# TITLE 700 STREETS, UTILITIES, PUBLIC IMPROVEMENTS AND PARKS

## CHAPTER 700 - TITLE

This Ordinance shall be known, cited and referred to as the "CITY OF SPRING GROVE STREETS, UTILITIES, PUBLIC IMPROVEMENTS AND PARKS REGULATIONS" except as referenced to herein, where it shall be known as "this Ordinance."

# CHAPTER 702 - CONSTRUCTION OF STREETS AND ROADS

A. PURPOSE AND INTERPRETATION. It is the intent of the City of Spring Grove that each new public street or upgraded existing public road be constructed to a minimum standard which will provide for the cost-effective management of the City's transportation infrastructure.

It is the purpose of this Ordinance to establish the minimum standards for the construction of portions of this transportation infrastructure and the methods and processes which must be followed in the development of additions to the transportation infrastructure.

- B. LIMITS OF REGULATION & SCOPE. The rules and regulations governing construction of streets and roads contained herein shall apply within the community and other land as permitted by State Statutes. In the event of overlapping jurisdiction within the prescribed area, the extent of jurisdiction shall be determined and agreed upon between the City, State, and the county or township concerned.
- C. DEFINITIONS. For the purpose of these Regulations, the following terms, phrases words and their derivations shall have the meaning given in this section. When not inconsistent with the context, words used in the present tense include the future, words in the plural number include the singular number, and words in the singular number include the plural number. The word "shall" is always mandatory and not merely directory.
  - 1. City

The City of Spring Grove, Minnesota, and its duly elected and authorized representatives.

2. City Engineer

The duly appointed engineering representative of the City of Spring Grove.

3. Sub-divider

Any person commencing proceedings under Title 1300 to affect a subdivision of land owned by such person or owned by another, as defined in said Title 1300, or splitting land through any other means.

- D. GENERAL PROVISIONS. The City will complete all required work for upgrading of streets and constructing new streets on public land. The City shall conform to all design standards of this Chapter. A sub-divider may choose to have the City construct new streets in or have a private contractor construct new streets within a new development. If the sub-divider elects to construct streets privately, the entirety of this Chapter applies.
  - Procedures. The development of new streets or upgrading of existing roads shall be considered as either: "A Public Improvement" or "A Private Development" Project considered as public improvements and shall follow the procedural requirements of Minnesota Statutes, Chapter 429 and as amended from time to time. These projects shall comply with the technical requirements of this Ordinance.

Projects considered as "A Private Development" shall follow the procedural requirements and technical requirements of this Ordinance.

- 2. Preliminary Plan.
  - a. Soil Tests. Soil testing shall only be required at City Engineer's request.
  - b. Pavement Design Calculations. A soils report shall be submitted by a Registered Professional Soils Engineer outlining the recommendations for the pavement design which in no event shall be less than the standards set forth in subdivision H and I of this Chapter or the City Engineers' request.
  - c. Horizontal & Vertical Alignment & Grade Calculations. The City shall forward the sub-divider's submittals to its Engineer for review. These documents shall be submitted to the City by the developer.
    - i. Road Design plan submittals shall include a typical pavement section, plan and profile sheets, a grading cross section and sewer, water and utility locations and profiles. A site grading plan and drainage calculations shall be included with the submittals.
    - ii. Proposed signs shall be shown on the road design plans for review and approval by the City Engineer and Public Utilities Director or his/her designee.
- 3. Submission of an Irrevocable Letter Of Credit or Cash Surety. This section applies whether a sub-divider is constructing the street or having the City do the construction. The amount is determined by the sub-dividers projected cost of the project.

4. Approval of the Preliminary Plan & Project Plans & Specifications of New Streets or Upgrade of Existing Roads. Prior to initiating any construction activities identified in the plans and specifications for construction, the sub-divider shall accompany the Public Utilities Director or his/her designee and Engineer on a site visit to review the proposed construction.

Special consideration shall be given when roads are stubbed for future connection as required by Chapter 1322.

### E. CONSTRUCTION OF NEW STREETS OR UPGRADING EXISTING ROADS

- 1. <u>Procedure</u>. Upon receipt of the City Engineer's approval of the proposed plans and specifications, the sub-divider shall proceed with the construction of new streets or upgrading existing streets as described by these project plans.
- 2. <u>Written Approval</u>. Prior to the placement of any road base material, the subdivider shall request two days prior to such placement written approval from the City Engineer as to the suitability of the sub-grade, shouldering and drainage structures to receive road base material.
- 3. <u>Testing</u>. The City Engineer shall direct such testing of compaction and materials as deemed necessary to determine the suitability of the work to receive road base. In addition, such testing shall include a wheel test with a single axle truck loaded to 7 -ton per axle. Allowable yield tolerance shall be one (1) inch deep. Compaction shall meet the ordinary compaction method as defined in the latest Edition to the Standard Specifications for Construction as prepared by the Minnesota Department of Transportation.
- 4. Release of Placement of Private Utilities. Once the road base material has been placed, the City Engineer shall provide written notice to the sub-divider releasing the placement of private utilities. No open cut trenches shall be allowed after placement of bituminous surfacing. All buried utilities shall be placed to a minimum of 18 inches below the finished sub grade elevation or as specified by the utility company.
- 5. <u>Bituminous Surfacing</u>. Prior to the placing of any bituminous surfacing, the subdivider shall request two days prior to such placement, written approval by the City Engineer of the road base. The City Engineer shall direct such testing as necessary to determine compliance with the plans and specifications. Testing shall include, but not be limited to, oil content, density, wheel testing and surface deviations. No paving shall be allowed after November 15, without prior approval of the Public Utilities Director.
- 6. <u>Completion</u>. At such time as the City Engineer is satisfied with the placement of road base and surfacing, the City Engineer shall provide written notice to the subdivider where upon the Sub-divider shall arrange for completion of shouldering and landscaping of the project.

7. <u>Final Completion</u>. Upon completion of the work including satisfaction of any punch list items noted by the City Engineer, the sub-divider shall arrange a final inspection of the project by the City Engineer and the Public Utilities Director for the City and give the Building/Zoning Official permission to issue building/zoning permits.

Upon the approval of the attendees, the City Engineer shall submit to the City Council a recommendation of acceptance of the completed project.

#### F. FINAL PLAT APPROVAL

- 1. <u>Procedure</u>. Upon approval by the City Council, and payment by the developer of any outstanding fees or charges, the sub-divider shall file the Final Plat with the County. After completion of applicable conditions of approval in the Development Agreement, the developer shall comply with Chapter 1318. All road construction work must be completed within one year of the City Council approval of final plat plans.
- 2. Warranty. Upon filing of the Final Plat, the sub-divider shall continue the irrevocable letter of credit to an amount equal to 10 percent of the City Engineer's estimate of construction cost. This retainage shall cover any work which is determined by the City Engineer and City Council to be damage and/or failure of the project in excess of normal wear and tear and which occurs within 12 months after acceptance of the project by the City.
- 3. <u>Deficiencies</u>. The City shall provide a written appraisal of warranty items to be accomplished by the sub-divider in the tenth month following acceptance of the project. The sub-divider shall have 45 days to correct all noted deficiencies.
  - a. If all deficiencies are not corrected within 45 days, the City shall arrange to have the necessary work done and deduct all costs so incurred from the subdivider's letter of credit.
- 4. Release of Letter of Credit. Upon acceptance of the City Council of the completed project and any warranty items, the remaining balance of monies or letters of credit shall be returned to the sub-divider.
- 5. <u>Insurance</u>. The sub-divider shall provide evidence to the City of builder's risk and liability insurance in sufficient amounts to cover the work and satisfy State and County requirements.
- G. DEVELOPMENT AGREEMENT REQUIRED See Chapter 1330.B.
- H. TECHNICAL REQUIREMENTS

- Applicable Technical Specifications. Division II Construction Details & Division III Materials of "The Standard Specifications for Construction" latest edition as prepared by the Minnesota Department of Transportation shall be adopted as controlling or governing construction of new streets or upgrading roads in the City.
- 2. Pavement design shall be based on a soils investigation and analysis, which shall consider the supporting strength of the sub-grade (R-value) to be used in design. Recommended measures shall be provided for special conditions such as excess moisture or highly expansive soils. If a higher R-value than ten (10), or construction of a ten (10) ton street, a soils report shall be prepared, including soil borings, R-value test results and pavement design.
- 3. Base. Class 5 base or equivalent shall be used, placed in a minimum thickness:
  - a. Local Streets Seven (7) ton design, eight (8) inches.
  - b. Collector Streets Nine (9) ton design, ten (10) inches
  - c. Arterial Streets Ten (10) ton design, twelve (12 inches

Aggregate base shall meet the MnDOT Class 5 gradation except as modified to require a minimum of 10 percent passed the #200 sieve up to a maximum of 15 percent passing the #200 sieve for gravel surfaced roads. Aggregate base meeting MnDOT Class 5 gradation only may be used when roads are to be surfaced with bituminous as part of the road improvements.

- 4. Plant Mixed Bituminous Pavement. Plant mixed bituminous surfacing complying with Section. E.5. of this Chapter shall be used to surface new road or upgrade roads at a minimum thickness of:
  - a. Local Streets Seven (7) ton design, four (4) inches.
  - b. Collector Streets Nine (9) ton design, four (4) inches
  - c. Arterial Streets Ten (10) ton design, six (6) inches

Rigid pavement (concrete) shall be considered on ten (10) ton design streets. All rigid and flexible pavements shall be designed in accordance with the procedures set forth in the Pavement Manual of the Minnesota Department of Transportation.

- 5. Curbing. All streets shall be constructed with concrete curb and gutter on both sides of the street.
  - a. Surmountable concrete curbing or standard curbing shall be used based on the determination of the City engineer and Public Utilities Director.
  - b. Curb and gutter shall be design B-624 in:
    - i. all commercial/industrial streets,
    - ii. all multi-family residential,

- iii. all streets with centerline grade of eight per cent (8%) or steeper,
- iv. all intersection radii,
- v. at drainage structures,
- vi. cul-de-sacs and
- vii. on residential streets that are platted as "Controlled Access" (or similar restriction).
- c. Minimum longitudinal slope is 0.4 per cent, on streets leading to a cul-de-sac is 0.5 per cent and on the radial portion of a cul-de-sac is 1 per cent.
- d. Four (4) inch drive over (surmountable) concrete curb and gutter will be permitted as per 5.a. above.
- e. Pedestrian ramps shall be placed at all intersection corners.
- f. Where sidewalk abuts curb, the curb shall be modified to include a sill on the back on which the walk will rest.
- g. Expansion joints shall be placed at the ends of all curved sections, at the ends of the curved portions of street returns, at drainage structures and where abutting other concrete. The spacing of joints shall not exceed three hundred (300) feet.
- 6. Topsoil. Topsoil shall meet the MnDOT requirements for topsoil borrow unless on-site materials is approved by the City Engineer. Sub-dividers shall submit the necessary tests, if requested, to show compliance with these requirements.
- 7. Seeding. All permanent turf seed shall meet MnDOT mixture #50B. Another mixture may be needed for temporary seeding or erosion control.

# I. DESIGN STANDARDS

- Applicable Standards. In the design of new streets and upgrading existing roads, all design shall be accomplished in concurrence with generally accepted standards for design professionals. These standards are more specifically addressed as follows:
  - a. Pavement Design. All new street and upgraded roads shall be designed to provide an urban road section conforming to generally accepted design standards as determined by the City Engineer. (See Appendix A.) Special consideration shall be given to the following factors.
  - b. Road Classification. City roads shall be classified pursuant to Chapter 1322.
  - c. Geometric Standards. Geometric roadway standards shall be established by reference to "State Aid Manual" latest edition as prepared by the Minnesota Department of Transportation or as specified in Section H.2. above.

- d. Pavement Strength. Pavement strength and design shall be determined by reference to "Road Design" latest edition as prepared by the Minnesota Department of Transportation.
  - In no case will the use of a pavement section having a granular equivalence of less than 15 be permitted.
- e. Drainage Considerations. No drainage shall be permitted to runoff property under the sub-divider's ownership at a rate which exceeds that which occurred due to a comparable storm, prior to subdivision. This may require a site detention basin or other approved metering facilities.
  - Storm sewers and culverts shall be designed to transport runoff resulting from a storm with a five-year return frequency.
- f. Erosion and sediment control: The sub-divider and the contractor shall make application for and secure a General Storm Water Permit (NPDES), prior to construction and shall enforce compliance with all terms and conditions of the permit. This shall include NPDES, Phase II permitting if applicable.
- g. Vertical and Longitudinal Controls. There shall be a maximum grade of two (2) per cent through intersections and four (4) per cent through cul-de-sacs.
- h. Driveways. Driveways shall be constructed of concrete or bituminous up to the drive over concrete curb and gutter.
- J. FUTURE STREETS. Where access to future subdivision of adjacent land are shown on the plans, rights-of-way and all roadway improvements including, pavement, curb and gutter, and utilities on the side street shall be constructed and extended to the end of the side lot or the boundary of the development whichever is greater. Projected profiles and alignments of the future street shall be shown on the plans, a minimum of three hundred (300) feet past the development.
- K. TEMPORARY DEAD-END STREETS. All temporary dead-end streets shall have temporary cul-de-sacs unless waived by the Public Utilities Director and City Engineer. All dead-end streets that do not have a temporary cul-de-sac shall be closed with temporary barricades (MnDot 8002F).

#### L. VARIANCES

- 1. The City Council may grant a variance where the sub-divider can show that by reason of exceptional topography or other physical conditions that strict compliance with these regulations could cause an exceptional and undue hardship on the enjoyment of a substantial property right, provided such relief may be granted without detriment to the public welfare and without impairing the intent and purpose of this Ordinance.
- 2. Variance Application Required. Application for any such variance shall be made in writing by the sub-divider at the time when the preliminary plat is filed for consideration, stating fully all facts relied upon by the petitioner, and shall be supplemented with maps, plans or other additional data which may be required by

the in the analysis of the proposed project. The plans for the subdivision shall include such covenants, restrictions, or other legal provisions necessary to guarantee the full achievement of the plan.

The City Council, which shall grant or deny the variance based on findings. Any variance granted shall be recorded in resolution form and entered in the minutes of the City Council setting forth the reasons which justified the action.