# BUILDING THE HAUL ROAD TO THE NORTH SLOPE

# A BRIEF OVERVIEW FROM THE CATBIRD'S SEAT 1969 - 1974

Prepared for the Antique Auto Musher's Excursion to Deadhorse

August 8 - 12, 2012

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# BUILDING THE HAUL ROAD TO THE NORTH SLOPE A tale from the catbird's seat

Oil and gas deposits were known to exist in areas north of the Brooks Range probably before the turn of the century in 1900 as there is evidence of use from seeps by the native Alaskans. In 1923 after WW1 President Harding, by Executive Order created Naval Petroleum Reserve #4 which encompassed 23 million acres between the Brooks Range and the Arctic Ocean. In 1964 natural gas was piped into Point Barrow from NPR#4 after it was transferred to the Bureau of Land Management.

In 1959 Alaska was granted Statehood. One of the provisions of the Statehood Act was that Alaska could select several million acres of land from Federal holdings. One of the first selections was the Prudhoe Bay area where oil in large quantities was found in the late 1960's. We can thank Phil Holdsworth and Chuck Herbert, Commissioner and Deputy Commissioner of Natural Resources respectively, for their foresight in making this selection.

In the late 1960's the State auctioned oil and gas leases for portions on the area. These leases were offered on a checkerboard system which in effect reserved half the area for later leasing and greatly increased its value if oil were discovered on any of the original leases.

In the late 60's the only access to the area was by air and overland during the winter. Both methods were employed to support exploratory drilling which followed the sale of leases.

Jim Dalton located a winter trail which was traversed by cat trains hauling supplies to the North Slope. This trail was basically the route later dubbed the "Hickel Highway". The initial Airport serving the slope was located at Sagwon. Overland cat trains also went to Sagwon and initial support contractors headquartered there. Probably the first contractor to move into the area was Tennessee Miller who owned Frontier Construction and the second was probably Lloyd Burgess who owned Burgess Construction in Fairbanks. The air support was provided by many locals in Fairbanks but the major suppliers were Interior Airways owned by Jim McLaughlin and Alaska Airlines. Both owned Lockheed Hercules aircraft that were large enough to haul major drilling and construction equipment.

The discovery of oil by ARCO in 1968 spawned a bee hive of activity as oil companies rushed to develop the Prudhoe field and get oil to market. Marketing the oil required a pipeline to tidewater and all-weather surface transportation to the oil fields.

There were several oil companies that held leases and hence had an interest in developing a marketing system but the primary players were British Petroleum, Atlantic Rich-

field, and Humble Oil. These companies formed a venture named Transalaska Pipeline (TAPS) which was headquartered in Houston, Texas. The venture was managed by three officials of the organizing companies. The titular head was George Hughes of Humble Oil assisted by Sam Corn of British Petroleum, and Robert Hasti of Atlantic Richfield.

The initial effort of TAPS was to commence construction of an all-weather road to Prudhoe Bay to service oil field activities and to serve as a support road for future pipeline construction.

In 1959 I was one of the first employees of the Division of Highways under the Department of Public Works having in effect transferred from the the Alaska Road Commission and Bureau of Public Roads where I had worked for the past 7 years. In 1963 Governor Egan created a separate Department of Highways by Executive Order and I rose in the ranks during the 1963 - 1966 period and was acting Commissioner of the Department much of the time between 1964 and 1967 as Commissioner Don McKinnon had health problems during that period and hence was unavailable to perform the duties of Commissioner. In 1966 Hickel was elected Governor and my tenure ended at his direction.

In 1967 I started an engineering company in Douglas which was a successful venture and in the process did some work for Lloyd Burgess the owner of Burgess Construction in Fairbanks. In early 1969 Lloyd requested me to come to Fairbanks and work for him as he was expanding and needed help to handle the high volume of work generated by the discovery of oil on the North Slope. Never one to shy away from a challenge I accepted.

In April 1969 Marl packed up 4 kids and we moved to Fairbanks where I was Executive Vice President of Burgess Construction Co. under President George MacClanahan.

At that time Burgess was actively freighting overland and by air to Sagwon and performing support activities for oil companies on the slope. Much of the work was actually performed by a subsidiary, Spruce Equipment Company, which was non-union and headed by James "Buck" Allen because Burgess was a union contractor and the oil companies were strictly non-union.

In July 1969 TAPS requested Burgess to submit a proposal to construct a road from the Elliot Highway at Livengood to the Yukon River, a distance of nearly 60 miles. A construction contract followed in early August which required the road to be open for traffic to the Yukon no later than December 31,1969.

I was in charge of the project for Burgess. Work was performed using 2 - 10 hour shifts seven days a week in order to meet the "impossible" completion date of December 31.

To assist in this feat we purchased a 250 man ATCO camp from Bob Penny that had been used to construct oil processing facilities on the Kenai Peninsula and installed it at the intersection of the Elliot Highway and the proposed new road to the Yukon River.

When the camp arrived all the heating unites were natural gas fired. Natural gas was available in Kenai but not in Fairbanks. What a mess, a camp with no heat. Luckily we were able to get a local distributer to import propane from Kenai to the job site, install propane nozzles in the heaters, and furnish storage tanks. Problem averted - we thought.

We had concern that propane would solidify in cold Fairbanks weather but were assured by the supplier that it would remain a gas to 60 below.

In1969 we had an early August frost and then unseasonable warm weather until the 1st of November when the temperature dropped to 45 below almost over night. Just before the violent temperature change we had started to move the camp from its initial site to Hess Creek about half way to the Yukon River. The severe temperature caused the propane to solidify in the tanks and feed lines. To make matters worse the utility trailers were all plumbed with ABS plastic drain pipe and as they were hauled down the road, which was pretty rough as it was only partially completed, the twisting and flexing of the long boxy camp unites stressed the frigid ABS pipe and it exploded and sent ABS shrapnel in all directions.

Our 250 man crew was now in minus 45 degree quarters with no water, no heat, or working utility trailers. They slept in their full arctic gear boots and all and ate cold food. Tough bunch - not a man quit - it was a matter of pride as the male ego can be pretty intense at times. This was the epitome of "it doesn't get too tough for me" and nobody wanted to be the first to quit. I have often wondered what would have happened if one had quit. Would the whole crew have followed of would they have just laid it on the quitter for being soft? Probably the latter but we'll never know. We got electric heat tapes on the propane lines and tanks and the utility trailers re-plumbed after about 3 or 4 days.

Our subcontractor for clearing the right of way was Brice Inc.of Fairbanks. Since they were in the lead they set the pace and travelled the farthest from camp each day and hence had the toughest assignment. There were 3 brothers, Sam, AI, and Andy aided by their father Luther, also a tough bunch and a key part of our operation and they performed admirably.

We were able to get a rough road to the Yukon by December 31. One cat skinner pulled 103 straight shifts many of which were in excess of the planned 10 hours. The only reason that he left was that his Cat gave up before he did.

The environmental features, seeding, pit restoration, etc. took as long to perform as the actual construction and hence extended the construction period into 1971.

In 1969 TAPS believed they could barge pipe, machinery, and supplies across the Yukon in the summer and build ice bridges to use in the winter. The fact that there would be about 5 months during freeze up and break up when neither would be possible never seemed to occur to them.

The project manager for TAPS was Ben Anderson, a Humble Engineer. He and I became good friends and remained so until his death about 5 years ago. Ben had been with Humble for many years building pipelines, roads, and other facilities. In late 1969 Nate Bauer, also of Humble, was assigned the task of developing the plans for constructing the remaining 360 miles of road to Prudhoe. I learned a lot from Ben and Nate about pipelines, and especially about oil company internal politics which was a great benefit to me and hence to the State in the succeeding years.

