

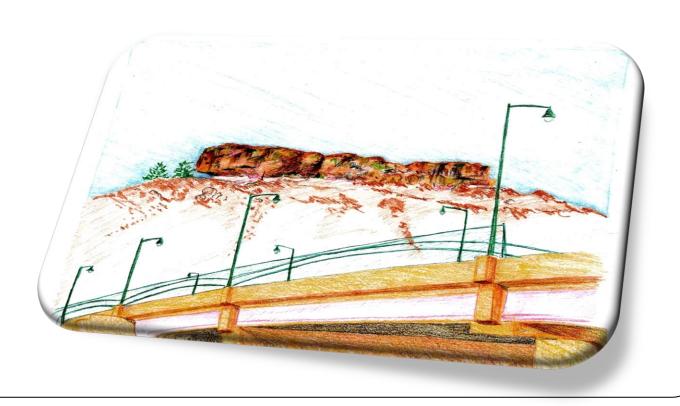
The Public Works Department operates under the CAN DO philosophy
- We are committed to doing the job right with a positive attitude
while staying dedicated to meeting the needs of our Town values
and continually searching for opportunities to improve.

PUBLIC WORKS DEPARTMENT

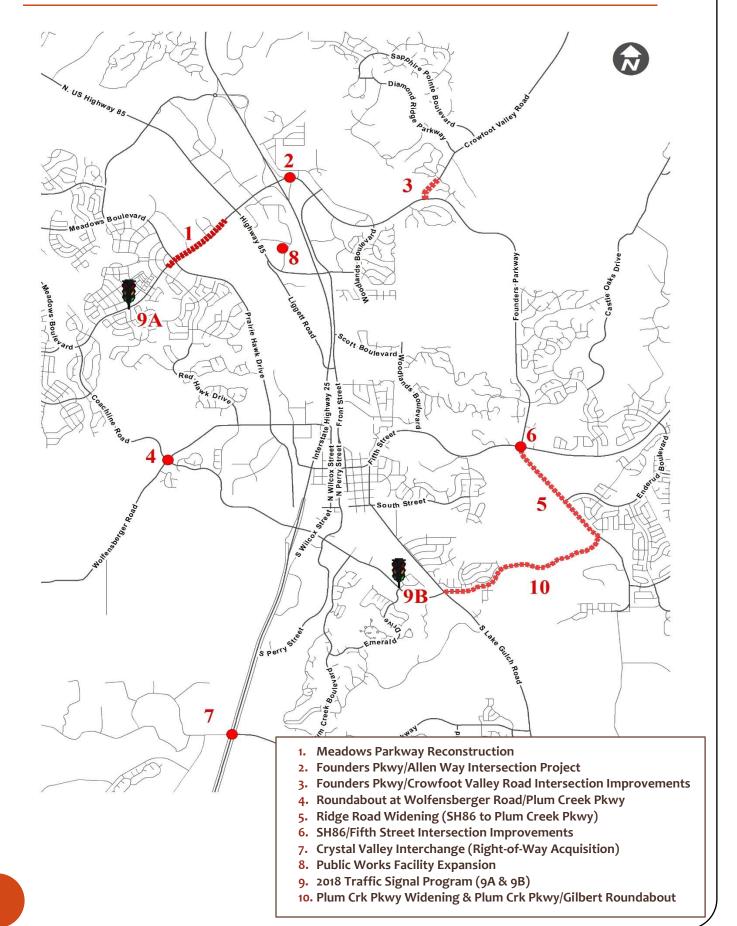


Our Mission: To provide outstanding service, safety and support for transportation infrastructure and maintenance.

MONTHLY REPORT - JULY 2018



CAPITAL PROJECTS



1. Meadows Parkway Reconstruction - This improvement project will consist of the reconstruction of the existing 4-lane roadway of Meadows Parkway from the intersection of Meadows Parkway and Prairie Hawk Drive to the railroad overpass over Plum Creek near US 85. This reconstruction will also replace any broken curb/gutter, sidewalk, and add on-street bike lanes. Phase: Construction – The project was awarded to Schmidt Construction Company. Felsburg, Holt, and Ullevig (FHU) will assist the Town with construction management. Construction began May 29 and is scheduled to be completed August 11. Budget: \$2,467,000 Construction Completion: Late Summer 2018





