South Stage Road
Extension Plan

Technical Memorandum

May 30, 2024 Project# 27003.014

To: Lisa Cornutt, ODOT
Karl MacNair, City of Medford

From: Jon Gerlach, PE & Darren Hippenstiel, PE

CC: Marc Butorac, PE, PTOE, PMP

RE: Task 5.1.3.B: Land Use Screening Evaluation

INTRODUCTION

As part of Task 5.1.3 – Concept Analysis, several land use factors have been considered in the evaluation of alternatives for the South Stage Extension Plan. This evaluation identifies potential property, existing structure, park, wetland, and floodway impacts, reductions in buildable land, and changes to zoning or comprehensive planning potentially required for each alternative. The impacts identified in this memorandum are also summarized for the eight alternatives deemed technically and economically feasible in Technical Memorandum (TM) #5.1.3.2 Concept Level Environmental Screening. TM #5.1.3 Concept Analysis documents the screening that identifies the eight technically and economically feasible alternatives.

The right-of-way of South Stage Road continues approximately 50' northeast of the intersection with Samike Drive west of I-5. East of I-5, the City of Medford is constructing the first 1,000 feet of South Stage Road extending west from North Phoenix Road. Many of the identified alternatives would complete the missing segment of South Stage Road, which has a length of approximately 6,500 feet (as the crow flies). To calculate potentially impacted areas, the project team assumed a 100-foot right-of-way width along the proposed alternative alignments. Using this assumption, impacts for the following screening evaluation factors were developed.

Total Right-of-Way Impacts

This defined area estimates the right-of-way necessary along a proposed alignment.

Existing Structure Impacts

This number defines potential building structures that would be removed to accommodate the proposed alignment.

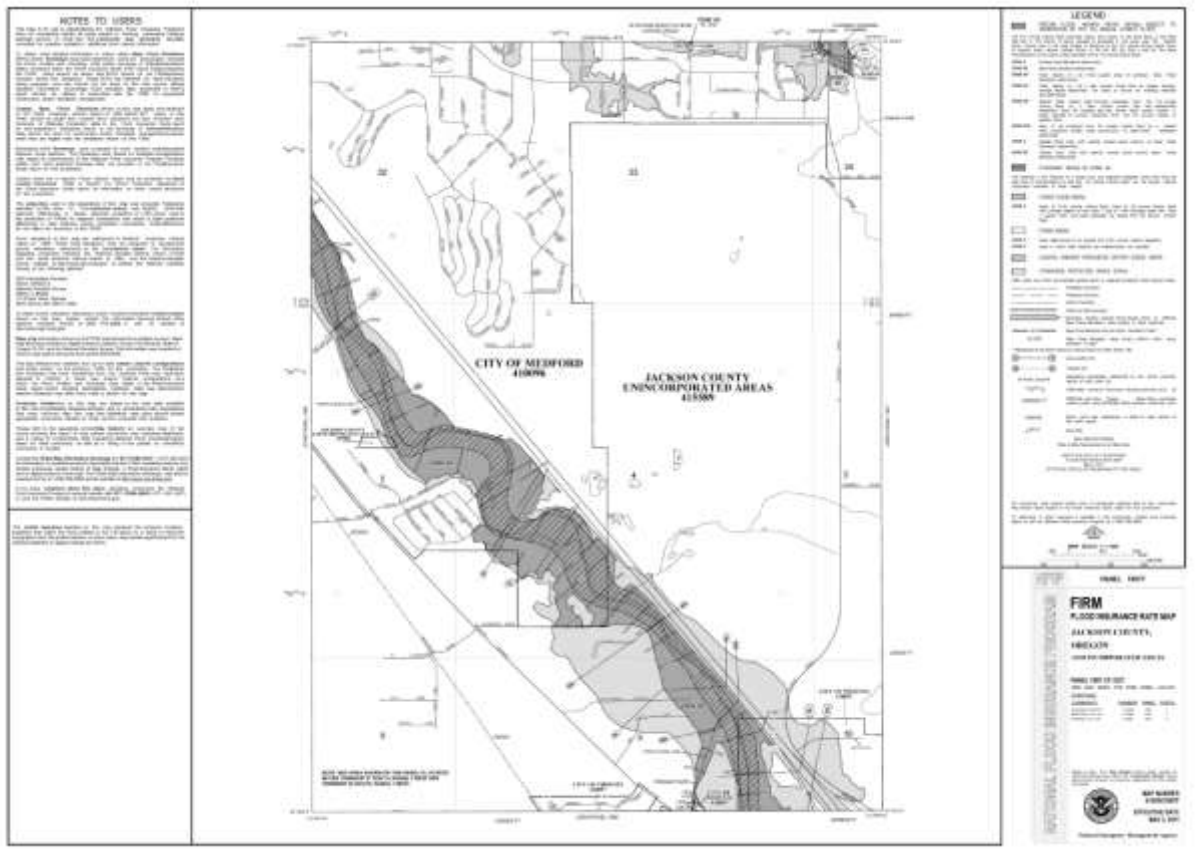
Infrastructure Impacts

This number defines the potential number of existing public/private infrastructure (e.g., rail line, power substations, etc.) impacted along the proposed alignment.

Flood Impacts

This defined area is located within the floodway (see Figure 1) along a proposed alignment.

Figure 1: FEMA Flood Insurance Rate Map (FIRM)

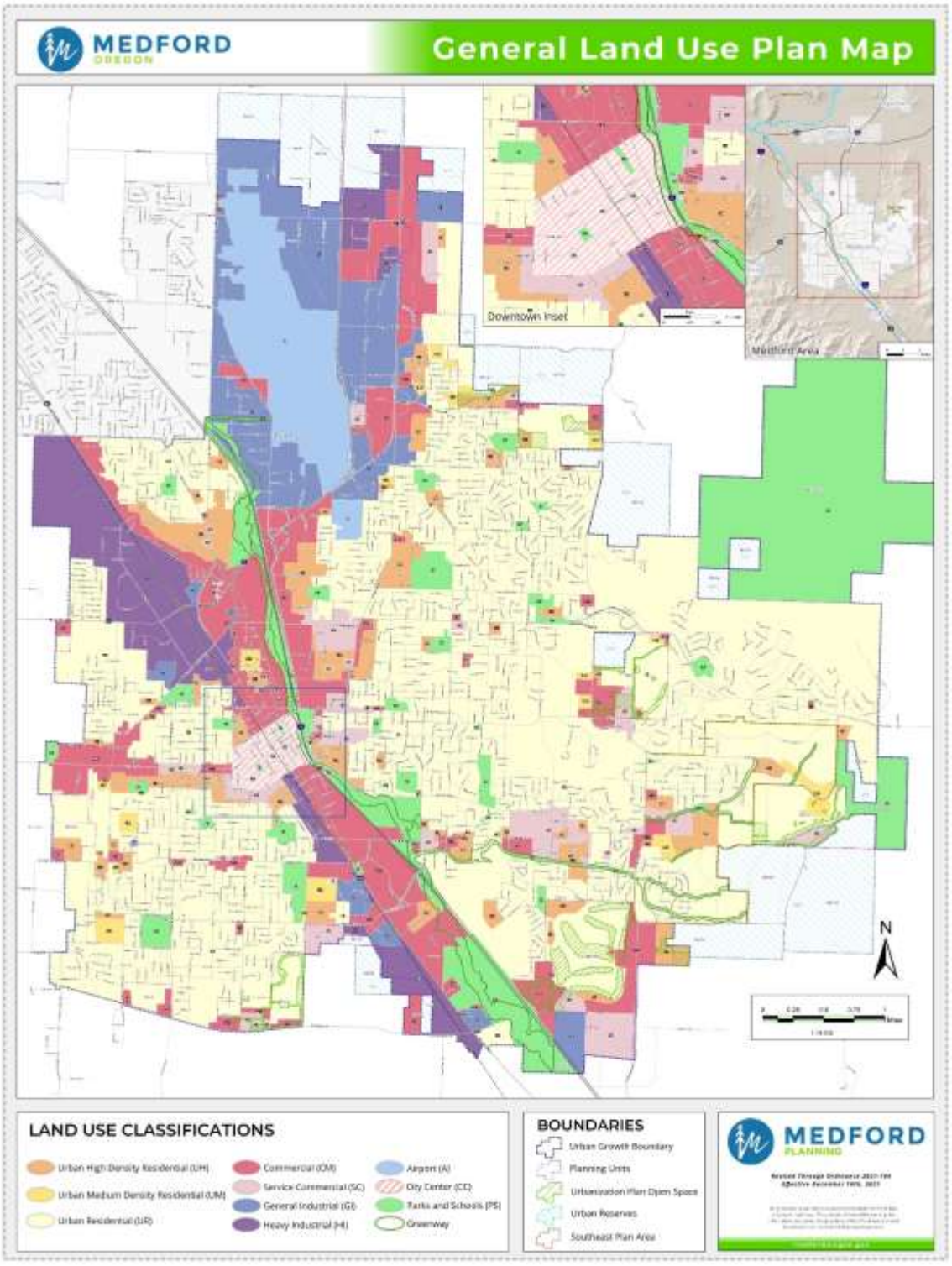


Source: www.fema.gov

Park

This defined area is located within identified park or open space zone land (see Figure 2) along a proposed alignment.

Figure 2: Medford General Land Use Plan Map



Source: medfordoregon.gov

Wetland

This defined area is located within designated wetlands (see Figure 3) along a proposed alignment.

Figure 3: USFWS National Wetlands Inventory (NWI)

Source: USFWS Wetlands Mapper, usgs.gov (Retrieved 4/17/2024)

Undeveloped Parcels with Right of Way Takes

This number defines the undeveloped parcels impacted along the proposed alignment. Tax lot mapping and assessed improvement data were collected from the Jackson County GIS records (updated 10/10/2023). Lots with $0 of assessed improvements were considered “unimproved” and identified as undeveloped parcels (see Figure 4). Lots were counted as having right-of-way takes if the proposed 100-foot corridor crossed at any point, regardless of total area impacted.

Developed Parcels with Right of Way Takes

This number defines the developed parcels impacted along the proposed alignment. Tax lot mapping and assessed improvement data were collected from the Jackson County GIS records (updated 10/10/2023). Lots with an amount greater than $0 of assessed improvements were considered "improved" and identified as developed parcels (see Figure 4). Lots were counted as having right-of-way takes if the proposed 100-foot corridor crossed at any point, regardless of total area impacted.

Figure 4: Tax Lots with Assessed Improvements

Source: Jackson County GIS

Cost Opinion Ranges

The summary of quantities, assumptions, and cost opinions for each option are included in Appendix B.

SCREENING EVALUATION FACTORS

Tables 1 and 2 summarize the right-of-way impacts along the proposed alternative alignments and initial cost opinions for the overpass and interchange alternatives, respectively. These factors are for comparative purposes only.

Table 1 - Summary of Overpass Alternative Screening Evaluation Factors

Description	Unit	O-1 South Stage Alignment	O-2 South Stage Southerly Realignment (Option 1)	O-3 South Stage Southerly Realignment (Option 2)	O-4 South Stage Underpass (Option 1)	O-5 South Stage Underpass (Option 2)	O-6 South Stage Northerly Realignment	O-7 Lower I-5 NB Travel Lanes
Total Right-of-Way Impacts	SF	609,400	611,800	620,500	611,800	611,800	864,700	609,400
Existing Structure Impacts	each	-	-	-	-	-	3	-
Infrastructure Impacts	each						1	
Flood Impacts	SF	34,600	32,200	32,200	32,200	34,600	102,900	34,600
Park Impacts	SF	146,000	172,400	172,400	172,400	136,000	87,500	146,000
Wetland Impacts	SF	3,170	46,260	24,110	46,260	46,260	-	3,170
Developed Parcels with ROW takes	each	3	3	3	3	3	6	3
Undeveloped Parcels with ROW takes	each	6	5	5	5	5	5	6
Initial Cost Opinion - Low		$109.1M	$127.9M	$138.8M	$162.0M	N/A	$233.7M	$172.8M
High		$141.8M	$166.3M	$180.4M	$210.6M	N/A	$303.8M	$224.6M

Table 2 - Summary of Interchange Alternative Screening Evaluation Factors

Description	Unit	I-1 South Stage Alignment	I-2 South Stage Southerly Realignment (Option 1)	I-3 South Stage Southerly Realignment (Option 2)	I-4 South Stage Underpass Interchange	I-5 South Stage Diverging Diamond	I-6 I-5 South Stage Left Lane Merge for NB On-Ramp	I-7 South Stage Single Point Urban Interchange	I-8 I-5 South Stage Partial Split-Diamond Interchange
Right-of-Way Impacts - overpass	SF	609,400	612,000	622,300	612,000	551,600	599,900	599,900	609,400
Right-of-Way Impacts - ramps	SF	827,900	564,300	637,300	564,300	320,000	575,900	60,700	1,498,300
Total Right-of-Way Impacts	SF	1,437,300	1,176,300	1,259,600	1,176,300	871,600	1,175,800	660,600	2,107,700
Existing Structure Impacts	each	-	2	-	2	-	-	-	-
Infrastructure Impacts	each								
Flood Impacts	SF	137,400	32,200	32,200	135,000	55,000	137,400	34,700	74,200
Park Impacts	SF	488,000	369,200	421,200	514,400	183,500	488,000	136,000	175,000
Wetland Impacts	SF	58,450	101,540	79,390	101,540	-	-	-	-
Developed Parcels with ROW takes	each	3	3	3	3	3	3	3	3
Undeveloped Parcels with ROW takes	each	8	7	7	7	8	8	8	8
Initial Cost Opinion - Low		$134.6M	$139.8M	$145.1M	$172.7M	$186.6M	$159.9M	$248.6M	$223.6M
High		$175.0M	$181.7M	$188.6M	$224.5M	$242.6M	$207.9M	$323.2M	$290.7M

ATTACHMENT A – IMPACT FACTORS

Overpass Scenario Alternatives

SOUTH STAGE ALIGNMENT: ALTERNATIVE O-1

- 1460' of roadway within the existing park land was measured outside of the flood area, and 346' of roadway was measured within the flood area.
- Crosses 3 undeveloped parcels west of Interstate 5 (I-5), as well as 3 undeveloped parcels and 3 developed parcels east of I-5.

Description	Unit	O-1 South Stage Alignment
Total Right-of-Way Impacts	SF	609,400
Existing Structure Impacts	each	-
Infrastructure Impacts	each	-
Flood Impacts	SF	34,600
Park Impacts	SF	146,000
Wetland Impacts	SF	3,168
Developed Parcels with ROW takes	each	3
Undeveloped Parcels with ROW takes	each	6
Initial Cost Opinion - Low		$109.1M
High		$141.8M

Figure O-1
Overpass Alternative 1

SOUTH STAGE SOUTHERLY REALIGNMENT (OPTION 1): ALTERNATIVE O-2

- 1724' of roadway within the existing park land was measured outside of the flood area, and 322' of roadway was measured within the flood area.
- Crosses 3 undeveloped parcels west of I-5, as well as 2 undeveloped parcels and 3 developed parcels east of I-5.

Description	Unit	O-2 South Stage Southerly Realignment (Option 1)
Total Right-of-Way Impacts	SF	611,800
Existing Structure Impacts	each	-
Infrastructure Impacts	each	-
Flood Impacts	SF	32,200
Park Impacts	SF	172,400
Wetland Impacts	SF	46,260
Developed Parcels with ROW takes	each	3
Undeveloped Parcels with ROW takes	each	5
Initial Cost Opinion - Low		$127.9M
High		$166.3M

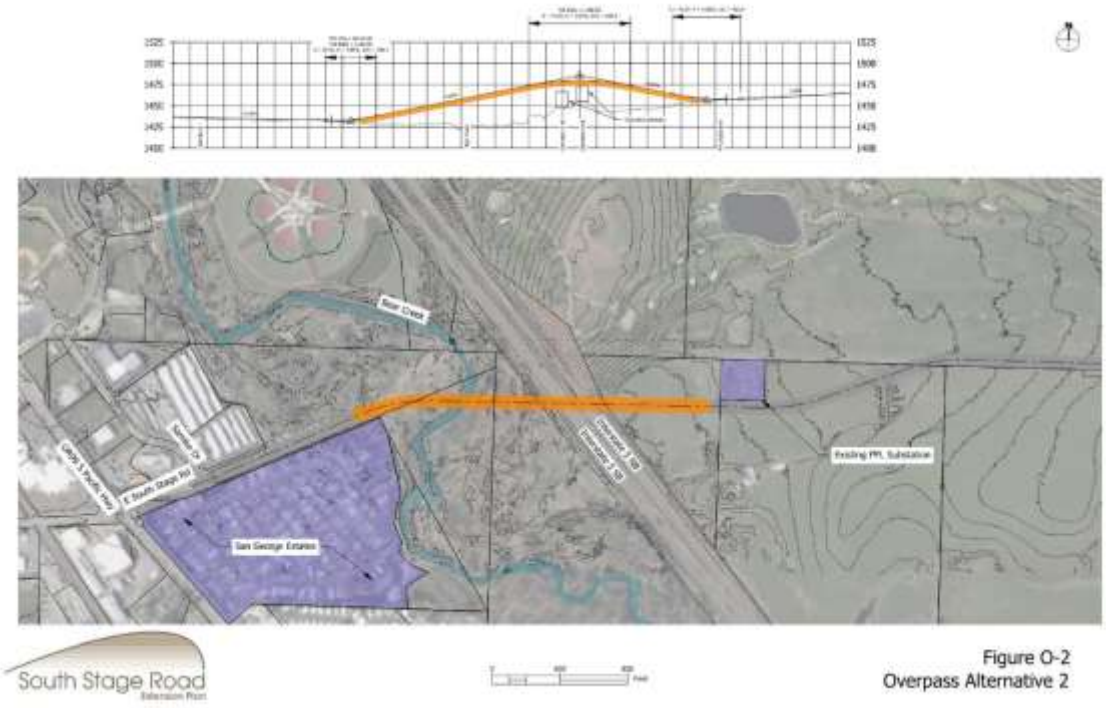


Figure O-2
Overpass Alternative 2

SOUTH STAGE SOUTHERLY REALIGNMENT (OPTION 2): ALTERNATIVE O-3

- 1724' of roadway within the existing park land was measured outside of the flood area, and 322' of roadway was measured within the flood area.
- Crosses 3 undeveloped parcels west of I-5, as well as 3 undeveloped parcels and 3 developed parcels east of I-5.

Description	Unit	O-3 South Stage Southerly Realignment (Option 2)
Total Right-of-Way Impacts	SF	620,500
Existing Structure Impacts	each	-
Infrastructure Impacts	each	-
Flood Impacts	SF	32,200
Park Impacts	SF	172,400
Wetland Impacts	SF	24,110
Developed Parcels with ROW takes	each	3
Undeveloped Parcels with ROW takes	each	5
Initial Cost Opinion - Low		$138.8M
High		$180.4M

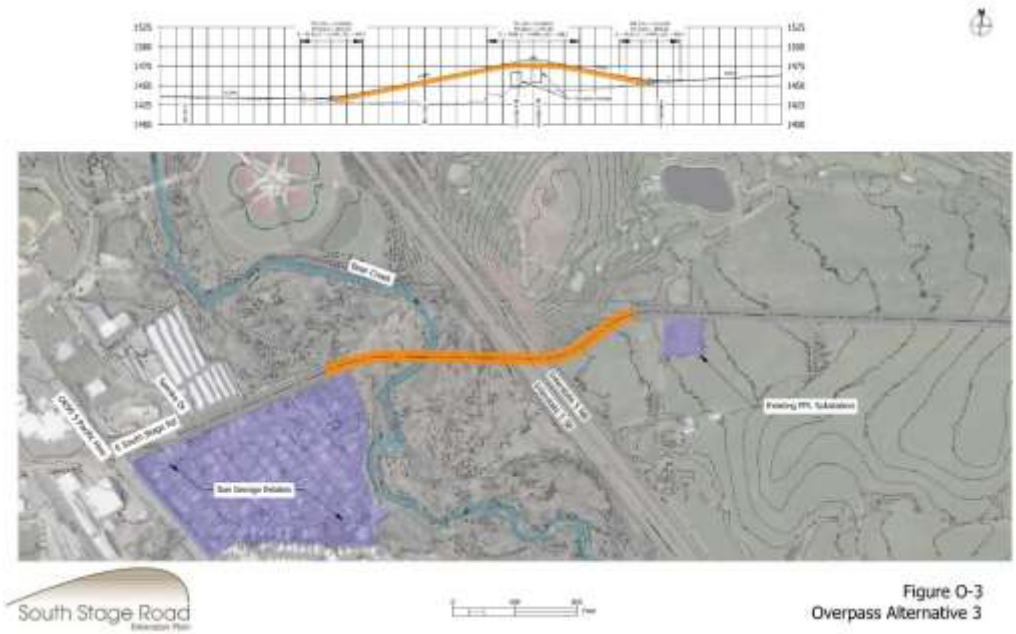


Figure O-3
Overpass Alternative 3

SOUTH STAGE UNDERPASS (OPTION 1): ALTERNATIVE O-4

- 1460' of roadway within the existing park land was measured outside of the flood area, and 346' of roadway was measured within the flood area.
- Crosses 3 undeveloped parcels west of I-5, as well as 3 undeveloped parcels and 3 developed parcels east of I-5.

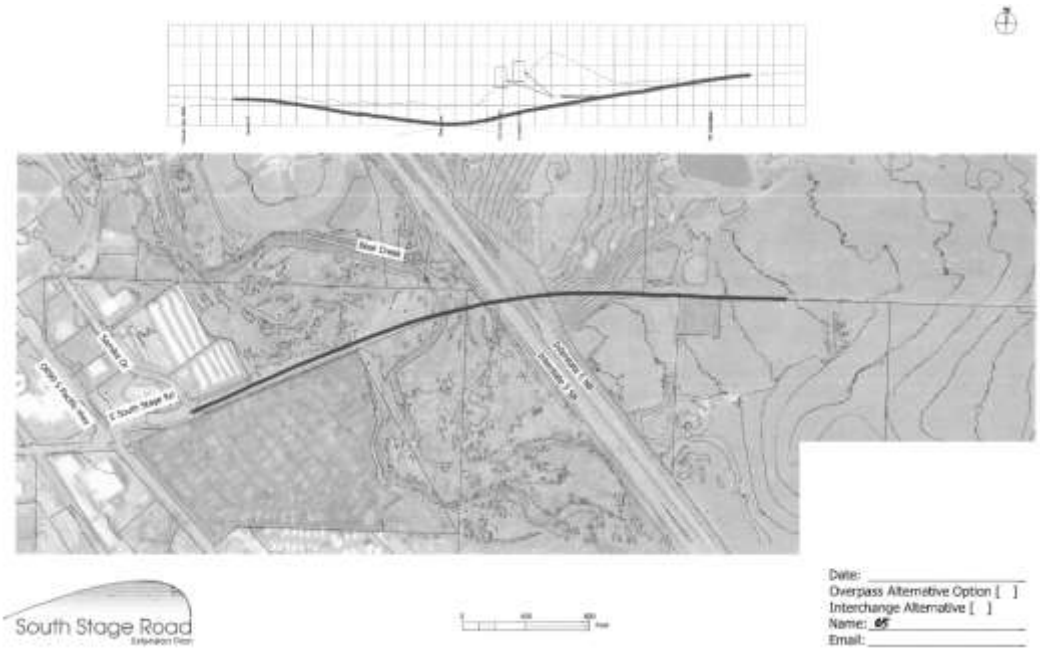
Description	Unit	O-4 South Stage Underpass (Option 1)
Total Right-of-Way Impacts	SF	611,800
Existing Structure Impacts	each	-
Infrastructure Impacts	each	-
Flood Impacts	SF	32,200
Park Impacts	SF	172,400
Wetland Impacts	SF	46,260
Developed Parcels with ROW takes	each	3
Undeveloped Parcels with ROW takes	each	5
Initial Cost Opinion - Low		$162.0M
High		$210.6M

Figure O-4
Underpass Alternative

SOUTH STAGE UNDERPASS (OPTION 2): ALTERNATIVE O-5

- 1460′ of roadway within the existing park land was measured outside of the flood area, and 346′ of roadway was measured within the flood area.
- Crosses 3 undeveloped parcels west of I-5, as well as 3 undeveloped parcels and 3 developed parcels east of I-5.

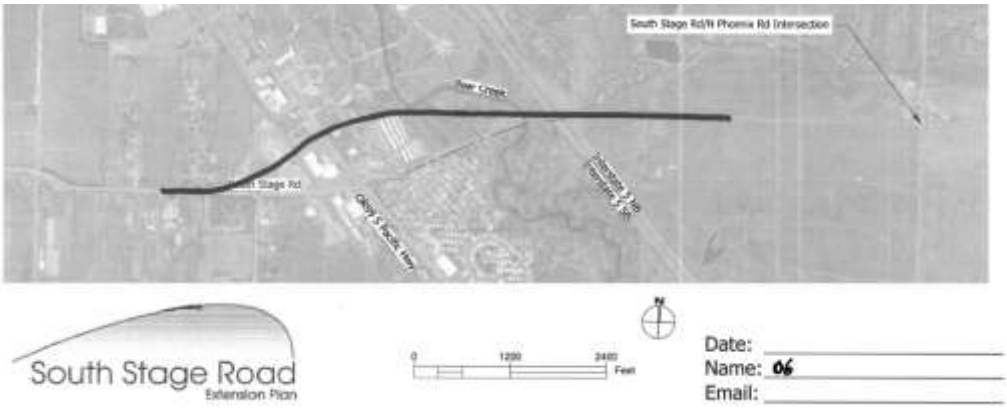
Description	Unit	O-5 South Stage Underpass (Option 2)
Total Right-of-Way Impacts	SF	611,800
Existing Structure Impacts	each	-
Infrastructure Impacts	each	-
Flood Impacts	SF	34,600
Park Impacts	SF	136,000
Wetland Impacts	SF	46,260
Developed Parcels with ROW takes	each	3
Undeveloped Parcels with ROW takes	each	5
Initial Cost Opinion - Low		N/A
High		N/A



SOUTH STAGE NORTHERLY REALIGNMENT: ALTERNATIVE O-6

- 875' of roadway within the existing park land was measured outside of the flood area, and 1029' of roadway was measured within the flood area.
- Crosses 3 undeveloped parcels and 2 developed parcels west of I-5, as well as 3 undeveloped parcels and 3 developed parcels east of I-5.
- Overpass alignment would impact 3 existing structures west of I-5.
- Does not include optional extension across OR99

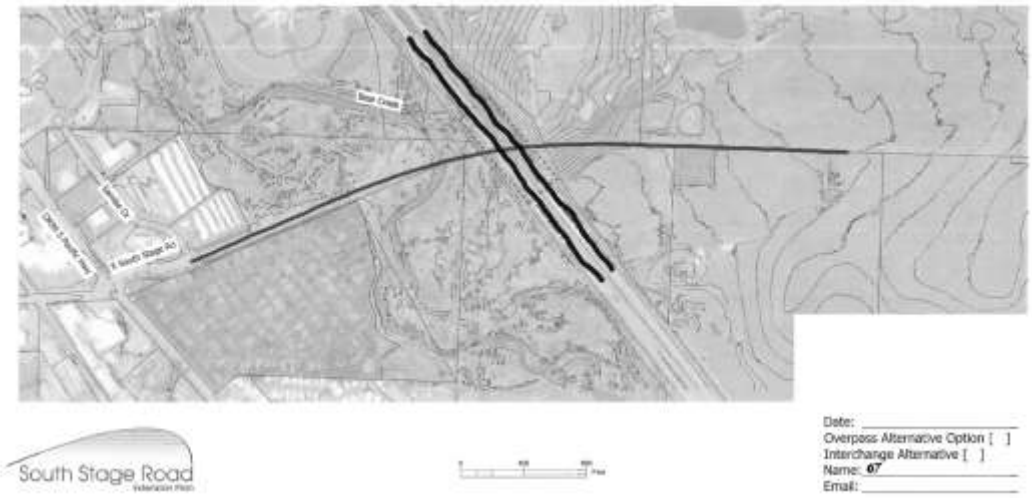
Description	Unit	O-6 South Stage Northerly Realignment
Total Right-of-Way Impacts	SF	864,700
Existing Structure Impacts	each	3
Infrastructure Impacts	each	1
Flood Impacts	SF	102,900
Park Impacts	SF	87,500
Wetland Impacts	SF	-
Developed Parcels with ROW takes	each	6
Undeveloped Parcels with ROW takes	each	5
Initial Cost Opinion - Low		$233.7M
High		$303.8M



LOWER I-5 NB TRAVEL LANES: ALTERNATIVE O-7

- 1460' of roadway within the existing park land was measured outside of the flood area, and 346' of roadway was measured within the flood area.
- Crosses 3 undeveloped parcels west of I-5, as well as 3 undeveloped parcels and 3 developed parcels east of I-5.

