



# Steese Expressway/Johansen Expressway Interchange

## Environmental Assessment

Project No. Z607320000/0002337

Prepared for:



**Northern Region**  
**Alaska Department of Transportation and Public Facilities**  
2301 Peger Road Fairbanks, AK 99709

February 2021

Prepared by:

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The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by DOT&PF pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated November 3, 2017, and executed by FHWA and DOT&PF.

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### Environmental Assessment

Submitted pursuant to 42 USC 4332(2)(c) by the State of Alaska, Department of Transportation and Public Facilities

This action complies with: Executive Order 11593, Protection and Enhancement of the Cultural Environment; Executive Order 11988, Floodplain Management; Executive Order 11990, Protection of Wetlands; Executive Order 12898, Environmental Justice; and Executive Order 13112, Invasive Species.

Recommended for Public Availability by:

2/22/2021

Date



Sarah Schacher, P.E., Northern Region Preconstruction Engineer  
Alaska Department of Transportation and Public Facilities

Approved for Public Availability by:

2/22/2021

Date



Emily Haynes, NEPA Program Manager  
Alaska Department of Transportation and Public Facilities

The Following individual(s) may be contacted for information regarding this document:

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The Preferred Alternative includes: construction of a grade-separated diverging diamond interchange to improve safety, reduce motorized and non-motorized conflicts, and reduce delays at the Steese Expressway and Johansen Expressway intersection, and construction of a temporary access road and permanent multi-use path between Farmers Loop Road Extension and Northside Boulevard. The preferred alternative also includes drainage improvements and construction of a stormwater basin and snow dump.

**SUMMARY of FINAL ENVIRONMENTAL ASSESSMENT  
COMMENTS RECEIVED and SUBSEQUENT CHANGES**

**to the**

**STEESE EXPRESSWAY/JOHANSEN EXPRESSWAY IMPROVEMENTS**

**Project Number: Z607320000/0002337**

This Final Environmental Assessment (EA) is based on the draft EA published on September 22, 2020. A Notice of Availability of the Draft EA for public review and comment was placed on the State of Alaska Online Public Notice system and published in the Fairbanks Daily News Miner.

The public review and comment period ended on November 15, 2020.

Based on comments received and consultation with both agency personnel and the public, particularly the local community, modifications have been made to the Proposed Action. The table below summarizes the comments received and the response to those comments, including any modification to the EA.

Comment Category	Comment	Response
Vehicle and Freight Movement	After merging onto northbound Steese from Johansen, much traffic will need to prepare to turn left onto Farmers Loop, thus crossing traffic lanes. During busy times, this could increase risk of accident.	Thank you for your comment. The project team reviewed several different possibilities for bringing in the merging traffic and found that locating the on ramp to the right of the through lanes would result in the least amount of weaving overall. The full analysis and report are available upon request to the Project Manager, Lauren Little (project manager, lauren.little@alaska.gov)..
Vehicle and Freight Movement	Assure North Slope and Fort Knox Heavy haul traffic is not impacted.	The team has been working with the trucker's group to ensure the proposed project will not adversely impact trucking routes through the project area.
Vehicle and Freight Movement	Concerning Farmers Loop Ext. This is a residential neighborhood, and it would adversely affect their quality of life by: -sound pollution -light pollution -increased danger of vehicle accidents right outside their house -increased traffic. There isn't adequate setbacks. The speed limit would not be suitable for a residential neighborhood	We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a multi-use bicycle and pedestrian path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents.
Vehicle and Freight Movement	confusing traffic pattern	Thank you for your comment.

<p>Vehicle and Freight Movement</p>	<p>Will your "plans" facilitate moves for the Cat Dump beds from Universal to Ft. Knox and Ft. Knox to Universal (The Cat 793 is 27' wide and 16'6: high)? Also other loads with taller loads and Longer trailer configurations? Many companies today are using bigger and longer trailers to move all the big equipment both to Ft. Knox as well as Miners up north. (Size really does matter!) We really do not have other options for travel through town already. Oversized permits have been re-routed to old Rich, Easy street, Van horn, Peger and Johansen to get to the Steese, for years, because the Chena River Bridge on the Steese is not adequate for travel. We appreciate all your efforts to make traffic flow smoother but feel our big trucking equipment, with more axels and less turning radius is of real concern, and being left out of the plans with all the turbo cars today.</p>	<p>Thanks for reaching out. We have approximately 55-ft wide x 19-ft high available for oversized loads to utilize the underpass and ramps to go from Johansen to NB Steese.</p> <p>We have modeled the "Alaska Double" as well as other oversized load combinations to ensure the facility will function for a variety of users in coordination with the Haul Road Safety Group's input.</p> <p>[Note: A graphic was shared depicting something approximately the size of the load mentioned utilizing the new interchange.]</p>
<p>Vehicle and freight movement</p>	<p>I don't commute through here but I think it's great to eliminate the multitude of stoplights from Airport Rd to Farmer's Lp.</p>	<p>Thank you for your comment.</p>
<p>Vehicle and Freight Movement</p>	<p>I see this alternative as being a well thought out design, which should allow a much better overall flow for all modes. The extended on-ramps are very accommodating to truck traffic! As long as the module, extreme oversize loads are able to by-pass either under the light on the SB Steese/ WB Johanson (perhaps this light should be 19' not to limit) or over the median (note, that over the median could be a bit limited by snow cover and should not be too tall for the low strung lowboy trailers.</p>	<p>Thank you for your comment. We will continue to work with the trucker's groups during detailed design to ensure adequate oversize load accommodations.</p>
<p>Vehicle and Freight Movement</p>	<p>It will totally disrupt the peace and quiet of my neighborhood on Farmers Loop Extension Road</p>	<p>We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a multi-use pathway only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents.</p>

<p>Vehicle and Freight Movement</p>	<p>look at all those additional traffic signals!! how is that more efficient? what will you do when power goes out and signals aren't operating? This is waaay to confusing, expensive and un necessary.</p>	<p>Thank you for your comment.</p>
<p>Vehicle and Freight Movement</p>	<p>Moving from Lazelle to the Jo will now require me to stop at 2 lights instead of just 1 as it is now; however, given that I will no longer need to wait for the long signal cycle of the Steese traffic, this may improve my commute time.</p>	<p>Thank you for your comment.</p>
<p>Vehicle and Freight Movement</p>	<p>Over size loads headed to Prudhoe from Parks Hwy over Johansen to Steese need to be accommodated with height and width</p>	<p>We have approximately 55-ft wide x 19-ft high available for oversized loads to utilize the underpass and ramps to go from Johansen to NB Steese. We have modeled the "Alaska Double" as well as other oversized load combinations to ensure the facility will function for a variety of users in coordination with the Haul Road Safety Group's input.</p>
<p>Vehicle and Freight Movement</p>	<p>People can barely navigate the simple road now, what makes you think adding a complex intersection will help? What about snow removal in this plan? DOT only plows the Steese about twice a winter as it is.</p>	<p>The intersection, while a bit complex on paper, will operate very similar to existing interchanges in town such as the Geist Road/Parks Highway interchange. Snow removal activities will occur in accordance with M&amp;O's priority list, and the project includes a new snow dump to facilitate more efficient maintenance of the new facility.</p>

<p>Vehicle and Freight Movement</p>	<p>There is no mention about improved public transportation to decrease the amount of traffic through the intersection. Also, you do not address that if the intersection is improved, more people will choose housing further from town, thus increasing vehicle miles traveled, energy use, air pollution, greenhouse gas emissions, and possibly decrease safety overall due to more vehicle miles traveled (outside the interchange area).</p>	<p>Transit currently carries about 25 people per day on the Grey Route, most of whom travel between residences along Farmers Loop Road and UAF. Even if these volumes were to double, the Grey Route is unlikely to reduce expected delay at the subject intersection. The 2013 Short &amp; Long Range Transit Plan considered areas where growth will occur in the MACS transit service area and surrounding locations. The report concludes that in the short and long range, MACS should focus on expanding or improving service on currently existing routes and no new routes are recommended. Further, the report indicates that any increases in transit use on the Grey Route are likely to follow the existing pattern of travel between residences and the UAF campus, rather than along the Steese Expressway to the Fred Meyer (East) stop.</p> <p>The capacity improvements and decreased delays that are projected due to this proposed interchange are expected to reduce emissions due to reduced idling. In addition, this intersection is a primary junction for multiple major truck routes which would not be benefited by public transportation. The reduced delay for these predominantly diesel vehicles benefits air quality and reduces greenhouse gas emissions.</p>
<p>Vehicle and Freight Movement</p>	<p>This causes more confusion, time delay, and accidents as the issue is drivers response time to being able to stop or go with ice/snow. Also this is terrible for large freight that uses that intersection.</p>	<p>Most of the primary freight movements at this intersection will see reduced delay and encounter the same number or less traffic signals as they do today (1 to none). No delay is experienced for trucks traveling northbound and southbound through the interchange. Truck delays will be at most 24 seconds per vehicle for the eastbound left turn movements, compared to over 3 minutes of delay per vehicle under No Build. Some delay will be introduced to trucks making a southbound right turn movement (currently free with no delay) with up to 24 second delays per vehicle throughout the day.</p>

<p>Vehicle and Freight Movement</p>	<p>This favors North and South traffic at the expense of East and West traffic. Traffic backup could occur in the tight quarters going straight East or West. This makes bike trails crossing the Johansen worse than it is now.</p>	<p>Due to the efficiency of this particular interchange layout, traffic queues are not projected to exceed today's queues even in the design year (2045). Traffic queues on Johansen Expressway are anticipated to be 875 feet long in the 2045 PM peak, which is shorter than the distance between Steese Expressway and Old Steese Highway. Similarly, the traffic queues between the ramp intersections (up to 140 feet long in the 2045 PM peak) are anticipated to be shorter than the 240 foot distance between the intersections. Queues on Lazelle Road are estimated to be about 100 feet in the 2045 PM peak.</p>
<p>Vehicle and Freight Movement</p>	<p>This is a traffic pattern not encountered by most drivers. Anticipate steep learning curve.</p>	<p>Thank you for your comment.</p>
<p>Vehicle and Freight Movement</p>	<p>This new Steese Johansen interchange is not not needed!!</p>	<p>Thank you for your comment.</p>
<p>Vehicle and Freight Movement</p>	<p>This plan looks to stream-line traffic flow N and S on the Steese. I highly approve of it!</p>	<p>Thank you for your comment.</p>
<p>Vehicle and Freight Movement</p>	<p>Trucking companies DON'T take doubles North</p>	<p>Thank you for your comment.</p>



<p>Vehicle and Freight Movement</p>	<p>What is the proposed height clearance on the underpass when turning from the Johansen to the Steese heading northbound?</p> <p>For over height moves, will the Farmer's Loop extension serve as an acceptable alternate route for these loads?</p> <p>Will there be infrastructure added to permit oversized travel through this route?</p>	<p>The preliminary bridge design provides 19-ft of vertical clearance. We did this considering the potential for oversized loads.</p>
<p>Vehicle and Freight Movement</p>	<p>What is the proposed height clearance on the underpass? Will overheight freight movements have restrictions on the farmers loop extension if they needed to bypass the underpass?</p>	<p>We have approximately 55-ft wide x 19-ft high available for oversized loads to utilize the underpass and ramps to go from Johansen to NB Steese. We have modeled the "Alaska Double" as well as other oversized load combinations to ensure the facility will function for a variety of users in coordination with the Haul Road Safety Group's input. Goldstream Road remains the official truck bypass route for this area.</p>
<p>Bicycle and Pedestrian Pathways</p>	<p>Are bicyclists to use the pedestrian crosswalk to get across the Johansen at the Old Steese Hwy intersection?</p>	<p>A person operating a bicycle on a shared-use path or sidewalk would dismount the bicycle and cross as a pedestrian utilizing the crosswalk. A person operating a bicycle on the roadway would ride with traffic; use signals to turn, slow, and stop; and follow the same traffic laws as a motorized vehicle. More information on Alaska bicycle laws can be found at:  <a href="http://www.dot.state.ak.us/stwdplng/hwysafety/assets/BikeandSafetyManual/Alaska_Laws.pdf">http://www.dot.state.ak.us/stwdplng/hwysafety/assets/BikeandSafetyManual/Alaska_Laws.pdf</a></p>
<p>Bicycle and Pedestrian Pathways</p>	<p>As a pedestrian I was almost hit by a car attempting to cross W-E across the Steese by someone nit looking and merging from the Johansen. This should greatly improve pedestrian safety.</p>	<p>Thank you for your comment.</p>
<p>Bicycle and Pedestrian Pathways</p>	<p>As an avid bicyclist I applaud the attention given to pedestrian pathways and their upkeep, especially in the winter plowing effort.</p>	<p>Thank you for your comment.</p>

Bicycle and Pedestrian Pathways	Bicycle commuters need a safer more direct route!!	The proposed interchange provides signalized crossings for the major pedestrian/bicycle movements improving safety.
Bicycle and Pedestrian Pathways	If we have a large increase in fast moving traffic down Farmers Loop Extension, it will be extremely dangerous for those of us who live here to cross the road to get our mail. it will also be dangerous to the small children and pets that live here.	We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents.
Bicycle and Pedestrian Pathways	It will be far worse.	Thank you for your comment.
Bicycle and Pedestrian Pathways	Pros: some signal protected crossings (fixes a morning problem with morning southbound bike/walking). Cons: convoluted interchanges significantly reduces the efficiency of biking (see all the major intersections on the Johannsen)--cars get the efficient movements, bikes are relegated to long delays at multiple crossings.	Thank you for your comment. As always we have to strike a balance between user groups, at this heavy truck traffic and commuter traffic location and junction of two principal expressways, we focused on improving bike/ped safety (through signalized crossings and reduced crossing distances) while ensuring high traffic flow capabilities. This does increase the time it takes to get through this area, but improves the safety for bikes and peds.
Bicycle and Pedestrian Pathways	Recommend adding some sort of ped/bike accommodation for those who miss the ped route on the FL connection and end up at the intersection wanting to turn and head North. Otherwise there will be bikes and peds on the NB onramp.	Thank you for your comment, we will ensure the final design has adequate connectivity between bike facilities.
Bicycle and Pedestrian Pathways	Since the roadway construction for the steese extends almost half way to trainor gate, it would be nice to repave the separated path on the west side. The surface has alot of broken pavement.	Thank you for your comment. If budgets allow we will look at including this work.

<p>Bicycle and Pedestrian Pathways</p>	<p>The drawing has the path lower than the road surface along the farmers loop connection road. There is also a gap between the paved road and paved path. This will allow gravel to accumulate on the path. The same thing currently happens on the path parallel to farmers loop rd at the east end. Please consider making one paved road/path surface and separate the path using barriers, curbs, or bollards instead of physically separating the path. The barriers or bollards should also include lighting.</p>	<p>We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents. This should eliminate the concern about gravel on the bike path long term.</p>
<p>Bicycle and Pedestrian Pathways</p>	<p>There are no multi-use pathways on the east side of the Steese Expressway for Fairhill and Vue Crest subdivisions, south of Fairhill Road. Provide a bicycle/pedestrian path extension from the south end of City Lights Blvd across Lazelle Road and continuing to allow safe passage to the Churches to the south, Shannon park subdivision, Tanana Middle School (for Fairhill and Vue Crest Subdivision attendance area students) and the proposed Fort Wainwright access at Lazelle Road.</p>	<p>Thank you for your comment, adding pathways on the east side of the intersection where none exist now is not within the scope, purpose and need of this project. Please share your comments and desires for future improvements with the FAST Planning group.</p>
<p>Bicycle and Pedestrian Pathways</p>	<p>There's already a bike/foot path there. It would not improve anyone's ability because it's not impeded now.</p>	<p>Thank you for your comment.</p>
<p>Bicycle and Pedestrian Pathways</p>	<p>They already have a bike path on Farmers Loop Extension Road</p>	<p>Thank you for your comment.</p>
<p>Bicycle and Pedestrian Pathways</p>	<p>This addresses pedestrians, only. What is the facility on the Old Steese that this project connects to for bicyclists? A sidewalk is not a recommended or preferred or adequate facility. Riding a bicycle on a sidewalk in this area is against city ordinance. Please address .</p>	<p>We have looked into the issue of bicycles on sidewalks. As this area is not a business district bicycle use on the sidewalks is allowed. The Old Steese Highway Reconstruction project has additional information on proposed improvements to the Old Steese, more information is available at <a href="http://dot.alaska.gov/nreg/oldsteese/">http://dot.alaska.gov/nreg/oldsteese/</a>.</p>
<p>Bicycle and Pedestrian Pathways</p>	<p>This bike path route is a great improvement. The path along the Steese is pretty scary with the homeless camps. Something should be done to connect the path along Farmer's Loop to the gas station. It is a destination.</p>	<p>Thank you for your comment, adding pathway connections where none exist now is not within the scope, purpose and need of this project. Please share your comments and desires for future improvements with the FAST Planning group.</p>

Bicycle and Pedestrian Pathways	This new interchange is not needed!!	Thank you for your comment.
Bicycle and Pedestrian Pathways	This promises to be intimidating to most pedestrians. It may be OK as long as striping is visible, but snow cover on roadway may be confusing. Traffic pattern under bridge (cars on opposite side of road than expected) will likely lend to confusion.	Thank you for your comment. We will be considering appropriate signage during the detailed design phase which should assist in directions when snow cover is present.
Bicycle and Pedestrian Pathways	With how the diamond is oriented there will still be a large risk to pedestrians. Also this will only be used for roughly 3/4mths of the year and there are other routes they can take and should be expanded that would be over all safer.	Thank you for your comment.
Bicycle and Pedestrian Pathways	your're kidding right? I don't go there now as a ped or bicyclist due to danger. The spaghetti like routing you show just confounds the danger.	Thank you for your comment.
Bicycle and Pedestrian Pathways / Maintenance	<p>As there is a relatively "close" snow storage area being built, will that mean snow will be removed from the ped crossing routes at the same time as it is removed from the roadway? I'm concerned about the ped sidewalks within the intersections as well as the new sidewalks being proposed on the n and s sides of the johansen</p> <p>The separated path along the johansen doesn't have a good record for consistent snow removal throughout the winter. The fact that these are sidewalks rather than separated paths will likely mean graders can be used for clearing</p>	<p>Regarding frequency of maintenance, I can't make any promises. We recognize that this facility will increase M&amp;O burden, but as you mention hopefully with the proximity of the sidewalk facilities to the road it may be able to be maintained in one operation. Location of signs, signals, etc. may ultimately dictate that effort however.</p> <p>We'll continue working with M&amp;O and the BPAC during detailed design to do our best to balance needs.</p>

<p>Bicycle and Pedestrian Pathways / Maintenance</p>	<p>DOT is in the process of getting another articulated "Holder" tractor to be used for paths. I wonder how much of an increase in sidewalk lane miles is involved in this project, the old steese highway project and the farmers loop extension. It does look like about 1000 ft of the recently redone johansen path will be abandoned parallel to the steese</p>	<p>Sidewalk lane miles (including the attached path) below:                  Farmer's Loop Proposed: 4600 Linear Feet (LF), Existing: 4700 LF (includes 1400 LF along Steese north of Johansen). Primary change is rerouting south portion from along Steese to stay along new Farmers Loop Extension</p> <p>Steese (Including Intersection) Proposed: 3147 LF, Existing: 2470 LF. Primary change is adding pathways through the interchange, and to reconnect City Lights.</p> <p>Johansen Proposed: 2500 LF, Existing: 1700 LF. Primary change is providing path along full length of south side of Johansen.</p>
<p>Bicycle and Pedestrian Pathways / Maintenance</p>	<p>Sidewalks on the old steese project will likely allow the use of graders for snow removal. Separated path on the farmers loop extension will mean graders can't be used</p>	<p>We are open to an attached sidewalk vs. a separated path along the Farmers Loop Connection, if that is your preference please make that comment. We'll ultimately be working with the neighborhood and M&amp;O to determine the most sustainable and pedestrian/bike friendly solution for this connection.</p>
<p>Bicycle and Pedestrian Safety</p>	<p>Good job addressing this mode's safety!</p>	<p>Thank you for your comment.</p>

<p>Bicycle and Pedestrian Safety</p>	<p>How wide are the bicycle paths and how are they designated? What lines of sight do drivers have of pedestrians and cyclists?</p>	<p>The preliminary design shows the non-motorized pathways as 8-foot wide. Pedestrian crossings will be signaled, with the exception of the westbound right turn movement and the eastbound right turn movement. For these unsignalized crossings, the available sight distance exceeds the minimum required sight distance:</p> <p>WB 335' available (at least). Stopping sight distance is 200 feet for 30 MPH. Crossing sight distance (for pedestrian to see a gap big enough for them to cross the vehicle space) is 315 feet.</p> <p>EB 1300' available (back to Old Steese). Stopping sight distance is 570 feet for 60 MPH. Crossing sight distance is 630 feet.</p>
<p>Bicycle and Pedestrian Safety</p>	<p>I believe the state needs to stop assuming what is good for a pedestrian is good for a bicycle. These modes need to be addressed individually as they are very different.</p>	<p>Thank you for your comment.</p>
<p>Bicycle and Pedestrian Safety</p>	<p>I like the ped/bike route along the FL connection. Big improvement over what is there now.</p>	<p>Thank you for your comment.</p>
<p>Bicycle and Pedestrian Safety</p>	<p>I think your question is misleading. This bridge will be far worse for vehicles especially in the winter, and you're required by law to say so.</p>	<p>Thank you for your comment.</p>
<p>Bicycle and Pedestrian Safety</p>	<p>If pedestrians and bicyclists follow the traffic rules, i.e. use crossing lights and watching for traffic, they should be fine.</p>	<p>Thank you for your comment.</p>

<p>Bicycle and Pedestrian Safety</p>	<p>I'm concerned about the likelihood the ped crossing stanchions will be subject to being run over. That are awfully exposed. When that happens peds have no way to know the status of the controlling vehicle signal. It doesn't appear that peds can see the traffic signals that determine the walk/don't walk.</p>	<p>We will look at the location and type of pedestrian signage and signal posts during detailed design and work with M&amp;O to ensure they are located in an accessible location while minimizing risk of strikes. At this level of design we haven't gotten into detailed sign and signal locations, what you are seeing is largely schematic for that type of detail.</p>
<p>Bicycle and Pedestrian Safety</p>	<p>Improved safety with protection from lights. However, no discussion about enforcement. There is a lot of red light running in this community. Indeed a tragic death at this intersection resulted from someone running the red light--that is an unacceptable behavior that you have not addressed</p>	<p>While traffic enforcement remains an important part of overall safety on roadways, the crossing distances are significantly shorter and traffic speeds lower for these crossings than the existing crossing of the Steese Expressway. Essentially pedestrians are exposed to lower speed traffic and shorter durations (shorter crossings), reducing risk of pedestrian/vehicle collisions.</p>
<p>Bicycle and Pedestrian Safety</p>	<p>Multiple crossings means more chances for pedestrians to make bad decisions about when to cross. The center island seems dangerous to be on.</p>	<p>The preliminary design provides for a 20-foot wide center island with approximately 6 feet of distance between the edge of path and the edge of traveled way when on the island. Traffic speeds adjacent to the center island are anticipated to be 30 mph. The final configuration of the center island will be determined during design and the need for a barrier treatment (which is pretty common in Diverging Diamonds islands) will be evaluated.</p> <p>Pedestrians would encounter up to 325 vehicles per hour in the 2045 design year at the unsignalized crossings (eastbound and westbound right turn lanes), compared to up to 1460 vehicles per hour with the existing unsignalized crossing (southbound right turn lane).</p>
<p>Bicycle and Pedestrian Safety</p>	<p>Picture it 8-9 months of the year buried in snow!</p>	<p>Thank you for your comment.</p>
<p>Bicycle and Pedestrian Safety</p>	<p>Stay away.</p>	<p>Thank you for your comment.</p>

<p>Bicycle and Pedestrian Safety</p>	<p>The unsignalized crosswalks do not appear in the video to have ped crossing diamond signs like were used at geist and university ave on those types of crossings.</p>	<p>Signage will comply with current standards, the level of detail for this effort didn't address full signing and striping requirements.</p>
<p>Bicycle and Pedestrian Safety</p>	<p>The unsignalized ped crossings in the video do not show any diamond shaped ped crossing signs. I'm referring to signs like were used in those type of crossings at the university and Johansen intersection</p> <p>Why are some of the unsignalized ped crossings cross hatched and others are not?</p>	<p>Any crossing that is not signalized has a ladder style crosswalk, any crossing that has the parallel bars is a signalized crossing. They're not all crystal clear in the graphics I realize but that is the easy way to identify.</p>
<p>Bicycle and Pedestrian Safety</p>	<p>The use of signals by design makes a safer crossing. The current NW ramp from the Steese to the Johansen can cause confusion for the pedestrian and the driver w/o the use of a signal..</p>	<p>Thank you for your comment.</p>
<p>Bicycle and Pedestrian Safety</p>	<p>these questions do not address the disruption of my neighborhood</p>	<p>We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents.</p>



<p>Bicycle and Pedestrian Safety</p>	<p>This alternative will close City Lights Blvd conduit and further concentrate traffic to the north for the Fairhill and Vue Crest subdivisions, businesses, Rec area, churches and school traffic at the Steese Hwy/Fairhill Rd intersection. Concentrating vehicular and pedestrian traffic on the east side of this intersection without road and pedestrian improvements in this area may potentially result in more personal injury and/or fatalities. <a href="http://slowdownalaska.org/avoidintersections.html">http://slowdownalaska.org/avoidintersections.html</a></p>	<p>140 additional vehicles (65 entering and 75 exiting) are estimated to use Fairhill Road to get to or from City Lights Boulevard during the morning peak hour, which is about double of the City Lights traffic if it were kept open; this includes traffic to and from the Fairhill Christian School. During the PM peak hour, 70 additional vehicles (30 entering and 40 exiting) are estimated to use Fairhill Road. The increase in traffic at Fairhill is expected to increase vehicle delays by about 1 second per vehicle in the morning peak hour.</p> <p>Overall, the additional volumes on Fairhill Road caused by the City Lights Boulevard closure on the south end are forecasted to be low for the majority of the day. The school is anticipated to generate the most traffic during the morning drop off and afternoon pick up times, which are both estimated to last for 15 to 30 minutes at a time.</p> <p>A pedestrian pathway would be provided to connect City Lights Boulevard to the Steese-Jo intersection, allowing City Lights pedestrians to continue crossing at Steese-Jo.</p>
<p>Bicycle and Pedestrian Safety</p>	<p>This still puts them very close to cars. Sidewalks don't protect them. The current route behind the fence along farmers loop is one of the safest areas for walkers/bikers.</p>	<p>We will be maintaining separated pathways for the areas that are currently served by separated pathway (parallel to Steese and Johansen).</p>
<p>Bicycle and Pedestrian Safety</p>	<p>you're kidding right? how does the spaghetti like routing you show make it more safe? Confusing, over built and danger only compounded</p>	<p>Thank you for your comment.</p>
<p>City Lights Blvd / Cemetery Access</p>	<p>(none, as I don't use this road often; I am sure I would not like the negative impacts on the cemetery if I visited that location more often)</p>	<p>Thank you for your comment.</p>

