Article 4. Minimum Subdivision Design Standards

Section 4.01 Purpose
The purpose of this article is to provide reasonable standards of design for the subdivision and resubdivision of land. The Harvey County Regional Planning Commission shall study and review all subdivision plats in relation to the general character of the area, the general requirements of the community, and the particular requirements of the neighborhood. These design standards shall guide private and public policy regarding the efficient layout and design of public improvements.

Section 4.02 General Development
Subdivisions, resubdivisions and all related improvements shall be planned, designed, and constructed in accordance with the standards and specifications set forth in this Article.

A. A subdivision shall be designed to comply with the Harvey County Comprehensive Plan.

B. The purchase and installation of all facilities and utilities shall be the responsibility of the developer. No building permit may be issued unless the county inspects and certifies that all public improvements have been properly installed.

C. The Harvey County Regional Planning Commission may require the dedication of parklands (or a payment in lieu of parklands), open space, easements for the construction of public streets and pedestrian ways, and such other lands that are necessary to further the goals of the comprehensive plan. All such dedications shall be generally proportional to the impact of development.

D. All subdivisions shall be designed according to “best practices” that emphasize good landform and drainage, the preservation of prime farmland and/or natural features (e.g., trees, streams, unusually attractive topography), and safe transportation facilities.

E. Any land that the Harvey County Regional Planning Commission finds unsuitable for subdivision and subsequent development due to flooding, improper drainage, rock formations, topography, inadequacy of utility easements, or other features that will reasonably effect the public health, safety, and welfare shall not be subdivided or developed until reasonable and adequate methods are formulated by the developer and approved by the Harvey County Regional Planning Commission to solve the problems of adverse development conditions.

Section 4.03 Lot Design and Layout
All lots and landform design shall be planned in accordance with the following general standards.
A. The lot size, width, depth, shape and orientation, and the minimum building setback lines shall be appropriate for the location of the subdivision, the type of development, and use contemplated.

B. All subdivisions shall conform to policies for subdivision design in the comprehensive plan and regulations contained in Chapter One of the UDC.

C. All lots shall be designed and arranged with safe access to a public road. (See: Section 4.05

D. Lot arrangement shall be designed to provide positive drainage.

E. All subdivisions shall conform to the requirements of the flood plain regulations.

F. Side lines of lots shall be at right angles or radial to the street lines, unless a variance is granted to provide a better street and lot plan. The angle of variation will be marked on the plat. Lot lines shall be straight, when not adjacent to street right-of-way.

G. Flag lots or private travel easements shall not be permitted except by a specific plat variance issued by the Harvey County Regional Planning Commission.

H. The minimum lot areas and widths, measured at the setback lines, shall conform to the requirements of Chapter One of the UDC.

I. The maximum depth of all lots shall not exceed two and one-half times the width of the lot measured at the widest point.

J. All lot corners and points-of-intersection shall be monumented in accordance with professional land survey practices.

K. Corner lots for residential use shall have extra width to permit appropriate building setback from an orientation to both streets.

L. Double frontage and reverse frontage lots shall be avoided except where they are needed to overcome specific disadvantages of topography or orientation

M. If an owner places restrictions on any lot that are greater than those imposed by these subdivision regulations, or by the zoning regulations in Chapter One, such restrictions or a reference thereto shall be placed on the final plat.

Section 4.04 STREETS AND CIRCULATION. The plan for general circulation and the development of all streets shall be prepared in accordance with the following standards.

A. CLASSIFICATION. The arrangement of arterial, collector, and local streets shall conform to the major thoroughfare system and policies identified in the comprehensive plan. A section line road shall be considered an arterial road unless otherwise designated.

B. TOPOGRAPHY. Streets shall be related appropriately to the topography. Local streets may be designed to a curvilinear, gridiron, or modified-grid system. Grades of streets shall conform as closely as possible to the original topography. Steep grades and curves shall be avoided.

