



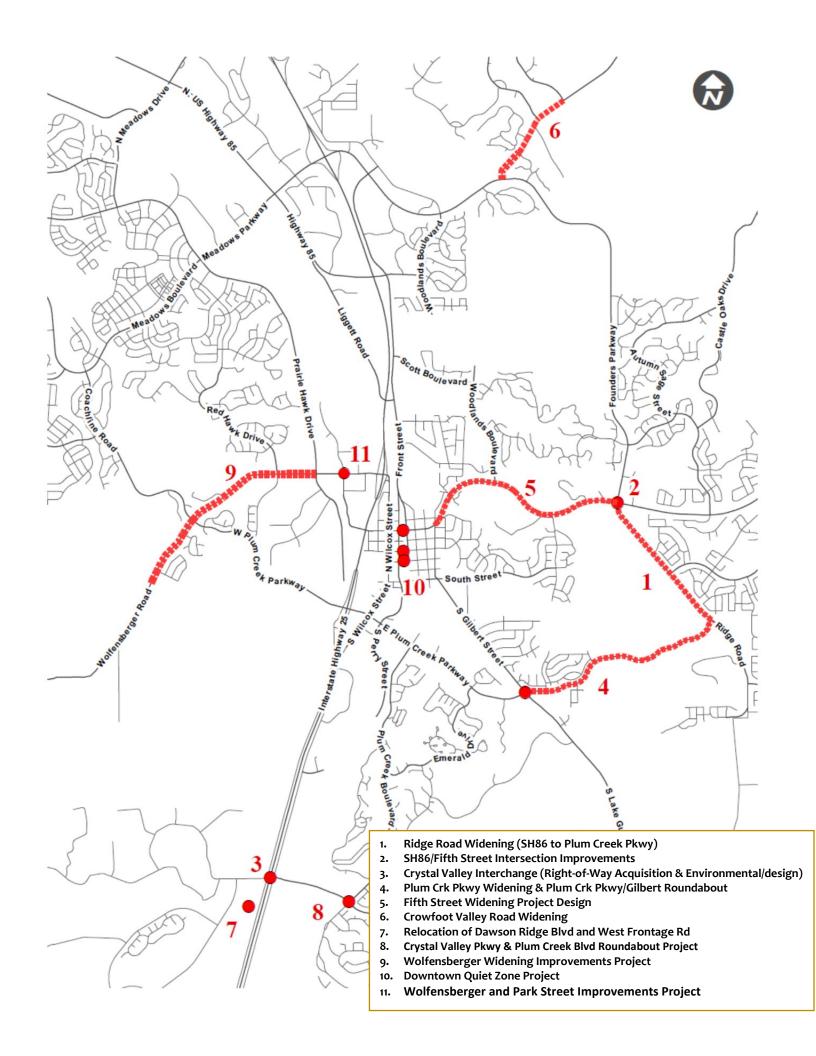
Monthly Report

February 2023

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.





 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 TESC BMPs

Winter ShutdownBudget: \$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 4.
 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:

- DEA revised and re-sent PS&E package to CDOT for review
- Once revisions are accepted by CDOT, set will be sent to FHWA
- All utility relocates have been completed, protect in place is all that remains for dry utilities
- Working on long lead item submittal for signal poles due to 9-month lead time

Budget: \$1,275,676, with DRCOG Grant Reimbursement **Targeted Construction Completion:** Winter 2023-2024

3. <u>Crystal Valley Interchange – Pre-construction Activities –</u>
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

- West Side of I-25 The Town will begin the Notice of Intent (NOI) process and make offer to the new owners of all remaining parcels to be acquired; Westside Investments has purchased all remaining parcels to be acquired from Douglas County Development Company and the MSP Corporation
- East Side of I-25 NOI has been sent to the Hyperion Property owner; the Town has completed the full take appraisal of the Hyperion property; Hyperion property owner is electing to have an appraisal done; ownership of the Dawson Ridge Metro District

parcel has been transferred to the Douglas County Development Company; Town is in the process of preparing a NOI and offer

