

CHAPTER 3
DESIGN STANDARDS

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§5-3-1: SCOPE OF REGULATIONS:

The subdivision of land, including the arrangement, character, extent, width, grade and location of all highways, streets, crosswalks, lot sizes, easements, sites for parks, playgrounds and schools or other land to be dedicated for public use, shall conform to this Title, approved by the Plan Commission and adopted by the Village Board. (Ord. 68-24, 2-19-1968)

§5-3-2: STREETS:

(A) Relation:

All streets shall be considered in their relation to existing and planned streets, to topographical conditions, to public convenience and safety, and in their relation to the proposed uses of the land to be served by such streets.

(B) Arrangement:

Where such is not shown in the general development plan or area development plan, the arrangement of streets in a subdivision shall either:

1. Provide for the continuation or appropriate projection of existing principal streets in surrounding areas; or
2. Conform to a plan for the area or neighborhood approved or adopted by the Plan Commission to meet a particular situation where topographical or other conditions make continuance or conformance to existing streets impracticable.

(C) Residential Access:

Residential access streets shall be so laid out that their use by through traffic will be discouraged.

(D) Separation of Through and Local Traffic:

Where a subdivision abuts or contains an existing or proposed highway, the Plan Commission may require marginal access streets, reverse frontage with screen planting contained in a non-access reservation at least ten feet (10') wide, along the rear property line, deep lots, or such other treatment as may be necessary for adequate protection of residential properties and to afford separation of through and local traffic.

(E) Marginal Access Street:

Where a subdivision borders on or contains a major highway, the Plan Commission may require a marginal access street approximately parallel to and on each side of such major highway, at a distance suitable for the appropriate use of the intervening land, as for park purposes in residential districts, or for commercial purposes in appropriate districts. Such distances shall also be determined with due regard for the requirements of approach grades and future grade separations.

(F) Reserve Strips:

Reserve strips controlling access to streets shall be prohibited.

(G) Safe Traffic Flow:

All street intersections and confluences should encourage safe traffic flow.

(H) Degree of Intersection:

Streets shall be laid out so as to intersect as nearly as possible at right angles and no street shall intersect any other street at less than sixty degrees (60°).

(I) Half Streets:

Half streets shall be prohibited, except where essential to the reasonable development of the subdivision in conformity with the other requirements of these regulations and where the Plan Commission finds it will be practicable to require the dedication of the other half when the adjoining property is subdivided. Wherever a half street is adjacent to a tract to be subdivided, the other half of the street shall be platted within such tract.

(J) Requirements For Dead-End Streets:

A street permanently designed to dead end shall have a cul-de-sac with a turnaround having a pavement diameter of at least eighty feet (80') and a street right of way diameter of at least one hundred twenty feet (120'), and shall not be longer than six hundred feet (600') from its intersection with another street where the average lot frontage is one hundred feet (100') or less. In cases where lots have an average frontage of greater than one hundred feet (100'), the length of the street may be greater, as determined by the Plan Commission.

(K) Street Names:

No street name shall be used which will duplicate or be confused with the names of existing streets. Existing street names shall be projected wherever possible. Street names shall be subject to the approval of the corporate authorities.

(L) Gradients and Vertical Curves:

Street gradients and vertical curves shall be as specified in the table of minimum standards and engineering specifications.

(M) Street Grades:

Street grades shall provide such relation between the street and the first floor elevation of the houses or buildings as to permit convenient and economical access to and drainage of the lots.

(N) Table Of Minimum Standards For Street Design:

<u>STREET</u>	<u>RIGHT-OF-WAY WIDTH</u>	<u>MAXIMUM GRADIENT</u>	<u>MINIMUM GRADIENT</u>
Highway	100-200 feet	5 percent	0.5 percent
Secondary Thoroughfare	66-80 feet	5 percent	0.5 percent
Residential Access Street	60 feet	7-10 percent	0.5 percent
Cul-de-sac	120 feet	7-10 percent	0.5 percent

Additional geometrics including stopping sight distance should be in accordance with minimum IDH standards, or in such cases as may be deemed advisable for proper development, minimum standards as determined by the Plan Commission or the Village Engineer. (Ord. 68-24, 2-19-1968)

§5-3-3: ENGINEERING SPECIFICATIONS:

(A) General:

The construction of improvements required by this Title shall be in accordance with the specifications set forth hereunder. Unless otherwise specified, all construction work shall be in accordance with the provisions of the current issue of the standard specifications for road and bridge construction, adopted by the Illinois Department of Transportation, as the same may be amended from time to time, and hereinafter referred to as the IDOT standard specifications. (Ord. 68-24, 2-19-1968; amd. 2001 Code)

(B) Engineering Documents:

Subdividers shall submit to the Village Engineer plans and specifications and exhibits setting forth lines, grade, requirements for earth excavation, subbase, base, surface, drainage and other engineering details set forth within these specifications. All documents shall be submitted with USGS sea level datum.

