



and

USC Keston Institute for Infrastructure

Alameda Corridor: A Blueprint for the Future?

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Summary and Observations

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The Alameda Corridor is a twenty mile long rail cargo expressway linking the ports of Los Angeles and Long Beach to the transcontinental rail line near Downtown Los Angeles. Built at a total cost of approximately \$2.4 billion, the project commenced commercial operations in April 2002. The project is among the few public infrastructure projects built in recent years that opened on time and within budget.



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The USC/CSULB Metrans Transportation Center and the USC Keston Institute for Infrastructure co-organized a half day conference to reflect on the reasons behind successful completion of the Alameda Corridor and to consider whether the Alameda Corridor might provide a blueprint for future major infrastructure projects. Motivation for the conference comes from the successful public-private partnerships and the innovative financing model that evolved during conception and building of the project. The conference was attended by researchers and representatives from the Alameda Corridor Transportation Authority (ACTA), Ports of Los Angeles and Long Beach, USDOT, State, Regional and local public agencies, railroads, and academic institutions among others.



Gill Hicks

The conference brought forth several important suggestions regarding the institutional structure and assembly of finances needed for putting together large public infrastructure projects. It also raised several unanswered questions. The conference highlighted the need for both careful, in-depth research on the Alameda Corridor as well as a better understanding of the economics of goods movement associated with the ports.



Panel One

The Conference actually dealt with three questions:

- 1) How did the Alameda Corridor manage to be built on time and within budget?
- 2) How is the Alameda Corridor performing with respect to revenues and container volumes?
- 3) Is it a blueprint for future major infrastructure projects?

The remainder of this summary is organized around these three questions.



Attendees

1. Building the Alameda Corridor on time and within budget

The success of the Alameda Corridor was explained by Mr. Hicks and several panelists as the result of effective institutional arrangements and a solid financial package.

Institutional Arrangements

As Dr. Callahan observed, effective institutional arrangements don't happen by accident. Key factors that emerged in the presentations included:

Highly experienced organizations

The major players in the Alameda Corridor were the ports and the railroads. These organizations had extensive experience in construction and finance of major capital projects. Thus contracting options, the importance of keeping a firm hand on expenses, active management of the project, management of risk, and the importance of making sure there was adequate demand for the investment were routine considerations.

The downside risk

Failure to solve the congestion problems at the port had clear consequences. The ports, the railroads and the major cities (who benefit from port-related economic activity) knew that unless the local transport problems were addressed, the ports would not be able to continue to grow. The reality of the downside risk provided a strong incentive for the relevant parties to work together to make the Corridor a reality.

Deep pockets and “800 pound gorillas”

Throughout the US, ports are reputed to be among the wealthiest of public agencies. They are known for their deep pockets, which have served to finance transportation services and infrastructure in many metropolitan areas. In this case, the financial capacity of the ports made possible extensive mitigation measures as well as a significant portion of the up-front capital. Because of their economic importance to the region, the ports also have political influence. In the case of the Alameda Corridor, the ports and the railroads, together with the cities of Los Angeles and Long Beach, were the key players. The Corridor couldn't happen without the two cities, the ports and the railroads. In the words of Richard Hollingsworth, these were the “800 pound gorillas in the room” that were able to make a deal and also buy out the smaller cities that were stalling the project.

Selling the project to key public agencies

Mr. Hicks pointed out the importance of convincing SCAG (Southern California Association of Governments) and LACMTA (Los Angeles County Metropolitan Transportation Authority) of the regional and national importance of the project. These agencies facilitated collaboration and assisted with funding, with SCAG supporting efforts of others, and with LACMTA directly contributing.

Key organizations had significant financial stake

Several recent studies have identified the importance of project proponents having a significant financial commitment. When project proponents are risking their own funds, they have a clear

incentive to make sure the project will generate a return on investment, which means both confirming a viable market for the product and holding down costs. In this case both the ports and the railroads had a significant up-front financial commitment. It was in their own interest to closely manage project costs.

Strong potential revenue stream

The existence of a strong potential revenue stream, the port container trade, made it possible to carry out a project with only limited reliance on traditional funding sources. This in turn made possible a debt package that had a high probability of success.

Risks were clearly identified and allocated

Private and quasi-private firms are experienced in risk assessment and allocation. When risks are clearly allocated, those who accept the risk have made a conscious assessment of project worth. Mr. Fetty explained that one of the reasons the railroads accepted the container fee arrangement was that it allowed them to avoid any debt risk. The ports accepted the “shortfall advance” risk associated with the federal loan; apparently it was worth it to them to do so.

Leadership

Several panellists noted that even when all the right conditions exist, there is no guarantee of success. The Corridor project had effective and entrepreneurial leaders. Mr. Hicks described his early attempts to get the Corridor into the region’s transportation plan and the decade it took to make the project a planning reality. Had an acceptable deal not been struck with the smaller cities, the Corridor might never have happened.

Financial Package

The second part of the explanation is the financial package. How was such a complex deal successfully put together, and why has it worked, at least so far? The Corridor’s financial success is of course related to the points above.

Limited bond debt

Bond debt was limited to about half of total project costs. Given that the Corridor was designed for a build-out capacity many times greater than current container volumes, it is clear that full or near-full bond financing would not have been viable. We have many examples of projects where revenues have not been sufficient, for example the Dulles Toll Road and Channel Tunnel, in large part because they were dependent on traffic growth. The size of the bond debt allowed for a relatively small fee that proved to have almost no effect on railroad traffic.

Deep pockets of ports

The ports contributed 16% of the capital, and also accepted the “shortfall advance” risk on the federal loan, which contributed 17% of the capital. Hence about one-third of the financing came from the ports’ financial strength.

