



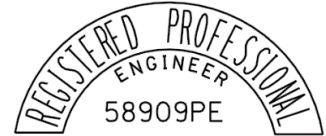
Standard Drawing Report

Date: August 9, 2023

Technical Owner: Traffic – Jennifer Ruth Tower, P.E.

Standard Drawing No. P-437 **Calculation Book No.** n/a

Drawing Title: Pavement Markings Standard Detail Blocks: Sharrows



Expires 6/30/24

Original Report Date: Although standard drawing P-437 was created in 2015, no report was created. Therefore, this is the original report.

Background Information, Including Reference Material:

- 1) Manual on Uniform Traffic Control Devices, 2009 Edition (MUTCD), Chapter 3
- 2) Standard Highway Signs, 2004 Edition (SHS)
- 3) PBOT Traffic Manual

Assumption Made:

Described in design narrative below.

Design Narrative:

P-437 contains pavement marking legends that are commonly used on City of Portland streets designated as neighborhood greenways. All detail blocks meet the MUTCD requirements for color, section 3A.04, "Markings shall be yellow, white, red, or blue." Each detail is a variation of the Shared Lane Marking or standard "Sharrow" found in Figure 9C-9 of the MUTCD with the same dimensions for the bike symbol and chevron markings. These details are referred to as "Modified Sharrows" in this report.

Modified Sharrows were first used in the City of Portland as early as 2010, soon after the standard Sharrow began to replace the B-SWALK detail on neighborhood greenways (formerly known as bike boulevards). One or more chevrons were used at various orientations around the bike symbol to provide information to cyclists about route changes or intersecting neighborhood greenways.

In 2011, another type of Modified Sharrow called a "Turn Sharrow" was developed specifically for route changes. These Turn Sharrows included segments of 4-inch white lines leading to the chevron part of the

Sharrows to provide directional information to cyclists. Turn Sharrows first appeared in the 01/27/2011 update of standard drawing P-435. Standard Drawing P-437 was created in 2015 to standardize the use of all of the various types of Modified Sharrows in the City of Portland. P-437 was updated in 2022. No standard drawing report was created until now.

P-437 does not provide any information to the user of this standard drawing on the proper application of the detail blocks (how they should or can be used). The intent of P-437 is to allow the user to easily specify the details of a marking as shown on the striping plans. The information on proper application of each detail block can be found within the MUTCD, the Oregon Supplement to the MUTCD, the PBOT Traffic Manual, or the ODOT Traffic Line Manual, other standard drawings, and/or the Oregon Revised Statutes. Therefore, the user of the standard drawing must be knowledgeable of the above stated documents to ensure that the detail blocks are applied correctly.

The individual detail blocks are discussed below in detail.

SHW-LR, SHW-LSR, SHW-SR, SHW-LS

- These Modified Sharrows consist of a white bike symbol and two or three sets of white chevron markings at additional and/or alternate orientations to that shown for the Shared Lane Marking in Figure 9C-9 of the MUTCD.
- These Modified Sharrows provide the same information to drivers as the Shared Lane Marking with additional information to people bicycling about intersecting neighborhood greenways.

SHWR, SHWL, SHW-JR, SHW-JL, SHW-VR, SHW-VL

- These Modified Sharrows consist of a white bike symbol, white chevron markings and additional 4" white line markings to that shown for the Shared Lane Marking in Figure 9C-9 of the MUTCD.
- These Modified Sharrows provide the same information to drivers as the Shared Lane Marking with additional information to people bicycling about neighborhood greenway route changes.