

MOLLYMOOK BEACH STORMWATER ENTRAINMENT STRUCTURE

DRAWING NUMBER

- WT-22010212-DR-A-000
- WT-22010212-DR-A-001
- WT-22010212-DR-A-002
- WT-22010212-DR-A-003

DRAWING TITLE

NOTES AND SPECIFICATIONS
GENERAL ARRANGEMENT
TYPICAL CROSS-SECTION
GSC AND ROCK BAGS LAYOUT AND ARRENGMENT

NOTES

- DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
- ALL LEVELS ARE RELATIVE TO AUSTRALIAN HEIGHT DATUM.

THIS DRAWING SET SHALL BE READ IN CONJUCTION WITH THE TECHNICAL SPECIFICATION 22010212_R02_V01A_TECHNICALSPECIFICATIONS.

SAFETY IN DESIGN DOCUMENTATION
SID TO BE COMPLETED

ALL MATERIALS AND WORKMANSHIP SHALL BE AS DEFINED IN THE SPECIFICATION DOCUMENT UNLESS NOTED OTHERWISE.

MATERIALS - GEOTEXTILESAND CONTAINER

GSCS SHALL BE BASED ON GEOFABRICS AUSTRALASIA'S ELCOROCK® 2.5m3 CONTAINER OR EQUIVALENT WITH THE FOLLOWING PROPERTIES:

GEOTEXTILE PROPERTIES

PROPERTY	VALUE(min/typical)	TEST METHOD
POLYMER TYPE	POLYESTER OR POLYESTER/POLYPROPYLENE	
MASS	1050 g/m²	AS3706.1
CBR BURST STRENGTH	7.9 kN	AS3706.4
TENSILE STRENGTH	MD	20kJ/m² AS370.2
	XMD	30 kJ/m²
ABRATION RESISTANCE	24.5 kN/m²	BAW ROTATING DRUM
UV STABILITY	500 hours	38 kN/m ASTM D4355
	1000 hours	32 kN/m
	2000 hours	31 kN/m

GEOTEXTILE FULL STANDARD DIMENSIONS

PARAMETER	VALUE
LENGTH	2.3m
WIDTH	1.9m
THICKNESS	0.6m
VOLUME	2.5m³

THE GSC SAND FILL SHALL HAVE THE FOLLOWING PHYSICAL PROPERTIES:

ASPECT	REQUIREMENT
PETROGRAPHY	CLEAN, FRESH MEDIUM SAND INERT,TYPICALLY SOURCED FROM SILICA OR LITHIC SAND
SPECIFIC NET DENSITY	2550 kg/m³ +20%
BULK DENSITY	1650kg/m³ ± 20%
MEDIAN GRAIN SIZE	BETWEEN 0.5 mm AND 0.2mm LESS THAN 1% SMALLER THAN 0.075 mm
D95 PARTICLE SIZE	2mm

MATERIALS - ROCK BAGS

ROCKBAGS UNIT SHALL BE BLUEMONT 2T ECOGREEN TYPE BAGS OR EQUIVALENT. ROCKBAGS SHALL BE FILLED AND PLACED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND INSTALLATION GUIDLINES. SPECIFIC GRAVITY OF FILLING STONES IS BETWEEN 2.6 TO 2.65 AND MAXIMUM DIAMETER OF THE FILLING IS 200mm. EQUIVALENT ROCK BAGS MAY BE OFFERED FOR APPROCAL BY SUPERINTENDENT AS ALTERNATIVE.

MATERIALS - GEOGRID

GEOGRID SHALL BE GEOWEB CELLULAR CONFINEMENT SYSTEM OR EQUIVALENT, WITH A MINIMUM SPECIFICATION OF 150 mm CELL DEPTH. GEOGRIDS SHALL BE INSTALLED AND LAPPED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMENDATIONS AND SPECIFICATIONS. EQUIVALENT GEOGRID MAY BE OFFERED FOR APPROCAL BY SUPERINTENDENT AS ALTERNATIVE.

TESTING SCHEDULE

GENERAL
ALL TESTING OF MATERIAL FOR QUALITY CONTROL PURPOSES SHALL BE IN ACCORDANCE WITH AN APPROVED CONTRACTOR'S QUALITY PLAN.

MATERIALS WHICH DO NOT COMPLY WITH THE REQUIREMENTS OF THIS TECHNICAL SPECIFICATION SHALL NOT BE INCORPORATED IN THE WORKS.

THE CONTRACTOR'S QUALITY PLAN SHALL INCLUDE ON-GOING SUBMISSION OF TESTING RESULTS AS THE WORKS TO COUNCIL AS THE WORK PROGRESSES, AND A SITE REGISTRY OF TESTING RESULTS SHALL BE KEPT FOR INSPECTION.

GSC
MEASUREMENT OF THE MASS OF FIVE SATURATED GSC SHALL BE UNDERTAKEN.

EACH GSC TESTED SHALL BE ENGRAVED ONTO A PERMANENT POLYESTER TAG 100mm X 50mm INDICATING THE GSC TEST NUMBER AND THE MASS MEASUREMENT IN THE FOLLOWING SEQUENCE "TEST-NUMBER/GSC MASS (TON)" (i.e. 001/4.65).

A MARINE SILICON ADHESIVE SHALL BE USED FOR BONDING.

A SAMPLE OF TAG AND SHALL BE PROVIDED TO COUNCIL FOR APPROVAL, PRIOR TO INSTALLATION. GSC THAT HAVE BEEN TAGGED SHALL BE PLACED ON THE TOP THREE OUTER-LAYER OF THE SEAWALL, WITH THE TAG VISIBLE. THE TAGS SHALL BE LEFT UNCOVERED UNTIL COUNCIL INSTRUCT TO COVER THEM WITH SAND.

PLACEMENT AND CONSTRUCTION TOLERANCES

IF GSC ARE NOT PLACED WITHIN THE CONSTRUCTION TOLERANCES THE INTEGRITY OF THE STRUCTURE MAY BE COMPROMISED. THE GSC AND ITS NEIGHBOURING CONTAINERS SHALL BE RE-ESTABLISHED AT THE CONTRACTOR'S EXPENSE.

