



# MOGADISHU PORT DEVELOPMENT, REHABILITATION, MANAGEMENT, OPERATION AND MAINTENANCE CONCESSION AGREEMENT

## CIVIL WORKS PACKAGE 1: PRELIMINARY ITEMS PURCHASE PATTERN : (IS LESS THAN 250.000 USD)

QUAY WALL CONDITION SURVEY PURCHASE ORDER											
AUTHORITY'S REPRESENTATIVE:			Se			CONCESSIONNAIRE:					
Produced by	Тур	e Key word			Rev. Indices	Date					
DTO	CWK	SCW	001	SE1	DMB	01	07.05.2021				
DTO	CWK	SCW	001	SE1	DMB	00	24.03.2021				

# **PROCUREMENT ORDER**

## for

# **QUAY WALL CONDITION SURVEY**

## **Table of Contents**

1	INTRODUCTION	2
2	PARTIES	2
3	SCOPE OF THE WORK	3
4	SCHEDULE	4
5	METHOD OF STATEMENT	4
	5.1. Above Water Level Inspection	5
	5.2. Quay Walls Inspection (Under Sea Level)	5
	5.3. Verticality of Quay Walls (Under Sea Level)	7
	5.4. Sheet Pile Quays (Under Sea Level)	8
6	DELIVERIES	9
7	AGREEMENT1	0

## **Table of Figures**

Figure 1: Mogadishu Port, Somalia	2
Figure 2: Quay Wall Inspection Layout	3
Figure 3: Placement of Reference Ropes	6
Figure 4: Sample Profile for Block Quay Walls	6
Figure 5: Verticality Measurement	7
Figure 6: Block Quay Wall Section	7

## 1 INTRODUCTION

Mogadishu Alport Corp. Albayrak-Somalia intends to examine the current situation of the quays in Mogadishu Port in order to determine the depth/elevation of the existing quay wall foundation, assess the condition of underwater quay walls and inspect the above water level including the existing pavement (within the cope area, ~25m from cope line) and quay furniture (bollards, ladders, fenders or missing items if any etc.)



Figure 1: Mogadishu Port, Somalia

Within the scope of the work, a visual inspection is to be performed by an expert diver via diving. Also the above water level, pavement and quay furniture shall be assessed by competent professionals. Due to these reasons, the work is intended to be outsourced to an eligible Contractor having proper experience in this field and preferably in the location of the work, Mogadishu.

## 2 PARTIES

**The Authority:** Ministry of Ports and Marine Transport represented by the Mogadishu Port Authority

**The Employer:** Ministry of Ports and Marine Transport represented by the Mogadishu Port Authority and Mogadishu Alport Corp. Albayrak-Somalia

**The Engineer:** HPC Hamburg Port Consulting GmbH and Sellhorn Ingenieurgesellschaft mbH J.V.

### 3 SCOPE OF THE WORK

Below figure indicates the quays in Mogadishu Port marked with green line which will be inspected within the scope of this work.



Figure 2: Quay Wall Inspection Layout

Cumulative length of the quay wall inspection is approximately 1,100 m as shown in Figure 2.

The Contractor is to perform anything necessary to complete the work including the followings but not limited to:

The procurement of all kinds of materials, equipment, manufacturing, assembly, all kinds of workmanship, any relevant expense for labors including flight tickets, tools, hand tools, horizontal and vertical transportation thereof, general expenses, all kinds of taxes, insurance premiums, relevant quality control, planning, organization, conducting the necessary tests and inspections, supplying models, services, all other activities required by the work as mentioned within this document.

Importing or exporting of any material, plant, machinery, equipment or any other delivery of the goods related to the Work shall be in the responsibility of the Contractor including clearance through customs. Any custom duties, custom fees or custom taxes that may arise due to importing and exporting activities shall be borne by the Contractor mentioned within this document.

Cost and expenses regarding support vessel, accommodation, food etc. during the Work shall be borne by the Contractor.

