



MaineDOT

ENGINEERING INSTRUCTION

Title: Lane Width and Shoulder Width

Number: C1

Discipline: General Engineering

Originator: Stephen Bodge, P.E. Highway Program

Issue Date: November 10, 2010

Approved By: Joyce Taylor, P.E., Chief Engineer

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Background:

Lane Width and Shoulder Width are Controlling Criteria for roadway design. Lane Width is the cross-sectional dimension of a lane, perpendicular to the direction of travel, measured from the center of marking on one side to the center of marking on the opposite side and is the width allocated for motorists, buses, and trucks. Lane Width has an impact on roadway speed as well as safety. Shoulder Width is the cross-sectional dimension of a shoulder and is the width adjacent to the travel lane that accommodates stopped vehicles, emergency use, and lateral support of subbase, base, and surface courses. In some cases the shoulder can accommodate bicyclists and pedestrians. Shoulder Width may have an impact on roadway speed and operational activities, as well as safety.

Applicability:

This Instruction applies to all roadway and bridge projects. While the Instruction should allow for consideration of curbed sections, guardrail sections, and bridge approaches, the Design Exception process may be utilized if additional width or less width is warranted. Due consideration to the existing corridor is expected when determining widths.

Engineering Instruction:

This Instruction outlines the Department's direction regarding Lane Width and Shoulder Width. The following points should be considered when determining Lane and Shoulder widths.

- Reference should be made to the MaineDOT Complete Streets Policy and the MaineDOT Shoulder Surface Policy.
- A 2' shoulder/curb offset is acceptable in multilane urban situations and will not require a DE.
- In urban situations, consideration should be given to providing shoulder widths wide enough to accommodate all anticipated uses.
- Except for bridge spans and approaches, shoulders with curb or guardrail shall have a minimum combined lane and shoulder width of 16' to face of curb or guardrail where it is present on both sides of the roadway. Shoulders with curb or guardrail should have a minimum combined lane and shoulder

width of 16' to face of curb or guardrail where it is present on one side only. Discussion with the maintaining authority may allow for reduced width, but consideration should be given to the maintaining authority's operations relative to the centerline of the roadway.

The basic design criteria for Lane Width and Shoulder Width are as follows:

Highway Corridor Priority 1 (Interstate only):

- Lane Width: 12'
- Shoulder Width: 4' Left, 10' Right
- Interstate Ramps: 14' Lane, 4' Shoulder Left, 8' Shoulder Right, Reference AASHTO A Policy on Geometric Design of Highways and Streets, Chapter 10
- Turning Roadways: Reference AASHTO, A Policy on Geometric Design of Highways and Streets, Chapters 3 & 10

Highway Corridor Priority 1 (Non-interstate), 2-6:

- Lane Width: 11' - 12'
Note: 10' lane widths may remain in place on rehabilitation projects without DE
- Auxiliary Lanes 11' - 12'
- Continuous Two Way Left Turn Lane (CTWLTL): 12'
- Turning Roadways: Reference AASHTO, A Policy on Geometric Design of Highways and Streets, Chapter 3
- Shoulder Width*:

Design Speed	Less than or equal to 40 mph	45 mph and greater
HCP 1	3' - 6'	4' - 8'
HCP 2	3' - 5'	4' - 6'
HCP 3 & 4	3' - 4'	3' - 6'
HCP 6	1' - 3'	2' - 4'

* Additional offset may be justified to achieve 16' total width from centerline to face of curb or guardrail. Any additional width will not require a Design Exception.

Responsibility:

Program Managers