

## **Chapter 27**

### **PRIVATE ROADS**

#### **Article I. Private Roads**

##### **Division 1. Generally**

**Sec. 27-1. Title**

**Sec. 27-2. Purpose.**

**Sec. 27-3. Legal Authorization**

**Sec. 27-4. Existing Non-conforming Private Roads and Easements.**

**Sec. 27-5. Applicability.**

##### **Division 2. Fees and Charges.**

**Sec. 27-6. Fees.**

##### **Division 3. Definitions.**

**Sec. 27-7. Definitions.**

#### **Article II. Procedures and Requirements.**

##### **Division 1. Application Information.**

**Sec. 27-8. Pre-Construction Meeting.**

**Sec. 27-9. Filing.**

##### **Division 2. Standards.**

**Sec. 27-10. Design and Construction.**

**Sec. 27-11. Legal Non-conforming Private Roads.**

**Sec. 27-12. Special Land Use Application.**

**Sec. 27-13. Site Plan Approval Process.**

**Sec. 27-14. Private Driveways.**

##### **Division 3. Reviews, Tests and Inspections.**

**Sec. 27-15. Review and Inspection.**

**Sec. 27-16. Underground Utilities.**

**Sec. 27-17. Sub-grade Requirements.**

**Sec. 27-18. Sub-base Requirements.**

**Sec. 27-19. Aggregate Base.**

**Sec. 27-20. Bituminous Pavement.**

**Sec. 27-21. Petitioner's Documentation for Final Review.**

**Sec. 27-22. Village Final Site Inspection and Review.**

**Sec. 27-23. Relinquishing the Performance Guarantee.**

- Sec. 27-24. Street Names and Sign Placement.
- Sec. 27-25. Disclosures.
- Sec. 27-26. Issuance of Zoning Permits.
- Sec. 27-27. Appeals.
- Sec. 27-28. Issuance of Private Road Certification of Compliance.
- Sec. 27-29. Attachment A – Minimum Private Road Standards

## **Article I.**

### **PRIVATE ROADS**

#### **Division 1. Generally**

##### **Sec. 27-1. Title.**

This Chapter shall be known and may be cited as the Private Road Ordinance of the Village of Capac.

(Ord. No. 2004-05, § 2, 5-26-2004)

##### **Sec. 27-2. Purpose.**

The purpose of this Chapter is to regulate the construction, maintenance and use of private roads in the Village of Capac and to promote and protect the public health, safety and welfare.

(Ord. No. 2004-05, § 2, 5-26-2004)

##### **Sec. 27-3. Legal Authorization.**

This Chapter is enacted pursuant to the statutory authority conferred by Section 65.1 of Michigan Compiled Laws.

(Ord. No. 2004-05, § 2, 5-26-2004)

##### **Sec. 27-4. Existing Non-conforming Private Roads and Easements.**

The Village recognizes that there exist private roads, service roads and access easements which were lawful prior to the adoption of this Chapter that do not fully conform with the standards herein. Such roads are declared by this Chapter to be legal non-conforming roads or easements. The intent of this Chapter is to permit legal non-conforming roads and easements to continue and undergo routine maintenance for safety purposes, as determined by the Zoning Administrator. This Chapter is also intended to allow new construction to occur on existing lots which front along such a road on the effective date of this Chapter (date of adoption), if the roads are reasonably capable of providing sufficient access for the uses permitted in the zoning district and for provision of emergency service vehicles as determined by the Village. It shall be the responsibility of the proprietor to maintain this ingress and egress of such roadways.

However, this Chapter is also intended to discourage the extension of non-conforming roads, or increase the number of lots or building sites served by such a road, except in platted subdivisions, divisions of land or site condominium projects existing on the adoption date of this Chapter, unless provisions are made to upgrade such roads to comply with the standards herein. Any reconstruction, widening, or extension of a non-conforming private road or easement shall be in conformity with this Chapter.

(Ord. No. 2004-05, § 2, 5-26-2004)

#### **Sec. 27-5. Applicability.**

The provisions of this Chapter shall apply to the creation, construction, extension, and/or the alteration of private roads.

(Ord. No. 2004-05, § 2, 5-26-2004)

### **Division 2. Fees and Charges.**

#### **Sec. 27-6. Fees.**

The Village Council shall establish by resolution a schedule of fees to be charged to the petitioner with respect to the application, administration, planning, and engineering review, legal review, and final inspection of all private roads.

The petitioner making application for the creation, construction, extension, and/or the alteration of private roads shall be required to post either a performance or cash bond in an amount deemed appropriate by the Village Engineer to be sufficient for the completion of the private road or restore the land back to green space, said bond to be discarded upon final inspection and approval of the private road and payment of all related fees. The following shall be considered when requiring a performance guarantee:

- (1) The amount of the performance guarantee for both installation and maintenance shall be equitable so that the developer is not required to provide an excessive amount, yet the public is sufficiently protected to ensure the improvements are properly installed and operational.
- (2) All estimates shall reflect an accurate value for the proposed improvements.
- (3) The estimated cost of the improvements shall include an added cost factor to provide for a margin of error and to cover inflation and other costs if the Village is forced to make the improvements some years in the future.
- (4) As improvements are completed and approved by the Village, a rebate in reasonable proportion to the amount of work completed on required improvements may be returned to the developer.
- (5) Village shall set time periods to specify both the installation of improvements and beyond the completion of the improvement to ensure that the improvements are operating properly.

(Ord. No. 2004-05, § 2, 5-26-2004)

### **Division 3. Definitions.**

#### **Sec. 27-7. Terms and phrases to be defined as follows:**

*Conforming to Construction Records* shall also be known as “As Built” drawings.

*Legally recorded easement* means a written account of the transaction contained in the right of ingress and egress to and from the land for which the enjoyment is restricted to one or a few individuals.

*Permit to place* means as it applies in this Chapter, the granting of the right to continue placement of a certain material.

*Petitioner* means an individual making application.

*Performance guarantee* means one of many instruments used to ensure compliance.

*Private road* means a privately owned and maintained road allowing access to more than one parcel or lot of record.

*Private driveway* means any portion of privately owned and maintained property, which is used for vehicular travel servicing up to two (2) parcels or lots of record.

*Proprietor(s)* means those individuals constructing or desiring to construct a private road or private driveway and all those property owners whose property is being or is intended to be served by a private road or private driveway.

*Road plan* means plans representing the design and construction of the private road.

*Underground utilities* means as applied in this Chapter, culverts, drainage systems and sewers.

(Ord. No. 2004-05, § 2, 5-26-2004)

## **ARTICLE II**

### **PROCEDURES AND REQUIREMENTS**

#### **Division 1. Application Information.**

#### **Sec. 27-8. Pre-Construction Meeting.**

A proprietor who wishes to request a private road for a proposed development must complete a pre-construction meeting with the Village Engineer, Village Planner and other Village staff as needed prior to filing

a private road permit application.

The meeting will be considered an official meeting and minutes will be taken in order to secure a record. The meeting will address such topics as: possible methods for bonding the project, required permits, construction activities, the submittal procedures and submittal requirements due prior to, during and after specific activities of construction, as well as the applicability of a public road vs. a private road system is appropriate for the proposed development.

(Ord. No. 2004-05, § 2, 5-26-2004)

### **Sec. 27-9. Filing.**

A proprietor shall submit an application for a private road permit along with the required fee to the Village Clerk. The Clerk shall forward the petitioner's application and all required information to the Zoning Administrator for review. Four (4) copies of the road plan prepared by a registered engineer shall accompany the application. The road plan shall be drawn to a scale of not greater than 200 feet to one inch. A registered land surveyor may prepare a road plan when the ADT is less than one hundred (100) for the proposed development. The following information shall be contained in the road plan:

- (1) A legal description and survey of the lots of record or parcels together with the names and addresses of the property owners to be served by the private road.
- (2) A legal description of the road easement being proposed for the private road.
- (3) Plans, profile drawings, and cross-sections of the proposed private road easement showing all materials, grades, dimensions and bearings set forth in the standards of Section 27-10.
- (4) Plans, profile drawings, and cross-sections of all proposed and existing utility and drainage easements affecting the placement of the private road.
- (5) Existing topography at one (1) foot contour intervals, including soil types and drainage characteristics of the subject site. The subject site shall be the total land area of each of the properties accessing the private road.
- (6) The location of all existing buildings on the lots or parcels being served or intended to be served by the private road, as well as any existing buildings or structures in or adjacent to any of the proposed easements.

