



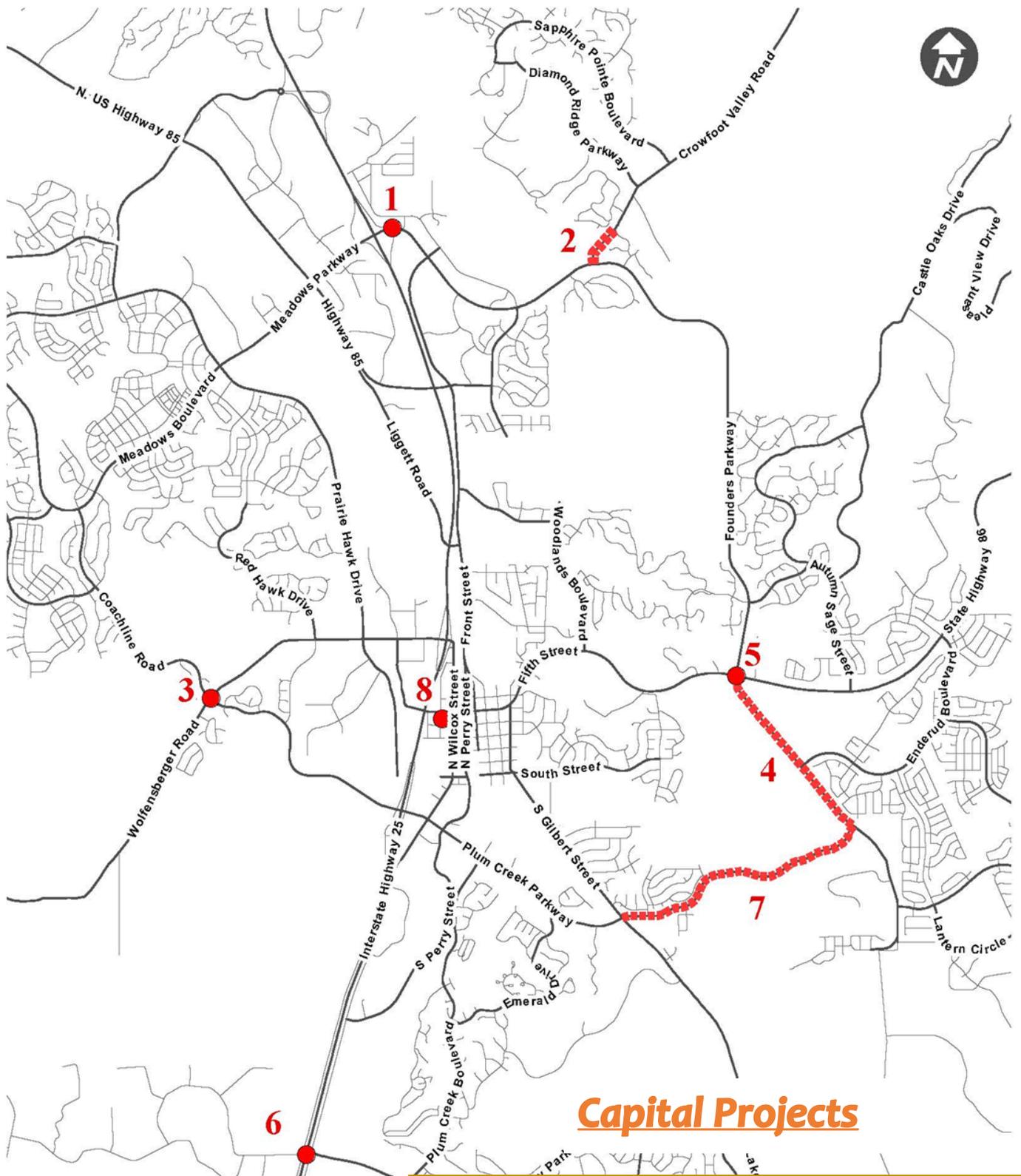
Monthly Report

July 2020

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.

