

433.1

Bill: I have orig. 5/26

December 18, 1950

Mr. A. F. Chiglione  
Chief Engineer  
Alaska Road Commission  
Juneau, Alaska

Dear Mr. Chiglione:

Your letter of October 27, 1950 outlining the general program and anticipated allotment of funds for the Fairbanks District has been the basis of the following Recommendations. The distribution of funds for the maintenance of individual routes has been accomplished with the cooperation of my predecessor, Mr. Frank Nash. The other features of these recommendations and the outline of the plan of operations are a result of general discussions with members of the engineering, supervisory and administrative staffs of this District.

MAINTENANCE

THROUGH ROADS

ROUTE 65L - CANADIAN BOUNDARY - DELTA JUNCTION

Winter Maintenance	\$ 70,000.00	✓
Summer Maintenance	90,000.00	✓

Summer maintenance on this route will include additional shoulder stabilization and widening; repairs to the asphaltic paving east of Sears Creek - particularly at Miles 1354, 1355, 1357 and 1369 on Alaska "B" Section. The widening of shoulder and resurfacing of short sections of Alaska "C" Section, and the easement of the steep hazardous curve at the east approach to the Tanana River Bridge. Section "A" of this route will be under contract for reconstruction and paving, but will require considerable normal maintenance prior to the commencement of contract work, and during construction.

MAINTENANCE

THROUGH ROADS (continued)

ROUTE 44K - RAPIDS - FAIRBANKS

Winter Maintenance	\$ 70,000.00
Summer Maintenance	85,000.00

*Reduce amount of side roads*

Summer maintenance on this route will include the rehabilitation and painting of the Salchaket and Tanana River Bridges, and the painting of the Shaw Creek Bridge. Section "C" of this route is under contract for reconstruction and paving but will require normal spring breakup maintenance and considerable maintenance during the contract construction. The maintenance of the Donnelly Dome Firing Range Road is included in the recommended required funds. The several short sections of the recently placed paving on both Sections A & B that have settled and become very rough will be repaired. Force account labor and equipment will accomplish the placement of the necessary imported borrow, select material, and crushed base course. The furnishing and placement of the bituminous paving mix and seal coat will be done by one of the nearby contractors engaged in construction of Alaska "A" and Richardson "C".

*Remove Firing Range road and place under proper group.*

ROUTE 65A - TOK JUNCTION - GUIMLANA

*3 1/2 Miles*

Winter Maintenance	\$ 7,000.00
Summer Maintenance	8,000.00

The increment in the maintenance of this route is occasioned by the increased width and the standard of roadway. Planned work exclusive of normal maintenance that is recommended to be accomplished within these funds is the reshaping of recently constructed roadway where the roadway has settled or heaved due to surface water, frost action, and/or inadequate compaction.

ROUTE 7D - FAIRBANKS - UNIVERSITY OF ALASKA

Winter Maintenance	\$ 2,000.00
Summer Maintenance	3,000.00

Normal winter maintenance and snow removal, and a minimum of summer maintenance is anticipated on this route.

MAINTENANCETHROUGH ROADS (continued)ROUTE 75 - FAIRBANKS - LADD FIELD

Winter Maintenance	\$ 400.00	✓
Summer Maintenance	600.00	✓

It is noted that there is no number designating this route. The Ladd Field traffic volume is considerable and some summer maintenance to the asphaltic pavement will be required for this reason.

ROUTE 76 - FAIRBANKS - NORTH CAMP

Winter Maintenance	\$ 500.00	✓
Summer Maintenance	800.00	✓

Normally required winter and summer maintenance only is anticipated on this route.

FEEDER ROADSROUTE 7A - SUMMIT - CHATANIKA

Winter Maintenance	\$ 7,000.00	✓
Summer Maintenance	8,000.00	✓

This route is maintained throughout the year. There are many glaciers along this route, and heavy snowfall with drifts on Cleary Summit. Summer maintenance will include the reshaping of this roadway.

ROUTE 7B - NORTH CAMP - GILMORE

Winter Maintenance	\$ 8,000.00	✓
Summer Maintenance	9,000.00	✓

It is noted there is no number designating this route. Recommended funds will be sufficient for normal maintenance of this route throughout the year to the standard of Feeder Roads.

MAINTENANCEFEDERAL ROADS (continued)ROUTE 7I - GILMORE - SUMMIT

Winter Maintenance	\$ 7,000.00	✓
Summer Maintenance	8,000.00	✓

Recommended funds will be sufficient for the normal maintenance of this route throughout the year and will provide funds to accomplish certain required repairs and reshaping during the summer.

CIRCLEROUTE 15 - ~~CHERRY~~ - MILLER HOUSE

(47 Miles)

Summer Maintenance	\$ 30,000.00	✓
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Summer Maintenance will include the replacement of several small log bridges with corrugated metal culverts in addition to normal surface planing, culvert maintenance and brush cutting.

ROUTE 16 - CHATANIKA - MILLER HOUSE

87 Miles

Summer Maintenance	\$ 50,000.00	✓
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Sufficient funds to provide normal summer maintenance, the additional planned rehabilitating and painting of the Chatanika River Bridge and the replacement of several small log bridges with corrugated metal culverts are recommended.

ROUTE 7R - FOX--OLNES

Winter Maintenance	\$ 3,000.00	✓
Summer Maintenance	3,000.00	✓

Recommended funds will provide normal year around maintenance on this route.