Willingness of railroads to pay fee on all corridor traffic

As noted above, the railroads not only accepted the fee on containers using the Corridor, but also on containers shipped by them but carried on trucks to the downtown rail yards. The fees on trucks account for about one-third of total revenue (per Mr. Doherty). Without the fee imposed on trucks, revenue targets would not have been reached.

A growth industry

The Alameda Corridor serves a rapidly growing industry. According to Mr. Preusch, the 1996 forecasts upon which the financial package was based assumed a 1-3% annual growth in port traffic. Growth has exceeded these projections, and revenues have increased accordingly. Increased revenues will make it possible to pay off the federal loan via new financing.

A stable industry

The ports, terminals and railroads represent an enormous fixed investment. In the short run, shippers and importer/exporters have few options to using the Corridor and paying the fee. The Los Angeles region is one of the largest consumer markets in the US, and this market alone is a major attraction for imported goods. Moreover, the fee no doubt represents a very small part of total transport costs, and, according to Mr. Fetty, is being passed on directly to shippers. All of these factors suggest that the fee is very price inelastic.

2. Alameda Corridor Performance

As noted above, the Corridor’s success in meeting revenue projections is the result of port traffic growing faster than anticipated, not in attracting a larger share of container movement to the rail corridor. Mr. Hankla noted that the Corridor was never intended to provide truck traffic relief, but rather slow the increase in truck traffic (relative to what would have happened without the corridor). However, it is difficult to understand why no modal shift occurred, given the improvement in rail service the Corridor provided. Construction of the Alameda Corridor greatly improved the reliability and travel time of train traffic. Travel time was reduced from a range of 2 to 6 hours to about 45 minutes. At 45 minutes, travel time is likely shorter by rail than by truck, especially during the day. Why then did no modal shift occur? And why are the railroads shipping one-third of their own corridor container cargo on trucks and paying the fee?

There was little discussion on this point. The trucked rail cargo is Burlington Northern cargo, which does not have a transfer facility at the ports. Thus if the cargo is not part of on-dock rail shipments, it is trucked directly from port terminals to the downtown rail yards. Apparently

there are barriers to transferring containers between terminals, or capacity constraints on on-dock rail. About 12% of total TEU volume is trucked between ports and rail yards outside of downtown. According to Mr. Doherty, this segment represents changes in logistics practices and the growth of the so-called inland ports in San Bernardino County. This shift to inland points of redistribution may be explained by congestion and capacity constraints at the downtown rail yards and on the rail lines to the east, as well as by lower land costs, which are drawing warehousing and distribution activities away from the local port area.

An issue not discussed at the conference is the long-term structural trends in production, trade and distribution that mitigate against increasing rail modal share. Rail is most competitive with large, long distance, low value cargo, while small lot, high value cargo makes up an increasing share of trade. We might argue that the Alameda Corridor has made it possible to maintain rail mode share, despite overall trends to the contrary.

3. Alameda Corridor as blueprint for the future

The final question addressed at the conference was whether the Alameda Corridor can or should be replicated. Panelists made many observations regarding the Corridor as an example of how to get a major project built and financed. Here is a summary of points drawn from the discussions.

Getting a project built

- Have a “strong project”, meaning a project that solves a problem collectively perceived as needing to be solved, that will generate clearly identified benefits, and that is cost-effective.
- Have a clear set of objectives, contractual arrangements, and responsibilities that are legally binding and agreed upon by all parties.
- Have project proponents share the risk and contribute a significant portion of total equity. If project proponents have no equity risk, they have no real stake in the project outcome. One way to make sure the project is strong is to have proponents willing to accept significant risk.
- Have a strong motivation for cooperation and compromise, even if it is a negative factor, e.g. the downside risk of not building the project.
- A few strong partners are more likely to be successful than many less strong partners. The Alameda Corridor experience is consistent with other major projects. The Orange County toll roads, for example, had the advantage of being championed by the Irvine Company, which owned nearly all the right-of-way and surrounding land.
- Have strong and effective leadership.

The Alameda Corridor financial package

Public/private financial partnerships are the future: the Alameda Corridor financial package is clearly the blueprint for future projects. Major infrastructure projects will become increasingly reliant on non-traditional funding sources, given constraints on public funding and the ever increasing shortfall of infrastructure of all types in the region, the state, and fast growing areas throughout the US.

- Have realistic cost and revenue projections. Most major infrastructure projects throughout the world have been based on overly optimistic cost estimates and demand forecasts. In the case of public projects, these cost overruns and revenue shortfalls get passed on to the general taxpayer, but in a world of public/private partnerships, such losses will eventually lead to resistance on the part of private equity to participate.
- Don't rely on having a deep pocket partner. Several panellists noted the uniqueness of the partners involved in the Corridor. Other major infrastructure projects don't have the luxury of the largest port complex in the US as a partner, and hence must rely more heavily on debt or public funding. This requires both stronger revenue generation potential and stronger project justification.
- Make sure all financial risks are clearly and equitably allocated. The Alameda Corridor package spread the risk across several entities. One might argue that the local public (LACMTA) contribution was about right, since most of the corridor benefits will be realized by private entities and the ports.

Conclusions

The conference was most informative, but there is a lot still to be learned. The Corridor has been operating for little more than a year; it will be many years before we can definitively answer the questions this conference addressed. This conference is a first step in understanding the project and drawing lessons from it. Clearly the Alameda Corridor is a very important and significant project, yet there have been only two academic studies of the Corridor, and both focused on the organizational and institutional aspects of the project. In contrast, there is an extensive body of literature on highway and public transit investment impacts, for example. There is an obvious need for comprehensive, long-term evaluation of the Alameda Corridor. More generally, there is a need for developing a better understanding of the economics of goods movement associated with the ports.