

# REPAIRS TO SEAWALL AT 6B CHILDE ST, BELONGIL

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## RESPONSES TO NSW COASTAL PANEL LETTER DATED 8/5/17

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RE: DoI – Lands queries to NSW CP dated 5/5/17 re Development Application (DA) CP17-003, lodged by Stewartville Pty Ltd for works at 6B Childe Street, Byron Bay.

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### QUESTION AND RESPONSES

1. Clarification that the 'Construction Plans' provided with the 'Responses to RFI', dated 14 March 2017, International Coastal Management, are an accurate reflection of the location and footprint of the tie-ins for CP17-003.

**Response:** I confirm that the Construction Plan (International Coastal Management drawing BSR-CS5-005) provided with the 'Responses to RFI', dated 14 March 2017 by International Coastal Management shows the "*approximate repair footprint*" and extent of the tie-ins for the subject property. The extent of the tie-ins is to mitigate the risk of flanking failures and address safety issues in accordance with the Supreme Court of NSW Consent Orders dated 12/8/16.

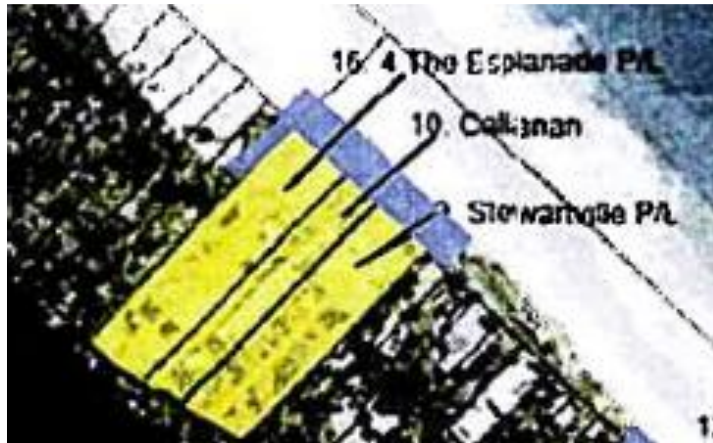


Figure 1 Extent of current protection for subject property (Stewartville) to be repaired (Extract from Schedule 1 of Supreme Court Orders). Council has consented to this application.

The footprint on drawing 005 shows the extent of the repairs including the lower section of the wall that is presently buried below sand level. The proposed tie-ins, as previously described, provide a smooth transition of the repaired section of wall into the adjacent sections of rock walls, extending 10m on either side of the subject property. The proposed tie-ins, as previously described, provide a smooth transition of the repaired section of wall into the adjacent sections of walls. On either side, the repaired wall will blend into the existing neighbouring walls. In this respect, it is important to note that the Supreme Court Orders protect the entire area of repair, including the tie ins.

Additional drawings BSR-CS5-007 and 008 have been provided showing the details of the proposed tie-ins as per item 3 below for the subject property. These additional drawings are provided in Attachment A.

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32635270\_1 response tauber



## REPAIRS TO SEAWALL AT 6B CHILDE ST, BELONGIL

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BSR- CS5-007 & 008 for the subject property. These details are consistent with previous details provided.

4. **Any specific maintenance requirements over the life of the proposed works, in consideration of factors such as the structural resilience and hydraulic stability of the structures that are being tied into, over the effective life of the proposed works.**

**Response:** The tie-ins will provide smooth transitions between the repaired section of wall and the existing adjacent sections of walls. The tie-ins will increase the resilience and hydraulic stability of the adjacent sections. Maintenance of the repaired walls, including the tie-ins, is expected about every 10 years and details of the maintenance program have already been provided previously to the Panel. This maintenance will be the responsibility of the owner of the subject property. Details of these arrangements have also previously been provided, including details about the provision of a guarantee to secure the performance of the obligations.

5. **Specific consideration of cumulative impacts on Crown land (The Esplanade and R755695) as a result of the tie-ins, as modified, interacting with coastal processes, over the life of the proposed works.**

**Response:** As previously advised, the proposed repair works, that include the tie-ins, are not a substantial increase over the existing seawall structure and there will be NO incremental impacts of the repair works, that include the tie-ins, on the coastal processes.