(C) Streets:

The following specifications for the grading and surfacing of new and existing streets shall be adhered to:

1. Grading: All excavations, embankment and subgrading work shall conform to the standard specifications. (Ord. 68-24, 2-19-1968)

- (a) Backslopes: In general, backslopes on street rights of way shall be as flat as topography will permit. In no instance shall the backslopes of cut sections or ditches be steeper than four to one (4:1) (4 horizontal and 1 vertical). (Ord. 68-24, 2-19-1968; amd. 2001 Code)
- (b) Earth Excavation: Excavating material shall be placed at suitable locations so as not to interfere with natural drainage or provide unsatisfactory material for the location of buildings.

2. Base: Width of base shall be determined by the street classification.

Thoroughfare secondary shall be a pavement width of not less than thirty two feet (32’).

Residential access streets shall have a pavement width of not less than twenty four feet (24’). (Ord. 68-24, 2-19-1968)

Depth of base shall be in accordance with the structural numbers established by the Illinois Department of Transportation for the design of bituminous pavements, provisional. (Ord. 68-24, 2-19-1968; amd. 2001 Code)

Thoroughfare secondary	Dt minimum	3.00 to 3.49
Residential access streets	Dt minimum	1.65 to 2.49

In no case shall the base consist of less than eight inches (8’’) of compacted gravel or crushed stone base course type B on residential access streets and ten inches (10’’) on thoroughfares secondary.

Base material shall utilize such alternates as set forth within the manual by the structural numbers established.

In no case shall the material be less than IDH gravel or crushed stone base course type B.

3. Surface: Surface course shall be the combination of base and surface established by the structural number Dt set forth in the manual described above.

In no case shall the surface course be less than three inches (3’’) of bituminous concrete subclass I, II thoroughfare secondary; and two inches (2’’) for residential access streets. (Ord. 68-24, 2-19-1968)

4. Shoulders: Shoulders shall be not less than four feet (4’) in width and seeded in accordance with IDOT standard specifications. (Ord. 68-24, 2-19-1968; amd. 2001 Code)

(D) Storm Drainage Structures And Ditches:

- 1. Culverts: Culverts shall be installed in all driveways and as required for proper drainage across streets. Wherever practical, pipe culverts shall be used. The minimum length of culverts shall be at least equal to the distance from edge of shoulder to edge of shoulder, plus six (6) times the vertical distance from the edge of shoulder to the flow line of the culvert. Design shall be for street and driveway culverts based upon a 10-year duration storm. No culvert shall have a diameter of less than twelve inches (12’). In no case shall driveway culverts be less than twenty feet (20’) in length. (Ord. 68-24, 2-19-1968)

2. Ditches: Storm drainage ditches as required in construction of roadways shall be of adequate size to accommodate storm drainage without flooding roadways. They shall accommodate all drainage discharging into them from adjacent areas whether or not a part of the subdivision where such flow results from natural watershed. Ditches shall accommodate continuous flow of drainage, with the aid of such other drainage structures as may be required, to the point of discharge which was the point of discharge of natural watershed of the area prior to subdivision, provided, that no unreasonable hazard is perpetrated upon contiguous property by such discharge. In such case, resolution will be made by the Village Engineer. (Ord. 68-24, 2-19-1968; amd. 2001 Code)

Natural drain lines, ditches and creeks shall be designed for a 25-year duration storm.

Ditching shall conform to all specifications herein set out as to grading, erosion control and maintenance. (Ord. 68-24, 2-19-1968)

3. Bridges: All bridges and culverts having a span of more than ten feet (10') shall be approved by the Village Engineer. (Ord. 68-24, 2-19-1968; amd. 2001 Code)

(E) Erosion Control:

All exposed surfaces lying within the street right of way shall be properly protected by riprap, sod and seedling with rapid growing grass or vegetation. All such work shall conform to the IDH standard specifications.

(F) Maintenance:

The owner and subdivider shall be required to maintain all culverts, storm sewers, drainage structures, ditches, backslopes and shoulders on all streets until seeding of exposed areas has been accomplished and satisfactory growth established for a period not to exceed two (2) years after their completion. All exposed surfaces on which a turf or sod has not been developed shall be reseeded or sodded. The performance bond required herein shall guarantee such maintenance.

