

Exhibit A, Specifications, Standards, and Performance Criteria

1. **Road Specifications:** Town Road Construction Specifications and Typical Roadway Cross Sections follow Cass County's specifications for a Local Road. See Cass County Subdivision and Platting Ordinance, Appendix B (re-printed below in #4 Copy of Cass County Specifications). Per Minnesota Statute, all roads created in Wabedo Township after 1985 shall have a 66 foot right of way easement for road purposes (generally established by plat). Roads created prior to 1985 and part of a plat shall have right of way easements as indicated on the plat. Other roads created prior to 1985 have right of way easements only to the extent of use (unless the Town has easement agreements in place).

Wabedo Township has created three classes of roads as follows (see **Exhibit C**):

- a. Class 1 – over 75 houses
 1. chloride applied
 2. grade prior to chloride – then once per month or as needed
 3. gravel applied only as needed
 4. mowing/brushing - full maintenance
 - b. Class 2 – over 25 and less than 75 houses
 1. chloride applied
 2. grade prior to chloride – then only as requested
 3. gravel applied only as requested
 4. mowing/brushing – full maintenance
 - c. Class 3 – up to 25 houses
 1. no chloride
 2. grade in spring – then only when requested
 3. gravel only when requested
 4. mowing/brushing – minimum levels
2. **Standards:** Wabedo Township wishes to follow the maintenance procedures as detailed in the Gravel Roads Maintenance and Design Manual, South Dakota Local Transportation Assistance Program (SD LTAP) dated November, 2000. Any deviation from these procedures must be agreed to and documented in a Work Order prior to work beginning on a project.
 3. **Performance Criteria:**
 - a. **Grading.** Roadways will be graded periodically when conditions warrant per the Class specifications shown in Road Specifications (above). Generally this would be once per month beginning in May and ending in October. For roads where Dust Control treatment has been applied, grading will not normally be done for the rest of the season unless requested by, or agreed to in consultation with, the Town. This work shall consist of blading the surface of an existing road to remove potholes and washboarding, and re-establish an adequate crown and superelevation. The contractor's equipment must be a motor grader of adequate size and quality and properly maintained to perform the requirements of this specification. Worn cutting edges and uneven tire pressure are not acceptable. Contractors are encouraged to use a cab-mounted slopometer to establish required crowns and superelevations. If additional grading is requested by Town, response time is 24 hours from initial call-out unless otherwise directed. The entire road surface, edge to edge, shall be cut to sufficient depth to remove all potholes and washboards. Cut material shall be windrowed to the center of the roadway. Windrowed material shall be spread uniformly across both lanes to provide a normal 4% centerline crown. Windrowed

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material shall not be bladed over the road shoulder into the ditch. The final road shape shall have a well-defined centerline located in the middle of the road. The roadway edges shall be parallel with equal width lanes. Edge windrows or working berms are not allowed. Super elevated curve sections shall not exceed 6% and shall be uniformly transitioned from normal crown to fully superelevated over a distance of 100 feet. No surface material shall be bladed beyond the road shoulder.

b. **Graveling.** This work consists of loading and hauling gravel from the Town gravel pit to the specified roadway and then grading the road. Gravel will generally be applied as indicated on the Wabedo Township 5 year Gravel Plan. Additional gravel may be requested during the spring road inspection if conditions warrant. Spot graveling will be done as determined by the road supervisor. All graveling projects will be described on Work Orders. Contractor equipment shall include loader and truck of adequate size for the job.

c. **Ditches.** Ditches are built and maintained (repairing, cleaning, widening, and improving) to accommodate the drainage of water to, from, across, and along roadways. The ditch is defined as the flow channel below a level line extended from the shoulder of the road to the opposite (back) slope of the ditch. This work consists of the excavation and disposal of all material which is encountered within the area of the work necessary for the construction of ditches. The ditch construction shall be finished to reasonably smooth and uniform surfaces. Excavation areas shall be kept free draining at all times as the work progresses. Excavation operations shall be conducted so that material outside the limits of slopes will not be disturbed. Disposal areas for excavated material may be at locations of the Contractor's choice outside the right of way, with written consent of the property owner. This work may also consist of cleaning and reconditioning roadside ditches to provide positive drainage. Ditches shall be cleaned of all organics, sloughing, and other material that prevents flow. The Contractor shall dispose of all waste material and debris generated during the reconditioning legally, out of the right-of-way with the written permission of the property owner on whose property the materials and debris are placed. Waste material shall not be stockpiled on the road surface or bladed against the back slope of the ditch. Waste material shall not be bladed across the road surface. Any repair or other work on ditches will be described on Work Orders.

d. **Culverts.** Culverts under town roads are placed by the Town at its expense when necessary for proper maintenance of roadways. This item shall consist of installing new culvert(s) and/or repairing damaged culvert, hereinafter referred to as "pipe", including all necessary excavation, backfill and imported backfill material. Pipe shall be installed so that the top of the pipe is a minimum of 12 inches below the road surface or as indicated on the plans. New culvert installation shall have a gradient that follows the original ground line, but in no case shall be less than 1.5 percent. Pipe bedding shall consist of a minimum of 6 inches of suitable material or imported backfill. The pipe outlet shall be constructed to prevent erosion of the embankment. Backfill material shall be placed in uniform layers of not more than 6 inches in depth and compacted. Pipe shall be firmly joined by coupling bands. Rocks and boulders encountered in excavation shall be removed and not placed in ditches. Installation, maintenance, or repair work on culverts will be described on Work Orders.

e. **Approaches** to Township roads (driveways) shall follow the Wabedo Township Driveway Policy.

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f. **Tree Cutting.** Trees are defined as “a tree or woody perennial shrub or vine which is at least six inches in diameter, as measured at a point two feet from the ground”. Trees smaller than this are treated as brush and may be cut as brush.

- 1) Trees located within platted road right of way are owned by the Township and may be cut at the discretion of the Town Board. In most cases, abutting land owners will be contacted to discuss tree removal within a platted right of way.
- 2) Trees located within the right of way but not within a platted area, may be removed with consent of the abutting land owner. If consent is not given, the Town may remove tree upon following statutory process. Abutting land owners may retain the wood if they so desire, or the Town will dispose of it.

This work shall consist of cutting trees and brush and, if requested, clearing cut material to disposal sites. The Town will designate the limits of work and denote trees, shrubs, plants, and other objects to remain. Stumps shall be cut flush with the ground. Trees shall be cut, bucked into 4 foot lengths and stacked neatly beyond the ditch and fully outside the road embankment, or, if requested, removed and disposed of in an acceptable manner. Selective tree removal may include leaning or dangerous trees and snags. If requested the cut trees and brush shall be removed by the Contractor and disposed of at locations outside the road right-of-way. Contractor shall make all necessary arrangements for obtaining suitable disposal locations. Intersection and road sight distance shall not be compromised during or after the hand clearing operation.

g. **Dust Control.** The Town generally applies dust control (calcium or magnesium chloride or other chemicals) on the traveled portion of town roads where sufficient residences are located close to the roadway and adversely affected by dust or where the Town Board deems it desirable to preserve and maintain the roadway. Dust control is normally applied after a road is brought up to, and as long as the road remains, at a surface standard which makes dust control economical.

h. **Snow Plowing.** This work consists of plowing snow from roadway surfaces. The roadway surface shall be cleared of snow from roadway shoulder to roadway shoulder each time it is plowed. During snow plowing operations the Contractor is responsible for all damages he causes to the roadway surface and damages to any facilities located in or along the roadway. The cleared width shall not be allowed to narrow as consecutive plowings occur. When the Contractor is required to move snow berms back to maintain roadway width, this work shall be considered incidental to the snow plowing requirements. Where roadways are on sloping terrain and one side of the roadway has a cutbank, all snow shall be plowed to the downhill side of the roadway. The entrance to all driveways, side roads, and trail crossings shall be cleared of snow berms. Snow berms shall be winged back at road intersection radii to a maximum height of 12 inches measured from roadway centerline to minimize sight distance impairment. All snow plowing shall commence within 12 hours from the end of a snow storm of 4 or more inches or from the time the Contractor is called out by the Town unless otherwise arranged. The Town shall provide to the contractor the name(s) of person(s) with authority to call out for snow plowing. See the Wabedo Township Snowplowing Policy. Contractor shall rotate which roads are plowed first to ensure one road is not always plowed late in the process.

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4. Copy of Cass County Specifications:

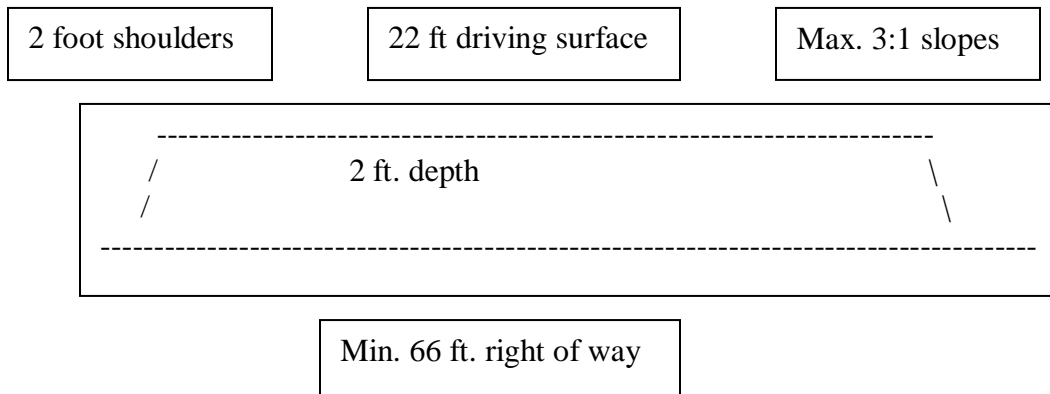
A. DESIGN CRITERIA

FUNCTIONAL CLASS	ROAD AUTHORITY	MINIMUM RIGHT-OF-WAY
Local Road	County in unorganized township	66 feet
Cartway	Township, Municipality, or Private	33 feet
Frontage Road	County, County in unorganized Township, Municipality, or Private	50 feet
Cul-de-sac	Same as connecting roadway	60 feet

B. REQUIRED CLASS 5 AGGREGATE ADDITION BY SUBGRADE SOIL TYPE

SUBGRADE SOIL	SAND. GRAVEL	ALL OTHER SOILS
Aggregate surface or pavement	4 Inches	6 Inches

C. TYPICAL LOCAL ROAD CROSS SECTIONS



D. ADDITIONAL SPECIFICATIONS

1. AGGREGATE DRIVING SURFACES SHALL BE STABILIZED GRAVEL THAT MEET:
 - a. Minnesota Department of Transportation specifications 3138, Class 5, except that the County Engineer reserves the right to eliminate the 10% crushing requirement where crushing material is not available.
2. Bituminous driving surfaces shall meet Minnesota Department of Transportation specifications 2331.
3. The above constitute minimum road standards unless site specific conditions allow an alternative design. The PC may require any additional criteria recommended by the road authority. This may include, but is not limited to additional right-of-way and roadway width.