ARTICLE 5 SUBDIVISION DESIGN STANDARDS AND IMPROVEMENTS

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12/05		

Article amendments approved unless noted:	OMPC	Owensboro	Daviess Co.	Whitesville
Re-adoption of Subdivision Regulations	24-Mar-1977	01-Apr-1977	20-Apr-1977	?
Complete revision of Subdivision Regulations	18-Apr-1981	22-May-1981	26-May-1981	06-Jul-1981
New water supply & fire protection requirements {5.63}	15-Jan-1998	No action	required by legisla	tive bodies
Revised lot depth to width ratio to 3:1, changed minimum lot size on septic system to ¾ acre	10-June-2004			
Revised monument requirements	05-Dec-2005			

5.0 PURPOSE. The purpose of this article is to establish the basic and minimum design and improvement standards which will be required for lots, streets, utilities, and other physical elements in the subdivision. Standards exceeding these minimum requirements may be provided by the subdividers, or required by the OMPC. The public improvement specifications which are included herein as appendix A should generally be consulted for **detailed** standards, procedures and requirements, and are specifically cited herein where appropriate.

5.1 GENERAL PROVISIONS.

5.11 Community Assets. In all subdivisions, due regard should be shown for natural features such as large trees and water courses; for sites which have historical significance; and for similar assets which if preserved will add attractiveness and value to the subdivision and to the community.

5.12 Flood Hazards. Land subject to flooding shall not be platted for residential use or for any other use which may increase the danger to health, life, or property or aggravate erosion or flood hazards. Such lands within the subdivision shall be set aside on the plat for such uses as will not be endangered by periodic or occasional inundation or will not result in conditions contrary to the public welfare. To insure that lots will be located only where they will provide flood-free building sites, the OMPC shall require the subdivider to provide flood elevation information for any subdivisions which include official flood hazard areas or flood plain districts. The subdivider shall consult the Owensboro Metropolitan Zoning Ordinance flood plain regulations to assure that proposed lot sizes and/or configurations are adequate to achieve the above-stated purposes.

5.13 Premature Development. Whenever a proposed subdivision is not served by proper community access roads, utilities, or other basic needs of the future residents, as generally provided for other comparable subdivisions in the community, the OMPC may postpone approval of any such subdivision until such needs are properly met.

5.14 Improvements. All improvements shall comply with the best engineering standards, and all construction on, in and under streets which are proposed for dedication, and all work in connection with parks, playgrounds, public building sites and other areas which are proposed for dedication for public use, shall be based on plans approved by the City or County Engineer and construction thereon shall be subject to the inspection and approval of the City or County Engineer.

5.2 STREETS.

5.21 Improvements.

The subdivider shall be fully and solely responsible for the construction (to specifications herein) of **proposed streets** of the following classifications: MINOR COLLECTOR STREETS; LOCAL STREETS; PRIVATE STREETS; AND ALLEYS.

At the discretion of the OMPC, the subdivider may be required to improve **existing streets** of the ABOVE MENTIONED CLASSIFICATIONS which border the subdivision (to meet particular or full specifications herein).

The subdivider shall be responsible for the following in connection with ARTERIAL AND MAJOR COLLECTOR STREETS as **designated** by the comprehensive plan: Dedication of land strips to

achieve appropriate-width half rights-of-way when such alignments abut the proposed subdivisions; dedication of appropriate-width full rights-of-way when such alignments lie within the proposed subdivision.

Generally, the subdivider will not be required to improve **existing** ARTERIAL or MAJOR COLLECTOR STREETS unless the proposed subdivision involves the obvious continuation of improved streets and reverse frontage lots are not proposed.

For **new** ARTERIAL and MAJOR COLLECTOR STREET ALIGNMENTS, the subdivider shall coordinate the layout and engineering of the street improvement with the OMPC and the City or County Engineer. Such street improvements may be constructed in phases, especially in the case of arterial streets. The negotiated, respective responsibilities of the subdivider and the public shall be made a part of the subdivision plat materials. In no case shall the subdivider be responsible for less cost-obligation than would be required for a street of minor collector classification.

5.22 Area System. Because the transportation system is the framework on which our community is built, it is important that streets function well and properly characterize the movement and access needs of the community residents. The street system for a proposed subdivision, therefore, must conform with a classification plan that can accommodate the existing pattern of streets as well as existing and proposed land uses for the entire neighboring area. To achieve these objectives, the following design concerns shall be addressed by the proposed subdivision:

5.221 Arterials and Major Collectors. Provision for the inclusion of alignments with appropriate rights-of-way widths for existing or proposed arterial and major collector streets designated by the transportation element of the community's comprehensive plan (see Section 5.21 herein above), and are shown on the map on page 5-3.

