

ITEM 407

TREATED AND UNTREATED TIMBER PILING

- 407.1 Description. This Item shall govern for the furnishing of treated or untreated timber piling, in place and in accordance with the size, type and details shown on the plans.
- 407.2 General. Driving of piling shall be in accordance with the Item 403 "Driving Timber Piling".
- 407.3 Material. Unless otherwise required, timber piling shall meet the requirements of ASTM D25.

Untreated piling may be of any species of durable timber which will satisfactorily stand driving. Treated piling shall consist of Southern Pine or Douglas Fir, impregnated with a preservative of such quantity and process as specified in the Item 457 "Timber Preservative & Treatment".

The minimum circumference of round piling at a section 3 feet from the butt, measured under the bark, shall be as follows:

TABLE 1

LENGTH OF PILING	MINIMUM CIRCUMFERENCE 3 FEET FROM BUTT
40' and Under	38"
Over 40'	41"

All piling shall be subject to inspection by a Commercial Laboratory selected by Harris County. The Commercial Laboratory may inspect piling before, during and after treatment and at the jobsite. Contractor shall replace piling found unsuitable at no additional cost to Harris County. The butt and tip of each acceptable pile will be branded with a marking hammer showing the identity of the inspection agency. The cost of inspection shall be paid to the laboratory by the Contractor.

Harris County shall receive the original and two copies of the inspection reports prior to driving piling.

- 407.4 Storing & Handling. At all points, suitable precautions shall be taken to prevent excessive splitting, checking, warping, distortion or any other damage which may cause the piling to be rejected. Treated timber piling shall be carefully handled without dropping, breaking of outer fibers, bruising or penetrating the surface with tools. The piling shall be handled with rope slings. "Cant dogs", hooks or pike holes shall not be used where such tool will penetrate untreated wood.

407.5 Cut-offs & Build-ups. The tops of piling shall be sawed to a true plane as shown on the plans and at the elevation established by the Engineer. Piling which support timber caps or grillage work shall be sawed to the exact plane of the superimposed structure and shall fit it exactly.

Piling which must be driven below established grade in order to attain the required bearing capacity shall be built up to the required grade by splicing on an additional length of piling of the same diameter and quality, as the pile to be built up. Splices shall be made in accordance with the details shown on the plans after the pile head and the lower end of the build-up section have been squared up. The build-up shall be of such length as to preclude the use of more than one splice in any one pile, and no splices or build-ups will be permitted except under the conditions outlined herein.

407.6 Treatment of Cuts, etc. After the necessary cutting has been done, the heads of treated timber piling shall be given three coats of a preservative determined appropriate for the original preservative per AWWA Standard M4. Follow with one coat of coal-tar roofing cement meeting the requirements of ASTM D4022. When indicated on the plans, the pile heads then shall be covered with a sheet of roofing felt weighing approximately 55 pounds per 100 square feet, or 20 gauge galvanized metal. The cover shall measure at least 6 inches more in each dimension, than the diameter of the piling and it shall be bent or folded down over the piling and edges fastened with large-headed galvanized nails, or secured by binding with galvanized wire as indicated on the plans.

The heads of untreated timber piling, unless otherwise provided, shall be coated thoroughly with a thick protective coat of coal-tar roofing cement and, when indicated on the plans, covered with felt or galvanized metal as provided above.

All places where the surface of treated piling is broken by cutting, boring, or otherwise, shall be coated thoroughly with coal-tar roofing cement. Coal-tar roofing cement shall be injected under pressure into the bolt holes, before insertion of the bolts, in such a manner that the entire surface of the holes shall receive a thorough coating.

407.7 Measurement. Timber piling, treated or untreated, driven in accordance with the specifications will be measured by the linear foot of acceptable piling complete in place after all cut-offs and build-ups have been made.

No cut-off will be measured on any pile which is spliced and built-up.

Each authorized build-up splice, other than those made necessary by careless or improper handling or driving, shall be measured as one build-up.

Cut-offs for both regular and test piling will be measured by the linear foot of cut-off above grade. The pay length of cut-off for each pile will be

determined by deducting the length of accepted pile in place, after cut-off has been made, from the approved length of pile. No measurement will be made of cut-offs necessitated by brooming, splitting or other damage resulting from improper driving.

407.8 Payment. Timber piling measured as provided above will be paid for at the unit price bid per linear foot for "Treated Timber Piling" or "Untreated Timber Piling", as the case may be.

Each completed authorized build-up splice for both regular and test piling, measured as provided above will be paid for at four times the unit price bid for "Treated Timber Piling" or "Untreated Timber Piling" as the case may be.

Cut offs, measured as provided above, will be paid for by the linear foot at one-half the unit price bid for "Treated Timber Piling" or "Untreated Timber Piling", as the case may be.

The foregoing shall be full compensation for furnishing all materials, tools, labor, equipment, driving, jetting, pilot holes, alignment holes and incidentals necessary to complete the work.

There are line code(s), description(s), and unit(s) for this Item.

NOTE: This Item requires other Standard Specifications

Item 403 "Driving Timber Piling"

Item 457 "Timber Preservatives and Treatment"

END OF ITEM 407