Description	Unit	O-7 Lower I-5 NB Travel Lanes
Total Right-of-Way Impacts	SF	609,400
Existing Structure Impacts	each	-
Infrastructure Impacts	each	-
Flood Impacts	SF	34,600
Park Impacts	SF	146,000
Wetland Impacts	SF	3,168
Developed Parcels with ROW takes	each	3
Undeveloped Parcels with ROW takes	each	6
Initial Cost Opinion - Low		$172.8M
High		$224.6M



Interchange Scenario Alternatives

SOUTH STAGE ALIGNMENT: ALTERNATIVE I-1

- Crosses 5 undeveloped parcels west of I-5, as well as 3 undeveloped parcels and 3 developed parcels east of I-5.

Description	Unit	I-1 South Stage Alignment
Right-of-Way Impacts - overpass	SF	609,400
Right-of-Way Impacts - ramps	SF	827,900
Total Right-of-Way Impacts	SF	1,437,300
Existing Structure Impacts	each	-
Infrastructure Impacts	each	-
Flood Impacts	SF	137,400
Park Impacts	SF	488,000
Wetland Impacts	SF	58,448
Developed Parcels with ROW takes	each	3
Undeveloped Parcels with ROW takes	each	8
Initial Cost Opinion - Low		$134.6M
High		$175.0M

Figure I-1
Interchange Alternative 1

SOUTH STAGE SOUTHERLY REALIGNMENT (OPTION 1): ALTERNATIVE I-2

- Crosses 5 undeveloped parcels west of I-5, as well as 2 undeveloped parcels and 3 developed parcels east of I-5.
- Interchange ramps would impact 2 existing structures east of I-5.

Description	Unit	I-2 South Stage Southerly Realignment (Option 1)
Right-of-Way Impacts - overpass	SF	612,000
Right-of-Way Impacts - ramps	SF	564,300
Total Right-of-Way Impacts	SF	1,176,300
Existing Structure Impacts	each	2
Infrastructure Impacts	each	-
Flood Impacts	SF	32,200
Park Impacts	SF	369,200
Wetland Impacts	SF	101,540
Developed Parcels with ROW takes	each	3
Undeveloped Parcels with ROW takes	each	7
Initial Cost Opinion - Low		$139.8M
High		$181.7M

Figure I-2
Interchange Alternative 2

SOUTH STAGE SOUTHERLY REALIGNMENT (OPTION 2): ALTERNATIVE I-3

- Crosses 5 undeveloped parcels west of I-5, as well as 2 undeveloped parcels and 3 developed parcels east of I-5.

Description	Unit	I-3 South Stage Southerly Realignment (Option 2)
Right-of-Way Impacts - overpass	SF	622,300
Right-of-Way Impacts - ramps	SF	637,300
Total Right-of-Way Impacts	SF	1,259,600
Existing Structure Impacts	each	-
Infrastructure Impacts	each	-
Flood Impacts	SF	32,200
Park Impacts	SF	421,200
Wetland Impacts	SF	79,390
Developed Parcels with ROW takes	each	3
Undeveloped Parcels with ROW takes	each	7
Initial Cost Opinion - Low		$145.1M
High		$188.6M

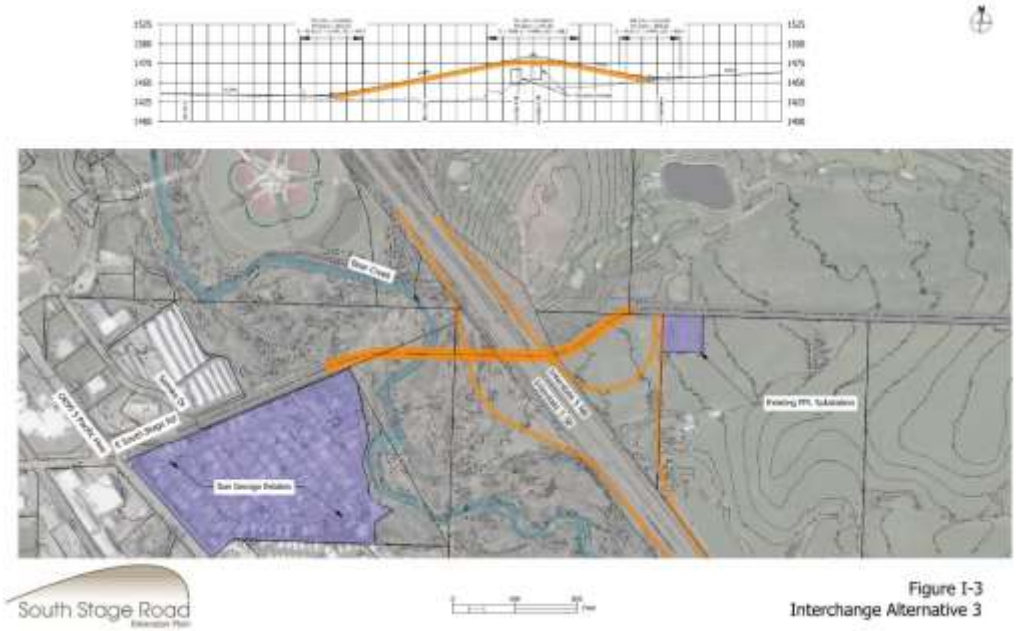


Figure I-3
Interchange Alternative 3

SOUTH STAGE UNDERPASS INTERCHANGE: ALTERNATIVE I-4

- Crosses 5 undeveloped parcels west of I-5, as well as 3 undeveloped parcels and 3 developed parcels east of I-5.
- Interchange ramps would impact 2 existing structures east of I-5.

Description	Unit	I-4 South Stage Underpass Interchange
Right-of-Way Impacts - overpass	SF	612,000
Right-of-Way Impacts - ramps	SF	564,300
Total Right-of-Way Impacts	SF	1,176,300
Existing Structure Impacts	each	2
Infrastructure Impacts	each	-
Flood Impacts	SF	135,000
Park Impacts	SF	514,400
Wetland Impacts	SF	101,540
Developed Parcels with ROW takes	each	3
Undeveloped Parcels with ROW takes	each	7
Initial Cost Opinion - Low		$172.7M
High		$224.5M

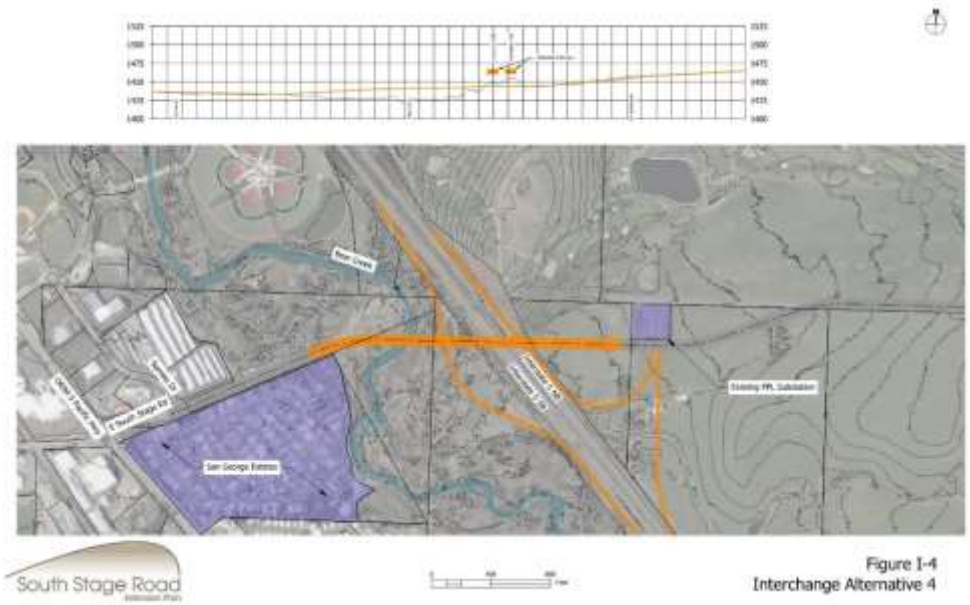
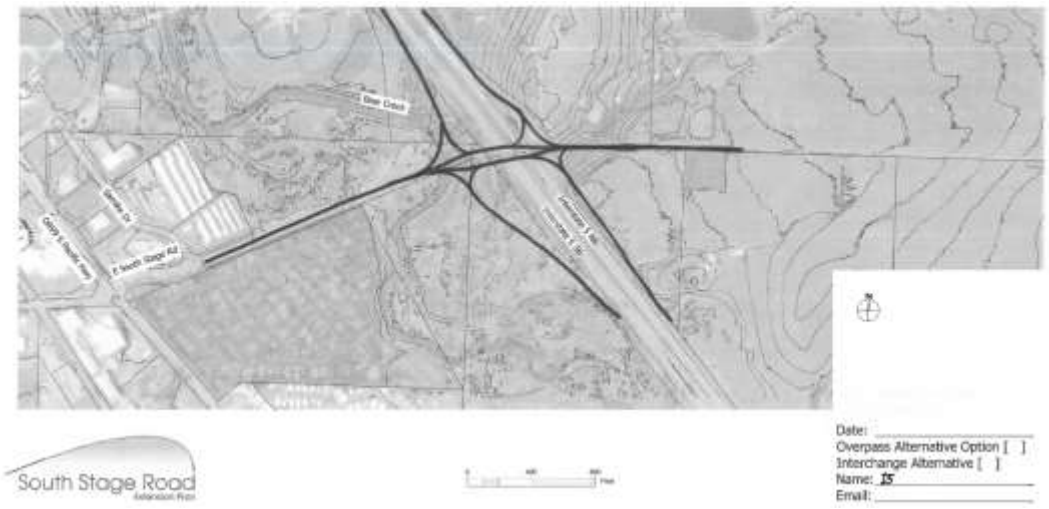


Figure I-4
Interchange Alternative 4

SOUTH STAGE DIVERGING DIAMOND: ALTERNATIVE I-5

- Crosses 5 undeveloped parcels west of I-5, as well as 3 undeveloped parcels and 3 developed parcels east of I-5.

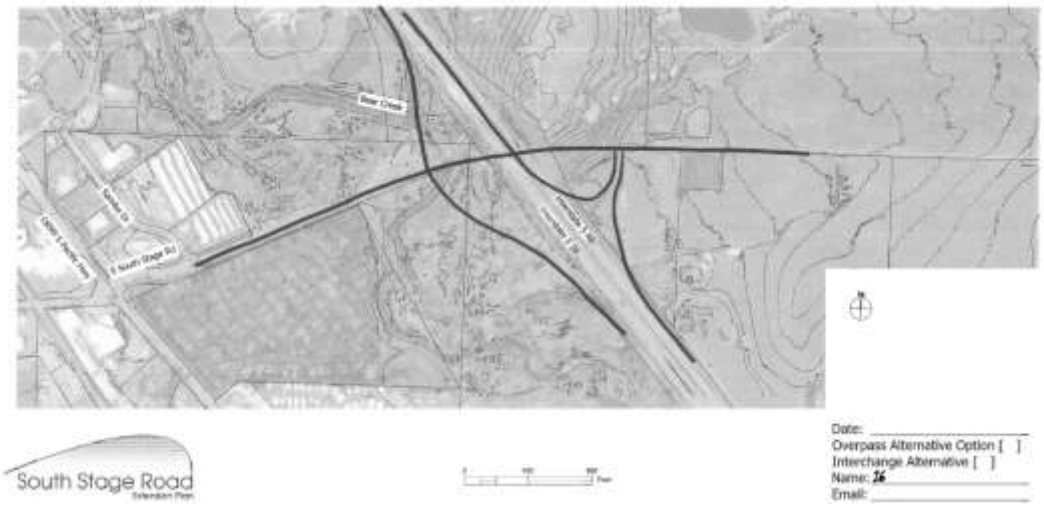
Description	Unit	I-5 South Stage Diverging Diamond
Right-of-Way Impacts - overpass	SF	551,600
Right-of-Way Impacts - ramps	SF	320,000
Total Right-of-Way Impacts	SF	871,600
Existing Structure Impacts	each	-
Infrastructure Impacts	each	-
Flood Impacts	SF	55,000
Park Impacts	SF	183,500
Wetland Impacts	SF	-
Developed Parcels with ROW takes	each	3
Undeveloped Parcels with ROW takes	each	8
Initial Cost Opinion - Low		$186.6M
High		$242.6M



I-5 SOUTH STAGE LEFT LANE MERGE FOR NB ON-RAMP: ALTERNATIVE I-6

- Crosses 5 undeveloped parcels west of I-5, as well as 3 undeveloped parcels and 3 developed parcels east of I-5.