(Ord. No. 2004-05, § 2, 5-26-2004)

## **Division 2. Standards.**

### **Sec. 27-10. Design and Construction.**

The design and construction of all private roads shall comply with the most currently published American Association of State Highway Traffic Officials (AASHTO) standards for the criteria applicable to the

private road, shall be subject to the approval of the Village Engineer and shall comply with the standards in Attachment A to this Ordinance (Section 27-29). Attachment A may be amended by Resolution of the Village Council. If the private road provides direct access to a county road, the road connection placement and design must be approved by the St. Clair County Road Commission prior to the Village approval.

(Ord. No. 2004-05, § 2, 5-26-2004)

**Sec. 27-11. Legal Non-conforming Private Roads.**

Notwithstanding any other provision of the Chapter, private roads in subdivisions platted prior to the enactment of this Chapter and private roads or easements which are contained in land divisions approved by the Village prior to the enactment of this Chapter, shall continue to meet the specifications approved at the time of application. Although, any expansion, reconstruction, or major alteration of an existing private road, or new construction shall comply with the most currently published AASHTO standards for the criteria applicable to the private road. The Village Engineer shall determine if this provision has been met.

(Ord. No. 2004-05, § 2, 5-26-2004)

**Sec. 27-12. Special Land Use Application.**

All private road applications shall follow the provisions of a special land use in Sec. 30-131 through Sec. 30-135 of the Village Zoning Ordinance.

(Ord. No. 2004-05, § 2, 5-26-2004)

**Sec. 27-13. Site Plan Approval Process.**

The location of all proposed private roads and the placement of required easements shall be consistent with approvals granted according to the site plan requirements of Section 30-551 through Section 30-557 of the Village Zoning Ordinance.

(Ord. No. 2004-05, § 2, 5-26-2004)

**Sec. 27-14. Private Driveways.**

- (1) Private driveways may serve up to two (2) parcels or lots of record and shall not be considered a private road. If two (2) lots or parcels are to be served by one (1) private driveway, both lots or parcels must have the required frontage on an improved public road or private road.
- (2) A site plan shall be required and must meet the requirements of Section 30-551 through 30-557 of the Village Zoning Ordinance.
- (3) All private driveways shall be located on a legally valid and recorded easement or other permanent interest in land when more than one lot or parcel receives ingress and egress. A scale drawing shall also indicate the location and dimensions of any existing or proposed

easement on which the driveway is proposed to be located.

- (4) Once approved, the private driveway serving more than one lot or parcel shall be properly recorded as a dedicated easement with the St. Clair County Register of Deeds.
- (5) Approval of the roadway approach to a public road is required from the St. Clair County Road Commission.
- (6) If at any time more than two (2) lots or parcels are to have access to the use of the existing private driveway, it shall be brought into compliance with the standards contained in this Chapter.

(Ord. No. 2004-05, § 2, 5-26-2004)

### **Division 3. Reviews, Tests and Inspections.**

#### **Sec. 27-15. Review and Inspection.**

The Village Clerk shall submit one (1) copy of the application and road plan to the St. Clair County Road Commission for approval of any approaches to public roads and two (2) copies to the Village Engineer for review.