5.222 Minor Collector System. Collection and distribution of local traffic within a neighborhood, as well as access to abutting property, shall be provided by a minor collector street system which interconnects arterials and major collectors with local access streets; minor collectors shall carry traffic from arterials and major collectors into, but not completely through neighborhoods, with a typical continuity of less than one (1) mile. Generally, in industrial or business zones, or in residential areas with densities greater

than two (2) dwelling units per net acre, every lot will be less than 1,600 feet by vehicle, via a local street, from a minor collector, major collector or arterial. (See Section 5.8, page 5-8).

5.223 Subdivision Must Have Access. A proposed subdivision's street system shall integrate and align with existing streets or surety-posted planned streets within its vicinity. The street classifications proposed (and subsequent design characteristics) shall conform with the area system requirements of this section; and shall conform with the specifications described in Section 5.23 herein below.

5.224 Conflicting Traffic or Land Use. When a proposed subdivision contains or is adjacent to existing or proposed railroad rights-of-way, arterial or major collector streets rights-of-way, other significant rights-of-way, or conflicting and detrimental land uses, the OMPC may require marginal access streets, reverse frontage lots (generally required for major residential subdivisions where lots abutting abovementioned **existing unimproved** streets or **new streets** are under one-half (0.5) acre in area), lots with rear service alleys, lots with additional depth, or other measures which may be necessary for protection of abutting properties and the maintenance or function of major traffic streets.

5.225 Half Streets. New half, or partial, streets shall not be permitted. Existing half streets generally shall be completed to full right-of-way requirements. Phased street improvements for arterial and major collector streets (Section 5.21), which may result in a temporary partial street, are not considered to be half streets.

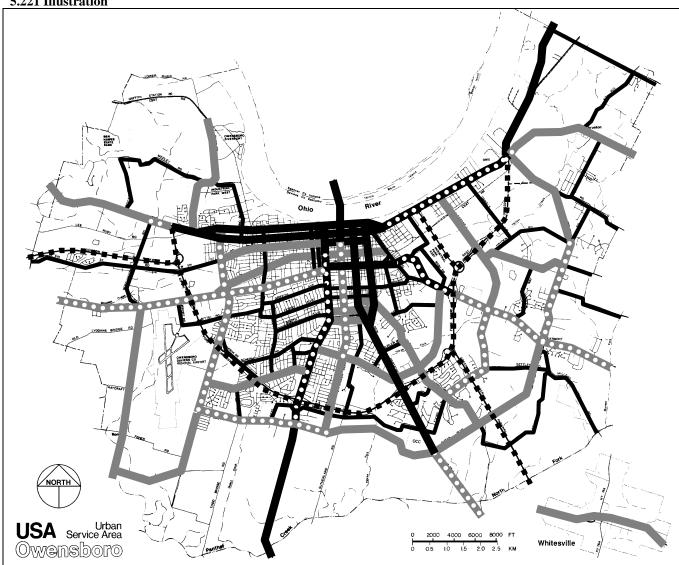
5.23 Specifications.

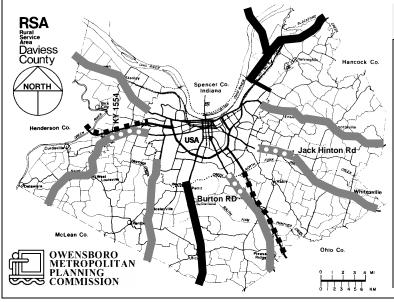
5.231 Alleys. In general, alleys may be utilized in business and industrial zones.

5.2311. Alleys shall serve as the only vehicular access to lots in the R-1T Townhouse Zone. Except where justified by unusual conditions, alleys will not be permitted in other residential zones.

5.2312. The minimum width of right-of-way for alleys will be twenty (20) feet; the minimum roadway width, eighteen (18) feet.

