

Chapter 24

SUBDIVISIONS AND OTHER DIVISIONS OF LAND*

* **Cross References:** Any ordinance approving or accepting any subdivision or plat saved from repeal, § 1-6(4); buildings and building regulations, ch. 6; environment, ch. 12; streets, sidewalks and other public places, ch. 22; utilities, ch. 28; zoning, ch. 30.
State Law References: Land division act, MCL 560.101 et seq., MSA 26.430(101) et seq.

Article I. In General

Sec. 24-1. Lot splits.
Secs. 24-2--24-30. Reserved.

Article II. Subdivisions

Division 1. Generally

Sec. 24-31. Short title of article.
Sec. 24-32. Purposes of article.
Sec. 24-33. Scope of article.
Sec. 24-34. Definitions.
Sec. 24-35. Penalty for violation of article.

Division 2. Fees and Charges

Sec. 24-36. Payment by proprietor.
Sec. 24-37. Planning review fee.
Sec. 24-38. Engineering review and inspection fees.
Sec. 24-39. Municipal review and administrative fee.
Sec. 24-40. Attorney fee.
Sec. 24-41. Water and sewer connection charges.
Sec. 24-42. Insurance; maintenance bond.

Division 3. Variances

Sec. 24-43. For hardship.
Sec. 24-44. For complete neighborhood.
Secs. 24-45--24-65. Reserved.

Division 4. Preliminary Plats

Sec. 24-66. Preliminary plat investigation.
Sec. 24-67. Preliminary plat procedure (stage 1).
Sec. 24-68. Preliminary plat procedure (stage 2).
Secs. 24-69--24-90. Reserved.

Division 5. Final Plat

Sec. 24-91. Procedure for preparation and review.
Secs. 24-92--24-110. Reserved.

Division 6. Design Layout Standards

Sec. 24-111. Streets.
Sec. 24-112. Blocks.
Sec. 24-113. Lots.
Sec. 24-114. Subdivision open space plan (planned unit development).
Sec. 24-115. Public reservations.
Sec. 24-116. Natural features.
Sec. 24-117. Floodplains.
Secs. 24-118--24-140. Reserved.

Division 7. Improvements

Sec. 24-141. Requirements prior to installation.
Sec. 24-142. Streets.
Sec. 24-143. Utilities.
Sec. 24-144. Other improvements.
Sec. 24-145. Submittal procedures.
Secs. 24-146--24-165. Reserved.

Division 8. Engineering Design Standards

Subdivision I. Generally

Sec. 24-166. General requirements.
Sec. 24-167. Compliance standards.
Secs. 24-168--24-190. Reserved.

Subdivision II. Concrete Pavement

Sec. 24-191. Materials; generally.
Sec. 24-192. Strength.
Sec. 24-193. Aggregate.
Sec. 24-194. Joint materials.
Sec. 24-195. Subgrade.
Sec. 24-196. Thickness; length.
Sec. 24-197. Curb and gutter.
Sec. 24-198. Sidewalks and walkways.
Sec. 24-199. Easements.
Secs. 24-200--24-220. Reserved.

Subdivision III. Sanitary Sewers

Sec. 24-221. Notes on plans.
Sec. 24-222. Use of maps and information.
Sec. 24-223. Minimum slope table.
Sec. 24-224. Bedding.
Sec. 24-225. Backfilling.
Sec. 24-226. Wye connections and service leads.
Sec. 24-227. Manhole specifications.
Sec. 24-228. Sewer profile.
Sec. 24-229. Minimum depth.
Sec. 24-230. Wyes and end of connection plugs and joints.
Sec. 24-231. Mains; materials.
Sec. 24-232. Joints and collars.
Secs. 24-233--24-255. Reserved.

Subdivision IV. Storm Sewers

Sec. 24-256. Design and provision in accordance with county and state rules.
Sec. 24-257. Capable of handling ten-year storm.
Sec. 24-258. Hydraulic gradient.
Sec. 24-259. Manhole materials and spacing.
Sec. 24-260. Information to be included on profile.
Sec. 24-261. Bedding.
Sec. 24-262. Backfilling.
Sec. 24-263. Location of catchbasins.
Sec. 24-264. Field catchbasins.
Sec. 24-265. Improved open drains.
Sec. 24-266. Headwalls and inlet structures.
Sec. 24-267. Materials.
Sec. 24-268. Cover.
Sec. 24-269. Joints.
Sec. 24-270. Laterals.
Sec. 24-271. Leads.

Sec. 24-272. Rear yard drainage.
Secs. 24-273--24-295. Reserved.

Subdivision V. Water Mains

Sec. 24-296. Construction materials.
Sec. 24-297. Joint materials.
Sec. 24-298. Minimum cover.
Sec. 24-299. Backfilling and compaction.
Sec. 24-300. Laterals.
Sec. 24-301. Hydrants.
Sec. 24-302. Grades of hydrants and gate wells.
Sec. 24-303. Water services.
Secs. 24-304--24-325. Reserved.

Subdivision VI. Grading and Site Drainage

Sec. 24-326. Erosion and sediment control principles.
Sec. 24-327. Surface drainage standards.
Secs. 24-328--24-360. Reserved.

Division 9. Underground Utilities

Sec. 24-361. Purpose.
Sec. 24-362. Definitions.
Sec. 24-363. Public hearing.
Sec. 24-364. Designation of underground utility district.
Sec. 24-365. Unlawful acts.
Sec. 24-366. Exception; emergency or unusual circumstances.
Sec. 24-367. Other exceptions.
Sec. 24-368. Notice to property owners and utility.
Sec. 24-369. Responsibility of utility.
Sec. 24-370. Responsibility of property owners.
Sec. 24-371. Responsibility of village.
Sec. 24-372. Extension of time.
Sec. 24-373. Penalty.

ARTICLE I.

IN GENERAL

Sec. 24-1. Lot splits.

(a) *Purpose.* The purpose of this section is to create a lot split board, provide a procedure for obtaining a lot split, authorize the village to set a fee by resolution and to provide a penalty for violation of this section.

(b) *Procedures.* The combining of any parcels or division of any parcels of land, including those of which the boundaries are fixed by a recorded plat may be permitted and shall be subject to comply with the provisions and procedures set forth in this subsection.

(1) *Filing.* The applicant shall submit to the lot split board, which shall consist of the village president, zoning administrator and village clerk, the following:

- a. Three copies of the application;
- b. Three copies of the sketch of the proposed lot split, having a scale of one inch to 50 feet

containing the data required under subsection (2) of this section.

- (2) *Data required.* The data required on the triplicate copies of the proposed lot split sketch shall include the following:
 - a. Name and address of the applicants;
 - b. The date of the sketch, north arrow and scale;
 - c. Boundary lines and acreage of the parcels of land to be split;
 - d. Names of all streets, rights-of-way and roadway widths of all existing and proposed streets with the parcels proposed to be split;
 - e. All existing structures and physical features which would influence the layout and design of the proposed lot split;
 - f. Location width and purpose of easements;
 - g. Exact legal descriptions of existing parcels and of the parcels to be created by combining or division; and
 - h. Proof of ownership of the parcels.
- (3) *Applicant approval.* The lot split board shall meet and approve the application, provided it conforms with all state statutes, village ordinances and administrative rules and regulations.
- (4) *Assessment determination.* The lot split board shall also determine the allocation of any outstanding assessments between the parcels created or combined but, under no circumstances, shall assessments be reduced.
- (5) *Disapproval of the application.* The reasons for any disapproval of any application shall be stated, and the applicant shall have the privilege of resubmitting a revised proposal.
- (6) *Conditional approval.* If the application is approved conditionally, such conditions and reasons shall be stated on the record of the lot split board.
- (7) *Fee.* The applicant shall pay a fee set by resolution of the village council to defray the cost of processing the application.
- (c) *Penalty.*
- (1) *Generally.* All violations of this section shall be civil infractions and, upon conviction, shall be punishable by a fine in accordance with section 1-12. All penalty provisions in any ordinance theretofore adopted which are contrary to this section are hereby amended to conform to the provisions of this section.

- (2) *No exemption from compliance.* The imposition of any sentence shall not exempt an offender from compliance with the provisions of this section.
- (3) *Other appropriate relief.*
- a. *Injunctive relief.* The district court may issue a writ mandating compliance with this section within a specified time, and require continued compliance with this section on a permanent basis.
 - b. *Additional relief.* The foregoing penalties shall not prohibit the village from seeking other appropriate relief as may be provided by law.
 - c. *Separate offense.* A separate offense shall be deemed committed upon each day during or when a violation occurs or continues.
 - d. *Rights and remedies cumulative.* The rights and remedies provided in this subsection (c) are cumulative and in addition to any other remedies provided by law.

(Ord. No. 98-1, §§ 1, 2, 5, 1-19-1998)

Secs. 24-2--24-30. Reserved.

ARTICLE II.

SUBDIVISIONS

DIVISION 1.

GENERALLY

Sec. 24-31. Short title of article.

This article shall be known and may be designated as the "Village of Capac Subdivision, Lot Split and Land Division Regulation Ordinance."

(Comp. Ords. 1987, § 17.011)

Sec. 24-32. Purposes of article.

The purposes of this article are to provide for the orderly growth and harmonious development of the community; to secure adequate traffic circulation through coordinated street systems with relation to major thoroughfares, adjoining subdivision and public facilities; to achieve individual property lots of maximum utility and livability; to secure adequate provisions for water supply, drainage and sanitary sewerage, and other health requirements; to secure adequate provisions for recreation areas, school sites and other public facilities; and to provide logical procedures for the achievement of these purposes.

(Comp. Ords. 1987, § 17.012)

Sec. 24-33. Scope of article.

The provisions of this article shall be held to be the minimum requirements adopted and necessary for the promotion and preservation of public health, safety and general welfare of the village. This article is not intended to repeal, abrogate, annul, or in any manner interfere with existing regulations or laws of the village, nor conflict with any statutes of the state or county, except that this article shall prevail in cases where this article imposes a greater restriction than is provided by existing statutes, laws or regulations. (Comp. Ords. 1987, § 17.130)

Sec. 24-34. 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:

All terms as defined in the Land Division Act, MCL 560.101 et seq., MSA 26.430(101) et seq., shall control in this article unless indicated to the contrary in this section.

Block means property abutting one side of a street and lying between the two nearest intersecting streets, or between the nearest such street and railroad right-of-way, unsubdivided acreage, river or live stream; or between any of the foregoing and any other barrier to the continuity of development.

Chief administrative officer means as designated by the village council.

Commission means the planning commission of the village.

Comprehensive development plan (master plan) means the comprehensive land use plan for the village, including graphic and written proposals indicating the general locations recommended for the streets, parks, schools, public buildings, zoning district and all physical developments of the village, and includes any unit or part of such plan separately adopted, and any amendments to such plan or parts of such plan duly adopted by the planning commission.

Clerk means the clerk of the village.

Easement, private, means a grant by the owner of the use of a strip of land by a corporation or persons for specific uses and purposes and designated as a private easement.

Easement, public, means a grant by the owner of the use of a strip of land by the public for specific uses and purposes to be designated as a public easement.

Engineer means the staff engineer or consulting engineer of the village.

Filing date means the initial meeting date at which the plan for preliminary plat (stage 1) and preliminary plat (stage 2), tentative of final and final plat review, appears on the planning commission's or village council's regular meeting agenda.

Improvements means grading, street surfacing, curb and gutters, sidewalks, crosswalks, water mains and

lines, sanitary sewers, storm sewers, culverts, bridges, utilities and other additions to the natural stage of land which increases its value, utility or habitability.

Land Division Act means the Land Division Act, Michigan Public Act No. 288 of 1967 (MCL 560.101 et seq., MSA 26.430(101) et seq.).

Lot means a measured portion of a parcel or tract of land, which is described or fixed in a recorded plat.

