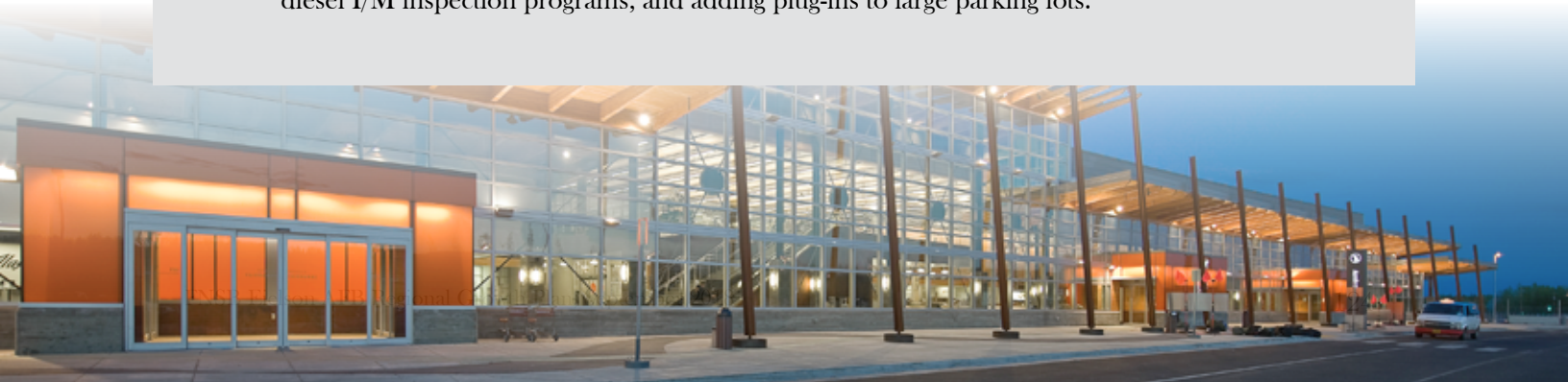




# Transportation

## KEY TAKEAWAYS

- **Road Capacity/Improvement Projects** – Recent traffic modeling completed as part of the Fairbanks Metropolitan Area Transportation System (FMATS) 2045 Metropolitan Transportation Plan (MTP). Update concludes the regional transportation system within the borough’s boundaries – primarily the backbone system of major, region-serving highways and arterials – has the capacity to meet projected growth, including the increment F-35 growth. This presumes the Borough proceeds with the 100-plus previously approved MTP transportation projects in the region. Some reprioritizing of these approved projects is recommended, to place greater emphasis on projects in the greater North Pole/99705 zip code area. The emerging MTP analysis also shows that some specific locations will likely need improvement to serve local needs. These include improving several intersections in the Badger Road area expected to be at or near capacity over the next 20 years, including the side streets at the Badger/Nordale and Richardson/Peridot intersections.
- **Changing State Finances** – State fiscal challenges are reducing State funding for transportation capital improvement projects, affecting both projects wholly funded by the State, and the ability of the State to gain available federal funding which require a relative small (typically 10 percent) State match. To fill this gap, the Borough needs to begin generating more funding at the local level, so it can leverage state and federal funds, and begin covering a larger share of the costs for ongoing highway construction and maintenance.
- **Policy Framework** – The Borough’s current set of policies that control planning and funding transportation and land use activities needs significant improvement. This includes developing better ways to plan for and integrate land use and transportation improvements, new approaches to funding maintenance and capital projects, and improving FNSB's road service areas policies regulations. Issues to resolve include numerous substandard roads, thousands of miles of “orphan roads” – roads without any means for maintenance – and limited options for moving safely, efficiently and enjoyably around the borough without a private vehicle. Reforming this system will require an active public outreach and education program, to help the public understand and then support the need for new policies and funding strategies required to meet current and future transportation needs.
- **Air Quality Standards** – Without an EPA approved air quality plan and active measures to improve air quality, the FNSB stands to lose vital federal funding that helps improve the region’s transportation system. Most of the region’s air quality challenges are tied to emissions from heating buildings, but reducing auto emissions is also helpful. Options include winter anti-idling programs, diesel I/M inspection programs, and adding plug-ins to large parking lots.



The F-35 Beddown presents the opportunity to review the FNSB transportation system – both physical infrastructure and transportation policies – and identify challenges and opportunities to effectively accommodate a significant influx of new residents. During Alaska’s pipeline boom years in the mid-1970s, the Fairbanks area, like Anchorage and other Alaskan communities, struggled to provide adequate public and private services to meet the needs of a rapid population growth. This chapter looks at the FNSB’s transportation network and current and anticipated demand for transportation services, with the goal of better planning for expected growth.



## PROJECTED TRANSPORTATION NEEDS

As outlined in detail in the Growth Projections Focus Area, by 2030, the F-35 Beddown will bring a projected 3,300 new residents to the borough, and a combined “induced” and natural growth population of 2,415. This growth is expected to generate demand for approximately 974 off-base housing units. Given that 85 percent of Air Force personnel that live off base currently live in the greater North Pole/99705 zip code area, most of the housing demand is likely to occur in that same area. As outlined in more detail in the Housing Chapter, the current supply of available rental or for sale units in the 99705 area is approximately 200 units short of meeting anticipated demand.

As is the case with pressures to expand housing supply, adding 3,300 new people to the area will increase use of the FNSB’s transportation network, briefly summarized below and covered in more detail later in this chapter:

- More cars on the roads, and increased vehicles passing through intersections. In the 99705 area, this additional increment of traffic combined with other sources of growth, is likely to create pressure for upgrading currently unmaintained residential and collector roads, and the possible need for improvements at key intersections, particularly along the Richardson Highway and Badger Road.
- More people seeking better ways to get around without a car, including better public transit, and improvements and construction of new trails and sidewalks.

# SUMMARY OF EXISTING TRANSPORTATION PROGRAMS, SERVICES AND INFRASTRUCTURE

## Overview

The FNSB is a multi-modal region, with a transportation network that includes modern expressways and with regular maintenance as well as unmaintained gravel back roads and trails. The Alaska Department of Transportation and Public Facilities (ADOT&PF) is responsible for the area's major highways (Parks, Mitchel, Steese, Richardson, Elliott, Johansen), many major arterial streets, an international airport and multiple smaller airports in the region. Fairbanks International Airport is interior Alaska's primary airport, providing daily jet service within and beyond Alaska, and serves as an air hub to Alaska's many small communities located off the road system. The Alaska Railroad Corporation provides a rail connection from Seward, through Anchorage, delivering passengers and cargo to the Fairbanks area.

The FNSB has elected to not establish area-wide road powers, and instead relies on a patchwork of

over 100 road service areas. The FNSB does not typically maintain roads outside service areas, which results in many miles of "orphan roads" – public roads with no maintenance. The Borough does have roadway construction standards that apply on subdivisions throughout the borough. The incorporated cities of Fairbanks and North Pole both have standards for developing roads and rights of way and maintaining the public streets within their boundaries.

The Borough, the cities of Fairbanks and North Pole, and ADOT&PF all work together to serve the region's multi-modal transportation needs. ADOT&PF identifies priority statewide needs through the State Transportation Improvement Program (STIP). Regional and local-scale transportation needs are addressed through the Fairbanks Metropolitan Area Transportation System (FMATS). The Borough operates a public transportation system, Metropolitan Area Commuter System (MACS), providing transportation in the more densely populated areas of the borough.



Figure 1 below shows the subset of planned regional transportation projects most relevant to F-35-related growth, including projects in the 99705/greater North Pole and Salcha areas and select borough-wide projects. The table is based on 2040 FMATS Fairbanks MTP and includes both FMATS and STIP projects. For more information on individual projects, descriptions are in the Fairbanks Metro 2040 Plan.<sup>1</sup>

The sections that follow provide more detail on each of the major entities working on transportation projects, including ADOT&PF, the Alaska Railroad, FMATS, the Fairbanks North Star Borough, and the cities of North Pole and Fairbanks.

<sup>1</sup> <http://fmats.us/programs/metropolitan-transportation-plan/>

**FIGURE 1: GREATER NORTH POLE/99705 ZIP CODE AREA TRANSPORTATION PROJECTS**

Project ID	FMATS project?	Project
SR-15	yes	Short Range: Plack Road Bike/Pedestrian Facility: FNSB
SR-35	yes	Short Range: North Pole Intersection Improvements
SR-36	yes	Short Range: North Pole Streetlight Standardization and Improvement Project
SR-39	No	Short Range: Richardson Highway: MP 353-357, Safety/Access Improvements
SR-42	No	Richardson Highway MP 359 Railroad Overpass
SR-56	No	Short Range: MP 356-362 Bicycle/Pedestrian Path (Richardson Hwy)
SR-70	No	Short Range: Plug-in Infrastructure, Big Dipper, North Pole Library and Fairbanks Library
MR-3	yes	Medium Range: Dyke Rd. Improvements
MR-4	yes	Medium Range: Dawson Road Extension (Hurst Road - Plack Road)
MR-7	yes	Medium Range: Bradway Road Reconstruction
MR-8	yes	Medium Range: Peridot Street Reconstruction: FNSB
MR-18	yes	Medium Range: 5th Avenue (NP): Santa Claus Ln – Therron St
MR-19	yes	Medium Range: 8th Avenue (NP): St Nicholas Dr – Blanket Blvd
MR-27	yes	Richardson Highway Corridor Study: Badger Road to Eielson
MR-42	No	Medium Range: Richardson Highway (NP) Alternate Route: Peridot St – Laurance Rd
LR-1	yes	Long Range: Dennis Road Extension: North Pole
LR-2	yes	Long Range: Holmes Road Reconstruction
LR-3	yes	Long Range: Lyle Ave Extension (Newby Road - Nelson Road)
LR-14	yes	Long Range: 5th Ave-Mission Road/Richardson Highway
LR-22	No	Long Range: Richardson Highway: Access/Safety Improvements (Rozak Road – Peridot Street)
VLR-3	yes	Very Long Range: Dennis Road/Lazelle Road Corridor: Steese Expressway/Johansen Expressway-Badger
VLR-21	No	Very Long Range: Richardson Highway: North Pole Area Interchange Phase II
VLR-22	No	Very Long Range: Richardson Highway: North Pole Area Interchange Phase III
VLR-23	No	Very Long Range: Richardson Highway Area Roadway Improvements (Local Roads)
VLR-25	No	Very Long Range: North Pole, Alaska, Road/Rail Crossing Reduction Project

Source: FMATS Fairbanks Metro 2040 “A Roadmap to 2040” January 2015

## Department of Transportation and Public Facilities (ADOT&PF)

The Northern Region Office of ADOT&PF is based in Fairbanks and administers State and federally-funded highway, airport, pedestrian and transit projects in the northern part of Alaska, including the FNSB. The majority of this funding goes to larger scale transportation projects owned and operated by the ADOT&PF. Examples of State-owned and operated transportation infrastructure relevant to the F-35 Beddown include: the Fairbanks airport; and in the greater North Pole/99705 area, national highway system routes like the Richardson Highway, arterial roads like Badger Road, and several of the principal roads in the City of North Pole.

Congress and the Federal Highway Administration (FHWA) approve a national transportation program that directs federal dollars to the states. These are packaged as a national transportation bill, which can apply for as long as seven years, and some as short as three years. The current program, called Fixing America's Surface Transportation (the "FAST Act"), sets upper limits on what each state, including Alaska, is eligible to receive, subject to a required 9.03 percent local match. Under the FAST Act, Alaska is eligible to receive approximately \$500 million each year (including the State's 9.03% match of \$45.15 million). The State of Alaska is confronting significant fiscal challenges. In 2017, as a side effect of these challenges, the State did not provide the full match needed to receive the full amount of federal funding available. This shortfall did not reoccur in 2018.<sup>2</sup>

Planning for use of federal transportation funds happens through the STIP which identifies, develops and maintains transportation systems throughout Alaska, including the FNSB. The current STIP runs from 2016 through 2019. The 2019-2021 STIP has recently been released for public and agency review.



Transportation plans in the borough also build in part from the Interior Alaska Transportation Plan (IATP) which is intended to provide large scale direction for transportation in the vast interior of Alaska. The IATP, which was developed by ADOT&PF and adopted in 2010, is now somewhat out of date, and many of the issues the IATP identifies either have been addressed or are no longer a department priority. According to Northern Region staff, the IATP will be updated after the Prince William Sound Plan (currently under review) has been updated.<sup>3</sup>

<sup>2</sup> Telephone conversation with Jackson Fox, FMATS, 4.10.18.

<sup>3</sup> Interview with Judy Chapman, Northern Region Planning Chief, Alaska Department of Transportation and Public Facilities, 11/8/2017

ADOT&PF is required to coordinate with local governments on State transportation projects.

ADOT&PF works with local governments in the Fairbanks area Metropolitan Planning Organization, which is done through the FMATS process (covered below). Projects must be consistent with the adopted Borough Comprehensive Plan.<sup>4</sup>

The State of Alaska capital budget was reduced 93 percent or \$1.8 billion from FY2013 to FY2018. During this time, ADOT&PF experienced a series of budget cuts, leading to reductions in funding for planning, construction and maintenance of state-owned and operated transportation infrastructure. At the same time, the Fairbanks Metropolitan Area Transportation System (FMATS) 2045 MTP shows a modest increase in funding over the 2040 Plan. The State of Alaska remains in a fiscally volatile time, creating continuing uncertainty about the level of future State support for transportation projects in the FNSB and the rest of the state.<sup>5</sup>

Change in road maintenance is one impact of declining ADOT&PF budgets. The 2016 closure of the Birch Lake Maintenance station is an example. This was the only station between Fairbanks and Delta Junction for Richardson Highway maintenance. While the Richardson Highway south of the Badger-Richardson west bound ramp has a minimum maintenance priority of no more than a 36-hour response plow out related to a winter storm, other State-maintained roads adjacent to the Richardson Highway may take up to four days to clear.

<sup>4</sup> Alaska Statute 35.30.101

<sup>5</sup> Source: Alaska Office of Management and Budget. Report to the House Finance Committee, April 3, 2018, [http://www.akleg.gov/basis/get\\_documents.asp?session=30&docid=54271](http://www.akleg.gov/basis/get_documents.asp?session=30&docid=54271).

<sup>6</sup> State Transportation Improvement Program, 2016-2017, ADOT&PF

<sup>7</sup> Interview with Scott Vockerth, Transportation Planner I, Northern Region Highway Data, 10/19/17

## Transportation Projects that Support F-35 Growth

The STIP projects most relevant to the F-35 Beddown are described below. This summary includes projects inside MPO boundaries, indicated by an FMATS number as well as projects outside MPO boundaries, indicated by a STIP number.<sup>6</sup>

The Richardson Highway is the focus of STIP projects in the 99705 area. The Richardson is the most important transportation corridor for vehicular travel between Fairbanks, North Pole and EAFB. Northern Region ADOT/PF and FNSB Planning staff indicate the Richardson Highway has more than enough capacity in the areas between Fairbanks and EAFB to absorb the additional traffic associated with the new F-35 growth in the FNSB.<sup>7</sup> While the highway itself has surplus capacity, improvements are needed for safety and access, including better intersections, bridges and pedestrian facilities. As explained by State staff, and as evident from planned projects, the State is moving toward a more access restrictive approach for the Richardson Highway. Specific projects planned for the Richardson Highway under the 2017-2019 STIP are summarized on the next page.

- **Richardson Hwy MP 353-357, Safety/ Access Improvements** – This project will improve access control on the Richardson Highway, upgrading and extending the existing frontage road system, constructing improved at-grade intersections, and eliminating multiple existing access approaches onto the Richardson Highway. (FMATS SR-39)
- **Richardson Hwy MP 356-362 Bicycle/ Pedestrian Path** – This project will construct a paved bicycle/pedestrian path on the Richardson Highway, starting from the Richardson Highway/Airport Way intersection, continuing along the Richardson Highway to the Badger Loop North Bound Ramp, and terminating at the Badger Road/Old Richardson Highway intersection. (FMATS SR-56)
- **Three “Very Long Range Projects”** – Richardson Highway North Pole Area Interchange Phases II and III; and Richardson Highway Area Roadway Improvements, Local Roads (FMATS VLR 21, 22, 23)
- **(NP) Alternate Route: Peridot St-Laurance Rd** – The Peridot Intersection Safety Project is one of the larger of several projects planned for the Richardson Highway. ADOT&PF traffic data recorded a number of fatalities at this location. This project is planned to improve traffic merging onto or crossing the Richardson Highway from Peridot. (FMATS MR-42/LR 22)
- **Richardson Highway Mile Point 268-343 (Milepost 266-341) Passing Lanes from Delta Jct to EAFB**– This project will construct passing lanes at various locations (yet to be determined) on the Richardson Highway to improve safety, including intersection improvements at the southern access of EAFB to accommodate freight volumes in support of two additional F-35 aircraft squadrons. Construction will occur in two stages under NID 30284 and this NID 29811. (STIP ID:29811)
- **Richardson Highway Mile Point 268-307 (Milepost 266-305) Passing Lanes between Delta Junction and Birch Lake** – This project will construct passing lanes at various locations (yet to be determined) on the Richardson Highway to improve safety. Construction will occur in three stages, under NID 30284, NID 30449 and the original NID 29811. (STIP ID:30284)





## Alaska Railroad Corporation (ARRC)

In the early days of the 1900s, the US Congress funded the Alaska railroad construction, ultimately connecting from Seward through Anchorage to Fairbanks. The project was completed in 1923 and has been providing important freight and passenger service to the Fairbanks area since. Ownership of railroad was transferred from the Federal Government to the State of Alaska in 1985.<sup>8</sup>

ARRC's proposed projects most relevant to the F-35 Beddown are described below. These projects will help create safer and more effective transportation systems in the area where most F-35 growth will occur, and potentially provide for simpler delivery of freight to EAFB.

- The Alaska Railroad passes the center of the City of North Pole, with multiple at-grade rail crossings. The North Pole Road/Rail Crossing Reduction project is planned to reduce these crossings<sup>9</sup>. An Environmental Assessment (EA) for this project resulted in a "Finding of No Significant Impact" signed by the Federal Railroad Administration (FRA) on 12/7/2012. According to the EA, train movements through the City of North Pole and across the

Richardson Highway pose safety risks to the public and to rail operations. The crossing reduction project would enhance public safety, reduce transportation conflicts, and improve ARRC's operating efficiency while ensuring continued rail access to existing and potential future ARRC customers and minimizing impacts to businesses and property owners. Despite the identified project need, and the associated, supportive EA report, there is currently no funding for right-of-way acquisition and construction.

- ARRC has proposed to construct and operate a new rail line extending east of North Pole, referred to as the Northern Rail Extension (NRE). The project would construct 80 miles of new rail line connecting the existing EAFB rail line at the Chena River overflow structure to Delta Junction. The proposed rail line

<sup>8</sup> Alaska Railroad web site (<https://www.alaskarailroad.com/corporate/history>) accessed 7/31/2017

<sup>9</sup> [https://www.alaskarailroad.com/sites/default/files/akrr\\_pdfs/2011\\_06\\_02\\_NPRealign\\_Scoping\\_Summary\\_Rpt\\_PROJ.pdf](https://www.alaskarailroad.com/sites/default/files/akrr_pdfs/2011_06_02_NPRealign_Scoping_Summary_Rpt_PROJ.pdf)



would provide freight and potentially passenger rail services serving commercial interests and communities in or near the F-35 project corridor. With a top design speed of 79 miles per hour for passenger trains, the track could support public transit operations between Fairbanks, North Pole, Salcha and Delta Junction.<sup>10</sup>

- The NRE project was anticipated to progress in four phases, as funding becomes available: Phase 1 – Tanana River crossing at Salcha (Joint Tanana Range Access) constructed in 2013-14; Phase 2 – Rail construction from Moose Creek near North Pole to the Salcha crossing; Phase 3 – Rail construction from the Salcha crossing to the Donnelly Military Training Area; and, Phase 4 – Donnelly to Delta Junction. The latter three phases of this project are currently not funded. While an EIS supporting this project has been completed and approved, there has been no further activity on this project since 2014. There is evidence of some recent renewed interest in this project.<sup>11</sup>

The Alaska State Railroad Plan<sup>12</sup>, completed in November 2016, is intended to comprehensively document and plan potential future rail projects. The plan outlines numerous possible rail projects throughout Alaska and provides strategic recommendations to the State for priorities. As the plan states, “additional funding beyond existing revenues is needed for projects that are beyond the scope of ARRC’s existing operations such as expanding the rail system to new destinations and capital improvements.” Projects in the FNSB area identified in the plan of possible relevance to the F-35 Beddown are listed below; each is intended to improve the railroad’s regional capacity to efficiently move freight and potentially people in and through the region, including the EAFB area.

- **Fairbanks Area Line Relocation Phase 1 (FARLR)**
- **Fairbanks Airport Branch and Eielson Branch Staging Areas**
- **Fairbanks Freight Intermodal Terminal Rail/Truck Staging Area**

Two additional railroad projects addressed in FMATS and relevant to 99705 area are described below:

- **Fairbanks Road/Rail Crossing Reduction/Realignment Plan** – This \$500,000 project was approved in the January 2018 FMATS Transportation Improvement Plan (TIP) budget<sup>13</sup>. The primary purpose of the plan is to serve as a long-range road/rail planning document. The plan will enable FMATS and its agency partners to work towards a more efficient and effective approach to integrating passenger and freight rail elements into the regional multi-modal and intermodal transportation framework.
- **Richardson Hwy MP 359 Railroad Overpass**– This project will construct a grade-separated railroad crossing at MP 359 of the Richardson Highway and a pedestrian underpass east of the railroad crossing. (FMATS SR-42)

<sup>10</sup> Alaska Railroad Northern Rail Extension Fact Sheet

<sup>11</sup> Interview with Brian Lindamood, PE, Director of Capital Projects, ARRC, 10/6/2017. The final EIS supporting this project was released in 2009. The Surface Transportation Board then issued its Record of Decision in January 2010, followed by record of Decision in April by the Federal Railroad Administration.

<sup>12</sup> <http://fmats.us/wp-content/uploads/2017/01/112916-Rail-Plan-Final.pdf>

<sup>13</sup> <http://fmats.us/wp-content/uploads/2012/10/FMATS-FFY2017-2020-TIP-Amendment-3-1.pdf>

## Fairbanks International Airport (FAI)

The Fairbanks International Airport hosts 11 domestic, two international and three cargo airlines connecting Fairbanks to the rest of Alaska, the United States and select international destinations.<sup>14</sup> The airport is located with sufficient space to grow and maintain future airport operations. As Alaska's second busiest passenger airport, FAI serves as a hub for more than 50 communities in Interior and Northern Alaska that rely upon air freight, mail, and commuter services.

For EAFB, the Fairbanks Airport serves as an important, high quality "front door" to people coming into the region, including many arrivals in connection to the F-35 Beddown. Regular, reliable air service provided by FAI will be important to the quality of life of these and all regional residents. The airport is also important for air cargo, including the public's growing reliance on products from on-line retailers like Amazon.

Recent news from FAI disclosed one of their operations has inadvertently contaminated groundwater with Polyfluoroalkyl Substances (PFAS) near the Aircraft Rescue and Firefighting (ARFF) Training Areas. Perfluorinated compounds are found in Aqueous Film Forming Foam, which was used at the Aircraft Rescue and Firefighting Training sites. As of this date, testing is underway to determine the extent of this groundwater contamination and to evaluate the extent neighborhood wells were affected.<sup>15</sup>



## Fairbanks Metropolitan Area Transportation System (FMATS)

FMATS is responsible for planning and implementing regional and local-scale transportation system improvements. FMATS was established in 2003 based on federal law directing the formation of a Metropolitan Planning Organization (MPO) when an urbanized area population is greater than 50,000. The FMATS planning area encompasses the urbanized area of the FNSB, including the cities of Fairbanks and North Pole, and the intervening land along the Richardson Highway and Badger Road. FMATS is guided by priorities set by a local Policy Board and a local Technical Committee.

FMATS receives \$8 million annually from the State, one portion of the \$500 million in federal transportation planning currently coming to Alaska each year. Funding at this scale allows FMATS to support one major project or several smaller projects each year. To receive these critical local funds, FMATS is required to cover the same 9.03 percent match that the State must provide. For the road projects funded by FMATS, this match is largely covered at the local level by the Borough and the two incorporated cities within the borough. FMATS projects are presented in a regional Transportation Improvement Program (TIP), which identifies, prioritizes and allocates anticipated funding for transportation improvements over a four-year period. The TIP represents a consensus among local, state and regional officials on transportation improvements to implement in the short-term.<sup>16</sup>

<sup>14</sup> Alaska Department of Transportation and Public Facilities, Fairbanks International Airport web site (<http://www.dot.state.ak.us/faiiap/index.shtml>) accessed 6/28/2017

<sup>15</sup> Alaska Department of Transportation and Public Facilities, Fairbanks International Airport press release, 11/8/2017

<sup>16</sup> <http://fmats.us/programs/tip/>

## Know Your Transportation Acronyms

**MPO (Metropolitan Planning Organization)** - the general label given to the federally mandated transportation planning organization in any given region)

**FMATS (Fairbanks Metropolitan Area Transportation System)** - FMATS is the MPO for the Fairbanks region, that is, the MPO for the urbanized portion of the Fairbanks North Star Borough

**TIP (Transportation Improvement Program)** - The TIP is FMATS' four-year plan identifying, prioritizing and allocating anticipated funding for transportation improvements; the TIP is amended and updated each year

**MTP (Metropolitan Transportation Plan)** - The MTP is the blueprint guiding long range regional transportation plans, updated and revised every five years

FMATS is operating under its 2040 approved Metropolitan Transportation Plan (MTP), completed in 2015. A consulting team hired by FMATS is now working on an updated plan, entitled "Envision 2045".<sup>17</sup> This current process includes long range multi-modal planning for the major highways and arterials in the borough as well trails and transit, and a Freight Mobility Plan (FMP) to address the movement of freight carriers through the FNSB.<sup>18</sup> The updated MTP is expected to be completed in late 2018.

The broad mission of FMATS is safely and efficiently moving goods and people, while supporting economic progress, environmental protection and an improved quality of life.<sup>19</sup> Specific FMATS goals are to:

- Coordinate planning efforts to provide an integrated transportation and land use system that embodies smart growth principles and stimulates the economy to grow;
- Provide a safe, efficient, secure, and interconnected multi-modal transportation system for all users;
- Protect the environment, improve air quality, and promote energy efficiency;
- Optimize the utility and lifespan of the existing transportation system; and
- Ensure adequate transportation facilities to support economic development.

FMATS looks comprehensively at all modes of transportation to coordinate planning and funding decisions about federally funded transportation

<sup>17</sup> See the Envision 2045 website for details - <http://maps.kittelson.com/FMATSMTP2045>

<sup>18</sup> FMATS web site (<http://fmats.us/>) accessed 7/5/2017.

