



Traffic Guidelines Manual

ORIGINATOR Chief of Railroads and Harbors	8-2-29
CHAPTER 8	Railroad Grade Crossings
SECTION 2	Signing and Marking
SUBJECT 29	Dynamic Envelope Markings

A. Purpose

The 2009 MUTCD, [Section 8B.29](#) defines dynamic envelope pavement markings as a 4-inch solid white line, placed parallel to and 6 feet away from the nearest rail of at-grade crossing. The [2011 Wisconsin Supplement](#) further defines a supplemental marking consisting of 12-inch solid white lines, placed at a 45-degree angle and 5 foot spacing between the 4-inch solid lines. This policy will define when a dynamic envelope pavement marking installation *may* be desirable.

B. Policy and Guidelines

Between the 4-inch parallel lines, dynamic envelope markings fully cover 20 percent of the driving surface. This broad coverage area presents a potential safety hazard to bicycles and motorcyclists, as pavement marking material offers significantly less surface friction than unmarked pavement. In addition, this large amount of marking creates a maintenance issue for the department. For these reasons, the following policies **shall** apply to dynamic envelope marking installations on state maintained roadways:

1. Dynamic envelope pavement markings **shall not** be permanently installed on state maintained roadways. They **shall** only be used at at-grade crossings along detours of State, US, or Interstate highways on non-state maintained roadways.
2. Dynamic envelope pavement markings **shall not** be installed without prior approval from DTIM Rails and Harbors Section.
3. If used, dynamic envelope markings **shall** conform to the attached details (Figures 1-7).
4. Dynamic envelope markings **shall** be supplemented by appropriate signs, such as R8-8 DO NOT STOP ON TRACKS or W10-11-A Storage Space sign.
5. If installed along a detour route, the markings **shall** be either temporary paint or temporary epoxy. After construction, the department will not remove the markings.

The maintaining authority of the roadway *may* remove the markings, maintain the markings, or allow the markings to fade away.

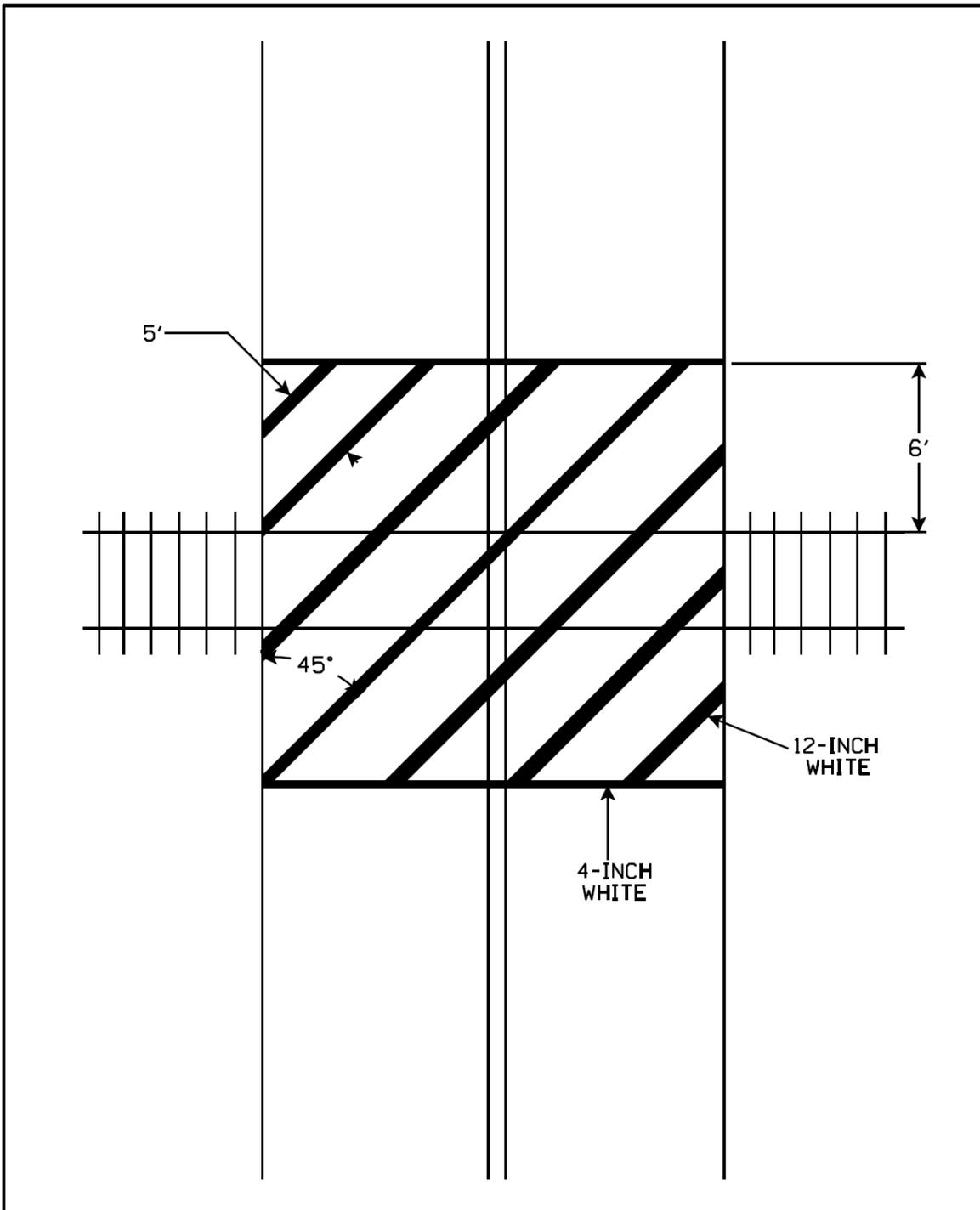


FIG. 1 90° CROSSING
DYNAMIC ENVELOPE MARKING

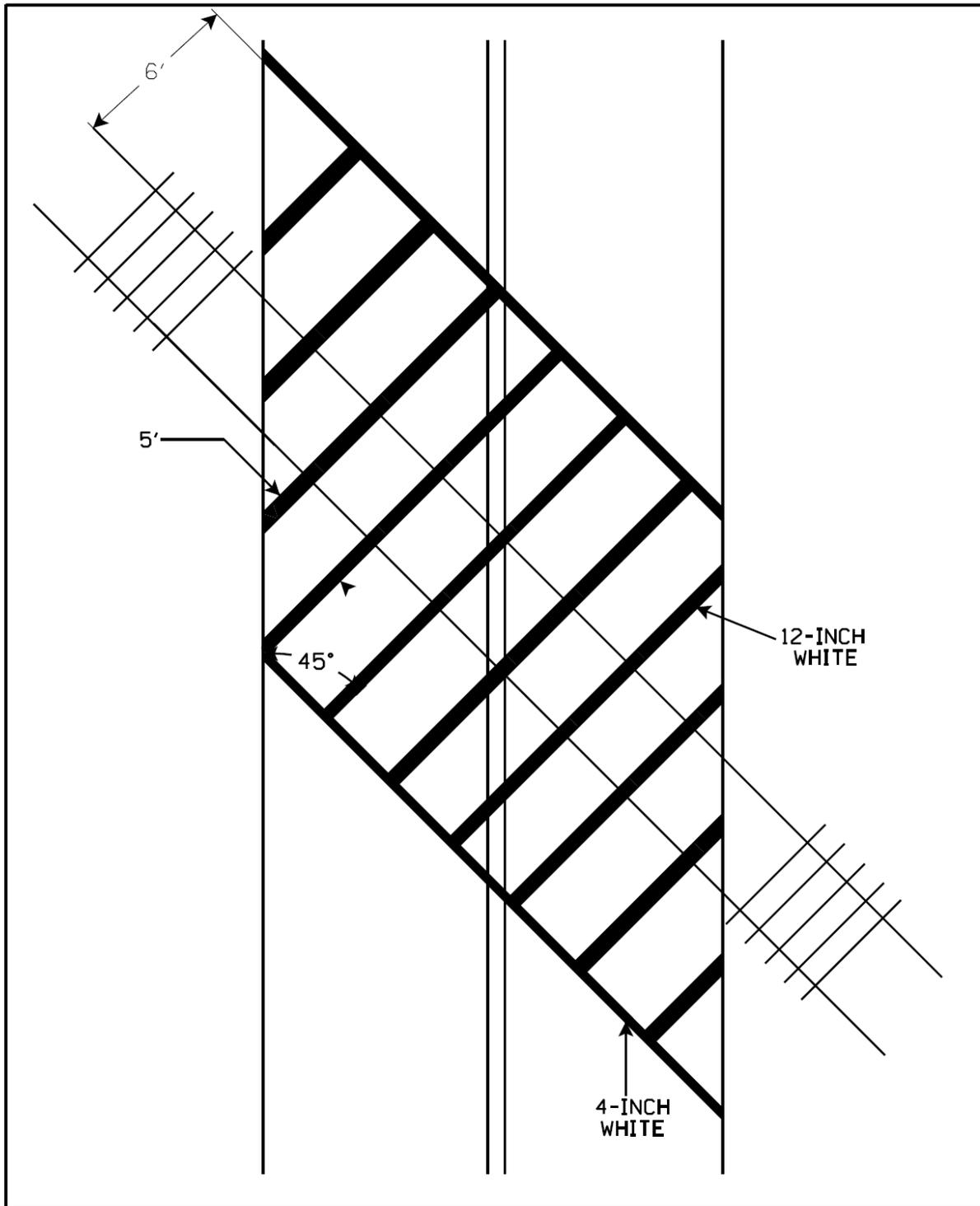


FIG. 2 LHF SKEW
DYNAMIC ENVELOPE MARKING

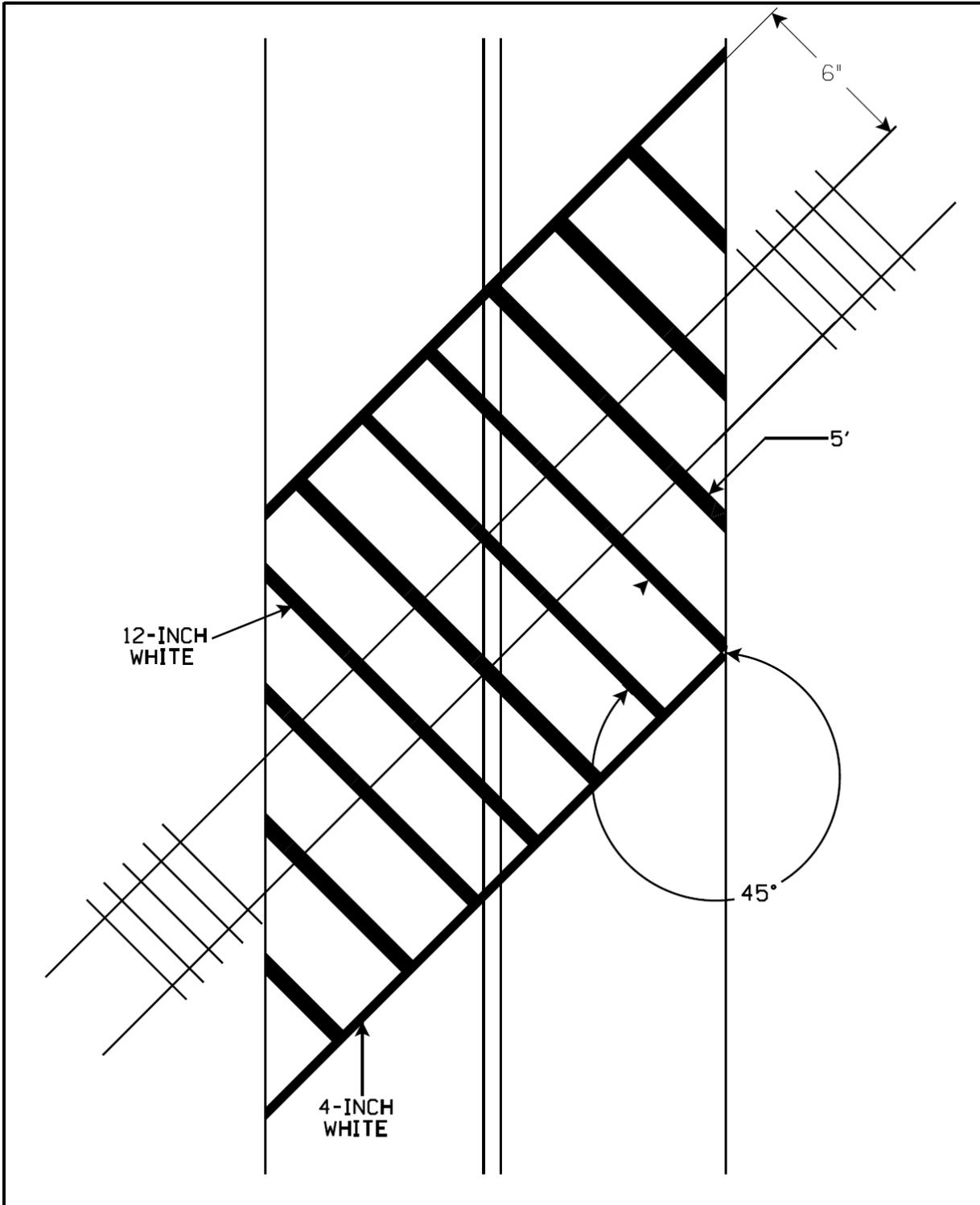


FIG. 3 RHF SKEW
DYNAMIC ENVELOPE MARKING

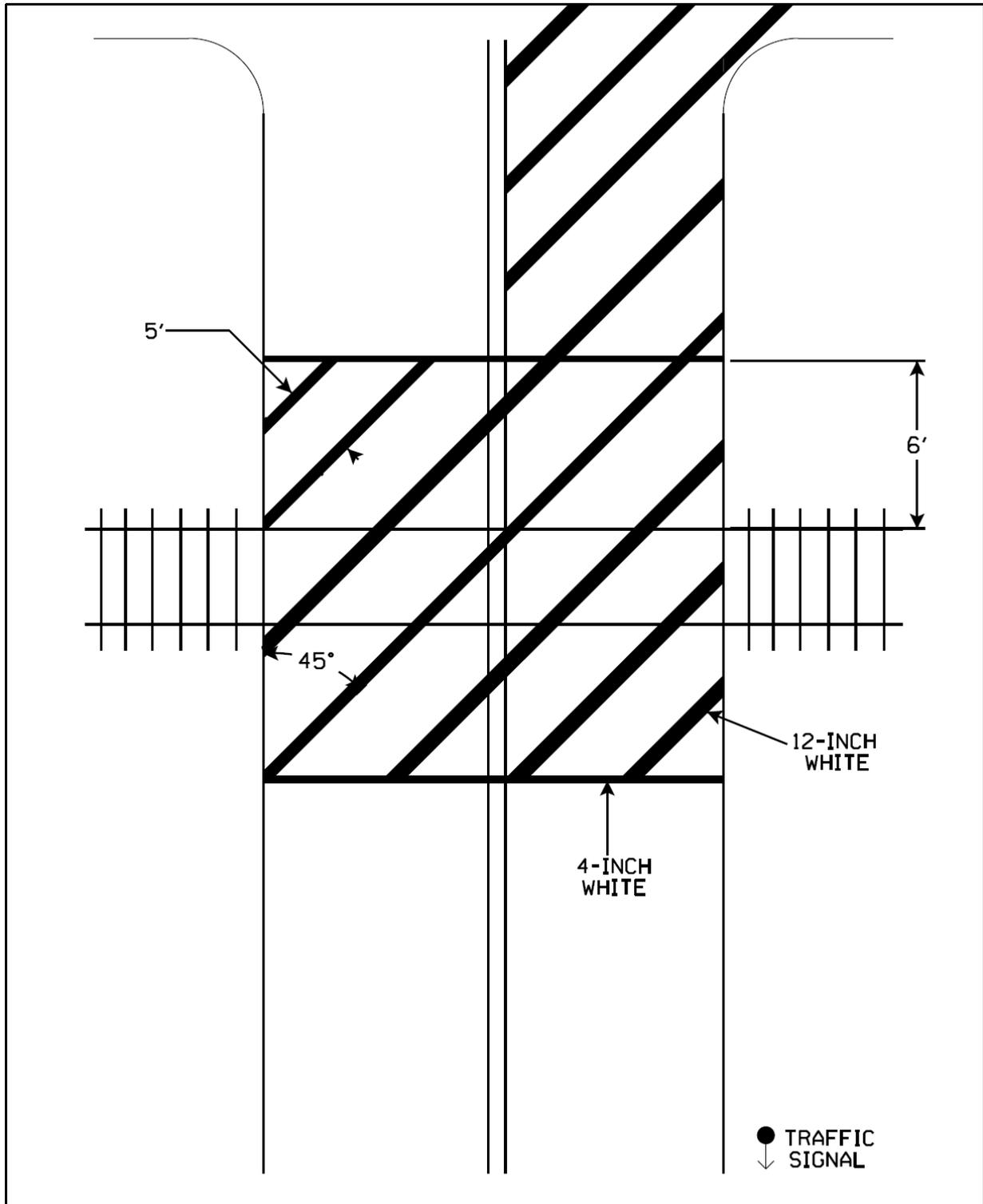


FIG. 4 90° CROSSING
SUPPLEMENTAL DYNAMIC ENVELOPE MARKING

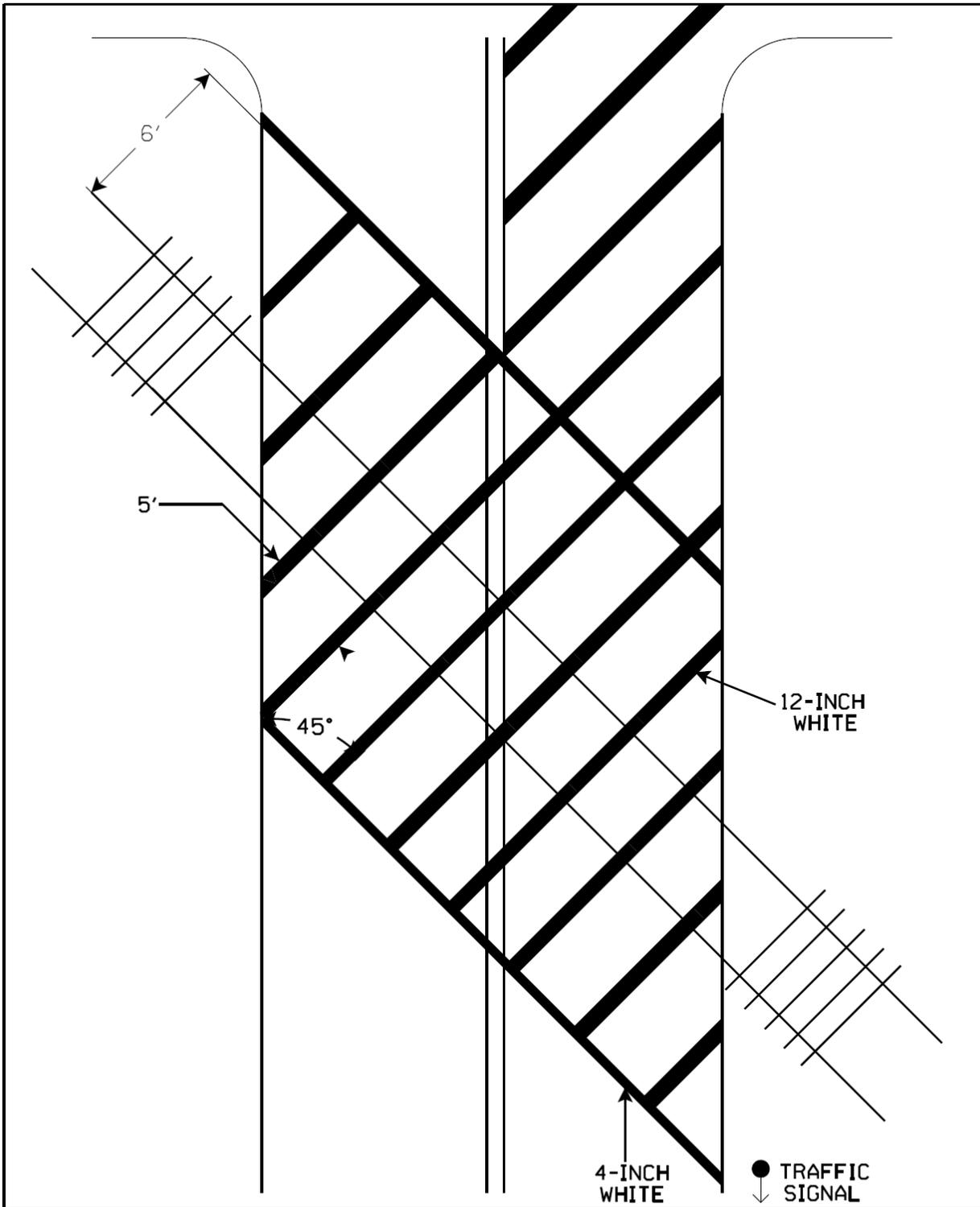


FIG. 5 LHF SKEW
SUPPLEMENTAL DYNAMIC ENVELOPE MARKING

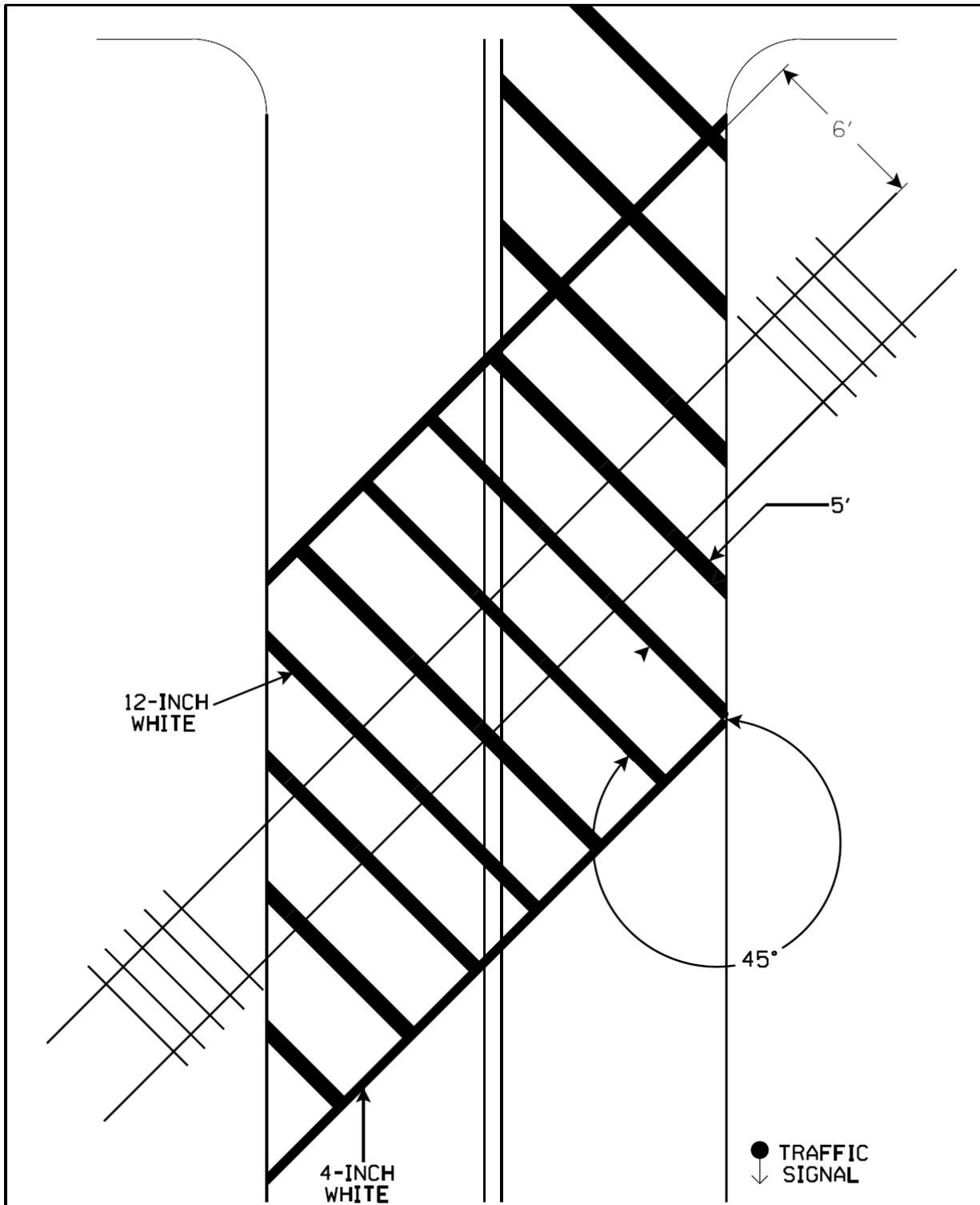


FIG. 6 RHF SKEW
SUPPLEMENTAL DYNAMIC ENVELOPE MARKING

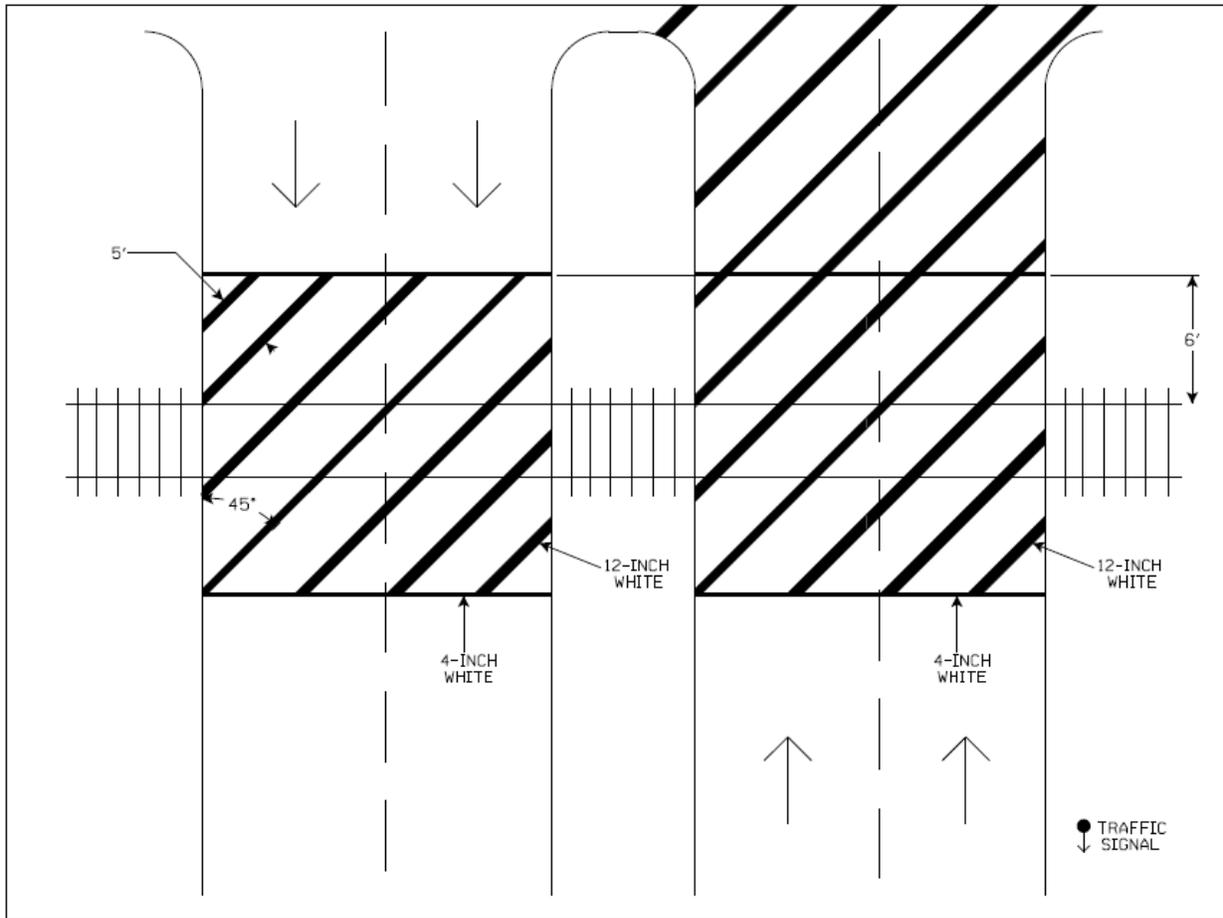


FIG. 7 4 LANE DIVIDED
SUPPLEMENTAL DYNAMIC ENVELOPE MARKING