

Chapter 6 – Subdivision Standards

A. General Provisions.

1. Purpose.

- a. *Intent.* These subdivision design standards are intended to provide predictability to subdividers and property owners while ensuring the residents of the jurisdiction benefit from quality residential, commercial, industrial, and institutional development that promotes the public health, safety, and general welfare of the community.
- b. *Conformance to Applicable Rules and Regulations.* In addition to the requirements established in this chapter, all plats shall comply with the following laws, rules, and regulations:
 - 1) All applicable statutory provisions;
 - 2) The UDO, Zoning Map, building and fire codes;
 - 3) The County's Comprehensive Plan;
 - 4) The standards and regulations adopted by the County Commissioners;
 - 5) Any rules of the Johnson County Health Department and/or other applicable state or local agencies;
 - 6) The rules of Indiana Department of Transportation (INDOT) if the subdivision or any lot contained therein abuts a state highway or connecting road;
 - 7) Johnson County Design Standards Manual; and
 - 8) All other applicable laws of Johnson County.

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2. **Services and Facilities.** 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 this UDO.
 - a. *Standard for Approval.* No Primary Plat shall be approved unless the PC determines that services and facilities will be adequate to support and service the area of the proposed subdivision.
 - b. *Submittal of Additional Information.* At the request of the PC or Staff, the subdivider shall submit sufficient information and data on the proposed subdivision to demonstrate the expected impact on and use of any services and facilities by the subdivision.
 - c. *Facilities to be Examined.* Public facilities and services to be examined for adequacy will include roads, sanitary sewage disposal, potable water service, stormwater, schools, and emergency services including police and fire facilities.
3. **Extension Policies.** All public improvements and required easements shall be extended to the boundary lines of the parcel on which new development is proposed. Roads, water lines, wastewater systems, stormwater, electric lines, gas lines and telecommunications lines shall be constructed to promote the logical extension of services to adjacent parcels. The PC may

request that the subdivider extend off-site improvements or oversize required public facilities to serve anticipated future development where applicable.

4. **Plat Crossing Municipal Boundaries.** Lot lines in a subdivision shall be laid out so as not to cross into a municipal boundary unless the PC deems that there is no other viable alternative.
5. **Lot Access.** Access to a subdivision shall be on public roads within Johnson County's jurisdiction. If access is proposed across land in another local government's jurisdiction, the PC shall require assurance by affidavit from the subdivider that access is legally established. The PC shall also request assurance from the other local government that the public road used for access is adequately improved, or that a guarantee has been duly executed in sufficient amount to assure the construction of the public road to be used for access.

B. Access and Connectivity.

1. Access.

- a. *Generally.* No subdivision shall be approved unless the area to be subdivided shall have frontage on and access from an existing public road, including:

- 1) An existing state, county, or municipal roadway; or
- 2) A road shown upon a plat approved and recorded in the County Recorder's Office. Such road or highway must be suitably installed and improved as required by the rules, regulations, specifications, or orders, or be secured by performance surety required under this UDO and/or County Code of Ordinances.

- b. *Access to a Primary Arterial or Major Roadway.* Direct access to Primary Arterials or other major roadways is highly discouraged. Collectors should be introduced to reduce demand for access to arterials and major roadways.

- c. *Adjacency to Primary Arterial or Major Roadway.* Where a subdivision borders on or contains an existing or proposed primary arterial or major roadway, the PC may require access to such road be limited by one (1) of the following:

- 1) *Frontage Road.* Utilization of frontage roads constructed and separated from the primary arterial;
- 2) *No-Access Easement and Landscape Screen.* Individual lots that gain access from a local road, but back up to another exterior roadway of any classification shall provide a five (5) foot no-access-easement along the exterior roadway to prohibit access to said arterial. In addition, a landscape screen shall be provided along the exterior roadway, as required by Section 3-C, *Landscaping and Buffering*; or
- 3) *Other Plan Commission Approved Proposal.* Another proposed solution for consideration by the PC that may be deemed necessary for the adequate protection of properties within the subdivision from through-traffic.

2. **Connectivity.** The coordination of roads, sidewalks, trails, and pathways from one subdivision to another is essential to provide a continuation of vehicular and pedestrian access, transportation, and distribution lines for most utilities, such as water, sanitary

sewer, storm sewer, gas, electricity, and telephone systems. Therefore, the PC may require the subdivider to construct collector or other roads and pathways to adjoining vacant undeveloped properties.

3. **Level of Service.**

- a. *No Adverse Effect.* No development shall be approved if such development, at full occupancy will have an adverse effect on public health or safety.
- b. *Traffic Mitigation Measures.* The subdivider may propose and construct approved traffic mitigation measures to provide adequate roadway capacity for the proposed development.
- c. *Traffic Impact Analysis.* A traffic impact analysis may be required by the Administrator or County Highway Engineer at the time of Primary Plat review should one of the following circumstances arise:
 - 1) Detached single-family or two-family subdivisions with more than fifty (50) lots in the total development; or
 - 2) Subdivisions where the expected number of trips exceeds five hundred (500) trips per day or one hundred (100) trips during a peak hour.