<sup>19</sup> FMATS web site ([www.fmats.us](http://www.fmats.us)) accessed 6/28/2017; 49 USC 5303(g)(3) and 23 USC 134(g)(3)

facilities. The bike and pedestrian transportation network in the FNSB has approximately 76 miles of formally defined, shared-use paths and 50 miles of roads with sidewalks. Downtown Fairbanks is more walkable than other parts of the borough due to its higher density, sidewalks, short block lengths and short traffic signal cycles. Outlying areas of the FNSB have fewer opportunities and dedicated space for bicyclists and pedestrians. According to crash data, over ten percent of all fatal and severe injury crashes in the Fairbanks metropolitan area involve bicyclists and pedestrians.<sup>20</sup>

Although EAFB is not within the planning boundary of FMATS, FMATS decisions will impact transportation improvements in the 99705 zip code area, where most growth linked to the F-35 Beddown is anticipated. ADOT&PF/FNSB maintains planning authority for the Richardson Highway paralleling EAFB.

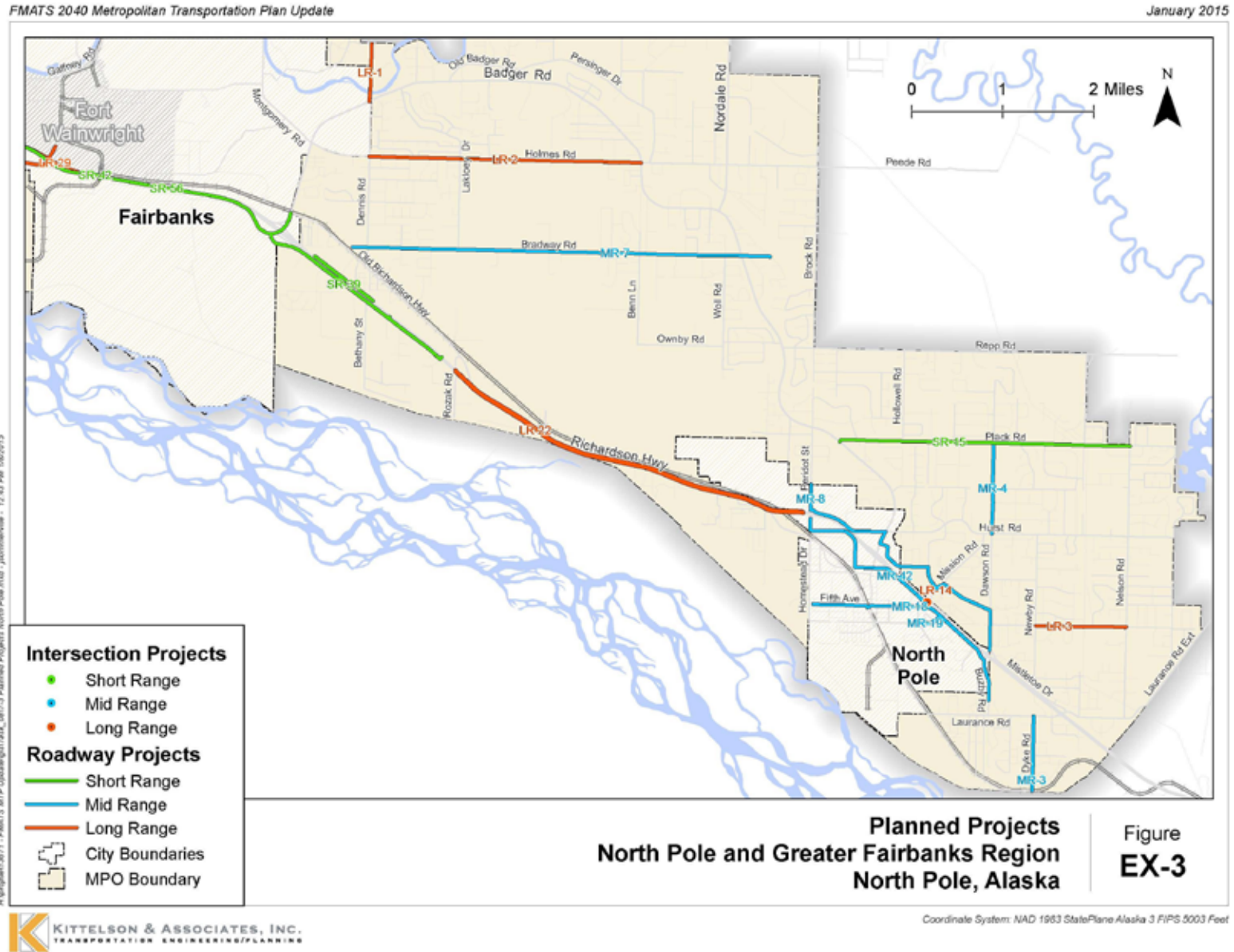
Figure 1 above lists FMATS projects of greatest relevance to the F-35 Beddown. These projects are also shown on Figure 2. As noted above, more information regarding individual projects is included in the Fairbanks Metro 2040 Plan available online<sup>21</sup>.

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<sup>20</sup> FMATS Non-Motorized Transportation Plan, 2012.

<sup>21</sup> <http://fmats.us/programs/metropolitan-transportation-plan/>

FIGURE 2: PLANNED FMATS PROJECTS IN THE NORTH POLE/99705 AREA (EXTRACT FROM FAIRBANKS METRO 2040 "A ROADMAP TO 2040")



## Air Quality Monitoring and Compliance – FMATS and FNSB

Air quality management is part of the assurance the State of Alaska must provide to federal agencies, including FHWA, FTA and Environmental Protection Agency, to continue to qualify for federal funding for highway and transit projects. Federal funds cover 90 percent of most transportation improvements in Alaska and the FNSB, so the consequences of losing this funding are severe.

Portions of the borough have a seasonally persistent air quality problem, which comes from a strong atmospheric inversion layer coupled with widespread burning of unseasoned wood and other open burning sources. Vehicle emissions are a secondary, but less significant cause of poor air quality. Under authority of federal air quality laws, in 2009 the EPA designated the large majority of the FMATS planning area as an air quality non-attainment area for particulate matter (PM) 2.5. PM 2.5 refers to atmospheric particulate matter with a diameter of less than 2.5 micrometers, a proven significant hazard to human health<sup>22</sup>. For comparison, a typical human hair diameter is 50-70 microns.

FNSB is responsible for implementing air quality management plans for transportation-related air quality criteria pollutants in the borough, with the strong motivation of continued federal transportation funding. Recent studies by EPA and the Alaska Department of Environmental Conservation (ADEC) show the southeastern portion of the non-attainment area, focused in North Pole/eastern Badger Road area, is the primary source of the emissions contributing to regional air quality non-attainment. This same area is where F-35 military, civilian staff and their families are expected to seek housing and other public and private services. Managing the impacts

of F-35 related growth on air quality in this area will be a continuing, important policy issue.

FMATS, through ADEC, has made a request to the EPA to split the single urban non-attainment area into two separate areas, separating the City of North Pole/Badger Road area from the remainder of the urbanized portions of the borough. Figure 3 below shows the PM 2.5 non-attainment area, divided into Fairbanks and North Pole portions. To date, no final decision has been made on this request.<sup>23</sup>

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<sup>22</sup> US EPA web site (<https://www.epa.gov/pm-pollution/particulate-matter-pm-basics>) accessed 7/5/2017

<sup>23</sup> FMATS web site (<http://fmats.us/>) accessed 7/5/2017.

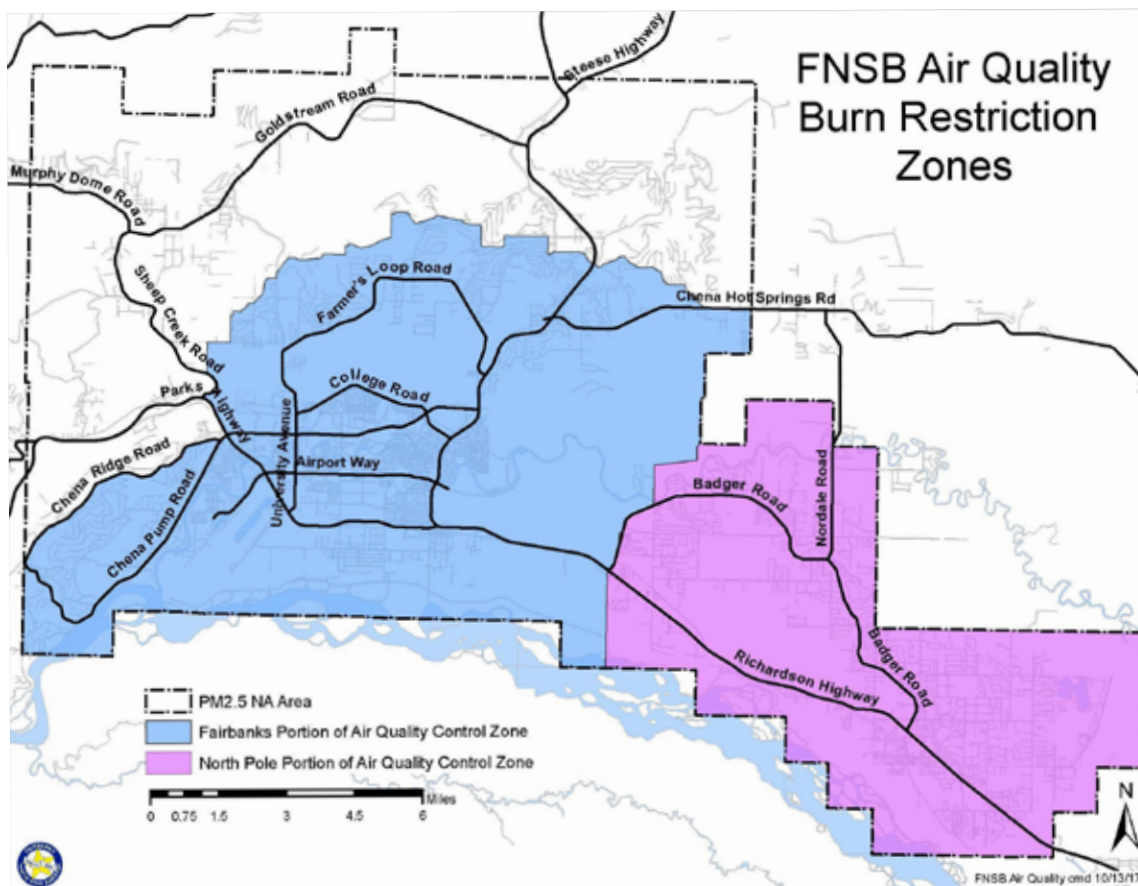
The Planning and Zoning chapter outlines recommendations for land use actions that can reduce air quality impacts, for example through increasing standards for energy efficient homes and options for home heating. Options for reducing air quality impacts associated with transportation are presented later in this chapter.

