

Methodist Manor Drainage Improvements

City of Tulsa, OK

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► Completed in 1999

In 1999, Meshek & Associates, PLC, was called to address the difficult drainage issues plaguing Methodist Manor, a retirement center located in Tulsa, Oklahoma. The overtopping of undersized culverts by runoff had resulted in extensive bank erosion and serious pavement deterioration.

Our Water Resource Engineers designed a 100-year channel and a 10 acre-foot stormwater detention facility through the retirement center to resolve the flooding issues.

The **Project Scope** included the following responsibilities:

- *Detailed hydrology and hydraulics to minimize outflows into a frequently flooded neighborhood downstream*
- *Design of a stormwater detention facility to increase the onsite storage by 10 acre-feet*
- *Design of 400 feet of 26-foot curb and gutter paving with appurtenant storm sewers to improve stormwater conveyance and increase traffic safety*
- *Relocation of sanitary sewer and water lines*
- *Design of a channel with non-standard materials to maximize aesthetics and minimize maintenance requirements*
- *Assistance during bidding and general observation during construction*
- *Preparation of as-built plans*

The project, which was constructed inside a private development on a public drainage easement, included a walking trail around a stocked fishing pond which now serves as a recreational amenity for the residents.



*Top: Methodist Manor Detention Facility.
Bottom: Methodist Manor Channel Improvements Project.*

Project Fee and Special Features

Construction Cost: \$800,000

Notable aspects of the design include the combination of needed stormwater detention in a multipurpose recreational facility to enhance amenities for residents.



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