

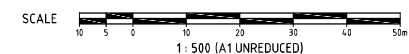


RIVERMONT PRECINCT 3 BIO BASIN



DRAWING NO.	DRAWING TITLE
24-285-01	LOCALITY PLAN, DRAWING INDEX
24-285-02	GENERAL - LAYOUT PLAN
24-285-03	BIO BASIN - SECTIONS
24-285-04	BIO BASIN - DETAILS
24-285-05	BIO BASIN - NOTES - SHEET 1
24-285-06	BIO BASIN - NOTES - SHEET 2
24-285-07	STORMWATER - CALCULATION AND GULLY TABLES
24-285-08	STORMWATER - LONGITUDINAL SECTIONS
24-285-09	STORMWATER - MANHOLE DETAILS
24-285-10	SEDIMENT & EROSION - LAYOUT PLAN AND NOTES
24-285-11	SAFETY IN DESIGN

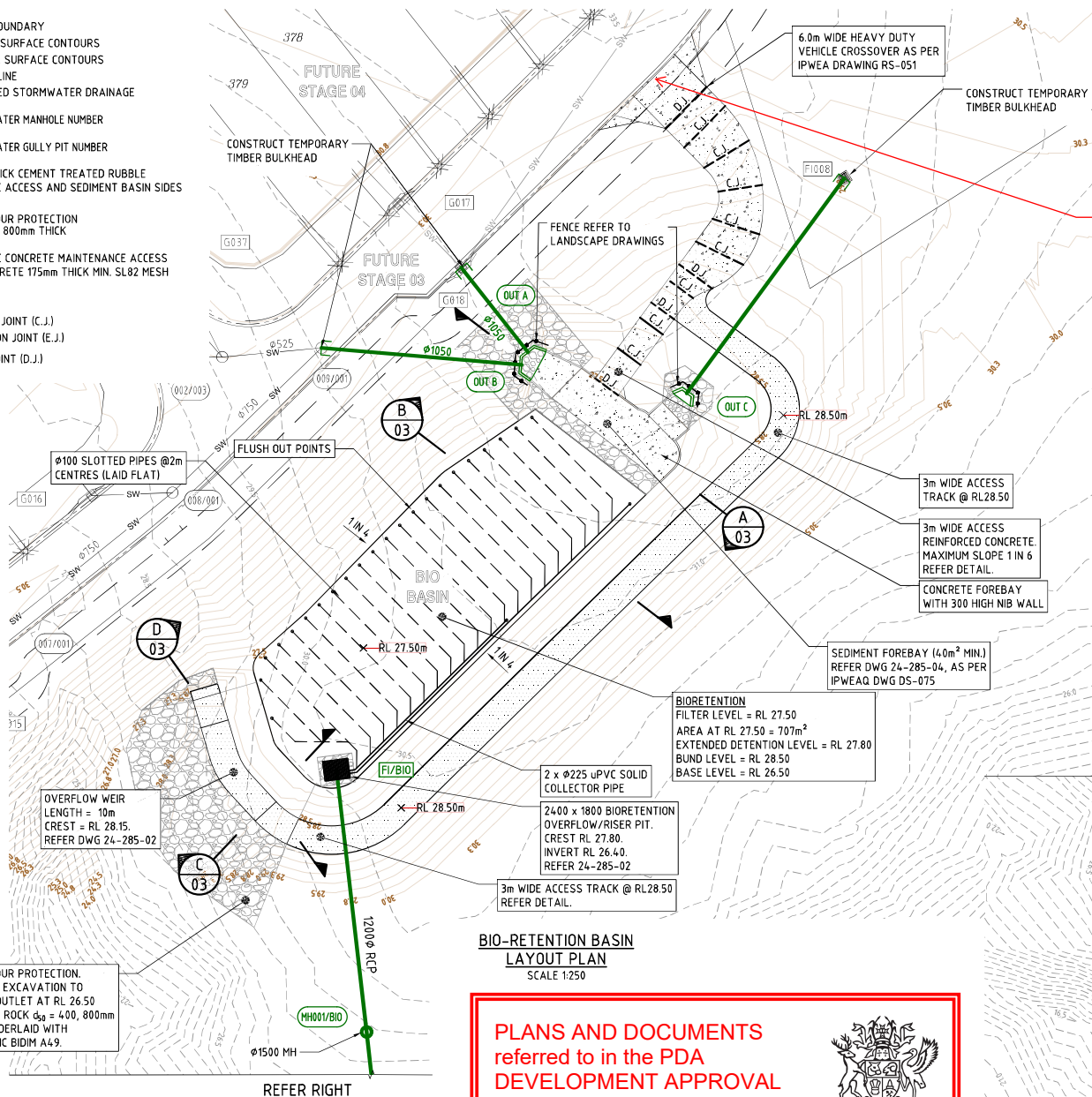
Date: 17 August 2026



Drawn DF	Designed VS	Checked MS	Date APR' 26
Scale AS SHOWN			Sheet 01 of 11
A1	Drawing No 24-285-01		Revision A

LEGEND

- STAGE BOUNDARY
- FINISHED SURFACE CONTOURS
- NATURAL SURFACE CONTOURS
- BATTER LINE
- PROPOSED STORMWATER DRAINAGE
- STORMWATER MANHOLE NUMBER
- STORMWATER GULLY PIT NUMBER
- 170mm THICK CEMENT TREATED RUBBLE
- 3.0m WIDE ACCESS AND SEDIMENT BASIN SIDES