Downtown Fairbanks and downtown North Pole each contain small carbon monoxide maintenance areas with a federally approved Limited

Maintenance Plan (LMP). While the LMPs do not require an annual emission budget or regional emission analysis (required in the non-attainment area), it does require the implementation of Traffic Control Measures (TCM) related to vehicle plug-ins and transit system improvements.<sup>24</sup>

<sup>24</sup> Correspondence from FHWA Alaska Division Administrator Sandra A. Garcia-Aline and FTA Region 10 Administrator Linda M. Gehrke to Alaska DOTPF Transportation Planner Sheila Good, dated 3/3/2017.

**FIGURE 3: BOUNDARIES OF PM 2.5 AIR QUALITY NON-ATTAINMENT AREA**





## Fairbanks North Star Borough

The FNSB has planning and zoning authority over all land within its boundaries, including land within its incorporated cities. The Borough currently does not have areawide road power and has limited involvement in the construction of the transportation network in the region. Outside of the incorporated cities of Fairbanks and North Pole, FNSB sets development standards for local roads and planning standards for rights-of-way dedicated and developed through the subdivision process. Within city boundaries, the FNSB defers to each city’s standards. Likewise, the Borough defers to ADOT&PF standards for state-owned and operated roads throughout the region. FNSB Planning staff use Title 17 of the Borough code and the Comprehensive Road Plan (CRP), adopted by the Assembly in 1991 (with mapping updates in 2006), to accomplish road-related tasks.<sup>25</sup> While the Borough code sets standards for subdivisions, Borough policy does not require subdivision roads be physically constructed in all cases. An exemption process allows small subdivisions to not construct roads if certain parameters are met.

The FNSB is a second-class borough. Although the Borough has the legal authority (A.S. 29.35.210) to establish area-wide road powers, the leaders and voters of the Borough have not elected to use this authority. As an alternative, the FNSB has 103 separate, locally established Road Service Areas (RSAs), as shown on Figure 4. The Borough website notes: “a service area is a taxing jurisdiction established at the request of the voters within a geographical area to provide these certain services within their specific area.” As Figure 4 shows, RSAs cover only a portion of the developed areas of the borough, leaving many roads with no formal maintenance. Roads within RSAs are eligible for FMATS funding; roads outside of RSAs are not eligible.

The FNSB Rural Services Division provides engineering, technical and administrative support for road service area commissioners, including the services below. As the length of this list suggests, providing these services to 103 service areas is a complex and costly process.

- Administer the 103 service area contracts for over 485 miles of service area roads
- Assist over 426<sup>26</sup> service area commissioners (only 271 are currently filled) and their alternates with issues that may arise
- Issue permits for excavations within the Right-of-Way



<sup>25</sup> Personal communication with FNSB Transportation Planner D. Galligan on 7/5/2017

<sup>26</sup> Includes commissioners for 4 other non-road service areas

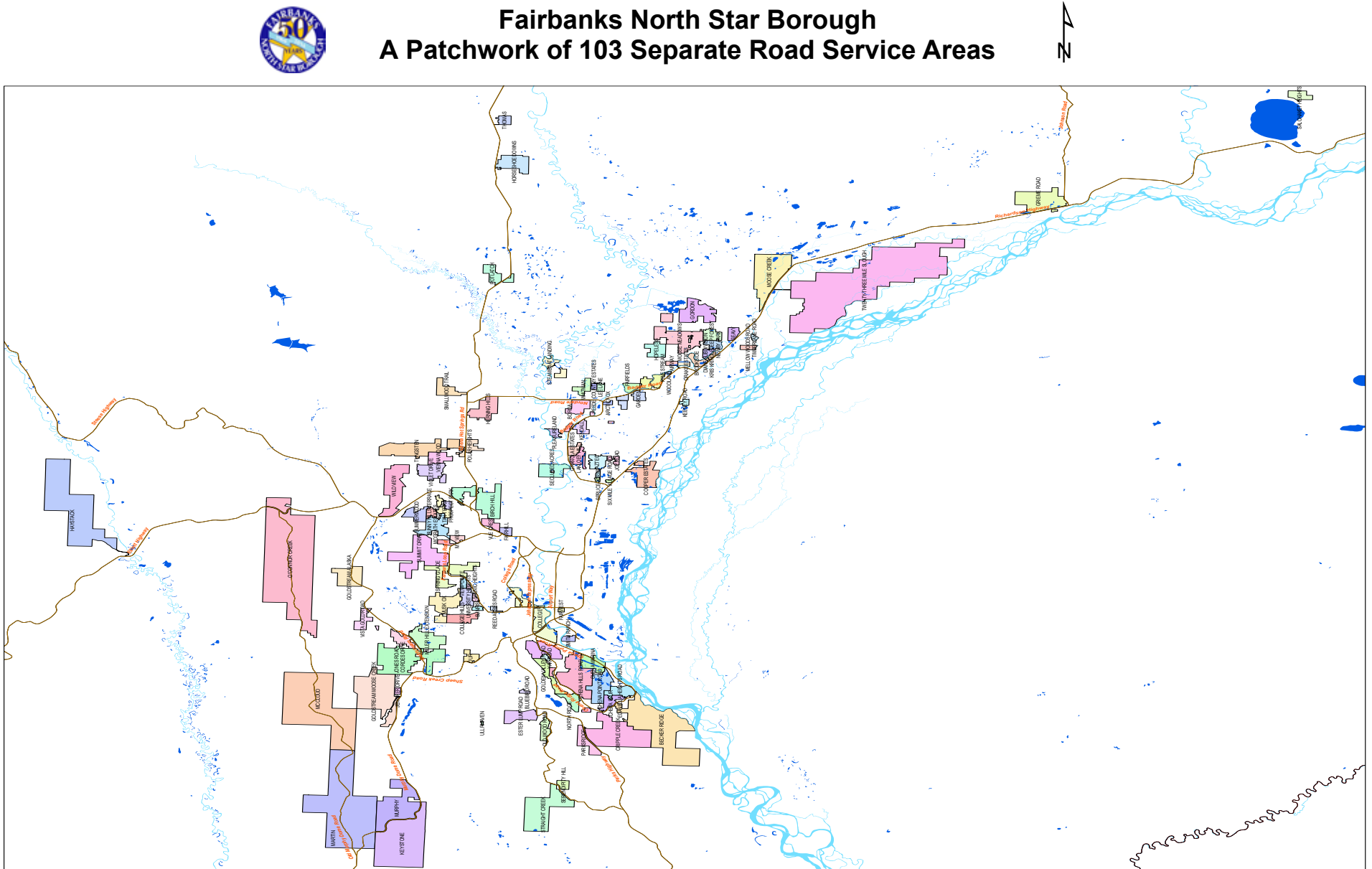
- Maintain databases of current service area commissioners, chairpersons, Assembly Road Service Area Committee (ARSAC) members, roads maintained, current mill levy rates, budgets and other financial information, current service area contract pay items
- Maintain all service area traffic regulation devices
- Work with FNSB Clerk's Office for commission appointments and special elections for service areas, such as tax cap elections and service area boundary change elections
- Act on reported encroachments within the public Right-of-Way
- Provides training opportunities for commissioners about basic road maintenance, working with contractors, budgeting and planning

Within their boundaries, RSAs are responsible for delivering road maintenance and snow plowing services. All services are contracted with independent contractors who are given direction by their road service commissioners on schedule and frequency of maintenance.<sup>27</sup>

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<sup>27</sup> Communication with Michael Bredley, FNSB Division of Rural Services 1/16/2018

FIGURE 4: FAIRBANKS NORTH STAR BOROUGH A PATCHWORK OF 103 SEPARATE ROAD SERVICE AREAS



FNSB, Rural Services, 2-02-2016

## Metropolitan Area Commuter System (MACS)

The local public transit provider, MACS, is an agency of the FNSB with a fixed route bus and paratransit system. Figure 5 shows the MACS routes. The system started in 1977 with two routes serving the Fairbanks urban area. The system later expanded to serve North Pole, Salcha, Farmers Loop, Ft. Wainwright and other Fairbanks areas.

Today, the bus service links much of the urbanized area of the FNSB, with most routes connecting at the downtown transit center. The system currently operates nine routes, and travels over 500,000 miles annually. A 10th route (the Black Line) ran between Fairbanks and Salcha with some stops in North Pole, and EAFB. This route was 100 percent funded through a demonstration grant with the hope the route could support itself after three years of seed capital. However, ridership on the Black Line was the lowest of all MACS lines, and service was discontinued in 2017. The June 2013 Short/Long MACS Transit Plan indicated

EAFB had the largest number of riders on the Black Line Southbound in both summer and winter, and Northbound in the summer.<sup>28</sup> Despite this ridership, the costs to provide this service – approximately \$85 per rider according to Borough staff – made it impractical to continue to operate the Black Line.

Van Tran is the paratransit service offered by the FNSB as demand response service for qualified individuals that meet the requirements of the Americans with Disabilities Act (ADA). It is provided to those people whose physical, cognitive or sensory disabilities prevent them from using the MACS Transit System. Options for reducing air quality impacts associated with transportation are presented later in this chapter.

<sup>28</sup> Fairbanks North Star Borough, Short & Long Range Transit Plan, Final Report, June 2013



Photo by Jim Benning/FNSB MACS Transit



## ESTIMATED GAPS – WHAT ARE THE GAPS BETWEEN NEEDS AND EXISTING POLICIES, SERVICES, INFRASTRUCTURE?

The F-35 Beddown at EAFB adds new population to the borough, and a new increment of demand for the region’s transportation system. This section reviews gaps between the services available today versus anticipated future needs for transportation infrastructure, services and policies.

<sup>30</sup> In addition to affecting the quality and extent of the road system, the Fairbanks and North Pole areas are home to several large construction contractors whose main source of work is heavy civil construction work contracted by ADOT&PF. These contractors employ a significant number of seasonal employees in higher wage-earning positions. The reduction in this work will mean lean years of employment and income for FNSB residents. If the decline in road projects lasts for multiple years, these firms may not stay in business, reducing options for skilled locally based businesses, to work on road projects for that future time when funding might again be available.

## Declining Funding, and the Resulting Need to Generate More Funding Locally

Plans for transportation improvements come at a time when State of Alaska funding for transportation is declining and may decline more in the future. Without significant action by the Alaska Legislature to find new revenue sources, these declines in State funding could have a profound impact on transportation projects across the state and in the FNSB, including project delays, reduced maintenance funding, and in more extreme cases, completely dropped projects. For ADOT&PF Northern Region, these changes have resulted in several recent years of declining spending on capital projects for highways and further reductions in maintenance. This funding reduction will result in poorer quality state highways, as needed state highway upgrades are delayed or deferred entirely<sup>30</sup>.

As a result of these changes the FNSB, like other communities across Alaska, will need to generate new, locally-based funding to meet its transportation needs.



## Limitations in Road System & Intersections Capacity

FMATS is currently preparing the “Envision 2045” metropolitan transportation plan (MTP), working with transportation planning firm Kittleson and Associates. The MTP uses a regional transportation model to compare the capacity of major regional roads against current and anticipated future demands, including F-35-related growth.

Initial traffic modeling done as part of Envision 2045 shows that major roads in the borough (highways, major arterials) have sufficient capacity to meet anticipated traffic demand through 2045, including growth associated with the F-35 operation. For the Richardson Highway, this finding matches the results of interviews with ADOT&PF senior staff done as part of this project, which indicated the Richardson between Fairbanks and EAFB has more than enough capacity to handle the additional traffic associated with the F-35 Beddown.

The emerging MTP traffic modeling also looks at a select subset of major regional intersections.

Modeling shows several intersections in the Badger Road area will be at or near capacity over the next 20 years, including the side streets at the Badger/Nordale and Richardson/Peridot intersection.

By design, the MTP looks at large volume highways and major arterials that serve the whole region, and not the hundreds of smaller residential roads that serve local neighborhood needs. As is discussed under the road service areas/FNSB subdivision sections below, gaps between needs and capacity are greatest on this latter category of roads, and at points where these roads intersect with collectors and arterial road.

Planning work as part of the completion of the MTP as well as the Salcha-Badger Road Subarea Plan will provide more specific information about where road and intersection capacity is least able to support anticipated growth, and outline strategies to address this challenge.



Photo by Agnew::Beck

## Limited Alternatives to the Private Auto – Transit, Trails, Sidewalks and Pathways

Areas that start with a low density rural residential character, with single family detached homes on acre-plus lots, and then gradually grow and become more suburban, tend to be places where it is difficult to support public transit and where walking or biking becomes increasingly difficult and unsafe. This is true in the greater North Pole/99705 zip code area. This area was developed with little or no planning for sidewalks or for the more concentrated development needed to make public transit more viable.

As noted above, MACS experimented with a bus line connecting Fairbanks, the Badger Road area, Eielson and Salcha. Ridership was very low and the service was dropped. As part of the public outreach for this RGP, and the North Pole Strategic Plan, current residents including active duty personnel and their families expressed the need for improved public transit. For example, connecting commercial and residential areas in North Pole and the Badger Road area with EAFB. While an understandable need, transit is hard to sustain in low density areas, where riders are relatively few and distances are long.

The quote in this section and several similar views were recorded as part of the outreach for the Envision 2045 MTP. With the exception of the bike path along Badger Road, and sidewalks in the center of the City of North Pole, sidewalks and roadside pathways are very limited in the 99705 zip code area. The need for improved sidewalks or roadside pathways is most acute where road traffic is increasing and pedestrians require safe routes to reach schools or other community destinations.

The FNSB MACS transportation budget has been flat to declining in recent years, even as operating costs have increased due to personnel cost increases. State contributions have been reduced. According to Donald Galligan, FNSB transportation planner, these recent MACS budget cuts are significant, not because they have had a big impact on current service levels, but because they set a tone and expectation of the limits on what the system may be able to deliver in the future.

“All of Bradway and Woll Roads needs a bike/pedestrian path to increase the safety of this densely residential area that includes a public school.” Citizen comment recorded through “Envision 2045 Plan”





## Conflicts between Roads, Pedestrians and Rail in North Pole

The ARRC has proposed the North Pole Road/Rail Crossing Reduction project to address conflicts with the railroad crossing through the heart of the City of North Pole. The project has been on hold for the last five years primarily due to lack of funding.

Most of the past traffic on ARRC lines in the North Pole area was associated with the Flint Hills refinery. While the refinery is closed and not expected to reopen, an increase in demand for rail, for example for oil field supplies or associated with Eielson operations could recreate the traffic congestion problems North Pole has experienced in the past. As stated in the Purpose and Need statement for this proposed railroad project,<sup>31</sup> completion of this project would create a safer vehicle and pedestrian traffic environment in the City of North Pole and set the mainline up for extension to the Salcha Bridge and beyond.

“ Holmes Road must be widened and repaired. It is a main exit emergency access for the military base and a main access road to the dump. There is no edge to the road. It is extremely dangerous for pedestrians and bicyclists because there is no edge and it is a straight away which causes high speeds... it is extremely dangerous in winter conditions just for drivers.

Citizen comment recorded through “Envision 2045 Plan” process

## Substandard Roads Resulting from Outdated Subdivision Policies and Mechanisms for Funding Road Maintenance

Starting over 50 years ago, the FNSB began authorizing individual road service areas. While this system had advantages in earlier days, the result today is an unwieldy collection of over 100 road service areas are spread around the FNSB. This creates both physical and administrative challenges. On the physical side, RSAs cover only a portion of the borough’s developed area. A related issue is the significant variation in maintenance quality between roads in different RSAs. A driver crossing from one RSA to the next on the same road might encounter very different levels of road service. These issues can make it difficult to get around as part of daily life and create serious safety issues when fire trucks or EMT vehicles are unable to quickly react to a fire or health emergency<sup>32</sup>. This set of issues exist around the borough, but is particularly acute in the 99705 area code, where recent growth is already revealing significant road problems. The F-35 population growth will accentuate these challenges.



Photo by Agnew::Beck

<sup>31</sup> [https://www.alaskarailroad.com/sites/default/files/akrr\\_pdfs/2011\\_06\\_02\\_NPRealign\\_Scoping\\_Summary\\_Rpt\\_PROJ.pdf](https://www.alaskarailroad.com/sites/default/files/akrr_pdfs/2011_06_02_NPRealign_Scoping_Summary_Rpt_PROJ.pdf)

<sup>32</sup> North Star Fire Chief Jim Styers comments at Salcha-Badger Road planning group meeting

## Updated and Expanded Borough Comprehensive Road Plan

The Comprehensive Road Plan (CRP) is a valuable policy document, used to assign appropriate road classifications to new roads constructed in the FNSB. The CRP sets standards so that as development takes place, road rights-of-way are reserved at the appropriate dimensions (e.g., a collector versus a local street). The ultimate goal of this plan is to ensure that individual new roads incrementally create an efficient, effective borough-wide transportation network.

The plan continues to be a valuable planning tool, despite having been prepared in 1991, with only one update in 2006, and the fact the plan predates the designation of the Fairbanks metropolitan area as an MPO. While the slow pace of development in the borough has meant most of the road specifications included in the plan are still valid, the plan needs to be updated to respond to new growth pressures like those in the 99705 area, and be broadened to better address multi-modal transportation needs, including bike and pedestrian travel.

While all subdivisions, per ordinance, must align their streets and dedicate corridors shown in the plan, the Borough has enacted ordinances that sometimes allow for dedication of road rights-of-way, without construction to Borough standards.

## Vulnerability of Transportation Funding Due to Unresolved Air Quality Issues

The Borough recently implemented a more stringent compliance program with possible enforcement actions if offending sources remain noncompliant in addressing air quality violations. Despite efforts by the FNSB leadership, PM 2.5 air quality problems continue, especially in the North Pole area – an area considered to be a prime location for new housing for the incoming F-35 Air Force families. See more on this critical issue in the recommendations section below, and in the Planning and Zoning chapter.



Photo by Agnew::Beck

## TRANSPORTATION STRATEGIES – WHAT ARE OUR RECOMMENDED SOLUTIONS FOR MEETING ANTICIPATED GAPS?

The F-35 Beddown at EAFB adds new population to the borough, and a new increment of demand for the region’s transportation system. To ensure the FNSB transportation network remains effective and efficient with this expected borough population increase, the following strategies are recommended.

It is important to note that these strategies are relevant in the greater North Pole area, where F-35 growth is expected to concentrate, but also borough-wide. This planning process provides the opportunity to make improvements and implement strategies that will respond to F-35 growth, but also address transportation issues that have long challenged Borough staff and leadership, and FNSB residents, businesses and landowners.

*Note: these strategies are not listed in order of priority. The order shown starts with broad overarching topics and works towards more details of specific modes or single topic issues.*

### T1. Use transportation and land use planning to support air quality solutions.

*See the Planning and Zoning chapter for a thorough discussion on air quality issues, and the direct linkage between land use, transportation and air quality.*

The Fairbanks region needs practical, effective solutions to its significant air quality problems. Most air quality problems are tied to emissions from

heating buildings, but reducing auto emissions is also a potential solution to air quality issues.

- a. Promote programs that reduced emissions, including education regarding winter anti-idling, diesel I/M inspection programs, and adding plug-ins to large parking lots.
- b. Develop land use policies that encourage more concentrated and walkable development patterns, which makes it easier for people to use their cars less often. Planning for concentrated, walkable, mixed use districts should become one strong part of the Borough’s response to air quality challenges. And as mentioned above, concentrated development also increases the viability of transit which can further contribute to reduced vehicle miles traveled.
- c. Actively pursue new strategies, working with voters and utilities, to expand options for public water and sewer, which is needed to support more concentrated development. As part of that step, develop standards so more concentrated development, particularly higher density housing, provides durable, quality, attractive places to live, and a good neighbor to existing residents. (See the Utility and Planning and Zoning chapters for further discussion on this challenging, important topic.)
- d. Options to continue to receive federal transportation dollars is one indirect, but very critical connection between transportation and air quality. Without an approved air quality plan and active measures to improve air quality, the FNSB stands to lose vital federal funding that helps maintain and improve the region’s transportation system. The Borough is currently working with FHWA, FTA, EPA, ADEC, ADOT&PF and several consultants to develop a “Serious State Implementation

Plan” (SIP). This “Serious SIP” will require implementation of Best Available Control Measures (BACMs), which may include any technologies that have been implemented in another state’s Serious SIP or achieved in practice.<sup>34</sup>

## T2. Continue regional-scale transportation system improvements.

As mentioned above, recent traffic modeling completed as part of the 2045 Update concludes the regional transportation system within the Borough’s boundaries – primarily the backbone system of major region-serving highways and arterials – has capacity to meet projected growth, including the increment of growth coming with the arrival of the F-35s.

- a. This conclusion is built on the important assumption that the list of transportation improvements in the existing 2040 MTP will be constructed. Continuing with those identified improvements is critical if the transportation system will support the Borough’s future regional transportation needs.
- b. Figure 1 gives the list of 2040 MTP-approved improvement projects in the 99705/greater North Pole area. Also included in the previous section summarizing existing transportation services and infrastructure are short descriptions and a map (Figure 1) showing the location of many of these projects. It is currently expected the 2045 MTP Update will endorse the same set of projects. As part of the completion of the 2045 MTP, the MTP 2040 project list should be re-examined and re-ranked to place higher priorities on meeting anticipated growth in the 99705/greater North Pole area. Projects that should be given higher priorities in the MTP are improvements for

safety at Richardson Highway intersections such as Peridot, and for pedestrian safety along routes leading to 99705 area schools.

- c. In addition, several new projects should be considered as priorities for action outside MTP boundaries, for example, a bike trail between Salcha and EAFB. One example is a bike trail between Salcha and EAFB; other projects will be identified through the current Salcha-Badger Road Area Plan process.

## T3. Carry out subarea land use and transportation planning.

While the traffic modeling resulting from the 2045 MTP Update shows the regional transportation system (with planned improvements) will meet projected growth, the emerging MTP analysis also begins to identify specific locations needing improvement to serve local-scale needs.

Additionally, the MTP process documents the need for improved pedestrian and bicycle facilities to meet local demand, including bicycle facilities at the Santa Claus Lane/Richardson Highway roundabouts, and both pedestrian and bicycle facilities at Homestead Drive south of the railroad tracks. The plan also documents the lack of transit service to EAFB and Salcha (but notes that providing transit in these low density/low ridership areas is very challenging - more on this topic is presented for #5 below).

- a. The Salcha-Badger Road Sub-Area Plan should be used to provide the detailed planning needed to refine specific, local-scale transportation needs. Specific tasks to be carried out by that plan include:

<sup>34</sup> Interview with Nick Czarnecki, FNSB Air Quality 11/17/17

- Develop specific land use and infrastructure plans to meet demands for F-35 related growth. While respecting private sector responses to meet demand, the Sub-Area Plan needs to guide growth to address public benefits and challenges. Examples of actions where active steps to guide growth are needed include: planning for improved water, sewer and other infrastructure; policies to encourage quality, affordable rental housing; strategies to minimize adverse impacts on existing neighborhoods; and strategies to minimize impacts on air quality.
  - In light of the more detailed planning for locations and types of F-35 related growth, develop specific transportation improvement strategies, including locations for improvements of the existing system; new roads and trails; transit options, and strategies to cover construction and ongoing maintenance costs.
- b. Updating the full borough-wide comprehensive plan is very challenging, due to the scale and diversity of the FNSB region. As a better approach, use the Salcha-Badger Road Sub-Area Plan as a way to inform transportation policy changes and specific infrastructure inputs in other sub-areas, or even borough-wide.

#### T4. Identify and implement funding strategies for local/regional-based transportation.

As the borough continues to grow, and the State continues to cut transportation funding to local governments, new approaches for funding transportation projects will be needed<sup>33</sup>. This will require public and voter support, which can come about in part through a proactive local outreach and education program. The public needs to better understand the magnitude of the transportation challenges facing the region, the realities of shrinking funding to meet transportation needs, and the consequences of not having adequate maintenance for existing roads. These types of education programs are typically most successful when sponsored by organizations like a chamber of commerce or other local economic development advocates, who can explain how transportation projects create jobs and business opportunities, as well as improving safety and quality of life.

A key point of any education program should be explaining the leverage provided from local dollars. Federal regional transportation funding generally provides nine dollars for every single in-state matching dollar.

Listed below are local funding options the Borough should investigate, with specific options to be acted upon later as the public and Borough leadership rallies behind these issues. It is important to note all these require support from parties beyond the direct control of Borough leadership - either voters or the State Legislature.

- Work aggressively with the Alaska Legislature, especially FNSB representatives, to find new ways for the State of Alaska to generate revenues to support a robust state capital improvements budget, which can in turn help fund and sustain Alaska's transportation needs.

<sup>33</sup> One example of a specific, near term funding challenge: according to FNSB Transportation Planner Donald Galligan, FMATS funding, already tight, is likely to be significantly reduced once the Mat-Su Borough is designated as an MPO in 2020.

The crux of this strategy requires the legislature acting to replace revenues previously generated by oil production.

- Expand road service areas, to generate property tax from a larger pool of properties. (See more details on road service areas in Strategy T6)
- Develop and gain approval from FNSB voters for bond measures to help meet regional transportation needs. This can only happen within road service areas, and is one argument for expanding the coverage of RSAs.
- In coming years, the State is likely to turn to statewide bond measures to generate funds where projects offer broad public benefits. Improving the Anchorage freight dock is one example. The Borough needs to be proactive, working with State leadership and the State Legislature to include statewide bond measures for projects that widely benefit the Borough, the interior and other state residents.

## T5. Advocate and seek funding options for the North Pole Railroad Crossing project and broader scale expansion.

The Borough should work with FMATS, the City of North Pole and other partners to move forward with the North Pole railroad project. For the foreseeable future, ARRC is unlikely to directly fund this project, so other funding options should be pursued, including statewide general obligation bonds, Better Utilizing Investments to Leverage Development (BUILD) grants, and/or working through the FMATS process to secure FHWA and/or FRA funding.

The North Pole Rail Crossing Reduction Project would bring multiple benefits:

- Eliminate conflicts between rail and vehicles and pedestrians.



Photo by: Shelly Wade

- Solve safety, as well as noise and related quality of life issues from the current rail line crossing through the heart of North Pole. There are 70-80 at grade road/rail crossings in the borough, which greatly hamper the safety and efficiency of circulation. The City of North Pole is one obvious location where the rail line cuts through the heart of a busy commercial/civic activity area.
- Add to property values in North Pole and avoid major conflicts likely to a rise in the future when rail, vehicular and pedestrian traffic increases to the greater Fairbanks area.
- Retain a corridor for a possible further eastbound extension of the rail line.

## T6. Address challenges of Road Service Areas (RSAs).

The Borough currently faces the challenge of having too many RSAs. For example, the FNSB has 103 RSAs vs. just six in the entire Mat-Su Borough. The excessive supply of RSAs creates high and unnecessary administrative costs. At the same time, there are thousands of miles of roads outside of any RSA, with limited or no organized options for maintenance. Without ongoing maintenance, roads deteriorate, there is limited or no snow removal,

and access to homes and services becomes increasingly challenging and even dangerous. Many hundreds of miles of roads in the borough are already in very poor condition. Without new strategies this situation will worsen as the borough grows.

A simply stated, but challenging to implement solution to the RSA challenge: the FNSB should consolidate and reduce the number of RSAs and fill road service area gaps. A recommended approach to reach this ambitious goal is as follows:

- Carry out a simple believable analysis that quantifies the near and long term economic, quality of life and safety benefits of improved road maintenance.
- Conduct a robust community education and engagement strategy, with the public and Road Service Area Commissioners, to discuss the current RSA system, including:
  - Use the outreach process to give the public a chance to identify their priorities for better roads, trails, sidewalks and other community needs;
  - Share information about the pluses and shortcomings of the current system, and the benefits of new approaches. Points to



emphasize include the cost to maintain vs. rebuild roads; the fiscal impacts of FNSB oversight of 103 separate RSAs; health and safety issues, including inability of EMT and fire trucks to respond in emergencies; the fact that State and federal funds are only available in locations for roads in a maintenance district; and

- iii. Use the public outreach process to better understand and address specific public concerns. To the degree practical, keep elements of what people inside RSAs like about the current system, including a measure of locally-responsive, locally-directed maintenance.
- c. As residents, businesses and voters better understand the challenges of the current pattern of RSAs, engage them to devise specific solutions that can be approved and implemented, working towards the primary objectives below:
  - i. Establish maintenance services in areas currently outside of any road service area,

to create a safer, functional and sustainable transportation network.

- ii. Consolidate and reduce the number of road service areas, to simplify and create efficiencies for the administration of these service areas, and allow for more uniform and better prioritized maintenance for roads that currently cross through multiple RSAs. If possible, use the resulting administrative cost savings to improve service and/or cut existing costs.
- d. Specific elements of new and better solutions to the current system of RSAs need to evolve through the process outlined above. General elements likely to be needed include:
  - i. Examine and reform the existing FNSB code process that creates serious impediments to expanding existing RSAs. Work to reverse the current disincentives for annexation, and simplify the current process that requires slow, costly separate local and assembly votes.
  - ii. Review construction standards for new roads in subdivisions, and establish new road maintenance standards. Standards need to account for the growing size of vehicles, increasing traffic levels, and the simple physical requirement to ensure water drains off the road surface. At the same time, aim for standards that make being part of RSAs more attractive and acceptable to voters. Differentiate standards in suburban and urban areas, from standards in outlying rural areas where traffic is likely to remain light well into the future.
  - iii. Use the sub-area and comprehensive planning process to better clarify the boundaries between rural and suburban/



Photo by: Agnew::Beck



urban areas, and through that process the differences in road construction and road maintenance standards in those areas.

- iv. Clarify and mandate the policy that requires joining an existing service area if an RSA is located within a reasonable distance of a new development. Couple this with a policy that prohibits the platting of any future road open to public use without the road being built to the appropriate Borough standards, and being added to an existing road service area. Likewise, where a new road, open to public use, is proposed near an existing RSA, require the road be built to appropriate FNSB standards, and be added to an existing, adjoining road service area.

If the FNSB were a home rule borough, the Assembly could pass rules to require the consolidation of road service areas and outlaw the acceptance of roads not in road service area. Under the current second-class borough status, a vote would be required to consolidate these service areas into more manageable units and fill important gaps in service area coverage. Given this reality, the process of consolidating and expanding RSAs will likely require patience and incremental progress. Use the Salcha-Badger Road Sub-area plan to work on this topic in the 99705 zip code, aiming to show the need for road improvements, and make clear how combining and expanding RSAs meets this goal, and ultimately saves money for individuals and the community.

## T7. Work to develop transit options between North Pole, Fairbanks and Eielson AFB.

In recent years, MACS eliminated service to Eielson and Salcha, based on low demand and high costs. As documented in the Borough's 2013 Transit Plan, costs to provide this Black Line service, due to long distances traveled and low ridership, were \$85 per rider with only \$2.25 per fare.

The F-35 Beddown will likely increase demand for transit services linking EAFB with North Pole, Fairbanks and perhaps the Salcha area. MACS should monitor demand for transit services to identify if and when some version of improved transit service may be warranted. While demand is currently too low to reestablish the full Black Line, providing alternative versions of this service may be feasible in the future, to serve active duty personnel and their families, as well as existing and other new residents from Salcha to Fairbanks. One option, if there is demand from active duty personnel for transit service to Eielson AFB, would be for the Air Force to pre-qualify drivers and provide service as is done at both the Los Alamos National Laboratory (New Mexico) and Idaho National Laboratory (Idaho Falls).

Creative options to offer transit service should be revisited. In the recent past, the Borough attempted van pools and ride shares<sup>35</sup>, but were not successful. With the increased population at Eielson Air Force Base, there is an opportunity to reevaluate transit

<sup>35</sup> [http://www.newsminer.com/news/local\\_news/borough-adopts-online-ride-share-program-zimride/article\\_f5cdd1fc-8e98-11e5-bac4-f7c26beca3f0.html](http://www.newsminer.com/news/local_news/borough-adopts-online-ride-share-program-zimride/article_f5cdd1fc-8e98-11e5-bac4-f7c26beca3f0.html) (November 2015)

options that will meet Air Force personnel and other resident transportation need. Known issues that will contribute to the success or failure of new transit options to and EAFB include base access and snow removal.

For base access, when the Borough offered bus service to EAFB, base access was a major challenge. In the beginning, buses were allowed through the EAFB gate; then, a uniformed “defender” was required to get on the bus at the gate for the trip onto the base bus stop; then, bus access was denied and EAFB offered a shuttle from the base bus stop to the front gate to meet the FNSB bus (and sometimes failed to arrive on time resulting in riders being left at the front gate to wait for the EAFB shuttle or walk home, etc.). Consistent, efficient base access will be a critical component to any new transit option on and off base.

Access to bus stops is also critical to the success of any transit option in the borough, especially in the rural areas of the community, including routes to and from EAFB. Access is often limited during winter months by lack of snow removal and/or dumping at sites. There is often no way to access the bus stops without climbing over and/or standing atop piles of snow. These areas must be free of snow.

Land use policy that helps create more concentrated, walkable development is a different, gradual but potent way to increase the viability of transit. As residential and commercial densities increase demand for transit tends to rise and costs per rider go down. Strategies to encourage higher density development include, for example, zoning policy and expanded public water and sewer service.



## T8. Update and improve the FNSB Comprehensive Road Plan.

The FNSB should update the Comprehensive Road Plan (CRP) to respond to continuing growth and change in the region. The CRP is a not well known in the borough, but provides a valuable policy tool. In contrast to the FMATS process, which focuses on construction and maintenance projects, the CRP makes decisions on dedicated public road rights of way, and allows the Borough to control today the width and classification of roads to meet the transportation needs of the future.

The Salcha-Badger Road Sub-Area Plan can provide a reference point for updating the CRP and other more recent FNSB transportation plans. Objectives of this update process should include:

- a. Reexamine the road functional classifications that are presented in the CRP - arterial, collector, minor collector, residential, to ensure the definitions of the classifications are appropriate in the FNSB context and reflect differences between urban, suburban and rural settings.
- b. In addition to policies for roads, establish CRP standards requiring appropriate pedestrian facilities (as called for in the comprehensive plan) that connect pedestrian routes within adjoining existing and future subdivisions. Create a better-connected system of trails, paths and roadside walkways.
- c. Identify specific roads that are within existing subdivisions needing to be upgraded to serve the ultimate FNSB road network, but currently are outside of service areas.
- d. Require physical construction of roads in all new subdivisions, where these subdivisions are within Fire Service areas as defined by FNSB Rural Services and through policies in updated land use plan.
- e. Consider using the Salcha Badger Plan process to develop a revised Comprehensive Road Plan map specific to the Salcha Badger sub-area.