



ENGINEERING

Monthly Report

January 2016



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FROM THE DIRECTOR

Many organizations struggle with communicating cost on projects. There are numerous calculations that can be used to provide cost, value and productivity information with several variables, and timeframes, to be considered. I believe the key to effective reporting is finding the right balance between enough and too much information. This report goes a long way in meeting our reporting needs, but this past month I found room for improvement.

In the September Issue I discussed cost estimating in detail and explained how estimates are reviewed and refined as projects move through established phases. Initially, budgets are built around these estimates, but once the projects enter procurement and contracts are awarded the budgets are refined. From the highest level perspective, budgets are the explanation of how we expect to spend on our contracts.

The two cost indicators used in this report, Estimates and Budgets, communicate different information on the project but the terms are sometimes used interchangeably. To add clarity to this report we updated the project sheets to show percent spent to estimate rather than percent spent to budget. Going forward, all budget information is limited to the Executive Summary and Cost Estimate information is contained on the project sheets.

Also new this month is the Procurement Timeline. I felt we needed a strong visuals to give readers a full appreciation of the coordination behind procurement activity on our projects. Every procurement activity involves multiple layers of coordination and numerous people are involved. My hope is the timeline will help to explain some of the moving targets on our projects.

Tom Hickmann PE
EIPD Director
541 317-3029

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.

Executive Summary

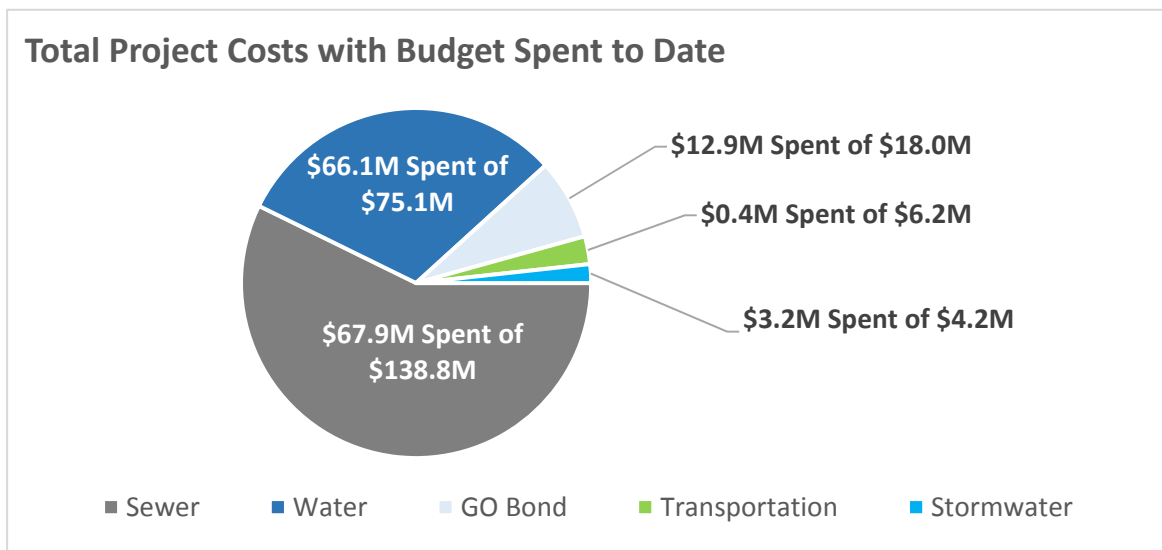
CIP Numbers Snapshot

During the month of December no new projects were started and no projects were completed. The February 2016 report will include project a cut sheet for the Citywide Accessibility Projects.

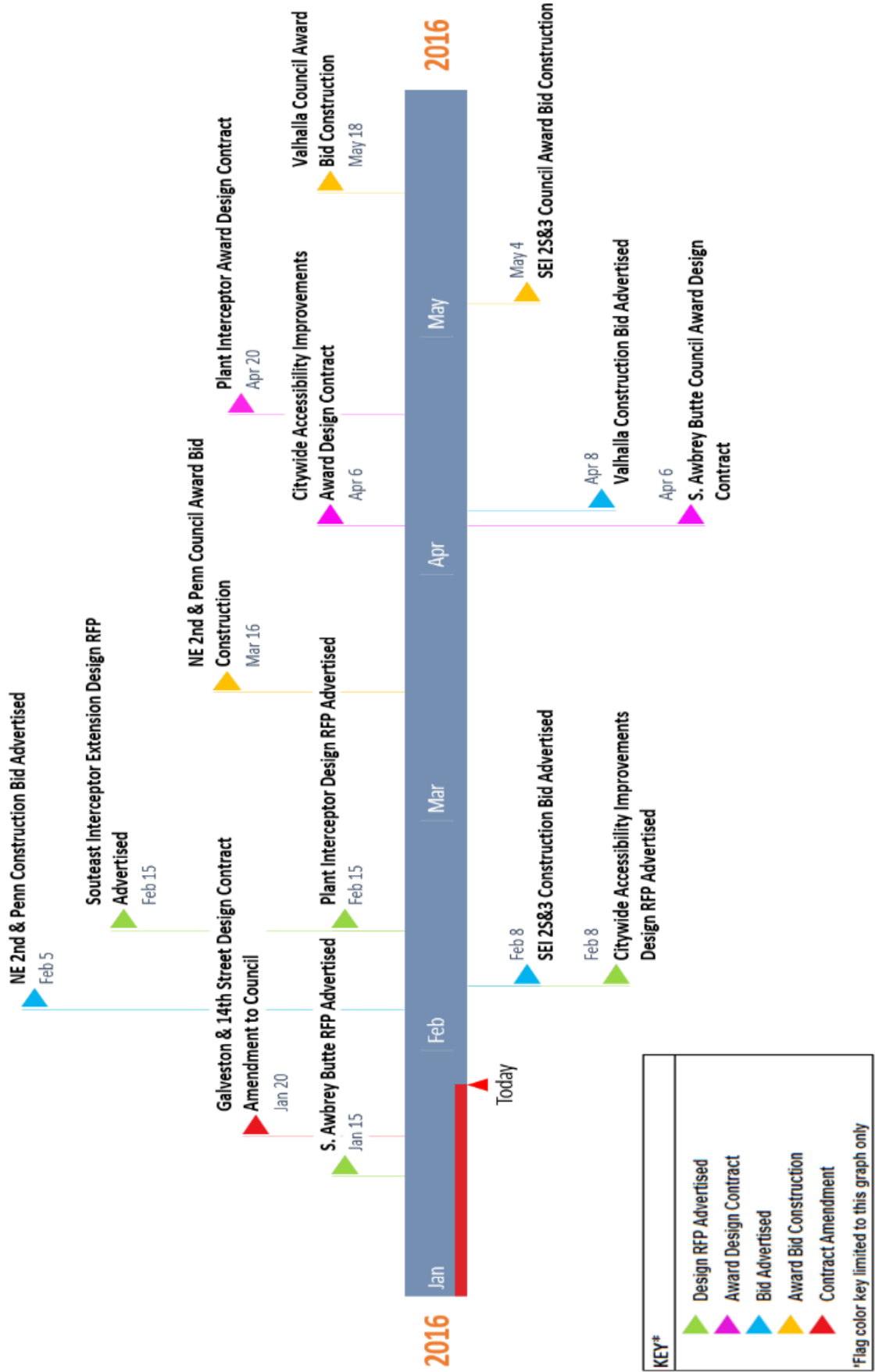
The table below shows the status of projects in the current CIP Plan as of December 31, 2015.

Status	CIP	R&R
Open (Active):		
In planning, design or construction phase	22	1
Substantially Complete (Active):		
Asset transferred to Opeations and City has beneficial use	5	0
Closed (Not Active):		
Completed 1-2 yr warranty; Cancelled; Tranferred project to Ops	6	3
Pending (Not Active):		
Scheduled to start within 5-Year CIP Plan	27	41
Total	60	45

The graph below shows the total value of the active projects in the 5-year CIP Plan and total budgets spent to date. Repair and Replacement projects are not included.



EIPD Procurement Timeline



KEY*

- ▲ Design RFP Advertised
- ▲ Award Design Contract
- ▲ Bid Advertised
- ▲ Award Bid Construction
- ▲ Contract Amendment

*Flag color key limited to this graph only

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City of Bend 2016 - 2020 Capital Improvement Program Project List