Description	Unit	I-6 I-5 South Stage Left Lane Merge for NB On-Ramp
Right-of-Way Impacts - overpass	SF	599,900
Right-of-Way Impacts - ramps	SF	575,900
Total Right-of-Way Impacts	SF	1,175,800
Existing Structure Impacts	each	-
Infrastructure Impacts	each	-
Flood Impacts	SF	137,400
Park Impacts	SF	488,000
Wetland Impacts	SF	-
Developed Parcels with ROW takes	each	3
Undeveloped Parcels with ROW takes	each	8
Initial Cost Opinion - Low		$159.9M
High		$207.9M



I-5 SOUTH STAGE SINGLE POINT INTERCHANGE: ALTERNATIVE I-7

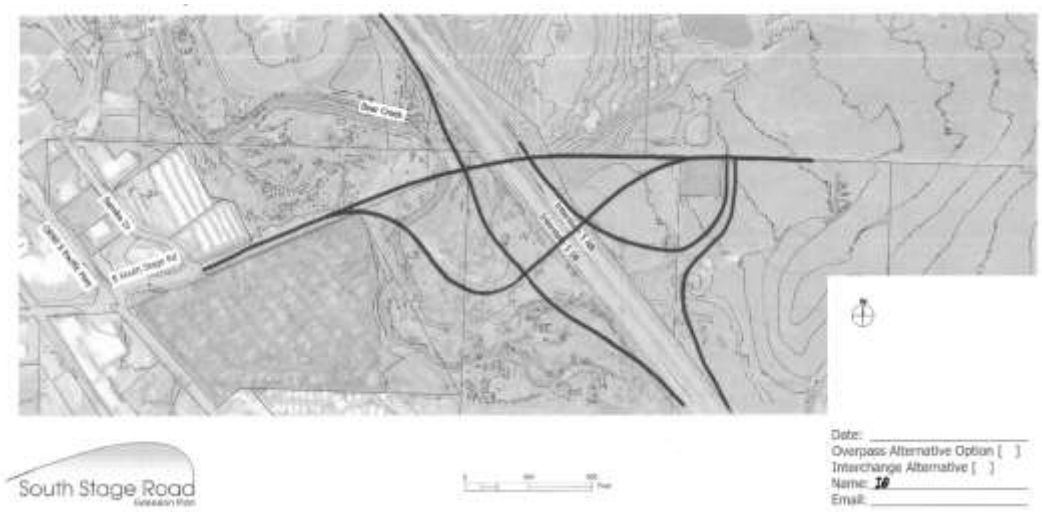
- Crosses 5 undeveloped parcels west of I-5, as well as 3 undeveloped parcels and 3 developed parcels east of I-5.

Description	Unit	I-7 South Stage Single Point Urban Interchange
Right-of-Way Impacts - overpass	SF	599,900
Right-of-Way Impacts - ramps	SF	60,700
Total Right-of-Way Impacts	SF	660,600
Existing Structure Impacts	each	-
Infrastructure Impacts	each	-
Flood Impacts	SF	34,700
Park Impacts	SF	136,000
Wetland Impacts	SF	-
Developed Parcels with ROW takes	each	3
Undeveloped Parcels with ROW takes	each	8
Initial Cost Opinion - Low		$248.6M
High		$323.2M

I-5 SOUTH STAGE PARTIAL SPLIT-DIAMOND INTERCHANGE: ALTERNATIVE I-8

- Crosses 5 undeveloped parcels west of I-5, as well as 3 undeveloped parcels and 3 developed parcels east of I-5.

Description	Unit	I-8 I-5 South Stage Partial Split-Diamond Interchange
Right-of-Way Impacts - overpass	SF	609,400
Right-of-Way Impacts - ramps	SF	1,498,300
Total Right-of-Way Impacts	SF	2,107,700
Existing Structure Impacts	each	-
Infrastructure Impacts	each	-
Flood Impacts	SF	74,200
Park Impacts	SF	175,000
Wetland Impacts	SF	-
Developed Parcels with ROW takes	each	3
Undeveloped Parcels with ROW takes	each	8
Initial Cost Opinion - Low		$223.6M
High		$290.7M



ATTACHMENT B – COST OPINIONS

South Stage Road Extension Plan

O-1 Overpass

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$5,466,000.00	$5,466,000.00
Traffic Control	LS	ALL	$4,383,000.00	$4,383,000.00
Construction Staging	LS	ALL	$0.00	$0.00
Erosion Control	AC	12.0	$10,000.00	$120,000.00
Removal of Structures and Obstructions	LS	ALL	$534,000.00	$534,000.00
Clearing and Grubbing	LS	ALL	$800,000.00	$800,000.00
General Earthworks	CY	75,300	$40.00	$3,012,000.00
Asphalt Roadway - Full Depth	SF	316,726	$9.20	$2,913,881.04
Asphalt Roadway - Grind & Inlay (2" Depth)	SF		$3.10	$0.00
Concrete Roadway - Full Depth	SF	0	$15.60	$0.00
Subgrade Geotextile	SY	35,192	$1.50	$52,788.00
Concrete Curbs - Standard Curb	LF	0	$30.90	$0.00
Concrete Curbs - Standard Curb & Gutter	LF	13,034	$36.70	$478,347.80
Raised Concrete Island	SF		$12.90	$0.00
Truck Apron (Concrete)	SF		$19.30	$0.00
Concrete Cycle Track	SF	0	$8.40	$0.00
Separated Bicycle Facility - Asphalt	SF	0	$3.00	$0.00
Concrete Walks	SF	78,204	$8.40	$656,913.60
Separated Multi-Use Path - Concrete	SF	0	$8.40	$0.00
Separated Multi-Use Path - Asphalt	SF	0	$3.00	$0.00
Detectable Warnings	EA	8	$500.00	$4,000.00
Pedestrian Ramps	EA	8	$7,500.00	$60,000.00
Bike Ramps	EA		$2,500.00	$0.00
Extra for Pedestrian Ramps	EA	8	$1,500.00	$12,000.00
Chain Link Fence	LF		$50.00	$0.00
Residential Driveway Reconstruction	EA	0	$1,500.00	$0.00
Commercial Driveway Reconstruction	EA	0	$3,000.00	$0.00
Retaining Walls, Gravity	SF		$55.00	$0.00
Retaining Walls, MSE	SF	5,400	$200.00	$1,080,000.00
Retaining Walls, Cut (Soldier pyle, tie back, soil nail)	SF		$300.00	$0.00
Sound Walls	SF	0	$45.00	$0.00
Fish Friendly Box Culvert, Complete	LF		$1,000.00	$0.00
Bridge Structure, Complete	SF	88,160	$450.00	$39,672,000.00
Guardrail System, Complete	LF	3,100	$50.00	$155,000.00
Storm Water Conveyance System, Complete	LS	ALL	$2,157,000.00	$2,157,000.00
Regional Water Quality and Hydromodification System, Complete	SF	42,800	$28.00	$1,198,400.00
Permanent Landscaping	SF	91,238	$4.20	$383,199.60
Irrigation, Complete	SF	91,238	$2.50	$228,095.00
Pavement Markings, Complete	LS	ALL	$144,000.00	$144,000.00
Signage, Complete	LS	ALL	$108,000.00	$108,000.00
Illumination System, Complete	LS	ALL	$1,006,600.00	$1,006,600.00
Traffic Signal Modifications, Complete	LS	ALL		$0.00
Traffic Signal System, Complete	LS	ALL		$0.00
Fiber Optic Interconnect System Complete	LS	ALL		$0.00
Utility Undergrounding, Complete	LF	0	$100.00	$0.00
TOTAL CONSTRUCTION COST			**$**	**64,625,225**

South Stage Road Extension Plan

O-1 Overpass

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
This Estimate has a Rating of:		**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$16,157,000.00	$16,157,000.00
Right-of-Way Support	EA	0	$18,000.00	$0.00
County Staff Time	YR		$50,000.00	$0.00
ENGINEERING SUPPORT SUBTOTAL				**$ 16,157,000**
			TOTAL PROJECT SUBTOTAL	**$ 80,784,959**
			35% Contingency	**$ 28,274,740**
			TOTAL ESTIMATED PROJECT COST	**$ 109,059,699**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the on-street bicycle facility the assumed storm inlet spacing is 150 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 60% based on risk.

South Stage Road Extension Plan

O-2 Overpass

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$6,411,000.00	$6,411,000.00
Traffic Control	LS	ALL	$5,138,000.00	$5,138,000.00
Construction Staging	LS	ALL	$0.00	$0.00
Erosion Control	AC	12.0	$10,000.00	$120,000.00
Removal of Structures and Obstructions	LS	ALL	$626,000.00	$626,000.00
Clearing and Grubbing	LS	ALL	$939,000.00	$939,000.00
General Earthworks	CY	67,833	$40.00	$2,713,320.00
Asphalt Roadway - Full Depth	SF	316,726	$9.20	$2,913,881.04
Asphalt Roadway - Grind & Inlay (2" Depth)	SF		$3.10	$0.00
Concrete Roadway - Full Depth	SF	0	$15.60	$0.00
Subgrade Geotextile	SY	35,192	$1.50	$52,788.00
Concrete Curbs - Standard Curb	LF	0	$30.90	$0.00
Concrete Curbs - Standard Curb & Gutter	LF	13,034	$36.70	$478,347.80
Raised Concrete Island	SF		$12.90	$0.00
Truck Apron (Concrete)	SF		$19.30	$0.00
Concrete Cycle Track	SF	0	$8.40	$0.00
Separated Bicycle Facility - Asphalt	SF	0	$3.00	$0.00
Concrete Walks	SF	78,204	$8.40	$656,913.60
Separated Multi-Use Path - Concrete	SF	0	$8.40	$0.00
Separated Multi-Use Path - Asphalt	SF	0	$3.00	$0.00
Detectable Warnings	EA	8	$500.00	$4,000.00
Pedestrian Ramps	EA	8	$7,500.00	$60,000.00
Bike Ramps	EA		$2,500.00	$0.00
Extra for Pedestrian Ramps	EA	8	$1,500.00	$12,000.00
Chain Link Fence	LF		$50.00	$0.00
Residential Driveway Reconstruction	EA	0	$1,500.00	$0.00
Commercial Driveway Reconstruction	EA	0	$3,000.00	$0.00
Retaining Walls, Gravity	SF		$55.00	$0.00
Retaining Walls, MSE	SF	3,660	$200.00	$732,000.00
Retaining Walls, Cut (Soldier pyle, tie back, soil nail)	SF		$300.00	$0.00
Sound Walls	SF	0	$45.00	$0.00
Fish Friendly Box Culvert, Complete	LF		$1,000.00	$0.00
Bridge Structure, Complete	SF	110,480	$450.00	$49,716,000.00
Guardrail System, Complete	LF	2,300	$50.00	$115,000.00
Storm Water Conveyance System, Complete	LS	ALL	$2,068,000.00	$2,068,000.00
Regional Water Quality and Hydromodification System, Complete	SF	42,800	$28.00	$1,198,400.00
Permanent Landscaping	SF	91,238	$4.20	$383,199.60
Irrigation, Complete	SF	91,238	$2.50	$228,095.00
Pavement Markings, Complete	LS	ALL	$138,000.00	$138,000.00
Signage, Complete	LS	ALL	$104,000.00	$104,000.00
Illumination System, Complete	LS	ALL	$964,800.00	$964,800.00
Traffic Signal Modifications, Complete	LS	ALL		$0.00
Traffic Signal System, Complete	LS	ALL		$0.00
Fiber Optic Interconnect System Complete	LS	ALL		$0.00
Utility Undergrounding, Complete	LF	0	$100.00	$0.00
			TOTAL CONSTRUCTION COST	**$ 75,772,745**

South Stage Road Extension Plan

O-2 Overpass

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$18,944,000.00	$18,944,000.00
Right-of-Way Support	EA	0	$18,000.00	$0.00
County Staff Time	YR		$50,000.00	$0.00
ENGINEERING SUPPORT SUBTOTAL				**$ 18,944,000**
			TOTAL PROJECT SUBTOTAL	**$ 94,719,479**
			35% Contingency	**$ 33,151,820**
			TOTAL ESTIMATED PROJECT COST	**$ 127,871,299**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the on-street bicycle facility the assumed storm inlet spacing is 150 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 60% based on risk.

