



**Landreth Engineering, LLC**

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Albuquerque, New Mexico 87111

Office: 505 – 239 – 9915 --- Email: EWLandreth @ aol.com

July 10, 2011

Via Email: [mjanes@hardynet.com](mailto:mjanes@hardynet.com)

Ms. Margaret Janes  
Appalachian Center for the Economy and the Environment  
P. O. Box 507  
Lewisburg, WV 24901

Re: Alaska District Corps of Engineers - Knik Arm Waterway - POA-2007-1586  
32 mile rail line from Matanuska-Susitna Borough's Port MacKenzie to Houston, AK

Dear Ms Janes,

The complete full Corps of Engineers' Public Notice of Application for Permit with attachments is archived at [www.poa.usace.army.mil/reg/PNNew.htm](http://www.poa.usace.army.mil/reg/PNNew.htm) .

The Corps of Engineers' in their "Public Notice of Application for Permit" for this permit states that the permit will be issued or denied pursuant to the guidelines set forth under Section 404(b) of the Clean Water Act (40 CFR 230).

The railroad project plans attached with the Public Notice of Application for Permit appears to be nothing more than an expanded Vicinity Map prepared for the Media and doesn't provide adequate survey and engineering information for analyzing or documenting the project or project location. One can only surmise that the tabulated data presented in the Public Notice of Application for Permit has been obtained or extrapolated from a computer model or models which don't allow for review of the source data.

The railroad project plans as presented in the Public Notice of Application for Permit have deficiencies or retracted information that are required to analyze the railroad construction and railroad operating efficiency as well as provide the source information required for review of the alternatives in accordance with the permitting process (ie: FEIS, Section 404 Permit).

The following is a list of few of the major deficiencies or retracted information missing from the railroad project plans attached to the Corps of Engineers' Public Notice of Application for Permit:

The Section lines, Townships, and Range information are not annotated on the plans and the rail line corridor is not located nor referenced to the property lines that are crossed by the rail corridor. Additionally public and private lands are not annotated to allow for easy review or location of public and private lands that will be required for the project.

The center line of the proposed rail line doesn't show or locate the beginning and end points for the curves on the rail line and also does not provide centerline curve data to allow independent location of the rail line corridor on and or across the real estate that will be required for the project.

The project plans do not show the natural ground contours crossed by the rail corridor. This information would allow for review of the wetlands and drainage patterns that will be modified by the construction of the railroad subgrade. Review of the Culvert Detail Table (Sheet 6) shows that the height of cover for a large number of culverts at centerline of the subgrade has yet to be determined. This indicates that the plans are a work in progress without a grade line being established for the subgrade. This is an acknowledgement that the footprint of the subgrade has not been determined and taints the tabulated data concerning the wet lands that will be impacted by the project.

The project plans do not show a grade line for the railroad subgrade in relationship to the natural ground line. Without this information excavation and embankment quantities cannot be determined or a footprint for the subgrade that would qualify the amount of wet lands that are impacted by the construction of the railroad or provide the information for railroad studies as to railroad emissions or noise levels.

The culvert cross section of a typical wetlands equalization culvert (Sheet 8) shows utilization of a 24" diameter culvert and the Culvert Detail Table (Sheet 6) shows a predominate use of 24" diameter culverts. The use of a 24" diameter culvert for a wetlands equalization culvert is misguided as culverts within wetland area are susceptible and prone to plugging and are difficult to clean. A culvert with a diameter that would allow an average man to work within to clean debris should be selected. Probably a single span bridge or 4' x 8' concrete culvert would mitigate the possibility of the equalization culvert becoming plugged with debris and in addition would provide a limited reduction in the total embankment placed in the wetland lands.

The length of bridging shown on the Bridge Table (Sheet 11) and the Typical Plan & Cross Sections of the Span Bridges and Large Culverts (Sheets 12 to 32) and impact to the waterways cannot be given a reality check without benefit of a profile of the rail line subgrade referenced to the existing ground line or hydrology.

The typical detail for highway/railroad grade crossings (Sheet 33) is a minimal design and may not meet urban road standards or the Alaska Department of Transportation public road standards. The typical detail as shown (Sheet 33) is inadequate for low-boy equipment trailers with less than 4" underside clearance and other vehicles' with a long wheel base and minimal underside clearances. The National Policy as established by the FHWA is not to create new grade crossings. Due to the minimal number of public roads crossed by this proposed rail line the same diligence and care should be provided the traveling public as has been given to wildlife by providing grade separated crossings. Low density road grade separations should be designed for two 12' traffic lanes with 8' Shoulders plus a protected pedestrian walkway.

