

B. **Dimensions.** Piles shall have the following minimum diameters:

Length of Piles	Diameter (Inches)	
	3 Feet from Butt	At Tip
Under 40 feet	12	8
40 – 74 feet	13	7
75 – 90 feet	13	6
Over 90 feet	As shown on the plans	

C. **Treatment.** Where required, treatment of timber piling shall be according to Section 846 and will be accepted on certification according to Section 801.01. This certificate shall include species of timber, type of preservative, and method of treatment.

840.03 SHEET PILING FOR PERMANENT INSTALLATION.

A. **Steel Sheet Piling.** This material shall meet AASHTO M-202.

B. **Corrugated Steel Sheet Piles.** The steel sheet piles shall be of the continuous interlock type and of the lengths and section modulus specified. The sheeting shall be new and the base metal shall be open hearth steel.

The interlock shall be formed by bending the metal through 180° or more, leaving an opening of sufficient size to allow free slippage of the adjoining sheet pile, but maintaining a reasonably snug fit.

Each sheet pile shall be true, straight, and uniform in section. Corner sections shall be of the same section modulus and metal as the regular sections.

When required, galvanizing shall meet ASTM A-525 Coating Designation G-210.

SECTION 844 STRUCTURAL TIMBER, LUMBER, AND HARDWARE

844.01 STRUCTURAL TIMBER AND LUMBER.

This material shall meet AASHTO M-168.

844.02 HARDWARE.

A. **Timber Connectors.** The dimensions and types of all connectors shall be shown in the Contract. The materials for connectors shall be as follows:

1. Split Ring, Tooth Ring, and Shear Plate Connectors shall meet ASTM A-711.

2. Spike Grid Connectors shall meet ASTM A-47, Grade 35018.
 3. All connectors, except those of malleable iron, shall be galvanized according to AASHTO M-111.
- B. **Hardware.** Bolts, rods, drift-bolts, and dowels may be either wrought iron or medium steel. Washers shall be made integral with the heads and nuts and their diameters shall be at least 4 times the diameter of the respective bolts. Hardware, nails, and spikes shall be galvanized according to AASHTO M-232.

SECTION 846 PRESERVATIVES AND PRESSURE TREATMENT PROCESSES FOR TIMBER

846.01 TIMBER PRESERVATIVES.

This material shall meet AASHTO M-133.

SECTION 848 MASONRY UNITS AND BRICK

848.01 MATERIAL.

- A. **Concrete Masonry Units for Construction of Catch Basins and Manholes**
..... ASTM C-139
- B. **Building Brick (Made from Clay or Shale).** AASHTO M-114

SECTION 852 PAINTS, OILS, AND THINNERS

852.01 MATERIALS.

Paints, oils, and thinners shall meet the following:

- A. **Aluminum Paint.** AASHTO M-69
- B. **Lamp Black.** ASTM D-209
- C. **Chrome Yellow and Chrome Orange.** ASTM D-211
- D. **Enamels.** The enamel shall meet the general requirements of Federal Specifications TT-E-529 Enamel, Alkyd, Semi-Gloss (Class A-Air-drying) with the following exceptions: