

Chapter 50 STREETS, SIDEWALKS AND OTHER PUBLIC PLACES

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FOOTNOTE(S):

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Cross reference— Any ordinance establishing, dedicating, accepting the dedication of, naming, grading, improving, altering, locating, opening, paving, widening, vacating, etc., any street, alley, sidewalk, public way, public park or public grounds in the village saved from repeal, § 1-16(a)(4); any ordinance establishing or prescribing grades in the village saved from repeal, § 1-16(a)(8); any ordinance providing for local improvements and assessing taxes saved from repeal, § 1-16(a)(9); consumption of alcoholic beverages in public places; exception, § 6-8; buildings and building regulations, ch. 18; moving buildings, § 18-101 et seq.; peddlers and solicitors, ch. 42; subdivisions, ch. 54; required improvements for streets and rights-of-way, § 54-125; required improvements for sidewalks, § 54-129; required improvements for street and regulatory signs, § 54-132; traffic and vehicles, ch. 62; restricting parking on certain streets, § 62-48; operation of snowmobiles on streets and alleys, § 62-122; utilities, ch. 66; zoning, ch. 70. [\(Back\)](#)

ARTICLE I. IN GENERAL

[Sec. 50-1. Acceptance of streets, alleys and easements previously dedicated to village; policies as to development of unimproved streets and alleys.](#)

[Secs. 50-2—50-30. Reserved.](#)

Sec. 50-1. Acceptance of streets, alleys and easements previously dedicated to village; policies as to development of unimproved streets and alleys.

- (a) All such streets, alleys and/or easements, dedicated or granted, to the village by any plat heretofore recorded, or otherwise, are hereby accepted as dedicated or granted.
- (b) In regard to streets or alleys platted but unimproved, any party desirous of improving and developing any such street or alley shall do so at his own expense.
- (c) Prior to any such party undertaking the improvement or development of any street:

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- (1) All such parties agree to pay all expenses incurred in the improvement and development of any street including, but not by way of limitation, all engineering expenses and legal fees, as well as the costs of the actual materials necessary to improve such street as set forth in the village "Specifications for Improvements Resolution, dated July 13, 1994," as presently in effect or as may be amended.
- (2) Once such street is developed in accordance with the village "Specifications for Improvements," that the village shall agree to maintain such street as thereafter improved.
- (d) (1) The following procedure shall apply with regard to improvement of any alleys platted, but unimproved (for purposes of this subsection the term "unimproved alley" shall connote an alley located within the village which has been dedicated and accepted as such an alley but which is not improved through paving or graveling of the surface for roadway purposes: Any party or parties desirous of improving an unimproved alley shall submit a request for review by the village board seeking permission to improve the alley. The village board may receive comment from the village zoning administrator or other village employee or officer prior to granting approval of such request. As a prerequisite to granting approval, the party or parties making the request shall agree, in writing, to pay all expenses incurred in the improvement and development of any alley, including but not by way of limitation, all engineering expenses and legal fees, as well as the costs of the actual materials necessary to improve such alley. Further, the following terms must be complied with:
 - a. The base must be eight inches of compacted limestone rock-fill minimum.
 - b. The width of the improved alley shall be no less than 12 feet.
 - c. (Minimum) ten-inch culvert must be installed unless an existing storm sewer is available.
 - d. The length of the alley shall not extend beyond the property line of the property owners adjacent to the alley to be developed.
 - e. Two sets of plans shall be submitted to the village board of trustees and approved prior to any development.Once the alley in question is developed in accordance with subsections (d)(1) a—e of this section, the village shall agree to maintain such alley as thereafter improved. Any such alley shall at all times remain the property of the village.
- (2) No structures, barricades, objects, obstacles or items which impede reasonable access for purposes of ingress and egress through an alley shall be maintained, and any such items are subject to removal at the expense of the offending party in addition to the fines set forth within subsection (d) of this section.
- (3) Any person causing any damage to any unimproved alley or public property lying within the alley shall pay for any and all costs associated with damage to the alley, as well as any village water and/or sewer lines buried beneath the alley.
- (4) Alleys shall be used solely for the purpose of giving access to the rear of lots or buildings within the block and shall not be used for general traffic circulation.
- (e) Any such street or alley so developed and improved, as provided in this section, shall remain at all times the property of the village.
- (f) Any undeveloped street or alley shall continue to not be driven on. It is the express policy of the village that any person causing any damage to any unimproved street or alley shall pay for any and all costs associated with the damage to the street or alley, as well as any village water and/or sewer lines buried beneath the undeveloped street or alley.
- (g) No structures shall be built in a public alley, and anyone desirous of using an undeveloped public alley for planting trees, gardening, etc., shall do so at their own risk.

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(h) Persons violating the provisions of this section and found in violation of this section shall be subject to punishment as provided in section 1-10 of this Code.

(Ord. No. 99-1, §§ 1—8, 1-13-1999; Ord. No. 2002-7, § 1, 8-28-2002)

Secs. 50-2—50-30. Reserved.

ARTICLE II. IMPROVEMENT SPECIFICATIONS [\[2\]](#)

DIVISION 1. - GENERALLY

DIVISION 2. - STREETS

DIVISION 3. - SIDEWALKS

DIVISION 4. - STORM AND SANITARY SEWERS

DIVISION 5. - GRANULAR BACKFILL

DIVISION 6. - WATER SUPPLY

DIVISION 7. - UTILITIES ON PRIVATE EASEMENTS

FOOTNOTE(S):

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Editor's note—Exhibits referred to in this article are not set out in this article, but are on file in the village offices. [\(Back\)](#)

DIVISION 1. GENERALLY

[Sec. 50-31. General conditions.](#)

[Sec. 50-32. Drive approaches for nonresidential areas and uses.](#)

[Sec. 50-33. Regulatory signs.](#)

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[Sec. 50-35. Required village submissions, inspections, and certifications.](#)

[Secs. 50-36—50-60. Reserved.](#)

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Sec. 50-31. General conditions.

- (a) All work performed under the specifications of this article shall be done by qualified contractors and subcontractors familiar with the type of work to be accomplished. Prior to the awarding of any contract for work to be done under the specifications of this article, the developer shall furnish to the village, for approval, the names and addresses of all contractors and subcontractors he proposes to use.
- (b) All improvements constructed within the village shall be done in accordance with the Village of Malta Standard Specifications for Improvements, the state Standard Specifications for Road and Bridge Construction, latest edition, and the current Standard Specifications for Water And Sewer Main Construction In Illinois, and all amendments thereto. These documents shall be considered as included within the Village of Malta Standard Specifications For Improvements, and in the case of a conflict of requirements, the most stringent shall apply.
- (c) The village, through its engineer, may under special conditions, grant variances within the intent of the specifications of this article. Any changes in the approved plans must have prior approval in writing by the village engineer. The village will, upon notice of improper material or material installation practices, issue a written document to the developer, or his contractor, stating that the failure to stop and correct such deficiencies will result in the village's refusal to accept such improvements.
- (d) The specifications of this article shall become a part of each and every project approved by the village.
- (e) Contractors that have been unfaithful in previous village contracts will not be allowed to work within the public right-of-way.

(Res. of 7-13-1994, § I)

Sec. 50-32. Drive approaches for nonresidential areas and uses.

- (a) All drive approaches shall be constructed as a minimum to one of the following standards:
 - (1) Six inches of class X Portland cement concrete, nonreinforced with a continuous six-inch bituminous fiber expansion joint at the sidewalk and at the back of the curb. The surface shall be scored into a five-foot grid and shall be cured and protected as per the requirements for sidewalks. This pavement shall be placed on a compacted stone or gravel base to a depth of four inches minimum.
 - (2) Six inches after compaction bituminous aggregate mixture base course with a 1½-inch minimum bituminous concrete surface course, class I, and shall be placed on compacted stone or gravel base to a depth of four inches minimum.
 - (3) Eight inches minimum after compaction (CA-6) crushed stone base course, crushed gravel base course with 2½ inches minimum bituminous concrete surface course, class I.
- (b) All drive approaches shall be constructed with a roll near the curbline to make a neat transition to the curb opening and shall have a minimum street radius of five feet. All drive approaches shall be constructed to a maximum grade within the right-of-way of six percent. In no case shall the algebraic difference of the drive grade and the street grade exceed eight percent.

(Res. of 7-13-1994, § XI)

Sec. 50-33. Regulatory signs.

- (a) Regulatory signs will be required by the subdivider for subdivision construction where indicated by the village board and shown on the final plat and the construction plans. All such signs shall conform to

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the state Manual on Uniform Traffic Control Devices For Streets and Highways, latest edition, including the erection thereof.

- (b) Stop signs shall be 30 inches by 30 inches on all streets. Yield signs shall be 30 inches by 30 inches. Speed limit signs (R2-1) shall be 24 inches by 30 inches. Warning signs and no parking signs shall be 30 inches by 30 inches.
- (c) All posts and hardware shall be two pound rib back posts (painted green) with high strength bolts and nuts.
- (d) All sign faces shall be 3M Company, or approved equal, using reflective high intensity paper.
- (e) Stop signs will be required where collector streets meet major streets. Other locations may be required where warranted by traffic considerations.

(Res. of 7-13-1994, § XIV)

Sec. 50-34. Guardrail.

Steel plate beam guardrail shall be provided when an embankment is six feet high, or higher, having a side slope steeper than six to one, and when, in the judgment of the village engineer, it is necessary to provide protection against roadside obstacles or a nontraversable roadside hazard. Buried end sections will also be required at both ends of any and all guardrail installations.

(Res. of 7-13-1994, § XV)

Sec. 50-35. Required village submissions, inspections, and certifications.

The following village engineering submissions, inspections, and certifications are required by the village prior to proceeding further and prior to any village approvals:

- (1) *Submission of engineering plans and engineer's estimate.* Included with these plans shall be:
 - a. State EPA permit application for water improvements.
 - b. State EPA permit application for sanitary improvements.
 - c. Final plat.
 - d. Certified engineer's estimate of probable cost for improvements.
 - e. Pavement design.
 - f. Storm sewer calculations.
 - g. Stormwater detention/retention calculations.
 - h. Drainage overlay.
 - i. Approved public right-of-way name and designation form.
 - j. Drain tile investigation report.
 - k. Erosion and sedimentation control permit application.
 - l. Mailbox location plan.
 - m. Streetlight electrical calculations, if required.
- (2) *Submission prior to engineering plan approval.* The following shall be submitted prior to engineering plan approval: 120 percent securities on file with the village clerk.

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- (3) *Engineering plans approved prior to any construction.* Engineering plans shall be approved prior to any construction.
- (4) *Submission prior to utilization of utilities.* The following shall be submitted prior to utilization of utilities:
 - a. Pressure test, chlorination report, and bacteria test report for water mains on file.
 - b. Sanitary sewer TV inspection deflection test and air test reports on file.
- (5) *Submission prior to final inspection.* Prior to final inspection the following shall be submitted:
 - a. The payment of surface variation penalties.
 - b. Exhibits "J-N" and required reports on file.
 - c. All monuments and markers in place. (See Exhibit "H").
 - d. Mylar record drawings on file with the engineer's certified statement.
 - e. A certified benchmark circuit on fire hydrants.
- (6) *Submission prior to final acceptance.* Prior to final acceptance the following shall be submitted:
 - a. All "punch list" items corrected.
 - b. A one-year maintenance security on file.
 - c. A final acceptance letter sent to the village president and village board.
- (7) *Certifications.* Certifications shall be submitted as follows:
 - a. Prior to placing any curb and gutter, the developer's engineer shall execute the certification as shown in Exhibit "J" and present it to the village engineer, or his duly authorized representative. A curb and gutter shall be constructed prior to any base material placement.
 - b. Prior to placing any base material, the developer's engineer shall execute the certification as shown in Exhibit "K" and present it to the village engineer, or his duly authorized representative.
 - c. Prior to placing any bituminous binder or bituminous aggregate mixture, the developer's engineer shall execute the certification as shown in Exhibit "L" and present it to the village engineer, or his duly authorized representative.
 - d. Prior to placing any bituminous surface course, the developer's engineer shall execute the certification as shown in Exhibit "M" and present it to the village engineer, or his duly authorized representative.
 - e. Prior to the village acceptance of the public improvements, the developer's engineer shall execute the certification as shown in Exhibit "N" and present it to the village engineer, or his duly authorized representative.

All items included within the certifications as described in this section must be signed by the developer's engineer and the certification document signed and sealed by a state registered professional engineer representing substantial compliance as indicated by the resident's signature and then represented to the village engineer, or his duly authorized representative. Misrepresentation on this document will result in charges by the village to the state department of professional regulation. Prior to starting any phase of the work, the village engineer shall be notified at least 48 hours prior to construction to facilitate village inspections. No such inspections will be made without the appropriate certifications as detailed in this section.

(Res. of 7-13-1994, § XVII)

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Secs. 50-36—50-60. Reserved.

DIVISION 2. STREETS

[Sec. 50-61. Generally.](#)

[Sec. 50-62. Design.](#)

[Sec. 50-63. Minor and local residential.](#)

[Sec. 50-64. Collector residential and local, collector and manor ORI.](#)

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[Sec. 50-70. Lighting.](#)

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Sec. 50-61. Generally.

- (a) All street pavements shall be constructed in accordance with the design criteria for the various classes as established in the Design Manual and Highway Standards of the state department of transportation, latest editions. Construction materials and methods used shall meet the requirements of the Standard Specifications For Road and Bridge Construction, latest edition, unless noted in this section.
- (b) Streets shall not be constructed on a subgrade having an Illinois Bearing Ratio (I.B.R.) of less than 3.0. If the soils engineer's report indicates that the support value of the subgrade has a minimum I.B.R. value less than 3.5, or a silt content equal to, or greater than, ten percent, then an approved pavement fabric shall be used such as Trevira (S1115) or approved equal, and installed per Exhibit "O".
- (c) In no case shall base material be placed on a wet subgrade. The removal of all unsuitable material in the subgrade must be replaced with compacted clay of proper moisture content to a minimum of 95 percent modified laboratory density in accordance with AASHTO T99 (Method A or C). The soil support I.B.R. value selected for use by the designer shall represent a minimum value for the soil to be used. An adequate number of soil borings shall be obtained to determine the subdivision's soil characteristics for street and utility construction purposes.
- (d) When the soil report indicates a subbase area below the water table or having poor drainage characteristics, the pavement design must provide additional subbase drainage which will allow the new subgrade to be drained into the storm sewer or roadside ditch system with proper screening.
- (e) On all streets where new pavements meet existing bituminous concrete or Portland cement concrete pavements, a butt joint with a transitional length of not less than ten feet will be required. The subgrade shall be graded parallel to the final surface grade and, as such, shall drain to the curblines and to the inlets and catchbasins. Positive drainage must be accomplished on the compacted subgrade or the placement of base material will not be allowed. Certification by the project engineer, verifying proper subgrade drainage, will be required prior to any additional roadwork.

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- (f) The base material shall not be placed prior to approval of the subgrade by the village engineer or his duly authorized representative. The base and subgrade shall be "proof rolled" by the contractor as described in this section.
- (g) The bituminous surface course may be installed the same year as the binder course or may be held up for a period of one year at the option of the village engineer, depending on subgrade conditions. If the surface course is held up for one year, in the spring or summer of the year following the completion of the binder course and before the construction of the surface course, the pavement shall be "proof rolled" by the contractor, at his cost, to the satisfaction of the village engineer.
- (h) A loaded truck provided by the developer shall be driven over the area to be tested at a speed pattern and number of cycles to be determined by the village engineer. The test truck shall be the common tractor trailer type with no more than five axles with a total of 18 wheels loaded to a net weight of no less than 22 tons.
- (i) Any unstable or damaged subbase, base course, or binder course shall be removed and replaced to the satisfaction of the village engineer at no cost to the village.
- (j) After the binder course has been "proof rolled" and repaired where required, and prior to placing the bituminous surface course, the binder course shall be surface tested by the developer's project engineer at no cost to the village in accordance with article 406.21 of the State of Illinois Standard Specifications for Road and Bridge Construction, current issue. Any variations in the binder course, including patches and header joints, exceeding one-fourth of an inch shall be corrected by the removal and replacement of any substandard areas or the construction of corrective leveling binder at the directions of the village engineer. The village engineer shall be notified no less than 48 hours before the surface testing and shall receive written test results and specific construction engineering recommendations before the surface course can be constructed. Prior to the final acceptance, the surface course shall be surface tested as outlined in this section and corrected as directed by the village engineer.
- (k) After any binder course surface variations have been corrected to the satisfaction of the village engineer and immediately prior to placing bituminous surface course, the pavement shall be thoroughly cleaned, flushed, and primed with bituminous materials (SS-1) at a rate not to exceed 0.10 of a gallon per square yard. When bituminous materials (SS-1) are applied under traffic conditions, sanding at the approximate rate of four pounds per square yard will be required.
- (l) The bituminous base course, leveling binder, binder course, and surface course mixtures shall be laid on a base which is dry and only when weather conditions are suitable. The bituminous base course, leveling binder, and binder courses shall be placed only when the temperature in the shade is at least 45 degrees Fahrenheit, when the temperature in the shade for the previous 24 hours is at least 32 degrees Fahrenheit, and when the forecast is for rising temperatures.
- (m) The surface course shall be placed only when the temperature in the shade is at least 50 degrees Fahrenheit, when the temperature in the shade for the previous 24 hours is at least 40 degrees Fahrenheit, and when the forecast is for rising temperatures.
- (n) All paving shall be done with paving machines utilizing electronic grade control and a string line shoe on wheels of a minimum length of 15 feet.
- (o) All bituminous mixtures shall be delivered and handled so that the bituminous mixture immediately behind the paver screen is at or above 270 degrees Fahrenheit. All asphalt delivered to the project shall be covered when the temperature is at or below 70 degrees Fahrenheit.

(Res. of 7-13-1994, § II)

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Sec. 50-62. Design.

All street pavements shall be designed in accordance with the following:

- (1) *Procedure.* The thickness of the pavements shall be determined in accordance with the procedure as specified by the state department of transportation indicating the soil support values, (Illinois Bearing Ratio) and the projected traffic factors. The thickness of the pavement shall be determined in accordance with the current state department of transportation Manual For Structural Design of Portland Cement Concrete Pavement and the Manual of Instructions for the Structural Design of Bituminous Pavements. Design standards shall be not less than for class III roads and based on a 20-year pavement design.
- (2) *Minimum design criteria.* Minimum design standards shall be as outlined in exhibits.

(Res. of 7-13-1994, § II)

Sec. 50-63. Minor and local residential.

- (a) All roadways within this group shall be constructed with a mountable concrete curb and gutter as detailed in Exhibit "B". The compacted curb subgrade shall be shaped parallel to the curb flow line and positively drained to the inlets and catchbasins.
- (b) Pavement cross slope shall be 3/16 of an inch per foot from the center of the road to the edge of the pavement.

(Res. of 7-13-1994, § II)

Sec. 50-64. Collector residential and local, collector and manor ORI.

- (a) All roadways within this group shall have concrete curb and gutter Type B-6.12 modified as detailed in Exhibit "B". The compacted curb subgrade shall be shaped parallel to the curb flow line with positive drainage to the inlets and catchbasins.
- (b) Pavement cross slopes shall be not less than 3/16 of an inch per foot nor more than one-fourth of an inch per foot from the center of the road to the edge of the pavement. Any surface variations in the final surface course which warrant penalties per section 406.20 of the state department of transportation standard specifications shall be paid to the village per the following rate per each surface variation:
 - (1) Greater than one-eighth of an inch but less than one-fourth of an inch: \$100.00.
 - (2) One-fourth of an inch but less than one-half of an inch: \$200.00
 - (3) One-half of an inch and greater: remove and replace a large number of bumps; however, this will require the complete removal and replacement of the surface course.

(Res. of 7-13-1994, § II)

Sec. 50-65. Street cuts.

All street cuts must be approved by the village maintenance supervisor and shall be restored to the requirements of Exhibit "E".

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(Res. of 7-13-1994, § III)

Sec. 50-66. Parkway landscaping.

All parkways within the dedicated street right-of-way shall be graded, with the topsoil placed to a thickness of four inches and seeded, class 1 minimum, or sodded in an approved manner. The minimum gradient of all parkways toward the curb shall be two percent, and the maximum shall be eight percent.

(Res. of 7-13-1994, § X)

Sec. 50-67. Temporary turnarounds.

Temporary turnarounds, when required by the village, shall be constructed with the following specifications:

- (1) The configuration of this temporary paving shall be a "T" configuration at the end of such a street which is paved from the inside of the sidewalk to the far inside of the sidewalk 15 feet wide with two five-foot radii to the street. The curb and gutter shall not be constructed through the temporary turnaround.
- (2) The temporary turnaround shall be paved with eight inches of compacted crush limestone base and two inches of bituminous concrete surface course.
- (3) The developer extending the street in the future shall remove the excess paving and base, construct the additional curbing so that the curb and gutter is continuous and uninterrupted from one development to another development, and shall landscape the parkway where disrupted by such asphalt and base removal.

(Res. of 7-13-1994, § VIII)

Sec. 50-68. Trees.

Healthy and properly pruned trees shall be planted along all streets in accordance with the size, species and locations specified in section 54-131 of this Code.

(Res. of 7-13-1994, § XII)

Sec. 50-69. Signs.

- (a) All street names must be approved by the 911 agency in whose jurisdiction the village is located. An approval form must be returned as part of the documents submitted for final engineering approval. An approval form is attached as Exhibit "R".
- (b) At each street intersection there shall be installed one or more street signs showing the names of the streets as indicated on the preliminary and final plats and on the construction plans.
- (c) All local road intersections shall have one street sign on the northerly and easterly corner. Collector and major streets shall have two street signs, one on the northerly and easterly corner and one on the southerly and westerly corner of the intersection. At a "T" intersection, only one sign shall be required, which shall be placed on the terminating street side of the intersection on the northerly or easterly corner thereof.
- (d) All street signs shall conform to the following specifications:

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- (1) The extruded aluminum blanks shall be nine inches by 30 inches for collector and major streets and shall be six inches by 24 inches for minor and local streets. Longer signs may be necessary subject to review by the village.
- (2) The sign faces shall be 3M Company, or approved equal, using reflective high intensity paper utilizing white letters on a green background.
- (3) Street name signs shall be mounted on their own poles, utilizing stainless steel hardware.
- (4) All street signs shall conform to the state Manual On Uniform Traffic Control Devices For Streets and Highways, latest edition, including erection thereof. All signs shall have white letters on green background of the size as indicated in subsection (d)(1) of this section.
- (5) The street signs shall be in place prior to the issuance of any occupancy permits. Temporary street signs constructed of wood with neat lettering may be installed with seven-foot clearance prior to the issuance of any building permit but must be removed immediately after the placement of the permanent street sign.
- (6) All letters shall be in block style with five-inch upper case first letters only, with the remaining letters of a word four-inch upper case for a nine-inch sign blank and four-inch upper case first letters only and the remaining letters of the word three-inch upper case for a six-inch sign blank.