C. **Drainage, Stormwater, and Erosion Control.**

1. **Storm Drainage.**

- a. The subdivider shall provide the subdivision with an adequate storm water system. The system shall conform with the Design Standards Manual. A copy of the analysis shall be submitted to the County Surveyor with the drainage facility plans.
- b. The plans for the installation of a storm drainage system shall be provided by the subdivider and approved by the County Surveyor. The plans for the system as built shall be filed with the County Surveyor upon the completion of the storm sewer installation as required by the Johnson County Stormwater Ordinance.

2. **Easements.**

- a. All drainage easements shall be indicated on the Primary Plat and the Secondary Plat.
- b. All drainage easements (public and private) shall be a minimum of twenty (20) feet in width and shall be located at the rear or side lot lines. One-half (1/2) of the width of an easement shall be taken from each lot for interior lots.
- c. When topographical or other conditions make it impractical to include utilities within the rear lot lines, perpetual unobstructed easements at least twenty (20) feet in width shall be provided alongside lot lines with satisfactory access to the road or rear lot lines. One-half (1/2) of the width of an easement shall be taken from each lot for interior lots. This subsection does not apply to the sanitary sewer system which is required by County ordinance to be within the road right-of-way.

3. **Required Covenant Language for Drainage.** To ensure the maintenance of a properly designed and installed drainage system, the following paragraphs shall be required as a

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provision of the restrictive covenants for all Secondary Plats and shall be included in all deeds written relative to said plats. The proposed owner shall submit a signed copy of this covenant to be filed with the PC and the County Surveyor at the time an application for an ILP is submitted.

- a. "Drainage swales (ditches) along dedicated roads and within the right-of-way, or on dedicated drainage easements, are not to be altered, dug out, filled in, tiled, or otherwise changed without the written approval of the County Surveyor. Property owners must maintain these swales as sodded grassways or other non-eroding surfaces. Water from roofs, parking areas, or other impervious surfaces must be contained on the property long enough such that drainage swales or ditches will not be damaged by such water. Driveways may be constructed over these swales or ditches only when culverts are in compliance with the Design Standards Manual."
- b. "No sanitary structures, drainage structures, or water line appurtenances shall be located within driveway limits or sidewalks without written approval of the County Engineer. No sump pump drains, or other drains shall outlet onto the road."

D. Lots and Blocks.

1. Arrangement.

- a. *Compatible with Topography.* The layout of a subdivision's lots and blocks shall be compatible with the topography and other physical conditions of the land to ensure that compliance with the UDO, Building Code, and other local, state, and federal regulations can be achieved.
- b. *Public Road Access Required.* Every lot and block shall have sufficient and adequate access to a public road constructed, or to be constructed, in accordance with this UDO.
- c. *Access to Potential Future Lots Required.* The PC may require that lots and blocks be arranged to allow further subdivision and the opening of future roads where necessary to serve potential future or existing lots.

2. Design.

- a. *Lot Requirements.* Lot dimensions shall comply with the minimum standards of the applicable zoning district in the UDO. See Chapter 2, *Zoning Districts*.
- b. *Calculation of Lot Areas.* Land reserved for any proposed road, drainage structure (retention or detention), lake, river, stream, or wetlands shall not be counted in satisfying the minimum lot area requirements of the UDO.
- c. *Off-Street Parking and Loading.* The depth and width of lots or blocks reserved or laid out for business, commercial, or industrial purposes shall be adequate to provide off-street parking and loading facilities required for the type of use and development contemplated, as established in the UDO. See Chapter 3, *Site Standards*.
- d. *Right Angle Requirement.* Side lot lines shall be at right angles to right-of-way lines (or radial to curving road lines) unless the PC determines that a variation from this rule will

give a better road or lot plan. Dimensions of corner lots shall be large enough to allow for erection of buildings, observing the minimum front yard setbacks from both roads.

- e. *Block Length.* Blocks shall not exceed six hundred (600) feet in length.
- f. *Block Width.* Blocks shall be of sufficient width to permit two tiers of lots of appropriate depth, except where an interior road parallels a limited access highway or an arterial or a railroad right-of-way.
- g. *Lot Line Determination.* The lot or block line common to the road right-of-way shall be the front property line. All lots and blocks shall face the front property line and a similar line across the road. Wherever feasible, lots and blocks shall be arranged so that the rear lot line does not abut the side lot line of an adjacent lot.
- h. *Avoided Lot and Block Types.* Double frontage and reversed frontage lots or blocks shall be prohibited except where necessary to provide separation of development from traffic arterials or to overcome specific disadvantages of topography and orientation. The decision as to whether or not a double frontage lot meets this standard shall be made by the BZA through an application submitted for a variance.

E. Monuments and Markers.

1. Generally.

- a. *Precision Required.* All U.S., State, county, municipal, or other official benchmarks, monuments, or triangulation stations in or adjacent to the property shall be preserved in a precise position by a registered land surveyor.
- b. *Reference Points.* The plat and legal description of subdivisions shall be referenced to two (2) known Section corners. The basis of bearing shall be the Indiana Geospatial Coordinate System Johnson Zone.
- c. *Placement.* Monuments and markers shall be placed so that the center of the bar, or marked point, shall coincide exactly with the intersection of lines to be marked, and shall be set so that the top of the monument or marker is level with the finished grade.
- d. *Permanency.* A permanent monument in each section of a subdivision shall be installed by the subdivider to establish elevation control throughout the subdivision.
- e. *Vertical Datum.* The vertical datum shall be NAVD 88, or the current datum established by the National Geodetic System.

