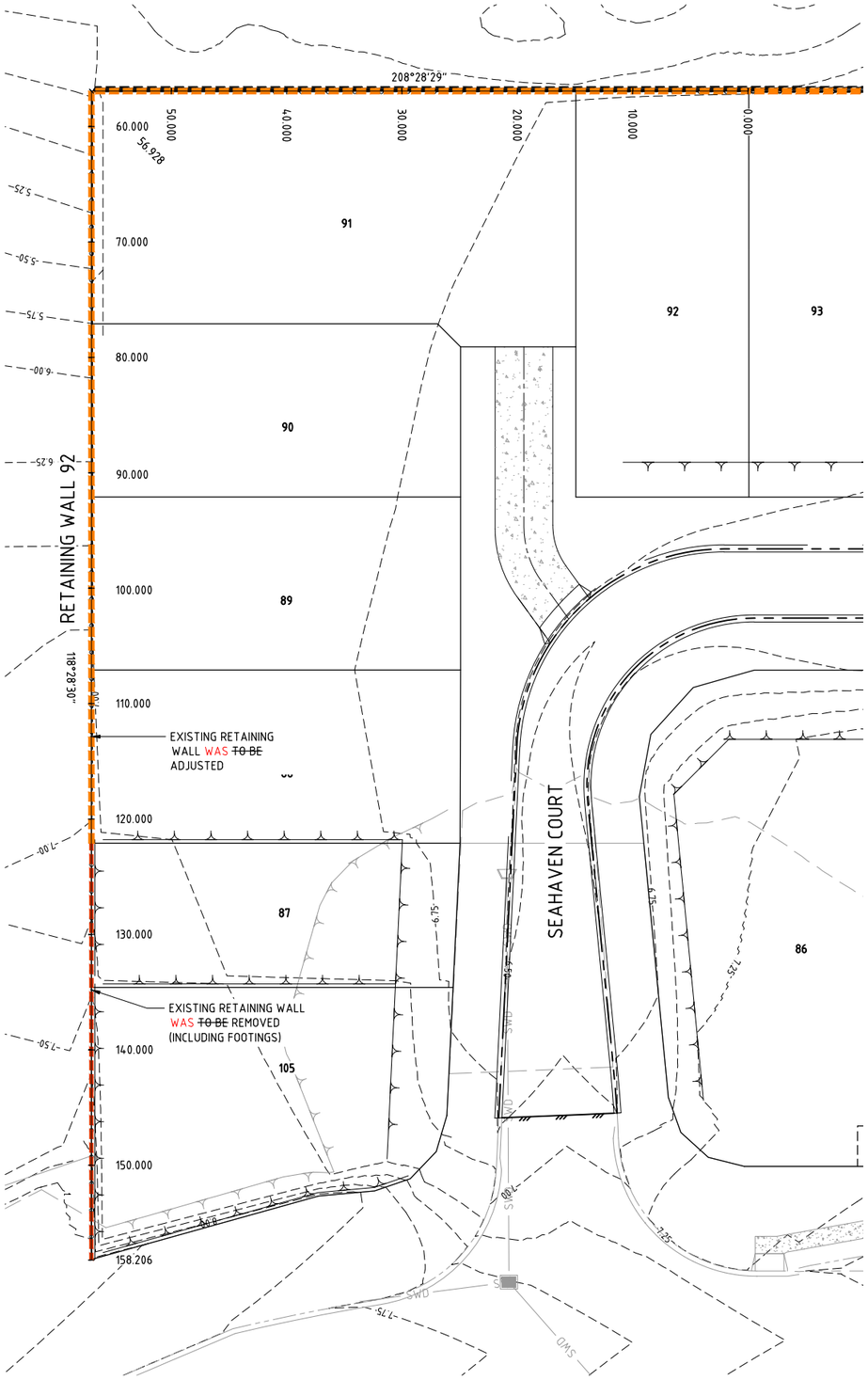

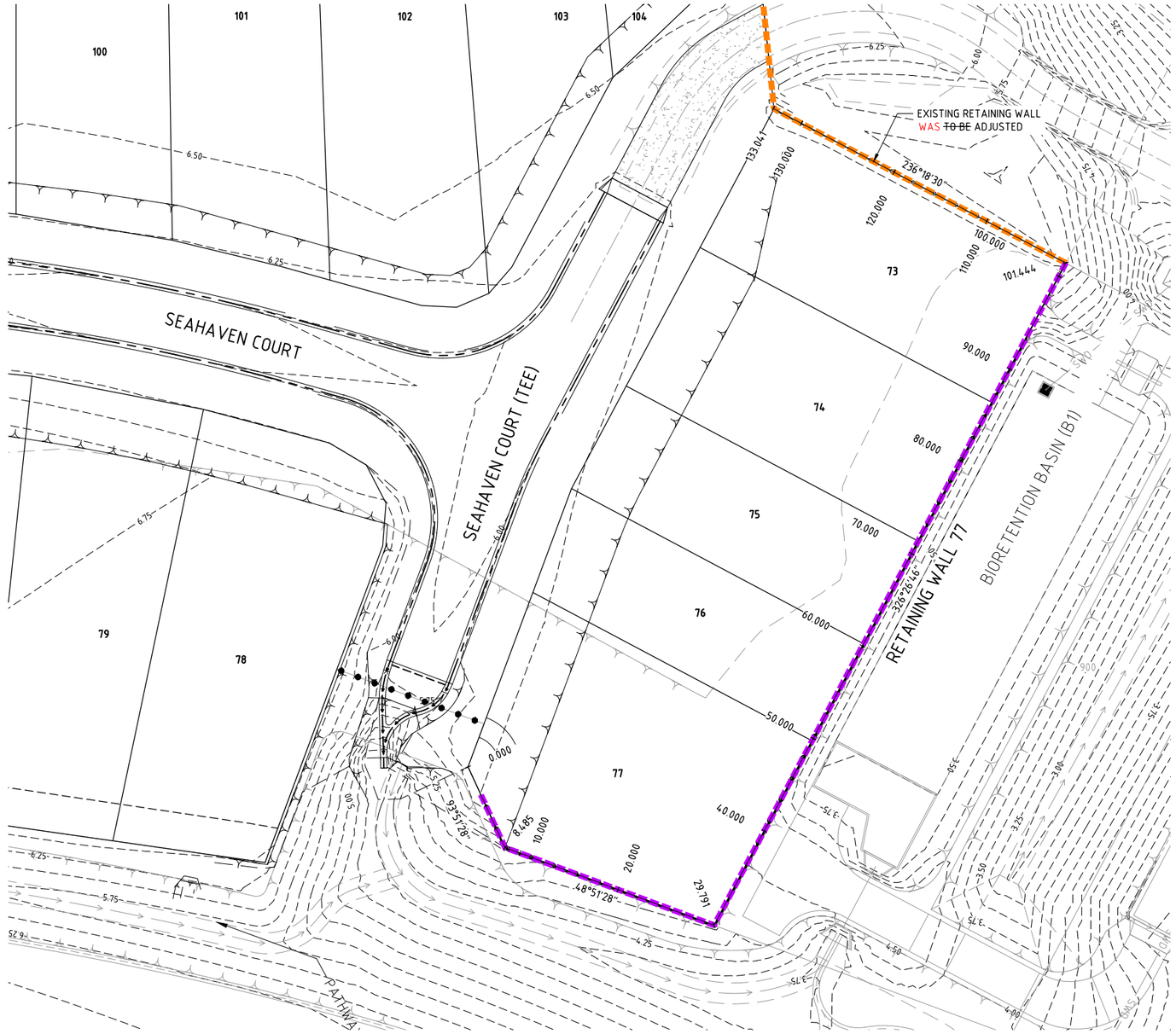

0 5 10 15 20 25m

5 3.75 2.5 1.25

SCALE 1:250 (A1) 1:500 (A3)

DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

SURVEYOR'S CERTIFICATION

AS CONSTRUCTED INFORMATION SURVEYED BY LEVEL UP SURVEYING PTY LTD AND CERTIFIED BY A REGISTERED CADASTRAL SURVEYOR:

NAME: Brad Costello REG NO. 7430

SIGNATURE: DATE 19/09/25

ENGINEER'S CERTIFICATION

THIS DRAWING IS AN ACCURATE REPRESENTATION OF THE WORKS AND THE AS CONSTRUCTED DETAILS PROVIDED CONFORM WITH THE DESIGN INTENT:

NAME: Chris Hobson RPEQ 12732

SIGNATURE: DATE 22/9/2025

LEGEND

- PROPOSED RETAINING WALL
- EXISTING RETAINING WALL
- 4.25 FINISHED SURFACE CONTOURS
- PROPOSED EASEMENT
- PROPOSED PROPERTY BOUNDARY
- EXISTING/FUTURE PROPERTY BOUNDARY
- TOP OF BATTER
- TOE OF BATTER

