

The Lighthouse Green Fuels Order

Application Reference: EN0110025

Applicant: LGF Projects Limited

Marine Works Indicative Proposed Section

Document Reference: 2.8.3

Revision: 00

APFP Reg. 5(2)(o)

Document information

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Author	Arup

Revision record

00	Purpose	DCO Application Submission
	Date	September 2026

Information classification

Information Classification	Date	Reason
Public	September 2026	Proprietary information which will have no impact on the company if disclosed publicly

A1

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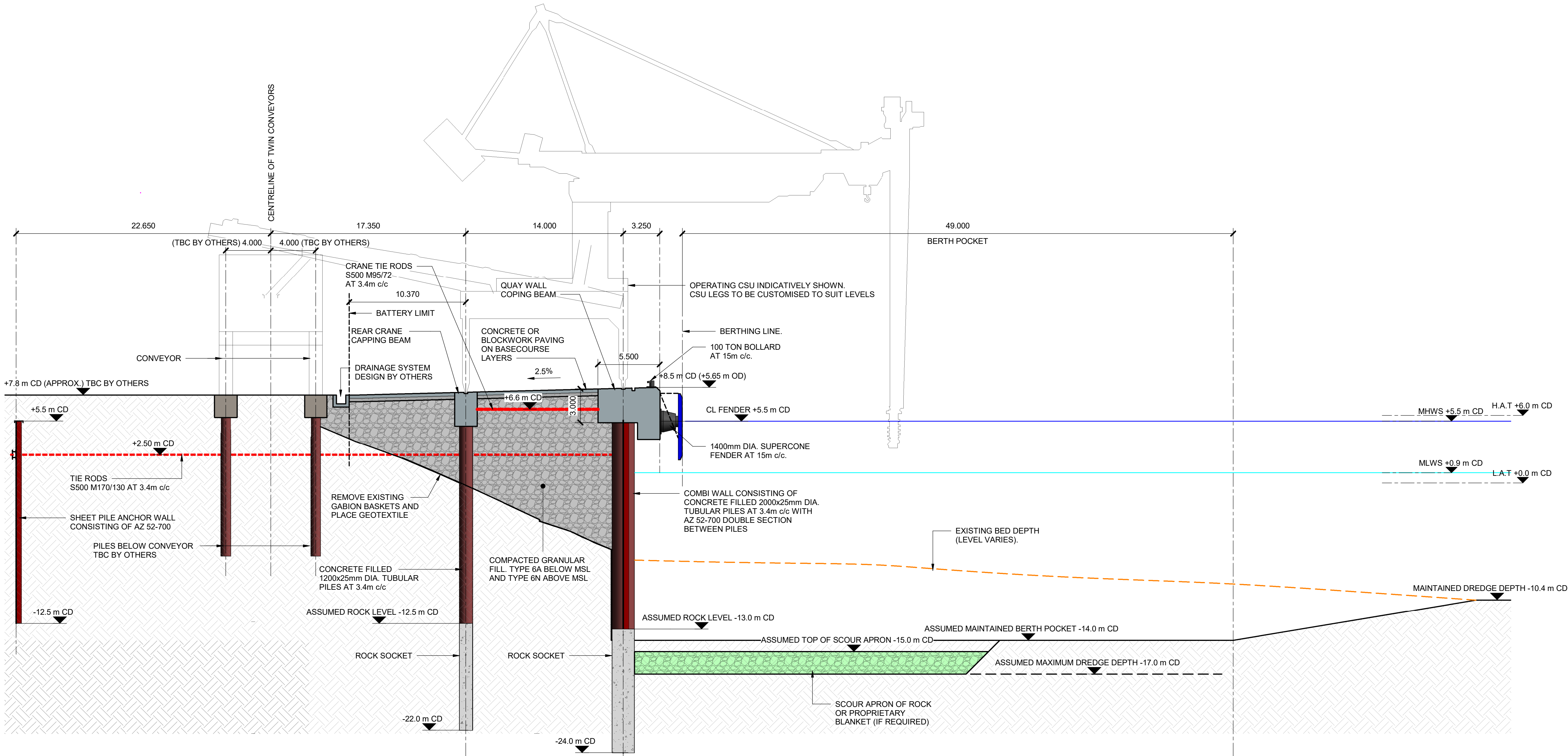
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DETAIL 1A
TYPICAL QUAY CROSS SECTION
SCALE 1 : 200

