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Paths to slash LA-LB drayage costs emerge as transloads rise

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To cut down on the costly and polluting drayage of containers and relieve marine terminal congestion in the largest US port complex, retailers and importers can either move their growing import distribution activity closer to the Long Beach-Los Angeles port complex or push for a double-stack <u>rail shuttle</u> from the harbor to a ramp in Inland Empire. Robert Leachman — an engineering professor at the Institute of Transportation Studies at UC Berkeley who has analyzed supply chain costs in Southern California and elsewhere for more than a decade — identifies a significant opportunity for reducing drayage miles generated by supply chains in which imports are de-vanned from marine containers and later re-shipped to other regions in domestic vehicles. Locating new import warehouses and national distribution centers closer to Los Angeles-Long Beach would mitigate the impact of future growth, and initiating short-haul rail service to the Inland Empire would slash drayage miles to existing transloading facilities.

Neither option will be easy to implement. "There are so many things that would have to work," said Leachman, who last week released a white paper analyzing current transloading trends in Southern California. Southern California is the transloading capital of the United States and Leachman's study highlights the fact transloading merchandise imports from 40-foot marine containers to 53-foot domestic containers and shipping them to the eastern half of the country is the fastest-growing segment of the Southern California ports' business. That's because the high-value, time-sensitive imports that dominate the port's cargo volumes are best suited for the Los Angeles-Long Beach gateway.

The key to further growing those imports is to reduce the costs involved in transporting marine containers to import warehouses and national distribution centers, and the pollution generated by trucks in environmentally conscious Southern California. Leachman identifies two options for reducing truck drayage mileage between the harbor and transloading facilities. He said there are enough underutilized small warehouses in the harbor area that could be razed and replaced by new large warehouses or national distribution centers where imports can be inventoried, reallocated and re-shipped in domestic containers and trailers. Locating these properties in a built-out region like the Los Angeles basin will not be easy, Leachman concedes, but he believes enough of those sites exist in the harbor area to support thriving transloading activities, primarily for mid-size retailers.

However, if bringing the transloading facilities closer to where the imports originate at marine terminals does not work out, a second option, already under study by the ports, would be to convince BNSF Railway or Union Pacific Railroad they can make money shuttling containers 50 miles east to the Inland Empire, which is the transloading hub of Southern California. The potential benefits of either option are significant. Leachman calculates there are approximately 6.8 million annual dray trips generated by the transloading and reshipping of imports in Southern California. Rough math indicates that reducing the average dray trip from 50 miles to 10 miles would slash total annual miles traveled from 340 million to 68 million, with the commensurate reductions in fuel consumption, operational costs, and diesel emissions. Some of the available sites are only about five miles from the harbor.

Leachman's theory about constructing new transloading facilities closer to the Los Angeles-Long Beach port complex, rather than in the traditional distribution hub in the Inland Empire, is admittedly revolutionary. It would require the cooperation of importers, terminal operators, at least one of the western railroads, industrial real estate developers, and possibly local governments. The rail shuttle concept, by contrast, has been revisited periodically by the ports over the past decade, but the railroads have shown little to no interest in a shuttle because they say it is not commercially viable for them. However, changing shipment patterns make both approaches more alluring.

Leachman's numbers show that 21.3 percent of the 7.8 million laden import containers the largest US port complex handled in 2015 were destined locally and therefore moved by truck. About 36.5 percent moved intact on intermodal double-stack trains, which was down from 47 percent in 2001. Leachman said 42.2 percent of the imported containers were transloaded and reshipped from Southern California in domestic containers or trailers, which was up from 32 percent in 2001.

Calculating the transportation costs involved in transloading, compared to shipping containers intact via rail to the population centers in the Midwest and the East Coast, depends upon a variety of factors including rail costs, truck drayage costs, transloading costs at local warehouses, and, significantly, inventory carrying costs for retailers. Transloaded freight is taking an increasing market share from intact intermodal, he said, because the containerized merchandise shipped through Los Angeles-Long Beach is higher-value freight such as electronics, fashion apparel, and other time-sensitive freight.

Transloading freight from marine containers to domestic 53-foot containers offers various advantages over intact intermodal shipment. The contents of three 40-foot marine containers fit into two domestic containers, cutting down on rail costs. Since the retailer deciding where in the US the merchandise will be shipped makes the decision much later in the transportation move — when the container reaches Southern California, compared to making the destination decision when the container is loaded onto the vessel in Asia — the merchandise is shipped to the US locations where it commands the highest price, he said. Those advantages are balanced against the labor and drayage costs to and at the transloading facilities. Locating transloading facilities in

the harbor area could significantly reduce the cost of \$500, and higher, that it costs today to dray marine containers to transloading warehouses in the Inland Empire. While it is virtually impossible in the harbor area to find sites large enough upon which to build the 1-million-square-foot distribution centers popular with the big-box retailers, there are a large number of small warehouses 50,000 to 125,000 square feet, originally built to support inbound logistics for the defense industry, but many are now vacant, he said.

