

Rec'd fr DES
2/16/16

South-Central Regional Emergency Services Training Complex

Facility Project

February 16, 2016

WHAT:

We are proposing to build a multi-use facility that will incorporate the response needs for the community (fire station), storage needs for the Department (warehousing) and the training needs for the Department (training rooms, labs, instructor offices and preparation space). This project is consistent with the Central Mat-Su Fire Service Area's (CMSFSA) Strategic Plan and the Training Complex Master Planning Process. The Central Mat-Su Fire Service Area has reviewed and approved the budget for these projects.

WHY:

The current building (Fire Station/Training Room) was built in 1974 and has undergone two additions to the building since the original construction. The building is no longer adequate to meet the operational need to house equipment and/or personnel for first due response capability. The lack of bay space limits the apparatus that can be housed at the station. There is no safe separation of space for activities, such as, SCBA maintenance, SCBA fill station, laundry, office area, storage area etc. The new facility will also accommodate 24/7 staffing and the future need to place an aerial apparatus in the Knik Goose Bay response area.

The classroom space can only accommodate small groups, 20 students and instructors. The training area within the proposed facility will allow for larger classes and for multiple classes to occur simultaneously. When the academic portion of a class is completed, the participants can simply walk to the hands-on practical area, instead of having to possibly drive at least eight miles and then regroup. Private contractors have stated that they would help setup practical labs for some of the fire classes, such as, fire protection systems. The warehouse space is needed to store supplies and equipment, such as, foam, fire hose, clothing, boots, helmets, hoods, personal protective equipment, etc. The warehouse will help with inventory control by having one delivery point and a controlled distribution point. Currently, two sites are rented to house reserve apparatus and supplies/equipment. Adding the warehouse component to this facility will also result in an annual decrease of \$ 41040 for rental space cost.

After consultation with the principals involved in the Master Plan process and with Capital Projects, we are proposing to integrate the warehouse, fire station, and training facility main instructional building into one structure. This will result in dramatic cost savings including design work, service connections for utilities, septic systems, and project management cost. The facility will be a turnkey project.

South-Central Regional Emergency Services Training Complex Update

In 1997, the Wasilla-Lakes Fire Service Area Board of Supervisors adopted a three-to-five year CIP that included the planning for a training center to be constructed at Station 62, mile 7 Knik Goose Bay Road. In 2001, additional land (approximately 2 acres) was purchased from the University of Alaska. The existing training tower was constructed and opened in March 2002.

In FY2004, an additional 73.59 acres were purchased after the Mat-Su Borough Assembly approved an appropriation specifically "to allow for the purchase of additional land from UAA for the design and construction of a training facility complex as part of a ten-year master plan". The plan has been fluid and has been revised through the years. A contract was approved by the Borough Assembly in 2015 to review the existing facilities and to assist in establish a five year development plan.

The existing facility has been used to train hundreds of Mat-Su Borough responders as well as other agencies. Construction at the Training Complex/Fire Station site is on-going. To date the Fire Service Area has invested in excess of \$2,900,000 in the purchase and development of the property, including the construction of the East Road and West Road, the water system/hydrants and paving of the roads. An FY 2014 CIP (\$1,800,000) was approved for the construction of a warehouse and an FY 2012 CIP (\$1,500,000) was approved for Design, Prep and Civil Work for the new Station 6-2.

The FY 2017 CIP requests include three projects for the Training Complex/Fire Station site- the construction of a new fire station to replace the existing building (\$3,300,000), which will then be used for storage; the construction and completion of the water system (\$800,000); and the repair and upgrade of the existing training tower (\$130,000). The current building was built in 1974 and has undergone two additions to the building since the original construction. The building is no longer adequate to meet the operational need to house equipment and/or personnel for first due response capability. The new facility will accommodate 24/7 staffing and the need to place an aerial apparatus in the Knik Goose Bay response area. After consultation with the principals involved in the Master Plan process and with Capital Projects, we are integrating the warehouse, fire station, and training facility main instructional building into one structure. This will result in dramatic cost savings.

The water system project is intended to construct an above ground water storage tank and concrete pad, to drill necessary water wells for water supply, to construct a pump house, to purchase any/all necessary equipment, hardware, fittings/piping, and instrumentation to complete the connection to the existing water lines and any future facilities. The project will include any other mechanical and electrical components and civil/site work necessary.

