



# ENGINEERING

## Monthly Report

Fiscal Year 2016-2017

July 2016

---



## Table of Contents

Executive Summary..... 1

2017 – 2021 Project List..... 6

S. 3rd St. Pedestrian Improvements ..... 8

Phase 2 - S. 3<sup>rd</sup> Street Improvements ..... 9

Citywide Accessibility Improvements ..... 10

Murphy & Parrell Roundabout ..... 11

Galveston Corridor Improvements ..... 12

Citywide Safety Improvements..... 13

14<sup>th</sup> Street Reconstruction ..... 14

Powers & Brookwood Roundabout Phase II ..... 15

Southeast Interceptor Phase I ..... 16

Valhalla Odor Control & Sewer Relocation . 17

North Area Sewer Capacity Improvements 18

Colorado Pump Station and Sewer Mains .. 19

Plant Interceptor Rehabilitation ..... 20

Riverhouse Lift Station Hydraulic Upgrade . 21

NE 2<sup>nd</sup> & Penn Sewer Line Realignment..... 22

South Awbrey Butte Drainage Study ..... 23

## FROM THE DIRECTOR

Each month this report tracks the incremental changes to the projects, but in order to maintain transparency completed, transferred or cancelled projects are not removed from the CIP until it is updated at the beginning of each fiscal year. The 2017-2021 CIP was approved by Council earlier this month and this month’s report includes the new CIP.

To wrap up the 2016-2020 fiscal year, I chose to highlight some of the successes in the CIP and what we’ve accomplished on our projects. The Executive Summary features information on the financial progression of the CIP from July 2015 through June 2016. In this section readers will find:

- Summary of Activity by Program
- Procurement Activity
- Introduction to the 2017-2021 CIP

In the coming months there will be new graphics and information included in this report. As always, please let me know your thoughts.

**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

---

## 2016-2020 CIP Highlights

The City of Bend's Capital Improvement Program has six major programs: Accessibility Construction, Transportation, General Obligation (GO) Bond, Water, Water Reclamation (Sewer), and Stormwater. The 2016-2020 CIP included 62 projects with \$124.7 million in infrastructure improvements over the five year planning period. For the 2015-16 Fiscal Year (FY) the adopted budget was \$76.7 million. The final revised budget was \$80.5 million with \$41.8 million in expenditures as of June 15, 2016.

Overall, spending was lower than anticipated across all programs, primarily due to workload constraints caused by insufficient staffing levels. Other factors include an increase in work related to implementing a new procurement method and utilization of Department of Environmental Quality (DEQ) loan programs.

Three of the City's largest projects, Bridge Creek Surface Water Improvement, Southeast Interceptor and Colorado Pump Station and Sewer Mains, account for 78 percent of the \$41.8 million spent in the 2015-16 FY. Table 1 below shows the summary by program for the 2015-16 FY.

**Table 1. 2015-16 FY Summary**

Summary Tables	2015-16 ORIGINAL BUDGET	2015-16 REVISIONS	2015-16 ADJUSTED BUDGET	Expenditures (Through 6.15.16)
Accessibility Construction	673,000	175,000	848,000	458,581
Transportation Construction	2,230,000	815,022	3,045,022	1,531,718
GO Bond	7,017,860	-	7,017,860	3,328,309
Water	16,916,500	2,987,000	19,903,500	13,625,827
Sewer	48,981,700	(100,000)	48,881,700	22,712,488
Stormwater	927,000	(172,000)	755,000	212,212
<b>Total Capital Improvement Program</b>	<b>76,746,060</b>	<b>3,705,022</b>	<b>80,451,082</b>	<b>41,869,134</b>

Approximately 64 percent of the \$124.7 million 2016-20 CIP was budgeted in the 2015-16 FY making this the single largest year in the five year budget period. The next section provides a detailed recap of the 2015-16 FY expenditures by program.

## Expenditures by Program

### Accessibility Construction

Approximately 1 percent of the 2015-16 FY CIP budget was dedicated to the Accessibility Construction Program on three projects. Expenditures total \$458,581 and represent approximately 54 percent of the \$848,000 budgeted.

- South 3<sup>rd</sup> Street Pedestrian Improvements was delayed due to the Oregon Department of Transportation procurement schedule.
- Citywide Accessibility Improvements was delayed due to staffing. A Project Manager was hired in April to begin prioritizing and scheduling sub-projects.

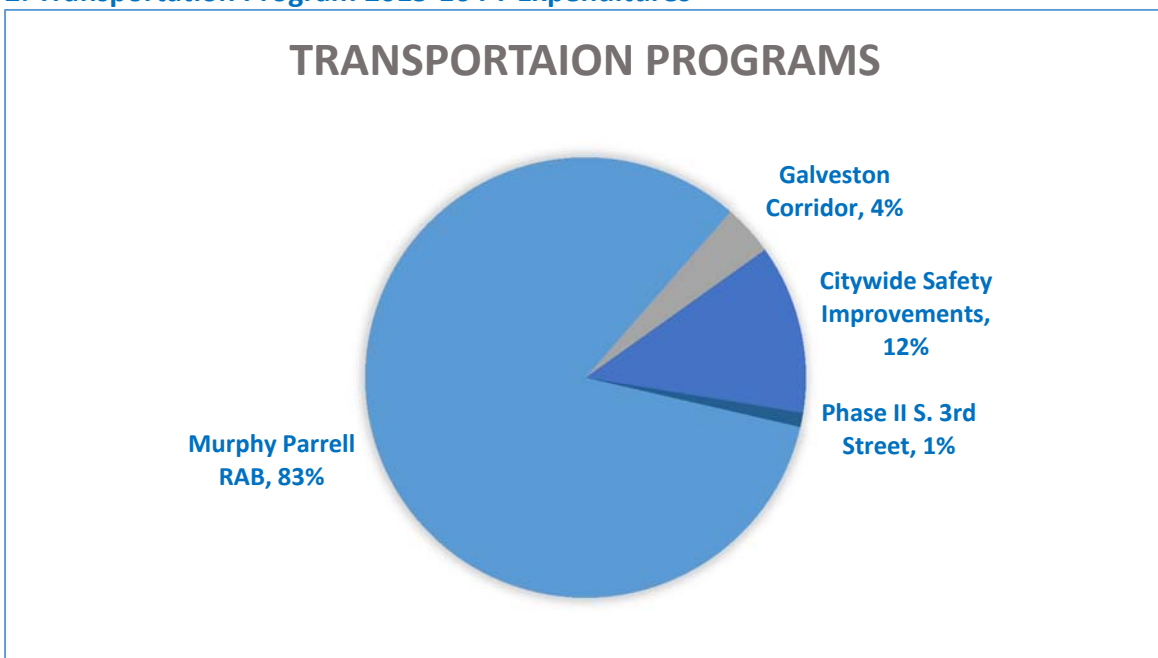
**Transportation Programs**

Approximately 4 percent of the 2015-16 FY CIP budget was dedicated to six projects in the Transportation Program, including the Murphy Parrell Roundabout. Expenditures total \$1,531,718 and represent approximately 50 percent of the \$3 million budgeted.

- Spending on Galveston Corridor was slowed by a delay in issuing the notice to proceed after a change in project management staff.
- Spending was delayed on Sidewalk Design and Projects, Neff & Purcell Sidewalks and Citywide Safety Improvements until a Project Manager was hired to begin prioritizing and scheduling these projects.

Table 2 below shows major project expenditures for the fiscal year.

**Table 2. Transportation Program 2015-16 FY Expenditures**



**General Obligation Bond**

The General Obligation (GO) Bond program has spent \$25 million of the \$30 million approved by voters in 2011. All but two of the original projects are complete. Approximately \$3.7 million in saving has been reallocated to the 14th Street Reconstruction Project as approved by Council. Additionally, the Brookwood Parrell Roundabout Phase II project was added to rehabilitate a Stormwater swale at this location.

