Advocates for Safe Alaska Highways (ASAH) Comments on Public Review Draft: ARS CAP
Submitted on April 19, 2024

ASAH has reviewed the Draft of the ARS CAP and submits the following comments to Kinney Engineering for inclusion in their final report. While we appreciate the volume of work represented, our overall impression is that the majority of the recommendations included cannot be implemented in a timeframe that will reasonably result in protecting both the driving public and the state's infrastructure from the Kinross plan to drive 60 round trips daily between Tetlin and the Ft Knox mine past Fairbanks in 164,000 LCV ore-haulers. A recommendation to significantly reduce the gross vehicle weights of the ore trucks until the corridor can be upgraded and improved is missing.

Study Weaknesses

- This is not a fully independent study to determine the costs to the state, damage to infrastructure and loss of life/personal property due to the addition of the ore haul traffic. Full independence of the consultants was agreed to in March of 2022 by Governor Dunleavy in a meeting between him, DOT commissioner Ryan Anderson, Senator Click Bishop, Representative Mike Cronk, Kinross GM Jeremy Brans and representatives from Advocates for Safe Alaska Highways. However, DOT paid for *and* provided 100% of the bridge assessment data used. While much of the work was performed by Kinney Engineering, the critical aspect of bridge conditions and their ability to accommodate the added B-Train traffic was not performed by an independent consultant, but rather dictated by DOT. No alternative to allowing these trucks to run well over each bridge's Inventory Rating was considered. A third-party bridge analysis, with real alternatives to avoid bridge failures, was, and still is, needed.
- Bridge replacement costs were calculated by DOT and supplied to Kinney Engineering. When pressed in TAC meetings, DOT agreed that their estimated costs are likely low based on recent bid tabs and today's inflationary environment and the remote locations of the projects. Material acquisition is slow to scare still and contractors are still having trouble filling positions with qualified workers. ASAH estimates the bridge replacements alone will cost on the order of $600M and will take multiple years longer than DOT's estimates.
- Similarly, based on current market costs for equipment, operators and materials (and the fact that the ESAL analysis does not consider the axles being lifted as is happening routinely), we believe the M&O aggregate costs will be in the $13Million range.
- The Highway Safety Software model used does not distinguish between truck types and does not account for B-trains. Kinney states that crash frequency and severity due to the added B-Trains are most likely under-predicted. Cited articles confirm this. The State is making decisions about the safety of this ore haul based on flawed data, leaving the travelling public to be the guinea pigs while actual crash data is collected.
- Missing: Real world data shows B-trains have difficulty maintaining traction under common Alaskan road conditions, causing safety concerns for other drivers (for example, recent Hagelbarger and Tenderfoot Hill incidents on slick road surfaces). Other

truck traffic had no issues navigating these conditions, but many B-Trains were left stranded on the sides of the road.

- Claiming certain safety concerns do not fall under the control of this study doesn't make them go away.
- It is a flawed assumption that Manh Choh is only a 5-year mine and that these B-Trains will stop at that time. This study continues to ignore the fact that Kinross and Contango are speaking to their shareholders about their multi-decades long plan to use our public Alaskan roads as their haul routes. 60 trucks/day is the starting point, not the maximum. Case in point: Lucky Shot mine near Hatcher Pass has the same business plan to haul ore to Ft. Knox mill, beginning as soon as the Tetlin to Ft Knox project is fully underway. (https://www.contangoore.com/media/contango-ore-red-clouds-pre-pdac-2024)
- The calculations to determine pavement damage and legal loading based on the Bridge Gross Weight Formula were performed assuming that no truck axles are retracted (page 39 ARS report). With the possible seven retractable axles lifted, the maximum allowable GVW drops to 125,000#. We understand that lifting axles is allowed between Fairbanks and Ft Knox from October 1 to April 15th but raising axles any other time or on any other sections of the route would make it an illegal configuration. This should be clearly stated in the report but is not. Loaded B-Trains have been documented along the corridor with multiple axles raised.
- The report states the ore trucks are "expected to decelerate at 13.3 f/s^2" but this value was arrived at, and included in the CFR, based on truck trials of rigs half the weight being used by BGT. It is hard to believe that the deceleration rate of this ore hauler is the same. The B-Trains should have been field tested for stopping characteristics as ASAH requested multiple times. We would posit that the CFR was never meant for extrapolating to such a heavy load when most design criteria is formulated to regulate and test trucks that max out at 80,000 lbs GVW.
- Passing Lanes – ASAH cannot tell whether or not Kinney Engineering recommends additional passing lanes beyond what DOT has planned. Both passing and climbing lanes were discussed as alternatives, but no conclusion is obvious in the report. Did Kinney Engineering verify that the passing lanes planned by DOT meet the needs of the B-Trains? We ask because the original projects were designed in 2016 before this plan came to light.

Major Gaps

- No recommendation that extremely heavy LCV operators bear some portion of the cost to upgrade infrastructure for their needs. (Tolls, permits, per-axle fees, etc). DOT has mysteriously decided that this is not an industrial haul, yet it is clearly not a commercial haul to bring goods and services to communities. This study is a direct result of the conflict between industrial use and commercial use, yet an examination and recommendation to clarify regulation Section 17AAC35.010 is not a part of this study. The existing road system design features cannot accommodate these long and extremely heavy loads without nearly a BILLION dollars of improvements, the cost of which is currently being put on the shoulders of the State.