AS CONSTRUCTED

ENGINEERING CERTIFICATION

Registered Engineer

Date 22/9/2025

12732

Registered Accreditation

No.	Amendments	Drawn	Design	Design Chk	Appd	Date
2	AS CONSTRUCTED - REV IN PROGRESS	EM	ES	LW	CH	22/09/25
1	MINOR CHANGES TO CONCRETE DRIVEWAYS	ES	LW	LW	CH	24/01/25
0	ISSUED FOR CONSTRUCTION	ES	LW	LW	CH	23/01/25

URBEX

EMPOWER

Client: EASTPOINT MACKAY PTY LTD

Project: DUNES, HARBOUR BEACH - STAGE 1D

Title: RETAINING WALL LAYOUT PLAN

Datum: AHD PSM 118600 RL 7.152M (MGA) COORD

AS CONSTRUCTED

Project No. B00214-CE403

Drawing No.

Rev 2

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Plot Date: 9/09/2025 4:38:59 PM
File Name: S:\126s\data\MANTOS\N01\B0021A_N4\4 CIVIL-DRGS\4.2 CURRENT\7 Stage 1D\B0021A-STD-RET
User: ETHAN SCHAFER

Docusign Envelope ID: 5A346ADD-A229-4D00-9D87-071897D13E64

SURVEYOR'S CERTIFICATION

AS CONSTRUCTED INFORMATION SURVEYED BY LEVEL UP SURVEYING PTY LTD AND CERTIFIED BY A REGISTERED CADASTRAL SURVEYOR:

NAME: Brad Costello REG NO. 7430

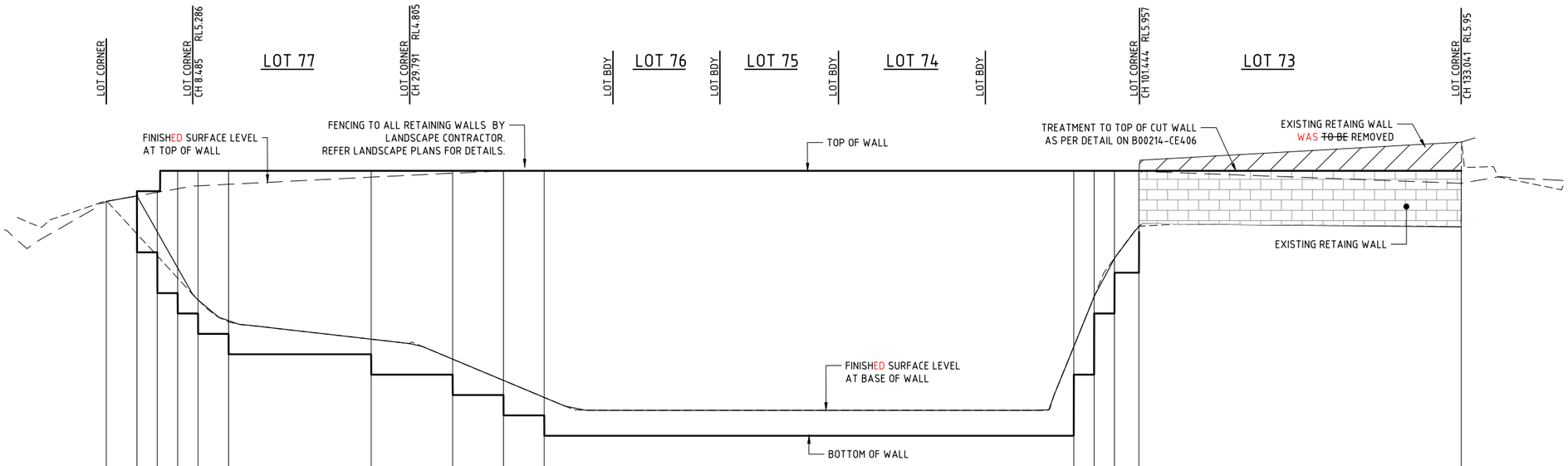
SIGNATURE: DATE 19/09/25

ENGINEER'S CERTIFICATION

THIS DRAWING IS AN ACCURATE REPRESENTATION OF THE WORKS AND THE AS CONSTRUCTED DETAILS PROVIDED CONFORM WITH THE DESIGN INTENT:

NAME: Chris Hobson RPEQ 12732

SIGNATURE: DATE 22/9/2025



DATUM R.L.3.000

TOP OF WALL		6.3	6.547 / 6.5	6.55 / 6.5	6.552 / 6.5	6.551 / 6.5			6.553 / 6.5		6.551 / 6.5		6.547 / 6.5	6.546 / 6.5			6.551 / 6.5	6.552 / 6.5	6.553 / 6.5	6.5			6.5
HEIGHT OF WALL		0.6	1.299 / 0.8	1.471 / 1.2	1.660 / 1.4	1.741 / 1.6			1.903 / 1.8		2.149 / 2		2.324 / 2.2	2.550 / 2.4			2.167 / 2.6	1.622 / 2	1.179 / 1.4	1.0			0.7
EARTHWORKS LEVEL	6.2	6.253	5.905	5.549	5.233	5.03			4.848		4.652		4.444	4.276			4.774	5.264	5.64	5.951			5.95
BASE OF WALL LEVEL		5.7	5.248 / 5.7	5.079 / 5.3	4.892 / 5.1	4.81 / 4.9			4.65 / 4.7		4.402 / 4.5		4.223 / 4.3	3.996 / 4.1			4.384 / 3.9	4.93 / 4.5	5.374 / 5.1	5.5			-
PEGGED CHAINAGE	0.0	3.0	5.0	7.0	9.0	12.0			26.0		34.0		39.0	43.0			95.0	97.0	99.0	101.4			158.2
HORIZ. CURVE RADIUS																							

RETAINING WALL 77

SCALE 1:250 (A1) 1:500 (A3)

5 2.5 0 5 10 15 20 25m

0.5 0.25 0 0.5m 1.0m 1.5m 2.0m 2.5m

SCALE 1:25 (A1) 1:50 (A3)

DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

AS CONSTRUCTED

ENGINEERING CERTIFICATION

Registered Engineer

Date 22/9/2025

12732

Registered Accreditation

No.	Amendments	Drawn	Design	Design Chk	Appd	Date
2	AS CONSTRUCTED - REV IN PROGRESS	EM	ES	LW	CH	22/09/25
1	MINOR CHANGES TO CONCRETE DRIVEWAYS	ES	LW	LW	CH	24/01/25
0	ISSUED FOR CONSTRUCTION	ES	LW	LW	CH	23/01/25

URBEX

EMPOWER

Client: EASTPOINT MACKAY PTY LTD

Project: DUNES, HARBOUR BEACH - STAGE 1D

Title: RETAINING WALL LONGITUDINAL SECTIONS SHEET 1 OF 2

Datum: AHD PSM 118600 RL 7.152M (MGA) COORD

AS CONSTRUCTED

Project No. / Drawing No.: B00214-CE404

Rev: 2

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Plot Date: 9/09/2025 4:31:01 PM User: ETHAN SCHAFER
File Name: S:\Jobs\data\MANDS\NORTH\B0021A_14\4 CIVIL_DRGS\4.2 CURRENT\7. Stage 1D\B0021A-STD-RET

Docusign Envelope ID: 5A346ADD-A229-4D00-9D87-071897D13E64

SURVEYOR'S CERTIFICATION

AS CONSTRUCTED INFORMATION SURVEYED BY LEVEL UP SURVEYING PTY LTD AND CERTIFIED BY A REGISTERED CADASTRAL SURVEYOR:

NAME: Brad Costello REG NO. 7430

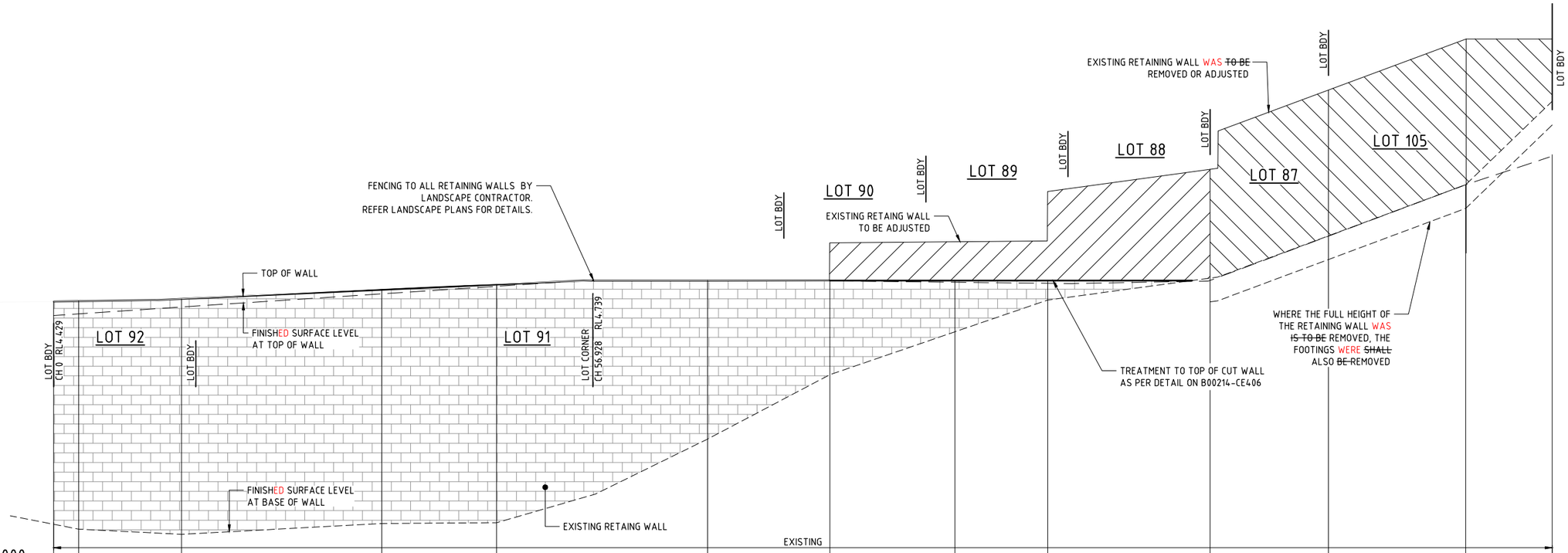
SIGNATURE: DATE 19/09/25

ENGINEER'S CERTIFICATION

THIS DRAWING IS AN ACCURATE REPRESENTATION OF THE WORKS AND THE AS CONSTRUCTED DETAILS PROVIDED CONFORM WITH THE DESIGN INTENT:

NAME: Chris Hobson RPEQ 12732

SIGNATURE: DATE 22/9/2025



DATUM R.L.4.000

TOP OF WALL	6.78	6.783	6.807	6.903	6.958	7	7	7	7					
HEIGHT OF WALL	2.351	2.407	2.485	2.467	2.513	1.672	0.992	0.54	0.205					
EARTHWORKS LEVEL	4.429	4.377	4.322	4.431	4.445	4.747	5.328	6.008	6.46	6.795	7.037	7.470	8.013	
BASE OF WALL LEVEL	-	-	-	-	-	-	-	-	-	-	-	-	-	
PEGGED CHAINAGE	0.0	2.6	13.5	34.6	46.8	51.2	69.0	82.0	95.2	104.9	122.1	134.6	149.9	158.2

HORIZ. CURVE RADIUS

SCALE 1:250 (A1) 1:500 (A3)

5 2.5 0 5 10 15 20 25m

0.5 0.25 0 0.5m 1.0m 1.5m 2.0m 2.5m

SCALE 1:25 (A1) 1:50 (A3)

DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

RETAINING WALL 92

SCALE 1: 250 (HORIZ.) 1 : 25 (VERT.)

AS CONSTRUCTED

ENGINEERING CERTIFICATION

Registered Engineer

Date 22/9/2025

12732

Registered Accreditation

No.	Amendments	Drawn	Design	Design Chk	Appd	Date
2	AS CONSTRUCTED - REV IN PROGRESS	EM	ES	LW	CH	22/09/25
1	MINOR CHANGES TO CONCRETE DRIVEWAYS	ES	LW	LW	CH	24/01/25
0	ISSUED FOR CONSTRUCTION	ES	LW	LW	CH	23/01/25

URBEX

EMPOWER

Client: EASTPOINT MACKAY PTY LTD

Project: DUNES, HARBOUR BEACH - STAGE 1D

Title: RETAINING WALL LONGITUDINAL SECTIONS SHEET 2 OF 2

Datum: AHD PSM 118600 RL 7.152M (MGA) COORD

AS CONSTRUCTED

Project No. B00214-CE405 Drawing No. Rev 2

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Plot Date: 9/09/2025 4:31:01 PM File Name: S:\126s\data\MANTIDS\N01\B00214_14\4 CIVIL-3RDS\4.2 CURRENT\7 Stage 1D\B00214-STD-RET User: ETHAN SCHAFER

