

...for jobs, economic growth and quality of life in metropolitan Chicago

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stalled.

#### **Executive Summary**

ne of the Chicago metropolitan area's most important industries – indeed, the activity most responsible for our region's historic rise as a global economic center – is in need of renewal.

Almost everywhere one looks, the movement of freight across the Chicago region is being stalled, sidetracked or otherwise delayed by an assortment of bottlenecks, most the result of overloaded or obsolete road and rail systems.

Moving freight across the Chicago region by rail – a passage made by nearly a third of the nation's total rail shipments – typically takes two days or more, with train speeds averaging between 6.8 and 12 m.p.h. Cross-regional truck speeds, now in the 10 to 15 m.p.h. range, have also been in decline, especially along the Interstate 80, 94 and 294 corridors, portions of which are loaded beyond capacity most weekdays.

But it is not just freight shipments that are being delayed by mile-long back-ups of tractor-trailers at tollbooths and interchanges, or by trains blocking too many of the region's 1,953 at-grade crossings.

This is everybody's headache. Freight system hang-ups, for instance, contribute to unreasonably long automobile commuting times in the region, which have been cited as the third worst in the nation.<sup>1</sup>

At stake, then, is not just the future of an \$8 billion regional shipping industry that employs 117,000 Chicagoans with an annual payroll of \$3.2 billion. Freight problems affect the daily lives of all eight mil-

lion of us who live and work in northeastern Illinois, whether the impact is measured in excess commuting time, worsened levels of air pollution, missed school classes and business appointments or delayed shipments to businesses.

And yet, while the Chicago region's need for additional airport capacity has been debated extensively in public and governmental forums, little attention has been paid, outside shipping industry circles, to the problems of our freight network. It was this lack of awareness that prompted Business Leaders for Transportation, which represents more than 10,000 employers across the Chicago region, to convene a Freight Transportation Working Group of industry and other experts.

The Working Group's research and informationsharing over 12 months provided the basis of this report. With the input of these experts, Business Leaders for Transportation makes three near-term recommendations, which are summarized here and explained more fully in the text of the report. – 1 –

Gridlock	at a Glance	
mber of rail freight cars n	noving daily	
through the region		37,500
erage train speed across r	region	6.8-12 mph
erage truck speed across	region	10-15 mph
mber of at-grade railroad	crossings	1,953
mber of Intermodal yards		26
mber of daily truck trips l	between railyards	3,500
nking among nation's mos	t congested	
metropolitan areas		third worst
erage train speed across rerage truck speed across mber of at-grade railroad mber of Intermodal yards mber of daily truck trips Inking among nation's mos	region crossings between railyards	6.8-12 m 10-15 m 1,9





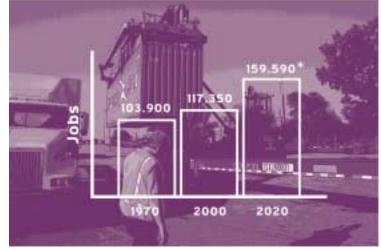
**Recommendation 1:** Organize public/ private support for a package of priority capital improvements to the region's freight network that will expand capacity, lessen gridlock and support job expansion:

- A) Establish a joint-use freight corridor, after investigating the now-underutilized southern arc of the Elgin, Joliet and Eastern (EJ&E) Railway and other corridors prioritized by the industry. This strategy is not unlike the Alameda Corridor in Los Angeles (see p.16). Already being studied by Metra for its potential as an outer suburban connector of commuter lines, the southern arc of the EJ&E's right-of-way could be upgraded for both freight and commuter uses. Any joint-use corridor would entail grade separations, bridge widenings, double- or triple-tracking and improved connections with the six mainline freight railroads they cross. These corridors would enable transcontinental freight trains to move more efficiently through the city and close-in suburbs, reducing pollution and traffic gridlock while improving connectivity among the region's intermodal freight yards. Doing so has the potential to reduce the 3,500 truck trips made each day simply to haul shipping containers from one rail yard to another.
- B) Replace with grade separations the 40 worst at-grade crossings in the Chicago region, as measured by train and traffic delays and/or serious accidents. A rail industry planning group has identified crossings "that have an especially severe impact on rail efficiency in the region" and asks that at least 50 of them be grade-separated or simply closed (see appendix 1b). The City of Chicago, Chicago Area Transportation Study and the Illinois Commerce Commission also maintain lists of inadequate crossings, including several that are as dangerous as they are delay-causing.
- C) Upgrade the region's 55 miles of crucial intermodal connector highways, which are roads used to haul containers between the region's 26 intermodal rail yards. Work should begin as soon as possible on the 17 miles recently studied by the Federal Highway Administration as in need of \$65 million worth of widening, repaving, drainage and signalization. A study should be conducted on the remaining 38 miles of connector routes to determine needed upgrades and improvements.

**Recommendation 2:** Secure \$20 million in federal funding support over the next two years to cover the public portion of planning for the priorities listed above. As the nation's most critical freight transportation connection point, northeastern Illinois merits significant federal assistance for freight improvements in the upcoming fiscal year budget and TEA-3 reauthorization in 2003. Limited state matching funds also will be needed to build on the \$10 million set-aside for freight improvements in the Illinois FIRST program. So will private industry investments, perhaps made via container or rolling stock surcharges like those used in California on the Alameda Corridor.

Recommendation 3: Establish, by state legislative action, a regional, public/private freight entity to plan, coordinate and help finance improvements to the metropolitan freight transportation system. One option is to create a fourth, freight-only service board under the existing Regional Transportation Authority. Another option is to create a separate metropolitan authority, such as that governing McCormick Place operations. The new entity would apply for, accept and dispense federal capital grants; issue tax-exempt revenue bonds on behalf of participating railroads; and, if needed, acquire and manage land for the purposes of freight-related economic development.





The freight industry generates \$8 billion in gross value of economic activity and a \$3.2 billion annual payroll.

Source: Regional Economics Applications Laboratory (REAL), 2001

<sup>\*</sup> projected

#### Background

When Chicago has a delivery problem. so does the rest of America. The efficient movement of freight has been the engine of northeastern Illinois' economy for more than two centuries, ever since French *voyageurs* discovered the portage here between the Great Lakes and Mississippi waterways. It was the building of railroads a century later, however, that made Chicago the nation's undisputed freight transportation hub. That status was further solidified by the post-WWII meeting here of seven interstate highways and by the development of the world's busiest airport.

