# Relevant Background Information

Given below is the relevant background information.

## 1. Project Scope:

The scope of Works under this Contract is divided into five parts as follows:

- 1. Harbour 1
- 2. Harbour 2
- 3. Channel between Economical Zone and Residential Area, (Channel 2)
- 4. Beach Formation
- 5. Shore Protection for Convention Centre Area

Please see attachment for more details.

#### 2. Design and Specifications:

The design has been done by the employer. Design and engineering where required by the Contractor, shall be specified in the Contract and shall be subject to the Employer's approval.

### 3. Type of Contract and Agreement:

The agreement will be based on the Conditions of Contract for Construction," First Edition 1999, with further amendments, prepared by the Fédération Internationale des Ingénieurs -Conseils (FIDIC).

The Contract will be a Lump Sum contract. However, the works will be measured, and valued for payment. This method of payment will be used as a progress monitoring tool.

## Method of Implementation:

The contractor will be expected to bring in all materials, machinery, equipment and necessary labour. The contractor will be expected to provide food and lodging for all management staff and labour at site. The contractor will have to conform to the Laws of the Republic of Maldives in all respects in executing the works.

The Employer shall not provide any materials for the works. The Employer shall not supply water for the works during construction and shall not provide electric power supply for the Site office, construction Works and storage facility. The Contractor shall arrange water and electricity for the project and all related works and the Contractor shall provide power generators as necessary.

#### 5. Time for Completion:

The duration for completion of the works has to be proposed by the bidder (Maximum 630 calendar days)

#### 6. Customs Duties and Taxes:

The Employer will provide reasonable assistance and facilitate (by providing any required documents) in obtaining exemptions for Customs duties for imports of materials, machinery and equipment related to the contract of this Project. However, Taxes applicable under local regulations will be applicable throughout the Project. If exemption is not then granted, for the above mentioned duties then the contractor shall pay such duties and it will be reimbursed by the Employer.

#### 7. Funding

The Employer has obtained financing from the Saudi Fund for development (SFD) for the funding of project.

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## 8. Advance payment:

If the contract is awarded;

The contractor will be entitled to an advance payment of 15% of the agreed contract sum, upon submission of an acceptable Bank Guarantee. The advance shall be deducted at a rate of 15% of each and every certified interim payment.

### 9. Performance Security:

The contractor will have to submit a Performance Security equal to 10% (Ten percent) of the contract sum. This Security should be valid throughout the contract and defects liability period.

## 10. Retention Monies:

If the contract is awarded;

Retention will be deducted at 10% (Ten percent) of each and every interim payment, up to a maximum of 5% (five percent) of the contract sum. Retention will be released on completion of the defects liability period, subject to making good all defects.

#### 11. Defects liability period:

The defects liability period will be one year after practical completion and handover of the works.

## 12. Liquidated damages:

Liquidated penalty damages will be levied at the rate of 0.25% (naught point one) for each and every day's delay in completion by the contractor, up to a maximum of 10% of the final contract price, less time of extensions granted.

#### 13. Language of Contract:

The language of the contract shall be English and the contractor will be expected to have site staff competent in English or provide translators where necessary.

### 14. Submission of bids:

All applicants who have obtained bid documents will be expected to submit their bids within the dates as specified in Section 1 (Invitation to Tender).

#### 15. Validity of bids:

Validity period of the Bid will be 90 days from the date of submission.

### 16. Bid Security:

Bid security of this project is USD 900,000.00

### 17. Material transport to the island:

For the transport of the Materials to the Hulhumalé' island, contractors has to follow the local rules and regulations and has to bear all the cost involved.

## 18. Contractors Yard (Temporary Land):

Contractors yard to be allocated within the site.

#### 19. Engineer's Estimate:

The Engineer's Estimate for this project is USD 36,477,000.00 (inclusive of GST 6%)



## ATTACHMENT

The scope of Works under this Contract is divided five parts as follows:

- 1. Harbour 1
- 2. Harbour 2
- 3. Channel between Economical Zone and Residential Area,(Channel 2)
- 4. Beach Formation
- 5. Shore Protection for Convention Centre Area

The location of each sub-project is indicated on the layout plan given in Figure 1.

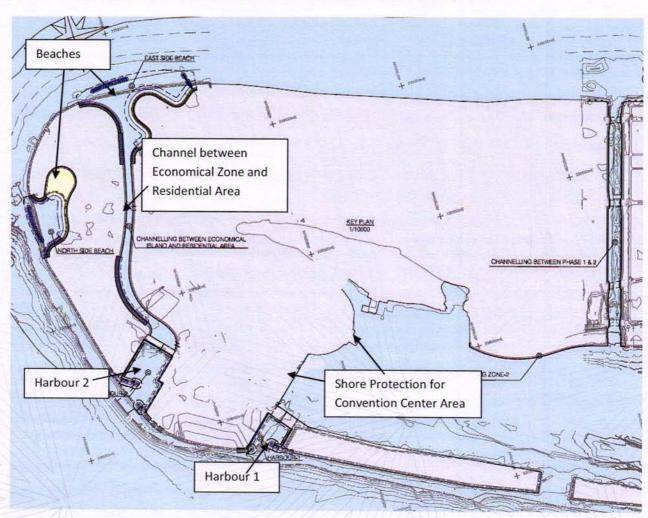


Figure 1. Project Location





## Additional Information

#### 1. Harbour 1

Harbour 1 is a small shelter at western side of the reclamation for berthing of coast guard and marine custom police vessels. The harbour has a rectangular shape with total perimeter of 575 meters.

The southern quay wall is in 140 meters in total length and will be constructed by precast concrete blocks. The net water depth in the harbour is MSL-4.35m. The top level of the quay wall will be at MSL+1.40m.

Other edges of the harbour basin will be formed by rock revetment to prevent wave disturbance. At eastern edge there will be a causeway to connect the basin with the inner lagoon waters. A navigation channel with the same depth will be dredged towards west to create an access route.

The harbour will be protected against wave action by means of two short breakwaters built as an extension to the existing rock revetment. Breakwaters are rouble mound type with 1-3-ton rock armour layer for trunk section and 2-4-ton rock armour layer for head section.

A list of civil works for construction of the Harbour 1 is:

- · Removal of existing rock revetment with total length of 200 m
- Excavation/dredging of navigation channel and the harbour basin to MSL-4.35m
- Construction of breakwaters
  - Core layer of 1-300 kg
  - Filter layer of 100-400 kg
  - Armour layer of 1-3 ton for trunk section
  - Armour layer of 2-4 ton for head section
- · Construction of revetments
  - Core layer of 1-300 kg
  - o Armour layer of 100-400 kg
- Foundation excavation/dredging to MSL-6.35m
- · Construction of quay wall foundation
  - Rubble foundation of 45-125 mm
  - Bedding of 20 mm crushed rock
- Production and placement of concrete blocks with total number of 467
- Supply and placement of geotextile
- Construction of scour protection in front of the quay walls
  - o PC blocks in front of the bottom block
  - o 60-300 kg rock
- Surcharging
- Construction of in-situ capping concrete
- Construction of utility channels
- Backfilling behind channel wall
  - o Rock fill of 1-300 kg





- · Construction of compacted fill behind the walls
- · Supply and installation of mooring accessories
- Supply and installation navigation lights
- · Construction of causeway

Exclusions: Landscaping,

#### 2. Harbour 2

Harbour 2 is a small marina at western side of the reclamation and to the north of Harbour 1. It is designed exclusively for the visitors of Economic Island and only small motor boats will be using the facility. The harbour has a rectangular shape with total perimeter of approx. 755 meters.

The northern quay wall is in 168 meters in total length and will be constructed by precast concrete blocks. The net water depth in the harbour is MSL-4.35m. The top level of the quay wall will be at MSL+1.40m.

Other edges of the harbour basin will be formed by rock revetment to prevent wave disturbance. At eastern edge there will be a causeway to connect the basin with the channel between economic island and residential zone.

A navigation channel with the same depth will be dredged towards west to create an access route.

The harbour will be protected against wave action by means of two short breakwaters built as an extension to the existing rock revetment. Breakwaters are rouble mound type with 1-3-ton rock armour layer for trunk section and 2-4-ton rock armour layer for head section.

A list of main civil works for construction of the Harbour 2 is:

- · Removal of existing rock revetment with total length of 235 m
- Excavation/dredging of navigation channel and the harbour basin to MSL-4.35m
- Construction of breakwaters
  - Core layer of 1-300 kg
  - o Filter layer of 100-400 kg
  - o Armour layer of 1-3 ton for trunk section
  - Armour layer of 2-4 ton for head section
- · Construction of revetments
  - o Core layer of 1-300 kg
  - o Armour layer of 100-400 kg
- Foundation excavation/dredging to MSL-6.35m
- Construction of guay wall foundation
  - Rubble foundation of 45-125 mm
  - Bedding of 20 mm crushed rock
- Production and placement of concrete blocks with total number of 562
- Supply and placement of geotextile





- Construction of scour protection in front of the guay walls
  - PC blocks in front of the bottom block
  - o 60-300 kg rock
- Surcharging
- · Construction of in-situ capping concrete
- · Construction of utility channels
- Backfilling behind the quay wall
  - o Rock fill of 1-300 kg
- Construction of compacted fill behind the walls
- · Supply and installation of mooring accessories
- · Supply and installation navigation lights
- Construction of causeway and pavements

Exclusions: Landscaping,

## 3. Channel between Economical Zone and Residential Area,(Channel 2)

The channel will be providing recreational areas along its banks and it has a major function of separating these two zones.

The channel banks are designed with multiple structures. In some areas it will have vertical wall and in others vegetated slopes will be formed to provide to give a natural look. Total length of the channel is approximately 950 meters and average width is around 25 meters. Net water depth of MSL-1.85m is provided in the channel.

The channel will be connected to the Harbour 2 via a causeway at western side. At eastern side it opens to the beach area designed for the upscale residential area planned at this side.

The civil works for building the channel are:

- Excavation/dredging of channel to MSL-1.85m
- Foundation excavation/dredging to MSL-3.15m
- · Construction of quay walls (Reinforced precast concrete L shape) foundation
  - Rubble foundation of 45-125 mm
  - Bedding of 20 mm crushed rock
- Production and installation of Precast Concrete L shape wall units with a total length of about 1.120m
- Supply and placement of geotextile
- Construction of scour protection in front of the walls
  - 30-150 kg rock
- Surcharging
- Construction of in-situ capping concrete
- Construction of compacted fill behind the walls
- Supply and installation of geotextile container
- · Supply and installation of geoweb elements

Exclusions: Landscaping,



### 4. Beaches Formation

There are two beach areas in the project one at north in the economic zone and the other at east at the end of channel separating this zone from the residential area.

Beach at north has an approximate shoreline length of 200 meters and beach at east has 500 meters. Both beach areas are protected against wave action by means of offshore breakwaters constructed at a distance from the beach lines. Offshore breakwaters will be constructed as rock fill with 1-3 ton rocks at cover layer. Additionally a rock groin will be constructed at east beach to limit the longshore transport of the beach sands.

Formation of the beach areas will require partial demolition of the existing rock revetment in the area. An opening will be created for the beach zones along the revetment at indicated locations in the Drawings. In these areas, the existing revetment rocks will be removed for use in other parts of the projects.

Main civil works for the formation of beaches are as follows:

- · Removal of existing rock revetment with total length of 743 m
- Excavation/dredging in beach areas to MSL-1.85m
- Construction of beach formations
  - Slope of 1V:8H
  - o Bottom level of MSL-1.85m
  - Reef clearing
  - o Top elevation of MSL+1.40m
  - Minimum beach width of 15 meters
- Supply and installation of geotextile container
- Supply and placement of geotextile
- Surcharging
- · Construction of compacted fill behind the revetment
- Construction of offshore breakwaters with 1-3 ton rocks
- Construction of rock revetments
  - o Core layer of 1-300 kg
  - o Filter layer of 100-400 kg
  - Armour layer of 1-3 ton
- Construction of groin
  - Core layer of 1-300 kg
  - Armour layer of 0.3-1 ton

Exclusions: Landscaping,





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#### 5. Shore Protection for Convention Centre Area

Shore protection for Convention Centre Area is the waterfront structure at North side of Main Marina. The project consists of concrete blockwork wall and beach formation at the east side of the area.

The total length of the structure is approx. 556 meters. Since the water depth along the structure varies considerably, quay walls with three different front depths will be constructed in this area.

Shore Protection for Convention Centre area is the waterfront structure at North side of Main Marina. The area is not reclaimed at present and construction shall be mostly executed from water, the water depths reach up to 6-7 meters.

The plan of the structure is in the form of straight and circular walls attached to each other.

Since the water depth along the structure varies considerably, quay walls with two different front depths will be constructed in this area.

The top level of the wall is at MSL+2.00m.

The scope includes;

- · Excavation/dredging in front of the wall
  - o to MSL-3.35m for Type 1
  - o to MSL-5.35m for Type 2
  - o to MSL-2.05m for Type 3
  - o to MSL -1.10m for Type 4
- Construction of quay wall foundation
  - Rubble foundation of 45-125 mm
  - Bedding of 20 mm crushed rock
- Production and placement of concrete blocks with total number of 1,873
- · Supply and placement of geotextile
- Construction of scour protection in front of the walls
  - o PC blocks in front of the bottom block
  - o 30-150 kg rock
- Surcharging
- Construction of in-situ capping concrete
- Backfilling behind the quay wall
  - o Rock fill of 1-300 kg
- Construction of compacted fill behind the quay wall
- Dismantling of temporary jetties
  - Temporary Jetty 1
  - Temporary Jetty 2
  - Existing Dive Centre and Jetty



Exclusions: Landscaping



In addition to specified civil works as described above for each sub-project, work scope also includes;

- (a) Acquisition of all necessary permits from the relevant statutory Authorities. HDC will assist by providing assistance letters to the selected Contractor and by attending relevant meetings with the Authorities.
- (b) Review of all designs prior to start of construction and preparation of revisions if necessary.
- (c) Supply of all sorts of materials, equipment, machinery and work force required for the completion of the civil works within the scope.
- (d) Pre and post dredging/excavation/reclamation surveys as well as interim surveys for progress monitoring.
- (e) Soil improvement of the reclaimed material as outlined in the tender drawings and relevant specifications.
- (f) Disposal at an approved disposal site of the dredged/excavated material unsuitable for the purpose of the intended backfilling or reclamation works.
- (g) Environmental Monitoring as per the requirements of the concerned authorities.
- (h) Preparation and implementation of a Construction Environmental Management Plan (CEMP) in line with the requirements of the concerned authorities.
- (i) Weather monitoring (wind, rainfall, sea level and wave) during construction period.
- (j) Interface management, coordination and cooperation with other contractors working within the same area (i.e. landscape contractor, road and bridge contractor, etc.).



