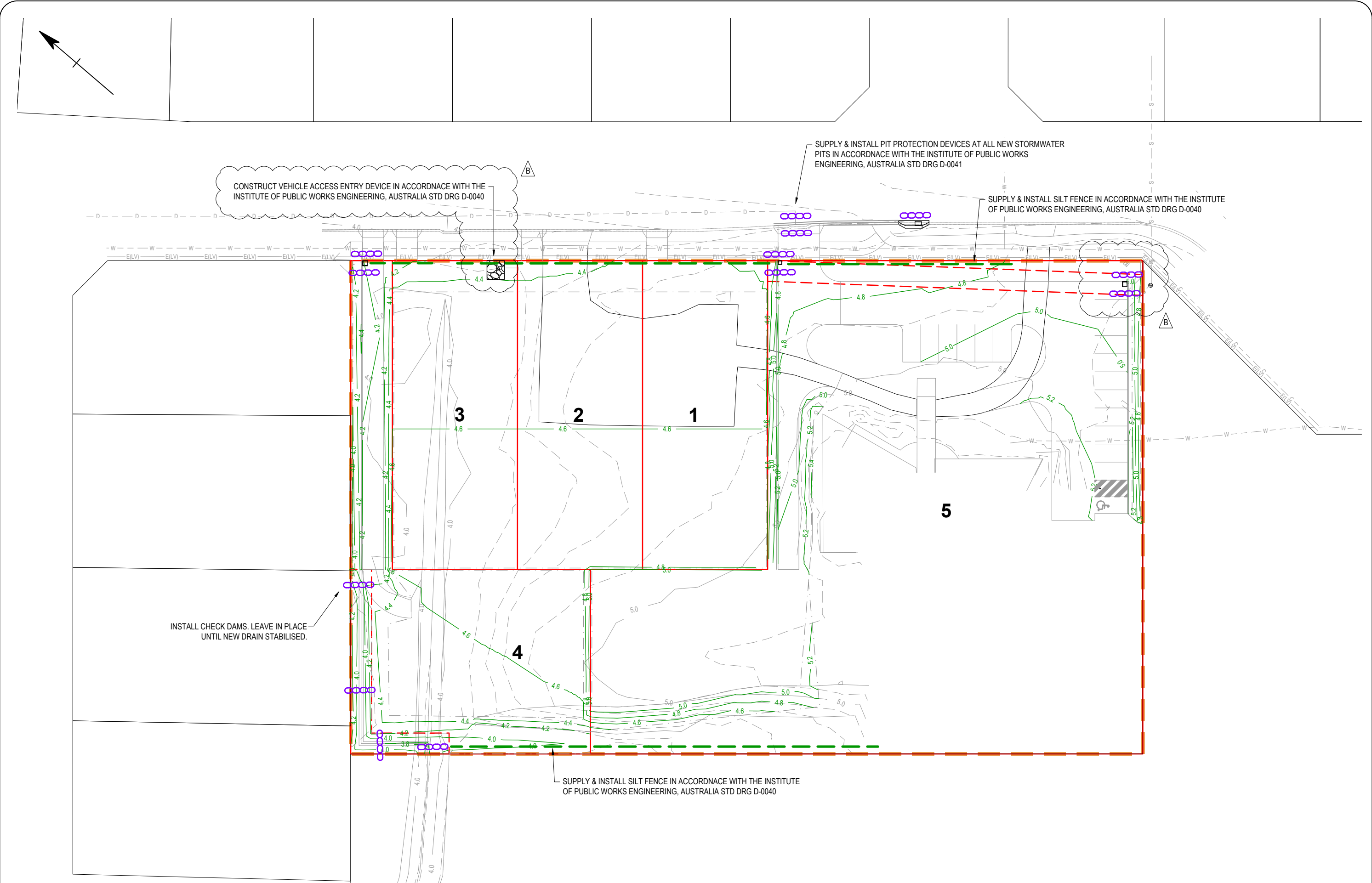
J & V NOLI



ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE



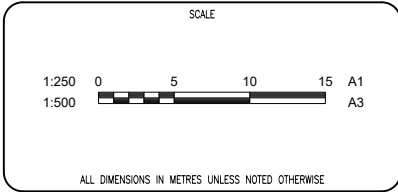
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	<div>MISCELLANEOUS DETAILS</div>	
	<div>DRAWING NO.</div> <div>230-004-C12</div>	<div>REVISION</div> <div>B</div>



REVISIONS					
B	26.09.23	RFI RESPONSE	CW	DJW	
A	14.07.23	INITIAL ISSUE			
NO.	DATE	DESCRIPTION	DESIGN	APPROVED	

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DRAWN	CMD	CHECKED	DJW
DESIGNED	CMD	CHECKED	DJW
APPROVED			
ORIGINAL CERTIFIED BY D.J.WALKER			
DATE: 26.09.23 RPEQ: 19806			

ENDEAVOUR STREET SUBDIVISION	
EROSION & SEDIMENT CONTROL STRATEGY	
DRAWING NO.	230-004-C13
REVISION	B