2. Monuments. Monuments shall be:

- a. Set at the intersection of all lines forming angles in the boundary of the subdivision; and
- b. Set at the intersection or curves of road property lines. Not more than two (2) monuments shall be required at any intersection.
- c. Concrete with minimum dimensions of four inches by four inches by thirty-six inches (4"x 4"x 36"), set vertically in place with an iron or copper dowel three-eighths of one inch (3/8") in diameter, with an identification cap including Surveyor Firm or identification number.

- d. At a minimum, two and one-half inches (2 ½") in length embedded so that the top of the dowel shall be not more than one-fourth of one inch (1/4") above the surface and at the center of the monument.

3. **Markers.** Markers shall:

- a. Consist of galvanized or wrought iron pipe or iron or steel bars at least two feet in length, and not less than a half inch (½") in diameter;
- b. Be set at the beginning and ending of all curves along road property lines;
- c. Be located at all points where lot lines intersect front or rear curves;
- d. Be located at all angles in property lines of lots; and
- e. Be located at all other lot corners not established by a monument.

F. Open Space and Areas for Public Dedication.

1. **Plan for Open Space and Proposed Public Dedication.**

- a. *Plan Submittal.* If applicable, a plan for open space and areas proposed to be dedicated to the public shall be submitted along with the application for Primary Plat approval. Such plan shall depict the subdivision in full compliance with this UDO and all other applicable health, flood control, and regulations of the jurisdiction as appropriate.
 - b. *Common Area Requirement.* All commonly owned open space shall be set aside as common area and labeled according to its class. To be approved for commonly owned property see Chapter 7, *Zoning Administration*. If a subdivision is to be developed in sections, the open space plan shall show each section and each section shall follow the requirements of this Section 6.F of the UDO.
- 1) *Plan Review.* The Administrator and PC shall review the plan in conjunction with the application for Primary Plat approval. Once approved, the plan shall become part of the Primary Plat. Approval of an open space plan shall be a condition precedent to the approval of a Secondary Plat. In their review of the open space plan, the PC shall be guided by the following criteria:
- a) The protection of unique topographical features on the site, including, but not limited to, slopes, streams, and natural water features;
 - b) The protection and preservation of wooded areas and individual trees of significant size. For the purpose of this Chapter and the review and consideration by the PC, "significant size" should be interpreted as:
 - (1) Healthy trees that are a minimum of ten inches (10") in diameter measured across the trunk at least four feet (4') above the base of the tree, or
 - (2) Healthy trees of certain species (such as fruit-bearing and blossoming trees) that, at maturity, do not normally achieve a trunk size that is ten inches (10") in diameter or larger but are desirable due to number in a grouping or because they help preserve environmentally sensitive areas.

- (3) The accessibility and ability of residents or employees to use the open space areas for passive or active recreation;
- (4) The adaptability of the open space to the future development of greenways within the jurisdiction;
- (5) The relationship of the open space to neighboring properties;
- (6) The minimization of disturbance to important natural site features through the design of lots and roads; and
- (7) The diversity and originality of the design for the open space.

2. Open Space.

- a. *Accessibility.* All open space reserved under this UDO shall be accessible to the residents or property owners within the subdivision and their guests by sidewalk, trail, or combined bikeways and walkways.
- b. *Recreation.* Land reserved for active recreational purposes shall be of a character and location suitable for use as a playground, athletic field, or for other active recreational purposes, and shall be relatively level and dry.
- c. *Dedication of Open Space.* Open space designed for dedication to a county or municipality as appropriate shall be considered on a case-by-case basis and approved by the appropriate legislative body.

3. Natural Features.

- a. *Open Space Preservation.* When possible, open space required under this UDO should be preserved in its natural state.
- b. *Preservation of Existing Features.* Existing features that would add value to the development or to the County as a whole (such as trees, watercourses and falls, historic sites, and similar irreplaceable assets) shall be encouraged to be preserved in the design of the subdivision.
- c. *Primary Plat Requirements.* The Primary Plat (see Chapter 6, *Subdivision Administration and Procedures*) shall show the general area of natural features to be preserved including the number and location of existing trees being retained as well as the location of all proposed trees that are required by this UDO to meet the bufferyard standards (See Chapter 3, *Site Standards*).

4. Retention/Detention Ponds within Open Space.

- a. *Pond Installation.* Ponds shall be installed in accordance with the Design Standards Manual and Stormwater Ordinance.
- b. *Applicability to Lot Area Requirements.* If a tract being subdivided contains a pond or portion thereof, it shall be set aside as common area and shall not be included as part of a lot or in satisfying the individual lot area requirements of the UDO.

5. Ownership and Maintenance of Open Space.

- a. *Equal Responsibility.* Responsibility, maintenance, and ownership of ponds and common area shall be distributed equally among all property owners within the development either jointly through a property owners association or individually in the event a property owners association is dissolved or does not exist.
- b. *Proof of Agreement.* The PC may require proof of an “ownership and maintenance agreement” for the common areas within a subdivision.
- c. *County Not Responsible for Maintenance or Safety.* The County shall not assume responsibility for the maintenance and safety of the common areas.