C. ARRANGEMENT. All streets shall be properly integrated with the existing and proposed system of streets and dedicated rights-of-way. Additionally, all streets shall be properly related to specific traffic generators and to the pattern of existing and proposed land uses.

1. Where required by the Harvey County Regional Planning Commission, rights-of-way shall be provided for extending streets to adjoining unsubdivided property. Land in such rights-of-way shall be dedicated.

2. Where a proposed subdivision abuts an approved subdivision containing future street rights-of-way, the developer of the proposed subdivision shall construct the street and all
required improvements from the proposed subdivision to the approved street in the existing subdivision.

3. New streets shall be extended to the boundaries of the subdivision to provide access to adjoining property, and shall intersect with existing streets.

4. When a subdivision borders on, or contains a railroad right-of-way or a limited access highway, the Harvey County Regional Planning Commission may require a street approximately parallel to and on each side of such right-of-way, at a distance suitable for the appropriate use of the intervening land. Such distances shall also be determined with due regard for the requirements of approach grades and future grade separations.

5. Under normal conditions, streets shall be laid out to intersect, as nearly as possible, at right angles. Where topography or other conditions justify a variation from the right angle intersection, the minimum angle shall be eighty (80) degrees.

D. CONNECTIVITY. In order to promote connectivity to adjacent properties, every plat shall provide multiple access points, to the greatest extent possible. Streets in a proposed subdivision must connect, where feasible, to existing streets in abutting platted subdivisions.

E. FRONTAGE ON IMPROVED STREETS. No subdivision shall be approved unless it has access to a public street that has been suitably improved.

F. LOT ACCESS. The Harvey County Regional Planning Commission may disapprove any point of ingress or egress to any lot, tract, or development from any street, road, or highway when the proposed ingress or egress would create unsafe conditions, reduce the capacity of the adjoining street, road, or highway, or result in substandard circulation and impaired vehicle movement.
   1. No more than one access per lot shall be allowed onto local subdivision streets.
   2. Where driveway access from a public road or street may be necessary for several adjoining lots, the Harvey County Regional Planning Commission may require that such lots be served by a combined access drive or shared driveways in order to limit possible traffic hazards.

G. PUBLIC STREET MAINTENANCE. All proposed new streets in a new subdivision shall become public streets and dedicated to the County, unless permitted by a specific plat variance by the Planning Commission. The subdivider shall warrant all repairs and reasonably necessary changes on the streets for a period of one year following the date of final acceptance by the County.

H. HALF-STREET. Dedication of half-streets shall not be approved.

I. GRADING AND CONSTRUCTION PLAN. All applicants for subdivision plats shall submit a set of road development plans, to the zoning administrator. Plans shall be prepared by a professional engineer and bear the stamp of that engineer and include the following elements.
   1. Linear Grading. Plans, profiles and cross-sections, including approximate excavation quantities. Ditch profiles, with grade percentages, shall be shown when varying from a standard ditch.
   2. Drainage areas.
   3. Sizes and lengths of all drainage structures.
   4. Entrance culverts to each lot being subdivided.
   5. Sizes and map locations of all easements on or bordering the property to be subdivided; this shall include all travel easements and temporary construction easements.
   6. Road surfacing material (quantities or rates)
   7. The type and content of the surface soil.
   8. Seeding proposal.
10. All plans must be submitted and approved prior to the start of any grading or construction. All plans must contain a signature space for zoning administrator approval.

11. All street pavement, shoulders, drainage improvements and structures, turnarounds, and pedestrian ways shall conform to all construction standards and specifications adopted by the County.

J. DESIGN GUIDELINES FOR NEW ROAD CONSTRUCTION

<table>
<thead>
<tr>
<th>Classification</th>
<th>Pavement Type</th>
<th>Number of Lanes</th>
<th>Lane Width</th>
<th>Shoulder Width</th>
<th>Right-of-Way</th>
<th>Minimum Design Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>Gravel</td>
<td>2</td>
<td>10-11’</td>
<td>4 feet</td>
<td>60 feet</td>
<td>30</td>
</tr>
<tr>
<td>Local</td>
<td>Paved</td>
<td>2</td>
<td>10-11’</td>
<td>4 feet</td>
<td>60 feet</td>
<td>30</td>
</tr>
<tr>
<td>Collector</td>
<td>Paved</td>
<td>2</td>
<td>12 feet</td>
<td>6 feet</td>
<td>80 feet</td>
<td>45</td>
</tr>
<tr>
<td>Arterial</td>
<td>Paved</td>
<td>2</td>
<td>12 feet</td>
<td>6 feet</td>
<td>100 feet</td>
<td>55</td>
</tr>
</tbody>
</table>

1. **Urban Fringe Subdivisions.** All street improvements located within the unincorporated areas, as defined as “Urban Fringe Areas” of the Harvey County comprehensive plan, shall comply with the appropriate municipalities Design Standards and Standard Construction Specifications or subdivision regulations. The subdivider shall be responsible for constructing all new streets.

2. **Rural Subdivisions.** All street improvements located in the unincorporated area, as defined as “Rural Transition Areas” or “Agricultural Preservation Areas” of the Harvey County comprehensive plan, shall be constructed in accordance to the following standards. The subdivider shall be responsible for constructing all new streets.

<table>
<thead>
<tr>
<th></th>
<th>Graveled Roads</th>
<th>Paved Roads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right-of-way</td>
<td>60 feet</td>
<td>60 feet</td>
</tr>
<tr>
<td>Surfacing</td>
<td>5” of crushed rock (type to be approved by the Planning Commission). Crushed rock shall be placed in two lifts</td>
<td>6” reinforced concrete or 8½ “ asphalt</td>
</tr>
<tr>
<td>Compaction</td>
<td>Type B MR-90 compaction required on the subgrade</td>
<td>Minimum depth of 9” of subgrade stabilization (fly ash or lime, depending on soil compaction). Soil testing shall be required to determine the optimum ash/lime content and moisture content and shall be the responsibility of the developer.</td>
</tr>
<tr>
<td>Roadway width</td>
<td>26 feet</td>
<td>27 feet</td>
</tr>
<tr>
<td>Surfaced width</td>
<td>24 feet</td>
<td>24 feet</td>
</tr>
<tr>
<td>Curb and gutter</td>
<td>None required; however, adequate shoulders and adjacent open</td>
<td>31 feet back to back</td>
</tr>
<tr>
<td>Ditch Depth</td>
<td>1.5 feet</td>
<td>Not applicable</td>
</tr>
<tr>
<td>-------------</td>
<td>---------</td>
<td>----------------</td>
</tr>
<tr>
<td>Ditch Width</td>
<td>4 feet</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Shoulder Slope</td>
<td>3:1</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Crown</td>
<td>3&quot;</td>
<td>3/16&quot; per foot</td>
</tr>
</tbody>
</table>

1. In rural subdivision roads, all crosspipes shall be a minimum of 18” in diameter or its pipe-arch equivalent with a minimum of 16 gauge galvanized corrugated steel. Minimum gauges for pipes larger than 18” in diameter shall correspond to Kansas Department of Transportation Specifications. Metal end sections shall be used. Pipe shall be of sufficient length to maintain 3:1 shoulder slope and 26 feet gravel road top or 27 feet paved surface. Pipe sizes shall be reviewed by the Harvey County Regional Planning Commission to correspond to the drainage and hydrology of the area.

2. In rural subdivisions, an entrance pipe shall be a minimum of a 12” in diameter or its pipe-arch equivalent with a minimum of 16 gauge galvanized corrugated steel. Metal end sections shall be used. Entrance pipe shall be of sufficient length to maintain 3:1 shoulder slope and 20 feet entrance top. Pipe sizes shall be reviewed by the Harvey County Regional Planning Commission to correspond to the drainage and hydrology of the area.

