

As the old song goes, “the times, they are a-changin’”. More than ever before, this is true of American commerce. The strengthening economy, combined with increasing Asian imports are factors in two key shifts: increasing time-to-market demands and transportation network congestion. As companies struggle to identify the most efficient and timely low-cost delivery methods, the greater Chicago region finds itself at the center of a significant market opportunity. A good indicator of the value of this opportunity can be seen in the quantity of new logistics-related facilities being developed in both Illinois and Indiana. This article will review a number of the current and emerging multi-modal projects in Illinois and Indiana, and how companies’ logistics challenges provide opportunities for economic development in the region.

The Greater Chicago Region: A Logistics Epicenter

By Mike Kirchhoff, CEcD and Jody Peacock

From the mid-1800’s to the 21st century, Chicago has played a key role at the heart of the American commercial transportation system. Today, with time-to-market demands ever more critical, the Chicago region’s historic position as a freight transportation and distribution nexus is growing ever more important. The Chicago metro area is the third largest handler of international freight in the world, trailing only Hong Kong and Singapore, and the single largest rail transfer center in the United States. Employing 117,000 in the region, the freight industry generates \$8 billion annually in economic activity. Fully one third of rail and truck traffic – and half the nation’s container traffic – pass through the Chicago region.

While these statistics are impressive, Chicago’s infrastructure is being pushed to its limit. And projections point to more challenges ahead. In 2001 the Chicago Area

Transportation Study (the Chicago region's transportation planning agency) projected 600 more daily trains in the region within 20 years (2,400 trains/year), and projected an increase in Intermodal lifts of more than 250 percent in the same time period. Market impacts such as these are projected to demand more than 7,000 additional acres of land for Intermodal facilities. Choked by congestion already, these projections predict dire consequences for the region's transportation system.

Emerging Challenges in Logistics

Lean manufacturing, Six Sigma, just-in-time manufacturing, and other approaches to modern manufacturing each demand greater reliance on a timely, efficient and cost-effective transportation network. The increasingly elevated importance of distribution in the supply chain represents a significant shift in emphasis – a paradigm shift of extraordinary proportions. According to Louie Hollmeyer, director of the Distribution on Demand Initiative, four primary factors have driven this change:

1. Extraction of Value through Distribution. Companies are increasingly using distribution strategies to obtain competitive advantage. To improve distribution operations, companies have shifted to dynamic distribution models that help them become better equipped to respond to changes in demand.
2. The On-Demand Economy. This is perhaps the most important force in shifting from the old paradigm. Because customers want products when, where, and

how they choose, distribution is increasingly a vital component of the supply chain.

3. A Mindset Shift. Once considered simple warehouses, distribution centers are now viewed by corporate executives as value-added light manufacturing centers – final assembly and/or kitting is conducted in the distribution center after an order is received, delivering uniquely configured products.
4. Offshore Manufacturing. While offshore production is increasing, distribution must still originate within the United States. Product must be shipped to the U.S. in containers (through ports), pass through warehouses, and enter the domestic distribution channel.

Of Hollmeyer's four points, the last one is considered by many to be the primary factor for strain on the nation's transportation network. In July last year, Brian Bowers, vice president and general manager of intermodal services for Schneider National, said "This probably will be the most difficult surge period in the history of the Intermodal industry." In fact, the strain is evident on many of the nation's major railroads. According to the Association of American Railroads, during a single week last October, the rail industry moved 33 billion ton-miles – the most freight volume in its history. Three factors have contributed to the increased volume:

1. The improving economy has spurred higher shipments of raw materials and manufactured goods;

2. Increasing Asian imports mean higher transportation volumes from the West Coast; and
3. Electric power companies are using more coal due to the increasing cost of natural gas.

The impact on rail traffic volume can be seen in the railroads' struggles with equipment and crew shortages. Critics point to such operational problems as factors in longer transit times, which impact the productivity of available containers, frequently in short supply during peak seasons. The railroads have responded to the challenge of crew shortages by hiring more aggressively to address attrition due to retirement and even expand their workforce. To address equipment challenges, railroads are purchasing or leasing new locomotives and freight cars. "Doubletracking" – yet another response to rail congestion, is a strategic initiative that promises to benefit both the railroads and economic developers.

The Importance of Rail

"If you have rail, you have a scarce resource. If you have dual rail service sites, you have a crown jewel resource."

– Mark Sweeney (McCallum Sweeney Consulting) at the 2004 IEDC Site Selectors Panel

Illinois, and the Chicago region in particular, is strategically positioned to benefit from competition among the railroads. A recent article in the *Wall Street Journal* discussed the race between BNSF Railway and Union Pacific to be the first railroad to doubletrack (two sets of tracks, one in each direction) between Los Angeles and Chicago.

Because of the volume of imported goods arriving on the West Coast for delivery/distribution in the heartland, it is widely perceived that the first railroad to complete a doubletrack will benefit from a greatly enhanced market position because of the higher traffic volumes doubletracking affords.

Those economic developers who find themselves along the winning route and who are prepared with available sites and facilities may best be positioned to benefit from the increased traffic volume. And economic developers who are able to develop an Intermodal facility in their community may be especially successful. According to a Ports of Indiana analysis of such facilities, an Intermodal rail facility can generate \$800 million in development investments, 16,000 permanent jobs, 20,000 construction jobs, \$27 million in property tax revenue, and significant spin-off impact. Because of this degree of economic impact, many economic developers see a golden opportunity in logistics. Across the country, communities have begun positioning themselves as ideal locations for such facilities.

Illinois Logistics Facilities

Due to strong market demand, a strategic location at the center of the country, and the potential for significant economic impact, Illinois has seen a dramatic increase in the development of new real estate projects targeted to logistics. While by no means inclusive, following is a small sample of new or emerging logistics-related projects in the greater Chicago region:

BNSF Logistics Park – Chicago (Elwood) is a 625-acre state-of-the-art facility completed in 2002. With a capacity of 800,000 lifts per year, the facility will ultimately increase BNSF’s Chicago annual lift capacity to nearly 3 million lifts. The BNSF Logistics Park, strategically positioned just 15 miles west of the proposed third Chicago airport at Peotone, integrates rail, trucking, transload, and Intermodal with distribution and warehousing. A planned on-site automotive facility will be a first of its kind “gateway hub” to build auto trains for all Western markets.

CenterPoint Intermodal Center (Joliet) is a 1,100-acre industrial park adjacent to the BNSF Logistics Park. Upon build-out, the park will feature up to 12 million square feet of rail-served industrial buildings. Developed by CenterPoint Properties Trust, a real estate investment trust (REIT) that specializes in industrial property, the park is positioned to offer significant reductions in drayage costs of between \$200 and \$275 per container. Strategic advantages of the park include foreign trade zone status, enterprise zone benefits, and access to both the Union Pacific and BNSF Railway lines as well as immediate access to Interstate 55 and close proximity to Interstate 80.

Logistics Park (Galesburg) features 350 acres of development-ready land adjacent to Interstate 74. Galesburg lies along BNSF’s main Intermodal line, which stretches from Los Angeles to Chicago, and features the second largest classification yard in the BNSF system. For distribution operations seeking to avoid congestion in Chicago, Galesburg offers access to seven rail lines that serve the city. The city of Galesburg issued \$4 million in bonds to acquire the site. Galesburg is a partner in the Illinois Route 34

Logistics Corridor, a regional effort to promote logistics opportunities along BNSF Railway's Los Angeles to Chicago route.

Global III Intermodal Facility (Rochelle) enhances Chicago's reputation as the largest handler of international freight in the U.S. The Union Pacific-owned operation has the capacity to handle 350,000 Intermodal containers originating primarily from the Pacific Rim, with capacity to expand to more than 700,000 lifts. A \$181 million development, the 1,200-acre facility opened in August, 2003.

LogistiCenter (Rochelle) is a 300-acre master-planned business park being developed by Reno, Nevada-based DP Partners. Located at the interchange of Interstate 88 and Interstate 39, the development features dual rail access from the Union Pacific and BNSF Railway via a city-owned short line (Rochelle Dual-Access Railroad). As an incentive to park tenants, the short line does not charge switching fees. Because the park offers dual rail, companies can achieve cost savings from rail competition. Planned to accommodate 5 million square feet of industrial and distribution facilities, the park already offers a new 572,000-square-foot speculative distribution center.

International Crossings (Sauk Village) is a 325-acre master-planned mixed use business park located 20 miles south of Chicago in suburban Cook County. Strategically positioned for transportation, the development is bounded by Interstate 394 on the west, Sauk Trail on the south, and the EJ&E Railroad on the North, and is within five minutes of Interstate 80/94 and Interstate 294. The development's planned build-out will feature

up to 5 million square feet of distribution and manufacturing space. Sauk Village used an RFP process to identify an experienced real estate company to develop the park, ultimately selecting DP Partners. The company is currently beginning infrastructure improvements and a 412,000-square-foot speculative facility (to be completed in 2005).

