National Conservation Council

Special General Meeting

2 June 2025
3pm
Broadcast on DoE YouTube

AGENDA

1. Call to Order
   a. Welcome
   b. Attendees, Apologies, Quorum
   c. Declaration of Interests

2. New Matters
   a. WP-01 EIA Screening for Marriott Coastline Development
   b. WP-02 Marriott EIA Motion (draft)

3. Any Other Business

4. Adjournment

5. Attendance Appendix

Council Member	**02 June 2025**	**Representation**
Dr. Ian Kirkham		Chairman; Terrestrial Ecology
Geddes Hislop		West Bay, Wildlife Conservation
Nickolaus Foster		Bodden Town
Walling Whittaker		George Town, Environmental Engineering
Donald McLean		East End
Harris McCoy		North Side
Kathleen Bodden-Harris		Sister Islands
Dr. Samantha Shields		Conservation Medicine
Catherine Childs		National Trust for the Cayman Islands
Brian Crichlow		Director of Agriculture
Haroon Pandohie		Director of Planning
Richard Mileham		Planning Officer, representing the Director of Planning
Gina Ebanks-Petrie		Director of Environment
Timothy Austin		DoE Deputy, Research
John Bothwell		Secretary

Department of Environment
CAYMAN ISLANDS GOVERNMENT

Screening Opinion for the Proposed Grand Cayman Marriott Resort Coastal Protection and Beach Enhancement Project
10 December 2024

Executive Summary

The National Conservation Council's (NCC) Directive for Environmental Impact Assessments (EIAs) notes that all activities listed in Schedule 1 will be considered against the screening criteria outlined in the Directive to determine whether an EIA may be required.

The proposed site is located towards the southern end of Seven Mile Beach. This area has seen significant beach erosion over time.

The project proposal is for beach nourishment works and the construction of coastal defence structures with the aim of restoring the beach directly in front of the Grand Cayman Marriott Resort. The proposed project includes:

- **Beach Fill and Stabilization**: Placement of 6,000 to 8,000 cubic yards of sand on the beach;
- **Rock Stabilization Structures**: Installation of two low-profile, shore-perpendicular groynes to help retain sand;
- **Reconfiguration of reef balls**: Rearrangement of the 231 existing reef balls on site to enhance wave attenuation;
- **Scour Protection**: Placement of a rock embankment to help protect the base of the existing Grand Cayman Marriott Resort seawall; and
- **Debris Removal**: Elimination of submerged debris to improve safety and aesthetics.

It is considered that the applicant has submitted sufficient information to understand the environment effects of the Proposed Coastal Works. The application documents include site plans and a bathymetric survey, as well as a benthic habitat survey detailing the submerged natural resources that are likely to be impacted by the proposed project.

The Department of Environment is of the opinion that the proposed development does not require an EIA as sufficient information has been provided as to allow the assessment of the likely adverse effects.

Introduction

The process for determining whether an Environmental Impact Assessment (EIA) is needed is a statutory process that is governed by the National Conservation Act (NCA). This first stage, where the relevant authorities decide if a development is an EIA development (i.e. requires an EIA) is called screening.

The National Conservation Council's (NCC) Directive for Environmental Impact Assessments (EIAs) issued under section 3(12) (j) and which has effect under section 43(2) (c) of the NCL, notes that all activities listed in Schedule 1 will be considered against the screening criteria outlined in sections 2 to 3 of Schedule 1 of the Directive to determine whether an EIA may be required. The proposed development falls within Schedule 1, i.e. *Coastal works to combat erosion and maritime works capable of altering the coast through the construction, for example, of groynes, jetties & other sea defence works*.

The screening criteria include:

- The type and characteristics of a development;
- The location of a development; and
- The characteristics of the potential impact.

These screening criteria have been considered with respect to the proposed development in order to determine whether an EIA is required.

