

DESIGN REGULATIONS

Engineering design plans for public improvements will be presented to the County Commission and Road Department for acceptance in accordance with these regulations. None of the public improvements within the County will be accepted by the County to be included in the County Maintenance program until final acceptance by the County Commission and Road Department after the project is complete.

The developer/property owner shall follow these regulations when developing subdivision plans and plats within Phelps County. Any variances from these regulations must be approved by the County Commission prior to construction of the improvements.

The developer/property owner is responsible to pay for all improvements that will be included in the County Maintenance program.

Prior to acceptance by the County, the developer's/property owner's engineer shall certify that all improvements that will be included in the County Maintenance program were constructed and installed in accordance with the approved plans and specifications. All test reports shall be reviewed by the developer's/property owner's engineer and submitted to the County Road Department.

Section 1.0 – Sewers

Section 1.1 – Sanitary Sewers

Except as hereinafter provided, it shall be unlawful to construct or maintain a privy, privy vault, septic tank, cesspool, leakage field, or other facility intended or used for the disposal of domestic sewage.

1. It shall be unlawful to place, deposit, or permit to be deposited or discharge any sewage, excrement, garbage or other objectional waste onto the ground surface or any natural outlet or waterway except where suitable treatment has been provided.
2. Where a public sanitary sewer collection system is not available, the building sewer shall be connected to a private sewage disposal system in accordance with County ordinances and Missouri State Laws and minimum construction standards.
3. Before commencement of construction of a private sewage disposal system, the owner shall first submit an application and obtain a construction permit from the County Health Department, if required by the County Health Department.
4. The property owner, at their expense, shall operate and maintain the private sewage disposal facilities in a sanitary manner at all times.
5. When a public sewer collection system becomes available to a property served by a private sewage disposal system, a direct connection shall be made to the public sewer collection system within 180 days of said public sewer collection system becomes operational. Once connected to the public sewer collection system any septic tanks, cesspools, and similar disposal facilities shall be cleaned of all sludge, abandoned, and filled with suitable material.

6. The property owner shall follow the regulations, rules, and instructions of the owner of the sanitary sewer collection system.
7. The issuance of a permit by the County shall not in any way relieve the permittee of duties, obligations, or restrictions imposed by the State of Missouri or any federal agency.

Disposal of sewage that is not created from domestic use shall be in accordance with the State of Missouri regulations and any federal agency having jurisdiction over the waste material.

Section 1.2 – Storm Water Collection

Storm water collection systems shall include roadside ditches, driveway culverts, crossroad culverts, storm sewers, curb and gutter, and other facilities for the collection and conveyance of storm water flows.

1. Storm Water Collection
 - A. Storm water collections systems shall only be used for the collection and conveyance of storm water. Any other material entering the storm water collection system shall be deemed unlawful.
 - B. Prior to acceptance of any subdivision roads for County Maintenance, the collection and conveyance of storm water shall be designed by a Missouri licensed engineer in accordance with the current edition of the Missouri Department of Transportation Engineering Policy Guide and approved by the County Commission and Road Department.
 - C. The Storm water collection and conveyance shall be designed to accommodate flows from a 10-year storm event.
 - D. If the storm water drainage plan indicates that flows from the subdivision will adversely impact the county drainage system, either a storm water detention system within the subdivision or replacement of County drainage system that is identified as inadequate will be required at subdivision developer/property owners' cost.
 - E. Storm water drainage facilities and drainage easements located within the subdivision's individual lots or common areas shall be the responsibility of the property owner or subdivision trustees to maintain for the conveyance of stormwater.
 - F. Rip Rap or other erosion control measures shall be placed in roadside ditches, culvert outlets to prevent erosion as designed by a Missouri licensed engineer and as directed by the County Commission and Road Department.
 - G. Storm water systems shall be designed and constructed in accordance with Missouri State Statutes including 229.150 and other applicable statutes.
 - H. Roof drains shall daylight in the yard a minimum of ten (10) feet from County right of way.
2. Roadside Ditches
 - A. Roadside ditches shall conform to the standards cross-section drawings Exhibit A.
 - B. The slope of the ditch line shall match the profile slope of the adjacent roadway, with a minimum slope of 1.0%.

- C. Side slopes shall have a minimum ratio of 3:1 (3 horizontal to 1 vertical).
- 3. Driveway Culverts
 - A. Driveway culverts shall follow the slope of the road ditch the driveway crosses.
 - B. Driveway culverts shall be sized by a Missouri licensed engineer based on the drainage area entering the culvert for a 10-year storm event. The minimum size of driveway culverts shall have a diameter of fifteen (15) inches.
 - C. Driveway culvert material shall be corrugated metal (galvanized, polyethylene coated) or reinforced concrete culvert pipe in accordance with the Missouri Department of Transportation Engineering Policy Guide.
 - D. Driveway culverts shall be installed in accordance with the manufacturer's recommendations and maintained by the property owner.
 - 4. Crossroad Culverts
 - A. Crossroad culverts shall be constructed with a minimum slope of 0.5 %.
 - B. Crossroad culverts shall be sized by a Missouri licensed engineer based on the drainage area entering the culvert for a 25-year storm event, with a minimum diameter of eighteen (18) inches. The minimum size of driveway culverts shall have a diameter of fifteen (15) inches.
 - C. Crossroad culvert material shall be corrugated metal (galvanized, polyethylene coated) or reinforced concrete culvert pipe in accordance with the Missouri Department of Transportation Engineering Policy Guide.
 - D. Crossroad culverts shall be installed in accordance with the manufacturer's recommendations by the subdivision developer/property owner.
 - E. No flared end culverts shall be installed.
 - F. For subdivisions with curb and gutter, culverts shall be concrete if within the right of way.

Section 2.0 – Water for Domestic Use

Except as hereinafter provided, it shall be unlawful to drill, operate, construct or maintain a private well or water supply within the County.

- 1. Where access is not available to a public water supply, a private well may be used.
- 2. Where a public water supply is not available, the private well shall be in accordance with County ordinances and Missouri State Laws and minimum construction standards.
- 3. Before commencement of drilling, installing, or construction of a private well, the owner shall first submit an application and obtain a construction permit from the County Health Department, if required by the County Health Department.
- 4. The property owner, at their expense, shall operate and maintain the private well in a sanitary manner.
- 5. The type, capacity, location, and layout of any private well shall comply with all applicable requirements, if any, of the State of Missouri or any federal agency.
- 6. The issuance of a permit by the County shall not in any way shall not relieve the permittee of duties, obligations, or restrictions imposed by the State of Missouri or any federal agency.

Section 3.0 – Excavations in Right-of-Way

Excavations within any County maintained right-of-way shall abide by the following regulations.

1. No roadway shall be closed without the permission of the County Road Department.
2. Pavement shall be saw cut, full depth, one (1) foot wider on each side, than the proposed excavated trench width.
3. Select granular backfill shall be used in all trenches under roadway pavements and compacted to a minimum of 95% standard proctor in accordance with ASTM D698.
4. Pavement restoration shall at a minimum include the following (refer to Exhibit B for typical repair):
 - A. One (1) inch clean backfill.
 - B. Eight (8) inch aggregate material meeting Missouri Department of Transportation specifications for Type 5 aggregate.
 - C. Four (4) inches asphaltic pavement meeting Missouri Department of Transportation specifications for bituminous pavement.
5. A deposit of \$2500 is required prior to any construction within a right-of-way in accordance with the County Utility Specifications.