In late 1969 TAPS requested proposals from various contractors to complete the haul road between the Yukon River and Prudhoe Bay. The proposed construction was broken down into 8 sections and contractors selected.

Section	1	<b>Burgess Construction</b>		
	2-4	Green "		
	5	S. S. Mullen Company		
	<b>6S</b>	Wagley Construction		
	6N	Rivers Construction		
	7	<b>Burgess Construction</b>		

In February 1970 Environmental and Native groups filed law suites in Federal Court to stop all construction and the court issued an injunction which halted further activity. TAPS believed that the law suits would be settled quickly and instructed the haul road contractors to mobilize camps and equipment to their respective sections prior to breakup in 1970. As it turned out TAPS was dead wrong. It wasn't until early 1974 that the injunction was lifted by the Court and Congress passed legislation which allowed construction to begin.

The road contractors all mobilized to their respective sites in early 1970 and only a small window remained in which they could de -mobilize before breakup occurred and the camps and equipment isolated. TAPS still believed they would get the go ahead and in order to keep the contractors on site issued letters of intent to award construction contracts. As a result of those letters TAPS was on the hook for standby costs if they were unable to award contracts by a specified date. It soon became apparent that the court injunction would not be lifted in time for 1970 construction and TAPS would have to pay stand by costs. Since now a long drawn out court battle seemed inventible TAPS did the math and decided it would be in its favor to purchase all the equipment and camps outright from the contractors rather than pay standby costs.

TAPS requested buy out prices from the various contractors. Green Construction alone refused to sell their camps and equipment and insisted on standby payments in lieu of purchase or they would demobilize immediately at TAPS expense. Taps chose to negotiate a standby arrangement with Green. All the others agreed to sell. I was opposed to selling the Burgess facilities but by then Burgess had been purchased by a corporate

raider (Alaska Interstate) who's interest was cash not future business so I lost the battle. As it turned out Green Construction made the correct decision.

In August 1970 TAPS was reorganized into Alyeska Pipeline Service Company, a separate corporation owned by 8 oil companies. Alyeska's task was to construct the 48" pipeline and attendant facilities which included the Haul Road to Prudhoe.

Burgess had previously established a large construction camp at Prudhoe in early 1969 prior to the initial haul road construction. This camp would have been the base for Burgess's construction of Section 7 but since we were doing other work on the slope for oil companies and others independent of the pipeline and haul road we were not interested in selling and Alyeska was not interested in buying. The Burgess camp was named Crazyhorse.

In November 1970 Bill Egan was elected governor for a 3rd term. Soon after the election Bill called me and asked me to come to Anchorage and discuss cabinet appointments, especially the Commissioner of Highways slot. I told him we had just moved to Fairbanks and a move back to Juneau was not really in the cards. He asked me to come to Anchorage anyhow and discuss various appointments and issues.

Bill and I had been friends of long standing as I had worked for him during his first two terms as Governor between 1959 and 1965 and we had been thru some tough times together in early Statehood especially the major re-organization of the Highway Department in 1963 and the rebuilding after the 1964 earthquake.

To make a long story short I flew to Anchorage and met with him at his home in the afternoon and by 11PM he had talked me into returning to Juneau as Commissioner of Highways. I missed my flight back to Fairbanks and returned the next morning and advised Mrs. Campbell that we would be moving back to Douglas. Poor Marl was still getting unpacked and organized from the Juneau - Fairbanks move but she was, and is, a trooper and started to reverse the process.

One of the things Bill and I discussed on that November night was State ownership of the proposed 48" pipeline. I had learned from my association with Alyeska people especially Ben Anderson and Nate Bauer that the cash cow was not only the oil but also the transporting the oil in the 48" pipeline since interstate charge rates established by a previous ICC consent decree allowed the companies to use lucrative pipeline charges to offset the value of the oil for tax benefits and establishing a favorable refinery gate and well head price for the oil. The possibility of State ownership was hatched that night during our discussions.

I had to tie up business affairs for Burgess before assuming the role of Highway Commissioner and hence I did not become Commissioner until February 1, 1971. After many discussions, Governor Egan, in October 1971, proposed State ownership of the pipeline and the oil companies went ballistic. Ben Anderson told me in later years that the pipe-

line paid for itself in 8 months. If this was the case one can see why the oil company officials went ballistic at the suggestion of State ownership.

The saga of State ownership which followed is another story for an other time.

The camps and equipment that were mobilized in early1970 to construct the Haul Road remained in mothballs as the law suits plodded thru the endless legal process. In the meantime as Highway Commissioner, I negotiated with Alyeska concerning the ownership, construction standards, future maintenance, and use of the haul road during the construction of the 48" pipeline. As a part of the negotiations I proposed that the State construct a bridge across the Yukon to carry both the road and the pipeline instead of burying the pipeline under the river and using barges and ice bridges for surface transportation.

Many meetings were held and finally agreements were reached between the State and Alyeska. In June 1971 two contracts were signed, one for the construction of the haul road and the other for the construction and use of the Yukon River bridge. Copies of these agreements are included which define the details of these ventures and shed light on the construction of the road and bridge. The negotiations were held stateside at places chosen by Alyeska and attended by Alyeska officials, their consultants, lawyers, engineers, advisors, etc. and me. Egan designated me alone to enter into negotiations on behalf of the State much to the displeasure of some other State officials. It was sort of funny when Alyeska showed up at the meetings with as many as 15 persons and I showed up as the sole State representative. It should be noted how brief these multimillion dollar agreements were. I wonder, was it because no State lawyers were involved? I did however have to spend time in NYC and Houston which I suppose some would consider a plus but to me it was a double minus.

Finally after a Federal Court decision and a Congressional Act exempting construction of the pipeline from the Environmental Protection Act, work resumed on the haul road in April 1974. It is interesting that now that Alyeska owned much the equipment and camps (except the Green Construction spreads) that the companies that sold their spreads to Alyeska in 1970 were not reemployed. Green hence got the lions share of the work.

Sections 1-5 Green Construction Co.

6S Morrison Knundsen Co.

6N Alaska General Construction Co.

7 Burgess - Houston J. V.

As Commissioner of Highways the construction of the road was under my direction and to insure compliance with the construction agreements I assigned Project Engineers to each section to administer and oversee the construction activity on behalf of the State and make field decisions as needed to insure proper construction.

On July 9, 1974 Governor Egan and I inspected the construction activity when the road was about half complete. An informative trip with a good flight crew - especially the copilot. (3 photos are included.)

The end result was that the entire haul road was property of the State and the total cost was borne by Alyeska. The road was built to State secondary road standards with some bells and whistles. Alyeska had exclusive use of the road until oil flowed in the pipeline after which the road management and maintenance reverted to the State.

Construction began on April 29, 1974 and was completed on September 29, 1974 when Marl Campbell and Vera Kennedy cut the ceremonial ribbon in Fairbanks.

The haul road cost was about \$125,000,000 and required about 30,000,000 cubic yards of gravel and exactly 6 months to build.

There were surprisingly few problems encountered. A relocation was made near Franklin Bluffs to accommodate Peregrine falcons, but other than that things went smoothly. Having State project engineers on site was a major reason for the lack of problems as decisions could be made on site quickly by State on-site engineers.

The Haul Road was later renamed the Dalton Highway after Jim Dalton.

TAPS plan in 1969 was to bury the pipeline under the Yukon River and use barges and ice bridges to to provide access to Prudhoe Bay and to construct the pipeline. During the construction of the initial road between Livengood and the Yukon river I became aware of TAPS intentions and realized that such a plan would not provide the result desired by TAPS since freeze up and breakup would limit use to about 7 months of the year at best and burying the pipe line under the Yukon would be a major undertaking fraught with high risks both in installation and later with operation. A rupture of the pipeline under the river would be almost impossible to repair in place. Barging and ice bridges were also risky operations with definite limitations.