K. **TEMPORARY TURNAROUND.** When a temporary turnaround is provided on a street that is to be extended in the future, the Harvey County Regional Planning Commission, with the assistance of the county staff, shall establish the width of the turnaround and the need for temporary easements.

L. **CUL-DE-SACS.** Permanent cul-de-sacs (dead end streets) shall not be longer than 600 feet and a turn-around shall be provided at its terminus with adequate provision for turn-around of emergency or commercial vehicles, such as fire trucks and school busses. Temporary cul-de-sacs shall have, as a minimum, the same dimensions as a permanent cul-de-sac.

Lots that front upon a cul-de-sac or curved street having a radius of 200 feet or less shall be measured at the building setback line along an arc parallel to the right-of-way of such cul-de-sac or curved street. Such lots shall also be laid out so that their lot frontage, as measured on the arc of such right-of-way line, is not less than fifty (50) percent of the required lot width measured at the building setback line.

In those instances in which a subdivision consists of ten (10) lots or less and the overall density does not exceed one (1) residence per five (5) acres, a developer shall be allowed to provide a cul-de-sac not to exceed 1,100 feet in length.

M. **ACCESS TO ARTERIALS.** When a subdivision is proposed to front on an arterial street, the following standards shall apply

1. The subdivision shall be prepared so that the rear of all lots front the arterial street. No access shall be permitted from the lots to the arterial street, unless the Harvey County Regional Planning Commission grants a variance.

2. The developer shall provide an additional setback distance to separate the dwellings from the street R.O.W. and erect screening and sound barriers when required by the Harvey County Regional Planning Commission.

3. As an alternative, the Harvey County Regional Planning Commission may require the subdivision be separated from the arterial streets by a service or frontage road. The frontage road shall be separated from the arterial street by at least 20 feet and planted with grass and other landscaping material suitable for a sound barrier.
N. **SITE DISTANCE CLEARANCE.** Clear sight triangles of fifty (50) feet measured along the street right-of-way lines from their points of junction shall be provided at all intersections, and no obstruction shall be higher than two (2) feet above the center line within the sight triangle.

Section 4.05 **PEDESTRIAN ACCESS.**

A. **SIDEWALKS.** The Harvey County Regional Planning Commission may require the construction of sidewalks. Sidewalks shall be located in the right-of-way.

B. **PEDESTRIAN WALKWAYS.** The Harvey County Regional Planning Commission may require, in order to facilitate pedestrian access from the roads to parks, playgrounds, or other nearby roads, perpetual unobstructed easements at least ten (10) feet in width. Easements shall be indicated on the plat.

Section 4.06 **STORM DRAINAGE.**

A. A registered engineer shall design all storm drainage systems.

B. If a drainage way is proposed over an area with existing physical features such as streams, ponds, ravines, wooded areas, or other natural features, the width and location of the drainage way shall be approved by the Harvey County Regional Planning Commission.

C. The subdivider shall dedicate to the County all public storm drainage facilities required by the County Engineer so as to provide for the drainage of storm water through the development.

D. The Harvey County Regional Planning Commission may, when it deems it necessary for the health, safety, or welfare of the present and future population of the area, prohibit the subdivision of any portion of the property that lies within the floodplain of any stream or drainage course.

Section 4.07 **EASEMENTS AND RESERVATIONS.** All permanent and temporary easements shall be prepared for dedication in accordance with the following standards and specifications.

A. Easements shall follow the rear and side lot lines whenever practical and shall have a minimum total width of twenty (20) feet apportioned equally on abutting properties.

B. Where front line easements are required, a minimum of fifteen (15) feet on both sides of the R.O.W. shall be allocated as a utility easement.

C. Easements shall be designed to provide efficient installation of utilities. Public utility installations shall be located to permit multiple installations within the easements to avoid cross connections, minimize trenching and adequately separate incompatible systems.