(Ord. No. 2004-05, § 2, 5-26-2004)

#### **Sec. 27-16. Underground Utilities shall include the following:**

- (1) The petitioner's engineer shall have a representative on site, as necessary, during the installation of the underground utilities to observe the underground utility installation and verify the use of proper construction methods with the exception of those utilities to be owned and operated by the Village. The results of these inspections and observations should be documented in the petitioner's engineer's daily reports.
- (2) A gradation analysis (or mechanical analysis) shall be performed on the granular backfill material to confirm that the material meets the gradation requirements called for in the approved construction plans. Gradation analysis tests shall be performed at a frequency of not less than once per 1,000 cubic yards or once per project, whichever is more.
- (3) When the utility pipe is under or within the influence of the roadbed, compaction (or density) testing shall be performed once every 250 feet per lift of trench backfill or once per lift on pipe runs less than 250 feet with more if failing tests warrant.

(Ord. No. 2004-05, § 2, 5-26-2004)

#### **Sec. 27-17. Sub-grade requirements.**

- (1) The proposed location of the road shall be identified by placement of surveying stakes. The stakes shall indicate the horizontal location and grade of the proposed road.
- (2) The road sub-grade shall be inspected by the petitioner's engineer to verify that the road is in the correct location and the sub-grade is trimmed to the proper grade and slope. The sub-grade inspection should also confirm that the sub-grade is free from rutting and soft spots before placing any sub-base material. The inspection shall consist of "proof-rolling" the sub-grade. The results of this inspection shall be documented in the petitioner's engineer's daily report.

(Ord. No. 2004-05, § 2, 5-26-2004)

**Sec. 27-18. Sub-base requirements.**

- (1) A gradation analysis shall be performed on the sub-base material to confirm that the material meets the gradation requirements for the approved sub-base material. Gradation analysis tests shall be performed at a frequency of not less than once every 1,500 cubic yards of sub-base material.
- (2) Compaction (or density) testing of the sub-base material shall be performed at a frequency of not less than once for every 100 feet of roadway with more if failing tests warrant.
- (3) The grading and slope of the sub-base material shall be checked and documented with a frequency of not less than once for every 100 feet of roadway.
- (4) The bottom grade and width of the roadside ditches (if provided) shall be checked and documented with a frequency of not less than once for every 100 feet of ditch. The locations and elevations of the culvert inverts shall be documented.
- (5) A visual inspection of the sub-base material shall be performed and documented to verify that the sub-base is free from rutting and soft spots before placing any base material.

(Ord. No. 2004-05, § 2, 5-26-2004)

**Sec. 27-19. Aggregate Base.**

- (1) An aggregate analysis shall be performed on the aggregate base material to confirm that the material meets the gradation requirements for the approved aggregate base material. Gradation analysis tests shall be performed at a frequency of not less than once every 1,500 cubic yards of aggregate base material.
- (2) Compaction (or density) testing of the aggregate base material shall be performed at a frequency of not less than once for every 100 feet of roadway with more if failing tests warrant.
- (3) The grading and slope of the aggregate base material shall be checked and documented with

a frequency of not less than once for every 100 feet of roadway.

(Ord. No. 2004-05, § 2, 5-26-2004)

**Sec. 27-20. Bituminous Pavement.**

- (1) The petitioner's engineer shall issue a written "permit to place" for each section of aggregate base material suitable to place the bituminous pavement material. This "permit to place" shall verify that the bituminous pavement will not be placed on any frozen aggregate base material or frost when cold weather is a concern. The petitioner's engineer shall have a representative on site at all times during the bituminous paving operations.
- (2) The petitioner's engineer shall verify and document that the bituminous mixture design meets the approved construction plan requirements.
- (3) For roads with concrete curb and gutters, the petitioner's engineer shall verify and document that the concrete mix design for the curb and gutters meets the approved construction plan requirements. Tests for slump, air entrainment, temperature (for both concrete and ambient air) and compressive strength (for 7-day and 28-day) shall be performed at a rate of one set of tests for every 1,500 feet of curb and gutter or one set of tests per day for each day that the curb and gutter is installed.
- (4) Extraction tests shall be performed on the bituminous material at a minimum frequency of once every 1,000 tons of bituminous material placed but not less than once a day or once per mixture type. The extraction test may be replaced by visual inspection and submittal of plant extraction test results for small projects with less than 400 tons of bituminous material per project.
- (5) Density tests shall be performed on each lift of bituminous pavement. The control density for each bituminous mixture shall be determined.
- (6) The ambient air temperature shall be documented for each day that bituminous material is placed. The temperature of the bituminous mixture shall be documented for each truckload.
- (7) The final grade of the road centerline and the concrete curb and gutters or edges of pavement (in roads with gravel shoulders) shall be documented at a frequency of not less than once every 100 feet of roadway. The transverse slope of the final pavement shall be documented every 100 feet of roadway.

(Ord. No. 2004-05, § 2, 5-26-2004)

**Sec. 27-21. Petitioner's Documentation for Final Review.**

At the completion of the private road construction (including final restoration and sign installation), the following items shall be submitted to the Village for final review.

- (1) One set of reproducible “Conforming to Construction Records” or “As Built” drawings of the completed private road. The sewer locations, materials, size, invert elevations and slopes shall be indicated. The manhole and catch basin locations with the rim elevations should also be indicated. The bottom elevation of the catch basins or inlets should be shown. The grades and slopes of the road shall be shown. Each set of “as built” drawings shall have the original stamp and signature of the petitioner’s registered professional engineer.
- (2) Copies of all the inspection reports (including the daily reports), the test results, the petitioner’s engineer’s “permit to place” the bituminous pavement material, and the petitioner’s engineer’s certifications of the mixture designs and the suitability of the road sub-grade and sub-base material shall be submitted.
- (3) The petitioner’s engineer shall submit written certification with their original stamp and signature stating that the private road construction is complete and that the construction activities, testing and documentation were carried out under their supervision and that the private road was properly constructed in substantial compliance with the approved construction plans and the Village private road requirements. The petitioner’s engineer shall identify any deviations in the road construction from the approved construction plans and provide a justification for such deviations. The justification shall be made using reasonable engineering judgments. A written certification from the petitioner’s registered land surveyor or registered professional engineer shall be submitted stating that the private road was located in accordance with the approved construction plans.

(Ord. No. 2004-05, § 2, 5-26-2004)

#### **Sec. 27-22. Village Final Site Inspection and Review.**

The Village Engineer shall review the information and perform a final site visit to visually confirm the documentation submitted by the petitioner’s engineer for the Village’s final acknowledgement that the private road construction was completed in substantial compliance with the Village ordinance requirements. The Village Engineer shall make a recommendation to the Village on whether all the required documentation has been submitted and the private road construction has been properly completed. The petitioner’s engineer shall be informed of any review comments preventing the final acknowledgment of the private road.

(Ord. No. 2004-05, § 2, 5-26-2004)

#### **Sec. 27-23. Relinquishing the Performance Guarantee.**

The Village shall release or return the performance guarantee to the petitioner once the Village acknowledges that all the documentation has been submitted and that the construction of the private road was properly completed in compliance with the Village Ordinance requirements.

(Ord. No. 2004-05, § 2, 5-26-2004)

#### **Sec. 27-24. Street Names and Sign Placement.**

Private roads shall be named by the proprietors subject to the review and approval of the Village Planning Commission and the St. Clair County Road Commission. The proprietor shall be responsible for the erection and maintenance of the street signs and all traffic signs required by the Village, County or the State.

(Ord. No. 2004-05, § 2, 5-26-2004)

**Sec. 27-25. Disclosure.**

The legal description of the private road and related utility and drainage easements shall be recorded with the St. Clair County Register of Deeds at the time of land division. The seller and/or proprietor shall give written notice to each new owner of record served by the private road that initial construction of the road is the responsibility of the seller, but that the maintenance and future improvements of the private road are the sole responsibility of all record owners served by the private road. Said notice shall be attached to and recorded with each transmitting instrument of interest. In addition, each platted subdivision, subdivision of land into four (4) parcels or less, or condominium project shall provide a duly recorded maintenance agreement within its definition of easement, subdivision regulations, master deed, or bylaws which shall be subject to review and approval by the Village Attorney. At a minimum, the maintenance agreement shall contain the following:

- (1) A method of apportioning and collecting all maintenance costs.
- (2) A statement holding the Village harmless as to liability for design and maintenance of the private road.
- (3) An acknowledgement that it is the collective responsibility of the property owners benefiting from the private road to maintain the following: surface grading and resurfacing at regular intervals; snow removal and ice control; repair of potholes; maintenance of road drainage systems; regular cutting of weeds and grass within the easement; and replacement or construction of the roadway and all related improvements, such as road base, road surface, culverts, bridges, catch basins, drains, and traffic signs.
- (4) A statement that the obligation to maintain the private road and related easements shall be an obligation attached to the land parcel and or lots to be served by the private road, and shall be binding upon the owner(s) of such land and their heirs, successors, and assigns.

(Ord. No. 2004-05, § 2, 5-26-2004)

**Sec. 27-26. Issuance of Zoning Permits.**

No zoning permit or building permit shall be issued for any parcel until the private road, as defined in Section 27-7, has been constructed and approved in accordance with the standards established in this Chapter.

(Ord. No. 2004-05, § 2, 5-26-2004)

**Sec. 27-27. Appeals.**

- (1) Any decision regarding the administration or standard of this Chapter may be appealed to the

Village Council upon written request of the proprietor and only after sixty (60) days from receipt of the decision(s). Prior to consideration of such appeal, the Village Council shall request the written opinion of the Planning Commission, which may further request the opinion of the Village Engineer and/or the Village Attorney. In hearing such appeals, the procedures, fees, and administrative process shall be the same as those established for appeals of General Ordinance decisions.

- (2) Variances may only be granted by the Village Council on the finding that both of the following conditions have been met:
  - (a) That there are such special circumstances or conditions affecting said property that strict application of the provisions of this Chapter would clearly be impractical or unreasonable.
  - (b) That the variance or exemption is necessary for the preservation and enjoyment of the substantial property rights of a proprietor, and is not intended primarily for the economic gain of the proprietor.
- (3) In order to grant a variance, the Village Council should also find:
  - (a) That the granting of the variance will not be unduly detrimental to the public welfare or injurious to other property in the area in which said property is situated.
  - (b) That such variance or exemption will not have the effect of nullifying the intent and purpose of this Chapter, the adopted Master Plan or the Village Zoning Ordinance.
- (4) In the event a variance or exemption is granted under this Section, said variance or exemption shall be recorded with the St. Clair County Register of Deeds by the seller and/or proprietor.

(Ord. No. 2004-05, § 2, 5-26-2004)

#### **Sec. 27-28. Issuance of Private Road Certification of Compliance.**

A private road certificate of compliance shall be issued by the zoning administrator upon receiving certification from the Village Engineer that construction has been completed in conformance with the standards set forth in Division 2, Section 27-10 hereof and that all documentation has been received from the proprietor or his or her agent.

(Ord. No. 2004-05, § 2, 5-26-2004)

#### **Sec. 27-29. Attachment A – Village of Capac Minimum Private Road Standards.**

The following minimum standards shall apply to Private Roads, according to Ordinance No. 2004-05 of the Village of Capac Code of Ordinances. These standards may be modified from time to time by the Village Council.

DESCRIPTION	MINIMUM STANDARD
1. Average Daily Traffic Volumes (ADT)	9.5 vehicles per day per single family detached dwelling; 8 vehicles per day each attached dwelling unit.
2. Design Speed	20 mph
3. Stopping Sight Distance	125 feet
4. Vertical Alignment	0.5% minimum 10.0% Maximum
5. Horizontal Alignment	100 ft. minimum radius
6. Right-of-ways Widths	With ditches: 60 feet, 100 feet diameter at cul-de-sac With curb & gutter: 50 feet, 100 feet diameter at cul-de-sac Surface width 22 feet minimum
7. Driveway Location in General	Driveway radii shall be located completely within the right-of-way frontage. The edge shall be setback at least 4 ft. from the property line.
8. Road Width (width of pavement, edge to edge)	ADT less than 250: 18 feet ADT over 400: 20 feet
9. Shoulder Width (grade slope)	Shoulders not required with curb and gutter; otherwise: ADT less than 400: 2 feet (each side) ADT more than 400: 4 feet (each side)
10. Curb and Gutter	Underground storm sewers shall be installed with all paving which requires concrete curb and gutter.
11. Cul-de-sac	-120 foot diameter minimum to edge of pavement (not including shoulders or curb or gutters) -Islands permitted when road is paved -Islands must include curb and gutter -Shall be required at the end of all dead-end private roads. -Min. road length: 140 feet; max. road length: 500 feet.
12. Intersection Offsets	Private road intersections shall be directly aligned with other streets or roads, or offset at least 250 feet from a public road or offset at least 125 feet from a private road, located on opposite side of road. (measurement from centerline to centerline)
13. Angle of Intersection	Private road intersections with other private roads or public roads shall be at ninety (90) degree angle
14. Road Grades	0.4% minimum 6.0% maximum

15. Road Surface Material	3 inches of bituminous surface, placed in two courses over 7 inch gravel base or 6 inches of concrete.
16. Sub-Base	Six (6) inches of compacted Class II sand. On-site material may be used when laboratory analysis indicated that it meets or exceeds specification requirements. Sub-base not required for concrete pavement.
17. Drainage	Ditches: 2'-0" minimum depth from centerline, 1V:3H front to back slopes; 2' bottom width. Culvert/Storm Sewers: Pipe must comply with MDOT Standard Specifications. Provide minimum 2 foot of cover over pipe at road crossings. End sections must be provided at culvert ends. Or St. Clair County Road Commission specifications.
18. Vertical Clearance	15 foot minimum overhead obstruction clearance edge to edge of road width.
19. Horizontal Clearance	All trees and other objects must be removed from the roadway to the back slope of the ditch 1 foot above the ditch bottom.
20. Erosion Control/Restoration	All areas disturbed by construction must be top-soiled, seeded and mulched. Steep slopes may require sod or riprap. Temporary erosion control measures must be utilized.
21. Private Road Sign	Each private road shall be identified with a sign at each intersection. These signs shall be distinguishable from public street signs and acceptable by the fire and police department to insure readability.
22. Traffic Control Devices	Provide stop signs and street signs at entrance and interior intersections (comply with MMUTCD Manual) Provide a speed limit sign (5 mph less than the designed speed) following each intersection and located 100' to 200' from intersection. Provide pedestrian crossing signs at all trail/walkway crossings.
23. St. Clair County Road Commission Approval and Michigan Department of Transportation Approval	If the private road intersects a county road or state highway, a permit for the approach must be obtained from the county or state prior to Village review. A copy of the permit shall be attached with an application.
24. Traffic Circulation Plan *	A traffic circulation plan including trip generation/distribution models shall be developed. The traffic circulation plan shall consider adjacent properties and their development potential.

25. Soil Erosion and Sedimentation Plan *	The soil erosion and sedimentation plan shall identify all areas of potential accelerated soil erosion and shall identify specific measures to be utilized, both temporarily during construction and permanently, to control erosion. Areas shall be identified by the acreage of the area to be disturbed.
26. Topographic Plan *	The topographic plan shall be prepared at a scale of not less than one (1") inch equals forty (40') feet for properties one acre or less, or not less than one (1") inch equals one hundred (100') feet for properties greater than one acre.
27. Final Grading/Drainage Plan *	Grading plans shall consider desirable natural features and the character of the land, and shall preserve such features where possible. The plan shall show final grade elevations of finished floor and basement floor elevations for proposed structures.
28. Stormwater Management System Basis of Design *	A stormwater management system basis of design shall be submitted with construction plans for approval by Village Engineer. The basis of design shall include an area map indicating all tributary drainage areas and runoff coefficients, including off-site areas. The basis of design will reflect development phasing.

\* For development projects greater than two (2) contiguous acres or a development project supporting a density of 3 or more dwelling units per acre.

(Ord. No. 2004-05, Attachment A, 5-26-2004)