Summarizing our previous advices:

- The existing structure at 6B Child Street is part of the continuous seawall wall designed and constructed in about 1999 to protect the private properties to NW of Manfred Street from intermittent storm erosion events. The 2015 BSC rock sea wall constructed to protect Manfred Street and the adjacent private wall to the NW connects into the 1999 sea wall. There is now a substantial continuous rock seawall from the northern flank of the northern most private property on Belongil spit to the rock protection at the Old Jetty Site (State lands). With the natural sandstone outcrops at the southern end of the Old Jetty site and southward from Border Street with the BSC sandbag walls at Border Street and Don Street, there is now almost a continuous protection (natural and artificial) of varying standards between the SLSC to the south of Jonson Street and the northern most private property on Belongil Spit (WRL 2013).
- The proposed repair works at the subject property restore the wall back to its original profile are not a substantial increase over the existing. The tie-ins are a 10m transition into the adjacent sections of walls that partly restore the adjacent sections.
- The alignment of the walls along Belong Spit is landward of normal high water and these walls act as a terminal seawall that not only protects public and private beachfront properties and infrastructure during major erosion events but also provides environmental benefits as it mitigates the risk of a breakthrough of Belongil Spit that, if allowed to occur, would have large adverse impacts on Crown Lands. Repair will improve public safety.

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32635270\_1 response tauber

## REPAIRS TO SEAWALL AT 6B CHILDE ST, BELONGIL

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- There will be NO incremental impacts of the repair works, including the tie-ins. This also was the finding of WRL in 2013 in their assessment of the impacts of the Manfred St interim wall construction, which is a much larger structure.

Signed



Leslie Angus Jackson

CPEng (National Engineers Register, Institution of Engineers Australia), RPEQ 2876

Date: 18/5/17

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32635270\_1 response tauber



**ATTACHMENT A**

**TECHNICAL DRAWINGS  
WITH ADDITIONAL TIE-IN DETAIL DRAWINGS – 007 & 008**



International  
Coastal  
Management

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# Belongil Seawall Repairs

6B CHILDE STREET

(Lots 32 and 33 in Section 3 of DP1623)

## DRAWING REGISTER

18.05.17

BSR - CS5 - 001 B COVER PAGE  
BSR - CS5 - 002 B PLAN VIEW (PRESENT)  
BSR - CS5 - 003 B X-SECTION (PRESENT)  
BSR - CS5 - 004 B REPAIR WORKS  
BSR - CS5 - 005 B CONSTRUCTION PLAN  
BSR - CS5 - 006 TRAFFIC CONTROL PLAN  
BSR - CS5 - 007 TIE-IN PLAN  
BSR - CS5 - 008 TIE-IN SECTIONS





SITE PLAN

LOCALITY PLAN

NOTES

- Cadastral Data from NSW Globe KML for Google Earth, NSW Land & Property Information

LEGEND

- Approximate Property Boundary
- X-Section

VERTICAL DATUM: AHD

HORIZONTAL DATUM:

REVISION REGISTER

B	02/05/17	Added Esplanade and boundaries	SK	AJ	AJ
A	24/02/17	Updated Drawing	SK	AJ	AJ
REV NO	DATE	DESCRIPTION	BY	ENG	APP

International Coastal Management

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PROJECT NAME: BELONGIL SEAWALL REPAIRS

DRAWING TITLE: PLAN VIEW (PRESENT)

