

## **PART ONE - GENERAL**

### **DESCRIPTION**

**SECTION INCLUDES:** Perform all work required to complete the selective demolition work, including but not limited to,

1. REMOVAL of existing greenhouse structure including but not limited to caging, framing, glazing, flashing, etc.
2. REMOVAL of existing masonry base wall.
3. REMOVAL of other miscellaneous items required to allow for the new work.
4. REMOVAL of existing wood doors, frames, glazing, etc.
5. CLEAN UP and removal of resulting debris.

**RELATED SECTIONS:**

1. GENERAL CONDITIONS and DIVISION 1.
2. PROTECTION OF WORK AND PROPERTY: Section 01 545

### **SUBMITTALS**

**SCHEDULE:** Submit proposed schedule of operations.

### **QUALITY ASSURANCE**

**QUALIFICATIONS:** Demolition work shall be performed by an established firm employing skilled experienced workers under competent supervision.

**DESIGN CRITERIA:**

1. STRUCTURAL: Do not cut structural work in a manner resulting in a reduction of load carrying capacity or load/deflection ratio.
2. OPERATIONAL AND SAFETY LIMITATIONS: Do not cut operational elements and safety related components in a manner resulting in a reduction of capacities to perform in a manner intended, or resulting in a decreased operational life, increased maintenance, or decreased safety.
3. VISUAL REQUIREMENTS: Do not cut work which is exposed on the exterior or exposed in occupied spaces of the building in a manner resulting in a reduction of visual qualities, or resulting in substantial evidence of the demolition work, both as judged solely by the Architect. Remove and replace work judged by the Architect to be cut and patched in a visually unsatisfactory manner.
4. LOADING: Do not superimpose loads at any point upon the existing structure beyond the design capacity, including loads due to materials, construction equipment, demolition operations, and shoring and bracing.
5. VIBRATION: Do not induce vibration into any element of the structure during demolition operations.
6. FIRE: Do not use any means, methods, techniques, or procedures which produce any fire hazard.
7. WATER: Do not permit uncontrolled water or humidity.
8. AIR POLLUTION: Do not permit uncontrolled dust, fumes, or other damaging air pollution.

**REQUIREMENTS OF REGULATORY AGENCIES:** Comply with all applicable requirements.

1. EPA RRP (Renovating, repairing or painting) Rule, "Lead-Safe Certified Guide to Renovate Right".

**REFERENCE STANDARDS:** In addition to Contractor's normal references, conform to the following:

1. MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION, published by the Associated General Contractors of America.
2. NFPA 241 "Safeguarding Building Construction and Demolition Operations"

**ACCIDENT PREVENTION:** Contractor is solely responsible for providing adequate safety measures, such as barricades, fences, warning lights and signs, as necessary to protect persons and property. Execute the work in such fashion as not to involve undue hazards to the General Public or unnecessary risks to workers, or adjacent property.

## **PROJECT CONDITIONS**

INSPECT EXISTING CONDITIONS: For improper conditions which may prevent proper execution of the demolition and removal work. Do not proceed until improper conditions are satisfactorily corrected. Commencement of the work of this Section constitutes acceptance of existing conditions.

1. **STRUCTURE:** The Owner and Architect assume no responsibility for the actual condition of the structures to be demolished.

ACCIDENT PREVENTION: Contractor is responsible for providing adequate barricades, fences, warning lights and signs, as necessary to protect persons and property. Execute the work in such fashion as not to involve undue hazards to the General Public or unnecessary risks to workers, or adjacent property.

## **PART TWO - PRODUCTS**

### **MATERIALS**

SALVAGE MATERIAL: Shall become the property of the Contractor, and shall be removed from the premises and properly disposed of.

1. **STORAGE OR SALE** of removed items on the site is not permitted.
2. **RETAIN ON SITE** and store where directed, any equipment or material designated by the Owner, to remain.

EXPLOSIVES: Are not permitted.

## **PART THREE - EXECUTION**

### **PREPARATION**

ACCEPT FULL RESPONSIBILITY for all damage caused as a result of improper demolition operations.

CORRECT for all damage caused as a result of improper demolition operations.