- ROCK SCOUR PROTECTION
- 400, 800mm THICK
- 3.0m WIDE CONCRETE MAINTENANCE ACCESS
- N32 CONCRETE 175mm THICK MIN. SL82 MESH
- SAW CUT JOINT (C.J.)
- EXPANSION JOINT (E.J.)
- DOWEL JOINT (D.J.)

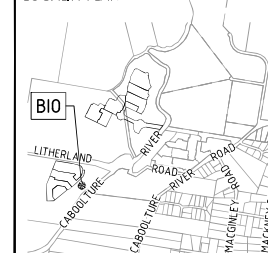


Refer to Entrance Barrier condition.

DO NOT SCALE THIS DRAWING
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LOCALITY PLAN



REVISIONS

No	Description	Date	By
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Client



Project

RIVERMONT
PRECINCT 3
BIO BASIN



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Mark Shaw RPEQ
17544
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Drawing Title:
GENERAL
LAYOUT PLAN

Drawn	Designed	Checked	Date
DF	VS	MS	APR '26
Scale	AS SHOWN	Sheet	02 of 11
Drawing No	24-285-02	Revision	A

AMENDED IN RED

By: Mahima Reshamwala

Date: 17 August 2026



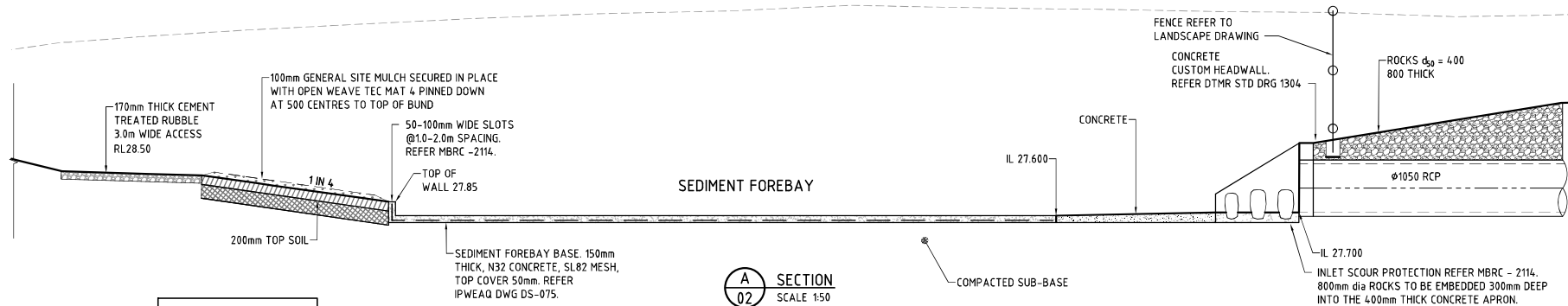
PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV-2026-WAR-4913

