

OR 42 Improvement Concepts – Summary Evaluation Matrix

5-16-12

ID	Location	General Description	Purpose	Traffic Operations and Safety ^{1,2,3}	Basic Roadway Geometry and Right of Way ⁴	Environmental and Land Use ⁵	Cost Opinion ⁶
Multi-Modal Improvement Concepts							
1	Lookingglass Rd to OR 99/Grant Smith Rd (MP 73.88-76.22)	Enhance bicycle and pedestrian facilities along the south side of OR 42 <u>Option A:</u> <ul style="list-style-type: none"> Stripe an eastbound bike lane on south side of the Roadway Provide a buffered sidewalk for pedestrians <u>Option B:</u> <ul style="list-style-type: none"> Provide two-way, multi-use path with buffer from expressway traffic 	Provide facilities along OR 42 for all modes of travel	<ul style="list-style-type: none"> Current ADT: 15,000 to 23,000 vpd Forecast ADT: 22,000 to 31,000 vpd <u>Option A:</u> <ul style="list-style-type: none"> Buffered sidewalks improve safety of pedestrians Bike lanes provide clearly defined travel way for bicyclists Reduces need for pedestrians and bicyclist to cross the highway to access the multi-use path on north side <u>Option B:</u> <ul style="list-style-type: none"> Buffered multi-use path improve safety of pedestrians Bicyclist are also separated from traffic providing greater safety improvement than Option A Consistent with the Oregon Bicycle and Pedestrian Design Guidelines recommendations, and would increase safety for vulnerable users 	<ul style="list-style-type: none"> Both options could be within the available ROW Both options would include illumination for the new facilities along the south side of OR 42 <u>Option A:</u> <ul style="list-style-type: none"> Includes 8' right shoulder, 6' buffer, a 6' landscape buffer, and a 6' sidewalk Drainage improvements Assumes no retaining walls would be required <u>Option B:</u> <ul style="list-style-type: none"> Includes 10' multi-use path with 5' buffer Assumes that no retaining walls would be required 	<ul style="list-style-type: none"> South Umpqua River is riparian corridor with aquatic habitat, wildlife habitat, and wetlands Impacts to wetlands should be avoided; mitigation and permitting will be necessary if impacts cannot be avoided 	<u>Option A:</u> <ul style="list-style-type: none"> \$5.5 Million Does not include costs for widening bridges or lengthening culverts <u>Option B:</u> <ul style="list-style-type: none"> \$3.8 Million Does not include costs for widening bridges or lengthening culverts
2	Lookingglass Rd to OR 99/Grant Smith Rd (MP 73.88-76.22)	Install Roadway lighting at key locations	Enhance visibility and safety in the corridor	<ul style="list-style-type: none"> Current ADT: 15,000 to 23,000 vpd Forecast ADT: 22,000 to 31,000 vpd Improved safety and security for all modes Improved visibility for bicyclists on Roadway, pedestrians on sidewalks and crossing Roadways, and at transit stops 	<ul style="list-style-type: none"> Improvements included in this concept would occur within the available right of way (ROW). 	<ul style="list-style-type: none"> There are not any anticipated environmental or land use impacts associated with the proposed lighting improvements. Lighting spillover and skyglow may reach adjacent properties. 	<ul style="list-style-type: none"> Specific costs are dependent on number of locations identified and will be determined as the preferred concept is identified
3	Winston Section Rd (MP 74.34)	Connect Winston Section Rd to the multi-use path on the north side of OR 42 with a multi-use path undercrossing near the South Umpqua River (under bridge)	Provide a safe route for bicyclists and pedestrians to cross OR 42	<ul style="list-style-type: none"> Current ADT: 17,100 vpd Forecast ADT: 24,400 vpd Undercrossing minimizes likelihood that pedestrians and bicycles will cross OR 42 at uncontrolled at-grade locations Improves safety for vulnerable users, and increase the attractiveness of alternative travel modes Undercrossing users would have some out-of-direction travel to connect between the multi-use path and Winston Section Rd Would connect to bicycle and pedestrian facilities on the south side of OR 42 if constructed with Concept 1 	<ul style="list-style-type: none"> Proposed pathway and undercrossing can be constructed within the existing ROW Pathway would be approximately 1,000' long, with a typical width of 10' Minimal excavation would be required because of the existing terrain 	<ul style="list-style-type: none"> South Umpqua River is riparian corridor with aquatic habitat, wildlife habitat, and wetlands Area underneath the bridges is already heavily disturbed by existing unpaved access Further disturbance would likely be avoidable or minimized Impacts to wetlands should be avoided; mitigation and permitting will be necessary if impacts cannot be avoided 	<ul style="list-style-type: none"> \$450,000
4	Grange Rd (MP 75.53)	Construct sidewalks with curb and gutter along length of Rd	Provide parallel route to OR 42 for bicyclists and pedestrians	<ul style="list-style-type: none"> Current ADT: 800 vpd Forecast ADT: 1,250 vpd Buffered sidewalks improve safety of pedestrians Reduces need for pedestrians and bicyclist to cross the highway to access the multi-use path on north side Slower adjacent traffic volumes Most parcels on the south side of OR 42 take access from Grange Rd Slight increase in travel distance for through traffic 	<ul style="list-style-type: none"> Currently no pedestrian facilities along Grange Rd Could be constructed within the available ROW Includes illumination for the new facilities along Grange Rd 6' sidewalks included on both sides of the Roadway Roadway assumed to have shared lanes for bicycles and low-speed vehicles. 	<ul style="list-style-type: none"> Option assumes that drainage would be included with the sidewalk installation. There are no anticipated environmental or land use impacts. 	<ul style="list-style-type: none"> \$5.5 million
5	NW Corner of Carnes Rd (MP 75.72)	Provide a park and ride facility that coordinates with the adjacent bus stop	Improved transit facilities	<ul style="list-style-type: none"> Would facilitate connections with South County Route 99, Winston Commuter Route, and carpooling. Access limited to right-in and right-out Approximately 75 to 125 parking spaces 	<ul style="list-style-type: none"> Could be constructed within the available ROW Approximately 75 to 125 parking spaces Access limited to right-in and right-out 	<ul style="list-style-type: none"> No environmental resource impacts Would require modified use of existing ODOT property 	<ul style="list-style-type: none"> \$1.0 million