ROUTE 7K - OLNES - LIVENGOOD

Summer Maintenance	\$ 22,000.00	✓
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This route will be maintained during the summer only with a minimum complement of personnel - 5 wage board employees - stationed at Tatalina. Normal summer maintenance with the additional requirement of cutting encroaching brush will be accomplished.

MAINTENANCEPENDING ROADS (continued)ROUTE - UNIVERSITY OF ALASKA - ESTER

Winter Maintenance	\$ 2,000.00	✓
Summer Maintenance	3,000.00	✓

It is noted there is no number designating this route. Recommended funds will provide normal maintenance throughout the year.

ROUTE 11A - EAGLE - LIBERTY CREEK

Summer Maintenance	\$ 2,000.00	✓
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This route will be under construction, but prior to and during construction, some maintenance will necessarily be accomplished. See recommendations for construction of Route 65M for a more detailed resumé of planned construction on this route.

ROUTE 11N - CANADIAN BOUNDARY - JACK WADE

Summer Maintenance	\$ 1,500.00	✓
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Reconstruction of this route during the past year will reduce the maintenance cost for the next few years. The installation of several small culverts is planned in addition to normal surface maintenance.

ROUTE 20 - HOT SPRING LANDING - EUREKA - ROCKS

49 Miles

Summer Maintenance	\$ <del>60,000.00</del> 50,000	
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The recommendation of the above amount is predicated on the advice of my predecessor, Mr. Frank Nash. Unfortunately I have not seen this system of roads and therefore am relying upon the judgement of Mr. Nash. Normal summer maintenance will be accomplished with the rehabilitation and improvement program continuing. A force of 10 wage board employees and on hand equipment will be employed for approximately six months.

ROUTE 38A - RUBY - POORMAN

66.5 miles

Summer Maintenance	\$ 30,000.00	✓
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Route 38A is also recommended for an expenditure of \$80,000.00 under the program of Reconstruction & Improvement of Existing Roads. Summer maintenance work would include only the normal surface, shoulder, and waterway maintenance between Ruby and Monument Creek.

MAINTENANCETRUCKER ROADS (continued)ROUTE - NORTHWAY AIRFIELD ROAD

Winter Maintenance	\$ 1,500.00	✓
Summer Maintenance	2,500.00	✓

It is noted there is no number designating this route. Recommended funds will provide adequate year around maintenance with the addition of some resurfacing, repairs to the Nabesna River Bridge and its approaches.

LOCAL ROADSROUTE 4JA - LAKE HARDING ROAD

Winter Maintenance	\$ 1,000.00	✓
Summer Maintenance	2,000.00	✓

Recommended funds will provide normal year around maintenance.

ROUTE 7I - BADGER - FARM ROADS

Winter Maintenance	\$ 2,000.00
Summer Maintenance	4,000.00

Normal winter and summer maintenance with the addition of more frequent surface planing and reshaping of the roadway will be provided within the recommended funds.

ROUTE - WEST FAIRBANKS

Winter Maintenance	\$ 2,000.00
Summer Maintenance	3,000.00

It is noted there is no number designating this route. Normal winter and summer maintenance will be provided within the recommended funds.

MAINTENANCELOCAL ROADS (continued)

Recommended funds will provide normal maintenance as indicated for the following Routes:

ROUTE 88 - FERRY - EVA CREEK - NOOSE CREEK

Summer Maintenance \$ 5,000.00

ROUTE - SPEL CREEK

Winter Maintenance \$ 2,000.00

Summer Maintenance 3,000.00

It is noted there is no number designating this route.

ROUTE 7E - GRAEH, BRANCH

Winter Maintenance \$ 1,500.00

Summer Maintenance 2,500.00

ROUTE 7C - FAIRBANKS CREEK

Summer Maintenance \$ 3,000.00

ROUTE 7CA - FISH CREEK

Summer Maintenance \$ 3,000.00

ROUTE 15A - CENTRAL - CIRCLE HOT SPRINGS - PORTAGE CREEK

Summer Maintenance \$ 5,000.00

ROUTE 15B - HEADWOOD CREEK

Summer Maintenance \$ 1,000.00

ROUTE 15BA - KETCHUM CREEK

Summer Maintenance \$ 100.00

ROUTE 15E - MILLER HOUSE - HARRISON CREEK - MASTADOY CREEK

Summer Maintenance \$ 500.00

ROUTE 16A - U. S. CREEK

Summer Maintenance \$ 500.00

MAINTENANCELOCAL ROUTES (continued)ROUTE 16R - EAGLE CREEK

Summer Maintenance	\$	200.00
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ROUTE 16D - SOURDOUGH CREEK

Summer Maintenance	\$	300.00
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ROUTE 16E - FAITH CREEK

Summer Maintenance	\$	100.00
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ROUTE - ILLINOIS STREET - GRAEHL

Winter Maintenance	\$	200.00
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Summer Maintenance		300.00
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It is noted there is no number designating this route. The maintenance of the Graehl footbridge is not included in the recommended funds. Funds for the maintenance of the footbridge is normally supplied from Territorial funds.

ROUTE 63E - BROOKS - LIVENOOD

Summer Maintenance	\$	2,000.00	✓
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ROUTE 72A - UNIVERSITY OF ALASKA CAMPUS

Winter Maintenance	\$	200.00	✓
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Summer Maintenance		300.00	✓
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→ ROUTE - CHEWA PUMP HOUSE ROAD 4.8 Miles

Winter Maintenance	\$	1,000.00	✓
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Summer Maintenance		2,000.00	✓
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It is noted there is no number designating this route.