Approximately 8 percent of the 2015-16 FY budget was dedicated to six projects in the GO Bond Program. Expenditures total \$3,328,309 and represent approximately 47 percent of the \$7 million budgeted. Spending on projects in this program was slowed after a change in project management staff.

### Water Program

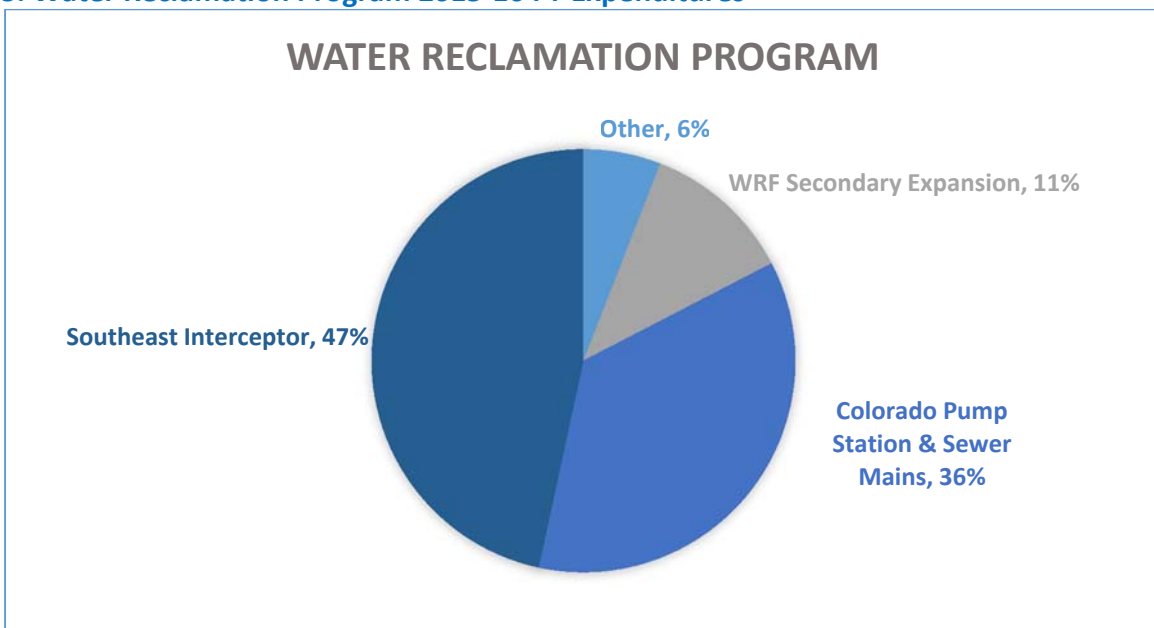
Expenditures in the Water Program totaled \$13,625,827 and were all attributed to the Bridge Creek Surface Water Improvement Project. Approximately 77 percent of the \$17.7 million budget was spent.

### Water Reclamation (Sewer) Program

Approximately 61 percent, \$48.8 million, of the 2015-16 FY CIP budget was dedicated to the Water Reclamation Program on twelve projects. Expenditures total \$22.7 million and represent approximately 46 percent of the \$48.8 million budgeted.

Table 3 below shows major project expenditures for the fiscal year.

**Table 3. Water Reclamation Program 2015-16 FY Expenditures**



- The Plant Interceptor Rehabilitation was delayed due to staffing constraints.
- The North Area Sewer Capacity Improvements was delayed due to staffing constraints, however, right of way (ROW) and permitting issues were additional factors in delayed spending.
- The Southeast Interceptor spending was delayed as work efforts were adjusted to accommodate for design after the addition of the Phase I Extension project.
- The Water Reclamation Facility Secondary Expansion project encountered significant delays that led to reductions in scope and eventual construction termination and demobilization.
- The Colorado Pump Station and Sewer Mains faced late stage design changes by Bend Parks & Recreation led to a redesign and delayed closure of the Colorado Street Bridge.

## **Fiscal Year 2016 Procurement**

This year the CIP met a number of key procurement achievements, including transitioning to a Best Value Procurement process. This process allows the City to evaluate and award construction contracts based on performance factors rather than on cost alone. Large-scale, complex projects such as the Southeast Interceptor and the Colorado Lift Station utilize this type of procurement.

Summary of contracts awarded between July 1, 2015 and June 30, 2016.

### **Design Contracts**

Council approved a total of seven design contracts worth approximately \$8.2 million.

- SEI Phase I Extension
- South Awbrey Butte Drainage
- Galveston & 14<sup>th</sup> Street Reconstruction
- NE 2<sup>nd</sup> & Penn
- Citywide Accessibility Improvement
- Phase 2 S. 3<sup>rd</sup> Street Pedestrian Improvements
- On-Call Sewer & Water Modeling

### **Construction Contracts**

Council approved six construction contracts worth about \$50.5 million.

- Colorado Lift Station
- Valhalla Sewer Relocation
- NE 2<sup>nd</sup> & Penn
- Murphy Parrell Roundabout
- SEI Segment 2S&3
- SEI Segments 4&5R

## **2017-2021 Overview**

The 2017-2021 CIP was approved by Council July 20, 2016. In this CIP there are 52 projects valued at approximately \$348.6 million in total project costs. Between July 1, 2016 and June 30, 2021 about \$144.3 Million worth of work will be performed. Currently, 18 of the 52 projects are in active status with \$64.1 million scheduled for work prior to June 30, 2017. See page 6 for detailed information and project specifics.

As with the previous CIP, the bulk of the work will focus on Water Reclamation projects. Below is a summary of the project financial summaries.

<b>Program</b>	<b>Projects</b>	<b>2016-17 FY</b>	<b>2017-21 CIP</b>	<b>Total Project</b>
<b>Water Reclamation</b>	<b>22</b>	56,484,700	113,335,200	212,492,024
<b>Water</b>	<b>11</b>	2,443,100	10,992,524	83,950,298
<b>Transportation</b>	<b>5</b>	1,869,022	11,424,022	15,594,000
<b>GO Bond</b>	<b>5</b>	1,682,300	5,372,827	23,975,030
<b>ADA Construction</b>	<b>3</b>	1,267,000	1,567,000	2,182,000
<b>Stormwater</b>	<b>6</b>	350,000	1,598,000	10,420,000
<b>Totals</b>	<b>52</b>	<b>\$ 64,096,122</b>	<b>\$ 144,289,573</b>	<b>\$ 348,613,352</b>

## EIPD Procurement Timeline



### City of Bend 2017 - 2021 Capital Improvement Program Project List

Project Name & Number	Project Start	Estimated Substantial Completion	Project Stage	Cost Estimate Class	Total Project Cost Estimate	Total Project Spent to Date	2016-17	2017-18	2018-19	2019-20	2020-21	2017-2020 Budgeted	Budget Revisions	Percent Project Estimate Spent
<b>ADA Construction</b>														
AA11FA South 3rd Street Pedestrian Improvements	2011	03/31/17	Design	2	665,000	157,953	100,000	-	-	-	-	100,000		24%
AA16AA Citywide Accessibility Improvements	2016	9/28/18	Design	4	750,000	15,483	400,000	300,000	-	-	-	700,000		2%
AA17XX Future ADA Projects	2017	07/10/05	Pending	5	767,000	-	767,000	-	-	-	-	767,000		0%
<b>Total ADA Construction Projects</b>					<b>2,182,000</b>	<b>173,436</b>	<b>1,267,000</b>	<b>300,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,567,000</b>		
<b>BURA - Murphy Crossing Construction</b>														
ST15MA Murphy & Parrell Roundabout	2015	07/29/16	Construction	1	2,000,000	1,294,803	355,022	-	-	-	-	355,022		65%
<b>Total BURA Projects</b>					<b>2,000,000</b>	<b>1,294,803</b>	<b>355,022</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>355,022</b>		
<b>Transportation Construction</b>														
ST11GA Galveston Corridor Improvements	2011	10/15/16	Design	5	2,700,000	288,198	225,000	-	-	-	-	225,000		11%
ST14CA Sidewalk Design and Projects	2017	2018	Pending	5	3,550,000	32,306	140,000	380,000	1,830,000	1,150,000	-	3,500,000		1%
ST14DA Neff and Purcell Sidewalks	2016	2017	Pending	5	4,000,000	-	50,000	350,000	300,000	3,300,000	-	4,000,000		0%
ST14EA Citywide Safety Improvements	2016	09/30/18	Design	4	3,344,000	190,289	1,099,000	1,470,000	775,000	-	-	3,344,000		6%
<b>Total Transportation</b>					<b>13,594,000</b>	<b>510,793</b>	<b>1,514,000</b>	<b>2,200,000</b>	<b>2,905,000</b>	<b>4,450,000</b>	<b>-</b>	<b>11,069,000</b>		<b>4%</b>
<b>GO Bond</b>														
ST12CE Reed Mkt: Newberry to 27th	2012	10/15/15	Sub.Complete	1	4,841,330	4,851,287	30,000	21,000	-	-	-	51,000		100%
ST12CJ Reed Mkt: 3rd to Newberry	2012	11/13/15	Sub.Complete	1	14,145,450	13,156,104	45,000	10,000	16,000	-	-	71,000		93%
ST12CK 14th St. Reconstruction	2016	10/15/16	Design	5	3,888,950	101,093	513,000	3,643,527	-	-	-	4,156,527		3%
ST12CH 27th Street Reconstruction	2017	2017	Pending	5	1,049,300	-	1,049,300	-	-	-	-	1,049,300		0%
ST17CD Powers & Brookwood Roundabout Phase II	2016	10/15/16	Design	3	50,000	-	45,000	-	-	-	-	45,000		0%
<b>Total GO Bond</b>					<b>23,975,030</b>	<b>18,108,484</b>	<b>1,682,300</b>	<b>3,674,527</b>	<b>16,000</b>	<b>-</b>	<b>-</b>	<b>5,372,827</b>		
<b>Water</b>														
WA0902 Bridge Creek Intake and Pipeline	2008	06/30/16	Sub.Complete	1	73,954,698	69,970,790	783,100	-	-	-	-	783,100		95%
WA12AA 18th Street Waterline Extension (JR)	2012	2019	Pending	2	500,000	25,063	-	-	478,400	-	-	478,400		5%
WA15BA Water SDC Methodology Study	2017	07/09/05	Pending	-	60,000	578	60,000	-	-	-	-	60,000		1%
WA15HA Water Master Plan Update	2017	07/09/05	Pending	-	500,000	-	500,000	-	-	-	-	500,000		0%
WA15JA Phase 2 South 3rd St. - Water portion	2016	03/31/17	Design	3	1,100,000	-	1,100,000	-	-	-	-	1,100,000		0%
WA20AX Awbrey Well Supply Expansion	2020	2020	Pending	5	1,944,000	-	-	-	-	2,021,760	-	2,021,760		0%
WA20BX Lafayette Pipe Enlargement	2020	2020	Pending	5	241,000	-	-	-	-	250,640	-	250,640		0%
WA20CX College Parallel Pipe Study	2020	2020	Pending	-	1,169,000	-	-	-	-	1,215,760	-	1,215,760		0%
WA20DX Valves Operational System Study	2021	2022	Pending	-	225,000	-	-	-	-	78,000	78,000	156,000		0%
WA21EX Opt Study - New Level 5 Well - Shirley Ct	2021	2021	Pending	-	2,721,600	-	-	-	-	-	2,830,464	2,830,464		0%
WA21DX Opt Study - Parallel Piping Rock Bluff to Brookwood	2021	2021	Pending	-	1,535,000	-	-	-	-	-	1,596,400	1,596,400		0%
<b>Total Water</b>					<b>83,950,298</b>	<b>69,996,431</b>	<b>2,443,100</b>	<b>-</b>	<b>478,400</b>	<b>3,566,160</b>	<b>4,504,864</b>	<b>10,992,524</b>		
<b>Stormwater</b>														
SR15AA South Awbrey Butte Drainage Study	2016	03/31/17	Design	-	250,000	65,870	200,000	-	-	-	-	200,000		26%
SR15BA South 3rd Street - Stormwater portion	2016	12/26/16	Design	2	470,000	6,150	150,000	-	-	-	-	150,000		1%
SR15CA Newport Pipe Replacement Design	2018	2019	Pending	5	425,000	-	-	-	442,000	-	-	442,000		0%
SR21AX Stormwater Master Plan Update	2020	2022	Pending	5	250,000	-	-	-	-	-	130,000	130,000		0%
SR21BX Franklin & Greenwood Underpass	2021	2029	Pending	5	8,450,000	-	-	-	-	-	572,000	572,000		0%
SR21CX Roosevelt & McKinley	2020	2022	Pending	5	575,000	-	-	-	-	-	104,000	104,000		0%
<b>Total Stormwater</b>					<b>10,420,000</b>	<b>72,020</b>	<b>350,000</b>	<b>-</b>	<b>442,000</b>	<b>-</b>	<b>806,000</b>	<b>1,598,000</b>		



### City of Bend 2017 - 2021 Capital Improvement Program Project List

Project Name & Number	Project Start	Estimated Substantial Completion	Project Stage	Cost Estimate Class	Total Project Cost Estimate	Total Project Spent to Date	2016-17	2017-18	2018-19	2019-20	2020-21	2017-2020 Budgeted	Budget Revisions	Percent Project Estimate Spent
<b>Sewer - Water Reclamation</b>						-								
SW0802 Secondary Expansion	2009	06/30/17	Construction	1	45,000,000	39,743,689	2,353,000	-	-	-	-	2,353,000		88%
SW17DA Solids Handling Improvement Technology	2016	2018	Pending	5	17,000,000	-	6,000,000	4,000,000	7,000,000	-	-	17,000,000		0%
SW0707 Southeast Interceptor Project	2007	12/31/17	Construction	3	60,000,000	29,188,875	22,959,500	8,575,000	-	-	-	31,534,500		49%
SW0707 SEI Extension Project 2S&3	2016	12/31/17	Construction	1	8,000,000	-	4,637,500	3,402,500	-	-	-	8,040,000		0%
SW11BA Valhalla Sewer Relocation	2011	10/16/16	Construction	1	1,860,370	358,132	2,000,000	-	-	-	-	2,000,000		19%
SW13DA North Area Sewer Capacity Improvements	2013	11/01/16	Construction	1	6,547,522	1,001,150	5,669,700	-	-	-	-	5,669,700		15%
SW13EA Colorado Pump Station and Force Main	2013	01/10/17	Construction	1	13,620,132	10,379,739	4,525,000	-	-	-	-	4,525,000		76%
SW15AA Plant Interceptor Rehabilitation	2015	06/30/17	Planning	5	5,738,000	22,918	5,970,000	-	-	-	-	5,970,000		0%
SW16DA Riverhouse Lift Station Hydraulic Upgrade	2016	06/30/17	Design	5	500,000	-	370,000	-	-	-	-	370,000		0%
SW17EA East Interceptor (Formerly SEI Phase II North)	2016	2018	Pending	5	21,000,000	-	1,000,000	1,000,000	-	-	-	2,000,000		0%
SW17FA North Interceptor	2016	2021	Pending	5	23,000,000	-	1,000,000	1,000,000	7,000,000	7,000,000	7,000,000	23,000,000		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	-	-	605,000	-	-	-	605,000		0%
SW15KA WRF Evaporation Percolation Ponds	2019	2019	Pending	5	1,567,000	-	-	-	1,630,000	-	-	1,630,000		0%
SW19AX Amethyst/Mahogany Street Sewer	2019	2019	Pending	5	679,000	-	-	-	710,000	-	-	710,000		0%
SW19BX Mahogany Street/Hwy 97 Sewer	2019	2019	Pending	5	999,000	-	-	-	1,050,000	-	-	1,050,000		0%
SW18AA WRF Support Facilities Upgrade	2020	2020	Pending	5	2,400,000	-	-	-	-	2,500,000	-	2,500,000		0%
SW20AX Odor Control Master Plan	2020	2020	Pending	-	1,000,000	-	-	-	-	1,050,000	-	1,050,000		0%
SW20BX Sewer Storage - Land Acquisition	2020	2020	Pending	-	700,000	-	-	-	-	730,000	-	730,000		0%
SW20EX Plant Interceptor Condition Assessment	2020	2020	Pending	5	600,000	-	-	-	-	630,000	-	630,000		0%
SW20FX Collection System Master Plan (Years 6-10)	2020	2020	Pending	-	1,000,000	-	-	-	-	1,050,000	-	1,050,000		0%
SW20GX Gravity Pipe Condition Assessment	2020	2035	Pending	5	200,000	-	-	-	-	210,000	208,000	418,000		0%
<b>Total Sewer</b>					<b>212,492,024</b>	<b>80,694,503</b>	<b>56,484,700</b>	<b>19,082,500</b>	<b>17,390,000</b>	<b>13,170,000</b>	<b>7,208,000</b>	<b>113,335,200</b>		
<b>Total 2017-2020 Capital Improvement Program</b>					<b>348,613,352</b>	<b>170,850,470</b>	<b>64,096,122</b>	<b>25,257,027</b>	<b>21,231,400</b>	<b>21,186,160</b>	<b>12,518,864</b>	<b>144,289,573</b>		

## 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.



### Scope

Design, right of way acquisition, and construction of sidewalks, curb ramps that is coordinated with other infrastructure for water, stormwater, and streets. Stormwater scope increased to now include catch basin and drill hole vault replacement.

**Project Engineer: Jason Suhr | jsuhr@bendoregon.gov**

Start Date: 11/1/2011  
 Substantial Completion: 7/21/2017  
 Final Closeout: 7/21/2018

Total Estimated: \$1,205,000  
 Spent to Date: \$157,953  
 % Spent to Estimated: 13%  
 Three Projects: ADA \$665,000, Water \$70,000, Stormwater \$470,000

**Status: On Scope**

**Status: On Schedule**

**Status: On Budget**

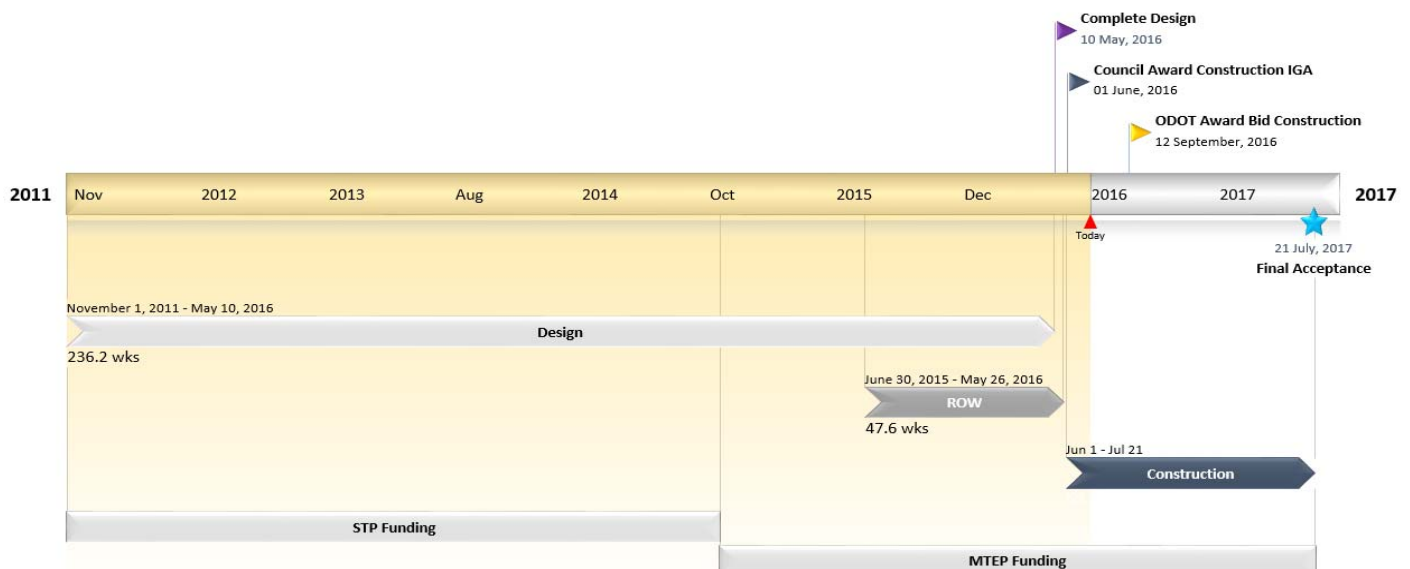
Adjustments: No change from prior month

Adjustments: No change from prior month

Adjustments: No change from prior month

**Status Update:** Minor delay in the ODOT procurement pushed the bid opening to July 28. Payment was anticipated in June but is now scheduled for August.

### Cost Estimate Classification: 2



## Phase 2 - S. 3<sup>rd</sup> 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.



### Scope

Includes design and construction for streets, water, and stormwater. This work will include an analysis of the drainage basin to assess the condition of the existing stormwater facilities; creation of a striping and paving plan; replace existing 2-inch sub-standard waterlines with 8-inch pipelines.

### Schedule

Start Date: 10/1/2015  
 Substantial Completion: 6/30/2017  
 Final Closeout: 7/1/2018

### Cost

Total Estimated: \$1,135,000  
 Spent to Date: \$900  
 % Spent to Estimated: 0.08%

Three Projects: Water \$1,100,000, Stormwater \$5,000 and Streets \$30,000

Stormwater and Streets projects are closed.

Status: On Scope

Status: On Schedule

Status: Cost Adjustment

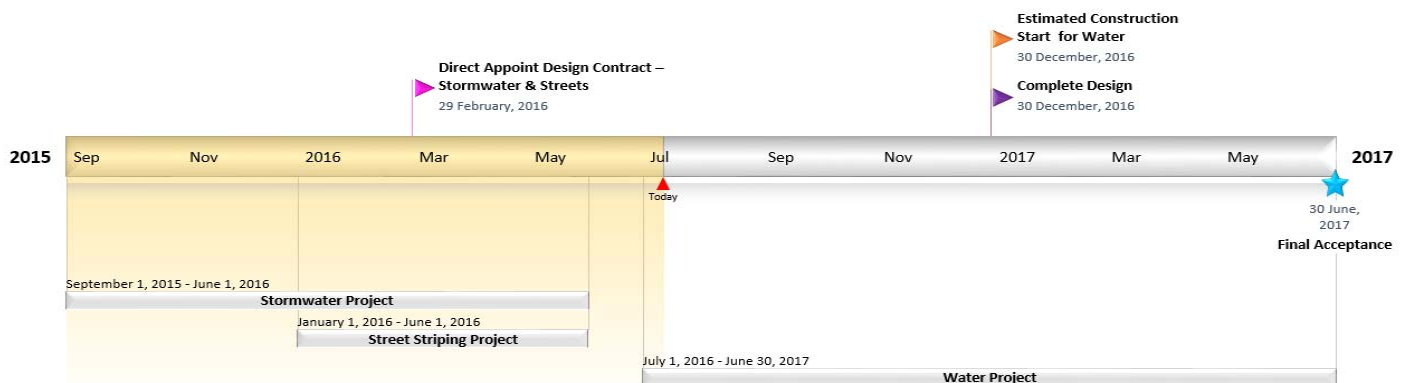
Adjustments: No change from prior month

Adjustments: No change from prior month

Adjustments: No change from prior month

Status Update: Striping plans are complete. Performing initial scoping efforts for the water project.

### Cost Estimate Classification: 5



## 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.



Project Engineer: Rory Rowan | rrowan@bendoregon.gov

### Scope

Survey, design, and construction of accessibility improvements, as funding allows, in the Wells Acres, Bear Creek, Division, Downtown & Old Mill and Brookwood/Southwest neighborhoods.

### Schedule

Start Date: 3/1/16  
 Substantial Completion: 9/28/2018  
 Final Closeout: 09/28/2019

### Cost

Total Estimated: \$750,000  
 Spent to Date: \$0  
 % Spent to Estimated: 0%

### 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:** No change from last month. Task orders have been issued for design in the Wells Acres, Dean Swift and Bend Community Center neighborhoods. Continue outreach with City of Bend Accessibility Advisory Committee (COBAAC) and Central Oregon Coalition for Access (COCA).

### Cost Estimate Classification: 4



# Murphy & Parrell Roundabout

This project will finalize the 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: \$436,747  
 % Spent to Estimated: 22%

**Status: On Scope**

**Status: On Schedule**

**Status: On Budget**

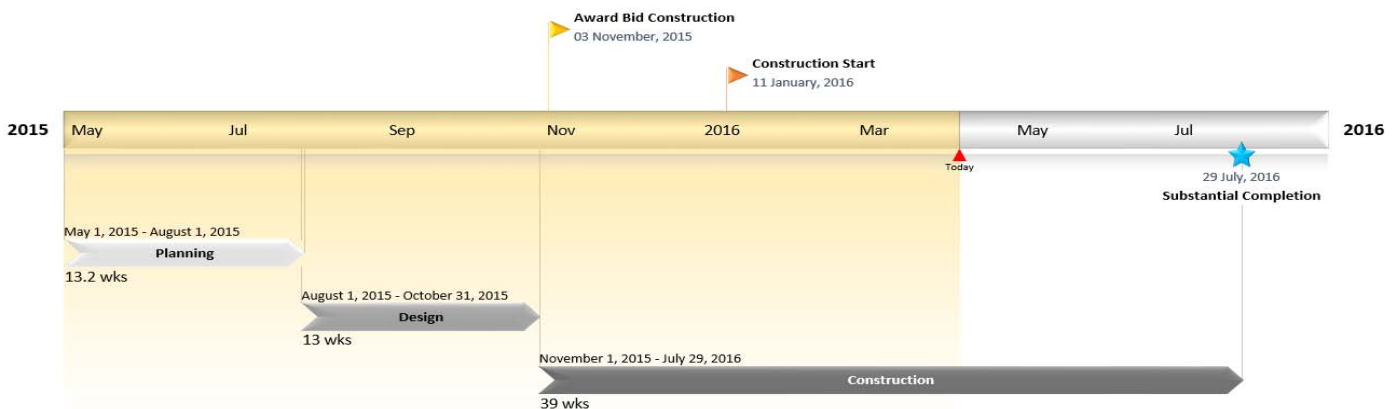
Adjustments: No change from prior month

Adjustments: No change from prior month

Adjustments: No change from prior month

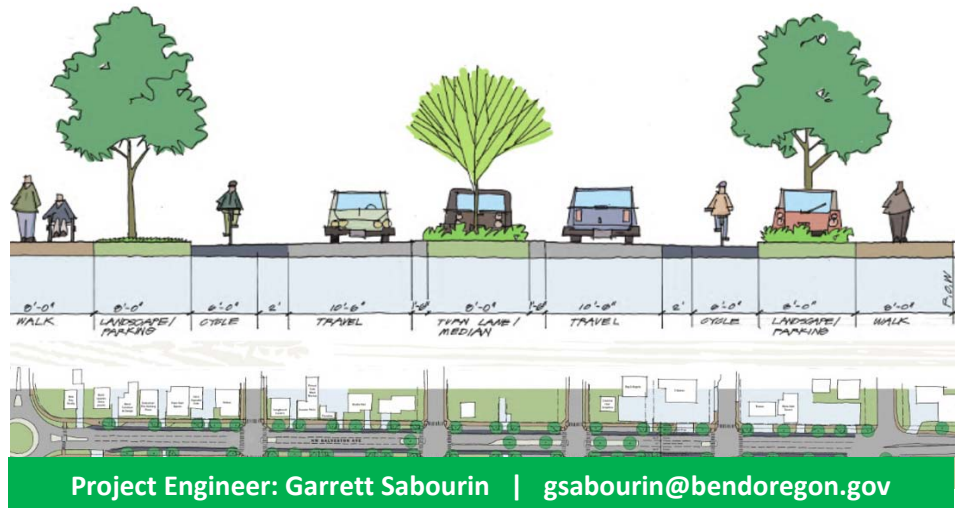
**Status Update:** Stormwater pipe installation and utility relocations are nearing completion at the end of May. Two retaining walls were also completed along with the start of the building of the base for the future roadway.

### 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. At 30% design project will be brought to council to decide the Stormwater and other elements to be carried forward.

## Schedule

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

## Cost

Total Estimated: \$2,700,000  
 Spent to Date: \$239,932\*  
 % Spent to Estimated: 9%

\* Includes planning. At 30% design cost estimates will be updated to account for water, stormwater and sewer utility projects.

### 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:** Current design efforts include the development of the draft roadway and initial draft reports due to the City in August 2016 for internal review.

### 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](mailto: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.

### Schedule

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

### Cost

Total Estimated: \$3,344,000  
 Spent to Date: \$163,454  
 % Spent to Estimated: 5%

### 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:** Currently at 30% design. Feedback will be solicited this month from the project Sounding Board and Technical Advisory Committee.

### Cost Estimate Classification: 4



# 14<sup>th</sup> 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: Garrett Sabourin | [gsabourin@bendoregon.gov](mailto:gsabourin@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: \$7,178 % Spent to Estimated: 0.18%  *Corridor extension construction cost not included in Total Cost Estimate. At 30% design cost estimates will be updated to account for water, stormwater and sewer utility projects.
<b>Status: On Scope</b>	<b>Status: On Schedule</b>	<b>Status: On Budget</b>
Adjustments: No change from prior month	Adjustments: No change from prior month	Adjustments: No change from prior month

**Status Update:** Current design efforts include the development of the draft roadway and initial draft reports due to the City in August 2016 for internal review.

## Cost Estimate Classification: 5





## Powers & Brookwood Roundabout Phase II

The stormwater from the newly constructed roundabout on Brookwood and Powers is conveyed to and drains into stormwater structures through a swale to the northeast of the roundabout. The Powers & Brookwood Roundabout Phase II Project intent is to rehabilitate this swale. This will be done by cleaning out the storm structures and re-constructing the check dams to convert the swale into a series of retention ponds. This will ensure proper erosion control and sediment collection.



### Scope

Re-construct check dams to convey water at appropriate velocity and location. Check dam height will also convert swale into retention ponds for increased retention capacity and sediment collection.

### Schedule

Start Date: 07/01/2016  
 Substantial Completion: 10/15/2016  
 Final Closeout: 10/15/2017

### Cost

Total Estimated: \$50,000  
 Spent to Date: \$0  
 % Spent to Estimated: 0%

**Status: On Scope**

**Status: On Schedule**

**Status: On Budget**

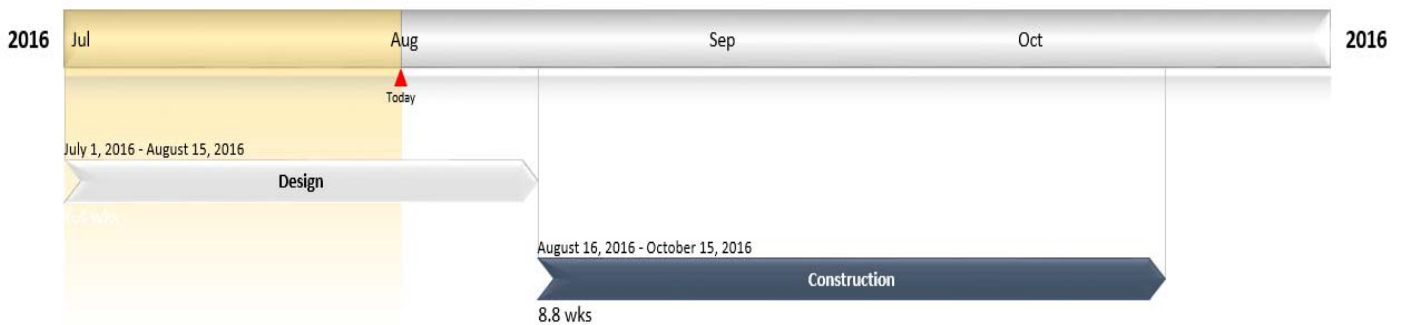
Adjustments: No change from prior month

Adjustments: No change from prior month

Adjustments: No change from prior month

**Status Update:** Project Initiated

**Cost Estimate Classification: 5**



# 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. Segment 2S&3 indicates the 2.5 mile stretch of 27<sup>th</sup> Street between Neff and Reed Market Rd.

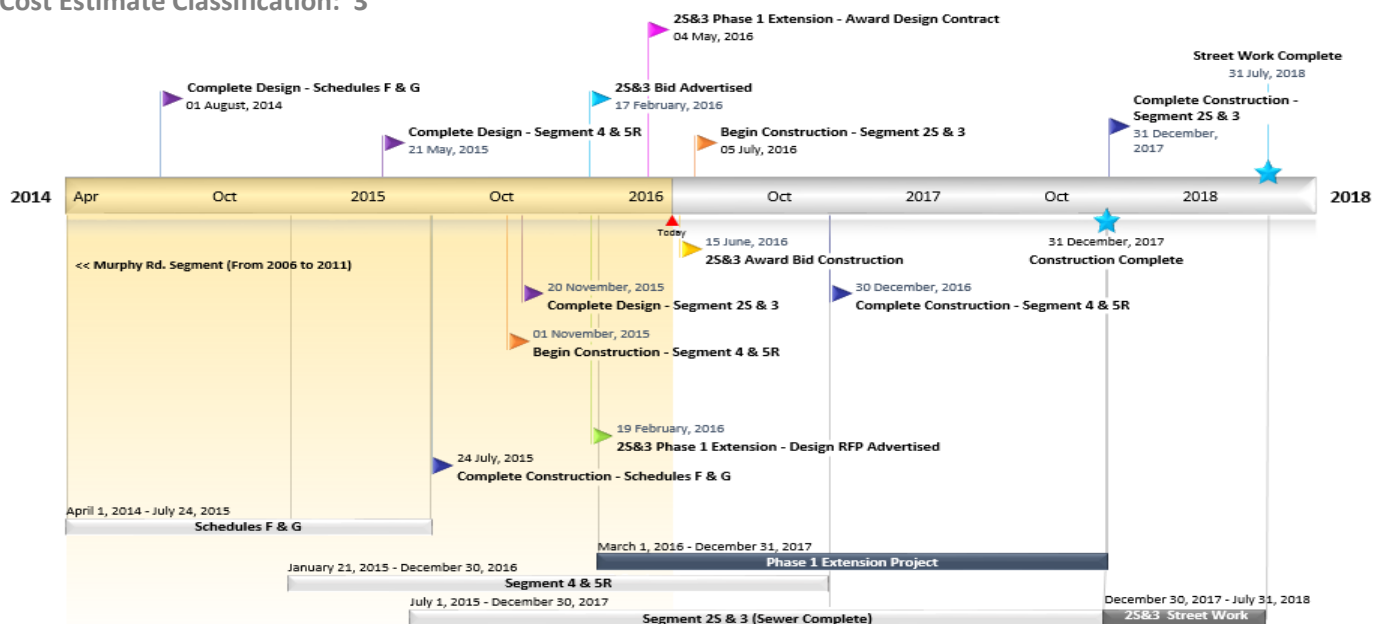


Project Engineer: Eric Forster | eforster@bendoregon.gov

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: \$71,700,000 Spent to Date: \$25,140,765 % Spent to Estimated: 35%
<b>Status: Increased Scope</b>	<b>Status: On Schedule</b>	<b>Status: On Budget</b>
Adjustments: No change from prior month	Adjustments: No change from prior month	Adjustments: No change from prior month

**Status Update:** The construction contract selected through the competitive best value process is 23% higher than engineer’s final design estimate for Segment 2S&3. Construction contract brought to Council June 15.

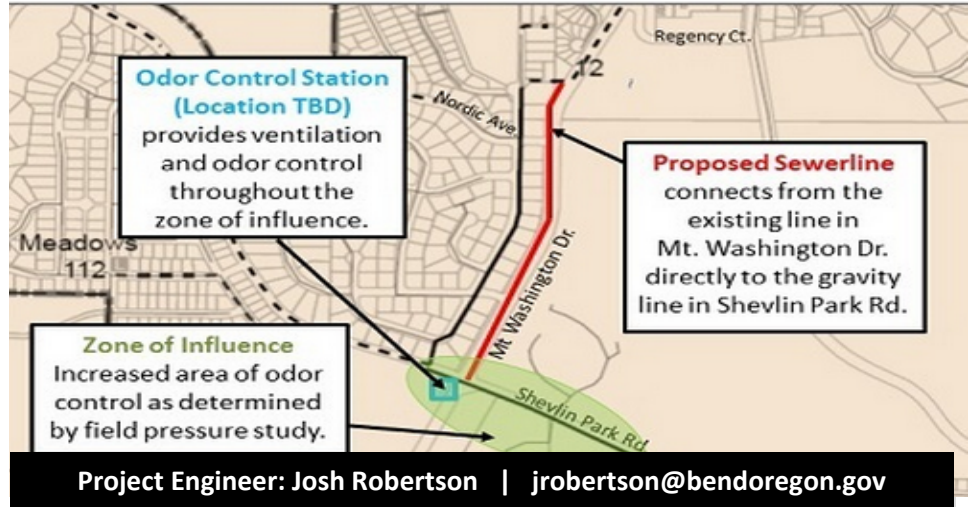
## Cost Estimate Classification: 3



## 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

Design and construction of a sewer main to direct sewage around the Valhalla neighborhood and install new odor control systems. Project includes paving restoration.

#### Schedule

Start Date: 1/24/11  
 Substantial Completion: 11/14/2016  
 Final Closeout: 11/14/2017

#### Cost

Total Estimated: \$1,860,370  
 Spent to Date: \$260,325  
 % Spent to Estimated: 14%

#### Status: On Scope

Adjustments: No change from prior month

#### Status: On Schedule

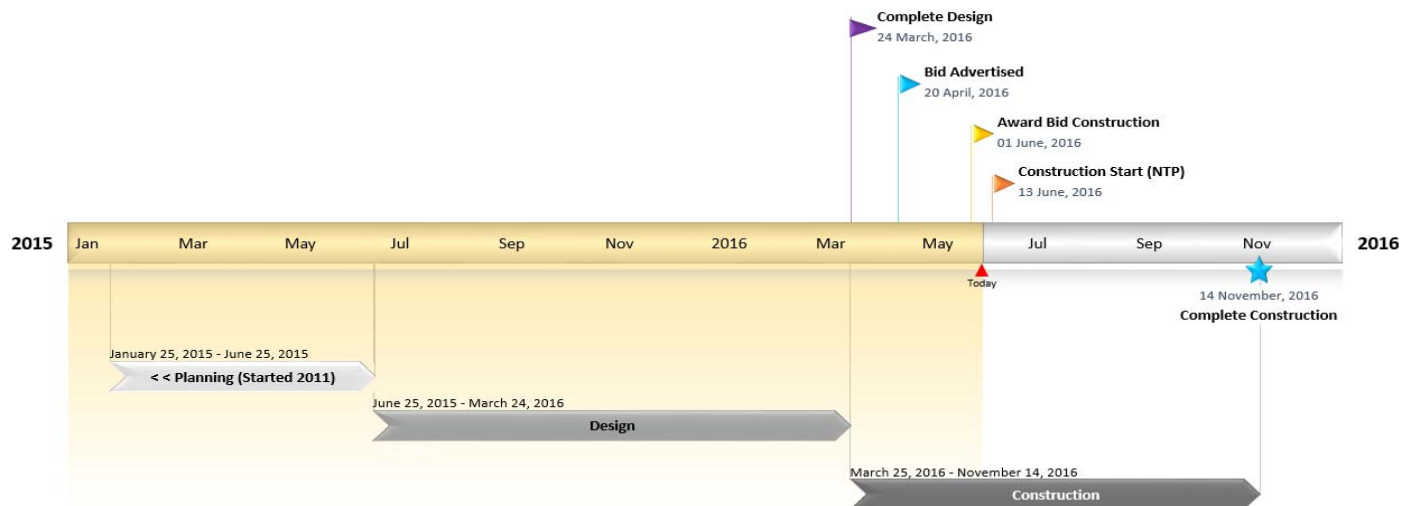
Adjustments: No change from prior month

#### Status: Potential Cost Increase

Adjustments: Project cost increase likely due to changes in scope and schedule. Cost estimate and budgets will be updated after bid closes.

**Status Update:** Pipe installation on Shevlin Park Road has begun. The work will be accomplished at night starting in early July. Switching to day work on Mt. Washington Drive in early August.

#### Cost Estimate Classification: 1



## 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: 4/30/2017  
 Final Closeout: 4/30/2018

### Cost

Total Estimated: \$6,547,522  
 Spent to Date: \$849,584  
 % Spent to Estimated: 14%

**Status: On Scope**

**Status: Behind Schedule**

**Status: Potential Budget Adjustment**

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, continued incremental progress. Bid advertisement delayed due to ongoing easement negotiations and irrigation district permits.

### Cost Estimate Classification: 2



## 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: \$8,226,894  
 % Spent to Estimated: 60%

### Status: On Scope

Adjustments: No change from prior month

### Status: On Schedule

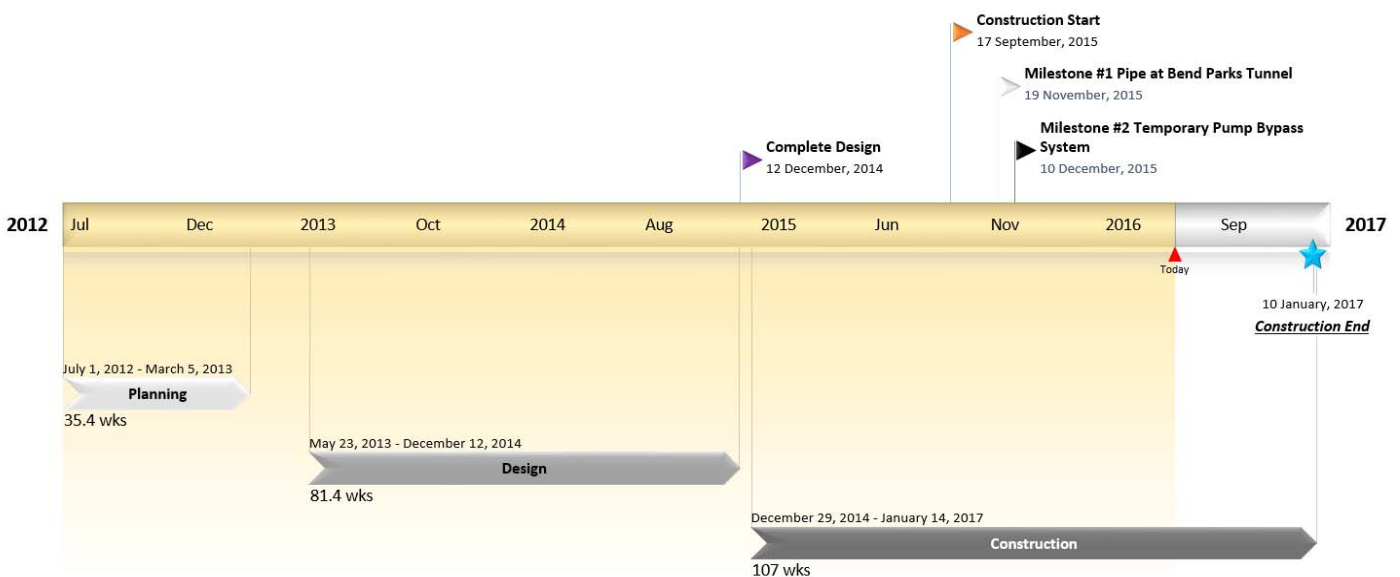
Adjustments: No change from prior month

### Status: On Budget

Adjustments: No change from prior month

**Status Update:** The closure of Shevlin-Hixon will advance with construction of the gravity main to Shevlin-Hixon and Allen Road. Roads will be reopened as construction advances. Both the lift station and generator buildings are going vertical with above grade construction. Construction of mechanical piping in the pump station building has begun.

### 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.



**Project Engineer: Jason Suhr | [jsuhr@bendoregon.gov](mailto:jsuhr@bendoregon.gov)**

### Scope

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.

### Schedule

Start Date: 3/1/2015  
 Substantial Completion: 12/29/2017  
 Final Closeout: 12/29/2018

### Cost

Total Estimated: \$5,738,000  
 Spent to Date: \$22,918  
 % Spent to Estimated: 0.40%

**Status: On Scope**

**Status: Behind Schedule**

**Status: On Budget**

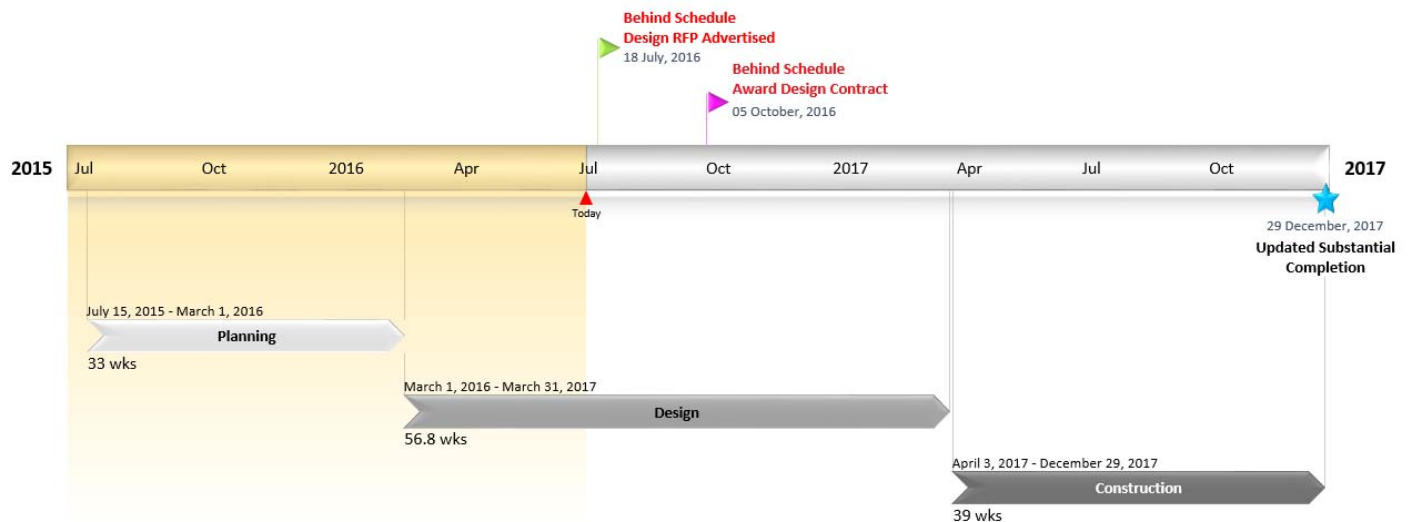
Adjustments: No change from prior month

Adjustments: **No impact to budget or scope due to schedule delay.**

Adjustments: No change from prior month

**Status Update:** Received acceptance of archeological assessment. Currently within the 30-day DEQ public comment period.

### Cost Estimate Classification: 5



## Riverhouse Lift Station Hydraulic Upgrade

This project was identified in the Collection System Master Plan as a project to be partially funded by the hotel/developer. The City received an in-lieu of payment from the developer to complete the work of downsizing the mechanical pump components to match required capacity for peak we-weather flow and will coordinate the work in conjunction with the North Area Sewer Capacity Improvements project.



Project Engineer: George Franklet | [gfranklet@bendoregon.gov](mailto:gfranklet@bendoregon.gov)

### Scope

Downsize of mechanical pumping and/or electrical components to decrease hydraulic capacity to closer to required capacity. Rehabilitation and, where required, replacement of deteriorating lift station components where O&M Department condition assessment indicated poor condition: wet well, pumps, motors and electrical equipment

### Schedule

Start Date: 2/25/2016  
 Substantial Completion: 6/30/2017  
 Final Closeout: 6/30/2018

### Cost

Total Estimated: \$500,000  
 Spent to Date: \$0  
 % Spent to Estimated: 0%

**Status Update:** Design contract initiated and design proceeding to 30%.

### Cost Estimate Classification: 5



# NE 2<sup>nd</sup> & 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.

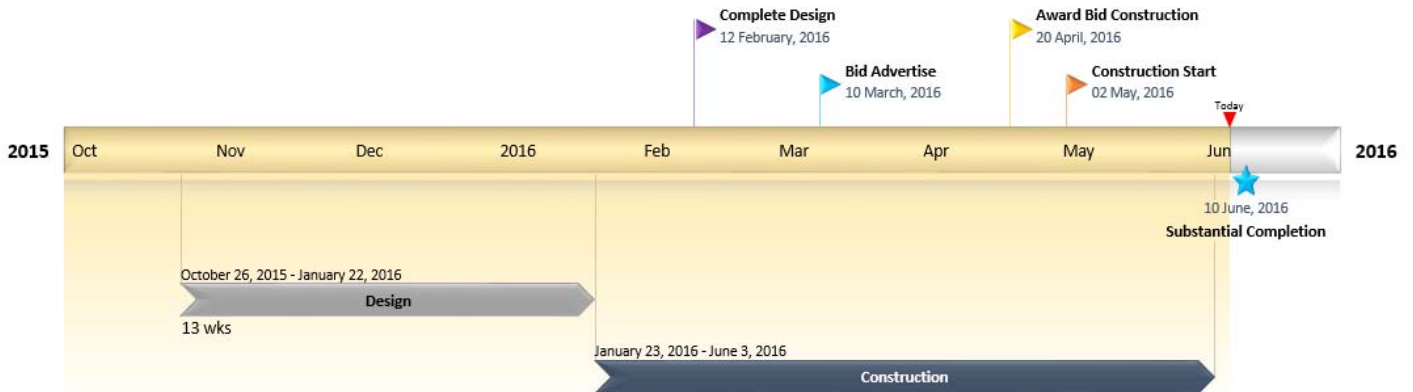


**Project Engineer: Garrett Sabourin | gsabourin@bendoregon.gov**

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: 6/10/2016 Final Closeout: 6/10/2017	Total Estimated: \$300,000 Spent to Date: \$157,736 % Spent to Estimated: 53%
<b>Status: On Scope</b>	<b>Status: On Schedule</b>	<b>Status: Under Budget</b>
Adjustments: No change from prior month	Adjustments: No change from prior month	Adjustments: No change from prior month

**Status Update:** Project came in on time and under budget. Final pay applications submitted for processing and ending project cost is approximately \$235,000 in total. This is the final month that the project will be included in the monthly report.

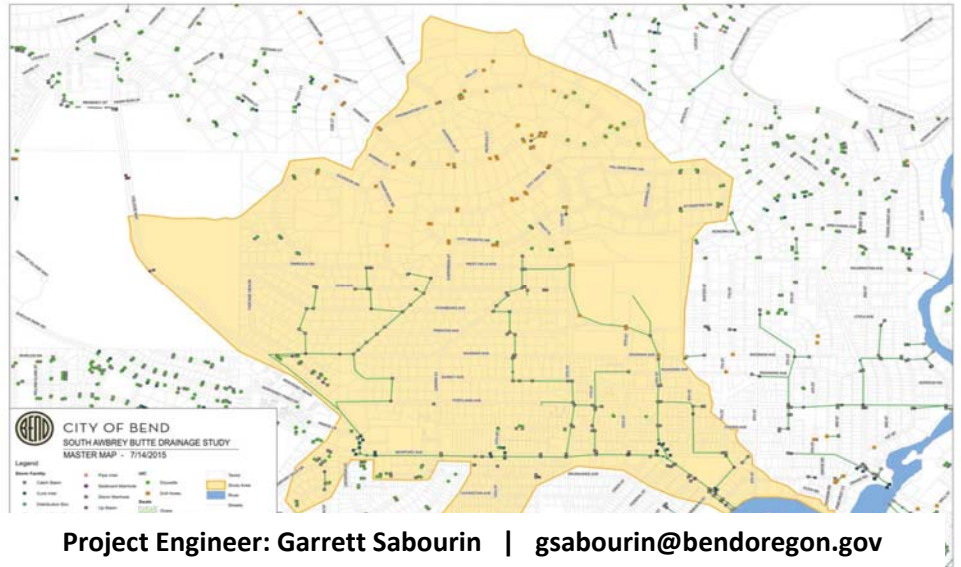
## Cost Estimate Classification: 1





## 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 drainage.	Start Date: 7/1/15 Substantial Completion: 05/26/2017 Final Closeout: 05/26/2017	Total Estimated: \$250,000 Spent to Date: \$518 % Spent to Estimated: 0.21%
<b>Status: On Scope</b>	<b>Status: On Schedule</b>	<b>Status: On Budget</b>
Adjustments: No change from prior month	Adjustments: No change from prior month	Adjustments: No change from prior month

**Status Update:** Current efforts include the development of a rainfall simulation model for the project area to assist in determining existing stormwater management issues.

### Cost Estimate Classification: 5



