

بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ



Ministry of Environment and Energy  
Male', Republic of Maldives.

ދިވެހިސަރުކާރުގެ ގެޒެޓް ގައި ބަޔާންކުރި ގަވާއިދުގެ ދަށުން  
ދެވިފައިވާ ނުވަތަ ދެވިދާނެ ގަވާއިދެއް.

އިދާރާތަކާ ބެހޭ ގޮތުން: (IUL) 438-WMPC/1/2017/22

މަސޯލާ 438 ވަނަ ބައި ގަވާއިދުގެ ދަށުން ބަޔާންކުރި ގަވާއިދުގެ ދަށުން  
ދެވިދާނެ ގަވާއިދެއް.

މަސޯލާ 438 ވަނަ ބައި ގަވާއިދުގެ ދަށުން  
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# መጽሐፍ ቅዱስ ስርዓት ማጠቃለያ

3. .... መጽሐፍ ቅዱስ ስርዓት ማጠቃለያ
  4. .... መጽሐፍ ቅዱስ ስርዓት ማጠቃለያ
  4. .... 1. ስርዓት ማጠቃለያ
  4. .... 2. መጽሐፍ ቅዱስ ስርዓት ማጠቃለያ
  5. .... 3. ስርዓት ማጠቃለያ
  5. .... 4. መጽሐፍ ቅዱስ ስርዓት ማጠቃለያ
  5. .... 5. መጽሐፍ ቅዱስ ስርዓት ማጠቃለያ
  7. .... 1. መጽሐፍ ቅዱስ ስርዓት ማጠቃለያ
  8. .... 2. መጽሐፍ ቅዱስ ስርዓት ማጠቃለያ
  9. .... 3. መጽሐፍ ቅዱስ ስርዓት ማጠቃለያ
  14. .... 4. መጽሐፍ ቅዱስ ስርዓት ማጠቃለያ
- ይገባል : 1. መጽሐፍ ቅዱስ ስርዓት ማጠቃለያ | ስርዓት ማጠቃለያ ስርዓት ማጠቃለያ
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  16. .... 2. መጽሐፍ ቅዱስ ስርዓት ማጠቃለያ
  17. .... 3. መጽሐፍ ቅዱስ ስርዓት ማጠቃለያ
  18. .... 4. መጽሐፍ ቅዱስ ስርዓት ማጠቃለያ











## 2: دس لکھوں کا مجموعہ

دس لکھوں کے پندرہ سو سے زائد ہونے پر:

| پندرہ سو کا مجموعہ | تیرے کا مجموعہ | رقم |   |   |   |   |   |   |   |   |   | ذاتی رقم (رقم) | دس لکھوں کا مجموعہ |
|--------------------|----------------|-----|---|---|---|---|---|---|---|---|---|----------------|--------------------|
|                    |                | 10  | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |                |                    |
|                    |                |     |   |   |   |   |   |   |   |   |   |                | سولہ سو سے زائد    |
|                    |                |     |   |   |   |   |   |   |   |   |   |                | سولہ سو سے زائد    |
|                    |                |     |   |   |   |   |   |   |   |   |   |                | دس لکھوں کا مجموعہ |
|                    |                |     |   |   |   |   |   |   |   |   |   |                | دس لکھوں کا مجموعہ |
|                    |                |     |   |   |   |   |   |   |   |   |   |                | دس لکھوں کا مجموعہ |
|                    |                |     |   |   |   |   |   |   |   |   |   |                | دس لکھوں کا مجموعہ |
|                    |                |     |   |   |   |   |   |   |   |   |   |                | دس لکھوں کا مجموعہ |
|                    |                |     |   |   |   |   |   |   |   |   |   |                | دس لکھوں کا مجموعہ |
|                    |                |     |   |   |   |   |   |   |   |   |   |                | دس لکھوں کا مجموعہ |
|                    |                |     |   |   |   |   |   |   |   |   |   |                | دس لکھوں کا مجموعہ |
|                    |                |     |   |   |   |   |   |   |   |   |   |                | دس لکھوں کا مجموعہ |
|                    |                |     |   |   |   |   |   |   |   |   |   |                | دس لکھوں کا مجموعہ |

