

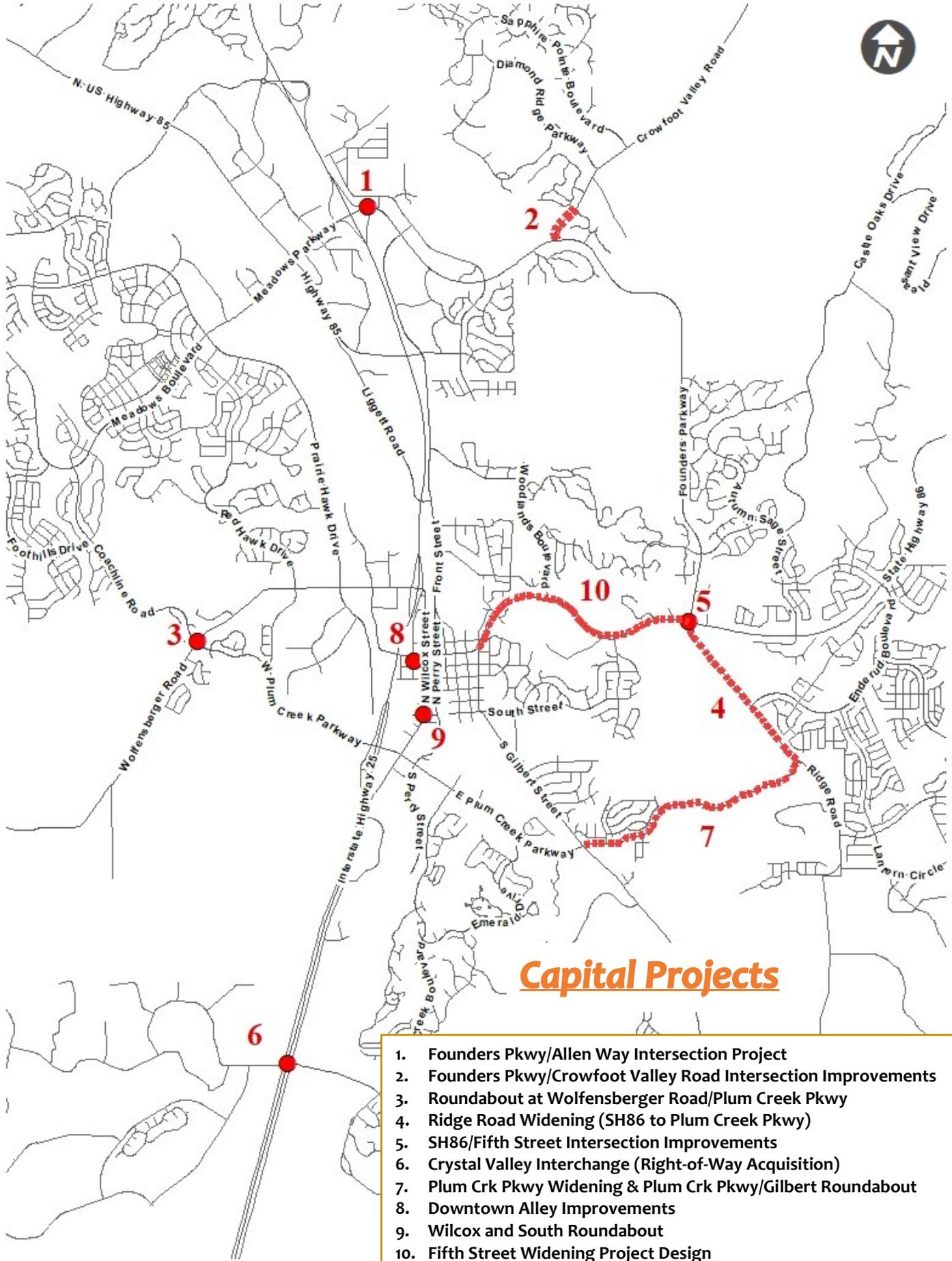
Monthly Report

January 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.





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
9. Wilcox and South Roundabout
10. Fifth Street Widening Project Design

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
- A modification to the curb return at Knobcone will also occur.

