

## SECTION 4

### MINIMUM SUBDIVISION DESIGN STANDARDS AND GENERAL REQUIREMENTS

#### SECTION 4.1 SUBDIVISION DESIGN STANDARDS

a. Acreage Subdivision

Whenever the area is divided into lots containing one or more acres and there are indications that such lots will eventually be re-subdivided into smaller lots, consideration must be given to the highway, street, and lot arrangement of the original subdivision so that additional minor streets can be opened which will permit a logical arrangement of smaller lots. Easements providing for the future opening and extension of such streets may, at the discretion of the Planning Commission, be made a requirement of the plat.

b. Relation to Adjoining Street System

The arrangement of streets in new subdivisions shall make provisions for the continuance of the existing streets in adjoining areas (or other proper projection where adjoining land is not subdivided) insofar as the might be deemed necessary for public requirements. (Amended by Ordinance # 1186 5/23/05)

1. The arrangement of streets in new subdivisions shall make provisions for the continuance of the existing streets in adjoining areas (or other proper projection where adjoining land is not subdivided) insofar as the might be deemed necessary for public requirements. (Amended by Ordinance # 1186 5/23/05)
2. Any owner subdividing or developing a portion of a tract, or conveying by deed any portion of said tract to another party, shall submit a concept circulation plan for the entire tract for approval by the City Planning Commission. In the event a plan was not submitted for approval by the original owner, the subsequent owner of any part of the tract shall submit a plan for the entire tract. The concept plan may be applicable to any subsequent preliminary plat and development plan affecting the entire tract. (Amended by Ordinance #1186 5/23/05)
3. Proposed streets shall be extended to the boundary lines of the tract to be subdivided, or developed, unless prevented by topography or other physical conditions, or unless in the opinion of the City Planning Commission such extension is not necessary or desirable for the coordination of the layout of the subdivision or development with the existing layout or the most advantageous future development of adjacent tract. At a minimum, there shall be one (1) street extended to the boundary line of the tract for each six hundred sixty (660) linear feet of the boundary line with adjoining tracts. (Amended by Ordinance #1186 5/23/05)

4. The width of such streets in new subdivisions shall be not less than the minimum widths established herein. (Amended by Ordinance #1186 5/23/05)
  5. The highway and street arrangements shall not be such as to cause hardship to owners of adjoining property in platting their own land and providing convenient access to it. (Amended by Ordinance #1186 5/23/05)
  6. Offset streets shall be avoided. (Amended by Ordinance #1186 5/23/05)
  7. The angle of intersection between minor streets and major streets shall not vary more than ten (10) degrees from a right angle. (Amended by Ordinance #1186 5/23/05)
  8. Streets obviously in alignment with existing streets shall bear the names of the existing streets. Proposed street names that are in conflict with existing street names shall not be approved. (Amended by Ordinance #1186 5/23/05)
- c. Street in Relation to Railroads  
When the area to be subdivided adjoins a railroad right-of-way, the intersection of the centerline of any street or highway paralleling the railroad with that of any street that crosses the railroad shall not be less than 150 feet from the nearest railroad right-of-way line.
- d. Major Street Classifications (Updated by Ordinance 1230 –May 29, 2007)  
The location of major thoroughfares including arterial and collector streets, shall conform to the locations designated on the Major Thoroughfare Plan of the Comprehensive Plan or as directed by the City Engineer.
- e. Minimum Roadway and Right-of-way Width (Updated by Ordinance 1230 –May 29, 2007)

The minimum roadway and right-of-way width shall be as follows:

Measurement	Width Back to Back of Curb	Right-of-Way Width (Minimum)
Arterials	As ordered by the City Engineer	100 foot
Collectors	31.0 foot	80 foot
Minor or Residential	28.0 foot (Parking allowed one side) or 31.0 foot (Parking allowed on both sides)	60 foot
Parkway	As ordered by the City Engineer	120-160 foot*

\*Right-of-way to be determined with additional study.

