Driven Piling – Steel H-Pile Lugs

Pile lugs are welded onto steel H-piles prior to driving. The lug increases the friction resistance of the pile so that the bearing is achieved with a shorter pile. Additional information can also be found in the *Foundation Manual*, Chapter 7, *Driven Piles*, Section 7.2, *Driving Challenges* — *Soft Piles and Restrike*. Welding of steel pilings, including attachment of lugs, must conform to Section 11, *Welding*, of the *Contract Specifications*; note that a welding quality control plan (WQCP) is not required. The details for pile lugs are shown in Figure 1, *Pile Lug Details*.

When recommended by Geotechnical Services, the pile lug detail will be shown on the plans. Review the *Special Provisions* for measurement and payment. Lugs that are shown on the plans are paid as furnishing piling per the *Contract Specifications*.

When lugs are not shown on the plans, and when soft driving of the piles is encountered, characterized by low blow counts as tip is approached, immediately contact Geotechnical Services. An alternative to the use of lugs is to let the piles set up and to restrike (and check bearing) a minimum of 12 hours later.

The Contractor may request lugs, or the Engineer may order lugs. Savings from reducing the length of the pile must be compared with the cost for furnishing, welding, and performing welding quality control on the lugs. Lugs might not be economical when there is no other welding on the job.

Lugs installed at the direction of the Engineer are paid for as change order work. The additional work involved in driving piles due to these additional lugs is not change order work (*Contract Specifications,* Section 49-2.01D, *Piling – Driven Piling – General – Payment*).



Figure 1. Pile Lug Details