6. **Areas Set Aside for Public Dedication.**

- a. *Public Park or School.* Proposed subdivisions may allocate areas for public parks, schools, or other public purposes to conform with the requirements of any applicable adopted plan. Each reservation shall be of suitable size, dimension, topography, and general character and shall have adequate road access for the purposes envisioned. The reserved area shall be shown and marked on the Secondary Plat, "Reserved for Park, School, or Recreational Purposes." The PC may refer such proposed reservations to appropriate officials or departments for recommendations. The PC shall approve the number of acres to be reserved and the County Commissioners shall approve any dedication before acceptance.
- b. *Public Agency.* The acquisition of land reserved for a public agency on the Secondary Plat shall be initiated by the public agency within two (2) years of approval of the Secondary Plat. Failure on the part of the public agency to initiate acquisition within the prescribed time shall result in the removal of the "reserved" designation from the property involved and the freeing of the property for development in accordance with this UDO. If the applicable government agency passes a resolution expressing its intent to acquire the land, the PC shall extend the reservation period for an additional one (1) year.

G. **Private Covenants.**

- 1. **Purpose.** Private covenants are generally a combination of restrictions on the use of property and affirmative obligations imposed by the subdivider on the owner of a property within a subdivision that are above and beyond the development standards for the jurisdiction. These covenants may be used by a developer to create a more standard appearance as well as maintain control over activities that take place within its boundaries, so that enforcement by the subdivider (and subject property owners) uniformly protects property values.
- 2. **Self-imposed Restrictions.** If an owner of property places restrictions on any land contained in a subdivision that are more restrictive than those required by this UDO, such restrictions shall be indicated on the subdivision plat. The PC may also require that all restrictive covenants be recorded with the Recorder in a form approved by County Attorney. Generally, covenants “run with the land” meaning that the restriction stays in effect with subsequent property owners.

3. **Enforcement.** Only regulations specifically found in the UDO are enforceable by the County. Restrictive private covenants must be enforced by the Homeowners Association (or the subject property owners) through civil court proceedings.

H. Sidewalks, Paths, and Trails.

1. **Generally.** Sidewalks, paths, and trails shall be included within the dedicated, non-pavement right-of-way of all roads.
2. **Basic Design.**
 - a. *Sidewalks.*
 - 1) Sidewalks shall be installed per the Design Standards Manual.
 - 2) Sidewalks (including multi-use paths) are to be at least five feet in width and are required to be installed on both sides of the road in a subdivision.
 - 3) The surface of any sidewalk shall, when completed, have a sufficient slope to drain away from the lot and to the center of the road. The subgrade of a sidewalk shall be constructed to a depth below the finished surface and shall be thoroughly compacted to a firm, smooth surface.
 - 4) All sidewalks shall be compliant with ADA requirements.
 - b. *Paths and Trails.*
 - 1) All asphalt paths and trails must be at least ten (10) feet wide and meet the applicable standards for thickness and base requirements.
 - 2) All paths and trails shall be constructed in accordance with the adopted standards or the AASHTO standards.
3. **Connectivity.**
 - a. *Easements.* To facilitate pedestrian access and connectivity, the PC may require perpetual unobstructed easements, at least twenty feet (20') in width, from the proposed development to adjacent property (whether developed or not), neighborhoods, schools, parks, playgrounds, churches, government buildings, facilities, other community amenities, or any other points of social, environmental, economic, or historical interest. Every such easement shall be indicated on the Secondary Plat.
 - b. *Trail Construction.* Where future development includes land that has been identified by the appropriate adopted plan as a location for trails, the PC may require that the subdivider construct the trails within their development, whether such trails connect to existing trails outside of the development at the time of construction.
 - c. *Commonly Owned Property.* All commonly owned property adjacent or abutting public right-of-way shall have sidewalks constructed in accordance with this Chapter of the UDO and all other County requirements at the same time of construction of other infrastructure by the developer.

I. Roads and Alleys.

1. **Purpose.** The requirements set forth herein are designed to provide for roads that:
 - a. Are suitable in location, width, and improvement so that they may accommodate prospective traffic;
 - b. Afford satisfactory access to police, fire fighting, snow removal, sanitation, road-maintenance equipment; and
 - c. Compose a convenient traffic system and avoid undue hardships to adjoining properties.
2. **Overall Design.** Proposed roads shall:
 - a. Provide a safe, convenient, and functional system for vehicular, pedestrian, and bicycle circulation;
 - b. Be properly related to the Comprehensive Plan, the Design Standards Manual; and
 - c. Be appropriate for the specific traffic characteristics of each proposed development.
3. **Roadway Development Standards.**
 - a. The arrangement, character, extent, width, grade, and location of all roads shall conform to the Design Standards Manual.
 - b. The requirements set forth in the Johnson County Design Standards Manual are minimum requirements. Individual projects, particularly commercial and industrial subdivisions, may warrant additional requirements dictated by best practice engineering design. Where additional requirements are necessary, they shall be recorded as conditions of approval for the Primary Plat.
4. **No Access Easement.** All lots shall have actual frontage on and gain access from a public road. Use of an easement to provide access shall not be allowed.
5. **Additional Improvements Required.** The subdivider may be required by the County to provide traffic signalization, deceleration lanes, acceleration lanes, passing blisters, or other improvements to the road system using the following considerations:
 - a. Number of lots;
 - b. Proposed use;
 - c. Road classification;
 - d. Traffic generation;
 - e. Existing or proposed conditions; and
 - f. Sound engineering design.
6. **Traffic Study.** A Traffic Impact Study may be required by the PC. If the traffic impact study determines that improvements to the road system are necessary, per the requirements of **Section 6.B.3.c, *Traffic Impact Analysis***, then such improvements shall be a condition of approval of the Primary Plat.

