

Level 2 Screening Results Overview

	Criteria	Measure							
			No Build	Mendenhall Peninsula	Sunny Point West	Sunny Point East	Vanderbilt	Twin Lakes	Salmon Creek
1. Purpose and Need									
Purpose and Need	Provide alternative access and transportation infrastructure resilience	Scale from 2 (significant improvement) to -2 (no discernible improvement)	-2	2	2	2	2	2	1
	Improve transportation for non-motorized users	Planned pedestrian and bicycle lanes tie into the existing network and improve access and safety for non-motorized users	-2	1	2	2	2	2	2
	Reduce transportation-related energy consumption	Scale from 2 (significant improvement) to -2 (no discernible improvement) of the estimated change in travel times based on travel origins and destinations	-2	1	1	1	1	1	1
	Decrease existing and future traffic congestion on Douglas Island Bridge and its intersections	Scale from 2 (significant improvement) to -2 (no discernible improvement) of estimated LOS during AM and PM peaks at the existing bridge and alternative	-2	1	1	1	1	1	1
	Improve emergency response times	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction between the hospital/fire department and Douglas Island residents	-2	2	2	2	2	2	2
	Improve access to critical healthcare and emergency services	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction	-2	2	2	2	2	2	2
	Improve travel times (per user) to workplaces and critical resources	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction	-2	1	2	2	2	1	1
2. Additional Goals									
Additional Goals	Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities.	Scale from 2 (significant improvement) to -2 (no discernible improvement) of the connection to North and West Douglas Island	-2	1	2	2	2	1	1
	Enhance and protect the public health and safety of travelers and the communities that transportation facilities traverse and serve.	Scale from 2 (significant improvement) to -2 (no discernible improvement) to enhance and protect the public health and safety	-2	1	2	2	2	2	2
	Avoid, minimize, and mitigate impacts to the environment.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	0	-2	-2	-2	-2	-2	-2
	Avoid, minimize, and mitigate impacts to residential areas.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	0	-1	-1	-1	-2	0	-2
	Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	0	-2	-1	-1	-1	-1	-1
OTHER CONSIDERATIONS									
1. Environmental Screening									
Natural	Wetlands directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	0	-2	-2	-1	-2	-1	-1
	Intertidal zone directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres intertidal zone impacted)	0	-1	-1	-1	-2	-2	-1
	Stream and riparian habitats (including buffer) directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of stream and riparian habitats including buffer impacted)	0	-1	-1	-1	-2	0	-1
	EFH (including buffer) directly affected (including noise)	Scale from 0 (no or minimal impacts) to -2 (high number of acres of EFH including buffer impacted)	0	-1	0	0	-2	-2	-1
	Wildlife habitat directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of wildlife habitat impacted)	0	-2	-1	0	-2	-1	0
	Anadromous streams impacted	Scale from 0 (no or minimal impacts) to -2 (high number of anadromous streams impacted)	0	0	-2	-1	-1	0	0
	Threatened and endangered (T&E) habitat directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	0	0	0	0	0	0	0
	Important migratory bird habitat impacted	Scale from 0 (no or minimal impacts) to -2 (high number of acres important migratory bird habitat impacted)	0	0	-2	0	-1	-1	-1
	Eagle nesting trees directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of trees impacted)	0	-2	-1	-1	0	-1	-1
	Contaminated sites directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of contaminated sites impacted)	0	0	0	0	0	0	0
	Section 4(f)/6(f) resources affected	Scale from 0 (no or minimal impacts) to -2 (high number of Section 4(f)/6(f) resources impacted)	0	-2	-1	-1	-1	-1	-1
	Protected lands directly affected	Scale from 0 (no minimal impacts) to -2 (high number of acres of protected lands impacted)	0	0	0	-2	0	0	0
	Impervious surfaces added	Scale from 0 (no or minimal impacts) to -2 (high number of impervious surfaces impacted)	0	-2	-2	-1	-2	-2	-1
	Social	EJ community, school, or community gathering space directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of properties impacted)	0	0	0	0	-1	0
Neighborhood divided or otherwise disrupted		Scale from 0 (no or minimal impacts) to -2 (high number of neighborhoods impacted)	0	0	-2	-2	-1	-2	-1
Distance to Native Allotment		Scale from 0 (not within 50 feet) to -2 (within 50 feet) of a Native Allotment	0	0	0	0	0	0	0
Housing	Residential uses directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of residential uses impacted)	0	0	-1	-1	-2	0	-2
	Within 100 feet of residential property	Scale from 0 (not within 100 feet) to -2 (within 100 feet) of a residential property	0	0	-2	-1	-1	0	-1
	Acres of vacant residential land directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of developable land impacted)	0	-2	-1	-1	-1	0	-1
Economic	Commercial uses directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of commercial uses impacted)	0	-2	0	0	0	-1	-2
	Within 100 feet of commercial uses	Scale from 0 (not within 100 feet) to -2 (within 100 feet) of a commercial property	0	0	-1	-1	0	-1	-2
	Acres of vacant commercial land directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of developable land impacted)	0	0	0	0	0	-2	-1
Safety	Improves safety for all users	Scale from 2 (reduces conflict/friction on network) to -2 (higher risk of conflict/friction on network)	0	0	1	1	2	1	0
Cost	Estimated total construction cost	Scale from 0 (low construction cost) to -2 (high construction cost)	0	0	0	0	0	0	0
	Estimated annual maintenance cost	Scale from 0 (low maintenance cost) to -2 (high maintenance cost)	0	0	0	0	0	0	0
ROW	Total ROW needed	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted) and scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	0	-2	-1	-1	-2	0	-1
	Residential property acquisition	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted)	0	0	-2	-2	-2	0	-1
	Commercial property acquisition	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted)	0	0	0	0	0	-1	-1
Public Support	Level of public support	Scale from 2 (high level of support) to 0 (low level of support)	0	1	2	2	2	0	0
Score/Result			-18	-11	-8	-3	-10	-6	-14

No Build Alternative

	Criteria	Measure	Answer	Comment/Rationale/Justification
1. Purpose and Need				
Purpose and Need	Provide alternative access and transportation infrastructure resilience	Scale from 2 (significant improvement) to -2 (no discernible improvement)	-2	No change from existing conditions
	Improve transportation for non-motorized users	Scale from 2 (significant improvement) to -2 (no discernible improvement)	-2	No change from existing conditions
	Reduce transportation-related energy consumption	Scale from 2 (significant improvement) to -2 (no discernible improvement) of the estimated change in travel times based on travel origins and destinations	-2	No change from existing conditions
	Decrease existing and future traffic congestion on Douglas Island Bridge and its intersections	Scale from 2 (significant improvement) to -2 (no discernible improvement) of estimated LOS during AM and PM peaks at the existing bridge and alternative	-2	No change from existing conditions
	Improve emergency response times	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction between the hospital/fire department and Douglas Island residents	-2	No change from existing conditions
	Improve access to critical healthcare and emergency services	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction	-2	No change from existing conditions
	Improve travel times (per user) to workplaces and critical resources	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction	-2	No change from existing conditions
2. Additional Goals				
Additional Goals	Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities.	Scale from 2 (significant improvement) to -2 (no discernible improvement) of the connection to North and West Douglas Island	-2	No change from existing conditions
	Enhance and protect the public health and safety of travelers and the communities that transportation facilities traverse and serve.	Scale from 2 (significant improvement) to -2 (no discernible improvement) to enhance and protect the public health and safety	-2	No change from existing conditions
	Avoid, minimize, and mitigate impacts to the environment.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	0	No change from existing conditions, this alternative will avoid new impacts to the environment.
	Avoid, minimize, and mitigate impacts to residential areas.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	0	No change from existing conditions, this alternative will avoid new impacts to residential areas.
	Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	0	No change from existing conditions, this alternative will avoid new impacts to visual, cultural, and scenic identity.
OTHER CONSIDERATIONS				
1. Environmental				
Natural	Wetlands directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	0	No change from existing conditions
	Intertidal zone directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres intertidal zone impacted)	0	No change from existing conditions
	Stream and riparian habitats (including buffer) directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of stream and riparian habitats including buffer impacted)	0	No change from existing conditions
	EFH (including buffer) directly affected (including noise)	Scale from 0 (no or minimal impacts) to -2 (high number of acres of EFH including buffer impacted)	0	No change from existing conditions
	Wildlife habitat directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of wildlife habitat impacted)	0	No change from existing conditions
	Anadromous streams impacted	Scale from 0 (no or minimal impacts) to -2 (high number of anadromous streams impacted)	0	No change from existing conditions
	Threatened and endangered (T&E) habitat directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	0	No change from existing conditions
	Important migratory bird habitat impacted	Scale from 0 (no or minimal impacts) to -2 (high number of acres important migratory bird habitat impacted)	0	No change from existing conditions
	Eagle nesting trees directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of trees impacted)	0	No change from existing conditions
	Contaminated sites directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of contaminated sites impacted)	0	No change from existing conditions
	Section 4(f)/6(f) resources affected	Scale from 0 (no or minimal impacts) to -2 (high number of Section 4(f)/6(f) resources impacted)	0	No change from existing conditions
	Protected lands directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of protected lands impacted)	0	No change from existing conditions
	Impervious surfaces added	Scale from 0 (no or minimal impacts) to -2 (high number of impervious surfaces impacted)	0	No change from existing conditions
	Social	EJ community, school, or community gathering space directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of properties impacted)	0
Neighborhood divided or otherwise disrupted		Scale from 0 (no or minimal impacts) to -2 (high number of neighborhoods impacted)	0	No change from existing conditions
Distance to Native Allotment		Scale from 0 (not within 50 feet) to -2 (within 50 feet) of a Native Allotment	0	No change from existing conditions
Housing	Residential uses directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of residential uses impacted)	0	No change from existing conditions
	Within 100 feet of residential property	Scale from 0 (not within 100 feet) to -2 (within 100 feet) of a residential property	0	No change from existing conditions
	Acres of vacant residential land directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of developable land impacted)	0	No change from existing conditions
Economic	Commercial uses directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of commercial uses impacted)	0	No change from existing conditions
	Within 100 feet of commercial uses	Scale from 0 (not within 100 feet) to -2 (within 100 feet) of a commercial property	0	No change from existing conditions
	Acres of vacant commercial land directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of developable land impacted)	0	No change from existing conditions
Safety	Improves safety for all users	Scale from 2 (reduces conflict/friction on network) to -2 (higher risk of conflict/friction on network)	0	No change from existing conditions
Cost	Estimated total construction cost	Scale from 0 (low construction cost) to -2 (high construction cost)	0	No change from existing conditions
	Estimated annual maintenance cost	Scale from 0 (low maintenance cost) to -2 (high maintenance cost)	0	No change from existing conditions
ROW	Total ROW needed	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted) and scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	0	No change from existing conditions
	Residential property acquisition	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted)	0	No change from existing conditions
	Commercial property acquisition	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted)	0	No change from existing conditions
Public Support	Level of public support	Scale from 2 (high level of support) to 0 (low level of support)	0	Respondents of a survey conducted between December 12, 2022 and February 3, 2023 indicated that 30.5 percent of respondents preferred a no action or no build alternative, versus 69.5 percent who preferred a build alternative.
Score/Result			-18	

- Alternative demonstrates strong performance against 2 criteria
- Alternative demonstrates moderate performance against 1 criteria
- Alternative demonstrates neutral performance against 0 criteria
- Alternative demonstrates slightly weak performance -1 against criteria
- Alternative demonstrates weak performance against -2 criteria

Mendenhall Peninsula Alternative

	Criteria	Measure	Answer	Comment/Rationale/Justification	
1. Purpose and Need					
Purpose and Need	Provide alternative access and transportation infrastructure resilience	Scale from 2 (significant improvement) to -2 (no discernible improvement)	2	Provides an alternate access and improves the transportation infrastructure resilience by providing a secondary crossing to Douglas Island.	
	Improve transportation for non-motorized users	Planned pedestrian and bicycle lanes tie into the existing network and improve access and safety for non-motorized users	1	Improves transportation for non-motorized users by providing an alternate crossing with an added separated multi-use path that ties into existing infrastructure. This alternative scores lower than others evaluated because of additional travel distances needed to access the crossing on the Juneau side.	
	Reduce transportation-related energy consumption	Scale from 2 (significant improvement) to -2 (no discernible improvement) of the estimated change in travel times based on travel origins and destinations	1	Overall travel time between Douglas Island and Juneau mainland is reduced because some trips would experience shorter travel times when using this proposed bridge. Based on the origin-destination study, this alternative would reduce travel times for mainly recreational uses, and would lead to reduced transportation-related energy consumption. This alternative scores lower than others evaluated because fewer trips are benefited by the crossing, based on the origin-destination study.	
	Decrease existing and future traffic congestion on Douglas Island Bridge and its intersections	Scale from 2 (significant improvement) to -2 (no discernible improvement) of estimated LOS during AM and PM peaks at the existing bridge and alternative	1	Would decrease traffic pressure on the existing Douglas Island Bridge and its intersections by dividing the traffic between the existing bridge and the alternate crossing. Some traffic would switch to the proposed bridge, which would reduce demand for the Douglas Island Bridge and the intersections to either side of the bridge. This alternative scores lower than others evaluated because fewer trips are benefited by the crossing, based on the origin-destination study.	
	Improve emergency response times	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction between the hospital/fire department and Douglas Island residents	2	When emergencies require response from an out-of-district station or multiple stations simultaneously, the Mendenhall Peninsula crossing would allow a more timely response to Douglas Island from the Lynn Canal, Auke Bay stations, and in some cases the Glacier Station, by shortening the distance needed to travel to a crossing to Douglas Island.	
	Improve access to critical healthcare and emergency services	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction	2	Based on the location, the alternative provides alternate access and improves access to critical healthcare and emergency services during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides, or avalanches.	
	Improve travel times (per user) to workplaces and critical resources	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction	1	Based on the location, the alternative provides an alternate access and improves access to workplaces and critical resources during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides, or avalanches. When considering the number of users with improved travel times in combination with the minutes of travel time decreased, the alternative does not score as high as other alternatives due to the low number of likely users (5-15%) that will be impacted by a decrease travel time (Bridge Volume Forecast Memo).	
	2. Additional Goals				
Additional Goals	Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities.	Scale from 2 (significant improvement) to -2 (no discernible improvement) of the connection to North and West Douglas Island	1	Based on the location, this alternative has the potential to significantly improve the connection to North and West Douglas Island by creating additional traffic capacity. This alternative scores lower than other alternatives due to the low number of likely users.	
	Enhance and protect the public health and safety of travelers and the communities that transportation facilities traverse and serve.	Scale from 2 (significant improvement) to -2 (no discernible improvement) to enhance and protect the public health and safety	1	This alternative has the potential to enhance public health and safety by reducing traffic in locations where delay is currently experienced, adding a separated multi-use pathway and tying into existing active transportation infrastructure. It would provide resiliency in the transportation network by creating an additional crossing. This alternative scores lower than other alternatives owing to it resulting in longer out-of-direction travel for more users.	
	Avoid, minimize, and mitigate impacts to the environment.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	-2	This alternative is not likely to avoid, but has potential to minimize or mitigate impacts to the environment depending on design, location, or other measures. While it could be located outside of the Mendenhall Wetlands State Game Refuge, it has a potential to impact other Section 4(f) properties, important migratory bird areas, wildlife habitats, and waterbodies. Refer to other considerations screening below. This alternative scored -13 cumulatively when considering natural environmental factors below alone. This is tied with Sunny Point West as the second most impactful alternative.	
	Avoid, minimize, and mitigate impacts to residential areas.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	-1	This alternative would have one direct impact and potentially seven indirect impacts. It would not avoid impacts but has potential to minimize impacts to residential areas depending on design and location. Refer to other considerations screening below.	
	Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	-2	Based on the location within a protected viewshed (Guidelines and Considerations for Subarea 8, page 191f, CBJ Comprehensive Plan 2013) and the size of the structure needed, this alternative will impact the visual, cultural, and scenic identity of the area.	
OTHER CONSIDERATIONS					
1. Environmental					
Natural	Wetlands directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	-2	This alternative impacts approximately 5.4 acres of wetlands, which is the third highest acreage of impact and more than three times the next highest measure of impacts (Twin Lakes 1.7 acres).	
	Intertidal zone directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres intertidal zone impacted)	-1	This alternative impacts approximately 7.5 acres of intertidal zone, which is the third most impactful alternative. However, the acreage of the third, fourth, fifth, and sixth most impactful alternatives are so similar when compared to the rest that these alternatives received the same impact score.	
	Stream and riparian habitats (including buffer) directly affected (defined as 50 feet on each side buffer)	Scale from 0 (no or minimal impacts) to -2 (high number of acres of stream and riparian habitats including buffer impacted)	-1	This alternative impacts 0.1 acres of stream and riparian habitat buffer, which the same as Sunny Point East and within 0.2 acres of all the other alternatives except Vanderbilt.	
	EFH (including buffer) directly affected (including noise)	Scale from 0 (no or minimal impacts) to -2 (high number of acres of EFH including buffer impacted)	-1	This alternative impacts 4.7 acres of EFH (including buffer), which is 3.5 acres more than the least impactful alternative, but only 10 percent of the most impactful alternative.	
	Wildlife habitat directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of wildlife habitat impacted)	-2	This alternative impacts 44.3 acres of wildlife habitat, which is the most impactful alternative. The impact of this alternative in terms of acreage is 14 times greater than the least impactful alternative.	
	Anadromous streams impacted	Scale from 0 (no or minimal impacts) to -2 (high number of anadromous streams impacted)	0	This alternative impacts one anadromous stream. The number of streams impacted is relatively few when compared to Sunny Point West (8) and Sunny Point East (4).	
	Threatened and endangered (T&E) habitat directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	0	No T&E habitat is impacted by this alternative.	
	Important migratory bird habitat impacted (using 500-foot buffer around bird hotspots)	Scale from 0 (no or minimal impacts) to -2 (high number of acres important migratory bird habitat impacted)	0	This alternative does not impact important migratory bird habitat.	
	Eagle nesting trees directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of trees impacted)	-2	This alternative directly impacts five known eagle nesting trees including a 660-ft buffer, making it the most impactful alternative.	
	Contaminated sites directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of contaminated sites impacted)	0	This alternative does not directly impact known contaminated sites.	
	Section 4(f)/6(f) resources affected	Scale from 0 (no or minimal impacts) to -2 (high number of Section 4(f)/6(f) resources impacted)	-2	This alternative has the potential to directly impact three identified Section 4(f)/6(f) resources, which is the highest impact of the alternatives considered.	
	Protected lands directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of protected lands impacted)	0	This alternative does not appear to directly impact protected land administered by the Southeast Alaska Land Trust	
	Impervious surfaces added	Scale from 0 (no or minimal impacts) to -2 (high number of impervious surfaces impacted)	-2	This alternative adds approximately 52.8 acres of impervious surfaces, which is over six times the area of the next most impactful alternative.	
	Social	EJ community, school, or community gathering space directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of properties impacted)	0	This alternative does not appear to directly impact an EJ community, school, or community gathering space.
		Neighborhood divided or otherwise disrupted	Scale from 0 (no or minimal impacts) to -2 (high number of neighborhoods impacted)	0	This alternative does not impact any neighborhoods.
Distance to Native Allotment		Scale from 0 (not within 50 feet) to -2 (within 50 feet) of a Native Allotment	0	This alternative passes within 1.3 miles of a conveyed Native Allotment, which is the closest of the alternatives evaluated. However, impacts to Native Allotments are very unlikely.	
Housing	Residential uses directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of residential uses impacted)	0	This alternative directly affects one residential parcel, which is the second least impactful alternative and six fewer than the most impactful alternative.	
	Within 100 feet of residential property	Scale from 0 (not within 100 feet) to -2 (within 100 feet) of a residential property	0	This alternative is within 100 feet of seven residential properties, which is tied for the second least impactful alternative.	
	Acres of vacant residential land directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of developable land impacted)	-2	This alternative impacts 23.6 acres of vacant residential land, which is the most impactful alternative impacting more than twice the area of other alternatives.	
Economic	Commercial uses directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of commercial uses impacted)	-2	This alternative impacts one commercial use, although the commercial use is an airport, which is one of the most substantial mixed public/commercial uses in the area.	
	Within 100 feet of commercial uses	Scale from 0 (not within 100 feet) to -2 (within 100 feet) of a commercial property	0	This alternative is not within 100 feet of any commercial uses.	
	Acres of vacant commercial land directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of developable land impacted)	0	No acres of commercial land are directly impacted by this alternative.	
Safety	Improves safety for all users	Scale from 2 (reduces conflict/friction on network) to -2 (higher risk of conflict/friction on network)	0	The Mendenhall Peninsula alternative passes 20 individual conflict points (driveways or intersections/lanes), which suggest a reduced likelihood of a negative interaction between a roadway user traveling in one direction and another roadway user traveling in another direction. This alternative has the second highest number of conflict points, but fewer than the no build alternative.	
Cost	Estimated total construction cost	Scale from 0 (low construction cost) to -2 (high construction cost)	0	TBD	
	Estimated annual maintenance cost	Scale from 0 (low maintenance cost) to -2 (high maintenance cost)	0	TBD	
ROW	Total ROW needed	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted) and scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	-2	A total of 50.8 acres, or 8 parcels (full and partial) are needed for this alternative, making it the most impactful. Impacts in terms of area are nearly four times more than the next most impactful alternative.	
	Residential property acquisition	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted)	0	A total of 0.6 acres, or one parcel (full and partial) is needed for this alternative, making it the second least impactful.	
	Commercial property acquisition	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted)	0	No commercial property acquisition is needed for this alternative.	
Public Support	Level of public support	Scale from 2 (high level of support) to 0 (low level of support)	1	Respondents of a survey conducted between December 12, 2022 and February 3, 2023 indicated that of eight alternatives proposed, Mendenhall Peninsula ranked as the fourth top choice.	
Score/Result			-11		

2	Alternative demonstrates strong performance against criteria
1	Alternative demonstrates moderate performance against criteria
0	Alternative demonstrates neutral performance against criteria
-1	Alternative demonstrates slightly weak performance against criteria
-2	Alternative demonstrates weak performance against criteria

Sunny Point West Alternative

	Criteria	Measure	Answer	Comment/Rationale/Justification
1. Purpose and Need				
Purpose and Need	Provide alternative access and transportation infrastructure resilience	Scale from 2 (significant improvement) to -2 (no discernible improvement)	2	Provides an alternate access and improves transportation infrastructure resilience by providing a secondary crossing to Douglas Island.
	Improve transportation for non-motorized users	Planned pedestrian and bicycle lanes tie into the existing network and improve access and safety for non-motorized users	2	Improves transportation for non-motorized users by providing an alternate crossing with an added separated multi-use path that ties into existing infrastructure.
	Reduce transportation-related energy consumption	Scale from 2 (significant improvement) to -2 (no discernible improvement) of the estimated change in travel times based on travel origins and destinations	1	Overall travel time between Douglas Island and Juneau mainland is reduced because some trips would experience shorter travel times when using this proposed bridge. Based on the origin-destination study, this alternative would reduce travel times for mainly recreational uses, and would lead to reduced transportation-related energy consumption. Other alternatives will have a greater benefit in shifting trips to the new bridge location, hence the lower score.
	Decrease existing and future traffic congestion on Douglas Island Bridge and its intersections	Scale from 2 (significant improvement) to -2 (no discernible improvement) of estimated LOS during AM and PM peaks at the existing bridge and alternative	1	The alternative would decrease traffic pressure on the existing Douglas Island Bridge and its intersections by dividing the traffic between the existing bridge and the alternate crossing. Some traffic would switch to the proposed bridge, which would reduce demand for the Douglas Island Bridge and the intersections to either side of the bridge. Other alternatives will have a greater benefit in shifting trips to the new bridge location, hence the lower score.
	Improve emergency response times	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction between the hospital/fire department and Douglas Island residents	2	When emergencies require response from an out-of-district station or multiple stations simultaneously, the Sunny Point West crossing would allow a more timely response to Douglas Island from the Lynn Canal, Auke Bay stations, and in some cases the Glacier Station, by shortening the distance needed to travel to a crossing to Douglas Island.
	Improve access to critical healthcare and emergency services	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction	2	Improves access to critical healthcare and emergency services during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides, or avalanches.
	Improve travel times (per user) to workplaces and critical resources	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction	2	Improves access to workplaces and critical resources during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides, or avalanches. When considering the number of users with improved travel times in combination with the minutes of travel time decreased, the alternative scores higher than other alternatives due to the combination of users impacted and the amount of time saved per user.
2. Additional Goals				
Additional Goals	Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities.	Scale from 2 (significant improvement) to -2 (no discernible improvement) of the connection to North and West Douglas Island	2	This alternative has the potential to significantly improve the connection to North and West Douglas Island by creating additional traffic capacity.
	Enhance and protect the public health and safety of travelers and the communities that transportation facilities traverse and serve.	Scale from 2 (significant improvement) to -2 (no discernible improvement) to enhance and protect the public health and safety	2	This alternative has the potential to enhance public health and safety by reducing traffic in locations where delay is currently experienced, adding a separated multi-use pathway and tying into existing active transportation infrastructure. It would provide resiliency in the transportation network by creating an additional crossing.
	Avoid, minimize, and mitigate impacts to the environment.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	-2	This alternative is not likely to avoid, but has potential to minimize or mitigate impacts to the environment depending on design, location, or other measures. It has a potential to impact other Section 4(f) properties, important migratory bird areas, wildlife habitats, and waterbodies. Refer to other considerations screening below. This alternative scored -13 cumulatively when considering natural environmental factors below alone. This is tied with Mendenhall Peninsula as the second most impactful alternative.
	Avoid, minimize, and mitigate impacts to residential areas.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	-1	This alternative has two direct impacts and potentially 48 indirect impacts. It would not avoid impacts but has potential to minimize or mitigate impacts to residential areas depending on design and location. Refer to other considerations screening below.
	Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	-1	Based on the location within a protected viewshed (Guidelines and Considerations for Subarea 8, page 191f, CBJ Comprehensive Plan 2013) and the size of the structure needed, this alternative will likely impact the visual, cultural, and scenic identity of Juneau and Douglas Island. Refer to other considerations screening below. However, a crossing at this location has better potential to minimize or mitigate potential visual impacts through vegetative buffers.
OTHER CONSIDERATIONS				
1. Environmental				
Natural	Wetlands directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	-2	This alternative impacts 7.2 acres of wetlands, which is the most impactful alternative.
	Intertidal zone directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres intertidal zone impacted)	-1	This alternative impacts approximately 2.5 acres of intertidal zone, which is the second least impactful alternative. However, the acreage of the third, fourth, fifth, and sixth most impactful alternatives are so similar when compared to the rest that these alternatives received the same impact score.
	Stream and riparian habitats (including buffer) directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of stream and riparian habitats including buffer impacted)	-1	This alternative impacts 0.2 acres of stream and riparian habitat buffer and within 0.2 acres of all the other alternatives except Vanderbilt.
	EFH (including buffer) directly affected (including noise)	Scale from 0 (no or minimal impacts) to -2 (high number of acres of EFH including buffer impacted)	0	This alternative impacts 1.4 acres of EFH (including buffer), which is nearly tied with Sunny Point East as the least impactful alternative.
	Wildlife habitat directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of wildlife habitat impacted)	-1	This alternative impacts 13.1 acres of wildlife habitat, which is the third most impactful alternative.
	Anadromous streams impacted	Scale from 0 (no or minimal impacts) to -2 (high number of anadromous streams impacted)	-2	This alternative impacts eight anadromous stream, the most of any alternative.
	Threatened and endangered (T&E) habitat directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	0	No T&E habitat is impacted by this alternative.
	Important migratory bird habitat impacted (using 500-foot buffer around bird hotspots)	Scale from 0 (no or minimal impacts) to -2 (high number of acres important migratory bird habitat impacted)	-2	This alternative impacts 24.7 acres of important bird habitat, the most of any alternative and over three times as many as the next most impactful alternative.
	Eagle nesting trees directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of trees impacted)	-1	This alternative directly impacts two known eagle nesting trees including a 660-ft buffer, making it the second most impactful alternative.
	Contaminated sites directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of contaminated sites impacted)	0	This alternative does not directly impact known contaminated sites.
	Section 4(f)/6(f) resources affected	Scale from 0 (no or minimal impacts) to -2 (high number of Section 4(f)/6(f) resources impacted)	-1	This alternative has the potential to directly impact one identified Section 4(f)/6(f) resource.
	Protected lands directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of protected lands impacted)	0	This alternative has the does not appear to directly impact protected land administered by the Southeast Alaska Land Trust
	Impervious surfaces added	Scale from 0 (no or minimal impacts) to -2 (high number of impervious surfaces impacted)	-2	This alternative adds approximately 32.2 acres of impervious surfaces, which is the fourth most impactful alternative.
	Social	EJ community, school, or community gathering space directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of properties impacted)	0
Neighborhood divided or otherwise disrupted		Scale from 0 (no or minimal impacts) to -2 (high number of neighborhoods impacted)	-2	This alternative impacts three neighborhoods, one on Douglas Island and two near Sunny Point, the highest number of neighborhoods impacted. In addition, two residential parcels would be impacted (see below).
Distance to Native Allotment		Scale from 0 (not within 50 feet) to -2 (within 50 feet) of a Native Allotment	0	This alternative passes within 1.7 miles of a conveyed Native Allotment, which is the joint second closest of the alternatives evaluated. However, impacts to Native Allotments are very unlikely.
Housing	Residential uses directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of residential uses impacted)	-1	This alternative directly affects two residential uses, which is tied with Sunny Point East for the third least impactful alternative.
	Within 100 feet of residential property	Scale from 0 (not within 100 feet) to -2 (within 100 feet) of a residential property	-2	This alternative is within 100 feet of 48 residential properties, which is the most impactful alternative.
	Acres of vacant residential land directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of developable land impacted)	-1	This alternative impacts 5.1 acres of vacant residential land, which is tied for the third most impactful alternative.
Economic	Commercial uses directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of commercial uses impacted)	0	This alternative does not directly impact commercial uses.
	Within 100 feet of commercial uses	Scale from 0 (not within 100 feet) to -2 (within 100 feet) of a commercial property	-1	This alternative crosses within 100 feet of two commercial uses, which is the third most impactful alternative.
	Acres of vacant commercial land directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of developable land impacted)	0	No acres of commercial land are directly impacted by this alternative.
Safety	Improves safety for all users	Scale from 2 (reduces conflict/friction on network) to -2 (higher risk of conflict/friction on network)	1	The Sunny Point West alternative passes 17 individual conflict points (driveways or intersections/lanes), which suggest a lower likelihood of a negative interaction between a roadway user traveling in one direction and another roadway user traveling in another direction. This alternative has the third fewest number of conflict points which is nearly half of the no build alternative.
Cost	Estimated total construction cost	Scale from 0 (low construction cost) to -2 (high construction cost)	0	TBD
	Estimated annual maintenance cost	Scale from 0 (low maintenance cost) to -2 (high maintenance cost)	0	TBD
ROW	Total ROW needed	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted) and scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	-1	A total of 9.2 acres, or four parcels (full and partial) are needed for this alternative, making it the third most impactful.
	Residential property acquisition	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted)	-2	A total of 5.1 acres, or two parcels (full and partial) are needed for this alternative, making it tied with Sunny Point East for the second most impactful.
	Commercial property acquisition	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted)	0	No commercial property acquisition is needed for this alternative.
Public Support	Level of public support	Scale from 2 (high level of support) to 0 (low level of support)	2	Respondents of a survey conducted between December 12, 2022 and February 3, 2023 indicated that of eight alternatives proposed, the Sunny Point area ranked as the top choice.
Score/Result			-8	

2	Alternative demonstrates strong performance against criteria
1	Alternative demonstrates moderate performance against criteria
0	Alternative demonstrates neutral performance against criteria
-1	Alternative demonstrates slightly weak performance against criteria
-2	Alternative demonstrates weak performance against criteria

Sunny Point East Alternative

	Criteria	Measure	Answer	Comment/Rationale/Justification
1. Purpose and Need				
Purpose and Need	Provide alternative access and transportation infrastructure resilience	Scale from 2 (significant improvement) to -2 (no discernible improvement)	2	Provides alternate access and improves transportation infrastructure resilience by providing a secondary crossing to Douglas Island.
	Improve transportation for non-motorized users	Planned pedestrian and bicycle lanes tie into the existing network and improve access and safety for non-motorized users	2	Improves transportation for non-motorized users by providing an alternate crossing with a separated multi-use path that ties into existing infrastructure.
	Reduce transportation-related energy consumption	Scale from 2 (significant improvement) to -2 (no discernible improvement) of the estimated change in travel times based on travel origins and destinations	1	Overall travel time between Douglas Island and Juneau mainland is likely to be reduced because some trips would experience shorter travel times when using this proposed bridge. Based on the traffic study, this alternative would reduce travel times for mainly recreational uses, and would lead to reduced transportation-related energy consumption.
	Decrease existing and future traffic congestion on Douglas Island Bridge and its intersections	Scale from 2 (significant improvement) to -2 (no discernible improvement) of estimated LOS during AM and PM peaks at the existing bridge and alternative	1	The alternative would decrease traffic pressure on the existing Douglas Island Bridge and its intersections by dividing the traffic between the existing bridge and the alternate crossing. Some traffic would switch to the proposed bridge, which would reduce demand for the Douglas Island Bridge and associated intersections.
	Improve emergency response times	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction between the hospital/fire department and Douglas Island residents	2	When emergencies require response from an out-of-district station or multiple stations simultaneously, the alternative would allow a more timely response to Douglas Island from the Lynn Canal, Auke Bay stations, and in some cases the Glacier Station, by shortening the distance to a crossing.
	Improve access to critical healthcare and emergency services	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction	2	Provides alternate access to critical healthcare and emergency services during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides, or avalanches.
	Improve travel times (per user) to workplaces and critical resources	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction	2	Provides alternate access to workplaces and critical resources during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides, or avalanches. When considering the number of users with improved travel times in combination with the minutes of travel time decreased, the alternative scores higher than other alternatives due to the combination of users impacted and the amount of time saved per user.
2. Additional Goals				
Additional Goals	Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities.	Scale from 2 (significant improvement) to -2 (no discernible improvement) of the connection to North and West Douglas Island	2	This alternative has the potential to significantly improve the connection to North and West Douglas Island by creating additional traffic capacity.
	Enhance and protect the public health and safety of travelers and the communities that transportation facilities traverse and serve.	Scale from 2 (significant improvement) to -2 (no discernible improvement) to enhance and protect the public health and safety	2	This alternative has the potential to enhance public health and safety by reducing traffic in locations where delay is currently experienced, adding a separated multi-use pathway and tying into existing active transportation infrastructure. It would provide resiliency in the transportation network by creating an additional crossing.
	Avoid, minimize, and mitigate impacts to the environment.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	-2	This alternative is not likely to avoid, but has potential to minimize or mitigate impacts to the environment depending on design, location, or other measures. It has a potential to impact other Section 4(f) properties, important migratory bird areas, wildlife habitats, and waterbodies. Refer to other considerations screening below. This alternative scored -9 cumulatively when considering environmental factors below alone. This is the third best score amongst alternatives, although environmental impacts are considerable when compared to the no build.
	Avoid, minimize, and mitigate impacts to residential areas.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	-1	This alternative has two direct impacts and potentially 15 indirect impacts. It would not avoid impacts but has potential to minimize or mitigate impacts to residential areas depending on design and location. Refer to other considerations screening below.
	Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	-1	Based on the location within a protected viewshed (Guidelines and Considerations for Subarea 8, page 191f, CBJ Comprehensive Plan 2013) and the size of the structure needed, this alternative will likely impact the visual, cultural, and scenic identity of Juneau and Douglas Island. Refer to other considerations screening below. However, a crossing at this location has better potential to minimize or mitigate potential visual impacts
OTHER CONSIDERATIONS				
1. Environmental				
Natural	Wetlands directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	-1	This alternative impacts 1.3 acres of wetlands, which is less than 20 percent of the most impactful alternative (Sunny Point West).
	Intertidal zone directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres intertidal zone impacted)	-1	This alternative impacts approximately 2.2 acres of intertidal zone, which is the second least impactful alternative. However, the acreage of the third, fourth, fifth, and sixth most impactful alternatives are so similar when compared to the rest that these alternatives received the same
	Stream and riparian habitats (including buffer) directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of stream and riparian habitats including buffer impacted)	-1	This alternative impacts 0.1 acres of stream and riparian habitat buffer and within 0.2 acres of all the other alternatives except Vanderbilt.
	EFH (including buffer) directly affected (including noise)	Scale from 0 (no or minimal impacts) to -2 (high number of acres of EFH including buffer impacted)	0	This alternative impacts 1.2 acres of EFH (including buffer), which is nearly tied with Sunny Point East as the least impactful alternative.
	Wildlife habitat directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of wildlife habitat impacted)	0	This alternative impacts 2.2 acres of wildlife habitat, which, together with Salmon Creek, is the least impactful alternative.
	Anadromous streams impacted	Scale from 0 (no or minimal impacts) to -2 (high number of anadromous streams impacted)	-1	This alternative impacts four anadromous streams, the second highest measure, but half the number of Sunny Point West.
	Threatened and endangered (T&E) habitat directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	0	No T&E habitat is impacted by this alternative.
	Important migratory bird habitat impacted (using 500-foot buffer around bird hotspots)	Scale from 0 (no or minimal impacts) to -2 (high number of acres important migratory bird habitat impacted)	0	This alternative does not impact important migratory bird habitat.
	Eagle nesting trees directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of trees impacted)	-1	This alternative directly impacts one known eagle nesting tree including a 660-ft buffer, making it the tied for third most impactful alternative.
	Contaminated sites directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of contaminated sites impacted)	0	This alternative does not directly impact known contaminated sites.
	Section 4(f)/6(f) resources affected	Scale from 0 (no or minimal impacts) to -2 (high number of Section 4(f)/6(f) resources impacted)	-1	This alternative has the potential to directly impact one identified Section 4(f)/6(f) resource.
	Protected lands directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of protected lands impacted)	-2	This alternative has the potential to impact .006 acres of protected land administered by the Southeast Alaska Land Trust. Even though the amount of acreage is small, the resource may warrant the most caution for impacts in regards to permitting.
	Impervious surfaces added	Scale from 0 (no or minimal impacts) to -2 (high number of impervious surfaces impacted)	-1	This alternative adds approximately 7.9 acres of impervious surfaces, which is the least most impactful alternative.
	Social	EJ community, school, or community gathering space directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of properties impacted)	0
Neighborhood divided or otherwise disrupted		Scale from 0 (no or minimal impacts) to -2 (high number of neighborhoods impacted)	-2	This alternative impacts two neighborhoods, one on Douglas Island and one at Sunny Point, tied with Mendenhall Peninsula and Twin Lakes for the second highest number of neighborhoods impacted. In addition, two residential parcels would be impacted (see below).
Distance to Native Allotment		Scale from 0 (not within 50 feet) to -2 (within 50 feet) of a Native Allotment	0	This alternative passes within 1.8 miles of a conveyed Native Allotment, which is the joint second closest of the alternatives evaluated. However, impacts to Native Allotments are very unlikely.
Housing	Residential uses directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of residential uses impacted)	-1	This alternative directly affects two residential uses, which is tied with Sunny Point West for the third least impactful alternative.
	Within 100 feet of residential property	Scale from 0 (not within 100 feet) to -2 (within 100 feet) of a residential property	-1	This alternative is within 100 feet of 15 residential properties, which is the third least impactful alternative.
	Acres of vacant residential land directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of developable land impacted)	-1	This alternative impacts 5.1 acres of vacant residential land, which is tied for the third most impactful alternative.
Economic	Commercial uses directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of commercial uses impacted)	0	This alternative does not directly impact commercial uses.
	Within 100 feet of commercial uses	Scale from 0 (not within 100 feet) to -2 (within 100 feet) of a commercial property	-1	This alternative crosses within 100 feet of two commercial uses, which is the third least impactful alternative.
	Acres of vacant commercial land directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of developable land impacted)	0	No acres of commercial land are directly impacted by this alternative.
Safety	Improves safety for all users	Scale from 2 (reduces conflict/friction on network) to -2 (higher risk of conflict/friction on network)	1	The Sunny Point East alternative passes 18 individual conflict points (driveways or intersections/lanes), which suggest a lower likelihood of a negative interaction between a roadway user traveling in one direction and another roadway user traveling in another direction. This alternative has the third fewest number of conflict points which is nearly half of the no build alternative.
Cost	Estimated total construction cost	Scale from 0 (low construction cost) to -2 (high construction cost)	0	TBD
	Estimated annual maintenance cost	Scale from 0 (low maintenance cost) to -2 (high maintenance cost)	0	TBD
ROW	Total ROW needed	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted) and scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	-1	A total of 5.1 acres, or two parcels (full and partial) are needed for this alternative, making it the third least impactful.
	Residential property acquisition	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted)	-2	A total of 5.1 acres, or two parcels (full and partial) are needed for this alternative, making it tied with Sunny Point West for the second most impactful.
	Commercial property acquisition	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted)	0	No commercial property acquisition is needed for this alternative.
Public Support	Level of public support	Scale from 2 (high level of support) to 0 (low level of support)	2	Respondents of a survey conducted between December 12, 2022 and February 3, 2023 indicated that of eight alternatives proposed, the Sunny Point area ranked as the top choice.
Score/Result			-3	

2	Alternative demonstrates strong performance against criteria
1	Alternative demonstrates moderate performance against criteria
0	Alternative demonstrates neutral performance against criteria
-1	Alternative demonstrates slightly weak performance against criteria
-2	Alternative demonstrates weak performance against criteria

Vanderbilt Alternative

	Criteria	Measure	Answer	Comment/Rationale/Justification
1. Purpose and Need				
Purpose and Need	Provide alternative access and transportation infrastructure resilience	Scale from 2 (significant improvement) to -2 (no discernible improvement)	2	Provides alternate access and improves transportation infrastructure resilience by providing a secondary crossing to Douglas Island.
	Improve transportation for non-motorized users	Planned pedestrian and bicycle lanes tie into the existing network and improve access and safety for non-motorized users	2	Improves transportation for non-motorized users by providing an alternate crossing with a separated multi-use path that ties into existing infrastructure.
	Reduce transportation-related energy consumption	Scale from 2 (significant improvement) to -2 (no discernible improvement) of the estimated change in travel times based on travel origins and destinations	1	Overall travel time between Douglas Island and Juneau mainland is likely to be reduced because some trips would experience shorter travel times when using this proposed bridge. Based on the traffic study, this alternative would reduce travel times for mainly recreational uses, and would lead to reduced transportation-related energy consumption.
	Decrease existing and future traffic congestion on Douglas Island Bridge and its intersections	Scale from 2 (significant improvement) to -2 (no discernible improvement) of estimated LOS during AM and PM peaks at the existing bridge and alternative	1	The alternative would decrease traffic pressure on the existing Douglas Island Bridge and its intersections by dividing the traffic between the existing bridge and the alternate crossing. Some traffic would switch to the proposed bridge, which would reduce demand for the Douglas Island Bridge and associated intersections.
	Improve emergency response times	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction between the hospital/fire department and Douglas Island residents	2	When emergencies require response from an out-of-district station or multiple stations simultaneously, the alternative would allow a more timely response to Douglas Island from the Lynn Canal, Auke Bay stations, and in some cases the Glacier Station, by shortening the distance to a crossing.
	Improve access to critical healthcare and emergency services	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction	2	Provides alternate access to critical healthcare and emergency services during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides, or avalanches.
	Improve travel times (per user) to workplaces and critical resources	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction	2	Provides alternate access to workplaces and critical resources during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides, or avalanches. When considering the number of users with improved travel times in combination with the minutes of travel time decreased, the alternative scores higher than other alternatives due to the combination of users impacted and the amount of time saved per user.
2. Additional Goals				
Additional Goals	Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities.	Scale from 2 (significant improvement) to -2 (no discernible improvement) of the connection to North and West Douglas Island	2	This alternative has the potential to significantly improve the connection to North and West Douglas Island by creating additional traffic capacity.
	Enhance and protect the public health and safety of travelers and the communities that transportation facilities traverse and serve.	Scale from 2 (significant improvement) to -2 (no discernible improvement) to enhance and protect the public health and safety	2	This alternative has the potential to enhance public health and safety by reducing traffic in locations where delay is currently experienced, adding a separated multi-use pathway and tying into existing active transportation infrastructure. It would provide resiliency in the transportation network by creating an additional crossing.
	Avoid, minimize, and mitigate impacts to the environment.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	-2	This alternative is not likely to avoid, but has potential to minimize or mitigate impacts to the environment depending on design, location, or other measures. It has a potential to impact other Section 4(f) properties, important migratory bird areas, wildlife habitats, and waterbodies. Refer to other considerations screening below. This alternative scored -15 cumulatively when considering environmental factors below alone. This alternative is the most impactful when compared to other alternatives.
	Avoid, minimize, and mitigate impacts to residential areas.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	-2	This alternative has six direct impacts and potentially 18 indirect impacts. It would not avoid impacts but has potential to minimize or mitigate impacts to residential areas depending on design and location. Refer to other considerations screening below.
	Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	-1	Based on the location within a protected viewshed (Guidelines and Considerations for Subarea 8, page 191f, CBJ Comprehensive Plan 2013) and the size of the structure needed, this alternative will likely impact the visual, cultural, and scenic identity of Juneau and Douglas Island. Refer to other considerations screening below. However, a crossing at this location has better potential to minimize or mitigate potential visual impacts through vegetative buffers.
OTHER CONSIDERATIONS				
1. Environmental				
Natural	Wetlands directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	-2	This alternative impacts 6.4 acres of wetlands, which is the second most impactful alternative.
	Intertidal zone directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres intertidal zone impacted)	-2	This alternative impacts approximately 27.7 acres of intertidal zone, the second highest acreage of impact of all the alternatives and over three times the acreage of the next closest alternative.
	Stream and riparian habitats (including buffer) directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of stream and riparian habitats including buffer impacted)	-2	This alternative impacts 2.3 acres of stream and riparian habitat buffer, the most impactful alternative by two acres.
	EFH (including buffer) directly affected (including noise)	Scale from 0 (no or minimal impacts) to -2 (high number of acres of EFH including buffer impacted)	-2	This alternative impacts 42 acres of EFH (including buffer), which is the most impactful alternative. The area of impact is similar to the second most impactful alternative, Twin Lakes.
	Wildlife habitat directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of wildlife habitat impacted)	-2	This alternative impacts 21.5 acres of wildlife habitat, which is the second most impactful alternative.
	Anadromous streams impacted	Scale from 0 (no or minimal impacts) to -2 (high number of anadromous streams impacted)	-1	This alternative impacts three anadromous streams, the third highest number.
	Threatened and endangered (T&E) habitat directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	0	No T&E habitat is impacted by this alternative.
	Important migratory bird habitat impacted (using 500-foot buffer around bird hotspots)	Scale from 0 (no or minimal impacts) to -2 (high number of acres important migratory bird habitat impacted)	-1	This alternative impacts 4.5 acres of important bird habitat, the fourth most impactful. This alternative impacts acreage similar to the third and second most impactful and is therefore scored the same.
	Eagle nesting trees directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of trees impacted)	0	This alternative does not impact known eagle nesting trees.
	Contaminated sites directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of contaminated sites impacted)	0	This alternative does not directly impact known contaminated sites.
	Section 4(f)/6(f) resources affected	Scale from 0 (no or minimal impacts) to -2 (high number of Section 4(f)/6(f) resources impacted)	-1	This alternative has the potential to directly impact two identified Section 4(f)/6(f) resources.
	Protected lands directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of protected lands impacted)	0	This alternative does not appear to directly impact protected land administered by the Southeast Alaska Land Trust
	Impervious surfaces added	Scale from 0 (no or minimal impacts) to -2 (high number of impervious surfaces impacted)	-2	This alternative adds approximately 37.9 acres of impervious surfaces, which is the third most impactful alternative.
Social	EJ community, school, or community gathering space directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of properties impacted)	-1	This alternative does not appear to directly impact an EJ community or school, but it does potentially impact a community gathering space (Water Access).
	Neighborhood divided or otherwise disrupted	Scale from 0 (no or minimal impacts) to -2 (high number of neighborhoods impacted)	-1	This alternative impacts one neighborhood on Douglas Island, and is tied with Salmon Creek for the least number of neighborhoods impacted. In addition, six residential parcels would be impacted (see below).
	Distance to Native Allotment	Scale from 0 (not within 50 feet) to -2 (within 50 feet) of a Native Allotment	0	This alternative passes within 2.7 miles of a conveyed Native allotment, which is the second furthest of the alternatives evaluated. However, impacts to Native allotments are very unlikely.
Housing	Residential uses directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of residential uses impacted)	-2	This alternative directly affects six residential uses, which is the second most impactful alternative.
	Within 100 feet of residential property	Scale from 0 (not within 100 feet) to -2 (within 100 feet) of a residential property	-1	This alternative is within 100 feet of 18 residential properties, which is the second most impactful alternative.
	Acres of vacant residential land directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of developable land impacted)	-1	This alternative impacts 6.3 acres of vacant residential land, which is the second most impactful alternative, but still nearly one-third of the acreage of the most impactful alternative.
Economic	Commercial uses directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of commercial uses impacted)	0	This alternative does not directly impact commercial uses.
	Within 100 feet of commercial uses	Scale from 0 (not within 100 feet) to -2 (within 100 feet) of a commercial property	0	This alternative does not cross within 100 feet of a commercial use, which is the least impactful alternative.
	Acres of vacant commercial land directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of developable land impacted)	0	No acres of commercial land are directly impacted by this alternative.
Safety	Improves safety for all users	Scale from 2 (reduces conflict/friction on network) to -2 (higher risk of conflict/friction on network)	2	The Vanderbilt alternative passes 13 individual conflict points (driveways or intersections/lanes), which suggest a lower likelihood of a negative interaction between a roadway user traveling in one direction and another roadway user traveling in another direction. This alternative has the lowest number of conflict points.
Cost	Estimated total construction cost	Scale from 0 (low construction cost) to -2 (high construction cost)	0	TBD
	Estimated annual maintenance cost	Scale from 0 (low maintenance cost) to -2 (high maintenance cost)	0	TBD
ROW	Total ROW needed	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted) and scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	-2	A total of 13.3 acres, or 11 parcels (full and partial) are needed for this alternative, making it the second most impactful.
	Residential property acquisition	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted)	-2	A total of 6.5 acres, or six parcels (full and partial) are needed for this alternative, making it the most impactful alternative.
	Commercial property acquisition	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted)	0	No commercial property acquisition is needed for this alternative.
Public Support	Level of public support	Scale from 2 (high level of support) to 0 (low level of support)	2	Respondents of a survey conducted between December 12, 2022 and February 3, 2023 indicated that of eight alternatives proposed, Vanderbilt ranked as the third top choice, coming in second for votes amongst the alternatives under consideration in this screening.
Score/Result			-10	

2	Alternative demonstrates strong performance against criteria
1	Alternative demonstrates moderate performance against criteria
0	Alternative demonstrates neutral performance against criteria
-1	Alternative demonstrates slightly weak performance against criteria
-2	Alternative demonstrates weak performance against criteria

Twin Lakes Alternative

	Criteria	Measure	Answer	Comment/Rationale/Justification
1. Purpose and Need				
Purpose and Need	Provide alternate access and transportation infrastructure resilience	Scale from 2 (significant improvement) to -2 (no discernible improvement)	2	Provides alternate access and improves transportation infrastructure resilience by providing a secondary crossing to Douglas Island.
	Improve transportation for non-motorized users	Planned pedestrian and bicycle lanes tie into the existing network and improve access and safety for non-motorized users	2	Improves transportation for non-motorized users by providing an alternate crossing with a separated multi-use path that ties into existing infrastructure.
	Reduce transportation-related energy consumption	Scale from 2 (significant improvement) to -2 (no discernible improvement) of the estimated change in travel times based on travel origins and destinations	1	Overall travel time between Douglas Island and Juneau mainland is likely to be reduced because some trips would experience shorter travel times when using this proposed bridge. Based on the traffic study, this alternative would reduce travel times for mainly recreational uses, and would lead to reduced transportation-related energy consumption.
	Decrease existing and future traffic congestion on Douglas Island Bridge and its intersections	Scale from 2 (significant improvement) to -2 (no discernible improvement) of estimated LOS during AM and PM peaks at the existing bridge and alternative	1	The alternative would decrease traffic pressure on the existing Douglas Island Bridge and its intersections by dividing the traffic between the existing bridge and the alternate crossing. Some traffic would switch to the proposed bridge, which would reduce demand for the Douglas Island Bridge and associated intersections.
	Improve emergency response times	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction between the hospital/fire department and Douglas Island residents	2	When emergencies require response from an out-of-district station or multiple stations simultaneously, the alternative would allow a more timely response to Douglas Island from the Lynn Canal, Auke Bay stations, and in some cases the Glacier Station, by shortening the distance to a crossing.
	Improve access to critical healthcare and emergency services	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction	2	Provides alternate access to critical healthcare and emergency services during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides, or avalanches.
	Improve travel times (per user) to workplaces and critical resources	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction	1	Provides alternate access to workplaces and critical resources during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides, or avalanches. When considering the number of users with improved travel times in combination with the minutes of travel time decreased, the alternative does not score as high as other alternatives due to the lower amount of time savings per user.
2. Additional Goals				
Additional Goals	Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities.	Scale from 2 (significant improvement) to -2 (no discernible improvement) of the connection to North and West Douglas Island	1	This alternative has the potential to significantly improve the connection to North and West Douglas Island by creating additional traffic capacity. This alternative scores lower than other alternatives due to the low travel time savings.
	Enhance and protect the public health and safety of travelers and the communities that transportation facilities traverse and serve.	Scale from 2 (significant improvement) to -2 (no discernible improvement) to enhance and protect the public health and safety	2	This alternative has the potential to enhance public health and safety by reducing traffic in locations where delay is currently experienced, adding a separated multi-use pathway and tying into existing active transportation infrastructure. It would provide resiliency in the transportation network by creating an additional crossing.
	Avoid, minimize, and mitigate impacts to the environment.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	-2	This alternative is not likely to avoid, but has potential to minimize or mitigate impacts to the environment depending on design, location, or other measures. It has a potential to impact other Section 4(f) properties, important migratory bird areas, wildlife habitats, and waterbodies. Refer to other considerations screening below. This alternative scored -11 cumulatively when considering natural environment factors below alone. This is the third best score amongst the alternatives, although environmental impacts are considerable when compared to the no build.
	Avoid, minimize, and mitigate impacts to residential areas.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	0	This alternative avoids direct impacts but could potentially create indirect impacts which would require minimization or mitigation depending on design and location. Refer to other considerations screening below.
	Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	-1	Based on the location within a protected viewshed (Guidelines and Considerations for Subarea 8, page 191f, CBJ Comprehensive Plan 2013) and the size of the structure needed, this alternative will likely impact the visual, cultural and scenic identity of Juneau and Douglas Island. Refer to other considerations screening below. However, a crossing at this location has better potential to minimize or mitigate potential visual impacts through vegetative buffers.
OTHER CONSIDERATIONS				
1. Environmental				
Natural	Wetlands directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	-1	This alternative impacts 1.7 acres of wetlands, which is the second least impactful alternative.
	Intertidal zone directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres intertidal zone impacted)	-2	This alternative impacts approximately 35.9 acres of intertidal zone, the highest acreage of impact of all the alternatives.
	Stream and riparian habitats (including buffer) directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of stream and riparian habitats including buffer impacted)	0	This alternative does not impact stream and riparian habitats.
	EFH (including buffer) directly affected (including noise)	Scale from 0 (no or minimal impacts) to -2 (high number of acres of EFH including buffer impacted)	-2	This alternative impacts 45 acres of EFH (including buffer), which is the most impactful alternative.
	Wildlife habitat directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of wildlife habitat impacted)	-1	This alternative impacts 8.1 acres of wildlife habitat, which is the fourth most impactful alternative.
	Anadromous streams impacted	Scale from 0 (no or minimal impacts) to -2 (high number of anadromous streams impacted)	0	This alternative does not impact anadromous streams.
	Threatened and endangered (T&E) habitat directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	0	No T&E habitat is impacted by this alternative.
	Important migratory bird habitat impacted (using 500-foot buffer around bird hotspots)	Scale from 0 (no or minimal impacts) to -2 (high number of acres important migratory bird habitat impacted)	-1	This alternative impacts 6.4 acres of important bird habitat, the third most impactful. This alternative impacts acreage similar to the fourth and second most impactful and is therefore scored the same.
	Eagle nesting trees directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of trees impacted)	-1	This alternative directly impacts one known eagle nesting tree including a 660-ft buffer, making it the tied for third most impactful alternative.
	Contaminated sites directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of contaminated sites impacted)	0	This alternative does not directly impact known contaminated sites.
	Section 4(f)/6(f) resources affected	Scale from 0 (no or minimal impacts) to -2 (high number of Section 4(f)/6(f) resources impacted)	-1	This alternative has the potential to directly impact one identified Section 4(f)/6(f) resource.
	Protected lands directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of protected lands impacted)	0	This alternative does not appear to directly impact protected land administered by the Southeast Alaska Land Trust
	Impervious surfaces added	Scale from 0 (no or minimal impacts) to -2 (high number of impervious surfaces impacted)	-2	This alternative adds approximately 39.9 acres of impervious surfaces, which is the second most impactful alternative.
	Social	EJ community, school, or community gathering space directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of properties impacted)	0
Neighborhood divided or otherwise disrupted		Scale from 0 (no or minimal impacts) to -2 (high number of neighborhoods impacted)	-2	This alternative impacts two neighborhoods, one on Douglas Island and one on the Juneau side of the crossing, and is tied with Mendenhall Peninsula and Sunny Point East for the second highest number of neighborhoods impacted. This alternative has no residential parcels impacted (see below).
Distance to Native allotment		Scale from 0 (not within 50 feet) to -2 (within 50 feet) of a Native Allotment	0	This alternative passes within 2.7 miles of a conveyed Native Allotment, which is the furthest of the alternatives evaluated. However, impacts to Native Allotments are very unlikely.
Housing	Residential uses directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of residential uses impacted)	0	This alternative does not directly affect residential use, which is the least impactful alternative.
	Within 100 feet of residential property	Scale from 0 (not within 100 feet) to -2 (within 100 feet) of a residential property	0	This alternative is within 100 feet of five residential properties, which is the least impactful alternative.
	Acres of vacant residential land directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of developable land impacted)	0	This alternative does not impact vacant residential land.
Economic	Commercial uses directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of commercial uses impacted)	-1	This alternative directly impacts two commercial uses, which is the second most impactful alternative.
	Within 100 feet of commercial uses	Scale from 0 (not within 100 feet) to -2 (within 100 feet) of a commercial property	-1	This alternative crosses within 100 feet of one commercial use, which is the second least impactful alternative.
	Acres of vacant commercial land directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of developable land impacted)	-2	1.8 acres of commercial land are directly impacted, which is the most impactful alternative.
Safety	Improves safety for all users	Scale from 2 (reduces conflict/friction on network) to -2 (higher risk of conflict/friction on network)	1	The Twin Lakes alternative passes 15 individual conflict points (driveways or intersections/lanes), which suggest a lower likelihood of a negative interaction between a roadway user traveling in one direction and another roadway user traveling in another direction. This alternative has the second lowest number of conflict points.
Cost	Estimated total construction cost	Scale from 0 (low construction cost) to -2 (high construction cost)	0	TBD
	Estimated annual maintenance cost	Scale from 0 (low maintenance cost) to -2 (high maintenance cost)	0	TBD
ROW	Total ROW needed	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted) and scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	0	A total of 1.8 acres, or one parcel (full and partial) are needed for this alternative, making it the least impactful alternative.
	Residential property acquisition	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted)	0	No residential property acquisitions are needed for this alternative, which is the least impactful.
	Commercial property acquisition	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted)	-1	A total of 1.8 acres, or one parcel (full and partial) are needed for this alternative, making it the second most impactful.
Public Support	Level of public support	Scale from 2 (high level of support) to 0 (low level of support)	0	Respondents of a survey conducted between December 12, 2022 and February 3, 2023 indicated that of eight alternatives proposed, the Twin Lakes alternative was the second to least favored of the build alternatives.
Score/Result			-6	

2	Alternative demonstrates strong performance against criteria
1	Alternative demonstrates moderate performance against criteria
0	Alternative demonstrates neutral performance against criteria
-1	Alternative demonstrates slightly weak performance against criteria
-2	Alternative demonstrates weak performance against criteria

Salmon Creek Alternative

	Criteria	Measure	Answer	Comment/Rationale/Justification	
1. Purpose and Need					
Purpose and Need	Provide alternate access and transportation infrastructure resilience	Scale from 2 (significant improvement) to -2 (no discernible improvement)	1	Provides alternate access and improves transportation infrastructure resilience by providing a secondary crossing to Douglas Island. However, compared to the other alternatives, provides the least measure of infrastructure resilience due to the shortest distance between the current crossing. (The further away a second crossing is, the more space it gives for natural disasters or accidents to occur and not block both crossings)	
	Improve transportation for non-motorized users	Planned pedestrian and bicycle lanes tie into the existing network and improve access and safety for non-motorized users	2	Improves transportation for non-motorized users by providing an alternate crossing with a separated multi-use path that ties into existing infrastructure.	
	Reduce transportation-related energy consumption	Scale from 2 (significant improvement) to -2 (no discernible improvement) of the estimated change in travel times based on travel origins and destinations	1	Overall travel time between Douglas Island and Juneau mainland is likely to be reduced because some trips would experience shorter travel times when using this proposed bridge. Based on the traffic study, this alternative would reduce travel times for mainly recreational uses, and would lead to reduced transportation-related energy consumption. This alternative scores lower than others evaluated because fewer trips are benefited by the crossing, based on the origin-destination study.	
	Decrease existing and future traffic congestion on Douglas Island Bridge and its intersections	Scale from 2 (significant improvement) to -2 (no discernible improvement) of estimated LOS during AM and PM peaks at the existing bridge and alternative	1	The alternative would decrease traffic pressure on the existing Douglas Island Bridge and its intersections by dividing the traffic between the existing bridge and the alternate crossing. Some traffic would switch to the proposed bridge, which would reduce demand for the Douglas Island Bridge and associated intersections.	
	Improve emergency response times	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction between the hospital/fire department and Douglas Island residents	2	When emergencies require response from an out-of-district station or multiple stations simultaneously, the alternative would allow a more timely response to Douglas Island from the Lynn Canal, Auke Bay stations, and in some cases the Glacier Station, by shortening the distance to a crossing.	
	Improve access to critical healthcare and emergency services	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction	2	Provides alternate access to critical healthcare and emergency services during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides, or avalanches.	
	Improve travel times (per user) to workplaces and critical resources	Scale from 2 (significant improvement) to -2 (no discernible improvement) of minutes of estimated travel time reduction	1	Provides alternate access to workplaces and critical resources during the closure of the existing bridge or another single route closure including road closures on Egan and Glacier Highway caused by accidents, fallen trees or power lines, landslides, or avalanches. When considering the number of users with improved travel times in combination with the minutes of travel time decreased, the alternative does not score as high as other alternatives due to the lower amount of time savings per user.	
2. Additional Goals					
Additional Goals	Improve connection to North and West Douglas Island by creating additional traffic capacity to support the future development of affordable housing and economic development opportunities.	Scale from 2 (significant improvement) to -2 (no discernible improvement) of the connection to North and West Douglas Island	1	This alternative has the potential to significantly improve the connection to North and West Douglas Island by creating additional traffic capacity. This alternative scores lower than other alternatives due to the low travel time savings.	
	Enhance and protect the public health and safety of travelers and the communities that transportation facilities traverse and serve.	Scale from 2 (significant improvement) to -2 (no discernible improvement) to enhance and protect the public health and safety	2	This alternative has the potential to enhance public health and safety by reducing traffic in locations where delay is currently experienced, adding a separated multi-use pathway and tying into existing active transportation infrastructure. It would provide resiliency in the transportation network by creating an additional crossing.	
	Avoid, minimize, and mitigate impacts to the environment.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	-2	This alternative is not likely to avoid, but has potential to minimize or mitigate impacts to the environment depending on design, location, or other measures. It will likely be located outside the Mendenhall Wetlands State Game Refuge. However, it has a potential to impact other Section 4(f) properties, important migratory bird areas, wildlife habitats, and waterbodies. Refer to other natural environment considerations screening below. This alternative scored -8 cumulatively when considering natural environment factors below alone. This is the least impactful alternative, although environmental impacts are considerable when compared to the no build.	
	Avoid, minimize, and mitigate impacts to residential areas.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	-2	This alternative has seven direct impacts and potentially 16 indirect impacts. It would not avoid impacts but has potential to minimize or mitigate impacts to residential areas depending on design and location. Refer to other considerations screening below.	
	Maintain the visual, cultural, and scenic identity of Juneau and Douglas Island.	Scale from 0 (significant potential to avoid impacts) to -2 (not likely to avoid, minimize, or mitigate impacts)	-1	Based on the location within a protected viewshed (Guidelines and Considerations for Subarea 8, page 191f, CBJ Comprehensive Plan 2013) and the size of the structure needed, this alternative will likely impact the visual, cultural and scenic identity of Juneau and Douglas Island. Refer to other considerations screening below. However, a crossing at this location has better potential to minimize or mitigate potential visual impacts through vegetative buffers.	
OTHER CONSIDERATIONS					
1. Environmental					
Natural	Wetlands directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	-1	This alternative impacts 0.9 acres of wetlands, which is the least most impactful alternative.	
	Intertidal zone directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres intertidal zone impacted)	-1	This alternative impacts approximately 4.3 acres of intertidal zone, which is the fourth most impactful alternative. However, the acreage of the third, fourth, fifth, and sixth most impactful alternatives are so similar when compared to the rest that these alternatives received the same impact score.	
	Stream and riparian habitats (including buffer) directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of stream and riparian habitats including buffer impacted)	-1	This alternative impacts 0.3 acres of stream and riparian habitat buffer, which the same as Sunny Point East and within 0.3 acres of all the other alternatives except Vanderbilt.	
	EFH (including buffer) directly affected (including noise)	Scale from 0 (no or minimal impacts) to -2 (high number of acres of EFH including buffer impacted)	-1	This alternative impacts 8.2 acres of EFH (including buffer), which is 6.8 acres more than the least impactful alternative, but only 20 percent of the most impactful alternative. The area of impact is similar to the most impactful alternative.	
	Wildlife habitat directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of wildlife habitat impacted)	0	This alternative impacts 3.1 acres of wildlife habitat, which, together with Salmon Creek, is the least impactful alternative.	
	Anadromous streams impacted	Scale from 0 (no or minimal impacts) to -2 (high number of anadromous streams impacted)	0	This alternative impacts one anadromous stream. The number of streams impacted is relatively few when compared to Sunny Point West (8) and Sunny Point East (4).	
	Threatened and endangered (T&E) habitat directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	0	No T&E habitat is impacted by this alternative.	
	Important migratory bird habitat impacted (using 500-foot buffer around bird hotspots)	Scale from 0 (no or minimal impacts) to -2 (high number of acres important migratory bird habitat impacted)	-1	This alternative impacts 7 acres of important bird habitat, the second most impactful. This alternative impacts acreage similar to the third and fourth most impactful and is therefore scored the same.	
	Eagle nesting trees directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of trees impacted)	-1	This alternative directly impacts one known eagle nesting tree including a 660-ft buffer, making it the tied for third most impactful alternative.	
	Contaminated sites directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of contaminated sites impacted)	0	This alternative does not directly impact known contaminated sites.	
	Section 4(f)/6(f) resources affected	Scale from 0 (no or minimal impacts) to -2 (high number of Section 4(f)/6(f) resources impacted)	-1	This alternative has the potential to directly impact one identified Section 4(f)/6(f) resource.	
	Protected lands directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of protected lands impacted)	0	This alternative has the does not appear to directly impact protected land administered by the Southeast Alaska Land Trust.	
	Impervious surfaces added	Scale from 0 (no or minimal impacts) to -2 (high number of impervious surfaces impacted)	-1	This alternative adds approximately 9.8 acres of impervious surfaces, which is the second least impactful alternative.	
	Social	EJ community, school, or community gathering space directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of properties impacted)	-1	This alternative does not appear to directly impact an EJ community or school, but it does potentially impact a community gathering space (Private Dock).
		Neighborhood divided or otherwise disrupted	Scale from 0 (no or minimal impacts) to -2 (high number of neighborhoods impacted)	-1	This alternative impacts one neighborhood on Douglas Island. In addition, seven residential parcels would be impacted.
Distance to Native Allotment		Scale from 0 (not within 50 feet) to -2 (within 50 feet) of a Native Allotment	0	This alternative passes within 2.0 miles of a conveyed Native Allotment, which is the third closest of the alternatives evaluated. However, impacts to Native Allotments are very unlikely.	
Housing	Residential uses directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of residential uses impacted)	-2	This alternative directly affects seven residential uses, which is the most impactful alternative.	
	Within 100 feet of residential property	Scale from 0 (not within 100 feet) to -2 (within 100 feet) of a residential property	-1	This alternative is within 100 feet of 16 residential properties, which is the third least impactful alternative.	
	Acres of vacant residential land directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of developable land impacted)	-1	This alternative impacts 0.8 acres of vacant residential land, which is the second least impactful alternative.	
Economic	Commercial uses directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of commercial uses impacted)	-2	This alternative directly impacts nine commercial uses, which is the most impactful alternative.	
	Within 100-foot of commercial uses	Scale from 0 (not within 100 foot) to -2 (within 100 foot) of a commercial property	-2	This alternative crosses within 100-foot of 16 commercial uses, which is the most impactful alternative.	
	Acres of vacant commercial land directly affected	Scale from 0 (no or minimal impacts) to -2 (high number of acres of developable land impacted)	-1	0.6 acres of commercial land are directly impacted, which is the second most impactful alternative.	
Safety	Improves safety for all users	Scale from 2 (reduces conflict/friction on network) to -2 (higher risk of conflict/friction on network)	0	The Salmon Creek alternative passes 27 individual conflict points (driveways or intersections/lanes), which suggest a lower likelihood of a negative interaction between a roadway user traveling in one direction and another roadway user traveling in another direction. This alternative has the second highest number of conflict points of the build alternatives, but fewer than the no build alternative.	
Cost	Estimated total construction cost	Scale from 0 (low construction cost) to -2 (high construction cost)	0	TBD	
	Estimated annual maintenance cost	Scale from 0 (low maintenance cost) to -2 (high maintenance cost)	0	TBD	
ROW	Total ROW needed	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted) and scale from 0 (no or minimal impacts) to -2 (high number of acres impacted)	-1	A total of 4.3 acres, or 18 parcels (full and partial) are needed for this alternative, making it the second least impactful.	
	Residential property acquisition	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted)	-1	A total of 1.3 acres, or seven parcels (full and partial) are needed for this alternative, making it the second least impactful.	
	Commercial property acquisition	Scale from 0 (no or minimal impacts) to -2 (high number of full and partial parcels impacted)	-1	A total of 1.1 acres, or eight parcels (full and partial) are needed for this alternative, making it the most impactful.	
Public Support	Level of public support	Scale from 2 (high level of support) to 0 (low level of support)	0	Respondents of a survey conducted between December 12, 2022 and February 3, 2023 indicated that of eight alternatives proposed, the Salmon Creek alternative was the least favored of the build alternatives.	
Score/Result			-14		

	Alternative demonstrates strong performance against criteria
	Alternative demonstrates moderate performance against criteria
	Alternative demonstrates neutral performance against criteria
	Alternative demonstrates slightly weak performance against criteria
	-1 performance against criteria
	-2 performance against criteria