- 2. <u>Founders Pkwy/Allen Way Intersection Improvement Project</u> This project will address the need for the following improvements:
 - An additional eastbound left turn lane from Founders Parkway to Allen Way
 - A dedicated right turn lane from Founders Parkway to Allen Way
 - An additional southbound right turn lane from Allen Way to westbound Founders Parkway
 - An additional I-25 northbound on-ramp lane
 - A second through lane at Allen Way and Allen Street

Phase: Design & ROW Acquisition – Felsburg, Holt & Ullevig is the design consultant for this project. The following is a summary of the design activities that took place during this month:

- FHU completing Final Office Review (FOR) plans. Anticipate providing traffic signal sheets early to CDOT to release their matching funds
- Continue to monitor right-of-way status. Plans to be resubmitted for approval/verification approximately 30 days prior to right-of-way clearance.
- Minor Interchange Modification Request (MIMR) has been resubmitted to CDOT for approval and their submittal to FHWA for authorization to proceed. Awaiting CDOT response on status.
- IREA coordination meeting has been held and permitting/clearance letter pending. Budget: \$760,000 Design Completion: Summer 2018 ROW Completion: Fall 2018



- 3. Founders Pkwy (SH86)/Crowfoot Valley Road Intersection Improvement Project and Crowfoot Valley Road Widening Project This project will address the need for the following improvements:
 - An additional eastbound left turn lane from Founders Parkway to Crowfoot Valley Road
 - An additional northbound lane on Crowfoot Valley Road between Founders Parkway and Knobcone Drive
 - A southbound free right turn lane from Crowfoot Valley Road to westbound Founders Parkway
 - Widen Founders Parkway both eastbound and westbound between the Crowfoot Valley Road and Woodlands Boulevard
 - Widen Crowfoot Valley Road from Founders Parkway to Knobcone Drive

Phase: Design and ROW Acquisition – Kimley-Horn is the design consultant for this project. The following is a summary of the design activities performed this month:

- Design plans are complete and under review by CDOT
- Town's Legal and Public Works staff continue to work on right-of-way and easement agreements with neighboring properties
- A revised right-of-way agreement has been submitted to CDOT for review Budget: \$650,000 (2016-17) Design & ROW Completion: 4th Quarter 2018
- 4. Wolfensberger Road/Plum Creek Parkway Roundabout Project This project will accomplish the design and construction of a roundabout at this intersection to improve operations and minimize potential accidents. Phase: Construction Rocky Mountain Excavating was awarded the construction contract and a pre-construction meeting was held on July 16. The following construction activities were performed:



- Started BMP's / GESC
- IREA started the relocation of their existing primary power lines.
- Demo existing sanitary sewer pipe and manholes in preparation to install new 8" sanitary sewer pipe.

Budget: \$1.14M Construction Completion: Late Summer 2018

- 5. Ridge Road Widening Ridge Road will be widened from two to four lanes between the Founders Parkway (SH86)/Fifth Street/Ridge Road intersection and Plum Creek Parkway. The goal is to reduce traffic congestion on the Ridge Road corridor. Phase: Design: Stanley Consultants, Inc., has been awarded the design contract for this project. Design is scheduled to be at 60% by the end of August. Budget: \$400,000 Design Completion: 2018
- 6. Founders Parkway (SH86)/Fifth Street Intersection Improvements The Town's design consultant, Short Elliott Hendrickson, Inc. (SEH) investigated multiple alternatives to address safety concerns and capacity issues at this intersection. A roundabout was the preferred alternative by CDOT, who owns the right-of-way for this intersection. Phase: Design –SEH has begun design and is scheduled to be completed by January 2019. Town staff met with Emmaus Anglican Church for relocation of their driveway access to the church to accommodate the design of the roundabout. Preliminary design has been presented to CDOT on July 13.

 Budget: \$340,000 Design Completion: 2019
- 7. <u>Crystal Valley Interchange Right-of-Way Acquisition</u> The purpose of this project is to achieve acquisition of remaining right-of-way and set aside future project funding allowing potential funding partnerships to assist with advancing construction. Phase: Right-of Way Acquisition –

Final Right-of-Way Plan Reviews (ROWPR) have been submitted to CDOT for authorization. Budget: Development Escrow ROW Completion: 4th Quarter 2018

- 8. <u>Public Works Facility Expansion</u> This project will complete design plans for the Service Center building expansion. Phase: Design The following is a summary of the design activities that took place during this month:
 - Continuing to work on the final design and bid documents
 - Town staff, including the Water & Parks departments, is working on the Xeriscape landscaping design which promotes water efficiency.

Budget: \$220,000 Design Completion: Fall 2018



9A&9B. 2018 Traffic Signal Program - There are two intersections that are planned to be signalized this summer. These intersections include, Meadows Parkway/Low Meadows Boulevard, and Plum Creek Parkway/ Emerald Drive. Also included in this project is the Fire Department's emergency signal at their new Fire Station #152

located on Crystal Valley Parkway. The 5th Street/Valley Drive intersection was also a part of the design project, and will be restriped to accommodate a westbound acceleration lane on Fifth Street. Phase: Construction – The majority of signal work has been completed and signals at all three locations are operational. Staff will walk the intersections after they have been in operation for several days, generate a punch list, and identify final work to be completed by the contractor. Illuminated street name signs and luminaires are ordered with long lead times and will be installed once acquired. Initial signal timing and programming is operational and will be monitored, evaluated, and adjusted in the next month. Budget: \$473,728 (Traffic Signals) \$172,967 (Fire's Emergency Signal) Construction Completion: Fall 2018

- 10. <u>Plum Creek Parkway Widening and Plum Creek Parkway/Gilbert Street Roundabout Project</u> This project will address the need for the following improvements:
 - Convert Plum Creek Parkway/Gilbert Street intersection into a roundabout
 - Reconstruct the existing 2-lane section of Plum Creek Pkwy from Gilbert to Eaton streets
 - Widen Plum Creek Parkway from Gilbert Street to Eaton Street
 - Widen Plum Creek Parkway from Eaton Street to Ridge Road

Phase: Design and ROW Acquisition – Kimley-Horn is the consultant for this project. The following is a summary of design activities performed this month:

- Performed additional utility survey including inverts of existing storm sewer
- Advanced conceptual layout of Gilbert Street roundabout
- Identified potential right-of-way needs for proposed improvements
- Initiated property owner discussions for potentially affected properties
- Continued work on preliminary drainage design
- Developed solutions to address public concerns received during first public meeting
- Prepared horizontal alignment alternatives for Plum Creek Parkway between Gilbert and Eaton streets
- Prepared conceptual layout of roundabout alternatives for Plum Creek Parkway and Eaton intersection
- Began preparations for second public meeting

Budget: \$794,375 Design & ROW Completion: 4th Quarter 2018

<u>Traffic Signal System Upgrades (Phase 3)</u> – This project is the third and final phase of a multi-year project that was approved as part of the Town's Strategic Plan early in 2015. The two main components of the Phase 3 project are installation of closed circuit television (CCTV) and travel time monitoring devices at key intersections. In the month of July, staff utilized two manufacturer's pan-tilt-zoom (PTZ)

cameras on a trial basis at Meadows Parkway and Prairie Hawk Drive and North Meadows Drive and Butterfield Crossing intersections. Both intersections have active and variable traffic due to construction activity in the area and alternate route status. Trial camera installations and management software are being evaluated prior to final product selection and locations.

Staff is finalizing the trialing of travel time monitoring technologies, Acyclica (Wi-Fi) and Trafficast's BlueToad (Bluetooth) products. Another round of travel time runs comparing traditional travel time measurements with reported travel times from these technologies was completed. The first round of runs had some unreliable data and the manufacturers provided some potential solutions to minimize and reduce erratic information prior to the round of trials is that were run at the end of July. Bluetoad devices are installed on the Wolfensberger corridor from Red Hawk to I-25, including a side corridor location at Meadows and Prairie Hawk. Acyclica devices were installed on Plum Creek Parkway corridor between Gilbert and I-25, including side corridor locations at 6th and Wilcox, and 5th and Woodlands. Devices provide real time and historic data of travel time and speed on Town's primary arterial corridors, share the travel time info to public via web based viewer and with CDOT's COTrip information service, as well as provide management center analysis data for origin and destination, and route finding. Staff is currently evaluating the reliability, ease of use, and other analytical tools each software provides and anticipate making a final product decision in August and continuing procurement and installation in the fall. Budget: \$520,000 Project Completion: Late Fall 2018



Engineering Division

2018 Pavement Maintenance Program (PMP) - The 2018 PMP is focusing its efforts in the East PMP area with additional work taking place on primary streets (Woodlands Boulevard, Wilcox Street, Prairie Hawk Drive, Plum Creek Boulevard, and Meadows Boulevard).



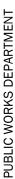
Sidewalk, curb and gutter repairs are complete with staff developing punch list items to be completed prior to project closeout. Also, the Slurry Seal project is complete with staff developing punch list items to be addressed prior to project closeout. The contractor does have a few patches remaining on streets that will be cracked seal in early fall.

The full depth reclamation (FDR) on Tabor Drive, Tabor Court, Heritage Avenue, Stratton Avenue, Deckers Place, and Turnstone Avenue is complete. FDR is the process of blending the existing asphalt pavement into the subgrade to improve the

quality of the material, then paving with new asphalt. All punch list items have been completed by the contractor and staff is working to close out the project.









The Lantern Trail reconstruction is complete. Staff is working with the contractor to complete all punch list items and close out the project.

The Wagonwheel Trail reconstruction continues to progress nicely with the paving complete and only concrete sidewalk repairs remaining.



Public notification planning and website updates are continuing with assistance from the Community Relations team.

2018 Facilities Parking Lot Improvements Program - This contract was awarded to Straight Line Sawcutting, Inc. and is scheduled to start late August. This will provide needed improvements to three parking lots at Town parks, and one parking lot in the downtown area as follows:

- Parking Lot at 4th Street and Perry Street
- Metzler Park Parking Lot next to the In-line Skating Rink
- Metzler Park Main Parking Lots
- Rock Park Parking Lot

Maintenance will be performed on the Castle North Park parking lot, and the Town of Castle Rock Museum parking lot under a separate contract due to the nature of the treatment.

Maintenance will also be performed on three Castle Rock Water facilities, Founders Treatment Plant, Waterman Treatment Plant, and Weaver II Well Field.

2018 Bridge Maintenance Program (BMP) — The Town's on-call consulting engineer, Felsburg, Holt & Ullevig, has completed the design for the structural repairs. The design plans have been submitted to staff for review. The following locations have been identified for the 2018 BMP: Structural Bridge Repair

- Castle Oaks Bridge at Rocky View Road
 - ✓ Girder repairs
- Fifth Street Bridge over I-25
 - ✓ Place riprap at column and repair spalled areas
- Perry Street Bridge over Sellers Gulch
 - ✓ Repair girder and girder bearing and upgrade approach rail

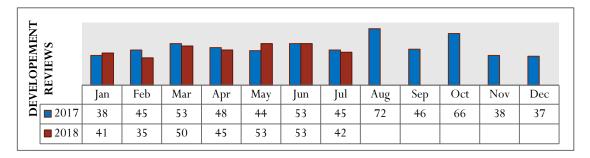
Bridge Surface Treatment

- Front Street Flyover
 - ✓ Mill and overlay wearing surface

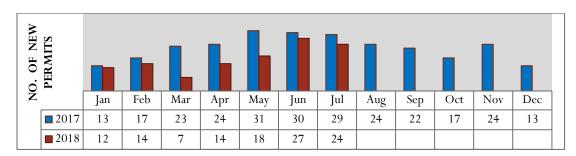
Treatments and locations may change pending current evaluation taking place and/or actual bid pricing received that may require some modifications.

Development Review and Permitting

<u>Development Review</u> - Included in the 42 submittals are 14 first time applications with six preapplications. All reviews were completed on or before the due date assigned by the Public Works Review Team.

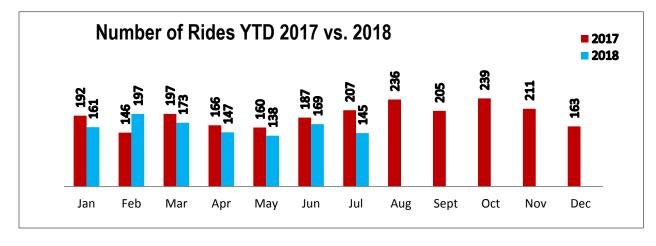


Permitting – Twenty-four permits were issued in July. Locations of note: Residential homes in The Meadows, and Crystal Valley and also a commercial permit in the Promenade (Chick-fil-A).

