CHAPTER 6 REQUIREMENTS FOR DESIGN AND CONSTRUCTION OF ROADS AND ROADSIDE DRAINAGE FACILITIES

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5B-6-1 GENERAL REQUIREMENTS

The owner shall grade, drain, surface and otherwise improve the roadway of all streets shown on his plat so as to provide reasonable access for vehicular traffic to each lot of the subdivision in accordance with the requirements of this chapter.

5B-6-2 STANDARD SPECIFICATIONS AND DESIGN REQUIREMENTS

Wherever reference is made to "Standard Specifications" it shall mean the Standard Specifications for Road and Bridge Construction adopted July 1, 1988, by the Illinois Department of Transportation (IDOT), as amended.

Wherever reference is made to "Design Requirements" it shall mean the "Schedule of Minimum Design Requirements for Subdivision Road in the Village of Hebron" (Section 5B-6-8 of this chapter.)

Whenever reference is made to the "Standard Specifications for Water and Sewer Main Construction in Illinois" it shall mean the standards adopted in May 1986 by the ISPE, CECI, Illinois Municipal League and AGC of Illinois.

5B-6-3 CLASSIFICATION OF ROADS

The Plan Commission and the Village Engineer shall classify each street shown on the plat of subdivision as to its functional use as follows:

A. Major Residential Streets: Main entrance streets within a subdivision which will presently or may in the future provide access to 60 or more residential lots shall be classified as "Ma-

- jor Residential Streets." Streets which are adjacent or provide access to schools, parks and major apartment complexes shall also be classified as "Major Residential Streets."
- B. Residential Streets: Streets providing access to residential property which are not classified as Major Residential Streets shall be classified as "Residential Streets."
- C. Business Access and Industrial Access Streets: Streets providing access to commercial or industrial property shall be classified as "Business Access Streets" or "Industrial Access Streets," respectively.

5B-6-4 SPECIFICATIONS FOR SUBDIVISION ROAD CONSTRUCTION

The following specifications shall govern subdivision road construction in the Village of Hebron.

- A. Excavation and Grading: Streets within the subdivision shall be excavated true to line and grade in accordance with applicable articles of Section 202 of the Standard Specifications. Whenever unsuitable material is encountered in the subgrade, it shall be removed and replaced with pit run gravel or other acceptable granular material. The Village Engineer shall inspect and approve the subgrade prior to construction of the aggregate surface course. This shall be accomplished by use of a "proof roll" or other methods required by the Village Engineer.
- B. Aggregate Surface Course: An aggregate surface course Type B shall be constructed on each street in the subdivision to the width and compacted thickness shown on the Design Requirements and in accordance with Section 402 of the Standard Specifications except that the material may be tail-gate spread on the road.
 - The material used for the full depth of the surface course shall meet the requirements of Article 704.05 of the Standard Specifications for aggregate surface course Type B.
- C. Bituminous Surface: A plant mix bituminous surface course of the width and type shown in the Design Requirements shall be constructed on all streets in the subdivision. The bituminous surface shall not be constructed until the aggregate surface course has been completed and in place on the road for one winter season. This requirement may be waived by the Village Engineer only if an aggregate surface Type A was constructed in accordance with Section 402 of the Standard Specifications. In no case shall the bituminous surface be constructed until the aggregate surface course has been approved by the Village Engineer.
 - 1. Preparation of Base: Immediately prior to construction of the bituminous surface, the aggregate surface course shall be prepared in accordance with Section 307 of the Standard Specifications.
 - 2. Bituminous Surface Plant Mix (Class B): Bituminous surface plant mix shall be constructed in two lifts to the compacted thickness shown on the Design Requirements and in accordance with Section 405 of the Standard Specifications.

- 3. Aggregate Shoulders Type B: Immediately after completion of the bituminous surface it shall be edged with tapered aggregate shoulders three feet in width and constructed in accordance with Section 215 of the Standard Specifications.
- D. Ditching and Drainage: Where curb and gutter improvements are not required, suitable ditches (see Design Requirements) shall be constructed along each side of the roadbed, and drainage structures shall be installed as necessary to insure satisfactory drainage of surface water throughout the subdivision and adjacent area. The sizes of all drainage structures shall be computed by using accepted engineering methodology. All drainage structures shall be installed before surfacing material is placed. (Amended, Ord. 2000-01-676)
 - 1. Cross-road culverts shall have a minimum diameter of 18 inches and shall run from ditch line to ditch line and shall incorporate metal end sections.
 - 2. All driveways entering upon new or proposed roads existing roads or roads already accepted by the Village, Township Road District or County shall utilize metal culverts of a size to be determined by the Village Engineer, County Superintendent of Highways or Township Highway Commissioner. In no event shall such metal culverts along new or proposed roads be less than 15 inches in diameter or less than 26 feet long. In existing subdivisions the size of culvert shall be determined by the Village Engineer, but in no case shall it be less than 12 inches in diameter or less than 26 feet long. All culverts shall incorporate metal end sections.
 - 3. Pipe culverts shall meet the requirements of Section 511 of the Standard Specifications.
- E. Seeding: Prior to acceptance of any street, the shoulders and ditches must be smoothed by dragging and planted with a seed mixture appropriate to the time of year in accordance with the recommendations of the USDA Soil Conservation Service.
- F. Signs: The subdivider shall furnish and erect all necessary signs, including street signs, as designated by the Village Engineer and Police Department. All signs shall be of a type approved by the Village Engineer and Police Department.
- G. Curb and Gutter Construction: Curb, gutter and sidewalk improvements are required on all public streets within the Village, unless waived by the Board of Trustees. The Schedule of Minimum Design requirements for subdivision roads in the Village shall apply except as follows (Amended, Ord. 2000-01-676):
 - 1. Combination concrete curb and gutter shall be State of Illinois Standard Type B-6:12 and shall be constructed in accordance with Section 616 of the Standard Specifications.
 - 2. Street widths shall be generally as follows:
 - a. Residential, 31 feet back to back of curb;

- b. Major Residential, 37 feet back to back of curb; and
- c. Business and Industrial Access, 37 feet back to back of curb.
- 3. An adequate storm sewer system shall be constructed as necessary to ensure satisfactory drainage of surface water throughout the subdivision and area adjacent thereto. Storm sewers shall be designed for a minimum 10-year storm.
- H. Landscaping: Prior to the acceptance of streets in a subdivision all road frontages shall be planted with trees of a hardy variety that can withstand a street side environment where trees do not exist. The trees, at the time of planting, shall have a trunk diameter of no less than three inches. A minimum of one tree per every 40 feet shall be required. However, this does not mean that the trees must be 40 feet on center. The trees shall be planted close to the street right-of-way and not within any easement prohibiting plantings or within the right-of-way.
- I. Street Lights: In all residential, commercial and industrial subdivisions, street lights shall be provided on all streets under the following standards:
 - 1. Street light standards shall be installed 30 inches behind the back of the curb except where the distance between the curb and sidewalk prohibits this location.
 - 2. The street light standards shall be installed at such intervals as are required by the Village Engineer.
 - 3. All street lights shall be on at dusk and off at dawn and controlled by a photo cell mounted on top of the luminaire.
 - 4. Unless otherwise approved by the Village, all street lighting shall be installed and maintained by Commonwealth Edison Company using standard Commonwealth Edison fixtures and poles. Where there is a choice of poles, fixtures and size of luminaire the Village shall make the final selection. All costs associated with the installation of the Commonwealth Edison Company street lighting equipment shall be paid by the subdivider.
 - 5. If the Village approves the use of a street lighting system other than that provided by Commonwealth Edison Company, the design of the system shall be submitted at the sketch plan stage.
- J. Sidewalks: Concrete sidewalks, four feet wide, shall be installed in accordance with IDOT specifications, unless waived by the Board of Trustees. (Amended, Ord. 2000-02-676)

5B-6-5 ROAD PLANS: DEVELOPMENT AND APPROVAL

Before a Final Plat may be approved by the Plan Commission, the following procedure must be completed:

- A. Complete road plans, prepared by a registered professional engineer, shall be submitted. The road plans shall show sufficient data to insure compliance with the above requirements for roads and roadside drainage facilities, and must meet the minimum requirements set forth in Appendix D.
- B. A complete and detailed estimate of cost, prepared by a registered professional engineer, shall be submitted. The cost estimate shall set forth all items of work to be performed and the estimated cost thereof.
- C. The road plans and cost estimates shall be reviewed and approved by the Plan Commission and the Village Engineer. Plans which appear unworkable and estimates which appear inadequate will not be approved.
- D. When the road plans and both cost estimates have been approved, the owner shall obtain good and sufficient security to insure that the road construction will be completed and the roads will be maintained until accepted. The security furnished shall meet the requirements of Appendix I.

5B-6-6 ROADS: CONSTRUCTION, MAINTENANCE & ACCEPTANCE BY VILLAGE Amended, 16-17-912

- A. No road construction work shall be started until a Final Plat has been approved by the Board of Trustees and recorded.
- B. The subdivider shall employ a registered professional engineer who shall be responsible for establishing the proper lines and grades for all earth-work and drainage and shall exercise general supervision as construction progresses. For the purpose of this section, general supervision shall mean sufficient overseeing of the project to assure that construction of the engineering improvements is accomplished substantially in accordance with the approved plans and specifications.
- C. All construction items, except the bituminous surface and seeding, shall be completed within one year after approval of the Final Plat. The bituminous surface and seeding shall be completed within 18 months after approval of the Final Plat. Only under extreme conditions may a letter of credit be extended. Any extension must first be approved by the Board of Trustees. It shall be the obligation of the developer to request such an extension in a timely manner.
- D. The subdivider shall be responsible for maintaining all roads in the subdivision until such roads have been accepted by the appropriate highway authority. Maintenance, which shall include snow plowing, shall be adequate to insure ingress and egress to all lots which have been sold.

