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3-5 LIFTING REQUIREMENTS FOR CONCRETE BLOCKS

3-5.1 Scope

Concrete Blocks (i.e., Ecology, Landscaping Blocks) stacked more than two high shall be evaluated for structural stability. Lifting blocks that are not stacked, with a forklift (load on tines) are acceptable. Concrete Block lift bails shall be inspected and found free of cracks, deformation, excessive wear exceeding 10% of nominal size, damage, or broken wires or stands, as applicable, before being lifted using bails under one of the following approved conditions and methods.

3-5.2 Lifting with “Engineered and Marked” Concrete Blocks

Concrete blocks that meet the following requirements or equivalent as determined and approved by a qualified engineer, may be lifted using the lifting bale.

- Concrete Blocks shall be designed by a licensed professional engineer.
- Concrete shall be per American Concrete Institute (ACI) 318, *Building Code Requirements for Structural Concrete and Commentary*, and 301, *Specifications for Structural Concrete*.
- Lifting bail embedment shall comply with ACI 318 and lifting bail material shall be designed to the applicable codes to withstand the anticipated lifting loads.
- Concrete Block manufacturers shall implement a documented system for quality control of the block fabrication. The system shall include random testing of a minimum 10% of the lifting bails to a 125% load test for each contractor purchase order.
- Each concrete block shall be permanently marked (etched or stenciled) on both sides of the block with the Contract Number and the month and year of fabrication.

3-5.3 Lifting with an Approved Below-the-Hook Lifting Device

Concrete blocks that do not meet the requirements of an Engineered and Marked block, shall be lifted with an approved below-the-hook lifting device meeting the requirements of Chapter 2-20, *Below-the-Hook Lifting Devices*.

3-5.4 Lifting with Special Lift Plan

Existing concrete blocks that do not meet the requirements of an Engineered and Marked block and are configured in a position that prohibits the use of an approved lifting device, shall be lifted by implementing Special/Engineered lift criteria addressing hazards associated with a possible lift point failure.

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