Appendix D –
Performance Evaluation Process

PROJECT INFORMATION

SR302 / Elgin Clifton Rd to SR16

Project Description

State Route (SR) 302 is an east-west corridor approximately 17 miles in length that runs between the communities of Allyn/Befair in Mason County and Purdy in Pierce County. The study corridor is a 7.6 mile section of SR 302, including 6.32 miles between Key Peninsula Highway (MP 10.55) and SR 16 (MP 16.87), plus the 1.28 mile SR 302 Spur running between Purdy (MP 15.85) and SR 16 to the north (MP 17.13). This project will address congestion and safety issues along this corridor.

Project Purpose and Need

The purpose of this project is to provide an efficient and functional transportation route in the SR 302 corridor between SR 302 at Key Peninsula Highway and SR 16 in Pierce County. The preferred alternative will address the following:

- To design improvements that will increase the level of safety for all travelers who use the route.
- To meet or exceed the standards for intersection and highway level of service during the average weekday peak hour.
- To improve the average weekday peak hour travel time for those who use the route.
- To consider the accommodation of non-motorized modes based on WSDOT policies.

Evaluation Team

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PERFORMANCE ATTRIBUTE DEFINITIONS

SR302 / Elgin Clifton Rd to SR16

Performance Attribute	***Definition***
Improve SR 302 Mainline Operations and Safety	An assessment of traffic operations and safety on the mainline facility. Operational considerations include level of service relative to the 20 year traffic projections as well as geometric considerations such as design speed, sight distance, lane widths and shoulder widths. Add bicycle and pedestrian operations and access?
Improve Local Operations and Safety	An assessment of traffic operations and safety on the local roadway infrastructure, including on-ramps and frontage roads. Operational considerations include level of service relative to the 20-year traffic projections; geometric considerations such as design speed, sight distance, lane widths; bicycle and pedestrian operations and access.
Reduce Environmental Impacts	An assessment of the permanent impacts to the environment including ecological (i.e., flora, fauna, air quality, water quality, visual, noise, flood plain, wetlands, streams, river); socioeconomic impacts (i.e., environmental justice, residents); impacts to cultural, archeological, and historic resources.
Improve Maintainability	An assessment of the long-term maintainability of the transportation facility(s). Maintenance considerations include the overall durability, longevity and mainta.inability of pavements, structures and systems; ease of maintenance; accessibility and safety considerations for maintenance personnel.
Reduce Construction Impacts	An assessment of the temporary impacts to the public during construction related to traffic disruptions, detours and delays; impacts to businesses and residents relative to access, visual, noise, vibration, dust and construction traffic; environmental impacts.
Project Schedule	An assessment of the feasibility of the project; the likelihood of receiving funding; and the length of time to construct the project.
Improve Travel Times	An assessment of the improvement to response times from the alternatives.

PERFORMANCE ATTRIBUTE SCALES *SR302 / Elgin Clifton Rd to SR16*	
Perfomance Attribute Scales	
Using a score of 1 as lowest and 10 as highest. Define the rational for a score of 1, 5 and 10 for each attribute.	
Performance Attribute	**Performance Rationale**
Improve SR 302 Mainline Operations and Sa	5=Meets LOS and minimal deviation to design standards and addresses safety concerns.
Improve Local Operations and Safety	5=Meets LOS and minimal deviation to local design standards and addresses safety concerns.
Reduce Environmental Impacts	1=Major environmental impacts; 5=Mitigatable Impacts; 10=Minimal environmental impacts
Improve Maintainability	5=Can be maintained with existing infrastructure (normal routine maintenance)
Reduce Construction Impacts	5=Normal construction and temporary environmental impacts
Project Schedule	1=Not likely to occur/>= five years; 10=Highly likely to occur/<= five years
Improve Travel Times	5=Improves response times for ~half/50% of the population

PERFORMANCE ATTRIBUTE MATRIX

SR302 / Elgin Clifton Rd to SR16

Which attribute will provide the greater improvement to the project relative to Purpose and Need?

								TOTAL	%
Improve SR 302 Mainline Operations and Safety	**A**	A	A	A	A	A/F	A/G	6.0	21.4%
Improve Local Operations and Safety		**B**	B	B	B	B/F	B/G	5.0	17.9%
Reduce Environmental Impacts			**C**	C	C	C/F	G	3.5	12.5%
Improve Maintainability				**D**	D	F	G	2.0	7.1%
Reduce Construction Impacts					**E**	F	G	1.0	4%
Project Schedule						**F**	F/G	5.0	18%
Improve Travel Times							**G**	5.5	20%
								28.0	100%

Did not reach concensus

SR302 / Elgin Clifton Rd to SR16														
Attribute	**Attribute Weight**	**Concept**	**Performance Rating**										**Total Performance**
			1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	
Improve SR 302 Mainline Operations and Safety	21	Alt #1 - South Bridge				4							86
		Alt #2 - Existing Alignment		2									43
		Alt #3 - Power Line						6					129
		Alt #4 - North Bridge							7				150
		Alt #5 - Spruce Diagonal								8			171
		Alt #6 - Pine Diagonal								8			171
		Alt #7 - Pine/118th							7				150
		Alt #8 - Oak/Sydney					5						107
		Alt #9 - Oak/118th						6					129
Improve Local Operations and Safety	18	Alt #1 - South Bridge			3								54
		Alt #2 - Existing Alignment		2									36
		Alt #3 - Power Line						6					107
		Alt #4 - North Bridge							7				125
		Alt #5 - Spruce Diagonal						6					107
		Alt #6 - Pine Diagonal						6					107
		Alt #7 - Pine/118th					5						89
		Alt #8 - Oak/Sydney					5						89
		Alt #9 - Oak/118th				4							71
Reduce Environmental Impacts	13	Alt #1 - South Bridge		2									25
		Alt #2 - Existing Alignment		2									25
		Alt #3 - Power Line		2									25
		Alt #4 - North Bridge		2									25
		Alt #5 - Spruce Diagonal					5						63
		Alt #6 - Pine Diagonal						6					75
		Alt #7 - Pine/118th				4							50
		Alt #8 - Oak/Sydney			3								38
		Alt #9 - Oak/118th			3								38
Improve Maintainability	7	Alt #1 - South Bridge			3								21
		Alt #2 - Existing Alignment					5						36
		Alt #3 - Power Line				4							29
		Alt #4 - North Bridge				4							29
		Alt #5 - Spruce Diagonal					5						36
		Alt #6 - Pine Diagonal					5						36
		Alt #7 - Pine/118th						6					43
		Alt #8 - Oak/Sydney						6					43
		Alt #9 - Oak/118th						6					43

Reduce Construction Impacts	4	Alt #1 - South Bridge			3								11
		Alt #2 - Existing Alignment			3								11
		Alt #3 - Power Line				4							14
		Alt #4 - North Bridge					5						18
		Alt #5 - Spruce Diagonal							7				25
		Alt #6 - Pine Diagonal						6					21
		Alt #7 - Pine/118th				4							14
		Alt #8 - Oak/Sydney			3								11
		Alt #9 - Oak/118th					5						18
Project Schedule	18	Alt #1 - South Bridge	1										18
		Alt #2 - Existing Alignment			3								54
		Alt #3 - Power Line			3								54
		Alt #4 - North Bridge			3								54
		Alt #5 - Spruce Diagonal						6					107
		Alt #6 - Pine Diagonal						6					107
		Alt #7 - Pine/118th								8			143
		Alt #8 - Oak/Sydney				4							71
		Alt #9 - Oak/118th				4							71
Improve Travel Times	20	Alt #1 - South Bridge								8			157
		Alt #2 - Existing Alignment						6					118
		Alt #3 - Power Line							7				138
		Alt #4 - North Bridge								8			157
		Alt #5 - Spruce Diagonal					5						98
		Alt #6 - Pine Diagonal				4							79
		Alt #7 - Pine/118th			3								59
		Alt #8 - Oak/Sydney		2									39
		Alt #9 - Oak/118th		2									39

OVERALL PERFORMANCE Existing Alignment	Performance (P)		Cost (C)		Value Index (P/C)	
Alt #1 - South Bridge	371		$641M		0.58	
Alt #2 - Existing Alignment	321		$129M		2.49	
Alt #3 - Power Line	495		$323M		1.53	
Alt #4 - North Bridge	557		$272M		2.05	
Alt #5 - Spruce Diagonal	607		$62M		9.77	
Alt #6 - Pine Diagonal	596		$56M		10.66	
Alt #7 - Pine/118th	548		$56M		9.87	
Alt #8 - Oak/Sydney	398		$77M		5.19	
Alt #9 - Oak/118th	409		$65M		6.29	