THE CONSTRUCTION TOLERANCES ARE AS FOLLOW FOR EACH INDIVIDUAL BAG:
VERTICAL TOLERANCE: 0.6m THICK, +/-100mm PER BAG
SATURATED MASS: AT LEAST 4.5T FOR 90% OF BAGS. NO BAG LESS THAN 4.0T

GSC STRUCTURE:


CREST LEVEL: AS PER DRAWING, +/-200mm FOR THE TOP OF GSC
ALIGNMENT AS PER DRAWING, +/-150mm FOR THE SEAWARD FACE OF GSC
MAXIMUM VOID SIZE: 300mm

NOTES

- ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE
- ALL COORDINATES ARE IN METERS RELATIVE TO GDA 2020 ZONE 52
- ALL MATERIALS AND WORKMANSHIP WILL BE AS DEFINED IN THE SPECIFICATION UNLESS NOTED OTHERWISE

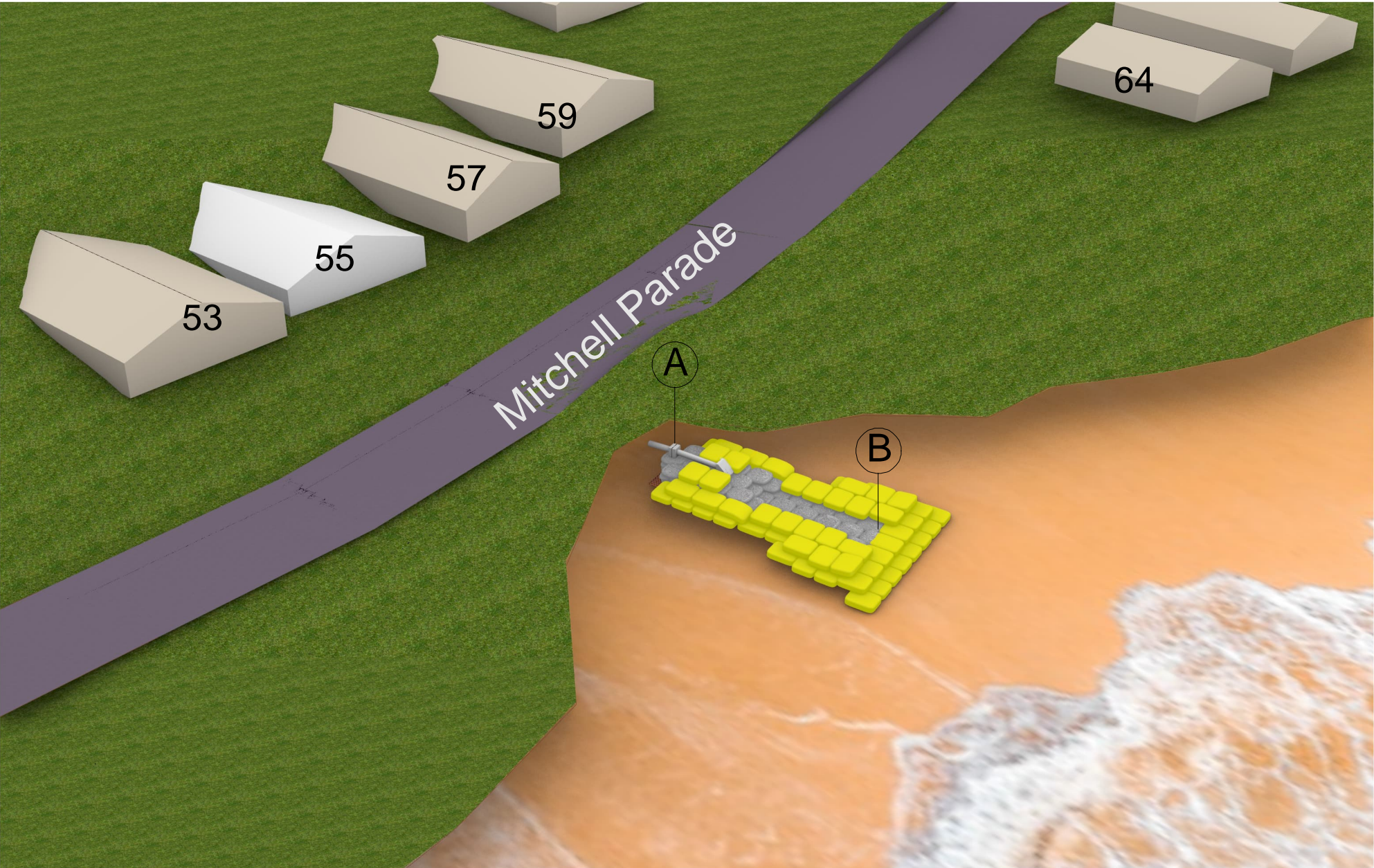
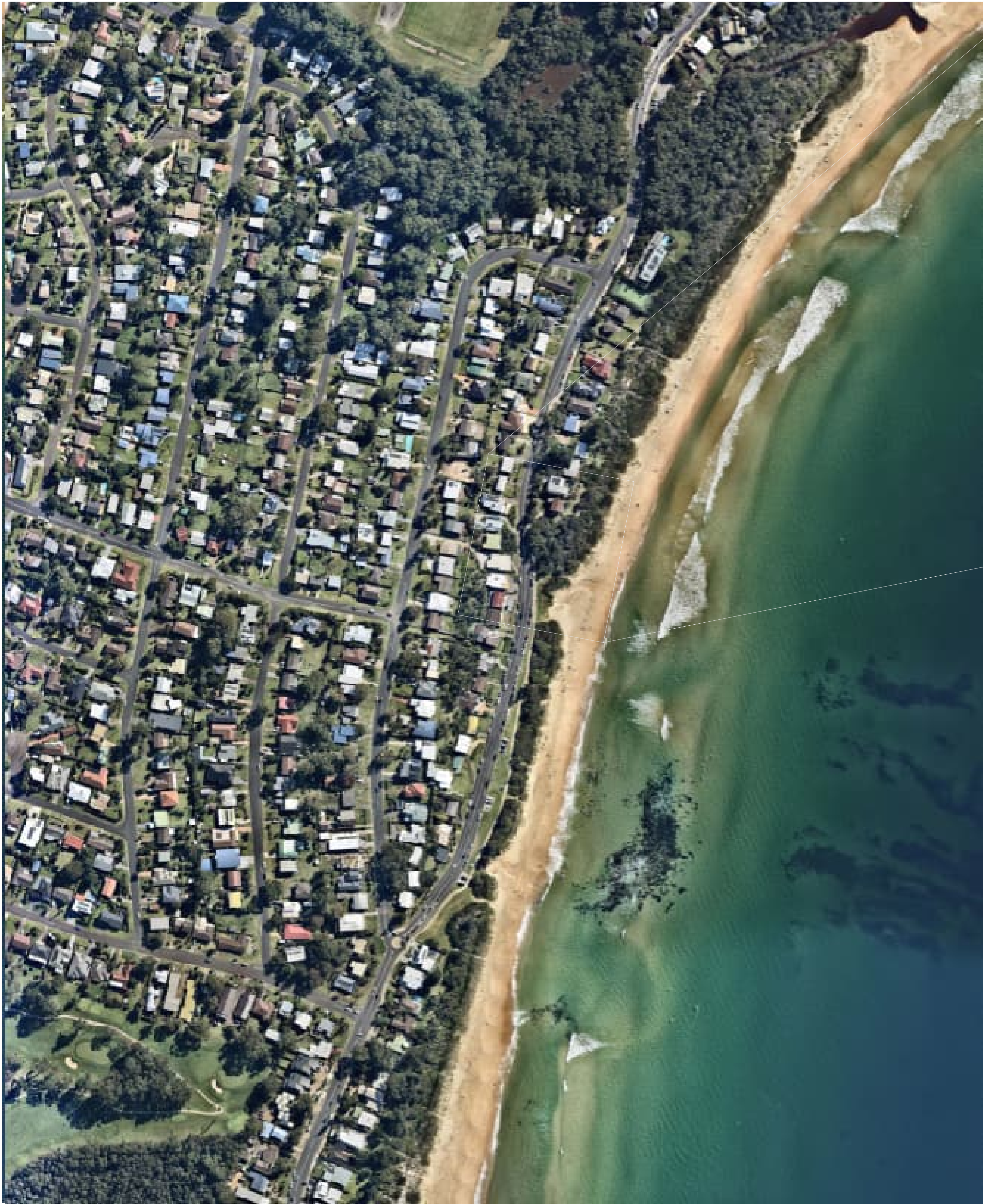
FOR CONSTRUCTION