Docusign Envelope ID: 5A346ADD-A229-4D00-9D87-071897D13E64

NOTES

1. ALL CORES SHALL BE FULLY GROUTED WITH MIN. 20MPA C
2. 100mm DIA SLOTTED PVC AGRICULTURAL PIPE WRAPPED I SOCK, LAID TO A MINIMUM UNIFORM GRADE OF 1 IN 100. TH EACH RUN IS TO BE DRAINED THROUGH THE WALL TO THE SYSTEM. THE UPPER END OF EACH RUN IS TO BE BROUGHT SURFACE AND CAPPED.
3. 55mm COVER TO REO BARS IN WALL. 70mm COVER TO REO
4. ALLOWABLE BEARING CAPACITY AT BASE OF RETAINING W FOUNDATION SHOULD BE 125 KPa IN SAND DCPs AT FOUND SHALL BE 4-5 BLOWS PER 100mm OR GREATER AND OR SP FOUNDATION LEVEL SHALL BE N>10 BLOWS PER 300mm. IF ACHIEVED GROUND IMPROVE EITHER BY FLOOD COMPACTIO ROLLING OR FOUNDATION REPLACEMENT WILL BE REQUIRE

SURVEYOR'S CERTIFICATION

AS CONSTRUCTED INFORMATION SURVEYED BY LEVEL UP SURVEYING PTY LTD AND CERTIFIED BY A REGISTERED CADASTRAL SURVEYOR:

NAME: Brad Costello REG NO. 7430

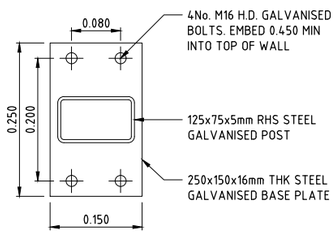
SIGNATURE: DATE 19/09/25

ENGINEER'S CERTIFICATION

THIS DRAWING IS AN ACCURATE REPRESENTATION OF THE WORKS AND THE AS CONSTRUCTED DETAILS PROVIDED CONFORM WITH THE DESIGN INTENT:

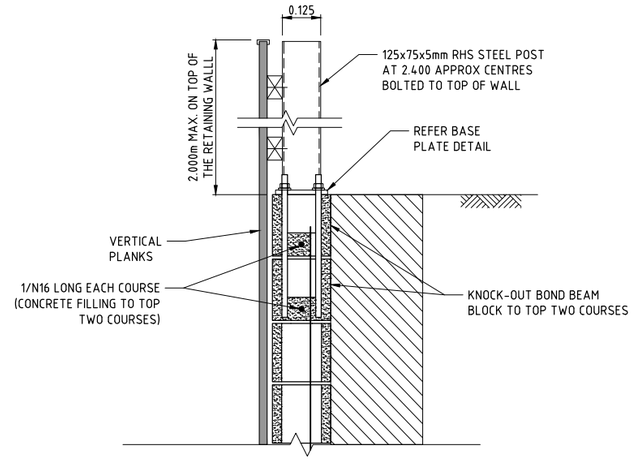
NAME: Chris Hobson RPEQ 12732

SIGNATURE: DATE 22/9/2025



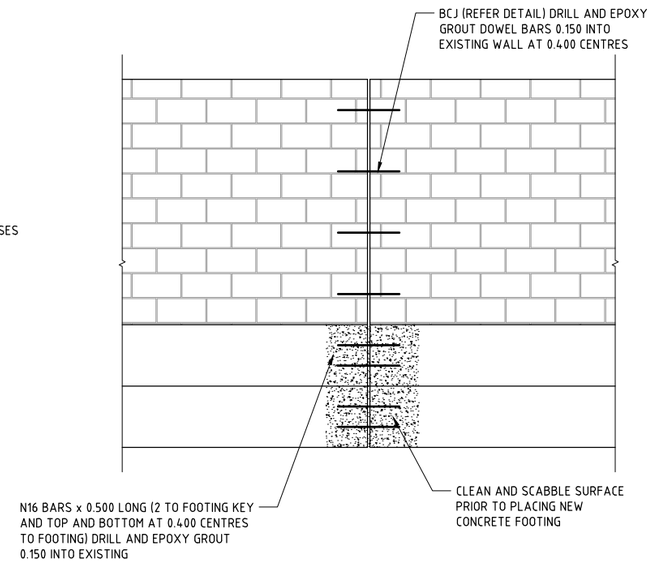
BASE PLATE DETAIL

SCALE 1:5



RETAINING WALL FENCE TYPICAL SECTION

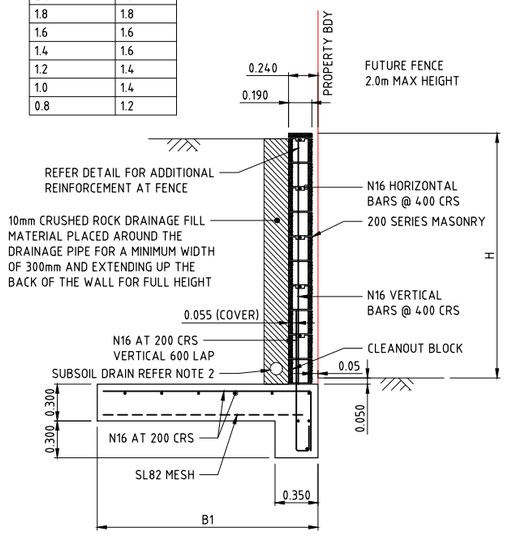
SCALE 1:10



SECTION ALONG WALL AXIS CONNECTION TO EXISTING

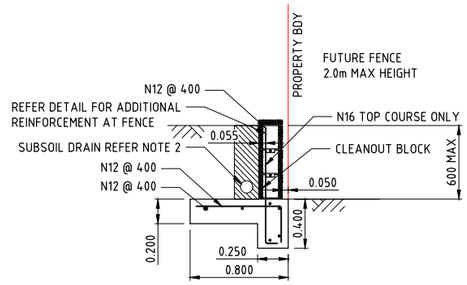
NTS

H (m)	B1 (m)
2.0	1.8
1.8	1.8
1.6	1.6
1.4	1.6
1.2	1.4
1.0	1.4
0.8	1.2



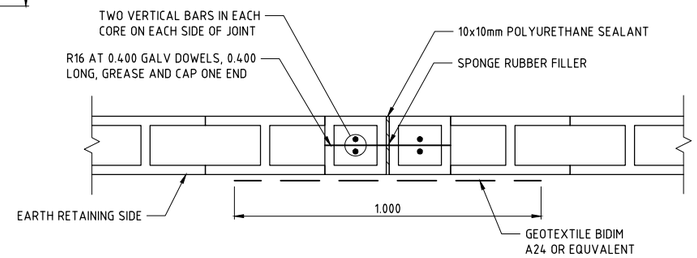
TYPICAL RETAINING WALL TYPE 1

SCALE 1:25



TYPICAL RETAINING WALL TYPE 3

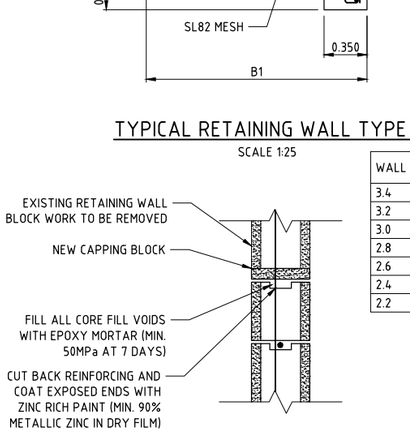
SCALE 1:25



BLOCKWORK CONTROL JOINT (BCJ)