Chicagoans are well aware of the capacity problems and political issues swirling around the region's airports, both existing and planned. And in fact, much rides on the outcome of the O'Hare Expansion/Third Airport controversy in terms of the economic prospects of the region.

But just as crucial to those prospects is the Chicago region's ability – or more worrisome, its inability – to efficiently handle the steadily building volume of non-passenger freight traffic converging on the metropolitan area. When Chicago has a delivery problem, so does the rest of America. With a third of the nation's rail and overland truck cargo moving through the region, delays here can mean no just-in-time delivery of auto parts to Detroit, no fresh California fruit on eastern tables in the wintertime, no Asian-made consumer electronics on U.S. shelves in time for holiday shopping.

At risk is not just a regional freight-moving sector that generates more than \$8 billion in annual economic activity and \$3.2 billion in pay for 117,000 employees.<sup>2</sup> At risk, ultimately, is the historic advantage of the Chicago region as the nation's preeminent place to efficiently make and ship goods of all kinds. Were Chicago to become known as an irreparable national bottleneck, other shipping corridors, such as the Interstate 70 Kansas City-Indianapolis-Columbus alignment, or the Interstate 40 corridor from L.A. to Knoxville, surely would benefit at our expense.

**-4** -

#### Chicago Region Surface Transportation Employment by Sector, 1970-2020

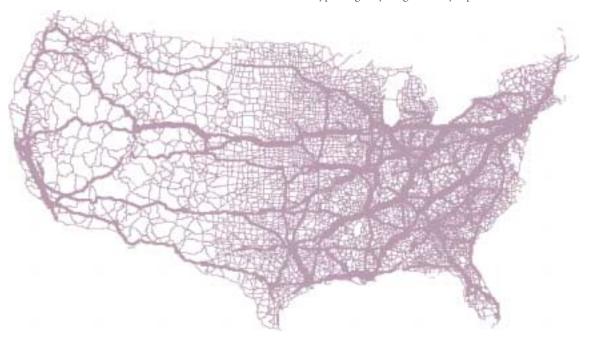
Sector/Date	1970	2000	2020*
Railroad	46,550	34,700	31,900
Local (public transit, etc.)	13,640	20,470	24,800
Truck	54,400	80,390	125,590
Water	2,950	2,260	2,100
Transportation Total	117,540	137,820	184,390

<sup>\*</sup> projected

Source: Regional Economics Applications Laboratory (REAL), 2001

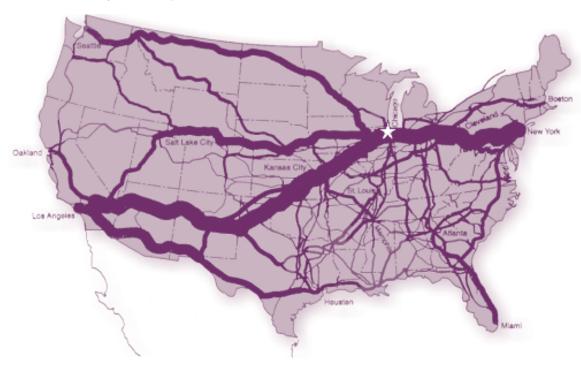
#### Truck Freight Flows, All Commodities

All truck types, highway freight density represented in tons



Source: U.S. Department of Transportation Federal Highway Administration

## Rail Freight Flows, All Commodities Rail freight density represented in tons



Source: U.S. Department of Transportation

Our road and rail

networks lack the

connectivity required

logistical demands

of 21st Century

commerce.

to meet the increasingly

competitive, just-in-time

bandwidth and

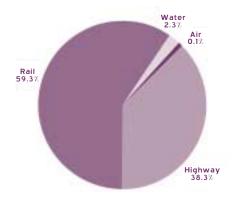
#### A system challenged by growth

he problem, in a nutshell, is this: the Chicago region's surface transportation network – its unrivaled-but-aging confluence of transcontinental rail lines, regional switching lines and mile upon mile of major truck routes - is slowing to a relative crawl. Our road and rail networks lack the bandwidth and connectivity required to meet the increasingly competitive, just-in-time logistical demands of 21st Century commerce. No longer is it acceptable for a rail container that took two days rolling from Seattle to Bensenville to take another two days creeping from Bensenville to South Bend. Yet that is a typical "dwell time" for a shipping container that must change trains here, in what railroaders call the Chicago Terminal District.3

This District, also referred to as the Chicago Gateway, is believed to be one of the most complex railroad networks in the world. It contains 893 miles of live track, 125 interlockings and 57 separate yards, 26 of them intermodal. Through

#### Northeastern Illinois Freight Activity and 2020 Forecast Number of registered large trucks 212,775 Forecast for 2020 290,960 Number of daily truck trips 417.870 Forecast for 2020 570.650 14,200 Estimated daily intermodal truck movements Forecast for 2020 28.260 1.591.100 Daily tonnage moved in trucks Forecast for 2020 2.267.300 Annual intermedal lifts (trailers and containers) 4,617,200 Forecast for 2020 11,736,150 Daily train movements [passenger and freight] 1.780 Ferecast for 2020-2.390 Daily freight cars moving through Chicago gateway 37.500 Intermodus. **Manifest** 12,900 Unit Traces 1.290 Foresight for 2020 67.000 Daily tonnage of freight moved by rail 2.460.000 Forecast for 2020 4.375.200 Source: CATS 2020 Regional Transportation Plane: "Descination 2020"

### How freight moves in Chicagoland (by volume)



Source: Chicago Area Transportation Study, 1997

this maze each day pass 700 Metra and Amtrak passenger trains and more than 500 freight trains, the latter pulling some 37,500 freight cars loaded with 2.5 million tons of cargo. Roughly a third of the region's freight trains originate here, a third terminate here and a final third simply pass through.<sup>4</sup>

Over the next 20 years, according to industry forecasts, these volumes will increase by roughly 80 percent.<sup>5</sup> In other words, a regional freight infrastructure straining to accommodate present volumes will be pushed to the breaking point with daily volumes of 2,390 trains pulling 67,000 cars and 4.3 million tons of cargo. Metra is also studying several rail lines for new or increased commuter service. This is a recipe for gridlock ... unless plans are laid now to enlarge and streamline the system's carrying capacity.

