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2013-03-20

**REQUEST FOR TENDER  
AFRICA RESTAURANT ROOF REPLACEMENT  
RFT # 11 (2013-03)**

**ADDENDUM # 2**

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This addendum shall be incorporated into, and form part of RFT # 11 (2013-03) and take precedence over all requirements of the previously issued bid documents including plans. This addendum must be signed by the bidder (signing officer) in the appropriate space and must be attached to the Form for submission by the bidder. This Addendum consists of two (2) pages and one (1) specification section.

**1.0 Specification Section 01 11 00 – Summary of Work**

Section 01 11 00 is attached.

**2.0 Mechanical Contractor Information:**

Richards Environmental Control, Glenn Richard, 1-800-250-5857,  
905-838-1617, C 416-219-3684, [richardsenv@sympatico.ca](mailto:richardsenv@sympatico.ca)

**3.0 Questions on Bid Documents:**

Section I, Instructions to Tenderers, Item 2.5 - Questions on bid documents (QBD) has been extended. All questions must be received by **Thursday 2013-03-21, 1600 hours (4:00 p.m.) local time**.

Receipt of the Addendum shall be acknowledged as part of your submission.

The Board of Management of the Toronto Zoo reserves the right to reject any or all Quotations or to accept any quotation, should it deem such action to be in its interests.

If you have any queries regarding this matter, please contact Mr. Peter Vasilopoulos, Supervisor, Purchasing & Supply, at 416-392-5916.

Yours truly,

Peter Vasilopoulos  
Supervisor, Purchasing & Supply

RFT #11 (2013-03)  
**AFRICA RESTAURANT ROOF REPLACEMENT**  
**Addendum #2**

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I/we hereby acknowledge receipt of this addendum and make allowance in my bid.

\_\_\_\_\_  
Signed (Must be Signing Officer of Firm)

\_\_\_\_\_  
Name of Firm

\_\_\_\_\_  
Date:

END OF ADDENDUM #2

## **PART 1 - GENERAL**

### **1.1 SUMMARY**

- .1 Roofing Contractor to provide all labour, plant, equipment, and materials necessary to perform and complete following Work as described in this document:
  - .1 Roof Replacement/Repair on designated roof areas at the African Pavilion Restaurant located at the Toronto Zoo; 361A Old Finch Ave., Scarborough, Ontario, M1B 5K7.
- .2 Contract Documents to be reviewed in their entirety with all sections, including Division 1: General Requirements, to be considered interrelated and form part of this section.
- .3 Unless specifically identified in Contract Documents, any hazardous materials encountered during Work requiring specialized handling and additional cost to be added to Contract Price.
- .4 Weather conditions are considered incidental to Work and will not be considered additional to Bid Price.

### **1.2 EXAMINATION OF DRAWINGS, SPECIFICATIONS, AND WORK SITE**

- .1 Carefully examine and study all Contract Documents together with existing site conditions and any other necessary data or conditions that may affect performance of Work in order to determine full extent of Work.
- .2 Contractor to verify to own satisfaction that existing site conditions, roof components, and measurements are accurately reported in Contract Documents.
- .3 Report in writing any discrepancies, errors, or omissions to Consultant when discovered and prior to Bid Closing.
- .4 Under no circumstances will any claims be allowed against Owner resulting from failure to ascertain full extent of Work herein described, specified, or implied.
- .5 Bid submission to be based on products, equipment, and/or suppliers named and identified as approved or accepted in specifications and drawings.

### **1.3 BID PRICING**

- .1 Provide Stipulated Lump Sum Pricing to perform Work described in this Scope of Work, its related technical sections, and as shown on roofing drawings. Provide break down of Bid prices as indicated on Form 1, Appendix III, Itemized Prices.
- .2 Base Bid Pricing:
  - .1 Provide Lump Sum Pricing for each individual roof area identified. Include Discounted Lump Sum Price to perform all specified roof Work together, at one time, as one contract.
- .3 Separate Pricing:

Lump Sum Price added to Contract amount on Form 1, Appendix IV, Additional Prices:

  - .1 On Roof Area 1.1: Supply and install new galvanized metal ductwork to replace all existing exposed ductwork with matching design, size, and layout.
  - .2 On Roof Area 2.1: Supply and install new liquid applied resin membrane system as a protective coating over finished modified bitumen membrane as detailed in Section 07 52 11.