SCALE 1:10

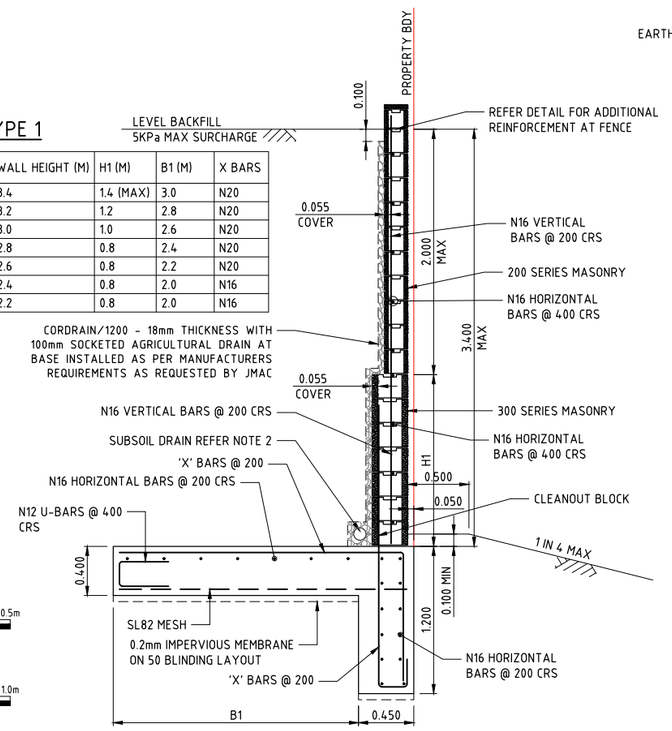
LOCATE BCJ'S AT 10m MAX CRS



TYPICAL TREATMENT TO TOP OF CUT WALL

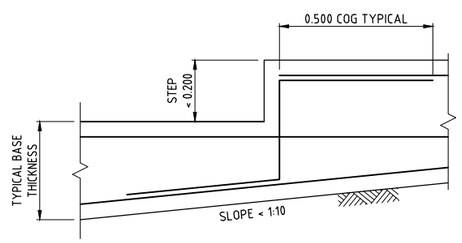
SCALE 1:10

WALL HEIGHT (M)	H1 (M)	B1 (M)	X BARS
3.4	1.4 (MAX)	3.0	N20
3.2	1.2	2.8	N20
3.0	1.0	2.6	N20
2.8	0.8	2.4	N20
2.6	0.8	2.2	N20
2.4	0.8	2.0	N16
2.2	0.8	2.0	N16



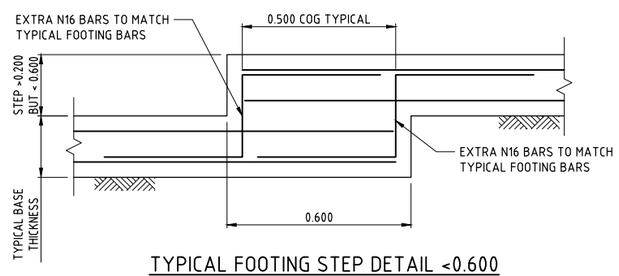
TYPICAL RETAINING WALL TYPE 2B

SCALE 1:25



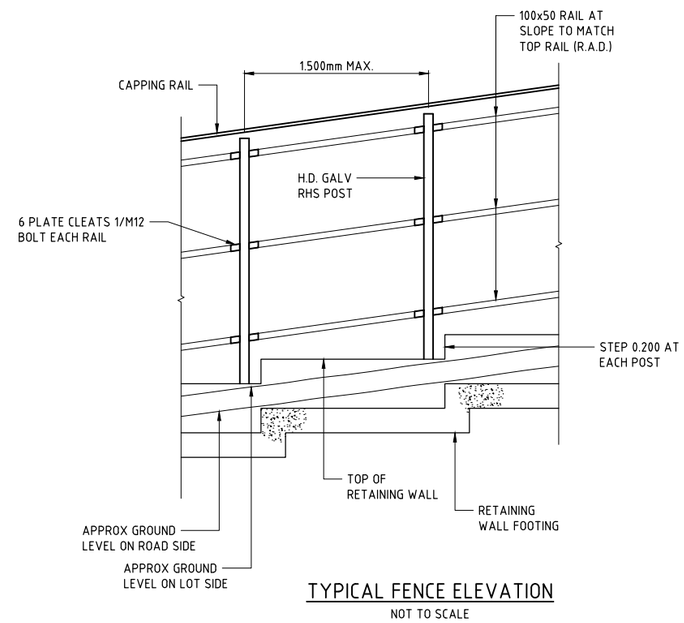
TYPICAL FOOTING STEP DETAIL <0.200

SCALE 1:10



TYPICAL FOOTING STEP DETAIL <0.600

SCALE 1:10



TYPICAL FENCE ELEVATION

NOT TO SCALE

0 0.1 0.2 0.3 0.4 0.5m
0.1 0.05
SCALE 1:5 (A1) 1:10 (A3)
DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

0 0.2 0.4 0.6 0.8 1.0m
0.2 0.15 0.1 0.05
SCALE 1:10 (A1) 1:20 (A3)
DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

0 0.5 1.0 1.5 2.0 2.5m
0.5 0.25
SCALE 1:25 (A1) 1:50 (A3)
DO NOT SCALE USE ONLY THE DIMENSIONS PROVIDED.

AS CONSTRUCTED

No.	Amendments	Drawn	Design	Design Chk	Appd	Date
2	AS CONSTRUCTED - REV IN PROGRESS	EM	ES	LW	CH	22/09/25
1	MINOR CHANGES TO CONCRETE DRIVEWAYS	ES	LW	LW	CH	24/01/25
0	ISSUED FOR CONSTRUCTION	ES	LW	LW	CH	23/01/25

ENGINEERING CERTIFICATION

Registered Engineer

Date 22/9/2025

12732

Registered Accreditation

URBEX

EMPOWER

Client: EASTPOINT MACKAY PTY LTD

Project: DUNES, HARBOUR BEACH - STAGE 1D

Title: RETAINING WALL DETAILS

Datum: AHD PSM 118600 RL 7.152M (MGA) COORD

AS CONSTRUCTED

Project No. B00214 Drawing No. CE406 Rev 2

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