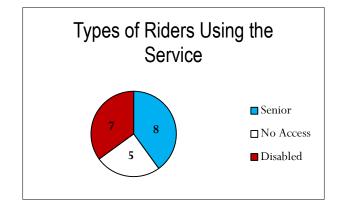


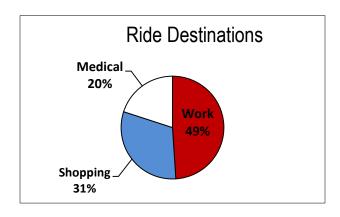
Transportation Division

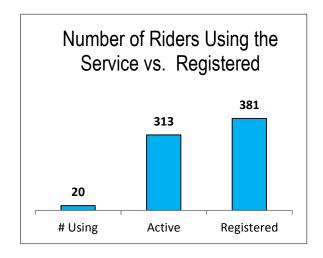
<u>Taxi Voucher</u> — For the month of July, the Taxi Voucher Program funded 145 rides, this was a 30% decrease from last July's total of 207 rides. Ridership this month is down from last month due to riders taking summer vacations and not needing rides to work and no weekend rides are being offered at this time through the program.

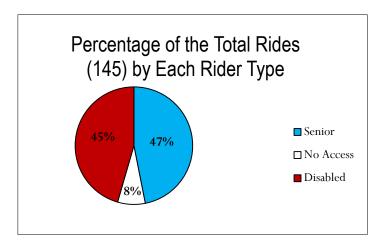


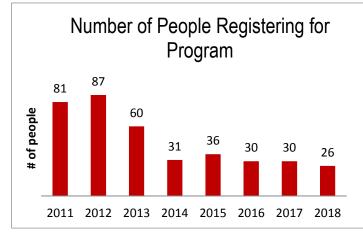
Rides are available for work, shopping or medical trips. Transportation services are provided for Castle Rock residents who are senior citizens, have a disability that prevents them from driving, or do not have access to a vehicle.











There were seven new registrants for the Taxi program this month. Since its inception, a total of 381 people have registered for the Town of Castle Rock Taxi Voucher Program. Currently 68 of these past registrants are inactive or have dropped out of the program.

Senior Center Shuttle The Senior Center provided 723 rides in the month of July which was a 4% increase from last month's rides of 696. The volunteer driver program provides service Monday through Friday from 9 am to 3 pm.



Traffic Engineering & Operations

Traffic Signal Operations and Maintenance - In the month of July, staff addressed 11 requests from the public related to traffic signal and intersection operations, safety, and maintenance. A total of 30 traffic signal maintenance visits were completed; four of those visits were planned inspections, wrapping up 2nd quarter preventative maintenance; 26 of those visits were for non-routine traffic signal investigations, troubleshooting, special event work, repair/replacement and installing of parts (22 of which were completed by Town staff and approximately four visits by the Town's signal maintenance contractor). Non-routine visits included preparing and managing a large annual event at the Fairgrounds, addressing detection recall, bulb burn outs, and other repair and replacement of parts.

Street Signs and Pavement Marking Maintenance - During the month of July, the Signs and Markings section completed 103 tasks consisting of 40 signs fabricated for installation and special events. The crew also completed maintenance on 22 signs and straightened 10 posts.

The month of July had two of our biggest events consisting of the Western Heritage Welcome Cattle Drive, and the Douglas County Fair and Rodeo parade as well as the Farmers Market.

During July, 12 paint locations were completed. The Town's contractor Colorado Barricade painted all the arrows, stop bars and crosswalks at numerous signalized intersections. Finally, two new deer crossing signs were installed in the Plum Creek neighborhood where a herd of deer have been seen crossing on a regular basis.



Transportation Planning

Neighborhood Traffic Calming Program (NTCP) Update

- Sapphire Point Boulevard The Public Works and Police departments met with representatives of the Sapphire Pointe HOA. The speed data was presented to the HOA, which does not show a speeding problem along Sapphire Pointe Boulevard between Baguette Drive and Sulfur Lane. According to the data, the 85th percentile speed was below the 30 mph qualifying threshold. In addition, based on the evaluation of the criteria and traffic conditions on the road, staff is not recommending an all way stop at the intersection of Sapphire Pointe Boulevard and Baguette Drive. By the end of the meeting, the HOA representatives had a better understanding of the data and staff's position. Staff will be making some minor sign changes and recommending some bushes be trimmed to improve visibility. The HOA representatives agreed to the changes and will also be utilizing the Town's educational traffic calming yard signs along the street.
- <u>Saddleback Drive</u> Contractor bids have been received for Phase 3 of the Woodlands and Escavera traffic calming plan. Town staff will work with the contractor to make sure the work is completed within budget and in a reasonable timeframe. The work is scheduled to be completed by the end of August, weather permitting. Phase 3 will include one speed cushion on Saddleback Drive just south of Foxtail, and one median pedestrian refuge on Black Pine Drive just east of Saddleback Drive. Notice will be given to the neighborhood as the construction period nears.

Town staff identified projects:

- <u>Butterfield Crossing Drive</u> The press release for the striping plan for Butterfield Crossing Drive
 was distributed to the public. Town staff has also been working closely with Meadow View
 Elementary School regarding the changes in front of the school. The project is expected to be
 completed by the end of August.
- <u>Auburn Drive</u> The on-street parking plan for Auburn Drive has been completed and will be presented to the neighborhood in early August. The plan will alter the existing parking along Auburn Drive to improve safety and traffic flow. Along the west side of the street, all on-street parking will be prohibited and a bike lane will be striped along the curb. Limited on-street parking will be permitted on the east side primarily in front of the Reserve at Castle Highlands apartments and the industrial land use toward the south end of the street. Parking will be prohibited at all intersections to improve visibility and at the bus stop in front of the apartment complex. Parking will also be eliminated on the east side of the street as downhill traffic approaches Wolfensberger Road. The yellow centerline will also be moved slightly to the west to provide additional buffer next to the parked vehicles and individual parking spaces will be marked in front of the apartments for better utilization of the spaces.

Development Review

Staff reviewed and commented on four transportation impact studies and a corridor study during the month. All impact studies were completed on time, but the corridor analysis was completed several days past the due date.

<u>Downtown Mobility Study</u> - The project webpage has been updated and the public workshop presentation has been added. The project team decided to extend the public comment period on the webpage (<u>www.CRgov.com/MoveAroundDT</u>). Staff has received the existing conditions report from the consultant which is currently under review. The preliminary projected intersection level of service (LOS) has been shared and several intersection look like they will fall below the Town's current intersection LOS standard. Staff and the consultant are exploring possible improvements for the intersections that will not negatively impact the downtown character. Early ideas include signal timing improvements, turn restrictions, and deciding if the current LOS standard should be amended for downtown. Presentations are planned for the month of August to the Town Council and Public Works Commission.

<u>I-25 / Blackfeather Trail Interchange and Founders Corridor Study</u> - Town staff is working with Felsburg, Holt, and Ullevig (FHU) to finalize the scope of the study. Once finalized, the Town will approach CDOT and Douglas County for concurrence prior to pursuing the study.

<u>I-25 / Crystal Valley Parkway / Tomah Road Paired Interchange Study</u> – Several iterations of the report have been reviewed. The consultant, Felsburg, Holt & Ullevig, is currently working on revisions and it is expected to wrap up the study in August. The study demonstrates that congestion at the Plum Creek Parkway interchange will be relieved and backup into I-25 from the southbound off ramp will be greatly reduced, thus improving safety conditions on I-25.



Future CDOT Bustang Stop - Town and CDOT staff continue to work on the Bustang Park-n-Ride. Several locations are being reviewed in the Downtown Mobility Study and potential funding sources are under consideration with CDOT and the upcoming DRCOG Transportation Improvement Program.

DRCOG Active Transportation Plan (ATP) - DRCOG has delayed the release of the draft regional bicycle map. It is expected to be released in August for comments.

DRCOG 2021 – 2023 Transportation Improvement Program - The DRCOG Board approved the TIP policy document on July 18. The next step will be a call for regional projects from each subregion in DRCOG. The mandatory TIP training session is scheduled for August. This is required for agencies that wish to submit either regional or sub-regional project. The regional call for projects is expected to be in August, while the sub-regional call for projects is now expected early next year.

The Douglas County sub-regional TIP Steering Committee meeting was held in early July to review the Memorandum of Understanding and select regional projects to be submitted. The Committee decided on three regional projects to submit:

- 1. US 85 widening and Reconstruction from Sedalia to Castle Rock
- 2. SH 83 Safety Improvements (Bayou Gulch Road to Palmer Divide Road)
- 3. I-25 / Lincoln Interchange Project

This is the maximum number a sub-region can submit for regional funding.



Fleet Services

"Keeping Castle Rock on the Move"



As we drive around this Town of ours and see how busy all the different departments are with all the growth, from the Fire and Police departments along with Parks, Public Works, Water and Development Services relying on their Town issued vehicles to keep up with the first class service that we provide to the citizens of Castle Rock here at the Fleet Services Divison, we take great pride in knowing that those vehicles are reliable and safe to operate!