B	16/09/22	FOR CONSTRUCTION		MXF	CXB
A	31/05/22	FOR COMMENTS		MXF	CXB
REV	DATE	DESCRIPTION		BY	CHK

REVISIONS
PROJECT
MOLLYMOOK BEACH STORMWATER ENTRAINMENT STRUCTURE
CLIENT

BIM REF.
22010212-WT-ZZ-XX-DR-A-000

TITLE
NOTES AND SPECIFICATIONS

<div><div>15 Business Park Dr, Notting Hill VIC 3168 Tel +61 (0)3 8626 0800 Email info@watertech.com.au Website www.watertech.com.au/</div></div>		
DRAWN MXF	CHECKED CXB	APPROVED CXB
DATE 16/09/2022	SCALE NTS AT A1	REF. 22010212-01-000
DRAWING No.	SUITABILITY	REVISION
WT-22010212-DR-A-000		



POINT	COORDINATES	
	EASTING	NORTHING
A	270545	6087424
B	270562	6087424

- NOTES
- 1.ALL DIMENSIONS ARE IN METERS
UNLESS NOTED OTHERWISE
 - 2.ALL COORDINATES ARE IN METERS
RELATIVE TO GDA 2020 ZONE 52
 - 3.ALL MATERIALS AND WORKMANSHIP
WILL BE AS DEFINED IN THE
SPECIFICATION UNLESS NOTED OTHERWISE

FOR CONSTRUCTION

B	16/09/22	FOR CONSTRUCTION			
A	31/05/22	FOR COMMENTS			
REV	DATE	DESCRIPTION	BY	CHK	APP

REVISIONS

PROJECT

MOLLYMOOK BEACH STORMWATER
ENTRAINMENT STRUCTURE

CLIENT



BIM REF.
22010212-WT-ZZ-XX-DR-A-001

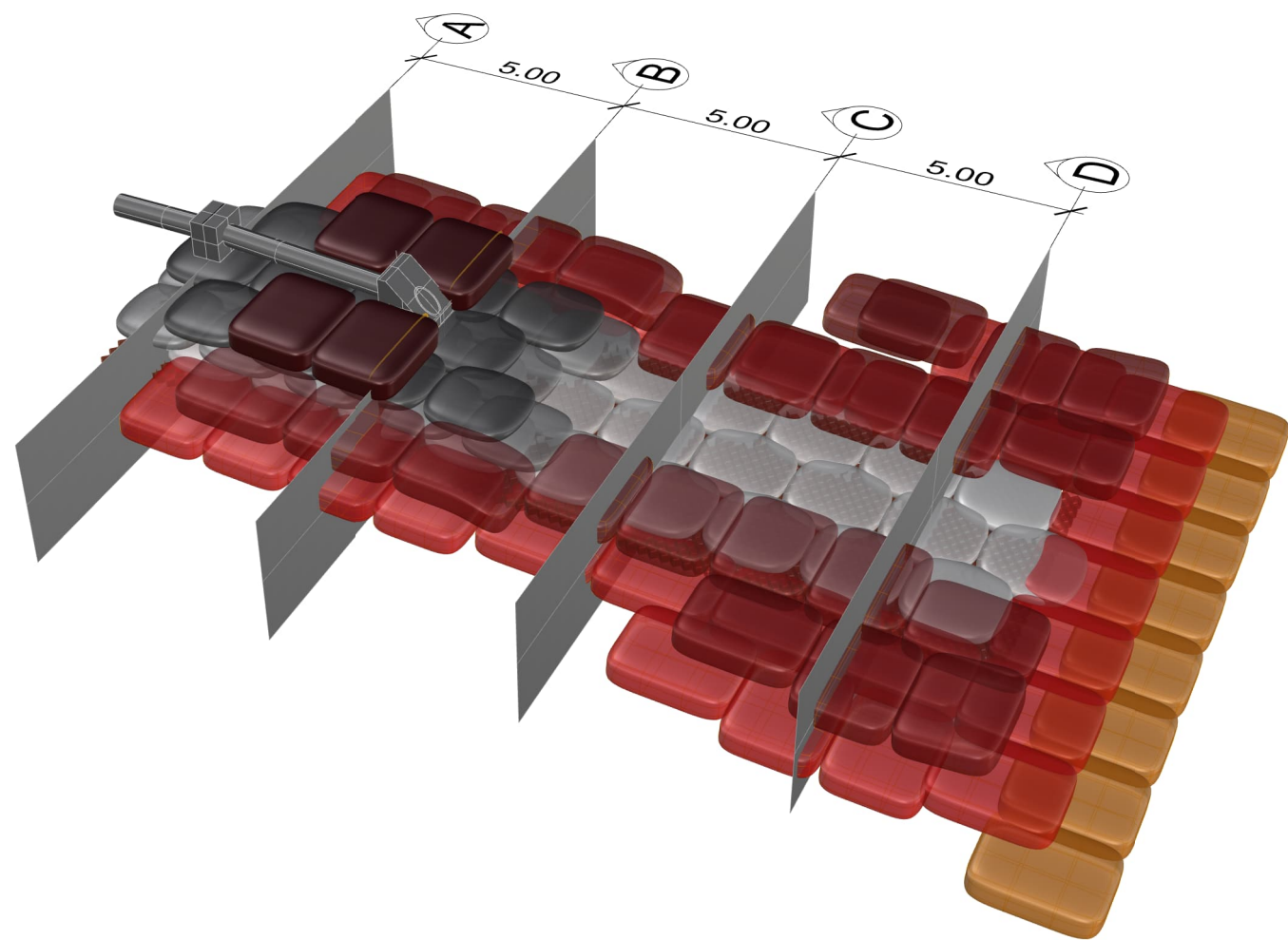
TITLE

GENERAL ARRANGEMENT

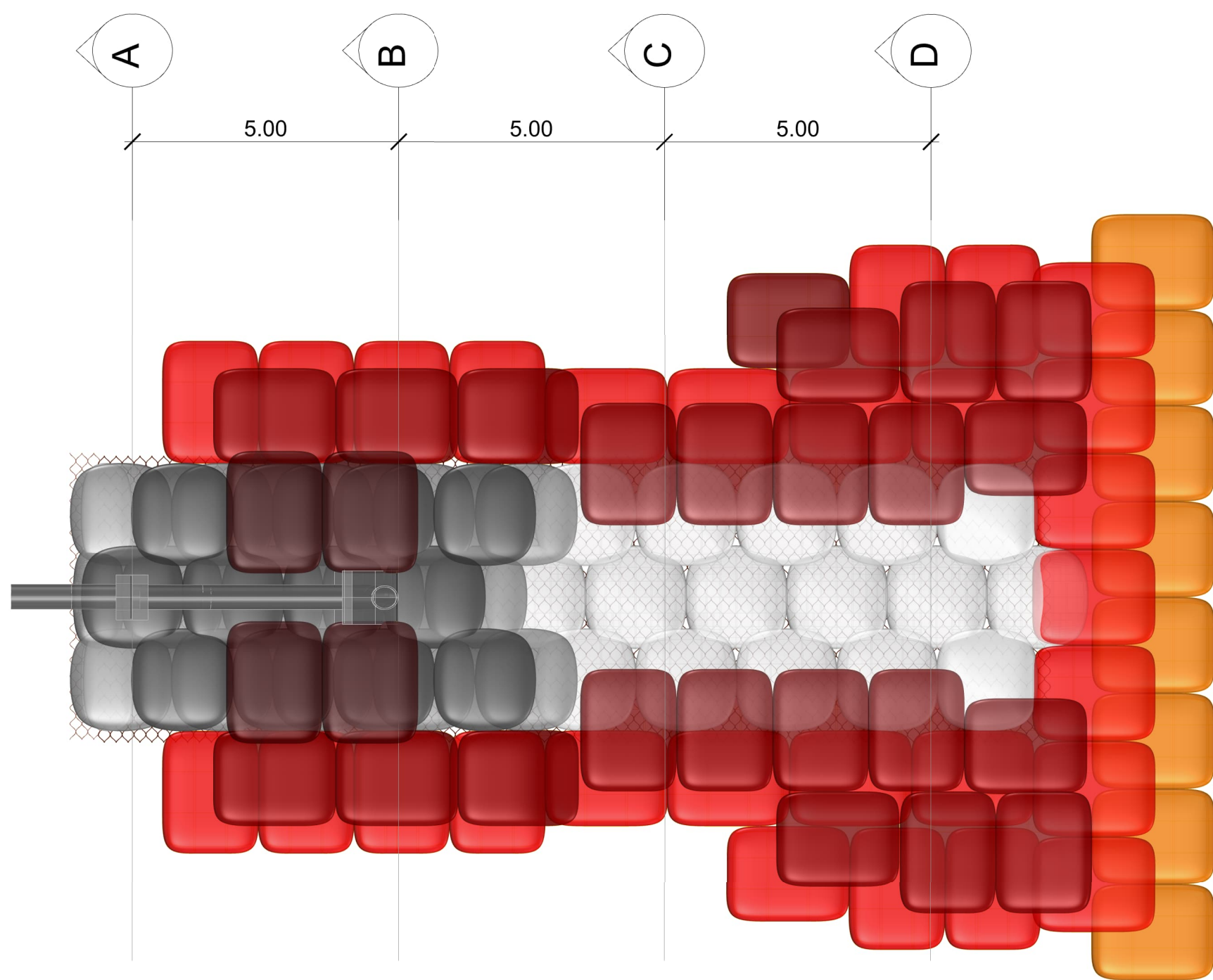


15 Business Park Dr, Notting Hill
VIC 3168
Tel +61 (0)3 8626 0800
Email info@watertech.com.au
Website www.watertech.com.au/

DRAWN MXP	CHECKED CXB	APPROVED CXB
DATE 16/09/2022	SCALE 1:1,000 AT A1	REF. 22010212-01-001
DRAWING No. WT-22010212-DR-A-001	SUITABILITY	REVISION