7. Roads.

a. *Road Classification.* All roads shall be functionally classified by the County Engineer and be consistent with the County's Future Transportation Component of the Comprehensive Plan. In classifying roads, the County Engineer shall consider projected traffic demands after ten (10) years of development.

b. *Road Layout.*

- 1) *Traffic Generation.* All roads shall be properly built to handle specific traffic generators such as industries, business districts, schools, churches, shopping centers, population densities, and to the pattern of existing and proposed land uses.
- 2) *Efficient Use of Property.* All roads shall be arranged to obtain as many building sites as possible at, or above the grades of the roads. Grades of roads shall conform as closely as possible to the original topography. Roads shall also be laid out to permit efficient drainage and utility systems, and to result in the minimum number and length of roads to provide convenient and safe access to property. See the Johnson County Design Standards Manual for specific requirements.
- 3) *Non-Residential Subdivisions.* For nonresidential subdivisions, the roads shall be planned to minimize conflict of movement between various types of traffic, including pedestrian. Road layouts should consider the grouping of buildings, railway location, the presence of alleys, truck loading and maneuvering areas, and interior walks and parking areas.

c. *Road Connectivity.*

- 1) *Continuation of Proposed Road.* A proposed road shall provide for the continuation of existing, planned, or platted roads on adjacent property.
- 2) *Centerline Connection.* Where a wider right-of-way connects with a narrower right-of-way, the centerlines of the two roads shall be aligned.
- 3) *Extension to Boundary Line.* Proposed roads shall be extended to the boundary lines of the parcel to be subdivided, unless, in the opinion of the PC, such extension is not feasible due to the physical conditions of the property, or not necessary or desirable for the coordination of the subdivision with the future development of adjacent parcels.
- 4) *Required Connectivity.* The arrangement of roads shall provide for the continuation of roads between adjacent properties when the continuation is necessary for convenient movement of traffic, effective fire protection, for efficient provision of utilities, and for effective emergency services.
- 5) *Temporary Dead-end Roads.* If the adjacent property is undeveloped and the road must temporarily be a dead-end road, the right-of-way shall be extended to the property line. A temporary cul-de-sac, T- or L-shaped turn-around shall be provided on all temporary dead-end roads, with the notation on the Secondary Plat that land outside the normal road right-of-way shall revert to the adjoining landowners when

the road is continued. The subdivider shall provide barriers and signage for any temporary dead-end road. The PC may limit the length of temporary dead-end roads in accordance with the Johnson County Design Standards Manual.

- 6) *Permanent Dead-end Roads.* Where a road does not extend beyond the boundary of the subdivision and its continuation is not required by the PC for access to adjoining property, its terminus shall not be nearer to such boundary than fifty (50) feet. However, the PC may require the reservation of an appropriate easement to accommodate drainage facilities, pedestrian traffic, or utilities. A cul-de-sac turn-around shall be provided at the end of a permanent dead-end road. For greater convenience to traffic and more effective police and fire protection, permanent dead-end roads shall be limited in length to 600'.

d. *Road Right-of-Ways.*

1) *Width.*

- a) *Right-of-way Width.* The road right-of-way width shall be in accordance with the Johnson County Design Standards Manual.
- b) *Paved Width.* The paved width of all roads shall be in accordance with the Johnson County Design Standards Manual. Where a proposed road is an extension of an existing paved road which exceeds the minimum required dimension, the PC may require the subdivider to match the width of the existing paved road.
- 2) *Dedication.* In a subdivision that adjoins or includes an existing road that does not conform to the minimum right-of-way dimension as established by the County Engineering Design Manual, the subdivider shall dedicate additional right-of-way width as required to meet this UDO.
- 3) *Excess Right-of-way.* Right-of-ways wider than the standards designated in this UDO shall be required whenever, due to topography, additional width is necessary to provide adequate earth slopes.
- 4) *Slope Requirement.* Such slopes shall not be more than three-to-one (3:1).

e. *Road Intersections.*

- 1) *Generally.* All intersections shall adhere to the Johnson County Design Standards Manual.
- 2) *Right Angles.* Roads shall be laid out to intersect as nearly as possible at right angles. In no event shall the angle of intersection of two roads be less than 70 degrees unless otherwise approved by the PC.
- 3) *Road Alignment.* Proposed new intersections along one (1) side of an existing road shall, wherever practicable, align with any existing intersections on the opposite side of such road. No more than two (2) roads shall intersect at one (1) point.

