

Approved: 2012-12-31

## **1.1 MEASUREMENT AND PAYMENT**

- .1 Measurement Procedures.
  - .1 Measure removal of culverts in quantities regardless of diameter.
  - .2 All other removals identified on the bid form shall be measured per lump sum.
  - .3 Payment for disposal recycling, excavating, backfilling and restoration will be included in above removal items.

## **1.2 REFERENCES**

- .1 Parks Canada will provide BIA (Basic Impact Analysis) that will be part of tender package. The BIA will include mitigation measures for contractor to be aware of.
- .2 Definitions:
  - .1 Demolition: rapid destruction of building following removal of hazardous materials.
  - .2 Hazardous Materials: dangerous substances, dangerous goods, hazardous commodities and hazardous products, may include but not limited to: asbestos PCB's, CFC's, HCFC's poisons, corrosive agents, flammable substances, ammunition, explosives, radioactive substances, or other material that can endanger human health or well being or environment if handled improperly.
  - .3 Waste Audit (WA): detailed inventory of materials in building. Indicates quantities of reuse, recycling and landfill.
    - .1 Involves quantifying by volume/weight amounts of materials and wastes generated during construction, demolition, deconstruction, or renovation project.
    - .2 Indicates quantities of reuse, recycling and landfill.
  - .4 Waste Management Coordinator (WMC): contractor representative responsible for supervising waste management activities as well as coordinating related, required submittal and reporting requirements.
  - .5 Waste Reduction Workplan (WRW): written report which addresses opportunities for reduction, reuse, or recycling of materials. WRW is based on information acquired from WA.
  - .6 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
    - .1 Material Safety Data Sheets (MSDS).
  - .7 Transport Canada (TC)
    - .1 Transportation of Dangerous Goods Act, 1992 (TDGA), c. 34.

## **1.3 ADMINISTRATIVE REQUIREMENTS**

- .1 Site Meetings.
  - .1 Convene pre-demolition meeting one week prior to beginning in accordance with Section 01 32 16.07 - Construction Progress Schedules - Bar (GANTT) Chart to:
    - .1 Verify project requirements.
    - .2 Review installation and substrate conditions.

- .3 Co-ordination with other building subtrades.
- .4 Review manufacturer's installation instructions and warranty requirements.
- .2 Arrange for site visit with Departmental Representative to examine existing site conditions adjacent to demolition work, prior to start of Work.
- .3 Hold project meetings **weekly**.
- .4 Ensure key personnel attend.
- .5 Reporting Requirements: WMC to complete.
- .6 WMC must provide verbal report on status of waste diversion activity at each meeting.
- .7 Departmental Representative will provide verbal notification of change of meeting schedule established upon contract award 24 hours prior to scheduled meeting.
- .2 Scheduling: meet project time lines without compromising specified minimum rates of material diversion.
  - .1 Notify Departmental Representative when unforeseen delays occur.

#### **1.4 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Shop Drawings:
  - .1 Submit drawings stamped and signed by professional engineer registered or licensed in Province of Ontario, Canada
  - .2 Submit for approval drawings, diagrams or details showing sequence of demolition work and supporting structures and underpinning, where required by authorities having jurisdiction.
- .3 Hazardous Materials:
  - .1 Provide description of Hazardous Materials and Notification of Filing with proper authorities prior to beginning of Work as required.

#### **1.5 QUALITY ASSURANCE**

- .1 Regulatory Requirements: ensure Work is performed in compliance with applicable Provincial/Territorial regulations.

#### **1.6 DELIVERY, STORAGE AND HANDLING**

- .1 Storage and Protection.
  - .1 Protect in accordance with Section 31 23 33.01 - Excavating, Trenching and Backfilling.
  - .2 Protect existing items designated to remain and items designated for salvage. In event of damage to such items, immediately replace or make repairs to approval of Departmental Representative and at no cost to Departmental Representative.
  - .3 Remove and store materials to be salvaged, in manner to prevent damage.

- .4 Store and protect in accordance with requirements for maximum preservation of material.
- .5 Handle salvaged materials as new materials.

## **1.7 SITE CONDITIONS**

- .1 Site Environmental Requirements.
  - .1 Perform work in accordance with Section 01 35 43 - Environmental Procedures.
  - .2 Ensure that selective demolition work does not adversely affect adjacent watercourses, groundwater and wildlife, or contribute to excess air and noise pollution.
  - .3 Do not dispose of waste of volatile materials including but not limited to, mineral spirits, oil, petroleum based lubricants, or toxic cleaning solutions into watercourses, storm or sanitary sewers.
    - .1 Ensure proper disposal procedures are maintained throughout the project.
  - .4 Do not pump water containing suspended materials into watercourses, storm or sanitary sewers or onto adjacent properties.
  - .5 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authorities.
  - .6 Protect trees, plants and foliage on site and adjacent properties where indicated.