نوٹ: مجموعہ 100 سے زائد ہونے پر، دس لکھوں کا مجموعہ لکھنا ہے۔



3: دَسَوَرَاوَرِي رَرِي

**CONSTRUCTION OF WASTE COLLECTION CENTRE - SHAVIYANI MAROSHI**  
**Bill of Quantities**

| No       | Item   | Unit   | Quantity | Rate | Amount |
|----------|--|--------|----------|------|--------|
| <b>1</b> | <b>Preliminaries</b>   |        |          |      |        |
| 1.1      | Mobilization to site   | LS     | 1        |      |        |
| 1.2      | Site management cost including set up of temporary services for contractor's services as maybe necessary | Months | 1        |      |        |
| 1.3      | Setup sign board on site   | LS     | 1        |      |        |
| 1.4      | Clean up site upon completion of works   | LS     | 1        |      |        |
| 1.5      | Demobilization   | LS     | 1        |      |        |
|          |  |        |          |      |        |
| <b>2</b> | <b>Site Clearance</b>  |        |          |      |        |
| 2.1      | Allow for any remaining site clearance.  | LS     | 1        |      |        |
|          |  |        |          |      |        |
|          |  |        |          |      |        |
| <b>3</b> | <b>Earth works</b>   |        |          |      |        |
|          | Allow for all excavation work for foundations as follows   |        |          |      |        |
| 3.1      | Perimeter fence wall   | m3     | 6.30     |      |        |
| 3.2      | Perimeter fence footings   | m3     | 2.38     |      |        |
| 3.3      | Flood light pole   | m3     | 0.29     |      |        |
| 3.4      | Levelling and compaction of ground for compost slab  | m2     | 75       |      |        |
| 3.5      | Levelling and compaction of ground for sorting slab  | m2     | 75       |      |        |
| 3.6      | Setting up a ground water well in the location shown   | LS     | 1        |      |        |
| 3.7      | Storage area footings  | m3     | 0.58     |      |        |
| 3.8      | Leachate collection tank   | m3     | 2.48     |      |        |
| 3.9      | Levelling and compaction of ground for storage area slab   | m2     | 59.54    |      |        |
| 3.10     | Line footing for 3m high wall  | m3     | 1.47     |      |        |
|          |  |        |          |      |        |
| <b>4</b> | <b>Concrete works</b>  |        |          |      |        |
| 4.1      | Foundation for perimeter fence column footings   | m3     | 2.38     |      |        |
| 4.2      | Foundation for lighting poles  | m3     | 0.29     |      |        |
| 4.3      | Casting of compost slab. Reinforcement shall be provided as shown on drawing                             | m3     | 5.80     |      |        |
| 4.4      | Casting of B1 beams. Reinforcement shall be provided as shown on drawing.                                | m3     | 3.51     |      |        |

