

## **SECTION 02 41 16**

### **BUILDING DEMOLITION**

#### **PART 1: GENERAL**

##### **1.01 RELATED DOCUMENTS**

- A. Drawings, Details of Construction and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification Sections, apply to work specified in this section.

##### **1.02 SUMMARY**

- A. This section includes the following:
1. Demolish and remove buildings, concrete footings, foundations, slabs, steel and wood framing, stairs, plaster and drywall partitions, flooring ceilings, floor and roof structure, fixed equipment and casework, doors, windows, roofing, electrical and mechanical equipment.
  2. Removal and legal disposal of all PCB-containing light fixture ballasts and other miscellaneous PCB-containing equipment.
  3. Removal and legal disposal of all light bulbs, thermostats, batteries and other items containing mercury, lead or cadmium.
  4. Removal, stabilization and legal disposal of all peeling and flaking lead-based paint.
- B. Related work by:
1. Divisions 31 and 32, site clearing, excavating, backfilling, site grading and vegetation establishment.

##### **1.03 SUBMITTALS**

- A. Schedule of demolition activities indicating the following:
1. Detailed sequence of demolition and removal work, with starting and ending dates for each activity.
  2. Dates for shutoff, capping, and continuation of utility services.
- B. Photographs or videotape, sufficiently detailed, or existing conditions of adjoining construction and site improvements that might be misconstrued as damage caused by demolition operations.

##### **1.04 QUALITY ASSURANCE**

- A. Demolition Firm Qualifications: Engage an experienced firm that has successfully completed demolition work similar to that indicated for this project.
- B. Regulatory Requirements: Comply with governing EPA notification regulations before starting demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- C. Pre-demolition Conference: Conduct conference at project site to comply with pre-installation conference requirements of Division 1 Section "Project Meetings."

##### **1.05 PROJECT CONDITIONS**

- A. Buildings to be demolished will be vacated and their use discontinued before start of work.

- B. Owner assumes no responsibility for actual condition of buildings to be demolished.
  - 1. Conditions existing at time of inspection for bidding purposes will be maintained by Owner as far as practical.
- C. Asbestos: If asbestos is encountered, the Owner will be responsible for removal.
- D. Storage or sale of removed items or materials on-site will not be permitted.

## **PART 2: PRODUCTS**

(Not applicable)

## **PART 3: EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that utilities have been disconnected and capped.
- B. Survey existing Conditions and correlate with requirements indicated to determine extent of demolition required.
- C. Survey the condition of the building to determine whether removing any element might result in a structural deficiency or unplanned collapse of any portion of the structure or adjacent structures during demolition.
- D. Perform surveys as the work progresses to detect hazards resulting from demolition activities.

### **3.02 UTILITY SERVICES**

- A. Utility Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services serving structures to be demolished.
  - 1. Arrange to shut off indicated utilities with utility companies.
- B. Utility Requirements: Do not start demolition work until utility disconnecting and sealing have been completed and verified in writing.

### **3.03 PREPARATION**

- A. Conduct demolition operations and remove debris to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities.
- B. Conduct demolition operations to prevent injury to people and damage to adjacent buildings and facilities to remain. Ensure safe passage of people around demolition area.
  - 1. Protect existing site improvements, appurtenances, and landscaping to remain.
- C. Provide and maintain interior and exterior shoring, bracing, or structural support to preserve stability and prevent movement, settlement, or collapse of buildings to be demolished and adjacent buildings to remain.
  - 1. Strengthen or add new supports when required during progress of demolition.

### **3.04 EXPLOSIVES**

- A. Explosives: Use of explosives will not be permitted.

### **3.05 POLLUTION CONTROLS**

- A. Use water mist, temporary enclosures, and other suitable methods to limit the spread of dust and dirt. Comply with governing environmental protection regulations.
  - 1. Do not create hazardous or objectionable conditions, such as ice, flooding, and pollution, when using water.
- B. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
  - 1. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level.
- C. Clean adjacent buildings and improvements of dust, dirt, and debris caused by demolition operations. Return adjacent areas to condition existing before start of demolition.

### **3.06 DEMOLITION**

- A. Building Demolition: Demolish buildings completely and remove from the site. Use methods required to complete work within limitations of governing regulations and as follows:
  - 1. Dispose of demolished items and materials promptly. On-site storage for sale of removed items is prohibited.
  - 2. Demolish concrete and masonry in small sections
  - 3. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
- B. Below-Grade Construction: Demolish foundation walls and other below-grade construction, as follows:
  - 1. Completely remove below-grade construction, including foundation walls and footings.
  - 2. Break up and remove below-grade concrete slabs.
- C. Damages: Promptly repair damages to adjacent facilities caused by demolition operations.
- D. Crushing of concrete on site will be allowed. Crush concrete used for fill on site to Class V gradation.

### **3.07 DISPOSAL OF DEMOLISHED MATERIALS**

- A. General: Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.
- D. Disposal of all PCB-containing light fixture ballasts and other miscellaneous PCB-containing equipment, items containing mercury, lead or cadmium, oil, R-22 refrigerant, hydraulic oil, boiler chemicals, fire extinguishing agents and ammonia is the responsibility of the Contractor. The Contractor shall carefully remove all such equipment and place it in containers and deliver to a certified hazardous waste disposal service and/or a certified hazardous lamp recycling service. The Contractor shall provide the Owner with certified documentation that these items have been legally disposed of.

**END OF SECTION 02 41 16**