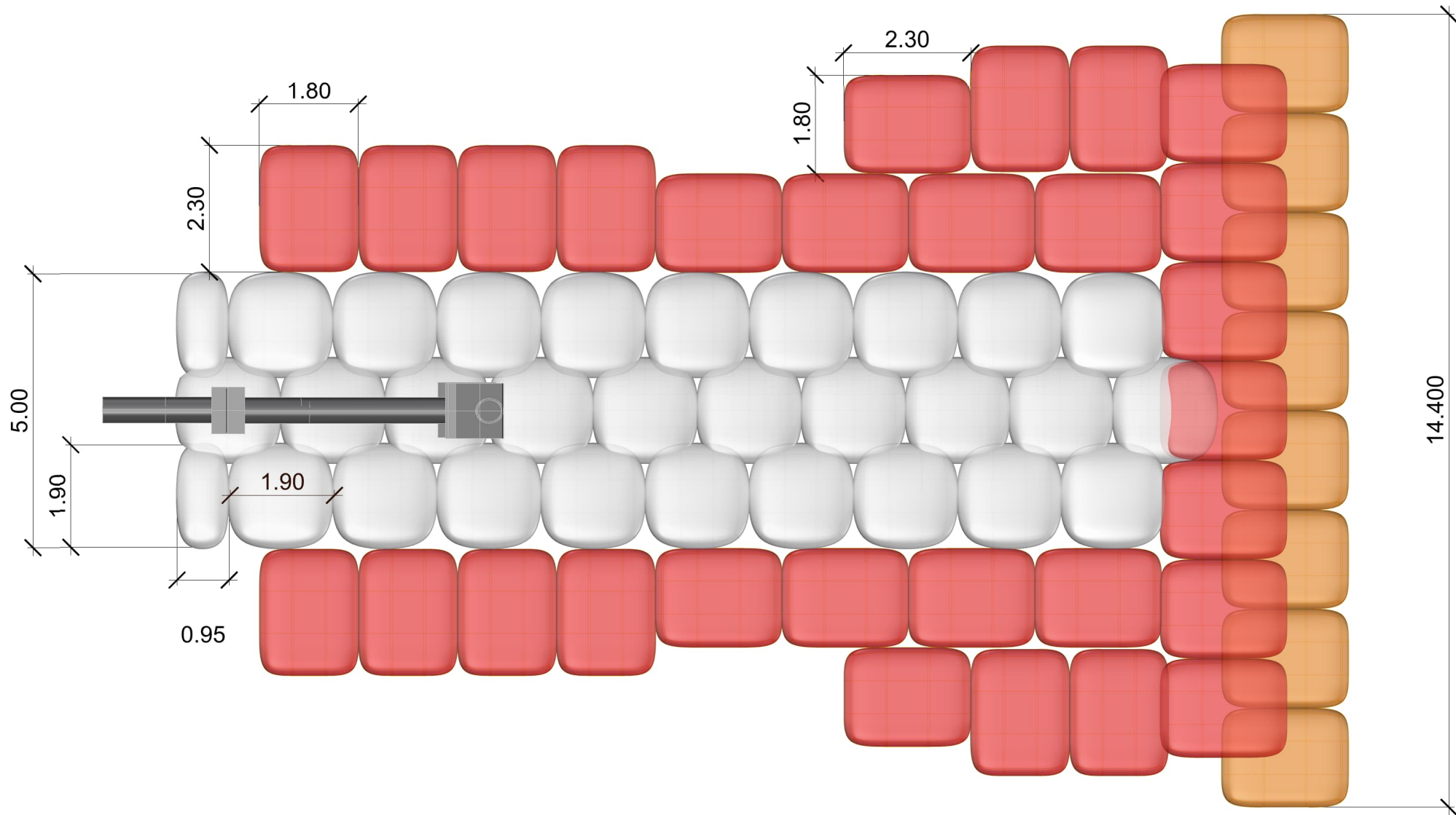
STRUCTURE PERSPECTIVE VIEW



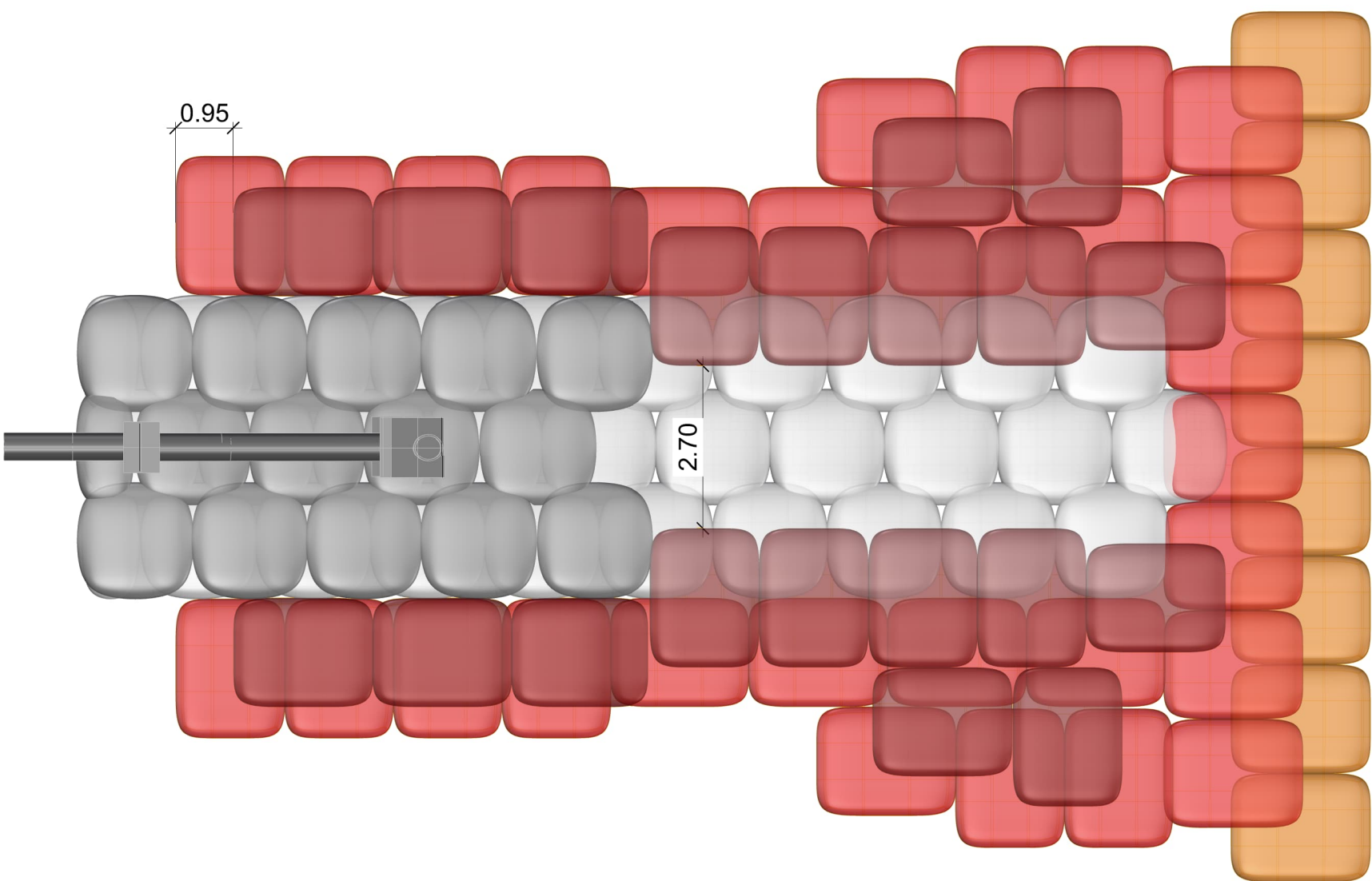
STRUCTURE TOPVIEW
SCALE 1:100

LAYER NAME	LAYER COLOR
ROCK BAG A	
ROCK BAG B	
ROCK BAG C	
GSC 1	
GSC 2	
GSC 3	
GSC 4	

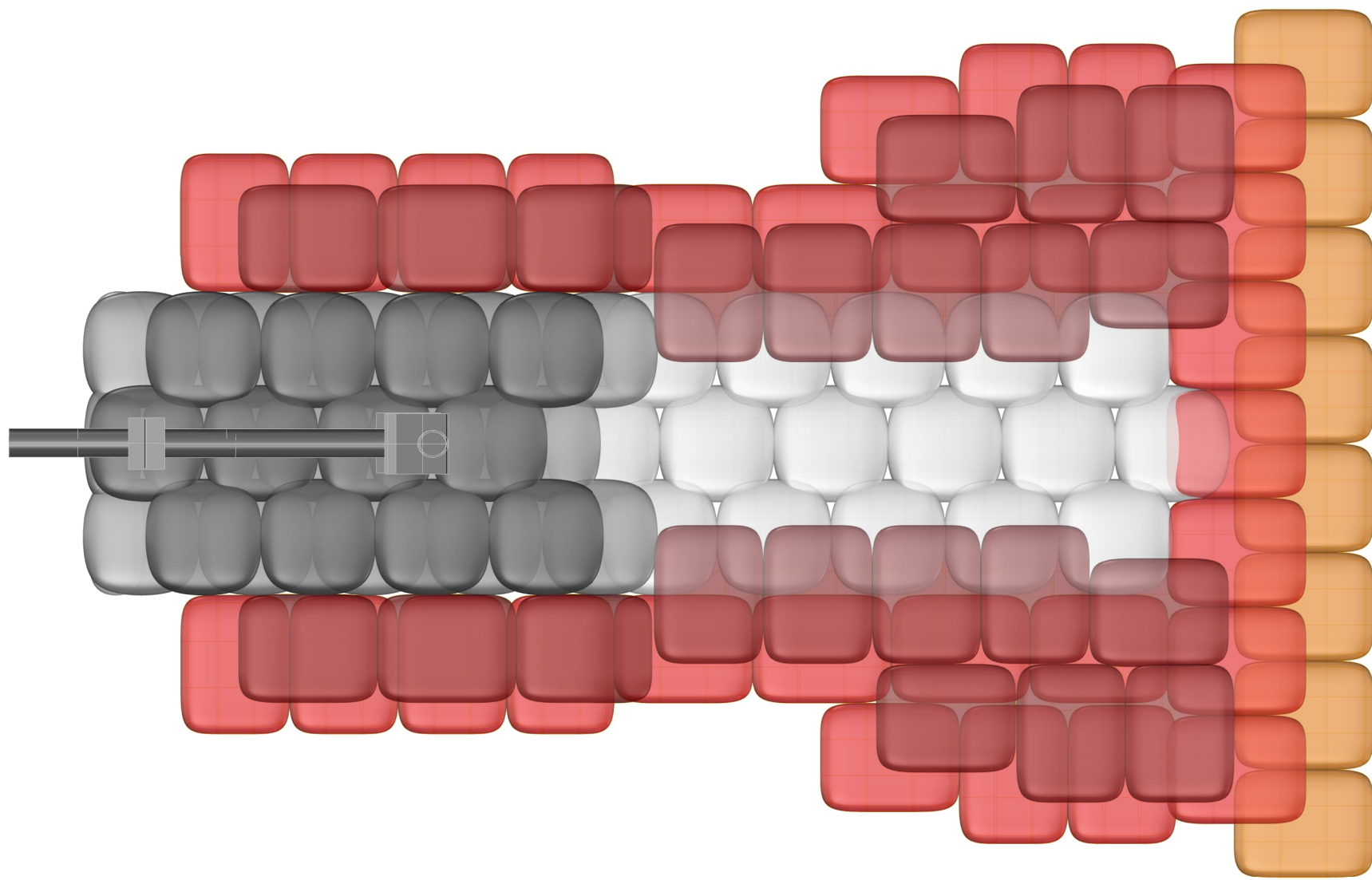
LEGEND OF COLORS



ARRANGMENT OF ROCK BAG LAYER 1 AND GSC LAYER A & B
SCALE 1:100



ARRANGMENT OF ROCK BAG LAYER 1&2 AND GSC LAYER A\$ & B & C
SCALE 1:100



ARRANGMENT OF ROCK BAG LAYER 1&2 & 3 AND GSC LAYER A\$ & B & C & D
SCALE 1:100

NOTES

- 1.ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE
 - 2.ALL COORDINATES ARE IN METERS RELATIVE TO GDA 2020 ZONE 52
- TOTAL NUMBER OF GEOTEXTILE SAND CONTAINER IS 61
- TOTAL NUMBER OF ROCK BAGS IS 58

FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	CHK	APP
B	16/09/22	FOR CONSTRUCTION	MPX	CXB	CXB
A	31/05/22	FOR COMMENTS	MPX	CXB	CXB

REVISIONS

PROJECT

MOLLYMOOK BEACH STORMWATER
ENTRAINMENT STRUCTURE

CLIENT



BIM REF.