DRAWING No.: BSR - CS5 - 002

REVISION: B

DRAWN: SK

CHECKED: AJ

APPROVED: AJ

SIZE: A3

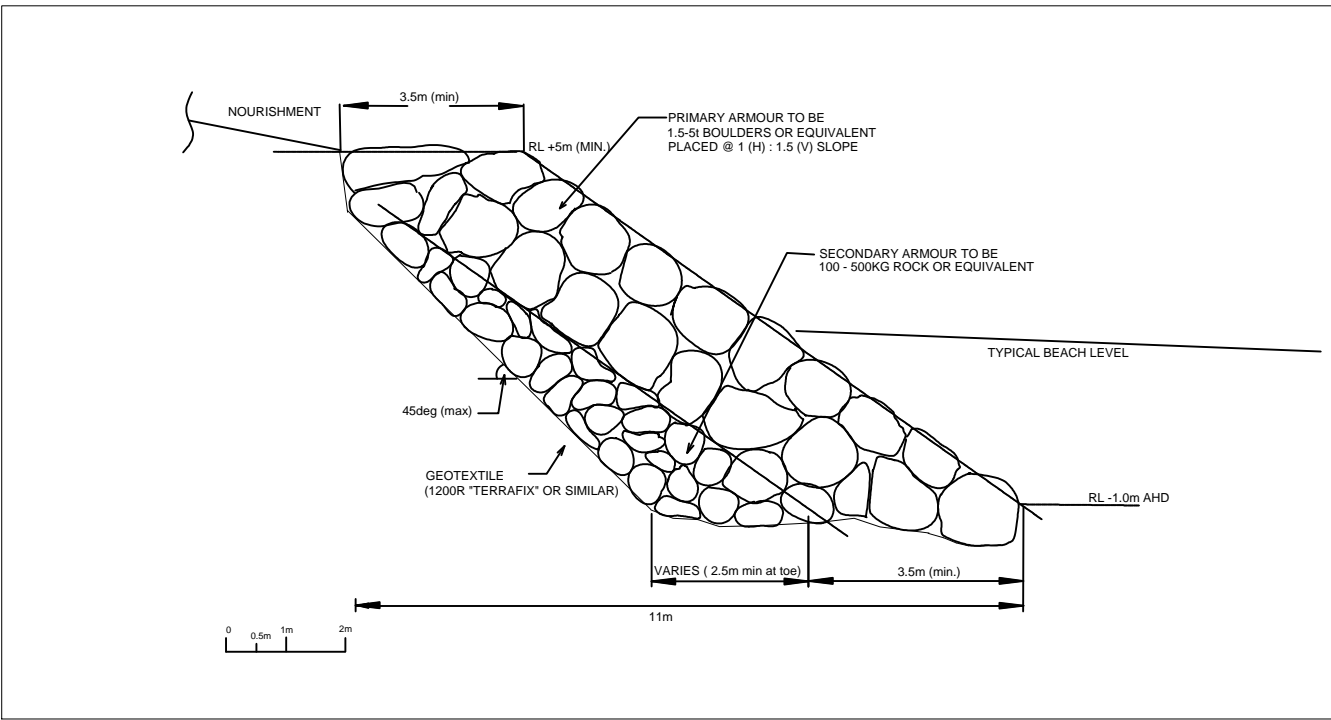
SCALE: A3

DATE: 18 May, 2017

RPEQ 2876

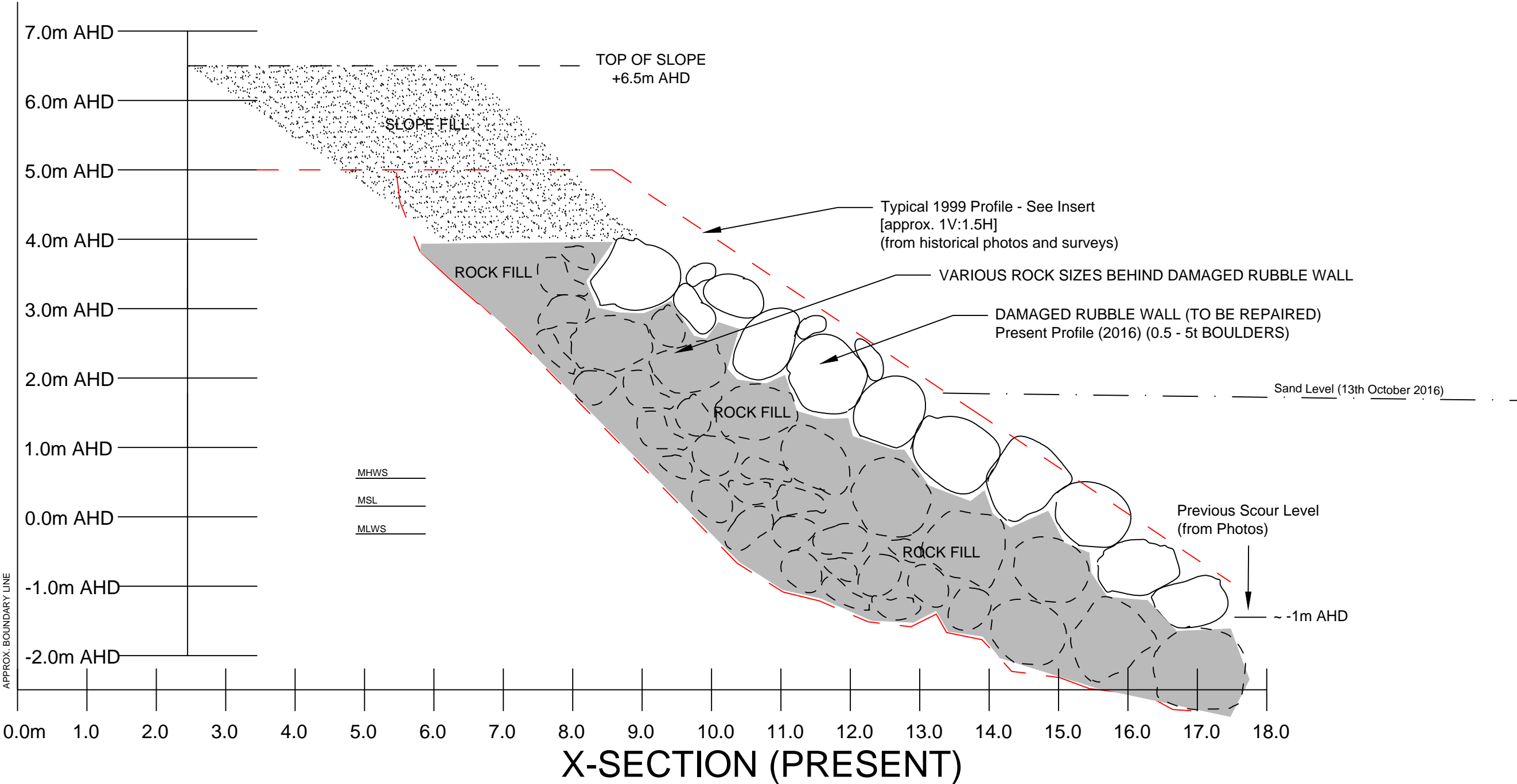


PHOTO (ICM 13/10/16)



From ICM BELONGIL EROSION PROTECTION WORKS (1999)

APPROX. BOUNDARY LINE



X-SECTION (PRESENT)

LOCALITY PLAN

- NOTES
