

James Street Alternative Evaluations

	SEGMENT 1		SEGMENT 2		SEGMENT 3		SEGMENT 4	
	Orchard Drive to McLeod Road		McLeod Road to Telegraph Road ¹		Telegraph Road to E Bakerview Road ^{1,2}		E Bakerview Road to E Kellogg Road ²	
	Section Length:	1200 LF	Section Length:	1250 LF	Section Length:	800 LF	Section Length:	1450 LF
	Standard	Shared Use	Standard	Shared Use	Standard	Shared Use	Standard	Shared Use
Cross Section Elements								
Active Modes	Sidewalks and Bike Lanes Both Directions (Full City Standard)	12' shared use path (west side)	Sidewalks and Bike Lanes Both Directions (Full City Standard)	12' shared use path (west side)	Sidewalks and Bike Lanes Both Directions (Full City Standard)	12' shared use path (west side)	Sidewalks and Bike Lanes Both Directions (Full City Standard)	12' shared use path (west side)
Roadway	Modified to fit Standard section	Unmodified	Modified to fit Standard section	Unmodified	Modified to fit Standard section	Unmodified	Modified to fit Standard section	Unmodified
Engineering Considerations								
Pedestrian Facility Access and Required Crosswalks	No mid-block crossings required for access to active facilities	Crossing provided at Orchard St signal. Crossing needed at McLeod Rd for transit access - RRFB enhance	No mid-block crossings required for access to active facilities	Crossing needed at McLeod Rd for transit access - RRFB enhance. Crossing provided at Telegraph signal.	No mid-block crossings required for access to active facilities	Up to two crossings needed to provide access to transit and facility access for future development - can be provided at Telegraph signal and Bakerview roundabout	No mid-block crossings required for access to active facilities	No mid-block crossings required for access to active facilities for east side properties. Crossings at intersections or midblock, with RRFB, required for any future east side development.
Impervious Area Changes	Adds 10-12' pollution generating surface (bike lanes) per linear foot to existing roadway for length of segment. Adds 10'+ sidewalk per linear foot impervious area for length of segment. Can be cross-sloped to drain for sheet flow (both sides - may be impacted by existing development on east side)	Maintains existing roadway, no change in pollution-generating hardscape. Adds 12' path which can be reverse-sloped to drain for sheet flow (west only)	Adds 10-12' pollution generating surface (bike lanes) per linear foot to existing roadway for length of segment. Adds 10'+ sidewalk per linear foot impervious area for length of segment. Can be cross-sloped to drain for sheet flow (both sides - may be impacted by existing development on east side)	Maintains existing roadway, no change in pollution-generating hardscape. Adds 12' path which can be reverse-sloped to drain for sheet flow (west only)	Adds 10-12' pollution generating surface (bike lanes) per linear foot to existing roadway for length of segment. Adds 10'+ sidewalk per linear foot impervious area for length of segment. Can be cross-sloped to drain for sheet flow (both sides)	Maintains existing roadway, no change in pollution-generating hardscape. Adds 12' path which can be reverse-sloped to drain for sheet flow (west only)	Adds 10-12' pollution generating surface (bike lanes) per linear foot to existing roadway for length of segment. Adds 10'+ sidewalk per linear foot impervious area for length of segment. Can be cross-sloped to drain for sheet flow (both sides)	Maintains existing roadway, no change in pollution-generating hardscape. Adds 12' path which can be reverse-sloped to drain for sheet flow (west only)
Wetlands and Critical Areas Impacts including culverts	Full width bridge structure required at S Fork Baker Creek. 28,470 square feet wetland buffer impact (with walls at S Fork Baker Creek). 280 square feet wetland impact (with walls at S Fork Baker Creek)	Full width bridge structure required at S Fork Baker Creek. 10,860 square feet wetland buffer impact (with walls at S Fork Baker Creek). No wetland impact	Full width bridge structure required at Baker Creek. 47,340 square feet wetland buffer impact (with walls at Baker Creek). 20 square feet wetland impact (with walls at Baker Creek)	Full width bridge structure required at Baker Creek. 17,450 square feet wetland buffer impact (with walls at Baker Creek). No wetland impact	No waterway crossings. 12,140 square feet wetland buffer impact. No wetland impact	No waterway crossings. 1,180 square feet wetland buffer impact. No wetland impact	Full width bridge structure required at N Fork Baker Creek. 68,110 square feet wetland buffer impact (with walls at N Fork Baker Creek). 4,900 square feet wetland impact (with walls at N Fork Baker Creek)	Full width bridge structure required at N Fork Baker Creek. 42,200 square feet wetland buffer impact (with walls at N Fork Baker Creek). 1,820 square feet wetland impact (with walls at N Fork Baker Creek)
Utility Relocations and Impacts	Utility poles: 5 Storm: 1,375 LF (Open Channel) 340 LF (Conduit) Driveway culverts: 200 LF Water valves: 4 Water line: 1100 LF	Utility poles: 4 Storm: 595 LF (Open channel) Driveway culverts: 45 LF Water valves: 1 Water line: 0	Utility poles: 6 Storm: 1,145 LF (Open Channel) Driveway culverts: 300 LF Water valves: Water line: 0	Utility poles: 3 Storm: 750 LF (Open channel) Driveway culverts: 180 LF Water valves: 0 Water line: 0	Utility poles: 2 Storm: 755 LF (Open Channel) 325 LF (Conduit) Driveway culverts: 150 LF Water valves: Water line: 0	Utility poles: 1 Storm: 75 LF (Open Channel) Driveway culverts: 0 Water valves: 0 Water line: 0	Utility poles: 1 Storm: 1,240 LF (Open Channel) 870 LF (Conduit) Driveway culverts: 200 LF Water valves: Water line: 0	Utility poles: 1 Storm: 835 LF (Open Channel) Driveway culverts: 200 LF Water valves: 1 Water line: 20-30 LF
Right of Way Requirements	15,900 SF ROW requirements on east and west side of existing	3,400 SF West only; Full width path edge of pavement is within 4' of existing ROW	4,200 SF ROW requirements on east and west side of existing	3,700 SF West only; Full width path edge of pavement is within 4' of existing ROW	6,100 SF ROW requirements on east and west side of existing	6,000 SF West only; Full width path edge of pavement is within 4' of existing ROW	4,900 SF ROW requirements on east and west side of existing	4,000 SF West only; Full width path edge of pavement is within 4' of existing ROW
Other Engineering (Lighting, existing facilities, etc.)	Lowered profile at Gilbert Drive Lighting on both sides of the road	Lowered profile at Gilbert Drive 250 LF of sidewalks needed on east side Lighting can focus on west side (SUP). Existing lighting covers east side sidewalk	Lighting on both sides of the road	Does not provide direct access to northbound transit stop 700 LF of sidewalks needed on east side (McLeod Rd to Baker Creek Bible Church) Lighting on west side (SUP) and at east side sidewalk	Fully compatible with Bakerview roundabout Lighting on both sides of the road	Combined alignment with existing sidewalks on west side north of Telegraph Does not provide direct separated/sidewalk access for new apartments north of Telegraph or northbound transit stop Compatible with Bakerview roundabout but may require some modifications Bikes already out of roadway on approach to Bakerview roundabout Lighting on both sides of the road	Lighting on both sides of the road	Avoids active transportation crossings and conflicts at oblique angle intersection with King Mountain Road Direct access to east side existing development and sidewalks on Kellogg Lighting can focus on west side
Directionality	Single-direction bike travel on each side of the street. May require crossings of vehicle lanes at trails and cross streets.	Bi-directional bike travel in a single alignment. Can directly connect to trails and cross streets on the west side. East side connections will require crossings.	Single-direction bike travel on each side of the street. May require crossings of vehicle lanes at trails and cross streets.	Bi-directional bike travel in a single alignment. Can directly connect to trails and cross streets on the west side. East side connections will require crossings.	Single-direction bike travel on each side of the street. May require crossings of vehicle lanes at trails and cross streets.	Bi-directional bike travel in a single alignment. Can directly connect to trails and cross streets on the west side. East side connections will require crossings.	Single-direction bike travel on each side of the street. May require crossings of vehicle lanes at trails and cross streets.	Bi-directional bike travel in a single alignment. Can directly connect to trails and cross streets on the west side. East side connections will require crossings.
Network and User Considerations								
Cost	\$5.7 million Active & Road Improvements \$1 million culvert replacement	\$3.1 million Active & Road Improvements \$1 million culvert replacement	\$4.6 million Active & Road Improvements \$3.5 million culvert replacement	\$2.3 million Active & Road Improvements \$3.5 million culvert replacement	\$2.9 million Active & Road Improvements	\$0.8 million Active & Road Improvements	\$4.6 million Active & Road Improvements \$1 million culvert replacement	\$2.1 million Active & Road Improvements \$1 million culvert replacement