Beside the dire implications freight gridlock would have on the region's economy, our failure to keep pace with rising volumes already is having here-and-now consequences for quality-of-life for millions of Chicago area residents. That's because the system's many inefficiencies – from trains blocking grade crossings as they wait for space in cramped yards to the thousands of extra truck trips made necessary each day by the lack of efficient rail-to-rail connections among competing railroads – are a significant factor behind worsening road congestion, ever-longer commuting times and deterioration of air quality. In one way or another, the Chicago region's freight problem is everybody's problem.

#### The intermodal revolution

lobalization of trade, coupled with the wide dispersal of producers and consumers made possible by the interstate highway system, has led to a boom in containerized intermodal shipping, especially of the train-to-truck variety. Nationally, intermodal volumes grew by more than seven percent a year during the 1990s, roughly doubling. Northeastern Illinois, an early intermodal load center, averaged slightly smaller year-to-year gains of less than six percent. Nevertheless, more than half of all U.S. container traffic now passes through the Chicago area, so much that our region has emerged as the *world's* third busiest intermodal hub, surpassed only by the great Asian seaports of Hong Kong and Singapore.<sup>6</sup>

The rise of intermodal freight has proven a mixed blessing, however. The six transcontinental railroad systems that converge on Chicago – four from the West and two from the East – are not adequately cross-connected within the Chicago Terminal District. This necessitates the transfer by truck of some 3,500 containers a day between rail yards, according to estimates developed by the Chicago Area Transportation Study (CATS). When empty container return runs and intra-

regional collection and distribution trips are counted, CATS estimates the area experiences 17,810 truck trips a day just as a result of intermodal operations.<sup>7</sup>

With intermodal traffic forecasted to expand by 2.5 times by 2020, the resulting explosion of short-haul trucking poses both a problem and an opportunity for the region. The problem is obvious, in that the region's interstates and truck route arterials already are loaded to capacity during much of the day, with a half million daily truck trips already accounting for 28 percent of the load on interstates, 16 percent on other marked routes.

The opportunity, though less obvious, is compelling: develop ways to move containers more efficiently from train to train. This can be achieved by improving critical highway segments, called intermodal connectors; and by reducing so-called "crosstown" truck trips, either by connecting rail lines within multi-owner yards or by connecting existing yards via circumferential railroad rights-of-way.





#### A joint-use corridor

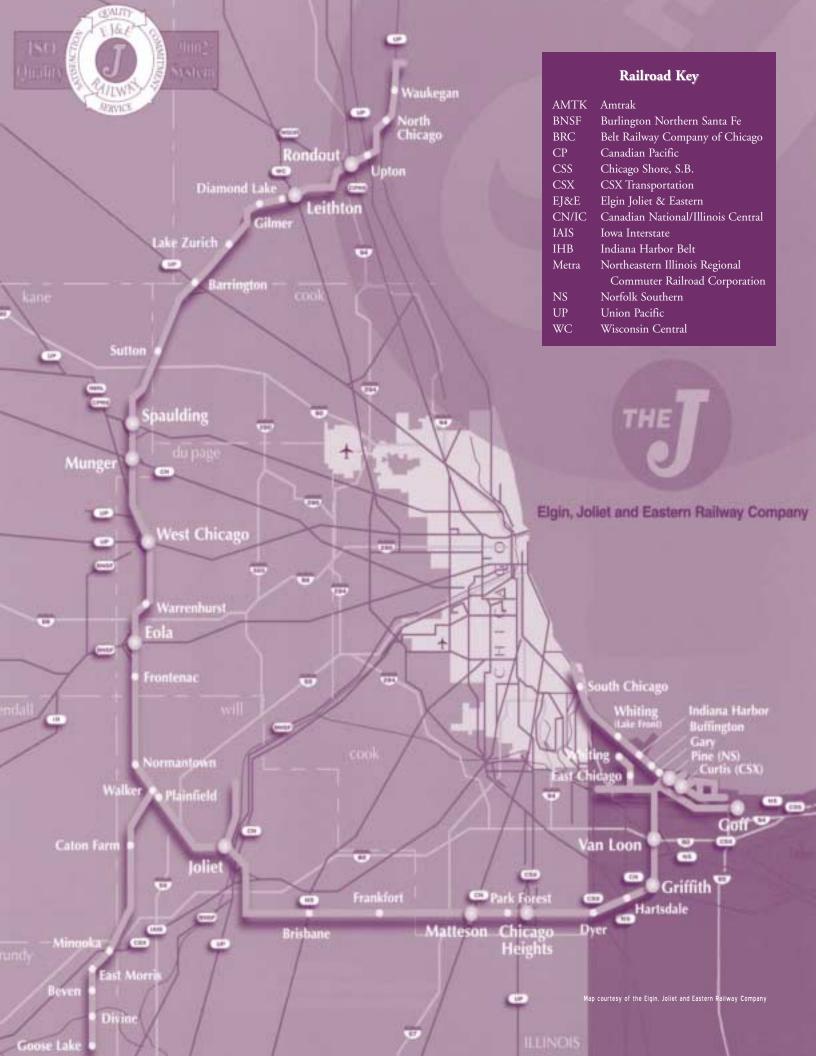
ithin the Chicago Terminal District this inter-line transfer function has been the historic work of the Indiana Harbor Belt Railroad and the Belt Railway of Chicago. Analysis of bottlenecks on these lines is now underway to determine if key grade crossing separations can produce higher speed, joint-use corridors to reduce congestion. Another opportunity is the Elgin, Joliet and Eastern Railway (EJ&E), a still-active but under-used right-of-way that circles the region roughly 35 miles from downtown Chicago, from Waukegan to Joliet to Gary, Ind.

EJ&E management has been open to discussions about greater use of its right-of-way, over which some 20 trains a day now shuttle coal to area power plants and the ingredients of steel to the railroad's owner, the USX steel complex in Gary. Indeed, Metra has completed a preliminary study of the EJ&E's suitability as a north-south connector of the agency's Chicago-bound commuter lines.<sup>8</sup> A second study is underway to gauge pub-

lic demand for a north-south, or cross-regional, service that would not require commuters to travel or transfer downtown.

One challenge is that any selected corridor will have rail-to-rail crossings that create conflicts between freight and commuter and inter-city passenger service. The resulting gridlock makes a strong case for a coordinated capital plan.

Freight service may not, at first, seem compatible with commuter use. But the challenges of combined operations have been met and mastered on several existing Metra lines that have modern infrastructure. And the potential efficiencies — both for more efficient freight-handling and reduction of traffic delays — of adding strategically located grade separations, track-over-track flyovers, and, where necessary, triple tracking, cannot be ignored in light of projected growth in the transit and freight sectors.