South Stage Road Extension Plan

O-3 Overpass

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$6,957,000.00	$6,957,000.00
Traffic Control	LS	ALL	$5,575,000.00	$5,575,000.00
Construction Staging	LS	ALL	$0.00	$0.00
Erosion Control	AC	12.1	$10,000.00	$121,000.00
Removal of Structures and Obstructions	LS	ALL	$679,000.00	$679,000.00
Clearing and Grubbing	LS	ALL	$1,019,000.00	$1,019,000.00
General Earthworks	CY	69,800	$40.00	$2,792,000.00
Asphalt Roadway - Full Depth	SF	319,982	$9.20	$2,943,838.08
Asphalt Roadway - Grind & Inlay (2" Depth)	SF		$3.10	$0.00
Concrete Roadway - Full Depth	SF	0	$15.60	$0.00
Subgrade Geotextile	SY	35,554	$1.50	$53,331.00
Concrete Curbs - Standard Curb	LF	0	$30.90	$0.00
Concrete Curbs - Standard Curb & Gutter	LF	13,168	$36.70	$483,265.60
Raised Concrete Island	SF		$12.90	$0.00
Truck Apron (Concrete)	SF		$19.30	$0.00
Concrete Cycle Track	SF	0	$8.40	$0.00
Separated Bicycle Facility - Asphalt	SF	0	$3.00	$0.00
Concrete Walks	SF	79,008	$8.40	$663,667.20
Separated Multi-Use Path - Concrete	SF	0	$8.40	$0.00
Separated Multi-Use Path - Asphalt	SF	0	$3.00	$0.00
Detectable Warnings	EA	8	$500.00	$4,000.00
Pedestrian Ramps	EA	8	$7,500.00	$60,000.00
Bike Ramps	EA		$2,500.00	$0.00
Extra for Pedestrian Ramps	EA	8	$1,500.00	$12,000.00
Chain Link Fence	LF		$50.00	$0.00
Residential Driveway Reconstruction	EA	0	$1,500.00	$0.00
Commercial Driveway Reconstruction	EA	0	$3,000.00	$0.00
Retaining Walls, Gravity	SF		$55.00	$0.00
Retaining Walls, MSE	SF	4,100	$200.00	$820,000.00
Retaining Walls, Cut (Soldier pyle, tie back, soil nail)	SF		$300.00	$0.00
Sound Walls	SF	0	$45.00	$0.00
Fish Friendly Box Culvert, Complete	LF		$1,000.00	$0.00
Bridge Structure, Complete	SF	121,680	$450.00	$54,756,000.00
Guardrail System, Complete	LF	2,400	$50.00	$120,000.00
Storm Water Conveyance System, Complete	LS	ALL	$2,104,000.00	$2,104,000.00
Regional Water Quality and Hydromodification System, Complete	SF	43,200	$28.00	$1,209,600.00
Permanent Landscaping	SF	92,176	$4.20	$387,139.20
Irrigation, Complete	SF	92,176	$2.50	$230,440.00
Pavement Markings, Complete	LS	ALL	$141,000.00	$141,000.00
Signage, Complete	LS	ALL	$106,000.00	$106,000.00
Illumination System, Complete	LS	ALL	$981,700.00	$981,700.00
Traffic Signal Modifications, Complete	LS	ALL		$0.00
Traffic Signal System, Complete	LS	ALL		$0.00
Fiber Optic Interconnect System Complete	LS	ALL		$0.00
Utility Undergrounding, Complete	LF	0	$100.00	$0.00
			TOTAL CONSTRUCTION COST	**$ 82,218,981**

South Stage Road Extension Plan
O-3 Overpass
ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$20,555,000.00	$20,555,000.00
Right-of-Way Support	EA	0	$18,000.00	$0.00
County Staff Time	YR		$50,000.00	$0.00
ENGINEERING SUPPORT SUBTOTAL				**$ 20,555,000**
			TOTAL PROJECT SUBTOTAL	**$ 102,776,715**
			35% Contingency	**$ 35,971,860**
			TOTAL ESTIMATED PROJECT COST	**$ 138,748,575**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the on-street bicycle facility the assumed storm inlet spacing is 150 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 60% based on risk.

South Stage Road Extension Plan

O-4 Underpass

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$7,488,000.00	$7,488,000.00
Traffic Control	LS	ALL	$6,000,000.00	$6,000,000.00
Construction Staging	LS	ALL	$7,500,000.00	$7,500,000.00
Erosion Control	AC	12.0	$10,000.00	$120,000.00
Removal of Structures and Obstructions	LS	ALL	$731,000.00	$731,000.00
Clearing and Grubbing	LS	ALL	$1,096,000.00	$1,096,000.00
General Earthworks	CY	777,500	$40.00	$31,100,000.00
Asphalt Roadway - Full Depth	SF	316,726	$9.20	$2,913,881.04
Asphalt Roadway - Grind & Inlay (2" Depth)	SF		$3.10	$0.00
Concrete Roadway - Full Depth	SF	0	$15.60	$0.00
Subgrade Geotextile	SY	35,192	$1.50	$52,788.00
Concrete Curbs - Standard Curb	LF	0	$30.90	$0.00
Concrete Curbs - Standard Curb & Gutter	LF	13,034	$36.70	$478,347.80
Raised Concrete Island	SF		$12.90	$0.00
Truck Apron (Concrete)	SF		$19.30	$0.00
Concrete Cycle Track	SF	0	$8.40	$0.00
Separated Bicycle Facility - Asphalt	SF	0	$3.00	$0.00
Concrete Walks	SF	78,204	$8.40	$656,913.60
Separated Multi-Use Path - Concrete	SF	0	$8.40	$0.00
Separated Multi-Use Path - Asphalt	SF	0	$3.00	$0.00
Detectable Warnings	EA	8	$500.00	$4,000.00
Pedestrian Ramps	EA	8	$7,500.00	$60,000.00
Bike Ramps	EA		$2,500.00	$0.00
Extra for Pedestrian Ramps	EA	8	$1,500.00	$12,000.00
Chain Link Fence	LF		$50.00	$0.00
Residential Driveway Reconstruction	EA	0	$1,500.00	$0.00
Commercial Driveway Reconstruction	EA	0	$3,000.00	$0.00
Retaining Walls, Gravity	SF		$55.00	$0.00
Retaining Walls, MSE	SF	1,500	$200.00	$300,000.00
Retaining Walls, Cut (Soldier pyle, tie back, soil nail)	SF	9,000	$300.00	$2,700,000.00
Sound Walls	SF	0	$45.00	$0.00
Fish Friendly Box Culvert, Complete	LF		$1,000.00	$0.00
Bridge Structure, Complete	SF	36,000	$450.00	$16,200,000.00
Guardrail System, Complete	LF		$50.00	$0.00
Storm Water Conveyance System, Complete	LS	ALL	$10,584,000.00	$10,584,000.00
Regional Water Quality and Hydromodification System, Complete	SF	42,800	$28.00	$1,198,400.00
Permanent Landscaping	SF	91,238	$4.20	$383,199.60
Irrigation, Complete	SF	91,238	$2.50	$228,095.00
Pavement Markings, Complete	LS	ALL	$706,000.00	$706,000.00
Signage, Complete	LS	ALL	$530,000.00	$530,000.00
Illumination System, Complete	LS	ALL	$4,939,000.00	$4,939,000.00
Traffic Signal Modifications, Complete	LS	ALL		$0.00
Traffic Signal System, Complete	LS	ALL		$0.00
Fiber Optic Interconnect System Complete	LS	ALL		$0.00
Utility Undergrounding, Complete	LF	0	$100.00	$0.00
			TOTAL CONSTRUCTION COST	**$ 95,981,625**

South Stage Road Extension Plan
O-4 Underpass
ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$23,996,000.00	$23,996,000.00
Right-of-Way Support	EA	0	$18,000.00	$0.00
County Staff Time	YR		$50,000.00	$0.00
ENGINEERING SUPPORT SUBTOTAL				**$ 23,996,000**
			TOTAL PROJECT SUBTOTAL	**$ 119,980,359**
			35% Contingency	**$ 41,993,130**
			TOTAL ESTIMATED PROJECT COST	**$ 161,973,489**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the on-street bicycle facility the assumed storm inlet spacing is 150 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 60% based on risk.

South Stage Road Extension Plan

O-5 Underpass

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$11,852,000.00	$11,852,000.00
Traffic Control	LS	ALL	$9,491,000.00	$9,491,000.00
Construction Staging	LS	ALL	$0.00	$0.00
Erosion Control	AC	12.0	$10,000.00	$120,000.00
Removal of Structures and Obstructions	LS	ALL	$2,558,000.00	$2,558,000.00
Clearing and Grubbing	LS	ALL	$2,274,000.00	$2,274,000.00
General Earthworks	CY	1,469,500	$40.00	$58,780,000.00
Asphalt Roadway - Full Depth	SF	316,726	$9.20	$2,913,881.04
Asphalt Roadway - Grind & Inlay (2" Depth)	SF		$3.10	$0.00
Concrete Roadway - Full Depth	SF	0	$15.60	$0.00
Subgrade Geotextile	SY	35,192	$1.50	$52,788.00
Concrete Curbs - Standard Curb	LF	0	$30.90	$0.00
Concrete Curbs - Standard Curb & Gutter	LF	13,034	$36.70	$478,347.80
Raised Concrete Island	SF		$12.90	$0.00
Truck Apron (Concrete)	SF		$19.30	$0.00
Concrete Cycle Track	SF	0	$8.40	$0.00
Separated Bicycle Facility - Asphalt	SF	0	$3.00	$0.00
Concrete Walks	SF	78,204	$8.40	$656,913.60
Separated Multi-Use Path - Concrete	SF	0	$8.40	$0.00
Separated Multi-Use Path - Asphalt	SF	0	$3.00	$0.00
Detectable Warnings	EA	8	$500.00	$4,000.00
Pedestrian Ramps	EA	8	$7,500.00	$60,000.00
Bike Ramps	EA		$2,500.00	$0.00
Extra for Pedestrian Ramps	EA	8	$1,500.00	$12,000.00
Chain Link Fence	LF		$50.00	$0.00
Residential Driveway Reconstruction	EA	0	$1,500.00	$0.00
Commercial Driveway Reconstruction	EA	0	$3,000.00	$0.00
Retaining Walls, Gravity	SF		$55.00	$0.00
Retaining Walls, MSE	SF	41,040	$200.00	$8,208,000.00
Retaining Walls, Cut (Soldier pyle, tie back, soil nail)	SF		$200.00	$0.00
Sound Walls	SF	0	$45.00	$0.00
Fish Friendly Box Culvert, Complete	LF		$1,000.00	$0.00
Bridge Structure, Complete	SF	24,000	$450.00	$10,800,000.00
Guardrail System, Complete	LF		$50.00	$0.00
Storm Water Conveyance System, Complete	LS	ALL	$18,888,000.00	$18,888,000.00
Regional Water Quality and Hydromodification System, Complete	SF	42,800	$28.00	$1,198,400.00
Permanent Landscaping	SF	91,238	$4.20	$383,199.60
Irrigation, Complete	SF	91,238	$2.50	$228,095.00
Pavement Markings, Complete	LS	ALL	$1,260,000.00	$1,260,000.00
Signage, Complete	LS	ALL	$945,000.00	$945,000.00
Illumination System, Complete	LS	ALL	$8,814,200.00	$8,814,200.00
Traffic Signal Modifications, Complete	LS	ALL		$0.00
Traffic Signal System, Complete	LS	ALL		$0.00
Fiber Optic Interconnect System Complete	LS	ALL		$0.00
Utility Undergrounding, Complete	LF	0	$100.00	$0.00
			TOTAL CONSTRUCTION COST	**$ 139,977,825**

South Stage Road Extension Plan

O-5 Underpass

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$34,995,000.00	$34,995,000.00
Right-of-Way Support	EA	0	$18,000.00	$0.00
County Staff Time	YR		$50,000.00	$0.00
ENGINEERING SUPPORT SUBTOTAL				**$ 34,995,000**
			TOTAL PROJECT SUBTOTAL	**$ 174,975,559**
			50% Contingency	**$ 87,487,780**
			TOTAL ESTIMATED PROJECT COST	**$ 262,463,339**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the on-street bicycle facility the assumed storm inlet spacing is 150 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 60% based on risk.

South Stage Road Extension Plan
O-6 Overpass Northerly Realignment
ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$11,720,000.00	$11,720,000.00
Traffic Control	LS	ALL	$9,389,000.00	$9,389,000.00
Construction Staging	LS	ALL	$0.00	$0.00
Erosion Control	AC	16.7	$10,000.00	$167,000.00
Removal of Structures and Obstructions	LS	ALL	$2,542,000.00	$2,542,000.00
Clearing and Grubbing	LS	ALL	$1,695,000.00	$1,695,000.00
General Earthworks	CY	92,967	$40.00	$3,718,680.00
Asphalt Roadway - Full Depth	SF	443,281	$9.20	$4,078,181.52
Asphalt Roadway - Grind & Inlay (2" Depth)	SF		$3.10	$0.00
Concrete Roadway - Full Depth	SF	0	$15.60	$0.00
Subgrade Geotextile	SY	49,254	$1.50	$73,881.00
Concrete Curbs - Standard Curb	LF	0	$30.90	$0.00
Concrete Curbs - Standard Curb & Gutter	LF	18,242	$36.70	$669,481.40
Raised Concrete Island	SF		$12.90	$0.00
Truck Apron (Concrete)	SF		$19.30	$0.00
Concrete Cycle Track	SF	0	$8.40	$0.00
Separated Bicycle Facility - Asphalt	SF	0	$3.00	$0.00
Concrete Walks	SF	109,452	$8.40	$919,396.80
Separated Multi-Use Path - Concrete	SF	0	$8.40	$0.00
Separated Multi-Use Path - Asphalt	SF	0	$3.00	$0.00
Detectable Warnings	EA	8	$500.00	$4,000.00
Pedestrian Ramps	EA	8	$7,500.00	$60,000.00
Bike Ramps	EA		$2,500.00	$0.00
Extra for Pedestrian Ramps	EA	8	$1,500.00	$12,000.00
Chain Link Fence	LF		$50.00	$0.00
Residential Driveway Reconstruction	EA	0	$1,500.00	$0.00
Commercial Driveway Reconstruction	EA	0	$3,000.00	$0.00
Retaining Walls, Cut (soldier Pyle, tie back, soil nail)	SF	2,000	$300.00	$600,000.00
Retaining Walls, MSE	SF	3,000	$200.00	$600,000.00
Retaining Walls, Cast-in-Place	SF		$160.00	$0.00
Sound Walls	SF	0	$45.00	$0.00
Fish Friendly Box Culvert, Complete	LF		$1,000.00	$0.00
Bridge Structure, Complete	SF	211,120	$450.00	$95,004,000.00
Guardrail System, Complete	LF	3,100	$50.00	$155,000.00
Storm Water Conveyance System, Complete	LS	ALL	$2,861,000.00	$2,861,000.00
Regional Water Quality and Hydromodification System, Complete	SF	59,900	$28.00	$1,677,200.00
Permanent Landscaping	SF	127,694	$4.20	$536,314.80
Irrigation, Complete	SF	127,694	$2.50	$319,235.00
Pavement Markings, Complete	LS	ALL	$191,000.00	$191,000.00
Signage, Complete	LS	ALL	$144,000.00	$144,000.00
Illumination System, Complete	LS	ALL	$1,335,000.00	$1,335,000.00
Traffic Signal Modifications, Complete	LS	ALL		$0.00
Traffic Signal System, Complete	LS	ALL		$0.00
Fiber Optic Interconnect System Complete	LS	ALL		$0.00
Utility Undergrounding, Complete	LF	0	$100.00	$0.00
			TOTAL CONSTRUCTION COST	**$ 138,471,371**

South Stage Road Extension Plan
O-6 Overpass Northerly Realignment
ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$34,618,000.00	$34,618,000.00
Right-of-Way Support	EA	0	$18,000.00	$0.00
County Staff Time	YR		$50,000.00	$0.00
ENGINEERING SUPPORT SUBTOTAL				**$ 34,618,000**
			TOTAL PROJECT SUBTOTAL	**$ 173,092,105**
			35% Contingency	**$ 60,582,240**
			TOTAL ESTIMATED PROJECT COST	**$ 233,674,345**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the on-street bicycle facility the assumed storm inlet spacing is 150 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 60% based on risk.

South Stage Road Extension Plan

O-7 Overpass

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$7,976,000.00	$7,976,000.00
Traffic Control	LS	ALL	$6,399,000.00	$6,399,000.00
Construction Staging	LS	ALL	$7,999,000.00	$7,999,000.00
Erosion Control	AC	23.0	$10,000.00	$230,000.00
Removal of Structures and Obstructions	LS	ALL	$1,730,000.00	$1,730,000.00
Clearing and Grubbing	LS	ALL	$1,154,000.00	$1,154,000.00
General Earthworks	CY	265,033	$40.00	$10,601,320.00
Asphalt Roadway - Full Depth	SF	316,726	$9.20	$2,913,881.04
Asphalt Roadway - Grind & Inlay (2" Depth)	SF		$3.10	$0.00
Concrete Roadway - Full Depth	SF	480,000	$15.60	$7,488,000.00
Subgrade Geotextile	SY	88,526	$1.50	$132,789.00
Concrete Curbs - Standard Curb	LF	0	$30.90	$0.00
Concrete Curbs - Standard Curb & Gutter	LF	13,034	$36.70	$478,347.80
Raised Concrete Island	SF		$12.90	$0.00
Truck Apron (Concrete)	SF		$19.30	$0.00
Concrete Cycle Track	SF	0	$8.40	$0.00
Separated Bicycle Facility - Asphalt	SF	0	$3.00	$0.00
Concrete Walks	SF	78,204	$8.40	$656,913.60
Separated Multi-Use Path - Concrete	SF	0	$8.40	$0.00
Separated Multi-Use Path - Asphalt	SF	0	$3.00	$0.00
Detectable Warnings	EA	8	$500.00	$4,000.00
Pedestrian Ramps	EA	8	$7,500.00	$60,000.00
Bike Ramps	EA		$2,500.00	$0.00
Extra for Pedestrian Ramps	EA	8	$1,500.00	$12,000.00
Chain Link Fence	LF		$50.00	$0.00
Residential Driveway Reconstruction	EA	0	$1,500.00	$0.00
Commercial Driveway Reconstruction	EA	0	$3,000.00	$0.00
Retaining Walls, Gravity	SF		$55.00	$0.00
Retaining Walls, MSE	SF	5,000	$200.00	$1,000,000.00
Retaining Walls, Cut (Soldier pyle, tie back, soil nail)	SF		$300.00	$0.00
Sound Walls	SF	0	$45.00	$0.00
Fish Friendly Box Culvert, Complete	LF		$1,000.00	$0.00
Bridge Structure, Complete	SF	88,160	$450.00	$39,672,000.00
Guardrail System, Complete	LF	1,600	$50.00	$80,000.00
Storm Water Conveyance System, Complete	LS	ALL	$6,705,000.00	$6,705,000.00
Regional Water Quality and Hydromodification System, Complete	SF	90,800	$28.00	$2,542,400.00
Permanent Landscaping	SF	91,238	$4.20	$383,199.60
Irrigation, Complete	SF	91,238	$2.50	$228,095.00
Pavement Markings, Complete	LS	ALL	$447,000.00	$447,000.00
Signage, Complete	LS	ALL	$336,000.00	$336,000.00
Illumination System, Complete	LS	ALL	$3,128,700.00	$3,128,700.00
Traffic Signal Modifications, Complete	LS	ALL		$0.00
Traffic Signal System, Complete	LS	ALL		$0.00
Fiber Optic Interconnect System Complete	LS	ALL		$0.00
Utility Undergrounding, Complete	LF	0	$100.00	$0.00
			TOTAL CONSTRUCTION COST	**$ 102,357,646**

South Stage Road Extension Plan

O-7 Overpass

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$25,590,000.00	$25,590,000.00
Right-of-Way Support	EA	0	$18,000.00	$0.00
County Staff Time	YR		$50,000.00	$0.00
ENGINEERING SUPPORT SUBTOTAL				**$ 25,590,000**
			TOTAL PROJECT SUBTOTAL	**$ 127,950,380**
			35% Contingency	**$ 44,782,640**
			TOTAL ESTIMATED PROJECT COST	**$ 172,733,020**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the on-street bicycle facility the assumed storm inlet spacing is 150 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 60% based on risk.

South Stage Road Extension Plan

I-1 Overpass O-1

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$6,745,000.00	$6,745,000.00
Traffic Control	LS	ALL	$5,408,000.00	$5,408,000.00
Construction Staging	LS	ALL	$0.00	$0.00
Erosion Control	AC	15.6	$10,000.00	$156,000.00
Removal of Structures and Obstructions	LS	ALL	$658,000.00	$658,000.00
Clearing and Grubbing	LS	ALL	$987,000.00	$987,000.00
General Earthworks	CY	100,075	$40.00	$4,003,000.00
Asphalt Roadway - Full Depth	SF	476,366	$9.20	$4,382,569.04
Asphalt Roadway - Grind & Inlay (2" Depth)	SF		$3.10	$0.00
Concrete Roadway - Full Depth	SF	0	$15.60	$0.00
Subgrade Geotextile	SY	52,930	$1.50	$79,395.00
Concrete Curbs - Standard Curb	LF	0	$30.90	$0.00
Concrete Curbs - Standard Curb & Gutter	LF	13,034	$36.70	$478,347.80
Raised Concrete Island	SF		$12.90	$0.00
Truck Apron (Concrete)	SF		$19.30	$0.00
Concrete Cycle Track	SF	0	$8.40	$0.00
Separated Bicycle Facility - Asphalt	SF	0	$3.00	$0.00
Concrete Walks	SF	78,204	$8.40	$656,913.60
Separated Multi-Use Path - Concrete	SF	0	$8.40	$0.00
Separated Multi-Use Path - Asphalt	SF	0	$3.00	$0.00
Detectable Warnings	EA	16	$500.00	$8,000.00
Pedestrian Ramps	EA	16	$7,500.00	$120,000.00
Bike Ramps	EA		$2,500.00	$0.00
Extra for Pedestrian Ramps	EA	16	$1,500.00	$24,000.00
Chain Link Fence	LF		$50.00	$0.00
Residential Driveway Reconstruction	EA	0	$1,500.00	$0.00
Commercial Driveway Reconstruction	EA	0	$3,000.00	$0.00
Retaining Walls, Gravity	SF		$55.00	$0.00
Retaining Walls, MSE	SF	5,400	$200.00	$1,080,000.00
Retaining Walls, Cut (Soldier pyle, tie back, soil nail)	SF		$300.00	$0.00
Sound Walls	SF	0	$45.00	$0.00
Fish Friendly Box Culvert, Complete	LF		$1,000.00	$0.00
Bridge Structure, Complete	SF	106,160	$450.00	$47,772,000.00
Guardrail System, Complete	LF	3,100	$50.00	$155,000.00
Storm Water Conveyance System, Complete	LS	ALL	$2,926,000.00	$2,926,000.00
Regional Water Quality and Hydromodification System, Complete	SF	58,800	$28.00	$1,646,400.00
Permanent Landscaping	SF	91,238	$4.20	$383,199.60
Irrigation, Complete	SF	91,238	$2.50	$228,095.00
Pavement Markings, Complete	LS	ALL	$196,000.00	$196,000.00
Signage, Complete	LS	ALL	$293,000.00	$293,000.00
Illumination System, Complete	LS	ALL	$1,365,400.00	$1,365,400.00
Traffic Signal Modifications, Complete	LS	ALL		$0.00
Traffic Signal System, Complete	LS	ALL		$0.00
Fiber Optic Interconnect System Complete	LS	ALL		$0.00
Utility Undergrounding, Complete	LF	0	$100.00	$0.00
			TOTAL CONSTRUCTION COST	**$ 79,751,320**

South Stage Road Extension Plan

I-1 Overpass O-1

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$19,938,000.00	$19,938,000.00
Right-of-Way Support	EA	0	$18,000.00	$0.00
County Staff Time	YR		$50,000.00	$0.00
ENGINEERING SUPPORT SUBTOTAL				**$ 19,938,000**
			TOTAL PROJECT SUBTOTAL	**$ 99,692,054**
			35% Contingency	**$ 34,892,220**
			TOTAL ESTIMATED PROJECT COST	**$ 134,584,274**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the on-street bicycle facility the assumed storm inlet spacing is 150 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 60% based on risk.

South Stage Road Extension Plan

I-2 Overpass O-2

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$7,006,000.00	$7,006,000.00
Traffic Control	LS	ALL	$5,617,000.00	$5,617,000.00
Construction Staging	LS	ALL	$0.00	$0.00
Erosion Control	AC	15.6	$10,000.00	$156,000.00
Removal of Structures and Obstructions	LS	ALL	$684,000.00	$684,000.00
Clearing and Grubbing	LS	ALL	$1,026,000.00	$1,026,000.00
General Earthworks	CY	97,039	$40.00	$3,881,560.00
Asphalt Roadway - Full Depth	SF	474,984	$9.20	$4,369,850.96
Asphalt Roadway - Grind & Inlay (2" Depth)	SF		$3.10	$0.00
Concrete Roadway - Full Depth	SF	0	$15.60	$0.00
Subgrade Geotextile	SY	52,776	$1.50	$79,164.00
Concrete Curbs - Standard Curb	LF	0	$30.90	$0.00
Concrete Curbs - Standard Curb & Gutter	LF	13,006	$36.70	$477,320.20
Raised Concrete Island	SF		$12.90	$0.00
Truck Apron (Concrete)	SF		$19.30	$0.00
Concrete Cycle Track	SF	0	$8.40	$0.00
Separated Bicycle Facility - Asphalt	SF	0	$3.00	$0.00
Concrete Walks	SF	78,036	$8.40	$655,502.40
Separated Multi-Use Path - Concrete	SF	0	$8.40	$0.00
Separated Multi-Use Path - Asphalt	SF	0	$3.00	$0.00
Detectable Warnings	EA	8	$500.00	$4,000.00
Pedestrian Ramps	EA	8	$7,500.00	$60,000.00
Bike Ramps	EA		$2,500.00	$0.00
Extra for Pedestrian Ramps	EA	8	$1,500.00	$12,000.00
Chain Link Fence	LF		$50.00	$0.00
Residential Driveway Reconstruction	EA	0	$1,500.00	$0.00
Commercial Driveway Reconstruction	EA	0	$3,000.00	$0.00
Retaining Walls, Gravity	SF		$55.00	$0.00
Retaining Walls, MSE	SF	3,660	$200.00	$732,000.00
Retaining Walls, Cut (Soldier pyle, tie back, soil nail)	SF		$300.00	$0.00
Sound Walls	SF	0	$45.00	$0.00
Fish Friendly Box Culvert, Complete	LF		$1,000.00	$0.00
Bridge Structure, Complete	SF	113,660	$450.00	$51,147,000.00
Guardrail System, Complete	LF		$50.00	$0.00
Storm Water Conveyance System, Complete	LS	ALL	$2,862,000.00	$2,862,000.00
Regional Water Quality and Hydromodification System, Complete	SF	58,600	$28.00	$1,640,800.00
Permanent Landscaping	SF	91,042	$4.20	$382,376.40
Irrigation, Complete	SF	91,042	$2.50	$227,605.00
Pavement Markings, Complete	LS	ALL	$191,000.00	$191,000.00
Signage, Complete	LS	ALL	$287,000.00	$287,000.00
Illumination System, Complete	LS	ALL	$1,335,600.00	$1,335,600.00
Traffic Signal Modifications, Complete	LS	ALL		$0.00
Traffic Signal System, Complete	LS	ALL		$0.00
Fiber Optic Interconnect System Complete	LS	ALL		$0.00
Utility Undergrounding, Complete	LF	0	$100.00	$0.00
			TOTAL CONSTRUCTION COST	**$ 82,833,779**

South Stage Road Extension Plan

I-2 Overpass O-2

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$20,709,000.00	$20,709,000.00
Right-of-Way Support	EA	0	$18,000.00	$0.00
County Staff Time	YR		$50,000.00	$0.00
ENGINEERING SUPPORT SUBTOTAL				**$ 20,709,000**
			TOTAL PROJECT SUBTOTAL	**$ 103,545,513**
			35% Contingency	**$ 36,240,930**
			TOTAL ESTIMATED PROJECT COST	**$ 139,786,443**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the on-street bicycle facility the assumed storm inlet spacing is 150 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 60% based on risk.

South Stage Road Extension Plan

I-3 Overpass O-3

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$7,268,000.00	$7,268,000.00
Traffic Control	LS	ALL	$5,828,000.00	$5,828,000.00
Construction Staging	LS	ALL	$0.00	$0.00
Erosion Control	AC	15.9	$10,000.00	$159,000.00
Removal of Structures and Obstructions	LS	ALL	$710,000.00	$710,000.00
Clearing and Grubbing	LS	ALL	$1,064,000.00	$1,064,000.00
General Earthworks	CY	100,256	$40.00	$4,010,240.00
Asphalt Roadway - Full Depth	SF	487,546	$9.20	$4,485,425.04
Asphalt Roadway - Grind & Inlay (2" Depth)	SF		$3.10	$0.00
Concrete Roadway - Full Depth	SF	0	$15.60	$0.00
Subgrade Geotextile	SY	54,172	$1.50	$81,258.00
Concrete Curbs - Standard Curb	LF	0	$30.90	$0.00
Concrete Curbs - Standard Curb & Gutter	LF	13,034	$36.70	$478,347.80
Raised Concrete Island	SF		$12.90	$0.00
Truck Apron (Concrete)	SF		$19.30	$0.00
Concrete Cycle Track	SF	0	$8.40	$0.00
Separated Bicycle Facility - Asphalt	SF	0	$3.00	$0.00
Concrete Walks	SF	78,204	$8.40	$656,913.60
Separated Multi-Use Path - Concrete	SF	0	$8.40	$0.00
Separated Multi-Use Path - Asphalt	SF	0	$3.00	$0.00
Detectable Warnings	EA	8	$500.00	$4,000.00
Pedestrian Ramps	EA	8	$7,500.00	$60,000.00
Bike Ramps	EA		$2,500.00	$0.00
Extra for Pedestrian Ramps	EA	8	$1,500.00	$12,000.00
Chain Link Fence	LF		$50.00	$0.00
Residential Driveway Reconstruction	EA	0	$1,500.00	$0.00
Commercial Driveway Reconstruction	EA	0	$3,000.00	$0.00
Retaining Walls, Gravity	SF		$55.00	$0.00
Retaining Walls, MSE	SF	4,100	$200.00	$820,000.00
Retaining Walls, Cut (Soldier pyle, tie back, soil nail)	SF		$300.00	$0.00
Sound Walls	SF	0	$45.00	$0.00
Fish Friendly Box Culvert, Complete	LF		$1,000.00	$0.00
Bridge Structure, Complete	SF	117,980	$450.00	$53,091,000.00
Guardrail System, Complete	LF	2,400	$50.00	$120,000.00
Storm Water Conveyance System, Complete	LS	ALL	$2,937,000.00	$2,937,000.00
Regional Water Quality and Hydromodification System, Complete	SF	59,900	$28.00	$1,677,200.00
Permanent Landscaping	SF	91,238	$4.20	$383,199.60
Irrigation, Complete	SF	91,238	$2.50	$228,095.00
Pavement Markings, Complete	LS	ALL	$196,000.00	$196,000.00
Signage, Complete	LS	ALL	$294,000.00	$294,000.00
Illumination System, Complete	LS	ALL	$1,370,400.00	$1,370,400.00
Traffic Signal Modifications, Complete	LS	ALL		$0.00
Traffic Signal System, Complete	LS	ALL		$0.00
Fiber Optic Interconnect System Complete	LS	ALL		$0.00
Utility Undergrounding, Complete	LF	0	$100.00	$0.00
TOTAL CONSTRUCTION COST			**$**	**85,934,079**

South Stage Road Extension Plan

I-3 Overpass O-3

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
This Estimate has a Rating of:		**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$21,484,000.00	$21,484,000.00
Right-of-Way Support	EA	0	$18,000.00	$0.00
County Staff Time	YR		$50,000.00	$0.00
ENGINEERING SUPPORT SUBTOTAL				**$ 21,484,000**
			TOTAL PROJECT SUBTOTAL	**$ 107,420,813**
			35% Contingency	**$ 37,597,290**
			TOTAL ESTIMATED PROJECT COST	**$ 145,018,103**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the on-street bicycle facility the assumed storm inlet spacing is 150 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 60% based on risk.

South Stage Road Extension Plan

I-4 Underpass O-2

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$7,977,000.00	$7,977,000.00
Traffic Control	LS	ALL	$6,395,000.00	$6,395,000.00
Construction Staging	LS	ALL	$7,993,000.00	$7,993,000.00
Erosion Control	AC	15.6	$10,000.00	$156,000.00
Removal of Structures and Obstructions	LS	ALL	$1,730,000.00	$1,730,000.00
Clearing and Grubbing	LS	ALL	$1,154,000.00	$1,154,000.00
General Earthworks	CY	743,600	$40.00	$29,744,000.00
Asphalt Roadway - Full Depth	SF	473,298	$9.20	$4,354,343.44
Asphalt Roadway - Grind & Inlay (2" Depth)	SF		$3.10	$0.00
Concrete Roadway - Full Depth	SF	0	$15.60	$0.00
Subgrade Geotextile	SY	52,589	$1.50	$78,883.50
Concrete Curbs - Standard Curb	LF	0	$30.90	$0.00
Concrete Curbs - Standard Curb & Gutter	LF	13,034	$36.70	$478,347.80
Raised Concrete Island	SF		$12.90	$0.00
Truck Apron (Concrete)	SF		$19.30	$0.00
Concrete Cycle Track	SF	0	$8.40	$0.00
Separated Bicycle Facility - Asphalt	SF	0	$3.00	$0.00
Concrete Walks	SF	78,204	$8.40	$656,913.60
Separated Multi-Use Path - Concrete	SF	0	$8.40	$0.00
Separated Multi-Use Path - Asphalt	SF	0	$3.00	$0.00
Detectable Warnings	EA	16	$500.00	$8,000.00
Pedestrian Ramps	EA	16	$7,500.00	$120,000.00
Bike Ramps	EA		$2,500.00	$0.00
Extra for Pedestrian Ramps	EA	16	$1,500.00	$24,000.00
Chain Link Fence	LF		$50.00	$0.00
Residential Driveway Reconstruction	EA	0	$1,500.00	$0.00
Commercial Driveway Reconstruction	EA	0	$3,000.00	$0.00
Retaining Walls, Gravity	SF		$55.00	$0.00
Retaining Walls, MSE	SF	1,500	$200.00	$300,000.00
Retaining Walls, Cut (Soldier pyle, tie back, soil nail)	SF	9,000	$300.00	$2,700,000.00
Sound Walls	SF	0	$45.00	$0.00
Fish Friendly Box Culvert, Complete	LF		$1,000.00	$0.00
Bridge Structure, Complete	SF	41,000	$450.00	$18,450,000.00
Guardrail System, Complete	LF	6,861	$50.00	$343,050.00
Storm Water Conveyance System, Complete	LS	ALL	$10,640,000.00	$10,640,000.00
Regional Water Quality and Hydromodification System, Complete	SF	58,500	$28.00	$1,638,000.00
Permanent Landscaping	SF	91,238	$4.20	$383,199.60
Irrigation, Complete	SF	91,238	$2.50	$228,095.00
Pavement Markings, Complete	LS	ALL	$710,000.00	$710,000.00
Signage, Complete	LS	ALL	$1,064,000.00	$1,064,000.00
Illumination System, Complete	LS	ALL	$4,965,100.00	$4,965,100.00
Traffic Signal Modifications, Complete	LS	ALL		$0.00
Traffic Signal System, Complete	LS	ALL		$0.00
Fiber Optic Interconnect System Complete	LS	ALL		$0.00
Utility Undergrounding, Complete	LF	0	$100.00	$0.00
			TOTAL CONSTRUCTION COST	**$ 102,290,933**

South Stage Road Extension Plan

I-4 Underpass O-2

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$25,573,000.00	$25,573,000.00
Right-of-Way Support	EA	0	$18,000.00	$0.00
County Staff Time	YR		$50,000.00	$0.00
ENGINEERING SUPPORT SUBTOTAL				**$ 25,573,000**
			TOTAL PROJECT SUBTOTAL	**$ 127,866,667**
			35% Contingency	**$ 44,753,340**
			TOTAL ESTIMATED PROJECT COST	**$ 172,620,007**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the on-street bicycle facility the assumed storm inlet spacing is 150 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 60% based on risk.

South Stage Road Extension Plan

I-5 Overpass O-1

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$9,351,000.00	$9,351,000.00
Traffic Control	LS	ALL	$7,494,000.00	$7,494,000.00
Construction Staging	LS	ALL	$0.00	$0.00
Erosion Control	AC	16.6	$10,000.00	$166,000.00
Removal of Structures and Obstructions	LS	ALL	$913,000.00	$913,000.00
Clearing and Grubbing	LS	ALL	$1,369,000.00	$1,369,000.00
General Earthworks	CY	83,811	$40.00	$3,352,440.00
Asphalt Roadway - Full Depth	SF	521,026	$9.20	$4,793,441.04
Asphalt Roadway - Grind & Inlay (2" Depth)	SF		$3.10	$0.00
Concrete Roadway - Full Depth	SF	0	$15.60	$0.00
Subgrade Geotextile	SY	57,892	$1.50	$86,838.00
Concrete Curbs - Standard Curb	LF	0	$30.90	$0.00
Concrete Curbs - Standard Curb & Gutter	LF	13,034	$36.70	$478,347.80
Raised Concrete Island	SF		$12.90	$0.00
Truck Apron (Concrete)	SF		$19.30	$0.00
Concrete Cycle Track	SF	0	$8.40	$0.00
Separated Bicycle Facility - Asphalt	SF	0	$3.00	$0.00
Concrete Walks	SF	78,204	$8.40	$656,913.60
Separated Multi-Use Path - Concrete	SF	0	$8.40	$0.00
Separated Multi-Use Path - Asphalt	SF	0	$3.00	$0.00
Detectable Warnings	EA	16	$500.00	$8,000.00
Pedestrian Ramps	EA	16	$7,500.00	$120,000.00
Bike Ramps	EA		$2,500.00	$0.00
Extra for Pedestrian Ramps	EA	16	$1,500.00	$24,000.00
Chain Link Fence	LF		$50.00	$0.00
Residential Driveway Reconstruction	EA	0	$1,500.00	$0.00
Commercial Driveway Reconstruction	EA	0	$3,000.00	$0.00
Retaining Walls, Gravity	SF		$55.00	$0.00
Retaining Walls, MSE	SF	3,820	$200.00	$764,000.00
Retaining Walls, Cut (Soldier pyle, tie back, soil nail)	SF		$300.00	$0.00
Sound Walls	SF	0	$45.00	$0.00
Fish Friendly Box Culvert, Complete	LF		$1,000.00	$0.00
Bridge Structure, Complete	SF	163,348	$450.00	$73,506,600.00
Guardrail System, Complete	LF	7,793	$50.00	$389,650.00
Storm Water Conveyance System, Complete	LS	ALL	$2,856,000.00	$2,856,000.00
Regional Water Quality and Hydromodification System, Complete	SF	63,200	$28.00	$1,769,600.00
Permanent Landscaping	SF	91,238	$4.20	$383,199.60
Irrigation, Complete	SF	91,238	$2.50	$228,095.00
Pavement Markings, Complete	LS	ALL	$191,000.00	$191,000.00
Signage, Complete	LS	ALL	$286,000.00	$286,000.00
Illumination System, Complete	LS	ALL	$1,332,800.00	$1,332,800.00
Traffic Signal Modifications, Complete	LS	ALL		$0.00
Traffic Signal System, Complete	LS	ALL		$0.00
Fiber Optic Interconnect System Complete	LS	ALL		$0.00
Utility Undergrounding, Complete	LF	0	$100.00	$0.00
			TOTAL CONSTRUCTION COST	**$ 110,519,925**

South Stage Road Extension Plan

I-5 Overpass O-1

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$27,630,000.00	$27,630,000.00
Right-of-Way Support	EA	0	$18,000.00	$0.00
County Staff Time	YR		$50,000.00	$0.00
ENGINEERING SUPPORT SUBTOTAL				**$ 27,630,000**
			TOTAL PROJECT SUBTOTAL	**$ 138,152,659**
			35% Contingency	**$ 48,353,440**
			TOTAL ESTIMATED PROJECT COST	**$ 186,506,099**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the on-street bicycle facility the assumed storm inlet spacing is 150 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 60% based on risk.

South Stage Road Extension Plan

I-6 Overpass O-1 Left Merge

ODOT

KITTELSON & ASSOCIATES

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas	*Date: March 2024*
Reviewed By: Darren Hippenstiel, PE	
This Estimate has a Rating of:	**3C** *(See rating scale guide below.)*

	ITEM	UNIT	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
	Mobilization	LS	ALL	$8,011,000.00	$8,011,000.00
	Traffic Control	LS	ALL	$6,422,000.00	$6,422,000.00
	Construction Staging	LS	ALL	$0.00	$0.00
	Erosion Control	AC	15.8	$10,000.00	$158,000.00
	Removal of Structures and Obstructions	LS	ALL	$782,000.00	$782,000.00
	Clearing and Grubbing	LS	ALL	$1,173,000.00	$1,173,000.00
	General Earthworks	CY	78,546	$40.00	$3,141,840.00
	Asphalt Roadway - Full Depth	SF	484,634	$9.20	$4,458,634.64
	Asphalt Roadway - Grind & Inlay (2" Depth)	SF		$3.10	$0.00
	Concrete Roadway - Full Depth	SF	0	$15.60	$0.00
	Subgrade Geotextile	SY	53,849	$1.50	$80,773.50
	Concrete Curbs - Standard Curb	LF	0	$30.90	$0.00
	Concrete Curbs - Standard Curb & Gutter	LF	13,034	$36.70	$478,347.80
	Raised Concrete Island	SF		$12.90	$0.00
	Truck Apron (Concrete)	SF		$19.30	$0.00
	Concrete Cycle Track	SF	0	$8.40	$0.00
	Separated Bicycle Facility - Asphalt	SF	0	$3.00	$0.00
	Concrete Walks	SF	78,204	$8.40	$656,913.60
	Separated Multi-Use Path - Concrete	SF	0	$8.40	$0.00
	Separated Multi-Use Path - Asphalt	SF	0	$3.00	$0.00
	Detectable Warnings	EA	16	$500.00	$8,000.00
	Pedestrian Ramps	EA	16	$7,500.00	$120,000.00
	Bike Ramps	EA		$2,500.00	$0.00
	Extra for Pedestrian Ramps	EA	16	$1,500.00	$24,000.00
	Chain Link Fence	LF		$50.00	$0.00
	Residential Driveway Reconstruction	EA	0	$1,500.00	$0.00
	Commercial Driveway Reconstruction	EA	0	$3,000.00	$0.00
	Retaining Walls, Gravity	SF		$55.00	$0.00
	Retaining Walls, MSE	SF	5,400	$200.00	$1,080,000.00
	Retaining Walls, Cut (Soldier pyle, tie back, soil nail)	SF		$300.00	$0.00
	Sound Walls	SF	0	$45.00	$0.00
	Fish Friendly Box Culvert, Complete	LF		$1,000.00	$0.00
	Bridge Structure, Complete	SF	136,160	$450.00	$61,272,000.00
	Guardrail System, Complete	LF	3,100	$50.00	$155,000.00
	Storm Water Conveyance System, Complete	LS	ALL	$2,691,000.00	$2,691,000.00
	Regional Water Quality and Hydromodification System, Complete	SF	59,600	$28.00	$1,668,800.00
	Permanent Landscaping	SF	91,238	$4.20	$383,199.60
	Irrigation, Complete	SF	91,238	$2.50	$228,095.00
	Pavement Markings, Complete	LS	ALL	$180,000.00	$180,000.00
	Signage, Complete	LS	ALL	$270,000.00	$270,000.00
	Illumination System, Complete	LS	ALL	$1,255,600.00	$1,255,600.00
	Traffic Signal Modifications, Complete	LS	ALL		$0.00
	Traffic Signal System, Complete	LS	ALL		$0.00
	Fiber Optic Interconnect System Complete	LS	ALL		$0.00
	Utility Undergrounding, Complete	LF	0	$100.00	$0.00
				TOTAL CONSTRUCTION COST	**$ 94,698,204**

South Stage Road Extension Plan

I-6 Overpass O-1 Left Merge

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$23,675,000.00	$23,675,000.00
Right-of-Way Support	EA	0	$18,000.00	$0.00
County Staff Time	YR		$50,000.00	$0.00
ENGINEERING SUPPORT SUBTOTAL				**$ 23,675,000**
			TOTAL PROJECT SUBTOTAL	**$ 118,375,938**
			35% Contingency	**$ 41,431,580**
			TOTAL ESTIMATED PROJECT COST	**$ 159,807,518**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the on-street bicycle facility the assumed storm inlet spacing is 150 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 60% based on risk.

South Stage Road Extension Plan

I-7 Single Point

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$12,466,000.00	$12,466,000.00
Traffic Control	LS	ALL	$9,985,000.00	$9,985,000.00
Construction Staging	LS	ALL	$0.00	$0.00
Erosion Control	AC	15.2	$10,000.00	$152,000.00
Removal of Structures and Obstructions	LS	ALL	$1,217,000.00	$1,217,000.00
Clearing and Grubbing	LS	ALL	$1,825,000.00	$1,825,000.00
General Earthworks	CY	75,900	$40.00	$3,036,000.00
Asphalt Roadway - Full Depth	SF	457,408	$9.20	$4,208,155.44
Asphalt Roadway - Grind & Inlay (2" Depth)	SF		$3.10	$0.00
Concrete Roadway - Full Depth	SF	0	$15.60	$0.00
Subgrade Geotextile	SY	50,824	$1.50	$76,236.00
Concrete Curbs - Standard Curb	LF	0	$30.90	$0.00
Concrete Curbs - Standard Curb & Gutter	LF	13,034	$36.70	$478,347.80
Raised Concrete Island	SF		$12.90	$0.00
Truck Apron (Concrete)	SF		$19.30	$0.00
Concrete Cycle Track	SF	0	$8.40	$0.00
Separated Bicycle Facility - Asphalt	SF	0	$3.00	$0.00
Concrete Walks	SF	78,204	$8.40	$656,913.60
Separated Multi-Use Path - Concrete	SF	0	$8.40	$0.00
Separated Multi-Use Path - Asphalt	SF	0	$3.00	$0.00
Detectable Warnings	EA	16	$500.00	$8,000.00
Pedestrian Ramps	EA	16	$7,500.00	$120,000.00
Bike Ramps	EA		$2,500.00	$0.00
Extra for Pedestrian Ramps	EA	16	$1,500.00	$24,000.00
Chain Link Fence	LF		$50.00	$0.00
Residential Driveway Reconstruction	EA	0	$1,500.00	$0.00
Commercial Driveway Reconstruction	EA	0	$3,000.00	$0.00
Retaining Walls, Gravity	SF		$55.00	$0.00
Retaining Walls, MSE	SF	47,410	$200.00	$9,482,000.00
Retaining Walls, Cut (Soldier pyle, tie back, soil nail)	SF		$300.00	$0.00
Sound Walls	SF	0	$45.00	$0.00
Fish Friendly Box Culvert, Complete	LF		$1,000.00	$0.00
Bridge Structure, Complete	SF	215,610	$450.00	$97,024,500.00
Guardrail System, Complete	LF	1,538	$50.00	$76,900.00
Storm Water Conveyance System, Complete	LS	ALL	$2,583,000.00	$2,583,000.00
Regional Water Quality and Hydromodification System, Complete	SF	56,900	$28.00	$1,593,200.00
Permanent Landscaping	SF	91,238	$4.20	$383,199.60
Irrigation, Complete	SF	91,238	$2.50	$228,095.00
Pavement Markings, Complete	LS	ALL	$173,000.00	$173,000.00
Signage, Complete	LS	ALL	$259,000.00	$259,000.00
Illumination System, Complete	LS	ALL	$1,205,100.00	$1,205,100.00
Traffic Signal Modifications, Complete	LS	ALL		$0.00
Traffic Signal System, Complete	LS	ALL		$0.00
Fiber Optic Interconnect System Complete	LS	ALL		$0.00
Utility Undergrounding, Complete	LF	0	$100.00	$0.00
			TOTAL CONSTRUCTION COST	**$ 147,260,647**

South Stage Road Extension Plan

I-7 Single Point

ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$36,816,000.00	$36,816,000.00
Right-of-Way Support	EA	0	$18,000.00	$0.00
County Staff Time	YR		$50,000.00	$0.00
ENGINEERING SUPPORT SUBTOTAL				**$ 36,816,000**
			TOTAL PROJECT SUBTOTAL	**$ 184,079,381**
			35% Contingency	**$ 64,427,790**
			TOTAL ESTIMATED PROJECT COST	**$ 248,507,171**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the on-street bicycle facility the assumed storm inlet spacing is 150 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 60% based on risk.

South Stage Road Extension Plan
I-8 With Westbound Alignment
ODOT

KITTELSON & ASSOCIATES

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
Mobilization	LS	ALL	$11,211,000.00	$11,211,000.00
Traffic Control	LS	ALL	$8,982,000.00	$8,982,000.00
Construction Staging	LS	ALL	$0.00	$0.00
Erosion Control	AC	16.5	$10,000.00	$165,000.00
Removal of Structures and Obstructions	LS	ALL	$1,094,000.00	$1,094,000.00
Clearing and Grubbing	LS	ALL	$1,641,000.00	$1,641,000.00
General Earthworks	CY	124,863	$40.00	$4,994,520.00
Asphalt Roadway - Full Depth	SF	587,033	$9.20	$5,400,705.44
Asphalt Roadway - Grind & Inlay (2" Depth)	SF		$3.10	$0.00
Concrete Roadway - Full Depth	SF	0	$15.60	$0.00
Subgrade Geotextile	SY	65,226	$1.50	$97,839.00
Concrete Curbs - Standard Curb	LF	0	$30.90	$0.00
Concrete Curbs - Standard Curb & Gutter	LF	8,314	$36.70	$305,123.80
Raised Concrete Island	SF		$12.90	$0.00
Truck Apron (Concrete)	SF		$19.30	$0.00
Concrete Cycle Track	SF	0	$8.40	$0.00
Separated Bicycle Facility - Asphalt	SF	0	$3.00	$0.00
Concrete Walks	SF	49,884	$8.40	$419,025.60
Separated Multi-Use Path - Concrete	SF	0	$8.40	$0.00
Separated Multi-Use Path - Asphalt	SF	0	$3.00	$0.00
Detectable Warnings	EA	16	$500.00	$8,000.00
Pedestrian Ramps	EA	16	$7,500.00	$120,000.00
Bike Ramps	EA		$2,500.00	$0.00
Extra for Pedestrian Ramps	EA	16	$1,500.00	$24,000.00
Chain Link Fence	LF		$50.00	$0.00
Residential Driveway Reconstruction	EA	0	$1,500.00	$0.00
Commercial Driveway Reconstruction	EA	0	$3,000.00	$0.00
Retaining Walls, Gravity	SF		$55.00	$0.00
Retaining Walls, MSE	SF	63,800	$200.00	$12,760,000.00
Retaining Walls, Cut (Soldier pyle, tie back, soil nail)	SF		$300.00	$0.00
Sound Walls	SF	0	$45.00	$0.00
Fish Friendly Box Culvert, Complete	LF		$1,000.00	$0.00
Bridge Structure, Complete	SF	171,408	$450.00	$77,133,600.00
Guardrail System, Complete	LF	6,100	$50.00	$305,000.00
Storm Water Conveyance System, Complete	LS	ALL	$3,411,000.00	$3,411,000.00
Regional Water Quality and Hydromodification System, Complete	SF	65,800	$28.00	$1,842,400.00
Permanent Landscaping	SF	58,198	$4.20	$244,431.60
Irrigation, Complete	SF	58,198	$2.50	$145,495.00
Pavement Markings, Complete	LS	ALL	$228,000.00	$228,000.00
Signage, Complete	LS	ALL	$342,000.00	$342,000.00
Illumination System, Complete	LS	ALL	$1,591,700.00	$1,591,700.00
Traffic Signal Modifications, Complete	LS	ALL		$0.00
Traffic Signal System, Complete	LS	ALL		$0.00
Fiber Optic Interconnect System Complete	LS	ALL		$0.00
Utility Undergrounding, Complete	LF	0	$100.00	$0.00
			TOTAL CONSTRUCTION COST	**$ 132,465,840**

South Stage Road Extension Plan
I-8 With Westbound Alignment
ODOT

Engineer's Conceptual Estimate

Prepared By: Eza Gaigalas		*Date: March 2024*		
Reviewed By: Darren Hippenstiel, PE				
	This Estimate has a Rating of:	**3C**	*(See rating scale guide below.)*	
ITEM	**UNIT**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL COST**
ENGINEERING SUPPORT				
Engineering & Construction Management	LS	ALL	$33,117,000.00	$33,117,000.00
Right-of-Way Support	EA	0	$18,000.00	$0.00
County Staff Time	YR		$50,000.00	$0.00
ENGINEERING SUPPORT SUBTOTAL				**$ 33,117,000**
			TOTAL PROJECT SUBTOTAL	**$ 165,585,574**
			35% Contingency	**$ 57,954,960**
			TOTAL ESTIMATED PROJECT COST	**$ 223,540,534**

Unit Costs Note:

The associated product and material costs are based upon the most recent available cost data. Due to the current volatility of the construction market, we cannot guarantee these costs for any duration of time.

Assumptions:

- The assumed roadway section is 8 inches ACP over 16 inches of compacted aggregate base.
- Due to the on-street bicycle facility the assumed storm inlet spacing is 150 feet.
- All overhead utilities will be relocated and remain above ground.
- No sound walls are required for this project.
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Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 60% based on risk.