



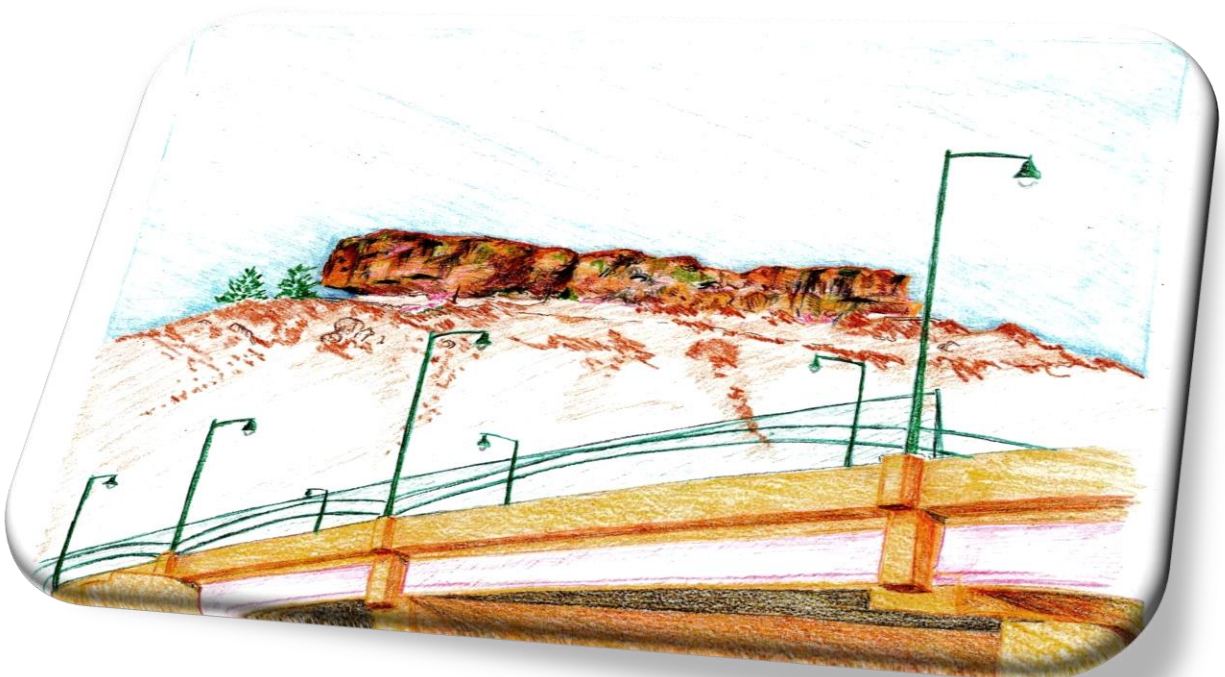
The Public Works Department operates under the CAN DO philosophy
- We are committed to doing the job right with a positive attitude
while staying dedicated to meeting the needs of our Town values
and continually searching for opportunities to improve.

PUBLIC WORKS DEPARTMENT

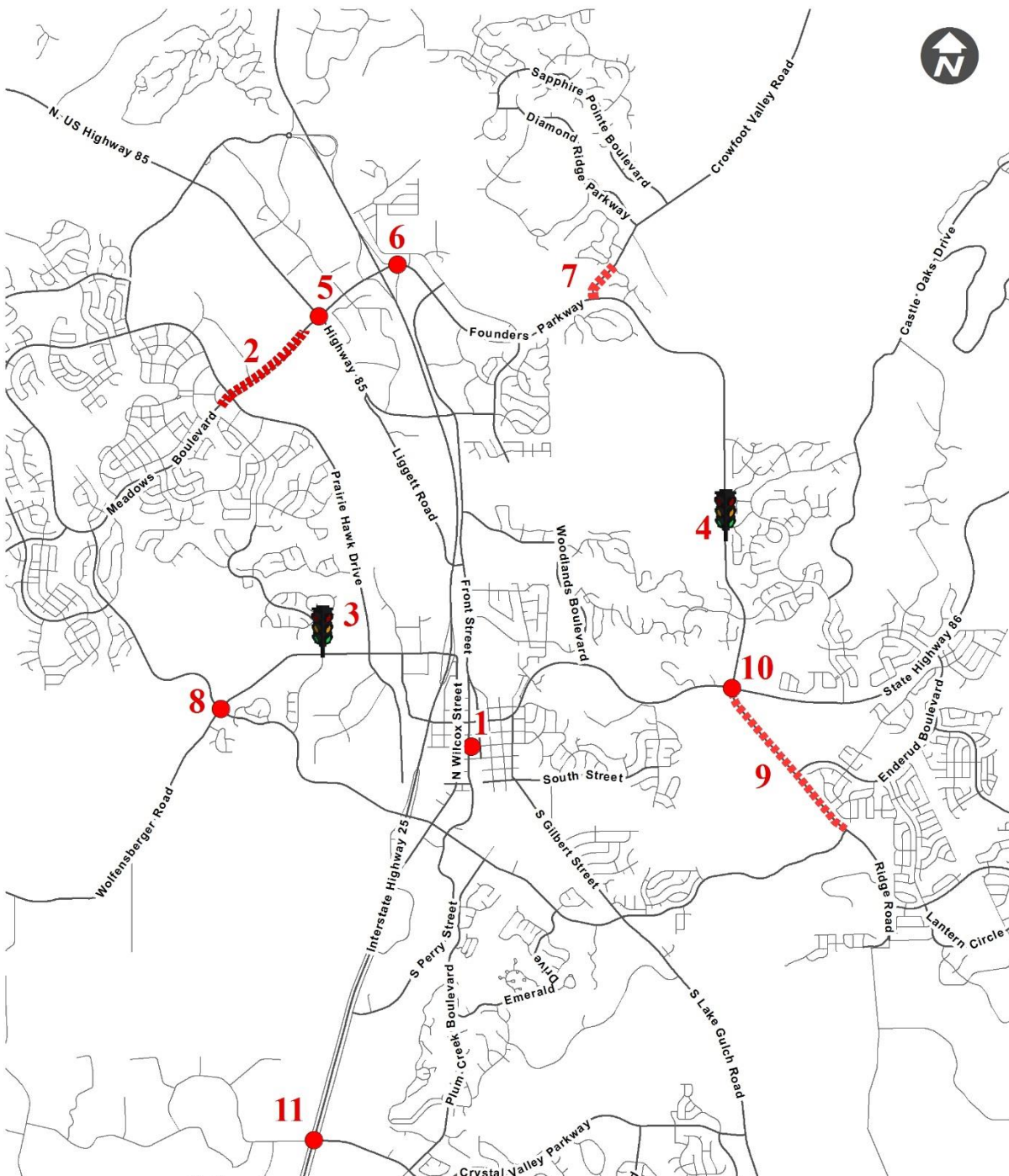


***Our Mission: To provide
outstanding service, safety
and support for
transportation infrastructure
and maintenance.***

MONTHLY REPORT – MARCH 2017



CAPITAL PROJECTS



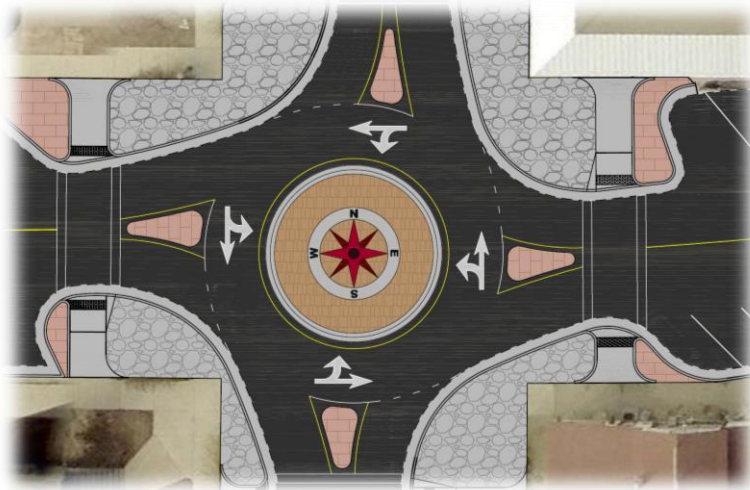
1. Roundabout at Perry Street/Third Street
2. Meadows Parkway Reconstruction
3. Traffic Signal at Wolfensberger Road/Red Hawk Drive
4. Traffic Signal at Founders Pkwy/Rising Sun Drive
5. US 85/Meadows Pkwy Intersection Improvements
6. Founders Pkwy/Allen Way Intersection Project
7. Founders Pkwy/Crowfoot Valley Road Intersection Improvements
8. Roundabout at Wolfensberger Road/Plum Creek Pkwy
9. Ridge Road Widening (SH86 to Plum Creek Pkwy)
10. SH86/Fifth Street Intersection Improvements
11. Crystal Valley Interchange (Right-of-Way Acquisition)

1. **Perry Street and 3rd Street Roundabout Project** – This project consists of a roundabout being constructed at the Perry Street/3rd Street intersection. **Phase: Design** – The following is a summary of the design activities that the contractor, Felsburg, Holt, and Ullevig, performed during this month:

- Town completed review of 90% plan submittal
- FHU worked on final revisions to the plans and specifications
- FHU submitted ideas for central island aesthetic options
- Site meeting to determine specifics for lighting circuits
- Parks Department working on landscaping plans for intersection corners as well as handling tree removal

Budget: Design: \$123,273 Construction: \$877,000

Projected Design Completion: Spring 2017 **Projected Construction Completion:** Summer 2017



2. **Meadows Parkway Reconstruction** - This improvement project will consist of the reconstruction of the existing 4-lane roadway of Meadows Parkway from the intersection of Meadows Parkway and Prairie Hawk Drive to the railroad overpass over Plum Creek near US 85. This reconstruction will also replace any broken curb/gutter, sidewalk, and also add on-street bike lanes. **Phase: Design** – Felsburg, Holt and Ullevig is the design consultant for this project. The following is a summary of the project activities that took place during this month:

- Continued working on utility and environmental clearances for CDOT
- Addressed additional CDOT comments
- Held Final Office Review (FOR) meeting with CDOT on March 20 and collected comments
- Resubmitted 100% plans to CDOT
- Council approved alternative bid/construction schedule where the project will be bid in December of 2017 and constructed in summer of 2018

Budget: \$112,385 **Projected Design Completion:** Spring 2017

*On an additional note: Under the 2017 Bridge Maintenance Program, the Meadows Parkway bridges over Plum Creek will receive an interior bridge railing upgrade and under the 2017 Asphalt Overlay and Full Depth Reclamation project, they will receive a mill and overlay treatment.

3. & 4. **Intersection Signalization Projects** – This project will complete the installation of two new traffic signals; one at the intersection of Wolfensberger Road/Red Hawk Drive; and one at the intersection of Founders Parkway/Rising Moon Drive. **Phase: Design** – The design portion of the project is now complete and the project was advertised for construction in late March. A pre-bid meeting is scheduled for April 6th and bid opening on April 20th. Construction is slated to occur over the summer. **Budget:** \$460,000 **Construction Completion:** Fall 2017

5. US85/Meadows Parkway Intersection Improvements - This project will construct a second northbound left turn lane at Meadows Parkway/US 85. **Phase: Design** - The design portion of the project to construct a second northbound left turn lane is complete. This project is expected to be bid during April. Construction is slated to occur over the summer. **Design Budget: \$107,000 Construction Completion: Fall 2017**

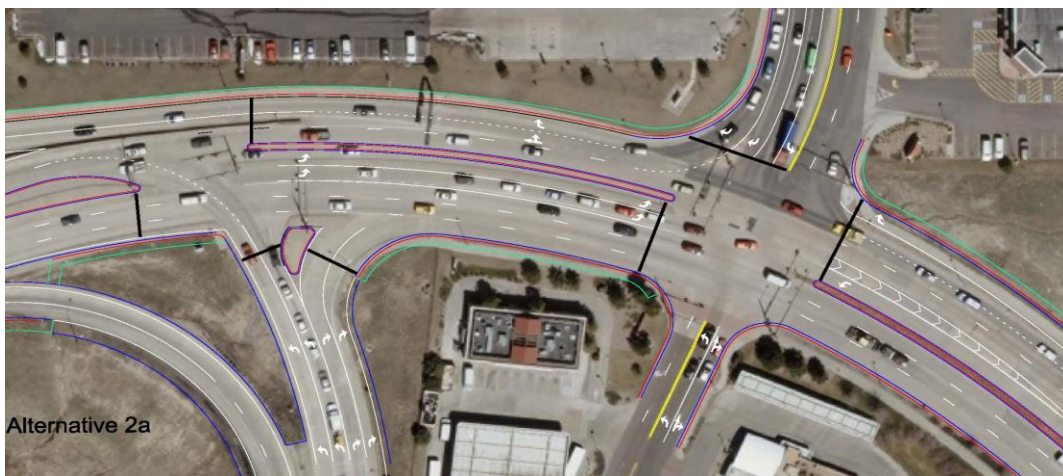
6. Founders Pkwy/Allen Way Intersection Improvement Project – This project will address the need for the following improvements:

- 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: Design & ROW Acquisition – Felsburg, Holt & Ullevig is the design consultant for this project. The following is a summary of the design activities that took place during this month:

- Initial Field Survey has been obtained, processed and delivered to FHU.
- FHU is commencing concept/preliminary design with an eye towards determining right-of-way needs to expedite acquisition if necessary.
- Traffic analysis of the proposal concept is underway.

Budget: \$760,000 Projected Design & ROW Completion: Fall 2017



Proposed Intersection Layout

7. 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

Also under evaluation and not finalized:

- Eastbound lanes added that are separated from the left turn lanes to allow the eastbound lanes to avoid stopping for the signal
- Widen Crowfoot Valley Road from Founders Parkway to Knobcone Drive

Phase: Design and ROW Acquisition – Kimley-Horn is the design consultant for this project. The following is a summary of the design activities performed this month:

- Began preliminary design for a standard intersection widening
- Met with CDOT to collect input concerning traffic analysis and alternatives

Budget: \$650,000 (2016-17) **Projected Design & ROW Completion:** Winter 2017

8. 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:** Design – A Request for Proposal was sent out to our on-call consultants on March 22nd. Proposals are due to the Project Manager on April 21st. **Budget:** \$150,000 **Projected Design Completion:** Winter 2017 **Construction:** 2018

9. 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: A Request for Proposal was sent out to our on-call consultants on March 6th. Proposals are due to the Project Manager on April 11th. **Budget:** \$400,000 **Projected Design Completion:** Winter 2017 **Construction:** 2018

10. Founders Parkway (SH86)/Fifth Street Intersection Improvements – 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 – A Request for Proposal was sent out to our on-call consultants on March 6th. Proposals are due to the Project Manager on April 11th. **Budget:** \$340,000 **Project Design Completion:** Winter 2017

11. 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 to allow for potential funding partnerships to assist with advancing construction. **Phase:** Public Works staff is in the selection process of obtaining professional services for right-of-way acquisition. **Budget:** Development Escrow

Traffic Signal System Upgrades - Phase 2 - Town staff, with assistance from the Town's maintenance contractor and vehicle detection vendors, continued work to install new equipment that will allow the observation of video detection feeds from the Town's traffic signals. This will allow staff to observe and address vehicle detection problems as they arise. In addition, staff continued with the deployment of radios to the remaining Town traffic signals yet to be installed on the Town's Ethernet based traffic signal communication network. **Budget:** \$400,000 **Construction Completion:** Spring 2017

Engineering Division

2017 Pavement Maintenance Program (PMP) - The 2017 PMP will focus its efforts in the south PMP area with additional work taking place on primary streets (Mikelson Boulevard, Black Feather Trail, Valley Drive and Wilcox Street). Town Council voted unanimously to approve all contracts at their March 7th Town Council meeting.

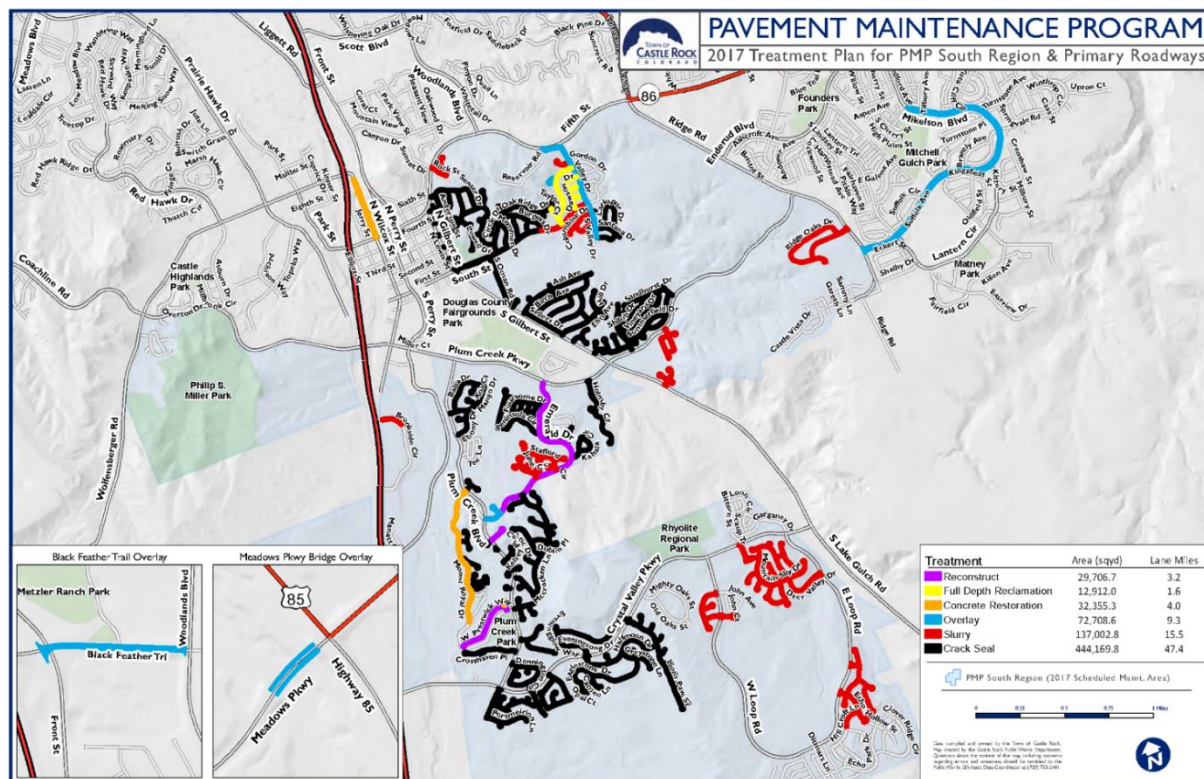
Approved contracts this year are:

- Asphalt Overlay and Full Depth Reclamation Project
- Concrete Pavement Restoration Project
- Slurry Seal Project
- Mastic and Crack Seal Project
- Curb, Gutter & Sidewalk Replacement Project
- Reconstructions (Emerald Drive, Prestwick Way, and October Place)

Notice of Award documents have been sent to the contractors and staff is preparing to review the performance and material bonds as well as the insurance documents. Staff is also setting up pre-construction meetings with several of the projects tentatively scheduled to start in April.

Public Outreach Open House is scheduled for April 5th at the Plum Creek Golf Course Club House. This open house will provide staff the opportunity to brief residents and businesses on the maintenance activities, and schedules including night work.

The PMP map (shown below) indicates the proposed scheduled treatments for streets within the South PMP area and primary streets.



The PMP team completed the scheduled condition rating of streets within the west PMP area and the primary street network. Condition rating is the evaluation of asphalt or concrete pavement; this applies a score which is utilized by the Town's pavement management software to help determine the proper pavement treatment along with staff recommendations.

2017 Facilities Parking Lot Improvements Program - The bid opening for this program is complete with the low bid coming in under budget. The process of checking and verifying the bid documents is currently underway. Staff plans to present the contract to the Town Manager in April with their recommendation to award. The scheduled parking lots for the 2017 Facilities Parking Lot Improvements Project include the following parking lots: Prairie Hawk Fire Station, Bison Park, Wrangler Park, Gemstone Park, Paintbrush Park, East Plum Creek Trail Head lot, and Castle Rock Water Headquarters.

2017 Bridge Maintenance Program (BMP) - Staff has identified the following locations for the 2017 BMP:

Bridge Repair

- Meadows Parkway Bridges over Plum Creek – Upgrade interior bridge railing
✓ Bid package was published on March 20th with a pre-bid meeting scheduled for April 4th. Bid opening will be April 11th.
- Plum Creek Parkway Bridge over the Union Pacific Railroad – Repair bridge deck, and girders
✓ Bid package was published on March 20th with a pre-bid meeting scheduled for April 4th. Bid opening will be April 11th

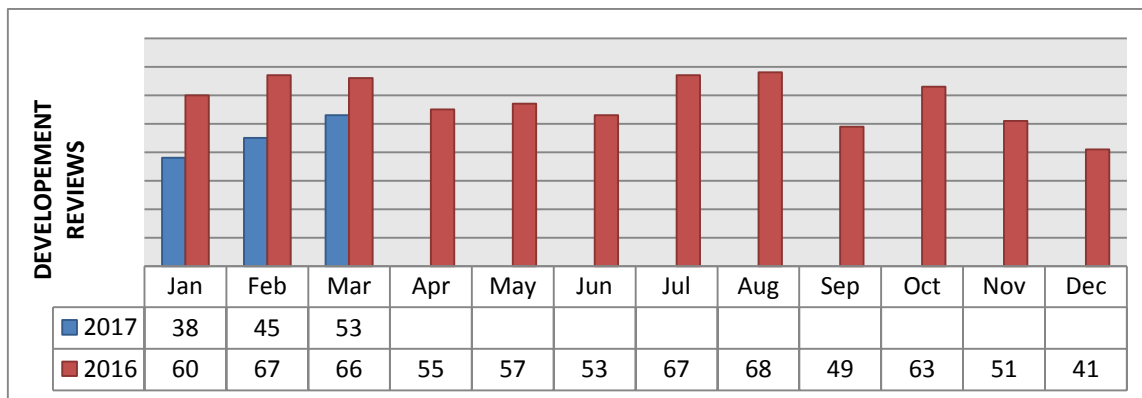
The Town has received the Maintenance Consent Letter (MCL) from the Union Pacific Railroad for both locations.

Bridge Surface Treatment

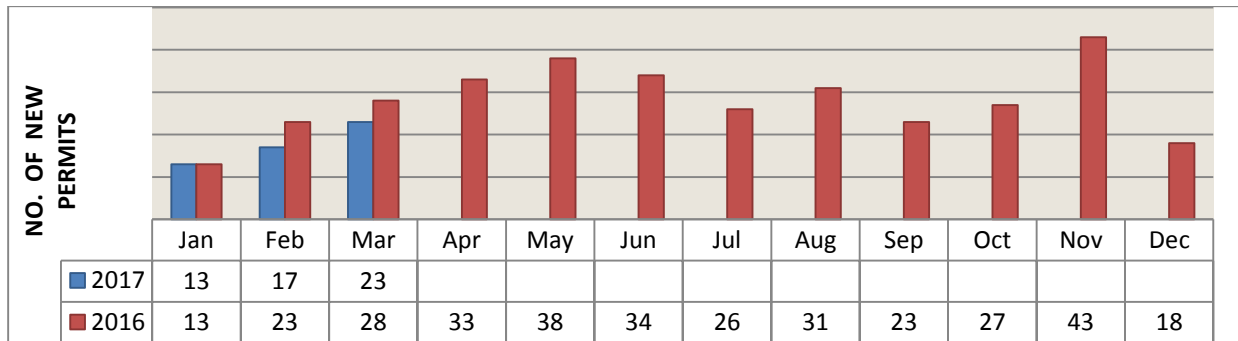
- Meadows Parkway Bridges over Plum Creek – Mill and overlay wearing surface
✓ Bid was received as part of the 2017 Asphalt Overlay and Full Depth Reclamation project and is tentatively scheduled for May 30th through June 2nd and is to be performed as night work.

Development Review and Permitting

Development Review - Included in the 53 submittals are 23 first time applications with six pre-applications. All reviews were completed on or before the due date assigned by the Development Services Project Manager.

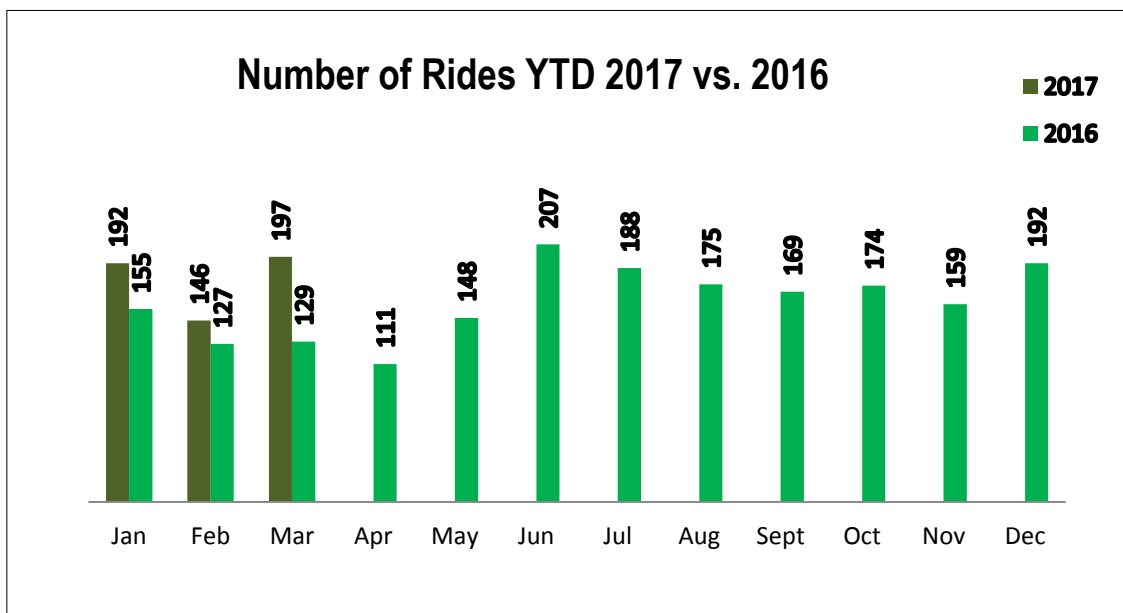


Permitting - Included in the 23 permits are: three Residential Developments (Meadows Filing 20 Lokal Homs, Terrain Phase 2 and Phase 3A); two Commercial (Promenade landscaping retaining walls, and Meadows Filing 17, Lot 8 – Storage Facility); and 18 permits for work within the public right-of-way, seven of which were necessary due to current development, and two were a pavement cuts.

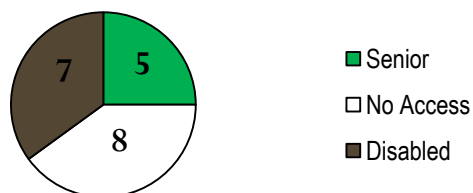


Transportation Division

Taxi Voucher – This month the Taxi Voucher Program funded 197 rides which is a 53% increase from last March’s total of 129 rides. The increase in rides is a result of more riders using the program to get to their jobs on a weekly basis and more grocery shopping related rides.

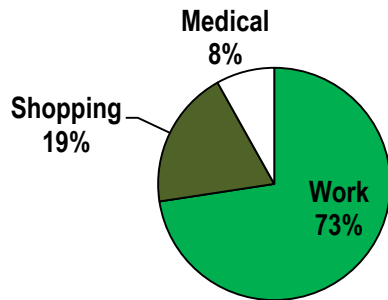


Types of Riders Using the Service

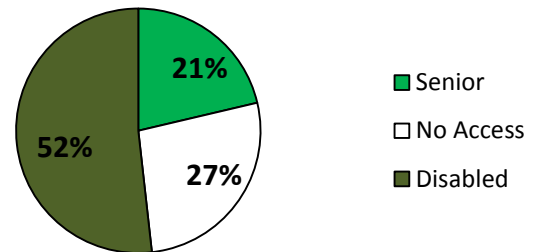


Rides are available for work, shopping or medical trips. Transportation services are provided for Castle Rock residents who are senior citizens, have a disability that prevents them from driving, or do not have access to a vehicle.

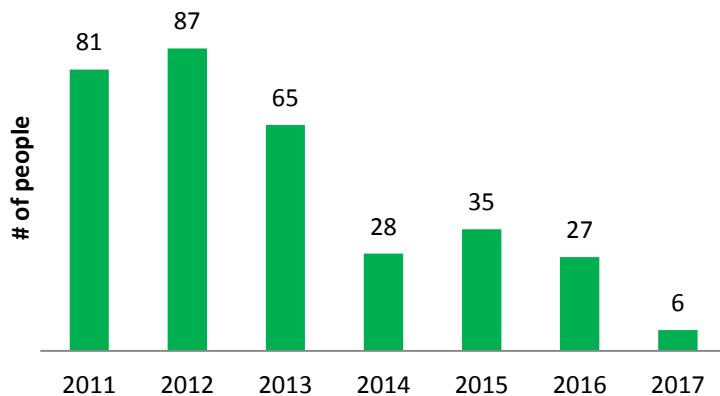
Ride Destinations



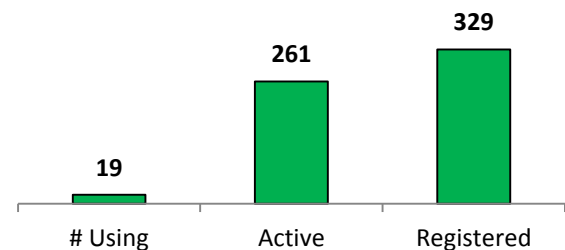
Percentage of the Total Rides (197) by Each Rider Type



Number of People Registering for Program Each Year



Number of Riders Using the Service vs. Registered



There were two new registrants for the Taxi program this month. These two individuals are needing help to get to work during the week. Since its inception, a total of 329 people have registered for the Town of Castle Rock Taxi Voucher Program. Currently 68 of these past registrants are inactive or have dropped out of the program.



Senior Center Shuttle - The Senior Center provided 747 rides in the month of March which was a 22% increase from last month's rides of 611. The volunteer driver program provides service Monday through Friday from 9 am to 3 pm.



Town Trolley - The Trolley received five sponsors this year and has already been booked for a number of events for the spring and summer. The Trolley will get to be running around town providing a fun ride for its passengers!

Traffic Engineering & Operations

Traffic Signal Operations and Maintenance - There were a total of fourteen non-routine traffic signal maintenance visits completed by either Town staff or the Town's signal maintenance contractor. Most of these visits were related to vehicle detection problems or pedestrian push button change outs. Other repairs completed were associated with LED change outs for pedestrian signal heads or vehicle signal heads.



Street Signs and Pavement Marking Maintenance - In the month of March, the Town's signs and marking technicians spent 5.25 hours delineating various areas in Town. They also spent 15 Hours installing new signs for the newly installed rectangular rapid flash beacons on Scott Boulevard near Whispering Oak Drive. Finally, the sign technicians also completed a condition inspection on over 1000 signs which is over 7% of the sign inventory in Town.

Transportation Planning

Neighborhood Traffic Calming Program (NTCP)

Updates:

- **Woodlands and Escavera:** Bids for the traffic calming plan along Saddleback, Ridgetrail and Black Pine drives have been received. The lowest bid is approximately \$40,000 which is within the current available budget for the traffic calming program. Phases 1 and 2 are planned to begin later this summer with construction being completed within a month. Residents will be notified as the start of construction nears.
- **Crimson Sky Drive:** Staff discussed the residents' concerns along Crimson Sky Drive and informed the Police Department about their concern of cars speeding at night. No additional information to report at this time.



Transportation Master Plan (TMP) Update - The project team continues to pull together all proposed transportation improvements, including roadway, bike, pedestrian and a transit items. The 2nd public open house has been schedule for Wednesday, April 19th, at the Douglas County High School starting at 6:00pm. The proposed project lists will be shared with the public at the meeting.

A stakeholder meeting with other public agencies was held during the month of March seeking initial feedback on the proposed roadway and bicycle improvements. Another presentation was given to the Douglas County Transit Solution group. Additional stakeholder meetings are planned in the coming months, including presentations to Commissions and eventually to Council in June for adoption.

Development Review -

- Staff reviewed and commented on three transportation impact studies during the month. All reports were completed by the due date.
- The site plan for the proposed Culver's restaurant in the Promenade development and the site plan for the proposed Castle Lock II self-storage facility were reviewed.
- A transportation impact study scoping meeting was held with representatives from Apex School. It will be a new charter school in the Meadows Filing 20 area, just across the street from the new community pool. The timeframe for the school was unknown at this time.



Fleet Services

"Keeping Castle Rock on the Move"



The Fleet Services Division continues to complete more work and bill out more parts and labor than the same month last year! Total labor and parts billed for the month of March 2017 was 3% higher than March 2016; The Fleet Services team worked on a total of 132 Town vehicles and equipment and billed out just under \$77,000. Staff is now working on the list of replacement and additional vehicles to order which will total over \$5.5 million in vehicle replacement funds spent for 2017.



The Fleet team also put into service two new pieces of Caterpillar equipment for Castle Rock Water, one is a **299D2 Track Skid-Steer loader** and the other is a **308E2 track drive excavator**. Both of these units will enable the Stormwater Division to increase their service level.



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

Outcome: Fleet team completed 78.5% of the work orders within 24-hours of opening repair requests or service requests. This goal was achieved while working on some very big repairs. This number shows the quick turnaround of vehicles that come into our shop for repairs.

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

Outcome: Town vehicles and equipment were available 97.8% of the time. This demonstrates a very low percentage of downtime and shows how well we are keeping Castle Rock “On the Move”.

Objective/Benchmark: Technician productivity percentage of 70% (APWA standard)

Outcome: Technician productivity was 79.5%. This was well above our benchmark and shows the Fleet Services Division is providing the most cost effective service to Town customers as possible.



Fleet Services Technician, Mac McKelvy, using a crane to remove bed on truck to be able to service the fuel pump.

Street Operations & Maintenance Division

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

- Street Sweeping
- Pothole Patching
- Snow & Ice Control
- Road Shoulder Maintenance
- Pavement Maintenance
- Equipment Maintenance
- Training
- Special Operations

Street Sweeping

During the month of March, staff performed sweeping activities following the first snow event of the month, with the goal of sweeping 40% of all the primary roadways that received de-icing material in four days. Staff met our goal and continued on to sweep 100% of primary roadways, helping to keep our waterways and the air we breathe a little cleaner.





Pothole Patching

During the month of March the SO&MD received **three requests** for pothole repairs. Staff completed each of the pothole work requests within three days of the notice. Additionally, staff diligently worked on patching potholes throughout the month. The pothole repairs took place on Enderud Boulevard, Ridge Road, Crowfoot Valley Road, Mount Royal Drive, Emerald Drive, Bear Paw Drive, Prestwick Way, Springmeadow Circle, Sungold Lane, Wildflowers Way, Bobolink Drive, Apache Creek Court, Monument Drive, Stratton Avenue, Butterfield Crossing Drive, Scott Boulevard, Wilcox Street, Perry Street, and on Coachline Road. In all, the staff completed **2,354 pothole repairs**.

Snow & Ice Control

During the month of March, staff responded to three snow events. During the first event, the Town received 4" of snow, however, due to the warm pavement temperatures any snow that accumulated on the roads melted quickly. The second event delivered 6" and was a little more difficult in the higher elevations of Town. Roadways in the high elevations had 2-3" of snow and slush on them during the morning commute and the lower elevations only had about 1" of slush. The third event brought about 3" of snowfall and once again melted on the roadways about as fast as it was falling. During each event, the staff responded quickly and completed the operations ahead of our 8-hour service goal.

Road Shoulder Maintenance

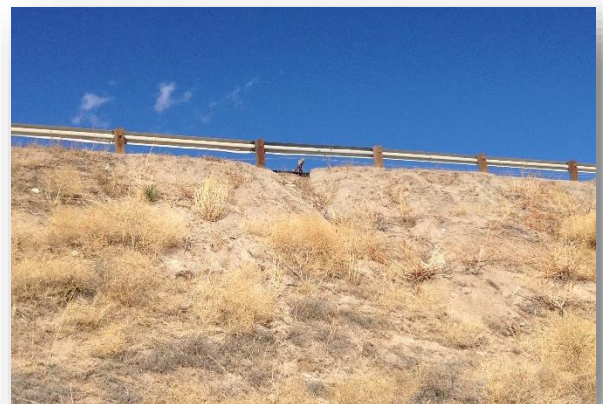
During the month of March, staff continued our road shoulder grading operations at four different locations. Grading and backfill operations were completed on Old Front Street, a large wash out on Fifth Street above Valley Drive, and drainage ditches on Diamond Ridge Parkway and Plum Creek Parkway were repaired.

Pavement Maintenance

Staff performed milling operations on Factory Shops Boulevard just north of the intersection with Meadows Parkway. The operations were quite extensive and had to be completed at night due to the high traffic volumes through the area.

Equipment Maintenance

Staff performed a lot of equipment maintenance on all of the dump trucks after each snow event, and other maintenance on various pieces of equipment in our fleet. In all, the staff completed 94 work requests during the month.





Training

Staff provided some hands-on training to several of our employees on the backhoe and street sweepers. Additionally, eight staff members attended a Colorado Road Scholars LTAP training class on 'Signing, Pavement Marking & the MUTCD'.

Special Operations

Staff responded to eight special operation requests that ranged from dead animal clean up, trash removal along Allen Street, and assisting with the clean-up of a large fuel spill off of Allen Street. Also, staff assisted the Parks Department with a welding project for park benches.

Looking Ahead

During the month of **April**, the Streets Operations & Maintenance Division crews will continue our pothole patching, road shoulder operations as needed, and will start on our crack sealing operations in the West Meadows area, weather permitting.