<p>City Lights Blvd / Cemetery Access</p>	<p>Closing City Lights Blvd will be closing an alternative route for those who choose to use it. This is a waste of money and not a good business decision.</p>	<p>We have extensively evaluated options to maintain City Lights connection with Lazelle, but unfortunately there is no safe way to maintain this without significantly degrading the safety and efficiency of the Steese-Johansen intersection.</p>
<p>City Lights Blvd / Cemetery Access</p>	<p>Does this put City Lights on the Rd District on Birch Hill? Right now it's not past the church and school</p>	<p>At this time no changes to maintenance responsibility are proposed, however we will coordinate with the FNSB and City to determine if anything can be done to improve maintenance service on the upper portion that will become the only access.</p>
<p>City Lights Blvd / Cemetery Access</p>	<p>I like it. People try to short cut and speed along the road quite often.</p>	<p>Thank you for your comment.</p>
<p>City Lights Blvd / Cemetery Access</p>	<p>I live in Shannon Park and have my father's grave in the cemetery. It seems to drive there with the new interchange I will need to access it from the Farmer's Loop/Steese interchange, which isn't a big deal. I typically walk to my father's grave via D street. Will I have pedestrian access on the cemetery's south side?</p>	<p>No changes to pedestrian facilities are proposed along Lazelle or City Lights currently.</p>
<p>City Lights Blvd / Cemetery Access</p>	<p>If going forward with City Lights Blvd traffic conduit closure, consider and evaluate traffic concentration and safety comments for the Fairhill and Vue Crest subdivision areas for the future Farmers loop road interchange improvements. Overall, it doesn't appear that the numerous public comments regarding closure of City Lights Blvd have been taken into consideration. Refer to 12/6/2018 Open House Public Comment Response Summary, pgs. 2, 3, and 4 of 5.</p>	<p>140 additional vehicles (65 entering and 75 exiting) are estimated to use Fairhill Road to get to or from City Lights Boulevard during the morning peak hour, which is about double of the City Lights traffic if it were kept open; this includes traffic to and from the Fairhill Christian School. During the PM peak hour, 70 additional vehicles (30 entering and 40 exiting) are estimated to use Fairhill Road. The increase in traffic at Fairhill is expected to increase vehicle delays by about 1 second per vehicle in the morning peak hour.</p> <p>Overall, the additional volumes on Fairhill Road caused by the City Lights Boulevard closure on the south end are forecasted to be low for the majority of the day. The school is anticipated to generate</p>

		the most traffic during the morning drop off and afternoon pick up times, which are both estimated to last for 15 to 30 minutes at a time.
City Lights Blvd / Cemetery Access	is there a connection to Lazelle Road? if not, this graphic makes no sense	Access to Lazelle from City Lights will be via the Farmers Loop/Steese Expressway intersection to the Steese/Johansen interchange.
City Lights Blvd / Cemetery Access	lengthens emergency service access time	The City Lights Boulevard closure would increase the emergency travel time to the main cemetery entrance by about 1.5 minutes. This is the largest anticipated increase in travel time.
City Lights Blvd / Cemetery Access	No, I rarely drove it, but it was a fun, curve road for a short spin in the sports car on top down summer days. I can live without it. I have never set foot in the cemetery in the four decades of living in Fairbanks, so I have no opinion about access to it.	Thank you for your comment.
City Lights Blvd / Cemetery Access	Pedestrian and bike access from Lazelle? The pedestrian map makes that look possible.	Pedestrian and bike access from Lazelle into the box store area will be via the interchange. There are no changes to pedestrian access from Lazelle to City Lights.

<p>City Lights Blvd / Cemetery Access</p>	<p>This actually makes it worse for the residents. If my children went to Fairhill, I'd be upset.</p>	<p>Thank you for your comment.</p>
<p>City Lights Blvd / Cemetery Access</p>	<p>This has been used as an alternate when a wreck occurs at the intersection. You are going to force that role onto Farmers Loop Extension, which will be a disaster for the neighborhood.</p>	<p>We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents. In an event of a crash, the alternate route would be for drivers to travel on Farmers Loop Road, University Avenue, and Johansen Expressway to reach the desired destination.</p>
<p>City Lights Blvd / Cemetery Access</p>	<p>This new big interchange is not needed!!</p>	<p>Thank you for your comment.</p>
<p>City Lights Blvd / Cemetery Access</p>	<p>What is not accounted for is the road coming down the cemetery and if not paying a watchful eye could smash I to someone. The cemetery is designed as one way roads. Also for the safety of the children that attend fair hill and are walking home putting more traffic here is INSANE!</p>	<p>The cemetery traffic pattern remains one-way. 140 additional vehicles (65 entering and 75 exiting) are estimated to use Fairhill Road to get to or from City Lights Boulevard during the morning peak hour, which is about double of the City Lights traffic if it were kept open; this includes traffic to and from the Fairhill Christian School. During the PM peak hour, 70 additional vehicles (30 entering and 40 exiting) are estimated to use Fairhill Road. The increase in traffic at Fairhill is expected to increase vehicle delays by about 1 second per vehicle in the morning peak hour.  Overall, the additional volumes on Fairhill Road caused by the City Lights Boulevard closure on the south end are forecasted to be low for the majority of the day. The school is anticipated to generate the most traffic during the morning drop off and afternoon pick up times, which are both estimated to last for 15 to 30 minutes at a time.</p>

<p>City Lights Blvd / Cemetery Access</p>	<p>What is the reason for closing City Lights and has DOT considered the traffic impacts associated with that at Farmers Loop/Steese?</p>	<p>Explained that there were just too many constraints, our PAC (made up of FNSB, City and DOT EMS, Planning &amp; M&amp;O folks) decided early on that was one thing they could all live with closing to make the intersection better.</p> <p>Explained we looked at a variety of scenarios trying to keep some amount of access there but none were feasible.</p>
<p>Property Impacts (DDI)</p>	<p>Consider moving interchange to the west. It will encroach on Ford dealership parking but may mitigate relocating LDS church.</p>	<p>The interchange location has been optimized to avoid wetland impacts and minimize property impacts while ensuring adequate traffic flow. The location and alignment of Steese Highway is constrained by the conservation wetland in the northwest quadrant of the project area and also by the Steese Medical Center near the southwest end of the project. If the interchange were moved westward to avoid the LDS church, wetland would be impacted (i.e., filled in) and the space between the intersection and the Old Steese would be reduced and could result in traffic backing up as traffic volumes increase.</p>
<p>Property Impacts (DDI)</p>	<p>Curious about if the church will end up with enough parking? It does appear to me however that the need to accommodate the doubles truck traffic will require that much property to get the turning radius for that route- if my perception is correct.</p>	<p>We are required to address parking requirements per FNSB standards with our project.</p>
<p>Property Impacts (DDI)</p>	<p>How and when would the church be moved? What kind of delays, detours, etc. can we expect from this?</p>	<p>Right-of-way acquisition is anticipated to begin in late 2021 or later. The DOT&amp;PF will utilize an independent appraiser to determine the value of the property and any improvements, and the cost to cure any impacts (such as building modifications) related to the project and make a financial offer to the property owner incorporating all of these elements. The property owner will be provided with an opportunity to consult with the appraiser prior to their submission to DOT&amp;PF for use in an offer package.</p>

Property Impacts (DDI)	How much will it cost to move the Mormon Church? How much will the piece of Bently Trust property cost?	We do not have detailed estimates for these things at this time, in addition, right-of-way offers are confidential between the property owners and the DOT&PF.
Property Impacts (DDI)	How will to cost of relocating the church be determined or will the building be replaced?	The DOT&PF will utilize an independent appraiser to determine the value of the property and any improvements, and the cost to cure any impacts (such as building modifications) related to the project and make a financial offer to the property owner incorporating all of these elements. The property owner will be provided with an opportunity to consult with the appraiser prior to their submission to DOT&PF for use in an offer package.
Property Impacts (DDI)	I think the need to obtain properties already in use is a ridiculous waste of time and resources.	Thank you for your comment.
Property Impacts (DDI)	i think the overall project is overkill to begin with and not necessary	Thank you for your comment.
Property Impacts (DDI)	If any of the needed properties are currently owned by people who live on Farmers Loop Extension, Good Luck. Not likely to happen	Thank you for your comment.
Property Impacts (DDI)	I'm a member of the Church of Jesus Christ of Latter-Day saints and I attend church in that building. That church building is so old and so poorly maintained---we have huge maintenance issues every year. The building really needs a huge remodel, which I doubt would happen anytime soon. I hope our church would turn this into a positive opportunity to provide us with an updated facility.	Thank you for your comment.
Property Impacts (DDI)	is this really worth the cost for only a few seconds? I don't think so when facing a budget crisis..	This project is ultimately the result of a planning process that has opportunity for public and agency comment. While there are many needs in the state (and nation) regarding infrastructure improvements, ultimately this project need was determined to warrant a project out of the planning process. While the overall price tag is relatively high, it will provide significant benefits to air quality (due to the large percentage of diesel trucks that go

		through this intersection), pedestrian and bicycle safety and improved commute times for users.
Property Impacts (DDI)	It seems that all road construction projects in Fairbanks are about cutting trees and laying more pavement, and without necessarily a big improvement for the environmental cost.	Thank you for your comment.
Property Impacts (DDI)	Not needed!!	Thank you for your comment.
Property Impacts (DDI)	Seems expensive	Thank you for your comment.
Property Impacts (DDI)	This is gonna end up taking up way more land then you think.	Thank you for your comment.
Property Impacts (DDI)	What are you people thinking? Seriously exactly how much money can you waste building something that might save me one minute getting home in the evenings? This is a piss poor idea just build the Farmers Loop cut through for probably less than a quarter of the price. Stop wasting tax payers dollars.	A relatively small amount of vehicles were forecasted to use the Farmers Loop Connection during the 2045 design year, about 185 vehicles in the AM peak hour and 370 vehicles in the PM peak hour. The connection would have had a minimal effect on the delays at Steese-Jo; the overall intersection delay for the Steese-Jo diverging diamond is anticipated to be 3 seconds less per vehicle with the Farmers Loop connection than without it.
Property Impacts (DDI)	Who pays for the relocation of this building?	The DOT&PF will utilize an independent appraiser to determine the value of the property and any improvements, and the cost to cure any impacts (such as building modifications) related to the project and make a financial offer to the property owner incorporating all of these elements as part of the project. The property owner will be provided with an opportunity to consult with the appraiser prior to their submission to DOT&PF for use in an offer package.

<p>Property Impacts (DDI)</p>	<p>Whoa! This might cost taxpayers in the millions. How is this reasonable?</p>	<p>This project is ultimately the result of a planning process that has opportunity for public and agency comment. While there are many needs in the state (and nation) regarding infrastructure improvements, ultimately this project need was determined to warrant a project out of the planning process. Current long range plans indicate that residential growth will occur north of Fairbanks along the Steese Expressway. This will quickly increase delay at the Steese-Jo intersection because the Steese Expressway is the only relatively high capacity road connection for this new traffic. While the overall price tag is relatively high, it will provide significant benefits to air quality (due to the large percentage of diesel trucks that go through this intersection), pedestrian and bicycle safety and improved commute times for users. The project will be constructed using 90% federal highway funds and 10% state matching funds.</p>
<p>Property Impacts (DDI)</p>	<p>Yep, the design seems to place the off ramp close to the building. Move it or place a protective and sound-barrier wall and compensate the church financially for the impact. My thinking, moving it would lead to avoiding future headaches.</p>	<p>The interchange location has been optimized to avoid wetland impacts and minimize property impacts while ensuring adequate traffic flow. The location and alignment of Steese Expressway is constrained by the conservation wetland in the northwest quadrant of the project area and also by the Steese Medical Center near the southwest end of the project. If the interchange were moved westward to avoid the LDS church, wetland would be impacted (i.e., filled in) and the space between the intersection and the Old Steese would be reduced and could result in traffic backing up as traffic volumes increase.</p> <p>Right-of-way acquisition is anticipated to begin in late 2021 or later. The DOT&amp;PF will utilize an independent appraiser to determine the value of the property and any improvements, and the cost to cure any impacts (such as building modifications) related to the project and make a financial offer to the property owner incorporating all of these elements. The property owner will be provided with an opportunity to consult with the appraiser prior to their submission to DOT&amp;PF for use in an offer package.</p>



<p>Property Impacts (FLX)</p>	<p>Again, it would adversely affect their quality of life by: -sound pollution - light pollution -increased danger of vehicle accidents right outside their house -increased traffic. There isn't adequate setbacks. The speed limit would not be suitable.</p>	<p>We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents.</p>
<p>Property Impacts (FLX)</p>	<p>At the southern end of the Farmers Loop Extension there is a recognized junkyard and potential hazmat site. Someone is clearing all the junk currently out of the area. Please be cautious of hazmat and require cleanup where it is needed.</p>	<p>Thank you for your comment.</p>
<p>Property Impacts (FLX)</p>	<p>Curious as to how these property owners are with this? Also curious as to the level of poor eye appeal of these properties - does it matter? Would a light be @ F.Loop/Old Steese? This could be problematic (light timing critical to Steese/WB F.Loop flow)</p>	<p>We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents. In addition we will temporarily signalize the intersection of Farmers Lp Ext and Farmers Lp during construction.</p>
<p>Property Impacts (FLX)</p>	<p>Do this and only this, please do not waste money on the rest of proposed road.</p>	<p>A relatively small amount of vehicles were forecasted to use the Farmers Loop Connection during the 2045 design year, about 185 vehicles in the AM peak hour and 370 vehicles in the PM peak hour. The connection would have had a minimal effect on the delays at Steese-Jo; the overall intersection delay for the Steese-Jo diverging diamond is anticipated to be 3 seconds less per vehicle with the Farmers Loop connection than without it.</p> <p>We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents.</p>

<p>Property Impacts (FLX)</p>	<p>From a practical standpoint, that would help my driving trips (and possibly bike trips in the winter, if the trails are not plowed). Again, from an environmental standpoint, I question road expansion without considering alternatives like transit/bus.</p>	<p>Transit currently carries about 25 people per day on the Grey Route, most of whom travel between residences along Farmers Loop Road and UAF. Even if these volumes were to double, the Grey Route is unlikely to reduce expected delay at the subject intersection. The 2013 Short &amp; Long Range Transit Plan considered areas where growth will occur in the MACS transit service area and surrounding locations. The report concludes that in the short and long range, MACS should focus on expanding or improving service on currently existing routes and no new routes are recommended. Further, the report indicates that any increases in transit use on the Grey Route are likely to follow the existing pattern of travel between residences and the UAF campus, rather than along the Steese Expressway to the Fred Meyer (East) stop.</p>
<p>Property Impacts (FLX)</p>	<p>How does the construction of the FL Extension affect development in that area? Seems there has been a lot of dirtwork in that area during summer 2020. Will this design lock in some geometry that may be undesirable in the future?</p>	<p>A relatively small amount of vehicles were forecasted to use the Farmers Loop Connection during the 2045 design year, about 185 vehicles in the AM peak hour and 370 vehicles in the PM peak hour. The connection would have had a minimal effect on the delays at Steese-Jo; the overall intersection delay for the Steese-Jo diverging diamond is anticipated to be 3 seconds less per vehicle with the Farmers Loop connection than without it.</p> <p>The plan for the Farmers Loop Connection has been adjusted to be used as a temporary road during construction. Only the pedestrian/bike path will remain once the Steese-Jo intersection is built.</p>
<p>Property Impacts (FLX)</p>	<p>I have MANY comments regarding these impacts. Mostly the fact that we have been here for YEARS, DECADES, and you think kicking people from the only home they've ever known is worth some pavement? Literally uprooting families? We will fight it.</p>	<p>The proposed work on Farmers Loop Extension will not require any relocations and only minor property acquisition, predominantly along the east side of the road.</p>
<p>Property Impacts (FLX)</p>	<p>I just answered this question, but will reply again. People on Farmers Loop Extension, at least my family and several neighbors I have spoken with, are NOT going to give up even 1 inch of their property. So again, Good Luck</p>	<p>The proposed work on Farmers Loop Extension will not require any relocations and only minor property acquisition, predominantly along the east side of the road.</p>

<p>Property Impacts (FLX)</p>	<p>I see this as vaild for emergency access, but this road is going to be extremely busy and the end on Farmer's Loop will likely cause MANY accidents as it isn't a very safe location. This "new road" would need to be designed with that in mind.</p>	<p>We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents.</p>
<p>Property Impacts (FLX)</p>	<p>my neighborhood is peaceful and no noise or traffic. This would bring total chios to my neighborhood. Move it to the South to connect with McGrath Rd.? The day and night traffic would be a crime and an injustice to my neighborhood.</p>	<p>We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents.</p>
<p>Property Impacts (FLX)</p>	<p>Not needed!!</p>	<p>Thank you for your comment.</p>
<p>Property Impacts (FLX)</p>	<p>please construct this with pedestrian and bicycle users in mind. There is no way I'd attempt to navigate your confusing routes at the main intersection. Assuming this boondoggle gets built</p>	<p>Thank you for your comment. As always we have to strike a balance between user groups. At this heavy truck traffic and commuter traffic location and junction of two principal expressways, we focused on improving bike/ped safety (through signalized crossings and reduced crossing distances) while ensuring high traffic flow capabilities. This does increase the time it will take for pedestrians and bikes to get through this area, but improves the safety for bikes and peds.</p>
<p>Property Impacts (FLX)</p>	<p>Seems that ingress/egress onto/from Farmers Loop could cause bottlenecks, accident hazards. I like the idea, generally, but should signaling be considered at FL intersection? If so, how will this be coordinated with FL/Steese signaling?</p>	<p>We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents. In addition we will temporarily signalize the intersection of Farmers Lp Ext and Farmers Lp during construction.</p>
<p>Property Impacts (FLX)</p>	<p>That area is all marsh and permafrost which will take a fortune to maintain</p>	<p>Thank you for your comment.</p>

Property Impacts (FLX)	The Farmers loop extension is not cost effective. The proposed route is predominantly over frozen soils and/or wetlands. Maintain the existing connection. Between cost and ROW acquisition Farmers loop is not necessary or cost effective.	We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents.
Property Impacts (FLX)	This is a great improvement over the alignment with the highway.	Thank you for your comment.
Property Impacts (FLX)	This proposed roadway is going to have quite a few driveways access it within a fairly short distance. How is this going to be handled, apron distance and drainage culverts?	Driveways will be designed and constructed in accordance with Department standards including paved aprons and culverts where necessary to ensure proper drainage.
Property Impacts (FLX)	This will increase congestion and confusion near the intersection of Farmers Loop and Steese. Cars already don't pay enough attention when stopped at Old Steese.	We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents. In addition we will temporarily signalize the intersection of Farmers Lp Ext and Farmers Lp during construction.
Property Impacts (FLX)	Utter stupidity. The previous plan to connect straight North to McGrath Rd. would have worked. A few shrill "enviromentalists" claimed that some geese would be scared, even though they get along fine with the traffic on College Road.	We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents. In addition we will temporarily signalize the intersection of Farmers Lp Ext and Farmers Lp during construction.
Property Impacts (FLX)	We use the footpath in this area often and it always makes me nervous. From the junk yards along that road to the homeless camp, this area is an eye sore and dangerous. I don't like infringing on personal property, but I this area is a problem	Thank you for your comment.

<p>Property Impacts (FLX)</p>	<p>What features will be installed to discourage Johansson to farmers loop traffic from regularly using this road? Or is that the intention?</p>	<p>We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents. In addition we will temporarily signalize the intersection of Farmers Lp Ext and Farmers Lp during construction. The road removal post-construction will ensure it is not utilized as a cut through long term.</p>
<p>Property Impacts (FLX)</p>	<p>What kind of acquisitions are required? How will this impact our properties and our homes? What about people who live close to the road? How will this impact them? How much noise pollution will this rerouting cause? What will be the speeds of traffic be?</p>	<p>After completion of a right-of-way survey very little private property is required to build this work in the developed area (along existing Farmers Loop Extension). The noise study is available at <a href="http://dot.alaska.gov/nreg/steese-johansen/files/SJ-EA-AppendixD.pdf">http://dot.alaska.gov/nreg/steese-johansen/files/SJ-EA-AppendixD.pdf</a> and indicates a noise change of approximately 1-2 dB and overall noise below the threshold that requires mitigation. Proposed speed limit is 45 mph. However - we have adjusted the plans to make this road temporary only during construction and leave only a bike path permanently where no road currently exists.</p>
<p>Property Impacts (FLX)</p>	<p>Will there be a new stop light on Farmers Loop. The extension will get lots of traffic from people avoiding the new intersection.</p>	<p>Yes we propose a temporary signal at this intersection during construction.</p>
<p>Farmers Loop Extension</p>	<p>A temporary signal would be installed at the Farmers Loop intersection to control traffic during construction." Is this Farmers Lp @ Farmers Lp extension?</p>	<p>Yes the temporary signal would be the intersection of Farmers Loop Extension and Farmers Loop Rd.</p>

<p>Farmers Loop Extension</p>	<p>Can you explain some why removing the [Farmers Loop] connector is considered an option?</p>	<p>Removing the connector is an option because the connector was looked at for 2 main reasons:</p> <p>1) Handle construction traffic (allow us to remove all Johansen left turning traffic from the Steese/Jo intersection during construction)</p> <p>a. I'm not going to lie – it will still be frustrating to drive around the east side of town while we build this, but having the connector makes a huge difference in terms of the overall delay throughout the east side of town road network during construction, and also allows us to build the interchange faster.</p> <p>2) Create a better bicycle path connection between the Johansen and Farmers Loop separated paths.</p> <p>a. We can do this with just a bicycle path between Northside Boulevard and Farmers Loop rather than a road and path.</p> <p>The road connection doesn't really divert enough traffic from the Steese/Jo intersection on its own to relieve the congestion there, so an interchange is needed regardless of if the connector is built or not.</p>
<p>Farmers Loop Extension</p>	<p>Farmers Loop Extension resident concerned about traffic during construction.</p> <p>What will the traffic changes look like?</p> <p>30 MPH is current Farmers' Loop Extension speed limit.</p>	<p>Explained we don't expect a lot of extra traffic post-construction, primary benefit of this is handling traffic during construction and long term enhanced bicycle/pedestrian route.</p> <p>Explained we plan to design the road to be relatively narrow to discourage high speeds.</p> <p>Explained we would likely have a temporary traffic signal @ Farmers Loop intersection during construction.</p>

<p>Farmers Loop Extension</p>	<p>I am contacting you on behalf some of the property owners along the Farmers Loop Extension.</p> <p>It appears that extension is going to be upgraded as a major connector between Farmers Loop and Old Steese (at Johansen). Please confirm that is correct and direct me to more details about that part of the project. Most specifically, when is that likely to happen?</p>	<p>Thanks for reaching out. You are correct we are planning to upgrade and connect the existing Farmers Loop Extension to the Old Steese Highway as part of the project.</p> <p>For the when, 2024 is the earliest we would expect to have this in construction.</p> <p>For the why – our hope is to provide an enhanced bike route between the Johansen and Farmers Loop separated paths (currently the existing path goes through the homeless camp along the Steese before terminating on the gravel roadbed) and handling Johansen left turning traffic during construction (Johansen traffic desiring to head north on the Steese). It is pretty critical for us to be able to detour traffic along here during construction, but long term the primary value is the bike path, so we are very open to hearing from the residents about the best long term plan for this area, as well as concerns regarding the construction impacts.</p> <p>We have no plans to move forward with this without discussing the potential impacts and concerns with the residents. Please send any other interested property owners my way!</p> <p>[Note: In further response to this comment, more detailed analysis and explanation and graphics were prepared and shared directly with commenter and also posted to website and online open house.]</p>
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<p>Farmers Loop Extension</p>	<p>I regularly travel Johansen, Steese, Farmers Loop &amp; Farmers Loop extension. Since the Farmers Loop rerouted leaving this deadend, the area has deteriorated. The lack of routine activity encouraged abandoned vehicles, burnt vehicles, vandalism, homeless camps, garbage dumping and probable illicit activity.</p> <p>A permanent through street would upgrade pedestrian safety and improved pedestrian use. It could encourage property improvements along the Farmers Loop Extension. Residents of Farmers Loop, McGrath, Skyline and more could arrive to College road avoiding the major intersections of Farmers' Loop/Steese Hwy and Steese/Johansen. I can't explain how this even happened, but the timing of Newsminer's headline emphasizes the congestion.</p> <p>I was pleased to see the Steese/Johansen reconstruction connect Farmers Loop Extension through to Old Steese via Northside Blvd. It was frustrating to learn the plan was to use it only during construction for traffic detour. Hard to understand this is the best cost effective long term solution.</p> <p>I recently avoided a collision on Farmers Loop with a truck sliding from the access road across all 5 lanes. There have been fatal accidents coming into Farmers Loop from the Transfer site.</p> <p>Has there been consideration to construct entrance to Transfer sight from Farmers' Loop near Farmers Loop Extension? Might consider making the temporary stop light permanent.</p> <p>I have shared my concern with neighbors and Farmers Loop commuters. But know many will show concern when it is too late.</p>	<p>Thanks so much for providing your written comments.</p> <p>As an FYI (and things I've learned through developing this project!) there are other planned projects along the proposed Farmers Loop Connection, such as a new and expanded gravel pit, a potential US Fish &amp; Wildlife Service building and trails network, and a proposed subdivision that if fully developed should help alleviate some of the concerns you've outlined regarding illegal behavior in the area.</p> <p>Regarding Farmers Loop &amp; Steese – this intersection was part of the 2015 study of the entire Steese/Rich corridor between the Fairbanks end Badger interchange and Chena Hot Springs Road interchange. Improvements were identified here that included relocating the Old Steese access to align with Farmers Loop extension and constructing an interchange at Farmers Loop and Steese, similar to the Geist/Parks Highway interchange. These improvements would be considered under a future project start.</p> <p>After the 2015 study the Steese/Johansen intersection, Gaffney/Airport/Rich/Steese intersection, and Rich 359 railroad crossing were prioritized for project starts, but the long term intent of the Department is to continue to pursue improvements outlined in the 2015 study as funding allows to modernize the Steese Expressway to reduce congestion, crashes and delay.</p>
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<p>Farmers Loop Extension</p>	<p>Is there any traffic changes to Farmers Loop/Fairhill/Steese Intersection?</p>	<p>The proposed Farmers Loop Connector is expected to bring the traffic down a bit at the Farmers Loop/Steese intersection.</p> <p>Approximately 25-40% reduction in turning traffic is estimated with the construction of the Farmers Loop Connector.</p> <p>This doesn't equate to a significant change in the overall delay at the Farmers Loop/Steese intersection in the grand scheme of things however.</p>
<p>Farmers Loop Extension</p>	<p>Seeking clarification regarding Farmers Loop Extension modifications</p>	<p>The amount of right-of-way expansion is probably way less than what the maps show as we have some outdated property lines on our maps</p> <p>The side the path is on is totally open to discussion, we put it on that side as that's the side the sidewalk is on the Old Steese/Northside Boulevard tie in. The most important thing is that we do build the path.</p> <p>Just a note on the remove the road connection option – we would keep the bike path, only the road connection piece would be removed. We'd likely leave the improved existing portion of Farmers Loop Extension paved as well.</p> <p>If the neighborhood residents would like and have the technological means, I'd be happy to host a virtual meeting so folks can get their questions and concerns answered directly</p>