22010212-WT-ZZ-XX-DR-A-002

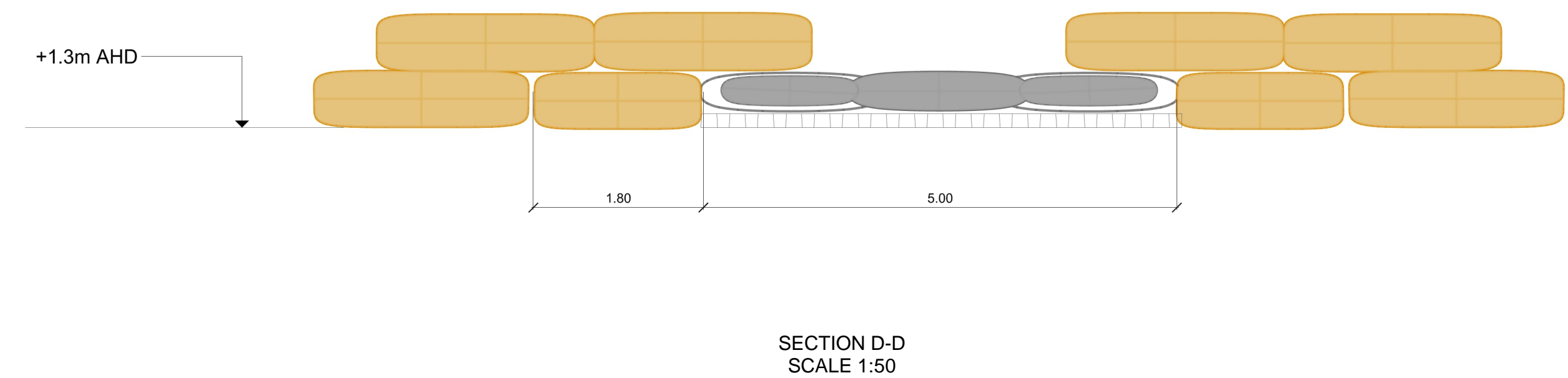
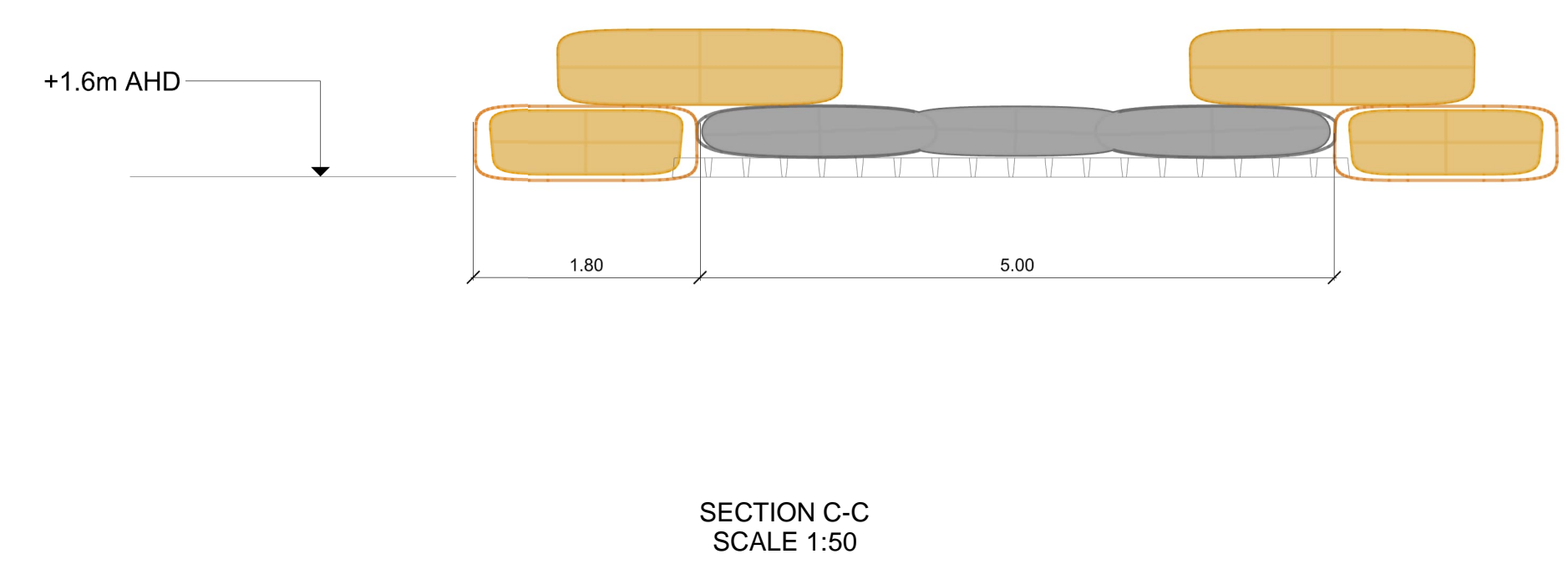