- f. Cul-de-sac and Dead-end Street (Ordinance #984 3/22/99)  
Except in cases where the unusual topographic conditions may make it advisable to modify these provisions, the following shall apply:
1. Maximum length of eight hundred (800) feet with the stipulation that lots on a cul-de-sac or dead-end street over 500 feet in length must have minimum lot width at the building line of 75 feet and a maximum rise in elevation of thirty (30) feet.
  2. Water lines on a cul-de-sac or dead-end street longer than five hundred (500) feet must be able to maintain a positive pressure to all parts of the street at a minimum fire flow of 500 gpm as verified by the City Engineer.
  3. Vehicular turnaround at the closed end of a street, shall have a radius of fifty (50) feet and a roadway having a minimum radius of forty (40) feet to the exterior curb line
  4. In the case of temporary dead-end streets, which are stub streets designed to provide future connection with unsubdivided areas adjoining, the Planning commission may require a temporary easement for a turnaround of the nature indicated above. The temporary surfacing shall consist of 4" AB-3 and 4" Asphalt surfacing.
- g. Private Streets and Reserve Strips  
There shall be no private streets platted in any subdivision. Every subdivision shall be served from a publicly dedicated street. There shall be no reserve strips controlling access streets, except where control of such strips is approved.
- h. Restriction of Access  
Where a subdivision abuts on or contains an existing or proposed arterial street, the Planning Commission may require a marginal access street, reserve frontage with screen planting contained in non-access reservation along the rear property line, deep lots with rear service alley, or such other treatment as may be necessary for adequate protection of residential properties and to afford separation of through local traffic.
- i. Street Grades
1. Streets shall be so arranged that grades shall not exceed five percent (5%) for major thoroughfares and ten percent (10%) for minor streets. The Planning Commission may permit variation from these grades where it deems modification advisable to adjust to topographic situations and upon approval by the City Engineer.
  2. Gutter grades on paved gutters shall not be less than one-half of one percent (.005) or (0.5%).
  3. All changes in street grades shall be connected by a vertical curve of reasonable length to assure adequate visibility.

4. In approaching intersections, there should be suitable leveling of the street at a grade generally not exceeding four percent (4%) and for a distance of generally not less than one hundred (100) feet from the nearest line of the intersecting streets. The grade within the intersection should be a level as possible, permitting proper drainage.
5. All street paving shall conform to the current city ordinance governing the construction of new utilities.

j. Intersections and Geometrics

1. Street intersections shall be rounded by radii of at least fifteen (15) feet for residential and 25 feet for collectors.
2. Streets should be laid out to intersect at right angles, and may be curved approaching the intersection in order to bring this about; no street shall intersect any other street at an angle less than sixty (60) degrees.
3. The design of the intersection should be such that a clear sight distance will be maintained for seventy-five (75) feet at the roadway centerline, with no obstruction to sight within the triangle formed by these points.
4. Minimum horizontal curb radius shall not be less than five hundred (500) feet for arterial and collector streets and one hundred (100) feet for minor and residential streets.

k. Street Names

Streets that are obviously in alignment with others already existing and named shall bear the name of the existing street. The proposed names of new streets shall be shown on the final plat, and such names shall not duplicate or sound similar to existing street names. The City Planning Commission shall approve street names and determine house numbers.

l. Drainage (Updated by Ordinance #1038 7/18/00)

1. Move drainage structures and storm sewer requirements under this heading

<u>Portion of Drainage Area</u>	<u>Design Storm Frequency</u>
Upper 20 Acres of Drainage Area (Residential Only)	5 Year Frequency
Next 20 to 100 Acres of Drainage Area	10 Year Frequency
Next 100 to 550 Acres of Drainage Area	25 Year Frequency
Next 550 to 2000 Acres of Drainage Area	50 Year Frequency
Over 2000 Acres	100 Year Frequency

If the upper 20 acres of the drainage area is to be business or industrial, the minimum design storm return frequency shall be ten years.

Provisions for handling the runoff in excess of the minimum design storm may include, but not be limited to, temporary detention facilities, gutter flows to curb depth, drainage easements for overland flow, or simply limiting development to elevations above the flood plain. If provisions cannot be made otherwise to handle the excess runoff, the storm drain system shall be designed for the total runoff, with approval of the City.

2. Adequate means of controlling erosion and sediment migration from storm water runoff shall be provided. Proposed subdivision development shall submit erosion and sediment control measures with their improvement plans. For lots that are already platted, the City Codes Inspector may recommend that the City Engineer examine the site and assign controls on a site-specific basis. All proposed methods shall be subject to review and approval by the City Engineer and the Planning Commission.

Subdivisions or buildings sites cleared during the development process must be temporarily or permanently re-seeded or sodded, if not built upon within 120 days. Sites cleared during the construction process shall be permanently re-seeded or sodded prior to issuance of an occupancy permit. Temporary seeding shall be maintained consistently until permanent seeding or sodding of the site occurs.

- Postponement of seeding or sodding due to adverse weather conditions may be made at the discretion of the City Codes Inspector.
- Mulching of the sites may be required to protect the soil surface until a permanent cover can be established.

