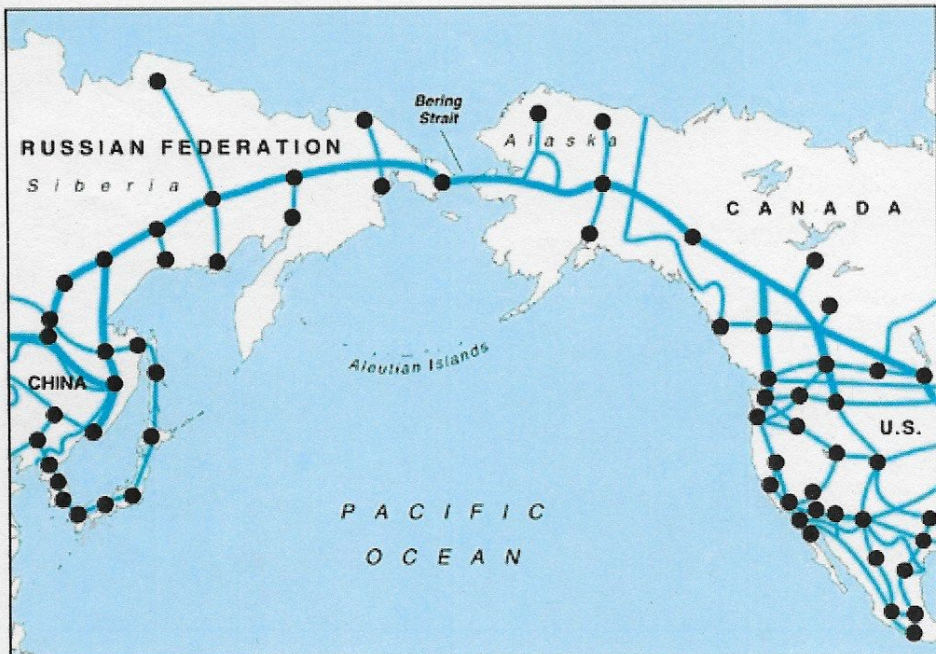


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Bering Sea Connection - North America to Asia

Turning Vision into Reality



A paper focusing on practical and sustainable strategies and partnerships

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Introduction

Great projects do not happen without great visions. The problem through the ages however, is that most people simply cannot digest or grasp that which is unknown to them and beyond their reach. This is especially true when trying to gain concrete support and commitments to execute the vision. It is not that some people are not intrigued or even moved, but that they falter or provide only lukewarm association rather than the partnership and resources needed to execute it.

The ability to break down a great vision into doable projects with shorter range goals and benefits creates a coalition and synergy that is needed to accomplish greater things. The perception is that of less risk and a more comprehensive understanding based on more manageable or attainable goals and rewards,

Therefore, it is the intent of this paper to provide ^{an option for} the framework of breaking down the greater vision into functional areas with appropriate partners, integrated pieces that can eventually be stitched together to create the end goal, which then will appear to be a natural culmination of the smaller steps taken towards that very end.

The linking for North America to Asia is not a new concept, indeed it is a very ancient concept as is known from the land bridge transfer of peoples and cultures from Asia to North America and beyond. As the world stage evolves and as resource needs and sources continue to evolve, it becomes less and less of an ancient by-way and more and more a strategic necessity. As Alaska's State Motto says, "North to the Future".

Current Considerations and Challenges

At this time, there is relatively little pressure economically to link by any land means, Alaska with the Chukotsk Peninsula or in a greater realm The Heartland of North America with Asia and Europe. As economic means and rewards are the fuel that generates the resources needed to accomplish such a task. It cannot be expected that such a project will in the present climate appreciably move forward with any substantial or sustainable progress. However, if the scale is toned down to appeal to smaller functionary projects with symbiotic agendas, then through a building block process the needed means and resources may more aptly become available for the successful accomplishment for the greater vision..