## **Part 2 Products**

### **2.1 EQUIPMENT**

- .1 Leave machinery running only while in use, except where extreme temperatures prohibit shutting machinery down.

## **Part 3 Execution**

### **3.1 PREPARATION**

- .1 Inspect site with Departmental Representative and verify extent and location of items designated for removal, disposal, alternative disposal, recycling, salvage and items to remain.
- .2 Locate and protect utilities. Preserve active utilities traversing site in operating condition.
- .3 Notify and obtain approval of utility companies before starting demolition.
- .4 Disconnect and Cap Designated Mechanical Services.
  - .1 Natural Gas Supply Lines: as directed by Departmental Representative.
  - .2 Sewer and Water Lines: remove as directed by Departmental Representative and securely plug to form watertight seal.
  - .3 Other Underground Services: remove and dispose of as directed by Departmental Representative.

### **3.2 REMOVAL OF HAZARDOUS WASTES**

- .1 Remove contaminated or dangerous materials defined by authorities having jurisdiction, relating to environmental protection, from site and dispose of in safe manner to minimize danger at site or during disposal.

### **3.3 ARCHAEOLOGICAL RESOURCES**

- .1 All components requiring excavation must be reviewed and monitored by a Parks Canada Archaeologist including:
  - .1 All pathways, parking areas and structure footprints must be staked out and reviewed by a Parks Canada Archaeologist prior to any excavations.
  - .2 All excavation work must be monitored by a Parks Canada Archaeologist.
- .2 There may be a small number of artifacts contained in the excavated soils. In order to prevent accidental creation of false historic/archaeological sites, any removed material should be taken to approved landfills or other similar sites. The disposal locations should be approved by Parks Canada. Therefore, Parks Canada will need to be informed of the proposed excavation schedule as part of the overall project schedule, with confirmation two weeks in advance of excavation.
- .3 Any excavated soils that are removed from the site should be taken to approved landfills or other similar sites. Disposal locations must be approved by Parks Canada.

### **3.4 REMOVAL OPERATIONS**

- .1 Remove designated trees during demolition.
  - .1 Obtain written approval of Departmental Representative prior to removal of trees not designated.
- .2 Stockpile topsoil for final grading and landscaping:
  - .1 Provide erosion control and seeding if not immediately used.
- .3 Disposal of Material:
  - .1 Dispose of materials not designated for salvage or reuse on site as instructed by Departmental Representative.
  - .2 Trim disposal areas to approval of Departmental Representative.
- .4 Backfill:
  - .1 Backfill in areas as indicated and in accordance with Section 31 23 33.01 - Excavating, Trenching and Backfilling.

### **3.5 STOCKPILING**

- .1 Label stockpiles, indicating material type and quantity.
- .2 Designate appropriate security resources/measures to prevent vandalism, damage and theft.
- .3 Locate stockpiled materials convenient for use in new construction to eliminate double handling wherever possible.

- .4 Stockpile materials designated for alternate disposal in location which facilitates removal from site and examination by potential end markets, and which does not impede disassembly, processing, or hauling procedures.

### **3.6 REMOVAL FROM SITE**

- .1 Remove stockpiled material as directed by Departmental Representative, when it interferes with operations of project.
- .2 Remove stockpiles of like materials by alternate disposal option once collection of materials is complete.
- .3 Transport material designated for alternate disposal using approved haulers in accordance with applicable regulations.
- .4 Dispose of materials not designated for alternate disposal in accordance with applicable regulations.

### **3.7 RESTORATION**

- .1 Restore areas and existing works outside areas of demolition to match condition of adjacent, undisturbed areas.
- .2 Use soil treatments and procedures which are not harmful to health, are not injurious to plants, and do not endanger wildlife, adjacent water courses or ground water.

### **3.8 CLEANING**

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
  - .1 Leave Work area clean at end of each day.
  - .2 Remove debris, trim surfaces and leave work site clean, upon completion of Work
  - .3 Use cleaning solutions and procedures which are not harmful to health, are not injurious to plants, and do not endanger wildlife, adjacent water courses or ground water.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.

### **3.9 PROTECTION**

- .1 Repair damage to adjacent materials or property caused by selective site demolition.

**END OF SECTION**