OR 42 Improvement Concepts – Summary Evaluation Matrix

ID	Location	General Description	Purpose	Traffic Operations and Safety ^{1,2,3}	Basic Roadway Geometry and Right of Way ⁴	Environmental and Land Use ⁵	Cost Opinion ⁶
Intersection Improvement Concepts							
6	Lookingglass Rd (MP 73.88)	Relocate Lookingglass Rd to connect at 4-way intersection and install traffic signal <ul style="list-style-type: none"> Option A: Close current connection and extend Lookingglass Rd east to create a 4-way intersection with Pepsi Rd (MP 74.19). Option B: Close current connection and extend Lookingglass Rd east to create a 4-way intersection with Umpqua Safari Rd (MP 74.03) with possibility of extending Pepsi Rd west to combine with Umpqua Safari Rd. Option C: Close current connection of Lookingglass Rd or limit it to right-in only, and realign the Roadway to create a 4-way intersection with Brosi Orchard Rd (MP 73.76). 	Improve operations and safety	<ul style="list-style-type: none"> Current OR 42 ADT: 15,000 vpd Forecast OR 42 ADT: 22,000 vpd Current Lookingglass Rd ADT: 3,000 vpd Forecast Lookingglass Rd ADT: 4,000 vpd No reported crashes at this intersection <p><u>Option A:</u></p> <ul style="list-style-type: none"> Reduced delays and improved safety for side-street left turns Increased delays for mainline through traffic <p><u>Option B:</u></p> <ul style="list-style-type: none"> Same as Option A <p><u>Option C:</u></p> <ul style="list-style-type: none"> Same as Option A Greater increases in delays for mainline through traffic stopping on an uphill grade 	<p><u>Option A</u></p> <ul style="list-style-type: none"> 2,100' additional roadway Primarily outside of the existing ROW Would require widening or construction of a box culvert and bridge Would likely impact two homes on the north side of OR 42 opposite Pepsi Rd <p><u>Option B</u></p> <ul style="list-style-type: none"> 1,000' of additional roadway north of OR 42 and 1,100' of additional roadway (for the Pepsi Rd extension) south of OR 42 Similar to Option A, but avoids impacts to homes north of OR 42 opposite Pepsi Rd Bridge and culvert modifications would be required on the south side of OR 42 <p><u>Option C</u></p> <ul style="list-style-type: none"> 600' of additional Roadway Would result in a skewed intersection at OR 42 with a steeper grade than at the current Lookingglass Rd approach. 	<p><u>Option A</u></p> <ul style="list-style-type: none"> Would require widening or construction of a box culvert and bridge Would likely impact two homes on the north side or OR 42 opposite Pepsi Rd. Would require acquisition of ROW from lands north of OR 42 Proximate to riparian corridors, aquatic habitat, wildlife habitat and wetlands near Umpqua River Would interact with both the floodway and 100 year floodplain. <p><u>Option B</u></p> <ul style="list-style-type: none"> Similar environmental impacts as Option A Would not have impacts to existing residential structures but would require acquisition of ROW for both the Lookingglass and Pepsi Rd extensions. <p><u>Option C</u></p> <ul style="list-style-type: none"> Would require acquisition of ROW from landowners between Lookingglass Rd and OR 42. Would include impacts to an existing structure Alignment would not have environmental impacts. 	<ul style="list-style-type: none"> All estimates include cost of traffic signal No estimates include ROW costs <p><u>Option A</u></p> <ul style="list-style-type: none"> \$6.0 million Includes costs for bridge and culvert improvements <p><u>Option B</u></p> <ul style="list-style-type: none"> \$6.0 million Includes costs for bridge and culvert improvements <p><u>Option C</u></p> <ul style="list-style-type: none"> \$1.5 million
7	Rolling Hills Rd (MP 74.77)	Signalize intersection (Should be considered in conjunction with Concepts 13, 14, and 16)	Improve operations and safety	<ul style="list-style-type: none"> Current OR 42 ADT: 19,000 vpd Forecast OR 42 ADT: 27,000 vpd Current Rolling Hills Rd ADT: 500 vpd Forecast Rolling Hills Rd ADT with extension to Happy Valley Rd: 5,000 vpd 16 crashes reported at Rolling Hills Rd intersection Preliminary signal warrants are not currently met Warrants would likely be met with Rolling Hills extension and other local connectivity improvements Reduced delay and improved safety for side-streets Increased delays for mainline through traffic 	<ul style="list-style-type: none"> Signalization of Rolling Hills Rd can occur within existing ROW Should be considered with local system enhancements and access control in Concepts 13, 14, and 16 	<ul style="list-style-type: none"> No environmental resource or land use impacts 	<ul style="list-style-type: none"> \$500,000 for signal improvements Local connectivity costs are not included in estimate
8	Rolling Hills (MP 74.77)	Add right-turn deceleration lanes on OR 42 in the eastbound and westbound directions	Address existing safety concerns and decrease delay	<ul style="list-style-type: none"> Current OR 42 ADT: 19,000 vpd Forecast OR 42 ADT: 27,000 vpd Meets turn lane criteria Improved safety as right-turn deceleration lanes allows deceleration in a lane separated from high-speed through traffic Some operational benefits with separated right turns 	<ul style="list-style-type: none"> Can be accommodated within existing ROW Modifies northeast and southwest corners of intersection to provide deceleration lane Adjacent drainage and multiuse path would need to be shifted to north Lighting for intersection is included Existing pavement width is 84' 	<ul style="list-style-type: none"> Adjacent drainage and multiuse path would need to be shifted to north No land use impacts 	<ul style="list-style-type: none"> \$500,000
9	Landers Ave (MP 75.42)	Add right-turn deceleration lane on OR 42 in the westbound direction	Address existing safety concerns and decrease delay	<ul style="list-style-type: none"> Current ADT: 19,000 vpd Forecast ADT: 27,000 vpd One serious injury crash reported involving right turn Improved safety as right-turn deceleration lanes allows deceleration in a lane separated from high-speed through traffic Some operational benefits with separated right turns 	<ul style="list-style-type: none"> Can be accommodated within existing ROW Modifies northeast corner of intersection to provide deceleration lane Adjacent drainage and multiuse path would need to be shifted to north Lighting for intersection is included Existing pavement width is 84' 	<ul style="list-style-type: none"> Adjacent drainage and multiuse path would need to be shifted to north No land use impacts 	<ul style="list-style-type: none"> \$250,000

OR 42 Improvement Concepts – Summary Evaluation Matrix

ID	Location	General Description	Purpose	Traffic Operations and Safety ^{1,2,3}	Basic Roadway Geometry and Right of Way ⁴	Environmental and Land Use ⁵	Cost Opinion ⁶
10	Emils Way /Grange Rd (MP 75.53)	Add right-turn deceleration lane on OR 42 in the eastbound and westbound directions	Address existing safety concerns and decrease delay	<ul style="list-style-type: none"> Current OR 42 ADT: 19,000 vpd Forecast OR 42 ADT: 27,000 vpd Meets turn lane criteria Improved safety as right-turn deceleration lanes allows deceleration in a lane separated from high-speed through traffic Some operational benefits with separated right turns 	<ul style="list-style-type: none"> Can be accommodated within existing ROW Modified northeast and southwest corners of intersection to provide deceleration lane Adjacent drainage and multiuse path would need to be shifted to north Lighting for intersection is included Existing pavement width is 84' 	<ul style="list-style-type: none"> Adjacent drainage and multiuse path would need to be shifted to north No land use impacts 	<ul style="list-style-type: none"> \$500,000
11	Carnes Rd/Roberts Creek Rd (MP 75.72)	<p>Increase intersection capacity to meet forecast demand</p> <ul style="list-style-type: none"> Option A: (without Rolling Hills extension): Install dual left turns on eastbound, westbound, and southbound approaches and modify signals to provide protected left turns on all approaches. Option B: (without Rolling Hills extension): Install dual left turns for eastbound and westbound approaches, and modify signals to provide protected left turns on all approaches. Option C: (with Rolling Hills extension): Install dual left turns for southbound approach, convert the westbound right-turn lane into a shared through/right, and modify signals to provide protected left turns on all approaches Option D: (with Rolling Hills extension): Install dual left turns only for southbound approach and modify signals to provide protected left turns on all approaches. 	Improve operations and safety	<ul style="list-style-type: none"> Current total entering volume: 28,000 vpd Forecast total entering volume: 40,000 vpd Top 10% of statewide Safety Priority Index System rankings 39 crashes during a 6-year study period Each option would provide protected left turns for all approaches <p>Option A</p> <ul style="list-style-type: none"> Assumes <u>no</u> Rolling Hills Rd extension Would reduce peak hour delay and queuing Would not meet the HDM mobility standard but would nearly meet the OHP target with a v/c ratio of 0.81. <p>Option B</p> <ul style="list-style-type: none"> Assumes <u>no</u> Rolling Hills Rd extension Would reduce peak hour delay and queuing to a lesser extent compared to Option A Would exceed the OHP target with a v/c of 0.84 and require a design exception. <p>Option C</p> <ul style="list-style-type: none"> Assumes Rolling Hills Rd extension <u>does</u> occur Would reduce peak hour delay and queuing to greatest extent of all options Only option that would meet the OHP mobility target, with a v/c ratio of 0.78. <p>Option D</p> <ul style="list-style-type: none"> Assumes Rolling Hills Rd extension <u>does</u> occur Would reduce peak hour delay and queuing to a lesser extent compared to Option C Would exceed the OHP target with a v/c of 0.86 and require a design exception. 	<ul style="list-style-type: none"> Widening OR 42 would occur on both sides of roadway for left-turn lanes Widening on Carnes and Roberts Creek Rd would occur on east side to minimize impacts All options would involve ROW impacts <p>Option A</p> <ul style="list-style-type: none"> Widen both sides of OR 42 to add eastbound and westbound dual lefts. Widen Carnes Rd to add second southbound left-turn lane and add second receiving lane (700') for dual eastbound lefts Widen Roberts Creek Rd to add second receiving lane (600') for dual westbound lefts Add 6' sidewalks on east side of Carnes Rd and Roberts Creek Rd. <p>Option B</p> <ul style="list-style-type: none"> OR 42, Roberts Creek Rd, and sidewalk improvements same as Option A Widen Carnes Rd to add second receiving lane (700') for dual eastbound lefts <p>Option C</p> <ul style="list-style-type: none"> Widen Carnes Rd to add second southbound left-turn lane (700'). Extend third westbound through lane on OR 42 1200' west of intersection with 720' of taper 6' sidewalks would be included on the east side of Carnes Rd. <p>Option D</p> <ul style="list-style-type: none"> Widen Carnes Rd to add second southbound left-turn lane (700'). 6' sidewalks would be included on the east side of Carnes Rd. 	<ul style="list-style-type: none"> This concept would involve impacts to adjacent properties for each of the proposed options, Only Option B would avoid impacts to existing structures. No environmental resource impacts 	<ul style="list-style-type: none"> Option A: \$3.1 million Option B: \$2.8 million Option C: \$2.1 million Option D: \$1.3 million No estimates include ROW costs
12	OR 99/Grant Smith Rd (MP 76.22)	Increase intersection capacity by installing dual left turns on the eastbound approach and modifying traffic signal to provide protected left turns on all approaches	Improve operations and safety	<ul style="list-style-type: none"> Current total entering volume: 28,000 vpd Current total entering volume: 38,000 vpd 44 crashes during a 6-year study period Would not meet the HDM mobility target, but would meet the OHP target with a v/c ratio of 0.80. Provide protected left turns for all approaches 	<ul style="list-style-type: none"> Would involve ROW impacts in the northwest, northeast, and southwest quadrants Widen OR 42 to facilitate dual left-turn lanes Widen OR 99 to facilitate additional receiving lane 	<ul style="list-style-type: none"> Would involve property impacts but would not impact existing structures No environmental resource impacts 	<ul style="list-style-type: none"> \$1.0 million Does not include ROW costs

OR 42 Improvement Concepts – Summary Evaluation Matrix

ID	Location	General Description	Purpose	Traffic Operations and Safety ^{1,2,3}	Basic Roadway Geometry and Right of Way ⁴	Environmental and Land Use ⁵	Cost Opinion ⁶
Network Connectivity and Access Control							
13	Rolling Hills (MP 74.77)	Extend Rolling Hills Rd to connect with Happy Valley Rd (Should be considered in conjunction with Concept 7)	Improved connectivity	<ul style="list-style-type: none"> Current OR 42 ADT: 19,000 vpd Forecast OR 42 ADT: 27,000 vpd Current Rolling Hills Rd ADT: 500 vpd Forecast Rolling Hills Rd ADT with extension to Happy Valley Rd: 5,000 vpd Would relieve demand on capacity-constrained Carnes Rd Higher demand at OR 42 would likely warrant traffic signal (Concept 7) 	<ul style="list-style-type: none"> Would involve ROW impacts 2,400' of additional roadway, primarily outside of existing ROW Would meet collector street design standards 	<ul style="list-style-type: none"> Would involve property impacts but could avoid impacts to existing structures No environmental resource impacts 	<ul style="list-style-type: none"> \$3.5 million Does not include ROW costs
14	Emils Way/Grange Rd (MP 75.53)	Reduce turning conflicts (Should be considered in conjunction with Concepts 15 and 18) <ul style="list-style-type: none"> Option A: Restrict traffic movements turning from Grange Rd and Emils Way to right turn onto OR 42 but allow both right and left turns from OR 42 onto the side streets. Option B: Restrict traffic movements turning to and from Grange Rd and Emils Way to right turns only. 	Enhance safety for all users	<ul style="list-style-type: none"> Currently all movements are allowed 12 crashes during a 6-year study period including one fatality <p>Option A</p> <ul style="list-style-type: none"> Eliminates some but not all of the turning-related conflicts (approximately half of reported turning crashes involved left turns from side street to OR 42) Would reroute left-turning traffic to other roadways or add U-turns to highway <p>Option B</p> <ul style="list-style-type: none"> Eliminate all left turns to and from OR 42 Eliminate all of the left turning-related conflicts (would address nearly all of the reported turning crashes) Would reroute left-turning traffic to other roadways or add U-turns to highway 	<p>No direct impacts to adjacent properties</p> <p>Option A</p> <ul style="list-style-type: none"> Minor roadway widening within the existing ROW may be needed to add the raised median with the left-turn lanes from OR 42 Drainage relocation would need to occur <p>Option B</p> <ul style="list-style-type: none"> Raised median could be installed within the existing painted median and no widening would be necessary 	<ul style="list-style-type: none"> No environmental resource impacts No impacts to adjacent properties Accessibility to local businesses would be affected – more impacts with Option B than Option A Drainage relocation would need to occur 	<ul style="list-style-type: none"> Option A: \$1.3 million Option B: \$300,000 Neither estimate includes ROW costs
15	Grange Rd Extension to the South/East (MP 75.53)	Create new road connection from the east end of Grange Rd to provide alternative access to OR 42 (Should be considered in conjunction with Concept 14) <ul style="list-style-type: none"> Option A: Create new roadway connection from east end of Grange Rd to Brittney Ave Option B: Create new roadway connection from the east end of Grange Rd to Roberts Creek Rd to create 4-way intersection with Tannhauser Ave 	Provide alternative access to facilitate access management along OR 42	<ul style="list-style-type: none"> Provides alternative access to OR 42 for local residents and businesses New connection would include pedestrian facilities <p>Option A</p> <ul style="list-style-type: none"> Would add more traffic to Brittney Rd, a local residential street that also serves a school. Traffic increases would depend on the extent of the access restrictions discussed under Concept 14. Longer than Option B and would involve out-of-direction travel for users. <p>Option B</p> <ul style="list-style-type: none"> Provides a more direct connection between Grange Rd and Roberts Creek Rd than Option A New roadway would not impact the nearby residences by adding traffic to local streets. Connection opposite Tannhauser Ave would be more than 500' from signal at OR 42 Would have adequate storage at OR 42 so that queues would not block new connection. 	<ul style="list-style-type: none"> Includes 12' travel lanes, 8' shoulders, and 6' sidewalks. Both of these extensions would require additional ROW. Both options include drainage and illumination. <p>Option A</p> <ul style="list-style-type: none"> Would include 1,200' of reconfigured and new roadway A significant portion would use existing but unimproved ROW that stretches westerly from Brittany Ave to Grange Rd. Additional ROW would still be required. <p>Option B</p> <ul style="list-style-type: none"> Would include 1,600' of reconfigured or new roadway Primarily outside of the existing ROW 	<ul style="list-style-type: none"> No impacts to existing structures No environmental resource impacts <p>Option A</p> <ul style="list-style-type: none"> Rerouted traffic to Brittney Ave would travel adjacent to a school. No impacts to existing structures <p>Option B</p> <ul style="list-style-type: none"> Would include impacts to an existing structure, Would be in agreement with long-term Douglas County plans. 	<ul style="list-style-type: none"> Option A: \$2.1 million Option B: \$2.5 million Neither estimate includes ROW costs

