



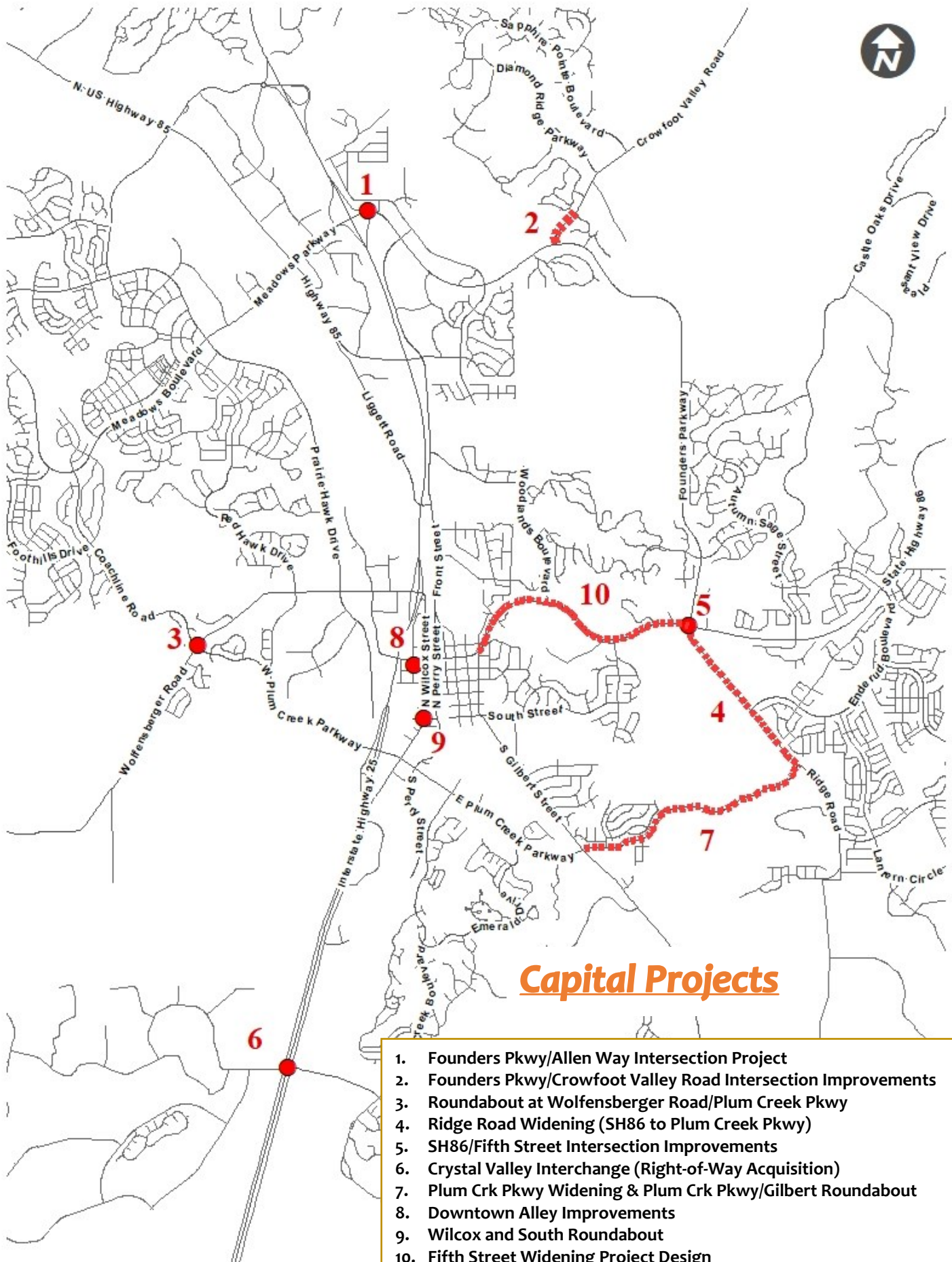
# Monthly Report

February 2021

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.





**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. Town staff, project consultant and the contractor are working to complete required project documents for close out with CDOT.

