

MASTER
SECTION 024293 [01736]
BUILDING DECONSTRUCTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes:
 - 1. Deconstruction and removal of **[selected portions of] [entire]** building or structure for salvage.
 - 2. Deconstruction and removal of **[selected]** site elements for salvage.
 - 3. Demolition and removal of selected portions of building or structure for disposal.
 - 4. Salvaging items for reuse by Owner.
- B. Related Sections:
 - 1. Division 01 Section "Construction Waste Management and Disposal" for disposal of demolished materials.

1.2 DEFINITIONS

- A. Full Deconstruction: Removal by disassembly of a building in the reverse order in which it was constructed.
- B. Selective Deconstruction: Disassembly and removal of selected portions of building or structure.
- C. Salvage: Removal of disassembled building materials for the purpose of reuse or recycling.
- D. Demolish: Remove and legally dispose of off-site.

1.3 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, deconstruction waste becomes property of Contractor.

1.4 SUBMITTALS

- A. Qualification Data: For deconstruction firm.
- B. Schedule of Deconstruction Activities: Indicate the following:
 - 1. Detailed sequence of deconstruction and removal work, with starting and ending dates for each activity.
 - 2. Interruption of utility services. Indicate how long utility services will be interrupted.
 - 3. Coordination for shutoff, capping, and continuation of utility services.
 - 4. Use of elevator and stairs.
 - 5. Locations of proposed dust- and noise-control temporary partitions and means of egress.
 - 6. Means of protection for items to remain and items in path of material removal from building.
- C. Inventory: After deconstruction is complete, submit a list of items that have been salvaged, recycled and disposed of and documentation (receipts/scale tickets/waybills) showing the quantities.
- D. Deconstruction Photographic Documentation: Document general condition of materials to be salvaged prior to removal.
- E. Submit deconstruction plan prior to start of work.

1.5 QUALITY ASSURANCE

- A. Deconstruction Firm Qualifications: Company(ies) experienced and specializing in performing the Work of this Section with documented experience in similar types of deconstruction work.
- B. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.
 - 1. Comply with noise and dust regulations of authorities having jurisdiction.
- C. Pre-Deconstruction Conference: Conduct conference at Project site. Review methods and procedures related to deconstruction including, but not limited to, the following:
 - 1. Inspect and discuss condition of building to be deconstructed.

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2. Review structural load limitations of existing structure.
3. Review and finalize deconstruction schedule and verify availability of materials, personnel, equipment, and facilities needed to make progress and avoid delays.
4. Review requirements of work performed by other trades that rely on substrates exposed by deconstruction operations.
5. Review areas where existing construction is to remain and requires protection.
6. Review method for removing materials from the site.
7. Review staging area for materials on the site.

1.6 PROJECT CONDITIONS

- A. Hazardous Materials: It is unknown whether hazardous materials will be encountered in the Work.
 1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Owner will remove hazardous materials under a separate contract.
- B. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during deconstruction operations.
 1. Maintain fire-protection facilities in service during deconstruction operations.

1.7 DECONSTRUCTION PLAN

- A. Material Identification: Indicate anticipated types and quantities of materials to be salvaged, recycled, and disposed of. Indicate quantities by weight or volume, but use same units of measure throughout.
- B. Procedure: Describe deconstruction methodology, sequencing, and materials handling and removal procedures. Include the anticipated final destination of each material.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped.
- B. Survey existing conditions and correlate with requirements indicated to determine extent of deconstruction required.
- C. Inventory and record the condition of items to be removed and salvaged.
- D. Engage a professional engineer to survey condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during deconstruction operations.
- E. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs or videotapes.
- F. Perform surveys as the Work progresses to detect hazards resulting from deconstruction activities.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems: Maintain services/systems indicated to remain and protect them against damage during deconstruction operations. **<omit for complete building removal>**
- B. Service/System Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems.

3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct deconstruction operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

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- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to workers and damage to salvageable materials.
 - 1. Provide protection to ensure safe passage of workers around deconstruction area.
 - 2. Provide weather protection for all salvage materials (and items to remain) before, during and after deconstruction.
- C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required [to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain] **<omit for complete building removal>**, [and/or to prevent unexpected or uncontrolled movement or collapse of construction being deconstructed].
 - 1. Strengthen or add new supports when required during progress of deconstruction.

3.4 DECONSTRUCTION

- A. General: Deconstruct and remove existing construction in accordance with the materials identified for removal in the deconstruction plan. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Proceed with deconstruction systematically, from higher to lower level. Complete deconstruction operations above each floor or tier before disturbing supporting members on the next lower level.
 - 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing, prying or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain **<omit for complete building removal>**.
 - 3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - 4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
 - 5. Maintain adequate ventilation when using cutting torches.
 - 6. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site in accordance with all federal, state and local regulations.
 - 7. Remove structural framing members in such a way as to maintain their highest value.
 - 8. Locate deconstruction equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 - 9. Dispose of demolished items and materials promptly.
- B. Salvaged Items:
 - 1. Sort and organize salvaged materials as they are removed from the structure.
 - 2. Pack, crate or band materials to keep them contained and organized.
 - 3. Store items in a secure and weather protected area until removed from the site or transferred to Owner.
 - 4. Transport items to Owner's long-term storage area [**on-site**] [**off-site**] [**designated by Owner**] [**indicated on Drawings**] **<if Owner is to maintain ownership of salvaged materials>**.
 - 5. Protect items from damage during transport and storage **<if Owner is to maintain ownership of salvaged materials>**.
- C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during deconstruction activities. When permitted by Architect, items may be removed to a suitable, protected storage location during deconstruction and cleaned and reinstalled in their original locations after deconstruction operations are complete. **<omit for complete building removal>**

3.5 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them.
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

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3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
4. Comply with requirements specified in Division 01 Section "Construction Waste Management and Disposal."

B. Burning: Do not burn demolished materials.

3.6 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by deconstruction operations. Return adjacent areas to condition existing before deconstruction operations began.

3.7 SALVAGED MATERIALS FOR REUSE BY OWNER SCHEDULE

- A. Existing Items to Be Removed and Salvaged: **<Insert description of items to be removed and salvaged for reuse by Owner.>**

END OF SECTION