Major streets or thoroughfare plan means the part of the master plan which sets forth the location, alignment and dimensions of existing and proposed streets and thoroughfares.

Plat means a map or chart of the subdivision of land.

- (1) *Preliminary plat (stage 1)*. A map indicating the proposed layout of the subdivision in sufficient detail to provide adequate basis for review and to meet the requirements and procedures set forth in this article.
- (2) *Preliminary plat (stage 2)*. A map showing the salient features of a proposed subdivision submitted to an approving authority for purposes of preliminary consideration prepared in conformance with the Land Division Act, MCL 560.101 et seq., MSA 26.430(101) et seq.
- (3) *Final plat*. A map of all or part of a subdivision providing substantial conformance to the preliminary plat (stage 2) of the subdivision, prepared and certified as to its accuracy by a registered civil engineer or a registered land surveyor, and prepared in conformance with the requirements of the Land Division Act, MCL 560.101 et seq., MSA 26.430(101) et seq., of this article, and suitable for recording by the county register of deeds.

Parcel (or tract) means a continuous area or acreage of land which can be described as provided for in the Land Division Act, MCL 560.101 et seq., MSA 26.430(101) et seq.

Planner means the staff planner or consulting planner of the village.

Proprietor means a natural person, firm, association, partnership, corporation, or combination of any of them, which may hold any ownership interest in land, whether recorded or not.

Public utility means any person, municipal department, board or commission, duly authorized to furnish, and furnishing, under governmental regulations to the public: gas, steam, electricity, sewage disposal, communication, telegraph, transportation or water.

Public walkway means a dedicated public right-of-way, constructed of concrete for the purpose of a pedestrian access through residential areas, and located so as to connect to two or more streets, or a street and a public land parcel.

Street means any street, avenue, boulevard, road, land, parkway, viaduct, alley or other way which is an existing state, county or municipal roadway; or, a street or way shown in a plat heretofore approved pursuant to law or approved by official action; or, a street or way on a plat duly filed and recorded in the office of the

county register of deeds. A street includes the land between the street lines, whether improved or unimproved, and may comprise of pavement, shoulders, gutters, sidewalks, parking areas and lawns. Streets in all subdivisions shall be constructed of concrete or bituminous concrete.

- (1) *Major thoroughfare.* An arterial street of great continuity which is intended to serve as a large volume trafficway for both the immediate village area and region beyond, and may be designated in the village major thoroughfare plan as a major thoroughfare, parkway, expressway or equivalent term to identify those streets comprising the basic structure of the street plan.
- (2) *Collector street.* A street intended to serve as a major means of access from minor streets to major thoroughfares which has considerable continuity within the framework of the major thoroughfare plan.
- (3) *Minor street.* A street of limited continuity used primarily for access to abutting residential properties.
- (4) *Marginal access street.* A minor street paralleling and adjacent to a major thoroughfare which provides access to abutting properties and properties from through traffic.
- (5) *Boulevard street.* A street developed to two two-lane, one-way pavements separated by a median.
- (6) *Turnaround.* A short boulevard street permanently terminated by a vehicular turnaround.
- (7) *Cul-de-sac street.* A short minor street having one end permanently terminated by a vehicular turnaround.
- (8) *Alley.* A minor service street used primarily to provide secondary vehicular access to the rear or side of properties otherwise abutting upon a street.
- (9) *Loop street.* A minor street of short length with two openings to traffic, beginning from the same street, and projecting parallel to each other and connecting at their termination by a loop.
- (10) *Multiple-family residential street.* A street intended to serve primarily the greater traffic demands of multiple-family residential developments. Such streets may or may not have continuity within the overall thoroughfare plan.
- (11) *Industrial street.* A street intended to serve primarily as a means of access within industrial subdivisions or industrial districts to a major thoroughfare and not intended to serve residential properties or carry residential traffic.

Subdivision means the partitioning or dividing of a parcel or tract of land by the proprietor thereof or by his heirs, executors, administrators, legal representatives, successor or assigns for the purpose of sale, or lease of more than one year, or building development, where the act of division creates five or more parcels of land, each of which is ten acres or less in area; or five or more parcels of land, each of which is ten acres or less in area are created by successive divisions within a period of ten years.

(Comp. Ords. 1987, § 17.021)

Cross References: Definitions generally, § 1-2.

Sec. 24-35. Penalty for violation of article.

Any person, or anyone acting on behalf of such person, violating any of the provisions of this article shall, upon conviction, be subject to a fine of not more than \$100.00 and the costs of prosecution or in default of the payment thereof, by imprisonment in the county jail for a period not to exceed 90 days, or both such fine and imprisonment in the discretion of the court. Each day that a violation is permitted to exist shall constitute a separate violation.

(Comp. Ords. 1987, § 17.160)

DIVISION 2.

FEES AND CHARGES

Sec. 24-36. Payment by proprietor.

Preliminary plat (stage 1 and stage 2) and final plat review fees, planning fees, engineering fees, attorney fees, inspection fees, water and sewer connection charges and other applicable development charges shall be paid by the proprietor as may be provided for in this division, or by ordinance of the village.

(Comp. Ords. 1987, § 17.140)

Sec. 24-37. Planning review fee.

Fees shall be charged for the review of preliminary plats (stage 1) by the planner on the basis of the following schedule. There shall be no additional planner review fee charged for preliminary plats (stage 2) or final plats which are in substantial conformance to a previously approved preliminary plat (stage 1). The fees shall be paid to the village clerk prior to formal consideration of the preliminary plat by the planning commission or the village council.

- (1) Conventional subdivision plats: \$100.00, plus \$1.00 per lot.
- (2) Subdivision open space plats: \$100.00, plus \$1.00 per lot.
- (3) Multiple-family residential plats: \$100.00, plus \$1.00 per dwelling unit.
- (4) Where preliminary plats (stage 2) or final plats are not in substantial compliance with preliminary plats (stage 1), an additional planning review fee of \$200.00 shall be charged in each case, and the proprietor shall pay such fee to the village clerk prior to further formal consideration of the plat by the planning commission or the village council.

(Comp. Ords. 1987, § 17.141)

Sec. 24-38. Engineering review and inspection fees.

Actual fees shall be determined by the total manhours required for the engineering review of the preliminary and final plats and accompanying engineering plans and profiles for all subdivision improvements

and the inspection of the installation of these improvements, based upon the current hourly fee schedule of the village's consulting engineers, plus any mileage at \$0.15 per mile and legitimate out-of-pocket expenses incurred by the engineers in directly carrying out the necessary review and inspection service. The deposit for the engineering review fee shall be \$10.00 per lot within the subdivision and shall be made to the village clerk by the proprietor at the time the engineering plans and profiles are submitted to the village. Where engineering plans for subdivision improvements must be changed substantially to conform to subsequent changes in a plat or to be acceptable to the village engineer, an additional deposit of \$10.00 per lot shall be paid to the village clerk by the proprietor at the time of resubmittal of the revised engineering plans and profiles to the village. The deposit for the resident and general engineering inspection fee shall be five percent of the estimated total cost of providing and installing subdivision improvements (streets, curb and gutter, sidewalks, public walkways, water mains, sanitary sewers, storm sewers and any appurtenances thereto), as approved by the village engineer, and shall be paid to the village clerk by the proprietor prior to the installation of any improvements. The difference between the deposits and the actual review and inspection fees will be billed or refunded to the proprietor upon completion of these services.
(Comp. Ords. 1987, § 17.142)

Sec. 24-39. Municipal review and administrative fee.

The fee for municipal review and administration shall be \$100.00 for conventional subdivision plats and \$150.00 for all other plats and shall be paid to the village clerk prior to formal consideration of the preliminary plat by the planning commission or the village council.
(Comp. Ords. 1987, § 17.143)

Sec. 24-40. Attorney fee.

Prior to formal consideration of any preliminary plat by the planning commission or village council, the proprietor shall deposit with the village clerk prior to formal consideration of the preliminary plat by the planning commission or the village council, the sum of \$100.00, except in the case of subdivision open space plats, for which the deposit shall be \$250.00. The deposit shall be retained by the village to defray the cost of legal services incurred in processing subdivision plats. The actual attorney fee shall be based upon the total hours required for legal services at the rate of \$35.00 per hour. The proprietor will be billed or refunded the cost difference for actual legal services rendered and attorney fees incurred by the village in processing completely the subdivision plat.
(Comp. Ords. 1987, § 17.144)

Sec. 24-41. Water and sewer connection charges.

Fees shall be as prescribed by village Ordinance No. 78-2A, or any amendments thereto.
(Comp. Ords. 1987, § 17.145)

Sec. 24-42. Insurance; maintenance bond.

Prior to construction of subdivision and project improvements, the contractor shall procure and maintain during the life of any contract or agreement for such construction, insurance protecting the village from any claim for damages, real, personal or otherwise, in the amount of \$500,000.00. Prior to acceptance by the village of improvements, a three-year maintenance bond in an amount equal to 35 percent of the total cost shall be

deposited by the proprietor, provided that the village council retains the right to lower the 35 percent of the total cost amount if it determines that no public benefit would be served by requiring a maintenance bond for a specifically named improvement required by this article.

(Comp. Ords. 1987, § 17.150)

DIVISION 3.

VARIANCES

Sec. 24-43. For hardship.

The village council may authorize a variance from these regulations when, in its opinion, undue hardship may result from strict compliance. In granting any variance, the village council shall prescribe only conditions that it deems necessary to or desirable for the public interest. In making its findings, as required in this section, the village council shall take into account the nature of the proposed use of land and the existing use of land in the vicinity, the number of persons to reside or work in the proposed subdivision and the probable effect of the proposed subdivision upon traffic conditions in the vicinity. No variance shall be granted unless the village council finds that:

- (1) There are special circumstances or conditions affecting the property such that the strict application of the provisions of this article would deprive the applicant of the reasonable use of his land.
- (2) The variance is necessary for the preservation and enjoyment of a substantial property right of the petitioner.
- (3) The granting of the variance will not be detrimental to the public welfare or injurious to other property in the territory in which the property is situated.

(Comp. Ords. 1987, § 17.191)

Sec. 24-44. For complete neighborhood.

(a) *Conditions.* The village council may authorize a variance from this article in case of a plan for a complete community or neighborhood where such development is permitted by the zoning chapter and which, in the judgment of the village council, and after a recommendation is had from the commission, provides adequate light and air and other needs. In making its findings, as required in this section, the village council shall take into account the nature of the proposed use of and the existing use of land in the vicinity, the number of persons to reside or work in the proposed subdivision and the probable effect of the proposed development upon traffic conditions in the vicinity. The village council shall find that:

- (1) There is adequate acreage and population in the proposed plan so as to support at least one elementary school.
- (2) The standards and requirements of the zoning chapter are met.
- (3) The planning commission has reviewed the plan and recommends its approval as having met the

standards and intent of the master plan of land use as it relates to facility needs.

- (4) In granting the variance, it shall be valid only as long as the plan for the complete neighborhood is carried out as approved. Any departure from the plan shall immediately rescind any variance granted.
- (5) The village council shall establish a time schedule to be met on the various aspects of the complete neighborhood plan.

(b) *Application.* Application for any such variance shall be submitted in writing by the proprietor at the time the preliminary plat (stage 1) is filed, stating fully and clearly all facts relied upon by the proprietor and shall be supplemented with maps, plans or other additional data which may aid in the analysis of the proposed project. The plans for such developments shall include such covenants, restrictions or other legal provisions necessary to guarantee the full achievement of the plan.

(Comp. Ords. 1987, § 17.192)

Secs. 24-45--24-65. Reserved.

DIVISION 4.

PRELIMINARY PLATS

Sec. 24-66. Prepreliminary plat investigation.

Prior to the preparation and filing of a preliminary plat, the proprietor may meet with the planning commission in order that he may become familiar with the procedures and standards of this article and with the proposals of the master plan as they affect the area of the proposed subdivision. The proprietor should note the following considerations:

- (1) The provisions of the zoning chapter, this article, engineering specifications and other similar ordinances or controls relative to the subdivision and improvements of land of the village.
- (2) The area for the proposed subdivision shall be properly zoned for the intended use.
- (3) The adequacy of existing schools and the adequacy of public open spaces, including parks and playgrounds to serve the proposed subdivision, shall be ascertained by the proprietor.
- (4) The relationship of the proposed subdivision with respect to major thoroughfares and plans for widening of thoroughfares shall be investigated by the proprietor.
- (5) Standards for sewage disposal, water supply and drainage of the village shall be investigated by the proprietor.

(Comp. Ords. 1987, § 17.031(A))

Sec. 24-67. Preliminary plat procedure (stage 1).

The procedure under this stage for preparation and submittal of a preliminary plat of land area to be subdivided shall be as follows:

(1) *Filing.*

- a. Ten copies of the preliminary plat (stage 1) of the proposed subdivision, together with written application in triplicate, shall be submitted to the clerk for the commission.
- b. Submittal to the clerk shall be at least ten days prior to the regular commission meeting, which meeting shall be considered as the date of filing, at which the proprietor will be scheduled to appear. Should any of the data required in this section be omitted, the clerk shall notify the proprietor of the additional data required, and commission action shall be delayed until the required data is received. The commission shall act on the preliminary plat (stage 1) within 30 days after the date of filing unless the proprietor agrees to an extension of time in writing.

(2) *Identification and description.* The preliminary plat (stage 1) shall include:

- a. Proposed name of subdivision.
- b. Location by section, town and range, or by other legal description.
- c. Names and addresses of the proprietor, and the planner, designer, engineer, or surveyor who designed the subdivision layout. The proprietor shall also indicate his interest in the land.
- d. Scale of plat, one inch equals 100 feet as a minimum acceptable scale.
- e. Date.
- f. Northpoint.
- g. Any information required by the Land Division Act, Public Act 288 of 1967 (MCL 560.101 et seq., MSA 26.430(101) et seq.) or by the administrative rules of the state department of treasury, state highways, natural resources and public health and of the county drain commission as they relate to the Subdivision Control Act.

(3) *Existing conditions.* The preliminary plat (stage 1) shall include:

- a. An overall area map at a scale of not less than one inch equals 200 feet showing the relationship of the subdivision to its surroundings such as section lines and/or major streets or collector streets shall be provided.
- b. Boundary lines of proposed subdivision, section or corporation lines within or adjacent to the tract and overall property dimensions.

- c. Property lines of adjacent tracts of subdivided and unsubdivided land shown in relation to the tract being proposed for subdivision including those of areas across abutting roads.
- d. Location, widths and names of existing or prior platted streets and private streets, and public easements within or adjacent to the tract being proposed for subdivision, including those located across abutting roads.
- e. Location of all existing utilities including: Sewers, water mains, storm drains and other underground facilities within or adjacent to the tract being proposed for subdivision.
- f. Topography drawn as contours with an interval of at least two feet. Topography to be based on USGS datum. All trees larger than three inches in diameter shall be identified. Benchmarks for the work shall be indicated on the plot.
- g. The school board or board superintendent of the school district having jurisdiction in the area concerned shall be informed and made aware of the proposed preliminary plat (stage 1) by the proprietor. A letter or document from the school board or school board superintendent indicating awareness of the proprietor's intentions shall be submitted to the planning commission as part of the preliminary plat (stage 1).

(4) *Proposed conditions.* The preliminary plat (stage 1) shall include:

- a. Layout of street indicating proposed street names, right-of-way widths, and connections with adjoining platted streets and also the widths and location of alleys, easements and public walkways.
- b. Layout, numbers and dimensions of lots, including building setback lines showing dimensions.
- c. An indication of parcels of land intended to be dedicated or set aside for public use or for the use of property owners in the subdivision, or for future street connections to adjacent tracts or as major drainage easements when such easements are determined by the village engineer to be necessary.
- d. An indication of the ownership and existing and proposed use of any parcels identified as "expected" on the preliminary plat. If the proprietor has an interest or owns any parcel so identified as "expected," the preliminary plat shall indicate how this property could be developed in accordance with the requirements of the existing zoning district in which it is located and with an acceptable relationship to the layout of the proposed preliminary plat.
- e. An indication of the system proposed for sewage by a method approved by the village council and the village engineer.
- f. An indication of a system proposed for water supply by a method approved by the village council and the village engineer.

- g. An indication of storm drainage proposed by a method approved by the village council and the village engineer and, if involving county drains, the proposed drainage shall be acceptable to the county drain commissioner. Storm drainage must be provided to an approved outlet.
- h. In the case where the proprietor wishes to subdivide a given area, but wishes to begin with only a portion of the total area, the preliminary plat shall include the proposed general layout for the entire area. The part which is proposed to be subdivided first shall be clearly superimposed upon the overall plan in order to illustrate clearly the method of development which the proprietor intends to follow. Each subsequent portion shall follow the same procedure until the entire area controlled by the proprietor is subdivided.
- i. An indication of the required underground utilities.

(5) *Preliminary plat (stage 1) review by planning commission.*

- a. The chief administrative officer shall receive and check for completeness the preliminary plat (stage 1) as required under subsections (1)--(4) of this section. If complete and basically in conformance with applicable municipal requirements, the clerk shall place the proposal on the agenda of the next regular commission meeting.
- b. The clerk shall transmit a copy of the preliminary plat (stage 1) to the village engineer and the village planner for their technical review and recommendation.
- c. The commission shall review all details of the proposed subdivision within the framework of the zoning chapter, within the various elements of the master plan and within the standards of this article.
- d. The commission shall approve conditionally, disapprove or approve the preliminary plat (stage 1).
 - 1. Should the approval be a conditional approval and therefore tentative, the preliminary plat (stage 1) shall not be forwarded to the village council until such conditions have been satisfied by the proprietor.
 - 2. Should the commission disapprove the preliminary plat, it shall record the reasons in the minutes of the regular meeting. A copy of the minutes shall be sent to the proprietor and the school board or board superintendent of the school district having jurisdiction in the area concerned.
 - 3. Should the commission find that all the conditions have been satisfactorily met, it may give approval to the preliminary plat. The chairman shall make a notation to that effect on each copy of the preliminary plat and distribute copies of the preliminary plat as follows:

- i. Return one copy to the proprietor;
 - ii. Retain one copy which shall become a matter of permanent record in the commission files;
 - iii. Forward one copy to the school board or board superintendent of the school district having jurisdiction in the area concerned; and
 - iv. Forward the remaining four copies to the village council via the clerk's office for informational purposes.
- e. The approval of the commission shall be effective for a period of 12 months. Should the preliminary plat (stage 2), in whole or in part, not be submitted within this time limit, a preliminary plat (stage 1) must again be submitted to the commission for approval.
 - f. No installation or construction of any improvements shall be made on the basis of preliminary plat (stage 1) approval.

- (6) *Preliminary plat recommendation for tentative approval (stage 1)*. If the commission approved the preliminary plat (stage 1), and if the preliminary plat (stage 1) has been prepared in such a manner as to satisfy all the requirements of a preliminary plat as specified by the Land Division Act, the commission may, at its discretion, forward such preliminary plat (stage 1) to the village council, along with a recommendation for tentative approval as a preliminary plat (stage 2).

(Comp. Ords. 1987, § 17.032)

Sec. 24-68. Preliminary plat procedure (stage 2).

The procedure for the preparation and review of a preliminary plat (stage 2) requires tentative and final approval as follows:

- (1) *Preliminary plat (stage 2); tentative approval.*
 - a. *Filing.*
 - 1. Ten copies of a valid and complete preliminary plat (stage 2) of the proposed subdivision, together with written application in triplicate and any other information required to be submitted under the Land Division Act, Public Act No. 288 of 1967 (MCL 560.101 et seq., MSA 26.430(101) et seq.), shall be filed with the clerk.
 - 2. The preliminary plat (stage 2) shall conform substantially to the preliminary plat (stage 1) as approved, and it may constitute only that portion of the approved preliminary plat (stage 1) which the proprietor proposed to record and develop at the time; provided, however, that such portion conforms to this article.
 - 3. The chief administrative officer shall check the proposed plat for completeness.

Should any of the data required in the Land Division Act, Public Act No. 288 of 1967 (MCL 560.101 et seq., MSA 26.430(101) et seq.), or subsections 24-67(1)--24-67(4) be omitted, the chief administrative officer shall be directed to inform the proprietor of the data required, and that the application will be delayed until the required data is received.

4. The clerk shall transmit a copy of the valid and complete preliminary plat (stage 2) to the village engineer and village planner for their technical review and recommendations.

b. *Planning commission review; tentative approval.*

1. The clerk shall place the preliminary plat (stage 2) on the next regular commission agenda, at which meeting the proprietor will be scheduled to appear. The commission shall act on the preliminary plat (stage 2) within 60 days after the date of filing unless the proprietor agrees to an extension, in writing, of the time required for approval by the village council and commission.
2. The preliminary plat (stage 2) shall be reviewed by the village engineer as to compliance with the approved preliminary plat (stage 1) and plans for utilities and other improvements.
3. The village engineer shall notify the commission of his recommendation for either approval or rejection of the preliminary plat (stage 2).
4. The preliminary plat (stage 2) documents shall be reviewed by the commission as to compliance with the approved preliminary plat (stage 1).
5. Should the commission find that the preliminary plat (stage 2) is in close agreement with the preliminary plat (stage 1), it shall approve the preliminary plat (stage 2) and notify the village council of this action in its official minutes and forward the preliminary plat (stage 2), together with all accompanying data, to the village council for their review.
6. Should the commission find that the preliminary plat (stage 2) does not conform substantially to the previously approved preliminary plat (stage 1) and that it is not acceptable, they shall record the preliminary plat (stage 2), together with all accompanying data, to the village council and recommend that the village council disapprove the preliminary plat (stage 2) until the objections causing disapproval have been changed to meet with the approval of the commission.

c. *Village council; tentative approval.*

1. The village council will not review a preliminary plat (stage 2) until it has received the review and recommendations of the commission. Following the receipt of such recommendations, the village council shall consider the

preliminary plat (stage 2) at such meeting that the matter is placed on the regularly scheduled agenda. The village council shall take action on the preliminary plat (stage 2) within 15 days following such meeting.

2. Should the village council tentatively approve the preliminary plat (stage 2), they shall record their approval on the plat and return one copy to the proprietor.
3. Tentative approval shall not constitute final approval of the preliminary plat (stage 2).
4. Tentative approval of the village council shall be effective for a period of 12 months. Should the preliminary plat (stage 2), in whole or in part, not be submitted for final approval within this time limit, the preliminary plat (stage 1) must again be submitted to the commission for approval unless an extension is applied for by the proprietor, and such request is granted in writing by the village council.

(2) *Preliminary plat (stage 2) review by village council; final approval.*

- a. The proprietor shall file a valid preliminary plat (stage 2) with the clerk, together with a certified list of all authorities required for approval in sections 112 to 119 of the Land Division Act, Public Act No. 288 of 1967 (MCL 560.101 et seq., MSA 26.430(101) et seq.). The proprietor shall also provide approved copies of plats from each of the required authorities.
- b. The village council shall take action on the preliminary plat (stage 2) within 15 days of the filing date.
- c. If the preliminary plat (stage 2) conforms substantially to the plan tentatively approved by the village council and meets all conditions laid down for tentative approval, the village council shall give final approval to the preliminary plat (stage 2).
- d. The clerk shall promptly notify the proprietor of approval or rejection in writing, if rejected, reason shall be given.
- e. Final approval shall be effective for a period of two years from the date of final approval. The two-year period may be extended if applied for by the proprietor and granted by the village council in writing.
- f. No installation or construction of any improvements shall be made before the preliminary plat (stage 2) has received final approval of the village council, engineering plans have been approved by the village engineer, and any deposits required under division 7 of this article have been received by the village. Where improvements which are to be owned and/or maintained by the village, such as sewer and water supply facilities, are to be installed prior to the recording of the final plat, acceptable easements running to the village must be filed with the clerk covering all proposed rights-of-way and other places

in which such installations are located.
(Comp. Ords. 1987, § 17.033)

Secs. 24-69--24-90. Reserved.

DIVISION 5.

FINAL PLAT

Sec. 24-91. Procedure for preparation and review.

The procedure for preparation and review of a final plat shall be as follows:

(1) *Preparation.*

- a. The final plat shall comply with the provisions of the Land Division Act, Public Act No. 288 of 1967 (MCL 560.101 et seq., MSA 26.430(101) et seq.).
- b. The final plat shall conform substantially to the preliminary plat (stage 2) as approved and it may constitute only that portion of the approved preliminary plat which the proprietor proposed to record and develop at the time; provided, however, that such portion conforms to this article.
- c. The proprietor shall submit, as evidence of title, an abstract of title certified to date with the written opinion of an attorney at law thereon, or at the option of the proprietor, a policy of title insurance for examination in order to ascertain as to whether or not the proper parties have signed the plat.

(2) *Final plat review.*

- a. Five true mylar copies and three paper prints of the final plat shall be filed by the proprietor with the clerk and shall deposit such sums of money as the village council may require in this article or by other ordinances.
- b. The final plat shall be reviewed by the village engineer as to compliance with the approved preliminary plat and plans for utilities and other improvements.
- c. The village engineer shall notify the village council of his recommendation for either approval or rejection of the final plat. Notification shall be in writing and reasons shall be given when the recommendation is for rejection.
- d. The village council shall review all recommendations and take notice on the final plat within 30 days of its date of filing.
- e. Upon the approval of the final plat by the village council, the subsequent approvals shall follow the procedure set forth in the Land Division Act, Public Act No. 288 of 1967

(MCL 560.101 et seq., MSA 26.430(101) et seq.). The three prints of the final plat shall be forwarded by the village council: one to the clerk; one to the commission, and one to the administrative officer. The five true mylar copies shall be forwarded by the village council to the clerk of the county plat board.

(Comp. Ords. 1987, § 17.034)

Secs. 24-92--24-110. Reserved.

DIVISION 6.

DESIGN LAYOUT STANDARDS

Sec. 24-111. Streets.

- (a) *Conformance with division provisions.* Streets shall conform to at least all minimum requirements of the general specifications and typical cross sections as set forth in this article, and other conditions set forth by the village council and county road commission.
- (b) *Location and arrangement.*
 - (1) The proposed subdivision shall conform to the various elements of the master plan and shall be considered in relation to the existing and planned major thoroughfares and collector streets, and such part shall be platted in the location and width indicated on such plat.
 - (2) The street layout shall provide for continuation of collector streets in the adjoining subdivisions or of the proper projection of streets when adjoining property is not subdivided; or conform to a plan for a neighborhood unit drawn up and adopted by the commission.
 - (3) The street layout shall include minor streets so laid out that their use by through traffic shall be discouraged.
 - (4) Should the proposed subdivision border on or contain an existing or proposed major thoroughfare, the commission may require marginal access streets, reverse frontage or such other treatment as may be necessary for adequate protection of residential properties and to afford separation and reduction of traffic hazards.
 - (5) Should a proposed subdivision border on or contain a railroad, expressway or other limited access highway right-of-way, the commission may require the location of a street approximately parallel to and on each side of such right-of-way, at a distance suitable for the development of an appropriate use of the intervening land such as for parks in residential districts. Such distances shall be determined with due consideration of the minimum distance required for approach grades to future grade separation.
 - (6) Half streets shall be prohibited, except where absolutely essential to the reasonable development of the subdivision in conformity with the other requirements of these regulations, and where the planning commission finds it will be practicable to require the dedication of the other half when

the adjoining property is developed. Wherever there exists adjacent to the tract to be subdivided a dedicated or platted and recorded half street, the other half shall be platted.

- (7) Should a proposed subdivision border upon or contain an existing or proposed canal, channel or drainageway, the commission may require the location of a bridge facility suitable to permit the unimpeded flow of water and the passage of waterborne vehicles. State approval per Act 346 of Public Acts 1972 (MCL 281.951 et seq., MSA 11.475(1) et seq.), for canals, channels or drainageways shall be obtained, if applicable.

(c) *Right-of-way widths.* Street right-of-way widths shall conform to at least the following minimum requirements:

Street Type	Right-of-Way Widths
Major thoroughfares	In conformance with the major thoroughfare plan of the village and/or county.
Collector streets	66 feet
Industrial service streets	66 feet
Multiple-family residential streets, where platted	66 feet
Minor (single-family residential) streets	66 feet
Minor (mobile home park residential) streets	66 feet
Marginal access streets	34 feet
Turnaround (loop) streets	150 feet
Alleys	20 feet
Cul-de-sac streets, turnarounds	66 feet street and 150 feet exterior diameter turnaround.

- (1) Minimum length for residential cul-de-sac streets shall be 140 feet. Maximum length for residential cul-de-sac streets shall be 500 feet. Maximum length for industrial and other cul-de-sac streets may exceed 500 feet subject to the approval of the commission.

- (2) Access to streets across all ditches shall be provided by the proprietor with the village ordinance which specifies procedures for driveway installation.

(d) *Street grades.* For adequate drainage, the minimum street grade shall not be less than 0.5 percent. The maximum street grade shall be 5.0 percent except that the commission may make an exception to this standard on the recommendation of the village engineer.

(e) *Street geometrics.* Unless otherwise allowed by subsequently adopted resolution or standards of the village adopted by the village council, or specifically authorized by the village council upon recommendation of the village engineer, street geometrics shall be:

- (1) Minimum horizontal: The radii of centerline curvature: Major thoroughfares, 700-foot radius; collector streets, 450-foot radius; and minor streets, 275-foot radius. A minimum 50-foot tangent shall be introduced between reverse curves or minor streets; 100 feet on collector streets and 300 feet on major thoroughfares.

- (2) Minimum vertical visibility, measured from 4 1/2-foot eye level to 18-inch taillight level: 500 feet on major thoroughfares; 300 feet on collector streets; 300 feet on minor streets; and 100 feet on marginal access streets.
- (3) Minimum horizontal visibility: 300 feet on major thoroughfares, measured on centerline; 200 feet on collector streets, measured on centerline; and 100 feet on minor streets, measured on centerline.

(f) *Street intersections.* Streets shall be laid out so as to intersect as nearly as possible to 90 degrees. Curved streets, intersecting with major thoroughfares and collector thoroughfares, shall do so with a tangent section of centerline 50 feet in length, measured from the right-of-way line of the major or collector thoroughfares.

(g) *Grading and centerline gradients.* Grading and centerline gradients shall be per plans and profiles approved by the village engineer.

(h) *Street jogs.* Street jogs with centerline offsets of less than 125 feet shall be avoided.

(i) *Curbs and gutters.* Curbs and gutters shall be required on all streets and shall be constructed in accordance with the standards and specifications of the county road commission or state highway department.

(j) *Driveways.* All driveway openings in curbs shall be as specified by the village.
(Comp. Ords. 1987, § 17.041)

Sec. 24-112. Blocks.

Blocks within subdivisions shall conform to the following standards:

- (1) *Sizes.*
 - a. Maximum length for blocks shall not exceed 1,300 feet in length, except where, in the opinion of the commission, conditions may justify a greater distance.
 - b. Widths of blocks shall be determined by the condition of the layout and shall be suited to the intended layout.
- (2) *Public walkways.*
 - a. Location of public walkways or crosswalks may be required by the commission to obtain satisfactory pedestrian access to public or private facilities such as, but not limited to, schools and parks.
 - b. Widths of public walkways shall be at least four feet and shall be a dedicated right-of-way for this purpose.

(3) *Easements.*

- a. Location of utility line easements shall be provided along the rear or side lines as necessary for utility lines. Easements shall give access to every lot, park or public grounds. Such easements shall be a total of not less than 12 feet wide, six feet from each parcel. Front easement may be utilized if approved by the village council.
- b. Recommendations on the proposed layout of telephone and electric company easements should be sought from all of the utility companies serving the area. It shall be the responsibility of the proprietor to submit copies of the preliminary plat to all appropriate public utility companies.
- c. Easements six feet in width, three feet from each parcel, shall be provided where needed along side lot lines so as to provide for streetlight dropouts. Prior to the approval of the final plat for a proposed subdivision, a statement shall be obtained from the appropriate public utility indicating that easements have been provided along specific lots. A notation shall be made on the final plat indicating: "The side lot lines between lots (indicating lot numbers) are subject to streetlight dropout rights granted to the (name of utility company)."
- d. Easements needed for storm drainage purposes shall be determined by the village engineer and shall meet the requirements of the village engineer.

(Comp. Ords. 1987, § 17.042)

Sec. 24-113. Lots.

Lots within subdivisions shall conform to the following standards:

(1) *Sizes and shapes.*

- a. The lot size, width, depth and shape in any subdivision proposed for residential uses shall be appropriate for the location and type of development contemplated.
- b. Lot areas and widths and building setback lines shall conform to at least the minimum requirements of the zoning chapter for the district in which the subdivision is proposed.
- c. Building setback lines shall conform to at least the minimum requirements of the zoning chapter.
- d. Corner lots in residential subdivisions shall be platted at least ten feet wider than the minimum width permitted by the zoning chapter.
- e. Excessive lot depth in relation to width shall be avoided. A depth-to-width ratio of three to one shall be considered a maximum.
- f. Lots intended for purposes other than residential use shall be specifically designed for

such purposes, and shall have adequate provision for off-street parking, setbacks, and other requirements in accordance with the zoning chapter.

(2) *Arrangement.*

- a. Every lot shall front or abut on a publicly dedicated street.
- b. Side lot lines shall be at right angles or radial to the street lines.
- c. Residential lots abutting major thoroughfares or collector streets, where marginal access streets are not desirable or possible to attain, shall be platted with reverse frontage lots, or with side lot line parallel to the major traffic streets.
- d. Lots shall have a front-to-front relationship across all streets, where possible.
- e. Where lots border upon bodies of water, the front yard may be designated as the waterfront side of such lot, provided that the lot has sufficient depth to provide adequate setback on the street side to maintain a setback for all structures equal to the front setback on the street side as well as on the waterfront side.

(Comp. Ords. 1987, § 17.043)

Sec. 24-114. Subdivision open space plan (planned unit development).

The following requirements apply in addition to all other requirements of this article where a preliminary plat (stage 1) is filed for approval under the subdivision open space plan section of the zoning chapter.

- (1) *Statement of principles.* Consideration by the commission and the village council of proposed optional use of subdivision open space plan shall reflect the following basic principles:
 - a. The subdivision open space section of the zoning chapter provides an optional method of subdividing property, and approval of any subdivision open space plan is subject to the discretion of the village council.
 - b. Particular attention shall be given to the effect of a subdivision open space plan upon the immediate area, where the character of that area has been established by previous development. Major attention shall be given by the commission and the village council to the benefits to be derived by the residents of the proposed subdivision and the village because of the subdivision open space plan, with minor consideration to be given to the proprietor.
 - c. The following objectives shall govern the approval or disapproval of the proposed subdivision open space plan:
 1. To provide a more desirable living environment by preserving the natural character of the terrain features.

2. To encourage developers to use a more creative approach in the development of residential areas.
3. To encourage a more efficient, aesthetic and desirable use of the land while recognizing a reduction in development costs and by allowing the developer to bypass natural obstacles.
4. To encourage the provision of open space so benefits may accrue directly to residents of the subdivision and to further encourage the development of recreation facilities.

The application for approval of the subdivision open space plan shall contain the following addition to the information required by other sections of this article:

- i. A complete description of the land proposed to be dedicated to the village or to the common use of lot owners, called open land in this section, shall be provided, including the following as a minimum:

Legal description of open land.

Topographical survey of open land.

Type of soil in open land.

Description of natural features on open land, i.e., stands of trees or other vegetation, streams or other bodies of water, etc.

Other relevant factors.

- ii. The proposed plan of development of the open land shall be contained in the application and shall include the following as a minimum:

The proposed manner in which the title to land and facilities is to be held by the owners of land in the subdivision.

The proposed manner of collection of maintenance costs, financing cost or assessments so that nonpayment will constitute a lien on the property, thus avoiding village responsibility in the future.

The proposed manner of regulating the use of the common facilities and areas so as to eliminate possible nuisances to other property owners and cause for enforcement by the governing unit.

The proposed method of notifying the village council when any change is contemplated in plans that would affect the original specifications

approved by the village council.

The proposed method of setting up assessments to cover contingencies, insurance against casualty and liability and payment of taxes relating to these properties.

The proposed uses of open land the proposed improvements which are to be constructed by the proprietor.

iii. The application shall contain a statement of the benefits to be realized by the residents of the proposed subdivision and the village council by approval of the proposed subdivision open space plan, with particular reference to the objectives stated in the zoning chapter.

- (2) *Approval.* If the commission is satisfied that the proposed subdivision open space plan meets the letter and spirit of the zoning chapter and should be approved, it shall recommend such approval to the village council with the conditions upon which such approval should be based. Thereafter, the village council shall take action upon such application in accordance with section 24-67.
- (3) *Disapproval.* If the commission is not satisfied that the proposed subdivision open space plan meets the letter and spirit of the zoning chapter or finds that the approval of the subdivision open space plan will be detrimental to existing development in the general area and should not be approved, it shall communicate such disapproval to the village council with the reasons therefor. The proprietor shall be entitled to a hearing upon such proposal before the village council, upon a written request therefor filed with the clerk.
- (4) *Contract.* If the village council gives approval to the proposed subdivision open space plan, it shall instruct the village attorney to prepare a contract setting forth the conditions upon which such approval is based, which contract, after approval by the village council, shall be entered into between the village and the proprietor prior to the approval of the preliminary plat (stage 2) based upon the approved preliminary plat (stage 1). The proprietor shall provide copies of agreements, covenants or other documents showing the manner in which areas to be reserved for the common use of residents of the subdivision are to be maintained and used.

(Comp. Ords. 1987, § 17.044)

Sec. 24-115. Public reservations.

When consideration is given by the proprietor to the allocation of area suitably located and of adequate size for playgrounds, school sites, parks and recreation facilities, as indicated in the master plan and zoning chapter, such areas shall be provided by one of the following methods:

- (1) Dedication to the village.
- (2) Reservation of land for the use of property owners by deed or covenants.
- (3) Reservation for acquisition by the village or school board within a period of two years. Such

reservation shall be made in such a manner as to provide for a release of the land to the proprietor if the village or the school board does not proceed with the purchase. Due regard shall be shown for preserving outstanding natural features such as scenic spots, watercourses or exceptionally fine groves of trees.

(Comp. Ords. 1987, § 17.045)

Sec. 24-116. Natural features.

The natural features and character of lands must be preserved wherever possible. Due regard must be shown for all natural features such as large trees, natural groves, watercourses and similar community assets that will add attractiveness and value to the property, if preserved. The preservation of drainage and natural stream channels must be considered by the proprietor and the dedication and provision of adequate barriers, where appropriate, shall be required.

(Comp. Ords. 1987, § 17.046)

Sec. 24-117. Floodplains.

Any areas of land within the proposed subdivision which lie either wholly or in part within the floodplain of a river, stream, creek or lake, or any other areas which are subject to flooding or inundation by stormwater or have inadequate drainage should not be platted for any use as may increase danger to health, life or property. The subdivider may show by way of accurately engineered plans that a change to the topography in the proposed subdivision will eliminate flooding in the area in question and shall clearly demonstrate that any such planned topographical change will not unduly aggravate the flood hazard beyond the limits of the proposed subdivision. If the village council determines that a flood problem does exist, then it shall reject all or part of the proposed subdivision lying within the floodplain. Any areas of land lying within a floodplain shall require specific compliance with Public Act No. 228 of 1967 (MCL 560.101 et seq., MSA 26.430(101) et seq.) and review by the Water Resources Commission of the Department of Natural Resources.

(Comp. Ords. 1987, § 17.047)

Secs. 24-118--24-140. Reserved.

DIVISION 7.

IMPROVEMENTS

Sec. 24-141. Requirements prior to installation.

(a) *Financial sureties.* Prior to the undertaking of the installation of any improvements required by this article, the proprietor or subdivider shall deposit with the clerk cash, a certified check or irrevocable bank letter of credit running to the village, whichever the proprietor selects, or a corporate surety bond acceptable to the village council, in an amount set by the village council upon recommendation of the village engineer, to ensure faithful and satisfactory completion of all improvements required by this article within the time period set by the village council when the final plat is approved. The village council shall release fund for the payment of work as it is completed, approved and accepted by the village. No building permit for any permanent structure within the subdivision shall be issued until the required deposit for the installation of all improvements has in fact been deposited with the clerk.

(b) *Subdivider requirements.* Improvements required to be installed by the subdivider include bituminous or concrete streets, integral concrete curb and gutter, concrete sidewalks, cast iron water mains, clay sanitary sewer mains, concrete storm sewer lines, street trees, street names and traffic control signs, monuments and, where applicable, street island landscaping, and all necessary appurtenances to these improvements. The proprietor or subdivider shall also cause to be installed improvements including, but not limited to, the following: underground electrical service, underground telephone service and street lighting with underground feeder service.

(c) *Maintenance bond.* Prior to acceptance by the village of improvements, a three-year maintenance bond in an amount equal to 35 percent of the total cost shall be deposited by the subdivider or proprietor provided that the village council retains the right to lower the 35 percent of the total cost amount if it determines that no public benefit would be served by requiring a maintenance bond for a specifically named improvement required by this article.

(d) *Provision according to article or chapter standards.* Improvements shall be provided by the proprietor or subdivider in accordance with the standards or requirements established in this article or any other article of this chapter or any other such standards and requirements which may from time to time be established by ordinance, resolution or published rules of the village.

(e) *Approval of plans and profiles.* The plans and profiles for all improvements must be approved by the village engineer prior to any installation thereof.

(f) *Soil borings.* Prior to the submittal of plans for improvements to the village engineer, soil borings shall be obtained by the subdivider or proprietor, and this information submitted with the plans. Soil borings shall be obtained by a qualified soil testing laboratory at a minimum of one per five acres of subdivision area.

(g) *Payment of costs.* All costs for the repair of existing utilities, structures and/or streets damaged during the construction of improvements, as determined by the village council, shall be paid for by the subdivider or proprietor.
(Comp. Ords. 1987, § 17.050)

Sec. 24-142. Streets.

All streets and appurtenances thereto, including integral curb and gutter, shall be constructed of concrete or bituminous concrete and in accordance with details and specifications approved by the engineer and by the village council.

Street Pavement Width Standards

Street Type		Pavement Width (measured from back of curb to back of curb)
(1)	Major thoroughfares	In conformance with the standards and specifications established by the village council.

(2)	Collector streets (nonboulevard)	36 feet	
(3)	Collector streets (boulevard)	38 feet (16-foot island)	
(4)	Industrial streets	40 feet	
(5)	Multiple-family residential streets	35 feet	
(6)	Minor residential streets	31 feet	
(7)	Marginal access streets	24 feet	
(8)	Turnaround (loop) streets	Not less than 90 feet diameter at terminating loop	
(9)	Cul-de-sac streets, turnarounds:		
	a.	Industrial	65 feet
	b.	Residential and other	45 feet

(Comp. Ords. 1987, § 17.051)

Sec. 24-143. Utilities.

(a) *Requirements for underground wiring.* The proprietor shall make arrangements for all lines for telephone, electric, television and other similar services distributed by wire or cable to be placed underground entirely throughout a subdivided area, except for major thoroughfare right-of-way, and such conduits or cables shall be placed within private easements provided to such service companies by the developer or within dedicated public ways, provided only that overhead line may be permitted upon written recommendation of the engineer, planner, commission and the approval of the village council if it will not constitute a detriment to the health, safety, general welfare, plat design and character of the subdivision. All such facilities placed in dedicated public ways shall be planned so as not to conflict with other underground facilities. All such facilities shall be constructed in accordance with standards of construction approval by the state public service commission. All drainage and underground utility installations which traverse privately owned property shall be protected by easements granted by the proprietor.

(b) *Sewage disposal.* When a proposed subdivision is located within, adjacent to or reasonably near the service area of an available public sanitary sewer system, sanitary sewers and other required appurtenances thereto shall be installed in such a manner as to serve all lots.

(c) *Water supply.* When a proposed subdivision is located within, adjacent to or reasonably near the service area of a public water supply system, water mains, fire hydrants and required water system appurtenances shall be constructed in such a manner as to adequately serve all lots shown on the subdivision plat, both for domestic use and fire protection. In the event of the nonexistence or nonavailability of a public water system, as determined by the village engineer, such public water supply system shall be installed by the proprietor.

(d) *Storm drainage system.* An adequate storm drainage system including necessary storm sewers, catchbasins, manholes, culverts, bridges and other appurtenances shall be required in all subdivisions. Adequate provision shall be made for proper drainage of stormwater runover from residential rear yards. Each yard shall be self-contained and shall be drained from rear to front except where topography or other natural features require otherwise.

(Comp. Ords. 1987, § 17.052)

Sec. 24-144. Other improvements.

(a) *Sidewalks.*

- (1) *Major thoroughfares.* A six-foot wide concrete sidewalk located within the street right-of-way one foot from the property line on the side or sides of the roadway abutting the subdivision shall be provided. In those instances where no good purpose would be served by the provision of sidewalks, the village council may waive this requirement.
- (2) *Collector streets.* A six-foot concrete sidewalk located within the street right-of-way one foot from the property line on each side of the roadway shall be provided. In those instances where no good purpose would be served by the provision of sidewalks, the village council may waive this requirement.
- (3) *Minor streets.* A four-foot concrete sidewalk located within the street right-of-way one foot from the property line on each side of the roadway shall be provided. In those instances where no good purpose would be served by the provision of sidewalks, the village council may waive this requirement.
- (4) *Marginal access streets.* A four-foot concrete sidewalk located within the street right-of-way one foot from the property line on the private property side of the roadway shall be provided. In those instances where no good purpose would be served by the provision of sidewalks, the village council may waive this requirement.
- (5) *Public walkways.* The surface of the walkways shall be developed in concrete. Planting pockets shall be provided in public walkways for tree and shrub planting. The planting plan and surface treatment shall meet the approval of the commission. Fences and/or other improvements may also be required if the commission and/or village council determines they are necessary to protect the adjacent property owners.

(b) *Street trees.* Existing trees near rights-of-way shall be preserved by the proprietor. Street trees at least 1 1/2 inches in diameter, measured six inches above the ground line, shall be provided at least one per lot but no closer than 12 feet in the street right-of-way between the sidewalk and curb in accordance with the zoning chapter. Trees shall be planted when the home is occupied.

(c) *Street signs.* Street name signs and traffic control signs shall be paid for by the subdivider or proprietor and purchased and installed by the village. The number, location and type of signs shall be determined by the village department of public works, police department and/or engineer in accordance with current standards of the village, county road commission and/or Michigan Department of Transportation (MDOT). The subdivider shall deposit with the village clerk prior to the issuance of any building permit a cash sum approved by the village council upon recommendation by the village administration and/or engineer to defray the purchase and installation costs for the required street name and traffic control signs.

(d) *Monuments.* The monuments shall be of such material, size and length and shall be placed as outlined in MCL 560.125, MSA 26.430(125). Monuments shall be installed to the engineers' satisfaction prior to the issuance of any building permit. Final plat approval may be given by the village council prior to the installation of monuments provided a surety in the amount of \$50.00 per monument and \$20.00 per iron is given

to the village clerk by the subdivider or proprietor.

(e) *Street lighting.* Streetlights shall be required, at the proprietor's expense, to be installed at intersections only throughout the subdivision. In these cases, a subdivider shall conform to the requirements of the village and the public utility providing such lighting.

(f) *Public sites and open space; dedication or payment in lieu thereof.* Where a proposed park, playground, school or other public use shown on the comprehensive development plan is located, in whole or in part within a subdivision, a suitable area for this purpose may be dedicated to the public or reserved for public purchase. If, within two years of plat recording, the purchase is not agreed on, the reservation may be cancelled or shall automatically cease to exist.

(Comp. Ords. 1987, § 17.053)

Sec. 24-145. Submittal procedures.

(a) The proprietor shall submit to the administrative officer four sets of plans and profiles, specifications, the general plan for each system for which approval is desired, and a detailed estimate of cost for the furnishing and installation of the following improvements: Concrete pavement (streets, curb and gutter, sidewalks and, where applicable, public walkways); sanitary sewers and appurtenances; storm sewers and appurtenances; and water mains and appurtenances. The proprietor shall also simultaneously furnish four sets of a detailed grading plan for site drainage and erosion and sediment control.

(b) Upon submission of plans for improvements, the proprietor shall pay to the village clerk the deposit for the engineering review fee. If substantial changes are required in improvement plans, the proprietor shall pay to the village clerk, at the time of resubmitting the plans, the additional deposit.

(c) The administrative officer shall review for completeness the information and plans for improvement and, if found to be complete, forward them directly to the village engineer. If incomplete, the information and plans shall be returned to the proprietor.

(d) The village engineer shall review the plans for all improvements for compatibility with overall system plans of the village, for compatibility with the particular conditions in and around the proposed subdivision, for adequacy to serve the intended use and projected needs, and for compliance with standards and specifications set forth in this article or in other ordinances, resolutions or published rules or documents of the village, including any standard detailed sheets furnished by the village engineer and adopted by the village. The village engineer shall also review the detailed cost estimates for furnishing and installing all improvements. Upon completion of the review, the village engineer shall return to the administrative officer three complete sets of plans and information, with notes on the plans, and in an attached report, if necessary, of any discrepancies, inadequacies, nonconforming or incompatible elements or recommended changes in plans, profiles, specifications and/or cost estimates. If all elements are acceptable, the village engineer shall so certify that such fact on each sheet of the plans and information returned to the administrative officer.

(e) If all plans, profiles, specifications and cost estimates are approved by the village engineer, the administrative officer shall forward one set to the village council for final approval, and then return one approved set to the proprietor. If any element is unacceptable to the village engineer, the administrative officer shall return all information pertaining to that element to the proprietor, who shall make the required changes and

resubmit four complete sets of revised plans and related information to the administrative officer. The procedural steps set forth in this section for the initial deposit, review and approval shall apply for any substantially revised plans, profiles, specifications and cost estimates.

(f) In the case of sanitary sewer and water main improvements, the proprietor shall furnish the administrative officer sufficient copies of the plans as approved by the village council, and the administrative officer shall forward two of each to the municipal wastewater division of the state department of natural resources and the state department of public health for a construction permit.
(Comp. Ords. 1987, § 17.054)

Secs. 24-146--24-165. Reserved.

DIVISION 8.

ENGINEERING DESIGN STANDARDS

Subdivision I.

Generally

Sec. 24-166. General requirements.

(a) Plans submitted shall be on 24-inch × 36-inch or 22-inch × 34-inch white prints having blue or black lines, and shall be neatly and accurately prepared. Judgment should be exercised in the design and layout and presentation of proposed improvements.

(b) For projects having more than one sheet of plans, a cover index sheet shall be provided and a general plan having a scale of one inch equals 100 feet shall be provided showing the overall project and indicating the location of all improvements shown on the detailed plans and a legal description of the project, together with a location sketch. Street names, lot lines and lot numbers shall be shown on all plans. Easements shall have a minimum width of 12 feet. Sewers in easements shall be kept at least two feet away from side or rear lot lines. Superimposed on this general plan shall be two-foot contours of the area including at least 100 feet outside of the project.

(c) All sewers shall be shown in plan and profile. Profiles of sewers shall indicate the size, invert and slope of the sewer and shall indicate the existing ground and proposed grade along the route of the sewer.

(d) Elevations shall be on USGS datum. If deviations are in a street right-of-way, show on the profile the adjacent top of curb or edge of pavement grade (existing or proposed). Two benchmarks for the work shall be indicated on each sheet of the plans.

(e) Finished grades of structures shall be indicated on the plan or profile for all structures.

(f) If the project is in an existing or proposed subdivision, a copy of the plat shall be attached to the plans.

(g) All plans submitted shall bear the seal of the registered professional engineer responsible for the design.

(h) One mylar copy of as-built plan of water, sanitary sewer, roads and storm sewer system and certification from a registered professional engineer that all surface grades, roads and structures are in conformance with the approved plan shall be provided prior to acceptance of the subdivision improvements by the village.

(i) Complete project improvement plans shall be submitted prior to review and approval of any portion thereof.

(Comp. Ords. 1987, § 17.061)

Sec. 24-167. Compliance standards.

The approvals required under the provisions of this article shall be obtained prior to the installation of any subdivision or project improvements within the village, in public streets, public rights-of-way and public easements, and/or under the ultimate jurisdiction of the village. All subdivision or project improvements within the village installed in public streets, public rights-of-way or public easements and/or under the ultimate jurisdiction of the village shall comply with all of the provisions and requirements of this article or any other related ordinance.

(Comp. Ords. 1987, § 17.120)

Secs. 24-168--24-190. Reserved.

Subdivision II.

Concrete Pavement

Sec. 24-191. Materials; generally.

Streets, curb and gutters, sidewalks and public walkways shall be constructed of concrete, and, unless otherwise approved by the village council, all streets shall be reinforced with steel conforming to the requirements of the MDOT standard specifications. The village council may allow bituminous concrete in its discretion.

(Comp. Ords. 1987, § 17.071(A))

Sec. 24-192. Strength.

For all concrete pavement improvements, the minimum required strength of the concrete shall be 4,000 pounds psi at 28 days. The concrete shall be plant mix, with a minimum of six bags of cement per cubic yard. The cement shall be air-entrained Portland cement, type 1-A, and shall conform to the requirements of the current specifications for air-entraining Portland cement, ASTM designation C-175.

(Comp. Ords. 1987, § 17.071(B))

Sec. 24-193. Aggregate.

Aggregate shall meet the requirements of MDOT specifications 6A for course aggregate. Course aggregate shall be processed material with a maximum of three percent of deleterious material or limestone. (Comp. Ords. 1987, § 17.071(C))

Sec. 24-194. Joint materials.

Joint materials shall meet the requirement of the MDOT standard specifications. (Comp. Ords. 1987, § 17.071(D))

Sec. 24-195. Subgrade.

The subgrade shall be original soil unless unstable, in which case unstable materials shall be removed and replaced with compacted fill sand to grade. Depressions which must be filled to establish a level base shall be filled with granular materials, grade A, MDOT standard specifications. A minimum of four inches of an approved subbase material shall be required in all areas where subgrade is not a granular material. (Comp. Ords. 1987, § 17.071(E))

Sec. 24-196. Thickness; length.

Streets shall be constructed of a single course of concrete at least eight inches in thickness at intersections and six inches in thickness in other locations. The length of each slab and the type of joint and joint material shall conform to MDOT standard specifications. (Comp. Ords. 1987, § 17.071(F))

Sec. 24-197. Curb and gutter.

Integral curb and gutter shall be constructed of concrete and shall conform to MDOT and T standards. (Comp. Ords. 1987, § 17.071(G))

Sec. 24-198. Sidewalks and walkways.

Concrete sidewalks and public walkways shall be installed four inches in thickness, except at driveway crossings, where the concrete shall be at least six inches in thickness. Walks shall be divided into blocks approximately five feet long, using slab division forms or by cutting joints after floating, using bituminous expansion joints shall be provided at intervals at 50 feet and at junctions with structures and curbs. All edges and joints shall be rounded to a radius of one-fourth of an inch with a finished tool. (Comp. Ords. 1987, § 17.071(H))

Sec. 24-199. Easements.

Where public walkways are installed, the balance of the required 12-foot easement shall be equidistant on both sides of the concrete walk and shall be planted with grass seed. The area shall first be properly graded and fertilized and then seeded with MDOT mixture, class A, in an amount not less than three pounds per 1,000 square feet. The seeded area shall receive a proper mulch of chopped straw, jute matting or woven Kraft paper yams. Seed shall not be sown between June 15 and August 15 and not between October 15 and April 15, nor at any time when the soil has insufficient moisture to ensure proper germination, or the proprietor shall provide

sufficient application of water by sprinkling until a growing patch of grass is established.
(Comp. Ords. 1987, § 17.071(I))

Secs. 24-200--24-220. Reserved.

Subdivision III.

Sanitary Sewers

Sec. 24-221. Notes on plans.

The following notes pertaining to the sanitary sewers shall appear on the plans:

- (1) Footing drains of any structure shall not be connected to this sanitary sewer.
- (2) Downspouts, or any conduit, that carries stormwater or groundwater shall not be allowed to discharge into a sanitary sewer.
- (3) No sewer installation or portion thereof shall have an infiltration exceeding 250 gallons per inch diameter per mile of pipe per 24-hour period.
- (4) Wye openings shall contain factory installed premium joint material of a type suitable and approved for use with house lead joint specified.
- (5) Village standard details and specifications, as adopted by village council resolution from time to time, are incorporated as part of these standards.

(Comp. Ords. 1987, § 17.081(A))

Sec. 24-222. Use of maps and information.

Prior to starting any sanitary sewer design, the proprietor may make use of maps and information available at the village offices. It shall be the responsibility of the proprietor to verify utility locations provided by the village.

(Comp. Ords. 1987, § 17.081(B))

Sec. 24-223. Minimum slope table.

The following table of minimum slopes for sanitary sewers shall be adhered to:

Size and Minimum Slope

8 inches at 0.40 percent

10 inches at 0.28 percent

12 inches at 0.22 percent

15 inches at 0.15 percent

18 inches at 0.12 percent

21 inches at 0.10 percent

24 inches at 0.08 percent

Note: In the village, the minimum allowable size of a sanitary lateral is eight inches in diameter.
(Comp. Ords. 1987, § 17.081(C))

Sec. 24-224. Bedding.

A note or detail shall show the type of bedding upon which the sewer pipe shall be installed. Minimum bedding condition shall be class B.
(Comp. Ords. 1987, § 17.081(D))

Sec. 24-225. Backfilling.

Trenches shall be backfilled with granular material, grade A, MDOT specifications, from the top of the pipe bedding to an elevation of one foot above the top of the pipe. This material shall be deposited and carefully compacted by machine tamping in layers not to exceed six inches in depth. A minimum, not an average, of 95 percent compaction shall be made. Sanitary sewers placed in paved areas shall have trench areas backfilled with granular material at 95 percent completion.
(Comp. Ords. 1987, § 17.081(E))

Sec. 24-226. Wye connections and service leads.

A minimum of one wye connection with lead to property line, and riser pipe if required, shall be provided for each lot. A service lead from the lateral sewer to serve the lot shall be a minimum of six inches in diameter.
(Comp. Ords. 1987, § 17.081(F))

Sec. 24-227. Manhole specifications.