ROUTE 74 - FARMERS LOOP

Winter Maintenance	\$	4,000.00
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Summer Maintenance		7,000.00
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MAINTENANCELOCAL ROADS (continued)ROUTE 77A - ISABELLA CREEK

Winter Maintenance	\$	500.00
Summer Maintenance		3,000.00

ROUTE 77B - BALLAINE - RICKERT

Winter Maintenance	\$	100.00
Summer Maintenance		100.00

ROUTE 77C - CROSSMAN - FIDELER

Winter Maintenance	\$	100.00
Summer Maintenance		100.00

ROUTE - YANKOVICH ROAD

Winter Maintenance	\$	100.00
Summer Maintenance		100.00

It is noted there is no number designating this route.

ROUTE - GRENAC

Winter Maintenance	\$	50.00
Summer Maintenance		50.00

ROUTE 48L - RUBY AIRFIELD ROAD 1.2 Miles

Summer Maintenance	\$	500.00
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ROUTE 47R - NOJAN BRANCH 5.5 Miles

Summer Maintenance	\$	4,000.00
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ROUTE 47C - WISEMAN - HAMMOND RIVER 7.5 Miles

Summer Maintenance	\$	5,000.00
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ROUTE 47D - JIM PUP TRAILROUTE 47E - MYRTLE CREEK TRAILROUTE 47F - WISEMAN - PORCUPINE CREEK TRAIL

Recommended requirement for all trail maintenance.

	\$	1,000.00
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One group

MAINTENANCE

LOCAL ROADS (continued)

ROUTE 59 - FAIRBANKS BRIDGE

Bridge Maintenance \$ 2,000.00 ✓

ROUTE 59A - FAIRBANKS DEPOT

Depot Maintenance \$ ~~40,000.00~~ # 10,000

The Fairbanks Depot requires a building in which all foodstuffs, property, materials and supplies other than petroleum products and mechanical machine repair parts may be warehoused, and in which all functions of the Property Cost Accounting Controls may be performed. These functions would include preparation of requisitions, subsequently receipt of purchase order and bill of lading, receiving goods, distribution to either stock or ultimate point of use, billing, price extending, and accounting.

This warehouse should be a single story, prefabricated steel structure with floor raised above ground level at least 42 inches fully insulated and heated, and incorporating an office area not larger than 800 sq. feet divided into two parts of approximately 200 sq. feet and 600 sq. feet. The warehouse end should be at least 4800 sq. feet with loading docks on either side. At least two double doors on each side would provide ample access to the warehouse. The location of this building would be at right angles to the present office building along the spur track at the east side of the Depot. The present old shop and warm storage building west of the present office would be torn down and the whole area west of the office would become an equipment yard. The old buildings south of the office would ultimately be torn down, but only when their requirement no longer exists.

*What is  
\$ 40,000  
to be  
used  
for  
Service  
Personnel  
should  
be L&P.*

Estimated cost of the new warehouse is \$84,000.00. It is recommended that additional funds be made available for this estimated amount. Construction by contract is recommended. Construction should commence about May 1, 1951 with completion scheduled within 90 days.

The Fairbanks Depot definitely needs a new radio transmitter and receiver of maximum capacity - 100 Watts. The unit should be a single cabinet affair similar and equal to either the "Intervox" or "KAAR" sets purchased in 1950. Present facilities are both inadequate and unreliable.

MAINTENANCE

LOCAL ROADS (continued)

ROUTE 59B - FAIRBANKS APARTMENT

Annual Maintenance \$ 2,000.00 ✓

ROUTE 65B - TOK DEPOT

Depot Maintenance \$ 67,800.00

Included in the maintenance of the Tok Depot are funds recommended to procure generating plants, connect the water system in the shop area, reactivate the sewerage disposal system in the shop area, house and insulate the fuel oil storage tanks connected to all buildings; paint the interior of the main shop and place an additional three inches of concrete on this shop floor. Repair and insulate the present parts warehouse, and necessary repairs to the Office Building, Mess Hall, and Pump House.

Continued use of Diesel powered generating plants and the heating of all buildings at Tok by individual furnaces and stoves is an extremely expensive utility. It is requested that consideration be given to the following alternate system.

Install within the present power house two 85 Horse Power High Pressure oil fired boilers complete with condensate pumps, condensers, water cooling facilities, and pumps; a 60 KW High Pressure Turbo Generator; with a low pressure exhaust; and, from the exhaust steam heat by means of finned tube radiation and unit heaters all portions of the Tok Depot. A standby power generating plant of the present Diesel units would be maintained and the presently installed furnaces would not be removed. The steam distribution should be handled by insulated pipe similar to "Ric-Wil" with return condensate lines provided.

*Get by best way possible and make engineering study*

ROUTE 65A - FORTY MILE ROAD

Summer Maintenance \$ 20,000.00 ✓

Sufficient funds are recommended to alleviate the several distorted roadway surfaces, install several small corrugated metal culverts and maintain the roadway surface in satisfactory condition.

MAINTENANCE EQUIPMENT REQUIRED

Bureau of Public Roads construction engineering forces

MAINTENANCELOCAL ROADS (continued)MAINTENANCE EQUIPMENT REQUIRED (continued)

employed on the contract construction of Alaska "A" and Richardson "C" Sections will be quartered in the Alaska Road Commission Camps at Delta Junction and Johnson River.