D. A twelve (12) foot temporary construction easement shall be provided on each side of the permanent easement required in (4.08 A and B)) above for initial construction of water, sewer, and other utility lines. The temporary easement shall be considered released after the installation of all utilities. The temporary easement may be indicated on the plat by footnote.

E. Where a lot or group of lots side or back on existing high-pressure oil or gas transmission line, a 35 foot easement, at a minimum, shall be provided on each side of the line. The easement width will be greater if required by the owner of the line or if a greater distance, in the opinion of the Harvey County Regional Planning Commission, is warranted. Where a lot or group of lots side or back on an existing electrical transmission line, an easement will be provided as required by the owner of the line.

F. If a subdivision is traversed by a watercourse, drainage way, or channel, then a storm water easement or drainage right-of-way shall be provided. The easement shall conform substantially to the lines of such water course and shall be of such width or construction or
both, as may be necessary to provide adequate storm water drainage and access for maintenance. The final plat shall indicate maintenance responsibilities of such areas.

G. A drainage easement(s) on land subject to rapid storm water discharge may be required by the Harvey County Regional Planning Commission. The easement may also provide for the installation of storm water retention or detention basins as directed by the Harvey County Regional Planning Commission. All such basins shall be designed by a professional Civil Engineer registered in the State of Kansas.

Section 4.08 WATER & SANITARY WASTE REQUIREMENTS.

A. URBAN FRINGE SUBDIVISIONS. All subdivisions platted after the adoption date of these regulations that are located within “Urban Fringe Areas” of the Harvey County comprehensive plan shall be provided service from a municipal sanitary sewer and water system.

B. RURAL SUBDIVISIONS. All subdivisions platted after the adoption date of these regulations that are located in the unincorporated area of Harvey County, as defined as “Rural Transition Areas” or Agricultural Preservation Areas” of the Harvey County comprehensive plan, may be provided sanitary waste service from individual on-site waste water systems or a small community/decentralized sewage collection and treatment facility, and water may be provided service from individual wells or a central water system (RWD).

1. As part of the supplementary information submitted with a preliminary plat, the Harvey County Environmental Officer shall provide a statement evaluating the soil conditions and information submitted by the applicant. All systems shall be constructed in accordance with the “Sanitary Code of Harvey County, Kansas” and comply with the appropriate zoning regulations.

2. As part of the supplementary information submitted with a preliminary plat, the subdivider shall provide written verification from the Kansas Department of Health and Environment (KDHE) that the proposed small community/decentralized sewage collection and treatment facility meets state guidelines for the design and installation of said system.

3. As part of the supplementary information submitted with a preliminary plat, the subdivider shall provide verification from a licensed engineer or licensed well contractor that an adequate and acceptable water supply is available.

4. As part of the supplementary information submitted with a preliminary plat, the subdivider shall provide a written statement from the affected rural water district stating that it is willing and able to provide service to the subdivision. All costs associated with providing rural water to the proposed subdivision shall be the borne by the developer.

Section 4.9 SEDIMENTATION & EROSION CONTROL. All subdivisions shall be prepared in accordance with State of Kansas NPDES standards.

Section 4.10 LANDSCAPING & SCREENING.

A. BUFFER YARDS. The Harvey County Regional Planning Commission may require the provision of additional open space, lot depth, or width in setbacks when evaluating a plat and assessing buffering to adjacent uses. The intent of the buffer yard is to separate land uses from other land uses, reduce glare, and filter noise. The plat shall show the designated buffer areas. The buffer areas shall be a minimum of twenty (20) feet wide in order to support mature trees, unless waived by the Planning Commission. Parking, storage and buildings are prohibited within the buffer yard.
B. **SCREENING AND LANDSCAPING.** The Harvey County Regional Planning Commission may require provisions of landscaping, berming, and fencing in the buffer yard and/or required setback areas. The Planning Commission shall determine the appropriate landscaping and screening during the review of the preliminary plat.