The City of Kirksville is responsible for maintaining the flow of water within the City's stormwater system which includes driveway culverts, ditches, stormwater sewers, and stormwater channels within City rights-of-way or easements (40 CFR 122.26(b)(16)). This policy is intended to provide guidelines to ensure the movement of surface water and to preserve the structure and safety of streets, roads, and public or private property.

I. INSTALLATION OF NEW DRIVEWAY CULVERTS/PIPES

- A. Culverts shall be installed to meet City requirements so as not to impede the flow of water.
- B. The property owner shall contact the Engineering Department to schedule an appointment before installing any driveway culvert.
- C. New culverts associated with new development or construction will be listed on the site plans submitted to the City Engineer for approval. Plans will include depth, elevation, and grade. It will be the property owner's responsibility if ditching is required to establish the required flow line. This plan will also include any improvement or construction required up and downstream to ensure the stormwater flow is maintained.
- D. The Engineering Department shall determine whether or not a culvert is necessary and, if so, the appropriate size and length of the culvert, elevation, and grade at which the culvert shall be installed.
- E. The property owner shall be responsible for installing the culvert based on the requirements determined in the city policy and the appropriate City Ordinance including all costs for materials, equipment, tools, and labor.
- F. Driveway culverts/tubes shall have a minimum of 6 inches of cover. For example: a 12-inch pipe is required to be buried 18 inches deep. The water flow line is now 18 inches deep. Any ditching or improvements required up or downstream due to the installation of a new culvert/pipe is the responsibility of the owner. Culverts/pipes shall be installed and drainage established, at owner's expense, in a manner that will allow the driveways to connect to the existing street without changing the street profile. Upon installation, the property owner shall contact the Engineering Department and the Street Maintenance Supervisor who will determine if installation meets requirements and, identify changes, if any, or approve the completion of work.

II. REPLACEMENT OF EXISTING DRIVEWAY CULVERTS/PIPES

- A. The property owner shall contact the Public Works Department to schedule an appointment with the Street Maintenance Supervisor.
- B. The Street Maintenance Supervisor shall inspect the existing culvert to determine eligibility under City policy. To be eligible for replacement, the culvert must be structurally or hydraulically deficient. Structural deficiencies shall include a culvert that is rusted

through, cracked, or crimped, or a culvert that has bedding or sagging failures. If a culvert is in good condition but has been damaged by the property owner, the property owner may be held responsible for material, labor, and equipment costs. Culvert/pipe that fails due to excessively heavy vehicles or equipment, other than residential traffic, will be replaced at the owner's expense. Hydraulic deficiencies shall include inadequate culvert size, and inlet or outlet restrictions not caused by lack of maintenance by the property owner. Lack of inlet or outlet maintenance by the property owner shall not be grounds for replacement at City cost.

- C. Culverts eligible for replacement under this policy shall be removed and replaced by the Public Works Department at the City's cost unless it is determined that the culvert was damaged by the property owner. Replacement shall be made with materials of appropriate size and length, and set at grades necessary to ensure proper operation. If the replaced culvert is to be longer than the existing culvert at the property owner's request, the property owner shall bear all costs for additional materials, equipment, tools, and labor necessary beyond the existing length removed.
- D. Finished surfaces over replaced culverts shall be made to the same grades and elevations with materials equal to those removed.
- E. If the property owner requests culvert replacement due to driveway maintenance or replacement, all work shall be performed as per the "Installation of New Driveway Culverts" section above.

III. MAINTENANCE OF DRIVEWAY CULVERTS/PIPES

To maintain proper water flow, the property owner is responsible for inlet and outlet cleaning, including removal of all yard waste and trash, maintenance of grass and ground cover at proper heights per to Code of Ordinances for City of Kirksville, and maintenance of adequate driveway cover materials.

If the property owner fails to maintain the driveway culvert free of debris, it shall be turned over to the Community and Economic Development Department for enforcement. If City cleaning is required due to the property owner's failure of compliance, the City shall bill the property owner for all costs incurred. If, for public safety reasons, immediate cleaning is required, the City may perform the necessary work and bill the property owner for all costs incurred.

In the event that a private driveway culvert creates a health or safety issue for the public or City facilities, it shall be turned over to the Community and Economic Development Department for enforcement. If City cleaning is required due to the property owner's failure to comply with the Code of Ordinances for the City of Kirksville, the City shall bill the property owner for all costs incurred. If, for public safety reasons, immediate cleaning is required, the City may perform the necessary work and bill the property owner for all costs incurred.

IV. MAINTENANCE OF ROADSIDE DITCHES

Ditches are the property owner's responsibility to maintain proper water flow. The property owner is responsible for inlet and outlet cleaning, including removal of all yard waste, leaves, weeds, debris, silt, and trash; and maintenance of grass and ground cover at proper heights to City codes.

If re-grading of a ditch is required, the property owner shall use the following procedure:

- A. Contact the Public Works Department, to schedule an appointment with the Street Maintenance Supervisor.
- B. The Street Maintenance Supervisor shall determine the appropriate work to be performed, and the grade at which the ditch shall be installed.
- C. If cleaning is required, as indicated above, to reestablish proper flow it will be the property owner's responsibility.
- D. If re-grading is necessary, the Street Maintenance Supervisor shall schedule work with City crews to be completed as time permits.
- E. If the existing ditch is adequate for current conditions but requires an increase in size, regrading, or maintenance due to the installation of a new culvert/pipe, the owner is responsible for all costs and construction associated with the required improvements.

V. MAINTENANCE OF STORM SEWERS

The City will clear, clean, and maintain all public storm sewers (enclosed systems) including street and area inlets, culverts, and manholes that have been dedicated to or accepted by the City for operation and maintenance. The City will not maintain private stormwater sewers. If a private stormwater sewer creates a health or safety issue for the public or City facilities, it shall be turned over to the Community and Economic Development Department for enforcement. If for health or safety reasons City cleaning is required due to the property owner's failure to comply with the Code of Ordinances for the City of Kirksville, the City shall bill the property owner for all costs incurred. If, for public safety reasons, immediate cleaning is required, the City may perform the necessary work and bill the property owner for all costs incurred.

VI. MAINTENANCE OF IMPROVED STORMWATER CHANNELS

The City shall maintain improved channels that have been dedicated to or accepted by the City for operation and maintenance. Improved channels are those constructed of reinforced or non-reinforced concrete, grouted or non-grouted rock blankets, or any other type of improved channel installed by the City or approved by the City and installed by a developer.

The property owner shall maintain stormwater channels on their property, including the removal of all debris, trees, brush, and sediment that impede or obstruct the channel flow (Article IV. – Stormwater. Section 40-486).

If a private improved channel creates a health or safety issue for the public or City facilities, it shall be turned over to the Community and Economic Development Department for enforcement. If City cleaning is required due to the property owner's failure to comply with the Code of Ordinances for the City of Kirksville, the City shall bill the property owner for all costs incurred. If, for public safety reasons, immediate cleaning is required, the City may perform the necessary work and bill the property owner for all costs incurred.

VII. MAINTENANCE OF UNIMPROVED STORMWATER CHANNELS

The City shall maintain unimproved channels that have been dedicated to or accepted by the City for operation and maintenance. Unimproved channels are those constructed in any manner other than as described in "Improved Stormwater Channels."

The property owner shall maintain stormwater channels on their property, including the removal of all debris, trees, brush, and sediment that impede or obstruct the channel flow (Article IV. – Stormwater. Section 40-486).

If a private unimproved channel creates a health or safety issue for the public or City facilities, it shall be turned over to the Community and Economic Development Department for enforcement. If City cleaning is required due to the property owner or developer's failure to comply with the Code of Ordinances for the City of Kirksville, the City shall bill the property owner for all costs incurred. If, for public safety reasons, immediate cleaning is required, the City may perform the necessary work and bill the property owner for all costs incurred.

VIII. CULVERTS AND PIPES NOT ASSOCIATED WITH DRIVEWAYS

Any stormwater culvert or pipe placed in the city's stormwater system must be approved by the City Engineer. The owner shall submit plans with size, grades, and any up or downstream improvements required for maintaining proper stormwater flow.

All requirements in this chapter will apply. Maintenance and sustainment will be the responsibility of the owner. The City will not take ownership of these improvements, including culverts and pipes.

If private culverts/pipes are not maintained properly the problem will be turned over to Community and Economic Development Department for enforcement. If the culvert/pipe causes an interruption or impedes the flow of the City's stormwater system due to lack of maintenance, size, grade, elevation, or sustainment it will be removed by the City at the owner's expense.

Private culverts and pipes will not be allowed if they impede water draining from the streets into the stormwater system. i.e. if the installation of a new culvert or pipe will cause water to run down the edge of the street instead of into the ditch the culvert/pipe will not be allowed.