



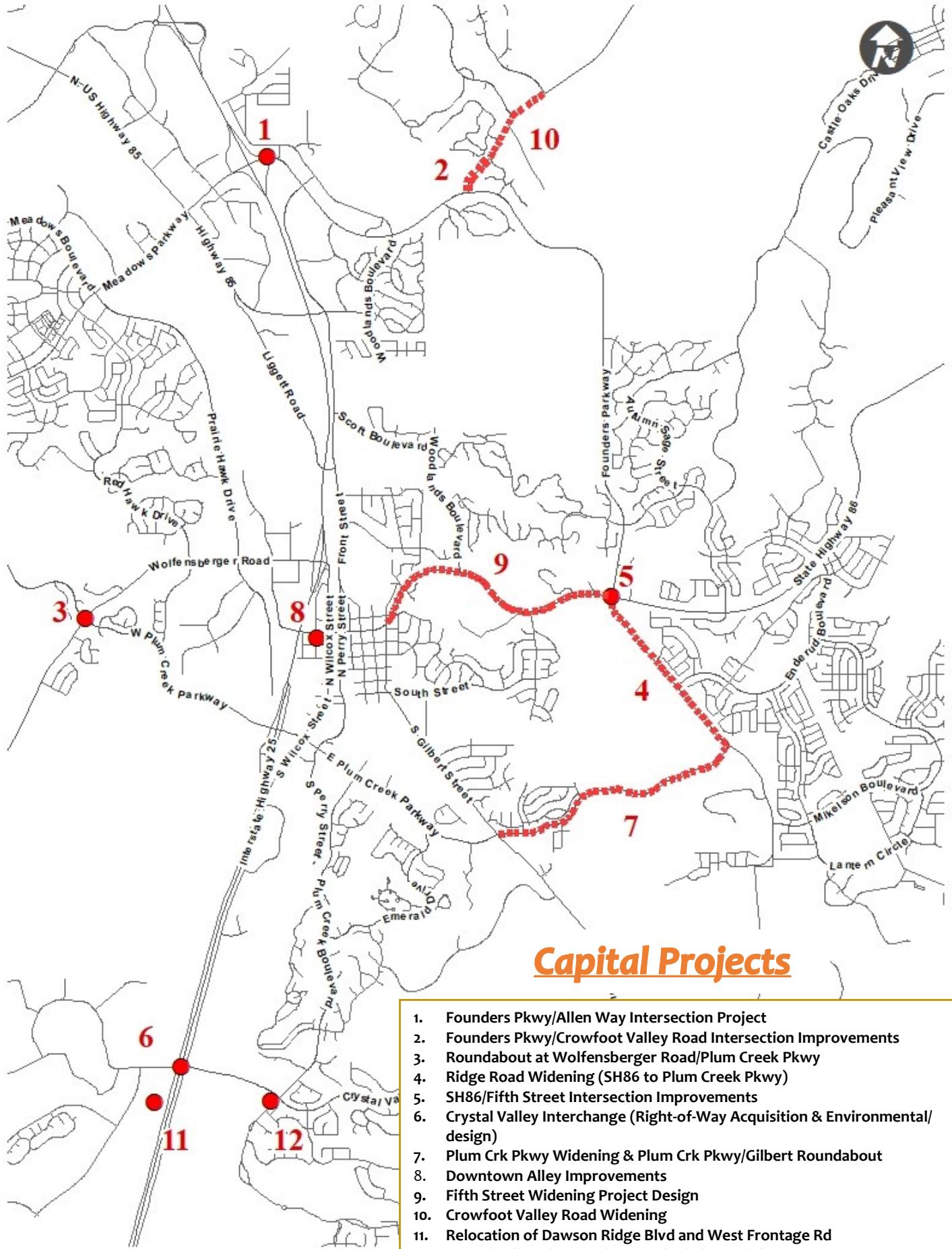
Monthly Report

November 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 & Environmental/design)
7. Plum Crk Pkwy Widening & Plum Crk Pkwy/Gilbert Roundabout
8. Downtown Alley Improvements
9. Fifth Street Widening Project Design
10. Crowfoot Valley Road Widening
11. Relocation of Dawson Ridge Blvd and West Frontage Rd
12. Crystal Valley Pkwy & Plum Creek Blvd Roundabout Project

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 – Closeout— Work continues on the closeout phase with CDOT. All final paperwork has been submitted to CDOT by the end of November 2021, and this project will be closed out in December 2021.

Budget: \$2.64M

Close Out: Winter 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 - Awaiting CDOT formal closeout of project. 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: Fall 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 closeout is as follows:

Completed irrigation and landscaping work on adjacent property

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: Acquisition continues with the property easements. The Town is moving forward with condemnation on the other property.

Stanley Consultants is the design firm for the project. The following is a summary of the activities performed this month:

- Subsurface Utility Engineering (SUE) continues, Consultant is applying the field information to the plans
- Consultant is initiating survey of the new pavement on the section between Enderud and north project limits
- Initial coordination with the Four Corners project and new adjacent developer

Budget: \$900,000

ROW Acquisition: Winter 2021

Targeted Construction Completion: Fall 2022

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:

- Continue work on the design of the project
- Bader Court and Emmaus Anglican Church access off Fifth Street will have a ¾ movement
- Continuing work on the utility plan for the entire project
- Continuing to work on environmental clearances and water quality with CDOT
- Continuing to work on right-of-way plans and prepare for right-of-way plan review meeting
- First Amendment to the Service Agreement for Design of the Four Corners Intersection Improvement Project was approved by Public Works Commission and Town Council. This amendment added additional scope of work that resulted from input from CDOT to complete additional traffic analysis, public feedback during project open houses to review access improvements, additional land acquisition services, and support necessary to assist with construction implementation. The proposed resolution added \$355,096 to the project and extend the completion of service to December 31,

2023. The extension of the contract into 2023 allows for consultant assistance in answering questions during the bidding and construction phases concerning the design

- Coordination with current design projects on Ridge Road and Fifth Street
- IGA with Douglas County is scheduled to be presented to Town Council in February 2022 for approval. This IGA is for a contribution to the project of 1 million dollars from Douglas County

Budget: \$1,200,000 for design in 2021 with DRCOG Grant Reimbursement (Town share \$240,000)

Design Completion: 1st quarter 2022

ROW Acquisition: 1st quarter 2022

Targeted Construction Completion: Winter 2023

6. **Crystal Valley Interchange – Pre-construction Activities** –

The purpose of this project is to achieve acquisition of remaining right-of-way, complete design, and set aside future project funding allowing potential funding partnerships to assist with advancing construction.

Phase: Right-of Way Acquisition

- Acquisition Services
 - East side of I-25 – Town Staff is moving forward with the condemnation process for the Boone Family property. The remaining properties are in various states of negotiation
 - West side of I-25 – The remaining property is in negotiation

Phase: Design—Interchange Access Request and Environmental Assessment Reevaluation, and Design

- Town staff is working with CDOT to begin reimbursement payments
- Jacobs continues working on the traffic analysis. Traffic modeling methods and assumption report was submitted for review. Traffic model was completed
- Environmental/NEPA – environmental field work continues
- Staff has begun the initial aspects of the Construction Management General Contractor (CMGC) with scheduling meetings with contractors to discuss items directly related to the RFP

Budget: \$6,500,000, and Development Escrow

Completion: Summer 2023

Targeted Construction Completion: Summer 2025

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 two 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 three 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 1B: Plum Creek Pkwy Widening and Roundabout: Construction - The following is a summary of activities performed this month:

- Continued contract procurement activities for Baldwin Park restoration
- Contract closeout activities to complete final change orders and final payment

Roadway and roadside improvements are complete. The project continues procurement activities to restore Baldwin Park. Remaining work includes: Baldwin park irrigation and landscaping restoration work

Budget: \$7,507,723

Construction Completion: Fall 2021

Phase 2: Design and ROW Acquisition – The following is a summary of design activities performed this month:

- Executed contract for land acquisition services
- Submitted 100% construction plans for review
- Submitted TESC plan and report for review and approval
- Submitted final Phase III drainage report for review and approval
- Continued refinement of specifications package

Budget: \$794,375

Design Completion: Winter 2021

ROW Completion: 1 quarter 2022

Targeted Construction Completion: Winter 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 14 & 17) – Located West of Jerry St. between 5th and 3rd streets
- 2 Alleys (Easterly Alleys 10 & 11) – Located East of Perry St. between 6th and 4th streets

Phase – Construction

- Final change order has been approved and completed. Final pay request and notice for final payment will be completed in December. Project will be closed out by the end of December

Budget: \$877,900

Completion: Fall 2021

9. **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 main-

tain 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:

- Widening to a 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 - The following is a summary of activities performed this month:

- Completed and reviewed 10% alternative designs
- Began geotechnical boring
- Completed quality Level-B Subsurface Utility Investigation (SUE)
- Set January 20th date for project open house at Town Hall

Budget: \$1,500,000

Design Completion: December 2022

Right-of-way acquisition: Winter 2022

Targeted Construction Completion: Winter 2023

10. **Crowfoot Valley Road Widening** – Crowfoot Valley Road will be widened between the Knobcone Drive and Macanta Blvd. Currently, this section of Crowfoot Valley Road is a two lane transition section of asphalt roadway with portions in the Town of Castle Rock and in Douglas County. Recent improvements have been completed at both ends of this project along Crowfoot Valley Road, and the intent of this project is to complete improvements to the “gap” between these improvements. The proposed roadway will be a four-lane section, including painted median / turn lanes, with bike lanes in both directions. Project is being managed by Douglas County Staff.

Phase: Design - Douglas County has submitted the draft IGA for the project for Town review. The consultant continues with data research, including drainage report review and typical section review. The consultant has submitted an engineering decision document with a roll plot for Town review and comments

Budget: \$2,000,000 (Town contribution to construction funding; IGA to be executed with County)

ROW Acquisition: End of 2021

Design Completion: Summer 2022

Targeted Construction Completion: Spring 2023

11. **Relocation of Dawson Ridge Blvd and West Frontage Rd** – The purpose of this project is to relocate the I-25 West Frontage Rd to the west of the BNSF Railroad tracks to provide access to the surrounding neighborhoods and residents after the Crystal Valley Interchange is complete.

Phase: Design – Contract with CORE Engineering has been executed. Staff and the consultant held the kickoff meeting.

Budget: \$299,000

Design Completion: December 2022

Targeted Construction Completion: Fall 2023

12. **Crystal Valley Pkwy & Plum Creek Blvd Roundabout Project**

This intersection is a major arterial currently controlled by stop signs in two directions. As the traffic volumes increase and with ongoing residential development and future construction of the new Crystal Valley Interchange, this existing traffic control will not be the most efficient and could contribute toward increased accidents. This project will accomplish the design of a roundabout intersection in order to improve the traffic capacity of the intersection, help to manage speeds along Crystal Valley Parkway, and to accommodate the growth in traffic that is expected to increase once the Crystal Valley Interchange has been constructed.

Phase: Design - The Town received five proposals for the design of this project. Town staff is scheduled to present the resolution approving a service agreement to the Public Works Commission on December 6, 2021 and the Town Council on December 21, 2021

Budget: \$400,000 pending approval of budget amendment

Design Completion: June 2022

Targeted Construction Completion: Spring 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 project that will implement adaptive signal timing on Founders and Meadows Parkway, as well as six abutting Town signals. The adaptive system should be operational by February 2022.
- The Town’s ATSPM project is broken out into two phases. Phase I includes detection purchase and installation at 15 intersections. In November, detection equipment was delivered and a contract executed with installation contractor, Adiona Transportation Solutions. The preconstruction meeting is scheduled for December 7. Phase II includes software development and signal timing. The Town is negotiating a scope and fee with the recommended consultant.

Budget: \$868,700

Targeted Construction Completion: End of year 2023

2020–2021 Intersection Signalization Construction Project – Signals were constructed at Meadows Boulevard & Cherokee Drive (mast arm signal) and at Hwy 85 & Liggett Rd (temporary span wire signal).

- The preemption devices were moved and are fully functional. Final invoicing is being reviewed with the contractor and will be completed by the end of De-

cember 2021.

Budget: \$588,000

Construction Complete: November 2021

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

- All beacon locations were installed this month. Final crosswalk markings and concrete work for pedestrian refuges is underway through the miscellaneous concrete contract. Work should be complete in the next few months.

Budget: \$250,000

Construction Completion: Fall 2021

Engineering Division

2021 Pavement Maintenance Program (PMP)

Meadows Blvd/Castleton Court concrete restoration was completed with planned quantities. The contractor will begin work on streets included in the expanded scope Monday, December 13. This work involves concrete panel repairs on Atchison Way and Topeka Way.

Miscellaneous Concrete Project began Monday, October 25 with the replacement of identified damaged curb, gutter and sidewalk around Town. These are areas that residents and other Town Departments submitted to Public Works throughout the year. The



contractor will also be installing chase drains and traffic safety improvements in designated locations.

The Sidewalk, Curb and Gutter Project was completed in the month of May. The project came in under contract time and budget.

The Full Depth Reclamation Project was completed in the month of May.