1. Present profile from survey (13/10/16)
  2. Grey shaded area shows estimated location of rocks based on wall slump and volume displacement

LEGEND

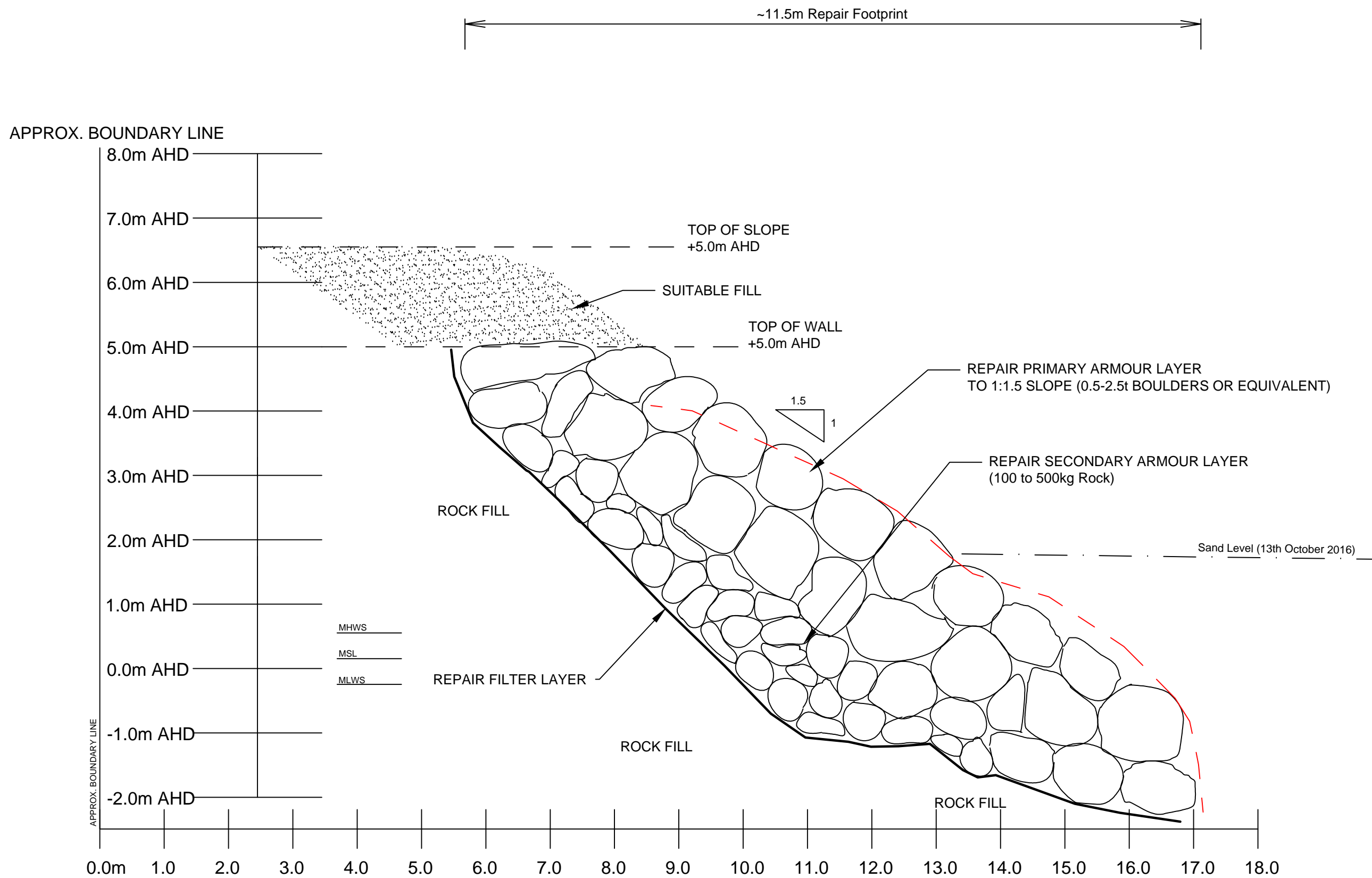
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-	-	-	-	-
B	02/05/17	Added tidal plane	SK	AJ
A	24/02/17	Updated Drawing	SK	AJ
REV NO.	DATE	DESCRIPTION	BY	ENG. APP.