#### A region of grade crossings

The overlay of 50 years worth of post-war real estate development on the region's centuryold railroad network has proven a veritable recipe for rail and highway gridlock. At last count there were 1,953 public, at-grade crossings in the region, a majority of them in need of repair or reconstruction.9 A lack of grade separations is a major cause of conflict between railroads and communities. Futhermore, given the extensive commuter rail service in the region, peak commuter train times coincide with peak car commute times, causing road congestion even on free flowing rail corridors. The impact on car travel is difficult to measure, but no motorist who has waited a half hour for a slow-moving freight train to clear a crossing would deny the impact is significant ... and frustrating.

In the south and southwest quadrants of the city and suburbs, home of the most crossings and the most rail yards, long and frequent traffic back-ups have prompted widespread public discontent and calls for action on the part of elected officials. State Senator Patrick O'Malley (R-Palos Park) introduced legislation in 1999 and 2001 that would subject railroad managers to arrest and hefty fines if found guilty, a second time, of the misdemeanor offense of "chronic obstruction" of grade crossings. U.S. Representative William Lipinski (D-Chicago), meanwhile, has ordered a federal/state examination of the grade crossing snarl and what might be done to alleviate bothersome and costly traffic delays.

Relief will carry a considerable price. Just one full road-rail grade separation project (overpasses, underpasses, etc.) can cost anywhere from \$5 million to \$40 million depending on the size of the roads and tracks involved, and on local conditions. A more modest rebuilding, such as the smoothing and re-signalization of a crossing, can cost from \$1 million to \$5 million. A regional survey of grade crossing inadequacies is being conducted by the state, but dozens of seriously deficient crossings already have been identified – and are awaiting funding – just within the City of Chicago (see lists of problem crossings at Appendix 1).



A similar situation exists along the region's 55 miles of federally designated intermodal connector roads. A recently released study conducted by the engineering firm of Edwards and Kelcey for the Federal Highway Administration focused on just 17 miles of these arterials running between five intermodal yards. The study found these thoroughfares, most of them local or county roads, are in need of improvements and repairs worth \$65 million, \$58 million of which was identified as a necessary public sector expense. 10

#### Recent developments

ajor railroads have invested \$750 mil-Llion over the past three years on their own Chicago District improvements. They have also set aside competitive differences to establish, in early 2000, the Chicago Transportation Coordination Office, or CTCO. Based in the Metra dispatching center near Union Station, and with the help of electronic status boards and shared Web sites, CTCO allows the major lines to share train information so as to better balance the ebb and flow of traffic across the system. As a result, the costly need to "re-crew" delayed trains has been greatly reduced, as has the average freight car "dwell" time within the district, and freight interference with Metra commuter operations.11 The CTCO is the most advanced freight industry collaboration to be found anywhere in the United States.

The CTCO's ongoing work and the plan by the railroads' chief operating officers has led to the development of a simulation of traffic flows through Chicago, the first map and model of actual traffic patterns across several hundred miles of track in Chicago. In addition, the simulation (a snapshot of traffic for four days in November 1999) provides the basis for structural improvements to the local infrastructure. The result is analogous to an air traffic controller's design of flights into and out of O'Hare International Airport.

Unfortunately, few similar joint efforts have been undertaken for capital improvements, meaning that most Class 1 railroads are now independently planning and developing their own additional space and facilities so as to accommodate the steadily rising load.

In addition to routine track and signalization upgrades, several carriers have expanded their intermodal facilities. In 1999, CSX opened a large intermodal yard at 59th Street on Chicago's

#### How Chicago Region, and its Yards, Rank Nationally

[Volumes expressed in TEUs = 20' container equivalents]

Rank	Port	Annualized
1	Chicago/NE Illinois	8.660.000
2 3	Long Beach	2.325.500
3	Los Angeles	1,890,100
4	New York	1.536.900
	BNSF Carwith yard	1.044.575
	CSX Bedford Park yard	1/4
5	Seattle	938,500
.6	Montreat, Can.	852.000
	BNSF Cicers yerds (2)	850.000
7	Vancouver, Can.	817.000
8	Oakland	802.000
9	Charleston	800,000
	Correl/03rd, St. UP Global I BNSF Willow Springs Contail/47th St.	540.000 640.000
10	Houston	537.400
11	Tacoma	505,400
12	Miami	505,100
	UP Yard Center	413,500
13	Norfolk	465,400
14.	Savannah	455,600
	UP Grober II	447.000
15	Pt. Everglades	422,300

Source: Chicago Area Tremportation Study, Working Paper 97-03, July 1997

South Side. CenterPoint Properties is developing a state-of-the-art, 620-acre intermodal facility for BNSF as part of the Joliet Arsenal redevelopment. CenterPoint Properties will also manage the construction of a 1,230-acre intermodal facility for Union Pacific, 60 miles west of Chicago in Rochelle, Ill. Other space-limited railroads continue to weigh intermodal expansion opportunities.

Given the operational interrelationships involved, a higher level of coordinated capital planning would be useful, as would a neutral governmental forum around which such planning could take place. What's most needed, at this crucial stage in the evolution of the region's freight infrastructure, however, is leadership from the government sector to identify, finance and oversee construction of priority improvements that would yield substantial public benefits. Major public investment will be needed if the Chicago region is to maximize the positive economic benefit of the freight shipping boom, while at the same time minimizing the negative impacts on traffic and quality-of-life.

What's most needed at this crucial stage in the evolution of the region's freight infrastructure ... is leadership from the government sector to identify, finance and oversee construction of priority improvements that would yield substantial public benefits.

#### Recommendations

The Freight Transportation Working Group, a gathering of freight industry executives, government officials and academics, was convened early in 2000 by the Metropolitan Planning Council under the auspices of Business Leaders for Transportation. Following a February 1, 2000 conference at which the major issues were laid out, the Working Group conducted a series of fact-finding meetings to discuss specific problems and prospective solutions in detail.<sup>12</sup>

Based on input from the Working Group, the following are three near-term recommendations put forward by Business Leaders for Transportation:

**Recommendation 1:** Organize public/private support for a package of priority capital improvements to the region's freight network that will expand capacity, lessen gridlock and support job expansion:

A) Establish a joint-use freight corridor, after investigating the now underutilized southern arc of the Elgin, Joliet and Eastern (EJ&E) Railway and other corridors prioritized by the industry.