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





Capital Projects

1. Founders Pkwy/Allen Way Intersection Project
2. Founders Pkwy/Crowfoot Valley Road Intersection Improvements
3. Roundabout at Wolfensberger Road/Plum Creek Pkwy
4. Ridge Road Widening (SH86 to Plum Creek Pkwy)
5. SH86/Fifth Street Intersection Improvements
6. Crystal Valley Interchange (Right-of-Way Acquisition)
7. Plum Crk Pkwy Widening & Plum Crk Pkwy/Gilbert Roundabout
8. Downtown Alley Improvements

1. Founders Pkwy/Allen Way Intersection Improvement Project – 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: Construction – Close out phase. The following is a summary of the construction activities that took place during this month:

The Town, Contractor and property manager met on-site and finalized the landscaping restoration plan at the Panera Bread. Town staff has submitted the landscaping change order to CDOT for approval and is coordinating with the contractor to schedule the work. .

Budget: \$2.64M

Construction Complete: Summer 2020

2. 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: Construction, Intersection Improvements: Close out phase. The following is a summary of the construction activities performed this month:

- Final Stabilization and seeding was completed. Contractor is scheduling TESC inspections.
- Town staff and the contractor are working to complete required project documents.

Budget: \$3,550,000

Construction Completion: Summer 2020

3. 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 accident potential.

Phase: Closeout – Substantial completion was issued in Spring 2019. Punch list items are complete. The Town is working with the adjacent property owners to complete the final landscape tie-ins and adjustments. The final landscaping work is anticipated to be complete by fall 2020.

Remaining Budget: \$120,000

4. 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: ROW acquisition phase: 100% plans have been provided. The consultants continue to work on ROW acquisition. Staff submitted the project construction plans to IREA to initiate their design for relocation of facilities and providing power to the streetlights.

Budget: \$400,000

ROW Acquisition: Winter 2020

5. Founders Parkway (SH86)/Fifth Street Intersection “Four Corners” Improvements – With new traffic studies submitted, the Town, and CDOT will continue to investigate multiple alternatives to address safety concerns and capacity issues at this intersection.

Phase: Design –

- The DRCOG grant was awarded to the Town.
- Project will be designed per Federal requirements/standards.
- Staff advertised the Request for Proposal for design and project management (extensions of staff). The DRCOG grant requires a consultant be on board by the end of September, staff is on schedule.

Budget: \$1,200,000 for design in 2020 with DRCOG Grant Reimbursement (Town share \$240,000)

Design Completion: Pending award

6. Crystal Valley Interchange – Right-of-Way Acquisition – The purpose of this project is to achieve acquisition of remaining right-of-way and set aside future project funding partnerships to assist with advancing construction.

Phase: Right-of Way Acquisition

- Acquisition Services
 - East Side of I-25 – Offers continue to be sent out. Several properties are in the negotiation phase. *The tenant at 1532 S. I-25 has been relocated .*
 - West Side of I-25 – *Appraisals are targeted for completion in August 2020. Town staff and consultants are preparing Notice of Intent for several property owners. Phase: Interchange Design, Access Request and Environmental Assessment*

Phase: Interchange Access Request and Environmental Assessment Reevaluation

- Town staff continues to meet with CDOT and FHWA to established priority activities for the interchange approval.
- Town staff has begun working with consultants to get proposals for initial activities for interchange concept approvals.

Budget: \$4,600,000, and Development Escrow

Completion: Winter 2020

7. **Plum Creek Parkway Widening and Plum Creek Parkway/Gilbert Street Roundabout Project** – This project will implement the Transportation Master Plan’s identified improvements for this corridor. The addition of the remaining two lanes of the master planned four-lane roadway on Plum Creek Parkway between Eaton Street and Ridge Road. Not only will it include the addition of 2 lanes, but also bicycle and pedestrian multi use lanes. It will also include roundabout modifications at Ridge Road.