In relation to the execution of the Works, the Employer shall provide all permits, permissions, licenses and/or approvals etc. as required/applicable by the Laws/the Authority and shall borne all related taxes, duties and fees. The Contractor shall be responsible to comply with the conditions of obtained permits, permissions, licenses and/or approvals.

#### 4 SCHEDULE

The Work is to be executed within the second half of May 2021.

#### 5 METHOD OF STATEMENT

The condition of the quays shall be inspected. Following the inspection, a site plan, surface profile, quay sections and a report shall be prepared in order to represent the status of the quays.

Below condition assessment ratings and damage grade system should be used through inspections for underwater quay walls, above water level and quay furniture. Damage grades must be specifically defined in terms of cross-sectional loss, crack widths, causation, location of damage, etc. Damage grade system should be applied for each individual quay furniture. (to be indicated on drawings, sections etc.)

Rating		Description							
6	Good	No visible damage or only minor damage noted. Structural elements may show very minor deterioration, but no overstressing observed. No repairs are required.							
5	Satisfactory	Limited minor to moderate defects or deterioration observed but no overstressing observed. No repairs are required.							
4	Fair	All primary structural elements are sound but minor to moderate defects or deterioration observed. Localized areas of moderate to advanced deterioration may be present but do not significantly reduce the load- bearing capacity of the structure. Repairs are recommended, but the priority of the recommended repairs is low.							
3	Poor	Advanced deterioration or overstressing observed on widespread portions of the structure but does not significantly reduce the load-bearing capacity of the structure. Repairs may need to be carried out with moderate urgency.							
2	Serious	Advanced deterioration, overstressing, or breakage may have significantly affected the load-bearing capacity o primary structural components. Local failures are possible, and loading restrictions may be necessary. Repairs may need to be carried out on a high-priority basis with urgency.							
1	Critical	Very advanced deterioration, overstressing, or breakage has resulted in localized failure(s) of primary structural components. More widespread failures are possible of likely to occur, and load restrictions should be implemented as necessary. Repairs may need to be carried out on a very high-priority basis with strong urgency.							

Scale	Damage							
0	No Damage							
1	Minor Damage							
2	Moderate damage							
3	Major Damage							
4	Severe Damage							

#### Damage Grade Scale:

The Inspection shall be carried out in four stages as summarized below.

#### 5.1. Above Water Level Inspection

- a. The condition of crown wall shall be visually inspected (cracks, spalling, breaks, cavities etc.)
- b. The condition of fenders, bollards and stairs shall be visually inspected (inspection of quay furniture).
- c. The condition of the surface pavement in the cope area (~25m from cope line) shall be visually inspected.
- d. The inspection of above water level concrete blocks should be supplemented by audio methods, such as dragging a chain over the deck to find hollow-sounding areas, which indicate delamination and potential spalls.

#### 5.2. Quay Walls Inspection (Under Sea Level)

- a. The condition of the quay walls will be inspected by divers under the sea.
- b. Under the sea, inspection of the quay walls will be recorded by video and reported also by photos.
- c. The location, size and characteristics of the cracks, breaks, decays, washouts, deterioration, weathering, spalling (surface defect due to accidental impact on the facing or edge of a hardened concrete element) and cavities on the concrete block quay surface shall be inspected.
- d. If present, marine growth shall be removed at least 10% of the quay surface for the inspection.
- e. Besides the quay wall structural elements, its foundation layer shall be identified and inspected as far as possible.