One recurring plan has been to connect Alaska with the the lower 48 via a Yukon Rail Connection. For years this project has been studied both from an economic standpoint and engineering. Indeed, BC Rail in the 1970's built north via the Dease Lake Extension (which was ultimately trimmed back) and Alaska Railroad is in the process of a line extension from North Pole to Delta Junction. While these projects are credible means towards eventually making a connection, they still come far short of that end. One main reason is the economics are not in place yet to support a connection. The Alaska Railroad is a very low volume railroad. It receives rail cars, vans and containers from the lower 48 and Prince Rupert Canada, but in no volume large enough to support thousands of miles of new track construction. The real economic barrier is the fact that CN Rail now controls BC Rail and any potential route between US rail carriers and the Alaska Railroad. There is simply no incentive for CN to hand off to an intermediate Yukon carrier or maintain and operate the additional trackage when the volumes can more profitably be moved via barge from Prince Rupert or an all US barge route from UP and BNSF from the State of Washington. Therefore, a very key integral link in the greater plan has yet to be justified, a link that is far easier for most to conceive, accept and support, but which the bottom line does not yet provide justification. This need not be a fatal flaw, nor a requirement before other parts of the vision are set into motion. The key is to establish an infrastructure serving localized functional needs and agendas that will eventually be stitched together and gain synergy that will indeed support the greater vision economically. However the trade-off is working with more partners with more diversity and multiple, if not conflicting agendas.

IT is also a piece that is largely
~~contingent~~ on out of Alaska control
and at this time Alaska benefits
until other pins and development occur
within Alaska



Alternative Routes Between Alaska and the CN Rail Connection

Beyond the economics and partnerships is the regulatory, legal and environmental climate. These all present various challenges. Means and methods of real estate acquisition, lease or use, permitting and environmental studies are all hurdles to be surmounted. The first transcontinental railroad in North America (1777 miles) was completed on May 10, 1869, less than seven years after President Lincoln signed the Pacific Railroad Act. The 470 mile main trunk of the Alaska Railroad was completed only nine years after the purchase of the assets of the Alaska Northern Railroad in 1914 and the 1523 mile Alcan Highway was completed in just over eight months. Even though we even placed a man on the moon in a little over eight years after President Kennedy issued his challenge, we must face a new regulatory authority of responsibility that will take time and resources to complete. However, we must not become slaves to a framework that either will prohibit or make the vision unattainable based not on

economic grounds, nor on its impacts to natural resources and lifestyles but on purely paper barriers and study needs that cast our futures ultimately into others hands. Through the framework of the unique corridor designation status, it may be possible to begin the physical creation of the vision on a much accelerated timetable to the benefit and economy of all. In reality it should be easier to link Alaska to Asia by rail than go to the moon or Mars.

Corridor Development Concept

One way to break out the vision into more palatable steps is to start a program of corridor development. This concept builds on previous work, study and designation actively taking "ownership" and beginning a process of infrastructure development. This may be in the form of:

- Utility Right of Way
- Roadway
- Emergency Access
- Pipeline
- Resource development – Quarry Roads / Industrial Rail Operations
- Educational initiatives and fixed infrastructure
- Tourism Development Projects
- International Partnerships
- Maritime Improvements

These initial developments need not be on a grand scale, indeed they are apt to be very insignificant at first glance, but should be viewed as the seeds to a bigger plan. One advantage of this strategy is that it defines and cultivates the area both physically and psychologically. Also it may ease environmental challenges related to the bigger later project it primes.

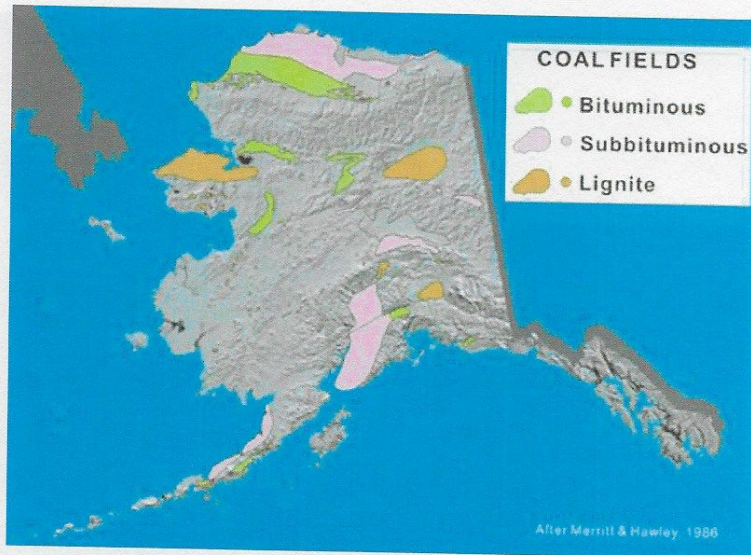
These individual projects, partnered and even identified to some extent by stakeholders and partners are the pieces that will later be stitched together to form the final vision transportation corridor.

Justification for Immediate Action

Some critics may believe that the time for development of this corridor may be after which time a Rail Link is forged between Alaska to the Contiguous 48 States. This is a fallacy, as the dynamics to develop such a link lay largely with the Canadians and the economy and development of Yukon resources. There simply is no economic justification for Canadian National to participate in such a project while volumes to and from Alaska are sufficiently satisfied via Prince Rupert or US Ports. Indeed the forerunner of the US-Alaska Rail Link may, and

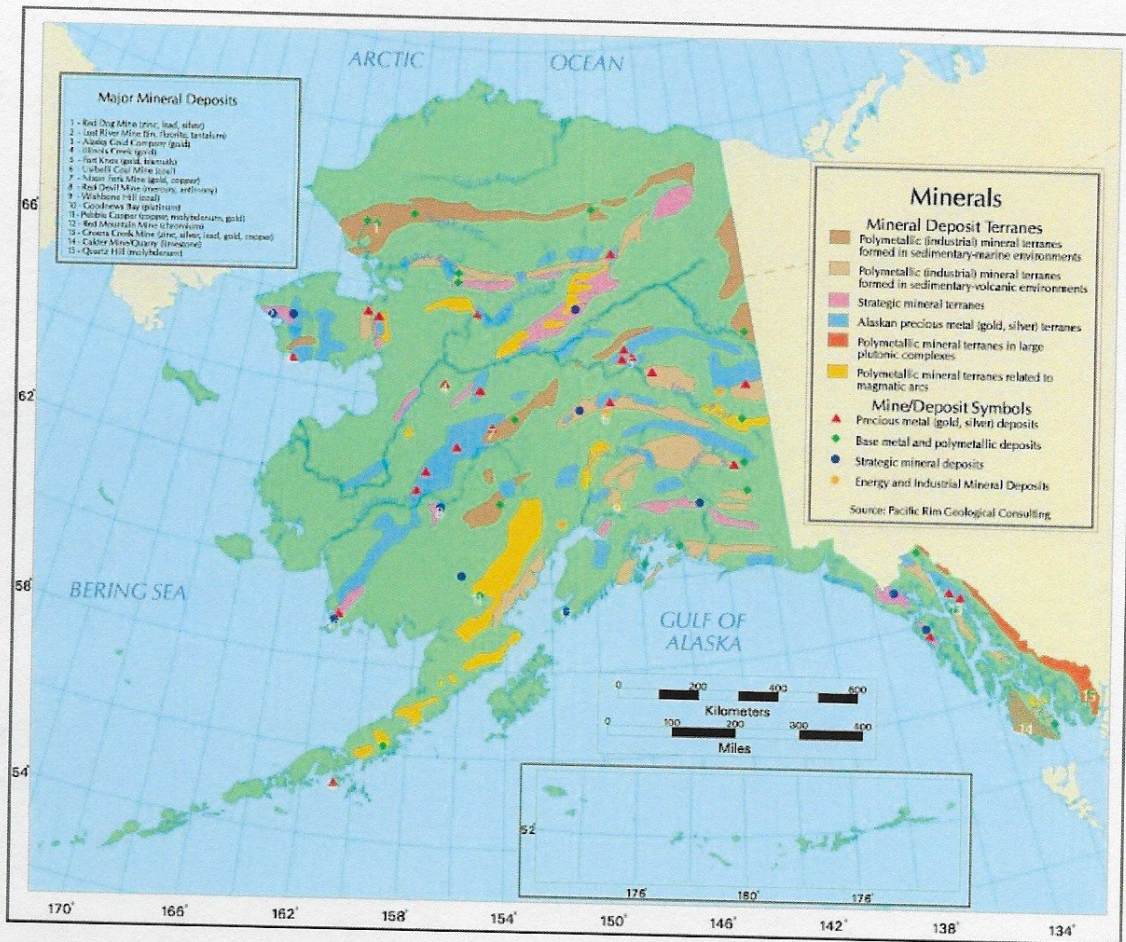
pending any massive Canadian development, will be the development of the transportation corridor between the Alaska Railroad and the Bering Sea. It will become a simple outgrowth of a planned and sustainable development of the Alaskan economy and the need enhance our quality of life for our residents. The corridor between the Yukon and Bering Sea has resources that can be tapped, human needs that need to be enhanced and satisfied and opportunities to be created. These can be had by:

- Alaskan Resident / Owners
- Natural Resources Developers
- Natural Resources and Environmental Conservationists
- International Trading Partners
- Native Corporations
- Tourism Development Companies and Operators
- Utility Infrastructure Developers
- Health Care and Medical Infrastructure and Providers



It is important to build a positive constituency, by identifying stakeholders and key players and dovetailing into their needs and concerns into the seed projects that will create the future International Heritage Transportation Corridor. There needs to be a practicality, functionality and sustainability (a stand alone concept) within the bounds of the designated corridor which enhances the greater vision which then it will greatly leverage and be woven into as a fabric of the needs of all involved. This is important, as unlike the oil pipeline or gas line, this corridor will bring direct benefits and online growth opportunities that can be tapped at any point and enjoyed by those along the route, not just in some faraway City or Stockholders dividend. The development of this transportation corridor will create wealth and distribution totally impossible by any other means.

The concept IT is a much broader vision and goal than simply building a railroad.



Environmental Challenges

The Environmental Challenges are indeed great, some would claim insurmountable. However, these challenges can lead to opportunity. Specifically the opportunity to systematically develop, plan, manage and nurture our environment and resources in a smart way. At some future time, the far north will see tremendous growth and even exploitation in many areas in the US and our Northern neighbors. This will come about from the world economic scene and the play for resources and energy. Already we are witnessing the Russian expansion and development of their energy network, including the Lomonosov Ridge and claims on the sea floor below the North Pole. The demand for energy and resources is growing at a phenomenal rate in China and new world markets and developing and evolving as countries such as India, South America and parts of Africa, are developing higher standards of living. Indeed, arctic resources are already in play and growing in importance. We can be proactive and be in the drivers seat and enjoy the benefits while preserving our lifestyles, cultures, traditions and environment or we can be victims losing all to a global economic engine out of our control.

Sensible development with protection of our environment, lifestyles, freedoms and cultures is possible if reason prevails. Certainly there are more and more regulations from both State and Federal bureaucracies that inhibit, hinder or almost outright destroy opportunity. We cannot let it happen that it comes to a point that we cannot feasibly develop need corridors and more importantly infrastructure that will enhance the standard of living and the freedom of choice of lifestyle whether native or otherwise. For, if we don't we will become impoverished dependents with no voice, legacy or choices for our children. While the days of construction such as was done by the builders of the first Transcontinental Railroad in 1869 and even as recent as the Alcan Highway in WWII can no longer be justified, there needs to be a balance. Perhaps this can be achieved by special legislation both from the federal side and the state side, or through interwoven partnerships that embrace stewardship and a greater goal for our people. The legislative component will be a key to success and will be critical. Proactive and creative thinking and networking is crucial to lay the foundation of success.

Regulatory & Construction Challenges

Arctic and Antarctic Construction creates substantial challenge, but again creates opportunity, specialization and creative outlet that no other environment can offer. It is an opportunity for our youth and our children to develop new methods and means to work in our harsh environment and create balance while minimizing the impact on our global ecosystem. This creates a global educational contribution to our earth ecosystem and can also contribute to the mitigation of global warming and climate change by providing controlled venues for the development of science and education to tackle these important issues. Other opportunities are the controlled access to fragile areas allowed by rail vs uncontrolled and unmanaged access allowed by roadways.

*Photo of
Education*



By making our natural treasures accessible we can create and enhance preservation management, understanding and funding. It is an educational mission in more ways than one.

