APPENDIX 8

DETAILED EVALUATION TABLE

Safari Road Improvements EA - Phase 2 Evaluation

EVALUATION CRITERIA	1. Do Nothing		2. Close the Road		3. Raise the Road	
Description	This alternative is required to be considered as per the Class EA process as a baseline for comparison.		Close Safari Road from Valens Road to Kirkwall Road to allow the wetland area to naturalize and be restored naturally. Traffic will be rerouted to other nearby corridors.		Raise the road profile and widen the road pavement to accommodate active transportation on paved shoulders. Safari Road is re-opened through study limits.	
TECHNICAL	**25.0%**	Does not address road structure concerns, safety, and truck route and active transportation requirements. Drainage and flooding not addressed.	**55.0%**	Road safety and active transportation improvements required on detour routes and longer signed detour truck route. Flooding is not addressed, but impacts are reduced as the flooded section would be removed.	**100.0%**	Road structure and flooding issues addressed. All safety concerns addressed. Road network capacity and cycling connectivity improved with 2m paved shoulder and 0.5m buffer.
Category Weighting	**40%**					
Road User Safety (How does the alternative impact road safety for vehicles, pedestrians, and cyclists?)	0	Road is unsafe for users (trucks, vehicles, pedestrians, cyclists). Deteriorating road surface, saturated fill. Road is flooded, restricting users from passing through safely.	2	Road safety improvements required on alternate travel routes (8th Concession Rd W and Concession Rd 6 W) including wider travel lanes, paved shoulders to accommodate cyclists and pedestrians.	4	Road structure concerns addressed and 2m paved shoulders implemented with 0.5m paved buffer, improving safety for all road users.
Traffic Operations (How does alternative impact traffic operations in the area?)	2	Traffic is currently detoured to Brock Road, Regional Road 97 and Kirkwall Road, which is potentially over capacity during peak traffic hours.	3	8th Concession Rd W and Concession Rd 6 would be used as alternate travel routes, providing sufficient capacity to accommodate the detoured traffic. Additional safety measures would be required (wider travel lanes, paved shoulders). Area intersections require monitoring for improvements.	4	Safari Road would be open throughout the entire corridor, providing more network capacity.
Truck Route Requirements & Impacts (Does alternative address truck route and truck load capacity requirements?)	3	Safari Road is a designated truck route, currently unable to withstand a full truck load throughout the year. Does not address truck route requirements. Current signed detour route is longer but suitable for truck traffic.	3	Alternative detour routes in the vicinity are not suitable for truck traffic. Trucks would continue to use the current longer signed detour route.	4	Would address road structure concerns to allow full load truck traffic to travel on Safari Road and allowing for more direct truck routes.
Active Transportation (Does alternative satisfy AT requirements?)	0	Does not have any active transportation facilities. Does not align with City's TMP recommendations to incorporate paved shoulders, and improve connectivity in the Cycling Network.	0	Does not align with City's TMP recommendations to incorporate paved shoulders, and improve connectivity in the Cycling Network. Significant impact (longer route) on east-west cycling routes.	4	A 2.0m paved shoulder would be implemented for active transportation (cycling). Aligns with City's TMP recommendations to improve connectivity in the Cycling Network and Complete Streets Design Guidelines.
Drainage & Flooding (Does alternative address drainage and flooding concerns?)	0	Drainage and flooding issues are not addressed.	3	Flooding is not addressed but the impacts are reduced as the flooded section would be removed.	4	Road and structure is resilient to flooding in the 25 year storm and does not overtop in the 100 year storm.
Category Total Points (Total Possible Points = 20)	5		11		20	
Category Score	25%		55%		100%	
Category Weighted Score	**10.0%**		**22.0%**		**40.0%**	
SOCIO-ECONOMIC ENVIRONMENT	**50.0%**	Property access is remains restricted, impacting services to the area. No property acquisition required.	**12.5%**	Longer response times for emergency vehicles due to detours. Requires full buyout of 4 properties.	**62.5%**	Access for emergency and postal services is restored. Residential property access requires modifications. Some property encroachment required, impacting 6 properites (11,460m2)
Category Weighting	**15%**					
Property Acquisition/Requirements (How much property is required to implement the alternative?)	4	No property acquisition required.	0	Requires full buyout of 4 properties on Safari Road.	2	Grading extends beyond the existing ROW for a portion of the corridor, requiring total 11,460m2 which impacts 6 properties.
Property Access Impacts (How does the alternative impact access to adjacent properties?)	0	A portion of the road is closed, impacting access for emergency services, postal services, and school buses to residents in the area.	1	Longer response times for emergency vehicles. Access to postal services, school buses and residential properties is restricted.	3	Access for emergency and postal services is restored. Residential property access requires modifications.
Category Total Points (Total Possible Points = 8)	4		1		5	
Category Score	50%		13%		63%	
Category Weighted Score	**7.5%**		**1.9%**		**9.4%**	
NATURAL ENVIRONMENT	**75%**	Some risk of fish, aquatic wildlife being injured on flooded road. No additional/new negative impacts to wetland or climate change.	**100%**	No risk of fish, aquatic wildlife being injured on flooded road. No negative impact to climate change and provides opportunity for additional natural habitat to establish.	**69%**	Short-term impacts to/loss of fish habitat and disturbance to wildlife from construction. Long-term impacts include exposure to potential contamination from road activity/water quality impact. The retaining wall and wildlife passages with fencing will mitigate risk to wildlife mortality
Category Weighting	**25%**					
Impacts to Aquatic Habitats & Wildlife	2	During flood conditions, fish and other aquatic species, may be drawn to the road, increasing likelihood of potential impacts with vehicles.	4	No negative impacts to current aquatic habitats and wildlife adjacent to the corridor.	3	Reduced impact to aquatic environment through the removal of habitat within the new road footprint as a result of grading requirements. Short term impacts include in-water work, potential wildlife mortality, sedimentation impacts, and loss of fish habitat for a reduced area. Long term impacts include the permanent loss of fish habitat including important nursery fish habitat, increase in contamination potential, and decrease in water quality for a reduced area.
Impacts to Wetlands	4	No negative impacts to current provincially significant wetland boundary.	4	No negative impacts to current provincially significant wetland boundary.	2	Moderate impact to wetland area within new road footprint, moderate impact to wetland storage.
Impacts to Terrestrials Habitats & Wildlife (Vegetation, SAR, Trees, etc.)	3	During flood conditions, birds and other wildlife may be drawn to the road, increasing likelihood of widlife mortality due to vehicle collisions.	4	No negative impacts to terrestrial habitats and wildlife.	3	Anticipated impacts on the terrestrial environment are slightly reduced in comparison to other alternatives. Retaining walls can provide some mitigation to widlife road mortality. Short term impacts include anticipated signficant wildlife mortality, and sedimentation. Long term impacts include the least permanent loss of terrestrial habitats in comparison to the other road raising options, least permanent loss of wetland habitat, fragmentation of habitat, decrease in biodiversity, potential reduction in quality of SAR habitat.
Climate Change (Mitigation and Resilience)	3	No impact to climate change.	4	Closed road would provide additional flood storage with no transportion impacts. Potential increase in widlife biodiversity with a decrease in vehicle - wildlife collisions.	3	Reduced increase in impervious surfaces as compared to other alternatives, increase in local CO2 emissions, reduced embodied carbon for new roadbed material as compared to other alternatives. Retaining walls will reduce loss of flood storage in wetland.
Category Total Points (Total Possible Points = 16)	12		16		11	
Category Score	75%		100%		69%	
Category Weighted Score	**18.8%**		**25.0%**		**17.2%**	
ARCHAEOLOGICAL AND CULTURAL BUILT HERITAGE	**100.0%**	No impacts to areas with archaeological potential. No impacts to cultural heritage resources.	**100.0%**	Impacts to areas with archaeological potential to be confirmed through Stage 2. No impacts to cultural heritage resources.	**100.0%**	Impacts to areas with archaeological potential to be confirmed through Stage 2. No impacts to cultural heritage resources.
Category Weighting	**10%**					
Impacts to areas of Archaeological Potential	4	No impacts to areas with archaeological potential.	4	Impacts to areas with archaeological potential to be confirmed through Stage 2.	4	Impacts to areas with archaeological potential to be confirmed through Stage 2.
Impacts to Cultural Heritage Resources	4	No impacts to cultural heritage resources.	4	No impacts to cultural heritage resources.	4	No impacts to cultural heritage resources.
Category Total Points (Total Possible Points = 8)	8		8		8	
Category Score	100%		100%		100%	
Category Weighted Score	10.0%		10.0%		10.0%	
COST	**75.0%**	No construction, property acquisition or utility relocation costs. Increased operations and maintenance cost due to deteriorating road structure	**50.0%**	Low to moderate capital cost to construct cul-de-sac, including road widening for the circle and realignment of drainage infrastructure. Alternative routes would require improvements, resulting in a significant increase in future/companion construction costs. Full buyout of 4 properties. No operations or maintenance costs.	**56.3%**	Significant capital cost for road works. Minor property acquisition costs and some utility relocation costs in areas of widening. Slight increase in operations and maintenance cost.
Category Weighting	**10%**					
Construction Cost	4	No construction cost.	1	Low to moderate capital cost to construct cul-de-sac, including road widening for the circle and realignment of drainage infrastructure. Alternative routes would require improvements, resulting in a significant increase in future/companion construction costs.	2	Significant capital cost for road works.
Property Acquisition Cost	4	No property acquisition cost.	1	Property acquisition cost not accounted for yet (full buyout of 4 properties).	3	Minor property acquisition cost for areas of widening.
Utility Relocation Cost	4	No utility relocation cost.	2	Some utility relocation costs in cul-de-sac areas.	2	Some utility relocation costs in areas of widening.
Operations & Maintenance Costs	0	Increased operations and maintenance cost due to deteriorating road structure.	4	No operations or maintenance costs due to road closure.	2	Slight increase in operations and maintenance cost.
Category Total Points (Total Possible Points = 16)	12		8		9	
Category Score	75%		50%		56%	
Category Weighted Score	**7.5%**		**5.0%**		**5.6%**	
Total Points	**41.00**		**44.00**		**53.00**	
Total Weighted Score	**53.8%**		**63.9%**		**82.2%**	
RANK	**3**		**2**		**1**	
EVALUATION SUMMARY	**Not Recommended**		**Not Recommended**		**Recommended**	