Sanitary sewer manholes shall be furnished at the ends of all lateral sewers, at the junction of two or more sewers and spaced at not more than 300 feet apart along the sewer. Manholes shall be placed in the street right-of-way. In general, sanitary sewers will not be approved in the rear lot easement. Sanitary sewer manholes shall be a precast construction conforming to the requirements of ASTM specifications C478. A preformed, cold applied, ready-to-use plastic joint ceiling compound and primer shall be used to join the precast units. The joints around the inside circumference of the manholes shall be pointed with cement mortar, and all mortar shall be of the nonshrink type. Manhole steps shall be installed and spaced 15 inches apart. The steps shall be cast iron and meet the requirements of ASTM specification A-48. Cast iron frames and covers shall be furnished and placed on each manhole. Casting shall meet the requirements of ASTM specification A-48. Watertight, bolt-down manhole covers shall be provided and installed.

(Comp. Ords. 1987, § 17.081(G))

Sec. 24-228. Sewer profile.

The sewer profile shall indicate the length of run between each manhole, and type of sewer pipe, the size and slope of the sewer between manholes, and any type of special bedding required. Top elevations of all manholes shall be indicated.

(Comp. Ords. 1987, § 17.081(H))

Sec. 24-229. Minimum depth.

A minimum depth from the top of the curb, or road centerline, to the top of any sanitary sewer of 8 1/2 feet at local control points, of a minimum of nine feet at locations where the sewer grade is parallel to the road grade shall be provided. In all cases, the sewer shall be deep enough to serve, by gravity, a standard depth basement.

(Comp. Ords. 1987, § 17.081(I))

Sec. 24-230. Wyes and end of connection plugs and joints.

Each wye or end of house connection shall have a watertight plug with the same type of joint as the main sewer.

(Comp. Ords. 1987, § 17.081(J))

Sec. 24-231. Mains; materials.

Unless otherwise specifically authorized by the village engineer and the village council, or unless allowed by subsequently adopted resolution or standards of the village adopted by the village council, all sanitary sewer mains shall be constructed of clay sewer pipe meeting the requirements of the National Clay Pipe Institute ER 4, Extra Strength, and ASTM C-700.

(Comp. Ords. 1987, § 17.081(K))

Sec. 24-232. Joints and collars.

Joints in clay pipe shall be compression type with a factory applied collar and a polyurethane or rubber ASTM C361 sealing element. Collars shall be a PVC (ASTM D-1784-69 class 12454-B) or fiberglass reinforced polyester. Joints shall meet or exceed the performance requirements of ASTM C425-75. Joints in tee branches, fittings, riser pipes and service laterals shall conform to joints furnished for sewer pipe. Only premium seal joints shall be coupled in accordance with the manufacturer's requirements.

(Comp. Ords. 1987, § 17.081(L))

Secs. 24-233--24-255. Reserved.

Subdivision IV.

Storm Sewers

Sec. 24-256. Design and provision in accordance with county and state rules.

The proprietor shall provide and design storm sewers and all drainage improvements and accessory drainage in accordance with the published rules and regulations of the county drain commission, pursuant to MCL 560.105, MSA 26.430(105).
(Comp. Ords. 1987, § 17.091)

Sec. 24-257. Capable of handling ten-year storm.

Storm drainage systems shall be designed for a ten-year storm. The rational method for arriving at stormwater runoff shall be used. The formula for rainfall intensity shall be the City of Detroit formula: $I = 158.8/t + 24.4$, in which "t" is the time of concentration and the initial time for "t" is 20 minutes. The engineer employed by the proprietor shall use judgment in arriving at proper impervious factors. The proprietor shall submit a map outlining the various areas, including off-site upstream areas, which drain to the points of inlet used for design, together with the storm sewer design computations. In general, sufficient capacity shall be provided in the storm sewer system to take upstream drainage from a fully developed paved and sewer district area into the system.
(Comp. Ords. 1987, § 17.091(A))

Sec. 24-258. Hydraulic gradient.

Where the hydraulic gradient is above the top of the sewer pipe, the design elevation of the hydraulic gradient should be indicated on the profile plan and shall be a minimum of three feet below ground level, unless otherwise approved by the village engineer.
(Comp. Ords. 1987, § 17.091(B))

Sec. 24-259. Manhole materials and spacing.

Manhole materials and construction shall conform to the standards and specifications set forth for sanitary sewers in section 24-227. Manholes spacing for storm sewers shall be as follows:

Diameter of Sewer (in inches)	Absolute Maximum Manhole Spacing (in feet)
12--15	300
18--30	350
36 and 42	400
48	450
54 and 60	500
66 and larger	600

Note: The height of Lo-Hed pipe shall be used as the criteria for manhole spacing. A catchbasin and a manhole shall not be combined in a single structure.
(Comp. Ords. 1987, § 17.091(C))

Sec. 24-260. Information to be included on profile.

The following information shall be indicated on the storm sewer profile:

- (1) Length of run and type of sewer pipe between manholes.
 - (2) Size and slope of sewer between manholes. Where possible, the slope of the sewers shall provide a minimum velocity of 2.5 feet per second, when flowing 0.8 full.
 - (3) Any special bedding required.
 - (4) Top elevation of all manholes.
- (Comp. Ords. 1987, § 17.091(D))

Sec. 24-261. Bedding.

A note or detail shall show the type of bedding upon which the sewer pipe shall be installed. The minimum bedding condition shall be class B.

(Comp. Ords. 1987, § 17.091(E))

Sec. 24-262. Backfilling.

Trenches shall be backfilled with granular material, grade A, MDOT specifications, from the top of the pipe bedding to an elevation of one foot above the top of the pipe. This material shall be deposited and carefully compacted by machine tamping in layers not to exceed six inches in depth. A minimum, not an average, of 95 percent compaction shall be made. Storm sewers placed in paved areas shall have trench areas backfilled with granular material 95 percent compaction.

(Comp. Ords. 1987, § 17.091(F))

Sec. 24-263. Location of catchbasins.

In general, catchbasins shall be located as follows:

- (1) At the radius return of street intersections 150 feet maximum distance along the street between a high point, and a corner catchbasin is allowed when drainage is required to go around a corner.
- (2) At all low points in streets.
- (3) At intermediate points along the street such that there is a maximum of 600 feet of drainage through a high point to a catchbasin.

(Comp. Ords. 1987, § 17.091(G))

Sec. 24-264. Field catchbasins.

Field catchbasins shall be provided at all low points in easements. Intercepting field catchbasins shall be located such that not more than 300 feet of drainage runs into any one catchbasin other than a low point of catchbasins. Six hundred feet of drainage is allowed to run into a low point catchbasin. Field catchbasins shall be located in rear lot easement swale, when such swales change direction by more than 45 degrees.

(Comp. Ords. 1987, § 17.091(H))

Sec. 24-265. Improved open drains.

Improved open drains may be permitted upon special circumstances in accordance with the appropriate provisions of this article.
(Comp. Ords. 1987, § 17.091(I))

Sec. 24-266. Headwalls and inlet structures.

Headwalls and inlet structures shall be placed as required.
(Comp. Ords. 1987, § 17.091(J))

Sec. 24-267. Materials.

Unless otherwise specifically authorized by the village engineer and the village council, or unless allowed by subsequently adopted resolution or standards of the village adopted by the village council, all storm sewers shall be constructed of reinforced concrete sewer pipe, a minimum of 12 inches in diameter, meeting the requirements of ASTM specification C76. All catchbasin leads within a street shall be ASTM C14, table III pipe, including the leads to the manholes.
(Comp. Ords. 1987, § 17.091(K))

Sec. 24-268. Cover.

A minimum of three feet of cover from the top of curb, or road centerline, to the top of any storm sewer shall be provided. In cases where three feet of cover is unfeasible, the village council, upon the recommendation of the village engineer, may allow less cover. If the depth of cover to the top of the pipe is less than one foot, C-76 class 4 reinforced concrete sewer pipe shall be used. If the cover is between one foot and three feet from the top of the curb to the top of the pipe, C-76 class 3 pipe shall be used.
(Comp. Ords. 1987, § 17.091(L))

Sec. 24-269. Joints.

Joints for storm sewers 30 inches in diameter or smaller shall be bell and spigot or tongue and groove, ASTM C443, with rubber gasket or approved equal. Rubber gasket shall conform to ASTM specification C443. Lubricant shall be supplied by the pipe manufacturer, and the joint shall be coupled in accordance with the manufacturer's instructions. Joints in storm sewers 36 inches or larger shall be of asbestos caulking compound with the inside mortared. The specific type of joint material and method of application shall be as prescribed by the village engineer.
(Comp. Ords. 1987, § 17.091(M))

Sec. 24-270. Laterals.

Lateral storm sewers shall be constructed to provide an outlet for the footing drain sump pump discharge leads where required by a high water table. Such storm sewer laterals, to provide for footing drain sump pump discharge only, shall be a minimum of eight inches in diameter on a minimum of 0.4 percent grade with manholes spaced a maximum of 300 feet along the sewer with cleanout manholes located at the ends of the

runs.
(Comp. Ords. 1987, § 17.091(N))

Sec. 24-271. Leads.

A minimum six-inch diameter gravity or three-inch diameter pumped storm sewer lead shall be constructed from the lateral storm sewer to the property line to provide an outlet for the footing drain sump pump discharge, where required. The lead shall be constructed at a minimum depth of 3 1/2 feet on a minimum of 1.0 percent grade. The materials and methods of construction shall be in accordance with the current village standards.

(Comp. Ords. 1987, § 17.091(O))

Sec. 24-272. Rear yard drainage.

Positive rear yard drainage shall be provided for each lot.

(Comp. Ords. 1987, § 17.091(P))

Secs. 24-273--24-295. Reserved.

Subdivision V.

Water Mains

Sec. 24-296. Construction materials.

Unless otherwise specifically approved by the village engineer and authorized by official action of the village council, all water mains shall be constructed of cast iron pipe and fittings, class 150, or ductile iron class 53 which shall be cement lined, half thickness, in accordance with American Standards Association (ASA) specification A21.4.

(Comp. Ords. 1987, § 17.101(A))

Sec. 24-297. Joint materials.

All joint material shall be furnished with the pipe. Mechanical joint pipe, fittings and accessories shall conform with applicable requirements of ASA A21.1, A21.6 and ASA 21.11 and Federal Specifications WW-P-421b1. Rubber gaskets shall conform to manufacturer's standards. Slip-joint pipe and accessories may be Bell-Tite, Fast-Tite, Tyton or approved equal, and shall conform with applicable requirements of ASA A21.6 or A21.8 and Federal Specifications WW-P-421b. Where bell and spigot pipe and fittings may be necessary for occasional connections to existing water mains, class 150 pipe shall conform to the requirements of Federal Specification WW-P-421 and class D fittings shall conform to the latest standards of the American Water Works Association. Pure pig lead and Fibrex packing shall be used. Where locked mechanical joint or locked slip-joint fittings are used at deflections, the wall thickness specified in section 24-296 shall be the thickness of the pipe wall remaining after grooving. All cast iron pipe and fittings shall be coated on the outside with a bituminous coating of either coal tar or asphalt base one mil thick at the point of manufacture in accordance with the specifications of the American Water Works Association. All cast iron pipe and fittings shall be cement lined, half thickness in accordance with ASA specifications A21.4. The spigot ends of all pipe lengths, which

have been cut in the field, shall be ground to a smooth surface and painted with two coats of asphaltum metal protective paint.

(Comp. Ords. 1987, § 17.101(B))

Sec. 24-298. Minimum cover.

All water mains shall be installed with a minimum cover of five feet below finished grade. Where water mains must dip to pass under a storm sewer or sanitary sewer, the sections which are deeper than normal shall be kept to a minimum length by the use of vertical bends properly anchored.

(Comp. Ords. 1987, § 17.101(C))

Sec. 24-299. Backfilling and compaction.

