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Three for the Road(s)

Confronted by congestion, projects are underway to mitigate the crunch.

By Roger Morton

With ports increasingly choked by container traffic, interstate highways beleaguered by automobiles and trucks, and a rail network weighed down with freight, awareness is growing among private and governmental entities about the need for action on improvements to the country's infrastructure.

It has been speculated that because of what might become a political football, real targeted action to improve the nation's congestion ills won't take place until after the 2008 elections, there are some concrete measures already underway that seek to alleviate in some degree the obvious problems of congestion. Here's a look at three such efforts, among a number, in the East, the Midwest and West.

The I-95 Corridor Coalition

George Schoener, the Coalition's (www.i95coalition.org) executive director, explains the organization has been around since the early 1990s with its initial focus on coordinating and managing traffic incidents, mostly in the northeast from Maine to Virginia. Over time the geographic region has expanded to cover the entire Corridor that runs from Maine to Florida.

The scope of the project now focuses attention on the movement of freight. The Coalition commissioned a research project, the Mid-Atlantic Rail Operations Study (MAROPS), in partnership with five states in the Corridor (NJ PA DE MD VA), three railroads (Amtrak, CSX and NS) and the Federal Railroad (FRA) and



Laying new track at Chicago's Brighton Park junction.

Highway Administrations (FHWA). It was to look at rail operations in the Corridor to see if there were opportunities for enhancing and expanding rail freight movement. MAROPS identified more than 70 major rail choke points that would require a 20-year commitment to complete at a cost of \$6.2 billion.

"We are presently trying to move forward in order to see if we can put together some financing packages for these critical bottlenecks," notes Schoener. "We're hoping to get the right people together and see if we can develop some financing strategies, public-private partnerships, to deal with some of the major choke points. We're trying to work with the railroads to identify public and private benefits and to determine what might be an appropriate share in investment. The railroads really are, for the first time, beginning to have serious conversations with public agencies. In the past they had shied away from

taking public money because of all the regulations and strings that come with it."

The Coalition has submitted an application to US Department of Transportation under the Corridors of the Future program. A major component of the application deals with developing multi-state partnerships for financing these bottleneck improvements.

Trucking is the predominant freight mover in the Corridor. "We are also looking at the potential for exclusive truck lanes in the Corridor," says Schoener. "The right of way is extremely limited so it would be very difficult, particularly in the New Jersey and Pennsylvania portion of the Corridor."

In addition to developing solutions for rail choke points the Coalition is going through something comparable on the trucking side. It is working with trucking

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companies on a Mid-Atlantic Truck Operations Study. The American Trucking Associations (ATA) is a major participant in that study.

The Coalition has been very active with Intelligent Transportation Systems (ITS) and was instrumental in getting transponder interoperability that now runs from Virginia to Maine. It's trying to bring transponder technology into Florida at this time.

It is working with the New York State Dept. of Transportation and New York Thruway Authority on a commercial vehicle infrastructure integration project for the 13 miles of Thruway just outside of the New York Metropolitan area. "We want to develop technology to allow trucks to communicate with the Thruway and vice versa for weighing, credentialing, tolling and more," says Schoener. "We're hoping this project will be finished by the time of the ITS World Congress in 2008 in New York"

Looking to the future, Schoener sees the possibility of several changes within the Corridor. For one, I-95 may become a price-managed facility, with higher prices during peak hours and lower prices off-peak. Another possibility being suggested by ATA and some major road builders, are new corridors and truck lanes in a Critical Commerce Corridor program.

The Chicago Region Environmental and Transportation Efficiency Program (CREATE)

"We have implemented our three-year spending plan and have 15 projects that will be under construction in the next two years," claims Marcia Jimenez, CREATE (www.createprogram.org) Project Director for the City of Chicago. "We have \$230 million funding available to meet the goals of our three-year plan and another \$100 million we're waiting for in a capital bill from the State of Illinois."