After years of use, the training tower live- fire burn rooms are in need of critical repairs. This project will allow for the purchase of the necessary materials, labor, shipping and installation to complete needed repairs and upgrades to ensure the continued safe use of the burn rooms/training tower. The project includes any and all associated electrical, mechanical and structural materials and construction. The project also includes any structural or component testing and certification of the building/facility.

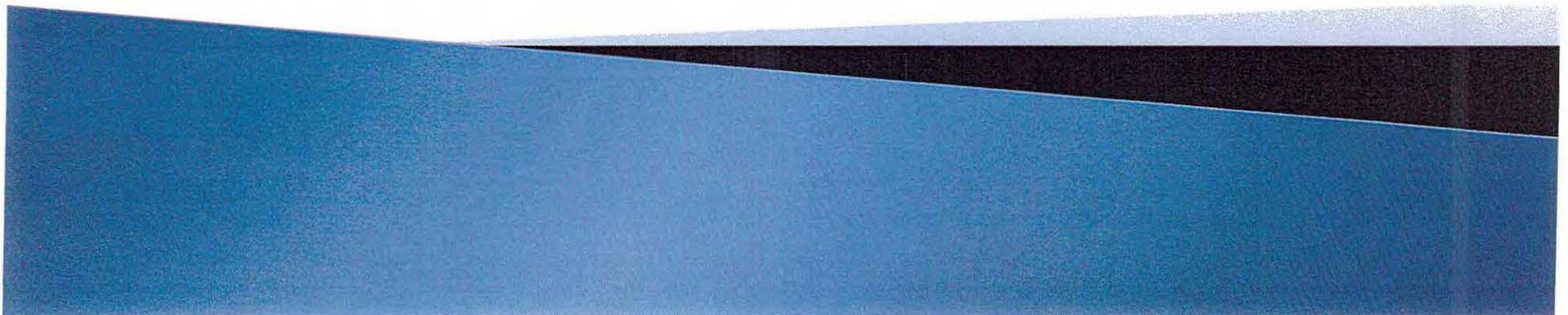
Central Mat-Su Fire Department Matanuska-Susitna Borough



Investing in Our Community

Proposed South-Central Regional Emergency Services Training Complex

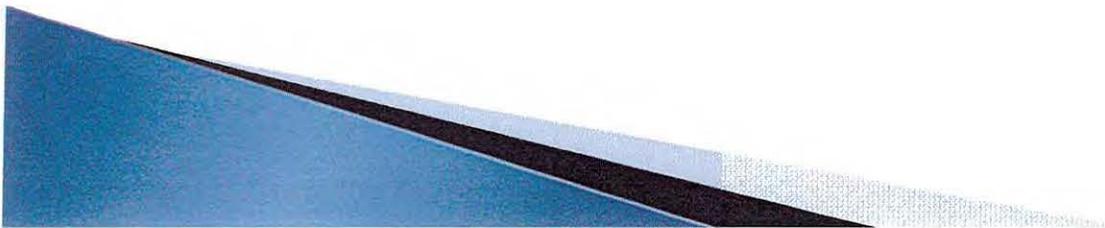
Training our emergency responders for the
Mat-Su's future.



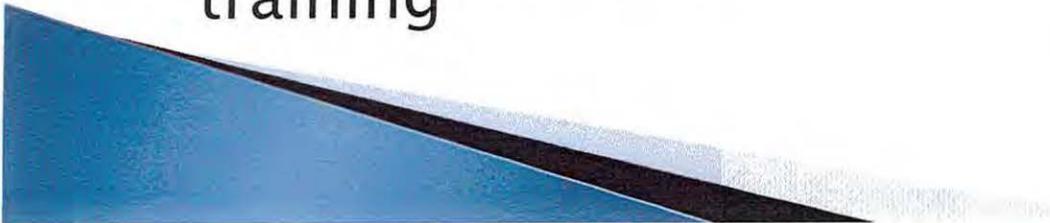


▶ Referencing mandated training

- OSHA
- Feds
- State
- NFPA
- ISO
- SOP's



Some of training that is mandated includes:

- ▶ Firefighter training – to include live fire training in buildings.
 - ▶ Hazardous Material response training which includes flammable liquid/gas live fire training.
 - ▶ Vehicle rescue/extrication training.
 - ▶ Building collapse training
 - ▶ Mass casualty training.
 - ▶ Driver/Operator training
 - ▶ Pump training
 - ▶ Ladder training
 - ▶ Confined space rescue training.
 - ▶ Trench collapse training
 - ▶ Rope rescue training
 - ▶ Aircraft fire and rescue training
- 

Firefighter Training

- ▶ Live Fire Interior
- ▶ Live Fire Exterior
 - Flammable Liquids
 - Pressurized Gas
- ▶ Driving fire apparatus
- ▶ Operating fire apparatus
 - Pumping
 - Aerial trucks



Live Fire



Aerial Ladder Training



Plan View - Phase II



Current State of MSB Radio System

Rec'd fr DES
2/16/16

The MSB-owned radio system is a VHF conventional analog, narrowband-compliant system that utilizes a network of six primary repeater sites for public safety communications:

- Bald Mt, Willow Creek, Pt. Mac, Areawide, Sutton, Sawmill
- Conventional systems are suitable for small groups of users, but our single channel repeaters result in voice traffic congestion when larger numbers of users are simultaneously using the system.
- Coverage gaps in remote areas, in part due to terrain limitations and repeater locations. Talk-in coverage is also limited by the RF power of the mobile or handheld (usually 50W and 5W, respectively). In addition, voice quality with analog radio systems steadily declines as the signal attenuates.
- Paging of responders uses the same voice channels and interrupts voice traffic.

The Borough is divided into three geographic radio zones loosely based on FSA boundaries: North, Core and East.

- The North and East Zones use Tactical Channels 2-4; Core Zone uses Tactical Channels 5-7; this configuration provides some geographic separation of the tactical channels in use to minimize adjacent zone communications bleed-over as much as possible given the constraints of the current system.
- Responders crossing zone boundaries need to change zones on their mobiles/handhelds to access the radio channels in the incident zone.

Alternate radio communications are provided through the ALMR system, allowing interoperability with state and federal agencies. ALMR is a trunked P25 (digital) system that allows Borough subscriber units to use ALMR RF sites (mostly along the road system). ALMR supplements the MSB-owned radio network.

Solutions to Issues

A trunked radio system will solve a number of the issues faced by users of our current system. With multiple repeater radios at a number of sites, a pool of channels will be available to accommodate a larger number of users. Available channels are dynamically assigned by a controller, thus eliminating channel congestion. Paging would no longer interfere with voice traffic, as it would be done over reserved frequencies separate from the trunked system. Lastly, the dynamic channel assignment will remove the need to change channels while crossing zone boundaries.

Talk-out coverage gaps can be reduced through the use of simulcast, while talk-in coverage gaps can be reduced through the use of voting receivers. Also, voice quality with P25 digital radio does not degrade as a user approaches the edge of coverage.



Initially Proposed Recreation Maintenance Bond

Wasilla and Palmer Pools	\$12,830,820
Brett Ice Arena	\$3,744,649
Trails (9)	\$2,175,000
Total	<u>\$18,750,469*</u>

* Includes updated pool cost estimate

\$36.19/yr. or \$3.02/mo. for \$218,000 assessment



Requested Regional Project Additions

Willow/Talkeetna Outdoor Ice Rinks	\$1,680,000
Willow Community Park	\$366,000
Big Lake Area Trail Bridges	\$1,250,000
Fish Lake Parking (Talkeetna)	\$100,000
Lake Louise Boat Launch Repair	\$100,000
Subtotal	\$3,496,000

Revised Bond Amount \$22,246,469

\$ 42.95/yr. or \$3.58/mo. for \$218,000 assessment



Community Development
Department

RECREATION / MAINTENANCE BOND 2016

February 16, 2016

Age Matters

Palmer Pool **1982**

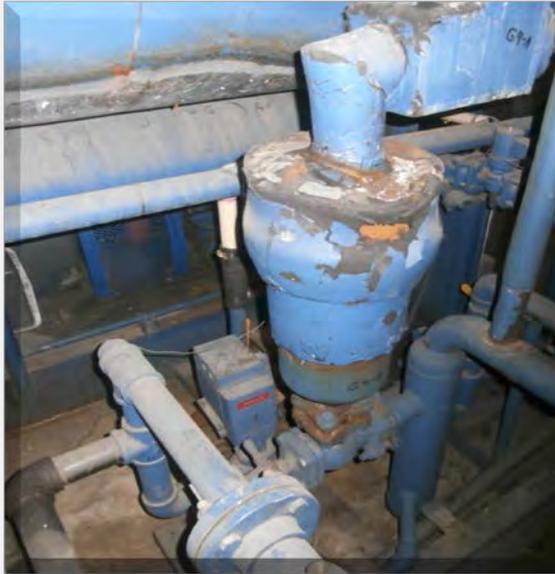


Wasilla Pool **1980**

Palmer and Wasilla Pools

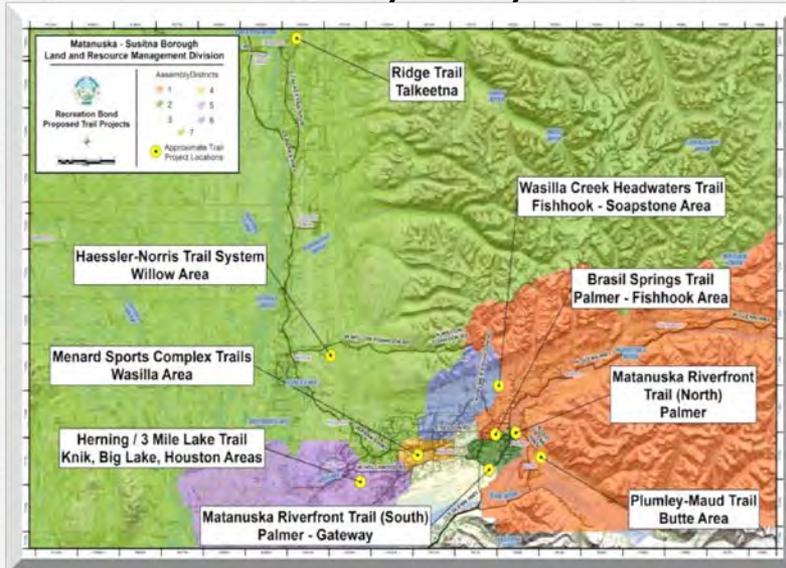
Palmer Pool Option 2	\$ 7,098,200
Wasilla Pool Option 2	\$5,732,620
Total Pools	<u>\$12,830,820*</u>

* Includes updated cost estimate



Trails and Ice Rink

Trails \$ 2,175,000



Brett Ice Arena \$ 3,744,649



Recreation Bond Summary

FIRST PROPOSAL

Palmer & Wasilla Pools	\$ 12,830,820
Brett Memorial Ice Arena	\$ 3,744,649
Trails	\$ 2,175,000
TOTAL BOND PACKAGE	\$ 18,750,469



\$36.19/yr. or \$3.02/mo.

\$218,000 property



Recreation Bond Summary

Regional Rec Project Additions

Talkeetna/Willow Outdoor Ice Rinks	\$1,400,000
Willow Community Park	\$365,830
Big Lake Area Trail Bridges	\$1,250,000
Fish Lake Parking (Talkeetna)	\$100,000
Lake Louise Boat Launch Repair	\$100,000
Total Additions	<u>\$3,496,000</u>
NEW TOTAL BOND PACKAGE	\$22,246,469

Amortized Annual Cost to Homeowner

\$42.95/yr.*

(For a \$218,000 home)

\$3.58/mo.

*based on 2016 fiscal year tax rate

DES Fleet Maintenance Facility

For the last 34 years DES Fleet Maintenance has been housed in a small no longer active fire station on Main Street, Wasilla in one of the most congested areas of the City. On June 30, 2017 the lease between the City of Wasilla and the Matanuska-Susitna Borough for the use of the station will expire and the City of Wasilla has indicated it will not be extended. DES has less than seventeen months to find other accommodations for Fleet Maintenance.