- 4) *Curb Radius*. Minimum curb radius at the intersection shall be controlled by the Johnson County Design Standards Manual.
 - 5) *Visibility*. No intersection shall create a traffic hazard by limiting visibility. The visibility and sight distances at intersections shall be controlled by the Johnson County Design Standards Manual.
 - 6) *Dedication*. In a subdivision that adjoins or includes an existing road that does not conform to the minimum right-of-way dimension as established by the County Engineering Design Manual, the subdivider shall dedicate additional right-of-way width as required to meet this UDO.
 - 7) *Excess Right-of-way*. Right-of-ways wider than the standards designated in this UDO shall be required whenever, due to topography, additional width is necessary to provide adequate earth slopes.
 - 8) *Slope Requirement*. Such slopes shall not be more than three-to-one (3:1).
 - 9) *Cross-Slopes*. The cross-slopes on all roads shall adhere to the Johnson County Design Standards Manual.
 - 10) To ensure the safe movement of both vehicular and pedestrian traffic, see **Section 6.I.12, Required Covenant Language Regarding Visibility**.
- f. *Curb and Gutter*. Curb and gutter shall be constructed by the subdivider on both sides of all roads. Curbs shall be constructed as one of the standard curbs as directed by the Johnson County Design Standards Manual.
- g. *Road Grade*.
- 1) *Grade Requirement*. The grade of all roads shall not exceed the requirements of the Johnson County Design Standards Manual except where, in the opinion of the PC, an unusual topographic condition justifies a waiver of the requirements of this UDO.
 - 2) *Approval of Plan*. Roads shall be graded, improved, and conform to the Johnson County Design Standards Manual and specifications by the County Engineer, in accordance with the construction plans required to be submitted prior to Secondary Plat approval.
- h. *Private Roads*.
- 1) *Residential Development*. Private roads for residential development are prohibited and a waiver from this requirement is not permitted.
 - 2) *Commercial and Industrial Development*. Roads within commercial and industrial development shall be public unless private roads are approved by the PC.
 - 3) *Construction*. Private roads must be constructed to meet or exceed the standards in the Johnson County Design Standards Manual. A waiver from this requirement is not permitted.

- 4) *Maintenance.* Maintenance of private roads is the responsibility of the subdivider or property owners as outlined in the recorded covenants, on the plat, and in the written commitments.

i. *Improvements to Adjacent Roads.*

- 1) *Realignment or Widening of Road.* A proposed subdivision is required to address improvements and/or dedications whenever a subdivision borders an existing narrow road or when the Comprehensive Plan or other policy document of the jurisdiction indicates plans for the realignment or widening of a road that requires use of some of the land in the proposed subdivision. Unless waived by the PC, the subdivider shall be required to improve and dedicate at its expense those areas so designated for widening or realignment.
- 2) *Dedication.* Frontage roads shall be improved and dedicated by the subdivider at their own expense to the full width as required by this UDO when the subdivider'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 UDO.

j. *Roadside Drainage Swales.*

- 1) *New Roads.* No new subdivision roads shall have roadside drainage swales.
- 2) *Existing Roads.* Roadside drainage swales shall be placed along existing roads, as follows:
 - a) Culverts are to be placed or extended under the roadway where necessary. The size of the culvert is to be according to the calculated amount of storm water flow, but not less than twelve inches (12") in diameter. All culverts shall extend from right-of-way to right-of-way unless otherwise approved by the County. All culvert pipe that is banded together shall receive a minimum of a twelve-inch (12") band with eight inch (8") long bolts and shall be joined in accordance with the Design Manual. All culverts shall have applicable end sections unless waived by the PC.
 - b) Roadside drainage swales shall be constructed in accordance with the Johnson County Design Standards Manual.
 - c) When practicable, roadside swales will be replaced with curb and gutter and a contained storm drainage system.

8. **Access Roads, Limited Access Roads, and Railroads.**

a. *Limited or Improved Access.*

- 1) *Potential Hazard.* Access roads from a proposed development on to an existing or proposed public right-of-way may be restricted or denied where such a road presents a potential hazard to public safety.
- 2) *Improvements may be Required.* Where such potential hazard to the public safety is determined to be present, the PC may require the subdivider to make

improvements to an existing or proposed public right-of-way as a condition of allowing access.

- 3) *Traffic Impact Analysis.* Prior to making its Primary Plat decision, the PC may require that the subdivider submit a traffic impact study at the subdivider's expense per Section B.3.c, *Traffic Impact Analysis*.
 - b. *Access Roads.* The number of access roads required for a proposed subdivision shall be based upon the number of lots, engineering design best practice, and continuity of the public road system. If the PC determines that an additional access road is necessary, it will advise the subdivider at the time of Primary Plat consideration.
 - c. *Distance Requirements.* Railroad rights-of-way and limited access highways that may affect the subdivision of adjoining lands shall be treated as follows:
 - 1) *Residential Districts.* In residential districts, a buffer strip at least twenty-five feet (25') in depth in addition to the normal depth of the lot required in the district shall be provided adjacent to railroad right-of-way or a limited access highway. This strip shall be in common area or part of the platted lot(s) and shall be designated on the plat: "This strip is reserved as a buffer. The placement of structures on this land is prohibited."
 - 2) *Commercial or Industrial Subdivisions.* In commercial or industrial subdivisions, the nearest road extending parallel or approximately parallel to a railroad right-of-way shall, wherever practicable, be at a sufficient distance from the railroad right-of-way to ensure suitable depth for commercial or industrial sites.
 - 3) *Intersecting Roads.* When roads parallel to a railroad right-of-way intersect a road, which crosses the railroad right-of-way at grade, they shall, to the extent practicable, be at a distance of at least one hundred fifty feet (150') from the railroad right-of-way. Such distance shall be determined with due consideration of the minimum distance required for future separation of grades by means of appropriate approach gradients.
 - d. *Parallel Road Required.* Where a subdivision borders on or contains a railroad right-of-way or limited access highway right-of-way, the PC may require a road approximately parallel to and on each side of such right-of-way at a spacing suitable for the appropriate use of the intervening land. Such spacing shall also be determined with due regard for the requirements of the approach grade of any future grade separation structure.
9. **Street Lights.** Street Lights shall be installed in accordance with the Johnson County Design Standards Manual and will have illumination levels that are appropriate for the road type and surrounding land uses.
10. **Street Signs.**
- a. *MUTCD Requirement.* Each installed sign shall comply with the urban standards established by the State of Indiana.