5.221 Illustration





Map of Major Streets

Functional Classification from Transportation Plan

	;	Segment Miles
	Freeway/ Expresswa	ay 32.1
	Principal Arterial	
• • • • • •	Over 20,000 vpd	7.2
	Under 20,000 vpd	43.0
	Minor Arterial	
• • • • • • •	Over 10,000 vpd	27.9
	Under 10,000 vpd	95.6
	Major Collector	57.1

Existing/ planned one-way arterial streets:

2nd St (west) / 4th St (east)
5th St (west – Breckenridge to Walnut)
Breckenridge St (north) / Triplett, New Hartford (south – to intersection with Breckenridge)

24th St (west) / 25th St (east – Frederica to Breckenridge)

Sources: MPO, GRADD, OMPC - 4/26/2000

- **5.232 Private Streets.** Private streets in planned residential development projects shall provide a minimum width of twenty-four (24) feet (back-to-back of curbs). Parking-area drives and other accessways in planned business centers and professional office projects shall provide driving lanes a minimum of twelve (12) feet in width for each lane.
- **5.233 Other Streets.** Public streets other than freeways and alleys shall conform to the applicable dimensions, alignments, intersections, and cross-section standards of the public improvement specifications herein. (Appendix A, pp. 3-2, 3-3, 3-4).
- **5.24 Names.** Large subdivisions should use a single significant category; small subdivisions should use the same category as the surrounding or adjacent area to establish locational identity. All street names within a proposed subdivision shall be subject to final approval by the OMPC upon completion of staff review.
 - **5.241 Duplication.** A proposed street which will align with an existing or planned street shall bear the same name throughout, even if a change in direction occurs. If it is interrupted by a channel, freeway, railroad, etc., and eventual connection is not probable, the segments shall bear different names. Similar sounding names are considered to be duplication regardless of spelling. Duplication of names shall not be permitted anywhere in Daviess County, and shall not be permitted even with different suffix names.
 - **5.242 Prefix and Suffix Directions.** Prefix or suffix directions (north, south, east, west) shall be used when a street intersects the Owensboro Metropolitan Address Grid baseline boundaries, and shall not be used elsewhere.
 - **5.243 Suffix Names.** Should reflect the type of street proposed; and should conform with the following list:
 - **5.2431 Cul-de-sacs.** Less than 1,000 feet in length. Court, Cove, Landing, Manor, Point, Square, Terrace, or Trace; greater than 1000 feet in length may also use Drive or Place;
 - **5.2432 Curvilinear (Winding) Streets.** Lane, Trail or Way;
 - **5.2433 Freeways or Expressways.** Bypass, Expressway, Freeway, Highway, Motorway,

- Overpass, Parkway, Pike, Skyway, Throughway or Turnpike;
- **5.2434 Loops or U-shaped Streets.** Circle, Crescent or Loop, using the most applicable name to describe the street feature:
- **5.2435 Arterials, Collector or Other Local Streets.** All other appropriate suffix names, although "Boulevard" should be retained for wide streets leading to community focal points;
- **5.244 Unacceptable Names.** Alphabetic letters (A, B, C, etc.); surnames of living persons (except for special, commemorative purposes); complicated or undesirable names; unconventional spelling; compound names for streets less than 1000 feet in length; numbered streets (35th, 36th, etc.).
- **5.25 Sidewalks.** In any subdivision the subdivider shall be responsible for the construction of sidewalks along all streets where public improvements exist or are being installed (curb and gutter), whether the street is a new alignment or an existing alignment being brought up to specification, as per the following table:

STREETS WITH PUBLIC IMPROVEMENTS		SIDEWALKS REQUIRED?	
ZONE	LOT SIZE	REQUIRED!	
Residential, Agricultural	Min. >= 0.5 acre	NO	
Residential	Min. < 0.5 acre	YES	
Business	Any	*1	
Industrial	Any	*2	

*1 Generally required, at the discretion of the OMPC.
*2 Generally not required, at the discretion of the OMPC.

Such sidewalks shall be of concrete, with a minimum width of four (4) feet and shall comply with all specifications for walks as described in the Owensboro Metropolitan Public Improvement Specifications (Appendix A, herein). For planned residential development projects the OMPC may waive these requirements for sidewalks, if an acceptable alternative walkway system is proposed that will provide the needs of pedestrian access.

- **5.3 LOTS AND BLOCKS.** The following shall be the minimum standards for lots and blocks:
 - **5.31 Blocks.** In general, intersecting streets which determine block length, shall be provided at such intervals as necessary to meet existing street patterns,

topography and requirements for safe and convenient vehicular and pedestrian circulation. Residential blocks generally shall not exceed sixteen hundred (1,600) feet in length, nor be less than five hundred (500) feet in length; with the block width generally being sufficient to allow two tiers of lots of appropriate depth. Nonresidential blocks shall be of such length, width and other design as the OMPC finds necessary for the prospective use, including adequate provision for off-street parking, truck loading and unloading, buffer areas, pedestrian movement, and proper vehicular access to adjacent streets.