- Why is there is no recommendation to limit weight loading to the lowest inventory bridge rating (**not** operating rating) along the route until all deficient bridges are replaced?
- No discussion on why DOT is allowing the ore haul to proceed **before** upgrades can be done (and before this study was even finished). DOT admits the roads and bridges are not up to the heavy wear these B-trains will cause, that they cannot repair or replace them in a any timeframe that even approximates the initial ore haul, yet that seems to make no difference, and Kinross was given the green light to haul without any restrictions to number of trips/day.
- There is zero analysis of the last-minute decision to allow trucks to use the Steese Hwy bridge over the Chena River (bridge 231), other than to say it happened and DOT says it's now OK. DOT insisted for years, and even presented to the TAC in July of 2023 that this bridge could not handle super heavy loads, and that DOT "doesn't want any permit or heavy ore loads on this bridge." (Leslie Dougherty to TAC July 26,2024) There is a complete lack of consistency within DOT's bridge section and no data shown to convince anyone that this is a safe option. An independent bridge analysis would likely have come to a different conclusion.
- Unsatisfactory claim by Kinney Engineering that fugitive dust is not a concern (p. 146, section 10.2.1). One look at the amount of mine dirt stuck to the tires and outside of the trucks currently running shows that the loads aren't the only sources of Manh Choh acid-generating ore particulates. The entire haul route is now being subjected to this "crop dusting" of toxic material.

<u>School Buses and Bus stops</u>

- The Alaska/Richardson/Steese Highway Corridor Action Plan exposes many concerns regarding School Bus Stops on this corridor, but no viable safe solution to accommodate school buses sharing this corridor with the frequency of the Mahn Choh Industrial Ore Haul.
- Kinney Report Page 21: There is stated public concern about the B-Trains' braking characteristics and how they will function on highways that are designed for other lighter vehicles. The concern is founded in the belief that the length (95 feet) and weight GVW (82 tons) prevents B-Trains from stopping in time to avoid crashes. Braking performance on snow and ice were of significant public and TAC interest, especially related to B-Trains and school bus stops.
- Kinney Engineering identified 86 school bus stops on the ARS route, however, Kinney did not report how many times a day school buses are stopping at those stops. Many of those stops have a school bus stopping four (4) times a day: High School/Middle bus and Elementary bus, both doing morning pickup and afternoon drop off. These are full stop, both lanes of traffic on two-lane highway. All but a couple of those identified 86 stops have buses stopping at least two (2) times a day because they pick up in the morning and drop off in the afternoon. Only reporting the school bus stops and not school buses stopping minimizes the danger of school buses sharing the road with these trucks.

School is in session nine months in our darkest, iciest, coldest, snowiest months of our sub-arctic climate. This isn't the lower 48...

- No additional Stopping Sight Distance calculations or allowances appear to have been performed during snow events to ensure school bus safety.

- At the April 16, 2024 Fairbanks North Star Borough School District Board Meeting, the regional manager for Durham School Bus, (the bus vendor) stated that no conversation has taken place with the Trucking Vendor (BGT/KR) about an alert system that would warn trucks of a bus stopping ahead of them. At the TAC meetings, Kinross spoke of a HAAS Alert system..... Obviously nothing has come of that and the trucks are rolling! There is NO PLAN to accommodate the safety of school buses.

Other

- Surprisingly large difference in ESAL estimations for loaded B-trains: 3.0 by DOT ("engineering estimate" without calculations) vs 5.5 Kinney Engineering calculation.
- End of last sentence missing on p. 84, Section 5.3.4.
- Remove STIP ID 34130 and 34128 from Table 79, page 202. These two projects are not in the STIP any longer.

Conclusions

1. It is very difficult to find Kinney Engineering's recommendations, costs and timelines in this 258 page narrative document. Based on the initial contract Scope of Work we would expect to be able to clearly identify:
    a. The recommended policy goals and investment priorities,
    b. Potential study gaps needing further assessment
    c. Kinney's final recommendations on needs, infrastructure improvements, additional studies needed, policy or legal issues, and funding opportunities to help develop the recommended priorities.

    The Alternatives section discusses alternatives considered and reports on the TAC input, but we would expect that Kinney would take that information and provide their solid conclusions and project priorities useful to the state and public for further use. Adding a table with this information, as well as additional maintenance dollars required to accommodate the B-Trains, in either the executive summary or first section, is needed.

2. The ARS CAP is heavy on the requirement that the State of Alaska and the public pay for and make concessions, change their behavior, accept a reduction in quality of life and an increased number of severe to fatal crashes, and pay for needed infrastructure improvements due specifically to the addition of the Kinross B-Trains.
3. The ARS CAP is light on what it asks Kinross (or any other operator who wants to run industrial loads at high frequencies) to contribute in order to preserve and upgrade the infrastructure that exists today and work harder to ensure the safety of Alaskans.

4. The public's plea to not turn our scenic, two-lane rural roads into industrial ore haul routes has been ignored in favor of an industry that contributes less than 1% to the State's general fund, has a terrible environmental track record, and forces the driving public to accept higher risk on our already limited road system.