

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
ENGINEERING DIRECTIVES AND STANDARDS

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Volume : III Revision Date : 07/21/1976
Chapter : 2 Subject : **PRECAST-PRESTRESSED CONCRETE PILING**
Section : 5
Directive : 3

1. **PURPOSE.** The purpose of this directive is to establish a uniform policy and guidelines for driving and build up or cut off of precast-prestressed concrete piling.
2. **SCOPE.** This directive contains certain guidelines which will be followed when Precast-Prestressed Concrete Pile are used.
3. **PROCEDURE.** In order to eliminate or reduce cracks in pre-cast-prestressed concrete piling, the following guidelines will be followed.
 - A. Piles delivered to the project should be checked to see if they were damaged in delivery.
 - B. In transporting, lifting, moving and setting up concrete piles, the proper pick up points shall be used. For storage, piles will be supported under proper pick up points only.
 - C. The cables at the driving end should be checked to see that they are burned flush with the concrete.
 - D. Adequate cushion blocks to be used: three inches to four inches thick for short piles (50' or less) and the soil resistance is good; six inches to eight inches thick for longer piles where the soil is soft.
 - E. During the driving operation, the hammer will make an evenly distributed blow on the pile head.
 - F. A heavy ram with short strokes is preferable to a light ram with long strokes.
 - G. The energy should be reduced when light soil resistance is experienced.
 - H. The pile driving helmet or cap should fit loosely on the pile to allow the pile to rotate slightly, without binding.

Reference is made to piling standards for precast-prestressed concrete hollow core piling and the requirement for a 2" vent hole on each face of the piling, being approximately 6" below the intended bottom of the cast-in-place cap.

This vent hole is a necessary feature to avoid the internal build up of soil and gas pressures. Should it become necessary to either build up or cut off the piling above or below this vent, adequate provisions should be made to replace same for the intended function.

All projects containing this type piling will contain the vent holes prior to final acceptance of the project.

4. **OTHER ISSUANCES AFFECTED.** All directives, memoranda or instructions issued heretofore in conflict with this directive are hereby rescinded.
5. **EFFECTIVE DATE.** This directive will become effective immediately upon receipt.

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