(Res. of 7-13-1994, § XIII)

Cross reference— Signs, § 70-651 et seq.

Sec. 50-70. Lighting.

- (a) *Generally.* All plans for streetlighting shall be designed by a state registered professional engineer. The subdivider and/or his project engineer shall be held responsible for coordinating all phases of the work and correcting any deficiencies to the satisfaction of the village engineer. The village engineer must be notified at least 48 hours before any construction is begun. The plans shall include a time schedule or other schedule, setting forth when the streetlights will be installed by the subdivider, and such schedule shall be subject to approval by the village engineer. However, in all cases, the streetlights shall be installed and operable prior to the issuance of any occupancy permits.
- (b) *Installation.* The installation of street lighting shall be in accordance with the following:
 - (1) *Spacing.* Maximum spacing shall not exceed 300 feet between luminaries for minor and local streets. Collector streets shall be spaced as outlined in subsection (b)(15) of this section.
 - (2) *Location.* There shall be at least one streetlight on each intersection, curve, and cul-de-sac and at other points as may be required in the public interest in unusual or special conditions. They shall be located on the property lines and on the opposite side of the street from the water main, wherever possible, and shall be set three feet from the back of the curb to the face of the pole.
 - (3) *Light distribution.* Luminaries of the type II distribution as approved by the Illuminating Engineering Society (for brevity referred to as "IES") shall be used except at intersections where type III or type IV IES distribution shall be used. The village engineer may designate that IES Type V distribution luminaries be used in the public interest under unusual or special conditions.
 - (4) *Control.* Each light shall be controlled by a photoelectric control mounted on top of the luminaire.
 - (5) *Line drop.* Voltage drop shall be no greater than three percent from the power supply to the last unit with no wire size smaller than No. 10 Type RHH or RHW Underground Service Cable (USE).
 - (6) *Power supply location.* Power supply shall be furnished by the nearest Commonwealth Edison pedestal.

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- (7) *Poor supply connection.* Connections to the power supply shall be made by Commonwealth Edison Company.
- (8) *Conduit.* All driveways, streets, and sidewalk crossovers shall have 1½-inch galvanized rigid steel conduit used as raceways for underground cable. Heavy duty PVC or A85 conduit will be allowed if it is encased in a three-inch minimum concrete collar.
- (9) *Underground cable.* All underground cable shall be buried at least 30 inches below the normal finished grade.
- (10) *Splices.* All cable on the underground cable section shall be continuous, and no splicing shall be made underground. All necessary splices shall be made above the ground level.
- (11) *Underground cable location.* Underground cable shall be installed in a trench not more than two feet from the back edge of the curb, except that in no case shall the underground cable be installed under a sidewalk.
- (12) *Grounding.* The grounding of the streetlight fixture and arm shall be in accordance with the locally adopted electrical code.
- (13) *Fusing.* All underground feeders shall be fused at or below their rated capacity. Each standard shall contain inline fuse holders with the proper fusing in a series, with each underground conductor to protect the luminaire located on that pole.
- (14) *Streetlight standard and bracket.* The lighting pole for minor, local, and collector streets shall be as specified in the Schedule of Materials and included as Exhibit "T". The luminaire shall be mounted 19 feet, nine inches above the street, shall have a four-foot arm and shall be buried a minimum of five feet below grade and backfilled with crushed CA-6 limestone watered and compacted around the butt of the pole. The bracket is to be furnished with the pole.
- (15) *Major streets.* The lighting pole for major streets will be fabricated from weathering steel with a minimum yield strength of 50 kSI, 60 kSI. It shall have the weathering characteristic of ASTM - A588 or A606. The lighting standard shall be Millerbernd Model 11A964390-H8150, as manufactured by Millerbernd Manufacturing Company, Winsted, Minnesota, or approved equal. The pole and luminaire arm will have only one longitudinal seam weld. The pole and luminaire arm will be one piece, and absolutely no multisectional welded or slip fit design poles will be allowed. After fabrication, the complete pole and luminaire arms will be sandblasted to a near white finish. The installing contractor will be careful to clean the pole of all dirt and oil prior to and after erection of the pole to ensure uniform weathering. All connecting hardware will be stainless steel. The pole will be designed to hold the luminaire arms as indicated on the plans in accordance with the latest edition of the Standard Specifications for Structural Supports For Highway Signs, Luminaries And Traffic Signals, as written by the American Association of State Highway and Transportation officials. The design wind velocity will be 80 mph, with a 1.3 gust-factor. The light standard shall be designed to hold two luminaries weighing 64 pounds each and with a projected area of 2.3 square feet, each with a design wind velocity of 80 mph, and a gust velocity of 104 mph. The pole design shall meet the latest edition of specifications for luminaire standards as published by AASHTO (American Association of State, Highway And Transportation Officials). A complete set of calculations shall be submitted along with catalog cuts and drawings of the pole and luminaire. The pole shaft shall be fabricated from steel conforming to ASTM-A588 or A606. The base plate shall be fabricated from steel conforming to ASTM-A588. There will be a four-inch by eight-inch reinforced handhold one foot up from the base of the pole. Pole sections shall be 11GA. At the top of the pole a six-inch long two-inch diameter schedule 40 pipe will be welded to the shaft. A schedule 40 vertical slipfitter will attach to the top of the pole to mount the luminaries as detailed in the standard drawing. The luminaries shall be installed eight feet from the pole. The base plate will be 13 inches square, one-inch thick with a five-inch diameter hole. The base plate will have four 1¼-inch holes spaced 87/8 inches apart to attach to the anchor bolt foundation. All pipe shall be Yaloy, or approved equal, weathering steel pipe. Each pole shall be connected to the ground by means of a copper wire of the no. 10 size and shall be welded to the inside wall of

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the pole and connected to a five-eighths-inch diameter, eight-foot long copper clad steel ground rod. The upper end of the ground rod shall be at least one foot below the finished grade. The foundations shall be concrete foundations, Type E, 24 inches as specified in the Standard Specifications For Traffic Control Items Current Edition, as adopted by the state department of transportation. The luminaire shall be a baked-on Bronze, Acrylic Enamel American Electric No. 53-57062-6S with a high pressure sodium lamp 240 operation, or approved equal. A computer printout will be required to establish spacing, wattage and mounting height for lighting on collector and major streets. The standards for lighting levels shall be those recommended by the I.E.S. Minimums and Maximums.

- (16) *Wire*. Underground cable from the power supply to the pole base shall be rated USE Type RR, no. 10 minimum, but shall be validated by an approved electrical analysis. Wire (pole and bracket): Wire installed from the hand hole in the base of the pole to the photo cell and luminaire shall be no. 12 Type RHW.
- (17) *Guarantee*. Streetlight standards, luminaries, ballast, lamps and cables shall be guaranteed by the manufacturer or distributor for its proper use from one year from the date of acceptance.

(Res. of 7-13-1994, § XVI)

Secs. 50-71—50-90. Reserved.

DIVISION 3. SIDEWALKS

Subdivision I. - In General

Subdivision II. - Existing Sidewalks

Subdivision III. - New Sidewalks

Subdivision I. In General

[Sec. 50-91. Definitions.](#)

[Sec. 50-92. General provisions.](#)

[Sec. 50-93. Sidewalk committee.](#)

[Sec. 50-94. Sidewalk inspector.](#)

[Sec. 50-95. Permits.](#)

[Sec. 50-96. Repairs.](#)

[Sec. 50-97. Penalty.](#)

[Secs. 50-98—50-105. Reserved.](#)

Sec. 50-91. Definitions.

The following words, terms and phrases, when used in this division, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

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Contraction joints means a vertical spacing of at least one-half inch in depth placed across the sidewalk from edge to edge, perpendicular to the centerline thereof.

Crosswalk means that part of a roadway at an intersection included within the connections of the lateral lines of the sidewalks on opposite sides of the highway measured from the curbs or, in the absence of curbs, from the edges of the traversable roadway.

Expansion joint means a joint one-half inch in thickness and consisting of suitable bituminous material that will not become soft in hot weather nor hard and brittle in cold weather.

Maintenance means minor repair of cracks and small broken places in sidewalks.

Owner means a person who is the holder of the beneficial interest and/or holder of the legal title of real estate.

Repair means replacement of a sidewalk to promote public safety, health, convenience, comfort, prosperity and general welfare. The term "repair" is not intended to include sidewalk maintenance.

Sidewalk and *public sidewalk* mean that portion of a street between the curb lines, or the lateral lines of a roadway, and the adjacent property lines, intended for use of pedestrians.

(Ord. No. 74-1, § 1, 7-10-1974)

Cross reference— Definitions generally, § 1-2.

Sec. 50-92. General provisions.

- (a) *Sidewalk committee; sidewalk inspector; owner's responsibility.* All public sidewalks and crosswalks shall be under the supervision of the sidewalk committee. They shall have supervision over all work thereon, issuing of sidewalk permits on new construction or replacement, shall be charged with the enforcement of this division or any amended ordinance and shall enforce such ordinance. A sidewalk inspector shall be appointed to see that the construction specifications and other provisions of this division are carried out and to supervise all sidewalk construction. It shall be the property owner's and/or occupant of any premises responsibility to keep the sidewalk abutting their property free from snow and other obstructions.
- (b) *Permits.* It shall be unlawful to construct or replace a sidewalk without having first secured a permit therefor; however, such a permit is not necessary for sidewalk maintenance.
- (c) *Duty of village officers and employees to report defects.* It shall be the duty of every village officer or employee becoming cognizant of any defect in any sidewalk, or any obstruction thereof to report the same to the sidewalk committee.
- (d) *Disturbance of protective barricades or lights.* It shall be unlawful to disturb or interfere with any barricade or lights lawfully placed to protect or mark any new construction or excavation or opening in any sidewalk.
- (e) *Unlawful to obstruct sidewalk.* It shall be unlawful for any person to cause, create or maintain any obstruction of any sidewalk, except as may be specifically authorized by ordinance or by the sidewalk committee.

(Ord. No. 74-1, § 2, 7-10-1974)

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Sec. 50-93. Sidewalk committee.

The sidewalk committee shall be made up of one trustee, who will be chairman of such committee, and two residents of the village. All committee members shall be appointed by the president of the board of trustees with the advice and consent of the board of trustees. The term of office of the members of the committee shall be three years, except the first committee appointed shall serve respectively for terms as follows: one for one year, one for two years, and one for three years. Vacancies shall be filled for the unexpired term of any member whose place has become vacant. The president of the board of trustees shall have the power to remove any of the committee members for cause and after public hearing. Minutes shall be recorded at all committee meetings by one of the committee members and shall be public record.

(Ord. No. 74-1, § 3, 7-10-1974)

Sec. 50-94. Sidewalk inspector.

A sidewalk inspector is to be appointed for one year by the president of the board of trustees with the advice and consent of the board of trustees.

(Ord. No. 74-1, § 3, 7-10-1974)

Sec. 50-95. Permits.

- (a) *Application; fee; issuance.* Applications for permits shall be made to the sidewalk inspector and shall state the location of the intended construction or replacement, the extent thereof and the person or firm who is due the actual construction. Upon determination by the inspector that the plans for the sidewalk conform with this division or the specifications hereafter required by the sidewalk committee or board of trustees and upon receipt of the sum of \$5.00 per lot and \$1.00 for each additional adjacent lot, such sum being paid to the village clerk, the sidewalk inspector shall issue a permit for the construction, repair or replacement of the sidewalk in accordance with the application.
- (b) *Inspector to receive portion of fee.* The sidewalk inspector shall be paid the sum of \$4.00 from each permit fee which is received.
- (c) *Permit conditions.* No construction shall begin until after a permit as provided in subsection (a) of this section is received, and such permit must be displayed in front of the premises where the sidewalk construction, replacement or repair is taking place during the period of such construction, replacement or repair. A permit shall be valid until the completion of such sidewalk construction, replacement or repair or for a period of six months after the date of issue, whichever shall occur first.

(Ord. No. 74-1, § 3, 7-10-1974)

Sec. 50-96. Repairs.

- (a) *Required.* All public sidewalks shall be in good repair. Such repair work shall be done by the abutting owners and shall be under the supervision of the sidewalk committee.
- (b) *Procedure; costs.* Any abutting owner who desires to have his sidewalk repaired shall follow the following procedures:
 - (1) The abutting owner shall contact the sidewalk inspector, and the sidewalk inspector and committee shall make a determination as to whether such sidewalk needs repair and to whether funds are available for the repair of such sidewalk.

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- (2) The abutting owner shall then obtain at least two estimates as to the costs of repair and shall submit both estimates to the sidewalk committee.
- (3) The sidewalk committee shall determine whether or not it is then feasible to expend such sums of money for the repair of the sidewalk in question.
- (4) The sidewalk committee will then notify the owner of its decision; and if the sidewalk committee has decided that the village should share in the costs of repairing the sidewalk, the owner shall be so notified at this time.
- (5) The owner shall be required to obtain a sidewalk permit.
- (6) The owner shall proceed with the complete construction and repair of the sidewalk, including all cleanup and reseeded of adjoining land.
- (7) Upon the presentation by the owner of a paid bill showing that the contractor has been paid in full for the sidewalk repair or construction, the sidewalk committee shall recommend to the village board of trustees that they direct the village treasurer to reimburse the abutting owner for 50 percent of the costs of construction and/or repair, excluding therefrom any costs for reseeded or resodding of the adjoining property.

(Ord. No. 74-1, § 5, 7-10-1974)

Sec. 50-97. Penalty.

Any person who violates, disobeys, omits, neglects or refuses to comply with or who resists the enforcement of any of the provisions of this division shall be fined not less than \$10.00 nor more than \$25.00 for each offense. Each day that a violation is permitted to exist shall constitute a separate offense.

(Ord. No. 74-1, § 6, 7-10-1974)

Secs. 50-98—50-105. Reserved.

Subdivision II. Existing Sidewalks

[Sec. 50-106. Construction regulations.](#)

[Secs. 50-107—50-110. Reserved.](#)

Sec. 50-106. Construction regulations.

Standards for repair or replacement of sidewalks existing prior to July 13, 1994, are as follows:

- (1) *Subgrade, grade and slope.* The subgrade for a sidewalk shall be prepared by such filling of sand or excavating, as the case may be, as shall be necessary to bring the same to a true, firm and uniform surface four inches (six inches in driveway) below and parallel with the surface of such sidewalk when finished as provided in this subdivision. The sidewalk grade should match the existing ground profile. Sidewalks should, in general, slope one-quarter inch per foot toward the roadway. Greater slopes may be required at driveways and the inspector should be notified.
- (2) *Width; contraction joints; expansion joints; finished surface.* Sidewalks shall be four feet wide. Contraction joints shall be a minimum of one-half inch deep and approximately four-foot centers.

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A one-half-inch preformed expansion joint shall be placed where puring against existing concrete curb or driveways, or every 60 consecutive feet. The finished surface shall be troweled and a broom finish applied to the satisfaction of the inspector.

- (3) *Concrete specifications.* The concrete shall be class-X (6-bag mix) with the applicable provisions of section 600 of the Standard Specifications for Road and Bridge Construction of the state department of transportation.
- (4) *Bituminous driveways.* Bituminous driveways shall be sawed in a straight line and may be used as the sidewalk form if the grade is satisfactory and with the approval of the inspector prior to pouring.
- (5) *Barricades.* The property owner shall maintain suitable barricades to prevent injury of any person by reason of the work, Such barricades shall be protected by suitable lights at night time.
- (6) *Seeding and sod.* The property owner is responsible for the final seeding or sod operations and is responsible for cleanup operations, including removal of forming material, excess excavation and other debris.
- (7) *Location to roadway and right-of-way.* Sidewalks shall be constructed parallel with the existing roadway and shall be located in the public right-of-way eight inches from the property line of the adjoining property.

(Ord. No. 74-1, § 4, 7-10-1974)

Secs. 50-107—50-110. Reserved.

Subdivision III. New Sidewalks

[Sec. 50-111. Applicability.](#)

[Sec. 50-112. Base.](#)

[Sec. 50-113. Dimensions.](#)

[Sec. 50-114. Concrete generally.](#)

[Sec. 50-115. Surface finish.](#)

[Sec. 50-116. Contraction joints.](#)

[Sec. 50-117. Mix specifications.](#)

[Sec. 50-118. Access ramps.](#)

[Secs. 50-119, 50-120. Reserved.](#)

Sec. 50-111. Applicability.

This subdivision applies to the construction of new sidewalks in the village after July 13, 1994.

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Sec. 50-112. Base.

The base of new public sidewalks shall be three inches of compacted crushed stone on a dry natural or compacted subgrade. In no case shall the base be placed on a subgrade of topsoil or other unsuitable material.

(Res. of 7-13-1994, § IV(1))

Sec. 50-113. Dimensions.

A new public sidewalk shall be five feet wide and shall be placed one foot from the right-of-way boundary on public property. The sidewalk shall be a minimum of five inches in thickness. A four-foot width is permitted on minor streets, and in areas where a four-foot width is currently permitted.

(Res. of 7-13-1994, § IV(2))

Sec. 50-114. Concrete generally.

The concrete used for new sidewalks shall be class "SI" concrete and shall be cured as specified in the Standard Specifications For Road And Bridge Construction, latest edition. Membrane curing with W.R. Meadows CS 309, or approved equal, with a white fugitive dye will be required as per type II membrane curing.

(Res. of 7-13-1994, § IV(3))

Sec. 50-115. Surface finish.

The surface finish of new sidewalks shall be a light broom finish.

(Res. of 7-13-1994, § IV(4))

Sec. 50-116. Contraction joints.

The sidewalk shall be constructed with contraction joints at five-foot intervals and shall be saw cut to a minimum depth of one inch full width within 24 hours of concrete placement, or tooled at the time of placement to the same depth.

(Res. of 7-13-1994, § IV(5))

Sec. 50-117. Mix specifications.

A minimum six-bag mix with a five percent to seven percent air entrainment shall be used on all new public work within the village. Concrete delivery tickets from the concrete supplier with this information and the location and date of the pour shall be submitted to the village prior to any village approvals of such work. A copy of the dated billing for the curing compound and protective coating shall also be required prior to approval.

(Res. of 7-13-1994, § IV(6))

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Sec. 50-118. Access ramps.

Handicapped access ramps shall be provided at all intersections in accordance with the latest state department of transportation standards.

(Res. of 7-13-1994, § IV(7))

Secs. 50-119, 50-120. Reserved.

DIVISION 4. STORM AND SANITARY SEWERS [\[3\]](#)

[Sec. 50-121. Storm sewers and stormwater detention/retention.](#)

[Sec. 50-122. Sanitary sewers.](#)

[Sec. 50-123. Special conditions.](#)

[Secs. 50-124—50-140. Reserved.](#)

Sec. 50-121. Storm sewers and stormwater detention/retention.

- (a) Storm sewers of sufficient capacity shall be constructed through the entire subdivision to carry off water from all inlets and catchbasins and shall be connected to an adequate outfall. Intercepting stormwater inlet or catchbasin structures shall be provided at flow intervals not in excess of 300 feet as measured along the gutter line. The minimum size storm sewer shall be 12 inches in diameter. Backyard drains, when approved, shall be 12 inches R.C.P. minimum. All stormwater runoff which flows overland into or out of a storm sewer system must enter or exit through a flared end section or a poured in place headwall. Grates may be required by the village.
- (b) The stormwater drainage system shall be separate and independent of the sanitary sewer system. Storm sewers shall be constructed of nonreinforced or reinforced concrete pipe conforming to the American Society For Testing Materials, Designations C-76, wall thickness B. Existing groundwater drain tiles shall be connected to storm sewers or shall be restored to operating condition at the direction of the village engineer. Joints for concrete storm sewer shall be of the bituminous mastic type.
- (c) Storm sewer capacities shall be determined with the use of the rational formula. The intensity factor used shall be a return frequency or not less than five years. The rainfall intensities to be used for design shall be from Bulletin No. 70, as published by the state water survey. The runoff coefficient (C factor) shall be determined by the character of the land to be drained when fully developed and shall conform to accepted standard engineering practices. Street grades and lot and block drainage shall be established so as to permit positive drainage to the storm sewer system. Parking lots shall be drained internally and directed to the storm sewer system where practical.
- (d) Control of stormwater runoff shall be in accordance with an ordinance entitled, "An Ordinance to Control Stormwater Runoff," included as a convenience as Exhibit "U" hereto, but which may be amended from time to time. All wet retention areas may require approved aeration, and all wet-dry retention areas will require low flow pipe provisions. An approved method of embankment protections shall be required. All slopes shall be graded to four to one or flatter unless otherwise approved by the village engineer.
- (e) The rational formula modified as per Exhibit "P" shall be used to determine design storage. The storm sewer system will be designed to carry the runoff from all contributing areas, external as well as internal.

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- (f) A copy of the design computations, gradient profile, contour map, contributing areas and the plan for storm sewer system, including stormwater retention, shall be submitted for approval by the village engineer, and must be submitted by a registered professional engineer and sealed accordingly.

(Res. of 7-13-1994, § V(A))

Sec. 50-122. Sanitary sewers.

- (a) *Testing.* All public sanitary sewers shall be air tested and tested for deflection by the developer, at his expense, under the supervision of the village engineer, or his authorized representative. One copy of the report shall be forwarded to the village clerk and one copy shall be forwarded to the village engineer. All testing will be done in conformance with the Standard Specifications For Water And Sewer Main Construction In Illinois, current edition. All sanitary sewers, eight inches in diameter and larger, shall also be inspected by closed circuit television by the village at the developer's expense, prior to final acceptance.
- (b) *Service location.* The location of the ends of all sanitary sewer service locations shall be tied to each property corner with the location being included in the record drawings.

(Res. of 7-13-1994, § V(B))

Sec. 50-123. Special conditions.

- (a) *Sump pump lines.* Separate sump discharge lines shall be installed by the developer to serve all lots within the subdivision. These lines, consisting of PVC pipe (four-inch minimum) shall be installed in an easement, three feet into the property along each side of the street and be connected to the proposed drainage structures. A plugged wye shall be provided for each lot and an inspection structure shall be installed on the upstream end of all lines.
- (b) *Inlet and/or catchbasin castings.* Inlet and/or catchbasin frames and grates shall be as outlined in the Schedule of Materials and included as Exhibit "T". Where a continuous grade is carried across an inlet or catchbasin, the open vaned cover shall be used, Neenah No. R-3286-8-V, or approved equal.
- (c) *Manhole castings.* All manhole castings shall be Neenah No. R-1015 frame and Type B cover, or approved equal. All Type B covers shall be the concealed pickhole type. All Type B covers used for sanitary sewers shall have a machined surface and a watertight rubber gasket seal. All manhole frames shall be set with Butyl rope joint sealant. All sanitary sewer manholes shall be provided with approved cast in place rubber boots (flexible manhole sleeve) having a nominal wall thickness of 3/16 of an inch with a ribbed concrete configuration and with stainless steel binding straps properly sized and installed for all conduits of 12 inches diameter, or less, entering or exiting the manhole. All sanitary sewer manholes shall be completely sealed with Butyl rope joint sealant, including all component parts, bottoms, barrels, adjusting rings, and castings.
- (d) *Manholes, catchbasins and inlets.* All manholes, catchbasins and inlets shall be reinforced precast concrete and shall be sealed with Butyl rope joint sealant, not mortar. Manholes for sanitary sewers shall be spaced at a maximum interval of 400 feet. Manholes for storm sewers shall be spaced as follows as a maximum:

Pipe Size	Maximum Spacing
12 inches through 24 inches	350 feet

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27 inches through 36 inches	400 feet
42 inches through 54 inches	500 feet
60 inches or larger	1,000 feet

All stormwater must pass through a catchbasin prior to entering the storm sewer trunkline. All other stormwater collecting structures shall be type A inlets. All catchbasins and inlets shall be constructed with weep holes as detailed in Exhibit "D". All catchbasins and inlets will be backfilled with one-half of an inch to three-eighths of an inch open graded fractured aggregate to allow for subgrade seepage. If subgrade conditions are excessively wet, excessively sensitive to moisture or special conditions, a capped perforated pipe may be required. Catchbasins shall empty into a manhole except that a catchbasin may tie directly into the storm sewer trunkline utilizing a concrete collar (six-inch minimum) if the following conditions are met:

- (1) The storm sewer trunkline is 36 inches in diameter or greater.
- (2) The storm sewer conduit from the catchbasin to the trunkline is 40 feet, or less, in length and enters the trunkline in the top one-third of the storm sewer trunkline.

Jogs in sewer lines to pick up structures will not be allowed.

- (e) *Final adjustment.* All final adjustments of castings will be accomplished by the use of concrete adjusting rings set in Butyl rope joint sealant; mortar joints will not be allowed. The height of the adjusting rings shall not exceed eight inches. All main line valve boxes, buffalo boxes, and manholes shall be marked at the time of construction with a four-inch by four-inch hardwood post neatly installed vertically with a minimum three-foot bury and a minimum of four feet exposed. The top one foot of the post shall be painted blue for water and green for storm and sanitary sewers.
- (f) *Taps.* All connections to the sewer mains shall be made by the contractor under the supervision of the village after payment of the applicable connection fees.

(Res. of 7-13-1994, § V(C))

Secs. 50-124—50-140. Reserved.

FOOTNOTE(S):

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Cross reference— Utilities, ch. 66.[\(Back\)](#)

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DIVISION 5. GRANULAR BACKFILL

[Sec. 50-141. Generally.](#)

[Secs. 50-142—50-160. Reserved.](#)

Sec. 50-141. Generally.

- (a) All trenches caused by the construction of sewers, water mains, water service pipes and the excavation around catchbasins, manholes, inlets and other appurtenances which occur within the limits of existing or proposed pavements, sidewalks, and curb and gutters, or where the edge of the trench shall be within two feet of such improvements shall be backfilled with compacted granular backfill, as detailed in Exhibit "F".
- (b) Granular backfill shall consist of CA-6 crushed stone, CA-6 crushed gravel, or open graded CA-7 stone for catchbasins and inlets, or other approved materials, and shall be compacted in place to 95 percent of the maximum density at the optimum moisture, as determined by the Modified Standard Proctor Test.

(Res. of 7-13-1994, § VI)

Secs. 50-142—50-160. Reserved.

DIVISION 6. WATER SUPPLY ⁽⁴⁾

[Sec. 50-161. Generally.](#)

[Sec. 50-162. Water mains.](#)

[Sec. 50-163. Valve vaults.](#)

[Sec. 50-164. Thrust blocks.](#)

[Sec. 50-165. Fire hydrants.](#)

[Sec. 50-166. Taps.](#)

[Sec. 50-167. Water service.](#)

[Secs. 50-168—50-190. Reserved.](#)

Sec. 50-161. Generally.

- (a) All work and material shall be in accordance with village ordinances and with current Standard Specifications For Water And Sewer Main Construction in Illinois, latest edition, and as chronologically reissued. In case of conflict, the more stringent of the requirements shall apply.
- (b) The village desires commodity standardization for all applicable items with economic use of function including standardization of application, simplification of design, maximum interchangeability of components and parts, minimum required spare parts, etc.

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- (c) Typical component items of use in a water distribution system are included in this division. Some items are described in trade specification terms and others are of proprietary manufacturer as used by the village. It is the desire of the village to use those particular items as described.
- (d) Village water mains and hydrants shall be placed on the north and west sides of the streets unless approved otherwise by the village engineer.

(Res. of 7-13-1994, § VII)

Sec. 50-162. Water mains.

- (a) *Generally.* Water mains shall be a minimum of six inches internal diameter with a cover of five feet, six inches minimum below finish grade.
- (b) *Materials.* Materials shall be ductile iron class 51, single gasket, double sealing pipe per AWWA C151/ANSI A21.51 with cement mortar lining per AWWA C104/ANSI 21.4 (Griffen, Clow, American, or equal).
- (c) *Fittings.* Fittings shall be cement lined, tar coated ductile iron with mechanical joints rated 250 psi per AWWA C110/ANSI 21.100 (Clow, American, U.S. Pipe, or equal). All fittings shall be of American manufacture.
- (d) *Valves.* All mainline valves shall be as outlined in the Schedule of Materials and included as Exhibit "T". Valves shall have mechanical joint ends and shall open to the left. Valves shall be installed at each second consecutive hydrant at an intersecting line and at other locations as required so that a minimum number of services will be affected during the main isolation. Open graded limestone shall be utilized to backfill all around the operating nut on all valve boxes to prevent mud from penetrating the valve box.

(Res. of 7-13-1994, § VII(A))

Sec. 50-163. Valve vaults.

All valves on the water main, except fire hydrant leads, shall be provided with valve vaults.

(Res. of 7-13-1994, § VII(B))

Sec. 50-164. Thrust blocks.

All tees, bends, fire hydrants, and valves shall be adequately blocked with poured-in-place thrust blocking against the undisturbed earth.

(Res. of 7-13-1994, § VII(C))

Sec. 50-165. Fire hydrants.

- (a) All hydrants shall be as outlined in the Schedule of Materials and included as Exhibit "T" and shall be installed throughout the subdivision at each intersection and at intervals not exceeding 300 feet.
- (b) Hydrant installation shall have a five-foot, six-inch depth of cover, a six-inch lead with a gate valve, breakaway traffic flange, pentagon nut and National Standard thread for fire service.

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- (c) The centerline of a pumper nozzle shall be 18 inches to 20 inches above the finish grade line (sidewalk to curb) or above the ditch drain line with village approval. The base elbow of a hydrant shall be properly thrust blocked per this section's provisions and shall be provided with a clean washed stone and polyethylene covering.
- (d) Fire hydrants shall be located on the property line extended, except at the corners, and shall be set two feet at a minimum and three feet at the maximum from the curb back to the face of the pumper nozzle. Where there is no curb and gutter, the face of the pumper nozzle shall be located five feet from the paved road edge. All hydrants and any required adjustment fittings shall receive one field coat of red paint as recommended by the manufacturer prior to final acceptance.

(Res. of 7-13-1994, § VII(D))

Sec. 50-166. Taps.

All taps to the water main shall be made by the contractor under the supervision of the village after the payment of applicable connection fees. All taps shall be a minimum of five feet from a joint or other tap.

(Res. of 7-13-1994, § VII(E))

Sec. 50-167. Water service.

- (a) All water services shall be constructed of type K copper pipe of such diameter as specified by village ordinance and in accordance with AWWA Publication M-22 entitled, "Water Service Lines and Meters." The service line diameter is dependent upon the peak water demand and the meter distance from the main. The minimum service diameter shall be three-quarters of an inch.
- (b) No joints will be allowed between the corporation stop and the curb stop. The material and installation will be in general accordance with AWWA C800.
- (c) Services shall be equipped with a corporation stop, curb stop, and buffalo box. The buffalo box shall be set in the parkway of a point three feet off of the side lot line and centered between the back of sidewalk and the adjacent right-of-way line. Except as permitted in this subsection (c), the underground water service pipe and the building sewer shall be not less than ten feet apart horizontally and shall be separated by undisturbed or compacted earth.
 - (1) The materials and joints of sewer and water service pipe shall be installed in such a manner and shall possess the necessary strength and durability to prevent the escape of solids, liquids, and gases therefrom under all known adverse conditions such as corrosion, strains due to temperature changes, settlement, vibrations, and superimposed loads.
 - (2) All water services shall be installed with a minimum of five feet of cover from the finish grade.
 - (3) All curb boxes shall be Minneapolis Pattern with a 1¼-inch standpipe.
 - (4) All corps and curbstops shall be of compression type, Mueller only.
 - (5) The location of all curb boxes shall be tied to each property corner with the location being included in the record drawings.

(Res. of 7-13-1994, § VII(F))

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Secs. 50-168—50-190. Reserved.

FOOTNOTE(S):

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Cross reference— Utilities, ch. 66.[\(Back\)](#)

DIVISION 7. UTILITIES ON PRIVATE EASEMENTS [\[5\]](#)

[Sec. 50-191. Generally.](#)

[Sec. 50-192. Storm or sanitary sewers.](#)

[Sec. 50-193. Water mains.](#)

[Secs. 50-194—50-220. Reserved.](#)

Sec. 50-191. Generally.

In all cases, utilities on private easements will be discouraged and will be done only with permission of the village. The rules of this division will not be in effect for the standard storm sewer on the ten-foot easement adjacent to the public right-of-way.

(Res. of 7-13-1994, § IX)

Sec. 50-192. Storm or sanitary sewers.

Any proposed segment of storm sewer or sanitary sewer constructed on private property must meet the following requirements:

- (1) Constructed parallel along lot lines.
- (2) Constructed in an individual permanent easement no less than 15 feet wide for each utility.
- (3) Originate in a manhole on public right-of-way and must terminate in a manhole on public right-of-way.
- (4) Laid on a straight alignment between manholes.
- (5) No longer than the maximum spacing as listed in this article for all manholes.

(Res. of 7-13-1994, § IX(A))

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Sec. 50-193. Water mains.

Any proposed segment of a water main constructed on private property must meet the following requirements:

- (1) Constructed parallel along lot lines.
- (2) Constructed in an individual permanent easement no less than 15 feet wide for each utility.
- (3) Originate from a valve on public right-of-way and must terminate on a valve on public right-of-way.
- (4) Laid on a straight line between the above-mentioned valves.
- (5) The pipe material shall be ductile cast iron at a higher class, where applicable.