The present power generating plants at these camps do not have sufficient capacity to handle this additional power load. It is recommended and funds have been programmed in the recommendations for two 10 KW - 110-220 Volt - Single phase power plants driven by Diesel engines. The cost of the units should be apportioned as follows:

One half of one unit to Route 4K

One and one half of one unit to Route 65L

Asphalt maintenance equipment in addition to the present units will be required. The type and quantity of these additional new units must be determined by Headquarters. It is our understanding equipment required for maintenance of asphaltic pavements will be purchased as one complete outfit for all Districts. Funds in the amount of \$7500.00 are programmed for this expenditure and are to be deducted in amounts as detailed from the following routes:

Route 7D	=	\$ 500.00
Route 4K	=	7500.00
Route 65L	=	7500.00

RECONSTRUCTION & IMPROVEMENT OF EXISTING ROADS

The reconstruction and improvement of the following existing roads is recommended and funds to accomplish the described work as detailed: are estimated as shown.

ROUTE 7A - SUMMIT - CHATANIKAROUTE 16 - CHATANIKA - MILLER HOUSE

It is recommended that \$68,500.00 be allotted to continue the reconstruction and improvement of these routes begun this year. The reconstruction is concentrated on Route 7A beginning at the foot of the Cleary Hill, continuing through Clearing Creek, and thence to Chatanika. A line change eliminates several sharp hazardous horizontal curves, maintains a considerably better vertical alignment and reduces the frequency of glacier action by better drainage and higher embankments. Improvements are concentrated on

RECONSTRUCTION & IMPROVEMENT OF EXISTING ROADSROUTE 7A (continued)

Route 16. The existing roadbed will be widened, more drainage will be provided and hazardous vertical alignment will be eliminated. It is planned to quarter the necessary personnel at the Fairbanks Exploration Company bunkhouse at Chatenika. The equipment we propose to employ is on hand as follows:

- 1 - 3/4 C.Y. Crawler Mounted Shovel
- 4 to 10 - 3 C.Y. Dump Trucks
- 1 - Medium Crawler Mounted Tractor with Dozer
- 1 - Heavy Crawler Mounted Tractor with Dozer
- 1 - 8 C.Y. Carryall Scraper
- 1 - 12 C.Y. Carryall Scraper
- 1 - 12 ft. Motor Grader - part time
- 1 - 10 ft. Power Controlled Pull Blade

ROUTE - NORTH CAMP - GIMORE

Late in the season when the Fairbanks Exploration Company has completed dredging in Engineer Creek - Mile 6 to Mile 7 - it is recommended we reconstruct this section of the route with a portion of the equipment as listed above. This reconstruction would eliminate poor horizontal and vertical alignment, and reduce maintenance costs by raising the height of the embankments. Estimated and recommended funds to complete this feature are \$6,500.00.

ROUTE 73 - FAIRBANKS - NORTH CAMP

The necessary detour bridge will be constructed over Noyes Slough to maintain traffic during construction of the new Noyes Slough Bridge. Should the contractor make a late start on this bridge - after spring breakup high water - it is planned to place two temporary 26" x 42" arch metal culverts covered by a gravel embankment across this waterway. However, funds in the amount of \$5,000.00 are recommended to construct a temporary bridge. Any saving effected by the above alternate plan will be reflected in the total expended funds.

ROUTE 38A - RUBY - POORMAN

The reconstruction of this route continued this past season and it is recommended that the reconstruction work continue at an accelerated pace. The results of exploration for gravel will largely determine the rate of progress of this work. Should it become necessary to haul from the Salatina River in each direction it will require additional time and funds. However, it is believed we can transport to Ruby

RECONSTRUCTION & IMPROVEMENT OF EXISTING ROADS

ROUTE 38A (continued)

via river boat a small dragline to more effectively employ available equipment and man power. At the earliest opportunity it is planned to make an observation and inspection trip to this area and determine on the ground exactly what is required and how best to accomplish the necessary work. Funds recommended for this work are \$80,000.00. At the conclusion of the trip mentioned above a complete detailed report will be submitted to you.

CONSTRUCTION

ROUTE 65A - TOK JUNCTION - GUIKANA RECONSTRUCTION

\$ 600,000

It is planned to set up a second camp at the crossing of the Little Tok River. From this camp we will work down the Little Tok toward the Tok River. From the present Clearwater Camp construction will continue toward the Tok River. Immediately after spring breakup construction will begin on the Tok River Bridge. When the two outfits join together they will consolidate into one camp - Little Tok River Camp - and proceed as far as possible toward Mentasta Lake. It is our present plan to double shift all tractor work during June, July, and August, if possible. It is this Office's plan to keep all I. H. tractor equipment on this project, and further to keep TD 24's pulling carryall scrapers. My experience with this equipment has indicated to me they are a fine carryall tractor, but their longevity is questionable when used as a dozer tractor. By keeping the I. H. Equipment here, and the Caterpillar equipment on the 40-mile our parts problems are diminished.

EQUIPMENT REQUIRED

- 1 - 5 K.W. Diesel Power Generating Plant
- 2 - 50 Watt Radio Transmitter & Receivers - Similar to those purchased in 1950
- 1 - Heavy 3-Tooth Ripper - K30 LeTourneau or equal
- 1 - Truck Tractor - identical to the one requested under 65A.
- 1 - Motor Grader - Cat #12 or equal
- 4 - 12.1 C.Y. Carryall Scrapers - Cat #80 or equal

PERSONNEL

Wage Board personnel requirements will approximate 90 at the peak and will vary from 15 through 90 to about 40 at

CONSTRUCTION

ROUTE 65A (continued)

the close of the season. Engineering personnel - all classified will include the following:

- 1 - Resident Engineer
- 2 - Chief of Parties
- 3 - Instrumentmen
- 7 - Rodmen-Chainmen

FAIRBANKS - NENANA - PROPOSED CONSTRUCTION

800,000

Recent preliminary studies of the two alignments of this route has indicated the alternate line - i.e. along the ridges with a tie to the original line at a point between Dunbar and Berg - is far easier to construct and offers a comparable vertical and horizontal alignment. Assuming this is the line we will construct the following is our plan of operations:

Establish base camps at Ester and Berg and work toward each other. As construction proceeds we would move temporary "fly camps" to logical locations - Ohio Creek from the Ester end and from the Berg end to top of ridge along Gold Creek. Supplies can be hauled to Ester via truck from Fairbanks,, and to Berg via Alaska Railroad from Fairbanks.

Construction of this route should be comparatively easy. It is believed the route from Ester to Berg - approximately 36 miles - and some mileage from Berg toward Nenana will be completed.

EQUIPMENT REQUIRED

- 2 - 5 KW Diesel Power Generating Plants
- 2 - 50 Watt Radio Transmitters & Receivers similar and equal to those purchased in 1950 for Cantwell and Homer
- 1 - 16 foot Gasoline Engine Powered Pull Blade - Caterpillar #16 or equal
- 1 - Heavy 3-tooth Ripper - K-30 LeTourneau or equal
- 6 - 17.1 C.Y. Carryall Scrapers - Cat. #80 or equal
- 1 - Motor Grader - Cat. #12 or Equal
- 4 - Heavy Tractors without dozer but rear mounting double drum power control units
- 4 - Heavy Tractors with dozers and double drum power control units rear mounted.
- 2 - 8000 Gallon storage tanks. Wheel mounted similar to those purchased in 1950 for Valdez District

CONSTRUCTION

FAIRBANKS - WYNAWA (continued)

PERSONNEL

Supervision of this construction will be handled by the general foreman at Fairbanks. Wage board personnel required will vary from 12 through 50 and back to 20 near the end of the season. Double shifts are planned for all tractor work. Engineering personnel requirements are as follows - all classified: 1 - Resident Engineer, 2 - Chiefs of Parties, 2 - Instrumentmen, 5 - Chainmen-Rodmen.

ROUTE 65M - ALASKA HIGHWAY - EAGLE (40 MILE ROAD)

# 800,000

Construction on this route will commence about January 10, 1951 when hauling of the Matanuska River Bridge and the dismantling and hauling of the Shaw Creek Bridge will begin. As these bridges are to be erected at rather difficult locations to reach during early spring the hauling will be accomplished over the ice of the several rivers - South Fork, Walkers Fork, and Forty Mile - during winter. Wind and heavy snows are not the rule during mid-January and early February in the 40-Mile country. Foot reconnaissance over the terrain to be built and subsequent stripping operations indicate the larger portion of the remaining construction will be relatively difficult due to the numerous solid rock points and steep frozen sidehills. Some frozen side hills are immediately ahead of the pioneer construction at Polly Creek where the descent to the crossing of the 40-Mile River is begun. In O'Brien Creek from the 40-Mile River to almost the crossing of Columbia Creek numerous solid rock points and rock ravines together with very steep frozen side hills combine to make construction most difficult. Between these two points - the head of Polly Creek south of the 40-Mile River and three miles south of the crossing of Columbia Creek north of the 40-Mile River - a distance of approximately 14 miles - no preliminary stripping has been done.

In view of the foregoing and from experience gained last year it is my recommendation the construction work follow the outlined plan below.

A force of 5 D8's and 2 D7M tractors with 1 - 12 C.Y. Carryall scraper, 1 - 112 Motor Patrol, 1 - 3/4 C. Y. Shovel and 4 trucks cross the ice of the 40-Mile River about March 1, 1951. Part



CONSTRUCTIONROUTE 654 (continued)

of this outfit - 2 D8's and 1 D7M with at least 2 -210 CFM air compressors; hammers, pine, hoses, powder, fuses, etc., boilers steam points, and sufficient fuel and grocery staples to last 90 days - proceed up O'Brien Creek to the end of the Eagle - Liberty Road. Establish a base camp there. From this camp work the pioneer construction back toward the 40-Mile and the reconstruction toward Eagle. With the remainder of the heavy equipment and additional smaller equipment - including 2 - 210 CFM compressors, boilers, hammers, hose, pipe, powder, fuses, etc., start from the north bank of the 40-Mile River toward the outfit coming from Liberty Creek. With both outfits the first and immediate requirement will be to strip those sections predetermined to require stripping. This foregoing construction would commence about April 15, 1951. A third camp would later be established about April 20, a very temporary fly camp - at the head of Polly Creek. Stripping and pioneer construction would proceed until the south bank of the 40-Mile River is reached. Here a semi-permanent camp would be established and from this main base camp the 40-Mile River Bridge erection could be accomplished as well as the finish grading and draining from Upper Jack Wade to Liberty Creek. A fourth camp would also be required at Walker's Fork - Lassen Field. From this present camp the remaining construction south and north of Walker's Fork to the Upper Jack Wade and the South Fork Bridge respectively, as well as the bridge erection of the Walker's Fork bridge could be accomplished. For this construction work south of the 40-Mile River it is planned to use 7 - D8's and 3 - D7 tractors with 6 - 12 C.Y. carryall scrapers, 1 - 3/4 C.Y. shovel, 8 - 3 C. Y. Dump Trucks, 2 - 210 CFM air compressors, 2 - #12 Motor Graders, 2 - boilers, hose, pipe, hammers, etc., 1 - 3/4 C.Y. truck crane truck mounted complete with swinging leads, and steam hammer. It is planned this route from Eagle will be graded and drained before October 15, 1951.