PROTECT EXISTING SITE FEATURES that are to remain against damage.

1. **MARK UTILITIES**
2. **INTERFERING UTILITIES OR SERVICES** shall be protected and maintained wherever encountered, including temporary or permanent rerouting required. Abandoned services shall be properly removed.

TEMPORARY PROTECTION OR BARRICADES: As required to prevent injury or damage to the structure or adjacent construction.

1. **ERECT AND MAINTAIN** waterproof closures for exterior openings.

### **FIRE PRECAUTIONS**

BEFORE COMMENCING WORK, fire precautions shall be taken. Some of them include the following:

1. **TAKE ALL NECESSARY PRECAUTIONS** to guard against and eliminate all possible fire hazards and to prevent damage to any construction work, building materials, equipment, temporary field offices, and all other property, both public and private.
2. **THE CONTRACTOR'S SUPERINTENDENT** shall inspect the entire project as often as required to make certain that they adhere to the conditions and requirements set forth herein and report and correct any deviation.
3. **EMPLOYEES** shall not be allowed to start fires with gasoline, kerosene, or other highly flammable materials. No open fires will be permitted.
4. **NO WELDING, FLAME CUTTING,** or other operations involving the use of flame, arcs, or sparking devices will be allowed without adequate protection and shielding particularly at the point of operation and prior permission of the Owner. The Contractor shall provide the necessary personnel and fire fighting equipment to effectively control incipient fires resulting from welding, flame cutting, or other operations involving the use of flame, arcs, or sparking devices.

### **FIRE PROTECTION**

THE CONTRACTOR SHALL BE RESPONSIBLE, at his expense, during the entire demolition period, for providing and maintaining adequate material, equipment and services. Some of these include:

1. **WATER SUPPLY, Fire Hose and Sprinkler Protection:** Locate the fire service mains, hydrants, and connection to the water supply.

2. IF EXISTING HOSES ARE NOT ADEQUATE to protect the demolition area, supply additional matching hoses.
3. FIRE EXTINGUISHERS: Provide and maintain in working order at all times, conveniently located for proper protection.
4. FIRE EXTINGUISHERS shall be a 2-1/2 gallon capacity water type gas cartridge expelled unit which meets the approval of the Fire Underwriters' Laboratory, and shall be inspected at regular intervals and recharged if necessary.
5. IN AREAS OF FLAMMABLE LIQUIDS, asphalt, or electrical hazards, extinguishers of the 15 lbs. carbon dioxide type or 20 lb. dry chemical type shall be provided.

### **OWNER'S OCCUPANCY PROTECTION**

PROVIDE ADEQUATE AND SUITABLE PROTECTION of the Owner's occupancy of the adjacent building areas, during the complete demolition process, in such a manner that the Owner's operations may be carried on without interference or interruption.

NOTIFY THE OWNER and secure approval 48 hours before commencing each phase of demolition work.

ISOLATE THE ENTIRE DEMOLITION AREA from occupied areas by use of fire-resistive dust proof barriers, as required or specified. Barriers shall be so installed and maintained as to prevent circulation of dust and other debris beyond demolition area.

### **STRUCTURAL PROTECTION**

PERFORM ALL SHORING OR BRACING NECESSARY to prevent movement or other damage to the structure or the adjacent construction.

1. CONSTRUCT shoring and bracing, using adjustable steel parts or solid timbers with plates top and bottom, wedged solidly into place and braced, before any loads are transferred.
2. SHORED LOADS shall be evenly distributed to suit the load-carrying capability of supporting construction.
3. PROVIDE SHOP DRAWINGS indicating the proposed means and methods.

### **DEMOLITION**

DEMOLITION WORK shall be carried out in such a way to cause minimum annoyance and inconvenience to the building occupants, and to neighbors and the public.

1. PROVIDE ADEQUATE TEMPORARY VENTILATION at all times.
2. KEEP THE WORK AREA and all public and private property in a neat and orderly condition at all times.

DEMOLITION SHALL BE EXECUTED in small sections, using methods that will minimize noise and other annoyance. Shore and brace as required to prevent damage.