Phase: Design and ROW Acquisition – *The following is a summary of design activities performed this month:*

- Town staff continued efforts to progress phase 2 design including:
 - ◊ Scoping efforts to define constraints of future development considerations.
 - ◊ Received approval from Town Council on 7/21/20 for a service agreement amendment that accounts for a several considerations that were not originally accounted for. This amendment will propel completion of design.
 - ◊ Began evaluating required environmental permitting.
 - ◊ Began evaluation of typical section in order to make adjustments to fit improvements within current Town ROW.
 - ◊ Began design coordination efforts with “The Oaks” development adjacent to the project in order to minimize cost inefficiencies related to future development.

Budget: \$794,375

Completion: September 2020

Phase 1A: Storm drain system construction - The following is a summary of activities performed this month:

- Town staff is inspecting punchlist work for final acceptance

Budget: \$1,158,300

Construction Completion: Complete

Phase 1B: Roadway package: Construction - The following is a summary of activities performed this month:

- Contractor Jalisco completed over 9000 CY of excavation along the future EB Plum Creek Parkway lanes.
- Approximately 60% of drainage infrastructure for the entire project was installed during the month of July.
- Multiple utility relocations were completed including:
 - ◊ 300 LF of 6” high pressure gas line (Black Hills Energy)
 - ◊ 120 LF of communication lines (Comcast and Century Link)
 - ◊ 415 LF of overhead electrical line was removed and replaced to underground (IREA)

- 1200+ Tons of asphalt were placed for the new Plum Creek Parkway eastbound lanes.
- A significant amount of sidewalk, curb and gutter were completed.
- Work began on the retention pond concrete structures.
- IREA mobilized to site to begin relocation work at the intersection of Plum Creek Parkway and Eaton.
- Continued utility coordination for utility relocations.

Budget: \$6,817,145

Construction Completion: Winter 2020

8. **Downtown Alley Improvements:** Four alleyways in the downtown area are beyond their service life and are not providing an appropriate level of service. Reconstruction of alley pavement in addition to drainage improvements and sanitary sewer system replacement will renew the service life of both the pavement and sanitary sewer in the area. The construction will be phased over two years. The four alleys currently under design are:

- 2 Alleys (Westerly Alleys) – Located West of Jerry St. between 5th and 3rd streets
- 2 Alleys (Easterly Alleys) – Located East of Perry St. between 6th and 4th streets

Monthly Progress & Status

- Construction set of plans and bid documents were completed and are in Town review for advertisement in the month of August

Target Milestones

- Advertise Phase 1 Construction Contract: 8/3/2020
- Phase 1 Construction (Westerly Alleys) – Late Summer 2020
- Phase 2 Construction (Easterly Alleys) – Summer 2021

Budget: \$900,000

Traffic Signal System Upgrades –

This project is a multi-year signal system upgrade project that began in 2015 and is on-going as funds are available. The project has included proven technology advances at signalized intersections, for our daily operations, and for communications between the center and each intersection.

- CDOT has installed travel time monitoring devices on the Meadows/Founders Pkwy corridor and Wolfensberger and I-25 signals. Town staff are working with CDOT ITS and the vendor, Trafficast, to get the software programmed for the devices and data reporting to CDOT and then replicated on the Town’s server.
- Vehicle detection equipment replacements are complete on Plum Creek Pkwy and Fairgrounds, and the new detectors are reporting to the Town’s signal performance metric system,
- Meadows Blvd and Fell Mist advanced detection equip-

ment was installed in July.

- A detection system trial is in progress at Front and Black Feather.
- Town staff received a recommendation from the DRC-OG review panel for our grant application to for technology projects in fiscal years 2021 and 2022. Our project is upgrading detection with advance vehicle detection on regional corridors, and expand the use of automated traffic signal performance metrics (ATSPMs) to improve operational efficiency and safety. The official award happens through DRCOG board approval in mid-September. There is high confidence the recommendation will carry through to Board approval and therefore Finance Department has been made aware of budget planning for years 2021 and 2022.

