

CHAPTER 25 - PAVEMENT MARKINGS

PAVEMENT MARKINGS

Pavement markings are used to convey messages to road users. They indicate which part of the road to use, give information about conditions ahead, and indicate where passing is allowed.

25.1 Guidelines

Permanent pavement markings for traffic control signals are generally limited to crosswalks and stop bars. The pavement markings must be in accordance with Specification 2582 and in accordance with the details in the plans. Details for proper installation are provided in the MnDOT Standard Specifications for Construction (Spec Book).

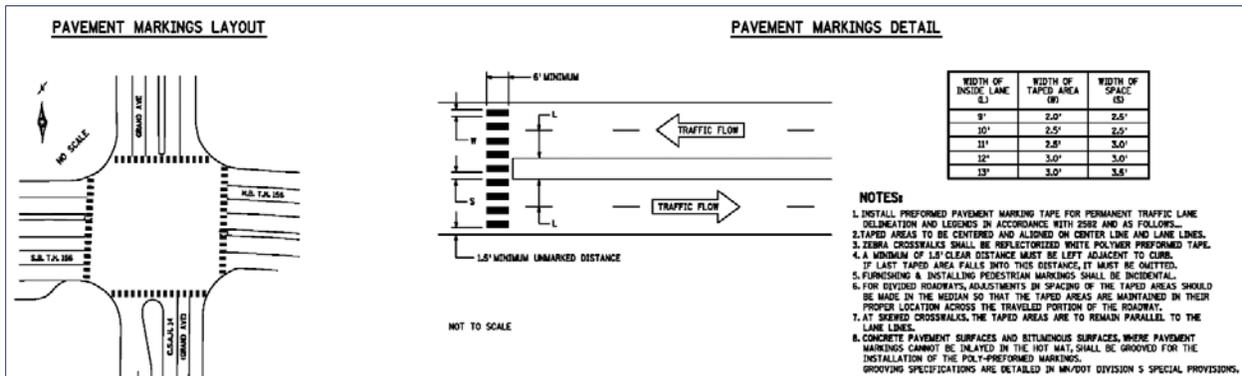


Figure 25-1: Pavement Marking Detail

Crosswalk block markings and stop bars also must be in accordance with Specification 2582.2A. (Performed Pavement Marking Tape for Permanent Traffic Lane Delineation and Legends). These pavement markings must be ground into the driving surface to prevent damage to the markings during snow and ice removal operations.

As shown in Figure 25-2, crosswalks guide pedestrians to the proper path to cross the intersection.



Figure 25-2: Pedestrian Crosswalk

In the absence of crosswalks stop bars may be used to indicate the location where vehicles are required to stop as shown in Figure 25-3.



Figure 25-3: Stop Bar

In some rare instances stop bars and crosswalks are used together at the same intersection as shown in Figure 25-4.



Figure 25-4: Stop Bar and Crosswalk Combination

When engineering judgment determines that both markings are required at locations where heavy pedestrian traffic exists, such as school crossings and in problem areas, both markings may be required.

MnDOT has moved away from using both markings together because of long term pavement marking maintenance problems.

25.2 Installation

Before construction begins, the locations of all crosswalks and stop bars are established and tied in. This is essential because the location of nearly all other signal components is dependent on the location of the crosswalks and/or stop bars.



Figure 25-5: Determining the Locations of Crosswalks and Stop Bars

Pavement markings can be installed as part of the contract or by the agency's maintenance forces. Contract documents will indicate who is responsible for installing pavement markings. The size and configuration of crosswalks and or stop bars are defined in the signal plans or striping plan.



Figure 25-6: Installing Pavement Markings

Because pavement markings are subjected to severe stress from traffic and weather as shown in Figure 25-7, their installation must closely follow the manufacturer's installation instructions and MnDOT requirements as outlined in the contract documents. Close attention must be paid to temperature and surface conditions such as moisture and cleanliness before the markings are installed.



Figure 25-7: Markings Subject to Stress

Materials and required properties for tape installation must be in accordance with MnDOT requirements as outlined in the contract documents. Tape installation must follow manufacturer's recommendations to ensure effective product performance. Installation instructions are usually supplied with the pavement marking material.

All required pavement markings must be in place at the signal turn on.

25.3 Chapter 25 Resources

- MnDOT's Approved/Qualified Products List (APL) under pavement markings.
<http://www.dot.state.mn.us/products/index.html>
- MnDOT Standard Specifications for Construction

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