The specific funding package includes \$100 million of SAFTEA-LU money, \$100 million from the railroads, \$100 million from the State of Illinois and \$30 million from the City of Chicago.

Among the projects are six highway/rail

A Corridor Poster Child

With construction on its 10 mile long, 33 ft deep, 50 ft wide Mid-Corridor Trench begun in April 1997 and operations starting five years later in 2002, California's Alameda Corridor has much in common with similar projects across the country. The entire Corridor is 20 miles long.

Faced with ever-increasing imports of freight at the Ports of Los Angeles and Long Beach in 2001, the project under the aegis of the Alameda Corridor Transportation Authority (ACTA) consolidated four low-speed branch rail lines into a high-speed rail freight expressway that links the ports to the transcontinental rail network located near downtown Los Angeles.

Needed infrastructure improvements are like many facing others. As ACTA describes the project, they include, "a series of bridges, underpasses, overpasses and street improvements that separate freight trains from street traffic and passenger trains, facilitating a more efficient transportation network.

Funding is the bane of any like project. The \$2.4 billion Alameda Corridor was funded through a number of public and private sources. Railroad user fees are being used to retire ACTA debt. At the outset the fee for each 20-foot equivalent unit (TEU) was \$15 for loaded units, \$4 for empty containers and \$8 for other types of rail cars like tankers and coal cars. Increases in fees over 30-years are to be between 1.5 and 3.0%, depending on inflationary calculations. Fees for 2007 are \$18.04 for loaded TEUs, \$4.57 for empties and \$9.13 for other types.

In findings released on the fifth anniversary of the Corridor's opening, in April of this year, ACTA reported more than 83,000 trains have used it over its first half-decade of operation, climbing to 20,000 trains in 2006 from 14,000 in 2003, in its first full year. During the first five years, 17.6 million TEUs have used the Corridor, with about one-third of the average daily volume of the ports, 14,000 TEUs, presently use it.

ACTA claim improved air quality for the communities around it since the number of trains that use the Corridor generate much less pollution than the 250-280 trucks that would be required to move an equivalent volume of cargo.

grade separations; four freight/passenger rail separations; 21 railroad infrastructure improvements, including tracks, switches and signals; and viaduct improvements.

With major US and Canadian railroads meeting in Chicago, links between them are missing as the yards are not connected. To move containerized freight from one railroad to another requires intermodal handling by truck. Modernization is needed with interconnection of 27 major rail yards presently handling an estimated 5.5 million lifts each year, performed by 14,000 daily truck movements. The CREATE program seeks to reduce train delays and congestion throughout the Chicago area by focusing rail traffic on five rail corridors.

Estimates are that annually \$350 billion of rail freight moves through the Chicago corridors, included in which are large vol-

umes of NAFTA goods. CREATE points out that more than 60% of the freight moving through the area is considered to be of high value, demanding a high service requirement.

Jimenez says the critical need to complete the CREATE program is, for no other reason, its relationship to other infrastructure and transportation projects currently underway. The Heartland Corridor project, for example, through stack train activity will bring freight more quickly inland from ports in Virginia, to Columbus, OH, and from there on to places like Chicago. While Columbus and other points along the Heartland Corridor are making needed improvements, as Jimenez notes, "Chicago's not ready right now for the increase in traffic."

Brad Steele, a CREATE Spokesperson,

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points to a just completed smaller project in terms of dollar investment, but a large one in terms of reflecting the overall need for CREATE.

"In Chicago," he explains, "there's what's known as the Brighton Park interlocking. It is a cross section of freight and commuter rail tracks where commuter uses the freight tracks. It was a grade intersection that did not have automated signaling."

Switch operators at the Brighton Park junction had to use semaphore towers to signal approaching trains to stop. They would then wait as much as 10 or 15 minutes, at which point they would be told it was safe to proceed. More than 70 trains per day traverse the Brighton Park junction.