<p>Farmers Loop Extension</p>	<p>The current gaggle of projects around town is causing a lot of delays, having two of the Chena River bridges closed for extended periods simultaneously is jamming up the detour routes. It is the same situation we had two years ago when the two of the east-west connector roads were closed at the same time. Having said that, I am very concerned about the Steese/Johansen project delays. As you know, there aren't good detour routes for this project.</p> <p>Please tell me you will open the Farmers Loop extension before you tear up the intersection?</p>	<p>Yes the plan is to build the farmers loop connection first to handle the majority of the detour traffic. The Steese will remain open north south for the duration of construction is what the current phasing plans show. We intend to hire a contractor early during design to help us work through these sorts of challenges as well, similar to University Avenue.</p>
<p>Farmers Loop Extension</p>	<p>What happens if the intersection ends up being more heavily used than anticipated?</p>	<p>Farmers Loop Connection/Farmers Loop intersection will be signalized during construction but likely stop controlled permanent</p> <p>We would look at starting a project in the future to change the intersection control if crashes/volumes warranted</p> <p>Explained STIP and FAST Planning have public processes for identifying new project starts/needs</p> <p>Explained purpose of the connection is to enhance bike/ped connectivity and handle traffic during construction, intent at this time is to leave the road in place post-construction</p>
<p>Farmers Loop Extension</p>	<p>Why can we only temporarily construct Farmers Loop Connection? Likes the idea of the Farmers Loop Connection as it makes it easier for her family to visit and get to and from the box store area.</p>	<p>Explained it's primary purpose as a road is just to handle construction traffic, long term it doesn't benefit the Steese/Jo intersection much in terms of reducing delay</p>
<p>Wetlands Impacts</p>	<p>Are there any grants or other funding sources that would tie the proposed and current pedestrian pathways into a pathway around the pond (Isabella Creek C.E.)?</p>	<p>The USFWS is looking into paths in this area.</p>
<p>Wetlands Impacts</p>	<p>Can't be any worse than the homeless people who live out there and trash it up every summer.</p>	<p>Thank you for your comment.</p>

Wetlands Impacts	Disagree about Farmers Lp Rd extension project impacts. The Isabella Creek Conservation wetlands area is currently draining into the south adjacent property due to extensive mineral excavation activities this summer and has been draining to the west for several years now.	Drainage is presumed to follow available hydrologic connectivity. Isabella Creek lies west of the project area, with relatively flat terrain in the area, thus drainage is presumed to be generally westwards. Furthermore, subsurface modification (roadbed excavation and construction backfill) are less likely to promote subsurface flow. This assumption may be incorrect.
Wetlands Impacts	I don't think the EPA would agree seeing as they prevented former owners from doing anything. Let's ask them formally.	Thank you for your comment.
Wetlands Impacts	Is this a greater need type use? Will this area be impacted to the point that it would actually effect the wildlife/waterfowl?	We do not anticipate any long term adverse impacts due to the road and path work. We will have to obtain formal permission from the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act, which will further ensure no long term impacts.
Wetlands Impacts	It is not cost effective to develop these wetlands between added construction costs and fee in lieu credits that will have to be paid.	Thank you for your comment.
Wetlands Impacts	It will still be impacted because you will be close to it even if you don't directly stomp all over it.	Thank you for your comment.
Wetlands Impacts	Leave them alone. Let the wildlife live in peace the way you're letting it at Creamers Field.	Thank you for your comment.
Wetlands Impacts	Seems reasonable.	Thank you for your comment.
Wetlands Impacts	There is PCB's in the soil on the property that belongs to the trust managed by Glenna Bosman and the Clyde Shover property	Thank you for your comment.
Wetlands Impacts	Wasn't this impact to the wetlands challenged by public comment several years? My recollection is that the public comment strongly favored the abandonment of this idea. The road, whether it gets heavily used or not	The impacts that were successfully challenged were related to impacts crossing Creamer's Field which has special federal

	once the new exchange is built does not change the fact that the road construction itself is what is majorly destroys the wetland. e	protections associated with it as it is a Wildlife Refuge. These wetlands do not hold the same land status protections.
Wetlands Impacts	Water table is very high here. More pavement means more flooding potential. That area already floods.	The proposed project includes a large drainage pond to capture, store and manage water table recharge to address the current and future drainage issues in this area associated with development.
Wetlands Impacts	Wetlands Shmetlands.	Thank you for your comment.
Wetlands Impacts	Will opening this route increase the amount of homeless/vagrant camps in the area?	That is unknown at this time. It will open up the area to increased foot traffic which could create an expansion of the homeless camp territory, however it will also be more heavily used and therefore could be less attractive for those reasons.
Noise Impacts	Are they extensive enough? Why not bring the southern was in front of the churches too?	The noise walls have been evaluated and designed in accordance with the Federal laws and regulations associated with traffic noise impacts on FHWA funded projects. What is proposed is the maximum that our funding partner will participate in due to these laws.
Noise Impacts	Constant vehicle noise is quite exhausting. We need to focus on reducing vehicle use overall and promoting bike, pedestrian, and transit.	Thank you for your comment.
Noise Impacts	good idea.	Thank you for your comment.
Noise Impacts	I am a resident on Joyce drive next to Steese High way. Our concern is the increasing noise impact on the residency along Joyce Drive. Noise level is very high at current traffic situation and it has been affecting our daily use of our back yard. During the summer time, we can hardly open the window at night due to the noise level. So we strongly agree that	The project will construct a continuous noise wall between the Steese Expressway and the residential neighborhood along Joyce Drive. The wall will most likely be built simultaneously with road construction.

	noise wall should be built. How do you plan to mitigate the construction noise? And will the wall be built before the construction starts?	
Noise Impacts	I doubt noise walls will be very effective from traffic on the elevated parts of the steese. If trucks heading south on the steese use jake brakes coming off the elevated roadway that will be noisy above the level of the walls.	The noise modeling software takes into account elevation of traffic and the noise walls have been designed to mitigate traffic noise for the proposed improvements in accordance with Federal requirements.
Noise Impacts	I live in 1114 Joyce Dr (R-28 in the environmental document, appendix D) and would greatly appreciate a noise wall. It is difficult to enjoy my back yard with current noise levels.	The project will construct a continuous noise wall between the Steese Expressway and the residential neighborhood along Joyce Drive.
Noise Impacts	I think this could be a very good thing for the residents, however, is this project actually expected to increase the noise level vs. current traffic levels? Good PR type response to noise is not too expensive.	The project will construct a continuous noise wall between the Steese Expressway and the residential neighborhood along Joyce Drive.
Noise Impacts	Noise increase should be mainly during morning, afternoon drive times, and likely more on weekdays. The school is active mostly at the end of morning drive time, ending at the beginning of afternoon drive. Chaucer is mainly on Sunday. Should be ok.	Thank you for your comment.
Noise Impacts	Noise, shmoise	Thank you for your comment.
Noise Impacts	Obviously, traffic constantly running down Farmers Loop Extension will create a lot more noise and bother those of us who chose this neighborhood for the peace and quiet	We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents.

Noise Impacts	THEN DON'T DO IT IN THE FIRST PLACE!!!	Thank you for your comment.
Noise Impacts	There are no noise walls now. Anyone who buys a house next to a highway is ab idiot and my tax dollars should not have to pay for their stupidity.	Thank you for your comment.
Noise Impacts	They're recommended which says nothing as to if it will actually happen. The impact on these people's lives will be horrible.	In order to utilize State or Federal funds to construct this project, the noise walls are required to be constructed. In other words - we can't build the proposed interchange without building the walls.
Noise Impacts	Totally disrupt our neighborhood on Farmers Loop Extention Road	We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents.
Noise Impacts	Traffic and noise is likely to increase with or without this project.	Thank you for your comment.
Noise Impacts	Traffic on Farmers Loop Extension will destroy the neighborhood	We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents.
Noise Impacts	ugly	Thank you for your comment.
Noise Impacts	What about the noise impacts of the neighborhoods on Farmers Loop Extension? Do we not matter? We would suffer the most severe impacts.	Noise impacts were evaluated for the Farmers Loop Extension as well, please see the noise report at <a href="http://dot.alaska.gov/nreg/steese-johansen/files/SJ-EA-AppendixD.pdf">http://dot.alaska.gov/nreg/steese-johansen/files/SJ-EA-AppendixD.pdf</a> for details.

<p>Noise Impacts</p>	<p>What are these noise walls? will they be provided by the state or will people have to figure out how to reduce noise impact themselves?</p>	<p>The noise walls are constructed by the project and maintained by the State.</p>
<p>Environmental Impacts/Commitments</p>	<p>Coordination with Service Plans for Tracts A and B: We appreciate the 10/21/20 coordination meeting with the DOT&amp;PF to discuss the Service's plans for the adjacent area. The Service contemplates constructing a building in the area that has been cleared, most likely close to the existing Holiday gas station, and keep the undisturbed area as-is, possibly with some interpretive trails/boardwalks. We would appreciate continued coordination with the DOT&amp;PF as both our agency plans progress. We offer the following background and recommendations regarding the Service's project: The Northside Business Park area was identified by the Service as a preferred location for a Service multi-purpose building because of its potential to provide access to Creamers Refuge via Tract B. The Service would appreciate the DOT&amp;PF considering ways to construct the Farmers Loop Extension while providing uninterrupted trail access. The Service's preference for their own project goals in this area would be for Farmers Loop Extension to exist as a temporary road and as a permanent non-motorized bike path. The Service would also encourage the DOT&amp;PF to relocate the snow disposal site from its current location in the northeast corner of the Northside Business Park.</p>	<p>We look forward to continued coordination with USFWS during detailed design as both of our plans evolve towards reality.</p>
<p>Environmental Impacts/Commitments</p>	<p>Invasive Species: We appreciate the ADOT&amp;PFs plans to manage for the introduction and spread of invasive species during project implementation. To ensure on-the-ground knowledge of invasive species management, we recommend project contractors review a free self-paced training course on invasive species control, which can be found at: <a href="http://weedcontrol.open.uaf.edu">http://weedcontrol.open.uaf.edu</a>. We also recommend, if proposed, disposing soils contaminated with invasive plants and seeds in a manner that does not propagate the problem in other areas.</p>	<p>Thank you for the feedback. The Department continues to work with Contractors at a larger level to find cost effective ways to manage propagation of invasive species.</p>

<p>Environmental Impacts/Commitments</p>	<p>Migratory Birds: The Service recommends employing voluntary measures to avoid disturbance to migratory-bird nesting habitat during the nesting season when nests and nestlings are most vulnerable. The most effective best management practice to minimize impacts to nesting birds is to conduct land disturbing activities (e.g., clearing, excavation, gravel fill, brush hogging, etc.) before or after the breeding season, which is generally May 1 through July 15 in the proposed project area.<sup>1</sup> Additionally, we appreciate and support employing other conservation measures to minimize impacts to migratory birds. For some example conservation measures to avoid and minimize impacts to birds, please refer to our Migratory Bird Program website.</p>	<p>We will incorporate the recommendations for compliance with the Migratory Bird Act in our environmental commitments.</p>
<p>Environmental Impacts/Commitments</p>	<p>Spills: Unintentional fluid releases of hazardous materials, including fuels and lubricants from construction equipment into aquatic waters and wetlands could be a risk during construction and operations, and further impact wildlife and habitat. Due to the adverse impacts spills could cause to the environment, the Service encourages the DOT&amp;PF to develop a Spill Prevention, Control, and Countermeasure (SPCC) Plan once design plans are finalized. The purpose of the plan is to help prevent a discharge of oil and hazardous materials into aquatic waters or adjoining wetlands. More information on SPCC can be found at: <a href="https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations">https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations</a>.</p>	<p>This is a requirement of our standard specifications.</p>



<p>Environmental Impacts/Commitments</p>	<p>Stormwater Retention Pond Habitat: The Service has become aware of confirmed groundwater contamination above cleanup levels (1,2-dichloroethane) in a monitoring well at the church to the southeast of the Steese x Johansen intersection. Depending on how deep the DOT&amp;PF will need to dig the stormwater retention pond, and if dewatering is required, soil and groundwater characterization for disposal may be necessary. The chemical 1,2-dichloroethane is toxic (irritant and organ damage, carcinogenic, genotoxic) to mammals, fish, and plants. We have also learned Seekins Ford, which is southwest of the intersection is a contaminated site for petroleum and solvents. The Service is concerned the stormwater retention pond could be contaminated by the underground plume and recommends installing monitoring stations to study water quality adjacent to, and within, the stormwater retention pond. If the stormwater retention pond is, or becomes contaminated, we recommend the area be designed to deter wildlife use (i.e., remove any vegetation, and refrain from creating shallow areas).</p> <p>However, if the stormwater retention pond is not, and will not be impacted by the contaminate plume, we encourage design methods to attract wildlife. Creating littoral areas for waterbirds and other wildlife habitat in depleted gravel mine sites often works well if constructed properly and actively managed until stable. The Service considers shallow water areas as a bird-friendly BMP used for mine sites that will fill with water. These shallow areas (also known as littoral zones) provide good habitat for water dependent birds such as shorebirds, waterfowl, loons, grebes, gulls, and terns. Further, we recommend the shallow area be constructed to a 20 – 30-foot wide zone with slopes no steeper than 10H:1V. This recommendation aims to add the benefit of providing a productive shallow area benefiting more than just plant regrowth, as it will also provide valuable habitat attractive to a variety of wildlife.</p>	<p>DOT&amp;PF coordinates closely with DEC Contaminated Sites Program staff in site assessment, monitoring, and any potential clean-up within our right-of-way (including newly acquired right-of-way). We appreciate this comment and will continue to evaluate and coordinate with DEC during project development. We will work with USFWS on concepts to make the stormwater facility wildlife friendly during detailed design.</p>
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<p>Environmental Impacts/Commitments</p>	<p>Water Quality: The Service appreciates the proposed avoidance measures to protect the pond on the west side of the Steese Expressway (Tract A pond) from direct construction impacts; however, we are concerned contaminated stormwater and snowmelt flowing overland or through the groundwater from the stormwater retention pond and snow dump could potentially affect the water quality and wildlife habitat in the Tract A pond. The water leaving these storage areas may include contaminants (e.g., petroleum products, such as oil and gasoline, heavy metals from tire dust, and salt and sand from winter roads and sidewalk maintenance), which could adversely impact the water quality in the pond and the wildlife utilizing the habitat.</p> <p>We recommend designing both the snowdump and the retention pond so potentially contaminated runoff and groundwater will not enter the pond. Alternatively, we understand the ADOT&amp;PF could use other snow dump sites, which is our recommendation, because an alternative site would reduce the potential to contaminate the Tract A pond. Similarly, we recommend designing the Farmers Loop Extension adjacent to the pond in Tract A so surface-water drainage will not enter the pond in Tract A.</p>	<p>The snow storage site will be designed to ensure no unfiltered runoff enters adjacent wetlands. The DOT&amp;PF is a co-permittee for the Fairbanks MS4 which would cover these new facilities which provides requirements we must meet to protect water quality.</p>
<p>Drainage</p>	<p>Given that area is a wetlands or adjacent to one how much infiltration of storm water can be expected in the pond? I expect the water table is fairly high.</p>	<p>The final drainage pond area will be designed to ensure adequate storage capacity taking into consideration groundwater table and soils.</p>
<p>Drainage</p>	<p>How it drainage now? I say don't waste tax dollars no this project.</p>	<p>Drainage in this area currently is poor, with reports from our M&amp;O folks and adjacent property owners that ponding occurs on private property and adjacent to the road currently.</p>
<p>Drainage</p>	<p>How will heavy equipment access the snow disposal site?</p>	<p>Via Farmers Loop Extension.</p>
<p>Drainage</p>	<p>I question very much if drainage is adequate. The entire area around Holiday gas station occasionally floods. More pavement means less area to absorb water in general in an area that already floods. Climate change adds uncertainty--not sure if the future is wetter or drier for the Interior.</p>	<p>The final drainage pond area will be designed to ensure adequate storage capacity taking into consideration groundwater table, soils, and available climate information.</p>

Drainage	I'd like to see the EPA's statement first.	Thank you for your comment.
Drainage	increased mosquitos for neighboring properties due to more stagnant water	Thank you for your comment.
Drainage	Is the proposed stormwater pond already under construction? What is the environmental impact of the stormwater pond and the snow disposal sites on the wetlands? What mitigation plans are in effect?	The proposed stormwater pond overlaps a current active materials site development, it is currently private property that is not under the Department's control. The drainage pond and snow storage site are anticipated to provide recharge to adjacent wetlands and will be designed to ensure no unfiltered drainage to adjacent wetlands.
Drainage	Looks like a snow removal nightmare.	Thank you for your comment.
Drainage	My property is very susceptible to runoff from melting snow and this causes a lot of problems for us, how will this affect the area of fleshman st	No significant changes to drainage along Farmers Loop Extension are anticipated.
Drainage	Nice. This location was recently mined. will this affect this plan?	The current mining is anticipated to be an overall benefit to the proposed stormwater pond as a stormwater pond is essentially just a large excavation where water can be stored.
Drainage	Not as worried as much about drainage as much as I'm worried about how is this safely going to be groomed and maintained during the winter???	Snow removal activities will occur in accordance with M&O's priorities.
Drainage	Recommend making this area a constructed wetlands due to existing drainage impacts to existing adjacent wetlands.	Thank you for your comment.
Drainage	Stir water pond and snow dump should be designed do as yo not drain into conservation pond. Also, dump trucks will increase traffic during snow plowing days in winter. Has that additional traffic been considered?	The drainage pond and snow storage site are anticipated to provide recharge to adjacent wetlands and will be designed to ensure no unfiltered drainage to adjacent wetlands. The road will

		be designed to accommodate truck traffic associated with snow removal.
Drainage	What will the impact be on melt water from the snow dump running into the wetlands. The snow dump gets more than just snow stored there. Just look at the johansen snow dump area for all the garbage left after melting.	The drainage pond and snow storage site are anticipated to provide recharge to adjacent wetlands and will be designed to ensure no unfiltered drainage to adjacent wetlands.
Drainage	Who pays for the proposed stormwater pond? How much will it cost?	The project will pay to construct the stormwater pond, a detailed cost estimate has not been prepared for this level of design but it is included in the overall cost estimate for the project.
Drainage	Will this storm water pond aid the wetlands issue? This appears a good plan due to the larger area of intersection vs. the current.	Thank you for the feedback - yes we anticipate the location and design of the stormwater pond and snow dump to overall be a benefit to the wetlands in the area.

<p>General</p>	<p>1. Concerns about the raised bridge--this will project noise and block the natural view, a negative impact of multiple projects to date (Johansen; Mitchell). Fairbanks is small, and all these elevated highways will degrade the quality of the community.</p> <p>2. Timing of lights on Johansen--there is no benefit to overall travel time across town if the lights from University Ave (which are on the same slow 2 minute cycle after extensive construction--my driving time across town is unchanged despite millions invested in this project), long wait at Danby, through the development on the east end. Do not do this project if you don't plan to fix the timing of the lights.</p> <p>3. Cost of time. You mention the 13 or so seconds/vehicle of delay at peak times now. How long will it take to recoup the hours of delays incurred during construction?</p> <p>4. Cost of alternatives, like transit. \$40+ million would go a long long ways to investing in robust bus service.</p>	<p>1) The project will construct a continuous noise wall between the Steese Expressway and the residential neighborhood along Joyce Drive. The wall will most likely be built simultaneously with road construction. The noise walls have been evaluated and designed in accordance with the Federal laws and regulations associated with traffic noise impacts on FHWA funded projects. For more information, please see the noise report at <a href="http://dot.alaska.gov/nreg/steese-johansen/files/SJ-EA-AppendixD.pdf">http://dot.alaska.gov/nreg/steese-johansen/files/SJ-EA-AppendixD.pdf</a>.</p> <p>2) Signal timing depends on even spacing between signalized intersections and is constrained by traffic volumes and directional splits. The proposed interchange will eliminate stopping at Johansen Expressway for all traffic traveling north and south on the Steese Expressway and will significantly reduce delay for all vehicles traveling between Johansen Expressway and Steese Expressway.</p> <p>3) You are correct to believe that significant delays will occur during construction. We found significant savings in cost of time, as well as reduced environmental impacts, such as improved air quality. The Alternatives Analysis Report (found at <a href="http://dot.alaska.gov/nreg/steese-johansen/files/SJ-Alternatives-Report-DRAFT.pdf">http://dot.alaska.gov/nreg/steese-johansen/files/SJ-Alternatives-Report-DRAFT.pdf</a>) calculated the savings in life cycle (20-year) cost of congestion for this alternative at around \$45 million.</p> <p>4) Transit currently carries about 25 people per day on the Grey Route, most of whom travel between residences along Farmers Loop Road and UAF. Even if these volumes were to double, the Grey Route is unlikely to reduce expected delay at the subject intersection. The 2013 Short &amp; Long Range Transit Plan considered areas where growth will occur in the MACS transit service area and surrounding locations. The report concludes that in the short and long range, MACS should focus on expanding or improving service on currently existing routes and no new routes are recommended. Further, the report indicates that any increases in transit use on the Grey Route are likely to follow the existing pattern of travel</p>
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		<p>between residences and the UAF campus, rather than along the Steese Expressway to the Fred Meyer (East) stop.</p>
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<p>General</p>	<p>Again I have many comments about this plan. Including the fact that it's not even the most logical. You are literally kicking families who have spend DECADES here out of their homes. The neighborhood I live in on Fleshman Street has been in my family for nearly 50 years. It's the place I grew up SAFELY. It's the place I have been raising my children SAFELY. This plan would put their safety at risk because of reckless driving. Not to mention the closures of the road for construction would cause lost hours at work and school for all of us. Reconsider the plan you're wanting to choose. Think of the lives you're impacting with this proposal and choose a different one. If you wouldn't put a price tag on your peace of mind, don't ask me to put one on mine. Because I won't do it. None of us will. And if you try to continue with construction without properly notifying the neighborhoods again, like you've done twice with the previous meetings, you're going to have a lot of angry people.</p>	<p>The proposed Farmers Loop Extension will not require any relocations and only minimal right-of-way acquisition in the developed subdivision area. In addition we have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents.</p>
<p>General</p>	<p>All in all, a good solution! Good work! My main concern is the additional traffic to/from Farmers Loop onto Old Steese, across from the coffee huts. It is already an obstacle course, with traffic turning onto FL from Steese, traffic to Northbound Old Steese for transfer station, turns into Sourdough Gas, and NOW a LOT of traffic turning to south Old Steese to shortcut the new interchange. It seems the interchange is the main focus, but the FL/south Old Steese intersection will experience major consequences of these changes.</p>	<p>We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents. This should alleviate short term traffic impacts and congestion for this area but not preclude a long term solution similar to what has been outlined in the Richardson/Steese Planning &amp; Environmental Linkages Study available at <a href="http://dot.alaska.gov/nreg/steese-johansen/files/SJ-2015-Study.pdf">http://dot.alaska.gov/nreg/steese-johansen/files/SJ-2015-Study.pdf</a>.</p>
<p>General</p>	<p>As a driver, this project looks good. As a bicyclist, I am concerned about the design of the bike path along farmers loop connection as proposed because I think it will get covered in gravel from the road base if it is at a lower elevation than the road surface. Also, I am concerned that road will become very busy with traffic going from Johansson to Farmers Loop unless the speed limit is set very low. I use the current farmers loop extension bike path frequently and it is nice that it is not a busy street. I am sure these concerns can be accommodated and I appreciate the design ideas going into fixing this intersection.</p>	<p>We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents. This should alleviate the concern regarding gravel on the path.</p>

<p>General</p>	<p>Closing City lights Blvd road will further concentrate traffic to the north for the Fairhill and Vue Crest subdivisions, businesses, Birch Hill Recreation area, churches and school traffic at the Steese Hwy/Fairhill Rd intersection. Concentrating vehicular and pedestrian traffic on the east side of this intersection without road and pedestrian improvements may potentially result in more personal injury and/or fatalities. Request a planner/design team park vehicle and walk, starting at dead-end Birch Hill/Fairhill road pedestrian path, cross the Steese Hwy to the west, and attempt to navigate along either side of Farmers loop road to the connecting bike/pedestrian path at Farmers Loop Road/Farmers Loop road extension and to the FNSB MACS Transit stop located west of Farmers Loop/Old Steese Hwy intersection. Caution: Keep your head on a swivel, wear reflective clothing and be prepared to jump out of the way of vehicular traffic. Refer to <a href="http://slowdownalaska.org/avoidintersections.html">http://slowdownalaska.org/avoidintersections.html</a></p>	<p>140 additional vehicles (65 entering and 75 exiting) are estimated to use Fairhill Road to get to or from City Lights Boulevard during the morning peak hour, which is about double of the City Lights traffic if it were kept open; this includes traffic to and from the Fairhill Christian School. During the PM peak hour, 70 additional vehicles (30 entering and 40 exiting) are estimated to use Fairhill Road. The increase in traffic at Fairhill is expected to increase vehicle delays by about 1 second per vehicle in the morning peak hour.</p> <p>Overall, the additional volumes on Fairhill Road caused by the City Lights Boulevard closure on the south end are forecasted to be low for the majority of the day. The school is anticipated to generate the most traffic during the morning drop off and afternoon pick up times, which are both estimated to last for 15 to 30 minutes at a time.</p> <p>A pedestrian pathway would be provided to connect City Lights Boulevard to the Steese-Jo intersection, allowing City Lights pedestrians to continue crossing at Steese-Jo.</p>
<p>General</p>	<p>Curious about all the traffic that has to scoot left over several lanes to take a left on Farmers Loop ( after leaving the Johansen and heading North on Steese). Hopefully that will be accomplished smoothly. Also wondering how much traffic will choose to take the Farmers Loop Road Extension, and what traffic control will be needed at both ends. I sure do not want to see a new stoplight at Farmers Loop and Old Steese that would back up traffic that just exited the Steese. Overall, I am really excited about the new intersection.</p>	<p>Thank you for your comment. The project team reviewed several different possibilities for bringing in the merging traffic and found that locating the on ramp to the right of the through lanes would result in the least amount of weaving overall. The full analysis and report is available upon request to the project manager, <a href="mailto:lauren.little@alaska.gov">lauren.little@alaska.gov</a>.</p> <p>We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents.</p>
<p>General</p>	<p>Great idea! This will be a much needed improvement.</p>	<p>Thank you for your comment.</p>



<p>General</p>	<p>I am very concerned about the intersection of the FLR extension intersection with FLR. As I read it, most of the northbound traffic on it will be wanting to take a left to travel west on FLR. That means crossing two lanes of east-bound traffic to get into the west-bound lanes. I am familiar with the area and aware of the high speed of east bound traffic traveling across the flats of FLR. It is scary to think of negotiating that turn in the dark on icy or snowy roads.</p>	<p>We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents. A temporary signal at Farmers Loop and Farmers Loop Extension will be installed during construction.</p>
<p>General</p>	<p>I believe this is a much needed upgrade to a congested area that causes delays, accidents, and traffic problems. While I know this is a problem area, I think the Steese/Airport intersection is so much worse at rush hour. Heading south on the Steese and turning west onto Airport is a nightmare. I would prioritize that intersection over this one.</p>	<p>The Steese/Airport/Gaffney/Richardson intersection is slated for improvements in 2022. Information on that project is available at <a href="http://dot.alaska.gov/nreg/garsinterchange/">http://dot.alaska.gov/nreg/garsinterchange/</a>.</p>
<p>General</p>	<p>I don't like the farmer's loop extension. You are creating a lot of problems with that concept.</p>	<p>We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents.</p>
<p>General</p>	<p>I support the ddi alternative because DDI's are safer.</p>	<p>Thank you for your comment.</p>
<p>General</p>	<p>I think it's good</p>	<p>Thank you for your comment.</p>

<p>General</p>	<p>I think this is a great idea!! I have been saying this for years! It would help so much with accidents in the winter!!! That all intersections starting at Airport and Richardson hwy should be like this then follow up , where Joann fabric is and the old trademark should be just exits off the Hwy just like the next two college rd and then trainer gate. The big issue is at Airport and the Richardson Hwy , it takes almost 20 min to get from Joann fabric intersection to the Airport -Richardson hwy if you are driving any where from 4-6 pm.</p> <p>When will this be fixed I saw you had it on your plans but now I'm not see it. I would like to see that intersection fixed before the Johansen and steese. I believe the Richardson hwy &amp; the Steese Hwy all should just be a smooth drive for all our truckers and all the other roads should be a right or left exit .. then the truckers do not need to stop at a light till they get to the famers loop light. And hopefully someday that will be just a exit has well.</p>	<p>Thank you for your comments.</p> <p>The Airport/Steese intersection is anticipated for construction beginning in 2022 so will precede this project. Information on that project is available at <a href="http://dot.alaska.gov/nreg/garsinterchange/">http://dot.alaska.gov/nreg/garsinterchange/</a>. I have also cc'd Carl Heim, the project manager for Airport/Steese so feel free to coordinate with him directly on any project related questions.</p>
<p>General</p>	<p>If the CHSR construction wasn't stupid enough this is by far the most insane stupidest idea I have ever seen the city come up with. How about we start paying teachers what they are worth instead of wasting money on a plan that is not conducive to the living and economical situation in Fairbanks. If you're that concerned about safety put in a round about. If it's traffic try driving through Chicago or some big place like that.</p>	<p>Thank you for your comments.</p>
<p>General</p>	<p>Is this going to be voted on by residents? I feel people who don't travel this road are probably making decisions to make themselves seem valuable to their employer. I feel this project is a huge waste of money. The money could be better used making proper repairs to existing roads. For example the Steese Hwy north of Farmers Loop is a rollercoaster every spring. Instead of fixing it right DOT just smooths out a few bumps with asphalt. I would rather have a nice ride home on a smooth road than a fancy intersection (that save me two minutes) that leads to a crappy road.</p>	<p>The Statewide Transportation Improvement Plan (STIP) is the best means for the public to participate in what projects get started and funded. You can sign up for updates on when it will be available for review and comment at <a href="http://dot.alaska.gov/stwdplng/cip/stip/index.shtml">http://dot.alaska.gov/stwdplng/cip/stip/index.shtml</a>. Steese MP 2-5 is planned for improvements in 2024 currently, in addition we will be installing a failing culvert at MP 3.8 which should alleviate the perennial bad spot in the northbound far right lane.</p>

<p>General</p>	<p>Is this project actually the best overall option available? The project assumes continued growth in vehicular traffic, both small vehicles and trucks. The project as described does not take into global and national changes that may well reduce the traffic growth projection.</p> <p>1. California recently announced a ban on sales of gas powered cars effective 2035. European cities and countries have made similar announcements. We can sit here in Alaska and dismiss these plans as unrealistic and impractical; but the reality is that the types of vehicles available to us and how we move will be driven by market and government forces far bigger than Alaska. With this kind of change on the horizon, I question the value of spending money on road projects that have a high cost (money and time/interruption during construction) that may well be underutilized over the lifetime of the project. Worse is if the project hinders certain kinds of growth. For instance, in previous comments, I noted that north-south bicycle travel is guaranteed to be slower in the new project. If electric bikes take off as the next technology, all bicyclists will have to contend with longer commutes in perpetuity through this intersection, even if cars get a few seconds off their travel times indefinitely. (This comment is not meant to disregard some of the safety and right of way issues for bicyclists in the new plan).</p> <p>2. Fewer young persons are getting driver licenses across the country. I am not sure how Alaska statistics compare to the national statistics on this, but if fewer young people are driving, the growth in traffic through that intersection may be over-estimated. Given these two basic underlying facts facing future mobility, I am concerned that such a project, which will change the landscape and soundscape permanently, might not be used to its full potential.</p> <p>I question whether such a project is truly necessary.</p>	<p>Thank you for taking the time to comment. Those are all valid points but of course are outside the tools we have available today to predict needs. At the end of the day this intersection currently sees quite a bit of congestion, and this alternative ultimately has the highest performance with least impact on private property of the possible solutions for what we know today.</p> <p>Ultimately our transportation facilities may need to adapt in the future, and I don't see any reason these improvements would prevent modernization in the future. For instance if electric bikes become the primary mode of transportation, I would guess we'd start allowing bikes to utilize more of the roadway space.</p> <p>You mention the soundscape - the noise impacts identified are predominantly associated with the existing projected Steese Expressway traffic noise, regardless of if the interchange is built, so this project has the advantage to residents along the Steese in that we will install noise walls to minimize traffic noise from existing conditions.</p> <p>As to the ultimate question - is this really where we should spend our money - I don't have a concrete answer for you. There are many needs in the state (and nation) regarding infrastructure improvements, but ultimately this project came out of a planning process that includes public and agency comment. I have trust in that process and feel confident that the needs being addressed with this project are ultimately worth the price tag and timeline to address.</p>
<p>General</p>	<p>Looks good to me, I'm excited for this project to start!!!!</p>	<p>Thank you for your comment.</p>

General	Looks great and well thought out. Nice job!	Thank you for your comment.
General	Move the access road to the South and let us keep our peaceful neighborhood. There is no mention of surveys of how much traffic or speed bumps or traffic lights or walls to minimize noise, plus increase traffic day and night through our neighborhood. Please reroute it to the south, where there is no neighborhood that will be impacted by your decision. How would you feel if it was your neighborhood that was going to drastically change your whole lifestyle and peace of mind? Don't think you would like it either. Please consider another alternative and I know there are other options.	We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents.
General	Need to consider impacts on Farmer's Loop road more before reconnecting that abandoned roadway.	We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents.
General	Nice job of considering all aspects of the traffic and traffic types! Good job in combining several elements to complement each other. You obviously have considered the input of all groups thoroughly to come up with an overall excellent solution!! Great job to the entire team - great alternative!!	Thank you for your comment.
General	Thank you for the public process and all the effort.	Thank you for your comment.
General	The Old Steese Highway Improvements should address the Complete Streets Policy. Sending bicycles to a sidewalk in this area is not adequate. This needs to be addressed prior to moving forward with the recommendation on this project.	We are not proposing improvements to the Old Steese Highway.

<p>General</p>	<p>The only questions I have are in regards to freight movements through the area. My main concern would be oversize travel through the underpass heading northbound on the Steese. Will the Farmers loop extension be wide enough/ able to support oversized travel?</p>	<p>We have approximately 55-ft wide x 19-ft high available for oversized loads to utilize the underpass and ramps to go from Johansen to NB Steese. We have modeled the “Alaska Double” as well as other oversized load combinations to ensure the facility will function for a variety of users in coordination with the Haul Road Safety Group's input. Goldstream Road remains the official truck bypass route for this area.</p>
<p>General</p>	<p>The project is long overdue but the Farmers Loop road extension should be removed from this project.</p>	<p>We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents.</p>
<p>General</p>	<p>The State/Borough needs to do this with every Steese intersection starting with Airport/Steese - there is far too much stopping and starting on the Steese when transiting through town.</p>	<p>Thank you for your comment.</p>
<p>General</p>	<p>There is hazardous waste on the property owned by the Bozeman Trust and the Clyde Shover property. Many gallons of PCB's from transformers and cases of PCB oil have leached into the ground, contaminating both properties. There are still more than 30 barrels of military solvent waste sitting on the Shover property.</p>	<p>Thank you for the information, we will keep this under consideration as we move to detailed design.</p>
<p>General</p>	<p>This is very unnecessary. We are not Anchorage. If anything, improve the roads we already have by making MINOR changes. An idea would be a roundabout at the intersection of Lowe’s, the bank, and the old Chili’s building - especially with the opening of Sonic and high traffic already in that area. This proposal is incredibly preposterous.</p>	<p>Thank you for your comment. Smaller adjustments were evaluated for improving this intersection with regards to congestion and bicycle/pedestrian safety, but ultimately did not deliver sufficient performance for the investment. This was determined to be the optimum solution to address the purpose and need developed through public and agency coordination to date.</p>
<p>General</p>	<p>This new interchange is not needed!!</p>	<p>Thank you for your comment.</p>

<p>General</p>	<p>this project is cherry picking..it is not necessary when there are other pressing transportation issues along the Steese Corridor. You are avoiding the already existing congestion at Trainor Gate and Steese complicated by the RR crossing and in short distance to the Old Steese. You ignore the Old Steese intersections north of Trainor Gate. I do not see how this confusing converging diamond intersection solves or improves anything. Another make work DOT project that solves nothing. In other words, please solve existing congestion problems before undertaking this mega construction project and subjecting the driving public to such chaos.</p>	<p>Thank you for your comment. This project was selected through a Statewide planning effort feeding into the overall plan for how the DOT&amp;PF will spend its federal highway dollars. The planning and programming effort that ultimate results in the STIP has opportunities for public comment, you can sign up for notifications at <a href="http://dot.alaska.gov/stwdplng/cip/stip/index.shtml">http://dot.alaska.gov/stwdplng/cip/stip/index.shtml</a>. Ultimately this intersection was selected for improvements due to the heavy freight movements that are almost identical coming from the Steese and the Johansen, as well as overall delay for commuter traffic.</p>
<p>General</p>	<p>Very good job presenting this project with the videos!</p>	<p>Thank you for your comment.</p>
<p>General</p>	<p>Why have you decided to disrupt an entire neighborhood by routing traffic down Farmers Loop Extension when it could just as easily be run down below the neighborhood thereby not creating a stressful living environment for people who have lived here for 20, 30, even 50 years? We chose to live here because it is a safe environment to raise children. My family has raised 3 generations of children here. I would like for my grandchildren to be as safe as my children were. This is a very close knit community and we have worked together in the past to keep this neighborhood safe for all our families and you can bet, we will come together again. We are a small but formidable community.</p>	<p>We have adjusted the plans for the connection between Northside Boulevard and Farmers Loop to utilize the road as a temporary road during construction and a bike path only in the permanent configuration to minimize traffic impacts to the Farmers Loop Road Extension residents.</p>
<p>General</p>	<p>Widen the overpass to include a bike path so commuters have a more direct safer route.</p>	<p>Existing shoulder widths will be maintained and are wide enough to accommodate bicycles. In addition there is an existing separated path along the Steese Expressway for bikes that will be maintained.</p>
<p>General</p>	<p>Will the Steese/Farmers Loop intersection change at all? Same number of turn lanes etc...?</p>	<p>This intersection will remain largely unchanged with this project.</p>
<p>General</p>	<p>You're going to negatively impact these residents' lives.</p>	<p>Thank you for your comment.</p>

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## ACRONYMS AND ABBREVIATIONS

AADT	Annual average daily traffic
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
BMP	Best management practice
CFR	Code of Federal Regulations
CO	Carbon monoxide
dBA	decibels (A-weighted)
DDI	Diverging diamond interchange
DOT&PF	State of Alaska, Department of Transportation and Public Facilities
DRO	Diesel-Range Organics
EI	Echelon interchange
EPA	Environmental Protection Agency
FLC	Farmers Loop Connection
FMATS	Fairbanks Metropolitan Area Transportation System
FNSB	Fairbanks North Star Borough
LOS	Level of service
M&O	DOT&PF Maintenance and Operations
NAC	Noise abatement criteria
NWI	National Wetland Inventory
PAC	Project Advisory Committee
PM2.5	Particulate matter, 2.5-micron range (woodsmoke)
PM10	Particulate matter, 10-micron range (dust)
ROW	Right-of-way
Steese-Jo	Steese Expressway – Johansen Expressway Intersection
TCE	Temporary construction easement
TDI	Tight diamond interchange
UAA	University of Alaska Anchorage
U.S.	United States
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USDA	United States Department of Agriculture
UST	Underground storage tank
vpd	Vehicles per day

# 1. Introduction

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This document is intended to describe the proposed improvements to the Steese Expressway and Johansen Expressway intersection including the purpose of and need for the proposed improvements, and the affected environment and anticipated consequences of undertaking the proposed improvements. In addition, this Environmental Assessment (EA) will summarize agency and public scoping efforts undertaken to inform and solicit feedback from these groups, as well as the comments received from these efforts.

This document is intended to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. This EA complies with the following Executive Orders (EO): Environmental Justice (EO 12898), Floodplain Management (EO 11988), Protection of Wetlands (EO 11990), Protection and Enhancement of the Cultural Environment (EO 11593), Consultation and Coordination with Indian Tribal Governments (EO 13084), and Invasive Species (EO 13112). The document and concurrent environmental process also comply with Section 7 of the Endangered Species Act, Section 106 of the National Historic Preservation Act, and Section 4(f) of the Department of Transportation Act.

## 1.1 Project Location

The proposed Steese Expressway/Johansen Expressway Interchange (Steese-Jo) project is located in the northeast part of Fairbanks, in interior Alaska (Figure 1.1). The proposed project incorporates Steese Expressway from Fairhill Christian School, approximately 0.35 miles north, to the south edge of the Seekins Ford Lincoln lot, approximately 0.2 miles south, and Johansen Expressway from Northside Boulevard, approximately 0.3 miles west, to D Street at Lazelle Road, approximately 0.1 miles east of the Steese-Jo intersection.

## 1.2 Proposed Action

The Alaska Department of Transportation and Public Facilities (DOT&PF) is redesigning the Steese Expressway and Johansen Expressway intersection, located in northeast Fairbanks, Alaska. Generally, the proposed project will construct improvements at the intersection and includes a grade separated interchange and realigning the adjacent access roads.

Proposed Action: DOT&PF proposes to reconstruct the Steese Expressway and Johansen Expressway intersection as a Diverging Diamond interchange. In addition, DOT&PF proposes to construct Farmers Loop Connection as a temporary construction access route, to provide bypass traffic routing around the Steese-Jo intersection during construction. Following construction, the temporary construction route will be removed, while a pedestrian and bicycle path will remain as a permanent feature. The proposed improvements also include a new snow dump and a stormwater detention pond, both located northwest of the Steese-Jo intersection (Figure 1.1).

Potential alternatives that were recommended for further analysis to address the identified operational and safety concerns include the following:

- Traditional tight diamond interchange
- Diverging diamond interchange
- Echelon interchange

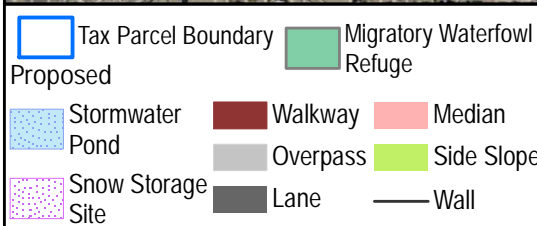
- Farmers Loop Connection (enhancement option to be combined with one of the above interchange alternatives)

Each of these is described in greater detail in Section 3.3.1 and 3.3.2.

Alternatives that were considered early in the design process and recommended to be dismissed from further analysis include:

- Enhanced Conventional Intersection
- Synchronized split-phased intersection
- Partial displaced left-turn intersection
- Diamond interchange with cloverleaf
- Partial echelon interchange
- Pedestrian overpass
- Left-turn flyover

Each of these is described in greater detail in Section 3.3.3.



Fairbanks Low Distortion Projection  
North American Datum 1983 (2011)

Imagery from Fairbanks North Star  
Borough 2017, Parcels  
from FNSB 2019, Refuge from  
ADF&G 2019, Roads from  
AK DOT&PF 2018



Alaska Department of  
Transportation & Public Facilities

Steese Expressway/Johansen  
Expressway Interchange  
Project No. Z607320000/0002337

Project Area

Figure 1.1	8/4/2020
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## 2. Purpose and Need

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### 2.1 Background

The State of Alaska DOT&PF is evaluating options for upgrading the Steese-Jo intersection, located in northeast Fairbanks, Alaska. The proposed Steese-Jo Interchange project will reduce vehicular and pedestrian delay and improve safety. Proposed improvements considered for the intersection include grade separated interchanges, at-grade intersection options, a pedestrian overpass, and modifications to adjacent access roads.

The Existing Conditions Report (January 2018) describes existing traffic and safety conditions in the project area and summarizes relevant project area planning documents and land uses. The purpose and need statements for the project were developed through a combination of engineering analysis (found in the Existing Conditions Report), collaboration with the Project Advisory Committee (PAC), and public comments collected using an online survey, the Department website, and a public Open House. The Project Advisory Committee consists of representatives of the following agencies:

- Fairbanks Metropolitan Area Transportation System (FMATS)
- City of Fairbanks, Engineering and Public Safety
- Fairbanks North Star Borough (FNSB), Planning and Emergency Management
- Alaska State Troopers
- DOT&PF, Planning, Utilities, Materials, Bridge Design, Traffic and Safety, Design, and Maintenance and Operations (M&O)
- U.S. Army Garrison, Fort Wainwright
- U.S. Army Corps of Engineers

### 2.2 Purpose

The purpose of the Steese-Jo Project is to enhance motorized and non-motorized mobility and user safety at the Steese Expressway and Johansen Expressway intersection and within the influence area of the intersection.

### 2.3 Need

Traffic volumes within the project area are among the highest in the City of Fairbanks. The Johansen Expressway serves as a major thoroughfare for traffic moving east and west and provides a prominent link to developable lands, both north and south of the expressway. The Steese Expressway in the project area serves as a principal route for traffic moving north and south between residential and commercial developments. It is also the primary trucking route for access to the North Slope via the Dalton Highway.

### 2.3.1 Needs Analysis

Historic data for the Johansen Expressway shows rapid growth within the last 20 years. Large tracts of property within and adjacent to Bentley Trust commercial property have experienced a rapid increase in commercial and residential development. Multiple large and small retail stores, as well as service-oriented businesses and a residential neighborhood have developed in this area, dramatically increasing traffic volumes. Average annual traffic growth rates in this area vary, but in some cases are as high as 5.2 percent per year over the past 20 years. Johansen Expressway's average annual daily traffic (AADT) was 4,600 vehicles per day in 1991; by 2018 it had climbed to 18,200. Future development plans will likely consist of business and residential land uses like those currently in the area. As development continues in the project area, traffic volumes will continue to increase.

Additional operational and safety concerns identified for this area include:

- **Pedestrian and Bicycle Safety:** Two pedestrian crashes occurred between 2005 and 2014 crossing the Steese Expressway, with one resulting in a pedestrian fatality and the other resulting in a major injury. Residences on the east side of Steese Expressway and the commercial district on the west side create a high crossing demand.
- **Pedestrian Delay:** Pedestrians crossing the southbound right-turn lane during the AM peak hour may currently wait up to 45 seconds to find a gap to cross. Pedestrian delay for crossing at the signal is an average of 42 seconds or more, which equates to a level of service (LOS) of 'E'.
- **Proximity of Farmers Loop Road:** The proximity of the Farmers Loop Road intersection creates southbound weaving conflicts during the AM peak on Steese Expressway between merging Farmers Loop Road traffic and Steese Expressway traffic desiring to exit at the Johansen Expressway. In addition, eastbound left-turn vehicles at the Johansen Expressway often queue in the left-most left-turn lane, as travelers prepare to turn left onto Farmers Loop Road following a short northbound run on Steese Expressway, resulting in uneven use of the left-turn lanes and reduced signal capacity.
- **Vehicular Delay:** Currently, eastbound left-turn vehicles often wait through one signal cycle at the intersection with an average delay of over one minute per vehicle in the PM peak hour. The intersection LOS is expected to worsen below acceptable thresholds as the Fairbanks area grows, resulting in a LOS "E" by 2024.

## 3. Alternatives

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### 3.1 Conditions Analysis

At the Steese-Jo intersection, freight traffic/congestion occurs along the eastbound Johansen Expressway left-turn lanes and the northbound through movements along Steese Expressway. The average vehicle delays for freight traffic are the highest during the PM peak hour with 76 seconds per vehicle for eastbound left-turn movements (LOS E) and 34 seconds per vehicle for northbound through movements (LOS C). Delay for the freight movements are expected to increase by approximately 200 seconds of additional delay by 2045.

Transit vehicles traveling through the Steese-Jo intersection on the Grey Line make either northbound left-turn movements from Johansen Expressway to Steese Expressway or westbound right-turn movements from Steese Expressway to Johansen Expressway at the intersection. As the southbound right-turn movement is free from any control, it experiences minor delay and currently has a LOS "A" (less than 10 seconds) throughout the day. The eastbound left-turn movement experiences similar delays as freight traffic, with an average delay of 76 seconds per vehicle in the PM peak hour (LOS E). During the 2045 PM peak hour, the eastbound left-turn movement will experience a delay of approximately 300 seconds per vehicle (LOS F).

### 3.2 Screening Criteria

After the development of the Purpose and Need statement, the PAC prioritized a list of goals, issues, and constraints to screen the various alternatives on their ability to meet the purpose and need. The PAC weighted the elements based on importance. Table 3.1 shows the identified goals, issues, and constraints.

Alternatives were first evaluated for how well they meet the project goals (50% of the overall score). Then the alternative is screened against its ability to manage the issues identified from public outreach and PAC discussions (35% of the overall score). Finally, the alternative is evaluated for how well it addresses project constraints (15% of the overall score).

**Table 3.1: Goals, Issues, and Constraints**

<b>Goals (50%)</b>	<b>Weight</b>	<b>How to Measure:</b>
Reduce congestion	5.00	Annual cost of congestion (delay, air quality)
Improve non-motorized user safety	3.50	Qualitative comparison of options, using research if available
Improve freight mobility	3.25	Annual delay for movements made by freight
Improve multi-modal connectivity	2.00	Pedestrian travel time between neighborhood and commercial areas
Improve drainage	1.25	Qualitative
<b>Goals Score</b> (Alternative Rating x Goal Weight):		
<b>Identified Issues (35%)</b>	<b>Weight</b>	<b>How to Measure:</b>
Vehicular delay	5.00	Change in PM peak delay
Proximity of Farmers Loop Road	5.00	# of weaving vehicles or change in lane utilization
Non-motorized safety	4.00	Qualitative comparison of options,
Proximity of Old Steese Expressway	3.00	# of weaving vehicles
Proximity of City Lights Boulevard	2.00	# of conflict points within functional area of Steese-Jo Intersection
<b>Identified Issues Score</b> (Alternative Rating x Goal Weight):		
<b>Constraints (15%)</b>	<b>Weight</b>	<b>How to Measure:</b>
Maintain Lazelle Rd access, accommodating Ft Wainwright gate relocation and considering EMS response times	5.00	Difference in peak hour delay (AM or PM) with and without Ft Wainwright traffic (smaller difference gets more points)
Accommodate overheight/overweight vehicles	5.00	Qualitative, including considering out of direction travel required / traffic impact during movement
Maintain access to commercial areas	4.00	Travel time to business
Avoid physical impact to cemetery	4.00	Qualitative
Avoid physical impact to conservation areas	3.50	Quantitative (acres of impact and type of impact)
Snow storage and snow removal techniques	3.00	Ask M&O to rank
Minimize right-of-way (ROW) acquisition	2.00	Acres of impact, type of impact
<b>Constraints Score</b> (Alternative Rating x Goal Weight):		

### 3.3 Alternatives Evaluation

All of the following alternatives considered for further development and review met the purpose and need. Detailed information on these alternatives is found in Appendix A.