- b. *Subdivider Expense.* The subdivider shall be responsible for the installation of all street signs required by the County or INDOT, as applicable.
- c. *Installation Timeframe.* The subdivider shall install all street signs before issuance of any certificates of occupancy for any primary structure within the subdivision.
- d. *Placement of Signs.* Street name signs are to be placed at all intersections within or abutting the subdivision as approved by the County Engineer.
- e. *Maintenance.* Sign maintenance is the responsibility of the subdivider or the property owners within the development, as outlined in the recorded covenants, on the plat, and in the written commitments until the time of dedication to the County.

11. **Alleys.** The minimum right-of-way width of alleys, where platted, shall be twenty (20) feet.

12. **Required Covenant Language Regarding Visibility.** To ensure the safe movement of both vehicular and pedestrian traffic, the following paragraphs shall be required as a provision of the restrictive covenants for all Secondary Plats and shall be included in all deeds written relative to said plats. The proposed owner shall sign a copy of this covenant and it shall be filed with the County Recorder's Office.

- a. "No fence, wall, hedge, tree or shrub planting which obstructs sight lines with elevations between two and one-half feet (2.5') and eight feet (8') above the road surface elevation shall be placed or permitted on any corner lot within the triangular area formed by the road right-of-way lines and a line connecting points forty feet (40') from the intersection of said road right-of-way lines for neighborhood and local roads, and seventy-five feet (75') for arterials, or in the case of a rounded property corner, from the road right-of-way lines extended."
- b. "The same site line limitations shall apply to any lot within ten feet (10') of the intersection of a road right-of-way line with the edge of a driveway pavement or alley line. No driveway shall be located within seventy feet (70') of the intersection of two (2) road right-of-way lines."

J. Road and Subdivision Names.

1. Subdivision Name.

- a. *PC Approval.* The PC shall have final authority to approve the name of the subdivision, which shall be determined at the time of Primary Plat approval.
- b. *No Closely Related or Duplicate Names.* The proposed name of a subdivision shall not duplicate, or too closely approximate phonetically, the name of any other subdivision within the jurisdiction and surrounding areas.

2. Road Names.

- a. *PC Approval.* Proposed road names shall be submitted with and indicated on the Primary Plat and the PC shall approve the road names at the time of Primary Plat approval.

- b. *No Closely Related or Duplicate Names.* Road names shall be sufficiently different in sound and spelling from other road names in the jurisdiction so as not to cause confusion.
- c. *Continuation of Existing Roadway.* A road which is (or is planned as) a continuation of an existing road shall bear the same name.
- d. *Directional Change.* A road may be required to have a different name at the point at which it significantly changes direction.

K. Utilities.

1. Generally.

- a. *Placement of Utilities.* All new utility facilities, including but not limited to gas, electric power, telephone, and CATV cables, shall be located underground throughout Major Subdivisions. Where existing utility facilities are located above ground in the area to be subdivided, except when existing on public roads and rights-of-way, they shall be removed and placed underground for a Major Subdivision unless this requirement receives a waiver from the PC.
- b. *Approval of Placement.* The local public utility companies shall approve the location of easements for the installation of their services prior to the establishment of such easement.
- c. *Shown on Plat.* All utility facilities existing and proposed throughout the subdivision shall be shown on a minor plat or the Primary Plat of a Major Subdivision.
- d. *Service Connection.* Underground service connections to the property line of each platted lot shall be installed at the subdivider's expense.
- e. *Easements.* The subdivider shall be responsible for proper coordination of utility easements from block to block and from his/her subdivision to that of other adjoining properties.

2. Electric Power.

- a. *System Approval.* The subdivider shall provide the subdivision with an electric power distribution system, which shall meet the approval of the Administrator, and which shall be connected to a public electric utility system.
- b. *Placement.* When placed on a public right-of-way electrical underground cables or wires shall, if practicable, be laid in accordance with the Design Standard Manual. Otherwise, electric distribution lines shall be placed in easements provided for that purpose.
- c. *Submittal of Plans.* The plans for the installation of an electric power distribution system shall be furnished by the subdivider. All plans for the system shall be as built and shall be filed with the Administrator upon the completion of the electric system installation.

3. Telephone and Gas Utilities. Telephone underground cables and gas lines shall, if practicable, be laid out in accordance with the Johnson County Design Standards Manual.

Otherwise, telephone and gas service lines shall be placed in easements provided for that purpose.