Park 88 (DeKalb) is a 425-acre master-planned business park capable of accommodating up to 7 million square feet of distribution, bulk storage, warehouse and manufacturing space. Developed by Venture One Real Estate, Claycorp, and DeKalb Associates, the project provides rail access via Union Pacific and is located within two minutes of Interstate 88 and 10 minutes from Interstate 39.

Mapleton Port (Peoria) is a 300-acre industrial park and port being developed by Indiana-based Port Group, LLC, which has developed similar projects in Indiana, Kentucky, and Ohio. Located on the Illinois River near Interstate 474 and featuring rail service via TP&W, the project will cater to companies that make products shipped by inland waterways, rail, or truck.

NexPark (Jacksonville) is an emerging 1,000+ acre multimodal logistics park in Central Illinois. Located adjacent to Interstate 72, the proposed park is within 30 minutes of Interstate 55 and five minutes from Corridor 67 (a four-lane expressway under construction between St. Louis and the Quad Cities – Rock Island, Illinois/Davenport, Iowa area). The location also features direct rail access via Norfolk & Southern and BNSF Railway, with Kansas City Southern located within five miles. Just 15 minutes

away by rail is Consolidated Terminal and Logistics' terminal at Naples – the farthest north year-round ice-free facility on the Illinois River. When completed, the project will feature the strategic advantage of single-carrier shipping to either coast. Spearheading the project is the Jacksonville Regional EDC, a two-county industrial development group.

A Unique Partnership

About 70 miles west of Chicago lies the I-39 Logistics Corridor. Approximately 165 miles long and 65 miles wide, the Logistics Corridor is a unique regional marketing effort covering a 10,000 square-mile, 14-county region in Illinois and Wisconsin. The region features seven major interstate highways, seven major railroads, two major airports and eight smaller airports, and barge terminals along the Illinois River.

The regional partnership was formed in 2002 to develop a unified marketing message and to pool resources to promote a regional identity as a logistics destination. The broad-based appeal of the association has attracted a diverse mix of members, including developers, contractors, economic development organizations, trucking and warehousing companies, manufacturers, and universities. Based in DeKalb, the partnership boasts a membership of more than 60 development and business entities.

The I-39 Logistics Corridor includes several logistics parks previously mentioned, including LogistiCenter and CenterPoint Intermodal at Rochelle and Park 88 in DeKalb. Since 2003, the Corridor has attracted nearly 3 million square feet of new distribution,

warehouse and industrial development, with a total new investment exceeding \$100 million.

Ports of Indiana – Three Ports, Two Waterways, One System

Not many people realize Indiana ranks 14th in the nation for waterborne shipping. In fact, Indiana ships 70 million tons of cargo by water each year, which is more than Michigan, Alaska, Virginia, Maryland, Mississippi, Tennessee, Oregon, Maine, Massachusetts, Puerto Rico, South Carolina, Georgia, and Hawaii. This may not be so surprising given that more than half of Indiana's border is water. Indiana has 400 miles of coastline on the Ohio River and Lake Michigan, each of which is part of the country's two largest shipping arteries – the Inland Waterway System and the Great Lakes/St. Lawrence Seaway. Indiana also ranks first in number of interstates and ninth in railroad miles, and there are more than 82 million people living within a day's drive of its capital city. Considering all these factors, it's obvious why Indiana has a thriving port system.

The Ports of Indiana is the only statewide system of ports with direct access to two U.S. coasts – the Atlantic to the east and the Gulf to the south. The state's three ports, located in Burns Harbor/Portage, Jeffersonville, and Mount Vernon, serve the world's most productive industrial and agricultural region through a combination of strategic location, Intermodal connections and specialized facilities. As premier distribution points for Indiana, the Chicago and Louisville regions, as well as a large part of the Midwest, Indiana's ports generate more than \$1.5 billion in economic impact per year as well as

10,500 jobs and \$400 million in annual wages. Every state dollar invested into the ports has generated more than \$15 in additional investment.

In concert with its economic development mission, the Ports of Indiana also has statewide authority to administer foreign-trade zones, provide development financing for off-port projects and develop transportation-related facilities. Looking ahead, the ability of the Ports of Indiana to finance multi-million dollar developments anywhere in the state and to develop huge intermodal facilities will likely have a tremendous impact on Indiana's economy.

“We are unique,” says Rich Cooper, acting executive director for the Ports of Indiana. “Where else can you find a port authority that operates a statewide system of ports on two major waterways? Add to that the ability to finance the development of corporate headquarters, hospitals, airports or Intermodal rail ports anywhere in the state, and you’ve got a very unique economic engine for the state.”