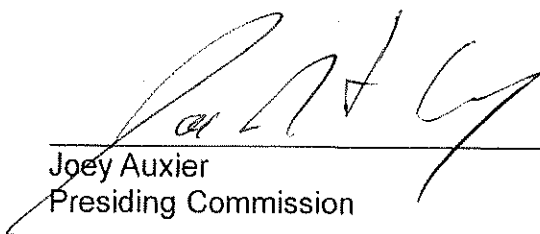
Section 4.0 – Roadways

Subdivisions requiring new roadways that will be dedicated to the County and be incorporated into the County maintenance program shall abide by the following regulations. Refer to Exhibit A for typical road section.

1. Right-of-Way
 - A. The minimum width of roadway right-of-way shall be fifty (50) feet.
 - B. Right-of-way width shall be widened where slopes for fill and/or cut areas beyond the minimum are required to preserve the slopes for future maintenance. Right-of-ways will be extended two (2) feet beyond the toe of the slope or two (2) feet beyond the top of the slope cut. Refer to Exhibit A.
 - C. Roadways with no outlet (dead-ends) shall not be longer than 1,500 feet, unless otherwise approved, and terminate in a cul-de-sac having a minimum right-of-way diameter of 100 feet.
2. Roadways
 - A. All construction of new roads shall be in accordance with the Missouri Department of Transportation Engineering Policy Guide.
 - B. The minimum width of road surface (vehicle travel way) for any new road within a new subdivision shall be twenty-four (24) feet.
 - C. The maximum grade of any new county road shall be twelve (12) percent. The maximum grade of a road with no outlet shall be eight (8) percent.
 - D. Each new road shall have a three (3) foot shoulder on each side of the road. The one (1) foot adjacent to the road surface shall be MoDOT approved Type 5 Aggregate, a minimum of six (6) inches in depth.


- E. The road subgrade shall be graded to the lines and cross sections shown on the approved construction plans. All organic material shall be removed prior to placing any fill material and any aggregate subbase material. The subgrade shall be roller compacted to not less than 95% of the standard laboratory dry density in accordance with ASTM D698.
- F. Prior to placement of the aggregate subbase the subgrade shall be proofed rolled with a fully loaded tandem truck in the presence of the County Road Department. If any soft or rutted areas are discovered during the proof rolling the area shall be recompacted to the satisfaction of the County Road Department or other methods shall be employed to overcome the soft or rutted areas to the satisfaction of the County Road Department.
- G. The road subbase shall be composed of roller compacted MoDOT Type 5 Aggregate to a minimum depth of eight (8) inches. The aggregate subbase shall be compacted to not less than 95% of the standard laboratory dry density in accordance with ASTM D698.
- H. Prior to placement of the bituminous road surface the aggregate subbase shall be proof rolled with a fully loaded tandem truck in the presence of the County Road Department Supervisor. If any soft or rutted areas are discovered during the proof rolling the area shall be recompacted to the satisfaction of the County Road Department or other methods shall be employed to overcome the soft or rutted areas to the satisfaction of the County Road Department.
- I. The bituminous road surface shall consist of two (2) inches of Plant Mix Bituminous Base Pavement and two (2) inches of Plant Mix Bituminous Surface Pavement. Bituminous pavement plant mixes shall meet MoDOT's Engineering Policy Guide.

Adopted this 30th day of May, 2024

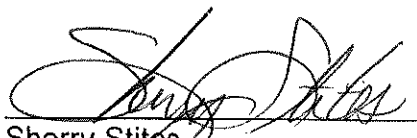


Joey Auxier
Presiding Commission

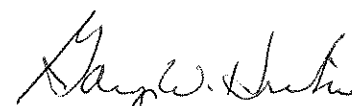
APPROVED AS TO FORM:



Brendon Fox
Prosecuting Attorney




Sherry Stites
Commission District 1



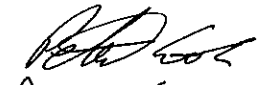
Gary Hicks
Commissioner District 2



ATTEST:



Laura Johnson
County Clerk

by 
Deputy County Clerk