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# Standard Drawing Report

**Date:** 5/22/2025

**Technical Owner:** Bridges & Structures – Cedar Heinle

**Standard Drawing No.** P-576 **Calculation Book No.** 576

**Drawing Title:** Bike Rack

X REGISTERED PROFESSIONAL ENGINEER 70914PE Digitally Signed OREGON June 11, 2008 CEDAR HEINLE

Expires 06/30/27

**Background Information, Including Reference Material**:

Bike racks are detailed in Standard Drawing P-576 and, according to language contained in Standard Drawing Report for P-407, have been used in the City of Portland since at least 2003.

Updates to P-576 were made in 2025 based on input and discussion between City personnel and the bike rack fabricator.

**Assumption Made:**

n/a

**Design Narrative:**

Standard P-576 bike rack anchorage utilizes drop-in anchors with hex head pin security bolts. Design literature from Simpson Strong-Tie® provides allowable tension and shear loads of the drop-in anchor system, which are found to exceed the resultant reactions from applied bicycle rail loading as defined in AASHTO Standard Specifications for Highway Bridges (16th Edition Figure 2.7.4A).

For the condition when bike racks are installed in pavers, concrete foundation embedment was verified to be adequate as detailed.