Project Name & Number	Project Start	Estimated Substantial Completion	Project Stage	Cost Estimate Classification	Total Project Budgeted	Total Project Spent to Date	2015-16 Adopted Budget	2016-17 Adopted Budget	2017-18 Proposed Budget	2018-19 Proposed Budget	2019-20 Proposed Budget	Current 5-Year CIP Planned Budgets	Budget Revisions	Percent Budget Spent
ADA Construction														
AA11FA South 3rd Street Pedestrian Improvements	2011	3/31/17	Design	4	435,309	157,953	355,000	-	-	-	-	355,000		36%
AA14DA Summit Drive Curb Ramps	2015	10/9/15	Sub.Complete	1	910,000	900,254	393,000	-	-	-	-	393,000	1	99%
AA16AA Citywide Accessibility Projects (Formerly AA17XX)	2016	2017	Pending	5	350,000	-	100,000	250,000	-	-	-	350,000	4	0%
Total ADA Construction Projects					1,695,309	1,058,207	848,000	250,000	-	-	-	1,098,000		
BURA - Murphy Crossing Construction														
ST15MA Murphy & Parrell Roundabout	2015	7/29/16	Construction	1	1,800,038	52,176	1,755,022	-	-	-	-	1,755,022	2	3%
Total BURA Projects					1,800,038	52,176	1,755,022	-	-	-	-	1,755,022		
Transportation Construction														
ST11GA Galveston Corridor Improvements	2011	2017	Design	5	626,099	231,188	250,000	50,000	-	-	-	300,000		37%
ST14CA Sidewalk Design and Projects	2014	2018	Pending	5	1,396,097	32,306	350,000	970,000	20,000	-	-	1,340,000		2%
ST14DA Neff and Purcell Sidewalks	2016	2017	Pending	5	800,000	-	300,000	500,000	-	-	-	800,000		0%
ST14EA Citywide Safety Improvements	2016	9/30/18	Design	5	3,344,000	8,089	360,000	-	-	-	-	360,000		0%
ST15NA Phase 2 South 3rd Street Striping	2016	6/30/16	Design	5	30,000	-	30,000	-	-	-	-	30,000		0%
Total Transportation Projects					6,196,196	271,583	1,290,000	1,520,000	20,000	-	-	2,830,000		
GO Bond														
ST12CB Empire/18th Roundabout	2012	10/15/15	Complete	1	2,647,809	2,645,834	10,200	-	-	-	-	10,200		100%
ST12CC Simpson/Mt. Washington Roundabout	2012	10/15/15	Complete	1	2,181,647	2,181,659	20,000	-	-	-	-	20,000		100%
ST12CD Powers/Brookwood Roundabout	2012	10/15/15	Complete	1	2,147,600	2,147,703	1,000	-	-	-	-	1,000		100%
ST12CE Reed Mkt: Newberry to 27th	2012	10/15/16	Sub.Complete	1	4,841,330	4,820,763	20,000	-	-	-	-	20,000		100%
ST12CJ Reed Mkt: 3rd to Newberry	2012	11/13/15	Sub.Complete	1	14,145,450	12,881,787	4,234,610	-	-	-	-	4,234,610		91%
ST12CH 27th Street Reconstruction	2017	2017	Pending	5	1,049,300	-	-	1,049,300	-	-	-	1,049,300		0%
ST12CK 14th St. Reconstruction	2016	2017	Design	5	3,888,950	2,328	2,732,050	1,149,300	-	-	-	3,881,350		0.06%
Total GO Bond Projects					30,902,086	24,680,075	7,017,860	2,198,600	-	-	-	9,216,460		
Water														
WA0902 Bridge Creek Intake and Pipeline	2008	6/30/16	Construction	1	73,954,698	66,142,183	17,713,500	-	-	-	-	17,713,500	3	89%
WA12AA 18th Street Waterline Extension (JR)	2012	4/30/16	Pending	2	485,063	25,063	460,000	-	-	-	-	460,000		5%
WA15BA Water SDC Methodology Study	2016	6/30/16	Pending	N/A	60,000	578	60,000	-	-	-	-	60,000		1%
WA15FA Firerock Bridge & Waterline	-	-	Cancelled	-	450,000	-	50,000	400,000	-	-	-	450,000		0%
WA15GA South 3rd Street Pedestrian - Water portion	2017	3/31/17	Design	4	70,000	-	70,000	-	-	-	-	70,000		0%
WA15HA Water Master Plan Update	2016	6/30/16	Pending	N/A	500,000	-	500,000	-	-	-	-	500,000		0%
WA15JA Phase 2 South 3rd St. - Water portion	2016	6/30/16	Design	5	1,100,000	-	1,100,000	-	-	-	-	1,100,000		0%
WA16AA Westwood Reservoir Maintenance	-	-	Cancelled	-	345,000	-	345,000	-	-	-	-	345,000		0%
WA20AX Awbrey Well Supply Expansion	2020	2020	Pending	5	1,944,000	-	-	-	-	-	1,944,000	1,944,000		0%
WA20BX Lafayette Pipe Enlargement	2020	2020	Pending	5	241,000	-	-	-	-	-	241,000	241,000		0%
WA20CX College Parallel Pipe Study	2020	2020	Pending	N/A	1,169,000	-	-	-	-	-	1,169,000	1,169,000		0%
WA20DX Valves Operational System Study	2020	2020	Pending	N/A	75,000	-	-	-	-	-	75,000	75,000		0%
Total Water Projects					80,393,761	66,167,823	20,298,500	400,000	-	-	-	3,429,000		

City of Bend 2016 - 2020 Capital Improvement Program Project List

Project Name & Number	Project Start	Estimated Substantial Completion	Project Stage	Cost Estimate Classification	Total Project Budgeted	Total Project Spent to Date	2015-16 Adopted Budget	2016-17 Adopted Budget	2017-18 Proposed Budget	2018-19 Proposed Budget	2019-20 Proposed Budget	Current 5-Year CIP Planned Budgets	Budget Revisions	Percent Budget Spent
Sewer - Water Reclamation														
SW0802 Secondary Expansion	2009	12/30/17	Construction	1	49,835,881	38,914,277	6,148,000	1,102,000	-	-	-	7,250,000		78%
SW14CA Headworks Upgrade	2016	10/1/17	Pending	1	1,720,492	176,018	1,000,000	-	-	-	-	1,000,000		10%
SW16AA Solids Handling (Secondary Expansion)	2017	2020	Pending	1	4,000,000	-	-	250,000	1,750,000	1,000,000	1,000,000	4,000,000		0%
SW0707 Southeast Interceptor Phase 1	2007	12/31/17	Construction	3	57,000,000	20,230,883	16,163,000	7,925,000	7,185,000	-	-	31,273,000		35%
SW0707 SEI Phase II North Medical Center to Deschutes Market Rd.	2020	2025	Pending	5	16,500,000	-	-	-	-	-	5,737,000	5,737,000		0%
SW11BA Valhalla Sewer Relocation	2011	10/16/16	Design	3	1,860,370	230,536	1,746,000	-	-	-	-	1,746,000		12%
SW12AA Collection System Master Plan Update	2012	12/30/14	Sub.Complete	5	3,791,557	3,897,696	506,000	-	-	-	-	506,000		103%
SW13DA North Area Sewer Capacity Improvements	2013	11/1/16	Design	3	6,547,522	777,625	5,909,300	-	-	-	-	5,909,300		12%
SW13EA Colorado Pump Station and Sewer Mains	2013	1/10/17	Construction	1	13,620,132	3,802,568	11,321,400	-	-	-	-	11,321,400		28%
SW14BA Deschutes Brewery Sewer	-	-	Cancelled	-	300,000	-	170,000	-	-	-	-	170,000		0%
SW15AA Plant Interceptor Rehabilitation	2015	6/30/17	Planning	5	5,738,000	21,495	5,718,000	-	-	-	-	5,718,000		0.4%
SW15DA N.E. 2nd & Penn Sewer Line Realignment	2016	5/27/16	Design	4	300,000	12,250	100,000	200,000	-	-	-	300,000		4.1%
SW15GA Wood River Village Lift Station/Vacuum Evaluation	2016	3/11/16	Design	N/A	50,000	5,995	50,000	-	-	-	-	50,000		12%
SW15IA Bend South Sewer Evaluation	2016	3/11/16	Design	N/A	50,000	1,523	50,000	-	-	-	-	50,000		3%
SW15JA WRF Treatment Plant Upgrades	2016	On-Going	Pending	5	700,000	-	100,000	100,000	100,000	200,000	200,000	700,000		0%
SW17AA WRF Facilities Plan Update	2018	2018	Pending	5	500,000	-	-	-	500,000	-	-	500,000		0%
SW18BX Parallel Sewer on Olney Avenue	2018	2018	Pending	5	581,000	-	-	-	581,000	-	-	581,000		0%
SW15KA WRF Evaporation Percolation Ponds	2019	2019	Pending	5	1,567,000	-	-	-	-	1,567,000	-	1,567,000		0%
SW19AX Amethyst/Mahogany Street Sewer	2019	2019	Pending	5	679,000	-	-	-	-	679,000	-	679,000		0%
SW19BX Mahogany Street/Hwy 97 Sewer	2019	2019	Pending	5	999,000	-	-	-	-	999,000	-	999,000		0%
SW18AA WRF Support Facilities Upgrade	2020	2020	Pending	5	2,400,000	-	-	-	-	-	2,400,000	2,400,000		0%
SW20AX Odor Control Master Plan	2020	2020	Pending	5	1,000,000	-	-	-	-	-	1,000,000	1,000,000		0%
SW20BX Sewer Storage - Land Acquisition	2020	2020	Pending	5	700,000	-	-	-	-	-	700,000	700,000		0%
SW20EX Plant Interceptor Condition Assessment	2020	2020	Pending	5	600,000	-	-	-	-	-	600,000	600,000		0%
SW20FX Collection System Master Plan (Years 6-10)	2020	2020	Pending	5	1,000,000	-	-	-	-	-	1,000,000	1,000,000		0%
SW20GX Gravity Pipe Condition Assessment	2020	2020	Pending	5	200,000	-	-	-	-	-	200,000	200,000		0%
Total Water Reclamation (Sewer) Projects					172,239,954	68,070,866	48,981,700	9,577,000	10,116,000	4,445,000	12,837,000	85,956,700		
Stormwater														
SR0802 Drake and Dohema Pump Station	2008	4/15/16	Construction	1	404,686	241,939	172,000	-	-	-	-	172,000		60%
SR09AA Third Street Underpass	2009	10/30/15	Sub.Complete	1	2,999,008	2,964,938	55,000	-	-	-	-	55,000		99%
SR14AA Phase 2 3rd Street - Stormwater portion	2016	6/30/16	Planning	5	400,000	-	400,000	-	-	-	-	400,000		0%
SR15AA South Awbrey Butte Drainage Study	2016	12/26/16	Design	N/A	250,000	-	150,000	100,000	-	-	-	250,000		0%
SR15BA South 3rd Street - Stormwater portion	2016	3/31/17	Design	4	150,000	-	150,000	-	-	-	-	150,000		0%
SR15CA Newport Pipe Replacement Design	2018	2019	Pending	5	425,000	-	-	-	-	425,000	-	425,000		0%
Total Stormwater Projects					4,628,694	3,206,877	927,000	100,000	-	425,000	-	1,452,000		
Total Capital Improvement Program Projects					297,856,038	163,507,606	81,118,082	14,045,600	10,136,000	4,870,000	16,266,000	126,435,682		

Budget Revisions:
 1 - \$75,000 budget adjustment approved 11/18/2015
 2 - \$455,022 prior FY carryforward approved 11/18/2015
 3 - \$3,382,000 prior FY carryforward approved 11/18/2015
 4 - Project initiated early, moved \$100,000 to current FY 12/23/2015

Phase I - S. 3rd St. Pedestrian Improvements

Project is a collaboration with ODOT to provide continuous pedestrian facilities along the 3rd Street corridor between Wilson Avenue and Powers Road by repairing existing facilities that are either non-compliant or deteriorated. In addition, the project will also construct pedestrian facilities where none currently exist. The project is being coordinated with several other projects (water, stormwater, streets) within the corridor.

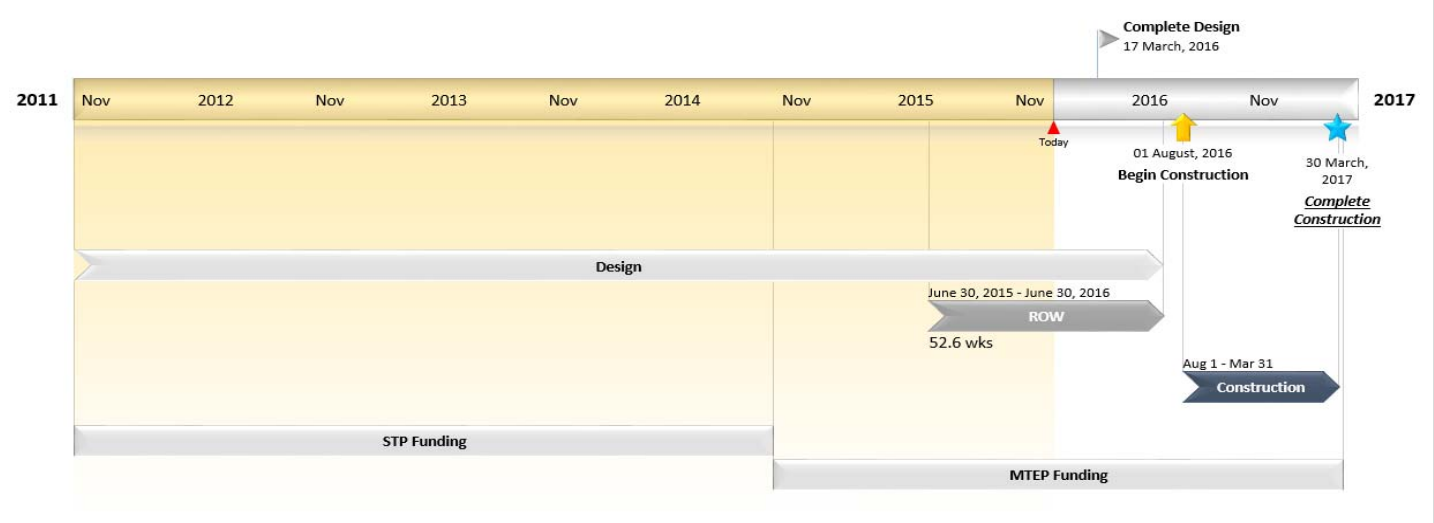


Project Engineer: Jason Suhr | jsuhr@bendoregon.gov

Scope	Schedule	Cost
Design, right of way acquisition, and construction of sidewalks, curb ramps that is coordinated with other infrastructure for water, stormwater, and streets. April 2015 reduction in scope decreased construction duration by approximately 25%.	Start Date: 11/1/2011 Substantial Completion: 3/31/2017 Final Closeout: 3/31/2018	Total Estimated: \$655,309 Spent to Date: \$157,953 % Spent to Estimated: 24% Three Projects: ADA \$435,309, Water \$70,000, Stormwater \$150,000
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: Scheduled to receive 95% Design submittal in January. Schedule, including project milestones, and cost estimate classification will be updated at that time.

Cost Estimate Classification: 4



Phase 2 - S. 3rd Street Improvements

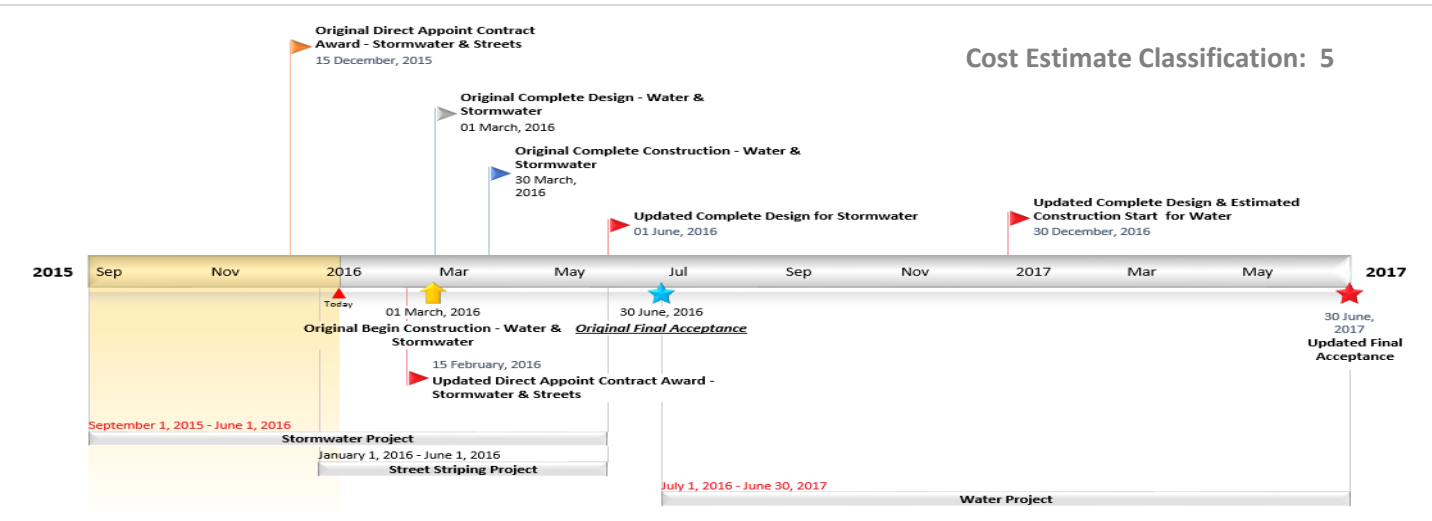
Phase 2 projects are capital improvement projects and address maintenance issues. The timing is being driven to occur in advance of the street preservation work within 3rd Street that is planned for the summer of 2017. Due to the impacts to the 3rd Street roadway, it is imperative that they occur prior to the grind and inlay preservation work.



Project Engineer: Jason Suhr | jsuhr@bendoregon.gov

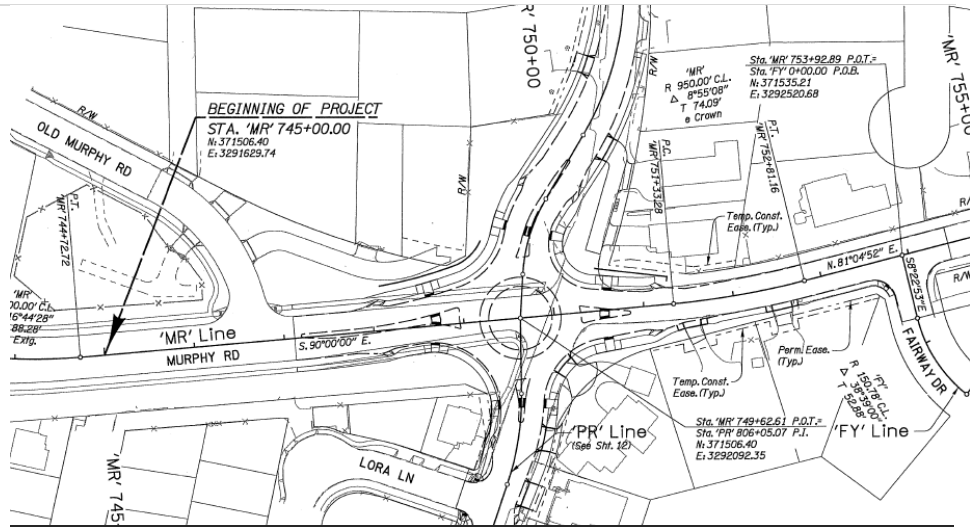
Scope	Schedule	Cost
Includes design and construction for streets, water, and stormwater. This work will include an analysis of the drainage basin to assess the performance and condition of the existing stormwater facilities; creation of a striping and paving plan; replace existing 2-inch sub-standard waterlines with 8-inch pipelines.	Start Date: 10/1/2015 Substantial Completion: 6/30/2017 Final Closeout: 7/1/2018	Total Estimated: \$1,530,000 Spent to Date: \$0 % Spent to Estimated: 0% Three Projects: Water \$1,100,000, Stormwater \$400,000, Streets \$30,000
Status: On Scope	Status: Schedule Baseline Revision	Status: Potential Budget Adjustment
Adjustments: No anticipated impact to scope due to revised schedule	Adjustments: Substantial completion date extended and timeline adjusted	Adjustments: No impact to total cost estimate, however budget adjustment likely due to change in timing of project spending

Status Update: Project schedule revised due to timing for street preservation work. Prior month's timeline incorrectly identified construction on the Stormwater Project. The Stormwater project is a currently scoped as a study with no construction timeline.



Murphy & Parrell Roundabout

This project will finalize the original conceptualized extension of Murphy Road on the east side as a part of the Murphy Overcrossing Project and make the intersection safer for vehicles, pedestrians and bicycles.



Project Engineer: Ryan Oster | roster@bendoregon.gov

Scope

Construct a portion of Segment 6 of the SE Interceptor. Construct a roundabout, landscaping, stormwater facilities, illumination, signs and striping to current City standards. Design was completed as part of the Murphy overpass and extension project.

Schedule

Start Date: 5/1/2015
 Substantial Completion: 7/29/2016
 Final Closeout: 7/29/2019*
 * 1 Year warranty and 2 years additional for plant establishment

Cost

Total Estimated: \$2,000,000
 Spent to Date: \$52,176
 % Spent to Estimated: 3%

Status: On Scope

Adjustments: No change from prior month

Status: On Schedule

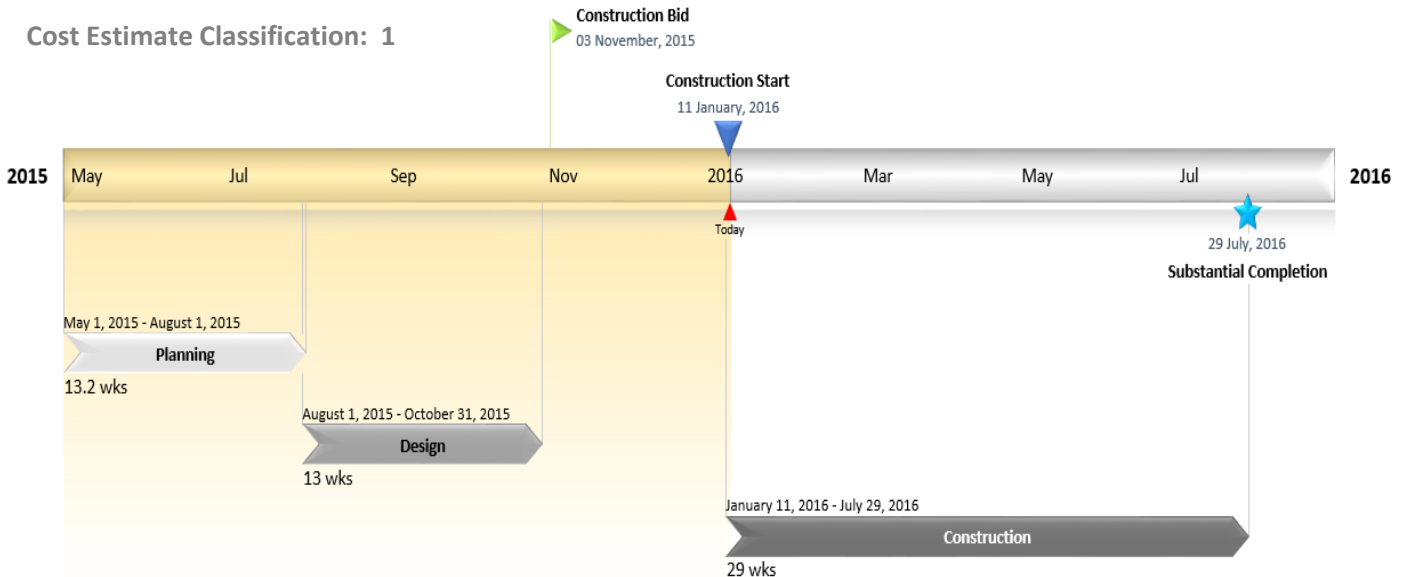
Adjustments: No change from prior month

Status: On Budget

Adjustments: No change from prior month

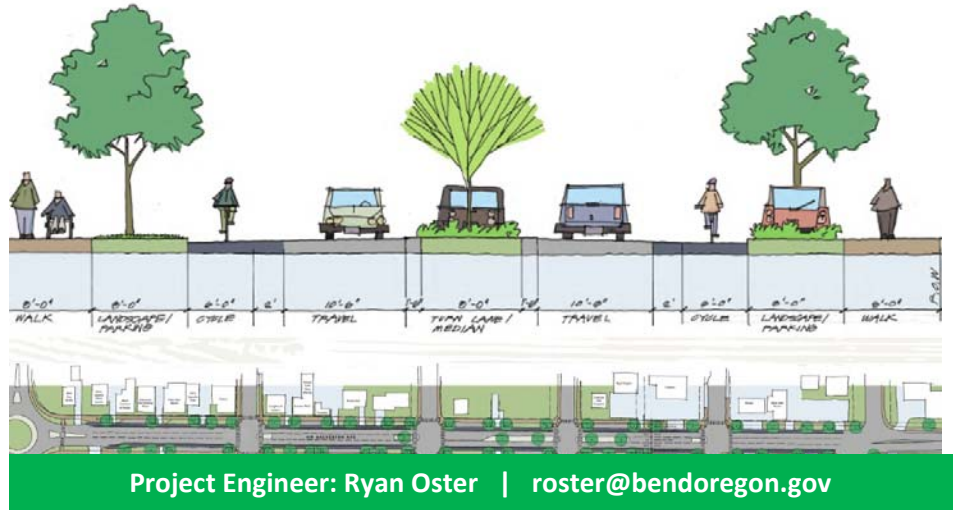
Status Update: Contract signed and notice to proceed (NTP) issued. First week of January held the pre-construction meeting and conducted public outreach with an open house meeting at Jewell Elementary School. Road closure scheduled starting January 25 through the end of the project.

Cost Estimate Classification: 1



Galveston Corridor Improvements

The project is the highest ranked Traffic Safety Advisory Committee (TSAC) arterial and collector street safety project to improve vehicle, bicycle, and pedestrian safety, access, and connectivity. It also continues the bike and pedestrian improvements on Galveston from 14th to Lindsey Ct. The project will improve bicycle and pedestrian safety, access, stormwater system, and parking.



Scope

Study to improve safety, access, and connectivity for vehicles, bicycles, and pedestrians. Also to improve the streetscape along a newly emerging mixed use corridor. A collaborative process has formed between City staff and property/business owners with a taskforce to devise project concepts and designs.

Schedule

Start Date: 06/01/2011
 Substantial Completion: TBD
 Final Closeout: TBD

Cost

Total Estimated: \$2,700,000
 Spent to Date: \$231,188*
 % Spent to Estimated: 9%

* Includes planning

Status: **Potential Scope Revision**

Status: **On Schedule**

Status: **On Budget**

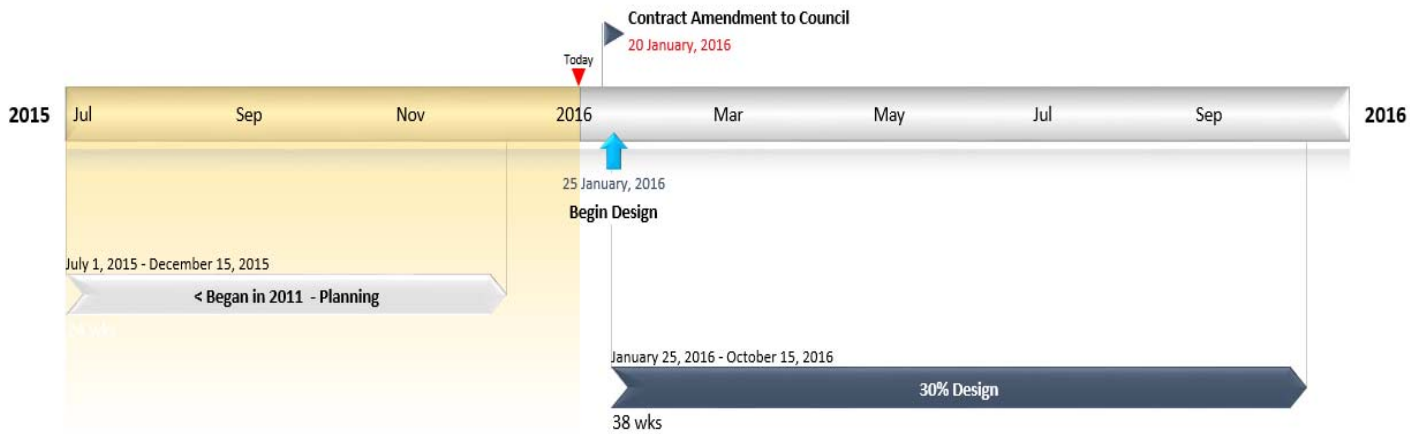
Adjustments: **Exploring alternative stormwater design as directed by council**

Adjustments: **No anticipated impact to schedule due to potential scope revision**

Adjustments: **No anticipated impact to cost due to potential scope revision**

Status Update: Received council approval for contract amendment. Will move forward with design.

Cost Estimate Classification: 5



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.



Project Engineer: Rory Rowan | rrowan@bendoregon.gov

Scope	Schedule	Cost
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.	Start Date: 10/1/2014 Substantial Completion: 9/30/2018 Final Closeout: 9/30/2019	Total Estimated: \$3,344,000 Spent to Date: \$8,809 % 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 continues. As previously reported, Neff Road at Williamson location will be constructed in conjunction with the Extension to the Southeast Interceptor project. Other locations are currently under design.

Cost Estimate Classification: N/A



14th Street Reconstruction

Improve safety of corridor from 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.



Project Engineer: Ryan Oster | roster@bendoregon.gov

Scope	Schedule	Cost
Upgrade to City standard to include but not limited to: roadway, surface, curbs, sidewalks, and striping. Final scope to be determined at 30% concept level, but will include safety improvements for bicycles, pedestrians and vehicles.	Start Date: 06/30/2014 Substantial Completion: TBD Final Closeout: TBD	Total Estimated: \$3,888,950 Spent to Date: \$2,328 % Spent to Estimated: 0.06%
Status: Increased Scope	Status: Schedule	Status: On Budget
Adjustments: Extended the elements of design on the corridor south from Simpson to Colorado and north from Galveston to Newport	Adjustments: No anticipated impact to schedule due to scope revision	Adjustments: No anticipated impact to cost due to scope revision

Status Update: The scope revision is for design only and the cost associated with the additional work is within budget for the project. However, construction costs associated with extending the corridor are not included in the project scope. Council will provide direction on how to proceed in October when the 30% design is submitted.

Cost Estimate Classification: N/A



Bridge Creek Intake, Pipeline & Treatment

Replace pipeline to reduce risk of transmission main failure to secure a dual water supply source. Membrane treatment for surface water to meet federal treatment requirements to treat for Cryptosporidium will also protect Bend's surface water in the event of a fire in the watershed. Intake does not meet current building code, and lacks fish screens. New intake allows remote monitoring and operation of the facilities.



Project Engineer: Heidi Lansdowne | hlsdowne@bendoregon.gov

Scope

Feasibility study of alternative water supplies; design and construction to replace transmission lines, intake, flow control, fish screens, membrane filtration, construction management, and inspection services. These costs also include all costs related to legal.

Schedule

Start Date: 4/1/2008
 Substantial Completion: 06/30/2016
 Final Closeout: 06/30/2017

Cost

Total Estimated: \$73,954,698
 Spent to Date: \$66,142,183
 % Spent to Estimated: 89%

Status: On Scope

Status: On Schedule

Status: On Budget

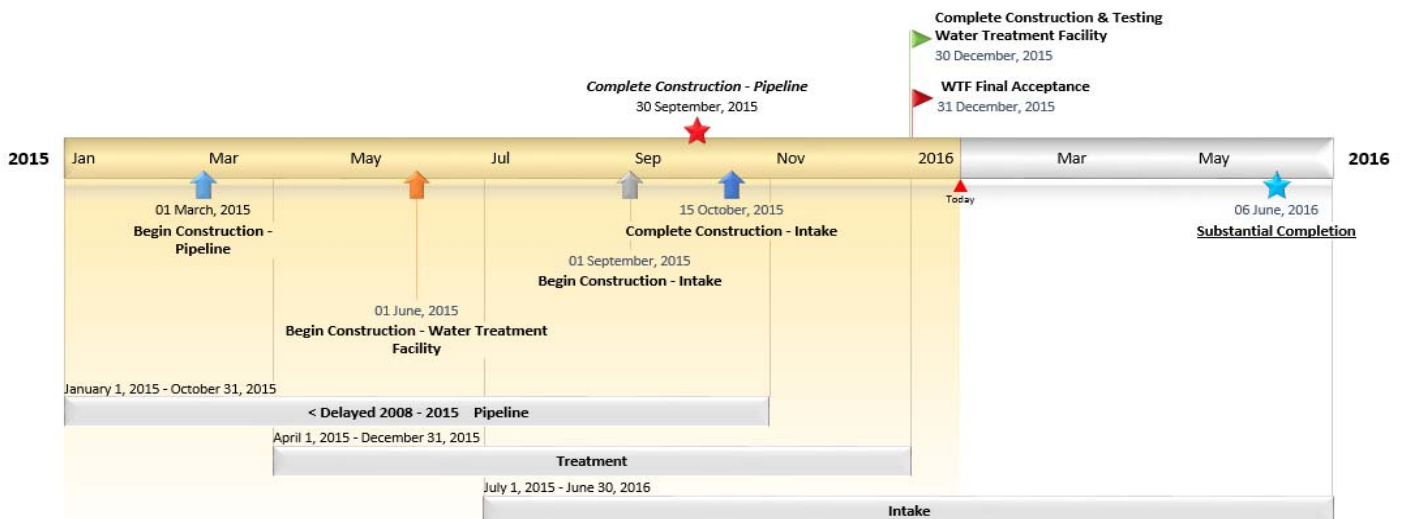
Adjustments: No change from prior month

Adjustments: No change from prior month

Adjustments: No change from prior month

Status Update: No change from prior month. The Water Treatment Facility is fully operational and staff are currently being trained to operate the facility. Intake currently under construction, as shown in photos above. Anticipated completion for the Intake is spring 2016.

Cost Estimate Classification: 1



Water Rec. Facility Secondary Expansion

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 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.

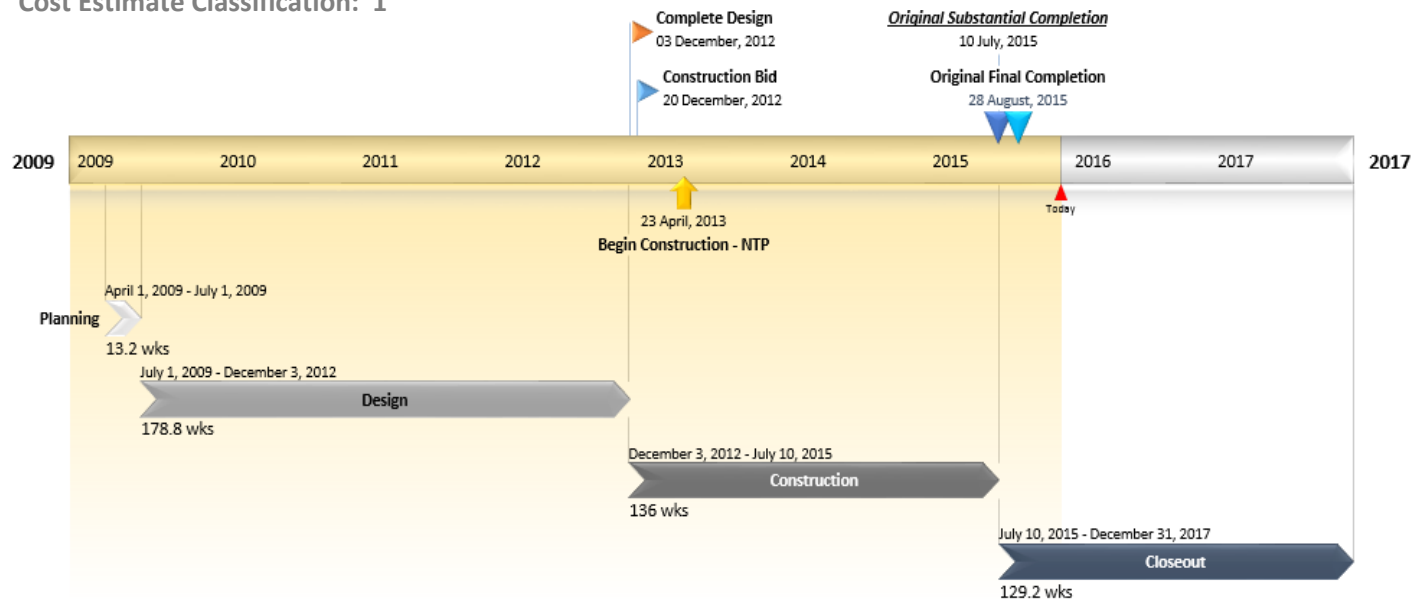


Project Engineer: Jeff England | jengland@bendoregon.gov

Scope	Schedule	Cost
The project adds a primary clarifier, aeration basin, blower facilities, UV and sodium hypochlorite disinfection improvements, and various piping modifications.	Start Date: 4/1/2009 Substantial Completion: Feb. 2016* Final Closeout: Spring 2017* * Actual dates TBD	Total Estimated: \$60,000,000* Spent to Date: \$38,914,277 % Spent to Estimated: 65% *Includes Facilities Plan, pre-design, final design, services during construction, and construction.
Status: Reduced Scope	Status: Behind Schedule	Status: Potential Cost Increase
Adjustments: No change from prior month	Adjustments: Schedule revision is necessary due to change in scope and overall project delay.	Adjustments: Project cost increase likely. Cost estimate and budgets will be updated in Spring 2016.

Status Update: Project is delayed significantly. Currently working with consultants on schedule revisions. The project timeline will be updated when final analysis is received in March.

Cost Estimate Classification: 1



Southeast Interceptor Phase I

Large diameter gravity sewer pipeline extending from the southwest quadrant to the northeast quadrant of the City, approximately 4 ½ miles in length. This project reroutes or intercepts a significant volume of sewage away from the downtown and central sewer systems to the east side of the City in accordance with the Collection System Master Plan completed in 2014.

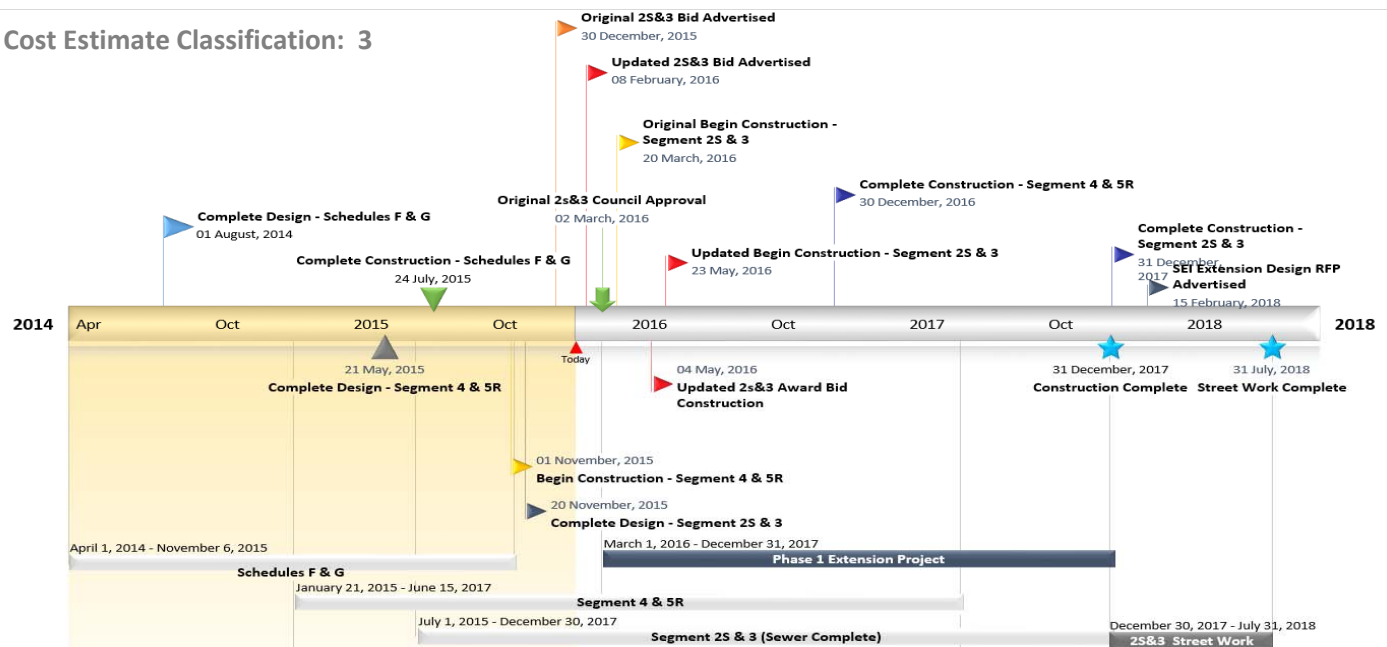


Project Engineer: Eric Forster | eforster@bendoregon.gov

Scope	Schedule	Cost
Design and construction of gravity sewer, from South 3rd street to the Neff Road interim connection. Phase 1 Extension Project, approved in January 2016, adds approximately 3,000 feet of sewer main work.	Start Date: 7/1/2006 Sewer Completion: 12/31/2017 Street Completion: 07/31/2018 Final Closeout: 7/30/2019	Total Estimated: \$60,000,000 Spent to Date: \$20,230,883 % Spent to Estimated: 34%
Status: Increased Scope	Status: Schedule Baseline Revision	Status: Potential Cost Increase
Adjustments: Added Phase 1 Extension Project due to higher than forecasted growth.	Adjustments: Revised schedule on 2S&3 to accommodate design of the Phase 1 Extension Project approved by council.	Adjustments: Project cost increase likely due to changes in scope and schedule. Cost estimate and budgets will be updated after bid closes.

Status Update: Scope of work is not fully defined. Currently exploring options to increase capacity. Expect the findings in February and will be included in the March update.

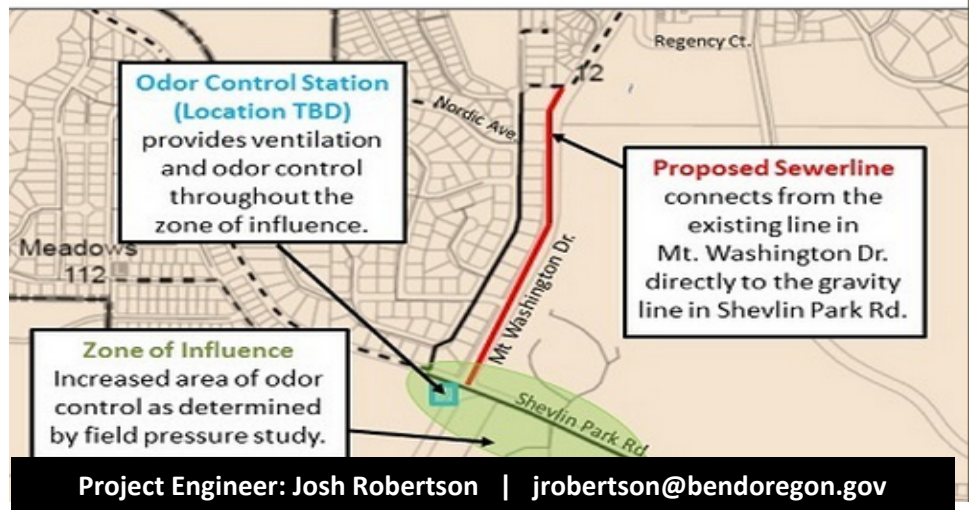
Cost Estimate Classification: 3



Valhalla Odor Control & Sewer Relocation

The Awbrey Glen lift station currently pumps into the sewage collections system located within the Valhalla neighborhood. A large wet well and long force main causes odorous air discharge. The project will mitigate odor and capacity issues in the neighborhood. This will eliminate neighborhood complaints and allow for the sewage pump station to run more efficiently reducing staff time and operating costs.

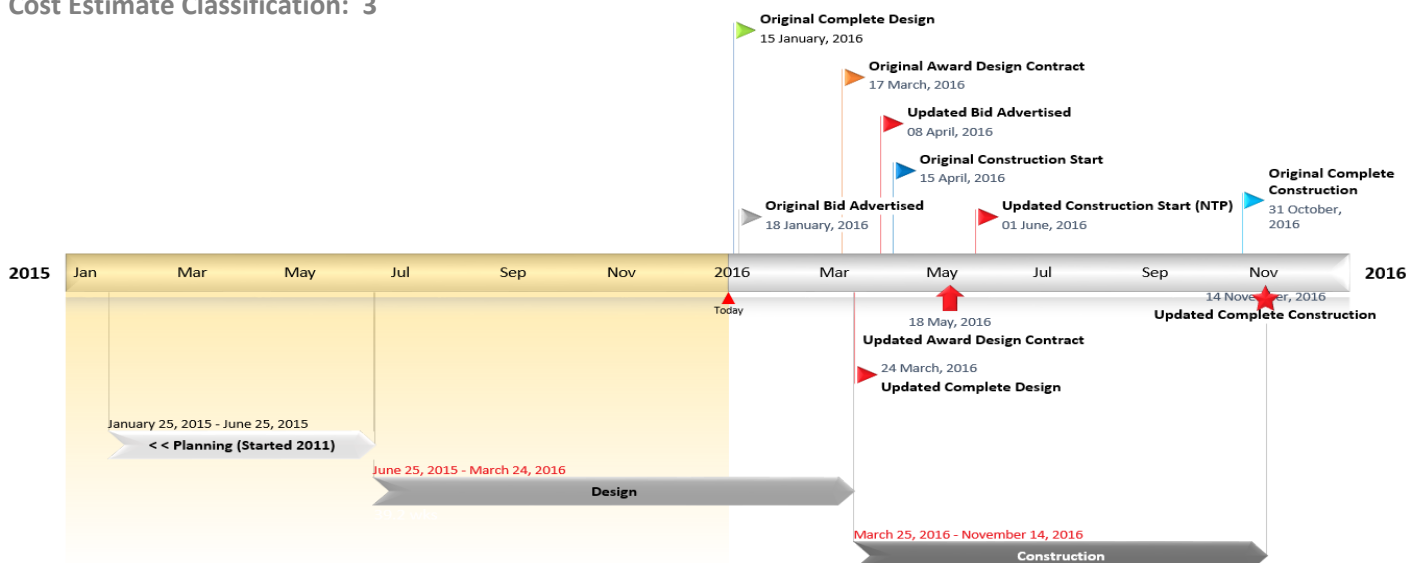
PROPOSED SEWER IMPROVEMENT PROJECT MAP



Scope	Schedule	Cost
Design and construction of a sewer main to direct sewage around the Valhalla neighborhood and install new odor control systems. Project includes paving restoration.	Start Date: 1/24/11 Substantial Completion: 11/14/2016 Final Closeout: 11/14/2017	Total Estimated: \$1,860,370 Spent to Date: \$230,536 % Spent to Estimated: 12%
Status: Increased Scope	Status: Schedule Baseline Revision	Status: Potential Cost Increase
Adjustments: Added paving at Mt. Washington Drive and Shevlin Park Road.	Adjustments: Additional design time added to account for increased scope. Overall project timeline minimally impacted.	Adjustments: Project cost increase likely due to changes in scope and schedule. Cost estimate and budgets will be updated after bid closes.

Status Update: Held public outreach neighborhood association meeting January 13, 2016 to discuss project status. Project now includes paving restoration to address City of Bend Street Operations goals of improving Paving Condition Index (PCI).

Cost Estimate Classification: 3



North Area Sewer Capacity Improvements

This project will increase the capacity of the gravity main downstream of the multiple force main discharge point at manhole 3157 and reroute the force main discharge from several lift stations and the NE 3rd Street pressure sewer. It will also reconfigure the structure at Mervin Sampels Bypass and include modifications to both the Sawyer and Riverhouse lift stations.



Project Engineer: George Franklet | gfranklet@bendoregon.gov

Scope

Analysis of alternatives for pipeline route and construction methods for crossing of irrigation canals and railroad tracks; design and construction of gravity and force mains, pump station modifications, and flow bypass optimization.

Schedule

Start Date: 10/1/2013
 Substantial Completion: 11/1/2016
 Final Closeout: 11/1/2017

Cost

Total Estimated: \$6,547,522
 Spent to Date: \$777,625
 % Spent to Estimated: 12%

Status: On Scope

Adjustments: **No anticipated impact to scope due to schedule delay or potential budget adjustment**

Status: Behind Schedule

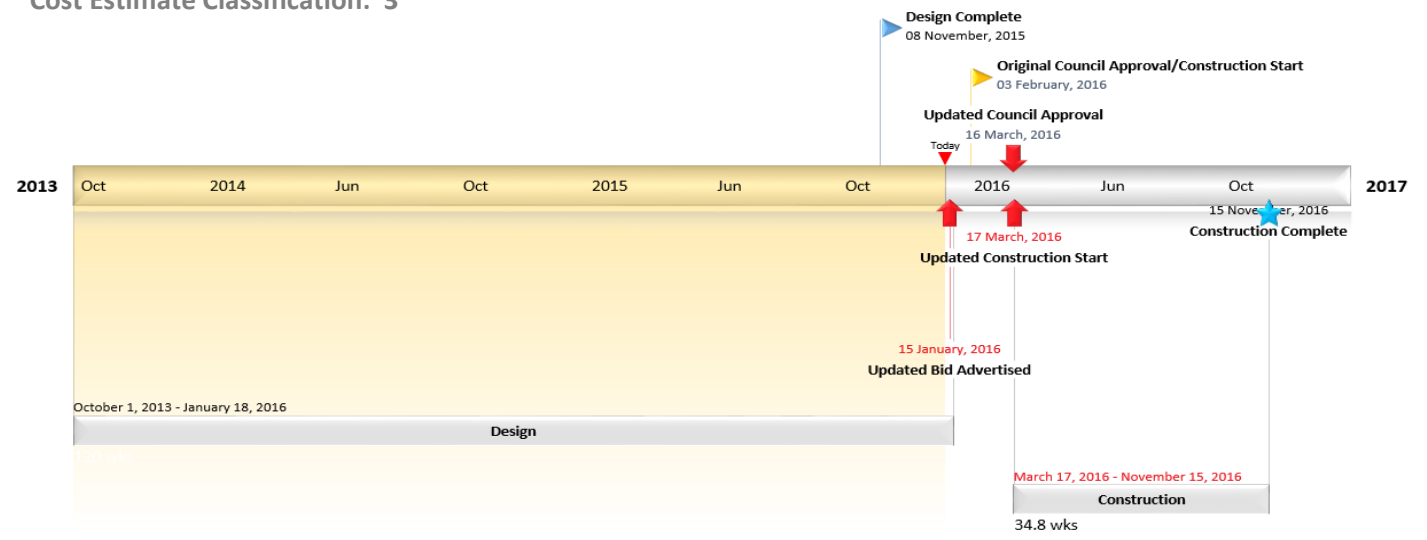
Adjustments: **Schedule delayed due to uncertainties in easement negotiations**

Status: Potential Budget Adjustment

Adjustments: **No impact to total cost estimate, however budget adjustment likely due to change in timing of project spending**

Status Update: Bid advertisement delayed due to permitting and easement negotiations. Negotiating construction easements with private land owners and completing permits with North Unit Irrigation District and BNSF Railroad. Next step in negotiations is to submit amounts for landowner approval. Timeline will be adjusted next month.

Cost Estimate Classification: 3



Colorado Pump Station and Sewer Mains

This project includes the design and construction of a new lift station and new gravity and force mains to divert flows from the existing Columbia Street sewer line to an existing trunk line east of the Deschutes River. This new lift station will provide service to future developments on the City's west side, allows decommissioning of an aging sewer lift station with access, capacity, and odor issue, and defer capacity-related improvements at Westside Lift Station.



Project Engineer: George Franklet | gfranklet@bendoregon.gov

Scope

Analysis of service area, flows, capacities, alternatives for pump station sizing, siting, and pipeline route; design and construction of pump station, odor control facility, and gravity and force mains; decommissioning pump station.

Schedule

Start Date: 2/1/2013
 Substantial Completion: 01/10/2017
 Final Closeout: 01/10/2018

Cost

Total Estimated: \$13,620,132
 Spent to Date: \$3,802,568
 % Spent to Estimated: 28%

Status: Potential Scope Revision

Status: On Schedule

Status: On Budget

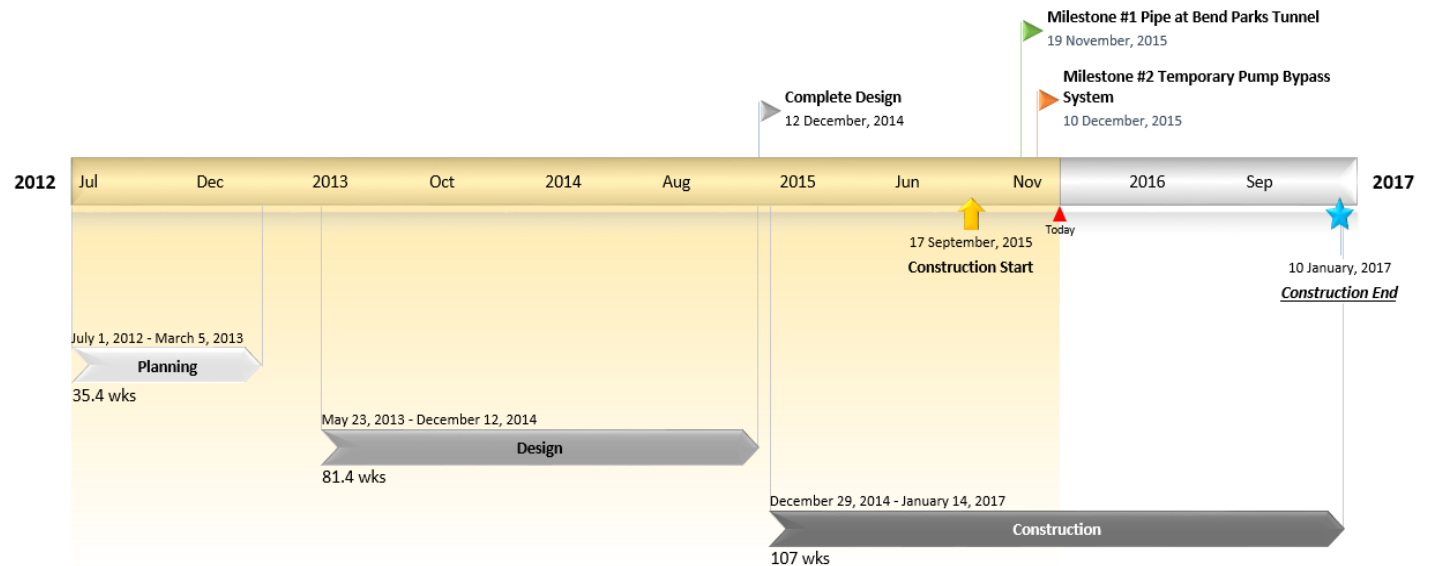
Adjustments: On-going negotiations on scope change for work on DEQ Loan requirements and design modification for Parks & Rec tunnel

Adjustments: **No anticipated impact to schedule due to potential scope revision**

Adjustments: **No anticipated impact to cost due to potential scope revision**

Status Update: Work on the Colorado Bridge nearly complete with minor work to be completed in spring 2016. Completed the first two milestones (added to timeline below). Construction on Arizona Ave continues east of Bond Street. Construction of the pump station started with instillation of the excavation shoring system.

Cost Estimate Classification: 1



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** on the pipe segments in the worst structural condition 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.

HDProfiler System

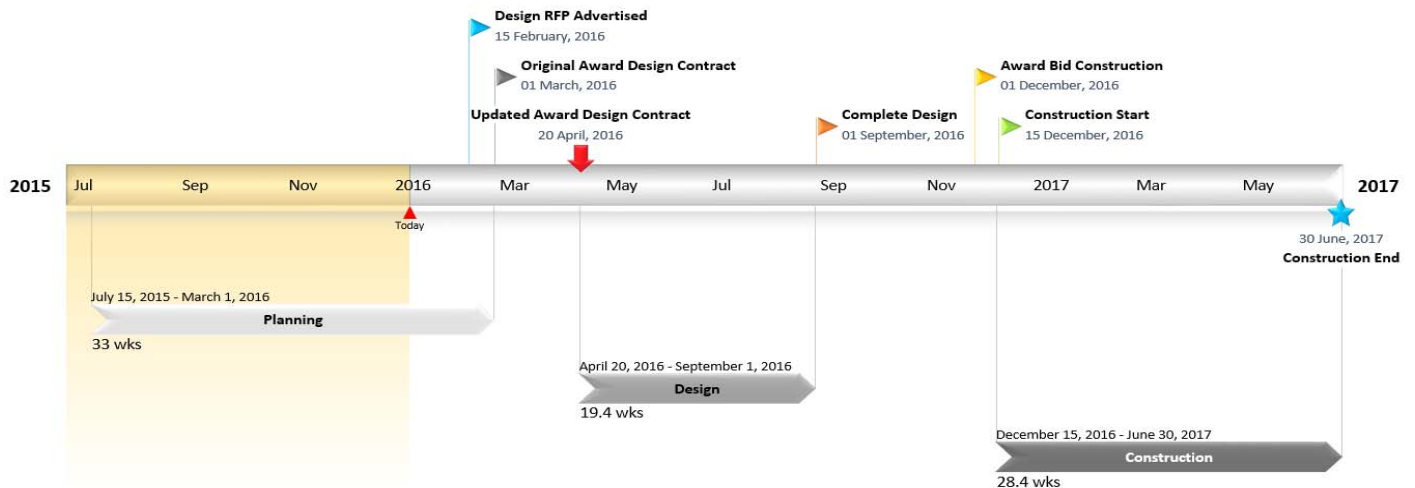


Project Engineer: Jason Suhr | jsuhr@bendoregon.gov

Scope	Schedule	Cost
Rehabilitate all Pipeline Assessment Certification Program (PACP) graded 4 and 5 pipe segments with a Cured-In-Place Pipe (CIPP) liner, replace the existing siphon junction box, and clean the double barreled siphons.	Start Date: 3/1/2015 Substantial Completion: 6/30/2017 Final Closeout: 6/30/2018	Total Estimated: \$5,738,000 Spent to Date: \$21,495 % Spent to Estimated: 0.37%
Status: Revised Scope	Status: On Schedule	Status: On Budget
Adjustments: Increased pipeline liner quantity in order to remove air extraction facility from project scope	Adjustments: No anticipated impact to schedule due to scope revision	Adjustments: No anticipated impact to cost due to scope revision

Status Update: Received direction on December 16, 2015 and timeline adjusted accordingly. Timeline for design and construction phases will be updated when design contract is awarded.

Cost Estimate Classification: 5



NE 2nd & Penn Sewer Line Realignment

The sewer main of interest currently intersects two (2) private property parcels and exceeds the hydraulic requirements for the serviced catchment area. The purpose of this project is to design an alternate route, within the City of Bend Right of Way which meets current standards.

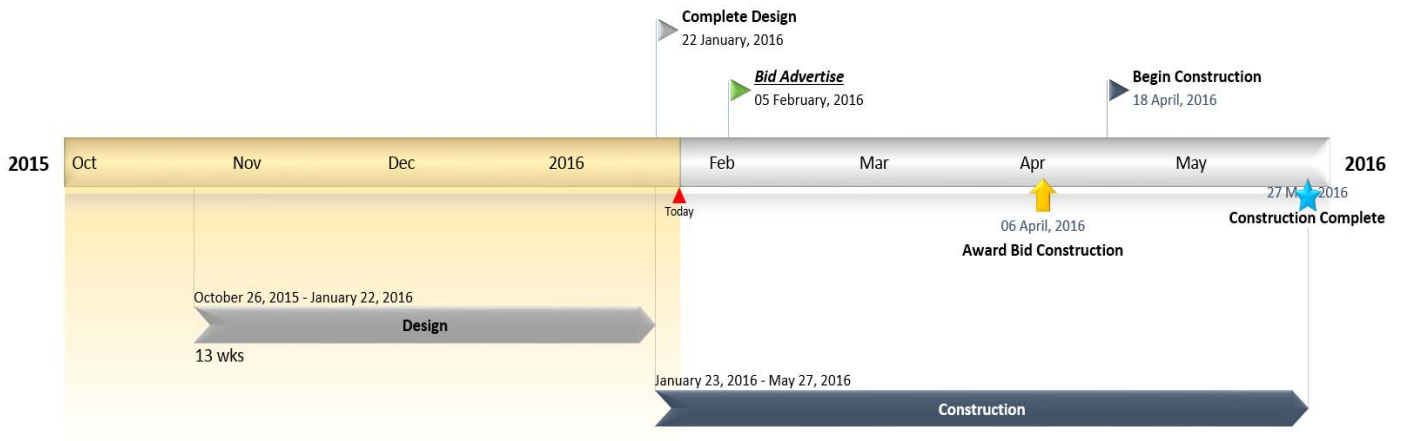


Project Engineer: Garrett Sabourin | gsabourin@bendoregon.gov

Scope	Schedule	Cost
Design and construct a section of gravity sewer main to provide an alternative conveyance route within the City of Bend Right of Way.	Start Date: 11/18/2015 Substantial Completion: 5/27/2016 Final Closeout: 5/27/2017	Total Estimated: \$300,000 Spent to Date: \$12,250 % Spent to Estimated: 4%
Status: On Scope	Status: Potential Schedule Delay	Status: On Budget
Adjustments: No anticipated impact to scope due to potential schedule delay	Adjustments: Potential schedule delay due to interdepartmental collaboration efforts associated with street preservation	Adjustments: No anticipated impact to cost due to potential schedule revision

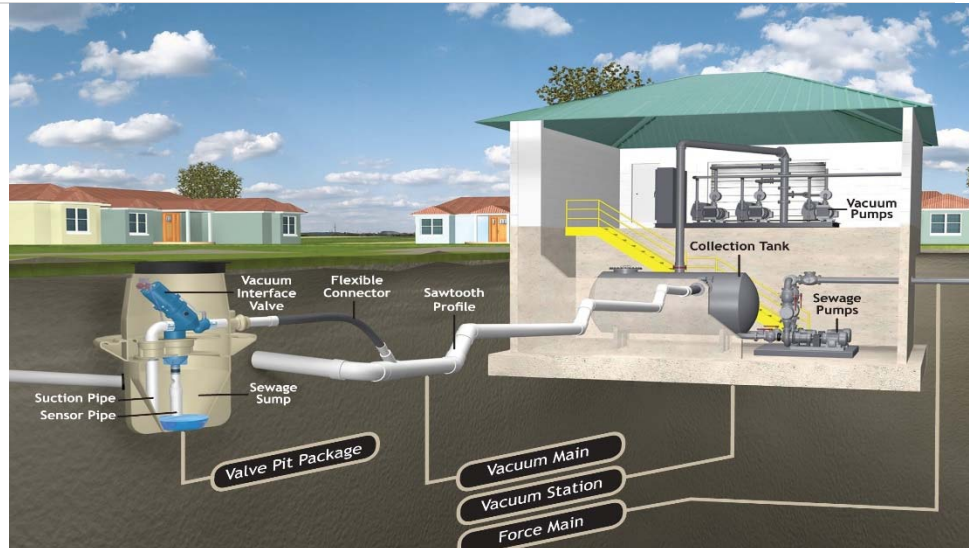
Status Update: Construction timeframe will be modified when more information is available on the project. Potential to have the Utility Department perform the work.

Cost Estimate Classification: 4



Wood River Village Lift Station & Vacuum Eval.

Evaluate existing system conditions in order to determine existing and future capacity as well as future development potential within the area.



Project Engineer: Garrett Sabourin | gsabourin@bendoregon.gov

Scope

Complete a sewer system analysis and develop three (3) preliminary design solutions for a longstanding replacement and/or upgrade to the **Wood River Village development's** collection system.

Schedule

Start Date: 9/1/2015
 Substantial Completion: 3/11/2016
 Final Closeout: 3/11/2016

Cost

Total Estimated: \$50,000
 Spent to Date: \$5,995
 % Spent to Estimated: 12%

Status: On Scope

Status: On Schedule

Status: On Budget

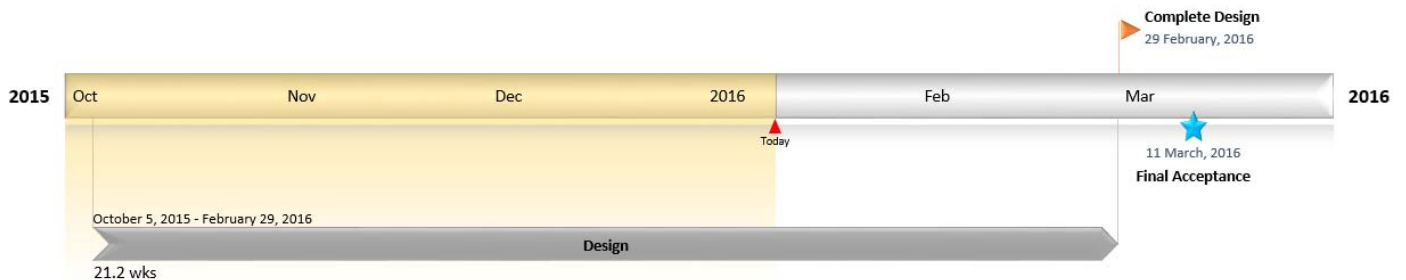
Adjustments: No change from prior month

Adjustments: No change from prior month

Adjustments: No change from prior month

Status Update: Design consultant currently executing scope of work and will be meeting with City staff in the coming weeks to review preliminary alternatives and evaluation criteria.

Cost Estimate Classification: N/A



Drake and Dohema Pump Station

A nine acre basin drains to the intersection of Drake and Dohema. The existing stormwater system consists of catch basins and drill holes. The existing drill holes fail to take in water, causing flooding. During larger storm events the water floods neighboring basements and has caused significant property damage in the past. The project will help prevent flooding and protect groundwater.

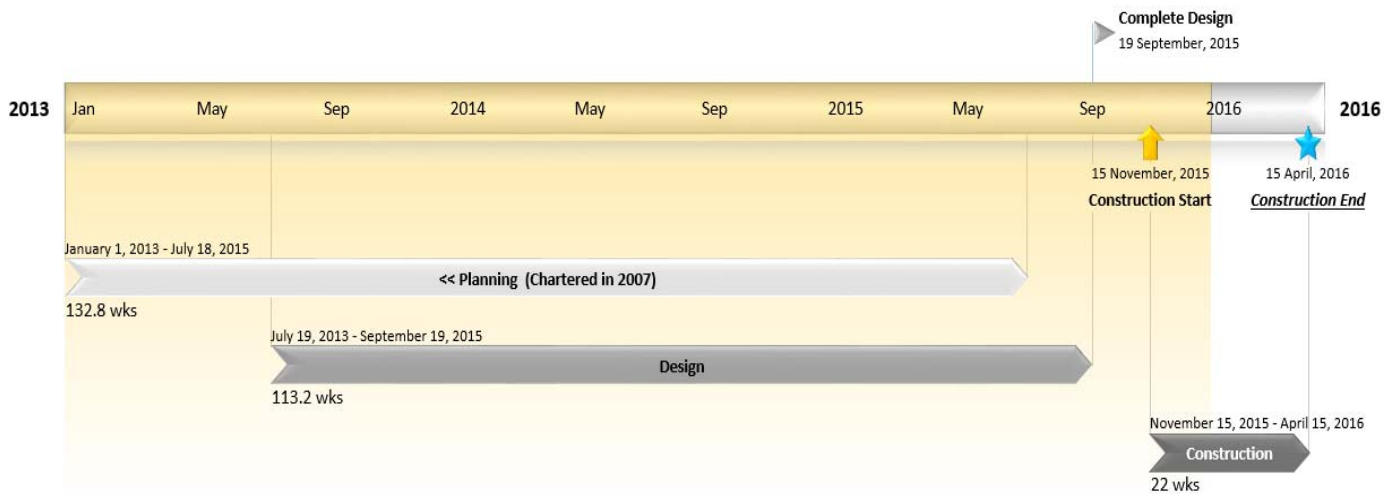


Project Engineer: Ryan Oster | roster@bendoregon.gov

Scope	Schedule	Cost
The collection system, force mains and treatment swale have been constructed. The remaining work includes installation of a control panel, minor conduit work, and a pump system.	Start Date: 4/1/2011 Substantial Completion: 4/15/2016 Final Closeout: 4/15/2017	Total Estimated: \$404,686 Spent to Date: \$241,939 % Spent to Estimated: 60%
Status: On Scope	Status: Potential Schedule Delay	Status: Under Budget
Adjustments: No anticipated change in scope due to schedule delay or budget savings	Adjustments: Anticipate delay due to timing of when construction materials are received	Adjustments: Cost savings by self-performing the installation of pumps and control panels

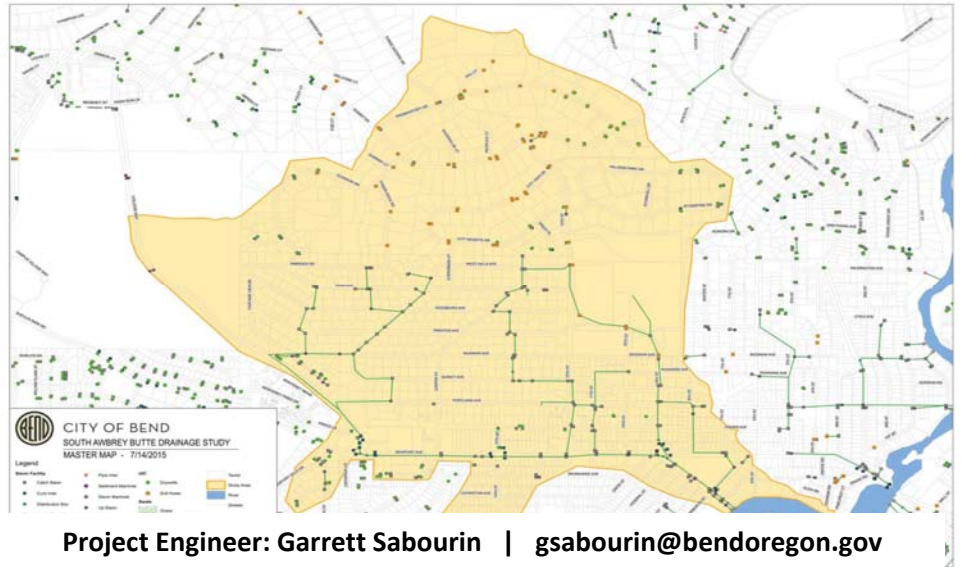
Status Update: Product on order and coordination of electrical work, discharge panel, and pump stations. Delivery date in early spring. Will likely adjust the substantial completion date once all materials are received.

Cost Estimate Classification: 1



South Awbrey Butte Drainage Study

An evaluation will be completed in order to identify areas with run-off problems and complete a modeling effort in order to estimate run-off volumes. This will be the basis for future stormwater system improvements on Awbrey Butte and downstream areas.



Project Engineer: Garrett Sabourin | gsabourin@bendoregon.gov

Scope	Schedule	Cost
Complete a drainage system analysis for the southern hillside of Awbrey Butte. The intent is to identify and provide recommendations for drainage problem areas, as well as provide design peak flow rates at critical design locations along the Newport Avenue Storm Sewer Line.	Start Date: 7/1/15 Substantial Completion: 12/26/2016 Final Closeout: 01/02/2017	Total Estimated: \$250,000 Spent to Date: \$0 % Spent to Estimated: 0%
Status: On Scope	Status: Behind Schedule	Status: On Budget
Adjustments: No anticipated impact to scope due to schedule delay	Adjustments: Experienced delay to advertising period due to internal workload constraints.	Adjustments: No anticipated impact to budget due to schedule delay

Status Update: Procurement of professional engineering services will be delayed as identified above.

Cost Estimate Classification: N/A

