

Appendix Volume 1

Project Evaluation Ratings

Project Evaluation Ratings

Table 1. Corridor Wide Projects Evaluation Rating

Goal	Evaluation Criteria (Level 2)	Corridor Wide Projects Evaluation Rating							
		Ramp Metering		Right-in/ Right-out Closures		Ramps Improved to Standard		Active Transportation Improvements	
1	Reduction in crash frequency (all modes)	-36% (CMF)	4	-79%	4	-29% (CMF for accel lanes)	2	Moves all ped/bike traffic off Parkway to low stress network (-100% bike/ped crashes)	2
	Reduction in crash severity (all modes)	NA	0	-77%	4	NA	0	moves all ped/bike traffic off Parkway to low stress network (-100% bike/ped crashes)	4
2	Travel Time Reliability on the Bend Pkwy	Peak PTI segment improves from 3.40 to 3.14; Average PTI improves 2%	1	Average PTI improves 3%; Larger improvements expected at RIRO closure locations due to large reduction in crashes and conflict points along the Parkway	1	NA	0	NA	0
	Percent through traffic on congested segments	-100% (no over capacity segments on the Parkway due to volume reduction)	2	Slight increase in congestion on through segment (near Revere Ave) with Lafayette RIRO closure but decreases volumes on other congested segments of the Parkway	1	NA	0	NA	0
	Degree to which the alternative enhances travel for multiple modes	NA	0	NA	0	NA	0	Significantly enhances pedestrian and bicyclists crossing of the Parkway	2
3	Ability to meet ODOT v/c targets	While not meeting V/C targets, nearly all ramp terminal intersection improve significantly along with merge/diverge locations, leading to a score of 2	2	Improves v/c by removing at-grade RIRO access but shifts some additional traffic demand to ramp terminals	1	Qualitative Assumption, HCS v/c analysis is not influenced by accel/decel lane length	1	NA	0
	Ability to meet Bend mobility standards (v/c ratios and LOS)	No significant improvements, and some degraded operations at over capacity intersections	-1	See RIRO analysis appendix for impacts to local street system	-1	NA	0	NA	0
4	Travel Time Reliability for specific routes	Shifts traffic to 3rd Street, which was identified as an unreliable route in the Bend TSP analysis	-1	Shifts traffic to 3rd Street and other key routes, which was identified as an unreliable route in the Bend TSP analysis	-1	NA	0	NA	0
	Peak Hour VMT by street classification	Slight decrease in VMT on local facilities (-1.4% on collectors, -1.5% on arterials when comparing Bundle C against RIRO closures assignment)	1	Slight increase in VMT on local facilities (1% on collectors, 1% on arterials when comparing RIRO closure assignment against Bundle C)	-1	NA	0	NA	0
5	Number of bike and pedestrian crossing locations on the Bend Parkway with low Level of Traffic Stress (LTS 2 or lower)	NA	0	NA	0	NA	0	Significantly increases pedestrian and bicyclists low-stress crossing opportunities of the Parkway	2
	Miles of north-south bike and pedestrian facilities with low Level of Traffic Stress within 0.25 miles of the Bend Parkway	NA	0	NA	0	NA	0	NA	0
	Does the alternative allow for TDM strategies?	Ramp metering is a management strategy for the Parkway	2	Would allow for ramp metering of the Parkway	1	NA	0	Enhances bicycle and pedestrian network to encourage mode shift as a TDM strategy	1
6	Total PM peak hour vehicle delay (veh-hrs)	Unserved demand and total delay decrease significantly between Bundle C and No-Build microsimulation models, as shown in Vissim Protocol Document	2	Unserved demand and total delay decrease significantly between Bundle C and No-Build microsimulation models, as shown in Vissim Protocol Document	2	NA	0	NA	0
	Total PM peak hour vehicle miles traveled (regional measure)	Travel demand model shows 2% regional decrease in PM peak hour VMT between Bundle C and RIRO Closure BRM Models	1	Travel demand model shows 2% regional increase in PM peak hour VMT between RIRO BRM Assignment and No-Build	-1	NA	0	NA	0
	Approximate degree of right of way impacts (order of magnitude costs)	Likely no ROW impacts	1	Likely no ROW impacts	1	Minimal impacts	0	Minimal impacts (some projects have no ROW impact while others may have larger ROW impacts)	0
7	Total cost	\$100,000 - \$250,000 per location	1	\$50,000 - \$250,000 per location	2	\$1,000,000 - \$5,000,000	2	Varies by project, some <\$5 million, other more than \$10 million	1
	Reduction in economic cost of delay and crashes	Significant reduction in cost of delay and crashes	2	Significant reduction in cost of delay and crashes	2	Moderate reduction in cost of crashes	1	Moderate reduction in cost of crashes	1
	Does alternative leverage existing planned projects and programs?	NA	0	NA	0	NA	0	NA	0
8	Can the alternative be divided into fundable and constructible phases?	Ramp meters can be added in phases as needed.	1	RIRO closure can happen individually in phases	1	Improvements can happen individually in phases	1	Improvements can happen individually in phases and many are easily fundable	2
	Does the alternative have local agency support?	Yes, on TSP update 2040 project list (pending analysis from the Parkway Study)	1	Yes, on TSP update 2040 project list (pending analysis from the Parkway Study)	1	Not included on City project lists	0	Yes, many of the improvements are identified on the TSP update 2040 project list or are located on the City's proposed bicycle low stress network	1
Evaluation Total		19		17		7		16	

Table 2. Corridor Wide Projects Evaluation Rating (continued)

Goal	Evaluation Criteria (Level 2)	Corridor Wide Projects Evaluation Rating									
		Shoulders Built to Standard	Weather Warning System	Variable Speed Signs	Incident Mgmt.	Enhanced Signal Operations at Ramp Terminals					
1	Reduction in crash frequency (all modes)	5-15%	2		2	8-29%	2	~3%	2	No numerical analysis, but likely safety benefits due to measures such as queue dumps that remove standing vehicles from the mainline.	2
	Reduction in crash severity (all modes)	NA	0	NA	0	NA	0	NA	0	Assumes it is used to prevent ramp queues from backing into the mainline, preventing high-severity crashes.	2
2	Travel Time Reliability measures on the Bend Parkway (planning time index)	Reduce incident-induced delay by nearly 40%.	1	5% improvement in TTI(m); up to 200 person-hours of buffer travel time saved per event	2	NA	0	NA	2	NA	0
	Percent through traffic on congested segments (modeled demand/capacity ratio > 1.0) of the Bend Parkway	NA	0	NA	0	NA	0	NA	0	NA	0
	Degree to which the alternative enhances travel for multiple modes (qualitative assessment)	NA	0	NA	0	NA	0	NA	0	NA	0
3	Ability to meet ODOT v/c targets	NA	0	NA	0	NA	0	NA	0	NA	0
	Ability to meet Bend mobility standards (v/c ratios and LOS)	NA	0	NA	0	NA	0	NA	0	NA	0
4	Travel Time Reliability measures (planning time index) for specific routes during PM peak hour	NA	0	NA	0	NA	0	NA	0	NA	0
	Peak Hour VMT by street classification	NA	0	NA	0	NA	0	NA	0	NA	0
5	Number of bike and pedestrian crossing locations on the Bend Parkway with low Level of Traffic Stress (LTS 2 or lower)	NA	0	NA	0	NA	0	NA	0	NA	0
	Miles of north-south bike and pedestrian facilities with low Level of Traffic Stress within 0.25 miles of the Bend Parkway	NA	0	NA	0	NA	0	NA	0	NA	0
	Does the alternative allow for transportation demand management strategies?	NA	0	NA	0	NA	0	NA	0	NA	0
6	Total PM peak hour vehicle delay (vehicle hours)	8% reduction in overall delay.	1	Hundreds of person-hours per weather event.	2	Unquantified though expected due to reduced collisions.	1	13,000 hours of vehicle-delay per year.	2	NA	0
	Total PM peak hour vehicle miles traveled (regional measure)	NA	0	NA	0	NA	0	NA	0	NA	0
	Approximate degree of right of way impacts (order of magnitude costs)	Potential impacts in locations with shoulders currently less than 6 feet.	1	Likely small ROW impacts.	2	Likely small ROW impacts.	2	No ROW impacts.	2	No ROW impacts.	2
7	Total cost	\$2,000,000 - \$10,000,000	1	\$5,000 - \$450,000 per sign	2	\$500,000 - \$1,500,000 per sign	2	\$50,000 - \$500,000 per year	2	\$50,000 - \$100,000	2
	Reduction in economic cost of delay and crashes	Significant reduction in cost of delay and safety	2	Significant reduction in cost of delay and safety	2	Significant reduction in cost of delay and safety	2	Significant reduction in cost of delay and safety	2	Reduction in cost due to safety benefits	1
	Does alternative leverage existing planned projects and programs?	No current plans.	0	No current plans.	0	Existing plans to implement VSL along US 97.	1	Some existing coverage in Bend, via maintenance vehicles.	1	No current plans.	0
8	Can the alternative be separated into reasonably fundable and constructible phases?	Can be included with other projects along US 97 very easily.	2	Can be implemented in stages.	2	Can be implemented in stages.	2	Can be expanded in stages.	2	Can be implemented in stages.	2
	Does the alternative have local agency support?	Not explicitly included in the Bend TSP.	0	Included in Bend TSP.	1	Included in Bend TSP.	1	Included in Bend TSP.	1	Included in Bend TSP.	1
Evaluation Total		10		15		13		16		12	

Table 3. Corridor Wide Projects Evaluation Rating (continued)

Goal	Evaluation Criteria (Level 2)	Corridor Wide Projects Evaluation Rating							
		Transit Signal Priority		Freight Signal Priority		Travel Info. Signing		Roadside Traveler Info. Dissemination	
1	Reduction in crash frequency (all modes)	NA	0	NA	0	NA	0	NA	0
	Reduction in crash severity (all modes)	NA	0	NA	0	NA	0	NA	0
2	Travel Time Reliability measures on the Bend Parkway (planning time index)	NA	0	NA	0	NA	0	NA	0
	Percent through traffic on congested segments (modeled demand/capacity ratio > 1.0) of the Bend Parkway	NA	0	NA	0	NA	0	NA	0
	Degree to which the alternative enhances travel for multiple modes (qualitative assessment)	TSP improves efficiency and reliability of transit service, potentially increasing ridership.	1	While this criterion doesn't fit freight well, freight does align with the overall goal well, so we'll give it a point.	1	NA	0	NA	0
3	Ability to meet ODOT v/c targets	NA	0	NA	0	NA	0	NA	0
	Ability to meet Bend mobility standards (v/c ratios and LOS)	NA	0	NA	0	NA	0	NA	0
4	Travel Time Reliability measures (planning time index) for specific routes during PM peak hour	NA	0	NA	0	NA	0	NA	0
	Peak Hour VMT by street classification	NA	0	NA	0	NA	0	NA	0
5	Number of bike and pedestrian crossing locations on the Bend Parkway with low Level of Traffic Stress (LTS 2 or lower)	NA	0	NA	0	NA	0	NA	0
	Miles of north-south bike and pedestrian facilities with low Level of Traffic Stress within 0.25 miles of the Bend Parkway	NA	0	NA	0	NA	0	NA	0
	Does the alternative allow for transportation demand management strategies?	TSP improves efficiency and reliability of transit service, potentially increasing ridership.	1	NA	0	Signage can direct to alternative modes and mode access, such as park and ride lots.	1	NA	0
6	Total PM peak hour vehicle delay (vehicle hours)	Reduced transit delay, but no improvements for SOV.	0	Reduced delay for commercial freight vehicles, but no improvements for SOV.	0	NA	0	3-7% reduction in delay.	1
	Total PM peak hour vehicle miles traveled (regional measure)	NA	0	NA	0	NA	0	NA	0
	Approximate degree of right of way impacts (order of magnitude costs)	No ROW impacts.	2	No ROW impacts.	2	Likely small ROW impacts.	2	Likely small ROW impacts.	2
7	Total cost	\$8,000 - \$35,000 per signal	2	\$8,000 - \$35,000 per signal	2	\$2,000 - \$30,000	2	\$50,000 - \$500,000 per sign	2
	Reduction in economic cost of delay and crashes	NA	0	NA	0	NA	0	NA	0
	Does alternative leverage existing planned projects and programs?	No current plans.	0	No current plans.	0	No current plans.	1	No current plans.	1
8	Can the alternative be separated into reasonably fundable and constructible phases?	Can be implemented in stages.	2	Can be implemented in stages or as part of another project.	2	Can be implemented in stages.	2	Can be implemented in stages.	2
	Does the alternative have local agency support?	Included in Bend TSP.	1	Included in Bend TSP.	1	Included in Bend TSP.	1	Included in Bend TSP.	1
Evaluation Total		9		8		9		9	

Table 4. North Study Area Project Evaluation Rating

Goal	Evaluation Criteria (Level 2)	North Study Area Project Evaluation Rating	
		North Corridor FEIS Improvements	
1	Reduction in crash frequency (all modes)	-70%	4
	Reduction in crash severity (all modes)	-77%	4
2	Travel Time Reliability measures on the Bend Parkway (planning time index)	Significantly improves reliability on the North Parkway (Peak PTI improves from 3.1 to 1.0)	2
	Percent through traffic on congested segments (modeled demand/capacity ratio > 1.0) of the Bend Parkway	Reduces all congested segments on the North Parkway	2
	Degree to which the alternative enhances travel for multiple modes (qualitative assessment)	Adds separated pedestrian and bicyclist facilities and improves congestion for motor vehicles	1
3	Ability to meet ODOT v/c targets	Improved multiple intersections to meet ODOT mobility standards	2
	Ability to meet Bend mobility standards (v/c ratios and LOS)	Degrade operations on 3rd, but improves operations in the Triangle, net negligible score	0
4	Travel Time Reliability measures (planning time index) for specific routes during PM peak hour	Degrades travel time reliability on 3rd (US 20)	-1
	Peak Hour VMT by street classification	Slight increase in VMT on North 3rd Street/Parkway without corresponding decrease on local system	-1
5	Number of bike and pedestrian crossing locations on the Bend Parkway with low Level of Traffic Stress (LTS 2 or lower)	Adds grade-separated crossings of the Parkway	2
	Miles of north-south bike and pedestrian facilities with low Level of Traffic Stress within 0.25 miles of the Bend Parkway	Adds parallel multi-use (low-stress) path to the Parkway	2
	Does the alternative allow for transportation demand management strategies?	NA	0
6	Total PM peak hour vehicle delay (vehicle hours)	Significantly reduces delay on the Parkway (entire North Parkway under capacity in model)	2
	Total PM peak hour vehicle miles traveled (regional measure)	No significant change in total VMT	0
	Approximate degree of right of way impacts (order of magnitude costs)	Extensive ROW impacts	-2
7	Total cost	\$150,000,000 - \$250,000,000	-2
	Reduction in economic cost of delay and crashes	Significant reduction in cost of delay and crashes	2
	Does alternative leverage existing planned projects and programs?	Yes, Phase 1 of the FEIS is already funded	1
8	Can the alternative be separated into reasonably fundable and constructible phases?	Yes, Phase 1 of the FEIS is already funded	1
	Does the alternative have local agency support?	Yes, on TSP update 2040 project list	1
Evaluation Total		20	

Table 5. Central Study Area Projects Evaluation Rating

Goal	Evaluation Criteria (Level 2)	Central Study Area Projects Evaluation Rating			
		US 97 Mainline Projects			
		Southbound Auxiliary Lane from Empire Blvd.		Northbound Auxiliary Lane from 3rd St. to	
1	Reduction in crash frequency (all modes)	-21% (CMF for Aux Lane)	2	-21% (CMF for Aux Lane)	2
	Reduction in crash severity (all modes)	-21% (CMF for Aux Lane)	2	-21% (CMF for Aux Lane)	2
2	Travel Time Reliability measures on the Bend Parkway (planning time index)	Minor improvement (3%) in travel time reliability on segment with auxiliary lane. No significant improvements to larger Parkway conditions.	1	Minor improvement (3%) in travel time reliability on segment with auxiliary lane. No significant improvements to larger Parkway conditions.	1
	Percent through traffic on congested segments (modeled demand/capacity ratio > 1.0) of the Bend Parkway	Improves capacity to reduce congested segments compared to No Build	2	Improves capacity to reduce congested segments compared to No Build	2
	Degree to which the alternative enhances travel for multiple modes (qualitative assessment)	NA	0	NA	0
3	Ability to meet ODOT v/c targets	Similar to the NB auxiliary lane	2	1.27 to 0.82	2
	Ability to meet Bend mobility standards (v/c ratios and LOS)	NA	0	NA	0
4	Travel Time Reliability measures (planning time index) for specific routes during PM peak hour	No significant impact to reliability on key routes	0	No significant impact to reliability on key routes	0
	Peak Hour VMT by street classification	NA	0	NA	0
5	Number of bike and pedestrian crossing locations on the Bend Parkway with low Level of Traffic Stress (LTS 2 or lower)	NA	0	NA	0
	Miles of north-south bike and pedestrian facilities with low Level of Traffic Stress within 0.25 miles of the Bend Parkway	NA	0	NA	0
	Does the alternative allow for transportation demand management strategies?	NA	0	NA	0
6	Total PM peak hour vehicle delay (vehicle hours)	Increases capacity on congested segments	1	Increases capacity on congested segments	1
	Total PM peak hour vehicle miles traveled (regional measure)	NA	0	NA	0
	Approximate degree of right of way impacts (order of magnitude costs)	Likely no ROW impacts	1	Likely no ROW impacts	1
7	Total cost	\$1,000,000 - \$2,000,000	2	\$1,000,000 - \$3,000,000	2
	Reduction in economic cost of delay and crashes	Moderate reduction in cost of delay	1	Moderate reduction in cost of delay	1
	Does alternative leverage existing planned projects and programs?	Yes, part of the FEIS Preferred Design	1	Yes, part of the FEIS Preferred Design	1
8	Can the alternative be separated into reasonably fundable and constructible phases?	Likely fundable/ constructible in a single phase	1	Likely fundable/ constructible in a single phase	1
	Does the alternative have local agency support?	Yes, on TSP update 2040 project list (combined into project to implement Parkway Study recommendations)	1	Yes, on TSP update 2040 project list (combined into project to implement Parkway Study recommendations)	1
Evaluation Total		17		17	

Table 6. Central Study Area Projects Evaluation Rating (continued)

Goal	Evaluation Criteria (Level 2)	Central Study Area Projects Evaluation Rating									
		Butler Market Rd. Projects									
		Southbound Frontage Rd. to Interchange		Southbound Off-ramp Traffic Signal		Southbound Off-ramp Formalized		Butler Market/ 4th St. Traffic		Butler Market/ 4th St. Roundabout	
1	Reduction in crash frequency (all modes)	-18%	2	-20%	2	0%	0	NA	0	NA	0
	Reduction in crash severity (all modes)	-19%	2	-21%	2	0%	0	NA	0	NA	0
2	Travel Time Reliability measures on the Bend Parkway (planning time index)	NA, not on Parkway mainline	1	NA, not on Parkway mainline	1	NA, not on Parkway mainline	0	NA, not on Parkway	0	NA, not on Parkway	0
	Percent through traffic on congested segments (modeled demand/capacity ratio > 1.0) of the Bend Parkway	Does not significantly draw traffic from the Parkway and those segments are uncongested in the model	0	NA, not on Parkway mainline	0	NA, not on Parkway mainline	0	NA, not on Parkway	0	NA, not on Parkway	0
	Degree to which the alternative enhances travel for multiple modes (qualitative assessment)	Adds connectivity for bicyclists, pedestrians and motor vehicles	1	NA	0	NA	0	NA	0	NA	0
3	Ability to meet ODOT v/c targets	NA/1.30 to 0.75	2	NA/1.30 to 0.69	2	No change	0	NA	0	NA	0
	Ability to meet Bend mobility standards (v/c ratios and LOS)	SB On-Ramp/Division/3rd 1.37 to 0.88	1	No change	0	No change	0	1.72 to 0.89	2	1.72 to 0.76	2
4	Travel Time Reliability measures (planning time index) for specific routes during PM peak hour	Improves reliability on Butler Market Rd. and US 20/3rd St. (both corridors identified as unreliable in TSP analysis)	1	No significant impact to reliability on key routes	0	No significant impact to reliability on key routes	0	Improves reliability on Butler Market Rd. (corridor identified as unreliable in	1	Improves reliability on Butler Market Rd. (corridor identified as unreliable in TSP analysis)	1
	Peak Hour VMT by street classification	NA	0	NA	0	NA	0	NA	0	NA	0
5	Number of bike and pedestrian crossing locations on the Bend Parkway with low Level of Traffic Stress (LTS 2 or lower)	Bike LTS/Ped LTS Improvement - 1/0	1	Bike LTS/Ped LTS Improvement - 0/1	1	No change	0	NA	0	NA	0
	Miles of north-south bike and pedestrian facilities with low Level of Traffic Stress within 0.25 miles of the Bend Parkway	Adds north-south low stress pedestrian and bicycle facility parallel to the Parkway (limited connectivity)	1	NA	0	NA	0	NA	0	NA	0
	Does the alternative allow for transportation demand management strategies?	NA	0	NA	0	NA	0	NA	0	NA	0
6	Total PM peak hour vehicle delay (vehicle hours)	LOS F to B	2	LOS F to B	2	No change	0	LOS F to C	2	LOS F to C	2
	Total PM peak hour vehicle miles traveled (regional measure)	NA	0	NA	0	NA	0	NA	0	NA	0
	Approximate degree of right of way impacts (order of magnitude costs)	Limited impact	0	Likely no ROW impacts	1	No ROW impacts	2	Likely no ROW impacts	1	Likely no ROW impacts	1
7	Total cost	\$7,250,000	1	\$1,100,000	2	\$765,000	2	\$500,000 - \$1,000,000	2	\$500,000 - \$1,000,000	2
	Reduction in economic cost of delay and crashes	Moderate reduction in cost of crashes and delay	1	Moderate reduction in cost of crashes and delay	1	No change in cost of crashes or delay	0	Moderate reduction in cost of delay	1	Moderate reduction in cost of delay	1
	Does alternative leverage existing planned projects and programs?	NA	0	NA	0	NA	0	NA	0	NA	0
8	Can the alternative be separated into reasonably fundable and constructible phases?	Likely fundable/ constructible in a single phase	1	Likely fundable/ constructible in a single phase	1	Likely fundable/ constructible in a single phase	1	Likely fundable/ constructible in a single phase	1	Likely fundable/ constructible in a single phase	1
	Does the alternative have local agency support?	Yes, included in the City's new Transportation Safety Action Plan	1	Not on City project lists, but TSAP project would likely necessitate this	1	Not on City project lists	0	Not on City project lists	0	Not on City project lists	0
Evaluation Total		18		16		5		10		10	

Table 7. Central Study Area Projects Evaluation Rating (continued)

Goal	Evaluation Criteria (Level 2)	Central Study Area Projects Evaluation Rating					
		Revere Ave. Projects		Colorado Ave. Projects			
		Lane Channelization		Diamond Interchange		Northbound Ramps Traffic Signal or	
1	Reduction in crash frequency (all modes)	NA	0	-5% (CMF)	2	-5% (CMF)	2
	Reduction in crash severity (all modes)	NA	0	-36% (CMF)	4	-36% (CMF)	4
2	Travel Time Reliability measures on the Bend Parkway (planning time index)	NA, not on Parkway mainline	0	NA, not on Parkway mainline	0	NA, not on Parkway mainline	0
	Percent through traffic on congested segments (modeled demand/capacity ratio > 1.0) of the Bend Parkway	NA, not on Parkway mainline	0	NA, not on Parkway mainline	0	NA, not on Parkway mainline	0
	Degree to which the alternative enhances travel for multiple modes (qualitative assessment)	Significantly improves travel for bicyclists and reduces stress for pedestrians	2	NA	0	NA	0
3	Ability to meet ODOT v/c targets	0.99 to 1.06	-1	1.17/1.29 to 0.78/0.74	2	1.17/1.29 to 1.05/0.84	2
	Ability to meet Bend mobility standards (v/c ratios and LOS)	No change	0	NA	0	NA	0
4	Travel Time Reliability measures (planning time index) for specific routes during PM peak hour	No significant impact to reliability on key routes	0	Improves reliability on Colorado Ave. (corridor identified as unreliable in TSP analysis)	1	Improves reliability on Colorado Ave. (corridor identified as unreliable in TSP analysis)	1
	Peak Hour VMT by street classification	NA	0	NA	0	NA	0
5	Number of bike and pedestrian crossing locations on the Bend Parkway with low Level of Traffic Stress (LTS 2 or lower)	No change	0	Bike LTS/Ped LTS Improvement - 1/2	2	Bike LTS/Ped LTS Improvement - 1/2	2
	Miles of north-south bike and pedestrian facilities with low Level of Traffic Stress within 0.25 miles of the Bend Parkway	NA	0	NA	0	NA	0
	Does the alternative allow for transportation demand management strategies?	NA	0	NA	0	NA	0
6	Total PM peak hour vehicle delay (vehicle hours)	No change	1	LOS F/F to C/D	2	LOS F/F to D/C	2
	Total PM peak hour vehicle miles traveled (regional measure)	NA	0	NA	0	NA	0
	Approximate degree of right of way impacts (order of magnitude costs)	No ROW impacts	2	Extensive ROW impacts	-2	Limited impact	0
7	Total cost	\$500,000 - \$2,000,000	2	\$20,600,000	-2	\$500,000 - \$1,500,000	2
	Reduction in economic cost of delay and crashes	No change in cost of crashes or delay	0	Significant reduction in cost of delay and crashes	2	Moderate reduction in cost of crashes and delay	1
	Does alternative leverage existing planned projects and programs?	Helps to build out the City LSN for bicycles	1	Ramps would conflict with Aune Extension under consideration in TSP and Core Area Plan	-1	NA	0
8	Can the alternative be separated into reasonably fundable and constructible phases?	Likely fundable/ constructible in a single phase	1	Difficult to fund in phases and expensive project (-2 score for total cost)	-2	Likely fundable/ constructible in a single phase	1
	Does the alternative have local agency support?	Yes, on City's Low Stress Bicycle Network	1	Not on City project lists	0	Yes, on TSP update 2040 project list	1
Evaluation Total		9		8		18	

Table 8. South Study Area Projects Evaluation Rating

Goal	Evaluation Criteria (Level 2)	South Study Area Projects Evaluation Rating							
		Reed Market Rd. Projects							
		Reed Market Rd./ 3rd St. Dedicated Left		Northbound Ramps Traffic Signal or		Single-Point Urban Interchange		Widen Northbound Off-ramp	
1	Reduction in crash frequency (all modes)	-10% (CMF)	2	-4%	2	Similar improvement to signalizing and widening northbound ramp	2	-4%	2
	Reduction in crash severity (all modes)	-10% (CMF)	2	0%	0	Similar improvement to signalizing and widening northbound ramp	0	0%	0
2	Travel Time Reliability measures on the Bend Parkway (planning time index)	NA, not on Parkway	0	Reduces queue spillback onto Parkway as shown in microsimulation	1	Reduces queue spillback onto Parkway as shown in microsimulation	1	Reduces queue spillback onto Parkway as shown in microsimulation	1
	Percent through traffic on congested segments (modeled demand/capacity ratio > 1.0) of the Bend Parkway	NA, not on Parkway mainline	0	NA, not on Parkway mainline	0	NA, not on Parkway mainline	0	NA, not on Parkway mainline	0
	Degree to which the alternative enhances travel for multiple modes (qualitative assessment)	NA	0	NA	0	NA	0	NA	0
3	Ability to meet ODOT v/c targets	NA	0	V/C ratio changes from NA/2.00 to 0.89	1	V/C ratio changes from NA/2.00 to 0.76	2	NA	0
	Ability to meet Bend mobility standards (v/c ratios and LOS)	1.52 to 1.31	1	No change	0	No change	0	NA	0
4	Travel Time Reliability measures (planning time index) for specific routes during PM peak hour	Potential to improve reliability along 3rd St. and Reed Market Rd. (both identified as unreliable in the Bend TSP analysis)	1	No significant impact to reliability on key routes	0	No significant impact to reliability on key routes	0	No significant impact to reliability on key routes	0
	Peak Hour VMT by street classification	NA	0	NA	0	NA	0	NA	0
5	Number of bike and pedestrian crossing locations on the Bend Parkway with low Level of Traffic Stress (LTS 2 or lower)	NA	0	Bike LTS/Ped LTS Improvement - 2/1	2	Bike LTS/Ped LTS Improvement - 2/-1, reduces protected crossing on Reed Market, net score of 0	0	NA	0
	Miles of north-south bike and pedestrian facilities with low Level of Traffic Stress within 0.25 miles of the Bend Parkway	NA	0	NA	0	NA	0	NA	0
	Does the alternative allow for transportation demand management strategies?	NA	0	NA	0	NA	0	NA	0
6	Total PM peak hour vehicle delay (vehicle hours)	Reduces v/c, indicates some improvement to delay	1	F to A. However, the queues from 3rd still back up through the intersection as shown in the Vissim queue plots, lessening the delay benefit	1	F to C, queueing from 3rd mitigated	2	NA	0
	Total PM peak hour vehicle miles traveled (regional measure)	NA	0	NA	0	NA	0	NA	0
	Approximate degree of right of way impacts (order of magnitude costs)	Moderate ROW impacts	-1	Likely no ROW impacts	1	Moderate ROW impacts	-1	Moderate ROW impacts	-1
7	Total cost	\$1,000,000 - \$2,000,000	2	\$700,000 - \$2,000,000	2	\$38,400,000	-2	\$2,400,000	2
	Reduction in economic cost of delay and crashes	Moderate reduction in cost of crashes and delay	1	Moderate reduction in cost of crashes and delay	1	Moderate reduction in cost of crashes and delay	1	Moderate reduction in cost of crashes	1
	Does alternative leverage existing planned projects and programs?	Yes, this is a funded but undefined CIP project	1	None	0	None	0	None	0
8	Can the alternative be separated into reasonably fundable and constructible phases?	Likely fundable/ constructible in a single phase	1	Likely fundable/ constructible in a single phase	1	Difficult to fund in phases and expensive project (-2 score for total cost)	-2	Likely fundable/ constructible in a single phase	1
	Does the alternative have local agency support?	Yes, on TSP update 2040 project list	1	Yes, on TSP update 2040 project list as Reed Market interchange project (pending analysis from Parkway Study)	1	Yes, on TSP update 2040 project list as Reed Market interchange project (pending analysis from Parkway Study)	1	Yes, on TSP update 2040 project list as Reed Market interchange project (pending analysis from Parkway Study)	1
Evaluation Total		12		13		4		7	