**International Coastal Management**

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PROJECT NAME BELONGIL SEAWALL REPAIRS	
DRAWING TITLE X-SECTION (PRESENT) 6 CHILDE STREET	
DRAWING No. BSR - CS5 - 003	REVISION: B
DRAWN : SK	CHECKED : AJ
APPROVED : AJ	
RPEQ 2876	
SIZE: A3	SCALE: A3
DATE: 18 May, 2017	



## TYPICAL REPAIR PROFILE

### LOCALITY PLAN

### NOTES

- Repairs to be in accordance with Supreme Court of NSW Consent Orders 2010/426976 Dated 12/08/16
- Vegetation to be maintained as far as possible.

### LEGEND

--- Present Profile (2016)

VERTICAL DATUM: AHD HORIZONTAL DATUM: -

### REVISION REGISTER

REV NO.	DATE	DESCRIPTION	BY	ENG.	APP.
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-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
B	02/05/17	Added tidal plane and changed notes	SK	AJ	AJ
A	24/02/17	Updated Drawing	SK	AJ	AJ



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PROJECT NAME  
BELONGIL SEAWALL REPAIRS

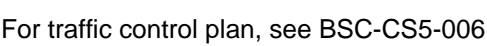
DRAWING TITLE  
REPAIR WORKS  
6 CHILDE STREET