Trenches shall be backfilled with granular material, grade A, MDOT specifications, from the top of the pipe bedding to an elevation of one foot above the top of the pipe. This material shall be deposited and carefully compacted by machine tamping in layers not to exceed six inches in depth. A minimum, not an average, of 95 percent compaction shall be made. Water mains placed in paved areas shall have trench areas backfilled with granular material 95 percent compaction.

(Comp. Ords. 1987, § 17.101(D))

Sec. 24-300. Laterals.

In general, lateral water mains shall be eight inches in diameter. Six-inch diameter water mains shall not have a run longer than 400 feet between connections to an eight-inch water main. Gate valves shall be located in the system such that not more than four valves need to be turned off to isolate any section of the water main. Moreover, sufficient valves shall be placed such that not more than 30 lots shall be serviced within such section of water main which can be so isolated. Where possible, gate valves shall be located at street intersections five feet from the intersecting street right-of-way line.

(Comp. Ords. 1987, § 17.101(E))

Sec. 24-301. Hydrants.

Hydrants shall be installed along the water main at least every 500 feet. In no case shall a house be more than 300 feet from a hydrant. In commercial or industrial districts additional hydrants may be required.

Hydrants shall be installed at the end of all dead-end water mains. When near a street intersection, hydrants shall be located 15 feet from the intersecting street right-of-way. Hydrants shall be according to the village standard. The location of hydrants shall be approved in writing by the village fire chief.

(Comp. Ords. 1987, § 17.101(F))

Sec. 24-302. Grades of hydrants and gate wells.

The plans shall indicate the finished grades of all hydrants and gate wells.

(Comp. Ords. 1987, § 17.101(G))

Sec. 24-303. Water services.

Included as part of the water system shall be water services from the water main to each lot. Water service shall include a corporation stop at the main, with a minimum of three-quarters of an inch service connection and a service box/curbstop at the property line. Water serviced tubing shall be type K, soft temper copper water tube or polybutylene (ASTM D-2581 type II, grade I).
(Comp. Ords. 1987, § 17.101(H))

Secs. 24-304--24-325. Reserved.

Subdivision VI.

Grading and Site Drainage

Sec. 24-326. Erosion and sediment control principles.

In order to provide effective erosion and sediment control, practical combinations of the following technical principles shall be applied to the erosion control aspects of the grading plan:

- (1) The smallest practical area of land shall be exposed at any one time during development.
- (2) When land is exposed during development, the exposure shall be kept to the shortest practical period of time, and in no case shall exposure occur for longer than two months.
- (3) Temporary vegetation and/or mulching shall be used to protect critical area exposed during development.
- (4) Sediment basins (debris basins or silt traps) shall be installed and maintained to remove sediment from runoff waters from land undergoing development.
- (5) Provisions shall be made to effectively accommodate the increased runoff caused by changed soil and surface conditions after development.
- (6) The permanent final vegetation and structures shall be installed as soon as practical in the development.
- (7) The development plan shall be fitted to the topography and soil so as to create the least erosion potential.
- (8) Wherever feasible, natural vegetation shall be retained and protected.
- (9) The development plan shall comply with Public Act No. 197 of 1974 (MCL 282.102 et seq., MSA 13.1820(2) et seq.), Michigan Soil Erosion and Sedimentation Control Act. The Michigan Soil Erosion and Sedimentation Control Guidebook can be utilized in preparing the grading plan.

(Comp. Ords. 1987, § 17.111(A))

Sec. 24-327. Surface drainage standards.

(a) Asphalt paved or grass covered areas shall have a minimum general slope of one percent with specific water carrying swales having a minimum slope of 0.4 percent.

(b) Concrete paved surfaces shall have a minimum slope of 0.4 percent.

(c) All project areas shall drain stormwaters to suitable disposal structures which will prevent such stormwater from flowing across adjacent private property and prevent damage to both private and public properties.

(Comp. Ords. 1987, § 17.112)

Secs. 24-328--24-360. Reserved.

DIVISION 9.

UNDERGROUND UTILITIES

Sec. 24-361. Purpose.

The purpose of this section is to create a division to provide for and regulate underground utilities within the village.

(Ord. No. 99-2, § 23-1, 5-3-1999)

Sec. 24-362. 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:

Commission means the Public Service Commission of Michigan.

Poles, overhead wires and associated structures means poles, towers, supports, wires, conductors, guys, stubs, platforms, crossarms, braces, transformers, insulators, cutouts, switches, communication circuits, appliances, attachments and appurtenances located above ground within a district and used or useful in supplying electric, communication or similar associated service.

Underground utility district or district means that area in the village within which poles, overhead wires, and associated overhead structures are prohibited as such area is described in a resolution adopted pursuant to the provisions of this division or as such area is delineated as a subdivision on a filed final map or parcel map.

(Ord. No. 99-2, § 23-2, 5-3-1999)

Cross References: Definitions generally, § 1-2.

Sec. 24-363. Public hearing.

(a) The council may from time to time call public hearings to ascertain whether the public necessity, health, safety or welfare requires the removal of poles, overhead wires and associated overhead structures and the underground installation or wires and facilities for supplying electric, communication, or similar or associated service within designated areas of the village. The village clerk shall notify all affected property owners and utilities concerned by mail of the time and place of such hearings at least ten days prior to the date

thereof. Each such hearing shall be open to the public and may be continued from time to time. At each such hearing all persons interested shall be given an opportunity to be heard. The decision of the council shall be final and conclusive.

(b) Such hearing shall be unnecessary in the case of a new subdivision which is to become an underground utility district.
(Ord. No. 99-2, § 23-2, 5-3-1999)

Sec. 24-364. Designation of underground utility district.

(a) If, after any such public hearing, the council finds that the public necessity, health, safety or welfare requires such removal and such underground installation within a designated area, the council shall, by ordinance, declare such designated area an underground utility district and order such removal and underground installation. Such ordinance shall include a description or a map of the area comprising such district and shall fix the time within which such removal and underground installation shall be accomplished and within which affected property owners must be ready to receive underground service. A reasonable time shall be allowed for such removal and underground installation, having due regard for the availability of labor, materials and equipment necessary for such removal and for the installation of such underground facilities as may be occasioned thereby.

(b) In the case of a new subdivision, the area shall become an underground utility district upon the filing with the county register of deeds of the final map or parcel map of such subdivision. Affected property owners must be ready to receive underground service and such removal and underground installation must be accomplished prior to the village approving the improvements in the subdivision.
(Ord. No. 99-2, § 23-4, 5-3-1999)

Sec. 24-365. Unlawful acts.

Whenever the council creates an underground utility district and orders the removal of poles, overhead wires and associated overhead structures therein as provided in section 24-364, it shall be unlawful for any person or utility to erect, construct, maintain, continue, employ or operate poles, overhead wires and associated overhead structures in the district after the date when such overhead facilities are required to be removed by such ordinance, except as such overhead facilities may be required to furnish service to an owner or occupant of the property prior to the performance by such owner or occupant of the underground work necessary for such owner or occupant to continue to receive utility service as provided in section 24-370, and for such reasonable time required to remove the facilities after the work has been performed and except as otherwise provided in this division.
(Ord. No. 99-2, § 23-5, 5-3-1999)

Sec. 24-366. Exception; emergency or unusual circumstances.

Notwithstanding the provisions of this division, overhead facilities may be installed and maintained for a period, not to exceed ten days, without authority of the village engineer in order to provide emergency service. The village superintendent of public works or his designated agent may grant special permission in writing on such terms as he may deem appropriate, in cases of emergency or unusual circumstances, without discrimination as to any person or utility, to erect, construct, install, maintain, use or operate poles, overhead

wires and associated overhead structures.
(Ord. No. 99-2, § 23-6, 5-3-1999)

Sec. 24-367. Other exceptions.

This division and any ordinance adopted pursuant to section 24-364 shall, unless otherwise provided in such ordinance, not apply to the following types of facilities:

- (1) Any municipal facilities or equipment installed under the supervision and to the satisfaction of the village superintendent of public works.
- (2) Poles or lamps used exclusively for street lighting.
- (3) Overhead wires, exclusive of supporting structures, crossing through a district within which overhead wires have been prohibited when such wires originate in an area from which poles, overhead wires and associated overhead structures are not prohibited.
- (4) Poles, overhead wires and associated overhead structures used from the transmission of electric energy at nominal voltages in excess of 34,500 volts.
- (5) Overhead wires attached to the exterior surface of a building by means of a bracket or other fixture and extending from one location on the building to another location on the same building, or extending from the building to another building without crossing any public street.
- (6) Antennae, associated equipment and supporting structures used by a utility for furnishing communication services.
- (7) Equipment appurtenant to underground facilities, such as surface mounted transformers, pedestal mounted terminal boxes and meter cabinets, and concealed ducts.
- (8) Temporary poles, overhead wires and associated overhead structures used or to be used in conjunction with construction projects.
- (9) Overhead wires, originating from outside the district which connect to buildings on the perimeter of such district, provided such overhead wires shall not cross any street within the district.

(Ord. No. 99-2, § 23-7, 5-3-1999)

Sec. 24-368. Notice to property owners and utility.

(a) Within ten days after the effective date of an ordinance adopted pursuant to section 24-364, the village clerk shall notify all affected utilities and all persons owning real property within the district created by such ordinance of the adoption thereof. The clerk shall further notify such affected property owners of the necessity that, if they or any person occupying such property desire to continue to receive electric, communication or similar or associated service, they or such occupant shall provide all necessary facility changes on their premises so as to receive such service from the lines or the supplying utilities at a new location, subject to applicable rules, regulations and tariffs of the respective utilities on file with the

commission.

(b) Notification by the village clerk shall be made by mailing a copy of the ordinance adopted pursuant to section 24-364, together with a copy of this division, to affected property owners.
(Ord. No. 99-2, § 23-8, 5-3-1999)

Sec. 24-369. Responsibility of utility.

If underground construction is necessary to provide utility service within a district created by any ordinance adopted pursuant to section 24-364, the supplying utility shall furnish that portion of the conduits, conductors and associated equipment required to be furnished by it under its applicable rules, regulations and tariffs on file with the commission; provided that if any provision of any franchise agreement between the village and the supplying utility is in conflict with any provision of this section, the provision of the franchise agreement shall prevail.
(Ord. No. 99-2, § 23-9, 5-3-1999)

Sec. 24-370. Responsibility of property owners.

(a) Every person owning, operating, leasing, occupying or renting a building or structure within a district shall cause to be constructed that property of the service connection on his property between the facilities referred to in section 24-369 and the termination facility on or within the building or structure being served, subject to applicable rules, regulations and tariffs of the respective utilities on file with the commission.

(b) If any person owning, operating, leasing, occupying or renting the property does not comply with the provisions of subsection (a) of this section within the time provided for by section 24-368, the village superintendent of public works shall post written notice on the property being served and 30 days thereafter shall have the authority to order the disconnection and removal of any and all overhead services, wires and associated facilities supplying utility service to the property.
(Ord. No. 99-2, § 23-10, 5-3-1999)

Sec. 24-371. Responsibility of village.

The village shall remove, at its own expense, all village-owned equipment from all poles required to be removed under the provision of this division in ample time to enable the owner or user of such poles to remove the equipment within the time provided for by section 24-364.
(Ord. No. 99-2, § 23-11, 5-3-1999)

Sec. 24-372. Extension of time.

If any act required by this division or by an ordinance adopted pursuant to section 24-364 cannot be performed within the time provided on account of shortage of materials, war, restraint by public authorities, strikes, labor disturbances, civil disobedience or any other circumstances beyond the control of the actor, then the time within which such act will be accomplished shall be extended for a period equivalent to the time of such limitation.
(Ord. No. 99-2, § 23-12, 5-3-1999)

Sec. 24-373. Penalty.

All violations of this division shall be civil infractions and, upon conviction thereof, shall be punished as provided in section 1-12.

(Ord. No. 99-2, § 5, 5-3-1999)