SP-150857
(New)

SPECIAL PROVISIONS FOR USE OF TEMPORARY STEEL CONTAINMENT ENCLOSURES DURING DEMOLITION OF EXISTING FOUNDATIONS

Scott County
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Effective Date
June 21, 2022

THE STANDARD SPECIFICATIONS, SERIES 2015, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

150857.01 DESCRIPTION.

A. Steel containment enclosures are temporary control measures used for containing debris and disturbed sediments in an area of open water. Open water is described as any perennial water course or water body with 6 inch or greater depth. Steel containment enclosures consist of steel sheet piling, or another approved equivalent that contains continuous, interlocking steel elements in order to provide a complete enclosure around each substructure element to be demolished. Steel containment enclosures are intended to contain all demolition debris during construction activities to aid in removal of debris from the riverbed.

B. An on-site supervisor shall be present at the job site at all times during the performance of the work. The on-site supervisor shall have at least 3 years of construction experience in the installation of sheet pile walls. The work experience time period is computed by the addition of all documented durations of the work time on construction projects.

150857.02 MATERIALS.

A. Steel Piles.

1. Steel piles shall conform to Section 4167 of the Standard Specifications.

2. Storage, transportation, and handling shall be performed in a manner to prevent bending stresses or other damage.

B. Walers and Struts.

1. Walers and struts shall conform to Section 4167 of the Standard Specifications.

2. Storage, transportation, and handling shall be performed in a manner to prevent bending stresses or other damage.

C. Steel Shims, Stiffener Plates, and End Plates.
Shims, stiffener plates, and end plates shall conform to Sections 2408 and 4152 of the Standard Specifications.

D. Steel Channel.
Steel channels shall conform to Sections 2408 and 4152 of the Standard Specifications.

E. Angle Plate.
Angle plates shall conform to Sections 2408 and 4152 of the Standard Specifications.

150857.03 CONSTRUCTION.

A. Submittals.

1. Prior to initiating installation of the temporary steel containment enclosures, submit to the Engineer a report which identifies the personnel who will be performing and supervising the work and meet the requirement in this Special Provision. The report shall include the names on-site supervisors and operators. The report shall also contain a list of employees' names and telephone numbers, location and dates of previous projects, and the extent of work performed. This information must be verifiable.

2. Submit the proposed steel containment enclosure installation plans to the Engineer for review and approval. The submission shall consist of details required to completely describe the temporary steel containment enclosures and shall include the following:
   - **a.** Shop drawings for the temporary steel containment enclosures shall indicate, at a minimum, the following**:**
     - **1)** Sequence of installation.
     - **2)** Steel containment enclosures layout.
     - **3)** Interlocking and Corner details for the proposed steel containment enclosures layout.
     - **4)** Details of waler/strut systems along with details of their connections to each other and to the sheets
     - **5)** Grade and strength of all construction materials used.
   - **b.** Descriptive data and operating procedure for all equipment to be used. This shall include, at a minimum: machinery required to install steel piles and remove obstructions as well as equipment that will be used to demolish the substructure units and to remove debris. Submit all pertinent equipment data, including sizes, weights, capacities, torques, and operating frequencies.
   - **c.** Removal plan for steel containment enclosures.

B. General.

1. Construct steel containment enclosures in the locations shown in the contract documents and to the expected water depth plus wave height, but not less than elevation 565.00.

2. On U.S. Coast Guard regulated waters or other navigable waterways, furnish buoys to mark the ends and special areas for visibility. Place buoys as required for navigational purposes.

3. Install steel containment enclosures prior to any demolition activities of the substructure

elements which may cause debris to enter the waterway. Install the enclosure along the complete work area which is planned to be disturbed. Refer to the special provisions for environmental protection and mussel conservation.

4. Install and maintain the steel containment enclosure and necessary bracings in accordance with the design as shown in the plans and on the accepted shop drawings in such a manner as to minimize movement, settlement, loss of ground, removal of fines from adjacent ground, and damage to or movement of adjacent structures or utilities.

5. For steel containment enclosure installations near land, control surface drainage prior to entry into the water by installation of appropriate erosion control measures on land.

6. Inspect the steel containment enclosures after heavy winds or major rainstorms (1 inch) to check for damage or displacement.

7. Upon completion of the work remove steel containment enclosures.

C. Driven Steel Sheet Pile Walls.

1. Before positioning sheet piles for driving, clean the sheet piles and inspect for defects and proper interlock dimensions. Temporary guides or templates may be used to maintain the accuracy of the sheet pile position. Provide sufficient clearance in the interlocks to allow sheet piles to slide, under sheet pile's own weight, in the interlock of the sheet pile previously placed until the top of existing ground is reached by the tip of the sliding sheet pile. Do not use vibratory or impact hammer to force the interlocking of sheet piles.

2. Before driving is started, check sheet piles for position and alignment. Install sheet piles in rotating stages such that the tip of any sheet pile is not more than 5 feet below the tip of any adjacent sheet pile.

3. Where required, install bracing system consisting of walers and struts as shown in the plans and approved shop drawings. Install steel supports true to the line and grades as per the plans and approved shop drawings. Install steel shims to ensure firm contact between walers and the sheet piles.

D. Construction Tolerances for Driven Steel Pile Walls.

1. The driving tolerance shall be 1% of the vertical in all directions.

2. Driven steel sheet piles not constructed within the required tolerances will be considered unacceptable. Correct all unacceptable sheet piles to the Engineer's satisfaction. Furnish materials and work necessary, including engineering analysis and redesign, to complete corrections for out of tolerance construction (without either cost to the Contracting Authority or an extension of the completion dates of the project).

150857.04 METHOD OF MEASUREMENT AND BASIS OF PAYMENT.

No separate payment will be made for costs incurred due to compliance with this Special Provision. The cost of materials specified is incidental to the cost of associated work.