

# Seaside Transportation System Plan: Overview of Order-of-Magnitude Cost Estimates

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This memorandum provides an overview of order-of-magnitude (also called planning-level) cost estimates for the transportation improvements recommended in the Seaside Transportation System Plan (TSP). The tables below are organized by modal plan. These tables also provide an estimate of timeframe for implementation. These are defined as short-term (0-5 years); medium-term (5-10 years); and long-term (10-20 years).

Table 1 below summarizes cost estimates for the roadway modal plan.

**TABLE 1**

*Order-of-Magnitude Cost Estimates for Seaside TSP Roadway Recommendations*

	<i>Improvement Concept</i>	<i>Order of Magnitude Cost Estimate (2010 \$)</i>	<i>Time Frame</i>
1.	Intersection of 24 <sup>th</sup> Avenue and US 101		
	Phase 1: Reconstruct US 101 in vicinity of Lewis and Clark, including reconstruction of existing bridge 01035 outside of 100-year floodplain	\$15,741,000	Medium
	Phase 2: Construct new 24 <sup>th</sup> Avenue intersection	\$6,663,000	Long
2.	Three-Way Stop at Lewis & Clark Road and Wahanna Rd.	\$30,000	Short
3.	Wahanna Road Pedestrian Improvements	\$6,678,000	Medium
4.	Intersection of 12th Ave. & Hwy 101	\$1,314,000	Medium
5.	Realignment of Avenue F and Avenue G with new signal	\$3,352,000	Short
6.	US 101 widening between north of Broadway and Avenue G (based on assumption of Hybrid Alternative)	\$5,456,000	Medium
7.	Intersection of Broadway & Hwy 101	\$792,000	Medium
8.	Broadway Cross Section	\$506,000	Medium

**TABLE 1***Order-of-Magnitude Cost Estimates for Seaside TSP Roadway Recommendations*

	<b>Improvement Concept</b>	<b>Order of Magnitude Cost Estimate (2010 \$)</b>	<b>Time Frame</b>
9.	Intersection of Avenue U & Hwy 101	\$7,997,000	Short
10.	Extension of S. Holladay Drive to the south (tie in with US 101 at Avenue U)	\$8,005,000	Medium
11.	Flyover of S. Holladay Drive at US 101	\$9,911,000	Long
12.	Avenue S Cross Section		Medium
	Between US 101 and the bridge	\$3,459,000	
	Between the bridge and Wahanna Road	\$2,268,000	
13.	Extend Wahanna Road to the south	\$7,396,000	Long

As shown in Table 1, the roadway projects in the TSP range in cost from \$30,000 to over \$15 million to construct. Many of the projects are recommended for the medium or long term. Table 2 summarizes order-of-magnitude costs for the TSP's bicycle and pedestrian recommendations.

**TABLE 2***Order-of-Magnitude Cost Estimates for Seaside TSP Bicycle/Pedestrian Recommendations*

	<b>Improvement Concept</b>	<b>Order of Magnitude Cost (2010 \$)</b>	<b>Time Frame</b>
<b>Bicycle/Pedestrian Bridges</b>			
1.	Bicycle/pedestrian bridge over Neawanna Creek in vicinity of 15 <sup>th</sup> Avenue	\$954,000	Medium
2.	Bicycle/pedestrian bridge over Necanicum River in vicinity of 3 <sup>rd</sup> Avenue	\$719,000	Medium
3.	Bicycle/pedestrian bridge over Neawanna Creek in vicinity of Avenue F	\$645,000	Short
4.	Bicycle/pedestrian bridge over Necanicum River in vicinity of Avenue S	\$390,000	Short
<b>Pedestrian Treatments - Intersections</b>			
5.	High-visibility crosswalks across US 101 (Approximately every three blocks – assumed in vicinity of 15 <sup>th</sup> , 9 <sup>th</sup> , 6 <sup>th</sup> , 3 <sup>rd</sup> , 1 <sup>st</sup> , and Avenue B)	Between \$4,000 and \$15,000 per intersection	Short to Medium
6.	Pedestrian crosswalks and curb ramps off US 101 (Assumed at 12 <sup>th</sup> /Franklin, 12 <sup>th</sup> /Holladay, Broadway/Lincoln; Broadway east of Lincoln; Broadway/Holladay, and Avenue U/Columbia, 15 <sup>th</sup> /Wahanna, Spruce/Wahanna)	Between \$5,000 and \$17,000 per intersection	Short to Medium
<b>Pedestrian/Bicycle Treatments - Corridors</b>			
7.	Signed bicycle routes on low traffic roadways (Assumed for Franklin, Lincoln, 17 <sup>th</sup> , 15 <sup>th</sup> , 1 <sup>st</sup> , Broadway west of US 101, Avenue A, Hilltop/Aldercrest, Avenue F/G, Cooper/Alder, and Avenue S west of US 101)	Between \$1,000 and \$30,000 depending on length of roadway	Short to Medium

**TABLE 2**  
*Order-of-Magnitude Cost Estimates for Seaside TSP Bicycle/Pedestrian Recommendations*

	<b>Improvement Concept</b>	<b>Order of Magnitude Cost (2010 \$)</b>	<b>Time Frame</b>
8.	Bicycle lanes and shared roadway markings for busier roadways (Assumed for Holladay, 12 <sup>th</sup> , Avenue S, and Avenue U). NOTE: Roadway recommendations (Table 1) for 12 <sup>th</sup> Avenue and Avenue S also include bicycle treatments.	Between \$28,000 and \$376,000 depending on length of roadway	Short
9.	Sidewalk connectivity – along US 101 (NB between MP 20.81 and 22.76; SB between MP 19.38 and 22.33)	\$1,935,000	Medium
10.	Sidewalk connectivity – off of US 101	Between \$67,000 and \$488,000 per roadway segment	Short to Long
<b>Shared Use Paths</b>			
11.	Shared use path extending the Prom from Avenue U to Ocean Vista	\$82,000	Medium
12.	High ground connector pathway (north/south between Lewis & Clark and Avenue S)	\$687,000	Long
13.	Connection to higher ground – east of Broadway	\$125,000	Medium
14.	Connection to higher ground – east of Neawanna Creek in vicinity of Avenue F	\$110,000	Short
15.	Connection to higher ground – north/south between Broadway and Avenue F	\$133,000	Medium
16.	Connection to higher ground – east of Avenue S/Wahanna Road	\$296,000	Short
17.	Path connecting US 101 and Wahanna in vicinity of 15 <sup>th</sup> Avenue	\$58,000	Long
18.	Extension of shared use path along US 101 from Avenue P to Avenue U	\$220,000	Short
19.	Extension of shared use path along US 101 from north city limits to 12 <sup>th</sup> Avenue	\$381,000	Short

Many of the bicycle and pedestrian improvement projects could be implemented in the short-term. Priorities include building two bicycle and pedestrian bridges across the Necanicum River and Neawanna Creek south of Broadway (in vicinity of Avenue F and in vicinity of Avenue S). These could be combined with the construction of pedestrian paths leading to higher ground for use in case of an emergency. Other higher priority projects include bicycle and pedestrian friendly treatments along lower volume roadways, and pedestrian safety crossing projects both on and off of US 101.

Please note that bicycle and pedestrian treatments that are part of larger roadway projects are included in Table 1 estimates as improvements would be constructed together.

Table 3 below provides order-of-magnitude cost estimates for the TSP's transit recommendations.

**TABLE 3**  
*Order-of-Magnitude Cost Estimates for  
 Seaside TSP Transit Recommendations*

	<i>Improvement Concept</i>	<i>Order of Magnitude Cost Estimate (2010 \$)</i>		<i>Time Frame</i>
		<i>Start up costs</i>	<i>Annual Operating Costs</i>	
1.	Re-establish Trolley Bus Circulatory Route	\$785,760	\$494,210	Medium
2.	Increase existing Bus service to 30 minute headways during the peak	\$1,680,000	\$343,200	Medium
3.	Extend Route 101 service in the evenings	-	\$75,500	Short
4.	Provide service on Sundays	-	\$92,660	Short
5.	Addition of Bus pullouts on US 101	\$152,000	-	Short
6.	Addition of Bus Shelters	\$69,600	-	Short

Transit recommendations are organized into start-up costs and annual operating costs. Start up costs include the purchase of additional transit vehicles, bus shelters, and/or the construction of capital improvements. Operating costs include ongoing labor, maintenance, and fuel costs to run the service, and are reported on an annual basis. Many of these projects could be implemented in the short-term.

All cost estimates were prepared using unit cost assumptions for length and width of improvements, and included an engineering assessment of environmental sensitivities based on available information (floodplains, wetlands, location of businesses). Right-of-way acquisition costs were prepared in conjunction with ODOT. All costs assume a 40 percent contingency based on limited design detail with the exception of transit operations costs, which include a 20 percent contingency.