Already, the EJ&E is being studied by Metra for its potential to be an outer-suburban connector of that agency's radial commuter lines. But the "J's" 100-foot-wide right-of-way also could serve as a southern bypass for trains not bound for Chicago, thereby freeing up track and yard capacity for the two-thirds of all rail traffic that does need to be switched through the Chicago Terminal District. The potential exists, also, for the EJ&E to serve as a belt-style connector between main lines and their intermodal yards, a service that would reduce the number of truck trips needed to haul containers from yard to yard. The potential benefit in reduced traffic and exhaust emissions merit,

at minimum, public funding for further study of this and other possible joint-use corridors.

Capital improvements to any joint-use corridor would include grade separations (road-under-rail viaducts and rail-over-rail flyovers), bridge widening, double – and in some places – triple tracking, along with improved connections with the six main freight lines they cross. Grade separations would especially benefit the long-suffering motorists of the south and southwest city and suburban areas now riddled with at-grade crossings and the traffic snarls they cause. A new corridor would reduce some of the 3,500 truck trips made each day simply to hand shipping containers from one rail yard to another, and become a magnet for shipping and shipping-critical employers.

B) Replace with grade separations the 40 worst at-grade crossings in the Chicago region, as measured by train and traffic delays and/or serious accidents.

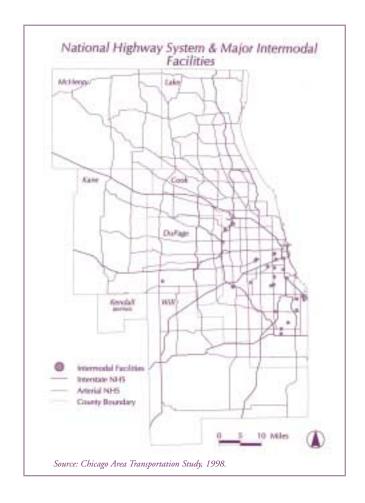
Chronically blocked and/or deteriorated at-grade crossings are the most frustrating and, all too often, lethal interface between the general public and the freight rail industry. Illinois, with its 8,920 crossings, experienced 190 collisions and 27 fatalities in 2000 due to car/train collisions. In recent years, moreover, the Chicago region has witnessed multiple-death calamities involving a school bus struck by a commuter train and an Amtrak inter-city plowing into a steel-hauling semi-trailer. For the vast majority of the region's motorists, however, the 1,953 at-grade crossings in northeastern Illinois are experienced mainly as a ubiquitous, daily, delay-causing annoyance.

From a railroad perspective the view is not much better, in that inadequate crossings impose reductions in train speeds, service delays from broken gates or other accidents, incessant maintenance problems and community relations headaches.

Where to begin? The Chicago Planning Group of the American Association of Railroads recently developed a list of crossings "that have an especially severe impact on rail efficiency in the region" (see Appendix 1b). The listing recommends that more than 50 of these crossings - generally those crossing busy arterial streets - be eliminated with grade separations (e.g.: viaducts). Other lists of problem crossings have been developed by: the Illinois Commerce Commission (which has an inadequately funded program to upgrade a small number of crossings each year); the Illinois Department of Transportation; the Chicago Area Transportation Study (CATS); and the City of Chicago (see Appendices). Plainly missing is a coherent, regional action plan to identify the worst crossings - using both safety and efficiency criteria - and a program to systematically reconstruct or eliminate the worst offenders. Such an effort, to identify and remedy the 40 worst crossings, should be undertaken as soon as possible.

C) Upgrade the region's 55 miles of crucial intermodal connector highways – starting with the 17 miles of roads that have been studied by the Federal Highway Administration as in need of \$65 million worth of widening, repaving, drainage and signalization. Study the remaining 38 miles of connector routes to determine needed upgrades and improvements.

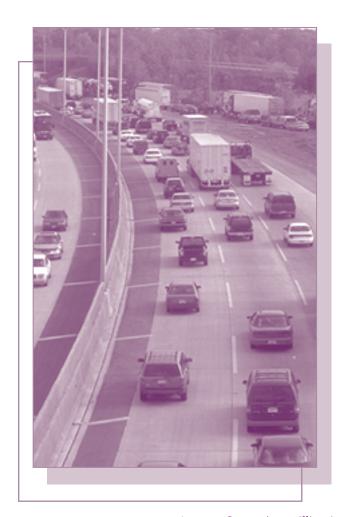
These "connectors" are designated truck routes used to link intermodal rail yards or port facilities, many of which are under local jurisdiction, to the National Highway System. Other recommendations in this report are aimed at reducing the volume of so-called "crosstown" truck trips between the region's 26 intermodal yards. Bullish projected growth of overall intermodal volume (a 2.5-fold increase by 2020) means, however, that the number of intermodal truck trips on area roads, now estimated at 17,810 per day, will steadily increase no matter what improvements are made to expand



train-to-train transfer of containers. In other words, failure to upgrade the connectors will mean worsening levels of congestion, not just for freight haulers, but for all area motorists.

A July 2001 Federal Highway Administration study, managed by the Chicago Department of Transportation and conducted by the engineering firm of Edwards and Kelcey (see endnote 10) examined a sampling of 17 of the region's 55 miles of designated intermodal connectors, a subset that serves six of the region's 26 intermodal yards. The study found that, in general, the roadways have insufficient width, distressed pavement conditions, and inadequate drainage and illumination levels. Edwards and Kelcey estimated the cost of bringing these 17 miles up to federal standards at \$65 million (using 1996 construction prices) split between the public sector (\$58.2 million) and the affected railroads (\$6.7 million). The remaining 38 miles of designated intermodal connectors have yet to be studied to determine what improvements are needed to bring them up to industry standards.

Failure to upgrade the connectors will mean worsening levels of congestion — not just for freight haulers, but for all area motorists.



**Recommendation 2:** Secure \$20 million in federal funding support over the next two years to cover the public portion of planning the above freight investments.

As the nation's most critical freight transportation connecting point, northeastern Illinois surely merits carefully targeted freight infrastructure assistance commensurate with its role in national, and global, commerce. This is especially true for rail infrastructure, the funding of which historically has been relegated to the private sector. Meanwhile, the federal government has spent hundreds of billions creating a 49,000-mile interstate high-

way system, an inland waterway system and an elaborate national traffic control system for commercial aviation.

Lately, however, there has been a growing recognition that freight system failures have widespread public consequences, from the frustrations of a blocked local grade crossing to the choking of large sections of the national economy. In recognition, Congress has made freight rail projects eligible for loans, loan guarantees and lines of credit under the Transportation Infrastructure Finance and Improvement Act (TIFIA). More importantly, it included freight projects among the non-traditional grantees of the 1991 (ISTEA) and subsequent (TEA-21) surface transportation funding acts.

State matching funds also will be needed to build on the \$10 million set aside for freight improvements in the Illinois FIRST program. Local funds will be needed, too, especially in the case of local grade crossing upgrades, where a partial county or municipal match is normally a requirement.

Given the magnitude of the region's freight investment needs, however, it is up to the federal government to lead the way. Members of the Illinois Congressional delegation have expressed interest in freight investments. With the additional support of Business Leaders for Transportation, and of leaders both within the freight industry and the many industries dependant on freight, it is hoped that the above improvements will find a place in the upcoming reauthorization of the surface transportation funding act (TEA-3).

A single regional

plan is needed to

quide and prioritize

public investment in

freight infrastructure.

**Recommendation 3:** Establish, by state legislative action, a regional, public/private freight entity to plan, coordinate and help finance improvements to the region's freight transportation system.

Besides acting as the main forum for a public/private planning effort, the new regional freight entity would be capable of applying for, accepting and dispensing federal capital grants; of issuing taxexempt revenue bonds on behalf of participating railroads; and of acquiring and managing land for the purposes of freight-related economic development.

One governance option is to create a fourth, freight-only service board under the existing Regional Transportation Authority. Another option is to create a separate authority, modeled after the Alameda Corridor Transportation Authority in California or the Westside Intermodal Transportation Corporation in Kansas City, Mo. Regardless of where it is housed, the regional freight entity would be empowered to plan, coordinate and help finance a series of public/private improvements to the region's freight infrastructure, beginning with those listed above.

Comprehensive planning is key, beginning with a strategic, multi-modal freight transportation improvement plan. A single regional plan is needed to guide and prioritize public investment in freight infrastructure. At minimum, such a plan would prioritize needed improvements, such as replacement of delay-ridden and/or dangerous grade crossings with viaducts or flyovers. On a more ambitious scale, just such a multi-jurisdictional plan led to creation of the Alameda Corridor Transportation Authority and that agency's major capital undertakings in southern California (see p. 16). Would not a south subur-

ban freight corridor be a logical undertaking for a northeastern Illinois freight leadership team? The railroads, along with the trucking and logistics industries - not government functionaries must be the prime architects of any truly effective regional master plan for freight. This means private sector players will need to look beyond competitive advantage and recognize the mutual benefit of coordinated private and public investments. Already, the railroads have proven the efficacy of operational cooperation with the successful launch of the joint Chicago Transportation Coordination Office. By taking a cue from the pan-industry efforts of the Association of American Railroads, our region's railroads can move beyond traffic management, and jointly address what ultimately are the more vexing issues of inadequate capacity and capital funding.

Freight is not just a
growing industry in northeastern Illinois.
It is an industry that provides services essential
to the operation of virtually every other industry.
Whether our state and region prepares for, and exploits,
this growth or ignores it – only to succumb to traffic
congestion and, ultimately, a loss of both jobs and livability
– is a matter of regional leadership.

Business Leaders for Transportation is prepared to lead. Please join us.

For more information, visit www.metroplanning.org or contact Karyn Romano, transportation director,
Metropolitan Planning Council, at
kromano@metroplanning.org
or 312.863.6005.

Southern California now has a governmental and fiscal model in place to maximize freight industry growth.

#### California's Alameda Corridor

The post-war boom in intermodal shipping has had negative effects on traffic congestion and quality of life across the southern Los Angeles basin ... just as it has across much of the Chicago region.

That's why northeastern Illinoisans should pay close attention to what southern Californians are doing about it.

The centerpiece of their effort is the Alameda Corridor – a \$2.4 billion public/private project that will speed intermodal freight from the massive Los Angeles/Long Beach seaport to the main lines of the transcontinental railways east of downtown L.A.

For decades, that 20-mile rail trip consisted of a halting, snail's pace grind along one of four atgrade rights-of-way that paralleled truck-choked Alameda Street. The pace was no faster for cars and trucks using some 220 east-west streets that crossed those tracks. When intermodal trains began running almost non-stop, a kind of subregional gridlock set in that was both an annoyance to motorists and an economic poison to south L.A. and south suburbs like Compton and Lynwood.

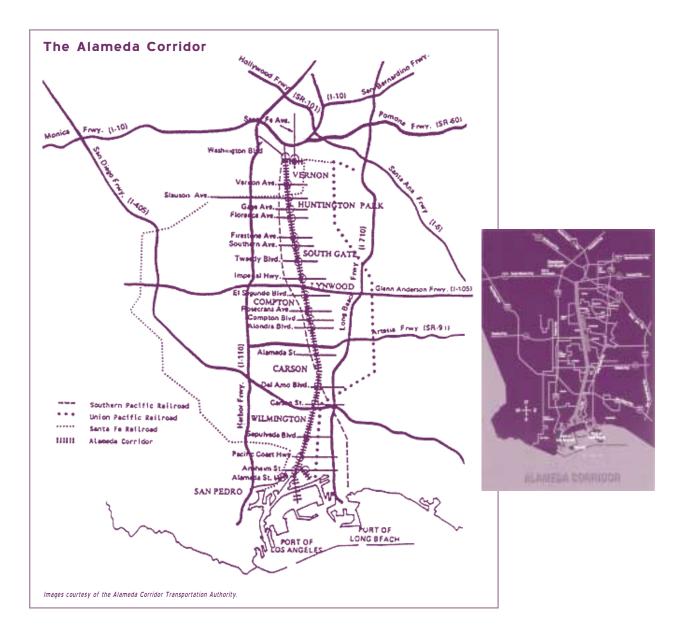
A blame game dragged on for the better part of two decades among railroads, business groups, local politicians and community activists. But, in 1990, multi-sided negotiations led to formation of the Alameda Corridor Transportation Authority (ACTA), a joint-powers agency whose sevenmember governing board includes delegates from L.A. and Long Beach, their respective city coun-

cils and the Los Angeles County Metropolitan Transportation Authority. ACTA's plan: consolidate the rails onto a single, double-tracked, grade-separated right-of-way; widen Alameda Street; and span the corridor at strategic intervals with bridges carrying east-west arterials. The whole project, including a 10-mile middle section in which the tracks run inside a 33-foot-deep, concrete-sided trench, opened in April 2002.