The Asphalt Overlay Project was completed in August.

The Meadows Blvd/Castleton Court Concrete Restoration Project was completed in August.

The Slurry Seal Project was completed in early October.

The Town Facilities Parking Lot Improvements were completed in October.

2021 Bridge Maintenance Program (BMP)

Staff is working with the consultants to complete all documents in relation to the maintenance work. Bids for the 2021 Bridge Rehabilitation for S. Wilcox Bridge over E. Plum Creek, will be submitted for competitive bids upon completion of all submittals, the consultant will submit an estimation of costs. This project began in early November and completed by the end of December 2021, pending weather.

Development Division

Review and Permitting

Development Review - All 47 reviews were completed. One was late by one day by the PW Development Services Team.

Permitting & Inspection – 28 right-of-way permits were issued.

Transportation Planning & Traffic Engineering Division

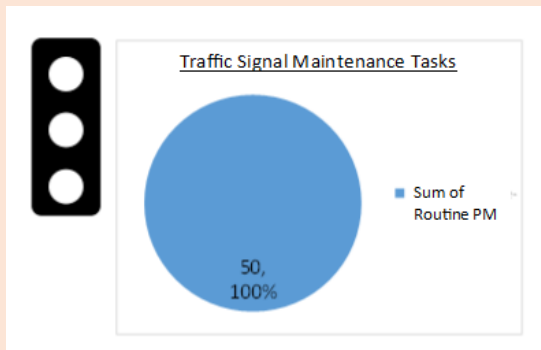
Taxi Voucher Program

For the month of November, the Taxi Voucher Program funded 195 rides; which is a 65% increase to last year's November total of 119 rides, and a 17% increase 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 November, 22 individuals used the Taxi service. Of those individuals, 73% of the rides were for work, 20% for shopping trips, and 7% for medical appointments. Eighty-four rides were provided for people without access to a vehicle, 51 rides to seniors, and 60 rides to disabled riders.

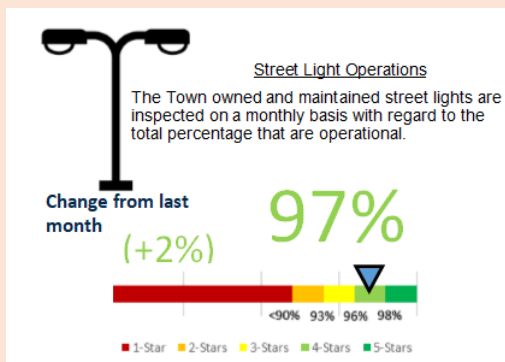
The Castle Rock Senior Center provided a total of 682 rides in November.

Traffic Engineering and Operations

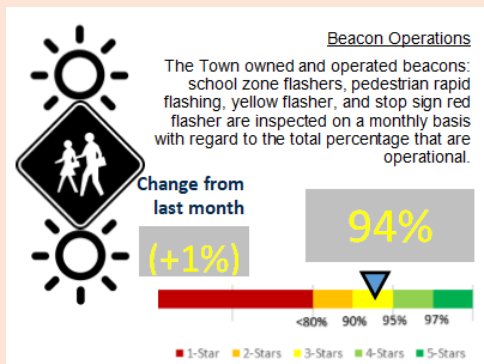
Traffic Signal Operations and Maintenance



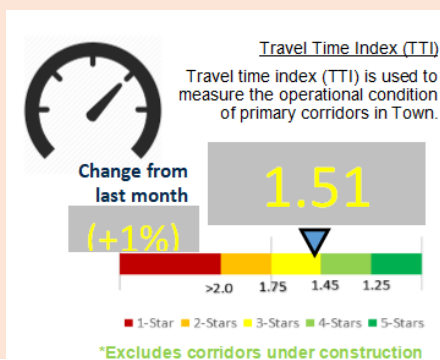
Street Light Operations



Beacon



Operations



Street Signs and Pavement Marking Maintenance

For the month of November, the crew accomplished 1188 tasks. Of these tasks, 101 of them were sign work activities related to fabrication, install, repairs, replacements, inspections and investigations. We had 192 RRFB related tasks, including windshield inspections, new installations, repair tasks and investigations. We completed 840 marking tasks related to install, inspections, and replacements. Other tasks included work zone, special events, and underground locates and traffic count tasks.

Paint season has ended for both the Town crew and marking contractor, Colorado Barricade. Colorado Barricade completed 79% of white long lines, 70% of yellow long lines, and 99% of signalized intersection symbols, crosswalks and stop bars. Any remaining marking replacements will be scheduled for first replacement in Spring 2022.

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. A new inquiry was received for Switch Grass Drive in the Red Hawk neighborhood. The HOA person was contacted and staff is waiting on a response. An inquiry to modify the NTC device on Castle Creek Circle was also received and program information was provided. At this time there are no active projects for traffic calming.

Castle Rock Downtown Alley Master Plan:

A meeting with other Town department's was held in November. A summary of comments received to date was shared with the project team. The main public themes included lighting for safety at night, art murals, enhanced pedestrian paving materials, and inclusion of outdoor dining. Initial design concepts were also shown and discussed with the group. Some of the concepts included the addition of edge elements, such as landscaping or seating, enhanced midblock street crossings for safety, a paver confetti design, and eddy space for outdoor activities like dining. Additional meetings to discuss the design concepts will be scheduled in December. The project is still on schedule to be completed this April.

Downtown Castle Rock Grants:

The Downtown pedestrian street light grant project is now programmed into the regional Transportation Improvement Program (TIP). The funds are available in Federal Fiscal Years 2022 and 2023. The project will install roughly 40 new acorn style streetlights along several Downtown streets in need of additional lighting. The grant award is for \$480,000 with a local match of \$120,000 for a project total of \$600,000. The Town is moving forward on the CDOT Revitalizing Main Streets grant for \$150,000 with a local match of \$15,000. The purchase order with CDOT has been executed and the Town can now start the project. Bids have been received for the high visibility crosswalks on Wilcox Street. Staff will schedule the work with the winning contractor for next year as weather permits. Additionally,

benches and trashcans are being ordered through the Parks Department, and construction of four year round outdoor dining patios are being coordinated with the DDA.

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 busy month in November completing 122 work orders and processing 129 vehicles for the month. Total output for the month was over \$100K for only the second time in 2021 @ \$106,219 with \$36,000 of that being direct labor. Technician productivity was also very good for the month of November coming in at 82.6%. And Fleet availability came in at 98.28% which is back to pre-pandemic levels and well above our benchmarks.

Our parts department continues to work on preparing the inventory for our annual inventory count next month. Fleet staff also completed an inspection of a new van for the Castle Rock Senior Center and received a new John Deere utility vehicle for the Public Works Engineering Division. Fleet staff also received a new Bobcat track skid for the Streets Division.

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

Outcome: Fleet team completed 82.7% 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



New John Deere utility vehicle for Public Works.

the job. This benchmark number is just under our monthly objective.

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

Outcome: Town vehicles and equipment were available 98.2% 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 82.6%. 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 November, the Street Operations & Maintenance Division (SO&MD) performed work in the following maintenance operations:

- *Road Verge Maintenance
- *Street Sweeping
- *Gravel Road & Shoulder Maintenance
- *Asphalt & Pothole Repair
- *Training

Road Verge Maintenance

Verge maintenance continues with trash removal and other operations. Crews devoted 215 hours picking up and disposing of 185 bags of garbage from the sides of 31.5 miles of roadway. One section of guardrail was removed after it was determined to be unsafe and no longer needed based upon Engineering and Traffic assessments in advance of a major Water Department construction project.

Asphalt & Pothole Repair

Streets Division Supervisors carried out inspections over 259 lane miles of roadway within the Town, primarily looking to uncover and prioritize potholes in the inspection area. The larger percentile of the potholes discovered were assigned as full depth asphalt patches and fixed accordingly. Streets crews spent 536 labor hours and placed over 24 tons of hot mix asphalt during the course of these maintenance operations.

Street Sweeping Operations

November saw the conclusion of the Town wide Fall Sweeping Program. During the month, crews swept nearly 543 lane miles of Town roads, picking up 392 cubic yards of material off the roadways over the course of 419 labor hours. The purpose of this program is to clean the Town up after the leaves fall but it also makes snow and ice operations easier as well as helps miti-

gate air pollution.

Gravel Road Maintenance

Maintenance to the road shoulders and the gravel roads was also undertaken while the favorable weather conditions allowed. Crews worked 54 labor hours on 5.5 miles of gravel road to ensure it provides a smoother surface for the travelling public. An additional 75 hours were spent working on road shoulders throughout Town. This allows for a motorist to leave the roadway as safely as possible if the need arises.

Looking Ahead

In December, the Division is maintaining readiness to respond to snow and the subsequent post storm sweeping operations. Asphalt and pothole repair will continue as weather permits.