One of my first efforts as Commissioner in early 1971 was to discuss my concerns with Alyeska president Ed Patton and Sam Corn of BP. They seriously doubted that the State had the ability to construct a dual purpose bridge to handle both the pipeline and road traffic across the Yukon. After much discussion they finally agreed that a dual bridge was the best answer to crossing the Yukon but would not agree to participate in the construction costs. Negotiations held in May and June 1971 resulted in an agreement that provided that Alyeska would only pay a lump sum to hang the 48" pipeline on the bridge after the State completed the bridge and it was ready to accept the pipe. The State hence would have all the risk and have to finance all the construction costs.

We overcame the finance problem with some maneuvering that was perhaps unusual but effective much to the later displeasure of some Federal and Alyeska officials. Again another story for another time.

At the negotiations Sam Corn was of the opinion that the bridge could not be designed in the rather short time window that was deemed available and set September 1,1971 as the target date for design completion. We completed the design on the target date and Sam had to eat crow. As in turned out the delay in construction caused by the Court injunction made time constraints moot. During the shutdown period there was other work added and the bridge agreement modified to accommodate the added work and inflation as the later was a major consideration after the 3 1/2 year shut down.

Ultimately, after I was no longer Commissioner, Alyeska filed a lawsuit that sued the State because they believed that they paid more than their fair share. This, in a way, made me proud since the agreement was negotiated solely by me on behalf of the State and Alyeska had owners, engineers, lawyers, accountants, etc at the negotiations and I apparently out negotiated the whole bunch.

Manson-Osberg-Ghemm was awarded a contract to construct the bridge in 1974 and construction was completed in 1975. It was designed to carry 2 - 48" oil pipelines, the second line could be used for either oil or gas. The designer was Dennis Nottingham of the State Department of Highways assisted by Bill Gute. The bridge was designed to withstand very large ice floes and the methods used are still referenced in present day designs. It was also designed to resist maximum expected earthquakes.

The length of the bridge varies about 2 feet between winter and summer.

The Yukon River bridge cost about \$30,000,000, is 2295 feet long and rises 200 feet above the river at it's highest point.

In 1982 the Alaska Legislature named the Yukon bridge the "Edward Patton Bridge" after the man who was initially opposed to it's construction and later sued the state because he had been out negotiated by the "Water Commissioner" as he referred to me.

After the pipe line was completed the State assumed maintenance and constructed 6 maintenance stations.

Seven Mile Jim River 138.1 mile 138.3 mile Chandalar 239.4 mile 239.7 mile Deadhorse 419.0 mile

There you have it -- history in a nutshell from the catbird's seat.

Bruce A. Campbell May, 2012



Haul Road Construction Inspection July 9, 1974

Unknown - Bechtel Engineers

Easy Galbraith - Oil and Gas Division, Alaska Department of Natural, Resources

Ed Pierce - Haul Road manager, Alaska Department of Highways

Nate Bauer - Haul Road Project Manager - Alyeska

Don Fry - Project Superintendent - Green Construction

Bill Egan - Governor of Alaska

Bruce Campbell - Commissioner Alaska Department of Highways

Pete Haggland - Owner and pilot - Haggland Air Service

Nora Reynolds - Co-pilot Haggland Air Service



Haul Road Inspection - July 9, 1974

Bruce Campbell Commissioner of Highways for Alaska William "Bill" Egan Governor of Alaska Nate Bauer Haul Road Project Manager for Alyeska



Governor Bill Egan on a D-8 Cat Haul Road inspection July 9, 1974

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#### HOW DEADHORSE GOT ITS NAME

I was recently invited to a gathering at which several people associated with the North Slope were present. During conversations about the North Slope, different stories were related as to how Deadhorse got its name. I was amazed at the diversity of the explanations given by persons supposedly with inside knowledge of just how the name Deadhorse originated. None were correct.

Since I was with Burgess Construction Company at the time the initial construction of the Deadhorse Airport occurred, I have particular knowledge of how the name Deadhorse came into being—first for the airport and later for the general area around the airport.

The owner of Burgess Construction Company was Lloyd Burgess who founded the company in Astoria, Oregon soon after his discharge from the U.S. Navy "Sea Bees" at the end of World War II. In 1951 he moved the company from Astoria, Oregon to Fairbanks, Alaska and pursued the construction of buildings primarily in the Fairbanks area.

As an interesting sidelight, another Fairbanks construction company, Reed & Martin Construction Company, was owned by Lloyd Martin. Both Burgess Construction Company and Reed & Martin Construction Company did well, and their owners were hence locally referred to as "Lloyds of Fairbanks," an obvious parallel to the status of Lloyds of London.

In the mid 1960s Lloyd purchased Wright Truck and Tractor Company in order to enlarge his business to include heavy construction, as well as building construction. At the same time he employed George MacClanahan to head up the enlarged company.

Soon after George's employment and the diversification of the company into the heavy construction area, the need to acquire a trucking permit from the regulatory Alaska Transportation Commission (ATC) became apparent. At the time, obtaining an ATC permit to haul commodities on Alaska's highways was a time-consuming, long-term venture, especially for the hauling of gravel which was the primary commodity of interest to Burgess Construction.

An obvious means to a quick solution was, of course, to purchase a company which already had an ATC permit for gravel hauling. A market search disclosed that a local trucking company was in financial difficulty and was for sale. This company was of particular interest to Burgess for two reasons.

- 1. It owned an ATC permit allowing gravel haul.
- 2. Its deficit financial position provided for a loss carry forward which complimented Burgess' tax position substantially.

The name of the company was Dead Horse Haulers and was owned by four men from well-to-do east coast families.

Henry D. Tiffany, III Howard S. Bass Roscoe Bicknell, III Edwin Tiffany

The Tiffanys were brothers from New York City and related to the Tiffanys who had extensive holdings in New York City on Manhattan Island. Howard Bass was related to the Bass industrial family of Philadelphia. Roscoe Bicknell was from a family engaged in the production and sale of lumber in Massachusetts.

Originally, Henry and Howard had come to Alaska after college to make their fortune (like a lot of us misplaced easterners) and lit in Fairbanks. An initial venture was the financing of new trucks for a local hauler, Neal & Sons, for work on the Chena Hot Springs Road. Neal & Sons did not do well and could not pay for the trucks, and Henry and Howard repossessed them. Basically, they had two options:

- 1. find a buyer for the trucks; or
- 2. operate the trucks themselves.

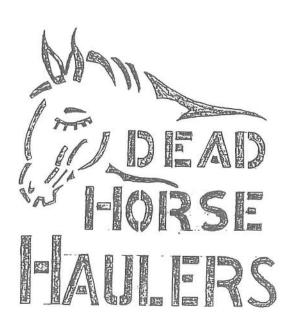
They decided to go into the hauling business and Henry sent for his younger brother, Edwin, and his friend, Roscoe Bicknell, III, to complete the group that founded Dead Horse Haulers.

Dead Horse Haulers was incorporated in Fairbanks, Alaska in September 1962. Howard Bass suggested the name of Dead Horse Haulers. It was rumored that he came up with this name after spending a night with one of Fairbanks' less attractive ladies.

Roscoe Bicknell, however, discounted this rumor because, according to Roscoe, Howard was a real class act with the ladies and was very selective of whom he socialized with and that any of his selections could have been candidates for a <u>Playboy</u> centerfold.

Roscoe noted that Howard, among other things, was involved in making nature movies in Alaska and had previously filmed the famous White Pass gold rush trail northerly from Skagway. Along this route is an area known as Dead Horse Gulch where many of the pack horses ended their careers during the infamous Gold Rush. Roscoe believes that Dead Horse Gulch was the real source of Howard's brainstorm. I agree with Roscoe primarily because I never met an unattractive lady during the years I lived in Fairbanks.

A logo was developed by Roscoe Bicknell's father and was emblazoned on the trucks repossessed from Neal & Sons.



Note: From original stencil used to identify Dead Horse trucks.

Over the next three years the company engaged in trucking on various construction projects, and consistently lost money. Howard Bass provided more money each year and took stock as payment, so he became the major stockholder.

By the end of 1965 it was apparent that the company would not survive, and Howard Bass was not eager to provide additional monies. At the last Board of Directors meeting on September 9, 1965, the following entry occurs in the minutes of the meeting:

"Decided to sell out... If a good sale can be found and all matter(s) cleaned up, we could then decide not to get more equipment and find something else to do, like fishing, kayaking, flying, etc."

One could get the idea, from this statement and the company name and logo, that the Dead Horse Haulers venture was not a very serious one for its young eastern operators.

In February 1966 an agreement was reached between Lloyd Burgess and the owners of Dead Horse Haulers for the purchase of the company. The trucks owned by Dead Horse Haulers, complete with logo, became the property of Burgess Construction Company.

With the explosion of exploratory activity on the North Slope, the demand for earth moving contractors to build roads, pads, and other structures on the North Slope intensified. At that time, the "oil patch" was non-union and the owners endeavored to keep it that way. Burgess was a union contractor, so, in order to obtain non-union work, he formed a non-union subsidiary called Spruce Equipment Company headed by James P. (Buck) Allen. Buck had been with Wright Truck and Tractor (owned by five Wright brothers from Nenana) and, after a short stint with Peter Kewit Sons Co., Buck joined the Burgess group.

In the spring of 1968 Burgess Construction, through the Spruce Equipment Company, under MacClanahan's and Allen's direction, decided to join the activity on the North Slope and with the help of Jim Dalton selected a winter route between Livengood and Sagwan over which cat trains would move equipment to the North Slope area. Several Burgess trains negotiated the route under the leadership of John Clark. These trains consisted of tractors, loaders, trucks, and portable camp units, along with support equipment. Included in the trains were several of the Dead Horse Haulers trucks still bearing that name and logo. The trains moved north over frozen ground in early 1968 and stopped at Sagwan, which at that time was an airport and supply base for the North Slope oil exploration activity.

In 1968, the Spruce operation moved northward to construct a temporary runway for Standard Oil Company of California (SOCAL) in the Sag River just east of the present

Deadhorse Airport. this runway was to be used to support a drilling operation. Much of the move was accomplished by using Interior Airways' Herc. After the move and runway construction, Spruce established a construction camp just east of SOCAL's drilling site.

With the discovery of the Prudhoe oil field in 1968, SOCAL decided to build a more permanent airstrip and contracted with Spruce to construct a longer, wider strip early in 1969. By this time, however, Spruce's construction equipment was in high demand by other oil companies as the need for pads and roads was urgent now that oil had been discovered. A contract was executed between Spruce and SOCAL in early 1969 for the new runway construction. The "drop dead" completion date was March 31, 1969. All construction had to be completed on the runway on or before that date.

In Alaska, the SOCAL operation was run by "Chat" Chatterton (later an Anchorage legislator), and the engineer in charge of the development activities was Joe Dremer. Dremer visited the North Slope sometime in mid March and discovered that Spruce had not even begun on the SOCAL runway. Needless to say, Joe was very unhappy but could do nothing until March 31<sup>st</sup>. He told Buck Allen that he would be back on March 31<sup>st</sup> and the runway had better be completed or else!!!

Spruce, in the meantime, was working two 12-hour shifts, seven days a week, doing jobs for ARCO, B.P., and others. On about the 22<sup>nd</sup> of March Spruce finished other work and threw all its equipment into the gravel haul from the Sag River to the SOCAL runway construction. This, of course, included the trucks with the Dead Horse logo still emblazoned on their sides.

Late on March 31<sup>st</sup>, true to his word, Dremer flew into the SOCAL area and deplaned. Spruce had nearly completed the runway work and only a few loads of gravel remained to be placed. Dremer had come to the North Slope for the single purpose of reading the riot act to Spruce, but was obviously disappointed as the runway was about to be completed on March 31, 1969 as agreed in the contract. As Dremer stood and watched the last few loads arrive, one of the trucks was a Dead Horse truck still with its logo in place.

As the Dead Horse truck went by, Joe saw the logo and said "Dead Horse, that's a damn good name for this place." The name stuck and from then on, it was known as the Dead Horse Airport. Pilots and ground-based radio operators quickly picked up

the name as it was essential to have a positive name identification since there were several small airstrips in the area.

Later, the name Dead Horse sort of accrued to the surrounding area now known as Deadhorse. The original name consisted of two words, Dead Horse, but has since been shortened to a single word, Deadhorse, through usage.

The State acquired the SOCAL Deadhorse Airport in about 1970, after a heated debate between Rivers Constructions and Burgess Construction. Guy Rivers wanted the State airport at "Service City" which he owned, on the Kapurak River. Lloyd Burgess favored Dead Horse. Lloyd, however, was the Republican National Committeeman for Alaska and there just happened to be a Republican governor in Juneau. Dead Horse won.

By the time the FAA entered the picture, the Dead Horse name was fully entrenched and it had no real choice on name selections for the now main airport on the North Slope, and it was official identified as the Dead Horse Airport on FAA charts.

The frantic activity that occurred on the North Slope immediately after the discovery of oil is another story, but Burgess' camp, which at times resembled the Titanic abandon ship operation, acquired the name of Crazyhorse Camp, probably thanks to a surveyor named Siverly (Crazyhorse no longer exists).

The origin of the Dead Horse name goes to the original incorporators of Dead Horse Haulers, the Tiffanys, Bicknell, and particularly Bass. Burgess, MacClanahan, and Allen, through Spruce Equipment Company, created the circumstances, but the credit for the actual naming of Dead Horse goes to Joe Dremer, the SOCAL engineer in 1969.

Bruce A. Campbell

March 5, 1999

Executive V. P. Burgess Construction (in 1969)

### Where are the players now?

Lloyd Burgess – Seattle, Washington George MacClanahan – California James "Buck" Allen – Nenana, Alaska Henry Tiffany – Douglas, Alaska Edwin Tiffany – New York City Roscoe Bicknell – Juneau, Alaska Howard Bass – Deceased "Chat" Chatterton – Deceased Joe Dremer – Salem, Oregon



Bruce A. Campbell, Executive Vice-President B.S. Degree in Civil Engineering, Union College, New York, 1952 Registered Prof. Engineer, Alaska

One of the newest members of the Burgess Construction Company, Mr. Campbell brings a wealth of construction experience to his present position. He has worked for the Bureau of Public Roads and the Alaska State Highway Department. Mr. Campbell also served as Deputy Highway Commissioner for Alaska, and for two years he operated his own engineering firm in Juneau.

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#### CONSTRUCTION AGREEMENT

This Agreement was made and entered into this \_\_\_\_\_\_\_day of \_\_\_\_\_\_\_\_, 1971, between the STATE OF ALASKA, hereinafter referred to as State, acting by and through its Commissioner of Highways, hereinafter called the Commissioner, and ALYESKA PIPELINE SERVICE COMPANY, a Delaware corporation, its successors and assigns, hereinafter referred to as Contractor.

