



Town of Frederick Board of Trustees Agenda

Frederick Town Hall
Board Chambers
401 Locust Street
Tuesday, March 1, 2022

5:30 P.M. Special Meeting

1. Engineering Capital Improvement Projects
2. Stormwater Master Plan
3. Mayor and Trustee Report
4. Adjournment

Join Zoom Meeting

<https://zoom.us/j/91326456258>

Meeting ID: 913 2645 6258

One tap mobile

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Dial by your location

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Meeting ID: 913 2645 6258

Find your local number: <https://zoom.us/u/abApzA5F1l>

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Engineering Capital Improvement Projects - CIP

Staff:

Kevin Ash

Jason Berg

Sarah Watson

Zack Roberson

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2022 CIP Projects

2022 Projects	Street & Alley Fund	Water Fund	Storm Water Fund	Project Total
Pavement Maintenance Program	\$950,000			\$950,000
Concrete & Alleyway Maintenance	\$200,000			\$200,000
Concrete Repair	\$50,000			\$50,000
Colorado Boulevard Capital Maintenance Project	\$1,600,000			\$1,600,000
Colorado/Tipple Intersection Improvement	\$1,000,000			\$1,000,000
Silver Birch/Godding Hollow Intersection Improv	\$140,000			\$140,000
Frederick Speed Management Program	\$30,600			\$30,600
Public Improvement Obligations - Prosperity	\$212,758			\$212,758
Street Lights	\$30,000			\$30,000
Countryside Drainage			\$100,000	\$100,000
Groundwater Impact Project			\$500,000	\$500,000
Stormwater Improvement OSP Project			\$200,000	\$200,000
CBT Unit Purchase		\$14,000,000		\$14,000,000
Northern Integrated Supply Project (NISP)		\$2,175,550		\$2,175,550
Windy Gap Storage		\$600,000		\$600,000
Summit View Raw Water Extension		\$76,500		\$76,500
CWCWD 30" Line		\$2,000,000		\$2,000,000
Subtotal: \$4,213,358		\$18,852,050	\$800,000	\$23,865,408

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Street and Alley CIP Projects

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Pavement Maintenance Program

Projects:

- 2022 Pavement Maintenance Program
- 2022 Seal Project – Pavement Maintenance Program

Program Budget:

- \$950,000

Schedule:

- Bid Release – 01/31
- Pre-Bid Meeting – 02/09
- Bid Closing – 02/18
- Board Meeting – 03/08

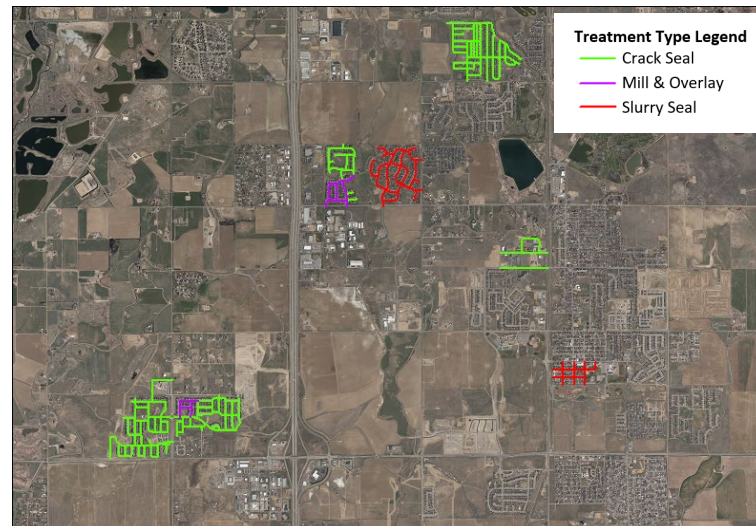
Project Areas:

- Crack Seal and Mastic Crack Seal
 - Johnson Farm
 - No Name Creek West
 - Raspberry Hill
 - Wyndham Hill
 - Meadowlark Business Park
- Slurry Seal
 - Downtown South of 5th Street
 - Eagle Valley
- Patching
 - Raspberry Hill
 - Wyndham Hill
 - Various Locations
- Mill & Overlay (1.5-inch)
 - Raspberry Hill
 - Wyndham Hill

Background:

To manage roadway the Town Engineering Department and Public Works use a Pavement Management System to assist in evaluating the pavement condition, serviceable life and maintenance strategies for Town owned roads and alleyways. A Pavement Management System is a set of tools that includes software and engineering judgment to budget for and plan maintenance and rehabilitation projects to help minimize costs while improving overall pavement conditions. Elements of the Town's Pavement Management System includes inventory, condition data, maps, software, and engineering judgment.

All of this information is available on the Town's website.





Concrete and Alleyway Maintenance Program

Project Location:

- Elm Street to Oak Street and Oak Street to Locust Street between Tipple Parkway and 2nd Street

Program Budget:

- \$200,000

Schedule:

- Bid Release – 02/14
- Pre-Bid Meeting – 02/23
- Bid Closing – 03/04
- Board Meeting – 03/22



Background:

Currently there are only four remaining alleyway segments to be converted to a paved surface. Following this years project only two alleyway segments will remain located just to the east, Locust Street to Walnut Street between Tipple Parkway and 2nd Street. Anticipated program completion will occur in 2023.



Colorado Boulevard Mill & Overlay

Project Location:

- Colorado Boulevard from Tipple Parkway (CTII) to Bella Rosa Parkway

Project Budget:

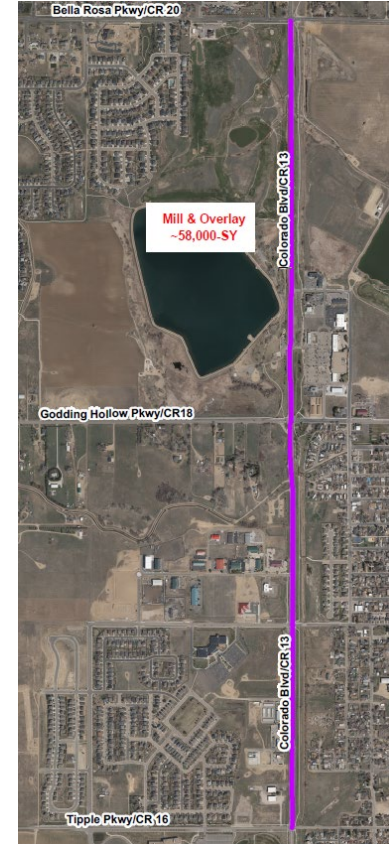
- \$1,600,000

Schedule:

- Bid Release – 01/31
- Pre-Bid Meeting – 02/10
- Bid Closing – 02/18
- Board Meeting – 03/08

Project Elements:

- Crack Seal and Mastic Crack Seal
- Patching
- Mill & Overlay (2-inch)
- Striping and Thermoplastic Pavement Markings



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- Location identified within the Transportation Master Plan as PAC-1 Tier-3 Short Term Project
 - Tier-3 Intersections are identified for operational improvements, widening and customized elements for challenges.
- Design of Ultimate Intersection Provided by Martin/Martin Consulting Engineers
- With design complete project taken out to bid for construction services

- Design – \$121,560
- Survey, ROW and Easements – \$20,000
- Construction Estimate – \$1,305,000

- \$1,000,000

- CDOT Revitalizing Main Streets Round 2
- Staff meet with CDOT to fine tune application.
- Requested Amount – \$1,000,000

- Bid Release – 02/14
- Pre-Bid Meeting – 02/22
- Bid Closing – 03/04
- Board Meeting – 03/22





Silver Birch Boulevard and Godding Hollow Parkway Intersection Improvement (SBGHII)

Background:

Location identified within the Transportation Master Plan as PAC-4 Tier-2 Short Term Project

- Tier-2 Intersections are identified for operational improvements and widening for high priority turn lanes.

Proposed to improve to coincide with roadway improvements as part of the Clearview Villages subdivision which will construct the southwest portion of the intersection.

- Clearview Villages signal contribution of \$100,000

Request for Qualification for Design Services (RFQ)

- Design of Ultimate Intersection
- Budget – \$140,000

Schedule:

- RFQ Release – 02/14
- Pre-Submission Meeting – 02/22
- RFQ Closing – 03/11
- Board Meeting – 04/12

Project Estimates:

- FHU TMP – \$1,900,000
- Design – \$140,000
- ROW Acquisition – \$20,000
- Construction – \$1,500,000





Frederick Speed Management Program

Project Registration:

Submitted 08/16 – Gary Matten, Frederick Way from HW52 to 5th Street

- Roadway not eligible
 - Collector ADT > 2,500
 - Posted Speed 30mph
- Complaint directed to PD for Speed Trailer

Submitted 08/19 – Angela Mallory, CR16 from CR15 to CR19

- Roadway not eligible
 - County ROW
 - Arterial designation

Submitted 08/25 – Joanne Forster; Grand Mesa Avenue from Glen Canyon Drive to Gunnison Drive

- Posted Speed Limit 25mph and Collector ADT
- Yard Sign and Radar Speed Trailer requested
- Long history dating back to previous owner
 - PD forwarded previous JAMAR Speed Enforcement Evaluator study
 - 08/11 – 08/18 : 85th Percentile Speed – 28mph
 - 08/18 – 08/25 : 85th Percentile Speed – 28mph

Submitted 09/21 – Jesse Hansel, 6th Street from 5th Street to Blue Spruce Street

- Posted Speed Limit 25mph and Collector ADT
- Yard Sign and Radar Speed Trailer requested
- Has indicated he will proceed with Petition Process and begin gathering signatures.
 - Engineering identified 18 homes in the area adjacent to complaint
 - Threshold for study, 30% or 6 signatures needed.

Submitted 12/29 – Rick A. Dahlinger, Wyndham Hill Parkway from Walnut Grove Street to Spring Gulch Street

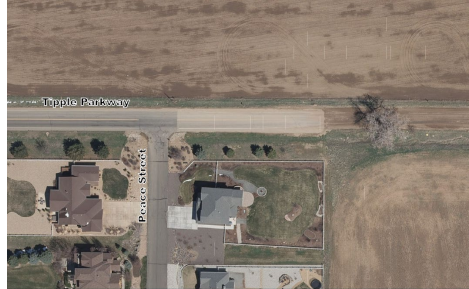
- Posted Speed Limit 25mph and Collector ADT
- Wyndham Hill TIS indicates 2,915 Year 2025 ADT
- Yard Sign and Radar Speed Trailer requested



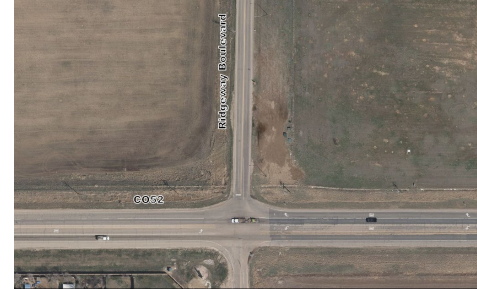
Prosperity – Town Obligations

Project Locations:

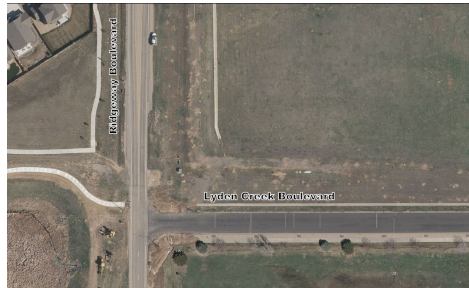
Tipple Parkway Waterline Extension – \$62,159.08



HW52 & CR15 Right Turn Lane – \$112,334.10



CR15 & Lyden Creek Boulevard Left Turn Lane – \$38,254.70



Background:

Improvements identified are to be constructed by the Developer in Phase 1 of the Prosperity subdivision with reimbursement from the Town. This was approved as part of the development MOAPI by the Board of Trustees on September 14, 2021.

Total Obligation Amount – \$212,757.88

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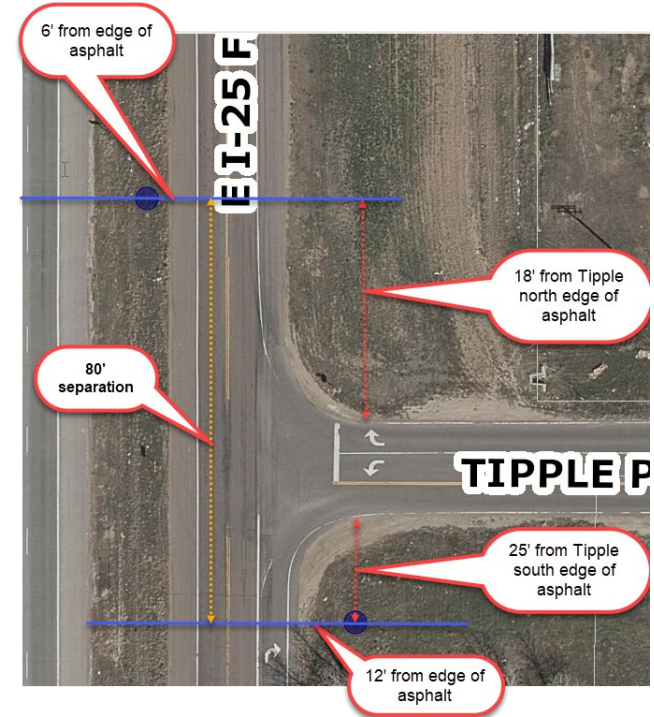
Street Lights

The Town's first location to improve will be Tipple Parkway and the E I-25 Frontage Road.

There will be two lights installed, one on the west side of the Frontage Road and one on the east side of the Frontage Road.

Staff has received a cost estimate from United Power for the project.

Budget: \$30,000





Future CIP Projects

Colorado Boulevard Mill & Overlay_ HW 52 to Tipple Parkway

- Project Year 2023
- Cost Estimate – \$800,000

Colorado Boulevard and Godding Hollow Intersection Improvement

- Transportation Master Plan Tier-2 Short Term Project
- Project Year 2023 Design; 2024 Construction
- Cost Estimate – \$150,000; \$1,200,000

Godding Hollow Parkway (CR 18)

- Roadway Reconstruction from Bulrush Boulevard to Aggregate Boulevard (CR 5 to CR 7)
- Project Year 2024
- Cost Estimate – \$900,000

Bulrush Boulevard (CR 5)

- Roadway Reconstruction Existing Pavement Section
- Project Year 2025
- Cost Estimate – \$1,700,000

Colorado Boulevard and Bella Rosa Parkway Intersection Improvement

- Transportation Master Plan PAC-2 Tier-2 Short Term Project
- Project Year 2025 Design; 2026 Construction
- Cost Estimate – \$150,000; \$1,100,000

Colorado Boulevard and Majestic Street/McClure Avenue Intersection Improvement

- Transportation Master Plan Tier-2 Short Term Project
- Project Year 2026 Design; 2027 Construction
- Cost Estimate – \$120,000; \$750,000



Questions?

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Storm Water CIP Projects

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Countryside Drainage

Project Location:

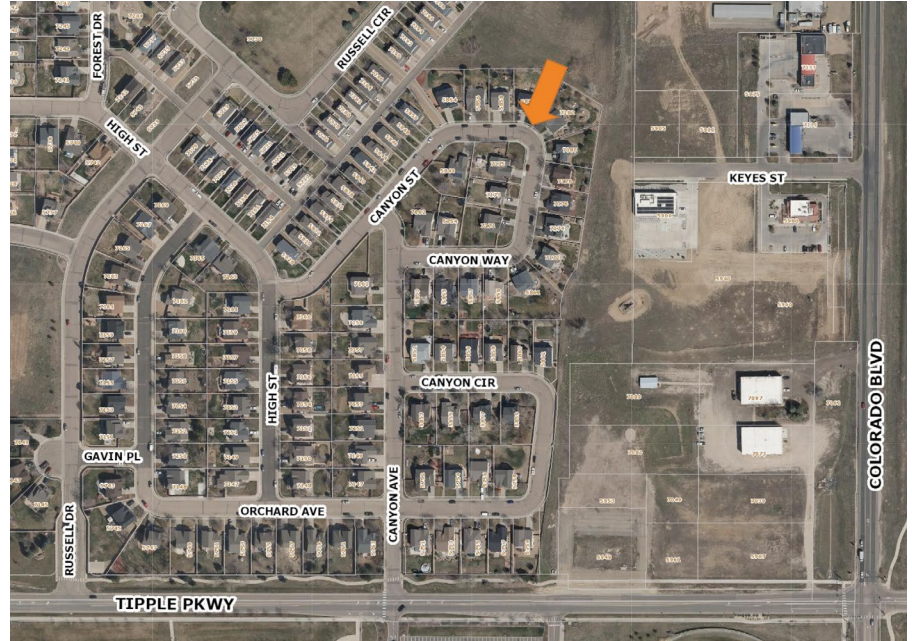
- 2022 Countryside

Schedule:

- 2022 Spring – RFQ
- 2022 Summer – Design
- 2022 Fall - Construction

Project: Inlet Capacity Improvement

- Install addition drainage inlets to Canyon Way to mitigate street flooding. There is no drainage easement for where the swale should be located which prohibits proper drainage.
- This will improve safety of the Town
- Budgeted Amount - \$100,000





Ground Water Impact Project

Project Location:

- Down Town Frederick

Schedule:

- 2022 Spring – RFQ

Project:

- Federal Funding
- The Town has experienced an increased volume of groundwater discharge from sump pumps. Develop a plan how to safely and legally address ground water issues and possible solutions.
- Contract with Consultant for RFQ
- Budgeted Amount - \$500,000





Colorado BLVD Crossing - No Name Creek

Project Location:

- Colorado BLVD – East of Bella Rosa

Schedule:

- 2022 – Design
- 2023 – Construction

Project:

- Identified in the Outfall System Plan
- Upgrade flow capacity across Bella Rosa
- Upgrade flow capacity across Colorado BLVD
- Make a new connection across Colorado BLVD
- Budgeted Amount - \$200,000





Master Drainage Plan – Outfall System Plan (OSP)

Project Location:

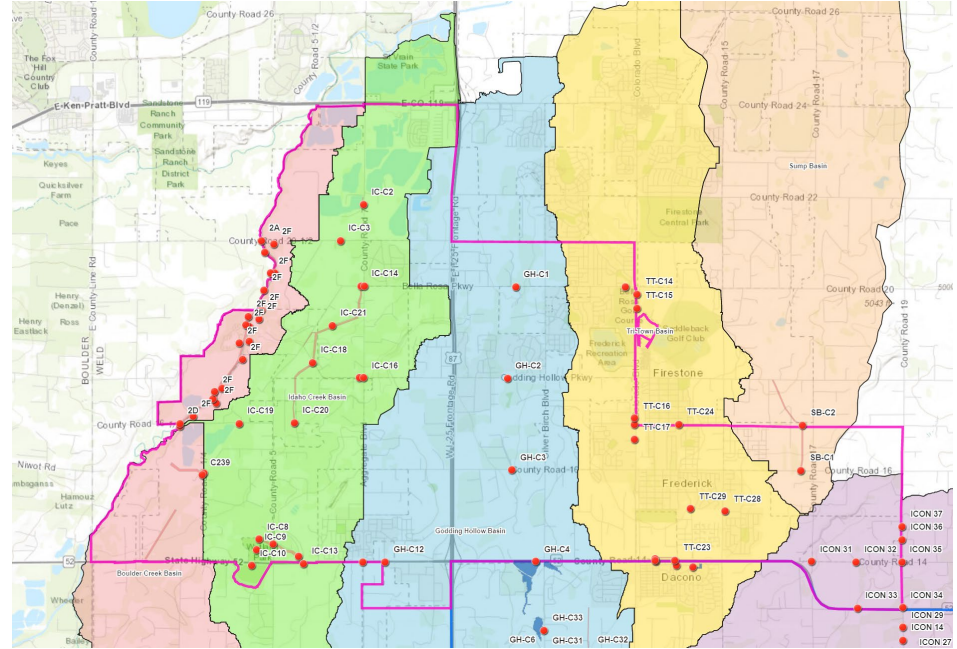
- Town of Frederick

Schedule:

- March 1 – Draft to BOT – Public Input
- April 12 – BOT adoption

Project:

- Outfall System Plan
- Provides plan how to improve storm water and flood mitigation for the Town





Questions?

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Water Fund CIP Projects

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CBT Unit Purchase

The Town needs to continue to purchase CBT water units to offer as incentives for Commercial Development. As specified in the 10-year Water Plan the Town needs to purchase additional CBT units. Staff recommends acquiring at least 200 units in 2022 for incentives.

This purchase is in line with the Town's 2021-2022 Strategic Plan: Strategic, Reliable & Sustainable Infrastructure goal.

Budget:

\$14,000,000 for at least 200 CBT units

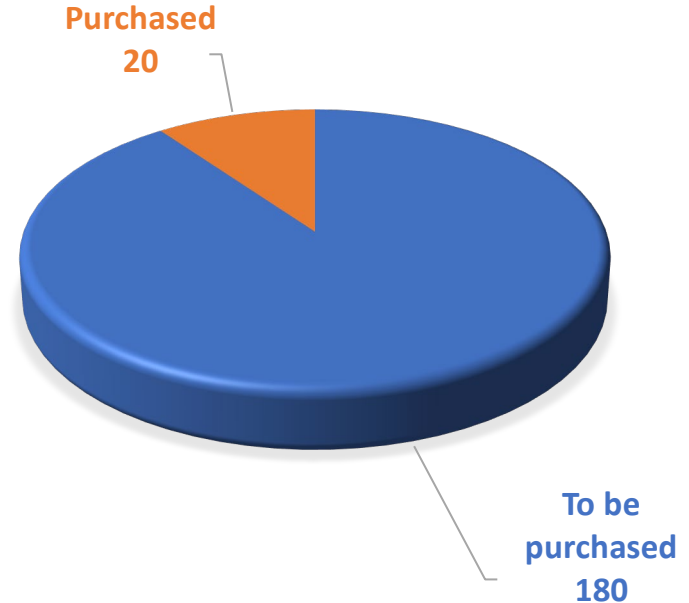
20/200

To date we have contracted to purchase 20 CBT units at \$65,000 per unit for a total of \$1,300,000.

Possible Leads:

Contacting people when we hear of possible units for sale.

CBT UNITS





Northern Integrated Supply Project

This project will provide 2,600 AF of a new reliable water source for the Town's future development. The additional water is vital for future growth of the Town as CBT and other high quality water sources are becoming more and more difficult to acquire.

Update:

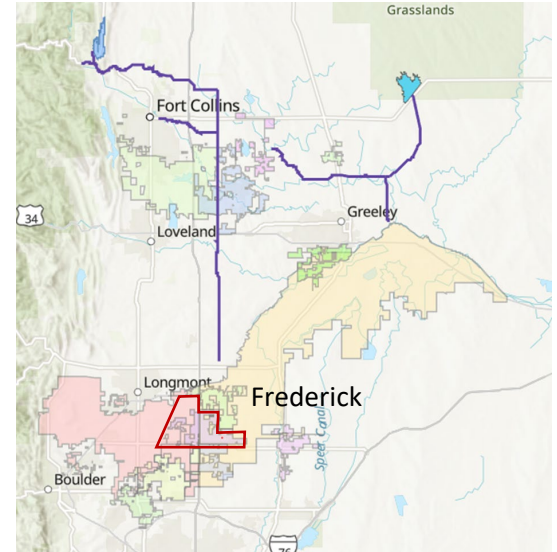
Staff will request a work session for the consideration of allotment contract for NISP water in Q2.

Budgeted: \$2,175,550

Paid: \$1,235,000 (Cost per 18th Interim Agreement was reduced after the Budget was proposed)



Rendering of Glade Reservoir, NCWCD



NISP project map with participants, NCWCD



The 10-Year Water Supply Plan identifies a dependable yield of 265 AF. This yield could be increased in the future with reuse.

168 AF of Windy Gap water was delivered to Dry Creek reservoir for Storage in 2021.

Budgeted: \$600,000



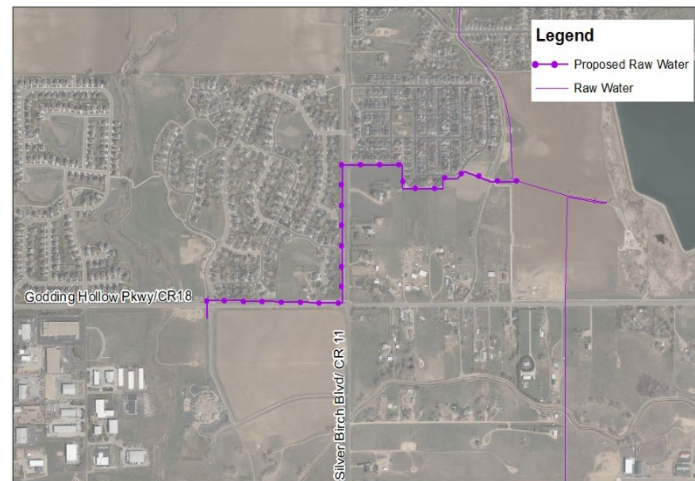
Summit View Raw Water Extension

Raw Water Line is proposed to be extended from the west pump station to the Clearview Project by the Developer. The Town has proposed to reimburse the Developer for a portion of the costs as described in the Clearview MOAPI based on demand. The construction cost listed below also includes funds to extend the raw water line to the Summit View Park from the mainline extension for the park conversion.

The extension improvement was moved to a later phase in the Clearview Project than was proposed when the budget was submitted.

If the Town were to extend the raw water line before the Developer, it would cost the Town more up front and a portion of the cost would be reimbursed from the Developer in the future.

Budgeted: \$76,500





CWCWD 30" Line

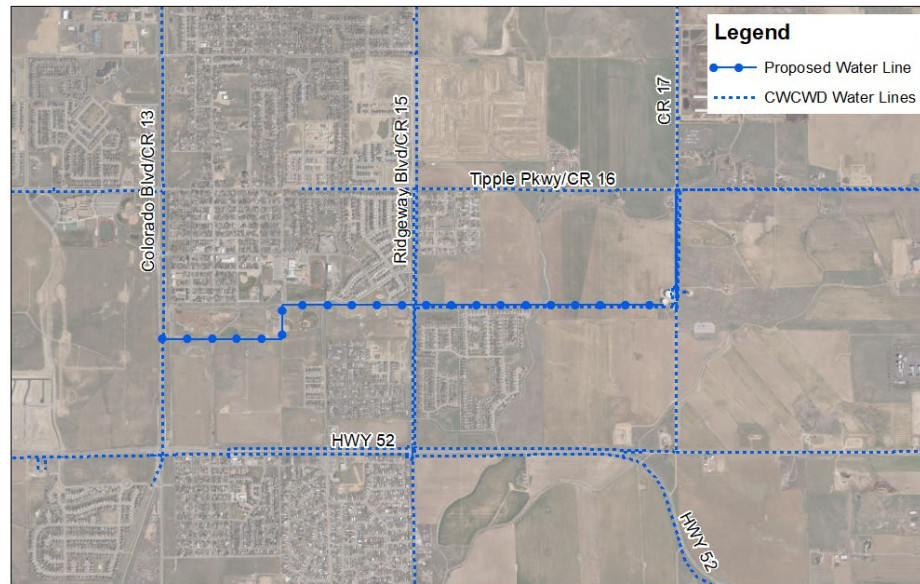
This project was identified in the CWCWD master plan as an improvement needed to support growth within Frederick and Firestone. The installation will benefit Hidden Creek, Silverstone, Prosperity, and other future and existing developments by providing a more reliable fire flow and emergency water supply.

Status:

Staff is reviewing the proposed agreement for the Town's contribution to the project.

Tentative schedule for construction in Fall/Winter 2022

Budgeted: \$2,000,000





Master Plan Updates (Non CIP)

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Water Master Plans

Long-Term Water Supply Plan:

- Staff is working with Element to present the Long-term plan at a work session March 15th.

Water Efficiency Plan:

- The public comment period ends February 15th.
- The State has provided conditional approval and comments on the plan.
- After the comment responses are complete the plan will be presented to the Board for approval.

Water Infrastructure Master Plan:

- Staff is preparing a RFQ for a Potable Master Plan which may include a section on the Non-potable system.
- Will be posted in March



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Questions?

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TOWN OF FREDERICK

Board of Trustees

Information Memorandum

Dan March, Mayor Pro Tem
Mark Lamach, Trustee
Adam Mahan, Trustee

Tracie Crites, Mayor

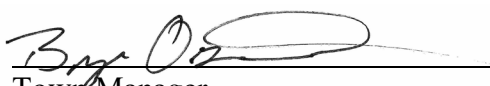
Rusty ONeal, Trustee
Kevin Brown, Trustee
Windi Padia, Trustee

Frederick and Dacono Outfall System Plan

Agenda Date: Town Board Meeting - March 1, 2022

Attachments: a. Drainage Plan Service Boundary and Basin Exhibit

Submitted by: Sarah Watson
Civil Engineer 1

Approved for Presentation: 
Town Manager

Detail of Issue/Request:

The current plan that the Town has adopted is the Southwest County Master Drainage Plan which was completed by Anderson Consulting Engineers in 1999. This plan covers the Tri-Area and Godding Hollow Basins. These are not the only basins that the Town's Boundary and Planning area intersect. The Frederick Dacono Outfall System Plan will include Boulder Creek, Godding Hollow, Idaho Creek, Little Dry Creek, Tri-Town, and Sump basins which the Town Planning area crosses or is impacted by as shown on the basin map.

The Town partnered with Dacono on the plan update through a Department of Local Affairs (DOLA) Grant. As you can see on the basin map many of the basins are also impacted by Dacono. The DOLA Grant provided \$384,550 matching funds for the project. Given the impacts of crossings of SH 52 it has been beneficial to work in conjunction with Dacono on the plan update. This will also aid the Town in the future for protentional partnerships to improve crossing structures along SH 52.

These types of Master Drainage Plans only have a shelf-life of about 20-30 years. This is due to development, changes in industry practices, and changes in the community. The 2020 census has identified that the population is above 10,000 which will trigger the Town to meet requirements of the MS4 permit. Frederick has grown significantly since the original 1999 study and the scope of the study needs to be expanded to include the multiple basins the Town Planning Area intersects.

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Since the project was awarded to Anderson Consulting Engineers in 2020, they have analyzed the baseline hydrology, future condition hydrology, and completed problem identification. They are currently working towards identifying and evaluating conceptual improvements. The consultant was worked with staff to select a preferred plan, prepare cost estimates, and prioritize the improvements identified by the plan.

Tonight, we will discuss the progress that Anderson Consulting Engineers has made and the proposed improvements that have been identified through the planning process to improve the Town's drainage system. A total of 54 improvements have been identified. The proposed improvements have been ranked using a decision matrix based on:

- Risk
- Total project cost
- Alternative funding availability
- Community timeframe.

The projects identified in the 2022 CIP list for design in 2022, improvement to the existing crossing at Bella Rosa Parkway and No Name Creek and the crossings at Colorado Boulevard adjacent to the Golf Course, are within the top 10 projects ranked in priority for all basins.

The proposed improvement map within the StoryMap that Anderson Consulting Engineers has created is an interactive way for the public and staff to identify locations of future improvements, the improvement proposed, and the projected cost of the improvement. This list of proposed improvements will be used by staff to guide future stormwater improvements for the next 20-30 years.

The consultant's last step will be to submit their final reports to the Town for review and approval.

Legal Comments:

None

Alternatives/Options:

By accepting the funds from DOLA the Town is committed to completing the project within the terms and guidelines of the agreement with the State.

Financial Considerations:

To date the Town has paid \$252,124 of the \$460,000 the Town has committed towards the project per the DOLA grant application. Per the IGA with Dacono for reimbursement of payments to the consultant they have also paid \$175,386 of the \$309,100 they committed to the project.

Staff Recommendation:

Staff recommends to make this StoryMap available to the public on the Town's website to begin collecting feedback on the OSP. Staff also recommends to make the draft plan report available for public comment as well on the Town's website once the draft is complete.

FREDERICK AND DACONO OUTFALL SYSTEM PLAN BASIN MAP

July 20, 2021

- Frederick Dacono OSP Boundary
- Erie OSP Boundary
- Major Basin
- 100-year Floodplain
- Frederick Growth Area
- Dacono Growth Area

0 0.325 0.65 1.3 1.95 Miles



Disclaimer:

This map is general representation of parcels within the Town of Frederick's and City of Dacono Growth Areas. The map is for general representation only and may contain information that is not current.

The Town of Frederick does NOT warrant the precise boundaries and shall assume no liability for any errors, omissions, or inaccuracies in the information provided regardless of cause. The Town of Frederick assumes no liability for any decisions made or actions taken or not taken in reliance upon this map or any information provided on this map.

Records and additional maps are available for review at the Town of Frederick, Planning Department, 401 Locust Street, Frederick, CO 80530, telephone 720.382.5500, fax 720.382.5520, website: www.frederickco.gov

