

WISCONSIN CONSTRUCTION SPECIFICATION

201. Steel Sheet Piling

1. SCOPE

The work shall consist of furnishing, transporting, and installing steel sheet piling as shown on the construction drawings.

2. MATERIALS

Sheet Steel Piling shall conform to the requirements of ASTM Specification A 328, Standard Specification for Steel Sheet Piling; A 572, Standard Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel; or A 857, Standard Specification for Steel Sheet Piling, Cold Formed, Light Gage.

Appurtenant Materials (steel plates, bars, structural shapes) shall conform with ASTM Specification A 36, Standard Specification for Carbon Structural Steel.

Protective Coatings shall be a coal tar polyamide epoxy paint suitable for use on structural steel and shall meet Paint Specification No. 16, Type 1, Class II, of the Steel Structures Painting Council (SSPC) or a zinc (hot-dip galvanized) coating conforming to the requirements of ASTM Specification A 123, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.

3. SITE PREPARATION

All clearing within the area to be occupied by the steel sheet piles shall be completed before the piling is installed.

4. PLACEMENT OF STEEL SHEET PILING

Steel sheet piling shall be installed as specified in the construction plans by one of the following methods:

a. Driving Sheet Piling

The Contractor shall provide driving heads and other devices for sheet pile driving and shall conform to the recommendations of the manufacturer.

The piling shall be driven in such a manner as to insure perfect interlocking throughout the entire length of each pile. The piles shall be held in proper alignment during driving by means of assembling frames or other suitable temporary guide structures. Temporary guide structures shall be removed when they have served their purpose.

At any time the forward edge of the sheet pile wall is found to be out of correct alignment: (a) the piling already assembled and partly driven shall be driven to the required depth, and (b) taper piles shall be then driven to bring the forward edge into correct alignment before additional regular piling is assembled and driven. The maximum permissible taper in a single pile shall be one-fourth inch per foot of length.

The Contractor shall not attempt to drive sheet piles beyond the point of refusal, as indicated by excessive bouncing of the hammer or kicking of the sheet pile.

b. Trench Embedment of Sheet Piling

Steel sheet piling is embedded by excavating a trench and backfilling to the dimensions and lines shown on the drawings.

Backfill material shall be placed and compacted to the density of the surrounding material, taking care not to displace or damage the steel sheet piling or its protective coating.

Backfill material shall contain no frozen soil, sod, brush, roots or other perishable material.

5. CUTTING OFF PILES

The Contractor shall cut off the steel sheet pile at the specified elevations. The length of the pile cut off shall be sufficient to permit the removal of all damaged material.

6. DEFECTIVE PILES AND DAMAGED COATINGS

Any sheet pile ruptured in the interlock or otherwise damaged during installation shall be pulled and replaced.

Damaged coatings on painted steel sheet piles shall be prepared and repainted in accordance with the manufacturer's specifications of the original coating.

Damaged galvanized coatings shall be repaired in accordance with ASTM A 780, Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.