The State and the Contractor agree that:

1. The Contractor shall perform, or cause to be performed, at the Contractor's sole expense, all the work and labor required to construct a highway for the State of Alaska generally described as follows: (1) from a point on the Livengood to Yukon highway approximately three miles northwest of the Yukon Radio Repeater Tower to the South bank of the Yukon River and (2) from the North bank of the Yukon River to Prudhoe Bay, Alaska. The Contractor shall also construct, at its sole expense, all the said highway and facilites related thereto which Contractor deems necessary or useful to the construction of that highway (both segments together hereinafter referred to as Highway), in accordance with those documents listed and described in Exhibit A, all of which documents are by reference incorporated herein and made a part hereof. All of said construction of the Highway and related facilities shall be substantially in accordance with secondary highway standards for the State of Alaska. At the time this Agreement is executed by the parties hereto, the said documents will describe only that part of

the highway north of the Yukon River; however, as soon thereafter as practicable, the parties hereto shall supplement Exhibit A with a document or documents describing route alignment of that segment of the highway south of the said River. Upon proper application by Contractor, the State shall issue to Contractor a Utility Permit, in State's customary form and subject to all requirements of the law and the State's standard conditions, granting the Contractor authority to lay the trans Alaska pipeline across the said Highway at the locations along the Highway indicated on Exhibit A in its present form and as supplemented by the parties hereto.

- 2. The State will be responsible for securing, in advance of construction, all rights-of-way across State and Federal lands for the Highway and all facilities related thereto which Contractor deems necessary or useful to the construction of the Highway. The State will also be responsible for obtaining free use of mineral materials from Federal and State of Alaska lands for use in the construction of the Highway. If the State does not, however, secure such rights-of-way and permits, it shall not be liable for damages, if any, resulting therefrom.

  The State will also acquire all necessary rights-of-way across private lands, and the Contractor agrees to reimburse the State the actual cost of the acquisition thereof, as determined solely by the Commissioner. In order for the State to acquire such right-of-way in an orderly fashion, the Contractor agrees to furnish the State for its use a plat of the right-of-way required across private lands in advance of such right-of-way acquisition.
- 3. The Highway shall be a State highway and may be used by Contractor, its employees, agents and sub-contractors in a lawful manner for the construction and operation of the trans Alaska pipeline without incurring any State-imposed tolls or costs for such use of the Highway, except for applicable motor vehicle taxes, licenses and fees, such as the Alaska Motor Fuel Oil Tax, and such other fees and costs imposed by law, regulations and customary conditions of its utility permits. During construction of the trans Alaska

pipeline the Contractor shall have the right to traverse the Highway with construction equipment of all kinds as necessary or convenient to Contractor in such construction, provided however that Contractor shall repair damage to said Highway caused by such construction equipment, and provided further that such damage shall not be constituted to include normal wear and tear. Any damages apart from normal wear and tear as determined by the Commissioner will be repaired by the Contractor at its own cost and expense and to the satisfaction of the Commissioner.

- 4. When the Commissioner determines in writing that there is no danger to the public from hazards associated with construction, the Highway may be opened by the State for use by the public during construction of the trans Alaska pipeline.
- 5. The Contractor shall perform all work and labor required by this Agreement and shall conform with the plans and specifications listed and described in Exhibit A attached hereto. The Contractor shall carry Workmen's Compensation Insurance in an approved amount. The Contractor will comply with all federal, state and local laws and regulations and all stipulations, covenants, and agreements specified herein and included in Exhibit A, or Exhibit A as it may be amended, by mutual agreement, and in the Environmental Stipulations. "Environmental Stipulations" means the Environmental Stipulations of the Department of the Interior for the Trans Alaska Pipeline System (hereinafter referred to as Environmental Stipulations) insofar as they are applicable to construction of the Highway, and all rights and rights of action which accrue to the United States under the Environmental Stipulations of the Department of the Interior accrue also to the State. The State may revise or amend the applicable Environmental Stipulations if unforeseen conditions arise during construction or maintenance of the Highway. If there is non-compliance with the provisions of this paragraph, the work or

materials shall be removed and replaced or otherwise corrected by and at the expense of the Contractor.

- 6. Contractor, its agents and employees, are and shall act as independent contractor and not as officers, employees, or agents of the State in the performance of this Agreement.
- 7. Any dispute concerning a question of fact or a value judgment arising under this contract (which is not disposed of by agreement of the parties) shall be finally decided by the Commissioner.
- 8. Contractor shall immediately notify the Commissioner of commencement of construction hereunder. Prior to the time such notice is given by Contractor and accepted by the State either party to this Agreement may elect, in writing, to terminate this Agreement and upon termination shall thereafter be relieved of all obligations hereunder; provided that said termination shall not become final until the Contractor has immediately paid to the State the actual costs incurred by the State pursuant to or by reason of this Agreement, thereafter the Contractor shall be relieved of all obligations imposed under this Agreement.
- 9. The State shall inspect the construction of the Highway and authorized representatives of the State shall be allowed access to all parts of the work and shall be furnished with such information and assistance by the Contractor as is required to make a complete and detailed inspection.
- 10. Upon written notice from the Contractor of the completion of the construction of the Highway or any segment thereof, the State will make an inspection of the Highway or such segment. If such construction is found completed in accordance with all terms and provisons of this agreement, that inspection shall constitute the final inspection and the State will accept construction of the Highway or the segment or segments found to be so completed and shall notify the Contractor in writing of such acceptance as of the date of the final inspection. Thereafter State shall maintain the portions of the Highway so accepted in accord with standards established by the Commissioner

of any kind under t. Agreement with respect to the ortions of the Highway so accepted, provided that Contractor shall reimburse State its actual, direct, out-of-pocket cost of such maintenance until either (1) State permits public access to any portion of the road except for restricted use which must be jointly approved or (2) the trans Alaska pipeline is commissioned and first oil is transported therein from Prudhoe Bay to Valdez, Alaska, whichever shall first occur. Such cost shall include no overhead or other indirect cost whatever and shall not exceed \$800,000 for any calendar year.

- 11. Any structure, property, land, stream or wildlife harmed or damaged by the Contractor, its employees or agents, during the construction or maintenance of the Highway shall be reconstructed, repaired, rehabilitated and restored by the Contractor at the direction of the Commissioner, so that the condition thereof, in the judgment of the Commissioner, is at least equal to the conditions thereof immediately prior to such damage or destruction.

  The Contractor shall further abate at the direction of the Commissioner any condition or conditions existing with respect to the Highway or its related facilities, during construction or maintenance thereof caused by the Contractor, its employees or agents, which may be causing harm or damage to any person, structure, property, land, stream or wildlife.
- cost or expense incurred by the State in any way arising from or connected with any operation under this Agreement whenever such damage, cost or expense results from any breach of the Agreement or from any wrongful or negligent act of the Contractor, its employees, agents or subcontractors. Upon the mailing of written notice by the Commissioner to the Contractor of the nature and amount of such damage to, or cost or expense of, the State, the Contractor shall pay the State therefor.
- 13. The Contractor shall indemnify, defend and hold harmless the State against and from any and all demands, claims or liabilities of every

nature whatsoever, arising directly or indirectly from or in any way connected with any or all of the following: (1) the construction or maintenance by the Contractor, its employees, agents or subcontractors, of the Highway or of any facility or structure used in connection therewith, and (2) the use or occupancy, whether authorized or not, by any person whomsoever of any land owned by the State which is the subject of any permit or right granted to the Contractor, its employees, agents or subcontractors; provided, however, that the Contractor is not responsible for injuries or damages caused by employees of the State.