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

- 90% design plans submitted for staff review
- CMGC contractor working on final CAP costs by 4/11 for Package 1
- Design firm continues working on design for package 1 and package 2
- Environmental/NEPA working with Army Corps for jurisdictional permitting
- Maintenance agreement with CDOT draft submitted for Town review – still pending drainage/water quality items; Town has provided initial comments

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

Design Completion: Summer 2023

Targeted Construction Completion: Summer 2025

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 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:

- Continued installation of the block retaining wall
- Continue the maintenance of erosion control
- Continued the installation of headwall for storm drain
- Completed the relocation of utilities
- Continued 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

Completed 90%/FOR design

Working on right of way acquisition legal descriptions

Budget: \$1,500,000

Design Completion: February 2023 **Right-of-way acquisition:** Fall 2023

Targeted Construction Completion: 2024-2025

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 fourlane section, including painted median/turn lanes, with bike lanes in both directions.

Phase: Design-

IGA with Douglas County in review, for funding on 4/18
 Town Council agenda; 4/6 Pubic Works Commission

 Design proposals due 3/10 from consultants; review for selection by 3/27

Budget: \$2,500,000 (Town contribution to construction

funding; IGA to be executed with County)

ROW Acquisition: Late 2023 **Design Completion:** Fall 2023

Targeted Construction Completion: Fall 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:

Bid documents are in review with Town

Value engineering conducted to reduce costs

Budget: \$299,000

Design Completion: Fall 2022

Targeted Construction Completion: Summer of 2025 in

conjunction with Crystal Valley Interchange

8. <u>Crystal Valley Pkwy & Plum Creek Blvd Roundabout Project</u>

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: Design100% Complete

Phase – Construction

- Construction phasing plans approved
- KNA procured property for material stockpile
- Completed initial permitting process for the project

Budget: \$3,500,000

Targeted Construction Completion: Summer 2023

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 Wolfensberger 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

- Ongoing design work with adjacent developers to accommodate and incorporate their ingress/egress into project design
- Design efforts to utilize existing Town property for stormwater improvements ongoing
- · Utility coordination meetings with CORE and CRW on-

going

• 30% Design submittal scheduled for end of April 2023

Budget: \$2,500,000

Design Completion: October 2023 **Right of Way Acquisition:** 2023

Targeted Construction Completion: 2024

10. <u>Downtown Quiet Zone Project</u> - 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:

- Coordinating construction impacts (closures) with project stakeholders/community
- Widened crossing widths (concrete landings) at Second and Third Street

Budget: \$1,800,000

Targeted Construction Completion: Spring 2023

11. Wolfensberger and Park Street 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 Wolfensberger and Park Street have been identified to increase intersection operations and provide better pedestrian access to the Downtown area.

The Wolfensberger and Park Street Improvements Project will complete all design elements for the implementation of pedestrian and transportation improvements.

- Relocate Traffic Signal Pole
- Increase sidewalk width
- Replace existing ADA ramps
- Construct Additional Turn lane on Park Street

Phase- Planning/Design

- Utility coordination meetings with CORE and Comcast ongoing
- 90% Design submittal scheduled for end of April 2023

Budget: \$600,000

Design Completion: April 2023

Right of Way Acquisition: April-May 2023

Construction: June 2023

<u>Traffic Signal System Upgrades</u> – 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 has implemented adaptive signal timing on
 Founders Parkway, and Meadows Parkway, and Factory
 Shops Boulevard. Eight abutting Town signals are included in
 the system. In mid-February, the Kadence system was
 turned on for regular time periods. Traffic speeds have been
 faster than normal with the system operating. Kimley-Horn
 and CDOT have also worked quickly to resolve any issues
 that arise. Staff will continue to monitor speeds, delays, and
 driver issues.
- Phase II of the Town's ATSPM project includes software development and signal timing. New, longer cycle length timing plans for each corridor during in the PM peak hour has been implemented for March. ATSPM dashboard is scheduled to be released in early March 2023.
- Town staff have received three new traffic signal cabinets and four new detection systems as part of inventory and replacement maintenance. The last two intersection's new detection orders will be made in 2023 as a part of a five year replacement project. Two sets of inventory detection will be ordered for emergency maintenance purposes.
- The Town received notice that we were awarded Connected Vehicle hardware (10 roadside units, 10 onboard units) from CDOT's Division of Innovation and Mobility Division. This was a first year in-kind grant program where CDOT will share their expertise and hardware with local agencies for project implementation. Further project scope and schedule will be determined when Town and CDOT staff have an initial scoping meeting next month. The Town's project will focus on messaging intersection safety and driver awareness of operations and maintenance.

Budget: \$868,700

Construction Completion: End of year 2023

2023 Safety Projects – This project includes concrete safety devices in conjunction with the Pavement Maintenance Program, installation of pedestrian crossing beacons at four locations, Intelligent Transportation System on Meadows Blvd to warn drivers of signal changes, intersection safety improvements, and missing sidewalk connections.

- Town staff selected KRM Concrete to complete the concrete work due to their past work performance and competitive bid.
- A public feedback plan has been conceived and residents will have until mid-April to submit feedback on the project.

Budget: \$410,000

Construction Completion: Winter 2023

Illuminated Street Name Signs – 2023 illuminated street name signs have begun the planning and purchase order process for four locations throughout the Town budget depending, including: Founders Pkwy and Copper Cloud, Founders Pkwy and Ridge Road (Four Corners), Wolfensberger and Park St, and Wolfensberger and Caprice.

 CDOT will be re-wiring the entire signal intersection at Meadows Pkwy and Hwy 85. This project will create a power feed for two remaining unlit signs. This project will also bring the street lights currently owned by CDOT into Town operation and maintenance along Meadows Parkway and US-85 north of Meadows Parkway.

 2022 Illuminated street name signs have been purchased and staff are awaiting delivery for five locations across Town, including: Plum Creek Pkwy and Plum Creek Blvd, Plum Creek Pkwy and Perry St, Founders Pkwy and Front St, Wilcox St and I25 northbound, and Wolfensberger and I25 southbound.

2022 Budget: \$39,105

Construction Completion: Spring 2023

2023 Budget: \$60,000

Construction Completion: Winter 2023

Rectangular Rapid Flashing Beacons (RRFB) — Town staff are currently in the process of selecting four locations budget depending to install RRFBs in 2023. The RRFBs will be installed in locations in which they are the most effective and beneficial to the traveling public. Equipment order will be made by the first week of March.

2023 Total Safety Budget: \$90,000 **Construction Completion:** Summer 2023



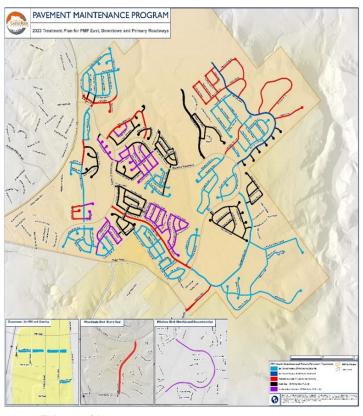
2023 Pavement Maintenance Program (PMP)

Five (5) project bid packages were opened January 19. The 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. The staff will also begin the process of contract award recommendations.

2023 PMP Contracts under consideration are:

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

The PMP map (shown next column) indicates the proposed scheduled treatments for streets within the East PMP area and Primary Streets. This map may change based on maintenance treatments and resources available.



2023 Facilities Parking Lot Improvements Program

The project bid openings were completed on January 19. The staff is in the process of evaluating bids submitted, prior to contract award recommendations. This process includes checking and verifying all bid proposals and contractor references.

Facilities under recommendation for 2023 are:

Founder's Fire Station #153 Gemston
Prairie Hawk Fire Station #154 Ray Wate
Wrangler Park Parking Lot Founder'
Weaver II Well Field Bison Pal
Butterfield Park (Concrete off Meadows Blvd)

Gemstone Park Parking Lot Ray Waterman Treatment Plant Founder's Treatment Plant Bison Park Parking Lot

2023 Bridge Maintenance Program (BMP)

The staff is working with a bridge consultant for 2023 Bridge Maintenance and will be supporting the Engineering Division. The consultant has delivered a Bridge Program maintenance schedule for planning, design and maintenance activity recommendations for the Plum Creek Parkway over Sellars Gulch Bridge (CAS PLMCKPW-.1). The staff is working to secure a new service agreement with the contractor. This project is expected to go out for competitive bids in the Spring, with construction beginning late Summer/early Fall.

Development Division

Review and Permitting

Development Review - All 38 reviews were completed. No late reviews this month.

Permitting & Inspection – 21 right-of-way permits were issued.

Transportation Planning & Traffic Engineering Division

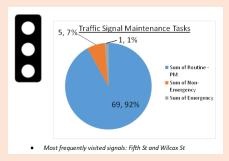
Taxi Voucher Program

For the month of February, the Taxi Voucher Program funded 147 rides; which is a 17% increase to last year's February total of 122 and a 1% 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 February, 23 individuals used the Taxi service. Of those individuals, 65% of the rides were for work, 21% for shopping trips, and 14% for medical appointments. Sixty-seven rides were provided for people without access to a vehicle, 40 rides to seniors, and 40 rides to disabled riders.

The Castle Rock Senior Center provided a total of 753 rides in February.

Traffic Engineering and Operations

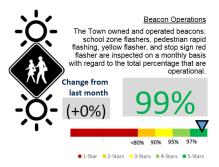
Traffic Signal Operations and Maintenance



Street Light Operations



Beacon



Operations



Street Signs and Pavement Marking Maintenance

For the month of February, the team completed 495 tasks. Of these tasks, 189 of them were sign work activities related to fabrication, install, repairs, replacements, inspections and investigations. We had 246 beacon related tasks, including windshield inspections, and repairs. Other tasks included 16 small projects, three locates, two core drilling tasks, and one liquor license posting, and 38 admin tasks.

Repairs for the Pavement Maintenance Program East and Downtown Development Authority sign inspections are almost completed and the change out of street name signs to blue has begun. The team participated in several snow events this month as well.

Transportation Planning

Castle Rock Downtown Wayfinding Sign Plan:

The Observations and Recommendations Report was released for comments in February. The project team reviewed the report and provided comments back to the consultant to finalize the report. The technical team also met with the design team and discussed in more detail colors and materials for the signs. The design team will rely on this guidance as they develop concept plans for the different sign types. These concepts will be reviewed in March.

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. No new inquiries were received in February. Speed and volume data have been collected for Valley Drive, Black Pine Trail, and N. Meadows in February.

ary. The data is currently under review. Town Council provided direction on proposed amendments to the NTCP and staff will be processing the policy changes before coming back to Council for final approval.

<u>DRCOG Transportation Improvement Program (TIP) & Federal Grant Applications:</u>

The Crystal Valley Interchange (CVI) TIP grant application was reviewed and scored by the Sub-regional Working Group and recommended for \$8.5 million. The recommendation will be presented to the Sub-regional Steering Committee on March 1st. The Committee's final recommendations will be presented to the DRCOG Board later this summer for final approval. The Town is still awaiting news on what projects were selected by the Federal Rail Administration for the elimination of at grade crossings grant. Staff also submitted the CVI project to the 2023 RAISE grant program requesting \$18 million.



Keeping Castle Rock on the Move







Staff Updates:

- Emmi Whittaker joined the Fleet team as our Parts and Supply Specialist. She comes from Enterprise Rental as their Parts Specialist and Service Technician. Fleet staffing is currently 89%.
- Maxwell Walter and Ryan Stevens passed their CDL exams and received learners permits. Both will perform training to test and receive their permanent license. Eric Dena renewed his CDL license.

Shop Operations:

- We are excited to restart The Fleet Advisory Committee.
 Departments will meet with Fleet to discuss Fleet issues.
 The first meeting will be on Wednesday, March 8, 2023.
- Fleet is exploring in house up fit options to support the new vehicle in services. Add-on equipment cost estimates have risen 60% from last year from our primary vendor. We are working hard to establish suppliers and obtain estimates.

Asset Availability:

- The overall Fleet availability for all departments in February was 96%. Higher than normal storm events this year has our technicians busy keeping the Streets Division snow plows on the road. Street vehicle availability was still 94% in February.
- The Police Department availability was lower than usual in February at 93%. They had 40 works orders closed during this period for 31 vehicles. Five of those vehicles were new vehicles added to their Fleet. Vendor warranty repairs were required for four vehicles that took longer to repair. Down-

- time did increase this month mainly due to higher than normal repair jobs.
- There are 506 total active assets in the Fleet valued at \$76,262,500. Five new assets were added in February.
- 2023 model years are starting to become available through Ford and Chevrolet. Two new police vehicles are expected in March. Another 14 vehicles have gone to production. Many of these are expected to have a micro chip hold put on them.

Shop Productivity:

- The Fleet Division completed 114 work orders for 92 vehicles in February. We had an unusually high number of repairs this month at 244 for these 92 vehicles.
- Technician productivity was also higher than normal at 80% given the increased work load and high number of repairs.

Fuel Usage:

- The Town consumed 13,600 gallons of fuel in February. Diesel fuel used was 4119 gallon and unleaded used was 9,480 gallons. Diesel fuel cost is .02 cents lower from January at \$4.14 a gallon. Unleaded fuel cost are up .78 cents per gallon to \$3.28 in January.
- We have not experienced any fuel shortages or delays due to the Suncore Plant closure.

Parts Usage:

- The parts department issued 1063 parts at a cost of \$19,741 in February.
- 91% of the total issued parts came from our inventory.

Objective/Benchmark: Complete at least 75% of our work orders within 48-hours of coming to shop.

Outcome: Fleet team completed 67% 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 objective fell short of our goal because of the high number of repairs we had for the month.

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

Outcome: Town vehicles and equipment were available 96% 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 80%. This productivity number indicates how often the technician is performing direct labor on work orders during their available time.

Street Operations

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

- *Snow and Ice Control
- *Equipment Maintenance
- *Asphalt Pothole Repair
- *Ice Breaking Operations *Special Operations

Snow and Ice Control

February brought only two storms to the area totaling about 6.5 inches. In spite of the low number of storms, over 824 labor hours needed to keep the roadways passable.

Roadway Icebreaking

In the limited amount of time between snowstorms and the Town wide special Operations, crews worked 498 hours inspecting and mitigating ice concerns all over Town. These operations work to clear ice from the roadway as well as clear the road to the gutter to reestablish drainage. This operation was placed on a short hold in order to undertake the special operation to clear the snowpack from residential roads. Ice breaking was immediately resumed after the special operation was complete. The crews managed to clear 12,663 linear feet of ice during the month.

Special Operations

Due to the lingering snowpack, which is very uncharacteristic of the Front Range, the crew undertook an emergency special operation to remove snow pack as deep as six inches from all residential roadways in Town. The primary focus of this operation was to inspect and/or clear the travel lanes of the road in order to facilitate vehicular travel and promote roadway melting on 460 lane miles of residential roadways. The snow and ice was not cleared to the gutter, as it is during normal ice breaking operations due to the pressing need to open the travel lanes. The division mobilized five front-end loaders and three motor graders as well as support from two heavy equipment contractor crews. This operation was completed in just over a week and a half with Town crews working 688 hours to clear the travel lanes of the snowpack and allow melting to resume.

Equipment Maintenance

The crews 138 hours maintaining equipment needed for the operations undertaken. Snow, and ice breaking are exceptionally hard on machinery and consume wear parts such as blade bits very quickly. Given the large amount of ice scraping done during this month the crew proved to be very efficient when these maintenance activities were needed.

Asphalt Pothole repair

Toward the end of February, the crew was able to begin pothole

repair operations. The two periods of extreme cold this season has resulted in a large number of potholes and the crew has responded by aggressively targeting these needed repairs. The primary focus is to fill potholes with cold mix asphalt until more permanent repairs are possible when the hot mix asphalt plants open back up. The crews spent 191 hours working to repair 444 potholes all over Town.

March is traditionally the snowiest month for the Castle Rock area, as such the Streets Division will keep maintaining readiness to respond to the snow events that come to Town. Potholing and Asphalt repair are also a very high priority as the detrimental effects of the freeze thaw cycle show themselves.