Date: 17 August 2026

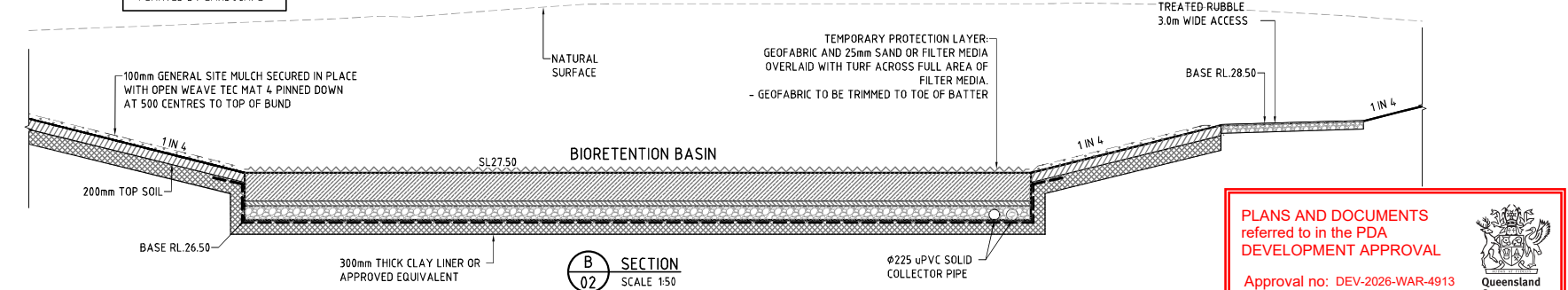


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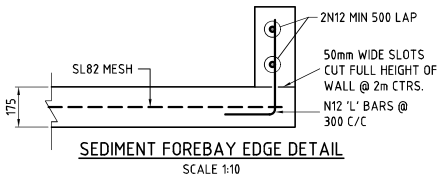


NOTE:
ALL BATTERS TURFED OR
PLANTED BY LANDSCAPE

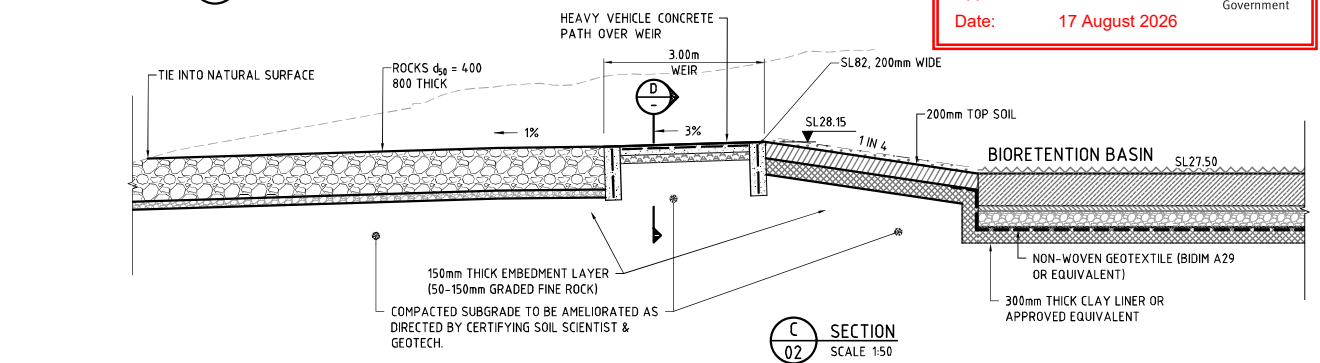
A
02
SECTION
SCALE 1:50



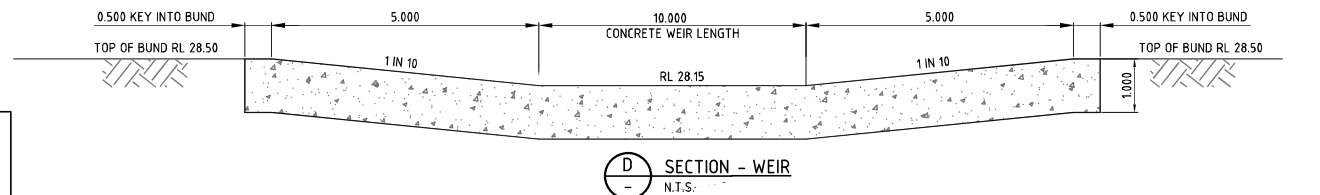
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02
SECTION
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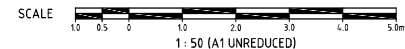
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C
02
SECTION
SCALE 1:50



D
SECTION - WEIR
N.T.S.



