

Scope of Work

Notes:

All works shall be carried out in accordance with the current edition of the Bermuda Building Code and the referenced International Building Codes within.

1. Mobilization

- 1.1. Mobilize a work crew and all their equipment to complete the works including transportation costs, local accommodation costs and site facilities.
- 1.2. Meetings with Tynes Bay Operations to confirm laydown areas, set communications channels and facility use coordination to prevent delays.
- 1.3. Coordinate safety and health programs with Tynes Bay Operations.
- 1.4. Document the pre-mobilization conditions of the site and laydown areas and provide a copy to Tynes Bay operations.

2. Paint the exterior of the entire concrete column and its rain cap

- 2.1. Clean dust and dirt accumulation as well as flaking and peeling paint from the entire exterior wall of the stack surface by means of pressure washing, wire brushing, scraping or other.
- 2.2. The surface shall be prepared in accordance with the paint manufacturer's instructions and recommendations, typically NACE No 6 / SSPC-SP 13.
- 2.3. All surfaces shall be tested for salt content prior to painting and surface salt contents shall be lower than the paint manufacturer's recommendations.
- 2.4. The paint system shall be proposed by the Proponent and approved by the Owner but as a minimum it shall be a two coat system, a primer coat and a top coat.
- 2.5. The colour of the top coat will be selected by the Owner.
- 2.6. The paint system shall be applied to the prepared surface over the entire exterior concrete surface.
- 2.7. Wet film thickness readings shall be made twice a day and their locations, elevation and direction, shall be recorded and form part of the Proponents quality assurance program. Spot tests will also be requested.

3. Over-plate interior wall of both flues

- 3.1. Rig a platform inside both flues to safely access the work areas.
- 3.2. Mechanically prepare the scaling steel and rust from a 15'-0" high section of the interior flue wall directly below the stainless steel portion of the liner.

- 3.3. Supply and install rolled sections of 10 gauge, 316 stainless steel plate between elevations 216'-0" and 231'-0" inside both flues.
- 3.4. Seal weld all horizontal and vertical joints in accordance with CWB standard W47.1 or equivalent.
- 3.5. Remove and dispose of all debris from the bottom of the two flues including flushing out two floor drains located in the bottom slab, see drawing 8626 605 Chimney Foundation General Arrangement, Plan 3-3.

4. Clean and apply coating to inside of both flues, full height

- 4.1. Clean and prepare the inside of both flue, vertical flues and transition spool pieces between vertical and horizontal sections, with a Proponent proposed coating to protect the flues.
- 4.2. The type of protective coating shall be proposed by the Proponent and shall be reviewed and approved by the Owner.
- 4.3. Holiday or similar tests will be required as part of the Proponents quality assurance program.

5. Re-cap top 11'-10" on the exterior of both flues

- 5.1. Supply and install sheets of 316 stainless steel cladding to the exposed 11'-10" of each flue which protrudes through the stack roof.

6. Supply and install rain caps on both flues

- 6.1. Remove the existing rain caps.
- 6.2. Supply and install new 316 stainless steel rain caps.
- 6.3. Install rain caps to prevent water ingress to the stack.

7. Repair lightning protection system

- 7.1. The flue grounding system located around the perimeter of the roof shall be inspected and repaired as necessary to ensure complete and secure protection.
- 7.2. Reinstate missing air terminals and inspect and repair connections to all air terminals.
- 7.3. Ground all interior metal balconies or rest areas to the down leads for the Lightning Protection system located beside the access ladder on the west side of the concrete column.
- 7.4. Supply and install properly sized ground cables and connectors.
- 7.5. Inspect and repair connections to ground rods.

8. Remove obsolete tele-communication mounts and debris

- 8.1. Remove and dispose of all obsolete equipment, connections, wires, fasteners, cables, poles, brackets and all other useless items from the roof area and all interior areas of the stack.
- 8.2. Coordinate work with the Telecommunication companies that are using the roof area of the stack.

9. Clean, patch & paint upper vent covers

- 9.1. Remove all rust and flaking paint from the exterior of the four metal vent covers located at elevation 232'-0".
- 9.2. Repair holes and thin rusted areas with patches as necessary.
- 9.3. Supply and install rust inhibiting paint on all four vent covers, inside and outside, in accordance with manufacturer's instructions and recommendations.
- 9.4. Paint colour to match existing paint.

10. Supply and install aircraft obstruction lights

- 10.1. Replace the four existing dual aircraft obstruction lights with four new LED double aircraft obstruction lights located at the top of the column, elevation 240'-0".
- 10.2. Replace the four existing dual aircraft obstruction lights at elevation 192' +/-, see detail G on drawing 8626, complete with new brackets and wiring as required.

11. Repair broken connections in the drain pipe

- 11.1. Repair the 4" drain line at approximately elevation 156'-0".
- 11.2. Supply and install an expansion joint at the level of the repair.
- 11.3. Support the expansion joints as needed.
- 11.4. Supply and install new galvanized "U" clamps to support the drain pipe to the wall of the stack for its entire length.

12. Supply and install standard safety chains and grating clips

- 12.1. Supply and install standard safety chains around the ladder opening at elevation 86'-7" where the handrail has been removed.
- 12.2. Supply and install approximately 150 new galvanized grating clips at all platforms to secure grating to supporting structure.

13. Supply and install new interior lighting

- 13.1. Supply and install new interior LED style lighting at all platform locations and base of stack.

13.2. Lighting wall packs to be selected by the Contractor and submitted for approval. The proposed lights must be suitable for the harsh conditions, heat, dust, etc. inside the stack.

14. Reinstate independent monitoring port cover at 2nd Level

14.1. Supply and install a new port cover plate including re-threading the existing connection.

15. De-mobilization

15.1. Demobilize the work crew and all their equipment from the facility, including local transportation costs and return flights.

15.2. Return the site to the pre-mobilization conditions.

15.3. Obtain hand over sign off from Tynes Bay Operations confirming that the construction site and lay down areas are returned in pre-mobilization conditions, clean of all debris and construction equipment.