



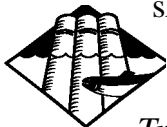
MARKET ALERT

Use of Salvaged Piling in Foundation Applications.

Treated wood piling have proven to be an economical and structurally preferred product for many foundation applications. In the United States, foundation piling should meet the requirements of Uniform Building Codes 25-12 & 25-14, conforming to the ASTM Standard D25 - 91 (Standard Specifications for Round Timber Piling) and AWPA Standard C3-95 (Piles - Preservative Treatment by Pressure Processes). In Canada, foundation piling should meet the requirements of the National Building Code, conforming to CSA Standard CAN3-056-M79 (Round Wood Piles) and CSA Standard CAN/CSA-080.3 (Preservative Treatment of Piles by Pressure Processes). Quality assurance and certification of compliance with the standards can be provided by an accredited ALSC inspection agency.

In some areas there has been an increase in the use of piling salvaged from other uses, often marine applications. While the reuse of piling is appropriate in landscaping and some nonstructural applications, the **Western Wood Preservers Institute strongly recommends that only new, treated piling be used in structural and foundation applications.**

Treated piling or timbers to be used in or over marine or fresh waters should be specified to conform with the *Best Management Practices for the Use of Treated Wood in Aquatic Environments*. For more information and a copy of the BMPs contact WWPI.



Appearing sound, this salvaged piling disintegrated when driving, exposing extensive rot and marine borer damage.

SALVAGED PILING CHECKLIST

- Used piling may not have adequate preservative retention to meet AWPA or CSA standards.
- Despite good outer appearance in the treated zone, used piling may have extensive insect, rot or marine borer damage in the interior resulting in potential installation or service failures.
- If the material is discovered to be inadequate after driving, its removal may be mandated or additional new piling required -- a difficult and expensive problem.
- The design criteria and ASTM/CSA standards are based on fiber stress ratings and strength of new pilings. It is inappropriate to assume that salvaged piling retain these basic strength ratings.
- While inspection by a qualified third party agency can establish the status of the preservative treatment, it is almost impossible to identify and quantify all instances of internal rot and decay. Also, it is essentially impossible to determine and certify that the salvaged material meets the fiber stress and strength requirements of ASTM or CSA standards.
- ASTM Standard D25 Section 5.1 on Quality disallows marine borer attack and Limnoria damage; and Section 5.4 disallows piling that have barnacles preventing adequate inspection.



Project with salvaged piling. Note the extensive marine borer damage that resulted in "red tagging" and significant expense to the contractor.



When the first salvaged piling failed, a second was driven, which also failed. Note marine borer damage in both.

The economics of using salvaged piling may be appealing but, the risks associated with potential failures are greater. WWPI recommends that designers, builders and inspectors accept only newly treated wood for foundation and structural piling applications.

If it is decided that salvaged piling will still be used, each individual piling should be fully inspected and certified by an accredited ALSC inspection agency. In the U.S., the piling must meet the current requirements of AWPA Standard C3; in Canada, the piling must meet the current requirements of CSA Standard 080.3. Certifying that the material meets the requirements of either ASTM D2 or CAN3-056 and is suitable for structural use will be very difficult to obtain. For more information and a list of ALSC accredited inspection agencies contact WWPI.



Western Wood Preservers Institute

7017 N.E. Highway 99, Suite 108 • Vancouver, WA 98665
Phone 360 693 9958 • Fax 360 693 9967 • E-Mail wwpi@teleport.com