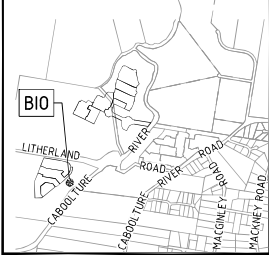
EQUIVALENT SPHERICAL DIAMETER	% BY WEIGHT OF ROCK SMALLER SIZE
1.5-2.0/50	100
0.50	50
0.3-0.4/50	10-20

- NOTES:
- CONSTRUCTION OF SPILLWAY TO PROCEED FROM TOE ROCK UPWARDS
 - ROCKS TO BE HAND PLACED AND INTERLOCKED WITH A RANGE OF SIZES
 - ROCK VOIDS TO BE FILLED WITH SOIL AND PLANTED WITH SEDGES AND GRASSES
 - PLACE ROCKS TO FINISH FLUSH WITH FINISHED EARTH LEVELS

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LOCALITY PLAN



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17544
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Drawing Title

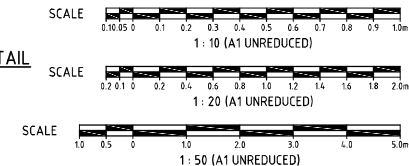
BIO BASIN
SECTIONS

Drawn DF Designed VS Checked MS Date APR '26

Scale AS SHOWN Sheet 03 of 11

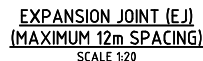
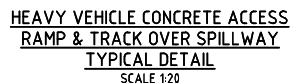
Drawing No 24-285-03 Revision A

1. PVC PIPE GUARD TO BE FABRICATED
2. ALTERNATIVELY, SECTIONS MAY BE CUT FROM SUITABLE PROPRIETARY DOWN PIPE PROTECTOR FOLLOWING APPROVAL FROM SUPERINTENDANT AND BIORETENTION DESIGNER
3. ALL CUT EDGES TO BE SPRAYED IMMEDIATELY WITH CORROSION PROTECTION



Drawn DF	Designed VS	Checked MS	Date APR' 26
Scale AS SHOWN			Sheet 04 of 11
A1	Drawing No 24-285-04		Revision A

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KEY CONSTRUCTION JOINTS TO BE PROVIDED BETWEEN ALL
ABUTTING NEW AND EXISTING CONCRETE WORKS

TOLERANCES

1. THE BASE AND FINISHED SURFACE OF WSUD SYSTEMS SHALL BE FREE FROM LOCALISED DEPRESSIONS AND LOW POINTS.
2. CONSTRUCTION TOLERANCES REQUIRED FOR WORKS AS PER TABLE 1.

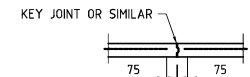
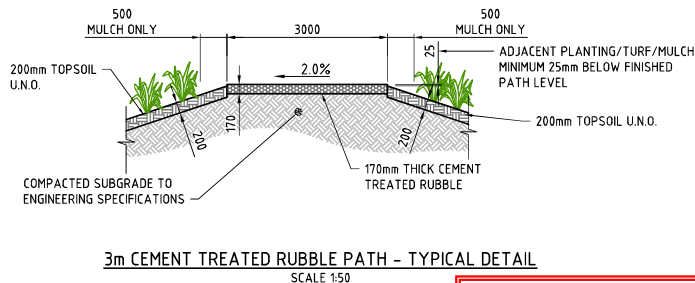
TABLE 1: CONSTRUCTION TOLERANCES (WHERE RELEVANT TO BIORETENTION AND WETLAND)

CONSTRUCTION ELEMENT	TOLERANCE (mm)	METHOD FOR COMPLIANCE
HYDRAULIC STRUCTURES	15	SURVEY x
UNDERDRAINS (BIORETENTION)	25	DUMPY LEVEL OR LASER
EARTHWORKS (BASE OF WETLAND OR BIORETENTION)	50	SURVEY x
DRAINAGE AND TRANSITION LAYER (BIORETENTION)	25	DUMPY LEVEL OR LASER
FILTER MEDIA SURFACE (BIORETENTION)	40	SURVEY x
EMBANKMENTS AND BUNDS	25 (UP TO 50 HIGHER)	SURVEY x

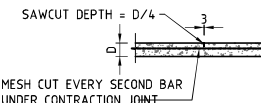
x LAND OR ENGINEERING SURVEY BY QUALIFIED SURVEYOR

AS-CONSTRUCTED SURVEY REQUIREMENTS:

1. BULK EARTHWORKS FLOOR AND WALLS OF BIORETENTION OR WETLAND INTERNAL TRIMMING PRIOR TO CLAY LINER INSTALLATION.
2. FINISHED LEVEL OF COMPACTED CLAY LINER TO FLOOR AND WALLS (OR CAPPING FILL TO PROPRIETARY LINER).
3. UNDERDRAINAGE LAYOUT AND INVERT LEVEL OF COLLECTOR PIPE CONNECTION TO PITS.
4. STORMWATER PITS (INCL. INTERNAL NIB WALLS), PITS, SPILLWAYS (CREST AND WINGWALLS), MAINTENANCE PIPES AND VALVE PIPES.
5. SEDIMENT FOREBAY FLOOR AND NIB WALLS.
6. TOP OF BUND LEVEL AND WIDTH (MAINTENANCE TRACK)



KEY JOINT (KJ)
(MAXIMUM 6m SPACING)
SCALE 1:20



CONTRACTION JOINT (CJ)
(MAXIMUM 3m SPACING)
SCALE 1:20



PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV-2026-WAR-4913

Date: 17 August 2026

NOTES:

1. PROVIDE CONSTRUCTION JOINTS (CJ) AT A MAXIMUM SPACING APPROXIMATELY 1.5 TIMES THE WIDTH OF THE CONCRETE PATH. CUT EVERY SECOND BAR OF MESH UNDER JOINT. SAW CUT JOINT SHALL BE A WET CUT WITHIN 24 HOURS OF CONCRETE POUR.
2. PROVIDE KEY JOINT (KJ) AT MAXIMUM 6.0m SPACING.
3. PROVIDE EXPANSION JOINT (EJ) AT MAXIMUM 12.0m SPACING. JOINT TO BE FILLED WITH APPROVED FILLER AND SEALANT
4. KEY CONSTRUCTION JOINT TO BE PROVIDED ADJACENT TO ALL CONCRETE PROPERTY CROSSINGS AND ANY SIGNIFICANT CHANGE IN WIDTH AND DIRECTION.
5. LAYOUT OF JOINTS TO BE PROVIDED TO SUPERINTENDENT PRIOR TO CONSTRUCTION.

CEMENT TREATED RUBBLE (CTR) NOTES

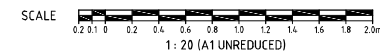
THE CTR SHALL COMPLY WITH THE FOLLOWING:

- THE CTR SHALL COMPRISE A COMBINATION OF WELL GRADED COARSE AND FINE AGGREGATES MIXED WITH CEMENT AND WATER TO FORM A HOMOGENEOUS MIX WHICH IS ABLE TO BE SPREAD AND COMPACTED TO FORM A UNIFORM STABLE BASE . THE MIXTURE OF FINE AND COARSE AGGREGATE FORMING THE ROCK BASE SHALL BE FREE OF VEGETABLE MATTER LUMPS OF CLAY, OVERBURDEN, OR ANY OTHER DELETERIOUS MATTER.
- COARSE AGGREGATES (RETAINED 4.75mm SIEVE) SHALL CONSIST OF CLEAN, HARD, DURABLE, ANGULAR ROCK FRAGMENTS OF UNIFORM QUALITY PRODUCED BY CRUSHING SOUND UNWEATHERED ROCK AND SHALL NOT INCLUDE MATERIALS WHICH BREAK UP WHEN ALTERNATELY WETTED AND DRIED.
- FINE AGGREGATE (PASSING 4.75mm sieve) SHALL CONSIST OF CLEAN, HARD, DURABLE, ANGULAR CRUSHED ROCK FRAGMENTS OF UNIFORM QUALITY OR A MIXTURE OF CRUSHED ROCK FRAGMENTS WITH NATURAL SAND OF CLAY SAND.
- A PARTICLE SIZE DISTRIBUTION (PSD) OF THE AGGREGATE TO BE USED IN THE CTR MUST BE PROVIDED TO THE SUPERINTENDENT FOR APPROVAL PRIOR TO DELIVERY TO SITE.
- THE PSD SHALL COMPLY WITH THE REQUIREMENTS SHOWN IN TABLE 1. THE GRADING OF MATERIAL PASSING THE 26.5mm SIEVE SHALL VARY FROM COARSE TO FINE IN A UNIFORM AND CONSISTENT MANNER. THE MATERIAL SHALL NOT BE GAP GRADED AS REPRESENTED BY THE GRADING CROSSING FROM THE MAXIMUM LIMIT FOR ONE SIEVE SIZE TO THE MINIMUM LIMIT FOR ANOTHER SIZE. AND SHALL CONFORM AS CLOSELY AS POSSIBLE TO THE SPECIFIED TARGET GRADING.