Most of the large national retailers have already invested in 1 million-plus square-foot warehouses in the Inland Empire, so they would not be expected to relocate to much smaller facilities close to the harbor. However, Leachman said, there are numerous mid-size retailers who do not own distribution facilities, but rather lease space from warehouses operated by third-party logistics providers. Those retailers would be prime candidates for close-in facilities that would be repurposed for transloading, Leachman said. If a sufficient number of suitable properties could be identified at these in-fill locations, the transloading scenario could produce commercial value for some retailers, said Dan Smith, a partner in the Tioga Group. However, experience has shown that locating any operation that generates truck traffic in dense urban areas invariably results in community pushback as well as environmental challenges, Smith said.

Marine terminal operators in Los Angeles-Long Beach would be big fans of Leachman's plan because they struggle daily with retailers who use up all of their free container storage time, and more, at the docks. John DiBernardo, vice president of SSA Marine, said containers left to dwell for days at marine terminals contribute to congestion, and "this is the crux of the issue for me as a marine terminal operator." DiBernardo said the two ports, and their supply-chain optimization groups that meet regularly, "need to take this larger view of the Southern California region." Possibly even more difficult than finding suitable properties in the harbor area would be convincing the Class I railroads to offer domestic intermodal rail service from the harbor area. Right now only UP has that option because it operates the ICTF five miles from the ports. The ICTF is devoted entirely to international freight and railroads do not like to mix international and domestic intermodal freight at the same facility. A UP spokesperson declined to comment on this issue.

BNSF for years has attempted to secure approval to build its own international rail facility adjacent to the ICTF, but the effort is tied up in litigation, and prospects that the Southern California International <u>Gateway</u> will be built are dim. Leachman's short-haul rail proposal to transport marine containers to a new ramp that would be built close to the huge concentration of transloading facilities that already exist in the Inland Empire "would be easier to accomplish," said Ron Sucik, principal at RSE Consulting and former executive who performed transloading studies for <u>TTX</u> Co. in the 1990s and the early 2000s. He added, though, that a formula has yet to be developed by which the railroads can make enough money on short-haul services to cover the crew, transportation and terminal costs that are involved.

BNSF spokesperson Amy Casas said that despite discussions about a rail shuttle to the Inland Empire over the years, the railroad has yet to see a viable business

plan. Leachman suggests that he has one. Referring back to the rail transit rates for box cars that were in use in the 1970s, he said railroads married short-haul services to long-haul services as long as they were able to keep the cargo to themselves individually. In the case of a rail shuttle to the Inland Empire, a railroad would carry the containers of particular shippers to a ramp in the Inland Empire, with a guarantee that when the merchandise was transloaded into domestic containers, the same railroad would be guaranteed it would transport those shipments cross-country. The charge for the short-haul move could be billed as a credit toward the total rail cost.

Since the Class I railroads do not like to manage such details but rather prefer to just "hook and haul" complete unit trains, this operation would probably have to be turned over to a third-party firm, Leachman said. If it could be properly arranged, such an operation could be conducted with the support of just one railroad, or both if they are both interested, he said. If the necessary buy-in could be secured from the communities that would be impacted in the Inland Empire, the ports, a railroad or railroads, and the retailers, "it's a win-win for everybody," he said. Proponents of a rail shuttle still have a lot of work to do, though, to convince the necessary components of the supply chain to support the concept. Sucik wonders how the railroads can be convinced they need the short-haul shuttle move of marine containers in order to retain the more lucrative long-haul domestic move. "They're getting that business already," he said.

The ports, meanwhile, are open to all options that will improve the efficiency of cargo flow through the Southern California gateway while at the same time reducing transportation costs and diesel emissions. "The ports are looking at the bigger picture, end-to-end supply chain solutions," said Mike Christensen, senior executive lead for supply chain optimization in Long Beach. While the ports can not dictate solutions for transportation providers and cargo interests, they are sensitive to the challenges their stakeholders face and can bring all of the groups together to work out mutually-agreeable solutions, Christensen said. For example, the railroads are looking to replace revenue that was lost due to the decline in their coal and oil-by-rail cargoes, so generating more intermodal business should be attractive to them. The trucking industry, meanwhile, is dealing with an aging driver workforce and regulatory developments such as a mandate for installation of electronic-logging devices, so generating more but shorter trips might fit into their business plans.

From the ports' perspective, shifting freight from the highway to rail generates an emissions reduction of about 80 percent, and this is a further incentive to work with port stakeholders to see if options such as locating transloading facilities in the harbor area and promoting a rail shuttle to the Inland Empire can be successful commercially, Christensen said.

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