

CargoWay

(Previously known as CargoRail)

If there is a better, less expensive, near zero emission solution to accommodate cargo from the ports rather than double-decking the lower I-710 or the construction of the SR-710 tunnel extension, shouldn't we all be hearing about it?

The Southern California region needs a cost effective, ecologically sound, 21st century solution to the cargo overload on our freeways coming from the ports of Long Beach and Los Angeles. Expansion of existing freeways with either massive overhead cargo lanes or widening to add special truck lanes, which would be at capacity when completed, while creating ever more pollution and congestion, is not the answer. Nor is a hugely expensive tunnel that also compounds pollution and congestion.

The I-710 cargo lanes and the SR-710 tunnel are planned as toll routes. In combination with existing tolls at the ports, it is reasonable to ask at what point will more tolls drive business to other ports? How many new tolls can the economy reasonably support? It has been made clear in the Orange County toll road bankruptcy that there is a limit; see [San Diego Union-Tribune](#) article, Steve Schmidt 3/23/10.

CargoWay's dualmode Heavy Duty CargoTrams™ can be loaded at the sorting yards and then driven as CNG-powered hybrid (clean burning compressed natural gas & batteries), tandem trucks directly onto elevated, electrified SuperWays™ for pollution-free cargo movement at 75 miles an hour and driven directly out to the planned "inland port". The trams can seamlessly run from CargoWay™ SuperWays like a train, to a "street" or highway surface like a truck and move around the ports. None of the other rail options have this capability. This critical fact, which allowed the "superways to end at the boundary to the ports", was *totally overlooked* in the URS "Alternative Goods Movement Technology Analysis" commissioned by the METRO and the ports. *(All other proposed guideway-based systems had to run elevated guideways into the ports and have special container loading and unloading stations that required significant areas of land within the ports! This was the reason cited to rule out use of any "fixed guideway" systems. CargoWay was incorrectly lumped into this "unacceptable" category in this analysis.)*

CargoTrams can handle grades to 10% while trucks are limited to 2-4%, with no diesel pollution. They can carry more TEUs (Twenty foot Equivalent Unit) than a trailer truck, at one tenth of the cost and with far less noise. Furthermore, because this system can be ELEVATED (grade separated) along the existing freeways and rail right of ways, it would not displace any houses or freeway lanes, and it simultaneously provides relief from congestion caused by heavy cargo traffic on our freeways and roads. CargoWay could also be set into an "Alameda Corridor style" trench with light rail transit running above or elevated SuperWays can easily be installed over the existent Alameda Corridor without any impact on existent freeways, roads, or the Alameda Corridor rail lines .

An Alameda Corridor installation would also contribute much needed added revenue to the Alameda Corridor Transportation Authority and eliminate need for any costly upgrades to I-710. Any future need for CargoWay extensions beyond the Los Angeles metro area could be made either over railway or freeway right of way.

No houses would be razed if this system were implemented. No new cancer pathways would be created. No SR-710 tunnel would need to be built at a potential cost in excess of \$12 billion.

CargoWay tires run on smooth stainless steel traction surfaces, which allows for far less wear than truck tires on cement, and generate very little noise. The tires are enclosed within the enclosed wheelways of the system, keeping rubber particulate matter from getting into the air. A vacuum system cleans the insides of the enclosed wheelway tubes and keeps PM from being an issue. The hardened stainless steel CargoWay SuperWay is essentially maintenance free, and there would be no need for freeway widening or tunnel construction.

CargoWay can handle earthquakes. Stainless steel upright supports are designed with the same concept as high-rise office buildings to allow the lightweight, stainless steel superway to flex and sway but not come down. It is much less dangerous than an elevated, massive concrete freeway during an earthquake. (CargoWay superways are far less massive than conventional, concrete elevated freeways because no single fifty-ft long section supports more than about 75,000-lbs.)

CargoWay construction cost is less than 10% of the proposed cost of a tunnel or an elevated truck freeway (CargoWay cost is in millions and the tunnel or freeway options are projected in billions). The IRR (internal rate of return) to private investors for CargoWay is very high, 7 to 11.9%; an excellent investment, that should pay for itself within about 9 years.

CargoWay shipping costs between ports and rail yards work out to be about \$25 per two TEU (40-ft cargo container) as compared to about \$200 per 40-ft container on trucks.

CargoWay can easily handle the projected increase in cargo (92,000 trucks in the region per day) and can handle the equivalent of 120,000 trucks per day. Note that its vehicle based switching permits multiple entry and exit ramps to and from the main superways in the same manner as multiple entry and exit ramps are provided for freeways thereby enabling the superways to be loaded with traffic up their to maximum capabilities.

In brief:

CargoWay vehicles are entirely powered by electricity for superway travel. On the superway they are emission free.

The CargoWay dualmode CNG-powered hybrid CargoTrams are able to enter and leave the superway and be driven in the same manner as trucks on ordinary pavement for port, rail yard, street or highway operation.

CargoTrams can be configured in lengths best adapted for needed off-superway operations. For example, short CargoTrams would be used for public street or highway uses in order to comply with truck length limitations.

All CargoTram vehicles are propelled by on-board electric motors rather than having all but the first vehicle towed as is the case with tandem trucks of any type.

A patent-pending computer controlled steering system enables all wheels of a CargoTram to follow in essentially the same path as the front wheels for shorter turn radius than trailer trucks.

CargoWay vehicle wheels run inside enclosed stainless steel wheelways to enable operation under all weather conditions and run with essentially no noise to persons on the ground near the superways.

CargoWay superways are open in the center space between the two side wheelway beams to enable sunlight to penetrate to avoid wide dark shadows on the ground.

From structural and visual standpoints, CargoWay superways resemble typical steel railroad trestles, except for being smaller in size and of rust-free stainless steel.

Tapered stainless steel support uprights are mounted to reinforced concrete columns that have a matching taper so that no bolting is required in order to provide high attachment strength for the uprights in the presence of high winds or earthquakes. This is the same technique now being used in mounting many high-tension power transmission line tapered steel towers to their concrete base piers.

CargoWay superway may be banked in curves in the same manner as highways and railroads and use increased size and strength steel upright supports and piers as needed to carry necessary loads.

A system like CargoWay is an option that should be carefully considered for the enormous and growing problem that affects all southland communities. It will give relief to many communities currently drowning in pollution, which a massive concrete truck overpass or tunnel will only exacerbate.

The arguments above for clean, cost effective cargo transport, and the opportunity it offers of freeway congestion reduction are why we want to make this type of cargo system known to you and to other concerned parties. We are a grass roots organization that is looking for the best ideas to improve the future of our region. We are not associated with MegaRail® and have no financial interest; we just think it is an environmentally sound solution that meets the criteria for efficient goods movement.

We invite you to read more at http://megarail.com/CargoRail_Heavy_Cargo/ and we suspect that you will be astounded at the good sense demonstrated by this goods-moving method.