DRAWING No. BSR - CS5 - 004 REVISION: B

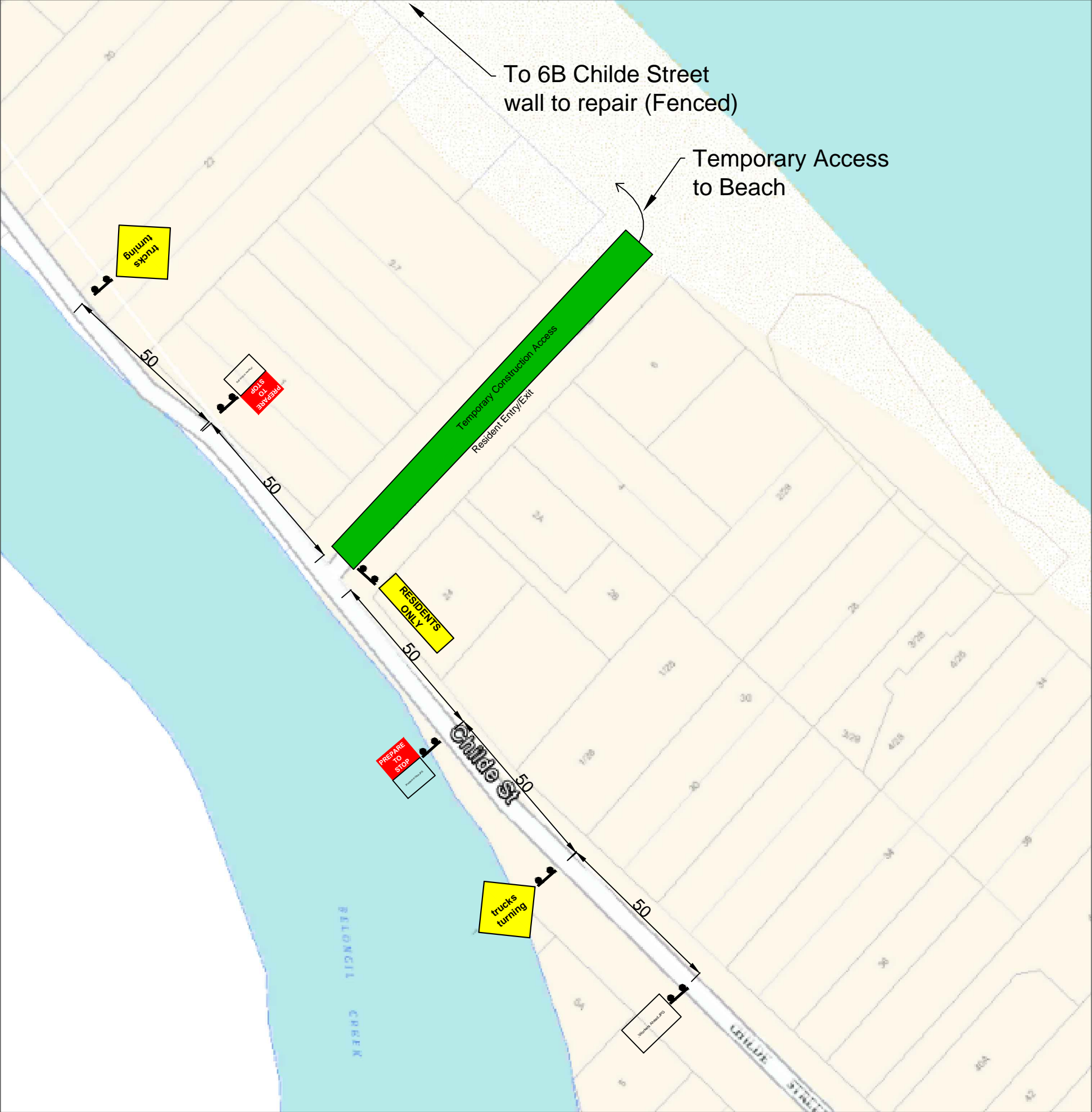
DRAWN: SK CHECKED: AJ APPROVED: AJ

SIZE: A3 SCALE: A3 DATE: 18 May, 2017

RPEQ 2876



		RPEQ 2
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TRAFFIC CONTROL PLAN

NOTES

1. Work hours; 7am - 6pm Monday to Friday excepting public holidays
2. Construction Time; Approx 3 working days.
3. Truck volumes; It is estimated that 11 trucks @ 12t/truck over the 3 days will be required.
4. Traffic Control and Signage; All traffic control and signage is to comply with Roads & Maritime Services Guide to Traffic Control at Worksites Manual. All signage is to be removed when works are not in progress and are to be removed immediately following the completion of works.
  - Sign distances may be shortened to 25m so not to be obscured by vegetation if necessary.
  - Traffic controller to hold North bound traffic for truck to reverse into sight
  - Contractor to provide a spotter for vehicles and pedestrians in Manfred St.
5. Road Hazards; Trucking operations to be implemented in a safe manner so as to not cause a hazard for motorists or pedestrians.
6. Covering of Loads; All loads are to be covered with taut heavy duty purpose fitted tarpaulins to ensure no loss of load or dust.
7. Mud; Contractor to ensure that the wheels, tracks and body surfaces of all vehicles and plant leaving the site are free of mud and that mud is not carried on to adjaced paved streets or other areas.

