



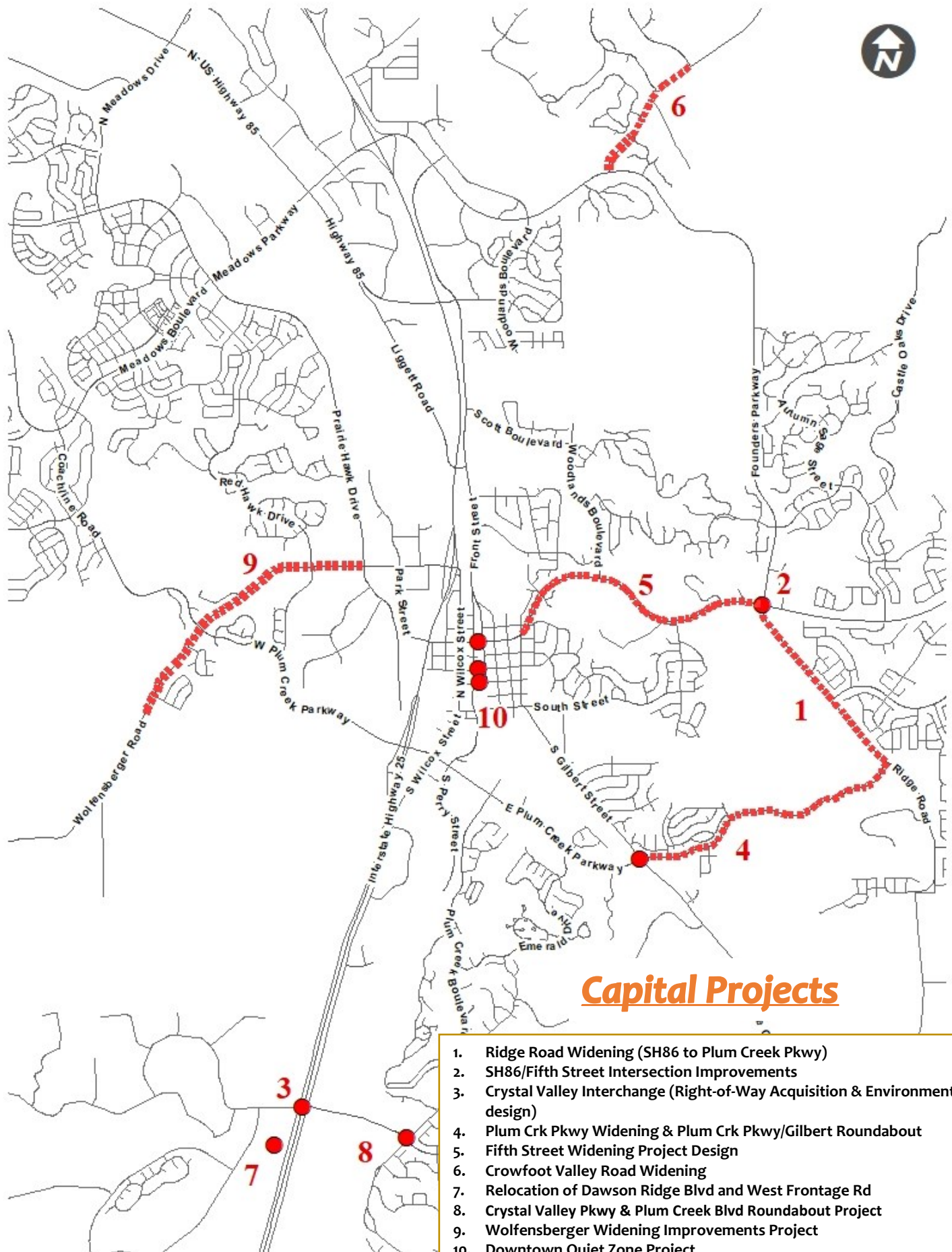
# Monthly Report

October 2022

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. Ridge Road Widening (SH86 to Plum Creek Pkwy)
2. SH86/Fifth Street Intersection Improvements
3. Crystal Valley Interchange (Right-of-Way Acquisition & Environmental/design)
4. Plum Crk Pkwy Widening & Plum Crk Pkwy/Gilbert Roundabout
5. Fifth Street Widening Project Design
6. Crowfoot Valley Road Widening
7. Relocation of Dawson Ridge Blvd and West Frontage Rd
8. Crystal Valley Pkwy & Plum Creek Blvd Roundabout Project
9. Wolfensberger Widening Improvements Project
10. Downtown Quiet Zone Project

1. **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: Construction**

- Continue to maintain temporary erosion control measures
- Continued surveying
- Continue the relocating of existing utilities
- Continued earthwork on major cuts and fills
- Continued curb and gutter
- Started asphalt paving between Plum Creek Parkway to Enderud Blvd

**Budget:** \$5,225,000

**ROW Acquisition:**

- A valuation hearing for the Bertelsen property is scheduled for March 2023

**Targeted Construction Completion:** Spring 2023

2. **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:

- Intersection will remain a full movement four-way intersection. Additional turn lanes and acceleration lanes will be added.
- Traffic signal improvements will be made to incorporate the larger intersection.
- Pedestrian and bicycle improvements will be constructed on all four sides of the project.
- Stormwater detention and water quality improvements will be constructed to capture the additional surface volume from the new intersection.

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

- Final plan set revisions ongoing
- DEA/Town finalizing additional scope of work requested by CDOT
- Right-of-way acquisition is wrapping up, three properties have been closed, one remaining
- All utility relocations have been completed, protect in place is all that remains for dry utilities
- Consultant for construction management services was approved by Town Council, RockSol Consulting will provide services
- Working on long lead item submittal for signal poles due to 9-month lead time
- 100% bid package expected by Thanksgiving

**Budget:** \$1,275,676, with DRCOG Grant Reimbursement

**Design Completion:** Fall 2022

**ROW Acquisition:** Fall 2022

**Targeted Construction Completion:** Winter 2023-2024

3. **Crystal Valley Interchange – Pre-construction Activities** – The purpose of this project is to achieve acquisition of re-

maining 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

- Condemnation authority to add the Hyperion property as a result of the preferred alternative configuration, for full acquisition of parcel
- West Side of I-25 – Complete property negotiations with Douglas County Development Company and Westside Development
- East Side of I-25 – Complete property negotiations with Dawson Ridge Metro District

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

- Transportation demand management letter to be sent to CDOT Director for signature/approval
- Multimodal design decisions being finalized
- Design firm continues working on 90% design
- Environmental/NEPA – All Tech memos have been done at this time
- Construction management services contract to be entered into in January/February
- Maintenance IGA with CDOT draft submitted for Town review – still pending drainage/water quality items

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

**Design Completion:** Summer 2023

**Targeted Construction Completion:** Summer 2025

4. **Plum Creek Parkway Widening and Plum Creek Parkway/Gilbert Street Roundabout Project** – This project will imple-

ment 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 Roundabouts Gilbert to Eaton): Construction**

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

**Completion:** Complete

**Plum Creek Parkway Widening Phase 2** – 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 2: Plum Creek Pkwy Widening (Eaton to Ridge): Construction** – The following is a summary of design activities performed this month:

- Completed 1,000 feet of storm pipe installation
- Continued manufacturing of block wall
- Continued earthwork for new roadway and sidewalk construction
- Completed utility relocation (Electric)
- Continue the maintenance of erosion control
- Continue major cuts and fills
- Continued the installation of storm drain pipe
- Continued the installation of headwall for storm drain
- Continue the relocation of utilities
- Started the placement of base course
- Installation of conduit for street lighting

**Budget:** \$7,530,000

**Targeted Construction Completion:** Fall 2023

5. **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 improvements include:

- Widen to 4-lanes from Woodlands Boulevard to Ridge Road
- Add on-street bike lanes between Gilbert Street and Ridge Road
- Add sidewalks from Sixth Street to Ridge Road
- Roundabout and signal light construction at Woodlands Boulevard and Valley Drive respectively.

**Phase:** Design

- Design development from 30% to 90%
- Held project open house
- Continue environmental study
- Refine structure designs
- Prepare 90% design deliverables
- Coordination efforts with adjacent developments
- Continue to develop project utility design

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

**Design Completion:** December 2022

**Right-of-way acquisition:** Winter 2022-2023

**Targeted Construction Completion:** Winter 2023-2024

6. **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.

**Phase:** Design—Town submitted IGA comments to Douglas County for review; Douglas County submitted conceptual design elements for the Town to review;

- Town staff developed conceptual designs based off of Douglas County and Town comments
- Town staff presented design concepts to the community at October 27 open house
- Community feedback due by Nov 10 with a summary to be completed

**Budget:** \$2,500,000 (Town contribution to construction funding; IGA to be executed with County)

**ROW Acquisition:** Summer 2023

**Design Completion:** Summer 2023

**Targeted Construction Completion:** Summer 2024

7. **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 – CORE Consultants is the design consultant for this project. The following is a summary of the activities performed this month:

- Final design plans, specifications and estimate expected in mid-November for bid documents

**Budget:** \$299,000

**Design Completion:** Fall 2022

**Targeted Construction Completion:** Summer of 2025 in conjunction with Crystal Valley Interchange

8. **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. This project is scheduled to be designed by September mid-October 2022, bid in October 2022, and constructed by Summer 2023.

**Phase:** Design

- Completed bid documents, advertised on October 20, 2022
- Bid Opening for project is scheduled for November 14, 2022

**Budget:** \$400,000

**Design Completion:** Fall 2022

**Targeted Construction Completion:** Summer 2023

9. **Wolfensberger Widening Improvements Project**- Wolfensberger Road is a major arterial connection for local and regional travel between the westerly portions of Town and I-25. Roadway and pedestrian improvements for Wolfens-

berger 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 Wolfensberger Widening Improvements Project will complete all design elements for the implementation of the full build out transportation network from the western Town limits to Prairie Hawk Drive.

- Widening roadway to a full 4-lane arterial section
- Addition of sidewalk along both sides of Wolfensberger
- Roundabout construction at Red Hawk/Auburn and Wolfensberger Intersection
- Removal of existing traffic signal
- Storm water drainage improvements
- Implementation of on street bike lanes West/East bound

**Phase:** Planning/Design

- Weekly meetings with business and property owners along the corridor
- Ongoing design work with adjacent developers to accommodate and incorporate their ingress/egress into project design
- Design efforts/coordination is under way to possibly utilize developer stormwater infrastructure
- Design efforts to utilize existing Town property for stormwater improvements underway
- Utility coordination meetings ongoing
- Subsurface utility engineering (SUE) investigation ongoing
- 30% Design submittal scheduled for February 2023

**Budget:** \$2,500,000

**Design Completion:** Fall 2023

**Right of Way Acquisition:** Fall 2023

**Targeted Construction Completion:** Fall 2024

- 10. Downtown Quiet Zone Project** - This project is to implement a quiet zone through the downtown Castle Rock area. In order to implement the quiet zone, improvements must be constructed at three railway crossings: Second Street, Third Street and Fifth Street. The scope of the improvements to be constructed with this project include: additional crossing gates, pedestrian crossing improvements, ADA improvements, sign and marking improvements, curb and gutter additions and general railroad (Union Pacific or UP) coordination. The benefits of this project will be improved safety for vehicles and pedestrians and improved quality of life for downtown businesses, residents and patrons.

**Phase:** Construction - The following is a summary of activities performed this month:

- Resubmit construction agreements with Public Utilities Commission (PUC)
- Stockpile railroad construction materials on-site
- Continue scheduling and coordination of construction with Union Pacific

**Budget:** \$1,800,000

**Targeted Construction Completion:** Winter 2022-2023

**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 Parkway, and Meadows Parkway, and Factory Shops Boulevard. Eight abutting Town signals will be included in the system. In October, detection was finalized at Allen St and Allen Way. CDOT ITS has provided the required licensing and the software will be turned on in November.
- Phase II of the Town's ATSPM project includes software development and signal timing. Traffic data was collected in September for signal retiming in October. Kimley-Horn is currently checking the new software for bugs and will be updating the Town's software once the bugs are fixed. In addition, Kimley-Horn has been collecting vehicle volume data and will be providing Town staff with new signal timing by the Thanksgiving holiday.
- Town Staff will be purchasing three new traffic signal cabinets and four new detection systems by the end of 2022 as part of inventory and replacement maintenance.

**Budget:** \$868,700

**Construction Completion:** End of year 2023

**2022 Safety Projects** – This project includes installing RRFBs at five locations, roadway improvements, and safety improvements on Gilbert Street.

- The 2022 safety projects have been completed and are in final walkthrough period. Staff are identifying safety improvements for the 2023 Safety Improvement Program.
- As part of the Gilbert Street PMP Full Depth Replacement Project, speed management improvements including speed cushions, a raised crosswalk, and curb extension were installed. A review of speed impacts was completed and showed a decrease in speeds.
- As part of the Wolfensberger Road Reconstruction Project, we installed a new median and signage that physically limits lefts out at Kinner Street and the gas station access.

**2022 Budget:** \$613,000

**Construction Completion:** Fall 2022

**Illuminated Street Name Signs** – Town staff are still working with CDOT to get Meadows Pkwy and Hwy 85 a power feed for two of the signs.

2022 illuminated street name signs are currently being purchased for four additional locations throughout the Town.

**2022 Budget:** \$58,000

**Construction Completion:** Summer 2022 and Fall 2022

# Engineering Division

## 2022 Pavement Maintenance Program (PMP)

The 2022 PMP has focused its efforts in the South PMP area with additional work taking place on primary streets (E. Loop Rd, Fifth St, Gilbert St, Mikelson Blvd, and Woodlands Blvd).

## Concrete Pavement Remove and Replacement Reconstruction

The Concrete Pavement Remove & Replacement Reconstruction project for Mt. Royal Drive/Masters Club & Champions Court, completed all concrete and asphalt requirements October 24. The project came in within contract time and budget.



## Asphalt Overlay Project

The Asphalt Overlay Project began construction April 11. The project was completed October 18 with the reconstruction of Eveningglow Way. The project was done within contract time and budget.



## Full Depth Reclamation Project

The Full Depth Reclamation project began April 11. The contractor completed Peak Vista Court, cul-de-sacs off Plum Creek Blvd., and Echo Hollow Street area this month, and moved operations to Rock Lane & Rock Street. This area is the final two streets to complete this project. The contractor will then move to Beacham Drive to repair the damage section caused by a water main break. The project is on track to be completed within allotted contract days and approved budget.



## 2022 Facilities Parking Lot Improvements Program

The contractor began work on Monday, September 20. The pro-

gram was completed October 10 and within the contract time and budget.

Parking lots that are scheduled include the following:



Perry St. Fire Station #151  
Police Department  
Centennial Park (Burgess Pool)  
Butterfield Park Parking Lot  
PCWPF Treatment Plant

Meadows Treatment Plant  
Diamond Ridge Pump Station  
Matney Park  
Coachline Parking Lot

## 2022 Bridge Maintenance Program

ABCO was awarded the maintenance project for this year. The bridges identified for necessary repairs are the S. Wilcox over E. Plum Creek bridge and the Plum Creek Parkway over UPRR bridge. Substructure repairs, asphalt milling, repairing of bridge deck, and asphalt overlay on the S. Wilcox bridge were completed this month. The contractor also completed deck repairs on the Plum Creek Parkway bridge over UPRR this month. The project is scheduled to wrap up in the first week of November. The project is on track to be completed within contract time.



# Development Division

## Review and Permitting

**Development Review** - All 41 reviews were completed. No late reviews this month.

**Permitting & Inspection** – 22 right-of-way permits were issued.



# Transportation Planning & Traffic Engineering Division

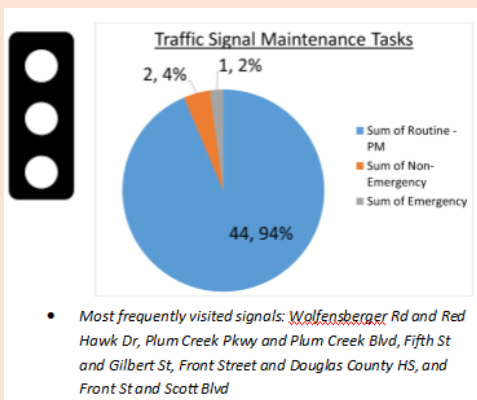
## Taxi Voucher Program

For the month of October, the Taxi Voucher Program funded 100 rides; which is a 40% decrease to last year's October total of 168 and a 6% 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 October, 18 individuals used the Taxi service. Of those individuals, 72% of the rides were for work, 18% for shopping trips, and 10% for medical appointments. Twenty-four rides were provided for people without access to a vehicle, 35 rides to seniors, and 41 rides to disabled riders.

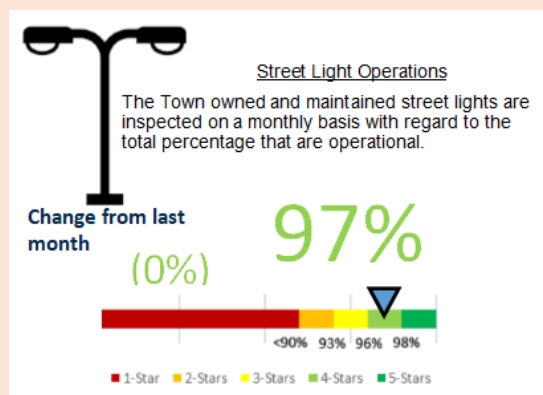
The Castle Rock Senior Center provided 889 rides in October.

## Traffic Engineering and Operations

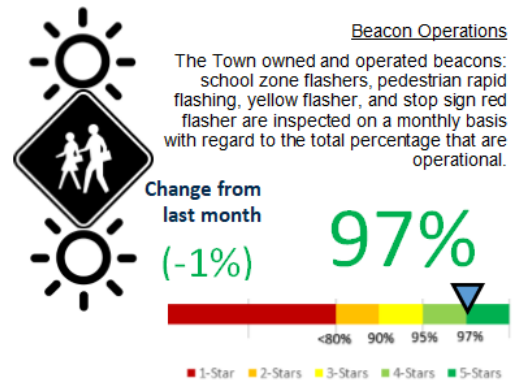
### Traffic Signal Operations and Maintenance



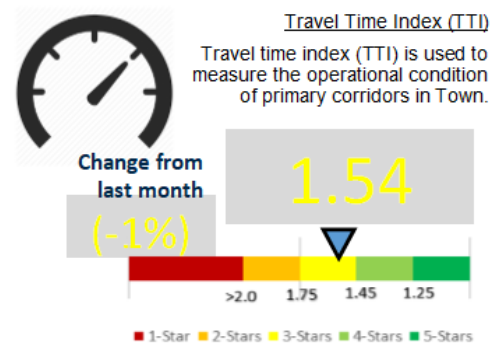
### Street Light Operations



### Beacon



### Operations



### Street Signs and Pavement Marking Maintenance

For the month of October, the team completed 707 tasks. Of these tasks, 137 of them were sign work activities related to fabrication, install, repairs, replacements, inspections and investigations. We had 226 beacon related tasks, including windshield inspections, and repairs. We did 204 tasks related to marking symbol installs and replacements. Other tasks included 14 small projects, a traffic count, two special events, and an emergency traffic control setup on Wilcox. Local street crosswalk painting is 100% complete.

### Transportation Planning

#### Castle Rock Downtown Wayfinding Sign Plan:

AECOM conducted a Downtown walk to capture existing conditions and get feedback from Town staff. The walk around also identified potential sites and destinations that could go onto future wayfinding signs. The project web page and communications plan are currently under development.

#### 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 residential collector roadways. One new inquiry was received for Valley Drive. The support petition has been returned and a speed study has been ordered. Public Works staff has in-

formed the Police Department of the complaints for any potential enforcement effort. At the November 1 Town Council meeting, staff received direction to review the current program and identify any recommended changes.

DRCOG Transportation Improvement Program (TIP):

Regional grant applications for Call #3 are currently being reviewed by the regional panel of representatives. DRCOG staff evaluated and scored the projects. The Town and Douglas County sub-region submitted the CVI project for \$8 million in funding.

## 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 continues to keep Castle Rock on the move with a very busy month of October with plenty of preventative maintenance work and preparing new vehicles for service. We completed 114 work orders and processed 129 vehicles for the month. Total output for the month was \$92,356 parts and labor billed out. Technician productivity was also very good for the month of October at 77.8%. And Fleet availability was to 96.3% which is slightly above our performance measure. Downtime did increase this month mainly due to some very large repair jobs.

Fleet technicians completed training for hybrid and electric vehicles. New snow removal dump truck for the Streets Division was put into service this month. Fleet manager Paul Colell is retiring next month and interviews are taking place to find a replacement.



New plow truck for Streets

**Objective/Benchmark:**

Complete at least 75% of our work orders

within 48-hours of coming to shop.

**Outcome:** Fleet team completed 80.5% of the work orders within 48-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. 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 96.3% of the time. This high fleet availability rate means that Town vehicles and equipment are ready when they are called upon to perform.

## Street Operations & Maintenance Division

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

- \*Mastic Repair & Crack Sealing
- \*Street Sweeping
- \*Road Shoulder Maintenance
- \*Training
- \*Bridge Painting

**Mastic Repair and Crack Sealing**

In the month of October, the Streets Division crews completed the Pre-PMP (Pavement Maintenance Program) Crack Sealing operations. These operations are in direct support of large scale PMP functions planned for early next year. The crews completed 28.91 lane miles of crack seal operations, using 26,600 lbs. of crack seal material. The crews also undertook mastic repair operations. Mastic is similar to crack seal but contains aggregate for use in larger cracks. This material provides a structural component much greater than crack seal alone. The crews put down 11,025 lbs. of material to address larger transverse cracks and areas of wide asphalt degradation.

**Street Sweeping**

The Streets Division devoted 80 hours sweeping roadways in response to various needs throughout the Town, primarily accidents, and material spills. The crews also continued the downtown morning sweeping operations intended to keep the area clean and neat. In all, 884 cubic yards of material were taken off of Town roadways and 63.61 tons were taken to the landfill for proper disposal.

**Road Shoulder Maintenance**

In October, crews mowed 92.48 edge line miles of Town roadways, as well as removed 55 bags of garbage from the verge areas. These operations support a clean and attractive appearance and work to enhance the safety of motorists needing to exit the roadway if needed.



### **Bridge Painting**

The Castle Oaks Bridge painting operation made great strides during October. All that remains are touch up and detail work which is expected to be completed in early November. The bridge was washed and painted to mitigate the effect that snow and ice operations may have on the bridge.

### **Training**

The Streets Division hosted a final seasonal plow training in October. Seeking to ensure the personnel who will be asked to plow snow are familiar with the equipment and techniques needed to help mitigate the effect snow and ice has on Town roadways. The Streets Division has also seen the addition of a good number of new team members and will work to continue to train the new personnel in the details of Town operations.

### **Looking Ahead**

November traditionally sees the beginning of the snow season as well as the Town wide sweep. Generally, the leaves don't all fall until November, so the Streets Division starts the Town wide sweep after the majority of them are on the ground. The team will also look to welcoming and training new team members, and maintaining asphalt repair operations as weather and access to materials permit.