



RESOLUTION #2019-06

**Ideal Township
Crow Wing County, Minnesota**

Adopting Road Specifications for all Town Roads

WHERE AS Ideal Township currently has two different standards for road construction which can be confusing at times, and

WHERE AS there is a need for consistency throughout the Township, and

WHERE AS road standards ensure the safety of all users of Township roads, and

WHERE AS ensuring the road right-of-ways are clear of obstructions, natural and manmade, allow township maintenance personnel to safely and efficiently plow and mow,

THEREFORE IT IS RESOLVED THAT Ideal Township adopts the attached road specifications and rescinds all previous versions, and

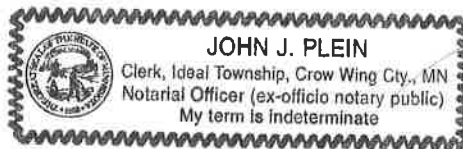
THEREFORE IT IS FURTHER RESOLVED THAT these specifications become effective immediately upon adoption.

Passed this 21ST day of OCTOBER, 2019.

Town Board Chair

Attest:

Town Clerk



IDEAL TOWNSHIP ROAD CONSTRUCTION

SPECIFICATIONS

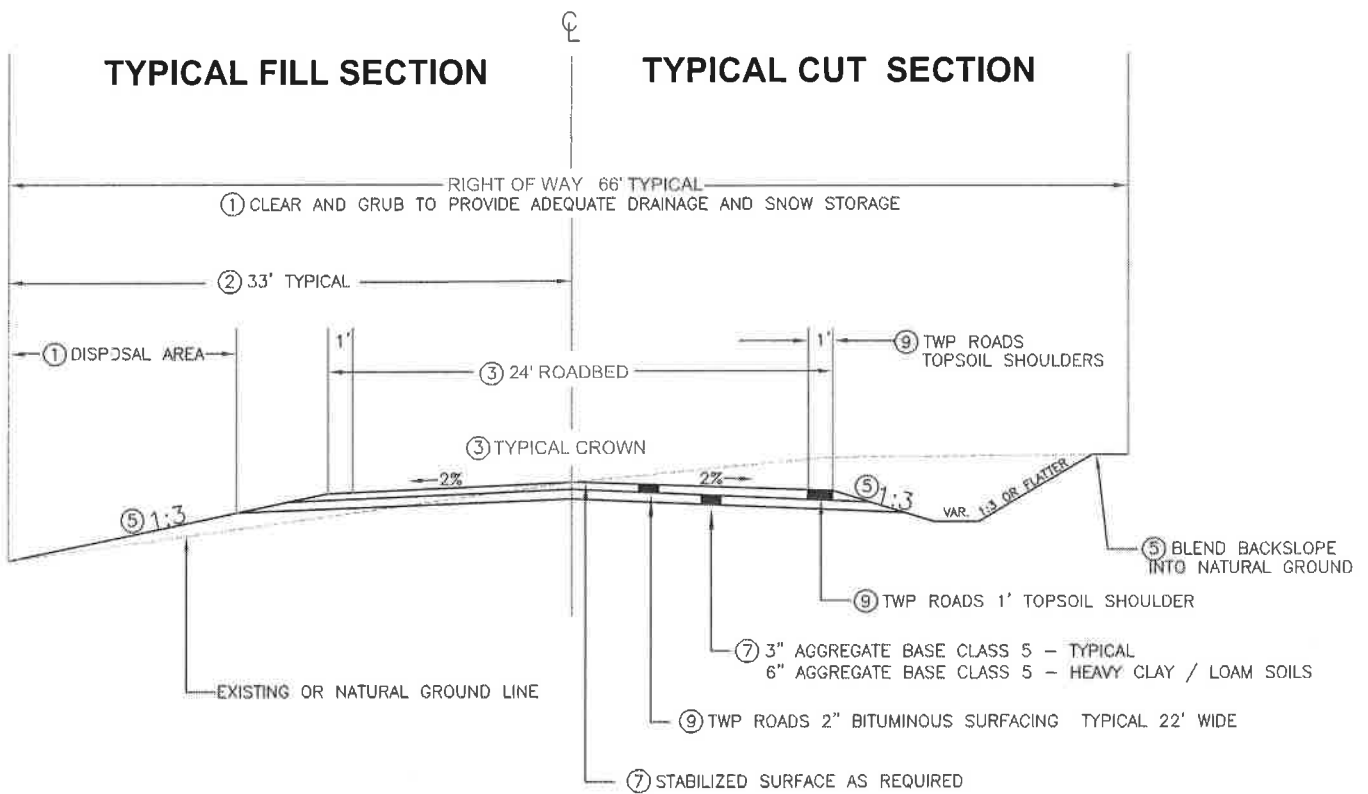
Adopted by Ideal Township *Oct 21, 2019*

All improvements of roads with right-of-ways shall be planned for and accomplished in accordance with current highway design standards and as defined by the following minimum construction standards. These minimums are designated for local functioning roadways.

1. Sufficient clearing and grubbing shall be done to provide adequate drainage and snow storage area. Minimum right-of-way width is sixty-six (66) feet. Generally, the entire right-of-way shall be cleared except to save desirable timber and other vegetation. The Clearway Zone must be free of all obstacles twelve (12) feet from the bituminous surface and over-hanging tree limbs less than sixteen (16) feet above the road surface must be removed. Stumps and debris shall be properly disposed of outside the limits of the roadbed and all rocks larger than three (3) inches shall be disposed of by burial outside the limits of the roadbed.
2. The roadbed shall be constructed in the center of the platted right-of-way except under extenuating circumstances where a minimum of twenty-five (25) feet shall be maintained from the centerline of the roadbed.
3. The roadbed width shall be twenty-four (24) feet, shoulder to shoulder. It shall be adequately crowned, two (2) percent (%) typical, to drain surface water laterally to prevent standing water from saturating the roadbed. Roadways crossing water features shall have culvert/bridge structures designed by an Engineer licensed in the State of Minnesota. Approved dead-end roadways shall have an adequate turn-around. The preferred design is a cul-de-sac with a minimum of a sixty-five (65) foot radius provided for right-of-way and a fifty (50) foot radius paved roadway surface with one (1) foot grass shoulders. The alternate turn-around design is the "hammerhead" but will only be allowed if the cul-de-sac design is not practical. Hammerhead minimum dimensions are: width – twenty (20) feet, length – twenty (20) feet on one side and forty (40) feet on the other as measured from the edge of the road's bituminous surface. The top of the "T" shall measure eighty-two (82) feet in total.
4. Care shall be taken in the selection of soils used in the construction of embankments insofar as possible, using the best materials available for the upper portion of the embankments and the proper soils placed in the lower portion. Unsuitable soils, such as swamp materials, shall be disposed of outside the roadbed shoulder lines. Embankments shall be constructed in layers not to exceed six (6) inches in plastic soils or twelve (12) inches in non-plastic soils, with proper compaction applied to each layer until no evidence of further consolidation exists. Embankments constructed over low wet areas shall be placed in one lift to an elevation of at least one foot above water elevation before proceeding with layer construction as previously defined.
5. Side ditch and embankment construction shall provide adequate roadbed drainage including installation of centerline culverts as required. A blacktop gutter developed by Ideal Township can be helpful on hillsides. In-slopes shall not be constructed steeper than one (1) foot vertically to three (3) feet horizontally to (1:3). Back-slopes shall not be constructed steeper than one (1) foot vertically to three (3) feet horizontally (1:3) and the top of the back-slope shall be blended into the natural ground line. At major cut and fill areas where the required typical roadway section is unable to be physically constructed within the platted right of way, additional right-of-way or slope easements shall be considered in order to construct proper slopes to prevent serious erosion.

6. Horizontal and vertical alignment shall be coordinated. Centerline grades shall not exceed 10 percent and centerline grades shall not be constructed flatter than 0.5 percent wherever possible. Sharp curves shall not result at the crest or the foot of a steep grade. Road intersections shall be at right angles insofar as practical, and no intersection shall be at an angle of less than seventy-five (75) degrees. Horizontal alignments on local roadways intended to become the responsibility of a public entity shall be designed to meet a twenty-five (25) mph design speed as determined by the most current version of the MnDOT Road Design Manual. When connecting a proposed roadway to an existing collector or above roadway that will require a culvert adjacent to the existing roadway, a concrete culvert shall be utilized.
7. The subdivider shall be required to hard-surface any road. A minimum of three (3) inches (compacted) of aggregate base class 5 shall be constructed on all roads. For roads constructed through heavy clay and loam type soils, the minimum construction of aggregate base class 5 shall be six (6) inches (compacted).
8. All graded areas as a result of road construction shall be protected from erosion to prevent destruction of the roadbed and minimize impacts to adjacent land and water features. In accordance with MPCA requirements and the NPDES Permit, topsoil, erosion control best management practices and standard turf establishment measures shall be required to prevent erosion.
9. A bituminous surfaced road will be required prior to acceptance by Ideal Township. All property owners abutting the road will be required to grant the Township an easement for the road prior to acceptance. If plated, the road must be dedicated forever to the public. Additionally, the road must meet all the requirements listed in Section 1 above. The paved surface shall be at least twenty-two (22) feet wide with a depth of at least two (2) compacted inches. One (1) foot grass shoulders shall be provided to meet the twenty-four (24) foot roadbed requirement identified in Section 3 above. To verify that this requirement is met an "as built" plan, certified by a licensed professional engineer, shall be submitted to the township for approval. The Township also reserves the right to core the road at the developer's expense to ensure the proper depth of bituminous and base material has been provided.

The above construction requirements outline minimum acceptable standards for construction of proposed development roads. The Township reserves the right to require traffic studies performed by a Licensed Professional Engineer to determine which of the minimum requirements listed above are not adequate. The items to be determined shall include, but not limited to, impacts to connecting roads, the need for turn/bypass lanes, intersection lighting, intersection control evaluation, traffic signal justification, lane width, shoulder width, number of traffic lanes, trail/sidewalk considerations, and access control. Items deemed necessary by the Township for the long term safety and functionality of any proposed changes to the roadway system shall be discussed during the plat/subdivision development process.



**TYPICAL ROADWAY CROSS-SECTION
CROW WING COUNTY HIGHWAY DEPARTMENT**

NOTE: THIS CROSS-SECTION REFERS TO THE "ROAD CONSTRUCTION SPECIFICATIONS" ON FILE AS ADOPTED BY THE IDEAL TOWNSHIP BOARD ON 10/21/2019. THE CIRCLED NUMBERS REFER TO THE SPECIFICATION PARAGRAPH NUMBERS.