SEED	MIN. % LIVE SEED	LBS. PER ACRE
Alta Fescue or Kentucky 31 Fescue	75%	350#
Kentucky Blue Grass	75%	50#
Rye Grass	80%	50#
<b>TOTAL APPLICATION</b>		<b>450#/Acre</b>

m. Storm Water Detention Plan

Please refer to Appendix A for the requirements for storm water detention facilities.

n. Blocks

1. No block shall be longer than one thousand (1,000) feet between street lines. An easement near the center of the block not less than ten (10) feet wide for a crosswalk may be required on blocks that are over seven hundred fifty (750) feet in length.
2. The width of blocks, except for special reasons, shall not be less than two hundred (200) feet and not more than three hundred fifty (350) feet.

o. Lots

1. The lot arrangement and design shall be such that all lots will provide satisfactory building sites, property related to topography, and character of surrounding development.
2. The width and area of all lots shall comply with the requirements of the zoning district in which it is located.
3. The foregoing requirements apply only to residential lots served by a public sanitary sewer.
4. In the case of lots not so served, subdivider shall provide a sewage disposal system to adequately accommodate sanitary waste of said subdivision. The Planning Commission will determine the sewage disposal system sizes as recommended by the City-County Health Officer or State Board of Health.
5. Corner lots shall have extra width sufficient to permit the establishment of front building lines on both adjoining streets.
6. In all lots, so far as possible, the side lines shall be at right angles to straight street lines or radial to curved street lines, except where a variation of this rule will produce a better street and lot layout as approved by the City Engineer.
7. Double frontage and reverse frontage lots shall be avoided, except where their use will produce definite advantages in meeting special situations in relation to topography, sound site planning, and proper use.

p. Building Lines - Building lines conforming to zoning regulations shall be shown on all lots within the platted area. Provisions shall be made by the owner's declaration of plat to require all enclosed parts of a main building to be set back to such building lines.

q. Underground Wiring (Updated by Ordinance #1031 4/24/00)

1. Where possible, all equipment necessary for supplying electric, communication, or related services to be constructed within any new subdivision in the City shall be placed underground. Equipment shall include, but not be limited to poles, towers, supports wires, conductors, guys, stubs, platforms, cross arms, braces, line transformers, insulators' cut-outs, switches, communication circuits, appliances, attachments and appurtenances. The purpose of this requirement is to promote and preserve public health, safety and welfare and to improve the appearance and orderly development of subdivisions within the City.

2. Commitment letters from affected utilities agreeing to the following terms shall be required prior to approval of the Final Plat. No part of this agreement shall preclude the use of private contractors qualified by the utility for the installation of needed facilities.
3. The Developer shall attend a Utility Meeting held by the City upon approval of the Preliminary Plat or Development Plan by the Planning Commission. The purpose of this meeting will be to ascertain the proper placement and sizing of utility easements and propose on installation schedule for all utilities involved in the development.
4. Temporary exceptions may be granted in time of emergency, during construction or under other temporary conditions as determined by the Governing Body. The recommended period of time for a temporary exception is 120 days, however extensions may be granted when completion has been delayed by circumstances out of control of the developer or utility provided.
5. Permanent exceptions to this requirement are as follows:
  - a. Three phase primary electric distribution or transmission lines with capacities of 12KV or greater rated at a minimum of 300 amps which are necessary to provide service to the district, but do not traverse a subdivision except as approved by the Governing Body.
  - b. Poles, overhead wires, and associated overhead structures, when part of an existing line originating outside the new subdivision. All future wiring shall be underground.
  - c. Replacement or the addition of necessary elements or structures in existing overhead wiring to maintain or augment existing service.
  - d. Radio and television antennae.
  - e. Structures on corner lots, in streets and alleys, and on easements adjacent to existing areas where overhead wires are not prohibited, may be used to connect to the existing overhead wires.
  - f. Poles used exclusively for street or area lighting or for traffic control facilities.
  - g. Electric substations and the accompanying equipment and apparatus necessary to provide adequate electric service to underground wiring areas.
  - h. The installation, placement or maintenance of live front underground electrical structures shall be prohibited in all floodplains and drainage

easements. Where electrical or communication equipment must cross a floodplain or drainage easement they shall be installed as to be reasonably free from flood or storm water runoff drainage.