TABLE 1. PARTICLE SIZE DISTRIBUTION (CTR AGGREGATED)

AS1152 SIEVE SIZE (mm)	% PASSING BY MASS (OPTIMAL)	TARGET GRADING
26.5	100	100
19	100	95 - 100
32.2	82	70 - 90
9.5	70	60 - 80
4.75	50	40 - 60
2.36	38	30 - 45
1.18	25	20 - 35
0.6	19	13 - 27
0.425	17	11 - 23
0.3	13	8 - 20
0.15	10	5 - 14
0.075	8	5 - 11

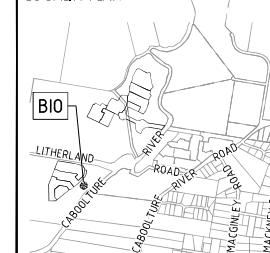
- IF ALL OR PART OF THE FINE AGGREGATES (IGNEOUS AND METAMORPHIC ROCK SOURCES ONLY) IS TO BE IMPORTED FROM A DIFFERENT SOURCE OR MANUFACTURED FROM A DIFFERENT ROCK TYPE TO THAT OF THE COARSE AGGREGATES, THE CONTRACTOR SHALL OBTAIN APPROVAL OF THE SUPERINTENDENT PRIOR USE.
- GRADED CRUSHED ROCK SHALL BE BATCH MIXED (PUGMILL OR SIMILAR) WITH ADDITION OF 4.0% (BY DRY MASS) OF CEMENT AND WATER, MIXING MUST ENSURE THAT THE WATER AND CEMENT ARE UNIFORMLY DISTRIBUTED TO PRODUCE A HOMOGENEOUS PRODUCT SUITABLE FOR PLACEMENT INTO FINAL POSITION.
- THE CTR SHALL BE PLACED IN A SINGLE 170mm THICK LAYER AND ROLLED WITH A SUITABLE SMOOTH DRUM ROLLER TO PROVIDE A WELL COMPACTED BASE WITH UNIFORM SURFACE.



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LOCALITY PLAN



REVISIONS

[illegible]

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RIVERMONT
PRECINCT 3
BIO BASIN

