

## CITY OF WASILLA

290 E. HERNING AVE.  
WASILLA, ALASKA 99687  
PHONE: 373-9050

### INFORMATION MEMORANDUM NO. 90-20

**TO:** City Council

**FROM:** Bob Gilfilian  
City Engineer *B. Gilfilian*

**SUBJECT:** New Wasilla Airport Material Evaluation  
W.O.#90-12

**DATE:** June 21, 1990

Per Council request, we have completed our review of DOT&PF plans and specifications on the above referenced project. We have also reviewed the ADOT&PF's June 15, 1990 response letter to Mr. Fritz Kalmbach prepared by Mr. Tommy Gene Heinrich, Director of Design and Construction - Central Region.

Mr. Heinrich stated in his letter that the airport is designed to be ultimately paved. The Borrow Embankment "B" material could consist of material having a maximum of 10% passing the No. 200 sieves to be used as a base for the future placement of additional layers of cleaner material. This "cleaner material" would be placed subsequent to the removal of the 6-inch thick, 8% to 15% fine aggregate surface course prior to paving. DOT&PF considers this to be adequate for this project.

It should be understood that the entire depth of the airfield soil structure as designed by ADOT & PF could consist of frost susceptible material. During the interim period until a pavement structure is constructed, one could expect the typical maintenance problems associated with frost heaving be tolerable. As stated in Mr. Heinrich's letter, it is their intent to import non-frost susceptible material at a later date when the pavement is constructed. This appears to be a reasonable approach if the intent is to raise the finish elevation of the pavement substantially above the elevation of the gravel surface proposed in the current plans. However, if the finish elevation of the pavement surface does not need to be raised then it would be prudent to change the current specification of the frost susceptible Embankment "B" to a non-frost susceptible material of sufficient depth to support the future pavement. In doing so, a savings could be made on future capital and maintenance costs.

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New Wasilla Airport Material Evaluation  
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Concerning maintenance of the airport runway Mr. Heinrich's letter is quite clear. The high fine content of the surface course will act as a binder to minimize the chances of prop wash and natural weathering disturbing the runway surface. Based on our observations of local road surface designed with similar specifications, we believe the surface course as designed by ADOT &PF should be adequate for the intended use of the airfield until such time a pavement structure is constructed.

I will be available at the June 25, 1990 meeting to answer any questions you may have on this matter.

Attachment: (ADOT & PF letter of June 15, 1990)

# STATE OF ALASKA

STEVE COWPER, GOVERNOR

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

CENTRAL REGION - DIVISION OF DESIGN AND CONSTRUCTION  
DIRECTOR'S OFFICE

4111 AVIATION AVENUE  
P.O. BOX 196900  
ANCHORAGE, ALASKA 99519-6900  
(TELEX 25-185) (907) 266-1300

June 15, 1990

Re: New Wasilla Airport  
AIP No. 3-02-0417-02  
Project No. 55908

Mr. G.P. Kalmbach  
P.O. Box 872148  
Wasilla, Alaska 99687

Dear Mr. Kalmbach:

I received your letter of June 6, 1990, expressing some concerns over the construction of the New Wasilla Airport.

Early in the project, we were concerned with the large number of airports in the vicinity of the new airport site. With the cooperation of the Federal Aviation Administration, the State analyzed the conflicts in airspace between the new airport and the other airports. After reviewing the conflicts, we determined that the traffic pattern for the new airport would be kept south of the new runway. Your airport is located 3 miles north of the new airport. When the FAA-recommended buffer zones were applied to your airport, there were no airspace conflicts. My staff attempted to personally contact you earlier in the project; however, since there was no conflict with your airspace, no further contact was pursued.

The alignment of the airport had been a concern from the first meetings conducted for review of the Environmental Assessment. Immediately after hearing the concerns, the Department contracted with the University of Alaska, Fairbanks, through the Arctic Environmental Information and Data Center, for conducting a wind study. An anemometer and recorder were installed and monitored for approximately 1 1/2 years. The results showed that the proposed alignment provides well over the 95% coverage recommended by the FAA for a runway. The proposed alignment is nearly parallel with your airstrip.

There are three types of borrow specified. The Borrow Embankment "A" is for use in wet, swampy areas and is intended to keep the embankment above the natural water table. The maximum of 10% of material passing the No. 200 sieve is adequate for this purpose.

The airport is designed to ultimately be paved. The design typical section will require 42" of select material. For this initial project, we have specified 30" of material with 10% passing the No. 200 sieve. When the airport is eventually paved, this material will serve as the base for additional layers of cleaner material and pavement.

Mr. C.F. Rainbach

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June 15, 1990

When the preliminary specifications were prepared, we anticipated that the airport would be paved in a follow-on project. As the design progressed, our Regional Materials Section recommended that the airport not be paved for several years in order for the airport embankments to stabilize. The original specification requiring 6% and 8% of material passing the No. 200 sieve was written assuming that the runway would be paved. This clean material has proved to be unsuitable when left exposed. The material is very hard to compact and prop blast and weathering tend to loosen the surface. The loose gravel is then picked up by propellers, causing damage. This requires constant maintenance to remove the loose gravel and to regrade and recompact the surface.

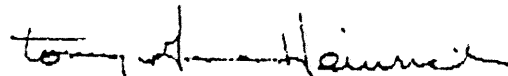
The current specification for material with 8% to 15% fine material provides for a tight and smooth surface and will require far less maintenance. When the airport is paved, this thin layer of material will be removed and new material with a low fine content will be placed.

During the early development of the project, great concern was expressed about the section of the Parke Highway between the railroad crossing and Rocky Ridge Road. At public meetings held in Wasilla, objections were raised to the volume of hauling truck traffic which would be turning off of the Parks Highway. There was also concern expressed for truck traffic on Neuser Road which is substandard. To alleviate these concerns, we developed an access to the east of Jacobsen Lake. The haul road would consist of an existing road/trail. The road is on airport property and involves little wetlands. The State has obtained the required Corps of Engineers permit for the road.

Your thoughts on the haul are well taken. After review of the access to the site and after further coordination with the city, we are revising our plans to make the haul road east of Jacobsen Lake an option for the project.

I hope that these explanations have answered your questions and concerns, and we thank you for your interest.

Sincerely,



Tommy Gene Heinrich, P.E.  
Director, Design and Construction  
Central Region

JGW/lh