- .3 On Roof Area 2.1: Supply and install new Grease Guards around each kitchen fan unit and over finished modified bitumen membrane as detailed in Section 07 52 11.
  - .4 At Main Skylight: Perform localized skylight repairs at Northwest end. Repairs to consist of removing pressure plates, installing new self adhering membranes, restoring pressure plates, installing new sealant, and conducting water testing of repaired areas. All related Work to be in cooperation with Consultant and as directed on site.
- .4 Unit Pricing: Lump Sum Price to add to Contract amount where indicated:
- .1 Supply and install new wood plank decking to match existing, per square foot.
  - .2 Supply and install new galv. metal decking to match existing, per square foot.

#### 1.4 OWNER OCCUPANCY

- .1 Owner will occupy premises during entire construction period for execution of normal operations.
- .2 Cooperate with Owner in scheduling operations to minimize conflict and to facilitate Owner usage.

#### 1.5 CONTRACTOR USE OF PREMISES

- .1 Contractor to limit use of premises for Work, for storage, and access.
- .2 Coordinate use of premises under direction of Owner and Consultant.
- .3 Obtain and pay for use of additional storage or work areas needed for operations under this Contract.

#### 1.6 GENERAL SITE REQUIREMENTS

- .1 Temporary Barriers, enclosures and signage will be highly enforced given use of property.
- .2 Contractor to ensure safety and proper execution of public routing; ensuring temporary access to fire exists if and when they are affected as part of Work.
- .3 Obtain Construction/Building Permit and sidewalk/roadway occupation permits as required by local municipality.
- .4 Determine nature and extent of all site services above and below grade prior to commencement of Work.
- .5 Coordination of trades will be the responsibility of Contractor to ensure work is completed as soon as possible. Provide winter protection and heating as required to perform Work if required and as specified.
- .6 Supply, set-up, maintain and remove scaffolding, man-lift platforms and/or swing-stages during performance of Work as required to access work areas. If scaffolding is to be used, Contractor to provide complete shop drawings bearing seal of a Professional Engineer, licensed to practice in the Place of Work. Work to include review and approval of installed scaffolding by Designer. Allowance should be made for access to all elevations of building.
- .7 No public access to Work area to be allowed. Ensure access to fire exits are maintained and hoarded through Work area. Pedestrian access along sidewalks must be maintained as per Owner's requirements. No areas of access to or around building are to be restricted without approval of Owner.

- .8 Install temporary protection at all locations of Work, as required to ensure safe, clean, orderly removal and disposal work, and to provide protection for all interior and exterior building components, vehicles, pedestrians and occupants.
- .9 Provide temporary support to existing structural and cladding components during performance of work if required.
- .10 Install temporary protection for all materials and building components, which have been exposed during demolition/removals as specified.
- .11 Dispose of all materials at landfill site authorized by authorities having jurisdiction.

## 1.7 PROTECTION OF ROOFS

- .1 Protect all roof areas within area of Work and where equipment or materials are stored. Do not store equipment or materials directly on roof surface.
- .2 Protect existing roof systems to remain against damage from traffic generated by new Work.
- .3 Protection of existing and newly installed roof membranes to use sheets of 1" (25mm) expanded polystyrene insulation cover with 0.5" (13mm) plywood.

