WISCONSIN CONSTRUCTION SPECIFICATION

211. Vinyl Sheet Piling

1. SCOPE

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

2. MATERIALS

All sheet piling shall be manufactured entirely from a rigid, high impact, ultraviolet- (UV) inhibited, weatherable vinyl compound. All exposed surfaces of the sheet piling shall be UV resistant, and comprised of virgin material with a minimum ASTM D4216 Cell Classification of 1-42443-33. If mono-extrusion technology is used, the entire sheet pile must be comprised of virgin material with a minimum ASTM D4216 Cell Classification of 1-42443-33.

The sheet piling shall meet the following properties shown on the drawings:

- Minimum sheet thickness (in)
- Minimum length (ft)
- Minimum depth (Elev.)
- Minimum section modulus (in^3)
- Minimum moment of inertia (in^4)
- Minimum sheet width (in)
- Maximum section depth (in)

All male interlocks must incorporate I-Beam Lock reinforcement to resist lock separation and decrease seepage.

3. SITE PREPARATION

All clearing or other site preparation within the area to be occupied by the vinyl sheet piles shall be completed before the sheet piling is installed as shown on the drawings.

4. INSTALLATION OF VINYL SHEET PILING

Vinyl sheet piling shall be installed as specified in the construction plans or as directed by the Technician.

The sheet piling shall be placed by one of the following methods:

A. Driving Sheet Piling

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

The sheet piling shall be driven in such a manner as to insure lock engagement and integrity throughout the entire length of each sheet pile. The sheet 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 sheet piling already assembled and partly driven shall be driven to the required depth, and (b) taper sheet piles shall be then driven to bring the forward edge into correct alignment before additional regular sheet piling is assembled and driven.

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 as concurred by the Technician.

B. Trench Embedment of Sheet Piling

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

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

Backfill material shall be placed and compacted to the density of the surrounding material, taking care not to displace or damage the sheet piling. The adequacy of compaction will be concurred by the Technician.

5. CUTTING OFF SHEET PILES

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

6. DEFECTIVE SHEET PILES

Defective or damaged sheet piles shall not be driven and any sheet pile ruptured in the interlock or otherwise damaged during installation shall be pulled and replaced.