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Roadway	Modified to fit Standard section	Unmodified	Modified to fit Standard section	Unmodified	Modified to fit Standard section	Unmodified	Modified to fit Standard section	Unmodified
(in Estimated 2025 Dollars)	\$6.7 million Total Segment Cost	\$4.1 million Total Segment Cost	\$8.1 million Total Segment Cost	\$5.8 million Total Segment Cost	\$2.9 million Total Segment Cost	\$0.8 million Total Segment Cost	\$5.6 million Total Segment Cost	\$3.1 million Total Segment Cost
	+\$800,000 wetland mitigation (for all segments)	+\$400,000 wetland mitigation (for all segments)						
Bicycle Exposure Level (Risk of Safety Concerns)	Medium 5' Lanes are adjacent to 35 mph vehicle lanes No buffers provided Crossings required at cross streets and/or to change directions	Low No mixing with vehicle traffic Mixing with pedestrians can cause conflicts West side intersections and directional changes do not require mixing with vehicle traffic						
Bike Facility Comfort	Medium Bike lanes are not physically separated from traffic, but exclusive space is provided Familiar treatment in Bellingham Crossings and mixing with 35 mph traffic can be intimidating to less confident riders	High Physical separation from vehicle traffic is comfortable for all rider types						
Pedestrian Facility Comfort	High Physical separation from traffic and bike traffic Added buffer from bike lanes	Medium to High Physical separation from traffic Reduced buffer to vehicle lanes Mixing with bike traffic can be uncomfortable for some users, especially with higher speed bicycle traffic						
Transit Access	Bike lanes could be blocked at transit stops, or require widening to accommodate alignment changes	No impact to existing operations.	Bike lanes could be blocked at transit stops, or require widening to accommodate alignment changes	No impact to existing operations. Access to northbound stops will require crossings and additional east side facilities	Bike lanes could be blocked at transit stops	No impact to existing operations. Access to northbound stops will require crossings and additional east side facilities	Bike lanes could be blocked at transit stops, or require widening to accommodate alignment changes	No impact to existing operations.
Operations/Traffic Impacts	Separation of uses Introduction of "side friction" can cause calming effect on speeds Crossings at intersections could cause slight delays Improved sight distance at Gilbert Road vertical curve	Improved sight distance at Gilbert Road vertical curve						
Future Development Compatibility	Fully compatible with future development - sidewalk and bike access provided on both sides	Good access to high comfort facility for west side development Requires crossings or additional infrastructure/frontage improvements for east side development						

¹ - Considerations, impacts and costs do not include future Telegraph Road signal improvements

² - Considerations, impacts and costs, including ROW and critical areas do not include future E Bakerview Road roundabout project