Collaborative Infrastructure Development

Collaborative Infrastructure Development is a stakeholder process that unites seemingly divergent interest groups into a coherent whole in order to realize the synergies of rail-enabled economic development. The success of the Nevada State Rail Plan is a model of Collaborative Infrastructure Development for North America.

Collaboration is a common buzzword in management theory and tech startup culture, but is less commonly practiced among stakeholders at divergent local, regional, state and national scales. Achieving meaningful collaboration at scale is no facile task, and the railroad industry, with its history of The Great Railway Wars and tracklaying races is no exception.

Despite the industry's track record for sometimes fierce competition, it is Strategic Rail Finance's progressive vision and expertise to discern the industry's collaborative opportunities for the betterment of communities and sustainable infrastructure delivery. Indeed, Strategic Rail Finance inaugurated an exemplar of collaboration and cooperation in the rail freight space with the recent publication of the Nevada State Rail Plan – the state's future-facing blueprint for leveraging the benefits of rail freight for businesses, communities and the environment. Collaborative

Infrastructure Development is a planning and implementation process that facilitates superior outcomes to operating in silos or compartmentalized units without reference to the greater whole. It is SRF and OTNA's unique contribution to freight planning to achieve this in a state rail plan.

Nevada State Rail Plan - A Model of Collaborative Infrastructure Development

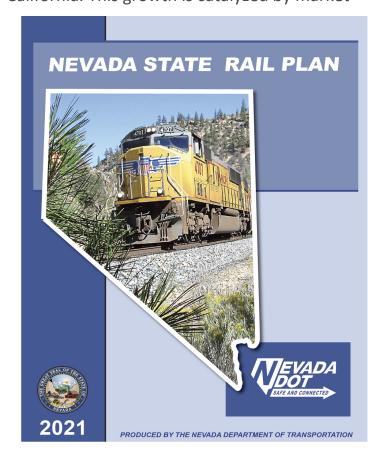
For SRF, collaboration is not an accidental byproduct of producing a state rail plan, but a thoughtful and intentional act that informs plan production from conception to publication. In the Nevada State Plan, SRF developed a System for Collaboration and formed the California-Nevada Supply Chain Alliance to implement the state's collaborative infrastructure vision. First, SRF's System for Collaboration was elaborated by open dialogue with hundreds of stakeholders. The NVSRP organized the state of Nevada into eight stakeholder geographies grouped

according to common characteristics such as governing jurisdictions and other operating features of each segment of the rail network. Geographic grouping by common characteristics facilitates effective and place-based stakeholder collaboration on rail-based economic development in all eight regions representing more than 450 stakeholders catalogued by region, industry, and public service role so that group dialogues could be conducted among the most relevant stakeholder representatives. The proper pairing of stakeholders demonstrates respect for their time, thereby engendering trust and participation, and resulting in richer dialogue. Needless to say, such a massive statewide stakeholder engagement had never been attempted in Nevada.

Because it is inefficient and impractical to consider rail plans without reference to holistic systems, the plan's stakeholder outreach targeted the Nevada business community to optimize whole supply chains and freight corridors. Thus, the plan's Collaborative Infrastructure Development approach aggregates the individual supply chain needs of operators and businesses into regional and corridor-level planning groups. Capital projects and operating plans are developed collaboratively with other relevant stakeholders to achieve the necessary volumes to warrant rail infrastructure investment and Class 1 engagement. Business leaders throughout the state were queried about the possibility of sharing existing or proposed rail facilities – a solution that achieves economies of scale beyond the scope of most individual operators. Once the mutual benefits of such shared use arrangements are articulated to the business community, it is easier to achieve consensus and to scale the railcar volumes that are necessary for railroad companies to justify new or enhanced rail services.

The California-Nevada Supply Chain Alliance

One specific outcome of the System for Collaboration and subsequent plan recommendations was the formation of an interstate organization that could act as a steward of supply chains between California and Nevada. Championed by OnTrackNorthAmerica, the California-Nevada Supply Chain Alliance recognizes that supply chains do not respect state boundaries. North America's crossborder supply chains are inextricably linked and often growing without adequate interstate coordination. For example, California's supply chains have been migrating east into Nevada. Lower land prices, reduced construction and labor costs, a more favorable tax environment and less prohibitive development regulations have all conspired to facilitate largely unplanned growth in warehouses and distribution facilities serving the more populated coastal markets in California. This growth is catalyzed by market



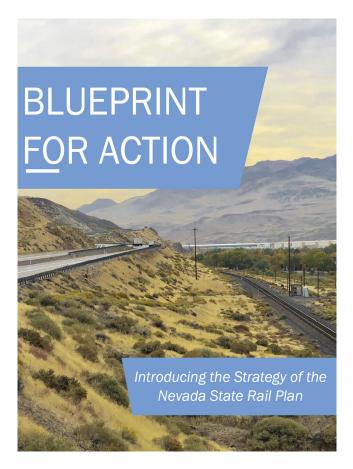
forces, not prudent supply chain and logistics management and smart land use planning, with the consequence that business development is occurring in Nevada without rail service and the efficiencies of rail-enabled development. With acknowledgement of this reality in mind, the Alliance was conceived to more efficiently plan and manage the high volume of freight moving between California and Nevada. The Alliance will achieve this by redressing the numerous problem areas unique to the region's interstate supply chains. However, because other states also face challenges to planning and managing their interstate freight movements, supply chain alliances could be adopted in other regions with similar dynamics.

