

TOWN OF HARTLAND

SHAWANO COUNTY

MINIMUM HIGHWAY DESIGN STANDARDS

ORDINANCE NO. 94-06

Whereas, It is the public interest for the Town of HARTLAND, SHAWANO County to establish minimum highway design standards for highways being constructed in the town to accommodate anticipated traffic and afford satisfactory access to police, firefighting, snow removal, sanitation, and road maintenance equipment;

NOW THEREFORE IT IS HEREBY ORDAINED BY THE TOWN BOARD OF SUPERVISORS OF THE TOWN OF HARTLAND, SHAWANO COUNTY as follows:

SECTION 1. Definitions.

In order to clarify this ordinance the following definitions are applicable:

- A. **Approach** -- that portion of road extending 100 feet on each side of a culvert or bridge.
- B. **Base Course** -- the supporting base material of the roadway, including shoulder.
- C. **Drainage** -- the gradual drying of highway by system of ditches, trenches, channels, etc.
- D. **Grade** -- the rate of ascent or decent of roadway.
- E. **Highway** -- the road or way over which the public generally has a right to pass, to include the complete right-of-way.
- F. **Road Bed** -- the whole material laid in place and ready for travel.
- G. **Roadway** -- the traveled portion of the highway.
- H. **Surface 1/2** -- the top of the roadway, or traveled surface.
- I. **With C/G*** -- means with curb/gutter
- J. **Without C/G*** -- means without curb/gutter

SECTION 2. Applicability.

This ordinance shall be applicable to all highways laid by the Town Board after adoption of this ordinance, including any highways dedicated in plats for proposed subdivisions submitted for review pursuant to Chapter 236 of Wisconsin Statutes, any private highways being donated to the town, and any other highways being accepted by the town as public highways in the town.

SECTION 3. Minimum Road Design Standards.

The following minimum design standards shall apply under this ordinance:

All town highways shall be classified as local roads unless designated by the town board as collector or arterial. The classification of all roads under this ordinance shall be within the complete discretion of the Town Board considering such factors as traffic count, character of anticipated traffic, and relation of highway to traffic patterns within the town and other highway systems. It is intended that local be the lowest traffic count, with access to private property as principal function. Collector highways are intended to be highways acting as collectors from local roads to higher priority roads or developed areas. Arterials are intended to serve as corridors through the town serving intra-regional and inter-area traffic movement.

<u>IMPROVEMENT</u>	<u>Residential</u>		<u>Commercial / Industrial</u>	
	<u>With C/G*</u>	<u>Without C/G*</u>	<u>With C/G*</u>	<u>Without C/G*</u>
<u>Minimum R.O.W.</u>	66'	66'	66'	66'
<u>Minimum width of Base Course (including curb, gutter or shoulders)</u>				
Local	30'	26'	32'	32'
Collector	32'	28'	40'	50'
Arterial	40'	34'	40'	50'
<u>Minimum Width of Surfacing</u>				
Local	30'	20'	32'	24'
Collector	32'	22'	40'	30'
Arterial	40'	24'	48'	48'
<u>Maximum Grade (percent)</u>				
Local**	10%	10%	8%	8%
Collector**	8%	8%	6%	6%
Arterial**	6%	6%	6%	6%
** -- Minimum .5%				
<u>Minimum Radius of Horizontal Curve (in feet)</u>				
Local	100'	100'	200'	200'
Collector	100'	100'	200'	200'
Arterial	300'	300'	400'	400'

<u>IMPROVEMENT</u>	<u>Residential</u>		<u>Commercial / Industrial</u>	
	<u>With C/G*</u>	<u>Without C/G*</u>	<u>With C/G*</u>	<u>Without C/G*</u>

Corner Radius at Intersections

	15'	30'	15'	30'
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Minimum Length of Vertical Curve

Local	---	100', but not less than 20' for each algebraic difference in grade		
Collector	---	200', but not less than 50' for each one percent		
Arterial	---	300', but not less than 50' for each algebraic difference in grade		

Minimum Length of Tangents Between Reverse Curves

Local	100'	100'	200'	200'
Collector	100'	100'	200'	200'
Arterial	200'	200'	300'	300'

Minimum Sight Distance (in feet)

Local	200'	200'	200'	200'
Collector	250'	250'	250'	250'
Arterial	300'	300'	300'	300'

Design Speed (miles per hour)

Local	30	30	30	30
Collector	35	35	35	35
Arterial	40	40	40	40

CUL-DE-SACS (permanent)

Maximum Length

Maximum desirable length of roads with cul-de-sacs is 1,000 feet. Through roads are most desirable.

Minimum R.O.W. Radius at Cul-de-sacs

Local	60'	60'	60'	60'
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Minimum Base Course Radius

Local	40'	42'	40'	42'
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<u>IMPROVEMENT</u>	<u>Residential</u>		<u>Commercial / Industrial</u>	
	<u>With C/G*</u>	<u>Without C/G*</u>	<u>With C/G*</u>	<u>Without C/G*</u>

Minimum Pavement Radius

Local	40'	40'	40'	40'
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Base Course

Base Course must be of a quality, thickness, and composition suitable for the location.

Surface Course

Surface Course must consist of either crushed aggregate or bituminous concrete composition suitable for anticipated traffic loads. The minimum amount of gravel necessary for acceptance must be 140 tons per 100 feet. The minimum amount of pavement necessary for acceptance must be 2½" in thickness. The minimum pavement necessary for acceptance must be hot mix blacktop.

Ditching and Culverts

The ditching of the roadway must be complete and have proper elevation to provide for adequate drainage. Any culverts necessary for proper drainage shall be installed after elevation and location is obtained from the Town Board. The minimum length of any culvert installed in a road bed shall be at least two feet greater than the base course width. The diameter and length will subject to the approval of the Town Board, after the amount of the flowage is determined. In no case shall the culvert be less than 18" in diameter.

Bridges

All bridges shall meet the minimum requirements of state and federal law. In the event it is decided by the Town Board, that the construction of a bridge would be of a size and cost; that it would create a hardship to the owner of land, required to build said bridge, then the Town Board may proceed to accept the road, complete as required above, except that part extending 100 feet on each side of said bridge. This portion of the road shall be known as the approach. The approach will be accepted uncomplete, with the reservation that the town will bill back to the owner a portion of the cost of construction of such bridge. The Town will proceed to build said bridge and approach with the help of bridge aid if available, and billing the balance not covered by the aid or portion to be billed back to the owner.

Number of Residences

A minimum number of two residences is necessary for acceptance. The residences must live adjacent to the improvement and have their resident driveways intersect the new road way.

SECTION 4. Authority for Higher Standards.

The road design standards in Section 3 as stated above are intended to be minimum design standards. The Town Board shall have the discretion to impose higher design standards where in the opinion of the Town Board local conditions require higher standards or anticipated traffic in quantity or quality will require higher standards.

SECTION 5. Application for Determination of Applicable Standards

Any person may apply to the Town Board to determine what design standards should apply in a particular location, giving the description of the proposed highway and proposed design standards being requested to be approved for any proposed highway being proposed to be built. No person shall commence construction of any highway anticipated to be turned over to the town without having written approval of the proposed highway design signed by the Town Board.

Section 6. Final Inspection and Acceptance by the Town Board.

Upon completion of the proposed highway, the Town Board will proceed to make final inspection, accepting or rejecting the highway as the case may be in the discretion of the Town Board. If the highway is rejected, then corrections must be made as stated by the Town Board before final inspection will be made again. If final acceptance is made by the Town Board, the owner or owners will turn over to the Town, a warranty deed free and clear of any liens necessary to convey free and clear title to the town for the highway.

Adopted by the Town Board this 27 day of JUNE, 1994

Filed in the Office of Town
Clerk This 27 day of June, 1994

Wayne D. Moerich
Town Clerk

Alan J. Tauchen
Town Chairperson

Dale W. usow
Town Supervisor

Ronald M. Schmidt
Town Supervisor