**Budget:** \$2.64M

**Close Out:** Spring 2021

**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:** Closeout phase. Town staff, project consultant and the contractor are working to complete required project documents for close out with CDOT. The Grading, Erosion, and Sediment Control permit remains open to monitor vegetation coverage and growth. Inspections will be performed until the requirements of the permit are achieved.

**Budget:** \$3,550,000

**Close Out:** Spring 2021

**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 2021. The work completed this month in progression to project close-out is as follows:

- Completed contract agreement with CRDC, submitted for execution

**Remaining Budget:** \$137,000

**Final Completion:** Fall 2021

**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: Design:** 100% plans have been provided. The consultants continue to work on ROW acquisition. Staff has received initial cost estimate from IREA. Staff plans to review and coordinate with IREA on possible phasing of the relocations.

**Budget:** \$400,000

**ROW Acquisition:** Winter 2023

**Targeted construction:** 2024

**5. Founders Parkway (SH86)/Fifth Street Intersection “Four Corners” Improvements** – With new traffic studies submitted, the consultant will investigate multiple alternatives to address safety concerns and capacity issues at the intersection. Improvements under evaluation include:

- Southbound traffic – add left turn lane, add a free right turn lane, convert right turn lane to through/right
- Eastbound traffic – convert right turn lane to through right, add free right turn lane
- Northbound traffic – add left turn lane, add second through lane, add a free right lane
- Westbound traffic – add through lane, add a free right turn lane

**Phase: Design:** David Evans & Associates (DEA) is the design consultant for this project. The following is a summary of the activities performed this month:

- Town staff and DEA met with FHWA and CDOT to discuss project scoping, which included design alternatives.
- Town staff and DEA held an internal meeting to discuss FHWA and CDOT feedback from the scoping meeting.
- The project team met to discuss the project’s communications plan, which will include soliciting public input. A schedule for public outreach meetings is being developed.

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

**Design Completion:** Winter 2021

**Targeted construction:** 2022

**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 allowing potential funding partnerships to assist with advancing construction.

**Phase:** Right-of Way Acquisition

- Acquisition Services
  - o Eastside of I-25 – Offers continue to be sent out, with several properties in negotiations. The Kuna property continues to be on hold until grant agreements are in place.
  - o Westside of I-25 – Appraisals are complete. Town staff and consultants are preparing Notice of Intent



for several property owners. The Peachy property closing is being scheduled

**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.
- The Town received notice of the Federal BUILD Grant award. Staff has been meeting with CDOT and FHWA to develop a plan to maximize efficiencies on getting the grant agreement and the Intergovernmental Agreement (IGA). The IGA is between CDOT and the Town which identifies the general terms of the grant, scope of work, and funding provisions awarded to the Town. Staff is also pursuing an Advanced Pre-Construction application which will allow the Town to get reimbursement for design activities prior to the grant agreement being complete. The funding of the grant is reimbursement of up to \$5.4M with a cost sharing of 45% grant and 55% funded by the Town.
- Staff advertised the Request for Proposal (RFP). The pre-proposal meeting was held, with over 15 consultants in attendance. Proposals are due on March 12, 2021. The shortlist of consultants will be interviewed between March 31 and April 2, 2021. Staff is planning on presenting to Public Works Commission on May 3, 2021 and Town Council on May 18, 2021 for consultant approval. Staff is working on the delivery method workshop. This will consist of a panel of stakeholders determining which method of delivering will be most beneficial to the project schedule and budget. The workshop is scheduled for March 10, 2021.

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

**Completion:** Spring 2021 (right of way acquisitions)

**Targeted construction:** 2023

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. The improvement has been broken out into 3 phases in order to meet the department’s objectives. Phase 1A included portions of storm sewer improvements between Gilbert and Eaton. Phase 1B includes all roadway/utility/pedestrian access improvements between Gilbert and Eaton, including the implementation of roundabouts at the intersections of Gilbert and Eaton. Phase 2 includes all roadway/utility/pedestrian access improvements between Eaton and Ridge Road.

**Phase 1A: Drainage Improvements: Construction (100%)** - The following is a summary of activities performed this month:

- Town staff awaiting a May, 2021 project final inspection (warranty walk)

**Budget:** \$1,158,300

**Construction Completion:** Complete

**Phase 1B: Plum Creek Pkwy Widening and Roundabout: Construction (83% Complete)** - The following is a summary of activities performed this month:

- Completed remaining sidewalk
- Continued street light installations (approximately 70% complete)
- Continued fine grading slopes to prepare for topsoil (soil amendment) and seeding in the Spring
- Began “Winter Shut-down”

Topsoil, seeding and final punch list activities are scheduled to be completed in the spring of 2021 when conditions for seeding and final stabilization are favorable.

**Budget:** \$7,507,723

**Substantial (Roadway) Completion:** February 2021

**Construction Completion:** April 2021

**Phase 2: Design and ROW Acquisition (30% Complete)** – The following is a summary of design activities performed this month:

- Coordination meetings with adjacent Developer
- Submitted 404 permit to the Army Core of Engineers
- Progressed drainage design for on and off-street systems
- Evaluated roadside development items (slopes, walls, channel, easements, ROW)

**Budget:** \$794,375

**Design Completion:** March 2021

**ROW Completion:** ROW – Fall 2021

**Targeted construction:** 2022

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.

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

**Phase** – Design/Advertisement

- IREA relocation schedule obtained
- Century Link relocation schedule obtained
- Obtained bids for construction
- Preparing construction contract recommendation for approval

**Budget:** \$900,000

**Completion:** Fall 2021

9. **Wilcox and South Roundabout** – This intersection is currently controlled by stop signs in two directions. As the traffic volumes increase, this existing traffic control will not be the most efficient and could contribute toward increased congestion and accidents. This project is for the design of a

roundabout intersection, which will improve operations and minimize accident potential.

**Phase: Design:**

- The consultant 100% design was submitted for Town staff review
- Town Staff closed on all three property acquisitions
- Confluence Company is finalizing construction contracts for Town review

**Budget:** \$1,850,000

**Construction Completion:** Summer 2021

10. **Fifth Street Widening Project Design** – Fifth Street is a major arterial connecting local and regional travel between the easterly portions of Town and I-25. Roadway and pedestrian improvements for Fifth Street have been identified within the 2017 Transportation Master Plan (TMP) that will maintain adequate capacity and ensure efficient road network connections for future development.

The Fifth Street Widening project will complete all design elements for implementation of the full build-out transportation network from South Gilbert Street to Ridge Road as identified in the TMP. The transportation network improvements identified in the TMP are as follows:

- 4-lane major arterial configuration from Woodlands Blvd. to Ridge Road
- Implementation of on-street bike lane/shoulder from South Gilbert Street to Ridge Road
- Addition of sidewalk from Woodlands Blvd to Ridge Road along South side of Fifth Street

**Fifth Street Widening Project Design (3%)** - The following is a summary of activities performed this month:

- Drafted RFP for Town/Stakeholder review

**Budget:** \$1,500,000

**Design Completion:** December 2021

**Right-of-way acquisition:** 2022

**Targeted construction:** 2023

**Traffic Signal System Upgrades** – This project is a multi-year signal system upgrade project that began in 2015 and is ongoing 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.

- Staff is a part of the CDOT managed, adaptive signal system review team, that will select a technology to implement adaptive signal timing on Founders and Meadows Parkway, as well as a few abutting Town signals. The committee has a preferred vendor, and is waiting for the protest period to end prior to making a public announcement. All parties are eager to get moving on the project which will begin as early as late spring and last about 10 months.
- Staff has a draft IGA from CDOT that has been submitted to the Town Legal department for review. The project will make automated traffic signal performance metric (ATSPM) system improvements, including in-

stalling advance detection equipment and improve ATSPM software dashboard functions. Staff has begun drafting procurement documents while awaiting Notice to Proceed from CDOT.

**Budget:** \$868,700

**Construction Completion:** End of 2022 (for grant project)

**2020 Intersection Signalization Construction Project** – This project will construct two signals in 2020-2021, at Meadows Boulevard & Cherokee Drive and a temporary span wire signal at Hwy 85 and Liggett Rd.

- In February, all electrical inspections were passed and the meter's delivered and installed by IREA.
- Weather has impacted the modified roadway striping the last few weeks. Turn on is expected the first week of March if the weather window holds. Turn on will be mid-week to operate in flash for 48-72 hours prior to commencing signal operation.
- The contractor expects the project to be complete in early 2021.

**Budget:** \$588,000

**Construction Completion:** Spring 2021

**Rectangular Rapid Flashing Beacon (RRFB) 2021 Project** – This project completes half of the requested pedestrian beacon crossing locations that staff received in 2019 at 11 locations.

- In February, staff evaluated all locations that have been requested including 11 not installed in 2020. That priority list has now been quoted for material and labor to install.
- Staff is preparing purchase order and contract documents to route through Town departments.
- The plan would be to procure equipment and install devices in early summer.

**Budget:** \$250,000

**Construction Completion:** Fall 2021

# Engineering Division

## 2021 Pavement Maintenance Program (PMP)

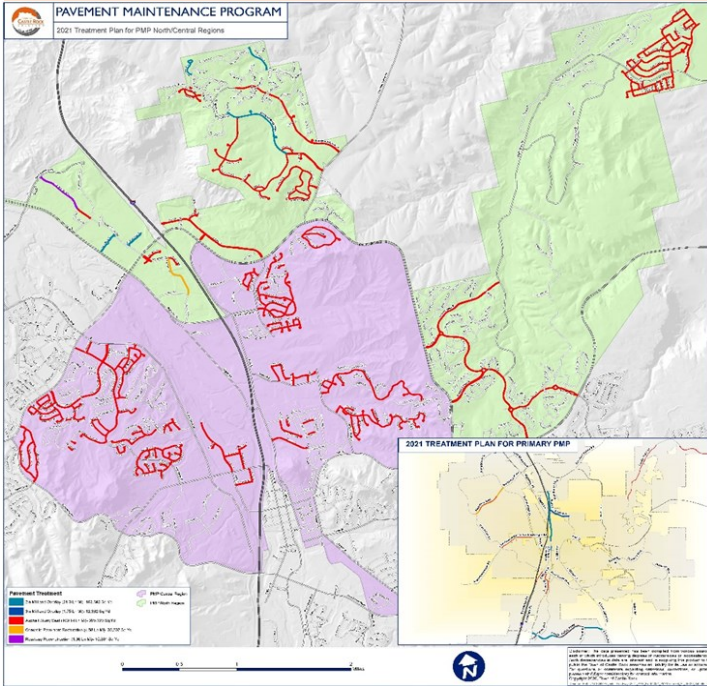
All Six (6) PMP projects have been prepared and sent to the proposed contractors for appropriate signatures.

2021 PMP Contracts under consideration are:

- Asphalt Overlay
- Full Depth Reclamation
- Curb, Gutter and Sidewalk Replacement
- Slurry Seal
- Concrete Pavement Restoration
- Town Facilities Parking Lot Improvements

Staff will present the corresponding resolutions and contracts to the Public Works Commission on March 1, and to Town Council at the March 2, meetings respectively.

The PMP map (shown below) indicates the proposed scheduled treatments for streets within the North/Central PMP area and Primary Streets. This map may change based on maintenance treatments and resources available.



## 2021 Facilities Parking Lot Improvements Program

The bid opening for this program is complete, and low bid was under budget. The contract was sent, and has been returned signed by the contractor. Staff plans to present the contract to the Public Works Commission March 1 and Town Council March 2, with their recommendation to award. This contract will see needed improvements to thirteen (13) Town facilities and parking lots as follows:

- Service Center front and back parking lot
- Red Hawk Golf Course Parking Lot (North Half)
- Red Hawk Maintenance Shop
- Rhyolite Park
- Rec. Center Parking Lot
- Castle Oaks 6 Well Field
- Castle Oaks 7 Well Field
- Prairie Hawk Well Field (A7)
- Canyon South Well Field
- Woodlands 1 Well Field
- Tank 16
- Sellars Gulch Lift Station
- Mitchell Creek Lift Station

## 2021 Bridge Maintenance Program (BMP)

Bids for the 2021 Bridge Rehabilitation for the S. Wilcox Bridge over E. Plum Creek, will be submitted for competitive bids upon Colorado Department of Transportation's completion of the proper paperwork and environmental studies. The project is expected to start in August and be complete by the end of September 2021, pending weather.

## Development Review and Permitting

**Development Review** - All 32 reviews were completed on or before the due date by the PW Development Services Team.

**Permitting & Inspection** – 30 right-of-way permits were issued.

# Transportation Planning & Traffic Engineering Division

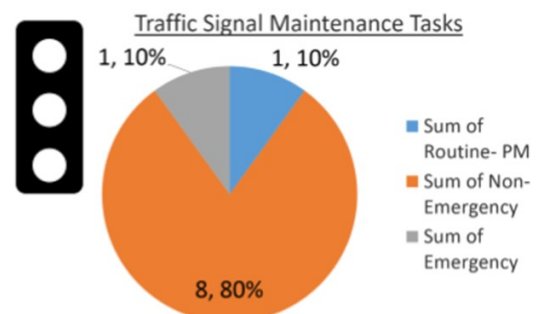
## Taxi Voucher Program

For the month of February, the Taxi Voucher Program funded 135 rides; which is a 27% increase to last year's February total of 106 rides and a 6% increase from last month's total rides (127). 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 February, 19 individuals used the Town's Taxi service. Of those that used the service, 78% of the rides were for work, 19% were for shopping trips, and 3% for medical appointments. 44 rides were provided for people without access to a vehicle, 43 rides were provided to seniors, and 48 rides to disabled riders.

The Castle Rock Senior Center provided a total of 629 rides in February.

## Traffic Engineering and Operations

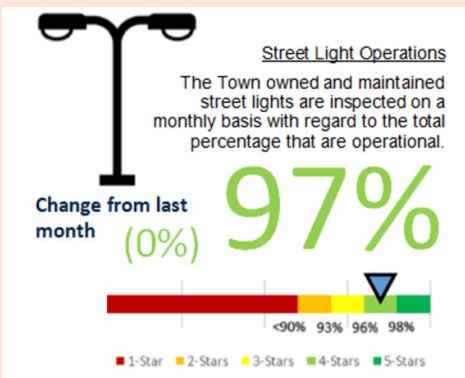
### Traffic Signal Operations and Maintenance



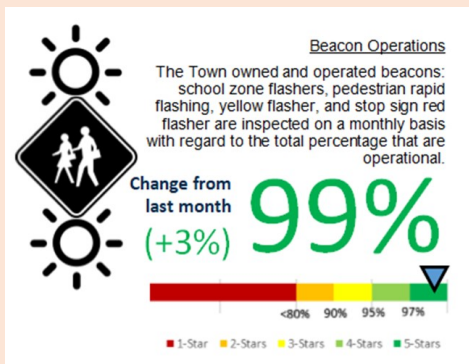
\* Most frequently visited signal: North Meadows Drive & Butterfield Crossing.



## Street Light Operations



## Beacon



## Street Signs and Pavement Marking Maintenance

For the month of February, the crew accomplished 524 tasks. Of these tasks, 229 of them were sign work activities related to fabrication, install, repairs, replacements, inspections and investigations. Eight of these tasks were markings work related to original install of thermoplastic markings. 70 were related to miscellaneous projects and one Work Zone activity. We had 150 RRFB windshield inspections and 5 RRFB repair tasks. The team also provided snow plowing support and did an awesome job getting the Public Works mural installed (see cover photo). Great job Signs and Markings team!

## Transportation Planning

### Neighborhood Traffic Calming Program (NTCP):

Town staff has scheduled a neighborhood meeting for homeowners on Rising Moon Way in the Meadows to modify the existing mini circle on the street. The meeting is scheduled for Wednesday March 24th. An inquiry about modifying the existing traffic calming on Appleton Way was received in January. In February, staff conducted a speed study and the Police Department also collected speed data along the street. The 85th percentile speed was recorded at or below the posted speed limit of 25 mph. The point of contact for the street will be contacted to inform her that there is no speeding problem according to the NTCP. Town staff is not recommending any new improvements.