## 1.8 SCOPE OF WORK: LOW SLOPE ROOFING REPLACEMENT

- .1 On Roof Area 1.1: Remove existing roof system components, projection and perimeter flashings, and old appurtenances down to existing wood roof deck in preparation for the installation of a new roof system.
  - .1 Carefully disconnect and remove all existing gaslines.
  - .2 Carefully remove all existing wooden screens and store for reinstallation after new roof system is installed.
  - .3 Remove existing metal roof access ladder between Areas 1.1 and 2.1. Cut bottom off of ladder and adjust to suit height of new finished roof system. Weld new securement brackets on to ladder matching existing style. Grind any sharp edges. Clean, prime, and paint with zinc-rich, rust resistant paint. Reinstall ladder to wall at similar location using new fasteners.
  - .4 Carefully disconnect existing ductwork as required to facilitate removal of existing roof system and store for reinstallation later. Identify and mark ductwork in order to restore to original location. Clean and reinstall existing ductwork after removal work.
    - .1 If Separate Price item chosen, remove existing ductwork and install new galvanized metal ductwork of matching design, size, and layout.
    - .2 Seal all locks and seams of ductwork closed using continuous 2" (51mm) wide aluminum tape.
  - .5 Construct wood frames around and over all ductwork using wood blocking and plywood; 0.5" (13mm) thick on verticals and 0.75" (19mm) thick across horizontal surfaces.
    - .1 Construct frames tightly to ductwork and fill all voids solid with rockwool mineral batt insulation. Provide support for horizontal plywood surfaces on both sides of ductwork. Install additional wood support underneath ductwork as required. Do not install fasteners with penetration through ductwork.
  - .6 At all drain locations, provide vertical plumbing extensions to suit new finished height of roof system and drains. Ensure watertight connection to existing storm water plumbing.

- .7 Disconnect, lift off, and store existing HVAC units for reinstallation later. Raise height of all existing HVAC curbs by installing new insulated metal curb extensions on top of existing as per detail drawing. Ensure finished height of extended curb is at least 8" above height of finished roof membrane.
  - .1 Install new galvanized metal ductwork extensions vertically from existing duct openings up to underside of units set at new height.
  - .2 While HVAC curbs are open and exposed, provide min. 8" (204mm) thick rockwool batt insulation over roof deck, between curb frames and ductwork penetrations.
- .8 Carefully remove existing vertical wood siding from North wall of Area 1.1. Store and protect for reinstallation later. Install new air barrier membrane over exposed wall. Install new self adhering membrane from top of skylight frame over top of wall to overlap new air barrier membrane.
- .9 Build up perimeters where required with new wood blocking and plywood to achieve a min. height of 6" (152mm) above finished roof membrane. New roofing membrane to be carried up and over new built-up perimeters. Finish off neatly with prefinished metal cap flashings and hook strips.
- .10 At each drain location, construct sump frames to suit height of finished roof membrane using wood blocking and plywood to accommodate new tapered insulation drainage sumps. Where sump frames intersect ductwork enclosures, continue sump frame construction up and over ductwork enclosures. Insulate framing cavities tight with rockwool batt insulation.
  - .1 Prime all exposed wood. Install self adhering modified bitumen membrane up and over drain sump frames and across at bottom of frame. Ensure entire sump area is watertight.
- .11 Prime all exposed wood, concrete and metal surfaces to receive new vapour retarder membrane and flashings.
- .12 Install self adhering modified bitumen vapour retarder and flashings. New vapour retarder flashings to reach a min. 16" (152mm) in height above ductwork enclosures.
- .13 Install NVS insulation with a minimum 1% slope toward roof drains. Required system height to be field verified. New NVS system to achieve a min. 4" (101mm) cover thickness of expanded polystyrene insulation boards over top of new ductwork enclosures. Adjust thickness of EPS boards on remaining areas as required to suit height of overall tapered insulation layout.
- .14 Inside all drain sump frame constructions, install tapered insulation drainage sumps. Install multiple layers of polyisocyanurate filler to achieve required sump height and cut to suit shape of each wooden frame.
- .15 Mechanically fasten venting base sheet membrane to set NVS insulation.
- .16 Install two (2) ply modified bitumen roof membrane and flashings in cold adhesive.
- .17 Install new horizontal wood battens to support vertical siding. Cut existing vertical wood siding to suit required height for reinstallation. Install new cap flashing as per detail drawing and ensure skylight is watertight.
- .18 Install new sheet metal flashings and trim with required hook strips.