|          |   |     |       |  |  |
|----------|---|-----|-------|--|--|
| 4.5      | Casting of B2 beams. Reinforcement shall be provided as shown on drawing.   | m3  | 0.79  |  |  |
| 4.6      | Casting of B3 beams. Reinforcement shall be provided as shown on drawing.   | m3  | 1.35  |  |  |
| 4.7      | Casting of leachate collection tanks. Reinforcement shall be provided as shown on drawing.  | No  | 1     |  |  |
| 4.8      | Outdoor concrete sorting slab   | m3  | 7.5   |  |  |
| 4.9      | Casting of 900mm well with base slab and top cover slab   | LS  | 1     |  |  |
| 4.10     | Casting of storage area footings  | m3  | 0.58  |  |  |
| 4.11     | Casting of storage area slab  | m3  | 4.47  |  |  |
| 4.12     | Casting of line footing for 3m high wall  | m3  | 1.47  |  |  |
| 4.13     | Casting of indoor sorting platform  | m3  | 0.80  |  |  |
|          |   |     |       |  |  |
| <b>5</b> | <b>Masonry works</b>  |     |       |  |  |
|          | <i>200mm thick walls</i>  |     |       |  |  |
| 5.1      | 600mm high wall for perimeter fence   | m   | 105   |  |  |
| 5.2      | 850mm high wall for sorting platform  | m   | 2.4   |  |  |
| 5.3      | 50mm lean concrete for fence wall   | m   | 105   |  |  |
|          | <i>150mm thick walls</i>  |     |       |  |  |
| 5.3      | 1500 high wall above for waste storage area   | m   | 13.5  |  |  |
| 5.4      | 3000 high wall in waste storage area  | m   | 34.45 |  |  |
|          |   |     |       |  |  |
| <b>6</b> | <b>Plastering works</b>   |     |       |  |  |
|          | <i>200mm thick walls</i>  |     |       |  |  |
| 6.1      | 12.5mm plastering on 600mm high wall for perimeter fence  | m2  | 147   |  |  |
| 6.2      | 12.5mm plastering on 850mm high wall for sorting platform   | m2  | 4.08  |  |  |
|          | <i>150mm thick walls</i>  |     |       |  |  |
| 6.3      | 12.5mm plastering on 1500mm high wall for waste storage area  | m2  | 40.5  |  |  |
| 6.4      | 12.5mm plastering on 3000mm high wall for waste storage area  | m2  | 206.7 |  |  |
|          |   |     |       |  |  |
| <b>7</b> | <b>Structural steel works</b>   |     |       |  |  |
| 7.1      | Perimeter fence using 50mm & 38mm G.I pipe as shown on drawing. Rate shall include all cuttings, weldings, applying of protective coating for welded joints, and, setting up the fence. | m   | 105   |  |  |
| 7.2      | Provide 75mm G.I pipe as flood light fixing poles. Rate shall include installation charges as shown on drawing.   | Nos | 2     |  |  |

|          |  |     |       |  |  |
|----------|--|-----|-------|--|--|
| 7.3      | Provide 75mm G.I pipe to fix roof of waste storage area. Rate shall include all cuts, welds and applying of protective coating for welded joints and setting up of the pipes | Nos | 16    |  |  |
| 7.4      | Provide 38mm G.I bearer pipes as shown on drawing. Rate shall include all cuts, welds and applying protective coating on welded joints                                       | m   | 46.2  |  |  |
| 7.5      | Provide 38mm G.I purlin pipes as shown on drawing. Rate shall include all cuts, welds and applying protective coating on welded joints                                       | m   | 95    |  |  |
| 7.6      | Provide 38mm G.I pipe between columns and for roof eave. Rate shall include all cuts, welds and fixing of these pipes  | m   | 35.2  |  |  |
| 7.7      | Fixing of 75mm G.I pipe to support machine room & hazardous waste room door  | m   | 5.6   |  |  |
|          |  |     |       |  |  |
| <b>8</b> | <b>Painting works</b>  |     |       |  |  |
| 8.1      | Applying primer and 2 paint coats on all fence walls   | m2  | 147   |  |  |
| 8.2      | Applying primer and 2 paint coats on 1500 high walls of waste storage area   | m2  | 40.5  |  |  |
| 8.3      | Applying primer and 2 paint coats on 3000 high walls of waste storage area   | m2  | 206.7 |  |  |
| 8.4      | Applying epoxy paint coating on all metal surfaces.  | LS  | 1     |  |  |
|          |  |     |       |  |  |
| <b>9</b> | <b>Electrical works</b>  |     |       |  |  |
| 9.1      | Provide 3 phase power sockets in equipment room. Rate shall include connection to circuit breaker  | Nos | 4     |  |  |
| 9.2      | Provide single phase power sockets in equipment room and hazardous waste room. Rate shall include connection to circuit breaker  | Nos | 3     |  |  |
| 9.3      | Provide 100mm ceiling mount light in hazardous waste room, including switch. Rate shall include connection to circuit breaker  | Nos | 1     |  |  |
| 9.4      | Provide wall mount exhaust fan in equipment room and hazardous waste storage room. Rate shall include properly fixing the fan and connection to power socket                 | Nos | 2     |  |  |