New, remotely controlled signals have been installed, along with crossing diamonds and other upgrades and now trains may move through the junction at greater speed when it is clear of other traffic.

"Most of the rail infrastructure is obviously much more modernized and in better condition than that," concludes Steele. "But that one area, especially given its heavy traffic, is really a good example of the need for CREATE and how investment and efficiency can really improve conditions for all."

The FAST Corridor

As Sean Ardussi of the Puget Sound Regional Council (www.prsc.org) points out, the Freight Action Strategy for the Everett-Seattle-Tacoma (FAST Corridor) has been in existence since 1998 and has identified and amassed \$568 million in public and private funding to build nine of 25 strategic infrastructure improvements and to start four more.

As it explains, FAST is a partnership of 26 local cities, counties, ports, federal, state and regional transportation agencies, railroads and trucking interests, intent on solving freight mobility problems with coordinated solutions.

Because of FAST sharing information and funding resources, it has been able on occasion to move funding from projects experiencing delays to those that were ready to begin. In doing so, FAST feels

projects were built that might not otherwise have been completed.

Of its projects, two will use ITS technology. Duwamish ITS is designed to improve signal systems and provide real-time traffic data to truckers to upgrade the efficiency of trucks and reduce congestion in the Port of Seattle area.

The Washington State Department of Transportation's ITS and Incident Response System FAST project will expand existing ITS infrastructure on key freeways that link to the Ports of Seattle and Tacoma. It will also expand incident response in an effort to reduce congestion and improve information for travelers.

FAST projects include a number of grade separations designed to keep people,

vehicles and rail separated. Improvements specifically linked to the ports include a widening of the Spokane Street Viaduct that is the primary means to the Port of Seattle's largest container terminals and I-5 and providing direct access from I-5 to the Port of Everett via East Marine View Drive. It also completes the corridor that serves the port, naval station and industrial area.

While attention turns to solving infrastructure problems, there are efforts, like these, being undertaken in cooperative ventures to attempt to ease transportation issues that are part of the problem of congestion. They may serve as models for those programs yet to become reality in other parts of the country. **LT**

Bridge Collapse Points to Infrastructure Problems

Response was rapid to a tragic highway bridge collapse along Interstate 35 in Minnesota in August. Bystanders and witnesses jumped into the effort even before rescue workers had arrived. Within hours, the federal government had dispatched officials from a number of key agencies and was promising a \$5 million grant to help pay for rerouting traffic patterns around the disaster. President George W. Bush said the federal government would help ensure the span was rebuilt. White House spokesman Tony Snow stated that even though the span had rated 50 on a scale of 120 for structural integrity, "This doesn't mean there was a risk of failure, but if an inspection report identifies deficiencies, the state is responsible for taking corrective actions."

According to a report by the Federal Highway Administration entitled "Deficient Bridges by State and Highways System," the country had nearly 600,000 bridges at the end of 2006, of which 73,764 are structurally deficient and 80,226 are functionally obsolete—25.8% of the total. The American Society of Civil Engineers (ASCE) estimates it will cost \$9.4 billion per year for 20 years to eliminate all bridge deficiencies. "Long-term underinvestment is compounded by the lack of a federal transportation program," said a statement by the ASCE.

The US House of Representatives Committee on Transportation and Infrastructure, chaired by James L. Oberstar (D-MN), estimates the country needs \$89.46 billion per year for federal highway and transit systems to maintain existing highways, bridges, and transit systems at their current conditions or \$142.9 billion per year to improve conditions. Just weeks before the bridge collapse, Oberstar had expressed skepticism to projections from the Office of Management and Budget (OMB) that the Federal Highway Trust Fund would have a deficit of as much as \$4.3 billion by the end of fiscal 2009. Pointing to the fiscal periods from 2000 to 2006, Oberstar noted that in any given year, the OMB had overestimated revenues by as much as \$2.94 billion and underestimated by as much as \$2.21 billion. "The cumulative effect of such inaccuracies can be even more significant."

-P.A.T