

## Meadows Filing 16 Subsurface Edge Drain

Project Manager: Erik Dam, P.E., CFM

During the spring and summer months of 2019, Pro-West Contracting, LLC installed a subsurface edge drain system in Meadows Filing 16. Excessive water in the area was creating problems, including accelerated pavement deterioration and nuisance flows over sidewalks (a history of complaints by residents). The estimated pavement repair cost of \$3 million over the life of the pavement exceeded the underdrain cost of \$654,000. This project was funded jointly by Castle Rock Water and the Public Works Department.

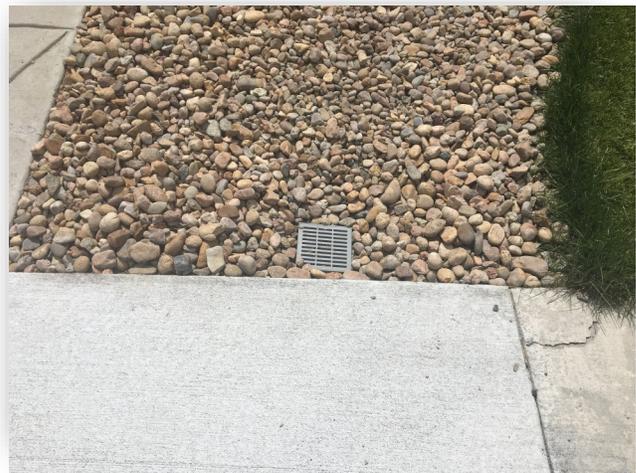
The project included approximately 8,250 linear feet of underdrain on thirteen streets, and installation of 130 yard drains behind existing sidewalks to intercept flows from drainage swales. The underdrain was placed under the asphalt pavement in front of the existing gutter pan. There was no disturbance to resident's front yards or driveways.



**Contractor:** Pro-West Contracting, LLC

**Cost:** \$654,000 (under the budgeted amount of \$660,000)

**Schedule:** Completed August 2019, three weeks late due to bad weather and material delivery delays.



## Minor Drainageway Improvements

Project Manager: Erik Dam, P.E., CFM



The original storm sewer systems constructed within portions of the Woodlands subdivision and along Canyon Drive and in Rock Park do not extend all the way to their respective drainageways (Hangmans Gulch Tributary B and Parkview Tributary). As a result, significant erosion has occurred that if left unaddressed will eventually impact private residential lots in the Woodlands, as well as public infrastructure (Canyon Drive). This project will correct these issues by extending the existing storm sewer outfalls to their respective drainageway channels, and then backfilling and replanting the eroded areas with native grasses. Additionally, the most severe areas of stream bank erosion will be repaired using soil lifts to minimize disturbance of the existing vegetation while preventing further damage from occurring.



**Contractors/Cost:** The design consultant was Dewberry Engineers, Inc. at a cost of \$115,430. The contractor is 53 Corporation, LLC at a cost of \$766,255 (includes 10% contingency). Project construction is coming in over the budgeted amount of \$345,000 (for construction, excluding design costs)

**Schedule:** Construction began in December of 2019, and is currently on schedule for completion in the Spring of 2020.

## Gordon Drive Improvements Project

*Project Manager: Barbara Horton, P.E., CFM*

Castle Rock Water and the Public Works Department are partnering to complete improvements along Gordon Drive, in the Memmen subdivision, to address stormwater flows along the surface of the roadway. An underground storm sewer will capture and convey approximately one hundred acres of on-site and off-site flows to minimize street flooding and bring the roadway up to current standards for drainage.

Existing water and sewer infrastructure in the neighborhood is approximately forty years old. In order to construct the storm sewer, modifications to the existing sanitary sewer and water lines were necessary. Proactively replacing remaining sanitary sewer services and water lines along Gordon Drive, Gordon Court, Gordon Place and Gordon Lane as part of the current project will minimize future disruptions in service and limit future street cuts that would compromise the newly constructed pavement. Improvements also include reconstruction of the roadway from an inverted crown to a standard crown with catch curb and gutter along Gordon Drive, between Johnson Drive and Gordon Lane, as well as full depth pavement reclamation of the remainder of Gordon Drive, Gordon Court, Gordon Place and Gordon Lane.

Construction kicked off in April 2019 and is anticipated to be completed by Spring 2020. The project is funded through the Stormwater, Water and Wastewater Enterprise Funds, and the Transportation Fund.



**Contractor:** Iron Woman Construction & Environmental Services, Inc.

**Cost:** \$2,835,539 (as budgeted following a council authorized change order for increased scope.)

**Schedule:** Completion of the project was delayed due to conflicts with private utility lines. Completion expected by Spring 2020.