6. Special exceptions may be granted by the Governing Body on a temporary or permanent basis whenever it deems a situation an emergency or unusual circumstance
7. The utility, its successors and assigns, shall save and hold harmless the city from all liability, costs, damages, and expenses of every kind, for the payment of which the city may become liable to any person, firm, or corporation by reason of any negligence by the utility in the construction, maintenance, and operation of its utility system within the City.
8. When any utility chooses to place its current overhead service underground, they are required to notify other utility providers of their action.
9. Where possible, direct access shall be provided to utility easements for maintenance and service operations.

## SECTION 4.2 GENERAL REQUIREMENTS

### a. Exceptions in Neighborhood or Community Unit Developments

Whenever a subdivision is developed as a modern neighborhood or community unit wherein adequate park area is provided, through traffic is adequately provided for, and the majority of the minor streets are of the cul-de-sac type, the Planning Commission may vary the requirements of Articles d, e, f, l, m and n of this Section 4.1 in order to allow the subdivider more freedom in the arrangements of the streets and lots, but at the same time protect the convenience, health, safety, and welfare of the subdivision, as well as the general welfare of the surrounding area. (Amended by Ordinance #1186 5/23/05)

### b. Character of Development

The Planning Commission and the City Council may require that certain minimum regulations regarding type and character of development be incorporated in the owner's declaration of plat. Such regulations shall be intended to protect the character and development of the platted subdivision, as well as that of the surrounding development.

### c. Easements for Public Utilities

Where alleys are not provided in the plat, easements of not less than ten (10) feet in width shall be granted to the City by the owner of each side of all rear lot lines and, where necessary, side lot lines for public utility requirements. An additional ten (10) feet temporary easement shall be provided on each side of the permanent easement for initial construction purposes. Easements of greater width may be required along lot lines or across lots where necessary for the extensions of main sewers or other



utilities. Easements shall connect with the established easements of adjoining property. NO buildings or structures will be permitted on easements without authorization by the City Council.

d. Easements along Streams and Watercourses

Whenever any stream or surface watercourse is located in an area that is subdivided, the subdivider shall, at his own expense, make adequate provisions for the proper drainage of surface water and shall also provide and dedicate to the City of Tonganoxie an easement along said streams and watercourses meeting the approval of the Planning Commission.

e. Maintenance of Improvements

Where a subdivision contains sewers, sewage treatment, water supply stream, park area, streets, trees, or other physical facilities necessary or desirable for the welfare of the area and which are of common use or benefit and which the City does not desire or cannot maintain, provisions by trust agreements shall be made part of the deed restrictions acceptable to the City for the proper and continuous maintenance and supervision of such facilities by the lot owners in the subdivision.

f. Survey Monuments

1. All subdivision boundary corners shall be marked with a permanent monument. All permanent monuments shall be a minimum one-half (1/2") inch by twenty-four (24") inch steel pin embedded in concrete with minimum dimensions of four (4") inches wide and not less than three and one-half (3 1/2') feet long.
2. All monuments must extend at least three (3) feet below grade and have no more than six (6) inches extended above grade. One monument shall contain the following information stamped on a metallic cap: name of subdivision, corner location, datum, elevation, RLS # of surveyor or firm.
3. Should conditions prohibit the placing of monuments on the line, offset marking will be permitted; provided, however the exact offset courses and instances are shown on the subdivision plat.
4. Capped iron pipes or steel rods shall be at all Lot corners.
5. Break-off markers may be required at the discretion of the City Engineer.

g. Open Spaces Other Than Streets - Where an area being subdivided includes land proposed to be used for parks or schools under the duly adopted City Plan, the subdivider shall indicate the location of such areas on the subdivision plat. Park sites are to be reserved for two years giving the City Council or other authorized public agencies option to purchase the land at the appraised raw land value prior to subdivision plus one-half the cost of grading and paving, including curbs, of any streets contiguous to the site.

School sites are to be reserved for three years giving the appropriate Unified School Board the right to purchase the land at the appraised raw land value prior to subdivision plus one-half the cost of grading and paving, including curbs, of any streets contiguous to the site. Should the park or school sites not be purchased within the time limit specified above, the subdivider may then sell them for an alternate purpose as shown on the approved subdivision plat.

h. Community Assets

In all subdivisions, due regard shall be shown for all natural features such as large trees, watercourses, historical spots, and similar community assets, which, if preserved, will add attractiveness and value to the property.

i. Suitability of the Land

The Planning Commission shall not approve the subdivision of land if, from adequate investigations conducted by all public agencies concerned, it has been determined that the best interests of the public would not be served and that the site, as presented, is not suitable for platting development for the purpose proposed.