Budget: \$125,000

Construction Completion: Winter 2020

2020 Intersection Signalization Construction Project – This project is the construction of one new signal in 2020 at Meadows Boulevard & Cherokee Drive, and budget and schedule permitting a temporary span wire signal at Hwy 85 and Liggett Rd.

- IREA has been asked to design power meter installation at Hwy 85 and Liggett Rd.
- Construction bid documents were posted in July for both signals in separate bid schedules with bid opening on August 19.
- Staff has included the design of a span wire signal at Liggett and Hwy 85. If the timing and budget can accommodate, we are considering an option to add this signal as an addendum to the signal construction bid in 2020 to reduce cost and add efficiency to construction process.
- Strain pole quotes for the span wire signal were received and will be reviewed in early August

Budget: \$440,000

Construction Completion: Winter 2020

Rectangular Rapid Flashing Beacon (RRFB) 2020 Project – This project addresses the requested pedestrian beacon crossing locations that staff received in 2019 at the 10 highest priority locations.

- In July installation of beacon equipment and signs began with most now installed. Striping and delineators will follow in early August.
- Community Relations sent a third social media post, and received overall positive feedback from the community about the project.
- A pedestrian refuge at Castle Oaks Dr and Oasis will be done in the fall as a part of the Town's miscellaneous concrete contract with signs installed by staff.
- After the installation is complete, each of the locations will report wirelessly to a web-based monitoring platform.
- Pedestrian crossing evaluations at one location have shown a 90% yield rate (similar to national average) by

vehicles when a pedestrian uses the system. This is compared to less than 50% yield rate for all other pedestrian activities without the beacon activated.

Budget: \$170,000

Construction Completion: Fall 2020

Engineering Division

2020 Pavement Maintenance Program (PMP)

The 2020 PMP is focusing its efforts in the Central PMP area with additional work taking place on primary streets (Meadows Boulevard, Prairie Hawk Dr., Factory Shops Blvd., and Park Street).

The month of July saw two additional PMP projects completed within contract time; Asphalt Overlay and Meadows Blvd./Prairie Hawk Dr. Reconstruct. The combination of early school closures, reduced traffic volumes and weather that was conducive to construction, which aided in achieving these projects early completion.

Meadows Blvd/Prairie Hawk reconstruction project began on Monday, April 6. All paving activities were completed on Friday, July 17. Contractor will be addressing punchlist items and completing pavement marking through the end of the month.

This project was completed approximately 2 weeks ahead of schedule.



The **Asphalt Overlay** project was completed early in the month of July. Contractor completed all punchlist items. This project was done within contract time and budget.



Sidewalk, curb and gutter project was completed in the month of May. Contractor completed all punchlist items. Project came in under contract time and budget.

Full Depth Reclamation project was completed in the month of May. Contractor completed all punchlist items. Project came in under contract time and budget.

2020 Facilities Parking Lot Improvements Program

This contract saw the reduction to the scope of work that was originally bid. The Parks Department, Public Works Service Center and Golf Course made the decision to cancel the parking lot improvements due the COVID-19 pandemic. However, Castle Rock Water decided to go forward with their parking lot improvements. The parking lots include the following:

- Milestone Pump Station (Founders Pkwy)
- Miller Treatment Plant (Plum Creek Blvd)
- Prairie Hawk Well Field (A7)
- Castle Oaks Lift Station

Work is schedule to begin in August and continue through September.

2020 Bridge Maintenance Program (BMP)

The decision was made to defer the work on the 5th Street bridge over I-25, until 2021 to address additional issues that require I-25 Hwy access to the wetlands/Preble mouse habitat along Plum Creek. Castle Rock Water provided camera inspections of the six (6) drains along the bridge deck. The inspections found no issues with the drainage pipes underneath the bridge. All required forms, special permits and an 'opinion of probable costs' are in the process of being obtained from the consultant.

Development Review and Permitting

Development Review - All 21 reviews were completed on or before the due date by the PW Development Services Team.

Permitting & Inspection – 41 right-of-way permits were issued and over 200 inspections where conducted.