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 negotiations with CRDC for final agreement for terms of property repair
- Began negotiation of contract terms with CRDC

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 to relocate power lines. Staff plans to review and coordinate with IREA on possible phasing of the relocations.

Budget: \$400,000

ROW Acquisition: Summer 2021

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. 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 to discuss intersection design alternatives
- 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

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
 - o Eastside of I-25 – Offers continue to be sent out. Several properties are in the negotiation phase.

- o Westside of I-25 – Appraisals are complete. Town staff and consultants are preparing Notice of Intent for several property owners.

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 is working on revising the Request for Proposal (RFP) to go out in February pending FHWA approval. Staff is working on the delivery method workshop which will consist of a panel of stakeholders determining which method of delivering the project will be most beneficial to the project schedule and budget

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

Completion: Spring 2021 (right of way acquisitions)

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 majority of remaining concrete median cover
- Completed portions of remaining sidewalk to be constructed on the project (approximately 75% complete)
- Continued street light installations (approximately 70% complete)
- Continued fine grading slopes to prepare for topsoil (soil amendment) and seeding in the Spring

Crews will wrap up pedestrian improvements (sidewalks), and some fine grading of slopes before 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: January 2021

Construction Completion: Spring 2021

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

- Completed 30% preliminary design review for Phase 2 Roadway (Plum Creek between Eaton and Ridge Road)
- Completed review of Phase II Drainage Report
- Commenced VE evaluation to determine cost/benefit of retaining walls vs. property acquisition

Budget: \$794,375

Design Completion: March 2021

ROW Completion: ROW – Fall 2021

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

Phase – Design/Advertisement

- IREA relocation schedule obtained
- Century Link relocation schedule obtained
- Continue public stakeholder outreach/coordination efforts to minimize construction impacts to affected businesses.
- Advertised construction Invitation For Bid

Budget: \$900,000

Completion: Summer 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 90% design was submitted in December for Town staff review
- Town staff received all three purchase sales agreements with all right-of-way acquisition closings pending
- Confluence Company is finalizing construction phasing alternatives for Town leadership consideration

Budget: \$1,850,000

Construction Completion: Early Summer

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:

- Completed pre-app process for conceptual improvements
- Held project kickoff meeting with internal stakeholders
- Completed draft Project Communications Plan
- Created project website

Budget: \$1,500,000

Design Completion: December, 2021

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 will be making a selection in the next few weeks, and the project is to be implemented in 2021.
- Staff is waiting for an IGA from CDOT for a traffic operation technology grant through a DRCOG application process. The project will make Automated Traffic Signal Performance Metric (ATSPM) system improve-

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

Budget: \$993,700

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.

- Signal cabinets have been tested and installed. Electrical inspections have been complete and the turn-on is waiting for the meter install by IREA.
- Once a turn-on date is determined, the roadway striping will be complete. 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 2020, 11 of 21 locations were deferred until this year.
- In January, staff began evaluating the 2021 locations, including preparing budget and project timing.

Budget: \$250,000

Construction Completion: Fall 2021

Engineering Division

2021 Pavement Maintenance Program (PMP)

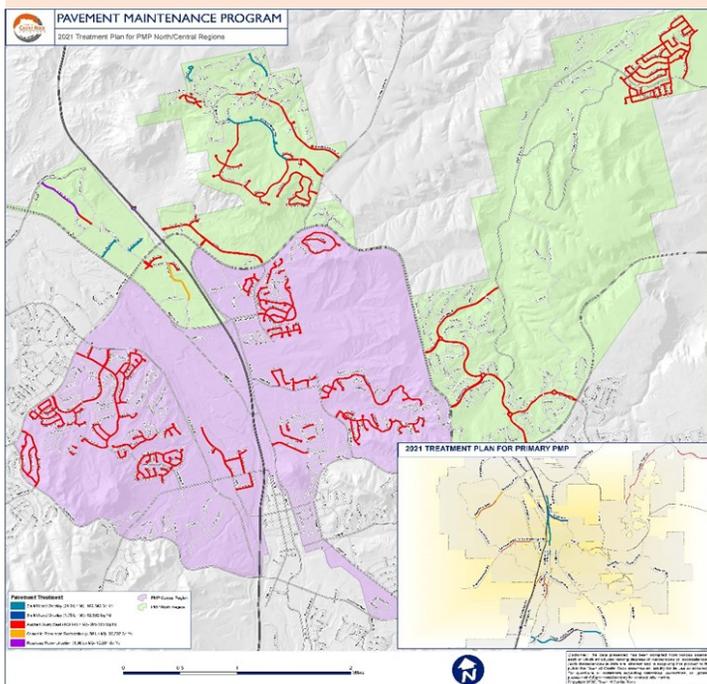
Six (6) project bid packages were opened January 13 & 14. Staff is in the process of evaluating the bids submitted, checking and verifying all bid proposals as well as doing follow up on contractor references. Staff will also begin the process of contract award recommendations.

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

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

Four (4) contractors submitted bids for this year’s improvements. The project’s bid opening was completed on January 14. Staff is in the process of evaluating all bids submitted, prior to contract award recommendations. This process includes checking and verifying all bid proposals and contractor references.

Facilities scheduled for 2021 are:

- 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 S. Wilcox Street Bridge over E. Plum Creek will be posted once all documents have been received from CDOT. Staff is working with FHU, in cooperation with CDOT, to complete the process.

Once this is complete, package will be submitted for competitive bids.

Development Review and Permitting

Development Review - All 24 reviews were completed on or before the due date by the PW Development Services Team.

Permitting & Inspection – 27 right-of-way permits were issued.

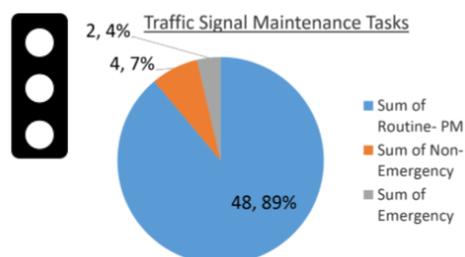
Transportation Planning & Traffic Engineering Division

Taxi Voucher Program

For the month of January, the Taxi Voucher Program funded 127 rides; this was roughly identical to last year’s total of 129 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 January, 20 individuals used the Town’s Taxi service. Of those that used the service, 83% of the rides were for work, 12% were for shopping trips, and 5% for medical appointments. Fifty rides were provided for people without access to a vehicle, 26 rides were provided to seniors, and 51 rides to disabled riders.

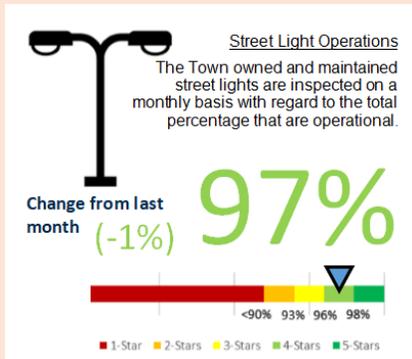
Traffic Engineering and Operations

Traffic Signal Operations and Maintenance

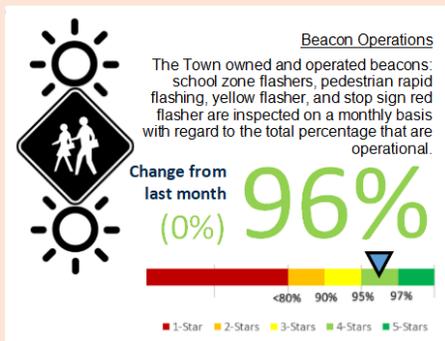


* Most frequently visited signals: *Wolensberger & Caprice* and *North Meadows Drive & Butterfield Crossing*.

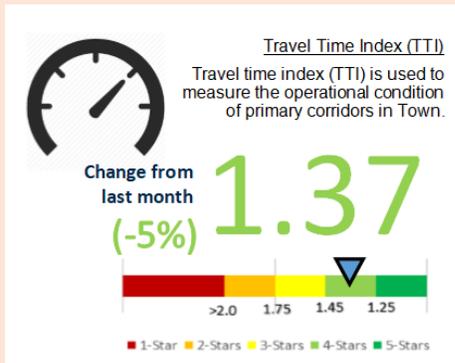
Street Light Operations



Beacon



Operations



Street Signs and Pavement Marking Maintenance

For the month of January, the crew accomplished 1269 tasks. Of the tasks, 1066 of them were sign work activities related to fabrication, install, repairs, replacements, inspections and investigations. Eight of these tasks were markings work related to replacement of symbols. 28 were related to miscellaneous projects and two were Work Zone activities. We had 163 RRFB windshield inspections and two traffic counts.

Transportation Planning

Neighborhood Traffic Calming Program (NTCP):

Town staff received a petition from homeowners on Rising Moon Way in the Meadows to modify the existing mini circle on

the street. Over the next few months, staff will work with homeowners in the study area to draft a plan modifying the existing traffic-calming device. Staff also received an inquiry about modifying the existing traffic calming on Appleton Way. Staff is still working with the point of contact regarding the existing speed humps, collected traffic data, and possible modifications to the street.

Castle Rock Downtown Alley Master Plan:

Town staff received eight submittals in reply to the Request for Proposals (RFP) for the Downtown Alley Master Plan. The selection committee is reviewing the submittals and a preferred firm will be selected in February. The project is still expected to begin this spring.

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 January to start out the year of 2021. Revenue from repair & maintenance of Town vehicles was up to \$69,000 and technician productivity was high at 73.4%. The Parts department is working on setting up barcodes for all the parts in our store room. That way we will be able to complete inventory just using a scanner. Town staff was also able to receive and put into service 3-new vehicles 2-for the Water Department and one for the Fire Department.

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

Outcome: Fleet team completed 61.5% 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. Fleet technicians had some large repair jobs last month which caused longer repair times.

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



New Interceptor for the community partnership program.

Outcome: Town vehicles and equipment were available 95.9% 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 73.4%. This productivity number was a very good increase considering the difficulty in getting some parts and some larger jobs that were completed.

Overall we completed 98 work orders and processed \$69,000 in parts and labor and another \$30,000 in fuel transactions.

Street Operations & Maintenance Division

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

- *Crack Seal Operations
- *Pothole Repair
- *Snow and Ice Control
- *Roadway ice Breaking
- *Sweeping
- *Equipment Maintenance

Inspection for Potholes

In the month of January, Streets personnel were able to cover 521 lane miles inspecting for and logging potholes, and other damage. This proactive approach helps to take care of nuisance areas before they run the risk of causing damage or becoming dangerous.

Pothole repair

Of the 521 lane miles inspected the streets team used 53 man hours and 4400 lbs. of cold mix asphalt across 62 lane miles of roadway to repair the equivalent of 300 average potholes this month.

Roadway Icebreaking

Streets crews have been busy responding to ice breaking requests as well as identifying and clearing iced over areas that are well known as well as some that were found by the crews. A total of 113 requests were received and tasked and an additional 22 tasks were identified by Streets Supervisors. Crews then worked 433.5 labor hours to clear 40,600 linear feet of ice from the roadway.

Sweeping

Crews have completed sweeping up the Town's roadway of leaves and trash. The late fall of the leaves likely due to the early onset of winter drew these operations out into January. Crews wrapped this up in mid-month by removing 58.4 tons of trash and leaves off of 324.5 lane miles of roadways and hauling the debris to the landfill.

Snow and Ice Control

Crews have responded to two snow storms during January collectively resulting in only about four inches. Crews plowed for a total of 360 labor hours and applied approximately 88 tons of granular deicer to stay ahead of the icing hazards these systems presented. Average completion time for these two storms was 5.75 hours from the cessation of snowfall to the opening of all lanes for vehicular travel.

Equipment Maintenance

Crews devoted 380 labor hours to the maintenance of the equipment needed for daily operations. The salt and moisture used on the roads during this time of the year can have a negative effect on the functionality and longevity of the machinery used for plowing and icebreaking. Crews work hard to clean and maintain these pieces of equipment so they may be ready for use when needed.

Looking Ahead

In February, the Streets Division crew will maintain vigilance for snow storms and be ready to clear the roadways to return them to normal operation as quickly as possible. Post storm sweeping operations will be undertaken to mitigate air pollution. Crews are also preparing to continue ice mitigation operations between snowstorms as possible as well as equipment maintenance.