VERTICAL DATUM: -		HORIZONTAL DATUM: -	
REVISION REGISTER			
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REV NO	DATE	DESCRIPTION	BY ENG APP
 International Coastal Management			
OFFICE: 50 / G Arm, SYC Marina, Main Beach, 4217, QLD, Australia			
POST: PO Box 306, Main Beach LPO, Main Beach QLD, 4217, Australia			
TELEPHONE: +61 7 55640564 FAX: +61 7 55329147			
WEBSITE: www.coastalmanagement.com.au			
PROJECT NAME			
6B CHILE STREET WALL REPAIR			
DRAWING TITLE			
TRAFFIC CONTROL PLAN			
DRAWING No.			REVISION:
BSR - CS5 - 006			-
DRAWN: SK	CHECKED: AJ	APPROVED: AJ	
RPEQ 2876			
SIZE: A3	SCALE: A3	DATE: 18 May, 2017	



TIE-IN PLAN

LOCALITY PLAN

NOTES

1. Smooth transition of crest to tie-in.
2. Displaced rocks located during repairs to be replaced on wall.
3. Rocks to be generally 1.5 to 5t and well interlocked.
4. For details of tie-in, see drawing BSR - CS5 - 008

LEGEND

Seaward crest of repaired wall

VERTICAL DATUM: AHD HORIZONTAL DATUM: -

REVISION REGISTER

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REV NO	DATE	DESCRIPTION	BY	ENG	APP
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PROJECT NAME  
BELONGIL SEAWALL REPAIRS

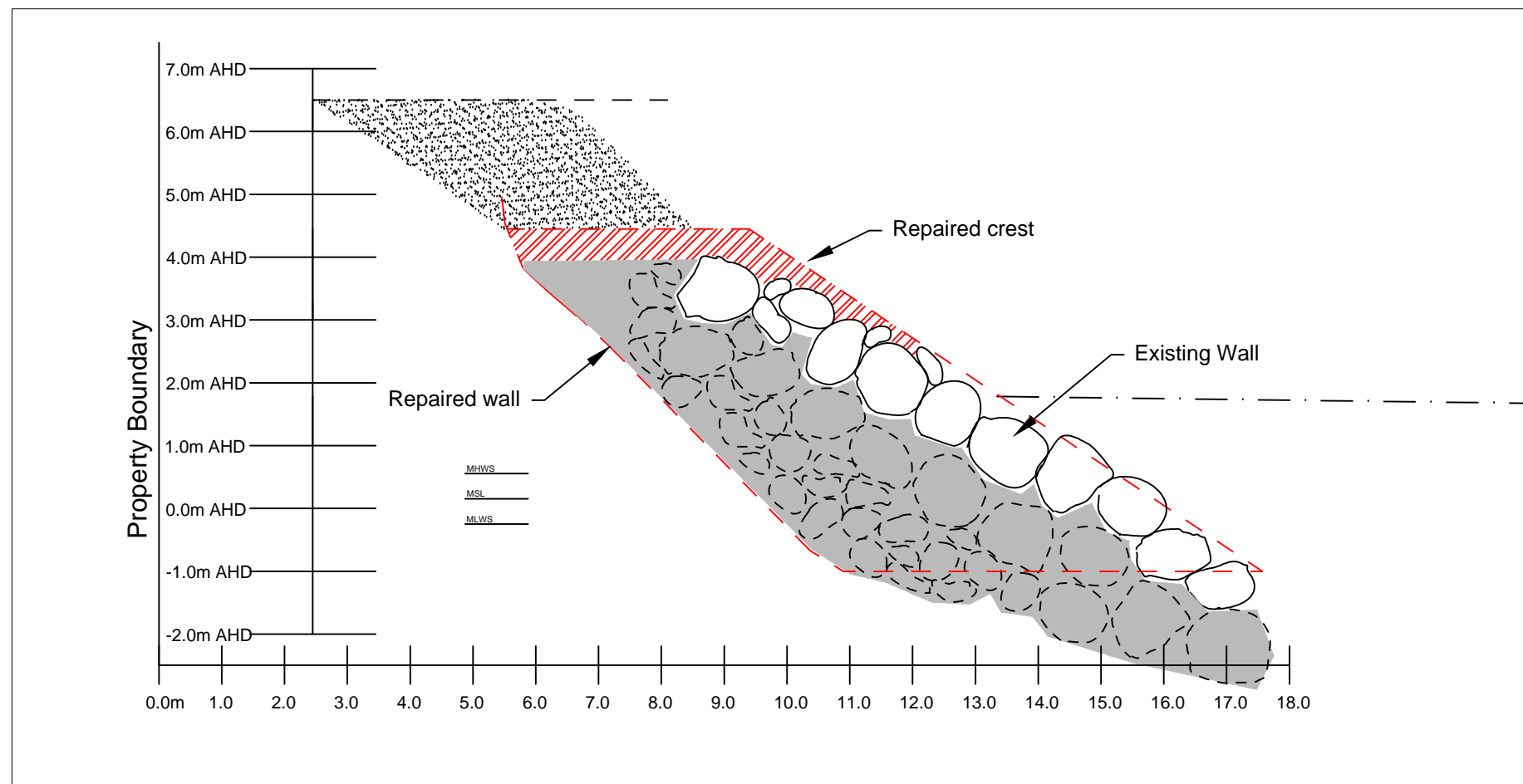
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TIE-IN PLAN