Transportation Planning & Traffic Engineering Division

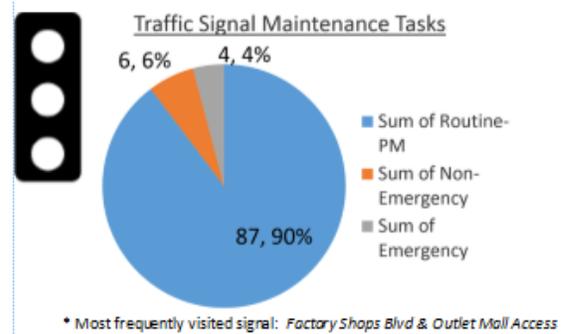
Taxi Voucher Program

For the month of July, the Taxi Voucher Program funded 119 rides; this was roughly a 20% decrease from last year's July total of 152 rides and a 15% decrease from last month's total rides. Transportation services are provided for Castle Rock citizens who cannot drive, have a disability that prevents them from driving, or do not have access to a vehicle. In July, 18 individuals used the Town's Taxi service. Of those that used the service, 82% of the rides were for work, 12% were for shopping trips, and 6% for medical appointments.

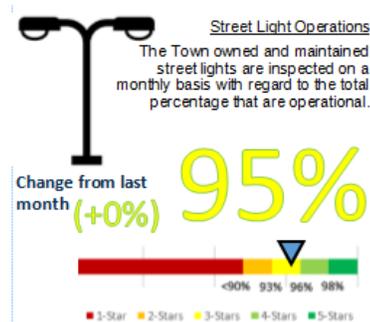
The Castle Rock Senior Center provided a total of 370 rides in July.

Traffic Engineering and Operations

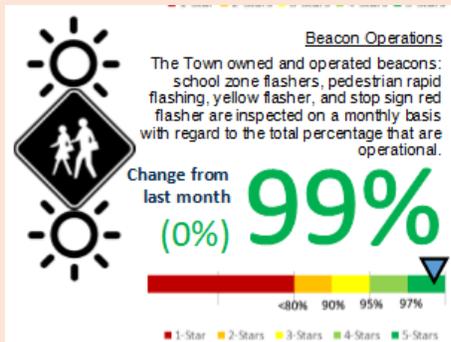
Traffic Signal Operations and Maintenance



Street Light Operations



Beacon



Operations



Street Signs and Pavement Marking Maintenance

During the month of July the crew accomplished 2,967 tasks. Of these tasks 125 of them were sign work activities related to fabrication, install, repairs and replacements. 2,649 of these tasks were markings work activities related to investigations, inspections, replacements, original install, and retirements. 48 are for misc. projects. We also had 102 rectangular rapid flash beacon windshield inspections.

Finally, the long line contractor (double yellows and white skips) is essentially done with the first round of long line striping with just a few segments left. Signalized intersection symbols, stop bars and crosswalks are almost complete as well.

Transportation Planning

Neighborhood Traffic Calming Program (NTCP):

The NTCP exists to verify and address quality of life items associated with vehicular traffic on local neighborhood streets and certain collector roadways. There were 3 new traffic calming inquiries in July (Baguette Drive, Youngheart Way, and Dales Pony Drive). Staff has contacted the homeowners and informed about the program. A support petition was received for Dales Pony Drive, but staff is still awaiting petitions from the other two

neighborhoods. The following provides updates for the two active projects;

- Diamond Ridge Pkwy: Voting ballots will be mailed to homeowners fronting Diamond Ridge Parkway in August. If the homeowners vote to approve the plan, Town staff will begin finalizing the design and try to schedule construction later this year.
- Bittern Street / Loon Circle: Town staff is working to implement the neighborhood's approved plan that will replace the existing circles on each street with a speed cushion. Town staff held a pre-construction meeting in July with the contractor to begin coordination of the work. Construction will be complete this summer.