5.32 Pedestrian Walkways. In addition to the normal sidewalks paralleling streets, the OMPC may require pedestrian walkways with at least a ten (10) foot right-of-way or easement, at mid-block or other locations to provide better pedestrian access to parks, schools, shopping centers, or other land uses. The subdivider shall construct such walkways which shall be of concrete, with a minimum width of four (4) feet and shall comply with all specifications for walks as described in the Owensboro Metropolitan Public Improvement Specifications (Appendix A, herein).

In general, the OMPC will apply the following standards in determining where pedestrian walkways should be provided:

- **5.321.** Residents of proposed subdivisions and of the neighboring area should not have to walk along traffic thoroughfares with no sidewalks in order to access public facilities and **neighborhood-oriented** business centers abutting the proposed subdivision.
- **5.322.** Within proposed residential subdivisions with lots under one-half (0.5) acre in area, blocks with a circumference of greater than four thousand (4,000) feet should provide a mid-block walkway to create two "pedestrian blocks" of similar size; along the edges of such proposed subdivisions, where incomplete blocks are anticipated to be completed by future residential development, the portion of the "pedestrian block" circumference within the proposed subdivision should be no greater than two thousand (2,000) feet;
- **5.323.** All pedestrian walkways on adjacent land leading to the boundaries of a proposed subdivision shall be continued into such subdivision to at least the nearest proposed street.

- **5.33 Corner Lots.** Corner lots should be of sufficient width and depth to equal non-corner lots in subdivisions **plus** sufficient area to comply with the required minimum building setback line on each street frontage.
- **5.34** Lot Lines and Building Numbers. Side lot lines should be at right angles to straight street centerlines and radial to curved street centerlines. **Rear lot lines** should consist of straight lines with a minimum number of deflections. Building numbers for each lot shall be assigned by the OMPC to provide a unique street address(es) for each lot.
- **5.35** Lot Shape. Excessive depth in relation to width should be avoided, with a proportion of 3 to 1 normally being considered as a desirable maximum for lot widths of fifty (50) feet or greater. Pointed or very irregular shaped lots shall be avoided where possible. Where the topography makes it advisable, consideration may be given to irregular lot shapes. If remnants of land exist after subdividing, and have no apparent future usability, they shall be incorporated into the lots of the proposed subdivision.
- **5.36 Double Frontage Lots.** Double frontage lots shall be prohibited except where employed to prevent excessive vehicular driveway access to streets (reverse frontage lots), or to separate residential areas from other areas of conflicting land or traffic use.
- **5.37 Lot Access.** Unless the Owensboro Metropolitan Zoning Ordinance specifically permits less frontage, all lots shall abut an approved street for at least fifty (50) feet and such frontage shall provide safe and convenient pedestrian and vehicular access from the lot onto the street.
 - **5.371 Townhouses.** Townhouse lots in the R-1T zone shall front upon a public street or upon a public pedestrian walkway with at least a ten (10) foot right-of-way width. Vehicular access to each lot shall be provided only from a public alley abutting the rear or side line of each lot.
 - **5.372 Planned Development Projects.** For planned residential development projects, access to all lots shall be provided by private interior streets within the development project. For planned business centers, or for professional office projects, parking area drives or other nonpublic access ways may provide additional, or the only means of, vehicular access to lots; whenever direct access to public streets is prohibited or undesirable for any lots in such developments, an

easement or agreement provision shall accompany the plat to assure the perpetual accessibility of all such lots.