As the Nevada State Rail Plan's prototyping of Collaborative Infrastructure Development demonstrates, conflicts of interest are often only apparent from the limited vantage of individual stakeholders operating within entrenched silos, but these illusory conflicts can sometimes be dissolved and overcome by experienced third-party industry professionals who can discern operating benefits outside the silos. Place-based planning and the contextsensitive organization of stakeholders into discrete geographies enables stakeholders and policymakers to make sense of complex industry relationships and to see themselves as part of a larger whole that benefits from the synergies and mutual benefits of robust collaboration.

The California-Nevada Supply Chain Alliance will address:

- The lack of regional supply chain systems planning is harmful to the environment and quality of life in many communities
- Creation of new avenues of communication to facilitate a balance between community needs and the interests of freight transportation providers and shippers
- Lack of multi-state coordination between public agencies, port authorities, economic developers, businesses, communities, and transportation providers
- Sustainable supply chains require sustained collaboration among business, communities, and the public sector
- California's supply chain has expanded into Nevada for warehousing, distribution, and production
- There is no rail intermodal service between Nevada and California
- Crucial rail, trucking, and energy industries need citizens to appreciate their importance to sustainability
- Communities need their concerns incorporated into plans and investments

At best, plans that cannot be implemented are merely academic exercises; at worst, they are exercises in futility that squander valuable time and resources, cause fragmentation of coalitions, and disillusion and alienate the community. As the Nevada State Rail Plan attests, collaborative infrastructure development is a necessary ingredient in state rail plan implementation.



The Nevada State Rail Plan is a Blueprint for Action in communities across North America

While Nevada, like every state, has unique conditions, the challenges facing collaborative rail-enabled economic development are endemic nationwide. Success in Nevada is proof of concept that the Nevada State Rail Plan can be a paragon for collaborative infrastructure development in all fifty states. At SRF, collaboration is more than just a professional practice for offices or a buzzword for teamwork design — collaborative infrastructure development is SRF's mantra and a paradigm that guides all of our work.

Lauded by public and private sector entities for its nonpareil capital generation and mutual stakeholder benefits, Strategic Rail Finance has been implementing the Collaborative Infrastructure Development paradigm for more than 20 years and in 42 states.

OTNA

As a not-for-profit transportation consultancy and think tank, OnTrackNorthAmerica was formed to be the vanguard of Collaborative Infrastructure Development in North America. OTNA's advisory board of respected leaders from industry and government includes some of the many stakeholders who have contributed their experience and knowledge to Collaborative Infrastructure Development. The advisory input and industry expertise of business and governmental leadership is essential to the long-term success of implementing railenabled economic development. For this reason, OTNA is leading the public and private sectors in collaborative ventures to generate results that cannot be achieved in silos. Moreover, optimizing rail transportation use with its inherent energy, capital and spatial efficiencies will provide cascading economic and environmental benefits. In order to capture these benefits, a new alignment of commercial activity and related public agencies is needed. OTNA is uniquely positioned to guide stakeholders toward this productive alignment of public and private infrastructure investments. The Collaborative Infrastructure Development framework is OTNA's response to the complex array of challenges in the freight rail space with the explicit goal of optimizing the freight transportation system with maximal utilization of the railroads.



But for the Collaborative Infrastructure
Development process to meaningfully integrate
the diverse interests of stakeholders, it is
imperative to develop performance measures,
tangible outcomes and deliverables to
successfully implement rail-enabled economic

development. Collaborative Infrastructure Development will generally address the challenges of optimizing and modernizing our transportation network by facilitating the following outcomes.

Collaborative Infrastructure Development Outcomes:

- Pinpoints the particular business and commercial opportunities that will maximize return on transportation investments.
- Establishes specific commercial and environmental performance metrics from current baseline to future targets, providing a framework for project success.
- Leverages the inherent fuel and space efficiencies of railroads toward reducing the environmental and spatial impact of overall freight movement.
- Capitalizes on opportunities to deliver both public benefits and private-sector financial returns from transportation improvements.
- Intelligently integrates limited public resources with private-sector capital to fund improvements that neither can afford independently.
- Frames logistics and freight transportation as a land use issue, applying sound planning principles to better utilize increasingly limited land and space.
- Delivers long-term transportation improvements by inviting all stakeholders into mutually beneficial commitments.
- Applies to local rail development as well as to major trunk lines and "projects of national significance."
- Provides a new context for addressing citizens' concerns and energizing their commitment to a workable community.

