

Confidential Memorandum

To: John Boren, ODOT

From: Dan Smith, Frank Harder, The Tioga Group

Date: 01/12/21

Re: MVIC Submission of 12/17/20

Scope and Summary

This memorandum contains Tioga's analysis of material MVIC sponsors submitted on 12/17/20, taken in the context of all materials submitted to date. We have undertaken to compile relevant analyses and observations in this single memorandum rather than referring to multiple previous discussions.

The MVIC sponsors have made their best efforts to support the Millersburg Intermodal Facility (MVIC). As it is currently envisioned, success of the MVIC proposal depends on:

- Development of an efficient rail intermodal terminal at Millersburg.
- Provision of reliable, consistent rail service, using "hub and spoke" manifest train operations in competition with much faster motor carrier service.
- Provision of rail intermodal pricing between Millersburg and the Ports of Seattle and Tacoma competitive with the current Portland service price leaders, NWCS and BNSF.
- Active financial support from ocean carriers (steamship lines) comparable to support provided today in Portland.
- Identification of a party willing to manage and market the service.

Thus, based on all information received and reviewed to date, it appears that successful operation of the MVIC terminal and intermodal rail service between Millersburg and the Ports of Seattle and Tacoma depends on a series of assumptions that have yet been verified.

The lack of verified commercial or economic feasibility in the MVIC project to date is not due to any lack of diligence or creativity by the sponsors. On the contrary, the sponsors appear to have made every effort to bolster project economics and marketability. The MVIC proposal, is unique, however, and ultimately depends on the cooperative efforts of multiple parties that have not yet either 1) committed to the venture, or 2) categorically refuse to commit. Project success thus rests on factors that are still unresolved.

Competitive Context

Shippers in the Willamette Valley and points south presently have two basic choices to move oceangoing containers to and from the Ports of Seattle and Tacoma: a rail/truck option via NWCS or BNSF at Portland, and an all-truck (truck drayage) option directly to/from Seattle or Tacoma marine terminals.

Rail/Truck Option

The rail/truck option via NWCS (or BNSF¹) is the current price leader because it is effectively subsidized by the ocean carriers. Taking exports as an example, the ocean carriers offer one ocean rate (e.g., to Korea) if the container is delivered directly to a Seattle or Tacoma port terminal, and a second, higher rate if the container is delivered to NWCS (or BNSF) in Portland. The difference between the two rates, plus the round trip drayage to Portland, is the shipper's cost for the rail/truck option. The ocean carriers offer the rail services at below their cost, which is the main reason why the rail/truck options services are the price leaders.

It is critical to note that the NWCS and BNSF rail options are offered by the ocean carriers as substitutes for the direct vessel services formerly offered at the Port of Portland. This arrangement enables importers and exporters to treat the NWCS and BNSF terminals in Portland as if they were port terminals.

One aspect of the effective ocean carrier subsidy is maintenance of empty container pools at Portland. Rather than having to obtain an empty container from Seattle or Tacoma, a Willamette Valley exporter can obtain an empty at Portland. Likewise, an importer that has received a loaded container at Portland can return the empty there. As established in our earlier work for ODOT and Business Oregon, most containerized imports to Oregon are bound for customers in the Portland area, chiefly in Clackamas, Multnomah, and Washington Counties. A large portion of these containers would be returned empty to Portland facilities, making those facilities the predominant sources of empties for Willamette Valley exports.

The ocean carriers effectively subsidize the operation by covering the cost of maintaining empty container pools at Portland, and paying for empty container repositioning between Portland, Seattle, and Tacoma as needed to maintain the desired Portland inventory. This policy has been referred to as "free empty repositioning", yet the ocean carriers do not actually deliver empty containers to customers, or move empties to or from Portland on a container-by-container basis.

Truck Drayage Options

Truck drayage – movement of containers on chassis by motor carriers – is the existing alternative to the rail/truck options. Shippers ordinarily obtain and pay for drayage between marine or intermodal terminals and their location. The round-trip nature of drayage service has been another source of confusion in this project evaluation process. Drayage service is almost invariably round-trip, because when drayage firms pull an empty or loaded container from a marine terminal, they take legal and financial responsibility for that container until they return it to an authorized location. The inbound and the empty and loaded trip legs may be separated by one or more days, so the "round trip" nature of the business is not always apparent.