The Site

The proposed development site is located offshore of the Grand Cayman Marriott Resort, which is located towards the southern end of Seven Mile Beach at 389 West Bay Road (Block 13B Parcel 2). The area surrounding the proposed project site is largely man-modified and is zoned hotel-tourism under the Development and Planning Regulations (2024). The southern end of Seven Mile Beach has been suffering from significant erosion for quite some time due to interrupted sediment transport processes and the dominant direction of storms and waves that impact the site, all exacerbated by sea level rise due to the impacts of climate change. The proposed project is located within a Marine Reserve, a Marine Protected Area under the NCA.

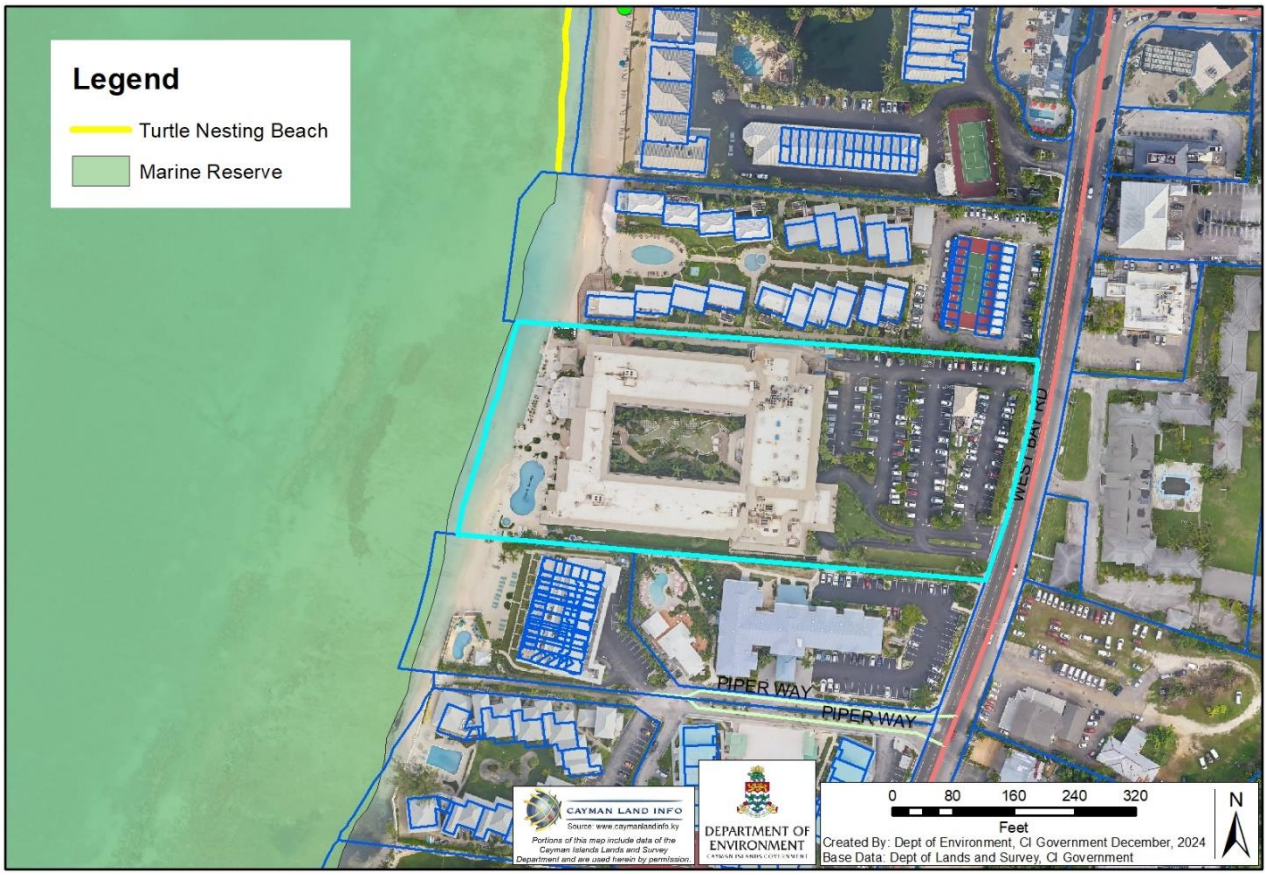


Figure 1. The environmental context of the site with Block 13B Parcel 2 outlined in blue (Aerial Imagery Source: UKHO, 2021).

