



Article Six IMPROVEMENTS, DEDICATIONS & DESIGN

Section 6.01 General Improvements.

- A. Conformance to Applicable Rules and Regulations. In addition to the requirements established in these regulations, all subdivision plats shall comply with the following laws, rules, and regulations:
1. All applicable statutory provisions.
 2. The zoning regulations, building codes, fire safety standards and all other applicable laws of the City of De Soto.
 3. The Comprehensive Plan, Street Classification Map, and Capital Improvements Program of the City of De Soto, including all streets, utility systems, and parks indicated in the Comprehensive Plan as adopted.
 4. The special requirements of these regulations and any rules of the Health Department and/ or State of Kansas, Johnson County or other appropriate agencies.
 5. The rules of the Kansas Department of Transportation if the subdivision or any lot contained therein abuts a state highway or connecting street.
 6. The standards, regulations and policies adopted by all boards, commissions, agencies, and officials of the City of De Soto.
 7. All pertinent standards contained within any and all applicable overlay districts or development specific guidelines as adopted.
 8. Plat approval may be withheld if a subdivision is not in conformity with the above laws, regulations, guidelines, and policies as well as the purposes of these regulations established in Section 1.06 of these regulations.

Section 6.02 Adequate Public Facilities

- A. General. In order to ensure: that property is developed only with appropriate urban services and in accordance with the service plans set out in the Comprehensive Plan; that subdivision of land is not scattered or premature involving danger or injury to the public health, safety, welfare or prosperity by reason of lack of adequate water supply, wastewater disposal, stormwater disposal, roads, right-of-way, or other public services; or that would necessitate an excessive expenditure of public funds for the supply of such services (such as undue maintenance costs for inadequate roads or storm water drainage), no Preliminary Plat shall be approved unless the Planning Commission determines that public facilities will be adequate to support and service the area of the proposed subdivision. The applicant shall, at the request of the Planning Commission, submit



sufficient information and data on the proposed subdivision to demonstrate the expected impact on and use of public facilities by possible uses of said subdivision.

B. Standards.

1. **Water Supply.** There will be an adequate public water supply available for the proposed occupancy. An adequate public water supply shall include potable water for consumption and other inside and outside uses and adequate water pressure for fire flow to meet established standards for fire protection
2. **Sanitary Sewer.** There will be adequate connections to public wastewater disposal systems with adequate capacity to handle the type and volume of flow from the proposed occupancy with evidence that the existing system has capacity availability to accept the additional flows proposed. Limited, residential development may be served by a septic system subject to compliance with the regulations specified herein.
3. **Storm Sewer.** The proposed storm sewer system, both on-site and off-site, will be adequate to carry projected peak flows in a design storm without causing damage to downstream public or private property. The subdivider shall install culverts, storm sewers, rip-rap slopes, stabilized ditches, storm water detention facilities and other improvements necessary to adequately handle storm water. All improvements shall comply with the minimum standards of these regulations.
4. **Stormwater Management.** Drainage improvements shall accommodate potential runoff from the entire upstream drainage area and shall be designed to prevent increases in downstream flooding. The City Engineer and Planning Commission may require the use of control methods such as retention or detention, and/ or the construction of offsite drainage improvements to mitigate the impacts of the proposed developments.
5. **Roads.** Proposed roads shall provide a safe, convenient, and functional system for vehicular, pedestrian, and bicycle circulation; shall be properly related to the comprehensive plan; and shall be appropriate for the particular traffic characteristics of each proposed development.
6. **Rights-of-Way.** Right-of-way shall be provided as shown in the Comprehensive Plan and as required by these regulations.
7. **Other Public Services.** Other public services such as schools, police and fire protection, and emergency services, affected by the proposed development will be substantially adequate to serve the development at existing levels of service.

Section 6.03 Lots

- A. **Lot Orientation.** All lots shall front on a public street. The lot line common to the street right-of-way shall be the front line. All lots shall face the front line and a similar line