1. PARTIALLY WRECKED WORK shall be protected until repaired by permanent construction.
2. PROTECTION: Provide adequate protection of other work during selective demolition, to prevent damage. Provide protection from adverse weather.

PREVENT MOVEMENT OF STRUCTURE. Provide required shoring and bracing.

CEASE OPERATIONS IMMEDIATELY if structure appears to be in danger. Notify Owner and Architect-Engineer.

1. DO NOT RESUME OPERATIONS until conditions are satisfactory.

MAINTAIN PROTECTED egress and access to work and site.

DEMOLITION IN AN ORDERLY FASHION: Protect existing supporting structural members.

REMOVE DEMOLISH MATERIALS from the site and legally dispose of them.

1. DO NOT BURN OR BURY MATERIALS on the site.
2. REMOVE DEBRIS as work progresses.

### **ELECTRICAL DEMOLITION**

ELECTRICAL DEMOLITION work shall be done by or under the supervision of qualified electricians. Refer also to Division 16-Electrical Work.

1. ELECTRICAL WORK INCLUDES: Disconnection, removal, relocation, and reconnection of electrical equipment and conduit as shown on the plans and/or required. Remove all abandoned and previously abandoned items completely.

2. ALL ELECTRICAL WORK INTERFERING with demolition or requiring modification shall be disconnected, removed and/or rerouted as required.
3. EQUIPMENT AND WIRING not in demolition area, but affected by demolition work shall be reconnected as required for a complete working system.
4. ABANDONED AND INACTIVE CONDUITS, wire, devices, equipment, etc., shall be removed in their entirety. In addition to these items, this Contractor shall remove all items as indicated on the drawings, or as required to clean up the entire area of unused, abandoned, inactive material. Conduit and wiring feeding devices and equipment to be removed shall be also removed up the next active pullbox, junction box, or panel. Hangers, passenger cable, brackets, etc., supporting items to be removed shall also be unfastened and removed. Open holes in ducts, boxes, panels and knockouts shall be closed with suitable snap plugs or filler plates.

### **MECHANICAL DEMOLITION**

MECHANICAL DEMOLITION work shall be done by or under the supervision of qualified plumbers, steam fitters, etc., as the case may be. Refer to Division 15

1. MECHANICAL WORK INCLUDES disconnection, removal, relocation, and reconnection of gas lines, plumbing lines, ductwork, hot water heaters, sink, furnace, vents etc., as shown on the plans and/or as required. Note certain lines are designated to remain.
2. REMOVE COMPLETELY all mechanical lines indicated to be removed. Any mechanical work to remain, which interferes with demolition, or requiring modification shall be disconnected, removed and/or rerouted as required.
3. ALL EQUIPMENT, plumbing, piping and ductwork not in the demolition area, but affected by demolition work shall be reconnected as required for a complete working system.
4. ABANDONED AND INACTIVE PIPING, supports, valves, controls, etc., shall be removed in their entirety. In addition, remove all items noted or required to clean up the entire area of unused, abandoned or inactive material.

### **COMPLETION**

REMOVE TEMPORARY PROTECTIONS, barricades, or separations upon completion or when directed. REMOVE FROM THE SITE all scrap, litter and debris resulting from operations specified herein, and leave the work and the premises in clean, satisfactory condition. Floor to be broom cleaned.

ANY PENETRATION to the outside opened during demolition work, shall be patched or repaired to retain a weather tight condition.

CLEAN ADJACENT AREAS of the structure and improvements of dust, dirt, etc. resulting from the demolition and removal work. Leave ready to receive subsequent work.

### **SCHEDULE**

MAJOR WORK ITEMS: Includes but not limited to:

1. STEEL AND WOOD FRAMED greenhouse structure, glazing, etc.
2. MASONRY BASE WALL and other supporting components.
3. MISC. REMOVALS: As needed for new work.

ITEMS TO REMAIN PROPERTY OF OWNER: None

ITEMS TO BE REMOVED STORED, PROTECTED FOR RE-INSTALLATION: None

ITEMS TO BE REMOVED BY OWNER: None

ITEMS TO BE PROTECTED: None

END OF SECTION