SECTION 01 54 23
TEMPORARY SCAFFOLDING AND PLATFORMS

PART 1 - GENERAL

1.1 DESCRIPTION

A. Section includes:

1. Designing, supplying, erecting and maintaining scaffolding to facilitate restoration work including all bracing, tie backs, outriggers, guardrails, toe boards, platforms, access stairs and ladders.
2. Performing daily safety inspections of scaffolding and suspended scaffolding throughout the progress of the work, and maintaining the safety of the workmen and pedestrians.
3. Designing, supplying, erecting and maintaining weather-resistive enclosure to protect public, workers and private property from injury or damage.
4. When required, provide a weather tight enclosure for scaffolding and maintain required temperature as well as proper ventilation.

1.2 SUBMITTALS

A. Scaffolding Drawings for Review by Architect:

1. Prior to erection of the scaffolding, prepare and submit erection drawings and connection details for review by Architect, stamped by a professional engineer experienced in structural design of scaffolding and registered in the State of Pennsylvania. Architect’s review does not relieve Contractor from contractual requirement and responsibility.

2. Show the following on erection drawings:
   a. Reference specifications, materials and sizes for structural members.
   b. Main dimensions of scaffolding. Prepare surfaces in strict accordance with manufacturer's directions.
   c. Locations of tie backs and bracing.
   d. Guardrails.
   e. Planking.
   f. Stairs.
   g. Ladders.
   h. Where necessary, shoring or strengthening of existing structures.
   i. Connection details.
   j. Tie back arrangement for scaffolding.

B. Supplier Of Metal Scaffolding Components: Submit test data and test information upon request.

1.3 PROJECT CONDITIONS

A. Existing Structure:

1. Verify existing structure can safely support all loads imposed by scaffolding.

2. Contractor responsible for damage to existing building caused by erection and dismantling of scaffolding, and by loads imposed by scaffolding.

PART 2 - PRODUCTS

2.1 SCAFFOLDING COMPONENTS

A. Provide metal scaffolding components from a single source supplier of metal scaffolding components.

1. Erect and operate commercially manufactured suspended scaffolds in accordance with written operating procedures developed by manufacturer; in accordance with a professional engineer's design including instructions on erection, use and design

2.2 DESIGN AND FABRICATION

A. Design and fabricate scaffolding and suspended scaffolding in accordance to requirements of referenced standards and codes.

1. When required, equip scaffolding and suspended scaffolding with an enclosure capable of providing weather-resistive protection to exterior building envelope under rehabilitation, protection to pedestrians and adjacent property from dust, dirt, debris, water spray, falling tools, falling materials, and other workplace hazards.
2. Support Conditions:
   a. Verify bearing condition of supporting structure by the Scaffolding Contractor.
   b. Where existing structure is used for support of scaffolding and suspended scaffolding, verify that existing structure can safely support imposed loads from scaffolding. Should existing structure require strengthening for support of scaffolding, provide details from a professional engineer for shoring or strengthening requirements.
   c. When Contractor relies on structural integrity of existing exterior walls of the building for lateral support of scaffolding, Contractor must establish whether existing wall components can adequately support additional lateral loads. Contractor takes responsibility for providing adequate anchorage of lateral supports for scaffolding. Restore resultant damage to existing walls to their original condition due to anchorage of the scaffolding.
3. Enclosure:
   a. The Contractor is responsible for taking into account wind loads that are imposed on scaffolding as a result of the scaffolding being enclosed.
4. Access to Scaffolding:
   a. Provide access to working levels of scaffolding by means of either stairs or fixed vertical ladders.
   b. Provide stairs with handrails and landings with guard railings such that if a workman trips and falls while descending the stairs, it will not be possible for workman to fall through the railing system.
   c. Surround stair openings on planked working areas of scaffolding with guard railings to prevent workmen from walking into back or sides of open stair.

5. Working Platforms:
   a. Fully plank levels of scaffolding designated for work. On a designated working platform, the Contractor shall not remove isolated areas of planking such that fully planked platform has areas of missing planks. Replace damaged planks immediately.
   b. If Contractor deems that fully planked working platforms are not required, or a partially planked platform is required to facilitate lowering or raising material, install guardrails to prevent workmen from falling off partially planked platform.
   c. With the exception of front of stair openings, provide guard railings at openings in working platforms to prevent workmen from accidentally walking into openings.

PART 3 - EXECUTION

3.1 PROFESSIONAL ENGINEER'S CERTIFICATION

A. Erect scaffolding and suspended scaffolding in accordance with erection drawings.

B. Position scaffold tie-backs in line with through wall flashing if possible. At locations where there are scaffold tie-backs penetrating the weather-resistive barrier, install self-adhesive membrane on top of weather-resistive barrier. Seal membrane penetration with mastic at time of tie-back removal.

C. After erection of scaffolding and suspended scaffolding, provide written certification from a professional engineer that scaffolding is erected in accordance with reviewed erection drawings.

D. Report revisions to lateral and gravity support arrangements for suspended scaffolding made by Contractor to professional engineer who certified erection drawings. In addition, Professional Engineer must certify that revisions have been reviewed and are acceptable.

E. Provide inspection reports, "orders to comply", and other site instructions issued to Contractor by representative of the Pennsylvanis Department of Labor and Industries to Architect and Professional Engineer responsible for certifying scaffolding erection drawings and confirming that scaffolding is erected in accordance with reviewed erection drawings. Immediately follow life safety instructions / work orders by Pennsylvania Department of Labor and Industries prior to continuing with Work.

F. Provide written certification from a professional engineer for scaffolding erected over elevated or suspended structures, that structure can support loads imposed by scaffolding.

3.2 FABRICATION AND INSTALLATION OF ENCLOSURE

A. Install weather-resistive enclosure protection in accordance with rules and regulations set forth in referenced standards.

B. Install weather-resistive enclosure protection at areas identified as being in scope of work and in accordance with approved shop drawings.

C. Provide posts, rafters, planking and plywood sheathing.

D. Construct roof structure of weather-resistive enclosure of wood framing capable of withstanding impact load from falling debris, materials or tools in order to provide overhead protection to public accessing building during construction. Construct roof of weather-resistive enclosure waterproof.

E. Provide sufficient lighting for evening entrance and exit of building throughout covered walkways to ensure safety and security to public. Dark corners not allowed.

F. Maintain weather-resistive enclosure in good condition at all times.

G. Repair damaged weather-resistive enclosure to satisfaction of the Architect and other applicable authorities.

H. Keep weather-resistive enclosure clean at all times.

I. Remove weather-resistive enclosure from site only when authorized by the Architect.

END OF SECTION