For several years there has been some discussion about the possibility of a consolidated Fleet Maintenance Facility with MSB DES, MSB O&M, and the MSB School District. The estimated cost for such a facility is approximately \$15 million. Nothing has been accomplished to move this idea forward.

At the manager's request, during July of 2015, DES and Land Management entered into preliminary discussions with the owner and real estate agent of a privately owned property that was once used as a transmission service and repair shop. The building was constructed in the 1980's. Also located on the property is a cellular tower with 20 years left on a 25 year lease that is renewable in 5 year increments. It is unknown exactly how much revenue is generated annually. The owner and agent believe the tower adds significant value to the sale. The asking price is approximately \$820K for the property. An estimated additional \$250K would be needed to modify the structure to accommodate large fire trucks and improve the work space for the mechanics and fleet staff. The equipment in the building is not part of the property sale and DES would require another \$40K to \$50K to purchase some of the shop equipment. Located close to the Parks Hwy on South Hernan Street, much like the current facility on Main Street, the area is a very busy traffic corridor.

Another option that has been considered is incorporating a new Fleet Maintenance facility into one of two fire stations due to be constructed within the next one to three years. DES met with both the Central Mat-Su FSA BOS and the West Lakes FSA BOS to discuss the idea. Both BOS's agreed that the proposed fire station at mile 52.3 of the Parks Hwy offers the best solution.

The Station 73 property is a 9.2 acre tract owned outright by the West Lakes FSA. It is located immediately adjacent to a section of the Parks Hwy that is scheduled to be upgraded to four lanes during the 2018 construction season. The West Lakes, Fire Chief, has been communicating with the State of Alaska DOT Project Managers and design engineering company to ensure access to the North and South bound lanes via a traffic light at a Parks Hwy and Johnson Road intersection. The property is less than one quarter mile from a diesel maintenance shop and is less than one half mile from an automotive parts store. The current West Lakes, Station 73 plans already include one 100 ft. X 20 ft. apparatus maintenance bay.

The cost of adding three additional maintenance bays with an admin area and a parts/tool cage is an estimated \$1.9 million.

Matanuska Susitna Borough Emergency Operations Center

Beginning in 2006, the Department of Emergency Services began actively pursuing a purpose built, “hot” Emergency Operations Center (EOC). Matanuska Susitna Borough Emergency Services is charged with emergency response and recovery efforts for more than 96,000 people. During a disaster, the MSB EOC is the focal point for these efforts. The role of the EOC is to serve as a centralized location to provide interagency coordination and executive decision-making for managing a disaster. It is a critical element of the local and state emergency response system; yet, the MSB does not have a permanent, purpose-built EOC. When activated the EOC operates out of a training room in the Central Mat-Su Fire Department’s Station 6-1. The temporary space does not meet the majority of basic EOC design standards used to manage disaster events in the Borough, and to collect, gather and analyze data, as well as make decisions that affect life and property; maintain the continuity of the organization and disseminate decisions to all concerned agencies and individuals.

As late as 2013, Representative Shelly Hughes approached the Borough requesting information related to study the need for, design and construct a building which would serve as the Matanuska Susitna Borough’s EOC. This Legislative grant was awarded in 2014, a contractor was hired and the completed study was presented to the Borough in February of 2015. Attempts to request Capital Improvement funds from the Matanuska Susitna Borough Assembly have not proven successful. During this time, the EOC has been fully activated for weeks at a time dealing with flooding, wind storms and wildfires.

Before 2006, the Borough’s EOC was housed in a training room at Station 6-5, and eventually moved to the current location at Station 6-1, still using a training room which is used for Fire Service Area training, and rented to civic and governmental organizations and groups. All of the EOC supplies are housed in two closets, and the time required activating and set up the EOC is about 2 hours, depending on the time of day, year and holiday status. The MSB EOC space was benchmarked against emergency management industry standards and compared to other EOCs to evaluate functionality and capabilities and found to be deficient. The Federal Emergency Management Agency (FEMA) checklist was also completed to identify deficiencies. The Mat-Su Borough population is expected to increase by 22,000 people in the next 8 years. The temporary EOC space is already over capacity during an emergency response and there is no room for expansion.