- across the street. On corner lots, the side with the least distance in measurement shall constitute the front side.
- B. Lot Width. The width of lots shall conform to those of the Zoning Regulations and shall be measured at the front setback line.
- C. Lot Arrangement. The lot arrangement shall be such that there will be no foreseeable difficulties, for reasons of topography or other conditions, in securing building permits to build on all lots in compliance with the Zoning Regulations and Health Regulations and in providing driveway access to buildings on the lots from an approved street. Lots shall contain a building site completely free from the danger of flooding. Except where unfeasible, side lot lines shall be at right angles to straight street lines and radial to curved street lines. Wherever feasible, lots shall be arranged so that the rear line does not abut the side line of an adjacent lot.
- D. Lot Dimensions. Lot dimensions shall comply with the minimum standards of the Zoning Regulations. Dimensions of corner lots shall be large enough to allow for erection of buildings, observing the minimum front-yard setback from both streets. Depth and width of properties reserved or laid out for business, commercial, or industrial purposes shall be adequate to provide for the off-street parking and loading facilities required for the type of use and development contemplated, as established in the Zoning Regulations.
- E. Double Frontage Lots and Access to Lots.
1. Double Frontage Lots. Double frontage and reversed frontage lots shall be avoided except where necessary to provide separation of residential development from arterial streets or to overcome specific disadvantages of topography and orientation.
 2. Access from Arterial Streets. Lots shall not, in general, derive access exclusively from an arterial street. Where driveway access from an arterial street may be necessary for several adjoining lots, the Planning Commission may require that such lots be served by a combined access drive in order to limit possible traffic hazards on the street. Where possible, driveways should be designed and arranged so as to avoid requiring vehicles to back into traffic on an arterial street.
- F. Soil Preservation and Final Grading. No certificate of occupancy shall be issued until final grading has been completed in accordance with the approved final subdivision plat and the lot covered with soil with an average depth of at least six (6) inches which shall contain no particles more than two (2) inches in diameter over the entire area of the lot, except that portion covered by buildings or included in streets, or where the grade has not been changed or natural vegetation has not been seriously damaged. Topsoil shall not be removed from residential lots or used as spoil, but shall be redistributed so as to provide at least six (6) inches of cover on the lots and at least four (4) inches of cover between the sidewalks and curbs, and shall be stabilized by seeding or planting per the Landscaping and Buffering requirements of the Zoning Regulations.



- G. Lot Drainage. Lots shall be laid out so as to provide positive drainage away from all buildings, and individual lot drainage shall be coordinated with the general storm drainage pattern for the area.
- H. Debris and Waste. No cut trees, timber, debris, rocks, stones, junk, rubbish, or other waste materials of any kind, or earth/soil containing such shall be buried in any land, or left or deposited on any lot or street at the time of the issuance of a certificate of occupancy, and removal of those items and materials shall be required prior to issuance of any certificate of occupancy on a subdivision. No items and materials as described in the preceding sentence nor excess earth/soil shall be left or deposited in any area of the subdivision at the time of expiration of any subdivision improvement agreement or dedication of public improvements, whichever is sooner.
- I. Waterbodies and Watercourses. If a tract being subdivided contains a waterbody, watercourse or portion thereof, lot lines shall be so drawn as to distribute the entire ownership of the waterbody or watercourse among the ownership of adjacent lots. The Planning Commission may approve an alternative plan whereby the ownership of and responsibility for safe maintenance of the waterbody or watercourse is so placed that it will not become a local government responsibility. No more than twenty-five percent (25%) of the minimum area of a lot required under the Zoning Regulations may be satisfied by land that is under water or subject to periodic flooding. Such land(s) shall not be computed in determining the number of lots to be utilized for average density procedures. Where a watercourse separates the buildable area of a lot from the street by which it has access, provisions shall be made for installation of a culvert or other structure, of design approved by the City Engineer.
- J. Subdivision Improvement Agreement and Security to Include Lot Improvement. The applicant shall enter into a separate subdivision improvement agreement per Section 7.01 to guarantee completion of all lot improvement requirements including, but not limited to, soil preservation, final grading, lot drainage, lawn coverage, removal of debris and waste, fencing, and all other lot improvements required by the Planning Commission. Whether or not a certificate of occupancy has been issued, the City of De Soto may enforce the provisions of the subdivision improvement agreement where the provisions of this section or any other applicable law, ordinance, or regulation have not been met.

Section 6.04 Blocks

- A. Connectivity: Intersecting streets shall be provided at such intervals as to serve cross traffic adequately and to meet existing streets in the neighborhood.
- B. Width: In residential subdivisions, blocks shall have sufficient width to provide for two (2) tiers of lots of appropriate depths. Exceptions to this prescribed block width shall be permitted in blocks adjacent to arterial or collector streets, railroads, or waterways. Blocks intended for business or industrial use shall be on such width as may be considered most suitable for the prospective use.



- C. Length: In residential subdivisions, the lengths, widths, and shapes of blocks shall be such as are appropriate for the locality and the type of development contemplated, but block shall not exceed one thousand two hundred (1,200) feet or twelve (12) times the minimum lot width required in the zoning district, except that a greater length may be permitted where topography or other conditions justify a departure from this maximum. Block length shall not be less than three hundred (300) feet in length. Blocks intended for business or industrial use shall be on such length as may be considered most suitable for the prospective use.
- D. Easements: In long blocks, the Planning Commission may require the reservation of an easement through the block to accommodate utilities, drainage facilities, or pedestrian traffic.
- E. Pedestrian Access: Pedestrianways or crosswalks, not less than ten (10) feet wide, may be required by the Planning Commission through the center of blocks more than eight hundred (800) feet long or where deemed essential to provide circulation or access to schools, playgrounds, shopping centers, transportation, or other community facilities.

Section 6.05 Streets

- A. General Requirements.
 - 1. Relationship to Adjoining Street Systems: The arrangement of streets in new subdivisions shall make provisions for the continuation of the principal existing streets in adjoining additions (or their proper projection where adjoining property is not subdivided) insofar as they may be necessary for convenient movement of traffic, effective fire protection, efficient provision of utilities, or where the continuation is in accordance with the City of De Soto Major Street Plan of the Comprehensive Plan. The width of such streets in new subdivisions shall be not less than the minimum street widths established herein. Alleys, when required, and street arrangement must cause no hardship to owners of adjoining property when they plat their land and seek to provide for convenient access to it. Whenever there exists a dedicated or platted half street or alley adjacent to the tract to be subdivided, the other half of the street or alley shall be platted and dedicated as a public way.

Where topographical conditions make such street continuance or conformity impracticable, the Planning Commission may approve an alternative layout.
 - 2. Frontage on Improved Roads. No subdivision shall be approved unless the area to be subdivided shall have frontage on and access from an existing street as follows:
 - a. An existing street as shown on the city's current street map; or
 - b. An existing state, county, or township street or highway; or



- c. A street shown upon a plat approved by the Planning Commission and recorded in the Johnson County Register of Deeds' office. Such street or highway must be suitably improved as required by the highway rules, regulations, specifications, or orders, or be secured by a performance bond required under these subdivision regulations, with the width and right-of-way required by these subdivision regulations. Wherever the area to be subdivided is to utilize existing road frontage, the road shall be suitably improved as provided above.
3. Grading and Improvement Plan. Roads shall be graded and improved and conform to the City of De Soto construction standards and specifications and shall be approved as to design and specifications by the City Engineer, in accordance with the construction plans required to be submitted prior to Final Plat approval.
4. Classification. All roads shall be classified as an arterial, collector or local street. In classifying roads, the Planning Commission shall consider the Major Street Classification Map of the Comprehensive Plan and the projected traffic demands.
5. Arrangement.
 - a. Streets shall be related appropriately to the topography. Grades of streets shall conform as closely as possible to the original topography. A combination of steep grades and curves shall be avoided. All streets shall be arranged so as to obtain as many building sites as possible at, or above, the grades of the streets. Specific standards are contained in the design standards of these regulations.
 - b. Arterial and collector streets through subdivisions shall conform to the major street plan of the Comprehensive Plan as adopted by the Planning Commission and Governing Body. All arterial and collector streets shall be properly related to special traffic generators such as industries, business districts, schools, churches, and shopping centers; to population densities; and to the pattern of existing and proposed land uses.
 - c. Local streets shall be laid out to conform as much as possible to the topography to discourage use by through traffic, to permit efficient drainage and utility systems, and to require the minimum number of streets necessary to provide convenient and safe access to property.
 - d. Proposed streets shall be extended to the boundary lines of the tract to be subdivided, unless prevented by topography or other physical conditions, or unless in the opinion of the Planning Commission such extension is not necessary or desirable for the coordination of the layout of the subdivision with the existing layout or the most advantageous future development of adjacent tracks.
 - e. In business and industrial developments, the streets and other accessways



shall be planned in connection with the grouping of buildings, location of rail facilities, and the provision of alleys, truck loading and maneuvering areas, and walks and parking areas so as to minimize conflict of movement between the various types of traffic, including pedestrian.

6. Where the plat submitted covers only a portion of the contiguous land owned by the subdivider, a sketch of the prospective future street system of the entire ownership shall be submitted.
7. Access to Arterial Streets. Where a subdivision borders on or contains an existing or proposed arterial, the Planning Commission may require that access to such streets be limited by one of the following means:
 - a. The subdivision of lots so as to back onto the primary arterial and front onto a parallel local street; no access shall be provided from the arterial, and screening shall be provided in a strip of land along the rear property line of such lots.
 - b. A series of cul-de-sacs, U-shaped streets, or short loops entered from and designed generally at right angles to such a parallel street, with the rear lines of their terminal lots backing onto the primary arterial.
 - c. A marginal access or service road (separated from the arterial by a planting or grass strip and having access at suitable points).
8. Road Names. All streets that are oriented in an east-west alignment shall be numbered streets. The numbering of streets shall be consistent with the Kansas City addressing grid system. All streets that are oriented in a north-south alignment shall be named. Streets that are in alignment with other already existing and named streets shall bear the names of the existing streets. Names shall be sufficiently different in sound and spelling from other street names in the municipality so as not to cause confusion. The Planning Commission shall approve street names upon recommendation of the Planning and Zoning Department at the time of preliminary approval. The Planning and Zoning Department shall consult the local emergency communications department (911) prior to rendering its recommendation to the Planning Commission.
9. Street Signs. The developer shall pay to the City the cost of purchasing and installation of street signs at all intersections within a subdivision. The term "street sign" as used herein shall include all traffic control signs street name signs and any other street signage that is to be owned and maintained by the City after installation. The City of De Soto shall install all street signs before issuance of certificates of occupancy for any residence on the streets approved. Street name signs are to be placed at all intersections within or abutting the subdivision, the type and location of which to be approved by the City.



10. Street Lights. Installation of street lights shall be required in accordance with the Standard Specifications and Design Criteria of the Kansas City Metropolitan Chapter of the American Public Works Association (K.C.A.P.W.A.).
11. Reserve Strips. The creation of reserve strips shall not be permitted adjacent to a proposed street in such a manner as to deny access from adjacent property to the street.
12. Dead-End Roads. (Parts a & b of subsection amended 3-4-05/Ord. 2084) (Part b. revised and part c. added 10-12-06/Ord. 2141)
 - a. Dead-End Roads (Temporary). If the adjacent property is undeveloped and a street more than one lot deep or on which lots front must temporarily be a dead-end street, the right-of-way and road improvement shall be extended to the property line. A temporary dust-proof turnaround having a radius of at least fifty (50) feet shall be provided on all temporary dead-end streets. When a temporary turnaround is required, a notation shall be added on the subdivision plat indicating that land outside the normal street right-of-way shall revert to abutting property owners whenever the street is continued. The Planning Commission may limit the length of temporary dead-end streets in accordance with the design standards of these regulations.
 - b. Dead-End Roads (Permanent). Where a road does not extend beyond the boundary of the subdivision and its continuation is not required by the Planning Commission for access to adjoining property, its terminus shall normally not be nearer to such boundary than fifty (50) feet. However, the Planning Commission may require the reservation of an appropriate easement to accommodate drainage facilities, pedestrian traffic, or utilities. A cul-de-sac turnaround shall be provided at the end of a permanent dead-end street.
 - c. Cul-de-sac Requirements. An adequate turnaround of not less than a sixty (60) foot radius right-of-way shall be provided at the closed end of any dead-end street that is longer than one (1) lot in length and that is designed to permanently remain as a dead-end street. Cul-de-sacs shall provide a paved turnaround having a street radius, at the back of curb, of fifty (50) feet. Not more than one Cul-de-sac shall extend from another Cul-de-sac. The summation of the lengths of all connecting Cul-de-sacs shall not exceed 1,000 feet. No single Cul-de-sac shall exceed 500 feet in length. Cul-de-sac lengths shall be measured from the center of the Cul-de-sac bulb to the center of the intersecting street. For greater convenience to traffic and more effective police and fire protection, parking shall not be permitted in the bulb of permanent dead-end streets.



13. Private Streets: No private streets shall be permitted in the City of De Soto, except as approved by the City Council. Such streets shall meet the minimum standards herein, and maintenance assurances shall be provided.
14. Roundabouts: At the discretion of the Planning Commission and City Council, roundabouts may be allowed in lieu of standard intersections. Roundabout planning and design shall be in general conformance with Publication Number FHWA-RD-00-067 of the US Department of Transportation, Federal Highway Administration, as supplemented by the Kansas Department of Transportation publication entitled "Kansas Roundabout Guide, *A supplement to FHWA's Roundabouts: An Informational Guide*". Any proposed roundabout must be accompanied by a traffic study, performed by a licensed Professional Engineer (PE) and Certified Professional Transportation Operations Engineer (CPTOE), verifying that the proposed roundabout meets the criteria set forth in the aforementioned publications.

B. Street Design Standards.

1. General.
 - a. In order to provide for streets of suitable location, width, and improvement to accommodate prospective traffic and afford satisfactory access to police, fire fighting, snow removal, sanitation, and road-maintenance equipment, and to coordinate roads so as to compose a convenient system and avoid undue hardships to adjoining properties, the following design standards for streets are hereby required.
 - b. Unless otherwise specified within these regulations, all streets shall be designed in accordance with Division V of the Standard Specifications and Design Criteria of the Kansas City Metropolitan Chapter of the American Public Works Association (KCAPWA) and all street construction methods and materials shall conform to Division II of the KCAPWA.
2. Standard Drawings. All public street improvements shall conform to the City of De Soto standard drawings, the latest revision, as approved by the City Engineer.
3. Excess Right-of-Way. Right-of-way widths in excess of the standards designated in the KCAPWA regulations shall be required whenever, due to topography, additional width is necessary to provide adequate slopes. Such slopes shall not be in excess of three-to-one.
 - a.
4. Right-of-Way Dedications. The minimum right-of-way width for all urban standard public streets shall be 50 feet. The minimum right-of-way width for all rural standard public streets shall be 60 feet. All right-of-way dedications shall be dedicated to the City of De Soto in fee simple title.



5. Widening and Realignment of Existing Streets. Where a subdivision borders an existing narrow road or when the Comprehensive Plan, Capital Improvement Plan, or zoning setback regulations indicate plans for realignment or widening a road that would require use of some of the land in the subdivision, the applicant shall be required to improve and dedicate at its expense those areas for widening or realignment of those roads in accordance with the minimum requirements of these regulations. Frontage roads and streets shall be improved and dedicated by the applicant at its own expense to the full width as required by these subdivision regulations when the applicant's development activities contribute to the need for the road expansion. Land reserved for any road purposes may not be counted in satisfying yard or area requirements of the Zoning Regulations.

C. Rural Residential Street Sections.

At the discretion of the Planning Commission and Governing Body of the City of De Soto, residential local and residential access streets within a proposed subdivision may be constructed in accordance with the rural residential street section shown on the City's standard drawings, subject to the requirements of this section.

1. Rural Street Sections Allowed. Proposed subdivisions may be allowed to contain rural street sections for some or all of their interior streets. The decision to allow rural section streets shall be based on the following criteria:
 - a. The proposed subdivision lies at least partly within the "Rural Subdivision Overlay Area" as indicated on the City's Future Land Use Map.
 - b. The proposed subdivision is in an area that does not have public sanitary sewer service available and is not within a future sewer service area as shown in the City's Wastewater Master Plan.
 - c. The proposed subdivision is in an area where on-site septic systems are feasible.
 - d. The proposed subdivision is within the R-0 or R-1 zoning district.
 - e. The proposed subdivision is in an area where rural residential patterns are already established.
2. Lot sizes. Any subdivision including rural section streets shall have an average lot size of at least 2.0 acres, and a minimum lot size of 1.5 acres.
3. Minimum Right-of-way. The minimum right-of-way width for rural residential street sections shall be 60 feet. Additional right-of-way width may be necessary to accommodate larger open ditches.
4. Covenants and Restrictions. Any subdivision proposing to include rural section streets shall submit covenants and deed restrictions applicable to the development



as part of the preliminary plat or preliminary development plan. These documents shall include the following:

- a. Requirements binding all owners to remain responsible for the installation and maintenance of all driveway or entrance culverts associated with their property.
 - b. Restrictions on activities within the right-of-way including grading work or landscaping that may change the course of flow within a drainage ditch.
 - c. Acknowledgements of the City's right and authority to perform maintenance and construction activities within the right-of-way without consent of the adjacent property owner.
 - d. Covenants of non-opposition to future benefit districts for sewer and road improvements.
 - e. Requirements binding all owners to connect to the public sewer in the event of the failure of any on-site septic system, providing that public sewers are available at the time of failure.
5. Sidewalks. The Planning Commission may allow alternate sidewalk locations within subdivisions that have rural residential streets. As part of the subdivision approval process, the Planning Commission may approve alternate integrated pedestrian facilities that serve the needs of the subdivision and community as a whole. Approval of alternate sidewalk locations shall be at the discretion of the Planning Commission. When sidewalks are not within the right-of-way, pedestrian access easements must be dedicated on the final plat, and the maintenance of the sidewalk shall be the responsibility of the homes association or developer. Sidewalk ramps in accordance with the City's standard drawings shall be required at all intersections with public streets or parking lots.
6. Dry Sewers. All subdivisions including rural section streets shall include low pressure, dry sanitary sewers. The installation of the dry sewers shall occur at the time of street construction and prior to the issuance of any building permits. Low pressure systems shall meet or exceed the requirements of the Kansas Department of Health and Environment and the KCAPWA. Dry sewers shall be placed within the right-of-way unless otherwise approved by the Planning Commission.
- No permits shall be granted for the repair or replacement of an on-site septic system if public sewer service is available at the time via the low pressure sewer system. In this event, the owner will be required to connect to the public low pressure sewer system without the imposition of any sewer system development or impact fee providing that the septic tank remains in operation. If the septic tank is removed, then the sewer system development or impact fee shall apply.
7. Street Lighting. The requirements of Section 5800 of the KCAPWA relating to minimum street lighting standards may be relaxed at the discretion of the Planning Commission. At a minimum, all intersections shall be sufficiently illuminated to provide adequate visibility and safety for the public.



8. As-Built Record Drawings. After the construction of any home taking access to a rural section street, and prior to the issuance of occupancy permits for the structure, a survey of the public drainage systems adjacent to the property shall be provided to the City Engineer. This survey must be performed by a professional land surveyor licensed to practice in the state of Kansas. The elevations, slopes, and flowlines of all public drainage elements must be within 0.10 feet of the elevations slopes and flowlines indicated on the approved public improvement construction plans for the subdivision. The City Engineer shall have the authority to withhold occupancy permits if the public drainage systems have been altered during home construction until corrective measures are complete.

Section 6.06 Storm Sewer

A. General Requirements.

1. Unless otherwise specified within these regulations an adequate drainage system, including pipes, culverts, intersectional drains, drop inlets, bridges, etc. for proper drainage of all water shall be provided. The design and construction of facilities for the drainage of storm water shall conform to the current standards established in the Design Criteria for Storm Sewers and Appurtenances from the Kansas City Metropolitan Chapter of the American Public Works Association (K.C.A.P.W.A.).
2. The Planning Commission shall not recommend for approval any plat of subdivision that does not make adequate provision for storm and flood water runoff channels or basins. The storm water drainage system shall be separate and independent of any sanitary sewer system. Storm sewers, where required, shall be designed by the Rational Method, or other methods as required by the City Engineer, and a copy of design computations shall be submitted along with plans. Inlets shall be provided so that surface water is not carried across or around any intersection, nor for a distance of more than 600 feet in the gutter. When calculations indicate that curb capacities are exceeded at a point, no further allowance shall be made for flow beyond that point, and basins shall be used to intercept flow at that point. Surface water drainage patterns shall be shown for each and every lot and block.