Castle Rock Transit Feasibility Study:

Town staff held the final Focus Group meeting on July 20th. At the meeting several recommendations for possible transit solutions in Castle Rock were discussed. Recommendations include a phased implementation plan that would expand the current tax voucher program to a plan that could include the entire Town being serviced by a private microtransit company. Next steps for the study will be to share the analysis and recommendations with the public and stakeholders to collect their feedback. This will occur during the next two months with Council adoption being sought in October.

Fleet Services

Keeping Castle Rock on the Move



As you drive around Castle Rock and see many different departments providing first-class service, you will notice how they rely on their Town-issued vehicles. The Fleet Division takes great pride in knowing that those vehicles are reliable and safe to operate.

Fleet Services Division continues to make sure that Town vehicles and equipment are ready for operation. This includes public safety vehicles like Police & Fire but also other department vehicles that need to be in use to provide great service for our residents. Fleet staff completed a successful auction and sold three old Town vehicles for a total of \$18,000.

Fleet Services received and put into service our first hybrid police interceptor in the fleet. This new vehicle will improve fuel miles per gallon to 35MPG we estimate saving the Town hundreds of dollars. We also have six more hybrid vehicles that will be used for black & white patrol units.

Street Operations & Maintenance Division

The Fleet Division was very productive and that shows in our benchmark comparisons listed below. The Fleet Division billed out \$75,000 of parts and labor and completed 101 work orders. As well as meeting the following objectives and benchmarks:

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

Outcome: Fleet team completed 77.27% of the work orders within 24-hours of opening repair requests or service requests. This benchmark number shows how quickly vehicles and equipment get serviced and repaired and back on the job.

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

Outcome: Town vehicles and equipment were available 98.7% 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: Technician productivity was 63%. This productivity number was a little below our benchmark mainly because of several technicians taking time off.

Overall we completed 101 work orders and processed \$75,000 in parts and labor and another \$21,000 in fuel transactions. Fleet technicians Chris Selheim, Eric Dena, Rod Claassen, and Caleb Wood all completed compressive diesel training from ATA



Fleet technicians using mobile lifts to work on

During the month of July, the Street Operations & Maintenance Division (SO&MD) responded to multiple cleanup operations due to high winds, heavy rains and concrete spills while also performing work in the following maintenance operations:

- Asphalt
- Mowing and Weed Control
- Sweeping
- Crack Seal Operations
- Special Operations

Asphalt repair

In the month of July, asphalt patching was completed on Ridge Road and in Liberty Village to repair damaged pavements, as well as some other areas due to waterline repairs in the Glovers neighborhood. More transverse cracks were filled in the Terrain neighborhood, and potholes were filled on Mt. Royal, Scott Blvd and Crystal Valley Parkway along with various others. In total Streets crews used just under 91 tons of asphalt while executing these repairs. Crews also inspected the entire South PMP region for pothole repairs and milled some humps at concrete/asphalt transitions.

Mowing

In July, the streets team continued to battle weeds in the verge areas and roadways, covering 4 miles on the mowers, removing weeds from 15 miles of neighborhood streets prior to crack sealing and spraying an additional 6.7 edge line miles of verge area in an effort to reduce the need for string trimming. The streets division has also been working with Development Services and the Parks department to revise the map of areas to be maintained by Public Works and the Parks Department.

Sweeping

This month, crews swept 91 lane miles of roadway in the business areas of town. Removing 60 cubic yards of material from the streets around vital areas keeping roadways tidy and our waterways a little bit cleaner

Crack Seal Maintenance

In July, the Streets Crew completed Crack Seal Maintenance Ops for the 2020 season. Finishing strong with 17,880 lbs. of material applied to 17 lane miles of the Founders and Castlewood Ranch neighborhoods. PMP Crack Seal is slated to begin in the fall consisting of the 17 lane miles that will not receive other treatments during the 2021 PMP season.



Special Operations

During the month of July, the Streets team also designed, fabricated and installed a temporary ADA ramp on Wilcox at Town Hall for visitors to use during construction. Streets also worked to prepare for the upcoming winter season by mixing and stock piling over 1400 tons of salt/sand mix at our cold storage yard on Justice Way.