Millersburg Terminal

Based on plans reviewed to date and the participation of ITS ConGlobal, an experienced operator, Tioga is convinced that MVIC itself can be designed and operated as an efficient rail intermodal terminal. Some "teething problems" should be expected, and if the expected volume does materialize it may grow slowly. As noted below, the sponsors may wish to investigate and encourage complementary uses of some MVIC capacity, such as rail-truck transloading or container storage.

¹ The discussion in this memorandum centers on the NWCS option because it is the best known and because detailed public information on the BNSF operation is unavailable.

UP Manifest Train Service

The ability to provide frequent and reliable service with competitive transit times is critical for success of the MVIC project. As indicated at right in an example from the UP website, intermodal rail service is defined by:

- Cutoff time – the time by which outbound containers must be delivered to the terminal for the next outbound train.
- Days in transit – the days between the cutoff day and the availability day.
- Availability – the time at which the container is available at the destination terminal.

International Container Standard Schedule Effective 07/20/2020						
Chicago Chicago (Global 4), IL — Seattle Seattle (Seattle), WA						
Drop off by	Sun (12/13)	Mon (12/14)	Tue (12/15)	Wed (12/16)	Thu (12/17)	Fri (12/18)
		03:30	03:30	03:30	03:30	03:30
Available		Sat (12/19)	Sun (12/20)	Mon (12/21)	Tue (12/22)	Wed (12/23)
		14:00	14:00	14:00	14:00	14:00
Transit time		5 Days	5 Days	5 Days	5 Days	5 Days
Average		132h 00m	132h 00m	132h 00m	132h 00m	132h 00m
90th percentile		127h 53m	130h 19m	111h 40m	122h 50m	140h 29m
Subject to change						

The sponsors should obtain such schedules to ensure that the service to be provided will meet the needs of potential customers. The partial UP schedules supplied to date suggests transit times of 4-5 days between Millersburg and the Ports of Seattle and Tacoma, and do not provide cutoff and availability times. In comparison, motor carriers usually deliver Willamette Valley cargo to the Ports of Tacoma or Seattle in one day.

Rail Intermodal Economics

MVIC has not yet demonstrated that cost-competitive intermodal service can be provided from MVIC. There have been multiple cost estimates and analyses for this project. Due perhaps to the complexity of current and proposed intermodal operations, however, there is still some ambiguity regarding the various cost elements.

At this stage in project consideration, it is more important to ensure that the cost analysis is complete, and that costs are correctly assigned to different movements, than to focus on small differences in estimates for drayage and other variable factors.

The relevant cost elements include:

- **UP Rail Rates.** The UP “manifest train” rates have been given as different amounts in different analyses, and should be clarified.
- **Tacoma Rail Switch Fees.** Tacoma Rail charges switching fees of \$25.50 per container (\$51 per platform) each way between UP and BNSF rail connections and the three Port of Tacoma intermodal yards. MVIC sponsors will need to verify which party will be responsible for this fee, and include it in final cost estimates.
- **Port of Tacoma Intermodal Lift Fee.** The Port of Tacoma charges an intermodal lift charge of \$78.50 per container, each direction, at its on-dock terminals. MVIC sponsors will need to verify which party will be responsible for this fee, and include it in final cost estimates.
- **Lift/gate Fee.** The estimated MVIC terminal gate/lift fee estimated by ITS ConGlobal appears reasonable, and would apply to both empty and loaded container moves.
- **Origin Drayage Cost.** Sponsors have reasonable estimates or for drayage to/from MVIC. This cost will apply to every movement, but will vary with distance from the terminal. Drayage costs will also entail chassis per diem.

- **Seattle Drayage to Dock Fee.** The estimated drayage to dock (marine terminal) fee for Seattle Argo should be applied to all movements to and from Seattle marine terminals, other than on-dock movements at Terminal 18.
- **Seattle Terminal Fee.** Seattle port Terminal Fees only apply to Seattle T-18, but do apply to both directions.
- **Steamship Line Margin.** The steamship line margin shown in some analyses may not be relevant if the sponsors are expecting the ocean carriers to offer the MVIC option at below cost, as they do at NWCS.