Table 9. South Study Area Projects Evaluation Rating

Goal	Evaluation Criteria (Level 2)	South Study Area Projects Evaluation Rating											
		Powers Rd. Projects				China Hat Rd. Projects				Baker Rd./ Knott Rd. Projects			
		Overcrossing		Interchange		Overcrossing		Frontage Road		Traffic Signals at Ramp		Roundabouts at Ramp Terminals	
1	Reduction in crash frequency (all modes)	-100%	4	-34% (CMF avg)	2	-100%	4	0%	0	-5% (CMF)	2	-1%	2
	Reduction in crash severity (all modes)	-100%	4	-28% (CMF avg)	2	-100%	4	0%	0	-36% (CMF)	4	-11%	2
2	Travel Time Reliability measures on the Bend Parkway (planning time index)	Removes congestion bottleneck at Powers Road, Improving TTR by -1.04	2	Removes congestion bottleneck at Powers Road, Improving TTR by -1.04	2	Removes at-grade impacts of China Hat/Ponderosa from the Parkway	1	NA, not on Parkway	0	NA, not on Parkway mainline	0	NA, not on Parkway mainline	0
	Percent through traffic on congested segments (modeled demand/capacity ratio > 1.0) of the Bend Parkway	Reduces congestion on over capacity segment by removing at-grade intersection	1	Reduces congestion on over capacity segment by removing at-grade intersection	1	NA, not on congested segment	0	NA, not on Parkway	0	NA, not on Parkway mainline	0	NA, not on Parkway mainline	0
	Degree to which the alternative enhances travel for multiple modes (qualitative assessment)	Improves crossing for pedestrians and bicyclists; improves congestion for motor vehicles	1	Improves crossing for pedestrians and bicyclists; improves congestion for motor vehicles	1	Adds crossing for pedestrians and bicyclists; improves congestion for motor vehicles	2	NA	0	NA	0	NA	0
3	Ability to meet ODOT v/c targets	NA	0	V/C ratio changes from 1.24/0.09 to 0.84/0.57	2	Adds another east-west connection for traffic	1	NA	0	V/C ratio changes from 1.26/2.00 to 0.63/0.80	2	V/C ratio changes from 1.26/2.00 to 0.79/0.80	2
	Ability to meet Bend mobility standards (v/c ratios and LOS)	Traffic will be diverted to local system because they can no longer enter the Parkway at this location	-2	No change	0	Adds another east-west connection for traffic	1	NA	0	NA	0	NA	0
4	Travel Time Reliability measures (planning time index) for specific routes during PM peak hour	Traffic diverted to 3rd St, which was identified as an unreliable route in the Bend TSP analysis	-1	Draws traffic from Reed Market Rd. corridor with improved connectivity to improve reliability (Reed Market Rd. identified as an unreliable corridor in the TSP analysis)	1	No significant impact to reliability on key routes	0	No significant impact to reliability on key routes	0	No significant impact to reliability on key routes	0	No significant impact to reliability on key routes	0
	Peak Hour VMT by street classification	Traffic diverted to local system, increasing VMT on local system	-1	NA	0	Shifts traffic off Parrell Road	2	No obvious shift	0	NA	0	NA	0
5	Number of bike and pedestrian crossing locations on the Bend Parkway with low Level of Traffic Stress (LTS 2 or lower)	Bikes/peds are no longer required to cross the busy ramp terminals	2	Bike LTS/Ped LTS Improvement - 1/1	1	Adds low-stress crossing (grade-separated) of the Parkway	2	NA	0	Bike LTS/Ped LTS Improvement - 2/2	2	Bike LTS/Ped LTS Improvement - 1/2	2
	Miles of north-south bike and pedestrian facilities with low Level of Traffic Stress within 0.25 miles of the Bend Parkway	NA	0	NA	0	NA	0	Adds north-south low-stress bicycle and pedestrian facilities paralleling the Parkway	2	NA	0	NA	0
	Does the alternative allow for transportation demand management strategies?	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0
6	Total PM peak hour vehicle delay (vehicle hours)	NA	0	F/F to C/B	2	Reduces delay due to added connectivity	1	NA	0	F/F to C/C	1	F/F to B/B	2
	Total PM peak hour vehicle miles traveled (regional measure)	Traffic diverted to local system, increasing VMT	-1	NA	0	NA	0	NA	0	NA	0	NA	0
	Approximate degree of right of way impacts (order of magnitude costs)	Moderate ROW impacts	-1	Extensive ROW impacts	-2	Moderate ROW impacts	-1	Extensive ROW impacts, including conflict with railroad	-2	Limited impact	0	Limited impact	0
7	Total cost	\$15,000,000	-1	\$21,700,000	-2	\$12,500,000	0	\$5,000,000 - \$10,000,000	1	\$1,000,000 - \$2,000,000	2	\$1,000,000 - \$2,000,000	2
	Reduction in economic cost of delay and crashes	Significant reduction in cost of crashes	2	Significant reduction in cost of delay and crashes	2	Moderate reduction in cost of crashes	1	No significant change	0	Moderate reduction in cost of crashes and delay	1	Significant reduction in cost of crashes and delay	2
	Does alternative leverage existing planned projects and programs?	None	0	None	0	Yes, ties into the Murphy Interchange future frontage road system	1	Yes, ties into the Murphy Interchange future frontage road system	1	None	0	None	0
8	Can the alternative be separated into reasonably fundable and constructible phases?	Difficult to fund in phases and moderately expensive project (-1 score for total cost)	-1	Difficult to fund in phases and expensive project (-2 score for total cost)	-2	Difficult to fund in phases and somewhat expensive project (0 score for total cost)	-1	Can likely be funded/constructed in multiple phases as development occurs	1	Likely fundable/constructible in a single phase	1	Likely fundable/constructible in a single phase	1
	Does the alternative have local agency support?	Not on City project lists	0	Yes, on TSP update 2040 project list (pending analysis from the Parkway Study)	1	Yes, on TSP update 2040 project list	1	Yes, on TSP update 2040 project list	1	Not on City project lists	0	Not on City project lists	0
Evaluation Total		8		11		19		4		15		15	