MaineDOT

ENGINEERING INSTRUCTION

Title: Lane Width and Shoulder Width Reference: C1

Discipline: General Engineering

Approved by Engineering Council May 14, 2026
Date

Chief Engineer
Bill Pulver, P.E.

Supersedes C1 February 2022

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 (DE) process may be utilized if additional width or less width is warranted. **Due consideration to the existing corridor is expected when determining widths**. Standards in the AASHTO, A Policy on Geometric Design of Highways and Streets will govern for situations not covered in this instruction.

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, Regional Program Parameters, and the MaineDOT Shoulder Surface Policy.

- A 2' shoulder/curb offset is acceptable in multilane urban situations and will not require a DE.

- Except for bridge spans and approaches, shoulders with curb or guardrail should have a minimum combined lane and shoulder width of 16' to face of curb or guardrail. 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.

- Bridges with over 10,000 AADT should be reviewed for additional shoulder width for future maintenance.

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), 2-5:

Lane Width:	11' (see Table 1 below for standard variances)
Auxiliary Lanes::	11'- 12' 10' may be considered in urban areas with posted speed limits 30 mph and below and in 35 mph zone in areas where there is a 2 foot or less curb offset, with minimal truck traffic.
Continuous Two Way Left Turn Lane (CTWLTL):	12'
Turning Roadways:	Reference AASHTO, A Policy on Geometric Design of Highways and Streets, Chapters 3

Table 1: Lane Width variance by Context and Highway Corridor Priority (Lane Widths shown in feet):

	Rural	Rural Town	Village	Suburban	Urban
HCP 1	12	12	12	12	12
HCP 2	12	12	--	12	--
HCP 3	12	--	10	--	10
HCP 4	--	10	10	10	10
HCP 5	--	10	10	10	10

Lane width variances (non-DE):

- **Variances to the 11-foot standard lane width will be reviewed and decided by the MaineDOT Program Manager.**
- **All local requests for variances to the 11-foot standard lane width shall be formally submitted by the municipality for review and decision by the MaineDOT Region Engineer and the State Traffic Engineer.**
- 10' lane widths may remain in place on rehabilitation projects.
- Lane width variance approval will be based on site conditions, truck volumes, horizontal curvature, AADT, shoulder width, and cross-sectional elements such as existing widths and on-street parking.
- The Program Manager and State Traffic Engineer may consult MaineDOT's Engineering Council for advice on variances as they determine appropriate.

Shoulder Width:

Table 2: Shoulder Width by Context and Highway Corridor Priority for 45 mph and greater (Shoulder Widths shown in feet):

	Rural	Rural Town	Village	Suburban	Urban
HCP 1	4 - 8	--	--	4 - 8	--
HCP 2	4 - 6	--	--	4 - 6	--
HCP 3	3 - 5	--	--	--	--
HCP 4	3 - 5	--	--	--	--
HCP 5	2 - 4	--	--	--	--

Table 3: Shoulder Width by Context and Highway Corridor Priority for 40 mph and lower (Shoulder Widths shown in feet):

	Rural	Rural Town	Village	Suburban	Urban
HCP 1	3 - 6	3 - 6	3 - 6	3 - 6	3 - 6
HCP 2	3 - 5	3 - 5	3 - 5	3 - 5	3 - 5
HCP 3	3 - 4	3 - 4	3 - 4	3 - 4	3 - 4
HCP 4	3 - 4	3 - 4	3 - 4	3 - 4	3 - 4
HCP 5	1 - 3	1 - 3	1 - 3	1 - 3	1 - 3

Consideration should be given to:

- Extra shoulder width to accommodate bicycles will be reviewed by the MaineDOT Active Transportation Coordinator, with final review and decision provided by the Program Manager.
- Extra shoulder width to accommodate ATV, horse drawn carriage/buggy and/or snowmobiles, will be reviewed by the MaineDOT Region Traffic Engineer, with final review and decision provided by the Program Manager.

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Responsibility:

Program Managers, State Traffic Engineer, Region Engineers