“Ports of Indiana” is the marketing name for the Indiana Port Commission, a quasi-state agency governed by a seven-member, bipartisan board that is appointed by the governor. The mission of the Ports of Indiana is to facilitate economic development in Indiana through logistics facilities and services, maritime industrial and commercial development, development finance tools, and strategic public-private partnerships.

Indiana's first port, the Port of Indiana-Burns Harbor, opened in 1969 on the southern tip of Lake Michigan. On the Ohio River, Indiana established ports in Mount Vernon (Southwind Maritime Center) in 1976 and in Jeffersonville (Clark Maritime Center) in 1985. In 1984, the Ports of Indiana opened a central office in downtown Indianapolis across the street from the state capitol building.

Indiana's system of ports is home to more than 60 businesses engaged in manufacturing, processing and distribution of grain, coal, fertilizer, minerals, steel and many other cargoes. Some of those port tenants include: ADS Logistics, Beta Steel Corp., Cargill Inc., Federal Marine Terminals, Feralloy Corp., Eagle Steel Products, FedEx Ground, Kasle Metal Processing, Kinder Morgan, Steel Dynamics Inc., Bristol-Myers Squibb, CEMEX/Kosmos Cement, Consolidated Grain & Barge, Mount Vernon Barge Service, and Royster-Clark.

“Our success depends on the companies located at our ports,” Cooper explains. “We feel our relationships with these companies are partnerships designed to grow their business. We may increase our capabilities and build new facilities, but those relationships are our main priority.”

Indiana's ports are designed to quickly and efficiently transport products by truck, rail, ship or barge to both foreign and domestic manufacturing and agricultural markets. The main cargoes handled at the Ports of Indiana include: grain (30 percent); coal (25 percent); steel (20 percent); fertilizer (10 percent); limestone (5 percent); road salt (5

percent) and miscellaneous/project cargo (5 percent). To further assist multimodal transportation, distribution, and logistics, the ports offer tenants and shippers a wide range of services, including tug, barge fleet, heavy-lift, railroad switching, rail/truck to water transloading, and specialized material-handling.

Burns Harbor/Portage handles more ocean-going cargo than any other U.S. Great Lakes port. Situated at the heart of the largest steel-producing region in the world, the port handles about 15 percent of all U.S. steel trade with Europe. Just 18 nautical miles from Chicago, Burns Harbor offers year-round barge access to Midwestern markets and the Gulf of Mexico through the Inland Waterway System, and provides ship access to the Atlantic Ocean via the St. Lawrence Seaway. The 600-acre port has 30 tenant companies, capacity for 1,000-foot vessels, 12 modern shipping berths and rail service from all U.S. Class I carriers.

Jeffersonville (Clark Maritime Center) is the fastest growing port on the Inland Waterway System, acquiring 26 tenant companies since opening in 1985. This Intermodal transportation gateway is located directly across the Ohio River from Louisville, Ky., within a day's drive of more than two-thirds of the U.S. market. The 1,025-acre port provides 12-month ocean access to world markets via the Inland Waterway System to the Gulf of Mexico and offers a wide variety of services for bulk, liquid and general cargo, including 12 onsite steel-related firms providing complementary services.

Mount Vernon (Southwind Maritime Center) is a leader in throughput tonnage, handling 3 to 5 million tons of grain, coal, fertilizer, and minerals annually. Located near the median center of U.S. population and only 152 miles from the confluence of the Ohio and Mississippi rivers, this Ohio River port is in the center of one of the richest grain and coal regions in the world, and one of the globe's largest fertilizer markets. The 745-acre facility has nine tenants and many advanced material-handling services and specialized storage facilities.

State Assistance for Logistics Projects

Both Indiana and Illinois provide programs to assist with logistics-related projects. Following are brief overviews of several:

The Illinois Rail Freight Program (RFP) provides capital assistance to communities, railroads, and shippers to preserve and improve rail freight service in Illinois. RFP facilitates investments in rail service by linking interested parties and channeling government funds to projects that achieve statewide economic development. The program focuses on projects with the greatest potential for improving access to markets and maintaining transportation cost savings and where state participation will leverage private investments to foster permanent solutions to rail service problems. More information about the program is available through the IDOT Bureau of Railroads, (217) 782-2835.

Development Financing has been offered by the Ports of Indiana at its ports for many years. In 2003, Indiana's General Assembly approved statutory changes that allow the Ports of Indiana to offer development financing and synthetic leases outside its ports. Port financing involves the use of the organization's bonding authority to build or expand an Indiana facility on behalf of a private company. The company can pay off the bond through a very flexible lease term. Financing large developments through the Ports of Indiana creates significant savings for the company and allows it to treat the cost as an operating expense rather than a capital investment, which improves balance sheet ratios and conserves capital for other needs. More information about this program is available through the Ports of Indiana, (800) 232-PORT.