ACTA's fiscal plan, which took six years to negotiate, may be more impressive than the physical. Key was the early commitment by the Union Pacific, Southern Pacific and the Santa Fe (now BNSF) to pay user fees (\$15 per loaded 20-foot container, \$30 per 40-foot and \$8 per empty) sufficient to retire, over 35 years, \$1.2 billion in construction bonds. The railroad's commitment also secured a \$400 million federal loan whose structure served as a model for design of the Transportation Infrastructure Finance and Innovation Act (TIFIA).

The "layered financing" also included \$394 million in grants from the ports of Los Angeles and Long Beach, \$347 million from the Metropolitan Transportation Authority and \$154 million from other federal and state sources.

The payoff? For starters, there will be a three- to four-fold increase in train speeds and a like reduction of vehicular travel times across the entire corridor. Ultimately, however, the project was almost defensive in nature. How else could Los Angeles have accommodated the doubling of intermodal freight volumes predicted over the next 20 years?



Indeed, California officials already are talking about the need for more grade-separated corridors – one running south from the seaports through Orange County, another east from downtown through the San Bernardino Valley.

That's ambitious. But, southern California now has a governmental and fiscal model in place to maximize freight industry growth – and the widespread economic benefit of that growth – while

minimizing the traffic and environmental side effects.

Remember that the Chicago region handles more than twice the intermodal volume of southern California and volumes here are expected to more than double by 2020. What is our plan to cope with, much less exploit, that growth?

# Appendix 1a

Vertal production of the second	SOUTHWOOD PROJECTS ARE IN 2002 WORN PLANNING. CARTALIED PROJECTS AND IN ACTIVE PLANNING AND UR CONSTRUCTION Assertable prajects are perding.	HAT. HO AND DR CONSTRUCTION.			
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#### Problem Grade Crossings: The American Association of Railroads

The American Association of Railroads' list of crossings that interfere with rail efficiency in the region

	Railroad	Crossing	Change Sought
í	BNSF	Ridgeland Ave.	Separate or Relocate
2	BNSF	Hariem Ave.	Separate
3	BNSF	LaGrange Rd.	Separate or Re-route
4	BNSF	Maple Ave.	Separate
5	BNSF	Belmont Rd.	Separate
6	BRC	Laramie	Close
7	BRC	Lockwood	Close
B	BRC	Long	Close
9	BRC	Archer Ave.	Separate
0	BRC	Southwest Hwy.	Separate
11	BRC	63rd St.	Separate
2	BRC	65th St.	Close
13	CN	123rd St.	Close
14	CN	Western Ave.	Separate
15	CN	Halsted St.	Separate
6	CN	Irving Park Rd.	Separate
7	CN	51st St.	Close
8	CN	31st St.	Close
0	CN	Voibrecht Rd.	Close
20	CPRS	Catwagner St.	Close
21	CPRS	Ruby St.	Close
22	CPRS	Scott St.	Close
23	CSX	Chatham Ave.	Separate
24	CSX	Western Ave.	Separate
25	CSX	Paxton Ave.	Reroute
26	CSX	127th St.	Separate
27	CSX	87th St.	Separate
28	CSX	71st St.	Separate
2.0	IC	Laramie	Close
30	1C	Lawndale	Close
31	1C	Pulaski	Separate
32	IC	Stunkel	Separate
33	IHB.	Indiana Ave.	Separate
34.	IHB	Central Ave.	Separate
35	IHB	31st St.	Separate

36	IHB	Kostner	Close
37	IHB	Harding Ave.	Reroute
38	IHB	Paxton Ave.	Reroute
39	METRA	Narragansett Ave.	Separate
40	METRA	Grand Ave.	Separate
41	METRA	River Rd.	Separate
42	N5	Parrish Ave.	Close
43	NS	Arizona Ave.	Close
44	NS	169th St.	Separate
45	N5	Kennedy Ave.	Separate
46	NS	Calumet Ave.	Separate
47	NS	Sohl Ave.	Close
48	N5	Oakley Ave.	Close
49	N5	Sibley St.	Separate
50	N5	Burnham Ave.	Separate
51	N5	Torrence Ave.	Separate
52:	NS	130th St.	Separate
53	N5	Mineral Sprs. Rd.	Close
54	NS	Midwest Crossing	Separate
55	NS	Calumet Crossing	Close
56	N5	Front Street	None
57	N5	Recine Ave.	Close
5.8	NS	Morgan Ave.	None
59	NS	63rd Pl.	None
60	N5	Lawndale-84th St.	None
61	UP	173rd St.	Close
58	UP	1st Ave.	Close
63.	UP	4th Ave. Maywood	Close
64	UP	County Farm Rd., Winfield	Separate
65	UP	Old Kirk Rd., Geneva	Close
66	UP	Roosevelt Rd. (Rt. 38)	Separate
67	UP	Washington St., West Chicago	Separate
6-8	UP	25th Ave.	Separate
69	WC	Pratt Ave.	Close
70	WC	Central Ave.	Separate

Source: 2002 Infrastructure Committee of the American Association of Railroads "Chicago Planning Group"