DRAWING No. BSR - CS5 - 007	REVISION: -
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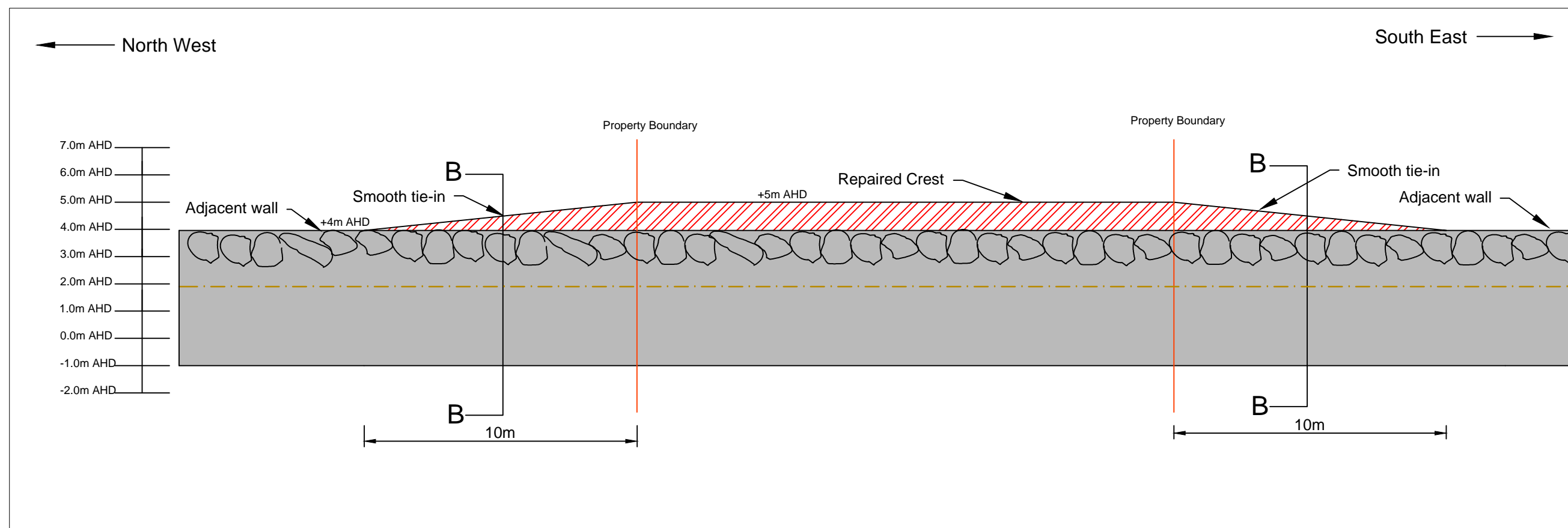
DRAWN : SK	CHECKED : AJ	APPROVED : AJ
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RPEQ 2876

SIZE : A3	SCALE : A3	DATE : 18 May, 2017
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## TIE-IN X-SECTION B



## TIE-IN LONG SECTION (Along Crest)

LOCALITY PLAN

NOTES

1. Smooth transition of crest and toe to adjacent wall (typical).

LEGEND

..... Sand Level

VERTICAL DATUM: AHD	HORIZONTAL DATUM: -
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## REVISION REGISTER

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"	"	"	"	"	"
"	"	"	"	"	"
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REV. NO.	DATE	DESCRIPTION	BY	ENG.	APPROV.



PROJECT NAME  
BELONGIL SEAWALL REPAIRS

DRAWING TITLE

**TIE-IN SECTIONS**

DRAWING No.	REVISION
BSR - CS5 - 008	-

DRAWN : SK			CHECKED : AJ	APPROVED : AJ
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RPEQ 2