It will be critical to ascertain which participants are expected to pay which costs.

As noted above, the ocean carriers offer the NWCS and BNSF options at below their cost as an alternative to direct Portland vessel service. To compete with these Portland options, the MVIC service will also have to be offered at below its full costs. The current MVIC plans anticipate that the ocean carriers will do so.

To compete with faster and more convenient drayage services, the MVIC rates will have to be substantially lower than the drayage rates.

Active Ocean Carrier Participation

The MVIC proposal envisions two forms of ocean carrier participation, both critical to commercial and economic feasibility.

Financial support. The MVIC business plan assumes that ocean carriers would be willing to support the service MVIC financially to compete with the NWCS and BNSF services. Expectations of ocean carrier support may be based on ocean carrier participation in those existing rail services.

- The ocean carriers offer ocean bills of lading for exports and deliver imports at Portland instead of direct vessel service.
- The ocean carriers contract with NWCS or BNSF to move containers between Portland and marine terminals at Seattle and Tacoma. While the ocean carriers apparently work directly with BNSF, there is no direct relationship between the ocean carriers and UP in the NWCS service.
- The ocean carriers reportedly pay the Tacoma Rail switching fee, the Tacoma intermodal lift fee, drayage fees at Seattle, and any Seattle on-dock fees.

The MVIC plans anticipate that:

- Ocean carriers will pay to have empty containers repositioned and pooled as needed at Millersburg for use by export customers;
- Ocean carriers will pay to have empty containers moved by rail via UP from inland points and pooled as needed at Millersburg for use by export customers; or
- Some combination of strategies.

There are about 12 major ocean carriers. These carriers are organized into three vessel-sharing alliances, yet they remain commercially independent. While it may not be necessary for MVIC sponsors to reach agreement with all carriers, a separate agreement would be necessary with each carrier that an MVIC customer uses.

The expected willingness of ocean carriers to reposition empty containers from inland points to Millersburg rests heavily on UP's "Matchback" concept, which has not yet been documented in any detail. It should be noted that some of the ocean carriers are primarily BNSF customers rather than UP customers.

Managing and marketing the intermodal service. MVIC has not yet identified a party willing and able to manage and market the intermodal service between MVIC and Seattle/Tacoma, but has implicitly assumed that the ocean carriers would do so. Unlike NWCS's role in Portland, ITS ConGlobal has indicated that managing and marketing the rail service is not included in its terminal operations contract.

The key managing and marketing functions would include:

- Serving as UP's direct customer, booking containers for the rail move, paying UP's rates, etc. on behalf of the importer or exporter.
- Arranging and paying for drayage and fees at Seattle and Tacoma, and lift/gate fees at MVIC.
- Promoting the service to importers and exporters.

There is no confirmation as yet that any of the roughly 12 major ocean carriers are willing to assume these roles. These roles could also be performed in part by an intermodal marketing company (IMC) such as Hub Group or Alliance Shippers, by a Willamette Valley shipper's association, or by some other third party. As the project nears readiness for service, it will be necessary to establish which party will perform these roles.

Requirements for Success

To succeed, the manager/marketer of a Millersburg intermodal service will have to offer potential importer or exporter customers a better cost and service combination than existing NWCS, BNSF, or truck drayage options. Providing this value proposition is inherently challenging because: 1) the NWCS and BNSF options are offered by ocean carriers below cost as a means to avoid Portland vessel calls; 2) because truck drayage options regularly provide faster, more convenient service; and 3) because rail manifest service is usually slower and less reliable than the existing dedicated intermodal options.

The commercial feasibility of the proposed MVIC terminal and rail service pivots on the participation of the ocean carriers. In Tioga's view it will require substantial pressure from shippers (or shippers' associations) to generate that participation. With support from enough of the major ocean carriers, the service could become competitive with other options. If that support is not forthcoming or is not sustained in the long run, the sponsors may wish to consider other potential uses for the MVIC terminal. That strategy might include working with UP to attract other types of customers and non-intermodal freight, or working with parties engaged in transloading freight between railcars and trucks.