- **5.373 Vehicular Access Requirements.** The following sections establish minimum requirements concerning the provision of vehicular access to lots from traffic thoroughfares of various classes. Whenever these sections below are in conflict, the most restrictive requirements should govern and should be enforced by appropriate local agencies.
 - **5.3731 Discretion.** The OMPC may require particular measures to reduce conflicts between traffic and land use, as per Section 5.224 herein.
 - **5.3732 Zoning Ordinance.** The Zoning Ordinance limits the location of, and distance between, access points for planned business centers in the B-1 and B-3 Zones; it also limits the width of driveways and the percentage of lot frontage that driveways may cover for all lots in any zone.
 - **5.3733 Manual on Access Control.** The Manual on Access Control and Minimum Design Standards, a policy manual adopted by the Owensboro Urbanized Area Transportation Policy Committee and the Technical Advisory Committee on Transportation, limits the location of, and distance between, access points for all properties abutting arterial and major collector streets.
- **5.38** Lot Area, Width, and Minimum Building Setback Line. Lots for residential or nonresidential use shall meet the site development requirements of the Owensboro Metropolitan Zoning Ordinance. In areas not provided with sanitary sewer facilities, the minimum lot area shall be three-quarter (0.75). When land is subdivided into larger parcels than ordinary building lots, such parcels shall be arranged so as to allow for the opening of future streets and logical resubdivision.
 - **5.381 R-1T Townhouses.** A proposed re-subdivision for R-1T Zone Townhouses shall be permitted **only** within the following redeveloping small areas of Owensboro as described by the community's comprehensive plan: Scarborough/Riverside (0201), West End (0202), Rossboro/Downtown (0301), Brescia (0302), Eastview (0401), Hathaway/Hall (0402), and Fleischmann (1313).
- **5.4 COMMUNITY FACILITIES.** The subdivider shall consider the adequacy of existing or proposed public

facilities which will be needed by the new families to be housed in the proposed subdivision. The subdivider shall give earnest consideration to dedicating or reserving land for parks, schools and other public facilities. Where such facilities are shown on the Comprehensive Plan Land Use Element, the OMPC may require their reservation on a preliminary plat for no longer than a two (2) year period after preliminary subdivision plat approval.

5.5 MONUMENTS. The subdivider shall install the following:

5.51 Monuments.

- 1) Each boundary corner location which is determined by a professional land surveyor shall be monumented or witness monumented as defined and required in the *Minimum Standards of Practice for Land Surveying in Kentucky* (201 KAR 18.150) and available from the Kentucky State Board of Licensure. Boundary corners shall be established and set under the direct supervision of a professional land surveyor licensed in accord with KRS 322.
- 2) There shall be a minimum of three (3) Control Monuments placed within the subdivision boundary when the plat is associated with a major subdivision. Monuments shall be GPS accessible when practicable.
- 3) The location, coordinate values, State Plane South coordinates (beginning January 1, 2007) and elevation of all permanent control monuments shall be shown on the final plat.
- 4) Control Reference Summary data sheet and typical construction detail of control monuments are available from the Owensboro Daviess County GIS office.
- **5.52 Lot Markers.** The corners of all lots not marked by monuments as hereinbefore required shall be marked by galvanized or wrought iron pipe, or iron or steel bars at least 3 feet in length and not less than 1 inch in diameter, the top of the pipe or bar to be set level with the surrounding ground.
- **5.6 UTILITIES.** The following shall be the minimum standards for utilities such as telephone supply, electric supply, gas supply, water supply, storm water disposal, sewage disposal, or other facilities:
 - **5.61 Easements.** Where alleys are not provided, easements at least ten (10) feet in width, five (5) feet on either side of rear or side lot lines, shall be provided for

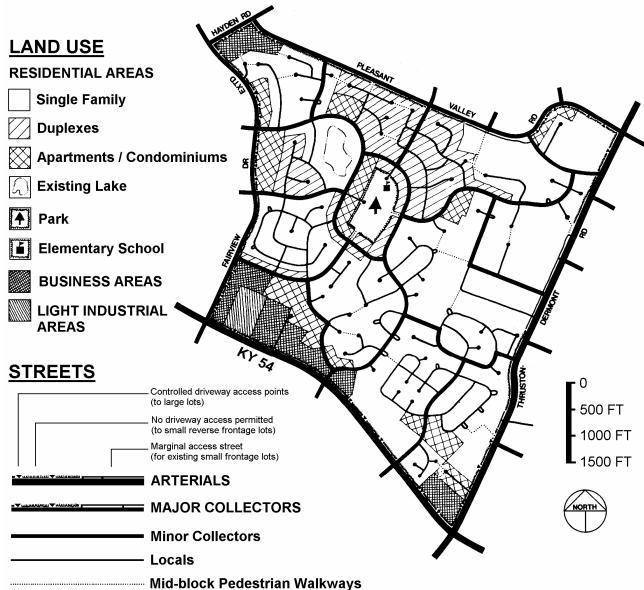
- utilities wherever necessary. Easements shall be so laid out that a proper continuity may be had for such utilities from block to block. The approval of the preliminary and final plats shall be subject to the approval of the design of the utility easement by the City or County Engineer, and appropriate utility company. (see Section 5.651 for drainage easements).
- **5.62 Telephone, Gas and Electric Supply.** Every subdivision shall be provided with a proper telephone, electric, and gas (where appropriate) supply system.
- **5.63 Water Supply.** Every subdivision, except minor subdivisions (see definitions) in residential or agricultural zones, shall be provided with a complete water distribution system adequate to serve the area being developed with pipe lines, valves, fire hydrants, and other water facilities.
 - **5.631 Layout.** In the layout or design of the water system, the following factors will be considered: piping characteristics; ground elevations; type of building construction; hydraulic capability of adjacent interconnected piping; fire flow requirements and any unusual requirements peculiar to the specific development. In general, the distribution system will be able to supply peak demands and fire flows without reducing pressures below desirable limits. No pipe smaller than 6-inch nominal diameter will be used where water flow is to a fire hydrant. The standards of the applicable state or local fire insurance rating association will be used as a guide in the matter of fire flow requirements and the spacing of fire hydrants. Each residence or business will be provided with a separate service line and meter.
 - **5.632 Specifications.** Fire hydrants will be of such construction as will conform to applicable specifications of the American Water Works and/or the American Association. The water system shall be designed and constructed of materials which will meet the approval of the Health Department, City or County Fire Departments, professional engineer (as applicable), and OMPC. Engineering plans shall conform with the requirements of the Owensboro Metropolitan Public Improvement Specifications (Appendix A, herein) for water distribution systems requiring fire hydrants.
 - **5.633 Professional Engineer's Certification.** The signature and registration number of a professional engineer shall be required, certifying that the water supply system can provide minimum fire flow as per

