



ENGINEERING

Monthly Report

Fiscal Year 2017-2018

May 2018



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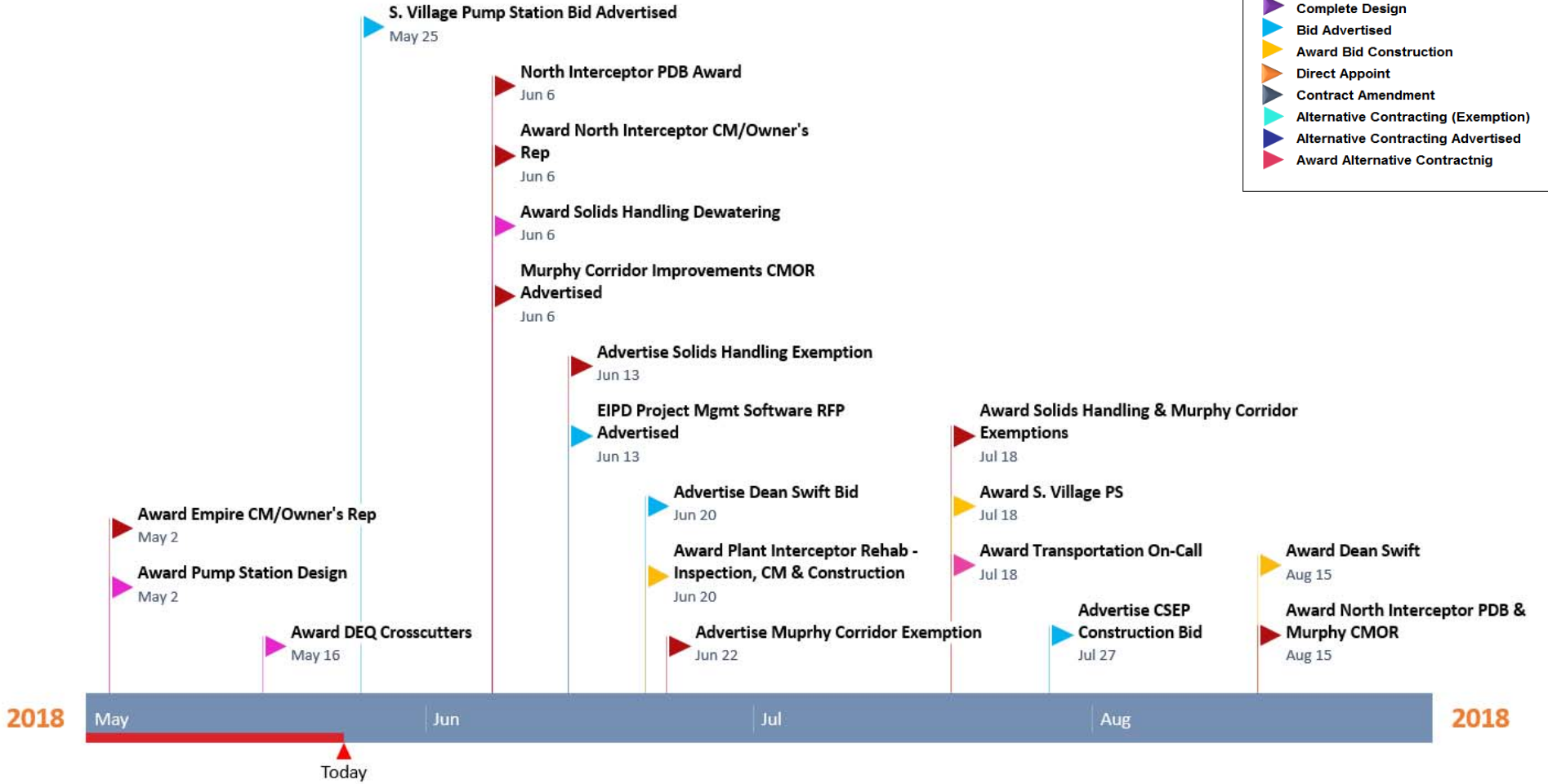
Financial Impact Review: Review by Finance Director, Sharon Wojda, determined no significant change to previously published financial information at this time. Future budget adjustments may be needed for projects with significant changes in scope and schedule, but estimates are unknown at this time.

Operational Impact Review: Review by Utility Director, Paul Rheault, determined operational impacts are in line with achieving greater efficiency in our systems.

Capital Improvement Program in Brief

EIPD Procurement Timeline

KEY	
	Design RFP Advertised
	Award Design Contract
	Complete Design
	Bid Advertised
	Award Bid Construction
	Direct Appoint
	Contract Amendment
	Alternative Contracting (Exemption)
	Alternative Contracting Advertised
	Award Alternative Contracting



Information provided for forecasting purposes only and subject to change without prior notice.

City of Bend 2018 – 2022 Capital Improvement Program Project List

Leave this page blank and insert CIP Summary from Excel Workbook page 1

Leave this page blank and insert CIP Summary from Excel Workbook page 2

Citywide Accessibility Improvements

Through the help of dedicated volunteers on the City of Bend Accessibility Advisory Committee (COBAAC) and the Central Oregon Coalition for Access (COCA), key corridors and neighborhoods across the city have been prioritized for accessibility improvements. This project will design, construct, or repair these curb ramps and sidewalks including those identified through the City's Barrier Removal Request process.



Primary Contact: Rory Rowan | rrowan@bendoregon.gov

Scope

Survey, design, and construction of accessibility improvements in the Mountain View Neighborhood, NE Kearney Avenue, NE Wells Acres Road, and Broadway and Delaware locations. Construction of all locations except the Mountain View Neighborhood in 2017. Construction of Mountain View in 2018.

Schedule

Start Date: 3/1/16
 Substantial Completion: 06/30/2018
 Final Closeout: 06/30/19

Completed Projects:

- NE Kearney Ave
- NE Wells Acres Rd
- Broadway & Delaware

Cost

Total Estimated: \$1,156,000
 Spent to Date: \$650,455
 % Spent to Estimated: 56%

Design = \$250,000
Construction = \$906,000

- Mountain View \$466,000
- NE Kearney Ave \$235,000
- NE Wells Acres Rd \$140,000
- Broadway & Delaware \$65,000

Status: On Scope

Adjustments: No change from prior month

Status: On Schedule

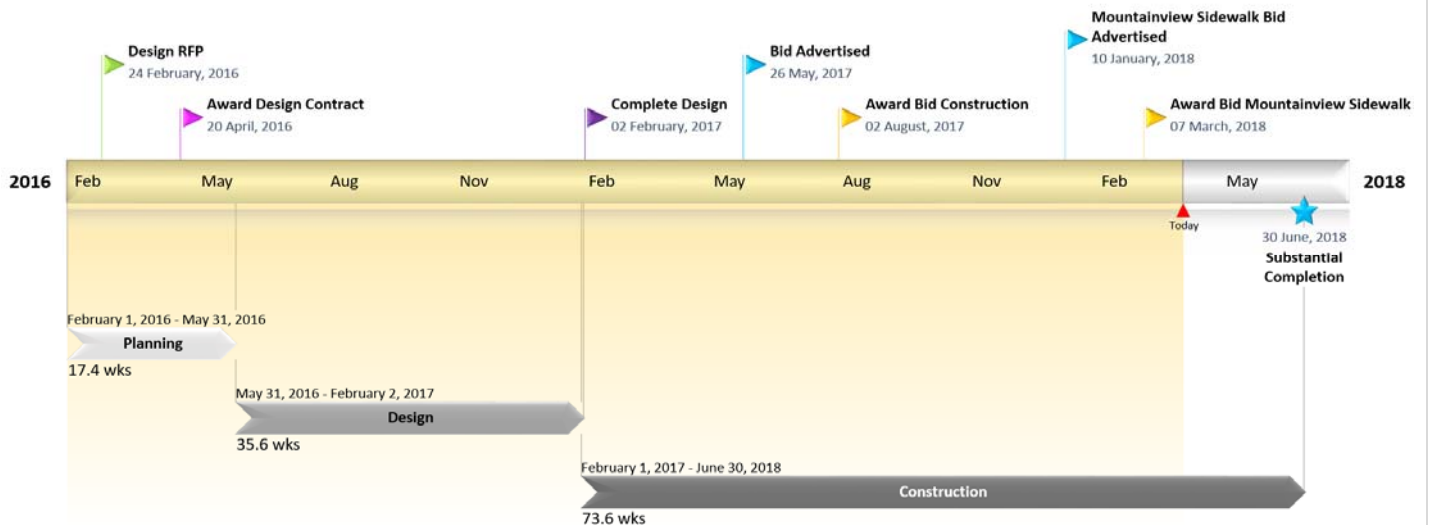
Adjustments: No change from prior month

Status: On Budget

Adjustments: No change from prior month

Status Update: Mountainview construction scheduled for mid-April. On scheduled for substantial completion on June 30.

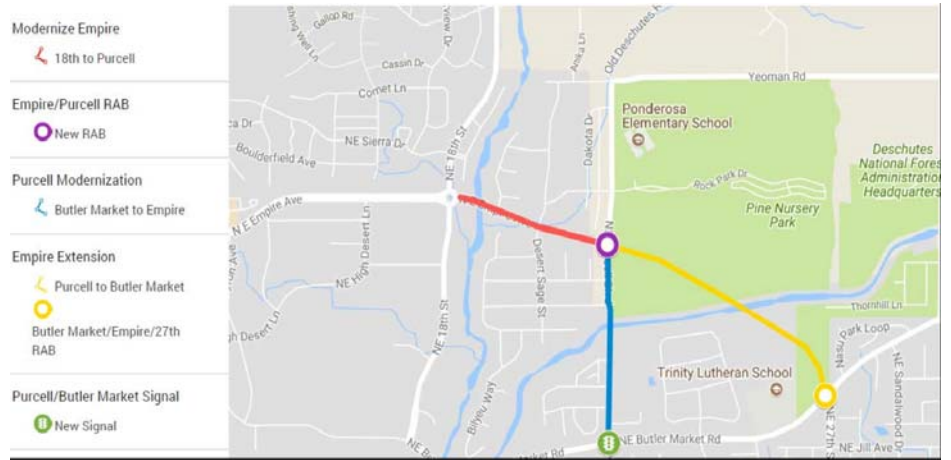
Cost Estimate Classification: 1



Empire Corridor Improvements

Primary Contact: George Franklet | gfranklet@bendoregon.gov

Planning and preliminary design for Empire Avenue began in 2005. In 2017 Council designated it as a high priority for improving the safety, efficiency, and reliability of transportation in northeast Bend. Council identified the design and construction of a roundabout at the Empire/Purcell intersection as the highest priority component of the project.



Scope

Six distinct but interrelated sub-projects are included: Empire/Purcell Roundabout, Empire Avenue Modernization, Purcell Boulevard Modernization, Empire Avenue Extension, Purcell/Butler Market Signal Modernization and 27th Street Roundabout. Due to the complexity of implementing all the related components of the project, a Progressive Design-Build project delivery method will be used.

Schedule

Start Date: 08/1/2017
 Substantial Completion: TBD*
 Final Closeout: TBD*
 * Dependent upon funding

Cost

Total Estimated: **\$23,400,000**
 Spent to Date: \$81,809
 % Spent to Estimated: .04%

Sub-Projects:	Est.	Spent
Purcell RAB	\$2,000,000	\$81,809
Empire Mod	\$1,900,000	\$0
Purcell Mod	\$2,700,000	\$0
Emp Extension	\$10,800,000	\$0
Butler Mkt Sig	\$2,500,000	\$0
Emp/27 RAB	\$3,500,000	\$0

Status: Potential Scope Modification

Status: On Schedule

Status: Over Budget

Adjustments: Butler Market Signal may be modified to a roundabout. Cost estimates reflect this potential change.

Adjustments: Schedule dependent upon Council approval of budgets.

Adjustments: Project cost estimates updated but budgets will not be modified until Council adopts 2019-2023 CIP in June 2018

Status Update: Proceeding toward 30% design scheduled for the end of May. Council to approve contract for Construction/Owners Representative (CMOR) on May 2.

Cost Estimate Classification: 5



Dean Swift Corridor Citywide Accessibility

This project will design and construct accessibility improvements along Dean Swift Road. It was prioritized by the City of Bend Accessibility Advisory Committee (COBAAC) and the Central Oregon Coalition for Access (COCA). It is part of the Citywide Accessibility Improvements.



Scope

Survey, design, and construction of sidewalk, curb ramps, driveways, and other accessibility improvements on Dean Swift Road between Greenwood Avenue (US Highway 20) and Bear Creek Road.

Schedule

Start Date: 11/01/2017
Substantial Completion: 06/01/2019
Final Closeout: 06/01/2020

Cost

Total Estimated: \$150,000
Spent to Date: \$0
% Spent to Estimated: 0%

Status: On Scope

Status: Potential Schedule Delay

Status: On Budget

Adjustments: No impact to scope expected due to potential delay

Adjustments: Due to delays in right of way acquisition

Adjustments: No impact to budget expected due to potential delay

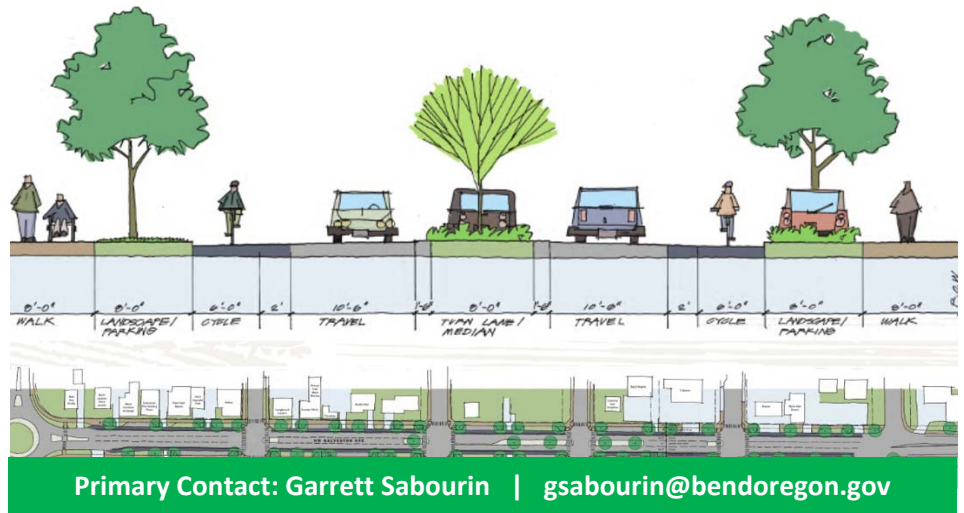
Status Update: Right of way has been obtained and reevaluating timeline for construction delivery.

Cost Estimate Classification: 4



Galveston Corridor Improvements

The Galveston Corridor planning dates back to 2007 when the Traffic Safety Advisory Committee identified the project as the City of Bends 4th highest safety priority project, for existing arterials and collectors. Following initial identification of the project there was significant public interest and involvement from the adjacent community, resulting in the development of a local task force and subsequent council acceptance of a 'hybrid' streetscape concept. Design initiated in 2016.



Scope

Scope includes the design of the three-lane hybrid option, Deschutes River Bridge to 14th Street, from 30% to final design. The three-lane hybrid option is seen in the above exhibit and includes drainage improvements, pedestrian crossings, raised medians, buffered bike lanes, on-street parking and ADA compliant pedestrian facilities.

Schedule

Start Date: 06/01/2011
 Substantial Completion: TBD
 Final Closeout: 09/30/2018**

** Construction not funded. Final closeout indicates 100% design.

Cost

Total Estimated: \$950,000[†]
 Spent to Date: \$446,276*
 % Spent to Estimated: 47%

† Total cost estimate for design
 * Includes planning prior to CIP

Status: On Scope

Adjustments: No change from prior month

Status: On Schedule

Adjustments: No change from prior month

Status: On Budget

Adjustments: No change from prior month

Status Update: Design of the improvements to final design continued with 60% plans anticipated to be received from the engineering consultant in June.

Cost Estimate Classification: 3



Citywide Safety Improvements

With the help of the community and a prior safety study, the city has identified multiple locations across the city where there have been a high number of crashes. Several treatments are proposed to make these locations safer for people walking, riding bicycles, and driving. This project will further develop the design of these treatments and construct them with additional community input.



Primary Contact: Rory Rowan | rrowan@bendoregon.gov

Scope

Survey, design, traffic analysis, public involvement, and construction of safety improvements at the following locations: 3rd St at Hawthorne, Franklin, Roosevelt, and Reed Market, Colorado Ave & Bend Pkwy (US Hwy 97) interchange, Neff Rd at Williamson Blvd, 27th St at Conners Ave, Brosterhous Road railroad underpass, Pinebrook and Canal.

Schedule

Start Date: 10/1/2014
 Substantial Completion: 9/30/2018
 Final Closeout: 9/30/2019

Cost

Total Estimated: \$3,535,000
 Spent to Date: \$753,968
 % Spent to Estimated: 21%

Status: On Scope

Adjustments: No change from prior month

Status: On Schedule

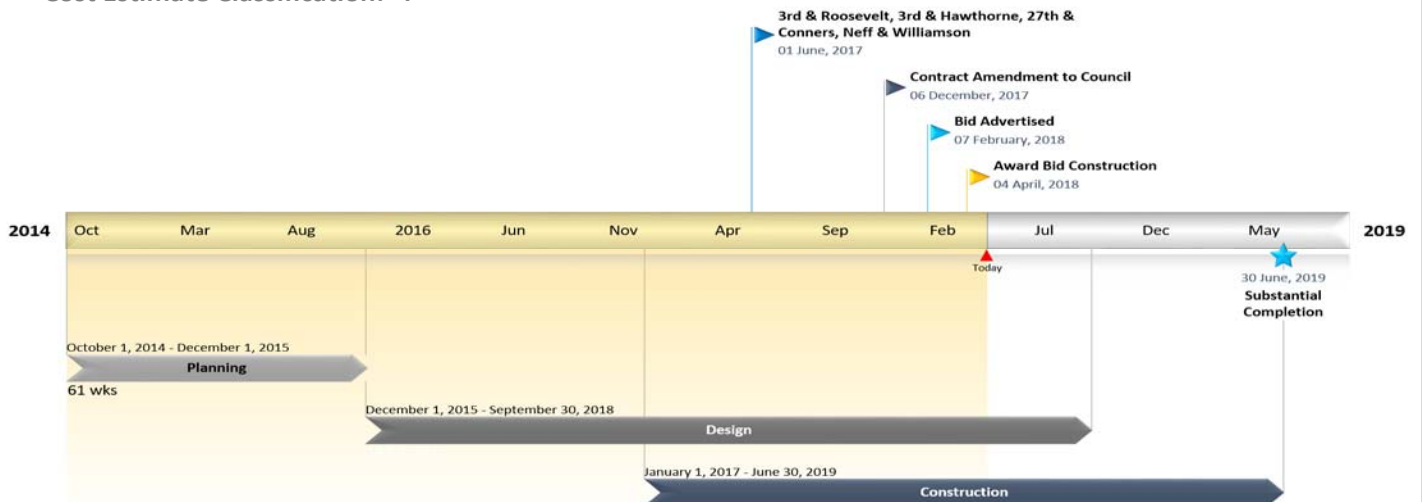
Adjustments: No change from prior month

Status: On Budget

Adjustments: No change from prior month

Status Update: Construction for the 27th and Connors Crossing project slated to begin in early May. Select projects may require potential eminent domain acquisition for right of way.

Cost Estimate Classification: 4



14th Street Reconstruction

Improve safety of corridor between SW Colorado Avenue to NW Newport Avenue for all modes of transportation. Project is part of voter approved General Obligation Bond and will focus on an up updated roadway configuration to include surfacing, striping, bike lanes, sidewalks and streetscape. Design will attempt to tie-in with suggested changes being made to the Galveston Corridor Improvements.



Scope

Upgrade to City standard to include but not limited to: roadway, surface, curbs, sidewalks, and striping. Includes safety improvements for bicycles, pedestrians and vehicles. The project will be constructed in two phases. Phase I: Simpson to Albany & Galveston to Newport; Phase II: Donovan to Simpson & Albany to Galveston.

Schedule

Start Date: 06/30/2014
 Substantial Completion: TBD
 Final Closeout: TBD

Cost

Total Estimated: \$8,795,000
 Spent to Date: \$2,766,497
 % Spent to Estimated: 31%

Sub-Projects:	Est.	Spent
PI: GO Bond	\$4,893,612	\$1,506,472
PI: Trans Con.	\$1,299,630	\$629,901
PII: Trans Con.	\$2,600,000	\$630,124

Status: On Scope

Status: Ahead of Schedule

Status: On Budget

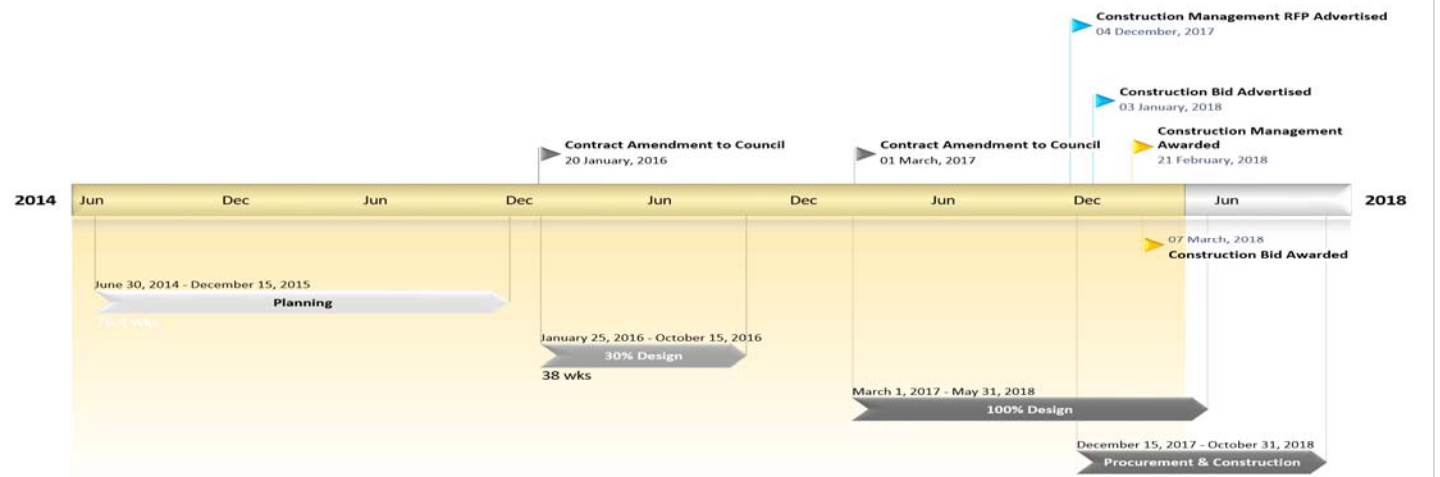
Adjustments: No change from prior month

Adjustments: Project is trending approximately two weeks ahead of schedule.

Adjustments: No change from prior month

Status Update: Construction of the project began April 9 and a change order submitted combined two stages of construction resulting in a compressed schedule. Local businesses remain open. Traffic control measures were added to minimize cut through traffic and impacts to businesses.

Cost Estimate Classification: 3



Egypt Waterline Project

Primary Contact: Brad Tower | btower@bendoregon.gov

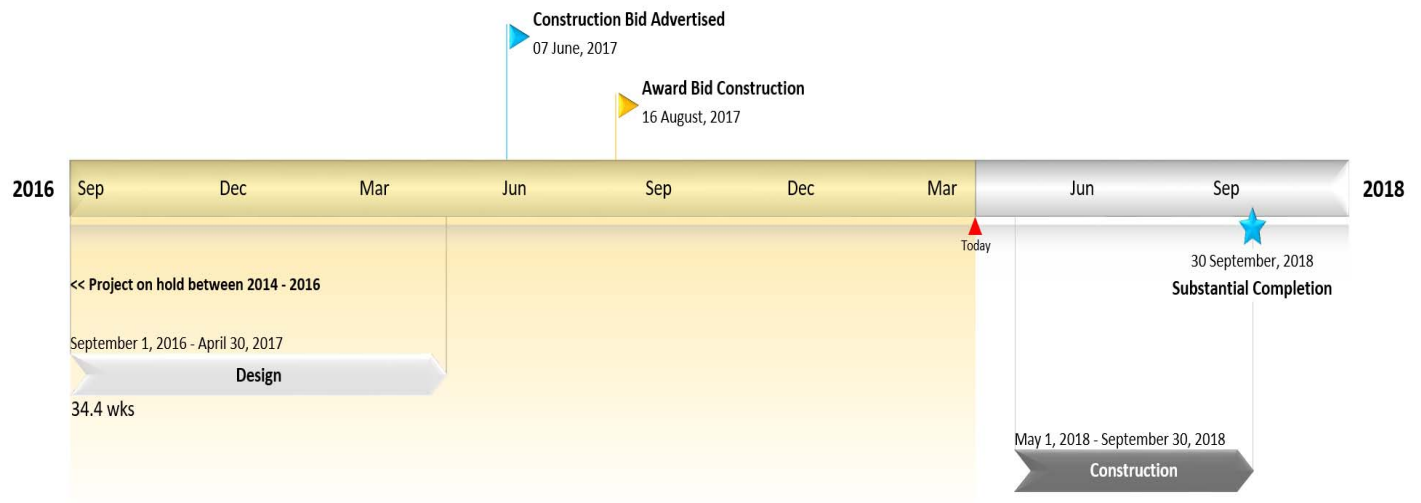
The Egypt Waterline seeks to create a redundant water source for Juniper Ridge. This project became a Capital Improvement Project after it was identified in the 2011 Water master Plan Optimization study by Murray and Smith Associates. A redundant connection for Juniper Ridge is necessary to provide an adequate water supply during system disruptions due to maintenance activities, public emergencies, or catastrophic events.



Scope	Schedule	Cost
Design a waterline connection between Ranch Village Dr. and 18th Street. This work will include a pressure zone change to Juniper Ridge to match that of the neighborhood to the southwest.	Start Date: 7/1/2012 Substantial Completion: 09/30/18 Final Closeout: 09/30/18	Total Estimated: \$771,000 Spent to Date: \$31,814 % Spent to Estimated: 4% Additional Funding Sources: Parks & Rec: \$51,995 COB Street Ops: \$83,033 School District: \$6,000
Status: On Scope	Status: On Schedule	Status: On Budget
Adjustments: No change from prior month	Adjustments: No change from prior month	Adjustments: No change from prior month

Status Update: Construction scheduled to begin in late May.

Cost Estimate Classification: 1



Murphy Corridor Improvements Project

Primary Contact: Garrett Sabourin | gsabourin@bendoregon.gov

Murphy Road is a collector route located in the SE corner of Bend. The Corridor has undergone several transportation network upgrades over the previous decade and remaining upgrades will be seen between the intersections of Parrell and 15th. Additional improvements shall improve safety, efficiency, connectivity and reliability of the transportation system in SE Bend.



Scope

Progressive design build delivery method will be utilized to complete several subprojects, including the Brosterhouse to 15th Roadway Extension, including Bridge at BNSF Railway Crossing, a roundabouts at Brosterhouse, Country Club, 15th and widening and complete street upgrades at Parrell to Brosterhouse.

Schedule

Start Date: 11/1/2018
 Substantial Completion: 10/31/2022
 Final Closeout: 12/31/2022

Cost

Total Estimated: \$32,000,000
 Spent to Date: \$0
 % Spent to Estimated: 0%

Sub-Projects:	Est.	Spent
RR/Bridge	\$6,739,000	\$0
Extension	\$6,781,200	\$0
B-haus RAB	\$2,948,300	\$0
15 th RAB	\$2,948,300	\$0
C. Club RAB	\$2,948,300	\$0
Corridor Imp.	\$9,634,900	\$0

Status: On Scope

Status: On Schedule

Status: On Budget

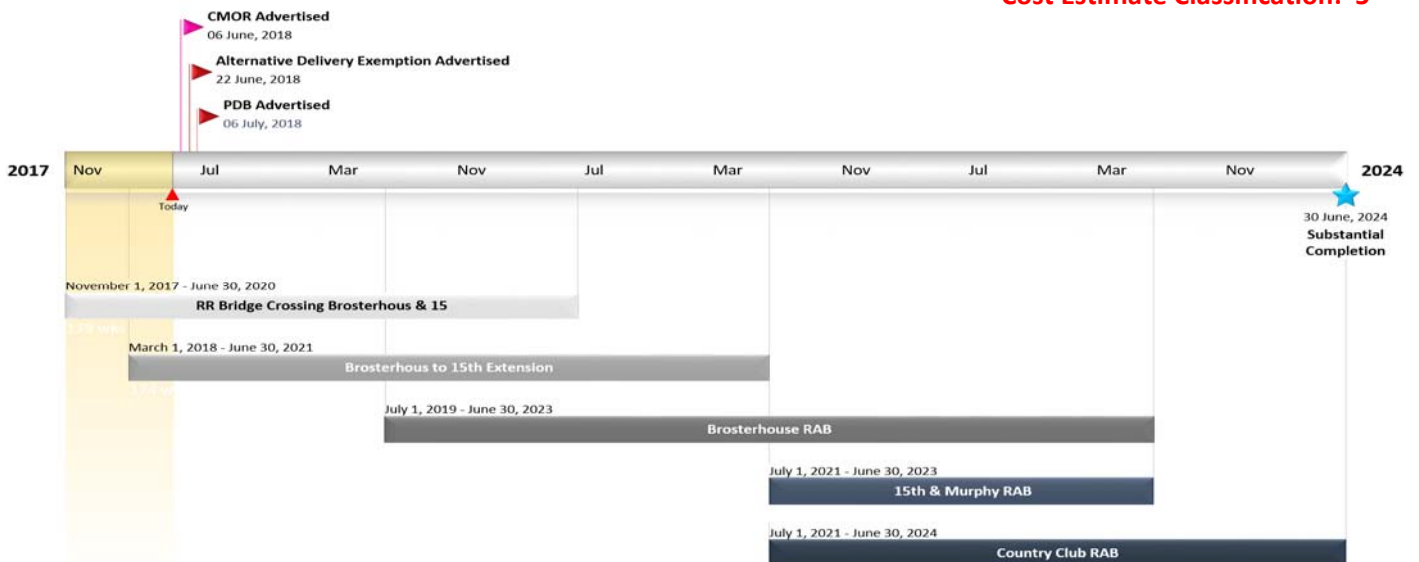
Adjustments: Initiated

Adjustments: Initiated

Adjustments: Initiated

Status Update: Preparing charter and awaiting budget approval in June.

Cost Estimate Classification: 5



Solids Handling Improvements

Primary Contact: Josh Robertson | jrobertson@bendoregon.gov

The City of Bend’s Water Reclamation Facility (WRF) solids handling dewatering process has maintenance, redundancy, and operational challenges. The system is nearing capacity and there is heavy corrosion in both the building and on equipment resulting in deterioration of assets.



Scope

The objective of the project is to upgrade the solids dewatering process to ensure (1) increase in dewatering performance while continuing to produce Class A biosolids, (2) increase capacity, (3) increase asset lifespan, and (4) provide safe work environment for staff.

Schedule

Start Date: 6/1/2018
Substantial Completion: 2/29/2020
Final Closeout: 3/1/2021

Cost

Total Estimated: \$5,500,000
Spent to Date: \$455
% Spent to Estimated: 0.01%

Status: On Scope

Adjustments: Initiated

Status: On Schedule

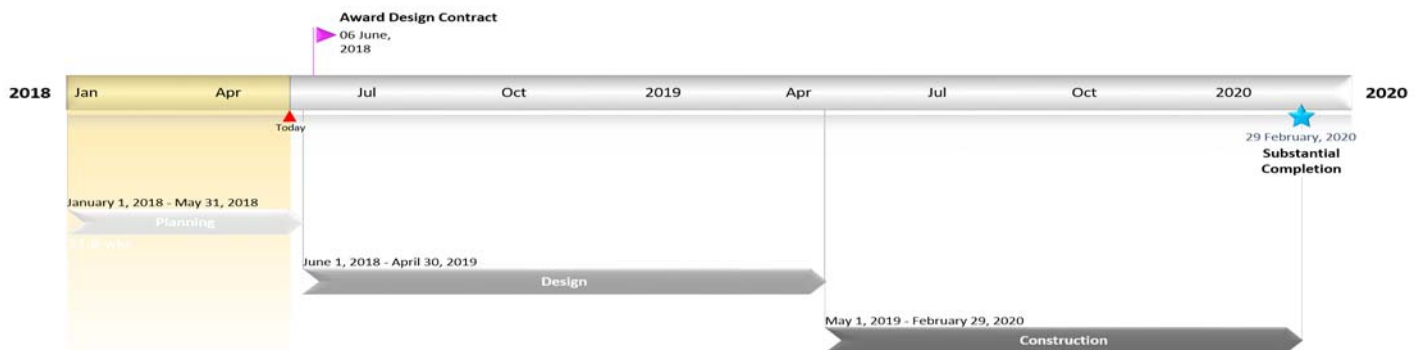
Adjustments: Initiated

Status: On Budget

Adjustments: Initiated

Status Update: The City selected Carollo Engineers, Inc who has extensive experience with wastewater treatment plant design to perform to preliminary design, final design and services during construction for the improvement to the WRF solids dewatering process. The objective of the project is to upgrade the solids dewatering process to ensure (1) increase in dewatering performance while continuing to produce Class A biosolids, (2) increase capacity, (3) increase asset lifespan, and (4) provide safe work environment for staff.

Cost Estimate Classification: 5



Southeast Bend Septic to Sewer Solutions

When constructed, existing residences, currently on septic systems, will eventually and systematically connect to the recently constructed South East Interceptor (SEI). This project will require phases to meet constructability limitations and to better meet community involvement requirements.

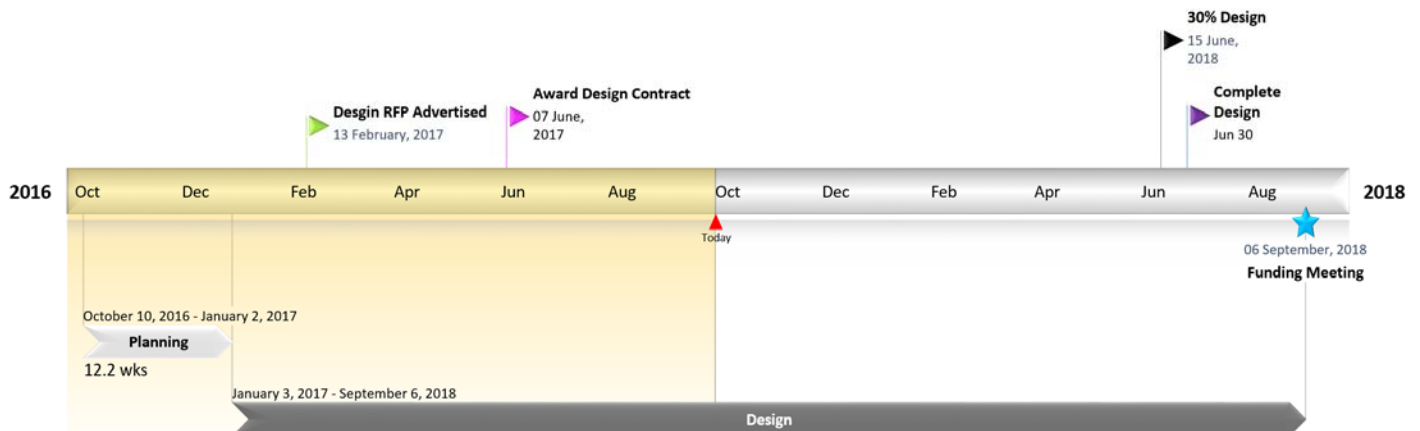


Primary Contact: Skip Martin | smartin@bendoregon.gov

Scope	Schedule	Cost
Design 70,000 feet of gravity sewer through a portion of Southeast Bend area near King's Forest neighborhood.	Start Date: 10/10/2016 Substantial Completion: 12/31/2019 Final Closeout: 12/31/2019*	Total Estimated: \$2,800,000* Spent to Date: \$1,052,711 % Spent to Estimated: 52%
Status: On Scope	Status: On Schedule	Status: On Budget
Adjustments: No change from prior month	Adjustments: No change from prior month	Adjustments: No change from prior month

Status Update: Topographic survey is 80% complete, and scheduled to be completed by December 2018. Citizen's Advisory meetings are on schedule. Approximately 90% of homeowners have been contacted. Advisory committee meetings were held in March with more scheduled for April.

Cost Estimate Classification: 5



Plant Interceptor Rehabilitation

The existing plant interceptor conveys all of the City's sewage to the WRF. The concrete pipeline is deteriorating due to age as well as the sulfides breaking down the concrete wall. This project will rehabilitate the plant interceptor by designing and constructing a Cured-In-Place Pipe (CIPP) liner to lengthen the operational life of the pipeline. All project aspects were previously identified in the Plant Interceptor Condition Assessment and incorporated into the CSMP projects list.



Primary Contact: Jason Suhr | jsuhr@bendoregon.gov

Scope

Rehabilitate all pipe segments and manholes from Purcell Blvd. to proposed tie in with the North Interceptor with a Cured-In-Place Pipe (CIPP) liner.

Schedule

Start Date: 3/1/2015
 Substantial Completion: 12/31/18
 Final Closeout: 12/31/19

Cost

Total Estimated: \$10,700,000
 Spent to Date: \$655,499
 % Spent to Estimated: 6%

Status: On Scope

Status: On Schedule

Status: On Budget

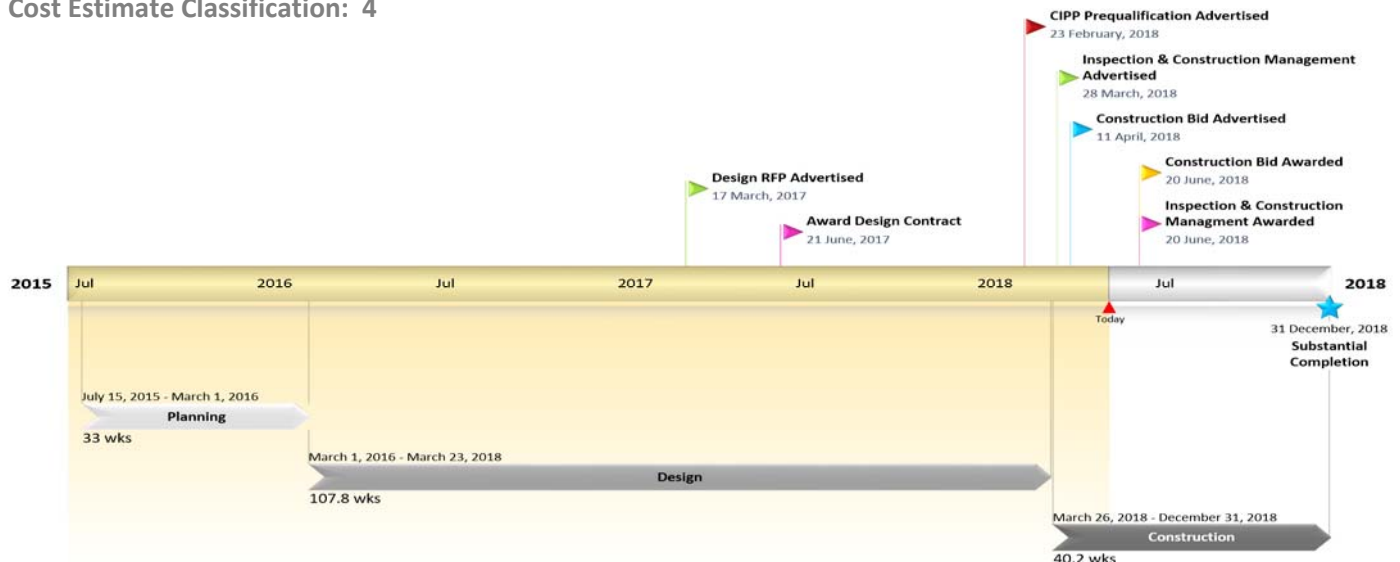
Adjustments: No change from prior month

Adjustments: No change from prior month

Adjustments: No change from prior month

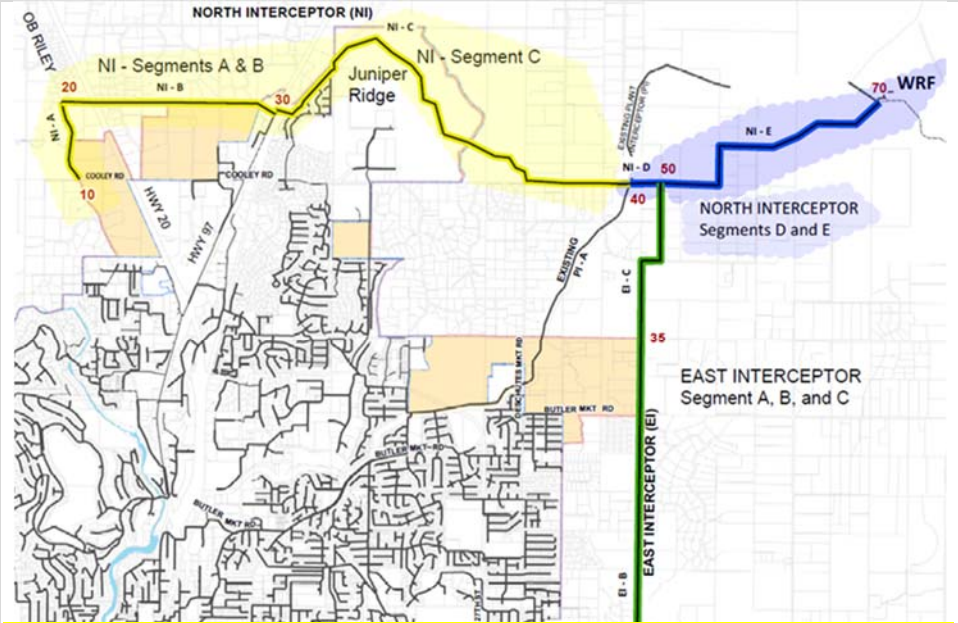
Status Update: Construction documents are currently out to bid with the prequalified contractors. Bid opening is set for Wednesday May 30th. Proposals were received and scored for the construction management and inspection duties and the City is pursuing awarding the contract to Dowl.

Cost Estimate Classification: 4



North Interceptor Project

Sewer Interceptor running east to west on the Northern Edge of Bend's UGB, beginning at Cooley Road and OB Riley Road and running east past the Juniper Ridge development, connecting with existing Plant Interceptor, connecting with the East Interceptor, and continuing further east to deliver untreated waste water to the WRF. Segments NI-D and NI-E are designated as Priority 1 (10,300 feet). Segments NI-A, NI-B, and NI-C are designated a Priority 2 (26,300 feet).



Primary Contact: Eric Forster | eforster@bendoregon.gov

Scope

Design, bid, contract, and build approximately 36,000 feet of gravity sewer, various diameters running along the Northern edge of Bend's UGB. Connects to the WRF.

Schedule

Start Date: 3/1/17
 Substantial Completion: 12/31/2022
 Final Closeout: 12/31/2023

Cost

Total Estimated: \$23,000,000
 Spent to Date: \$15,176
 % Spent to Estimated: 0.07%

Status: On Scope

Adjustments: No change from prior month

Status: On Schedule

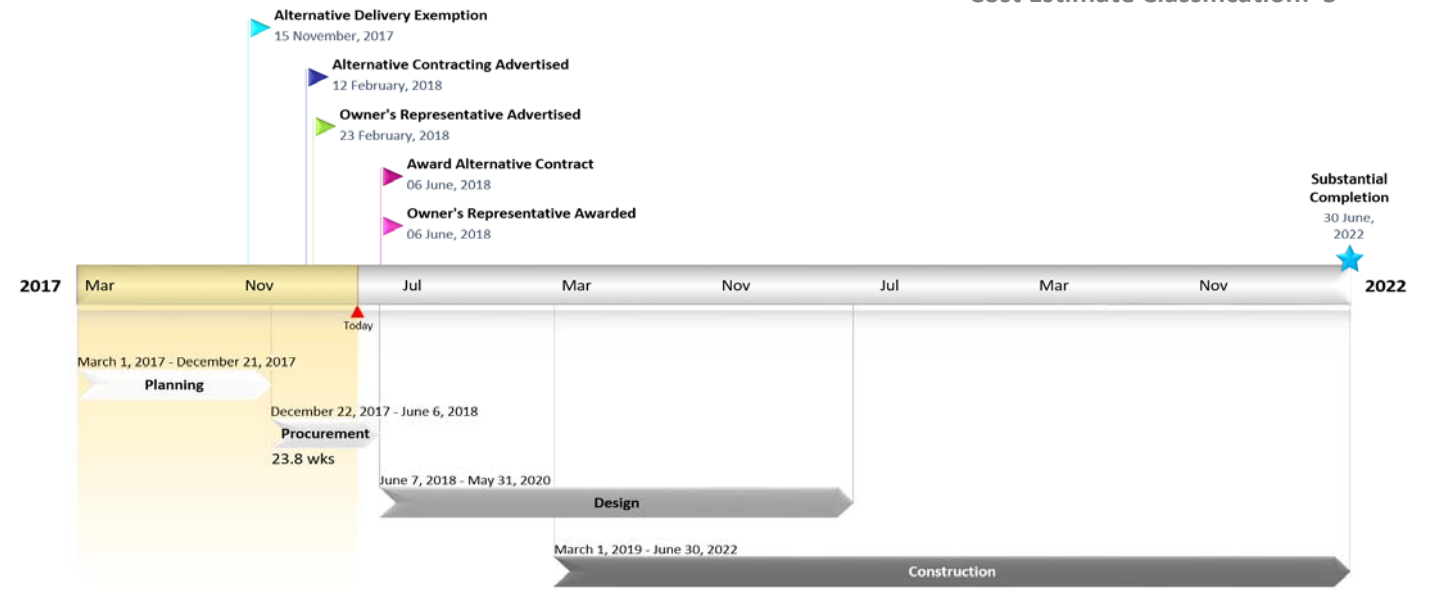
Adjustments: No change from prior month

Status: On Budget

Adjustments: No change from prior month

Status Update: Contractor selection has been made with contract scheduled for Council approval June 6. Construction Manager/Owners Representative (CMOR) consultant has been selected, contract going to Council June 6 as well.

Cost Estimate Classification: 5



Capacity Improvements Project

Provides additional treatment capacity at the Water Reclamation Facility (WRF) in order to ensure the City continues to meet the needs of the community and Department of Environmental Quality (DEQ) permit requirements. Treatment capacity increases from 6.5 MGD to 8.5 MGD when complete with greater flexibility in the future to increase capacity at a much lower cost.



Primary Contact: Josh Robertson | jrobertson@bendoregon.gov

Scope

This project would add plant capacity by retrofitting existing aeration basins to Integrated Fixed-Film Activated Sludge (IFAS) operation, making hydraulic improvements to plant piping and starting up Ultra Violet disinfection systems to replace the current chlorine contact system.

Schedule

Start Date: 4/1/2017
 Substantial Completion: 4/30/19
 Final Closeout: 4/30/2020

Cost

Total Estimated: \$8,000,000
 Spent to Date: \$693,109
 % Spent to Estimated: 9%

Status: On Scope

Status: On Schedule

Status: On Budget

Adjustments: No change from prior month

Adjustments: No change from prior month

Adjustments: No change from prior month

Status Update: All concrete work in Basin 3 is complete. Mechanical and electrical work in pump station A is underway as well as yard piping connections to primary clarifiers one and two.

Cost Estimate Classification: 5



Pump Station Decommissions Projects

The cost analysis in the Collection System Master Plan determined the following lift station decommissions: Nottingham Pump Station Connections to SEI, Ridgewater #1, Bridges at Shadow Glen, Tri-Peaks, Crown Villa #1 & #2, Murphy, Quail Ridge #1 & #2, South Village, and Sun Meadow.



Primary Contact: Brittany Park | bpark@bendoregon.gov

Scope

The project consists of decommissioning multiple sewer pump stations throughout the City where gravity sewer diversions have been determined to be viable.

Schedule

Start Date: 3/1/2017
 Substantial Completion: 12/31/2019
 Final Closeout: 12/31/2020

Cost

Total Estimated: \$1,515,000
 Spent to Date: \$5,319
 % Spent to Estimated: 0.35%

Status: Increase Scope

Status: On Schedule

Status: Potential Budget Increase

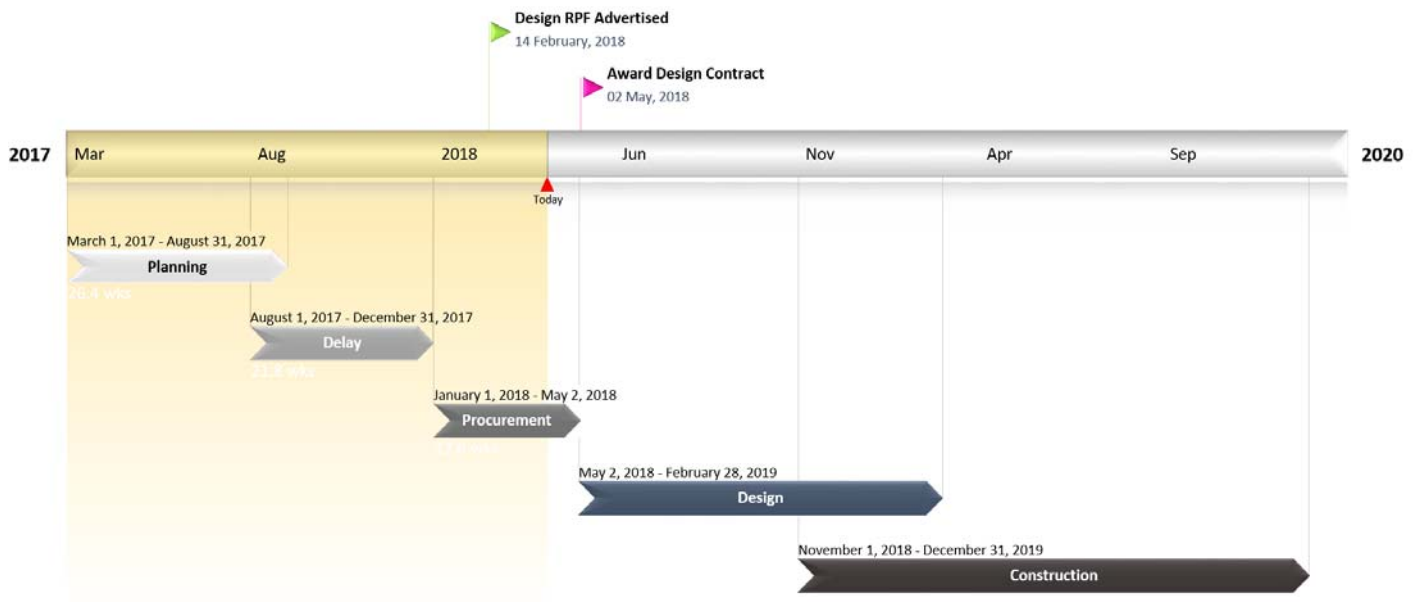
Adjustments: To include design of additional pump stations

Adjustments: No change from prior month

Adjustments: Potential increase in budget based on scope increase

Status Update: Anticipate presenting design contract for approval on May 2.

Cost Estimate Classification: 5



South Mirror Pond Parking Lot

Current issues with the South Mirror Pond parking lot include a lack of parking for oversized vehicles and bicycle rentals and loitering. This project will update the parking lot to improve intended function and create greater parking diversity.



Primary Contact: Brad Tower | btower@bendoregon.gov

Scope

This is a synergy project with the Economic Development Department and Bend Police Department.

Schedule

Start Date: 9/1/2017
 Substantial Completion: 05/31/2019
 Final Closeout: 05/31/2020

Cost

Total Estimated: \$470,000
 Spent to Date: \$11,122
 % Spent to Estimated: 0.24%

Status: On Scope

Status: On Schedule

Status: On Budget

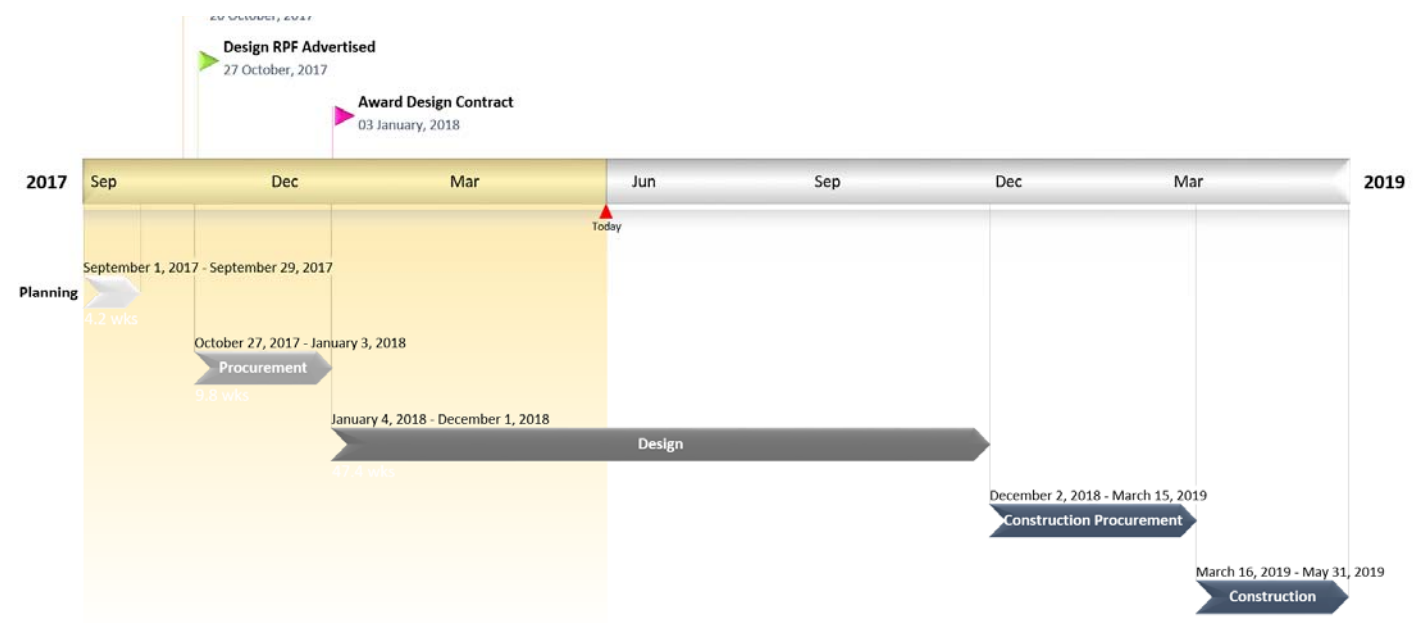
Adjustments: No change from prior month

Adjustments: No change from prior month

Adjustments: No change from prior month

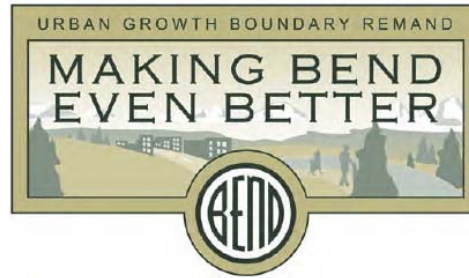
Status Update: Design is underway and will be complete December 2018 with construction scheduled for spring 2019.

Cost Estimate Classification: 5



Collection System Master Plan Post Acknowledgement Plan Amendment

This project is updated the 2014 CSMP to recognize the project elements that were identified as part of the UGB process. This work will identify the elements of the collection system that will be needed to serve the expansion areas and the costs associated with those improvements. This work is being done working closely with the Growth Management Department.



Bend Economic Opportunities Analysis

Bend's Growth to 2028

Primary Contact: Skip Martin | smartin@bendoregon.gov

Scope

This is a synergy project with the Growth Management Department and is not included in the Capital Improvement Program.

Schedule

Start Date: 3/1/2017
 Substantial Completion: 4/1/2018
 Final Closeout: 4/1/2018

Cost

Total Estimated: \$92,000
 Spent to Date: \$89,514
 % Spent to Estimated: 97%

Status: On Scope

Status: On Schedule

Status: On Budget

Adjustments: No change from prior month

Adjustments: No change from prior month

Adjustments: No change from prior month

Status Update: Project is substantially complete. This is the final month this project will be included in the report.

Cost Estimate Classification: 5

