

Construction Requirements for Installation of Utilities in the Public Right-of-way of McPherson County, Kansas

October 2011

General

Provisions and Specifications - These provisions and specifications shall be considered as forming an integral part of every permit issued for installation and maintenance of utilities upon county road right-of-way and utility easements under County jurisdiction. For the purposes of these construction requirements, McPherson County and all McPherson County Townships shall be referred to as “County”. The work authorized by any permit shall be done at such time and in such manner as shall be consistent with the safety of the public and shall conform to all requirements and standards of the County as herein specified. The work may be performed by the Utility Company or by a Contractor hired by the Utility Company but for simplicity either will be referred to in these construction requirements as “Contractor.” If the County finds at any time, that the work is not being or has not been performed properly, the Contractor (upon being notified by the County) shall immediately stop any new installation, and take the necessary steps at Contractor’s own expense, to place the previous work in condition to conform to said requirements or standards.

Plans – Plans for utility installations shall include a description of the size and type of line, the method of installation, and adequate drawings to indicate the location of the proposed facilities with respect to the right-of-way line and the edge of the road.

Notification - The Contractor must notify the County at least two (2) business days before starting construction and at completion of construction. Notification procedure is to phone and email the contact person indicated on the Utility Permit. If “no answer” leave a voicemail message stating the utility company name, contractor name, location of work, contact person and call back phone number then follow up with an email with the same information. See the following sections on Road Closures for additional notification specifications for those items.

Revocation - In the event of willful failure or neglect by Contractor or its agents to perform and comply with these construction requirements, the County may revoke this permit and order the Contractor to remove any and all facilities installed not in conformance with these construction requirements. In the event the Contractor leaves the right-of-way in a condition needing repair or construction, the County may repair such right-of-way and the costs of such repair shall be paid by the Contractor.

Conformity to Laws - The installation shall be made in conformity with all applicable laws, regulations and codes covering said installations. All installations shall be made in conformity with regulations of governmental agencies for the protection of the public.

Identification Markers – For an underground private utility line crossing the right-of-way, identification markers shall be placed at the right-of-way lines. Underground utility lines placed parallel to the right-of-way shall place identification markers at 0.5 mile increments. The identification markers shall be placed as pipeline markers and include the following information:

1. Owner with phone # and contact
2. Type of facility
3. Size of line
4. Depth of line at ditch flowline
5. Direction of line by arrows

Road Closures

Roadway Classification – Roadway closures on county asphalt or concrete roads will not be permitted unless unusual or emergency circumstances exist. Township roads may not be closed for more than 24 hours at a time.

Traffic Control Plan – The Contractor shall provide a traffic control plan for each and every road closure, and furnish the plan to the County for review and approval at least two business days prior to the closure.

Procedure - Contractor will coordinate closure with the County. Prior to closure the Contractor will have all traffic control and signing in place. The road cannot be closed or opened without the specific permission of the County. Permission to close the road will be based on having proper signing in place and equipment on the job to perform the planned work. Permission to open the road will be based on proper repair of the roadway and shoulder so the road can be safely open to traffic. It is important that the contractor keep the County informed of scheduling of backfilling and pavement repair to insure proper inspection and minimize the time the road is closed to traffic.

Notification - The Contractor will make the notifications of a closure and opening of the road to emergency services, school bus operators and the post office.

Traffic Safety

Execution - Operations shall be so conducted at all times as to permit safe and reasonably free travel over the roads within the limits of the work. If the County finds at any time, that proper signing is not in place, or that conditions may not permit safe travel through the work area, the Contractor (upon being notified by the County) shall immediately stop work, and take the necessary steps to correct any traffic safety issues.

Signs - The Contractor shall provide all safety measures for the movement of traffic in compliance with the current version of the Manual on Uniform Traffic Control Devices (MUTCD). These include all signs, warning devices, barricades, flaggers and equipment. Warning devices, signs, and barricades shall be kept clean and in good repair.

Flaggers - Flaggers will be required when one lane of traffic is closed or obstructed.

Operations

Wet Weather - No work, other than emergency work, will be permitted on rights-of-way when soil condition is wet enough to cause rutting or other damage to the right of way.

Lugs on Equipment - No lugs shall be used on equipment traversing a paved road which may damage the road surface.

Clean-up - Street surface and roadside shall be kept clean, neat, and presentable throughout construction.

Storage – Materials shall not be stored within 10 ft of the edge of the road.

Parking - Equipment or vehicles when not in use shall not be parked on the roadway. Equipment shall not be parked at night within 10 ft. of the edge of the roadway.

Location

General - The proposed facilities shall be located to the satisfaction of the County. To enhance traffic safety by providing the maximum clear zone available within the existing right-of-way, all utilities should be located as close as possible to the right-of-way line. On relocations for construction projects on the side of the road where a power pole line is planned, the parallel installation of buried utilities shall not be closer than 4 feet to the right-of-way line, so the above ground facility could be placed at the right-of-way line. Underground utility facilities shall also not be placed within 20 feet of the roadway centerline. See attached details for further clarification.

Above Ground - All above ground facilities should be located as close as possible to the right-of-way line, and no facilities that extend more than 4 inches above the ground shall be placed within 10 feet of the edge of a road surface. Pedestals, poles, guys, anchors and other above ground items shall not be located in a ditch, at drainage structure openings, or on the road shoulder, and shall be located to minimize interference with road maintenance operations. Overhead lines crossing the road shall be at least 18 feet above the road surface.

Bury Depths – See the attached detail sheets for depth requirements.

Bridge Attachments – Bridge attachments are allowed as part of a normal utility permit for cable TV and telecommunications with casing less than 2 inch diameter located on the outside of the handrail of concrete and steel bridges. All other bridge attachments will require a special permit with plans prepared by a professional engineer

Boring – Boring or jacking shall be required on all county road crossings, gravel surfaced township roads, and all asphalt/concrete surfaced entrances unless an exception is specifically noted on the permit by the County. Boring by water jetting or puddling is not be permitted. Top edge of bore pit shall be located at least four feet from the edge of a gravel road or paved road. On paved roads with a shoulder, the top edge of pit shall not encroach on the road shoulder.

Pipeline casings – All water and sewer line road crossing shall be cased 10 feet beyond the edge of the roadway. Petroleum based and gas pipelines crossing the roadway are NOT required to be cased. However, the pipeline within the right-of-way shall meet the following conditions:

1. Welded steel pipelines
2. Cathodically protected
3. Coated in accordance with accepted industry standards
4. Meets requirements of the Pipeline Safety Regulations – Code of Federal Regulations – Title 49 – Transportation (Part 191 and 192 – Natural Gas) or (Part 195 – Liquid Petroleum Gas) with respect to wall thickness.
5. Designed for operating stress levels in accordance with Federal Pipeline Safety Regulations.

Backfill Requirements – See attached roadway repair detail for allowed roadway trenching. For trenches constructed outside of the roadway, normal backfill requirements are compacted material removed from the trench. This backfill shall be compacted by tamping.

Traceable – All underground utilities shall be traceable.

Cleanup and Restoration

Time - Immediately after completion of the installation of the facilities, the road and right-of-way shall be restored to a condition equal to that existing before commencement of the described work.

Ditches - Restore to the original configuration all ditches and slopes. All ruts shall be filled and smoothed to match the existing surface.

Settlement - The Contractor shall be responsible for repairing any settlement resulting from this work.

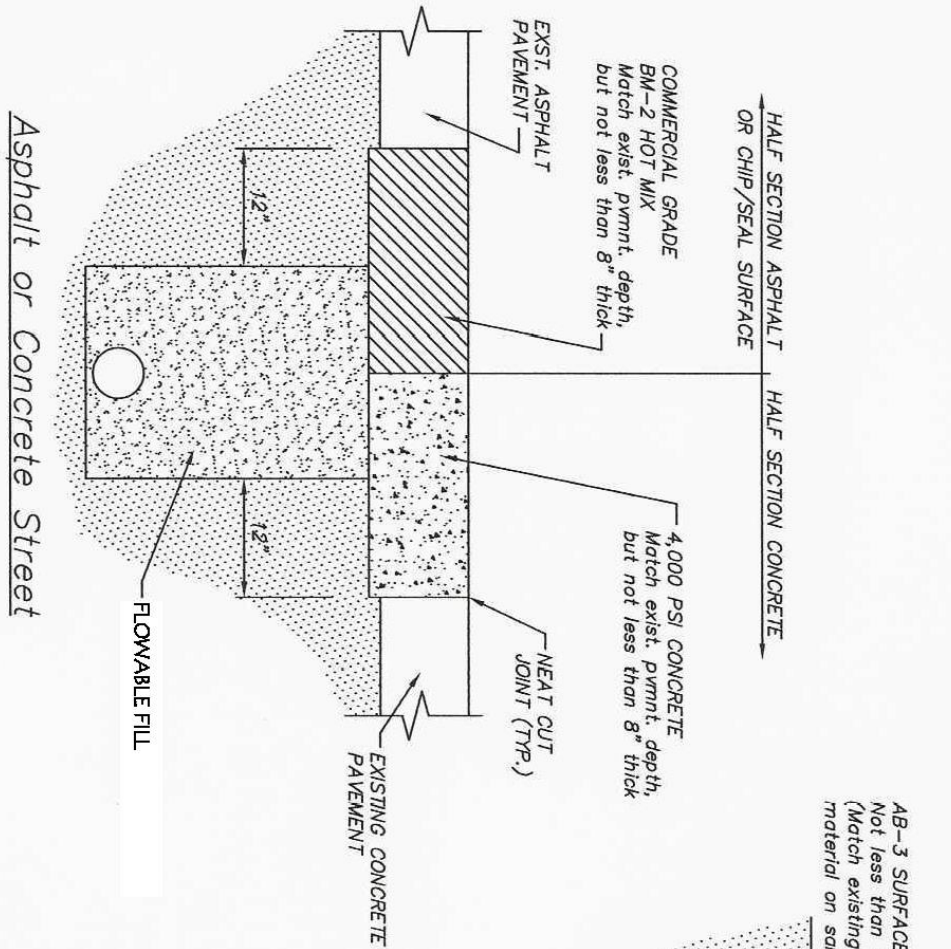
Maintenance - The Contractor shall replace and stabilize all earth cover and vegetation where it has eroded where such erosion or vegetation damage is due or caused by the placement or existence of the utility facility.

Roadway – The Contractor shall sweep off excessive dirt from the roadway surface

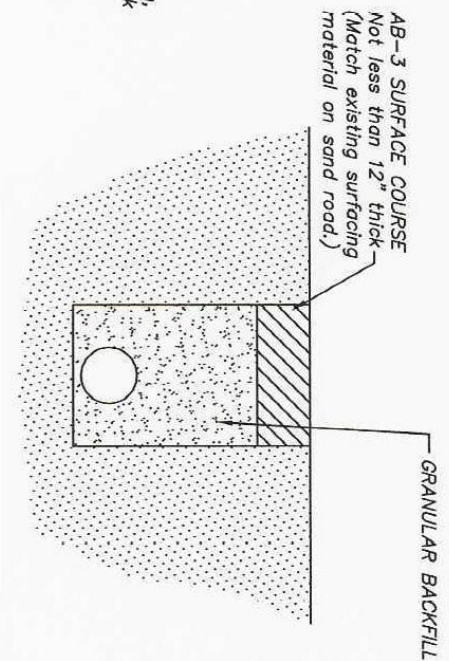
Final Inspection

To receive acceptance of the work authorized by a utility permit, completion of the work must be verified by a final inspection. It is the Contractor's responsibility to call for a final inspection. The Contractor will pothole buried lines at locations indicated by county inspector to verify that lines were buried as required in the permit. If work or restoration is found to be defective or insufficient the Contractor shall complete said work and call for a re-inspection. The Contractor shall be held responsible to maintain all grading and backfill for one year form the date of the final acceptance.

Prior to any repairs, the County/Township must be notified, see Permit for contact information



