

## Shady Lane Storm Sewer

Nominating Agency: City of Woodland Park

**Program Accomplishment:** Shady Lane Storm Sewer project provided a critical storm sewer connection for an undeveloped commercial parcel near the west end of City of Woodland Park. This parcel did not have an existing downstream drainage path, and was not developable without some sort of storm sewer connection. The parcel was of significant importance, as it was a City focus for economic development to increase the potential sales tax base. The team began and completed the project in 2012 on a fast-track design and construction schedule in order to attract interested development.

A key aspect of the design involved evaluation of the downstream hydraulic capacity from the system outfall to Fountain Creek in order to ensure limited impacts to the residents and infrastructure along that path. The



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proposed storm system along Shady Lane was then sized to allow that maximum flow rate. The proposed design alignment was carefully selected to work with the many known existing and proposed utilities, including sanitary sewer, water, gas, telecommunications and storm.

During construction, a multitude of previously unmarked utilities were encountered, most of which conflicted with the proposed storm sewer construction. Coordination between the City, contractor, designer, and utility owners led to quick resolution of the conflicts to keep construction on schedule. A portion of the system was adjusted to a pipe size and grade that solved the utility conflicts while providing equal capacity.

**Innovation:** This project provided capital improvements that solved a critical drainage issue and encouraged development of a key area in Woodland Park. The City accomplishes their goal of economic development for this area, while providing a solution that was evaluated to limit impacts to all the stakeholders, including those downstream of the project. A field investigation and evaluation of downstream drainage infrastructure was used to determine the maximum capacity appropriate for the new storm system.

**Achievement:** The City's goals for this project were to solve an existing drainage problem and encourage economic development. The challenges to those goals included a fast-paced schedule and a significant number of utility conflicts encountered during construction. Despite those challenges, the project accomplished the project goals on schedule and within budget.

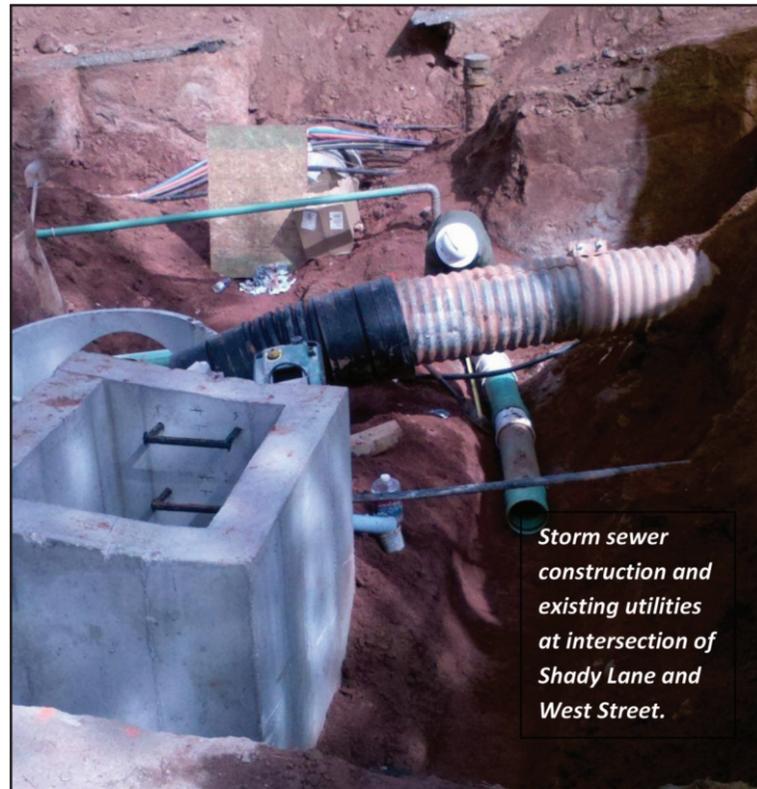
**Transferable:** The project improvements are transferable to the developer of the site, and will benefit the City through additional sales and property taxes. The impact of the final solution on all potential stakeholders was considered. The commercial properties adjacent to this site were already at hydraulic capacity, so the Shady Lane corridor was selected and evaluated to limit impacts downstream.



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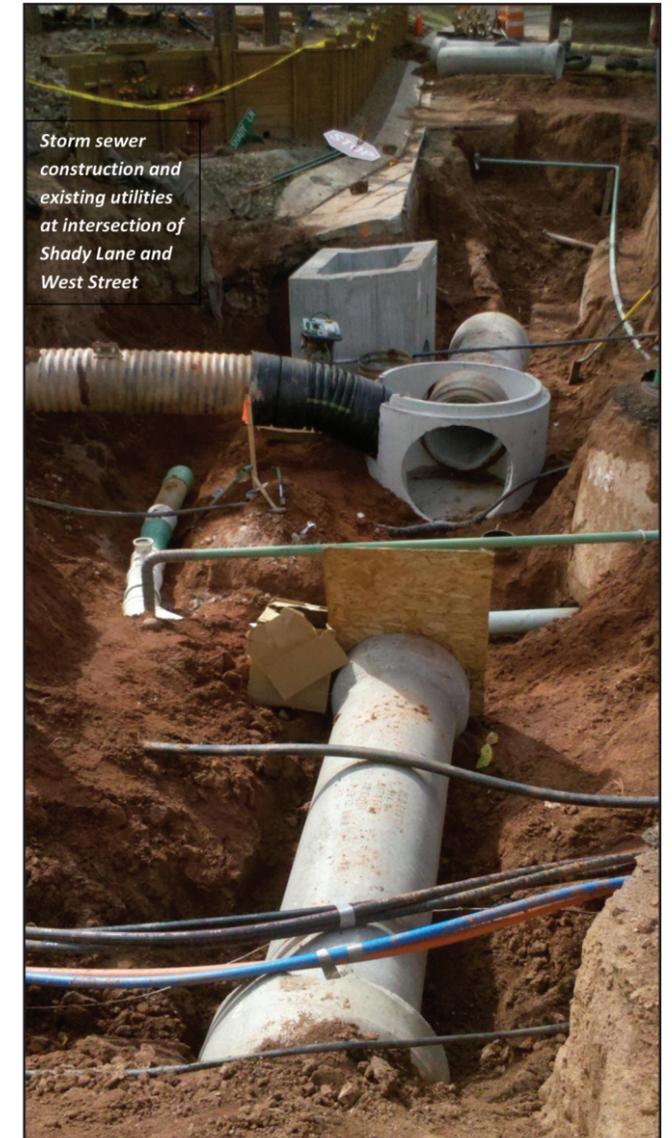
Storm sewer construction and existing utilities at intersection of Shady Lane and West Street.

**Cooperation:** Cooperation amongst many different agencies and organizations was vital to the success of this project. During initial project stages, cooperation between the City, designer, developer, and potential tenants guided the design. During construction cooperation between the contractor and utility companies was crucial. Cooperation with the residents impacted during construction of the improvements was also necessary to ensure successful construction while maintaining reasonable access and minimal disruption.

**Summary:** The Shady Lane Storm Sewer project provided a critical storm sewer connection, allowing for development of a commercial parcel that was lacking a sufficient downstream drainage path and outlet. The downstream capacity was evaluated and used for the design of the storm sewer. The City, designer and contractor worked through a significant number of utility conflicts to successfully complete 1200 LF of storm sewer on schedule and within budget. ●



Storm sewer post construction - intersection of Shady Lane and West Street



Storm sewer construction and existing utilities at intersection of Shady Lane and West Street

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