Resources abound here in Alaska with the University of Alaska Fairbanks and other world institutions, rail operators and northern infrastructure developers and managers. Extensive experience is available from Russia and the Trans-Siberian Railroad and the relatively recent construction of the Lake Baikal line. Other experience resides in Canada with the Hudson Bay Railway operating largely on tundra, the BC Rail Dease Lake expansion and rail operations in Sweden and Norway. Our own Alaska Railroad is a resource of knowledge and experience from the standpoint of construction, operations, equipment, and maintenance.



Trans-Siberian Electrified Freight Train

It is also recognized that decisions and study will have to be carefully considered in the final link with Russia with regard to track gage (Russia is 5ft) equipment compatability and general differences in design and safety standards.

It would be perceived that the construction would be a separate activity and venue from the later operation and maintenance of the line. It is probably not realistic, nor feasible for the Alaska Railroad to participate or contribute any substantial resources to rail development beyond the existing Railbelt. Without a financial benefactor or tremendous loans or sources of funding there is no reason for the ARRC to become proactive in such development. After the line is constructed, the ARRC may then be an interested party in it's operation and will most assuredly be a major benefactor of it's traffic. Indeed, line improvements and capital programs that have been underway during the last few years at ARRC will allow it to be an ~~efficient~~ player in the enhanced rail transportation environment of the north.

effective

Global Participation

Although this vision can be beneficial as a regional project and as an Alaskan Development Project, it also is a Global Project synched into broader global perspectives and economics. This project allows us to reap substantial benefits as a society and a northern community while sharing ~~the~~ some of the burdens *with others.* Lessons from the pipeline can be learned that allows us to better manage and control the growth and wealth, while at the same time leveraging the positive economics and wealth generation of the construction phase. This construction

would take on numerous smaller pieces on varied scales, and only after it is complete would the final operator selection be made. This could become a model global energy and transportation development project that will define projects of such scale for years to come. Projects of Mega-Magnitude that are on a relative scale not seen or attempted since the building of the Great Pyramids in ancient Egyptian times. The opportunity is ours.

Educational, Economic and Environmental Rewards

There are many opportunities and benefits for a multitude of interests and stakeholders. Educational opportunities can be developed in several major disciplines such as:

- Arctic Studies
- Low Impact Tundra Construction
- Wastewater Management
- Natural Resources Management
- Cultural Heritage Studies
- Cross Cultural Studies
- International Studies and Business
- Low Impact Resource Development
- Natural Resource Preservation
- Northern Tourism Development
- Seismic Studies
- *Transportation Corridor Development*

This is just a small representation, and the vision can serve as it's own classroom developing academic venues and generating a self sustaining need for additional institutions and campuses spread throughout the Alaskan North of world renown reputation.

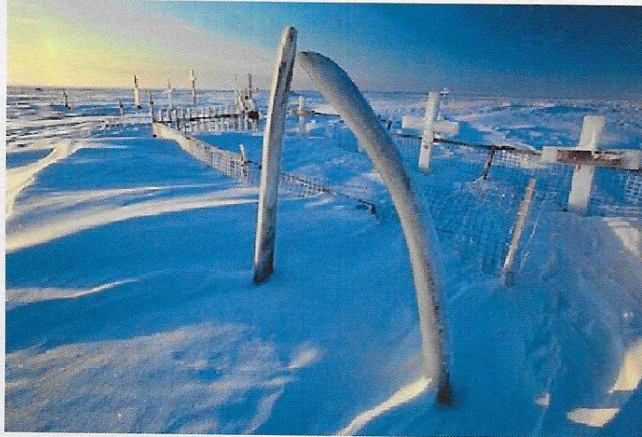
There are incalculable economic benefits both in the short term of corridor development projects and in the continuing evolution of the corridor even long after the completion of the link between Asia and North America. Early efforts will have need for many diverse skills which will introduce new ways of thinking about the strategic importance of our Great Land. Small construction projects and ecosystem management will influx both talent and dollars into our economy, with step by step development becoming sustaining and lasting. The corridor will open new venues for tourism, create access and markets for minerals and coal and establish or enhance existing communities with greater educational programs and health and welfare needs.