- .19 Reinstall HVAC units on to extended curbs at original locations. Reconnect ductwork and restore all electrical and mechanical connections. Install new gaslines to units on supports as per detail drawing. Test and re-commission all HVAC units.
- .20 Reinstall wooden equipment screens to original locations.
- .2 On Roof Areas 1.1A, 1.2, 1.3, and 1.4: Remove existing roof system components, projection and perimeter flashings, and old appurtenances down to existing wood roof deck in preparation for the installation of a new roof system.
  - .1 Build up perimeters to suit height of new tapered NVS insulation system using new wood blocking and plywood as per detail drawings.
  - .2 At each drain/scupper location, construct sump frames to suit height of finished roof membrane using wood blocking and plywood. Frames to accommodate new tapered insulation drainage sumps.
    - .1 Prime all exposed wood. Install self adhering modified bitumen membrane up and over drain sump frames and across bottom of frame. Ensure entire sump area is watertight.
  - .3 Prime all exposed wood, concrete and metal surfaces to receive new vapour retarder membrane and flashings.
  - .4 Install self adhering modified bitumen vapour retarder and flashings over roof surface and perimeters.
  - .5 Install NVS insulation with a minimum 1% slope toward roof drains. NVS system to have a min. 1.5" (38mm) thickness of expanded polystyrene at drain sump locations with a top pour of NVS concrete starting at 1.25" (32mm) in thickness.
  - .6 Inside all drain sump frame constructions, install tapered insulation drainage sumps to suit shape of each wooden frame.
  - .7 Mechanically fasten venting base sheet membrane to set NVS insulation.
  - .8 Install two (2) ply modified bitumen roof membrane and flashings in cold adhesive.
  - .9 Install new sheet metal flashings and trim with required hook strips.
- .3 On Roof Area 2.1: Remove existing roof system components, projection and perimeter flashings, and old appurtenances down to existing metal roof deck in preparation for the installation of a new roof system.
  - .1 Carefully remove all existing wooden screens and store for reinstallation after new roof system is installed. Identify each one to reinstall to original location.
  - .2 At each drain location, construct sump frames to suit height of finished roof membrane using wood blocking and plywood. Frames to accommodate new tapered insulation drainage sumps.
    - .1 Prime all exposed wood. Install self adhering modified bitumen membrane up and over drain sump frames and across bottom of frame. Ensure entire sump area is watertight.
  - .3 Prime all exposed wood, concrete and metal surfaces to receive new vapour retarder membrane and flashings.

- .4 Install self adhering modified bitumen vapour retarder and flashings to roof and perimeters.
- .5 Install NVS insulation with a minimum 1% slope toward roof drains. NVS system to have a min. 1.5" (38mm) thickness of expanded polystyrene at drain sump locations with a top pour of NVS concrete starting at 1.25" (32mm) in thickness.
- .6 Inside all drain sump frame constructions, install tapered insulation drainage sumps to suit shape of each wooden frame.
- .7 Mechanically fasten venting base sheet membrane to set NVS insulation.
- .8 Install two (2) ply modified bitumen roof membrane and flashings in cold adhesive.
- .9 Install new sheet metal flashings and trim with required hook strips.
- .10 Reinstall and reconnect all HVAC electrical and mechanical connections. Install gaslines to units on supports as per detail drawing. Test and re-commission all HVAC units.
- .11 If Separate Price item chosen, install new grease guards at all kitchen fan units.
- .12 If Separate Price item chosen, install new liquid applied resin as a protective coating over field of roof as per Section 07 52 11.
- .13 Reinstall wooden equipment screens to original locations.

#### **1.9 SCOPE OF WORK: SKYLIGHT REPAIRS**

- .1 At Main Skylight:
  - .1 If Separate Price item chosen, perform localized skylight repairs at Northwest end of main skylight where indicated on roof plan and as directed on site by Consultant.
  - .2 Remove removing existing pressure plates and metal flashings as required to exposed interior framing and wall construction.
  - .3 Install one component, low pressure spray urethane foam insulation into voids and gaps as directed by Consultant. Let dry and trim flush where required.
  - .4 Installing new self adhering membrane over framework and voids where directed on site by Consultant. Ensure installed membrane is not visible after completion of repair.
  - .5 Reinstall pressure plates and metal flashings. Apply sealant or caulking at joints and edges where directed on site by Consultant.
  - .6 Conduct water testing at skylight repair areas to verify success of repairs. Coordinate water testing with Consultant and Owner. Investigate and repeat procedures where water testing fails.

#### **1.10 CLEANING**

- .1 Perform daily and final clean-up of Work area and surrounding areas of site.

**END OF SECTION - 01 11 00**