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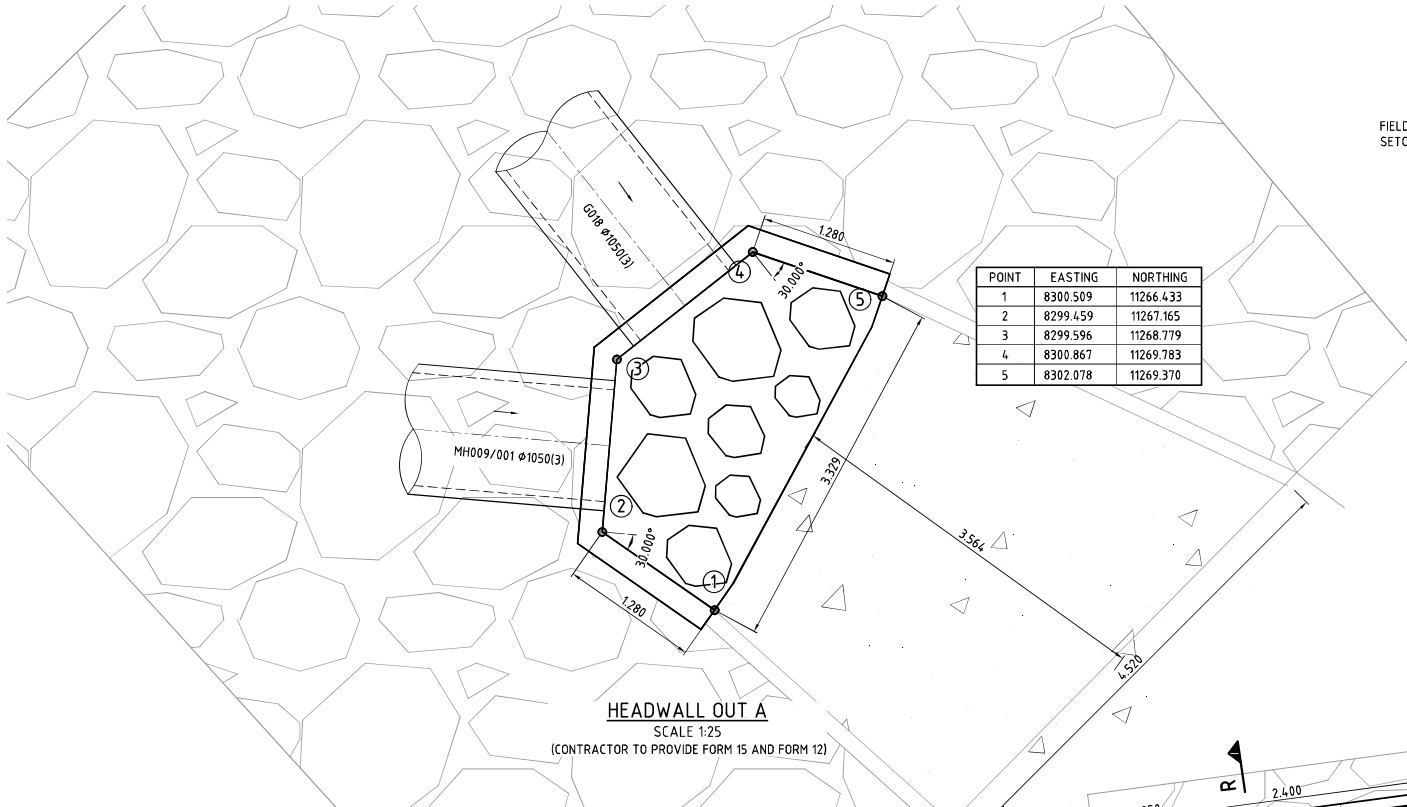
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 Mark Shaw RPEQ
 17544
 Date: 2026.04.27
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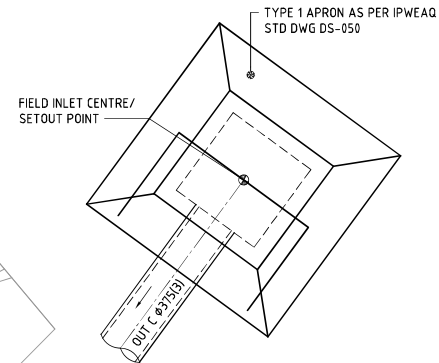
Drawing Title:

BIO BASIN
NOTES
SHEET 2

Drawn DF	Designed VS	Checked MS	Date APR '26
Scale AS SHOWN			Sheet 06 of 1
A1	Drawing No 24-285-06		Revision A



POINT	EASTING	NORTHING
1	8300.509	11266.433
2	8299.459	11267.165
3	8299.596	11268.779
4	8300.867	11269.783
5	8302.078	11269.370



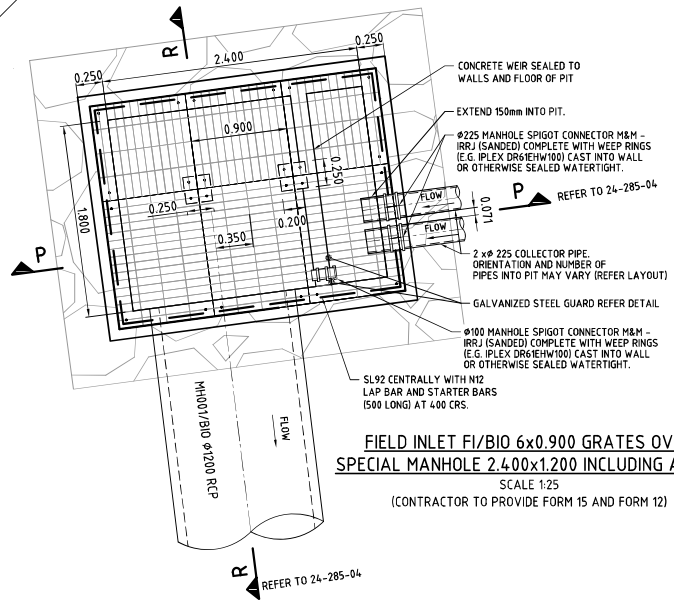
FIELD INLET FI008 900x900
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PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