Asphalt or Concrete Street



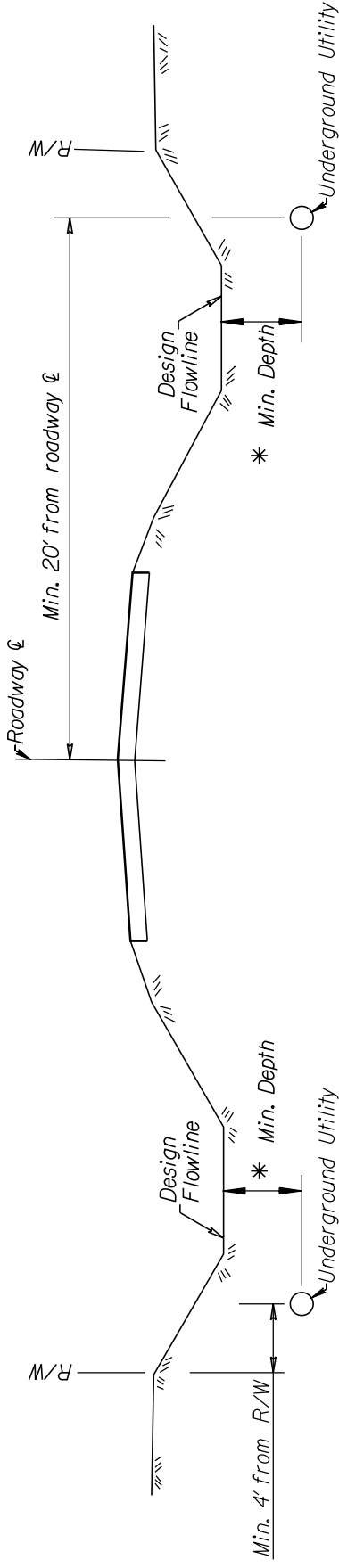
Earth or Dirt Road

Granular backfill required under roadway from shoulder to shoulder, remainder of backfill on r/w to be compacted earth.

- Granular Backfill Options
1. low strength flowable fill
 2. cleaned screen rock such as CM-K or CA-5
 3. vibrated sand (6" max. lifts)
 4. compacted AB-3 (6" max. lifts)

ROAD REPAIR DETAIL

BURIED UTILITIES ALONG RIGHT-OF-WAY



General Notes

- * Minimum Depth of utility from Design Flowline
 - 6' - Petroleum based and gas pipeline
 - 4' - Fiber Optic & Underground Electric
 - 4' - Water and Sanitary Sewer
 - 3' - Telephone, TV, other cable

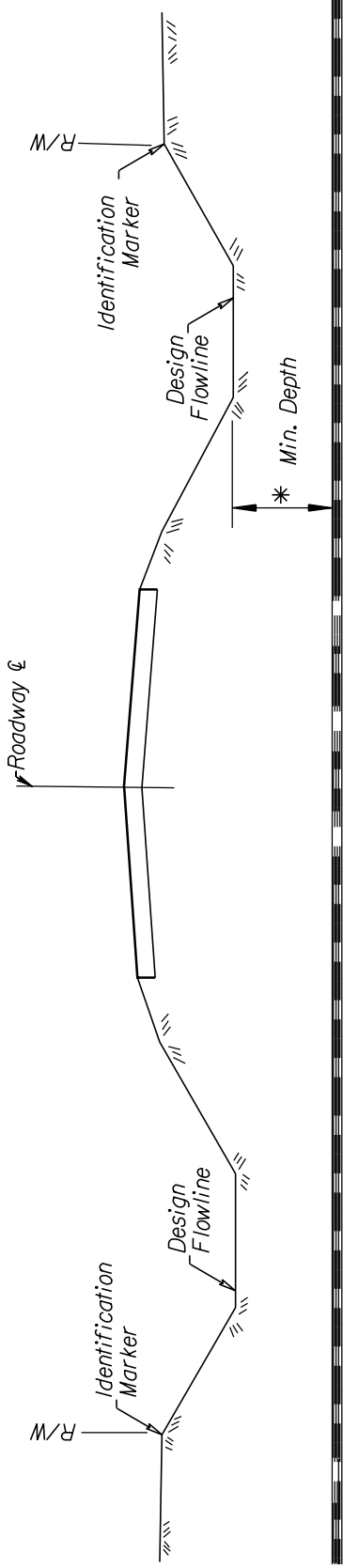
Design Flowline shall be by order of importance:

1. Drainage structure flowline
2. Proposed/plan ditch flowline
3. Existing ditch flowline

All underground lines shall be traceable.

Identification markers shall be placed at 0.5 mile increments along the utility line.

BURIED UTILITIES CROSSING RIGHT-OF-WAY



General Notes

Boring or jacking is required on all paved and gravel surfaced roads.

Waterline and sanitary sewer crossings require a casing to be extended 10' beyond the roadway.

Petroleum based and gas pipelines are NOT required to be cased but the pipeline located within the R/W shall meet the conditions listed in the "Pipeline casing" section of this document.

All underground lines shall be traceable.

Identification markers shall be placed at the R/W or fence line.

- * Minimum Depth of utility from Design Flowline
 - 8' - Petroleum based and gas pipeline
 - 5' - Fiber Optic & Underground Electric
 - 5' - Water and Sanitary Sewer
 - 3' - Telephone, TV, other cable

Design Flowline shall be by order of importance:

1. Drainage structure flowline
2. Proposed/plan ditch flowline
3. Existing ditch flowline

The elevation of the utility at the R/W shall match the elevation of the utility at the Design Flowline.