Proposed Development

Description of the Proposed Development

The proposed development consists of beach nourishment directly adjacent to the Grand Cayman Marriott Resort, as well as the construction of coastal protection structures in the form of groynes.

The proposed works include:

- Placement of 6,000 to 8,000 cubic yards of beach quality sand;
- Installation of two low-profile, shore-perpendicular groynes to help retain sand;
- Rearrangement of the 231 existing reef balls on site to enhance wave attenuation;
- Placement of a rock embankment to help protect the base of the existing Grand Cayman Marriott Resort seawall; and
- Removal of existing submerged debris on site.

The DoE has been provided with a project narrative including application plans and construction methodology. It is understood that beach nourishment works will directly affect approximately 42,400 square feet of Crown property, while the shore-perpendicular structures will directly affect 10,900 square feet.

The application was accompanied by environmental surveys and assessments including:

- A Benthic Marine Survey carried out by Bio-Tech Consulting of Miami, Florida;

- Concept Development and Combined Sediment Transport Modelling Results;
- A bathymetric survey of the shoreline surrounding the project site; and
- A narrative document detailing the coastal works application including construction methodology and mitigation measures to be used.

Site History

The site has a long history related to beach erosion and beach nourishment projects. Applications for previous beach replenishment projects date back as early as 1997. The 1997 beach nourishment project was short lived, and permission was sought again around 5 months later. Beach stabilization mats (artificial seagrass) were installed in 1999 and had become dislodged by 2000. An application for the installation of reef balls to form an artificial breakwater and help reduce the erosion of the beach was approved in 2002, however this resulted in no significant change to the beach profile and beach erosion has continued although the reef balls remain in place. In 2005, the Cayman Islands Government carried out a major beach renourishment exercise at the Grand Cayman Marriott, resulting in the placement of 5,350 cubic metres of sand. This resulted in temporary enhancement of the beach due to the direct placement of sand, however, beach erosion continued and the beach has now been completely lost directly in front of the Grand Cayman Marriott Resort.

It should be noted that this project differs from the previous nourishment projects in that it includes the construction of two low-profile, shore-perpendicular groynes to aid sand retention and increase the likelihood that the placed sand will remain on the beach.

Characteristics of Potential Impact

The baseline conditions, the potential impact of the proposed development and any likely significant effects have been qualitatively assessed for each of the below environmental aspects. Having due regard to architectural and archaeological heritage, ground conditions and socio-economics, there are not considered to be adverse environmental impacts in these areas and therefore they are not discussed further.

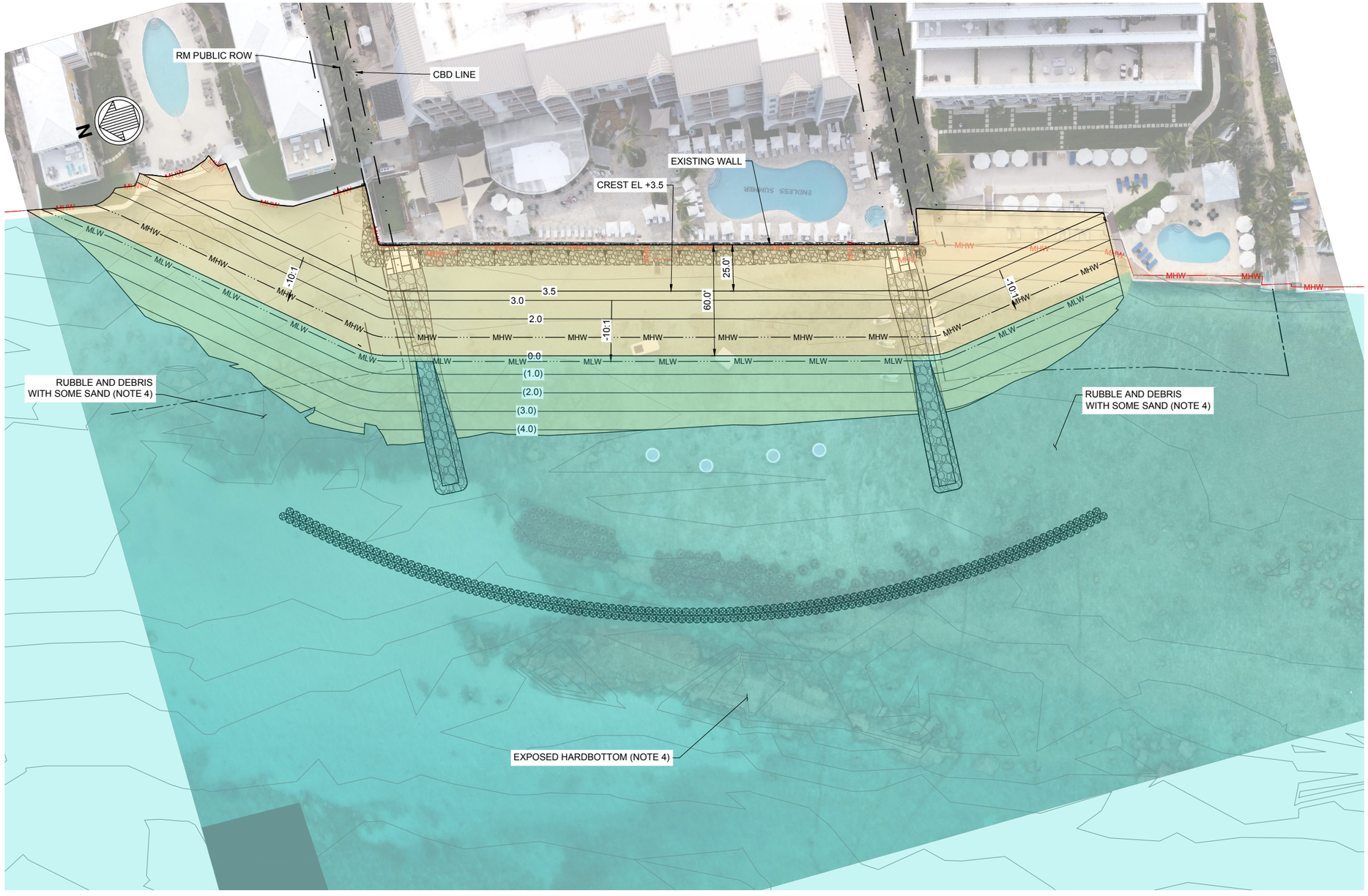
The application site is located within the Seven Mile Beach Marine Reserve, a Marine Protected Area under the NCA. As such it would be important to minimize impacts on the marine environment. Measures such as turbidity curtains have been proposed to be installed prior to construction and maintained throughout the carrying out of the works. Water quality monitoring in the form of turbidity measurements will be taken outside of the project area to ensure the turbidity curtains are functioning as intended. The applicant has provided a benthic survey detailing the waters surrounding the proposed project. A general habitat description has been provided for 13.9 acres surrounding the site, in addition to a detailed habitat classification of 2.7 acres in the direct vicinity of the proposed works. Benthic habitat in the area of the proposed works was found to consist of man-made debris, rock rubble, hardbottom and patches of medium to coarse grained sand. Living coral resources were noted to be at least 1,000 feet or more from the shoreline, and outside of the area that would be directly impacted by the placement of sand or construction of groynes. While a few small coral colonies were observed to be growing on the reef ball structures that are planned for relocation, the reef balls were typically absent of coral growth. Therefore, the information provided by the applicant at the time of application is adequate to understand and assess the environmental effects on the marine environment. Additionally, the DoE is also seeking professional advice from a qualified coastal engineer to assist with the review of the potential impacts of the proposed works.