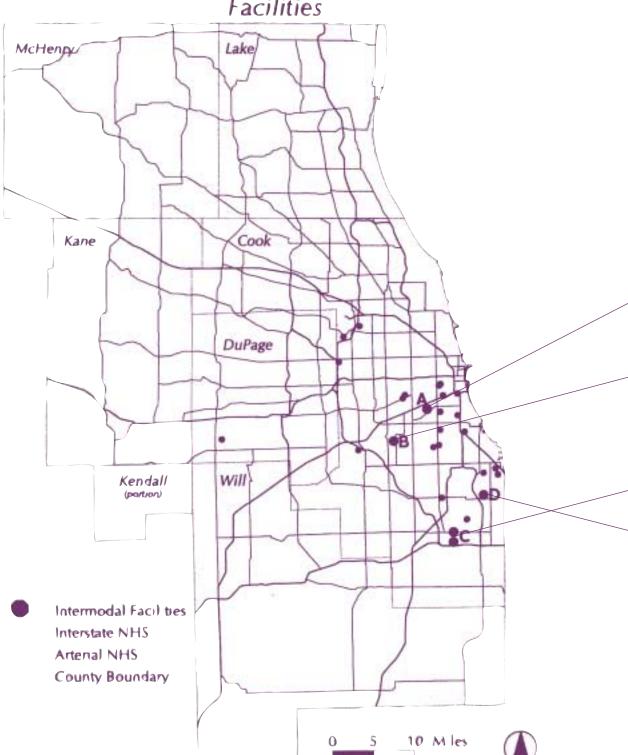
Appendix 1c

City	Street	Railroad	Dally Trains	rains	Vehicle Crossings	Accidents
					400 140	0000
Wood Dale	Irving Park Road	CP	46		21,000	61
Maywood	First Avenue	d D	100	0	34,000	h
Elmwood Park	Grand Avenue	CP	64	_	20.400	0
Mt. Prospect Mt.	Prospect Road	dh	63	-	16,900	in
Chicago	71st Street	Metra	5.8	-	11,000	in.
Chicago	130th Street	NS	52		20.000	18
Riverdale	Indiana Avenue	IHB	77		7,700	10
Franklin Park	Rose Street	CP	. 84	_	12.900	4
Maywood	First Avenue	dh	100	0	14.700	in
Chicago	103rd Street	Metra	20		8,000	1
Maywood	25th Avenue	db.	100	0	9,200	0
Oak Lawn	Cicero Avenue	Metra	18		27,700	m
Chicago Heights	leth Street	dh	49	~	7,000	-
Palatine	Palatine Road	dh	64	_	14.000	4
Chicago	Stony Island Avenue	Metra	58	-	30.200	-
Chicago	Caldwell Avenue	CP	56		19,900	4
LaGrange	LaGrange Road	BNSF	130	0	20,700	un
Evergreen Park	71st Street	CSX	99		12.500	м
Bannorkhurn	Half Day Boad	0	6.3		000	4

Source: FRA National Accident Inventory as of June 16, 1999

RR	Location	Restriction and Prognsed Correction
60	CP Hill	IHS needs increased flexibility for trains to run around trains delayed entering Proviso Schiller and Bensenville
100	LaGrange	CTC both IHB main tracks between LaGrange and CP HIII, MP 31 to MP 35,9
11.00	Schaffelem	Install Interiocating on IND mains at Broadview with power crossovers and a prever connection to IC, NP 32.9
五	Ladyange	Install crossover at CP LaGrange east of connection to BMSF, MP In.0
5	949	CTC the entire route from Provio Junction to Datten, including a mathodology to coordinate all the intersecting towers
9	Clearing	RPC into and out of both ands of the Clearing Terminal
160	Arque	Notify CP Argo to allow perallel movements from HB to BRC Provise leads. MP 27.0
2	Args	Improve reverse signating between Argo and McCook for 25 mph operation, MP 27,0 to MP 28.3
Amtrak	IC Johnt/Argo	Argo CP Canal
Metra	CPCanal/Arga	ING starffic
CD	CPCansi/Args	Install connection NG quadrant to provide access to ICG Gleen Yard
DRC	Argo	West supertain study to reconfigure to altow parallel moves to P yand and west receiving
5	Deftan	Deston interfecialing (UP), MB, CSX)
HB	Dotton	Remote control Botten intersecting and power switches at Indiana Ave. MP 10.0
Amtrak	<b>GTW/Therton</b>	Tharnton junction, Munster
Amtrak	UP/Daiten	Yard Center to Therten, Saretibes
15	Doltan	Shiff the main tracks to bypass the yard on the east side
BNSF	B&DCT/McCoun.	Need to keep printly intermedal traffic meeting. Will become an issue as traffic coffron Will increases, MP 12.9
HB	McCook	Instair crassaver to BMSF were at McCook, greing access to both tracks tang 2 on the BHL MP 26.3
BNSF	McCook	Need to increase speed, animance and out between BMSF, 849. CSX traffic will fecrease MP 16.4
NS	Beit Junction	Extreme zongestlon due to mery RRs schitzing track. Proposal invalving Biel St. and this attuation.
CSX	Delt Junction	Rossignment of Bart Janz Hun on BRC to create point to stage trains between 75th and 50th Sts.
Motora	Best Junction	BRC traffic
60	Bert Junction	Construct Hyover to eleminate conflicts with Metra
CSX	Gitse Island	Head on competion from Bair to Rock Inland westbound
Materia	Stan Island	CER New Rock sub traits going to and from back yard
CSX	Star Island	Connection from CDX westbound to CN at Boar Inland
5	OT Tawer/Blue Island	IMB excessive datay that to conflicts, may require a thyover
BRC	LeMoyne	LeMayne IC connection. Recommented connection in SW quart to accommodate head end mores.
Amtrasi	IC Joilet Bist/LeMayne	Leddoyne
Matra	Lattoyna	DRC traffic and IC/BRC transfers
Ď	LeMoyne	BRC no connection in NW quadrant. Need to install to allow facing point movements for connection to IC
H.	LoMoyne	Trains blocking, waiting to get inte yard

# National Highway System & Major Intermodal Facilities



#### Connector Roadways Serving Five Major Intermodal Yards: The Chicago Area Transportation Study

A: BNSF Corwith Yard	
Kedzie Avenue from 47th Street to Interstate 55:	1.53 miles
47th Street from Pulaski Road to Western Avenue:	2.01 miles
Pulaski Road from 47th Street to Interstate 55:	1.09 miles
41st Street from Hamlin Avenue to Pulaski Road:	0.24 miles
47th Street from Western Avenue to Interstates 90 and 94:	2.80 miles
То	tal: 7.76 miles
B: CSXI Bedford Park Yard	
71st Street from yard to IL-43:	0.30 miles
Frontage Road from southbound Harlem Avenue exit, under	
Harlem Avenue, to yard:	0.48 miles
Sayre Road from yard to 73rd Street:	2.74 miles
Narragansett Avenue from yard to 73rd Street:	0.19 miles
То	tal: 3.71 miles
C: CN Gateway Yard, IC Moyers Yard	
Center Street from yard to 167th Street:	0.28 miles
167th Street from Center Street to IL-1:	0.51 miles
West Avenue from yard to 159th Street:	0.07 miles
West Avenue from yard to 157th Street:	0.16 miles
157th Street from West Avenue to Park Avenue:	0.08 miles
Park Avenue from 157th Street to 159th Street:	0.26 miles
То	tal: 2.08 miles
D: Lake Calumet Cluster	
Stony Island Avenue from yard (112nd Street) to 103rd Stree	t: 3.22 miles
122nd Street from Stony Island Avenue to Torrence Avenue:	0.84 miles
Stony Island Avenue from yard to 130th Street:	0.13 miles
То	tal: 4.19 miles

Source: Edwards and Kelcey, 2001



#### **Endnotes**

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