OR 42 Improvement Concepts – Summary Evaluation Matrix

5-16-12

ID	Location	General Description	Purpose	Traffic Operations and Safety ^{1,2,3}	Basic Roadway Geometry and Right of Way ⁴	Environmental and Land Use ⁵	Cost Opinion ⁶
16	Between Rolling Hills Rd and Landers Ave (MP 74.77-75.53)	Improve local connectivity and modify access to OR 42 from Rolling Hills Rd to Landers Ave, including connections between Melody Lane, Stella Street, Depriest Street, and Circle Drive	Improved connectivity and alternative access	<ul style="list-style-type: none"> Current ADT: 17,000 vpd Forecast ADT: 24,000 vpd 7 crashes reported in the segment between Rolling Hills Rd and Landers Ave 7 crashes reported at Landers Ave Improves safety along the expressway by directing turning vehicles to targeted and signalized locations where they can be accommodated with lesser crash risk Traffic patterns would change on local streets 	<ul style="list-style-type: none"> Proposed connections would meet Douglas County local road standards Additional ROW would be required Some of these connections have been shown in approved development plans but have not yet been constructed 	<ul style="list-style-type: none"> Some alignments may have impacts on existing residential structures Traffic volumes would be higher on some local streets No environmental impacts with this concept 	<ul style="list-style-type: none"> Costs would be dependent upon chosen alignments
17	Winery Lane (MP 76.07-76.22)	Control access at Winery Lane <ul style="list-style-type: none"> Option A: Create new connection to Grant Smith Rd and close all access to OR 42 Option B: Limit access at OR 42 to right-in right-out and provide U-turn opportunities 	Provide alternative access to facilitate access management along OR 42	<u>Option A</u> <ul style="list-style-type: none"> Diverts Winery Lane traffic to Grant Smith Rd and signalized intersection with OR 42 Low traffic volumes on Winery Lane means limited impact on Grant Smith Road intersection operations Closure of Winery Lane eliminates potential crashes associated with unsignalized intersections <u>Option B</u> <ul style="list-style-type: none"> Converts all turning movements to and from Winery Lane to right turns only Local drivers may choose alternative routes or make U-turns on OR 42 	<u>Option A</u> <ul style="list-style-type: none"> Would meet Douglas County local road standards, which includes 11 foot paved travel lanes and 3 foot shoulders Would require additional ROW <u>Option B</u> <ul style="list-style-type: none"> Would include a raised median that could be installed within the existing painted median and no widening would be necessary No direct impacts to adjacent properties 	<u>Option A</u> <ul style="list-style-type: none"> Additional ROW required from adjacent property owners No structures that would be impacted Coordinated with access to vacant parcels on south side of Grant Smith Rd No environmental impacts with this concept <u>Option B</u> <ul style="list-style-type: none"> Drivers would be inconvenienced by the turn restrictions 	<u>Option A</u> <ul style="list-style-type: none"> \$600,000 Estimate does not include ROW costs <u>Option B</u> <ul style="list-style-type: none"> \$100,000
18	Lookingglass Rd to Grant Smith Rd (MP 73.88-76.22)	Provide U-Turn Opportunities at Key Locations along OR 42	Supplement intersection closures and right-in/right-out only movements	<ul style="list-style-type: none"> Current ADT: 15,000 to 23,000 vpd Forecast ADT: 22,000 to 31,000 vpd U-turns instead of direct left turns can reduce the frequency of all crashes by approximately 20 percent Delay will increase slightly for left-turns from side-streets as a result of out-of-direction travel 	<ul style="list-style-type: none"> Raised concrete medians or paint can be used to demarcate U-turn locations within the existing medians and ROW 	<ul style="list-style-type: none"> This concept would not have environmental or land use impacts 	<ul style="list-style-type: none"> \$100,000 per locations Assumes raised concrete medians are chosen

Notes:

- Traffic operations were evaluated for concepts that were identified to address operational deficiencies. The operational assessment focuses on the volume-to-capacity (v/c) ratio for the 2011 existing and 2035 future condition.
- At intersections where potential changes in traffic control or turn lanes were considered, the procedures in the ODOT Analysis Procedures Manual (APM) were followed.
- Some improvements are focused on addressing safety concerns or may address safety as well as traffic operations deficiencies. Crash patterns from the six-year analysis period (2005 through 2010) are discussed for those improvements that address safety.
- Illustrations were developed for concepts that involve infrastructure improvements.
- Impacts to resources were qualitatively assessed based on the data assembled for the environmental and land use reconnaissance. The level of analysis of the study area is designed to identify those areas judged to have considerable potential for conflict.
- Rough order of magnitude cost opinions were developed using present day dollars and are consistent with standard estimating methods. The estimates include a contingency factor but do not include right-of-way costs. The cost opinions are intended to help differentiate alternatives by approximating the relative costs of each project.