- 14. The Contractor is and shall be liable, without regard to negligence, and shall pay the State or other person or entity thereto for any
  damage or loss occasioned to fish and wildlife and their habitat by construction and operations of the Contractor, its employees, agents or subcontractors, for work done under this Agreement.
- 15. The construction and maintenace of the Highway pursuant to this Agreement are subject to the employment preference provisions of AS 36.10.010 -110 to the extent permitted by Federal Law.
- 16. In the event the Commissioner determines in writing that the Contractor, its employees, agents and subcontractors have failed or refused to comply with any provision of this Agreement or of the Environmental Stipulations the State may without liability to the Contractor, its employees, agents and subcontractors, suspend or terminate any or all of the activities under this Agreement. Work so suspended or terminated shall not be resumed until the Commissioner gives the Contractor written authorization to do so.
- 17. In the event of any inconsistency in the provisions of the documents listed below, the following order of preference shall be observed:
  - (1) This Construction Agreement;
  - (2) Specifications;
  - (3) Design Criteria;
  - (4) Drawings.

- 18. Before this Agreement becomes effective, pursuant to the provisions of AS 19.40.030, the State in lieu of bonds or individual sureties required by AS 36.25.010, may accept corporate undertakings which include the same essential provisions of the bonds or individual sureties required by AS 36.25.010 and which are satisfactory to the State, from each of the corporations owning an interest in the Alyeska Pipeline Service Company.
- 19. The Contractor shall furnish to the State all records of geological data, hydrological data, soil core drillings and terrain temperature measurements made during pre-construction investigations, test results, engineering standards, basic data and technical criteria relating to the design and construction of the Highway and other similar information.
- 20. Exhibit A attached hereto at the execution of this Agreement describes that portion of the Highway crossing Dietrich Pass in the Brooks Range as designed with grades up to 24%. The parties agree that said Exhibit shall be amended to reduce the maximum grade for that portion of the Highway between Station 1155+00 in Segment 4 and Station 159+50 in Segment 5 to grades of approximately 12%; provided, that if State can demonstrate to Contractor that said grade for said portion of the Highway can be reduced to less than 12% (without adding to the difficulty of constructing the pipeline) for a cost not to exceed \$10.4 million, which is the present estimated cost, then Contractor will construct said portion of the Highway to the lesser grade as demonstrated by State; however, in the event Contractor's estimates of unit costs as set forth in Exhibit B attached hereto are modified by reason of renegotiation with its subcontractors or otherwise, then said \$10.4 million maximum shall be adjusted accordingly.
- 21. This Agreement shall be binding upon and inure to the benefit of the parties in this Agreement and their successors and assigns.

IN WITNESS WHEREOF, the parties hereunto have caused this Agreement

to be executed by their authorized officers and their seals to be affixed as of the day and date first written above.

STATE OF ALASKA

BY:

Commissioner of Highways

ATTEST

ALYESKA PIPELINE SERVICE COMPANY

SI: Notwood

Secretary

BY:

Vice President

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J			

### AGREEMENT FOR CONSTRUCTION OF YUKON RIVER BRIDGE

This agreement, made and entered into this 11th day of June, 1971, by and between Alyeska Pipeline Service Company, a Delaware corporation, hereinafter called Alyeska, and the State of Alaska, hereinafter called State, acting by and through the Commissioner of Highways, hereinafter called the Commissioner.

#### WITNESSETH:

WHEREAS, Alyeska is commissioned by the Owners of the Trans Alaska
Pipeline System to design and construct the trans Alaska pipeline and related
facilities and appurtenances from Prudhoe Bay to Port Valdez in Alaska and
the State desires the construction of a highway bridge across the Yukon River
at a point just west of Smoothface Mountain near the confluence of Woodcamp
Creek and the said River, which said bridge will connect two segments of a
highway to be built by Alyeska pursuant to that certain Construction Agreement
between Alyeska and the State dated June 11, 1971 and Alyeska desires to
cross the Yukon River with the said pipeline and facilities by attaching
it to the said highway bridge to be constructed by State hereunder.

NOW THEREFORE, in consideration of mutual covenants contained herein State and Alyeska hereby agree that:

(1) Immediately after Alyeska notifies the Commissioner in writing that it has been granted a construction permit by the Secretary of the Interior to construct the trans Alaska pipeline described above, and that it is ready, willing, and able to proceed to construct the said pipeline, State will, at its sole cost and expense, commence construction of the Yukon River bridge and will proceed with due diligence to construct the said bridge all in accord with the general plans and specifications attached hereto as Exhibt A (these

preliminary plans will be amended later by mutual consent) and the Environmental and Technical Stipulations for the Trans Alaska Pipeline System promulgated by the Secretary of the Interior. The State agrees that construction of the said bridge shall be completed generally in accord with the construction. schedule attached hereto as Exhibit B.

- bridge has proceeded sufficiently to enable Alyeska to install the trans

  Alaska pipeline on the said bridge according to the plans attached hereto as

  Exhibit A, and upon the issuance of a utility permit, Alyeska will thereupon

  pay the State \$6.5 million in lawful currency of the United States, within

  30 days, after which it may proceed, at its sole cost and expense, to install the said pipeline facilities and related appurtenances on supports provided

  for that purpose on the said bridge in accord with the plans and specifications

  attached hereto as Exhibit A. Except for the payment required in this paragraph,

  Alyeska shall have no further obligation to make any payment whatever to the

  State for the right and privilege of attaching and maintaining the trans

  Alaska pipeline as an integral part of the said bridge, but Preska, its

  successors and assigns, shall pay the entire cost of maintaining, repairing,

  replacing and protecting said pipeline and appurtenant facilities for as long

  as said pipeline and facilities are supported by said bridge.
- (3) Alyeska agrees to construct a roadway on each bank of the Yukon River which will connect the abutments to said bridge (which abutments will be constructed by State hereunder at its sole cost) to the Highway constructed by Alyeska as Contractor for the State pursuant to that certain Construction Agreement dated June 11, 1971. The said roadways shall be constructed in accord with the design and the plans and specifications applicable to said

Highway as set forth in Exhibit A to the said Construction Agreement.

- (4) State agrees to maintain the said Yukon River bridge, exclusive of the pipeline and appurtenant facilities, in a safe and secure condition sufficient to enable the said bridge to bear all traffic it will be required to bear and to support the trans Alaska pipeline so long as the said pipeline shall be used to transport-crude petroleum. Alyeska agrees to maintain the pipeline in safe and serviceable condition and shall have the right to alter and modify the pipeline facilities and related appurtenances, at its sole cost and expense, attached to said bridge as it deems desirable so long as the said pipeline shall be so used. The State shall review any structural modification which may effect the structure and approve or disapprove such alterations. Any right to construct or locate any additional pipeline and facilities not included in Exhibit A hereto must be obtained from the State by an additional agreement, if in the opinion of the Commissioner such an agreement may be prudently entered into by the State. Alyeska shall have full rights of ingress and egress (subject to State's regulations for traffic control) to and from the bridge to maintain, operate, alter or modify the pipeline facilities and related appurtenances at all times for so long as the pipeline shall be so used.
- (5) Alyeska shall have the right to review the design, plans and specifications prepared for the said bridge by State prior to commencement of construction of the said bridge and to advise and consult with State with respect thereto. The State and Alyeska will mutually agree on the award of construction contracts. It is understood and agreed that State will include and enforce its customary liquidated damage clause in all construction contracts awarded for construction of the bridge.

(6) The highway bridge constructed hereunder shall at all times be and remain the property of the State of Alaska, and Alyeska shall have no interest therein but only permission to use the said bridge to cross the Yukon River with the trans Alaska pipeline according to the terms and provisions set forth herein.

(7) Alyeska shall indemnify, defend, and hold State harmless against and from any and all demands, claims, or liabilities of every nature what-soever arising directly or indirectly from or in any way connected with the work performed by Alyeska hereunder in attaching and maintaining the trans.

Alaska pipeline as an integral part of the Yukon River bridge.

(8) This Agreement shall be binding upon and inure to the benefit of the parties to this Agreement and to their successors and assigns.