While the shore-perpendicular structures have the potential to result in adverse impacts on the shoreline in the vicinity of the project, it should be considered that the area is already in a sediment starved state and significant beach loss has occurred for the entire southern end of Seven Mile Beach. Therefore, it is unlikely that the proposed structures will cause additional erosion of the shoreline surrounding the site. Post construction monitoring will be used to evaluate project performance and allow intervention prior to potential impacts to adjacent shoreline.

Conclusions

The DoE considers that the proposed development does not require an EIA to assess significant adverse effects as the potential effects are well established and sufficient information has been provided to adequately assess the potential impacts.

After considering the Screening Opinion detailed above, the NCC is required to issue its decision to the originating entity on the requirement for an EIA, pursuant to Section 43 (1).



EQUILIBRATION BEACH TEMPLATE

SCALE: 1" = 30'

NOTES:

1. EXISTING ELEVATIONS BASED ON A SURVEY PROVIDED BY ABERNETHY AND ASSOCIATES LTD. CONDUCTED ON FEBRUARY 17 OF 2024.
2. AERIAL IMAGE BASED ON DRONE PICTURES CONDUCTED ON JULY OF 2024.
3. ALL UNITS SHOWN BASED ON THE IMPERIAL SYSTEM OF MEASUREMENT (FEET/INCHES)
4. HABITAT CLASSIFICATION PERFORMED ON OCTOBER 4 OF 2024. SEE THE BIOLOGICAL SURVEY REPORT FOR MORE DETAILS.
5. EXISTING MHW CERTIFIED ON NOVEMBER 18 OF 2024. SEE THE BATHYMETRIC SURVEY FOR MORE DETAILS.

LEGEND

- RM PUBLIC ROW
- 3.0 — EXISTING CONTOUR (FEET, MSL)
- 3.0 — PROPOSED CONTOUR (FEET, MSL)
- CBD LINE
- RM DEMARCATED
- MHW — PROPOSED MEAN HIGH WATER (+1 FT, MSL)
- MLW — PROPOSED MEAN LOW WATER (-0.3 FT, MSL)
- MHW — EXISTING MEAN HIGH WATER (+1 FT, MSL)
- BEACHFILL
- SHORELINE STABILIZATION
- SCOUR PROTECTION
- RELOCATED REEFBALLS

30' 0' 30' 60'

SCALE: 1"=30'

PERMIT DRAWINGS
ISSUED: 2024-11-21
NOT TO BE USED FOR CONSTRUCTION

LR HOTELS

Mark	Description	Date	Appd

GRAND CAYMAN MARRIOTT RESORT COASTAL PROTECTION AND BEACH ENHANCEMENT PROJECT

EQUILIBRATION BEACH TEMPLATE

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100 W CYPRESS CREEK RD
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Designed by: YN	Dwn by: CL	Ckd by: BG	Reviewed by: RVS
Submitted by: SUBMITTERS NAME MOFFATT & NICHOL	Drawing code:	M&N Project No. 241417	Date: 2024-10-21
Drawing Scale: Plot scale: 1:1 (D SHEET)			Rev: -

SEAL

Sheet Reference No.
C-103
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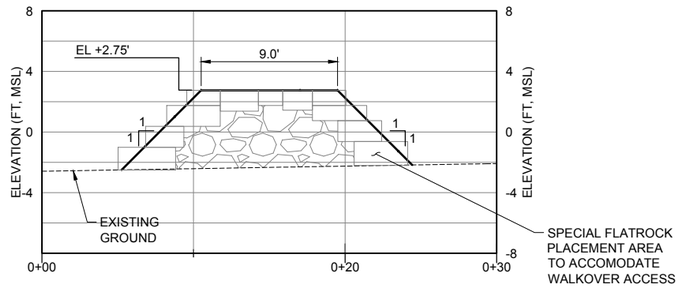
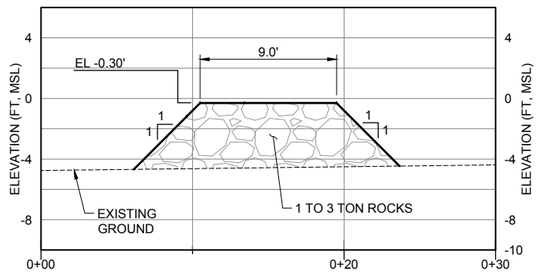


D3 / C-101 SHORELINE STABILIZATION - SECTION
SCALE: 1" = 5'



B3 / C-101 SHORELINE STABALIZATION - SECTION
SCALE: 1" = 5'

LEGEND

- EXISTING GROUND
- 1 TO 3 TON ROCK
- FLAT ROCK PLACEMENT

5' 0' 5' 10'
SCALE: 1"=5'

PERMIT DRAWINGS
ISSUED: 2024-11-21
NOT TO BE USED FOR CONSTRUCTION

LR HOTELS

Mark	Description	Date	Appr

GRAND CAYMAN MARRIOTT RESORT COASTAL PROTECTION AND BEACH ENHANCEMENT PROJECT

SECTIONS AND DETAILS (1 OF 3)

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Designed by: YN	Cad by: BG	Date: 2024-10-08	Rev: -
Drawn by: CL		M&N Project No: 241417	
Reviewed by: RVS		Drawing code:	
Submitted by: SUBMITTER'S NAME MOFFATT & NICHOL		Drawing Scale: Plot scale: 1:1 (D SHEET)	

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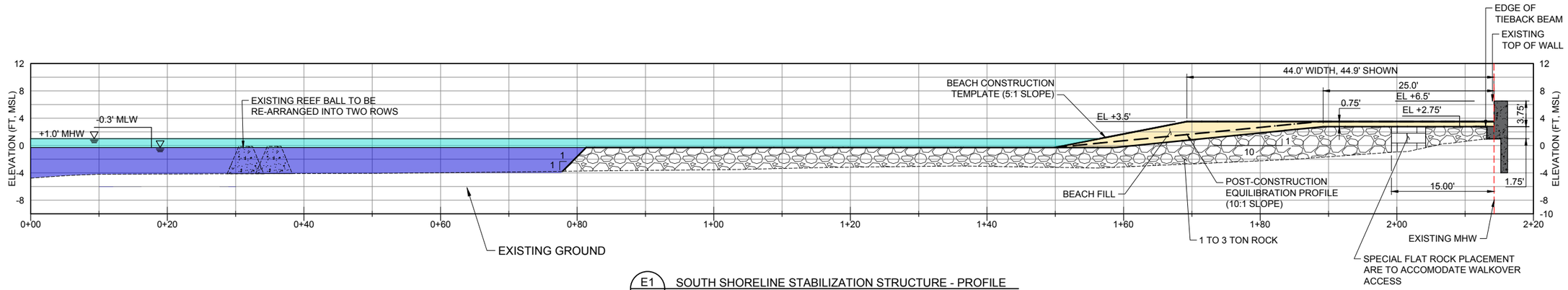
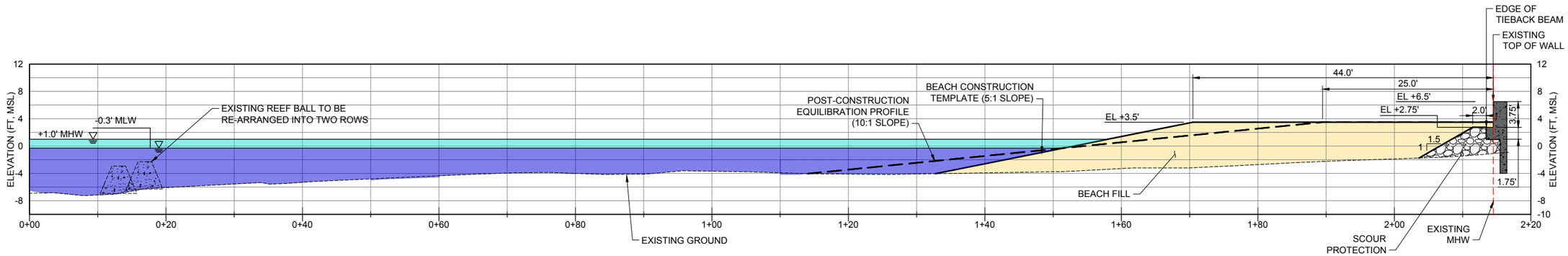