|           |  |     |      |  |  |
|-----------|--|-----|------|--|--|
| 9.5       | Provide 500 W flood light for illuminating the waste yard. Rate shall include connecting each light to a weather proof switch and providing power to the switch  | Nos | 2    |  |  |
| 9.6       | Provide weather proof switch for all lights  | Nos | 3    |  |  |
| 9.7       | Supply and fix electric meter, 4 pole MCCB, Single Phase distribution board and 3 Phase distribution board as shown on drawing. Earth link and connection to earth rod with proper earth pit should be provided as well                                  | LS  | 1    |  |  |
| 9.8       | Provide 25 sqmm 5 core power supply cable from nearest distribution box to waste yard distribution board   | m   | 69   |  |  |
| 9.9       | Provide well water pump. Rate shall include its fixing and connection to power socket.   | LS  | 1    |  |  |
|           |  |     |      |  |  |
| <b>10</b> | <b>Doors and windows</b>   |     |      |  |  |
| 10.1      | Provide metal door for entrance to equipment room. Rate shall include all cuts, welds, applying protective coating to welded joints, painting the door and proper fixing of the door. Rate shall include fixing of guide rails and wheels as well.       | Nos | 1    |  |  |
| 10.2      | Provide metal door for entrance to hazardous waste area. Rate shall include all cuts, welds, applying protective coating to welded joints, painting the door and proper fixing of the door. Rate shall include fixing of guide rails and wheels as well. | Nos | 1    |  |  |
| 10.3      | Provide metal door for entrance to waste yard. Rate shall include all cuts, welds, applying protective coating to welded joints, painting the frame and properly fixing the door to the fence.   | Nos | 2    |  |  |
|           |  |     |      |  |  |
| <b>11</b> | <b>Roofing</b>   |     |      |  |  |
| 11.1      | Supply and fix roof sheets for waste storage area as shown on drawing  | m2  | 85.5 |  |  |
| 11.2      | Provide flashing sheet on all areas required for roofing area  | m   | 28   |  |  |
| 11.3      | Provide and fix lysaght gutter   | m   | 19   |  |  |

|           |  |     |     |  |  |
|-----------|--|-----|-----|--|--|
| 11.4      | Provide conveyance pipe from down pipe point to water well   | LS  | 1   |  |  |
| 11.5      | Provide and fix 75mm down pipe   | nos | 2   |  |  |
|           |  |     |     |  |  |
| <b>12</b> | <b>Plumbing</b>  |     |     |  |  |
| 12.1      | Provide footvale and 25mm PVC intake pipe for pump from well   | LS  | 1   |  |  |
| 12.2      | Provide metal tap for distribution points in waste yard as shown on drawing. Rate shall include fixing the tap to boundary wall.             | Nos | 3   |  |  |
| 12.3      | Provide 1/2 inch PVC pipe from pump to all distribution points. Rate shall include all joints, bends and burying the pipe 300mm below ground | LS  | 1   |  |  |
|           |  |     |     |  |  |
| <b>13</b> | <b>Others</b>  |     |     |  |  |
| 13.1      | 50 x 50 PVC coated mesh for fence. Rate shall include properly securing the mesh to G.I steel frame  | m2  | 105 |  |  |
| 13.2      | Provide HDPE membrane below compost slab   | m2  | 150 |  |  |
| 13.3      | Provide HDPE membrane below waste storage area slab  | m2  | 60  |  |  |
| 13.4      | Provide timber top cover over leachate collection tank   | Nos | 2   |  |  |
| 13.5      | Cut and place PVC pipe in drain as shown on drawing  | m   | 15  |  |  |
| 13.6      | Fabricate and Install 600 x 900 sign board on 5mm plastic sheet. All letters, logos and symbols used on the board should be spray painted    | LS  | 1   |  |  |
| 13.7      | Provide expansion joint as shown on drawing and fill the gaps as indicated   | m   | 25  |  |  |

**TOTAL**

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٤ : دسوارنامہ نامزدوں کے لئے ریکی برائے

CONSTRUCTION OF WASTE COLLECTION CENTRE - SHAVIYANI MAROSHI

Bill of Quantities  
SUMMARY SHEET

| Bill No | Item                   | Amount |
|---------|------------------------|--------|
| 1       | Preliminaries          |        |
| 2       | Site clearance         |        |
| 3       | Earth works            |        |
| 4       | Concrete works         |        |
| 5       | Masonry works          |        |
| 6       | Plastering works       |        |
| 7       | Structural steel works |        |
| 8       | Painting works         |        |
| 9       | Electrical works       |        |
| 10      | Doors and windows      |        |
| 11      | Roofing works          |        |
| 12      | Plumbing works         |        |
| 13      | Others                 |        |
|         | <b>Sub Total</b>       |        |
|         | <b>GST 6%</b>          |        |
|         | <b>GRAND TOTAL</b>     |        |

تَعْرِيفُ 1 : دَسْتُوْرٌ مَرْجُوْعٌ مَشُوْرٌ اِرْتِجَاعِيٌّ اِسْوَجٌ مُرْجِعٌ مَشُوْرٌ

سَوْجِيٌّ نَاصِحٌ / تَرْفُوْرٌ مَرَاوِعُوْرٌ اِسْوَجِيٌّ اِرْتِجَاعِيٌّ اِسْوَجِيٌّ اِسْوَجِيٌّ

خُتْمُ ۲ : دَسْوَرَتِ لَاقِي دَا دَا دَا دَا دَا دَا دَا



## 3 : دسره لاجوري هوسرچ لاسرلو سوچر لاسرلو

### **Working Site**

The site should be kept clean during the construction work period and should be thoroughly cleaned once the works are completed. Works should be carried out on site in a safe manner to all the workers on site and the people living in the vicinity of site. Disturbance to the neighborhood should be kept to a minimum. Electricity and water supply to the site, during construction period, should be provided by the contractor

### **Concrete**

Cement conforming to BS12 standards should be used for all concrete, masonry and plastering works. The cement intended for use should be fresh and should not have any traces of hardened cement in the bag.

1. All concrete works should be done using one brand of cement
2. Sand and aggregate used for concrete works should be well graded.
3. Concrete should be mixed in the ratio 1:2:3 which are 1 part cement, 2 parts sand and 3 parts aggregate.
4. All foundations should be cast on a lean concrete layer. The lean concrete should be placed on well compacted ground.
5. Concrete should be mixed using a concrete mixer. Concrete should not be mixed by hand. When pouring concrete into the formwork, the mix should be compacted using a mechanical vibrator.
6. Aggregate used for concrete works should not be larger than 20mm.
7. Sand and aggregate used for concrete works should be clear from dust, mud and other debris.
8. All reinforcement bars used for the concrete works should be free from rust and grease that could weaken the bonding between the reinforcement bar and the concrete. Care should be taken to use continuous bars rather than short segments joined by laps.

### **Masonry Works**

1. All masonry work should be done using Cement conforming to BS12 standards.
2. Masonry blocks should be made from imported sand or local white sand sourced from a permitted sand borrow area. The sand should be free from organic matter and other debris.

3. Masonry blocks should be made from mortar mixed at 1:5 ratio with 1 part cement to 5 part sand.
4. Average size of sand particles should not exceed 5mm.

### **Plastering Works**

1. All plastering work should be done using Cement conforming to BS12 standards.
2. Plaster mix should be made from imported or local sand white sand sourced from a permitted borrow area. The sand should be free from organic matter and other debris.
3. Plaster mix should be made by mixing Cement and Sand at a ratio of 1:3 with 1 part Cement to 3 part Sand.
4. Average size of sand particles should not exceed 5mm.

### **Structural Steel work**

1. All steel pipes obtained for the work should be new pipes and free from rust.
2. Thickness of pipes should not be less than 2.5mm

### **Electrical works**

1. All materials used for electrical wiring should comply with MEA standards.

### **Roofing works**

1. All materials used for roofing work should be newly purchased for the project.
2. All screws or bolts used for roof fixing should be G-I or Zinc finish screws.

جَمْعُ مَرْوُوفٍ 4 : دَسْرُورِ لَامٍ دَامَسْرَجٍ سَمَرَرِ رَسْرِي رَسْرِي مَكْرَجٍ