(Res. of 7-13-1994, § IX(B))

Secs. 50-194—50-220. Reserved.

FOOTNOTE(S):

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Cross reference— Utilities, ch. 66.[\(Back\)](#)

ARTICLE III. DRAINAGE DITCHES, CULVERTS AND DRIVEWAY APPROACHES

[Sec. 50-221. Culverts required.](#)

[Sec. 50-222. Clearance by property owners of drainage ditches.](#)

[Sec. 50-223. Installation of drainage ditches or culverts on public property; permit required.](#)

[Sec. 50-224. Residential installation permit; preissuance requirements.](#)

[Sec. 50-225. Nonresidential purpose permit; preissuance requirements.](#)

[Sec. 50-226. Contents of permit application; fees; approval.](#)

[Sec. 50-227. Property owner's responsibility for expenses.](#)

[Sec. 50-228. Removal of culverts; notice.](#)

[Sec. 50-229. Inspector; appointment; compensation.](#)

[Sec. 50-230. Penalty for violation of article.](#)

[Secs. 50-231—50-260. Reserved.](#)

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Sec. 50-221. Culverts required.

As determined by the village board of trustees, each property within the corporate limits that either on its own or is abutting the village street or right-of-way shall have a culvert installed so as to not impede or interrupt the flow of water. No property within the village shall have a driveway, sidewalk, or other structure which impedes or interrupts the flow of water within the village. No property within the village shall be allowed to have any driveway, sidewalk, or other structure which does not provide for an appropriate culvert as provided in this article.

(Ord. No. 99-9, § 1, 9-22-1999)

Sec. 50-222. Clearance by property owners of drainage ditches.

Each property owner and/or occupant shall keep all drainage ditches abutting or crossing their property clear of all brush, trees, tree limbs, leaves and other debris, and shall keep all culverts installed or existing in such ditches clear of such debris. The village shall be responsible for removing the natural accumulation of silt from ditches that are located on public property or on a village easement.

(Ord. No. 99-9, § 2, 9-22-1999)

Sec. 50-223. Installation of drainage ditches or culverts on public property; permit required.

No person shall install or place in any drainage ditch located on public property or a public right-of-way or any drainage ditch used to divert stormwater from public property or right-of-way any piping or culvert without first obtaining a permit issued by the village.

(Ord. No. 99-9, § 3, 9-22-1999)

Sec. 50-224. Residential installation permit; preissuance requirements.

Except as otherwise provided, no permit shall be issued for any residential culvert installation or driveway approach unless the following requirements are met:

- (1) The minimum diameter of the culvert is eight inches with the actual diameter to be determined by the inspector in a size adequate to conduct anticipated flow.
- (2) The minimum distance between culverts is six feet except for existing abutting driveways.
- (3) The culvert is to be corrugated metal pipe, galvanized, meeting state department of transportation specifications.
- (4) The maximum width of the driveway is 24 feet; the minimum is ten feet; and the culvert shall extend three feet on each side of the driveway.
- (5) The minimum distance from the intersection is 25 feet.
- (6) The driveway approach located on village property must be made of rock or blacktop; no concrete shall be allowed.
- (7) The minimum fill placed above such culvert shall be no less than eight inches or as determined by the inspector prior to the issuance of a permit.

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- (8) The culvert depth will be as determined by the inspector prior to the issuance of a permit, based upon the elevations necessary to not impede the flow of stormwater, or as determined or recommended by the village engineer.

(Ord. No. 99-9, § 4, 9-22-1999)

Sec. 50-225. Nonresidential purpose permit; preissuance requirements.

Except as otherwise provided, no permit shall be issued for any such culvert or driveway approach for nonresidential purposes unless the following requirements are met:

- (1) The minimum diameter of the culvert is eight inches, with the actual diameter to be determined by the inspector in a size adequate to conduct the anticipated flow.
- (2) The minimum distance between culverts is six feet except for existing abutting driveways.
- (3) The culvert is to be of corrugated metal pipe, galvanized, meeting state department of transportation specifications.
- (4) The maximum length and depth is to be determined by the inspector or as determined or recommended by the village engineer.
- (5) The minimum distance from an intersection, defined as the intersection curb, or travel lanes of two streets, in the absence of a curb, shall be 25 feet.
- (6) Driveway approaches located on village property must be made of rock or blacktop; no concrete shall be allowed.
- (7) The minimum fill placed above such culvert shall be no less than eight inches or as determined by the inspector prior to the issuance of a permit.

(Ord. No. 99-9, § 5, 9-22-1999)

Sec. 50-226. Contents of permit application; fees; approval.

Application for permits shall contain all information necessary to determine whether the requirements contained in this article shall be met. Applications shall be filed with the village comptroller. The permit fee shall be \$25.00 and shall be nonrefundable. Nonresidential permits, wherein the culvert installation is for parking purposes, shall be subject to the approval of the village engineer prior to issuance of the permit.

(Ord. No. 99-9, § 6, 9-22-1999)

Sec. 50-227. Property owner's responsibility for expenses.

In all instances, the property owner or the property owner abutting village property or streets, shall be responsible for all expenses to include, but not limited to, the culvert, connecting bands, and flair ends. All fees shall be paid prior to the issuance of the permit.

(Ord. No. 99-9, § 7, 9-22-1999)

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Sec. 50-228. Removal of culverts; notice.

The village may remove any culvert installed or existing in any drainage ditch after giving ten days' written notice of its intention to do so to all interested parties. The written notice shall not be necessary in emergency situations requiring the removal of the culvert.

(Ord. No. 99-9, § 8, 9-22-1999)

Sec. 50-229. Inspector; appointment; compensation.

An inspector is to be appointed for one year by the president of the board of trustees with the advice and consent of the board of trustees. The inspector shall be paid a sum of \$25.00 for each permit issued. In the absence of an appointed inspector, the village president shall be deemed the inspector, and no permit fees shall be paid to the president.

(Ord. No. 99-9, § 9, 9-22-1999; Ord. No. 2001-4, 4-11-2001)

Sec. 50-230. Penalty for violation of article.

Any person violating any of the provisions of this article shall be subject to punishment as provided in section 1-10 of this Code. This section shall in no way abrogate or impair the right of the village to specifically enforce, by any legal means, any of the provisions of this article.

(Ord. No. 99-9, § 10, 9-22-1999)

Secs. 50-231—50-260. Reserved.

ARTICLE IV. GRADING, STORMWATER DETENTION AND SITE DEVELOPMENT PERMIT

[Sec. 50-261. Purpose of article.](#)

[Sec. 50-262. Definitions.](#)

[Sec. 50-263. Zoning administrator duties.](#)

[Sec. 50-264. Review of subdivision proposals and other new developments for flood control measures.](#)

[Sec. 50-265. Prerequisite requirements prior to construction, improvement or development.](#)

[Sec. 50-266. Site development permit.](#)

[Sec. 50-267. Variances.](#)

[Sec. 50-268. Technical requirements.](#)

[Sec. 50-269. Enforcement; penalty.](#)

Sec. 50-261. Purpose of article.

The purpose of this article is to safeguard persons, protect property, prevent damage to the environment, and promote the public welfare by guiding, regulating and controlling the design, construction,

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use and maintenance of any development or other activity which disturbs or breaks the topsoil or otherwise results in the movement of earth on land situated in the village. It is the intention of the regulations of this article that land disturbing activities do not result in an increase in the rate of or the location of stormwater runoff from properties in order to safeguard adjoining properties from the negative impacts of such runoff. Further, it is intended to require the temporary storage and the control of the rate of release of excess stormwater thereby equitably apportioning the liabilities and benefits of stormwater runoff between dominant and subservient estates.

Sec. 50-262. Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning. Words not defined shall be interpreted in accordance with definitions contained in Merriam Webster's New Collegiate Dictionary, Ninth Edition.

Administrator means the duly appointed zoning administrator of the village.

Base flood means the flood having a one percent probability of being equaled or exceeded in any given year. The base flood is also known as the 100-year flood.

Base flood area means the land area subject to inundation by waters of the base flood.

Base flood elevation means the elevation at all locations delineating the level of flooding resulting from the 100-year frequency flood event.

City engineer means the professional engineer, registered in the state, who has been duly appointed as the city engineer of the village, or who has been hired by the village as its consulting engineer.

Compensatory storage means an artificially excavated, hydraulically equivalent or greater volume of storage within the special flood hazard area used to balance the loss of natural flood storage capacity when artificial fill or structures are placed within the floodplain.

Control structure means a facility constructed to regulate the volume of stormwater that is released during a specific length of time.

Dry bottom stormwater storage area means a facility that is designed to be normally dry and which accumulates excess stormwater only during periods when the restricted stormwater runoff release rate is less than the stormwater inflow rate.

Excess storm passageway means a channel formed on the surface of the soil to carry stormwater runoff through a specific area from dominant to subservient estates.

Excess stormwater means that portion of stormwater runoff that is not absorbed by the soil or evaporated.

Five-year return frequency storm means a storm that may be expected to be equaled or exceeded on an average of 20 times in any period of 100 years. In any given year, there is a 20 percent chance that such a storm will occur.

Floodplain means the land adjacent to a body of water with ground surface elevations at or below the base flood or the 100-year frequency flood elevation. Floodplains may also include detached special flood hazard areas, ponding areas, etc. The floodplain is also known as the special flood hazard area (SFHA). The floodplains are those lands within the jurisdiction of the village that are subject to inundation by the base flood or 100-year frequency flood.

Floodway means the channel or watercourse and those portions of the adjoining floodplains that are required to store and convey the 100-year flood with no significant increase in the base flood elevation. For the floodway boundaries, see appendix A.

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Natural drainage means water that flows by gravity in channels formed by the true surface topography of the earth prior to changes made by the efforts of man.

Natural safe stormwater drainage capacity means the quantity of stormwater runoff that can be transported by means of a channel, passage, conduit, tub, duct, or combination thereof, in such a manner that the elevation of the water does not rise significantly above the level of the adjacent soil surface.

100-year return frequency storm means a storm that may be expected to be equaled or exceeded on an average of once in any period of 100 years. In any given year, there is a one percent chance that such a storm will occur.

Pave (pavement) means the act or result of applying a hard, all-weather watertight material to any ground surface in such manner as to present a uniform surface over large areas in accordance with village standards.

Person means an individual, public or private corporation, government, partnership, or unincorporated association.

Plan commission means the plan commission of the village.

Plat officer means the plat officer of the village. The zoning administrator shall be the plat officer, and shall be responsible for signing plats related to divisions of land.

Positive gravity outlet means the drainage of an area in a manner that will ensure complete removal of all surface water by means of natural gravity.

Recognized agency means a governmental unit or agency which has statistically and consistently examined local, climatic and geologic conditions and maintained records as they apply to stormwater runoff, e.g., U.S. Weather Bureau, University of Illinois Engineering Experiment Station, state water survey, state department of transportation, division of water resources, U.S. Soil Conservation Service, etc.

Stormwater runoff means water that results from precipitation that is not absorbed by soil or plant material.

Stormwater storage area means an area designated to temporarily accumulate excess stormwater.

Structure means anything that is constructed or erected with a fixed location on the ground or attached to something having a fixed location on the ground. Among other things, structures include buildings, fences, signs, mobile homes, swimming pools and walls.

Tributary watershed means the entire catchment area that contributes stormwater runoff to a given point.

Wet bottom stormwater storage area means a facility that contains a body of water and which accumulates excess stormwater during periods when the restricted stormwater runoff release rate is less than the stormwater inflow rate.

Cross reference— Definitions generally, § 1-2.

Sec. 50-263. Zoning administrator duties.

- (a) The village board hereby vests the zoning administrator with the responsibility and authority to:
 - (1) Delineate or assist the federal flood insurance administrator, at his request, in delineating the limits of the areas having special flood hazards on available local maps of sufficient scale to identify the location of building sites;
 - (2) Provide such information as the village board may request concerning present uses and occupancy of the floodplain;

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- (3) Cooperate with federal, state and local agencies and private firms which undertake to study, survey, map and identify floodplain areas, and cooperate with neighboring counties with respect to management of adjoining floodplain areas in order to prevent aggravation of existing hazards;
- (4) Together with the village engineer, interpret and enforce the regulations of this article.
- (b) The village board appoints the zoning administrator to maintain for public inspection and to furnish upon request a record of elevations, in relation to mean sea level, of the lowest floor, including the basement, of all new or substantially improved structures located in the special flood hazard areas. If the lowest floor is below grade on one or more sides, the elevation of the floor immediately above must also be recorded.
- (c) The village board appoints the zoning administrator to serve as the plat officer for the village.

Sec. 50-264. Review of subdivision proposals and other new developments for flood control measures.

The plat officer shall review subdivision proposals and other proposed new developments to ensure that:

- (1) All such proposals are consistent with the need to minimize flood damage.
- (2) All public utilities and facilities, such as sewer, gas, electrical and water systems are located, elevated and constructed to minimize or eliminate flood damage.
- (3) Adequate drainage is provided so as to reduce exposure to flood hazards.

Sec. 50-265. Prerequisite requirements prior to construction, improvement or development.

The following requirements shall be applicable and shall be satisfied prior to the construction, improvement or development of any structure, project or land which is subject to the provisions of this article:

- (1) No land disturbing activity shall be permitted which alters natural or manmade waterways or drainage features including, but not limited to, ditches, culverts, swales, drain tiles, streams, rivers, ponds, lakes, wetlands and floodplains, unless such alteration is in compliance with the provisions of this article.
- (2) Any land disturbing activity shall be conducted in such a way that the location of stormwater runoff from a site shall not be altered, and the post-development rate of stormwater runoff from the site shall not exceed the maximum rate stipulated in section 50-268, unless such alteration is approved by the village board as part of a development review process. In ensuring compliance with this standard, the administrator may require the property owner to obtain a site development plan in accordance with this article.
- (3) The discharge point of any sump pump shall be entirely within the buildable area of a lot, and shall not extend beyond any minimum required building setback line.

Sec. 50-266. Site development permit.

A site development permit shall be obtained through the administrator prior to the commencement of construction of any structure or change to any land that is subject to the provisions of this article.

- (1) Except as otherwise provided in this article, the following activities shall require a site development permit:

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- a. Construction of any new structure, establishment of any new uses of any land or existing structures, structural alteration or relocation of any existing structures, and enlargements of or additions to any existing uses located within the village;
 - b. Issuance of any building permit, approval or recording of any subdivision or plat of any land, approval of any planned development, and construction of pavement or compacted area designated to be used for loading, open storage, or the parking of vehicles, shall first comply with the provisions of this article and obtain the approval of the administrator;
 - c. Any land disturbing or grading activity, including excavating, dredging and filling or any combination thereof; and
 - d. Construction of any lake or pond, mining of minerals including sand and gravel, development of golf courses, and construction of roads and streets.
- (2) A site development permit shall not be required for:
- a. Construction associated with any work in a public right-of-way that has been approved by the state department of transportation, township road commissioner, the county highway department, village engineer or board of trustees; and
 - b. Modification of structures or appurtenances that do not increase the amount of impermeable area.
- (3) An applicant for a site development permit shall submit a grading plan, prepared by and bearing the stamp and seal of a registered civil engineer, showing the existing and proposed topography at a minimum of two-foot contour intervals, along with other information including: existing major vegetation, existing and proposed stormwater management features (drain tiles, ditches, culverts, swales, catchbasins, pipes, detention areas, etc.), proposed erosion and sedimentation control measures (in accordance with the procedures set forth in Procedures and Standards for Urban Soil Erosion and Sedimentation Control in Illinois ("Green Book"), except chapter 6, and with the standards and specifications set forth in the Illinois Urban Manual, 1995), existing and proposed buildings, structures and improvements, existing and proposed underground utilities, other existing or proposed major land features (lakes, wetlands, utilities, easements, etc.), and any other information as may be deemed necessary by the administrator or village engineer. The plan shall show plan, profile and cross sections of the storage areas and excess stormwater passageways, including the areas expected to be inundated or covered with water. The grading plan shall be accompanied by a certification from the engineer that the plan meets all the applicable regulations of the village for stormwater management, grading and floodplains. The applicant's engineer shall also provide an estimated cost of construction. Where appropriate, the administrator may retain outside consulting services to assist the highway department in such review, all reasonable costs for such outside services shall be borne by the developer.
- (4) A plan for the shortterm and longterm maintenance and the responsibility of maintaining the stormwater storage areas shall be submitted to and approved by the administrator and village engineer prior to final approval. Acceptable plans for the maintenance of stormwater storage areas may include agreements with individual property owners' associations, in which case the administrator shall require that the face of the plat make reference to the agreement and that a restrictive covenant running with the land be imposed on all affected property. If a property owners' association is to be established, the developer of the project or subdivision or the applicant shall be responsible for its establishment and for informing the individual property owners of their responsibilities.
- (5) The facilities for the control of stormwater runoff shall be constructed prior to the start of any construction or during the earliest possible stage of construction on the site of the project. All costs of construction, including the restoring, temporary seeding and permanent erosion control measures, shall be borne by the contractor, applicant or developer. The village engineer shall approve the erosion control measures and the timing of their installation.

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- (6) The construction of the stormwater storage area and excess stormwater passageway shall be under the supervision of a state-registered professional engineer. He shall be responsible for all construction in accordance with the approved plans and set of as-built plans, which shall be submitted upon completion of the stormwater storage area and excess stormwater passageway.
- (7) All applicants for building permits shall contain a statement that such buildings or structures and appurtenances connected therewith include facilities for the orderly runoff or retention of rain and melting snow, as required in this article. Plans submitted with the application shall include a signed statement issued by a state-registered professional engineer that the plans include facilities adequate to prevent harmful runoff, as required in this article. For single-family dwellings to be located in a subdivision meeting the requirements of this article, the signed statement may, in lieu of the procedure of this subsection, be placed on the face of the final plat and/or approved improvement plans.
- (8) Fees and a financial guarantee shall be as follows:
 - a. The fee for applying for a site development permit shall be as set forth in the fee schedule, as amended, adopted by the board of trustees;
 - b. A bond with a corporate surety or a letter of credit issued by a reputable financial institution or irrevocable escrow agreement on forms approved by the administrator in an amount sufficient to cover 120 percent of the estimated cost of all construction required by this section shall be required prior to the start of any construction on the project. Proof of the assurance shall be given to the administrator for his records. The bond or letter of credit shall be returned after all provisions of this article have been met.
- (9) The village engineer shall review the grading plan for compliance with applicable regulations. The village engineer may approve or deny the grading plan, or require such changes as are deemed necessary to meet the requirements of the village. Approval of a grading plan shall not be unreasonably withheld.
- (10) Upon receipt of approval of a grading plan, the administrator shall issue the site development permit. The applicant shall commence work within six months of the date of the issuance and, once started, such work shall be continuously and diligently pursued to its completion. In any event, work shall be completed within one year of the start of work on the project.
- (11) Upon completion of the work, the applicant shall schedule a final inspection by the village engineer. If the project is not completed in accordance with the approved grading plan, the village engineer or administrator may require the applicant to provide to the village a grading plan, prepared by and bearing the stamp and signature of a registered surveyor or certified engineer, depicting the final topography of the subject property. The reasons for requiring the as-built topographic survey shall be given to the applicant in writing. This as-built grading plan shall be subject to review by the village engineer for compliance with the grading plan approved for the site development permit. Further, the village may, in addition to its other possible remedies, draw upon the financial guarantee to complete the work. Following written approval of the finished grading by the village engineer, the administrator shall release the guarantee of construction.
- (12) Following issuance of a site development permit, an applicant may request approval of an amended grading plan. Such a request must include the reasons for the request to amend the approved plan; and, if the request is approved, the amended plan shall be subject to the review and approval procedure and fees set forth in subsections (3)—(8) of this section. Once approved by the village engineer, the amended plan shall replace the original grading plan for the earth-moving project. The village engineer or administrator may elect to extend the period for completion of the project to a date not exceeding one year from the approval of the amended plan.
- (13) A site development permit shall not be issued for an intended site development unless:

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- a. The earth moving is part of a development, such as a subdivision, special use, planned development or variation, which has been approved by the village;
 - b. The permit is accompanied by a valid building permit issued by the village; or
 - c. The earth moving is associated with a permitted use in the zoning district in which the subject property is located and no other permits or approvals are required from the village; and
 - d. All other required local, state and federal permits have been received for that portion of the site subject to a site development permit.
- (14) The administrator shall have the authority to waive the requirements of this article for any proposed land disturbing activity, if the permit is deemed unnecessary. In the case where a grading project is subject to regulation by a state or federal agency, the requirement for a site development permit may be waived, provided that a copy of the state or federal permit is provided to the village prior to commencement of the project, and such permit is adequate to address the requirements of the village. For lots within subdivisions, the proposed top of foundation elevation shall be identified on building permit plans, and a surveyor shall certify that the proposed final grading of the parcel shall comply with proposed grades on the approved subdivision plans and that the top of foundation shall match the top of foundation shown on the subdivision plats. In the case of buildings or structures proposed on property that includes a floodplain, a site development plan may be required.

Sec. 50-267. Variances.

- (a) *Standards.* In order to promote the best possible development and use of land, the administrator shall interpret the standards, provisions and specifications contained in this article liberally and in favor of the public interest. Variations from these standards, provisions and specifications may be granted when it is demonstrated to the satisfaction of the administrator and the village board that, owing to special conditions, a strict adherence to the provisions of this article will result in unnecessary hardship and that the spirit and intent of the article will be observed.
- (b) *Procedure.* A request for a variance shall be filed by the owner seeking to develop or change the use of this property, or his agent, with the administrator who shall refer it, together with his recommendations, to the plan commission for decision. The request for variance shall be written and shall state specifically what variance is sought and the public's interest in granting the variance.

Sec. 50-268. Technical requirements.

The following requirements shall be applicable and shall be satisfied prior to the construction, improvement or development of any structure, project or land which is subject to the provisions of this article:

- (1) *Maximum controlled release rate.* The maximum controlled release rate of the stormwater from all developments requiring detention shall not exceed the stormwater runoff rate able to be carried by the downstream drainage system. Because of the flat conditions of the land in this area, channel configurations cut by nature are generally unable to handle the runoff from the high intensity rainfalls and result in floodplain storage or spreading of runoff over the land areas during the larger storm periods. In order not to increase the runoff from such areas after development, the release rate must be limited to the carrying capacity of these natural channels and may not exceed the predetermined safe carrying capacity of any limiting downstream restriction. The drainage system for any property shall be designed to control the peak rate of discharge from the property for the two-year, 24-hour and 100-year, 24-hour events to levels which will not cause an increase in flooding or channel instability downstream when considered in aggregate with other developed properties and downstream drainage capacities. The peak discharge from events less

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than or equal to the two-year event shall not be greater than 0.04 cfs per acre of property drained. The peak 100-year discharge shall not be greater than 0.2 cfs per acre of property drained.

- (2) *Excess stormwater passageway.* An excess stormwater passageway shall be provided, which shall have adequate capacity to convey the excess stormwater from the tributary watershed. The capacity of this excess stormwater passageway shall be adequate to transport the peak rate of runoff from the 100-year return frequency storm, assuming all upstream areas are fully developed for uses specifically listed as permitted uses by existing zoning, and antecedent rainfall has saturated the tributary watershed. The increase due to saturation shall be calculated by a ratio of the amount of runoff of the antecedent moisture condition II of the 24-hour 100-year return frequency storm, assuming all upstream areas are fully developed for uses specifically listed as permitted uses by existing zoning and antecedent rainfall has saturated the tributary watershed. The increase due to saturation shall be calculated by a ratio of the amount of runoff of the antecedent moisture condition III to antecedent moisture condition II of the 24-hour 100-year return frequency storm as outlined by the U.S. Soil Conservation Service for the tributary watershed. No structures shall be constructed within this passageway; however, streets, parking lots, playgrounds park areas, pedestrian walkways, open space and utility and sewer easements shall be considered compatible uses. Design of the excess stormwater passageway shall include control of stormwater velocity to eliminate problems of soil erosion or other damage that could detract from the primary use of the area. The entire area of the excess stormwater passageway shall remain under the jurisdiction of the village. If this passageway is reshaped or its capacity to transport excess stormwater is otherwise restricted, the village may cause to have any restrictions removed at the expense of the agency or party causing or permitting the restrictions. Should a natural drainageway exist, it shall be preserved and used as a part of the excess stormwater passageway.
- (3) *Affidavit of disclosure of property interest.* At the time the owner of any development, or his agent, submits a subdivision plat to the administrator, he shall execute and file an affidavit or disclosure of property interest with the village. In this affidavit, the owner will state either that the provisions of this article apply to the subject property or that the article does not apply because it is an excluded land use change or type of construction. In the latter case, the owner will also state that he has no property or contractual interest nor any beneficial interest under any trust holding title in any contiguous property. The affidavit shall also include an agreement by the owner that, if the owner subsequently acquires any such interest in any contiguous property within ten years, such that the total combined property is greater than or equal, the provisions of this article will apply to the entire property.
- (4) *Stormwater storage.* When the maximum controlled stormwater runoff release rate shall be exceeded, any or all of the following stormwater storage methods shall be provided and constructed:
 - a. *Dry bottom stormwater storage.*
 1. Dry bottom stormwater storage areas must be designed to serve a secondary purpose for reaction, open space, or similar type of uses that will not be adversely affected by occasional intermittent flooding;
 2. The combination of storage or excess stormwater runoff from a 100-year return frequency storm and the allowable release rate shall not result in a storage duration in excess of 48 hours;
 3. Minimum grades for turf areas shall be one percent (100 units horizontal to one unit vertical) and maximum side slopes shall be 25 percent (four units horizontal to one unit vertical). Storage areas side slopes shall follow the natural land contours as closely as practicable, and a minimum of earth excavation shall be used to create the storage facility;

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4. Temporary seeding or other soil stabilization measures shall be established in the stormwater storage area and excess stormwater passageway immediately following the construction of the overall development. It is recognized that a limited amount of sediment buildup may occur in the stormwater storage area due to erosion. In no case shall the volume of the storage area be reduced to less than three-quarters of the required volume during the construction phase of the development. Permanent erosion control measures such as mulching, hydroseeding, conventional seeding, nurse crops, fertilizing, or sod installation shall be utilized to control soil movement and erosion within the storage area and excess stormwater passageway. These measures shall meet or exceed the standards established by the village soil and water conservation district. The installation of these permanent measures shall take place only after the majority of construction and other silt and sediment-producing activities have been completed. Prior to the establishment of permanent erosion control measures, the required capacity of the stormwater storage area and the excess stormwater passageway shall be restored;
 5. The control structure shall be provided with an interceptor for trash and debris, and it shall be designed and constructed to prevent soil erosion and not to require manual adjustments for its proper operations. An inlet design that will produce turbulent flow conditions during any portion of the stormwater cycle will not be acceptable. Backwater from any downstream drainage system shall be evaluated with regard to the outlet structure;
 6. Adequate impact stilling basins shall be provided to ensure that downstream soil erosion is alleviated and the regime of the downstream drainage facility is not disturbed;
 7. Each stormwater storage area shall be provided with a method of overflow if a storm in excess of the design capacity occurs. This overflow facility shall be constructed to function without specific attention and can become a part of the excess stormwater passageway described in subsection (2) of this section. Such passages shall carry stormwater so that the maximum water level shall be at least two feet below the lowest foundation grade in the vicinity of the flow path;
 8. The entire stormwater storage area shall be designed and constructed to fully protect the public health, safety, and welfare. If a condition occurs in the stormwater storage area which is hazardous to the public health, safety or welfare, the person responsible for the condition will be required to provide approved corrective measures. If these corrective measures are not provided, the village may eliminate the hazard at the expense of the person responsible. If these corrective measures are not provided, the village may eliminate the hazard at the expense of the person responsible;
 9. Low flow conduits or channels shall be provided in the stormwater storage area. These conduits or channels shall be so constructed that they will not interfere with the secondary usage of the storage area and will reduce the frequency of time that the storage area will be covered with water.
- b. *Wet bottom stormwater storage.* Wet bottom stormwater storage areas shall be designed in compliance with all the regulations that are applicable and govern the construction of dry bottom stormwater storage areas. The following additional regulations shall also apply:
1. The water surface of the permanent pool shall not exceed one-tenth of the area of the tributary watershed.
 2. The maximum side slopes shall be as follows:
 - i. Ten percent (ten units horizontal to one unit vertical) for the first 25 feet from shoreline;

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- ii. Twenty-five percent (four units horizontal to one vertical) for remaining side slopes. Protection of the shoreline must be provided to alleviate soil erosion due to wave action.
 3. The minimum normal water depth shall be four feet. If fish are to be used to keep the pond clean, at least one-quarter of the pond area shall be a minimum of ten feet deep.
 4. Facilities shall be provided to lower the pond elevation by gravity flow for cleaning purposes and shoreline maintenance.
 5. The control structure for stormwater release shall be designed to operate at full design release rate with only a minor increase in the water depth in order to minimize the land surface wetted by frequent minor stormwater runoff conditions.
 6. Measures shall be included in the design to prevent pond stagnation. This may be accomplished by fountain aeration or some other method used to ensure aerobic pond conditions.
 7. The volume of water permanently stored shall not be considered to be part of the required excess stormwater storage volume.
 - c. *Paved stormwater storage.* Design and construction of the pavement base must ensure that there is no permanent damage due to flooding. Control structures in paved areas must be readily accessible for maintenance and cleaning. Vortex control devices will be required.
 - d. *Rooftop stormwater storage.* Rooftop storage of excess stormwater shall be designed and constructed to provide permanent control inlets and parapet walls to contain any excess stormwater. Adequate structural roof design must be provided to ensure that roof deflation does not occur which could cause the roofing material to fail and result in leakage. Overflow areas must be provided to ensure that the weight of stored stormwater will never exceed the structural capacity of the roof.
 - e. *Automobile parking in stormwater areas.* Automobile parking facilities used to store excess stormwater must be constructed having a maximum depth of stored water of 1.5 feet, and these areas shall be located in the most remote, least used areas of the parking facility.
 - f. *Underground stormwater storage.* Underground stormwater storage facilities must be designed for easy access in order to remove accumulated sediment and debris. These facilities must be provided with a positive gravity outlet.
- (5) *Calculations.*
- a. The volume of required stormwater storage shall be calculated on the basis of maximum value achieved from the runoff of a 100-year frequency storm (24-hour duration) less the volume of water released through the outlet structure. A pond routing method acceptable to the administrator shall be used for these calculations. The release rate of the outlet structure when one-half of the storage areas are filled may be used in lieu of routing techniques in small drainage areas less than one acre in size, and a four-inch-diameter restrictor shall be considered the minimum practical size in these smaller drainage areas. Detention storage shall be computed using hydrograph methods as described in this section.
 1. Capacity must be provided to pass the ten-year peak flow in the minor drainage system and an overland flow path for flows in excess of design capacity.
 2. Design methodologies for major and minor conveyance systems for areas up to ten acres may be designed using the rational formula. The rational formula may also be used for sizing minor drainage systems for larger sites. Runoff hydrograph methods described in this section must be used for major drainage systems with greater than ten acres of drainage area, for all floodprone areas, and for the design of all drainage basins.

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3. Runoff hydrographs shall be developed incorporating the rainfall assumptions in the following subsection plus antecedent moisture. Acceptable runoff hydrograph methods would include HEC-1, SCS TR-20, and SCS TR-55 Tabular Method.
 4. Unless a continuous simulation approach to drainage system hydrology is used, all design rainfall events shall be based on the state water survey bulletin 70. The first quartile point rainfall distribution shall be used for the design and analysis of conveyance systems with critical durations of less than six hours. The second quartile point rainfall distribution shall be used for the design and analysis of conveyance systems with critical durations greater than six hours and less than or equal to 12 hours. The third quartile point shall be used for design and analysis of detention basins and conveyance systems with critical durations greater than 12 hours and less than or equal to 24 hours. The fourth quartile point shall be used in the design and analysis of systems with durations greater than 24 hours. The first, second, third and fourth quartile distributions described by Huff are presented in Table 37 of Bulletin 70. The SCS Type II distribution may be used as an alternative to the Huff distributions.
 5. The control structure shall be designed to maintain as uniform a flow as possible, independent of the stormwater storage volume. When the proposed structure, project, or land development forms only a portion of a watershed or contains portions of several watersheds, the storage volume calculations shall be based upon the area of the entire project, development or land use change.
- b. Stormwater storage areas that will be filled to capacity by high frequency storms shall be designed in a manner that will protect immediate downstream properties, and all overflow structures shall be designed to function properly and effectively without the necessity of making manual adjustments. The administrator may permit a larger outlet for stormwater storage for the orderly management of stormwater runoff where large tributary areas are developed without detention. There shall be a minimum of one foot of freeboard above the 100-year storm (24-hour duration) storage elevation.
 - c. If the orderly management of the stormwater runoff cannot be achieved by passing the entire tributary area runoff through the stormwater storage area, then the stormwater storage area shall be constructed to exclude the runoff from the tributary area originating outside of the area to be developed.

Sec. 50-269. Enforcement; penalty.

- (a) The administrator shall be the official primarily responsible for the enforcement of this article relative to any land disturbing activity conducted in violation of this article as it pertains to the owner or his authorized agent, a tenant, architect, builder, contractor, or other person who commits or participates in any violation. The administrator may request the village attorney to institute legal proceeding necessary to enforce this article or prevent or remedy any violations of this article.
- (b) Failure to comply with any of the requirements of this article shall constitute a violation, and any person, upon conviction thereof, shall be subject to punishment for each offense as provided in section 1-10.