There are ten bridges to be erected on this route next season. Three of these will be steel bridges - Walker's Fork, 40-Mile River, and O'Brien Creek. It is planned to use the structures that have been or are being replaced by new bridges at Shaw Creek, Matanuska River, and Noyes Slough to make the crossings of the respective waterways as listed above. Timber bridges will be erected over the following waterways: Chicken Creek, Lost Chicken Creek, Jack Wade Creek, Alder Creek, Columbia Creek, King Solomon Creek, and North Fork of King Solomon Creek. The many structures to be erected on this route and other routes in this District has predicated the recommendation for the purchase of a truck mounted crane with swining leads and a steam driving hammer. This equipment will facilitate and speed the erection of these structures. In addition to the above mentioned bridges the Fairbanks District will erect the following structures:

CONSTRUCTIONROUTE 69M (continued)

Clearwater Creek and Tok River Bridges on Route 65A; Sears Creek and small bridge at Mile 1422.5 on Route 65L; and a temporary crossing at Noyes Slough on Route 70.

EQUIPMENT REQUIRED

- 3 - 210 CFM Air Compressors
- 1 - Heavy 3-Tooth Ripper - K30 LeTourneau or equal
- 1 - 3/4 C.Y. Truck Mounted Crane
- 1 - Swinging lead for attachment to above crane
- 1 - 16 Ft. Gasoline Engine Driven Power Controlled Pull Blade
- 1 - 5000# Double Acting Steam Hammer
- 1 - Truck Tractor - at least 300 H.P. gasoline engine driven with auxiliary transmission, winch, tandem rear driving wheels, similar and equal to the units - Kenworths or Peterbilts - now pulling Alaska Freight Company vans
- ✓ 12 - Jackhammers, approximately 50#, throwaway bits; hammer steel; air pipe, fittings, manifolds, etc.; and hose in quantities and sizes as detailed in a forthcoming requisition.
- ④ 4 - 5 KW Diesel Power Generating Plants
- 2 - 50 Watt Radio-Transmitter and Receiver - Similar and equal to units purchased in 1950 for Cantwell and Homer
- 1 - Motor Patrol - #12 Caterpillar or equal
- 3 - 13.1 C.Y. Carryall Scrapers - Cat. #80 or equal
- 1 - Electric Motor Drive 300 Amp Welding Machine

PERSONNEL

The wage board personnel planned for this job will vary from a beginning of approximately 26 to a peak during the mid-summer of approximately 110. It is planned to double shift all drilling and thawing outfits, and at least the carryall tractor spreads. Engineering personnel requirements will be as follows. - all classified: 1 - Resident Engineer, 3 - Chiefs of Parties, 5 - Instrumentmen and 12 - Chainmen-Rodmen.

The two foregoing projects will be directly supervised by the Construction Superintendent at Tok. It is not our plan to employ general foreman on either of these two projects. Rather, foremen immediately responsible for designated work supervised by the Construction Superintendent.

CONSTRUCTION

FARM ROADS

The Farm Road construction program of the Fairbanks District for the 1951 season will complete the several individual detailed projects as described herewith. The importance and number of people served together with other factors, has determined the priority for construction as listed.

PRIORITY NUMBER ONE:

Grade and drain the streets of the Tok Townsite. The plan as presented by the Bureau of Land Management will require the construction of a total of 10,410 lineal feet of streets. 3870 feet of this total will be 40 feet wide; 5980 feet will be 80 feet wide; and 650 feet will be 150 feet wide. Construction of these streets will be done by the forces at Tok by the equipment scheduled to construct the Tok Junction - Gulkana Reconstruction. Total time estimated to complete this work is six days at an estimated total expenditure of \$7800.00 including engineering, supervision, wages, gasoline, equipment rentals, etc.

PRIORITY NUMBER TWO:

Complete the partially constructed road serving portions of Section 16, 17, 19, 20, and 21 T1S, R2E. Two and three quarters miles have been graded and a portion graveled. An additional mile of road must be built and a total of more than three miles surfaced. Sketch and petition are on file at Headquarters, Juneau. This new road will serve at least 12 persons. Estimated total costs - \$8000.00.

16,000

PRIORITY NUMBER THREE:

Construct road to homestead of one Otto Geist. The proposed road branches from the present Ester Road. A total of three fourths of one mile in a southerly direction from mile  $4\frac{1}{2}$  of the Ester Road to the common corner of Sections 1, 6, 12, 7 T1S, R2W and T1S, R1W. Total estimated cost \$1800.00. Petition and sketch is at Headquarters, Juneau.

\$7500

PRIORITY NUMBER FOUR:

Construct approximately 2 miles of road to Homesteaders Becker, Dale, and Conn. The route is not firm at present as the Civil Aeronautical Administration has not definitely given their approval of the proposed route. However, a road must be built somewhere here to serve these people and since the terrain is very much the same in the immediate area, one place is as easy to construct as another. Total estimated cost \$8500.00. Location of this road is to the Homesteads in Sections 14 and 23; T1S, R2W.

\$20,000

CONSTRUCTION

FARM ROADS (continued)

PRIORITY NUMBER FIVE:

Construct about two miles of road to serve homesteaders, at least four families; in the vicinity of Shaw Creek. The construction of this road will definitely aid the settlement of the immediate area. Location of this road is along the section line between Sections 34, 35 and 27, 26 T7S; R8E. Construction is relatively easy and should be accomplished at a total expenditure of an estimated \$9000.00. See petition and sketch attached.

\$20,000

PRIORITY NUMBER SIX:

Build roads in Section 17; T1S, R1W for the development of homesites for at least nine families. This proposed construction will tie in with other similar construction in the same area and will become an integral part of the local highway system. The only portion of this system it is recommended we construct is the two roads that divide the tract into four equal parts. It is recommended that interested parties construct the streets serving the individual homes. Estimated total expenditure will be \$4000.00.

\$12,000

PRIORITY NUMBER SEVEN:

Build one and three quarters miles of road in Sections 19 and 20; T4S, R4E to the home of Lt. P. F. Johnson and serving at least two other families. Development in this section will definitely be speeded by the construction of this short road. Additional land is available immediately adjacent to the proposed new road. Estimated total expenditures are \$12000.00. Petition and sketch is attached.

18,000

PRIORITY NUMBER EIGHT:

Extend road begun in 1940 to include service to present homesteaders in Section 20; T1S, R1W. Recommended road will include two miles of new construction. The extension of the present road will serve a minimum of four families and make additional adjacent land attractive to prospective homesteaders. Estimated total expenditures are \$8500.00. Petition and sketch are attached.

20,000

CONSTRUCTIONFARM ROADS (continued)

## PRIORITY NUMBER NINE:

Extended by 1200 feet the presently constructed road in Section 17; T1S, R1W. This extension gives access to the group of small homestead owners who are being serviced with a road under Priority Number Six. Construction would be carried on in conjunction with the construction of Priority Six. Estimated total expenditures are \$1500.00. Letter requesting this road is enclosed. Sketch and petition is on file at Headquarters, Juneau. \$2000

## PRIORITY NUMBER TEN:

Construct seven eighths of a mile of road near the Country Club. This road branches from Route 7B - Farmers Loop - near the Yankovich Road. This road will serve at least seven families living on small homestead tracks in Section 35; T1N, R2W. Total construction costs are estimated to be \$3500.00. Petition and sketch are enclosed. \$9,000

## PRIORITY NUMBER ELEVEN:

Construct about one mile of road and build two small bridges to serve both the McKinley Sub-Division and small homesteads in Section 7; T1E, R1W. This construction is requested to serve at least six families and soon more than 25 families will be in these two areas. Estimated costs are \$3500.00 exclusive of bridges. The bridges required would cost approximately \$18,000.00 complete in place. The petition requesting this construction is on file at Headquarters, Juneau. The detailed sketch is attached. \$25,000

## PRIORITY NUMBER TWELVE:

Construct as a continuing program about four and one half miles of road east and west along the section lines between Sections 19 and 30 of T1S, R1W; and Sections 24, 25, 23 and 26 of T1S, R2W; and north and then east along southeast quarter section line of section 23, then further north along section line between Section 23 and 24 of T1S, R2W. This proposed road will serve at least 20 families, and will make accessible additional lands to prospective settlers. Estimated total construction cost \$16,000.00. Sketch and petition is enclosed. \$45,000

## PRIORITY NUMBER THIRTEEN:

Construct one and one half mile of road near the Little Salcha River Bridge. This proposed road connects to the Richardson

CONSTRUCTION

FARM ROADS (continued)

PRIORITY NUMBER THIRTEEN: (continued)

Highway one half mile south of the Little Salcha River Bridge and extends in an easterly direction. The proposed road will serve at least five families. Estimated total costs of this construction is \$2100.00. Petition and sketch is enclosed.

\$6,000

Equipment planned to be used on this work will include, as required, six D8 Caterpillar tractors, three carryall scrapers, 3/4 C.Y. crawler shovel, 10 - 3 C.Y. Dump Trucks, and other allied heavy construction equipment. This equipment will be available from time to time during the next season as other work in the Fairbanks area progresses. It is planned to work all the recommended construction in the Fairbanks area as one large project and shift equipment and men from job to job as each job is completed.

The attached plat of the "Fairbanks Vicinity" indicates the proposed Farm Road program in the immediate vicinity of Fairbanks. The proposed road construction is shown as a green line. The shaded brown areas are homesites of petitioners.

SURVEYS

LIVENGOOD - MANLEY HOT SPRINGS

This past season field work was completed from Livengood to a point one mile south of Eureka. From Eureka to Manley Hot Springs there is an existing road. The survey of this line could be accomplished with a small crew consisting of the following personnel and equipment:

PERSONNEL

- 1 - Locating Engineer - Classified
- 1 - Party Chief - Classified
- 2 - Instrumentmen - Classified
- 4 - Rodmen-Chainmen - Classified
- 1 - Cook - Wage Board
- 1 - Tractor Operator - Wage Board

EQUIPMENT

- 1 - TD14 I.N. Tractor with dozer and winch
- 1 - D4 Caterpillar Tractor with winch
- 1 - Sled Mounted Cook Trailer
- 2 - Sled Mounted Bunk Trailers

SURVEYS

LIVINGOOD - MANLEY HOT SPRINGS (continued)

At a later date upon completion of the 25 miles of line between Eureka and Manley Hot Springs, the crew would begin the line from Eureka to Rampart. It is planned this second portion of the survey would begin about July 20, 1951. The following additional personnel and equipment would be required:

PERSONNEL

- 2 - Axemen - Classified
- 1 - Tractor Operator - Wage Board

EQUIPMENT

- 1 - FD 18 I.H. Tractor with dozer

Total costs of this survey, including classified personnel salary, fuel, food, wage board employee wages, and other necessary supporting expense, is estimated to be \$48,200.00. Recommended funds for this survey are \$50,000.00.

FAIRBANKS - NENANA SURVEY

The survey completed all but approximately 12 miles on the alternate line along the ridges. This alternate line ties into the lower line at a point between Dunbar and Berg. The completion of this portion of the survey will require approximately 45 days. The additional survey from Nenana to McKinley Park will require approximately 100 days. Basing our estimate on all known contingencies the required personnel and equipment will include the following:

PERSONNEL

- 1 - Locating Engineer - Classified
- 1 - Party Chief - Classified
- 2 - Instrumentmen - Classified
- 4 - Rodmen-Chainmen - Classified
- 1 - Cook - Wage Board
- 1 - Tractor Operator - Wage Board

EQUIPMENT

- 1 - D6 Caterpillar Tractor with dozer and winch
- 1 - Sled Mounted Cook Trailer
- 2 - Sled Mounted Bunk Trailers

Total costs of this survey including the same items as detailed above, is estimated to be \$40,000.00. Recommended funds are \$40,000.00.

SURVEYS

ALASKA HIGHWAY - EAGLE (40-MILE ROAD)

Survey of this route is about complete - approximately 10 miles remaining. It is believed that a very small crew could complete this survey in about 30 days. Estimated costs would total \$12,000.00. Recommended funds are \$12,000.00. Personnel and equipment required as follows:

PERSONNEL

- 1 - Party Chief - Classified
- 1 - Instrumentmen - Classified
- 3 - Rodmen-Chainmen - Classified
- 1 - Tractor Operator - Wage Board
- 1 - Cook - Wage Board

EQUIPMENT

- 1 - D6 Caterpillar Tractor with dozer and winch
  - 1 - Pickup Truck
- Tents and other paraphernalia now on hand at Eagle

CONTRACTS

The estimated cost of engineering and inspection of contract work under the supervision of this District will be \$11,000.00, for salaries and equipment expenses, but does not include testing of materials. The recommended funds for this feature are \$12,500.00.

PERSONNEL

Engineering personnel will be limited. The Construction Engineer stationed at Fairbanks will supervise these Contracts with a staff of 2 - Inspectors, 1 - Instrumentmen and 2 - Chainmen-Rodmen, all classified.

GENERAL

The request for the purchase of two large truck tractors as listed in equipment discussions on Routes 65M and 65A is considered most important by this Office. The slow, unreliable truck tractors now in service in this District are expensive to operate and since they are so very slow and unreliable the shifting of heavy equipment from location to location is held to a costly minimum. Very often equipment - one or two pieces - can be shifted from project to project with very little lost time and benefit both jobs. Equipment standing idle on a job or working in locations never



GENERAL

intended for that equipment is indicative of improper supervision. Very often this same equipment is urgently required for varying lengths of time on another project. But, time lost in traveling with these older units preclude the economical movement of this temporarily surplus equipment. The three Federal Tractor Truck and the one FWD tractor truck will be converted to heavy snow plows during the next summer. Funds are included in Maintenance of Routes 4K and 6SL to accomplish this conversion. The Sterling tractor truck will be converted to a truck mounted shovel - using the 1/2 C.Y. P & H Shovel - ARC #1255. This conversion - i.e. the Sterling - will necessarily eliminate it as a truck tractor, but the other four could and would be used as truck tractors in the event they are required. Funds for the conversion of the Sterling to a truck mounted shovel are included in Maintenance of Route 6SL.

The request for two large power controlled pull blades needs some supporting discussion. The side hills where it is possible to pioneer a road with a heavy tractor and angle dozer can readily and cheaply be shaped and ditched with a very heavy pull blade. This blade is not intended to finish blade or in any other way substitute for a motor grader. But, where heavy work is involved - and certainly shaping a rough dozer pioneer road is heavy work - a large pull blade will more than pay for itself in one season. Section of the 40-Mile Road and the proposed Fairbanks-Nenana Road are ideal places where this equipment will be invaluable.

The two heavy 3-tooth rippers also are justified in that when a ripper is required there is little or no use hooking onto a 7-ton ripper with a 20-ton tractor and have the ripper jump out of the ground when a pull is applied. For this reason very often scrapers and dozers are working in excavation where they haven't any chance of economically moving the excavation. The alternate, of course, is to drill and shoot these cuts, but a heavy ripper will very often enable the tractor excavation to complete the cut without use of powder. Certainly, if the excavation has been predetermined to be tractor work it is consistent to have equipment designed to use with heavy tractors.

In the matter of air compressors it is not our idea to buy these compressors. When my duties were such that I was acquainted with the equipment of all District it was noted that there are several air compressors seldom used. The amount of work ahead for these compressors after this season does not justify their purchase, therefore, it is believed there could be transfers from other District to supply these requirements on a loan basis.

Justification for the purchase of the recommended truck crane, swinging leads and hammer is included in the general discussion of Construction - Route 6SM.