July 2018 was a very exciting month for the Fleet Services Division! New Fleet Technician *Caleb Wood* joined our team and has already been a great addition. Caleb comes to us from Schomp Honda and is a graduate from Lincoln Technical Institue and also served our country in the Marine Corps.

Fleet Services has also reached a major milestone with the implementation of our Faster Fleet Management software upgrade. This upgrade will provide many new features and enhancements that will increase our productivity and lower costs.



Even with several employees off last month, our production was still good. The Fleet Services Division completed 103 work orders and billed out over \$54,000 of labor and parts.



Objective/Benchmark: Complete at least 75% of our Work orders within 24-hours of coming to the shop.

Outcome: Almost meeting our benchmark, the Fleet Services team completed 74.7% of the work orders within 24-hours of opening repair requests or service requests. This benchmark demonstrates how quickly the Fleet Division is working on vehicles to get them back on the road.

Objective/Benchmark: Town vehicles and equipment available for use 95% of time.

Outcome: Town vehicles and equipment were available 96.6% of the time. This high fleet availability rate means that Town vehicles and equipment are ready when they are called upon to perform.

Objective/Benchmark: Technician productivity percentage of 70% (APWA standard) **Outcome:** Technican productivity was 72.3%.

New vehicles continue to roll in and the technicians are working hard to get them into service ASAP. Two new Police Interceptors were put into service this past month as well as a new Expedition SUV unmarked detective unit.





Street Operations & Maintenance Division

During the month of **July**, the Street Operations & Maintenance Division (SO&MD) performed work in seven (7) maintenance operations:

- Crack Seal
- Pothole Patching
- Road Verge Mowing
- Gravel Road Maintenance
- Bridge Maintenance
- Special Operations
- Training

Crack Seal

Crack Seal maintenance operations have concluded with 100% of our goal met for the spring crack seal operations. Crews put down just over 81,000 pounds of crack seal material over 93 lane miles of roadway and numerous parking lots. These operations work to preserve the life expectancy of the paved surfaces in Town.







Pothole Patching

Streets O&MD received a number requests for pothole repairs during the month and completed repairs on 234 potholes using cold mix asphalt. The major areas addressed were in Plum Creek and Meadows. Numerous transverse cracks on Bountiful Circle, Beautiful Circle, and other streets were sealed.









Road Verge Mowing Operations

Round two of mowing operations for the season has begun. Crews have completed 22.89 edge line miles of roadway to date and are diligently working to complete the rest of the assigned areas. In addition, crews have been cleaning up trash and larger obstacles that found their way into the verge area. This operation serves multiple purposes, primarily is the enhanced appearance of the Town as a whole and, also allows for close inspection of some drainage areas and other roadway assets that may not be apparent from a drive by inspection in a truck. Crews also enlisted the assistance of street sweepers to clean up the detritus from mowing operations where needed.







Gravel Road Maintenance

SO&MD crew completed gravel road maintenance operations, specifically Rocky View Road. Crew also used this opportunity to practice skills recently aquired from LTAP Motor Grader courses. Crew also cleared brush and trees that were encroaching on the roadway and impeding the view at intersections along Rocky View Road. These operations allow for safe travel along the roadway as well as improving visibility for drivers. This also is a preventative measure to keep low branches from damaging Town vehicles during snow plow operations.





Bridge Maintenance

SO&MD crew have begun bridge maintenance operations with the goal of painting four of the Town's bridges. Three of the four bridges have been completed. Once the custom lumber is received, the fourth bridge will be completed. These operations ensure the bridges are protected from road salt placed during snow operations as well as preserving the safety and aesthetic value they provide. This also allow for close inspection to identify any potential issues that may have gone unnoticed.









Special Operations

SO&MD crew worked to assist the Parks Department in the repair and cleanup of a basketball court off of Gilbert Street. This was accomplished by first grazing weeds and filling large cracks and then finishing off with crack sealing the court. Crews also responded to clean up after water main break and numerous flooded streets, sidewalks, and drains following the significant rain received during the month. New hydrants were installed to better facilitate sweeper and maintenance operations.







Looking Ahead

Looking to the month of **August**, we will continue our efforts to keep the Town's roadways in good condition with potholing, asphalt patching, and street sweeping operations as needed. We will continue to conduct equipment maintenance to ensure the tools needed will be available for the next round of crack seal operations coming up in September. Training will be an ongoing endeavor.

