



# Monthly Report

February 2024

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.





### 1. Founders Parkway (SH86)/Fifth Street Intersection “Four Corners” Improvements

– This project will enhance one of the primary intersections in Town. Founders Parkway, SH-86, Ridge Road and Fifth Street intersect at the project location. Each leg of the intersection is classified as a major arterial facility and the intersection is currently operating above its capacity. The improvements this project will implement 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: Construction

- Construction continues in the SW and SE quadrants of the intersection.
- Soil nail wall is in and preparations for cast in place fascia are underway
- Excavation for MSE wall on northside of Fifth Street. Leveling pad to be poured first week of March
- Aloha entrance has been reconstructed and reopened. Permanent paving will take place in May
- Fire hydrant on Founders Parkway was extended and all storm inlets have been installed. Water line for Bader Ct and storm crossing on Fifth Street will be installed week of 3/4

**Budget:** \$12,400,000 total funding

**\*Targeted Construction Completion:** Q4 2024

### 2. 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: Construction—Package 1

- Package 1 was approved and the Notice to Proceed (NTP) was executed with construction start date of 3/1/2024
- Week of March 4, will include all approved signage for the project as well as mobilization for Kraemer crews/equipment
- Community outreach will be provided for the closure of the Plum Creek Trail.
- Outreach for public regarding project will be released once earth moving operations begin.

**Budget:** \$17,196,090.70

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

#### Package 2

- Construction contractor and ICE contractor are scheduled to submit initial Construction Agreed Price (CAP) on March 8.
- Anticipating approaching Public Works Commission on

the May 6 meeting, and Town Council during May 7 with a construction contract for Package 2.

- Maintenance IGA is being revised by CDOT to incorporate Town comments. Anticipating to submit for Town Manager approval in March 2024.
- BNSF Construction and Maintenance agreement is being finalized and scheduled to be presented to Town Council in May.

**Budget:** \$7,580,000 total funding

**Design Completion:** Spring of 2024

**Targeted Construction Completion:** Spring 2027

### 3. Fifth Street Widening—Pre-construction

– 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 & ROW

- Began preparing offers for 3 property owners (appraisals complete)
- Continued appraisal research related to property acquisitions
- Held meetings with a number of land owners along the project corridor to discuss property acquisitions
- Identified phasing solution, and began developing design scope of work to break project into 2 phases

**Budget:** \$2,700,000 total funding

**Design Completion:** Spring 2024

**Right-of-way acquisition:** 2024

**\*Targeted Construction Completion:** 2027

### 4. Crowfoot Valley Road Widening

– This project involves the widening of Crowfoot Valley Road from the intersection of Knobcone Drive to the Town boundary. The objective of this project is to reduce congestion due to current and forecasted traffic volumes, as well as safety improvements for both vehicles and pedestrians alike. The project will include:

- Roadway widening to four through lanes
- Right and left turn auxiliary lanes where warranted
- Signal at Sapphire Pointe intersection
- Complete sidewalks throughout the project corridor

#### Phase: Design

- Progressed design from 40% to 60% completion
- Began manufacturing traffic signal poles for the Sap-

phire Pointe intersection

- Identified project property interests (acquisition needs)
- Town Council approved first reading regarding general authorization for property acquisitions (eminent domain ordinance)
- Continued development of CORE Electric designs

**Budget:** \$810,000 total funding

**ROW Acquisition:** 2024

**Design Completion:** 2024

**\*Targeted Construction Completion:** Summer 2025

**5. 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:

- Plans and bid package are being finalized
- Town is making final comments on the management agreement with Dawson Trails Metro District for the construction of Dawson Trails Blvd.
- Anticipate approaching the Public Works Commission on April 1 and Town Council on April 2 requesting approval of the management agreement.

**Budget:** \$299,000 total funding

**Design Completion:** Spring 2024

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

**6. 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 buildout 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
- Stormwater drainage improvements
- Implementation of on street bike lanes West/East bound

**Phase: Planning/Design**

- Right of Way acquisition will commence in 2024.
- Acquisition of Permanent Right of Way only
- Easements will be acquired once project design is resumed
- Task order being processed for acquisition services with

Western States

- Task order has been approved for survey services with Bohannon Huston Inc. Notice to proceed will be issued following pre construction meeting.
- Service agreement have been executed with Kilty and Company for Land Appraisal Services. Notice to proceed will be issued following a precon.

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

**Design Completion:** TBD

**Right of Way Acquisition:** 2024

**\*Targeted Construction Completion:** TBD

**7. 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:

- Constructed a portion of new gate systems for Second and Third Street crossings
- Planning and coordination with Union Pacific for spring final mobilization to complete remaining construction work

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

**Targeted Construction Completion:** Summer 2024

**8. 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– Construction**

- Construction Contract with TechCON will be presented to Public Work Commission on 3/4
- Resolution for construction contract with TechCON will be presented to Town Council on 3/19
- Construction is anticipated to start in April/May timeframe

**Budget:** \$972,000

**Anticipated Construction:** Summer 2024

**9. Downtown Pedestrian Lighting Project**—This is a project to install pedestrian lights within the Downtown area as budget allows. This project plans to improve public safety, visibility, mobility, and access to destinations Downtown by installing new pedestrian light fixtures to increase lighting levels.

- Final plans, specifications, and cost estimate received from consultant and sent to CDOT. CDOT submitted comment to include survey tabulations, which will be addressed by consultant before sending to FHWA.

**Budget:** \$600,000

**Construction Completion:** End of year 2024

*\*These schedules are subject to change based on adjusted revenue fore-casts and results of bids received.*

**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 daily operations, and for communications between the center and each intersection.

- Staff is partnering with CDOT on the managed, adaptive signal system project that has implemented adaptive signal timing on Founders Parkway, Meadows Parkway, and Factory Shops Boulevard. Eight abutting Town signals are included in the system. There is no new update on this project. CDOT has had staff turnover that has paused this project. The Kadence system is continuing to be monitored and inquiries are sent to CDOT for adjustments.
- Phase II of the Town’s ATSPM project includes software development and signal timing. ATSPM Dashboard training was completed with the consultant and CDOT staff. Final draft of the Traffic Signal Management Plan has been accepted by the Town. Additionally, the final acceptance plan, ATSPM configuration plan, and Traction Metrics documentation has been reviewed by the Town and accepted by the Town. The tasks outlined in the final acceptance plan determine final project acceptance and project closeout.
- The Town is awaiting a draft IGA from CDOT for Connected Vehicle hardware. The project is delayed due to year end priorities at CDOT. Once executed, this two-year project will kickoff in earnest. The Town’s project scope focuses on messaging intersection safety and driver awareness of operations and maintenance at high crash locations using connected vehicle technology. CDOT sent an updated Scope of Work for Town review. The current project timeline is April 1, 2024 to April 1, 2026

**Budget:** \$868,700

**Targeted Construction Completion:** End of year 2024

**2023 Safety Projects** – This project includes concrete safety devices in conjunction with the Pavement Maintenance Program, installation of pedestrian crossing beacons at six locations, Intelligent Transportation System (ITS) on Meadows Blvd to warn drivers of signal changes and queue awareness, intersection

safety improvements, and missing sidewalk connections.

- Quotes have been received for the Limelight ITS system. Once final design details are completed, a PO will be requested for the queue warning system construction.

**Budget:** \$194,000

**Construction Completion:** Fall 2024

**Illuminated Street Name Signs** – All the 2022 and 2023 illuminated street name signs and hardware have been received by the Town. Staff is coordinating installation in partnership with an on-call contractor. Sign locations include: Founders Pkwy and Rising Sun, Founders Pkwy and Ridge Road (Four Corners), Wolfensberger and Park St, and Wolfensberger and Caprice.

- The project will be paused in 2024 due to Town budget constraints

**Budget:** \$73,582

**Construction Completion:** Spring 2024

**Rectangular Rapid Flashing Beacons (RRFB)** – Town staff has completed the installation of the 2023 RRFBs at six locations. Locations have been identified for the 2024 project, including three existing roundabouts with pedestrian crossings. In January, the Town received a quote for hardware and the procurement process was begun.

**Budget:** \$216,000

**Construction Completion:** Fall 2024

**Downtown Pedestrian Lighting Project** – This is a project to install pedestrian lights within the Downtown area as budget allows. This project plans to improve public safety, visibility, mobility, and access to Downtown destinations by installing new pedestrian light fixtures to increase lighting levels.

- Consultant (Olsson) has updated and sent final plans per CDOT’s comments. Once accepted by CDOT, the plans will be submitted for FHWA approval. Anticipated advertisement in April 2024 with summer construction. Project must be bid by July and completed by December.

**Budget:** \$600,000

**Construction Completion:** End of year 2024

**Safe Streets for All (SS4A) Safety Action Plan** – The Town was awarded a SS4A grant to create a Local Road Safety Plan (LRSP). The plan aims to expand on the biannual Crash Facts Report to identify areas with a high potential for crash reduction and prioritize these areas by way of a total system analysis. Fehr & Peers (F&P) was selected as the consultant in Fall 2023.

- In February, F&P continued the process of analyzing data as part of the total system analysis, and their sub-consultant completed Phase 1 of the communication plan.
- In March, staff plans to review initial recommendations with project stakeholders.
- The draft plan is scheduled for completion in June.

**Budget:** \$300,000

**Plan Completion:** Fall 2024

# Engineering Division

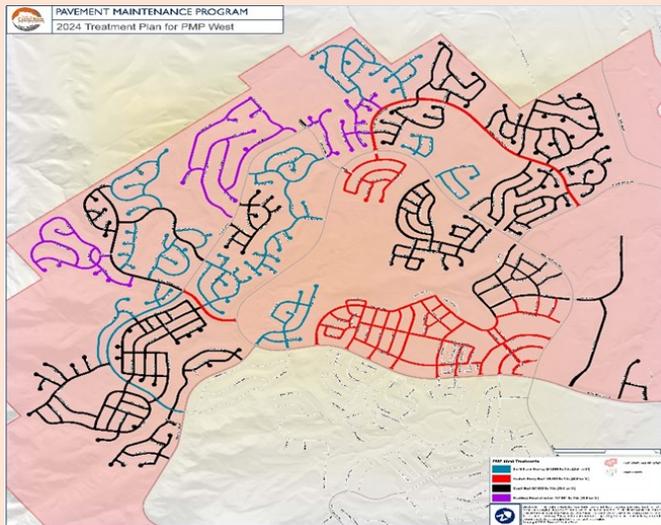
## 2024 PMP

Five (5) project bid packages were prepared and submitted via Granicus for the Legal Department to develop resolutions and contracts. When completed, staff will send the contracts to the individual contactors for the required signatures.

2024 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 below) indicates the proposed scheduled treatments for streets within the West PMP area and Primary Streets. This map may change based on budget, maintenance treatments and resources available.



## Condition Rating

Condition rating began earlier this month and was completed before the end of the month. Staff was working to complete the 2025 Central (Meadows) area, as well as primary streets, prior to 2024 PMP work starting in April.

## 2024 Facilities Parking Lot Improvements Program

The bid opening for this program is complete, with the low bid coming in under budget. Staff will present the contract to the Public Works Commission March 4 and Town Council March 5,

with recommendation to award. This program entails needed improvements to seven (7) Town facilities and parking lots as follows:

- |  |                                   |
|--|-----------------------------------|
| Crystal Valley Fire Station #152                           | Bison Park Parking Lot            |
| 4 <sup>th</sup> & Perry Parking Lot                        | East Plum Creek Trail Parking Lot |
| Seventy Street Parking Lot (Flyover)                       | Wrangler Park Parking Lot         |
| Castle Rock Water Headquarters (Front Lot & Yard Pavement) |                                   |

## 2024 BMP

The bridge identified for necessary repairs in 2024 is the Plum Creek Parkway over Sellar's Gulch. Staff is working with BASIS Partners to complete documents and plans needed for the project bid packet to be advertised in March 2024. Location of this bridge is indicated in the map below:



# Development Division

## Review and Permitting

**Development Review** - All 31 reviews were completed. No late reviews this month.

**Permitting & Inspection** – 8 right-of-way permits were issued.

# Transportation Planning & Traffic Engineering Division

## Taxi Voucher Program

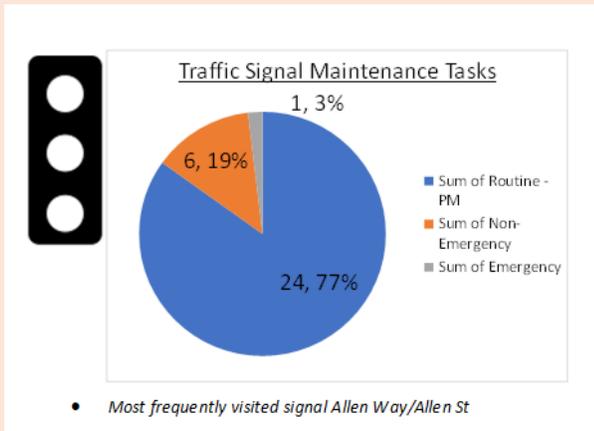
For the month of February, the Taxi Voucher Program funded 157 rides; which is a 7% increase over last year's February total of 147, and a 2% drop from last month's total rides (161). Transportation services are provided for Castle Rock citizens who cannot drive, have a disability that prevents them from driving, or do not have access to a vehicle. In February, 24 individuals used the Taxi service. Of those individuals, 90% of the

rides were for work, 6% for shopping trips, and 4% for medical appointments. Eighty-seven rides were provided for people without access to a vehicle, 25 rides to seniors, and 45 rides to disabled riders.

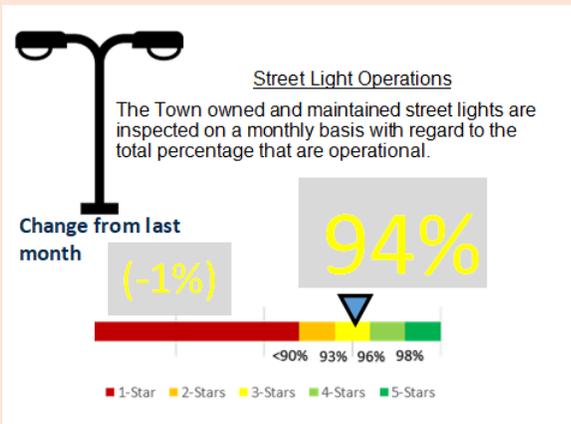
The Castle Rock Senior Center provided a total of 1039 rides in February.

### Traffic Engineering and Operations

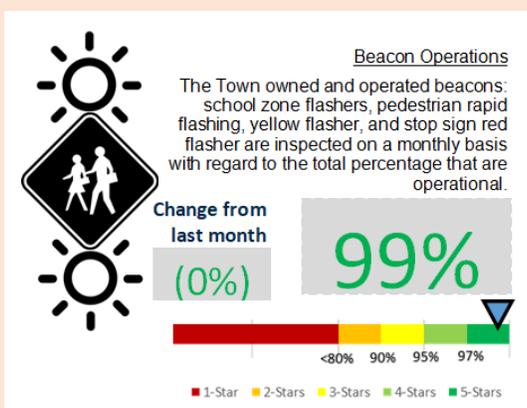
#### Traffic Signal Operations and Maintenance



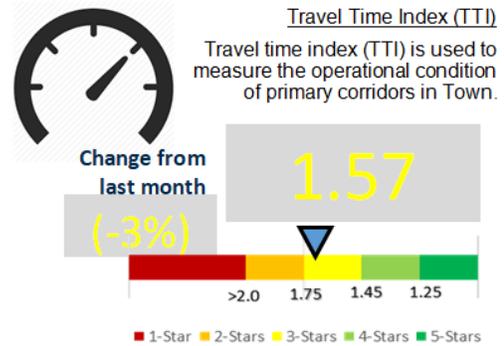
#### Street Light Operations



#### Beacon



### Operations



#### Street Signs and Pavement Marking Maintenance

For the month of February, the team completed 868 tasks. Of these tasks, 482 of them were sign work activities related to fabrication, installation, repair, replacement, inspection and investigation. We had 331 beacon related tasks, including windshield inspections, and repairs. Other tasks included 54 misc. projects, two locates, one traffic control, three special events, and five core drill tasks.

#### 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 residential collector roadways. No new inquiries were received in February. Town staff is awaiting support petitions on several streets before the speed study can be conducted. A new speed study for Villageview Lane was conducted in February and data is being reviewed. The resident will be informed once the results of the new study are received. The N. Meadows Drive traffic calming plan is still on track and will likely be constructed in May or June.

##### Transportation Master Plan (TMP) Traffic Projection Update:

Felsburg, Holt, and Ullevig has revised the DRCOG transportation model and post processing of the data. Town staff comments were addressed and a follow up meeting is scheduled for March to review the amended reports. Preliminary findings on the intersection analysis will also be reviewed and discussed at the meeting.

##### Federal Transit Administration (FTA) – Small Urbanized Area (UZA) Designation:

The 2020 U.S. Census has created a new small UZA designation for much of Castle Rock, unincorporated Douglas County and a portion of Castle Pines. This UZA designation has been identified by the FTA as being eligible for direct funding through the FTA starting in fiscal year (FY) 2024.

# Fleet Services

As you drive around Castle Rock and see the different departments providing first-class service throughout the community, you will notice how they rely on their Town vehicles. The Fleet Division takes pride in knowing that those vehicles are reliable and safe to operate and that they are providing a service for our community and our residents. Our services support the Police and Fire Departments, Public Works, Parks and Recreation and Castle Rock Water. We also support the important functions of Development Services, Engineering, Traffic, Signs and Markings, the Recreation and Activity Center and Town Hall. Below is a snap shot of the Fleet Division activities this past month.

## KPI's

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

➤ **Outcome:** Fleet availability was 97%. Our technicians are doing a great job keeping our fleet available for our customers.

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

➤ **Outcome:** The Fleet team completed 55% of the work orders within 48-hours of opening repair requests or service requests. Winter storms and major mechanical repairs and parts delays have impacted our ability to meet this goal.

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

➤ **Outcome:** Technician productivity was 77%. The technicians have been working non stop to get repairs done.

## Productivity

Our focus in February was on the Streets Division and repairing their snow plows. Back to back storms created some significant damage to some of our wheels and hubs on these big trucks.

During one storm, we had nine snow plows down and the technicians did an amazing job getting them back in service



before the start of the next storm. Our on-call crews were called in on the weekends to recover and repair plows. We could not have done this without the Parts Department. They sourced from vendors all around the state during weekends and throughout the week to find critical brake components and hub assemblies. They did a fantastic job getting the parts that we needed

to get these trucks back on the road for the citizens. The team also completed more than 50 preventative maintenance work orders and we continue to build new vehicles to add to service. Fleet is excited to announce that we have completed our first in house police car build. Unit 007 was placed in service on February 29. I cannot express enough how appreciative I am of the team that contributed to bringing this function in house. A special shout out to Mark Powell our incredible installer, Shane Clever our Fleet Support Technician, and Chad Bednar our Fleet Supervisor for the time spent developing specifications, sourcing and building these cars. Overall a great month of work for our Fleet.

## Shop Operations and Management

Management is working on contracts for new vehicle orders in 2024. We have a wide range of new assets forecast to be replaced or added, and about half have completed purchase orders. Vehicle manufacturing has accelerated and we are starting to see a return to the normal ordering windows with the exception of a few. We have eight new police Interceptors scheduled for production in April and we are currently sourcing the equipment to install.

Unfortunately, we had a technician resign this month but I am optimistic that we will find a good candidate. All crash repairs for the police department are complete and we have only four more to complete. Fleet will start developing an RFP to look for a long term partner for body repairs over the next several months. Fleet continues to have a very high volume of work orders that we are managing. We encourage our departments to utilize the customer portal to schedule their vehicle maintenance.

# Street Operations & Maintenance Division

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

- \*Snow and Ice Control
- \*Asphalt Repair
- \*Equipment Maintenance

- \*Ice Mitigation
- \*Road Shoulder Repair
- \*Street Sweeping

## Snow and Ice Control

February brought four snow events to the Town, totaling 17.5 inches of snow. The team, supported by Traffic, Engineering, Development Services, the Water Department, and the Parks Department, responded by dedicating 2,131.5 hours to mitigating the effects of these storms. Enhanced operations were required on two of the four storms.

## **Equipment Maintenance**

The rigors of snow plowing operations take their toll on equipment used. The Streets team dedicated 1,074 hours to equipment maintenance during the month. The Fleet team supported Streets Division efforts by quickly repairing downed equipment and plow trucks during the snow events.

## **Asphalt Repair**

Pothole and asphalt repair operations continue as the winter weather takes its toll on the roadways. The crews have devoted 916.5 hours to repairing the equivalent of 608 potholes all over Town. To make these repairs, the crews used 5760 lbs. of cold mix asphalt and 3360 lbs. of concrete patch mix.

## **Ice Mitigation**

Between snow storms the Division worked to clear ice from the roadways in Town. The team investigated each icing concern reported as well as other known areas of concern and prioritized and scheduled work. In February, the team addressed 168 tasks, clearing 14,925 linear feet of ice over the course of 809 hours.

## **Street Sweeping**

During February, the Streets Division dedicated 607.5 hours to sweeping the Town roadways in order to maintain a clean and aesthetic roadway. The primary function of wintertime sweeping is to remove the salt and sand deposited during snow storms to prevent the material from becoming airborne pollutants. A total of 1247 lane miles of Town were swept and inspected to maintain a clear road surface.

## **Road Shoulder Repair**

The crew also took advantage when weather permitted to repair numerous defects and washouts along the shoulder areas of Town roadways. The team worked 230 hours to repair a total of 13.37 lane miles of roadway shoulder area. This allows vehicles to safely leave the roadway should the need arise.

## **Looking ahead**

In March, the team will maintain readiness to respond to the year's snowiest month on average as well as street sweeping and asphalt repair. The crew will also begin preparing for Spring operations like weed control and mowing.