

## **LONG LAKE TOWNSHIP ROAD CONSTRUCTION SPECIFICATIONS**

Purpose: The purpose of creating minimum road construction specifications for proposed roads within Long Lake Township is to allow for the creation of a consistent set of expectations, provide sufficient transportation services for future residents and protect Long Lake Township residents from unexpected future costs due to inadequate roadway construction. All improvements of roads shall be planned for and accomplished with the following minimum standards.

These minimums are designated for local function roadways proposed to be rural design and serve residential developments.

### **1. GENERAL DESIGN REQUIREMENTS**

- a. The roadway shall have a construction plan and estimate, designed and signed by a Professional Engineer, licensed in the State of Minnesota, to provide a minimum of a seven (7) ton design as determined by the most current version of the MnDot Road Design Manual.
- b. The PE shall provide the design and hydraulics necessary for any water features crossed and the roadway in general.
- c. Soil borings may be required to determine the quality of sub-grade materials to achieve the seven (7) ton design. The Township shall have the opportunity to have the plan reviewed and request additional information or changes.

### **2. ROADWAY AND RIGHT-OF-WAY (ROW) STANDARDS**

- a. The standard platted road ROW shall be sixty-six (66) feet in total width.
- b. Approved dead-end roadways shall have a constructed cul-de-sac with a minimum of a sixty-six (66) foot radius provided for ROW and a fifty (50) foot radius roadway surface.
- c. The roadbed width shall be twenty-four (24) feet, shoulder to shoulder. It shall be adequately crowned to drain water laterally to prevent water from saturating the roadbed. The roadway shall be paved.
- d. A minimum of four (4) inches of class 5 aggregate base shall be provided.
- e. The paved surface shall be a minimum of twenty-two (22) feet wide with a depth of at least three (3) inches of bituminous. Paving shall be a minimum of twenty-two (22) feet, one-foot aggregate shoulders shall be provided to meet the twenty-four (24) foot roadbed requirements. The PE shall determine if more than three (3) inches of bituminous, or more than four (4) inches of gravel is required to achieve the seven (7) ton design.
- f. The minimum clear zone (area free of all obstructions, including trees, utilities, etc.) shall be twenty-five (25) feet from the roadway centerline. Utilities shall be placed in the outer five (5) feet of the right-of-way. Utilities parallel to the roadway shall be buried a minimum depth of three (3) feet. When crossing under the roadway, utilities shall cross perpendicular and be a minimum depth of five (5) feet below the proposed top of the roadway.
- g. A maximum of three (3) points (platted lots) shall be allowed to access from a cul-de-sac.

- h. To verify the above requirements are met, the Township reserves the right to have the roadway examined by a PE at the developer's expense to ensure the proper depth of bituminous and base material have been provided.

In areas where the required typical roadway section is unable to physically constructed within the platted right-of-way, or stormwater collection areas have been identified, additional ROW or slope easements shall be provided for future use and maintenance needs.

### 3. GRADING AND GEOMETRICS

- a. The roadway shall be constructed in the center of the sixty-six (66) foot right-of-way. In no instance shall less than a minimum of twenty-five (25) be maintained from the centerline of the roadbed.
- b. The entire right-of-way shall be cleared of all obstructions to provide adequate drainage and snow storage area.
- c. Stumps and debris shall be properly disposed of outside the limits of the roadbed and all rocks larger than 3 inches shall be disposed of by burial outside of the limits of the roadbed.
- d. Care shall be taken in the selection of soils in the construction of embankments insofar as possible, using the best materials available for the upper portion of the embankments and the proper soil placed in the lower portion. Unsuitable soils, such as swamp materials, shall be disposed of outside the roadbed shoulder lines.
- e. Embankments shall be constructed in layers not to exceed 6 inches in plastic soils or 12 inches of 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 a layer construction as previously defined.
- f. Side ditch and embankment construction shall provide adequate drainage including installation of centerline culverts as required. Inslopes shall not be constructed steeper than 1 foot vertically to 3 feet horizontally (1:3). Backslopes shall typically be constructed at a slope of 1 foot vertically to 3 feet horizontally (1:3) and in areas of steep terrain shall not be constructed steeper than 1 foot vertically to 2 feet horizontally (1:2). The top of the backslope shall be blended into the natural ground line.
- g. Ditch sections shall be a minimum of two (2) feet from the road shoulder elevation with a minimum bottom width of four (4) feet. Stormwater storage/holding areas shall be designed to meet current Minnesota Pollution Control Agency (MPCA) requirements.
- h. Road intersections shall be at right angles unless approved otherwise by the Township. No intersections shall be at an angle of less than 75 degrees. Horizontal and vertical alignments shall be designed to meet a 25 mph design speed limit as determined by the MnDOT Road Design Manual.
- i. A culvert permit from the township is required for all new access driveways entering unto a township road. Prior approval is needed before installation.

The minimum diameter of the culvert shall be sixteen (16) inches unless it is determined by the township that a smaller culvert is adequate.

- j. 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 with MPCA requirements and NPDES permit, topsoil, erosion control best management practices and standard turf establishment measures shall be required to prevent erosion.
- k. All mailboxes shall be installed in accordance with Crow Wing County's policy on the installation and maintenance of mailbox supports. Mailboxes and mailbox support are the property of the mailbox patron. All mailboxes placed within the road right-of-way are placed there at the owner's risk. It is the owner's responsibility to maintain the mailboxes to conformance standards.
- l. Before petitioning the township to accept and maintain any platted road, the town requires certification from a certified and licensed engineering firm that the road is constructed to meet township specifications. All costs of such certification will be the responsibility of the petitioner. Eighty (80) percent of the lots within the plat shall be developed and occupied.

Adopted this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

By the town board

\_\_\_\_\_  
Chair

Attest: \_\_\_\_\_  
Clerk