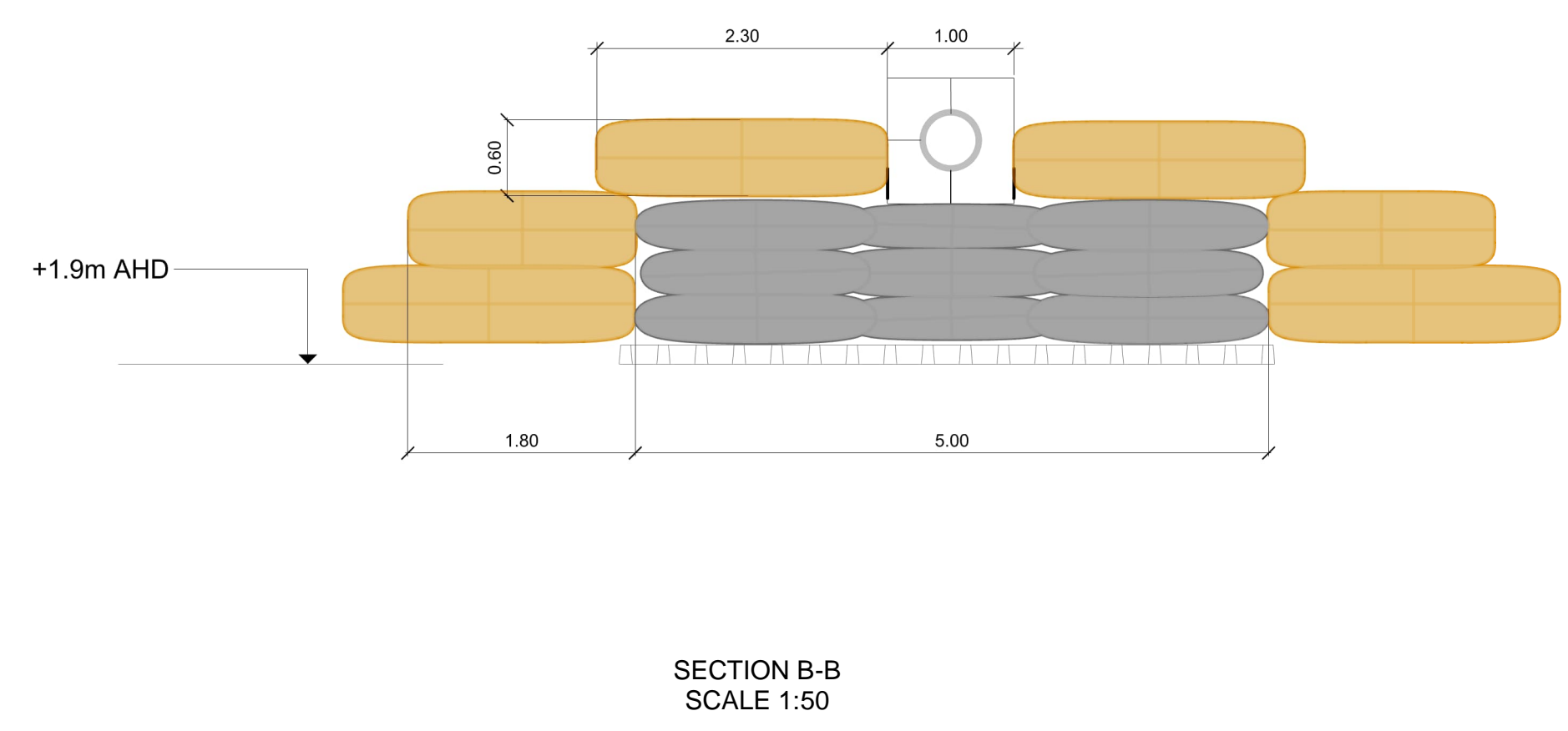
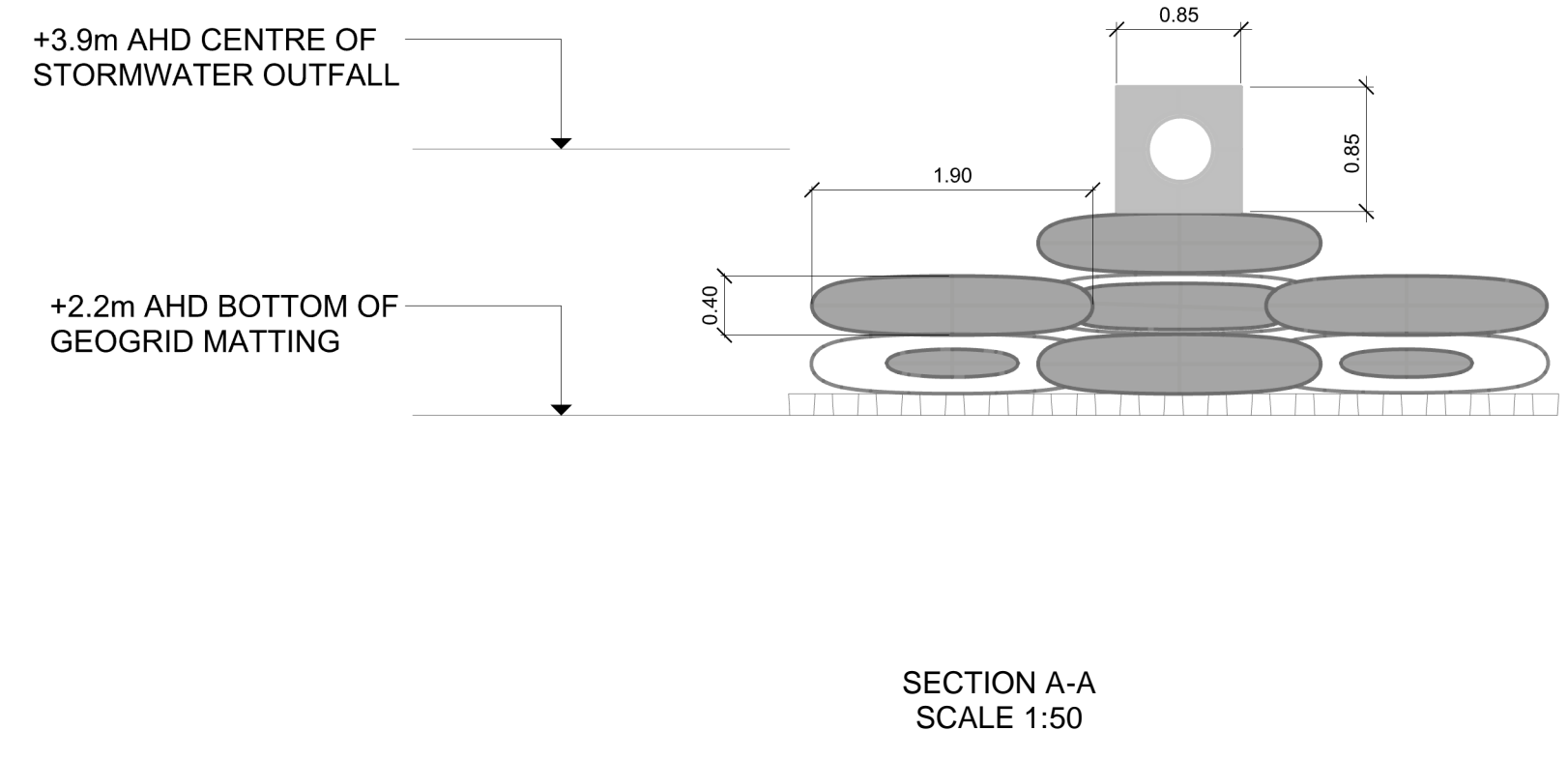
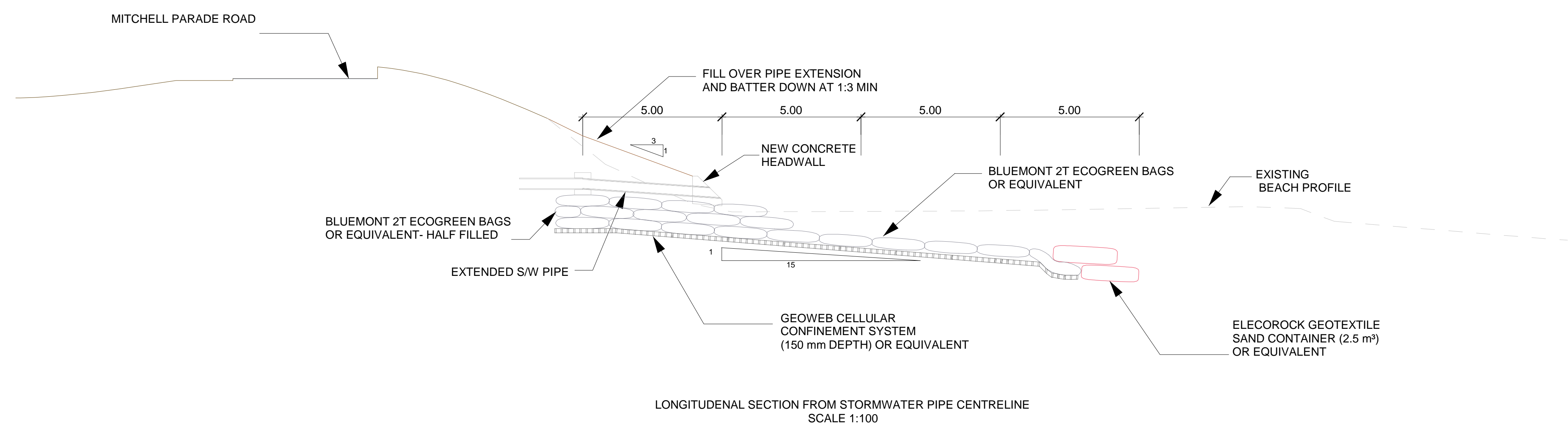
TITLE

