

Trend Analysis: Railroad Perspectives on Shared Use

Trend Statement

A new paradigm for sharing freight railroad infrastructure and related rights-of-way has emerged over the past four decades - as public interest has grown in providing a cost-effective travel option to the private automobile, thereby improving mobility, safety, air quality, and easing congestion. A renaissance of publicly-subsidized passenger rail has been hastened by the deregulation of the freight railroads, the need to comply with clean air and sustainability requirements, and the public's willingness to provide permanent subsidies for passenger rail.

Shared use is potentially viable for freight railroads that are starved for expansion and rehabilitation capital needed to retain and expand their freight services. On the public side, the costs of providing exclusive publicly-subsidized passenger service over inter-city or commuter train distances is prohibitive for all but a few high speed corridors of national significance. The California High-Speed Rail Authority plan on using portions of existing passenger and freight rail corridors for some of its segments, thereby using existing right-of-way, defraying costs and minimizing impacts to communities. As a result, shared use agreements continue to be successfully negotiated throughout the country based on mutually recognized needs and benefits. Shared use corridors can take place in three different forms – shared tracks, shared right-of-way, shared corridors (i.e., two rail services are operating independently on separate parallel tracks having a track separation between 30 and 200 feet.) In California, shared-use rail operations take place on shared track with the exception of the Southern California Regional Railroad Authority (SCRRA) line between Palmdale and Lancaster.

Background

In the United States, freight and passenger rail services were historically owned and operated by the private sector under tight federal regulation to preserve equitable access and the public interest against railroad monopolistic pricing. However, by the 1960's the automobile and airplane had replaced most rail passenger business. Railroads also were pressured by competition from trucking. By 1960, one-third of the US rail industry was bankrupt or close to failure. The share of railroad intercity freight movements fell from 75 percent in 1920 to 35 percent by 1975.

Congress responded to the reduced monopolistic threat in two ways that dramatically changed the rules for shared use of railroad infrastructure by passenger and freight trains. In May 1971, the publicly-subsidized National Railroad Passenger Corporation (AMTRAK) was created which allowed private railroads to divest their unprofitable passenger services in exchange for statutory access rights and low access rates for AMTRAK to use the private railroads. Federal deregulation of the railroads in 1976 and 1980 enabled route consolidation, freight service elimination of marginal rail served customers, abandonment of more than 100,000 miles of track, railroad mergers (from 56 Class 1 railroads in 1975 to 7 today) and the sale of surplus railroad infrastructure to public agencies and short line railroads. Though the railroads lack the public subsidies that support highway and airline systems, these increased efficiencies have allowed railroads to compete with trucks and airlines for freight services.

Deregulation also allowed railroads to focus on their key product – strategic long-distance rail corridors linking major global gateways to inland markets – and to become more efficient in order to be more competitive with trucking. At the same time, air quality, sustainability, and congestion reduction strategies have recognized passenger rail transit as a primary objective.

Freight System Implications

A public agency that wants to initiate passenger rail needs to recognize that freight railroads are not obliged to consider public interests and are concerned primarily with the interests of their shareholders and customers. A public agency has several choices in the rail infrastructure it uses for new passenger service. There is no “best choice” for shared-facility operation of passenger and freight trains. Freight railroads own 41 percent of the shared tracks; transit owns 18 percent, and the rest are jointly owned. An agency wishing to implement passenger rail service can construct a new rail transit line that doesn’t host freight trains; purchase abandoned railroad routes and reactivate rail passenger (and freight) service; access existing freight routes via AMTRAK’s statutory rights; or negotiate shared use agreements with each railroad owner on which the passenger trains will operate. According to a recent NCHRP Report, “with few exceptions, anticipated patronage and revenue and available funds simply cannot support the investment required.” Each of the choices involves large and long-lasting capital, operations and maintenance subsidies. Each choice also has significant policy, regulatory and business frameworks and tradeoffs.

So, what do the railroads need and want from their public partners? The railroads have overarching concerns for safe operations, guarding against degradation of their freight business, preserving capacity for freight growth, and limiting their liability and legal exposure. Passenger rail service consumes far more railroad resources than it generates to the railroad in revenue and the railroads expect the public agency to fully reimburse for all ongoing costs incurred, plus a profit. In addition, public agencies need to provide an incremental benefit to the railroad, usually in the form of publicly funded capacity expansion and safety improvements.

Each agreement is developed in recognition of differences in infrastructure availability, capacity utilization, and condition of the existing infrastructure (right-of-way, tracks, signals and communications, stations, railyards). The agreements are long-term or perpetual and include detailed provisions for access (route limits, passenger and freight service restrictions and priority, integrated service schedules/time slots/maintenance windows), rates (for facility use and incremental maintenance costs of passenger rail service volumes and quality), communications and dispatch arrangements, funding to be provided, and design/construction schedules for the capital projects required before passenger service is initiated or for expansion thresholds. The agreements must also consider industry specific laws (e.g., the Railroad Retirement Act, the Railroad Unemployment Insurance Act, the Railway Labor Act, and the Federal Employers Liability Act), labor agreements, liability sharing and insurance, and ever-evolving regulations affecting the viability and cost of shared services (e.g., the Americans With Disabilities Act, regulations related to rolling stock crashworthiness, and Positive Train Control). Agreements must also incorporate arcane freight railroad design constraints (e.g., the extra lateral and vertical clearance required by freight railroads in anticipation of national defense needs and to preserve the continuity of the national railway network).

Planning Considerations

Many of California's busiest rail corridors have shared use between freight, commuter, and intercity passenger trains. With the absolute necessity for safe operations, shared use means lessened passenger capacity, a reduced top speed, reliability problems and fewer options for high speed passenger vehicle design than is possible with exclusive facilities. Planning and negotiating shared use agreements requires experienced and knowledgeable negotiation teams representing all parties so that the many issues involved in the complex agreements can be timely resolved. The teams need to include expertise in freight railroad engineering, railroad safety and operations, railroad cost estimation and accounting, legal and regulatory matters, liability and risk management, and private sector business drivers and requirements.

With so much invested in developing and operating shared rail service, it is in the interest of the transit agency and the railroad to negotiate long-term arrangements—ideally in perpetuity. However, perpetual agreements require continuous funding and it is very difficult to estimate long-term freight capacity requirements. Hence, the agreements need to provide the processes and triggers for future passenger rail service level changes based on availability of public capital and operating subsidies and competing freight service needs and priorities.

One of the most difficult planning issues in a shared use agreement is the need for reliable, fast passenger service and for competitive freight delivery schedules. With increasing demands for just-in-time service and time-sensitive high value freight service, both passenger and freight operators need to agree how they will manage day-to-day service and dispatching, maintenance windows, and recovery from incidents.

Shared Use of Railroads Resources

Guidebook for Implementing Passenger Rail Service on Shared Passenger and Freight Corridors, Report 657, National Cooperative Highway Research Program, 2010:
http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_657.pdf

2013 California State Rail Plan, California State Transportation Agency.
http://californiastaterailplan.dot.ca.gov/docs/Final_Copy_2013_CSRP.pdf

Passenger Rail Sharing Freight Infrastructure: Creating Win-Win Agreements, Center for Transportation Research, University of Texas at Austin. March 2006:
<ftp://ftp.dot.state.tx.us/pub/txdot-info/rti/psr/0-5022.pdf>

Passenger Service on Tracks Owned by the Freight Railroad. January 2004. Association of American Railroads Policy and Economics Department, www.aar.org/PubCommon/Documents

Resor, R. and P. Patel. "Allocating Track Maintenance Costs on Shared Rail Facilities." *Transportation Research Report 1785*, (2002): 25-32.
www.trforum.org/journal/downloads/2005v44n1.pdf

FRA/FTA Joint Statement of Agency Policy Concerning Shared Use of the Tracks of the General Railroad System by Conventional Railroads and Light Rail Transit:
www.gpo.gov/fdsys/pkg/FR-2000-07-10/pdf

California Public Utilities Commission: www.cpuc.ca.gov

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