- E. Subdivision roads will not be accepted by the Village Engineer until all construction detailed in the plans has been completed. It is the responsibility of the subdivider to consult with the Village Engineer before the work has begun to afford the Village Engineer an opportunity to inspect the work as construction progresses.
- F. When roadside drainage facilities include drywells, adequate precaution shall be taken to insure against siltation until protective vegetation has been established in the ditches, and overflow provisions shall be provided to prevent roadway flooding.
- G. Each "owner," as defined in the Hebron Subdivision Ordinance, relative to its subdivision, the final plat of which provides for roads to be dedicated to the Village, shall file with the Village Clerk security in the form of a letter of credit in accordance with the requirements of Appendix I hereto, entitled *Security Requirements*, to guarantee the construction and completion of the roads in accordance with the final engineering plans on file with the Village for such subdivision. Each day that the owner, as defined in the Hebron Subdivision Ordinance, relative to its subdivision fails to file such security with the Village Clerk in accordance with the requirements of Appendix I hereto shall be fined on a daily basis at least in the amount of \$100 but no more than \$250 per day. In the event that the Village brings an action in either its Office of Administrative Adjudication or in the Circuit Court to enforce any provision in this Village of Hebron Subdivision Ordinance and the offender is adjudicated liable or found guilty of the charge or violation, then the Village shall be entitled to a judgment against the offender for the amount of attorney's fees and costs expended in the enforcement of such ordinance in addition to the above-described fine amount.

Subsection 5B-6-6(G) of this ordinance shall not apply to the owner of a subdivision subject to an annexation agreement or amendment thereto which remains in effect where such owner has delivered the security expressly required by such agreement or amendment thereto.

Each "owner," as defined in the Hebron Subdivision Ordinance, which owns a lot or an outlot on which a walking path with a surface composed of any aggregate, gravel, crushed limestone, blue clay or other surface material, is situated, and which is utilized by any residents of such subdivision, shall add the same type of material with which the walking path is constructed to such walking path in an amount which eliminates the pop up of weeds or other vegetation in such walking path. Such additional material must be applied in such a manner that the walking path is level and even. Each day that such a walking path on such lot or outlot that has weeds or other vegetation in excess of one inch in height where the owner fails to add the same type of material with which the walking path is constructed to such path located on the owner's lot or outlot to eliminate the pop up of weeds or other vegetation in excess of one inch in height, such "owner," as defined in the Hebron Subdivision Ordinance, shall be fined on a daily basis at least in the amount of \$100 but no more than \$250 per day relative to each lot or outlot owned by such owner with a walking path in violation of this ordinance. In the event that the Village brings an action in either its Office of Administrative Adjudication or in the Circuit Court to enforce any provision in this Village of Hebron Subdivision Ordinance and the offender is adjudicated liable or found guilty of the charge or violation, then the Village shall be entitled to a judgment against the offender for the amount of attorney's fees and costs expended in the enforcement of such ordinance in addition to the above-described fine amount.

Each "owner," as defined in the Hebron Subdivision Ordinance, relative to the roads in the subdivision in which such owner's lots are situated, and where such roads have not been accepted by the Village, shall maintain such roads in such a manner that each pothole of one inch or more in depth in any such road shall be filled in with a hot asphalt mix slightly above the surface of the road surrounding the pothole. Each owner, as defined in the Hebron Subdivision Ordinance, that fails to fill in each pothole of one inch or more in depth with a hot asphalt mix in a road in the subdivision in which such owner's lots are situated, where such roads have not been accepted by the Village, shall be fined on a daily basis at least in the amount of \$100 but no more than \$250 per day relative to the roads in violation of this ordinance. Each owner, as defined in the Hebron Subdivision Ordinance, that fails to remove loose gravel or loose asphalt in any road in the subdivision in which such owner's lots are situated, where such roads have not been accepted by the Village, shall be fined on a daily basis at least in the amount of \$100 but no more than \$250 per day for failing to remove loose gravel or loose asphalt on a road in the subdivision in which such owner's lots are situated, where the Village has not accepted such roads. In the event that the Village brings an action in either its Office of Administrative Adjudication or in the Circuit Court to enforce any provision in this Village of Hebron Subdivision Ordinance and the offender is adjudicated liable or found guilty of the charge or violation, then the Village shall be entitled to a judgment against the offender for the amount of attorney's fees and costs expended in the enforcement of such ordinance in addition to the above-described fine amount.

5B-6-7 EXISTING SUBDIVISIONS: ACCEPTANCE OF ROADS BY THE VILLAGE

If roads in existing subdivisions connect with public dedicated roads, and are made to comply with the provisions of this Ordinance, they may be accepted and maintained by the Village in accordance with Section 6-325 of the Illinois Highway Code. The Village Engineer shall be consulted before work is begun on such roads in existing subdivisions.

5B-6-8 <u>SCHEDULE OF MINIMUM DESIGN REQUIREMENTS FOR SUBDIVISION</u> ROADS IN VILLAGE OF HEBRON

A. The following minimum design requirements shall apply to subdivision roads in the Village.

SCHEDULE OF MINIMUM DESIGN REQUIREMENTS FOR SUBDIVISION ROADS IN VILLAGE OF HEBRON

	Residential Access Streets	Major Residential <u>Streets</u>	Business and Industrial Streets
Right of Way	60' minimum	60' minimum	60' minimum
	(See Note 1)	(See Note 1)	(See Note 1)

Horizontal	250' Radius		361' Radius		431' Radius
Alignment	Minimum of		Minimum of		Minimum of
O	Centerline		Centerline		Centerline
Vertical	Maximum 8%		Maximum 7%		Maximum 7%
Alignment	Grade		Grade		Grade
8	(See Note 2)		(See Note 2)		(See Note 2)
	(2001/0002)		(2001/0002)		(8001(8002)
Aggregate	24' Wide,		26' Wide,		26' Wide,
Surface Course 10" Co	mpacted 1	2" Co	mpacted	14" Co	mpacted
	Thickness		Thickness		Thickness
Bituminous -	21/2" Compacted		21/2" Compacte	ed	3" Compacted
Surface CourseBitumi	nous E	Bitumi	nous	Bitumi	nous
Constructed in	Surface Plant		Surface Plant		Surface Plant
2 lifts, edged with	Mix Class B;		Mix Class B;		Mix Class B;
tapered aggregate-	22' wide		24' wide		24' wide
shoulders	Class B;		Class B;		Class B;
	22 'Wide		24' Wide		24' Wide
Cul-de-sacs	Minimum		Minimum		Minimum
	Diameter 140';		Diameter 140';		Diameter 140';
	diameter of		diameter of		diameter of
	Surface 100'		Surface 100'		Surface 100'
Shoulder Width	4' from		4' from		4' from
	Bituminous		Bituminous		Bituminous
	Surface		Surface		Surface
	(30' Roadbed)		(32' Roadbed)		(32' Roadbed)
	((-		(-
Roadway Ditches	24" deep		24" deep		24' deep
	V-Type		V-Type		V-Type
	Type		· Type		1100
Maximum Earth	Front 3:1		Front 3:1		Front 3:1
Slopes	Back 3:1		Back 3:1		Back 3:1
r ~~	(See Note 3)		(See Note 3)		(See Note 3)
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Notes:

Note 1: Wider right of way may be required if deemed necessary by the Plan Commission or the Village Engineer.

Note 2: Maximum length vertical curves consistent with good engineering practice and compatible with the terrain shall be used between changes in grade.

Note 4: The right-of-way width for: shall be 80 feet and Illinois Route shall be feet.
General Note: Return radii at all intersections shall be a minimum of 50 feet. Corner lots shall have radii such that the distance from the edge of the pavement to the right-of-way line is approximately 20 feet.
5B-6-9 UNDERGROUND UTILITIES: INSTALLATION AND RESTORATION OF ORIGINAL GRADE, ROAD SURFACES AND SOD
A. It is recommended that the developer keep all utility and CATV companies appraised of progress on the subdivision, and coordinate his construction activities with those of the utility and CATV companies.
B. If underground utility installation cannot be completed prior to final grading and seeding, it shall be the responsibility of the developer to restore the ditches and turf following installation of underground utilities.
C. Utility companies shall not dig trenches across any roads after placement of the aggregate surface course unless complete restoration meeting the approval of the Village Engineer is provided.
D. All utility lines shall be placed underground in easements along rear lot lines of the subdivision or as otherwise allowed by the Village Board. Conduits and/or cables shall be placed within the easements or dedicated public ways in a manner which will not conflict with other

Note 3: Earth slopes shall be as flat as possible and shall in all cases be carried to the property line. Construction easements shall be indicated on the plat at locations where additional width is

required to meet slope requirements.

to the public.

5B-6-10 <u>OCCUPANCY PERMIT: NOT ISSUED UNTIL COMPLIANCE WITH THIS CHAPTER</u>

underground services. All transformer boxes shall be located so as not to be unsightly or hazardous

A Certificate of Occupancy for any building or structure shall not be issued unless all the requirements in this chapter pertaining to design and construction of roads and roadside drainage facility have been complied with.