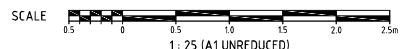
Approval no: DEV-2026-WAR-4913

Date: 17 August 2026

CONSTRUCTION EQUIPMENT	PIPE CLASS	MINIMUM COMPACTION COVER TO PIPE OBVERT								
		375φ	450φ	525φ	600φ	675φ	750φ	825φ	900φ	1050φ-1500φ
VIBRATORY RAMMER (UP TO 75kg)	2	0.450	0.400	0.400	0.350	0.350	0.300	0.300	0.250	0.250
	3	0.300	0.300	0.3000	0.250	0.250	0.200	0.200	0.200	0.200
VIBRATORY TRENCH ROLLER (UP TO 21)	2	0.400	0.400	0.350	0.250	0.250	0.200	0.200	0.200	0.200
	3	0.250	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
VIBRATORY SMOOTH DRUM (UP TO 71)	2	0.700	0.700	0.650	0.650	0.650	0.600	0.600	0.400	0.400
	3	0.450	0.450	0.450	0.350	0.350	0.200	0.200	0.200	0.200
VIBRATORY SMOOTH DRUM (UP TO 101)	2	0.850	0.850	0.800	0.800	0.800	0.750	0.750	0.750	0.750
	3	0.550	0.550	0.500	0.500	0.500	0.200	0.200	0.200	0.200
EXCAVATOR & COMPACTION WHEEL (151)	2	0.700	0.650	0.650	0.650	0.650	0.600	0.600	0.550	0.550
	3	0.450	0.450	0.450	0.450	0.450	0.350	0.350	0.250	0.250
EXCAVATOR & COMPACTION WHEEL (251)	2	1.050	1.000	0.950	0.900	0.900	0.850	0.850	0.750	0.750
	3	0.650	0.650	0.650	0.650	0.650	0.600	0.600	0.500	0.500
GRADER (CAT120H) (14.51)	2	0.600	0.600	0.450	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.600	0.450	0.450	0.200	0.200	0.200	0.200	0.200	0.200
GRADER (CAT140H) (17.01)	2	0.600	0.600	0.600	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.600	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
SCRAPER (CAT1610CH) (27.21)	2	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.200	0.200
	3	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.200	0.200
SCRAPER (CAT162F) (53.01)	2	0.700	0.700	0.650	0.650	0.650	0.600	0.600	0.600	0.600
	3	0.650	0.650	0.600	0.600	0.600	0.600	0.600	0.600	0.600
DOZER (CATD7 G)	2	0.600	0.600	0.600	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
DOZER (CATD9 R)	2	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.200
	3	0.600	0.600	0.600	0.600	0.600	0.200	0.200	0.200	0.200
EXCAVATOR (CAT315B) (15.01)	2	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
EXCAVATOR (CAT317) (17.31)	2	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
EXCAVATOR (CAT325B) (25.91)	2	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200



FIELD INLET FI/BIO 6x0.900 GRATES OVER
SPECIAL MANHOLE 2.400x1.200 INCLUDING APRON
SCALE 1:25
(CONTRACTOR TO PROVIDE FORM 15 AND FORM 12)



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LOCALITY PLAN

REVISIONS

No	Description	Date	By
A	FOR APPROVAL	23.04.2026	DF

Client

Project

RIVERMONT PRECINCT 3 BIO BASIN

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Drawing Title

STORMWATER MANHOLE DETAILS

Drawn	Designed	Checked	Date
DF	VS	MS	APR '26

Scale	Sheet
AS SHOWN	09 of 11

Drawing No	Revision
A1	A

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