E1 C-102 SOUTH SHORELINE STABILIZATION STRUCTURE - PROFILE
SCALE: 1" = 8'



C1 C-301 BEACH FILL BETWEEN SHORELINE STABILIZATION STRUCTURES - PROFILE
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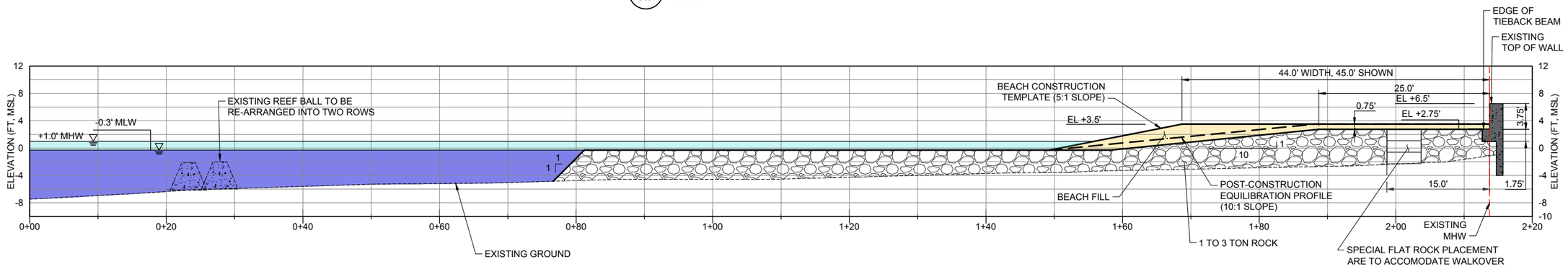

B1 C-102 NORTH SHORELINE STABILIZATION STRUCTURE - PROFILE
SCALE: 1" = 8'

LEGEND

- EXISTING GROUND
- BEACH FILL
- 1 TO 3 TON ROCK
- FLAT ROCK PLACEMENT
- SCOUR PROTECTION
- MEAN LOW WATER (-0.3 FT, MSL)
- MEAN HIGH WATER (+1.0 FT, MSL)
- EXISTING REEFBALL
- EXISTING MHW

NOTES:

1. ALL EXISTING HABITAT IN THESE SECTIONS HAVE BEEN CLASSIFIED AS RUBBLE AND DEBRIS WITH SOME SAND.

8' 0' 8' 16'
SCALE: 1"=8'

PERMIT DRAWINGS
ISSUED: 2024-11-21
NOT TO BE USED FOR CONSTRUCTION

LR HOTELS

Rev.	Description	Date	Appr.
-			

GRAND CAYMAN MARRIOTT RESORT COASTAL PROTECTION AND BEACH ENHANCEMENT PROJECT

SECTIONS AND DETAILS (2 OF 3)

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Date:	2024-10-08
M&N Project No.	241417
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Drawn by:	CL
Cad by:	BG
Reviewed by:	RVS
Submitted by:	SUBMITTER'S NAME MOFFATT & NICHOL