The rail line plan sheets (Sheets 36 to 58) showing the Impacts to wetlands cannot be given a reality check as the natural ground contours are yet to be obtained or have been retracted and no profile of the railroad subgrade line referenced to the existing ground has been provided. The simple footprint for the subgrade is obtained from the height of the fill above natural ground (elevation difference between top of subgrade and existing natural ground related to the width of the standard subgrade section for this height of fill).

Review of the project plans while providing for artificial streambeds being constructed within the culverts for the migration of fish (Sheet 25) doesn't show provision for Elk, Deer, and other 4 footed animals to cross the railroad right of way. This is normally accomplished with fencing to direct the wildlife to either overpass or underpass structures provided in the area of existing wildlife trails and are landscaped to provide a natural trail across the right of way.

The project plans do not show locations of embankment barrow areas or the staging areas for materials and haul roads for delivery of the embankment fill material and construction materials required for this project. The material barrow areas, haul roads and construction access roads can have a significant environmental, economic, and social impact and the environment constrains need to be addressed prior to any decision on this permit application. Plans showing the location of the embankment barrow areas with provisions for erosion control, noise control, wildlife protection, and the location and length of haul roads with an estimating number of construction vehicles per day need to be prepared and submitted for public comment. The plans for the haul roads should also show expected number of vehicles during daylight and night operations, traffic control that is planned, provisions for dust control, and protection to be provided the wildlife.

The project description submitted with the Application concerning the Port of MacKenzie being dredge free is disputed by the Director of the Port of Anchorage (See enclosed copy of letter dated May 10, 2010 from William J. Sheffield Port Director to David Navecky with STB Section of Environmental Analysis).

The complete full Corps of Engineers' Public Notice of Application for Permit with attachments that is archived at [www.poa.usace.army.mil/reg/PNNew.htm](http://www.poa.usace.army.mil/reg/PNNew.htm) is incomplete as it doesn't include the supporting attachments submitted with the Application for the Permit.

The Application for Permit submitted is a segmented composite of four of the alternatives previously studied including a modification to a previous alternative. This application has been rushed or has been purposely segmented to make it laborious to do a reality check. The Corps of Engineers' as well as the public are entitled to a final product and should not have to research various previous studies or segments of previous alternatives to glean information concerning the proposed project.

The Application for Permit doesn't provide any meaningful hydrology or methodology. Normally the Corps of Engineers' utilizes a standard project storm to delineate the flood plain. Due to the proximity of the project to the extreme daily tides of the Knik Arm and the tributaries crossed by the proposed rail line the flood elevations along the railroad need to include the backwater flooding occurring simultaneously with high tide and regional flooding conditions.

Neither the Application for Permit nor the Project Plans show any provisions for agricultural crossings of the 6.57 miles of the rail line within the Point MacKenzie Agricultural Project area. Again it would be short signed not to provide grade separations every ½ to 1 mile within this Agricultural area.

This Application for Permit doesn't include sufficient information to estimate or analyze the cost of embankment verses bridging across the wetland areas. To make this analysis the project plans would need to show the existing ground line profile, the proposed railroad subgrade profile, location of the affected wetland areas, soil exploration boring logs with foundation analysis, location of the embankment barrow areas, and the location and length of the haul roads. The project plans as

submitted by the Corps of Engineer's only shows one of the six required parameters that would be required to make this analysis.

This Application for Permit doesn't have a cost benefit analysis to analyze the cost of the proposed construction to the public or value of the resulting benefits to the public. The Alaska Railroad Corporation is owned by the State of Alaska and a basic cost benefit analyze should accompany any public project for full project disclosure.

Reference documents accessed for this project review consist of the following:

Alaska District Corps of Engineer's Public Notice of Application for Permit.  
Complete full public notice with attachments archived at [www.poa.usace.army.mil/reg/PNNNew.htm](http://www.poa.usace.army.mil/reg/PNNNew.htm).

Final Environmental Impact Statement (FEIS)  
Complete FEIS archived at [www.stb.dot.gov/stb/environment/key\\_cases\\_alaska\\_PortMacKenzie.html](http://www.stb.dot.gov/stb/environment/key_cases_alaska_PortMacKenzie.html).

Matanuska-Susitna Borough /Alaska Railroad Corporation  
Port Mackenzie Rail Extension Project Web Site  
[www.portmacrail.com/library.html](http://www.portmacrail.com/library.html)

My background and qualification's statement is enclosed as Attachment 1

If I can provide any additional information or clarification to the above or the attached rehabilitation estimate please contact me.

Sincerely,



Ed Landreth, PE

Enclosures: Copy of letter dated May 10, 2010 from William J. Sheffield Port Director to David Navecky with STB Section of Environmental Analysis

Landreth Qualification Statement



May 10, 2010

David Navecky  
STB Finance Docket No. 35095  
Surface Transportation Board  
395 E Street S.W.  
Washington, DC 20423-0001  
ATTN:  
Section of Environmental Analysis  
STB Finance Docket No. 35095

Re: Alaska Railroad Corporation Construction and Operation of a Rail Line Extension to Port MacKenzie, Alaska; Port of Anchorage, Alaska, Comments to Draft Environmental Impact Statement

Dear Mr. Navecky:

On behalf of the Port of Anchorage (POA), I am providing our formal comments on the proposal to construct and operate a rail line extension to Port MacKenzie, Alaska. The Port would like to provide comments specific to three different areas of the Draft EIS:

1. Misrepresentation of POA Capabilities.

- I. Summary, Section S.1 *Purpose and Need*, page S-2, paragraph 2, states the following:

*"The nearest other port in the area is the Port of Anchorage, which is an additional 35 highway/rail miles from the Alaska interior. The Applicant notes that the Port of Anchorage currently has no capacity for dry bulk materials export. The required room for bulk rail unloading (unit train rail loop arrangements) does not exist, nor does the Port of Anchorage presently have the capacity to handle the loading of dry bulk materials into ships. Available space for stockpile and handling of bulk materials is also limited."*

**This is a significant misrepresentation of the POA's capabilities and the cost differences that customers or shippers may experience. Through our conversations with the Alaska Railroad Corporation Vice President of Business Development, we have learned that in fact it is more expensive to ship to and from Port MacKenzie than from the Port of Anchorage, despite the geographical distance savings. Briefly stated, although Port Mackenzie is 35 to 40 miles closer, the Railroad will essentially be adding a dead-end 70-mile spur resulting in increased maintenance costs. There does not appear to be enough business or capital in the area to justify a crew base in the near to mid-term future, so the Railroad will have to inspect and maintain their locomotives and railcars in either Anchorage or Fairbanks. They**

**will incur further costs by sending crews to the area and paying for travel time. Traveling the additional 70 miles and back will escalate maintenance costs through increased equipment mileage, crew hours and fuel.**

**A secondary issue is the additional track, siding, signal and facilities needed along the 70-mile line. This is an additional expense to the Railroad that will be supported by any business that uses Port Mackenzie. We suggest that you engage with the Alaska Railroad leadership to better understand these issues. Also, we believe that rather than take our word, it would be equally wise to converse with potential shippers of bulk materials in order to hear their thoughts and concerns regarding the overall feasibility and utility of a rail extension into Port MacKenzie.**

**To state that there is no capacity for dry bulk materials export from the POA is false. As I write this, a contractor is staging and loading rock and gravel construction material for export to a job site in Southcentral Alaska. Additionally, we are a month away from signing an agreement with another gravel company for a long-term presence on the POA. We have also received a letter of intent from a third contractor interested in a long-term lease for construction material storage and shipping operations here. This is the same contractor who has, in the recent past, successfully moved dry bulk materials to Western Alaska out of this port. The POA is in discussions with a logistics company contracted to move wind turbine parts for the CIRi wind farm project. The parts will come into the port across the docks, and move out through our barge berths to the project site on Fire Island. These recent examples are clear indicators of the POA's capacity for dry bulk materials export. As you can see, bulk materials movement through the Port of Anchorage is not unfamiliar territory to us.**

**The above reference also claims that the port lacks bulk rail unloading capability. Since 2003, the POA has added over 60 acres of lay down area and one mile of on-site rail through our fully-permitted and ongoing intermodal expansion project. This rail has been used consistently by our shipping companies and by the Department of Defense for the transport of military equipment to and from this port. In the last 12 months, we have received four shiploads and staged over 10 acres of drill pipe for both BP and Exxon-Mobil to be used for the Liberty Field and other pipe replacement projects on the North Slope. During a subsequent phase of construction, we will add sufficient additional rail to create a trailer-on-flatcar (TOFC) handling yard, and a rail extension that extends the on-port rail all the way to the north end of the new POA acreage. Once in place, this capability will allow us to efficiently move large quantities of rock and gravel construction materials, gas line pipe, additional drill pipe, and any other bulk commodity. By the project's completion, a total of 135 acres will be available for additional business opportunities and increased stockpiling. In short, this draft EIS has once again understated the Port of Anchorage's capabilities.**

- II. Chapter 5, *Threatened and Endangered Species*, Section 5.5.4., Environmental Consequences, page 5.5-4, paragraph 3, last line, states:

*“For comparison purposes, the number of vessel calls per year at the Port of Anchorage between 2002 and 2008 totaled 227, 313, 224, 244, 178, 184, and 161 (DOT, 2009)”*

**We were unable to find a copy of the “DOT, 2009” reference in order to understand the context from which these vessel call numbers were taken. POA records more accurately account for annual vessel calls at the Port. According to our records, between 2002 and 2008 those numbers were 520, 517, 515, 487, 454, 414, and 403 respectively. These numbers account for any and all revenue-generating vessels that tied up to POA docks during those years including: petroleum barges, petroleum tankers, container ships, cement ships, salt ships, tugs, dredging vessels, drill pipe/dry bulk transport ships, military ships and transports, and Coast Guard vessels. Our records clearly show that POA has received nearly double the annual vessel calls cited in the EIS.**

- III. Appendix H, *Biological Assessment*, Section H.1, page H-1, paragraph 3 states:

*“Operation of the proposed rail line extension, including delivery of bulk materials and freight to and from Port MacKenzie, would potentially increase vessel traffic at Port MacKenzie from an average 50 ships per year during 2005 to 2008, the vast majority of which were associated with barge traffic between Port MacKenzie and the Port of Anchorage, to as many as 55 to 63 ships per year...”*

These same numbers are also mentioned in the draft EIS on page 5.5-4, Section 5.5.4, Environmental Consequences, at the start of paragraph 3.

**From our observations during the period of time referenced above, we have noticed that Port MacKenzie vessel traffic as is described in this draft EIS is a serious misrepresentation of the truth. Through informal observations, we have counted only 8 ships in the last 7 years and not 50 a year. We have visually counted several wood chip bulk carriers, 2 cement ships, a few barges moving VECO modules out of the port, and one barge that made 63 trips in 2008 bringing gravel for our intermodal expansion project. We believe our numbers can be easily validated by contacting Quality Asphalt and Paving (QAP). It is important for you to fully appreciate the real volumes now experienced at Port MacKenzie and to review the numbers calculated in the EIS draft. It is critical that port traffic is accurately presented, and we strongly urge you to clarify these numbers in the final body of the EIS rather than the current reference in the appendix.**

2. Dissimilar Assignment of Mitigation Measures.

**We read with great interest Section 19.2, Mitigation Measures, both the voluntary mitigation measures and your recommended final mitigation measures, particularly in the area of essential fish habitat (EFH). The POA Intermodal Expansion Project also has to perform EFH mitigation in and around the Ship Creek estuary. What was striking to us was the severity of the difference between permit conditions that could be mandated on an Alaska Railroad construction permit, and those that have been levied on the POA for similar situations. Of particular concern is that as a part of our 404 permit, we are required to maintain a mitigation escrow account in order to fund projects that will compensate for projected losses of EFH in the Ship Creek area. That account was set at \$8.6 million. Ironically, two of the projects to be funded through this account will be Cook Inlet beluga whale prey species EFH in the Mat-Su Borough. It is troubling that none of the recommended mitigation measures in this draft EIS require anything similar for the rail extension project. We believe this matter should be closely re-examined with an eye towards leveling the playing field and recommending a similar mitigation escrow account be established as a part of this project's permit conditions.**

3. Future concerns tied to expanded Port MacKenzie operations.

I. Appendix H, *Biological Assessment*, Section H.1, page H-12, paragraph 1 states:

*“Port MacKenzie facilities include a deep-draft dock that can be used on a year round basis. In winter months with heavy ice, additional tie-down lines and a stand-by barge are used when ships are broken from their moorings by ice movements.”*

**This statement describes the challenges to using Port MacKenzie in winter months. To even have to plan for “when,” not “if”, a vessel breaks its moorings in strong currents and ice is very expensive and not something many vessel operators or ship's brokers would be consciously willing to undertake. We believe you will find that the current passes the Port MacKenzie dock at speeds of approximately 6 knots or more, especially during the ebb tides that follow high slack tides. This would explain the statement made above about what is necessary for a ship to stay tied to the dock. In addition, at a recent meeting of the Mat-Su Transportation Advisory Board, Port MacKenzie Director Marc VanDongen actually testified that while he thinks the port is operational in the winter, he prefers to close it and store items to be shipped until spring. The average speed across the dock face at the POA, regardless of what the ongoing tidal action is, ranges from 1 to 2.5 knots. In our estimation, Port MacKenzie may not be well-suited for safe winter operations. We recommend that this be thoroughly examined and analyzed from all aspects before any permit is granted in order to save the taxpayer a significant investment for a facility that**

may be of limited utility. The U.S. Army Corps of Engineers Environmental Research and Design Center in Vicksburg, MS, has numerical and physical models that can perform this work.

II. We also have concerns that future construction activities associated with the Port Mackenzie expansion following a rail extension, may negatively impact marine mammal noise mitigation efforts underway for the Port of Anchorage Intermodal Expansion Project. For several years, we have been working cooperatively with the National Marine Fisheries Service (NMFS) to minimize potential impact to the beluga whale, recently listed under the Endangered Species Act (ESA). The POA is very sensitive to the noise generated by port operations, especially from in-water construction work being performed as part of the ongoing intermodal expansion project. In response, the POA complies with several permit conditions specifically mandated in order to mitigate potential harm to Cook Inlet beluga whales. These measures include, but are not limited to, shutting down in-water work for two hours on each side of every low tide and shutting down for two full weeks each summer for local hatchery smolt releases.

Any additional construction efforts outside of, but in proximity to, our Port Expansion footprint must take into consideration cumulative noise and vibration impacts and must not interfere with, or compound, mitigation measures and safety radii already in established Port of Anchorage marine mammal permits. Construction at Port MacKenzie will be approximately 1 to 2 miles away from Port Expansion construction activities, depending upon phasing and staging. The Port's marine mammal safety radii, as established by NMFS to prevent harassment, currently extends 4,991 meters offshore. Any noise from Port MacKenzie construction would have an additive effect increasing safety and harassment radii for existing POA permits.

In closing, the POA fully expects that similar permit conditions will be put in place should future expansion of the Port MacKenzie dock be undertaken.

#### 4. Shoaling in Knik Arm.

This is an added concern with no reference in the draft EIS, but an important one that needs consideration. The attached figure<sup>1</sup>, prepared by the NOAA Office of Coast Survey, shows the growth of the Point MacKenzie shoal by comparing surveys conducted in 1992, 2004 and 2008. Construction of the earth fill bulkhead at Port MacKenzie was completed in 1999 and may be the cause of the shoal's growth. The Point MacKenzie shoal is encroaching on the navigation channel leading to the Port of Anchorage. The U.S. Army Corps of Engineers (USACE) has a significant amount of responsibility related to these

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<sup>1</sup> See Attachment A: NOAA National Ocean Service, *Survey Comparison, Port MacKenzie Shoal 10 Meter Contours*. 2008.

David Navecky  
May 10, 2010  
Page 6

**conditions, and must study the growth of this shoal to determine whether it is linked to Port MacKenzie development. Further development at Port MacKenzie should not be permitted until this impact is quantified. If shoaling is linked to Port MacKenzie development, the Mat-Su Borough and/or the USACE must fund maintenance dredging to keep the shoal from impacting navigation to both Ports. The U.S. Army Corps of Engineers Environmental Research and Design Center in Vicksburg, MS, can and must model these proposed changes and report the findings. If this is not done, then we will have no choice but to vigorously oppose any and all future development (there is an old adage that if you stick your finger in the water upstream, you will cause something to happen downstream).**

We thank you very much for this opportunity to comment. Please contact me at (907) 343-6201 with any questions you may have.

Respectfully submitted,

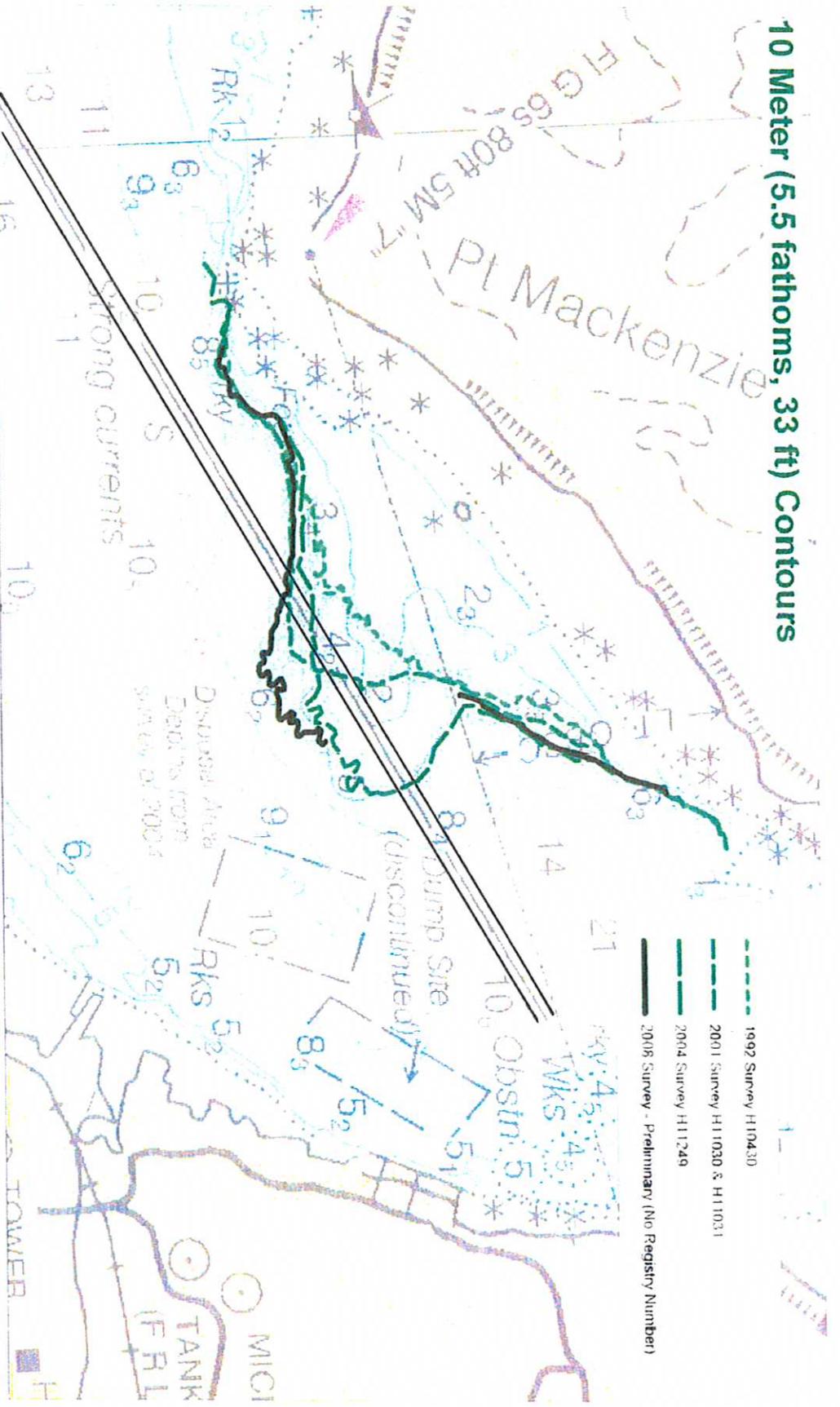


William J. Sheffield  
Port Director

Cc: Senator Mark Begich  
Senator Lisa Murkowski  
Congressman Don Young  
Governor Sean Parnell  
Mayor Dan Sullivan

## Attachment A

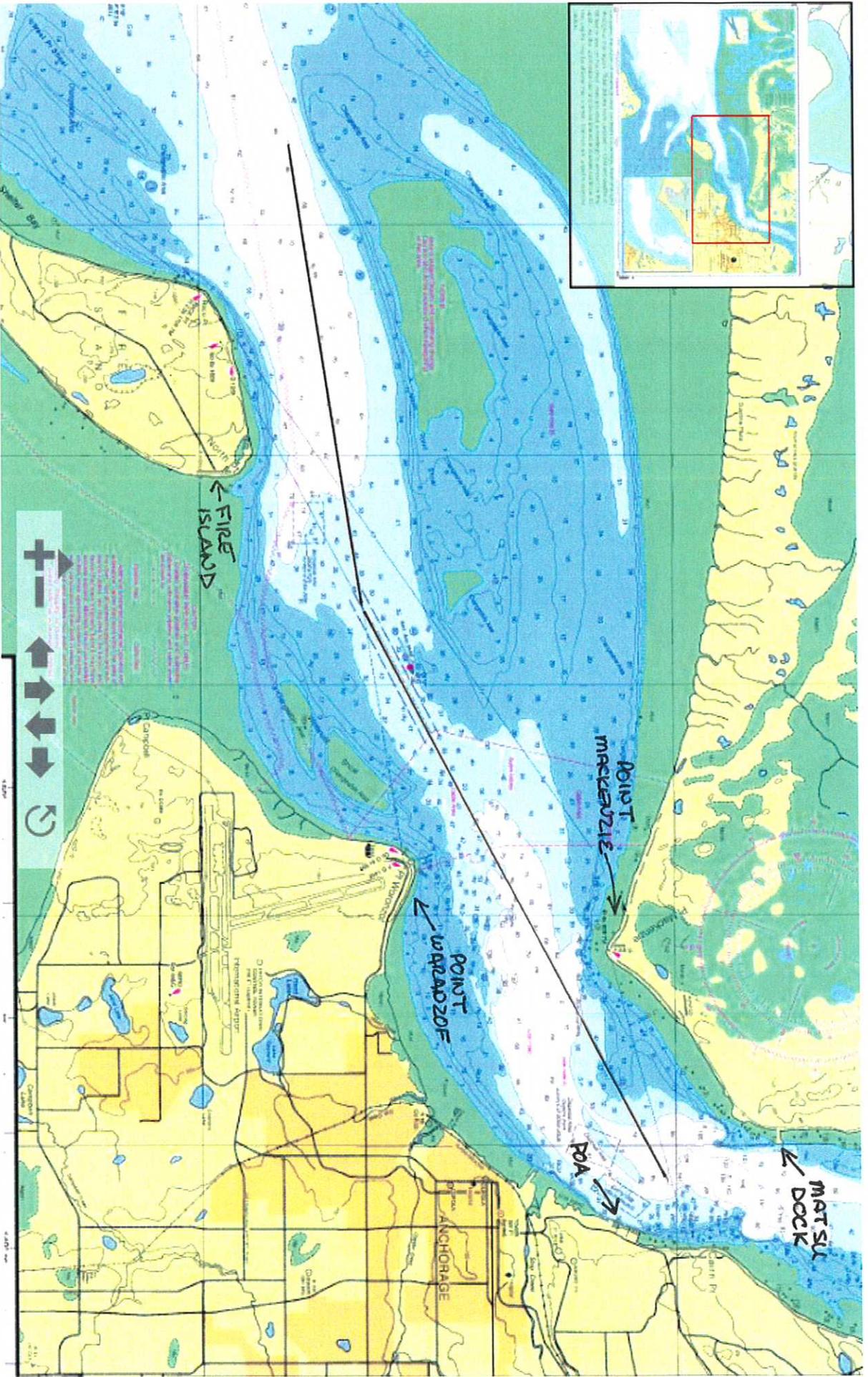
# 10 Meter (5.5 fathoms, 33 ft) Contours



**Chartlet 1 of 2 Point Mackenzie Shoal 10 Meter Contours (2008 Data Gap Due to Limited Survey)**  
 2008 data are PRELIMINARY and subject to further review and final tide application. 2008 soundings corrected using preliminary observed tides. Data reflects state of sea floor in existence on day and at time the survey was conducted.

This chartlet has been corrected through  
 Notice to Mariners dated 03/17/2007  
**NOT FOR NAVIGATION**

 <p>NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE</p>	<p>Project: Multiple                  Survey: H110430, H11030-31, H11249                  State: Alaska                  Locality: Approaches to Anchorage                  Sub-locality: Point Mackenzie Shoal                  Survey Scale: 1:10,000</p>	<p>Sounding Units: Fathoms                  Sounding Datum: MLLW                  Horizontal Datum: NAD 83                  Chart Number: 16663                  Chart Edition: 3, Mar /06                  NOAA Ref: 114</p>	<p><b>SURVEY COMPARISON</b></p> <p>Survey Dates                  1992, 2001, 2004 &amp;                  2008 (preliminary)</p>
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- Click the +/- buttons and drag the slider tool (solid triangle) to zoom in and out.
- Click the arrow buttons to pan left/right and up/down.
- Drag the navigation box in the upper left hand corner to move around the chart image.

This chart display or derived product can be used as a planning or analysis tool and may not be used as a navigational aid.

**NOTE:** Use the official, full scale NOAA nautical chart for real navigation whenever possible. These are available from authorized NOAA

## Attachment 1

### Qualifications Statement - Page 1 of 3



## Landreth Engineering, LLC

12231 Academy Rd. NE #301-284  
Albuquerque, New Mexico 87111

Office: 505 – 239 – 9915 --- Email: EWLandreth @ aol.com

Ed Landreth founded Landreth Engineering, LLC upon taking early retirement from The Atchison, Topeka and Santa Fe Railroad (Santa Fe) in 1994 prior to the Santa Fe merger with the Burlington Northern Railroad.

Ed Landreth is a Registered Professional Engineer with more than forty years' hands-on experience, designing and managing major civil engineering projects.

Landreth Engineering, LLC provides railroad engineering and administrative services to the short line industry and corporate clients. These services include railroad real estate valuations, railroad acquisition valuations, railroad operations, track and bridge inspections, track and bridge maintenance plans as well as railroad startup assistance.

Landreth Engineering, LLC also provides private individuals and corporate clients engineering plans, specifications, bid documents, and engineering management for the construction of private rail lines and industry tracks.

Ed Landreth provided expert witness affidavits in numerous proceedings before the STB and predecessor agencies during his career with the Santa Fe Railroad and has continued to provide expert witness affidavits and testimony as a railroad consultant. As a railroad consultant he provides engineering consulting services to Class 1 railroads, the short line railroad industry and for private sector rail related projects.

Ed had in excess of 25 years progressive experience with The Atchison, Topeka & Santa Fe Railway Company.

In his last position, as Director Asset Management he was the department head for the Santa Fe Real Estate and Contracts Department. In this position, he was responsible for the management of the railroad's real estate, property sales, leases and contracts. In that role, he was one of the four key members of the Santa Fe team that negotiated the sale of approximately 380 miles of rail corridor and passenger commuter rights to municipalities and counties in Southern California, and the sale of approximately 4,000 miles of branch lines to short line railroads.

Ed progressed through the ranks in Santa Fe's Engineering Department. His last position in the Engineering Department was department head for System Construction. During his tenure as Manager System Construction, he directed the projects for expansion of the Denver Auto Facility and the Houston TOFC Facility. This involved preparation of design plans, engineering cost estimates, contract plans and specifications, solicitation of proposals, awarding bids, and providing owner inspection, payment and confirmation of completed projects. He also managed the design and expansion of the Chicago TOFC facility and provided design and estimates for the rehabilitation and expansion of TOFC and auto facilities across the system.

As Manager of System Construction he also represented the Engineering and Maintenance Department in Santa Fe's line rationalization program, providing estimates of net line liquidation value and branch line rehabilitation expenses for approximately 6,000 miles of railroad corridor.

### Qualifications Statement Page 2 of 3

Ed Landreth has a long list of accomplishments. Some representative examples of his project work include:

- As head of the Western Regional Construction Office, he prepared plans, specifications, bid proposal, solicitation of proposals, and award of project, field engineering, and project management for the relocation of six miles of railroad main line due to the Bureau of Reclamation project for the construction of Brantley Dam, north of Carlsbad, NM. The project included approximately 1 million cubic yards of embankment; 200,000 cubic yards of cut; 2,000 linear feet of concrete bridge construction involving the driving of two miles of H-section piling to support concrete footings. The project was completed two months ahead of schedule and under budget.
- As Public Projects Engineer – Western Lines, he represented Santa Fe in highway grade crossings, grade separations, public projects and negotiations with federal, state and local representatives. He also served as an expert witness in numerous grade crossing litigation and drainage lawsuits. He provided railway company review and approval of engineering plans prepared by state and local agencies, and he prepared and furnished railway company estimates and negotiated contracts for work required to accommodate public projects.
- As Construction Engineer, he provided the final location and design of 40 miles of new line construction for the Star Lake Railroad between Grants and South Hoshpah, NM, and preliminary location and design of 70 additional miles between South Hoshpah and Star Lake and to the Navajo Reservation in northwest New Mexico. Final location included property acquisition surveys, determination of final grade line, drainage design, soil investigations, grading specifications, selection of barrow sites, determination of waterway openings, selection of bridge structures, preparation of construction specifications and contract documents.
- He managed the design and the construction of the locomotive and car repair facilities at Cleburne, TX. This work consisted of a fueling facility to accommodate ten locomotives, a locomotive washing facility, a locomotive running repair facility to accommodate fifteen locomotives and wheel truing machine. He also managed the design of a rail car repair facility including grit blast, paint booths, one spot facility, and staging and storage tracks to support the rail car facility.
- He designed streets, storm drainage, water and sewer utilities and obtained approval from the City of Dallas, TX for improvement plans. He prepared contracts for the construction of all utilities to serve a portion of the Santa Fe Land Improvement Company Jupiter Road Industrial Park in Dallas and the Miller Road Industrial Park at Garland, TX.

Ed Landreth earned a Bachelor of Science in Civil Engineering at the University of Missouri – Rolla (formerly Missouri School of Mines), Rolla, Missouri. He is a Registered Professional Engineer, State of New Mexico PE 5801. Previous certifications (Not Current) include Registered Professional Engineer, State of Colorado PE 12637, Registered Professional Engineer, State of Texas PE 40023, and Registered Public Surveyor, State of Texas LS 2841.



Landreth Engineering, LLC

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**Example List of Services**

Contract Management

- Property Rental Rates
- Preparation of Exhibits for Leases and Contracts
- Evaluation of existing Leases and Contracts
- Annual Leased Property Inspections
- Maintenance of Lease and Contract Records

Property Management

- Net Liquidation Values for Railroad Lines
- Land Development Plans
- Land Sales & Acquisitions
- Asset Acquisitions
- Asset Liquidation's
- Due Diligence Studies
- Annual Inspections
- Maintenance of Land Records and Inventory

Engineering & Design

- Industry Track Alignments
- Field Surveys and Studies
- Cost Estimates
- Hydrology
- Concrete & Foundation Design
- New line location
- Intermodal Facilities
- Auto Unloading Facilities
- Grade Crossings
- Grade Separations
- Litigation Support
- Maintenance of Engineering Records and Maps

Construction Management

- Preparation of Plans
- Construction Sequence
- Standards and Specifications
- Contract and Bid Preparation
- Project Contract Management
- Project Inspection and Quality Control

Track Maintenance

- Track & Bridge Inspections ▪ Rehabilitation Programs ▪ R/W Inspection
- Roadway Drainage Inspections