(G) Minimum Standards:

The specifications herein contained shall not prevent the owner or subdivider from constructing a wider or higher type of improvement. (Ord. 68-24, 2-19-1968)

§5-3-4: WATER SUPPLY FACILITIES:

(A) Individual Wells:

Individual wells shall be constructed in accordance with the requirements of the Lake County Health Department, as the same may be duly amended from time to time. Public water supply shall be used where available. (Ord. 68-24, 2-19-1968)

(B) Public Water Supply And Distribution Systems:

Public water supply and distribution systems shall be designed and constructed in accordance with the standards and requirements of the Illinois Environmental Protection Agency, as the same may be duly amended from time to time and shall be subject to the inspection of said Agency. Location

of public water supplies within the public street right-of-way shall be determined by the Village Board with the approval of the Village Engineer. (Ord. 68-24, 2-19-1968; amd. 2001 Code)

(C) Fire Hydrants:

Such fire hydrants as are required to be installed pursuant to the provisions of this Chapter shall be located no more than four hundred feet (400') apart. (Ord. 77-136, 1977)

§5-3-5: SEWAGE DISPOSAL FACILITIES:

Individual Disposal Systems: Individual sewage disposal systems shall be installed in accordance with the requirements of the Lake County Health Department. (Ord. 68-24, 2-19-1968; amd. 1979 Code; 2001 Code)

§5-3-6: EASEMENTS:

- (A) Easements across lots or centered on rear or side lot lines shall be provided for utilities where necessary and shall be at least ten feet (10') wide.
- (B) Easements shall be designed to provide continuity from block to block.
- (C) Where a subdivision is traversed by a watercourse, drainageway, channel or stream, there shall be provided a storm water easement or drainage right of way conforming substantially with the line of such watercourse and shall include such further width or construction, or both, as will be adequate for the purpose and as determined by the Plan Commission. Parallel streets or parkways may be required in connection therewith. (Ord. 68-24, 2-19-1968; amd. 1979 Code)

§5-3-7: BLOCKS:

- (A) The lengths, widths and shapes of blocks shall be determined with due regard to:
 - 1. Provision of adequate building sites suitable to the special needs of the type of use contemplated.
 - 2. Zoning requirements as to lot sizes and dimensions within the corporate limits of the Village.
 - 3. Needs for convenient access, circulation, control and safety of street traffic.
 - 4. Limitations and opportunities of topography.
- (B) Block lengths shall not be less than six hundred feet (600'). (Ord. 68-24, 2-19-1968; amd. 1979 Code)

§5-3-8: LOTS:

- (A) The lot size, width, depth, shape and orientation shall be appropriate for the location of the subdivision and for the type of development and use contemplated. Lots having an area of less than three (3) acres shall have a depth not more than three (3) times the lot width.
- (B) Lot dimensions and areas shall conform to the requirements of the Village Zoning Ordinance, where applicable, but in no case shall a lot for residential purposes in a new subdivision be less than one hundred feet (100') wide at the building line. However: (Ord. 68-24, 2-19-1968; amd. 1979 Code)
 - 1. Where unusual soil conditions or other physical factors exist which may impair the health and safety of the residents of the neighborhood in which a subdivision may be located, upon recommendation of the Lake County Health Department, the Plan Commission may increase lot area requirements as may be necessary. (Ord. 68-24, 2-19-1968; amd. 1979 Code; 2001 Code)
 - 2. Lots abutting a watercourse, drainageway, channel or stream shall have a minimum width or depth as required to provide an adequate building site and to afford the minimum usable area required in this Title or the Village Zoning Ordinance, or the health and sanitation ordinances of the Village, whichever is more restrictive.
- (C) Corner lots for residential use shall have extra width to permit appropriate building setback from an orientation to both streets on which they abut.
- (D) Within the corporate limits of the Village all lots shall abut on a public street.
- (E) Double frontage and reverse frontage lots should be avoided except where essential to provide separation of residential development from highways or primary thoroughfares or to overcome specific disadvantages of topography and orientation. A planting screen easement of at least ten feet (10'), and across which there shall be no right of access, shall be provided along the line of lots abutting such highways and primary thoroughfares or other disadvantageous use.
- (F) Side lot lines shall be substantially at right angles or radial to street lines. (Ord. 68-24, 2-19-1968; amd. 1979 Code)

§5-3-9: BUILDING SETBACK LINES:

Except for the following, building setback lines in residential areas of new subdivisions shall conform to the front yard provisions of the Village Zoning Ordinance, except that in no case shall the building setback line be less than thirty feet (30') from the front property line.

A corner lot shall maintain not less than the minimum building setback lines required on both streets on which the lot abuts. (Ord. 68-24, 2-19-1968; amd. 1979 Code)

§5-3-10: PARKS, SCHOOLS AND PUBLIC AREAS:

Whenever the reasonable requirements provided by this Title shall indicate the necessity for providing for a school site, park site or other public lands within any proposed subdivision for which approval has been requested, and no such provision has been made therefor, the Corporate Authorities of the Village may

require that lands be designated for such public purpose before approving such plat. Whenever a final plat of subdivision, or part thereof, has been approved by the Corporate Authorities as complying with the official map and there is designated therein a school site, park site or other public land, the Corporate Authorities having jurisdiction of such use shall acquire the land so designated by purchase or commence proceedings to acquire such land by condemnation within one year from the date of approval of such plat; and if it does not do so within such period of one year, the land so designated may then be used by the owners thereof in any other manner consistent with this Title. Nothing in this Section shall abrogate any requirements of the Village for contributions of land or money in lieu of land. (Ord. 68-24, 2-19-1968; amd. 1979 Code; 2001 Code)