A Foreign-Trade Zone (FTZ) is a specially approved area that is legally considered outside the territorial boundaries of the United States. Consequently, international cargo brought into an FTZ is not subject to U.S. duties until it leaves the zone. FTZs enhance the global competitiveness of both large and small companies by reducing, postponing or eliminating U.S. duties. Goods and raw materials that are subject to high duty rates can be stored or processed without payment due until the final product leaves the zone. Duties can also be eliminated or reduced if a product is altered or destroyed during processing within an FTZ. FTZs are available in both Illinois and Indiana.

Conclusion

Many small towns are strategically positioned along rail lines and interstates. Because of changes in global trade and U.S. logistics, those with both may boast a valuable strategic advantage. The key to leveraging this advantage, though, will be the extent to which a community is willing to commit the necessary resources to maximize the value of its location for companies. In most cases, this may equate to a significant investment by the local government (as was the case in Galesburg), by a local EDC, or by a state or regional organization. Communities fortunate to be located in closer proximity to a metropolitan area (as was the case with several of the case studies) have a greater opportunity to work with private developers who are willing to make a speculative investment in a new logistics facility.

All of the case studies presented demonstrate the development opportunities possible from the rapid growth of the logistics industry. Clearly, the communities presented have leveraged their transportation assets to create new jobs and investment for their areas. In so doing, they have provided an example for other communities with similar assets to emulate.

(Sidebar)

Definitions

Crossdocking involves a direct transfer from/to railcar from/to truck.

Distribution On Demand (DOD) is the order fulfillment state an organization achieves when it can respond—closest to real time—to changes in demand while shipping 100% customer-compliant orders at the least cost. The Distribution on Demand Initiative is a DOD advocacy group.

Doubletracking refers to a rail corridor that has two sets of tracks, each running exclusively in opposite directions. Most rail corridors have only a single set of tracks utilized by traffic in both directions with sidings to allow one train to stop and wait while another passes. Doubletracking significantly increases the traffic volume a rail corridor can accommodate and also reduces transit time since trains do not have to stop on sidings to allow other trains to pass.

Drayage is cost of transporting a container or commodity from a railyard to the end user's facility.

Intermodal is transporting the same cargo without repackaging by more than one mode of transportation, usually in a standard shipping container.

A **lift** is the physical transfer of a container (via crane) off one mode of transportation onto another, i.e., rail-to-truck.

Throughput is the quantity of product or containers moving into and out of a process or facility.

Reload is transfer from/to railcar to/from truck with intermittent storage at the transfer location.

Six Sigma is a highly disciplined approach to decision-making that helps people focus on improving processes to make them as near perfect as possible. Companies generally use Six Sigma to reduce variation in products and processes, ultimately resulting in fewer defects, shorter cycle times, increased capacity and throughput, lower costs, higher revenues and reduced capital expenditures.

Transload occurs when multiple commodities or customers come into a facility to transfer to/from railcar to/from truck at a location that acts as a distribution hub for multiple materials.

(Sidebar)

For Additional Information

Following are website addresses for key organizations and information regarding Intermodal issues or projects:

Association of American Railroads

www.aar.org

BNSF Railway

www.bnsf.com

Canadian National Railway Company

www.cn.ca

Canadian Pacific Railway

www.cpr.ca

Chicago Area Transportation Study

www.catsmpo.com

City of DeKalb

www.cityofdekalb.com

CSX Corporation

www.csx.com

DeKalb County EDC	www.dcedc.org
DP Partners	www.partnerwithdp.com
Federal Railroad Administration	www.fra.dot.gov
Galesburg Logistics Park	www.galesburglogistics.com
I-39 Logistics Corridor	www.i39logisticscorridor.com
Intermodal Advisory Task Force	www.catsiatf.com
Intermodal Association of North America	www.intermodal.org
Jacksonville Regional EDC	www.iredc.org
Journal of Commerce	www.joc.com
Kansas City Southern	www.kcsi.com
Lee & Associates	www.lee-associates.com
Maritime Global Net	www.mglobal.com
Norfolk Southern Corporation	www.norfolksouthern.com
Ports of Indiana	www.portsofindiana.com
Surface Transportation Board	www.stb.dot.gov
Traffic World	www.trafficworld.com
Union Pacific	www.up.com
U.S. Department of Energy Diesel Fuel Price Updates:	http://tonto.eia.doe.gov/oog/info/wohdp/diesel.asp

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