KEY

- MHWS
- MLWS
- SCOUR PROTECTION
- LINE OF EXISTING SEABED
- TIE RODS

TIDAL STATE	2025 (m CD)	2080 (m CD)
HIGHEST ASTRONOMICAL TIDE (H.A.T)	+6.0	+6.44
MEAN HIGH WATER SPRINGS (MHWS)	+5.5	+5.94
MEAN HIGH WATER NEAPS (MHWN)	+4.3	+4.74
MEAN SEA LEVEL (MSL)	+3.15	+3.59
MEAN LOW WATER NEAPS (MLWN)	+2.0	+2.44
MEAN LOW WATER SPRINGS (MLWS)	+0.9	+1.34
LOWEST ASTRONOMICAL TIDE (L.A.T)	+0.0	+0.44

TIDAL LEVELS FOR 2025 BASED ON RIVER TEES ENTRANCE FROM UKHO ADMIRALTY TOTAL TIDE (EXTRACTED ON 21/07/2025). TIDAL LEVELS FOR 2080 INCLUDE A SEA LEVEL RISE ALLOWANCE BASED ON UKCP18 RCP8.5 70TH PERCENTILE (HIGHER CENTRAL).

- NOTES:
- ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
 - ALL LEVELS ARE GIVEN IN METRES CHART DATUM (m CD) WHICH IS 2.85m BELOW ORDINANCE DATUM (NEWLYN).
 - THIS DRAWING MUST BE READ IN COLOUR.
 - ALL PROPOSED DREDGE DEPTHS ARE MAINTAINED DREDGE DEPTHS UNLESS NOTED OTHERWISE.
 - VIEWS SHOWING STRUCTURAL COMPONENTS SUCH AS PILES, ANCHOR WALLS AND TIE RODS ARE INDICATIVE AND INTENDED TO CONVEY THE GENERAL ARRANGEMENT AND FOOTPRINT OF THE PROPOSED LAYOUT UNLESS NOTED OTHERWISE.
 - OTHER QUAY FURNITURE OMITTED FOR CLARITY.
 - GROUND TREATMENT AND/OR GROUND SURCHARGE MAY BE REQUIRED TO MITIGATE DIFFERENTIAL SETTLEMENT. SUBJECT TO THE FINDINGS OF THE GROUND INVESTIGATION. THE NATURE AND EXTENT OF ANY SUCH MEASURES WILL BE CONSIDERED AND DEVELOPED AT SUBSEQUENT STAGES OF DESIGN. BACKFILL BEHIND THE QUAY WALL WILL INDUCE SETTLEMENT IN SOFT ALLUVIAL CLAYS AT DEPTH. IT IS PROPOSED TO USE PRELOADING (BY SURCHARGE BUND LOADING) AND/OR GROUND TREATMENT TO MITIGATE THIS SETTLEMENT. BEFORE SURFACE FINISHES ARE CONSTRUCTED TO MANAGE THE DURATION OF THE PRE-LOADING PERIOD, IT IS SUGGESTED THAT ALLOWANCE IS MADE FOR THE PROVISION AND INSTALLATION OF "BAND DRAINS". THESE CLOSE-CENTRED VERTICAL GEOFABRIC SOCK DRAINS REDUCE THE DRAINAGE PATH OF PORE PRESSURE AND CAN BE DESIGNED AND OPTIMISED TO ACHIEVE THE PRE-LOADING PROGRAMME AIM. THIS DESIGN SHOULD BE UNDERTAKEN WHEN THE MARINE/QUAY GROUND INVESTIGATION IS CONCLUDED.
 - DRAINAGE ELEMENTS ARE SHOWN FOR COORDINATION AND CONTEXTUAL PURPOSES ONLY. THESE ELEMENTS ARE INDICATIVE AT THIS STAGE. THEIR DETAILED DESIGN WILL BE DEVELOPED AT SUBSEQUENT STAGES AND IS THEREFORE SUBJECT TO CHANGE.
 - THE BATTERY LIMIT SHOWN HAS BEEN ADOPTED FOR THE SCHEME DESIGN. FURTHER CONSIDERATION OF THE INTERFACE WITH TIE RODS AND ANCHOR WALLS WILL BE REQUIRED AT SUBSEQUENT STAGES OF DESIGN, AND THE BATTERY LIMIT MAY BE REVISED ACCORDINGLY.

NOTE: ALL DETAILS AND DIMENSIONS SHOWN ARE INDICATIVE ONLY AND SUBJECT TO DETAIL DESIGN.

Issue	Date	Description
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Scale 1:200@ A1, 1:400@ A3
0 2 4 6 8 10

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Client
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Lighthouse
GREEN FUELS

Project Title
LIGHTHOUSE GREEN FUELS
PROJECT

DCO APPLICATION

Drawing Title
2.8.3 MARINE WORKS
INDICATIVE PROPOSED SECTION
APFP Reg. 5 (2)(o)

Scale at A1	As indicated	Dsg/Drw/Chkd/Appd YS/JDW/CU/CB
Role	CIVIL - MARITIME	
Status	FOR DCO APPLICATION SUBMISSION	
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ID	2.8.3	