## Castle Rock Downtown Alley Master Plan:

The project selection committee selected HDR along with Apex Design and Clanton & Associates as the preferred consultant team to assist with developing the Downtown Alley Master Plan (DAMP). Town staff is currently working with CDOT and HDR to finalize the contract and project budget. The project is still expected to begin this spring.

### Denver Regional Council of Governments (DRCOG):

DRCOG initiated the Transportation Improvement Program (TIP) waiting list protocol due to available funds for the region and sub-regions. According to DRCOG there is roughly \$4.2 million available for waiting list projects in Douglas County. The Town has the first two projects on the waiting list – 5th Street operational improvements, and Wolfensberger Road improvements. DRCOG was informed that the Town will accept \$3.5 million for construction of the 5th Street project in 2023. The remaining \$700,000 is recommended to be allocated to projects in Lone Tree, Parker, and unincorporated Douglas County. The amended TIP is expected to be approved by the DRCOG Board in April.

# 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.

The Fleet Division had a very productive month in February. Revenue from repair & maintenance of Town vehicles was way up to \$86,000 and technician productivity was high at 78.6%.

All four of the Fleet Technicians attended an training class for Ford engine performance and received manuals and certification. Fleet staff continues to work on ordering new vehicles and equipment for 2021, so far \$1.1M in new vehicles have been ordered.

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

**Outcome:** Fleet team completed 77.5% of the work orders within 24-hours of opening repair requests or service requests.



Full shop keeping Castle Rock on the move.

This benchmark number shows how quickly vehicles and equipment get serviced and repaired and back on the job. This benchmark number is above our monthly objective.

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

**Outcome:** Town vehicles and equipment were available 96.9% 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 78.4%. This productivity number was a very good increase considering the difficulty in getting some parts and some larger jobs that were completed.

# Street Operations & Maintenance Division

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

- \*Roadway ice Breaking
- \*Sweeping
- \*Equipment Maintenance
- \*Pothole Repair
- \*Snow and Ice Control

## Inspection for Potholes

In the month of **February**, Streets personnel inspected 588 lane miles of pavements. Taking notes on areas to be repaired and scheduling the work as appropriate. This proactive approach helps to identify areas of need prior to them becoming large and potentially damaging.

## Pothole repair

This month the Streets division completed repairs on 17.4 lane miles of roadway. Almost a ton of cold mix asphalt was used in the completion of these repairs keeping the roadway smooth and safe.

## Roadway Icebreaking

During the short month of February, the division received a total of 7 requests for ice breaking. An additional 46 tasks were created by supervisors who discovered the need for ice breaking during inspections. In all the crew broke ice along 17,200 feet of roadway.

## Sweeping

The crews worked hard to pick up the aggregate and salt applied to the roadways in February. In all the team swept 587 lane miles of the town protecting against airborne particulates and keeping the Town looking neat and tidy. In all 89 cubic yards of material was picked up off of the streets plowed in this month.

## Snow and Ice Control

The month of February brought 5 snow events with a snowfall total of 12.3 inches. All 5 events never accumulated more than 4 inches on roadways and thus only required CDL plow operations on the priority 1 and 2 roads. In all crews spent 603.5 labor hours plowing snow and applying deicers. Crew also spent 85 labor hours applying liquid deicers in preparation for the storms. Crews used 486 tons of granular deicers and just under 4000 gallons of liquid.

## Equipment Maintenance

The team spent 700 labor hours in February, working on the plow trucks as well as various other pieces of equipment. Keeping the machinery ready to respond to plowing events as well as everyday activities such as ice breaking and roadway repairs. A portion of this time was also spent washing vehicles after snow events. The corrosive nature of the products used during snow removal activities and ice breaking can take a toll if not washed off promptly.

## Looking Ahead

In March, the Streets Division team will begin the annual Crackseal maintenance program was weather allows in the PMP (Pavement Maintenance Program) West region. Crews will also begin to clear sidewalks of aggregate in preparation for the annual spring sweep.