



Project Summary

Texas Department of Transportation

0-5322: Investigation of Rail Facilities Relocation in the U.S. and Potential Lessons for Texas Rail Planning Initiatives

Background

The increase in the volume of truck and rail freight passing through Texas in recent years has been dramatic. This trend is expected to continue as international trade levels grow both in North America and via seaborne trade with the rest of the world. In no place are the effects of this increase felt more than in the state's metropolitan areas, where freight movement is often choked by local traffic. Traffic conflicts in urban areas are especially acute in areas surrounding urban rail facilities and at the many at-grade highway-rail grade crossings. Rail operations are also hindered in the urban environment where urban rail yards have become constrained by neighboring land uses and city ordinances that seek to restrict certain railroad operations. One approach to addressing urban vehicular-train conflict and urban rail operational issues is to consider the relocation of train operations to new rail corridors and facilities located outside urban boundaries.

The Texas Department of Transportation (TxDOT) has begun to move toward this possibility through its promotion and steps toward implementation of the Trans-Texas Corridor (TTC) plan and state approval of a railroad relocation and improvement fund. Many of the TTC's features are directed at moving through-freight and through-passenger traffic to non-urban routes in order to stem congestion on the existing highway and rail systems that were designed to serve population centers rather than long-distance movement of passengers and goods. The state's rail relocation fund provides a mechanism to potentially leverage additional funds to participate in rail relocation activities around the state.

What the Researchers Did

This project examined rail relocation projects in the United States to determine best practices, documented project costs and the anticipated benefits of those projects, and developed recommended policies for TxDOT use in assessing proposed urban rail relocation projects throughout the state. Researchers analyzed a range of critical issues related to rail relocations, identified known major rail relocation projects around the country (both past and planned projects), and thoroughly analyzed five of those projects as case studies. The critical information gathered from the literature review and case studies assisted the research team in creating a list of best practices related to implementing this type of project and identified significant factors for TxDOT and local urban rail planners to consider.

Research Performed by:

Texas Transportation Institute (TTI),
The Texas A&M University System

Research Supervisor:

Curtis A. Morgan, TTI

Researchers:

Jeffery E. Warner, TTI
Craig E. Roco, TTI
Glenn C. Anderson, TTI
Leslie E. Olson, TTI
Stephen S. Roop, TTI

Project Completed:

8-31-06

What They Found

The research team developed a table listing information on 30 rail relocation projects around the United States that had been planned, studied, or implemented since 1973 when the Federal Aid to Highways Act implemented a demonstration program addressing rail relocation projects. Several of those projects were later cancelled in the mid-1980s due to the lack of progress, yet other rail relocation projects were advanced using other funding sources. Many of the original projects have only recently been completed—more than 30 years after their inception.

By examining the national relocation projects and the potential Texas rail relocation projects listed in the Texas Rail System Plan, researchers determined that the projects can be classified into three broad classifications:

- **Small urban area bypass:** Relocation would move the rail line out of a small or mid-sized urban area to minimize traffic and/or safety conflicts.
- **Large urban area consolidation/relocation:** Consolidation or relocation of routes within a large urbanized area.
- **Extra-urban consolidation/bypass:** Consolidation or relocation of rail lines to an area outside urbanized boundaries meant to bypass completely the urban area or to minimize traffic conflicts.

Five of the rail relocation projects, selected jointly by TTI and the TxDOT Project Management Committee, were advanced as detailed case studies. The case study projects were chosen based upon similarity to projects being considered in Texas and were located in: Marysville, Kansas; Lafayette, Indiana; Reno, Nevada; Salt Lake City, Utah; and eastern Colorado (Front Range Project). The in-depth examination of these projects provided critical information related to project motivation, costs and benefits, and lessons learned.

The lessons compiled from the case studies identified several issues important for the state of Texas as it begins to consider rail relocation projects as part of achieving long-term strategic goals to reduce congestion, enhance safety, improve air quality, expand economic opportunity, and increase the overall value of Texas' transportation assets. Issue areas include:

- project prioritization/selection characteristics,
- potential funding sources and methods,
- partnering principles for railroad companies and other private sector partners,
- public information/involvement recommendations, and
- corridor relocation and subsequent development recommendations.

What This Means

The findings of this research provide TxDOT rail planners with additional tools to use in evaluating, prioritizing, and implementing rail relocation projects to better address the Department's strategic goals. The listing of additional rail relocation project information in the project's technical report will serve as resources for further information and study (report 0-5322-1). Following the guidelines derived from the case study projects will also benefit state rail planners by outlining best practices implemented by other state and local planners.

For More Information:

Research Engineer - Duncan Stewart, TxDOT, 512-465-7403
Project Director - Wilda Won, TxDOT, 512-486-5108
Research Supervisor - Curtis A. Morgan, 979-458-1683

Technical reports when published are available at:
<http://library.ctr.utexas.edu/index.htm>



This research was performed in cooperation with the Texas Department of Transportation and the Federal Highway Administration. The contents of this report reflect the views of the authors, who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official view or policies of the FHWA or TxDOT. This report does not constitute a standard, specification, or regulation, nor is it intended for construction, bidding, or permit purposes. Trade names were used solely for information and not for product endorsement.