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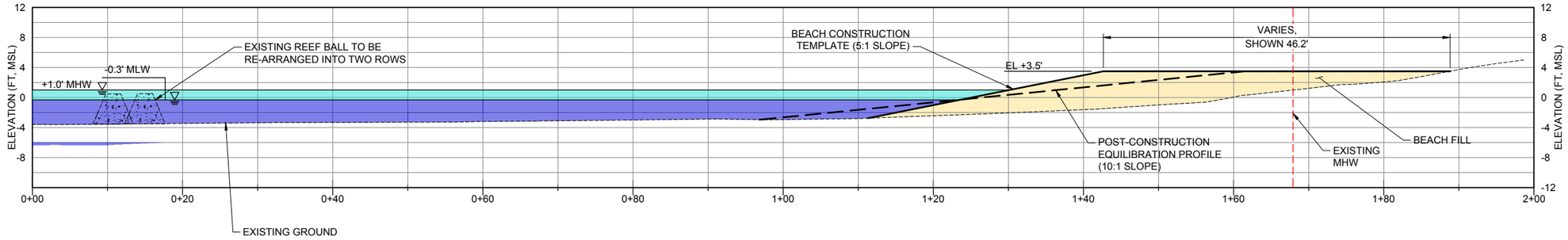

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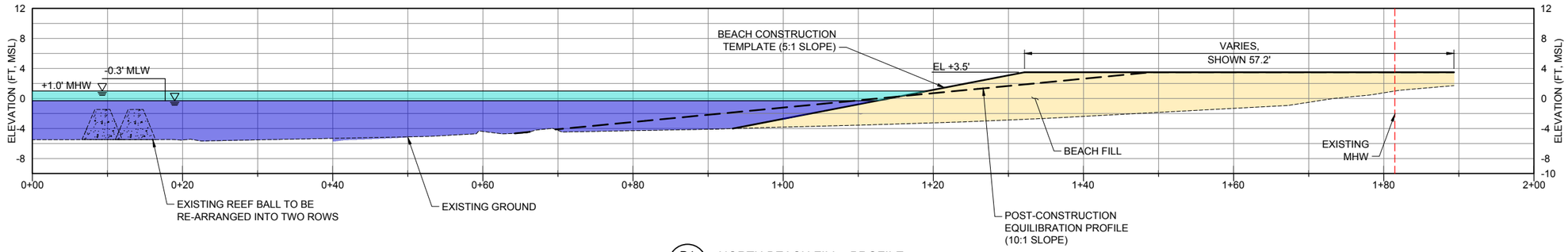

B1 / C-102 NORTH BEACH FILL - PROFILE
SCALE: 1" = 8'

LEGEND

- EXISTING GROUND
- BEACH FILL
- MEAN LOW WATER (-0.3 FT, MSL)
- MEAN HIGH WATER (+1.0 FT, MSL)
- EXISTING REEFBALL
- EXISTING MHW

NOTES:

1. ALL EXISTING HABITAT IN THESE SECTIONS HAVE BEEN CLASSIFIED AS RUBBLE AND DEBRIS WITH SOME SAND.

8' 0' 8' 16'
SCALE: 1"=8'

PERMIT DRAWINGS
ISSUED: 2024-11-21
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LR HOTELS

Mark	Description	Date	Appr

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SECTIONS AND DETAILS (3 OF 3)

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Rev.	Date	Designed by:	Dwn by:	Ckd by:	Reviewed by:	Submitted by:	M&N Project No.	Drawing code:	Drawing Scale	Plot scale: 1:1 (D SHEET)
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WP-02: Marriott EIA Motion (DRAFT)

1) The Grand Cayman Marriott Resort has applied for a coastal works permit to construct coastal protection and beach enhancements.
2) The coastal works application has been reviewed by the Department of Environment under delegated authority of the National Conservation Council.
3) The proposed activity falls within the activities listed in National Conservation Council's (NCC) Directive for Environmental Impact Assessments (EIAs).
4) As such it has been referred to the NCC to decide if an EIA is required or not. (Under the Directive only the NCC can make this decision.)
5) The Department of Environment Screening Opinion (WP-01) has been presented to the Council to provide the basis for the Council to make its decision.

It is therefore decided that the proposed Grand Cayman Marriott Resort coastal protection and beach enhancement project, as proposed and reviewed

a) Does require an EIA
b) Does Not require an EIA
c) Requires additional specific information before the NCC can reach a decision on whether an EIA is needed or not.

Mover:

Seconder:

For:

Against:

Abstain: