

Sec. 14-1-58 Storm Water Drainage Facilities.

Pursuant to Section 14-1-74, the subdivider shall provide storm water drainage facilities which include curb and gutter, manholes, catch basins and inlets, storm sewers, storm sewer laterals from the main to the lot line, road ditches and open channels, as may be required. All such facilities are to be of adequate size and grade to hydraulically accommodate maximum potential volumes of flow, the type of facility required, the design criteria and the sizes and grades to be determined by the Village Engineer. Such required improvements shall be dedicated to the Village upon such terms and conditions as the Village Board may determine.

Sec. 14-1-59 Other Utilities.

- (a) (1) In so far as possible, all utilities, including but not limited to natural gas, telephone, cable television, electric, and water service, shall be installed underground with an affidavit by the subdivider that the maintenance of said public improvements will be guaranteed by the subdivider due to use of the improvements by purchasers and construction traffic.
- (2) Prior to any maintenance, repair or replacement being performed by the developer during the bond period, it shall notify the Village Engineer at least one (1) work day prior to the doing of the work and obtain approval of the Village Engineer as to the nature and manner of work to be done.
- (b) The subdivider shall cause gas, electric power, cable television and telephone facilities to be installed in such a manner as to make adequate service available to each lot in the subdivision, certified survey or land division. All new electrical distribution television cables and telephone lines from which lots are individually served shall be underground unless the Village Board, upon the recommendation of pertinent Village utilities or Plan Commission, specifically allows overhead poles for the following reasons:
 - (1) Topography, soil, water table, solid rock, boulders, or other physical conditions would make underground installation unreasonable or impractical; or
 - (2) The lots to be served by said facilities can be served directly from existing overhead facilities.
- (c) Plans indicating the proposed location of all gas, electrical power, cable television and telephone distribution and transmission lines required to service the plat shall be provided by the appropriate private utilities.

Sec. 14-1-60 Street Lamps.

The Village Board shall require the subdivider to install street lamps within eighteen (18) months of the Village's approval of the project along all streets proposed to be dedicated of a design compatible with the neighborhood and type of development proposed. Such lamps shall be placed at each street intersection and at such interior block spacing as may be required by the Village Engineer.

Sec. 14-1-61 Street Signs.

- (a) The subdivider shall pay the costs of providing the street signing necessary to serve the development. Such signing shall include street name signs, traffic control signs, and such temporary barricades and "road closed" signs as may be required by the Village Engineer or Village Board until the street improvements have been accepted by Village Board resolution.
- (b) The Village Board shall have the authority to impose any restrictions to traffic on street improvements not yet accepted by the Village as it may deem necessary to protect the improvements from damage and to protect the safety of the public. Such restrictions shall include, but not be limited by enumeration to, weight restrictions, street closings, access restrictions, or the posting of temporary traffic control measures.

Sec. 14-1-62 Erosion Control.

The subdivider shall cause all gradings, excavations, open cuts, side slopes, and other land surface disturbances to be mulched, seeded, sodded or otherwise protected so that erosion, siltation, sedimentation and washing are prevented, in compliance with Village ordinances. The subdivider shall submit an erosion control plan that specifies measures that will be taken to assure the minimization of erosion problems.

Sec. 14-1-63 Partition Fences/Hedges.

When the land included in a subdivision plat or certified map abuts upon or is adjacent to land used for farming or grazing purposes, the subdivider shall erect, keep, and maintain partition fences, satisfying the requirements of the Wisconsin Statutes for a legal and sufficient fence, between such land and the adjacent land. A covenant binding the developer, its grantees, heirs, successors, and assigns to erect and maintain such fences, without cost to the adjoining property owners, so long as the land is used for farming or grazing purposes, shall be included upon the face of the Final Plat or certified survey map. Rear yard fences shall not be permitted on zero-lot line lots.

Sec. 14-1-64 Easements.

- (a) **Utility Easements.** The Village Board, on the recommendation of appropriate departments, utilities and agencies serving the Village, shall require utility easements for poles, wire, conduits, storm and sanitary sewers, gas, water and head mains or other utility lines. It is the intent of this Chapter to protect all-established easements so as to assure proper grade, assure maintenance of the established grade, prohibit construction of

permanent fences or retaining walls over underground installation and prevent the planting of trees in the easement area. All such utilities shall be installed underground, as required in Section 14-1-59.

- (b) **Drainage Easements.** Drainage easements shall comply with the requirements of Section 14-1-74(f).
- (c) **Easement Locations.**
 - (1) Utility easements shall be at least fifteen (15) feet wide, unless the utilities, in writing, approve a narrower width, and may run across lots or alongside of rear lot lines. Such easements should preferably be located along rear lot lines. Evidence shall be furnished the Village that easements and any easement provisions to be incorporated in the plat or in deeds have been reviewed by the individual utility companies or the organization responsible for furnishing the services involved.
 - (2) All easements dedicated on final plat or certified survey maps for poles, cables or conduits for electricity, telephone or other private utility lines shall be noted thereon as "Utility Easement". All easements for storm and sanitary sewers, water and force mains, pedestrian walks and other public purposes shall be noted thereon as "Public Easement for" followed by reference to the use or uses for which they are intended.
- (d) **Deed Restrictions for Easements.** Deed restrictions shall accompany each final plat or certified survey map, and shall be filed in the Register of Deeds office. In addition to whatever else may be contained therein, such restrictions shall describe the location and width of utility and public easements which are being established; a description by reference to the final plat or certified survey map shall suffice. Such restrictions shall further recite that the utility companies and the public agencies using such easements are granted the right to place, and shall state that the elevation of such easements as graded by the subdivider may not be altered thereafter by him/her, or any subsequent landowner by more than six (6) inches.

Sec. 14-1-65 Extra—Sized and Off—Site Facilities.

When any public improvements of adequate capacity are not available at the boundary of a proposed land division, the Village, or its duly authorized representative, shall require, as a prerequisite to approval of a Final Plat or certified survey map, assurances that such improvement extensions shall be provided as follows in accordance with the following standards:

- (a) **Design Capacity.** All improvements within or entering or leaving the proposed development shall be installed to satisfy the service requirements for the entire service or drainage area in which the development is located and the improvements shall be of sufficient capacity to handle the expected development of the overall service area involved.
- (b) **Extra-sized and Off-size Improvements.** Where improvements of adequate size needed to serve the development are not available at the boundary of the development, the subdivider shall proceed under one (1) of the alternatives as identified in Section 14-1-50.

- (c) **Lift Stations.** Where sanitary or storm sewer lift stations and force mains are required to lift sewage to the gravity system, the subdivider shall have plans, profiles, specifications and estimated operation and maintenance costs prepared for the installation of such facilities to the Village Engineer's requirements. Equipment similar to existing Village equipment shall be utilized whenever possible. The installation, inspection, supervision and engineering fees for lift stations and/or force mains shall be paid for by the subdivider unless otherwise determined and agreed upon by the Village Board. Gravity sanitary sewer service shall be employed whenever determined by the Village Engineer to be feasibly accessible.

Sec. 14-1-66 Acceptance of Improvements and Dedications.

- (a) **Acceptance of Improvements.** The dedication 'of any improvements, utilities, streets, parks, easements, rights-of-way or other lands or rights to the Village or the public shall not be considered accepted by the Village for public ownership until such time as the required public improvements within the intended dedication or necessary because of the intended dedication have been completed and accepted by the Village Board by adoption of a resolution accepting such dedication. Improvements shall be dedicated to the Village free and clear of any encumbrances. The subdivider shall be responsible for and liable for the maintenance, safety and operation of all required public improvements until such time as the improvements are accepted by the Village Board by resolution. In the event the Village must take measures to maintain, operate or make safe a public improvement existing or required as a result of the land division but which has not yet been accepted by the Village, the costs of such measures shall hereby, be determined to be Village-incurred costs to be reimbursed to the Village by the subdivider in accordance with the provisions of this Chapter.
- (b) **Inspection and Certification of Improvements.**
- (1) After any of the following increments of the required improvements have been installed and completed, the subdivider shall notify the Village Engineer, in writing, that the work is complete and ready for final inspection, shall file reproducible record drawings of the completed improvements and shall file lien waivers or affidavits, in a form acceptable to the Village'. Engineerand approved by the Village Attorney, evidencing that there are no claims, actions or demands for damages, based upon contract or tort arising out of or in any way related to the project and that no moneys are owned to any surveyor, mechanic, contractor, subcontractor, materialman or laborer after all required improvements have been installed. Acceptance of the improvements may be requested in the following increments:
- a. Sewer mains and services (either storm or sanitary).
 - b. Water mains and services.
 - c. Streets comprised of all grading, gravel, curb and gutter, culverts and paving.

- d. Other miscellaneous appurtenances to the above increments such as sidewalks, bikeways, street lighting, street signing, etc.
- (2) The Village Clerk-Treasurer shall certify that there are no unpaid taxes or unpaid special assessments on any of the lands included in the area of acceptance and shall prepare a final billing for engineer, inspection and legal fees and submit it to the subdivider for payment. The Village Engineer shall conduct any necessary final inspections of the improvements and forward a report to the Village Clerk-Treasurer recommending either approval or disapproval. When the engineering, inspection, taxes, special assessments and legal fees have been paid and when the necessary lien waivers and affidavits have been filed, the report of the Village Engineer, together with the recommendation of the Village Clerk-Treasurer, shall be forwarded to the Village Board for approval and acceptance of the improvements and dedications.

Sec. 14-1-67 Site Grading.

The subdivider shall be required to grade the full land division in accordance with the requirements of Section 14-1-76.

Sec. 14-1-68 Street Trees.

In all urban subdivisions, the subdivider shall plant at least one (1) tree of an approved species and of at least six (6) feet in height and one (1) inch in diameter for each fifty (50) feet of frontage on all streets proposed to be dedicated. Tree planting shall be completed in accordance with plans and specifications approved by and at such time as directed by the Village Board. The placement and selection of street trees, however, should not excessively hamper or interfere with solar access to natural light and air for nearby lots. In lieu of planting street trees, the subdivider may pay a tree fee equal to Fifty Dollars (\$50.00) times the number of trees required, using the tree planting formula stated above. The Village Board shall use the tree fee to plant trees in the subdivision subsequent to approval of the final plat.

Sec. 14-1-69 Reserved for Future Use.

Article F: Design Standards

Sec. 14-1-70 General Street Design Standards.

- (a) **Compliance with Statutes.** In laying out a certified survey or subdivision, the owner shall conform to the provisions of Chapter 236, Wis. Stats., and all applicable Village regulations. In all cases where the requirements of this Chapter are different from the requirements of Chapter 236, the more restrictive provision shall apply. [See also Section 14-1-73(f)1.
- (b) **Dedication.** The subdivider shall dedicate land and improve streets as provided in this Chapter and Section 14-1-53. Streets shall be located with due regard for topographical conditions, natural features, existing and proposed streets, utilities and land uses and public convenience and safety. Streets shall conform to official maps adopted by the Village Board. The subdivision, certified survey parcel or land division shall be so designed as to provide each lot with satisfactory access to a public street or road. [See also Section 14-1-73(f).]
- (c) **Compliance with Comprehensive Plan and Ordinances.**
- (1) **Land Division Compliance With Plans.** The arrangement, character, features, and layout of land divisions in the Village of Shiocton shall be designed to comply with the standards of this Chapter, the Comprehensive Plan, the Official Map, and/or any comprehensive utility plans or other planning documents which may pertain to the standards of design for land divisions and which have been adopted by the Village Board. Where no such planning documents have been adopted, subdivisions shall be designed according to engineering and planning standards approved by the Village Engineer and applied so as to properly relate the proposed development with adjacent development, the topography, natural features, public safety and convenience, and the most advantageous development of undeveloped adjacent lands. In the absence of a street being shown on the official map, streets shall be provided in locations determined necessary by the Village Engineer and to the right-of-way widths required in this Article for the classification of street required.
- (2) **Street Locations to Comply With Plans.** The arrangement, character, extent, width, grade, and location of all streets shall conform to Village master plans, the Official Map, and to this Chapter, and other Village planning documents and shall be considered in their relation to: existing and planned streets, reasonable circulation of traffic, topographical conditions, run-off of storm water, public convenience and safety, and in their appropriate relation to the proposed uses of the land to be served by such streets.
- (3) **Continuation.** The arrangement of streets in new subdivisions shall make provision for the appropriate continuation at the same or greater width of the existing streets in adjoining areas.

14-1-70

- (d) **Areas Not Covered by Official Map or Plan.** In areas not covered by an Official Map or a Village Comprehensive Plan, the layout of streets shall conform to the plan for the most advantageous development of adjoining areas of the neighborhood. Streets shall be designed and located in relation to existing and officially planned streets, topography and natural terrain, streams and lakes and existing tree growth, public convenience and safety and in their appropriate relation to the proposed use of the land to be served by such streets.
- (e) **Proposed Streets.** Proposed streets shall extend to the boundary lines of the tract being subdivided unless prevented by topography or other physical conditions or unless, in the opinion of the Village Board, such extension is not necessary or desirable for the coordination of the layout of the subdivision or land division or for the advantageous development of the adjacent tracts.
- (f) **Streets Classifications.** Streets shall be required and classified by the Village Engineer in accordance with the Village's Comprehensive Plan and where not identified in said plan, in accordance with sound engineering standards, into the classifications indicated below with the designated minimum widths:
- (1) **Arterial Streets.** Arterial streets, shall be arranged so as to provide ready access to centers of employment, centers of governmental activity, community shopping areas, community recreation, and points beyond the boundaries of the community. They shall also be properly integrated with and related to the existing and proposed system of major streets and highways and shall be, insofar as practicable, continuous and in alignment with existing or planned streets with which they are to connect.
 - (2) **Collector Streets.** Collector streets, shall be arranged so as to provide ready collection of traffic from residential areas and conveyance of this traffic to the major street and highway system and shall be properly related to the mass transportation system, to special traffic generators such as schools, churches and shopping centers and other concentrations of population and to the major streets to which they connect.
 - (3) **Minor Streets.** Minor streets, shall be arranged to conform to the topography, to discourage use by through traffic to permit the design of efficient storm and sanitary sewerage systems, and to require the minimum street area necessary to provide safe and convenient access to abutting property.
 - (4) **Proposed Streets.** Proposed streets shall extend to the boundary lines of the tract being subdivided unless prevented by topography or other physical conditions or unless, in the opinion of the Village Board, such extension is not necessary or desirable for the coordination of the layout of the subdivision or for the advantageous development of the adjacent tracts.
- (g) **Arterial Street and Highway Protection.** Whenever the proposed subdivision contains or is adjacent to a major street or highway, adequate protection of residential properties, limitation of access and separation of through and local traffic shall be provided by reversed frontage, with screen planting contained in a nonaccess reservation along the rear property line, or by the use of frontage streets.

- (h) **Reserve Strips.** Reserve strips shall not be provided on any plat to control access to streets or alleys, except where control of such strips is placed with the Village under conditions approved by the Village Board.
- (i) **Alleys; Cul-de-Sac Streets.**
- (1) **Commercial and Industrial.** Alleys may be provided in commercial and industrial districts. The width of the right-of-ways for residential alleys shall be not less than twenty-four (24) feet and the width of the right-of-way for commercial and industrial alleys shall be not less than thirty-two (32) feet. Alleys shall be constructed according to base and surfacing requirements for streets.
 - (2) **Residential.** Alleys shall not be approved in residential areas unless necessary because of topography or other exceptional circumstances.
 - (3) **Dead End.** Dead-end alleys are prohibited except under very unusual circumstances, and crooked and "T" alleys shall be discouraged. Temporary dead-end streets shall not be over one thousand (1,000) feet in total length, shall provide for an eventual intersection spacing meeting the requirements of this Chapter and shall provide for temporary cul-de-sacs or turnarounds as approved by the Village Engineer. Temporary termination of streets intended to be extended at a later date shall be accomplished with a temporary cul-de-sac in accordance with the standards set forth below, or by construction of a temporary "T" intersection thirty-three (33) feet in width and thirty-three (33) feet in length abutting the right-of-way lines of the access street on each side.
 - (4) **Design of Cul-de-Sac Streets.** Cul-de-sac streets designed to have one (1) end permanently closed shall not exceed seven hundred fifty (750) feet in length. All urban cul-de-sac streets designed to have one (1) end permanently closed shall terminate in a circular or tear-drop turn-around having a minimum right-of-way radius of sixty (60) feet and a minimum outside curb radius of forty-six (46) feet.
- (j) **Continuation.** Streets shall be laid out to provide for possible continuation wherever topographic and other physical conditions permit. The use of cul-de-sacs shall be held to a minimum and permanently dead ended streets shall be prohibited. Provisions shall be made so that all proposed streets shall have a direct connection with, or be continuous and in line with, existing, planned or platted, streets with which they are to connect. Proposed streets shall be extended to the boundary lines of the tract to be subdivided, unless prevented by topography or other physical conditions, or unless in the opinion of the Village Board such extension is not necessary or desirable for the coordination of the layout of the subdivision with existing layout or the most advantageous future development of adjacent tracts.
- (k) **Minor Streets.** Minor streets shall be so laid out so as to discourage their use by through traffic.
- (l) **Frontage Roads.** Where a land division abuts or contains an existing or proposed arterial highway, or railroad right-of-way, the subdivider shall provide a frontage road, platted

access restriction along the property contiguous to such highway, or such other treatment as may be determined necessary by the Village Engineer to ensure safe, efficient traffic flow and adequate protection of residential properties.

- (m) **Private Streets.** Private streets shall not be approved nor shall public improvements be approved for any private street; all streets shall be dedicated for public use.
- (n) **Tangents.** A tangent at least one hundred (100) feet long shall be required between reverse curves on arterial and collector streets.
- (o) **Visibility.** Streets shall afford maximum visibility and safety for motorist bicycle, and pedestrian use and shall intersect at right angles, where practicable. A minimum sight distance with clear visibility, measured along the centerline, shall be provided of at least five hundred (500) feet on major thoroughfares, two hundred (200) feet on collector-distributor streets, and one hundred fifty (150) feet on all other streets.
- (p) **Half Streets.** Half streets shall not be platted unless necessary to provide the full width of an existing street platted to half width. All newly platted streets shall be platted to the required full width. Where a half street exists adjacent to a proposed land division, the subdivider shall endeavor to acquire and dedieve the remaining half street.
- (q) **Intersections.**
 - (1) **Angle of Intersect.** Streets shall intersect each other at as nearly right angles as topography and other limiting factors of good design permit. The curved street shall intersect another street with not less than fifteen (15) feet of tangent right-of-way between the end of curvature and the right-of-way of the street being intersected.
 - (2) **Number of Streets Converging.** The number of streets converging at one (1) intersection shall be reduced to a minimum, preferably not more than two (2). Cross-type intersections on local streets shall be avoided whenever possible in favor of T-type intersections. Intersections of local streets shall be at least one hundred twenty-five (125) feet from each other.
 - (3) **Number of Intersections — Arterial Streets.** The number of intersections along arterial streets shall be held to a minimum. Wherever practicable, the distance between such intersections shall be not less than one thousand two hundred (1,200) feet, unless otherwise determined by the Village Engineer to provide better safety.
 - (4) **Local Street Spacing.** Local streets and frontage roads intersecting with other local streets or collector streets shall, wherever practicable, be spaced no closer than one hundred fifty (150) feet between right-of-way lines, nor closer than two hundred fifty (250) feet to the right-of-way of an arterial street.
 - (5) **Property Lines at Street Intersections.** Property lines at street intersections shall be rounded with a minimum radius of twenty-five (25) feet or of a greater radius when required by the Village Engineer.
 - (6) **Local Streets.** Local streets shall not necessarily continue across arterial or collector streets, but if the centerlines of such local streets approach the major streets from opposite sides within two hundred fifty (250) feet of each other, measured along the

centerline of the arterial or collector streets, then the location shall be so adjusted that the adjoinment across the major or collector street is continuous and a jog is avoided.

- (7) **Additional Sight Easements.** At any intersection determined by the Village Engineer, restricted development easements' or additional street right-of-way shall be platted to provide for adequate sight distances in every direction of travel. At a minimum, the subdivider shall grade, clear or otherwise provide for an unobstructed sight triangle at all intersections incorporating the area within a triangle formed by the intersection of the street right-of-way lines and a point on each right-of-way line being not less than thirty (30) feet from the intersection point.

(r) **Street Names.**

- (1) Duplication of existing street names by similar word, spelling, or sound shall not be permitted.
- (2) Where a street maintains the same general direction except for curvilinear changes for short distances, the same name shall continue for the entire length of the street. House numbering difficulties shall be considered the determining factor in considering whether a change of name is necessary due to curvilinear changes.
- (3) A street name shall be changed when required to conform to the proposed or existing house numbering base.
- (4) A name which is assigned to a street which is not presently a through street, due to intervening land over which the street extension is planned, shall be continued for the separate portions of the planned through street.
- (5) The following designations shall be used only in the situations indicated:
 - a. "Boulevard." A street with a divided pavement, either existing or planned. If the divided pavement ends but the street continues, the same street name and suffix shall continue.
 - b. "Lane." To be limited to a street, one (1) block long, not ending in a cul-de-sac.
 - c. "Circle." To be limited to a cul-de-sac of nine (9) lots or more.
 - d. "Court." To be limited to a cul-de-sac of eight (8) lots or less.
 - e. "Parkway." To be limited to a street abutting a park or greenway or creek.
- (6) The maximum number of street names at one (1) intersection shall be three (3).
- (7) Street names shall be assigned to avoid intersections which have the same exact street names.
- (8) The name of any projection of a street shall remain unchanged even if the projection terminates in a cul-de-sac.
- (9) The changing of a street name that does not duplicate an existing street name shall only be approved where such change will eliminate conflicts with other provisions of this Subsection.
- (10) Service roads and highways served by them shall have the same street name and designation.
- (11) Approval of street names on a preliminary plat will not reserve the names nor shall the Village be required to accept such names at the time of final platting.

- (12) A minimum number of letters is desirable in a street name. The maximum number of letters, not including the prefix or suffix, shall not exceed twelve (12).
- (s) **Limited Access Highway and Railroad Right-of-way Treatment.** Whenever the proposed subdivision contains or is adjacent to a limited access highway, arterial street or railroad right-of-way, the design shall provide the following treatment:
- (1) **Subdivision Lots.** When lots within the proposed subdivision back upon the right-of-way of an existing or proposed limited access highway or a railroad, a planting strip at least thirty (30) feet in depth shall be provided adjacent to the highway or railroad in addition to the normal lot depth. This strip shall be part of the platted lots but shall have the following restriction lettered on the face of the plat: "This strip reserved for the planting of trees and shrubs, the building of structures hereon prohibited."
 - (2) **Commercial and Industrial Districts.** Commercial and industrial districts shall have provided, on each side of the limited access highway, arterial street or railroad, streets approximately parallel to and at a suitable distance from such highway or railroad for the appropriate use of the land between such streets and highway or railroad, but not less than one hundred fifty (150) feet.
 - (3) **Streets Parallel to a Limited Access Highway.** Streets parallel to a limited access highway or railroad right-of-way, when intersecting a major street and highway or collector street which crosses said railroad or highway, shall be located at a minimum distance of two hundred fifty (250) feet from said highway or railroad right-of-way. Such distance, where desirable and practicable, shall be determined with due consideration of the minimum distance required for the future separation of grades by means of appropriate approach gradients.
 - (4) **Minor Streets.** Minor streets immediately adjacent and parallel to railroad rights-of-way shall be avoided, and location of minor streets immediately adjacent to arterial streets and highways and to railroad rights-of-way shall be avoided in residential areas.
- (t) **Street and Pedestrian Way Design Standards;** The minimum right-of-way and roadway width of all proposed streets shall be as specified by the comprehensive plan, comprehensive plan component, official map, neighborhood development study, or jurisdictional highway system plan, or if no width is specified therein, the minimum widths shall be as shown as follows. Street sections are for standard arterial streets only. Cross-sections for freeways, expressways and parkways should be based upon detailed engineering studies. The type of street cross section to be used shall be determined by the Village Board.

(1) **Street Cross Sections - Urban Streets.**

| Type of Street or Public Way | Minimum Right-of-Way to be Dedicated | Minimum Dimensions |
|-------------------------------------|---|--|
| Arterial Streets (four-lane) | 120 feet | *Dual 36-foot pavement (face of curb to face of curb) *24-foot median *7-foot tree banks (curb lawn) *4-foot sidewalks *1-foot outside sidewalks |
| Arterial Streets (two-lane) | 80 feet | *48-foot pavement (face of curb to face of curb) *11-foot tree banks (curb lawn) *4-foot sidewalks *1-foot outside sidewalks |
| Collector Streets | 80 feet | *48-foot pavement (face of curb to face of curb) *11-foot tree banks (curb lawn) *4-foot sidewalks *1-foot outside sidewalks |
| Minor Streets | 66 feet | *36-foot pavement (face of curb to face of curb) *7-foot tree banks (curb lawn) *4-foot sidewalks *1-foot outside sidewalks |
| Minimum Cul-de-Sac 60 foot radius | | *46-foot radius pavement *7-foot tree banks (curb lawn) *4-foot sidewalks *1-foot outside sidewalks |

14-1-70

| | | |
|-------------------|---------|---|
| Cul-de-Sac Barrel | 60 feet | *32-foot pavement (face to curb to face of curb) *9-foot tree banks (curb lawn) *4-foot sidewalks *1-foot outside sidewalks |
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(2) **Street Cross Sections - Rural Streets.**

| Type of Street Way or Public Way | Minimum Right-of- to be Dedicated | Minimum Dimensions |
|---|--|---|
| Arterial Streets (four-lane) | 130 feet | *Dual 24-foot pavement *18-foot median *10-foot outside shoulders *6-foot inside shoulder *16-foot roadside ditches |
| Arterial Streets | 100 feet | *24-foot pavement *10-foot shoulders *28-foot roadside ditches |
| Collector Streets | None | None |
| Minor Streets | 66 feet | *22-foot pavement *6- foot shoulders *16- foot roadside ditches |
| Minimum Cul-de-Sac | 66 foot radius | *45-foot radius pavement *5-foot shoulders *16- foot roadside ditches |
| Cul-de-Sac Barrel | 66 feet | *22-foot pavement *6- foot shoulders *16- foot roadside ditches |

(3) **Street Grades.** Street grades shall be established wherever practicable so as to avoid excessive grading, the promiscuous removal of ground cover and tree growth, and general leveling of the topography. All changes in street grades shall be connected

by vertical curves of a minimum length equivalent in feet to fifteen (15) times the algebraic difference in the rates of grade for arterial streets, and one-half (1/2) this minimum for all other streets:

- a. Arterial streets: Six percent (6%).
- b. Collector streets: Eight percent (8%).
- c. Minor streets, alleys, frontage streets: Twelve percent (12%).
- d. Pedestrian ways: Twelve percent (12%) unless steps or stairs of acceptable design are provided.
- e. The grade of any street shall in no case exceed twelve percent (12%) or be less than one-half of one percent (0.5%).

(4) **Radial of Curvature.** When a continuous street centerline deflects at any one point by more than ten degrees (10°), a circular curve shall be introduced having a radius of curvature on said centerline of not less than the following:

- a. Arterial street and highways: Five hundred (500) feet.
- b. Collector streets: Three hundred (300) feet.
- c. Minor Streets: One hundred fifty (150) feet.

Sec. 14-1-71 Specifications for Preparation, Construction and Dedication of Streets and Roads.

(a) General Requirements.

(1) **Construction Standards.** All roadway construction and materials used shall be performed in accordance with the construction methods as listed in the appropriate sections of the "State of Wisconsin Department of Transportation Standard Specifications for Road and Bridge Construction" and its supplements, the Village of Shiocton's Engineering Guidelines, and this Chapter, whichever is more restrictive. The design requirements of this Section and Section 14-1-70 shall be applicable to all streets and roads that are to be dedicated to the Village, regardless of whether such streets or roads are part of a new subdivision or land division. Design requirements for the pavement shall be adequate for the zoning classification of the area served by the subject street. A street which divides areas with different zoning classifications shall be constructed in accordance with the requirements of the area requiring the higher quality pavement. Any variation of this must have prior approval of the Village Engineer. Combination concrete curb and gutter is required on all streets. (Refer to the Section describing requirements for curbs and gutters.) A copy of all design assumptions and computations on which the proposed design is based shall be submitted to the Village Engineer. -

(2) **Project Costs.** All roadway surveys, dedications, plans and specifications and construction will be at the expense of the applicant or applicants. This includes any expense incurred by the Village in the preparation of plans and review and inspection of plans and construction.

- (3) **Preliminary Consultation.** Prior to the design, preparation and construction of any roadway to be dedicated to the Village of Shiocton, the applicant shall notify the Village Engineer. An on-site meeting will then be arranged to be attended by the Village Engineer and the applicant. Plans must be provided in order for the Village Engineer to check the design and the drainage.
 - (4) **Material Slips.** Copies of material slips for all materials furnished for the road construction projects shall be delivered to the Village before the Village approves the final construction.
 - (5) **Required Inspections.** Prior to the commencement of any street construction, the subdivider shall notify the Village Engineer, at least one (1) workday in advance, as to the nature of the work being done. The Village Engineer shall be contacted for required inspections after the following phases of construction:
 - a. Subbase grading;
 - b. Crushed aggregate base course;
 - c. Concrete gutters, curbs and sidewalks;
 - d. Bituminous surface course; and
 - e. Shouldering.Any deficiencies found by the Village Engineer shall be corrected before proceeding to the next phase of construction.
 - (6) **Tests of Materials.** The Village reserves the right to obtain a sample of the roadway base material prior to placement on the roadway for purposes of determining whether the material meets gradation and soundness requirements.
 - (7) **Pavement Samples.** Samples of bituminous concrete may be taken by the Village during pavement construction operations for purposes of determining that the material meets specifications.
- (b) **Construction Standards.** All streets and highways constructed in the Village or to be dedicated to the Village shall fully comply with the following construction standards, and shall be adequate for the zoning classification or projected use of the area served by the street:
- (1) **General.** After completion of the underground utilities and approval thereof, the streets shall be constructed. Unless phasing of construction of improvements is approved by the Village Board or its designee, building permits shall not be issued prior to the installation of the street improvements and the approval of an individual lot grading plan that conforms to the guidelines of the master site grading plan, as determined by the Village Engineer, or his/her designee.
 - (2) **Street Right-of-Ways.** Streets shall have a right-of-way width as established on the Official Map or as designated in Section 14-1-71(t), provided, however, that a greater or lesser roadway width may be required by the Village Engineer where necessary to assure uniformity along the entire length of any street.
 - (3) **Temporary Streets.** Construction of temporary streets shall require authorization of the Village Board.

(4) Standard Street Improvements.

- a. Standard street improvements shall include street lights, concrete curb and gutter, bituminous base course, bituminous surface course and, when required, walkways.
- b. The construction of standard street improvements can begin only when either:
 1. The underground utilities were installed in the previous construction season; of
 2. The construction of underground utilities included mechanical compaction and compaction tests have been approved by the Village Engineer.
- c. Upon obtaining the written approval of the Village Engineer the subdivider can proceed with the construction of the standard street improvements. Standard street improvements shall be installed to the boundary line of the subdivision unless the street culminates in a cul-de-sac, the topography or other physical conditions make it impossible to do so, or unless this requirement is waived, in writing, by the Village Engineer.
- d. Where he/she deems appropriate, the Village Engineer may require that pavement construction take place over a two (2) year period, with the lower coat being placed in the same year as the underground utilities are constructed and with the upper coat being placed in the following year, after thorough cleaning and application of a tack coat to the first coat.

(5) Roadway Base Standards.

- a. After the installation of temporary block corners monuments by the subdivider and approval of street grades by the Village Engineer, the subdivider shall grade the full width of the right-of-way of all streets proposed to be dedicated in accordance with plans and standard specifications approved by the Village Board, upon the recommendation of the Village Engineer.
- b. Cut and filled lands shall be graded to a maximum slope of one (1) on four (4) or the soils angle of repose, whichever is the lesser and covered with permanent vegetation.
- c. Residential streets shall have a minimum eight (8) inch thick, compacted in-place, crushed limestone aggregate base, gradation No. 2, conforming to requirements of Section 304 — Crushed Aggregate Base Course of "State of Wisconsin, Standard Specifications For Road and Bridge Construction," latest edition, which conforms to following gradation specifications:

| Sieve Size | Percentage Passing by Weight |
|------------|------------------------------|
| 3-inch 2- | 100 |
| 1/2-inch | 90-100 |
| 2-inch 1- | 35-70 |
| 1/2-inch | 0-15 |
| 3/4-inch | 0-5 |

- d. On commercial, arterial or other heavy-use streets, as determined by the Village Engineer, a ten (10) inch minimum depth crushed limestone aggregate base course, gradation No. 2, shall be constructed upon an inspected and approved subgrade conforming to the specifications in Subsection (b)(5)c above.
- e. In the case of commercial, arterial or other heavy-use roads, the Village Board may, in the alternative to the above standards, have the Village Engineer provide specifications for such roads after researching the site(s) and conducting a soil analysis for separate pavement design analysis.
- f. In any case, the Village Board shall have the sole discretion in determining the use and construction classification to be adhered to.
- g. In all cases, the base course shall be compacted to the extent necessary to produce a condition so that there will be no appreciable displacement of material laterally and longitudinally under traffic and shall conform to line, grades and shape shown on the approved plans, profiles and cross sections.
- h. The subdivider shall furnish drawings which indicate the proposed grades of streets shown on the plat and, after approval of those grades by the Village Engineer and adoption by the Village Board, the streets shall be graded to full width of the right-of-way of the proposed street to the subgrade elevations shown on the typical cross-section. All stumps and trees which cannot be saved, boulders and other similar items shall be removed by the subdivider.

(6) **Roadway Subgrade Quality.** If deemed necessary by the Village Engineer, CBR tests may be required according to the following standards:

- a. All subgrade material shall have a minimum California Bearing Ratio (CBR) of three (3). Subgrade material having a CBR less than three (3) shall be removed and replaced with a suitable fill material, or the pavement must be designed to compensate for the soil conditions. The soil support CBR values selected for use by the designer should represent a minimum value for the soil to be used.
- b. Stable and nonorganic sub-base material is required. All topsoil shall be first removed. In addition, all subsoils which have a high shrink-swell potential, low-bearing capacity when wet, or are highly elastic shall be removed to a minimum depth of fifteen (15) inches below the top of the subgrade and used outside of the right-of-way. Where both subsoil and substratum have a high shrink-swell potential and low-bearing capacity when wet, an underdrain system shall be installed to remove water from the sub-base. Unstable and organic material must be subcut, removed and replaced with a suitable granular material placed over a geotextile fabric laid on top of the subgrade. Granular material shall be approved by Village Engineer. Geotextile material shall meet requirements of Section 645 — Geotextile Fabrics of "State of Wisconsin, Standard Specifications for Road and Bridge Construction," latest edition, for type SR material.

(7) **Roadway Grading; Ditches.** Roads shall be graded to their full width in accordance with approved plans, plus an additional distance necessary to establish a four-to-one (4:1) backslope where ditches are allowed. The roadway shall be compacted and graded