A permanent EOC will result in a significant improvement in the Mat-Su Borough’s ability to plan for, respond to, and recover from any type of disaster or crisis— large or small. The EOC will be in a constant state of readiness with core emergency management staff on-site daily. The EOC be able to survive a disaster, be secure, and have redundant (back up) systems, while being available for disaster drills, training, planning meetings, and public educational events including dispatch training for personnel from both Palmer and Wasilla. A “hot” EOC will allow for regular testing of EOC systems to ensure they are operational when needed, allowing for the primary objective in the design and construction of an EOC is to provide a safe and secure environment that will enable emergency management staff to carry out their responsibilities. The proposed 9,500 square foot EOC facility will meet all of the basic EOC design criteria. It will be staffed on a day-to-day basis by three employees with room to expand to five employees. When activated for disaster response, it will be able to accommodate 50 to 60 responders from multiple organizations.

Estimated cost for new construction \$6.07 million per “Emergency Operations Feasibility Study and Concept Design” dated February 2015 prepared by ECI/Hyer, Inc.

Mat-Su Borough Radio and Alerting System Improvements

The current MSB DES radio and alerting system is outdated and in need of modernization. It uses old communications technology that has had very few significant upgrades over the last 20 years. Most improvements have been generally for reliability purposes and very little has been accomplished to improve overall operational capabilities. Additionally, the system is unsecure.

Four critical issues plaguing the system are breaks in radio and alerting coverage, a lack of multiple primary working frequencies, the inability to multi-cast from our repeaters, and system security.

1. Our radio coverage is inconsistent. The result is areas where radio communications and pager alerts are spotty or cannot be heard at all.
2. We have one primary frequency that is used by all borough responders to communicate with the dispatch center. When multiple incidents occur, this frequency routinely becomes overwhelmed. Because of old communication technology, if more than one responder transmits at the same time the radio traffic becomes garbled and unintelligible. This can result in confusion, frustration and delays from information having to be repeated multiple times or missed altogether.
3. Because our radio towers are not multi-cast capable or trunked, responders cannot always hear each other transmitting on the radio system resulting in responders in different parts of the Borough unknowingly trying to communicate with the dispatch center at the same time. For example, if a vehicle accident is occurring in Trapper Creek and a house fire is taking place in Wasilla, the responders in Trapper Creek cannot hear the dispatcher and responders communicating at the fire, and likewise the responders at the fire cannot hear the dispatcher and responders communicating at the traffic incident. Like issue 2, this can result in confusion, frustration and information having to be repeated multiple times or missed altogether.

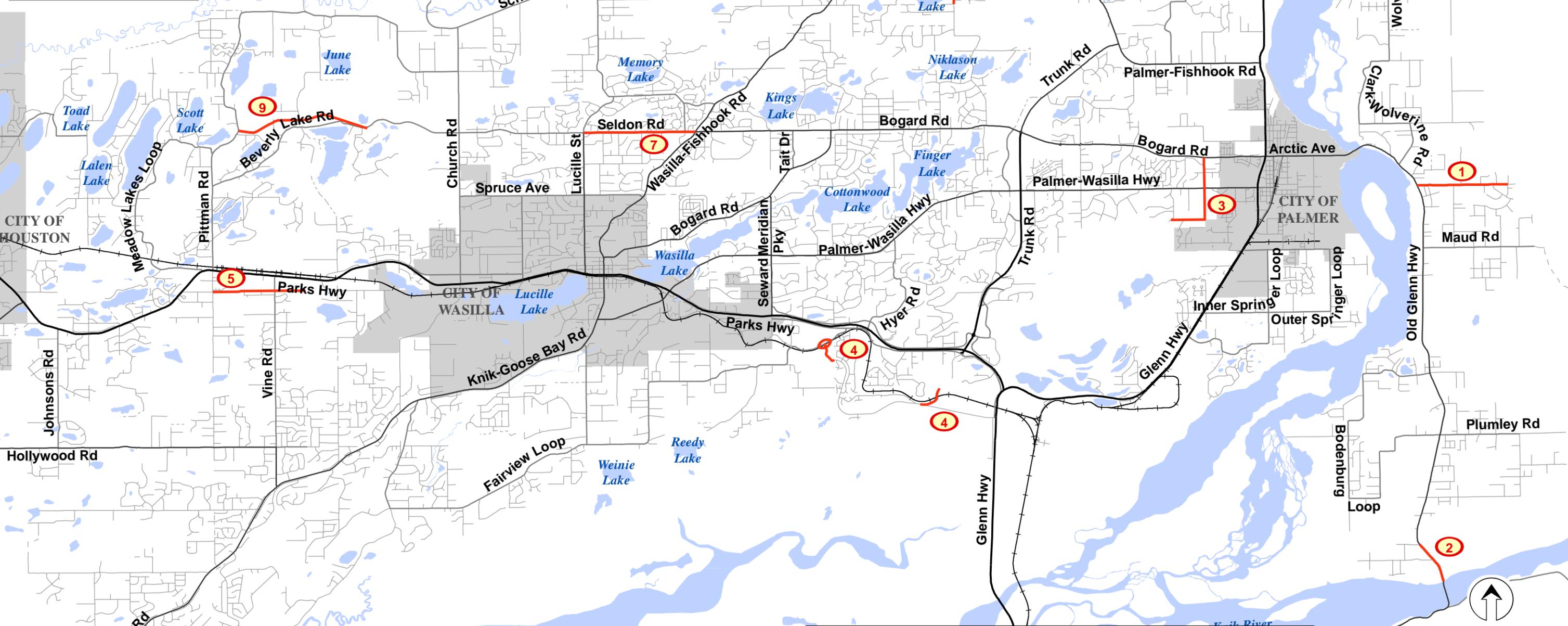
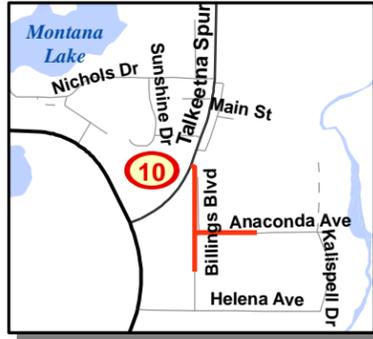
If numerous incidents occur simultaneously, which are becoming more frequent, issues 1, 2, and 3 above can become exacerbated.

4. Our radio and alerting system is unsecure and with very little effort or cost can be crippled along with our ability to communicate with the dispatch center and each other.

Significant improvements must be made to our radio and alerting system. Although some minor upgrades have been accomplished over the years, our radio and alerting system is still far behind where it should be given our population growth and geographical size of our response area, the number of 911 calls we respond to (over 13,000 for 2015), and complexity of large scale incidents, such as the Sockeye Fire.

It is estimated to cost approximately \$4.5 million to \$5.9 million for the equipment necessary to improve the radio communications and alerting system to current day technology.

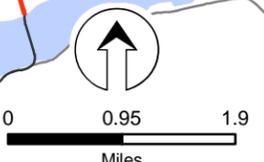
2016 MATANUSKA SUSITNA BOROUGH TRANSPORTATION SYSTEMS PROJECT NOMINATIONS FOR BOND CONSIDERATION



- 2016 Transportation Systems Project Nominations for Bond Consideration**
- | | |
|---|--|
| 1. Smith Rd & Smith Road Extension Upgrade and Pathway | 6. Point MacKenzie Rd Upgrade (KGB to Ahysire) |
| 2. Old Glenn Hwy Pathway (Our Rd to Knik River) | 7. Seldon Rd Upgrade (Wasilla-Fishhook to Lucille) |
| 3. Hemmer Rd Extension | 8. Tex-Al Dr Upgrade and Extension and Engstrom Rd Extension |
| 4. South Trunk Road Extension Bridges and Nelson Rd Extension North to Fairview Lp (to include realignment of the Fairview Lp intersection) | 9. Seldon Extension Phase II |
| 5. Museum Dr Extension | 10. Anaconda Ave & Billings Blvd Connector |



MSB IT/GIS Division - January 22, 2016
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Path: M:\Gis\Products\Capital\Projects\Road\Bond\Consideration\2016_Road_Bond_Nominations_11x17.mxd January 22, 2016

Matanuska-Susitna Borough
Proposed Road Bond Package - 2016

As of: 1/26/16
Draft

Assembly District	Map Label	Projects	Cost Estimate	Nomination Source	Brief Project Description
1	1	Smith Road Upgrade, Pathway and Parking	\$2,500,000	CIP - CTP List 2007 LRTP	Significant structural damage No shoulders Lacks guardrails in one critical area Improvements would benefit public safety
	2	Old Glenn Pathway (Sodak Court to Knik River)	\$1,600,000	2011 Bond Project	Project would complete pathway construction to the Knik River, as originally intended
2	3	Hemmer Road Extension (including Valley Pathways School Access Improvement)	\$6,500,000	CIP - CTP List 2007 LRTP	Improve access to Valley Pathways School and a large residential subdivision by extending Hemmer Rd south from the Palmer-Wasilla Hwy Includes a connection north to the new segment of Bogard Rd
3	6	Nelson Road Bridge over Wasilla Creek	\$1,900,000	CIP, Community Priorities #3	Replace existing sub-standard bridge over Wasilla Creek on Nelson Road Upgrade to accommodate increase traffic and pedestrians from South Trunk Road Extension
	7	Nelson Road - Fairview Loop Connection (West of Machtetanz)	\$2,500,000	CIP - CTP List 2007 LRTP	Provide road access for three large subdivisions to Fairview Loop and additional, much needed access to Machtetanz elementary School
4	11	Museum Drive	\$4,000,000	CIP, Community Priorities #4	Frontage road to pull local traffic off the Parks Hwy Project would extend Museum Drive west from Parks Hwy MP 47 to intersect with Vine Road and then Sylvan Road.
	8	Hermon Road	\$6,000,000	MSB 2007 LRTP 2008 Road Bond project	Connection between Palmer-Wasilla Hwy and Parks Hwy Provides congestion relief to major intersection at Parks Hwy and Palmer-Wasilla Hwy Divert through traffic away from local, residential roads
5	12	Point MacKenzie Road Upgrade	\$13,000,000	CIP AHS Priority #2 2007 LRTP	Add shoulders and resurface existing road from Knik-Goose Bay Road to the intersection of Ayrshire Road Part of Alaska Highway System Possibly transfer to DOT&PF.
6	5	Tex-Al Dr. Upgrade and Extension to Palmer Fishhook	\$5,500,000	CIP, Community Needs List 2007 LRTP	Extend / upgrade East Tex Al Drive to Palmer-Fishhook Road Upgrade the intersection with Wasilla-Fishhook Initial right-of-way research and soils testing done in 1980s
	4	Engstrom Road Extension	\$2,500,000	CIP, CTP Needs List	Extend Engstrom Road north to connect to Tex-Al Dr
7	10	Seldon Road Extension Phase 2	\$8,200,000	2011 Road Bond Project CIP, Community Priorities #8 2007 LRTP	Extend Seldon Road past Church Road to Pittman Road Begins at Beverly Lake Road and ends at Pittman Road Will improve emergency response times and provide alternate access between Meadow Lakes and Wasilla Design at 75% Right of Way partially acquired
	13	E Anaconda Avenue and S Billings Blvd Connector	\$850,000	2007 LRTP	Upgrade existing roads and construct a connector to the Talkeetna Spur Road Providing for emergency access, secondary egress for residents, and commercial business access Diverts some local traffic away from the Parks Highway, including senior center traffic
Borough Wide Corridor	9	Seldon Road Upgrade and Pathway from Wasilla-Fishhook to Lucille Street	\$17,000,000	CIP, Community Needs List 2007 LRTP	Upgrade and improve Bogard Road-Seldon Road corridor Benefits all Assembly Districts Upgrade of Seldon Road from Wasilla-Fishhook to Lucille Street, approximately 1.8 miles Upgrade will increase the road width to two 12-ft. travel lanes with wider shoulders, turn lanes and a separated paved pathway for increased safety
			\$72,050,000		

Assembly District 1 Total	\$4,100,000
Assembly District 2 Total	\$6,500,000
Assembly District 3 Total	\$4,400,000
Assembly District 4 Total	\$10,000,000
Assembly District 5 Total	\$13,000,000
Assembly District 6 Total	\$8,000,000
Assembly District 7 Total	\$9,050,000
Borough Wide Corridor Total	\$17,000,000