

## Explanation of Alternates

### **Alternate 1 - Bearing Water Reclaim System**

Work of Alternate 1 includes providing 2 new vertical inline pumps, a new 300-gallon PE water storage tank, new supply piping connections to 4 bearing system feeds, new drain connections to 4 bearing water return points, new high and low level temperature controls for the water storage tank, a new temperature controller for the water storage tank, new piping, strainers and valves for the bearing water reclaim and a new make-up water line with automatic valve. Complete system is shown on drawings and specifications.

### **Alternate 2 - Replacement of Tunnel Lighting System**

Work of Alternate 2 includes replacement of the tunnel lighting system between the Central Heating Plant and DePuy Hall as shown on drawings and specifications.

### **Alternate 3 - New Gate Valves**

Work of Alternate 3 includes providing new gate valves for Boiler No. 5 and Boiler No. 6 shut off at main steam header as shown on the drawings and specifications.

### **Alternate 4 – Replacement of Windows and Doors**

Work of Alternate 4 includes providing replacement of windows and doors shown on drawings and specifications as Alternate 4.

### **Alternate 5 - Brick Tuckpointing and Repair**

Work of Alternate 5 includes providing brick tuckpointing and repair as shown on drawings and specifications. Alternate 5 work includes a full, eye-level survey of entire façade (utilizing scaffolding, man-lifts or other equipment as required for a complete survey), testing of exterior façade materials by a qualified testing laboratory and issuance of a report and associated documents. Any potential work identified by this investigation shall be priced separately.

Report shall indicate results of evaluation and testing of existing brick units and mortar.

1. Provide narrative to accompanying shop drawings.
2. Include results of tests performed on existing façade materials and shall identify material, composition, constituents and proportions, compressive and/or tensile properties, etc.
3. Propose a mortar design mix and material properties for new or replacement materials based on tests made of existing materials.

Cost estimate: With report, provide 2 cost estimates to address scope of restoration work identified in shop drawings and report.

1. Provide lump-sum cost estimate to perform all of restoration work in its entirety. This price should be provided in the Alternate 5 line of the Bid form.
2. Submit unit costs figured at 3 different work heights; unit cost for work figured from grade level up to 10' above ground level, unit cost for work from 10' up to 20' above ground level and unit cost for work 20' above ground level and higher. These prices should be provided for in the unit price section of the bid form.

### **Alternate 6 - Electronic Fuel Oil Tank Monitoring System**

Work of Alternate 6 includes providing electronic fuel oil tank monitoring system for interstitial space between the double walls of existing underground fuel oil storage tank on northwest side of the Central Heating Plant as shown on drawings and specifications. Control panel shall be mounted on basement wall near fuel oil pumps. Control wiring shall be in PVC conduit underground to fuel oil tank testing access hand hole.

**Alternate 7 – Replacement of Boiler 5 Flue Gas Stack and Repair of Boiler 6 Flue Gas Stack**

Work includes the replacement of Boiler 5 flue gas stack including repainting, new roof penetration closure and the repair of Boiler 6 flue gas stack including patching and repainting.