#### 3.3.1 Primary Build Alternatives

##### *Tight Diamond Interchange*

This alternative would construct a tight diamond interchange (Figure 3.1 and Figure 3.2). Northbound and southbound traffic on the Steese Expressway would be carried up and over the intersections without stopping. The remaining movements would interact at two ramp intersections. This type of diamond interchange is used where right of way is a constraint (as opposed to a cloverleaf interchange), so the two ramp intersections are placed close together. There is limited space for queuing between the intersections and queues from one intersection may block traffic from turning at the other intersection. Based on the



analysis of queues at the two intersections, the interchange was designed with 150 feet of queue storage between the intersections.

While this design eliminates all conflicts with southbound and northbound through traffic, the signalized intersections would continue to accommodate the heavy eastbound left-turn movement. As a result, three eastbound left-turn lanes and two northbound left-turn lanes are needed at the east ramp intersection.

Figure 3.1: Tight Diamond Interchange (Aerial View)

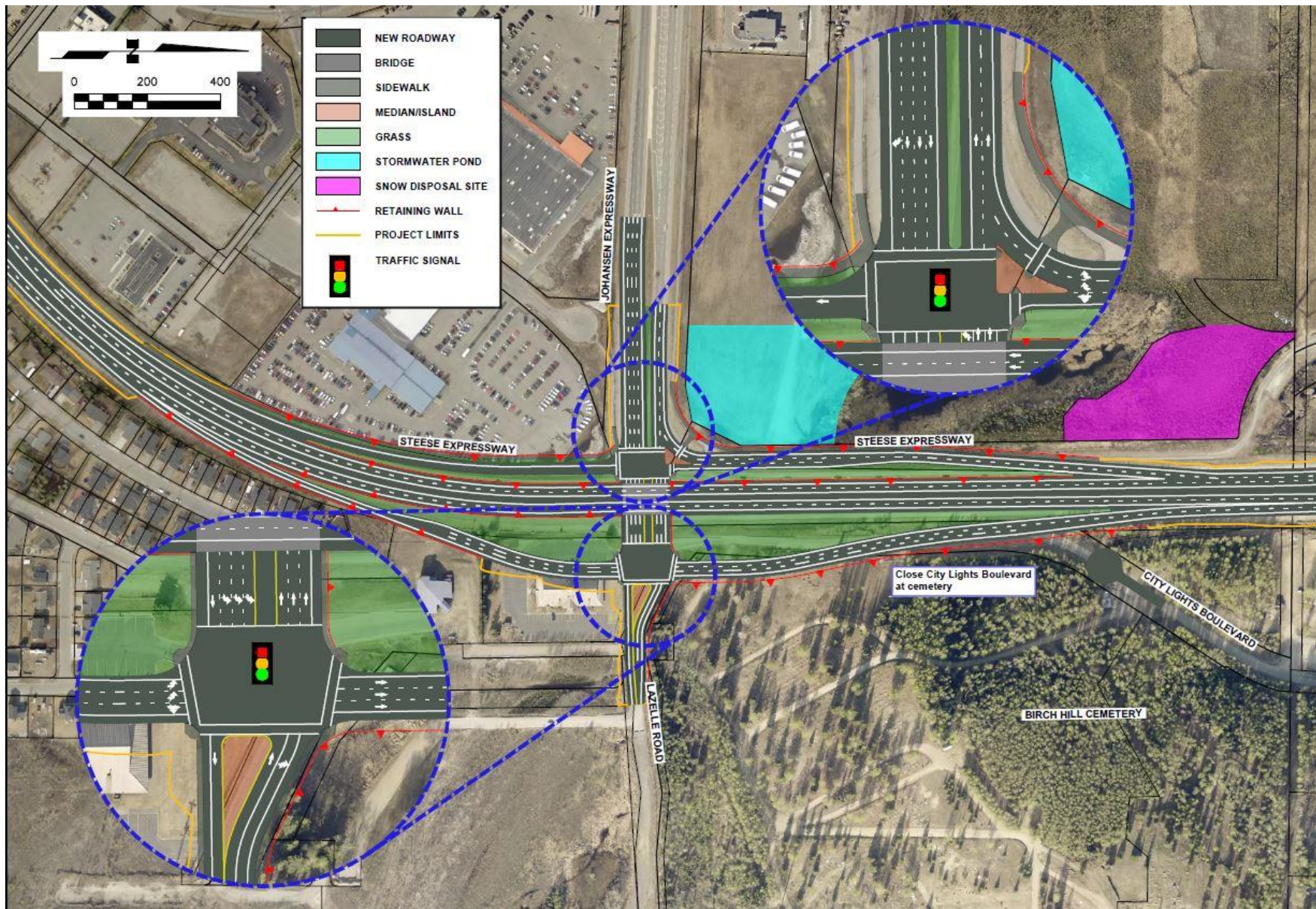


Figure 3.2: Tight Diamond Interchange



### ***Diverging Diamond Interchange***

This alternative would construct a diverging diamond interchange (Figure 3.3 and Figure 3.4). This is a relatively new type of interchange that has been gaining popularity throughout the United States. The first diverging diamond interchange built in Alaska is at the Muldoon Road interchange with the Glenn Highway and has been under operation for about one year.

With this alternative, the northbound and southbound through traffic on Steese Expressway would be carried up and over the intersection without stopping. East- and westbound traffic would cross to the left as travelers approach the bridge, and then cross back to the right after the bridge. With this configuration, right turn movements are made onto a ramp before the crossover. The left-turn movements are made onto a ramp after the crossover, so that the left-turn movement enters the ramp freely, similar to a right turn movement. The crossover intersections and the off-ramp merge intersections are signalized.

The diverging diamond interchange has less conflict points than a conventional diamond interchange. This configuration works well when there are either heavy left- or right-turn movements on or off the ramps. Thus, it accommodates the heavy eastbound left-turn movement in the PM peak hour with fewer lanes than the Tight Diamond Interchange.

Figure 3.3: Diverging Diamond Interchange (Aerial View)

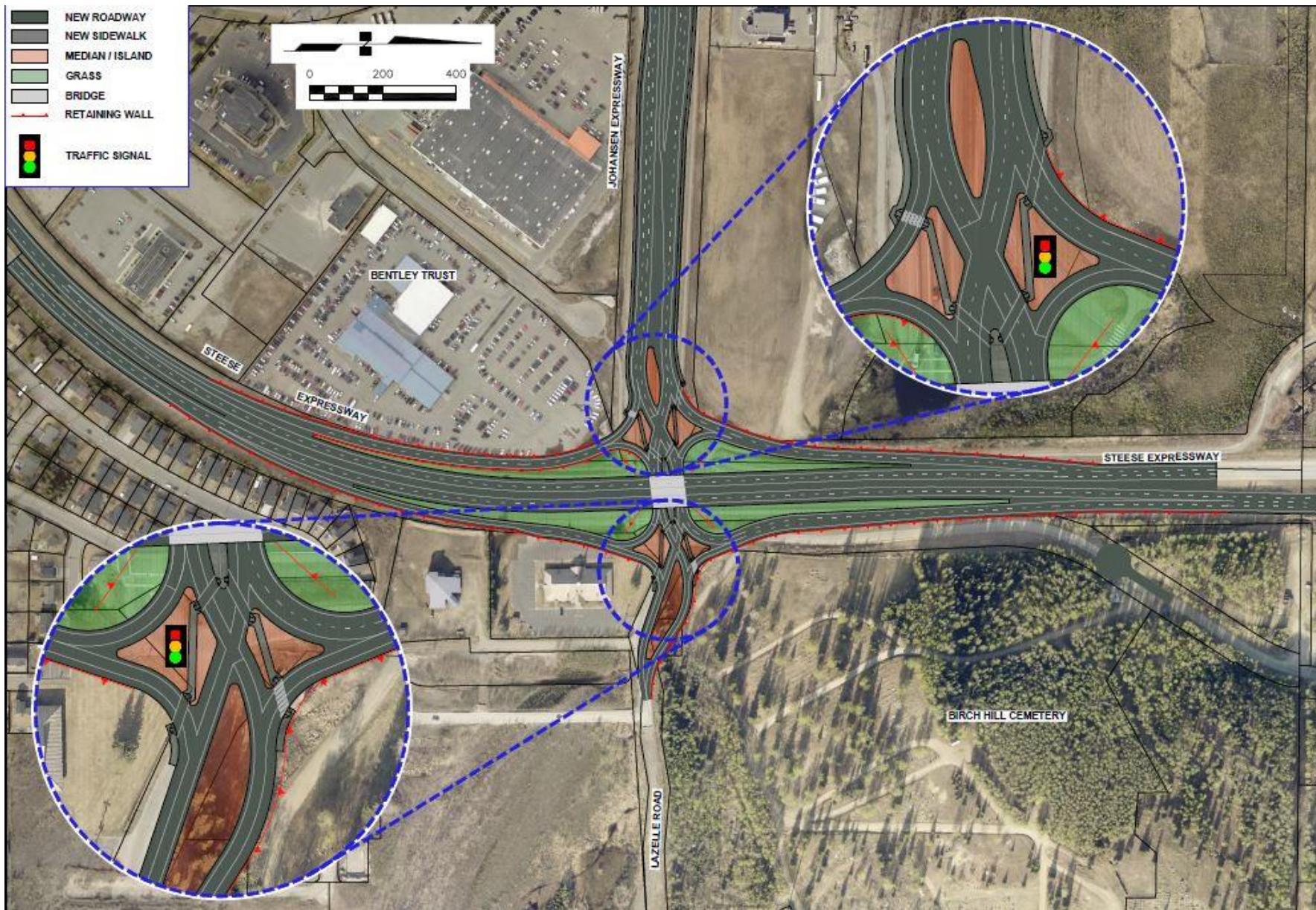


Figure 3.4: Diverging Diamond Interchange



### ***Echelon Interchange***

This alternative would construct an echelon interchange (Figure 3.5 and Figure 3.6). This design creates two intersections; one at-grade and the other elevated. The northbound and westbound approaches would intersect on the ground, while the southbound and eastbound approaches would be elevated. The southbound right turn movement will stay free flowing and enter into its own lane on westbound Johansen Expressway (similar to existing). Pedestrians will pass under this lane.

The advantage of this design is that high volume conflicting movements can be separated. In the AM peak hour, the heavy southbound through volume is accommodated at the elevated intersection, while the heavy northbound left volume is accommodated at the ground level intersection. In the PM peak hour, the heavy eastbound left-turn volume is accommodated at the elevated intersection while the heavy northbound through and left-turn volume is accommodated at the ground level intersection.

Figure 3.5: Echelon Interchange (Aerial View)

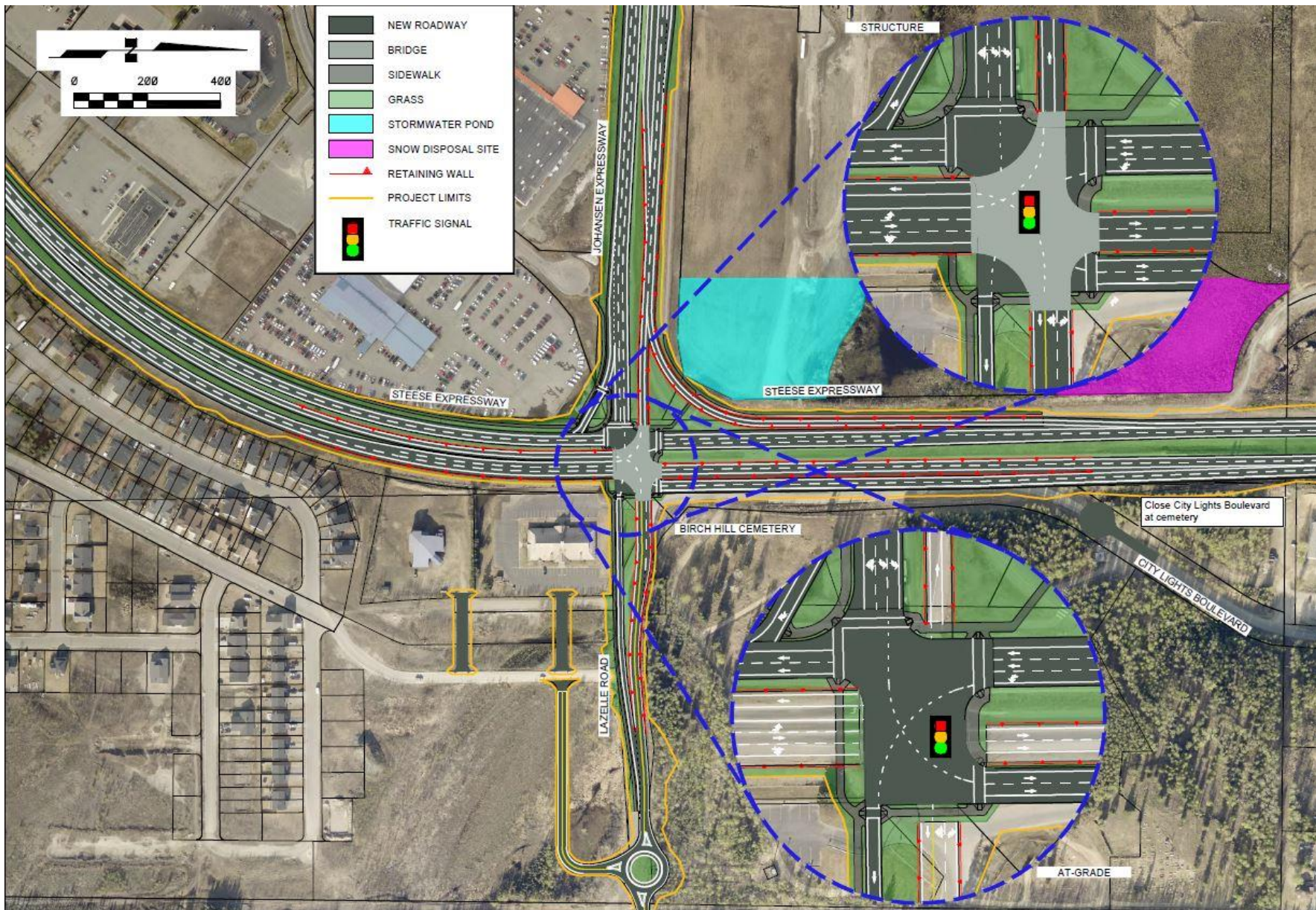
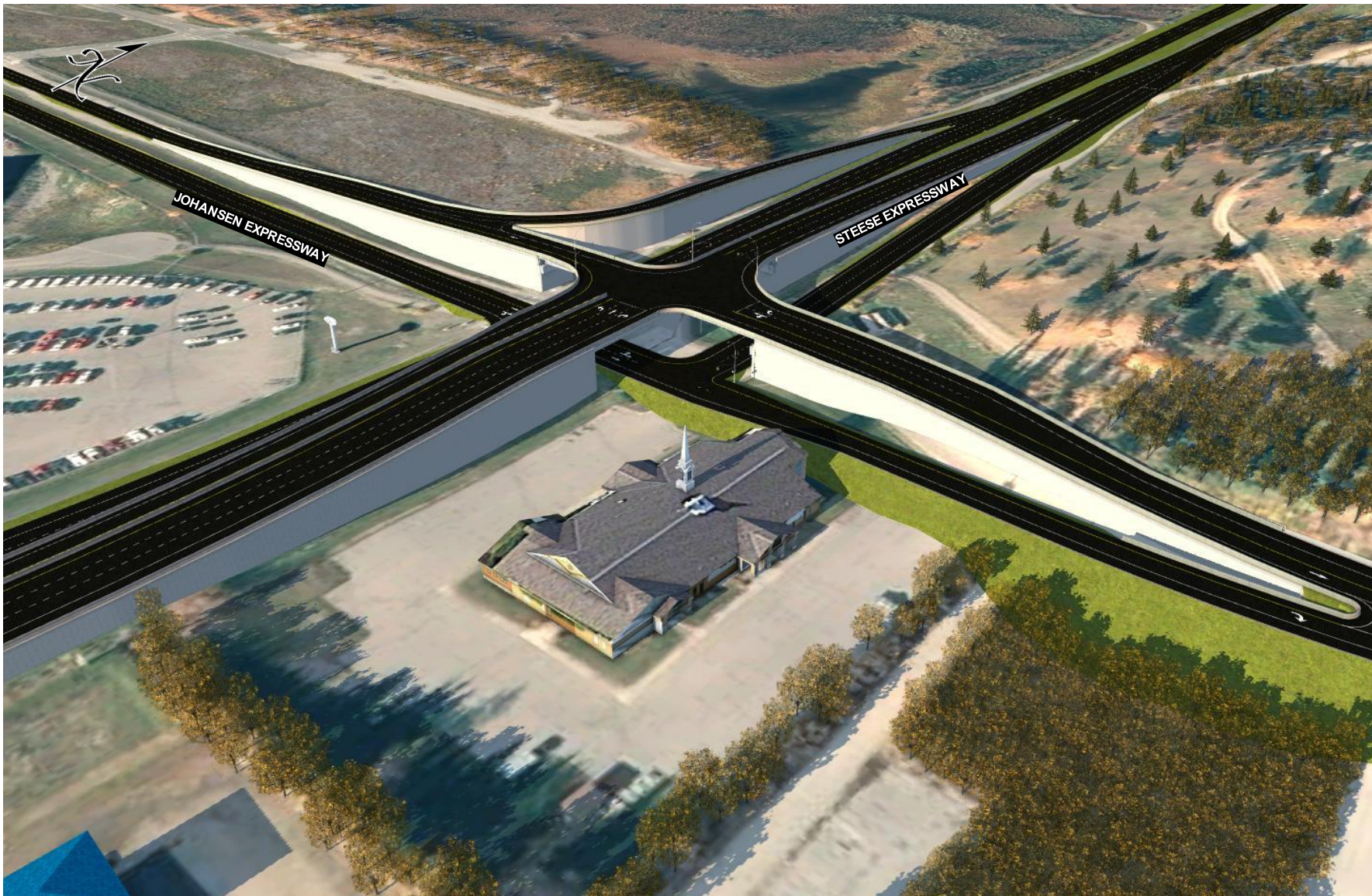




Figure 3.6: Echelon Interchange



### 3.3.2 Build Alternative Enhancements

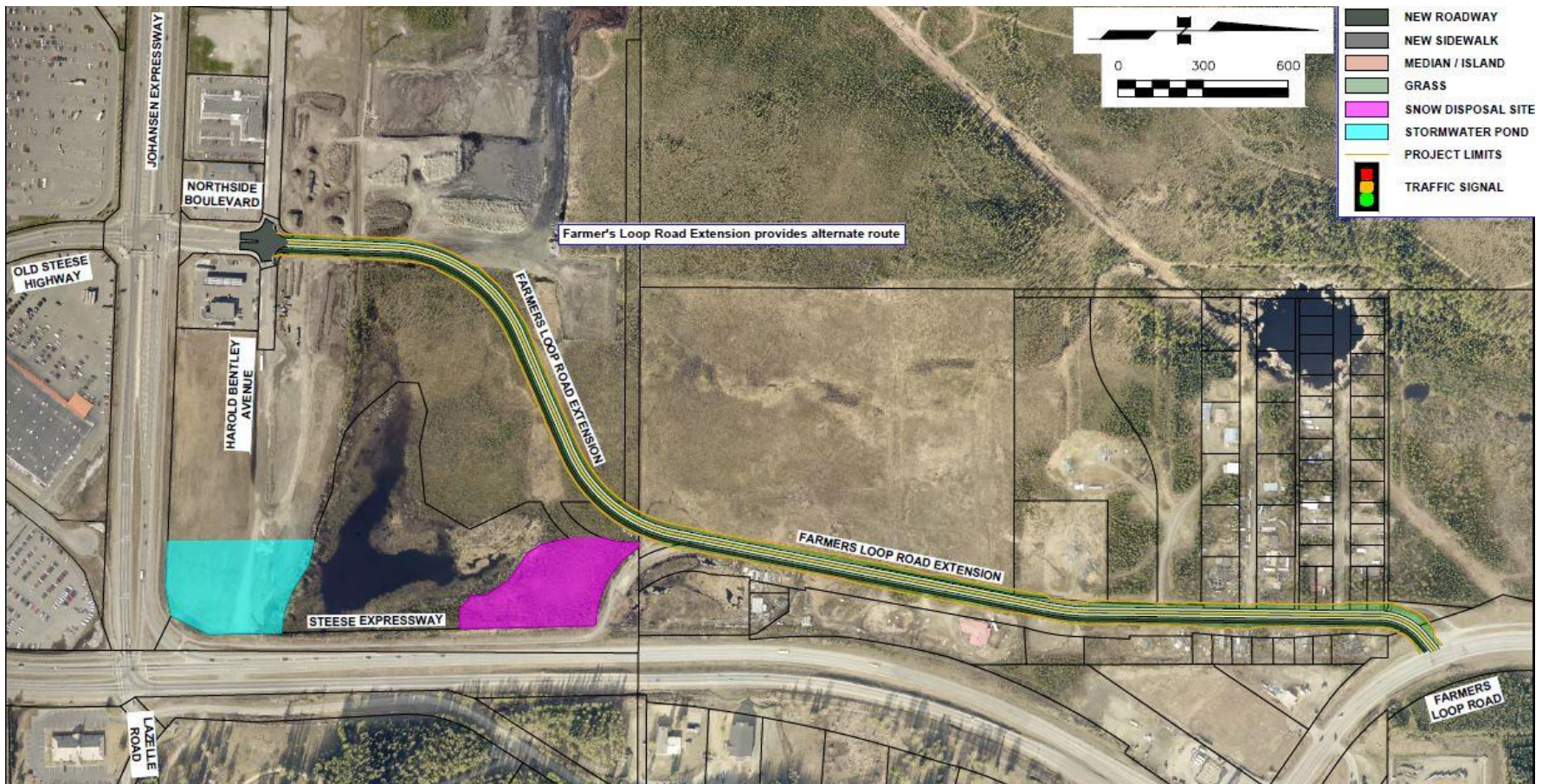
#### *Farmers Loop Connection*

In addition to the proposed build alternatives described above, which propose construction of an interchange at the Steese-Jo intersection, this build alternative enhancement would provide a temporary, direct connection from the Old Steese Highway to the Farmers Loop Road Extension (Figure 3.7). This enhancement was originally considered as a permanent feature, to provide additional redundancy to the area road network and alternate routing in the event that Steese Expressway is closed at or near the Steese-Jo intersection. Following comment and conversations with the public and resource agencies, this enhancement is now being considered as a temporary construction road, with a permanent multi-use pathway.

The Farmers Loop Connection mitigates construction traffic impacts of any intersection alternative by providing a parallel route onto which to divert traffic. It also provides opportunity for enhancing the existing multi-use path through the area by improving visibility and potentially reducing connection time from existing bicycle facilities on Farmers Loop to the retail area located southwest of the Steese-Jo intersection with the inclusion of a permanent multi-use pathway adjacent to this temporary road connection.

This alternative is considered an additive element to the prior alternatives, as it would act in tandem with construction closures and ongoing operation of any new interchange at the Steese-Jo intersection. Therefore, analysis of effects in this EA will consider a combination of the aforementioned alternatives and the Farmers Loop Connection.

Figure 3.7: Farmers Loop Connection



### 3.3.3 First Tier Alternatives Considered and Dismissed

Several alternatives were evaluated at the early stages of project development to ensure the full range of solutions were considered. The following alternatives were dismissed after the initial round of screening (following second public open house and PAC input). Reasons for dismissing each alternative are discussed below. Comparative data on design-year traffic delay, emissions and cost of congestion may be found in Appendix A.

#### ***Enhanced Conventional Intersection***

General Description: This alternative would leave a traditional at-grade signalized intersection, but add a third eastbound left-turn lane to address the heavy left turn movement at PM peak.

Advantages: This alternative would provide the smallest project footprint, with minimal ROW acquisition. It would meet desired LOS standards.

Reasons for Dismissing: Public involvement indicated that the existing dual left-turn configuration for eastbound lefts does not function as intended, with vehicles not utilizing both lanes equally. The addition of a third left-turn lane was viewed unfavorably as it would only exacerbate the current misuse of the dual left turns. Pedestrian crossing distances were not improved with this alternative. In addition, several other alternatives made much more significant improvements to intersection operations and safety by comparison.

#### ***Synchronized Split-Phased Intersection***

General Description: This alternative would construct an intersection where the northbound and southbound left-turn and through movements cross to the left side of the opposing traffic upstream as they approach the intersection. All right turns are taken out of the main intersection into channelized turns. In this design, traffic signals are present at the main intersection and at the crossover location.

Advantages: All northbound and southbound through and left-turn traffic can enter the intersection at the same time. Ideally, the timing would be set to allow north- and southbound vehicles to travel through the three intersections without stopping.

Reasons for Dismissing: Heavy PM peak southbound and eastbound traffic volumes would require southbound vehicles to stop at all three signals. The configuration also does not meet the desired improvement to pedestrian and bicycle safety, nor does it meet the purpose of improving non-motorized mobility as it lacks a north leg crossing.

#### ***Partial Displaced Left-Turn Intersection***

General Description: This alternative would construct an intersection with partial displaced left turns. Northbound and southbound left-turn movements would cross to the left side of the opposing roadway upstream of the main intersection. North- and southbound left-turning vehicles travel on a roadway parallel to the opposing lanes and then complete the left-turn movement simultaneously with the through traffic at the main intersection. Traffic signals would be present at the main intersection and at the crossover locations.

Advantages: Unlike the synchronized split-phased intersection, north- and southbound traffic only stop at one of the crossover intersections, reducing the likelihood of vehicles having to stop at multiple intersections.

Reasons for Dismissing: This alternative would require three eastbound left-turn lanes, a sizable increase in the intersection's acreage. It also would not meet the goals for improving pedestrian/bicycle safety because it would not reduce exposure to high-speed traffic, nor would it decrease non-motorized signal delay times.

### ***Diamond Interchange with Cloverleaf Ramp***

General Description: This full interchange alternative adds a cloverleaf ramp that allows eastbound left-turn vehicles to bypass the east intersection and merge directly onto the Steese Expressway. This allows more time at the signal for the northbound and westbound movements, which decreases overall delay, especially under the forecasted volumes with traffic traveling to and from Fort Wainwright.

Advantages: This alternative would allow more time at the signal for northbound and westbound movements. This would decrease overall delays, most notably under the forecasted volumes with traffic traveling to and from Fort Wainwright.

Reasons for Dismissing: This alternative would not meet the project purpose of improving pedestrian/bicycle safety because it would increase eastbound approach crossing distances over existing and increase non-motorized exposure to high-speed traffic. It also would require the most right-of-way of any alternative, and would significantly impact the Birch Hill Cemetery.

### ***Partial Echelon Interchange***

General Description: This partial interchange alternative would construct a partial echelon, without a ramp from the elevated structure down to Lazelle Road. Instead, the movements that would use the westbound ramp would be accommodated at the ground level intersection. The southbound through and eastbound right and left approaches would still be elevated, but the southbound left turn and eastbound through would remain at grade and intersect with the northbound and westbound approaches on the ground.

Advantages: This alternative would reduce the cost of the structure and some ROW impacts, while introducing relatively low volume conflicts and delay to the at-grade intersection.

Reasons for Dismissing: This alternative would not handle traffic changes if the entrance gate to Fort Wainwright were to be relocated to Lazelle Road, as is being proposed.

### ***Pedestrian Overpass***

General Description: This concept is focused solely on separating the most vulnerable pedestrian movements from the highway traffic and could be added on to most of the other alternatives. It would involve a pedestrian overpass that would allow pedestrians originating from the Lazelle Estates residential area to cross the Steese Expressway, where they could access the multi-use trail that runs along the west side of the Steese Expressway as well as the commercial uses in the Bentley Trust area. Pedestrian crossing at the Steese-Jo intersection would still be accommodated as described in the other alternatives.

Advantages: Pedestrian overpasses are most likely to be used when they are more convenient than the alternative. In this case, the overpass would access the neighborhood closer to many of the residences than either the Steese-Jo intersection or the intersection of Trainor Gate Road with the Steese Expressway.

Reasons for Dismissing: The pedestrian overpass would do nothing to alleviate the present and forecast traffic concerns at the Steese-Jo intersection. It does not meet the purpose and need for motorized mobility improvements.

### ***Left-Turn Flyover***

General Description: This partial interchange alternative would construct a two-lane flyover bridge for the left-turn movement from Johansen Expressway onto Steese Expressway.

Advantages: Eastbound left-turn traffic can flow freely without stopping while traveling through the intersection. At the Steese-Jo intersection itself, the other movements would operate better, as they no longer would compete with the eastbound left-turn movement for signal time.

Reasons for Dismissing: Improvements as a result of the eastbound left-turn flyover would mostly occur in the PM peak period. In the AM peak period, the southbound through and northbound left-turn movements will still compete for signal time, so that two northbound left-turn lanes are needed. When traffic traveling to and from Fort Wainwright is added to the east leg of the intersection, the westbound approach requires a left-turn lane, a through lane, and a right turn lane. This alternative would be expensive in light of the modest mobility improvements for vehicles and pedestrians.

## **3.4 Identification of Preferred Alternative**

After full analysis of impacts, cost, and technical feasibility, the Diverging Diamond Interchange with the Farmers' Loop Connection enhancement is the preferred build alternative. While the Echelon Interchange scores slightly higher based on the project screening criteria, primarily due to the enhanced pedestrian connectivity through the intersection, the cost and technical feasibility of this alternative do not outweigh the benefits.

The Diverging Diamond Interchange was selected as the preferred alternative as it demonstrated generally equivalent traffic operations to the Echelon Interchange, while minimizing the acquisition of private property. The structure for the Diverging Diamond Interchange is a standard single-span bridge that can be constructed efficiently and cost-effectively and is similar to other bridges in the Department's inventory across the State. The relatively small interchange footprint required for the Diverging Diamond Interchange also minimized the need for retaining walls, further reducing anticipated project costs in comparison to the Tight Diamond Interchange and Echelon Interchange alternatives.

In addition, the Farmers Loop Connection was selected as an addition to the Diverging Diamond Interchange, and therefore forms part of the Preferred Alternative. As stated previously, this addition will allow for enhanced non-motorized connectivity, and allow bypass traffic capabilities during construction of the main interchange.

## **3.5 No Action Alternative**

The No Action Alternative was analyzed to establish baseline conditions and determine the costs and impacts of doing nothing and then compared to all the build alternatives. The No Action Alternative assumes that no improvements are made, other than adjustments to the signal timing to accommodate changes in the traffic volumes. The Steese-Jo intersection, and Farmers Loop, would both remain in their current configuration with no major lane additions, realignments, or extensions.

### **3.6 Summary of Permits and Approvals**

Permits and/or clearances listed below would be obtained prior to construction to comply with all applicable federal, State, and local regulations. The Proposed Action would require the following permits or clearances:

- USACE Section 404 Permit for Placement of Fill in Waters of the US
- ADEC Section 401 Water Quality Certification

## 4. Affected Environment and Environmental Consequences

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This section details the existing physical, natural, and social resources in the vicinity of the Proposed Action and assesses the potential or likely effects to those resources from each alternative described in Section 3.3.1 and 3.3.2.

In accordance with 40 CFR 1508, environmental consequences as described in this section include direct effects of the Proposed Action and other potential alternatives, indirect effects of these alternatives, and cumulative effects in conjunction with past, present, or reasonably foreseeable future actions that occur independently of the build alternatives. These effects – direct, indirect, and cumulative – may be either beneficial or detrimental to the environment.

In addition, this section will include a description of all avoidance, minimization, and mitigation for each alternative assessed under the Proposed Action. “Avoidance, minimization, and mitigation” includes measures to:

- Avoid all impacts to a resource, through revised design or reduced scope
- Reduce the detrimental effects on a resource
- Repair or restore the affected resource following implementation of the Proposed Action
- Compensate for the anticipated or known detrimental effect by providing similar or substitute resources.

### 4.1 Non-Issue Resource Categories

Based on a review of existing information about the Proposed Action and the project area, the following is a list of resource categories which are unlikely to be affected under any of the alternatives of the Proposed Action.

- Fish and Fish Habitat: There are no waterways or significant waterbodies in the project area; the project will not affect fish populations or habitat.
- Threatened and Endangered Species: Per the U.S. Fish & Wildlife Service (USFWS) online Information for Planning and Consultation, there are no known threatened or endangered species in the project area. The USFWS concurred with this during initial agency scoping (see Appendix B).
- Subsistence: The project area and its immediate surroundings do not host substantial subsistence resources such as fish, mammals or berries, nor does it host subsistence populations. Fairbanks is one of Alaska’s non-subsistence areas, according to Alaska Department of Fish & Game (ADF&G, 2019a).

### 4.2 Common Resource Categories

The following resources, each described in greater detail below, are expected to have very similar or identical effects under each of the alternatives listed under the Proposed Action:

- Land Use and Transportation
- Social and Economic Environment



- Contaminated Sites, Hazardous Materials and Pollution Prevention
- Floodplains, Waterways and Water Quality
- Flora and Fauna, Birds and Invasive Species
- Visual Resources and Aesthetics
- Section 4(f) Resources

#### 4.2.1 Land Use and Transportation

##### *Affected Environment*

Table 4.1, below, lists the applicable city, borough, and state plans, and indicates whether the proposed project is consistent with each plan.

**Table 4.1: Project Consistency with Area Land Use and Transportation Plans**

Plan	Plan Goal/Policy	Project Consistency
<b>FAST, Transportation Improvement Program (April 2020)</b>	Improving transportation infrastructure and ensuring project to not negatively impact regional air quality.	Project improves transportation infrastructure and is compliant with ADEC Air Quality Regulations.
<b>FNSB Regional Comprehensive Plan (September 2005)</b>	Transportation & Infrastructure Goal 1: To have a safe, efficient, multi-modal transportation system that anticipates community growth.	Project will address safety, efficiency and multi-modal users while accommodating future community growth.
<b>FMATS Bikeways Map (2017)</b>	The map shows available routes for bicyclists across the FMATS region.	Project will include shared use pathways along Steese Expressway and Johansen Expressway
<b>FMATS Non-Motorized Plan (2012)</b>	Investigate potential improvements to make this signalized intersection more comfortable for non-motorized users.	Project proposes to introduce grade separation, reduce motorized and non-motorized conflicts and improve flow.
<b>FMATS Complete Streets Final Plan (December 2015)</b>	Complete Street Policies: Provide a safe, efficient, secure, and interconnected multi-modal transportation system for all users.	Project will address safety, efficiency, security, and multi-modal users while accommodating future growth.
<b>FMATS 2045 Metropolitan Transportation Plan (December 2018)</b>	1) Coordinate to provide an integrated transportation and land use system; 2) Provide a safe, efficient, and secure transportation system for all users; 2b) Equip, manage and operate the transportation system to be multimodal and interconnected; 3) Protect the environment, improve air quality, and promote energy efficiency; 4) Optimize the utility and lifespan of the transportation system; 5) Ensure adequate transportation facilities to support economic development	The Steese-Jo Project is identified as short-range Project SR- 34.
<b>Alaska Statewide Active Transportation Plan (2019)</b>	Plan vision states "People in Alaska will enjoy equitable, accessible, safer walking and bicycling opportunities as an integral part of daily life." Goal areas include Safety and Connectivity	Project will include provisions for improved nonmotorized transportation and intends to reduce conflicts between motorized and nonmotorized users.

## ***Environmental Consequences***

### NO ACTION ALTERNATIVE

Under the No Action Alternative, there would be no intersection improvements, no improvement to the existing multi-use pathway adjacent to Steese Expressway, and no additional improvements to the non-motorized facilities in the area. This alternative would not comply as readily with the FMATS and FNSB plans listed above, as it would not improve transportation infrastructure, air quality, multi-modal transportation or shared pathways.

### PROPOSED ACTION ALTERNATIVES

Construction of any of the proposed alternatives would comply operationally with the land use and transportation plans listed in Table 4.1, above. Each alternative involves improvements to motorized and multi-modal transportation, and each should lead to improved local air quality as detailed in Section 4.3.

Temporary and indirect effects to area land use and transportation would likely include temporary changes to traffic patterns during construction and may also include temporary access closures to adjacent properties. Temporary impacts will be minimized through the Contractor's implementation of a Traffic Management Plan, as required by DOT&PF.

## **4.2.2 Social and Economic Environment**

### ***Affected Environment***

The social and economic environment describes the sphere of human community, activities, and influences. It includes socioeconomic issues and concerns, community cohesion, and environmental justice.

Fairbanks is the largest home-rule city in interior Alaska, with a population of approximately 33,000 per the State of Alaska's 2016 extrapolated estimate based on the 2010 census. It is the primary population center for the surrounding FNSB, which has a total population of approximately 100,000. The proposed Project falls mostly within the city limits, the northern boundary of which extends along the section-line easement that forms the southern boundary of Creamers Field Migratory Waterfowl Refuge. The refuge itself is approximately 500 feet away from the proposed project at its closest point (Figure 1.1). The city contains a mix of demographics, both ethnically and economically.

Neighborhoods in the vicinity of the Project do not appear to include disproportionately high concentrations of unemployed, underemployed, low-income or minority populations. The project falls within or adjacent to Census Tracts 4 (Hamilton Acres), 11 (Fort Wainwright), 12 (Steese Expressway) and 13 (UAF/Farmers Loop). Farmers Loop was reviewed in greater depth due to the size and placement of tax parcels; however, it was determined that the parcels were grouped into larger single-family residential "blocks".

Currently, there is no community cohesion across either the Steese Expressway or Johansen Expressway in the vicinity of the project. These are existing, multi-lane and high-volume roads, separating commercial areas at the southwest from urban residential in the southeast, with more rural residential in the northeast and distant northwest areas.

## ***Environmental Consequences***

### NO ACTION ALTERNATIVE

Under the No Action Alternative, there would be no intersection improvements, no improvement to the existing multi-use pathway adjacent to Steese Expressway, and no further development of the multi-modal network. This alternative would not materially affect social or economic resources or considerations in or near the project area.

### PROPOSED ACTION ALTERNATIVES

Construction of any of the proposed interchange alternatives would have a minimal effect on the social or economic environment in the area. The project itself is not anticipated to result in project-induced or project-related growth. Construction of the temporary Farmers Loop Connection would slightly alter the existing neighborhood feel on Farmers Loop Road Extension, increasing the average daily traffic during construction and providing a new multi-use pathway between Farmers Loop Road and Johansen Expressway. A pathway currently exists along the existing Farmers Loop Extension.

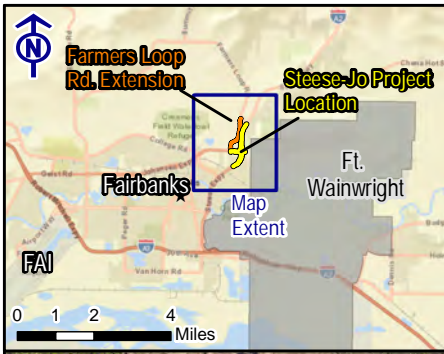
Each interchange alternative would affect the Church of Jesus Christ of Latter-day Saints church at the southeast corner of the existing Steese-Jo. This may require acquisition of the parcel and relocation of the facility to a new location. Any such relocation would be coordinated with the church's management authorities and subject to Federal and State relocation regulations and guidelines, such as the Uniform Relocation Assistance Real Property Acquisition Policies Act (1970). Further detail is provided in Section 4.6, below.

Temporary effects during construction would include a small boost to the local economy due to construction purchases, employment, and activity. Temporary and indirect effects may also include increases in noise, air quality concerns such as dust emissions, and impacts to local businesses from access and traffic changes. The lack of demonstrable concentrations of low-income or minority populations negates the possibility of any environmental justice concerns. There will be no disproportionate impact to minority or low-income population groups. Temporary Construction Easements (TCEs) are likely during the construction process. These will be worked out in coordination between the Contractor, DOT&PF, and owners of those properties determined appropriate for TCEs.

### **4.2.3 Contaminated Sites, Hazardous Materials, and Pollution Prevention**

#### ***Affected Environment***

As with most other urban or industrial areas, Fairbanks has an array of contaminant concerns and areas with known historic or ongoing contamination of nearby soil and groundwater. Groundwater depth in the project area is expected to vary, but may be between 10 and 16 feet below ground surface based on prior geotechnical data (DOT&PF, 1988). Four known contaminated sites are within 0.25 miles of the project area, and six more are located within half-mile of the project area, as shown in Figure 4.1 and described in Table 4.2.



	1/2 Mile Area of Interest
	Steese-Jo Footprint
	Farmers Loop Footprint
	Active
	Cleanup Complete - Institutional Controls
	Informational

Fairbanks Low Distortion Projection  
North American Datum 1983 (2011)

Imagery from FNSB 2017,  
Contaminated Sites from ADEC 2020,  
Project Footprint from Kinney  
Engineering 2020.

Alaska Department of  
Transportation & Public Facilities

Steese Expressway/Johansen Expressway Interchange Project No. Z607320000/0002337	
Contaminated Sites	
Figure 4.1	8/5/2020

**Table 4.2: ADEC-Listed Contaminated Sites within one-half-mile of Steese-Johansen Interchange**

Site Name	Status	Location	Description
<b>Seekins Ford-Lincoln-Mercury</b>	Active	300 feet SW of project	Leaking underground storage tank (UST) and associated petroleum contamination of soil and groundwater.
<b>Seekins Ford Injection Well</b>	Active	500 feet WSW of project	Former injection well found to have diesel-range organics (DRO), gasoline, and other contaminants of concern.
<b>Home Depot</b>	Institutional Controls	400 feet SW of project	Soil and groundwater found to have DRO contamination; monitoring is ongoing.
<b>Birch Hill Tank Farm</b>	Active	2,400 feet NE of project	Soil around above-ground tanks found to contain lead.
<b>Fred Meyer Fairbanks</b>	Institutional Controls	1,000 feet W of project	Isolated pockets of soil contaminated with DRO.
<b>NC Machinery Steese Hwy UHOT</b>	Active	1,400 feet SW of project	DRO contamination associated with an underground heating oil tank.
<b>Tesoro – Northstore 103</b>	Institutional Controls	2,500 feet SW of project	Contaminated soil detected during removal of underground storage tanks.
<b>204 Eureka Avenue</b>	Institutional Controls	2,500 feet S of project	Repeated reports of odors led to investigation of leaking fuel line.
<b>Ft Wainwright Chemagent (Ou-1)</b>	Institutional Controls	2,600 feet E of project	Containers of chemical agent were buried on location. Some cylindrical containers may still be present.
<b>Ft. Wainwright (2P) Farmers Loop)</b>	Active	2,500 feet N of project	Five areas investigated for hydrocarbons and other chemicals. Petroleum contamination detected.

(Source: ADEC, 2019a)

### ***Environmental Consequences***

#### **NO ACTION ALTERNATIVE**

Under the No Action Alternative, no construction activities would occur in relation to the existing intersection or potential parallel facilities. This alternative includes no risk of encountering subsurface contamination from ground-disturbing activity, and no risk of accidental release of contaminants from construction activities and equipment.

#### **PROPOSED ACTION ALTERNATIVES**

Each of the proposed alternatives is expected to include a risk of encountering contamination during construction. Contamination may exist in the soil, or in the groundwater, within the proposed construction area for any of the alternatives. This likelihood may be low; however, it is still possible with ground-disturbing activities.

In addition, construction of the footings and support for a grade-separated interchange is likely to involve driven pipe pile, with little need for excavation to or below the local groundwater table. The Contractor will be required to consult with ADEC and get de-watering permits if de-watering in an area of known contamination.

Conversations with Golden Valley Electric Association indicate that the electrical utility infrastructure in this area is highly unlikely to contain polychlorinated biphenyls (PCBs). Construction activities for each alternative are therefore highly unlikely to result in uncovering or disturbing PCB-containing materials or soil. Each alternative may also increase the risk of contributing to contaminant concerns in the project area. Construction activities, by nature, will involve use of heavy equipment and machinery. These, in turn, will require fuel, oils and lubricants to maintain function. To minimize the risk of spills or contamination, DOT&PF's Contractor will adhere to best management practices (BMPs) laid out in the project-specific Storm Water Pollution Prevention Plan (SWPPP) and Hazardous Materials Control Plan (HCMP) required by the Standard Specifications. These BMPs typically include measures such as preventing vehicle maintenance (replenishing oil, lubricants, or fuels) on site, placing drip pans under equipment when idle, and keeping equipment away from waterbodies and waterways.

#### MINIMIZATION AND MITIGATION

Should unanticipated contaminated soil or groundwater be encountered during construction activities (including dewatering, if needed), DOT&PF's Contractor will coordinate with DOT&PF and ADEC to determine an appropriate course of action before proceeding with excavation, transfer, or other manipulation of contaminated or potentially contaminated soils or groundwater. The Contractor will be required to get the appropriate permits from ADEC for de-watering in areas of known contamination.

The DOT&PF Contractor will comply with ADEC requirements for working in areas of contamination or handling contamination, including the unlikely possibility of relocating or removing PCB-containing electrical transformers or material.

#### **4.2.4 Floodplains, Waterways and Water Quality**

##### ***Affected Environment***

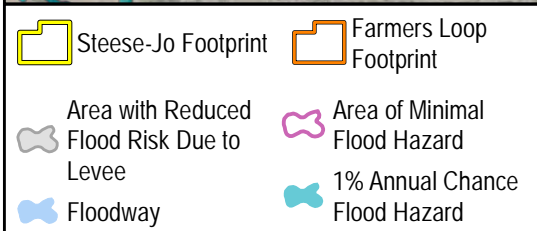
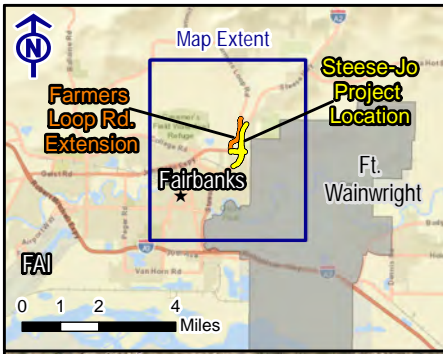
Fairbanks is generally situated on the floodplain for the Chena and Tanana rivers, with landforms grading to hill to the northeast and west. Most of the urban area has historically been subject to flood inundation from severe events, including a flood of record in 1967 that has since been modeled as a 200-year return event. Following the record 1967 flood along the Chena River, Fairbanks and the U.S. Army Corps of Engineers undertook the Chena River Lakes Flood Control Project, a flood control scheme encompassing the Chena River in the Fairbanks area. This flood control system has now been in place and functional for close to 50 years.

As indicated in Figure 4.2, the project area falls partially within the levee-protected flood control zone. The project is highly unlikely to affect flood flow or flood elevations due to the flood control system. A brief Location Hydraulic Study supporting that conclusion may be found in Appendix C.

Additionally, smaller waterways in the vicinity of the project area include Isabella Creek, a very small tributary that drains the lands to the north and west, running through Creamers Field Migratory Waterfowl Refuge before emptying into Noyes Slough and Chena River.

Water quality in the Fairbanks area has historically been degraded, based on levels of hydrocarbon contamination, sedimentation, and debris. However, recent efforts have improved the water quality sufficiently to allow ADEC to recommend removing Chena River, Noyes Slough and Chena Slough from the state list of "impaired" waterbodies. Chena River and Chena Slough are no longer listed as impaired; Noyes Slough remains on the list of Alaska's Impaired Waters (ADEC, 2019b).

The project falls partially within the Fairbanks “Urbanized Area,” and thus is within the boundaries of the FNSB Municipal Separate Storm Sewer System (MS4) boundary and subject to conditions of the associated permit (AKS-053414). In accordance with the permit requirements, DOT&PF or its Contractor will develop an Erosion and Sediment Control Plan (ESCP) and SWPPP for the proposed project, identifying BMPs for storm water management during construction and ensuring compliance with the terms of the Construction General Permit.



Fairbanks Low Distortion Projection  
North American Datum 1983 (2011)

Imagery from FNSB 2017,  
Floodplains from FEMA 2019,  
Project Footprint from  
Kinney Engineering 2020.



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Transportation & Public Facilities

Steese Expressway/Johansen  
Expressway Interchange  
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Waterways and Floodplains

Figure 4.2 | 6/11/2020



## ***Environmental Consequences***

### NO ACTION ALTERNATIVE

Under the No Action Alternative, there would be no construction within the levee-controlled flood zone, and no construction near area waterways.

### PROPOSED ACTION ALTERNATIVES

The proposed alternatives are not likely to adversely affect floodplains and flood flow, local waterways or water quality. The proposed project will improve an existing intersection, although the Farmers Loop Connection additive element would involve construction of a temporary road and a permanent multi-use pathway on a new alignment. The project falls partially within the mapped flood control boundary. Because this is indicated as an area of “reduced flood risk due to levee,” per 23 CFR 650, a Location Hydraulic Study is not required. However, following stakeholder input from the PAC, DOT&PF has conducted a short location hydraulic study (LHS) to ensure that there is no risk of flooding or flood level rise from this project. The LHS may be found in Appendix C.

Drainage from the proposed improvements will not be directed via collector systems to either Isabella Creek, Noyes Slough or Chena River; rather, drainage will be designed to feed into and replenish the wetland complex northwest of the project area. In addition, the multi-use pathway connecting to Farmers Loop Road will be designed to promote lateral flow and hydrologic connectivity between the wetlands to either side of the alignment.

## **4.2.5 Flora and Fauna, Birds, and Invasive Species**

### ***Affected Environment***

Fairbanks is located at the border between the Yukon-Tanana Uplands and Tanana-Kuskokwim Lowlands ecoregions (Nowacki et al, 2001). These ecoregions share a continental, or interior, climate, characterized by short, warm summers and long, cold winters. Soil types vary, and permafrost is discontinuous. Vegetation within these ecoregions is varied. Vegetation communities include broadleaf, mixed, and needleleaf forests, tall scrub, low scrub, scrub swamp, and bogs. In the project area, the terrain is largely cleared and partially or fully developed. Remnant native vegetation consists of mature mixed forest on Birch Hill, and dwarf scrub vegetation characteristic of peat bog and muskeg covering the wetland complex northwest of the intersection.

Fauna of Interior Alaska includes a very wide range of resident and migratory birds, numerous mammal species ranging from terrestrial and semi-aquatic rodents such as voles (*Microtus spp.*) and beavers (*Castor canadensis*), mid-size mammals such as fox (*Vulpes vulpes*), hare (*Lepus americanus*) and various weasels (*Mustela spp.*), moose (*Alces alces*), and less likely black (*Ursus americanus*) or brown bears (*U. arctos*) (ADF&G, 2019b). Amphibians are represented by a single species, the wood frog (*Rana sylvatica*), and there are no reptiles in interior Alaska. Within the project area, itinerant use by some of these species is possible, with smaller mammals potentially inhabiting adjacent areas.

Birds are widely represented in Alaska, with numerous seasonal migratory birds joining the resident species in summer. Birds are protected under the Migratory Bird Treaty Act; under this act, USFWS has established seasonal clearing guidelines to prevent or minimize the accidental destruction of or disturbance to migratory birds and their nests. Migratory birds are somewhat likely to be found using the vegetation

within or adjacent to the project area, including species such as rusty or red-winged blackbirds, dippers and plovers using or nesting in the adjacent wetland complex.

In addition, eagles are protected under the Bald and Golden Eagle Protection Act. Eagle nests are distinct, appearing as platforms up to 6 feet or more across. Eagles are highly unlikely to be found in or adjacent to the project area.

Table 4.3 lists the non-native plants species found in the project area according to the University of Alaska Anchorage (UAA) Alaska Exotic Plants Information Clearinghouse database, along with their Invasiveness Ranking which provides a summary indicator of each species' relative risk.

**Table 4.3: Non-Native Plant Species in Project Area**

Scientific Name	Common Name	Location(s)	Invasiveness Ranking
<i>Vicia cracca</i>	Bird vetch	Steese Expressway, Birch Hill Cemetery	73
<i>Melilotus officinalis</i>	Yellow sweetclover	Steese Expressway	69
<i>Linaria vulgaris</i>	Butter and eggs	Steese Expressway	69
<i>Melilotus albus</i>	White sweetclover	Birch Hill Cemetery	81
<i>Bromus inermis</i>	Smooth brome	Birch Hill Cemetery	62
<i>Sonchus arvensis</i>	Field sowthistle	Birch Hill Cemetery	73
<i>Taraxacum officinale</i>	Common dandelion	Birch Hill Cemetery	58
<i>Crepis tectorum</i>	Narrowleaf hawksbeard	Birch Hill Cemetery	56
<i>Capsella bursa-pastoris</i>	Shepherd's purse	Birch Hill Cemetery	40
<i>Trifolium hybridum</i>	Alsike clover	Birch Hill Cemetery	57
<i>Hordeum jubatum</i>	Foxtail barley	Birch Hill Cemetery	63
<i>Polygonum aviculare</i>	Prostrate knotweed	Birch Hill Cemetery	45
<i>Trifolium pratense</i>	Red clover	Birch Hill Cemetery	53
<i>Lepidium densiflorum</i>	Common pepperweed	Birch Hill Cemetery	25
<i>Plantago major</i>	Common plantain	Birch Hill Cemetery	44
<i>Chenopodium album</i>	Lambsquarters	Birch Hill Cemetery	37
<i>Trifolium repens</i>	White clover	Birch Hill Cemetery	59
<i>Matricaria discoidea</i>	Pineapple weed	Birch Hill Cemetery	32

(Source: UAA, 2019)

## ***Environmental Consequences***

### NO ACTION ALTERNATIVE

Under the No Action Alternative, no construction would occur either at the existing intersection, nor between Old Steese Highway and Farmers Loop Road Extension. There would be no change to area flora and fauna, and no increase or decrease to risk or natural spread of invasive species.

### PROPOSED ACTION ALTERNATIVES

The proposed alternatives include a negligible risk to flora and fauna in the project area. The alternatives feature designs that incorporate the existing intersection and approaches; thus, most of the land to be disturbed is already disturbed and is no longer natural vegetation or habitat for the species of interior Alaska. Each alternative will require some acreage of additional disturbance; however, in context of the existing urban characteristics of the surrounding area and the proportion of project area that is already developed, effects on flora and fauna are expected to be negligible.

The temporary enhancement alternative will traverse a swath of undisturbed area and native vegetation. Nearby development includes peat and gravel extraction, and a subdivision plat exists for the area as well, indicating a long-term plan for development independent of this project. This enhancement will affect flora and fauna in the project area, both through direct conversion of vegetation and habitat to temporary construction road and permanent multi-use pathway, and potentially through habitat fragmentation as the facility bifurcates the undeveloped wetland area to the southeast from the larger undeveloped area to the northwest.

Each alternative will also include the risk of propagating the spread of invasive species. Invasive species frequently expand their range by utilizing disturbed areas, and especially along roadsides or waterways, which allow for greater seed mobility. Construction activities will require substantial ground-disturbing activity, followed by construction and stabilization of new side slopes.

### MINIMIZATION AND MITIGATION

To minimize fragmentation, the Farmers Loop Connection will be a temporary construction road. The driving surface will be removed following completion of construction at the main intersection, and the area will be seeded with native species. The multi-use pathway will remain, with minimal potential to affect habitat.

To prevent or reduce the risk of invasive species propagation, the DOT&PF Contractor will seed side slopes with an approved seed mix containing no invasive species. Use of local topsoil and grubbing will be investigated during detailed design to ensure seed mix grows dense enough to crowd out future invasive intrusion. These measures will minimize the risk of invasive species spread.

The Contractor will follow the vegetation clearing guidelines provided by the USFWS as a means of minimizing or preventing impacts to migratory birds and their nests. Per USFWS guidelines, should bald or golden eagles or their nests be found within 660 feet of the project area, DOT&PF will consult with USFWS on construction activities and eagle avoidance measures prior to proceeding with construction.

## 4.2.6 Visual Resources and Aesthetics

### *Affected Environment*

The Steese-Jo intersection is an at-grade intersection in the northeast corner of the urbanized Fairbanks area. Undeveloped or partially developed areas in this area include Birch Hill to the northeast, and the Isabella Creek wetland complex to the northwest. There are no properties adjacent to the project area that provide views completely unimpeded by some level of development.

On the existing roads in the project area, views include the road being traveled as well as sporadic residential to commercial development. Views along the Steese Expressway are comprised primarily of developed landscape south of the Steese-Jo intersection. North of the intersection, views along the Steese Expressway include intermittent residential development and native vegetation.

Views along the Johansen Expressway westbound from the Steese-Jo intersection are comprised predominantly of developed lands. The viewshed contains very little native vegetation or terrain. Views eastbound on Johansen Expressway include both commercial development and intact native vegetation and forest, with Birch Hill acting as a natural focal point.

Some residents of the neighborhood to the southeast currently have a view of Birch Hill, the intersection signals, and the commercial tracts southwest of the intersection.

### *Environmental Consequences*

#### NO ACTION ALTERNATIVE

Under the No Action Alternative, existing visual resources would remain. Aesthetics in the project area would not change, and residents in the nearby neighborhoods would continue to see the same views they currently enjoy.

#### PROPOSED ACTION ALTERNATIVES

The proposed alternatives include minor changes to aesthetics. All build alternatives provide grade separation at the intersection. This modification will put the Steese Expressway approximately 18 feet or more above the existing intersection, with vehicles crossing the intersection at that elevation.

This modification will most notably affect the eastbound views on Johansen Expressway, with the elevated interchange occluding the existing views of the base of Birch Hill. This interchange will also be visible from a few of the residences to the southeast.

Construction of the Farmers Loop Connection enhancement will also have a minor and temporary effect on local aesthetics and visual resources. Currently there are very few locations in the vicinity that allow for unimpeded views over the flat basin through which the Farmers Loop Connection will be constructed. These locations include parts of Birch Hill Cemetery, Community Way, and sporadically along Steese Expressway and Johansen Expressway where vegetation does not impede the view.

#### 4.2.7 Section 4(f) Resources

##### *Affected Environment*

There is one Section 4(f) resource in the project area: a separated multi-use path along the Johansen Expressway and partially along the Steese Expressway and Farmers Loop Extension.

##### *Environmental Consequences*

###### NO ACTION ALTERNATIVE

Under the No Action Alternative, Section 4(f) resources would remain in their current state and would be unaffected. The multi-use path adjacent to Johansen Expressway and Steese Expressway would be used and maintained in the same manner, and would have neither a reduction nor improvement in connectivity.

###### PROPOSED ACTION ALTERNATIVES

All alternatives will either enhance or otherwise not impact the multi-use pathway. Each alternative may involve minor alterations to the geometry of the existing multi-use pathway; however, there would be no reduction or detrimental effect on capacity or connectivity. Most alternatives include expanding the non-motorized capabilities and trail connectivity within the project area.

### 4.3 Air Quality

#### 4.3.1 Existing Conditions

Air quality is a concern in parts of Alaska, including the Fairbanks area. The geography and climate of Fairbanks lends itself to air pollution issues, most notably in winter. Air pollution frequently concentrates in very cold conditions during which thermal inversions are possible. An inversion is an atmospheric condition wherein cold, dense air is impeded from rising or mixing with warmer air above it. These inversions are therefore capable of concentrating surface-sourced pollutants. Surrounded by hills and with little wind, Fairbanks is particularly prone to inversions in winter.

Fairbanks lies partly within a non-attainment boundary based on historic and consistent exceedances of one or more pollutants of concern. In this case, parts of Fairbanks and North Pole are considered to be in non-attainment for particulate matter of 2.5 microns (PM<sub>2.5</sub>), which is typically generated by woodburning stoves and woodsmoke.

Additional air quality pollutants of concern in Alaska include particulate matter of 10 microns (PM<sub>10</sub>) from dust, and carbon monoxide (CO). These pollutants are somewhat correlated or highly correlated to vehicle use. The CO pollution is most closely related to vehicle exhaust, and PM<sub>10</sub> emissions are frequently elevated due to vehicle use on dirt roads. Fairbanks is considered to be in compliance with regards to PM<sub>10</sub> emissions.

Fairbanks has previously been non-compliant with CO levels. Much of the Fairbanks urban area was designated a non-attainment area by the U.S. Environmental Protection Agency (EPA) in 1991. Following years of compliance with no exceedances of allowable CO levels, the Fairbanks area was designated a Maintenance Area in 2004. Fairbanks remains a Maintenance Area for CO pollution. The EPA approved the Fairbanks North Star Borough's most recent Limited Maintenance Plan in 2013 (FNSB, 2013).

Figure 4.3 shows the non-attainment area boundaries for both CO and PM2.5.

Carbon monoxide pollution typically increases due to idling vehicles, such as when warming up or when stopped. In its current configuration, the Steese-Jo operates at LOS “B” in the morning peak hour, and LOS “D” in the afternoon peak hour. This indicates that vehicles are forced to stop, wait, and idle for a moderate or significant amount of time, thereby increasing emissions and local concentrations of CO.



- Steese-Jo Footprint
- Farmers Loop Footprint
- FNSB Air Quality Control Zone
- Fairbanks Carbon Monoxide Regulatory Area
- North Pole Carbon Monoxide Regulatory Area
- EPA PM 2.5 Non-Attainment Area Boundary

Fairbanks Low Distortion Projection  
North American Datum 1983 (2011)

Imagery from FNSB 2017,  
Air Quality Control Zones from FNSB  
2019, Project Footprint from  
Kinney Engineering 2020.



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Air Quality Non-Attainment  
Maintenance Areas

Figure 4.3

6/11/2020

### 4.3.2 Environmental Consequences

#### NO ACTION ALTERNATIVE

Under the No Action Alternative, no improvements would be made to the existing Steese-Jo. Table 4.4 below, indicates current LOS and traffic volumes at the intersection, along with 30-year projected traffic volumes and LOS for the No Action and Build alternatives:

**Table 4.4: Steese-Jo Traffic Volume and LOS, Existing, No-Build and Build Alternatives**

	Existing (Year Varies 2011 to 2015)	Design Year No Action (2045)	Design Year Build (2045)
Intersection AM Peak Hour LOS	B	F	A
Intersection PM Peak Hour LOS	D	F	B
Steese % Trucks	8	8	8
Johansen % Trucks	7	7	7
Steese Northbound AADT (vpd)	14,800	20,000	20,000
Steese Southbound AADT (vpd)	24,234	33,000	33,000
Johansen AADT (vpd)	19,130	25,000	25,000
Lazelle Rd AADT (vpd)	1,151	2,200	2,200

AADT – Annual average daily traffic, as measured in vehicles per day (vpd)

Under the No Action Alternative, design-year traffic volumes at the existing intersection configuration would lead to a significant reduction in LOS, from B to F during the morning peak hour, and from D to F in the afternoon peak hour. LOS “F” is described as “tremendous delays with continuously increasing queue lengths.” The CO emissions from this scenario would be expected to increase over current conditions, as vehicles would be left idling for long periods.

#### PROPOSED ACTION ALTERNATIVES

Under all build alternatives, traffic flow would improve over the existing conditions. Table 4.4, above, indicates that, even with greater traffic volumes in the design year, the LOS at the intersection would improve. The morning and afternoon peak hour LOS are expected to be “A” and “B”, respectively, as compared to “B” and “D” under the current conditions. Because of the improved traffic flow, CO emissions are expected to decrease at the intersection.

The DOT&PF, via their air quality consultant, has determined that the proposed project is not a Project of Air Quality Concern (POAQC), as per 40 CFR 93.123. Following this determination, no Air Quality Conformity Analysis or CO hot-spot evaluations are required. Interagency consultation led to conducting a qualitative hot-spot analysis for CO, which determined that the proposed project: satisfies all applicable project-level conformity requirements; is found to not be a POAQC for PM2.5, and; passes hot-spot screening requirements for CO.



Temporary impacts to air quality are anticipated for each build alternative; however, these impacts are expected to be minor and largely seasonal. Construction activities will generate some additional air pollutants, including exhaust and fugitive dust emissions. The construction season typically extends from May to or through October, while inversion-induced air quality issues occur during the winter months, typically associated with January and February cold snaps. Thus, construction is unlikely to generate additional air quality concerns during the periods in which air quality is likely to be a concern.

#### MINIMIZATION AND MITIGATION

The Contractor will minimize construction-related emissions to the extent feasible through implementation of best management practices (BMPs) to reduce emissions and control fugitive dust. Such BMPs may include measures such as site watering to reduce dust and minimizing idling of heavy machinery.

## **4.4 Noise**

### **4.4.1 Affected Environment**

According to 23 CFR 772, which describes the requirements and procedures for abatement of highway traffic and construction noise, traffic noise impacts is defined as “impacts which occur when the predicted traffic noise levels approach or exceed the noise abatement criteria, or when the predicted traffic noise levels substantially exceed the existing noise levels.”

To account for different types of noise, and the different environments in which noise can occur, the DOT&PF’s 2018 Noise Policy identifies seven different Activity Categories, which group different types of land use by the availability and relative importance of serenity, quiet, and ability to get inside and away from exterior noise sources such as roads. Table 4.5 indicates the Activity Categories and allowable noise levels for each type of land use.

Figure 4.4 shows the land use activity categories within the project area. The land use to the southwest is primarily commercial, which is considered Activity Category F. This land use is not assigned a noise threshold. Immediately southeast of the project area are two churches (Category D), and residences along Joyce Drive (Category B). Birch Hill Cemetery is located northeast of the project area. Cemeteries are included in Activity Category C and have the same exterior noise threshold as Activity Category B.

Northwest of the project area, the land is undeveloped. However, it is at least partially permitted for development as a commercial subdivision. As such, it is not considered to be part of Activity Category G (undeveloped lands), and is instead considered Activity Category F. As with the commercial area to the southwest, this land use is not assigned a noise threshold.

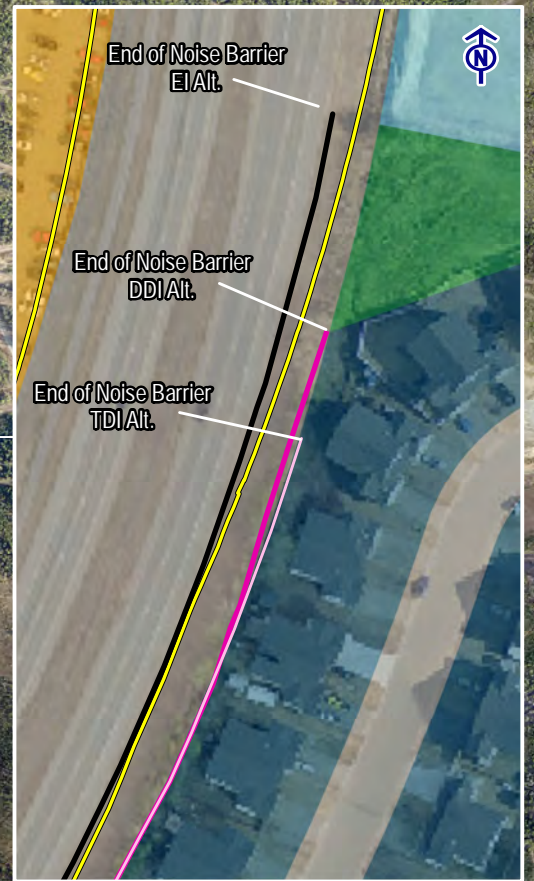
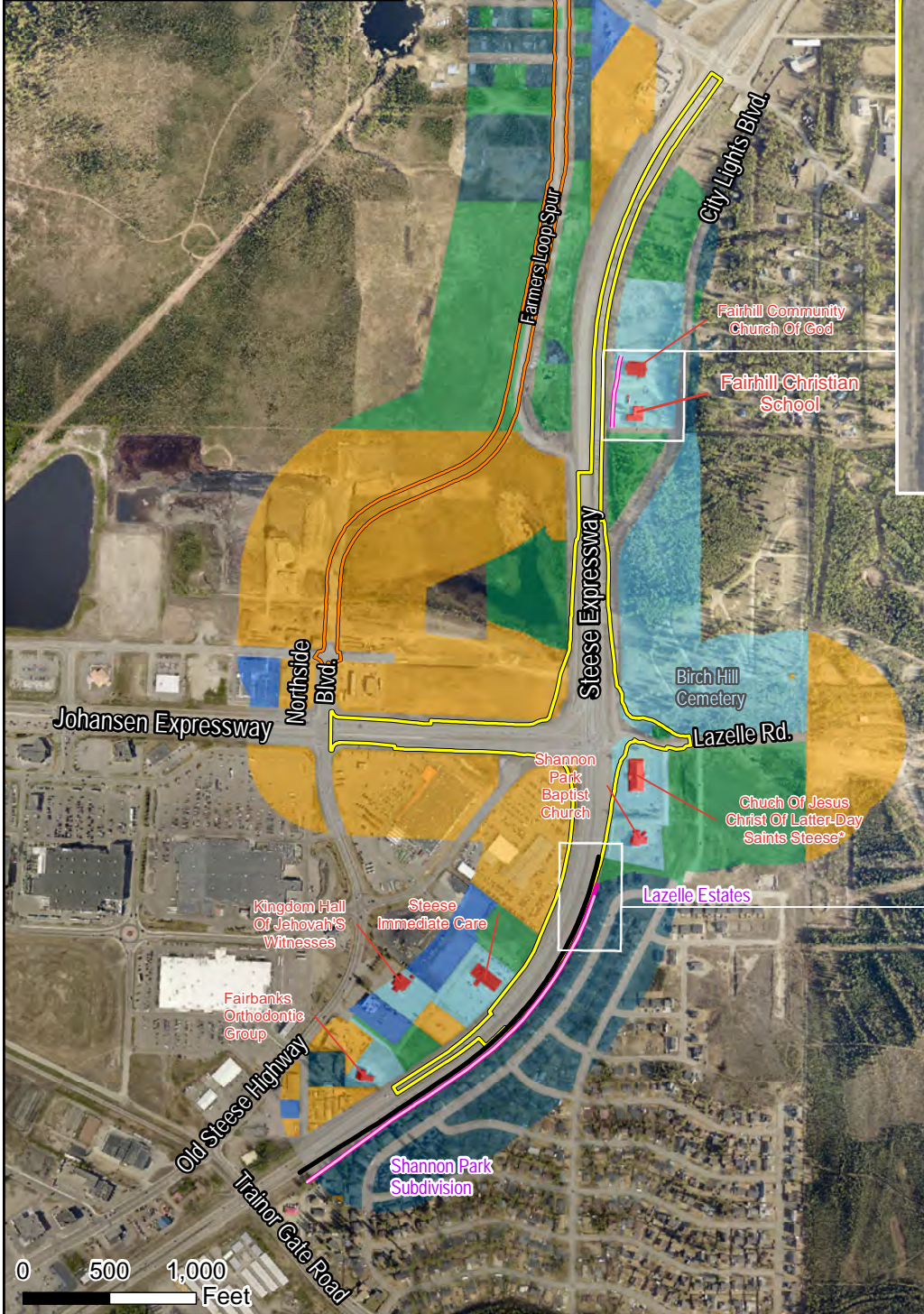
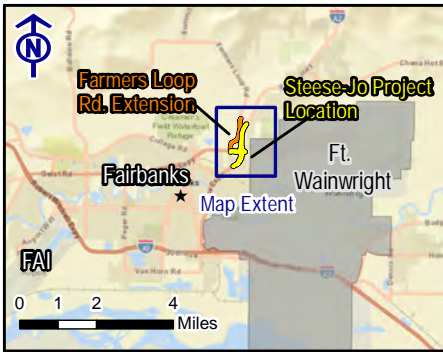
Sensitive receptors along Steese Expressway and Johansen Expressway are currently subject to elevated baseline noise levels from the traffic volume on these major roadways. Existing noise levels at most locations sampled for this project range from 53 dBA to 70 dBA.

The full Traffic Noise Analysis Report is included in Appendix D.

**Table 4.5: Noise-Related Land Use Activity Categories, Allowable Noise Level, and Evaluation Location**

Activity Category	Noise Level (Leq)	Evaluation Location	Description
<b>A</b>	57	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need, and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose
<b>B</b>	67	Exterior	Residential
<b>C</b>	67	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, section 4(f) sites, schools, television studios, trails and trail crossings
<b>D</b>	52	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios
<b>E</b>	72	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F
<b>F</b>	n/a	n/a	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical) and warehousing
<b>G</b>	n/a	n/a	Undeveloped lands that are not permitted

(Source: DOT&amp;PF, 2018)



Noise Analysis Land Use Activity Categories		Steese-Jo Footprint Farmers Loop Footprint
B	F	Noise Barrier Intersection Alternatives
C	G	
D	Road	Tight Diamond
E		Diverging Diamond
		Echelon

Fairbanks Low Distortion Projection  
North American Datum 1983 (2011)

Imagery from Fairbanks North Star Borough 2017, Noise Classifications from Michael Baker 2019, Project Footprint from Kinney Engineering 2020.

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Noise-Related Land Use Activity Categories

Figure 4.4 | 8/18/2020

#### 4.4.2 Environmental Consequences

##### NO ACTION ALTERNATIVE

Under the No Action Alternative, noise levels within the project vicinity would remain similar to existing levels, with noise levels increasing between 0 and 2 dBA due to projected increases in traffic volume. Many areas, most notably the homes clustered along Joyce Drive to the east of Steese Expressway, currently experience noise levels approaching or above the noise abatement criteria (NAC) threshold of 66 dBA. In total, this No Action Alternative would result in 22 receiver locations approaching or exceeding the NAC thresholds in the design year conditions (2045). This includes 14 locations with noise impacts, and eight locations approaching the NAC levels.

##### PROPOSED ACTION ALTERNATIVES

Table 4.6, below, summarizes the expected noise impacts for each alternative, in terms of number of receiver locations that would exceed or approach NAC thresholds

**Table 4.6: Noise-Impacted Receiver Locations, by Alternative**

Alternative	Affected Properties / Receiver Locations		Notes
	Exceeding NAC	Approaching NAC	
No Build	14	8	
Diverging Diamond (Preferred)	16	7	Mitigation evaluated for feasibility
Echelon	9	11	Mitigation evaluated for feasibility
Tight Diamond	21	5	Mitigation evaluated for feasibility

##### ***Temporary Impacts***

Construction activities associated with reconstruction of the Steese-Jo, and construction of the temporary Farmers Loop construction road and permanent multi-use pathway, are likely to include temporary noise impacts. Typical road construction activity requires a mix of heavy machinery with backup alarms. Construction of grade-separated intersections may also involve cranes and pile-driving machinery. Noise from standard vehicle traffic is likely to decrease during construction, due to reduced speeds in construction zones and queuing from traffic control operations.

Traffic noise may also increase elsewhere due to either recommended or voluntary detours. Construction methodology is typically subject to the Contractor's discretion; however, some level of logical traffic management and construction phasing may be assumed. The temporary Farmers Loop construction road would be constructed first. This would lead to an increase in noise from construction equipment, potentially affecting the residences along Farmers Loop Road Extension. Once constructed, much of the Steese-Jo traffic may be rerouted to Farmers Loop construction road during construction of the interchange, thereby leading to additional traffic noise while construction of the Build Alternative is underway. Traffic speeds will be relatively low (anticipated posted speed is 45 mph or less) and commercial truck traffic will not be detoured through the Farmers Loop construction road (Goldstream Road is the designated alternate truck route; in addition the Steese Expressway is planned to remain open north-south for the duration of construction). If the Farmers Loop construction road is not constructed prior to the Build Alternative, temporary noise effects could occur along other local roadways (likely Farmers Loop Road, Nordale Road, and Badger Road), allowing bypass traffic between areas north of Fairbanks and east-central Fairbanks.

## MINIMIZATION AND MITIGATION

Mitigation to offset anticipated noise levels following construction has been evaluated for all build alternatives that indicate projected noise impacts. Noise reduction mechanisms, including barriers, were evaluated for the Preferred (DDI), TDI, and EI build alternatives. In each case, noise barriers along Steese Expressway were found to be both feasible and reasonable; thus, a noise barrier will be constructed as part of each build alternative. A constructed noise barrier is expected to reduce noise levels by 7 to 12 dBA. The full Traffic Noise Analysis Report, including proposed mitigation, may be found in Appendix D.

Noise generating construction activities would be limited to the hours of 7 am to 10 pm, in compliance with the City of Fairbanks ordinances regarding noise, unless a noise variance is granted.

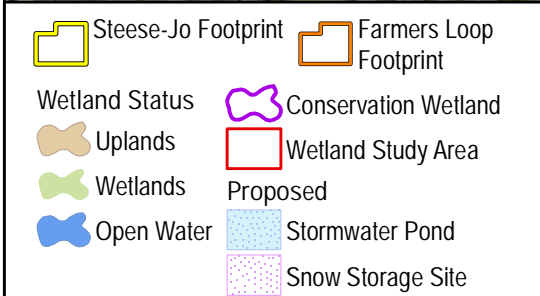
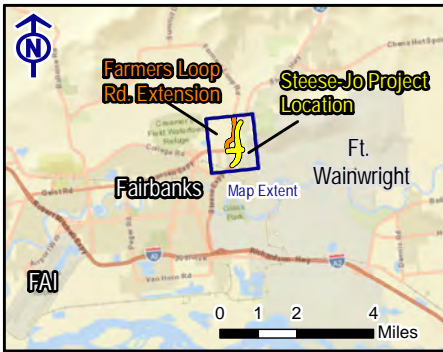
## **4.5 Wetlands and Drainage**

### **4.5.1 Affected Environment**

Wetlands account for approximately 175,000,000 acres (43 percent) of Alaska's surface area (USFWS, 1990). Wetlands are present within the project vicinity, consisting almost entirely of palustrine wetland types (i.e., bog and muskeg) with emergent or scrub-shrub vegetation.

Birch Hill and associated uplands dominate the northeast part of the project area, and commercial and residential development dominate the southeast and southwestern quadrants. Intact, undeveloped wetlands are located to the northwest of the Steese-Jo intersection. In addition, an isolated wetland area is located east of the Church of Jesus Christ of Latter-day Saints church, and south of Lazelle Road. The USFWS National Wetlands Inventory (NWI) mapping indicates the likely presence of wetlands northwest of the Steese-Jo intersection. A wetland complex that includes an open-water pond and surrounding fringe lie immediately west of Steese Expressway, approximately 20 feet west of the existing separated multi-use pathway along the road. Figure 4.5 indicates the presence and extent of wetlands in the project area.

The open-water wetland to the northwest of the Steese-Jo is Tract A of the Northside Business Park subdivision. This wetland area is protected by a conservation easement as part of a prior U.S. Army Corps of Engineers (USACE) wetland fill permit (POA-2004-1127-M3, Isabella Creek). The wetlands in this area are comprised of a range of palustrine wetland types, with different hydrologic indicators and different mixes of vegetation. Wetlands around Tract A have been permitted for development under the aforementioned permit.



Fairbanks Low Distortion Projection  
North American Datum 1983 (2011)

Imagery from FNSB 2017,  
Wetlands from Michael Baker 2019,  
Project Footprint from  
Kinney Engineering 2020.



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Wetlands and  
Waters of the United States

Figure 4.5	6/11/2020
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#### 4.5.2 Environmental Consequences

Table 4.7 summarizes the anticipated wetland impacts and drainage features with each potential alternative.

**Table 4.7: Wetland Impacts (acres) by Alternative, and Drainage Improvements**

Alternative	Wetland Impacts	Minimization & Mitigation
No Action	0.0 acres	No change to existing drainage patterns
Diverging Diamond	0.04 acres	Drainage improved to direct outflow to Tract A wetland
Echelon	0.04 acres	Drainage improved to direct outflow to Tract A wetland
Tight Diamond	0.0 acres	Drainage improved to direct outflow to Tract A wetland
Farmers Loop Construction Road	2.65 acres	Temporary roadbed for construction; multi-use path designed to maintain lateral subsurface hydrologic connectivity

##### NO ACTION ALTERNATIVE

The No Action Alternative would not result in any additional fill in or disturbance to wetlands, including the conservation easement wetland immediately west of Steese Expressway. This alternative would also not include redesigned drainage through the intersection to promote improved hydrologic recharge to the adjacent wetlands.

##### PROPOSED ACTION ALTERNATIVES

*Preferred Alternative:* The DDI Alternative would have a minimal effect on wetlands (0.04 acre). Ancillary road connections along and south of Lazelle Road would impact approximately 0.04 acres of isolated scrub-shrub wetlands. The footprint of this alternative's geometry extends west from the existing edge of Steese Expressway and associated multi-use path. However, the additional footprint on the west is close enough to the existing intersection that any additional fill or excavation would occur to the south of the conserved wetland area. Temporary and indirect impacts to the conservation wetland are not expected, given the distance between finished edge of construction and the wetland area. Temporary impacts and indirect impacts may occur with regards to the isolated scrub-shrub wetland near Lazelle Road.

The design features a retaining wall along the edge of the revised multi-use pathway to ensure that no side slopes extend into the wetland.

In addition, all build alternatives include a proposed snow dump and drainage pond northwest of the intersection (Figure 1.1). These features will certainly affect local hydrology; each feature is expected to contribute additional hydrologic inputs to the wetlands northwest of the Steese-Jo intersection. Design of these features will include coordination with regulatory agencies, including USACE, to ensure that concerns regarding water quality and sedimentation are adequately addressed.

*Echelon Interchange:* The EI Alternative would have a minimal effect on wetlands (0.04 acre). This alternative requires the least amount of additional footprint for the purposes of additional lanes or revised geometry. Ancillary road connections along and south of Lazelle Road would impact approximately 0.04 acres of isolated scrub-shrub wetlands. There may be some expansion to the northwest of the existing intersection, including the revised multi-use pathway; however, this is expected to require less than 10 feet

of offset for the pathway itself from its existing location, which will leave it well east of the wetland boundary and thus not impacting the wetland. Temporary impacts and indirect impacts may occur with regards to the isolated scrub-shrub wetland near Lazelle Road.

The EI includes retaining walls to provide the elevation for grade separation while minimizing or eliminating the need for additional fill slopes.

*Tight Diamond Interchange:* The TDI Alternative would not affect wetlands or waters of the U.S. The proposed design would have a westward-extending footprint for Steese Expressway adjacent to the conserved wetland area. The proposed edge of new construction sits approximately 4.5 feet from the edge of the Tract A wetland. This alternative has no direct, permanent impacts to wetlands. Temporary and indirect impacts are somewhat likely under this alternative, given the very close proximity of the finished edge of construction to the conservation easement area.

*Farmers Loop Connection:* The temporary Farmers Loop Connection enhancement would affect a larger swath of wetlands (2.65 acres) than any of the primary intersection alternatives. It would not affect the Tract A conservation wetland west of Steese Expressway. The proposed alignment for the connection between Northside Boulevard and Farmers Loop Road would swing northwest of Tract A, staying approximately 150 feet away at the closest point. However, it would require placement of fill in approximately 2.65 acres of wetlands. Upon completion of the main intersection, the roadbed surface will be removed, leaving behind only the bed and subgrade necessary for the multi-use path. These wetlands have previously been permitted for development under USACE Permit 2004-1127-M3, including road access and connectivity between Farmers Loop Road Extension and Northside Boulevard/Old Steese Expressway.

Temporary and indirect impacts to adjacent or nearby wetland are also more likely under this alternative. Placement of road on new alignment through these wetlands is likely to affect hydrologic connectivity between the wetlands on either side of the new road alignment. Any such effect will be mitigated through use of permeable substrate or equalizer culverts within the roadbed. In addition, the roadbed can be capped at the north and south termini to discourage groundwater from using the roadbed as a preferential flow path, which could effectively drain water from the surrounding wetlands. Construction activities may require temporary fill placement on, or temporary use of, adjacent wetlands by construction vehicles.

### **4.5.3 Mitigation**

In accordance with the USACE Section 404 wetland permitting process, mitigation will be applied to offset unavoidable impacts to wetlands. Following avoidance and minimization of wetland impacts through the design process, mitigation will depend upon the permitting process with the USACE. Mitigation may include offsetting conservation easements on adjacent or nearby wetlands, should the proposed design impact the adjacent conserved wetland.

Except for the proposed Farmers Loop Connection, the proposed intersection improvements avoid wetland impacts by relying largely on the alignments and footprint of the existing transportation infrastructure of Johansen Expressway and Steese Expressway. There are no lane realignments requiring substantial additional cut or fill that will affect wetlands.

Minimization efforts include reducing side slopes to the maximum extent feasible, and in some cases using retaining walls to bring in the anticipated footprint of the grade-separated intersection improvements.



In addition, the proposed improvements to drainage at the intersection are expected to provide improved hydrology to the nearby wetlands. Currently, runoff and snowmelt pool in roadside areas, with no discernible drainage plan and no facility to promote connectivity and hydrologic recharge to adjacent wetlands. The proposed project design would promote a controlled drainage process via the drainage pond and snow dump features, thereby reducing the haphazard puddling and improving water inputs to the wetlands.

The Farmers Loop Connection enhancement has incorporated design features, such as tight side slopes, to minimize the amount of fill in wetlands. The road itself will be a temporary feature to provide construction routing that avoids the Steese-Jo intersection and will be removed once complete, leaving only the pedestrian and bicycle path as a permanent feature on this alignment. Furthermore, the roadbed will be designed to promote hydrologic connectivity between the wetlands on the east and west sides of the alignment, using permeable materials, geotextile wrap, equalizer culverts, or other design features that allow cross-connectivity. The ends of the alignment may be capped with a non-permeable material to prevent use of the Farmers Loop Connection alignment as a preferential flow path for subsurface hydrology, thereby preventing dewatering of the surrounding wetland.

## 4.6 Right-of-Way

### 4.6.1 Affected Environment

Privately owned land surrounds all sides of the Steese-Jo, as well as both sides of the proposed Farmers Loop Connection. Land ownership in the project area includes private commercial, residential, undeveloped, and non-profit places of worship. In addition, a conservation easement exists on the open waterbody to the northwest and its lacustrine fringe. Refer to Table 4.8, below.

Right-of-Way acquisition for transportation or other federally-funded improvements is subject to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, often simply called the "Uniform Act". This act provides protection and assistance to landowners who may be affected by land acquisition for purposes of federally-funded projects, and provides guidelines for those agencies, such as DOT&PF, to ensure a fair, open, and honest process for property acquisition and relocation in support of projects.

### 4.6.2 Environmental Consequences

#### NO ACTION ALTERNATIVE

Under the No Action Alternative, there would be no change to existing land ownership or easements. No construction would occur, and no partial or full property acquisition would be required.

#### PROPOSED ACTION ALTERNATIVES

Right-of-Way acquisition will be necessary under each build alternative, to varying degrees. The anticipated ROW acquisition for each alternative is described below, summarized in Table 4.8 and indicated in Figure 4.6.

*Preferred Alternative:* The Preferred Alternative (DDI) would require partial acquisition of five parcels, with no full parcel acquisition. The proximity of the finished roadway slopes on the Church of Jesus Christ of

Latter-day Saints church property at the southeast corner of Steese-Jo may necessitate relocation of the church. The church owns additional property in the vicinity where the building could be relocated to, in addition the City of Fairbanks owns land adjacent to the church property and has expressed willingness to work with the DOT&PF on a land swap if necessary to cure impacts to the church.

*Echelon Interchange:* The EI Alternative would require partial acquisition of eight parcels around the existing Steese-Jo, and no full parcel acquisitions. Most of this acquisition would lie east of the intersection, along Lazelle Road. Similar to the DDI, but to a lesser extent, the finished slopes are in close proximity to the Church of Jesus Christ of Latter-day Saints. It is unclear at this time if a church relocation would result from the proposed design, but is possible.

*Tight Diamond Interchange:* The TDI Alternative would require partial acquisition of eight parcels, and full acquisition of one additional parcel. Under this alternative, the northbound Steese Expressway offramp would have to be reconfigured further east, which would require full acquisition of the Church of Jesus Christ of Latter-day Saints church at the southeast corner of Steese-Jo and Lazelle Road (304 Lazelle Road).

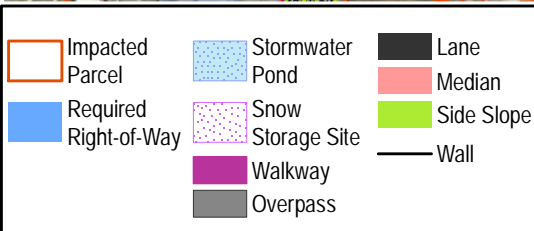
*Farmers Loop Connection:* The Farmers Loop Connection temporary construction road and permanent multi-use pathway would require partial acquisition of 3 parcels, with no full parcel acquisition. The construction of this new roadway alignment would occur on Northside Business Park property and would generally meet the terms of the proposed road construction in the plat and wetland fill permit for this property. Remaining acquisition involves widening the existing road to accommodate greater traffic, and to generally meet DOT&PF road specifications for lane width and sidewalks.

*Snow Storage & Drainage Facilities:* All alternatives propose establishment of a new snow storage facility for DOT&PF M&O use due to the added lane miles, as well as a stormwater retention pond to address area drainage concerns. The snow storage facility will result in acquisition of 2.8 acres of vacant land adjacent to the wetland conservation easement. The stormwater retention pond will also result in acquisition of 2.8 acres of cleared but otherwise vacant land at the northwest corner of the Steese-Jo intersection.

Table 4.8 summarizes the total acquisition acreage, partial and full parcel acquisitions under each alternative.

**Table 4.8: Right-of-Way Acquisition for Each Alternative**

Alternative	Full Acquisitions	Partial Acquisitions	Notes
No Action	0	0	
Preferred Alternative: Diverging Diamond	0	5	Alignment and proximity may result in a relocation of the Church of Jesus Christ of Latter-day Saints
Echelon	0	8	Alignment and proximity may result in a relocation of the Church of Jesus Christ of Latter-day Saints
Tight Diamond	1	8	
Farmers Loop Connection	0	3	Design generally follows alignment of platted road in subdivision, with variations to account for design speed and connector designation
Snow Storage & Drainage Pond	0	2	Proposed features would each require partial acquisition of a parcel in the undeveloped Northside Business Park subdivision



Fairbanks Low Distortion Projection  
North American Datum 1983 (2011)

Imagery from Fairbanks North Star  
Borough 2017, Parcels  
from FNSB 2019, Refuge from  
ADF&G 2019, Roads from  
AK DOT&PF 2018



Steese Expressway/Johansen  
Expressway Interchange  
Project No. Z607320000/0002337

Right of Way Impacts  
Per Alternative

Figure 4.6 | 8/10/2020

### Temporary Impacts

In addition to the ROW acquisitions, each build alternative is likely to involve temporary ROW impacts in the form of temporary construction easements (TCEs). TCEs are recorded documents procured by the Department, which are necessary to provide space for construction equipment to operate on the roads and associated shoulders, slopes, retaining walls and other features. They will also be necessary to provide room for staging construction materials and equipment when not in use.

## 4.7 Historic, Archaeological, and Cultural Resources

### 4.7.1 Affected Environment

The proposed project lies within the traditional lands or use areas of the Athabascan people, who have resided in interior Alaska for millennia. Archaeological finds in the Fairbanks area indicate human use dating back 10,000 years. Findings also indicate that habitation may have been seasonal in nature, revolving around hunting and fishing.

The community of Fairbanks was initially established in 1901, with the establishment of a trading post on the Chena River to serve the growing needs of local gold miners. The City of Fairbanks was formally incorporated in 1903. The community grew slowly, spurred on at times by construction of the railroad, construction of airports and associated facilities as part of the Lend-Lease Act during World War II, and finally with discovery of oil on the North Slope and construction of the Trans-Alaska Pipeline.

The proposed project sits at the base of the western slope of Birch Hill, adjacent to a cemetery whose original use dates to 1938. Lands to the northwest are largely undeveloped and mostly consist of wetlands and peat deposits. The residential neighborhoods to the southeast were originally platted and developed through the 1990s and 2000s, and the commercial areas to the southwest were developed in the late 1970s and 1980s. The Seekins Ford dealership immediately southwest of the Steese-Jo was established at that location in 1982 (Seekins, 2020).

A cultural resources literature review of the general project area in 2017 identified 21 resources, of which 13 had been determined “Not Eligible” for listing in the National Register of Historic Places (NRHP). This literature review also identified a new site which required an NRHP evaluation, Birch Hill Cemetery. In 2019, DOT&PF identified an Area of Potential Effect (APE) for the proposed project, which included five sites listed in the Alaska Heritage Resources Survey (AHRs); four of the sites previously identified are outside of the APE. The sites, and DOT&PF’s determinations of eligibility, are listed in Table 4.9, below.

**Table 4.9: Alaska Heritage Resources Survey Sites in the Project APE**

AHRs	Address or Location	Description	Determination of Eligibility
FAI-02696	Birch Hill Cemetery	Second cemetery established in Fairbanks (1938), located on western slope of Birch Hill	Determined Not Eligible by DOT&PF
FAI-02464	Steese Highway, MP 0-11	MP 0-11 of Steese Highway	Determined Not Eligible by DOT&PF
FAI-02220	116 Farmers Loop Road	Several buildings on site including original single-story residence from 1963	Determined Not Eligible by DOT&PF
FAI-02380	1035 Blair Road	Lot containing two buildings more than 45 years old (1940, 1950)	Determined Not Eligible by DOT&PF
FAI-02384	997 Blair Road	Site contains original 1944 building, now obscured by additions and improvements	Determined Not Eligible by DOT&PF

Consultation was initiated for this project in November 2017, with letters sent to: SHPO; City of Fairbanks; FNSB; Tanana-Yukon Historical Society; Tanana Chiefs Conference; Doyon, Ltd, and; Denakkanaaga. The State Historic Preservation Office (SHPO) concurred with DOT&PF's determinations of eligibility on the aforementioned sites and finding of No Historic Properties Affected for the project on January 23, 2020. There are no cultural resources in the project area that are eligible for listing in the NRHP.

All Section 106 documentation, including Initiation of Consultation, Findings Letters and SHPO Concurrence is included in Appendix E.

## **4.7.2 Environmental Consequences**

### NO ACTION ALTERNATIVE

The No Action Alternative would have no apparent effect on prehistoric or historic cultural resources. There are no such known resources in the project area, and this alternative would have neither ground-disturbing activities nor visual effects on properties within the area.

### PROPOSED ACTION ALTERNATIVES

The proposed build alternatives would have no physical or visual effect on prehistoric or historic cultural resources as there are no such known resources in the project area.

Ground-disturbing activities would occur for each activity, and there is a minor risk that such disturbance could affect a previously unknown and undocumented cultural resource.

### MINIMIZATION AND MITIGATION

Should construction activities, most notably excavation, encounter evidence of a previously unknown cultural resource, construction activities would stop in that area. The DOT&PF Cultural Resources team would be consulted on how to proceed.

## **4.8 Cumulative Impacts**

### **4.8.1 Existing Conditions**

Cumulative impacts include impacts from past, present, and reasonably foreseeable events and actions. For evaluation purposes, cumulative impacts are considered to include:

- Development of the original Johansen Expressway
- Construction of the Steese Highway
- Platting and partial development of the Northside Business Park
- Potential future development of Northside Business Park parcels
- Development of surrounding and adjacent properties, most notably the commercial district to the southwest and residential area to the southeast

Anticipated cumulative effects to the resources in the project area are summarized in Table 4.10.

**Table 4.10: Summary of Cumulative Impacts**

<b>Activity</b>	<b>Affected Resources</b>	<b>Description</b>
<b>Johansen Expressway Construction</b>	Land Use & Transportation, Socioeconomics, Contaminated Sites, Flora Fauna & Invasive Species, Air Quality, Noise, Wetlands & Drainage	Construction of the Johansen Expressway would have affected both land use and transportation patterns in northeast Fairbanks. This project would have facilitated faster east-west travel times for many commuters. While not generating contaminated sites, it may have facilitated migration of contaminants along the east-west corridor by providing a more permeable substrate. As with other roads and waterways, this project provides an easier migration path for invasive species. Johansen Expressway likely improved air quality by reducing congestion and idling at intersections. It would have increased noise levels locally along its corridor, while also improving noise levels elsewhere in Fairbanks. Construction of this expressway likely involved fill in wetlands.
<b>Steesse Highway Construction</b>	Land Use & Transportation, Socioeconomics, Contaminated Sites, Flora Fauna & Invasive Species, Air Quality, Noise, Wetlands & Drainage	Construction of the Steesse Highway would have affected both land use and transportation patterns in east Fairbanks. This project would have facilitated faster north-south travel times for commuters and allowed improved transport to areas further north. While not generating contaminated sites, it may have facilitated migration of contaminants along the north-south corridor by providing a more permeable substrate. This corridor provides an easier migration path for invasive species. The highway likely improved air quality by reducing congestion and idling at intersections. It would have increased noise levels locally along its corridor, while also improving noise levels elsewhere in Fairbanks. Construction of the Steesse Highway likely involved fill in wetlands, and may have also affected groundwater flow patterns and subsurface hydrology.
<b>Development of nearby properties</b>	Land Use & Transportation, Socioeconomics, Contaminated Sites, Floodplains Water & Water Quality, Air Quality, Wetlands & Drainage	Development of adjacent and nearby properties affected both land use and transportation within the area. Many of the nearby contaminated sites are due to development and use of these properties. Changes to drainage and runoff, including introduction of particulates and contaminants, have affected water quality. Use of these properties, including parking, idling vehicles, and heating are likely to have affected air quality in the area.
<b>Partial Development of Northside Business Park</b>	Land Use & Transportation, Socioeconomics, Wetlands & Drainage	Development of the Northside Business Park has slightly altered land use within the area. Changes to drainage and runoff, including introduction of particulates and contaminants, have affected water quality. Development of this area required fill in wetlands, mitigated by a conservation easement over the open water pond northwest of the intersection.
<b>Future Development of Northside Business Park</b>	Land Use & Transportation, Socioeconomics, Wetlands & Drainage	Future development of these properties will affect land use, and to a lesser extent transportation as this will likely involve reconstructing a connector road between Johansen Expressway and Farmers Loop Extension. Development of these remaining parcels may require fill in wetlands. Future development of these properties is under the jurisdiction of the FNSB Planning & Platting Departments, as well as the City of Fairbanks for some of the areas.

## 5. Public Involvement Summary

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Public scoping was initiated with advertisements on October 1, 8, and 12, 2017 for an Open House on October 12, 2017. The Open House was advertised in the Fairbanks Daily News Miner, via direct mail to 1,868 addresses in the vicinity, and on the state's Alaska Online Public Notices website.

The Open House presented materials indicating the existing conditions of the intersection, crash history and identified issues such as challenging traffic movements and delays. The purpose of the first Open House was to identify problems to facilitate development of the project Purpose & Need statement.

A total of 53 people signed in at the Open House, although this includes project staff from DOT&PF and associated consultants. Comments were taken verbally at the Open House, submitted in written form, and solicited through an online survey.

Public comments covered a range of topics, including:

- Access, especially involving Shannon Park/Lazelle Estates
- Congestion
- Construction concerns (long detour routes with the Steese-Jo closed)
- Design
- Drainage
- Environmental, including noise and air pollution
- Non-Motorized / Pedestrian concerns
- Right-of-Way
- Traffic movements

A follow-up Open House was held in December 2018, to provide a project status update and inform the public of the alternatives being considered for further review. At the second Open House, the full range of potential alternatives were presented (see Section 3.3). Public feedback helped narrow down the alternatives to those that would best meet project Purpose & Need and community concerns.

This EA was made available to the public in October 2020, with review and comment period open until November 15, 2020. Over 200 comments were received on the EA, from both agencies and the general public.

All public scoping materials, including presentation materials, sign-in sheets, and comments received are included in Appendix F.

## 6. Agency Coordination

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The DOT&PF provided the Purpose and Need and the description of the proposed project to agencies on August 2, 2018, and solicited agency comments and input on October 10, 2018. Agencies notified included:

- ADEC
- ADF&G
- ADNR
- FNSB
- City of Fairbanks
- Fairbanks Metropolitan Area Transportation System
- USACE
- U.S. Army Garrison (USAG), Fort Wainwright
- U.S. Environmental Protection Agency
- USFWS

Agency responses included concerns about the following resources or issues:

- Coordination of design with USAG's plan to install a new gate on Lazelle Road with access from the Steese-Jo intersection
- Recognition of contaminated areas on Fort Wainwright and potentially in soils adjacent to Fort Wainwright in some areas
- Coordination of land clearing for construction with migratory bird nesting season
- Recognition of the lack of known threatened or endangered species, and lack of known bald or golden eagle nests, in the vicinity of the project
- Coordination of design to accommodate wetlands to the northwest of the Steese-Jo intersection, including the Tract A conservation easement wetland
- Recognition of the risk, and recommendations to prevent the spread, of invasive species

The DOT&PF also formed a Project Advisory Committee (PAC) to ensure continued collaboration and information exchange with key stakeholders. The PAC includes staff from DOT&PF, FNSB, City of Fairbanks, USACE, U.S. Army Garrison, Fort Wainwright and Alaska State Troopers.

This PAC has met four times since 2017 and has provided significant input into the design and development of alternatives and features for this project. The final two meetings were informal and online, thus no agenda nor meeting minutes were prepared for these meetings.

In addition, DOT&PF initiated formal consultation under Section 106 of the National Historic Preservation Act. Letters informing and soliciting comment were sent to:

- ADNR, SHPO
- FNSB, Commission on Historic Preservation
- FNSB, Mayor



- City of Fairbanks, Mayor
- Tanana-Yukon Historical Society
- Doyon, Limited
- Tanana Chiefs Conference
- Denakkanaaga

Agency scoping materials, including scoping letter, response summary, comments received, and PAC notes are included in Appendix B. All materials pertaining to consultation under Section 106 may be found in Appendix E.

## 7. List of Preparers

**Table 7.1: List of Preparers, Organization, and Role**

Name	Organization	Experience	Role
Whitesell, Patrick	Michael Baker International; Environmental Lead	19 years	Primary author
McGillivray, Karin	Michael Baker International; Public Involvement Lead	6 years	Author
Gross, Jennifer	Michael Baker International; GIS Specialist	15 years	GIS and figures
Mwamba, Mwasi, P.E.	Michael Baker International; Transportation Engineer	18 years	Project designer
Christianson, Derek, P.E.	Michael Baker International; Project Manager - Highways	29 years	Project designer, document review
Ashimine, Alan	Michael Baker International; Project Manager - Planning	19 years	Document review
Bowie, Jeanne, P.E.	Kinney Engineering; Project Manager	16 years	Project manager, document review
Webb, Will, P.E.	Kinney Engineering; Traffic Engineer	15 years	Project designer
Smith, James, P.E.	Kinney Engineering; Traffic Engineer	12 years	Noise analyst
Little, Lauren P.E.	DOT&PF, Northern Region; Project Manager	12 years	Project management, document review and approval
McHenry, Abby	DOT&PF, Northern Region; Environmental Analyst	1 year	Document review and approval
Nelson, Brett	DOT&PF, Northern Region; Regional Environmental Manager	14 years	Document review and approval
Haynes, Emily	DOT&PF, Statewide; NEPA Program Manager	5 years	Document review and approval
Taylor, Jill	DOT&PF, Statewide NEPA Coordinator	9 years	Document review and approval

## 8. References

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- Alaska Department of Environmental Conservation. 2019a. Contaminated Sites Database. Accessed September 2019. <https://dec.alaska.gov/spar/csp.aspx>.
- — — 2019b. Alaska’s Impaired Waters and Total Maximum Daily Load (TMDL). Accessed September 2019. <https://dec.alaska.gov/water/water-quality/impaired-waters/>
- Alaska Department of Fish and Game. 2019a. Nonsubsistence Use Areas in Alaska. Accessed June 2019. <https://www.adfg.alaska.gov/index.cfm?adfg=subsistence.nonsubsistence>
- — — 2019b. Animal Species of Alaska. <https://www.adfg.alaska.gov/index.cfm?adfg=animals.main>
- Alaska Department of Transportation and Public Facilities. 1988. Engineering Geology and Soils Report, Steese Highway Resurfacing (Trainor Gate to Fox). Brazo, G., H. Livingston, and M. Weaver. DOT&PF, 1988.
- — — 2018. Alaska DOT&PF Noise Policy, 2018. Accessed June 2019. [http://dot.alaska.gov/stwddes/desenviron/assets/pdf/resources/aknoisepolicy\\_18.pdf](http://dot.alaska.gov/stwddes/desenviron/assets/pdf/resources/aknoisepolicy_18.pdf)
- Fairbanks North Star Borough. 2013. Fairbanks North Star Borough Limited Maintenance Plan. Submitted and adopted February 2013. <https://dec.alaska.gov/air/anpms/communities/fbks-pm2-5-nonattainment-air-quality-plan/>
- — — 2019. Metropolitan Area Commuter System map. <http://fnsb.us/transportation/MACSDocuments/SystemMap.pdf>
- Nowacki, et al, 2001. Ecoregions of Alaska and Neighboring Territory. Nowacki, G., P. Spencer, T. Brock, M. Fleming and T. Jorgenson. US Geological Survey, 2001.
- Seekins, 2020. Seekins Ford Lincoln, ‘Ford History in Fairbanks’. <https://www.seekins.com/our-history.html>
- United States Fish and Wildlife Service. 1990. National Wetlands Newsletter, November/December 1990. <https://www.fws.gov/wetlands/Documents%5CWetlands-Loss-Since-the-Revolution.pdf>
- University of Alaska Anchorage. 2019. Alaska Exotic Plants Information Clearinghouse database. Accessed September 2019. <https://aknhp.uaa.alaska.edu/apps/akepic/>