The inspection shall commence with the identification of the quay structure and equipment. Structures with concrete blocks shall be marked with green and blue ropes, spaced 5m each, with the following Figure 3:

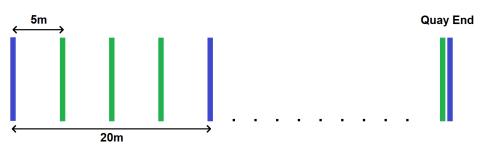
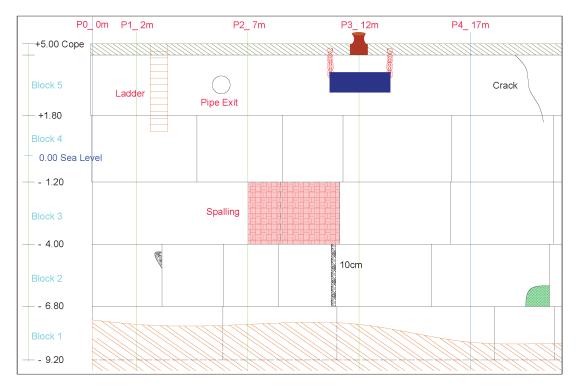


Figure 3: Placement of Reference Ropes

- blue rope at the start and every 20m
- 3 green strings between the blue strings
- 2 ropes (green and blue) at the end of each platform

After these different types of spotting, the divers will be able to make underwater videos and drawings shall be prepared which can be processed to identify the different degradations in the structure of the quays.

The inspection should also include water depths at defined locations to aid in determining scour and/or sediment deposition rates and possibly debris surveys.



Below Figure 4 indicates the sample profile for block quay walls.

Figure 4: Sample Profile for Block Quay Walls

## 5.3. Verticality of Quay Walls (Under Sea Level)

a. Verticality of concrete block quays will be measured

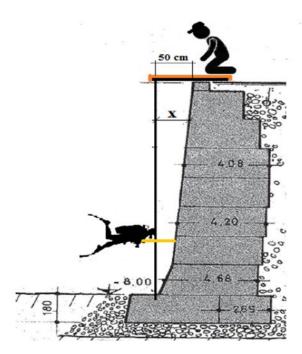


Figure 5: Verticality Measurement

For structures with quay concrete blocks, the Contractor shall also carry verticality out measurements. The process consists of deploying a rope 50cm from the face of the crown (which serves as a reference point) and taking the measurements between the rope and the face of the block (high point and low point of each block, Figure 5).

At the same time with the Double decameter, the diver shall measure the depth of the dock.

This operation will be carried out every 5 meters.

 b. The summary of elevation and verticality of quay Wall and fenders, stairs and bollards shall be prepared as below example (Figure 6).

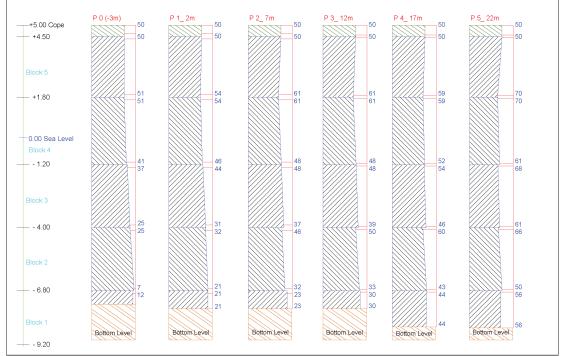


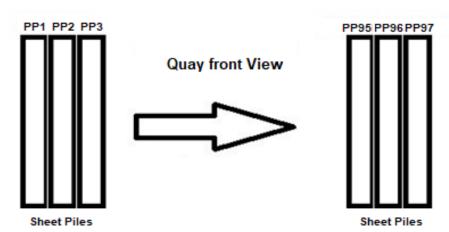
Figure 6: Block Quay Wall Section

#### 5.4. Sheet Pile Quays (Under Sea Level)

For sheet pile quays, in addition to the Site Plan and Profile, a table indicating the identification number and the measured thickness of the sheet piles shall be prepared as in example below.

Thickness of the steel sheet piling shall be measured with the CYGNUS or an equivalent tool.

If the inspected sheet piles exhibit significant corrosion that could affect the load-carrying capacity of the structure, then corrosion profiling should be performed to establish the extent of corrosion as it varies along the height of the structure.



Position	PP1	PP2	PP3	PP4	PP5	PP6	PP7	PP8	PP9	PP10	PP11	PP12	PP13	PP14	PP15
Thickness (mm)	14,1	12,3	14	12,8	12,2	13	14,6	13,1	13	12,3	12,5	12,8	13,2	12,7	12,3
Position	PP16	PP17	PP18	PP19	PP20	PP21	PP22	PP23	PP24	PP25	PP26	PP27	PP28	PP29	PP30
Thickness (mm)	14,3	13,9	12,5	12,4	12,6	13,1	13,9	13,7	12,7	11,2	12,4	12,5	13,3	12,3	13,4
Position	PP31	PP32	PP33	PP34	PP35	PP36	PP37	PP38	PP39	PP40	PP41	PP42	PP43	PP44	PP45
Thickness (mm)	12,3	12,7	12,2	14	12,6	14,1	13,4	ххх	12	11,9	12,5	14,4	11,6	12,5	12,2
Position	PP46	PP47	PP48	PP49	PP50	PP51	PP52	PP53	PP54	PP55	PP56	PP57	PP58	PP59	PP60
Thickness (mm)	12,6	12,3	13,6	13,5	13	11,8	13,5	12,9	12	13,1	12	11,7	12,2	10,3	10,3
Position	PP61	PP62	PP63	PP64	PP65	PP66	PP67	PP68	PP69	PP70	PP71	PP72	PP73	PP74	PP75
Thickness (mm)	10,6	11,2	12,6	10,3	11	13,3	13	14	13,4	12,6	14,9	13,5	13,2	14,3	13,6
Position	PP76	PP77	PP78	PP79	PP80	PP81	PP82	PP83	PP84	PP85	PP86	PP87	PP88	PP89	PP90
Thickness (mm)	13,6	14	13,4	12,8	14,4	13,8	14,6	14,8	14	13,5	13,3	14,5	13,6	14,4	14

### 6 DELIVERIES

- 1. Site Plan (schematic layout) showing the Mogadishu Port in the background, berths, type of berths, inspected locations (marked and named in proper manner).
- 2. Profile drawing *(for block quay walls)* in line with the Site Plan showing the surface of the quay walls including blocks, location of the referenced green and blue ropes, quay furniture and defects (cracks, breaks, decays, washouts, deterioration, weathering, cavities etc.).
- 3. Profile drawing *(for sheet pile quay walls)* in line with the site plan showing the number and the thickness of each sheet pile as exemplified in Method of Statement.
- 4. Section for quay walls in each 5m showing the quay wall blocks and their verticality as referenced with green and blue ropes.
- 5. The video and photo inspection recording should feature an on-screen clock, as well as watermarks for the relevant quay sections. Non-relevant video sections such as starting, stopping of inspection should be deleted / edited from the video. The video should be delivered in a standard format playable from Windows 10 Media Player.
- 6. Besides the quay wall structural elements, the quay wall scour protection on the harbor basin shall be identified and the following features shall be recorded: Type and attributes of scour protection, integrity and condition, filter layer condition, horizontal (along quay) and depth (away from quay into basin) extent, thickness extent.
- 7. A written comprehensive report summarizing the present condition of the quay walls, above water level including the cope area/pavement and quay furniture with reference to the inspections made, site photos and prepared drawings (plan, profile and sections). This report shall be revised in accordance with the Employer's/Engineer's comments. The report shall be submitted in digital format preferably in pdf/word.
- 8. All equipment used and the personnel involved in the inspection should be mentioned in the report.
- 9. The report shall include recommended actions to be followed upon completion of the inspection (e.g. emergency action, engineering evaluation, structural repair, no action, etc.) and recommended actions for future maintenance, as well as the recommended interval to the next routine inspection.

Report and drawings shall be submitted in both electronic and hard copy. Report shall be submitted in .pdf format and drawings shall be in .dwg format with proper layer structure.

## 7 AGREEMENT

#### 7.1 DEFINITIONS

**The Authority:** Ministry of Ports and Marine Transport represented by the Mogadishu Port Authority

**The Employer:** Ministry of Ports and Marine Transport represented by the Mogadishu Port Authority and Mogadishu Alport Corp. Albayrak-Somalia

The Contractor: .....

**The Engineer:** HPC Hamburg Port Consulting GmbH and Sellhorn Ingenieurgesellschaft mbH J.V.

## 7.2 INFORMATION REGARDING THE WORK

Under the Concession Agreement signed on date 07.10.2020 between The Government of the Federal Republic of Somalia represented by the Ministry of Ports and Marine Transport and Mogadishu Alport Corp. Albayrak-Somalia, the content of the Agreement is the Quay Wall Condition Survey in Mogadishu Port as detailed in Scope of Work and as described in other parts/sections of the Contract Documents.

#### 7.3 SITE (WORK LOCATION)

City: Mogadishu Country: SOMALIA

#### 7.4 CONTRACT PRICE

This Contract is based on the Fixed Unit Price. Total Contract Price is ...... USD + VAT including any Taxes, Fees and any other relevant expenses.

#### 7.5 TIME FOR COMPLETION

The Contractor shall complete the whole of the Works which is described in the Contract within 15 Calendar Days.

#### 7.6 CURRENCIES OF PAYMENT

All payments shall be paid in US Dollars.

## 7.7 BANK ACCOUNTS

.....

## 7.8 LANGUAGE

The ruling language of this Contract shall be English. In case any part of the Contract (including all Contract Documents) is written in more than one language, the version which is in English language shall prevail. The language that will be used for all types of communications shall be in English.

#### 7.9 LAW

This Contract shall be governed in accordance with the law of The Government of the Federal Republic of Somalia.

#### 7.10 PERMITS

In relation to the execution of the Works, the Employer shall provide all permits, permissions, licenses and/or approvals etc. as required/applicable by the Laws/the Authority and shall borne all related taxes, duties and fees. The Contractor shall be responsible to comply with the conditions of obtained permits, permissions, licenses and/or approvals.

#### 7.11 CUSTOMS

Importing or exporting of any material, plant, machinery, equipment or any other delivery of the goods related to the Work shall be in the responsibility of the Contractor including clearance through customs. Any custom duties, custom fees or custom taxes that may arise due to importing and exporting activities shall be borne by the Contractor.

#### 7.12 PERFORMANCE SECURITY

The Contractor shall not deliver any Performance Security.

#### 7.13 ADVANCE PAYMENT

The Employer shall not pay any Advance Payment.

#### 7.14 SUBCONTRACTING

The Contractor shall subcontract any part of the work or whole of the works described in the Contract by obtaining the Employer's prior consent.

## 7.15 DELAY DAMAGES (DELAY PENALTY)

In case the Contractor is not able to complete the Work described in the Contract within the stated Time of Completion, the Employer shall be entitled to payment of Delay Damages by the Contractor in the amount of 0.1% of the Contract Price for each day of delay. Total amount of delay damage shall not exceed 5% of the Accepted Contract Price.

#### 7.16 ADJUSTMENTS FOR CHANGES IN COST

The Contract Price and the amounts payable to the Contractor shall not be adjusted for rises or falls in the cost of labor, Goods, machinery, equipment, other inputs and any other expense/cost relevant to the Works. No adjustment shall be applied to the Work, the Contract Price is deemed to have included amounts to cover the contingency of other rises and falls in costs valued on the basis of Cost or current prices.

#### 7.17 PAYMENT

Payment Conditions shall be negotiated with the Contractor upon receipt of the proposal prior the signing of the Contract. The Payment shall be transferred to the Contractor's Bank Account specified in the Contract.

#### 7.18 RETENTION

No retention is applicable.

#### 7.19 PAYMENT FOR MATERIAL DELIVERED ON SITE

The Employer shall make no separate/advance payment against the material delivered at the site.

The Contractor

The Employer

Address:

Address:

The Contractor's Representative:

The Employer's Representative: