



ENGINEERING

Monthly Report

Fiscal Year 2018-2019

January 2019



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Financial Impact Review: Review by the Finance Department 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.

City of Bend 2019-2023 Capital Improvement Program Project List

Project Name & Number	Project Manager	Current Phase	Project Cost Estimate	Spent to Date	2018-19 Budget	2019-20 Projected	2020-21 Projected	2021-22 Projected	2022-23 Projected	Total 2019-2023	Notes	Budget	Percent Total Cost Est. Spent
Water Reclamation													
1XSEI Southeast Interceptor Projects													
1SP1X SEI Phase 1 Extension	J. MacClanahan	Sub. Complete	6,800,000	6,749,933	100,000	-	-	-	-	100,000			99%
1S2S3 SEI Schedule 2S&3	E. Forster	Sub. Complete	30,585,000	30,304,550	275,000	-	-	-	-	275,000	1		99%
1XSEI Southeast Interceptor			37,385,000	37,054,483	375,000	-	-	-	-	375,000			99%
1XNAS North Area Sewer Projects													
1SNAF North Area Force Main	G. Franklet	Sub. Complete	2,730,000	2,729,320	100,000	-	-	-	-	100,000			100%
1SNAS North Area Gravity Main	G. Franklet	Sub. Complete	2,900,000	2,890,869	100,000	-	-	-	-	100,000			100%
1XNAS North Area Sewer Projects			5,630,000	5,620,189	200,000	-	-	-	-	200,000			100%
North Interceptor Projects													
1SNI1 North Interceptor Phase I	J. MacClanahan	Design	40,000,000	1,636,133	11,000,000	12,000,000	-	-	-	23,000,000			4%
1SNI2 North Interceptor Phase II & III	Unassigned	Pending	40,200,000	-	-	-	-	6,700,000	6,700,000	13,400,000			0%
North Interceptor Projects			80,200,000	1,636,133	11,000,000	12,000,000	-	6,700,000	6,700,000	36,400,000			2%
1XWRF Water Reclamation Facility Projects													
1SCAP WRF Capacity Improvements	J. Robertson	Construction	8,000,000	4,393,812	6,465,000	-	-	-	-	6,465,000	1		55%
1SSHI Solids Handling Improvement Project	J. Robertson	Construction	5,500,000	116,569	1,450,000	2,500,000	1,500,000	-	-	5,450,000			2%
1SFPU Facilities Plan Update	J. Robertson	Pending	500,000	-	-	500,000	-	-	-	500,000			0%
1SHWK Headworks	J. Robertson	Pending	2,000,000	-	-	-	-	1,000,000	-	1,000,000			0%
1SSFU Support Facilities Upgrade	J. Robertson	Pending	2,500,000	-	-	-	-	1,250,000	1,250,000	2,500,000			0%
1XWRF Water Reclamation Facility Projects			18,500,000	4,510,381	7,915,000	3,000,000	1,500,000	2,250,000	1,250,000	15,915,000			24%
1SCSE Collection System Enhancement Program	O. Murray	Construction	11,800,000	160,691	2,360,000	2,360,000	2,360,000	2,360,000	2,360,000	11,800,000	*		1%
1SPSD Pump Station Decommissions Program	O. Murray	Construction	8,000,000	348,210	1,465,000	3,000,000	-	-	-	4,465,000			4%
1SBSS Southeast Bend Septic Solutions	S. Martin	Design	2,800,000	1,749,580	1,500,000	-	-	-	-	1,500,000	1		62%
1S036 Drake Lift Station Condition Upgrade	J. Robertson	Planning	3,000,000	383	1,000,000	2,000,000	-	-	-	3,000,000			0%
1SAMM Amethyst Mahogany Street Sewer	E. Forster	Pending	2,440,000	-	-	500,000	470,000	1,470,000	-	2,440,000	1		0%
1SMTI Amethyst Mahogany Diversion	E. Forster	Design	3,900,379	72,716	500,000	2,400,000	1,000,000	-	-	3,900,000	1		2%
1SWRF Secondary Expansion	J. Robertson	Sub. Complete	43,800,000	42,041,889	3,640,000	-	-	-	-	3,640,000	1		96%
1SPIR Plant Interceptor Rehabilitation	J. Suhr	Construction	7,600,000	4,708,889	7,735,000	-	-	-	-	7,735,000			62%
1SPSO Parallel Sewer on Olney Avenue	Unassigned	Pending	600,000	-	-	600,000	-	-	-	600,000			0%
1SOC1 Odor Control Master Plan	Unassigned	Pending	1,155,000	-	-	-	-	1,155,000	-	1,155,000			0%
1SSLA Sewer Storage - Land Acquisition	Unassigned	Pending	730,000	-	-	-	-	730,000	-	730,000			0%
1SMP1 Collection System Master Plan (Years 6-10)	Unassigned	Pending	750,000	-	-	750,000	-	-	-	750,000			0%
1SGPA Gravity Pipe Condition Assessment	Unassigned	Pending	2,000,000	-	-	-	200,000	200,000	200,000	600,000			0%
Total Water Reclamation Projects			230,290,379	97,903,542	37,690,000	26,610,000	5,530,000	14,865,000	10,510,000	95,205,000			
Stormwater													
1RNPR Newport Pipe Replacement Design	Unassigned	Planning	442,000	-	442,000	-	-	-	-	442,000			0%
1RMP1 Stormwater Master Plan Update	Unassigned	Pending	500,000	-	500,000	-	-	-	-	500,000	1		0%
1RRMC Roosevelt & McKinley	Unassigned	Pending	579,000	-	-	-	104,000	475,000	-	579,000			0%
1RFGU Franklin & Greenwood Underpass	Unassigned	Pending	3,300,000	-	-	-	1,200,000	600,000	1,500,000	3,300,000			0%
1RMNW Minnesota & Wall Stormwater	Unassigned	Pending	250,000	-	-	-	-	-	250,000	250,000			0%
Total Stormwater Projects			5,071,000	-	942,000	-	1,304,000	1,075,000	1,750,000	5,071,000			

City of Bend 2019-2023 Capital Improvement Program Project List

Project Name & Number	Project Manager	Current Phase	Project Cost Estimate	Spent to Date	2018-19 Budget	2019-20 Projected	2020-21 Projected	2021-22 Projected	2022-23 Projected	Total 2019-2023	Notes	Budget	Percent Total Cost Est. Spent
Transportation													
1TR3N Reed Mkt: 3rd to Newberry	G. Sabourin	Sub. Complete	13,600,000	13,539,488	160,000	-	-	-	-	160,000			100%
1TGCI Galveston Corridor Improvements	G. Sabourin	Design	950,000	563,430	265,000	-	-	-	-	265,000			59%
1TBKE Bicycle Greenways	R. Rowan	Design	900,000	11,556	440,000	225,000	225,000	-	-	890,000			1%
1TMPR Murphy & Parrell Roundabout	G. Sabourin	Sub. Complete	2,580,000	2,580,059	5,000	5,000	-	-	-	10,000			100%
1TNPS Neff and Purcell Intersection Design	S. Burr	Planning	950,000	2,428	200,000	600,000	-	-	-	800,000			0%
1TCSI Citywide Safety Improvements	R. Rowan	Construction	2,940,600	933,102	1,590,600	1,000,000	-	-	-	2,590,600			32%
14th Street Reconstruction Projects													
1T14R 14th St. Reconstruction	G. Sabourin	Sub. Complete	4,600,000	4,696,949	1,888,000	-	-	-	-	1,888,000	1		102%
1T14B 14th St. Reconstruction Phase II	G. Sabourin	Sub. Complete	6,100,000	5,339,533	4,443,660	-	-	-	-	4,443,660	1		88%
14th Street Reconstruction Projects			10,700,000	10,036,482	6,331,660	-	-	-	-	6,331,660			94%
1XECI Empire Corridor Improvement Projects													
1TECI Purcell Roundabout	S. Burr	Sub. Complete	2,000,000	1,653,099	2,000,000	-	-	-	-	2,000,000			83%
1TEC2 Empire Corridor Modernization	S. Burr	Sub. Complete	1,900,000	922,716	1,900,000	-	-	-	-	1,900,000			49%
1TEC3 Empire Extension	S. Burr	Design	10,800,000	9,850	1,600,000	8,500,000	700,000	-	-	10,800,000			0%
1TEC4 Empire & 27th Street Roundabout	S. Burr	Design	3,500,000	14,981	300,000	2,300,000	700,000	200,000	-	3,500,000			0%
1TEC5 Purcell Butler Market	S. Burr	Design	2,500,000	21,304	-	100,000	200,000	2,000,000	200,000	2,500,000			1%
1TEC6 Purcell Modernization	S. Burr	Design	2,700,000	30,187	-	100,000	800,000	1,600,000	200,000	2,700,000			1%
1XECI Empire Corridor Improvements Program			23,400,000	2,652,137	5,800,000	11,000,000	2,400,000	3,800,000	400,000	23,400,000			11%
1TMCI Murphy Corridor Improvement Projects													
1TMC1 Murphy Railway Overcrossing	G. Sabourin	Design	6,739,000	-	842,400	5,896,600	-	-	-	6,739,000			0%
1TMC2 Murphy Brosterhous to 15	G. Sabourin	Design	6,781,200	57,463	673,900	3,706,500	2,400,800	-	-	6,781,200			1%
1TMC3 Murphy & Brosterhous Roundabout	G. Sabourin	Design	2,948,300	-	505,400	252,700	2,190,200	-	-	2,948,300			0%
1TMC4 Murphy & 15th Roundabout	G. Sabourin	Planning	2,948,300	-	-	505,400	252,700	2,190,200	-	2,948,300			0%
1TMC5 Murphy & Country Club Design	G. Sabourin	Planning	2,948,300	-	-	-	505,400	252,700	2,190,200	2,948,300			0%
1TMC6 Murphy Corridor Improvements Parrell to Brosterhous	G. Sabourin	Planning	9,634,900	-	-	-	-	1,493,800	2,431,700	3,925,500			0%
1TMCI Murphy Corridor Improvements			32,000,000	57,463	2,021,700	10,361,200	5,349,100	3,936,700	4,621,900	26,290,600			0%
1XCAI Citywide Accessibility Improvement Projects													
1ACAI Citywide Accessibility Improvements	R. Rowan	Sub. Complete	1,111,000	1,137,612	220,000	-	-	-	-	220,000	1		102%
1ADSC Dean Swift Road Corridor	R. Rowan	Sub. Complete	60,495	113,731	150,000	-	-	-	-	150,000			188%
1ADIV NE Division Street Corridor	R. Rowan	Design	500,000	-	500,000	-	-	-	-	500,000			0%
1ACA2 Lodge Pole Drive Corridor	R. Rowan	Pending	315,000	-	-	315,000	-	-	-	315,000			0%
1ACA3 Poplar Street Corridor	R. Rowan	Pending	250,000	-	-	250,000	-	-	-	250,000			0%
1ACA4 SW Truman Hill Taft Silver Lake Corridor	R. Rowan	Pending	440,000	-	-	-	440,000	-	-	440,000			0%
1ACA5 SW Cleveland Avenue Corridor	R. Rowan	Pending	190,000	-	-	-	190,000	-	-	190,000			0%
1ACA6 NW Delaware Avenue Corridor	R. Rowan	Pending	500,000	-	-	-	-	500,000	-	500,000			0%
1ACA7 NW Hill Street Corridor	R. Rowan	Pending	250,000	-	-	-	-	250,000	-	250,000			0%
1ACA8 NW Seismore Street Corridor	R. Rowan	Pending	125,000	-	-	-	-	125,000	-	125,000			0%
1ACA9 Riverwest Neighborhood	R. Rowan	Pending	350,000	-	-	-	-	-	350,000	350,000			0%
1A1CA Riverside Neighborhood	R. Rowan	Pending	350,000	-	-	-	-	-	350,000	350,000			0%
1ACAI Citywide Accessibility Improvements			4,441,495	1,251,343	870,000	565,000	630,000	875,000	700,000	3,640,000			28%
Total Transportation Projects			92,462,095	30,694,385	17,683,960	23,756,200	8,604,100	8,611,700	5,721,900	64,377,860			

City of Bend 2019-2023 Capital Improvement Program Project List

Project Name & Number	Project Manager	Current Phase	Project Cost Estimate	Spent to Date	2018-19 Budget	2019-20 Projected	2020-21 Projected	2021-22 Projected	2022-23 Projected	Total 2019-2023	Notes	Budget	Percent Total Cost Est. Spent
Water													
1WEWL Egypt Waterline	E. Forster	Sub. Complete	771,000	509,200	400,000	-	-	-	-	400,000			66%
1WMP1 Water Master Plan Update	Unassigned	Planning	800,000	45,500	750,000	-	-	-	-	750,000			6%
1WAWP Awbrey Well Supply Expansion	Unassigned	Pending	2,021,760	-	-	2,021,760	-	-	-	2,021,760			0%
1WCPS College Parallel Pipe Study	Unassigned	Pending	1,215,760	-	-	1,215,760	-	-	-	1,215,760			0%
1WLPE Lafayette Pipe Enlargement	Unassigned	Pending	250,640	-	-	250,640	-	-	-	250,640			0%
1WVSS Valves Operational System Study	Unassigned	Pending	234,000	-	-	78,000	78,000	78,000	-	234,000			0%
1WSPP Parallel Piping Brookwood to Brosterhaus	Unassigned	Pending	1,596,400	-	-	-	1,596,400	-	-	1,596,400			0%
1WSSC New Water Well Near NE Shirley Court	Unassigned	Pending	2,830,464	-	-	-	2,830,464	-	-	2,830,464			0%
1WRBO Parallel Piping Rock Bluff to Brookwood	Unassigned	Pending	2,940,000	-	-	-	-	2,940,000	-	2,940,000			0%
1WSWO New Water Well Shiloh Site	Unassigned	Pending	2,721,600	-	-	-	-	2,721,600	-	2,721,600			0%
1WBRM Parallel Mains Brosterhaus/Reed Mkt	Unassigned	Pending	1,742,000	-	-	-	-	-	1,742,000	1,742,000			0%
Total Water Projects			17,123,624	554,700	1,150,000	3,566,160	4,504,864	5,739,600	1,742,000	16,702,624			
Total 2019-2023 Capital Improvement Program			344,947,098	129,152,627	57,465,960	53,932,360	19,942,964	30,291,300	19,723,900	181,356,484			

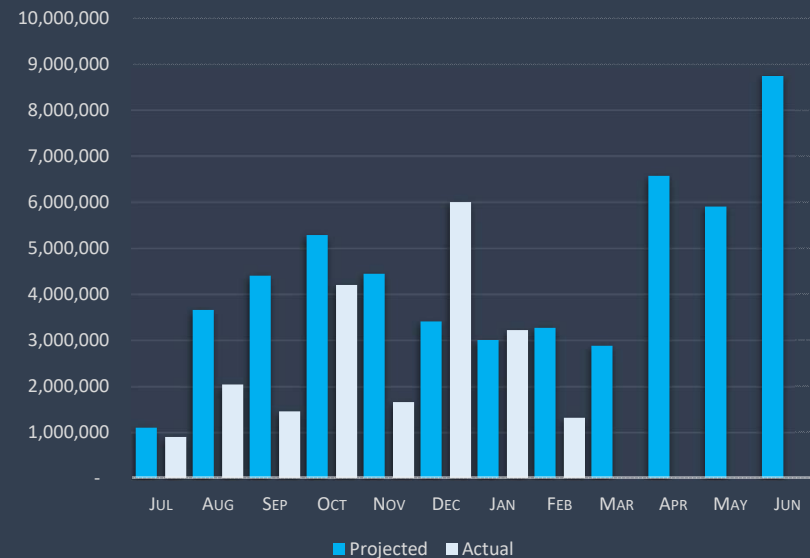
Budget Notes & Revisions

* Capital R&R Program performed by EIPD but not included in the CIP budget documents.
 1- Budget increased/project funded with 2018 fiscal year-end rollover - total adjustment \$342,072

CAPITAL IMPROVEMENT PROGRAM *budget & spending*

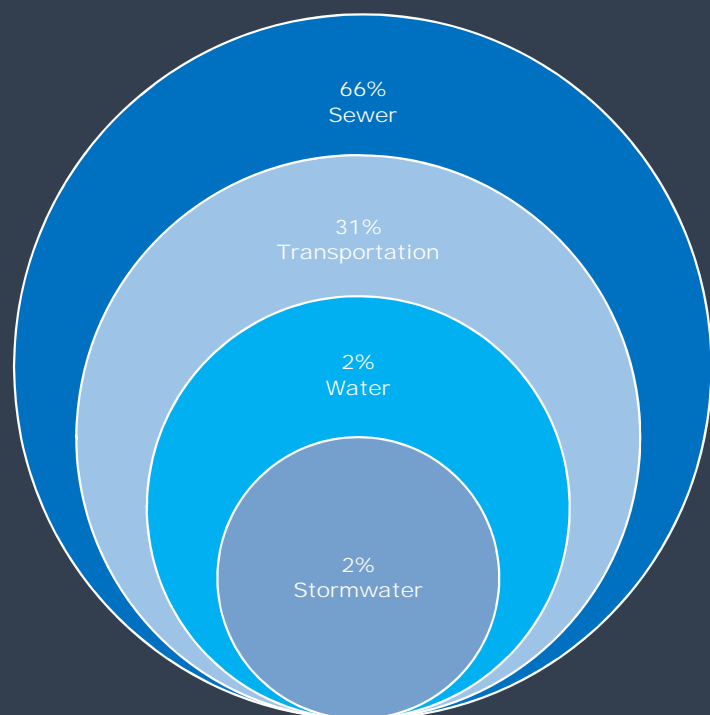
2019 PROJECTED MONTHLY SPENDING

The forecasted spending is based on current contract encumbrances and established project budgets. Projections are updated as projects contract throughout the year.



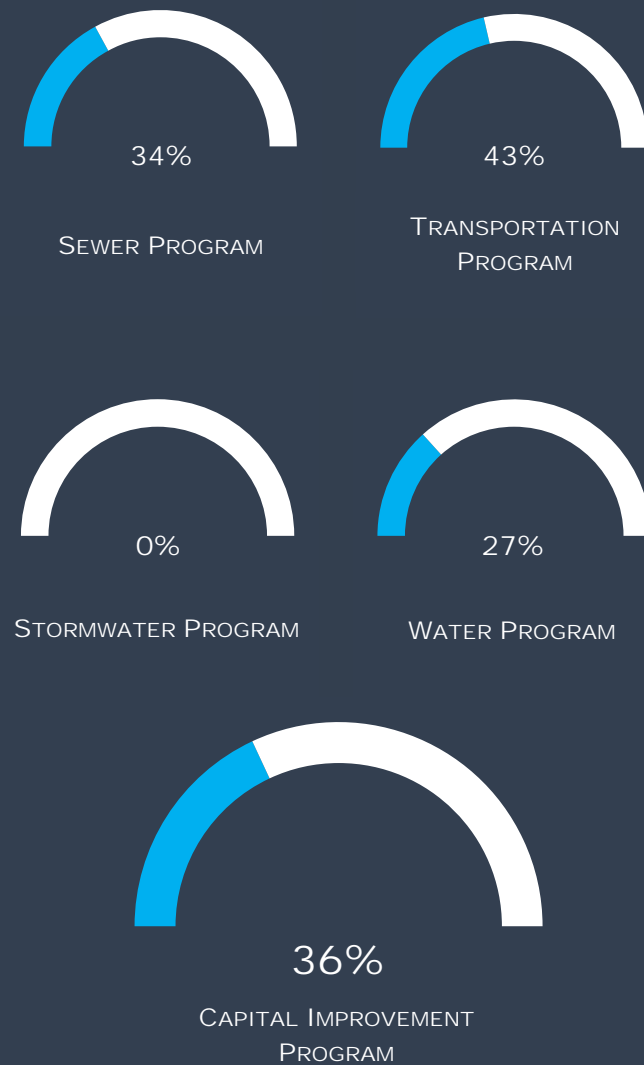
2019 BUDGETS BY PROGRAM

Sewer and Transportation, including Transportation Construction, Accessibility and General Obligation Bond projects, represent the majority of projects budgeted in the 2019 CIP.



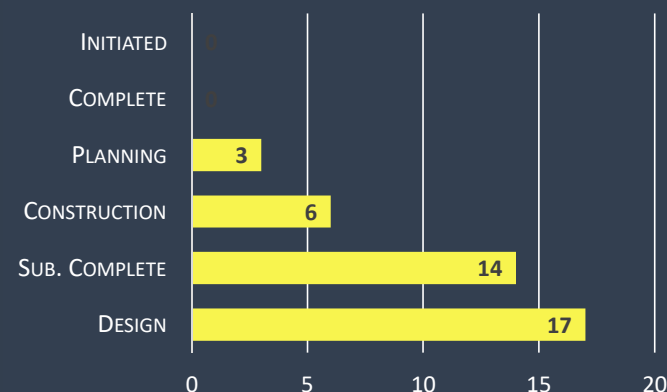
BUDGETS SPENT *by program*

Total percent budget spent FY 2019 for each program.



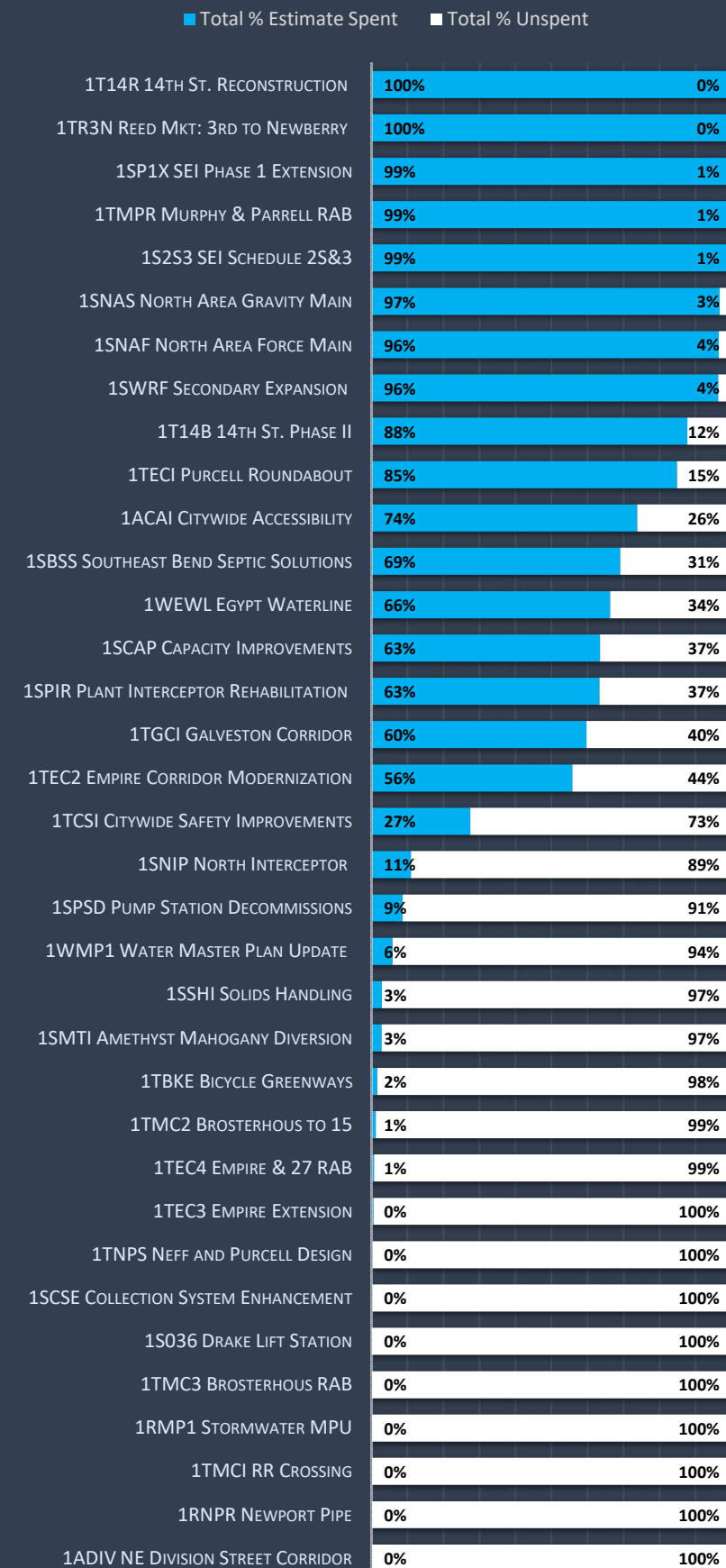
PROJECT PHASE

Of the projects that are active this fiscal year, what phase are they in now in the overall project life cycle?



SPENDING ON ACTIVE PROJECTS

Total percentage of budgets spent over the lifespan of the project for CIP projects that are active in fiscal year 2019.



CLEAN WATER *State Revolving Fund*

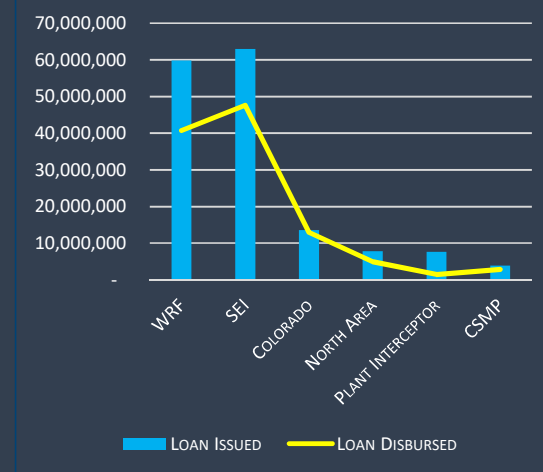
EIPD has participated in the Clean Water State Revolving Fund (CWSRF) loan program since 2011.

The program, administered by the State of Oregon Department of Environmental Quality, provides below market rate loans for the planning, design and construction of various water pollution control activities.

The of Bend has received significant assistance from the CWSRF program. We have over \$150 million in loans issued to date and in December 2018 we applied for an additional \$19.5 million in funding.

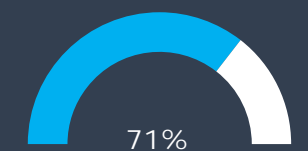
LOANS BY PROJECT

Information is grouped by major project over the life of the program.

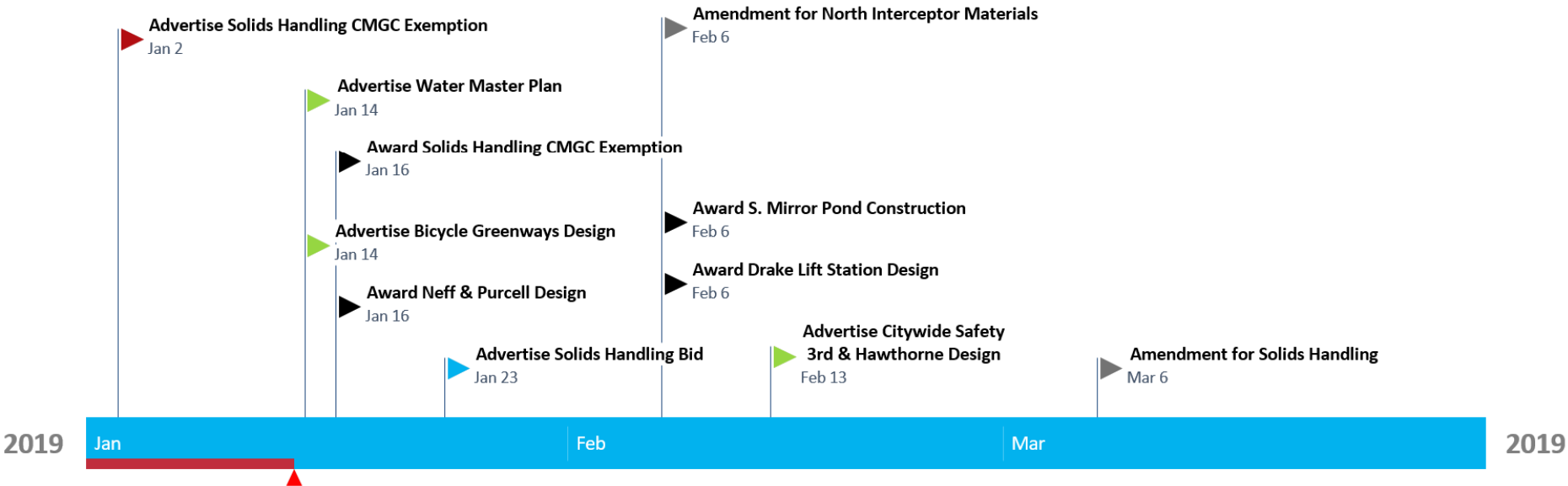


TOTAL AMOUNT DISBURSED

Disbursements are processed monthly for projects active in construction.



EIPD Procurement Timeline



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

Key	
	Design RFP Advertised
	Construction Bid Advertised
	CM/OR Advertised
	PDB Advertised
	Design Build Advertised
	Alternative Delivery Exemption Advertised
	Direct Appoint Contract
	Contract Amendment to Council
	Contract Awarded

Collection System Enhancement Program

This program includes approximately 100 capital repair and replacement projects identified in the Collection System Master Plan. The total work scheduled for all projects over the next 25 years is about \$120 million.

Project Manager: Oliver Murray | omurray@bendoregon.gov

	Planning Complete	Design Complete	In Construction	Construction Complete	Close-Out Complete
#97B The Shire Lift Station Decommission	●				
#53 Underwood Lift Station Condition Upgrade	●	●	●		
#27 Pioneer Lift Station Condition Upgrade	●				
#45 Renwick Lift Station Condition Upgrade	●	●	●		
#65A Nottingham #1 Lift Station Decommission - Gravity Sewer Diversion	●				
Riverhouse Lift Station	●	●			
#35 Deschutes Business Lift Station Condition Upgrade	●				
#26 Canal View Lift Station Upgrade	●				
#41 Pacific Lift Station Condition Upgrade	●				
#46 Rimrock #1 Lift Station Condition Upgrade	●				
#47 Rimrock #2 Lift Station Condition Upgrade	●				
#48 Rimrock #4 Lift Station Condition Upgrade	●				
#49 Rimrock #5 Lift Station Condition Upgrade	●				
#42 Poplar Park Lift Station Capacity and Condition					
#62B Camden Lift Station Decommission					
#67A Ridgewater #2 Lift Station Decommission - Gravity Sewer Diversion					
#67B Ridgewater #2 Lift Station Decommission					
#65A Nottingham #1 Lift Station Decommission - Gravity Sewer Diversion					
#66B Nottingham #2 Lift Station Decommission					
#71A&B Old Mill Lift Station Hydraulic Upgrade					
#123 Renaissance Lift Station Condition Upgrade					

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: \$57,463
 % Spent to Estimated: 0.23%

Sub-Projects:	Est.	Spent
RR/Bridge	\$6,739,000	\$0
Extension	\$6,781,200	\$72,873
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

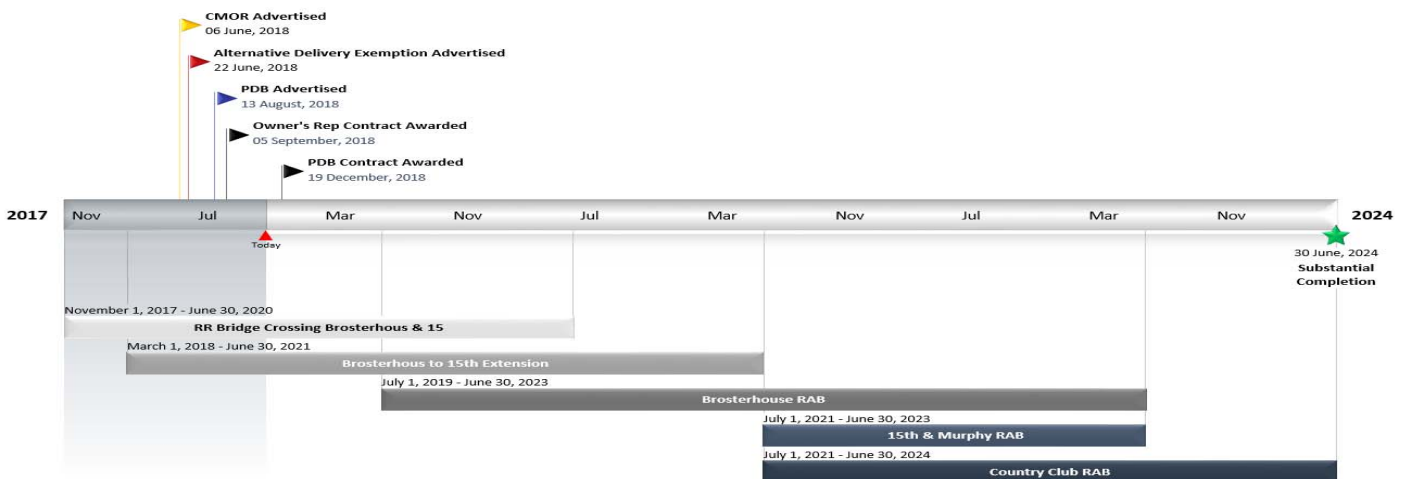
Adjustments: No change from prior month

Adjustments: No change from prior month

Adjustments: No change from prior month

Status Update: PDB contract approved December 19, project kickoff meeting January 9.

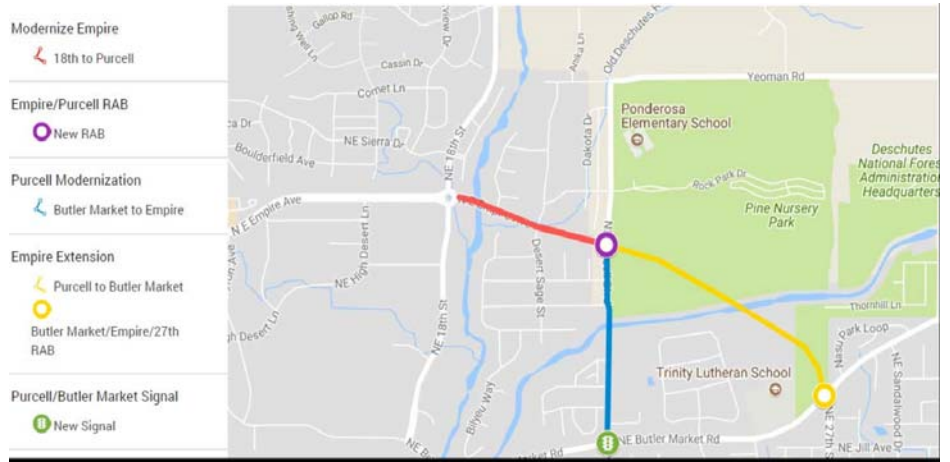
Cost Estimate Classification: 5



Empire Corridor Improvements

Primary Contact: Sinclair Burr | sburr@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: 5/31/19
 Final Closeout: 5/31/20*

* Current schedule for Empire Ave. Modernization and Empire-Purcell RAB only. Other projects will be added to the timeline at a future date.

Cost

Total Estimated:	\$23,400,000	
Spent to Date:	\$2,652,137	
% Spent to Estimated:	13%	
Sub-Projects:	Est.	Spent
Purcell RAB	\$2,000,000	\$1,697,519
Empire Mod	\$1,900,000	\$1,058,602
Purcell Mod	\$2,700,000	\$75,288
Emp Extension	\$10,800,000	\$50,788
Butler Mkt Sig	\$2,500,000	\$23,587
Emp/27 RAB	\$3,500,000	\$20,781

Status: Potential Scope Modification

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

Status: On Schedule

Adjustments: Schedule compressed by combining Empire-Purcell RAB and Empire Mod construction schedules.

Status: On Budget

Adjustments: No change from prior month

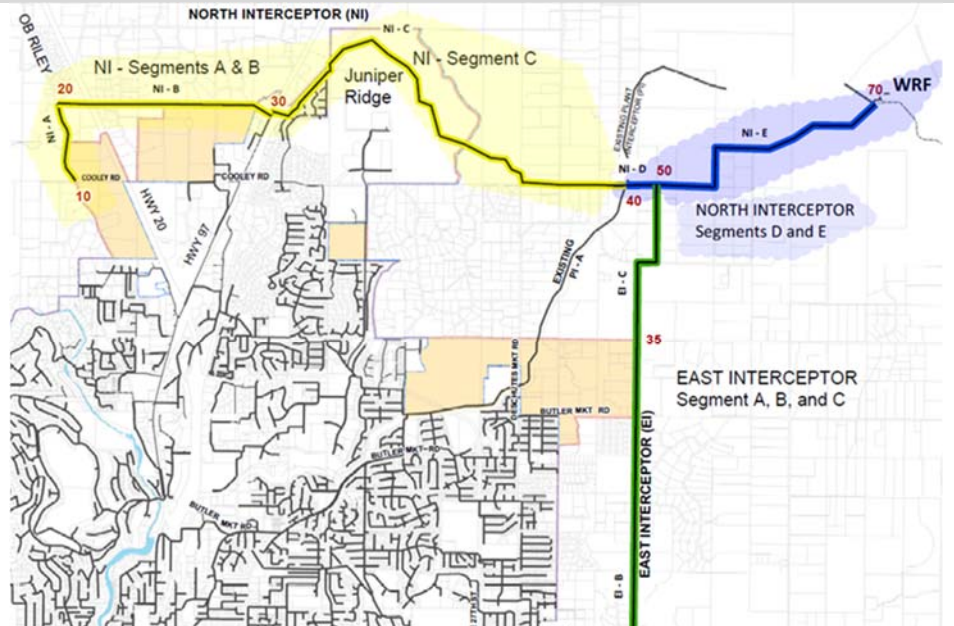
Status Update: Design of the extension from Purcell to 27th proceeding. Construction of Stage II of Phase I - construction of east portion or RAB - is anticipated to continue February 11, weather permitting.

Cost Estimate Classification: 5



North Interceptor Project Phase I

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 10,500 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: 12/31/2020
 Final Closeout: 12/31/2022

Cost

Total Estimated: \$40,000,000
 Spent to Date: \$2,523,426
 % Spent to Estimated: 6%

Status: Scope Increase

Adjustments: Original project did not include canal work. Results of the alternatives analysis indicate the need for a pump station.

Status: On Schedule

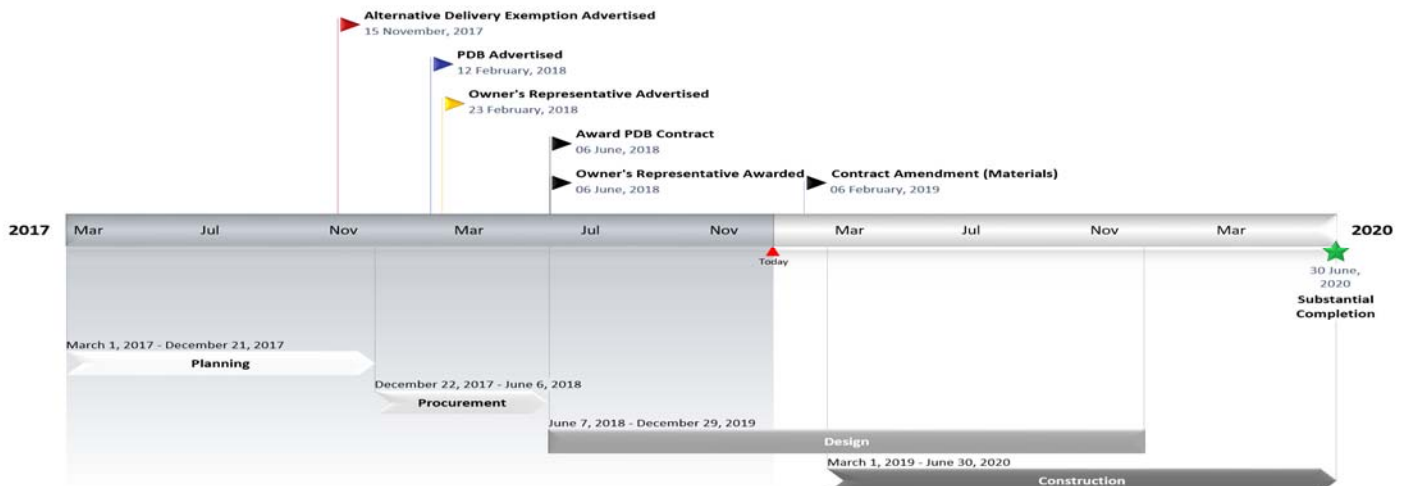
Adjustments: No impact to schedule due to scope increase.

Status: Budget Increase

Adjustments: Additional budget will be requested during 2019-2021 budget development to cover scope increase.

Status Update: Early work package to procure materials being prepared for February 6 Council. Sub-projects have been created in order to capture costs on specific project elements going forward.

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: **1/11/19**
 Final Closeout: **1/11/20**

Cost

Total Estimated: \$7,600,000
 Spent to Date: \$5,043,629
 % Spent to Estimated: 89%

Status: On Scope

Status: **Baseline Schedule Adjustment**

Status: On Schedule

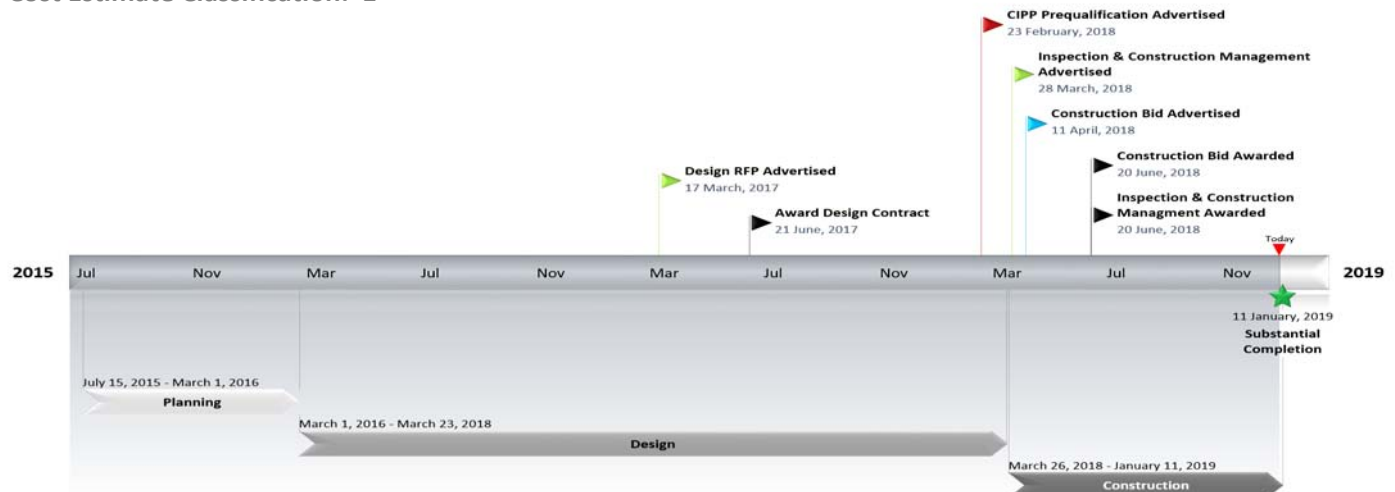
Adjustments: No change from prior month

Adjustments: **Schedule adjusted to accommodate work for North Interceptor.**

Adjustments: No change from prior month

Status Update: All CIPP lining is complete, manhole rehabilitation continues to progress. Schedule adjusted to accommodate work on the North Interceptor. This is the final month this project will be reported.

Cost Estimate Classification: 1



Solids Handling Improvements

Primary Contact: Josh Robertson | jrobertson@bendoregon.gov

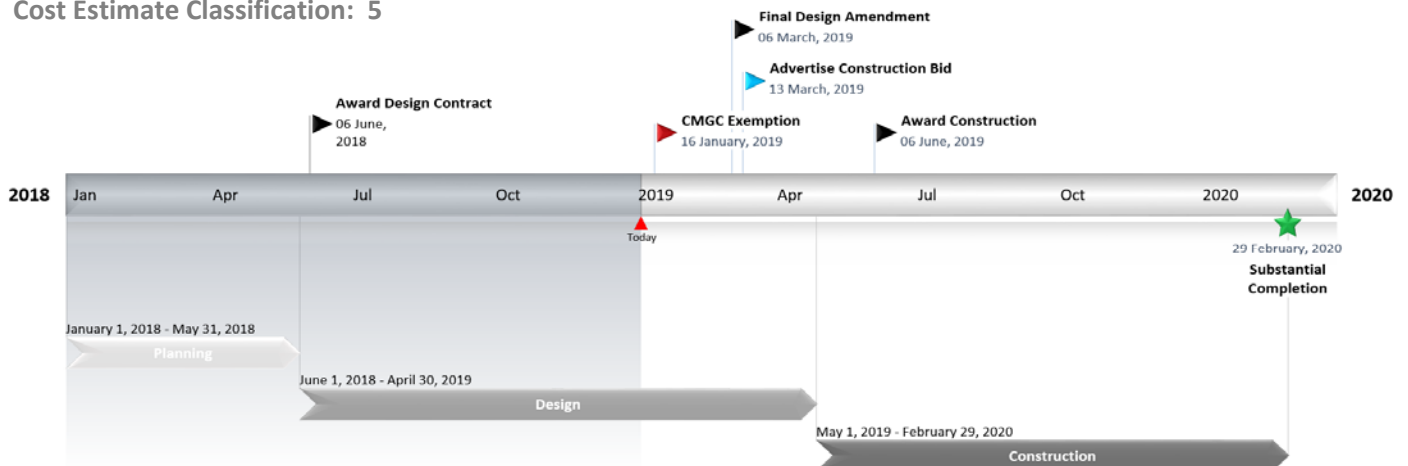
The City of Bend’s Water Reclamation Facility (WRF) solids handling dewatering process has maintenance, redundancy, and operational challenges. The system is nearing capacity and there is heavy corrosion in both the building and on equipment resulting in deterioration of assets.



Scope	Schedule	Cost
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.	Start Date: 6/1/2018 Substantial Completion: 2/29/2020 Final Closeout: 3/1/2021	Total Estimated: \$5,500,000 Spent to Date: \$153,536 % Spent to Estimated: 3%
Status: On Scope	Status: On Schedule	Status: Potential Budget Adjustment
Adjustments: No impact to scope for potential budget adjustment	Adjustments: No impact to schedule for potential budget adjustment	Adjustments: Preliminary estimates coming in higher than original

Status Update: A contract exemption for Construction Manager General Contractor (CMGC) going to Council January 16. Final design scope and fee being negotiated with amendment anticipated for Council in February.

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: **5/27/19**
 Final Closeout: **5/27/2020**

Cost

Total Estimated: \$8,000,000
 Spent to Date: \$5,043,629
 % Spent to Estimated: 63%

Status: On Scope

Status: Baseline Schedule Adjustment

Status: On Budget

Adjustments: No change from prior month

Adjustments: **See note below**

Adjustments: No change from prior month

Status Update: **Schedule adjusted to replace failed pumps. Work on aeration basin 2 has started and work in pump station 22A continues.**

Cost Estimate Classification: 1



Pump Station Decommissions Program

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: \$4,500,000
 Spent to Date: \$385,024
 % Spent to Estimated: 9%

Status: Potential Scope Increase

Status: Potential Schedule Change

Status: Potential Budget Increase

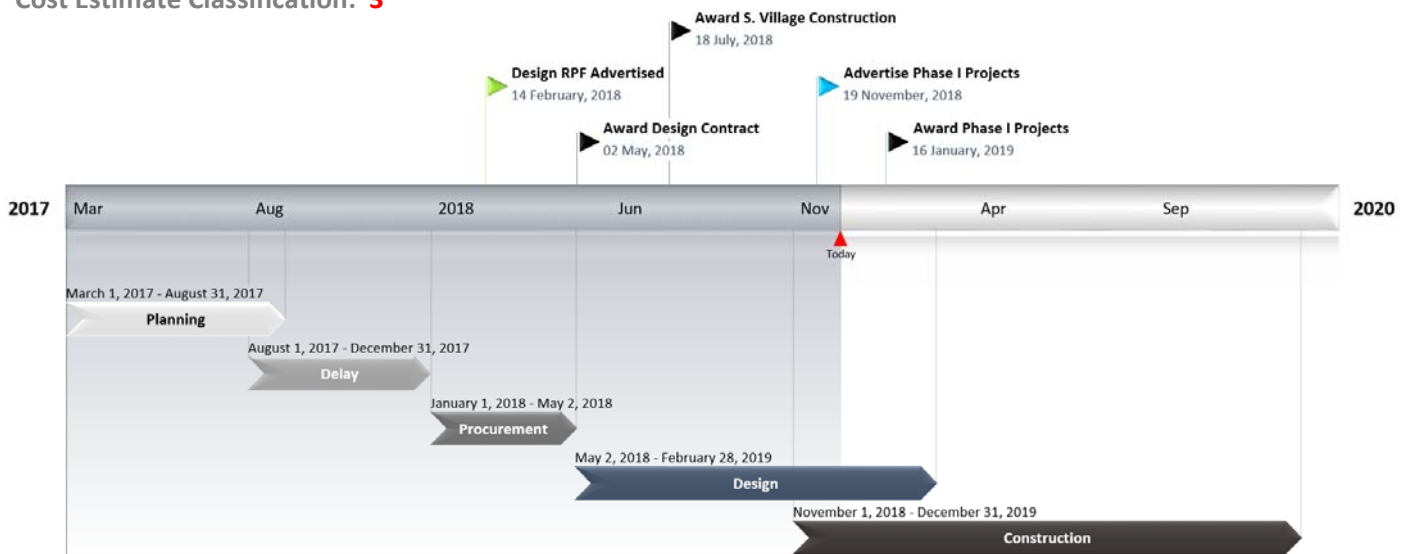
Adjustments: Phase III work being evaluated as part of a private development project.

Adjustments: If Phase III work is added the schedule will be adjusted.

Adjustments: If Phase III work is added, a budget increase is necessary.

Status Update: No bids received for Phase I construction. Work will be repackaged with Phase II.

Cost Estimate Classification: 3



Amethyst Mahogany Diversion

This project is a sewer diversion structure and pipeline, approximately 1,200 linear feet in length that will serve the Amethyst-Mahogany sewer collection basin and reroute flows into the recently completed Southeast Interceptor. This action will mitigate capacity constrained segments of the Central Interceptor.

Primary Contact: Jake Sherman | jsherman@bendoregon.gov



Scope

Design and construction of a diversion box and pipeline routing sewer flows to the Southeast Interceptor.

Schedule

Start Date: 7/1/2018
 Substantial Completion: 11/30/2019
 Final Closeout: 11/30/2020

Cost

Total Estimated: \$3,900,000
 Spent to Date: \$105,958
 % Spent to Estimated: 3%

Status: On Scope

Adjustments: No change from prior month

Status: On Schedule

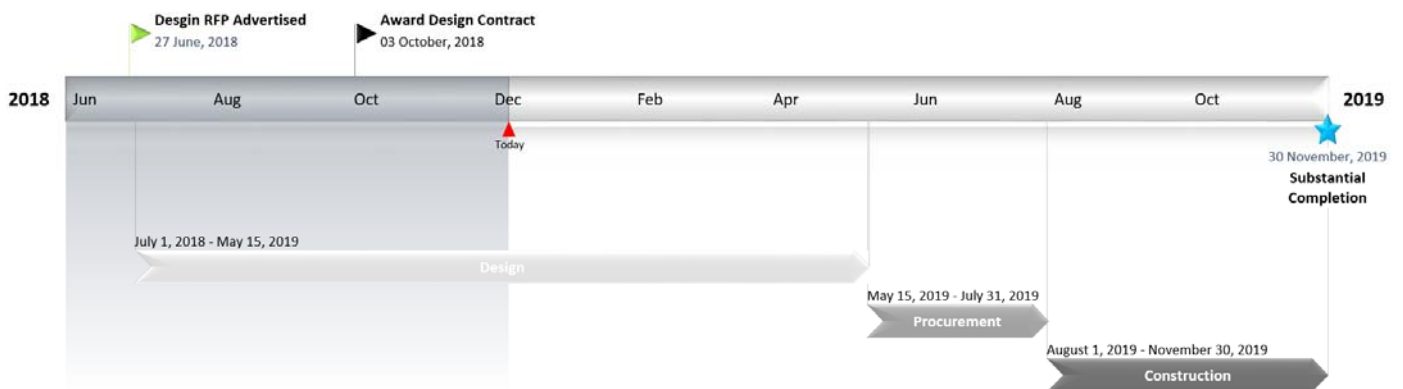
Adjustments: No change from prior month

Status: On Budget

Adjustments: No change from prior month

Status Update: Draft alternatives analysis complete and design continues.

Cost Estimate Classification: 5



Neff & Purcell Intersection

This intersection and corridor has been highly prioritized by members of the community serving on the City of Bend Accessibility Advisory Committee and a previous safety study. The project will include the following tasks: public engagement, survey, design, and construction of missing sidewalks and a safer intersection for all users serving the surrounding medical, residential, and school properties.

Primary Contact: Sinclair Burr | sburr@bendoregon.gov



Scope

Improvements to the existing intersection of Neff Road and Purcell Boulevard for all modes of transportation. Improvements to the pedestrian infrastructure to the west of the signal. An alternatives analysis will determine the exact improvements implemented here.

Schedule

Start Date: 8/6/2018
 Substantial Completion: 06/30/2021
 Final Closeout: 06/30/22

Cost

Total Estimated: \$4,000,000
 Spent to Date: \$2,428
 % Spent to Estimated: 0.06%

Status: On Scope

Status: On Schedule

Status: On Budget

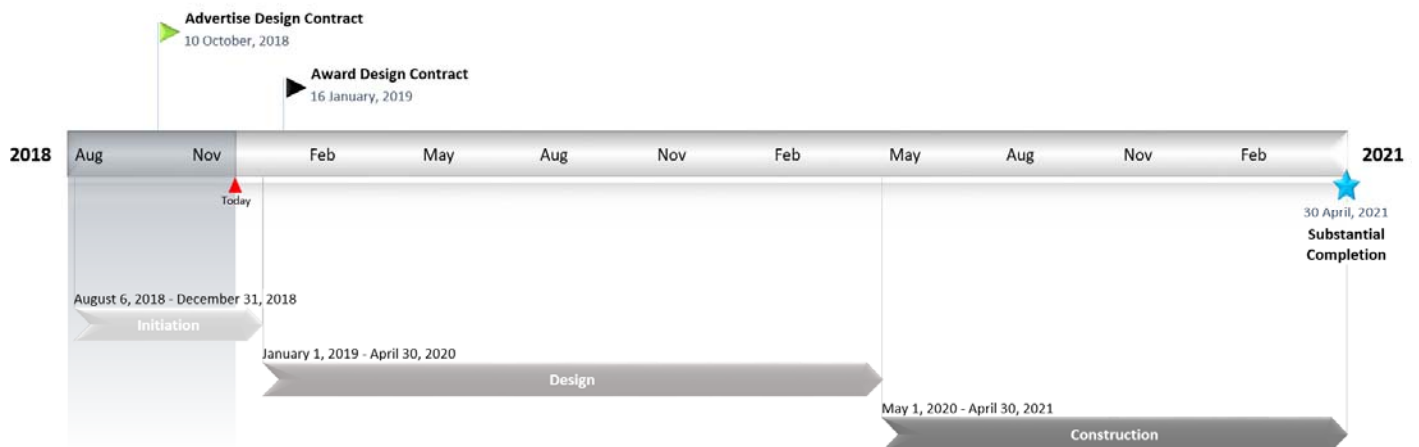
Adjustments: Project initiated

Adjustments: Project initiated

Adjustments: Project initiated

Status Update: **Currently negotiating scope and fee for design.**

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.

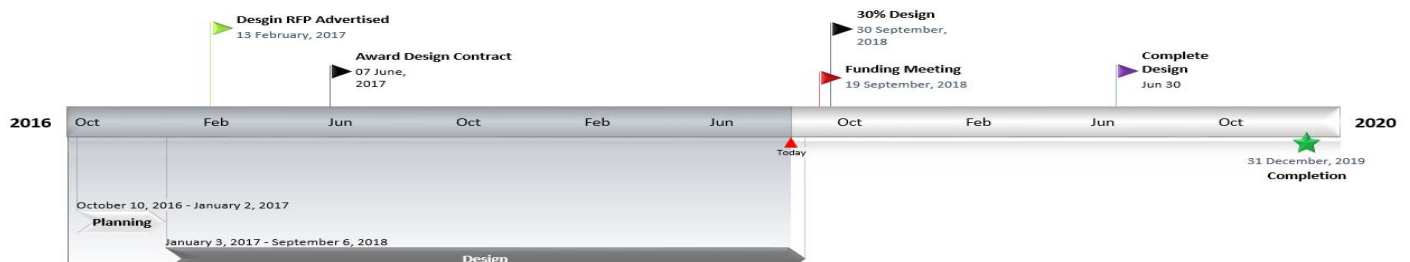


Primary Contact: Skip Martin | smartin@bendoregon.gov

Scope	Schedule	Cost
Design 35,000 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* * City is currently only planning to design this project.	Total Estimated: \$2,800,000* Spent to Date: \$1,933,994 % Spent to Estimated: 69%
Status: On Schedule	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: After evaluating the financial impact on residents and citywide ratepayers of various cost share scenarios and financial strategies that focused solely on the study area recommended by the Septic to Sewer Advisory Committee, and hearing from affected residents in the public listening sessions, Council directed staff to develop a broad Septic to Sewer Conversion program using limited rate revenues that would serve residents with septic systems citywide. This program will be funded with rate revenues annually, set up an application process that will allow neighborhoods to apply for funding, where the City will construct public sewer lines and residents are responsible for their own private property costs. A connection fee will be established and assessed on program participants, in order to recover a portion of the cost of extending sewers, and to help create a sustainable program. Council will be holding a first reading on the ordinance to establish the Citywide program on December 5, with a second reading scheduled for December 19. If adopted, the program would go into effect on February 1, 2019.

Cost Estimate Classification: 2



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 & Hawthorne, 3rd & Franklin, 3rd & COID Canal, 3rd & Pinebrook, 3rd & Roosevelt, Colorado Interchange, Neff & Williamson, 27th & Conners, and Brosterhous Road railroad underpass.

Schedule

Start Date: 10/1/2014
 Substantial Completion: 6/30/2021
 Final Closeout: 6/30/2022

Completed Projects:

- 3rd & Roosevelt
- Neff & Williamson Blvd
- 27th & Conners Ave

Cost

Total Estimated: \$2,940,600
 Spent to Date: \$952,933
 % Spent to Estimated: 32%

Status: On Scope

Adjustments: No change from prior month

Status: On Schedule

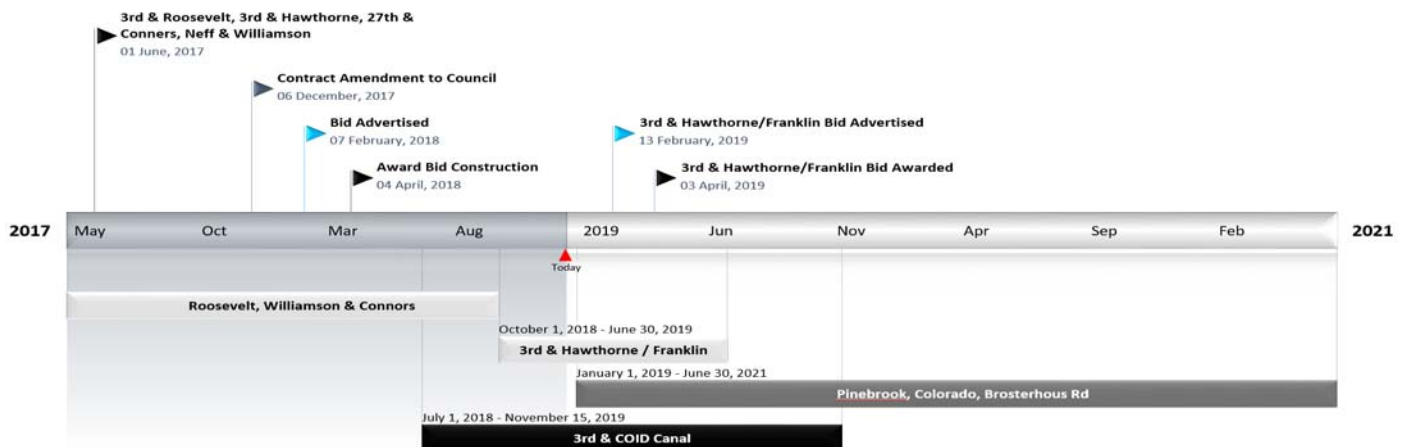
Adjustments: Project dates were adjusted to reflect future scheduled work previously not reported.

Status: On Budget

Adjustments: No change from prior month

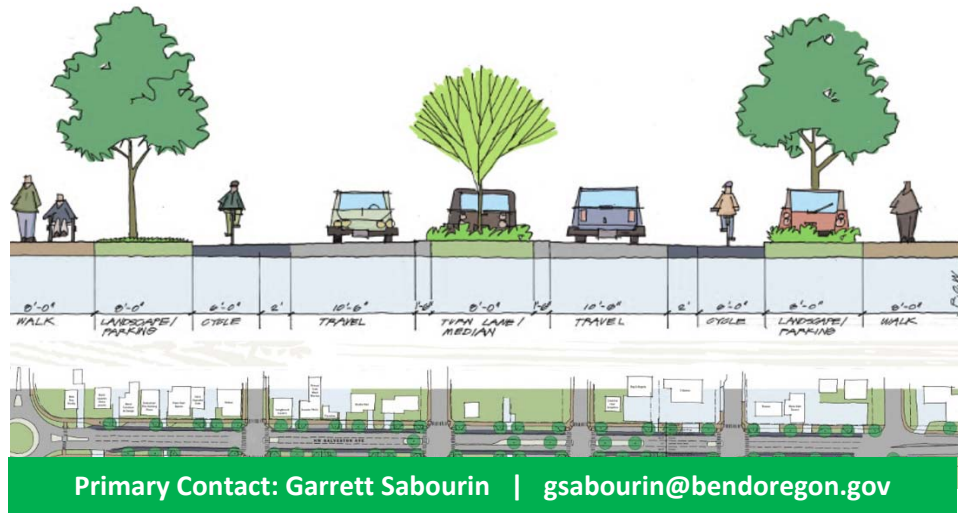
Status Update: Right of way work being done along intersections on 3rd Street at Hawthorne, Franklin and the canal.

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: 01/31/2019**

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

Cost

Total Estimated: \$950,000[†]
 Spent to Date: \$566,885*
 % Spent to Estimated: 60%

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

Status: On Scope

Adjustments: No change from prior month

Status: On Schedule

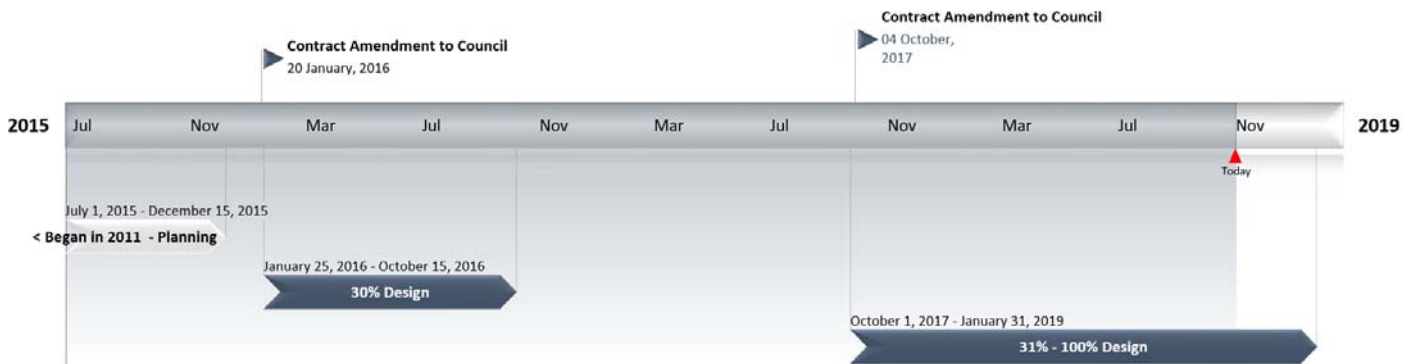
Adjustments: No change from prior month

Status: On Budget

Adjustments: No change from prior month

Status Update: Design has been suspended until analysis can be completed on traffic calming in the adjacent neighborhood. Council will consider mini-roundabout and results of analysis at a future work session.

Cost Estimate Classification: 3



Bicycle Greenways Project

An initial network of neighborhood greenways across Bend will be created to make walking and biking a more comfortable and safe travel option. It will be implemented in phases and by corridor over multiple years. The proposed improvements will provide safer connections, reduce cut through traffic and speeds, help people cross busier streets, and link together housing, parks, schools, and businesses.



Project Engineer: Rory Rowan | rrowan@bendoregon.gov

Scope

Design, public outreach, and construction of signs, pavement markings, and traffic calming improvements across a 9-mile network of local streets. The initial phase currently underway includes:

- NE 6th St (Greenwood to Butler Market)
- NW/SW 15th St (Simpson to Galveston)

Schedule

Start Date: 2/1/2018
 Substantial Completion: 06/30/2021
 Final Closeout: 06/30/2022

Cost

Total Estimated: \$900,000
 Spent to Date: \$20,781
 % Spent to Estimated: 1%

Status: On Scope

Status: Potential Schedule Change

Status: On Budget

Adjustments: No change from prior month

Adjustments: Paving in Street Operations Division may impact schedule

Adjustments: No change from prior month

Status Update: Phase 1 (NE 6th & NW 15th Streets) design will be completed by fall. Phase 1 bidding and construction planned over winter with tentative Council award date in March and construction in spring 2019.

Cost Estimate Classification: 5