The environmental rewards are the result of being proactive now vs. reactive later. The development of northern resources will become a reality, the question is whose reality and whose nightmare will be the end result. The step by step process of sustainable corridor development will leave a lasting legacy and open up controlled access for further future learning and studying by future

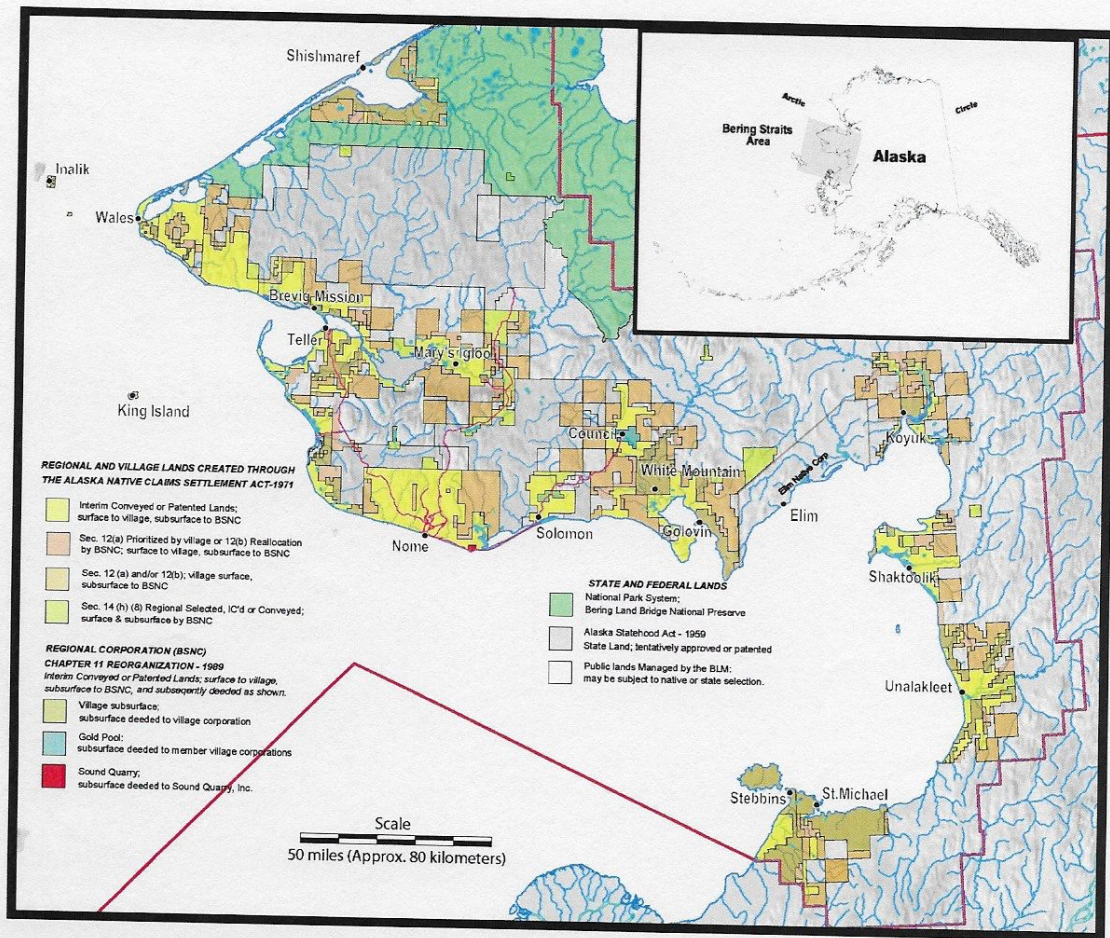
generations while having minimal impacts and maximum benefits. The great land is here for our enjoyment and stewardship and the vision of a rail based transportation corridor can offer that future better than any other mode.

Sustainable Development & Cultural Heritage Protections

On account of the phased development process, integrated within the total fabric of the region, there will be a degree of sustainability that is not totally dependent on the completion of the whole. It also allows opportunity to enhance infrastructure and quality of life on a continuing long term basis, far beyond the initial boost of construction based wealth.



As a result of this reality, the project will not be highly dependent on the need for continuing operating and maintenance funds. The International Transportation Corridor designation will allow new and far reaching opportunities for all stakeholders involved, and contribute to overall global concerns in far reaching ways. Although this project will create great changes in the North, it will also, if properly managed, greater freedoms in protecting and enhancing cultural lifestyles and cultural connectivities by bringing direct benefits that will be region specific and not funneled into metropolitan areas, while bringing awareness on a much greater scale to the uniqueness of the northern peoples.



Other opportunities will be the enhancement of tourism, especially in a controlled venue where the ecological impacts of the tourism footprint will be minimal, but the benefits great. A whole new world and new markets await those wishing to adventure travel, participate in educational learning experiences and become aware of our northern lands, wildlife, ecosystems and heritage. Specialized resorts that draw on the natural resources in a protective way can be made available to many more people and create new and enduring relationships in ways that can hardly be imagined, but in ways that harken back to ancient times in a world now greatly changed from the mastodon tundra treading beasts of old.

It also may not be recognized that at one time, there was rail service on the Seward Peninsula in the form of rail lines radiating from Nome and Council areas in the form of the Wild Goose, Nome-Arctic and Seward Peninsula Railroads. Although in some ways short lived and functionally specific to mining interests, they never-the-less left a lasting heritage that finds intrigue, romance and nostalgia today. The remains of some of these lines and their old rusted locomotives are prominently seen in tourism brochures and artwork as the "Last Train to Nowhere".

A
RDC
PUC
to
line?



Anchorage Museum of History & Art. Library & Archives.
Railroad Construction near Nome, Alaska

After all these years, it is time to turn that legacy into the beginnings of the "First Train to Everywhere". It may be totally feasible and practical to use the roots of this bygone system to serve as a platform to build a nostalgic "Gold Rush Train" at some designated point on the peninsula as part of the bigger overall picture. To establish a beachhead on the western shore that provides an integral stitch in the bigger fabric. This forerunner could serve as a beacon to the bigger vision while providing employment, skill development, diversity, tourism enhancement and a sustainability block. Other concepts for establishing rail would include the identification of a suitable rail dependent facility at some point north of Nenana and west of the Alaska Railroad. This would serve as and establish the junction point and interface between the existing Alaska Railroad and Railbelt and the new International Transportation Heritage Corridor. It may be in the form of some sort of military facility, oil, coal or energy related or even perhaps a resort receiving passengers by rail on a seasonal basis. This line would be built with non-federal or state funds and initially be independent of the Alaska Railroad, creating a second common carrier in Alaska, at least to start which may be of use or benefit in pushing west towards the Bering Sea, while still leaving options to work easterly from some other point in the form of a temporary highway, haul road or private rail as need may arise.

The interesting concept is that this vision can be both a development and a conservation program, creating Arctic Accesses for the benefit and quality of life of those most needing it, especially in lieu of the high energy costs and remote medical problems associated with Bush Alaska. Indeed, the cost of energy along the new corridor could drop dramatically with a multitude of positive impacts.

Conclusion

While there are many challenges, there are also many opportunities that point to the justification that the great vision of connecting Asia with North America can be started at any time of our choosing. The climate and timing will not get better from the standpoint of those stakeholders most immediately involved to be controlling partners and interests able to benefit most prominently. The project also need not wait for a Alaska – Canada Rail Link, nor for Russia to complete their rail access to the Bering Sea. Indeed, it is strategic fortune that the link between the existing Alaska Railroad and the Bering Sea is one that can be part of an International Transportation Heritage Corridor, sustained by tourist development projects, mineral and mining interests, ecosystem research, educational venues and infrastructure and increased accesses for health care and lifestyle preservation through locally generated wealth. This paper cannot, nor can any paper, go into intricate detail as the execution of the vision is a huge dynamic that can only be solved as an on-going process. However, properly managed it will not only create a wealth as part of construction, but will spawn additional wealth and projects that will make it a self sustaining corridor benefiting not only Alaskans but eventually impact the world on a global basis.

The Future is Here, and We are the North. Let us fulfill our destiny

About the author

Douglas J. Ellison has been associated with the railroad industry for about 28 years and has participated and managed several projects involving rebuilding long dormant rail lines for sustainable futures and economic development. He has been involved with all major facets of rail operations, management, rehabilitation and studies.

Enhance