- the requirements of the Owensboro Metropolitan Public Improvement Specifications (Appendix A, herein), and can support such flow for a period of not less than two (2) hours plus consumption at the maximum daily rate.
- **5.64 Sewage Disposal.** Every subdivision shall be provided with a sewage disposal system to comply with all requirements of the local Health Department, the state Environmental Protection Agency, and the OMPC.
 - **5.641 Septic Tanks.** In any subdivision in which all lots are three-quarter (0.75) or more in area, the subdivider will provide either: a) sanitary sewers as described in Section 5.642 herein below; or b) septic tanks and disposal fields that can properly dispose of all sanitary sewage. Septic tanks shall be properly installed prior to occupancy of any building on each lot in the subdivision.
 - **5.642 Sanitary Sewers.** In any subdivision containing lots of less than three-quarter (0.75) in area, the subdivider will provide sanitary sewers, including service stubs to each lot line, and a practical and satisfactory connection to existing sewers or complete sewage treatment plant. Engineering plans shall conform with the requirements of the Owensboro Metropolitan Public Improvement Specifications (Appendix A, herein), and shall also be approved by the City or County Engineer, or professional engineer (as applicable).
- **5.65 Storm Water Disposal.** Every subdivision shall provide satisfactory drainage of storm water. If, in the opinion of the City of County Engineer, natural surface drainage is inadequate, the subdivider may be required to provide any or all of the following: a) underground storm sewers; b) surface drainage-ditch improvements; c) storm-water retention basins. When required, engineering calculations and plans shall conform with the requirements of the Owensboro Metropolitan Public Improvement Specifications (Appendix A, herein).
 - **5.651 Drainage Easements.** If a major creek, stream or ditch flows through or adjacent to the proposed subdivision, the OMPC may require the provision of an easement or right-of-way along such drainage way. The easement shall be wide enough to provide for future enlargement and maintenance of the drainage channel as the drainage basin, served by the channel, becomes more highly developed and run-off rates are increased.

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5.7 LANDSCAPE AND LAND USE BUFFERS. All subdivision plats shall conform to the requirements of "Article 17: Landscape and Land Use Buffers" of the Owensboro Metropolitan Zoning Ordinance.

5.8 EXAMPLE NEIGHBORHOOD DESIGN.



CREEKSIDE ALTERNATIVES

Type A: Parallel Streets



Maximum homeowner privacy and security.

Passing motorists can enjoy the beauty of open space.

Public has more access to open space if it is a public park.

No backyards or fronting on creeks.

Reduced flood protection maintenance costs.

Type B: Loop Streets

Maximum lot yield with curving loops.



Minimize number of homes exposed directly to creeks. Liberal access to open space by residents and public. Staggerred loops give more visual open space than cul-de-sacs. Pedestrian oriented. Minimum fencing along open space vs. "creek backyards".

Type C: Parallel Streets



Homeowners prefer over other street types. Pedestrian oriented. Maximum use of open space by residents. Allows good physical and visual access to open space. OWENSBORO METROPOLITAN SUBDIVISION REGULATIONS

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