GSC AND ROCK BAGS
LAYOUT AND ARRENGMENT



15 Business Park Dr, Notting Hill
VIC 3168
Tel +61 (0)3 8526 0800
Email info@watertech.com.au
Website www.watertech.com.au/

DRAWN MPX	CHECKED CXB	APPROVED CXB
DATE 16/09/2022	SCALE AS NOTED AT A1	REF. 22010212-01-002
DRAWING No. WT-22010212-DR-A-002	SUITABILITY	REVISION



ALL LEVELS ARE RELEVANT TO AUSTRALIAN HEIGHT DATUM (AHD) UNLESS OTHERWISE STATED.

- NOTES
1. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE
 2. ALL COORDINATES ARE IN METERS RELATIVE TO GDA 2020 ZONE 52
 3. ALL MATERIALS AND WORKMANSHIP WILL BE AS DEFINED IN THE SPECIFICATION UNLESS NOTED OTHERWISE

FOR CONSTRUCTION

REV	DATE	DESCRIPTION	BY	CHK	APP
B	16/09/22	FOR CONSTRUCTION	MP	CXB	CXB
A	31/05/22	FOR COMMENTS	MP	CXB	CXB

REVISIONS

PROJECT
MOLLYMOOK BEACH STORMWATER ENTRAINMENT STRUCTURE

CLIENT


BIM REF.
22010212-WT-ZZ-XX-DR-A-003

TITLE
TYPICAL CROSS SECTIONS


WATER TECHNOLOGY
WATER, COASTAL & ENVIRONMENTAL CONSULTANTS

DRAWN MP	CHECKED CXB	APPROVED CXB
DATE 16/09/2022	SCALE AS NOTED AT A1	REF. 22010212-01-003
DRAWING No. WT-22010212-DR-A-003	SUITABILITY	REVISION