4. Sanitary Sewer Systems.

- a. *Installation of Facility.* The phrase “the subdivider shall provide” shall be interpreted to mean that the subdivider shall install the facility referred to, or whenever a private sewage disposal system or an individual water supply is to be provided, that the subdivider shall require, as a condition of the sale of each lot or parcel in the subdivision, that the facilities referred to in this **Section 6.K.4, Sanitary Sewer Systems**, shall be installed by the subdivider of the lots in accordance with these regulations.
- b. *Public Sanitary Sewer Facilities for Major Subdivisions.*
 - 1) *Complete System.* The subdivider shall provide a Major Subdivision with a complete sanitary sewer system, which shall connect to a sanitary sewer outlet approved by the County. Minor subdivisions may be constructed without being on a public sanitary system, but each lot shall be served in a way acceptable to the County Health Department.
 - 2) *Placed in Easements.* Public sanitary sewers shall be laid in easements provided for that purpose.
 - 3) *County Engineering Design Manual.* The construction of the sanitary sewer shall be in accordance with the Johnson County Design Standards Manual.
 - 4) *Installation of Laterals.* Service laterals shall be installed between the sewer collector and the property line before the road is paved.
 - 5) *Submittal of Plans.* The plans for the installation of a sanitary sewer system shall be provided by the subdivider and approved by the County. All plans for the system shall be as built and shall be filed with the PC upon the completion of the sanitary sewer installation.

5. Water Facilities.

- a. *Connection to System.* The subdivider shall provide a Major Subdivision with a complete water system, capable of providing water for health and emergency purposes, including adequate fire protection. Water systems shall connect to a water outlet approved by the County. Minor subdivisions may be constructed without being on a public water system, but each lot shall be served by potable water acceptable to the County Health Department and shall meet fire protection requirements.
- b. *Subdivider Responsibilities.* The subdivider shall provide a Major Subdivision with a complete water main supply system, which shall be connected to a municipal or a community water supply approved by the applicable water provider. When such water supply is not available, as determined by the water provider and the Administrator, an individual water supply on each lot in the subdivision is required.
- c. *Public Water Facilities.*

- 1) *Construction Standards.* The construction of the public water facility shall be in accordance with the Johnson County Design Standards Manual and the rules and regulations of the Indiana Department of Environmental Management (IDEM).
- 2) *Proximity Requirement.* When a public water supply is available within three hundred (300) feet of any boundary of a proposed Major Subdivision, the subdivider shall construct and install a system of water mains (including fire hydrants) to be connected to the public water supply.
- 3) *Connection per Lot.* Each lot shall be provided with a connection to the water delivery system in accordance with the Johnson County Design Standards Manual.
- 4) *Installation.* Unless this requirement receives a waiver from the PC, water mains shall be installed entirely within the Right-of-Way or installed immediately behind the curb and installed within a two (2) foot easement on the roadway side of the sidewalk.
- 5) *Submittal of Plans.* The plans for the installation of a water main supply system shall be provided by the subdivider and approved by IDEM and the applicable Water Company. The plans for such systems shall be as built and shall be filed with the Administrator upon the completion of the water supply installation.

d. *Private Water Supply.*

- 1) *Proximity Requirement.* Where a public water supply is not available within three hundred (300) feet of any boundary of a proposed Minor Subdivision, the subdivider may provide each lot with a community or individual water supply, provided the installation conforms to the Johnson County Design Standards Manual.
- 2) *Existing Private Wells.* All existing homes currently being served by a private potable well water supply that are to be connected to a new public water supply system shall adhere to the following:
 - a) *Abandonment.* The existing well and pumping unit shall be abandoned and the well properly plugged in accordance with the rules and regulations of IDEM and Indiana Department of Natural Resources (IDNR).
 - b) *Continuance of Existing Private Wells.* If the homeowner chooses to keep their well in service, a physical disconnection (between the existing well supply plumbing and the new public water supply plumbing) must be completed by the homeowner and inspected by the County Health Department. All disconnections of plumbing shall be completed by a plumbing contractor, licensed in the State of Indiana, and shall be made in accordance with the requirements of the American Backflow Prevention Association (ABPA).

e. *Fire Hydrants.*

- 1) *Required.* Fire hydrants shall be required for all developments served by a public water utility or where public water utilities are reasonably accessible as determined by the Administrator.

- 2) *Approval.* The applicable fire protection unit shall approve fire hydrants, including their setting, number, and size of outlets.
- 3) *Spacing Requirements.* Unless otherwise specified by local fire and/or building regulations, fire hydrants shall be located no more than five hundred (500) feet apart and within three hundred (300) feet of any structure and shall be approved by the local fire protection unit.
- 4) *Water Supply.* Adequate water supply as determined by the Administrator shall be provided to all fire hydrants prior to any building construction.
- 5) *Street Markers.* Plowable street markers may be required by the PC on major arterials.
- 6) *Dry Hydrants.* Dry hydrants may be required in retention/detention ponds. Placement and design must be approved by the Administrator.
- 7) *Plan Submittal.*
 - a) The location of all existing and proposed fire hydrants shall be shown on Minor Subdivisions and on the Primary Plat and the Construction Drawings of Major Subdivisions.
 - b) As built plans where required shall be provided to the County's GIS Department.
- 8) *Cost and Surety.* The cost of installing the system shall be borne by the subdivider. The subdivider may be required to provide surety for installing such improvements.