B. Nature of Storm Water Facilities.

1. Location. The applicant may be required by the City Engineer to construct facilities to convey any spring or surface water that may exist either previously to, or as a result of the subdivision. Such drainage facilities shall be located in the road right-of-way where feasible, or in perpetual unobstructed easements.
2. Accessibility to Public Storm Sewers.
 - a. If a connection to a public storm sewer will be provided eventually, as



determined by the City Engineer and the Planning Commission, the developer shall make arrangements for future storm water disposal by a public utility system at the time the plat receives final approval. Provision for such connection shall be incorporated by inclusion in the subdivision improvement agreement required for the subdivision plat.

3. Accommodation of Upstream Drainage Areas. A culvert or other drainage facility shall in each case be large enough to accommodate potential runoff from its entire upstream drainage area, whether inside or outside the subdivision. The applicant shall determine the necessary size of the facility, assuming conditions of maximum potential watershed development permitted by the Zoning Regulations. This determination shall be verified and approved by the City Engineer.
4. Effect on Downstream Drainage Areas. The applicant shall determine the effect of the subdivision on existing downstream drainage facilities outside the area of the subdivision. This determination shall be verified by the City Engineer. Drainage studies together with such other studies as shall be appropriate, shall serve as a guide to needed improvements. Where it is anticipated that the additional runoff incident to the development of the subdivision will overload an existing downstream drainage facility, the Planning Commission may withhold approval of the subdivision until provision has been made for the expansion of the existing downstream drainage facility. No subdivision shall be approved unless adequate drainage will be provided to an adequate drainage watercourse or facility.
5. Areas of Poor Drainage. Whenever a plat is submitted for an area that is subject to flooding, the Planning Commission may approve such subdivision provided that the applicant fills the affected area of the subdivision to an elevation sufficient to place the elevation of streets and lots at a minimum of twenty four (24) inches above the elevation of the one hundred (100) year floodplain. A copy of the required floodplain fill permit shall be submitted prior to the issuance of a building permit. The plat of the subdivision shall provide for an overflow zone along the bank of any stream or watercourse, in a width that shall be sufficient in times of high water to contain or move the water, and no fill shall be placed in the overflow zone nor shall any structure be erected or placed in the overflow zone. The boundaries of the overflow zone shall be subject to approval by the City Engineer. The Planning Commission may deny subdivision approval for areas of extremely poor drainage.
6. Floodplain Areas. The Planning Commission may, when it deems it necessary for the health, safety, or welfare of the present and future population of the area and necessary to the conservation of water, drainage, and sanitary facilities, prohibit the subdivision of any portion of the property that lies within the floodplain of any stream or drainage course. These floodplain areas shall be preserved from any and all destruction or damage resulting from clearing, grading, or dumping of earth, waste material, or stumps, except at the discretion of the Planning Commission.



C. Dedication of Drainage Easements.

1. General Requirements. When 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 to the lines of such watercourse, and of such width and construction as will be adequate for the purpose.
2. Drainage Easements.
 - a. Where topography or other conditions are such as to make impractical the inclusion of drainage facilities within road rights-of-way, perpetual, unobstructed easements at least fifteen (15) feet in width for drainage facilities shall be provided across property outside the road lines and with satisfactory access to the road. Easements shall be indicated on the plat. Drainage easements shall extend from the road to a natural watercourse or to other drainage facilities.
 - b. The applicant shall dedicate, either in fee simple title or by a drainage or conservation easement, land on both sides of existing watercourses to a distance to be determined by the City Engineer and the Planning Commission.
 - c. Low-lying lands along watercourses subject to flooding or overflowing during storm periods, whether or not included in areas for dedication, shall be preserved and retained in their natural state as drainage ways.

Section 6.07 Sanitary Sewers

- A. General Requirements. The applicant shall install sanitary sewer facilities. All plans shall be designed, approved and constructed to the current standards established in the Design Criteria for Sanitary Sewers from the Kansas City Metropolitan Chapter of the American Public Works Association (K.C.A.P.W.A.) and in accordance with the rules, regulations, and standards of the City Engineer, Kansas Department of Health and Environment, unless otherwise specified within these regulations. Necessary action shall be taken by the applicant to extend or create a sanitary sewer district for the purpose of providing sewerage facilities to the subdivision when no district exists for the land to be subdivided.
- B. High-Density Residential and Nonresidential Districts. Sanitary sewerage facilities shall connect with public sanitary sewerage systems. Sewers shall be installed to serve each lot. No individual disposal system or treatment plants (private or group disposal systems) shall be permitted.
- C. Low- and Medium-Density Residential Districts. Sanitary sewerage systems shall be constructed as follows:



1. When a public sanitary sewerage system is reasonably accessible either by gravity flow or by other constructed means, the applicant shall connect with same and provide sewers accessible to each lot in the subdivision within one-quarter mile.
 2. When public sanitary sewerage systems are not reasonably accessible but will become available within a reasonable time (not to exceed fifteen (15) years), the applicant may choose one of the following alternatives:
 - a. Central sewerage system with the maintenance cost to be assessed against each property benefited. Where plans for future public sanitary sewerage systems exist, the applicant shall design connections to the public system and dedicate easements to accommodate such. In addition a covenant of non-opposition to future improvements shall be submitted. Adequate soil conditions must exist to accommodate the system.; or
 - b. Individual disposal systems. Where plans for future public sanitary sewerage systems exist, the applicant shall design connections to the public system and dedicate easements to accommodate such. In addition a covenant of non-opposition to future improvements shall be submitted. Adequate soil conditions must exist to accommodate each individual lot or subdivision as applicable.
 3. When sanitary sewer systems are not reasonably accessible and will not become available for a period in excess of fifteen (15) years, the applicant may install sewerage systems as follows:
 - a. Medium-Density Residential Districts. Only a central sewerage system may be constructed. No individual disposal system will be permitted. Where plans for future public sanitary sewerage systems exist, the applicant shall design connections to the public system and dedicate easements to accommodate such. In addition a covenant of non-opposition to future improvements shall be submitted. Adequate soil conditions must exist to accommodate the system.
 - b. Low-Density Residential District. Individual disposal systems or central sewerage systems may be used. Where plans for future public sanitary sewerage systems exist, the applicant shall design connections to the public system and dedicate easements to accommodate such. In addition a covenant of non-opposition to future improvements shall be submitted. Adequate soil conditions must exist to accommodate each individual lot or subdivision as applicable.
- D. Individual disposal system requirements. If public sewer facilities are not available and individual disposal systems are proposed, minimum lot areas shall conform to the requirements of the Zoning Regulations unless additional area is required to assure adequate soil conditions to serve each individual lot or subdivision as applicable. Percolation tests and test holes shall be made as directed by the City Inspector. The



individual disposal system, including the size of the septic tanks and size of the tile fields or other secondary treatment devise shall be approved by the Health Department.

Section 6.08 Water Supply

- A. The subdivider shall construct a complete water distribution system that shall adequately serve all lots. The system shall include fire hydrants spaced no more than five-hundred (500) feet apart and at high points in the line, or as otherwise necessary to ensure that all lots are within two hundred-fifty (250) feet of a hydrant, unless otherwise approved by the City Engineer and Fire Chief. This system shall be properly connected with the public water supply. The Planning Commission may deny subdivision approval for areas that can not be served by adequate water supply and pressure.
- B. To eliminate future street openings, all underground utilities for water distribution system and fire hydrants, together with the fire hydrants themselves, and all other supply improvements shall be installed before any final paving of a street shown on a plat.

Section 6.09 Utilities

- A. Location. All utility facilities, including but not limited to gas, electric power, telephone, and CATV cables, shall be located underground throughout the subdivision. Whenever existing utility facilities are located above ground, except when existing on public roads and rights-of-way, they shall be removed and placed underground. All utility facilities existing and proposed throughout the subdivision shall be shown on the Preliminary Plat. Underground service connections to the street property line of each platted lot shall be installed at the subdivider's expense. At the discretion of the Planning Commission, the requirement for service connections to each lot may be waived in the case of adjoining lots to be retained in single ownership and intended to be developed for the same primary use.
- B. Easements.
 - 1. Easements centered on rear lot lines shall be provided for utilities (private and municipal) and such easements shall be at least twenty (20) feet wide (10 feet each side). Proper coordination shall be established between the subdivider and the applicable utility companies for the establishment of utility easements established in adjoining properties.
 - 2. When topographical or other conditions are such as to make impractical the inclusion of utilities within the rear lot lines, perpetual unobstructed easements at least fifteen (15) feet wide (7.5 feet each side) shall be provided along side lot lines with satisfactory access to the road or rear lot lines as needed. Easements shall be indicated on the plat.

Section 6.10 Sidewalks

- A. Required Improvements.



1. Sidewalks shall be included within the dedicated non-pavement right-of-way of all roads as follows (see also cross sections 1-3 in Appendix A):
 - a. Arterial Streets. Eight (8) foot sidewalks on both sides of the street.
 - b. Collector Streets. Five (5) foot sidewalks shall be required on both sides of all collector streets.
 - c. Local and Marginal Access Streets. Five (5) foot sidewalks shall be required on one side of the street. Sidewalks on local and marginal access streets shall generally be located on the north and east sides of the streets.
2. Sidewalks shall be improved as required by these regulations. Sidewalks shall be located one foot inside the street right-of-way.
3. As part of the Site Plan approval process, the Planning Commission may defer sidewalk construction under certain conditions. The property requesting deferral must meet all of the following conditions:
 - a. The entire roadway abutting the applicant's property that is subject of the Site Plan must be a 'Rural Section Road', as determined by the City Engineer or his/her designee;
 - b. The applicant's property that is subject of the Site Plan is zoned 'C-2', 'O-I', 'M-1', 'M-2', or 'P-D' and is not primarily residential in nature.
 - c. The roadway abutting the applicant's property that is subject of the Site Plan must be within one of the following 'deferral designated corridors': Lexington Avenue south of 95th Street; 95th Street between Lexington Avenue and Sunflower Road; Kill Creek Road south of K-10 Highway; or 83rd Street east of Waverly Road; and,
 - d. The applicant's property that is subject of the Site Plan cannot partially or wholly be within 2,000 feet of City sewer service, as determined by the City Engineer or his/her designee.
 - e. The applicant has submitted a signed agreement not the protest the formation of a future benefit district for street and sidewalk improvements.

If an applicant's property that is subject of a Site Plan meets all of the above criteria and is approved for deferral of sidewalk improvements by the Planning Commission, that deferral expires immediately upon the applicant's property no longer meeting one or all of the above criteria. The applicant will be notified via certified letter by a City Official of the deferral approval expiration, and is required to install sidewalks to current City specifications within one (1) year of receipt of said notification.



4. Crosswalks shall be required to provide safe and convenient access across streets along existing and future sidewalk network. Curb cuts meeting the minimum standards of the Americans with Disabilities Act shall be provided where sidewalks meet street curbs or connection to another sidewalk across a street is required. Crosswalks across collector or arterial streets shall be clearly marked with approved paint or other more permanent means such as use of unique paving patterns as approved by the City Engineer.
- B. Pedestrian Accesses. The Planning Commission may require, in order to facilitate pedestrian access from the roads to schools, parks, playgrounds, or other nearby roads, perpetual unobstructed easements at least ten (10) feet in width with a paved walkway of five (5) to eight (8) feet. To minimize the impact of the impact on adjacent property, the walkway shall be adequately landscaped and screened as required by the Planning Commission. Pedestrian easements shall be indicated on the plat.

Section 6.11 Open Space

- A. Common Open Space. Common open space provided in a residential subdivision and conveyed to a property owners association (private open space) or to the City (public open space) shall remain permanently open for recreational and conservational purposes.

Open space, whether such areas are or will be public or private, in any residential subdivision shall be laid out, to the maximum feasible extent, so as to connect with other open space, existing or proposed, in the vicinity. In the case of two or more adjacent subdivisions, developers may cooperatively allocate open space areas, if such areas are coordinated in design and location to an extent acceptable to the Planning Commission and City Council.

- B. Private Open Space. Private open space that is held in common shall be set aside for the benefit, use, and enjoyment of the subdivision lot owners, present and future. All private, common open space, including recreation areas, tree cover areas, scenic vistas, wildlife or plant preserves, nature study areas, and private walkways, whose acreage is used in determining the size and extent of common open space shall be included in restrictive covenants, easements, or other legal devices designated to assure that such space will remain permanently open.
- C. In order to meet the recreational needs of the residents of De Soto, all subdivision developments are required to contribute either park land or fees in lieu of park land. Where a school, neighborhood park, recreation area, or public access to water frontage which is shown on the Future Land Use Plan of Comprehensive Plan, in whole or in part in the applicant's proposed subdivision, the City Council may require the dedication or reservation of such open space within the proposed subdivision for school, park, recreation, or other public purpose. Private open space shall not be credited as public open space.

Park land/fee dedications shall be calculated during the preliminary plat process as specified in these regulations; and dedicated with the final plat. The City Council shall



determine whether the park land offer should be accepted, accepted with conditions, or if the offer should be declined and a payment of funds in lieu of park land dedication. Dedication of land for park use must be reflected and dedicated as such on the final plat.

- D. **Quality of Parkland Required to be Dedicated.** A park land dedication area shall useable land suitable for park development and shall not be located in any of the following areas within a development.
1. Deep ravines.
 2. Densely wooded areas.
 3. Areas where the average slope of the entire park/recreational area exceeds five (5) percent.
 4. Wetlands as determined by the U.S. Corps of Engineers.
 5. Floodways as determined by the regulations and guidelines of F.E.M.A.
 6. Other areas that are not conducive to park/recreational areas as determined by the Planning Commission.
 7. The total amount for park/recreational area, however, shall not be less than one-half (½) acre in size.
- E. **Amount Of Park/Recreational Area Required.** A minimum of four percent (4%) of the gross area of any subdivision shall be reserved for parks and playground sites.
- F. **Fee In Lieu Of Park Land Dedication.** In order to determine the contribution amount to be paid by the developer in lieu of park land dedication the amount of land required to be dedicated shall first be determined. Based upon the amount of park land required to be dedicated, the developer shall hire and pay for a licensed real estate appraiser to determine the fair market value of the land area that would otherwise be required to be dedicated. The value established by the real estate appraiser shall then be verified and upon approval of the City Council paid to the City in lieu of the park land dedication. The fee in lieu of park land dedication shall be placed in an escrow account established by the City and shall only be used for park and recreational purposes.

Park fee contribution in lieu of land dedication is due and payable at time of issuance of a building permit. Park fees on multiple buildings may be paid in advance or at time of individual building permit issuance.



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