IN WITNESS WHEREOF, the parties hereunto have caused this Agreement to be executed by the authorized officers and their seals to be affixed as of the day and date first written above.

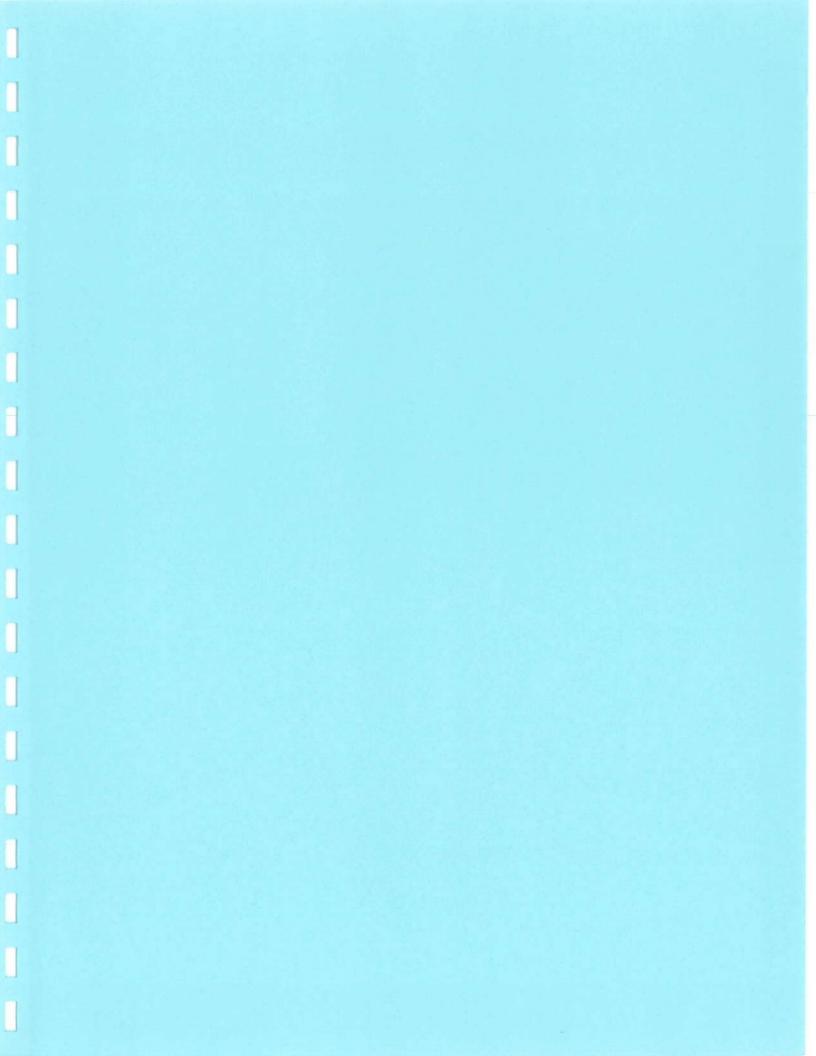
STATE OF ALASKA

Commissioner of Highways

ALYESKA PIPELINE SERVICE COMPANY

Secretary

Vice President



MAP OF HAUL ROAD AND PIPELINE PREPARED BY ALYESKA
Circa 1971 - 1972
Gilca 1971 - 1972
This map had limited distribution because it was prepared for internal use by Alyeska.

# Construction CampResembles Posh Motor Inn

LIVENGOOD - It more les a modern luxury motor inn abuilding, than a construction camp.

Nestled snugly on the lee side of a gently sloping hillside in the Cascadan Range, about 83 miles northwest of Fairbanks, Livengood Camp commands a superb vista of rolling wooded mountains and verdant valleys.

Here, the Burgess Construction Co. of Fairbanks works simultaneously on two projects of historical note: one, a sleek new construction camp, forerunner and model of dozens like it which will dot a denuded, 800-mile swath stretching from the shores of the Alaska Gulf north to the Arctic Ocean; two, the first permanent, major roadway to penetrate Alaska's Arctic regions.

Already, the road has been punched 10 miles into the heavy bush and undergrowth, slashing northward towards the Yukon River, some 50 miles away.

The attractively terraced campsite rests on three levels, snuggled against a protective backdrop of gently rising woodland.

The gravel road is expected to cost upwards of \$10 million by the time it's completed, hopefully early in December.

Burgess' camp, designed to accommodate 250-280 men, will be fully established within the next week to 10 days, according to Bruce Campbell, vice president, who outlined his company's tentative plans for the camp operation and

(See LIVENGOOD, Page A-8)

## LIVENGOOD

(Continued from Page A-1) construction job to the News-Miner last week.

Campbell said his firm has already discussed labor needs with local union representatives, who emphasized that the current labor force in the Fairbanks area will satisfy all the haul road job's requirements, and that no outside workers will be needed.

Tentative plans are for an around-the clock construction effort, the Burgess executive said, with two 10-hour shifts scheduled, seven days a week. However, Campbell noted, that scheduling is subject to change.

A catering firm, Universal Services, has been commissioned to furnish the camp's food, linen and anitorial needs.

The campsite is located four miles outh of Livengood on the Manley-Hot Springs Road. When inished, it will consist of 53 Husky our-man mobile units, lined up end o end and side by side, resting on plocks, with a small covered corridor between them, along the full length of the assembly. The units are each 0 feet long by 50 feet wide.

The camp assembly will run parallel to, but will be screened from he road by some 50 feet of trees and crub brush. Site aesthetics and eautification will be carefully lanned, Campbell said, in line with J.S. Interior Secretary Walter J. lickel's recent assurance that the otal billion dollar pipeline project vould be "a showpiece to the ation," in terms of minimal cology.

An adjoining camp building, 90 y 50 feet, will house the kitchen, which will include a pool table and ightly movie facilities. Garbage will ewage lagoon, 10 feet deep, located

generator plants.

Burgess plans to have more than 50 pieces of basic earthmoving equipment, including 20 or more large tarctors (Caterpillar D-8s, or D-9s,) half a dozen graders, three 10-yard and four five-yard loaders, a dozen or more scrapers, 10 large dump trucks, as well as a number of other trucks of various sizes, plus the necessary support equipment. By the time the 28-foot road—to be built to the state's secondary highway specifications—is completed, these machines will have wrestled between three and four million cubic yards of fill into place.

The precise availability of natural gravels is as yet undetermined, Campbell said, but it known to be scarce along the road's proposed route. Earth excavation and quarried rock will be used as the principle fill.

The 250-280 camp work force will include general laborers, operators, mechanics and a dozen administrative personnel, headed by J.L. (Buck) Allen, project manager. Herb Middleton, John Petersen and Frank Severance, respectively, will handle the duties of project superintendent, project engineer and camp manager.

General laborers, working on a full-year basis, can gross nearly \$30,000, while skilled operators could gross \$40,000 or more per year under terms of a recent contract negotiated between the Associated General Contractors and the various trade unions which became effective on July 1.

These figures are based on a minimum \$6.38 hourly wage for general laborers, ranging up to \$9.51 per hour for skilled operators, lisruption of the environment and exclusive of fringe benefits which total from 12 cents up to \$1.07. These include the contractor's contributions to pension, health and ness hall and recreation room, welfare and industrial advancement funds.

Both time-and-a-half and double e disposed of in a 40 by 120-foot time wage scales will be applied: time-and-a-half for the work week's cross the road, again hidden from sixth day, double-time for its view by a 50-foot screen of foliage. seventh. The labor provisions A 40 by 90 foot shop building embrace what is known as the will also be erected, and power will "straight AGC contract," he added, be furnished by two 200-kilowatt as opposed to the AGC's "North Slope contract."

Unions involved are the Laborers, Carpenters and Operating Engineers.

Burgess is hoping for a 100-day working season, before intense sub-zero temperatures hit the Interior. Working efficiency falls off drastically after the thermometer drops under -20 to -25 degrees, Campbell explained.

A normal winter would bring those temperatures sometime in early or mid-December, he said.

When the road's construction reaches its mid-way point, the mobile camp will be dismantled and moved about 23 miles due north, where it will be pitched once again on the banks of Hess Creek.

There, the road's only major bridge will be erected to span the large stream, and operations for the remaining 40 miles of construction will be centered there.

Personal conduct will center around traditional camp regulations. These include no firearms and no alcoholic beverages. However, as a practical matter, a "dry camp" such as this one means that discreet use of the latter will be tolerated, so long as it is not openly nor abusively consumed.

Campbell declined to offer a project cost, but agreed that the News-Miner's earlier estimates of \$8 to \$10 million are "in the ballpark."

However, he noted, project costs are "tied directly to the work as it develops." Consistently adverse working conditions, then, could boost project costs up to 30 to 50 per cent higher, the News-Miner estimates.

Campbell pointed out that design plans for the road are literally non-existent, and the project's survey engineers, R & M Engineering-Geological Consultants, of Fairbanks, will be "designing ahead of us. We don't know the exact scope of the work," he added, precluding any closer estimates of total project cost.

Arrangements are being made for the camp's occupants to receive their personal mail directly through post office channels, and mail can be sent to them via the Burgess Construction Co., Job Pouch 447, Fairbanks, Campbell said.

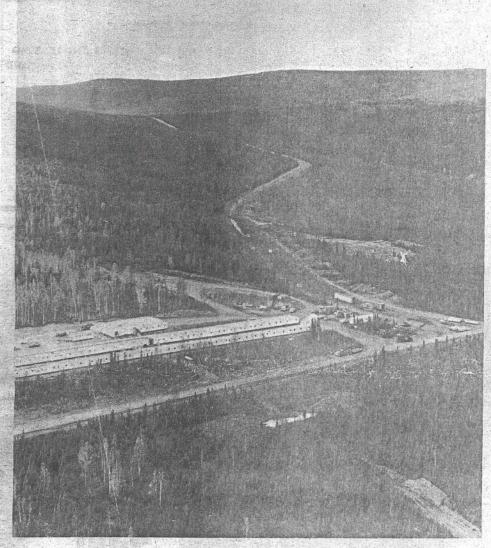
There is even a possibility that the long-shuttered post office at this near-moribund gold mining community would be reactivated, although the U.S. Post Office here said Wednesday it knows of no plans

yet for doing that.

The road will be used by the Trans Alaska Pipeline System to haul workers, supplies and equipment during the construction of its 48-inch pipeline, expected to take two years or longer. Then it will be turned over to the state for public use.

Thus, it will be built in accordance with minimum state secondary highway specifications, which means that the gravel sub-base, which will serve as the initial travel surface, will be 28 feet wide. When ultimately paved for public use, its travel surface will be 24 feet wide.

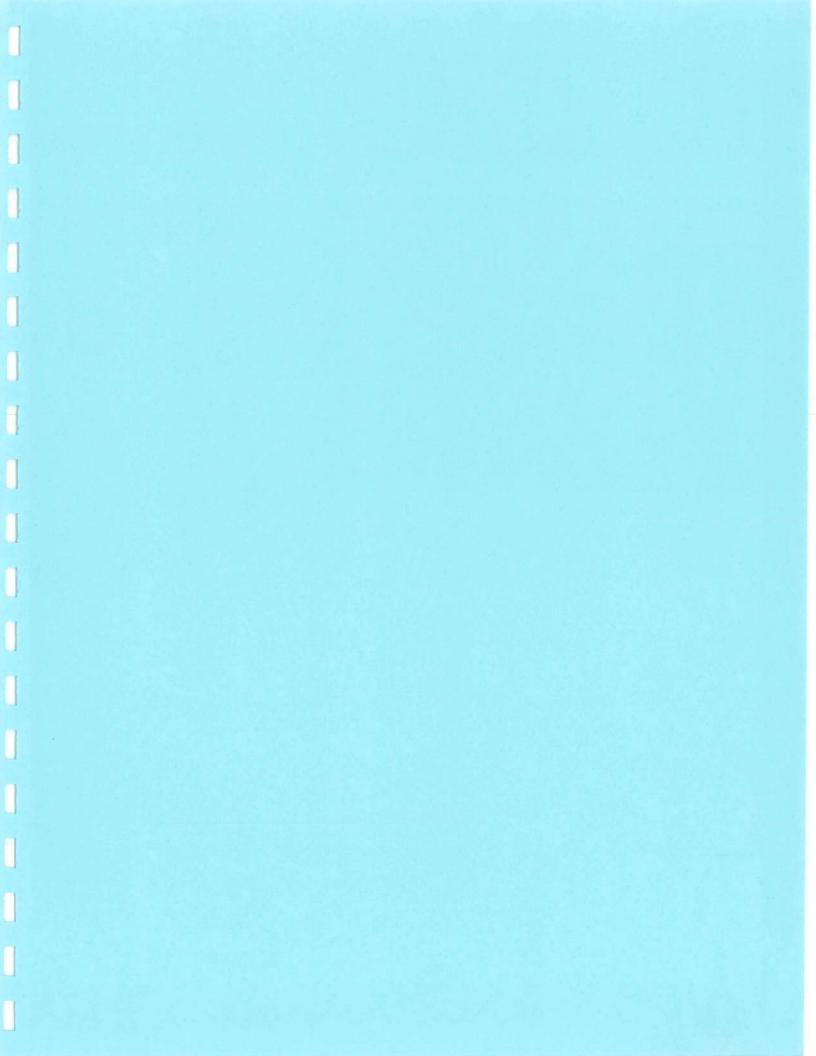
This year has been the worst ever for Alaska as far as forest fires are concerned, with the federal Bureau of Land Management reporting 4.2 million acres burned as of July 28.



### Livengood Camp, TAPS Road Move North

Burgess Construction Co. of Fairbanks has started to break its camp near Livengood, from which it engineered and built the first leg of Trans Alaska Pipeline System's historic haul road to the Yukon River. The 260-man camp fronts on Mile 84 of the Elliot Highway, and will be moved to the TAPS road's present terminus near Hess Creek, some 23 miles farther north, where work will commence on the second leg. The TAPS road slices vertically through the center of the photo.

(News-Miner Staff Photo)



## Alyeska makes last road link



MARL CAMPBELL, left, and Vera Jennings, right, cut ribbon signifying completion of 360-mile pipeline access road initial overlay between Prudhoe Bay and Yukon River.

Fairbanks Daily News Miner September 30,1974

Five months to the day after construction started the initial overlay for the 360-mile long state highway from the Yukon River to Prudhoe Bay was completed by the men and women working on the project.

On the south fork of the Koyukuk River, about halfway between Coldfoot and Prospect Creek, at a point about 100 miles north of the Yukon River, the final road link was made September 29, just 154 days after construction first started.

The all weather road traverses varied terrain, from flat tundra to rugged mountains, to rolling hills and swampy land. More than 25 million cubic yards of gravel and fill was moved to build the road.

Approximately 40 per cent of the road is now at final grade. Nine of the 20 permanent bridges are completed, the remaining ll will be finished before spring. Temporary bridges and a ferry boat serve as river crossings while permanent bridges are being built.

Snow has already fallen north of the Yukon and the gravel road will soon become frozen as smooth and hard as concrete. More than 3,400 workers were employed tallying up more than three million man hours of time on the road effort.

Construction contractors on the road project include Green-Associated Pipeline; Morrison Knudsen Co.; Burgess Construction; and General Alaska Stewart,